

<GSM Conducted Power>

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode
4. Power reduction which is triggered in GSM850 / GSM1900 band, SAR testing EUT was set in reduced power mode and GPRS 4Tx slot due to its highest frame-average power.

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.85	32.14	31.81	33.50	22.85	23.14	22.81	24.50
GPRS 1 Tx slot	31.88	32.15	31.83	33.50	22.88	23.15	22.83	24.50
GPRS 2 Tx slots	30.91	31.05	31.02	32.50	24.91	25.05	25.02	26.50
GPRS 3 Tx slots	28.83	28.86	28.93	30.50	24.57	24.60	24.67	26.24
GPRS 4 Tx slots	27.72	27.75	27.66	29.50	24.72	24.75	24.66	26.50
EDGE 1 Tx slot	25.69	25.65	25.57	27.50	16.69	16.65	16.57	18.50
EDGE 2 Tx slots	25.52	25.52	25.50	27.00	19.52	19.52	19.50	21.00
EDGE 3 Tx slots	23.59	23.51	23.87	25.00	19.33	19.25	19.61	20.74
EDGE 4 Tx slots	21.79	21.73	22.18	23.00	18.79	18.73	19.18	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.70	28.96	28.93	30.50	19.70	19.96	19.93	21.50
GPRS 1 Tx slot	28.73	28.99	28.94	30.50	19.73	19.99	19.94	21.50
GPRS 2 Tx slots	27.81	28.00	27.75	29.70	21.81	22.00	21.75	23.70
GPRS 3 Tx slots	26.92	26.61	26.64	28.00	22.66	22.35	22.38	23.74
GPRS 4 Tx slots	25.93	25.91	25.19	27.00	22.93	22.91	22.19	24.00
EDGE 1 Tx slot	25.35	25.54	25.23	26.50	16.35	16.54	16.23	17.50
EDGE 2 Tx slots	24.77	25.14	24.88	26.00	18.77	19.14	18.88	20.00
EDGE 3 Tx slots	23.51	23.90	23.77	25.00	19.25	19.64	19.51	20.74
EDGE 4 Tx slots	22.35	22.89	22.76	24.00	19.35	19.89	19.76	21.00

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.79	32.00	31.62	33.50	22.79	23.00	22.62	24.50
GPRS 1 Tx slot	31.81	32.04	31.67	33.50	22.81	23.04	22.67	24.50
GPRS 2 Tx slots	30.93	31.03	30.97	32.50	24.93	25.03	24.97	26.50
GPRS 3 Tx slots	29.13	29.16	29.04	30.50	24.87	24.90	24.78	26.24
GPRS 4 Tx slots	28.09	28.07	27.91	29.50	25.09	25.07	24.91	26.50
EDGE 1 Tx slot	25.87	26.08	25.93	27.50	16.87	17.08	16.93	18.50
EDGE 2 Tx slots	25.68	25.91	25.83	27.00	19.68	19.91	19.83	21.00
EDGE 3 Tx slots	23.83	24.09	23.97	25.00	19.57	19.83	19.71	20.74
EDGE 4 Tx slots	21.86	22.11	21.83	23.00	18.86	19.11	18.83	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.90	28.96	28.82	30.00	19.90	19.96	19.82	21.00
GPRS 1 Tx slot	28.91	29.00	28.86	30.00	19.91	20.00	19.86	21.00
GPRS 2 Tx slots	27.86	27.91	27.52	29.20	21.86	21.91	21.52	23.20
GPRS 3 Tx slots	26.89	26.41	26.30	27.50	22.63	22.15	22.04	23.24
GPRS 4 Tx slots	25.06	25.14	24.84	26.50	22.06	22.14	21.84	23.50
EDGE 1 Tx slot	24.96	25.11	24.46	26.00	15.96	16.11	15.46	17.00
EDGE 2 Tx slots	24.59	24.58	23.78	25.50	18.59	18.58	17.78	19.50
EDGE 3 Tx slots	23.47	23.22	22.76	24.50	19.21	18.96	18.50	20.24
EDGE 4 Tx slots	22.42	22.28	21.65	23.50	19.42	19.28	18.65	20.50

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.85	32.14	31.81	33.50	22.85	23.14	22.81	24.50
GPRS 1 Tx slot	31.88	32.15	31.83	33.50	22.88	23.15	22.83	24.50
GPRS 2 Tx slots	30.91	31.05	31.02	32.50	24.91	25.05	25.02	26.50
GPRS 3 Tx slots	28.83	28.86	28.93	30.50	24.57	24.60	24.67	26.24
GPRS 4 Tx slots	27.72	27.75	27.66	29.50	24.72	24.75	24.66	26.50
EDGE 1 Tx slot	25.69	25.65	25.57	27.50	16.69	16.65	16.57	18.50
EDGE 2 Tx slots	25.52	25.52	25.50	27.00	19.52	19.52	19.50	21.00
EDGE 3 Tx slots	23.59	23.51	23.87	25.00	19.33	19.25	19.61	20.74
EDGE 4 Tx slots	21.79	21.73	22.18	23.00	18.79	18.73	19.18	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.70	28.96	28.93	30.50	19.70	19.96	19.93	21.50
GPRS 1 Tx slot	28.73	28.99	28.94	30.50	19.73	19.99	19.94	21.50
GPRS 2 Tx slots	27.81	28.00	27.75	29.70	21.81	22.00	21.75	23.70
GPRS 3 Tx slots	26.92	26.61	26.64	28.00	22.66	22.35	22.38	23.74
GPRS 4 Tx slots	25.93	25.91	25.19	27.00	22.93	22.91	22.19	24.00
EDGE 1 Tx slot	25.35	25.54	25.23	26.50	16.35	16.54	16.23	17.50
EDGE 2 Tx slots	24.77	25.14	24.88	26.00	18.77	19.14	18.88	20.00
EDGE 3 Tx slots	23.51	23.90	23.77	25.00	19.25	19.64	19.51	20.74
EDGE 4 Tx slots	22.35	22.89	22.76	24.00	19.35	19.89	19.76	21.00

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.24	32.53	32.22	33.50	23.24	23.53	23.22	24.50
GPRS 1 Tx slot	32.28	32.55	32.23	33.50	23.28	23.55	23.23	24.50
GPRS 2 Tx slots	30.59	30.58	30.60	31.70	24.59	24.58	24.60	25.70
GPRS 3 Tx slots	28.44	28.77	28.49	29.90	24.18	24.51	24.23	25.64
GPRS 4 Tx slots	27.55	27.42	27.35	28.70	24.55	24.42	24.35	25.70
EDGE 1 Tx slot	25.71	25.97	25.80	27.50	16.71	16.97	16.80	18.50
EDGE 2 Tx slots	25.52	25.80	25.66	27.00	19.52	19.80	19.66	21.00
EDGE 3 Tx slots	23.79	23.89	23.83	25.00	19.53	19.63	19.57	20.74
EDGE 4 Tx slots	21.74	21.91	21.87	23.00	18.74	18.91	18.87	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.90	28.96	28.82	30.00	19.90	19.96	19.82	21.00
GPRS 1 Tx slot	28.91	29.00	28.86	30.00	19.91	20.00	19.86	21.00
GPRS 2 Tx slots	27.86	27.91	27.52	29.20	21.86	21.91	21.52	23.20
GPRS 3 Tx slots	26.89	26.41	26.30	27.50	22.63	22.15	22.04	23.24
GPRS 4 Tx slots	25.06	25.14	24.84	26.50	22.06	22.14	21.84	23.50
EDGE 1 Tx slot	24.96	25.11	24.46	26.00	15.96	16.11	15.46	17.00
EDGE 2 Tx slots	24.59	24.58	23.78	25.50	18.59	18.58	17.78	19.50
EDGE 3 Tx slots	23.47	23.22	22.76	24.50	19.21	18.96	18.50	20.24
EDGE 4 Tx slots	22.42	22.28	21.65	23.50	19.42	19.28	18.65	20.50

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.85	32.14	31.81	33.50	22.85	23.14	22.81	24.50
GPRS 1 Tx slot	31.88	32.15	31.83	33.50	22.88	23.15	22.83	24.50
GPRS 2 Tx slots	30.91	31.05	31.02	32.50	24.91	25.05	25.02	26.50
GPRS 3 Tx slots	28.83	28.86	28.93	30.50	24.57	24.60	24.67	26.24
GPRS 4 Tx slots	27.72	27.75	27.66	29.50	24.72	24.75	24.66	26.50
EDGE 1 Tx slot	25.69	25.65	25.57	27.50	16.69	16.65	16.57	18.50
EDGE 2 Tx slots	25.52	25.52	25.50	27.00	19.52	19.52	19.50	21.00
EDGE 3 Tx slots	23.59	23.51	23.87	25.00	19.33	19.25	19.61	20.74
EDGE 4 Tx slots	21.79	21.73	22.18	23.00	18.79	18.73	19.18	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.70	28.96	28.93	30.50	19.70	19.96	19.93	21.50
GPRS 1 Tx slot	28.73	28.99	28.94	30.50	19.73	19.99	19.94	21.50
GPRS 2 Tx slots	27.81	28.00	27.75	29.70	21.81	22.00	21.75	23.70
GPRS 3 Tx slots	26.92	26.61	26.64	28.00	22.66	22.35	22.38	23.74
GPRS 4 Tx slots	25.93	25.91	25.19	27.00	22.93	22.91	22.19	24.00
EDGE 1 Tx slot	25.35	25.54	25.23	26.50	16.35	16.54	16.23	17.50
EDGE 2 Tx slots	24.77	25.14	24.88	26.00	18.77	19.14	18.88	20.00
EDGE 3 Tx slots	23.51	23.90	23.77	25.00	19.25	19.64	19.51	20.74
EDGE 4 Tx slots	22.35	22.89	22.76	24.00	19.35	19.89	19.76	21.00

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.79	32.00	31.62	33.50	22.79	23.00	22.62	24.50
GPRS 1 Tx slot	31.81	32.04	31.67	33.50	22.81	23.04	22.67	24.50
GPRS 2 Tx slots	30.93	31.03	30.97	32.50	24.93	25.03	24.97	26.50
GPRS 3 Tx slots	29.13	29.16	29.04	30.50	24.87	24.90	24.78	26.24
GPRS 4 Tx slots	28.09	28.07	27.91	29.50	25.09	25.07	24.91	26.50
EDGE 1 Tx slot	25.87	26.08	25.93	27.50	16.87	17.08	16.93	18.50
EDGE 2 Tx slots	25.68	25.91	25.83	27.00	19.68	19.91	19.83	21.00
EDGE 3 Tx slots	23.83	24.09	23.97	25.00	19.57	19.83	19.71	20.74
EDGE 4 Tx slots	21.86	22.11	21.83	23.00	18.86	19.11	18.83	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	27.83	28.01	27.79	29.40	18.83	19.01	18.79	20.40
GPRS 1 Tx slot	27.83	28.01	27.79	29.40	18.83	19.01	18.79	20.40
GPRS 2 Tx slots	24.68	24.83	24.47	26.40	18.68	18.83	18.47	20.40
GPRS 3 Tx slots	22.65	22.75	22.60	24.60	18.39	18.49	18.34	20.34
GPRS 4 Tx slots	21.80	21.79	21.60	23.40	18.80	18.79	18.60	20.40
EDGE 1 Tx slot	25.01	24.78	24.69	26.00	16.01	15.78	15.69	17.00
EDGE 2 Tx slots	24.26	24.34	24.03	25.50	18.26	18.34	18.03	19.50
EDGE 3 Tx slots	22.78	22.79	22.49	24.00	18.52	18.53	18.23	19.74
EDGE 4 Tx slots	21.59	21.49	20.60	22.60	18.59	18.49	17.60	19.60

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.85	32.14	31.81	33.50	22.85	23.14	22.81	24.50
GPRS 1 Tx slot	31.88	32.15	31.83	33.50	22.88	23.15	22.83	24.50
GPRS 2 Tx slots	30.91	31.05	31.02	32.50	24.91	25.05	25.02	26.50
GPRS 3 Tx slots	28.83	28.86	28.93	30.50	24.57	24.60	24.67	26.24
GPRS 4 Tx slots	27.72	27.75	27.66	29.50	24.72	24.75	24.66	26.50
EDGE 1 Tx slot	25.69	25.65	25.57	27.50	16.69	16.65	16.57	18.50
EDGE 2 Tx slots	25.52	25.52	25.50	27.00	19.52	19.52	19.50	21.00
EDGE 3 Tx slots	23.59	23.51	23.87	25.00	19.33	19.25	19.61	20.74
EDGE 4 Tx slots	21.79	21.73	22.18	23.00	18.79	18.73	19.18	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.70	28.96	28.93	30.50	19.70	19.96	19.93	21.50
GPRS 1 Tx slot	28.73	28.99	28.94	30.50	19.73	19.99	19.94	21.50
GPRS 2 Tx slots	27.81	28.00	27.75	29.70	21.81	22.00	21.75	23.70
GPRS 3 Tx slots	26.92	26.61	26.64	28.00	22.66	22.35	22.38	23.74
GPRS 4 Tx slots	25.93	25.91	25.19	27.00	22.93	22.91	22.19	24.00
EDGE 1 Tx slot	25.35	25.54	25.23	26.50	16.35	16.54	16.23	17.50
EDGE 2 Tx slots	24.77	25.14	24.88	26.00	18.77	19.14	18.88	20.00
EDGE 3 Tx slots	23.51	23.90	23.77	25.00	19.25	19.64	19.51	20.74
EDGE 4 Tx slots	22.35	22.89	22.76	24.00	19.35	19.89	19.76	21.00

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.79	32.00	31.62	33.50	22.79	23.00	22.62	24.50
GPRS 1 Tx slot	31.81	32.04	31.67	33.50	22.81	23.04	22.67	24.50
GPRS 2 Tx slots	30.93	31.03	30.97	32.50	24.93	25.03	24.97	26.50
GPRS 3 Tx slots	29.13	29.16	29.04	30.50	24.87	24.90	24.78	26.24
GPRS 4 Tx slots	28.09	28.07	27.91	29.50	25.09	25.07	24.91	26.50
EDGE 1 Tx slot	25.87	26.08	25.93	27.50	16.87	17.08	16.93	18.50
EDGE 2 Tx slots	25.68	25.91	25.83	27.00	19.68	19.91	19.83	21.00
EDGE 3 Tx slots	23.83	24.09	23.97	25.00	19.57	19.83	19.71	20.74
EDGE 4 Tx slots	21.86	22.11	21.83	23.00	18.86	19.11	18.83	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	26.86	27.28	26.81	28.60	17.86	18.28	17.81	19.60
GPRS 1 Tx slot	26.86	27.28	26.81	28.60	17.86	18.28	17.81	19.60
GPRS 2 Tx slots	24.23	24.09	23.84	25.60	18.23	18.09	17.84	19.60
GPRS 3 Tx slots	22.13	22.33	22.04	23.80	17.87	18.07	17.78	19.54
GPRS 4 Tx slots	20.69	20.61	20.68	22.60	17.69	17.61	17.68	19.60
EDGE 1 Tx slot	24.96	24.87	24.70	26.00	15.96	15.87	15.70	17.00
EDGE 2 Tx slots	23.83	23.94	23.75	25.50	17.83	17.94	17.75	19.50
EDGE 3 Tx slots	22.36	22.01	22.00	23.80	18.10	17.75	17.74	19.54
EDGE 4 Tx slots	20.67	20.46	20.00	22.00	17.67	17.46	17.00	19.00

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.85	32.14	31.81	33.50	22.85	23.14	22.81	24.50
GPRS 1 Tx slot	31.88	32.15	31.83	33.50	22.88	23.15	22.83	24.50
GPRS 2 Tx slots	30.91	31.05	31.02	32.50	24.91	25.05	25.02	26.50
GPRS 3 Tx slots	28.83	28.86	28.93	30.50	24.57	24.60	24.67	26.24
GPRS 4 Tx slots	27.72	27.75	27.66	29.50	24.72	24.75	24.66	26.50
EDGE 1 Tx slot	25.69	25.65	25.57	27.50	16.69	16.65	16.57	18.50
EDGE 2 Tx slots	25.52	25.52	25.50	27.00	19.52	19.52	19.50	21.00
EDGE 3 Tx slots	23.59	23.51	23.87	25.00	19.33	19.25	19.61	20.74
EDGE 4 Tx slots	21.79	21.73	22.18	23.00	18.79	18.73	19.18	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.70	28.96	28.93	30.50	19.70	19.96	19.93	21.50
GPRS 1 Tx slot	28.73	28.99	28.94	30.50	19.73	19.99	19.94	21.50
GPRS 2 Tx slots	27.81	28.00	27.75	29.70	21.81	22.00	21.75	23.70
GPRS 3 Tx slots	26.92	26.61	26.64	28.00	22.66	22.35	22.38	23.74
GPRS 4 Tx slots	25.93	25.91	25.19	27.00	22.93	22.91	22.19	24.00
EDGE 1 Tx slot	25.35	25.54	25.23	26.50	16.35	16.54	16.23	17.50
EDGE 2 Tx slots	24.77	25.14	24.88	26.00	18.77	19.14	18.88	20.00
EDGE 3 Tx slots	23.51	23.90	23.77	25.00	19.25	19.64	19.51	20.74
EDGE 4 Tx slots	22.35	22.89	22.76	24.00	19.35	19.89	19.76	21.00

S/N :	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.27	32.51	32.19	33.50	23.27	23.51	23.19	24.50
GPRS 1 Tx slot	32.28	32.53	32.22	33.50	23.28	23.53	23.22	24.50
GPRS 2 Tx slots	29.68	29.97	29.64	30.90	23.68	23.97	23.64	24.90
GPRS 3 Tx slots	27.93	27.95	27.74	29.10	23.67	23.69	23.48	24.84
GPRS 4 Tx slots	26.53	26.60	26.39	27.90	23.53	23.60	23.39	24.90
EDGE 1 Tx slot	25.76	25.95	25.78	27.50	16.76	16.95	16.78	18.50
EDGE 2 Tx slots	25.63	25.81	25.66	27.00	19.63	19.81	19.66	21.00
EDGE 3 Tx slots	23.66	23.81	23.76	25.00	19.40	19.55	19.50	20.74
EDGE 4 Tx slots	21.65	21.97	21.73	23.00	18.65	18.97	18.73	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.90	28.96	28.82	30.00	19.90	19.96	19.82	21.00
GPRS 1 Tx slot	28.91	29.00	28.86	30.00	19.91	20.00	19.86	21.00
GPRS 2 Tx slots	27.86	27.91	27.52	29.20	21.86	21.91	21.52	23.20
GPRS 3 Tx slots	26.89	26.41	26.30	27.50	22.63	22.15	22.04	23.24
GPRS 4 Tx slots	25.06	25.14	24.84	26.50	22.06	22.14	21.84	23.50
EDGE 1 Tx slot	24.96	25.11	24.46	26.00	15.96	16.11	15.46	17.00
EDGE 2 Tx slots	24.59	24.58	23.78	25.50	18.59	18.58	17.78	19.50
EDGE 3 Tx slots	23.47	23.22	22.76	24.50	19.21	18.96	18.50	20.24
EDGE 4 Tx slots	22.42	22.28	21.65	23.50	19.42	19.28	18.65	20.50

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.85	32.14	31.81	33.50	22.85	23.14	22.81	24.50
GPRS 1 Tx slot	31.88	32.15	31.83	33.50	22.88	23.15	22.83	24.50
GPRS 2 Tx slots	30.91	31.05	31.02	32.50	24.91	25.05	25.02	26.50
GPRS 3 Tx slots	28.83	28.86	28.93	30.50	24.57	24.60	24.67	26.24
GPRS 4 Tx slots	27.72	27.75	27.66	29.50	24.72	24.75	24.66	26.50
EDGE 1 Tx slot	25.69	25.65	25.57	27.50	16.69	16.65	16.57	18.50
EDGE 2 Tx slots	25.52	25.52	25.50	27.00	19.52	19.52	19.50	21.00
EDGE 3 Tx slots	23.59	23.51	23.87	25.00	19.33	19.25	19.61	20.74
EDGE 4 Tx slots	21.79	21.73	22.18	23.00	18.79	18.73	19.18	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.70	28.96	28.93	30.50	19.70	19.96	19.93	21.50
GPRS 1 Tx slot	28.73	28.99	28.94	30.50	19.73	19.99	19.94	21.50
GPRS 2 Tx slots	27.81	28.00	27.75	29.70	21.81	22.00	21.75	23.70
GPRS 3 Tx slots	26.92	26.61	26.64	28.00	22.66	22.35	22.38	23.74
GPRS 4 Tx slots	25.93	25.91	25.19	27.00	22.93	22.91	22.19	24.00
EDGE 1 Tx slot	25.35	25.54	25.23	26.50	16.35	16.54	16.23	17.50
EDGE 2 Tx slots	24.77	25.14	24.88	26.00	18.77	19.14	18.88	20.00
EDGE 3 Tx slots	23.51	23.90	23.77	25.00	19.25	19.64	19.51	20.74
EDGE 4 Tx slots	22.35	22.89	22.76	24.00	19.35	19.89	19.76	21.00

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.79	32.00	31.62	33.50	22.79	23.00	22.62	24.50
GPRS 1 Tx slot	31.81	32.04	31.67	33.50	22.81	23.04	22.67	24.50
GPRS 2 Tx slots	30.93	31.03	30.97	32.50	24.93	25.03	24.97	26.50
GPRS 3 Tx slots	29.13	29.16	29.04	30.50	24.87	24.90	24.78	26.24
GPRS 4 Tx slots	28.09	28.07	27.91	29.50	25.09	25.07	24.91	26.50
EDGE 1 Tx slot	25.87	26.08	25.93	27.50	16.87	17.08	16.93	18.50
EDGE 2 Tx slots	25.68	25.91	25.83	27.00	19.68	19.91	19.83	21.00
EDGE 3 Tx slots	23.83	24.09	23.97	25.00	19.57	19.83	19.71	20.74
EDGE 4 Tx slots	21.86	22.11	21.83	23.00	18.86	19.11	18.83	20.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	26.86	27.28	26.81	28.60	17.86	18.28	17.81	19.60
GPRS 1 Tx slot	26.86	27.28	26.81	28.60	17.86	18.28	17.81	19.60
GPRS 2 Tx slots	24.23	24.09	23.84	25.60	18.23	18.09	17.84	19.60
GPRS 3 Tx slots	22.13	22.33	22.04	23.80	17.87	18.07	17.78	19.54
GPRS 4 Tx slots	20.69	20.61	20.68	22.60	17.69	17.61	17.68	19.60
EDGE 1 Tx slot	24.96	24.87	24.70	26.00	15.96	15.87	15.70	17.00
EDGE 2 Tx slots	23.83	23.94	23.75	25.50	17.83	17.94	17.75	19.50
EDGE 3 Tx slots	22.36	22.01	22.00	23.80	18.10	17.75	17.74	19.54
EDGE 4 Tx slots	20.67	20.46	20.00	22.00	17.67	17.46	17.00	19.00

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s)
3. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.
4. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
5. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is $\leq \frac{1}{4}$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set Gain Factors (β_c and β_d) and parameters were set according to each
 - ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
 - iii. Set RMC 12.2Kbps + HSDPA mode.
 - iv. Set Cell Power = -86 dBm
 - v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
 - vi. Select HSDPA Uplink Parameters
 - vii. Set Delta ACK, Delta NACK and Delta CQI = 8
 - viii. Set Ack-Nack Repetition Factor to 3
 - ix. Set CQI Feedback Cycle (k) to 4 ms
 - x. Set CQI Repetition Factor to 2
 - xi. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and $\Delta_{NACK} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$, and $\Delta_{CQI} = 24/15$ with $\beta_{hs} = 24/15 * \beta_c$.

Note 3: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

Setup Configuration

HSUPA Setup Configuration:

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting * :
 - Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following tab
 - Set Cell Power = -86 dBm
 - Set Channel Type = 12.2k + HSPA
 - Set UE Target Power
 - Power Ctrl Mode= Alternating bits
 - Set and observe the E-TFCI
 - Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note 1)	β_{EC}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 5/15$ with $\beta_{HS} = 5/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{HS}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

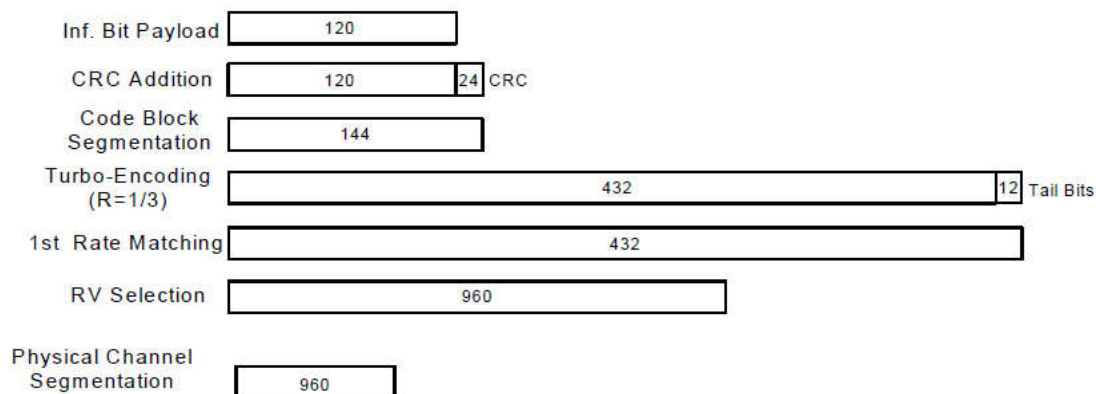
- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set RMC 12.2Kbps + HSDPA mode.
 - ii. Set Cell Power = -25 dBm
 - iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
 - iv. Select HSDPA Uplink Parameters
 - v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the T
 - a). Subtest 1: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
A summary of these settings are illustrated below:

C.8.1.12 Fixed Reference Channel Definition H-Set 12

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		



**Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)
Setup Configuration**

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.55	24.57	24.40	25.70	24.70	24.73	24.67	25.70	24.01	24.05	24.01	25.00
3GPP Rel 99	RMC 12.2Kbps	24.57	24.58	24.41	25.70	24.70	24.74	24.67	25.70	24.02	24.07	24.06	25.00
3GPP Rel 6	HSDPA Subtest-1	23.61	23.62	23.51	24.70	23.78	23.85	23.77	24.70	23.16	23.19	23.19	24.00
3GPP Rel 6	HSDPA Subtest-2	23.66	23.66	23.51	24.70	23.79	23.86	23.75	24.70	23.17	23.21	23.12	24.00
3GPP Rel 6	HSDPA Subtest-3	23.15	23.15	23.00	24.20	23.31	23.38	23.28	24.20	22.68	22.69	22.67	23.50
3GPP Rel 6	HSDPA Subtest-4	23.15	23.09	23.01	24.20	23.25	23.34	23.25	24.20	22.59	22.73	22.69	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.52	23.53	23.51	24.70	23.70	23.77	23.77	24.70	23.08	23.11	23.14	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.61	23.66	23.41	24.70	23.79	23.78	23.73	24.70	23.09	23.12	23.11	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	23.09	23.15	22.96	24.20	23.24	23.38	23.28	24.20	22.65	22.66	22.65	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	23.05	23.04	22.91	24.20	23.17	23.32	23.16	24.20	22.55	22.64	22.60	23.50
3GPP Rel 6	HSUPA Subtest-1	23.22	23.58	23.50	24.70	23.75	23.82	23.73	24.70	23.12	23.15	23.10	24.00
3GPP Rel 6	HSUPA Subtest-2	21.20	21.23	21.16	22.70	21.46	21.50	21.49	22.70	21.14	21.18	21.12	22.00
3GPP Rel 6	HSUPA Subtest-3	22.22	22.25	22.11	23.70	22.44	22.51	22.47	23.70	22.15	22.16	22.18	23.00
3GPP Rel 6	HSUPA Subtest-4	21.21	21.27	21.19	22.70	21.44	21.57	21.51	22.70	21.16	21.16	21.16	22.00
3GPP Rel 6	HSUPA Subtest-5	23.20	23.30	23.20	24.70	23.50	23.50	23.50	24.70	23.10	23.20	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.44	24.38	24.27	25.70	24.62	24.64	24.62	25.70	24.11	24.13	24.11	25.00
3GPP Rel 99	RMC 12.2Kbps	24.46	24.39	24.27	25.70	24.63	24.65	24.62	25.70	24.12	24.14	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	23.12	23.49	23.38	24.70	23.77	23.78	23.78	24.70	23.26	23.28	23.28	24.00
3GPP Rel 6	HSDPA Subtest-2	23.12	23.51	23.40	24.70	23.74	23.81	23.76	24.70	23.23	23.30	23.27	24.00
3GPP Rel 6	HSDPA Subtest-3	22.60	23.00	22.90	24.20	23.29	22.94	23.25	24.20	22.78	22.81	22.80	23.50
3GPP Rel 6	HSDPA Subtest-4	22.62	23.06	22.86	24.20	23.24	23.24	23.31	24.20	22.75	22.79	22.80	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.09	23.48	23.35	24.70	23.68	23.75	23.78	24.70	23.24	23.28	23.23	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.06	23.42	23.31	24.70	23.67	23.71	23.71	24.70	23.19	23.22	23.20	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.55	22.91	22.87	24.20	23.28	22.88	23.19	24.20	22.74	22.80	22.76	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.54	23.01	22.78	24.20	23.18	23.16	23.27	24.20	22.71	22.75	22.72	23.50
3GPP Rel 6	HSUPA Subtest-1	23.15	23.44	23.34	24.70	23.75	23.78	23.72	24.70	23.22	23.24	23.27	24.00
3GPP Rel 6	HSUPA Subtest-2	21.13	21.11	20.99	22.70	21.51	21.49	21.51	22.70	21.22	21.27	21.25	22.00
3GPP Rel 6	HSUPA Subtest-3	22.12	22.10	21.99	23.70	22.45	22.47	22.49	23.70	22.26	22.31	22.25	23.00
3GPP Rel 6	HSUPA Subtest-4	21.12	21.12	21.03	22.70	21.41	21.52	21.48	22.70	21.23	21.31	21.24	22.00
3GPP Rel 6	HSUPA Subtest-5	23.20	23.10	23.00	24.70	23.50	23.50	23.50	24.70	23.30	23.30	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.55	24.57	24.40	25.70	24.70	24.73	24.67	25.70	24.01	24.05	24.01	25.00
3GPP Rel 99	RMC 12.2Kbps	24.57	24.58	24.41	25.70	24.70	24.74	24.67	25.70	24.02	24.07	24.06	25.00
3GPP Rel 6	HSDPA Subtest-1	23.61	23.62	23.51	24.70	23.78	23.85	23.77	24.70	23.16	23.19	23.19	24.00
3GPP Rel 6	HSDPA Subtest-2	23.66	23.66	23.51	24.70	23.79	23.86	23.75	24.70	23.17	23.21	23.12	24.00
3GPP Rel 6	HSDPA Subtest-3	23.15	23.15	23.00	24.20	23.31	23.38	23.28	24.20	22.68	22.69	22.67	23.50
3GPP Rel 6	HSDPA Subtest-4	23.15	23.09	23.01	24.20	23.25	23.34	23.25	24.20	22.59	22.73	22.69	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.52	23.53	23.51	24.70	23.70	23.77	23.77	24.70	23.08	23.11	23.14	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.61	23.66	23.41	24.70	23.79	23.78	23.73	24.70	23.09	23.12	23.11	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	23.09	23.15	22.96	24.20	23.24	23.38	23.28	24.20	22.65	22.66	22.65	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	23.05	23.04	22.91	24.20	23.17	23.32	23.16	24.20	22.55	22.64	22.60	23.50
3GPP Rel 6	HSUPA Subtest-1	23.22	23.58	23.50	24.70	23.75	23.82	23.73	24.70	23.12	23.15	23.10	24.00
3GPP Rel 6	HSUPA Subtest-2	21.20	21.23	21.16	22.70	21.46	21.50	21.49	22.70	21.14	21.18	21.12	22.00
3GPP Rel 6	HSUPA Subtest-3	22.22	22.25	22.11	23.70	22.44	22.51	22.47	23.70	22.15	22.16	22.18	23.00
3GPP Rel 6	HSUPA Subtest-4	21.21	21.27	21.19	22.70	21.44	21.57	21.51	22.70	21.16	21.16	21.16	22.00
3GPP Rel 6	HSUPA Subtest-5	23.20	23.30	23.20	24.70	23.50	23.50	23.50	24.70	23.10	23.20	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.44	24.38	24.27	25.70	24.62	24.64	24.62	25.70	22.59	22.62	22.58	24.30
3GPP Rel 99	RMC 12.2Kbps	24.46	24.39	24.27	25.70	24.63	24.65	24.62	25.70	22.61	22.73	22.69	24.30
3GPP Rel 6	HSDPA Subtest-1	23.12	23.49	23.38	24.70	23.77	23.78	23.78	24.70	21.75	21.73	21.72	23.30
3GPP Rel 6	HSDPA Subtest-2	23.12	23.51	23.40	24.70	23.74	23.81	23.76	24.70	21.74	21.71	21.69	23.30
3GPP Rel 6	HSDPA Subtest-3	22.60	23.00	22.90	24.20	23.29	22.94	23.25	24.20	21.27	21.26	21.23	22.80
3GPP Rel 6	HSDPA Subtest-4	22.62	23.06	22.86	24.20	23.24	23.24	23.31	24.20	21.24	21.25	21.19	22.80
3GPP Rel 8	DC-HSDPA Subtest-1	23.09	23.48	23.35	24.70	23.68	23.75	23.78	24.70	21.66	21.63	21.62	23.30
3GPP Rel 8	DC-HSDPA Subtest-2	23.06	23.42	23.31	24.70	23.67	23.71	23.71	24.70	21.65	21.59	21.57	23.30
3GPP Rel 8	DC-HSDPA Subtest-3	22.55	22.91	22.87	24.20	23.28	22.88	23.19	24.20	21.22	21.20	21.26	22.80
3GPP Rel 8	DC-HSDPA Subtest-4	22.54	23.01	22.78	24.20	23.18	23.16	23.27	24.20	21.18	21.18	21.22	22.80
3GPP Rel 6	HSUPA Subtest-1	23.15	23.44	23.34	24.70	23.75	23.78	23.72	24.70	21.74	21.76	21.77	23.30
3GPP Rel 6	HSUPA Subtest-2	21.13	21.11	20.99	22.70	21.51	21.49	21.51	22.70	19.72	19.77	19.73	21.30
3GPP Rel 6	HSUPA Subtest-3	22.12	22.10	21.99	23.70	22.45	22.47	22.49	23.70	20.75	20.78	20.76	22.30
3GPP Rel 6	HSUPA Subtest-4	21.12	21.12	21.03	22.70	21.41	21.52	21.48	22.70	19.71	19.83	19.75	21.30
3GPP Rel 6	HSUPA Subtest-5	23.20	23.10	23.00	24.70	23.50	23.50	23.50	24.70	21.75	21.79	21.74	23.30

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.30	23.30	23.23	25.10	23.68	23.68	23.60	25.30	24.01	24.05	24.01	25.00
3GPP Rel 99	RMC 12.2Kbps	23.31	23.32	23.23	25.10	23.95	23.94	23.82	25.30	24.02	24.07	24.06	25.00
3GPP Rel 6	HSDPA Subtest-1	22.33	22.38	22.23	24.10	22.70	22.70	23.61	24.30	23.16	23.19	23.19	24.00
3GPP Rel 6	HSDPA Subtest-2	22.33	22.37	22.24	24.10	22.70	22.67	22.60	24.30	23.17	23.21	23.12	24.00
3GPP Rel 6	HSDPA Subtest-3	21.83	21.87	21.74	23.60	22.16	22.17	22.11	23.80	22.68	22.69	22.67	23.50
3GPP Rel 6	HSDPA Subtest-4	21.78	21.88	21.68	23.60	22.16	22.17	22.10	23.80	22.59	22.73	22.69	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.25	23.22	23.17	24.10	23.68	23.61	23.47	24.30	23.08	23.11	23.14	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.31	22.29	22.15	24.10	22.69	22.68	22.60	24.30	23.09	23.12	23.11	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.33	22.29	22.19	23.60	22.61	22.59	22.53	23.80	22.65	22.66	22.65	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.83	21.77	21.66	23.60	22.11	22.16	22.11	23.80	22.55	22.64	22.60	23.50
3GPP Rel 6	HSUPA Subtest-1	22.35	22.39	22.27	24.10	22.70	22.68	22.61	24.30	23.12	23.15	23.10	24.00
3GPP Rel 6	HSUPA Subtest-2	20.33	20.37	20.24	22.10	20.68	20.67	20.61	22.30	21.14	21.18	21.12	22.00
3GPP Rel 6	HSUPA Subtest-3	21.33	21.38	21.25	23.10	21.70	21.67	21.60	23.30	22.15	22.16	22.18	23.00
3GPP Rel 6	HSUPA Subtest-4	20.35	20.38	20.24	22.10	20.70	20.68	20.61	22.30	21.16	21.16	21.16	22.00
3GPP Rel 6	HSUPA Subtest-5	22.30	22.40	22.20	24.10	22.70	22.70	22.60	24.30	23.10	23.20	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	20.28	20.31	20.15	22.10	20.45	20.40	20.30	21.70	24.11	24.13	24.11	25.00
3GPP Rel 99	RMC 12.2Kbps	20.29	20.33	20.16	22.10	20.47	20.41	20.32	21.70	24.12	24.14	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	19.37	19.30	19.20	21.10	19.50	19.43	19.32	20.70	23.26	23.28	23.28	24.00
3GPP Rel 6	HSDPA Subtest-2	19.37	19.30	19.22	21.10	19.49	19.41	19.30	20.70	23.23	23.30	23.27	24.00
3GPP Rel 6	HSDPA Subtest-3	18.82	18.81	18.71	20.60	18.99	18.93	18.82	20.20	22.78	22.81	22.80	23.50
3GPP Rel 6	HSDPA Subtest-4	18.86	18.80	18.72	20.60	18.99	18.92	18.82	20.20	22.75	22.79	22.80	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	19.34	19.29	19.19	21.10	19.50	19.37	19.24	20.70	23.24	23.28	23.23	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	19.35	19.23	19.24	21.10	19.42	19.38	19.29	20.70	23.19	23.22	23.20	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	18.78	18.76	18.69	20.60	18.91	18.89	18.82	20.20	22.74	22.80	22.76	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	18.76	18.71	18.70	20.60	18.99	18.85	18.82	20.20	22.71	22.75	22.72	23.50
3GPP Rel 6	HSUPA Subtest-1	19.36	19.33	19.24	21.10	19.51	19.45	19.35	20.70	23.22	23.24	23.27	24.00
3GPP Rel 6	HSUPA Subtest-2	17.38	17.33	17.24	19.10	17.50	17.41	17.34	18.70	21.22	21.27	21.25	22.00
3GPP Rel 6	HSUPA Subtest-3	18.37	18.33	18.23	20.10	18.51	18.43	18.33	19.70	22.26	22.31	22.25	23.00
3GPP Rel 6	HSUPA Subtest-4	17.37	17.34	17.25	19.10	17.51	17.43	17.32	18.70	21.23	21.31	21.24	22.00
3GPP Rel 6	HSUPA Subtest-5	19.38	19.38	19.28	21.10	19.50	19.50	19.40	20.70	23.30	23.30	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.30	23.30	23.23	24.30	23.68	23.68	23.60	24.50	24.01	24.05	24.01	25.00
3GPP Rel 99	RMC 12.2Kbps	23.31	23.32	23.23	24.30	23.95	23.94	23.82	24.50	24.02	24.07	24.06	25.00
3GPP Rel 6	HSDPA Subtest-1	22.33	22.38	22.23	23.30	22.70	22.70	22.61	23.50	23.16	23.19	23.19	24.00
3GPP Rel 6	HSDPA Subtest-2	22.33	22.37	22.24	23.30	22.69	22.67	22.60	23.50	23.17	23.21	23.12	24.00
3GPP Rel 6	HSDPA Subtest-3	21.83	21.87	21.74	22.80	22.16	22.17	22.11	23.00	22.68	22.69	22.67	23.50
3GPP Rel 6	HSDPA Subtest-4	21.78	21.88	21.68	22.80	22.14	22.17	22.10	23.00	22.59	22.73	22.69	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.25	23.22	23.17	23.30	22.58	22.61	22.57	23.50	23.08	23.11	23.14	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.31	22.29	22.15	23.30	22.56	22.58	22.56	23.50	23.09	23.12	23.11	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.33	22.29	22.19	22.80	22.11	22.19	22.13	23.00	22.65	22.66	22.65	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.83	21.77	21.66	22.80	22.09	22.16	22.11	23.00	22.55	22.64	22.60	23.50
3GPP Rel 6	HSUPA Subtest-1	22.35	22.39	22.27	23.30	22.70	22.68	22.61	23.50	23.12	23.15	23.10	24.00
3GPP Rel 6	HSUPA Subtest-2	20.33	20.37	20.24	21.30	20.68	20.67	20.61	21.50	21.14	21.18	21.12	22.00
3GPP Rel 6	HSUPA Subtest-3	21.33	21.38	21.25	22.30	21.70	21.67	21.60	22.50	22.15	22.16	22.18	23.00
3GPP Rel 6	HSUPA Subtest-4	20.35	20.38	20.24	21.30	20.70	20.68	20.61	21.50	21.16	21.16	21.16	22.00
3GPP Rel 6	HSUPA Subtest-5	22.30	22.40	22.20	23.30	22.70	22.70	22.60	23.50	23.10	23.20	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	20.28	20.31	20.15	21.30	19.65	19.58	19.50	20.90	24.11	24.13	24.11	25.00
3GPP Rel 99	RMC 12.2Kbps	20.29	20.33	20.16	21.30	19.67	19.59	19.50	20.90	24.12	24.14	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	19.37	19.30	19.20	20.30	18.69	18.60	18.51	19.90	23.26	23.28	23.28	24.00
3GPP Rel 6	HSDPA Subtest-2	19.37	19.30	19.22	20.30	18.69	18.59	18.52	19.90	23.23	23.30	23.27	24.00
3GPP Rel 6	HSDPA Subtest-3	18.82	18.81	18.71	19.80	18.15	18.13	18.01	19.40	22.78	22.81	22.80	23.50
3GPP Rel 6	HSDPA Subtest-4	18.86	18.80	18.72	19.80	18.07	18.11	17.98	19.40	22.75	22.79	22.80	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	19.34	19.29	19.19	20.30	18.63	18.60	18.46	19.90	23.24	23.28	23.23	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	19.35	19.23	19.24	20.30	18.60	18.55	18.49	19.90	23.19	23.22	23.20	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	18.78	18.76	18.69	19.80	18.07	18.13	17.98	19.40	22.74	22.80	22.76	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	18.76	18.71	18.70	19.80	17.99	18.10	17.92	19.40	22.71	22.75	22.72	23.50
3GPP Rel 6	HSUPA Subtest-1	19.36	19.33	19.24	20.30	18.69	18.61	18.51	19.90	23.22	23.24	23.27	24.00
3GPP Rel 6	HSUPA Subtest-2	17.38	17.33	17.24	18.30	16.42	16.29	16.27	17.90	21.22	21.27	21.25	22.00
3GPP Rel 6	HSUPA Subtest-3	18.37	18.33	18.23	19.30	17.42	17.33	17.24	18.90	22.26	22.31	22.25	23.00
3GPP Rel 6	HSUPA Subtest-4	17.37	17.34	17.25	18.30	16.38	16.36	16.31	17.90	21.23	21.31	21.24	22.00
3GPP Rel 6	HSUPA Subtest-5	19.38	19.38	19.28	20.30	18.50	18.40	18.30	19.90	23.30	23.30	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.55	24.57	24.40	25.70	24.70	24.73	24.67	25.70	24.01	24.05	24.01	25.00
3GPP Rel 99	RMC 12.2Kbps	24.57	24.58	24.41	25.70	24.70	24.74	24.67	25.70	24.02	24.07	24.06	25.00
3GPP Rel 6	HSDPA Subtest-1	23.61	23.62	23.51	24.70	23.78	23.85	23.77	24.70	23.16	23.19	23.19	24.00
3GPP Rel 6	HSDPA Subtest-2	23.66	23.66	23.51	24.70	23.79	23.86	23.75	24.70	23.17	23.21	23.12	24.00
3GPP Rel 6	HSDPA Subtest-3	23.15	23.15	23.00	24.20	23.31	23.38	23.28	24.20	22.68	22.69	22.67	23.50
3GPP Rel 6	HSDPA Subtest-4	23.15	23.09	23.01	24.20	23.25	23.34	23.25	24.20	22.59	22.73	22.69	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.52	23.53	23.51	24.70	23.70	23.77	23.77	24.70	23.08	23.11	23.14	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.61	23.66	23.41	24.70	23.79	23.78	23.73	24.70	23.09	23.12	23.11	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	23.09	23.15	22.96	24.20	23.24	23.38	23.28	24.20	22.65	22.66	22.65	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	23.05	23.04	22.91	24.20	23.17	23.32	23.16	24.20	22.55	22.64	22.60	23.50
3GPP Rel 6	HSUPA Subtest-1	23.22	23.58	23.50	24.70	23.75	23.82	23.73	24.70	23.12	23.15	23.10	24.00
3GPP Rel 6	HSUPA Subtest-2	21.20	21.23	21.16	22.70	21.46	21.50	21.49	22.70	21.14	21.18	21.12	22.00
3GPP Rel 6	HSUPA Subtest-3	22.22	22.25	22.11	23.70	22.44	22.51	22.47	23.70	22.15	22.16	22.18	23.00
3GPP Rel 6	HSUPA Subtest-4	21.21	21.27	21.19	22.70	21.44	21.57	21.51	22.70	21.16	21.16	21.16	22.00
3GPP Rel 6	HSUPA Subtest-5	23.20	23.30	23.20	24.70	23.50	23.50	23.50	24.70	23.10	23.20	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.44	24.38	24.27	25.70	24.62	24.64	24.62	25.70	22.59	22.62	22.58	23.50
3GPP Rel 99	RMC 12.2Kbps	24.46	24.39	24.27	25.70	24.63	24.65	24.62	25.70	22.61	22.73	22.69	23.50
3GPP Rel 6	HSDPA Subtest-1	23.12	23.49	23.38	24.70	23.77	23.78	23.78	24.70	21.75	21.73	21.72	22.50
3GPP Rel 6	HSDPA Subtest-2	23.12	23.51	23.40	24.70	23.74	23.81	23.76	24.70	21.74	21.71	21.69	22.50
3GPP Rel 6	HSDPA Subtest-3	22.60	23.00	22.90	24.20	23.29	22.94	23.25	24.20	21.27	21.26	21.23	22.00
3GPP Rel 6	HSDPA Subtest-4	22.62	23.06	22.86	24.20	23.24	23.24	23.31	24.20	21.24	21.25	21.19	22.00
3GPP Rel 8	DC-HSDPA Subtest-1	23.09	23.48	23.35	24.70	23.68	23.75	23.78	24.70	21.66	21.63	21.62	22.50
3GPP Rel 8	DC-HSDPA Subtest-2	23.06	23.42	23.31	24.70	23.67	23.71	23.71	24.70	21.65	21.59	21.57	22.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.55	22.91	22.87	24.20	23.28	22.88	23.19	24.20	21.22	21.20	21.26	22.00
3GPP Rel 8	DC-HSDPA Subtest-4	22.54	23.01	22.78	24.20	23.18	23.16	23.27	24.20	21.18	21.18	21.22	22.00
3GPP Rel 6	HSUPA Subtest-1	23.15	23.44	23.34	24.70	23.75	23.78	23.72	24.70	21.74	21.76	21.77	22.50
3GPP Rel 6	HSUPA Subtest-2	21.13	21.11	20.99	22.70	21.51	21.49	21.51	22.70	19.72	19.77	19.73	20.50
3GPP Rel 6	HSUPA Subtest-3	22.12	22.10	21.99	23.70	22.45	22.47	22.49	23.70	20.75	20.78	20.76	21.50
3GPP Rel 6	HSUPA Subtest-4	21.12	21.12	21.03	22.70	21.41	21.52	21.48	22.70	19.71	19.83	19.75	20.50
3GPP Rel 6	HSUPA Subtest-5	23.20	23.10	23.00	24.70	23.50	23.50	23.50	24.70	21.75	21.79	21.74	22.50

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.30	23.30	23.23	24.30	23.68	23.68	23.60	24.50	24.01	24.05	24.01	25.00
3GPP Rel 99	RMC 12.2Kbps	23.31	23.32	23.23	24.30	23.95	23.94	23.82	24.50	24.02	24.07	24.06	25.00
3GPP Rel 6	HSDPA Subtest-1	22.33	22.38	22.23	23.30	22.70	22.70	22.61	23.50	23.16	23.19	23.19	24.00
3GPP Rel 6	HSDPA Subtest-2	22.33	22.37	22.24	23.30	22.69	22.67	22.60	23.50	23.17	23.21	23.12	24.00
3GPP Rel 6	HSDPA Subtest-3	21.83	21.87	21.74	22.80	22.16	22.17	22.11	23.00	22.68	22.69	22.67	23.50
3GPP Rel 6	HSDPA Subtest-4	21.78	21.88	21.68	22.80	22.14	22.17	22.10	23.00	22.59	22.73	22.69	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.25	23.22	23.17	23.30	22.58	22.61	22.57	23.50	23.08	23.11	23.14	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.31	22.29	22.15	23.30	22.56	22.58	22.56	23.50	23.09	23.12	23.11	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.33	22.29	22.19	22.80	22.11	22.19	22.13	23.00	22.65	22.66	22.65	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.83	21.77	21.66	22.80	22.09	22.16	22.11	23.00	22.55	22.64	22.60	23.50
3GPP Rel 6	HSUPA Subtest-1	22.35	22.39	22.27	23.30	22.70	22.68	22.61	23.50	23.12	23.15	23.10	24.00
3GPP Rel 6	HSUPA Subtest-2	20.33	20.37	20.24	21.30	20.68	20.67	20.61	21.50	21.14	21.18	21.12	22.00
3GPP Rel 6	HSUPA Subtest-3	21.33	21.38	21.25	22.30	21.70	21.67	21.60	22.50	22.15	22.16	22.18	23.00
3GPP Rel 6	HSUPA Subtest-4	20.35	20.38	20.24	21.30	20.70	20.68	20.61	21.50	21.16	21.16	21.16	22.00
3GPP Rel 6	HSUPA Subtest-5	22.30	22.40	22.20	23.30	22.70	22.70	22.60	23.50	23.10	23.20	23.20	24.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	20.28	20.31	20.15	21.30	19.65	19.58	19.50	20.90	24.11	24.13	24.11	25.00
3GPP Rel 99	RMC 12.2Kbps	20.29	20.33	20.16	21.30	19.67	19.59	19.50	20.90	24.12	24.14	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	19.37	19.30	19.20	20.30	18.69	18.60	18.51	19.90	23.26	23.28	23.28	24.00
3GPP Rel 6	HSDPA Subtest-2	19.37	19.30	19.22	20.30	18.69	18.59	18.52	19.90	23.23	23.30	23.27	24.00
3GPP Rel 6	HSDPA Subtest-3	18.82	18.81	18.71	19.80	18.15	18.13	18.01	19.40	22.78	22.81	22.80	23.50
3GPP Rel 6	HSDPA Subtest-4	18.86	18.80	18.72	19.80	18.07	18.11	17.98	19.40	22.75	22.79	22.80	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	19.34	19.29	19.19	20.30	18.63	18.60	18.46	19.90	23.24	23.28	23.23	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	19.35	19.23	19.24	20.30	18.60	18.55	18.49	19.90	23.19	23.22	23.20	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	18.78	18.76	18.69	19.80	18.07	18.13	17.98	19.40	22.74	22.80	22.76	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	18.76	18.71	18.70	19.80	17.99	18.10	17.92	19.40	22.71	22.75	22.72	23.50
3GPP Rel 6	HSUPA Subtest-1	19.36	19.33	19.24	20.30	18.69	18.61	18.51	19.90	23.22	23.24	23.27	24.00
3GPP Rel 6	HSUPA Subtest-2	17.38	17.33	17.24	18.30	16.42	16.29	16.27	17.90	21.22	21.27	21.25	22.00
3GPP Rel 6	HSUPA Subtest-3	18.37	18.33	18.23	19.30	17.42	17.33	17.24	18.90	22.26	22.31	22.25	23.00
3GPP Rel 6	HSUPA Subtest-4	17.37	17.34	17.25	18.30	16.38	16.36	16.31	17.90	21.23	21.31	21.24	22.00
3GPP Rel 6	HSUPA Subtest-5	19.38	19.38	19.28	20.30	18.50	18.40	18.30	19.90	23.30	23.30	23.20	24.00

<CDMA2000 Conducted Power>**General Note:**

1. Per KDB 941225 D01v03r01, SAR for head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.



Band	CDMA BC0			Tune-up Limit (dBm)	CDMA BC1			Tune-up Limit (dBm)	CDMA BC10			Tune-up Limit (dBm)
TX Channel	1013	384	777		25	600	1175		476	580	684	
Frequency (MHz)	824.7	836.52	848.31		1851.25	1880	1908.75		817.9	820.5	823.1	
RC1 SO55	24.20	24.27	23.79	25.50	24.58	24.63	24.57	25.50	24.28	24.30	24.31	25.50
RC3 SO55	24.22	24.30	23.80	25.50	24.62	24.67	24.59	25.50	24.30	24.33	24.32	25.50
RC3 SO32 (F+SCH)	24.25	24.31	23.83	25.50	24.67	24.68	24.58	25.50	24.25	24.28	24.27	25.50
RC3 SO32 (F+SCH)	24.21	24.28	23.81	25.50	24.66	24.61	24.54	25.50	24.21	24.29	24.28	25.50
RTAP 153.6Kbps	24.35	24.40	23.92	25.50	24.65	24.70	24.61	25.50	24.31	24.33	24.35	25.50
RETAP 4096Bits	24.32	24.38	23.91	25.50	24.60	24.65	24.57	25.50	24.28	24.27	24.30	25.50

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.33	24.38	24.25	25.50	24.56	24.46	24.21	25.50	24.34	24.37	24.40	25.50
RC3 SO55	24.36	24.42	24.26	25.50	24.58	24.47	24.25	25.50	24.37	24.40	24.41	25.50
RC3 SO32 (F+SCH)	24.35	24.41	24.25	25.50	24.52	24.45	24.25	25.50	24.39	24.41	24.40	25.50
RC3 SO32 (+SCH)	24.33	24.37	24.23	25.50	24.50	24.41	24.20	25.50	24.38	24.37	24.35	25.50
RTAP 153.6Kbps	24.31	24.45	24.27	25.50	24.60	24.48	24.28	25.50	24.41	24.45	24.44	25.50
RETAP 4096Bits	24.30	24.41	24.23	25.50	24.57	24.46	24.25	25.50	24.34	24.42	24.40	25.50

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.20	24.27	23.79	25.50	24.58	24.63	24.57	25.50	24.28	24.30	24.31	25.50
RC3 SO55	24.22	24.30	23.80	25.50	24.62	24.67	24.59	25.50	24.30	24.33	24.32	25.50
RC3 SO32 (F+SCH)	24.25	24.31	23.83	25.50	24.67	24.68	24.58	25.50	24.25	24.28	24.27	25.50
RC3 SO32 (+SCH)	24.21	24.28	23.81	25.50	24.66	24.61	24.54	25.50	24.21	24.29	24.28	25.50
RTAP 153.6Kbps	24.35	24.40	23.92	25.50	24.65	24.70	24.61	25.50	24.31	24.33	24.35	25.50
RETAP 4096Bits	24.32	24.38	23.91	25.50	24.60	24.65	24.57	25.50	24.28	24.27	24.30	25.50

Band	CDMA BC0			Tune-up Limit (dBm)	CDMA BC1			Tune-up Limit (dBm)	CDMA BC10			Tune-up Limit (dBm)
TX Channel	1013	384	777		25	600	1175		476	580	684	
Frequency (MHz)	824.7	836.52	848.31		1851.25	1880	1908.75		817.9	820.5	823.1	
RC1 SO55	22.66	22.74	22.66	24.60	24.56	24.46	24.21	25.50	22.71	22.73	22.74	24.70
RC3 SO55	22.67	22.76	22.70	24.60	24.58	24.47	24.25	25.50	22.70	22.72	22.71	24.70
RC3 SO32 (F+SCH)	22.61	22.73	22.68	24.60	24.52	24.45	24.25	25.50	22.76	22.80	22.79	24.70
RC3 SO32 (+SCH)	22.60	22.70	22.67	24.60	24.50	24.41	24.20	25.50	22.77	22.79	22.78	24.70
RTAP 153.6Kbps	22.64	22.77	22.64	24.60	24.60	24.48	24.28	25.50	22.80	22.82	22.81	24.70
RETAP 4096Bits	22.61	22.67	22.60	24.60	24.57	24.46	24.25	25.50	22.76	22.78	22.76	24.70

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.20	24.27	23.79	25.50	22.98	23.02	22.92	24.80	24.28	24.30	24.31	25.50
RC3 SO55	24.22	24.30	23.80	25.50	23.00	23.05	22.95	24.80	24.30	24.33	24.32	25.50
RC3 SO32 (F+SCH)	24.25	24.31	23.83	25.50	22.80	22.86	22.84	24.80	24.25	24.28	24.27	25.50
RC3 SO32 (+SCH)	24.21	24.28	23.81	25.50	22.95	22.98	22.92	24.80	24.21	24.29	24.28	25.50
RTAP 153.6Kbps	24.35	24.40	23.92	25.50	23.01	23.07	22.96	24.80	24.31	24.33	24.35	25.50
RETAP 4096Bits	24.32	24.38	23.91	25.50	22.98	23.04	22.92	24.80	24.28	24.27	24.30	25.50

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.33	24.38	24.25	25.50	19.55	19.50	19.40	21.40	24.34	24.37	24.40	25.50
RC3 SO55	24.36	24.42	24.26	25.50	19.61	19.53	19.41	21.40	24.37	24.40	24.41	25.50
RC3 SO32 (F+SCH)	24.35	24.41	24.25	25.50	19.63	19.54	19.42	21.40	24.39	24.41	24.40	25.50
RC3 SO32 (+SCH)	24.33	24.37	24.23	25.50	19.60	19.50	19.42	21.40	24.38	24.37	24.35	25.50
RTAP 153.6Kbps	24.31	24.45	24.27	25.50	19.68	19.55	19.40	21.40	24.41	24.45	24.44	25.50
RETAP 4096Bits	24.30	24.41	24.23	25.50	19.62	19.54	19.41	21.40	24.34	24.42	24.40	25.50

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.20	24.27	23.79	25.50	22.98	23.02	22.92	24.00	24.28	24.30	24.31	25.50
RC3 SO55	24.22	24.30	23.80	25.50	23.00	23.05	22.95	24.00	24.30	24.33	24.32	25.50
RC3 SO32 (F+SCH)	24.25	24.31	23.83	25.50	22.80	22.86	22.84	24.00	24.25	24.28	24.27	25.50
RC3 SO32 (+SCH)	24.21	24.28	23.81	25.50	22.95	22.98	22.92	24.00	24.21	24.29	24.28	25.50
RTAP 153.6Kbps	24.35	24.40	23.92	25.50	23.01	23.07	22.96	24.00	24.31	24.33	24.35	25.50
RETAP 4096Bits	24.32	24.38	23.91	25.50	22.98	23.04	22.92	24.00	24.28	24.27	24.30	25.50

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.33	24.38	24.25	25.50	19.55	19.50	19.40	20.60	24.34	24.37	24.40	25.50
RC3 SO55	24.36	24.42	24.26	25.50	19.61	19.53	19.41	20.60	24.37	24.40	24.41	25.50
RC3 SO32 (F+SCH)	24.35	24.41	24.25	25.50	19.63	19.54	19.42	20.60	24.39	24.41	24.40	25.50
RC3 SO32 (+SCH)	24.33	24.37	24.23	25.50	19.60	19.50	19.42	20.60	24.38	24.37	24.35	25.50
RTAP 153.6Kbps	24.31	24.45	24.27	25.50	19.68	19.55	19.40	20.60	24.41	24.45	24.44	25.50
RETAP 4096Bits	24.30	24.41	24.23	25.50	19.62	19.54	19.41	20.60	24.34	24.42	24.40	25.50

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.20	24.27	23.79	25.50	24.58	24.63	24.57	25.50	24.28	24.30	24.31	25.50
RC3 SO55	24.22	24.30	23.80	25.50	24.62	24.67	24.59	25.50	24.30	24.33	24.32	25.50
RC3 SO32 (F+SCH)	24.25	24.31	23.83	25.50	24.67	24.68	24.58	25.50	24.25	24.28	24.27	25.50
RC3 SO32 (+SCH)	24.21	24.28	23.81	25.50	24.66	24.61	24.54	25.50	24.21	24.29	24.28	25.50
RTAP 153.6Kbps	24.35	24.40	23.92	25.50	24.65	24.70	24.61	25.50	24.31	24.33	24.35	25.50
RETAP 4096Bits	24.32	24.38	23.91	25.50	24.60	24.65	24.57	25.50	24.28	24.27	24.30	25.50

Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	22.66	22.74	22.66	23.80	24.56	24.46	24.21	25.50	22.71	22.73	22.74	23.90
RC3 SO55	22.67	22.76	22.70	23.80	24.58	24.47	24.25	25.50	22.70	22.72	22.71	23.90
RC3 SO32 (F+SCH)	22.61	22.73	22.68	23.80	24.52	24.45	24.25	25.50	22.76	22.80	22.79	23.90
RC3 SO32 (+SCH)	22.60	22.70	22.67	23.80	24.50	24.41	24.20	25.50	22.77	22.79	22.78	23.90
RTAP 153.6Kbps	22.64	22.77	22.64	23.80	24.60	24.48	24.28	25.50	22.80	22.82	22.81	23.90
RETAP 4096Bits	22.61	22.67	22.60	23.80	24.57	24.46	24.25	25.50	22.76	22.78	22.76	23.90

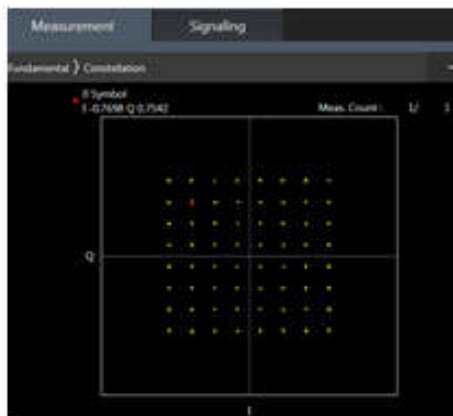
Band	CDMA BC0			Tune-up	CDMA BC1			Tune-up	CDMA BC10			Tune-up
TX Channel	1013	384	777	Limit	25	600	1175	Limit	476	580	684	Limit
Frequency (MHz)	824.7	836.52	848.31	(dBm)	1851.25	1880	1908.75	(dBm)	817.9	820.5	823.1	(dBm)
RC1 SO55	24.20	24.27	23.79	25.50	22.98	23.02	22.92	24.00	24.28	24.30	24.31	25.50
RC3 SO55	24.22	24.30	23.80	25.50	23.00	23.05	22.95	24.00	24.30	24.33	24.32	25.50
RC3 SO32 (F+SCH)	24.25	24.31	23.83	25.50	22.80	22.86	22.84	24.00	24.25	24.28	24.27	25.50
RC3 SO32 (+SCH)	24.21	24.28	23.81	25.50	22.95	22.98	22.92	24.00	24.21	24.29	24.28	25.50
RTAP 153.6Kbps	24.35	24.40	23.92	25.50	23.01	23.07	22.96	24.00	24.31	24.33	24.35	25.50
RETAP 4096Bits	24.32	24.38	23.91	25.50	22.98	23.04	22.92	24.00	24.28	24.27	24.30	25.50

Band	CDMA BC0			Tune-up Limit (dBm)	CDMA BC1			Tune-up Limit (dBm)	CDMA BC10			Tune-up Limit (dBm)
TX Channel	1013	384	777		25	600	1175		476	580	684	
Frequency (MHz)	824.7	836.52	848.31		1851.25	1880	1908.75		817.9	820.5	823.1	
RC1 SO55	24.33	24.38	24.25	25.50	19.55	19.50	19.30	20.60	24.34	24.37	24.40	25.50
RC3 SO55	24.36	24.42	24.26	25.50	19.61	19.53	19.32	20.60	24.37	24.40	24.41	25.50
RC3 SO32 (F+SCH)	24.35	24.41	24.25	25.50	19.63	19.54	19.33	20.60	24.39	24.41	24.40	25.50
RC3 SO32 (+SCH)	24.33	24.37	24.23	25.50	19.60	19.50	19.31	20.60	24.38	24.37	24.35	25.50
RTAP 153.6Kbps	24.31	24.45	24.27	25.50	19.68	19.55	19.34	20.60	24.41	24.45	24.44	25.50
RETAP 4096Bits	24.30	24.41	24.23	25.50	19.62	19.54	19.31	20.60	24.34	24.42	24.40	25.50

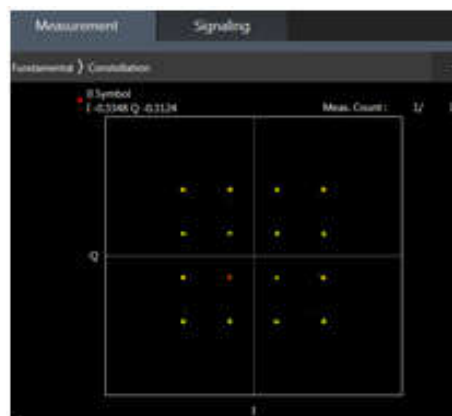
<LTE Conducted Power>

General Note:

1. Anritsu MT8821C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B12/B13/B14/B26/B30/71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B2/B4/B5/B17/B38 SAR test was covered by B25/B66/B26/B12/B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is $\leq$ the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 2017 TCB workshop, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



64QAM



16QAM

Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				18750	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.42	24.35	24.37	25.7
20	QPSK	1	49	24.33	24.30	24.24	
20	QPSK	1	99	24.32	24.35	24.36	
20	QPSK	50	0	23.41	23.38	23.37	24.7
20	QPSK	50	24	23.51	23.49	23.39	
20	QPSK	50	50	23.49	23.48	23.49	
20	QPSK	100	0	23.51	23.47	23.41	24.7
20	16QAM	1	0	23.68	23.69	23.72	
20	16QAM	1	49	23.67	23.64	23.54	
20	16QAM	1	99	23.64	23.64	23.65	23.7
20	16QAM	50	0	22.42	22.40	22.39	
20	16QAM	50	24	22.52	22.50	22.42	
20	16QAM	50	50	22.52	22.49	22.51	23.7
20	16QAM	100	0	22.49	22.48	22.39	
20	64QAM	1	0	22.60	22.52	22.56	
20	64QAM	1	49	22.54	22.50	21.66	22.7
20	64QAM	1	99	22.40	22.56	22.42	
20	64QAM	50	0	21.45	21.42	20.88	
20	64QAM	50	24	21.53	21.53	20.88	22.7
20	64QAM	50	50	21.44	21.50	21.23	
20	64QAM	100	0	21.52	21.51	21.07	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	24.34	24.35	24.36	25.7
15	QPSK	1	37	24.33	24.32	24.33	
15	QPSK	1	74	24.38	24.36	24.41	
15	QPSK	36	0	23.46	23.37	23.36	24.7
15	QPSK	36	20	23.49	23.48	23.39	
15	QPSK	36	39	23.47	23.48	23.49	
15	QPSK	75	0	23.48	23.47	23.41	24.7
15	16QAM	1	0	23.60	23.64	23.63	
15	16QAM	1	37	23.65	23.62	23.64	
15	16QAM	1	74	23.70	23.68	23.65	23.7
15	16QAM	36	0	22.47	22.39	22.35	
15	16QAM	36	20	22.48	22.49	22.40	
15	16QAM	36	39	22.48	22.49	22.49	23.7
15	16QAM	75	0	22.49	22.49	22.38	
15	64QAM	1	0	22.54	22.52	22.16	
15	64QAM	1	37	22.61	22.57	21.79	22.7
15	64QAM	1	74	22.50	22.59	22.54	
15	64QAM	36	0	21.50	21.41	20.76	
15	64QAM	36	20	21.53	21.51	21.04	22.7
15	64QAM	36	39	21.56	21.52	21.41	
15	64QAM	75	0	21.50	21.49	20.35	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	24.33	24.31	24.32	25.7
10	QPSK	1	25	24.25	24.27	24.27	
10	QPSK	1	49	24.32	24.35	24.34	
10	QPSK	25	0	23.44	23.36	23.33	24.7
10	QPSK	25	12	23.51	23.51	23.40	
10	QPSK	25	25	23.52	23.50	23.49	
10	QPSK	50	0	23.51	23.50	23.41	24.7
10	16QAM	1	0	23.71	23.64	23.65	
10	16QAM	1	25	23.71	23.69	23.69	
10	16QAM	1	49	23.73	23.72	23.73	23.7
10	16QAM	25	0	22.46	22.39	22.35	
10	16QAM	25	12	22.52	22.51	22.41	
10	16QAM	25	25	22.47	22.50	22.51	23.7
10	16QAM	50	0	22.50	22.49	22.40	
10	64QAM	1	0	22.61	22.52	21.90	
10	64QAM	1	25	22.59	22.62	22.41	22.7
10	64QAM	1	49	22.58	22.63	22.63	
10	64QAM	25	0	21.49	21.41	20.99	
10	64QAM	25	12	21.54	21.52	21.35	22.7
10	64QAM	25	25	21.54	21.53	21.44	
10	64QAM	50	0	21.54	21.52	21.12	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	24.25	24.25	24.28	25.7
5	QPSK	1	12	24.36	24.37	24.32	
5	QPSK	1	24	24.35	24.39	24.38	
5	QPSK	12	0	23.42	23.39	23.43	24.7
5	QPSK	12	7	23.47	23.48	23.48	
5	QPSK	12	13	23.48	23.45	23.48	
5	QPSK	25	0	23.45	23.43	23.44	24.7
5	16QAM	1	0	23.62	23.58	23.62	
5	16QAM	1	12	23.64	23.65	23.67	
5	16QAM	1	24	23.67	23.71	23.73	23.7
5	16QAM	12	0	22.47	22.42	22.46	
5	16QAM	12	7	22.50	22.53	22.50	
5	16QAM	12	13	22.49	22.51	22.52	23.7
5	16QAM	25	0	22.47	22.50	22.47	
5	64QAM	1	0	22.63	22.56	22.32	
5	64QAM	1	12	22.59	22.58	22.56	22.7
5	64QAM	1	24	22.60	22.64	22.60	
5	64QAM	12	0	21.52	21.47	21.51	
5	64QAM	12	7	21.57	21.57	21.56	22.7
5	64QAM	12	13	21.56	21.54	21.55	
5	64QAM	25	0	21.49	21.49	21.46	
Channel				18615	18900	19165	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	24.29	24.29	24.28	25.7
3	QPSK	1	8	24.39	24.38	24.39	
3	QPSK	1	14	24.33	24.35	24.35	
3	QPSK	8	0	23.41	23.47	23.42	24.7
3	QPSK	8	4	23.45	23.49	23.45	
3	QPSK	8	7	23.43	23.43	23.45	
3	QPSK	15	0	23.44	23.42	23.46	24.7
3	16QAM	1	0	23.64	23.63	23.63	
3	16QAM	1	8	23.69	23.71	23.70	
3	16QAM	1	14	23.68	23.71	23.67	23.7
3	16QAM	8	0	22.50	22.50	22.47	
3	16QAM	8	4	22.54	22.54	22.53	
3	16QAM	8	7	22.54	22.52	22.54	23.7
3	16QAM	15	0	22.50	22.49	22.45	
3	64QAM	1	0	22.54	22.58	22.57	
3	64QAM	1	8	22.62	22.65	22.66	22.7
3	64QAM	1	14	22.58	22.64	22.60	
3	64QAM	8	0	21.49	21.49	21.50	
3	64QAM	8	4	21.56	21.57	21.53	22.7
3	64QAM	8	7	21.50	21.53	21.52	
3	64QAM	15	0	21.48	21.48	21.50	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	24.28	24.26	24.25	25.7
1.4	QPSK	1	3	24.31	24.31	24.31	
1.4	QPSK	1	5	24.26	24.26	24.27	
1.4	QPSK	3	0	24.29	24.31	24.28	24.7
1.4	QPSK	3	1	24.33	24.35	24.33	
1.4	QPSK	3	3	24.28	24.32	24.29	
1.4	QPSK	6	0	23.37	23.38	23.38	24.7
1.4	16QAM	1	0	23.56	23.56	23.56	
1.4	16QAM	1	3	23.63	23.65	23.65	
1.4	16QAM	1	5	23.58	23.59	23.57	23.7
1.4	16QAM	3	0	23.36	23.39	23.34	
1.4	16QAM	3	1	23.42	23.43	23.40	
1.4	16QAM	3	3	23.34	23.38	23.32	23.7
1.4	16QAM	6	0	22.45	22.46	22.45	
1.4	64QAM	1	0	22.51	22.52	22.48	
1.4	64QAM	1	3	22.56	22.59	22.59	23.7
1.4	64QAM	1	5	22.50	22.53	22.49	
1.4	64QAM	3	0	22.48	22.48	22.48	
1.4	64QAM	3	1	22.62	22.54	22.52	22.7
1.4	64QAM	3	3	22.50	22.50	22.46	
1.4	64QAM	6	0	21.39	21.40	21.39	

Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	25.7
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.85	24.88	24.84	25.7
20	QPSK	1	49	24.70	24.68	24.64	
20	QPSK	1	99	24.73	24.67	24.66	
20	QPSK	50	0	23.89	23.88	23.86	24.7
20	QPSK	50	24	23.91	23.90	23.79	
20	QPSK	50	50	23.86	23.82	23.80	
20	QPSK	100	0	23.86	23.95	23.78	24.7
20	16QAM	1	0	24.17	24.19	24.16	
20	16QAM	1	49	24.03	24.03	24.02	
20	16QAM	1	99	24.08	23.99	23.94	23.7
20	16QAM	50	0	22.88	22.89	22.87	
20	16QAM	50	24	22.92	22.90	22.80	
20	16QAM	50	50	22.86	22.83	22.78	23.7
20	16QAM	100	0	22.89	22.94	22.76	
20	64QAM	1	0	22.84	23.06	22.68	23.7
20	64QAM	1	49	22.93	22.88	22.85	
20	64QAM	1	99	22.97	22.56	22.94	
20	64QAM	50	0	21.89	21.91	21.60	22.7
20	64QAM	50	24	21.93	21.94	21.80	
20	64QAM	50	50	21.87	21.62	21.82	
20	64QAM	100	0	21.95	21.91	21.81	Tune-up limit (dBm)
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	25.7
15	QPSK	1	0	24.84	24.87	24.84	
15	QPSK	1	37	24.69	24.68	24.67	24.7
15	QPSK	1	74	24.75	24.70	24.66	
15	QPSK	36	0	23.92	23.86	23.82	
15	QPSK	36	20	23.89	23.89	23.78	24.7
15	QPSK	36	39	23.85	23.86	23.81	
15	QPSK	75	0	23.90	23.92	23.78	
15	16QAM	1	0	24.14	24.16	24.15	24.7
15	16QAM	1	37	23.98	24.04	24.01	
15	16QAM	1	74	24.06	24.00	23.93	
15	16QAM	36	0	22.93	22.88	22.85	23.7
15	16QAM	36	20	22.88	22.87	22.78	
15	16QAM	36	39	22.85	22.83	22.80	
15	16QAM	75	0	22.90	22.92	22.79	23.7
15	64QAM	1	0	22.87	23.04	22.82	
15	64QAM	1	37	22.98	22.95	22.96	
15	64QAM	1	74	22.95	22.70	22.88	22.7
15	64QAM	36	0	21.93	21.94	21.86	
15	64QAM	36	20	21.90	21.96	21.80	
15	64QAM	36	39	21.88	21.61	21.82	Tune-up limit (dBm)
15	64QAM	75	0	21.90	21.92	21.79	
Channel				20000	20175	20350	25.7
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.77	24.77	24.71	25.7
10	QPSK	1	25	24.71	24.71	24.66	
10	QPSK	1	49	24.77	24.75	24.70	
10	QPSK	25	0	23.82	23.82	23.74	24.7
10	QPSK	25	12	23.88	23.91	23.77	
10	QPSK	25	25	23.88	23.91	23.85	
10	QPSK	50	0	23.87	23.90	23.77	24.7
10	16QAM	1	0	24.11	24.13	24.10	
10	16QAM	1	25	24.10	24.14	24.06	
10	16QAM	1	49	24.13	24.09	24.11	23.7
10	16QAM	25	0	22.85	22.82	22.77	
10	16QAM	25	12	22.98	22.89	22.78	
10	16QAM	25	25	22.90	22.90	22.86	23.7
10	16QAM	50	0	22.87	22.89	22.78	
10	64QAM	1	0	22.73	23.00	22.94	
10	64QAM	1	25	23.03	23.04	22.98	22.7
10	64QAM	1	49	23.05	22.96	22.96	
10	64QAM	25	0	21.88	21.80	21.78	
10	64QAM	25	12	21.91	21.97	21.81	22.7
10	64QAM	25	25	21.90	21.68	21.87	
10	64QAM	50	0	21.93	21.90	21.84	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.77	24.68	24.72	25.7
5	QPSK	1	12	24.82	24.86	24.73	
5	QPSK	1	24	24.82	24.80	24.73	
5	QPSK	12	0	23.83	23.83	23.78	24.7
5	QPSK	12	7	23.88	23.86	23.83	
5	QPSK	12	13	23.89	23.87	23.80	
5	QPSK	25	0	23.85	23.88	23.78	24.7
5	16QAM	1	0	24.08	24.07	24.06	
5	16QAM	1	12	24.14	24.12	24.07	
5	16QAM	1	24	24.13	24.15	24.05	23.7
5	16QAM	12	0	22.89	22.83	22.83	
5	16QAM	12	7	22.93	22.91	22.83	
5	16QAM	12	13	22.92	22.90	22.84	23.7
5	16QAM	25	0	22.88	22.86	22.83	
5	64QAM	1	0	22.75	22.99	23.04	
5	64QAM	1	12	23.01	23.05	22.98	23.7
5	64QAM	1	24	23.12	22.67	22.97	
5	64QAM	12	0	21.75	21.85	21.87	
5	64QAM	12	7	21.96	21.97	21.89	22.7
5	64QAM	12	13	21.93	21.70	21.88	
5	64QAM	25	0	21.90	21.93	21.82	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.77	24.71	24.70	25.7
3	QPSK	1	8	24.85	24.87	24.79	
3	QPSK	1	14	24.83	24.82	24.71	
3	QPSK	8	0	23.87	23.78	23.81	24.7
3	QPSK	8	4	23.89	23.86	23.83	
3	QPSK	8	7	23.90	23.87	23.79	
3	QPSK	15	0	23.84	23.87	23.81	24.7
3	16QAM	1	0	24.12	24.04	24.03	
3	16QAM	1	8	24.16	24.16	24.10	
3	16QAM	1	14	24.12	24.12	24.07	23.7
3	16QAM	8	0	22.90	22.86	22.85	
3	16QAM	8	4	22.95	22.96	22.86	
3	16QAM	8	7	22.92	22.96	22.84	23.7
3	16QAM	15	0	22.88	22.88	22.83	
3	64QAM	1	0	22.77	23.01	22.96	
3	64QAM	1	8	22.97	23.14	23.06	23.7
3	64QAM	1	14	23.04	22.89	23.01	
3	64QAM	8	0	21.71	21.94	21.86	
3	64QAM	8	4	21.86	21.94	21.91	22.7
3	64QAM	8	7	21.92	21.92	21.87	
3	64QAM	15	0	21.82	21.91	21.84	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.70	24.68	24.60	25.7
1.4	QPSK	1	3	24.79	24.70	24.70	
1.4	QPSK	1	5	24.75	24.72	24.61	
1.4	QPSK	3	0	24.73	24.72	24.66	24.7
1.4	QPSK	3	1	24.77	24.79	24.70	
1.4	QPSK	3	3	24.72	24.74	24.67	
1.4	QPSK	6	0	23.81	23.77	23.73	24.7
1.4	16QAM	1	0	24.02	24.05	23.94	
1.4	16QAM	1	3	24.15	24.13	24.03	
1.4	16QAM	1	5	24.08	24.05	23.99	24.7
1.4	16QAM	3	0	23.91	23.82	23.77	
1.4	16QAM	3	1	23.90	23.89	23.82	
1.4	16QAM	3	3	23.82	23.82	23.74	23.7
1.4	16QAM	6	0	22.86	22.87	22.77	
1.4	64QAM	1	0	22.67	23.00	22.90	
1.4	64QAM	1	3	22.77	23.06	22.97	23.7
1.4	64QAM	1	5	22.74	22.97	22.90	
1.4	64QAM	3	0	22.72	22.94	22.87	
1.4	64QAM	3	1	22.85	22.97	22.95	22.7
1.4	64QAM	3	3	22.78	22.93	22.89	
1.4	64QAM	6	0	21.63	21.80	21.73	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.41	24.40	24.44	25.7
10	QPSK	1	25	24.38	24.43	24.44	
10	QPSK	1	49	24.42	24.55	24.35	
10	QPSK	25	0	23.48	23.56	23.53	24.7
10	QPSK	25	12	23.58	23.55	23.56	
10	QPSK	25	25	23.52	23.59	23.53	
10	QPSK	50	0	23.59	23.53	23.57	24.7
10	16QAM	1	0	23.82	23.81	23.85	
10	16QAM	1	25	23.78	23.82	23.83	
10	16QAM	1	49	23.82	23.89	23.77	23.7
10	16QAM	25	0	22.45	22.58	22.36	
10	16QAM	25	12	22.58	22.57	22.54	
10	16QAM	25	25	22.54	22.58	22.62	23.7
10	16QAM	50	0	22.57	22.55	22.54	
10	64QAM	1	0	22.65	22.63	22.63	23.7
10	64QAM	1	25	22.70	22.73	22.76	
10	64QAM	1	49	22.73	22.41	21.71	
10	64QAM	25	0	21.51	21.58	21.58	22.7
10	64QAM	25	12	21.61	21.62	21.60	
10	64QAM	25	25	21.58	21.60	20.89	
10	64QAM	50	0	21.58	21.59	21.25	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.51	24.52	24.54	25.7
5	QPSK	1	12	24.48	24.49	24.28	
5	QPSK	1	24	24.40	24.49	24.24	
5	QPSK	12	0	23.58	23.61	23.59	24.7
5	QPSK	12	7	23.52	23.62	23.34	
5	QPSK	12	13	23.51	23.57	23.18	
5	QPSK	25	0	23.52	23.55	23.51	24.7
5	16QAM	1	0	23.65	23.82	23.82	
5	16QAM	1	12	23.74	23.82	23.56	
5	16QAM	1	24	23.75	23.83	23.47	23.7
5	16QAM	12	0	22.63	22.57	22.58	
5	16QAM	12	7	22.58	22.63	22.50	
5	16QAM	12	13	22.51	22.58	22.28	23.7
5	16QAM	25	0	22.56	22.59	22.53	
5	64QAM	1	0	22.73	22.77	22.54	
5	64QAM	1	12	22.67	22.75	21.78	22.7
5	64QAM	1	24	22.72	22.60	21.72	
5	64QAM	12	0	21.65	21.66	21.27	
5	64QAM	12	7	21.60	21.67	20.70	22.7
5	64QAM	12	13	21.56	21.62	20.71	
5	64QAM	25	0	21.57	21.60	20.76	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.49	24.48	24.23	25.7
3	QPSK	1	8	24.49	24.54	24.02	
3	QPSK	1	14	24.37	24.47	24.11	
3	QPSK	8	0	23.57	23.57	23.09	24.7
3	QPSK	8	4	23.54	23.61	23.10	
3	QPSK	8	7	23.52	23.59	23.20	
3	QPSK	15	0	23.55	23.52	23.12	24.7
3	16QAM	1	0	23.83	23.78	23.67	
3	16QAM	1	8	23.84	23.87	23.36	
3	16QAM	1	14	23.69	23.79	23.45	23.7
3	16QAM	8	0	22.63	22.62	22.29	
3	16QAM	8	4	22.62	22.72	22.20	
3	16QAM	8	7	22.59	22.66	22.28	23.7
3	16QAM	15	0	22.59	22.59	22.22	
3	64QAM	1	0	22.67	22.74	21.70	
3	64QAM	1	8	22.75	22.77	21.71	22.7
3	64QAM	1	14	22.70	22.52	21.70	
3	64QAM	8	0	21.64	21.62	20.70	
3	64QAM	8	4	21.64	21.65	20.70	22.7
3	64QAM	8	7	21.55	21.64	20.72	
3	64QAM	15	0	21.59	21.62	20.73	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.37	24.39	23.99	25.7
1.4	QPSK	1	3	24.41	24.47	24.17	
1.4	QPSK	1	5	24.32	24.38	24.10	
1.4	QPSK	3	0	24.40	24.41	24.09	24.7
1.4	QPSK	3	1	24.44	24.44	24.15	
1.4	QPSK	3	3	24.39	24.46	24.35	
1.4	QPSK	6	0	23.49	23.54	23.21	24.7
1.4	16QAM	1	0	23.68	23.74	23.32	
1.4	16QAM	1	3	23.72	23.82	23.53	
1.4	16QAM	1	5	23.66	23.76	23.55	23.7
1.4	16QAM	3	0	23.52	23.50	23.10	
1.4	16QAM	3	1	23.56	23.55	23.27	
1.4	16QAM	3	3	23.46	23.52	23.44	23.7
1.4	16QAM	6	0	22.54	22.61	22.31	
1.4	64QAM	1	0	22.62	22.64	21.70	
1.4	64QAM	1	3	22.70	22.73	21.71	23.7
1.4	64QAM	1	5	22.61	22.63	21.70	
1.4	64QAM	3	0	22.62	22.61	21.72	
1.4	64QAM	3	1	22.64	22.65	21.74	22.7
1.4	64QAM	3	3	22.58	22.63	21.73	
1.4	64QAM	6	0	21.49	21.54	20.71	

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	25.7
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	24.80	24.77	24.61	25.7
20	QPSK	1	49	24.86	24.80	24.60	
20	QPSK	1	99	24.98	24.85	24.60	
20	QPSK	50	0	24.01	23.87	23.77	24.7
20	QPSK	50	24	24.04	23.86	23.76	
20	QPSK	50	50	24.03	23.91	23.77	
20	QPSK	100	0	24.04	23.88	23.78	24.7
20	16QAM	1	0	24.13	24.07	23.98	
20	16QAM	1	49	24.21	24.12	23.97	
20	16QAM	1	99	24.29	24.24	23.98	23.7
20	16QAM	50	0	23.00	22.87	22.78	
20	16QAM	50	24	23.03	22.90	22.80	
20	16QAM	50	50	23.05	22.93	22.78	23.7
20	16QAM	100	0	23.01	22.86	22.77	
20	64QAM	1	0	22.96	22.93	22.87	
20	64QAM	1	49	23.07	23.04	22.32	22.7
20	64QAM	1	99	23.12	23.04	22.71	
20	64QAM	50	0	22.02	21.89	21.59	
20	64QAM	50	24	22.07	21.92	21.53	22.7
20	64QAM	50	50	22.09	21.93	21.73	
20	64QAM	100	0	22.05	21.92	21.62	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	24.83	24.76	24.65	25.7
15	QPSK	1	37	24.87	24.79	24.59	
15	QPSK	1	74	24.97	24.87	24.68	
15	QPSK	36	0	23.95	23.84	23.77	24.7
15	QPSK	36	20	24.04	23.90	23.78	
15	QPSK	36	39	24.06	23.91	23.76	
15	QPSK	75	0	24.03	23.89	23.75	24.7
15	16QAM	1	0	24.16	24.11	23.96	
15	16QAM	1	37	24.20	24.19	23.93	
15	16QAM	1	74	24.28	24.22	23.98	23.7
15	16QAM	36	0	22.92	22.84	22.75	
15	16QAM	36	20	23.04	22.88	22.77	
15	16QAM	36	39	23.03	22.91	22.74	23.7
15	16QAM	75	0	23.03	22.91	22.76	
15	64QAM	1	0	23.05	22.95	22.86	
15	64QAM	1	37	23.11	23.07	22.39	22.7
15	64QAM	1	74	23.18	23.03	22.87	
15	64QAM	36	0	21.96	21.89	21.46	
15	64QAM	36	20	22.07	21.93	21.62	22.7
15	64QAM	36	39	22.09	21.98	21.61	
15	64QAM	75	0	22.05	21.89	21.59	
Channel				20900	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	24.79	24.70	24.53	25.7
10	QPSK	1	25	24.77	24.71	24.50	
10	QPSK	1	49	24.86	24.77	24.53	
10	QPSK	25	0	23.94	23.82	23.66	24.7
10	QPSK	25	12	24.00	23.96	23.71	
10	QPSK	25	25	23.99	23.86	23.69	
10	QPSK	50	0	23.98	23.85	23.68	24.7
10	16QAM	1	0	24.17	24.09	23.89	
10	16QAM	1	25	24.15	24.11	23.88	
10	16QAM	1	49	24.24	24.17	23.95	23.7
10	16QAM	25	0	22.86	22.79	22.64	
10	16QAM	25	12	23.02	22.85	22.68	
10	16QAM	25	25	22.98	22.84	22.67	23.7
10	16QAM	50	0	22.98	22.84	22.68	
10	64QAM	1	0	23.07	22.98	22.61	
10	64QAM	1	25	23.10	23.06	22.80	22.7
10	64QAM	1	49	23.15	23.01	22.82	
10	64QAM	25	0	21.99	21.85	21.58	
10	64QAM	25	12	22.03	21.90	21.74	22.7
10	64QAM	25	25	22.05	21.89	21.70	
10	64QAM	50	0	22.01	21.87	21.64	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	24.85	24.72	24.54	25.7
5	QPSK	1	12	24.89	24.81	24.58	
5	QPSK	1	24	24.87	24.82	24.56	
5	QPSK	12	0	23.96	23.85	23.64	24.7
5	QPSK	12	7	23.97	23.92	23.64	
5	QPSK	12	13	23.99	23.96	23.65	
5	QPSK	25	0	23.97	23.85	23.66	24.7
5	16QAM	1	0	24.17	24.05	23.85	
5	16QAM	1	12	24.19	24.10	23.86	
5	16QAM	1	24	24.23	24.15	23.91	23.7
5	16QAM	12	0	23.02	22.90	22.70	
5	16QAM	12	7	23.01	22.91	22.71	
5	16QAM	12	13	23.04	22.96	22.67	23.7
5	16QAM	25	0	23.00	22.86	22.67	
5	64QAM	1	0	23.12	23.03	22.77	
5	64QAM	1	12	23.13	23.03	22.78	22.7
5	64QAM	1	24	23.17	23.09	22.81	
5	64QAM	12	0	22.06	21.90	21.75	
5	64QAM	12	7	22.05	21.98	21.73	22.7
5	64QAM	12	13	22.05	21.96	21.73	
5	64QAM	25	0	22.00	21.89	21.68	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
10	QPSK	1	0	24.72	24.52	24.58	25.7
10	QPSK	1	25	24.54	24.54	24.54	
10	QPSK	1	49	24.66	24.60	24.55	
10	QPSK	25	0	23.67	23.66	23.64	24.7
10	QPSK	25	12	23.75	23.69	23.73	
10	QPSK	25	25	23.73	23.72	23.71	
10	QPSK	50	0	23.76	23.65	23.73	24.7
10	16QAM	1	0	23.97	23.90	23.96	
10	16QAM	1	25	23.96	23.95	23.92	
10	16QAM	1	49	24.02	23.85	23.93	23.7
10	16QAM	25	0	22.67	22.66	22.67	
10	16QAM	25	12	22.76	22.67	22.73	
10	16QAM	25	25	22.69	22.69	22.70	23.7
10	16QAM	50	0	22.76	22.67	22.72	
10	64QAM	1	0	22.79	22.73	22.81	23.7
10	64QAM	1	25	22.86	22.84	22.57	
10	64QAM	1	49	22.94	22.87	22.87	
10	64QAM	25	0	21.72	21.70	21.58	22.7
10	64QAM	25	12	21.80	21.73	21.75	
10	64QAM	25	25	21.75	21.75	21.73	
10	64QAM	50	0	21.78	21.70	21.76	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.61	24.59	24.54	
5	QPSK	1	12	24.62	24.67	24.59	25.7
5	QPSK	1	24	24.61	24.61	24.56	
5	QPSK	12	0	23.73	23.70	23.65	24.7
5	QPSK	12	7	23.73	23.67	23.67	
5	QPSK	12	13	23.67	23.67	23.64	
5	QPSK	25	0	23.71	23.66	23.59	24.7
5	16QAM	1	0	23.96	23.94	23.86	
5	16QAM	1	12	23.93	23.92	23.89	
5	16QAM	1	24	23.94	23.97	23.90	23.7
5	16QAM	12	0	22.76	22.74	22.68	
5	16QAM	12	7	22.76	22.69	22.72	
5	16QAM	12	13	22.71	22.71	22.65	23.7
5	16QAM	25	0	22.74	22.67	22.65	
5	64QAM	1	0	22.74	22.61	22.81	
5	64QAM	1	12	22.84	22.84	22.81	22.7
5	64QAM	1	24	22.76	22.88	22.80	
5	64QAM	12	0	21.80	21.77	21.72	
5	64QAM	12	7	21.76	21.73	21.76	22.7
5	64QAM	12	13	21.77	21.76	21.70	
5	64QAM	25	0	21.74	21.72	21.66	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.71	24.62	24.60	25.7
3	QPSK	1	8	24.66	24.70	24.64	
3	QPSK	1	14	24.62	24.62	24.57	
3	QPSK	8	0	23.74	23.65	23.62	24.7
3	QPSK	8	4	23.72	23.72	23.67	
3	QPSK	8	7	23.70	23.70	23.63	
3	QPSK	15	0	23.73	23.67	23.61	24.7
3	16QAM	1	0	24.04	23.94	23.90	
3	16QAM	1	8	23.97	24.01	23.96	
3	16QAM	1	14	23.93	23.97	23.86	23.7
3	16QAM	8	0	22.80	22.74	22.67	
3	16QAM	8	4	22.80	22.80	22.71	
3	16QAM	8	7	22.75	22.73	22.69	23.7
3	16QAM	15	0	22.76	22.67	22.62	
3	64QAM	1	0	22.82	22.76	22.81	
3	64QAM	1	8	22.96	22.93	22.87	23.7
3	64QAM	1	14	22.88	22.86	22.77	
3	64QAM	8	0	21.80	21.75	21.69	
3	64QAM	8	4	21.80	21.83	21.75	22.7
3	64QAM	8	7	21.73	21.74	21.69	
3	64QAM	15	0	21.77	21.69	21.62	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.60	24.53	24.49	25.7
1.4	QPSK	1	3	24.60	24.60	24.53	
1.4	QPSK	1	5	24.52	24.52	24.43	
1.4	QPSK	3	0	24.62	24.51	24.50	24.7
1.4	QPSK	3	1	24.67	24.55	24.54	
1.4	QPSK	3	3	24.58	24.57	24.47	
1.4	QPSK	6	0	23.67	23.59	23.54	24.7
1.4	16QAM	1	0	23.92	23.85	23.83	
1.4	16QAM	1	3	23.95	23.93	23.88	
1.4	16QAM	1	5	23.86	23.90	23.76	23.7
1.4	16QAM	3	0	23.68	23.62	23.59	
1.4	16QAM	3	1	23.74	23.64	23.63	
1.4	16QAM	3	3	23.65	23.61	23.55	23.7
1.4	16QAM	6	0	22.72	22.65	22.62	
1.4	64QAM	1	0	22.82	22.76	22.75	
1.4	64QAM	1	3	22.88	22.84	22.78	23.7
1.4	64QAM	1	5	22.78	22.77	22.70	
1.4	64QAM	3	0	22.79	22.74	22.74	
1.4	64QAM	3	1	22.83	22.77	22.73	22.7
1.4	64QAM	3	3	22.76	22.76	22.67	
1.4	64QAM	6	0	21.67	21.60	21.59	22.7

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				2320			Tune-up limit (dbm)
Frequency (MHz)				762			
10	QPSK	1	0	23.87			25.2
10	QPSK	1	25	23.85			
10	QPSK	1	49	23.99			
10	QPSK	25	0	22.99			24.2
10	QPSK	25	12	23.00			
10	QPSK	25	25	22.99			
10	QPSK	50	0	23.06			24.2
10	16QAM	1	0	23.19			
10	16QAM	1	25	23.20			
10	16QAM	1	49	23.18			23.2
10	16QAM	25	0	21.95			
10	16QAM	25	12	22.01			
10	16QAM	25	25	21.98			23.2
10	16QAM	50	0	21.97			
10	64QAM	1	0	22.04			
10	64QAM	1	25	22.13			23.2
10	64QAM	1	49	22.10			
10	64QAM	25	0	21.01			
10	64QAM	25	12	21.06			22.2
10	64QAM	25	25	21.02			
10	64QAM	50	0	21.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.78	23.84	23.88	25.2
5	QPSK	1	12	23.88	23.90	23.85	
5	QPSK	1	24	23.88	23.86	23.94	
5	QPSK	12	0	22.94	22.96	22.95	24.2
5	QPSK	12	7	22.99	22.95	22.90	
5	QPSK	12	13	23.00	23.01	22.95	
5	QPSK	25	0	22.99	22.97	22.92	24.2
5	16QAM	1	0	23.08	23.13	23.15	
5	16QAM	1	12	23.15	23.15	23.11	
5	16QAM	1	24	23.22	23.16	23.09	23.2
5	16QAM	12	0	22.02	21.99	21.96	
5	16QAM	12	7	22.05	21.97	21.96	
5	16QAM	12	13	22.02	22.02	22.00	23.2
5	16QAM	25	0	22.05	21.97	21.96	
5	64QAM	1	0	22.00	22.15	22.04	
5	64QAM	1	12	22.13	22.13	22.11	23.2
5	64QAM	1	24	22.13	22.13	22.03	
5	64QAM	12	0	21.10	21.04	21.04	
5	64QAM	12	7	21.07	21.03	20.96	22.2
5	64QAM	12	13	21.04	21.05	21.00	
5	64QAM	25	0	21.04	21.03	20.94	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23330			
Frequency (MHz)				793			
10	QPSK	1	0	24.43			25.7
10	QPSK	1	25	24.53			
10	QPSK	1	49	24.34			
10	QPSK	25	0	23.49			24.7
10	QPSK	25	12	23.47			
10	QPSK	25	25	23.50			
10	QPSK	50	0	23.44			24.7
10	16QAM	1	0	23.82			
10	16QAM	1	25	23.82			
10	16QAM	1	49	23.73			23.7
10	16QAM	25	0	22.48			
10	16QAM	25	12	22.48			
10	16QAM	25	25	22.49			23.7
10	16QAM	50	0	22.45			
10	64QAM	1	0	22.73			
10	64QAM	1	25	22.59			23.7
10	64QAM	1	49	22.62			
10	64QAM	25	0	21.51			
10	64QAM	25	12	21.27			22.7
10	64QAM	25	25	21.52			
10	64QAM	50	0	21.49			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.43	24.39	24.40	25.7
5	QPSK	1	12	24.49	24.50	24.44	
5	QPSK	1	24	24.49	24.41	24.36	
5	QPSK	12	0	23.50	23.48	23.45	24.7
5	QPSK	12	7	23.55	23.54	23.49	
5	QPSK	12	13	23.53	23.50	23.47	
5	QPSK	25	0	23.54	23.48	23.41	24.7
5	16QAM	1	0	23.75	23.73	23.70	
5	16QAM	1	12	23.62	23.60	23.77	
5	16QAM	1	24	23.77	23.76	23.71	23.7
5	16QAM	12	0	22.50	22.53	22.49	
5	16QAM	12	7	22.59	22.55	22.50	
5	16QAM	12	13	22.55	22.53	22.48	23.7
5	16QAM	25	0	22.54	22.50	22.44	
5	64QAM	1	0	22.75	22.62	22.51	
5	64QAM	1	12	22.74	22.25	22.55	23.7
5	64QAM	1	24	22.30	22.27	22.68	
5	64QAM	12	0	21.56	21.32	21.21	
5	64QAM	12	7	21.64	21.19	21.52	22.7
5	64QAM	12	13	21.37	21.18	21.58	
5	64QAM	25	0	21.58	21.15	21.45	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.61	24.54	24.55	25.7
10	QPSK	1	25	24.60	24.59	24.56	
10	QPSK	1	49	24.60	24.70	24.58	
10	QPSK	25	0	23.62	23.62	23.61	24.7
10	QPSK	25	12	23.75	23.96	23.66	
10	QPSK	25	25	23.75	23.75	23.74	
10	QPSK	50	0	23.75	23.66	23.64	
10	16QAM	1	0	23.95	23.94	23.91	24.7
10	16QAM	1	25	23.98	23.99	23.99	
10	16QAM	1	49	23.99	23.99	23.97	
10	16QAM	25	0	22.64	22.61	22.63	23.7
10	16QAM	25	12	22.75	22.70	22.67	
10	16QAM	25	25	22.72	22.75	22.71	
10	16QAM	50	0	22.73	22.66	22.65	
10	64QAM	1	0	22.86	22.80	22.81	23.7
10	64QAM	1	25	22.91	22.90	22.74	
10	64QAM	1	49	22.90	22.89	22.81	
10	64QAM	25	0	21.66	21.67	21.66	22.7
10	64QAM	25	12	21.80	21.74	21.72	
10	64QAM	25	25	21.79	21.78	21.75	
10	64QAM	50	0	21.78	21.71	21.69	
Channel				23785	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.54	24.58	24.56	25.7
5	QPSK	1	12	24.64	24.69	24.64	
5	QPSK	1	24	24.67	24.67	24.64	
5	QPSK	12	0	23.67	23.67	23.64	24.7
5	QPSK	12	7	23.71	23.73	23.71	
5	QPSK	12	13	23.74	23.74	23.69	
5	QPSK	25	0	23.74	23.69	23.67	
5	16QAM	1	0	23.90	23.89	23.87	24.7
5	16QAM	1	12	23.94	23.97	23.90	
5	16QAM	1	24	23.98	23.99	23.93	
5	16QAM	12	0	22.69	22.69	22.69	23.7
5	16QAM	12	7	22.72	22.71	22.70	
5	16QAM	12	13	22.76	22.74	22.68	
5	16QAM	25	0	22.73	22.71	22.72	23.7
5	64QAM	1	0	22.67	22.59	22.83	
5	64QAM	1	12	22.86	22.77	22.82	
5	64QAM	1	24	22.88	22.84	22.82	
5	64QAM	12	0	21.74	21.71	21.70	22.7
5	64QAM	12	7	21.78	21.76	21.76	
5	64QAM	12	13	21.78	21.82	21.74	
5	64QAM	25	0	21.74	21.70	21.72	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / 1800	Power Middle Ch. / 26340	Power High Ch. / 26590	Tune-up limit (dBm)
Channel				1800	1800	1800	
Frequency (MHz)				26140	26340	26590	
20	QPSK	1	0	24.48	24.39	24.25	25.7
20	QPSK	1	49	24.31	24.32	24.26	
20	QPSK	1	99	24.35	24.32	24.04	
20	QPSK	50	0	23.46	23.45	23.35	24.7
20	QPSK	50	24	23.54	23.52	23.39	
20	QPSK	50	50	23.49	23.50	23.44	
20	QPSK	100	0	23.55	23.52	23.38	
20	16QAM	1	0	23.70	23.72	23.63	24.7
20	16QAM	1	49	23.71	23.70	23.59	
20	16QAM	1	99	23.64	23.73	23.41	
20	16QAM	50	0	22.47	22.47	22.38	23.7
20	16QAM	50	24	22.55	22.54	22.38	
20	16QAM	50	50	22.51	22.52	22.46	
20	16QAM	100	0	22.52	22.53	22.36	
20	64QAM	1	0	22.56	22.54	22.24	23.7
20	64QAM	1	49	22.60	22.52	22.06	
20	64QAM	1	99	22.17	22.53	21.71	
20	64QAM	50	0	21.51	21.46	20.89	22.7
20	64QAM	50	24	21.59	21.57	21.22	
20	64QAM	50	50	21.37	21.54	21.24	
20	64QAM	100	0	21.53	21.57	20.88	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	24.39	24.41	24.28	25.7
15	QPSK	1	37	24.36	24.37	24.28	
15	QPSK	1	74	24.36	24.41	24.14	
15	QPSK	36	0	23.55	23.49	23.34	24.7
15	QPSK	36	20	23.54	23.55	23.46	
15	QPSK	36	39	23.47	23.49	23.43	
15	QPSK	75	0	23.52	23.52	23.43	24.7
15	16QAM	1	0	23.64	23.70	23.60	
15	16QAM	1	37	23.67	23.65	23.58	
15	16QAM	1	74	23.67	23.70	23.51	
15	16QAM	36	0	22.56	22.47	22.38	23.7
15	16QAM	36	20	22.53	22.55	22.44	
15	16QAM	36	39	22.48	22.51	22.43	
15	16QAM	75	0	22.52	22.53	22.46	23.7
15	64QAM	1	0	22.56	22.57	21.90	
15	64QAM	1	37	22.59	22.64	22.50	
15	64QAM	1	74	22.48	22.62	21.72	
15	64QAM	36	0	21.58	21.51	21.22	22.7
15	64QAM	36	20	21.61	21.57	21.48	
15	64QAM	36	39	21.55	21.55	21.22	
15	64QAM	75	0	21.55	21.54	21.02	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	24.35	24.37	24.23	25.7
10	QPSK	1	25	24.31	24.32	24.27	
10	QPSK	1	49	24.40	24.39	24.06	
10	QPSK	25	0	23.44	23.46	23.31	24.7
10	QPSK	25	12	23.49	23.48	23.43	
10	QPSK	25	25	23.49	23.49	23.47	
10	QPSK	50	0	23.49	23.49	23.35	
10	16QAM	1	0	23.72	23.74	23.61	24.7
10	16QAM	1	25	23.73	23.73	23.67	
10	16QAM	1	49	23.76	23.78	23.51	
10	16QAM	25	0	22.47	22.49	22.34	23.7
10	16QAM	25	12	22.52	22.50	22.42	
10	16QAM	25	25	22.44	22.51	22.47	
10	16QAM	50	0	22.49	22.51	22.32	
10	64QAM	1	0	22.65	22.56	22.44	23.7
10	64QAM	1	25	22.65	22.65	22.56	
10	64QAM	1	49	22.68	22.66	21.72	
10	64QAM	25	0	21.48	21.51	21.34	22.7
10	64QAM	25	12	21.55	21.55	21.47	
10	64QAM	25	25	21.51	21.53	20.98	
10	64QAM	50	0	21.49	21.54	21.06	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	24.38	24.31	24.25	25.7
5	QPSK	1	12	24.39	24.39	24.35	
5	QPSK	1	24	24.41	24.41	23.96	
5	QPSK	12	0	23.42	23.44	23.32	24.7
5	QPSK	12	7	23.46	23.51	23.42	
5	QPSK	12	13	23.52	23.54	23.20	
5	QPSK	25	0	23.47	23.45	23.40	
5	16QAM	1	0	23.72	23.65	23.64	24.7
5	16QAM	1	12	23.68	23.72	23.58	
5	16QAM	1	24	23.71	23.73	23.37	
5	16QAM	12	0	22.45	22.46	22.33	23.7
5	16QAM	12	7	22.51	22.52	22.43	
5	16QAM	12	13	22.52	22.53	22.40	
5	16QAM	25	0	22.50	22.51	22.37	
5	64QAM	1	0	22.62	22.57	22.36	23.7
5	64QAM	1	12	22.56	22.59	22.01	
5	64QAM	1	24	22.62	22.63	21.70	
5	64QAM	12	0	21.49	21.51	21.29	22.7
5	64QAM	12	7	21.57	21.56	21.02	
5	64QAM	12	13	21.57	21.62	20.64	
5	64QAM	25	0	21.49	21.52	20.85	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.31	24.26	24.27	25.7
3	QPSK	1	8	24.47	24.45	24.21	
3	QPSK	1	14	24.46	24.45	23.91	
3	QPSK	8	0	23.41	23.45	23.34	24.7
3	QPSK	8	4	23.46	23.52	23.33	
3	QPSK	8	7	23.46	23.54	23.14	
3	QPSK	15	0	23.47	23.46	23.27	
3	16QAM	1	0	23.64	23.61	23.53	24.7
3	16QAM	1	8	23.77	23.82	23.46	
3	16QAM	1	14	23.76	23.83	23.21	
3	16QAM	8	0	22.48	22.49	22.39	23.7
3	16QAM	8	4	22.55	22.59	22.47	
3	16QAM	8	7	22.56	22.55	22.34	
3	16QAM	15	0	22.50	22.53	22.41	
3	64QAM	1	0	22.55	22.51	21.93	23.7
3	64QAM	1	8	22.68	22.71	22.68	
3	64QAM	1	14	22.68	22.70	22.36	
3	64QAM	8	0	21.49	21.52	20.81	22.7
3	64QAM	8	4	21.57	21.61	20.71	
3	64QAM	8	7	21.56	21.59	20.56	
3	64QAM	15	0	21.52	21.52	20.70	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.30	24.31	24.07	25.7
1.4	QPSK	1	3	24.40	24.43	24.00	
1.4	QPSK	1	5	24.37	24.36	23.87	
1.4	QPSK	3	0	24.35	24.37	24.02	24.7
1.4	QPSK	3	1	24.38	24.40	24.03	
1.4	QPSK	3	3	24.38	24.37	23.89	
1.4	QPSK	6	0	23.42	23.42	23.10	
1.4	16QAM	1	0	23.62	23.62	23.37	24.7
1.4	16QAM	1	3	23.71	23.73	23.31	
1.4	16QAM	1	5	23.89	23.70	23.21	
1.4	16QAM	3	0	23.41	23.43	23.20	23.7
1.4	16QAM	3	1	23.47	23.50	23.20	
1.4	16QAM	3	3	23.44	23.49	23.09	
1.4	16QAM	6	0	22.47	22.51	22.27	
1.4	64QAM	1	0	22.53	22.57	22.47	23.7
1.4	64QAM	1	3	22.61	22.68	22.43	
1.4	64QAM	1	5	22.57	22.61	22.31	
1.4	64QAM	3	0	22.50	22.55	22.46	
1.4	64QAM	3	1	22.57	22.61	22.59	22.7
1.4	64QAM	3	3	22.57	22.60	22.39	
1.4	64QAM	6	0	21.42	21.43	21.45	



Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26969	Tune-up limit (dBm)
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.41	24.33	24.38	25.7
15	QPSK	1	37	24.28	24.36	24.35	
15	QPSK	1	74	24.37	24.59	24.29	
15	QPSK	36	0	23.45	23.46	23.48	
15	QPSK	36	20	23.52	23.46	23.44	24.7
15	QPSK	36	39	23.45	23.50	23.44	
15	QPSK	75	0	23.52	23.46	23.44	
15	16QAM	1	0	23.71	23.68	23.71	
15	16QAM	1	37	23.63	23.69	23.69	24.7
15	16QAM	1	74	23.70	23.72	23.62	
15	16QAM	36	0	22.47	22.51	22.51	
15	16QAM	36	20	22.51	22.45	22.45	
15	16QAM	36	39	22.47	22.52	22.47	23.7
15	16QAM	75	0	22.53	22.49	22.50	
15	64QAM	1	0	22.58	22.51	22.50	
15	64QAM	1	37	22.54	22.63	22.58	
15	64QAM	1	74	22.58	22.59	21.79	22.7
15	64QAM	36	0	21.51	21.53	21.54	
15	64QAM	36	20	21.55	21.50	21.50	
15	64QAM	36	39	21.50	21.61	21.59	
15	64QAM	75	0	21.54	21.49	21.50	Tune-up limit (dBm)
Channel				26740	26965	26990	
Frequency (MHz)				819	831.5	844	Tune-up limit (dBm)
10	QPSK	1	0	24.49	24.42	24.48	
10	QPSK	1	25	24.35	24.38	24.40	25.7
10	QPSK	1	49	24.42	24.43	24.37	
10	QPSK	25	0	23.57	23.48	23.51	
10	QPSK	25	12	23.57	23.50	23.53	
10	QPSK	25	25	23.48	23.53	23.54	24.7
10	QPSK	50	0	23.54	23.49	23.49	
10	16QAM	1	0	23.68	23.77	23.88	
10	16QAM	1	25	23.75	23.81	23.80	
10	16QAM	1	49	23.80	23.79	23.75	23.7
10	16QAM	25	0	22.56	22.49	22.51	
10	16QAM	25	12	22.56	22.50	22.51	
10	16QAM	25	25	22.45	22.54	22.47	
10	64QAM	50	0	22.53	22.46	22.47	23.7
10	64QAM	1	0	22.51	22.65	22.72	
10	64QAM	1	25	22.70	22.73	22.75	
10	64QAM	1	49	22.73	22.74	22.16	
10	64QAM	25	0	21.61	21.56	21.55	22.7
10	64QAM	25	12	21.61	21.55	21.58	
10	64QAM	25	25	21.53	21.56	21.40	
10	64QAM	50	0	21.58	21.52	21.52	
Channel				26715	26965	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.58	24.40	24.49	25.7
5	QPSK	1	12	24.54	24.46	24.46	
5	QPSK	1	24	24.39	24.49	24.40	
5	QPSK	12	0	23.62	23.52	23.56	
5	QPSK	12	7	23.62	23.58	23.52	24.7
5	QPSK	12	13	23.53	23.53	23.43	
5	QPSK	25	0	23.59	23.49	23.50	
5	16QAM	1	0	23.92	23.77	23.81	
5	16QAM	1	12	23.80	23.76	23.69	24.7
5	16QAM	1	24	23.73	23.83	23.69	
5	16QAM	12	0	22.65	22.55	22.52	
5	16QAM	12	7	22.59	22.61	22.52	
5	16QAM	12	13	22.53	22.50	22.45	23.7
5	16QAM	25	0	22.58	22.51	22.54	
5	64QAM	1	0	22.82	22.72	22.70	
5	64QAM	1	12	22.71	22.66	22.03	
5	64QAM	1	24	22.64	22.67	21.90	22.7
5	64QAM	12	0	21.71	21.62	21.61	
5	64QAM	12	7	21.70	21.64	21.03	
5	64QAM	12	13	21.61	21.61	20.72	
5	64QAM	25	0	21.62	21.52	21.16	Tune-up limit (dBm)
Channel				26705	26965	27025	
Frequency (MHz)				815.5	831.5	847.5	Tune-up limit (dBm)
3	QPSK	1	0	24.56	24.45	24.47	
3	QPSK	1	8	24.58	24.54	24.36	25.7
3	QPSK	1	14	24.46	24.51	24.41	
3	QPSK	8	0	23.63	23.52	23.41	
3	QPSK	8	4	23.65	23.60	23.40	
3	QPSK	8	7	23.57	23.50	23.44	24.7
3	QPSK	15	0	23.57	23.51	23.43	
3	16QAM	1	0	23.92	23.76	23.76	
3	16QAM	1	8	23.92	23.83	23.59	
3	16QAM	1	14	23.77	23.84	23.70	23.7
3	16QAM	8	0	22.69	22.61	22.55	
3	16QAM	8	4	22.66	22.64	22.51	
3	16QAM	8	7	22.60	22.58	22.49	
3	16QAM	15	0	22.64	22.53	22.49	23.7
3	64QAM	1	0	22.78	22.67	22.05	
3	64QAM	1	8	22.79	22.75	21.73	
3	64QAM	1	14	22.66	22.69	21.83	
3	64QAM	8	0	21.72	21.58	20.80	22.7
3	64QAM	8	4	21.72	21.68	20.67	
3	64QAM	8	7	21.63	21.59	20.74	
3	64QAM	15	0	21.63	21.55	20.78	
Channel				26997	26965	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.48	24.36	24.32	25.7
1.4	QPSK	1	3	24.52	24.47	24.34	
1.4	QPSK	1	5	24.44	24.38	24.24	
1.4	QPSK	3	0	24.50	24.39	24.33	
1.4	QPSK	3	1	24.51	24.40	24.37	24.7
1.4	QPSK	3	3	24.47	24.41	24.35	
1.4	QPSK	6	0	23.54	23.48	23.37	
1.4	16QAM	1	0	23.87	23.69	23.60	
1.4	16QAM	1	3	23.87	23.77	23.68	24.7
1.4	16QAM	1	5	23.79	23.71	23.60	
1.4	16QAM	3	0	23.69	23.45	23.37	
1.4	16QAM	3	1	23.71	23.51	23.45	
1.4	16QAM	3	3	23.66	23.47	23.35	23.7
1.4	16QAM	6	0	22.61	22.57	22.47	
1.4	64QAM	1	0	22.84	22.58	21.71	
1.4	64QAM	1	3	22.82	22.68	21.82	
1.4	64QAM	1	5	22.78	22.59	21.87	23.7
1.4	64QAM	3	0	22.73	22.57	21.72	
1.4	64QAM	3	1	22.74	22.64	21.75	
1.4	64QAM	3	3	22.69	22.60	21.88	
1.4	64QAM	6	0	21.59	21.49	20.73	22.7

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				2771.0	2771.0	2771.0	23.7
Frequency (MHz)				231.0			
10	QPSK	1	0		22.93		23.7
10	QPSK	1	25		22.81		
10	QPSK	1	49		22.83		
10	QPSK	25	0		21.86		22.7
10	QPSK	25	12		21.92		
10	QPSK	25	25		21.94		
10	QPSK	50	0		21.92		22.7
10	16QAM	1	0		22.22		
10	16QAM	1	25		22.21		
10	16QAM	1	49		22.22		21.7
10	16QAM	25	0		20.86		
10	16QAM	25	12		20.95		
10	16QAM	25	25		20.89		21.7
10	16QAM	50	0		20.93		
10	64QAM	1	0		21.09		
10	64QAM	1	25		21.16		21.7
10	64QAM	1	49		21.08		
10	64QAM	25	0		19.94		
10	64QAM	25	12		19.99		20.7
10	64QAM	25	25		19.99		
10	64QAM	50	0		19.96		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.77	22.78	22.83	23.7
5	QPSK	1	12	22.90	22.85	22.92	
5	QPSK	1	24	22.90	22.88	22.84	
5	QPSK	12	0	21.90	21.89	21.92	22.7
5	QPSK	12	7	22.01	21.95	21.97	
5	QPSK	12	13	22.00	21.94	21.90	
5	QPSK	25	0	21.95	21.92	21.94	22.7
5	16QAM	1	0	22.12	22.12	22.16	
5	16QAM	1	12	22.22	22.21	22.19	
5	16QAM	1	24	22.24	22.22	22.17	21.7
5	16QAM	12	0	20.92	20.93	20.95	
5	16QAM	12	7	20.98	20.97	21.00	
5	16QAM	12	13	21.00	20.95	20.94	21.7
5	16QAM	25	0	20.99	20.92	20.95	
5	64QAM	1	0	21.05	21.07	21.16	
5	64QAM	1	12	21.09	21.12	21.12	21.7
5	64QAM	1	24	21.21	21.13	21.09	
5	64QAM	12	0	19.97	19.97	20.01	
5	64QAM	12	7	20.06	20.00	20.04	20.7
5	64QAM	12	13	20.08	20.01	19.95	
5	64QAM	25	0	20.01	19.96	19.96	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.69	24.76	24.56	25.7
20	QPSK	1	49	24.51	24.51	24.44	
20	QPSK	1	99	24.63	24.52	24.41	
20	QPSK	50	0	23.70	23.68	23.64	24.7
20	QPSK	50	24	23.77	23.65	23.66	
20	QPSK	50	50	23.75	23.68	23.64	
20	QPSK	100	0	23.76	23.70	23.72	24.7
20	16QAM	1	0	24.02	23.99	23.90	
20	16QAM	1	49	23.90	23.82	23.78	
20	16QAM	1	99	23.98	23.83	23.75	23.7
20	16QAM	50	0	22.69	22.69	22.67	
20	16QAM	50	24	22.77	22.65	22.71	
20	16QAM	50	50	22.78	22.69	22.67	23.7
20	16QAM	100	0	22.76	22.70	22.74	
20	64QAM	1	0	22.85	22.87	22.77	
20	64QAM	1	49	22.77	22.71	22.70	23.7
20	64QAM	1	99	22.87	22.82	22.66	
20	64QAM	50	0	21.72	21.69	21.69	
20	64QAM	50	24	21.79	21.65	21.72	22.7
20	64QAM	50	50	21.78	21.70	21.67	
20	64QAM	100	0	21.82	21.72	21.72	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	24.64	24.61	24.57	25.7
15	QPSK	1	37	24.55	24.51	24.49	
15	QPSK	1	74	24.69	24.60	24.50	
15	QPSK	36	0	23.66	23.69	23.64	24.7
15	QPSK	36	20	23.72	23.73	23.67	
15	QPSK	36	39	23.76	23.70	23.68	
15	QPSK	75	0	23.78	23.72	23.62	24.7
15	16QAM	1	0	23.63	23.96	23.90	
15	16QAM	1	37	23.89	23.83	23.84	
15	16QAM	1	74	23.97	23.88	23.75	23.7
15	16QAM	36	0	22.69	22.69	22.64	
15	16QAM	36	20	22.74	22.72	22.68	
15	16QAM	36	39	22.76	22.70	22.67	23.7
15	16QAM	75	0	22.76	22.74	22.61	
15	64QAM	1	0	22.82	22.80	22.76	
15	64QAM	1	37	22.84	22.80	22.69	23.7
15	64QAM	1	74	22.83	22.83	22.70	
15	64QAM	36	0	21.70	21.68	21.69	
15	64QAM	36	20	21.78	21.74	21.70	22.7
15	64QAM	36	39	21.78	21.70	21.67	
15	64QAM	75	0	21.77	21.72	21.64	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.66	24.58	24.61	25.7
10	QPSK	1	25	24.61	24.56	24.56	
10	QPSK	1	49	24.63	24.60	24.58	
10	QPSK	25	0	23.74	23.66	23.64	24.7
10	QPSK	25	12	23.76	23.75	23.64	
10	QPSK	25	25	23.75	23.72	23.68	
10	QPSK	50	0	23.76	23.73	23.64	24.7
10	16QAM	1	0	24.07	24.01	23.99	
10	16QAM	1	25	23.99	23.95	23.97	
10	16QAM	1	49	24.09	23.97	23.98	23.7
10	16QAM	25	0	22.76	22.66	22.63	
10	16QAM	25	12	22.79	22.74	22.66	
10	16QAM	25	25	22.74	22.69	22.69	23.7
10	16QAM	50	0	22.77	22.73	22.64	
10	64QAM	1	0	22.95	22.87	22.82	
10	64QAM	1	25	22.96	22.90	22.89	23.7
10	64QAM	1	49	22.93	22.89	22.85	
10	64QAM	25	0	21.77	21.69	21.67	
10	64QAM	25	12	21.80	21.77	21.67	22.7
10	64QAM	25	25	21.76	21.72	21.74	
10	64QAM	50	0	21.81	21.77	21.65	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	24.64	24.60	24.61	25.7
5	QPSK	1	12	24.70	24.65	24.63	
5	QPSK	1	24	24.66	24.62	24.58	
5	QPSK	12	0	23.74	23.64	23.68	24.7
5	QPSK	12	7	23.77	23.73	23.72	
5	QPSK	12	13	23.72	23.72	23.69	
5	QPSK	25	0	23.72	23.68	23.67	24.7
5	16QAM	1	0	23.99	23.93	23.92	
5	16QAM	1	12	24.01	23.97	23.95	
5	16QAM	1	24	23.98	23.94	23.88	23.7
5	16QAM	12	0	22.78	22.67	22.71	
5	16QAM	12	7	22.81	22.79	22.74	
5	16QAM	12	13	22.76	22.72	22.71	23.7
5	16QAM	25	0	22.76	22.72	22.71	
5	64QAM	1	0	22.92	22.85	22.82	
5	64QAM	1	12	22.94	22.89	22.87	23.7
5	64QAM	1	24	22.96	22.87	22.82	
5	64QAM	12	0	21.84	21.73	21.76	
5	64QAM	12	7	21.81	21.79	21.79	22.7
5	64QAM	12	13	21.83	21.74	21.76	
5	64QAM	25	0	21.77	21.75	21.69	
Channel				131967	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	24.68	24.61	24.60	25.7
3	QPSK	1	8	24.75	24.68	24.67	
3	QPSK	1	14	24.67	24.62	24.59	
3	QPSK	8	0	23.77	23.67	23.70	24.7
3	QPSK	8	4	23.79	23.75	23.69	
3	QPSK	8	7	23.78	23.70	23.69	
3	QPSK	15	0	23.74	23.72	23.66	24.7
3	16QAM	1	0	24.01	23.89	23.93	
3	16QAM	1	8	24.11	24.05	23.99	
3	16QAM	1	14	24.02	23.97	23.96	23.7
3	16QAM	8	0	22.82	22.71	22.75	
3	16QAM	8	4	22.84	22.78	22.78	
3	16QAM	8	7	22.80	22.79	22.76	23.7
3	16QAM	15	0	22.80	22.75	22.73	
3	64QAM	1	0	22.94	22.88	22.90	
3	64QAM	1	8	23.04	22.99	22.95	23.7
3	64QAM	1	14	22.97	22.92	22.86	
3	64QAM	8	0	21.81	21.73	21.72	
3	64QAM	8	4	21.86	21.82	21.76	22.7
3	64QAM	8	7	21.82	21.77	21.74	
3	64QAM	15	0	21.78	21.74	21.74	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	24.61	24.56	24.54	25.7
1.4	QPSK	1	3	24.68	24.62	24.62	
1.4	QPSK	1	5	24.59	24.58	24.54	
1.4	QPSK	3	0	24.63	24.64	24.60	24.7
1.4	QPSK	3	1	24.70	24.69	24.63	
1.4	QPSK	3	3	24.65	24.61	24.58	
1.4	QPSK	6	0	23.72	23.66	23.67	24.7
1.4	16QAM	1	0	23.95	23.90	23.89	
1.4	16QAM	1	3	24.01	23.97	23.95	
1.4	16QAM	1	5	23.93	23.90	23.87	24.7
1.4	16QAM	3	0	23.76	23.75	23.69	
1.4	16QAM	3	1	23.80	23.76	23.75	
1.4	16QAM	3	3	23.72	23.69	23.66	23.7
1.4	16QAM	6	0	22.77	22.75	22.74	
1.4	64QAM	1	0	22.85	22.86	22.83	
1.4	64QAM	1	3	22.98	22.91	22.92	23.7
1.4	64QAM	1	5	22.87	22.84	22.79	
1.4	64QAM	3	0	22.84	22.84	22.79	
1.4	64QAM	3	1	22.89	22.86	22.86	22.7
1.4	64QAM	3	3	22.84	22.82	22.78	
1.4	64QAM	6	0	21.75	21.69	21.66	

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.77	24.65	24.66	25.7
20	QPSK	1	49	24.61	24.63	24.60	
20	QPSK	1	99	24.64	24.61	24.56	
20	QPSK	50	0	23.80	23.72	23.74	24.7
20	QPSK	50	24	23.63	23.75	23.70	
20	QPSK	50	50	23.82	23.75	23.71	
20	QPSK	100	0	23.81	23.72	23.76	24.7
20	16QAM	1	0	24.08	24.00	24.00	
20	16QAM	1	49	23.97	23.94	23.94	
20	16QAM	1	99	23.97	23.82	23.89	23.7
20	16QAM	50	0	22.80	22.73	22.75	
20	16QAM	50	24	22.82	22.74	22.72	
20	16QAM	50	50	22.79	22.75	22.72	23.7
20	16QAM	100	0	22.81	22.70	22.78	
20	64QAM	1	0	22.14	22.65	22.86	23.7
20	64QAM	1	49	22.64	22.85	22.15	
20	64QAM	1	99	22.85	22.34	22.79	
20	64QAM	50	0	20.83	21.73	21.42	22.7
20	64QAM	50	24	21.26	21.74	21.57	
20	64QAM	50	50	21.82	21.38	21.75	
20	64QAM	100	0	21.41	21.75	21.80	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.76	24.66	24.65	25.7
15	QPSK	1	37	24.57	24.58	24.58	
15	QPSK	1	74	24.60	24.59	24.55	
15	QPSK	36	0	23.74	23.71	23.71	24.7
15	QPSK	36	20	23.78	23.72	23.76	
15	QPSK	36	39	23.78	23.73	23.69	
15	QPSK	75	0	23.77	23.71	23.66	24.7
15	16QAM	1	0	24.05	24.00	23.94	
15	16QAM	1	37	23.79	23.96	23.91	
15	16QAM	1	74	23.89	23.93	23.88	23.7
15	16QAM	36	0	22.67	22.72	22.70	
15	16QAM	36	20	22.73	22.72	22.75	
15	16QAM	36	39	22.78	22.73	22.72	23.7
15	16QAM	75	0	22.80	22.69	22.67	
15	64QAM	1	0	21.68	22.75	22.77	
15	64QAM	1	37	21.71	22.88	22.85	23.7
15	64QAM	1	74	22.79	22.58	22.81	
15	64QAM	36	0	20.76	21.74	21.35	
15	64QAM	36	20	20.76	21.76	21.78	22.7
15	64QAM	36	39	21.33	21.33	21.75	
15	64QAM	75	0	21.23	21.72	21.67	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.69	24.59	24.64	25.7
10	QPSK	1	25	24.54	24.52	24.52	
10	QPSK	1	49	24.57	24.61	24.50	
10	QPSK	25	0	23.75	23.67	23.65	24.7
10	QPSK	25	12	23.74	23.77	23.63	
10	QPSK	25	25	23.65	23.72	23.68	
10	QPSK	50	0	23.76	23.75	23.65	24.7
10	16QAM	1	0	24.05	23.96	24.02	
10	16QAM	1	25	23.94	23.95	23.94	
10	16QAM	1	49	23.94	23.99	23.86	23.7
10	16QAM	25	0	22.62	22.67	22.64	
10	16QAM	25	12	22.61	22.76	22.65	
10	16QAM	25	25	22.53	22.71	22.65	23.7
10	16QAM	50	0	22.74	22.75	22.62	
10	64QAM	1	0	21.92	22.22	22.83	
10	64QAM	1	25	21.85	22.86	22.85	23.7
10	64QAM	1	49	21.99	22.86	22.46	
10	64QAM	25	0	20.70	21.69	21.89	
10	64QAM	25	12	20.71	21.78	21.69	22.7
10	64QAM	25	25	20.72	21.75	21.67	
10	64QAM	50	0	20.71	21.73	21.65	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.43	24.62	24.62	25.7
5	QPSK	1	12	24.65	24.59	24.58	
5	QPSK	1	24	24.56	24.58	24.54	
5	QPSK	12	0	23.66	23.70	23.65	24.7
5	QPSK	12	7	23.68	23.72	23.68	
5	QPSK	12	13	23.70	23.70	23.61	
5	QPSK	25	0	23.67	23.69	23.61	24.7
5	16QAM	1	0	23.83	23.95	23.93	
5	16QAM	1	12	23.88	23.93	23.89	
5	16QAM	1	24	23.85	23.91	23.83	23.7
5	16QAM	12	0	22.51	22.75	22.73	
5	16QAM	12	7	22.66	22.76	22.71	
5	16QAM	12	13	22.73	22.70	22.63	23.7
5	16QAM	25	0	22.58	22.74	22.62	
5	64QAM	1	0	21.70	21.99	22.87	
5	64QAM	1	12	21.71	22.90	22.78	23.7
5	64QAM	1	24	21.85	22.88	22.23	
5	64QAM	12	0	20.72	21.54	21.72	
5	64QAM	12	7	20.83	21.77	21.75	22.7
5	64QAM	12	13	20.78	21.74	21.61	
5	64QAM	25	0	20.64	21.51	21.57	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				1870.0	1890.0	1910.0	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.30	24.14	24.18	25.7
20	QPSK	1	49	24.12	24.11	24.11	
20	QPSK	1	99	24.12	24.12	24.14	
20	QPSK	50	0	23.24	23.19	23.17	24.7
20	QPSK	50	24	23.34	23.29	23.20	
20	QPSK	50	50	23.31	23.28	23.28	
20	QPSK	100	0	23.33	23.28	23.20	24.7
20	16QAM	1	0	23.51	23.49	23.51	
20	16QAM	1	49	23.47	23.47	23.45	
20	16QAM	1	99	23.44	23.48	23.49	23.7
20	16QAM	50	0	22.24	22.21	22.21	
20	16QAM	50	24	22.34	22.30	22.21	
20	16QAM	50	50	22.33	22.31	22.31	23.7
20	16QAM	100	0	22.31	22.29	22.20	
20	64QAM	1	0	22.39	22.35	22.33	
20	64QAM	1	49	22.39	22.33	21.77	22.7
20	64QAM	1	99	22.35	22.32	21.96	
20	64QAM	50	0	21.26	21.23	21.06	
20	64QAM	50	24	21.34	21.32	20.95	22.7
20	64QAM	50	50	21.34	21.31	20.94	
20	64QAM	100	0	21.33	21.30	20.98	
Channel				1867.5	1890.0	1912.5	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	24.20	24.19	24.20	25.7
15	QPSK	1	37	24.18	24.17	24.14	
15	QPSK	1	74	24.20	24.20	24.21	
15	QPSK	36	0	23.34	23.21	23.19	24.7
15	QPSK	36	20	23.36	23.35	23.23	
15	QPSK	36	39	23.32	23.33	23.32	
15	QPSK	75	0	23.35	23.31	23.20	24.7
15	16QAM	1	0	23.49	23.53	23.48	
15	16QAM	1	37	23.47	23.50	23.45	
15	16QAM	1	74	23.53	23.50	23.48	23.7
15	16QAM	36	0	22.33	22.21	22.19	
15	16QAM	36	20	22.36	22.32	22.22	
15	16QAM	36	39	22.34	22.35	22.32	23.7
15	16QAM	75	0	22.35	22.34	22.20	
15	64QAM	1	0	22.41	22.38	22.01	
15	64QAM	1	37	22.44	22.43	21.76	22.7
15	64QAM	1	74	22.43	22.43	21.91	
15	64QAM	36	0	21.35	21.25	20.82	
15	64QAM	36	20	21.38	21.35	20.90	22.7
15	64QAM	36	39	21.40	21.39	20.95	
15	64QAM	75	0	21.36	21.32	20.82	
Channel				1855.0	1890.0	1915.0	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	24.22	24.09	24.14	25.7
10	QPSK	1	25	24.12	24.14	24.12	
10	QPSK	1	49	24.17	24.18	24.18	
10	QPSK	25	0	23.34	23.22	23.20	24.7
10	QPSK	25	12	23.36	23.34	23.24	
10	QPSK	25	25	23.37	23.34	23.34	
10	QPSK	50	0	23.35	23.33	23.25	24.7
10	16QAM	1	0	23.67	23.50	23.49	
10	16QAM	1	25	23.64	23.53	23.56	
10	16QAM	1	49	23.56	23.53	23.51	23.7
10	16QAM	25	0	22.34	22.23	22.16	
10	16QAM	25	12	22.36	22.34	22.25	
10	16QAM	25	25	22.32	22.34	22.32	23.7
10	16QAM	50	0	22.36	22.33	22.22	
10	64QAM	1	0	22.47	22.37	21.92	
10	64QAM	1	25	22.44	22.46	22.04	22.7
10	64QAM	1	49	22.45	22.47	22.01	
10	64QAM	25	0	21.36	21.25	20.92	
10	64QAM	25	12	21.44	21.37	21.00	22.7
10	64QAM	25	25	21.39	21.38	20.90	
10	64QAM	50	0	21.36	21.33	20.81	
Channel				1862.5	1890.0	1917.5	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	24.17	24.11	24.13	25.7
5	QPSK	1	12	24.23	24.22	24.23	
5	QPSK	1	24	24.22	24.20	24.19	
5	QPSK	12	0	23.30	23.20	23.27	24.7
5	QPSK	12	7	23.38	23.34	23.29	
5	QPSK	12	13	23.33	23.32	23.29	
5	QPSK	25	0	23.33	23.29	23.26	24.7
5	16QAM	1	0	23.50	23.39	23.46	
5	16QAM	1	12	23.50	23.48	23.46	
5	16QAM	1	24	23.55	23.52	23.48	23.7
5	16QAM	12	0	22.37	22.25	22.27	
5	16QAM	12	7	22.39	22.35	22.35	
5	16QAM	12	13	22.34	22.33	22.31	23.7
5	16QAM	25	0	22.36	22.34	22.27	
5	64QAM	1	0	22.50	22.38	21.91	
5	64QAM	1	12	22.45	22.44	21.98	22.7
5	64QAM	1	24	22.46	22.48	21.87	
5	64QAM	12	0	21.39	21.31	20.93	
5	64QAM	12	7	21.43	21.41	20.98	22.7
5	64QAM	12	13	21.41	21.40	20.92	
5	64QAM	25	0	21.38	21.35	20.98	
Channel				1851.5	1890.0	1916.5	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	24.21	24.16	24.14	25.7
3	QPSK	1	8	24.28	24.27	24.22	
3	QPSK	1	14	24.25	24.22	24.17	
3	QPSK	8	0	23.34	23.32	23.24	24.7
3	QPSK	8	4	23.36	23.32	23.32	
3	QPSK	8	7	23.33	23.31	23.27	
3	QPSK	15	0	23.37	23.32	23.26	24.7
3	16QAM	1	0	23.52	23.47	23.42	
3	16QAM	1	8	23.57	23.54	23.52	
3	16QAM	1	14	23.56	23.52	23.49	23.7
3	16QAM	8	0	22.39	22.37	22.31	
3	16QAM	8	4	22.43	22.39	22.40	
3	16QAM	8	7	22.42	22.36	22.34	23.7
3	16QAM	15	0	22.35	22.33	22.33	
3	64QAM	1	0	22.49	22.41	22.01	
3	64QAM	1	8	22.56	22.53	22.10	23.7
3	64QAM	1	14	22.52	22.48	22.00	
3	64QAM	8	0	21.39	21.35	20.95	
3	64QAM	8	4	21.47	21.44	20.98	22.7
3	64QAM	8	7	21.40	21.37	20.87	
3	64QAM	15	0	21.38	21.35	20.92	
Channel				1860.7	1890.0	1919.3	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	24.19	24.08	24.06	25.7
1.4	QPSK	1	3	24.22	24.16	24.16	
1.4	QPSK	1	5	24.16	24.10	24.08	
1.4	QPSK	3	0	24.20	24.13	24.09	24.7
1.4	QPSK	3	1	24.24	24.19	24.16	
1.4	QPSK	3	3	24.20	24.15	24.11	
1.4	QPSK	6	0	23.29	23.22	23.21	24.7
1.4	16QAM	1	0	23.50	23.42	23.37	
1.4	16QAM	1	3	23.58	23.53	23.52	
1.4	16QAM	1	5	23.52	23.49	23.41	24.7
1.4	16QAM	3	0	22.28	23.21	23.19	
1.4	16QAM	3	1	23.33	23.27	23.23	
1.4	16QAM	3	3	23.24	23.22	23.14	23.7
1.4	16QAM	6	0	22.37	22.31	22.27	
1.4	64QAM	1	0	22.41	22.41	21.96	
1.4	64QAM	1	3	22.50	22.45	22.03	23.7
1.4	64QAM	1	5	22.39	22.41	21.98	
1.4	64QAM	3	0	22.37	22.33	21.96	
1.4	64QAM	3	1	22.44	22.39	22.07	22.7
1.4	64QAM	3	3	22.38	22.34	21.96	
1.4	64QAM	6	0	21.32	21.27	20.85	

Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.74	24.73	24.80	25.7
20	QPSK	1	49	24.56	24.52	24.54	
20	QPSK	1	99	24.61	24.58	24.58	
20	QPSK	50	0	23.76	23.74	23.74	24.7
20	QPSK	50	24	23.78	23.75	23.67	
20	QPSK	50	50	23.73	23.67	23.66	
20	QPSK	100	0	23.76	23.79	23.66	24.7
20	16QAM	1	0	24.08	24.05	24.04	
20	16QAM	1	49	23.92	23.86	23.87	
20	16QAM	1	99	23.97	23.89	23.85	23.7
20	16QAM	50	0	22.75	22.77	22.74	
20	16QAM	50	24	22.79	22.77	22.69	
20	16QAM	50	50	22.73	22.69	22.71	23.7
20	16QAM	100	0	22.76	22.78	22.67	
20	64QAM	1	0	22.90	22.93	22.65	
20	64QAM	1	49	22.81	22.78	22.80	23.7
20	64QAM	1	99	22.82	22.56	22.84	
20	64QAM	50	0	21.78	21.70	21.76	
20	64QAM	50	24	21.81	21.78	21.70	22.7
20	64QAM	50	50	21.74	21.63	21.71	
20	64QAM	100	0	21.82	21.78	21.71	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.76	24.76	24.76	25.7
15	QPSK	1	37	24.59	24.58	24.59	
15	QPSK	1	74	24.61	24.60	24.58	
15	QPSK	36	0	23.84	23.81	23.75	24.7
15	QPSK	36	20	23.82	23.77	23.70	
15	QPSK	36	39	23.77	23.71	23.73	
15	QPSK	75	0	23.80	23.82	23.70	24.7
15	16QAM	1	0	24.08	24.06	24.05	
15	16QAM	1	37	23.94	23.93	23.89	
15	16QAM	1	74	23.99	23.89	23.88	23.7
15	16QAM	36	0	22.86	22.77	22.75	
15	16QAM	36	20	22.79	22.77	22.69	
15	16QAM	36	39	22.77	22.71	22.72	23.7
15	16QAM	75	0	22.82	22.79	22.71	
15	64QAM	1	0	22.94	22.94	22.92	
15	64QAM	1	37	22.87	22.70	22.86	23.7
15	64QAM	1	74	22.88	22.64	22.80	
15	64QAM	36	0	21.86	21.83	21.77	
15	64QAM	36	20	21.78	21.72	21.71	22.7
15	64QAM	36	39	21.81	21.59	21.75	
15	64QAM	75	0	21.83	21.80	21.71	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.72	24.65	24.67	25.7
10	QPSK	1	25	24.65	24.64	24.60	
10	QPSK	1	49	24.72	24.68	24.64	
10	QPSK	25	0	23.78	23.71	23.69	24.7
10	QPSK	25	12	23.82	23.82	23.72	
10	QPSK	25	25	23.84	23.82	23.75	
10	QPSK	50	0	23.82	23.80	23.73	24.7
10	16QAM	1	0	24.11	24.04	24.03	
10	16QAM	1	25	24.03	24.06	24.04	
10	16QAM	1	49	24.08	24.03	24.08	23.7
10	16QAM	25	0	22.79	22.66	22.70	
10	16QAM	25	12	22.84	22.81	22.74	
10	16QAM	25	25	22.81	22.79	22.80	23.7
10	16QAM	50	0	22.82	22.79	22.73	
10	64QAM	1	0	22.91	22.89	22.90	
10	64QAM	1	25	22.96	22.87	22.96	23.7
10	64QAM	1	49	22.99	22.99	22.99	
10	64QAM	25	0	21.83	21.74	21.73	
10	64QAM	25	12	21.84	21.73	21.77	22.7
10	64QAM	25	25	21.85	21.58	21.84	
10	64QAM	50	0	21.85	21.69	21.77	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.70	24.62	24.61	25.7
5	QPSK	1	12	24.74	24.73	24.68	
5	QPSK	1	24	24.74	24.72	24.69	
5	QPSK	12	0	23.78	23.71	23.74	24.7
5	QPSK	12	7	23.86	23.81	23.78	
5	QPSK	12	13	23.80	23.77	23.74	
5	QPSK	25	0	23.80	23.77	23.75	24.7
5	16QAM	1	0	24.03	23.93	24.00	
5	16QAM	1	12	24.08	24.01	24.02	
5	16QAM	1	24	24.06	24.04	24.04	23.7
5	16QAM	12	0	22.83	22.74	22.80	
5	16QAM	12	7	22.87	22.84	22.81	
5	16QAM	12	13	22.86	22.84	22.81	23.7
5	16QAM	25	0	22.81	22.81	22.77	
5	64QAM	1	0	22.98	22.88	22.99	
5	64QAM	1	12	23.00	22.85	22.93	23.7
5	64QAM	1	24	23.05	22.64	22.95	
5	64QAM	12	0	21.86	21.75	21.85	
5	64QAM	12	7	21.92	21.77	21.87	22.7
5	64QAM	12	13	21.89	21.63	21.81	
5	64QAM	25	0	21.84	21.65	21.77	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.74	24.64	24.64	25.7
3	QPSK	1	8	24.79	24.78	24.72	
3	QPSK	1	14	24.75	24.73	24.69	
3	QPSK	8	0	23.79	23.72	23.73	24.7
3	QPSK	8	4	23.83	23.80	23.78	
3	QPSK	8	7	23.80	23.79	23.75	
3	QPSK	15	0	23.82	23.81	23.73	24.7
3	16QAM	1	0	24.05	23.95	23.99	
3	16QAM	1	8	24.16	24.08	24.06	
3	16QAM	1	14	24.05	24.00	24.02	23.7
3	16QAM	8	0	22.88	22.80	22.80	
3	16QAM	8	4	22.93	22.88	22.84	
3	16QAM	8	7	22.89	22.82	22.79	23.7
3	16QAM	15	0	22.86	22.82	22.78	
3	64QAM	1	0	22.91	22.83	22.91	
3	64QAM	1	8	23.10	22.84	23.00	23.7
3	64QAM	1	14	23.07	22.70	22.95	
3	64QAM	8	0	21.88	21.75	21.81	
3	64QAM	8	4	21.92	21.74	21.85	22.7
3	64QAM	8	7	21.90	21.65	21.81	
3	64QAM	15	0	21.88	21.72	21.80	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.62	24.61	24.59	25.7
1.4	QPSK	1	3	24.72	24.68	24.62	
1.4	QPSK	1	5	24.64	24.60	24.55	
1.4	QPSK	3	0	24.68	24.61	24.62	24.7
1.4	QPSK	3	1	24.71	24.66	24.67	
1.4	QPSK	3	3	24.69	24.63	24.64	
1.4	QPSK	6	0	23.72	23.66	23.64	24.7
1.4	16QAM	1	0	23.66	23.64	23.60	
1.4	16QAM	1	3	24.02	23.99	23.95	
1.4	16QAM	1	5	23.99	23.91	23.92	24.7
1.4	16QAM	3	0	23.77	23.72	23.68	
1.4	16QAM	3	1	23.81	23.79	23.75	
1.4	16QAM	3	3	23.77	23.70	23.68	23.7
1.4	16QAM	6	0	22.79	22.77	22.72	
1.4	64QAM	1	0	22.85	22.83	22.85	
1.4	64QAM	1	3	22.97	22.83	22.92	23.7
1.4	64QAM	1	5	22.92	22.73	22.84	
1.4	64QAM	3	0	22.89	22.84	22.79	
1.4	64QAM	3	1	22.96	22.88	22.86	23.7
1.4	64QAM	3	3	22.89	22.76	22.80	
1.4	64QAM	6	0	21.77	21.71	21.66	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.62	24.61	24.67	25.7
10	QPSK	1	25	24.53	24.64	24.65	
10	QPSK	1	49	24.66	24.69	24.64	
10	QPSK	25	0	23.68	23.77	23.76	
10	QPSK	25	12	23.77	23.76	23.77	24.7
10	QPSK	25	25	23.75	23.80	23.75	
10	QPSK	50	0	23.78	23.73	23.78	
10	16QAM	1	0	23.97	23.98	24.01	
10	16QAM	1	25	23.95	24.02	24.05	24.7
10	16QAM	1	49	24.03	24.09	23.99	
10	16QAM	25	0	22.67	22.76	22.76	
10	16QAM	25	12	22.77	22.77	22.76	
10	16QAM	25	25	22.74	22.77	22.84	23.7
10	16QAM	50	0	22.77	22.74	22.78	
10	64QAM	1	0	22.83	22.81	22.87	
10	64QAM	1	25	22.90	22.73	22.88	
10	64QAM	1	49	22.94	22.60	22.10	22.7
10	64QAM	25	0	21.72	21.81	21.82	
10	64QAM	25	12	21.81	21.80	21.80	
10	64QAM	25	25	21.80	21.83	21.09	
10	64QAM	50	0	21.83	21.78	21.52	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.67	24.68	24.68	
5	QPSK	1	12	24.64	24.67	24.41	25.7
5	QPSK	1	24	24.58	24.67	24.44	
5	QPSK	12	0	23.75	23.80	23.78	
5	QPSK	12	7	23.75	23.80	23.52	
5	QPSK	12	13	23.67	23.76	23.54	24.7
5	QPSK	25	0	23.71	23.74	23.66	
5	16QAM	1	0	24.03	24.02	24.01	
5	16QAM	1	12	23.91	24.01	23.73	
5	16QAM	1	24	23.93	24.02	23.70	23.7
5	16QAM	12	0	22.81	22.81	22.80	
5	16QAM	12	7	22.75	22.84	22.70	
5	16QAM	12	13	22.73	22.77	22.69	
5	16QAM	25	0	22.72	22.74	22.78	23.7
5	64QAM	1	0	22.94	22.97	22.90	
5	64QAM	1	12	22.84	22.90	21.87	
5	64QAM	1	24	22.85	22.81	21.88	
5	64QAM	12	0	21.82	21.87	21.19	22.7
5	64QAM	12	7	21.79	21.86	20.82	
5	64QAM	12	13	21.75	21.83	21.66	
5	64QAM	25	0	21.75	21.78	20.89	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.65	24.65	24.52	25.7
3	QPSK	1	8	24.62	24.68	24.46	
3	QPSK	1	14	24.55	24.64	24.49	
3	QPSK	8	0	23.77	23.70	23.43	
3	QPSK	8	4	23.72	23.77	23.49	24.7
3	QPSK	8	7	23.70	23.75	23.66	
3	QPSK	15	0	23.71	23.74	23.48	
3	16QAM	1	0	23.99	23.97	23.75	
3	16QAM	1	8	23.98	24.07	23.71	24.7
3	16QAM	1	14	23.88	24.00	23.75	
3	16QAM	8	0	22.82	22.83	22.58	
3	16QAM	8	4	22.78	22.90	22.80	
3	16QAM	8	7	22.75	22.80	22.72	23.7
3	16QAM	15	0	22.75	22.79	22.61	
3	64QAM	1	0	22.87	22.92	21.89	
3	64QAM	1	8	22.92	22.99	21.77	
3	64QAM	1	14	22.85	22.90	21.76	22.7
3	64QAM	8	0	21.78	21.78	21.87	
3	64QAM	8	4	21.80	21.86	21.68	
3	64QAM	8	7	21.74	21.80	20.72	
3	64QAM	15	0	21.74	21.78	20.77	Tune-up limit (dBm)
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	Tune-up limit (dBm)
1.4	QPSK	1	0	24.56	24.59	24.49	
1.4	QPSK	1	3	24.59	24.65	24.63	25.7
1.4	QPSK	1	5	24.50	24.60	24.55	
1.4	QPSK	3	0	24.62	24.62	24.61	
1.4	QPSK	3	1	24.62	24.63	24.64	
1.4	QPSK	3	3	24.58	24.63	24.67	24.7
1.4	QPSK	6	0	23.65	23.74	23.70	
1.4	16QAM	1	0	23.90	23.95	23.81	
1.4	16QAM	1	3	23.89	24.04	23.98	
1.4	16QAM	1	5	23.85	23.93	23.86	24.7
1.4	16QAM	3	0	23.69	23.70	23.63	
1.4	16QAM	3	1	23.73	23.77	23.72	
1.4	16QAM	3	3	23.66	23.72	23.67	
1.4	16QAM	6	0	22.73	22.79	22.76	23.7
1.4	64QAM	1	0	22.84	22.86	21.76	
1.4	64QAM	1	3	22.87	22.93	21.89	
1.4	64QAM	1	5	22.79	22.85	21.90	
1.4	64QAM	3	0	22.80	22.80	21.76	23.7
1.4	64QAM	3	1	22.84	22.85	21.89	
1.4	64QAM	3	3	22.78	22.86	22.00	
1.4	64QAM	6	0	21.68	21.74	21.67	

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	25.7
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	24.48	24.37	24.23	25.7
20	QPSK	1	49	24.48	24.42	24.22	
20	QPSK	1	99	24.58	24.46	24.25	
20	QPSK	50	0	23.66	23.46	23.38	24.7
20	QPSK	50	24	23.69	23.50	23.36	
20	QPSK	50	50	23.68	23.53	23.42	
20	QPSK	100	0	23.67	23.51	23.40	24.7
20	16QAM	1	0	23.81	23.71	23.60	
20	16QAM	1	49	23.85	23.78	23.56	
20	16QAM	1	99	23.90	23.84	23.59	23.7
20	16QAM	50	0	22.55	22.47	22.40	
20	16QAM	50	24	22.71	22.51	22.41	
20	16QAM	50	50	22.68	22.54	22.40	23.7
20	16QAM	100	0	22.65	22.46	22.40	
20	64QAM	1	0	22.66	22.57	22.50	23.7
20	64QAM	1	49	22.70	22.66	22.46	
20	64QAM	1	99	22.78	22.66	22.45	
20	64QAM	50	0	21.67	21.45	21.41	22.7
20	64QAM	50	24	21.71	21.53	21.43	
20	64QAM	50	50	21.71	21.54	21.42	
20	64QAM	100	0	21.69	21.51	21.41	Tune-up limit (dBm)
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	25.7
15	QPSK	1	0	24.49	24.43	24.24	
15	QPSK	1	37	24.51	24.41	24.17	25.7
15	QPSK	1	74	24.57	24.49	24.27	
15	QPSK	36	0	23.57	23.48	23.35	24.7
15	QPSK	36	20	23.67	23.52	23.36	
15	QPSK	36	39	23.68	23.53	23.36	
15	QPSK	75	0	23.66	23.49	23.36	24.7
15	16QAM	1	0	23.79	23.71	23.59	
15	16QAM	1	37	23.83	23.74	23.53	
15	16QAM	1	74	23.89	23.79	23.58	23.7
15	16QAM	36	0	22.55	22.48	22.36	
15	16QAM	36	20	22.68	22.50	22.38	
15	16QAM	36	39	22.69	22.51	22.37	23.7
15	16QAM	75	0	22.66	22.50	22.37	
15	64QAM	1	0	22.69	22.57	22.47	
15	64QAM	1	37	22.77	22.67	22.39	23.7
15	64QAM	1	74	22.80	22.64	22.48	
15	64QAM	36	0	21.59	21.49	21.40	
15	64QAM	36	20	21.70	21.56	21.38	22.7
15	64QAM	36	39	21.72	21.53	21.42	
15	64QAM	75	0	21.68	21.51	21.39	
Channel				20900	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	24.43	24.34	24.16	25.7
10	QPSK	1	25	24.43	24.35	24.07	
10	QPSK	1	49	24.49	24.39	24.19	
10	QPSK	25	0	23.61	23.45	23.28	24.7
10	QPSK	25	12	23.64	23.49	23.31	
10	QPSK	25	25	23.63	23.46	23.32	
10	QPSK	50	0	23.63	23.47	23.31	24.7
10	16QAM	1	0	23.83	23.72	23.51	
10	16QAM	1	25	23.82	23.76	23.50	
10	16QAM	1	49	23.89	23.78	23.56	23.7
10	16QAM	25	0	22.61	22.44	22.29	
10	16QAM	25	12	22.65	22.49	22.32	
10	16QAM	25	25	22.63	22.45	22.30	23.7
10	16QAM	50	0	22.63	22.49	22.32	
10	64QAM	1	0	22.74	22.58	22.44	
10	64QAM	1	25	22.77	22.66	22.43	23.7
10	64QAM	1	49	22.79	22.65	22.45	
10	64QAM	25	0	21.65	21.49	21.33	
10	64QAM	25	12	21.70	21.54	21.35	22.7
10	64QAM	25	25	21.66	21.51	21.35	
10	64QAM	50	0	21.67	21.51	21.36	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	24.50	24.34	24.16	25.7
5	QPSK	1	12	24.49	24.45	24.23	
5	QPSK	1	24	24.53	24.44	24.19	
5	QPSK	12	0	23.63	23.45	23.28	24.7
5	QPSK	12	7	23.67	23.56	23.28	
5	QPSK	12	13	23.64	23.52	23.29	
5	QPSK	25	0	23.63	23.48	23.30	24.7
5	16QAM	1	0	23.84	23.66	23.46	
5	16QAM	1	12	23.85	23.74	23.49	
5	16QAM	1	24	23.85	23.81	23.50	23.7
5	16QAM	12	0	22.67	22.50	22.31	
5	16QAM	12	7	22.67	22.57	22.32	
5	16QAM	12	13	22.63	22.54	22.31	23.7
5	16QAM	25	0	22.64	22.51	22.32	
5	64QAM	1	0	22.77	22.59	22.40	
5	64QAM	1	12	22.78	22.65	22.41	23.7
5	64QAM	1	24	22.79	22.70	22.42	
5	64QAM	12	0	21.69	21.57	21.37	
5	64QAM	12	7	21.68	21.61	21.38	22.7
5	64QAM	12	13	21.69	21.61	21.35	
5	64QAM	25	0	21.66	21.54	21.34	22.7
5	64QAM	25	0	21.66	21.54	21.34	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	24.36	24.28	24.30	25.7
10	QPSK	1	25	24.28	24.32	24.27	
10	QPSK	1	49	24.40	24.35	24.29	
10	QPSK	25	0	23.43	23.41	23.41	24.7
10	QPSK	25	12	23.48	23.42	23.48	
10	QPSK	25	25	23.47	23.48	23.45	
10	QPSK	50	0	23.50	23.44	23.47	24.7
10	16QAM	1	0	23.73	23.65	23.68	
10	16QAM	1	25	23.71	23.72	23.67	
10	16QAM	1	49	23.81	23.72	23.67	23.7
10	16QAM	25	0	22.44	22.42	22.40	
10	16QAM	25	12	22.51	22.41	22.45	
10	16QAM	25	25	22.41	22.45	22.40	23.7
10	16QAM	50	0	22.51	22.40	22.49	
10	64QAM	1	0	22.58	22.51	22.55	
10	64QAM	1	25	22.63	22.65	22.63	22.7
10	64QAM	1	49	22.59	22.65	22.60	
10	64QAM	25	0	21.45	21.45	21.44	
10	64QAM	25	12	21.54	21.48	21.52	22.7
10	64QAM	25	25	21.49	21.50	21.48	
10	64QAM	50	0	21.54	21.44	21.50	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	24.36	24.32	24.28	25.7
5	QPSK	1	12	24.35	24.39	24.36	
5	QPSK	1	24	24.32	24.36	24.29	
5	QPSK	12	0	23.45	23.42	23.41	24.7
5	QPSK	12	7	23.45	23.40	23.44	
5	QPSK	12	13	23.41	23.44	23.39	
5	QPSK	25	0	23.44	23.40	23.37	24.7
5	16QAM	1	0	23.71	23.69	23.61	
5	16QAM	1	12	23.66	23.68	23.64	
5	16QAM	1	24	23.67	23.69	23.63	23.7
5	16QAM	12	0	22.51	22.44	22.41	
5	16QAM	12	7	22.48	22.41	22.44	
5	16QAM	12	13	22.45	22.47	22.42	23.7
5	16QAM	25	0	22.44	22.44	22.37	
5	64QAM	1	0	22.55	22.55	22.54	
5	64QAM	1	12	22.60	22.59	22.57	22.7
5	64QAM	1	24	22.61	22.63	22.57	
5	64QAM	12	0	21.56	21.51	21.44	
5	64QAM	12	7	21.50	21.47	21.50	22.7
5	64QAM	12	13	21.50	21.48	21.48	
5	64QAM	25	0	21.48	21.45	21.37	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.39	24.37	24.31	25.7
3	QPSK	1	8	24.39	24.39	24.33	
3	QPSK	1	14	24.34	24.36	24.30	
3	QPSK	8	0	23.46	23.39	23.37	24.7
3	QPSK	8	4	23.46	23.46	23.39	
3	QPSK	8	7	23.41	23.39	23.35	
3	QPSK	15	0	23.42	23.37	23.32	24.7
3	16QAM	1	0	23.74	23.66	23.62	
3	16QAM	1	8	23.74	23.77	23.66	
3	16QAM	1	14	23.70	23.70	23.63	23.7
3	16QAM	8	0	22.52	22.47	22.42	
3	16QAM	8	4	22.51	22.54	22.46	
3	16QAM	8	7	22.49	22.47	22.43	22.7
3	16QAM	15	0	22.46	22.40	22.35	
3	64QAM	1	0	22.69	22.61	22.56	
3	64QAM	1	8	22.68	22.68	22.64	23.7
3	64QAM	1	14	22.62	22.63	22.55	
3	64QAM	8	0	21.55	21.45	21.43	
3	64QAM	8	4	21.55	21.54	21.49	22.7
3	64QAM	8	7	21.47	21.48	21.43	
3	64QAM	15	0	21.47	21.42	21.37	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.30	24.24	24.25	25.7
1.4	QPSK	1	3	24.34	24.33	24.25	
1.4	QPSK	1	5	24.29	24.27	24.20	
1.4	QPSK	3	0	24.35	24.28	24.24	24.7
1.4	QPSK	3	1	24.39	24.29	24.27	
1.4	QPSK	3	3	24.30	24.30	24.21	
1.4	QPSK	6	0	23.42	23.32	23.29	24.7
1.4	16QAM	1	0	23.64	23.60	23.57	
1.4	16QAM	1	3	23.70	23.69	23.60	
1.4	16QAM	1	5	23.60	23.61	23.52	23.7
1.4	16QAM	3	0	23.43	23.35	23.34	
1.4	16QAM	3	1	23.49	23.39	23.38	
1.4	16QAM	3	3	23.41	23.40	23.28	23.7
1.4	16QAM	6	0	22.47	22.39	22.36	
1.4	64QAM	1	0	22.61	22.51	22.48	
1.4	64QAM	1	3	22.64	22.60	22.51	23.7
1.4	64QAM	1	5	22.55	22.53	22.44	
1.4	64QAM	3	0	22.57	22.48	22.45	
1.4	64QAM	3	1	22.60	22.50	22.49	22.7
1.4	64QAM	3	3	22.51	22.53	22.45	
1.4	64QAM	6	0	21.40	21.34	21.30	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23230			Tune-up limit (dbm)
Frequency (MHz)				782			
10	QPSK	1	0	24.05			25.2
10	QPSK	1	25	24.00			
10	QPSK	1	49	24.02			
10	QPSK	25	0	23.06			24.2
10	QPSK	25	12	23.11			
10	QPSK	25	25	23.10			
10	QPSK	50	0	23.12			24.2
10	16QAM	1	0	23.30			
10	16QAM	1	25	23.34			
10	16QAM	1	49	23.30			23.2
10	16QAM	25	0	22.10			
10	16QAM	25	12	22.12			
10	16QAM	25	25	22.11			23.2
10	16QAM	50	0	22.11			
10	64QAM	1	0	23.05			
10	64QAM	1	25	23.07			23.2
10	64QAM	1	49	23.05			
10	64QAM	25	0	22.08			
10	64QAM	25	12	22.04			22.2
10	64QAM	25	25	22.02			
10	64QAM	50	0	22.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.96	23.94	23.95	25.2
5	QPSK	1	12	23.99	24.04	24.02	
5	QPSK	1	24	24.04	23.99	24.01	
5	QPSK	12	0	23.09	23.10	23.08	24.2
5	QPSK	12	7	23.10	23.11	23.02	
5	QPSK	12	13	23.12	23.13	23.07	
5	QPSK	25	0	23.15	23.12	23.03	24.2
5	16QAM	1	0	23.18	23.25	23.29	
5	16QAM	1	12	23.29	23.30	23.25	
5	16QAM	1	24	23.36	23.31	23.21	23.2
5	16QAM	12	0	22.17	22.11	22.14	
5	16QAM	12	7	22.16	22.10	22.09	
5	16QAM	12	13	22.15	22.13	22.15	23.2
5	16QAM	25	0	22.17	22.09	22.08	
5	64QAM	1	0	22.11	22.23	22.18	
5	64QAM	1	12	22.24	22.25	22.23	23.2
5	64QAM	1	24	22.26	22.27	22.20	
5	64QAM	12	0	21.19	21.15	21.16	
5	64QAM	12	7	21.19	21.14	21.10	22.2
5	64QAM	12	13	21.18	21.17	21.13	
5	64QAM	25	0	21.20	21.14	21.08	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.68			25.7
10	QPSK	1	25	24.58			
10	QPSK	1	49	24.49			
10	QPSK	25	0	23.62			24.7
10	QPSK	25	12	23.61			
10	QPSK	25	25	23.65			
10	QPSK	50	0	23.61			24.7
10	16QAM	1	0	23.95			
10	16QAM	1	25	23.95			
10	16QAM	1	49	23.89			23.7
10	16QAM	25	0	22.63			
10	16QAM	25	12	22.61			
10	16QAM	25	25	22.65			23.7
10	16QAM	50	0	22.63			
10	64QAM	1	0	22.85			
10	64QAM	1	25	22.85			23.7
10	64QAM	1	49	22.78			
10	64QAM	25	0	21.67			
10	64QAM	25	12	21.65			22.7
10	64QAM	25	25	21.69			
10	64QAM	50	0	21.63			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.53	24.52	24.54	25.7
5	QPSK	1	12	24.64	24.67	24.63	
5	QPSK	1	24	24.58	24.56	24.52	
5	QPSK	12	0	23.61	23.62	23.59	24.7
5	QPSK	12	7	23.66	23.66	23.61	
5	QPSK	12	13	23.65	23.64	23.60	
5	QPSK	25	0	23.65	23.61	23.52	24.7
5	16QAM	1	0	23.90	23.94	23.86	
5	16QAM	1	12	23.92	23.94	23.92	
5	16QAM	1	24	23.91	23.89	23.84	23.7
5	16QAM	12	0	22.62	22.62	22.65	
5	16QAM	12	7	22.73	22.66	22.63	
5	16QAM	12	13	22.66	22.67	22.63	23.7
5	16QAM	25	0	22.69	22.62	22.57	
5	64QAM	1	0	22.77	22.81	22.70	
5	64QAM	1	12	22.85	22.75	22.87	23.7
5	64QAM	1	24	22.74	22.83	22.82	
5	64QAM	12	0	21.66	21.69	21.67	
5	64QAM	12	7	21.74	21.70	21.66	22.7
5	64QAM	12	13	21.71	21.71	21.69	
5	64QAM	25	0	21.68	21.63	21.58	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.77	24.69	24.64	25.7
10	QPSK	1	25	24.75	24.76	24.70	
10	QPSK	1	49	24.85	24.76	24.75	
10	QPSK	25	0	23.76	23.76	23.76	24.7
10	QPSK	25	12	23.90	23.85	23.82	
10	QPSK	25	25	23.92	23.91	23.89	
10	QPSK	50	0	23.88	23.81	23.78	24.7
10	16QAM	1	0	24.14	24.08	24.04	
10	16QAM	1	25	24.14	24.12	24.11	
10	16QAM	1	49	24.15	24.13	24.11	23.7
10	16QAM	25	0	22.77	22.77	22.77	
10	16QAM	25	12	22.93	22.94	22.83	
10	16QAM	25	25	22.89	22.85	22.92	23.7
10	16QAM	50	0	22.91	22.81	22.80	
10	64QAM	1	0	23.02	22.92	22.96	23.7
10	64QAM	1	25	23.06	23.06	23.03	
10	64QAM	1	49	23.06	23.02	22.88	
10	64QAM	25	0	21.82	21.80	21.80	22.7
10	64QAM	25	12	21.95	21.89	21.86	
10	64QAM	25	25	21.94	21.94	21.92	
10	64QAM	50	0	21.92	21.86	21.84	Tune-up limit (dBm)
Channel				23785	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.69	24.71	24.70	25.7
5	QPSK	1	12	24.81	24.82	24.74	
5	QPSK	1	24	24.84	24.82	24.79	
5	QPSK	12	0	23.81	23.85	23.80	24.7
5	QPSK	12	7	23.86	23.82	23.83	
5	QPSK	12	13	23.87	23.88	23.83	
5	QPSK	25	0	23.85	23.81	23.83	24.7
5	16QAM	1	0	24.07	24.05	24.04	
5	16QAM	1	12	24.11	24.11	24.05	
5	16QAM	1	24	24.17	24.16	24.09	23.7
5	16QAM	12	0	22.85	22.87	22.80	
5	16QAM	12	7	22.89	22.90	22.90	
5	16QAM	12	13	22.89	22.90	22.83	23.7
5	16QAM	25	0	22.86	22.84	22.87	
5	64QAM	1	0	22.77	22.83	22.97	
5	64QAM	1	12	23.01	23.08	23.00	22.7
5	64QAM	1	24	23.07	23.09	23.02	
5	64QAM	12	0	21.90	21.92	21.88	
5	64QAM	12	7	21.95	21.93	21.94	22.7
5	64QAM	12	13	21.94	21.94	21.87	
5	64QAM	25	0	21.90	21.86	21.89	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	24.39	24.16	24.06	25.7
20	QPSK	1	49	24.17	24.16	24.05	
20	QPSK	1	99	24.12	24.12	23.91	
20	QPSK	50	0	23.32	23.28	23.17	24.7
20	QPSK	50	24	23.36	23.34	23.17	
20	QPSK	50	50	23.31	23.31	23.23	
20	QPSK	100	0	23.38	23.33	23.18	
20	16QAM	1	0	23.58	23.52	23.43	24.7
20	16QAM	1	49	23.53	23.51	23.39	
20	16QAM	1	99	23.44	23.49	23.23	
20	16QAM	50	0	22.30	22.30	22.17	23.7
20	16QAM	50	24	22.37	22.35	22.20	
20	16QAM	50	50	22.35	22.33	22.24	
20	16QAM	100	0	22.36	22.33	22.19	
20	64QAM	1	0	22.45	22.40	22.22	23.7
20	64QAM	1	49	22.40	22.35	21.96	
20	64QAM	1	99	22.43	22.38	21.73	
20	64QAM	50	0	21.34	21.31	20.87	22.7
20	64QAM	50	24	21.41	21.38	20.93	
20	64QAM	50	50	21.36	21.35	20.74	
20	64QAM	100	0	21.39	21.37	20.64	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	24.27	24.22	24.10	25.7
15	QPSK	1	37	24.20	24.17	24.08	
15	QPSK	1	74	24.24	24.23	23.85	
15	QPSK	36	0	23.41	23.29	23.16	24.7
15	QPSK	36	20	23.36	23.35	23.24	
15	QPSK	36	39	23.32	23.32	23.20	
15	QPSK	75	0	23.36	23.32	23.24	24.7
15	16QAM	1	0	23.52	23.51	23.42	
15	16QAM	1	37	23.53	23.50	23.40	
15	16QAM	1	74	23.50	23.51	23.21	
15	16QAM	36	0	22.42	22.30	22.20	23.7
15	16QAM	36	20	22.38	22.36	22.27	
15	16QAM	36	39	22.32	22.32	22.20	
15	16QAM	75	0	22.37	22.36	22.25	23.7
15	64QAM	1	0	22.43	22.38	21.82	
15	64QAM	1	37	22.43	22.45	21.89	
15	64QAM	1	74	22.37	22.45	21.71	
15	64QAM	36	0	21.46	21.33	20.88	22.7
15	64QAM	36	20	21.43	21.40	20.96	
15	64QAM	36	39	21.36	21.37	20.71	
15	64QAM	75	0	21.39	21.37	20.70	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	24.24	24.20	24.08	25.7
10	QPSK	1	25	24.21	24.17	24.10	
10	QPSK	1	49	24.22	24.22	23.83	
10	QPSK	25	0	23.36	23.33	23.13	24.7
10	QPSK	25	12	23.36	23.35	23.26	
10	QPSK	25	25	23.37	23.36	23.19	
10	QPSK	50	0	23.38	23.34	23.19	
10	16QAM	1	0	23.66	23.59	23.43	24.7
10	16QAM	1	25	23.63	23.57	23.48	
10	16QAM	1	49	23.60	23.61	23.19	
10	16QAM	25	0	22.37	22.33	22.14	23.7
10	16QAM	25	12	22.40	22.38	22.26	
10	16QAM	25	25	22.39	22.33	22.22	
10	16QAM	50	0	22.38	22.36	22.16	
10	64QAM	1	0	22.54	22.43	22.03	23.7
10	64QAM	1	25	22.56	22.49	21.90	
10	64QAM	1	49	22.49	22.55	21.72	
10	64QAM	25	0	21.39	21.38	20.87	22.7
10	64QAM	25	12	21.44	21.41	20.91	
10	64QAM	25	25	21.40	21.40	20.64	
10	64QAM	50	0	21.38	21.41	20.59	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	24.26	24.18	24.13	25.7
5	QPSK	1	12	24.32	24.29	24.12	
5	QPSK	1	24	24.30	24.28	23.82	
5	QPSK	12	0	23.32	23.29	23.19	24.7
5	QPSK	12	7	23.38	23.34	23.23	
5	QPSK	12	13	23.37	23.34	23.04	
5	QPSK	25	0	23.33	23.33	23.16	
5	16QAM	1	0	23.62	23.53	23.46	24.7
5	16QAM	1	12	23.61	23.56	23.41	
5	16QAM	1	24	23.64	23.60	23.15	
5	16QAM	12	0	22.34	22.33	22.19	23.7
5	16QAM	12	7	22.41	22.38	22.27	
5	16QAM	12	13	22.43	22.39	22.19	
5	16QAM	25	0	22.39	22.33	22.21	
5	64QAM	1	0	22.52	22.46	21.85	23.7
5	64QAM	1	12	22.49	22.45	21.71	
5	64QAM	1	24	22.53	22.50	21.74	
5	64QAM	12	0	21.40	21.40	20.77	22.7
5	64QAM	12	7	21.47	21.45	20.63	
5	64QAM	12	13	21.47	21.43	20.44	
5	64QAM	25	0	21.39	21.36	20.54	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.22	24.11	24.06	25.7
3	QPSK	1	8	24.36	24.33	23.95	
3	QPSK	1	14	24.32	24.31	23.74	
3	QPSK	8	0	23.29	23.27	23.15	24.7
3	QPSK	8	4	23.35	23.36	23.06	
3	QPSK	8	7	23.41	23.38	22.93	
3	QPSK	15	0	23.38	23.33	22.99	
3	16QAM	1	0	23.57	23.44	23.33	24.7
3	16QAM	1	8	23.72	23.67	23.23	
3	16QAM	1	14	23.67	23.66	23.05	
3	16QAM	8	0	22.39	22.37	22.20	23.7
3	16QAM	8	4	22.46	22.40	22.22	
3	16QAM	8	7	22.44	22.43	22.14	
3	16QAM	15	0	22.40	22.37	22.19	
3	64QAM	1	0	22.46	22.36	21.72	23.7
3	64QAM	1	8	22.59	22.56	21.70	
3	64QAM	1	14	22.59	22.57	21.75	
3	64QAM	8	0	21.39	21.37	21.71	22.7
3	64QAM	8	4	21.49	21.43	20.43	
3	64QAM	8	7	21.47	21.45	20.30	
3	64QAM	15	0	21.41	21.37	20.36	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.18	24.15	23.83	25.7
1.4	QPSK	1	3	24.25	24.25	23.82	
1.4	QPSK	1	5	24.25	24.21	23.70	
1.4	QPSK	3	0	24.19	24.19	23.81	
1.4	QPSK	3	1	24.27	24.22	23.83	
1.4	QPSK	3	3	24.26	24.21	23.72	24.7
1.4	QPSK	6	0	23.28	23.27	22.91	
1.4	16QAM	1	0	23.51	23.46	23.14	
1.4	16QAM	1	3	23.60	23.58	23.13	
1.4	16QAM	1	5	23.56	23.55	23.06	24.7
1.4	16QAM	3	0	23.29	23.27	22.97	
1.4	16QAM	3	1	23.39	23.34	22.97	
1.4	16QAM	3	3	23.30	23.31	22.90	
1.4	16QAM	6	0	22.37	22.32	22.07	23.7
1.4	64QAM	1	0	22.41	22.39	21.71	
1.4	64QAM	1	3	22.52	22.53	21.70	
1.4	64QAM	1	5	22.47	22.41	21.71	
1.4	64QAM	3	0	22.40	22.36	21.72	23.7
1.4	64QAM	3	1	22.47	22.43	21.72	
1.4	64QAM	3	3	22.47	22.42	21.71	
1.4	64QAM	6	0	21.31	21.29	20.73	22.7

Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26969	
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.58	24.53	24.56	25.7
15	QPSK	1	37	24.49	24.52	24.53	
15	QPSK	1	74	24.56	24.78	24.50	
15	QPSK	36	0	23.66	23.67	23.66	24.7
15	QPSK	36	20	23.70	23.96	23.66	
15	QPSK	36	39	23.66	23.69	23.66	
15	QPSK	75	0	23.69	23.65	23.67	24.7
15	16QAM	1	0	23.91	23.87	23.92	
15	16QAM	1	37	23.85	23.88	23.90	
15	16QAM	1	74	23.88	23.91	23.81	23.7
15	16QAM	36	0	22.68	22.70	22.68	
15	16QAM	36	20	22.68	22.65	22.66	
15	16QAM	36	39	22.67	22.72	22.71	23.7
15	16QAM	75	0	22.72	22.67	22.68	
15	64QAM	1	0	22.77	22.70	22.72	
15	64QAM	1	37	22.74	22.82	22.81	22.7
15	64QAM	1	74	22.78	22.80	22.78	
15	64QAM	36	0	21.68	21.73	21.74	
15	64QAM	36	20	21.71	21.69	21.69	22.7
15	64QAM	36	39	21.70	21.80	21.80	
15	64QAM	75	0	21.72	21.68	21.73	
Channel				26740	26965	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.64	24.60	24.67	25.7
10	QPSK	1	25	24.54	24.60	24.63	
10	QPSK	1	49	24.61	24.62	24.57	
10	QPSK	25	0	23.75	23.67	23.68	24.7
10	QPSK	25	12	23.71	23.71	23.72	
10	QPSK	25	25	23.66	23.70	23.70	
10	QPSK	50	0	23.70	23.65	23.67	24.7
10	16QAM	1	0	24.00	24.01	24.06	
10	16QAM	1	25	24.00	24.01	23.99	
10	16QAM	1	49	24.01	23.99	23.92	23.7
10	16QAM	25	0	22.72	22.71	22.70	
10	16QAM	25	12	22.72	22.72	22.70	
10	16QAM	25	25	22.67	22.74	22.63	23.7
10	16QAM	50	0	22.73	22.64	22.68	
10	64QAM	1	0	22.97	22.79	22.90	
10	64QAM	1	25	22.86	22.95	22.95	22.7
10	64QAM	1	49	22.92	22.91	22.61	
10	64QAM	25	0	21.77	21.73	21.76	
10	64QAM	25	12	21.67	21.74	21.75	22.7
10	64QAM	25	25	21.71	21.72	21.59	
10	64QAM	50	0	21.72	21.69	21.72	
Channel				26715	26965	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.77	24.62	24.66	25.7
5	QPSK	1	12	24.70	24.69	24.63	
5	QPSK	1	24	24.57	24.70	24.61	
5	QPSK	12	0	23.79	23.71	23.76	24.7
5	QPSK	12	7	23.78	23.77	23.70	
5	QPSK	12	13	23.71	23.72	23.61	
5	QPSK	25	0	23.73	23.68	23.70	24.7
5	16QAM	1	0	24.08	23.94	24.00	
5	16QAM	1	12	23.98	23.97	23.86	
5	16QAM	1	24	23.92	24.01	23.86	23.7
5	16QAM	12	0	22.85	22.76	22.75	
5	16QAM	12	7	22.77	22.77	22.73	
5	16QAM	12	13	22.75	22.72	22.65	23.7
5	16QAM	25	0	22.76	22.69	22.71	
5	64QAM	1	0	22.97	22.86	22.91	
5	64QAM	1	12	22.88	22.88	22.22	22.7
5	64QAM	1	24	22.73	22.67	22.32	
5	64QAM	12	0	21.88	21.82	21.81	
5	64QAM	12	7	21.87	21.84	21.20	22.7
5	64QAM	12	13	21.77	21.79	21.07	
5	64QAM	25	0	21.81	21.71	21.31	
Channel				26705	26965	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.73	24.64	24.66	25.7
3	QPSK	1	8	24.75	24.72	24.65	
3	QPSK	1	14	24.60	24.68	24.60	
3	QPSK	8	0	23.79	23.71	23.72	24.7
3	QPSK	8	4	23.79	23.79	23.70	
3	QPSK	8	7	23.74	23.71	23.63	
3	QPSK	15	0	23.75	23.71	23.68	24.7
3	16QAM	1	0	24.08	23.96	23.98	
3	16QAM	1	8	24.10	24.03	23.94	
3	16QAM	1	14	23.95	24.01	23.88	23.7
3	16QAM	8	0	22.85	22.78	22.74	
3	16QAM	8	4	22.85	22.84	22.74	
3	16QAM	8	7	22.79	22.78	22.68	23.7
3	16QAM	15	0	22.83	22.72	22.67	
3	64QAM	1	0	22.94	22.86	22.29	
3	64QAM	1	8	22.99	22.93	22.12	22.7
3	64QAM	1	14	22.85	22.89	22.26	
3	64QAM	8	0	21.89	21.79	21.07	
3	64QAM	8	4	21.89	21.86	21.07	22.7
3	64QAM	8	7	21.84	21.83	21.16	
3	64QAM	15	0	21.84	21.74	21.16	
Channel				26997	26965	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.67	24.57	24.52	25.7
1.4	QPSK	1	3	24.73	24.68	24.57	
1.4	QPSK	1	5	24.61	24.56	24.44	
1.4	QPSK	3	0	24.59	24.58	24.52	24.7
1.4	QPSK	3	1	24.71	24.60	24.57	
1.4	QPSK	3	3	24.64	24.59	24.51	
1.4	QPSK	6	0	23.71	23.67	23.58	24.7
1.4	16QAM	1	0	23.99	23.86	23.83	
1.4	16QAM	1	3	24.04	24.00	23.87	
1.4	16QAM	1	5	23.93	23.91	23.77	24.7
1.4	16QAM	3	0	23.74	23.65	23.60	
1.4	16QAM	3	1	23.78	23.71	23.65	
1.4	16QAM	3	3	23.72	23.65	23.57	23.7
1.4	16QAM	6	0	22.81	22.81	22.68	
1.4	64QAM	1	0	22.88	22.77	22.20	
1.4	64QAM	1	3	22.95	22.91	22.37	23.7
1.4	64QAM	1	5	22.82	22.79	22.40	
1.4	64QAM	3	0	22.89	22.78	22.16	
1.4	64QAM	3	1	22.93	22.83	22.25	22.7
1.4	64QAM	3	3	22.84	22.78	22.36	
1.4	64QAM	6	0	21.75	21.70	21.19	

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				2771.0			
Frequency (MHz)				2310			
10	QPSK	1	0		22.65		23.7
10	QPSK	1	25		22.64		
10	QPSK	1	49		22.64		
10	QPSK	25	0		21.50		22.7
10	QPSK	25	12		21.56		
10	QPSK	25	25		21.58		
10	QPSK	50	0		21.54		22.7
10	16QAM	1	0		21.84		
10	16QAM	1	25		21.85		
10	16QAM	1	49		21.82		21.7
10	16QAM	25	0		20.49		
10	16QAM	25	12		20.53		
10	16QAM	25	25		20.53		21.7
10	16QAM	50	0		20.51		
10	64QAM	1	0		20.67		
10	64QAM	1	25		20.79		21.7
10	64QAM	1	49		20.89		
10	64QAM	25	0		19.52		
10	64QAM	25	12		19.59		20.7
10	64QAM	25	25		19.60		
10	64QAM	50	0		19.58		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.40	22.42	22.45	23.7
5	QPSK	1	12	22.52	22.56	22.50	
5	QPSK	1	24	22.57	22.48	22.47	
5	QPSK	12	0	21.51	21.53	21.55	22.7
5	QPSK	12	7	21.63	21.56	21.60	
5	QPSK	12	13	21.62	21.56	21.53	
5	QPSK	25	0	21.59	21.52	21.57	22.7
5	16QAM	1	0	21.73	21.73	21.77	
5	16QAM	1	12	21.80	21.81	21.78	
5	16QAM	1	24	21.92	21.80	21.75	21.7
5	16QAM	12	0	20.56	20.54	20.58	
5	16QAM	12	7	20.64	20.60	20.63	
5	16QAM	12	13	20.64	20.58	20.55	21.7
5	16QAM	25	0	20.61	20.53	20.59	
5	64QAM	1	0	20.66	20.65	20.69	
5	64QAM	1	12	20.71	20.76	20.72	21.7
5	64QAM	1	24	20.82	20.75	20.73	
5	64QAM	12	0	19.59	19.60	19.63	
5	64QAM	12	7	19.70	19.66	19.65	20.7
5	64QAM	12	13	19.67	19.64	19.59	
5	64QAM	25	0	19.66	19.60	19.61	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	25.7
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.78	24.77	24.71	24.7
20	QPSK	1	49	24.64	24.61	24.59	
20	QPSK	1	99	24.70	24.75	24.56	
20	QPSK	50	0	23.62	23.57	23.58	
20	QPSK	50	24	23.68	23.54	23.62	
20	QPSK	50	50	23.62	23.58	23.58	24.7
20	QPSK	100	0	23.67	23.59	23.64	
20	16QAM	1	0	23.91	23.89	23.84	
20	16QAM	1	49	23.79	23.72	23.71	
20	16QAM	1	99	23.88	23.75	23.68	
20	16QAM	50	0	22.59	22.57	22.61	23.7
20	16QAM	50	24	22.66	22.55	22.62	
20	16QAM	50	50	22.66	22.59	22.59	
20	16QAM	100	0	22.65	22.62	22.65	
20	64QAM	1	0	22.76	22.77	22.69	
20	64QAM	1	49	22.63	22.64	22.63	23.7
20	64QAM	1	99	22.73	22.74	22.60	
20	64QAM	50	0	21.62	21.60	21.62	
20	64QAM	50	24	21.70	21.57	21.65	
20	64QAM	50	50	21.67	21.62	21.60	
20	64QAM	100	0	21.70	21.63	21.63	22.7
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	25.7
15	QPSK	1	0	24.58	24.53	24.48	
15	QPSK	1	37	24.46	24.40	24.41	24.7
15	QPSK	1	74	24.57	24.51	24.41	
15	QPSK	36	0	23.59	23.58	23.59	
15	QPSK	36	20	23.66	23.61	23.64	
15	QPSK	36	39	23.65	23.60	23.59	
15	QPSK	75	0	23.66	23.62	23.55	24.7
15	16QAM	1	0	23.64	23.62	23.64	
15	16QAM	1	37	23.78	23.73	23.75	
15	16QAM	1	74	23.88	23.79	23.72	
15	16QAM	36	0	22.60	22.55	22.58	
15	16QAM	36	20	22.66	22.61	22.59	23.7
15	16QAM	36	39	22.66	22.59	22.61	
15	16QAM	75	0	22.67	22.64	22.54	
15	64QAM	1	0	22.75	22.72	22.67	
15	64QAM	1	37	22.73	22.69	22.63	
15	64QAM	1	74	22.77	22.72	22.62	22.7
15	64QAM	36	0	21.61	21.61	21.63	
15	64QAM	36	20	21.65	21.60	21.62	
15	64QAM	36	39	21.70	21.63	21.60	
15	64QAM	75	0	21.68	21.62	21.57	
Channel				132022	132322	132622	25.7
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.60	24.54	24.56	25.7
10	QPSK	1	25	24.58	24.49	24.52	
10	QPSK	1	49	24.59	24.50	24.53	
10	QPSK	25	0	23.70	23.57	23.57	
10	QPSK	25	12	23.71	23.68	23.60	
10	QPSK	25	25	23.69	23.65	23.66	24.7
10	QPSK	50	0	23.72	23.67	23.59	
10	16QAM	1	0	24.00	23.94	23.92	
10	16QAM	1	25	23.95	23.92	23.92	
10	16QAM	1	49	23.98	23.88	23.89	
10	16QAM	25	0	22.70	22.60	22.58	23.7
10	16QAM	25	12	22.73	22.67	22.62	
10	16QAM	25	25	22.68	22.61	22.64	
10	16QAM	50	0	22.72	22.64	22.59	
10	64QAM	1	0	22.88	22.79	22.80	
10	64QAM	1	25	22.87	22.82	22.85	23.7
10	64QAM	1	49	22.84	22.81	22.81	
10	64QAM	25	0	21.72	21.62	21.62	
10	64QAM	25	12	21.76	21.70	21.64	
10	64QAM	25	25	21.73	21.64	21.68	
10	64QAM	50	0	21.75	21.68	21.63	22.7
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	25.7
5	QPSK	1	0	24.63	24.51	24.58	
5	QPSK	1	12	24.66	24.58	24.61	24.7
5	QPSK	1	24	24.60	24.57	24.55	
5	QPSK	12	0	23.71	23.59	23.67	
5	QPSK	12	7	23.74	23.70	23.72	
5	QPSK	12	13	23.71	23.65	23.67	24.7
5	QPSK	25	0	23.71	23.63	23.64	
5	16QAM	1	0	23.96	23.85	23.91	
5	16QAM	1	12	23.99	23.94	23.92	
5	16QAM	1	24	23.96	23.89	23.89	
5	16QAM	12	0	22.77	22.66	22.70	23.7
5	16QAM	12	7	22.79	22.69	22.71	
5	16QAM	12	13	22.73	22.70	22.68	
5	16QAM	25	0	22.72	22.69	22.67	
5	64QAM	1	0	22.86	22.80	22.83	
5	64QAM	1	12	22.94	22.83	22.85	23.7
5	64QAM	1	24	22.89	22.84	22.81	
5	64QAM	12	0	21.80	21.67	21.73	
5	64QAM	12	7	21.79	21.76	21.76	
5	64QAM	12	13	21.76	21.69	21.74	
5	64QAM	25	0	21.72	21.68	21.66	22.7
Channel				131967	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	25.7
3	QPSK	1	0	24.64	24.54	24.58	
3	QPSK	1	8	24.69	24.65	24.64	24.7
3	QPSK	1	14	24.65	24.58	24.59	
3	QPSK	8	0	23.72	23.62	23.68	
3	QPSK	8	4	23.73	23.70	23.68	
3	QPSK	8	7	23.71	23.64	23.62	24.7
3	QPSK	15	0	23.71	23.67	23.63	
3	16QAM	1	0	23.97	23.85	23.87	
3	16QAM	1	8	24.04	24.00	23.99	
3	16QAM	1	14	23.94	23.91	23.88	
3	16QAM	8	0	22.78	22.69	22.72	23.7
3	16QAM	8	4	22.82	22.72	22.73	
3	16QAM	8	7	22.79	22.72	22.70	
3	16QAM	15	0	22.75	22.66	22.69	
3	64QAM	1	0	22.91	22.79	22.81	
3	64QAM	1	8	22.99	22.92	22.91	23.7
3	64QAM	1	14	22.95	22.86	22.82	
3	64QAM	8	0	21.79	21.66	21.75	
3	64QAM	8	4	21.80	21.75	21.76	
3	64QAM	8	7	21.74	21.72	21.69	
3	64QAM	15	0	21.74	21.66	21.69	22.7
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	25.7
1.4	QPSK	1	0	24.56	24.48	24.50	
1.4	QPSK	1	3	24.57	24.51	24.57	24.7
1.4	QPSK	1	5	24.53	24.48	24.50	
1.4	QPSK	3	0	24.60	24.54	24.51	
1.4	QPSK	3	1	24.63	24.58	24.55	
1.4	QPSK	3	3	24.56	24.51	24.50	24.7
1.4	QPSK	6	0	23.62	23.55	23.59	
1.4	16QAM	1	0	23.67	23.62	23.62	
1.4	16QAM	1	3	23.65	23.59	23.58	
1.4	16QAM	1	5	23.86	23.81	23.78	
1.4	16QAM	3	0	23.69	23.63	23.62	23.7
1.4	16QAM	3	1	23.71	23.65	23.63	
1.4	16QAM	3	3	23.65	23.60	23.57	
1.4	16QAM	6	0	22.69	22.63	22.66	
1.4	64QAM	1	0	22.82	22.76	22.78	
1.4	64QAM	1	3	22.88	22.85	22.83	23.7
1.4	64QAM	1	5	22.81	22.75	22.73	
1.4	64QAM	3	0	22.78	22.72	22.74	
1.4	64QAM	3	1	22.82	22.78	22.78	
1.4	64QAM	3	3	22.78	22.69	22.75	
1.4	64QAM	6	0	21.67	21.59	21.59	22.7

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133392	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.80	24.79	25.7
20	QPSK	1	49	24.76	24.75	24.73	
20	QPSK	1	99	24.77	24.73	24.69	
20	QPSK	50	0	23.92	23.86	23.86	24.7
20	QPSK	50	24	23.94	23.86	23.82	
20	QPSK	50	50	23.93	23.87	23.83	
20	QPSK	100	0	23.93	23.88	23.89	24.7
20	16QAM	1	0	24.24	24.15	24.14	
20	16QAM	1	49	24.11	24.13	24.05	
20	16QAM	1	99	24.11	24.06	24.02	23.7
20	16QAM	50	0	22.91	22.86	22.88	
20	16QAM	50	24	22.95	22.85	22.84	
20	16QAM	50	50	22.92	22.89	22.85	23.7
20	16QAM	100	0	22.94	22.87	22.90	
20	64QAM	1	0	22.19	22.67	23.00	23.7
20	64QAM	1	49	22.74	22.99	22.35	
20	64QAM	1	99	23.01	22.53	22.89	
20	64QAM	50	0	20.95	21.85	21.51	22.7
20	64QAM	50	24	21.45	21.75	21.74	
20	64QAM	50	50	21.93	21.54	21.87	
20	64QAM	100	0	21.53	21.86	21.91	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.90	24.81	24.78	25.7
15	QPSK	1	37	24.66	24.73	24.72	
15	QPSK	1	74	24.73	24.76	24.69	
15	QPSK	36	0	23.88	23.86	23.82	24.7
15	QPSK	36	20	23.93	23.85	23.92	
15	QPSK	36	39	23.92	23.88	23.86	
15	QPSK	75	0	23.92	23.85	23.80	24.7
15	16QAM	1	0	24.20	24.13	24.11	
15	16QAM	1	37	23.92	24.09	24.06	
15	16QAM	1	74	24.03	24.06	24.03	23.7
15	16QAM	36	0	22.78	22.88	22.84	
15	16QAM	36	20	22.88	22.94	22.89	
15	16QAM	36	39	22.94	22.89	22.86	23.7
15	16QAM	75	0	22.94	22.94	22.81	
15	64QAM	1	0	22.13	22.70	22.87	
15	64QAM	1	37	21.75	23.01	23.01	22.7
15	64QAM	1	74	22.94	22.62	22.95	
15	64QAM	36	0	20.83	21.90	21.52	
15	64QAM	36	20	20.86	21.78	21.93	22.7
15	64QAM	36	39	21.52	21.45	21.91	
15	64QAM	75	0	21.35	21.84	21.80	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.85	24.74	24.76	25.7
10	QPSK	1	25	24.67	24.71	24.67	
10	QPSK	1	49	24.70	24.74	24.64	
10	QPSK	25	0	23.91	23.81	23.77	24.7
10	QPSK	25	12	23.77	23.82	23.80	
10	QPSK	25	25	23.81	23.87	23.80	
10	QPSK	50	0	23.90	23.83	23.79	24.7
10	16QAM	1	0	24.23	24.11	24.15	
10	16QAM	1	25	24.03	24.10	24.08	
10	16QAM	1	49	24.06	24.04	24.01	23.7
10	16QAM	25	0	22.79	22.82	22.77	
10	16QAM	25	12	22.68	22.83	22.77	
10	16QAM	25	25	22.65	22.83	22.79	23.7
10	16QAM	50	0	22.87	22.81	22.77	
10	64QAM	1	0	21.83	22.98	23.02	
10	64QAM	1	25	21.90	23.04	23.03	23.7
10	64QAM	1	49	22.13	22.22	22.55	
10	64QAM	25	0	20.74	21.96	21.82	
10	64QAM	25	12	20.75	21.77	21.84	22.7
10	64QAM	25	25	20.68	21.35	21.71	
10	64QAM	50	0	20.81	21.58	21.83	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.81	24.80	24.80	25.7
5	QPSK	1	12	24.74	24.81	24.76	
5	QPSK	1	24	24.76	24.75	24.69	
5	QPSK	12	0	23.72	23.87	23.82	24.7
5	QPSK	12	7	23.78	23.89	23.84	
5	QPSK	12	13	23.78	23.85	23.77	
5	QPSK	25	0	23.79	23.82	23.77	24.7
5	16QAM	1	0	23.89	24.14	24.10	
5	16QAM	1	12	23.97	24.11	24.06	
5	16QAM	1	24	24.02	24.10	24.00	23.7
5	16QAM	12	0	22.63	22.91	22.87	
5	16QAM	12	7	22.74	22.93	22.87	
5	16QAM	12	13	22.80	22.86	22.79	23.7
5	16QAM	25	0	22.69	22.86	22.77	
5	64QAM	1	0	21.71	23.02	22.98	
5	64QAM	1	12	21.82	22.98	22.79	22.7
5	64QAM	1	24	22.00	22.67	22.32	
5	64QAM	12	0	20.78	21.93	21.87	
5	64QAM	12	7	20.91	21.86	21.89	22.7
5	64QAM	12	13	20.85	21.67	21.86	
5	64QAM	25	0	20.74	21.69	21.82	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				18750	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.42	24.35	24.37	25.7
20	QPSK	1	49	24.33	24.30	24.24	
20	QPSK	1	99	24.32	24.35	24.36	
20	QPSK	50	0	23.41	23.38	23.37	24.7
20	QPSK	50	24	23.51	23.49	23.39	
20	QPSK	50	50	23.49	23.48	23.49	
20	QPSK	100	0	23.51	23.47	23.41	24.7
20	16QAM	1	0	23.68	23.69	23.72	
20	16QAM	1	49	23.67	23.64	23.54	
20	16QAM	1	99	23.64	23.64	23.65	23.7
20	16QAM	50	0	22.42	22.40	22.39	
20	16QAM	50	24	22.52	22.50	22.42	
20	16QAM	50	50	22.52	22.49	22.51	23.7
20	16QAM	100	0	22.49	22.48	22.39	
20	64QAM	1	0	22.60	22.52	22.56	
20	64QAM	1	49	22.54	22.50	21.66	22.7
20	64QAM	1	99	22.40	22.56	22.42	
20	64QAM	50	0	21.45	21.42	20.98	
20	64QAM	50	24	21.53	21.53	20.88	22.7
20	64QAM	50	50	21.44	21.50	21.23	
20	64QAM	100	0	21.52	21.51	21.07	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	24.34	24.35	24.36	25.7
15	QPSK	1	37	24.33	24.32	24.33	
15	QPSK	1	74	24.38	24.36	24.41	
15	QPSK	36	0	23.46	23.37	23.36	24.7
15	QPSK	36	20	23.49	23.48	23.39	
15	QPSK	36	39	23.47	23.48	23.49	
15	QPSK	75	0	23.48	23.47	23.41	24.7
15	16QAM	1	0	23.60	23.64	23.63	
15	16QAM	1	37	23.65	23.62	23.64	
15	16QAM	1	74	23.70	23.68	23.65	23.7
15	16QAM	36	0	22.47	22.39	22.35	
15	16QAM	36	20	22.48	22.49	22.40	
15	16QAM	36	39	22.48	22.49	22.49	23.7
15	16QAM	75	0	22.49	22.49	22.38	
15	64QAM	1	0	22.54	22.52	22.16	
15	64QAM	1	37	22.61	22.57	21.79	22.7
15	64QAM	1	74	22.50	22.59	22.54	
15	64QAM	36	0	21.50	21.41	20.76	
15	64QAM	36	20	21.53	21.51	21.04	22.7
15	64QAM	36	39	21.56	21.52	21.41	
15	64QAM	75	0	21.50	21.49	20.95	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	24.33	24.31	24.32	25.7
10	QPSK	1	25	24.25	24.27	24.27	
10	QPSK	1	49	24.32	24.35	24.34	
10	QPSK	25	0	23.44	23.36	23.33	24.7
10	QPSK	25	12	23.51	23.51	23.40	
10	QPSK	25	25	23.52	23.50	23.49	
10	QPSK	50	0	23.51	23.50	23.41	24.7
10	16QAM	1	0	23.71	23.64	23.65	
10	16QAM	1	25	23.71	23.69	23.69	
10	16QAM	1	49	23.73	23.72	23.73	23.7
10	16QAM	25	0	22.46	22.39	22.35	
10	16QAM	25	12	22.52	22.51	22.41	
10	16QAM	25	25	22.47	22.50	22.51	23.7
10	16QAM	50	0	22.50	22.49	22.40	
10	64QAM	1	0	22.61	22.52	21.90	
10	64QAM	1	25	22.59	22.62	22.41	22.7
10	64QAM	1	49	22.58	22.63	22.63	
10	64QAM	25	0	21.49	21.41	20.99	
10	64QAM	25	12	21.54	21.52	21.35	22.7
10	64QAM	25	25	21.54	21.53	21.44	
10	64QAM	50	0	21.54	21.52	21.12	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	24.25	24.25	24.28	25.7
5	QPSK	1	12	24.36	24.37	24.32	
5	QPSK	1	24	24.35	24.39	24.38	
5	QPSK	12	0	23.42	23.39	23.43	24.7
5	QPSK	12	7	23.47	23.48	23.48	
5	QPSK	12	13	23.48	23.45	23.48	
5	QPSK	25	0	23.45	23.43	23.44	24.7
5	16QAM	1	0	23.62	23.58	23.62	
5	16QAM	1	12	23.64	23.65	23.67	
5	16QAM	1	24	23.67	23.71	23.73	23.7
5	16QAM	12	0	22.47	22.42	22.46	
5	16QAM	12	7	22.50	22.53	22.50	
5	16QAM	12	13	22.49	22.51	22.52	23.7
5	16QAM	25	0	22.47	22.50	22.47	
5	64QAM	1	0	22.63	22.56	22.30	
5	64QAM	1	12	22.59	22.58	22.56	22.7
5	64QAM	1	24	22.60	22.64	22.60	
5	64QAM	12	0	21.52	21.47	21.51	
5	64QAM	12	7	21.57	21.57	21.56	22.7
5	64QAM	12	13	21.56	21.54	21.55	
5	64QAM	25	0	21.49	21.49	21.46	
Channel				18615	18900	19165	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	24.29	24.29	24.28	25.7
3	QPSK	1	8	24.39	24.38	24.39	
3	QPSK	1	14	24.33	24.35	24.35	
3	QPSK	8	0	23.41	23.47	23.42	24.7
3	QPSK	8	4	23.45	23.49	23.45	
3	QPSK	8	7	23.43	23.43	23.45	
3	QPSK	15	0	23.44	23.42	23.46	24.7
3	16QAM	1	0	23.64	23.63	23.63	
3	16QAM	1	8	23.69	23.71	23.70	
3	16QAM	1	14	23.68	23.71	23.67	23.7
3	16QAM	8	0	22.50	22.50	22.47	
3	16QAM	8	4	22.54	22.54	22.53	
3	16QAM	8	7	22.54	22.52	22.54	23.7
3	16QAM	15	0	22.50	22.49	22.45	
3	64QAM	1	0	22.54	22.58	22.57	
3	64QAM	1	8	22.62	22.65	22.66	22.7
3	64QAM	1	14	22.58	22.64	22.60	
3	64QAM	8	0	21.49	21.49	21.50	
3	64QAM	8	4	21.56	21.57	21.53	22.7
3	64QAM	8	7	21.50	21.53	21.52	
3	64QAM	15	0	21.48	21.48	21.50	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	24.28	24.26	24.25	25.7
1.4	QPSK	1	3	24.31	24.31	24.31	
1.4	QPSK	1	5	24.26	24.26	24.27	
1.4	QPSK	3	0	24.29	24.31	24.28	24.7
1.4	QPSK	3	1	24.33	24.35	24.33	
1.4	QPSK	3	3	24.28	24.32	24.29	
1.4	QPSK	6	0	23.37	23.38	23.36	24.7
1.4	16QAM	1	0	23.56	23.56	23.56	
1.4	16QAM	1	3	23.63	23.65	23.65	
1.4	16QAM	1	5	23.58	23.59	23.57	23.7
1.4	16QAM	3	0	23.36	23.39	23.34	
1.4	16QAM	3	1	23.42	23.43	23.40	
1.4	16QAM	3	3	23.34	23.38	23.32	23.7
1.4	16QAM	6	0	22.45	22.46	22.45	
1.4	64QAM	1	0	22.51	22.52	22.48	
1.4	64QAM	1	3	22.56	22.59	22.59	23.7
1.4	64QAM	1	5	22.50	22.53	22.49	
1.4	64QAM	3	0	22.48	22.48	22.48	
1.4	64QAM	3	1	22.62	22.54	22.52	22.7
1.4	64QAM	3	3	22.50	22.50	22.46	
1.4	64QAM	6	0	21.39	21.40	21.39	



Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	25.7
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.85	24.88	24.84	25.7
20	QPSK	1	49	24.70	24.68	24.64	
20	QPSK	1	99	24.73	24.67	24.66	
20	QPSK	50	0	23.89	23.88	23.86	24.7
20	QPSK	50	24	23.91	23.90	23.79	
20	QPSK	50	50	23.86	23.82	23.80	
20	QPSK	100	0	23.86	23.95	23.78	24.7
20	16QAM	1	0	24.17	24.19	24.16	
20	16QAM	1	49	24.03	24.03	24.02	
20	16QAM	1	99	24.08	23.99	23.94	23.7
20	16QAM	50	0	22.88	22.89	22.87	
20	16QAM	50	24	22.92	22.90	22.80	
20	16QAM	50	50	22.86	22.83	22.78	23.7
20	16QAM	100	0	22.89	22.94	22.76	
20	64QAM	1	0	22.84	23.06	22.68	
20	64QAM	1	49	22.93	22.88	22.85	23.7
20	64QAM	1	99	22.97	22.56	22.94	
20	64QAM	50	0	21.89	21.91	21.60	
20	64QAM	50	24	21.93	21.94	21.80	22.7
20	64QAM	50	50	21.87	21.62	21.82	
20	64QAM	100	0	21.95	21.91	21.81	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.84	24.87	24.84	25.7
15	QPSK	1	37	24.69	24.68	24.67	
15	QPSK	1	74	24.75	24.70	24.66	
15	QPSK	36	0	23.92	23.86	23.82	24.7
15	QPSK	36	20	23.89	23.89	23.78	
15	QPSK	36	39	23.85	23.86	23.81	
15	QPSK	75	0	23.90	23.92	23.78	24.7
15	16QAM	1	0	24.14	24.16	24.15	
15	16QAM	1	37	23.98	24.04	24.01	
15	16QAM	1	74	24.06	24.00	23.93	23.7
15	16QAM	36	0	22.93	22.88	22.85	
15	16QAM	36	20	22.88	22.87	22.78	
15	16QAM	36	39	22.85	22.83	22.80	23.7
15	16QAM	75	0	22.90	22.92	22.79	
15	64QAM	1	0	22.87	23.04	22.82	
15	64QAM	1	37	22.98	22.95	22.95	23.7
15	64QAM	1	74	22.95	22.70	22.88	
15	64QAM	36	0	21.93	21.94	21.86	
15	64QAM	36	20	21.90	21.96	21.80	22.7
15	64QAM	36	39	21.88	21.61	21.82	
15	64QAM	75	0	21.90	21.92	21.79	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.77	24.77	24.71	25.7
10	QPSK	1	25	24.71	24.71	24.66	
10	QPSK	1	49	24.77	24.75	24.70	
10	QPSK	25	0	23.82	23.82	23.74	24.7
10	QPSK	25	12	23.88	23.91	23.77	
10	QPSK	25	25	23.88	23.91	23.85	
10	QPSK	50	0	23.87	23.90	23.77	24.7
10	16QAM	1	0	24.11	24.13	24.10	
10	16QAM	1	25	24.10	24.14	24.06	
10	16QAM	1	49	24.13	24.09	24.11	23.7
10	16QAM	25	0	22.85	22.82	22.77	
10	16QAM	25	12	22.98	22.89	22.78	
10	16QAM	25	25	22.90	22.90	22.86	23.7
10	16QAM	50	0	22.87	22.89	22.78	
10	64QAM	1	0	22.73	23.00	22.94	
10	64QAM	1	25	23.03	23.04	22.98	23.7
10	64QAM	1	49	23.05	22.96	22.95	
10	64QAM	25	0	21.88	21.80	21.78	
10	64QAM	25	12	21.91	21.97	21.81	22.7
10	64QAM	25	25	21.90	21.68	21.87	
10	64QAM	50	0	21.93	21.90	21.84	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.77	24.68	24.72	25.7
5	QPSK	1	12	24.82	24.86	24.73	
5	QPSK	1	24	24.82	24.80	24.73	
5	QPSK	12	0	23.83	23.83	23.78	24.7
5	QPSK	12	7	23.88	23.86	23.83	
5	QPSK	12	13	23.89	23.87	23.80	
5	QPSK	25	0	23.85	23.88	23.78	24.7
5	16QAM	1	0	24.08	24.07	24.06	
5	16QAM	1	12	24.14	24.12	24.07	
5	16QAM	1	24	24.13	24.15	24.05	23.7
5	16QAM	12	0	22.89	22.83	22.83	
5	16QAM	12	7	22.93	22.91	22.83	
5	16QAM	12	13	22.92	22.90	22.84	23.7
5	16QAM	25	0	22.88	22.86	22.83	
5	64QAM	1	0	22.75	22.99	23.04	
5	64QAM	1	12	23.01	23.05	22.98	23.7
5	64QAM	1	24	23.12	22.67	22.97	
5	64QAM	12	0	21.75	21.85	21.87	
5	64QAM	12	7	21.96	21.97	21.89	22.7
5	64QAM	12	13	21.93	21.70	21.88	
5	64QAM	25	0	21.90	21.93	21.82	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.77	24.71	24.70	25.7
3	QPSK	1	8	24.85	24.87	24.79	
3	QPSK	1	14	24.83	24.82	24.71	
3	QPSK	8	0	23.87	23.78	23.81	24.7
3	QPSK	8	4	23.89	23.86	23.83	
3	QPSK	8	7	23.90	23.87	23.79	
3	QPSK	15	0	23.84	23.87	23.81	24.7
3	16QAM	1	0	24.12	24.04	24.03	
3	16QAM	1	8	24.16	24.16	24.10	
3	16QAM	1	14	24.12	24.12	24.07	23.7
3	16QAM	8	0	22.90	22.86	22.85	
3	16QAM	8	4	22.95	22.96	22.86	
3	16QAM	8	7	22.92	22.96	22.84	23.7
3	16QAM	15	0	22.88	22.88	22.83	
3	64QAM	1	0	22.77	23.01	22.96	
3	64QAM	1	8	22.97	23.14	23.06	23.7
3	64QAM	1	14	23.04	22.89	23.01	
3	64QAM	8	0	21.71	21.94	21.86	
3	64QAM	8	4	21.86	21.94	21.91	22.7
3	64QAM	8	7	21.92	21.92	21.87	
3	64QAM	15	0	21.82	21.91	21.84	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.70	24.68	24.60	25.7
1.4	QPSK	1	3	24.79	24.70	24.70	
1.4	QPSK	1	5	24.75	24.72	24.61	
1.4	QPSK	3	0	24.73	24.72	24.66	24.7
1.4	QPSK	3	1	24.77	24.79	24.70	
1.4	QPSK	3	3	24.72	24.74	24.67	
1.4	QPSK	6	0	23.81	23.77	23.73	24.7
1.4	16QAM	1	0	24.02	24.05	23.94	
1.4	16QAM	1	3	24.15	24.13	24.03	
1.4	16QAM	1	5	24.08	24.05	23.99	24.7
1.4	16QAM	3	0	23.91	23.82	23.77	
1.4	16QAM	3	1	23.90	23.89	23.82	
1.4	16QAM	3	3	23.82	23.82	23.74	23.7
1.4	16QAM	6	0	22.86	22.87	22.77	
1.4	64QAM	1	0	22.67	23.00	22.90	
1.4	64QAM	1	3	22.77	23.06	22.97	23.7
1.4	64QAM	1	5	22.74	22.97	22.90	
1.4	64QAM	3	0	22.72	22.94	22.87	
1.4	64QAM	3	1	22.85	22.97	22.95	22.7
1.4	64QAM	3	3	22.78	22.93	22.89	
1.4	64QAM	6	0	21.63	21.80	21.73	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.41	24.40	24.44	25.7
10	QPSK	1	25	24.38	24.43	24.44	
10	QPSK	1	49	24.42	24.55	24.35	
10	QPSK	25	0	23.48	23.56	23.53	24.7
10	QPSK	25	12	23.58	23.55	23.56	
10	QPSK	25	25	23.52	23.59	23.53	
10	QPSK	50	0	23.59	23.53	23.57	24.7
10	16QAM	1	0	23.82	23.81	23.85	
10	16QAM	1	25	23.78	23.82	23.83	
10	16QAM	1	49	23.82	23.89	23.77	23.7
10	16QAM	25	0	22.45	22.58	22.36	
10	16QAM	25	12	22.58	22.57	22.54	
10	16QAM	25	25	22.54	22.58	22.62	23.7
10	16QAM	50	0	22.57	22.55	22.54	
10	64QAM	1	0	22.65	22.63	22.63	23.7
10	64QAM	1	25	22.70	22.73	22.76	
10	64QAM	1	49	22.73	22.41	21.71	
10	64QAM	25	0	21.51	21.58	21.58	22.7
10	64QAM	25	12	21.61	21.62	21.60	
10	64QAM	25	25	21.58	21.60	20.89	
10	64QAM	50	0	21.58	21.59	21.25	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.51	24.52	24.54	25.7
5	QPSK	1	12	24.48	24.49	24.28	
5	QPSK	1	24	24.40	24.49	24.24	
5	QPSK	12	0	23.58	23.61	23.59	24.7
5	QPSK	12	7	23.52	23.62	23.34	
5	QPSK	12	13	23.51	23.57	23.18	
5	QPSK	25	0	23.52	23.55	23.51	24.7
5	16QAM	1	0	23.65	23.82	23.82	
5	16QAM	1	12	23.74	23.82	23.56	
5	16QAM	1	24	23.75	23.83	23.47	23.7
5	16QAM	12	0	22.63	22.57	22.58	
5	16QAM	12	7	22.58	22.63	22.50	
5	16QAM	12	13	22.51	22.58	22.28	23.7
5	16QAM	25	0	22.56	22.59	22.53	
5	64QAM	1	0	22.73	22.77	22.54	
5	64QAM	1	12	22.67	22.75	21.78	22.7
5	64QAM	1	24	22.72	22.60	21.72	
5	64QAM	12	0	21.65	21.66	21.27	
5	64QAM	12	7	21.60	21.67	20.70	Tune-up limit (dBm)
5	64QAM	12	13	21.56	21.62	20.71	
5	64QAM	25	0	21.57	21.60	20.76	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.49	24.48	24.23	25.7
3	QPSK	1	8	24.49	24.54	24.02	
3	QPSK	1	14	24.37	24.47	24.11	
3	QPSK	8	0	23.57	23.57	23.09	24.7
3	QPSK	8	4	23.54	23.61	23.10	
3	QPSK	8	7	23.52	23.59	23.20	
3	QPSK	15	0	23.55	23.52	23.12	24.7
3	16QAM	1	0	23.83	23.78	23.67	
3	16QAM	1	8	23.84	23.87	23.36	
3	16QAM	1	14	23.69	23.79	23.45	23.7
3	16QAM	8	0	22.63	22.62	22.29	
3	16QAM	8	4	22.62	22.72	22.20	
3	16QAM	8	7	22.59	22.66	22.28	23.7
3	16QAM	15	0	22.59	22.59	22.22	
3	64QAM	1	0	22.67	22.74	21.70	
3	64QAM	1	8	22.75	22.77	21.71	22.7
3	64QAM	1	14	22.70	22.52	21.70	
3	64QAM	8	0	21.64	21.62	20.70	
3	64QAM	8	4	21.64	21.65	20.70	Tune-up limit (dBm)
3	64QAM	8	7	21.55	21.64	20.72	
3	64QAM	15	0	21.59	21.62	20.73	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.37	24.39	23.99	25.7
1.4	QPSK	1	3	24.41	24.47	24.17	
1.4	QPSK	1	5	24.32	24.38	24.10	
1.4	QPSK	3	0	24.40	24.41	24.09	24.7
1.4	QPSK	3	1	24.44	24.44	24.15	
1.4	QPSK	3	3	24.39	24.46	24.35	
1.4	QPSK	6	0	23.49	23.54	23.21	24.7
1.4	16QAM	1	0	23.68	23.74	23.32	
1.4	16QAM	1	3	23.72	23.82	23.53	
1.4	16QAM	1	5	23.66	23.76	23.55	23.7
1.4	16QAM	3	0	23.52	23.50	23.10	
1.4	16QAM	3	1	23.56	23.55	23.27	
1.4	16QAM	3	3	23.46	23.52	23.44	23.7
1.4	16QAM	6	0	22.54	22.61	22.31	
1.4	64QAM	1	0	22.62	22.64	21.70	
1.4	64QAM	1	3	22.70	22.73	21.71	23.7
1.4	64QAM	1	5	22.61	22.63	21.70	
1.4	64QAM	3	0	22.62	22.61	21.72	
1.4	64QAM	3	1	22.64	22.65	21.74	22.7
1.4	64QAM	3	3	22.58	22.63	21.73	
1.4	64QAM	6	0	21.49	21.54	20.71	Tune-up limit (dBm)
Channel				20407	20525	20643	

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	24.80	24.77	24.61	25.7
20	QPSK	1	49	24.86	24.80	24.60	
20	QPSK	1	99	24.98	24.85	24.60	
20	QPSK	50	0	24.01	23.87	23.77	24.7
20	QPSK	50	24	24.04	23.86	23.76	
20	QPSK	50	50	24.03	23.91	23.77	
20	QPSK	100	0	24.04	23.88	23.78	24.7
20	16QAM	1	0	24.13	24.07	23.98	
20	16QAM	1	49	24.21	24.12	23.97	
20	16QAM	1	99	24.29	24.24	23.98	23.7
20	16QAM	50	0	23.00	22.87	22.78	
20	16QAM	50	24	23.03	22.90	22.80	
20	16QAM	50	50	23.05	22.93	22.78	23.7
20	16QAM	100	0	23.01	22.86	22.77	
20	64QAM	1	0	22.96	22.93	22.87	23.7
20	64QAM	1	49	23.07	23.04	22.32	
20	64QAM	1	99	23.12	23.04	22.71	
20	64QAM	50	0	22.02	21.89	21.59	22.7
20	64QAM	50	24	22.07	21.92	21.53	
20	64QAM	50	50	22.09	21.93	21.73	
20	64QAM	100	0	22.05	21.92	21.62	Tune-up limit (dBm)
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	24.83	24.76	24.65	25.7
15	QPSK	1	37	24.87	24.79	24.59	
15	QPSK	1	74	24.97	24.87	24.68	
15	QPSK	36	0	23.95	23.84	23.77	24.7
15	QPSK	36	20	24.04	23.90	23.78	
15	QPSK	36	39	24.06	23.91	23.76	
15	QPSK	75	0	24.03	23.89	23.75	24.7
15	16QAM	1	0	24.16	24.11	23.96	
15	16QAM	1	37	24.20	24.19	23.93	
15	16QAM	1	74	24.28	24.22	23.98	23.7
15	16QAM	36	0	22.92	22.84	22.75	
15	16QAM	36	20	23.04	22.88	22.77	
15	16QAM	36	39	23.03	22.91	22.74	23.7
15	16QAM	75	0	23.03	22.91	22.76	
15	64QAM	1	0	23.05	22.95	22.86	
15	64QAM	1	37	23.11	23.07	22.39	22.7
15	64QAM	1	74	23.18	23.03	22.87	
15	64QAM	36	0	21.96	21.89	21.46	
15	64QAM	36	20	22.07	21.93	21.62	Tune-up limit (dBm)
15	64QAM	36	39	22.09	21.98	21.61	
15	64QAM	75	0	22.05	21.89	21.59	
Channel				20900	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	24.79	24.70	24.53	25.7
10	QPSK	1	25	24.77	24.71	24.50	
10	QPSK	1	49	24.86	24.77	24.53	
10	QPSK	25	0	23.94	23.82	23.66	24.7
10	QPSK	25	12	24.00	23.96	23.71	
10	QPSK	25	25	23.99	23.86	23.69	
10	QPSK	50	0	23.98	23.85	23.68	24.7
10	16QAM	1	0	24.17	24.09	23.89	
10	16QAM	1	25	24.15	24.11	23.88	
10	16QAM	1	49	24.24	24.17	23.95	23.7
10	16QAM	25	0	22.86	22.79	22.64	
10	16QAM	25	12	23.02	22.85	22.68	
10	16QAM	25	25	22.98	22.84	22.67	23.7
10	16QAM	50	0	22.98	22.84	22.68	
10	64QAM	1	0	23.07	22.98	22.61	
10	64QAM	1	25	23.10	23.06	22.80	22.7
10	64QAM	1	49	23.15	23.01	22.82	
10	64QAM	25	0	21.99	21.85	21.58	
10	64QAM	25	12	22.03	21.90	21.74	Tune-up limit (dBm)
10	64QAM	25	25	22.05	21.89	21.70	
10	64QAM	50	0	22.01	21.87	21.64	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	24.85	24.72	24.54	25.7
5	QPSK	1	12	24.89	24.81	24.58	
5	QPSK	1	24	24.87	24.82	24.56	
5	QPSK	12	0	23.96	23.85	23.64	24.7
5	QPSK	12	7	23.97	23.92	23.64	
5	QPSK	12	13	23.99	23.96	23.65	
5	QPSK	25	0	23.97	23.85	23.66	24.7
5	16QAM	1	0	24.17	24.05	23.85	
5	16QAM	1	12	24.19	24.10	23.86	
5	16QAM	1	24	24.23	24.15	23.91	23.7
5	16QAM	12	0	23.02	22.90	22.70	
5	16QAM	12	7	23.01	22.91	22.71	
5	16QAM	12	13	23.04	22.96	22.67	23.7
5	16QAM	25	0	23.00	22.86	22.67	
5	64QAM	1	0	23.12	23.03	22.77	
5	64QAM	1	12	23.13	23.03	22.78	22.7
5	64QAM	1	24	23.17	23.09	22.81	
5	64QAM	12	0	22.06	21.90	21.75	
5	64QAM	12	7	22.05	21.98	21.73	Tune-up limit (dBm)
5	64QAM	12	13	22.05	21.96	21.73	
5	64QAM	25	0	22.00	21.89	21.68	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
10	QPSK	1	0	24.72	24.52	24.58	25.7
10	QPSK	1	25	24.54	24.54	24.54	
10	QPSK	1	49	24.66	24.60	24.55	
10	QPSK	25	0	23.67	23.66	23.64	24.7
10	QPSK	25	12	23.75	23.69	23.73	
10	QPSK	25	25	23.73	23.72	23.71	
10	QPSK	50	0	23.76	23.65	23.73	24.7
10	16QAM	1	0	23.97	23.90	23.96	
10	16QAM	1	25	23.96	23.95	23.92	
10	16QAM	1	49	24.02	23.85	23.93	23.7
10	16QAM	25	0	22.67	22.66	22.67	
10	16QAM	25	12	22.76	22.67	22.73	
10	16QAM	25	25	22.69	22.69	22.70	23.7
10	16QAM	50	0	22.76	22.67	22.72	
10	64QAM	1	0	22.79	22.73	22.81	23.7
10	64QAM	1	25	22.86	22.84	22.57	
10	64QAM	1	49	22.94	22.87	22.87	
10	64QAM	25	0	21.72	21.70	21.58	22.7
10	64QAM	25	12	21.80	21.73	21.75	
10	64QAM	25	25	21.75	21.75	21.73	
10	64QAM	50	0	21.78	21.70	21.76	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.61	24.59	24.54	
5	QPSK	1	12	24.62	24.67	24.59	25.7
5	QPSK	1	24	24.61	24.61	24.56	
5	QPSK	12	0	23.73	23.70	23.65	24.7
5	QPSK	12	7	23.73	23.67	23.67	
5	QPSK	12	13	23.67	23.67	23.64	
5	QPSK	25	0	23.71	23.66	23.59	24.7
5	16QAM	1	0	23.96	23.94	23.86	
5	16QAM	1	12	23.93	23.92	23.89	
5	16QAM	1	24	23.94	23.97	23.90	23.7
5	16QAM	12	0	22.76	22.74	22.68	
5	16QAM	12	7	22.76	22.69	22.72	
5	16QAM	12	13	22.71	22.71	22.65	23.7
5	16QAM	25	0	22.74	22.67	22.65	
5	64QAM	1	0	22.74	22.61	22.81	
5	64QAM	1	12	22.84	22.84	22.81	22.7
5	64QAM	1	24	22.76	22.88	22.80	
5	64QAM	12	0	21.80	21.77	21.72	
5	64QAM	12	7	21.76	21.73	21.76	22.7
5	64QAM	12	13	21.77	21.76	21.70	
5	64QAM	25	0	21.74	21.72	21.66	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.71	24.62	24.60	25.7
3	QPSK	1	8	24.66	24.70	24.64	
3	QPSK	1	14	24.62	24.62	24.57	
3	QPSK	8	0	23.74	23.65	23.62	24.7
3	QPSK	8	4	23.72	23.72	23.67	
3	QPSK	8	7	23.70	23.70	23.63	
3	QPSK	15	0	23.73	23.67	23.61	24.7
3	16QAM	1	0	24.04	23.94	23.90	
3	16QAM	1	8	23.97	24.01	23.96	
3	16QAM	1	14	23.93	23.97	23.86	23.7
3	16QAM	8	0	22.80	22.74	22.67	
3	16QAM	8	4	22.80	22.80	22.71	
3	16QAM	8	7	22.75	22.73	22.69	23.7
3	16QAM	15	0	22.76	22.67	22.62	
3	64QAM	1	0	22.82	22.76	22.81	
3	64QAM	1	8	22.96	22.93	22.87	23.7
3	64QAM	1	14	22.88	22.86	22.77	
3	64QAM	8	0	21.80	21.75	21.69	
3	64QAM	8	4	21.80	21.83	21.75	22.7
3	64QAM	8	7	21.73	21.74	21.69	
3	64QAM	15	0	21.77	21.69	21.62	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.60	24.53	24.49	25.7
1.4	QPSK	1	3	24.60	24.60	24.53	
1.4	QPSK	1	5	24.52	24.52	24.43	
1.4	QPSK	3	0	24.62	24.51	24.50	24.7
1.4	QPSK	3	1	24.67	24.55	24.54	
1.4	QPSK	3	3	24.58	24.57	24.47	
1.4	QPSK	6	0	23.67	23.59	23.54	24.7
1.4	16QAM	1	0	23.92	23.85	23.83	
1.4	16QAM	1	3	23.95	23.93	23.88	
1.4	16QAM	1	5	23.86	23.90	23.76	24.7
1.4	16QAM	3	0	23.68	23.62	23.59	
1.4	16QAM	3	1	23.74	23.64	23.63	
1.4	16QAM	3	3	23.65	23.61	23.55	23.7
1.4	16QAM	6	0	22.72	22.65	22.62	
1.4	64QAM	1	0	22.82	22.76	22.75	
1.4	64QAM	1	3	22.88	22.84	22.78	23.7
1.4	64QAM	1	5	22.78	22.77	22.70	
1.4	64QAM	3	0	22.79	22.74	22.74	
1.4	64QAM	3	1	22.83	22.77	22.73	22.7
1.4	64QAM	3	3	22.76	22.76	22.67	
1.4	64QAM	6	0	21.67	21.60	21.59	

Band 13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23230			Tune-up limit (dbm)
Frequency (MHz)				752			
10	QPSK	1	0	23.87			25.2
10	QPSK	1	25	23.85			
10	QPSK	1	49	23.99			
10	QPSK	25	0	22.99			24.2
10	QPSK	25	12	23.00			
10	QPSK	25	25	22.99			
10	QPSK	50	0	23.06			24.2
10	16QAM	1	0	23.19			
10	16QAM	1	25	23.20			
10	16QAM	1	49	23.18			23.2
10	16QAM	25	0	21.95			
10	16QAM	25	12	22.01			
10	16QAM	25	25	21.98			23.2
10	16QAM	50	0	21.97			
10	64QAM	1	0	22.04			
10	64QAM	1	25	22.13			23.2
10	64QAM	1	49	22.10			
10	64QAM	25	0	21.01			
10	64QAM	25	12	21.06			22.2
10	64QAM	25	25	21.02			
10	64QAM	50	0	21.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.78	23.84	23.88	25.2
5	QPSK	1	12	23.88	23.90	23.85	
5	QPSK	1	24	23.88	23.86	23.94	
5	QPSK	12	0	22.94	22.96	22.95	24.2
5	QPSK	12	7	22.99	22.95	22.90	
5	QPSK	12	13	23.00	23.01	22.95	
5	QPSK	25	0	22.99	22.97	22.92	24.2
5	16QAM	1	0	23.08	23.13	23.15	
5	16QAM	1	12	23.15	23.15	23.11	
5	16QAM	1	24	23.22	23.16	23.09	23.2
5	16QAM	12	0	22.02	21.99	21.96	
5	16QAM	12	7	22.05	21.97	21.96	
5	16QAM	12	13	22.02	22.02	22.00	23.2
5	16QAM	25	0	22.05	21.97	21.96	
5	64QAM	1	0	22.00	22.15	22.04	
5	64QAM	1	12	22.13	22.13	22.11	23.2
5	64QAM	1	24	22.13	22.13	22.03	
5	64QAM	12	0	21.10	21.04	21.04	
5	64QAM	12	7	21.07	21.03	20.96	22.2
5	64QAM	12	13	21.04	21.04	21.00	
5	64QAM	25	0	21.04	21.03	20.94	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.43			25.7
10	QPSK	1	25	24.53			
10	QPSK	1	49	24.34			
10	QPSK	25	0	23.49			24.7
10	QPSK	25	12	23.47			
10	QPSK	25	25	23.50			
10	QPSK	50	0	23.44			24.7
10	16QAM	1	0	23.82			
10	16QAM	1	25	23.82			
10	16QAM	1	49	23.73			23.7
10	16QAM	25	0	22.48			
10	16QAM	25	12	22.48			
10	16QAM	25	25	22.49			23.7
10	16QAM	50	0	22.45			
10	64QAM	1	0	22.73			
10	64QAM	1	25	22.59			23.7
10	64QAM	1	49	22.62			
10	64QAM	25	0	21.51			
10	64QAM	25	12	21.27			22.7
10	64QAM	25	25	21.52			
10	64QAM	50	0	21.49			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.43	24.39	24.40	25.7
5	QPSK	1	12	24.49	24.50	24.44	
5	QPSK	1	24	24.49	24.41	24.36	
5	QPSK	12	0	23.50	23.48	23.45	24.7
5	QPSK	12	7	23.55	23.54	23.49	
5	QPSK	12	13	23.53	23.50	23.47	
5	QPSK	25	0	23.54	23.48	23.41	24.7
5	16QAM	1	0	23.75	23.73	23.70	
5	16QAM	1	12	23.62	23.60	23.77	
5	16QAM	1	24	23.77	23.76	23.71	23.7
5	16QAM	12	0	22.50	22.53	22.49	
5	16QAM	12	7	22.59	22.55	22.50	
5	16QAM	12	13	22.55	22.53	22.48	23.7
5	16QAM	25	0	22.54	22.50	22.44	
5	64QAM	1	0	22.75	22.62	22.51	
5	64QAM	1	12	22.74	22.25	22.55	23.7
5	64QAM	1	24	22.30	22.27	22.68	
5	64QAM	12	0	21.56	21.32	21.21	
5	64QAM	12	7	21.64	21.19	21.52	22.7
5	64QAM	12	13	21.37	21.18	21.58	
5	64QAM	25	0	21.58	21.15	21.45	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.61	24.54	24.55	25.7
10	QPSK	1	25	24.60	24.59	24.56	
10	QPSK	1	49	24.60	24.70	24.58	
10	QPSK	25	0	23.62	23.62	23.61	24.7
10	QPSK	25	12	23.75	23.96	23.66	
10	QPSK	25	25	23.75	23.75	23.74	
10	QPSK	50	0	23.75	23.66	23.64	
10	16QAM	1	0	23.95	23.94	23.91	24.7
10	16QAM	1	25	23.98	23.99	23.99	
10	16QAM	1	49	23.99	23.99	23.97	
10	16QAM	25	0	22.64	22.61	22.63	23.7
10	16QAM	25	12	22.75	22.70	22.67	
10	16QAM	25	25	22.72	22.75	22.71	
10	16QAM	50	0	22.73	22.66	22.65	
10	64QAM	1	0	22.86	22.80	22.81	23.7
10	64QAM	1	25	22.91	22.90	22.74	
10	64QAM	1	49	22.90	22.89	22.81	
10	64QAM	25	0	21.66	21.67	21.66	22.7
10	64QAM	25	12	21.80	21.74	21.72	
10	64QAM	25	25	21.79	21.78	21.75	
10	64QAM	50	0	21.78	21.71	21.69	
Channel				23785	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.54	24.58	24.56	25.7
5	QPSK	1	12	24.64	24.69	24.64	
5	QPSK	1	24	24.67	24.67	24.64	
5	QPSK	12	0	23.67	23.67	23.64	24.7
5	QPSK	12	7	23.71	23.73	23.71	
5	QPSK	12	13	23.74	23.74	23.69	
5	QPSK	25	0	23.74	23.69	23.67	
5	16QAM	1	0	23.90	23.89	23.87	24.7
5	16QAM	1	12	23.94	23.97	23.90	
5	16QAM	1	24	23.98	23.99	23.93	
5	16QAM	12	0	22.69	22.69	22.69	23.7
5	16QAM	12	7	22.72	22.71	22.70	
5	16QAM	12	13	22.76	22.74	22.68	
5	16QAM	25	0	22.73	22.71	22.72	23.7
5	64QAM	1	0	22.67	22.59	22.83	
5	64QAM	1	12	22.86	22.77	22.82	
5	64QAM	1	24	22.88	22.84	22.82	
5	64QAM	12	0	21.74	21.71	21.70	22.7
5	64QAM	12	7	21.78	21.76	21.76	
5	64QAM	12	13	21.78	21.82	21.74	
5	64QAM	25	0	21.74	21.70	21.72	



Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26969	Tune-up limit (dBm)
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.41	24.33	24.38	25.7
15	QPSK	1	37	24.28	24.36	24.35	
15	QPSK	1	74	24.37	24.59	24.29	
15	QPSK	36	0	23.45	23.46	23.48	24.7
15	QPSK	36	20	23.52	23.46	23.44	
15	QPSK	36	39	23.45	23.50	23.44	
15	QPSK	75	0	23.52	23.46	23.44	24.7
15	16QAM	1	0	23.71	23.68	23.71	
15	16QAM	1	37	23.63	23.69	23.69	
15	16QAM	1	74	23.70	23.72	23.62	23.7
15	16QAM	36	0	22.47	22.51	22.51	
15	16QAM	36	20	22.51	22.45	22.45	
15	16QAM	36	39	22.47	22.52	22.47	23.7
15	16QAM	75	0	22.53	22.49	22.50	
15	64QAM	1	0	22.58	22.51	22.50	23.7
15	64QAM	1	37	22.54	22.63	22.58	
15	64QAM	1	74	22.58	22.59	21.79	
15	64QAM	36	0	21.51	21.53	21.54	22.7
15	64QAM	36	20	21.55	21.50	21.50	
15	64QAM	36	39	21.50	21.61	21.59	
15	64QAM	75	0	21.54	21.49	21.50	Tune-up limit (dBm)
Channel				26740	26965	26990	
Frequency (MHz)				819	831.5	844	Tune-up limit (dBm)
10	QPSK	1	0	24.49	24.42	24.48	
10	QPSK	1	25	24.35	24.38	24.40	25.7
10	QPSK	1	49	24.42	24.43	24.37	
10	QPSK	25	0	23.57	23.48	23.51	24.7
10	QPSK	25	12	23.57	23.50	23.53	
10	QPSK	25	25	23.48	23.53	23.54	
10	QPSK	50	0	23.54	23.49	23.49	24.7
10	16QAM	1	0	23.68	23.77	23.88	
10	16QAM	1	25	23.75	23.81	23.80	
10	16QAM	1	49	23.80	23.79	23.75	23.7
10	16QAM	25	0	22.56	22.49	22.51	
10	16QAM	25	12	22.56	22.50	22.51	
10	16QAM	25	25	22.45	22.54	22.47	23.7
10	64QAM	50	0	22.53	22.46	22.47	
10	64QAM	1	0	22.51	22.65	22.72	
10	64QAM	1	25	22.70	22.73	22.75	22.7
10	64QAM	1	49	22.73	22.74	22.16	
10	64QAM	25	0	21.61	21.56	21.55	
10	64QAM	25	12	21.61	21.55	21.58	Tune-up limit (dBm)
10	64QAM	25	25	21.53	21.56	21.40	
10	64QAM	50	0	21.58	21.52	21.52	
Channel				26715	26965	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.58	24.40	24.49	25.7
5	QPSK	1	12	24.54	24.46	24.46	
5	QPSK	1	24	24.39	24.49	24.40	
5	QPSK	12	0	23.62	23.52	23.56	24.7
5	QPSK	12	7	23.62	23.58	23.52	
5	QPSK	12	13	23.53	23.53	23.43	
5	QPSK	25	0	23.59	23.49	23.50	24.7
5	16QAM	1	0	23.92	23.77	23.81	
5	16QAM	1	12	23.80	23.76	23.69	
5	16QAM	1	24	23.73	23.83	23.69	23.7
5	16QAM	12	0	22.65	22.55	22.52	
5	16QAM	12	7	22.59	22.61	22.52	
5	16QAM	12	13	22.53	22.50	22.45	23.7
5	16QAM	25	0	22.58	22.51	22.54	
5	64QAM	1	0	22.82	22.72	22.70	
5	64QAM	1	12	22.71	22.66	22.03	22.7
5	64QAM	1	24	22.64	22.67	21.90	
5	64QAM	12	0	21.71	21.62	21.61	
5	64QAM	12	7	21.70	21.64	21.03	Tune-up limit (dBm)
5	64QAM	12	13	21.61	21.61	20.72	
5	64QAM	25	0	21.62	21.52	21.16	
Channel				26705	26965	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.56	24.45	24.47	25.7
3	QPSK	1	8	24.58	24.54	24.36	
3	QPSK	1	14	24.46	24.51	24.41	
3	QPSK	8	0	23.63	23.52	23.41	24.7
3	QPSK	8	4	23.65	23.60	23.40	
3	QPSK	8	7	23.57	23.50	23.44	
3	QPSK	15	0	23.57	23.51	23.43	24.7
3	16QAM	1	0	23.92	23.76	23.76	
3	16QAM	1	8	23.92	23.83	23.59	
3	16QAM	1	14	23.77	23.84	23.70	23.7
3	16QAM	8	0	22.69	22.61	22.55	
3	16QAM	8	4	22.66	22.64	22.51	
3	16QAM	8	7	22.60	22.58	22.49	23.7
3	16QAM	15	0	22.64	22.53	22.49	
3	64QAM	1	0	22.78	22.67	22.05	
3	64QAM	1	8	22.79	22.75	21.73	22.7
3	64QAM	1	14	22.66	22.69	21.83	
3	64QAM	8	0	21.72	21.58	20.80	
3	64QAM	8	4	21.72	21.68	20.67	Tune-up limit (dBm)
3	64QAM	8	7	21.63	21.59	20.74	
3	64QAM	15	0	21.63	21.55	20.78	
Channel				26997	26965	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.48	24.36	24.32	25.7
1.4	QPSK	1	3	24.52	24.47	24.34	
1.4	QPSK	1	5	24.44	24.38	24.24	
1.4	QPSK	3	0	24.50	24.39	24.33	24.7
1.4	QPSK	3	1	24.51	24.40	24.37	
1.4	QPSK	3	3	24.47	24.41	24.35	
1.4	QPSK	6	0	23.54	23.48	23.37	24.7
1.4	16QAM	1	0	23.87	23.69	23.60	
1.4	16QAM	1	3	23.87	23.77	23.68	
1.4	16QAM	1	5	23.79	23.71	23.60	24.7
1.4	16QAM	3	0	23.69	23.45	23.37	
1.4	16QAM	3	1	23.71	23.51	23.45	
1.4	16QAM	3	3	23.66	23.47	23.35	23.7
1.4	16QAM	6	0	22.61	22.57	22.47	
1.4	64QAM	1	0	22.84	22.58	21.71	
1.4	64QAM	1	3	22.82	22.68	21.82	23.7
1.4	64QAM	1	5	22.78	22.59	21.87	
1.4	64QAM	3	0	22.73	22.57	21.72	
1.4	64QAM	3	1	22.74	22.64	21.75	22.7
1.4	64QAM	3	3	22.69	22.60	21.88	
1.4	64QAM	6	0	21.59	21.49	20.73	

Band 30							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				2771.0			
Frequency (MHz)				2310			
10	QPSK	1	0		22.93		23.7
10	QPSK	1	25		22.81		
10	QPSK	1	49		22.83		
10	QPSK	25	0		21.86		22.7
10	QPSK	25	12		21.92		
10	QPSK	25	25		21.94		
10	QPSK	50	0		21.92		22.7
10	16QAM	1	0		22.22		
10	16QAM	1	25		22.21		
10	16QAM	1	49		22.22		21.7
10	16QAM	25	0		20.88		
10	16QAM	25	12		20.95		
10	16QAM	25	25		20.89		21.7
10	16QAM	50	0		20.83		
10	64QAM	1	0		21.09		
10	64QAM	1	25		21.16		20.7
10	64QAM	1	49		21.08		
10	64QAM	25	0		19.94		
10	64QAM	25	12		19.99		20.7
10	64QAM	25	25		19.99		
10	64QAM	50	0		19.96		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dbm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.77	22.78	22.83	23.7
5	QPSK	1	12	22.90	22.85	22.92	
5	QPSK	1	24	22.90	22.88	22.84	
5	QPSK	12	0	21.90	21.89	21.92	22.7
5	QPSK	12	7	22.01	21.95	21.97	
5	QPSK	12	13	22.00	21.94	21.90	
5	QPSK	25	0	21.95	21.92	21.94	22.7
5	16QAM	1	0	22.12	22.12	22.16	
5	16QAM	1	12	22.22	22.21	22.18	
5	16QAM	1	24	22.24	22.22	22.17	21.7
5	16QAM	12	0	20.92	20.93	20.95	
5	16QAM	12	7	20.98	20.97	21.00	
5	16QAM	12	13	21.00	20.95	20.94	21.7
5	16QAM	25	0	20.99	20.92	20.95	
5	64QAM	1	0	21.05	21.07	21.16	
5	64QAM	1	12	21.09	21.12	21.12	20.7
5	64QAM	1	24	21.21	21.13	21.09	
5	64QAM	12	0	19.97	19.97	20.01	
5	64QAM	12	7	20.06	20.00	20.04	20.7
5	64QAM	12	13	20.08	20.01	19.95	
5	64QAM	25	0	20.01	19.96	19.96	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	25.7
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.69	24.76	24.56	25.7
20	QPSK	1	49	24.51	24.51	24.44	
20	QPSK	1	99	24.63	24.52	24.41	
20	QPSK	50	0	23.70	23.68	23.64	24.7
20	QPSK	50	24	23.77	23.65	23.66	
20	QPSK	50	50	23.75	23.68	23.64	
20	QPSK	100	0	23.76	23.70	23.72	24.7
20	16QAM	1	0	24.02	23.99	23.90	
20	16QAM	1	49	23.90	23.82	23.78	
20	16QAM	1	99	23.98	23.83	23.75	23.7
20	16QAM	50	0	22.69	22.69	22.67	
20	16QAM	50	24	22.77	22.65	22.71	
20	16QAM	50	50	22.78	22.69	22.67	23.7
20	16QAM	100	0	22.76	22.70	22.74	
20	64QAM	1	0	22.85	22.87	22.77	
20	64QAM	1	49	22.77	22.71	22.70	23.7
20	64QAM	1	99	22.87	22.82	22.66	
20	64QAM	50	0	21.72	21.69	21.69	
20	64QAM	50	24	21.79	21.65	21.72	22.7
20	64QAM	50	50	21.78	21.70	21.67	
20	64QAM	100	0	21.82	21.72	21.72	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	24.64	24.61	24.57	25.7
15	QPSK	1	37	24.55	24.51	24.49	
15	QPSK	1	74	24.69	24.60	24.50	
15	QPSK	36	0	23.66	23.69	23.64	24.7
15	QPSK	36	20	23.72	23.73	23.67	
15	QPSK	36	39	23.76	23.70	23.68	
15	QPSK	75	0	23.78	23.72	23.62	24.7
15	16QAM	1	0	23.63	23.96	23.90	
15	16QAM	1	37	23.89	23.83	23.84	
15	16QAM	1	74	23.97	23.88	23.75	23.7
15	16QAM	36	0	22.69	22.69	22.64	
15	16QAM	36	20	22.74	22.72	22.68	
15	16QAM	36	39	22.76	22.70	22.67	23.7
15	16QAM	75	0	22.76	22.74	22.61	
15	64QAM	1	0	22.82	22.80	22.76	
15	64QAM	1	37	22.84	22.80	22.69	23.7
15	64QAM	1	74	22.93	22.83	22.70	
15	64QAM	36	0	21.70	21.68	21.69	
15	64QAM	36	20	21.78	21.74	21.70	22.7
15	64QAM	36	39	21.78	21.70	21.67	
15	64QAM	75	0	21.77	21.72	21.64	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.66	24.58	24.61	25.7
10	QPSK	1	25	24.61	24.56	24.56	
10	QPSK	1	49	24.63	24.60	24.58	
10	QPSK	25	0	23.74	23.66	23.64	24.7
10	QPSK	25	12	23.76	23.75	23.64	
10	QPSK	25	25	23.75	23.72	23.68	
10	QPSK	50	0	23.76	23.73	23.64	24.7
10	16QAM	1	0	24.07	24.01	23.99	
10	16QAM	1	25	23.99	23.95	23.97	
10	16QAM	1	49	24.09	23.97	23.98	23.7
10	16QAM	25	0	22.78	22.66	22.63	
10	16QAM	25	12	22.79	22.74	22.66	
10	16QAM	25	25	22.74	22.69	22.69	23.7
10	16QAM	50	0	22.77	22.73	22.64	
10	64QAM	1	0	22.95	22.87	22.82	
10	64QAM	1	25	22.96	22.90	22.89	23.7
10	64QAM	1	49	22.93	22.89	22.85	
10	64QAM	25	0	21.77	21.69	21.67	
10	64QAM	25	12	21.80	21.77	21.67	22.7
10	64QAM	25	25	21.76	21.72	21.74	
10	64QAM	50	0	21.81	21.77	21.65	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	24.64	24.60	24.61	25.7
5	QPSK	1	12	24.70	24.65	24.63	
5	QPSK	1	24	24.66	24.62	24.58	
5	QPSK	12	0	23.74	23.64	23.68	24.7
5	QPSK	12	7	23.77	23.73	23.72	
5	QPSK	12	13	23.72	23.72	23.69	
5	QPSK	25	0	23.72	23.68	23.67	24.7
5	16QAM	1	0	23.99	23.93	23.92	
5	16QAM	1	12	24.01	23.97	23.95	
5	16QAM	1	24	23.98	23.94	23.88	23.7
5	16QAM	12	0	22.78	22.67	22.71	
5	16QAM	12	7	22.81	22.79	22.74	
5	16QAM	12	13	22.76	22.72	22.71	23.7
5	16QAM	25	0	22.76	22.72	22.71	
5	64QAM	1	0	22.92	22.85	22.82	
5	64QAM	1	12	22.94	22.89	22.87	23.7
5	64QAM	1	24	22.96	22.87	22.82	
5	64QAM	12	0	21.84	21.73	21.76	
5	64QAM	12	7	21.81	21.79	21.79	22.7
5	64QAM	12	13	21.83	21.74	21.76	
5	64QAM	25	0	21.77	21.75	21.69	
Channel				131967	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	24.68	24.61	24.60	25.7
3	QPSK	1	8	24.75	24.68	24.67	
3	QPSK	1	14	24.67	24.62	24.59	
3	QPSK	8	0	23.77	23.67	23.70	24.7
3	QPSK	8	4	23.79	23.75	23.69	
3	QPSK	8	7	23.78	23.70	23.69	
3	QPSK	15	0	23.74	23.72	23.66	24.7
3	16QAM	1	0	24.01	23.89	23.93	
3	16QAM	1	8	24.11	24.05	23.99	
3	16QAM	1	14	24.02	23.97	23.96	23.7
3	16QAM	8	0	22.82	22.71	22.75	
3	16QAM	8	4	22.84	22.78	22.78	
3	16QAM	8	7	22.80	22.79	22.76	23.7
3	16QAM	15	0	22.80	22.75	22.73	
3	64QAM	1	0	22.94	22.88	22.90	
3	64QAM	1	8	23.04	22.99	22.95	23.7
3	64QAM	1	14	22.97	22.92	22.86	
3	64QAM	8	0	21.81	21.73	21.72	
3	64QAM	8	4	21.86	21.82	21.76	22.7
3	64QAM	8	7	21.82	21.77	21.74	
3	64QAM	15	0	21.78	21.74	21.74	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	24.61	24.56	24.54	25.7
1.4	QPSK	1	3	24.68	24.62	24.62	
1.4	QPSK	1	5	24.59	24.58	24.54	
1.4	QPSK	3	0	24.63	24.64	24.60	24.7
1.4	QPSK	3	1	24.70	24.69	24.63	
1.4	QPSK	3	3	24.65	24.61	24.58	
1.4	QPSK	6	0	23.72	23.66	23.67	24.7
1.4	16QAM	1	0	23.95	23.90	23.89	
1.4	16QAM	1	3	24.01	23.97	23.95	
1.4	16QAM	1	5	23.93	23.90	23.87	24.7
1.4	16QAM	3	0	23.76	23.73	23.69	
1.4	16QAM	3	1	23.80	23.76	23.75	
1.4	16QAM	3	3	23.72	23.69	23.66	23.7
1.4	16QAM	6	0	22.77	22.73	22.74	
1.4	64QAM	1	0	22.85	22.86	22.83	
1.4	64QAM	1	3	22.98	22.91	22.92	23.7
1.4	64QAM	1	5	22.87	22.84	22.79	
1.4	64QAM	3	0	22.84	22.84	22.79	
1.4	64QAM	3	1	22.89	22.86	22.86	22.7
1.4	64QAM	3	3	22.84	22.82	22.78	
1.4	64QAM	6	0	21.75	21.69	21.66	

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.77	24.65	24.66	25.7
20	QPSK	1	49	24.61	24.63	24.60	
20	QPSK	1	99	24.64	24.61	24.56	
20	QPSK	50	0	23.80	23.72	23.74	24.7
20	QPSK	50	24	23.63	23.75	23.70	
20	QPSK	50	50	23.82	23.75	23.71	
20	QPSK	100	0	23.81	23.72	23.76	24.7
20	16QAM	1	0	24.08	24.00	24.00	
20	16QAM	1	49	23.97	23.94	23.94	
20	16QAM	1	99	23.97	23.82	23.89	23.7
20	16QAM	50	0	22.80	22.73	22.75	
20	16QAM	50	24	22.82	22.74	22.72	
20	16QAM	50	50	22.79	22.75	22.72	23.7
20	16QAM	100	0	22.81	22.70	22.78	
20	64QAM	1	0	22.14	22.65	22.86	23.7
20	64QAM	1	49	22.64	22.85	22.15	
20	64QAM	1	99	22.85	22.34	22.79	
20	64QAM	50	0	20.83	21.73	21.42	22.7
20	64QAM	50	24	21.26	21.74	21.57	
20	64QAM	50	50	21.82	21.38	21.75	
20	64QAM	100	0	21.41	21.75	21.80	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.76	24.66	24.65	25.7
15	QPSK	1	37	24.57	24.58	24.58	
15	QPSK	1	74	24.60	24.59	24.55	
15	QPSK	36	0	23.74	23.71	23.71	24.7
15	QPSK	36	20	23.78	23.72	23.76	
15	QPSK	36	39	23.78	23.73	23.69	
15	QPSK	75	0	23.77	23.71	23.66	24.7
15	16QAM	1	0	24.05	24.00	23.94	
15	16QAM	1	37	23.79	23.96	23.91	
15	16QAM	1	74	23.89	23.93	23.88	23.7
15	16QAM	36	0	22.67	22.72	22.70	
15	16QAM	36	20	22.73	22.72	22.75	
15	16QAM	36	39	22.78	22.73	22.72	23.7
15	16QAM	75	0	22.80	22.69	22.67	
15	64QAM	1	0	21.68	22.75	22.77	
15	64QAM	1	37	21.71	22.88	22.85	23.7
15	64QAM	1	74	22.79	22.58	22.81	
15	64QAM	36	0	20.76	21.74	21.35	
15	64QAM	36	20	20.76	21.76	21.78	22.7
15	64QAM	36	39	21.33	21.33	21.75	
15	64QAM	75	0	21.23	21.72	21.67	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.69	24.59	24.64	25.7
10	QPSK	1	25	24.54	24.52	24.52	
10	QPSK	1	49	24.57	24.61	24.50	
10	QPSK	25	0	23.75	23.67	23.65	24.7
10	QPSK	25	12	23.74	23.77	23.63	
10	QPSK	25	25	23.65	23.72	23.68	
10	QPSK	50	0	23.76	23.75	23.65	24.7
10	16QAM	1	0	24.05	23.96	24.02	
10	16QAM	1	25	23.94	23.95	23.94	
10	16QAM	1	49	23.94	23.99	23.86	23.7
10	16QAM	25	0	22.62	22.67	22.64	
10	16QAM	25	12	22.61	22.76	22.65	
10	16QAM	25	25	22.53	22.71	22.65	23.7
10	16QAM	50	0	22.74	22.75	22.62	
10	64QAM	1	0	21.92	22.22	22.83	
10	64QAM	1	25	21.85	22.86	22.85	23.7
10	64QAM	1	49	21.99	22.86	22.46	
10	64QAM	25	0	20.70	21.69	21.89	
10	64QAM	25	12	20.71	21.78	21.69	22.7
10	64QAM	25	25	20.72	21.75	21.67	
10	64QAM	50	0	20.71	21.73	21.65	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.43	24.62	24.62	25.7
5	QPSK	1	12	24.65	24.59	24.58	
5	QPSK	1	24	24.56	24.58	24.54	
5	QPSK	12	0	23.66	23.70	23.65	24.7
5	QPSK	12	7	23.68	23.72	23.68	
5	QPSK	12	13	23.70	23.70	23.61	
5	QPSK	25	0	23.67	23.69	23.61	24.7
5	16QAM	1	0	23.83	23.95	23.93	
5	16QAM	1	12	23.88	23.93	23.89	
5	16QAM	1	24	23.85	23.91	23.83	23.7
5	16QAM	12	0	22.51	22.75	22.73	
5	16QAM	12	7	22.66	22.76	22.71	
5	16QAM	12	13	22.73	22.70	22.63	23.7
5	16QAM	25	0	22.58	22.74	22.62	
5	64QAM	1	0	21.70	21.99	22.87	
5	64QAM	1	12	21.71	22.90	22.78	23.7
5	64QAM	1	24	21.85	22.88	22.23	
5	64QAM	12	0	20.72	21.54	21.72	
5	64QAM	12	7	20.83	21.77	21.75	22.7
5	64QAM	12	13	20.78	21.74	21.61	
5	64QAM	25	0	20.64	21.51	21.57	

Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / 18700	Power Middle Ch. / 18900	Power High Ch. / 19100	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1868	1890	1900	
20	QPSK	1	0	24.30	24.14	24.18	25.7
20	QPSK	1	49	24.12	24.11	24.11	
20	QPSK	1	99	24.12	24.12	24.14	
20	QPSK	50	0	23.24	23.19	23.17	
20	QPSK	50	24	23.34	23.29	23.20	
20	QPSK	50	50	23.31	23.28	23.28	24.7
20	QPSK	100	0	23.33	23.28	23.20	
20	16QAM	1	0	23.51	23.48	23.51	
20	16QAM	1	49	23.47	23.47	23.45	
20	16QAM	1	99	23.44	23.48	23.49	
20	16QAM	50	0	22.24	22.21	22.21	23.7
20	16QAM	50	24	22.34	22.30	22.21	
20	16QAM	50	50	22.33	22.31	22.31	
20	16QAM	100	0	22.31	22.28	22.20	
20	64QAM	1	0	22.39	22.35	22.33	
20	64QAM	1	49	22.39	22.33	21.77	23.7
20	64QAM	1	99	22.36	22.32	21.96	
20	64QAM	50	0	21.26	21.23	21.06	
20	64QAM	50	24	21.34	21.32	20.95	
20	64QAM	50	50	21.34	21.31	20.94	
20	64QAM	100	0	21.33	21.30	20.98	22.7
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	24.20	24.19	24.20	25.7
15	QPSK	1	37	24.18	24.17	24.14	
15	QPSK	1	74	24.20	24.20	24.21	
15	QPSK	36	0	23.34	23.21	23.19	
15	QPSK	36	20	23.36	23.35	23.23	
15	QPSK	36	39	23.32	23.33	23.32	24.7
15	QPSK	75	0	23.35	23.31	23.20	
15	16QAM	1	0	23.49	23.53	23.48	
15	16QAM	1	37	23.47	23.50	23.45	
15	16QAM	1	74	23.53	23.50	23.48	
15	16QAM	36	0	22.33	22.21	22.19	23.7
15	16QAM	36	20	22.36	22.32	22.22	
15	16QAM	36	39	22.34	22.35	22.32	
15	16QAM	75	0	22.35	22.34	22.20	
15	64QAM	1	0	22.41	22.36	22.01	
15	64QAM	1	37	22.44	22.43	21.76	23.7
15	64QAM	1	74	22.43	22.43	21.91	
15	64QAM	36	0	21.35	21.25	20.82	
15	64QAM	36	20	21.38	21.35	20.90	
15	64QAM	36	39	21.40	21.39	20.95	
15	64QAM	75	0	21.36	21.32	20.82	Tune-up limit (dBm)
Channel				18550	18900	19150	
Frequency (MHz)				1855	1890	1905	
10	QPSK	1	0	24.22	24.09	24.14	25.7
10	QPSK	1	25	24.12	24.14	24.12	
10	QPSK	1	49	24.17	24.18	24.18	
10	QPSK	25	0	23.34	23.22	23.20	
10	QPSK	25	12	23.36	23.34	23.24	
10	QPSK	25	25	23.37	23.34	23.34	24.7
10	QPSK	50	0	23.35	23.33	23.25	
10	16QAM	1	0	23.57	23.50	23.49	
10	16QAM	1	25	23.54	23.53	23.56	
10	16QAM	1	49	23.56	23.53	23.51	
10	16QAM	25	0	22.34	22.23	22.18	23.7
10	16QAM	25	12	22.36	22.34	22.25	
10	16QAM	25	25	22.32	22.34	22.32	
10	16QAM	50	0	22.36	22.33	22.22	
10	64QAM	1	0	22.47	22.37	21.82	
10	64QAM	1	25	22.44	22.46	22.04	23.7
10	64QAM	1	49	22.45	22.47	22.01	
10	64QAM	25	0	21.36	21.25	20.82	
10	64QAM	25	12	21.44	21.37	21.00	
10	64QAM	25	25	21.39	21.38	20.90	
10	64QAM	50	0	21.36	21.33	20.81	Tune-up limit (dBm)
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	24.17	24.11	24.13	25.7
5	QPSK	1	12	24.23	24.22	24.23	
5	QPSK	1	24	24.22	24.20	24.19	
5	QPSK	12	0	23.30	23.20	23.27	
5	QPSK	12	7	23.38	23.34	23.29	
5	QPSK	12	13	23.33	23.32	23.29	24.7
5	QPSK	25	0	23.33	23.29	23.26	
5	16QAM	1	0	23.50	23.39	23.46	
5	16QAM	1	12	23.50	23.48	23.46	
5	16QAM	1	24	23.55	23.52	23.48	
5	16QAM	12	0	22.37	22.25	22.27	24.7
5	16QAM	12	7	22.39	22.36	22.35	
5	16QAM	12	13	22.34	22.33	22.31	
5	16QAM	25	0	22.36	22.34	22.27	
5	64QAM	1	0	22.50	22.39	21.91	
5	64QAM	1	12	22.45	22.44	21.98	23.7
5	64QAM	1	24	22.48	22.48	21.87	
5	64QAM	12	0	21.39	21.31	20.83	
5	64QAM	12	7	21.43	21.41	20.98	
5	64QAM	12	13	21.41	21.40	20.92	
5	64QAM	25	0	21.36	21.36	20.98	Tune-up limit (dBm)
Channel				18515	18800	1906.5	
Frequency (MHz)				1851.5	1880	1906.5	
3	QPSK	1	0	24.21	24.16	24.14	25.7
3	QPSK	1	8	24.28	24.27	24.22	
3	QPSK	1	14	24.25	24.22	24.17	
3	QPSK	8	0	23.34	23.32	23.24	
3	QPSK	8	4	23.36	23.32	23.32	
3	QPSK	8	7	23.33	23.31	23.27	24.7
3	QPSK	15	0	23.37	23.32	23.26	
3	16QAM	1	0	23.52	23.47	23.42	
3	16QAM	1	8	23.57	23.54	23.52	
3	16QAM	1	14	23.56	23.52	23.49	
3	16QAM	8	0	22.39	22.37	22.31	23.7
3	16QAM	8	4	22.43	22.39	22.40	
3	16QAM	8	7	22.42	22.36	22.34	
3	16QAM	15	0	22.35	22.33	22.33	
3	64QAM	1	0	22.49	22.41	22.01	
3	64QAM	1	8	22.56	22.53	22.10	23.7
3	64QAM	1	14	22.52	22.48	22.00	
3	64QAM	8	0	21.38	21.35	20.95	
3	64QAM	8	4	21.47	21.44	20.98	
3	64QAM	8	7	21.40	21.37	20.87	
3	64QAM	15	0	21.38	21.35	20.92	Tune-up limit (dBm)
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	24.19	24.08	24.08	25.7
1.4	QPSK	1	3	24.22	24.16	24.16	
1.4	QPSK	1	5	24.16	24.10	24.08	
1.4	QPSK	3	0	24.20	24.13	24.09	
1.4	QPSK	3	1	24.24	24.19	24.16	
1.4	QPSK	3	3	24.20	24.15	24.11	24.7
1.4	QPSK	6	0	23.29	23.22	23.21	
1.4	16QAM	1	0	23.50	23.42	23.37	
1.4	16QAM	1	3	23.58	23.53	23.52	
1.4	16QAM	1	5	23.52	23.48	23.41	
1.4	16QAM	3	0	23.26	23.21	23.19	24.7
1.4	16QAM	3	1	23.33	23.27	23.23	
1.4	16QAM	3	3	23.24	23.22	23.14	
1.4	16QAM	6	0	22.37	22.31	22.27	
1.4	64QAM	1	0	22.41	22.41	21.96	
1.4	64QAM	1	3	22.50	22.45	22.03	23.7
1.4	64QAM	1	5	22.39	22.41	21.98	
1.4	64QAM	3	0	22.37	22.33	21.96	
1.4	64QAM	3	1	22.44	22.39	22.07	
1.4	64QAM	3	3	22.38	22.34	21.96	
1.4	64QAM	6	0	21.32	21.27	20.85	22.7



Band 4							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.74	24.73	24.81	25.7
20	QPSK	1	49	24.56	24.52	24.54	
20	QPSK	1	99	24.61	24.58	24.58	
20	QPSK	50	0	23.76	23.74	23.74	
20	QPSK	50	24	23.78	23.75	23.67	
20	QPSK	50	50	23.73	23.67	23.68	24.7
20	QPSK	100	0	23.78	23.79	23.66	
20	16QAM	1	0	24.08	24.05	24.04	
20	16QAM	1	49	23.92	23.86	23.87	
20	16QAM	1	99	23.97	23.89	23.85	
20	16QAM	50	0	22.75	22.77	22.74	23.7
20	16QAM	50	24	22.79	22.77	22.69	
20	16QAM	50	50	22.73	22.66	22.71	
20	16QAM	100	0	22.76	22.78	22.67	
20	64QAM	1	0	22.90	22.93	22.65	
20	64QAM	1	49	22.81	22.76	22.80	23.7
20	64QAM	1	99	22.82	22.56	22.84	
20	64QAM	50	0	21.78	21.79	21.76	
20	64QAM	50	24	21.61	21.76	21.70	
20	64QAM	50	50	21.74	21.63	21.71	
20	64QAM	100	0	21.82	21.78	21.71	Tune-up limit (dBm)
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.76	24.76	24.76	25.7
15	QPSK	1	37	24.59	24.58	24.59	
15	QPSK	1	74	24.61	24.60	24.58	
15	QPSK	36	0	23.84	23.81	23.75	
15	QPSK	36	20	23.82	23.77	23.70	
15	QPSK	36	39	23.77	23.71	23.73	24.7
15	QPSK	75	0	23.80	23.82	23.70	
15	16QAM	1	0	24.08	24.08	24.05	
15	16QAM	1	37	23.94	23.93	23.89	
15	16QAM	1	74	23.99	23.89	23.88	
15	16QAM	36	0	22.86	22.77	22.75	23.7
15	16QAM	36	20	22.79	22.77	22.69	
15	16QAM	36	39	22.77	22.71	22.72	
15	16QAM	75	0	22.82	22.79	22.71	
15	64QAM	1	0	22.94	22.94	22.92	
15	64QAM	1	37	22.87	22.70	22.86	23.7
15	64QAM	1	74	22.88	22.84	22.80	
15	64QAM	36	0	21.86	21.83	21.77	
15	64QAM	36	20	21.79	21.72	21.71	
15	64QAM	36	39	21.81	21.59	21.75	
15	64QAM	75	0	21.83	21.80	21.71	Tune-up limit (dBm)
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.72	24.65	24.67	25.7
10	QPSK	1	25	24.65	24.64	24.60	
10	QPSK	1	49	24.72	24.68	24.64	
10	QPSK	25	0	23.78	23.71	23.69	
10	QPSK	25	12	23.82	23.82	23.72	
10	QPSK	25	25	23.84	23.82	23.79	24.7
10	QPSK	50	0	23.82	23.80	23.73	
10	16QAM	1	0	24.11	24.04	24.03	
10	16QAM	1	25	24.03	24.06	24.04	
10	16QAM	1	49	24.08	24.03	24.08	
10	16QAM	25	0	22.79	22.68	22.70	23.7
10	16QAM	25	12	22.84	22.81	22.74	
10	16QAM	25	25	22.81	22.79	22.80	
10	16QAM	50	0	22.82	22.79	22.73	
10	64QAM	1	0	22.91	22.89	22.90	
10	64QAM	1	25	22.96	22.87	22.96	23.7
10	64QAM	1	49	22.99	22.59	22.99	
10	64QAM	25	0	21.83	21.74	21.73	
10	64QAM	25	12	21.84	21.72	21.77	
10	64QAM	25	25	21.85	21.58	21.84	
10	64QAM	50	0	21.85	21.69	21.77	Tune-up limit (dBm)
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.70	24.62	24.61	25.7
5	QPSK	1	12	24.74	24.73	24.68	
5	QPSK	1	24	24.74	24.72	24.69	
5	QPSK	12	0	23.78	23.71	23.74	
5	QPSK	12	7	23.86	23.81	23.78	
5	QPSK	12	13	23.80	23.77	23.74	24.7
5	QPSK	25	0	23.80	23.77	23.75	
5	16QAM	1	0	24.03	23.93	24.00	
5	16QAM	1	12	24.08	24.01	24.02	
5	16QAM	1	24	24.06	24.04	24.04	
5	16QAM	12	0	22.83	22.74	22.80	23.7
5	16QAM	12	7	22.87	22.84	22.81	
5	16QAM	12	13	22.86	22.84	22.81	
5	16QAM	25	0	22.81	22.81	22.77	
5	64QAM	1	0	22.88	22.86	22.99	
5	64QAM	1	12	23.00	22.85	22.93	23.7
5	64QAM	1	24	23.05	22.64	22.95	
5	64QAM	12	0	21.86	21.75	21.85	
5	64QAM	12	7	21.92	21.77	21.87	
5	64QAM	12	13	21.89	21.63	21.81	
5	64QAM	25	0	21.84	21.65	21.77	Tune-up limit (dBm)
Channel				19955	20175	20355	
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.74	24.64	24.64	25.7
3	QPSK	1	8	24.80	24.78	24.72	
3	QPSK	1	14	24.75	24.75	24.69	
3	QPSK	8	0	23.79	23.72	23.73	
3	QPSK	8	4	23.83	23.80	23.78	
3	QPSK	8	7	23.80	23.79	23.75	24.7
3	QPSK	15	0	23.82	23.81	23.73	
3	16QAM	1	0	24.05	23.95	23.99	
3	16QAM	1	8	24.16	24.08	24.06	
3	16QAM	1	14	24.05	24.00	24.02	
3	16QAM	8	0	22.88	22.80	22.80	23.7
3	16QAM	8	4	22.93	22.89	22.84	
3	16QAM	8	7	22.89	22.82	22.79	
3	16QAM	15	0	22.86	22.82	22.78	
3	64QAM	1	0	22.91	22.83	22.91	
3	64QAM	1	8	23.10	22.84	23.00	23.7
3	64QAM	1	14	23.07	22.70	22.95	
3	64QAM	8	0	21.88	21.75	21.81	
3	64QAM	8	4	21.92	21.74	21.85	
3	64QAM	8	7	21.90	21.65	21.81	
3	64QAM	15	0	21.88	21.72	21.80	Tune-up limit (dBm)
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.62	24.61	24.59	25.7
1.4	QPSK	1	3	24.72	24.68	24.62	
1.4	QPSK	1	5	24.64	24.60	24.55	
1.4	QPSK	3	0	24.68	24.61	24.62	
1.4	QPSK	3	1	24.71	24.66	24.67	
1.4	QPSK	3	3	24.69	24.65	24.64	24.7
1.4	QPSK	6	0	23.72	23.66	23.64	
1.4	16QAM	1	0	23.68	23.64	23.60	
1.4	16QAM	1	3	24.02	23.96	23.96	
1.4	16QAM	1	5	23.99	23.91	23.92	
1.4	16QAM	3	0	23.77	23.72	23.68	24.7
1.4	16QAM	3	1	23.81	23.79	23.75	
1.4	16QAM	3	3	23.77	23.70	23.68	
1.4	16QAM	6	0	22.79	22.77	22.72	
1.4	64QAM	1	0	22.85	22.83	22.85	
1.4	64QAM	1	3	22.97	22.83	22.92	23.7
1.4	64QAM	1	5	22.92	22.73	22.84	
1.4	64QAM	3	0	22.89	22.84	22.79	
1.4	64QAM	3	1	22.96	22.88	22.86	
1.4	64QAM	3	3	22.89	22.76	22.80	
1.4	64QAM	6	0	21.77	21.71	21.66	22.7

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / 20450	Power Middle Ch. / 20525	Power High Ch. / 20600	Tune-up limit (dBm)
Channel				824	836.5	848	
Frequency (MHz)				23.02	23.02	23.07	
10	QPSK	1	0	23.02	23.02	23.07	25
10	QPSK	1	25	23.01	23.05	23.00	
10	QPSK	1	49	23.07	23.03	23.02	
10	QPSK	25	0	23.04	23.13	23.08	
10	QPSK	25	12	23.15	23.13	23.10	
10	QPSK	25	25	23.13	23.16	23.15	24.5
10	QPSK	50	0	23.17	23.15	23.10	
10	16QAM	1	0	23.44	23.42	23.44	
10	16QAM	1	25	23.38	23.43	23.35	
10	16QAM	1	49	23.43	23.42	23.31	
10	16QAM	25	0	22.60	22.64	22.62	23.5
10	16QAM	25	12	22.69	22.66	22.61	
10	16QAM	25	25	22.66	22.66	22.62	
10	16QAM	50	0	22.69	22.65	22.60	
10	64QAM	1	0	22.73	22.70	22.73	
10	64QAM	1	25	22.81	22.84	22.80	23.5
10	64QAM	1	49	22.85	22.82	22.20	
10	64QAM	25	0	21.63	21.66	21.65	
10	64QAM	25	12	21.74	21.70	21.67	
10	64QAM	25	25	21.70	21.71	21.22	
10	64QAM	50	0	21.72	21.68	21.66	22.5
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.12	23.09	23.02	25
5	QPSK	1	12	23.06	23.11	23.04	
5	QPSK	1	24	23.03	23.03	23.01	
5	QPSK	12	0	23.17	23.14	23.08	
5	QPSK	12	7	23.18	23.18	23.04	
5	QPSK	12	13	23.12	23.12	23.04	24.5
5	QPSK	25	0	23.13	23.11	23.05	
5	16QAM	1	0	23.41	23.41	23.37	
5	16QAM	1	12	23.37	23.38	23.29	
5	16QAM	1	24	23.33	23.43	23.27	
5	16QAM	12	0	22.75	22.72	22.61	23.5
5	16QAM	12	7	22.71	22.72	22.60	
5	16QAM	12	13	22.65	22.66	22.59	
5	16QAM	25	0	22.69	22.66	22.58	
5	64QAM	1	0	22.90	22.91	22.68	
5	64QAM	1	12	22.74	22.79	21.98	23.5
5	64QAM	1	24	22.79	22.80	21.90	
5	64QAM	12	0	21.81	21.77	21.34	
5	64QAM	12	7	21.73	21.75	20.98	
5	64QAM	12	13	21.72	21.73	20.81	
5	64QAM	25	0	21.70	21.64	21.03	22.5
Channel				824.5	836.5	847.5	
Frequency (MHz)				23.10	23.07	23.07	
3	QPSK	1	0	23.10	23.07	23.07	25
3	QPSK	1	8	23.07	23.11	23.02	
3	QPSK	1	14	23.03	23.06	23.02	
3	QPSK	8	0	23.17	23.14	23.12	
3	QPSK	8	4	23.14	23.20	23.09	
3	QPSK	8	7	23.11	23.16	23.04	24.5
3	QPSK	15	0	23.13	23.11	23.08	
3	16QAM	1	0	23.42	23.38	23.40	
3	16QAM	1	8	23.42	23.41	23.35	
3	16QAM	1	14	23.31	23.36	23.25	
3	16QAM	8	0	22.75	22.73	22.61	23.5
3	16QAM	8	4	22.74	22.76	22.66	
3	16QAM	8	7	22.70	22.75	22.64	
3	16QAM	15	0	22.73	22.68	22.66	
3	64QAM	1	0	22.84	22.83	21.90	
3	64QAM	1	8	22.85	22.86	21.83	23.5
3	64QAM	1	14	22.73	22.81	21.88	
3	64QAM	8	0	21.80	21.71	20.63	
3	64QAM	8	4	21.78	21.81	20.80	
3	64QAM	8	7	21.69	21.75	20.92	
3	64QAM	15	0	21.71	21.69	20.88	22.5
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.01	23.00	23.01	25
1.4	QPSK	1	3	23.05	23.05	23.02	
1.4	QPSK	1	5	23.03	23.02	23.03	
1.4	QPSK	3	0	23.02	23.04	23.03	
1.4	QPSK	3	1	23.08	23.00	23.04	
1.4	QPSK	3	3	23.00	23.02	23.02	24.5
1.4	QPSK	6	0	23.04	23.04	22.98	
1.4	16QAM	1	0	23.31	23.28	23.23	
1.4	16QAM	1	3	23.36	23.42	23.29	
1.4	16QAM	1	5	23.30	23.29	23.17	
1.4	16QAM	3	0	23.13	23.09	23.01	24.5
1.4	16QAM	3	1	23.16	23.10	23.06	
1.4	16QAM	3	3	23.08	23.11	22.97	
1.4	16QAM	6	0	22.69	22.65	22.60	
1.4	64QAM	1	0	22.77	22.70	21.86	
1.4	64QAM	1	3	22.79	22.85	22.01	23.5
1.4	64QAM	1	5	22.72	22.74	22.03	
1.4	64QAM	3	0	22.71	22.66	21.88	
1.4	64QAM	3	1	22.75	22.72	22.00	
1.4	64QAM	3	3	22.69	22.69	22.08	
1.4	64QAM	6	0	21.64	21.61	20.91	22.5

Band 7							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20880	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	24.46	24.37	24.23	25.7
20	QPSK	1	49	24.48	24.42	24.22	
20	QPSK	1	99	24.55	24.48	24.25	
20	QPSK	50	0	23.66	23.46	23.38	24.7
20	QPSK	50	24	23.69	23.50	23.38	
20	QPSK	50	50	23.68	23.53	23.42	
20	QPSK	100	0	23.67	23.51	23.40	24.7
20	16QAM	1	0	23.81	23.71	23.60	
20	16QAM	1	49	23.85	23.78	23.56	
20	16QAM	1	99	23.90	23.84	23.59	23.7
20	16QAM	50	0	22.65	22.47	22.40	
20	16QAM	50	24	22.71	22.51	22.41	
20	16QAM	50	50	22.68	22.54	22.40	23.7
20	16QAM	100	0	22.65	22.46	22.40	
20	64QAM	1	0	22.66	22.57	22.50	23.7
20	64QAM	1	49	22.70	22.66	22.46	
20	64QAM	1	99	22.78	22.66	22.45	
20	64QAM	50	0	21.67	21.49	21.41	22.7
20	64QAM	50	24	21.71	21.53	21.43	
20	64QAM	50	50	21.71	21.54	21.42	
20	64QAM	100	0	21.69	21.51	21.41	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	24.49	24.43	24.24	25.7
15	QPSK	1	37	24.51	24.41	24.17	
15	QPSK	1	74	24.57	24.49	24.27	
15	QPSK	36	0	23.67	23.48	23.35	24.7
15	QPSK	36	20	23.67	23.52	23.36	
15	QPSK	36	39	23.68	23.53	23.36	
15	QPSK	75	0	23.66	23.49	23.36	24.7
15	16QAM	1	0	23.79	23.71	23.59	
15	16QAM	1	37	23.83	23.74	23.53	
15	16QAM	1	74	23.89	23.79	23.58	23.7
15	16QAM	36	0	22.55	22.48	22.36	
15	16QAM	36	20	22.68	22.50	22.38	
15	16QAM	36	39	22.69	22.51	22.37	23.7
15	16QAM	75	0	22.66	22.50	22.37	
15	64QAM	1	0	22.69	22.57	22.47	
15	64QAM	1	37	22.77	22.67	22.39	23.7
15	64QAM	1	74	22.80	22.64	22.48	
15	64QAM	36	0	21.59	21.49	21.40	22.7
15	64QAM	36	20	21.70	21.56	21.38	
15	64QAM	36	39	21.72	21.53	21.42	
15	64QAM	75	0	21.68	21.51	21.39	
Channel				20900	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	24.43	24.34	24.16	25.7
10	QPSK	1	25	24.43	24.35	24.07	
10	QPSK	1	49	24.49	24.39	24.19	
10	QPSK	25	0	23.61	23.45	23.28	24.7
10	QPSK	25	12	23.64	23.49	23.31	
10	QPSK	25	25	23.63	23.48	23.32	
10	QPSK	40	0	23.63	23.47	23.31	24.7
10	16QAM	1	0	23.83	23.72	23.51	
10	16QAM	1	25	23.82	23.76	23.50	
10	16QAM	1	49	23.89	23.78	23.56	23.7
10	16QAM	25	0	22.61	22.44	22.29	
10	16QAM	25	12	22.65	22.49	22.32	
10	16QAM	25	25	22.63	22.45	22.30	23.7
10	16QAM	50	0	22.63	22.49	22.32	
10	64QAM	1	0	22.74	22.58	22.44	23.7
10	64QAM	1	25	22.77	22.66	22.43	
10	64QAM	1	49	22.79	22.62	22.45	
10	64QAM	25	0	21.55	21.49	21.33	22.7
10	64QAM	25	12	21.70	21.54	21.35	
10	64QAM	25	25	21.66	21.51	21.35	
10	64QAM	50	0	21.67	21.51	21.36	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	24.50	24.34	24.16	25.7
5	QPSK	1	12	24.49	24.45	24.23	
5	QPSK	1	24	24.53	24.44	24.19	
5	QPSK	12	0	23.63	23.45	23.28	24.7
5	QPSK	12	7	23.67	23.56	23.28	
5	QPSK	12	13	23.64	23.52	23.29	
5	QPSK	25	0	23.63	23.48	23.30	24.7
5	16QAM	1	0	23.84	23.66	23.46	
5	16QAM	1	12	23.85	23.74	23.49	
5	16QAM	1	24	23.85	23.81	23.50	23.7
5	16QAM	12	0	22.67	22.50	22.31	
5	16QAM	12	7	22.67	22.57	22.32	
5	16QAM	12	13	22.63	22.54	22.31	23.7
5	16QAM	25	0	22.64	22.51	22.32	
5	64QAM	1	0	22.77	22.59	22.40	
5	64QAM	1	12	22.76	22.65	22.41	23.7
5	64QAM	1	24	22.79	22.70	22.42	
5	64QAM	12	0	21.69	21.57	21.37	22.7
5	64QAM	12	7	21.68	21.61	21.38	
5	64QAM	12	13	21.69	21.61	21.35	
5	64QAM	25	0	21.66	21.54	21.34	

Band 12							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				704	707.5	711	
Frequency (MHz)				24.16	24.08	24.10	
10	QPSK	1	0	24.16	24.08	24.10	25.7
10	QPSK	1	25	24.08	24.12	24.07	
10	QPSK	1	49	24.20	24.15	24.09	
10	QPSK	25	0	23.23	23.21	23.21	
10	QPSK	25	12	23.28	23.22	23.28	
10	QPSK	25	25	23.27	23.28	23.25	24.7
10	QPSK	50	0	23.30	23.24	23.27	
10	16QAM	1	0	23.53	23.45	23.49	
10	16QAM	1	25	23.51	23.52	23.47	
10	16QAM	1	49	23.61	23.52	23.47	
10	16QAM	25	0	22.24	22.22	22.20	23.7
10	16QAM	25	12	22.31	22.21	22.26	
10	16QAM	25	25	22.21	22.25	22.20	
10	16QAM	50	0	22.31	22.20	22.25	
10	64QAM	1	0	22.38	22.31	22.35	
10	64QAM	1	25	22.43	22.45	22.43	23.7
10	64QAM	1	49	22.49	22.45	22.40	
10	64QAM	25	0	21.25	21.25	21.24	
10	64QAM	25	12	21.34	21.28	21.32	
10	64QAM	25	25	21.29	21.30	21.26	
10	64QAM	50	0	21.34	21.24	21.30	22.7
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	24.16	24.12	24.08	25.7
5	QPSK	1	12	24.15	24.19	24.16	
5	QPSK	1	24	24.12	24.16	24.09	
5	QPSK	12	0	23.25	23.22	23.21	
5	QPSK	12	7	23.25	23.20	23.24	
5	QPSK	12	13	23.21	23.24	23.19	24.7
5	QPSK	25	0	23.24	23.20	23.17	
5	16QAM	1	0	23.51	23.49	23.41	
5	16QAM	1	12	23.46	23.48	23.44	
5	16QAM	1	24	23.47	23.49	23.43	
5	16QAM	12	0	22.31	22.24	22.21	23.7
5	16QAM	12	7	22.28	22.21	22.24	
5	16QAM	12	13	22.25	22.27	22.22	
5	16QAM	25	0	22.24	22.24	22.17	
5	64QAM	1	0	22.46	22.36	22.34	
5	64QAM	1	12	22.40	22.39	22.37	23.7
5	64QAM	1	24	22.41	22.43	22.37	
5	64QAM	12	0	21.36	21.31	21.24	
5	64QAM	12	7	21.30	21.27	21.30	
5	64QAM	12	13	21.30	21.29	21.26	
5	64QAM	25	0	21.28	21.25	21.17	22.7
Channel				23035	23095	23155	
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.19	24.17	24.11	25.7
3	QPSK	1	8	24.19	24.19	24.13	
3	QPSK	1	14	24.14	24.16	24.10	
3	QPSK	8	0	23.26	23.19	23.17	
3	QPSK	8	4	23.26	23.26	23.19	
3	QPSK	8	7	23.21	23.19	23.15	24.7
3	QPSK	15	0	23.22	23.17	23.12	
3	16QAM	1	0	23.54	23.46	23.42	
3	16QAM	1	8	23.54	23.57	23.46	
3	16QAM	1	14	23.50	23.50	23.43	
3	16QAM	8	0	22.32	22.27	22.22	23.7
3	16QAM	8	4	22.31	22.34	22.26	
3	16QAM	8	7	22.29	22.27	22.23	
3	16QAM	15	0	22.26	22.20	22.15	
3	64QAM	1	0	22.49	22.41	22.36	
3	64QAM	1	8	22.48	22.46	22.44	23.7
3	64QAM	1	14	22.42	22.43	22.35	
3	64QAM	8	0	21.35	21.25	21.23	
3	64QAM	8	4	21.35	21.34	21.29	
3	64QAM	8	7	21.27	21.28	21.23	
3	64QAM	15	0	21.27	21.22	21.17	22.7
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.10	24.04	24.05	25.7
1.4	QPSK	1	3	24.14	24.13	24.05	
1.4	QPSK	1	5	24.09	24.07	24.00	
1.4	QPSK	3	0	24.15	24.06	24.04	
1.4	QPSK	3	1	24.19	24.09	24.07	
1.4	QPSK	3	3	24.10	24.10	24.01	24.7
1.4	QPSK	6	0	23.22	23.12	23.09	
1.4	16QAM	1	0	23.44	23.40	23.37	
1.4	16QAM	1	3	23.50	23.49	23.40	
1.4	16QAM	1	5	23.40	23.41	23.32	
1.4	16QAM	3	0	23.23	23.15	23.14	24.7
1.4	16QAM	3	1	23.29	23.19	23.18	
1.4	16QAM	3	3	23.21	23.20	23.08	
1.4	16QAM	6	0	22.27	22.19	22.16	
1.4	64QAM	1	0	22.41	22.31	22.26	
1.4	64QAM	1	3	22.44	22.40	22.31	23.7
1.4	64QAM	1	5	22.35	22.33	22.24	
1.4	64QAM	3	0	22.37	22.28	22.25	
1.4	64QAM	3	1	22.40	22.30	22.29	
1.4	64QAM	3	3	22.31	22.33	22.25	
1.4	64QAM	6	0	21.20	21.14	21.10	22.7

Band 13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dbm)
Channel				23230			Tune-up limit (dbm)
Frequency (MHz)				762			
10	QPSK	1	0	24.05			25.2
10	QPSK	1	25	24.00			
10	QPSK	1	49	24.02			
10	QPSK	25	0	23.06			24.2
10	QPSK	25	12	23.11			
10	QPSK	25	25	23.10			
10	QPSK	50	0	23.12			24.2
10	16QAM	1	0	23.30			
10	16QAM	1	25	23.34			
10	16QAM	1	49	23.30			23.2
10	16QAM	25	0	22.10			
10	16QAM	25	12	22.12			
10	16QAM	25	25	22.11			23.2
10	16QAM	50	0	22.11			
10	64QAM	1	0	23.05			
10	64QAM	1	25	23.07			23.2
10	64QAM	1	49	23.05			
10	64QAM	25	0	22.08			
10	64QAM	25	12	22.04			22.2
10	64QAM	25	25	22.02			
10	64QAM	50	0	22.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	762	784.5	
5	QPSK	1	0	23.96	23.94	23.95	25.2
5	QPSK	1	12	23.99	24.04	24.02	
5	QPSK	1	24	24.04	23.99	24.01	
5	QPSK	12	0	23.09	23.10	23.08	24.2
5	QPSK	12	7	23.10	23.11	23.02	
5	QPSK	12	13	23.12	23.13	23.07	
5	QPSK	25	0	23.15	23.12	23.03	24.2
5	16QAM	1	0	23.18	23.25	23.29	
5	16QAM	1	12	23.28	23.30	23.25	
5	16QAM	1	24	23.35	23.31	23.21	23.2
5	16QAM	12	0	22.17	22.11	22.14	
5	16QAM	12	7	22.16	22.10	22.09	
5	16QAM	12	13	22.15	22.13	22.15	23.2
5	16QAM	25	0	22.17	22.09	22.08	
5	64QAM	1	0	22.11	22.23	22.18	
5	64QAM	1	12	22.24	22.25	22.23	23.2
5	64QAM	1	24	22.26	22.27	22.20	
5	64QAM	12	0	21.19	21.15	21.16	
5	64QAM	12	7	21.19	21.14	21.10	22.2
5	64QAM	12	13	21.18	21.17	21.13	
5	64QAM	25	0	21.20	21.14	21.08	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23330			Tune-up limit (dBm)
Frequency (MHz)				793			
10	QPSK	1	0	24.35			25.7
10	QPSK	1	25	24.04			
10	QPSK	1	49	24.01			
10	QPSK	25	0	23.42			24.7
10	QPSK	25	12	23.42			
10	QPSK	25	25	23.46			
10	QPSK	50	0	23.50			24.7
10	16QAM	1	0	23.83			
10	16QAM	1	25	23.77			
10	16QAM	1	49	23.71			23.7
10	16QAM	25	0	22.42			
10	16QAM	25	12	22.43			
10	16QAM	25	25	22.46			23.7
10	16QAM	50	0	22.50			
10	64QAM	1	0	22.67			
10	64QAM	1	25	22.67			23.7
10	64QAM	1	49	22.84			
10	64QAM	25	0	21.48			
10	64QAM	25	12	21.46			22.7
10	64QAM	25	25	21.52			
10	64QAM	50	0	21.58			
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.11	24.02	24.03	25.7
5	QPSK	1	12	24.19	24.17	24.12	
5	QPSK	1	24	24.09	24.05	24.05	
5	QPSK	12	0	23.55	23.40	23.40	24.7
5	QPSK	12	7	23.54	23.49	23.50	
5	QPSK	12	13	23.51	23.45	23.41	
5	QPSK	25	0	23.49	23.44	23.38	24.7
5	16QAM	1	0	23.73	23.68	23.66	
5	16QAM	1	12	23.78	23.75	23.74	
5	16QAM	1	24	23.70	23.69	23.68	23.7
5	16QAM	12	0	22.57	22.42	22.47	
5	16QAM	12	7	22.55	22.55	22.53	
5	16QAM	12	13	22.51	22.47	22.45	23.7
5	16QAM	25	0	22.54	22.47	22.41	
5	64QAM	1	0	22.67	22.63	22.63	
5	64QAM	1	12	22.71	22.67	22.70	23.7
5	64QAM	1	24	22.67	22.65	22.67	
5	64QAM	12	0	21.61	21.50	21.48	
5	64QAM	12	7	21.61	21.59	21.56	22.7
5	64QAM	12	13	21.55	21.52	21.49	
5	64QAM	25	0	21.55	21.47	21.42	

Band 17							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				706.5	710	713.5	
10	QPSK	1	0	24.57	24.49	24.44	25.7
10	QPSK	1	25	24.55	24.56	24.50	
10	QPSK	1	49	24.65	24.58	24.55	
10	QPSK	25	0	23.56	23.56	23.56	
10	QPSK	25	12	23.70	23.65	23.62	24.7
10	QPSK	25	25	23.72	23.71	23.69	
10	QPSK	50	0	23.68	23.61	23.58	
10	16QAM	1	0	23.94	23.88	23.84	
10	16QAM	1	25	23.94	23.92	23.91	24.7
10	16QAM	1	49	23.95	23.93	23.91	
10	16QAM	25	0	22.57	22.57	22.57	
10	16QAM	25	12	22.73	22.64	22.63	
10	16QAM	25	25	22.69	22.65	22.72	23.7
10	16QAM	50	0	22.71	22.61	22.60	
10	64QAM	1	0	22.82	22.72	22.76	
10	64QAM	1	25	22.86	22.96	22.83	
10	64QAM	1	49	22.86	22.82	22.68	22.7
10	64QAM	25	0	21.62	21.60	21.60	
10	64QAM	25	12	21.75	21.69	21.66	
10	64QAM	25	25	21.74	21.74	21.72	
10	64QAM	50	0	21.72	21.65	21.64	
Channel				23765	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.49	24.51	24.50	25.7
5	QPSK	1	12	24.61	24.62	24.54	
5	QPSK	1	24	24.64	24.62	24.59	
5	QPSK	12	0	23.61	23.65	23.60	
5	QPSK	12	7	23.66	23.62	23.63	24.7
5	QPSK	12	13	23.67	23.68	23.63	
5	QPSK	25	0	23.65	23.61	23.63	
5	16QAM	1	0	23.67	23.85	23.84	
5	16QAM	1	12	23.91	23.91	23.85	24.7
5	16QAM	1	24	23.97	23.95	23.89	
5	16QAM	12	0	22.65	22.67	22.60	
5	16QAM	12	7	22.69	22.70	22.70	
5	16QAM	12	13	22.69	22.70	22.63	23.7
5	16QAM	25	0	22.68	22.64	22.67	
5	64QAM	1	0	22.57	22.63	22.77	
5	64QAM	1	12	22.81	22.95	22.80	
5	64QAM	1	24	22.87	22.89	22.82	22.7
5	64QAM	12	0	21.70	21.72	21.68	
5	64QAM	12	7	21.75	21.75	21.74	
5	64QAM	12	13	21.74	21.74	21.67	
5	64QAM	25	0	21.70	21.66	21.69	

Band 25							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / 26140	Power Middle Ch. / 26340	Power High Ch. / 26590	Tune-up limit (dBm)
Channel				1860	1880	1905	
Frequency (MHz)							
20	QPSK	1	0	24.22	24.16	24.06	25.7
20	QPSK	1	49	24.17	24.16	24.05	
20	QPSK	1	99	24.12	24.12	23.91	
20	QPSK	50	0	23.32	23.28	23.17	
20	QPSK	50	24	23.36	23.34	23.17	24.7
20	QPSK	50	50	23.31	23.31	23.23	
20	QPSK	100	0	23.38	23.33	23.18	
20	16QAM	1	0	23.58	23.52	23.43	
20	16QAM	1	49	23.53	23.51	23.39	24.7
20	16QAM	1	99	23.44	23.49	23.23	
20	16QAM	50	0	22.30	22.30	22.17	
20	16QAM	50	24	22.37	22.35	22.20	
20	16QAM	50	50	22.35	22.32	22.24	23.7
20	16QAM	100	0	22.36	22.33	22.19	
20	64QAM	1	0	22.45	22.40	22.22	
20	64QAM	1	49	22.40	22.36	21.96	
20	64QAM	1	99	22.43	22.38	21.73	23.7
20	64QAM	50	0	21.34	21.31	20.87	
20	64QAM	50	24	21.41	21.38	20.93	
20	64QAM	50	50	21.36	21.35	20.74	
20	64QAM	100	0	21.39	21.37	20.64	22.7
Channel				26115	26340	26615	
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	24.27	24.22	24.10	25.7
15	QPSK	1	37	24.20	24.17	24.08	
15	QPSK	1	74	24.24	24.22	23.85	
15	QPSK	36	0	23.41	23.29	23.16	
15	QPSK	36	20	23.36	23.35	23.24	24.7
15	QPSK	36	39	23.32	23.32	23.20	
15	QPSK	75	0	23.36	23.32	23.24	
15	16QAM	1	0	23.52	23.51	23.42	
15	16QAM	1	37	23.53	23.50	23.40	24.7
15	16QAM	1	74	23.50	23.51	23.21	
15	16QAM	36	0	22.42	22.30	22.20	
15	16QAM	36	20	22.38	22.36	22.27	
15	16QAM	36	39	22.32	22.32	22.20	23.7
15	16QAM	75	0	22.37	22.36	22.25	
15	64QAM	1	0	22.43	22.36	21.62	
15	64QAM	1	37	22.43	22.45	21.69	
15	64QAM	1	74	22.37	22.45	21.71	23.7
15	64QAM	36	0	21.46	21.33	20.88	
15	64QAM	36	20	21.43	21.40	20.96	
15	64QAM	36	39	21.36	21.37	20.71	
15	64QAM	75	0	21.39	21.37	20.70	22.7
Channel				26500	26340	26540	
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	24.24	24.20	24.08	25.7
10	QPSK	1	25	24.21	24.17	24.10	
10	QPSK	1	49	24.22	24.22	23.83	
10	QPSK	25	0	23.36	23.33	23.13	
10	QPSK	25	12	23.36	23.35	23.26	24.7
10	QPSK	25	25	23.37	23.36	23.19	
10	QPSK	50	0	23.38	23.34	23.19	
10	16QAM	1	0	23.66	23.59	23.43	
10	16QAM	1	25	23.63	23.57	23.48	24.7
10	16QAM	1	49	23.60	23.61	23.19	
10	16QAM	25	0	22.37	22.33	22.14	
10	16QAM	25	12	22.40	22.36	22.26	
10	16QAM	25	25	22.39	22.33	22.22	23.7
10	16QAM	50	0	22.38	22.36	22.16	
10	64QAM	1	0	22.54	22.43	22.03	
10	64QAM	1	25	22.56	22.49	21.90	
10	64QAM	1	49	22.49	22.53	21.72	23.7
10	64QAM	25	0	21.39	21.36	20.67	
10	64QAM	25	12	21.44	21.41	20.91	
10	64QAM	25	25	21.40	21.40	20.64	
10	64QAM	50	0	21.38	21.41	20.59	22.7
Channel				26065	26340	26665	
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	24.26	24.18	24.13	25.7
5	QPSK	1	12	24.32	24.29	24.12	
5	QPSK	1	24	24.30	24.28	23.82	
5	QPSK	12	0	23.32	23.29	23.19	
5	QPSK	12	7	23.38	23.34	23.23	24.7
5	QPSK	12	13	23.37	23.34	23.04	
5	QPSK	25	0	23.33	23.33	23.16	
5	16QAM	1	0	23.62	23.53	23.46	
5	16QAM	1	12	23.61	23.56	23.41	24.7
5	16QAM	1	24	23.64	23.60	23.15	
5	16QAM	12	0	22.34	22.33	22.19	
5	16QAM	12	7	22.41	22.38	22.27	
5	16QAM	12	13	22.43	22.39	22.19	23.7
5	16QAM	25	0	22.39	22.33	22.21	
5	64QAM	1	0	22.52	22.46	21.85	
5	64QAM	1	12	22.49	22.45	21.71	
5	64QAM	1	24	22.53	22.50	21.74	23.7
5	64QAM	12	0	21.40	21.40	20.77	
5	64QAM	12	7	21.47	21.45	20.63	
5	64QAM	12	13	21.47	21.43	20.44	
5	64QAM	25	0	21.39	21.36	20.54	22.7
Channel				26055	26340	26355	
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.22	24.11	24.05	25.7
3	QPSK	1	8	24.36	24.33	23.95	
3	QPSK	1	14	24.32	24.31	23.74	
3	QPSK	8	0	23.29	23.27	23.15	
3	QPSK	8	4	23.35	23.38	23.08	24.7
3	QPSK	8	7	23.41	23.38	22.93	
3	QPSK	15	0	23.38	23.33	22.99	
3	16QAM	1	0	23.57	23.44	23.33	
3	16QAM	1	8	23.72	23.67	23.23	24.7
3	16QAM	1	14	23.67	23.66	23.05	
3	16QAM	8	0	22.39	22.37	22.20	
3	16QAM	8	4	22.46	22.40	22.22	
3	16QAM	8	7	22.44	22.43	22.14	23.7
3	16QAM	15	0	22.40	22.37	22.19	
3	64QAM	1	0	22.46	22.36	21.70	
3	64QAM	1	8	22.59	22.56	21.72	
3	64QAM	1	14	22.59	22.57	21.73	23.7
3	64QAM	8	0	21.39	21.37	21.71	
3	64QAM	8	4	21.49	21.43	20.43	
3	64QAM	8	7	21.47	21.45	20.30	
3	64QAM	15	0	21.41	21.37	20.36	22.7
Channel				26047	26340	26683	
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.18	24.15	23.83	25.7
1.4	QPSK	1	3	24.25	24.25	23.62	
1.4	QPSK	1	5	24.25	24.21	23.70	
1.4	QPSK	3	0	24.19	24.19	23.81	
1.4	QPSK	3	1	24.27	24.22	23.83	24.7
1.4	QPSK	3	3	24.26	24.21	23.72	
1.4	QPSK	6	0	23.28	23.27	22.91	
1.4	16QAM	1	0	23.51	23.46	23.14	
1.4	16QAM	1	3	23.60	23.56	23.13	24.7
1.4	16QAM	1	5	23.56	23.55	23.06	
1.4	16QAM	3	0	23.29	23.27	22.97	
1.4	16QAM	3	1	23.39	23.34	22.97	
1.4	16QAM	3	3	23.30	23.31	22.90	23.7
1.4	16QAM	6	0	22.37	22.32	22.07	
1.4	64QAM	1	0	22.41	22.39	21.71	
1.4	64QAM	1	3	22.52	22.53	21.70	
1.4	64QAM	1	5	22.47	22.41	21.71	23.7
1.4	64QAM	3	0	22.40	22.36	21.72	
1.4	64QAM	3	1	22.47	22.43	21.72	
1.4	64QAM	3	3	22.47	22.42	21.71	
1.4	64QAM	6	0	21.31	21.29	20.73	22.7

Band 26							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	23.08	23.01	23.03	25
15	QPSK	1	37	23.01	23.00	23.01	
15	QPSK	1	74	23.02	23.01	23.03	
15	QPSK	36	0	23.03	23.04	23.06	
15	QPSK	36	20	23.07	23.03	23.01	24.5
15	QPSK	36	39	23.03	23.07	23.03	
15	QPSK	15	0	23.08	23.00	23.02	
15	16QAM	1	0	23.26	23.18	23.24	
15	16QAM	1	37	23.17	23.25	23.23	24.5
15	16QAM	1	74	23.23	23.34	23.18	
15	16QAM	36	0	22.50	22.53	22.57	
15	16QAM	36	20	22.55	22.50	22.52	
15	16QAM	36	39	22.54	22.57	22.56	23.5
15	16QAM	75	0	22.55	22.51	22.53	
15	64QAM	1	0	22.60	22.54	22.60	
15	64QAM	1	37	22.58	22.66	22.64	
15	64QAM	1	74	22.63	22.69	21.99	23.5
15	64QAM	36	0	21.54	21.58	21.59	
15	64QAM	36	20	21.58	21.54	21.55	
15	64QAM	36	39	21.57	21.64	21.62	
15	64QAM	75	0	21.57	21.54	21.57	22.5
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.06	23.02	23.04	25
10	QPSK	1	25	23.02	23.01	23.00	
10	QPSK	1	49	23.01	23.02	23.00	
10	QPSK	25	0	23.10	23.05	23.09	
10	QPSK	25	12	23.10	23.06	23.11	24.5
10	QPSK	25	25	23.00	23.09	23.07	
10	QPSK	50	0	23.06	23.06	23.06	
10	16QAM	1	0	23.32	23.33	23.30	
10	16QAM	1	25	23.29	23.31	23.31	24.5
10	16QAM	1	49	23.32	23.31	23.31	
10	16QAM	25	0	22.81	22.57	22.57	
10	16QAM	25	12	22.60	22.58	22.54	
10	16QAM	25	25	22.51	22.56	22.50	23.5
10	16QAM	50	0	22.58	22.54	22.55	
10	64QAM	1	0	22.78	22.69	22.77	
10	64QAM	1	25	22.63	22.77	22.83	
10	64QAM	1	49	22.75	22.76	22.42	23.5
10	64QAM	25	0	21.57	21.60	21.62	
10	64QAM	25	12	21.47	21.61	21.65	
10	64QAM	25	25	21.55	21.61	21.31	
10	64QAM	50	0	21.54	21.60	21.61	22.5
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.10	23.00	23.02	25
5	QPSK	1	12	23.05	23.02	23.00	
5	QPSK	1	24	23.01	23.04	23.02	
5	QPSK	12	0	23.13	23.07	23.11	
5	QPSK	12	7	23.11	23.15	23.07	24.5
5	QPSK	12	13	23.02	23.08	23.01	
5	QPSK	25	0	23.09	23.04	23.07	
5	16QAM	1	0	23.31	23.31	23.33	
5	16QAM	1	12	23.32	23.31	23.25	24.5
5	16QAM	1	24	23.26	23.30	23.22	
5	16QAM	12	0	22.70	22.57	22.60	
5	16QAM	12	7	22.60	22.63	22.58	
5	16QAM	12	13	22.55	22.57	22.51	23.5
5	16QAM	25	0	22.63	22.54	22.58	
5	64QAM	1	0	22.66	22.69	22.76	
5	64QAM	1	12	22.63	22.75	21.99	
5	64QAM	1	24	22.42	22.76	22.09	23.5
5	64QAM	12	0	21.70	21.63	21.34	
5	64QAM	12	7	21.65	21.70	20.94	
5	64QAM	12	13	21.48	21.68	20.86	
5	64QAM	25	0	21.54	21.59	21.07	22.5
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.09	23.02	23.00	25
3	QPSK	1	8	23.06	23.09	23.00	
3	QPSK	1	14	23.02	23.05	23.01	
3	QPSK	8	0	23.12	23.09	23.04	
3	QPSK	8	4	23.12	23.17	23.03	24.5
3	QPSK	8	7	23.07	23.05	23.00	
3	QPSK	15	0	23.08	23.04	23.03	
3	16QAM	1	0	23.30	23.30	23.30	
3	16QAM	1	8	23.32	23.31	23.28	24.5
3	16QAM	1	14	23.27	23.31	23.24	
3	16QAM	8	0	22.69	22.66	22.60	
3	16QAM	8	4	22.67	22.66	22.59	
3	16QAM	8	7	22.62	22.63	22.53	23.5
3	16QAM	15	0	22.66	22.57	22.56	
3	64QAM	1	0	22.73	22.73	21.96	
3	64QAM	1	8	22.79	22.81	21.83	
3	64QAM	1	14	22.67	22.76	21.95	23.5
3	64QAM	8	0	21.72	21.63	20.78	
3	64QAM	8	4	21.71	21.72	20.85	
3	64QAM	8	7	21.64	21.65	20.94	
3	64QAM	15	0	21.65	21.57	20.89	22.5
Channel				26697	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.00	23.01	23.02	25
1.4	QPSK	1	3	23.02	23.00	23.01	
1.4	QPSK	1	5	23.03	23.02	23.01	
1.4	QPSK	3	0	23.03	23.04	23.02	
1.4	QPSK	3	1	23.04	23.05	23.04	24.5
1.4	QPSK	3	3	23.03	23.01	23.05	
1.4	QPSK	6	0	23.07	23.03	22.93	
1.4	16QAM	1	0	23.29	23.25	23.20	
1.4	16QAM	1	3	23.32	23.31	23.23	24.5
1.4	16QAM	1	5	23.27	23.25	23.14	
1.4	16QAM	3	0	23.09	23.01	22.96	
1.4	16QAM	3	1	23.13	23.06	23.01	
1.4	16QAM	3	3	23.04	23.01	22.94	23.5
1.4	16QAM	6	0	22.64	22.58	22.53	
1.4	64QAM	1	0	22.72	22.63	21.91	
1.4	64QAM	1	3	22.76	22.74	22.05	
1.4	64QAM	1	5	22.67	22.66	22.09	23.5
1.4	64QAM	3	0	22.73	22.65	21.90	
1.4	64QAM	3	1	22.75	22.66	22.02	
1.4	64QAM	3	3	22.65	22.66	22.14	
1.4	64QAM	6	0	21.55	21.55	20.96	22.5



Band 30							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				27710			
Frequency (MHz)				2310			
10	QPSK	1	0		22.65		23.7
10	QPSK	1	25		22.64		
10	QPSK	1	49		22.64		
10	QPSK	25	0		21.50		
10	QPSK	25	12		21.56		22.7
10	QPSK	25	25		21.58		
10	QPSK	50	0		21.54		
10	16QAM	1	0		21.84		
10	16QAM	1	25		21.85		22.7
10	16QAM	1	49		21.82		
10	16QAM	25	0		20.49		
10	16QAM	25	12		20.53		
10	16QAM	25	25		20.53		21.7
10	16QAM	50	0		20.51		
10	64QAM	1	0		20.67		
10	64QAM	1	25		20.79		
10	64QAM	1	49		20.69		21.7
10	64QAM	25	0		19.52		
10	64QAM	25	12		19.59		
10	64QAM	25	25		19.60		
10	64QAM	50	0		19.58		20.7
Channel				27685	27710	27735	
Frequency (MHz)				2307.5	2310	2312.5	Tune-up limit (dBm)
5	QPSK	1	0	22.40	22.42	22.45	23.7
5	QPSK	1	12	22.52	22.58	22.50	
5	QPSK	1	24	22.57	22.46	22.47	
5	QPSK	12	0	21.51	21.53	21.55	
5	QPSK	12	7	21.63	21.56	21.60	22.7
5	QPSK	12	13	21.62	21.56	21.53	
5	QPSK	25	0	21.59	21.52	21.57	
5	16QAM	1	0	21.73	21.73	21.77	
5	16QAM	1	12	21.80	21.81	21.78	22.7
5	16QAM	1	24	21.92	21.80	21.75	
5	16QAM	12	0	20.56	20.54	20.58	
5	16QAM	12	7	20.64	20.60	20.63	
5	16QAM	12	13	20.64	20.58	20.55	21.7
5	16QAM	25	0	20.61	20.53	20.59	
5	64QAM	1	0	20.66	20.65	20.69	
5	64QAM	1	12	20.71	20.76	20.72	
5	64QAM	1	24	20.82	20.75	20.73	21.7
5	64QAM	12	0	19.59	19.60	19.63	
5	64QAM	12	7	19.70	19.66	19.65	
5	64QAM	12	13	19.67	19.64	19.59	
5	64QAM	25	0	19.66	19.60	19.61	20.7



Band 66							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit [dBm]
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.78	24.77	24.71	25.7
20	QPSK	1	49	24.64	24.61	24.59	
20	QPSK	1	99	24.70	24.75	24.56	
20	QPSK	50	0	23.62	23.57	23.58	
20	QPSK	50	24	23.66	23.54	23.62	
20	QPSK	50	50	23.62	23.56	23.58	24.7
20	QPSK	100	0	23.67	23.59	23.64	
20	16QAM	1	0	23.91	23.89	23.84	
20	16QAM	1	49	23.79	23.72	23.71	
20	16QAM	1	99	23.88	23.75	23.68	
20	16QAM	50	0	22.59	22.57	22.61	23.7
20	16QAM	50	24	22.66	22.55	22.62	
20	16QAM	50	50	22.66	22.59	22.59	
20	16QAM	100	0	22.65	22.62	22.65	
20	64QAM	1	0	22.76	22.77	22.69	
20	64QAM	1	49	22.63	22.64	22.63	23.7
20	64QAM	1	99	22.73	22.74	22.60	
20	64QAM	50	0	21.62	21.60	21.62	
20	64QAM	50	24	21.70	21.57	21.65	
20	64QAM	50	50	21.67	21.62	21.60	
20	64QAM	100	0	21.70	21.63	21.63	22.7
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	24.58	24.53	24.48	25.7
15	QPSK	1	37	24.46	24.40	24.41	
15	QPSK	1	74	24.57	24.51	24.41	
15	QPSK	36	0	23.59	23.56	23.59	
15	QPSK	36	20	23.66	23.61	23.64	
15	QPSK	36	39	23.65	23.60	23.59	24.7
15	QPSK	75	0	23.66	23.62	23.55	
15	16QAM	1	0	23.84	23.82	23.84	
15	16QAM	1	37	23.78	23.73	23.75	
15	16QAM	1	74	23.88	23.79	23.72	
15	16QAM	36	0	22.60	22.55	22.58	23.7
15	16QAM	36	20	22.66	22.61	22.59	
15	16QAM	36	39	22.66	22.59	22.61	
15	16QAM	75	0	22.67	22.64	22.54	
15	64QAM	1	0	22.76	22.72	22.67	
15	64QAM	1	37	22.73	22.69	22.63	23.7
15	64QAM	1	74	22.77	22.72	22.62	
15	64QAM	36	0	21.61	21.61	21.63	
15	64QAM	36	20	21.65	21.60	21.62	
15	64QAM	36	39	21.70	21.63	21.60	
15	64QAM	75	0	21.68	21.62	21.57	22.7
Channel				132022	132322	132592	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.50	24.54	24.56	25.7
10	QPSK	1	25	24.58	24.49	24.52	
10	QPSK	1	49	24.59	24.50	24.53	
10	QPSK	25	0	23.70	23.57	23.57	
10	QPSK	25	12	23.71	23.66	23.60	
10	QPSK	25	25	23.69	23.65	23.66	24.7
10	QPSK	50	0	23.72	23.67	23.59	
10	16QAM	1	0	24.00	23.94	23.92	
10	16QAM	1	25	23.95	23.92	23.92	
10	16QAM	1	49	23.98	23.88	23.89	
10	16QAM	25	0	22.70	22.60	22.58	23.7
10	16QAM	25	12	22.73	22.67	22.62	
10	16QAM	25	25	22.68	22.61	22.64	
10	16QAM	50	0	22.72	22.64	22.59	
10	64QAM	1	0	22.88	22.79	22.80	
10	64QAM	1	25	22.87	22.82	22.85	23.7
10	64QAM	1	49	22.84	22.81	22.81	
10	64QAM	25	0	21.72	21.62	21.62	
10	64QAM	25	12	21.76	21.70	21.64	
10	64QAM	25	25	21.73	21.64	21.69	
10	64QAM	50	0	21.75	21.68	21.63	22.7
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	24.63	24.51	24.58	25.7
5	QPSK	1	12	24.66	24.58	24.61	
5	QPSK	1	24	24.60	24.57	24.55	
5	QPSK	12	0	23.71	23.59	23.67	
5	QPSK	12	7	23.74	23.70	23.72	
5	QPSK	12	13	23.71	23.65	23.67	24.7
5	QPSK	25	0	23.71	23.63	23.64	
5	16QAM	1	0	23.96	23.85	23.91	
5	16QAM	1	12	23.99	23.94	23.92	
5	16QAM	1	24	23.96	23.89	23.89	
5	16QAM	12	0	22.77	22.66	22.70	23.7
5	16QAM	12	7	22.79	22.69	22.71	
5	16QAM	12	13	22.73	22.70	22.68	
5	16QAM	25	0	22.72	22.69	22.67	
5	64QAM	1	0	22.86	22.80	22.83	
5	64QAM	1	12	22.94	22.83	22.85	23.7
5	64QAM	1	24	22.89	22.84	22.81	
5	64QAM	12	0	21.80	21.67	21.73	
5	64QAM	12	7	21.79	21.76	21.76	
5	64QAM	12	13	21.76	21.69	21.74	
5	64QAM	25	0	21.72	21.65	21.66	22.7
Channel				131977	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	24.64	24.54	24.55	25.7
3	QPSK	1	8	24.69	24.65	24.64	
3	QPSK	1	14	24.65	24.56	24.59	
3	QPSK	8	0	23.72	23.62	23.68	
3	QPSK	8	4	23.73	23.70	23.69	
3	QPSK	8	7	23.71	23.64	23.62	24.7
3	QPSK	15	0	23.71	23.67	23.63	
3	16QAM	1	0	23.97	23.83	23.87	
3	16QAM	1	8	24.04	24.00	23.99	
3	16QAM	1	14	23.94	23.91	23.88	
3	16QAM	8	0	22.78	22.69	22.72	23.7
3	16QAM	8	4	22.82	22.72	22.73	
3	16QAM	8	7	22.79	22.72	22.70	
3	16QAM	15	0	22.75	22.66	22.69	
3	64QAM	1	0	22.91	22.79	22.81	
3	64QAM	1	8	22.99	22.92	22.91	23.7
3	64QAM	1	14	22.95	22.86	22.82	
3	64QAM	8	0	21.79	21.66	21.75	
3	64QAM	8	4	21.80	21.75	21.76	
3	64QAM	8	7	21.74	21.72	21.69	
3	64QAM	15	0	21.74	21.68	21.69	22.7
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	24.56	24.48	24.50	25.7
1.4	QPSK	1	3	24.57	24.51	24.57	
1.4	QPSK	1	5	24.53	24.46	24.50	
1.4	QPSK	3	0	24.60	24.54	24.51	
1.4	QPSK	3	1	24.63	24.58	24.55	
1.4	QPSK	3	3	24.56	24.51	24.50	24.7
1.4	QPSK	6	0	23.62	23.55	23.59	
1.4	16QAM	1	0	23.87	23.83	23.82	
1.4	16QAM	1	3	23.95	23.89	23.89	
1.4	16QAM	1	5	23.96	23.81	23.78	
1.4	16QAM	3	0	23.69	23.63	23.62	24.7
1.4	16QAM	3	1	23.71	23.65	23.63	
1.4	16QAM	3	3	23.65	23.60	23.57	
1.4	16QAM	6	0	22.69	22.63	22.66	
1.4	64QAM	1	0	22.82	22.76	22.76	
1.4	64QAM	1	3	22.88	22.85	22.83	23.7
1.4	64QAM	1	5	22.81	22.75	22.73	
1.4	64QAM	3	0	22.78	22.72	22.74	
1.4	64QAM	3	1	22.82	22.78	22.78	
1.4	64QAM	3	3	22.76	22.69	22.75	
1.4	64QAM	6	0	21.67	21.59	21.59	22.7

Band 71							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				678	683	688	
20	QPSK	1	0	24.51	24.80	24.79	25.7
20	QPSK	1	49	24.78	24.75	24.73	
20	QPSK	1	99	24.77	24.73	24.68	
20	QPSK	50	0	23.92	23.86	23.86	
20	QPSK	50	24	23.94	23.88	23.82	24.7
20	QPSK	50	50	23.93	23.87	23.83	
20	QPSK	100	0	23.93	23.85	23.80	
20	16QAM	1	0	24.24	24.15	24.14	
20	16QAM	1	49	24.11	24.13	24.05	24.7
20	16QAM	1	99	24.11	24.06	24.02	
20	16QAM	50	0	22.91	22.86	22.88	
20	16QAM	50	24	22.96	22.88	22.84	
20	16QAM	50	50	22.92	22.85	22.85	23.7
20	16QAM	100	0	22.94	22.87	22.90	
20	64QAM	1	0	22.19	22.67	23.00	
20	64QAM	1	49	22.74	22.99	22.35	
20	64QAM	1	99	23.01	22.53	22.89	22.7
20	64QAM	50	0	20.95	21.85	21.51	
20	64QAM	50	24	21.45	21.75	21.74	
20	64QAM	50	50	21.93	21.54	21.87	
20	64QAM	100	0	21.53	21.86	21.91	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.90	24.81	24.78	25.7
15	QPSK	1	37	24.66	24.73	24.72	
15	QPSK	1	74	24.73	24.76	24.69	
15	QPSK	36	0	23.88	23.86	23.82	
15	QPSK	36	20	23.93	23.85	23.92	24.7
15	QPSK	36	39	23.92	23.88	23.86	
15	QPSK	75	0	23.92	23.85	23.80	
15	16QAM	1	0	24.20	24.13	24.11	
15	16QAM	1	37	23.92	24.09	24.06	24.7
15	16QAM	1	74	24.03	24.05	24.03	
15	16QAM	36	0	22.78	22.88	22.84	
15	16QAM	36	20	22.88	22.94	22.89	
15	16QAM	36	39	22.94	22.89	22.86	23.7
15	16QAM	75	0	22.94	22.84	22.81	
15	64QAM	1	0	22.13	22.79	22.67	
15	64QAM	1	37	21.75	23.01	23.01	
15	64QAM	1	74	22.94	22.62	22.95	23.7
15	64QAM	36	0	20.83	21.90	21.52	
15	64QAM	36	20	20.86	21.76	21.93	
15	64QAM	36	39	21.52	21.45	21.91	
15	64QAM	75	0	21.36	21.84	21.80	22.7
Channel				133112	133212	133312	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.85	24.74	24.76	25.7
10	QPSK	1	25	24.67	24.71	24.67	
10	QPSK	1	49	24.70	24.74	24.64	
10	QPSK	25	0	23.91	23.81	23.77	
10	QPSK	25	12	23.77	23.82	23.80	24.7
10	QPSK	25	25	23.81	23.87	23.80	
10	QPSK	50	0	23.90	23.83	23.79	
10	16QAM	1	0	24.23	24.11	24.15	
10	16QAM	1	25	24.03	24.10	24.08	24.7
10	16QAM	1	49	24.06	24.04	24.01	
10	16QAM	25	0	22.70	22.82	22.77	
10	16QAM	25	12	22.68	22.83	22.77	
10	16QAM	25	25	22.65	22.83	22.79	23.7
10	16QAM	50	0	22.87	22.81	22.77	
10	64QAM	1	0	21.83	22.98	23.02	
10	64QAM	1	25	21.90	23.04	23.03	
10	64QAM	1	49	22.13	22.22	22.55	23.7
10	64QAM	25	0	20.74	21.86	21.62	
10	64QAM	25	12	20.75	21.77	21.94	
10	64QAM	25	25	20.88	21.35	21.71	
10	64QAM	50	0	20.81	21.58	21.83	22.7
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.61	24.80	24.80	25.7
5	QPSK	1	12	24.74	24.81	24.76	
5	QPSK	1	24	24.78	24.75	24.69	
5	QPSK	12	0	23.72	23.67	23.82	
5	QPSK	12	7	23.78	23.89	23.84	24.7
5	QPSK	12	13	23.78	23.85	23.77	
5	QPSK	25	0	23.79	23.82	23.77	
5	16QAM	1	0	23.89	24.14	24.10	
5	16QAM	1	12	23.97	24.11	24.06	24.7
5	16QAM	1	24	24.02	24.10	24.00	
5	16QAM	12	0	22.63	22.91	22.87	
5	16QAM	12	7	22.74	22.93	22.87	
5	16QAM	12	13	22.80	22.86	22.79	23.7
5	16QAM	25	0	22.69	22.86	22.77	
5	64QAM	1	0	21.71	23.02	22.96	
5	64QAM	1	12	21.62	22.96	22.79	
5	64QAM	1	24	22.00	22.67	22.32	23.7
5	64QAM	12	0	20.78	21.93	21.87	
5	64QAM	12	7	20.91	21.86	21.89	
5	64QAM	12	13	20.85	21.67	21.66	
5	64QAM	25	0	20.74	21.89	21.62	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				18750	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.00	24.09	24.00	25.2
20	QPSK	1	49	23.96	24.01	24.00	
20	QPSK	1	99	23.97	23.99	23.96	
20	QPSK	50	0	23.59	23.59	22.90	24.2
20	QPSK	50	24	23.67	23.62	22.91	
20	QPSK	50	50	22.76	23.68	23.20	
20	QPSK	100	0	23.39	23.62	22.44	24.2
20	16QAM	1	0	23.83	23.85	23.83	
20	16QAM	1	49	23.88	23.84	22.52	
20	16QAM	1	99	23.60	23.88	23.41	23.2
20	16QAM	50	0	22.60	22.59	22.09	
20	16QAM	50	24	22.60	22.54	22.05	
20	16QAM	50	50	22.48	22.71	22.41	23.2
20	16QAM	100	0	22.44	22.60	22.13	
20	64QAM	1	0	22.28	22.07	22.15	
20	64QAM	1	49	22.22	22.41	20.79	22.2
20	64QAM	1	99	21.70	22.64	21.54	
20	64QAM	50	0	21.35	21.15	21.09	
20	64QAM	50	24	20.99	21.46	21.05	22.2
20	64QAM	50	50	20.49	21.61	20.44	
20	64QAM	100	0	20.74	21.00	20.28	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.98	24.06	23.78	25.2
15	QPSK	1	37	23.98	24.03	23.35	
15	QPSK	1	74	24.04	24.08	23.97	
15	QPSK	36	0	23.62	23.59	22.71	24.2
15	QPSK	36	20	23.66	23.64	23.11	
15	QPSK	36	39	23.53	23.69	23.44	
15	QPSK	75	0	23.65	23.62	22.77	24.2
15	16QAM	1	0	23.74	23.86	23.59	
15	16QAM	1	37	23.82	23.87	22.68	
15	16QAM	1	74	23.82	23.87	23.50	23.2
15	16QAM	36	0	22.63	22.58	21.77	
15	16QAM	36	20	22.65	22.60	22.24	
15	16QAM	36	39	22.66	22.71	22.59	23.2
15	16QAM	75	0	22.65	22.62	22.13	
15	64QAM	1	0	22.21	22.07	21.29	
15	64QAM	1	37	22.51	22.36	21.73	22.2
15	64QAM	1	74	21.77	22.73	21.65	
15	64QAM	36	0	21.49	21.15	21.89	
15	64QAM	36	20	21.37	21.47	20.27	22.2
15	64QAM	36	39	20.67	21.65	20.65	
15	64QAM	75	0	21.03	21.26	21.13	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	24.05	24.02	23.78	25.2
10	QPSK	1	25	23.98	24.00	23.91	
10	QPSK	1	49	24.01	24.06	23.93	
10	QPSK	25	0	23.56	23.54	23.07	24.2
10	QPSK	25	12	23.64	23.57	23.41	
10	QPSK	25	25	23.65	23.69	23.51	
10	QPSK	50	0	23.62	23.57	23.18	24.2
10	16QAM	1	0	23.84	23.73	23.16	
10	16QAM	1	25	23.84	23.89	23.60	
10	16QAM	1	49	23.86	23.91	23.80	23.2
10	16QAM	25	0	22.56	22.55	22.07	
10	16QAM	25	12	22.62	22.58	22.50	
10	16QAM	25	25	22.65	22.66	22.55	23.2
10	16QAM	50	0	22.62	22.59	22.33	
10	64QAM	1	0	21.65	21.82	21.23	
10	64QAM	1	25	22.65	22.57	21.83	22.2
10	64QAM	1	49	22.25	22.63	21.94	
10	64QAM	25	0	21.49	21.17	20.22	
10	64QAM	25	12	21.43	21.44	20.57	22.2
10	64QAM	25	25	21.18	21.59	20.84	
10	64QAM	50	0	21.13	21.25	20.34	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.91	23.92	23.86	25.2
5	QPSK	1	12	24.02	24.03	23.88	
5	QPSK	1	24	23.96	24.03	23.92	
5	QPSK	12	0	23.49	23.47	23.41	24.2
5	QPSK	12	7	23.55	23.59	23.50	
5	QPSK	12	13	23.51	23.58	23.46	
5	QPSK	25	0	23.52	23.49	23.41	24.2
5	16QAM	1	0	23.75	23.71	23.50	
5	16QAM	1	12	23.78	23.80	23.64	
5	16QAM	1	24	23.78	23.84	23.72	23.2
5	16QAM	12	0	22.53	22.53	22.44	
5	16QAM	12	7	22.56	22.64	22.50	
5	16QAM	12	13	22.67	22.62	22.49	23.2
5	16QAM	25	0	22.53	22.52	22.47	
5	64QAM	1	0	22.29	22.05	21.48	
5	64QAM	1	12	22.65	22.46	21.84	22.2
5	64QAM	1	24	22.65	22.61	21.84	
5	64QAM	12	0	21.55	21.26	20.72	
5	64QAM	12	7	21.61	21.53	20.89	22.2
5	64QAM	12	13	21.58	21.56	20.87	
5	64QAM	25	0	21.43	21.34	20.65	
Channel				18615	18900	19165	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.89	23.91	23.85	25.2
3	QPSK	1	8	23.96	24.08	23.95	
3	QPSK	1	14	23.94	24.00	23.87	
3	QPSK	8	0	23.48	23.47	23.40	24.2
3	QPSK	8	4	23.50	23.58	23.46	
3	QPSK	8	7	23.48	23.53	23.46	
3	QPSK	15	0	23.48	23.51	23.43	24.2
3	16QAM	1	0	23.70	23.83	23.59	
3	16QAM	1	8	23.80	23.87	23.68	
3	16QAM	1	14	23.76	23.82	23.71	23.2
3	16QAM	8	0	22.55	22.55	22.49	
3	16QAM	8	4	22.59	22.64	22.53	
3	16QAM	8	7	22.59	22.62	22.48	23.2
3	16QAM	15	0	22.51	22.52	22.45	
3	64QAM	1	0	22.41	22.28	21.72	
3	64QAM	1	8	22.72	22.62	21.94	22.2
3	64QAM	1	14	22.69	22.66	21.89	
3	64QAM	8	0	21.46	21.34	20.79	
3	64QAM	8	4	21.57	21.45	20.89	22.2
3	64QAM	8	7	21.58	21.53	20.83	
3	64QAM	15	0	21.48	21.38	20.77	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.83	23.86	23.73	25.2
1.4	QPSK	1	3	23.86	23.94	23.83	
1.4	QPSK	1	5	23.85	23.91	23.75	
1.4	QPSK	3	0	23.87	23.93	23.78	24.2
1.4	QPSK	3	1	23.94	23.98	23.83	
1.4	QPSK	3	3	23.89	23.93	23.81	
1.4	QPSK	6	0	23.40	23.47	23.35	24.2
1.4	16QAM	1	0	23.60	23.72	23.53	
1.4	16QAM	1	3	23.70	23.74	23.64	
1.4	16QAM	1	5	23.66	23.71	23.57	24.2
1.4	16QAM	3	0	22.42	22.49	22.34	
1.4	16QAM	3	1	23.50	23.53	23.39	
1.4	16QAM	3	3	23.41	23.48	23.31	23.2
1.4	16QAM	6	0	22.47	22.51	22.38	
1.4	64QAM	1	0	22.37	22.35	21.73	
1.4	64QAM	1	3	22.49	22.48	21.80	23.2
1.4	64QAM	1	5	22.50	22.46	21.73	
1.4	64QAM	3	0	22.39	22.35	21.68	
1.4	64QAM	3	1	22.67	22.51	21.84	22.2
1.4	64QAM	3	3	22.45	22.41	21.68	
1.4	64QAM	6	0	21.36	21.30	20.64	



Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.49	24.47	24.33	25.7
20	QPSK	1	49	24.33	24.24	24.10	
20	QPSK	1	99	24.31	24.23	24.10	
20	QPSK	50	0	23.70	23.64	23.44	24.7
20	QPSK	50	24	23.57	23.59	23.44	
20	QPSK	50	50	23.52	23.47	23.36	
20	QPSK	100	0	23.55	23.63	23.41	24.7
20	16QAM	1	0	23.95	23.88	23.77	
20	16QAM	1	49	23.80	23.69	23.57	
20	16QAM	1	99	23.74	23.64	23.50	23.7
20	16QAM	50	0	22.71	22.65	22.45	
20	16QAM	50	24	22.56	22.60	22.45	
20	16QAM	50	50	22.52	22.49	22.35	23.7
20	16QAM	100	0	22.53	22.62	22.42	
20	64QAM	1	0	22.86	22.81	22.61	
20	64QAM	1	49	22.68	22.57	22.46	23.7
20	64QAM	1	99	22.51	22.54	22.49	
20	64QAM	50	0	21.71	21.67	21.48	
20	64QAM	50	24	21.59	21.62	21.47	22.7
20	64QAM	50	50	21.54	21.53	21.38	
20	64QAM	100	0	21.59	21.59	21.44	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.50	24.45	24.30	25.7
15	QPSK	1	37	24.34	24.25	24.09	
15	QPSK	1	74	24.34	24.24	24.11	
15	QPSK	36	0	23.64	23.65	23.41	24.7
15	QPSK	36	20	23.58	23.56	23.33	
15	QPSK	36	39	23.50	23.49	23.36	
15	QPSK	75	0	23.55	23.59	23.32	24.7
15	16QAM	1	0	23.61	23.65	23.71	
15	16QAM	1	37	23.75	23.70	23.53	
15	16QAM	1	74	23.76	23.65	23.45	23.7
15	16QAM	36	0	22.68	22.65	22.40	
15	16QAM	36	20	22.60	22.56	22.31	
15	16QAM	36	39	22.51	22.51	22.33	23.7
15	16QAM	75	0	22.55	22.56	22.32	
15	64QAM	1	0	22.80	22.81	22.67	
15	64QAM	1	37	22.71	22.63	22.45	23.7
15	64QAM	1	74	22.60	22.58	22.42	
15	64QAM	36	0	21.69	21.69	21.42	
15	64QAM	36	20	21.60	21.61	21.33	22.7
15	64QAM	36	39	21.55	21.57	21.38	
15	64QAM	75	0	21.55	21.62	21.33	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.38	24.40	24.12	25.7
10	QPSK	1	25	24.38	24.30	24.14	
10	QPSK	1	49	24.41	24.30	24.11	
10	QPSK	25	0	23.62	23.57	23.28	24.7
10	QPSK	25	12	23.65	23.60	23.38	
10	QPSK	25	25	23.63	23.58	23.35	
10	QPSK	50	0	23.64	23.58	23.32	24.7
10	16QAM	1	0	23.88	23.87	23.64	
10	16QAM	1	25	23.87	23.80	23.64	
10	16QAM	1	49	23.95	23.76	23.61	23.7
10	16QAM	25	0	22.61	22.55	22.29	
10	16QAM	25	12	22.64	22.56	22.39	
10	16QAM	25	25	22.64	22.59	22.39	23.7
10	16QAM	50	0	22.65	22.55	22.30	
10	64QAM	1	0	22.79	22.77	22.51	
10	64QAM	1	25	22.78	22.72	22.51	23.7
10	64QAM	1	49	22.63	22.59	22.53	
10	64QAM	25	0	21.63	21.59	21.33	
10	64QAM	25	12	21.66	21.63	21.41	22.7
10	64QAM	25	25	21.67	21.59	21.41	
10	64QAM	50	0	21.66	21.61	21.36	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.39	24.35	24.13	25.7
5	QPSK	1	12	24.48	24.36	24.12	
5	QPSK	1	24	24.47	24.38	24.15	
5	QPSK	12	0	23.58	23.52	23.32	24.7
5	QPSK	12	7	23.63	23.56	23.35	
5	QPSK	12	13	23.64	23.56	23.34	
5	QPSK	25	0	23.61	23.58	23.31	24.7
5	16QAM	1	0	23.65	23.76	23.56	
5	16QAM	1	12	23.89	23.79	23.59	
5	16QAM	1	24	23.90	23.80	23.62	23.7
5	16QAM	12	0	22.64	22.54	22.35	
5	16QAM	12	7	22.68	22.57	22.40	
5	16QAM	12	13	22.67	22.57	22.38	23.7
5	16QAM	25	0	22.63	22.56	22.35	
5	64QAM	1	0	22.76	22.76	22.51	
5	64QAM	1	12	22.81	22.71	22.52	23.7
5	64QAM	1	24	22.88	22.73	22.50	
5	64QAM	12	0	21.66	21.59	21.41	
5	64QAM	12	7	21.68	21.62	21.43	22.7
5	64QAM	12	13	21.71	21.59	21.38	
5	64QAM	25	0	21.62	21.60	21.35	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.42	24.34	24.11	25.7
3	QPSK	1	8	24.50	24.43	24.20	
3	QPSK	1	14	24.44	24.36	24.13	
3	QPSK	8	0	23.50	23.53	23.33	24.7
3	QPSK	8	4	23.65	23.54	23.34	
3	QPSK	8	7	23.62	23.53	23.32	
3	QPSK	15	0	23.58	23.56	23.29	24.7
3	16QAM	1	0	23.83	23.77	23.55	
3	16QAM	1	8	23.93	23.85	23.60	
3	16QAM	1	14	23.88	23.80	23.61	23.7
3	16QAM	8	0	22.66	22.56	22.36	
3	16QAM	8	4	22.68	22.64	22.42	
3	16QAM	8	7	22.68	22.63	22.37	23.7
3	16QAM	15	0	22.65	22.56	22.36	
3	64QAM	1	0	22.73	22.74	22.45	
3	64QAM	1	8	22.87	22.80	22.58	23.7
3	64QAM	1	14	22.84	22.73	22.51	
3	64QAM	8	0	21.66	21.56	21.37	
3	64QAM	8	4	21.70	21.62	21.40	22.7
3	64QAM	8	7	21.66	21.58	21.40	
3	64QAM	15	0	21.64	21.57	21.35	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.25	24.24	24.02	25.7
1.4	QPSK	1	3	24.31	24.29	24.07	
1.4	QPSK	1	5	24.25	24.24	24.04	
1.4	QPSK	3	0	24.23	24.29	24.07	24.7
1.4	QPSK	3	1	24.31	24.31	24.12	
1.4	QPSK	3	3	24.26	24.27	24.05	
1.4	QPSK	6	0	23.41	23.42	23.20	24.7
1.4	16QAM	1	0	23.70	23.69	23.46	
1.4	16QAM	1	3	23.74	23.73	23.50	
1.4	16QAM	1	5	23.68	23.66	23.44	24.7
1.4	16QAM	3	0	23.46	23.46	23.25	
1.4	16QAM	3	1	23.51	23.49	23.31	
1.4	16QAM	3	3	23.45	23.46	23.24	23.7
1.4	16QAM	6	0	22.51	22.46	22.26	
1.4	64QAM	1	0	22.60	22.59	22.41	
1.4	64QAM	1	3	22.70	22.70	22.47	23.7
1.4	64QAM	1	5	22.62	22.61	22.39	
1.4	64QAM	3	0	22.58	22.59	22.35	
1.4	64QAM	3	1	22.63	22.62	22.39	22.7
1.4	64QAM	3	3	22.59	22.57	22.35	
1.4	64QAM	6	0	21.44	21.43	21.24	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.41	24.40	24.44	25.7
10	QPSK	1	25	24.38	24.43	24.44	
10	QPSK	1	49	24.42	24.55	24.35	
10	QPSK	25	0	23.48	23.56	23.53	24.7
10	QPSK	25	12	23.58	23.55	23.56	
10	QPSK	25	25	23.52	23.59	23.53	
10	QPSK	50	0	23.59	23.53	23.57	24.7
10	16QAM	1	0	23.82	23.81	23.85	
10	16QAM	1	25	23.78	23.82	23.83	
10	16QAM	1	49	23.82	23.89	23.77	23.7
10	16QAM	25	0	22.45	22.58	22.36	
10	16QAM	25	12	22.58	22.57	22.54	
10	16QAM	25	25	22.54	22.58	22.62	23.7
10	16QAM	50	0	22.57	22.55	22.54	
10	64QAM	1	0	22.65	22.63	22.63	23.7
10	64QAM	1	25	22.70	22.73	22.76	
10	64QAM	1	49	22.73	22.41	21.71	
10	64QAM	25	0	21.51	21.58	21.58	22.7
10	64QAM	25	12	21.61	21.62	21.60	
10	64QAM	25	25	21.58	21.60	20.89	
10	64QAM	50	0	21.58	21.59	21.25	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.51	24.52	24.54	25.7
5	QPSK	1	12	24.48	24.49	24.28	
5	QPSK	1	24	24.40	24.49	24.24	
5	QPSK	12	0	23.58	23.61	23.59	24.7
5	QPSK	12	7	23.52	23.62	23.34	
5	QPSK	12	13	23.51	23.57	23.18	
5	QPSK	25	0	23.52	23.55	23.51	24.7
5	16QAM	1	0	23.65	23.82	23.82	
5	16QAM	1	12	23.74	23.82	23.56	
5	16QAM	1	24	23.75	23.83	23.47	23.7
5	16QAM	12	0	22.63	22.57	22.58	
5	16QAM	12	7	22.58	22.63	22.50	
5	16QAM	12	13	22.51	22.58	22.28	23.7
5	16QAM	25	0	22.56	22.59	22.53	
5	64QAM	1	0	22.73	22.77	22.54	
5	64QAM	1	12	22.67	22.75	21.78	22.7
5	64QAM	1	24	22.72	22.60	21.72	
5	64QAM	12	0	21.65	21.66	21.27	
5	64QAM	12	7	21.60	21.67	20.70	22.7
5	64QAM	12	13	21.56	21.62	20.71	
5	64QAM	25	0	21.57	21.60	20.76	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.49	24.48	24.23	25.7
3	QPSK	1	8	24.49	24.54	24.02	
3	QPSK	1	14	24.37	24.47	24.11	
3	QPSK	8	0	23.57	23.57	23.09	24.7
3	QPSK	8	4	23.54	23.61	23.10	
3	QPSK	8	7	23.52	23.59	23.20	
3	QPSK	15	0	23.55	23.52	23.12	24.7
3	16QAM	1	0	23.83	23.78	23.67	
3	16QAM	1	8	23.84	23.87	23.36	
3	16QAM	1	14	23.69	23.79	23.45	23.7
3	16QAM	8	0	22.63	22.62	22.29	
3	16QAM	8	4	22.62	22.72	22.20	
3	16QAM	8	7	22.59	22.66	22.28	23.7
3	16QAM	15	0	22.59	22.59	22.22	
3	64QAM	1	0	22.67	22.74	21.70	
3	64QAM	1	8	22.75	22.77	21.71	22.7
3	64QAM	1	14	22.70	22.52	21.70	
3	64QAM	8	0	21.64	21.62	20.70	
3	64QAM	8	4	21.64	21.65	20.70	22.7
3	64QAM	8	7	21.55	21.64	20.72	
3	64QAM	15	0	21.59	21.62	20.73	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.37	24.39	23.99	25.7
1.4	QPSK	1	3	24.41	24.47	24.17	
1.4	QPSK	1	5	24.32	24.38	24.10	
1.4	QPSK	3	0	24.40	24.41	24.09	24.7
1.4	QPSK	3	1	24.44	24.44	24.15	
1.4	QPSK	3	3	24.39	24.46	24.35	
1.4	QPSK	6	0	23.49	23.54	23.21	24.7
1.4	16QAM	1	0	23.68	23.74	23.32	
1.4	16QAM	1	3	23.72	23.82	23.53	
1.4	16QAM	1	5	23.66	23.76	23.55	23.7
1.4	16QAM	3	0	23.52	23.50	23.10	
1.4	16QAM	3	1	23.56	23.55	23.27	
1.4	16QAM	3	3	23.46	23.52	23.44	23.7
1.4	16QAM	6	0	22.54	22.61	22.31	
1.4	64QAM	1	0	22.62	22.64	21.70	
1.4	64QAM	1	3	22.70	22.73	21.71	23.7
1.4	64QAM	1	5	22.61	22.63	21.70	
1.4	64QAM	3	0	22.62	22.61	21.72	
1.4	64QAM	3	1	22.64	22.65	21.74	22.7
1.4	64QAM	3	3	22.58	22.63	21.73	
1.4	64QAM	6	0	21.49	21.54	20.71	

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	25
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.09	23.19	23.27	25
20	QPSK	1	49	23.18	23.27	23.26	
20	QPSK	1	99	23.27	23.39	23.28	
20	QPSK	50	0	23.22	23.31	23.31	24.5
20	QPSK	50	24	23.33	23.38	23.34	
20	QPSK	50	50	23.36	23.46	23.41	
20	QPSK	100	0	23.36	23.35	23.37	24.5
20	16QAM	1	0	23.44	23.55	23.60	
20	16QAM	1	49	23.55	23.65	23.61	
20	16QAM	1	99	23.62	23.78	23.64	23.5
20	16QAM	50	0	22.77	22.85	22.85	
20	16QAM	50	24	22.88	22.92	22.87	
20	16QAM	50	50	22.89	23.01	22.93	23.5
20	16QAM	100	0	22.84	22.85	22.83	
20	64QAM	1	0	22.78	22.92	22.92	
20	64QAM	1	49	22.88	23.05	22.35	22.5
20	64QAM	1	99	22.99	23.16	22.54	
20	64QAM	50	0	21.75	21.86	21.65	
20	64QAM	50	24	21.90	21.93	21.56	22.5
20	64QAM	50	50	21.91	22.04	21.70	
20	64QAM	100	0	21.87	21.91	21.61	
Channel				20825	21100	21375	25
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.12	23.20	23.22	25
15	QPSK	1	37	23.14	23.29	23.22	
15	QPSK	1	74	23.24	23.40	23.28	
15	QPSK	36	0	23.19	23.30	23.30	24.5
15	QPSK	36	20	23.30	23.37	23.34	
15	QPSK	36	39	23.32	23.46	23.37	
15	QPSK	75	0	23.28	23.33	23.32	24.5
15	16QAM	1	0	23.45	23.57	23.57	
15	16QAM	1	37	23.49	23.62	23.55	
15	16QAM	1	74	23.58	23.75	23.60	23.5
15	16QAM	36	0	22.70	22.86	22.82	
15	16QAM	36	20	22.83	22.87	22.83	
15	16QAM	36	39	22.87	22.96	22.92	23.5
15	16QAM	75	0	22.84	22.86	22.83	
15	64QAM	1	0	22.80	22.93	22.90	
15	64QAM	1	37	22.91	23.04	22.42	22.5
15	64QAM	1	74	22.95	23.11	22.64	
15	64QAM	36	0	21.74	21.90	21.45	
15	64QAM	36	20	21.87	21.91	21.61	22.5
15	64QAM	36	39	21.89	22.01	21.78	
15	64QAM	75	0	21.85	21.89	21.58	
Channel				20800	21100	21400	25
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.11	23.24	23.15	25
10	QPSK	1	25	23.10	23.26	23.16	
10	QPSK	1	49	23.17	23.32	23.23	
10	QPSK	25	0	23.26	23.34	23.28	24.5
10	QPSK	25	12	23.28	23.38	23.31	
10	QPSK	25	25	23.30	23.45	23.36	
10	QPSK	50	0	23.31	23.38	23.30	24.5
10	16QAM	1	0	23.44	23.56	23.52	
10	16QAM	1	25	23.43	23.61	23.55	
10	16QAM	1	49	23.53	23.70	23.60	23.5
10	16QAM	25	0	22.74	22.81	22.76	
10	16QAM	25	12	22.81	22.86	22.81	
10	16QAM	25	25	22.78	22.97	22.86	23.5
10	16QAM	50	0	22.77	22.86	22.79	
10	64QAM	1	0	22.86	22.94	22.75	
10	64QAM	1	25	22.87	23.01	22.97	22.5
10	64QAM	1	49	22.95	23.15	23.01	
10	64QAM	25	0	21.77	21.94	21.87	
10	64QAM	25	12	21.82	21.92	21.82	22.5
10	64QAM	25	25	21.82	21.99	21.89	
10	64QAM	50	0	21.80	21.88	21.67	
Channel				20775	21100	21425	25
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.13	23.23	23.22	25
5	QPSK	1	12	23.17	23.35	23.24	
5	QPSK	1	24	23.15	23.34	23.23	
5	QPSK	12	0	23.26	23.33	23.33	24.5
5	QPSK	12	7	23.26	23.33	23.36	
5	QPSK	12	13	23.32	23.42	23.37	
5	QPSK	25	0	23.27	23.38	23.33	24.5
5	16QAM	1	0	23.46	23.54	23.55	
5	16QAM	1	12	23.43	23.60	23.55	
5	16QAM	1	24	23.45	23.67	23.54	23.5
5	16QAM	12	0	22.80	22.87	22.84	
5	16QAM	12	7	22.78	22.85	22.87	
5	16QAM	12	13	22.77	22.91	22.86	23.5
5	16QAM	25	0	22.77	22.87	22.85	
5	64QAM	1	0	22.90	22.98	22.96	
5	64QAM	1	12	22.84	23.04	22.93	22.5
5	64QAM	1	24	22.88	23.04	22.97	
5	64QAM	12	0	21.81	21.95	21.89	
5	64QAM	12	7	21.85	21.89	21.89	22.5
5	64QAM	12	13	21.83	21.99	21.93	
5	64QAM	25	0	21.78	21.87	21.88	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
10	QPSK	1	0	24.72	24.52	24.58	25.7
10	QPSK	1	25	24.54	24.54	24.54	
10	QPSK	1	49	24.66	24.60	24.55	
10	QPSK	25	0	23.67	23.66	23.64	24.7
10	QPSK	25	12	23.75	23.69	23.73	
10	QPSK	25	25	23.73	23.72	23.71	
10	QPSK	50	0	23.76	23.65	23.73	24.7
10	16QAM	1	0	23.97	23.90	23.96	
10	16QAM	1	25	23.96	23.95	23.92	
10	16QAM	1	49	24.02	23.85	23.93	23.7
10	16QAM	25	0	22.67	22.66	22.67	
10	16QAM	25	12	22.76	22.67	22.73	
10	16QAM	25	25	22.69	22.69	22.70	23.7
10	16QAM	50	0	22.76	22.67	22.72	
10	64QAM	1	0	22.79	22.73	22.81	23.7
10	64QAM	1	25	22.86	22.84	22.57	
10	64QAM	1	49	22.94	22.87	22.87	
10	64QAM	25	0	21.72	21.70	21.58	22.7
10	64QAM	25	12	21.80	21.73	21.75	
10	64QAM	25	25	21.75	21.75	21.73	
10	64QAM	50	0	21.78	21.70	21.76	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.61	24.59	24.54	
5	QPSK	1	12	24.62	24.67	24.59	25.7
5	QPSK	1	24	24.61	24.61	24.56	
5	QPSK	12	0	23.73	23.70	23.65	24.7
5	QPSK	12	7	23.73	23.67	23.67	
5	QPSK	12	13	23.67	23.67	23.64	
5	QPSK	25	0	23.71	23.66	23.59	24.7
5	16QAM	1	0	23.96	23.94	23.86	
5	16QAM	1	12	23.93	23.92	23.89	
5	16QAM	1	24	23.94	23.97	23.90	23.7
5	16QAM	12	0	22.76	22.74	22.68	
5	16QAM	12	7	22.76	22.69	22.72	
5	16QAM	12	13	22.71	22.71	22.65	23.7
5	16QAM	25	0	22.74	22.67	22.65	
5	64QAM	1	0	22.74	22.61	22.81	
5	64QAM	1	12	22.84	22.84	22.81	22.7
5	64QAM	1	24	22.76	22.88	22.80	
5	64QAM	12	0	21.80	21.77	21.72	
5	64QAM	12	7	21.76	21.73	21.76	22.7
5	64QAM	12	13	21.77	21.76	21.70	
5	64QAM	25	0	21.74	21.72	21.66	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.71	24.62	24.60	25.7
3	QPSK	1	8	24.66	24.70	24.64	
3	QPSK	1	14	24.62	24.62	24.57	
3	QPSK	8	0	23.74	23.65	23.62	24.7
3	QPSK	8	4	23.72	23.72	23.67	
3	QPSK	8	7	23.70	23.70	23.63	
3	QPSK	15	0	23.73	23.67	23.61	24.7
3	16QAM	1	0	24.04	23.94	23.90	
3	16QAM	1	8	23.97	24.01	23.96	
3	16QAM	1	14	23.93	23.97	23.86	23.7
3	16QAM	8	0	22.80	22.74	22.67	
3	16QAM	8	4	22.80	22.80	22.71	
3	16QAM	8	7	22.75	22.73	22.69	23.7
3	16QAM	15	0	22.76	22.67	22.62	
3	64QAM	1	0	22.82	22.76	22.81	
3	64QAM	1	8	22.96	22.93	22.87	23.7
3	64QAM	1	14	22.88	22.86	22.77	
3	64QAM	8	0	21.80	21.75	21.69	
3	64QAM	8	4	21.80	21.83	21.75	22.7
3	64QAM	8	7	21.73	21.74	21.69	
3	64QAM	15	0	21.77	21.69	21.62	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.60	24.53	24.49	25.7
1.4	QPSK	1	3	24.60	24.60	24.53	
1.4	QPSK	1	5	24.52	24.52	24.43	
1.4	QPSK	3	0	24.62	24.51	24.50	24.7
1.4	QPSK	3	1	24.67	24.55	24.54	
1.4	QPSK	3	3	24.58	24.57	24.47	
1.4	QPSK	6	0	23.67	23.59	23.54	24.7
1.4	16QAM	1	0	23.92	23.85	23.83	
1.4	16QAM	1	3	23.95	23.93	23.88	
1.4	16QAM	1	5	23.86	23.90	23.76	23.7
1.4	16QAM	3	0	23.68	23.62	23.59	
1.4	16QAM	3	1	23.74	23.64	23.63	
1.4	16QAM	3	3	23.65	23.61	23.55	23.7
1.4	16QAM	6	0	22.72	22.65	22.62	
1.4	64QAM	1	0	22.82	22.76	22.75	
1.4	64QAM	1	3	22.88	22.84	22.78	23.7
1.4	64QAM	1	5	22.78	22.77	22.70	
1.4	64QAM	3	0	22.79	22.74	22.74	
1.4	64QAM	3	1	22.83	22.77	22.73	22.7
1.4	64QAM	3	3	22.76	22.76	22.67	
1.4	64QAM	6	0	21.67	21.60	21.59	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				2320			Tune-up limit (dbm)
Frequency (MHz)				752			
10	QPSK	1	0	23.87			25.2
10	QPSK	1	25	23.85			
10	QPSK	1	49	23.99			
10	QPSK	25	0	22.99			24.2
10	QPSK	25	12	23.00			
10	QPSK	25	25	22.99			
10	QPSK	50	0	23.06			24.2
10	16QAM	1	0	23.19			
10	16QAM	1	25	23.20			
10	16QAM	1	49	23.18			23.2
10	16QAM	25	0	21.95			
10	16QAM	25	12	22.01			
10	16QAM	25	25	21.98			23.2
10	16QAM	50	0	21.97			
10	64QAM	1	0	22.04			
10	64QAM	1	25	22.13			23.2
10	64QAM	1	49	22.10			
10	64QAM	25	0	21.01			
10	64QAM	25	12	21.06			22.2
10	64QAM	25	25	21.02			
10	64QAM	50	0	21.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.78	23.84	23.88	25.2
5	QPSK	1	12	23.88	23.90	23.85	
5	QPSK	1	24	23.88	23.86	23.94	
5	QPSK	12	0	22.94	22.96	22.95	24.2
5	QPSK	12	7	22.99	22.95	22.90	
5	QPSK	12	13	23.00	23.01	22.95	
5	QPSK	25	0	22.99	22.97	22.92	24.2
5	16QAM	1	0	23.08	23.13	23.15	
5	16QAM	1	12	23.15	23.15	23.11	
5	16QAM	1	24	23.22	23.16	23.09	23.2
5	16QAM	12	0	22.02	21.99	21.96	
5	16QAM	12	7	22.05	21.97	21.96	
5	16QAM	12	13	22.02	22.02	22.00	23.2
5	16QAM	25	0	22.05	21.97	21.96	
5	64QAM	1	0	22.00	22.15	22.04	
5	64QAM	1	12	22.13	22.13	22.11	23.2
5	64QAM	1	24	22.13	22.13	22.03	
5	64QAM	12	0	21.10	21.04	21.04	
5	64QAM	12	7	21.07	21.03	20.96	22.2
5	64QAM	12	13	21.04	21.04	21.00	
5	64QAM	25	0	21.04	21.03	20.94	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0		24.43		25.7
10	QPSK	1	25		24.53		
10	QPSK	1	49		24.34		
10	QPSK	25	0		23.49		24.7
10	QPSK	25	12		23.47		
10	QPSK	25	25		23.50		
10	QPSK	50	0		23.44		
10	16QAM	1	0		23.82		24.7
10	16QAM	1	25		23.82		
10	16QAM	1	49		23.73		
10	16QAM	25	0		22.48		23.7
10	16QAM	25	12		22.48		
10	16QAM	25	25		22.49		
10	16QAM	50	0		22.45		
10	64QAM	1	0		22.73		23.7
10	64QAM	1	25		22.59		
10	64QAM	1	49		22.62		
10	64QAM	25	0		21.51		22.7
10	64QAM	25	12		21.27		
10	64QAM	25	25		21.52		
10	64QAM	50	0		21.49		
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.43	24.39	24.40	25.7
5	QPSK	1	12	24.49	24.50	24.44	
5	QPSK	1	24	24.49	24.41	24.36	
5	QPSK	12	0	23.50	23.48	23.45	24.7
5	QPSK	12	7	23.55	23.54	23.49	
5	QPSK	12	13	23.53	23.50	23.47	
5	QPSK	25	0	23.54	23.48	23.41	
5	16QAM	1	0	23.75	23.73	23.70	24.7
5	16QAM	1	12	23.62	23.60	23.77	
5	16QAM	1	24	23.77	23.76	23.71	
5	16QAM	12	0	22.50	22.53	22.49	
5	16QAM	12	7	22.59	22.55	22.50	23.7
5	16QAM	12	13	22.55	22.53	22.48	
5	16QAM	25	0	22.54	22.50	22.44	
5	64QAM	1	0	22.75	22.62	22.51	23.7
5	64QAM	1	12	22.74	22.25	22.55	
5	64QAM	1	24	22.30	22.27	22.69	
5	64QAM	12	0	21.56	21.32	21.21	
5	64QAM	12	7	21.64	21.19	21.52	22.7
5	64QAM	12	13	21.37	21.21	21.58	
5	64QAM	25	0	21.58	21.15	21.45	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.61	24.54	24.55	25.7
10	QPSK	1	25	24.60	24.59	24.56	
10	QPSK	1	49	24.60	24.70	24.58	
10	QPSK	25	0	23.62	23.62	23.61	24.7
10	QPSK	25	12	23.75	23.96	23.66	
10	QPSK	25	25	23.75	23.75	23.74	
10	QPSK	50	0	23.75	23.66	23.64	
10	16QAM	1	0	23.95	23.94	23.91	24.7
10	16QAM	1	25	23.98	23.99	23.99	
10	16QAM	1	49	23.99	23.99	23.97	
10	16QAM	25	0	22.64	22.61	22.63	23.7
10	16QAM	25	12	22.75	22.70	22.67	
10	16QAM	25	25	22.72	22.75	22.71	
10	16QAM	50	0	22.73	22.66	22.65	
10	64QAM	1	0	22.86	22.80	22.81	23.7
10	64QAM	1	25	22.91	22.90	22.74	
10	64QAM	1	49	22.90	22.89	22.81	
10	64QAM	25	0	21.66	21.67	21.66	22.7
10	64QAM	25	12	21.80	21.74	21.72	
10	64QAM	25	25	21.79	21.78	21.75	
10	64QAM	50	0	21.78	21.71	21.69	
Channel				23785	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.54	24.58	24.56	25.7
5	QPSK	1	12	24.64	24.69	24.64	
5	QPSK	1	24	24.67	24.67	24.64	
5	QPSK	12	0	23.67	23.67	23.64	24.7
5	QPSK	12	7	23.71	23.73	23.71	
5	QPSK	12	13	23.74	23.74	23.69	
5	QPSK	25	0	23.74	23.69	23.67	
5	16QAM	1	0	23.90	23.89	23.87	24.7
5	16QAM	1	12	23.94	23.97	23.90	
5	16QAM	1	24	23.98	23.99	23.93	
5	16QAM	12	0	22.69	22.69	22.69	23.7
5	16QAM	12	7	22.72	22.71	22.70	
5	16QAM	12	13	22.76	22.74	22.68	
5	16QAM	25	0	22.73	22.71	22.72	23.7
5	64QAM	1	0	22.67	22.59	22.83	
5	64QAM	1	12	22.86	22.77	22.82	
5	64QAM	1	24	22.88	22.84	22.82	
5	64QAM	12	0	21.74	21.71	21.70	22.7
5	64QAM	12	7	21.78	21.76	21.76	
5	64QAM	12	13	21.78	21.82	21.74	
5	64QAM	25	0	21.74	21.70	21.72	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / 1800	Power Middle Ch. / 26340	Power High Ch. / 26690	Tune-up limit (dBm)
Channel				26140	26340	26690	
Frequency (MHz)				1850	1880	1905	
20	QPSK	1	0	24.06	24.11	23.92	25.2
20	QPSK	1	49	24.05	24.03	23.90	
20	QPSK	1	99	24.02	24.01	23.95	
20	QPSK	50	0	23.65	23.65	23.50	24.2
20	QPSK	50	24	23.73	23.72	23.59	
20	QPSK	50	50	23.67	23.66	23.58	
20	QPSK	100	0	23.74	23.67	23.50	24.2
20	16QAM	1	0	23.88	23.89	23.79	
20	16QAM	1	49	23.89	23.86	23.72	
20	16QAM	1	99	23.83	23.87	23.45	23.2
20	16QAM	50	0	22.55	22.96	22.52	
20	16QAM	50	24	22.74	22.75	22.60	
20	16QAM	50	50	22.71	22.68	22.60	23.2
20	16QAM	100	0	22.72	22.89	22.60	
20	64QAM	1	0	22.75	22.77	22.22	
20	64QAM	1	49	22.77	22.72	21.85	22.2
20	64QAM	1	99	22.42	22.76	21.56	
20	64QAM	50	0	21.68	21.66	20.90	
20	64QAM	50	24	21.71	21.75	21.34	22.2
20	64QAM	50	50	21.30	21.72	21.24	
20	64QAM	100	0	21.52	21.69	20.66	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	24.06	24.08	23.96	25.2
15	QPSK	1	37	24.06	24.07	23.95	
15	QPSK	1	74	24.05	24.08	23.98	
15	QPSK	36	0	23.71	23.65	23.50	24.2
15	QPSK	36	20	23.70	23.68	23.51	
15	QPSK	36	39	23.65	23.67	23.55	
15	QPSK	75	0	23.69	23.71	23.49	24.2
15	16QAM	1	0	23.64	23.90	23.75	
15	16QAM	1	37	23.85	23.87	23.75	
15	16QAM	1	74	23.85	23.91	23.58	23.2
15	16QAM	36	0	22.71	22.67	22.53	
15	16QAM	36	20	22.71	22.72	22.51	
15	16QAM	36	39	22.66	22.68	22.55	23.2
15	16QAM	75	0	22.69	22.72	22.53	
15	64QAM	1	0	22.53	22.75	21.90	
15	64QAM	1	37	22.77	22.79	22.51	23.2
15	64QAM	1	74	22.56	22.79	21.70	
15	64QAM	36	0	21.75	21.70	21.27	
15	64QAM	36	20	21.76	21.74	21.50	22.2
15	64QAM	36	39	21.58	21.71	21.18	
15	64QAM	75	0	21.69	21.72	20.87	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	24.00	24.00	23.89	25.2
10	QPSK	1	25	23.97	24.00	23.89	
10	QPSK	1	49	24.03	24.03	23.99	
10	QPSK	25	0	23.63	23.64	23.51	24.2
10	QPSK	25	12	23.68	23.66	23.60	
10	QPSK	25	25	23.67	23.67	23.45	
10	QPSK	50	0	23.68	23.69	23.58	24.2
10	16QAM	1	0	23.87	23.87	23.76	
10	16QAM	1	25	23.86	23.87	23.77	
10	16QAM	1	49	23.87	23.90	23.52	23.2
10	16QAM	25	0	22.65	22.66	22.55	
10	16QAM	25	12	22.66	22.69	22.59	
10	16QAM	25	25	22.69	22.66	22.60	23.2
10	16QAM	50	0	22.67	22.68	22.58	
10	64QAM	1	0	22.63	22.62	22.46	
10	64QAM	1	25	22.77	22.79	22.64	23.2
10	64QAM	1	49	22.61	22.60	21.74	
10	64QAM	25	0	21.66	21.69	21.50	
10	64QAM	25	12	21.72	21.73	21.39	22.2
10	64QAM	25	25	21.73	21.71	20.88	
10	64QAM	50	0	21.71	21.70	20.92	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.55	23.51	23.85	25.2
5	QPSK	1	12	24.01	24.00	23.86	
5	QPSK	1	24	23.98	24.01	23.87	
5	QPSK	12	0	23.52	23.54	23.43	24.2
5	QPSK	12	7	23.58	23.61	23.43	
5	QPSK	12	13	23.60	23.60	23.04	
5	QPSK	25	0	23.56	23.57	23.33	24.2
5	16QAM	1	0	23.60	23.74	23.67	
5	16QAM	1	12	23.77	23.79	23.59	
5	16QAM	1	24	23.81	23.83	23.27	23.2
5	16QAM	12	0	22.54	22.58	22.40	
5	16QAM	12	7	22.61	22.65	22.50	
5	16QAM	12	13	22.63	22.66	22.30	23.2
5	16QAM	25	0	22.58	22.61	22.47	
5	64QAM	1	0	22.66	22.66	22.26	
5	64QAM	1	12	22.65	22.66	21.90	23.2
5	64QAM	1	24	22.65	22.71	21.43	
5	64QAM	12	0	21.59	21.63	21.20	
5	64QAM	12	7	21.68	21.70	20.88	22.2
5	64QAM	12	13	21.68	21.70	20.49	
5	64QAM	25	0	21.59	21.60	20.89	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	23.85	23.83	23.81	25.2
3	QPSK	1	8	24.00	24.02	23.95	
3	QPSK	1	14	23.98	24.03	23.69	
3	QPSK	8	0	23.50	23.50	23.27	24.2
3	QPSK	8	4	23.57	23.57	23.12	
3	QPSK	8	7	23.58	23.59	22.93	
3	QPSK	15	0	23.55	23.55	23.05	24.2
3	16QAM	1	0	23.69	23.64	23.55	
3	16QAM	1	8	23.83	23.87	23.35	
3	16QAM	1	14	23.62	23.67	23.08	23.2
3	16QAM	8	0	22.56	22.59	22.46	
3	16QAM	8	4	22.62	22.66	22.25	
3	16QAM	8	7	22.64	22.64	22.14	23.2
3	16QAM	15	0	22.60	22.60	22.23	
3	64QAM	1	0	22.61	22.56	21.73	
3	64QAM	1	8	22.72	22.74	21.46	23.2
3	64QAM	1	14	22.72	22.77	21.23	
3	64QAM	8	0	21.58	21.58	20.65	
3	64QAM	8	4	21.64	21.67	20.55	22.2
3	64QAM	8	7	21.65	21.68	20.37	
3	64QAM	15	0	21.60	21.60	20.51	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	23.84	23.82	23.71	25.2
1.4	QPSK	1	3	23.94	23.94	23.73	
1.4	QPSK	1	5	23.89	23.92	23.58	
1.4	QPSK	3	0	23.87	23.89	23.73	24.2
1.4	QPSK	3	1	23.93	23.96	23.76	
1.4	QPSK	3	3	23.89	23.91	23.64	
1.4	QPSK	6	0	23.47	23.49	22.62	24.2
1.4	16QAM	1	0	23.68	23.66	23.10	
1.4	16QAM	1	3	23.75	23.77	23.05	
1.4	16QAM	1	5	23.89	23.70	22.91	24.2
1.4	16QAM	3	0	23.42	23.46	22.96	
1.4	16QAM	3	1	23.49	23.53	22.94	
1.4	16QAM	3	3	23.45	23.50	22.84	23.2
1.4	16QAM	6	0	22.55	22.56	22.01	
1.4	64QAM	1	0	22.55	22.57	21.22	
1.4	64QAM	1	3	22.63	22.69	21.20	23.2
1.4	64QAM	1	5	22.61	22.64	22.03	
1.4	64QAM	3	0	22.54	22.56	21.22	
1.4	64QAM	3	1	22.58	22.64	21.30	22.2
1.4	64QAM	3	3	22.58	22.61	22.12	
1.4	64QAM	6	0	21.50	21.50	22.12	



Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26705	26765	26825	Tune-up limit (dBm)
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.41	24.33	24.38	25.7
15	QPSK	1	37	24.28	24.36	24.35	
15	QPSK	1	74	24.37	24.59	24.29	
15	QPSK	36	0	23.45	23.46	23.48	24.7
15	QPSK	36	20	23.52	23.46	23.44	
15	QPSK	36	39	23.45	23.50	23.44	
15	QPSK	75	0	23.52	23.46	23.44	24.7
15	16QAM	1	0	23.71	23.68	23.71	
15	16QAM	1	37	23.63	23.69	23.69	
15	16QAM	1	74	23.70	23.72	23.62	23.7
15	16QAM	36	0	22.47	22.51	22.51	
15	16QAM	36	20	22.51	22.45	22.45	
15	16QAM	36	39	22.47	22.52	22.47	23.7
15	16QAM	75	0	22.53	22.49	22.50	
15	64QAM	1	0	22.58	22.51	22.50	23.7
15	64QAM	1	37	22.54	22.63	22.58	
15	64QAM	1	74	22.58	22.59	21.79	
15	64QAM	36	0	21.51	21.53	21.54	22.7
15	64QAM	36	20	21.55	21.50	21.50	
15	64QAM	36	39	21.50	21.61	21.59	
15	64QAM	75	0	21.54	21.49	21.50	Tune-up limit (dBm)
Channel				26740	26805	26890	
Frequency (MHz)				819	831.5	844	Tune-up limit (dBm)
10	QPSK	1	0	24.49	24.42	24.48	25.7
10	QPSK	1	25	24.35	24.38	24.40	
10	QPSK	1	49	24.42	24.43	24.37	
10	QPSK	25	0	23.57	23.48	23.51	24.7
10	QPSK	25	12	23.57	23.50	23.53	
10	QPSK	25	25	23.48	23.53	23.54	
10	QPSK	50	0	23.54	23.49	23.49	24.7
10	16QAM	1	0	23.68	23.77	23.88	
10	16QAM	1	25	23.75	23.81	23.80	
10	16QAM	1	49	23.80	23.79	23.75	23.7
10	16QAM	25	0	22.56	22.49	22.51	
10	16QAM	25	12	22.56	22.50	22.51	
10	16QAM	25	25	22.45	22.54	22.47	23.7
10	64QAM	50	0	22.53	22.46	22.47	
10	64QAM	1	0	22.51	22.65	22.72	
10	64QAM	1	25	22.70	22.73	22.75	22.7
10	64QAM	1	49	22.73	22.74	22.16	
10	64QAM	25	0	21.61	21.56	21.55	
10	64QAM	25	12	21.61	21.55	21.58	Tune-up limit (dBm)
10	64QAM	25	25	21.53	21.56	21.40	
10	64QAM	50	0	21.58	21.52	21.52	
Channel				26715	26805	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.58	24.40	24.49	25.7
5	QPSK	1	12	24.54	24.46	24.46	
5	QPSK	1	24	24.39	24.49	24.40	
5	QPSK	12	0	23.62	23.52	23.56	24.7
5	QPSK	12	7	23.62	23.58	23.52	
5	QPSK	12	13	23.53	23.53	23.43	
5	QPSK	25	0	23.59	23.49	23.50	24.7
5	16QAM	1	0	23.92	23.77	23.81	
5	16QAM	1	12	23.80	23.76	23.69	
5	16QAM	1	24	23.73	23.83	23.69	23.7
5	16QAM	12	0	22.65	22.55	22.52	
5	16QAM	12	7	22.59	22.61	22.52	
5	16QAM	12	13	22.53	22.50	22.45	23.7
5	16QAM	25	0	22.58	22.51	22.54	
5	64QAM	1	0	22.82	22.72	22.70	
5	64QAM	1	12	22.71	22.66	22.03	22.7
5	64QAM	1	24	22.64	22.67	21.90	
5	64QAM	12	0	21.71	21.62	21.61	
5	64QAM	12	7	21.70	21.64	21.03	Tune-up limit (dBm)
5	64QAM	12	13	21.61	21.61	20.72	
5	64QAM	25	0	21.62	21.52	21.16	
Channel				26705	26805	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.56	24.45	24.47	25.7
3	QPSK	1	8	24.58	24.54	24.36	
3	QPSK	1	14	24.46	24.51	24.41	
3	QPSK	8	0	23.63	23.52	23.41	24.7
3	QPSK	8	4	23.65	23.60	23.40	
3	QPSK	8	7	23.57	23.50	23.44	
3	QPSK	15	0	23.57	23.51	23.43	24.7
3	16QAM	1	0	23.92	23.76	23.76	
3	16QAM	1	8	23.92	23.83	23.59	
3	16QAM	1	14	23.77	23.84	23.70	23.7
3	16QAM	8	0	22.69	22.61	22.55	
3	16QAM	8	4	22.66	22.64	22.51	
3	16QAM	8	7	22.60	22.58	22.49	23.7
3	16QAM	15	0	22.64	22.53	22.49	
3	64QAM	1	0	22.78	22.67	22.05	
3	64QAM	1	8	22.79	22.75	21.73	22.7
3	64QAM	1	14	22.66	22.69	21.83	
3	64QAM	8	0	21.72	21.58	20.80	
3	64QAM	8	4	21.72	21.68	20.67	Tune-up limit (dBm)
3	64QAM	8	7	21.63	21.59	20.74	
3	64QAM	15	0	21.63	21.55	20.78	
Channel				26997	26995	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.48	24.36	24.32	25.7
1.4	QPSK	1	3	24.52	24.47	24.34	
1.4	QPSK	1	5	24.44	24.38	24.24	
1.4	QPSK	3	0	24.50	24.39	24.33	24.7
1.4	QPSK	3	1	24.51	24.40	24.37	
1.4	QPSK	3	3	24.47	24.41	24.35	
1.4	QPSK	6	0	23.54	23.48	23.37	24.7
1.4	16QAM	1	0	23.87	23.69	23.60	
1.4	16QAM	1	3	23.87	23.77	23.68	
1.4	16QAM	1	5	23.79	23.71	23.60	24.7
1.4	16QAM	3	0	23.69	23.45	23.37	
1.4	16QAM	3	1	23.71	23.51	23.45	
1.4	16QAM	3	3	23.66	23.47	23.35	23.7
1.4	16QAM	6	0	22.61	22.57	22.47	
1.4	64QAM	1	0	22.84	22.58	21.71	
1.4	64QAM	1	3	22.82	22.68	21.82	23.7
1.4	64QAM	1	5	22.78	22.59	21.87	
1.4	64QAM	3	0	22.73	22.57	21.72	
1.4	64QAM	3	1	22.74	22.64	21.75	22.7
1.4	64QAM	3	3	22.69	22.60	21.88	
1.4	64QAM	6	0	21.59	21.49	20.73	

Band 30						
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /
Channel				27710		
Frequency (MHz)				2310		
10	QPSK	1	0		22.93	
10	QPSK	1	25		22.81	
10	QPSK	1	49		22.83	
10	QPSK	25	0		21.86	
10	QPSK	25	12		21.82	
10	QPSK	25	25		21.94	
10	QPSK	50	0		21.92	
10	16QAM	1	0		22.22	
10	16QAM	1	25		22.21	
10	16QAM	1	49		22.22	
10	16QAM	25	0		20.88	
10	16QAM	25	12		20.95	
10	16QAM	25	25		20.89	
10	16QAM	50	0		20.83	
10	64QAM	1	0		21.09	
10	64QAM	1	25		21.16	
10	64QAM	1	49		21.08	
10	64QAM	25	0		19.94	
10	64QAM	25	12		19.99	
10	64QAM	25	25		19.99	
10	64QAM	50	0		19.96	
Channel				27685	27710	27735
Frequency (MHz)				2307.5	2310	2312.5
5	QPSK	1	0	22.77	22.78	22.83
5	QPSK	1	12	22.90	22.85	22.92
5	QPSK	1	24	22.90	22.88	22.84
5	QPSK	12	0	21.90	21.89	21.92
5	QPSK	12	7	22.01	21.95	21.97
5	QPSK	12	13	22.00	21.94	21.90
5	QPSK	25	0	21.95	21.92	21.94
5	16QAM	1	0	22.12	22.12	22.16
5	16QAM	1	12	22.22	22.21	22.18
5	16QAM	1	24	22.24	22.22	22.17
5	16QAM	12	0	20.92	20.93	20.95
5	16QAM	12	7	20.98	20.97	21.00
5	16QAM	12	13	21.00	20.95	20.94
5	16QAM	25	0	20.99	20.92	20.95
5	64QAM	1	0	21.05	21.07	21.16
5	64QAM	1	12	21.09	21.12	21.12
5	64QAM	1	24	21.21	21.13	21.09
5	64QAM	12	0	19.97	19.97	20.01
5	64QAM	12	7	20.06	20.00	20.04
5	64QAM	12	13	20.08	20.01	19.95
5	64QAM	25	0	20.01	19.96	19.96

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	25.7
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.18	24.12	24.09	25.7
20	QPSK	1	49	24.17	24.05	24.08	
20	QPSK	1	99	24.14	24.10	24.06	
20	QPSK	50	0	23.55	23.33	23.37	24.7
20	QPSK	50	24	23.52	23.37	23.35	
20	QPSK	50	50	23.49	23.35	23.38	
20	QPSK	100	0	23.50	23.36	23.39	24.7
20	16QAM	1	0	23.74	23.60	23.64	
20	16QAM	1	49	23.63	23.46	23.52	
20	16QAM	1	99	23.69	23.48	23.48	23.7
20	16QAM	50	0	22.52	22.36	22.40	
20	16QAM	50	24	22.52	22.37	22.37	
20	16QAM	50	50	22.52	22.35	22.42	23.7
20	16QAM	100	0	22.49	22.37	22.38	
20	64QAM	1	0	21.83	21.77	22.48	23.7
20	64QAM	1	49	22.53	22.13	21.97	
20	64QAM	1	99	22.58	22.47	22.41	
20	64QAM	50	0	21.54	20.81	21.43	22.7
20	64QAM	50	24	21.55	21.16	20.98	
20	64QAM	50	50	21.52	21.38	21.13	
20	64QAM	100	0	21.55	21.22	21.35	Tune-up limit (dBm)
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	25.7
15	QPSK	1	0	24.35	24.29	24.31	
15	QPSK	1	37	24.24	24.13	24.18	24.7
15	QPSK	1	74	24.39	24.25	24.21	
15	QPSK	36	0	23.47	23.30	23.40	
15	QPSK	36	20	23.49	23.37	23.44	24.7
15	QPSK	36	39	23.49	23.35	23.40	
15	QPSK	75	0	23.48	23.37	23.35	
15	16QAM	1	0	23.67	23.58	23.60	24.7
15	16QAM	1	37	23.55	23.46	23.53	
15	16QAM	1	74	23.68	23.52	23.48	
15	16QAM	36	0	22.50	22.34	22.36	23.7
15	16QAM	36	20	22.49	22.35	22.41	
15	16QAM	36	39	22.49	22.35	22.39	
15	16QAM	75	0	22.50	22.36	22.54	23.7
15	64QAM	1	0	21.59	21.84	22.46	
15	64QAM	1	37	22.55	22.10	21.77	
15	64QAM	1	74	22.62	22.42	22.42	22.7
15	64QAM	36	0	21.39	20.78	20.95	
15	64QAM	36	20	21.48	21.19	20.94	
15	64QAM	36	39	21.53	21.39	21.30	Tune-up limit (dBm)
15	64QAM	75	0	21.50	21.15	21.13	
Channel				132022	132322	132622	25.7
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.41	24.32	24.23	24.7
10	QPSK	1	25	24.36	24.23	24.34	
10	QPSK	1	49	24.37	24.20	24.32	
10	QPSK	25	0	23.50	23.30	23.37	24.7
10	QPSK	25	12	23.54	23.38	23.37	
10	QPSK	25	25	23.52	23.34	23.43	
10	QPSK	50	0	23.55	23.38	23.37	24.7
10	16QAM	1	0	23.71	23.62	23.62	
10	16QAM	1	25	23.73	23.59	23.69	
10	16QAM	1	49	23.76	23.62	23.69	23.7
10	16QAM	25	0	22.49	22.30	22.38	
10	16QAM	25	12	22.53	22.36	22.40	
10	16QAM	25	25	22.50	22.36	22.44	23.7
10	16QAM	50	0	22.52	22.37	22.39	
10	64QAM	1	0	21.82	21.73	21.70	
10	64QAM	1	25	22.69	22.29	22.22	23.7
10	64QAM	1	49	22.66	22.45	22.60	
10	64QAM	25	0	21.17	20.93	20.86	
10	64QAM	25	12	21.56	21.19	21.19	22.7
10	64QAM	25	25	21.51	21.39	21.46	
10	64QAM	50	0	21.54	21.16	21.07	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	24.38	24.21	24.32	25.7
5	QPSK	1	12	24.49	24.31	24.37	
5	QPSK	1	24	24.38	24.26	24.31	
5	QPSK	12	0	23.51	23.30	23.45	24.7
5	QPSK	12	7	23.54	23.39	23.44	
5	QPSK	12	13	23.51	23.33	23.42	
5	QPSK	25	0	23.50	23.35	23.40	24.7
5	16QAM	1	0	23.72	23.57	23.67	
5	16QAM	1	12	23.71	23.59	23.67	
5	16QAM	1	24	23.71	23.58	23.66	23.7
5	16QAM	12	0	22.55	22.35	22.46	
5	16QAM	12	7	22.56	22.42	22.47	
5	16QAM	12	13	22.53	22.39	22.43	23.7
5	16QAM	25	0	22.52	22.37	22.44	
5	64QAM	1	0	21.85	22.00	22.17	
5	64QAM	1	12	22.11	22.22	22.58	23.7
5	64QAM	1	24	22.46	22.43	22.58	
5	64QAM	12	0	20.82	21.05	21.44	
5	64QAM	12	7	21.10	21.26	21.51	22.7
5	64QAM	12	13	21.33	21.37	21.49	
5	64QAM	25	0	21.05	21.15	21.43	
Channel				131967	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	24.40	24.28	24.34	25.7
3	QPSK	1	8	24.47	24.34	24.41	
3	QPSK	1	14	24.38	24.26	24.33	
3	QPSK	8	0	23.49	23.35	23.45	24.7
3	QPSK	8	4	23.53	23.35	23.44	
3	QPSK	8	7	23.51	23.31	23.43	
3	QPSK	15	0	23.50	23.33	23.42	24.7
3	16QAM	1	0	23.74	23.62	23.66	
3	16QAM	1	8	23.74	23.63	23.77	
3	16QAM	1	14	23.72	23.59	23.65	23.7
3	16QAM	8	0	22.56	22.43	22.49	
3	16QAM	8	4	22.56	22.46	22.48	
3	16QAM	8	7	22.54	22.41	22.44	23.7
3	16QAM	15	0	22.51	22.41	22.47	
3	64QAM	1	0	21.84	22.12	22.58	
3	64QAM	1	8	22.07	22.34	22.67	23.7
3	64QAM	1	14	22.10	22.41	22.57	
3	64QAM	8	0	20.80	21.12	21.49	
3	64QAM	8	4	20.90	21.26	21.52	22.7
3	64QAM	8	7	21.01	21.28	21.49	
3	64QAM	15	0	20.93	21.20	21.43	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	24.30	24.16	24.21	25.7
1.4	QPSK	1	3	24.33	24.24	24.32	
1.4	QPSK	1	5	24.28	24.17	24.25	
1.4	QPSK	3	0	24.34	24.19	24.30	24.7
1.4	QPSK	3	1	24.37	24.26	24.34	
1.4	QPSK	3	3	24.34	24.19	24.28	
1.4	QPSK	6	0	23.40	23.27	23.34	24.7
1.4	16QAM	1	0	23.62	23.50	23.60	
1.4	16QAM	1	3	23.71	23.55	23.67	
1.4	16QAM	1	5	23.59	23.48	23.57	24.7
1.4	16QAM	3	0	23.40	23.26	23.41	
1.4	16QAM	3	1	23.46	23.34	23.44	
1.4	16QAM	3	3	23.39	23.27	23.33	23.7
1.4	16QAM	6	0	22.44	22.32	22.41	
1.4	64QAM	1	0	21.77	22.20	22.50	
1.4	64QAM	1	3	21.86	22.28	22.57	23.7
1.4	64QAM	1	5	21.81	22.25	22.49	
1.4	64QAM	3	0	21.82	22.23	22.48	
1.4	64QAM	3	1	21.95	22.35	22.54	22.7
1.4	64QAM	3	3	21.87	22.28	22.47	
1.4	64QAM	6	0	20.76	21.19	21.54	22.7

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	Tune-up limit (dBm)
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.77	24.65	24.66	25.7
20	QPSK	1	49	24.61	24.63	24.60	
20	QPSK	1	99	24.64	24.61	24.56	
20	QPSK	50	0	23.80	23.72	23.74	24.7
20	QPSK	50	24	23.63	23.75	23.70	
20	QPSK	50	50	23.82	23.75	23.71	
20	QPSK	100	0	23.81	23.72	23.76	24.7
20	16QAM	1	0	24.08	24.00	24.00	
20	16QAM	1	49	23.97	23.94	23.94	
20	16QAM	1	99	23.97	23.82	23.89	23.7
20	16QAM	50	0	22.80	22.73	22.75	
20	16QAM	50	24	22.82	22.74	22.72	
20	16QAM	50	50	22.79	22.75	22.72	23.7
20	16QAM	100	0	22.81	22.70	22.78	
20	64QAM	1	0	22.14	22.65	22.86	23.7
20	64QAM	1	49	22.64	22.85	22.15	
20	64QAM	1	99	22.85	22.34	22.79	
20	64QAM	50	0	20.83	21.73	21.42	22.7
20	64QAM	50	24	21.26	21.74	21.57	
20	64QAM	50	50	21.82	21.38	21.75	
20	64QAM	100	0	21.41	21.75	21.80	Tune-up limit (dBm)
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	Tune-up limit (dBm)
15	QPSK	1	0	24.76	24.66	24.65	
15	QPSK	1	37	24.57	24.58	24.58	25.7
15	QPSK	1	74	24.60	24.59	24.55	
15	QPSK	36	0	23.74	23.71	23.71	24.7
15	QPSK	36	20	23.78	23.72	23.76	
15	QPSK	36	39	23.78	23.73	23.69	
15	QPSK	75	0	23.77	23.71	23.66	24.7
15	16QAM	1	0	24.05	24.00	23.94	
15	16QAM	1	37	23.79	23.96	23.91	
15	16QAM	1	74	23.89	23.93	23.88	23.7
15	16QAM	36	0	22.67	22.72	22.70	
15	16QAM	36	20	22.73	22.72	22.75	
15	16QAM	36	39	22.78	22.73	22.72	23.7
15	16QAM	75	0	22.80	22.69	22.67	
15	64QAM	1	0	21.68	22.75	22.77	
15	64QAM	1	37	21.71	22.88	22.85	23.7
15	64QAM	1	74	22.79	22.58	22.81	
15	64QAM	36	0	20.76	21.74	21.35	
15	64QAM	36	20	20.76	21.76	21.78	22.7
15	64QAM	36	39	21.33	21.33	21.75	
15	64QAM	75	0	21.23	21.72	21.67	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.69	24.59	24.64	25.7
10	QPSK	1	25	24.54	24.52	24.52	
10	QPSK	1	49	24.57	24.61	24.50	
10	QPSK	25	0	23.75	23.67	23.65	24.7
10	QPSK	25	12	23.74	23.77	23.63	
10	QPSK	25	25	23.65	23.72	23.68	
10	QPSK	50	0	23.76	23.75	23.65	24.7
10	16QAM	1	0	24.05	23.96	24.02	
10	16QAM	1	25	23.94	23.95	23.94	
10	16QAM	1	49	23.94	23.99	23.86	23.7
10	16QAM	25	0	22.62	22.67	22.64	
10	16QAM	25	12	22.61	22.76	22.65	
10	16QAM	25	25	22.53	22.71	22.65	23.7
10	16QAM	50	0	22.74	22.75	22.62	
10	64QAM	1	0	21.92	22.22	22.83	
10	64QAM	1	25	21.85	22.86	22.85	23.7
10	64QAM	1	49	21.99	22.86	22.46	
10	64QAM	25	0	20.70	21.69	21.89	
10	64QAM	25	12	20.71	21.78	21.69	22.7
10	64QAM	25	25	20.72	21.75	21.67	
10	64QAM	50	0	20.71	21.73	21.65	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.43	24.62	24.62	25.7
5	QPSK	1	12	24.65	24.59	24.58	
5	QPSK	1	24	24.56	24.58	24.54	
5	QPSK	12	0	23.66	23.70	23.65	24.7
5	QPSK	12	7	23.68	23.72	23.68	
5	QPSK	12	13	23.70	23.70	23.61	
5	QPSK	25	0	23.67	23.69	23.61	24.7
5	16QAM	1	0	23.83	23.95	23.93	
5	16QAM	1	12	23.88	23.93	23.89	
5	16QAM	1	24	23.85	23.91	23.83	23.7
5	16QAM	12	0	22.51	22.75	22.73	
5	16QAM	12	7	22.66	22.76	22.71	
5	16QAM	12	13	22.73	22.70	22.63	23.7
5	16QAM	25	0	22.58	22.74	22.62	
5	64QAM	1	0	21.70	21.99	22.87	
5	64QAM	1	12	21.71	22.90	22.78	23.7
5	64QAM	1	24	21.85	22.88	22.23	
5	64QAM	12	0	20.72	21.54	21.72	
5	64QAM	12	7	20.83	21.77	21.75	22.7
5	64QAM	12	13	20.78	21.74	21.61	
5	64QAM	25	0	20.64	21.51	21.57	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	25.7
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.62	24.61	24.67	25.7
10	QPSK	1	25	24.53	24.64	24.65	
10	QPSK	1	49	24.66	24.69	24.64	
10	QPSK	25	0	23.68	23.77	23.76	
10	QPSK	25	12	23.77	23.76	23.77	
10	QPSK	25	25	23.75	23.80	23.75	24.7
10	QPSK	50	0	23.78	23.73	23.78	
10	16QAM	1	0	23.97	23.98	24.01	
10	16QAM	1	25	23.95	24.02	24.05	
10	16QAM	1	49	24.03	24.09	23.99	
10	16QAM	25	0	22.67	22.76	22.76	23.7
10	16QAM	25	12	22.77	22.77	22.76	
10	16QAM	25	25	22.74	22.77	22.84	
10	16QAM	50	0	22.77	22.74	22.78	
10	64QAM	1	0	22.83	22.81	22.87	
10	64QAM	1	25	22.90	22.73	22.88	23.7
10	64QAM	1	49	22.94	22.60	22.10	
10	64QAM	25	0	21.72	21.81	21.82	
10	64QAM	25	12	21.81	21.80	21.80	
10	64QAM	25	25	21.80	21.83	21.09	
10	64QAM	50	0	21.83	21.78	21.52	22.7
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.67	24.68	24.68	25.7
5	QPSK	1	12	24.64	24.67	24.41	
5	QPSK	1	24	24.58	24.67	24.44	
5	QPSK	12	0	23.75	23.80	23.78	
5	QPSK	12	7	23.75	23.80	23.52	
5	QPSK	12	13	23.67	23.76	23.54	24.7
5	QPSK	25	0	23.71	23.74	23.66	
5	16QAM	1	0	24.03	24.02	24.01	
5	16QAM	1	12	23.91	24.01	23.73	
5	16QAM	1	24	23.93	24.02	23.70	
5	16QAM	12	0	22.81	22.81	22.80	23.7
5	16QAM	12	7	22.75	22.84	22.70	
5	16QAM	12	13	22.73	22.77	22.69	
5	16QAM	25	0	22.72	22.74	22.78	
5	64QAM	1	0	22.94	22.87	22.50	
5	64QAM	1	12	22.84	22.90	21.87	23.7
5	64QAM	1	24	22.85	22.81	21.88	
5	64QAM	12	0	21.82	21.87	21.19	
5	64QAM	12	7	21.79	21.86	20.82	
5	64QAM	12	13	21.75	21.83	21.66	
5	64QAM	25	0	21.75	21.78	20.89	22.7
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	Tune-up limit (dBm)
3	QPSK	1	0	24.65	24.65	24.52	25.7
3	QPSK	1	8	24.62	24.68	24.46	
3	QPSK	1	14	24.55	24.64	24.49	
3	QPSK	8	0	23.77	23.70	23.43	
3	QPSK	8	4	23.72	23.77	23.49	
3	QPSK	8	7	23.70	23.75	23.66	24.7
3	QPSK	15	0	23.71	23.74	23.48	
3	16QAM	1	0	23.99	23.97	23.75	
3	16QAM	1	8	23.98	24.07	23.71	
3	16QAM	1	14	23.88	24.00	23.75	
3	16QAM	8	0	22.82	22.83	22.58	23.7
3	16QAM	8	4	22.78	22.90	22.80	
3	16QAM	8	7	22.75	22.80	22.72	
3	16QAM	15	0	22.75	22.79	22.61	
3	64QAM	1	0	22.87	22.92	21.89	
3	64QAM	1	8	22.92	22.99	21.77	23.7
3	64QAM	1	14	22.85	22.90	21.76	
3	64QAM	8	0	21.78	21.78	21.87	
3	64QAM	8	4	21.80	21.86	21.68	
3	64QAM	8	7	21.74	21.80	20.72	
3	64QAM	15	0	21.74	21.78	20.77	22.7
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	Tune-up limit (dBm)
1.4	QPSK	1	0	24.56	24.59	24.49	25.7
1.4	QPSK	1	3	24.59	24.65	24.63	
1.4	QPSK	1	5	24.50	24.60	24.55	
1.4	QPSK	3	0	24.62	24.62	24.61	
1.4	QPSK	3	1	24.62	24.63	24.64	
1.4	QPSK	3	3	24.58	24.63	24.67	24.7
1.4	QPSK	6	0	23.65	23.74	23.70	
1.4	16QAM	1	0	23.90	23.95	23.81	
1.4	16QAM	1	3	23.89	24.04	23.98	
1.4	16QAM	1	5	23.85	23.93	23.86	
1.4	16QAM	3	0	23.69	23.70	23.63	23.7
1.4	16QAM	3	1	23.73	23.77	23.72	
1.4	16QAM	3	3	23.66	23.72	23.67	
1.4	16QAM	6	0	22.73	22.79	22.76	
1.4	64QAM	1	0	22.84	22.86	21.76	
1.4	64QAM	1	3	22.87	22.93	21.89	23.7
1.4	64QAM	1	5	22.79	22.85	21.90	
1.4	64QAM	3	0	22.80	22.80	21.76	
1.4	64QAM	3	1	22.84	22.85	21.89	
1.4	64QAM	3	3	22.78	22.86	22.00	
1.4	64QAM	6	0	21.68	21.74	21.67	22.7

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	23.1
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	21.48	21.57	21.54	23.1
20	QPSK	1	49	21.52	21.62	21.58	
20	QPSK	1	99	21.62	21.72	21.63	
20	QPSK	50	0	21.58	21.67	21.64	23.1
20	QPSK	50	24	21.70	21.72	21.67	
20	QPSK	50	50	21.73	21.82	21.76	
20	QPSK	100	0	21.70	21.71	21.67	23.1
20	16QAM	1	0	21.81	21.90	21.87	
20	16QAM	1	49	21.89	21.96	21.89	
20	16QAM	1	99	21.96	22.08	21.94	23.1
20	16QAM	50	0	21.57	21.65	21.61	
20	16QAM	50	24	21.69	21.69	21.65	
20	16QAM	50	50	21.72	21.81	21.74	23.1
20	16QAM	100	0	21.67	21.69	21.64	
20	64QAM	1	0	21.66	21.76	21.72	
20	64QAM	1	49	21.76	21.85	21.78	23.1
20	64QAM	1	99	21.86	21.93	21.90	
20	64QAM	50	0	21.22	21.25	21.25	23.1
20	64QAM	50	24	21.36	21.36	21.29	
20	64QAM	50	50	21.37	21.44	21.38	
20	64QAM	100	0	21.35	21.36	21.25	23.1
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	23.1
15	QPSK	1	0	21.53	21.57	21.56	
15	QPSK	1	37	21.52	21.63	21.60	23.1
15	QPSK	1	74	21.60	21.73	21.66	
15	QPSK	36	0	21.59	21.69	21.64	
15	QPSK	36	20	21.69	21.71	21.68	23.1
15	QPSK	36	39	21.70	21.82	21.74	
15	QPSK	75	0	21.67	21.70	21.65	
15	16QAM	1	0	21.62	21.69	21.67	23.1
15	16QAM	1	37	21.67	21.97	21.89	
15	16QAM	1	74	21.93	22.02	21.95	
15	16QAM	36	0	21.57	21.65	21.61	23.1
15	16QAM	36	20	21.67	21.69	21.62	
15	16QAM	36	39	21.71	21.78	21.69	
15	16QAM	75	0	21.67	21.69	21.62	23.1
15	64QAM	1	0	21.69	21.77	21.73	
15	64QAM	1	37	21.77	21.88	21.81	
15	64QAM	1	74	21.82	21.92	21.85	23.1
15	64QAM	36	0	21.22	21.33	21.26	
15	64QAM	36	20	21.33	21.39	21.27	
15	64QAM	36	39	21.36	21.45	21.39	23.1
15	64QAM	75	0	21.30	21.32	21.25	
Channel				20800	21100	21400	23.1
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	21.49	21.54	21.51	23.1
10	QPSK	1	25	21.41	21.55	21.50	
10	QPSK	1	49	21.51	21.66	21.55	
10	QPSK	25	0	21.63	21.64	21.59	23.1
10	QPSK	25	12	21.67	21.68	21.61	
10	QPSK	25	25	21.66	21.77	21.69	
10	QPSK	50	0	21.66	21.68	21.64	23.1
10	16QAM	1	0	21.84	21.91	21.89	
10	16QAM	1	25	21.85	21.95	21.89	
10	16QAM	1	49	21.89	22.05	21.94	23.1
10	16QAM	25	0	21.64	21.66	21.62	
10	16QAM	25	12	21.70	21.69	21.62	
10	16QAM	25	25	21.67	21.79	21.68	23.1
10	16QAM	50	0	21.68	21.70	21.61	
10	64QAM	1	0	21.74	21.76	21.73	
10	64QAM	1	25	21.74	21.87	21.80	23.1
10	64QAM	1	49	21.77	21.95	21.80	
10	64QAM	25	0	21.25	21.27	21.21	
10	64QAM	25	12	21.30	21.31	21.28	23.1
10	64QAM	25	25	21.30	21.41	21.32	
10	64QAM	50	0	21.28	21.30	21.25	
Channel				20775	21100	21425	23.1
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	21.51	21.55	21.54	23.1
5	QPSK	1	12	21.54	21.64	21.58	
5	QPSK	1	24	21.54	21.66	21.55	
5	QPSK	12	0	21.64	21.65	21.63	23.1
5	QPSK	12	7	21.67	21.71	21.65	
5	QPSK	12	13	21.63	21.76	21.66	
5	QPSK	25	0	21.63	21.69	21.65	23.1
5	16QAM	1	0	21.69	21.69	21.67	
5	16QAM	1	12	21.86	21.93	21.88	
5	16QAM	1	24	21.92	22.02	21.90	23.1
5	16QAM	12	0	21.71	21.74	21.70	
5	16QAM	12	7	21.68	21.68	21.68	
5	16QAM	12	13	21.71	21.78	21.70	23.1
5	16QAM	25	0	21.68	21.71	21.70	
5	64QAM	1	0	21.80	21.79	21.82	
5	64QAM	1	12	21.73	21.85	21.77	23.1
5	64QAM	1	24	21.80	21.88	21.81	
5	64QAM	12	0	21.33	21.35	21.32	
5	64QAM	12	7	21.34	21.32	21.32	23.1
5	64QAM	12	13	21.28	21.37	21.31	
5	64QAM	25	0	21.27	21.30	21.31	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	24.36	24.28	24.30	25.7
10	QPSK	1	25	24.28	24.32	24.27	
10	QPSK	1	49	24.40	24.35	24.29	
10	QPSK	25	0	23.43	23.41	23.41	24.7
10	QPSK	25	12	23.48	23.42	23.48	
10	QPSK	25	25	23.47	23.48	23.45	
10	QPSK	50	0	23.50	23.44	23.47	24.7
10	16QAM	1	0	23.73	23.65	23.68	
10	16QAM	1	25	23.71	23.72	23.67	
10	16QAM	1	49	23.81	23.72	23.67	23.7
10	16QAM	25	0	22.44	22.42	22.40	
10	16QAM	25	12	22.51	22.41	22.45	
10	16QAM	25	25	22.41	22.45	22.40	23.7
10	16QAM	50	0	22.51	22.40	22.49	
10	64QAM	1	0	22.58	22.51	22.55	
10	64QAM	1	25	22.63	22.65	22.63	22.7
10	64QAM	1	49	22.59	22.65	22.60	
10	64QAM	25	0	21.45	21.45	21.44	
10	64QAM	25	12	21.54	21.48	21.52	22.7
10	64QAM	25	25	21.49	21.50	21.48	
10	64QAM	50	0	21.54	21.44	21.50	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	24.36	24.32	24.28	25.7
5	QPSK	1	12	24.35	24.39	24.36	
5	QPSK	1	24	24.32	24.36	24.29	
5	QPSK	12	0	23.45	23.42	23.41	24.7
5	QPSK	12	7	23.45	23.40	23.44	
5	QPSK	12	13	23.41	23.44	23.39	
5	QPSK	25	0	23.44	23.40	23.37	24.7
5	16QAM	1	0	23.71	23.69	23.61	
5	16QAM	1	12	23.66	23.68	23.64	
5	16QAM	1	24	23.67	23.69	23.63	23.7
5	16QAM	12	0	22.51	22.44	22.41	
5	16QAM	12	7	22.48	22.41	22.44	
5	16QAM	12	13	22.45	22.47	22.42	23.7
5	16QAM	25	0	22.44	22.44	22.37	
5	64QAM	1	0	22.55	22.55	22.54	
5	64QAM	1	12	22.60	22.59	22.57	22.7
5	64QAM	1	24	22.61	22.63	22.57	
5	64QAM	12	0	21.56	21.51	21.44	
5	64QAM	12	7	21.50	21.47	21.50	22.7
5	64QAM	12	13	21.50	21.48	21.48	
5	64QAM	25	0	21.48	21.45	21.37	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.39	24.37	24.31	25.7
3	QPSK	1	8	24.39	24.39	24.33	
3	QPSK	1	14	24.34	24.36	24.30	
3	QPSK	8	0	23.46	23.39	23.37	24.7
3	QPSK	8	4	23.46	23.46	23.39	
3	QPSK	8	7	23.41	23.39	23.35	
3	QPSK	15	0	23.42	23.37	23.32	24.7
3	16QAM	1	0	23.74	23.66	23.62	
3	16QAM	1	8	23.74	23.77	23.66	
3	16QAM	1	14	23.70	23.70	23.63	23.7
3	16QAM	8	0	22.52	22.47	22.42	
3	16QAM	8	4	22.51	22.54	22.46	
3	16QAM	8	7	22.49	22.47	22.43	22.7
3	16QAM	15	0	22.46	22.40	22.35	
3	64QAM	1	0	22.69	22.61	22.56	
3	64QAM	1	8	22.68	22.68	22.64	23.7
3	64QAM	1	14	22.62	22.63	22.55	
3	64QAM	8	0	21.55	21.45	21.43	
3	64QAM	8	4	21.55	21.54	21.49	22.7
3	64QAM	8	7	21.47	21.48	21.43	
3	64QAM	15	0	21.47	21.42	21.37	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.30	24.24	24.25	25.7
1.4	QPSK	1	3	24.34	24.33	24.25	
1.4	QPSK	1	5	24.29	24.27	24.20	
1.4	QPSK	3	0	24.35	24.28	24.24	24.7
1.4	QPSK	3	1	24.39	24.29	24.27	
1.4	QPSK	3	3	24.30	24.30	24.21	
1.4	QPSK	6	0	23.42	23.32	23.29	24.7
1.4	16QAM	1	0	23.64	23.60	23.57	
1.4	16QAM	1	3	23.70	23.69	23.60	
1.4	16QAM	1	5	23.60	23.61	23.52	23.7
1.4	16QAM	3	0	23.43	23.35	23.34	
1.4	16QAM	3	1	23.49	23.39	23.38	
1.4	16QAM	3	3	23.41	23.40	23.28	23.7
1.4	16QAM	6	0	22.47	22.39	22.36	
1.4	64QAM	1	0	22.61	22.51	22.48	
1.4	64QAM	1	3	22.64	22.60	22.51	23.7
1.4	64QAM	1	5	22.55	22.53	22.44	
1.4	64QAM	3	0	22.57	22.48	22.45	
1.4	64QAM	3	1	22.60	22.50	22.49	22.7
1.4	64QAM	3	3	22.51	22.53	22.45	
1.4	64QAM	6	0	21.40	21.34	21.30	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23230			Tune-up limit (dbm)
Frequency (MHz)				782			
10	QPSK	1	0	24.05			25.2
10	QPSK	1	25	24.00			
10	QPSK	1	49	24.02			
10	QPSK	25	0	23.06			24.2
10	QPSK	25	12	23.11			
10	QPSK	25	25	23.10			
10	QPSK	50	0	23.12			24.2
10	16QAM	1	0	23.30			
10	16QAM	1	25	23.34			
10	16QAM	1	49	23.30			23.2
10	16QAM	25	0	22.10			
10	16QAM	25	12	22.12			
10	16QAM	25	25	22.11			23.2
10	16QAM	50	0	22.11			
10	64QAM	1	0	23.05			
10	64QAM	1	25	23.07			23.2
10	64QAM	1	49	23.05			
10	64QAM	25	0	22.05			
10	64QAM	25	12	22.04			22.2
10	64QAM	25	25	22.02			
10	64QAM	50	0	22.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.96	23.94	23.95	25.2
5	QPSK	1	12	23.99	24.04	24.02	
5	QPSK	1	24	24.04	23.99	24.01	
5	QPSK	12	0	23.09	23.10	23.08	24.2
5	QPSK	12	7	23.10	23.11	23.02	
5	QPSK	12	13	23.12	23.13	23.07	
5	QPSK	25	0	23.15	23.12	23.03	24.2
5	16QAM	1	0	23.18	23.25	23.29	
5	16QAM	1	12	23.29	23.30	23.25	
5	16QAM	1	24	23.36	23.31	23.21	23.2
5	16QAM	12	0	22.17	22.11	22.14	
5	16QAM	12	7	22.16	22.10	22.09	
5	16QAM	12	13	22.15	22.13	22.15	23.2
5	16QAM	25	0	22.17	22.09	22.08	
5	64QAM	1	0	22.11	22.23	22.16	
5	64QAM	1	12	22.24	22.25	22.23	23.2
5	64QAM	1	24	22.26	22.27	22.20	
5	64QAM	12	0	21.19	21.15	21.16	
5	64QAM	12	7	21.19	21.14	21.10	22.2
5	64QAM	12	13	21.18	21.17	21.13	
5	64QAM	25	0	21.20	21.14	21.08	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.68			25.7
10	QPSK	1	25	24.58			
10	QPSK	1	49	24.49			
10	QPSK	25	0	23.62			24.7
10	QPSK	25	12	23.61			
10	QPSK	25	25	23.65			
10	QPSK	50	0	23.61			24.7
10	16QAM	1	0	23.95			
10	16QAM	1	25	23.95			
10	16QAM	1	49	23.89			23.7
10	16QAM	25	0	22.63			
10	16QAM	25	12	22.61			
10	16QAM	25	25	22.65			23.7
10	16QAM	50	0	22.63			
10	64QAM	1	0	22.85			
10	64QAM	1	25	22.85			23.7
10	64QAM	1	49	22.78			
10	64QAM	25	0	21.67			
10	64QAM	25	12	21.65			22.7
10	64QAM	25	25	21.69			
10	64QAM	50	0	21.63			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.53	24.52	24.54	25.7
5	QPSK	1	12	24.64	24.67	24.63	
5	QPSK	1	24	24.58	24.56	24.52	
5	QPSK	12	0	23.61	23.62	23.59	24.7
5	QPSK	12	7	23.66	23.66	23.61	
5	QPSK	12	13	23.65	23.64	23.60	
5	QPSK	25	0	23.65	23.61	23.52	24.7
5	16QAM	1	0	23.90	23.94	23.86	
5	16QAM	1	12	23.92	23.94	23.92	
5	16QAM	1	24	23.91	23.89	23.84	23.7
5	16QAM	12	0	22.62	22.62	22.65	
5	16QAM	12	7	22.73	22.66	22.63	
5	16QAM	12	13	22.66	22.67	22.63	23.7
5	16QAM	25	0	22.69	22.62	22.57	
5	64QAM	1	0	22.77	22.81	22.70	
5	64QAM	1	12	22.85	22.75	22.87	23.7
5	64QAM	1	24	22.74	22.83	22.82	
5	64QAM	12	0	21.66	21.69	21.67	
5	64QAM	12	7	21.74	21.70	21.66	22.7
5	64QAM	12	13	21.71	21.71	21.69	
5	64QAM	25	0	21.68	21.63	21.58	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.77	24.69	24.64	25.7
10	QPSK	1	25	24.75	24.76	24.70	
10	QPSK	1	49	24.85	24.76	24.75	
10	QPSK	25	0	23.76	23.76	23.76	24.7
10	QPSK	25	12	23.90	23.85	23.82	
10	QPSK	25	25	23.92	23.91	23.89	
10	QPSK	50	0	23.88	23.81	23.78	24.7
10	16QAM	1	0	24.14	24.08	24.04	
10	16QAM	1	25	24.14	24.12	24.11	
10	16QAM	1	49	24.15	24.13	24.11	23.7
10	16QAM	25	0	22.77	22.77	22.77	
10	16QAM	25	12	22.93	22.94	22.83	
10	16QAM	25	25	22.89	22.85	22.92	23.7
10	16QAM	50	0	22.91	22.81	22.80	
10	64QAM	1	0	23.02	22.92	22.96	23.7
10	64QAM	1	25	23.06	23.06	23.03	
10	64QAM	1	49	23.06	23.02	22.88	
10	64QAM	25	0	21.82	21.80	21.80	22.7
10	64QAM	25	12	21.95	21.89	21.86	
10	64QAM	25	25	21.94	21.94	21.92	
10	64QAM	50	0	21.92	21.86	21.84	Tune-up limit (dBm)
Channel				23785	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.69	24.71	24.70	25.7
5	QPSK	1	12	24.81	24.82	24.74	
5	QPSK	1	24	24.84	24.82	24.79	
5	QPSK	12	0	23.81	23.85	23.80	24.7
5	QPSK	12	7	23.86	23.82	23.83	
5	QPSK	12	13	23.87	23.88	23.83	
5	QPSK	25	0	23.85	23.81	23.83	24.7
5	16QAM	1	0	24.07	24.05	24.04	
5	16QAM	1	12	24.11	24.11	24.05	
5	16QAM	1	24	24.17	24.16	24.09	23.7
5	16QAM	12	0	22.85	22.87	22.80	
5	16QAM	12	7	22.89	22.90	22.90	
5	16QAM	12	13	22.89	22.90	22.83	23.7
5	16QAM	25	0	22.88	22.84	22.87	
5	64QAM	1	0	22.77	22.83	22.97	
5	64QAM	1	12	23.01	23.08	23.00	22.7
5	64QAM	1	24	23.07	23.09	23.02	
5	64QAM	12	0	21.90	21.92	21.88	
5	64QAM	12	7	21.95	21.93	21.94	22.7
5	64QAM	12	13	21.94	21.94	21.87	
5	64QAM	25	0	21.90	21.86	21.89	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	18.23	18.17	17.97	19.7
20	QPSK	1	49	18.17	18.11	17.94	
20	QPSK	1	99	18.14	18.09	17.92	
20	QPSK	50	0	18.32	18.24	18.03	19.7
20	QPSK	50	24	18.32	18.27	18.11	
20	QPSK	50	50	18.29	18.27	18.09	
20	QPSK	100	0	18.34	18.28	18.13	19.7
20	16QAM	1	0	18.59	18.54	18.42	
20	16QAM	1	49	18.55	18.46	18.35	
20	16QAM	1	99	18.48	18.47	18.31	19.7
20	16QAM	50	0	18.32	18.25	18.06	
20	16QAM	50	24	18.38	18.30	18.14	
20	16QAM	50	50	18.32	18.29	18.11	19.7
20	16QAM	100	0	18.36	18.30	18.13	
20	64QAM	1	0	18.44	18.35	18.21	
20	64QAM	1	49	18.40	18.36	18.15	19.7
20	64QAM	1	99	18.34	18.34	18.17	
20	64QAM	50	0	18.34	18.25	18.08	
20	64QAM	50	24	18.39	18.33	18.15	19.7
20	64QAM	50	50	18.31	18.30	18.10	
20	64QAM	100	0	18.36	18.32	18.13	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	18.24	18.19	18.01	19.7
15	QPSK	1	37	18.16	18.12	17.95	
15	QPSK	1	74	18.19	18.14	17.96	
15	QPSK	36	0	18.39	18.22	18.02	19.7
15	QPSK	36	20	18.34	18.32	18.03	
15	QPSK	36	39	18.28	18.24	18.06	
15	QPSK	75	0	18.33	18.28	17.99	19.7
15	16QAM	1	0	18.54	18.49	18.34	
15	16QAM	1	37	18.55	18.46	18.32	
15	16QAM	1	74	18.46	18.43	18.31	19.7
15	16QAM	36	0	18.41	18.28	18.07	
15	16QAM	36	20	18.38	18.31	18.05	
15	16QAM	36	39	18.32	18.29	18.09	19.7
15	16QAM	75	0	18.37	18.31	18.04	
15	64QAM	1	0	18.38	18.32	18.15	
15	64QAM	1	37	18.43	18.42	18.18	19.7
15	64QAM	1	74	18.36	18.34	18.20	
15	64QAM	36	0	18.42	18.29	18.11	
15	64QAM	36	20	18.38	18.33	18.12	19.7
15	64QAM	36	39	18.34	18.30	18.14	
15	64QAM	75	0	18.34	18.25	18.03	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	18.15	18.00	17.96	19.7
10	QPSK	1	25	18.16	18.10	17.92	
10	QPSK	1	49	18.14	18.12	17.88	
10	QPSK	25	0	18.29	18.25	18.04	19.7
10	QPSK	25	12	18.35	18.29	18.13	
10	QPSK	25	25	18.31	18.26	18.10	
10	QPSK	50	0	18.34	18.27	18.11	19.7
10	16QAM	1	0	18.57	18.49	18.30	
10	16QAM	1	25	18.55	18.46	18.34	
10	16QAM	1	49	18.55	18.51	18.34	19.7
10	16QAM	25	0	18.35	18.28	18.09	
10	16QAM	25	12	18.32	18.30	18.12	
10	16QAM	25	25	18.35	18.25	18.09	19.7
10	16QAM	50	0	18.33	18.30	18.10	
10	64QAM	1	0	18.46	18.35	18.19	
10	64QAM	1	25	18.52	18.40	18.25	19.7
10	64QAM	1	49	18.41	18.42	18.24	
10	64QAM	25	0	18.37	18.30	18.11	
10	64QAM	25	12	18.41	18.33	18.15	19.7
10	64QAM	25	25	18.36	18.33	18.14	
10	64QAM	50	0	18.38	18.30	18.07	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	18.24	18.02	18.01	19.7
5	QPSK	1	12	18.22	18.15	18.02	
5	QPSK	1	24	18.22	18.14	18.02	
5	QPSK	12	0	18.25	18.19	18.01	19.7
5	QPSK	12	7	18.32	18.28	18.11	
5	QPSK	12	13	18.36	18.24	18.12	
5	QPSK	25	0	18.29	18.24	18.09	19.7
5	16QAM	1	0	18.53	18.43	18.29	
5	16QAM	1	12	18.50	18.44	18.22	
5	16QAM	1	24	18.55	18.50	18.29	19.7
5	16QAM	12	0	18.30	18.25	18.02	
5	16QAM	12	7	18.35	18.29	18.08	
5	16QAM	12	13	18.35	18.30	18.09	19.7
5	16QAM	25	0	18.33	18.25	18.07	
5	64QAM	1	0	18.47	18.32	18.13	
5	64QAM	1	12	18.34	18.29	18.21	19.7
5	64QAM	1	24	18.38	18.36	18.20	
5	64QAM	12	0	18.36	18.32	18.07	
5	64QAM	12	7	18.43	18.36	18.14	19.7
5	64QAM	12	13	18.42	18.39	18.15	
5	64QAM	25	0	18.35	18.29	18.08	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	18.16	18.05	17.92	19.7
3	QPSK	1	8	18.29	18.27	18.06	
3	QPSK	1	14	18.28	18.23	18.05	
3	QPSK	8	0	18.23	18.25	18.04	19.7
3	QPSK	8	4	18.35	18.32	18.11	
3	QPSK	8	7	18.35	18.32	18.10	
3	QPSK	15	0	18.31	18.30	18.07	19.7
3	16QAM	1	0	18.44	18.34	18.21	
3	16QAM	1	8	18.61	18.57	18.32	
3	16QAM	1	14	18.62	18.54	18.33	19.7
3	16QAM	8	0	18.34	18.25	18.03	
3	16QAM	8	4	18.38	18.34	18.12	
3	16QAM	8	7	18.38	18.34	18.11	19.7
3	16QAM	15	0	18.37	18.29	18.05	
3	64QAM	1	0	18.39	18.25	18.09	
3	64QAM	1	8	18.49	18.44	18.21	19.7
3	64QAM	1	14	18.49	18.44	18.22	
3	64QAM	8	0	18.37	18.28	18.04	
3	64QAM	8	4	18.41	18.37	18.13	19.7
3	64QAM	8	7	18.42	18.38	18.14	
3	64QAM	15	0	18.36	18.33	18.06	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	18.11	18.09	17.84	19.7
1.4	QPSK	1	3	18.18	18.15	17.97	
1.4	QPSK	1	5	18.17	18.15	17.92	
1.4	QPSK	3	0	18.16	18.15	17.86	19.7
1.4	QPSK	3	1	18.25	18.22	17.89	
1.4	QPSK	3	3	18.18	18.18	17.93	
1.4	QPSK	6	0	18.23	18.19	17.97	19.7
1.4	16QAM	1	0	18.46	18.35	18.15	
1.4	16QAM	1	3	18.51	18.48	18.25	
1.4	16QAM	1	5	18.51	18.44	18.20	19.7
1.4	16QAM	3	0	18.27	18.17	17.92	
1.4	16QAM	3	1	18.29	18.23	17.96	
1.4	16QAM	3	3	18.28	18.20	17.95	19.7
1.4	16QAM	6	0	18.34	18.29	18.03	
1.4	64QAM	1	0	18.29	18.28	18.04	
1.4	64QAM	1	3	18.45	18.36	18.14	19.7
1.4	64QAM	1	5	18.39	18.29	18.09	
1.4	64QAM	3	0	18.35	18.28	18.08	
1.4	64QAM	3	1	18.41	18.34	18.13	19.7
1.4	64QAM	3	3	18.38	18.33	18.11	
1.4	64QAM	6	0	18.27	18.16	17.96	

Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26766	
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.58	24.53	24.56	25.7
15	QPSK	1	37	24.49	24.52	24.53	
15	QPSK	1	74	24.56	24.78	24.50	
15	QPSK	36	0	23.66	23.67	23.66	24.7
15	QPSK	36	20	23.70	23.96	23.66	
15	QPSK	36	39	23.66	23.69	23.66	
15	QPSK	75	0	23.69	23.65	23.67	24.7
15	16QAM	1	0	23.91	23.87	23.92	
15	16QAM	1	37	23.85	23.88	23.90	
15	16QAM	1	74	23.88	23.91	23.81	23.7
15	16QAM	36	0	22.68	22.70	22.68	
15	16QAM	36	20	22.68	22.65	22.66	
15	16QAM	36	39	22.67	22.72	22.71	23.7
15	16QAM	75	0	22.72	22.67	22.68	
15	64QAM	1	0	22.77	22.70	22.72	23.7
15	64QAM	1	37	22.74	22.82	22.81	
15	64QAM	1	74	22.78	22.80	22.78	
15	64QAM	36	0	21.68	21.73	21.74	22.7
15	64QAM	36	20	21.71	21.69	21.69	
15	64QAM	36	39	21.70	21.80	21.80	
15	64QAM	75	0	21.72	21.68	21.73	Tune-up limit (dBm)
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.64	24.60	24.67	25.7
10	QPSK	1	25	24.54	24.60	24.63	
10	QPSK	1	49	24.61	24.62	24.57	
10	QPSK	25	0	23.75	23.67	23.68	24.7
10	QPSK	25	12	23.71	23.71	23.72	
10	QPSK	25	25	23.66	23.70	23.70	
10	QPSK	50	0	23.70	23.65	23.67	24.7
10	16QAM	1	0	24.00	24.01	24.06	
10	16QAM	1	25	24.00	24.01	23.99	
10	16QAM	1	49	24.01	23.99	23.92	23.7
10	16QAM	25	0	22.72	22.71	22.70	
10	16QAM	25	12	22.72	22.72	22.70	
10	16QAM	25	25	22.67	22.74	22.63	23.7
10	16QAM	50	0	22.73	22.64	22.68	
10	64QAM	1	0	22.97	22.79	22.90	
10	64QAM	1	25	22.86	22.95	22.95	22.7
10	64QAM	1	49	22.92	22.91	22.61	
10	64QAM	25	0	21.77	21.73	21.76	
10	64QAM	25	12	21.67	21.74	21.75	Tune-up limit (dBm)
10	64QAM	25	25	21.71	21.72	21.58	
10	64QAM	50	0	21.72	21.69	21.72	
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.77	24.62	24.66	25.7
5	QPSK	1	12	24.70	24.69	24.63	
5	QPSK	1	24	24.57	24.70	24.61	
5	QPSK	12	0	23.79	23.71	23.76	24.7
5	QPSK	12	7	23.78	23.77	23.70	
5	QPSK	12	13	23.71	23.72	23.61	
5	QPSK	25	0	23.73	23.68	23.70	24.7
5	16QAM	1	0	24.08	23.94	24.00	
5	16QAM	1	12	23.98	23.97	23.86	
5	16QAM	1	24	23.92	24.01	23.86	23.7
5	16QAM	12	0	22.85	22.76	22.75	
5	16QAM	12	7	22.77	22.77	22.73	
5	16QAM	12	13	22.75	22.72	22.65	23.7
5	16QAM	25	0	22.76	22.69	22.71	
5	64QAM	1	0	22.97	22.86	22.91	
5	64QAM	1	12	22.88	22.88	22.22	22.7
5	64QAM	1	24	22.73	22.67	22.32	
5	64QAM	12	0	21.88	21.82	21.81	
5	64QAM	12	7	21.87	21.84	21.20	Tune-up limit (dBm)
5	64QAM	12	13	21.77	21.79	21.07	
5	64QAM	25	0	21.81	21.71	21.31	
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.73	24.64	24.66	25.7
3	QPSK	1	8	24.75	24.72	24.65	
3	QPSK	1	14	24.60	24.68	24.60	
3	QPSK	8	0	23.79	23.71	23.72	24.7
3	QPSK	8	4	23.79	23.79	23.70	
3	QPSK	8	7	23.74	23.71	23.63	
3	QPSK	15	0	23.75	23.71	23.68	24.7
3	16QAM	1	0	24.08	23.96	23.96	
3	16QAM	1	8	24.10	24.03	23.94	
3	16QAM	1	14	23.95	24.01	23.88	23.7
3	16QAM	8	0	22.85	22.78	22.74	
3	16QAM	8	4	22.85	22.84	22.74	
3	16QAM	8	7	22.79	22.78	22.68	23.7
3	16QAM	15	0	22.83	22.72	22.67	
3	64QAM	1	0	22.94	22.86	22.29	
3	64QAM	1	8	22.99	22.93	22.12	22.7
3	64QAM	1	14	22.85	22.89	22.26	
3	64QAM	8	0	21.89	21.79	21.07	
3	64QAM	8	4	21.89	21.86	21.07	Tune-up limit (dBm)
3	64QAM	8	7	21.84	21.83	21.16	
3	64QAM	15	0	21.84	21.74	21.16	
Channel				26997	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.67	24.57	24.52	25.7
1.4	QPSK	1	3	24.73	24.68	24.57	
1.4	QPSK	1	5	24.61	24.56	24.44	
1.4	QPSK	3	0	24.59	24.58	24.52	24.7
1.4	QPSK	3	1	24.71	24.60	24.57	
1.4	QPSK	3	3	24.64	24.59	24.51	
1.4	QPSK	6	0	23.71	23.67	23.58	24.7
1.4	16QAM	1	0	23.99	23.86	23.83	
1.4	16QAM	1	3	24.04	24.00	23.87	
1.4	16QAM	1	5	23.93	23.91	23.77	24.7
1.4	16QAM	3	0	23.74	23.65	23.60	
1.4	16QAM	3	1	23.78	23.71	23.65	
1.4	16QAM	3	3	23.72	23.65	23.57	23.7
1.4	16QAM	6	0	22.81	22.81	22.68	
1.4	64QAM	1	0	22.88	22.77	22.20	
1.4	64QAM	1	3	22.95	22.91	22.37	23.7
1.4	64QAM	1	5	22.82	22.79	22.40	
1.4	64QAM	3	0	22.89	22.78	22.16	
1.4	64QAM	3	1	22.93	22.83	22.25	22.7
1.4	64QAM	3	3	22.84	22.78	22.36	
1.4	64QAM	6	0	21.75	21.70	21.19	

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				2771.0	2771.0	2771.0	23.3
Frequency (MHz)				231.0			
10	QPSK	1	0		21.30		22.3
10	QPSK	1	25		21.32		
10	QPSK	1	49		21.33		
10	QPSK	25	0		21.22		22.3
10	QPSK	25	12		21.29		
10	QPSK	25	25		21.33		
10	QPSK	50	0		21.30		22.3
10	16QAM	1	0		21.55		
10	16QAM	1	25		21.61		
10	16QAM	1	49		21.60		21.3
10	16QAM	25	0		20.44		
10	16QAM	25	12		20.49		
10	16QAM	25	25		20.54		21.3
10	16QAM	50	0		20.48		
10	64QAM	1	0		20.64		
10	64QAM	1	25		20.74		21.3
10	64QAM	1	49		20.65		
10	64QAM	25	0		19.46		
10	64QAM	25	12		19.55		20.3
10	64QAM	25	25		19.57		
10	64QAM	50	0		19.51		
Channel				2788.5	2771.0	2773.5	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	21.30	21.31	21.30	23.3
5	QPSK	1	12	21.32	21.33	21.32	
5	QPSK	1	24	21.35	21.33	21.32	
5	QPSK	12	0	21.22	21.24	21.25	22.3
5	QPSK	12	7	21.34	21.30	21.33	
5	QPSK	12	13	21.33	21.29	21.32	
5	QPSK	25	0	21.32	21.28	21.28	22.3
5	16QAM	1	0	21.61	21.46	21.53	
5	16QAM	1	12	21.53	21.58	21.53	
5	16QAM	1	24	21.60	21.56	21.51	21.3
5	16QAM	12	0	20.44	20.46	20.50	
5	16QAM	12	7	20.55	20.51	20.53	
5	16QAM	12	13	20.56	20.51	20.55	21.3
5	16QAM	25	0	20.53	20.51	20.51	
5	64QAM	1	0	20.53	20.60	20.63	
5	64QAM	1	12	20.59	20.68	20.63	21.3
5	64QAM	1	24	20.72	20.70	20.64	
5	64QAM	12	0	19.51	19.51	19.53	
5	64QAM	12	7	19.62	19.57	19.58	20.3
5	64QAM	12	13	19.60	19.57	19.59	
5	64QAM	25	0	19.55	19.51	19.52	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	21.6
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	20.28	20.23	20.24	21.6
20	QPSK	1	49	20.07	19.88	19.96	
20	QPSK	1	99	20.11	19.93	19.93	
20	QPSK	50	0	20.40	20.33	20.26	21.6
20	QPSK	50	24	20.31	20.12	20.11	
20	QPSK	50	50	20.28	20.10	20.16	
20	QPSK	100	0	20.43	20.12	20.16	21.6
20	16QAM	1	0	20.56	20.44	20.41	
20	16QAM	1	49	20.44	20.24	20.31	
20	16QAM	1	99	20.49	20.25	20.23	21.6
20	16QAM	50	0	20.34	20.11	20.16	
20	16QAM	50	24	20.31	20.13	20.15	
20	16QAM	50	50	20.29	20.13	20.18	21.6
20	16QAM	100	0	20.30	20.14	20.16	
20	64QAM	1	0	20.38	20.27	20.30	
20	64QAM	1	49	20.26	20.13	20.21	21.6
20	64QAM	1	99	20.33	20.16	20.17	
20	64QAM	50	0	20.33	20.11	20.22	
20	64QAM	50	24	20.31	20.14	20.18	21.6
20	64QAM	50	50	20.28	20.11	20.22	
20	64QAM	100	0	20.33	20.16	20.14	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	20.20	20.05	20.07	21.6
15	QPSK	1	37	20.09	19.90	20.00	
15	QPSK	1	74	20.17	20.00	19.97	
15	QPSK	36	0	20.30	20.07	20.15	21.6
15	QPSK	36	20	20.26	20.13	20.18	
15	QPSK	36	39	20.27	20.10	20.15	
15	QPSK	75	0	20.30	20.13	20.13	21.6
15	16QAM	1	0	20.52	20.33	20.38	
15	16QAM	1	37	20.38	20.21	20.28	
15	16QAM	1	74	20.48	20.29	20.26	21.6
15	16QAM	36	0	20.33	20.08	20.15	
15	16QAM	36	20	20.28	20.10	20.18	
15	16QAM	36	39	20.30	20.10	20.16	21.6
15	16QAM	75	0	20.30	20.13	20.12	
15	64QAM	1	0	20.33	20.10	20.25	
15	64QAM	1	37	20.34	20.14	20.24	21.6
15	64QAM	1	74	20.35	20.21	20.23	
15	64QAM	36	0	20.31	20.08	20.22	
15	64QAM	36	20	20.27	20.14	20.22	21.6
15	64QAM	36	39	20.28	20.11	20.21	
15	64QAM	75	0	20.29	20.12	20.14	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	20.25	20.05	20.04	21.6
10	QPSK	1	25	20.15	19.98	20.07	
10	QPSK	1	49	20.14	19.97	20.11	
10	QPSK	25	0	20.35	20.09	20.16	21.6
10	QPSK	25	12	20.35	20.16	20.17	
10	QPSK	25	25	20.31	20.14	20.22	
10	QPSK	50	0	20.35	20.16	20.16	21.6
10	16QAM	1	0	20.53	20.42	20.49	
10	16QAM	1	25	20.51	20.36	20.44	
10	16QAM	1	49	20.54	20.38	20.45	21.6
10	16QAM	25	0	20.34	20.06	20.13	
10	16QAM	25	12	20.35	20.16	20.17	
10	16QAM	25	25	20.30	20.12	20.20	21.6
10	16QAM	50	0	20.35	20.15	20.14	
10	64QAM	1	0	20.52	20.28	20.34	
10	64QAM	1	25	20.50	20.28	20.40	21.6
10	64QAM	1	49	20.47	20.25	20.37	
10	64QAM	25	0	20.39	20.13	20.15	
10	64QAM	25	12	20.38	20.21	20.21	21.6
10	64QAM	25	25	20.36	20.16	20.23	
10	64QAM	50	0	20.37	20.21	20.19	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	20.24	20.00	20.14	21.6
5	QPSK	1	12	20.28	20.10	20.14	
5	QPSK	1	24	20.22	20.03	20.12	
5	QPSK	12	0	20.38	20.10	20.23	21.6
5	QPSK	12	7	20.35	20.20	20.25	
5	QPSK	12	13	20.33	20.15	20.23	
5	QPSK	25	0	20.32	20.13	20.20	21.6
5	16QAM	1	0	20.51	20.28	20.46	
5	16QAM	1	12	20.51	20.33	20.40	
5	16QAM	1	24	20.53	20.33	20.42	21.6
5	16QAM	12	0	20.37	20.12	20.22	
5	16QAM	12	7	20.38	20.16	20.25	
5	16QAM	12	13	20.35	20.15	20.21	21.6
5	16QAM	25	0	20.34	20.15	20.22	
5	64QAM	1	0	20.55	20.27	20.42	
5	64QAM	1	12	20.52	20.28	20.35	21.6
5	64QAM	1	24	20.52	20.30	20.27	
5	64QAM	12	0	20.43	20.17	20.30	
5	64QAM	12	7	20.44	20.22	20.33	21.6
5	64QAM	12	13	20.41	20.19	20.26	
5	64QAM	25	0	20.35	20.16	20.22	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1779.5	
3	QPSK	1	0	20.28	20.07	20.13	21.6
3	QPSK	1	8	20.31	20.12	20.17	
3	QPSK	1	14	20.23	20.05	20.12	
3	QPSK	8	0	20.35	20.15	20.23	21.6
3	QPSK	8	4	20.37	20.15	20.25	
3	QPSK	8	7	20.36	20.14	20.19	
3	QPSK	15	0	20.34	20.11	20.23	21.6
3	16QAM	1	0	20.52	20.36	20.43	
3	16QAM	1	8	20.55	20.39	20.45	
3	16QAM	1	14	20.54	20.35	20.44	21.6
3	16QAM	8	0	20.41	20.19	20.25	
3	16QAM	8	4	20.45	20.24	20.29	
3	16QAM	8	7	20.41	20.20	20.26	21.6
3	16QAM	15	0	20.37	20.17	20.23	
3	64QAM	1	0	20.55	20.29	20.38	
3	64QAM	1	8	20.50	20.38	20.42	21.6
3	64QAM	1	14	20.54	20.32	20.32	
3	64QAM	8	0	20.41	20.21	20.29	
3	64QAM	8	4	20.46	20.22	20.32	21.6
3	64QAM	8	7	20.40	20.20	20.27	
3	64QAM	15	0	20.37	20.17	20.26	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	20.18	19.99	20.05	21.6
1.4	QPSK	1	3	20.23	20.06	20.11	
1.4	QPSK	1	5	20.18	19.98	20.03	
1.4	QPSK	3	0	20.20	20.03	20.09	21.6
1.4	QPSK	3	1	20.26	20.04	20.11	
1.4	QPSK	3	3	20.21	20.00	20.07	
1.4	QPSK	6	0	20.28	20.09	20.16	21.6
1.4	16QAM	1	0	20.49	20.31	20.37	
1.4	16QAM	1	3	20.53	20.36	20.44	
1.4	16QAM	1	5	20.49	20.31	20.38	21.6
1.4	16QAM	3	0	20.31	20.06	20.15	
1.4	16QAM	3	1	20.32	20.14	20.18	
1.4	16QAM	3	3	20.31	20.06	20.13	21.6
1.4	16QAM	6	0	20.36	20.13	20.24	
1.4	64QAM	1	0	20.44	20.24	20.28	
1.4	64QAM	1	3	20.52	20.30	20.36	21.6
1.4	64QAM	1	5	20.42	20.24	20.26	
1.4	64QAM	3	0	20.40	20.20	20.26	
1.4	64QAM	3	1	20.47	20.25	20.34	21.6
1.4	64QAM	3	3	20.39	20.23	20.25	
1.4	64QAM	6	0	20.27	20.11	20.15	

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133392	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.80	24.79	25.7
20	QPSK	1	49	24.76	24.75	24.73	
20	QPSK	1	99	24.77	24.73	24.69	
20	QPSK	50	0	23.92	23.86	23.86	24.7
20	QPSK	50	24	23.94	23.86	23.82	
20	QPSK	50	50	23.93	23.87	23.83	
20	QPSK	100	0	23.93	23.88	23.89	24.7
20	16QAM	1	0	24.24	24.15	24.14	
20	16QAM	1	49	24.11	24.13	24.05	
20	16QAM	1	99	24.11	24.06	24.02	23.7
20	16QAM	50	0	22.91	22.86	22.88	
20	16QAM	50	24	22.95	22.85	22.84	
20	16QAM	50	50	22.92	22.89	22.85	23.7
20	16QAM	100	0	22.94	22.87	22.90	
20	64QAM	1	0	22.19	22.67	23.00	23.7
20	64QAM	1	49	22.74	22.99	22.35	
20	64QAM	1	99	23.01	22.53	22.89	
20	64QAM	50	0	20.95	21.85	21.51	22.7
20	64QAM	50	24	21.45	21.75	21.74	
20	64QAM	50	50	21.93	21.54	21.87	
20	64QAM	100	0	21.53	21.86	21.91	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.90	24.81	24.78	25.7
15	QPSK	1	37	24.66	24.73	24.72	
15	QPSK	1	74	24.73	24.76	24.69	
15	QPSK	36	0	23.88	23.86	23.82	24.7
15	QPSK	36	20	23.93	23.85	23.92	
15	QPSK	36	39	23.92	23.88	23.86	
15	QPSK	75	0	23.92	23.85	23.80	24.7
15	16QAM	1	0	24.20	24.13	24.11	
15	16QAM	1	37	23.92	24.09	24.06	
15	16QAM	1	74	24.03	24.06	24.03	23.7
15	16QAM	36	0	22.78	22.88	22.84	
15	16QAM	36	20	22.88	22.94	22.89	
15	16QAM	36	39	22.94	22.89	22.86	23.7
15	16QAM	75	0	22.94	22.94	22.81	
15	64QAM	1	0	22.13	22.70	22.87	
15	64QAM	1	37	21.75	23.01	23.01	22.7
15	64QAM	1	74	22.94	22.62	22.95	
15	64QAM	36	0	20.83	21.90	21.52	
15	64QAM	36	20	20.86	21.78	21.93	22.7
15	64QAM	36	39	21.52	21.45	21.91	
15	64QAM	75	0	21.35	21.84	21.80	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.85	24.74	24.76	25.7
10	QPSK	1	25	24.67	24.71	24.67	
10	QPSK	1	49	24.70	24.74	24.64	
10	QPSK	25	0	23.91	23.81	23.77	24.7
10	QPSK	25	12	23.77	23.82	23.80	
10	QPSK	25	25	23.81	23.87	23.80	
10	QPSK	50	0	23.90	23.83	23.79	24.7
10	16QAM	1	0	24.23	24.11	24.15	
10	16QAM	1	25	24.03	24.10	24.08	
10	16QAM	1	49	24.06	24.04	24.01	23.7
10	16QAM	25	0	22.79	22.82	22.77	
10	16QAM	25	12	22.68	22.83	22.77	
10	16QAM	25	25	22.65	22.83	22.79	23.7
10	16QAM	50	0	22.87	22.81	22.77	
10	64QAM	1	0	21.83	22.98	23.02	
10	64QAM	1	25	21.90	23.04	23.03	23.7
10	64QAM	1	49	22.13	22.22	22.55	
10	64QAM	25	0	20.74	21.96	21.82	
10	64QAM	25	12	20.75	21.77	21.84	22.7
10	64QAM	25	25	20.68	21.35	21.71	
10	64QAM	50	0	20.81	21.58	21.83	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.81	24.80	24.80	25.7
5	QPSK	1	12	24.74	24.91	24.76	
5	QPSK	1	24	24.76	24.75	24.69	
5	QPSK	12	0	23.72	23.87	23.82	24.7
5	QPSK	12	7	23.78	23.89	23.84	
5	QPSK	12	13	23.78	23.85	23.77	
5	QPSK	25	0	23.79	23.82	23.77	24.7
5	16QAM	1	0	23.89	24.14	24.10	
5	16QAM	1	12	23.97	24.11	24.06	
5	16QAM	1	24	24.02	24.10	24.00	23.7
5	16QAM	12	0	22.63	22.91	22.87	
5	16QAM	12	7	22.74	22.93	22.87	
5	16QAM	12	13	22.80	22.86	22.79	23.7
5	16QAM	25	0	22.69	22.96	22.77	
5	64QAM	1	0	21.71	23.02	22.98	
5	64QAM	1	12	21.82	22.98	22.79	22.7
5	64QAM	1	24	22.00	22.67	22.32	
5	64QAM	12	0	20.78	21.93	21.87	
5	64QAM	12	7	20.91	21.86	21.89	22.7
5	64QAM	12	13	20.85	21.67	21.86	
5	64QAM	25	0	20.74	21.69	21.82	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				1870.0	1890.0	1910.0	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	23.16	23.16	23.13	24.4
20	QPSK	1	49	23.13	23.16	22.98	
20	QPSK	1	99	23.14	23.14	23.10	
20	QPSK	50	0	23.22	23.23	22.71	24.4
20	QPSK	50	24	23.33	23.26	22.86	
20	QPSK	50	50	23.07	23.33	23.01	
20	QPSK	100	0	23.03	23.24	23.09	24.4
20	16QAM	1	0	23.42	23.46	23.36	
20	16QAM	1	49	23.47	23.59	23.16	
20	16QAM	1	99	23.20	23.46	23.15	23.4
20	16QAM	50	0	22.53	22.54	21.88	
20	16QAM	50	24	22.62	22.56	21.82	
20	16QAM	50	50	22.18	22.64	22.20	22.9
20	16QAM	100	0	22.14	22.56	21.91	
20	64QAM	1	0	21.80	21.71	21.88	
20	64QAM	1	49	21.85	22.04	20.53	21.9
20	64QAM	1	99	21.32	22.38	21.32	
20	64QAM	50	0	20.98	20.89	20.77	
20	64QAM	50	24	20.73	21.21	20.83	21.9
20	64QAM	50	50	20.14	21.32	20.15	
20	64QAM	100	0	20.45	20.76	20.03	
Channel				1867.5	1890.0	1912.5	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.13	23.17	23.07	24.4
15	QPSK	1	37	23.12	23.13	23.00	
15	QPSK	1	74	23.17	23.17	23.11	
15	QPSK	36	0	23.23	23.19	22.56	24.4
15	QPSK	36	20	23.29	23.25	22.90	
15	QPSK	36	39	23.22	23.32	23.20	
15	QPSK	75	0	23.26	23.21	22.63	24.4
15	16QAM	1	0	23.33	23.46	22.82	
15	16QAM	1	37	23.39	23.41	22.52	
15	16QAM	1	74	23.45	23.43	23.32	23.4
15	16QAM	36	0	22.53	22.50	21.84	
15	16QAM	36	20	22.56	22.52	22.08	
15	16QAM	36	39	22.54	22.61	22.46	22.9
15	16QAM	75	0	22.56	22.52	21.97	
15	64QAM	1	0	21.79	21.99	21.16	
15	64QAM	1	37	22.22	22.22	22.12	21.9
15	64QAM	1	74	21.53	22.55	21.51	
15	64QAM	36	0	21.28	20.96	20.35	
15	64QAM	36	20	21.09	21.27	20.09	21.9
15	64QAM	36	39	20.67	21.46	20.45	
15	64QAM	75	0	20.83	21.07	20.02	
Channel				1855.0	1880.0	1915.0	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.19	23.12	23.04	24.4
10	QPSK	1	25	23.03	23.12	22.99	
10	QPSK	1	49	23.08	23.14	23.07	
10	QPSK	25	0	23.21	23.20	23.00	24.4
10	QPSK	25	12	23.27	23.23	23.18	
10	QPSK	25	25	23.29	23.32	23.21	
10	QPSK	50	0	23.27	23.23	23.13	24.4
10	16QAM	1	0	23.48	23.52	23.10	
10	16QAM	1	25	23.49	23.51	23.37	
10	16QAM	1	49	23.50	23.58	23.46	23.4
10	16QAM	25	0	22.52	22.49	21.91	
10	16QAM	25	12	22.56	22.55	22.45	
10	16QAM	25	25	22.60	22.61	22.47	22.9
10	16QAM	50	0	22.56	22.53	22.30	
10	64QAM	1	0	21.88	21.75	21.10	
10	64QAM	1	25	22.69	22.52	21.58	21.9
10	64QAM	1	49	22.28	22.60	21.81	
10	64QAM	25	0	21.46	21.10	20.06	
10	64QAM	25	12	21.38	21.38	20.51	21.9
10	64QAM	25	25	21.12	21.52	20.84	
10	64QAM	50	0	21.10	21.19	20.34	
Channel				1862.5	1890.0	1917.5	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.11	23.10	23.04	24.4
5	QPSK	1	12	23.19	23.26	23.10	
5	QPSK	1	24	23.15	23.24	23.10	
5	QPSK	12	0	23.22	23.22	23.15	24.4
5	QPSK	12	7	23.27	23.31	23.23	
5	QPSK	12	13	23.23	23.33	23.19	
5	QPSK	25	0	23.24	23.22	23.17	24.4
5	16QAM	1	0	23.49	23.47	23.37	
5	16QAM	1	12	23.50	23.57	23.40	
5	16QAM	1	24	23.51	23.57	23.45	23.4
5	16QAM	12	0	22.55	22.54	22.49	
5	16QAM	12	7	22.60	22.65	22.55	
5	16QAM	12	13	22.55	22.65	22.52	22.9
5	16QAM	25	0	22.55	22.56	22.50	
5	64QAM	1	0	22.27	22.01	21.56	
5	64QAM	1	12	22.63	22.47	21.86	21.9
5	64QAM	1	24	22.67	22.60	21.81	
5	64QAM	12	0	21.53	21.29	20.76	
5	64QAM	12	7	21.63	21.53	20.90	21.9
5	64QAM	12	13	21.57	21.60	20.90	
5	64QAM	25	0	21.45	21.34	20.72	
Channel				1851.5	1890.0	1916.5	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.10	23.12	23.06	24.4
3	QPSK	1	8	23.21	23.25	23.13	
3	QPSK	1	14	23.15	23.21	23.11	
3	QPSK	8	0	23.20	23.23	23.14	24.4
3	QPSK	8	4	23.25	23.30	23.19	
3	QPSK	8	7	23.22	23.28	23.17	
3	QPSK	15	0	23.25	23.23	23.18	24.4
3	16QAM	1	0	23.45	23.45	23.38	
3	16QAM	1	8	23.55	23.50	23.45	
3	16QAM	1	14	23.51	23.55	23.47	23.4
3	16QAM	8	0	22.60	22.59	22.51	
3	16QAM	8	4	22.65	22.66	22.56	
3	16QAM	8	7	22.61	22.68	22.51	22.9
3	16QAM	15	0	22.57	22.56	22.51	
3	64QAM	1	0	22.47	22.37	21.79	
3	64QAM	1	8	22.75	22.66	22.00	21.9
3	64QAM	1	14	22.70	22.68	21.95	
3	64QAM	8	0	21.51	21.38	20.81	
3	64QAM	8	4	21.61	21.53	20.91	21.9
3	64QAM	8	7	21.60	21.52	20.90	
3	64QAM	15	0	21.54	21.40	20.84	
Channel				1860.7	1890.0	1919.3	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.02	23.09	22.97	24.4
1.4	QPSK	1	3	23.09	23.14	23.04	
1.4	QPSK	1	5	23.04	23.10	22.99	
1.4	QPSK	3	0	23.08	23.16	23.01	24.4
1.4	QPSK	3	1	23.15	23.20	23.06	
1.4	QPSK	3	3	23.09	23.13	23.02	
1.4	QPSK	6	0	23.14	23.22	23.09	24.4
1.4	16QAM	1	0	23.37	23.49	23.30	
1.4	16QAM	1	3	23.43	23.51	23.41	
1.4	16QAM	1	5	23.41	23.46	23.32	23.4
1.4	16QAM	3	0	23.22	23.23	23.10	
1.4	16QAM	3	1	23.23	23.30	23.13	
1.4	16QAM	3	3	23.18	23.26	23.08	23.4
1.4	16QAM	6	0	22.50	22.56	22.43	
1.4	64QAM	1	0	22.51	22.43	21.81	
1.4	64QAM	1	3	22.64	22.56	21.86	22.9
1.4	64QAM	1	5	22.59	22.58	21.84	
1.4	64QAM	3	0	22.56	22.50	21.85	
1.4	64QAM	3	1	22.62	22.62	21.92	21.9
1.4	64QAM	3	3	22.58	22.52	21.80	
1.4	64QAM	6	0	21.45	21.45	20.74	



Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.49	24.47	24.33	25.1
20	QPSK	1	49	24.33	24.24	24.10	
20	QPSK	1	99	24.31	24.23	24.10	
20	QPSK	50	0	23.70	23.64	23.44	24.1
20	QPSK	50	24	23.57	23.59	23.44	
20	QPSK	50	50	23.52	23.47	23.36	
20	QPSK	100	0	23.55	23.63	23.41	24.1
20	16QAM	1	0	23.95	23.88	23.77	
20	16QAM	1	49	23.80	23.69	23.57	
20	16QAM	1	99	23.74	23.64	23.50	23.1
20	16QAM	50	0	22.71	22.65	22.45	
20	16QAM	50	24	22.56	22.60	22.45	
20	16QAM	50	50	22.52	22.49	22.35	23.1
20	16QAM	100	0	22.53	22.62	22.42	
20	64QAM	1	0	22.86	22.81	22.61	
20	64QAM	1	49	22.68	22.57	22.46	23.1
20	64QAM	1	99	22.51	22.54	22.49	
20	64QAM	50	0	21.71	21.67	21.48	
20	64QAM	50	24	21.59	21.62	21.47	22.1
20	64QAM	50	50	21.54	21.53	21.38	
20	64QAM	100	0	21.59	21.59	21.44	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.50	24.45	24.30	25.1
15	QPSK	1	37	24.34	24.25	24.09	
15	QPSK	1	74	24.34	24.24	24.11	
15	QPSK	36	0	23.64	23.65	23.41	24.1
15	QPSK	36	20	23.58	23.56	23.33	
15	QPSK	36	39	23.50	23.49	23.36	
15	QPSK	75	0	23.55	23.59	23.32	24.1
15	16QAM	1	0	23.61	23.65	23.71	
15	16QAM	1	37	23.75	23.70	23.53	
15	16QAM	1	74	23.76	23.65	23.45	23.1
15	16QAM	36	0	22.68	22.65	22.40	
15	16QAM	36	20	22.60	22.56	22.31	
15	16QAM	36	39	22.51	22.51	22.33	23.1
15	16QAM	75	0	22.55	22.56	22.32	
15	64QAM	1	0	22.80	22.81	22.67	
15	64QAM	1	37	22.71	22.63	22.45	23.1
15	64QAM	1	74	22.60	22.58	22.42	
15	64QAM	36	0	21.69	21.69	21.42	
15	64QAM	36	20	21.60	21.61	21.33	22.1
15	64QAM	36	39	21.55	21.57	21.38	
15	64QAM	75	0	21.55	21.62	21.33	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.38	24.40	24.12	25.1
10	QPSK	1	25	24.38	24.30	24.14	
10	QPSK	1	49	24.41	24.30	24.11	
10	QPSK	25	0	23.62	23.57	23.28	24.1
10	QPSK	25	12	23.65	23.60	23.38	
10	QPSK	25	25	23.63	23.58	23.35	
10	QPSK	50	0	23.64	23.58	23.32	24.1
10	16QAM	1	0	23.88	23.87	23.64	
10	16QAM	1	25	23.87	23.80	23.64	
10	16QAM	1	49	23.95	23.76	23.61	23.1
10	16QAM	25	0	22.61	22.55	22.29	
10	16QAM	25	12	22.64	22.56	22.39	
10	16QAM	25	25	22.64	22.59	22.39	23.1
10	16QAM	50	0	22.65	22.55	22.30	
10	64QAM	1	0	22.79	22.77	22.51	
10	64QAM	1	25	22.78	22.72	22.51	23.1
10	64QAM	1	49	22.63	22.59	22.53	
10	64QAM	25	0	21.63	21.59	21.33	
10	64QAM	25	12	21.66	21.63	21.41	22.1
10	64QAM	25	25	21.67	21.59	21.41	
10	64QAM	50	0	21.66	21.61	21.36	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.39	24.35	24.13	25.1
5	QPSK	1	12	24.48	24.36	24.12	
5	QPSK	1	24	24.47	24.38	24.15	
5	QPSK	12	0	23.58	23.52	23.32	24.1
5	QPSK	12	7	23.63	23.56	23.35	
5	QPSK	12	13	23.64	23.56	23.34	
5	QPSK	25	0	23.61	23.58	23.31	24.1
5	16QAM	1	0	23.65	23.76	23.56	
5	16QAM	1	12	23.89	23.79	23.59	
5	16QAM	1	24	23.90	23.80	23.62	23.1
5	16QAM	12	0	22.64	22.54	22.35	
5	16QAM	12	7	22.68	22.57	22.40	
5	16QAM	12	13	22.67	22.57	22.38	23.1
5	16QAM	25	0	22.63	22.56	22.35	
5	64QAM	1	0	22.76	22.76	22.51	
5	64QAM	1	12	22.81	22.71	22.52	23.1
5	64QAM	1	24	22.88	22.73	22.50	
5	64QAM	12	0	21.66	21.59	21.41	
5	64QAM	12	7	21.68	21.62	21.43	22.1
5	64QAM	12	13	21.71	21.59	21.38	
5	64QAM	25	0	21.62	21.60	21.35	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.42	24.34	24.11	25.1
3	QPSK	1	8	24.50	24.43	24.20	
3	QPSK	1	14	24.44	24.36	24.13	
3	QPSK	8	0	23.50	23.53	23.33	24.1
3	QPSK	8	4	23.65	23.54	23.34	
3	QPSK	8	7	23.62	23.53	23.32	
3	QPSK	15	0	23.58	23.56	23.29	24.1
3	16QAM	1	0	23.83	23.77	23.55	
3	16QAM	1	8	23.93	23.85	23.60	
3	16QAM	1	14	23.88	23.80	23.61	23.1
3	16QAM	8	0	22.66	22.56	22.36	
3	16QAM	8	4	22.68	22.64	22.42	
3	16QAM	8	7	22.68	22.63	22.37	23.1
3	16QAM	15	0	22.65	22.56	22.36	
3	64QAM	1	0	22.73	22.74	22.45	
3	64QAM	1	8	22.87	22.80	22.58	23.1
3	64QAM	1	14	22.84	22.73	22.51	
3	64QAM	8	0	21.66	21.56	21.37	
3	64QAM	8	4	21.70	21.62	21.40	22.1
3	64QAM	8	7	21.66	21.58	21.40	
3	64QAM	15	0	21.64	21.57	21.35	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.25	24.24	24.02	25.1
1.4	QPSK	1	3	24.31	24.29	24.07	
1.4	QPSK	1	5	24.25	24.24	24.04	
1.4	QPSK	3	0	24.23	24.29	24.07	24.1
1.4	QPSK	3	1	24.31	24.31	24.12	
1.4	QPSK	3	3	24.26	24.27	24.05	
1.4	QPSK	6	0	23.41	23.42	23.20	24.1
1.4	16QAM	1	0	23.70	23.69	23.46	
1.4	16QAM	1	3	23.74	23.73	23.50	
1.4	16QAM	1	5	23.68	23.66	23.44	24.1
1.4	16QAM	3	0	23.46	23.46	23.25	
1.4	16QAM	3	1	23.51	23.49	23.31	
1.4	16QAM	3	3	23.45	23.46	23.24	23.1
1.4	16QAM	6	0	22.51	22.46	22.26	
1.4	64QAM	1	0	22.60	22.59	22.41	
1.4	64QAM	1	3	22.70	22.70	22.47	23.1
1.4	64QAM	1	5	22.62	22.61	22.39	
1.4	64QAM	3	0	22.58	22.59	22.35	
1.4	64QAM	3	1	22.63	22.62	22.39	22.1
1.4	64QAM	3	3	22.59	22.57	22.35	
1.4	64QAM	6	0	21.44	21.43	21.24	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.41	24.40	24.44	25.7
10	QPSK	1	25	24.38	24.43	24.44	
10	QPSK	1	49	24.42	24.55	24.35	
10	QPSK	25	0	23.48	23.56	23.53	24.7
10	QPSK	25	12	23.58	23.55	23.56	
10	QPSK	25	25	23.52	23.59	23.53	
10	QPSK	50	0	23.59	23.53	23.57	24.7
10	16QAM	1	0	23.82	23.81	23.85	
10	16QAM	1	25	23.78	23.82	23.83	
10	16QAM	1	49	23.82	23.89	23.77	23.7
10	16QAM	25	0	22.45	22.58	22.36	
10	16QAM	25	12	22.58	22.57	22.54	
10	16QAM	25	25	22.54	22.58	22.62	23.7
10	16QAM	50	0	22.57	22.55	22.54	
10	64QAM	1	0	22.65	22.63	22.63	23.7
10	64QAM	1	25	22.70	22.73	22.76	
10	64QAM	1	49	22.73	22.41	21.71	
10	64QAM	25	0	21.51	21.58	21.58	22.7
10	64QAM	25	12	21.61	21.62	21.60	
10	64QAM	25	25	21.58	21.60	20.89	
10	64QAM	50	0	21.58	21.59	21.25	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.51	24.52	24.54	25.7
5	QPSK	1	12	24.48	24.49	24.28	
5	QPSK	1	24	24.40	24.49	24.24	
5	QPSK	12	0	23.58	23.61	23.59	24.7
5	QPSK	12	7	23.52	23.62	23.34	
5	QPSK	12	13	23.51	23.57	23.18	
5	QPSK	25	0	23.52	23.55	23.51	24.7
5	16QAM	1	0	23.65	23.82	23.82	
5	16QAM	1	12	23.74	23.82	23.56	
5	16QAM	1	24	23.75	23.83	23.47	23.7
5	16QAM	12	0	22.63	22.57	22.58	
5	16QAM	12	7	22.58	22.63	22.50	
5	16QAM	12	13	22.51	22.58	22.28	23.7
5	16QAM	25	0	22.56	22.59	22.53	
5	64QAM	1	0	22.73	22.77	22.54	
5	64QAM	1	12	22.67	22.75	21.78	22.7
5	64QAM	1	24	22.72	22.60	21.72	
5	64QAM	12	0	21.65	21.66	21.27	
5	64QAM	12	7	21.60	21.67	20.70	22.7
5	64QAM	12	13	21.56	21.62	20.71	
5	64QAM	25	0	21.57	21.60	20.76	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.49	24.48	24.23	25.7
3	QPSK	1	8	24.49	24.54	24.02	
3	QPSK	1	14	24.37	24.47	24.11	
3	QPSK	8	0	23.57	23.57	23.09	24.7
3	QPSK	8	4	23.54	23.61	23.10	
3	QPSK	8	7	23.52	23.59	23.20	
3	QPSK	15	0	23.55	23.52	23.12	24.7
3	16QAM	1	0	23.83	23.78	23.67	
3	16QAM	1	8	23.84	23.87	23.36	
3	16QAM	1	14	23.69	23.79	23.45	23.7
3	16QAM	8	0	22.63	22.62	22.29	
3	16QAM	8	4	22.62	22.72	22.20	
3	16QAM	8	7	22.59	22.66	22.28	23.7
3	16QAM	15	0	22.59	22.59	22.22	
3	64QAM	1	0	22.67	22.74	21.70	
3	64QAM	1	8	22.75	22.77	21.71	22.7
3	64QAM	1	14	22.70	22.52	21.70	
3	64QAM	8	0	21.64	21.62	20.70	
3	64QAM	8	4	21.64	21.65	20.70	22.7
3	64QAM	8	7	21.55	21.64	20.72	
3	64QAM	15	0	21.59	21.62	20.73	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.37	24.39	23.99	25.7
1.4	QPSK	1	3	24.41	24.47	24.17	
1.4	QPSK	1	5	24.32	24.38	24.10	
1.4	QPSK	3	0	24.40	24.41	24.09	24.7
1.4	QPSK	3	1	24.44	24.44	24.15	
1.4	QPSK	3	3	24.39	24.46	24.35	
1.4	QPSK	6	0	23.49	23.54	23.21	24.7
1.4	16QAM	1	0	23.68	23.74	23.32	
1.4	16QAM	1	3	23.72	23.82	23.53	
1.4	16QAM	1	5	23.66	23.76	23.55	23.7
1.4	16QAM	3	0	23.52	23.50	23.10	
1.4	16QAM	3	1	23.56	23.55	23.27	
1.4	16QAM	3	3	23.46	23.52	23.44	23.7
1.4	16QAM	6	0	22.54	22.61	22.31	
1.4	64QAM	1	0	22.62	22.64	21.70	
1.4	64QAM	1	3	22.70	22.73	21.71	23.7
1.4	64QAM	1	5	22.61	22.63	21.70	
1.4	64QAM	3	0	22.62	22.61	21.72	
1.4	64QAM	3	1	22.64	22.65	21.74	22.7
1.4	64QAM	3	3	22.58	22.63	21.73	
1.4	64QAM	6	0	21.49	21.54	20.71	



Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.09	23.19	23.27	24.2
20	QPSK	1	49	23.18	23.27	23.26	
20	QPSK	1	99	23.27	23.39	23.28	
20	QPSK	50	0	23.22	23.31	23.31	24.2
20	QPSK	50	24	23.33	23.38	23.34	
20	QPSK	50	50	23.36	23.46	23.41	
20	QPSK	100	0	23.36	23.35	23.37	24.2
20	16QAM	1	0	23.44	23.55	23.60	
20	16QAM	1	49	23.55	23.65	23.61	
20	16QAM	1	99	23.62	23.78	23.64	23.2
20	16QAM	50	0	22.77	22.85	22.85	
20	16QAM	50	24	22.88	22.92	22.87	
20	16QAM	50	50	22.89	23.01	22.93	23.2
20	16QAM	100	0	22.84	22.85	22.83	
20	64QAM	1	0	22.78	22.92	22.92	
20	64QAM	1	49	22.88	23.05	22.35	22.2
20	64QAM	1	99	22.99	23.16	22.54	
20	64QAM	50	0	21.75	21.86	21.65	
20	64QAM	50	24	21.90	21.93	21.56	22.2
20	64QAM	50	50	21.91	22.04	21.70	
20	64QAM	100	0	21.87	21.91	21.61	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.12	23.20	23.22	24.2
15	QPSK	1	37	23.14	23.29	23.22	
15	QPSK	1	74	23.24	23.40	23.28	
15	QPSK	36	0	23.19	23.30	23.30	24.2
15	QPSK	36	20	23.30	23.37	23.34	
15	QPSK	36	39	23.32	23.46	23.37	
15	QPSK	75	0	23.28	23.33	23.32	24.2
15	16QAM	1	0	23.45	23.57	23.57	
15	16QAM	1	37	23.49	23.62	23.55	
15	16QAM	1	74	23.58	23.75	23.60	23.2
15	16QAM	36	0	22.70	22.86	22.82	
15	16QAM	36	20	22.83	22.87	22.83	
15	16QAM	36	39	22.87	22.96	22.92	23.2
15	16QAM	75	0	22.84	22.86	22.83	
15	64QAM	1	0	22.80	22.93	22.90	
15	64QAM	1	37	22.91	23.04	22.42	22.2
15	64QAM	1	74	22.95	23.11	22.64	
15	64QAM	36	0	21.74	21.90	21.45	
15	64QAM	36	20	21.87	21.91	21.61	22.2
15	64QAM	36	39	21.89	22.01	21.78	
15	64QAM	75	0	21.85	21.89	21.58	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.11	23.24	23.15	24.2
10	QPSK	1	25	23.10	23.26	23.16	
10	QPSK	1	49	23.17	23.32	23.23	
10	QPSK	25	0	23.26	23.34	23.28	24.2
10	QPSK	25	12	23.28	23.38	23.31	
10	QPSK	25	25	23.30	23.45	23.36	
10	QPSK	50	0	23.31	23.38	23.30	24.2
10	16QAM	1	0	23.44	23.56	23.52	
10	16QAM	1	25	23.43	23.61	23.55	
10	16QAM	1	49	23.53	23.70	23.60	23.2
10	16QAM	25	0	22.74	22.81	22.76	
10	16QAM	25	12	22.81	22.86	22.81	
10	16QAM	25	25	22.78	22.97	22.86	23.2
10	16QAM	50	0	22.77	22.86	22.79	
10	64QAM	1	0	22.86	22.94	22.75	
10	64QAM	1	25	22.87	23.01	22.97	22.2
10	64QAM	1	49	22.95	23.15	23.01	
10	64QAM	25	0	21.77	21.94	21.87	
10	64QAM	25	12	21.82	21.92	21.82	22.2
10	64QAM	25	25	21.82	21.99	21.89	
10	64QAM	50	0	21.80	21.88	21.67	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.13	23.23	23.22	24.2
5	QPSK	1	12	23.17	23.35	23.24	
5	QPSK	1	24	23.15	23.34	23.23	
5	QPSK	12	0	23.26	23.33	23.33	24.2
5	QPSK	12	7	23.26	23.33	23.36	
5	QPSK	12	13	23.32	23.42	23.37	
5	QPSK	25	0	23.27	23.38	23.33	24.2
5	16QAM	1	0	23.46	23.54	23.55	
5	16QAM	1	12	23.43	23.60	23.55	
5	16QAM	1	24	23.45	23.67	23.54	23.2
5	16QAM	12	0	22.80	22.87	22.84	
5	16QAM	12	7	22.78	22.85	22.87	
5	16QAM	12	13	22.77	22.91	22.86	23.2
5	16QAM	25	0	22.77	22.87	22.85	
5	64QAM	1	0	22.90	22.98	22.96	
5	64QAM	1	12	22.84	23.04	22.93	22.2
5	64QAM	1	24	22.88	23.04	22.97	
5	64QAM	12	0	21.81	21.95	21.89	
5	64QAM	12	7	21.85	21.89	21.89	22.2
5	64QAM	12	13	21.83	21.99	21.93	
5	64QAM	25	0	21.78	21.87	21.88	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
10	QPSK	1	0	24.72	24.52	24.58	25.7
10	QPSK	1	25	24.54	24.54	24.54	
10	QPSK	1	49	24.66	24.60	24.55	
10	QPSK	25	0	23.67	23.66	23.64	24.7
10	QPSK	25	12	23.75	23.69	23.73	
10	QPSK	25	25	23.73	23.72	23.71	
10	QPSK	50	0	23.76	23.65	23.73	24.7
10	16QAM	1	0	23.97	23.90	23.96	
10	16QAM	1	25	23.96	23.95	23.92	
10	16QAM	1	49	24.02	23.85	23.93	23.7
10	16QAM	25	0	22.67	22.66	22.67	
10	16QAM	25	12	22.76	22.67	22.73	
10	16QAM	25	25	22.69	22.69	22.70	23.7
10	16QAM	50	0	22.76	22.67	22.72	
10	64QAM	1	0	22.79	22.73	22.81	23.7
10	64QAM	1	25	22.86	22.84	22.57	
10	64QAM	1	49	22.94	22.87	22.87	
10	64QAM	25	0	21.72	21.70	21.58	22.7
10	64QAM	25	12	21.80	21.73	21.75	
10	64QAM	25	25	21.75	21.75	21.73	
10	64QAM	50	0	21.78	21.70	21.76	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.61	24.59	24.54	
5	QPSK	1	12	24.62	24.67	24.59	25.7
5	QPSK	1	24	24.61	24.61	24.56	
5	QPSK	12	0	23.73	23.70	23.65	24.7
5	QPSK	12	7	23.73	23.67	23.67	
5	QPSK	12	13	23.67	23.67	23.64	
5	QPSK	25	0	23.71	23.66	23.59	24.7
5	16QAM	1	0	23.96	23.94	23.86	
5	16QAM	1	12	23.93	23.92	23.89	
5	16QAM	1	24	23.94	23.97	23.90	23.7
5	16QAM	12	0	22.76	22.74	22.68	
5	16QAM	12	7	22.76	22.69	22.72	
5	16QAM	12	13	22.71	22.71	22.65	23.7
5	16QAM	25	0	22.74	22.67	22.65	
5	64QAM	1	0	22.74	22.61	22.81	
5	64QAM	1	12	22.84	22.84	22.81	22.7
5	64QAM	1	24	22.76	22.88	22.80	
5	64QAM	12	0	21.80	21.77	21.72	
5	64QAM	12	7	21.76	21.73	21.76	22.7
5	64QAM	12	13	21.77	21.76	21.70	
5	64QAM	25	0	21.74	21.72	21.66	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.71	24.62	24.60	25.7
3	QPSK	1	8	24.66	24.70	24.64	
3	QPSK	1	14	24.62	24.62	24.57	
3	QPSK	8	0	23.74	23.65	23.62	24.7
3	QPSK	8	4	23.72	23.72	23.67	
3	QPSK	8	7	23.70	23.70	23.63	
3	QPSK	15	0	23.73	23.67	23.61	24.7
3	16QAM	1	0	24.04	23.94	23.90	
3	16QAM	1	8	23.97	24.01	23.96	
3	16QAM	1	14	23.93	23.97	23.86	23.7
3	16QAM	8	0	22.80	22.74	22.67	
3	16QAM	8	4	22.80	22.80	22.71	
3	16QAM	8	7	22.75	22.73	22.69	23.7
3	16QAM	15	0	22.76	22.67	22.62	
3	64QAM	1	0	22.82	22.76	22.81	
3	64QAM	1	8	22.96	22.93	22.87	23.7
3	64QAM	1	14	22.88	22.86	22.77	
3	64QAM	8	0	21.80	21.75	21.69	
3	64QAM	8	4	21.80	21.83	21.75	22.7
3	64QAM	8	7	21.73	21.74	21.69	
3	64QAM	15	0	21.77	21.69	21.62	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.60	24.53	24.49	25.7
1.4	QPSK	1	3	24.60	24.60	24.53	
1.4	QPSK	1	5	24.52	24.52	24.43	
1.4	QPSK	3	0	24.62	24.51	24.50	24.7
1.4	QPSK	3	1	24.67	24.55	24.54	
1.4	QPSK	3	3	24.58	24.57	24.47	
1.4	QPSK	6	0	23.67	23.59	23.54	24.7
1.4	16QAM	1	0	23.92	23.85	23.83	
1.4	16QAM	1	3	23.95	23.93	23.88	
1.4	16QAM	1	5	23.86	23.90	23.76	23.7
1.4	16QAM	3	0	23.68	23.62	23.59	
1.4	16QAM	3	1	23.74	23.64	23.63	
1.4	16QAM	3	3	23.65	23.61	23.55	23.7
1.4	16QAM	6	0	22.72	22.65	22.62	
1.4	64QAM	1	0	22.82	22.76	22.75	
1.4	64QAM	1	3	22.88	22.84	22.78	23.7
1.4	64QAM	1	5	22.78	22.77	22.70	
1.4	64QAM	3	0	22.79	22.74	22.74	
1.4	64QAM	3	1	22.83	22.77	22.73	22.7
1.4	64QAM	3	3	22.76	22.76	22.67	
1.4	64QAM	6	0	21.67	21.60	21.59	

Band 13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				2320			Tune-up limit (dbm)
Frequency (MHz)				752			
10	QPSK	1	0	23.87			25.2
10	QPSK	1	25	23.85			
10	QPSK	1	49	23.99			
10	QPSK	25	0	22.99			24.2
10	QPSK	25	12	23.00			
10	QPSK	25	25	22.99			
10	QPSK	50	0	23.06			24.2
10	16QAM	1	0	23.19			
10	16QAM	1	25	23.20			
10	16QAM	1	49	23.18			23.2
10	16QAM	25	0	21.95			
10	16QAM	25	12	22.01			
10	16QAM	25	25	21.98			23.2
10	16QAM	50	0	21.97			
10	64QAM	1	0	22.04			
10	64QAM	1	25	22.13			23.2
10	64QAM	1	49	22.10			
10	64QAM	25	0	21.01			
10	64QAM	25	12	21.06			22.2
10	64QAM	25	25	21.02			
10	64QAM	50	0	21.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.78	23.84	23.88	25.2
5	QPSK	1	12	23.88	23.90	23.85	
5	QPSK	1	24	23.88	23.86	23.94	
5	QPSK	12	0	22.94	22.96	22.95	24.2
5	QPSK	12	7	22.99	22.95	22.90	
5	QPSK	12	13	23.00	23.01	22.95	
5	QPSK	25	0	22.99	22.97	22.92	24.2
5	16QAM	1	0	23.08	23.13	23.15	
5	16QAM	1	12	23.15	23.15	23.11	
5	16QAM	1	24	23.22	23.16	23.09	23.2
5	16QAM	12	0	22.02	21.99	21.96	
5	16QAM	12	7	22.05	21.97	21.96	
5	16QAM	12	13	22.02	22.02	22.00	23.2
5	16QAM	25	0	22.05	21.97	21.96	
5	64QAM	1	0	22.00	22.15	22.04	
5	64QAM	1	12	22.13	22.13	22.11	23.2
5	64QAM	1	24	22.13	22.13	22.03	
5	64QAM	12	0	21.10	21.04	21.04	
5	64QAM	12	7	21.07	21.03	20.96	22.2
5	64QAM	12	13	21.04	21.04	21.00	
5	64QAM	25	0	21.04	21.03	20.94	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.43			25.7
10	QPSK	1	25	24.53			
10	QPSK	1	49	24.34			
10	QPSK	25	0	23.49			24.7
10	QPSK	25	12	23.47			
10	QPSK	25	25	23.50			
10	QPSK	50	0	23.44			24.7
10	16QAM	1	0	23.82			
10	16QAM	1	25	23.82			
10	16QAM	1	49	23.73			23.7
10	16QAM	25	0	22.48			
10	16QAM	25	12	22.48			
10	16QAM	25	25	22.49			23.7
10	16QAM	50	0	22.45			
10	64QAM	1	0	22.73			
10	64QAM	1	25	22.59			23.7
10	64QAM	1	49	22.62			
10	64QAM	25	0	21.51			
10	64QAM	25	12	21.27			22.7
10	64QAM	25	25	21.52			
10	64QAM	50	0	21.49			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.43	24.39	24.40	25.7
5	QPSK	1	12	24.49	24.50	24.44	
5	QPSK	1	24	24.49	24.41	24.36	
5	QPSK	12	0	23.50	23.48	23.45	24.7
5	QPSK	12	7	23.55	23.54	23.49	
5	QPSK	12	13	23.53	23.50	23.47	
5	QPSK	25	0	23.54	23.48	23.41	24.7
5	16QAM	1	0	23.75	23.73	23.70	
5	16QAM	1	12	23.62	23.60	23.77	
5	16QAM	1	24	23.77	23.76	23.71	23.7
5	16QAM	12	0	22.50	22.53	22.49	
5	16QAM	12	7	22.59	22.55	22.50	
5	16QAM	12	13	22.55	22.53	22.48	23.7
5	16QAM	25	0	22.54	22.50	22.44	
5	64QAM	1	0	22.75	22.62	22.51	
5	64QAM	1	12	22.74	22.25	22.55	23.7
5	64QAM	1	24	22.30	22.27	22.68	
5	64QAM	12	0	21.56	21.32	21.21	
5	64QAM	12	7	21.64	21.19	21.52	22.7
5	64QAM	12	13	21.37	21.18	21.58	
5	64QAM	25	0	21.58	21.15	21.45	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.61	24.54	24.55	25.7
10	QPSK	1	25	24.60	24.59	24.56	
10	QPSK	1	49	24.60	24.70	24.58	
10	QPSK	25	0	23.62	23.62	23.61	24.7
10	QPSK	25	12	23.75	23.96	23.66	
10	QPSK	25	25	23.75	23.75	23.74	
10	QPSK	50	0	23.75	23.66	23.64	
10	16QAM	1	0	23.95	23.94	23.91	24.7
10	16QAM	1	25	23.98	23.99	23.99	
10	16QAM	1	49	23.99	23.99	23.97	
10	16QAM	25	0	22.64	22.61	22.63	23.7
10	16QAM	25	12	22.75	22.70	22.67	
10	16QAM	25	25	22.72	22.75	22.71	
10	16QAM	50	0	22.73	22.66	22.65	
10	64QAM	1	0	22.86	22.80	22.81	23.7
10	64QAM	1	25	22.91	22.90	22.74	
10	64QAM	1	49	22.90	22.89	22.81	
10	64QAM	25	0	21.66	21.67	21.66	22.7
10	64QAM	25	12	21.80	21.74	21.72	
10	64QAM	25	25	21.79	21.78	21.75	
10	64QAM	50	0	21.78	21.71	21.69	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.54	24.58	24.56	25.7
5	QPSK	1	12	24.64	24.69	24.64	
5	QPSK	1	24	24.67	24.67	24.64	
5	QPSK	12	0	23.67	23.67	23.64	24.7
5	QPSK	12	7	23.71	23.73	23.71	
5	QPSK	12	13	23.74	23.74	23.69	
5	QPSK	25	0	23.74	23.69	23.67	
5	16QAM	1	0	23.90	23.89	23.87	24.7
5	16QAM	1	12	23.94	23.97	23.90	
5	16QAM	1	24	23.98	23.99	23.93	
5	16QAM	12	0	22.69	22.69	22.69	23.7
5	16QAM	12	7	22.72	22.71	22.70	
5	16QAM	12	13	22.76	22.74	22.68	
5	16QAM	25	0	22.73	22.71	22.72	23.7
5	64QAM	1	0	22.67	22.59	22.63	
5	64QAM	1	12	22.86	22.77	22.82	
5	64QAM	1	24	22.88	22.84	22.82	
5	64QAM	12	0	21.74	21.71	21.70	22.7
5	64QAM	12	7	21.78	21.76	21.76	
5	64QAM	12	13	21.78	21.82	21.74	
5	64QAM	25	0	21.74	21.70	21.72	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	23.20	23.18	23.08	24.4
20	QPSK	1	49	23.15	23.17	23.05	
20	QPSK	1	99	23.14	23.16	23.04	
20	QPSK	50	0	23.28	23.26	23.12	24.4
20	QPSK	50	24	23.38	23.32	23.22	
20	QPSK	50	50	23.29	23.32	23.21	
20	QPSK	100	0	23.36	23.28	23.18	24.4
20	16QAM	1	0	23.51	23.51	23.38	
20	16QAM	1	49	23.61	23.49	23.34	
20	16QAM	1	99	23.49	23.47	23.17	23.4
20	16QAM	50	0	22.58	22.57	22.43	
20	16QAM	50	24	22.68	22.65	22.53	
20	16QAM	50	50	22.63	22.62	22.52	23.4
20	16QAM	100	0	22.64	22.61	22.44	
20	64QAM	1	0	22.66	22.53	21.92	
20	64QAM	1	49	22.55	22.63	21.71	22.4
20	64QAM	1	99	22.19	22.73	21.40	
20	64QAM	50	0	21.61	21.60	20.75	
20	64QAM	50	24	21.42	21.67	21.15	22.4
20	64QAM	50	50	21.09	21.64	21.02	
20	64QAM	100	0	21.20	21.47	20.44	
Channel				26115	26340	26615	
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.14	23.19	23.08	24.4
15	QPSK	1	37	23.13	23.17	23.04	
15	QPSK	1	74	23.20	23.19	23.07	
15	QPSK	36	0	23.33	23.24	23.13	24.4
15	QPSK	36	20	23.30	23.32	23.13	
15	QPSK	36	39	23.25	23.27	23.19	
15	QPSK	75	0	23.29	23.30	23.10	24.4
15	16QAM	1	0	23.40	23.39	23.34	
15	16QAM	1	37	23.47	23.46	23.37	
15	16QAM	1	74	23.44	23.52	23.41	23.4
15	16QAM	36	0	22.64	22.54	22.42	
15	16QAM	36	20	22.60	22.61	22.43	
15	16QAM	36	39	22.56	22.58	22.45	23.4
15	16QAM	75	0	22.60	22.61	22.43	
15	64QAM	1	0	22.58	22.64	21.74	
15	64QAM	1	37	22.66	22.72	22.40	22.4
15	64QAM	1	74	22.44	22.68	21.60	
15	64QAM	36	0	21.66	21.59	21.11	
15	64QAM	36	20	21.66	21.65	21.35	22.4
15	64QAM	36	39	21.41	21.61	21.05	
15	64QAM	75	0	21.55	21.62	20.83	
Channel				26090	26340	26640	
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.19	23.15	23.08	24.4
10	QPSK	1	25	23.16	23.18	23.04	
10	QPSK	1	49	23.14	23.18	23.11	
10	QPSK	25	0	23.28	23.30	23.18	24.4
10	QPSK	25	12	23.32	23.32	23.24	
10	QPSK	25	25	23.32	23.33	23.27	
10	QPSK	50	0	23.32	23.32	23.24	24.4
10	16QAM	1	0	23.55	23.55	23.42	
10	16QAM	1	25	23.52	23.54	23.46	
10	16QAM	1	49	23.56	23.58	23.47	23.4
10	16QAM	25	0	22.58	22.63	22.50	
10	16QAM	25	12	22.62	22.65	22.52	
10	16QAM	25	25	22.57	22.61	22.54	23.4
10	16QAM	50	0	22.59	22.64	22.53	
10	64QAM	1	0	22.74	22.67	22.32	
10	64QAM	1	25	22.70	22.76	22.55	22.4
10	64QAM	1	49	22.71	22.76	21.66	
10	64QAM	25	0	21.62	21.65	21.44	
10	64QAM	25	12	21.67	21.67	21.38	22.4
10	64QAM	25	25	21.64	21.65	20.84	
10	64QAM	50	0	21.63	21.68	20.92	
Channel				26065	26340	26665	
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.20	23.14	23.08	24.4
5	QPSK	1	12	23.23	23.23	23.14	
5	QPSK	1	24	23.22	23.26	23.11	
5	QPSK	12	0	23.26	23.28	23.14	24.4
5	QPSK	12	7	23.30	23.34	23.23	
5	QPSK	12	13	23.34	23.36	23.08	
5	QPSK	25	0	23.27	23.29	23.23	24.4
5	16QAM	1	0	23.49	23.52	23.41	
5	16QAM	1	12	23.48	23.52	23.37	
5	16QAM	1	24	23.56	23.58	23.31	23.4
5	16QAM	12	0	22.57	22.60	22.44	
5	16QAM	12	7	22.63	22.68	22.54	
5	16QAM	12	13	22.66	22.67	22.33	23.4
5	16QAM	25	0	22.61	22.64	22.53	
5	64QAM	1	0	22.73	22.70	22.34	
5	64QAM	1	12	22.69	22.72	21.93	22.4
5	64QAM	1	24	22.70	22.75	21.46	
5	64QAM	12	0	21.64	21.65	21.24	
5	64QAM	12	7	21.69	21.72	20.91	22.4
5	64QAM	12	13	21.69	21.72	20.54	
5	64QAM	25	0	21.63	21.64	20.71	
Channel				26055	26340	26675	
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	23.13	23.10	23.04	24.4
3	QPSK	1	8	23.28	23.26	23.16	
3	QPSK	1	14	23.26	23.27	23.15	
3	QPSK	8	0	23.23	23.25	23.13	24.4
3	QPSK	8	4	23.30	23.35	23.20	
3	QPSK	8	7	23.29	23.34	23.00	
3	QPSK	15	0	23.27	23.31	23.14	24.4
3	16QAM	1	0	23.42	23.41	23.35	
3	16QAM	1	8	23.56	23.51	23.39	
3	16QAM	1	14	23.57	23.60	23.14	23.4
3	16QAM	8	0	22.60	22.62	22.49	
3	16QAM	8	4	22.68	22.70	22.33	
3	16QAM	8	7	22.67	22.69	22.19	23.4
3	16QAM	15	0	22.63	22.64	22.29	
3	64QAM	1	0	22.66	22.62	21.76	
3	64QAM	1	8	22.74	22.77	21.53	22.4
3	64QAM	1	14	22.73	22.77	21.40	
3	64QAM	8	0	21.63	21.63	20.70	
3	64QAM	8	4	21.69	21.71	20.57	22.4
3	64QAM	8	7	21.68	21.70	20.42	
3	64QAM	15	0	21.62	21.64	20.56	
Channel				26047	26340	26683	
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	23.05	23.06	22.96	24.4
1.4	QPSK	1	3	23.17	23.20	23.05	
1.4	QPSK	1	5	23.15	23.15	23.03	
1.4	QPSK	3	0	23.12	23.13	22.98	24.4
1.4	QPSK	3	1	23.16	23.19	23.04	
1.4	QPSK	3	3	23.16	23.17	23.04	
1.4	QPSK	6	0	23.21	23.23	22.98	24.4
1.4	16QAM	1	0	23.39	23.42	23.26	
1.4	16QAM	1	3	23.49	23.52	23.23	
1.4	16QAM	1	5	23.44	23.47	23.10	24.4
1.4	16QAM	3	0	23.19	23.22	23.01	
1.4	16QAM	3	1	23.28	23.29	23.07	
1.4	16QAM	3	3	23.22	23.26	22.97	23.4
1.4	16QAM	6	0	22.60	22.60	22.14	
1.4	64QAM	1	0	22.59	22.65	21.47	
1.4	64QAM	1	3	22.69	22.74	21.45	23.4
1.4	64QAM	1	5	22.63	22.69	21.42	
1.4	64QAM	3	0	22.59	22.61	21.46	
1.4	64QAM	3	1	22.65	22.67	21.42	23.4
1.4	64QAM	3	3	22.62	22.66	21.44	
1.4	64QAM	6	0	21.52	21.54	21.45	

Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26966	25.7
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.41	24.33	24.36	25.7
15	QPSK	1	37	24.28	24.36	24.35	
15	QPSK	1	74	24.37	24.59	24.29	
15	QPSK	36	0	23.45	23.46	23.48	
15	QPSK	36	20	23.52	23.46	23.44	24.7
15	QPSK	36	39	23.45	23.50	23.44	
15	QPSK	75	0	23.52	23.46	23.44	
15	16QAM	1	0	23.71	23.68	23.71	
15	16QAM	1	37	23.63	23.69	23.69	24.7
15	16QAM	1	74	23.70	23.72	23.62	
15	16QAM	36	0	22.47	22.51	22.51	
15	16QAM	36	20	22.51	22.45	22.45	
15	16QAM	36	39	22.47	22.52	22.47	23.7
15	16QAM	75	0	22.53	22.49	22.50	
15	64QAM	1	0	22.58	22.51	22.50	
15	64QAM	1	37	22.54	22.63	22.58	
15	64QAM	1	74	22.58	22.59	21.79	22.7
15	64QAM	36	0	21.51	21.53	21.54	
15	64QAM	36	20	21.55	21.50	21.50	
15	64QAM	36	39	21.50	21.61	21.59	
15	64QAM	75	0	21.54	21.49	21.50	Tune-up limit (dBm)
Channel				26740	26965	26990	
Frequency (MHz)				819	831.5	844	25.7
10	QPSK	1	0	24.49	24.42	24.48	
10	QPSK	1	25	24.35	24.38	24.40	
10	QPSK	1	49	24.42	24.43	24.37	
10	QPSK	25	0	23.57	23.48	23.51	24.7
10	QPSK	25	12	23.57	23.50	23.53	
10	QPSK	25	25	23.48	23.53	23.54	
10	QPSK	50	0	23.54	23.49	23.49	
10	16QAM	1	0	23.68	23.77	23.88	24.7
10	16QAM	1	25	23.75	23.81	23.80	
10	16QAM	1	49	23.80	23.79	23.75	
10	16QAM	25	0	22.56	22.49	22.51	
10	16QAM	25	12	22.56	22.50	22.51	23.7
10	16QAM	25	25	22.45	22.54	22.47	
10	16QAM	50	0	22.53	22.46	22.47	
10	64QAM	1	0	22.81	22.85	22.72	
10	64QAM	1	25	22.70	22.73	22.75	23.7
10	64QAM	1	49	22.73	22.74	22.16	
10	64QAM	25	0	21.61	21.56	21.55	
10	64QAM	25	12	21.61	21.55	21.58	
10	64QAM	25	25	21.53	21.56	21.40	22.7
10	64QAM	50	0	21.58	21.52	21.52	
Channel				26715	26965	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.58	24.40	24.49	25.7
5	QPSK	1	12	24.54	24.46	24.46	
5	QPSK	1	24	24.39	24.49	24.40	
5	QPSK	12	0	23.62	23.52	23.56	
5	QPSK	12	7	23.62	23.58	23.52	24.7
5	QPSK	12	13	23.53	23.53	23.43	
5	QPSK	25	0	23.59	23.49	23.50	
5	16QAM	1	0	23.92	23.77	23.81	
5	16QAM	1	12	23.80	23.76	23.69	24.7
5	16QAM	1	24	23.73	23.83	23.69	
5	16QAM	12	0	22.65	22.55	22.52	
5	16QAM	12	7	22.59	22.61	22.52	
5	16QAM	12	13	22.53	22.50	22.45	23.7
5	16QAM	25	0	22.58	22.51	22.54	
5	64QAM	1	0	22.82	22.72	22.70	
5	64QAM	1	12	22.71	22.66	22.03	
5	64QAM	1	24	22.64	22.67	21.90	23.7
5	64QAM	12	0	21.71	21.62	21.61	
5	64QAM	12	7	21.70	21.64	21.03	
5	64QAM	12	13	21.61	21.61	20.72	
5	64QAM	25	0	21.62	21.52	21.16	Tune-up limit (dBm)
Channel				26705	26965	27025	
Frequency (MHz)				815.5	831.5	847.5	25.7
3	QPSK	1	0	24.56	24.45	24.47	
3	QPSK	1	8	24.58	24.54	24.36	
3	QPSK	1	14	24.46	24.51	24.41	
3	QPSK	8	0	23.63	23.52	23.41	24.7
3	QPSK	8	4	23.65	23.60	23.40	
3	QPSK	8	7	23.57	23.50	23.44	
3	QPSK	15	0	23.57	23.51	23.43	
3	16QAM	1	0	23.92	23.76	23.76	24.7
3	16QAM	1	8	23.92	23.83	23.59	
3	16QAM	1	14	23.77	23.84	23.70	
3	16QAM	8	0	22.69	22.61	22.55	
3	16QAM	8	4	22.66	22.64	22.51	23.7
3	16QAM	8	7	22.60	22.58	22.49	
3	16QAM	15	0	22.64	22.53	22.49	
3	64QAM	1	0	22.78	22.67	22.05	
3	64QAM	1	8	22.79	22.75	21.73	23.7
3	64QAM	1	14	22.66	22.69	21.83	
3	64QAM	8	0	21.72	21.58	20.80	
3	64QAM	8	4	21.72	21.68	20.67	
3	64QAM	8	7	21.63	21.59	20.74	22.7
3	64QAM	15	0	21.63	21.55	20.78	
Channel				26997	26965	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.48	24.36	24.32	25.7
1.4	QPSK	1	3	24.52	24.47	24.34	
1.4	QPSK	1	5	24.44	24.38	24.24	
1.4	QPSK	3	0	24.50	24.39	24.33	
1.4	QPSK	3	1	24.51	24.40	24.37	24.7
1.4	QPSK	3	3	24.47	24.41	24.35	
1.4	QPSK	6	0	23.54	23.48	23.37	
1.4	16QAM	1	0	23.87	23.69	23.60	
1.4	16QAM	1	3	23.87	23.77	23.68	24.7
1.4	16QAM	1	5	23.79	23.71	23.60	
1.4	16QAM	3	0	23.69	23.45	23.37	
1.4	16QAM	3	1	23.71	23.51	23.45	
1.4	16QAM	3	3	23.66	23.47	23.35	23.7
1.4	16QAM	6	0	22.61	22.57	22.47	
1.4	64QAM	1	0	22.84	22.58	21.71	
1.4	64QAM	1	3	22.82	22.68	21.82	
1.4	64QAM	1	5	22.78	22.59	21.87	23.7
1.4	64QAM	3	0	22.73	22.57	21.72	
1.4	64QAM	3	1	22.74	22.64	21.75	
1.4	64QAM	3	3	22.69	22.60	21.88	
1.4	64QAM	6	0	21.59	21.49	20.73	22.7

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				2771.0			
Frequency (MHz)				2310			
10	QPSK	1	0		22.93		23.7
10	QPSK	1	25		22.81		
10	QPSK	1	49		22.83		
10	QPSK	25	0		21.86		22.7
10	QPSK	25	12		21.82		
10	QPSK	25	25		21.94		
10	QPSK	50	0		21.92		22.7
10	16QAM	1	0		22.22		
10	16QAM	1	25		22.21		
10	16QAM	1	49		22.22		21.7
10	16QAM	25	0		20.88		
10	16QAM	25	12		20.95		
10	16QAM	25	25		20.89		21.7
10	16QAM	50	0		20.83		
10	64QAM	1	0		21.09		
10	64QAM	1	25		21.16		20.7
10	64QAM	1	49		21.08		
10	64QAM	25	0		19.94		
10	64QAM	25	12		19.99		20.7
10	64QAM	25	25		19.94		
10	64QAM	50	0		19.96		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.77	22.78	22.83	23.7
5	QPSK	1	12	22.90	22.85	22.92	
5	QPSK	1	24	22.90	22.88	22.84	
5	QPSK	12	0	21.90	21.89	21.92	22.7
5	QPSK	12	7	22.01	21.95	21.97	
5	QPSK	12	13	22.00	21.94	21.90	
5	QPSK	25	0	21.95	21.92	21.94	22.7
5	16QAM	1	0	22.12	22.12	22.16	
5	16QAM	1	12	22.22	22.21	22.18	
5	16QAM	1	24	22.24	22.22	22.17	21.7
5	16QAM	12	0	20.92	20.93	20.95	
5	16QAM	12	7	20.98	20.97	21.00	
5	16QAM	12	13	21.00	20.95	20.94	21.7
5	16QAM	25	0	20.99	20.92	20.95	
5	64QAM	1	0	21.05	21.07	21.16	
5	64QAM	1	12	21.09	21.12	21.12	20.7
5	64QAM	1	24	21.21	21.13	21.09	
5	64QAM	12	0	19.97	19.97	20.01	
5	64QAM	12	7	20.06	20.00	20.04	20.7
5	64QAM	12	13	20.08	20.01	19.95	
5	64QAM	25	0	20.01	19.96	19.96	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.18	24.12	24.09	25.1
20	QPSK	1	49	24.17	24.05	24.08	
20	QPSK	1	99	24.14	24.10	24.06	
20	QPSK	50	0	23.55	23.33	23.37	24.1
20	QPSK	50	24	23.52	23.37	23.35	
20	QPSK	50	50	23.49	23.35	23.38	
20	QPSK	100	0	23.50	23.36	23.39	
20	16QAM	1	0	23.74	23.60	23.64	24.1
20	16QAM	1	49	23.63	23.46	23.52	
20	16QAM	1	99	23.69	23.48	23.48	
20	16QAM	50	0	22.52	22.36	22.40	23.1
20	16QAM	50	24	22.52	22.37	22.37	
20	16QAM	50	50	22.52	22.35	22.42	
20	16QAM	100	0	22.49	22.37	22.38	
20	64QAM	1	0	21.83	21.77	22.48	23.1
20	64QAM	1	49	22.53	22.13	21.97	
20	64QAM	1	99	22.58	22.47	22.41	
20	64QAM	50	0	21.54	20.81	21.43	22.1
20	64QAM	50	24	21.55	21.16	20.98	
20	64QAM	50	50	21.52	21.38	21.13	
20	64QAM	100	0	21.55	21.22	21.35	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	24.35	24.29	24.31	25.1
15	QPSK	1	37	24.24	24.13	24.18	
15	QPSK	1	74	24.39	24.25	24.21	
15	QPSK	36	0	23.47	23.30	23.40	24.1
15	QPSK	36	20	23.49	23.37	23.44	
15	QPSK	36	39	23.49	23.35	23.40	
15	QPSK	75	0	23.48	23.37	23.35	24.1
15	16QAM	1	0	23.67	23.38	23.60	
15	16QAM	1	37	23.55	23.46	23.53	
15	16QAM	1	74	23.68	23.52	23.48	
15	16QAM	36	0	22.50	22.34	22.36	23.1
15	16QAM	36	20	22.49	22.35	22.41	
15	16QAM	36	39	22.49	22.35	22.39	
15	16QAM	75	0	22.50	22.36	22.34	23.1
15	64QAM	1	0	21.59	21.84	22.46	
15	64QAM	1	37	22.55	22.10	21.77	
15	64QAM	1	74	22.62	22.42	22.42	
15	64QAM	36	0	21.39	20.78	20.95	22.1
15	64QAM	36	20	21.48	21.19	20.94	
15	64QAM	36	39	21.53	21.38	21.30	
15	64QAM	75	0	21.50	21.15	21.13	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.41	24.32	24.23	25.1
10	QPSK	1	25	24.36	24.23	24.34	
10	QPSK	1	49	24.37	24.20	24.32	
10	QPSK	25	0	23.50	23.30	23.37	24.1
10	QPSK	25	12	23.54	23.38	23.37	
10	QPSK	25	25	23.52	23.34	23.43	
10	QPSK	50	0	23.55	23.38	23.37	
10	16QAM	1	0	23.71	23.62	23.62	24.1
10	16QAM	1	25	23.73	23.59	23.69	
10	16QAM	1	49	23.76	23.62	23.69	
10	16QAM	25	0	22.49	22.30	22.38	23.1
10	16QAM	25	12	22.53	22.36	22.40	
10	16QAM	25	25	22.50	22.36	22.44	
10	16QAM	50	0	22.52	22.37	22.39	
10	64QAM	1	0	21.82	21.73	21.70	23.1
10	64QAM	1	25	22.69	22.29	22.22	
10	64QAM	1	49	22.66	22.45	22.60	
10	64QAM	25	0	21.17	20.93	20.86	22.1
10	64QAM	25	12	21.56	21.19	21.19	
10	64QAM	25	25	21.51	21.39	21.46	
10	64QAM	50	0	21.54	21.16	21.07	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	24.38	24.21	24.32	25.1
5	QPSK	1	12	24.49	24.31	24.37	
5	QPSK	1	24	24.38	24.26	24.31	
5	QPSK	12	0	23.51	23.30	23.45	24.1
5	QPSK	12	7	23.54	23.39	23.44	
5	QPSK	12	13	23.51	23.33	23.42	
5	QPSK	25	0	23.50	23.35	23.40	
5	16QAM	1	0	23.72	23.57	23.67	24.1
5	16QAM	1	12	23.71	23.59	23.67	
5	16QAM	1	24	23.71	23.58	23.66	
5	16QAM	12	0	22.55	22.35	22.46	23.1
5	16QAM	12	7	22.56	22.42	22.47	
5	16QAM	12	13	22.53	22.39	22.43	
5	16QAM	25	0	22.52	22.37	22.44	
5	64QAM	1	0	21.85	22.00	22.17	23.1
5	64QAM	1	12	22.11	22.22	22.58	
5	64QAM	1	24	22.46	22.43	22.58	
5	64QAM	12	0	20.82	21.05	21.44	22.1
5	64QAM	12	7	21.10	21.26	21.51	
5	64QAM	12	13	21.33	21.37	21.49	
5	64QAM	25	0	21.05	21.15	21.43	
Channel				131967	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	24.40	24.28	24.34	25.1
3	QPSK	1	8	24.47	24.34	24.41	
3	QPSK	1	14	24.38	24.26	24.33	
3	QPSK	8	0	23.49	23.35	23.45	24.1
3	QPSK	8	4	23.53	23.35	23.44	
3	QPSK	8	7	23.51	23.31	23.43	
3	QPSK	15	0	23.50	23.33	23.42	
3	16QAM	1	0	23.74	23.62	23.66	24.1
3	16QAM	1	8	23.74	23.63	23.77	
3	16QAM	1	14	23.72	23.59	23.65	
3	16QAM	8	0	22.56	22.43	22.49	23.1
3	16QAM	8	4	22.56	22.46	22.48	
3	16QAM	8	7	22.54	22.41	22.44	
3	16QAM	15	0	22.51	22.41	22.47	
3	64QAM	1	0	21.84	22.12	22.58	23.1
3	64QAM	1	8	22.07	22.34	22.67	
3	64QAM	1	14	22.10	22.41	22.57	
3	64QAM	8	0	20.80	21.12	21.49	22.1
3	64QAM	8	4	20.90	21.26	21.52	
3	64QAM	8	7	21.01	21.28	21.49	
3	64QAM	15	0	20.93	21.20	21.43	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	24.30	24.16	24.21	25.1
1.4	QPSK	1	3	24.33	24.24	24.32	
1.4	QPSK	1	5	24.28	24.17	24.25	
1.4	QPSK	3	0	24.34	24.19	24.30	24.1
1.4	QPSK	3	1	24.37	24.26	24.34	
1.4	QPSK	3	3	24.34	24.19	24.28	
1.4	QPSK	6	0	23.40	23.27	23.34	
1.4	16QAM	1	0	23.62	23.50	23.60	24.1
1.4	16QAM	1	3	23.71	23.55	23.67	
1.4	16QAM	1	5	23.59	23.48	23.57	
1.4	16QAM	3	0	23.40	23.26	23.41	23.1
1.4	16QAM	3	1	23.46	23.34	23.44	
1.4	16QAM	3	3	23.39	23.27	23.33	
1.4	16QAM	6	0	22.44	22.32	22.41	
1.4	64QAM	1	0	21.77	22.20	22.50	23.1
1.4	64QAM	1	3	21.86	22.28	22.57	
1.4	64QAM	1	5	21.81	22.25	22.49	
1.4	64QAM	3	0	21.82	22.23	22.48	
1.4	64QAM	3	1	21.95	22.35	22.54	22.1
1.4	64QAM	3	3	21.87	22.28	22.47	
1.4	64QAM	6	0	20.76	21.19	21.54	22.1

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.77	24.65	24.66	25.7
20	QPSK	1	49	24.61	24.63	24.60	
20	QPSK	1	99	24.64	24.61	24.56	
20	QPSK	50	0	23.80	23.72	23.74	24.7
20	QPSK	50	24	23.63	23.75	23.70	
20	QPSK	50	50	23.82	23.75	23.71	
20	QPSK	100	0	23.81	23.72	23.76	24.7
20	16QAM	1	0	24.08	24.00	24.00	
20	16QAM	1	49	23.97	23.94	23.94	
20	16QAM	1	99	23.97	23.82	23.89	23.7
20	16QAM	50	0	22.80	22.73	22.75	
20	16QAM	50	24	22.82	22.74	22.72	
20	16QAM	50	50	22.79	22.75	22.72	23.7
20	16QAM	100	0	22.81	22.70	22.78	
20	64QAM	1	0	22.14	22.65	22.86	23.7
20	64QAM	1	49	22.64	22.85	22.15	
20	64QAM	1	99	22.85	22.34	22.79	
20	64QAM	50	0	20.83	21.73	21.42	22.7
20	64QAM	50	24	21.26	21.74	21.57	
20	64QAM	50	50	21.82	21.38	21.75	
20	64QAM	100	0	21.41	21.75	21.80	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.76	24.66	24.65	25.7
15	QPSK	1	37	24.57	24.58	24.58	
15	QPSK	1	74	24.60	24.59	24.55	
15	QPSK	36	0	23.74	23.71	23.71	24.7
15	QPSK	36	20	23.78	23.72	23.76	
15	QPSK	36	39	23.78	23.73	23.69	
15	QPSK	75	0	23.77	23.71	23.66	24.7
15	16QAM	1	0	24.05	24.00	23.94	
15	16QAM	1	37	23.79	23.96	23.91	
15	16QAM	1	74	23.89	23.93	23.88	23.7
15	16QAM	36	0	22.67	22.72	22.70	
15	16QAM	36	20	22.73	22.72	22.75	
15	16QAM	36	39	22.78	22.73	22.72	23.7
15	16QAM	75	0	22.80	22.69	22.67	
15	64QAM	1	0	21.68	22.75	22.77	
15	64QAM	1	37	21.71	22.88	22.85	23.7
15	64QAM	1	74	22.79	22.58	22.81	
15	64QAM	36	0	20.76	21.74	21.35	
15	64QAM	36	20	20.76	21.76	21.78	22.7
15	64QAM	36	39	21.33	21.33	21.75	
15	64QAM	75	0	21.23	21.72	21.67	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.69	24.59	24.64	25.7
10	QPSK	1	25	24.54	24.52	24.52	
10	QPSK	1	49	24.57	24.61	24.50	
10	QPSK	25	0	23.75	23.67	23.65	24.7
10	QPSK	25	12	23.74	23.77	23.63	
10	QPSK	25	25	23.65	23.72	23.68	
10	QPSK	50	0	23.76	23.75	23.65	24.7
10	16QAM	1	0	24.05	23.96	24.02	
10	16QAM	1	25	23.94	23.95	23.94	
10	16QAM	1	49	23.94	23.99	23.86	23.7
10	16QAM	25	0	22.62	22.67	22.64	
10	16QAM	25	12	22.61	22.76	22.65	
10	16QAM	25	25	22.53	22.71	22.65	23.7
10	16QAM	50	0	22.74	22.75	22.62	
10	64QAM	1	0	21.92	22.22	22.83	
10	64QAM	1	25	21.85	22.86	22.85	23.7
10	64QAM	1	49	21.99	22.86	22.46	
10	64QAM	25	0	20.70	21.69	21.89	
10	64QAM	25	12	20.71	21.78	21.69	22.7
10	64QAM	25	25	20.72	21.75	21.67	
10	64QAM	50	0	20.71	21.73	21.65	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.43	24.62	24.62	25.7
5	QPSK	1	12	24.65	24.59	24.58	
5	QPSK	1	24	24.56	24.58	24.54	
5	QPSK	12	0	23.66	23.70	23.65	24.7
5	QPSK	12	7	23.68	23.72	23.68	
5	QPSK	12	13	23.70	23.70	23.61	
5	QPSK	25	0	23.67	23.69	23.61	24.7
5	16QAM	1	0	23.83	23.95	23.93	
5	16QAM	1	12	23.88	23.93	23.89	
5	16QAM	1	24	23.85	23.91	23.83	23.7
5	16QAM	12	0	22.51	22.75	22.73	
5	16QAM	12	7	22.66	22.76	22.71	
5	16QAM	12	13	22.73	22.70	22.63	23.7
5	16QAM	25	0	22.58	22.74	22.62	
5	64QAM	1	0	21.70	21.99	22.87	
5	64QAM	1	12	21.71	22.90	22.78	23.7
5	64QAM	1	24	21.85	22.88	22.23	
5	64QAM	12	0	20.72	21.54	21.72	
5	64QAM	12	7	20.83	21.77	21.75	22.7
5	64QAM	12	13	20.78	21.74	21.61	
5	64QAM	25	0	20.64	21.51	21.57	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	17.39	17.36	17.24	18.9
20	QPSK	1	49	17.34	17.28	17.16	
20	QPSK	1	99	17.28	17.28	17.14	
20	QPSK	50	0	17.42	17.39	17.32	18.9
20	QPSK	50	24	17.54	17.41	17.33	
20	QPSK	50	50	17.51	17.47	17.31	
20	QPSK	100	0	17.51	17.37	17.34	18.9
20	16QAM	1	0	17.65	17.71	17.58	
20	16QAM	1	49	17.67	17.63	17.47	
20	16QAM	1	99	17.57	17.57	17.46	18.9
20	16QAM	50	0	17.46	17.38	17.34	
20	16QAM	50	24	17.54	17.41	17.34	
20	16QAM	50	50	17.51	17.47	17.33	18.9
20	16QAM	100	0	17.50	17.36	17.34	
20	64QAM	1	0	17.58	17.60	17.52	
20	64QAM	1	49	17.57	17.51	17.35	18.9
20	64QAM	1	99	17.55	17.47	17.41	
20	64QAM	50	0	17.46	17.40	17.35	
20	64QAM	50	24	17.53	17.44	17.36	18.9
20	64QAM	50	50	17.52	17.50	17.36	
20	64QAM	100	0	17.50	17.43	17.32	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	17.39	17.34	17.24	18.9
15	QPSK	1	37	17.33	17.31	17.15	
15	QPSK	1	74	17.36	17.33	17.19	
15	QPSK	36	0	17.49	17.39	17.28	18.9
15	QPSK	36	20	17.51	17.41	17.31	
15	QPSK	36	39	17.49	17.46	17.30	
15	QPSK	75	0	17.50	17.39	17.31	18.9
15	16QAM	1	0	17.59	17.68	17.52	
15	16QAM	1	37	17.54	17.61	17.44	
15	16QAM	1	74	17.56	17.60	17.47	18.9
15	16QAM	36	0	17.46	17.38	17.28	
15	16QAM	36	20	17.46	17.39	17.31	
15	16QAM	36	39	17.47	17.46	17.30	18.9
15	16QAM	75	0	17.49	17.38	17.32	
15	64QAM	1	0	17.59	17.61	17.50	
15	64QAM	1	37	17.57	17.65	17.42	18.9
15	64QAM	1	74	17.62	17.51	17.41	
15	64QAM	36	0	17.52	17.42	17.30	
15	64QAM	36	20	17.55	17.44	17.31	18.9
15	64QAM	36	39	17.50	17.49	17.38	
15	64QAM	75	0	17.50	17.39	17.30	
Channel				18550	18500	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	17.37	17.31	17.21	18.9
10	QPSK	1	25	17.32	17.32	17.10	
10	QPSK	1	49	17.34	17.34	17.17	
10	QPSK	25	0	17.44	17.37	17.28	18.9
10	QPSK	25	12	17.46	17.41	17.32	
10	QPSK	25	25	17.47	17.52	17.36	
10	QPSK	50	0	17.47	17.41	17.31	18.9
10	16QAM	1	0	17.69	17.68	17.53	
10	16QAM	1	25	17.69	17.67	17.45	
10	16QAM	1	49	17.70	17.67	17.54	18.9
10	16QAM	25	0	17.44	17.33	17.22	
10	16QAM	25	12	17.49	17.40	17.26	
10	16QAM	25	25	17.43	17.46	17.25	18.9
10	16QAM	50	0	17.46	17.32	17.27	
10	64QAM	1	0	17.62	17.54	17.46	
10	64QAM	1	25	17.60	17.58	17.42	18.9
10	64QAM	1	49	17.58	17.60	17.40	
10	64QAM	25	0	17.48	17.36	17.26	
10	64QAM	25	12	17.53	17.40	17.31	18.9
10	64QAM	25	25	17.51	17.50	17.32	
10	64QAM	50	0	17.50	17.40	17.29	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1862.5	1880	1907.5	
5	QPSK	1	0	17.34	17.25	17.21	18.9
5	QPSK	1	12	17.34	17.40	17.19	
5	QPSK	1	24	17.39	17.38	17.17	
5	QPSK	12	0	17.43	17.39	17.30	18.9
5	QPSK	12	7	17.49	17.46	17.27	
5	QPSK	12	13	17.45	17.48	17.31	
5	QPSK	25	0	17.45	17.38	17.29	18.9
5	16QAM	1	0	17.67	17.56	17.60	
5	16QAM	1	12	17.64	17.71	17.60	
5	16QAM	1	24	17.70	17.71	17.55	18.9
5	16QAM	12	0	17.49	17.41	17.27	
5	16QAM	12	7	17.51	17.47	17.32	
5	16QAM	12	13	17.50	17.46	17.29	18.9
5	16QAM	25	0	17.45	17.38	17.24	
5	64QAM	1	0	17.65	17.59	17.46	
5	64QAM	1	12	17.60	17.59	17.39	18.9
5	64QAM	1	24	17.59	17.60	17.48	
5	64QAM	12	0	17.52	17.42	17.29	
5	64QAM	12	7	17.58	17.50	17.33	18.9
5	64QAM	12	13	17.55	17.52	17.31	
5	64QAM	25	0	17.45	17.41	17.28	
Channel				18615	18900	19165	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	17.34	17.27	17.10	18.9
3	QPSK	1	8	17.41	17.40	17.23	
3	QPSK	1	14	17.38	17.38	17.13	
3	QPSK	8	0	17.44	17.41	17.26	18.9
3	QPSK	8	4	17.47	17.50	17.22	
3	QPSK	8	7	17.45	17.45	17.24	
3	QPSK	15	0	17.44	17.38	17.27	18.9
3	16QAM	1	0	17.63	17.58	17.44	
3	16QAM	1	8	17.77	17.73	17.59	
3	16QAM	1	14	17.69	17.66	17.48	18.9
3	16QAM	8	0	17.51	17.43	17.30	
3	16QAM	8	4	17.53	17.52	17.37	
3	16QAM	8	7	17.51	17.51	17.29	18.9
3	16QAM	15	0	17.51	17.40	17.26	
3	64QAM	1	0	17.63	17.56	17.43	
3	64QAM	1	8	17.66	17.72	17.49	18.9
3	64QAM	1	14	17.59	17.65	17.47	
3	64QAM	8	0	17.54	17.44	17.26	
3	64QAM	8	4	17.56	17.53	17.31	18.9
3	64QAM	8	7	17.53	17.50	17.29	
3	64QAM	15	0	17.46	17.38	17.29	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1860.7	1880	1909.3	
1.4	QPSK	1	0	17.35	17.29	17.06	18.9
1.4	QPSK	1	3	17.44	17.35	17.15	
1.4	QPSK	1	5	17.38	17.31	17.10	
1.4	QPSK	3	0	17.42	17.35	17.14	18.9
1.4	QPSK	3	1	17.45	17.42	17.29	
1.4	QPSK	3	3	17.36	17.33	17.17	
1.4	QPSK	6	0	17.46	17.41	17.20	18.9
1.4	16QAM	1	0	17.74	17.59	17.38	
1.4	16QAM	1	3	17.71	17.65	17.43	
1.4	16QAM	1	5	17.65	17.60	17.43	18.9
1.4	16QAM	3	0	17.45	17.39	17.21	
1.4	16QAM	3	1	17.48	17.51	17.32	
1.4	16QAM	3	3	17.40	17.44	17.28	18.9
1.4	16QAM	6	0	17.46	17.35	17.19	
1.4	64QAM	1	0	17.81	17.73	17.49	
1.4	64QAM	1	3	17.64	17.72	17.46	18.9
1.4	64QAM	1	5	17.60	17.56	17.39	
1.4	64QAM	3	0	17.53	17.51	17.31	
1.4	64QAM	3	1	17.59	17.55	17.33	18.9
1.4	64QAM	3	3	17.54	17.46	17.32	
1.4	64QAM	6	0	17.43	17.40	17.21	



Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	
Frequency (MHz)				1730	1732.5	1745	
20	QPSK	1	0	19.62	19.54	19.34	20.8
20	QPSK	1	49	19.39	19.26	19.14	
20	QPSK	1	99	19.36	19.28	19.17	
20	QPSK	50	0	19.71	19.59	19.36	20.8
20	QPSK	50	24	19.53	19.51	19.35	
20	QPSK	50	50	19.45	19.40	19.29	
20	QPSK	100	0	19.51	19.56	19.35	20.8
20	16QAM	1	0	19.94	19.79	19.67	
20	16QAM	1	49	19.74	19.66	19.50	
20	16QAM	1	99	19.75	19.56	19.38	20.8
20	16QAM	50	0	19.70	19.60	19.38	
20	16QAM	50	24	19.55	19.53	19.38	
20	16QAM	50	50	19.45	19.43	19.31	20.8
20	16QAM	100	0	19.49	19.55	19.37	
20	64QAM	1	0	19.88	19.77	19.53	
20	64QAM	1	49	19.61	19.52	19.35	20.8
20	64QAM	1	99	19.50	19.52	19.39	
20	64QAM	50	0	19.70	19.60	19.40	
20	64QAM	50	24	19.56	19.52	19.39	20.8
20	64QAM	50	50	19.47	19.44	19.30	
20	64QAM	100	0	19.59	19.56	19.37	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	19.60	19.52	19.32	20.8
15	QPSK	1	37	19.41	19.28	19.13	
15	QPSK	1	74	19.38	19.26	19.14	
15	QPSK	36	0	19.65	19.59	19.31	20.8
15	QPSK	36	20	19.61	19.47	19.23	
15	QPSK	36	39	19.48	19.40	19.27	
15	QPSK	75	0	19.51	19.50	19.26	20.8
15	16QAM	1	0	19.69	19.61	19.61	
15	16QAM	1	37	19.78	19.65	19.49	
15	16QAM	1	74	19.75	19.60	19.42	20.8
15	16QAM	36	0	19.70	19.58	19.34	
15	16QAM	36	20	19.61	19.47	19.26	
15	16QAM	36	39	19.48	19.42	19.30	20.8
15	16QAM	75	0	19.55	19.52	19.30	
15	64QAM	1	0	19.86	19.73	19.52	
15	64QAM	1	37	19.65	19.53	19.44	20.8
15	64QAM	1	74	19.53	19.46	19.35	
15	64QAM	36	0	19.71	19.61	19.37	
15	64QAM	36	20	19.60	19.50	19.26	20.8
15	64QAM	36	39	19.53	19.45	19.32	
15	64QAM	75	0	19.55	19.52	19.29	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	19.55	19.41	19.23	20.8
10	QPSK	1	25	19.47	19.33	19.14	
10	QPSK	1	49	19.45	19.34	19.15	
10	QPSK	25	0	19.61	19.50	19.20	20.8
10	QPSK	25	12	19.62	19.54	19.33	
10	QPSK	25	25	19.61	19.52	19.31	
10	QPSK	50	0	19.63	19.51	19.26	20.8
10	16QAM	1	0	19.90	19.78	19.60	
10	16QAM	1	25	19.85	19.73	19.55	
10	16QAM	1	49	19.86	19.72	19.55	20.8
10	16QAM	25	0	19.60	19.51	19.25	
10	16QAM	25	12	19.66	19.49	19.35	
10	16QAM	25	25	19.63	19.44	19.33	20.8
10	16QAM	50	0	19.62	19.50	19.27	
10	64QAM	1	0	19.78	19.61	19.38	
10	64QAM	1	25	19.76	19.63	19.44	20.8
10	64QAM	1	49	19.72	19.56	19.45	
10	64QAM	25	0	19.62	19.51	19.25	
10	64QAM	25	12	19.64	19.51	19.37	20.8
10	64QAM	25	25	19.63	19.51	19.35	
10	64QAM	50	0	19.65	19.48	19.28	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	19.53	19.38	19.16	20.8
5	QPSK	1	12	19.54	19.41	19.23	
5	QPSK	1	24	19.55	19.40	19.21	
5	QPSK	12	0	19.59	19.48	19.23	20.8
5	QPSK	12	7	19.67	19.52	19.33	
5	QPSK	12	13	19.62	19.47	19.30	
5	QPSK	25	0	19.63	19.48	19.27	20.8
5	16QAM	1	0	19.86	19.66	19.51	
5	16QAM	1	12	19.82	19.65	19.37	
5	16QAM	1	24	19.89	19.73	19.53	20.8
5	16QAM	12	0	19.64	19.47	19.30	
5	16QAM	12	7	19.70	19.51	19.34	
5	16QAM	12	13	19.65	19.50	19.31	20.8
5	16QAM	25	0	19.66	19.46	19.30	
5	64QAM	1	0	19.78	19.66	19.45	
5	64QAM	1	12	19.79	19.62	19.37	20.8
5	64QAM	1	24	19.84	19.64	19.39	
5	64QAM	12	0	19.67	19.49	19.36	
5	64QAM	12	7	19.69	19.56	19.35	20.8
5	64QAM	12	13	19.70	19.52	19.34	
5	64QAM	25	0	19.64	19.50	19.28	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	19.52	19.39	19.16	20.8
3	QPSK	1	8	19.61	19.44	19.24	
3	QPSK	1	14	19.53	19.37	19.22	
3	QPSK	8	0	19.62	19.48	19.28	20.8
3	QPSK	8	4	19.64	19.50	19.36	
3	QPSK	8	7	19.64	19.50	19.32	
3	QPSK	15	0	19.63	19.48	19.28	20.8
3	16QAM	1	0	19.83	19.69	19.50	
3	16QAM	1	8	19.90	19.74	19.51	
3	16QAM	1	14	19.86	19.72	19.57	20.8
3	16QAM	8	0	19.71	19.55	19.33	
3	16QAM	8	4	19.72	19.59	19.36	
3	16QAM	8	7	19.68	19.54	19.35	20.8
3	16QAM	15	0	19.66	19.50	19.33	
3	64QAM	1	0	19.75	19.64	19.33	
3	64QAM	1	8	19.87	19.69	19.42	20.8
3	64QAM	1	14	19.80	19.63	19.37	
3	64QAM	8	0	19.68	19.50	19.33	
3	64QAM	8	4	19.71	19.53	19.36	20.8
3	64QAM	8	7	19.67	19.50	19.36	
3	64QAM	15	0	19.63	19.48	19.31	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	19.49	19.31	19.08	20.8
1.4	QPSK	1	3	19.53	19.35	19.15	
1.4	QPSK	1	5	19.49	19.32	19.11	
1.4	QPSK	3	0	19.49	19.35	19.17	20.8
1.4	QPSK	3	1	19.54	19.37	19.23	
1.4	QPSK	3	3	19.50	19.34	19.17	
1.4	QPSK	6	0	19.56	19.41	19.19	20.8
1.4	16QAM	1	0	19.77	19.60	19.45	
1.4	16QAM	1	3	19.84	19.69	19.50	
1.4	16QAM	1	5	19.82	19.66	19.44	20.8
1.4	16QAM	3	0	19.55	19.39	19.17	
1.4	16QAM	3	1	19.63	19.46	19.24	
1.4	16QAM	3	3	19.56	19.38	19.20	20.8
1.4	16QAM	6	0	19.63	19.50	19.32	
1.4	64QAM	1	0	19.72	19.59	19.32	
1.4	64QAM	1	3	19.76	19.63	19.35	20.8
1.4	64QAM	1	5	19.69	19.56	19.29	
1.4	64QAM	3	0	19.68	19.53	19.29	
1.4	64QAM	3	1	19.73	19.59	19.38	20.8
1.4	64QAM	3	3	19.67	19.55	19.31	
1.4	64QAM	6	0	19.55	19.41	19.20	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	25.7
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.62	24.61	24.67	25.7
10	QPSK	1	25	24.53	24.64	24.65	
10	QPSK	1	49	24.66	24.69	24.64	
10	QPSK	25	0	23.68	23.77	23.76	
10	QPSK	25	12	23.77	23.76	23.77	
10	QPSK	25	25	23.75	23.80	23.75	24.7
10	QPSK	50	0	23.78	23.73	23.78	
10	16QAM	1	0	23.97	23.98	24.01	
10	16QAM	1	25	23.95	24.02	24.05	
10	16QAM	1	49	24.03	24.09	23.99	
10	16QAM	25	0	22.67	22.76	22.76	23.7
10	16QAM	25	12	22.77	22.77	22.76	
10	16QAM	25	25	22.74	22.77	22.84	
10	16QAM	50	0	22.77	22.74	22.78	
10	64QAM	1	0	22.83	22.81	22.87	
10	64QAM	1	25	22.90	22.73	22.88	23.7
10	64QAM	1	49	22.94	22.60	22.10	
10	64QAM	25	0	21.72	21.81	21.82	
10	64QAM	25	12	21.81	21.80	21.80	
10	64QAM	25	25	21.80	21.83	21.09	
10	64QAM	50	0	21.83	21.78	21.52	22.7
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.67	24.68	24.68	25.7
5	QPSK	1	12	24.64	24.67	24.41	
5	QPSK	1	24	24.58	24.67	24.44	
5	QPSK	12	0	23.75	23.80	23.78	
5	QPSK	12	7	23.75	23.80	23.52	
5	QPSK	12	13	23.67	23.76	23.54	24.7
5	QPSK	25	0	23.71	23.74	23.66	
5	16QAM	1	0	24.03	24.02	24.01	
5	16QAM	1	12	23.91	24.01	23.73	
5	16QAM	1	24	23.93	24.02	23.70	
5	16QAM	12	0	22.81	22.81	22.80	23.7
5	16QAM	12	7	22.75	22.84	22.70	
5	16QAM	12	13	22.73	22.77	22.69	
5	16QAM	25	0	22.72	22.74	22.78	
5	64QAM	1	0	22.94	22.87	22.50	
5	64QAM	1	12	22.84	22.90	21.87	23.7
5	64QAM	1	24	22.85	22.81	21.88	
5	64QAM	12	0	21.82	21.87	21.19	
5	64QAM	12	7	21.79	21.86	20.82	
5	64QAM	12	13	21.75	21.83	21.66	
5	64QAM	25	0	21.75	21.78	20.89	22.7
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	Tune-up limit (dBm)
3	QPSK	1	0	24.65	24.65	24.52	25.7
3	QPSK	1	8	24.62	24.68	24.46	
3	QPSK	1	14	24.55	24.64	24.49	
3	QPSK	8	0	23.77	23.70	23.43	
3	QPSK	8	4	23.72	23.77	23.49	
3	QPSK	8	7	23.70	23.75	23.66	24.7
3	QPSK	15	0	23.71	23.74	23.48	
3	16QAM	1	0	23.99	23.97	23.75	
3	16QAM	1	8	23.98	24.07	23.71	
3	16QAM	1	14	23.88	24.00	23.75	
3	16QAM	8	0	22.82	22.83	22.58	23.7
3	16QAM	8	4	22.78	22.90	22.80	
3	16QAM	8	7	22.75	22.80	22.72	
3	16QAM	15	0	22.75	22.79	22.61	
3	64QAM	1	0	22.87	22.92	21.89	
3	64QAM	1	8	22.92	22.99	21.77	23.7
3	64QAM	1	14	22.85	22.90	21.76	
3	64QAM	8	0	21.78	21.78	21.87	
3	64QAM	8	4	21.80	21.86	21.68	
3	64QAM	8	7	21.74	21.80	20.72	
3	64QAM	15	0	21.74	21.78	20.77	22.7
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	Tune-up limit (dBm)
1.4	QPSK	1	0	24.56	24.59	24.49	25.7
1.4	QPSK	1	3	24.59	24.65	24.63	
1.4	QPSK	1	5	24.50	24.60	24.55	
1.4	QPSK	3	0	24.62	24.62	24.61	
1.4	QPSK	3	1	24.62	24.63	24.64	
1.4	QPSK	3	3	24.58	24.63	24.67	24.7
1.4	QPSK	6	0	23.65	23.74	23.70	
1.4	16QAM	1	0	23.90	23.95	23.81	
1.4	16QAM	1	3	23.89	24.04	23.98	
1.4	16QAM	1	5	23.85	23.93	23.86	
1.4	16QAM	3	0	23.69	23.70	23.63	23.7
1.4	16QAM	3	1	23.73	23.77	23.72	
1.4	16QAM	3	3	23.66	23.72	23.67	
1.4	16QAM	6	0	22.73	22.79	22.76	
1.4	64QAM	1	0	22.84	22.86	21.76	
1.4	64QAM	1	3	22.87	22.93	21.89	23.7
1.4	64QAM	1	5	22.79	22.85	21.90	
1.4	64QAM	3	0	22.80	22.80	21.76	
1.4	64QAM	3	1	22.84	22.85	21.89	
1.4	64QAM	3	3	22.78	22.86	22.00	
1.4	64QAM	6	0	21.68	21.74	21.67	22.7

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	22.3
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	20.68	20.72	20.76	22.3
20	QPSK	1	49	20.72	20.81	20.76	
20	QPSK	1	99	20.82	20.91	20.85	
20	QPSK	50	0	20.78	20.86	20.83	22.3
20	QPSK	50	24	20.89	20.90	20.86	
20	QPSK	50	50	20.89	20.99	20.94	
20	QPSK	100	0	20.87	20.89	20.84	22.3
20	16QAM	1	0	21.00	21.06	21.07	
20	16QAM	1	49	21.09	21.20	21.11	
20	16QAM	1	99	21.17	21.27	21.13	22.3
20	16QAM	50	0	20.79	20.86	20.82	
20	16QAM	50	24	20.91	20.91	20.86	
20	16QAM	50	50	20.92	21.02	20.94	22.3
20	16QAM	100	0	20.87	20.87	20.86	
20	64QAM	1	0	20.83	20.94	20.96	
20	64QAM	1	49	20.94	21.03	20.99	22.3
20	64QAM	1	99	21.05	21.16	21.14	
20	64QAM	50	0	20.78	20.89	20.87	
20	64QAM	50	24	20.90	20.96	20.91	22.3
20	64QAM	50	50	20.92	21.05	20.98	
20	64QAM	100	0	20.89	20.93	20.88	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	20.70	20.79	20.75	22.3
15	QPSK	1	37	20.73	20.84	20.78	
15	QPSK	1	74	20.81	20.93	20.85	
15	QPSK	36	0	20.75	20.86	20.81	22.3
15	QPSK	36	20	20.89	20.90	20.86	
15	QPSK	36	39	20.90	20.98	20.91	
15	QPSK	75	0	20.88	20.89	20.85	22.3
15	16QAM	1	0	21.00	21.07	21.09	
15	16QAM	1	37	21.05	21.16	21.09	
15	16QAM	1	74	21.13	21.29	21.15	22.3
15	16QAM	36	0	20.78	20.85	20.82	
15	16QAM	36	20	20.89	20.89	20.83	
15	16QAM	36	39	20.91	20.99	20.92	22.3
15	16QAM	75	0	20.89	20.91	20.85	
15	64QAM	1	0	20.86	20.95	20.94	
15	64QAM	1	37	20.93	21.09	21.04	22.3
15	64QAM	1	74	21.00	21.14	21.11	
15	64QAM	36	0	20.80	20.91	20.88	
15	64QAM	36	20	20.89	20.96	20.90	22.3
15	64QAM	36	39	20.92	21.07	20.96	
15	64QAM	75	0	20.87	20.91	20.87	
Channel				20900	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	20.68	20.72	20.68	22.3
10	QPSK	1	25	20.61	20.72	20.63	
10	QPSK	1	49	20.70	20.81	20.75	
10	QPSK	25	0	20.82	20.84	20.78	22.3
10	QPSK	25	12	20.86	20.87	20.81	
10	QPSK	25	25	20.86	20.97	20.88	
10	QPSK	50	0	20.85	20.88	20.82	22.3
10	16QAM	1	0	21.02	21.06	21.03	
10	16QAM	1	25	21.01	21.14	21.04	
10	16QAM	1	49	21.09	21.18	21.10	22.3
10	16QAM	25	0	20.81	20.81	20.76	
10	16QAM	25	12	20.87	20.87	20.78	
10	16QAM	25	25	20.83	20.93	20.84	22.3
10	16QAM	50	0	20.84	20.85	20.80	
10	64QAM	1	0	20.95	20.94	20.83	
10	64QAM	1	25	20.93	21.03	20.99	22.3
10	64QAM	1	49	20.98	21.06	21.04	
10	64QAM	25	0	20.84	20.88	20.82	
10	64QAM	25	12	20.89	20.92	20.85	22.3
10	64QAM	25	25	20.88	21.00	20.92	
10	64QAM	50	0	20.85	20.89	20.83	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	20.71	20.71	20.71	22.3
5	QPSK	1	12	20.69	20.82	20.72	
5	QPSK	1	24	20.72	20.83	20.78	
5	QPSK	12	0	20.82	20.90	20.89	22.3
5	QPSK	12	7	20.85	20.87	20.89	
5	QPSK	12	13	20.86	20.93	20.88	
5	QPSK	25	0	20.82	20.88	20.89	22.3
5	16QAM	1	0	21.01	21.04	21.06	
5	16QAM	1	12	20.98	21.08	21.06	
5	16QAM	1	24	21.02	21.14	21.09	22.3
5	16QAM	12	0	20.87	20.86	20.86	
5	16QAM	12	7	20.83	20.88	20.87	
5	16QAM	12	13	20.86	20.92	20.87	22.3
5	16QAM	25	0	20.85	20.87	20.85	
5	64QAM	1	0	20.96	20.99	20.98	
5	64QAM	1	12	20.94	21.01	20.99	22.3
5	64QAM	1	24	20.99	21.08	20.98	
5	64QAM	12	0	20.90	20.96	20.92	
5	64QAM	12	7	20.92	20.91	20.92	22.3
5	64QAM	12	13	20.92	20.99	20.91	
5	64QAM	25	0	20.86	20.90	20.89	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	24.36	24.28	24.30	25.7
10	QPSK	1	25	24.28	24.32	24.27	
10	QPSK	1	49	24.40	24.35	24.29	
10	QPSK	25	0	23.43	23.41	23.41	24.7
10	QPSK	25	12	23.48	23.42	23.48	
10	QPSK	25	25	23.47	23.48	23.45	
10	QPSK	50	0	23.50	23.44	23.47	24.7
10	16QAM	1	0	23.73	23.65	23.68	
10	16QAM	1	25	23.71	23.72	23.67	
10	16QAM	1	49	23.81	23.72	23.67	23.7
10	16QAM	25	0	22.44	22.42	22.40	
10	16QAM	25	12	22.51	22.41	22.45	
10	16QAM	25	25	22.41	22.45	22.40	23.7
10	16QAM	50	0	22.51	22.40	22.49	
10	64QAM	1	0	22.58	22.51	22.55	
10	64QAM	1	25	22.63	22.65	22.63	22.7
10	64QAM	1	49	22.59	22.65	22.60	
10	64QAM	25	0	21.45	21.45	21.44	
10	64QAM	25	12	21.54	21.48	21.52	22.7
10	64QAM	25	25	21.49	21.50	21.48	
10	64QAM	50	0	21.54	21.44	21.50	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	24.36	24.32	24.28	25.7
5	QPSK	1	12	24.35	24.39	24.36	
5	QPSK	1	24	24.32	24.36	24.29	
5	QPSK	12	0	23.45	23.42	23.41	24.7
5	QPSK	12	7	23.45	23.40	23.44	
5	QPSK	12	13	23.41	23.44	23.39	
5	QPSK	25	0	23.44	23.40	23.37	24.7
5	16QAM	1	0	23.71	23.69	23.61	
5	16QAM	1	12	23.66	23.68	23.64	
5	16QAM	1	24	23.67	23.69	23.63	23.7
5	16QAM	12	0	22.51	22.44	22.41	
5	16QAM	12	7	22.48	22.41	22.44	
5	16QAM	12	13	22.45	22.47	22.42	23.7
5	16QAM	25	0	22.44	22.44	22.37	
5	64QAM	1	0	22.55	22.55	22.54	
5	64QAM	1	12	22.60	22.59	22.57	22.7
5	64QAM	1	24	22.61	22.63	22.57	
5	64QAM	12	0	21.56	21.51	21.44	
5	64QAM	12	7	21.50	21.47	21.50	22.7
5	64QAM	12	13	21.50	21.48	21.48	
5	64QAM	25	0	21.48	21.45	21.37	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.39	24.37	24.31	25.7
3	QPSK	1	8	24.39	24.39	24.33	
3	QPSK	1	14	24.34	24.36	24.30	
3	QPSK	8	0	23.46	23.39	23.37	24.7
3	QPSK	8	4	23.46	23.46	23.39	
3	QPSK	8	7	23.41	23.39	23.35	
3	QPSK	15	0	23.42	23.37	23.32	24.7
3	16QAM	1	0	23.74	23.66	23.62	
3	16QAM	1	8	23.74	23.77	23.66	
3	16QAM	1	14	23.70	23.70	23.63	23.7
3	16QAM	8	0	22.52	22.47	22.42	
3	16QAM	8	4	22.51	22.54	22.46	
3	16QAM	8	7	22.49	22.47	22.43	22.7
3	16QAM	15	0	22.46	22.40	22.35	
3	64QAM	1	0	22.69	22.61	22.56	
3	64QAM	1	8	22.68	22.68	22.64	23.7
3	64QAM	1	14	22.62	22.63	22.55	
3	64QAM	8	0	21.55	21.45	21.43	
3	64QAM	8	4	21.55	21.54	21.49	22.7
3	64QAM	8	7	21.47	21.48	21.43	
3	64QAM	15	0	21.47	21.42	21.37	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.30	24.24	24.25	25.7
1.4	QPSK	1	3	24.34	24.33	24.25	
1.4	QPSK	1	5	24.29	24.27	24.20	
1.4	QPSK	3	0	24.35	24.28	24.24	24.7
1.4	QPSK	3	1	24.39	24.29	24.27	
1.4	QPSK	3	3	24.30	24.30	24.21	
1.4	QPSK	6	0	23.42	23.32	23.29	24.7
1.4	16QAM	1	0	23.64	23.60	23.57	
1.4	16QAM	1	3	23.70	23.69	23.60	
1.4	16QAM	1	5	23.60	23.61	23.52	23.7
1.4	16QAM	3	0	23.43	23.35	23.34	
1.4	16QAM	3	1	23.49	23.39	23.38	
1.4	16QAM	3	3	23.41	23.40	23.28	23.7
1.4	16QAM	6	0	22.47	22.39	22.36	
1.4	64QAM	1	0	22.61	22.51	22.48	
1.4	64QAM	1	3	22.64	22.60	22.51	23.7
1.4	64QAM	1	5	22.55	22.53	22.44	
1.4	64QAM	3	0	22.57	22.48	22.45	
1.4	64QAM	3	1	22.60	22.50	22.49	22.7
1.4	64QAM	3	3	22.51	22.53	22.45	
1.4	64QAM	6	0	21.40	21.34	21.30	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23230			
Frequency (MHz)				752			
10	QPSK	1	0	24.05			25.2
10	QPSK	1	25	24.00			
10	QPSK	1	49	24.02			
10	QPSK	25	0	23.06			24.2
10	QPSK	25	12	23.11			
10	QPSK	25	25	23.10			
10	QPSK	50	0	23.12			24.2
10	16QAM	1	0	23.30			
10	16QAM	1	25	23.34			
10	16QAM	1	49	23.30			23.2
10	16QAM	25	0	22.10			
10	16QAM	25	12	22.12			
10	16QAM	25	25	22.11			23.2
10	16QAM	50	0	22.11			
10	64QAM	1	0	23.05			
10	64QAM	1	25	23.07			23.2
10	64QAM	1	49	23.05			
10	64QAM	25	0	22.05			
10	64QAM	25	12	22.04			22.2
10	64QAM	25	25	22.02			
10	64QAM	50	0	22.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.96	23.94	23.94	25.2
5	QPSK	1	12	23.99	24.04	24.02	
5	QPSK	1	24	24.04	23.99	24.01	
5	QPSK	12	0	23.09	23.10	23.08	24.2
5	QPSK	12	7	23.10	23.11	23.02	
5	QPSK	12	13	23.12	23.13	23.07	
5	QPSK	25	0	23.15	23.12	23.03	24.2
5	16QAM	1	0	23.18	23.25	23.29	
5	16QAM	1	12	23.29	23.30	23.25	
5	16QAM	1	24	23.36	23.31	23.21	23.2
5	16QAM	12	0	22.17	22.11	22.14	
5	16QAM	12	7	22.16	22.10	22.09	
5	16QAM	12	13	22.15	22.13	22.15	23.2
5	16QAM	25	0	22.17	22.09	22.08	
5	64QAM	1	0	22.11	22.23	22.16	
5	64QAM	1	12	22.24	22.25	22.23	23.2
5	64QAM	1	24	22.26	22.27	22.20	
5	64QAM	12	0	21.19	21.15	21.16	
5	64QAM	12	7	21.19	21.14	21.10	22.2
5	64QAM	12	13	21.18	21.17	21.13	
5	64QAM	25	0	21.20	21.14	21.08	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.68			25.7
10	QPSK	1	25	24.58			
10	QPSK	1	49	24.49			
10	QPSK	25	0	23.62			24.7
10	QPSK	25	12	23.61			
10	QPSK	25	25	23.65			
10	QPSK	50	0	23.61			24.7
10	16QAM	1	0	23.95			
10	16QAM	1	25	23.95			
10	16QAM	1	49	23.89			23.7
10	16QAM	25	0	22.63			
10	16QAM	25	12	22.61			
10	16QAM	25	25	22.65			23.7
10	16QAM	50	0	22.63			
10	64QAM	1	0	22.85			
10	64QAM	1	25	22.85			23.7
10	64QAM	1	49	22.78			
10	64QAM	25	0	21.67			
10	64QAM	25	12	21.65			22.7
10	64QAM	25	25	21.69			
10	64QAM	50	0	21.63			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.53	24.52	24.54	25.7
5	QPSK	1	12	24.64	24.67	24.63	
5	QPSK	1	24	24.58	24.56	24.52	
5	QPSK	12	0	23.61	23.62	23.59	24.7
5	QPSK	12	7	23.66	23.66	23.61	
5	QPSK	12	13	23.65	23.64	23.60	
5	QPSK	25	0	23.65	23.61	23.52	24.7
5	16QAM	1	0	23.90	23.94	23.86	
5	16QAM	1	12	23.92	23.94	23.92	
5	16QAM	1	24	23.91	23.89	23.84	23.7
5	16QAM	12	0	22.62	22.62	22.65	
5	16QAM	12	7	22.73	22.66	22.63	
5	16QAM	12	13	22.66	22.67	22.63	23.7
5	16QAM	25	0	22.69	22.62	22.57	
5	64QAM	1	0	22.77	22.81	22.70	
5	64QAM	1	12	22.85	22.75	22.87	23.7
5	64QAM	1	24	22.74	22.83	22.82	
5	64QAM	12	0	21.66	21.69	21.67	
5	64QAM	12	7	21.74	21.70	21.66	22.7
5	64QAM	12	13	21.71	21.71	21.69	
5	64QAM	25	0	21.68	21.63	21.58	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.77	24.69	24.64	25.7
10	QPSK	1	25	24.75	24.76	24.70	
10	QPSK	1	49	24.85	24.76	24.75	
10	QPSK	25	0	23.76	23.76	23.76	24.7
10	QPSK	25	12	23.90	23.85	23.82	
10	QPSK	25	25	23.92	23.91	23.89	
10	QPSK	50	0	23.88	23.81	23.78	24.7
10	16QAM	1	0	24.14	24.08	24.04	
10	16QAM	1	25	24.14	24.12	24.11	
10	16QAM	1	49	24.15	24.13	24.11	23.7
10	16QAM	25	0	22.77	22.77	22.77	
10	16QAM	25	12	22.93	22.94	22.83	
10	16QAM	25	25	22.89	22.85	22.92	23.7
10	16QAM	50	0	22.91	22.81	22.80	
10	64QAM	1	0	23.02	22.92	22.96	23.7
10	64QAM	1	25	23.06	23.06	23.03	
10	64QAM	1	49	23.06	23.02	22.88	
10	64QAM	25	0	21.82	21.80	21.80	22.7
10	64QAM	25	12	21.95	21.89	21.86	
10	64QAM	25	25	21.94	21.94	21.92	
10	64QAM	50	0	21.92	21.86	21.84	
Channel				23785	23790	23825	
Frequency (MHz)				706.5	710	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.69	24.71	24.70	25.7
5	QPSK	1	12	24.81	24.82	24.74	
5	QPSK	1	24	24.84	24.82	24.79	
5	QPSK	12	0	23.81	23.85	23.80	24.7
5	QPSK	12	7	23.86	23.82	23.83	
5	QPSK	12	13	23.87	23.88	23.83	
5	QPSK	25	0	23.85	23.81	23.83	24.7
5	16QAM	1	0	24.07	24.05	24.04	
5	16QAM	1	12	24.11	24.11	24.05	
5	16QAM	1	24	24.17	24.16	24.09	23.7
5	16QAM	12	0	22.85	22.87	22.80	
5	16QAM	12	7	22.89	22.90	22.90	
5	16QAM	12	13	22.89	22.90	22.83	23.7
5	16QAM	25	0	22.86	22.84	22.87	
5	64QAM	1	0	22.77	22.83	22.97	
5	64QAM	1	12	23.01	23.08	23.00	22.7
5	64QAM	1	24	23.07	23.09	23.02	
5	64QAM	12	0	21.90	21.92	21.88	
5	64QAM	12	7	21.95	21.93	21.94	
5	64QAM	12	13	21.94	21.94	21.87	
5	64QAM	25	0	21.90	21.86	21.89	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	17.45	17.38	17.21	18.9
20	QPSK	1	49	17.37	17.32	17.11	
20	QPSK	1	99	17.34	17.27	17.15	
20	QPSK	50	0	17.55	17.48	17.30	18.9
20	QPSK	50	24	17.58	17.53	17.35	
20	QPSK	50	50	17.49	17.49	17.28	
20	QPSK	100	0	17.57	17.47	17.32	18.9
20	16QAM	1	0	17.71	17.68	17.60	
20	16QAM	1	49	17.69	17.62	17.48	
20	16QAM	1	99	17.59	17.61	17.47	18.9
20	16QAM	50	0	17.55	17.45	17.26	
20	16QAM	50	24	17.54	17.51	17.31	
20	16QAM	50	50	17.53	17.48	17.31	18.9
20	16QAM	100	0	17.54	17.46	17.30	
20	64QAM	1	0	17.64	17.56	17.42	
20	64QAM	1	49	17.59	17.53	17.34	18.9
20	64QAM	1	99	17.57	17.55	17.41	
20	64QAM	50	0	17.55	17.49	17.30	
20	64QAM	50	24	17.59	17.54	17.38	18.9
20	64QAM	50	50	17.53	17.51	17.34	
20	64QAM	100	0	17.57	17.51	17.32	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	17.46	17.39	17.20	18.9
15	QPSK	1	37	17.41	17.34	17.15	
15	QPSK	1	74	17.35	17.34	17.17	
15	QPSK	36	0	17.59	17.45	17.23	18.9
15	QPSK	36	20	17.56	17.51	17.25	
15	QPSK	36	39	17.46	17.44	17.27	
15	QPSK	75	0	17.53	17.47	17.25	18.9
15	16QAM	1	0	17.68	17.66	17.43	
15	16QAM	1	37	17.64	17.63	17.46	
15	16QAM	1	74	17.61	17.58	17.43	18.9
15	16QAM	36	0	17.56	17.40	17.24	
15	16QAM	36	20	17.54	17.47	17.24	
15	16QAM	36	39	17.49	17.43	17.27	18.9
15	16QAM	75	0	17.52	17.47	17.23	
15	64QAM	1	0	17.63	17.55	17.36	
15	64QAM	1	37	17.66	17.59	17.44	18.9
15	64QAM	1	74	17.59	17.55	17.35	
15	64QAM	36	0	17.62	17.48	17.29	
15	64QAM	36	20	17.58	17.52	17.28	18.9
15	64QAM	36	39	17.56	17.50	17.30	
15	64QAM	75	0	17.57	17.40	17.24	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	17.43	17.28	17.12	18.9
10	QPSK	1	25	17.33	17.32	17.13	
10	QPSK	1	49	17.32	17.33	17.17	
10	QPSK	25	0	17.49	17.44	17.26	18.9
10	QPSK	25	12	17.53	17.49	17.31	
10	QPSK	25	25	17.54	17.48	17.32	
10	QPSK	50	0	17.54	17.48	17.31	18.9
10	16QAM	1	0	17.78	17.72	17.54	
10	16QAM	1	25	17.76	17.70	17.54	
10	16QAM	1	49	17.77	17.75	17.54	18.9
10	16QAM	25	0	17.54	17.47	17.27	
10	16QAM	25	12	17.55	17.48	17.33	
10	16QAM	25	25	17.50	17.49	17.33	18.9
10	16QAM	50	0	17.57	17.48	17.31	
10	64QAM	1	0	17.70	17.53	17.37	
10	64QAM	1	25	17.64	17.60	17.43	18.9
10	64QAM	1	49	17.66	17.57	17.36	
10	64QAM	25	0	17.53	17.49	17.31	
10	64QAM	25	12	17.57	17.48	17.34	18.9
10	64QAM	25	25	17.54	17.52	17.31	
10	64QAM	50	0	17.55	17.52	17.33	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	17.34	17.24	17.11	18.9
5	QPSK	1	12	17.40	17.41	17.15	
5	QPSK	1	24	17.44	17.34	17.16	
5	QPSK	12	0	17.47	17.39	17.22	18.9
5	QPSK	12	7	17.54	17.47	17.27	
5	QPSK	12	13	17.53	17.51	17.27	
5	QPSK	25	0	17.52	17.45	17.23	18.9
5	16QAM	1	0	17.77	17.64	17.49	
5	16QAM	1	12	17.82	17.68	17.42	
5	16QAM	1	24	17.80	17.74	17.53	18.9
5	16QAM	12	0	17.53	17.46	17.23	
5	16QAM	12	7	17.58	17.52	17.28	
5	16QAM	12	13	17.57	17.55	17.28	18.9
5	16QAM	25	0	17.58	17.50	17.26	
5	64QAM	1	0	17.68	17.59	17.33	
5	64QAM	1	12	17.64	17.59	17.23	18.9
5	64QAM	1	24	17.65	17.61	17.35	
5	64QAM	12	0	17.54	17.49	17.27	
5	64QAM	12	7	17.63	17.55	17.34	18.9
5	64QAM	12	13	17.62	17.55	17.33	
5	64QAM	25	0	17.54	17.45	17.27	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	17.35	17.25	17.09	18.9
3	QPSK	1	8	17.46	17.45	17.21	
3	QPSK	1	14	17.46	17.42	17.21	
3	QPSK	8	0	17.45	17.39	17.19	18.9
3	QPSK	8	4	17.52	17.46	17.25	
3	QPSK	8	7	17.52	17.48	17.24	
3	QPSK	15	0	17.50	17.46	17.22	18.9
3	16QAM	1	0	17.71	17.56	17.43	
3	16QAM	1	8	17.87	17.77	17.52	
3	16QAM	1	14	17.82	17.79	17.51	18.9
3	16QAM	8	0	17.57	17.49	17.25	
3	16QAM	8	4	17.65	17.57	17.34	
3	16QAM	8	7	17.67	17.54	17.35	18.9
3	16QAM	15	0	17.59	17.50	17.27	
3	64QAM	1	0	17.64	17.51	17.25	
3	64QAM	1	8	17.76	17.72	17.42	18.9
3	64QAM	1	14	17.74	17.72	17.37	
3	64QAM	8	0	17.55	17.44	17.24	
3	64QAM	8	4	17.60	17.50	17.32	18.9
3	64QAM	8	7	17.61	17.53	17.32	
3	64QAM	15	0	17.53	17.49	17.24	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	17.30	17.25	17.03	18.9
1.4	QPSK	1	3	17.41	17.33	17.14	
1.4	QPSK	1	5	17.37	17.30	17.08	
1.4	QPSK	3	0	17.38	17.31	17.06	18.9
1.4	QPSK	3	1	17.46	17.38	17.08	
1.4	QPSK	3	3	17.43	17.38	17.07	
1.4	QPSK	6	0	17.44	17.29	17.04	18.9
1.4	16QAM	1	0	17.70	17.61	17.31	
1.4	16QAM	1	3	17.76	17.67	17.47	
1.4	16QAM	1	5	17.78	17.69	17.43	18.9
1.4	16QAM	3	0	17.49	17.36	17.15	
1.4	16QAM	3	1	17.56	17.49	17.18	
1.4	16QAM	3	3	17.48	17.40	17.12	18.9
1.4	16QAM	6	0	17.51	17.42	17.26	
1.4	64QAM	1	0	17.57	17.54	17.25	
1.4	64QAM	1	3	17.71	17.64	17.37	18.9
1.4	64QAM	1	5	17.60	17.59	17.31	
1.4	64QAM	3	0	17.55	17.49	17.23	
1.4	64QAM	3	1	17.63	17.55	17.34	18.9
1.4	64QAM	3	3	17.58	17.52	17.27	
1.4	64QAM	6	0	17.47	17.38	17.14	

Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26766	
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.58	24.53	24.56	25.7
15	QPSK	1	37	24.49	24.52	24.53	
15	QPSK	1	74	24.56	24.78	24.50	
15	QPSK	36	0	23.66	23.67	23.66	24.7
15	QPSK	36	20	23.70	23.96	23.66	
15	QPSK	36	39	23.66	23.69	23.66	
15	QPSK	75	0	23.69	23.65	23.67	24.7
15	16QAM	1	0	23.91	23.87	23.92	
15	16QAM	1	37	23.85	23.88	23.90	
15	16QAM	1	74	23.88	23.91	23.81	23.7
15	16QAM	36	0	22.68	22.70	22.68	
15	16QAM	36	20	22.68	22.65	22.66	
15	16QAM	36	39	22.67	22.72	22.71	23.7
15	16QAM	75	0	22.72	22.67	22.68	
15	64QAM	1	0	22.77	22.70	22.72	23.7
15	64QAM	1	37	22.74	22.82	22.81	
15	64QAM	1	74	22.78	22.80	22.78	
15	64QAM	36	0	21.68	21.73	21.74	22.7
15	64QAM	36	20	21.71	21.69	21.69	
15	64QAM	36	39	21.70	21.80	21.80	
15	64QAM	75	0	21.72	21.68	21.73	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.64	24.60	24.67	25.7
10	QPSK	1	25	24.54	24.60	24.63	
10	QPSK	1	49	24.61	24.62	24.57	
10	QPSK	25	0	23.75	23.67	23.68	24.7
10	QPSK	25	12	23.71	23.71	23.72	
10	QPSK	25	25	23.66	23.70	23.70	
10	QPSK	50	0	23.70	23.65	23.67	24.7
10	16QAM	1	0	24.00	24.01	24.06	
10	16QAM	1	25	24.00	24.01	23.99	
10	16QAM	1	49	24.01	23.99	23.92	23.7
10	16QAM	25	0	22.72	22.71	22.70	
10	16QAM	25	12	22.72	22.72	22.70	
10	16QAM	25	25	22.67	22.74	22.63	23.7
10	16QAM	50	0	22.73	22.64	22.68	
10	64QAM	1	0	22.97	22.79	22.90	
10	64QAM	1	25	22.86	22.95	22.95	22.7
10	64QAM	1	49	22.92	22.91	22.61	
10	64QAM	25	0	21.77	21.73	21.76	
10	64QAM	25	12	21.67	21.74	21.75	22.7
10	64QAM	25	25	21.71	21.72	21.58	
10	64QAM	50	0	21.72	21.69	21.72	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.77	24.62	24.66	25.7
5	QPSK	1	12	24.70	24.69	24.63	
5	QPSK	1	24	24.57	24.70	24.61	
5	QPSK	12	0	23.79	23.71	23.76	24.7
5	QPSK	12	7	23.78	23.77	23.70	
5	QPSK	12	13	23.71	23.72	23.61	
5	QPSK	25	0	23.73	23.68	23.70	24.7
5	16QAM	1	0	24.08	23.94	24.00	
5	16QAM	1	12	23.98	23.97	23.86	
5	16QAM	1	24	23.92	24.01	23.86	23.7
5	16QAM	12	0	22.85	22.76	22.75	
5	16QAM	12	7	22.77	22.77	22.73	
5	16QAM	12	13	22.75	22.72	22.65	23.7
5	16QAM	25	0	22.76	22.69	22.71	
5	64QAM	1	0	22.97	22.86	22.91	
5	64QAM	1	12	22.88	22.88	22.22	23.7
5	64QAM	1	24	22.73	22.67	22.32	
5	64QAM	12	0	21.88	21.82	21.81	
5	64QAM	12	7	21.87	21.84	21.20	22.7
5	64QAM	12	13	21.77	21.79	21.07	
5	64QAM	25	0	21.81	21.71	21.31	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.73	24.64	24.66	25.7
3	QPSK	1	8	24.75	24.72	24.65	
3	QPSK	1	14	24.60	24.68	24.60	
3	QPSK	8	0	23.79	23.71	23.72	24.7
3	QPSK	8	4	23.79	23.79	23.70	
3	QPSK	8	7	23.74	23.71	23.63	
3	QPSK	15	0	23.75	23.71	23.68	24.7
3	16QAM	1	0	24.08	23.96	23.96	
3	16QAM	1	8	24.10	24.03	23.94	
3	16QAM	1	14	23.95	24.01	23.88	23.7
3	16QAM	8	0	22.85	22.78	22.74	
3	16QAM	8	4	22.85	22.84	22.74	
3	16QAM	8	7	22.79	22.78	22.68	23.7
3	16QAM	15	0	22.83	22.72	22.67	
3	64QAM	1	0	22.94	22.86	22.29	
3	64QAM	1	8	22.99	22.93	22.12	23.7
3	64QAM	1	14	22.85	22.89	22.26	
3	64QAM	8	0	21.89	21.79	21.07	
3	64QAM	8	4	21.89	21.86	21.07	22.7
3	64QAM	8	7	21.84	21.83	21.16	
3	64QAM	15	0	21.84	21.74	21.16	
Channel				26997	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.67	24.57	24.52	25.7
1.4	QPSK	1	3	24.73	24.68	24.57	
1.4	QPSK	1	5	24.61	24.56	24.44	
1.4	QPSK	3	0	24.59	24.58	24.52	24.7
1.4	QPSK	3	1	24.71	24.60	24.57	
1.4	QPSK	3	3	24.64	24.59	24.51	
1.4	QPSK	6	0	23.71	23.67	23.58	24.7
1.4	16QAM	1	0	23.99	23.86	23.83	
1.4	16QAM	1	3	24.04	24.00	23.87	
1.4	16QAM	1	5	23.93	23.91	23.77	24.7
1.4	16QAM	3	0	23.74	23.65	23.60	
1.4	16QAM	3	1	23.78	23.71	23.65	
1.4	16QAM	3	3	23.72	23.65	23.57	23.7
1.4	16QAM	6	0	22.81	22.81	22.68	
1.4	64QAM	1	0	22.88	22.77	22.20	
1.4	64QAM	1	3	22.95	22.91	22.37	23.7
1.4	64QAM	1	5	22.82	22.79	22.40	
1.4	64QAM	3	0	22.89	22.78	22.16	
1.4	64QAM	3	1	22.93	22.83	22.25	22.7
1.4	64QAM	3	3	22.84	22.78	22.36	
1.4	64QAM	6	0	21.75	21.70	21.19	

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				2771.0			
Frequency (MHz)				2310			
10	QPSK	1	0		21.30		22.5
10	QPSK	1	25		21.32		
10	QPSK	1	49		21.33		
10	QPSK	25	0		21.22		22.5
10	QPSK	25	12		21.29		
10	QPSK	25	25		21.33		
10	QPSK	50	0		21.30		22.5
10	16QAM	1	0		21.55		
10	16QAM	1	25		21.61		
10	16QAM	1	49		21.61		21.5
10	16QAM	25	0		20.44		
10	16QAM	25	12		20.49		
10	16QAM	25	25		20.54		21.5
10	16QAM	50	0		20.48		
10	64QAM	1	25		20.74		
10	64QAM	1	49		20.65		21.5
10	64QAM	25	0		19.48		
10	64QAM	25	12		19.55		
10	64QAM	25	25		19.57		20.5
10	64QAM	50	0		19.51		
10	64QAM	50	0		19.51		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dbm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	21.30	21.31	21.30	22.5
5	QPSK	1	12	21.32	21.33	21.32	
5	QPSK	1	24	21.35	21.33	21.32	
5	QPSK	12	0	21.22	21.24	21.25	22.5
5	QPSK	12	7	21.34	21.30	21.33	
5	QPSK	12	13	21.33	21.29	21.32	
5	QPSK	25	0	21.32	21.28	21.28	22.5
5	16QAM	1	0	21.41	21.46	21.53	
5	16QAM	1	12	21.53	21.58	21.53	
5	16QAM	1	24	21.60	21.56	21.51	21.5
5	16QAM	12	0	20.44	20.46	20.50	
5	16QAM	12	7	20.55	20.51	20.53	
5	16QAM	12	13	20.56	20.51	20.55	21.5
5	16QAM	25	0	20.53	20.51	20.51	
5	64QAM	1	0	20.53	20.50	20.63	
5	64QAM	1	12	20.59	20.68	20.63	21.5
5	64QAM	1	24	20.72	20.70	20.64	
5	64QAM	12	0	19.51	19.51	19.53	
5	64QAM	12	7	19.62	19.57	19.58	20.5
5	64QAM	12	13	19.60	19.57	19.59	
5	64QAM	25	0	19.55	19.51	19.52	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	20.8
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	19.37	19.31	19.25	20.8
20	QPSK	1	49	19.22	19.08	19.15	
20	QPSK	1	99	19.29	19.13	19.10	
20	QPSK	50	0	19.51	19.32	19.34	20.8
20	QPSK	50	24	19.50	19.31	19.30	
20	QPSK	50	50	19.44	19.28	19.33	
20	QPSK	100	0	19.53	19.31	19.33	20.8
20	16QAM	1	0	19.75	19.58	19.58	
20	16QAM	1	49	19.60	19.47	19.49	
20	16QAM	1	99	19.68	19.46	19.44	20.8
20	16QAM	50	0	19.52	19.29	19.38	
20	16QAM	50	24	19.51	19.33	19.33	
20	16QAM	50	50	19.47	19.30	19.35	20.8
20	16QAM	100	0	19.46	19.33	19.32	
20	64QAM	1	0	19.59	19.46	19.44	
20	64QAM	1	49	19.45	19.34	19.35	20.8
20	64QAM	1	99	19.56	19.42	19.36	
20	64QAM	50	0	19.54	19.31	19.38	
20	64QAM	50	24	19.52	19.33	19.35	20.8
20	64QAM	50	50	19.49	19.33	19.37	
20	64QAM	100	0	19.51	19.36	19.30	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	19.37	19.21	19.25	20.8
15	QPSK	1	37	19.24	19.07	19.14	
15	QPSK	1	74	19.32	19.18	19.15	
15	QPSK	36	0	19.46	19.28	19.33	20.8
15	QPSK	36	20	19.42	19.28	19.36	
15	QPSK	36	39	19.44	19.27	19.34	
15	QPSK	75	0	19.44	19.28	19.29	20.8
15	16QAM	1	0	19.65	19.51	19.59	
15	16QAM	1	37	19.55	19.40	19.47	
15	16QAM	1	74	19.67	19.47	19.44	20.8
15	16QAM	36	0	19.49	19.27	19.31	
15	16QAM	36	20	19.46	19.29	19.34	
15	16QAM	36	39	19.45	19.29	19.35	20.8
15	16QAM	75	0	19.46	19.31	19.31	
15	64QAM	1	0	19.55	19.39	19.41	
15	64QAM	1	37	19.54	19.35	19.41	20.8
15	64QAM	1	74	19.55	19.41	19.37	
15	64QAM	36	0	19.51	19.31	19.36	
15	64QAM	36	20	19.46	19.30	19.38	20.8
15	64QAM	36	39	19.47	19.30	19.38	
15	64QAM	75	0	19.48	19.31	19.29	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	19.39	19.20	19.28	20.8
10	QPSK	1	25	19.33	19.16	19.24	
10	QPSK	1	49	19.35	19.15	19.28	
10	QPSK	25	0	19.50	19.25	19.34	20.8
10	QPSK	25	12	19.52	19.34	19.36	
10	QPSK	25	25	19.47	19.31	19.39	
10	QPSK	50	0	19.51	19.30	19.34	20.8
10	16QAM	1	0	19.80	19.56	19.68	
10	16QAM	1	25	19.73	19.57	19.63	
10	16QAM	1	49	19.75	19.54	19.64	20.8
10	16QAM	25	0	19.52	19.23	19.34	
10	16QAM	25	12	19.53	19.34	19.36	
10	16QAM	25	25	19.48	19.27	19.40	20.8
10	16QAM	50	0	19.52	19.31	19.33	
10	64QAM	1	0	19.69	19.44	19.53	
10	64QAM	1	25	19.64	19.45	19.54	20.8
10	64QAM	1	49	19.61	19.45	19.52	
10	64QAM	25	0	19.51	19.28	19.34	
10	64QAM	25	12	19.55	19.33	19.38	20.8
10	64QAM	25	25	19.50	19.33	19.40	
10	64QAM	50	0	19.53	19.36	19.35	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	19.43	19.14	19.28	20.8
5	QPSK	1	12	19.44	19.24	19.30	
5	QPSK	1	24	19.38	19.20	19.26	
5	QPSK	12	0	19.54	19.27	19.39	20.8
5	QPSK	12	7	19.52	19.36	19.40	
5	QPSK	12	13	19.50	19.31	19.37	
5	QPSK	25	0	19.49	19.28	19.38	20.8
5	16QAM	1	0	19.74	19.50	19.64	
5	16QAM	1	12	19.78	19.55	19.60	
5	16QAM	1	24	19.72	19.54	19.61	20.8
5	16QAM	12	0	19.57	19.30	19.42	
5	16QAM	12	7	19.56	19.38	19.43	
5	16QAM	12	13	19.54	19.32	19.41	20.8
5	16QAM	25	0	19.50	19.34	19.41	
5	64QAM	1	0	19.68	19.42	19.54	
5	64QAM	1	12	19.68	19.46	19.50	20.8
5	64QAM	1	24	19.68	19.44	19.45	
5	64QAM	12	0	19.59	19.30	19.44	
5	64QAM	12	7	19.58	19.36	19.46	20.8
5	64QAM	12	13	19.54	19.36	19.44	
5	64QAM	25	0	19.51	19.29	19.38	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	19.41	19.25	19.27	20.8
3	QPSK	1	8	19.47	19.28	19.36	
3	QPSK	1	14	19.37	19.23	19.29	
3	QPSK	8	0	19.50	19.28	19.40	20.8
3	QPSK	8	4	19.50	19.35	19.40	
3	QPSK	8	7	19.51	19.28	19.37	
3	QPSK	15	0	19.52	19.32	19.37	20.8
3	16QAM	1	0	19.75	19.53	19.58	
3	16QAM	1	8	19.79	19.65	19.70	
3	16QAM	1	14	19.73	19.56	19.64	20.8
3	16QAM	8	0	19.60	19.35	19.44	
3	16QAM	8	4	19.60	19.37	19.47	
3	16QAM	8	7	19.54	19.36	19.39	20.8
3	16QAM	15	0	19.56	19.34	19.43	
3	64QAM	1	0	19.67	19.46	19.55	
3	64QAM	1	8	19.74	19.54	19.57	20.8
3	64QAM	1	14	19.68	19.47	19.48	
3	64QAM	8	0	19.55	19.36	19.45	
3	64QAM	8	4	19.59	19.37	19.47	20.8
3	64QAM	8	7	19.56	19.38	19.42	
3	64QAM	15	0	19.54	19.31	19.40	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.33	19.10	19.23	20.8
1.4	QPSK	1	3	19.39	19.21	19.29	
1.4	QPSK	1	5	19.32	19.14	19.22	
1.4	QPSK	3	0	19.37	19.15	19.24	20.8
1.4	QPSK	3	1	19.43	19.20	19.29	
1.4	QPSK	3	3	19.35	19.16	19.25	
1.4	QPSK	6	0	19.43	19.23	19.33	20.8
1.4	16QAM	1	0	19.66	19.47	19.58	
1.4	16QAM	1	3	19.73	19.51	19.64	
1.4	16QAM	1	5	19.65	19.48	19.57	20.8
1.4	16QAM	3	0	19.43	19.26	19.36	
1.4	16QAM	3	1	19.51	19.32	19.38	
1.4	16QAM	3	3	19.44	19.24	19.33	20.8
1.4	16QAM	6	0	19.52	19.34	19.41	
1.4	64QAM	1	0	19.61	19.38	19.47	
1.4	64QAM	1	3	19.66	19.46	19.51	20.8
1.4	64QAM	1	5	19.58	19.36	19.39	
1.4	64QAM	3	0	19.57	19.34	19.42	
1.4	64QAM	3	1	19.64	19.41	19.49	20.8
1.4	64QAM	3	3	19.57	19.35	19.43	
1.4	64QAM	6	0	19.47	19.24	19.33	

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133392	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.80	24.79	25.7
20	QPSK	1	49	24.76	24.75	24.73	
20	QPSK	1	99	24.77	24.73	24.69	
20	QPSK	50	0	23.92	23.86	23.86	24.7
20	QPSK	50	24	23.94	23.86	23.82	
20	QPSK	50	50	23.93	23.87	23.83	
20	QPSK	100	0	23.93	23.88	23.89	24.7
20	16QAM	1	0	24.24	24.15	24.14	
20	16QAM	1	49	24.11	24.13	24.05	
20	16QAM	1	99	24.11	24.06	24.02	23.7
20	16QAM	50	0	22.91	22.86	22.88	
20	16QAM	50	24	22.95	22.85	22.84	
20	16QAM	50	50	22.92	22.89	22.85	23.7
20	16QAM	100	0	22.94	22.87	22.90	
20	64QAM	1	0	22.19	22.67	23.00	
20	64QAM	1	49	22.74	22.99	22.35	22.7
20	64QAM	1	99	23.01	22.53	22.89	
20	64QAM	50	0	20.95	21.85	21.51	
20	64QAM	50	24	21.45	21.75	21.74	22.7
20	64QAM	50	50	21.93	21.54	21.87	
20	64QAM	100	0	21.53	21.86	21.91	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.90	24.81	24.78	25.7
15	QPSK	1	37	24.66	24.73	24.72	
15	QPSK	1	74	24.73	24.76	24.69	
15	QPSK	36	0	23.88	23.86	23.82	24.7
15	QPSK	36	20	23.93	23.85	23.92	
15	QPSK	36	39	23.92	23.88	23.86	
15	QPSK	75	0	23.92	23.85	23.80	24.7
15	16QAM	1	0	24.20	24.13	24.11	
15	16QAM	1	37	23.92	24.09	24.06	
15	16QAM	1	74	24.03	24.06	24.03	23.7
15	16QAM	36	0	22.78	22.88	22.84	
15	16QAM	36	20	22.88	22.94	22.89	
15	16QAM	36	39	22.94	22.89	22.86	23.7
15	16QAM	75	0	22.94	22.94	22.81	
15	64QAM	1	0	22.13	22.70	22.87	
15	64QAM	1	37	21.75	23.01	23.01	22.7
15	64QAM	1	74	22.94	22.62	22.95	
15	64QAM	36	0	20.83	21.90	21.52	
15	64QAM	36	20	20.86	21.78	21.93	22.7
15	64QAM	36	39	21.52	21.45	21.91	
15	64QAM	75	0	21.35	21.84	21.80	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.85	24.74	24.76	25.7
10	QPSK	1	25	24.67	24.71	24.67	
10	QPSK	1	49	24.70	24.74	24.64	
10	QPSK	25	0	23.91	23.81	23.77	24.7
10	QPSK	25	12	23.77	23.82	23.80	
10	QPSK	25	25	23.81	23.87	23.80	
10	QPSK	50	0	23.90	23.83	23.79	24.7
10	16QAM	1	0	24.23	24.11	24.15	
10	16QAM	1	25	24.03	24.10	24.08	
10	16QAM	1	49	24.06	24.04	24.01	23.7
10	16QAM	25	0	22.79	22.82	22.77	
10	16QAM	25	12	22.68	22.83	22.77	
10	16QAM	25	25	22.65	22.83	22.79	23.7
10	16QAM	50	0	22.87	22.81	22.77	
10	64QAM	1	0	21.83	22.98	23.02	
10	64QAM	1	25	21.90	23.04	23.03	22.7
10	64QAM	1	49	22.13	22.22	22.55	
10	64QAM	25	0	20.74	21.96	21.82	
10	64QAM	25	12	20.75	21.77	21.84	22.7
10	64QAM	25	25	20.68	21.35	21.71	
10	64QAM	50	0	20.81	21.58	21.83	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.81	24.80	24.80	25.7
5	QPSK	1	12	24.74	24.91	24.76	
5	QPSK	1	24	24.76	24.75	24.69	
5	QPSK	12	0	23.72	23.87	23.82	24.7
5	QPSK	12	7	23.78	23.89	23.84	
5	QPSK	12	13	23.78	23.85	23.77	
5	QPSK	25	0	23.79	23.82	23.77	24.7
5	16QAM	1	0	23.89	24.14	24.10	
5	16QAM	1	12	23.97	24.11	24.06	
5	16QAM	1	24	24.02	24.10	24.00	23.7
5	16QAM	12	0	22.63	22.91	22.87	
5	16QAM	12	7	22.74	22.93	22.87	
5	16QAM	12	13	22.80	22.86	22.79	23.7
5	16QAM	25	0	22.69	22.96	22.77	
5	64QAM	1	0	21.71	23.02	22.98	
5	64QAM	1	12	21.82	22.98	22.79	22.7
5	64QAM	1	24	22.00	22.67	22.32	
5	64QAM	12	0	20.78	21.93	21.87	
5	64QAM	12	7	20.91	21.86	21.89	22.7
5	64QAM	12	13	20.85	21.67	21.86	
5	64QAM	25	0	20.74	21.69	21.82	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.42	24.35	24.37	25.7
20	QPSK	1	49	24.33	24.30	24.24	
20	QPSK	1	99	24.32	24.35	24.36	
20	QPSK	50	0	23.41	23.38	23.37	24.7
20	QPSK	50	24	23.51	23.49	23.39	
20	QPSK	50	50	23.49	23.48	23.49	
20	QPSK	100	0	23.51	23.47	23.41	24.7
20	16QAM	1	0	23.68	23.69	23.72	
20	16QAM	1	49	23.67	23.64	23.54	
20	16QAM	1	99	23.64	23.64	23.65	23.7
20	16QAM	50	0	22.42	22.40	22.39	
20	16QAM	50	24	22.52	22.50	22.42	
20	16QAM	50	50	22.52	22.49	22.51	23.7
20	16QAM	100	0	22.49	22.48	22.39	
20	64QAM	1	0	22.60	22.52	22.56	
20	64QAM	1	49	22.54	22.50	21.66	22.7
20	64QAM	1	99	22.40	22.56	22.42	
20	64QAM	50	0	21.45	21.42	20.88	
20	64QAM	50	24	21.53	21.53	20.88	22.7
20	64QAM	50	50	21.44	21.50	21.23	
20	64QAM	100	0	21.52	21.51	21.07	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	24.34	24.35	24.36	25.7
15	QPSK	1	37	24.33	24.32	24.33	
15	QPSK	1	74	24.38	24.36	24.41	
15	QPSK	36	0	23.46	23.37	23.36	24.7
15	QPSK	36	20	23.49	23.48	23.39	
15	QPSK	36	39	23.47	23.48	23.49	
15	QPSK	75	0	23.48	23.47	23.41	24.7
15	16QAM	1	0	23.60	23.64	23.63	
15	16QAM	1	37	23.65	23.62	23.64	
15	16QAM	1	74	23.70	23.68	23.65	23.7
15	16QAM	36	0	22.47	22.39	22.35	
15	16QAM	36	20	22.48	22.49	22.40	
15	16QAM	36	39	22.48	22.49	22.49	23.7
15	16QAM	75	0	22.49	22.49	22.38	
15	64QAM	1	0	22.54	22.52	22.16	
15	64QAM	1	37	22.61	22.57	21.79	22.7
15	64QAM	1	74	22.50	22.59	22.54	
15	64QAM	36	0	21.50	21.41	20.76	
15	64QAM	36	20	21.53	21.51	21.04	22.7
15	64QAM	36	39	21.56	21.52	21.41	
15	64QAM	75	0	21.50	21.49	20.35	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	24.33	24.31	24.32	25.7
10	QPSK	1	25	24.25	24.27	24.27	
10	QPSK	1	49	24.32	24.35	24.34	
10	QPSK	25	0	23.44	23.36	23.33	24.7
10	QPSK	25	12	23.51	23.51	23.40	
10	QPSK	25	25	23.52	23.50	23.49	
10	QPSK	50	0	23.51	23.50	23.41	24.7
10	16QAM	1	0	23.71	23.64	23.65	
10	16QAM	1	25	23.71	23.69	23.69	
10	16QAM	1	49	23.73	23.72	23.73	23.7
10	16QAM	25	0	22.46	22.39	22.35	
10	16QAM	25	12	22.52	22.51	22.41	
10	16QAM	25	25	22.47	22.50	22.51	23.7
10	16QAM	50	0	22.50	22.49	22.40	
10	64QAM	1	0	22.61	22.52	21.90	
10	64QAM	1	25	22.59	22.62	22.41	22.7
10	64QAM	1	49	22.58	22.63	22.63	
10	64QAM	25	0	21.49	21.41	20.99	
10	64QAM	25	12	21.54	21.52	21.35	22.7
10	64QAM	25	25	21.54	21.53	21.44	
10	64QAM	50	0	21.54	21.52	21.12	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	24.25	24.25	24.28	25.7
5	QPSK	1	12	24.36	24.37	24.32	
5	QPSK	1	24	24.35	24.39	24.38	
5	QPSK	12	0	23.42	23.39	23.43	24.7
5	QPSK	12	7	23.47	23.48	23.48	
5	QPSK	12	13	23.48	23.45	23.48	
5	QPSK	25	0	23.45	23.43	23.44	24.7
5	16QAM	1	0	23.62	23.58	23.62	
5	16QAM	1	12	23.64	23.65	23.67	
5	16QAM	1	24	23.67	23.71	23.73	23.7
5	16QAM	12	0	22.47	22.42	22.46	
5	16QAM	12	7	22.50	22.53	22.50	
5	16QAM	12	13	22.49	22.51	22.52	23.7
5	16QAM	25	0	22.47	22.50	22.47	
5	64QAM	1	0	22.63	22.56	22.30	
5	64QAM	1	12	22.59	22.58	22.56	22.7
5	64QAM	1	24	22.60	22.64	22.60	
5	64QAM	12	0	21.52	21.47	21.51	
5	64QAM	12	7	21.57	21.57	21.56	22.7
5	64QAM	12	13	21.56	21.54	21.55	
5	64QAM	25	0	21.49	21.49	21.46	
Channel				18615	18900	19165	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	24.29	24.29	24.28	25.7
3	QPSK	1	8	24.39	24.38	24.39	
3	QPSK	1	14	24.33	24.35	24.35	
3	QPSK	8	0	23.41	23.47	23.42	24.7
3	QPSK	8	4	23.45	23.49	23.45	
3	QPSK	8	7	23.43	23.43	23.45	
3	QPSK	15	0	23.44	23.42	23.46	24.7
3	16QAM	1	0	23.64	23.63	23.63	
3	16QAM	1	8	23.69	23.71	23.70	
3	16QAM	1	14	23.68	23.71	23.67	23.7
3	16QAM	8	0	22.50	22.50	22.47	
3	16QAM	8	4	22.54	22.54	22.53	
3	16QAM	8	7	22.54	22.52	22.54	23.7
3	16QAM	15	0	22.50	22.49	22.45	
3	64QAM	1	0	22.54	22.58	22.57	
3	64QAM	1	8	22.62	22.65	22.66	22.7
3	64QAM	1	14	22.58	22.64	22.60	
3	64QAM	8	0	21.49	21.49	21.50	
3	64QAM	8	4	21.56	21.57	21.53	22.7
3	64QAM	8	7	21.50	21.53	21.52	
3	64QAM	15	0	21.48	21.48	21.50	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	24.28	24.26	24.25	25.7
1.4	QPSK	1	3	24.31	24.31	24.31	
1.4	QPSK	1	5	24.26	24.26	24.27	
1.4	QPSK	3	0	24.29	24.31	24.28	24.7
1.4	QPSK	3	1	24.33	24.35	24.33	
1.4	QPSK	3	3	24.28	24.32	24.29	
1.4	QPSK	6	0	23.37	23.38	23.38	24.7
1.4	16QAM	1	0	23.56	23.56	23.56	
1.4	16QAM	1	3	23.63	23.65	23.65	
1.4	16QAM	1	5	23.58	23.59	23.57	23.7
1.4	16QAM	3	0	23.36	23.39	23.34	
1.4	16QAM	3	1	23.42	23.43	23.40	
1.4	16QAM	3	3	23.34	23.38	23.32	23.7
1.4	16QAM	6	0	22.45	22.46	22.45	
1.4	64QAM	1	0	22.51	22.52	22.48	
1.4	64QAM	1	3	22.56	22.59	22.59	23.7
1.4	64QAM	1	5	22.50	22.53	22.49	
1.4	64QAM	3	0	22.48	22.48	22.48	
1.4	64QAM	3	1	22.62	22.54	22.52	22.7
1.4	64QAM	3	3	22.50	22.50	22.46	
1.4	64QAM	6	0	21.39	21.40	21.39	

Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	25.7
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.85	24.88	24.84	25.7
20	QPSK	1	49	24.70	24.68	24.64	
20	QPSK	1	99	24.73	24.67	24.66	
20	QPSK	50	0	23.89	23.88	23.86	24.7
20	QPSK	50	24	23.91	23.90	23.79	
20	QPSK	50	50	23.86	23.82	23.80	
20	QPSK	100	0	23.86	23.95	23.78	24.7
20	16QAM	1	0	24.17	24.19	24.16	
20	16QAM	1	49	24.03	24.03	24.02	
20	16QAM	1	99	24.08	23.99	23.94	23.7
20	16QAM	50	0	22.88	22.89	22.87	
20	16QAM	50	24	22.92	22.90	22.80	
20	16QAM	50	50	22.86	22.83	22.78	23.7
20	16QAM	100	0	22.89	22.94	22.76	
20	64QAM	1	0	22.84	23.06	22.68	23.7
20	64QAM	1	49	22.93	22.88	22.85	
20	64QAM	1	99	22.97	22.56	22.94	
20	64QAM	50	0	21.89	21.91	21.60	22.7
20	64QAM	50	24	21.93	21.94	21.80	
20	64QAM	50	50	21.87	21.62	21.82	
20	64QAM	100	0	21.95	21.91	21.81	Tune-up limit (dBm)
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	25.7
15	QPSK	1	0	24.84	24.87	24.84	
15	QPSK	1	37	24.69	24.68	24.67	24.7
15	QPSK	1	74	24.75	24.70	24.66	
15	QPSK	36	0	23.92	23.86	23.82	
15	QPSK	36	20	23.89	23.89	23.78	24.7
15	QPSK	36	39	23.85	23.86	23.81	
15	QPSK	75	0	23.90	23.92	23.78	
15	16QAM	1	0	24.14	24.16	24.15	24.7
15	16QAM	1	37	23.98	24.04	24.01	
15	16QAM	1	74	24.06	24.00	23.93	
15	16QAM	36	0	22.93	22.88	22.85	23.7
15	16QAM	36	20	22.88	22.87	22.78	
15	16QAM	36	39	22.85	22.83	22.80	
15	16QAM	75	0	22.90	22.92	22.79	23.7
15	64QAM	1	0	22.87	23.04	22.82	
15	64QAM	1	37	22.98	22.95	22.96	
15	64QAM	1	74	22.95	22.70	22.88	22.7
15	64QAM	36	0	21.93	21.94	21.86	
15	64QAM	36	20	21.90	21.96	21.80	
15	64QAM	36	39	21.88	21.61	21.82	Tune-up limit (dBm)
15	64QAM	75	0	21.90	21.92	21.79	
Channel				20000	20175	20350	25.7
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.77	24.77	24.71	25.7
10	QPSK	1	25	24.71	24.71	24.66	
10	QPSK	1	49	24.77	24.75	24.70	
10	QPSK	25	0	23.82	23.82	23.74	24.7
10	QPSK	25	12	23.88	23.91	23.77	
10	QPSK	25	25	23.88	23.91	23.85	
10	QPSK	50	0	23.87	23.90	23.77	24.7
10	16QAM	1	0	24.11	24.13	24.10	
10	16QAM	1	25	24.10	24.14	24.06	
10	16QAM	1	49	24.13	24.09	24.11	23.7
10	16QAM	25	0	22.85	22.82	22.77	
10	16QAM	25	12	22.88	22.89	22.78	
10	16QAM	25	25	22.90	22.90	22.86	23.7
10	16QAM	50	0	22.87	22.89	22.78	
10	64QAM	1	0	22.73	23.00	22.94	
10	64QAM	1	25	23.03	23.04	22.98	22.7
10	64QAM	1	49	23.05	22.96	22.96	
10	64QAM	25	0	21.88	21.80	21.78	
10	64QAM	25	12	21.91	21.97	21.81	22.7
10	64QAM	25	25	21.90	21.68	21.87	
10	64QAM	50	0	21.93	21.90	21.84	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.77	24.68	24.72	25.7
5	QPSK	1	12	24.82	24.86	24.73	
5	QPSK	1	24	24.82	24.80	24.73	
5	QPSK	12	0	23.83	23.83	23.78	24.7
5	QPSK	12	7	23.88	23.86	23.83	
5	QPSK	12	13	23.89	23.87	23.80	
5	QPSK	25	0	23.85	23.88	23.78	24.7
5	16QAM	1	0	24.08	24.07	24.06	
5	16QAM	1	12	24.14	24.12	24.07	
5	16QAM	1	24	24.13	24.15	24.05	23.7
5	16QAM	12	0	22.89	22.83	22.83	
5	16QAM	12	7	22.93	22.91	22.83	
5	16QAM	12	13	22.92	22.90	22.84	23.7
5	16QAM	25	0	22.88	22.86	22.83	
5	64QAM	1	0	22.75	22.99	23.04	
5	64QAM	1	12	23.01	23.05	22.98	23.7
5	64QAM	1	24	23.12	22.67	22.97	
5	64QAM	12	0	21.75	21.85	21.87	
5	64QAM	12	7	21.96	21.97	21.89	22.7
5	64QAM	12	13	21.93	21.70	21.88	
5	64QAM	25	0	21.90	21.93	21.82	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.77	24.71	24.70	25.7
3	QPSK	1	8	24.85	24.87	24.79	
3	QPSK	1	14	24.83	24.82	24.71	
3	QPSK	8	0	23.87	23.78	23.81	24.7
3	QPSK	8	4	23.89	23.86	23.83	
3	QPSK	8	7	23.90	23.87	23.79	
3	QPSK	15	0	23.84	23.87	23.81	24.7
3	16QAM	1	0	24.12	24.04	24.03	
3	16QAM	1	8	24.16	24.16	24.10	
3	16QAM	1	14	24.12	24.12	24.07	23.7
3	16QAM	8	0	22.90	22.86	22.85	
3	16QAM	8	4	22.95	22.96	22.86	
3	16QAM	8	7	22.92	22.96	22.84	23.7
3	16QAM	15	0	22.88	22.88	22.83	
3	64QAM	1	0	22.77	23.01	22.96	
3	64QAM	1	8	22.97	23.14	23.06	23.7
3	64QAM	1	14	23.04	22.89	23.01	
3	64QAM	8	0	21.71	21.94	21.86	
3	64QAM	8	4	21.86	21.94	21.91	22.7
3	64QAM	8	7	21.92	21.92	21.87	
3	64QAM	15	0	21.82	21.91	21.84	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.70	24.68	24.60	25.7
1.4	QPSK	1	3	24.79	24.70	24.70	
1.4	QPSK	1	5	24.75	24.72	24.61	
1.4	QPSK	3	0	24.73	24.72	24.66	24.7
1.4	QPSK	3	1	24.77	24.79	24.70	
1.4	QPSK	3	3	24.72	24.74	24.67	
1.4	QPSK	6	0	23.81	23.77	23.73	24.7
1.4	16QAM	1	0	24.02	24.05	23.94	
1.4	16QAM	1	3	24.15	24.13	24.03	
1.4	16QAM	1	5	24.08	24.05	23.99	24.7
1.4	16QAM	3	0	23.91	23.82	23.77	
1.4	16QAM	3	1	23.90	23.89	23.82	
1.4	16QAM	3	3	23.82	23.82	23.74	23.7
1.4	16QAM	6	0	22.86	22.87	22.77	
1.4	64QAM	1	0	22.67	23.00	22.90	
1.4	64QAM	1	3	22.77	23.06	22.97	23.7
1.4	64QAM	1	5	22.74	22.97	22.90	
1.4	64QAM	3	0	22.72	22.94	22.87	
1.4	64QAM	3	1	22.85	22.97	22.95	22.7
1.4	64QAM	3	3	22.78	22.93	22.89	
1.4	64QAM	6	0	21.63	21.80	21.73	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.41	24.40	24.44	25.7
10	QPSK	1	25	24.38	24.43	24.44	
10	QPSK	1	49	24.42	24.55	24.35	
10	QPSK	25	0	23.48	23.56	23.53	24.7
10	QPSK	25	12	23.58	23.55	23.56	
10	QPSK	25	25	23.52	23.59	23.53	
10	QPSK	50	0	23.59	23.53	23.57	24.7
10	16QAM	1	0	23.82	23.81	23.85	
10	16QAM	1	25	23.78	23.82	23.83	
10	16QAM	1	49	23.82	23.89	23.77	23.7
10	16QAM	25	0	22.45	22.58	22.36	
10	16QAM	25	12	22.58	22.57	22.54	
10	16QAM	25	25	22.54	22.58	22.62	23.7
10	16QAM	50	0	22.57	22.55	22.54	
10	64QAM	1	0	22.65	22.63	22.63	23.7
10	64QAM	1	25	22.70	22.73	22.76	
10	64QAM	1	49	22.73	22.41	21.71	
10	64QAM	25	0	21.51	21.58	21.58	22.7
10	64QAM	25	12	21.61	21.62	21.60	
10	64QAM	25	25	21.58	21.60	20.89	
10	64QAM	50	0	21.58	21.59	21.25	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.51	24.52	24.54	25.7
5	QPSK	1	12	24.48	24.49	24.28	
5	QPSK	1	24	24.40	24.49	24.24	
5	QPSK	12	0	23.58	23.61	23.59	24.7
5	QPSK	12	7	23.52	23.62	23.34	
5	QPSK	12	13	23.51	23.57	23.18	
5	QPSK	25	0	23.52	23.55	23.51	24.7
5	16QAM	1	0	23.65	23.82	23.82	
5	16QAM	1	12	23.74	23.82	23.56	
5	16QAM	1	24	23.75	23.83	23.47	23.7
5	16QAM	12	0	22.63	22.57	22.58	
5	16QAM	12	7	22.58	22.63	22.50	
5	16QAM	12	13	22.51	22.58	22.28	23.7
5	16QAM	25	0	22.56	22.59	22.53	
5	64QAM	1	0	22.73	22.77	22.54	
5	64QAM	1	12	22.67	22.75	21.78	22.7
5	64QAM	1	24	22.72	22.60	21.72	
5	64QAM	12	0	21.65	21.66	21.27	
5	64QAM	12	7	21.60	21.67	20.70	Tune-up limit (dBm)
5	64QAM	12	13	21.56	21.62	20.71	
5	64QAM	25	0	21.57	21.60	20.76	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.49	24.48	24.23	25.7
3	QPSK	1	8	24.49	24.54	24.02	
3	QPSK	1	14	24.37	24.47	24.11	
3	QPSK	8	0	23.57	23.57	23.09	24.7
3	QPSK	8	4	23.54	23.61	23.10	
3	QPSK	8	7	23.52	23.59	23.20	
3	QPSK	15	0	23.55	23.52	23.12	24.7
3	16QAM	1	0	23.83	23.78	23.67	
3	16QAM	1	8	23.84	23.87	23.36	
3	16QAM	1	14	23.69	23.79	23.45	23.7
3	16QAM	8	0	22.63	22.62	22.29	
3	16QAM	8	4	22.62	22.72	22.20	
3	16QAM	8	7	22.59	22.66	22.28	23.7
3	16QAM	15	0	22.59	22.59	22.22	
3	64QAM	1	0	22.67	22.74	21.70	
3	64QAM	1	8	22.75	22.77	21.71	22.7
3	64QAM	1	14	22.70	22.52	21.70	
3	64QAM	8	0	21.64	21.62	20.70	
3	64QAM	8	4	21.64	21.65	20.70	Tune-up limit (dBm)
3	64QAM	8	7	21.55	21.64	20.72	
3	64QAM	15	0	21.59	21.62	20.73	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.37	24.39	23.99	25.7
1.4	QPSK	1	3	24.41	24.47	24.17	
1.4	QPSK	1	5	24.32	24.38	24.10	
1.4	QPSK	3	0	24.40	24.41	24.09	24.7
1.4	QPSK	3	1	24.44	24.44	24.15	
1.4	QPSK	3	3	24.39	24.46	24.35	
1.4	QPSK	6	0	23.49	23.54	23.21	24.7
1.4	16QAM	1	0	23.68	23.74	23.32	
1.4	16QAM	1	3	23.72	23.82	23.53	
1.4	16QAM	1	5	23.66	23.76	23.55	23.7
1.4	16QAM	3	0	23.52	23.50	23.10	
1.4	16QAM	3	1	23.56	23.55	23.27	
1.4	16QAM	3	3	23.46	23.52	23.44	23.7
1.4	16QAM	6	0	22.54	22.61	22.31	
1.4	64QAM	1	0	22.62	22.64	21.70	
1.4	64QAM	1	3	22.70	22.73	21.71	23.7
1.4	64QAM	1	5	22.61	22.63	21.70	
1.4	64QAM	3	0	22.62	22.61	21.72	
1.4	64QAM	3	1	22.64	22.65	21.74	22.7
1.4	64QAM	3	3	22.58	22.63	21.73	
1.4	64QAM	6	0	21.49	21.54	20.71	

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	25.7
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	24.80	24.77	24.61	25.7
20	QPSK	1	49	24.86	24.80	24.60	
20	QPSK	1	99	24.98	24.85	24.60	
20	QPSK	50	0	24.01	23.87	23.77	24.7
20	QPSK	50	24	24.04	23.86	23.76	
20	QPSK	50	50	24.03	23.91	23.77	
20	QPSK	100	0	24.04	23.88	23.78	24.7
20	16QAM	1	0	24.13	24.07	23.98	
20	16QAM	1	49	24.21	24.12	23.97	
20	16QAM	1	99	24.29	24.24	23.98	23.7
20	16QAM	50	0	23.00	22.87	22.78	
20	16QAM	50	24	23.03	22.90	22.80	
20	16QAM	50	50	23.05	22.93	22.78	23.7
20	16QAM	100	0	23.01	22.86	22.77	
20	64QAM	1	0	22.96	22.93	22.87	
20	64QAM	1	49	23.07	23.04	22.32	22.7
20	64QAM	1	99	23.12	23.04	22.71	
20	64QAM	50	0	22.02	21.89	21.59	
20	64QAM	50	24	22.07	21.92	21.53	22.7
20	64QAM	50	50	22.09	21.93	21.73	
20	64QAM	100	0	22.05	21.92	21.62	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	24.83	24.76	24.65	25.7
15	QPSK	1	37	24.87	24.79	24.59	
15	QPSK	1	74	24.97	24.87	24.68	
15	QPSK	36	0	23.95	23.84	23.77	24.7
15	QPSK	36	20	24.04	23.90	23.78	
15	QPSK	36	39	24.06	23.91	23.76	
15	QPSK	75	0	24.03	23.89	23.75	24.7
15	16QAM	1	0	24.16	24.11	23.96	
15	16QAM	1	37	24.20	24.19	23.93	
15	16QAM	1	74	24.28	24.22	23.98	23.7
15	16QAM	36	0	22.92	22.84	22.75	
15	16QAM	36	20	23.04	22.88	22.77	
15	16QAM	36	39	23.03	22.91	22.74	23.7
15	16QAM	75	0	23.03	22.91	22.76	
15	64QAM	1	0	23.05	22.95	22.86	
15	64QAM	1	37	23.11	23.07	22.39	22.7
15	64QAM	1	74	23.18	23.03	22.87	
15	64QAM	36	0	21.96	21.89	21.46	
15	64QAM	36	20	22.07	21.93	21.62	22.7
15	64QAM	36	39	22.09	21.98	21.63	
15	64QAM	75	0	22.05	21.89	21.59	
Channel				20900	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	24.79	24.70	24.53	25.7
10	QPSK	1	25	24.77	24.71	24.50	
10	QPSK	1	49	24.86	24.77	24.53	
10	QPSK	25	0	23.94	23.82	23.66	24.7
10	QPSK	25	12	24.00	23.96	23.71	
10	QPSK	25	25	23.99	23.86	23.69	
10	QPSK	50	0	23.98	23.85	23.68	24.7
10	16QAM	1	0	24.17	24.09	23.89	
10	16QAM	1	25	24.15	24.11	23.88	
10	16QAM	1	49	24.24	24.17	23.95	23.7
10	16QAM	25	0	22.86	22.79	22.64	
10	16QAM	25	12	23.02	22.85	22.68	
10	16QAM	25	25	22.98	22.84	22.67	23.7
10	16QAM	50	0	22.98	22.84	22.68	
10	64QAM	1	0	23.07	22.98	22.61	
10	64QAM	1	25	23.10	23.06	22.80	22.7
10	64QAM	1	49	23.15	23.01	22.82	
10	64QAM	25	0	21.99	21.85	21.58	
10	64QAM	25	12	22.03	21.90	21.74	22.7
10	64QAM	25	25	22.05	21.89	21.70	
10	64QAM	50	0	22.01	21.87	21.64	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	24.85	24.72	24.54	25.7
5	QPSK	1	12	24.89	24.81	24.58	
5	QPSK	1	24	24.87	24.82	24.56	
5	QPSK	12	0	23.96	23.85	23.64	24.7
5	QPSK	12	7	23.97	23.92	23.64	
5	QPSK	12	13	23.99	23.96	23.65	
5	QPSK	25	0	23.97	23.85	23.66	24.7
5	16QAM	1	0	24.17	24.05	23.85	
5	16QAM	1	12	24.19	24.10	23.86	
5	16QAM	1	24	24.23	24.15	23.91	23.7
5	16QAM	12	0	23.02	22.90	22.70	
5	16QAM	12	7	23.01	22.91	22.71	
5	16QAM	12	13	23.04	22.96	22.67	23.7
5	16QAM	25	0	23.00	22.86	22.67	
5	64QAM	1	0	23.12	23.03	22.77	
5	64QAM	1	12	23.13	23.03	22.78	22.7
5	64QAM	1	24	23.17	23.09	22.81	
5	64QAM	12	0	22.06	21.90	21.75	
5	64QAM	12	7	22.05	21.98	21.73	22.7
5	64QAM	12	13	22.05	21.96	21.73	
5	64QAM	25	0	22.00	21.89	21.68	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
10	QPSK	1	0	24.72	24.52	24.58	25.7
10	QPSK	1	25	24.54	24.54	24.54	
10	QPSK	1	49	24.66	24.60	24.55	
10	QPSK	25	0	23.67	23.66	23.64	24.7
10	QPSK	25	12	23.75	23.69	23.73	
10	QPSK	25	25	23.73	23.72	23.71	
10	QPSK	50	0	23.76	23.65	23.73	24.7
10	16QAM	1	0	23.97	23.90	23.96	
10	16QAM	1	25	23.96	23.95	23.92	
10	16QAM	1	49	24.02	23.85	23.93	23.7
10	16QAM	25	0	22.67	22.66	22.67	
10	16QAM	25	12	22.76	22.67	22.73	
10	16QAM	25	25	22.69	22.69	22.70	23.7
10	16QAM	50	0	22.76	22.67	22.72	
10	64QAM	1	0	22.79	22.73	22.81	23.7
10	64QAM	1	25	22.86	22.84	22.57	
10	64QAM	1	49	22.94	22.87	22.87	
10	64QAM	25	0	21.72	21.70	21.58	22.7
10	64QAM	25	12	21.80	21.73	21.75	
10	64QAM	25	25	21.75	21.75	21.73	
10	64QAM	50	0	21.78	21.70	21.76	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.61	24.59	24.54	
5	QPSK	1	12	24.62	24.67	24.59	25.7
5	QPSK	1	24	24.61	24.61	24.56	
5	QPSK	12	0	23.73	23.70	23.65	24.7
5	QPSK	12	7	23.73	23.67	23.67	
5	QPSK	12	13	23.67	23.67	23.64	
5	QPSK	25	0	23.71	23.66	23.59	24.7
5	16QAM	1	0	23.96	23.94	23.86	
5	16QAM	1	12	23.93	23.92	23.89	
5	16QAM	1	24	23.94	23.97	23.90	23.7
5	16QAM	12	0	22.76	22.74	22.68	
5	16QAM	12	7	22.76	22.69	22.72	
5	16QAM	12	13	22.71	22.71	22.65	23.7
5	16QAM	25	0	22.74	22.67	22.65	
5	64QAM	1	0	22.74	22.61	22.81	
5	64QAM	1	12	22.84	22.84	22.81	22.7
5	64QAM	1	24	22.76	22.88	22.80	
5	64QAM	12	0	21.80	21.77	21.72	
5	64QAM	12	7	21.76	21.73	21.76	22.7
5	64QAM	12	13	21.77	21.76	21.70	
5	64QAM	25	0	21.74	21.72	21.66	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.71	24.62	24.60	25.7
3	QPSK	1	8	24.66	24.70	24.64	
3	QPSK	1	14	24.62	24.62	24.57	
3	QPSK	8	0	23.74	23.65	23.62	24.7
3	QPSK	8	4	23.72	23.72	23.67	
3	QPSK	8	7	23.70	23.70	23.63	
3	QPSK	15	0	23.73	23.67	23.61	24.7
3	16QAM	1	0	24.04	23.94	23.90	
3	16QAM	1	8	23.97	24.01	23.96	
3	16QAM	1	14	23.93	23.97	23.86	23.7
3	16QAM	8	0	22.80	22.74	22.67	
3	16QAM	8	4	22.80	22.80	22.71	
3	16QAM	8	7	22.75	22.73	22.69	23.7
3	16QAM	15	0	22.76	22.67	22.62	
3	64QAM	1	0	22.82	22.76	22.81	
3	64QAM	1	8	22.96	22.93	22.87	23.7
3	64QAM	1	14	22.88	22.86	22.77	
3	64QAM	8	0	21.80	21.75	21.69	
3	64QAM	8	4	21.80	21.83	21.75	22.7
3	64QAM	8	7	21.73	21.74	21.69	
3	64QAM	15	0	21.77	21.69	21.62	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.60	24.53	24.49	25.7
1.4	QPSK	1	3	24.60	24.60	24.53	
1.4	QPSK	1	5	24.52	24.52	24.43	
1.4	QPSK	3	0	24.62	24.51	24.50	24.7
1.4	QPSK	3	1	24.67	24.55	24.54	
1.4	QPSK	3	3	24.58	24.57	24.47	
1.4	QPSK	6	0	23.67	23.59	23.54	24.7
1.4	16QAM	1	0	23.92	23.85	23.83	
1.4	16QAM	1	3	23.95	23.93	23.88	
1.4	16QAM	1	5	23.86	23.90	23.76	24.7
1.4	16QAM	3	0	23.68	23.62	23.59	
1.4	16QAM	3	1	23.74	23.64	23.63	
1.4	16QAM	3	3	23.65	23.61	23.55	23.7
1.4	16QAM	6	0	22.72	22.65	22.62	
1.4	64QAM	1	0	22.82	22.78	22.75	
1.4	64QAM	1	3	22.88	22.84	22.78	23.7
1.4	64QAM	1	5	22.78	22.77	22.70	
1.4	64QAM	3	0	22.79	22.74	22.74	
1.4	64QAM	3	1	22.83	22.77	22.73	22.7
1.4	64QAM	3	3	22.76	22.76	22.67	
1.4	64QAM	6	0	21.67	21.60	21.59	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				2320			Tune-up limit (dbm)
Frequency (MHz)				762			
10	QPSK	1	0	23.87			25.2
10	QPSK	1	25	23.85			
10	QPSK	1	49	23.99			
10	QPSK	25	0	22.99			24.2
10	QPSK	25	12	23.00			
10	QPSK	25	25	22.99			
10	QPSK	50	0	23.06			24.2
10	16QAM	1	0	23.19			
10	16QAM	1	25	23.20			
10	16QAM	1	49	23.18			23.2
10	16QAM	25	0	21.95			
10	16QAM	25	12	22.01			
10	16QAM	25	25	21.98			23.2
10	16QAM	50	0	21.97			
10	64QAM	1	0	22.04			
10	64QAM	1	25	22.13			23.2
10	64QAM	1	49	22.10			
10	64QAM	25	0	21.01			
10	64QAM	25	12	21.06			22.2
10	64QAM	25	25	21.02			
10	64QAM	50	0	21.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.78	23.84	23.88	25.2
5	QPSK	1	12	23.88	23.90	23.85	
5	QPSK	1	24	23.88	23.86	23.94	
5	QPSK	12	0	22.94	22.96	22.95	24.2
5	QPSK	12	7	22.99	22.95	22.90	
5	QPSK	12	13	23.00	23.01	22.95	
5	QPSK	25	0	22.99	22.97	22.92	24.2
5	16QAM	1	0	23.08	23.13	23.15	
5	16QAM	1	12	23.15	23.15	23.11	
5	16QAM	1	24	23.22	23.16	23.09	23.2
5	16QAM	12	0	22.02	21.99	21.98	
5	16QAM	12	7	22.05	21.97	21.96	
5	16QAM	12	13	22.02	22.02	22.00	23.2
5	16QAM	25	0	22.05	21.97	21.96	
5	64QAM	1	0	22.00	22.15	22.04	
5	64QAM	1	12	22.13	22.13	22.11	22.2
5	64QAM	1	24	22.13	22.13	22.03	
5	64QAM	12	0	21.10	21.04	21.04	
5	64QAM	12	7	21.07	21.03	20.96	22.2
5	64QAM	12	13	21.04	21.05	21.00	
5	64QAM	25	0	21.04	21.03	20.94	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0		24.43		25.7
10	QPSK	1	25		24.53		
10	QPSK	1	49		24.34		
10	QPSK	25	0		23.49		24.7
10	QPSK	25	12		23.47		
10	QPSK	25	25		23.50		
10	QPSK	50	0		23.44		
10	16QAM	1	0		23.82		24.7
10	16QAM	1	25		23.82		
10	16QAM	1	49		23.73		
10	16QAM	25	0		22.48		23.7
10	16QAM	25	12		22.48		
10	16QAM	25	25		22.49		
10	16QAM	50	0		22.45		
10	64QAM	1	0		22.73		23.7
10	64QAM	1	25		22.59		
10	64QAM	1	49		22.62		
10	64QAM	25	0		21.51		22.7
10	64QAM	25	12		21.27		
10	64QAM	25	25		21.52		
10	64QAM	50	0		21.49		
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.43	24.39	24.40	25.7
5	QPSK	1	12	24.49	24.50	24.44	
5	QPSK	1	24	24.49	24.41	24.36	
5	QPSK	12	0	23.50	23.48	23.45	24.7
5	QPSK	12	7	23.55	23.54	23.49	
5	QPSK	12	13	23.53	23.50	23.47	
5	QPSK	25	0	23.54	23.48	23.41	
5	16QAM	1	0	23.75	23.73	23.70	24.7
5	16QAM	1	12	23.62	23.60	23.77	
5	16QAM	1	24	23.77	23.76	23.71	
5	16QAM	12	0	22.50	22.53	22.49	
5	16QAM	12	7	22.59	22.55	22.50	23.7
5	16QAM	12	13	22.55	22.53	22.48	
5	16QAM	25	0	22.54	22.50	22.44	
5	64QAM	1	0	22.75	22.62	22.51	23.7
5	64QAM	1	12	22.74	22.25	22.55	
5	64QAM	1	24	22.30	22.27	22.69	
5	64QAM	12	0	21.56	21.32	21.21	
5	64QAM	12	7	21.64	21.19	21.52	22.7
5	64QAM	12	13	21.37	21.21	21.58	
5	64QAM	25	0	21.58	21.15	21.45	



Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.61	24.54	24.55	25.7
10	QPSK	1	25	24.60	24.59	24.56	
10	QPSK	1	49	24.60	24.70	24.58	
10	QPSK	25	0	23.62	23.62	23.61	24.7
10	QPSK	25	12	23.75	23.96	23.66	
10	QPSK	25	25	23.75	23.75	23.74	
10	QPSK	50	0	23.75	23.66	23.64	
10	16QAM	1	0	23.95	23.94	23.91	24.7
10	16QAM	1	25	23.98	23.99	23.99	
10	16QAM	1	49	23.99	23.99	23.97	
10	16QAM	25	0	22.64	22.61	22.63	23.7
10	16QAM	25	12	22.75	22.70	22.67	
10	16QAM	25	25	22.72	22.75	22.71	
10	16QAM	50	0	22.73	22.66	22.65	
10	64QAM	1	0	22.86	22.80	22.81	23.7
10	64QAM	1	25	22.91	22.90	22.74	
10	64QAM	1	49	22.90	22.89	22.81	
10	64QAM	25	0	21.66	21.67	21.66	22.7
10	64QAM	25	12	21.80	21.74	21.72	
10	64QAM	25	25	21.79	21.78	21.75	
10	64QAM	50	0	21.78	21.71	21.69	
Channel				23785	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.54	24.58	24.56	25.7
5	QPSK	1	12	24.64	24.69	24.64	
5	QPSK	1	24	24.67	24.67	24.64	
5	QPSK	12	0	23.67	23.67	23.64	24.7
5	QPSK	12	7	23.71	23.73	23.71	
5	QPSK	12	13	23.74	23.74	23.69	
5	QPSK	25	0	23.74	23.69	23.67	
5	16QAM	1	0	23.90	23.89	23.87	24.7
5	16QAM	1	12	23.94	23.97	23.90	
5	16QAM	1	24	23.98	23.99	23.93	
5	16QAM	12	0	22.69	22.69	22.69	23.7
5	16QAM	12	7	22.72	22.71	22.70	
5	16QAM	12	13	22.76	22.74	22.68	
5	16QAM	25	0	22.73	22.71	22.72	23.7
5	64QAM	1	0	22.67	22.59	22.83	
5	64QAM	1	12	22.86	22.77	22.82	
5	64QAM	1	24	22.88	22.84	22.82	
5	64QAM	12	0	21.74	21.71	21.70	22.7
5	64QAM	12	7	21.78	21.76	21.76	
5	64QAM	12	13	21.78	21.82	21.74	
5	64QAM	25	0	21.74	21.70	21.72	



Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / 1800	Power Middle Ch. / 1800	Power High Ch. / 1800	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	24.48	24.39	24.25	25.7
20	QPSK	1	49	24.31	24.32	24.26	
20	QPSK	1	99	24.35	24.32	24.04	
20	QPSK	50	0	23.46	23.45	23.35	24.7
20	QPSK	50	24	23.54	23.52	23.39	
20	QPSK	50	50	23.49	23.50	23.44	
20	QPSK	100	0	23.55	23.52	23.38	
20	16QAM	1	0	23.70	23.72	23.63	24.7
20	16QAM	1	49	23.71	23.70	23.59	
20	16QAM	1	99	23.64	23.73	23.41	
20	16QAM	50	0	22.47	22.47	22.38	23.7
20	16QAM	50	24	22.55	22.54	22.38	
20	16QAM	50	50	22.51	22.52	22.46	
20	16QAM	100	0	22.52	22.53	22.36	
20	64QAM	1	0	22.56	22.54	22.24	23.7
20	64QAM	1	49	22.60	22.52	22.06	
20	64QAM	1	99	22.17	22.53	21.71	
20	64QAM	50	0	21.51	21.46	20.89	22.7
20	64QAM	50	24	21.59	21.57	21.22	
20	64QAM	50	50	21.37	21.54	21.24	
20	64QAM	100	0	21.53	21.57	20.88	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	24.39	24.41	24.28	25.7
15	QPSK	1	37	24.36	24.37	24.28	
15	QPSK	1	74	24.36	24.41	24.14	
15	QPSK	36	0	23.55	23.49	23.34	24.7
15	QPSK	36	20	23.54	23.55	23.46	
15	QPSK	36	39	23.47	23.49	23.43	
15	QPSK	75	0	23.52	23.52	23.43	24.7
15	16QAM	1	0	23.64	23.70	23.60	
15	16QAM	1	37	23.67	23.65	23.58	
15	16QAM	1	74	23.67	23.70	23.51	
15	16QAM	36	0	22.56	22.47	22.38	23.7
15	16QAM	36	20	22.53	22.55	22.44	
15	16QAM	36	39	22.48	22.51	22.43	
15	16QAM	75	0	22.52	22.53	22.46	23.7
15	64QAM	1	0	22.56	22.57	21.90	
15	64QAM	1	37	22.59	22.64	22.50	
15	64QAM	1	74	22.48	22.62	21.72	
15	64QAM	36	0	21.58	21.51	21.22	22.7
15	64QAM	36	20	21.61	21.57	21.48	
15	64QAM	36	39	21.55	21.55	21.22	
15	64QAM	75	0	21.55	21.54	21.02	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	24.35	24.37	24.23	25.7
10	QPSK	1	25	24.31	24.32	24.27	
10	QPSK	1	49	24.40	24.39	24.06	
10	QPSK	25	0	23.44	23.46	23.31	24.7
10	QPSK	25	12	23.49	23.48	23.43	
10	QPSK	25	25	23.49	23.49	23.47	
10	QPSK	50	0	23.49	23.49	23.35	
10	16QAM	1	0	23.72	23.74	23.61	24.7
10	16QAM	1	25	23.73	23.73	23.67	
10	16QAM	1	49	23.76	23.78	23.51	
10	16QAM	25	0	22.47	22.49	22.34	23.7
10	16QAM	25	12	22.52	22.50	22.42	
10	16QAM	25	25	22.44	22.51	22.47	
10	16QAM	50	0	22.49	22.51	22.32	
10	64QAM	1	0	22.65	22.56	22.44	23.7
10	64QAM	1	25	22.65	22.65	22.56	
10	64QAM	1	49	22.68	22.66	21.72	
10	64QAM	25	0	21.48	21.51	21.34	22.7
10	64QAM	25	12	21.55	21.55	21.47	
10	64QAM	25	25	21.51	21.53	20.98	
10	64QAM	50	0	21.49	21.54	21.06	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	24.38	24.31	24.25	25.7
5	QPSK	1	12	24.39	24.39	24.35	
5	QPSK	1	24	24.41	24.41	23.96	
5	QPSK	12	0	23.42	23.44	23.32	24.7
5	QPSK	12	7	23.46	23.51	23.42	
5	QPSK	12	13	23.52	23.54	23.20	
5	QPSK	25	0	23.47	23.45	23.40	
5	16QAM	1	0	23.72	23.65	23.64	24.7
5	16QAM	1	12	23.68	23.72	23.58	
5	16QAM	1	24	23.71	23.73	23.37	
5	16QAM	12	0	22.45	22.46	22.33	23.7
5	16QAM	12	7	22.51	22.52	22.43	
5	16QAM	12	13	22.52	22.53	22.40	
5	16QAM	25	0	22.50	22.51	22.37	
5	64QAM	1	0	22.62	22.57	22.36	23.7
5	64QAM	1	12	22.56	22.59	22.01	
5	64QAM	1	24	22.62	22.63	21.70	
5	64QAM	12	0	21.49	21.51	21.29	22.7
5	64QAM	12	7	21.57	21.56	21.02	
5	64QAM	12	13	21.57	21.62	20.64	
5	64QAM	25	0	21.49	21.52	20.85	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.31	24.26	24.27	25.7
3	QPSK	1	8	24.47	24.45	24.21	
3	QPSK	1	14	24.46	24.45	23.91	
3	QPSK	8	0	23.41	23.45	23.34	24.7
3	QPSK	8	4	23.46	23.52	23.33	
3	QPSK	8	7	23.46	23.54	23.14	
3	QPSK	15	0	23.47	23.46	23.27	
3	16QAM	1	0	23.64	23.61	23.53	24.7
3	16QAM	1	8	23.77	23.82	23.46	
3	16QAM	1	14	23.76	23.83	23.21	
3	16QAM	8	0	22.48	22.49	22.39	23.7
3	16QAM	8	4	22.55	22.59	22.47	
3	16QAM	8	7	22.56	22.55	22.34	
3	16QAM	15	0	22.50	22.53	22.41	
3	64QAM	1	0	22.55	22.51	21.93	23.7
3	64QAM	1	8	22.68	22.71	22.68	
3	64QAM	1	14	22.66	22.70	22.36	
3	64QAM	8	0	21.49	21.52	20.81	22.7
3	64QAM	8	4	21.57	21.61	20.71	
3	64QAM	8	7	21.56	21.59	20.56	
3	64QAM	15	0	21.52	21.52	20.70	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.30	24.31	24.07	25.7
1.4	QPSK	1	3	24.40	24.43	24.00	
1.4	QPSK	1	5	24.37	24.36	23.87	
1.4	QPSK	3	0	24.35	24.37	24.02	24.7
1.4	QPSK	3	1	24.38	24.40	24.03	
1.4	QPSK	3	3	24.38	24.37	23.89	
1.4	QPSK	6	0	23.42	23.42	23.10	
1.4	16QAM	1	0	23.62	23.62	23.37	24.7
1.4	16QAM	1	3	23.71	23.73	23.31	
1.4	16QAM	1	5	23.89	23.70	23.21	
1.4	16QAM	3	0	23.41	23.43	23.20	23.7
1.4	16QAM	3	1	23.47	23.50	23.20	
1.4	16QAM	3	3	23.44	23.49	23.09	
1.4	16QAM	6	0	22.47	22.51	22.27	
1.4	64QAM	1	0	22.53	22.57	22.47	23.7
1.4	64QAM	1	3	22.61	22.68	22.43	
1.4	64QAM	1	5	22.57	22.61	22.31	
1.4	64QAM	3	0	22.50	22.55	22.46	
1.4	64QAM	3	1	22.57	22.61	22.59	22.7
1.4	64QAM	3	3	22.57	22.60	22.39	
1.4	64QAM	6	0	21.42	21.43	21.45	



Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26969	25.7
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.41	24.33	24.36	25.7
15	QPSK	1	37	24.28	24.36	24.35	
15	QPSK	1	74	24.37	24.59	24.29	
15	QPSK	36	0	23.45	23.46	23.48	
15	QPSK	36	20	23.52	23.46	23.44	24.7
15	QPSK	36	39	23.45	23.50	23.44	
15	QPSK	75	0	23.52	23.46	23.44	
15	16QAM	1	0	23.71	23.68	23.71	
15	16QAM	1	37	23.63	23.69	23.69	24.7
15	16QAM	1	74	23.70	23.72	23.62	
15	16QAM	36	0	22.47	22.51	22.51	
15	16QAM	36	20	22.51	22.45	22.45	
15	16QAM	36	39	22.47	22.52	22.47	23.7
15	16QAM	75	0	22.53	22.49	22.50	
15	64QAM	1	0	22.58	22.51	22.50	
15	64QAM	1	37	22.54	22.63	22.58	
15	64QAM	1	74	22.58	22.59	21.79	22.7
15	64QAM	36	0	21.51	21.53	21.54	
15	64QAM	36	20	21.55	21.50	21.50	
15	64QAM	36	39	21.50	21.61	21.59	
15	64QAM	75	0	21.54	21.49	21.50	Tune-up limit (dBm)
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	25.7
10	QPSK	1	0	24.49	24.42	24.48	
10	QPSK	1	25	24.35	24.38	24.40	24.7
10	QPSK	1	49	24.42	24.43	24.37	
10	QPSK	25	0	23.57	23.48	23.51	
10	QPSK	25	12	23.57	23.50	23.53	
10	QPSK	25	25	23.48	23.53	23.54	24.7
10	QPSK	50	0	23.54	23.49	23.49	
10	16QAM	1	0	23.68	23.77	23.88	
10	16QAM	1	25	23.75	23.81	23.80	
10	16QAM	1	49	23.80	23.79	23.75	23.7
10	16QAM	25	0	22.56	22.49	22.51	
10	16QAM	25	12	22.56	22.50	22.51	
10	16QAM	25	25	22.45	22.54	22.47	
10	16QAM	50	0	22.53	22.46	22.47	23.7
10	64QAM	1	0	22.81	22.85	22.72	
10	64QAM	1	25	22.70	22.73	22.75	
10	64QAM	1	49	22.73	22.74	22.16	
10	64QAM	25	0	21.61	21.56	21.55	22.7
10	64QAM	25	12	21.61	21.55	21.58	
10	64QAM	25	25	21.53	21.56	21.40	
10	64QAM	50	0	21.58	21.52	21.52	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.58	24.40	24.49	25.7
5	QPSK	1	12	24.54	24.46	24.46	
5	QPSK	1	24	24.39	24.49	24.40	
5	QPSK	12	0	23.62	23.52	23.56	
5	QPSK	12	7	23.62	23.58	23.52	24.7
5	QPSK	12	13	23.53	23.53	23.43	
5	QPSK	25	0	23.59	23.49	23.50	
5	16QAM	1	0	23.92	23.77	23.81	
5	16QAM	1	12	23.80	23.76	23.69	23.7
5	16QAM	1	24	23.73	23.83	23.69	
5	16QAM	12	0	22.65	22.55	22.52	
5	16QAM	12	7	22.59	22.61	22.52	
5	16QAM	12	13	22.53	22.50	22.45	23.7
5	16QAM	25	0	22.58	22.51	22.54	
5	64QAM	1	0	22.82	22.72	22.70	
5	64QAM	1	12	22.71	22.66	22.03	
5	64QAM	1	24	22.64	22.67	21.90	22.7
5	64QAM	12	0	21.71	21.62	21.61	
5	64QAM	12	7	21.70	21.64	21.03	
5	64QAM	12	13	21.61	21.61	20.72	
5	64QAM	25	0	21.62	21.52	21.16	Tune-up limit (dBm)
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	25.7
3	QPSK	1	0	24.56	24.45	24.47	
3	QPSK	1	8	24.58	24.54	24.36	24.7
3	QPSK	1	14	24.46	24.51	24.41	
3	QPSK	8	0	23.63	23.52	23.41	
3	QPSK	8	4	23.65	23.60	23.40	
3	QPSK	8	7	23.57	23.50	23.44	24.7
3	QPSK	15	0	23.57	23.51	23.43	
3	16QAM	1	0	23.92	23.76	23.76	
3	16QAM	1	8	23.92	23.83	23.59	
3	16QAM	1	14	23.77	23.84	23.70	23.7
3	16QAM	8	0	22.69	22.61	22.55	
3	16QAM	8	4	22.66	22.64	22.51	
3	16QAM	8	7	22.60	22.58	22.49	
3	16QAM	15	0	22.64	22.53	22.49	23.7
3	64QAM	1	0	22.78	22.67	22.05	
3	64QAM	1	8	22.79	22.75	21.73	
3	64QAM	1	14	22.66	22.69	21.83	
3	64QAM	8	0	21.72	21.58	20.80	22.7
3	64QAM	8	4	21.72	21.68	20.67	
3	64QAM	8	7	21.63	21.59	20.74	
3	64QAM	15	0	21.63	21.55	20.78	
Channel				26997	26995	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.48	24.36	24.32	25.7
1.4	QPSK	1	3	24.52	24.47	24.34	
1.4	QPSK	1	5	24.44	24.38	24.24	
1.4	QPSK	3	0	24.50	24.39	24.33	
1.4	QPSK	3	1	24.51	24.40	24.37	24.7
1.4	QPSK	3	3	24.47	24.41	24.35	
1.4	QPSK	6	0	23.54	23.48	23.37	
1.4	16QAM	1	0	23.87	23.69	23.60	
1.4	16QAM	1	3	23.87	23.77	23.68	24.7
1.4	16QAM	1	5	23.79	23.71	23.60	
1.4	16QAM	3	0	23.69	23.45	23.37	
1.4	16QAM	3	1	23.71	23.51	23.45	
1.4	16QAM	3	3	23.66	23.47	23.35	23.7
1.4	16QAM	6	0	22.61	22.57	22.47	
1.4	64QAM	1	0	22.84	22.58	21.71	
1.4	64QAM	1	3	22.82	22.68	21.82	
1.4	64QAM	1	5	22.78	22.59	21.87	23.7
1.4	64QAM	3	0	22.73	22.57	21.72	
1.4	64QAM	3	1	22.74	22.64	21.75	
1.4	64QAM	3	3	22.69	22.60	21.88	
1.4	64QAM	6	0	21.59	21.49	20.73	22.7

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				2771.0			
Frequency (MHz)				2310			
10	QPSK	1	0		22.93		23.7
10	QPSK	1	25		22.81		
10	QPSK	1	49		22.83		
10	QPSK	25	0		21.86		22.7
10	QPSK	25	12		21.82		
10	QPSK	25	25		21.94		
10	QPSK	50	0		21.92		22.7
10	16QAM	1	0		22.22		
10	16QAM	1	25		22.21		
10	16QAM	1	49		22.22		21.7
10	16QAM	25	0		20.88		
10	16QAM	25	12		20.95		
10	16QAM	25	25		20.89		21.7
10	16QAM	50	0		20.83		
10	64QAM	1	0		21.09		
10	64QAM	1	25		21.16		21.7
10	64QAM	1	49		21.08		
10	64QAM	25	0		19.94		
10	64QAM	25	12		19.99		20.7
10	64QAM	25	25		19.94		
10	64QAM	50	0		19.96		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.77	22.78	22.83	23.7
5	QPSK	1	12	22.90	22.85	22.92	
5	QPSK	1	24	22.90	22.88	22.84	
5	QPSK	12	0	21.90	21.89	21.92	22.7
5	QPSK	12	7	22.01	21.95	21.97	
5	QPSK	12	13	22.00	21.94	21.90	
5	QPSK	25	0	21.95	21.92	21.94	22.7
5	16QAM	1	0	22.12	22.12	22.16	
5	16QAM	1	12	22.22	22.21	22.18	
5	16QAM	1	24	22.24	22.22	22.17	21.7
5	16QAM	12	0	20.92	20.93	20.95	
5	16QAM	12	7	20.98	20.97	21.00	
5	16QAM	12	13	21.00	20.95	20.94	21.7
5	16QAM	25	0	20.99	20.92	20.95	
5	64QAM	1	0	21.05	21.07	21.16	
5	64QAM	1	12	21.09	21.12	21.12	21.7
5	64QAM	1	24	21.21	21.13	21.09	
5	64QAM	12	0	19.97	19.97	20.01	
5	64QAM	12	7	20.06	20.00	20.04	20.7
5	64QAM	12	13	20.08	20.01	19.95	
5	64QAM	25	0	20.01	19.96	19.96	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	25.7
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.69	24.76	24.56	25.7
20	QPSK	1	49	24.51	24.51	24.44	
20	QPSK	1	99	24.63	24.52	24.41	
20	QPSK	50	0	23.70	23.68	23.64	24.7
20	QPSK	50	24	23.77	23.65	23.66	
20	QPSK	50	50	23.75	23.68	23.64	
20	QPSK	100	0	23.76	23.70	23.72	24.7
20	16QAM	1	0	24.02	23.99	23.90	
20	16QAM	1	49	23.90	23.82	23.78	
20	16QAM	1	99	23.98	23.83	23.75	23.7
20	16QAM	50	0	22.69	22.69	22.67	
20	16QAM	50	24	22.77	22.65	22.71	
20	16QAM	50	50	22.78	22.69	22.67	23.7
20	16QAM	100	0	22.76	22.70	22.74	
20	64QAM	1	0	22.85	22.87	22.77	
20	64QAM	1	49	22.77	22.71	22.70	23.7
20	64QAM	1	99	22.87	22.82	22.66	
20	64QAM	50	0	21.72	21.69	21.69	
20	64QAM	50	24	21.79	21.65	21.72	22.7
20	64QAM	50	50	21.78	21.70	21.67	
20	64QAM	100	0	21.82	21.72	21.72	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	24.64	24.61	24.57	25.7
15	QPSK	1	37	24.55	24.51	24.49	
15	QPSK	1	74	24.69	24.60	24.50	
15	QPSK	36	0	23.66	23.69	23.64	24.7
15	QPSK	36	20	23.72	23.73	23.67	
15	QPSK	36	39	23.76	23.70	23.68	
15	QPSK	75	0	23.78	23.72	23.62	24.7
15	16QAM	1	0	23.63	23.96	23.90	
15	16QAM	1	37	23.89	23.83	23.84	
15	16QAM	1	74	23.97	23.88	23.75	23.7
15	16QAM	36	0	22.69	22.69	22.64	
15	16QAM	36	20	22.74	22.72	22.68	
15	16QAM	36	39	22.76	22.70	22.67	23.7
15	16QAM	75	0	22.76	22.74	22.61	
15	64QAM	1	0	22.82	22.80	22.76	
15	64QAM	1	37	22.84	22.80	22.69	23.7
15	64QAM	1	74	22.93	22.83	22.70	
15	64QAM	36	0	21.70	21.68	21.69	
15	64QAM	36	20	21.78	21.74	21.70	22.7
15	64QAM	36	39	21.78	21.70	21.67	
15	64QAM	75	0	21.77	21.72	21.64	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.66	24.58	24.61	25.7
10	QPSK	1	25	24.61	24.56	24.56	
10	QPSK	1	49	24.63	24.60	24.58	
10	QPSK	25	0	23.74	23.66	23.64	24.7
10	QPSK	25	12	23.76	23.75	23.64	
10	QPSK	25	25	23.75	23.72	23.68	
10	QPSK	50	0	23.76	23.73	23.64	24.7
10	16QAM	1	0	24.07	24.01	23.99	
10	16QAM	1	25	23.99	23.95	23.97	
10	16QAM	1	49	24.09	23.97	23.98	23.7
10	16QAM	25	0	22.78	22.66	22.63	
10	16QAM	25	12	22.79	22.74	22.66	
10	16QAM	25	25	22.74	22.69	22.69	23.7
10	16QAM	50	0	22.77	22.73	22.64	
10	64QAM	1	0	22.95	22.87	22.82	
10	64QAM	1	25	22.96	22.90	22.89	23.7
10	64QAM	1	49	22.93	22.89	22.85	
10	64QAM	25	0	21.77	21.69	21.67	
10	64QAM	25	12	21.80	21.77	21.67	22.7
10	64QAM	25	25	21.76	21.72	21.74	
10	64QAM	50	0	21.81	21.77	21.65	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	24.64	24.60	24.61	25.7
5	QPSK	1	12	24.70	24.65	24.63	
5	QPSK	1	24	24.66	24.62	24.58	
5	QPSK	12	0	23.74	23.64	23.68	24.7
5	QPSK	12	7	23.77	23.73	23.72	
5	QPSK	12	13	23.72	23.72	23.69	
5	QPSK	25	0	23.72	23.68	23.67	24.7
5	16QAM	1	0	23.99	23.93	23.92	
5	16QAM	1	12	24.01	23.97	23.95	
5	16QAM	1	24	23.98	23.94	23.88	23.7
5	16QAM	12	0	22.78	22.67	22.71	
5	16QAM	12	7	22.81	22.79	22.74	
5	16QAM	12	13	22.76	22.72	22.71	23.7
5	16QAM	25	0	22.76	22.72	22.71	
5	64QAM	1	0	22.92	22.85	22.82	
5	64QAM	1	12	22.94	22.89	22.87	23.7
5	64QAM	1	24	22.96	22.87	22.82	
5	64QAM	12	0	21.84	21.73	21.76	
5	64QAM	12	7	21.81	21.79	21.79	22.7
5	64QAM	12	13	21.83	21.74	21.76	
5	64QAM	25	0	21.77	21.75	21.69	
Channel				131967	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	24.68	24.61	24.60	25.7
3	QPSK	1	8	24.75	24.68	24.67	
3	QPSK	1	14	24.67	24.62	24.59	
3	QPSK	8	0	23.77	23.67	23.70	24.7
3	QPSK	8	4	23.79	23.75	23.69	
3	QPSK	8	7	23.78	23.70	23.69	
3	QPSK	15	0	23.74	23.72	23.66	24.7
3	16QAM	1	0	24.01	23.89	23.93	
3	16QAM	1	8	24.11	24.05	23.99	
3	16QAM	1	14	24.02	23.97	23.96	23.7
3	16QAM	8	0	22.82	22.71	22.75	
3	16QAM	8	4	22.84	22.78	22.78	
3	16QAM	8	7	22.80	22.79	22.76	23.7
3	16QAM	15	0	22.80	22.75	22.73	
3	64QAM	1	0	22.94	22.88	22.90	
3	64QAM	1	8	23.04	22.99	22.95	23.7
3	64QAM	1	14	22.97	22.92	22.86	
3	64QAM	8	0	21.81	21.73	21.72	
3	64QAM	8	4	21.86	21.82	21.76	22.7
3	64QAM	8	7	21.82	21.77	21.74	
3	64QAM	15	0	21.78	21.74	21.74	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	24.61	24.56	24.54	25.7
1.4	QPSK	1	3	24.68	24.62	24.62	
1.4	QPSK	1	5	24.59	24.58	24.54	
1.4	QPSK	3	0	24.63	24.64	24.60	24.7
1.4	QPSK	3	1	24.70	24.69	24.63	
1.4	QPSK	3	3	24.65	24.61	24.58	
1.4	QPSK	6	0	23.72	23.66	23.67	24.7
1.4	16QAM	1	0	23.95	23.90	23.89	
1.4	16QAM	1	3	24.01	23.97	23.95	
1.4	16QAM	1	5	23.93	23.90	23.87	24.7
1.4	16QAM	3	0	23.76	23.73	23.69	
1.4	16QAM	3	1	23.80	23.76	23.75	
1.4	16QAM	3	3	23.72	23.69	23.66	23.7
1.4	16QAM	6	0	22.77	22.73	22.74	
1.4	64QAM	1	0	22.85	22.86	22.83	
1.4	64QAM	1	3	22.98	22.91	22.92	23.7
1.4	64QAM	1	5	22.87	22.84	22.79	
1.4	64QAM	3	0	22.84	22.84	22.79	
1.4	64QAM	3	1	22.89	22.86	22.86	22.7
1.4	64QAM	3	3	22.84	22.82	22.78	
1.4	64QAM	6	0	21.75	21.69	21.66	

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.77	24.65	24.66	25.7
20	QPSK	1	49	24.61	24.63	24.60	
20	QPSK	1	99	24.64	24.61	24.56	
20	QPSK	50	0	23.80	23.72	23.74	24.7
20	QPSK	50	24	23.63	23.75	23.70	
20	QPSK	50	50	23.82	23.75	23.71	
20	QPSK	100	0	23.81	23.72	23.76	24.7
20	16QAM	1	0	24.08	24.00	24.00	
20	16QAM	1	49	23.97	23.94	23.94	
20	16QAM	1	99	23.97	23.82	23.89	23.7
20	16QAM	50	0	22.80	22.73	22.75	
20	16QAM	50	24	22.82	22.74	22.72	
20	16QAM	50	50	22.79	22.75	22.72	23.7
20	16QAM	100	0	22.81	22.70	22.78	
20	64QAM	1	0	22.14	22.65	22.86	23.7
20	64QAM	1	49	22.64	22.85	22.15	
20	64QAM	1	99	22.85	22.34	22.79	
20	64QAM	50	0	20.83	21.73	21.42	22.7
20	64QAM	50	24	21.26	21.74	21.57	
20	64QAM	50	50	21.82	21.38	21.75	
20	64QAM	100	0	21.41	21.75	21.80	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.76	24.66	24.65	25.7
15	QPSK	1	37	24.57	24.58	24.58	
15	QPSK	1	74	24.60	24.59	24.55	
15	QPSK	36	0	23.74	23.71	23.71	24.7
15	QPSK	36	20	23.78	23.72	23.76	
15	QPSK	36	39	23.78	23.73	23.69	
15	QPSK	75	0	23.77	23.71	23.66	24.7
15	16QAM	1	0	24.05	24.00	23.94	
15	16QAM	1	37	23.79	23.96	23.91	
15	16QAM	1	74	23.89	23.93	23.88	23.7
15	16QAM	36	0	22.67	22.72	22.70	
15	16QAM	36	20	22.73	22.72	22.75	
15	16QAM	36	39	22.78	22.73	22.72	23.7
15	16QAM	75	0	22.80	22.69	22.67	
15	64QAM	1	0	21.68	22.75	22.77	
15	64QAM	1	37	21.71	22.88	22.85	23.7
15	64QAM	1	74	22.79	22.58	22.81	
15	64QAM	36	0	20.76	21.74	21.35	
15	64QAM	36	20	20.76	21.76	21.78	22.7
15	64QAM	36	39	21.33	21.33	21.75	
15	64QAM	75	0	21.23	21.72	21.67	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.69	24.59	24.64	25.7
10	QPSK	1	25	24.54	24.52	24.52	
10	QPSK	1	49	24.57	24.61	24.50	
10	QPSK	25	0	23.75	23.67	23.65	24.7
10	QPSK	25	12	23.74	23.77	23.63	
10	QPSK	25	25	23.65	23.72	23.68	
10	QPSK	50	0	23.76	23.75	23.65	24.7
10	16QAM	1	0	24.05	23.96	24.02	
10	16QAM	1	25	23.94	23.95	23.94	
10	16QAM	1	49	23.94	23.99	23.86	23.7
10	16QAM	25	0	22.62	22.67	22.64	
10	16QAM	25	12	22.61	22.76	22.65	
10	16QAM	25	25	22.53	22.71	22.65	23.7
10	16QAM	50	0	22.74	22.75	22.62	
10	64QAM	1	0	21.92	22.22	22.83	
10	64QAM	1	25	21.85	22.86	22.85	23.7
10	64QAM	1	49	21.99	22.86	22.46	
10	64QAM	25	0	20.70	21.69	21.89	
10	64QAM	25	12	20.71	21.78	21.69	22.7
10	64QAM	25	25	20.72	21.75	21.67	
10	64QAM	50	0	20.71	21.73	21.65	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.43	24.62	24.62	25.7
5	QPSK	1	12	24.65	24.59	24.58	
5	QPSK	1	24	24.56	24.58	24.54	
5	QPSK	12	0	23.66	23.70	23.65	24.7
5	QPSK	12	7	23.68	23.72	23.68	
5	QPSK	12	13	23.70	23.70	23.61	
5	QPSK	25	0	23.67	23.69	23.61	24.7
5	16QAM	1	0	23.83	23.95	23.93	
5	16QAM	1	12	23.88	23.93	23.89	
5	16QAM	1	24	23.85	23.91	23.83	23.7
5	16QAM	12	0	22.51	22.75	22.73	
5	16QAM	12	7	22.66	22.76	22.71	
5	16QAM	12	13	22.73	22.70	22.63	23.7
5	16QAM	25	0	22.58	22.74	22.62	
5	64QAM	1	0	21.70	21.90	22.87	
5	64QAM	1	12	21.71	22.90	22.78	23.7
5	64QAM	1	24	21.85	22.88	22.23	
5	64QAM	12	0	20.72	21.54	21.72	
5	64QAM	12	7	20.83	21.77	21.75	22.7
5	64QAM	12	13	20.78	21.74	21.61	
5	64QAM	25	0	20.64	21.51	21.57	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				1870.0	1890.0	1910.0	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.30	24.14	24.18	25.7
20	QPSK	1	49	24.12	24.11	24.11	
20	QPSK	1	99	24.12	24.12	24.14	
20	QPSK	50	0	23.24	23.19	23.17	24.7
20	QPSK	50	24	23.34	23.29	23.20	
20	QPSK	50	50	23.31	23.28	23.28	
20	QPSK	100	0	23.33	23.28	23.20	24.7
20	16QAM	1	0	23.51	23.49	23.51	
20	16QAM	1	49	23.47	23.47	23.45	
20	16QAM	1	99	23.44	23.48	23.49	23.7
20	16QAM	50	0	22.24	22.21	22.21	
20	16QAM	50	24	22.34	22.30	22.21	
20	16QAM	50	50	22.33	22.31	22.31	23.7
20	16QAM	100	0	22.31	22.29	22.20	
20	64QAM	1	0	22.39	22.35	22.33	
20	64QAM	1	49	22.39	22.33	21.77	22.7
20	64QAM	1	99	22.35	22.32	21.96	
20	64QAM	50	0	21.26	21.23	21.06	
20	64QAM	50	24	21.34	21.32	20.95	22.7
20	64QAM	50	50	21.34	21.31	20.94	
20	64QAM	100	0	21.33	21.30	20.98	
Channel				1867.5	1890.0	1912.5	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	24.20	24.19	24.20	25.7
15	QPSK	1	37	24.18	24.17	24.14	
15	QPSK	1	74	24.20	24.20	24.21	
15	QPSK	36	0	23.34	23.21	23.19	24.7
15	QPSK	36	20	23.36	23.35	23.23	
15	QPSK	36	39	23.32	23.33	23.32	
15	QPSK	75	0	23.35	23.31	23.20	24.7
15	16QAM	1	0	23.49	23.53	23.48	
15	16QAM	1	37	23.47	23.50	23.45	
15	16QAM	1	74	23.53	23.50	23.48	23.7
15	16QAM	36	0	22.33	22.21	22.19	
15	16QAM	36	20	22.36	22.32	22.22	
15	16QAM	36	39	22.34	22.35	22.32	23.7
15	16QAM	75	0	22.35	22.34	22.20	
15	64QAM	1	0	22.41	22.38	22.01	
15	64QAM	1	37	22.44	22.43	21.76	22.7
15	64QAM	1	74	22.43	22.43	21.91	
15	64QAM	36	0	21.35	21.25	20.82	
15	64QAM	36	20	21.38	21.35	20.90	22.7
15	64QAM	36	39	21.40	21.39	20.95	
15	64QAM	75	0	21.36	21.32	20.82	
Channel				1855.0	1890.0	1915.0	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	24.22	24.09	24.14	25.7
10	QPSK	1	25	24.12	24.14	24.12	
10	QPSK	1	49	24.17	24.18	24.18	
10	QPSK	25	0	23.34	23.22	23.20	24.7
10	QPSK	25	12	23.36	23.34	23.24	
10	QPSK	25	25	23.37	23.34	23.34	
10	QPSK	50	0	23.35	23.33	23.25	24.7
10	16QAM	1	0	23.67	23.50	23.49	
10	16QAM	1	25	23.64	23.53	23.56	
10	16QAM	1	49	23.56	23.53	23.51	23.7
10	16QAM	25	0	22.34	22.23	22.16	
10	16QAM	25	12	22.36	22.34	22.25	
10	16QAM	25	25	22.32	22.34	22.32	23.7
10	16QAM	50	0	22.36	22.33	22.22	
10	64QAM	1	0	22.47	22.37	21.92	
10	64QAM	1	25	22.44	22.46	22.04	22.7
10	64QAM	1	49	22.45	22.47	22.01	
10	64QAM	25	0	21.36	21.25	20.92	
10	64QAM	25	12	21.44	21.37	21.00	22.7
10	64QAM	25	25	21.39	21.38	20.90	
10	64QAM	50	0	21.36	21.33	20.81	
Channel				1862.5	1890.0	1917.5	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	24.17	24.11	24.13	25.7
5	QPSK	1	12	24.23	24.22	24.23	
5	QPSK	1	24	24.22	24.20	24.19	
5	QPSK	12	0	23.30	23.20	23.27	24.7
5	QPSK	12	7	23.38	23.34	23.29	
5	QPSK	12	13	23.33	23.32	23.29	
5	QPSK	25	0	23.33	23.29	23.26	24.7
5	16QAM	1	0	23.50	23.39	23.46	
5	16QAM	1	12	23.50	23.48	23.46	
5	16QAM	1	24	23.55	23.52	23.48	23.7
5	16QAM	12	0	22.37	22.25	22.27	
5	16QAM	12	7	22.39	22.35	22.35	
5	16QAM	12	13	22.34	22.33	22.31	23.7
5	16QAM	25	0	22.36	22.34	22.27	
5	64QAM	1	0	22.50	22.38	21.91	
5	64QAM	1	12	22.45	22.44	21.98	22.7
5	64QAM	1	24	22.46	22.48	21.87	
5	64QAM	12	0	21.39	21.31	20.93	
5	64QAM	12	7	21.43	21.41	20.98	22.7
5	64QAM	12	13	21.41	21.40	20.92	
5	64QAM	25	0	21.38	21.35	20.98	
Channel				1851.5	1890.0	1916.5	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	24.21	24.16	24.14	25.7
3	QPSK	1	8	24.28	24.27	24.22	
3	QPSK	1	14	24.25	24.22	24.17	
3	QPSK	8	0	23.34	23.32	23.24	24.7
3	QPSK	8	4	23.36	23.32	23.32	
3	QPSK	8	7	23.33	23.31	23.27	
3	QPSK	15	0	23.37	23.32	23.26	24.7
3	16QAM	1	0	23.52	23.47	23.42	
3	16QAM	1	8	23.57	23.54	23.52	
3	16QAM	1	14	23.56	23.52	23.49	23.7
3	16QAM	8	0	22.39	22.37	22.31	
3	16QAM	8	4	22.43	22.39	22.40	
3	16QAM	8	7	22.42	22.36	22.34	23.7
3	16QAM	15	0	22.35	22.33	22.33	
3	64QAM	1	0	22.49	22.41	22.01	
3	64QAM	1	8	22.56	22.53	22.10	23.7
3	64QAM	1	14	22.52	22.48	22.00	
3	64QAM	8	0	21.39	21.35	20.95	
3	64QAM	8	4	21.47	21.44	20.98	22.7
3	64QAM	8	7	21.40	21.37	20.87	
3	64QAM	15	0	21.38	21.35	20.92	
Channel				1860.7	1890.0	1919.3	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	24.19	24.08	24.06	25.7
1.4	QPSK	1	3	24.22	24.16	24.16	
1.4	QPSK	1	5	24.16	24.10	24.08	
1.4	QPSK	3	0	24.20	24.13	24.09	24.7
1.4	QPSK	3	1	24.24	24.19	24.16	
1.4	QPSK	3	3	24.20	24.15	24.11	
1.4	QPSK	6	0	23.29	23.22	23.21	24.7
1.4	16QAM	1	0	23.50	23.42	23.37	
1.4	16QAM	1	3	23.58	23.53	23.52	
1.4	16QAM	1	5	23.52	23.49	23.41	24.7
1.4	16QAM	3	0	22.26	23.21	23.19	
1.4	16QAM	3	1	23.33	23.27	23.23	
1.4	16QAM	3	3	23.24	23.22	23.14	23.7
1.4	16QAM	6	0	22.37	22.31	22.27	
1.4	64QAM	1	0	22.41	22.41	21.96	
1.4	64QAM	1	3	22.50	22.45	22.03	23.7
1.4	64QAM	1	5	22.39	22.41	21.98	
1.4	64QAM	3	0	22.37	22.33	21.96	
1.4	64QAM	3	1	22.44	22.39	22.07	22.7
1.4	64QAM	3	3	22.38	22.34	21.96	
1.4	64QAM	6	0	21.32	21.27	20.85	



Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.74	24.73	24.81	25.7
20	QPSK	1	49	24.56	24.52	24.54	
20	QPSK	1	99	24.61	24.58	24.58	
20	QPSK	50	0	23.76	23.74	23.74	24.7
20	QPSK	50	24	23.78	23.75	23.67	
20	QPSK	50	50	23.73	23.67	23.66	
20	QPSK	100	0	23.76	23.79	23.66	24.7
20	16QAM	1	0	24.08	24.05	24.04	
20	16QAM	1	49	23.92	23.86	23.87	
20	16QAM	1	99	23.97	23.89	23.85	23.7
20	16QAM	50	0	22.75	22.77	22.74	
20	16QAM	50	24	22.79	22.77	22.69	
20	16QAM	50	50	22.73	22.69	22.71	23.7
20	16QAM	100	0	22.76	22.78	22.67	
20	64QAM	1	0	22.90	22.93	22.65	
20	64QAM	1	49	22.81	22.78	22.80	22.7
20	64QAM	1	99	22.82	22.56	22.84	
20	64QAM	50	0	21.78	21.70	21.76	
20	64QAM	50	24	21.81	21.78	21.70	22.7
20	64QAM	50	50	21.74	21.63	21.71	
20	64QAM	100	0	21.82	21.78	21.71	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.76	24.76	24.76	25.7
15	QPSK	1	37	24.59	24.58	24.59	
15	QPSK	1	74	24.61	24.60	24.58	
15	QPSK	36	0	23.84	23.81	23.75	24.7
15	QPSK	36	20	23.82	23.77	23.70	
15	QPSK	36	39	23.77	23.71	23.73	
15	QPSK	75	0	23.80	23.82	23.70	24.7
15	16QAM	1	0	24.08	24.06	24.05	
15	16QAM	1	37	23.94	23.93	23.89	
15	16QAM	1	74	23.99	23.89	23.88	23.7
15	16QAM	36	0	22.86	22.77	22.75	
15	16QAM	36	20	22.79	22.77	22.69	
15	16QAM	36	39	22.77	22.71	22.72	23.7
15	16QAM	75	0	22.82	22.79	22.71	
15	64QAM	1	0	22.94	22.94	22.92	
15	64QAM	1	37	22.87	22.70	22.86	22.7
15	64QAM	1	74	22.88	22.64	22.80	
15	64QAM	36	0	21.86	21.83	21.77	
15	64QAM	36	20	21.78	21.72	21.71	22.7
15	64QAM	36	39	21.81	21.59	21.75	
15	64QAM	75	0	21.83	21.80	21.71	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.72	24.65	24.67	25.7
10	QPSK	1	25	24.65	24.64	24.60	
10	QPSK	1	49	24.72	24.68	24.64	
10	QPSK	25	0	23.78	23.71	23.69	24.7
10	QPSK	25	12	23.82	23.82	23.72	
10	QPSK	25	25	23.84	23.82	23.75	
10	QPSK	50	0	23.82	23.80	23.73	24.7
10	16QAM	1	0	24.11	24.04	24.03	
10	16QAM	1	25	24.03	24.06	24.04	
10	16QAM	1	49	24.08	24.03	24.08	23.7
10	16QAM	25	0	22.79	22.66	22.70	
10	16QAM	25	12	22.84	22.81	22.74	
10	16QAM	25	25	22.81	22.79	22.80	23.7
10	16QAM	50	0	22.82	22.79	22.73	
10	64QAM	1	0	22.91	22.89	22.90	
10	64QAM	1	25	22.96	22.87	22.96	22.7
10	64QAM	1	49	22.99	22.99	22.96	
10	64QAM	25	0	21.83	21.74	21.73	
10	64QAM	25	12	21.84	21.73	21.77	22.7
10	64QAM	25	25	21.85	21.58	21.84	
10	64QAM	50	0	21.85	21.69	21.77	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.70	24.62	24.61	25.7
5	QPSK	1	12	24.74	24.73	24.68	
5	QPSK	1	24	24.74	24.72	24.69	
5	QPSK	12	0	23.78	23.71	23.74	24.7
5	QPSK	12	7	23.86	23.81	23.78	
5	QPSK	12	13	23.80	23.77	23.74	
5	QPSK	25	0	23.80	23.77	23.75	24.7
5	16QAM	1	0	24.03	23.93	24.00	
5	16QAM	1	12	24.08	24.01	24.02	
5	16QAM	1	24	24.06	24.04	24.04	23.7
5	16QAM	12	0	22.83	22.74	22.80	
5	16QAM	12	7	22.87	22.84	22.81	
5	16QAM	12	13	22.86	22.84	22.81	23.7
5	16QAM	25	0	22.81	22.81	22.77	
5	64QAM	1	0	22.98	22.88	22.99	
5	64QAM	1	12	23.00	22.85	22.93	22.7
5	64QAM	1	24	23.05	22.64	22.95	
5	64QAM	12	0	21.86	21.75	21.85	
5	64QAM	12	7	21.92	21.77	21.87	22.7
5	64QAM	12	13	21.89	21.63	21.81	
5	64QAM	25	0	21.84	21.65	21.77	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.74	24.64	24.64	25.7
3	QPSK	1	8	24.80	24.78	24.72	
3	QPSK	1	14	24.75	24.73	24.69	
3	QPSK	8	0	23.79	23.72	23.73	24.7
3	QPSK	8	4	23.83	23.80	23.78	
3	QPSK	8	7	23.80	23.79	23.75	
3	QPSK	15	0	23.82	23.81	23.73	24.7
3	16QAM	1	0	24.05	23.95	23.99	
3	16QAM	1	8	24.16	24.08	24.06	
3	16QAM	1	14	24.05	24.00	24.02	23.7
3	16QAM	8	0	22.88	22.80	22.80	
3	16QAM	8	4	22.93	22.88	22.84	
3	16QAM	8	7	22.89	22.82	22.79	23.7
3	16QAM	15	0	22.86	22.82	22.78	
3	64QAM	1	0	22.91	22.83	22.91	
3	64QAM	1	8	23.10	22.84	23.00	22.7
3	64QAM	1	14	23.07	22.70	22.95	
3	64QAM	8	0	21.88	21.75	21.81	
3	64QAM	8	4	21.92	21.74	21.85	22.7
3	64QAM	8	7	21.90	21.65	21.81	
3	64QAM	15	0	21.88	21.72	21.80	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.62	24.61	24.59	25.7
1.4	QPSK	1	3	24.72	24.68	24.62	
1.4	QPSK	1	5	24.64	24.60	24.55	
1.4	QPSK	3	0	24.68	24.61	24.62	24.7
1.4	QPSK	3	1	24.71	24.66	24.67	
1.4	QPSK	3	3	24.69	24.63	24.64	
1.4	QPSK	6	0	23.72	23.66	23.64	24.7
1.4	16QAM	1	0	23.96	23.94	23.90	
1.4	16QAM	1	3	24.02	23.99	23.95	
1.4	16QAM	1	5	23.99	23.91	23.92	24.7
1.4	16QAM	3	0	23.77	23.72	23.68	
1.4	16QAM	3	1	23.81	23.79	23.75	
1.4	16QAM	3	3	23.77	23.70	23.68	23.7
1.4	16QAM	6	0	22.79	22.77	22.72	
1.4	64QAM	1	0	22.85	22.83	22.85	
1.4	64QAM	1	3	22.97	22.83	22.92	23.7
1.4	64QAM	1	5	22.92	22.73	22.84	
1.4	64QAM	3	0	22.89	22.84	22.79	
1.4	64QAM	3	1	22.96	22.88	22.86	22.7
1.4	64QAM	3	3	22.89	22.76	22.80	
1.4	64QAM	6	0	21.77	21.71	21.66	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	24.2
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	23.02	23.02	23.07	24.2
10	QPSK	1	25	23.01	23.05	23.00	
10	QPSK	1	49	23.07	23.03	23.02	
10	QPSK	25	0	23.04	23.13	23.08	24.2
10	QPSK	25	12	23.15	23.13	23.10	
10	QPSK	25	25	23.13	23.16	23.15	
10	QPSK	50	0	23.17	23.13	23.10	24.2
10	16QAM	1	0	23.44	23.42	23.44	
10	16QAM	1	25	23.38	23.43	23.35	
10	16QAM	1	49	23.43	23.42	23.31	23.7
10	16QAM	25	0	22.60	22.64	22.62	
10	16QAM	25	12	22.69	22.65	22.61	
10	16QAM	25	25	22.66	22.68	22.62	23.7
10	16QAM	50	0	22.69	22.65	22.60	
10	64QAM	1	0	22.73	22.70	22.73	23.7
10	64QAM	1	25	22.81	22.84	22.80	
10	64QAM	1	49	22.85	22.82	22.70	
10	64QAM	25	0	21.63	21.66	21.65	22.7
10	64QAM	25	12	21.74	21.70	21.67	
10	64QAM	25	25	21.70	21.71	21.22	
10	64QAM	50	0	21.72	21.68	21.66	24.2
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	24.2
5	QPSK	1	0	23.12	23.09	23.02	
5	QPSK	1	12	23.06	23.11	23.04	24.2
5	QPSK	1	24	23.03	23.03	23.01	
5	QPSK	12	0	23.17	23.14	23.08	
5	QPSK	12	7	23.18	23.18	23.04	24.2
5	QPSK	12	13	23.12	23.12	23.04	
5	QPSK	25	0	23.13	23.11	23.05	
5	16QAM	1	0	23.41	23.41	23.37	24.2
5	16QAM	1	12	23.37	23.38	23.29	
5	16QAM	1	24	23.33	23.43	23.27	
5	16QAM	12	0	22.75	22.72	22.61	23.7
5	16QAM	12	7	22.71	22.72	22.60	
5	16QAM	12	13	22.66	22.66	22.59	
5	16QAM	25	0	22.69	22.66	22.58	23.7
5	64QAM	1	0	22.90	22.81	22.68	
5	64QAM	1	12	22.74	22.79	21.98	
5	64QAM	1	24	22.79	22.80	21.90	22.7
5	64QAM	12	0	21.81	21.77	21.34	
5	64QAM	12	7	21.73	21.75	20.98	
5	64QAM	12	13	21.72	21.73	20.81	22.7
5	64QAM	25	0	21.70	21.64	21.03	
Channel				20415	20525	20635	24.2
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.10	23.07	23.07	24.2
3	QPSK	1	8	23.07	23.11	23.02	
3	QPSK	1	14	23.03	23.06	23.02	
3	QPSK	8	0	23.17	23.14	23.12	24.2
3	QPSK	8	4	23.14	23.20	23.09	
3	QPSK	8	7	23.11	23.16	23.04	
3	QPSK	15	0	23.13	23.11	23.08	24.2
3	16QAM	1	0	23.42	23.38	23.40	
3	16QAM	1	8	23.42	23.41	23.35	
3	16QAM	1	14	23.31	23.36	23.25	23.7
3	16QAM	8	0	22.75	22.75	22.61	
3	16QAM	8	4	22.74	22.76	22.68	
3	16QAM	8	7	22.70	22.76	22.64	23.7
3	16QAM	15	0	22.73	22.68	22.66	
3	64QAM	1	0	22.84	22.83	21.90	
3	64QAM	1	8	22.86	22.88	21.83	22.7
3	64QAM	1	14	22.73	22.81	21.86	
3	64QAM	8	0	21.80	21.71	20.83	
3	64QAM	8	4	21.78	21.81	20.80	22.7
3	64QAM	8	7	21.69	21.75	20.92	
3	64QAM	15	0	21.71	21.69	20.88	
Channel				20407	20525	20643	24.2
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.01	23.00	23.01	24.2
1.4	QPSK	1	3	23.05	23.05	23.02	
1.4	QPSK	1	5	23.03	23.02	23.03	
1.4	QPSK	3	0	23.02	23.04	23.03	24.2
1.4	QPSK	3	1	23.08	23.00	23.04	
1.4	QPSK	3	3	23.00	23.02	23.02	
1.4	QPSK	6	0	23.04	23.04	22.98	24.2
1.4	16QAM	1	0	23.31	23.28	23.23	
1.4	16QAM	1	3	23.36	23.42	23.29	
1.4	16QAM	1	5	23.30	23.29	23.17	24.2
1.4	16QAM	3	0	23.13	23.09	23.01	
1.4	16QAM	3	1	23.16	23.10	23.06	
1.4	16QAM	3	3	23.08	23.11	22.97	23.7
1.4	16QAM	6	0	22.69	22.65	22.60	
1.4	64QAM	1	0	22.77	22.70	21.86	
1.4	64QAM	1	3	22.79	22.83	22.01	23.7
1.4	64QAM	1	5	22.72	22.74	22.03	
1.4	64QAM	3	0	22.71	22.66	21.88	
1.4	64QAM	3	1	22.76	22.72	22.00	22.7
1.4	64QAM	3	3	22.69	22.69	22.06	
1.4	64QAM	6	0	21.64	21.61	20.91	22.7

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	25.7
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	24.48	24.37	24.23	25.7
20	QPSK	1	49	24.48	24.42	24.22	
20	QPSK	1	99	24.55	24.46	24.25	
20	QPSK	50	0	23.66	23.46	23.38	24.7
20	QPSK	50	24	23.69	23.50	23.36	
20	QPSK	50	50	23.68	23.53	23.42	
20	QPSK	100	0	23.67	23.51	23.40	24.7
20	16QAM	1	0	23.81	23.71	23.60	
20	16QAM	1	49	23.85	23.78	23.56	
20	16QAM	1	99	23.90	23.84	23.59	23.7
20	16QAM	50	0	22.55	22.47	22.40	
20	16QAM	50	24	22.71	22.51	22.41	
20	16QAM	50	50	22.68	22.54	22.40	23.7
20	16QAM	100	0	22.65	22.46	22.40	
20	64QAM	1	0	22.66	22.57	22.50	23.7
20	64QAM	1	49	22.70	22.66	22.46	
20	64QAM	1	99	22.78	22.66	22.45	
20	64QAM	50	0	21.67	21.45	21.41	22.7
20	64QAM	50	24	21.71	21.53	21.43	
20	64QAM	50	50	21.71	21.54	21.42	
20	64QAM	100	0	21.69	21.51	21.41	Tune-up limit (dBm)
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	25.7
15	QPSK	1	0	24.49	24.43	24.24	
15	QPSK	1	37	24.51	24.41	24.17	25.7
15	QPSK	1	74	24.57	24.49	24.27	
15	QPSK	36	0	23.57	23.48	23.35	24.7
15	QPSK	36	20	23.67	23.52	23.36	
15	QPSK	36	39	23.68	23.53	23.36	
15	QPSK	75	0	23.66	23.49	23.36	24.7
15	16QAM	1	0	23.79	23.71	23.59	
15	16QAM	1	37	23.83	23.74	23.53	
15	16QAM	1	74	23.89	23.79	23.58	23.7
15	16QAM	36	0	22.55	22.48	22.36	
15	16QAM	36	20	22.68	22.50	22.38	
15	16QAM	36	39	22.69	22.51	22.37	23.7
15	16QAM	75	0	22.66	22.50	22.37	
15	64QAM	1	0	22.69	22.57	22.47	
15	64QAM	1	37	22.77	22.67	22.39	23.7
15	64QAM	1	74	22.80	22.64	22.48	
15	64QAM	36	0	21.59	21.49	21.40	
15	64QAM	36	20	21.70	21.56	21.38	22.7
15	64QAM	36	39	21.72	21.53	21.42	
15	64QAM	75	0	21.68	21.51	21.39	
Channel				20900	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	24.43	24.34	24.16	25.7
10	QPSK	1	25	24.43	24.35	24.07	
10	QPSK	1	49	24.49	24.39	24.19	
10	QPSK	25	0	23.61	23.45	23.28	24.7
10	QPSK	25	12	23.64	23.49	23.31	
10	QPSK	25	25	23.63	23.46	23.32	
10	QPSK	50	0	23.63	23.47	23.31	24.7
10	16QAM	1	0	23.83	23.72	23.51	
10	16QAM	1	25	23.82	23.76	23.50	
10	16QAM	1	49	23.89	23.78	23.56	23.7
10	16QAM	25	0	22.61	22.44	22.29	
10	16QAM	25	12	22.65	22.49	22.32	
10	16QAM	25	25	22.63	22.45	22.30	23.7
10	16QAM	50	0	22.63	22.49	22.32	
10	64QAM	1	0	22.74	22.58	22.44	
10	64QAM	1	25	22.77	22.66	22.43	23.7
10	64QAM	1	49	22.79	22.65	22.45	
10	64QAM	25	0	21.65	21.49	21.33	
10	64QAM	25	12	21.70	21.54	21.35	22.7
10	64QAM	25	25	21.66	21.51	21.35	
10	64QAM	50	0	21.67	21.51	21.36	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	24.50	24.34	24.16	25.7
5	QPSK	1	12	24.49	24.45	24.23	
5	QPSK	1	24	24.53	24.44	24.19	
5	QPSK	12	0	23.63	23.45	23.28	24.7
5	QPSK	12	7	23.67	23.56	23.28	
5	QPSK	12	13	23.64	23.52	23.29	
5	QPSK	25	0	23.63	23.48	23.30	24.7
5	16QAM	1	0	23.84	23.66	23.46	
5	16QAM	1	12	23.85	23.74	23.49	
5	16QAM	1	24	23.85	23.81	23.50	23.7
5	16QAM	12	0	22.67	22.50	22.31	
5	16QAM	12	7	22.67	22.57	22.32	
5	16QAM	12	13	22.63	22.54	22.31	23.7
5	16QAM	25	0	22.64	22.51	22.32	
5	64QAM	1	0	22.77	22.59	22.40	
5	64QAM	1	12	22.78	22.65	22.41	23.7
5	64QAM	1	24	22.79	22.70	22.42	
5	64QAM	12	0	21.69	21.57	21.37	
5	64QAM	12	7	21.68	21.61	21.38	22.7
5	64QAM	12	13	21.69	21.61	21.35	
5	64QAM	25	0	21.66	21.54	21.34	22.7

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	24.16	24.08	24.10	25.5
10	QPSK	1	25	24.08	24.12	24.07	
10	QPSK	1	49	24.20	24.15	24.09	
10	QPSK	25	0	23.23	23.21	23.21	24.5
10	QPSK	25	12	23.28	23.22	23.26	
10	QPSK	25	25	23.27	23.29	23.25	
10	QPSK	50	0	23.30	23.24	23.27	24.5
10	16QAM	1	0	23.53	23.45	23.48	
10	16QAM	1	25	23.51	23.52	23.47	
10	16QAM	1	49	23.61	23.52	23.47	23.5
10	16QAM	25	0	22.24	22.22	22.20	
10	16QAM	25	12	22.31	22.21	22.26	
10	16QAM	25	25	22.21	22.28	22.20	23.5
10	16QAM	50	0	22.31	22.20	22.28	
10	64QAM	1	0	22.38	22.31	22.35	
10	64QAM	1	25	22.43	22.45	22.43	23.5
10	64QAM	1	49	22.49	22.45	22.40	
10	64QAM	25	0	21.25	21.25	21.24	
10	64QAM	25	12	21.34	21.28	21.32	22.5
10	64QAM	25	25	21.29	21.30	21.26	
10	64QAM	50	0	21.34	21.24	21.30	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	24.16	24.12	24.08	25.5
5	QPSK	1	12	24.15	24.19	24.16	
5	QPSK	1	24	24.12	24.16	24.09	
5	QPSK	12	0	23.25	23.22	23.21	24.5
5	QPSK	12	7	23.25	23.20	23.24	
5	QPSK	12	13	23.21	23.24	23.19	
5	QPSK	25	0	23.24	23.20	23.17	24.5
5	16QAM	1	0	23.51	23.49	23.41	
5	16QAM	1	12	23.46	23.48	23.44	
5	16QAM	1	24	23.47	23.49	23.43	23.5
5	16QAM	12	0	22.31	22.24	22.21	
5	16QAM	12	7	22.28	22.21	22.24	
5	16QAM	12	13	22.25	22.27	22.22	23.5
5	16QAM	25	0	22.24	22.24	22.17	
5	64QAM	1	0	22.46	22.35	22.34	
5	64QAM	1	12	22.40	22.39	22.37	22.5
5	64QAM	1	24	22.41	22.43	22.37	
5	64QAM	12	0	21.36	21.31	21.24	
5	64QAM	12	7	21.30	21.27	21.30	22.5
5	64QAM	12	13	21.30	21.29	21.26	
5	64QAM	25	0	21.28	21.25	21.17	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.19	24.17	24.11	25.5
3	QPSK	1	8	24.19	24.19	24.13	
3	QPSK	1	14	24.14	24.16	24.10	
3	QPSK	8	0	23.26	23.19	23.17	24.5
3	QPSK	8	4	23.26	23.26	23.19	
3	QPSK	8	7	23.21	23.19	23.15	
3	QPSK	15	0	23.22	23.17	23.12	24.5
3	16QAM	1	0	23.54	23.46	23.42	
3	16QAM	1	8	23.54	23.57	23.46	
3	16QAM	1	14	23.50	23.50	23.43	23.5
3	16QAM	8	0	22.32	22.27	22.22	
3	16QAM	8	4	22.31	22.34	22.26	
3	16QAM	8	7	22.29	22.27	22.23	23.5
3	16QAM	15	0	22.26	22.20	22.15	
3	64QAM	1	0	22.49	22.41	22.36	
3	64QAM	1	8	22.48	22.48	22.44	22.5
3	64QAM	1	14	22.42	22.43	22.35	
3	64QAM	8	0	21.35	21.25	21.23	
3	64QAM	8	4	21.35	21.34	21.29	22.5
3	64QAM	8	7	21.27	21.28	21.23	
3	64QAM	15	0	21.27	21.22	21.17	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.10	24.04	24.05	25.5
1.4	QPSK	1	3	24.14	24.13	24.05	
1.4	QPSK	1	5	24.09	24.07	24.00	
1.4	QPSK	3	0	24.15	24.06	24.04	24.5
1.4	QPSK	3	1	24.19	24.09	24.07	
1.4	QPSK	3	3	24.10	24.10	24.01	
1.4	QPSK	6	0	23.22	23.12	23.09	24.5
1.4	16QAM	1	0	23.44	23.40	23.37	
1.4	16QAM	1	3	23.50	23.49	23.40	
1.4	16QAM	1	5	23.40	23.41	23.32	23.5
1.4	16QAM	3	0	23.23	23.15	23.14	
1.4	16QAM	3	1	23.29	23.19	23.18	
1.4	16QAM	3	3	23.21	23.20	23.08	23.5
1.4	16QAM	6	0	22.27	22.19	22.16	
1.4	64QAM	1	0	22.41	22.31	22.28	
1.4	64QAM	1	3	22.44	22.40	22.31	23.5
1.4	64QAM	1	5	22.35	22.33	22.24	
1.4	64QAM	3	0	22.37	22.28	22.25	
1.4	64QAM	3	1	22.40	22.30	22.29	22.5
1.4	64QAM	3	3	22.31	22.33	22.25	
1.4	64QAM	6	0	21.20	21.14	21.10	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23230			Tune-up limit (dbm)
Frequency (MHz)				752			
10	QPSK	1	0	24.05			25.2
10	QPSK	1	25	24.00			
10	QPSK	1	49	24.02			
10	QPSK	25	0	23.06			24.2
10	QPSK	25	12	23.11			
10	QPSK	25	25	23.10			
10	QPSK	50	0	23.12			24.2
10	16QAM	1	0	23.30			
10	16QAM	1	25	23.34			
10	16QAM	1	49	23.30			23.2
10	16QAM	25	0	22.10			
10	16QAM	25	12	22.12			
10	16QAM	25	25	22.11			23.2
10	16QAM	50	0	22.11			
10	64QAM	1	0	23.05			
10	64QAM	1	25	23.07			23.2
10	64QAM	1	49	23.05			
10	64QAM	25	0	22.06			
10	64QAM	25	12	22.04			22.2
10	64QAM	25	25	22.02			
10	64QAM	50	0	22.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.96	23.94	23.94	25.2
5	QPSK	1	12	23.99	24.04	24.02	
5	QPSK	1	24	24.04	23.99	24.01	
5	QPSK	12	0	23.09	23.10	23.08	24.2
5	QPSK	12	7	23.10	23.11	23.02	
5	QPSK	12	13	23.12	23.13	23.07	
5	QPSK	25	0	23.15	23.12	23.03	24.2
5	16QAM	1	0	23.18	23.25	23.29	
5	16QAM	1	12	23.29	23.30	23.25	
5	16QAM	1	24	23.36	23.31	23.21	23.2
5	16QAM	12	0	22.17	22.11	22.14	
5	16QAM	12	7	22.16	22.10	22.09	
5	16QAM	12	13	22.15	22.13	22.15	23.2
5	16QAM	25	0	22.17	22.09	22.08	
5	64QAM	1	0	22.11	22.23	22.16	
5	64QAM	1	12	22.24	22.25	22.23	23.2
5	64QAM	1	24	22.26	22.27	22.20	
5	64QAM	12	0	21.19	21.15	21.16	
5	64QAM	12	7	21.19	21.14	21.10	22.2
5	64QAM	12	13	21.18	21.17	21.13	
5	64QAM	25	0	21.20	21.14	21.08	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch /	Power Middle Ch /	Power High Ch /	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.35			25.4
10	QPSK	1	25	24.04			
10	QPSK	1	49	24.01			
10	QPSK	25	0	23.42			24.4
10	QPSK	25	12	23.42			
10	QPSK	25	25	23.46			
10	QPSK	50	0	23.50			24.4
10	16QAM	1	0	23.83			
10	16QAM	1	25	23.77			
10	16QAM	1	49	23.71			23.4
10	16QAM	25	0	22.42			
10	16QAM	25	12	22.43			
10	16QAM	25	25	22.46			23.4
10	16QAM	50	0	22.50			
10	64QAM	1	0	22.67			
10	64QAM	1	25	22.67			23.4
10	64QAM	1	49	22.64			
10	64QAM	25	0	21.48			
10	64QAM	25	12	21.48			22.4
10	64QAM	25	25	21.52			
10	64QAM	50	0	21.56			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.11	24.02	24.03	25.4
5	QPSK	1	12	24.19	24.17	24.12	
5	QPSK	1	24	24.09	24.06	24.05	
5	QPSK	12	0	23.55	23.40	23.40	24.4
5	QPSK	12	7	23.54	23.49	23.50	
5	QPSK	12	13	23.51	23.45	23.41	
5	QPSK	25	0	23.49	23.44	23.38	24.4
5	16QAM	1	0	23.73	23.68	23.66	
5	16QAM	1	12	23.78	23.75	23.74	
5	16QAM	1	24	23.70	23.69	23.68	23.4
5	16QAM	12	0	22.57	22.42	22.47	
5	16QAM	12	7	22.55	22.55	22.53	
5	16QAM	12	13	22.51	22.47	22.45	23.4
5	16QAM	25	0	22.54	22.47	22.41	
5	64QAM	1	0	22.67	22.67	22.63	
5	64QAM	1	12	22.71	22.67	22.70	23.4
5	64QAM	1	24	22.67	22.65	22.67	
5	64QAM	12	0	21.61	21.50	21.48	
5	64QAM	12	7	21.61	21.59	21.56	22.4
5	64QAM	12	13	21.55	21.52	21.49	
5	64QAM	25	0	21.55	21.47	21.42	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.57	24.49	24.44	25.5
10	QPSK	1	25	24.55	24.56	24.50	
10	QPSK	1	49	24.65	24.56	24.55	
10	QPSK	25	0	23.56	23.56	23.56	24.5
10	QPSK	25	12	23.70	23.65	23.62	
10	QPSK	25	25	23.72	23.71	23.69	
10	QPSK	50	0	23.68	23.61	23.58	24.5
10	16QAM	1	0	23.94	23.88	23.84	
10	16QAM	1	25	23.94	23.92	23.91	
10	16QAM	1	49	23.95	23.93	23.91	23.5
10	16QAM	25	0	22.57	22.57	22.57	
10	16QAM	25	12	22.73	22.64	22.63	
10	16QAM	25	25	22.69	22.65	22.72	23.5
10	16QAM	50	0	22.71	22.61	22.60	
10	64QAM	1	0	22.82	22.72	22.76	23.5
10	64QAM	1	25	22.86	22.86	22.83	
10	64QAM	1	49	22.86	22.82	22.68	
10	64QAM	25	0	21.62	21.60	21.60	22.5
10	64QAM	25	12	21.75	21.69	21.66	
10	64QAM	25	25	21.74	21.74	21.72	
10	64QAM	50	0	21.72	21.66	21.64	
Channel				23785	23790	23825	
Frequency (MHz)				706.5	710	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.49	24.51	24.50	25.5
5	QPSK	1	12	24.61	24.62	24.54	
5	QPSK	1	24	24.64	24.62	24.59	
5	QPSK	12	0	23.61	23.65	23.60	24.5
5	QPSK	12	7	23.66	23.62	23.63	
5	QPSK	12	13	23.67	23.68	23.63	
5	QPSK	25	0	23.65	23.61	23.63	24.5
5	16QAM	1	0	23.67	23.65	23.64	
5	16QAM	1	12	23.91	23.91	23.85	
5	16QAM	1	24	23.97	23.96	23.89	23.5
5	16QAM	12	0	22.65	22.67	22.60	
5	16QAM	12	7	22.69	22.70	22.70	
5	16QAM	12	13	22.69	22.70	22.63	23.5
5	16QAM	25	0	22.68	22.64	22.67	
5	64QAM	1	0	22.57	22.65	22.77	
5	64QAM	1	12	22.81	22.85	22.80	23.5
5	64QAM	1	24	22.87	22.89	22.82	
5	64QAM	12	0	21.70	21.72	21.68	
5	64QAM	12	7	21.75	21.73	21.74	22.5
5	64QAM	12	13	21.74	21.74	21.67	
5	64QAM	25	0	21.70	21.66	21.69	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26140	26340	26540	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	24.22	24.16	24.06	25.7
20	QPSK	1	49	24.17	24.16	24.05	
20	QPSK	1	99	24.12	24.12	23.91	
20	QPSK	50	0	23.32	23.28	23.17	24.7
20	QPSK	50	24	23.36	23.34	23.17	
20	QPSK	50	50	23.31	23.31	23.23	
20	QPSK	100	0	23.38	23.33	23.18	
20	16QAM	1	0	23.58	23.52	23.43	24.7
20	16QAM	1	49	23.53	23.51	23.39	
20	16QAM	1	99	23.44	23.49	23.23	
20	16QAM	50	0	22.30	22.30	22.17	23.7
20	16QAM	50	24	22.37	22.35	22.20	
20	16QAM	50	50	22.35	22.33	22.24	
20	16QAM	100	0	22.36	22.33	22.19	
20	64QAM	1	0	22.45	22.40	22.22	23.7
20	64QAM	1	49	22.40	22.35	21.96	
20	64QAM	1	99	22.43	22.38	21.73	
20	64QAM	50	0	21.34	21.31	20.87	22.7
20	64QAM	50	24	21.41	21.38	20.93	
20	64QAM	50	50	21.36	21.35	20.74	
20	64QAM	100	0	21.39	21.37	20.64	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	24.27	24.22	24.10	25.7
15	QPSK	1	37	24.20	24.17	24.08	
15	QPSK	1	74	24.24	24.23	23.85	
15	QPSK	36	0	23.41	23.29	23.16	24.7
15	QPSK	36	20	23.36	23.35	23.24	
15	QPSK	36	39	23.32	23.32	23.20	
15	QPSK	75	0	23.36	23.32	23.24	24.7
15	16QAM	1	0	23.52	23.51	23.42	
15	16QAM	1	37	23.53	23.50	23.40	
15	16QAM	1	74	23.50	23.51	23.21	
15	16QAM	36	0	22.42	22.30	22.20	23.7
15	16QAM	36	20	22.38	22.36	22.27	
15	16QAM	36	39	22.32	22.32	22.20	
15	16QAM	75	0	22.37	22.36	22.25	23.7
15	64QAM	1	0	22.43	22.38	21.82	
15	64QAM	1	37	22.43	22.45	21.89	
15	64QAM	1	74	22.37	22.45	21.71	
15	64QAM	36	0	21.46	21.33	20.88	22.7
15	64QAM	36	20	21.43	21.40	20.96	
15	64QAM	36	39	21.36	21.37	20.71	
15	64QAM	75	0	21.39	21.37	20.70	Tune-up limit (dBm)
Channel				26090	26340	26640	
Frequency (MHz)				1855	1880	1910	Tune-up limit (dBm)
10	QPSK	1	0	24.24	24.20	24.08	
10	QPSK	1	25	24.21	24.17	24.10	25.7
10	QPSK	1	49	24.22	24.22	23.83	
10	QPSK	25	0	23.36	23.33	23.13	24.7
10	QPSK	25	12	23.36	23.35	23.26	
10	QPSK	25	25	23.37	23.36	23.19	
10	QPSK	50	0	23.38	23.34	23.19	
10	16QAM	1	0	23.66	23.59	23.43	24.7
10	16QAM	1	25	23.63	23.57	23.48	
10	16QAM	1	49	23.60	23.61	23.19	
10	16QAM	25	0	22.37	22.33	22.14	23.7
10	16QAM	25	12	22.40	22.38	22.26	
10	16QAM	25	25	22.39	22.33	22.22	
10	16QAM	50	0	22.38	22.36	22.16	
10	64QAM	1	0	22.54	22.43	22.03	23.7
10	64QAM	1	25	22.56	22.49	21.90	
10	64QAM	1	49	22.49	22.55	21.72	
10	64QAM	25	0	21.39	21.38	20.87	22.7
10	64QAM	25	12	21.44	21.41	20.91	
10	64QAM	25	25	21.40	21.40	20.64	
10	64QAM	50	0	21.38	21.41	20.59	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	24.26	24.18	24.13	25.7
5	QPSK	1	12	24.32	24.29	24.12	
5	QPSK	1	24	24.30	24.28	23.82	
5	QPSK	12	0	23.32	23.29	23.19	24.7
5	QPSK	12	7	23.38	23.34	23.23	
5	QPSK	12	13	23.37	23.34	23.04	
5	QPSK	25	0	23.33	23.33	23.16	
5	16QAM	1	0	23.62	23.53	23.46	24.7
5	16QAM	1	12	23.61	23.56	23.41	
5	16QAM	1	24	23.64	23.60	23.15	
5	16QAM	12	0	22.34	22.33	22.19	23.7
5	16QAM	12	7	22.41	22.38	22.27	
5	16QAM	12	13	22.43	22.39	22.19	
5	16QAM	25	0	22.39	22.33	22.21	
5	64QAM	1	0	22.52	22.46	21.85	23.7
5	64QAM	1	12	22.49	22.45	21.71	
5	64QAM	1	24	22.53	22.50	21.74	
5	64QAM	12	0	21.40	21.40	20.77	22.7
5	64QAM	12	7	21.47	21.45	20.63	
5	64QAM	12	13	21.47	21.43	20.44	
5	64QAM	25	0	21.39	21.36	20.54	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	24.22	24.11	24.06	25.7
3	QPSK	1	8	24.36	24.33	23.95	
3	QPSK	1	14	24.32	24.31	23.74	
3	QPSK	8	0	23.29	23.27	23.15	24.7
3	QPSK	8	4	23.35	23.36	23.06	
3	QPSK	8	7	23.41	23.38	22.93	
3	QPSK	15	0	23.38	23.33	22.99	
3	16QAM	1	0	23.57	23.44	23.33	24.7
3	16QAM	1	8	23.72	23.67	23.23	
3	16QAM	1	14	23.67	23.66	23.05	
3	16QAM	8	0	22.39	22.37	22.20	23.7
3	16QAM	8	4	22.46	22.40	22.22	
3	16QAM	8	7	22.44	22.43	22.14	
3	16QAM	15	0	22.40	22.37	22.19	
3	64QAM	1	0	22.46	22.36	21.70	23.7
3	64QAM	1	8	22.59	22.56	21.72	
3	64QAM	1	14	22.59	22.57	21.75	
3	64QAM	8	0	21.39	21.37	21.71	22.7
3	64QAM	8	4	21.49	21.43	20.43	
3	64QAM	8	7	21.47	21.45	20.30	
3	64QAM	15	0	21.41	21.37	20.36	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	24.18	24.15	23.83	25.7
1.4	QPSK	1	3	24.25	24.25	23.82	
1.4	QPSK	1	5	24.25	24.21	23.70	
1.4	QPSK	3	0	24.19	24.19	23.81	
1.4	QPSK	3	1	24.27	24.22	23.83	24.7
1.4	QPSK	3	3	24.26	24.21	23.72	
1.4	QPSK	6	0	23.28	23.27	22.91	
1.4	16QAM	1	0	23.51	23.46	23.14	24.7
1.4	16QAM	1	3	23.60	23.58	23.13	
1.4	16QAM	1	5	23.56	23.55	23.06	
1.4	16QAM	3	0	23.29	23.27	22.97	23.7
1.4	16QAM	3	1	23.39	23.34	22.97	
1.4	16QAM	3	3	23.30	23.31	22.90	
1.4	16QAM	6	0	22.37	22.32	22.07	23.7
1.4	64QAM	1	0	22.41	22.39	21.71	
1.4	64QAM	1	3	22.52	22.53	21.70	
1.4	64QAM	1	5	22.47	22.41	21.71	
1.4	64QAM	3	0	22.40	22.36	21.72	23.7
1.4	64QAM	3	1	22.47	22.43	21.72	
1.4	64QAM	3	3	22.47	22.42	21.71	
1.4	64QAM	6	0	21.31	21.29	20.73	22.7

Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26740	26765	26790	24.2
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	23.08	23.01	23.03	24.2
15	QPSK	1	37	23.01	23.00	23.01	
15	QPSK	1	74	23.02	23.01	23.03	
15	QPSK	36	0	23.03	23.04	23.06	
15	QPSK	36	20	23.07	23.05	23.01	
15	QPSK	36	39	23.03	23.07	23.03	24.2
15	QPSK	75	0	23.08	23.00	23.03	
15	16QAM	1	0	23.26	23.18	23.24	
15	16QAM	1	37	23.17	23.25	23.23	
15	16QAM	1	74	23.23	23.34	23.18	
15	16QAM	36	0	22.50	22.55	22.57	23.7
15	16QAM	36	20	22.55	22.50	22.52	
15	16QAM	36	39	22.54	22.57	22.55	
15	16QAM	75	0	22.55	22.51	22.53	
15	64QAM	1	0	22.60	22.54	22.60	
15	64QAM	1	37	22.58	22.66	22.64	23.7
15	64QAM	1	74	22.63	22.69	21.99	
15	64QAM	36	0	21.54	21.56	21.59	
15	64QAM	36	20	21.58	21.54	21.55	
15	64QAM	36	39	21.57	21.64	21.62	
15	64QAM	75	0	21.57	21.54	21.57	22.7
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	24.2
10	QPSK	1	0	23.06	23.02	23.04	
10	QPSK	1	25	23.02	23.01	23.00	24.2
10	QPSK	1	49	23.01	23.02	23.00	
10	QPSK	25	0	23.10	23.05	23.09	
10	QPSK	25	12	23.10	23.06	23.11	
10	QPSK	25	25	23.00	23.09	23.07	
10	QPSK	50	0	23.06	23.06	23.06	24.2
10	16QAM	1	0	23.32	23.33	23.30	
10	16QAM	1	25	23.29	23.31	23.31	
10	16QAM	1	49	23.32	23.31	23.31	
10	16QAM	25	0	22.61	22.57	22.57	
10	16QAM	25	12	22.60	22.56	22.54	23.7
10	16QAM	25	25	22.51	22.56	22.50	
10	16QAM	50	0	22.58	22.54	22.55	
10	64QAM	1	0	22.78	22.69	22.77	
10	64QAM	1	25	22.63	22.77	22.83	
10	64QAM	1	49	22.75	22.76	22.42	22.7
10	64QAM	25	0	21.57	21.60	21.62	
10	64QAM	25	12	21.47	21.61	21.65	
10	64QAM	25	25	21.55	21.61	21.51	
10	64QAM	50	0	21.54	21.60	21.61	
Channel				26715	26865	27015	24.2
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.10	23.00	23.02	24.2
5	QPSK	1	12	23.05	23.02	23.00	
5	QPSK	1	24	23.01	23.04	23.02	
5	QPSK	12	0	23.13	23.07	23.11	
5	QPSK	12	7	23.11	23.15	23.07	
5	QPSK	12	13	23.02	23.08	23.01	24.2
5	QPSK	25	0	23.09	23.04	23.07	
5	16QAM	1	0	23.31	23.31	23.33	
5	16QAM	1	12	23.32	23.31	23.25	
5	16QAM	1	24	23.26	23.30	23.22	
5	16QAM	12	0	22.70	22.57	22.60	23.7
5	16QAM	12	7	22.60	22.63	22.58	
5	16QAM	12	13	22.55	22.57	22.51	
5	16QAM	25	0	22.63	22.54	22.58	
5	64QAM	1	0	22.66	22.69	22.76	
5	64QAM	1	12	22.63	22.75	21.99	22.7
5	64QAM	1	24	22.42	22.76	22.09	
5	64QAM	12	0	21.70	21.63	21.34	
5	64QAM	12	7	21.65	21.70	20.94	
5	64QAM	12	13	21.48	21.66	20.86	
5	64QAM	25	0	21.54	21.59	21.07	24.2
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	24.2
3	QPSK	1	0	23.09	23.02	23.00	
3	QPSK	1	8	23.06	23.09	23.00	24.2
3	QPSK	1	14	23.02	23.05	23.01	
3	QPSK	8	0	23.12	23.09	23.04	
3	QPSK	8	4	23.12	23.17	23.03	
3	QPSK	8	7	23.07	23.05	23.00	24.2
3	QPSK	15	0	23.08	23.04	23.03	
3	16QAM	1	0	23.30	23.30	23.30	
3	16QAM	1	8	23.32	23.31	23.28	
3	16QAM	1	14	23.27	23.31	23.24	
3	16QAM	8	0	22.69	22.66	22.60	23.7
3	16QAM	8	4	22.67	22.66	22.59	
3	16QAM	8	7	22.62	22.63	22.53	
3	16QAM	15	0	22.66	22.57	22.56	
3	64QAM	1	0	22.73	22.73	21.96	
3	64QAM	1	8	22.79	22.81	21.83	22.7
3	64QAM	1	14	22.67	22.76	21.95	
3	64QAM	8	0	21.72	21.63	20.78	
3	64QAM	8	4	21.71	21.72	20.85	
3	64QAM	8	7	21.64	21.65	20.94	
3	64QAM	15	0	21.65	21.57	20.89	24.2
Channel				26997	26995	27033	
Frequency (MHz)				814.7	831.5	848.3	24.2
1.4	QPSK	1	0	23.00	23.01	23.02	
1.4	QPSK	1	3	23.02	23.00	23.01	24.2
1.4	QPSK	1	5	23.03	23.02	23.01	
1.4	QPSK	3	0	23.03	23.04	23.02	
1.4	QPSK	3	1	23.04	23.05	23.04	
1.4	QPSK	3	3	23.03	23.01	23.05	24.2
1.4	QPSK	6	0	23.07	23.03	22.93	
1.4	16QAM	1	0	23.29	23.25	23.20	
1.4	16QAM	1	3	23.32	23.31	23.23	
1.4	16QAM	1	5	23.27	23.25	23.14	
1.4	16QAM	3	0	23.09	23.01	22.96	23.7
1.4	16QAM	3	1	23.13	23.05	23.01	
1.4	16QAM	3	3	23.04	23.01	22.94	
1.4	16QAM	6	0	22.64	22.58	22.53	
1.4	64QAM	1	0	22.72	22.63	21.91	
1.4	64QAM	1	3	22.76	22.74	22.05	23.7
1.4	64QAM	1	5	22.67	22.66	22.09	
1.4	64QAM	3	0	22.73	22.63	21.90	
1.4	64QAM	3	1	22.75	22.66	22.02	
1.4	64QAM	3	3	22.65	22.66	22.14	
1.4	64QAM	6	0	21.55	21.55	20.96	22.7

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				2771.0			
Frequency (MHz)				2310			
10	QPSK	1	0		22.65		23.7
10	QPSK	1	25		22.64		
10	QPSK	1	49		22.64		
10	QPSK	25	0		21.50		22.7
10	QPSK	25	12		21.56		
10	QPSK	25	25		21.58		
10	QPSK	50	0		21.54		22.7
10	16QAM	1	0		21.84		
10	16QAM	1	25		21.85		
10	16QAM	1	49		21.82		21.7
10	16QAM	25	0		20.49		
10	16QAM	25	12		20.53		
10	16QAM	25	25		20.53		21.7
10	16QAM	50	0		20.51		
10	64QAM	1	0		20.67		
10	64QAM	1	25		20.79		21.7
10	64QAM	1	49		20.69		
10	64QAM	25	0		19.52		
10	64QAM	25	12		19.59		20.7
10	64QAM	25	25		19.60		
10	64QAM	50	0		19.58		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dbm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.40	22.42	22.45	23.7
5	QPSK	1	12	22.52	22.56	22.50	
5	QPSK	1	24	22.57	22.48	22.47	
5	QPSK	12	0	21.51	21.53	21.55	22.7
5	QPSK	12	7	21.63	21.56	21.60	
5	QPSK	12	13	21.62	21.56	21.53	
5	QPSK	25	0	21.59	21.52	21.57	22.7
5	16QAM	1	0	21.73	21.73	21.77	
5	16QAM	1	12	21.80	21.81	21.78	
5	16QAM	1	24	21.92	21.80	21.75	21.7
5	16QAM	12	0	20.56	20.54	20.58	
5	16QAM	12	7	20.64	20.60	20.63	
5	16QAM	12	13	20.64	20.58	20.55	21.7
5	16QAM	25	0	20.61	20.53	20.59	
5	64QAM	1	0	20.66	20.65	20.69	
5	64QAM	1	12	20.71	20.76	20.72	21.7
5	64QAM	1	24	20.82	20.75	20.73	
5	64QAM	12	0	19.59	19.60	19.63	
5	64QAM	12	7	19.70	19.66	19.65	20.7
5	64QAM	12	13	19.67	19.64	19.59	
5	64QAM	25	0	19.66	19.60	19.61	



Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	25.7
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.78	24.77	24.71	24.7
20	QPSK	1	49	24.64	24.61	24.59	
20	QPSK	1	99	24.70	24.75	24.56	
20	QPSK	50	0	23.62	23.57	23.58	
20	QPSK	50	24	23.66	23.54	23.62	
20	QPSK	50	50	23.62	23.58	23.58	24.7
20	QPSK	100	0	23.67	23.59	23.64	
20	16QAM	1	0	23.91	23.89	23.84	
20	16QAM	1	49	23.79	23.72	23.71	
20	16QAM	1	99	23.88	23.75	23.68	
20	16QAM	50	0	22.59	22.57	22.61	23.7
20	16QAM	50	24	22.66	22.55	22.62	
20	16QAM	50	50	22.66	22.59	22.59	
20	16QAM	100	0	22.65	22.62	22.65	
20	64QAM	1	0	22.76	22.77	22.69	
20	64QAM	1	49	22.63	22.64	22.63	23.7
20	64QAM	1	99	22.73	22.74	22.60	
20	64QAM	50	0	21.62	21.60	21.62	
20	64QAM	50	24	21.70	21.57	21.65	
20	64QAM	50	50	21.67	21.62	21.60	
20	64QAM	100	0	21.70	21.63	21.63	22.7
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	25.7
15	QPSK	1	0	24.58	24.53	24.48	
15	QPSK	1	37	24.46	24.40	24.41	24.7
15	QPSK	1	74	24.57	24.51	24.41	
15	QPSK	36	0	23.59	23.58	23.59	
15	QPSK	36	20	23.66	23.61	23.64	
15	QPSK	36	39	23.65	23.60	23.59	
15	QPSK	75	0	23.66	23.62	23.55	24.7
15	16QAM	1	0	23.64	23.62	23.64	
15	16QAM	1	37	23.78	23.73	23.75	
15	16QAM	1	74	23.88	23.79	23.72	
15	16QAM	36	0	22.60	22.55	22.58	
15	16QAM	36	20	22.66	22.61	22.59	23.7
15	16QAM	36	39	22.66	22.59	22.61	
15	16QAM	75	0	22.67	22.64	22.54	
15	64QAM	1	0	22.75	22.72	22.67	
15	64QAM	1	37	22.73	22.69	22.63	
15	64QAM	1	74	22.77	22.72	22.62	22.7
15	64QAM	36	0	21.61	21.61	21.63	
15	64QAM	36	20	21.65	21.60	21.62	
15	64QAM	36	39	21.70	21.63	21.60	
15	64QAM	75	0	21.68	21.62	21.57	
Channel				132022	132322	132622	25.7
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.60	24.54	24.56	25.7
10	QPSK	1	25	24.58	24.49	24.52	
10	QPSK	1	49	24.59	24.50	24.53	
10	QPSK	25	0	23.70	23.57	23.57	
10	QPSK	25	12	23.71	23.66	23.60	
10	QPSK	25	25	23.69	23.65	23.66	24.7
10	QPSK	50	0	23.72	23.67	23.59	
10	16QAM	1	0	24.00	23.94	23.92	
10	16QAM	1	25	23.95	23.92	23.92	
10	16QAM	1	49	23.98	23.88	23.89	
10	16QAM	25	0	22.70	22.60	22.58	23.7
10	16QAM	25	12	22.73	22.67	22.62	
10	16QAM	25	25	22.68	22.61	22.64	
10	16QAM	50	0	22.72	22.64	22.59	
10	64QAM	1	0	22.88	22.79	22.80	
10	64QAM	1	25	22.87	22.82	22.85	23.7
10	64QAM	1	49	22.84	22.81	22.81	
10	64QAM	25	0	21.72	21.62	21.62	
10	64QAM	25	12	21.76	21.70	21.64	
10	64QAM	25	25	21.73	21.64	21.69	
10	64QAM	50	0	21.75	21.68	21.63	22.7
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	25.7
5	QPSK	1	0	24.63	24.51	24.58	
5	QPSK	1	12	24.66	24.58	24.61	24.7
5	QPSK	1	24	24.60	24.57	24.55	
5	QPSK	12	0	23.71	23.59	23.67	
5	QPSK	12	7	23.74	23.70	23.72	
5	QPSK	12	13	23.71	23.65	23.67	24.7
5	QPSK	25	0	23.71	23.63	23.64	
5	16QAM	1	0	23.96	23.85	23.91	
5	16QAM	1	12	23.99	23.94	23.92	
5	16QAM	1	24	23.96	23.89	23.89	
5	16QAM	12	0	22.77	22.66	22.70	23.7
5	16QAM	12	7	22.79	22.69	22.71	
5	16QAM	12	13	22.73	22.70	22.68	
5	16QAM	25	0	22.72	22.69	22.67	
5	64QAM	1	0	22.86	22.80	22.83	
5	64QAM	1	12	22.94	22.83	22.85	23.7
5	64QAM	1	24	22.89	22.84	22.81	
5	64QAM	12	0	21.80	21.67	21.73	
5	64QAM	12	7	21.79	21.76	21.76	
5	64QAM	12	13	21.76	21.69	21.74	
5	64QAM	25	0	21.72	21.68	21.66	22.7
Channel				131967	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	25.7
3	QPSK	1	0	24.64	24.54	24.58	
3	QPSK	1	8	24.69	24.65	24.64	24.7
3	QPSK	1	14	24.65	24.58	24.59	
3	QPSK	8	0	23.72	23.62	23.68	
3	QPSK	8	4	23.73	23.70	23.69	
3	QPSK	8	7	23.71	23.64	23.62	24.7
3	QPSK	15	0	23.71	23.67	23.63	
3	16QAM	1	0	23.97	23.85	23.87	
3	16QAM	1	8	24.04	24.00	23.99	
3	16QAM	1	14	23.94	23.91	23.88	
3	16QAM	8	0	22.78	22.69	22.72	23.7
3	16QAM	8	4	22.82	22.72	22.73	
3	16QAM	8	7	22.79	22.72	22.70	
3	16QAM	15	0	22.75	22.66	22.69	
3	64QAM	1	0	22.91	22.79	22.81	
3	64QAM	1	8	22.99	22.92	22.91	23.7
3	64QAM	1	14	22.95	22.86	22.82	
3	64QAM	8	0	21.79	21.66	21.75	
3	64QAM	8	4	21.80	21.75	21.76	
3	64QAM	8	7	21.74	21.72	21.69	
3	64QAM	15	0	21.74	21.66	21.69	22.7
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	25.7
1.4	QPSK	1	0	24.56	24.46	24.50	
1.4	QPSK	1	3	24.57	24.51	24.57	24.7
1.4	QPSK	1	5	24.53	24.48	24.50	
1.4	QPSK	3	0	24.60	24.54	24.51	
1.4	QPSK	3	1	24.63	24.58	24.55	
1.4	QPSK	3	3	24.56	24.51	24.50	24.7
1.4	QPSK	6	0	23.62	23.55	23.59	
1.4	16QAM	1	0	23.67	23.60	23.62	
1.4	16QAM	1	3	23.95	23.89	23.85	
1.4	16QAM	1	5	23.86	23.81	23.78	
1.4	16QAM	3	0	23.69	23.63	23.62	23.7
1.4	16QAM	3	1	23.71	23.65	23.63	
1.4	16QAM	3	3	23.65	23.60	23.57	
1.4	16QAM	6	0	22.69	22.63	22.66	
1.4	64QAM	1	0	22.82	22.76	22.78	
1.4	64QAM	1	3	22.88	22.85	22.83	23.7
1.4	64QAM	1	5	22.81	22.75	22.73	
1.4	64QAM	3	0	22.78	22.72	22.74	
1.4	64QAM	3	1	22.82	22.78	22.78	
1.4	64QAM	3	3	22.78	22.69	22.75	
1.4	64QAM	6	0	21.67	21.59	21.59	22.7

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.80	24.79	25.7
20	QPSK	1	49	24.76	24.75	24.73	
20	QPSK	1	99	24.77	24.73	24.69	
20	QPSK	50	0	23.92	23.86	23.86	24.7
20	QPSK	50	24	23.94	23.86	23.82	
20	QPSK	50	50	23.93	23.87	23.83	
20	QPSK	100	0	23.93	23.88	23.89	24.7
20	16QAM	1	0	24.24	24.15	24.14	
20	16QAM	1	49	24.11	24.13	24.05	
20	16QAM	1	99	24.11	24.06	24.02	23.7
20	16QAM	50	0	22.91	22.86	22.88	
20	16QAM	50	24	22.95	22.85	22.84	
20	16QAM	50	50	22.92	22.89	22.85	23.7
20	16QAM	100	0	22.94	22.87	22.90	
20	64QAM	1	0	22.19	22.67	23.00	
20	64QAM	1	49	22.74	22.99	22.35	22.7
20	64QAM	1	99	23.01	22.53	22.89	
20	64QAM	50	0	20.95	21.85	21.51	
20	64QAM	50	24	21.45	21.75	21.74	22.7
20	64QAM	50	50	21.93	21.54	21.87	
20	64QAM	100	0	21.53	21.86	21.91	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.90	24.81	24.78	25.7
15	QPSK	1	37	24.66	24.73	24.72	
15	QPSK	1	74	24.73	24.76	24.69	
15	QPSK	36	0	23.88	23.86	23.82	24.7
15	QPSK	36	20	23.93	23.85	23.92	
15	QPSK	36	39	23.92	23.88	23.86	
15	QPSK	75	0	23.92	23.85	23.80	24.7
15	16QAM	1	0	24.20	24.13	24.11	
15	16QAM	1	37	23.92	24.09	24.06	
15	16QAM	1	74	24.03	24.06	24.03	23.7
15	16QAM	36	0	22.78	22.88	22.84	
15	16QAM	36	20	22.88	22.94	22.89	
15	16QAM	36	39	22.94	22.89	22.86	23.7
15	16QAM	75	0	22.94	22.94	22.81	
15	64QAM	1	0	22.13	22.70	22.87	
15	64QAM	1	37	21.75	23.01	23.01	22.7
15	64QAM	1	74	22.94	22.62	22.95	
15	64QAM	36	0	20.83	21.90	21.52	
15	64QAM	36	20	20.86	21.78	21.93	22.7
15	64QAM	36	39	21.52	21.45	21.91	
15	64QAM	75	0	21.35	21.84	21.80	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.85	24.74	24.76	25.7
10	QPSK	1	25	24.67	24.71	24.67	
10	QPSK	1	49	24.70	24.74	24.64	
10	QPSK	25	0	23.91	23.81	23.77	24.7
10	QPSK	25	12	23.77	23.82	23.80	
10	QPSK	25	25	23.81	23.87	23.80	
10	QPSK	50	0	23.90	23.83	23.79	24.7
10	16QAM	1	0	24.23	24.11	24.15	
10	16QAM	1	25	24.03	24.10	24.08	
10	16QAM	1	49	24.06	24.04	24.01	23.7
10	16QAM	25	0	22.79	22.82	22.77	
10	16QAM	25	12	22.68	22.83	22.77	
10	16QAM	25	25	22.65	22.83	22.79	23.7
10	16QAM	50	0	22.87	22.81	22.77	
10	64QAM	1	0	21.83	22.98	23.02	
10	64QAM	1	25	21.90	23.04	23.03	22.7
10	64QAM	1	49	22.13	22.22	22.55	
10	64QAM	25	0	20.74	21.96	21.82	
10	64QAM	25	12	20.75	21.77	21.84	22.7
10	64QAM	25	25	20.68	21.35	21.71	
10	64QAM	50	0	20.81	21.58	21.83	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.81	24.80	24.80	25.7
5	QPSK	1	12	24.74	24.91	24.76	
5	QPSK	1	24	24.76	24.75	24.69	
5	QPSK	12	0	23.72	23.87	23.82	24.7
5	QPSK	12	7	23.78	23.89	23.84	
5	QPSK	12	13	23.78	23.85	23.77	
5	QPSK	25	0	23.79	23.82	23.77	24.7
5	16QAM	1	0	23.89	24.14	24.10	
5	16QAM	1	12	23.97	24.11	24.06	
5	16QAM	1	24	24.02	24.10	24.00	23.7
5	16QAM	12	0	22.63	22.91	22.87	
5	16QAM	12	7	22.74	22.93	22.87	
5	16QAM	12	13	22.80	22.86	22.79	23.7
5	16QAM	25	0	22.69	22.96	22.77	
5	64QAM	1	0	21.71	23.02	22.98	
5	64QAM	1	12	21.82	22.98	22.79	22.7
5	64QAM	1	24	22.00	22.67	22.32	
5	64QAM	12	0	20.78	21.93	21.87	
5	64QAM	12	7	20.91	21.86	21.89	22.7
5	64QAM	12	13	20.85	21.67	21.86	
5	64QAM	25	0	20.74	21.69	21.82	

Band 2									
BW (MHz)	Modulation	n	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dBm)	
Channel					18700	18900	19100		
Frequency (MHz)					18600	18800	19000		
20	QPSK	1	0		23.16	23.18	23.13	24.4	
20	QPSK	1	49		23.13	23.16	22.98		
20	QPSK	1	99		23.14	23.14	23.10		
20	QPSK	50	0		23.22	23.23	22.71	24.4	
20	QPSK	50	24		23.33	23.26	22.86		
20	QPSK	50	50		23.07	23.33	23.01		
20	QPSK	100	0		23.03	23.24	23.09	24.4	
20	16QAM	1	0		23.42	23.46	23.36		
20	16QAM	1	49		23.47	23.59	23.16		
20	16QAM	1	99		23.20	23.46	23.15	23.4	
20	16QAM	50	0		22.53	22.54	21.88		
20	16QAM	50	24		22.62	22.56	21.82		
20	16QAM	50	50		22.18	22.64	22.20	22.9	
20	16QAM	100	0		22.14	22.56	21.91		
20	64QAM	1	0		21.80	21.71	21.88		
20	64QAM	1	49		21.85	22.04	20.53	21.9	
20	64QAM	1	99		21.32	22.38	21.32		
20	64QAM	50	0		20.98	20.89	20.77		
20	64QAM	50	24		20.73	21.21	20.83	21.9	
20	64QAM	50	50		20.14	21.32	20.15		
20	64QAM	100	0		20.45	20.76	20.03		
Channel					1867.5	1890.0	1912.5	Tune-up limit (dBm)	
Frequency (MHz)					1867.5	1880	1902.5		
15	QPSK	1	0		23.13	23.17	23.07	24.4	
15	QPSK	1	37		23.12	23.13	23.00		
15	QPSK	1	74		23.17	23.17	23.11		
15	QPSK	36	0		23.23	23.19	22.56	24.4	
15	QPSK	36	20		23.29	23.25	22.90		
15	QPSK	36	39		23.22	23.32	23.20		
15	QPSK	75	0		23.26	23.21	22.63	24.4	
15	16QAM	1	0		23.33	23.46	22.92		
15	16QAM	1	37		23.39	23.41	22.52		
15	16QAM	1	74		23.45	23.43	23.32	23.4	
15	16QAM	36	0		22.53	22.50	21.84		
15	16QAM	36	20		22.56	22.52	22.08		
15	16QAM	36	39		22.54	22.61	22.46	23.4	
15	16QAM	75	0		22.56	22.52	21.97		
15	64QAM	1	0		21.79	21.89	21.16		
15	64QAM	1	37		22.22	22.22	22.12	22.9	
15	64QAM	1	74		21.53	22.55	21.51		
15	64QAM	36	0		21.28	20.96	20.35		
15	64QAM	36	20		21.09	21.27	20.09	21.9	
15	64QAM	36	39		20.67	21.46	20.45		
15	64QAM	75	0		20.83	21.07	20.02		
Channel					1855.0	1880.0	1915.0	Tune-up limit (dBm)	
Frequency (MHz)					1855	1880	1905		
10	QPSK	1	0		23.19	23.12	23.04	24.4	
10	QPSK	1	25		23.03	23.12	22.99		
10	QPSK	1	49		23.08	23.14	23.07		
10	QPSK	25	0		23.21	23.20	23.00	24.4	
10	QPSK	25	12		23.27	23.23	23.18		
10	QPSK	25	25		23.29	23.32	23.21		
10	16QAM	1	0		23.48	23.52	23.10	23.4	
10	16QAM	1	25		23.49	23.51	23.37		
10	16QAM	1	49		23.50	23.58	23.46		
10	16QAM	25	0		22.52	22.49	21.91	23.4	
10	16QAM	25	12		22.56	22.55	22.45		
10	16QAM	25	25		22.60	22.61	22.47		
10	16QAM	50	0		22.56	22.53	22.30	22.9	
10	64QAM	1	0		21.88	21.75	21.10		
10	64QAM	1	25		22.69	22.52	21.58		
10	64QAM	1	49		22.29	22.60	21.91	21.9	
10	64QAM	25	0		21.46	21.10	20.06		
10	64QAM	25	12		21.38	21.38	20.51		
10	64QAM	25	25		21.12	21.52	20.84	21.9	
10	64QAM	50	0		21.10	21.19	20.34		
Channel					1862.5	1890.0	1917.5		Tune-up limit (dBm)
Frequency (MHz)					1862.5	1880	1907.5		
5	QPSK	1	0		23.11	23.10	23.04	24.4	
5	QPSK	1	12		23.19	23.26	23.10		
5	QPSK	1	24		23.15	23.24	23.10		
5	QPSK	12	0		23.22	23.22	23.15	24.4	
5	QPSK	12	7		23.27	23.31	23.23		
5	QPSK	12	13		23.23	23.33	23.19		
5	QPSK	25	0		23.24	23.22	23.17	24.4	
5	16QAM	1	0		23.49	23.47	23.37		
5	16QAM	1	12		23.50	23.57	23.40		
5	16QAM	1	24		23.51	23.57	23.45	23.4	
5	16QAM	12	0		22.55	22.54	22.49		
5	16QAM	12	7		22.60	22.65	22.55		
5	16QAM	12	13		22.55	22.65	22.52	22.9	
5	16QAM	25	0		22.55	22.56	22.50		
5	64QAM	1	0		22.27	22.01	21.96		
5	64QAM	1	12		22.63	22.47	21.86	22.9	
5	64QAM	1	24		22.67	22.60	21.81		
5	64QAM	12	0		21.53	21.29	20.76		
5	64QAM	12	7		21.63	21.53	20.90	21.9	
5	64QAM	12	13		21.57	21.60	20.90		
5	64QAM	25	0		21.45	21.34	20.72		
Channel					1851.5	1890.0	1916.5	Tune-up limit (dBm)	
Frequency (MHz)					1851.5	1880	1908.5		
3	QPSK	1	0		23.10	23.12	23.06	24.4	
3	QPSK	1	8		23.21	23.25	23.13		
3	QPSK	1	14		23.15	23.21	23.11		
3	QPSK	8	0		23.20	23.23	23.14	24.4	
3	QPSK	8	4		23.25	23.30	23.19		
3	QPSK	8	7		23.22	23.28	23.17		
3	QPSK	15	0		23.25	23.23	23.18	24.4	
3	16QAM	1	0		23.45	23.45	23.38		
3	16QAM	1	8		23.55	23.50	23.45		
3	16QAM	1	14		23.51	23.55	23.47	23.4	
3	16QAM	8	0		22.60	22.59	22.51		
3	16QAM	8	4		22.65	22.66	22.56		
3	16QAM	8	7		22.61	22.68	22.51	22.9	
3	16QAM	15	0		22.57	22.56	22.51		
3	64QAM	1	0		22.47	22.37	21.79		
3	64QAM	1	8		22.75	22.66	22.00	22.9	
3	64QAM	1	14		22.70	22.68	21.95		
3	64QAM	8	0		21.51	21.38	20.81		
3	64QAM	8	4		21.61	21.53	20.91	21.9	
3	64QAM	8	7		21.60	21.52	20.90		
3	64QAM	15	0		21.54	21.40	20.84		
Channel					1860.7	1890.0	1919.3	Tune-up limit (dBm)	
Frequency (MHz)					1860.7	1880	1909.3		
1.4	QPSK	1	0		23.02	23.09	22.97	24.4	
1.4	QPSK	1	3		23.09	23.14	23.04		
1.4	QPSK	1	5		23.04	23.10	22.99		
1.4	QPSK	3	0		23.08	23.16	23.01	24.4	
1.4	QPSK	3	3		23.09	23.13	23.06		
1.4	QPSK	3	6		23.14	23.22	23.09		
1.4	16QAM	1	0		23.23	23.40	23.30	24.4	
1.4	16QAM	1	3		23.24	23.31	23.41		
1.4	16QAM	1	5		23.41	23.46	23.32		
1.4	16QAM	3	0		23.22	23.23	23.10	23.4	
1.4	16QAM	3	3		23.18	23.26	23.43		
1.4	16QAM	3	6		22.55	22.56	22.08		
1.4	64QAM	1	0		22.51	22.43	21.81	22.9	
1.4	64QAM	1	3		22.64	22.56	21.86		
1.4	64QAM	1	5		22.59	22.58	21.84		
1.4	64QAM	3	0		22.56	22.52	21.85	22.9	
1.4	64QAM	3	3		22.62	22.62	21.92		
1.4	64QAM	3	6		22.35	22.52	21.83		
1.4	64QAM	8	0		21.45	21.55	20.74	21.9	



Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	24.49	24.47	24.33	25.1
20	QPSK	1	49	24.33	24.24	24.10	
20	QPSK	1	99	24.31	24.23	24.10	
20	QPSK	50	0	23.70	23.64	23.44	24.1
20	QPSK	50	24	23.57	23.59	23.44	
20	QPSK	50	50	23.52	23.47	23.36	
20	QPSK	100	0	23.55	23.63	23.41	24.1
20	16QAM	1	0	23.95	23.88	23.77	
20	16QAM	1	49	23.80	23.69	23.57	
20	16QAM	1	99	23.74	23.64	23.50	23.1
20	16QAM	50	0	22.71	22.65	22.45	
20	16QAM	50	24	22.56	22.60	22.45	
20	16QAM	50	50	22.52	22.49	22.35	23.1
20	16QAM	100	0	22.53	22.62	22.42	
20	64QAM	1	0	22.86	22.81	22.61	
20	64QAM	1	49	22.68	22.57	22.46	23.1
20	64QAM	1	99	22.51	22.54	22.49	
20	64QAM	50	0	21.71	21.67	21.48	
20	64QAM	50	24	21.59	21.62	21.47	22.1
20	64QAM	50	50	21.54	21.53	21.38	
20	64QAM	100	0	21.59	21.59	21.44	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	24.50	24.45	24.30	25.1
15	QPSK	1	37	24.34	24.25	24.09	
15	QPSK	1	74	24.34	24.24	24.11	
15	QPSK	36	0	23.64	23.65	23.41	24.1
15	QPSK	36	20	23.58	23.56	23.33	
15	QPSK	36	39	23.50	23.49	23.36	
15	QPSK	75	0	23.55	23.59	23.32	24.1
15	16QAM	1	0	23.61	23.65	23.71	
15	16QAM	1	37	23.75	23.70	23.53	
15	16QAM	1	74	23.76	23.65	23.45	23.1
15	16QAM	36	0	22.68	22.65	22.40	
15	16QAM	36	20	22.60	22.56	22.31	
15	16QAM	36	39	22.51	22.51	22.33	23.1
15	16QAM	75	0	22.55	22.56	22.32	
15	64QAM	1	0	22.80	22.81	22.67	
15	64QAM	1	37	22.71	22.63	22.45	23.1
15	64QAM	1	74	22.60	22.58	22.42	
15	64QAM	36	0	21.69	21.69	21.42	
15	64QAM	36	20	21.60	21.61	21.33	22.1
15	64QAM	36	39	21.55	21.57	21.38	
15	64QAM	75	0	21.55	21.62	21.33	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	24.38	24.40	24.12	25.1
10	QPSK	1	25	24.38	24.30	24.14	
10	QPSK	1	49	24.41	24.30	24.11	
10	QPSK	25	0	23.62	23.57	23.28	24.1
10	QPSK	25	12	23.65	23.60	23.38	
10	QPSK	25	25	23.63	23.58	23.35	
10	QPSK	50	0	23.64	23.58	23.32	24.1
10	16QAM	1	0	23.88	23.87	23.64	
10	16QAM	1	25	23.87	23.80	23.64	
10	16QAM	1	49	23.95	23.76	23.61	23.1
10	16QAM	25	0	22.61	22.55	22.29	
10	16QAM	25	12	22.64	22.56	22.39	
10	16QAM	25	25	22.64	22.59	22.39	23.1
10	16QAM	50	0	22.65	22.55	22.30	
10	64QAM	1	0	22.79	22.77	22.51	
10	64QAM	1	25	22.78	22.72	22.51	23.1
10	64QAM	1	49	22.63	22.59	22.53	
10	64QAM	25	0	21.63	21.59	21.33	
10	64QAM	25	12	21.66	21.63	21.41	22.1
10	64QAM	25	25	21.67	21.59	21.41	
10	64QAM	50	0	21.66	21.61	21.36	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	24.39	24.35	24.13	25.1
5	QPSK	1	12	24.48	24.36	24.12	
5	QPSK	1	24	24.47	24.38	24.15	
5	QPSK	12	0	23.58	23.52	23.32	24.1
5	QPSK	12	7	23.63	23.56	23.35	
5	QPSK	12	13	23.64	23.56	23.34	
5	QPSK	25	0	23.61	23.58	23.31	24.1
5	16QAM	1	0	23.65	23.76	23.56	
5	16QAM	1	12	23.89	23.79	23.59	
5	16QAM	1	24	23.90	23.80	23.62	23.1
5	16QAM	12	0	22.64	22.54	22.35	
5	16QAM	12	7	22.68	22.57	22.40	
5	16QAM	12	13	22.67	22.57	22.38	23.1
5	16QAM	25	0	22.63	22.56	22.35	
5	64QAM	1	0	22.76	22.76	22.51	
5	64QAM	1	12	22.81	22.71	22.52	23.1
5	64QAM	1	24	22.88	22.73	22.50	
5	64QAM	12	0	21.66	21.59	21.41	
5	64QAM	12	7	21.68	21.62	21.43	22.1
5	64QAM	12	13	21.71	21.59	21.38	
5	64QAM	25	0	21.62	21.60	21.35	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	24.42	24.34	24.11	25.1
3	QPSK	1	8	24.50	24.43	24.20	
3	QPSK	1	14	24.44	24.36	24.13	
3	QPSK	8	0	23.50	23.53	23.33	24.1
3	QPSK	8	4	23.65	23.54	23.34	
3	QPSK	8	7	23.62	23.53	23.32	
3	QPSK	15	0	23.58	23.56	23.29	24.1
3	16QAM	1	0	23.83	23.77	23.55	
3	16QAM	1	8	23.93	23.85	23.60	
3	16QAM	1	14	23.88	23.80	23.61	23.1
3	16QAM	8	0	22.66	22.56	22.36	
3	16QAM	8	4	22.68	22.64	22.42	
3	16QAM	8	7	22.68	22.63	22.37	23.1
3	16QAM	15	0	22.65	22.56	22.36	
3	64QAM	1	0	22.73	22.74	22.45	
3	64QAM	1	8	22.87	22.80	22.58	23.1
3	64QAM	1	14	22.84	22.73	22.51	
3	64QAM	8	0	21.66	21.56	21.37	
3	64QAM	8	4	21.70	21.62	21.40	22.1
3	64QAM	8	7	21.66	21.58	21.40	
3	64QAM	15	0	21.64	21.57	21.35	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	24.25	24.24	24.02	25.1
1.4	QPSK	1	3	24.31	24.29	24.07	
1.4	QPSK	1	5	24.25	24.24	24.04	
1.4	QPSK	3	0	24.23	24.29	24.07	24.1
1.4	QPSK	3	1	24.31	24.31	24.12	
1.4	QPSK	3	3	24.26	24.27	24.05	
1.4	QPSK	6	0	23.41	23.42	23.20	24.1
1.4	16QAM	1	0	23.70	23.69	23.46	
1.4	16QAM	1	3	23.74	23.73	23.50	
1.4	16QAM	1	5	23.68	23.66	23.44	24.1
1.4	16QAM	3	0	23.46	23.46	23.25	
1.4	16QAM	3	1	23.51	23.49	23.31	
1.4	16QAM	3	3	23.45	23.46	23.24	23.1
1.4	16QAM	6	0	22.51	22.46	22.26	
1.4	64QAM	1	0	22.60	22.59	22.41	
1.4	64QAM	1	3	22.70	22.70	22.47	23.1
1.4	64QAM	1	5	22.62	22.61	22.39	
1.4	64QAM	3	0	22.58	22.59	22.35	
1.4	64QAM	3	1	22.63	22.62	22.39	22.1
1.4	64QAM	3	3	22.59	22.57	22.35	
1.4	64QAM	6	0	21.44	21.43	21.24	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.41	24.40	24.44	25.7
10	QPSK	1	25	24.38	24.43	24.44	
10	QPSK	1	49	24.42	24.55	24.35	
10	QPSK	25	0	23.48	23.56	23.53	24.7
10	QPSK	25	12	23.58	23.55	23.56	
10	QPSK	25	25	23.52	23.59	23.53	
10	QPSK	50	0	23.59	23.53	23.57	24.7
10	16QAM	1	0	23.82	23.81	23.85	
10	16QAM	1	25	23.78	23.82	23.83	
10	16QAM	1	49	23.82	23.89	23.77	23.7
10	16QAM	25	0	22.45	22.58	22.54	
10	16QAM	25	12	22.58	22.57	22.54	
10	16QAM	25	25	22.54	22.58	22.62	23.7
10	16QAM	50	0	22.57	22.55	22.54	
10	64QAM	1	0	22.65	22.63	22.63	23.7
10	64QAM	1	25	22.70	22.73	22.76	
10	64QAM	1	49	22.73	22.41	21.71	
10	64QAM	25	0	21.51	21.58	21.58	22.7
10	64QAM	25	12	21.61	21.62	21.60	
10	64QAM	25	25	21.58	21.60	20.89	
10	64QAM	50	0	21.58	21.59	21.25	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	24.51	24.52	24.54	25.7
5	QPSK	1	12	24.48	24.49	24.28	
5	QPSK	1	24	24.40	24.49	24.24	
5	QPSK	12	0	23.58	23.61	23.59	24.7
5	QPSK	12	7	23.52	23.62	23.34	
5	QPSK	12	13	23.51	23.57	23.18	
5	QPSK	25	0	23.52	23.55	23.51	24.7
5	16QAM	1	0	23.65	23.82	23.82	
5	16QAM	1	12	23.74	23.82	23.56	
5	16QAM	1	24	23.75	23.83	23.47	23.7
5	16QAM	12	0	22.63	22.57	22.58	
5	16QAM	12	7	22.58	22.63	22.50	
5	16QAM	12	13	22.51	22.58	22.28	23.7
5	16QAM	25	0	22.56	22.59	22.53	
5	64QAM	1	0	22.73	22.77	22.54	
5	64QAM	1	12	22.67	22.75	21.78	22.7
5	64QAM	1	24	22.72	22.60	21.72	
5	64QAM	12	0	21.65	21.66	21.27	
5	64QAM	12	7	21.60	21.67	20.70	Tune-up limit (dBm)
5	64QAM	12	13	21.56	21.62	20.71	
5	64QAM	25	0	21.57	21.60	20.76	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.49	24.48	24.23	25.7
3	QPSK	1	8	24.49	24.54	24.02	
3	QPSK	1	14	24.37	24.47	24.11	
3	QPSK	8	0	23.57	23.57	23.09	24.7
3	QPSK	8	4	23.54	23.61	23.10	
3	QPSK	8	7	23.52	23.59	23.20	
3	QPSK	15	0	23.55	23.52	23.12	24.7
3	16QAM	1	0	23.83	23.78	23.67	
3	16QAM	1	8	23.84	23.87	23.36	
3	16QAM	1	14	23.69	23.79	23.45	23.7
3	16QAM	8	0	22.63	22.62	22.29	
3	16QAM	8	4	22.62	22.72	22.20	
3	16QAM	8	7	22.59	22.66	22.28	23.7
3	16QAM	15	0	22.59	22.59	22.22	
3	64QAM	1	0	22.67	22.74	21.70	
3	64QAM	1	8	22.75	22.77	21.71	22.7
3	64QAM	1	14	22.70	22.52	21.70	
3	64QAM	8	0	21.64	21.62	20.70	
3	64QAM	8	4	21.64	21.65	20.70	Tune-up limit (dBm)
3	64QAM	8	7	21.55	21.64	20.72	
3	64QAM	15	0	21.59	21.62	20.73	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	24.37	24.39	23.99	25.7
1.4	QPSK	1	3	24.41	24.47	24.17	
1.4	QPSK	1	5	24.32	24.38	24.10	
1.4	QPSK	3	0	24.40	24.41	24.09	24.7
1.4	QPSK	3	1	24.44	24.44	24.15	
1.4	QPSK	3	3	24.39	24.46	24.35	
1.4	QPSK	6	0	23.49	23.54	23.21	24.7
1.4	16QAM	1	0	23.68	23.74	23.32	
1.4	16QAM	1	3	23.72	23.82	23.53	
1.4	16QAM	1	5	23.66	23.76	23.55	23.7
1.4	16QAM	3	0	23.52	23.50	23.10	
1.4	16QAM	3	1	23.56	23.55	23.27	
1.4	16QAM	3	3	23.46	23.52	23.44	23.7
1.4	16QAM	6	0	22.54	22.61	22.31	
1.4	64QAM	1	0	22.62	22.64	21.70	
1.4	64QAM	1	3	22.70	22.73	21.71	23.7
1.4	64QAM	1	5	22.61	22.63	21.70	
1.4	64QAM	3	0	22.62	22.61	21.72	
1.4	64QAM	3	1	22.64	22.65	21.74	22.7
1.4	64QAM	3	3	22.58	22.63	21.73	
1.4	64QAM	6	0	21.49	21.54	20.71	

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	24.2
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.09	23.19	23.27	24.2
20	QPSK	1	49	23.18	23.27	23.28	
20	QPSK	1	99	23.27	23.39	23.28	
20	QPSK	50	0	23.22	23.31	23.31	24.2
20	QPSK	50	24	23.33	23.38	23.34	
20	QPSK	50	50	23.36	23.46	23.41	
20	QPSK	100	0	23.36	23.35	23.37	24.2
20	16QAM	1	0	23.44	23.55	23.60	
20	16QAM	1	49	23.55	23.65	23.61	
20	16QAM	1	99	23.62	23.78	23.64	23.2
20	16QAM	50	0	22.77	22.85	22.85	
20	16QAM	50	24	22.88	22.92	22.87	
20	16QAM	50	50	22.89	23.01	22.93	23.2
20	16QAM	100	0	22.84	22.85	22.83	
20	64QAM	1	0	22.78	22.92	22.92	
20	64QAM	1	49	22.88	23.05	22.35	22.2
20	64QAM	1	99	22.99	23.16	22.54	
20	64QAM	50	0	21.75	21.86	21.65	
20	64QAM	50	24	21.90	21.93	21.56	22.2
20	64QAM	50	50	21.91	22.04	21.70	
20	64QAM	100	0	21.87	21.91	21.61	
Channel				20825	21100	21375	24.2
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.12	23.20	23.22	24.2
15	QPSK	1	37	23.14	23.29	23.22	
15	QPSK	1	74	23.24	23.40	23.28	
15	QPSK	36	0	23.19	23.30	23.30	24.2
15	QPSK	36	20	23.30	23.37	23.34	
15	QPSK	36	39	23.32	23.46	23.37	
15	QPSK	75	0	23.28	23.33	23.32	24.2
15	16QAM	1	0	23.45	23.57	23.57	
15	16QAM	1	37	23.49	23.62	23.55	
15	16QAM	1	74	23.58	23.75	23.60	23.2
15	16QAM	36	0	22.70	22.86	22.82	
15	16QAM	36	20	22.83	22.87	22.83	
15	16QAM	36	39	22.87	22.96	22.92	23.2
15	16QAM	75	0	22.84	22.86	22.83	
15	64QAM	1	0	22.80	22.93	22.90	
15	64QAM	1	37	22.91	23.04	22.42	22.2
15	64QAM	1	74	22.95	23.11	22.64	
15	64QAM	36	0	21.74	21.90	21.45	
15	64QAM	36	20	21.87	21.91	21.61	22.2
15	64QAM	36	39	21.89	22.01	21.78	
15	64QAM	75	0	21.85	21.89	21.58	
Channel				20800	21100	21400	24.2
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.11	23.24	23.15	24.2
10	QPSK	1	25	23.10	23.26	23.16	
10	QPSK	1	49	23.17	23.32	23.23	
10	QPSK	25	0	23.26	23.34	23.28	24.2
10	QPSK	25	12	23.28	23.38	23.31	
10	QPSK	25	25	23.30	23.45	23.36	
10	QPSK	50	0	23.31	23.38	23.30	24.2
10	16QAM	1	0	23.44	23.56	23.52	
10	16QAM	1	25	23.43	23.61	23.55	
10	16QAM	1	49	23.53	23.70	23.60	23.2
10	16QAM	25	0	22.74	22.81	22.76	
10	16QAM	25	12	22.81	22.86	22.81	
10	16QAM	25	25	22.78	22.97	22.86	23.2
10	16QAM	50	0	22.77	22.86	22.79	
10	64QAM	1	0	22.86	22.94	22.75	
10	64QAM	1	25	22.87	23.01	22.97	22.2
10	64QAM	1	49	22.95	23.15	23.01	
10	64QAM	25	0	21.77	21.94	21.87	
10	64QAM	25	12	21.82	21.92	21.82	22.2
10	64QAM	25	25	21.82	21.99	21.89	
10	64QAM	50	0	21.80	21.88	21.67	
Channel				20775	21100	21425	24.2
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.13	23.23	23.22	24.2
5	QPSK	1	12	23.17	23.35	23.24	
5	QPSK	1	24	23.15	23.34	23.23	
5	QPSK	12	0	23.26	23.33	23.33	24.2
5	QPSK	12	7	23.26	23.33	23.36	
5	QPSK	12	13	23.32	23.42	23.37	
5	QPSK	25	0	23.27	23.38	23.33	24.2
5	16QAM	1	0	23.46	23.54	23.55	
5	16QAM	1	12	23.43	23.60	23.55	
5	16QAM	1	24	23.45	23.67	23.54	23.2
5	16QAM	12	0	22.80	22.87	22.84	
5	16QAM	12	7	22.78	22.85	22.87	
5	16QAM	12	13	22.77	22.91	22.86	23.2
5	16QAM	25	0	22.77	22.87	22.85	
5	64QAM	1	0	22.90	22.98	22.96	
5	64QAM	1	12	22.84	23.04	22.93	22.2
5	64QAM	1	24	22.88	23.04	22.97	
5	64QAM	12	0	21.81	21.95	21.89	
5	64QAM	12	7	21.85	21.89	21.89	22.2
5	64QAM	12	13	21.83	21.99	21.93	
5	64QAM	25	0	21.78	21.87	21.88	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
10	QPSK	1	0	24.72	24.52	24.58	25.7
10	QPSK	1	25	24.54	24.54	24.54	
10	QPSK	1	49	24.66	24.60	24.55	
10	QPSK	25	0	23.67	23.66	23.64	24.7
10	QPSK	25	12	23.75	23.69	23.73	
10	QPSK	25	25	23.73	23.72	23.71	
10	QPSK	50	0	23.76	23.65	23.73	24.7
10	16QAM	1	0	23.97	23.90	23.96	
10	16QAM	1	25	23.96	23.95	23.92	
10	16QAM	1	49	24.02	23.85	23.93	23.7
10	16QAM	25	0	22.67	22.66	22.67	
10	16QAM	25	12	22.76	22.67	22.73	
10	16QAM	25	25	22.69	22.69	22.70	23.7
10	16QAM	50	0	22.76	22.67	22.72	
10	64QAM	1	0	22.79	22.73	22.81	23.7
10	64QAM	1	25	22.86	22.84	22.57	
10	64QAM	1	49	22.94	22.87	22.87	
10	64QAM	25	0	21.72	21.70	21.58	22.7
10	64QAM	25	12	21.80	21.73	21.75	
10	64QAM	25	25	21.75	21.75	21.73	
10	64QAM	50	0	21.78	21.70	21.76	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.61	24.59	24.54	
5	QPSK	1	12	24.62	24.67	24.59	25.7
5	QPSK	1	24	24.61	24.61	24.56	
5	QPSK	12	0	23.73	23.70	23.65	24.7
5	QPSK	12	7	23.73	23.67	23.67	
5	QPSK	12	13	23.67	23.67	23.64	
5	QPSK	25	0	23.71	23.66	23.59	24.7
5	16QAM	1	0	23.96	23.94	23.86	
5	16QAM	1	12	23.93	23.92	23.89	
5	16QAM	1	24	23.94	23.97	23.90	23.7
5	16QAM	12	0	22.76	22.74	22.68	
5	16QAM	12	7	22.76	22.69	22.72	
5	16QAM	12	13	22.71	22.71	22.65	23.7
5	16QAM	25	0	22.74	22.67	22.65	
5	64QAM	1	0	22.74	22.61	22.81	
5	64QAM	1	12	22.84	22.84	22.81	22.7
5	64QAM	1	24	22.76	22.88	22.80	
5	64QAM	12	0	21.80	21.77	21.72	
5	64QAM	12	7	21.76	21.73	21.76	22.7
5	64QAM	12	13	21.77	21.76	21.70	
5	64QAM	25	0	21.74	21.72	21.66	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.71	24.62	24.60	25.7
3	QPSK	1	8	24.66	24.70	24.64	
3	QPSK	1	14	24.62	24.62	24.57	
3	QPSK	8	0	23.74	23.65	23.62	24.7
3	QPSK	8	4	23.72	23.72	23.67	
3	QPSK	8	7	23.70	23.70	23.63	
3	QPSK	15	0	23.73	23.67	23.61	24.7
3	16QAM	1	0	24.04	23.94	23.90	
3	16QAM	1	8	23.97	24.01	23.96	
3	16QAM	1	14	23.93	23.97	23.86	23.7
3	16QAM	8	0	22.80	22.74	22.67	
3	16QAM	8	4	22.80	22.80	22.71	
3	16QAM	8	7	22.75	22.73	22.69	23.7
3	16QAM	15	0	22.76	22.67	22.62	
3	64QAM	1	0	22.82	22.76	22.81	
3	64QAM	1	8	22.96	22.93	22.87	23.7
3	64QAM	1	14	22.88	22.86	22.77	
3	64QAM	8	0	21.80	21.75	21.69	
3	64QAM	8	4	21.80	21.83	21.75	22.7
3	64QAM	8	7	21.73	21.74	21.69	
3	64QAM	15	0	21.77	21.69	21.62	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.60	24.53	24.49	25.7
1.4	QPSK	1	3	24.60	24.60	24.53	
1.4	QPSK	1	5	24.52	24.52	24.43	
1.4	QPSK	3	0	24.62	24.51	24.50	24.7
1.4	QPSK	3	1	24.67	24.55	24.54	
1.4	QPSK	3	3	24.58	24.57	24.47	
1.4	QPSK	6	0	23.67	23.59	23.54	24.7
1.4	16QAM	1	0	23.92	23.85	23.83	
1.4	16QAM	1	3	23.95	23.93	23.88	
1.4	16QAM	1	5	23.86	23.90	23.76	23.7
1.4	16QAM	3	0	23.68	23.62	23.59	
1.4	16QAM	3	1	23.74	23.64	23.63	
1.4	16QAM	3	3	23.65	23.61	23.55	23.7
1.4	16QAM	6	0	22.72	22.65	22.62	
1.4	64QAM	1	0	22.82	22.78	22.75	
1.4	64QAM	1	3	22.88	22.84	22.78	23.7
1.4	64QAM	1	5	22.78	22.77	22.70	
1.4	64QAM	3	0	22.79	22.74	22.74	
1.4	64QAM	3	1	22.83	22.77	22.73	22.7
1.4	64QAM	3	3	22.76	22.76	22.67	
1.4	64QAM	6	0	21.67	21.60	21.59	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23230			Tune-up limit (dbm)
Frequency (MHz)				752			
10	QPSK	1	0	23.87			25.2
10	QPSK	1	25	23.85			
10	QPSK	1	49	23.99			
10	QPSK	25	0	22.99			24.2
10	QPSK	25	12	23.00			
10	QPSK	25	25	22.99			
10	QPSK	50	0	23.06			24.2
10	16QAM	1	0	23.19			
10	16QAM	1	25	23.20			
10	16QAM	1	49	23.18			23.2
10	16QAM	25	0	21.95			
10	16QAM	25	12	22.01			
10	16QAM	25	25	21.98			23.2
10	16QAM	50	0	21.97			
10	64QAM	1	0	22.04			
10	64QAM	1	25	22.13			23.2
10	64QAM	1	49	22.10			
10	64QAM	25	0	21.01			
10	64QAM	25	12	21.06			22.2
10	64QAM	25	25	21.02			
10	64QAM	50	0	21.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.78	23.84	23.88	25.2
5	QPSK	1	12	23.88	23.90	23.85	
5	QPSK	1	24	23.88	23.86	23.94	
5	QPSK	12	0	22.94	22.96	22.95	24.2
5	QPSK	12	7	22.99	22.95	22.90	
5	QPSK	12	13	23.00	23.01	22.95	
5	QPSK	25	0	22.99	22.97	22.92	24.2
5	16QAM	1	0	23.08	23.13	23.15	
5	16QAM	1	12	23.15	23.15	23.11	
5	16QAM	1	24	23.22	23.16	23.09	23.2
5	16QAM	12	0	22.02	21.99	21.96	
5	16QAM	12	7	22.05	21.97	21.96	
5	16QAM	12	13	22.02	22.02	22.00	23.2
5	16QAM	25	0	22.05	21.97	21.96	
5	64QAM	1	0	22.00	22.15	22.04	
5	64QAM	1	12	22.13	22.13	22.11	23.2
5	64QAM	1	24	22.13	22.13	22.03	
5	64QAM	12	0	21.10	21.04	21.04	
5	64QAM	12	7	21.07	21.03	20.96	22.2
5	64QAM	12	13	21.04	21.05	21.00	
5	64QAM	25	0	21.04	21.03	20.94	

Band 14							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.43			25.7
10	QPSK	1	25	24.53			
10	QPSK	1	49	24.34			
10	QPSK	25	0	23.49			24.7
10	QPSK	25	12	23.47			
10	QPSK	25	25	23.50			
10	QPSK	50	0	23.44			24.7
10	16QAM	1	0	23.82			
10	16QAM	1	25	23.82			
10	16QAM	1	49	23.73			23.7
10	16QAM	25	0	22.48			
10	16QAM	25	12	22.48			
10	16QAM	25	25	22.49			23.7
10	16QAM	50	0	22.45			
10	64QAM	1	0	22.73			
10	64QAM	1	25	22.59			23.7
10	64QAM	1	49	22.62			
10	64QAM	25	0	21.51			
10	64QAM	25	12	21.27			22.7
10	64QAM	25	25	21.52			
10	64QAM	50	0	21.49			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.43	24.39	24.40	25.7
5	QPSK	1	12	24.49	24.50	24.44	
5	QPSK	1	24	24.49	24.41	24.36	
5	QPSK	12	0	23.50	23.48	23.45	24.7
5	QPSK	12	7	23.55	23.54	23.49	
5	QPSK	12	13	23.53	23.50	23.47	
5	QPSK	25	0	23.54	23.48	23.41	24.7
5	16QAM	1	0	23.75	23.73	23.70	
5	16QAM	1	12	23.62	23.60	23.77	
5	16QAM	1	24	23.77	23.76	23.71	23.7
5	16QAM	12	0	22.50	22.53	22.49	
5	16QAM	12	7	22.59	22.55	22.50	
5	16QAM	12	13	22.55	22.53	22.48	23.7
5	16QAM	25	0	22.54	22.50	22.44	
5	64QAM	1	0	22.75	22.62	22.51	
5	64QAM	1	12	22.74	22.25	22.55	23.7
5	64QAM	1	24	22.30	22.27	22.68	
5	64QAM	12	0	21.56	21.32	21.21	
5	64QAM	12	7	21.64	21.19	21.52	22.7
5	64QAM	12	13	21.37	21.18	21.58	
5	64QAM	25	0	21.58	21.15	21.45	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.61	24.54	24.55	25.7
10	QPSK	1	25	24.60	24.59	24.56	
10	QPSK	1	49	24.60	24.70	24.58	
10	QPSK	25	0	23.62	23.62	23.61	24.7
10	QPSK	25	12	23.75	23.96	23.66	
10	QPSK	25	25	23.75	23.75	23.74	
10	QPSK	50	0	23.75	23.66	23.64	
10	16QAM	1	0	23.95	23.94	23.91	24.7
10	16QAM	1	25	23.98	23.99	23.99	
10	16QAM	1	49	23.99	23.99	23.97	
10	16QAM	25	0	22.64	22.61	22.63	23.7
10	16QAM	25	12	22.75	22.70	22.67	
10	16QAM	25	25	22.72	22.75	22.71	
10	16QAM	50	0	22.73	22.66	22.65	
10	64QAM	1	0	22.86	22.80	22.81	23.7
10	64QAM	1	25	22.91	22.90	22.74	
10	64QAM	1	49	22.90	22.89	22.81	
10	64QAM	25	0	21.66	21.67	21.66	22.7
10	64QAM	25	12	21.80	21.74	21.72	
10	64QAM	25	25	21.79	21.78	21.75	
10	64QAM	50	0	21.78	21.71	21.69	
Channel				23785	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.54	24.58	24.56	25.7
5	QPSK	1	12	24.64	24.69	24.64	
5	QPSK	1	24	24.67	24.67	24.64	
5	QPSK	12	0	23.67	23.67	23.64	24.7
5	QPSK	12	7	23.71	23.73	23.71	
5	QPSK	12	13	23.74	23.74	23.69	
5	QPSK	25	0	23.74	23.69	23.67	
5	16QAM	1	0	23.90	23.89	23.87	24.7
5	16QAM	1	12	23.94	23.97	23.90	
5	16QAM	1	24	23.98	23.99	23.93	
5	16QAM	12	0	22.69	22.69	22.69	23.7
5	16QAM	12	7	22.72	22.71	22.70	
5	16QAM	12	13	22.76	22.74	22.68	
5	16QAM	25	0	22.73	22.71	22.72	23.7
5	64QAM	1	0	22.67	22.59	22.63	
5	64QAM	1	12	22.86	22.77	22.82	
5	64QAM	1	24	22.88	22.84	22.82	
5	64QAM	12	0	21.74	21.71	21.70	22.7
5	64QAM	12	7	21.78	21.76	21.76	
5	64QAM	12	13	21.78	21.82	21.74	
5	64QAM	25	0	21.74	21.70	21.72	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26140	26340	26590	
Frequency (MHz)				1860	1880	1905	
20	QPSK	1	0	23.20	23.18	23.08	24.4
20	QPSK	1	49	23.15	23.17	23.05	
20	QPSK	1	99	23.14	23.16	23.04	
20	QPSK	50	0	23.28	23.26	23.12	24.4
20	QPSK	50	24	23.38	23.32	23.22	
20	QPSK	50	50	23.29	23.32	23.21	
20	QPSK	100	0	23.36	23.28	23.18	24.4
20	16QAM	1	0	23.51	23.51	23.38	
20	16QAM	1	49	23.61	23.49	23.34	
20	16QAM	1	99	23.49	23.47	23.17	23.4
20	16QAM	50	0	22.58	22.57	22.43	
20	16QAM	50	24	22.68	22.65	22.53	
20	16QAM	50	50	22.63	22.62	22.52	23.4
20	16QAM	100	0	22.64	22.61	22.44	
20	64QAM	1	0	22.66	22.53	21.92	
20	64QAM	1	49	22.55	22.63	21.71	22.4
20	64QAM	1	99	22.19	22.73	21.40	
20	64QAM	50	0	21.61	21.60	20.75	
20	64QAM	50	24	21.42	21.67	21.15	22.4
20	64QAM	50	50	21.09	21.64	21.02	
20	64QAM	100	0	21.20	21.47	20.44	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	23.14	23.19	23.08	24.4
15	QPSK	1	37	23.13	23.17	23.04	
15	QPSK	1	74	23.20	23.19	23.07	
15	QPSK	36	0	23.33	23.24	23.13	24.4
15	QPSK	36	20	23.30	23.32	23.13	
15	QPSK	36	39	23.25	23.27	23.19	
15	QPSK	75	0	23.29	23.30	23.10	24.4
15	16QAM	1	0	23.40	23.39	23.34	
15	16QAM	1	37	23.47	23.46	23.37	
15	16QAM	1	74	23.44	23.52	23.41	23.4
15	16QAM	36	0	22.64	22.54	22.42	
15	16QAM	36	20	22.60	22.61	22.43	
15	16QAM	36	39	22.56	22.58	22.45	23.4
15	16QAM	75	0	22.60	22.61	22.43	
15	64QAM	1	0	22.58	22.64	21.74	
15	64QAM	1	37	22.66	22.72	22.40	22.4
15	64QAM	1	74	22.44	22.68	21.60	
15	64QAM	36	0	21.66	21.59	21.11	
15	64QAM	36	20	21.66	21.65	21.35	22.4
15	64QAM	36	39	21.41	21.61	21.05	
15	64QAM	75	0	21.55	21.62	20.83	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	23.19	23.15	23.08	24.4
10	QPSK	1	25	23.16	23.18	23.04	
10	QPSK	1	49	23.14	23.18	23.11	
10	QPSK	25	0	23.28	23.30	23.18	24.4
10	QPSK	25	12	23.32	23.32	23.24	
10	QPSK	25	25	23.32	23.33	23.27	
10	QPSK	50	0	23.32	23.32	23.24	24.4
10	16QAM	1	0	23.55	23.55	23.42	
10	16QAM	1	25	23.52	23.54	23.46	
10	16QAM	1	49	23.56	23.58	23.47	23.4
10	16QAM	25	0	22.58	22.63	22.50	
10	16QAM	25	12	22.62	22.65	22.52	
10	16QAM	25	25	22.57	22.61	22.54	23.4
10	16QAM	50	0	22.59	22.64	22.53	
10	64QAM	1	0	22.74	22.67	22.32	
10	64QAM	1	25	22.70	22.76	22.55	22.4
10	64QAM	1	49	22.71	22.76	21.66	
10	64QAM	25	0	21.62	21.65	21.44	
10	64QAM	25	12	21.67	21.67	21.38	22.4
10	64QAM	25	25	21.64	21.65	20.84	
10	64QAM	50	0	21.63	21.68	20.92	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	23.20	23.14	23.08	24.4
5	QPSK	1	12	23.23	23.23	23.14	
5	QPSK	1	24	23.22	23.26	23.11	
5	QPSK	12	0	23.26	23.28	23.14	24.4
5	QPSK	12	7	23.30	23.34	23.23	
5	QPSK	12	13	23.34	23.36	23.08	
5	QPSK	25	0	23.27	23.29	23.23	24.4
5	16QAM	1	0	23.49	23.52	23.41	
5	16QAM	1	12	23.48	23.52	23.37	
5	16QAM	1	24	23.56	23.58	23.31	23.4
5	16QAM	12	0	22.57	22.60	22.44	
5	16QAM	12	7	22.63	22.68	22.54	
5	16QAM	12	13	22.66	22.67	22.33	23.4
5	16QAM	25	0	22.61	22.64	22.33	
5	64QAM	1	0	22.73	22.70	22.34	
5	64QAM	1	12	22.69	22.72	21.93	22.4
5	64QAM	1	24	22.70	22.75	21.46	
5	64QAM	12	0	21.64	21.65	21.24	
5	64QAM	12	7	21.69	21.72	20.91	22.4
5	64QAM	12	13	21.69	21.72	20.54	
5	64QAM	25	0	21.63	21.64	20.71	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	23.13	23.10	23.04	24.4
3	QPSK	1	8	23.28	23.26	23.16	
3	QPSK	1	14	23.26	23.27	23.15	
3	QPSK	8	0	23.23	23.25	23.13	24.4
3	QPSK	8	4	23.30	23.35	23.20	
3	QPSK	8	7	23.29	23.34	23.00	
3	QPSK	15	0	23.27	23.31	23.14	24.4
3	16QAM	1	0	23.42	23.41	23.35	
3	16QAM	1	8	23.56	23.51	23.39	
3	16QAM	1	14	23.57	23.60	23.14	23.4
3	16QAM	8	0	22.60	22.62	22.49	
3	16QAM	8	4	22.68	22.70	22.33	
3	16QAM	8	7	22.67	22.69	22.19	23.4
3	16QAM	15	0	22.63	22.64	22.29	
3	64QAM	1	0	22.66	22.62	21.76	
3	64QAM	1	8	22.74	22.77	21.53	22.4
3	64QAM	1	14	22.73	22.77	21.40	
3	64QAM	8	0	21.63	21.63	20.70	
3	64QAM	8	4	21.69	21.71	20.57	22.4
3	64QAM	8	7	21.68	21.70	20.42	
3	64QAM	15	0	21.62	21.64	20.56	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	23.05	23.06	22.96	24.4
1.4	QPSK	1	3	23.17	23.20	23.05	
1.4	QPSK	1	5	23.15	23.15	23.03	
1.4	QPSK	3	0	23.12	23.13	22.98	24.4
1.4	QPSK	3	1	23.16	23.19	23.04	
1.4	QPSK	3	3	23.16	23.17	23.04	
1.4	QPSK	6	0	23.21	23.23	22.98	24.4
1.4	16QAM	1	0	23.39	23.42	23.26	
1.4	16QAM	1	3	23.49	23.52	23.23	
1.4	16QAM	1	5	23.44	23.47	23.10	24.4
1.4	16QAM	3	0	23.19	23.22	23.01	
1.4	16QAM	3	1	23.28	23.29	23.07	
1.4	16QAM	3	3	23.22	23.26	22.97	23.4
1.4	16QAM	6	0	22.60	22.60	22.14	
1.4	64QAM	1	0	22.59	22.65	21.47	
1.4	64QAM	1	3	22.69	22.74	21.45	23.4
1.4	64QAM	1	5	22.63	22.69	21.42	
1.4	64QAM	3	0	22.59	22.61	21.46	
1.4	64QAM	3	1	22.65	22.67	21.42	23.4
1.4	64QAM	3	3	22.62	22.66	21.44	
1.4	64QAM	6	0	21.52	21.54	21.45	



Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26969	Tune-up limit (dBm)
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.41	24.33	24.38	25.7
15	QPSK	1	37	24.28	24.36	24.35	
15	QPSK	1	74	24.37	24.59	24.29	
15	QPSK	36	0	23.45	23.46	23.48	24.7
15	QPSK	36	20	23.52	23.46	23.44	
15	QPSK	36	39	23.45	23.50	23.44	
15	QPSK	75	0	23.52	23.46	23.44	24.7
15	16QAM	1	0	23.71	23.68	23.71	
15	16QAM	1	37	23.63	23.69	23.69	
15	16QAM	1	74	23.70	23.72	23.62	23.7
15	16QAM	36	0	22.47	22.51	22.51	
15	16QAM	36	20	22.51	22.45	22.45	
15	16QAM	36	39	22.47	22.52	22.47	23.7
15	16QAM	75	0	22.53	22.49	22.50	
15	64QAM	1	0	22.58	22.51	22.50	23.7
15	64QAM	1	37	22.54	22.63	22.58	
15	64QAM	1	74	22.58	22.59	21.79	
15	64QAM	36	0	21.51	21.53	21.54	22.7
15	64QAM	36	20	21.55	21.50	21.50	
15	64QAM	36	39	21.50	21.61	21.59	
15	64QAM	75	0	21.54	21.49	21.50	Tune-up limit (dBm)
Channel				26740	26965	26990	
Frequency (MHz)				819	831.5	844	Tune-up limit (dBm)
10	QPSK	1	0	24.49	24.42	24.48	
10	QPSK	1	25	24.35	24.38	24.40	25.7
10	QPSK	1	49	24.42	24.43	24.37	
10	QPSK	25	0	23.57	23.48	23.51	24.7
10	QPSK	25	12	23.57	23.50	23.53	
10	QPSK	25	25	23.48	23.53	23.54	
10	QPSK	50	0	23.54	23.49	23.49	24.7
10	16QAM	1	0	23.68	23.77	23.88	
10	16QAM	1	25	23.75	23.81	23.80	
10	16QAM	1	49	23.80	23.79	23.75	23.7
10	16QAM	25	0	22.56	22.49	22.51	
10	16QAM	25	12	22.56	22.50	22.51	
10	16QAM	25	25	22.45	22.54	22.47	23.7
10	16QAM	50	0	22.53	22.46	22.47	
10	64QAM	1	0	22.81	22.85	22.72	
10	64QAM	1	25	22.70	22.73	22.75	22.7
10	64QAM	1	49	22.73	22.74	22.16	
10	64QAM	25	0	21.61	21.56	21.55	
10	64QAM	25	12	21.61	21.55	21.58	22.7
10	64QAM	25	25	21.53	21.56	21.40	
10	64QAM	50	0	21.58	21.52	21.52	
Channel				26715	26965	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.58	24.40	24.49	25.7
5	QPSK	1	12	24.54	24.46	24.46	
5	QPSK	1	24	24.39	24.49	24.40	
5	QPSK	12	0	23.62	23.52	23.56	24.7
5	QPSK	12	7	23.62	23.58	23.52	
5	QPSK	12	13	23.53	23.53	23.43	
5	QPSK	25	0	23.59	23.49	23.50	24.7
5	16QAM	1	0	23.92	23.77	23.81	
5	16QAM	1	12	23.80	23.76	23.69	
5	16QAM	1	24	23.73	23.83	23.69	23.7
5	16QAM	12	0	22.65	22.55	22.52	
5	16QAM	12	7	22.59	22.61	22.52	
5	16QAM	12	13	22.53	22.50	22.45	23.7
5	16QAM	25	0	22.58	22.51	22.54	
5	64QAM	1	0	22.82	22.72	22.70	
5	64QAM	1	12	22.71	22.66	22.03	22.7
5	64QAM	1	24	22.64	22.67	21.90	
5	64QAM	12	0	21.71	21.62	21.61	
5	64QAM	12	7	21.70	21.64	21.03	22.7
5	64QAM	12	13	21.61	21.61	20.72	
5	64QAM	25	0	21.62	21.52	21.16	
Channel				26705	26965	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.56	24.45	24.47	25.7
3	QPSK	1	8	24.58	24.54	24.36	
3	QPSK	1	14	24.46	24.51	24.41	
3	QPSK	8	0	23.63	23.52	23.41	24.7
3	QPSK	8	4	23.65	23.60	23.40	
3	QPSK	8	7	23.57	23.50	23.44	
3	QPSK	15	0	23.57	23.51	23.43	24.7
3	16QAM	1	0	23.92	23.76	23.76	
3	16QAM	1	8	23.92	23.83	23.59	
3	16QAM	1	14	23.77	23.84	23.70	23.7
3	16QAM	8	0	22.69	22.61	22.55	
3	16QAM	8	4	22.66	22.64	22.51	
3	16QAM	8	7	22.60	22.58	22.49	23.7
3	16QAM	15	0	22.64	22.53	22.49	
3	64QAM	1	0	22.78	22.67	22.05	
3	64QAM	1	8	22.79	22.75	21.73	22.7
3	64QAM	1	14	22.66	22.69	21.83	
3	64QAM	8	0	21.72	21.58	20.80	
3	64QAM	8	4	21.72	21.68	20.67	22.7
3	64QAM	8	7	21.63	21.59	20.74	
3	64QAM	15	0	21.63	21.55	20.78	
Channel				26997	26965	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.48	24.36	24.32	25.7
1.4	QPSK	1	3	24.52	24.47	24.34	
1.4	QPSK	1	5	24.44	24.38	24.24	
1.4	QPSK	3	0	24.50	24.39	24.33	24.7
1.4	QPSK	3	1	24.51	24.40	24.37	
1.4	QPSK	3	3	24.47	24.41	24.35	
1.4	QPSK	6	0	23.54	23.48	23.37	24.7
1.4	16QAM	1	0	23.87	23.69	23.60	
1.4	16QAM	1	3	23.87	23.77	23.68	
1.4	16QAM	1	5	23.79	23.71	23.60	24.7
1.4	16QAM	3	0	23.69	23.45	23.37	
1.4	16QAM	3	1	23.71	23.51	23.45	
1.4	16QAM	3	3	23.66	23.47	23.35	23.7
1.4	16QAM	6	0	22.61	22.57	22.47	
1.4	64QAM	1	0	22.84	22.58	21.71	
1.4	64QAM	1	3	22.82	22.68	21.82	23.7
1.4	64QAM	1	5	22.78	22.59	21.87	
1.4	64QAM	3	0	22.73	22.57	21.72	
1.4	64QAM	3	1	22.74	22.64	21.75	22.7
1.4	64QAM	3	3	22.69	22.60	21.88	
1.4	64QAM	6	0	21.59	21.49	20.73	

Band 30							
BW (Mhz)	Modulatio n	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				27710	27710		
Frequency (Mhz)				2310			
10	QPSK	1	0		22.93		23.7
10	QPSK	1	25		22.81		
10	QPSK	1	49		22.83		
10	QPSK	25	0		21.86		22.7
10	QPSK	25	12		21.92		
10	QPSK	25	25		21.94		
10	QPSK	50	0		21.92		22.7
10	16QAM	1	0		22.22		
10	16QAM	1	25		22.21		
10	16QAM	1	49		22.22		21.7
10	16QAM	25	0		20.86		
10	16QAM	25	12		20.95		
10	16QAM	25	25		20.89		21.7
10	16QAM	50	0		20.93		
10	64QAM	1	0		21.09		
10	64QAM	1	25		21.16		20.7
10	64QAM	1	49		21.08		
10	64QAM	25	0		19.94		
10	64QAM	25	12		19.99		20.7
10	64QAM	25	25		19.99		
10	64QAM	50	0		19.96		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (Mhz)				2307.5	2310	2312.5	
5	QPSK	1	0	22.77	22.78	22.83	23.7
5	QPSK	1	12	22.90	22.85	22.92	
5	QPSK	1	24	22.90	22.88	22.94	
5	QPSK	12	0	21.90	21.89	21.92	22.7
5	QPSK	12	7	22.01	21.95	21.97	
5	QPSK	12	13	22.00	21.94	21.90	
5	QPSK	25	0	21.95	21.92	21.94	22.7
5	16QAM	1	0	22.12	22.12	22.16	
5	16QAM	1	12	22.22	22.21	22.18	
5	16QAM	1	24	22.24	22.22	22.17	21.7
5	16QAM	12	0	20.92	20.93	20.95	
5	16QAM	12	7	20.98	20.97	21.00	
5	16QAM	12	13	21.00	20.95	20.94	21.7
5	16QAM	25	0	20.99	20.92	20.95	
5	64QAM	1	0	21.05	21.07	21.15	
5	64QAM	1	12	21.09	21.12	21.12	20.7
5	64QAM	1	24	21.21	21.13	21.09	
5	64QAM	12	0	19.97	19.97	20.01	
5	64QAM	12	7	20.06	20.00	20.04	20.7
5	64QAM	12	13	20.08	20.01	19.95	
5	64QAM	25	0	20.01	19.96	19.96	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	25.1
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	24.18	24.12	24.09	25.1
20	QPSK	1	49	24.17	24.05	24.08	
20	QPSK	1	99	24.14	24.10	24.06	
20	QPSK	50	0	23.55	23.33	23.37	24.1
20	QPSK	50	24	23.52	23.37	23.35	
20	QPSK	50	50	23.49	23.35	23.38	
20	QPSK	100	0	23.50	23.36	23.39	24.1
20	16QAM	1	0	23.74	23.60	23.64	
20	16QAM	1	49	23.63	23.46	23.52	
20	16QAM	1	99	23.69	23.48	23.48	23.1
20	16QAM	50	0	22.52	22.36	22.40	
20	16QAM	50	24	22.52	22.37	22.37	
20	16QAM	50	50	22.52	22.35	22.42	23.1
20	16QAM	100	0	22.49	22.37	22.38	
20	64QAM	1	0	21.83	21.77	22.48	
20	64QAM	1	49	22.53	22.13	21.97	23.1
20	64QAM	1	99	22.58	22.47	22.41	
20	64QAM	50	0	21.54	20.81	21.43	
20	64QAM	50	24	21.55	21.16	20.98	22.1
20	64QAM	50	50	21.52	21.38	21.13	
20	64QAM	100	0	21.55	21.22	21.35	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	24.35	24.29	24.31	25.1
15	QPSK	1	37	24.24	24.13	24.18	
15	QPSK	1	74	24.39	24.25	24.21	
15	QPSK	36	0	23.47	23.30	23.40	24.1
15	QPSK	36	20	23.49	23.37	23.44	
15	QPSK	36	39	23.49	23.35	23.40	
15	QPSK	75	0	23.48	23.37	23.35	24.1
15	16QAM	1	0	23.67	23.38	23.60	
15	16QAM	1	37	23.55	23.46	23.53	
15	16QAM	1	74	23.68	23.52	23.48	23.1
15	16QAM	36	0	22.50	22.34	22.36	
15	16QAM	36	20	22.49	22.35	22.41	
15	16QAM	36	39	22.49	22.35	22.39	23.1
15	16QAM	75	0	22.50	22.36	22.34	
15	64QAM	1	0	21.59	21.84	22.46	
15	64QAM	1	37	22.55	22.10	21.77	23.1
15	64QAM	1	74	22.62	22.42	22.42	
15	64QAM	36	0	21.39	20.78	20.95	
15	64QAM	36	20	21.48	21.19	20.94	22.1
15	64QAM	36	39	21.53	21.39	21.30	
15	64QAM	75	0	21.50	21.15	21.13	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	24.41	24.32	24.23	25.1
10	QPSK	1	25	24.36	24.23	24.34	
10	QPSK	1	49	24.37	24.20	24.32	
10	QPSK	25	0	23.50	23.30	23.37	24.1
10	QPSK	25	12	23.54	23.38	23.37	
10	QPSK	25	25	23.52	23.34	23.43	
10	QPSK	50	0	23.55	23.38	23.37	24.1
10	16QAM	1	0	23.71	23.62	23.62	
10	16QAM	1	25	23.73	23.59	23.69	
10	16QAM	1	49	23.76	23.62	23.69	23.1
10	16QAM	25	0	22.49	22.30	22.38	
10	16QAM	25	12	22.53	22.36	22.40	
10	16QAM	25	25	22.50	22.36	22.44	23.1
10	16QAM	50	0	22.52	22.37	22.39	
10	64QAM	1	0	21.82	21.73	21.70	
10	64QAM	1	25	22.69	22.29	22.22	23.1
10	64QAM	1	49	22.66	22.45	22.60	
10	64QAM	25	0	21.17	20.93	20.86	
10	64QAM	25	12	21.56	21.19	21.19	22.1
10	64QAM	25	25	21.51	21.39	21.46	
10	64QAM	50	0	21.54	21.16	21.07	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	24.38	24.21	24.32	25.1
5	QPSK	1	12	24.49	24.31	24.37	
5	QPSK	1	24	24.38	24.26	24.31	
5	QPSK	12	0	23.51	23.30	23.45	24.1
5	QPSK	12	7	23.54	23.39	23.44	
5	QPSK	12	13	23.51	23.33	23.42	
5	QPSK	25	0	23.50	23.35	23.40	24.1
5	16QAM	1	0	23.72	23.57	23.67	
5	16QAM	1	12	23.71	23.59	23.67	
5	16QAM	1	24	23.71	23.58	23.66	23.1
5	16QAM	12	0	22.55	22.35	22.46	
5	16QAM	12	7	22.56	22.42	22.47	
5	16QAM	12	13	22.53	22.39	22.43	23.1
5	16QAM	25	0	22.52	22.37	22.44	
5	64QAM	1	0	21.85	22.00	22.17	
5	64QAM	1	12	22.11	22.22	22.58	23.1
5	64QAM	1	24	22.46	22.43	22.58	
5	64QAM	12	0	20.82	21.05	21.44	
5	64QAM	12	7	21.10	21.26	21.51	22.1
5	64QAM	12	13	21.33	21.37	21.49	
5	64QAM	25	0	21.05	21.15	21.43	
Channel				131967	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	24.40	24.28	24.34	25.1
3	QPSK	1	8	24.47	24.34	24.41	
3	QPSK	1	14	24.38	24.26	24.33	
3	QPSK	8	0	23.49	23.35	23.45	24.1
3	QPSK	8	4	23.53	23.35	23.44	
3	QPSK	8	7	23.51	23.31	23.43	
3	QPSK	15	0	23.50	23.33	23.42	24.1
3	16QAM	1	0	23.74	23.62	23.66	
3	16QAM	1	8	23.74	23.63	23.77	
3	16QAM	1	14	23.72	23.59	23.65	23.1
3	16QAM	8	0	22.56	22.43	22.49	
3	16QAM	8	4	22.56	22.46	22.48	
3	16QAM	8	7	22.54	22.41	22.44	23.1
3	16QAM	15	0	22.51	22.41	22.47	
3	64QAM	1	0	21.84	22.12	22.58	
3	64QAM	1	8	22.07	22.34	22.67	23.1
3	64QAM	1	14	22.10	22.41	22.57	
3	64QAM	8	0	20.80	21.12	21.49	
3	64QAM	8	4	20.90	21.26	21.52	22.1
3	64QAM	8	7	21.01	21.28	21.49	
3	64QAM	15	0	20.93	21.20	21.43	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	24.30	24.16	24.21	25.1
1.4	QPSK	1	3	24.33	24.24	24.32	
1.4	QPSK	1	5	24.28	24.17	24.25	
1.4	QPSK	3	0	24.34	24.19	24.30	24.1
1.4	QPSK	3	1	24.37	24.26	24.34	
1.4	QPSK	3	3	24.34	24.19	24.28	
1.4	QPSK	6	0	23.40	23.27	23.34	24.1
1.4	16QAM	1	0	23.62	23.50	23.60	
1.4	16QAM	1	3	23.71	23.55	23.67	
1.4	16QAM	1	5	23.59	23.48	23.57	24.1
1.4	16QAM	3	0	23.40	23.26	23.41	
1.4	16QAM	3	1	23.46	23.34	23.44	
1.4	16QAM	3	3	23.39	23.27	23.33	23.1
1.4	16QAM	6	0	22.44	22.32	22.41	
1.4	64QAM	1	0	21.77	22.20	22.50	
1.4	64QAM	1	3	21.86	22.28	22.57	23.1
1.4	64QAM	1	5	21.81	22.25	22.49	
1.4	64QAM	3	0	21.82	22.23	22.48	
1.4	64QAM	3	1	21.95	22.35	22.54	22.1
1.4	64QAM	3	3	21.87	22.28	22.47	
1.4	64QAM	6	0	20.76	21.19	21.54	



Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133372	Tune-up limit (dBm)
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.77	24.65	24.66	25.7
20	QPSK	1	49	24.61	24.63	24.60	
20	QPSK	1	99	24.64	24.61	24.56	
20	QPSK	50	0	23.80	23.72	23.74	24.7
20	QPSK	50	24	23.63	23.75	23.70	
20	QPSK	50	50	23.82	23.75	23.71	
20	QPSK	100	0	23.81	23.72	23.76	24.7
20	16QAM	1	0	24.08	24.00	24.00	
20	16QAM	1	49	23.97	23.94	23.94	
20	16QAM	1	99	23.97	23.82	23.89	23.7
20	16QAM	50	0	22.80	22.73	22.75	
20	16QAM	50	24	22.82	22.74	22.72	
20	16QAM	50	50	22.79	22.75	22.72	23.7
20	16QAM	100	0	22.81	22.70	22.78	
20	64QAM	1	0	22.14	22.65	22.86	23.7
20	64QAM	1	49	22.64	22.85	22.15	
20	64QAM	1	99	22.85	22.34	22.79	
20	64QAM	50	0	20.83	21.73	21.42	22.7
20	64QAM	50	24	21.26	21.74	21.57	
20	64QAM	50	50	21.82	21.38	21.75	
20	64QAM	100	0	21.41	21.75	21.80	Tune-up limit (dBm)
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	Tune-up limit (dBm)
15	QPSK	1	0	24.76	24.66	24.65	
15	QPSK	1	37	24.57	24.58	24.58	25.7
15	QPSK	1	74	24.60	24.59	24.55	
15	QPSK	36	0	23.74	23.71	23.71	
15	QPSK	36	20	23.78	23.72	23.76	24.7
15	QPSK	36	39	23.78	23.73	23.69	
15	QPSK	75	0	23.77	23.71	23.66	
15	16QAM	1	0	24.05	24.00	23.94	24.7
15	16QAM	1	37	23.79	23.96	23.91	
15	16QAM	1	74	23.89	23.93	23.88	
15	16QAM	36	0	22.67	22.72	22.70	23.7
15	16QAM	36	20	22.73	22.72	22.75	
15	16QAM	36	39	22.78	22.73	22.72	
15	16QAM	75	0	22.80	22.69	22.67	23.7
15	64QAM	1	0	21.68	22.75	22.77	
15	64QAM	1	37	21.71	22.88	22.85	
15	64QAM	1	74	22.79	22.58	22.81	22.7
15	64QAM	36	0	20.76	21.74	21.35	
15	64QAM	36	20	20.76	21.76	21.78	
15	64QAM	36	39	21.33	21.33	21.75	Tune-up limit (dBm)
15	64QAM	75	0	21.23	21.72	21.67	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.69	24.59	24.64	25.7
10	QPSK	1	25	24.54	24.52	24.52	
10	QPSK	1	49	24.57	24.61	24.50	
10	QPSK	25	0	23.75	23.67	23.65	24.7
10	QPSK	25	12	23.74	23.77	23.63	
10	QPSK	25	25	23.65	23.72	23.68	
10	QPSK	50	0	23.76	23.75	23.65	24.7
10	16QAM	1	0	24.05	23.96	24.02	
10	16QAM	1	25	23.94	23.95	23.94	
10	16QAM	1	49	23.94	23.99	23.86	23.7
10	16QAM	25	0	22.62	22.67	22.64	
10	16QAM	25	12	22.61	22.76	22.65	
10	16QAM	25	25	22.53	22.71	22.65	23.7
10	16QAM	50	0	22.74	22.75	22.62	
10	64QAM	1	0	21.92	22.22	22.83	
10	64QAM	1	25	21.85	22.86	22.85	23.7
10	64QAM	1	49	21.99	22.86	22.46	
10	64QAM	25	0	20.70	21.69	21.89	
10	64QAM	25	12	20.71	21.78	21.69	22.7
10	64QAM	25	25	20.72	21.75	21.67	
10	64QAM	50	0	20.71	21.73	21.65	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.43	24.62	24.62	25.7
5	QPSK	1	12	24.65	24.59	24.58	
5	QPSK	1	24	24.56	24.58	24.54	
5	QPSK	12	0	23.66	23.70	23.65	24.7
5	QPSK	12	7	23.68	23.72	23.68	
5	QPSK	12	13	23.70	23.70	23.61	
5	QPSK	25	0	23.67	23.69	23.61	24.7
5	16QAM	1	0	23.83	23.95	23.93	
5	16QAM	1	12	23.88	23.93	23.89	
5	16QAM	1	24	23.85	23.91	23.83	23.7
5	16QAM	12	0	22.51	22.75	22.73	
5	16QAM	12	7	22.66	22.76	22.71	
5	16QAM	12	13	22.73	22.70	22.63	23.7
5	16QAM	25	0	22.58	22.74	22.62	
5	64QAM	1	0	21.70	21.99	22.87	
5	64QAM	1	12	21.71	22.90	22.78	23.7
5	64QAM	1	24	21.85	22.88	22.23	
5	64QAM	12	0	20.72	21.54	21.72	
5	64QAM	12	7	20.83	21.77	21.75	22.7
5	64QAM	12	13	20.78	21.74	21.61	
5	64QAM	25	0	20.64	21.51	21.57	



Band 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	17.39	17.36	17.24	18.9
20	QPSK	1	49	17.34	17.28	17.16	
20	QPSK	1	99	17.28	17.28	17.14	
20	QPSK	50	0	17.42	17.39	17.32	18.9
20	QPSK	50	24	17.54	17.41	17.33	
20	QPSK	50	50	17.51	17.47	17.31	
20	QPSK	100	0	17.51	17.37	17.34	18.9
20	16QAM	1	0	17.65	17.71	17.58	
20	16QAM	1	49	17.67	17.63	17.47	
20	16QAM	1	99	17.57	17.57	17.46	18.9
20	16QAM	50	0	17.46	17.38	17.34	
20	16QAM	50	24	17.54	17.41	17.34	
20	16QAM	50	50	17.51	17.47	17.33	18.9
20	16QAM	100	0	17.50	17.36	17.34	
20	64QAM	1	0	17.58	17.60	17.52	
20	64QAM	1	49	17.57	17.51	17.35	18.9
20	64QAM	1	99	17.55	17.47	17.41	
20	64QAM	50	0	17.46	17.40	17.35	
20	64QAM	50	24	17.53	17.44	17.36	18.9
20	64QAM	50	50	17.52	17.50	17.36	
20	64QAM	100	0	17.50	17.43	17.32	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	17.39	17.34	17.24	18.9
15	QPSK	1	37	17.33	17.31	17.15	
15	QPSK	1	74	17.36	17.33	17.19	
15	QPSK	36	0	17.49	17.39	17.28	18.9
15	QPSK	36	20	17.51	17.41	17.31	
15	QPSK	36	39	17.49	17.46	17.30	
15	QPSK	75	0	17.50	17.39	17.31	18.9
15	16QAM	1	0	17.59	17.68	17.52	
15	16QAM	1	37	17.54	17.61	17.44	
15	16QAM	1	74	17.56	17.60	17.47	18.9
15	16QAM	36	0	17.46	17.38	17.28	
15	16QAM	36	20	17.46	17.39	17.31	
15	16QAM	36	39	17.47	17.46	17.30	18.9
15	16QAM	75	0	17.49	17.38	17.32	
15	64QAM	1	0	17.59	17.61	17.50	
15	64QAM	1	37	17.57	17.65	17.42	18.9
15	64QAM	1	74	17.62	17.51	17.41	
15	64QAM	36	0	17.52	17.42	17.30	
15	64QAM	36	20	17.55	17.44	17.31	18.9
15	64QAM	36	39	17.49	17.49	17.38	
15	64QAM	75	0	17.50	17.39	17.30	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	17.37	17.31	17.21	18.9
10	QPSK	1	25	17.32	17.32	17.10	
10	QPSK	1	49	17.34	17.34	17.17	
10	QPSK	25	0	17.44	17.37	17.28	18.9
10	QPSK	25	12	17.46	17.41	17.32	
10	QPSK	25	25	17.47	17.52	17.36	
10	QPSK	50	0	17.47	17.41	17.31	18.9
10	16QAM	1	0	17.69	17.68	17.53	
10	16QAM	1	25	17.69	17.67	17.45	
10	16QAM	1	49	17.70	17.67	17.54	18.9
10	16QAM	25	0	17.44	17.33	17.22	
10	16QAM	25	12	17.49	17.40	17.26	
10	16QAM	25	25	17.43	17.46	17.25	18.9
10	16QAM	50	0	17.46	17.32	17.27	
10	64QAM	1	0	17.62	17.54	17.46	
10	64QAM	1	25	17.60	17.58	17.42	18.9
10	64QAM	1	49	17.58	17.60	17.40	
10	64QAM	25	0	17.48	17.36	17.26	
10	64QAM	25	12	17.53	17.40	17.31	18.9
10	64QAM	25	25	17.51	17.50	17.32	
10	64QAM	50	0	17.50	17.40	17.29	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	17.34	17.25	17.21	18.9
5	QPSK	1	12	17.34	17.40	17.19	
5	QPSK	1	24	17.39	17.38	17.17	
5	QPSK	12	0	17.43	17.39	17.30	18.9
5	QPSK	12	7	17.49	17.46	17.27	
5	QPSK	12	13	17.45	17.48	17.31	
5	QPSK	25	0	17.45	17.38	17.29	18.9
5	16QAM	1	0	17.67	17.56	17.60	
5	16QAM	1	12	17.64	17.71	17.60	
5	16QAM	1	24	17.70	17.71	17.55	18.9
5	16QAM	12	0	17.49	17.41	17.27	
5	16QAM	12	7	17.51	17.47	17.32	
5	16QAM	12	13	17.50	17.46	17.29	18.9
5	16QAM	25	0	17.45	17.38	17.24	
5	64QAM	1	0	17.65	17.59	17.46	
5	64QAM	1	12	17.60	17.59	17.39	18.9
5	64QAM	1	24	17.59	17.60	17.48	
5	64QAM	12	0	17.52	17.42	17.29	
5	64QAM	12	7	17.56	17.50	17.33	18.9
5	64QAM	12	13	17.55	17.52	17.31	
5	64QAM	25	0	17.45	17.41	17.28	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	17.34	17.27	17.10	18.9
3	QPSK	1	8	17.41	17.40	17.23	
3	QPSK	1	14	17.38	17.38	17.13	
3	QPSK	8	0	17.44	17.41	17.26	18.9
3	QPSK	8	4	17.47	17.50	17.22	
3	QPSK	8	7	17.45	17.45	17.24	
3	QPSK	15	0	17.44	17.38	17.27	18.9
3	16QAM	1	0	17.63	17.58	17.44	
3	16QAM	1	8	17.77	17.73	17.59	
3	16QAM	1	14	17.69	17.66	17.48	18.9
3	16QAM	8	0	17.51	17.43	17.30	
3	16QAM	8	4	17.53	17.52	17.37	
3	16QAM	8	7	17.51	17.51	17.29	18.9
3	16QAM	15	0	17.51	17.40	17.26	
3	64QAM	1	0	17.63	17.56	17.43	
3	64QAM	1	8	17.66	17.72	17.49	18.9
3	64QAM	1	14	17.59	17.65	17.47	
3	64QAM	8	0	17.54	17.44	17.26	
3	64QAM	8	4	17.56	17.53	17.31	18.9
3	64QAM	8	7	17.53	17.50	17.29	
3	64QAM	15	0	17.46	17.38	17.29	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	17.35	17.29	17.06	18.9
1.4	QPSK	1	3	17.44	17.35	17.15	
1.4	QPSK	1	5	17.38	17.31	17.10	
1.4	QPSK	3	0	17.42	17.35	17.14	18.9
1.4	QPSK	3	1	17.45	17.42	17.29	
1.4	QPSK	3	3	17.36	17.33	17.17	
1.4	QPSK	6	0	17.46	17.41	17.20	18.9
1.4	16QAM	1	0	17.74	17.59	17.38	
1.4	16QAM	1	3	17.71	17.65	17.43	
1.4	16QAM	1	5	17.65	17.60	17.43	18.9
1.4	16QAM	3	0	17.45	17.39	17.21	
1.4	16QAM	3	1	17.48	17.51	17.32	
1.4	16QAM	3	3	17.40	17.44	17.28	18.9
1.4	16QAM	6	0	17.46	17.35	17.19	
1.4	64QAM	1	0	17.81	17.73	17.49	
1.4	64QAM	1	3	17.64	17.72	17.46	18.9
1.4	64QAM	1	5	17.60	17.56	17.39	
1.4	64QAM	3	0	17.53	17.51	17.31	
1.4	64QAM	3	1	17.59	17.55	17.33	18.9
1.4	64QAM	3	3	17.54	17.46	17.32	
1.4	64QAM	6	0	17.43	17.40	17.21	

Band 4							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20050	20175	20350	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	19.62	19.54	19.34	20.8
20	QPSK	1	49	19.39	19.26	19.14	
20	QPSK	1	99	19.36	19.28	19.17	
20	QPSK	50	0	19.71	19.59	19.36	20.8
20	QPSK	50	24	19.53	19.51	19.35	
20	QPSK	50	50	19.45	19.40	19.29	
20	QPSK	100	0	19.51	19.56	19.35	20.8
20	16QAM	1	0	19.94	19.79	19.67	
20	16QAM	1	49	19.74	19.66	19.50	
20	16QAM	1	99	19.75	19.56	19.38	20.8
20	16QAM	50	0	19.70	19.60	19.38	
20	16QAM	50	24	19.55	19.53	19.38	
20	16QAM	50	50	19.45	19.43	19.31	20.8
20	16QAM	100	0	19.49	19.55	19.37	
20	64QAM	1	0	19.88	19.77	19.53	
20	64QAM	1	49	19.61	19.52	19.35	20.8
20	64QAM	1	99	19.50	19.52	19.39	
20	64QAM	50	0	19.70	19.60	19.40	
20	64QAM	50	24	19.56	19.52	19.39	20.8
20	64QAM	50	50	19.47	19.44	19.30	
20	64QAM	100	0	19.59	19.56	19.37	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	19.60	19.52	19.32	20.8
15	QPSK	1	37	19.41	19.28	19.13	
15	QPSK	1	74	19.38	19.26	19.14	
15	QPSK	36	0	19.65	19.59	19.31	20.8
15	QPSK	36	20	19.61	19.47	19.23	
15	QPSK	36	39	19.48	19.40	19.27	
15	QPSK	75	0	19.51	19.50	19.26	20.8
15	16QAM	1	0	19.69	19.61	19.61	
15	16QAM	1	37	19.78	19.65	19.49	
15	16QAM	1	74	19.75	19.60	19.42	20.8
15	16QAM	36	0	19.70	19.58	19.34	
15	16QAM	36	20	19.61	19.47	19.26	
15	16QAM	36	39	19.48	19.42	19.30	20.8
15	16QAM	75	0	19.55	19.52	19.30	
15	64QAM	1	0	19.85	19.73	19.52	
15	64QAM	1	37	19.65	19.53	19.44	20.8
15	64QAM	1	74	19.53	19.46	19.35	
15	64QAM	36	0	19.71	19.61	19.37	
15	64QAM	36	20	19.60	19.50	19.26	20.8
15	64QAM	36	39	19.53	19.45	19.32	
15	64QAM	75	0	19.55	19.52	19.29	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	19.55	19.41	19.23	20.8
10	QPSK	1	25	19.47	19.33	19.14	
10	QPSK	1	49	19.45	19.34	19.15	
10	QPSK	25	0	19.61	19.50	19.20	20.8
10	QPSK	25	12	19.62	19.54	19.33	
10	QPSK	25	25	19.61	19.52	19.31	
10	QPSK	50	0	19.63	19.51	19.26	20.8
10	16QAM	1	0	19.90	19.78	19.60	
10	16QAM	1	25	19.85	19.73	19.55	
10	16QAM	1	49	19.86	19.72	19.55	20.8
10	16QAM	25	0	19.60	19.51	19.25	
10	16QAM	25	12	19.66	19.49	19.35	
10	16QAM	25	25	19.63	19.44	19.33	20.8
10	16QAM	50	0	19.62	19.50	19.27	
10	64QAM	1	0	19.78	19.61	19.38	
10	64QAM	1	25	19.76	19.63	19.44	20.8
10	64QAM	1	49	19.72	19.56	19.45	
10	64QAM	25	0	19.62	19.51	19.25	
10	64QAM	25	12	19.64	19.51	19.37	20.8
10	64QAM	25	25	19.63	19.51	19.35	
10	64QAM	50	0	19.65	19.48	19.28	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	19.53	19.38	19.16	20.8
5	QPSK	1	12	19.54	19.41	19.23	
5	QPSK	1	24	19.55	19.40	19.21	
5	QPSK	12	0	19.59	19.48	19.23	20.8
5	QPSK	12	7	19.67	19.52	19.33	
5	QPSK	12	13	19.62	19.47	19.30	
5	QPSK	25	0	19.63	19.48	19.27	20.8
5	16QAM	1	0	19.86	19.66	19.51	
5	16QAM	1	12	19.82	19.65	19.37	
5	16QAM	1	24	19.89	19.73	19.53	20.8
5	16QAM	12	0	19.64	19.47	19.30	
5	16QAM	12	7	19.70	19.51	19.34	
5	16QAM	12	13	19.65	19.50	19.31	20.8
5	16QAM	25	0	19.66	19.46	19.30	
5	64QAM	1	0	19.78	19.66	19.45	
5	64QAM	1	12	19.79	19.62	19.37	20.8
5	64QAM	1	24	19.84	19.64	19.39	
5	64QAM	12	0	19.67	19.49	19.36	
5	64QAM	12	7	19.69	19.56	19.35	20.8
5	64QAM	12	13	19.70	19.52	19.34	
5	64QAM	25	0	19.64	19.50	19.28	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	19.52	19.39	19.16	20.8
3	QPSK	1	8	19.61	19.44	19.24	
3	QPSK	1	14	19.53	19.37	19.22	
3	QPSK	8	0	19.62	19.48	19.28	20.8
3	QPSK	8	4	19.64	19.53	19.36	
3	QPSK	8	7	19.64	19.50	19.32	
3	QPSK	15	0	19.63	19.48	19.28	20.8
3	16QAM	1	0	19.83	19.69	19.50	
3	16QAM	1	8	19.90	19.74	19.51	
3	16QAM	1	14	19.86	19.72	19.57	20.8
3	16QAM	8	0	19.71	19.55	19.33	
3	16QAM	8	4	19.72	19.59	19.36	
3	16QAM	8	7	19.68	19.54	19.35	20.8
3	16QAM	15	0	19.66	19.50	19.33	
3	64QAM	1	0	19.75	19.64	19.33	
3	64QAM	1	8	19.87	19.69	19.42	20.8
3	64QAM	1	14	19.80	19.63	19.37	
3	64QAM	8	0	19.68	19.50	19.33	
3	64QAM	8	4	19.71	19.53	19.36	20.8
3	64QAM	8	7	19.67	19.50	19.36	
3	64QAM	15	0	19.63	19.48	19.31	
Channel				19967	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	19.49	19.31	19.08	20.8
1.4	QPSK	1	3	19.53	19.35	19.15	
1.4	QPSK	1	5	19.49	19.32	19.11	
1.4	QPSK	3	0	19.49	19.35	19.17	20.8
1.4	QPSK	3	1	19.54	19.37	19.23	
1.4	QPSK	3	3	19.50	19.34	19.17	
1.4	QPSK	6	0	19.56	19.41	19.19	20.8
1.4	16QAM	1	0	19.77	19.63	19.45	
1.4	16QAM	1	3	19.84	19.69	19.50	
1.4	16QAM	1	5	19.82	19.66	19.44	20.8
1.4	16QAM	3	0	19.55	19.39	19.17	
1.4	16QAM	3	1	19.63	19.46	19.24	
1.4	16QAM	3	3	19.56	19.38	19.20	20.8
1.4	16QAM	6	0	19.63	19.50	19.32	
1.4	64QAM	1	0	19.72	19.59	19.32	
1.4	64QAM	1	3	19.76	19.63	19.35	20.8
1.4	64QAM	1	5	19.69	19.56	19.29	
1.4	64QAM	3	0	19.68	19.53	19.29	
1.4	64QAM	3	1	19.73	19.59	19.38	20.8
1.4	64QAM	3	3	19.67	19.55	19.31	
1.4	64QAM	6	0	19.55	19.41	19.20	

Band 5							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20450	20525	20600	25.7
Frequency (MHz)				825	836.5	848	
10	QPSK	1	0	24.62	24.61	24.67	25.7
10	QPSK	1	25	24.53	24.64	24.65	
10	QPSK	1	49	24.66	24.69	24.64	
10	QPSK	25	0	23.68	23.77	23.76	
10	QPSK	25	12	23.77	23.76	23.77	24.7
10	QPSK	25	25	23.75	23.80	23.75	
10	QPSK	50	0	23.78	23.73	23.78	
10	16QAM	1	0	23.97	23.98	24.01	
10	16QAM	1	25	23.95	24.02	24.05	24.7
10	16QAM	1	49	24.03	24.09	23.99	
10	16QAM	25	0	22.67	22.76	22.76	
10	16QAM	25	12	22.77	22.77	22.76	
10	16QAM	25	25	22.74	22.77	22.84	23.7
10	16QAM	50	0	22.77	22.74	22.78	
10	64QAM	1	0	22.83	22.81	22.87	
10	64QAM	1	25	22.90	22.73	22.88	
10	64QAM	1	49	22.94	22.60	22.10	22.7
10	64QAM	25	0	21.72	21.81	21.82	
10	64QAM	25	12	21.81	21.80	21.80	
10	64QAM	25	25	21.80	21.83	21.09	
10	64QAM	50	0	21.83	21.78	21.52	Tune-up limit (dBm)
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	25.7
5	QPSK	1	0	24.67	24.68	24.68	
5	QPSK	1	12	24.64	24.67	24.41	24.7
5	QPSK	1	24	24.58	24.67	24.44	
5	QPSK	12	0	23.75	23.80	23.78	
5	QPSK	12	7	23.75	23.80	23.52	
5	QPSK	12	13	23.67	23.76	23.54	24.7
5	QPSK	25	0	23.71	23.74	23.66	
5	16QAM	1	0	24.03	24.02	24.01	
5	16QAM	1	12	23.91	24.01	23.73	
5	16QAM	1	24	23.93	24.02	23.70	23.7
5	16QAM	12	0	22.81	22.81	22.80	
5	16QAM	12	7	22.75	22.84	22.70	
5	16QAM	12	13	22.73	22.77	22.69	
5	16QAM	25	0	22.72	22.74	22.78	23.7
5	64QAM	1	0	22.94	22.87	22.50	
5	64QAM	1	12	22.84	22.90	21.87	
5	64QAM	1	24	22.85	22.81	21.88	
5	64QAM	12	0	21.82	21.87	21.19	22.7
5	64QAM	12	7	21.79	21.86	20.82	
5	64QAM	12	13	21.75	21.83	21.66	
5	64QAM	25	0	21.75	21.70	20.89	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	24.65	24.65	24.52	25.7
3	QPSK	1	8	24.62	24.68	24.46	
3	QPSK	1	14	24.55	24.64	24.49	
3	QPSK	8	0	23.77	23.70	23.43	
3	QPSK	8	4	23.72	23.77	23.49	24.7
3	QPSK	8	7	23.70	23.75	23.66	
3	QPSK	15	0	23.71	23.74	23.48	
3	16QAM	1	0	23.99	23.97	23.75	
3	16QAM	1	8	23.98	24.07	23.71	24.7
3	16QAM	1	14	23.88	24.00	23.75	
3	16QAM	8	0	22.82	22.83	22.58	
3	16QAM	8	4	22.78	22.90	22.80	
3	16QAM	8	7	22.75	22.80	22.72	23.7
3	16QAM	15	0	22.75	22.79	22.61	
3	64QAM	1	0	22.87	22.92	21.89	
3	64QAM	1	8	22.92	22.99	21.77	
3	64QAM	1	14	22.85	22.90	21.76	22.7
3	64QAM	8	0	21.78	21.78	21.87	
3	64QAM	8	4	21.80	21.86	21.68	
3	64QAM	8	7	21.74	21.80	20.72	
3	64QAM	15	0	21.74	21.78	20.77	Tune-up limit (dBm)
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	25.7
1.4	QPSK	1	0	24.56	24.59	24.49	
1.4	QPSK	1	3	24.59	24.65	24.63	25.7
1.4	QPSK	1	5	24.50	24.60	24.55	
1.4	QPSK	3	0	24.62	24.62	24.61	
1.4	QPSK	3	1	24.62	24.63	24.64	
1.4	QPSK	3	3	24.58	24.63	24.67	24.7
1.4	QPSK	6	0	23.65	23.74	23.70	
1.4	16QAM	1	0	23.90	23.95	23.81	
1.4	16QAM	1	3	23.89	24.04	23.98	
1.4	16QAM	1	5	23.85	23.93	23.86	24.7
1.4	16QAM	3	0	23.69	23.70	23.63	
1.4	16QAM	3	1	23.73	23.77	23.72	
1.4	16QAM	3	3	23.66	23.72	23.67	
1.4	16QAM	6	0	22.73	22.79	22.76	23.7
1.4	64QAM	1	0	22.84	22.86	21.76	
1.4	64QAM	1	3	22.87	22.93	21.89	
1.4	64QAM	1	5	22.79	22.85	21.90	
1.4	64QAM	3	0	22.80	22.80	21.76	23.7
1.4	64QAM	3	1	22.84	22.85	21.89	
1.4	64QAM	3	3	22.78	22.86	22.00	
1.4	64QAM	6	0	21.68	21.74	21.67	

Band 7							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				20850	21100	21350	22.3
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	20.68	20.72	20.76	22.3
20	QPSK	1	49	20.72	20.81	20.76	
20	QPSK	1	99	20.82	20.91	20.85	
20	QPSK	50	0	20.78	20.86	20.83	22.3
20	QPSK	50	24	20.89	20.90	20.86	
20	QPSK	50	50	20.89	20.99	20.94	
20	QPSK	100	0	20.87	20.89	20.84	22.3
20	16QAM	1	0	21.00	21.06	21.07	
20	16QAM	1	49	21.09	21.20	21.11	
20	16QAM	1	99	21.17	21.27	21.13	22.3
20	16QAM	50	0	20.79	20.86	20.82	
20	16QAM	50	24	20.91	20.91	20.86	
20	16QAM	50	50	20.92	21.02	20.94	22.3
20	16QAM	100	0	20.87	20.87	20.86	
20	64QAM	1	0	20.83	20.94	20.96	22.3
20	64QAM	1	49	20.94	21.03	20.99	
20	64QAM	1	99	21.05	21.16	21.14	
20	64QAM	50	0	20.78	20.89	20.87	22.3
20	64QAM	50	24	20.90	20.96	20.91	
20	64QAM	50	50	20.92	21.05	20.98	
20	64QAM	100	0	20.89	20.93	20.88	Tune-up limit (dBm)
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	22.3
15	QPSK	1	0	20.70	20.79	20.75	
15	QPSK	1	37	20.73	20.84	20.78	22.3
15	QPSK	1	74	20.81	20.93	20.85	
15	QPSK	36	0	20.75	20.86	20.81	22.3
15	QPSK	36	20	20.89	20.90	20.86	
15	QPSK	36	39	20.90	20.98	20.91	
15	QPSK	75	0	20.88	20.89	20.85	22.3
15	16QAM	1	0	21.00	21.07	21.09	
15	16QAM	1	37	21.05	21.16	21.09	
15	16QAM	1	74	21.13	21.29	21.15	22.3
15	16QAM	36	0	20.78	20.85	20.82	
15	16QAM	36	20	20.89	20.89	20.83	
15	16QAM	36	39	20.91	20.99	20.92	22.3
15	16QAM	75	0	20.89	20.91	20.85	
15	64QAM	1	0	20.86	20.95	20.94	
15	64QAM	1	37	20.93	21.09	21.04	22.3
15	64QAM	1	74	21.00	21.14	21.11	
15	64QAM	36	0	20.80	20.91	20.88	
15	64QAM	36	20	20.89	20.96	20.90	22.3
15	64QAM	36	39	20.92	21.07	20.96	
15	64QAM	75	0	20.87	20.91	20.87	
Channel				20900	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	20.68	20.72	20.68	22.3
10	QPSK	1	25	20.61	20.72	20.63	
10	QPSK	1	49	20.70	20.81	20.75	
10	QPSK	25	0	20.82	20.84	20.78	22.3
10	QPSK	25	12	20.86	20.87	20.81	
10	QPSK	25	25	20.86	20.97	20.88	
10	QPSK	50	0	20.85	20.88	20.82	22.3
10	16QAM	1	0	21.02	21.06	21.03	
10	16QAM	1	25	21.01	21.14	21.04	
10	16QAM	1	49	21.09	21.18	21.10	22.3
10	16QAM	25	0	20.81	20.81	20.76	
10	16QAM	25	12	20.87	20.87	20.78	
10	16QAM	25	25	20.83	20.93	20.84	22.3
10	16QAM	50	0	20.84	20.85	20.80	
10	64QAM	1	0	20.95	20.94	20.83	
10	64QAM	1	25	20.93	21.03	20.99	22.3
10	64QAM	1	49	20.98	21.06	21.04	
10	64QAM	25	0	20.84	20.88	20.82	
10	64QAM	25	12	20.89	20.92	20.85	22.3
10	64QAM	25	25	20.88	21.00	20.92	
10	64QAM	50	0	20.85	20.89	20.83	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	20.71	20.71	20.71	22.3
5	QPSK	1	12	20.69	20.82	20.72	
5	QPSK	1	24	20.72	20.83	20.78	
5	QPSK	12	0	20.82	20.90	20.89	22.3
5	QPSK	12	7	20.85	20.87	20.89	
5	QPSK	12	13	20.86	20.93	20.88	
5	QPSK	25	0	20.82	20.88	20.89	22.3
5	16QAM	1	0	21.01	21.04	21.06	
5	16QAM	1	12	20.98	21.08	21.06	
5	16QAM	1	24	21.02	21.14	21.09	22.3
5	16QAM	12	0	20.87	20.86	20.86	
5	16QAM	12	7	20.83	20.88	20.87	
5	16QAM	12	13	20.86	20.92	20.87	22.3
5	16QAM	25	0	20.85	20.87	20.85	
5	64QAM	1	0	20.96	20.99	20.98	
5	64QAM	1	12	20.94	21.01	20.99	22.3
5	64QAM	1	24	20.99	21.08	20.98	
5	64QAM	12	0	20.90	20.96	20.92	
5	64QAM	12	7	20.92	20.91	20.92	22.3
5	64QAM	12	13	20.92	20.99	20.91	
5	64QAM	25	0	20.86	20.90	20.89	

Band 12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23050	23095	23150	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	24.36	24.28	24.30	25.7
10	QPSK	1	25	24.28	24.32	24.27	
10	QPSK	1	49	24.40	24.35	24.29	
10	QPSK	25	0	23.43	23.41	23.41	24.7
10	QPSK	25	12	23.48	23.42	23.48	
10	QPSK	25	25	23.47	23.48	23.45	
10	QPSK	50	0	23.50	23.44	23.47	24.7
10	16QAM	1	0	23.73	23.65	23.68	
10	16QAM	1	25	23.71	23.72	23.67	
10	16QAM	1	49	23.81	23.72	23.67	23.7
10	16QAM	25	0	22.44	22.42	22.40	
10	16QAM	25	12	22.51	22.41	22.45	
10	16QAM	25	25	22.41	22.45	22.40	23.7
10	16QAM	50	0	22.51	22.40	22.49	
10	64QAM	1	0	22.58	22.51	22.55	23.7
10	64QAM	1	25	22.63	22.65	22.63	
10	64QAM	1	49	22.59	22.65	22.60	
10	64QAM	25	0	21.45	21.45	21.44	22.7
10	64QAM	25	12	21.54	21.48	21.52	
10	64QAM	25	25	21.49	21.50	21.48	
10	64QAM	50	0	21.54	21.44	21.50	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	24.36	24.32	24.28	
5	QPSK	1	12	24.35	24.39	24.36	25.7
5	QPSK	1	24	24.32	24.36	24.29	
5	QPSK	12	0	23.45	23.42	23.41	24.7
5	QPSK	12	7	23.45	23.40	23.44	
5	QPSK	12	13	23.41	23.44	23.39	
5	QPSK	25	0	23.44	23.40	23.37	24.7
5	16QAM	1	0	23.71	23.69	23.61	
5	16QAM	1	12	23.66	23.68	23.64	
5	16QAM	1	24	23.67	23.69	23.63	23.7
5	16QAM	12	0	22.51	22.44	22.41	
5	16QAM	12	7	22.48	22.41	22.44	
5	16QAM	12	13	22.45	22.47	22.42	23.7
5	16QAM	25	0	22.44	22.44	22.37	
5	64QAM	1	0	22.55	22.55	22.54	
5	64QAM	1	12	22.60	22.59	22.57	22.7
5	64QAM	1	24	22.61	22.63	22.57	
5	64QAM	12	0	21.56	21.51	21.44	
5	64QAM	12	7	21.50	21.47	21.50	22.7
5	64QAM	12	13	21.50	21.48	21.48	
5	64QAM	25	0	21.48	21.45	21.37	
Channel				23055	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	24.39	24.37	24.31	25.7
3	QPSK	1	8	24.39	24.39	24.33	
3	QPSK	1	14	24.34	24.36	24.30	
3	QPSK	8	0	23.46	23.39	23.37	24.7
3	QPSK	8	4	23.46	23.46	23.39	
3	QPSK	8	7	23.41	23.39	23.35	
3	QPSK	15	0	23.42	23.37	23.32	24.7
3	16QAM	1	0	23.74	23.66	23.62	
3	16QAM	1	8	23.74	23.77	23.66	
3	16QAM	1	14	23.70	23.70	23.63	23.7
3	16QAM	8	0	22.52	22.47	22.42	
3	16QAM	8	4	22.51	22.54	22.46	
3	16QAM	8	7	22.49	22.47	22.43	23.7
3	16QAM	15	0	22.46	22.40	22.35	
3	64QAM	1	0	22.69	22.61	22.56	
3	64QAM	1	8	22.68	22.68	22.64	23.7
3	64QAM	1	14	22.62	22.63	22.55	
3	64QAM	8	0	21.55	21.45	21.43	
3	64QAM	8	4	21.55	21.54	21.49	22.7
3	64QAM	8	7	21.47	21.48	21.43	
3	64QAM	15	0	21.47	21.42	21.37	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	24.30	24.24	24.25	25.7
1.4	QPSK	1	3	24.34	24.33	24.25	
1.4	QPSK	1	5	24.29	24.27	24.20	
1.4	QPSK	3	0	24.35	24.28	24.24	24.7
1.4	QPSK	3	1	24.39	24.29	24.27	
1.4	QPSK	3	3	24.30	24.30	24.21	
1.4	QPSK	6	0	23.42	23.32	23.29	24.7
1.4	16QAM	1	0	23.64	23.60	23.57	
1.4	16QAM	1	3	23.70	23.69	23.60	
1.4	16QAM	1	5	23.60	23.61	23.52	24.7
1.4	16QAM	3	0	23.43	23.35	23.34	
1.4	16QAM	3	1	23.49	23.39	23.38	
1.4	16QAM	3	3	23.41	23.40	23.28	23.7
1.4	16QAM	6	0	22.47	22.39	22.36	
1.4	64QAM	1	0	22.61	22.51	22.48	
1.4	64QAM	1	3	22.64	22.60	22.51	23.7
1.4	64QAM	1	5	22.55	22.53	22.44	
1.4	64QAM	3	0	22.57	22.48	22.45	
1.4	64QAM	3	1	22.60	22.50	22.49	22.7
1.4	64QAM	3	3	22.51	22.53	22.45	
1.4	64QAM	6	0	21.40	21.34	21.30	

Band 13							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23230			Tune-up limit (dbm)
Frequency (MHz)				782			
10	QPSK	1	0	24.05			25.2
10	QPSK	1	25	24.00			
10	QPSK	1	49	24.02			
10	QPSK	25	0	23.06			24.2
10	QPSK	25	12	23.11			
10	QPSK	25	25	23.10			
10	QPSK	50	0	23.12			24.2
10	16QAM	1	0	23.30			
10	16QAM	1	25	23.34			
10	16QAM	1	49	23.30			23.2
10	16QAM	25	0	22.10			
10	16QAM	25	12	22.12			
10	16QAM	25	25	22.11			23.2
10	16QAM	50	0	22.11			
10	64QAM	1	0	23.05			
10	64QAM	1	25	23.07			23.2
10	64QAM	1	49	23.05			
10	64QAM	25	0	22.08			
10	64QAM	25	12	22.04			22.2
10	64QAM	25	25	22.02			
10	64QAM	50	0	22.01			
Channel				23205	23230	23255	Tune-up limit (dbm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.96	23.94	23.95	25.2
5	QPSK	1	12	23.99	24.04	24.02	
5	QPSK	1	24	24.04	23.99	24.01	
5	QPSK	12	0	23.09	23.10	23.08	24.2
5	QPSK	12	7	23.10	23.11	23.02	
5	QPSK	12	13	23.12	23.13	23.07	
5	QPSK	25	0	23.15	23.12	23.03	24.2
5	16QAM	1	0	23.18	23.25	23.29	
5	16QAM	1	12	23.29	23.30	23.25	
5	16QAM	1	24	23.36	23.31	23.21	23.2
5	16QAM	12	0	22.17	22.11	22.14	
5	16QAM	12	7	22.16	22.10	22.09	
5	16QAM	12	13	22.15	22.13	22.15	23.2
5	16QAM	25	0	22.17	22.09	22.08	
5	64QAM	1	0	22.11	22.23	22.18	
5	64QAM	1	12	22.24	22.25	22.23	23.2
5	64QAM	1	24	22.26	22.27	22.20	
5	64QAM	12	0	21.19	21.15	21.16	
5	64QAM	12	7	21.19	21.14	21.10	22.2
5	64QAM	12	13	21.18	21.17	21.13	
5	64QAM	25	0	21.20	21.14	21.08	

Band 14							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch.	Power Middle Ch.	Power High Ch.	Tune-up limit (dbm)
Channel				23330			Tune-up limit (dbm)
Frequency (MHz)				793			
10	QPSK	1	0	24.68			25.7
10	QPSK	1	25	24.58			
10	QPSK	1	49	24.49			
10	QPSK	25	0	23.62			24.7
10	QPSK	25	12	23.61			
10	QPSK	25	25	23.65			
10	QPSK	50	0	23.61			24.7
10	16QAM	1	0	23.95			
10	16QAM	1	25	23.95			
10	16QAM	1	49	23.89			23.7
10	16QAM	25	0	22.63			
10	16QAM	25	12	22.61			
10	16QAM	25	25	22.65			23.7
10	16QAM	50	0	22.63			
10	64QAM	1	0	22.85			
10	64QAM	1	25	22.85			23.7
10	64QAM	1	49	22.78			
10	64QAM	25	0	21.67			
10	64QAM	25	12	21.65			22.7
10	64QAM	25	25	21.69			
10	64QAM	50	0	21.63			
Channel				23305	23330	23355	Tune-up limit (dbm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	24.53	24.52	24.54	25.7
5	QPSK	1	12	24.64	24.67	24.63	
5	QPSK	1	24	24.58	24.56	24.52	
5	QPSK	12	0	23.61	23.62	23.59	24.7
5	QPSK	12	7	23.66	23.66	23.61	
5	QPSK	12	13	23.65	23.64	23.60	
5	QPSK	25	0	23.65	23.61	23.52	24.7
5	16QAM	1	0	23.90	23.94	23.86	
5	16QAM	1	12	23.92	23.94	23.92	
5	16QAM	1	24	23.91	23.89	23.84	23.7
5	16QAM	12	0	22.62	22.62	22.65	
5	16QAM	12	7	22.73	22.66	22.63	
5	16QAM	12	13	22.66	22.67	22.63	23.7
5	16QAM	25	0	22.69	22.62	22.57	
5	64QAM	1	0	22.77	22.81	22.70	
5	64QAM	1	12	22.85	22.75	22.87	23.7
5	64QAM	1	24	22.74	22.83	22.82	
5	64QAM	12	0	21.66	21.69	21.67	
5	64QAM	12	7	21.74	21.70	21.66	22.7
5	64QAM	12	13	21.71	21.71	21.69	
5	64QAM	25	0	21.68	21.63	21.58	

Band 17							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	24.77	24.69	24.64	25.7
10	QPSK	1	25	24.75	24.76	24.70	
10	QPSK	1	49	24.85	24.76	24.75	
10	QPSK	25	0	23.76	23.76	23.76	24.7
10	QPSK	25	12	23.90	23.85	23.82	
10	QPSK	25	25	23.92	23.91	23.89	
10	QPSK	50	0	23.88	23.81	23.78	24.7
10	16QAM	1	0	24.14	24.08	24.04	
10	16QAM	1	25	24.14	24.12	24.11	
10	16QAM	1	49	24.15	24.13	24.11	23.7
10	16QAM	25	0	22.77	22.77	22.77	
10	16QAM	25	12	22.93	22.94	22.83	
10	16QAM	25	25	22.89	22.85	22.92	23.7
10	16QAM	50	0	22.91	22.81	22.80	
10	64QAM	1	0	23.02	22.92	22.96	23.7
10	64QAM	1	25	23.06	23.06	23.03	
10	64QAM	1	49	23.06	23.02	22.88	
10	64QAM	25	0	21.82	21.80	21.80	22.7
10	64QAM	25	12	21.95	21.89	21.86	
10	64QAM	25	25	21.94	21.94	21.92	
10	64QAM	50	0	21.92	21.86	21.84	Tune-up limit (dBm)
Channel				23785	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	24.69	24.71	24.70	25.7
5	QPSK	1	12	24.81	24.82	24.74	
5	QPSK	1	24	24.84	24.82	24.79	
5	QPSK	12	0	23.81	23.85	23.80	24.7
5	QPSK	12	7	23.86	23.82	23.83	
5	QPSK	12	13	23.87	23.88	23.83	
5	QPSK	25	0	23.85	23.81	23.83	24.7
5	16QAM	1	0	24.07	24.05	24.04	
5	16QAM	1	12	24.11	24.11	24.05	
5	16QAM	1	24	24.17	24.16	24.09	23.7
5	16QAM	12	0	22.85	22.87	22.80	
5	16QAM	12	7	22.89	22.90	22.90	
5	16QAM	12	13	22.89	22.90	22.83	23.7
5	16QAM	25	0	22.88	22.84	22.87	
5	64QAM	1	0	22.77	22.83	22.97	
5	64QAM	1	12	23.01	23.08	23.00	22.7
5	64QAM	1	24	23.07	23.09	23.02	
5	64QAM	12	0	21.90	21.92	21.88	
5	64QAM	12	7	21.95	21.93	21.94	22.7
5	64QAM	12	13	21.94	21.94	21.87	
5	64QAM	25	0	21.90	21.86	21.89	

Band 25							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / 1800	Power Middle Ch. / 26340	Power High Ch. / 26590	Tune-up limit (dBm)
Channel				26140	1800	26590	18.9
Frequency (MHz)				1800	1800	1800	
20	QPSK	1	0	17.45	17.36	17.21	18.9
20	QPSK	1	49	17.37	17.32	17.11	
20	QPSK	1	99	17.34	17.27	17.15	
20	QPSK	50	0	17.56	17.48	17.30	18.9
20	QPSK	50	24	17.58	17.53	17.35	
20	QPSK	50	50	17.49	17.49	17.28	
20	QPSK	100	0	17.57	17.47	17.32	18.9
20	16QAM	1	0	17.71	17.68	17.60	
20	16QAM	1	49	17.69	17.62	17.48	
20	16QAM	1	99	17.59	17.61	17.47	18.9
20	16QAM	50	0	17.55	17.45	17.26	
20	16QAM	50	24	17.54	17.51	17.31	
20	16QAM	50	50	17.53	17.48	17.31	18.9
20	16QAM	100	0	17.54	17.46	17.30	
20	64QAM	1	0	17.64	17.56	17.42	
20	64QAM	1	49	17.59	17.53	17.34	18.9
20	64QAM	1	99	17.57	17.55	17.41	
20	64QAM	50	0	17.55	17.49	17.30	
20	64QAM	50	24	17.59	17.54	17.38	18.9
20	64QAM	50	50	17.53	17.51	17.34	
20	64QAM	100	0	17.57	17.51	17.32	
Channel				26115	26340	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	QPSK	1	0	17.46	17.39	17.20	18.9
15	QPSK	1	37	17.41	17.34	17.15	
15	QPSK	1	74	17.35	17.34	17.17	
15	QPSK	36	0	17.59	17.45	17.23	18.9
15	QPSK	36	20	17.56	17.51	17.25	
15	QPSK	36	39	17.46	17.44	17.27	
15	QPSK	75	0	17.53	17.47	17.25	18.9
15	16QAM	1	0	17.68	17.66	17.43	
15	16QAM	1	37	17.64	17.63	17.46	
15	16QAM	1	74	17.61	17.58	17.43	18.9
15	16QAM	36	0	17.56	17.40	17.24	
15	16QAM	36	20	17.54	17.47	17.24	
15	16QAM	36	39	17.49	17.43	17.27	18.9
15	16QAM	75	0	17.52	17.47	17.23	
15	64QAM	1	0	17.63	17.55	17.36	
15	64QAM	1	37	17.66	17.59	17.44	18.9
15	64QAM	1	74	17.59	17.55	17.35	
15	64QAM	36	0	17.62	17.48	17.29	
15	64QAM	36	20	17.58	17.52	17.28	18.9
15	64QAM	36	39	17.56	17.50	17.30	
15	64QAM	75	0	17.57	17.40	17.24	
Channel				26090	26340	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	QPSK	1	0	17.43	17.28	17.12	18.9
10	QPSK	1	25	17.33	17.32	17.13	
10	QPSK	1	49	17.32	17.33	17.17	
10	QPSK	25	0	17.49	17.44	17.26	18.9
10	QPSK	25	12	17.53	17.49	17.31	
10	QPSK	25	25	17.54	17.48	17.32	
10	QPSK	50	0	17.54	17.48	17.31	18.9
10	16QAM	1	0	17.78	17.72	17.54	
10	16QAM	1	25	17.76	17.70	17.54	
10	16QAM	1	49	17.77	17.75	17.54	18.9
10	16QAM	25	0	17.54	17.47	17.27	
10	16QAM	25	12	17.55	17.48	17.33	
10	16QAM	25	25	17.50	17.49	17.33	18.9
10	16QAM	50	0	17.57	17.48	17.31	
10	64QAM	1	0	17.70	17.53	17.37	
10	64QAM	1	25	17.64	17.60	17.43	18.9
10	64QAM	1	49	17.66	17.57	17.36	
10	64QAM	25	0	17.53	17.49	17.31	
10	64QAM	25	12	17.57	17.48	17.34	18.9
10	64QAM	25	25	17.54	17.52	17.31	
10	64QAM	50	0	17.55	17.52	17.33	
Channel				26065	26340	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	QPSK	1	0	17.34	17.24	17.11	18.9
5	QPSK	1	12	17.40	17.41	17.15	
5	QPSK	1	24	17.44	17.34	17.16	
5	QPSK	12	0	17.47	17.39	17.22	18.9
5	QPSK	12	7	17.54	17.47	17.27	
5	QPSK	12	13	17.53	17.51	17.27	
5	QPSK	25	0	17.52	17.45	17.23	18.9
5	16QAM	1	0	17.77	17.64	17.49	
5	16QAM	1	12	17.82	17.68	17.42	
5	16QAM	1	24	17.80	17.74	17.53	18.9
5	16QAM	12	0	17.53	17.46	17.23	
5	16QAM	12	7	17.58	17.52	17.28	
5	16QAM	12	13	17.57	17.55	17.28	18.9
5	16QAM	25	0	17.58	17.50	17.26	
5	64QAM	1	0	17.68	17.59	17.33	
5	64QAM	1	12	17.64	17.59	17.23	18.9
5	64QAM	1	24	17.65	17.61	17.35	
5	64QAM	12	0	17.54	17.49	17.27	
5	64QAM	12	7	17.63	17.55	17.34	18.9
5	64QAM	12	13	17.62	17.55	17.33	
5	64QAM	25	0	17.54	17.45	17.27	
Channel				26055	26340	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	17.35	17.25	17.09	18.9
3	QPSK	1	8	17.46	17.45	17.21	
3	QPSK	1	14	17.46	17.42	17.21	
3	QPSK	8	0	17.45	17.39	17.19	18.9
3	QPSK	8	4	17.52	17.46	17.25	
3	QPSK	8	7	17.52	17.48	17.24	
3	QPSK	15	0	17.50	17.46	17.22	18.9
3	16QAM	1	0	17.71	17.56	17.43	
3	16QAM	1	8	17.87	17.77	17.52	
3	16QAM	1	14	17.82	17.79	17.51	18.9
3	16QAM	8	0	17.57	17.49	17.25	
3	16QAM	8	4	17.65	17.57	17.34	
3	16QAM	8	7	17.67	17.54	17.35	18.9
3	16QAM	15	0	17.59	17.50	17.27	
3	64QAM	1	0	17.64	17.51	17.25	
3	64QAM	1	8	17.76	17.72	17.42	18.9
3	64QAM	1	14	17.74	17.72	17.37	
3	64QAM	8	0	17.55	17.44	17.24	
3	64QAM	8	4	17.60	17.50	17.32	18.9
3	64QAM	8	7	17.61	17.53	17.32	
3	64QAM	15	0	17.53	17.49	17.24	
Channel				26047	26340	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	17.30	17.25	17.03	18.9
1.4	QPSK	1	3	17.41	17.33	17.14	
1.4	QPSK	1	5	17.37	17.30	17.08	
1.4	QPSK	3	0	17.38	17.31	17.06	18.9
1.4	QPSK	3	1	17.46	17.38	17.08	
1.4	QPSK	3	3	17.43	17.38	17.07	
1.4	QPSK	6	0	17.44	17.29	17.04	18.9
1.4	16QAM	1	0	17.70	17.61	17.31	
1.4	16QAM	1	3	17.76	17.67	17.47	
1.4	16QAM	1	5	17.78	17.69	17.43	18.9
1.4	16QAM	3	0	17.49	17.36	17.15	
1.4	16QAM	3	1	17.56	17.49	17.18	
1.4	16QAM	3	3	17.48	17.40	17.12	18.9
1.4	16QAM	6	0	17.51	17.42	17.26	
1.4	64QAM	1	0	17.57	17.54	17.25	
1.4	64QAM	1	3	17.71	17.64	17.37	18.9
1.4	64QAM	1	5	17.60	17.59	17.31	
1.4	64QAM	3	0	17.55	17.49	17.23	
1.4	64QAM	3	1	17.63	17.55	17.34	18.9
1.4	64QAM	3	3	17.58	17.52	17.27	
1.4	64QAM	6	0	17.47	17.36	17.14	

Band 26							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				26766	26766	26766	
Frequency (MHz)				831.5	831.5	841.5	
15	QPSK	1	0	24.58	24.53	24.56	25.7
15	QPSK	1	37	24.49	24.52	24.53	
15	QPSK	1	74	24.56	24.78	24.50	
15	QPSK	36	0	23.66	23.67	23.66	24.7
15	QPSK	36	20	23.70	23.66	23.66	
15	QPSK	36	39	23.66	23.69	23.66	
15	QPSK	75	0	23.69	23.65	23.67	24.7
15	16QAM	1	0	23.91	23.87	23.92	
15	16QAM	1	37	23.85	23.88	23.90	
15	16QAM	1	74	23.88	23.91	23.81	23.7
15	16QAM	36	0	22.68	22.70	22.68	
15	16QAM	36	20	22.68	22.65	22.66	
15	16QAM	36	39	22.67	22.72	22.71	23.7
15	16QAM	75	0	22.72	22.67	22.68	
15	64QAM	1	0	22.77	22.70	22.72	23.7
15	64QAM	1	37	22.74	22.82	22.81	
15	64QAM	1	74	22.78	22.80	22.18	
15	64QAM	36	0	21.68	21.73	21.74	22.7
15	64QAM	36	20	21.71	21.69	21.69	
15	64QAM	36	39	21.70	21.80	21.80	
15	64QAM	75	0	21.72	21.68	21.73	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	24.64	24.60	24.67	25.7
10	QPSK	1	25	24.54	24.60	24.63	
10	QPSK	1	49	24.61	24.62	24.57	
10	QPSK	25	0	23.75	23.67	23.68	24.7
10	QPSK	25	12	23.71	23.71	23.72	
10	QPSK	25	25	23.66	23.70	23.70	
10	QPSK	50	0	23.70	23.65	23.67	24.7
10	16QAM	1	0	24.00	24.01	24.06	
10	16QAM	1	25	24.00	24.01	23.99	
10	16QAM	1	49	24.01	23.99	23.92	23.7
10	16QAM	25	0	22.72	22.71	22.70	
10	16QAM	25	12	22.72	22.72	22.70	
10	16QAM	25	25	22.67	22.74	22.63	23.7
10	16QAM	50	0	22.73	22.64	22.68	
10	64QAM	1	0	22.97	22.79	22.90	
10	64QAM	1	25	22.86	22.95	22.95	22.7
10	64QAM	1	49	22.92	22.91	22.61	
10	64QAM	25	0	21.77	21.73	21.76	
10	64QAM	25	12	21.67	21.74	21.75	22.7
10	64QAM	25	25	21.71	21.72	21.58	
10	64QAM	50	0	21.72	21.69	21.72	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	24.77	24.62	24.66	25.7
5	QPSK	1	12	24.70	24.69	24.63	
5	QPSK	1	24	24.57	24.70	24.61	
5	QPSK	12	0	23.79	23.71	23.76	24.7
5	QPSK	12	7	23.78	23.77	23.70	
5	QPSK	12	13	23.71	23.72	23.61	
5	QPSK	25	0	23.73	23.68	23.70	24.7
5	16QAM	1	0	24.08	23.94	24.00	
5	16QAM	1	12	23.98	23.97	23.86	
5	16QAM	1	24	23.92	24.01	23.86	23.7
5	16QAM	12	0	22.85	22.76	22.75	
5	16QAM	12	7	22.77	22.77	22.73	
5	16QAM	12	13	22.75	22.72	22.65	23.7
5	16QAM	25	0	22.76	22.69	22.71	
5	64QAM	1	0	22.97	22.86	22.91	
5	64QAM	1	12	22.88	22.88	22.22	23.7
5	64QAM	1	24	22.73	22.87	22.32	
5	64QAM	12	0	21.88	21.82	21.81	
5	64QAM	12	7	21.87	21.84	21.20	22.7
5	64QAM	12	13	21.77	21.79	21.07	
5	64QAM	25	0	21.81	21.71	21.31	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	24.73	24.64	24.66	25.7
3	QPSK	1	8	24.75	24.72	24.65	
3	QPSK	1	14	24.60	24.68	24.60	
3	QPSK	8	0	23.79	23.71	23.72	24.7
3	QPSK	8	4	23.79	23.79	23.70	
3	QPSK	8	7	23.74	23.71	23.63	
3	QPSK	15	0	23.75	23.71	23.68	24.7
3	16QAM	1	0	24.08	23.96	23.98	
3	16QAM	1	8	24.10	24.03	23.94	
3	16QAM	1	14	23.95	24.01	23.88	23.7
3	16QAM	8	0	22.85	22.78	22.74	
3	16QAM	8	4	22.85	22.84	22.74	
3	16QAM	8	7	22.79	22.78	22.68	23.7
3	16QAM	15	0	22.83	22.72	22.67	
3	64QAM	1	0	22.94	22.86	22.29	
3	64QAM	1	8	22.99	22.93	22.12	23.7
3	64QAM	1	14	22.85	22.89	22.26	
3	64QAM	8	0	21.89	21.79	21.07	
3	64QAM	8	4	21.89	21.86	21.07	22.7
3	64QAM	8	7	21.84	21.83	21.16	
3	64QAM	15	0	21.84	21.74	21.16	
Channel				26997	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	24.67	24.57	24.52	25.7
1.4	QPSK	1	3	24.73	24.68	24.57	
1.4	QPSK	1	5	24.61	24.56	24.44	
1.4	QPSK	3	0	24.59	24.58	24.52	24.7
1.4	QPSK	3	1	24.71	24.60	24.57	
1.4	QPSK	3	3	24.64	24.59	24.51	
1.4	QPSK	6	0	23.71	23.67	23.58	24.7
1.4	16QAM	1	0	23.99	23.86	23.83	
1.4	16QAM	1	3	24.04	24.00	23.87	
1.4	16QAM	1	5	23.93	23.91	23.77	24.7
1.4	16QAM	3	0	23.74	23.65	23.60	
1.4	16QAM	3	1	23.78	23.71	23.65	
1.4	16QAM	3	3	23.72	23.65	23.57	23.7
1.4	16QAM	6	0	22.81	22.81	22.68	
1.4	64QAM	1	0	22.88	22.77	22.20	
1.4	64QAM	1	3	22.95	22.91	22.37	23.7
1.4	64QAM	1	5	22.82	22.79	22.40	
1.4	64QAM	3	0	22.89	22.78	22.16	
1.4	64QAM	3	1	22.93	22.83	22.25	22.7
1.4	64QAM	3	3	22.84	22.78	22.36	
1.4	64QAM	6	0	21.75	21.70	21.19	

Band 30							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dbm)
Channel				2771.0			
Frequency (MHz)				2310			
10	QPSK	1	0		21.30		22.5
10	QPSK	1	25		21.32		
10	QPSK	1	49		21.33		
10	QPSK	25	0		21.22		22.5
10	QPSK	25	12		21.29		
10	QPSK	25	25		21.33		
10	QPSK	50	0		21.30		22.5
10	16QAM	1	0		21.55		
10	16QAM	1	25		21.61		
10	16QAM	1	49		21.61		21.5
10	16QAM	25	0		20.44		
10	16QAM	25	12		20.49		
10	16QAM	25	25		20.54		21.5
10	16QAM	50	0		20.48		
10	64QAM	1	25		20.74		
10	64QAM	1	49		20.65		21.5
10	64QAM	25	0		19.48		
10	64QAM	25	12		19.55		
10	64QAM	25	25		19.57		20.5
10	64QAM	50	0		19.51		
10	64QAM	50	0		19.51		
Channel				2768.5	2771.0	2773.5	Tune-up limit (dbm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	21.30	21.31	21.30	22.5
5	QPSK	1	12	21.32	21.33	21.32	
5	QPSK	1	24	21.35	21.33	21.32	
5	QPSK	12	0	21.22	21.24	21.25	22.5
5	QPSK	12	7	21.34	21.30	21.33	
5	QPSK	12	13	21.33	21.29	21.32	
5	QPSK	25	0	21.32	21.28	21.28	22.5
5	16QAM	1	0	21.41	21.46	21.53	
5	16QAM	1	12	21.53	21.58	21.53	
5	16QAM	1	24	21.60	21.56	21.51	21.5
5	16QAM	12	0	20.44	20.46	20.50	
5	16QAM	12	7	20.55	20.51	20.53	
5	16QAM	12	13	20.56	20.51	20.55	21.5
5	16QAM	25	0	20.53	20.51	20.51	
5	64QAM	1	0	20.53	20.50	20.63	
5	64QAM	1	12	20.59	20.68	20.63	21.5
5	64QAM	1	24	20.72	20.70	20.64	
5	64QAM	12	0	19.51	19.51	19.53	
5	64QAM	12	7	19.62	19.57	19.58	20.5
5	64QAM	12	13	19.60	19.57	19.59	
5	64QAM	25	0	19.55	19.51	19.52	

Band 66							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				132072	132322	132572	20.8
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	19.37	19.31	19.25	20.8
20	QPSK	1	49	19.22	19.08	19.15	
20	QPSK	1	99	19.29	19.13	19.10	
20	QPSK	50	0	19.51	19.32	19.34	20.8
20	QPSK	50	24	19.50	19.31	19.30	
20	QPSK	50	50	19.44	19.28	19.33	
20	QPSK	100	0	19.53	19.31	19.33	20.8
20	16QAM	1	0	19.75	19.58	19.58	
20	16QAM	1	49	19.60	19.47	19.49	
20	16QAM	1	99	19.68	19.46	19.44	20.8
20	16QAM	50	0	19.52	19.29	19.38	
20	16QAM	50	24	19.51	19.33	19.33	
20	16QAM	50	50	19.47	19.30	19.35	20.8
20	16QAM	100	0	19.46	19.33	19.32	
20	64QAM	1	0	19.59	19.46	19.44	
20	64QAM	1	49	19.45	19.34	19.35	20.8
20	64QAM	1	99	19.56	19.42	19.36	
20	64QAM	50	0	19.54	19.31	19.38	
20	64QAM	50	24	19.52	19.33	19.35	20.8
20	64QAM	50	50	19.49	19.33	19.37	
20	64QAM	100	0	19.51	19.36	19.30	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	19.37	19.21	19.25	20.8
15	QPSK	1	37	19.24	19.07	19.14	
15	QPSK	1	74	19.32	19.18	19.15	
15	QPSK	36	0	19.46	19.28	19.33	20.8
15	QPSK	36	20	19.42	19.28	19.36	
15	QPSK	36	39	19.44	19.27	19.34	
15	QPSK	75	0	19.44	19.28	19.29	20.8
15	16QAM	1	0	19.65	19.51	19.59	
15	16QAM	1	37	19.55	19.40	19.47	
15	16QAM	1	74	19.67	19.47	19.44	20.8
15	16QAM	36	0	19.49	19.27	19.31	
15	16QAM	36	20	19.46	19.29	19.34	
15	16QAM	36	39	19.45	19.29	19.35	20.8
15	16QAM	75	0	19.46	19.31	19.31	
15	64QAM	1	0	19.55	19.39	19.41	
15	64QAM	1	37	19.54	19.35	19.41	20.8
15	64QAM	1	74	19.55	19.41	19.37	
15	64QAM	36	0	19.51	19.31	19.36	
15	64QAM	36	20	19.46	19.30	19.38	20.8
15	64QAM	36	39	19.47	19.30	19.38	
15	64QAM	75	0	19.48	19.31	19.29	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	19.39	19.20	19.28	20.8
10	QPSK	1	25	19.33	19.16	19.24	
10	QPSK	1	49	19.35	19.15	19.28	
10	QPSK	25	0	19.50	19.25	19.34	20.8
10	QPSK	25	12	19.52	19.34	19.36	
10	QPSK	25	25	19.47	19.31	19.39	
10	QPSK	50	0	19.51	19.30	19.34	20.8
10	16QAM	1	0	19.80	19.56	19.68	
10	16QAM	1	25	19.73	19.57	19.63	
10	16QAM	1	49	19.75	19.54	19.64	20.8
10	16QAM	25	0	19.52	19.23	19.34	
10	16QAM	25	12	19.53	19.34	19.36	
10	16QAM	25	25	19.48	19.27	19.40	20.8
10	16QAM	50	0	19.52	19.31	19.33	
10	64QAM	1	0	19.69	19.44	19.53	
10	64QAM	1	25	19.64	19.45	19.54	20.8
10	64QAM	1	49	19.61	19.45	19.52	
10	64QAM	25	0	19.51	19.28	19.34	
10	64QAM	25	12	19.55	19.33	19.38	20.8
10	64QAM	25	25	19.50	19.33	19.40	
10	64QAM	50	0	19.53	19.36	19.35	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	19.43	19.14	19.28	20.8
5	QPSK	1	12	19.44	19.24	19.30	
5	QPSK	1	24	19.38	19.20	19.26	
5	QPSK	12	0	19.54	19.27	19.39	20.8
5	QPSK	12	7	19.52	19.36	19.40	
5	QPSK	12	13	19.50	19.31	19.37	
5	QPSK	25	0	19.49	19.28	19.38	20.8
5	16QAM	1	0	19.74	19.50	19.64	
5	16QAM	1	12	19.78	19.55	19.60	
5	16QAM	1	24	19.72	19.54	19.61	20.8
5	16QAM	12	0	19.57	19.30	19.42	
5	16QAM	12	7	19.56	19.38	19.43	
5	16QAM	12	13	19.54	19.32	19.41	20.8
5	16QAM	25	0	19.50	19.34	19.41	
5	64QAM	1	0	19.68	19.42	19.54	
5	64QAM	1	12	19.68	19.46	19.50	20.8
5	64QAM	1	24	19.68	19.44	19.45	
5	64QAM	12	0	19.59	19.30	19.44	
5	64QAM	12	7	19.58	19.36	19.46	20.8
5	64QAM	12	13	19.54	19.36	19.44	
5	64QAM	25	0	19.51	19.29	19.38	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	19.41	19.25	19.27	20.8
3	QPSK	1	8	19.47	19.28	19.36	
3	QPSK	1	14	19.37	19.23	19.29	
3	QPSK	8	0	19.50	19.28	19.40	20.8
3	QPSK	8	4	19.50	19.35	19.40	
3	QPSK	8	7	19.51	19.28	19.37	
3	QPSK	15	0	19.52	19.32	19.37	20.8
3	16QAM	1	0	19.75	19.53	19.58	
3	16QAM	1	8	19.79	19.65	19.70	
3	16QAM	1	14	19.73	19.56	19.64	20.8
3	16QAM	8	0	19.60	19.35	19.44	
3	16QAM	8	4	19.60	19.37	19.47	
3	16QAM	8	7	19.54	19.36	19.39	20.8
3	16QAM	15	0	19.56	19.34	19.43	
3	64QAM	1	0	19.67	19.46	19.55	
3	64QAM	1	8	19.74	19.54	19.57	20.8
3	64QAM	1	14	19.68	19.47	19.48	
3	64QAM	8	0	19.55	19.36	19.45	
3	64QAM	8	4	19.59	19.37	19.47	20.8
3	64QAM	8	7	19.56	19.38	19.42	
3	64QAM	15	0	19.54	19.31	19.40	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.33	19.10	19.23	20.8
1.4	QPSK	1	3	19.39	19.21	19.29	
1.4	QPSK	1	5	19.32	19.14	19.22	
1.4	QPSK	3	0	19.37	19.15	19.24	20.8
1.4	QPSK	3	1	19.43	19.20	19.29	
1.4	QPSK	3	3	19.35	19.16	19.25	
1.4	QPSK	6	0	19.43	19.23	19.33	20.8
1.4	16QAM	1	0	19.66	19.47	19.58	
1.4	16QAM	1	3	19.73	19.51	19.64	
1.4	16QAM	1	5	19.65	19.48	19.57	20.8
1.4	16QAM	3	0	19.43	19.26	19.36	
1.4	16QAM	3	1	19.51	19.32	19.38	
1.4	16QAM	3	3	19.44	19.24	19.33	20.8
1.4	16QAM	6	0	19.52	19.34	19.41	
1.4	64QAM	1	0	19.61	19.38	19.47	
1.4	64QAM	1	3	19.66	19.46	19.51	20.8
1.4	64QAM	1	5	19.58	19.36	19.39	
1.4	64QAM	3	0	19.57	19.34	19.42	
1.4	64QAM	3	1	19.64	19.41	19.49	20.8
1.4	64QAM	3	3	19.57	19.35	19.43	
1.4	64QAM	6	0	19.47	19.24	19.33	

Band 71							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. /	Power Middle Ch. /	Power High Ch. /	Tune-up limit (dBm)
Channel				133222	133322	133392	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	24.91	24.80	24.79	25.7
20	QPSK	1	49	24.76	24.75	24.73	
20	QPSK	1	99	24.77	24.73	24.69	
20	QPSK	50	0	23.92	23.86	23.86	24.7
20	QPSK	50	24	23.94	23.86	23.82	
20	QPSK	50	50	23.93	23.87	23.83	
20	QPSK	100	0	23.93	23.88	23.89	24.7
20	16QAM	1	0	24.24	24.15	24.14	
20	16QAM	1	49	24.11	24.13	24.05	
20	16QAM	1	99	24.11	24.06	24.02	23.7
20	16QAM	50	0	22.91	22.86	22.88	
20	16QAM	50	24	22.95	22.85	22.84	
20	16QAM	50	50	22.92	22.89	22.85	23.7
20	16QAM	100	0	22.94	22.87	22.90	
20	64QAM	1	0	22.19	22.67	23.00	23.7
20	64QAM	1	49	22.74	22.99	22.35	
20	64QAM	1	99	23.01	22.53	22.89	
20	64QAM	50	0	20.95	21.85	21.51	22.7
20	64QAM	50	24	21.45	21.75	21.74	
20	64QAM	50	50	21.93	21.54	21.87	
20	64QAM	100	0	21.53	21.86	21.91	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	24.90	24.81	24.78	25.7
15	QPSK	1	37	24.66	24.73	24.72	
15	QPSK	1	74	24.73	24.76	24.69	
15	QPSK	36	0	23.88	23.86	23.82	24.7
15	QPSK	36	20	23.93	23.85	23.92	
15	QPSK	36	39	23.92	23.88	23.86	
15	QPSK	75	0	23.92	23.85	23.80	24.7
15	16QAM	1	0	24.20	24.13	24.11	
15	16QAM	1	37	23.92	24.09	24.06	
15	16QAM	1	74	24.03	24.06	24.03	23.7
15	16QAM	36	0	22.78	22.88	22.84	
15	16QAM	36	20	22.88	22.84	22.89	
15	16QAM	36	39	22.94	22.89	22.86	23.7
15	16QAM	75	0	22.94	22.94	22.81	
15	64QAM	1	0	22.13	22.70	22.87	
15	64QAM	1	37	21.75	23.01	23.01	22.7
15	64QAM	1	74	22.94	22.62	22.95	
15	64QAM	36	0	20.83	21.90	21.52	
15	64QAM	36	20	20.86	21.78	21.93	22.7
15	64QAM	36	39	21.52	21.45	21.91	
15	64QAM	75	0	21.35	21.84	21.80	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	24.85	24.74	24.76	25.7
10	QPSK	1	25	24.67	24.71	24.67	
10	QPSK	1	49	24.70	24.74	24.64	
10	QPSK	25	0	23.91	23.81	23.77	24.7
10	QPSK	25	12	23.77	23.82	23.80	
10	QPSK	25	25	23.81	23.87	23.80	
10	QPSK	50	0	23.90	23.83	23.79	24.7
10	16QAM	1	0	24.23	24.11	24.15	
10	16QAM	1	25	24.03	24.10	24.08	
10	16QAM	1	49	24.06	24.04	24.01	23.7
10	16QAM	25	0	22.79	22.82	22.77	
10	16QAM	25	12	22.68	22.83	22.77	
10	16QAM	25	25	22.65	22.83	22.79	23.7
10	16QAM	50	0	22.87	22.81	22.77	
10	64QAM	1	0	21.83	22.98	23.02	
10	64QAM	1	25	21.90	23.04	23.03	23.7
10	64QAM	1	49	22.13	22.22	22.55	
10	64QAM	25	0	20.74	21.96	21.82	
10	64QAM	25	12	20.75	21.77	21.84	22.7
10	64QAM	25	25	20.68	21.35	21.71	
10	64QAM	50	0	20.81	21.58	21.83	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	24.81	24.80	24.80	25.7
5	QPSK	1	12	24.74	24.91	24.76	
5	QPSK	1	24	24.76	24.75	24.69	
5	QPSK	12	0	23.72	23.87	23.82	24.7
5	QPSK	12	7	23.78	23.89	23.84	
5	QPSK	12	13	23.78	23.85	23.77	
5	QPSK	25	0	23.79	23.82	23.77	24.7
5	16QAM	1	0	23.89	24.14	24.10	
5	16QAM	1	12	23.97	24.11	24.06	
5	16QAM	1	24	24.02	24.10	24.00	23.7
5	16QAM	12	0	22.63	22.91	22.87	
5	16QAM	12	7	22.74	22.93	22.87	
5	16QAM	12	13	22.80	22.86	22.79	23.7
5	16QAM	25	0	22.69	22.86	22.77	
5	64QAM	1	0	21.71	23.02	22.98	
5	64QAM	1	12	21.82	22.98	22.79	22.7
5	64QAM	1	24	22.00	22.67	22.32	
5	64QAM	12	0	20.78	21.93	21.87	
5	64QAM	12	7	20.91	21.86	21.89	22.7
5	64QAM	12	13	20.85	21.67	21.86	
5	64QAM	25	0	20.74	21.69	21.82	

<TDD LTE SAR Measurement>

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations

b. “special subframe S” contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS

c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

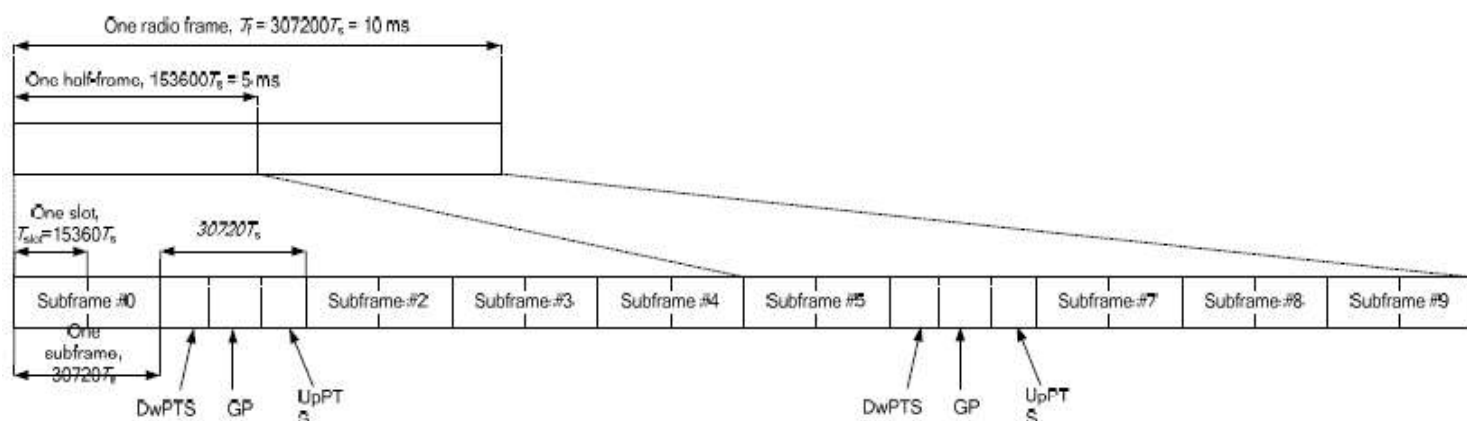


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink		Extended cyclic prefix in downlink		Extended cyclic prefix in downlink	
	DwPTS	UpPTS	DwPTS	UpPTS	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Special subframe (30720·T _s): Normal cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~4	7.13%	8.33%
	5~9	14.3%	16.7%

Special subframe(30720·T _s): Extended cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~3	7.13%	8.33%
	4~7	14.3%	16.7%

The highest duty factor is resulted from:

- i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.167)/5 = 63.3\%$
- iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.143)/5 = 62.9\%$
- v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
- vi The device supports Power Class 3 uplink-downlink configurations 0 and 6, and Power Class 2 uplink-downlink configurations 1 to 5 operations for LTE Band 41.
- vii. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1, for Power Class 3 operation is 63.3% using UL-DL configuration 0. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR among all exposure condition.

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.64	24.60	24.60	25.7
20	QPSK	1	49	24.60	24.57	24.55	
20	QPSK	1	89	24.57	24.56	24.56	
20	QPSK	50	0	23.78	23.69	23.68	
20	QPSK	50	24	23.75	23.74	23.77	24.7
20	QPSK	50	50	23.75	23.73	23.70	
20	QPSK	100	0	23.79	23.76	23.64	
20	16QAM	1	0	23.72	23.70	23.68	
20	16QAM	1	49	23.68	23.63	23.64	24.7
20	16QAM	1	89	23.68	23.65	23.65	
20	16QAM	50	0	22.82	22.71	22.72	
20	16QAM	50	24	22.80	22.78	22.78	
20	16QAM	50	50	22.77	22.76	22.76	23.7
20	16QAM	100	0	22.79	22.77	22.67	
20	64QAM	1	0	22.45	22.43	22.39	
20	64QAM	1	49	22.41	22.38	22.37	
20	64QAM	1	89	22.40	22.40	22.36	22.7
20	64QAM	50	0	21.83	21.74	21.72	
20	64QAM	50	24	21.82	21.80	21.77	
20	64QAM	50	50	21.78	21.76	21.75	
20	64QAM	100	0	21.81	21.78	21.70	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.58	24.55	24.55	25.7
15	QPSK	1	37	24.55	24.54	24.53	
15	QPSK	1	74	24.55	24.56	24.56	
15	QPSK	36	0	23.77	23.68	23.67	
15	QPSK	36	20	23.72	23.74	23.73	24.7
15	QPSK	36	39	23.71	23.71	23.71	
15	QPSK	75	0	23.75	23.71	23.65	
15	16QAM	1	0	23.71	23.70	23.67	
15	16QAM	1	37	23.62	23.56	23.61	24.7
15	16QAM	1	74	23.70	23.68	23.67	
15	16QAM	36	0	22.75	22.65	22.65	
15	16QAM	36	20	22.72	22.68	22.69	
15	16QAM	36	39	22.70	22.68	22.67	23.7
15	16QAM	75	0	22.78	22.75	22.67	
15	64QAM	1	0	22.40	22.36	22.35	
15	64QAM	1	37	22.45	22.40	22.40	
15	64QAM	1	74	22.43	22.40	22.38	22.7
15	64QAM	36	0	21.82	21.70	21.70	
15	64QAM	36	20	21.75	21.74	21.74	
15	64QAM	36	39	21.76	21.72	21.75	
15	64QAM	75	0	21.79	21.76	21.67	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.48	24.49	24.53	25.7
10	QPSK	1	25	24.50	24.49	24.51	
10	QPSK	1	49	24.45	24.54	24.52	
10	QPSK	25	0	23.72	23.66	23.62	
10	QPSK	25	12	23.67	23.73	23.68	24.7
10	QPSK	25	25	23.71	23.70	23.65	
10	QPSK	60	0	23.70	23.69	23.56	
10	16QAM	1	0	23.66	23.69	23.59	
10	16QAM	1	25	23.60	23.52	23.53	24.7
10	16QAM	1	49	23.61	23.62	23.66	
10	16QAM	25	0	22.70	22.55	22.63	
10	16QAM	25	12	22.70	22.67	22.65	
10	16QAM	25	25	22.62	22.62	22.67	23.7
10	16QAM	50	0	22.78	22.65	22.67	
10	64QAM	1	0	22.32	22.34	22.30	
10	64QAM	1	25	22.40	22.34	22.35	
10	64QAM	1	49	22.40	22.38	22.31	22.7
10	64QAM	25	0	21.80	21.66	21.66	
10	64QAM	25	12	21.75	21.73	21.67	
10	64QAM	25	25	21.74	21.63	21.74	
10	64QAM	50	0	21.71	21.70	21.63	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.60	24.52	24.53	25.7
5	QPSK	1	12	24.53	24.50	24.53	
5	QPSK	1	24	24.52	24.48	24.52	
5	QPSK	12	0	23.71	23.61	23.69	
5	QPSK	12	7	23.74	23.70	23.68	24.7
5	QPSK	12	13	23.71	23.69	23.64	
5	QPSK	25	0	23.70	23.67	23.65	
5	16QAM	1	0	23.72	23.62	23.70	
5	16QAM	1	12	23.71	23.67	23.67	24.7
5	16QAM	1	24	23.74	23.72	23.70	
5	16QAM	12	0	22.69	22.58	22.68	
5	16QAM	12	7	22.71	22.66	22.66	
5	16QAM	12	13	22.66	22.62	22.62	23.7
5	16QAM	25	0	22.71	22.68	22.71	
5	64QAM	1	0	22.49	22.36	22.42	
5	64QAM	1	12	22.47	22.43	22.41	
5	64QAM	1	24	22.47	22.44	22.42	22.7
5	64QAM	12	0	21.76	21.67	21.72	
5	64QAM	12	7	21.75	21.73	21.73	
5	64QAM	12	13	21.76	21.72	21.71	
5	64QAM	25	0	21.80	21.74	21.70	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.74	24.62	24.61	24.74	24.55	25.7	
20	QPSK	1	49	24.68	24.56	24.48	24.55	24.84		
20	QPSK	1	99	24.66	24.51	24.57	24.53	24.67		
20	QPSK	50	0	23.85	23.74	23.61	23.92	23.84		
20	QPSK	50	24	23.87	23.74	23.69	24.05	23.93	24.7	
20	QPSK	50	50	23.83	23.72	23.67	23.90	23.89		
20	QPSK	100	0	23.86	23.76	23.69	23.95	23.87		
20	16QAM	1	0	23.87	23.73	23.71	23.83	23.86		
20	16QAM	1	49	23.77	23.65	23.55	24.09	23.96	24.7	
20	16QAM	1	99	23.75	23.65	23.69	23.84	23.76		
20	16QAM	50	0	22.88	22.77	22.68	22.95	22.87		
20	16QAM	50	24	22.86	22.76	22.72	23.07	22.98		
20	16QAM	50	50	22.84	22.76	22.71	22.53	22.93	23.7	
20	16QAM	100	0	22.88	22.77	22.70	22.97	22.86		
20	64QAM	1	0	22.85	22.46	22.38	22.49	22.33		
20	64QAM	1	49	22.49	22.44	22.35	22.87	22.74		
20	64QAM	1	99	22.44	22.38	22.35	22.35	22.47	23.7	
20	64QAM	50	0	21.89	21.77	21.66	21.97	21.86		
20	64QAM	50	24	21.90	21.78	21.72	22.08	22.00		
20	64QAM	50	50	21.86	21.78	21.71	21.53	21.92		
20	64QAM	100	0	21.89	21.78	21.72	21.98	21.89	22.7	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.74	24.62	24.56	24.85	24.68	25.7	
15	QPSK	1	37	24.68	24.52	24.45	24.94	24.82		
15	QPSK	1	74	24.68	24.94	24.80	24.70	24.72		
15	QPSK	36	0	23.86	23.76	23.62	23.95	23.84		
15	QPSK	36	20	23.87	23.75	23.69	24.04	23.93	24.7	
15	QPSK	36	39	23.84	23.72	23.66	23.96	23.89		
15	QPSK	75	0	23.87	23.73	23.69	23.98	23.87		
15	16QAM	1	0	23.87	23.75	23.69	24.01	23.75		
15	16QAM	1	37	23.70	23.57	23.57	24.05	23.93	24.7	
15	16QAM	1	74	23.78	23.79	23.72	23.85	23.85		
15	16QAM	36	0	22.83	22.73	22.57	22.91	22.84		
15	16QAM	36	20	22.84	22.72	22.64	23.04	22.90		
15	16QAM	36	39	22.81	22.70	22.63	22.94	22.86	23.7	
15	16QAM	75	0	22.88	22.75	22.70	23.02	22.91		
15	64QAM	1	0	22.63	22.51	22.31	22.68	22.44		
15	64QAM	1	37	22.66	22.46	22.35	22.85	22.70		
15	64QAM	1	74	22.47	22.51	22.41	22.58	22.59	23.7	
15	64QAM	36	0	21.87	21.77	21.65	21.98	21.90		
15	64QAM	36	20	21.88	21.75	21.69	22.07	21.95		
15	64QAM	36	39	21.84	21.74	21.70	21.98	21.93		
15	64QAM	75	0	21.90	21.79	21.71	22.03	21.92	22.7	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.66	24.51	24.53	24.76	24.63	25.7	
10	QPSK	1	25	24.59	24.48	24.36	24.93	24.74		
10	QPSK	1	49	24.66	24.62	24.51	24.70	24.62		
10	QPSK	25	0	23.77	23.70	23.54	23.88	23.80		
10	QPSK	25	12	23.85	23.72	23.63	23.95	23.87	24.7	
10	QPSK	25	25	23.81	23.63	23.58	23.83	23.87		
10	QPSK	50	0	23.82	23.67	23.59	23.97	23.83		
10	16QAM	1	0	23.86	23.69	23.62	23.94	23.72		
10	16QAM	1	25	23.61	23.51	23.49	24.02	23.92	24.7	
10	16QAM	1	49	23.77	23.75	23.68	23.79	23.77		
10	16QAM	25	0	22.82	22.73	22.52	22.82	22.81		
10	16QAM	25	12	22.79	22.70	22.57	22.95	22.89		
10	16QAM	25	25	22.80	22.62	22.53	22.94	22.82	23.7	
10	16QAM	50	0	22.85	22.73	22.67	22.95	22.89		
10	64QAM	1	0	22.63	22.49	22.28	22.65	22.36		
10	64QAM	1	25	22.52	22.43	22.28	22.77	22.70		
10	64QAM	1	49	22.46	22.43	22.40	22.51	22.56	23.7	
10	64QAM	25	0	21.83	21.72	21.55	21.98	21.85		
10	64QAM	25	12	21.80	21.66	21.61	21.97	21.88		
10	64QAM	25	25	21.74	21.66	21.62	21.88	21.92		
10	64QAM	50	0	21.81	21.79	21.63	21.96	21.90	22.7	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.3	2687.5		
5	QPSK	1	0	24.73	24.60	24.45	24.93	24.81	25.7	
5	QPSK	1	12	24.67	24.60	24.53	24.93	24.77		
5	QPSK	1	24	24.68	24.56	24.50	24.89	24.71		
5	QPSK	12	0	23.82	23.71	23.67	24.02	23.94		
5	QPSK	12	7	23.84	23.75	23.71	24.08	23.94	24.7	
5	QPSK	12	13	23.83	23.71	23.66	24.06	23.88		
5	QPSK	25	0	23.80	23.71	23.69	24.04	23.88		
5	16QAM	1	0	23.84	23.74	23.64	24.04	23.96		
5	16QAM	1	12	23.89	23.77	23.78	24.12	24.00	24.7	
5	16QAM	1	24	23.90	23.74	23.72	24.09	23.87		
5	16QAM	12	0	22.83	22.70	22.64	23.00	22.92		
5	16QAM	12	7	22.84	22.70	22.67	23.06	22.92		
5	16QAM	12	13	22.80	22.66	22.67	23.01	22.86	23.7	
5	16QAM	25	0	22.88	22.76	22.69	23.09	22.94		
5	64QAM	1	0	22.64	22.48	22.36	22.79	22.70		
5	64QAM	1	12	22.64	22.54	22.47	22.89	22.69		
5	64QAM	1	24	22.67	22.55	22.44	22.85	22.62	23.7	
5	64QAM	12	0	21.87	21.78	21.72	22.06	21.97		
5	64QAM	12	7	21.88	21.81	21.73	22.11	21.96		
5	64QAM	12	13	21.87	21.75	21.73	22.09	21.92		
5	64QAM	25	0	21.87	21.76	21.78	22.13	21.97	22.7	

Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.71	25.63	25.81	25.86	25.68	27	
20	QPSK	1	49	25.64	25.61	25.63	26.11	25.95		
20	QPSK	1	99	25.81	25.81	25.62	25.59	25.76		
20	QPSK	50	0	24.99	24.92	24.91	25.17	25.11		
20	QPSK	50	24	24.95	24.91	24.94	25.25	25.21	26	
20	QPSK	50	50	24.88	24.89	24.89	25.12	25.13		
20	QPSK	100	0	24.94	24.90	24.95	25.18	25.10		
20	16QAM	1	0	25.14	25.04	25.22	25.23	25.04		
20	16QAM	1	49	25.05	25.02	24.99	25.49	25.34	25	
20	16QAM	1	99	24.96	24.96	25.01	24.96	25.14		
20	16QAM	50	0	23.99	23.92	23.95	24.22	24.13		
20	16QAM	50	24	23.99	23.97	23.99	24.32	24.26		
20	16QAM	50	50	23.96	23.92	23.99	24.17	24.17	25	
20	16QAM	100	0	24.00	23.92	23.98	24.22	24.14		
20	64QAM	1	0	23.90	23.74	23.88	23.92	23.74		
20	64QAM	1	49	23.74	23.76	23.75	24.26	24.13		
20	64QAM	1	99	23.69	23.79	23.70	23.74	23.54	25	
20	64QAM	50	0	23.01	22.93	22.98	23.23	23.16		
20	64QAM	50	24	23.01	22.97	23.02	23.35	23.24		
20	64QAM	50	50	22.96	22.95	22.94	23.17	22.91		
20	64QAM	100	0	23.00	22.95	22.98	23.21	23.13	24	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.84	25.80	25.83	26.08	25.92	27	
15	QPSK	1	37	25.78	25.73	25.78	26.10	26.08		
15	QPSK	1	74	25.78	25.84	25.80	25.89	25.93		
15	QPSK	36	0	24.98	24.90	24.90	25.17	25.09		
15	QPSK	36	20	24.98	24.91	24.94	25.20	25.18	26	
15	QPSK	36	39	24.92	24.89	24.87	25.17	25.11		
15	QPSK	75	0	24.96	24.92	24.92	25.12	25.14		
15	16QAM	1	0	25.11	25.05	25.13	25.34	25.16		
15	16QAM	1	37	25.00	24.99	24.97	25.44	25.33	26	
15	16QAM	1	74	25.03	25.07	25.03	25.16	25.20		
15	16QAM	36	0	23.94	23.90	23.87	24.20	24.09		
15	16QAM	36	20	23.92	23.90	23.90	24.20	24.17		
15	16QAM	36	39	23.88	23.87	23.87	24.18	24.10	25	
15	16QAM	75	0	23.96	23.85	23.97	24.17	24.13		
15	64QAM	1	0	23.89	23.79	23.81	24.08	23.84		
15	64QAM	1	37	23.83	23.77	23.74	24.24	24.04		
15	64QAM	1	74	23.75	23.89	23.80	23.98	23.52	25	
15	64QAM	36	0	22.98	22.92	22.93	23.23	23.16		
15	64QAM	36	20	23.00	22.95	22.97	23.25	23.08		
15	64QAM	36	39	22.96	22.92	22.92	23.19	22.82		
15	64QAM	75	0	23.01	22.95	23.00	23.20	23.01	24	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.89	25.78	25.73	25.81	25.79	27	
10	QPSK	1	25	25.81	25.73	25.74	26.08	25.92		
10	QPSK	1	49	25.87	25.81	25.77	25.79	25.62		
10	QPSK	25	0	24.98	24.94	24.98	25.16	25.14		
10	QPSK	25	12	25.02	24.98	24.99	25.31	25.19	26	
10	QPSK	25	25	24.98	24.90	24.91	25.19	25.05		
10	QPSK	50	0	24.98	24.93	24.95	25.23	25.09		
10	16QAM	1	0	25.27	25.17	25.18	25.27	25.19		
10	16QAM	1	25	25.22	25.12	25.10	25.46	25.32	26	
10	16QAM	1	49	25.21	25.17	25.10	25.24	25.03		
10	16QAM	25	0	23.99	23.93	23.95	24.19	24.14		
10	16QAM	25	12	24.01	23.98	23.99	24.38	24.20		
10	16QAM	25	25	23.96	23.92	23.89	24.21	24.07	25	
10	16QAM	50	0	24.03	23.98	23.98	24.30	24.15		
10	64QAM	1	0	24.08	23.95	23.94	24.00	23.97		
10	64QAM	1	25	24.10	24.02	24.00	24.34	23.78		
10	64QAM	1	49	24.01	23.99	23.91	24.04	23.39	25	
10	64QAM	25	0	23.10	23.03	23.05	23.25	23.06		
10	64QAM	25	12	23.11	23.05	23.08	23.45	22.94		
10	64QAM	25	25	23.08	23.01	23.03	23.29	22.71		
10	64QAM	50	0	23.06	22.97	23.02	23.28	22.81	24	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.92	25.78	25.73	26.07	25.98	27	
5	QPSK	1	12	25.88	25.78	25.77	26.11	25.93		
5	QPSK	1	24	25.87	25.77	25.77	26.05	25.84		
5	QPSK	12	0	25.04	24.94	24.96	25.24	25.15		
5	QPSK	12	7	25.08	24.98	24.98	25.26	25.13	26	
5	QPSK	12	13	25.02	24.93	24.94	25.29	25.10		
5	QPSK	25	0	25.00	24.91	24.98	25.22	25.09		
5	16QAM	1	0	25.27	25.15	25.15	25.43	25.33		
5	16QAM	1	12	25.23	25.16	25.17	25.46	25.30	26	
5	16QAM	1	24	25.25	25.14	25.17	25.47	25.28		
5	16QAM	12	0	24.06	23.98	23.98	24.30	24.17		
5	16QAM	12	7	24.09	23.98	24.02	24.32	24.18		
5	16QAM	12	13	24.05	23.94	23.99	24.32	24.11	25	
5	16QAM	25	0	24.01	23.94	23.97	24.25	24.16		
5	64QAM	1	0	24.05	23.93	23.92	24.24	23.76		
5	64QAM	1	12	24.01	23.91	23.94	24.27	23.59		
5	64QAM	1	24	24.04	23.91	23.95	24.25	23.45	25	
5	64QAM	12	0	23.09	23.02	23.05	23.33	22.81		
5	64QAM	12	7	23.15	23.09	23.11	23.35	22.75		
5	64QAM	12	13	23.09	23.06	23.05	23.37	22.64		
5	64QAM	25	0	23.09	23.01	23.09	23.33	22.73	24	

Band 48									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	22.98	23.00	22.98	23.07	24.2	
20	QPSK	1	49	22.80	22.79	22.79	22.86		
20	QPSK	1	89	22.72	22.74	22.75	22.82		
20	QPSK	50	0	22.02	22.01	22.00	22.10		
20	QPSK	50	24	21.96	21.89	21.99	22.03	23.2	
20	QPSK	50	50	21.84	21.82	21.88	21.98		
20	QPSK	100	0	21.97	21.88	21.96	22.01		
20	16QAM	1	0	22.08	22.12	22.11	22.21		
20	16QAM	1	49	21.88	21.87	21.88	21.94	23.2	
20	16QAM	1	89	21.89	21.85	21.89	21.96		
20	16QAM	50	0	21.05	21.04	21.05	21.11		
20	16QAM	50	24	21.01	20.92	20.98	21.06		
20	16QAM	50	50	20.86	20.85	20.91	21.00	22.2	
20	16QAM	100	0	20.99	20.88	21.00	21.04		
20	64QAM	1	0	20.83	20.85	20.83	20.94		
20	64QAM	1	49	20.67	20.64	20.64	20.69		
20	64QAM	1	89	20.62	20.56	20.65	20.74	22.2	
20	64QAM	50	0	20.06	20.06	20.05	20.11		
20	64QAM	50	24	20.03	19.93	19.99	20.06		
20	64QAM	50	50	19.88	19.87	19.95	19.99		
20	64QAM	100	0	20.00	19.91	19.97	20.05	21.2	
Channel				55315	55820	56160	56665		
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	22.90	22.89	22.91	22.97	24.2	
15	QPSK	1	37	22.80	22.78	22.78	22.82		
15	QPSK	1	74	22.79	22.74	22.77	22.84		
15	QPSK	36	0	22.01	21.99	21.97	22.07		
15	QPSK	36	20	21.89	21.86	21.95	21.99	23.2	
15	QPSK	36	39	21.86	21.83	21.89	21.94		
15	QPSK	75	0	21.92	21.88	21.94	22.02		
15	16QAM	1	0	22.06	22.04	22.05	22.12		
15	16QAM	1	37	21.85	21.84	21.81	21.89	23.2	
15	16QAM	1	74	21.95	21.92	21.95	22.02		
15	16QAM	36	0	20.97	20.96	20.97	21.03		
15	16QAM	36	20	20.85	20.83	20.91	20.98		
15	16QAM	36	39	20.81	20.78	20.85	20.93	22.2	
15	16QAM	75	0	20.93	20.87	20.95	21.04		
15	64QAM	1	0	20.80	20.80	20.80	20.85		
15	64QAM	1	37	20.67	20.65	20.63	20.71	22.2	
15	64QAM	1	74	20.67	20.65	20.69	20.78		
15	64QAM	36	0	20.04	20.01	20.01	20.10		
15	64QAM	36	20	19.90	19.87	19.96	20.02		
15	64QAM	36	39	19.87	19.86	19.92	19.98	21.2	
15	64QAM	75	0	19.95	19.91	19.96	20.03		
Channel				55290	55815	56165	56690	Tune-up limit (dBm)	
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	22.96	22.85	22.93	22.96	24.2	
10	QPSK	1	25	22.77	22.75	22.72	22.77		
10	QPSK	1	49	22.72	22.70	22.66	22.75		
10	QPSK	25	0	21.95	22.01	21.96	22.04		
10	QPSK	25	12	21.88	21.87	21.91	21.96	23.2	
10	QPSK	25	25	21.75	21.72	21.82	21.92		
10	QPSK	50	0	21.87	21.81	21.91	22.01		
10	16QAM	1	0	22.00	22.03	22.07	22.16		
10	16QAM	1	25	21.87	21.83	21.85	21.94	23.2	
10	16QAM	1	49	21.87	21.85	21.82	21.88		
10	16QAM	25	0	21.01	20.99	21.00	21.08		
10	16QAM	25	12	20.92	20.86	20.94	20.96		
10	16QAM	25	25	20.80	20.75	20.90	20.98	22.2	
10	16QAM	50	0	20.96	20.84	21.00	21.01		
10	64QAM	1	0	20.73	20.84	20.83	20.86		
10	64QAM	1	25	20.58	20.58	20.62	20.61	22.2	
10	64QAM	1	49	20.62	20.52	20.59	20.68		
10	64QAM	25	0	20.05	20.05	20.03	20.03		
10	64QAM	25	12	19.95	19.91	19.94	19.98		
10	64QAM	25	25	19.86	19.78	19.93	19.98	21.2	
10	64QAM	50	0	19.90	19.87	19.89	19.99		
Channel				55265	55810	56170	56715	Tune-up limit (dBm)	
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	22.89	22.89	22.91	22.95	24.2	
5	QPSK	1	12	22.89	22.82	22.83	22.92		
5	QPSK	1	24	22.86	22.76	22.81	22.9		
5	QPSK	12	0	22.01	21.96	21.97	22.07		
5	QPSK	12	7	22.02	21.96	21.96	22.07	23.2	
5	QPSK	12	13	22.01	21.95	21.96	22.05		
5	QPSK	25	0	21.98	21.95	21.98	22.07		
5	16QAM	1	0	22.04	21.99	22.03	22.09		
5	16QAM	1	12	22.12	22.06	22.06	22.15	23.2	
5	16QAM	1	24	22.04	21.96	22	22.04		
5	16QAM	12	0	21	20.83	21.02	21.05		
5	16QAM	12	7	21.03	20.95	20.97	21.05		
5	16QAM	12	13	21	20.94	20.97	21.01	22.2	
5	16QAM	25	0	21.05	21	21.01	21.08		
5	64QAM	1	0	20.8	20.76	20.8	20.89		
5	64QAM	1	12	20.81	20.75	20.77	20.84	22.2	
5	64QAM	1	24	20.81	20.71	20.74	20.8		
5	64QAM	12	0	20.09	20	20.03	20.11		
5	64QAM	12	7	20.08	20.02	20.05	20.13		
5	64QAM	12	13	20.02	20.02	19.98	20.11	21.2	
5	64QAM	25	0	20.08	20.04	20.06	20.12		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.42	24.28	24.28	25.7
20	QPSK	1	49	24.27	24.23	24.25	
20	QPSK	1	89	24.24	24.22	24.24	
20	QPSK	50	0	23.49	23.37	23.35	24.7
20	QPSK	50	24	23.47	23.45	23.41	
20	QPSK	50	50	23.43	23.40	23.38	
20	QPSK	100	0	23.48	23.42	23.35	24.7
20	16QAM	1	0	23.43	23.41	23.42	
20	16QAM	1	49	23.35	23.34	23.33	
20	16QAM	1	89	23.37	23.33	23.34	23.7
20	16QAM	50	0	22.53	22.42	22.39	
20	16QAM	50	24	22.51	22.49	22.44	
20	16QAM	50	50	22.48	22.44	22.41	23.7
20	16QAM	100	0	22.49	22.45	22.35	
20	64QAM	1	0	22.14	22.11	22.10	
20	64QAM	1	49	22.07	22.04	22.09	22.7
20	64QAM	1	89	22.09	22.11	22.08	
20	64QAM	50	0	21.52	21.43	21.40	
20	64QAM	50	24	21.50	21.47	21.45	22.7
20	64QAM	50	50	21.48	21.45	21.42	
20	64QAM	100	0	21.50	21.47	21.36	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.32	24.29	24.29	25.7
15	QPSK	1	37	24.26	24.25	24.20	
15	QPSK	1	74	24.29	24.25	24.18	
15	QPSK	36	0	23.53	23.39	23.38	24.7
15	QPSK	36	20	23.51	23.46	23.40	
15	QPSK	36	39	23.46	23.43	23.38	
15	QPSK	75	0	23.50	23.45	23.35	24.7
15	16QAM	1	0	23.48	23.43	23.40	
15	16QAM	1	37	23.34	23.31	23.27	
15	16QAM	1	74	23.44	23.39	23.35	23.7
15	16QAM	36	0	22.50	22.37	22.36	
15	16QAM	36	20	22.46	22.42	22.40	
15	16QAM	36	39	22.45	22.40	22.36	23.7
15	16QAM	75	0	22.52	22.47	22.37	
15	64QAM	1	0	22.16	22.06	22.06	
15	64QAM	1	37	22.20	22.12	22.11	22.7
15	64QAM	1	74	22.17	22.13	22.09	
15	64QAM	36	0	21.55	21.44	21.39	
15	64QAM	36	20	21.51	21.49	21.43	22.7
15	64QAM	36	39	21.50	21.46	21.42	
15	64QAM	75	0	21.54	21.46	21.36	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.41	24.35	24.35	25.7
10	QPSK	1	25	24.33	24.34	24.20	
10	QPSK	1	49	24.33	24.36	24.30	
10	QPSK	25	0	23.52	23.36	23.32	24.7
10	QPSK	25	12	23.51	23.47	23.34	
10	QPSK	25	25	23.49	23.47	23.41	
10	QPSK	80	0	23.49	23.45	23.33	24.7
10	16QAM	1	0	23.58	23.52	23.43	
10	16QAM	1	25	23.50	23.42	23.41	
10	16QAM	1	49	23.52	23.40	23.40	23.7
10	16QAM	25	0	22.50	22.38	22.34	
10	16QAM	25	12	22.50	22.49	22.34	
10	16QAM	25	25	22.46	22.42	22.39	22.7
10	16QAM	50	0	22.55	22.47	22.37	
10	64QAM	1	0	22.46	22.33	22.30	
10	64QAM	1	25	22.24	22.18	22.14	22.7
10	64QAM	1	49	22.16	22.10	22.05	
10	64QAM	25	0	21.61	21.47	21.43	
10	64QAM	25	12	21.61	21.53	21.43	22.7
10	64QAM	25	25	21.59	21.54	21.47	
10	64QAM	50	0	21.55	21.49	21.39	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.41	24.30	24.30	25.7
5	QPSK	1	12	24.35	24.28	24.30	
5	QPSK	1	24	24.33	24.32	24.29	
5	QPSK	12	0	23.50	23.39	23.39	24.7
5	QPSK	12	7	23.52	23.43	23.41	
5	QPSK	12	13	23.47	23.45	23.40	
5	QPSK	25	0	23.51	23.44	23.39	24.7
5	16QAM	1	0	23.54	23.42	23.44	
5	16QAM	1	12	23.51	23.46	23.44	
5	16QAM	1	24	23.53	23.50	23.44	23.7
5	16QAM	12	0	22.49	22.36	22.38	
5	16QAM	12	7	22.50	22.46	22.42	
5	16QAM	12	13	22.45	22.42	22.37	22.7
5	16QAM	25	0	22.51	22.46	22.41	
5	64QAM	1	0	22.29	22.14	22.21	
5	64QAM	1	12	22.27	22.24	22.19	22.7
5	64QAM	1	24	22.27	22.25	22.19	
5	64QAM	12	0	21.52	21.41	21.45	
5	64QAM	12	7	21.53	21.52	21.45	22.7
5	64QAM	12	13	21.52	21.48	21.44	
5	64QAM	25	0	21.54	21.49	21.47	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.80	24.31	24.27	24.72	24.40	25.7	
20	QPSK	1	49	24.49	24.23	24.14	24.89	24.72		
20	QPSK	1	99	24.44	24.20	24.21	24.44	24.58		
20	QPSK	50	0	23.70	23.43	23.25	23.89	23.72		
20	QPSK	50	24	23.67	23.41	23.32	23.99	23.83		
20	QPSK	50	50	23.62	23.37	23.28	23.84	23.79	24.7	
20	QPSK	100	0	23.88	23.41	23.31	23.89	23.76		
20	16QAM	1	0	23.76	23.45	23.36	23.82	23.51		
20	16QAM	1	49	23.59	23.35	23.24	24.00	23.83		
20	16QAM	1	99	23.56	23.33	23.31	23.53	23.70		
20	16QAM	50	0	22.73	22.47	22.28	22.92	22.75	23.7	
20	16QAM	50	24	22.71	22.45	22.35	23.02	22.86		
20	16QAM	50	50	22.67	22.41	22.32	22.86	22.79		
20	16QAM	100	0	22.89	22.43	22.32	22.90	22.77		
20	64QAM	1	0	22.50	22.19	21.99	22.47	22.21		
20	64QAM	1	49	22.36	22.09	22.01	22.77	22.63	23.7	
20	64QAM	1	99	22.27	22.03	22.04	22.22	22.42		
20	64QAM	50	0	21.75	21.47	21.30	21.92	21.73		
20	64QAM	50	24	21.73	21.44	21.34	22.01	21.88		
20	64QAM	50	50	21.66	21.41	21.33	21.87	21.81		
20	64QAM	100	0	21.71	21.45	21.34	21.94	21.79	22.7	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.62	24.34	24.21	24.86	24.56	25.7	
15	QPSK	1	37	24.54	24.24	24.13	24.87	24.69		
15	QPSK	1	74	24.48	24.32	24.25	24.67	24.67		
15	QPSK	36	0	23.73	23.44	23.26	23.92	23.75		
15	QPSK	36	20	23.70	23.43	23.32	24.02	23.86		
15	QPSK	36	39	23.66	23.42	23.30	23.90	23.80	24.7	
15	QPSK	75	0	23.71	23.43	23.32	23.94	23.77		
15	16QAM	1	0	23.78	23.48	23.37	23.95	23.66		
15	16QAM	1	37	23.58	23.33	23.23	23.96	23.84		
15	16QAM	1	74	23.62	23.46	23.38	23.79	23.81		
15	16QAM	36	0	22.71	22.43	22.26	22.88	22.73	23.7	
15	16QAM	36	20	22.67	22.39	22.29	22.97	22.81		
15	16QAM	36	39	22.65	22.39	22.27	22.88	22.77		
15	16QAM	75	0	22.74	22.46	22.34	22.96	22.83		
15	64QAM	1	0	22.53	22.22	21.99	22.62	22.32		
15	64QAM	1	37	22.42	22.15	22.03	22.77	22.61	23.7	
15	64QAM	1	74	22.28	22.14	22.09	22.48	22.58		
15	64QAM	36	0	21.75	21.47	21.31	21.94	21.79		
15	64QAM	36	20	21.72	21.43	21.34	22.03	21.88		
15	64QAM	36	39	21.71	21.46	21.34	21.90	21.83		
15	64QAM	75	0	21.76	21.47	21.36	22.00	21.81	22.7	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.57	24.24	24.11	24.77	24.48	25.7	
10	QPSK	1	25	24.44	24.17	24.07	24.78	24.81		
10	QPSK	1	49	24.38	24.26	24.20	24.67	24.61		
10	QPSK	25	0	23.73	23.43	23.26	23.86	23.71		
10	QPSK	25	12	23.61	23.42	23.24	24.01	23.77		
10	QPSK	25	25	23.65	23.36	23.21	23.82	23.72	24.7	
10	QPSK	50	0	23.66	23.36	23.27	23.90	23.74		
10	16QAM	1	0	23.77	23.48	23.29	23.95	23.59		
10	16QAM	1	25	23.62	23.27	23.15	23.87	23.77		
10	16QAM	1	49	23.62	23.37	23.35	23.72	23.81		
10	16QAM	25	0	22.61	22.35	22.18	22.81	22.67	23.7	
10	16QAM	25	12	22.67	22.31	22.26	22.88	22.81		
10	16QAM	25	25	22.55	22.35	22.20	22.83	22.72		
10	16QAM	50	0	22.65	22.37	22.34	22.96	22.79		
10	64QAM	1	0	22.49	22.21	21.94	22.57	22.30		
10	64QAM	1	25	22.33	22.13	21.97	22.75	22.53	23.7	
10	64QAM	1	49	22.20	22.11	22.05	22.45	22.58		
10	64QAM	25	0	21.67	21.46	21.25	21.91	21.73		
10	64QAM	25	12	21.64	21.39	21.24	22.03	21.87		
10	64QAM	25	25	21.66	21.36	21.34	21.86	21.80		
10	64QAM	50	0	21.75	21.41	21.27	21.95	21.75	22.7	
Channel				39675	40148	40620	41093	41555		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.72	24.36	24.15	24.86	24.77	25.7	
5	QPSK	1	12	24.67	24.33	24.23	24.88	24.72		
5	QPSK	1	24	24.63	24.30	24.21	24.86	24.65		
5	QPSK	12	0	23.79	23.47	23.37	24.01	23.88		
5	QPSK	12	7	23.80	23.51	23.40	24.08	23.90		
5	QPSK	12	13	23.78	23.47	23.36	24.04	23.82	24.7	
5	QPSK	25	0	23.76	23.45	23.37	24.04	23.84		
5	16QAM	1	0	23.81	23.48	23.32	24.00	23.91		
5	16QAM	1	12	23.84	23.53	23.45	24.11	23.93		
5	16QAM	1	24	23.85	23.54	23.41	24.02	23.81		
5	16QAM	12	0	22.77	22.46	22.33	22.89	22.85	23.7	
5	16QAM	12	7	22.80	22.45	22.36	23.04	22.83		
5	16QAM	12	13	22.77	22.42	22.37	23.00	22.84		
5	16QAM	25	0	22.83	22.49	22.42	23.06	22.89		
5	64QAM	1	0	22.60	22.26	22.08	22.77	22.62		
5	64QAM	1	12	22.57	22.29	22.17	22.81	22.66	23.7	
5	64QAM	1	24	22.59	22.26	22.15	22.80	22.60		
5	64QAM	12	0	21.84	21.52	21.39	22.00	21.89		
5	64QAM	12	7	21.85	21.51	21.44	22.11	21.89		
5	64QAM	12	13	21.84	21.48	21.42	22.05	21.90		
5	64QAM	25	0	21.83	21.51	21.42	22.09	21.92	22.7	



Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	26.37	26.10	26.03	26.55	26.26	27.5	
20	QPSK	1	49	26.24	26.02	25.90	26.77	26.57		
20	QPSK	1	99	26.19	25.99	25.98	26.31	26.46		
20	QPSK	50	0	25.58	25.29	25.13	25.85	25.65		
20	QPSK	50	24	25.54	25.31	25.19	25.93	25.76		
20	QPSK	50	50	25.49	25.26	25.17	25.77	25.72	26.5	
20	QPSK	100	0	25.55	25.29	25.21	25.84	25.70		
20	16QAM	1	0	25.79	25.47	25.34	25.88	25.82		
20	16QAM	1	49	25.63	25.40	25.24	26.13	25.97		
20	16QAM	1	99	25.53	25.31	25.33	25.60	25.75		
20	16QAM	50	0	24.59	24.32	24.16	24.87	24.68	25.5	
20	16QAM	50	24	24.61	24.31	24.22	24.97	24.79		
20	16QAM	50	50	24.52	24.28	24.20	24.83	24.74		
20	16QAM	100	0	24.59	24.30	24.21	24.89	24.72		
20	64QAM	1	0	24.82	24.30	24.13	24.72	24.44		
20	64QAM	1	49	24.44	24.20	24.11	25.00	24.83	25.5	
20	64QAM	1	99	24.37	24.12	24.17	24.49	24.65		
20	64QAM	50	0	23.60	23.33	23.17	23.87	23.70		
20	64QAM	50	24	23.59	23.34	23.25	23.97	23.81		
20	64QAM	50	50	23.54	23.30	23.21	23.83	23.76		
20	64QAM	100	0	23.59	23.31	23.24	23.88	23.72	24.5	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	26.43	26.16	26.02	26.73	26.42	27.5	
15	QPSK	1	37	26.35	26.04	25.97	26.70	26.56		
15	QPSK	1	74	26.26	26.12	26.01	26.54	26.53		
15	QPSK	36	0	25.55	25.28	25.12	25.84	25.66		
15	QPSK	36	20	25.64	25.26	25.17	25.91	25.74		
15	QPSK	36	39	25.47	25.25	25.14	25.81	25.70	26.5	
15	QPSK	75	0	25.56	25.26	25.18	25.86	25.66		
15	16QAM	1	0	25.71	25.45	25.27	26.03	25.74		
15	16QAM	1	37	25.58	25.29	25.20	26.06	25.87		
15	16QAM	1	74	25.69	25.43	25.31	25.83	25.82		
15	16QAM	36	0	24.52	24.26	24.07	24.80	24.64	25.5	
15	16QAM	36	20	24.61	24.23	24.13	24.89	24.73		
15	16QAM	36	39	24.46	24.20	24.13	24.80	24.71		
15	16QAM	75	0	24.55	24.28	24.20	24.88	24.72		
15	64QAM	1	0	24.59	24.28	24.08	24.83	24.55		
15	64QAM	1	37	24.61	24.22	24.07	24.98	24.79	25.5	
15	64QAM	1	74	24.40	24.21	24.20	24.70	24.74		
15	64QAM	36	0	23.56	23.33	23.13	23.87	23.71		
15	64QAM	36	20	23.57	23.30	23.18	23.96	23.76		
15	64QAM	36	39	23.52	23.24	23.18	23.84	23.76		
15	64QAM	75	0	23.57	23.30	23.19	23.90	23.72	24.5	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	26.33	26.11	26.01	26.71	26.35	27.5	
10	QPSK	1	25	26.35	26.00	25.93	26.60	26.58		
10	QPSK	1	49	26.25	26.02	25.96	26.52	26.49		
10	QPSK	25	0	25.61	25.18	25.10	25.80	25.59		
10	QPSK	25	12	25.54	25.26	25.08	25.88	25.66		
10	QPSK	25	25	25.42	25.17	25.12	25.78	25.70	26.5	
10	QPSK	50	0	25.48	25.18	25.14	25.83	25.63		
10	16QAM	1	0	25.68	25.35	25.19	26.02	25.70		
10	16QAM	1	25	25.49	25.23	25.19	26.03	25.78		
10	16QAM	1	49	25.67	25.39	25.28	25.79	25.80		
10	16QAM	25	0	24.61	24.22	24.03	24.74	24.57	25.5	
10	16QAM	25	12	24.45	24.21	24.12	24.85	24.73		
10	16QAM	25	25	24.42	24.19	24.04	24.78	24.63		
10	16QAM	50	0	24.49	24.27	24.18	24.81	24.64		
10	64QAM	1	0	24.65	24.25	23.98	24.75	24.47		
10	64QAM	1	25	24.51	24.15	24.02	24.90	24.76	25.5	
10	64QAM	1	49	24.36	24.20	24.15	24.65	24.66		
10	64QAM	25	0	23.50	23.33	23.03	23.79	23.51		
10	64QAM	25	12	23.49	23.25	23.17	23.86	23.75		
10	64QAM	25	25	23.43	23.20	23.13	23.75	23.66		
10	64QAM	50	0	23.54	23.22	23.10	23.84	23.67	24.5	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.0	2687.5		
5	QPSK	1	0	26.35	26.06	25.94	26.72	26.37	27.5	
5	QPSK	1	12	26.31	26.02	25.97	26.66	26.50		
5	QPSK	1	24	26.16	26.05	25.94	26.54	26.48		
5	QPSK	12	0	25.50	25.18	25.10	25.83	25.58		
5	QPSK	12	7	25.48	25.24	25.17	25.91	25.72		
5	QPSK	12	13	25.40	25.15	25.11	25.76	25.66	26.5	
5	QPSK	25	0	25.47	25.18	25.16	25.84	25.64		
5	16QAM	1	0	25.71	25.36	25.17	25.95	25.65		
5	16QAM	1	12	25.62	25.27	25.12	26.05	25.86		
5	16QAM	1	24	25.50	25.36	25.30	25.80	25.77		
5	16QAM	12	0	24.45	24.24	24.04	24.70	24.61	25.5	
5	16QAM	12	7	24.43	24.20	24.06	24.87	24.69		
5	16QAM	12	13	24.43	24.16	24.04	24.76	24.65		
5	16QAM	25	0	24.48	24.26	24.19	24.82	24.70		
5	64QAM	1	0	24.57	24.19	24.08	24.76	24.45		
5	64QAM	1	12	24.45	24.15	23.97	24.83	24.71	25.5	
5	64QAM	1	24	24.35	24.18	24.16	24.70	24.72		
5	64QAM	12	0	23.49	23.25	23.06	23.87	23.63		
5	64QAM	12	7	23.56	23.23	23.18	23.95	23.76		
5	64QAM	12	13	23.49	23.23	23.10	23.83	23.68		
5	64QAM	25	0	23.54	23.20	23.14	23.81	23.63	24.5	

Band 48										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				55340	55830	56150	56640			
Frequency (MHz)				3550	3609	3641	3690			
20	QPSK	1	0	21.63	21.66	21.62	21.59	22.6		
20	QPSK	1	49	21.45	21.47	21.42	21.33			
20	QPSK	1	99	21.43	21.43	21.38	21.25			
20	QPSK	50	0	20.65	20.68	20.62	20.58			
20	QPSK	50	24	20.64	20.56	20.58	20.52	21.6		
20	QPSK	50	50	20.48	20.48	20.53	20.41			
20	QPSK	100	0	20.62	20.54	20.57	20.48			
20	16QAM	1	0	20.74	20.80	20.73	20.72			
20	16QAM	1	49	20.55	20.55	20.49	20.44	21.6		
20	16QAM	1	99	20.56	20.54	20.49	20.38			
20	16QAM	50	0	19.70	19.73	19.67	19.63			
20	16QAM	50	24	19.66	19.59	19.65	19.55			
20	16QAM	50	50	19.55	19.51	19.55	19.45	20.6		
20	16QAM	100	0	19.65	19.57	19.63	19.55			
20	64QAM	1	0	19.49	19.55	19.46	19.45			
20	64QAM	1	49	19.30	19.33	19.26	19.16		20.6	
20	64QAM	1	99	19.27	19.23	19.27	19.14			
20	64QAM	50	0	18.72	18.71	18.69	18.61			
20	64QAM	50	24	18.67	18.61	18.65	18.56	19.6		
20	64QAM	50	50	18.54	18.54	18.56	18.45			
20	64QAM	100	0	18.69	18.59	18.63	18.55			
Channel				55315	55820	56160	56665			
Frequency (MHz)				3557.5	3608	3642	3692.5			
15	QPSK	1	0	21.53	21.56	21.55	21.47	22.6		
15	QPSK	1	37	21.46	21.43	21.41	21.30			
15	QPSK	1	74	21.46	21.43	21.39	21.26			
15	QPSK	36	0	20.65	20.66	20.63	20.57			
15	QPSK	36	20	20.54	20.54	20.58	20.48	21.6		
15	QPSK	36	39	20.48	20.47	20.51	20.41			
15	QPSK	75	0	20.54	20.56	20.57	20.52			
15	16QAM	1	0	20.67	20.72	20.67	20.61	21.6		
15	16QAM	1	37	20.52	20.47	20.41	20.36			
15	16QAM	1	74	20.59	20.61	20.55	20.42			
15	16QAM	36	0	19.62	19.63	19.59	19.53	20.6		
15	16QAM	36	20	19.50	19.50	19.53	19.44			
15	16QAM	36	39	19.47	19.47	19.49	19.40			
15	16QAM	75	0	19.56	19.55	19.60	19.51			
15	64QAM	1	0	19.43	19.46	19.42	19.37	20.6		
15	64QAM	1	37	19.30	19.31	19.26	19.18			
15	64QAM	1	74	19.33	19.32	19.32	19.20			
15	64QAM	36	0	18.68	18.70	18.65	18.60			
15	64QAM	36	20	18.58	18.56	18.59	18.51	19.6		
15	64QAM	36	39	18.54	18.52	18.54	18.43			
15	64QAM	75	0	18.57	18.59	18.60	18.52			
Channel				55290	55815	56165	56690			
Frequency (MHz)				3555	3607.5	3642.5	3695			
10	QPSK	1	0	21.53	21.53	21.45	21.46	22.6		
10	QPSK	1	25	21.42	21.42	21.40	21.30			
10	QPSK	1	49	21.43	21.37	21.34	21.29			
10	QPSK	25	0	20.69	20.69	20.66	20.60			
10	QPSK	25	12	20.69	20.69	20.67	20.58	21.6		
10	QPSK	25	25	20.55	20.53	20.60	20.50			
10	QPSK	50	0	20.58	20.65	20.63	20.53			
10	16QAM	1	0	20.89	20.90	20.82	20.80	21.6		
10	16QAM	1	25	20.79	20.79	20.79	20.68			
10	16QAM	1	49	20.72	20.72	20.71	20.61			
10	16QAM	25	0	19.68	19.69	19.68	19.59	20.6		
10	16QAM	25	12	19.72	19.72	19.68	19.59			
10	16QAM	25	25	19.53	19.56	19.61	19.54			
10	16QAM	50	0	19.59	19.72	19.67	19.61	20.6		
10	64QAM	1	0	19.78	19.84	19.76	19.70			
10	64QAM	1	25	19.73	19.75	19.77	19.63			
10	64QAM	1	49	19.64	19.64	19.65	19.56	19.6		
10	64QAM	25	0	18.75	18.79	18.76	18.68			
10	64QAM	25	12	18.75	18.80	18.77	18.68			
10	64QAM	25	25	18.64	18.66	18.69	18.60			
Channel				55265	55810	56170	56715			
Frequency (MHz)				3552.5	3607	3643	3697.5			
5	QPSK	1	0	21.52	21.54	21.47	21.39	22.6		
5	QPSK	1	12	21.47	21.50	21.48	21.36			
5	QPSK	1	24	21.43	21.42	21.38	21.30			
5	QPSK	12	0	20.69	20.70	20.66	20.55	21.6		
5	QPSK	12	7	20.72	20.72	20.67	20.54			
5	QPSK	12	13	20.71	20.67	20.66	20.52			
5	QPSK	25	0	20.69	20.66	20.65	20.54	21.6		
5	16QAM	1	0	20.84	20.82	20.79	20.73			
5	16QAM	1	12	20.82	20.81	20.78	20.67			
5	16QAM	1	24	20.83	20.81	20.76	20.63	20.6		
5	16QAM	12	0	19.76	19.69	19.71	19.61			
5	16QAM	12	7	19.79	19.72	19.71	19.63			
5	16QAM	12	13	19.69	19.70	19.65	19.57	20.6		
5	16QAM	25	0	19.74	19.70	19.67	19.60			
5	64QAM	1	0	19.71	19.75	19.68	19.63			
5	64QAM	1	12	19.71	19.72	19.67	19.58	20.6		
5	64QAM	1	24	19.70	19.71	19.64	19.56			
5	64QAM	12	0	18.76	18.78	18.73	18.65			
5	64QAM	12	7	18.79	18.80	18.75	18.65	19.6		
5	64QAM	12	13	18.75	18.71	18.66	18.55			
5	64QAM	25	0	18.78	18.76	18.73	18.61			

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.64	24.60	24.60	
20	QPSK	1	49	24.60	24.57	24.55	25.7
20	QPSK	1	89	24.57	24.56	24.56	24.7
20	QPSK	50	0	23.78	23.69	23.68	
20	QPSK	50	24	23.75	23.74	23.77	
20	QPSK	50	50	23.75	23.73	23.70	24.7
20	QPSK	100	0	23.79	23.76	23.64	
20	16QAM	1	0	23.72	23.70	23.68	
20	16QAM	1	49	23.68	23.63	23.64	24.7
20	16QAM	1	89	23.68	23.65	23.65	
20	16QAM	50	0	22.82	22.71	22.72	
20	16QAM	50	24	22.80	22.78	22.78	23.7
20	16QAM	50	50	22.77	22.76	22.76	
20	16QAM	100	0	22.79	22.77	22.67	
20	64QAM	1	0	22.45	22.43	22.39	23.7
20	64QAM	1	49	22.41	22.38	22.37	
20	64QAM	1	89	22.40	22.40	22.36	
20	64QAM	50	0	21.83	21.74	21.72	22.7
20	64QAM	50	24	21.82	21.80	21.77	
20	64QAM	50	50	21.78	21.76	21.75	
20	64QAM	100	0	21.81	21.78	21.70	Tune-up limit (dBm)
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.58	24.55	24.55	25.7
15	QPSK	1	37	24.55	24.54	24.53	
15	QPSK	1	74	24.55	24.56	24.56	
15	QPSK	36	0	23.77	23.68	23.67	24.7
15	QPSK	36	20	23.72	23.74	23.73	
15	QPSK	36	39	23.71	23.71	23.71	
15	QPSK	75	0	23.75	23.71	23.65	24.7
15	16QAM	1	0	23.71	23.70	23.67	
15	16QAM	1	37	23.62	23.56	23.61	
15	16QAM	1	74	23.70	23.68	23.67	23.7
15	16QAM	36	0	22.75	22.65	22.65	
15	16QAM	36	20	22.72	22.68	22.69	
15	16QAM	36	39	22.70	22.68	22.67	23.7
15	16QAM	75	0	22.78	22.75	22.67	
15	64QAM	1	0	22.40	22.36	22.35	
15	64QAM	1	37	22.45	22.40	22.40	23.7
15	64QAM	1	74	22.43	22.40	22.38	
15	64QAM	36	0	21.82	21.70	21.70	
15	64QAM	36	20	21.75	21.74	21.74	22.7
15	64QAM	36	39	21.76	21.72	21.75	
15	64QAM	75	0	21.79	21.76	21.67	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.48	24.49	24.53	25.7
10	QPSK	1	25	24.50	24.49	24.51	
10	QPSK	1	49	24.45	24.54	24.52	
10	QPSK	25	0	23.72	23.66	23.62	24.7
10	QPSK	25	12	23.67	23.73	23.68	
10	QPSK	25	25	23.71	23.70	23.65	
10	QPSK	60	0	23.70	23.69	23.56	24.7
10	16QAM	1	0	23.66	23.69	23.59	
10	16QAM	1	25	23.60	23.52	23.53	
10	16QAM	1	49	23.61	23.62	23.66	23.7
10	16QAM	25	0	22.70	22.55	22.63	
10	16QAM	25	12	22.70	22.67	22.65	
10	16QAM	25	25	22.62	22.62	22.67	23.7
10	16QAM	50	0	22.78	22.65	22.67	
10	64QAM	1	0	22.32	22.34	22.30	
10	64QAM	1	25	22.40	22.34	22.35	23.7
10	64QAM	1	49	22.40	22.38	22.31	
10	64QAM	25	0	21.80	21.66	21.66	
10	64QAM	25	12	21.75	21.73	21.67	22.7
10	64QAM	25	25	21.74	21.63	21.74	
10	64QAM	50	0	21.71	21.70	21.63	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.60	24.52	24.53	25.7
5	QPSK	1	12	24.53	24.50	24.53	
5	QPSK	1	24	24.52	24.48	24.52	
5	QPSK	12	0	23.71	23.61	23.69	24.7
5	QPSK	12	7	23.74	23.70	23.68	
5	QPSK	12	13	23.71	23.69	23.54	
5	QPSK	25	0	23.70	23.67	23.65	24.7
5	16QAM	1	0	23.72	23.62	23.70	
5	16QAM	1	12	23.71	23.67	23.67	
5	16QAM	1	24	23.74	23.72	23.70	23.7
5	16QAM	12	0	22.69	22.58	22.68	
5	16QAM	12	7	22.71	22.66	22.66	
5	16QAM	12	13	22.66	22.62	22.62	23.7
5	16QAM	25	0	22.71	22.68	22.71	
5	64QAM	1	0	22.49	22.36	22.42	
5	64QAM	1	12	22.47	22.43	22.41	23.7
5	64QAM	1	24	22.47	22.44	22.42	
5	64QAM	12	0	21.76	21.67	21.72	
5	64QAM	12	7	21.75	21.73	21.73	22.7
5	64QAM	12	13	21.76	21.72	21.71	
5	64QAM	25	0	21.80	21.74	21.70	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.74	24.62	24.61	24.74	24.55	25.7	
20	QPSK	1	49	24.68	24.56	24.48	24.55	24.84		
20	QPSK	1	99	24.86	24.51	24.57	24.53	24.67		
20	QPSK	50	0	23.85	23.74	23.61	23.92	23.84		
20	QPSK	50	24	23.87	23.74	23.69	24.05	23.93		
20	QPSK	50	50	23.83	23.72	23.67	23.90	23.89	24.7	
20	QPSK	100	0	23.86	23.76	23.69	23.95	23.87		
20	16QAM	1	0	23.87	23.73	23.71	23.83	23.86		
20	16QAM	1	49	23.77	23.65	23.55	24.09	23.96		
20	16QAM	1	99	23.75	23.65	23.69	23.84	23.76		
20	16QAM	50	0	22.88	22.77	22.68	22.95	22.87	23.7	
20	16QAM	50	24	22.86	22.76	22.72	23.07	22.98		
20	16QAM	50	50	22.84	22.76	22.71	22.53	22.93		
20	16QAM	100	0	22.88	22.77	22.70	22.97	22.86		
20	64QAM	1	0	22.85	22.46	22.38	22.49	22.33		
20	64QAM	1	49	22.49	22.44	22.35	22.87	22.74	23.7	
20	64QAM	1	99	22.44	22.38	22.35	22.35	22.47		
20	64QAM	50	0	21.89	21.77	21.66	21.97	21.86		
20	64QAM	50	24	21.90	21.78	21.72	22.08	22.00		
20	64QAM	50	50	21.86	21.78	21.71	21.53	21.92		
20	64QAM	100	0	21.89	21.78	21.72	21.98	21.89	22.7	
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.74	24.62	24.56	24.85	24.68	25.7	
15	QPSK	1	37	24.68	24.52	24.45	24.94	24.82		
15	QPSK	1	74	24.68	24.94	24.80	24.70	24.72		
15	QPSK	36	0	23.86	23.76	23.62	23.95	23.84		
15	QPSK	36	20	23.87	23.75	23.69	24.04	23.93		
15	QPSK	36	39	23.84	23.72	23.66	23.96	23.89	24.7	
15	QPSK	75	0	23.87	23.73	23.69	23.98	23.87		
15	16QAM	1	0	23.87	23.75	23.69	24.01	23.75		
15	16QAM	1	37	23.70	23.57	23.57	24.05	23.93		
15	16QAM	1	74	23.78	23.79	23.72	23.85	23.85		
15	16QAM	36	0	22.83	22.73	22.57	22.91	22.84	23.7	
15	16QAM	36	20	22.84	22.72	22.64	23.04	22.90		
15	16QAM	36	39	22.81	22.70	22.63	22.94	22.86		
15	16QAM	75	0	22.88	22.75	22.70	23.02	22.91		
15	64QAM	1	0	22.63	22.51	22.31	22.68	22.44		
15	64QAM	1	37	22.66	22.46	22.35	22.85	22.70	23.7	
15	64QAM	1	74	22.47	22.51	22.41	22.58	22.59		
15	64QAM	36	0	21.87	21.77	21.65	21.98	21.90		
15	64QAM	36	20	21.88	21.75	21.69	22.07	21.95		
15	64QAM	36	39	21.84	21.74	21.70	21.98	21.93		
15	64QAM	75	0	21.90	21.79	21.71	22.03	21.92	22.7	
Channel				39700	40160	40620	41080	41540		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.86	24.51	24.53	24.76	24.63	25.7	
10	QPSK	1	25	24.59	24.48	24.36	24.93	24.74		
10	QPSK	1	49	24.66	24.62	24.51	24.70	24.62		
10	QPSK	25	0	23.77	23.70	23.54	23.88	23.80		
10	QPSK	25	12	23.85	23.72	23.63	23.95	23.87		
10	QPSK	25	25	23.81	23.63	23.58	23.83	23.87	24.7	
10	QPSK	50	0	23.82	23.67	23.59	23.97	23.83		
10	16QAM	1	0	23.86	23.69	23.62	23.94	23.72		
10	16QAM	1	25	23.61	23.51	23.49	24.02	23.92		
10	16QAM	1	49	23.77	23.75	23.68	23.79	23.77		
10	16QAM	25	0	22.82	22.73	22.52	22.82	22.81	23.7	
10	16QAM	25	12	22.79	22.70	22.57	22.95	22.89		
10	16QAM	25	25	22.80	22.62	22.53	22.94	22.82		
10	16QAM	50	0	22.85	22.73	22.67	22.95	22.89		
10	64QAM	1	0	22.63	22.49	22.28	22.65	22.36		
10	64QAM	1	25	22.52	22.43	22.28	22.77	22.70	23.7	
10	64QAM	1	49	22.46	22.43	22.40	22.51	22.56		
10	64QAM	25	0	21.83	21.72	21.55	21.98	21.85		
10	64QAM	25	12	21.80	21.66	21.61	21.97	21.88		
10	64QAM	25	25	21.74	21.66	21.62	21.88	21.92		
10	64QAM	50	0	21.81	21.79	21.63	21.96	21.90	22.7	
Channel				39675	40148	40620	41093	41555		Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.73	24.60	24.45	24.93	24.81	25.7	
5	QPSK	1	12	24.67	24.60	24.53	24.93	24.77		
5	QPSK	1	24	24.68	24.56	24.50	24.89	24.71		
5	QPSK	12	0	23.82	23.71	23.67	24.02	23.94		
5	QPSK	12	7	23.84	23.75	23.71	24.08	23.94		
5	QPSK	12	13	23.83	23.71	23.66	24.06	23.88	24.7	
5	QPSK	25	0	23.80	23.71	23.69	24.04	23.88		
5	16QAM	1	0	23.84	23.74	23.64	24.04	23.96		
5	16QAM	1	12	23.89	23.77	23.78	24.12	24.00		
5	16QAM	1	24	23.90	23.74	23.72	24.09	23.87		
5	16QAM	12	0	22.83	22.70	22.64	23.00	22.92	23.7	
5	16QAM	12	7	22.84	22.70	22.67	23.06	22.92		
5	16QAM	12	13	22.80	22.66	22.67	23.01	22.86		
5	16QAM	25	0	22.88	22.76	22.69	23.09	22.94		
5	64QAM	1	0	22.64	22.48	22.36	22.79	22.70		
5	64QAM	1	12	22.64	22.54	22.47	22.89	22.69	23.7	
5	64QAM	1	24	22.67	22.55	22.44	22.85	22.62		
5	64QAM	12	0	21.87	21.78	21.72	22.06	21.97		
5	64QAM	12	7	21.88	21.81	21.73	22.11	21.96		
5	64QAM	12	13	21.87	21.75	21.73	22.09	21.92		
5	64QAM	25	0	21.87	21.76	21.78	22.13	21.97	22.7	



Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.71	25.63	25.81	25.86	25.68	27	
20	QPSK	1	49	25.64	25.61	25.63	26.11	25.95		
20	QPSK	1	99	25.81	25.81	25.62	25.59	25.76		
20	QPSK	50	0	24.99	24.92	24.91	25.17	25.11		
20	QPSK	50	24	24.95	24.91	24.94	25.25	25.21	26	
20	QPSK	50	50	24.88	24.89	24.89	25.12	25.13		
20	QPSK	100	0	24.94	24.90	24.95	25.18	25.10		
20	16QAM	1	0	25.14	25.04	25.22	25.23	25.04		
20	16QAM	1	49	25.05	25.02	24.99	25.49	25.34	25	
20	16QAM	1	99	24.96	24.96	25.01	24.96	25.14		
20	16QAM	50	0	23.99	23.92	23.95	24.22	24.13		
20	16QAM	50	24	23.99	23.97	23.99	24.32	24.26		
20	16QAM	50	50	23.96	23.92	23.99	24.17	24.17	25	
20	16QAM	100	0	24.00	23.92	23.98	24.22	24.14		
20	64QAM	1	0	23.90	23.74	23.89	23.92	23.74		
20	64QAM	1	49	23.74	23.76	23.75	24.26	24.13		
20	64QAM	1	99	23.69	23.79	23.70	23.74	23.54	25	
20	64QAM	50	0	23.01	22.93	22.98	23.23	23.16		
20	64QAM	50	24	23.01	22.97	23.02	23.35	23.24		
20	64QAM	50	50	22.96	22.95	22.94	23.17	22.91		
20	64QAM	100	0	23.00	22.95	22.98	23.21	23.13	24	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.84	25.80	25.83	26.08	25.92	27	
15	QPSK	1	37	25.78	25.73	25.78	26.10	26.08		
15	QPSK	1	74	25.78	25.84	25.80	25.89	25.93		
15	QPSK	36	0	24.98	24.90	24.90	25.17	25.09		
15	QPSK	36	20	24.98	24.91	24.94	25.20	25.18	26	
15	QPSK	36	39	24.92	24.89	24.87	25.17	25.11		
15	QPSK	75	0	24.96	24.92	24.92	25.12	25.14		
15	16QAM	1	0	25.11	25.05	25.13	25.34	25.16		
15	16QAM	1	37	25.00	24.99	24.97	25.44	25.33	26	
15	16QAM	1	74	25.03	25.07	25.03	25.16	25.20		
15	16QAM	36	0	23.94	23.90	23.87	24.20	24.09		
15	16QAM	36	20	23.92	23.90	23.90	24.20	24.17		
15	16QAM	36	39	23.88	23.87	23.87	24.18	24.10	25	
15	16QAM	75	0	23.96	23.85	23.97	24.17	24.13		
15	64QAM	1	0	23.89	23.79	23.81	24.08	23.84		
15	64QAM	1	37	23.83	23.77	23.74	24.24	24.04		
15	64QAM	1	74	23.75	23.89	23.80	23.98	23.52	25	
15	64QAM	36	0	22.98	22.92	22.93	23.23	23.16		
15	64QAM	36	20	23.00	22.95	22.97	23.25	23.08		
15	64QAM	36	39	22.96	22.92	22.92	23.19	22.82		
15	64QAM	75	0	23.01	22.95	23.00	23.20	23.01	24	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.89	25.78	25.73	25.81	25.79	27	
10	QPSK	1	25	25.81	25.73	25.74	26.08	25.92		
10	QPSK	1	49	25.87	25.81	25.77	25.79	25.62		
10	QPSK	25	0	24.98	24.94	24.98	25.16	25.14		
10	QPSK	25	12	25.02	24.98	24.99	25.31	25.19	26	
10	QPSK	25	25	24.98	24.90	24.91	25.19	25.05		
10	QPSK	50	0	24.98	24.93	24.95	25.23	25.09		
10	16QAM	1	0	25.27	25.17	25.18	25.27	25.19		
10	16QAM	1	25	25.22	25.12	25.10	25.46	25.32	26	
10	16QAM	1	49	25.21	25.17	25.10	25.24	25.03		
10	16QAM	25	0	23.99	23.93	23.95	24.19	24.14		
10	16QAM	25	12	24.01	23.98	23.99	24.38	24.20		
10	16QAM	25	25	23.96	23.92	23.89	24.21	24.07	25	
10	16QAM	50	0	24.03	23.98	23.98	24.30	24.15		
10	64QAM	1	0	24.08	23.95	23.94	24.00	23.97		
10	64QAM	1	25	24.10	24.02	24.00	24.34	23.78		
10	64QAM	1	49	24.01	23.99	23.91	24.04	23.39	25	
10	64QAM	25	0	23.10	23.03	23.05	23.25	23.06		
10	64QAM	25	12	23.11	23.05	23.08	23.45	22.94		
10	64QAM	25	25	23.08	23.01	23.03	23.29	22.71		
10	64QAM	50	0	23.06	22.97	23.02	23.28	22.81	24	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.92	25.78	25.73	26.07	25.98	27	
5	QPSK	1	12	25.88	25.78	25.77	26.11	25.93		
5	QPSK	1	24	25.87	25.77	25.77	26.05	25.84		
5	QPSK	12	0	25.04	24.94	24.96	25.24	25.15		
5	QPSK	12	7	25.08	24.98	24.98	25.26	25.13	26	
5	QPSK	12	13	25.02	24.93	24.94	25.29	25.10		
5	QPSK	25	0	25.00	24.91	24.98	25.22	25.09		
5	16QAM	1	0	25.27	25.15	25.15	25.43	25.33		
5	16QAM	1	12	25.23	25.16	25.17	25.46	25.30	26	
5	16QAM	1	24	25.25	25.14	25.17	25.47	25.28		
5	16QAM	12	0	24.06	23.98	23.98	24.30	24.17		
5	16QAM	12	7	24.09	23.98	24.02	24.32	24.18		
5	16QAM	12	13	24.05	23.94	23.99	24.32	24.11	25	
5	16QAM	25	0	24.01	23.94	23.97	24.25	24.16		
5	64QAM	1	0	24.05	23.93	23.92	24.24	23.76		
5	64QAM	1	12	24.01	23.91	23.94	24.27	23.59		
5	64QAM	1	24	24.04	23.91	23.95	24.25	23.45	25	
5	64QAM	12	0	23.09	23.02	23.05	23.33	22.81		
5	64QAM	12	7	23.15	23.09	23.11	23.35	22.75		
5	64QAM	12	13	23.09	23.06	23.05	23.37	22.64		
5	64QAM	25	0	23.09	23.01	23.09	23.33	22.73	24	

Band 48									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	22.98	23.00	22.98	23.07	24.2	
20	QPSK	1	49	22.80	22.79	22.79	22.86		
20	QPSK	1	89	22.72	22.74	22.75	22.82		
20	QPSK	50	0	22.02	22.01	22.00	22.10		
20	QPSK	50	24	21.96	21.89	21.99	22.03	23.2	
20	QPSK	50	50	21.84	21.82	21.88	21.98		
20	QPSK	100	0	21.97	21.88	21.96	22.01		
20	16QAM	1	0	22.08	22.12	22.11	22.21		
20	16QAM	1	49	21.88	21.87	21.88	21.94	23.2	
20	16QAM	1	89	21.89	21.85	21.89	21.96		
20	16QAM	50	0	21.05	21.04	21.05	21.11		
20	16QAM	50	24	21.01	20.92	20.98	21.06		
20	16QAM	50	50	20.86	20.85	20.91	21.00	22.2	
20	16QAM	100	0	20.99	20.88	21.00	21.04		
20	64QAM	1	0	20.83	20.85	20.83	20.94	22.2	
20	64QAM	1	49	20.67	20.64	20.64	20.69		
20	64QAM	1	89	20.62	20.56	20.65	20.74		
20	64QAM	50	0	20.06	20.06	20.05	20.11		
20	64QAM	50	24	20.03	19.93	19.99	20.06	21.2	
20	64QAM	50	50	19.88	19.87	19.95	19.99		
20	64QAM	100	0	20.00	19.91	19.97	20.05		
Channel				55315	55820	56160	56665	Tune-up limit (dBm)	
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	22.90	22.89	22.91	22.97	24.2	
15	QPSK	1	37	22.80	22.78	22.78	22.82		
15	QPSK	1	74	22.79	22.74	22.77	22.84		
15	QPSK	36	0	22.01	21.99	21.97	22.07		
15	QPSK	36	20	21.89	21.86	21.95	21.99	23.2	
15	QPSK	36	39	21.86	21.83	21.89	21.94		
15	QPSK	75	0	21.92	21.88	21.94	22.02		
15	16QAM	1	0	22.06	22.04	22.05	22.12		
15	16QAM	1	37	21.85	21.84	21.81	21.89	23.2	
15	16QAM	1	74	21.95	21.92	21.95	22.02		
15	16QAM	36	0	20.97	20.96	20.97	21.03		
15	16QAM	36	20	20.85	20.83	20.91	20.98		
15	16QAM	36	39	20.81	20.78	20.85	20.93	22.2	
15	16QAM	75	0	20.93	20.87	20.95	21.04		
15	64QAM	1	0	20.80	20.80	20.80	20.85	22.2	
15	64QAM	1	37	20.67	20.65	20.63	20.71		
15	64QAM	1	74	20.67	20.65	20.69	20.78		
15	64QAM	36	0	20.04	20.01	20.01	20.10		
15	64QAM	36	20	19.90	19.87	19.96	20.02	21.2	
15	64QAM	36	39	19.87	19.86	19.92	19.98		
15	64QAM	75	0	19.95	19.91	19.96	20.03		
Channel				55290	55815	56165	56690	Tune-up limit (dBm)	
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	22.96	22.85	22.93	22.98	24.2	
10	QPSK	1	25	22.77	22.75	22.72	22.77		
10	QPSK	1	49	22.72	22.70	22.66	22.75		
10	QPSK	25	0	21.95	22.01	21.96	22.04		
10	QPSK	25	12	21.88	21.87	21.91	21.96	23.2	
10	QPSK	25	25	21.75	21.72	21.82	21.92		
10	QPSK	50	0	21.87	21.81	21.91	22.01		
10	16QAM	1	0	22.00	22.03	22.07	22.16		
10	16QAM	1	25	21.87	21.83	21.85	21.94	23.2	
10	16QAM	1	49	21.87	21.85	21.82	21.88		
10	16QAM	25	0	21.01	20.99	21.00	21.08		
10	16QAM	25	12	20.92	20.86	20.94	20.96	22.2	
10	16QAM	25	25	20.80	20.75	20.90	20.98		
10	16QAM	50	0	20.96	20.84	21.00	21.01		
10	64QAM	1	0	20.73	20.84	20.83	20.86	22.2	
10	64QAM	1	25	20.58	20.58	20.62	20.61		
10	64QAM	1	49	20.62	20.52	20.59	20.68		
10	64QAM	25	0	20.05	20.05	20.03	20.03		
10	64QAM	25	12	19.95	19.91	19.94	19.98	21.2	
10	64QAM	25	25	19.86	19.78	19.93	19.98		
10	64QAM	50	0	19.90	19.87	19.89	19.99		
Channel				55265	55810	56170	56715	Tune-up limit (dBm)	
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	22.89	22.89	22.91	22.98	24.2	
5	QPSK	1	12	22.89	22.82	22.83	22.92		
5	QPSK	1	24	22.86	22.76	22.81	22.90		
5	QPSK	12	0	22.01	21.96	21.97	22.07		
5	QPSK	12	7	22.02	21.96	21.98	22.07	23.2	
5	QPSK	12	13	22.01	21.95	21.96	22.05		
5	QPSK	25	0	21.98	21.95	21.98	22.07		
5	16QAM	1	0	22.04	21.99	22.03	22.09	23.2	
5	16QAM	1	12	22.12	22.06	22.06	22.15		
5	16QAM	1	24	22.04	21.96	22.00	22.04		
5	16QAM	12	0	21.00	20.93	21.02	21.05	22.2	
5	16QAM	12	7	21.03	20.95	20.97	21.05		
5	16QAM	12	13	21.00	20.94	20.97	21.01		
5	16QAM	25	0	21.05	21.00	21.01	21.08	22.2	
5	64QAM	1	0	20.78	20.80	20.80	20.89		
5	64QAM	1	12	20.81	20.73	20.77	20.84		
5	64QAM	1	24	20.81	20.71	20.74	20.80		
5	64QAM	12	0	20.09	20.00	20.03	20.11	21.2	
5	64QAM	12	7	20.08	20.02	20.05	20.13		
5	64QAM	12	13	20.02	20.02	19.98	20.11		
5	64QAM	25	0	20.08	20.04	20.06	20.12		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.42	24.28	24.28	25.7
20	QPSK	1	49	24.27	24.23	24.25	
20	QPSK	1	89	24.24	24.22	24.24	
20	QPSK	50	0	23.49	23.37	23.35	24.7
20	QPSK	50	24	23.47	23.45	23.41	
20	QPSK	50	50	23.43	23.40	23.38	
20	QPSK	100	0	23.48	23.42	23.35	24.7
20	16QAM	1	0	23.43	23.41	23.42	
20	16QAM	1	49	23.35	23.34	23.33	
20	16QAM	1	89	23.37	23.33	23.34	23.7
20	16QAM	50	0	22.53	22.42	22.39	
20	16QAM	50	24	22.51	22.49	22.44	
20	16QAM	50	50	22.48	22.44	22.41	23.7
20	16QAM	100	0	22.49	22.45	22.35	
20	64QAM	1	0	22.14	22.11	22.10	
20	64QAM	1	49	22.07	22.04	22.09	23.7
20	64QAM	1	89	22.09	22.11	22.08	
20	64QAM	50	0	21.52	21.43	21.40	
20	64QAM	50	24	21.50	21.47	21.45	22.7
20	64QAM	50	50	21.48	21.45	21.42	
20	64QAM	100	0	21.50	21.47	21.36	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.32	24.29	24.29	25.7
15	QPSK	1	37	24.26	24.25	24.20	
15	QPSK	1	74	24.29	24.25	24.18	
15	QPSK	36	0	23.53	23.39	23.38	24.7
15	QPSK	36	20	23.51	23.46	23.40	
15	QPSK	36	39	23.46	23.43	23.38	
15	QPSK	75	0	23.50	23.45	23.35	24.7
15	16QAM	1	0	23.48	23.43	23.40	
15	16QAM	1	37	23.34	23.31	23.27	
15	16QAM	1	74	23.44	23.39	23.35	23.7
15	16QAM	36	0	22.50	22.37	22.36	
15	16QAM	36	20	22.46	22.42	22.40	
15	16QAM	36	39	22.45	22.40	22.36	23.7
15	16QAM	75	0	22.52	22.47	22.37	
15	64QAM	1	0	22.16	22.06	22.06	
15	64QAM	1	37	22.20	22.12	22.11	23.7
15	64QAM	1	74	22.17	22.13	22.09	
15	64QAM	36	0	21.55	21.44	21.39	
15	64QAM	36	20	21.51	21.49	21.43	22.7
15	64QAM	36	39	21.50	21.46	21.42	
15	64QAM	75	0	21.54	21.46	21.36	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.41	24.35	24.35	25.7
10	QPSK	1	25	24.33	24.24	24.20	
10	QPSK	1	49	24.33	24.36	24.30	
10	QPSK	25	0	23.52	23.36	23.32	24.7
10	QPSK	25	12	23.51	23.47	23.34	
10	QPSK	25	25	23.49	23.47	23.41	
10	QPSK	80	0	23.49	23.45	23.33	24.7
10	16QAM	1	0	23.58	23.52	23.43	
10	16QAM	1	25	23.50	23.42	23.41	
10	16QAM	1	49	23.52	23.40	23.40	23.7
10	16QAM	25	0	22.50	22.38	22.34	
10	16QAM	25	12	22.50	22.49	22.34	
10	16QAM	25	25	22.46	22.42	22.39	23.7
10	16QAM	50	0	22.55	22.47	22.37	
10	64QAM	1	0	22.46	22.33	22.30	
10	64QAM	1	25	22.24	22.18	22.14	23.7
10	64QAM	1	49	22.16	22.10	22.05	
10	64QAM	25	0	21.61	21.47	21.43	
10	64QAM	25	12	21.61	21.53	21.43	22.7
10	64QAM	25	25	21.59	21.54	21.47	
10	64QAM	50	0	21.55	21.49	21.39	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.41	24.30	24.30	25.7
5	QPSK	1	12	24.35	24.28	24.30	
5	QPSK	1	24	24.33	24.32	24.29	
5	QPSK	12	0	23.50	23.39	23.39	24.7
5	QPSK	12	7	23.52	23.43	23.41	
5	QPSK	12	13	23.47	23.45	23.40	
5	QPSK	25	0	23.51	23.44	23.39	24.7
5	16QAM	1	0	23.54	23.42	23.44	
5	16QAM	1	12	23.51	23.46	23.44	
5	16QAM	1	24	23.53	23.50	23.44	23.7
5	16QAM	12	0	22.49	22.36	22.38	
5	16QAM	12	7	22.50	22.46	22.42	
5	16QAM	12	13	22.45	22.42	22.37	23.7
5	16QAM	25	0	22.51	22.46	22.41	
5	64QAM	1	0	22.29	22.14	22.21	
5	64QAM	1	12	22.27	22.24	22.19	23.7
5	64QAM	1	24	22.27	22.25	22.19	
5	64QAM	12	0	21.52	21.41	21.45	
5	64QAM	12	7	21.53	21.52	21.45	22.7
5	64QAM	12	13	21.52	21.48	21.44	
5	64QAM	25	0	21.54	21.49	21.47	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.80	24.31	24.27	24.72	24.40	25.7	
20	QPSK	1	49	24.49	24.23	24.14	24.89	24.72		
20	QPSK	1	99	24.44	24.20	24.21	24.44	24.58		
20	QPSK	50	0	23.70	23.43	23.25	23.89	23.72		
20	QPSK	50	24	23.67	23.41	23.32	23.99	23.83		
20	QPSK	50	50	23.62	23.37	23.28	23.84	23.79	24.7	
20	QPSK	100	0	23.88	23.41	23.31	23.89	23.76		
20	16QAM	1	0	23.76	23.45	23.36	23.82	23.51		
20	16QAM	1	49	23.59	23.35	23.24	24.00	23.83		
20	16QAM	1	99	23.56	23.33	23.31	23.53	23.70		
20	16QAM	50	0	22.73	22.47	22.28	22.92	22.75	23.7	
20	16QAM	50	24	22.71	22.45	22.35	23.02	22.86		
20	16QAM	50	50	22.67	22.41	22.32	22.86	22.79		
20	16QAM	100	0	22.89	22.43	22.32	22.90	22.77		
20	64QAM	1	0	22.50	22.19	21.99	22.47	22.21		
20	64QAM	1	49	22.36	22.09	22.01	22.77	22.63	23.7	
20	64QAM	1	99	22.27	22.03	22.04	22.22	22.42		
20	64QAM	50	0	21.75	21.47	21.30	21.92	21.73		
20	64QAM	50	24	21.73	21.44	21.34	22.01	21.88		
20	64QAM	50	50	21.66	21.41	21.33	21.87	21.81		
20	64QAM	100	0	21.71	21.45	21.34	21.94	21.79	22.7	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.62	24.34	24.21	24.86	24.56	25.7	
15	QPSK	1	37	24.54	24.24	24.13	24.87	24.69		
15	QPSK	1	74	24.48	24.32	24.25	24.67	24.67		
15	QPSK	36	0	23.73	23.44	23.26	23.92	23.75		
15	QPSK	36	20	23.70	23.43	23.32	24.02	23.86		
15	QPSK	36	39	23.66	23.42	23.30	23.90	23.80	24.7	
15	QPSK	75	0	23.71	23.43	23.32	23.94	23.77		
15	16QAM	1	0	23.78	23.48	23.37	23.95	23.66		
15	16QAM	1	37	23.58	23.33	23.23	23.96	23.84		
15	16QAM	1	74	23.62	23.46	23.38	23.79	23.81		
15	16QAM	36	0	22.71	22.43	22.28	22.88	22.73	23.7	
15	16QAM	36	20	22.67	22.39	22.29	22.97	22.81		
15	16QAM	36	39	22.65	22.39	22.27	22.88	22.77		
15	16QAM	75	0	22.74	22.46	22.34	22.96	22.83		
15	64QAM	1	0	22.53	22.22	21.99	22.62	22.32		
15	64QAM	1	37	22.42	22.15	22.03	22.77	22.61	23.7	
15	64QAM	1	74	22.28	22.14	22.09	22.48	22.58		
15	64QAM	36	0	21.75	21.47	21.31	21.94	21.79		
15	64QAM	36	20	21.72	21.43	21.34	22.03	21.88		
15	64QAM	36	39	21.71	21.46	21.34	21.90	21.83		
15	64QAM	75	0	21.76	21.47	21.36	22.00	21.81	22.7	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.57	24.24	24.11	24.77	24.48	25.7	
10	QPSK	1	25	24.44	24.17	24.07	24.78	24.81		
10	QPSK	1	49	24.38	24.26	24.20	24.67	24.61		
10	QPSK	25	0	23.73	23.43	23.26	23.86	23.71		
10	QPSK	25	12	23.61	23.42	23.24	24.01	23.77		
10	QPSK	25	25	23.65	23.36	23.21	23.82	23.72	24.7	
10	QPSK	50	0	23.66	23.36	23.27	23.90	23.74		
10	16QAM	1	0	23.77	23.48	23.29	23.95	23.59		
10	16QAM	1	25	23.62	23.27	23.15	23.87	23.77		
10	16QAM	1	49	23.62	23.37	23.35	23.72	23.81		
10	16QAM	25	0	22.61	22.35	22.18	22.81	22.67	23.7	
10	16QAM	25	12	22.67	22.31	22.26	22.88	22.81		
10	16QAM	25	25	22.55	22.35	22.20	22.83	22.72		
10	16QAM	50	0	22.65	22.37	22.34	22.96	22.79		
10	64QAM	1	0	22.49	22.21	21.94	22.57	22.30		
10	64QAM	1	25	22.33	22.13	21.97	22.75	22.53	23.7	
10	64QAM	1	49	22.20	22.11	22.05	22.45	22.58		
10	64QAM	25	0	21.67	21.46	21.25	21.91	21.73		
10	64QAM	25	12	21.64	21.39	21.24	22.03	21.87		
10	64QAM	25	25	21.66	21.36	21.34	21.86	21.80		
10	64QAM	50	0	21.75	21.41	21.27	21.95	21.75	22.7	
Channel				39675	40148	40620	41093	41555		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.72	24.36	24.15	24.86	24.77	25.7	
5	QPSK	1	12	24.67	24.33	24.23	24.88	24.72		
5	QPSK	1	24	24.63	24.30	24.21	24.86	24.65		
5	QPSK	12	0	23.79	23.47	23.37	24.01	23.88		
5	QPSK	12	7	23.80	23.51	23.40	24.08	23.90		
5	QPSK	12	13	23.78	23.47	23.36	24.04	23.82	24.7	
5	QPSK	25	0	23.76	23.45	23.37	24.04	23.84		
5	16QAM	1	0	23.81	23.48	23.32	24.00	23.91		
5	16QAM	1	12	23.84	23.53	23.45	24.11	23.93		
5	16QAM	1	24	23.85	23.54	23.41	24.02	23.81		
5	16QAM	12	0	22.77	22.46	22.33	22.89	22.85	23.7	
5	16QAM	12	7	22.80	22.45	22.36	23.04	22.83		
5	16QAM	12	13	22.77	22.42	22.37	23.00	22.84		
5	16QAM	25	0	22.83	22.49	22.42	23.06	22.89		
5	64QAM	1	0	22.60	22.26	22.08	22.77	22.62		
5	64QAM	1	12	22.57	22.29	22.17	22.81	22.66	23.7	
5	64QAM	1	24	22.59	22.26	22.15	22.80	22.60		
5	64QAM	12	0	21.84	21.52	21.39	22.00	21.89		
5	64QAM	12	7	21.85	21.51	21.44	22.11	21.89		
5	64QAM	12	13	21.84	21.48	21.42	22.05	21.90		
5	64QAM	25	0	21.83	21.51	21.42	22.09	21.92	22.7	



Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	26.37	26.10	26.03	26.55	26.26	27.5	
20	QPSK	1	49	26.24	26.02	25.90	26.77	26.57		
20	QPSK	1	99	26.19	25.99	25.98	26.31	26.46		
20	QPSK	50	0	25.58	25.29	25.13	25.85	25.65		
20	QPSK	50	24	25.54	25.31	25.19	25.93	25.76		
20	QPSK	50	50	25.49	25.26	25.17	25.77	25.72	26.5	
20	QPSK	100	0	25.55	25.29	25.21	25.84	25.70		
20	16QAM	1	0	25.79	25.47	25.34	25.88	25.82		
20	16QAM	1	49	25.63	25.40	25.24	26.13	25.97		
20	16QAM	1	99	25.53	25.31	25.33	25.60	25.75		
20	16QAM	50	0	24.59	24.32	24.16	24.87	24.68	25.5	
20	16QAM	50	24	24.61	24.31	24.22	24.97	24.79		
20	16QAM	50	50	24.52	24.28	24.20	24.83	24.74		
20	16QAM	100	0	24.59	24.30	24.21	24.89	24.72		
20	64QAM	1	0	24.82	24.30	24.13	24.72	24.44		
20	64QAM	1	49	24.44	24.20	24.11	25.00	24.83	25.5	
20	64QAM	1	99	24.37	24.12	24.17	24.49	24.65		
20	64QAM	50	0	23.60	23.33	23.17	23.87	23.70		
20	64QAM	50	24	23.59	23.34	23.25	23.97	23.81		
20	64QAM	50	50	23.54	23.30	23.21	23.83	23.76		
20	64QAM	100	0	23.59	23.31	23.24	23.88	23.72	24.5	
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	26.43	26.16	26.02	26.73	26.42	27.5	
15	QPSK	1	37	26.35	26.04	25.97	26.70	26.56		
15	QPSK	1	74	26.26	26.12	26.01	26.54	26.53		
15	QPSK	36	0	25.55	25.28	25.12	25.84	25.66		
15	QPSK	36	20	25.64	25.26	25.17	25.91	25.74		
15	QPSK	36	39	25.47	25.25	25.14	25.81	25.70	26.5	
15	QPSK	75	0	25.56	25.26	25.18	25.86	25.66		
15	16QAM	1	0	25.71	25.45	25.27	26.03	25.74		
15	16QAM	1	37	25.58	25.29	25.20	26.06	25.87		
15	16QAM	1	74	25.69	25.43	25.31	25.83	25.82		
15	16QAM	36	0	24.52	24.26	24.07	24.80	24.64	25.5	
15	16QAM	36	20	24.61	24.23	24.13	24.89	24.73		
15	16QAM	36	39	24.46	24.20	24.13	24.80	24.71		
15	16QAM	75	0	24.55	24.28	24.20	24.88	24.72		
15	64QAM	1	0	24.59	24.28	24.08	24.83	24.55		
15	64QAM	1	37	24.61	24.22	24.07	24.98	24.79	25.5	
15	64QAM	1	74	24.40	24.21	24.20	24.70	24.74		
15	64QAM	36	0	23.56	23.33	23.13	23.87	23.71		
15	64QAM	36	20	23.57	23.30	23.18	23.96	23.76		
15	64QAM	36	39	23.52	23.24	23.18	23.84	23.76		
15	64QAM	75	0	23.57	23.30	23.19	23.90	23.72	24.5	
Channel				39700	40160	40620	41080	41540		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	26.33	26.11	26.01	26.71	26.35	27.5	
10	QPSK	1	25	26.35	26.00	25.93	26.60	26.56		
10	QPSK	1	49	26.25	26.02	25.96	26.52	26.49		
10	QPSK	25	0	25.61	25.18	25.10	25.80	25.59		
10	QPSK	25	12	25.54	25.26	25.08	25.88	25.66		
10	QPSK	25	25	25.42	25.17	25.12	25.76	25.70	26.5	
10	QPSK	50	0	25.48	25.18	25.14	25.83	25.63		
10	16QAM	1	0	25.68	25.35	25.19	26.02	25.70		
10	16QAM	1	25	25.49	25.23	25.19	26.03	25.78		
10	16QAM	1	49	25.67	25.39	25.28	25.79	25.80		
10	16QAM	25	0	24.61	24.22	24.03	24.74	24.57	25.5	
10	16QAM	25	12	24.45	24.21	24.12	24.85	24.73		
10	16QAM	25	25	24.42	24.19	24.04	24.78	24.63		
10	16QAM	50	0	24.49	24.27	24.18	24.81	24.64		
10	64QAM	1	0	24.65	24.25	23.98	24.75	24.47		
10	64QAM	1	25	24.51	24.15	24.02	24.90	24.76	25.5	
10	64QAM	1	49	24.36	24.20	24.15	24.65	24.66		
10	64QAM	25	0	23.50	23.33	23.03	23.79	23.51		
10	64QAM	25	12	23.49	23.25	23.17	23.86	23.75		
10	64QAM	25	25	23.43	23.20	23.13	23.75	23.66		
10	64QAM	50	0	23.54	23.22	23.10	23.84	23.67	24.5	
Channel				39675	40148	40620	41093	41565		Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.0	2687.5		
5	QPSK	1	0	26.35	26.06	25.94	26.72	26.37	27.5	
5	QPSK	1	12	26.31	26.02	25.97	26.66	26.50		
5	QPSK	1	24	26.16	26.05	25.94	26.54	26.48		
5	QPSK	12	0	25.50	25.18	25.10	25.83	25.58		
5	QPSK	12	7	25.48	25.24	25.17	25.91	25.72		
5	QPSK	12	13	25.40	25.15	25.11	25.76	25.66	26.5	
5	QPSK	25	0	25.47	25.18	25.16	25.84	25.64		
5	16QAM	1	0	25.71	25.36	25.17	25.95	25.65		
5	16QAM	1	12	25.62	25.27	25.12	26.05	25.86		
5	16QAM	1	24	25.50	25.36	25.30	25.80	25.77		
5	16QAM	12	0	24.45	24.24	24.04	24.70	24.61	25.5	
5	16QAM	12	7	24.43	24.20	24.06	24.87	24.69		
5	16QAM	12	13	24.43	24.16	24.04	24.76	24.65		
5	16QAM	25	0	24.48	24.26	24.19	24.82	24.70		
5	64QAM	1	0	24.57	24.19	24.08	24.76	24.45		
5	64QAM	1	12	24.45	24.15	23.97	24.83	24.71	25.5	
5	64QAM	1	24	24.35	24.18	24.16	24.70	24.72		
5	64QAM	12	0	23.49	23.25	23.06	23.87	23.63		
5	64QAM	12	7	23.56	23.23	23.18	23.95	23.76		
5	64QAM	12	13	23.49	23.23	23.10	23.83	23.68		
5	64QAM	25	0	23.54	23.20	23.14	23.81	23.63	24.5	

Band 48									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				55340	55830	56150	56640		
Frequency (MHz)				3550	3609	3641	3690		
20	QPSK	1	0	21.63	21.66	21.62	21.59	22.6	
20	QPSK	1	49	21.45	21.47	21.42	21.33		
20	QPSK	1	99	21.43	21.43	21.38	21.25		
20	QPSK	50	0	20.65	20.68	20.62	20.58		
20	QPSK	50	24	20.64	20.56	20.58	20.52	21.6	
20	QPSK	50	50	20.48	20.48	20.53	20.41		
20	QPSK	100	0	20.62	20.54	20.57	20.48		
20	16QAM	1	0	20.74	20.80	20.73	20.72		
20	16QAM	1	49	20.55	20.55	20.49	20.44	21.6	
20	16QAM	1	99	20.56	20.54	20.49	20.38		
20	16QAM	50	0	19.70	19.73	19.67	19.63		
20	16QAM	50	24	19.66	19.59	19.65	19.55		
20	16QAM	50	50	19.55	19.51	19.55	19.45	20.6	
20	16QAM	100	0	19.65	19.57	19.63	19.55		
20	64QAM	1	0	19.49	19.55	19.46	19.45		
20	64QAM	1	49	19.30	19.33	19.26	19.16		
20	64QAM	1	99	19.27	19.23	19.27	19.14	20.6	
20	64QAM	50	0	18.72	18.71	18.69	18.61		
20	64QAM	50	24	18.67	18.61	18.65	18.56		
20	64QAM	50	50	18.54	18.54	18.56	18.45		
20	64QAM	100	0	18.69	18.59	18.63	18.55		
Channel				55315	55820	56160	56665		
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	21.53	21.56	21.55	21.47	22.6	
15	QPSK	1	37	21.46	21.43	21.41	21.30		
15	QPSK	1	74	21.46	21.43	21.39	21.26		
15	QPSK	36	0	20.65	20.66	20.63	20.57		
15	QPSK	36	20	20.54	20.54	20.58	20.48	21.6	
15	QPSK	36	39	20.48	20.47	20.51	20.41		
15	QPSK	75	0	20.54	20.56	20.57	20.52		
15	16QAM	1	0	20.67	20.72	20.67	20.61	21.6	
15	16QAM	1	37	20.52	20.47	20.41	20.36		
15	16QAM	1	74	20.59	20.61	20.55	20.42		
15	16QAM	36	0	19.62	19.63	19.59	19.53	20.6	
15	16QAM	36	20	19.50	19.50	19.53	19.44		
15	16QAM	36	39	19.47	19.47	19.49	19.40		
15	16QAM	75	0	19.56	19.55	19.60	19.51		
15	64QAM	1	0	19.43	19.46	19.42	19.37	20.6	
15	64QAM	1	37	19.30	19.31	19.26	19.18		
15	64QAM	1	74	19.33	19.32	19.32	19.20		
15	64QAM	36	0	18.68	18.70	18.65	18.60		
15	64QAM	36	20	18.58	18.56	18.59	18.51	19.6	
15	64QAM	36	39	18.54	18.52	18.54	18.43		
15	64QAM	75	0	18.57	18.59	18.60	18.52		
Channel				55290	55815	56165	56690		
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	21.53	21.53	21.45	21.46	22.6	
10	QPSK	1	25	21.42	21.42	21.40	21.30		
10	QPSK	1	49	21.43	21.37	21.34	21.29		
10	QPSK	25	0	20.69	20.69	20.66	20.60		
10	QPSK	25	12	20.69	20.69	20.67	20.58	21.6	
10	QPSK	25	25	20.55	20.53	20.60	20.50		
10	QPSK	50	0	20.58	20.65	20.63	20.53		
10	16QAM	1	0	20.89	20.90	20.82	20.80	21.6	
10	16QAM	1	25	20.79	20.79	20.79	20.68		
10	16QAM	1	49	20.72	20.72	20.71	20.61		
10	16QAM	25	0	19.68	19.69	19.68	19.59	20.6	
10	16QAM	25	12	19.72	19.72	19.68	19.59		
10	16QAM	25	25	19.53	19.56	19.61	19.54		
10	16QAM	50	0	19.59	19.72	19.67	19.61	20.6	
10	64QAM	1	0	19.78	19.84	19.76	19.70		
10	64QAM	1	25	19.73	19.75	19.77	19.63		
10	64QAM	1	49	19.64	19.64	19.65	19.56	19.6	
10	64QAM	25	0	18.75	18.79	18.76	18.68		
10	64QAM	25	12	18.75	18.80	18.77	18.68		
10	64QAM	25	25	18.64	18.66	18.69	18.60		
10	64QAM	50	0	18.64	18.72	18.69	18.59		
Channel				55265	55810	56170	56715		
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	21.52	21.54	21.47	21.39	22.6	
5	QPSK	1	12	21.47	21.50	21.48	21.36		
5	QPSK	1	24	21.43	21.42	21.38	21.30		
5	QPSK	12	0	20.69	20.70	20.66	20.55		
5	QPSK	12	7	20.72	20.72	20.67	20.54	21.6	
5	QPSK	12	13	20.71	20.67	20.66	20.52		
5	QPSK	25	0	20.69	20.66	20.65	20.54		
5	16QAM	1	0	20.84	20.82	20.79	20.73	21.6	
5	16QAM	1	12	20.82	20.81	20.78	20.67		
5	16QAM	1	24	20.83	20.81	20.76	20.63		
5	16QAM	12	0	19.76	19.69	19.71	19.61	20.6	
5	16QAM	12	7	19.79	19.72	19.71	19.63		
5	16QAM	12	13	19.69	19.70	19.65	19.57		
5	16QAM	25	0	19.74	19.70	19.67	19.60	20.6	
5	64QAM	1	0	19.71	19.75	19.68	19.63		
5	64QAM	1	12	19.71	19.72	19.67	19.58		
5	64QAM	1	24	19.70	19.71	19.64	19.56	19.6	
5	64QAM	12	0	18.76	18.78	18.73	18.65		
5	64QAM	12	7	18.79	18.80	18.75	18.65		
5	64QAM	12	13	18.75	18.71	18.66	18.55		
5	64QAM	25	0	18.78	18.76	18.73	18.61		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.64	24.60	24.60	
20	QPSK	1	49	24.60	24.57	24.55	25.7
20	QPSK	1	89	24.57	24.56	24.56	24.7
20	QPSK	50	0	23.78	23.69	23.68	
20	QPSK	50	24	23.75	23.74	23.77	
20	QPSK	50	50	23.75	23.73	23.70	24.7
20	QPSK	100	0	23.79	23.76	23.64	
20	16QAM	1	0	23.72	23.70	23.68	
20	16QAM	1	49	23.68	23.63	23.64	24.7
20	16QAM	1	89	23.68	23.65	23.65	
20	16QAM	50	0	22.82	22.71	22.72	
20	16QAM	50	24	22.80	22.78	22.78	23.7
20	16QAM	50	50	22.77	22.76	22.76	
20	16QAM	100	0	22.79	22.77	22.67	
20	64QAM	1	0	22.45	22.43	22.39	23.7
20	64QAM	1	49	22.41	22.38	22.37	
20	64QAM	1	89	22.40	22.40	22.36	
20	64QAM	50	0	21.83	21.74	21.72	22.7
20	64QAM	50	24	21.82	21.80	21.77	
20	64QAM	50	50	21.78	21.76	21.75	
20	64QAM	100	0	21.81	21.78	21.70	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.58	24.55	24.55	
15	QPSK	1	37	24.55	24.54	24.53	25.7
15	QPSK	1	74	24.55	24.56	24.56	24.7
15	QPSK	36	0	23.77	23.68	23.67	
15	QPSK	36	20	23.72	23.74	23.73	
15	QPSK	36	39	23.71	23.71	23.71	24.7
15	QPSK	75	0	23.75	23.71	23.65	
15	16QAM	1	0	23.71	23.70	23.67	
15	16QAM	1	37	23.62	23.56	23.61	24.7
15	16QAM	1	74	23.70	23.68	23.67	
15	16QAM	36	0	22.75	22.65	22.65	
15	16QAM	36	20	22.72	22.68	22.69	23.7
15	16QAM	36	39	22.70	22.68	22.67	
15	16QAM	75	0	22.78	22.75	22.67	
15	64QAM	1	0	22.40	22.36	22.35	23.7
15	64QAM	1	37	22.45	22.40	22.40	
15	64QAM	1	74	22.43	22.40	22.38	
15	64QAM	36	0	21.82	21.70	21.70	22.7
15	64QAM	36	20	21.75	21.74	21.74	
15	64QAM	36	39	21.76	21.72	21.75	
15	64QAM	75	0	21.79	21.76	21.67	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.48	24.49	24.53	
10	QPSK	1	25	24.50	24.49	24.51	25.7
10	QPSK	1	49	24.45	24.54	24.52	24.7
10	QPSK	25	0	23.72	23.66	23.62	
10	QPSK	25	12	23.67	23.73	23.68	
10	QPSK	25	25	23.71	23.70	23.65	24.7
10	QPSK	60	0	23.70	23.69	23.56	
10	16QAM	1	0	23.66	23.69	23.59	
10	16QAM	1	25	23.60	23.52	23.53	24.7
10	16QAM	1	49	23.61	23.62	23.66	
10	16QAM	25	0	22.70	22.55	22.63	
10	16QAM	25	12	22.70	22.67	22.65	23.7
10	16QAM	25	25	22.62	22.62	22.67	
10	16QAM	50	0	22.78	22.65	22.67	
10	64QAM	1	0	22.32	22.34	22.30	23.7
10	64QAM	1	25	22.40	22.34	22.35	
10	64QAM	1	49	22.40	22.38	22.31	
10	64QAM	25	0	21.80	21.66	21.66	22.7
10	64QAM	25	12	21.75	21.73	21.67	
10	64QAM	25	25	21.74	21.63	21.74	
10	64QAM	50	0	21.71	21.70	21.63	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.60	24.52	24.53	
5	QPSK	1	12	24.53	24.50	24.53	25.7
5	QPSK	1	24	24.52	24.48	24.52	24.7
5	QPSK	12	0	23.71	23.61	23.69	
5	QPSK	12	7	23.74	23.70	23.68	
5	QPSK	12	13	23.71	23.69	23.54	24.7
5	QPSK	25	0	23.70	23.67	23.65	
5	16QAM	1	0	23.72	23.62	23.70	
5	16QAM	1	12	23.71	23.67	23.67	24.7
5	16QAM	1	24	23.74	23.72	23.70	
5	16QAM	12	0	22.69	22.58	22.68	
5	16QAM	12	7	22.71	22.66	22.66	23.7
5	16QAM	12	13	22.66	22.62	22.62	
5	16QAM	25	0	22.71	22.68	22.71	
5	64QAM	1	0	22.49	22.36	22.42	23.7
5	64QAM	1	12	22.47	22.43	22.41	
5	64QAM	1	24	22.47	22.44	22.42	
5	64QAM	12	0	21.76	21.67	21.72	22.7
5	64QAM	12	7	21.75	21.73	21.73	
5	64QAM	12	13	21.76	21.72	21.71	
5	64QAM	25	0	21.80	21.74	21.70	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.74	24.62	24.61	24.74	24.55	25.7	
20	QPSK	1	49	24.68	24.56	24.48	24.55	24.84		
20	QPSK	1	99	24.86	24.51	24.57	24.53	24.67		
20	QPSK	50	0	23.85	23.74	23.61	23.92	23.84		
20	QPSK	50	24	23.87	23.74	23.69	24.05	23.93		
20	QPSK	50	50	23.83	23.72	23.67	23.90	23.89	24.7	
20	QPSK	100	0	23.86	23.76	23.69	23.95	23.87		
20	16QAM	1	0	23.87	23.73	23.71	23.83	23.86		
20	16QAM	1	49	23.77	23.65	23.55	24.09	23.96		
20	16QAM	1	99	23.75	23.65	23.69	23.84	23.76		
20	16QAM	50	0	22.88	22.77	22.68	22.95	22.87	23.7	
20	16QAM	50	24	22.86	22.76	22.72	23.07	22.98		
20	16QAM	50	50	22.84	22.76	22.71	22.53	22.93		
20	16QAM	100	0	22.88	22.77	22.70	22.97	22.86		
20	64QAM	1	0	22.85	22.46	22.38	22.49	22.33		
20	64QAM	1	49	22.49	22.44	22.35	22.87	22.74	23.7	
20	64QAM	1	99	22.44	22.38	22.35	22.35	22.47		
20	64QAM	50	0	21.89	21.77	21.66	21.97	21.86		
20	64QAM	50	24	21.90	21.78	21.72	22.08	22.00		
20	64QAM	50	50	21.86	21.78	21.71	21.53	21.92		
20	64QAM	100	0	21.89	21.78	21.72	21.98	21.89	22.7	
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.74	24.62	24.56	24.85	24.68	25.7	
15	QPSK	1	37	24.68	24.52	24.45	24.94	24.82		
15	QPSK	1	74	24.68	24.94	24.80	24.70	24.72		
15	QPSK	36	0	23.86	23.76	23.62	23.95	23.84		
15	QPSK	36	20	23.87	23.75	23.69	24.04	23.93		
15	QPSK	36	39	23.84	23.72	23.66	23.96	23.89	24.7	
15	QPSK	75	0	23.87	23.73	23.69	23.98	23.87		
15	16QAM	1	0	23.87	23.75	23.69	24.01	23.75		
15	16QAM	1	37	23.70	23.57	23.57	24.05	23.93		
15	16QAM	1	74	23.78	23.79	23.72	23.85	23.85		
15	16QAM	36	0	22.83	22.73	22.57	22.91	22.84	23.7	
15	16QAM	36	20	22.84	22.72	22.64	23.04	22.90		
15	16QAM	36	39	22.81	22.70	22.63	22.94	22.86		
15	16QAM	75	0	22.88	22.75	22.70	23.02	22.91		
15	64QAM	1	0	22.63	22.51	22.31	22.68	22.44		
15	64QAM	1	37	22.66	22.46	22.35	22.85	22.70	23.7	
15	64QAM	1	74	22.47	22.51	22.41	22.58	22.59		
15	64QAM	36	0	21.87	21.77	21.65	21.98	21.90		
15	64QAM	36	20	21.88	21.75	21.69	22.07	21.95		
15	64QAM	36	39	21.84	21.74	21.70	21.98	21.93		
15	64QAM	75	0	21.90	21.79	21.71	22.03	21.92	Tune-up limit (dBm)	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.86	24.51	24.53	24.76	24.63	25.7	
10	QPSK	1	25	24.59	24.48	24.36	24.93	24.74		
10	QPSK	1	49	24.66	24.62	24.51	24.70	24.62		
10	QPSK	25	0	23.77	23.70	23.54	23.88	23.80		
10	QPSK	25	12	23.85	23.72	23.63	23.95	23.87		
10	QPSK	25	25	23.81	23.63	23.58	23.83	23.87	24.7	
10	QPSK	50	0	23.82	23.67	23.59	23.97	23.83		
10	16QAM	1	0	23.86	23.69	23.62	23.94	23.72		
10	16QAM	1	25	23.61	23.51	23.49	24.02	23.92		
10	16QAM	1	49	23.77	23.75	23.68	23.79	23.77		
10	16QAM	25	0	22.82	22.73	22.52	22.82	22.81	23.7	
10	16QAM	25	12	22.79	22.70	22.57	22.95	22.89		
10	16QAM	25	25	22.80	22.62	22.53	22.94	22.82		
10	16QAM	50	0	22.85	22.73	22.67	22.95	22.89		
10	64QAM	1	0	22.63	22.49	22.28	22.65	22.36		
10	64QAM	1	25	22.52	22.43	22.28	22.77	22.70	23.7	
10	64QAM	1	49	22.46	22.43	22.40	22.51	22.56		
10	64QAM	25	0	21.83	21.72	21.55	21.98	21.85		
10	64QAM	25	12	21.80	21.66	21.61	21.97	21.88		
10	64QAM	25	25	21.74	21.66	21.62	21.88	21.92		
10	64QAM	50	0	21.81	21.79	21.63	21.96	21.90	Tune-up limit (dBm)	
Channel				39675	40148	40620	41093	41555		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.73	24.60	24.45	24.93	24.81	25.7	
5	QPSK	1	12	24.67	24.60	24.53	24.93	24.77		
5	QPSK	1	24	24.68	24.56	24.50	24.89	24.71		
5	QPSK	12	0	23.82	23.71	23.67	24.02	23.94		
5	QPSK	12	7	23.84	23.75	23.71	24.08	23.94		
5	QPSK	12	13	23.83	23.71	23.66	24.06	23.88	24.7	
5	QPSK	25	0	23.80	23.71	23.69	24.04	23.88		
5	16QAM	1	0	23.84	23.74	23.64	24.04	23.96		
5	16QAM	1	12	23.89	23.77	23.78	24.12	24.00		
5	16QAM	1	24	23.90	23.74	23.72	24.09	23.87		
5	16QAM	12	0	22.83	22.70	22.64	23.00	22.92	23.7	
5	16QAM	12	7	22.84	22.70	22.67	23.06	22.92		
5	16QAM	12	13	22.80	22.66	22.67	23.01	22.86		
5	16QAM	25	0	22.88	22.76	22.69	23.09	22.94		
5	64QAM	1	0	22.64	22.48	22.36	22.79	22.70		
5	64QAM	1	12	22.64	22.54	22.47	22.89	22.69	23.7	
5	64QAM	1	24	22.67	22.55	22.44	22.85	22.62		
5	64QAM	12	0	21.87	21.78	21.72	22.06	21.97		
5	64QAM	12	7	21.88	21.81	21.73	22.11	21.96		
5	64QAM	12	13	21.87	21.75	21.73	22.09	21.92		
5	64QAM	25	0	21.87	21.76	21.78	22.13	21.97	22.7	



Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.71	25.63	25.81	25.86	25.68	27	
20	QPSK	1	49	25.64	25.61	25.63	26.11	25.95		
20	QPSK	1	99	25.81	25.81	25.62	25.59	25.76		
20	QPSK	50	0	24.99	24.92	24.91	25.17	25.11		
20	QPSK	50	24	24.95	24.91	24.94	25.25	25.21	26	
20	QPSK	50	50	24.88	24.89	24.89	25.12	25.13		
20	QPSK	100	0	24.94	24.90	24.95	25.18	25.10		
20	16QAM	1	0	25.14	25.04	25.22	25.23	25.04		
20	16QAM	1	49	25.05	25.02	24.99	25.49	25.34	25	
20	16QAM	1	99	24.96	24.96	25.01	24.96	25.14		
20	16QAM	50	0	23.99	23.92	23.95	24.22	24.13		
20	16QAM	50	24	23.99	23.97	23.99	24.32	24.26		
20	16QAM	50	50	23.96	23.92	23.99	24.17	24.17	25	
20	16QAM	100	0	24.00	23.92	23.98	24.22	24.14		
20	64QAM	1	0	23.90	23.74	23.88	23.92	23.74		
20	64QAM	1	49	23.74	23.76	23.75	24.26	24.13		
20	64QAM	1	99	23.69	23.79	23.70	23.74	23.54	25	
20	64QAM	50	0	23.01	22.93	22.98	23.23	23.16		
20	64QAM	50	24	23.01	22.97	23.02	23.35	23.24		
20	64QAM	50	50	22.96	22.95	22.94	23.17	22.91		
20	64QAM	100	0	23.00	22.95	22.98	23.21	23.13	24	
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.84	25.80	25.83	26.08	25.92	27	
15	QPSK	1	37	25.78	25.73	25.78	26.10	26.08		
15	QPSK	1	74	25.78	25.84	25.80	25.89	25.93		
15	QPSK	36	0	24.98	24.90	24.90	25.17	25.09		
15	QPSK	36	20	24.98	24.91	24.94	25.20	25.18	26	
15	QPSK	36	39	24.92	24.89	24.87	25.17	25.11		
15	QPSK	75	0	24.96	24.92	24.92	25.12	25.14		
15	16QAM	1	0	25.11	25.05	25.13	25.34	25.16		
15	16QAM	1	37	25.00	24.99	24.97	25.44	25.33	26	
15	16QAM	1	74	25.03	25.07	25.03	25.16	25.20		
15	16QAM	36	0	23.94	23.90	23.87	24.20	24.09		
15	16QAM	36	20	23.92	23.90	23.90	24.20	24.17		
15	16QAM	36	39	23.88	23.87	23.87	24.18	24.10	25	
15	16QAM	75	0	23.96	23.85	23.97	24.17	24.13		
15	64QAM	1	0	23.89	23.79	23.81	24.08	23.84		
15	64QAM	1	37	23.83	23.77	23.74	24.24	24.04		
15	64QAM	1	74	23.75	23.89	23.80	23.98	23.52	25	
15	64QAM	36	0	22.98	22.92	22.93	23.23	23.16		
15	64QAM	36	20	23.00	22.95	22.97	23.25	23.08		
15	64QAM	36	39	22.96	22.92	22.92	23.19	22.82		
15	64QAM	75	0	23.01	22.95	23.00	23.20	23.01	24	
Channel				39700	40160	40620	41080	41540		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.89	25.78	25.73	25.81	25.79	27	
10	QPSK	1	25	25.81	25.73	25.74	26.08	25.92		
10	QPSK	1	49	25.87	25.81	25.77	25.79	25.62		
10	QPSK	25	0	24.98	24.94	24.98	25.16	25.14		
10	QPSK	25	12	25.02	24.98	24.99	25.31	25.19	26	
10	QPSK	25	25	24.98	24.90	24.91	25.19	25.05		
10	QPSK	50	0	24.98	24.93	24.95	25.23	25.09		
10	16QAM	1	0	25.27	25.17	25.18	25.27	25.19		
10	16QAM	1	25	25.22	25.12	25.10	25.46	25.32	26	
10	16QAM	1	49	25.21	25.17	25.10	25.24	25.03		
10	16QAM	25	0	23.99	23.93	23.95	24.19	24.14		
10	16QAM	25	12	24.01	23.98	23.99	24.38	24.20		
10	16QAM	25	25	23.96	23.92	23.89	24.21	24.07	25	
10	16QAM	50	0	24.03	23.98	23.98	24.30	24.15		
10	64QAM	1	0	24.08	23.95	23.94	24.00	23.97		
10	64QAM	1	25	24.10	24.02	24.00	24.34	23.78		
10	64QAM	1	49	24.01	23.99	23.91	24.04	23.39	25	
10	64QAM	25	0	23.10	23.03	23.05	23.25	23.06		
10	64QAM	25	12	23.11	23.05	23.08	23.45	22.94		
10	64QAM	25	25	23.08	23.01	23.03	23.29	22.71		
10	64QAM	50	0	23.06	22.97	23.02	23.28	22.81	24	
Channel				39675	40148	40620	41093	41565		Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.92	25.78	25.73	26.07	25.98	27	
5	QPSK	1	12	25.88	25.78	25.77	26.11	25.93		
5	QPSK	1	24	25.87	25.77	25.77	26.05	25.84		
5	QPSK	12	0	25.04	24.94	24.96	25.24	25.15		
5	QPSK	12	7	25.08	24.98	24.98	25.26	25.13	26	
5	QPSK	12	13	25.02	24.93	24.94	25.29	25.10		
5	QPSK	25	0	25.00	24.91	24.98	25.22	25.09		
5	16QAM	1	0	25.27	25.15	25.15	25.43	25.33		
5	16QAM	1	12	25.23	25.16	25.17	25.46	25.30	26	
5	16QAM	1	24	25.25	25.14	25.17	25.47	25.28		
5	16QAM	12	0	24.06	23.98	23.98	24.30	24.17		
5	16QAM	12	7	24.09	23.98	24.02	24.32	24.18		
5	16QAM	12	13	24.05	23.94	23.99	24.32	24.11	25	
5	16QAM	25	0	24.01	23.94	23.97	24.25	24.16		
5	64QAM	1	0	24.05	23.93	23.92	24.24	23.76		
5	64QAM	1	12	24.01	23.91	23.94	24.27	23.59		
5	64QAM	1	24	24.04	23.91	23.95	24.25	23.45	25	
5	64QAM	12	0	23.09	23.02	23.05	23.33	22.81		
5	64QAM	12	7	23.15	23.09	23.11	23.35	22.75		
5	64QAM	12	13	23.09	23.06	23.05	23.37	22.64		
5	64QAM	25	0	23.09	23.01	23.09	23.33	22.73	24	

Band 48									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	22.98	23.00	22.98	23.05	24.2	
20	QPSK	1	49	22.80	22.79	22.79	22.86		
20	QPSK	1	99	22.76	22.74	22.75	22.82		
20	QPSK	50	0	22.02	22.01	22.00	22.10		
20	QPSK	50	24	21.96	21.89	21.99	22.03	23.2	
20	QPSK	50	50	21.84	21.82	21.88	21.96		
20	QPSK	100	0	21.97	21.98	21.96	22.01		
20	16QAM	1	0	22.08	22.12	22.11	22.21		
20	16QAM	1	49	21.88	21.87	21.88	21.94	23.2	
20	16QAM	1	99	21.89	21.85	21.89	21.96		
20	16QAM	50	0	21.05	21.04	21.05	21.11		
20	16QAM	50	24	21.01	20.92	20.98	21.06		
20	16QAM	50	50	20.86	20.85	20.91	21.00	22.2	
20	16QAM	100	0	20.99	20.88	21.00	21.04		
20	64QAM	1	0	20.83	20.85	20.83	20.94		
20	64QAM	1	49	20.67	20.64	20.64	20.69		
20	64QAM	1	99	20.62	20.56	20.65	20.74	22.2	
20	64QAM	50	0	20.06	20.06	20.05	20.11		
20	64QAM	50	24	20.03	19.93	19.99	20.06		
20	64QAM	50	50	19.88	19.87	19.95	19.99		
20	64QAM	100	0	20.00	19.91	19.97	20.05	21.2	
Channel				55315	55820	56160	56665		
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	22.90	22.89	22.91	22.97		
15	QPSK	1	37	22.80	22.78	22.78	22.82		
15	QPSK	1	74	22.79	22.74	22.77	22.84		
15	QPSK	36	0	22.01	21.99	21.97	22.07		
15	QPSK	36	20	21.89	21.86	21.95	21.99	23.2	
15	QPSK	36	39	21.86	21.83	21.89	21.94		
15	QPSK	75	0	21.92	21.88	21.94	22.02		
15	16QAM	1	0	22.06	22.04	22.05	22.12		
15	16QAM	1	37	21.85	21.84	21.81	21.89	23.2	
15	16QAM	1	74	21.95	21.92	21.95	22.02		
15	16QAM	36	0	20.97	20.96	20.97	21.03		
15	16QAM	36	20	20.85	20.83	20.91	20.98		
15	16QAM	36	39	20.81	20.78	20.85	20.93	22.2	
15	16QAM	75	0	20.93	20.87	20.95	21.04		
15	64QAM	1	0	20.80	20.80	20.80	20.85		
15	64QAM	1	37	20.67	20.65	20.63	20.71		
15	64QAM	1	74	20.67	20.65	20.69	20.78	22.2	
15	64QAM	36	0	20.04	20.01	20.01	20.10		
15	64QAM	36	20	19.90	19.87	19.96	20.02		
15	64QAM	36	39	19.87	19.86	19.92	19.98		
15	64QAM	75	0	19.95	19.91	19.96	20.03	21.2	
Channel				55290	55815	56165	56690		
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	22.96	22.95	22.93	22.98		
10	QPSK	1	25	22.77	22.75	22.72	22.77		
10	QPSK	1	49	22.72	22.70	22.66	22.75		
10	QPSK	25	0	21.95	22.01	21.96	22.04		
10	QPSK	25	12	21.88	21.87	21.91	21.96	23.2	
10	QPSK	25	25	21.75	21.72	21.82	21.92		
10	QPSK	50	0	21.87	21.81	21.91	22.01		
10	16QAM	1	0	22.00	22.03	22.07	22.16		
10	16QAM	1	25	21.87	21.83	21.85	21.94	23.2	
10	16QAM	1	49	21.87	21.85	21.82	21.88		
10	16QAM	25	0	21.01	20.99	21.00	21.08		
10	16QAM	25	12	20.92	20.86	20.94	20.96		
10	16QAM	25	25	20.80	20.75	20.90	20.98	22.2	
10	16QAM	50	0	20.96	20.84	21.00	21.01		
10	64QAM	1	0	20.73	20.84	20.83	20.86		
10	64QAM	1	25	20.58	20.58	20.62	20.61		
10	64QAM	1	49	20.62	20.52	20.59	20.68	22.2	
10	64QAM	25	0	20.05	20.05	20.03	20.03		
10	64QAM	25	12	19.95	19.91	19.94	19.98		
10	64QAM	25	25	19.86	19.78	19.93	19.98		
10	64QAM	50	0	19.90	19.87	19.89	19.99	21.2	
Channel				55265	55810	56170	56715		
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	22.89	22.89	22.91	22.98		
5	QPSK	1	12	22.89	22.82	22.83	22.92		
5	QPSK	1	24	22.86	22.76	22.81	22.90		
5	QPSK	12	0	22.01	21.96	21.97	22.07		
5	QPSK	12	7	22.02	21.96	21.98	22.07	23.2	
5	QPSK	12	13	22.01	21.95	21.96	22.05		
5	QPSK	25	0	21.98	21.95	21.98	22.07		
5	16QAM	1	0	22.04	21.99	22.03	22.09		
5	16QAM	1	12	22.12	22.06	22.06	22.15	23.2	
5	16QAM	1	24	22.04	21.96	22.00	22.04		
5	16QAM	12	0	21.00	20.93	21.02	21.05		
5	16QAM	12	7	21.03	20.95	20.97	21.05		
5	16QAM	12	13	21.00	20.94	20.97	21.01	22.2	
5	16QAM	25	0	21.05	21.00	21.01	21.08		
5	64QAM	1	0	20.80	20.76	20.80	20.89		
5	64QAM	1	12	20.81	20.73	20.77	20.84		
5	64QAM	1	24	20.81	20.71	20.74	20.80	22.2	
5	64QAM	12	0	20.09	20.00	20.03	20.11		
5	64QAM	12	7	20.08	20.02	20.05	20.13		
5	64QAM	12	13	20.02	20.02	19.98	20.11		
5	64QAM	25	0	20.05	20.04	20.06	20.12	21.2	

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	22.12	22.08	22.03	23.6
20	QPSK	1	49	22.09	22.04	22.02	
20	QPSK	1	89	22.08	22.03	21.98	
20	QPSK	50	0	22.28	22.15	22.10	23.6
20	QPSK	50	24	22.23	22.20	22.08	
20	QPSK	50	50	22.21	22.15	22.12	
20	QPSK	100	0	22.24	22.20	22.09	23.6
20	16QAM	1	0	22.24	22.20	22.17	
20	16QAM	1	49	22.15	22.14	22.09	
20	16QAM	1	89	22.19	22.16	22.12	23.6
20	16QAM	50	0	22.30	22.17	22.15	
20	16QAM	50	24	22.28	22.24	22.14	
20	16QAM	50	50	22.25	22.20	22.17	23.1
20	16QAM	100	0	22.26	22.20	22.09	
20	64QAM	1	0	21.89	21.86	21.81	
20	64QAM	1	49	21.85	21.81	21.85	22.6
20	64QAM	1	89	21.87	21.87	21.78	
20	64QAM	50	0	21.31	21.18	21.14	
20	64QAM	50	24	21.30	21.24	21.11	22.6
20	64QAM	50	50	21.24	21.19	21.16	
20	64QAM	100	0	21.25	21.22	21.12	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	22.03	21.99	21.99	23.6
15	QPSK	1	37	21.98	21.95	21.92	
15	QPSK	1	74	22.01	21.98	21.93	
15	QPSK	36	0	22.23	22.09	22.08	23.6
15	QPSK	36	20	22.21	22.16	22.13	
15	QPSK	36	39	22.18	22.13	22.10	
15	QPSK	75	0	22.19	22.15	22.06	23.6
15	16QAM	1	0	22.23	22.17	22.12	
15	16QAM	1	37	22.15	22.06	22.03	
15	16QAM	1	74	22.18	22.16	22.11	23.6
15	16QAM	36	0	22.20	22.08	22.08	
15	16QAM	36	20	22.17	22.13	22.09	
15	16QAM	36	39	22.14	22.12	22.06	23.1
15	16QAM	75	0	22.22	22.18	22.07	
15	64QAM	1	0	21.83	21.81	21.78	
15	64QAM	1	37	21.89	21.84	21.80	22.6
15	64QAM	1	74	21.86	21.87	21.78	
15	64QAM	36	0	21.24	21.14	21.10	
15	64QAM	36	20	21.20	21.19	21.15	22.6
15	64QAM	36	39	21.21	21.17	21.13	
15	64QAM	75	0	21.23	21.18	21.10	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	21.99	21.93	21.95	23.6
10	QPSK	1	25	21.97	21.86	21.86	
10	QPSK	1	49	21.96	21.95	21.90	
10	QPSK	25	0	22.13	22.04	22.05	23.6
10	QPSK	25	12	22.13	22.13	22.09	
10	QPSK	25	25	22.09	22.04	22.06	
10	QPSK	60	0	22.13	22.07	21.99	23.6
10	16QAM	1	0	22.17	22.14	22.10	
10	16QAM	1	25	22.05	22.06	22.00	
10	16QAM	1	49	22.14	22.06	22.01	23.6
10	16QAM	25	0	22.15	22.03	22.02	
10	16QAM	25	12	22.11	22.08	22.07	
10	16QAM	25	25	22.06	22.08	22.05	23.1
10	16QAM	50	0	22.14	22.13	21.97	
10	64QAM	1	0	21.75	21.76	21.73	
10	64QAM	1	25	21.81	21.80	21.74	22.6
10	64QAM	1	49	21.82	21.86	21.86	
10	64QAM	25	0	21.17	21.12	21.08	
10	64QAM	25	12	21.18	21.10	21.07	22.6
10	64QAM	25	25	21.13	21.14	21.08	
10	64QAM	50	0	21.20	21.10	21.06	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	22.11	22.02	22.00	23.6
5	QPSK	1	12	22.07	22.02	21.98	
5	QPSK	1	24	22.08	22.03	21.96	
5	QPSK	12	0	22.19	22.09	22.09	23.6
5	QPSK	12	7	22.21	22.18	22.14	
5	QPSK	12	13	22.20	22.19	22.07	
5	QPSK	25	0	22.21	22.17	22.12	23.6
5	16QAM	1	0	22.22	22.13	22.14	
5	16QAM	1	12	22.23	22.24	22.15	
5	16QAM	1	24	22.23	22.18	22.16	23.6
5	16QAM	12	0	22.19	22.10	22.10	
5	16QAM	12	7	22.18	22.17	22.13	
5	16QAM	12	13	22.18	22.14	22.07	23.1
5	16QAM	25	0	22.25	22.19	22.13	
5	64QAM	1	0	21.96	21.84	21.90	
5	64QAM	1	12	21.96	21.93	21.91	22.6
5	64QAM	1	24	21.97	21.93	21.91	
5	64QAM	12	0	21.24	21.12	21.16	
5	64QAM	12	7	21.26	21.21	21.15	22.6
5	64QAM	12	13	21.23	21.19	21.12	
5	64QAM	25	0	21.25	21.21	21.14	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Low High Ch / Freq	Power High Middle Ch / Freq	Power High High Ch / Freq	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	22.04	21.92	22.00	22.18	21.87	23.6	
20	QPSK	1	49	21.87	21.89	21.88	22.37	22.25		
20	QPSK	1	99	21.83	21.92	21.93	21.90	22.10		
20	QPSK	50	0	22.05	22.01	22.01	22.38	22.20		
20	QPSK	50	24	22.14	22.10	22.07	22.38	22.33	23.6	
20	QPSK	50	50	22.09	22.04	22.03	22.30	22.30		
20	QPSK	100	0	22.12	22.08	22.07	22.29	22.25		
20	16QAM	1	0	22.15	22.07	22.08	22.29	21.98		
20	16QAM	1	49	22.08	22.02	21.98	22.49	22.34	23.6	
20	16QAM	1	99	22.09	22.03	22.03	21.99	22.22		
20	16QAM	50	0	22.10	22.03	21.97	22.41	22.24		
20	16QAM	50	24	22.16	22.12	22.05	22.44	22.36		
20	16QAM	50	50	22.12	22.09	22.04	22.33	22.33	23.6	
20	16QAM	100	0	22.15	22.11	22.03	22.35	22.28		
20	64QAM	1	0	21.80	21.71	21.58	21.96	21.69		
20	64QAM	1	49	21.78	21.74	21.66	22.25	22.14		
20	64QAM	1	99	21.78	21.72	21.74	21.89	21.97	23.1	
20	64QAM	50	0	21.09	21.04	21.01	21.61	21.45		
20	64QAM	50	24	21.17	21.11	21.05	21.63	21.57		
20	64QAM	50	50	21.12	21.09	21.02	21.54	21.53		
20	64QAM	100	0	21.15	21.13	21.05	21.55	21.49	22.6	
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	21.98	21.93	21.91	22.28	22.01	23.6	
15	QPSK	1	37	21.90	21.88	21.86	22.32	22.18		
15	QPSK	1	74	21.90	21.97	21.94	22.07	22.13		
15	QPSK	36	0	22.10	21.99	21.99	22.36	22.24		
15	QPSK	36	20	22.10	22.03	22.03	22.46	22.34	23.6	
15	QPSK	36	39	22.07	22.03	22.00	22.33	22.30		
15	QPSK	75	0	22.11	22.04	22.06	22.39	22.27		
15	16QAM	1	0	22.13	22.05	22.03	22.44	22.15		
15	16QAM	1	37	22.01	21.92	21.90	22.43	22.32	23.6	
15	16QAM	1	74	22.07	22.11	22.05	22.20	22.34		
15	16QAM	36	0	22.08	21.96	21.92	22.34	22.21		
15	16QAM	36	20	22.09	22.03	21.98	22.42	22.28		
15	16QAM	36	39	22.04	22.02	21.94	22.31	22.30	23.6	
15	16QAM	75	0	22.14	22.07	22.01	22.42	22.32		
15	64QAM	1	0	21.74	21.70	21.60	22.09	21.86		
15	64QAM	1	37	21.79	21.72	21.69	22.22	22.12		
15	64QAM	1	74	21.78	21.83	21.73	21.90	22.08	23.1	
15	64QAM	36	0	21.14	21.01	20.98	21.59	21.49		
15	64QAM	36	20	21.13	21.07	21.01	21.68	21.57		
15	64QAM	36	39	21.09	21.07	21.00	21.58	21.55		
15	64QAM	75	0	21.15	21.10	21.03	21.62	21.53	22.6	
Channel				39700	40160	40620	41080	41540		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	21.84	21.92	21.81	22.19	21.87	23.6	
10	QPSK	1	25	21.85	21.88	21.85	22.22	22.10		
10	QPSK	1	49	21.88	21.95	21.90	21.99	22.03		
10	QPSK	25	0	22.05	21.94	21.96	22.36	22.21		
10	QPSK	25	12	22.07	21.95	22.00	22.38	22.25	23.6	
10	QPSK	25	25	22.02	21.98	21.97	22.28	22.27		
10	QPSK	50	0	22.08	22.01	22.06	22.34	22.19		
10	16QAM	1	0	22.11	22.01	21.93	22.39	22.07		
10	16QAM	1	25	21.97	21.84	21.88	22.35	22.28	23.6	
10	16QAM	1	49	22.06	22.01	22.02	22.20	22.28		
10	16QAM	25	0	22.02	21.89	21.84	22.24	22.14		
10	16QAM	25	12	22.00	22.03	21.98	22.42	22.23		
10	16QAM	25	25	22.01	21.97	21.89	22.27	22.25	23.6	
10	16QAM	50	0	22.04	21.97	21.94	22.32	22.30		
10	64QAM	1	0	21.66	21.61	21.57	22.01	21.77		
10	64QAM	1	25	21.70	21.62	21.62	22.15	22.10		
10	64QAM	1	49	21.76	21.79	21.66	21.81	22.01	23.1	
10	64QAM	25	0	21.07	20.94	20.88	21.52	21.41		
10	64QAM	25	12	21.08	21.07	20.91	21.61	21.51		
10	64QAM	25	25	21.09	21.01	21.00	21.58	21.49		
10	64QAM	50	0	21.14	21.05	20.95	21.59	21.48	22.6	
Channel				39675	40148	40620	41093	41565		Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.0	2687.5		
5	QPSK	1	0	22.09	21.92	21.87	22.34	22.27	23.6	
5	QPSK	1	12	22.03	21.96	21.92	22.35	22.25		
5	QPSK	1	24	22.05	21.91	21.90	22.33	22.20		
5	QPSK	12	0	22.20	22.10	21.99	22.45	22.39		
5	QPSK	12	7	22.21	22.12	22.10	22.45	22.38	23.6	
5	QPSK	12	13	22.15	22.11	22.06	22.48	22.36		
5	QPSK	25	0	22.15	22.07	22.03	22.40	22.38		
5	16QAM	1	0	22.17	22.02	21.98	22.48	22.38		
5	16QAM	1	12	22.18	22.12	22.11	22.59	22.45	23.6	
5	16QAM	1	24	22.21	22.08	22.06	22.52	22.33		
5	16QAM	12	0	22.16	22.05	21.96	22.43	22.35		
5	16QAM	12	7	22.16	22.09	22.03	22.43	22.37		
5	16QAM	12	13	22.09	22.04	21.99	22.43	22.33	23.6	
5	16QAM	25	0	22.15	22.11	22.06	22.48	22.40		
5	64QAM	1	0	21.95	21.72	21.70	22.26	22.12		
5	64QAM	1	12	21.91	21.81	21.80	22.32	22.15		
5	64QAM	1	24	21.95	21.81	21.76	22.24	22.10	23.1	
5	64QAM	12	0	21.17	21.11	21.01	21.71	21.62		
5	64QAM	12	7	21.20	21.15	21.09	21.67	21.61		
5	64QAM	12	13	21.19	21.11	21.07	21.71	21.60		
5	64QAM	25	0	21.19	21.12	21.10	21.72	21.62	22.6	

Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.65	23.56	23.61	23.82	23.53	25.4	
20	QPSK	1	49	23.58	23.54	23.45	24.02	23.88		
20	QPSK	1	99	23.54	23.54	23.54	23.55	23.76		
20	QPSK	50	0	23.76	23.76	23.69	24.11	23.98		
20	QPSK	50	24	23.87	23.81	23.75	24.14	24.08	25.4	
20	QPSK	50	50	23.80	23.80	23.73	24.06	24.06		
20	QPSK	100	0	23.87	23.82	23.75	24.04	24.02		
20	16QAM	1	0	24.03	23.90	23.97	24.16	23.86		
20	16QAM	1	49	23.97	23.93	23.85	24.27	24.22	25.4	
20	16QAM	1	99	23.95	23.88	23.90	23.87	24.09		
20	16QAM	50	0	23.84	23.79	23.74	24.15	23.98		
20	16QAM	50	24	23.91	23.88	23.80	24.19	24.10		
20	16QAM	50	50	23.84	23.82	23.77	24.10	24.08	25.4	
20	16QAM	100	0	23.88	23.85	23.79	24.06	24.02		
20	64QAM	1	0	23.81	23.76	23.73	23.93	23.67		
20	64QAM	1	49	23.81	23.71	23.68	24.24	24.07		
20	64QAM	1	99	23.80	23.76	23.73	23.70	23.99	25.4	
20	64QAM	50	0	22.96	22.91	22.85	23.55	23.37		
20	64QAM	50	24	23.04	22.96	22.94	23.58	23.50		
20	64QAM	50	50	22.96	22.93	22.88	23.48	23.47		
20	64QAM	100	0	23.01	22.95	22.90	23.47	23.42	24.4	
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.67	23.61	23.60	23.99	23.71	25.4	
15	QPSK	1	37	23.60	23.61	23.54	24.06	23.89		
15	QPSK	1	74	23.58	23.65	23.63	23.81	23.87		
15	QPSK	36	0	23.82	23.72	23.70	24.09	23.98		
15	QPSK	36	20	23.83	23.79	23.74	24.19	24.06	25.4	
15	QPSK	36	39	23.77	23.78	23.73	24.10	24.05		
15	QPSK	75	0	23.82	23.84	23.78	24.18	24.01		
15	16QAM	1	0	23.94	23.93	23.84	24.24	24.00		
15	16QAM	1	37	23.90	23.81	23.77	24.33	24.18	25.4	
15	16QAM	1	74	23.93	23.99	23.93	24.08	24.16		
15	16QAM	36	0	23.82	23.73	23.67	24.07	23.97		
15	16QAM	36	20	23.81	23.75	23.71	24.17	24.03		
15	16QAM	36	39	23.75	23.75	23.69	24.05	24.03	25.4	
15	16QAM	75	0	23.85	23.81	23.76	24.17	24.01		
15	64QAM	1	0	23.76	23.72	23.61	24.09	23.83		
15	64QAM	1	37	23.82	23.75	23.63	24.21	24.08		
15	64QAM	1	74	23.77	23.81	23.77	23.93	24.03	25.4	
15	64QAM	36	0	22.96	22.87	22.80	23.54	23.39		
15	64QAM	36	20	22.94	22.91	22.86	23.62	23.47		
15	64QAM	36	39	22.91	22.87	22.84	23.49	23.45		
15	64QAM	75	0	22.97	22.91	22.84	23.55	23.42	24.4	
Channel				39700	40160	40620	41080	41540		Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.67	23.62	23.50	23.84	23.71	25.4	
10	QPSK	1	25	23.61	23.55	23.51	23.98	23.86		
10	QPSK	1	49	23.71	23.63	23.61	23.73	23.64		
10	QPSK	25	0	23.86	23.71	23.68	24.10	24.03		
10	QPSK	25	12	23.86	23.81	23.76	24.24	24.12	25.4	
10	QPSK	25	25	23.80	23.74	23.74	24.12	23.97		
10	QPSK	50	0	23.83	23.76	23.74	24.13	24.00		
10	16QAM	1	0	24.10	23.96	23.93	24.15	24.03		
10	16QAM	1	25	24.01	23.97	23.90	24.36	24.22	25.4	
10	16QAM	1	49	24.00	23.96	23.93	24.14	23.94		
10	16QAM	25	0	23.90	23.74	23.69	24.10	24.02		
10	16QAM	25	12	23.88	23.85	23.78	24.28	24.11		
10	16QAM	25	25	23.82	23.79	23.72	24.11	24.01	25.4	
10	16QAM	50	0	23.88	23.85	23.77	24.18	24.04		
10	64QAM	1	0	24.03	23.81	23.79	24.03	23.95		
10	64QAM	1	25	23.90	23.93	23.79	24.29	24.19		
10	64QAM	1	49	23.83	23.67	23.65	24.01	23.89	25.4	
10	64QAM	25	0	23.05	22.90	22.88	23.54	23.49		
10	64QAM	25	12	23.07	23.01	22.96	23.70	23.59		
10	64QAM	25	25	22.99	22.97	22.94	23.58	23.44		
10	64QAM	50	0	22.98	22.94	22.88	23.56	23.42	24.4	
Channel				39675	40148	40620	41093	41565		Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.73	23.53	23.45	23.98	23.90	25.4	
5	QPSK	1	12	23.65	23.60	23.57	24.01	23.91		
5	QPSK	1	24	23.66	23.57	23.52	23.96	23.84		
5	QPSK	12	0	23.88	23.77	23.69	24.17	24.08		
5	QPSK	12	7	23.87	23.81	23.78	24.19	24.09	25.4	
5	QPSK	12	13	23.86	23.77	23.74	24.20	24.08		
5	QPSK	25	0	23.81	23.79	23.71	24.15	24.06		
5	16QAM	1	0	24.07	23.90	23.88	24.32	24.22		
5	16QAM	1	12	24.03	23.98	23.93	24.35	24.21	25.4	
5	16QAM	1	24	24.00	23.96	23.92	24.30	24.19		
5	16QAM	12	0	23.92	23.83	23.72	24.19	24.12		
5	16QAM	12	7	23.94	23.85	23.80	24.20	24.13		
5	16QAM	12	13	23.87	23.83	23.76	24.21	24.06	25.4	
5	16QAM	25	0	23.87	23.81	23.76	24.18	24.12		
5	64QAM	1	0	23.96	23.77	23.75	24.19	24.14		
5	64QAM	1	12	23.90	23.86	23.81	24.25	24.14		
5	64QAM	1	24	23.92	23.86	23.81	24.23	24.08	25.4	
5	64QAM	12	0	23.03	22.92	22.84	23.59	23.52		
5	64QAM	12	7	23.03	22.96	22.94	23.60	23.52		
5	64QAM	12	13	22.98	22.92	22.90	23.60	23.50		
5	64QAM	25	0	23.05	22.95	22.91	23.61	23.54	24.4	

Band 48									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	20.17	20.20	20.17	20.20	22.1	
20	QPSK	1	49	20.10	20.11	20.11	20.13		
20	QPSK	1	89	20.11	20.13	20.12	20.11		
20	QPSK	50	0	20.20	20.20	20.16	20.18		
20	QPSK	50	24	20.14	20.07	20.12	20.07	21.1	
20	QPSK	50	50	20.00	19.99	20.04	20.01		
20	QPSK	100	0	20.13	20.05	20.11	20.08		
20	16QAM	1	0	20.30	20.31	20.32	20.33		
20	16QAM	1	49	20.07	20.06	20.04	20.01	21.1	
20	16QAM	1	89	20.06	20.03	20.01	19.94		
20	16QAM	50	0	20.03	20.02	20.00	20.00		
20	16QAM	50	24	19.98	19.90	19.94	19.90		
20	16QAM	50	50	19.84	19.84	19.87	19.83	21.1	
20	16QAM	100	0	19.95	19.89	19.93	19.90		
20	64QAM	1	0	19.83	19.82	19.83	19.85		
20	64QAM	1	49	19.61	19.60	19.58	19.53		
20	64QAM	1	89	19.60	19.53	19.58	19.50	21.1	
20	64QAM	50	0	19.01	19.02	19.02	19.02		
20	64QAM	50	24	18.99	18.91	18.96	18.93		
20	64QAM	50	50	18.85	18.85	18.90	18.83		
20	64QAM	100	0	18.98	18.89	18.95	18.91	20.6	
Channel				55315	55820	56160	56665		
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	20.15	20.21	20.17	20.11		22.1
15	QPSK	1	37	20.12	20.14	20.13	20.13		
15	QPSK	1	74	20.12	20.16	20.14	20.11		
15	QPSK	36	0	19.95	20.19	20.15	20.12		
15	QPSK	36	20	19.84	20.06	20.08	20.05	21.1	
15	QPSK	36	39	19.80	20.00	20.04	19.99		
15	QPSK	75	0	19.87	20.08	20.12	20.04		
15	16QAM	1	0	20.03	20.26	20.22	20.21		
15	16QAM	1	37	19.84	20.03	19.95	19.91	21.1	
15	16QAM	1	74	19.90	20.14	20.08	20.00		
15	16QAM	36	0	19.94	19.95	19.91	19.91		
15	16QAM	36	20	19.81	19.82	19.85	19.81		
15	16QAM	36	39	19.78	19.79	19.81	19.77	21.1	
15	16QAM	75	0	19.86	19.89	19.92	19.87		
15	64QAM	1	0	19.77	19.80	19.75	19.72		
15	64QAM	1	37	19.60	19.64	19.58	19.54		
15	64QAM	1	74	19.63	19.59	19.64	19.56	21.1	
15	64QAM	36	0	19.00	19.00	18.97	18.95		
15	64QAM	36	20	18.88	18.88	18.91	18.85		
15	64QAM	36	39	18.82	18.84	18.88	18.81		
15	64QAM	75	0	18.88	18.88	18.93	18.89	20.6	
Channel				55290	55815	56165	56690		
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	20.12	20.19	20.13	20.16		22.1
10	QPSK	1	25	20.11	20.13	20.12	20.15		
10	QPSK	1	49	20.16	20.15	20.14	20.12		
10	QPSK	25	0	19.97	20.28	20.15	20.04		
10	QPSK	25	12	19.78	20.01	20.00	20.04	21.1	
10	QPSK	25	25	19.74	20.09	20.11	19.99		
10	QPSK	50	0	19.83	20.10	20.20	19.95		
10	16QAM	1	0	20.07	20.20	20.15	20.11		
10	16QAM	1	25	19.92	20.10	19.94	19.88	21.1	
10	16QAM	1	49	19.81	20.05	20.11	20.07		
10	16QAM	25	0	20.02	20.04	19.91	19.90		
10	16QAM	25	12	19.73	19.86	19.93	19.85		
10	16QAM	25	25	19.76	19.85	19.87	19.75	21.1	
10	16QAM	50	0	19.79	19.81	19.98	19.81		
10	64QAM	1	0	19.76	19.71	19.68	19.69		
10	64QAM	1	25	19.54	19.55	19.48	19.49		
10	64QAM	1	49	19.57	19.58	19.68	19.60	21.1	
10	64QAM	25	0	19.01	19.06	19.01	19.05		
10	64QAM	25	12	18.91	18.92	19.00	18.88		
10	64QAM	25	25	18.88	18.93	18.98	18.79		
10	64QAM	50	0	18.95	18.82	18.95	18.81	20.6	
Channel				55265	55810	56170	56715		
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	20.13	20.24	20.10	20.11		22.1
5	QPSK	1	12	20.12	20.13	20.15	20.13		
5	QPSK	1	24	20.11	20.10	20.13	20.14		
5	QPSK	12	0	19.93	20.22	20.08	20.12		
5	QPSK	12	7	19.85	19.92	19.94	20.14	21.1	
5	QPSK	12	13	19.81	20.16	20.17	19.89		
5	QPSK	25	0	19.85	20.09	20.29	20.00		
5	16QAM	1	0	20.14	20.18	20.18	20.06		
5	16QAM	1	12	19.93	20.14	19.91	19.97	21.1	
5	16QAM	1	24	19.86	20.01	20.10	20.03		
5	16QAM	12	0	20.10	19.96	19.95	19.88		
5	16QAM	12	7	19.78	19.86	19.84	19.91		
5	16QAM	12	13	19.72	19.88	19.79	19.81	21.1	
5	16QAM	25	0	19.76	19.90	20.07	19.76		
5	64QAM	1	0	19.68	19.76	19.58	19.65		
5	64QAM	1	12	19.52	19.65	19.36	19.56		
5	64QAM	1	24	19.50	19.67	19.78	19.61	20.6	
5	64QAM	12	0	18.93	18.96	18.91	18.99		
5	64QAM	12	7	18.83	18.99	19.09	18.96		
5	64QAM	12	13	18.84	18.93	18.97	18.83		
5	64QAM	25	0	18.93	18.72	18.89	18.82		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.64	24.60	24.60	
20	QPSK	1	49	24.60	24.57	24.55	25.7
20	QPSK	1	89	24.57	24.56	24.56	24.7
20	QPSK	50	0	23.78	23.69	23.68	
20	QPSK	50	24	23.75	23.74	23.77	
20	QPSK	50	50	23.75	23.73	23.70	24.7
20	QPSK	100	0	23.79	23.76	23.64	
20	16QAM	1	0	23.72	23.70	23.68	
20	16QAM	1	49	23.68	23.63	23.64	24.7
20	16QAM	1	89	23.68	23.65	23.65	
20	16QAM	50	0	22.82	22.71	22.72	
20	16QAM	50	24	22.80	22.78	22.78	23.7
20	16QAM	50	50	22.77	22.76	22.76	
20	16QAM	100	0	22.79	22.77	22.67	
20	64QAM	1	0	22.45	22.43	22.39	23.7
20	64QAM	1	49	22.41	22.38	22.37	
20	64QAM	1	89	22.40	22.40	22.36	
20	64QAM	50	0	21.83	21.74	21.72	22.7
20	64QAM	50	24	21.82	21.80	21.77	
20	64QAM	50	50	21.78	21.76	21.75	
20	64QAM	100	0	21.81	21.78	21.70	Tune-up limit (dBm)
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.58	24.55	24.55	25.7
15	QPSK	1	37	24.55	24.54	24.53	
15	QPSK	1	74	24.55	24.56	24.56	
15	QPSK	36	0	23.77	23.68	23.67	24.7
15	QPSK	36	20	23.72	23.74	23.73	
15	QPSK	36	39	23.71	23.71	23.71	
15	QPSK	75	0	23.75	23.71	23.65	24.7
15	16QAM	1	0	23.71	23.70	23.67	
15	16QAM	1	37	23.62	23.56	23.61	
15	16QAM	1	74	23.70	23.68	23.67	23.7
15	16QAM	36	0	22.75	22.65	22.65	
15	16QAM	36	20	22.72	22.68	22.69	
15	16QAM	36	39	22.70	22.68	22.67	23.7
15	16QAM	75	0	22.78	22.75	22.67	
15	64QAM	1	0	22.40	22.36	22.35	
15	64QAM	1	37	22.45	22.40	22.40	23.7
15	64QAM	1	74	22.43	22.40	22.38	
15	64QAM	36	0	21.82	21.70	21.70	
15	64QAM	36	20	21.75	21.74	21.74	22.7
15	64QAM	36	39	21.76	21.72	21.75	
15	64QAM	75	0	21.79	21.76	21.67	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.48	24.49	24.53	25.7
10	QPSK	1	25	24.50	24.49	24.51	
10	QPSK	1	49	24.45	24.54	24.52	
10	QPSK	25	0	23.72	23.66	23.62	24.7
10	QPSK	25	12	23.67	23.73	23.68	
10	QPSK	25	25	23.71	23.70	23.65	
10	QPSK	60	0	23.70	23.69	23.56	24.7
10	16QAM	1	0	23.66	23.69	23.59	
10	16QAM	1	25	23.60	23.52	23.53	
10	16QAM	1	49	23.61	23.62	23.66	23.7
10	16QAM	25	0	22.70	22.55	22.63	
10	16QAM	25	12	22.70	22.67	22.65	
10	16QAM	25	25	22.62	22.62	22.67	23.7
10	16QAM	50	0	22.78	22.65	22.67	
10	64QAM	1	0	22.32	22.34	22.30	
10	64QAM	1	25	22.40	22.34	22.35	23.7
10	64QAM	1	49	22.40	22.38	22.31	
10	64QAM	25	0	21.80	21.66	21.66	
10	64QAM	25	12	21.75	21.73	21.67	22.7
10	64QAM	25	25	21.74	21.63	21.74	
10	64QAM	50	0	21.71	21.70	21.63	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.60	24.52	24.53	25.7
5	QPSK	1	12	24.53	24.50	24.53	
5	QPSK	1	24	24.52	24.48	24.52	
5	QPSK	12	0	23.71	23.61	23.69	24.7
5	QPSK	12	7	23.74	23.70	23.68	
5	QPSK	12	13	23.71	23.69	23.54	
5	QPSK	25	0	23.70	23.67	23.65	24.7
5	16QAM	1	0	23.72	23.62	23.70	
5	16QAM	1	12	23.71	23.67	23.67	
5	16QAM	1	24	23.74	23.72	23.70	23.7
5	16QAM	12	0	22.69	22.58	22.68	
5	16QAM	12	7	22.71	22.66	22.66	
5	16QAM	12	13	22.66	22.62	22.62	23.7
5	16QAM	25	0	22.71	22.68	22.71	
5	64QAM	1	0	22.49	22.36	22.42	
5	64QAM	1	12	22.47	22.43	22.41	23.7
5	64QAM	1	24	22.47	22.44	22.42	
5	64QAM	12	0	21.76	21.67	21.72	
5	64QAM	12	7	21.75	21.73	21.73	22.7
5	64QAM	12	13	21.76	21.72	21.71	
5	64QAM	25	0	21.80	21.74	21.70	

Band 41										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.		Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.74	24.62	24.61	24.74	24.55	25.7	
20	QPSK	1	49	24.68	24.56	24.48	24.55	24.84		
20	QPSK	1	99	24.66	24.51	24.57	24.53	24.67		
20	QPSK	50	0	23.85	23.74	23.61	23.92	23.84		
20	QPSK	50	24	23.87	23.74	23.69	24.05	23.93	24.7	
20	QPSK	50	50	23.83	23.72	23.67	23.90	23.89		
20	QPSK	100	0	23.86	23.76	23.69	23.95	23.87		
20	16QAM	1	0	23.87	23.73	23.71	23.83	23.66		
20	16QAM	1	49	23.77	23.65	23.59	24.09	23.96	24.7	
20	16QAM	1	99	23.75	23.65	23.69	23.84	23.76		
20	16QAM	50	0	22.88	22.77	22.68	22.95	22.87		
20	16QAM	50	24	22.86	22.76	22.72	23.07	22.98		
20	16QAM	50	50	22.84	22.76	22.71	22.93	22.93	23.7	
20	16QAM	100	0	22.88	22.77	22.70	22.97	22.88		
20	64QAM	1	0	22.85	22.46	22.38	22.49	22.33		
20	64QAM	1	49	22.49	22.44	22.35	22.87	22.74		
20	64QAM	1	99	22.44	22.38	22.35	22.35	22.47	23.7	
20	64QAM	50	0	21.89	21.77	21.66	21.97	21.86		
20	64QAM	50	24	21.90	21.78	21.72	22.08	22.00		
20	64QAM	50	50	21.86	21.78	21.71	21.93	21.92		
20	64QAM	100	0	21.89	21.78	21.72	21.98	21.89	22.7	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.74	24.62	24.56	24.85	24.68	25.7	
15	QPSK	1	37	24.68	24.52	24.45	24.94	24.82		
15	QPSK	1	74	24.68	24.64	24.60	24.70	24.72		
15	QPSK	36	0	23.86	23.76	23.62	23.95	23.84		
15	QPSK	36	20	23.87	23.75	23.69	24.04	23.93	24.7	
15	QPSK	36	39	23.84	23.72	23.66	23.96	23.89		
15	QPSK	75	0	23.87	23.73	23.69	23.98	23.87		
15	16QAM	1	0	23.87	23.75	23.66	24.01	23.75		
15	16QAM	1	37	23.70	23.57	23.57	24.05	23.93	24.7	
15	16QAM	1	74	23.78	23.79	23.72	23.85	23.85		
15	16QAM	36	0	22.83	22.73	22.57	22.91	22.84		
15	16QAM	36	20	22.84	22.72	22.64	23.04	22.90		
15	16QAM	36	39	22.81	22.70	22.63	22.94	22.86	23.7	
15	16QAM	75	0	22.88	22.75	22.70	23.02	22.91		
15	64QAM	1	0	22.63	22.51	22.31	22.68	22.44		
15	64QAM	1	37	22.66	22.46	22.35	22.85	22.70		
15	64QAM	1	74	22.47	22.51	22.41	22.58	22.59	23.7	
15	64QAM	36	0	21.87	21.77	21.65	21.98	21.90		
15	64QAM	36	20	21.88	21.75	21.69	22.07	21.95		
15	64QAM	36	39	21.84	21.74	21.70	21.98	21.93		
15	64QAM	75	0	21.90	21.79	21.71	22.03	21.92	22.7	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.66	24.51	24.53	24.76	24.63	25.7	
10	QPSK	1	25	24.59	24.48	24.36	24.93	24.74		
10	QPSK	1	49	24.66	24.62	24.51	24.70	24.62		
10	QPSK	25	0	23.77	23.70	23.54	23.88	23.80		
10	QPSK	25	12	23.85	23.72	23.63	23.95	23.87	24.7	
10	QPSK	25	25	23.81	23.63	23.58	23.93	23.87		
10	QPSK	50	0	23.82	23.67	23.59	23.97	23.83		
10	16QAM	1	0	23.86	23.69	23.62	23.94	23.72		
10	16QAM	1	25	23.61	23.51	23.49	24.02	23.92	24.7	
10	16QAM	1	49	23.77	23.75	23.68	23.79	23.77		
10	16QAM	25	0	22.82	22.73	22.52	22.82	22.81		
10	16QAM	25	12	22.79	22.70	22.57	22.95	22.89		
10	16QAM	25	25	22.80	22.62	22.53	22.94	22.82	23.7	
10	16QAM	50	0	22.85	22.73	22.67	22.95	22.89		
10	64QAM	1	0	22.63	22.49	22.28	22.65	22.36		
10	64QAM	1	25	22.52	22.43	22.28	22.77	22.70		
10	64QAM	1	49	22.46	22.43	22.40	22.51	22.56	23.7	
10	64QAM	25	0	21.83	21.72	21.55	21.98	21.85		
10	64QAM	25	12	21.80	21.66	21.61	21.97	21.88		
10	64QAM	25	25	21.74	21.66	21.62	21.88	21.92		
10	64QAM	50	0	21.81	21.79	21.63	21.96	21.90	22.7	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.0	2687.5		
5	QPSK	1	0	24.73	24.60	24.49	24.93	24.81	25.7	
5	QPSK	1	12	24.67	24.60	24.53	24.93	24.77		
5	QPSK	1	24	24.68	24.56	24.50	24.89	24.71		
5	QPSK	12	0	23.82	23.71	23.67	24.02	23.94		
5	QPSK	12	7	23.84	23.75	23.71	24.08	23.94	24.7	
5	QPSK	12	13	23.83	23.71	23.66	24.06	23.88		
5	QPSK	25	0	23.80	23.71	23.69	24.04	23.88		
5	16QAM	1	0	23.84	23.74	23.64	24.04	23.96		
5	16QAM	1	12	23.89	23.77	23.78	24.12	24.00	24.7	
5	16QAM	1	24	23.90	23.74	23.72	24.09	23.87		
5	16QAM	12	0	22.83	22.70	22.64	23.00	22.92		
5	16QAM	12	7	22.84	22.70	22.67	23.06	22.92		
5	16QAM	12	13	22.80	22.66	22.67	23.01	22.86	23.7	
5	16QAM	25	0	22.88	22.76	22.69	23.09	22.94		
5	64QAM	1	0	22.64	22.48	22.36	22.79	22.70		
5	64QAM	1	12	22.64	22.54	22.47	22.89	22.69		
5	64QAM	1	24	22.67	22.55	22.44	22.85	22.62	23.7	
5	64QAM	12	0	21.87	21.78	21.72	22.06	21.97		
5	64QAM	12	7	21.88	21.81	21.73	22.11	21.96		
5	64QAM	12	13	21.87	21.75	21.73	22.09	21.92		
5	64QAM	25	0	21.87	21.76	21.78	22.13	21.97	22.7	

Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.71	25.63	25.81	25.86	25.68	27	
20	QPSK	1	49	25.64	25.61	25.63	26.11	25.95		
20	QPSK	1	99	25.81	25.61	25.62	25.59	25.76		
20	QPSK	50	0	24.99	24.92	24.91	25.17	25.11		
20	QPSK	50	24	24.95	24.91	24.94	25.25	25.21	26	
20	QPSK	50	50	24.88	24.89	24.89	25.12	25.13		
20	QPSK	100	0	24.94	24.90	24.95	25.18	25.10		
20	16QAM	1	0	25.14	25.04	25.22	25.23	25.04		
20	16QAM	1	49	25.05	25.02	24.99	25.49	25.34	25	
20	16QAM	1	99	24.96	24.96	25.01	24.96	25.14		
20	16QAM	50	0	23.99	23.92	23.95	24.22	24.13		
20	16QAM	50	24	23.99	23.97	23.99	24.32	24.26		
20	16QAM	50	50	23.96	23.92	23.99	24.17	24.17	25	
20	16QAM	100	0	24.00	23.92	23.98	24.22	24.14		
20	64QAM	1	0	23.90	23.74	23.88	23.92	23.74		
20	64QAM	1	49	23.74	23.76	23.75	24.26	24.13		
20	64QAM	1	99	23.69	23.79	23.70	23.74	23.54	25	
20	64QAM	50	0	23.01	22.93	22.98	23.23	23.16		
20	64QAM	50	24	23.01	22.97	23.02	23.35	23.24		
20	64QAM	50	50	22.96	22.95	22.94	23.17	22.91		
20	64QAM	100	0	23.00	22.95	22.98	23.21	23.13	24	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.84	25.80	25.83	26.08	25.92	27	
15	QPSK	1	37	25.78	25.73	25.78	26.10	26.08		
15	QPSK	1	74	25.78	25.84	25.80	25.89	25.93		
15	QPSK	36	0	24.98	24.90	24.90	25.17	25.09		
15	QPSK	36	20	24.98	24.91	24.94	25.20	25.18	26	
15	QPSK	36	39	24.92	24.89	24.87	25.17	25.11		
15	QPSK	75	0	24.96	24.92	24.92	25.12	25.14		
15	16QAM	1	0	25.11	25.05	25.13	25.34	25.16		
15	16QAM	1	37	25.00	24.99	24.97	25.44	25.33	26	
15	16QAM	1	74	25.03	25.07	25.03	25.16	25.20		
15	16QAM	36	0	23.94	23.90	23.87	24.20	24.09		
15	16QAM	36	20	23.92	23.90	23.90	24.20	24.17		
15	16QAM	36	39	23.88	23.87	23.87	24.18	24.10	25	
15	16QAM	75	0	23.96	23.85	23.97	24.17	24.13		
15	64QAM	1	0	23.89	23.79	23.81	24.08	23.84		
15	64QAM	1	37	23.83	23.77	23.74	24.24	24.04		
15	64QAM	1	74	23.75	23.89	23.80	23.98	23.52	25	
15	64QAM	36	0	22.98	22.92	22.93	23.23	23.16		
15	64QAM	36	20	23.00	22.95	22.97	23.25	23.08		
15	64QAM	36	39	22.96	22.92	22.92	23.19	22.82		
15	64QAM	75	0	23.01	22.95	23.00	23.20	23.01	24	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.89	25.78	25.73	25.81	25.79	27	
10	QPSK	1	25	25.81	25.73	25.74	26.08	25.92		
10	QPSK	1	49	25.87	25.81	25.77	25.79	25.62		
10	QPSK	25	0	24.98	24.94	24.98	25.16	25.14		
10	QPSK	25	12	25.02	24.98	24.99	25.31	25.19	26	
10	QPSK	25	25	24.98	24.90	24.91	25.19	25.05		
10	QPSK	50	0	24.98	24.93	24.95	25.23	25.09		
10	16QAM	1	0	25.27	25.17	25.18	25.27	25.19		
10	16QAM	1	25	25.22	25.12	25.10	25.46	25.32	26	
10	16QAM	1	49	25.21	25.17	25.10	25.24	25.03		
10	16QAM	25	0	23.99	23.93	23.95	24.19	24.14		
10	16QAM	25	12	24.01	23.98	23.99	24.38	24.20		
10	16QAM	25	25	23.96	23.92	23.89	24.21	24.07	25	
10	16QAM	50	0	24.03	23.98	23.98	24.30	24.15		
10	64QAM	1	0	24.08	23.95	23.94	24.00	23.97		
10	64QAM	1	25	24.10	24.02	24.00	24.34	23.78		
10	64QAM	1	49	24.01	23.99	23.91	24.04	23.39	25	
10	64QAM	25	0	23.10	23.03	23.05	23.25	23.06		
10	64QAM	25	12	23.11	23.05	23.08	23.45	22.94		
10	64QAM	25	25	23.08	23.01	23.03	23.29	22.71		
10	64QAM	50	0	23.06	22.97	23.02	23.28	22.81	24	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.92	25.78	25.73	26.07	25.98	27	
5	QPSK	1	12	25.88	25.78	25.77	26.11	25.93		
5	QPSK	1	24	25.87	25.77	25.77	26.05	25.84		
5	QPSK	12	0	25.04	24.94	24.96	25.24	25.15		
5	QPSK	12	7	25.08	24.98	24.98	25.26	25.13	26	
5	QPSK	12	13	25.02	24.93	24.94	25.29	25.10		
5	QPSK	25	0	25.00	24.91	24.98	25.22	25.09		
5	16QAM	1	0	25.27	25.15	25.15	25.43	25.33		
5	16QAM	1	12	25.23	25.16	25.17	25.46	25.30	26	
5	16QAM	1	24	25.25	25.14	25.17	25.47	25.28		
5	16QAM	12	0	24.06	23.98	23.98	24.30	24.17		
5	16QAM	12	7	24.09	23.98	24.02	24.32	24.18		
5	16QAM	12	13	24.05	23.94	23.99	24.32	24.11	25	
5	16QAM	25	0	24.01	23.94	23.97	24.25	24.16		
5	64QAM	1	0	24.05	23.93	23.92	24.24	23.76		
5	64QAM	1	12	24.01	23.91	23.94	24.27	23.59		
5	64QAM	1	24	24.04	23.91	23.95	24.25	23.45	25	
5	64QAM	12	0	23.09	23.02	23.05	23.33	22.81		
5	64QAM	12	7	23.15	23.09	23.11	23.35	22.75		
5	64QAM	12	13	23.09	23.06	23.05	23.37	22.64		
5	64QAM	25	0	23.09	23.01	23.09	23.33	22.73	24	

Band 48										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				55340	55830	56150	56640			
Frequency (MHz)				3560	3609	3641	3690			
20	QPSK	1	0	22.52	22.57	22.53	22.52	23.4		
20	QPSK	1	49	22.34	22.30	22.27	22.27			
20	QPSK	1	99	22.30	22.28	22.23	22.22			
20	QPSK	50	0	22.25	22.25	22.22	22.19			
20	QPSK	50	24	22.22	22.12	22.14	22.14	22.9		
20	QPSK	50	50	22.05	22.05	22.07	22.08			
20	QPSK	100	0	22.19	22.11	22.15	22.13			
20	16QAM	1	0	22.36	22.36	22.33	22.31			
20	16QAM	1	49	22.10	22.11	22.07	22.06	22.9		
20	16QAM	1	99	22.13	22.10	22.07	22.07			
20	16QAM	50	0	21.28	21.29	21.24	21.24			
20	16QAM	50	24	21.21	21.13	21.17	21.15			
20	16QAM	50	50	21.09	21.07	21.11	21.09	21.9		
20	16QAM	100	0	21.20	21.14	21.18	21.15			
20	64QAM	1	0	21.08	21.10	21.08	21.05			
20	64QAM	1	49	20.87	20.85	20.81	20.79			
20	64QAM	1	89	20.84	20.77	20.80	20.83	21.9		
20	64QAM	50	0	20.31	20.29	20.26	20.23			
20	64QAM	50	24	20.22	20.14	20.19	20.18			
20	64QAM	50	50	20.11	20.08	20.10	20.08			
20	64QAM	100	0	20.21	20.16	20.17	20.16	20.9		
Channel				55315	55820	56160	56665			
Frequency (MHz)				3557.5	3608	3642	3692.5	Tune-up limit (dBm)		
15	QPSK	1	0	22.42	22.48	22.40	22.39	23.4		
15	QPSK	1	37	22.31	22.32	22.26	22.21			
15	QPSK	1	74	22.30	22.27	22.25	22.26			
15	QPSK	36	0	22.22	22.23	22.17	22.16			
15	QPSK	36	20	22.09	22.09	22.10	22.11	22.9		
15	QPSK	36	39	22.03	22.06	22.07	22.08			
15	QPSK	75	0	22.12	22.11	22.13	22.12			
15	16QAM	1	0	22.29	22.30	22.25	22.24			
15	16QAM	1	37	22.06	22.07	21.97	21.97	22.9		
15	16QAM	1	74	22.16	22.16	22.09	22.13			
15	16QAM	36	0	21.18	21.20	21.13	21.13			
15	16QAM	36	20	21.06	21.05	21.09	21.08			
15	16QAM	36	39	21.04	21.02	21.05	21.04	21.9		
15	16QAM	75	0	21.13	21.11	21.15	21.13			
15	64QAM	1	0	21.04	21.04	21.01	21.00			
15	64QAM	1	37	20.86	20.88	20.81	20.82			
15	64QAM	1	74	20.86	20.87	20.87	20.89	21.9		
15	64QAM	36	0	20.25	20.28	20.19	20.19			
15	64QAM	36	20	20.10	20.10	20.12	20.13			
15	64QAM	36	39	20.08	20.08	20.07	20.07			
15	64QAM	75	0	20.14	20.13	20.14	20.13	20.9		
Channel				55290	55815	56165	56690			
Frequency (MHz)				3555	3607.5	3642.5	3695	Tune-up limit (dBm)		
10	QPSK	1	0	22.39	22.45	22.33	22.30	23.4		
10	QPSK	1	25	22.23	22.27	22.26	22.16			
10	QPSK	1	49	22.28	22.22	22.25	22.16			
10	QPSK	25	0	22.21	22.16	22.13	22.08			
10	QPSK	25	12	22.02	22.01	22.03	22.05	22.9		
10	QPSK	25	25	22.01	22.04	22.05	22.01			
10	QPSK	50	0	22.04	22.10	22.06	22.04			
10	16QAM	1	0	22.22	22.30	22.21	22.14			
10	16QAM	1	25	22.00	21.98	21.88	21.87	22.9		
10	16QAM	1	49	22.16	22.11	22.01	22.13			
10	16QAM	25	0	21.10	21.13	21.04	21.12			
10	16QAM	25	12	21.01	20.96	20.99	21.00			
10	16QAM	25	25	20.95	20.99	20.98	20.98	21.9		
10	16QAM	50	0	21.03	21.11	21.08	21.04			
10	64QAM	1	0	20.95	21.03	20.99	20.96			
10	64QAM	1	25	20.87	20.85	20.71	20.74			
10	64QAM	1	49	20.77	20.67	20.84	20.80	21.9		
10	64QAM	25	0	20.24	20.20	20.15	20.14			
10	64QAM	25	12	20.06	20.06	20.10	20.07			
10	64QAM	25	25	20.03	20.01	20.05	20.03			
10	64QAM	50	0	20.14	20.04	20.07	20.05	20.9		
Channel				55265	55810	56170	56715			
Frequency (MHz)				3552.5	3607	3643	3697.5	Tune-up limit (dBm)		
5	QPSK	1	0	22.38	22.41	22.40	22.37	23.4		
5	QPSK	1	12	22.38	22.35	22.32	22.34			
5	QPSK	1	24	22.36	22.38	22.31	22.30			
5	QPSK	12	0	22.24	22.21	22.16	22.18			
5	QPSK	12	7	22.25	22.22	22.17	22.20	22.9		
5	QPSK	12	13	22.20	22.17	22.16	22.15			
5	QPSK	25	0	22.17	22.18	22.14	22.17			
5	16QAM	1	0	22.23	22.23	22.18	22.16			
5	16QAM	1	12	22.28	22.26	22.24	22.18	22.9		
5	16QAM	1	24	22.22	22.22	22.17	22.16			
5	16QAM	12	0	21.21	21.23	21.16	21.16			
5	16QAM	12	7	21.23	21.23	21.18	21.18			
5	16QAM	12	13	21.15	21.14	21.10	21.10	21.9		
5	16QAM	25	0	21.24	21.25	21.18	21.17			
5	64QAM	1	0	20.99	20.98	20.92	20.96			
5	64QAM	1	12	20.99	20.96	20.91	20.94			
5	64QAM	1	24	21.00	21.00	20.95	20.90	21.9		
5	64QAM	12	0	20.28	20.27	20.21	20.21			
5	64QAM	12	7	20.26	20.24	20.23	20.24			
5	64QAM	12	13	20.21	20.22	20.15	20.16			
5	64QAM	25	0	20.24	20.24	20.22	20.19	20.9		
Channel				55240	55805	56175	56730			
Frequency (MHz)				3550	3605	3643.5	3699	Tune-up limit (dBm)		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	21.22	21.19	21.16	22.8
20	QPSK	1	49	21.19	21.17	21.16	
20	QPSK	1	89	21.20	21.17	21.13	
20	QPSK	50	0	21.38	21.29	21.25	22.8
20	QPSK	50	24	21.38	21.32	21.23	
20	QPSK	50	50	21.33	21.30	21.27	
20	QPSK	100	0	21.38	21.34	21.23	22.8
20	16QAM	1	0	21.36	21.34	21.31	
20	16QAM	1	49	21.33	21.28	21.28	
20	16QAM	1	89	21.34	21.33	21.29	22.8
20	16QAM	50	0	21.43	21.33	21.28	
20	16QAM	50	24	21.42	21.40	21.28	
20	16QAM	50	50	21.37	21.36	21.31	22.8
20	16QAM	100	0	21.40	21.36	21.27	
20	64QAM	1	0	21.08	21.05	20.99	
20	64QAM	1	49	21.08	21.05	21.01	22.8
20	64QAM	1	89	21.05	21.07	21.00	
20	64QAM	50	0	21.25	21.13	21.10	22.8
20	64QAM	50	24	21.21	21.20	21.08	
20	64QAM	50	50	21.19	21.17	21.12	
20	64QAM	100	0	21.21	21.18	21.06	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	21.24	21.21	21.15	22.8
15	QPSK	1	37	21.18	21.15	21.11	
15	QPSK	1	74	21.22	21.15	21.11	
15	QPSK	36	0	21.41	21.30	21.30	22.8
15	QPSK	36	20	21.39	21.37	21.34	
15	QPSK	36	39	21.36	21.32	21.29	
15	QPSK	75	0	21.40	21.37	21.23	22.8
15	16QAM	1	0	21.37	21.40	21.35	
15	16QAM	1	37	21.34	21.29	21.25	
15	16QAM	1	74	21.40	21.38	21.33	22.8
15	16QAM	36	0	21.41	21.28	21.29	
15	16QAM	36	20	21.36	21.34	21.31	
15	16QAM	36	39	21.35	21.31	21.29	22.8
15	16QAM	75	0	21.44	21.39	21.31	
15	64QAM	1	0	21.09	21.06	21.04	
15	64QAM	1	37	21.12	21.11	21.09	22.8
15	64QAM	1	74	21.10	21.12	21.04	
15	64QAM	36	0	21.26	21.12	21.11	22.8
15	64QAM	36	20	21.24	21.17	21.15	
15	64QAM	36	39	21.21	21.17	21.13	
15	64QAM	75	0	21.25	21.18	21.07	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	21.18	21.20	21.10	22.8
10	QPSK	1	25	21.12	21.07	21.04	
10	QPSK	1	49	21.20	21.15	21.04	
10	QPSK	25	0	21.33	21.29	21.25	22.8
10	QPSK	25	12	21.31	21.27	21.24	
10	QPSK	25	25	21.30	21.29	21.24	
10	QPSK	80	0	21.30	21.28	21.23	22.8
10	16QAM	1	0	21.30	21.30	21.30	
10	16QAM	1	25	21.34	21.24	21.21	
10	16QAM	1	49	21.34	21.36	21.32	22.8
10	16QAM	25	0	21.36	21.19	21.25	
10	16QAM	25	12	21.27	21.33	21.28	
10	16QAM	25	25	21.26	21.31	21.28	22.8
10	16QAM	50	0	21.44	21.36	21.22	
10	64QAM	1	0	21.01	20.98	20.98	
10	64QAM	1	25	21.05	21.03	21.02	22.8
10	64QAM	1	49	21.07	21.03	21.04	
10	64QAM	25	0	21.18	21.12	21.03	
10	64QAM	25	12	21.14	21.15	21.12	22.8
10	64QAM	25	25	21.12	21.10	21.06	
10	64QAM	50	0	21.20	21.12	21.01	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	21.33	21.25	21.23	22.8
5	QPSK	1	12	21.28	21.24	21.19	
5	QPSK	1	24	21.30	21.24	21.19	
5	QPSK	12	0	21.42	21.34	21.34	22.8
5	QPSK	12	7	21.41	21.37	21.34	
5	QPSK	12	13	21.41	21.38	21.36	
5	QPSK	25	0	21.41	21.37	21.33	22.8
5	16QAM	1	0	21.45	21.37	21.36	
5	16QAM	1	12	21.48	21.39	21.37	
5	16QAM	1	24	21.48	21.39	21.34	22.8
5	16QAM	12	0	21.40	21.31	21.34	
5	16QAM	12	7	21.41	21.36	21.33	
5	16QAM	12	13	21.41	21.35	21.29	22.8
5	16QAM	25	0	21.46	21.39	21.37	
5	64QAM	1	0	21.22	21.13	21.12	
5	64QAM	1	12	21.22	21.19	21.16	22.8
5	64QAM	1	24	21.23	21.19	21.13	
5	64QAM	12	0	21.26	21.14	21.17	
5	64QAM	12	7	21.26	21.26	21.21	22.8
5	64QAM	12	13	21.26	21.20	21.18	
5	64QAM	25	0	21.30	21.25	21.18	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Middle Ch / Freq	Power Middle Ch / Freq	Power High-Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	21.19	21.13	21.15	21.34	21.07	22.8	
20	QPSK	1	49	21.13	21.08	21.04	21.27	21.43		
20	QPSK	1	99	21.12	21.08	21.06	21.08	21.28		
20	QPSK	50	0	21.26	21.18	21.14	21.54	21.42		
20	QPSK	50	24	21.32	21.28	21.19	21.56	21.52	22.8	
20	QPSK	50	50	21.27	21.24	21.17	21.49	21.49		
20	QPSK	100	0	21.31	21.25	21.20	21.47	21.44		
20	16QAM	1	0	21.33	21.25	21.31	21.47	21.17		
20	16QAM	1	49	21.22	21.19	21.13	21.66	21.54	22.8	
20	16QAM	1	99	21.24	21.21	21.20	21.11	21.42		
20	16QAM	50	0	21.26	21.24	21.17	21.56	21.41		
20	16QAM	50	24	21.33	21.33	21.24	21.60	21.53		
20	16QAM	50	50	21.28	21.30	21.23	21.52	21.53	22.8	
20	16QAM	100	0	21.31	21.30	21.24	21.48	21.47		
20	64QAM	1	0	21.00	20.90	20.86	21.13	20.84		
20	64QAM	1	49	20.96	20.92	20.82	21.45	21.33		
20	64QAM	1	99	21.01	20.91	20.89	20.84	21.16	22.8	
20	64QAM	50	0	21.09	21.03	20.97	21.58	21.43		
20	64QAM	50	24	21.14	21.11	21.01	21.62	21.55		
20	64QAM	50	50	21.10	21.06	21.00	21.54	21.53		
20	64QAM	100	0	21.15	21.08	21.02	21.53	21.48	Tune-up limit (dBm)	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	21.20	21.13	21.12	21.48	21.21	22.8	
15	QPSK	1	37	21.13	21.09	21.03	21.55	21.36		
15	QPSK	1	74	21.10	21.21	21.12	21.32	21.34		
15	QPSK	36	0	21.32	21.22	21.18	21.58	21.44		
15	QPSK	36	20	21.32	21.25	21.22	21.64	21.52	22.8	
15	QPSK	36	39	21.29	21.27	21.22	21.53	21.49		
15	QPSK	75	0	21.35	21.27	21.22	21.60	21.49		
15	16QAM	1	0	21.36	21.33	21.24	21.55	21.31		
15	16QAM	1	37	21.19	21.19	21.14	21.64	21.50	22.8	
15	16QAM	1	74	21.27	21.37	21.32	21.40	21.51		
15	16QAM	36	0	21.30	21.22	21.16	21.55	21.42		
15	16QAM	36	20	21.27	21.27	21.20	21.63	21.50		
15	16QAM	36	39	21.25	21.26	21.20	21.61	21.49	22.8	
15	16QAM	75	0	21.33	21.32	21.26	21.64	21.52		
15	64QAM	1	0	21.04	20.91	20.86	21.26	21.03		
15	64QAM	1	37	21.05	20.97	20.90	21.43	21.32		
15	64QAM	1	74	21.00	21.03	20.97	21.13	21.28	22.8	
15	64QAM	36	0	21.13	21.02	20.97	21.61	21.47		
15	64QAM	36	20	21.14	21.10	21.04	21.70	21.58		
15	64QAM	36	39	21.10	21.07	21.01	21.57	21.55		
15	64QAM	75	0	21.16	21.09	21.06	21.66	21.53	Tune-up limit (dBm)	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	21.12	21.08	21.12	21.43	21.16	22.8	
10	QPSK	1	25	21.03	20.96	20.98	21.52	21.28		
10	QPSK	1	49	21.10	21.16	21.09	21.32	21.27		
10	QPSK	25	0	21.24	21.18	21.16	21.58	21.41		
10	QPSK	25	12	21.24	21.17	21.13	21.62	21.50	22.8	
10	QPSK	25	25	21.25	21.25	21.22	21.45	21.45		
10	QPSK	50	0	21.27	21.25	21.14	21.55	21.47		
10	16QAM	1	0	21.28	21.27	21.21	21.49	21.25		
10	16QAM	1	25	21.17	21.11	21.09	21.62	21.46	22.8	
10	16QAM	1	49	21.21	21.28	21.29	21.35	21.41		
10	16QAM	25	0	21.26	21.18	21.14	21.48	21.37		
10	16QAM	25	12	21.21	21.26	21.20	21.61	21.49		
10	16QAM	25	25	21.20	21.17	21.20	21.49	21.41	22.8	
10	16QAM	50	0	21.32	21.28	21.17	21.62	21.42		
10	64QAM	1	0	20.96	20.81	20.83	21.16	20.96		
10	64QAM	1	25	20.96	20.93	20.86	21.39	21.22		
10	64QAM	1	49	20.95	20.96	20.97	21.04	21.21	22.8	
10	64QAM	25	0	21.10	21.02	20.97	21.52	21.45		
10	64QAM	25	12	21.13	21.02	20.94	21.64	21.52		
10	64QAM	25	25	21.04	21.06	20.92	21.47	21.53		
10	64QAM	50	0	21.06	21.06	21.01	21.64	21.53	Tune-up limit (dBm)	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	21.33	21.10	21.05	21.53	21.47	22.8	
5	QPSK	1	12	21.24	21.21	21.10	21.58	21.44		
5	QPSK	1	24	21.24	21.12	21.09	21.49	21.37		
5	QPSK	12	0	21.38	21.28	21.16	21.62	21.57		
5	QPSK	12	7	21.41	21.30	21.25	21.65	21.59	22.8	
5	QPSK	12	13	21.36	21.29	21.25	21.69	21.55		
5	QPSK	25	0	21.36	21.28	21.24	21.64	21.57		
5	16QAM	1	0	21.46	21.27	21.22	21.67	21.60		
5	16QAM	1	12	21.45	21.37	21.36	21.81	21.64	22.8	
5	16QAM	1	24	21.45	21.34	21.27	21.72	21.56		
5	16QAM	12	0	21.40	21.30	21.19	21.62	21.57		
5	16QAM	12	7	21.39	21.31	21.25	21.63	21.55		
5	16QAM	12	13	21.35	21.30	21.23	21.68	21.52	22.8	
5	16QAM	25	0	21.41	21.33	21.32	21.65	21.59		
5	64QAM	1	0	21.22	21.00	20.91	21.48	21.37		
5	64QAM	1	12	21.16	21.06	21.01	21.52	21.37		
5	64QAM	1	24	21.18	21.04	21.04	21.44	21.34	22.8	
5	64QAM	12	0	21.23	21.11	21.01	21.68	21.61		
5	64QAM	12	7	21.21	21.15	21.10	21.68	21.66		
5	64QAM	12	13	21.22	21.12	21.09	21.72	21.60		
5	64QAM	25	0	21.21	21.15	21.10	21.73	21.65		



Band 41 HPUE										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2504.5	2549.5	2593	2636.5	2680		
20	QPSK	1	0	22.85	22.77	22.80	23.00	22.71	24.6	
20	QPSK	1	49	22.78	22.76	22.67	23.19	23.03		
20	QPSK	1	99	22.76	22.76	22.71	22.71	22.92		
20	QPSK	50	0	23.01	22.94	22.89	23.29	23.14		
20	QPSK	50	24	23.09	23.05	22.96	23.31	23.26		
20	QPSK	50	50	23.01	23.00	22.93	23.19	23.23	24.6	
20	QPSK	100	0	23.08	23.02	22.95	23.21	23.18		
20	16QAM	1	0	23.19	23.08	23.10	23.40	22.99		
20	16QAM	1	49	23.14	23.12	23.05	23.38	23.40		
20	16QAM	1	99	23.10	23.07	23.03	23.05	23.28		
20	16QAM	50	0	23.05	22.96	22.93	23.34	23.17	24.6	
20	16QAM	50	24	23.10	23.06	22.98	23.35	23.28		
20	16QAM	50	50	23.06	23.00	22.97	23.26	23.25		
20	16QAM	100	0	23.09	23.04	22.97	23.26	23.21		
20	64QAM	1	0	23.05	22.93	22.93	23.13	22.87		
20	64QAM	1	49	23.01	22.97	22.90	23.45	23.30	24.6	
20	64QAM	1	99	22.99	22.96	22.92	22.89	23.14		
20	64QAM	50	0	22.94	22.88	22.84	23.35	23.15		
20	64QAM	50	24	23.01	22.99	22.92	23.39	23.29		
20	64QAM	50	50	22.96	22.93	22.88	23.28	23.25		
20	64QAM	100	0	23.02	22.95	22.90	23.28	23.21	Tune-up limit (dBm)	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	22.87	22.83	22.78	23.16	22.90	24.6	
15	QPSK	1	37	22.78	22.75	22.74	23.22	23.08		
15	QPSK	1	74	22.76	22.88	22.80	22.98	23.04		
15	QPSK	36	0	23.04	22.92	22.87	23.30	23.14		
15	QPSK	36	20	23.02	22.95	22.89	23.41	23.28		
15	QPSK	36	39	22.99	22.93	22.88	23.25	23.22	24.6	
15	QPSK	75	0	23.03	22.99	22.94	23.31	23.19		
15	16QAM	1	0	23.17	23.06	23.04	23.42	23.22		
15	16QAM	1	37	23.07	22.97	22.97	23.53	23.42		
15	16QAM	1	74	23.11	23.13	23.11	23.25	23.38		
15	16QAM	36	0	23.01	22.83	22.84	23.26	23.16	24.6	
15	16QAM	36	20	22.98	22.89	22.88	23.37	23.23		
15	16QAM	36	39	22.93	22.92	22.87	23.24	23.22		
15	16QAM	75	0	23.03	23.00	22.89	23.34	23.23		
15	64QAM	1	0	22.91	22.86	22.81	23.28	22.97		
15	64QAM	1	37	22.97	22.90	22.87	23.41	23.28	24.6	
15	64QAM	1	74	22.97	22.97	22.97	23.11	23.23		
15	64QAM	36	0	22.94	22.83	22.77	23.31	23.19		
15	64QAM	36	20	22.95	22.86	22.84	23.42	23.27		
15	64QAM	36	39	22.88	22.87	22.82	23.27	23.24		
15	64QAM	75	0	22.94	22.88	22.83	23.34	23.23	Tune-up limit (dBm)	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	22.81	22.81	22.69	23.10	22.89	24.6	
10	QPSK	1	25	22.89	22.74	22.64	23.13	23.05		
10	QPSK	1	49	22.68	22.84	22.71	22.92	23.00		
10	QPSK	25	0	22.97	22.84	22.77	23.30	23.10		
10	QPSK	25	12	22.94	22.93	22.83	23.34	23.23		
10	QPSK	25	25	22.96	22.92	22.79	23.19	23.12	24.6	
10	QPSK	50	0	23.00	22.90	22.92	23.30	23.18		
10	16QAM	1	0	23.13	23.06	22.97	23.38	23.16		
10	16QAM	1	25	22.98	22.88	22.97	23.46	23.35		
10	16QAM	1	49	23.03	23.06	23.02	23.22	23.35		
10	16QAM	25	0	23.01	22.77	22.84	23.23	23.11	24.6	
10	16QAM	25	12	22.95	22.89	22.82	23.28	23.19		
10	16QAM	25	25	22.86	22.90	22.83	23.21	23.21		
10	16QAM	50	0	22.93	22.92	22.84	23.26	23.15		
10	64QAM	1	0	22.87	22.80	22.74	23.20	22.89		
10	64QAM	1	25	22.95	22.81	22.79	23.34	23.23	24.6	
10	64QAM	1	49	22.90	22.95	22.88	23.08	23.16		
10	64QAM	25	0	22.85	22.83	22.77	23.22	23.12		
10	64QAM	25	12	22.90	22.83	22.82	23.39	23.17		
10	64QAM	25	25	22.81	22.84	22.79	23.18	23.16		
10	64QAM	50	0	22.87	22.84	22.80	23.33	23.23	Tune-up limit (dBm)	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	22.92	22.74	22.72	23.20	23.11	24.6	
5	QPSK	1	12	22.90	22.79	22.74	23.25	23.10		
5	QPSK	1	24	22.86	22.78	22.73	23.14	23.03		
5	QPSK	12	0	23.08	22.99	22.89	23.37	23.31		
5	QPSK	12	7	23.11	23.00	22.97	23.37	23.28		
5	QPSK	12	13	23.06	23.00	22.96	23.38	23.29	24.6	
5	QPSK	25	0	23.02	22.97	22.93	23.34	23.25		
5	16QAM	1	0	23.24	23.10	23.07	23.54	23.45		
5	16QAM	1	12	23.19	23.15	23.15	23.56	23.43		
5	16QAM	1	24	23.21	23.16	23.14	23.53	23.43		
5	16QAM	12	0	23.13	23.01	22.92	23.43	23.35	24.6	
5	16QAM	12	7	23.13	23.05	23.00	23.43	23.32		
5	16QAM	12	13	23.09	23.02	23.00	23.44	23.32		
5	16QAM	25	0	23.10	23.01	22.97	23.39	23.33		
5	64QAM	1	0	23.16	22.97	22.98	23.41	23.31		
5	64QAM	1	12	23.12	23.02	23.02	23.47	23.31	24.6	
5	64QAM	1	24	23.12	23.05	23.02	23.42	23.28		
5	64QAM	12	0	23.07	22.97	22.86	23.41	23.33		
5	64QAM	12	7	23.06	22.98	22.90	23.42	23.36		
5	64QAM	12	13	23.04	22.97	22.91	23.42	23.30		
5	64QAM	25	0	23.02	22.96	22.92	23.43	23.36		

Band 48									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	20.17	20.20	20.17	20.20	21.3	
20	QPSK	1	49	20.10	20.11	20.11	20.13		
20	QPSK	1	89	20.11	20.13	20.12	20.11		
20	QPSK	50	0	20.20	20.20	20.16	20.18		
20	QPSK	50	24	20.14	20.07	20.12	20.07	21.3	
20	QPSK	50	50	20.00	19.99	20.04	20.01		
20	QPSK	100	0	20.13	20.05	20.11	20.08		
20	16QAM	1	0	20.30	20.31	20.32	20.33		
20	16QAM	1	49	20.07	20.06	20.04	20.01	21.3	
20	16QAM	1	89	20.06	20.03	20.01	19.94		
20	16QAM	50	0	20.03	20.02	20.00	20.00		
20	16QAM	50	24	19.98	19.90	19.94	19.90		
20	16QAM	50	50	19.84	19.84	19.87	19.83	21.3	
20	16QAM	100	0	19.95	19.89	19.93	19.90		
20	64QAM	1	0	19.83	19.82	19.83	19.85		
20	64QAM	1	49	19.61	19.60	19.58	19.53		
20	64QAM	1	89	19.60	19.53	19.58	19.50	20.3	
20	64QAM	50	0	19.01	19.02	19.02	19.02		
20	64QAM	50	24	18.99	18.91	18.96	18.93		
20	64QAM	50	50	18.85	18.85	18.90	18.83		
20	64QAM	100	0	18.98	18.89	18.95	18.91	Tune-up limit (dBm)	
Channel				55315	55820	56160	56665		
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	20.15	20.21	20.17	20.11	21.3	
15	QPSK	1	37	20.12	20.14	20.13	20.13		
15	QPSK	1	74	20.12	20.16	20.14	20.11		
15	QPSK	36	0	19.95	20.19	20.15	20.12		
15	QPSK	36	20	19.84	20.06	20.08	20.05	21.3	
15	QPSK	36	39	19.80	20.00	20.04	19.99		
15	QPSK	75	0	19.87	20.08	20.12	20.04		
15	16QAM	1	0	20.03	20.26	20.22	20.21		
15	16QAM	1	37	19.84	20.03	19.95	19.91	21.3	
15	16QAM	1	74	19.90	20.14	20.08	20.00		
15	16QAM	36	0	19.94	19.95	19.91	19.91		
15	16QAM	36	20	19.81	19.82	19.85	19.81		
15	16QAM	36	39	19.78	19.79	19.81	19.77	21.3	
15	16QAM	75	0	19.86	19.89	19.92	19.87		
15	64QAM	1	0	19.77	19.80	19.75	19.72		
15	64QAM	1	37	19.60	19.64	19.58	19.54		
15	64QAM	1	74	19.63	19.59	19.64	19.56	20.3	
15	64QAM	36	0	19.00	19.00	18.97	18.95		
15	64QAM	36	20	18.85	18.88	18.91	18.85		
15	64QAM	36	39	18.82	18.84	18.88	18.81		
15	64QAM	75	0	18.88	18.88	18.93	18.89	Tune-up limit (dBm)	
Channel				55290	55815	56165	56690		
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	20.12	20.19	20.13	20.16	21.3	
10	QPSK	1	25	20.11	20.13	20.12	20.15		
10	QPSK	1	49	20.16	20.15	20.14	20.12		
10	QPSK	25	0	19.97	20.28	20.15	20.04		
10	QPSK	25	12	19.78	20.01	20.00	20.04	21.3	
10	QPSK	25	25	19.74	20.09	20.11	19.99		
10	QPSK	60	0	19.83	20.10	20.20	19.95		
10	16QAM	1	0	20.07	20.20	20.15	20.11		
10	16QAM	1	25	19.92	20.10	19.94	19.88	21.3	
10	16QAM	1	49	19.81	20.05	20.11	20.07		
10	16QAM	25	0	20.02	20.04	19.91	19.90		
10	16QAM	25	12	19.73	19.86	19.93	19.85		
10	16QAM	25	25	19.76	19.85	19.87	19.75	21.3	
10	16QAM	50	0	19.79	19.81	19.98	19.81		
10	64QAM	1	0	19.76	19.71	19.68	19.69		
10	64QAM	1	25	19.54	19.55	19.48	19.49		
10	64QAM	1	49	19.57	19.58	19.68	19.60	20.3	
10	64QAM	25	0	19.01	19.06	19.01	19.05		
10	64QAM	25	12	18.91	18.92	19.00	18.88		
10	64QAM	25	25	18.88	18.93	18.98	18.79		
10	64QAM	50	0	18.95	18.82	18.95	18.81	Tune-up limit (dBm)	
Channel				55265	55810	56170	56715		
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	20.13	20.24	20.10	20.11	21.3	
5	QPSK	1	12	20.12	20.13	20.15	20.13		
5	QPSK	1	24	20.11	20.10	20.13	20.14		
5	QPSK	12	0	19.93	20.22	20.08	20.12		
5	QPSK	12	7	19.85	19.92	19.94	20.14	21.3	
5	QPSK	12	13	19.81	20.16	20.17	19.89		
5	QPSK	25	0	19.85	20.09	20.29	20.00		
5	16QAM	1	0	20.14	20.18	20.18	20.06		
5	16QAM	1	12	19.93	20.14	19.91	19.97	21.3	
5	16QAM	1	24	19.86	20.01	20.10	20.03		
5	16QAM	12	0	20.10	19.96	19.95	19.86		
5	16QAM	12	7	19.76	19.86	19.84	19.91		
5	16QAM	12	13	19.72	19.88	19.79	19.81	21.3	
5	16QAM	25	0	19.76	19.90	20.07	19.76		
5	64QAM	1	0	19.68	19.76	19.58	19.65		
5	64QAM	1	12	19.52	19.65	19.36	19.56	20.3	
5	64QAM	1	24	19.50	19.67	19.78	19.61		
5	64QAM	12	0	18.93	18.96	18.91	18.99		
5	64QAM	12	7	18.83	18.99	19.09	18.96		
5	64QAM	12	13	18.84	18.93	18.97	18.83	20.3	
5	64QAM	25	0	18.93	18.72	18.89	18.82		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.64	24.60	24.60	25.7
20	QPSK	1	49	24.60	24.57	24.55	
20	QPSK	1	89	24.57	24.56	24.56	
20	QPSK	50	0	23.78	23.69	23.68	
20	QPSK	50	24	23.75	23.74	23.77	24.7
20	QPSK	50	50	23.75	23.73	23.70	
20	QPSK	100	0	23.79	23.76	23.64	
20	16QAM	1	0	23.72	23.70	23.68	
20	16QAM	1	49	23.68	23.63	23.64	24.7
20	16QAM	1	89	23.68	23.65	23.65	
20	16QAM	50	0	22.82	22.71	22.72	
20	16QAM	50	24	22.80	22.78	22.78	
20	16QAM	50	50	22.77	22.76	22.76	23.7
20	16QAM	100	0	22.79	22.77	22.67	
20	64QAM	1	0	22.45	22.43	22.39	
20	64QAM	1	49	22.41	22.38	22.37	
20	64QAM	1	89	22.40	22.40	22.36	22.7
20	64QAM	50	0	21.83	21.74	21.72	
20	64QAM	50	24	21.82	21.80	21.77	
20	64QAM	50	50	21.78	21.76	21.75	
20	64QAM	100	0	21.81	21.78	21.70	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.58	24.55	24.55	25.7
15	QPSK	1	37	24.55	24.54	24.53	
15	QPSK	1	74	24.55	24.56	24.56	
15	QPSK	36	0	23.77	23.68	23.67	
15	QPSK	36	20	23.72	23.74	23.73	24.7
15	QPSK	36	39	23.71	23.71	23.71	
15	QPSK	75	0	23.75	23.71	23.65	
15	16QAM	1	0	23.71	23.70	23.67	
15	16QAM	1	37	23.62	23.56	23.61	24.7
15	16QAM	1	74	23.70	23.68	23.67	
15	16QAM	36	0	22.75	22.65	22.65	
15	16QAM	36	20	22.72	22.68	22.69	
15	16QAM	36	39	22.70	22.68	22.67	23.7
15	16QAM	75	0	22.78	22.75	22.67	
15	64QAM	1	0	22.40	22.36	22.35	
15	64QAM	1	37	22.45	22.40	22.40	
15	64QAM	1	74	22.43	22.40	22.38	22.7
15	64QAM	36	0	21.82	21.70	21.70	
15	64QAM	36	20	21.75	21.74	21.74	
15	64QAM	36	39	21.76	21.72	21.75	
15	64QAM	75	0	21.79	21.76	21.67	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.48	24.49	24.53	25.7
10	QPSK	1	25	24.50	24.49	24.51	
10	QPSK	1	49	24.45	24.54	24.52	
10	QPSK	25	0	23.72	23.66	23.62	
10	QPSK	25	12	23.67	23.73	23.68	24.7
10	QPSK	25	25	23.71	23.70	23.65	
10	QPSK	60	0	23.70	23.69	23.56	
10	16QAM	1	0	23.66	23.69	23.59	
10	16QAM	1	25	23.60	23.52	23.53	24.7
10	16QAM	1	49	23.61	23.62	23.66	
10	16QAM	25	0	22.70	22.55	22.63	
10	16QAM	25	12	22.70	22.67	22.65	
10	16QAM	25	25	22.62	22.62	22.67	23.7
10	16QAM	50	0	22.78	22.65	22.67	
10	64QAM	1	0	22.32	22.34	22.30	
10	64QAM	1	25	22.40	22.34	22.35	
10	64QAM	1	49	22.40	22.38	22.31	22.7
10	64QAM	25	0	21.80	21.66	21.66	
10	64QAM	25	12	21.75	21.73	21.67	
10	64QAM	25	25	21.74	21.63	21.74	
10	64QAM	50	0	21.71	21.70	21.63	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.60	24.52	24.53	25.7
5	QPSK	1	12	24.53	24.50	24.53	
5	QPSK	1	24	24.52	24.48	24.52	
5	QPSK	12	0	23.71	23.61	23.69	
5	QPSK	12	7	23.74	23.70	23.68	24.7
5	QPSK	12	13	23.71	23.69	23.64	
5	QPSK	25	0	23.70	23.67	23.65	
5	16QAM	1	0	23.72	23.62	23.70	
5	16QAM	1	12	23.71	23.67	23.67	24.7
5	16QAM	1	24	23.74	23.72	23.70	
5	16QAM	12	0	22.69	22.58	22.68	
5	16QAM	12	7	22.71	22.66	22.66	
5	16QAM	12	13	22.66	22.62	22.62	23.7
5	16QAM	25	0	22.71	22.68	22.71	
5	64QAM	1	0	22.49	22.36	22.42	
5	64QAM	1	12	22.47	22.43	22.41	
5	64QAM	1	24	22.47	22.44	22.42	22.7
5	64QAM	12	0	21.76	21.67	21.72	
5	64QAM	12	7	21.75	21.73	21.73	
5	64QAM	12	13	21.76	21.72	21.71	
5	64QAM	25	0	21.80	21.74	21.70	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.74	24.62	24.61	24.74	24.55	25.7	
20	QPSK	1	49	24.68	24.56	24.48	24.55	24.84		
20	QPSK	1	99	24.86	24.51	24.57	24.53	24.67		
20	QPSK	50	0	23.85	23.74	23.61	23.92	23.84		
20	QPSK	50	24	23.87	23.74	23.69	24.05	23.93	24.7	
20	QPSK	50	50	23.83	23.72	23.67	23.90	23.89		
20	QPSK	100	0	23.86	23.76	23.69	23.95	23.87		
20	16QAM	1	0	23.87	23.73	23.71	23.83	23.86		
20	16QAM	1	49	23.77	23.65	23.55	24.09	23.96	24.7	
20	16QAM	1	99	23.75	23.65	23.69	23.84	23.76		
20	16QAM	50	0	22.88	22.77	22.68	22.95	22.87		
20	16QAM	50	24	22.86	22.76	22.72	23.07	22.98		
20	16QAM	50	50	22.84	22.76	22.71	22.93	22.93	23.7	
20	16QAM	100	0	22.88	22.77	22.70	22.97	22.86		
20	64QAM	1	0	22.85	22.46	22.38	22.49	22.33		
20	64QAM	1	49	22.49	22.44	22.35	22.87	22.74		
20	64QAM	1	99	22.44	22.38	22.35	22.35	22.47	23.7	
20	64QAM	50	0	21.89	21.77	21.66	21.97	21.86		
20	64QAM	50	24	21.90	21.78	21.72	22.08	22.00		
20	64QAM	50	50	21.86	21.78	21.71	21.93	21.92		
20	64QAM	100	0	21.89	21.78	21.72	21.98	21.89	22.7	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.74	24.62	24.56	24.85	24.68	25.7	
15	QPSK	1	37	24.68	24.52	24.45	24.94	24.82		
15	QPSK	1	74	24.68	24.94	24.80	24.70	24.72		
15	QPSK	36	0	23.86	23.76	23.62	23.95	23.84		
15	QPSK	36	20	23.87	23.75	23.69	24.04	23.93	24.7	
15	QPSK	36	39	23.84	23.72	23.66	23.96	23.89		
15	QPSK	75	0	23.87	23.73	23.69	23.98	23.87		
15	16QAM	1	0	23.87	23.75	23.69	24.01	23.75		
15	16QAM	1	37	23.70	23.57	23.57	24.05	23.93	24.7	
15	16QAM	1	74	23.78	23.79	23.72	23.85	23.85		
15	16QAM	36	0	22.83	22.73	22.57	22.91	22.84		
15	16QAM	36	20	22.84	22.72	22.64	23.04	22.90		
15	16QAM	36	39	22.81	22.70	22.63	22.94	22.86	23.7	
15	16QAM	75	0	22.88	22.75	22.70	23.02	22.91		
15	64QAM	1	0	22.63	22.51	22.31	22.68	22.44		
15	64QAM	1	37	22.66	22.46	22.35	22.85	22.70		
15	64QAM	1	74	22.47	22.51	22.41	22.58	22.59	23.7	
15	64QAM	36	0	21.87	21.77	21.65	21.98	21.90		
15	64QAM	36	20	21.88	21.75	21.69	22.07	21.95		
15	64QAM	36	39	21.84	21.74	21.70	21.98	21.93		
15	64QAM	75	0	21.90	21.79	21.71	22.03	21.92	22.7	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.86	24.51	24.53	24.76	24.63	25.7	
10	QPSK	1	25	24.59	24.48	24.36	24.93	24.74		
10	QPSK	1	49	24.66	24.62	24.51	24.70	24.62		
10	QPSK	25	0	23.77	23.70	23.54	23.88	23.80		
10	QPSK	25	12	23.85	23.72	23.63	23.95	23.87	24.7	
10	QPSK	25	25	23.81	23.63	23.58	23.83	23.87		
10	QPSK	50	0	23.82	23.67	23.59	23.97	23.83		
10	16QAM	1	0	23.86	23.69	23.62	23.94	23.72		
10	16QAM	1	25	23.61	23.51	23.49	24.02	23.92	24.7	
10	16QAM	1	49	23.77	23.75	23.68	23.79	23.77		
10	16QAM	25	0	22.82	22.73	22.52	22.82	22.81		
10	16QAM	25	12	22.79	22.70	22.57	22.95	22.89		
10	16QAM	25	25	22.80	22.62	22.53	22.94	22.82	23.7	
10	16QAM	50	0	22.85	22.73	22.67	22.95	22.89		
10	64QAM	1	0	22.63	22.49	22.28	22.65	22.36		
10	64QAM	1	25	22.52	22.43	22.28	22.77	22.70		
10	64QAM	1	49	22.46	22.43	22.40	22.51	22.56	23.7	
10	64QAM	25	0	21.83	21.72	21.55	21.98	21.85		
10	64QAM	25	12	21.80	21.66	21.61	21.97	21.88		
10	64QAM	25	25	21.74	21.66	21.62	21.88	21.92		
10	64QAM	50	0	21.81	21.79	21.63	21.96	21.90	22.7	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.73	24.60	24.45	24.93	24.81	25.7	
5	QPSK	1	12	24.67	24.60	24.53	24.93	24.77		
5	QPSK	1	24	24.68	24.56	24.50	24.89	24.71		
5	QPSK	12	0	23.82	23.71	23.67	24.02	23.94		
5	QPSK	12	7	23.84	23.75	23.71	24.08	23.94	24.7	
5	QPSK	12	13	23.83	23.71	23.66	24.06	23.88		
5	QPSK	25	0	23.80	23.71	23.69	24.04	23.88		
5	16QAM	1	0	23.84	23.74	23.64	24.04	23.96		
5	16QAM	1	12	23.89	23.77	23.78	24.12	24.00	24.7	
5	16QAM	1	24	23.90	23.74	23.72	24.09	23.87		
5	16QAM	12	0	22.83	22.70	22.64	23.00	22.92		
5	16QAM	12	7	22.84	22.70	22.67	23.06	22.92		
5	16QAM	12	13	22.80	22.66	22.67	23.01	22.86	23.7	
5	16QAM	25	0	22.88	22.76	22.69	23.09	22.94		
5	64QAM	1	0	22.64	22.48	22.36	22.79	22.70		
5	64QAM	1	12	22.64	22.54	22.47	22.89	22.69		
5	64QAM	1	24	22.67	22.55	22.44	22.85	22.62	23.7	
5	64QAM	12	0	21.87	21.78	21.72	22.06	21.97		
5	64QAM	12	7	21.88	21.81	21.73	22.11	21.96		
5	64QAM	12	13	21.87	21.75	21.73	22.09	21.92		
5	64QAM	25	0	21.87	21.76	21.78	22.13	21.97	22.7	

Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.71	25.63	25.81	25.86	25.68	27	
20	QPSK	1	49	25.64	25.61	25.63	26.11	25.95		
20	QPSK	1	99	25.81	25.61	25.62	25.59	25.76		
20	QPSK	50	0	24.99	24.92	24.91	25.17	25.11		
20	QPSK	50	24	24.95	24.91	24.94	25.25	25.21	26	
20	QPSK	50	50	24.88	24.89	24.89	25.12	25.13		
20	QPSK	100	0	24.94	24.90	24.95	25.18	25.10		
20	16QAM	1	0	25.14	25.04	25.22	25.23	25.04		
20	16QAM	1	49	25.05	25.02	24.99	25.49	25.34	25	
20	16QAM	1	99	24.96	24.96	25.01	24.96	25.14		
20	16QAM	50	0	23.99	23.92	23.95	24.22	24.13		
20	16QAM	50	24	23.99	23.97	23.99	24.32	24.26		
20	16QAM	50	50	23.96	23.92	23.99	24.17	24.17	25	
20	16QAM	100	0	24.00	23.92	23.98	24.22	24.14		
20	64QAM	1	0	23.90	23.74	23.88	23.92	23.74		
20	64QAM	1	49	23.74	23.76	23.75	24.26	24.13		
20	64QAM	1	99	23.69	23.79	23.70	23.74	23.54	25	
20	64QAM	50	0	23.01	22.93	22.98	23.23	23.16		
20	64QAM	50	24	23.01	22.97	23.02	23.35	23.24		
20	64QAM	50	50	22.96	22.95	22.94	23.17	22.91		
20	64QAM	100	0	23.00	22.95	22.98	23.21	23.13	24	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.84	25.80	25.83	26.08	25.92	27	
15	QPSK	1	37	25.78	25.73	25.78	26.10	26.08		
15	QPSK	1	74	25.78	25.84	25.80	25.89	25.93		
15	QPSK	36	0	24.98	24.90	24.90	25.17	25.09		
15	QPSK	36	20	24.98	24.91	24.94	25.20	25.18	26	
15	QPSK	36	39	24.92	24.89	24.87	25.17	25.11		
15	QPSK	75	0	24.96	24.92	24.92	25.12	25.14		
15	16QAM	1	0	25.11	25.05	25.13	25.34	25.16		
15	16QAM	1	37	25.00	24.99	24.97	25.44	25.33	26	
15	16QAM	1	74	25.03	25.07	25.03	25.16	25.20		
15	16QAM	36	0	23.94	23.90	23.87	24.20	24.09		
15	16QAM	36	20	23.92	23.90	23.90	24.20	24.17		
15	16QAM	36	39	23.88	23.87	23.87	24.18	24.10	25	
15	16QAM	75	0	23.96	23.85	23.97	24.17	24.13		
15	64QAM	1	0	23.89	23.79	23.81	24.08	23.84		
15	64QAM	1	37	23.83	23.77	23.74	24.24	24.04		
15	64QAM	1	74	23.75	23.89	23.80	23.98	23.52	25	
15	64QAM	36	0	22.98	22.92	22.93	23.23	23.16		
15	64QAM	36	20	23.00	22.95	22.97	23.25	23.08		
15	64QAM	36	39	22.96	22.92	22.92	23.19	22.82		
15	64QAM	75	0	23.01	22.95	23.00	23.20	23.01	24	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.89	25.78	25.73	25.81	25.79	27	
10	QPSK	1	25	25.81	25.73	25.74	26.08	25.92		
10	QPSK	1	49	25.87	25.81	25.77	25.79	25.62		
10	QPSK	25	0	24.98	24.94	24.98	25.16	25.14		
10	QPSK	25	12	25.02	24.98	24.99	25.31	25.19	26	
10	QPSK	25	25	24.98	24.90	24.91	25.19	25.05		
10	QPSK	50	0	24.98	24.93	24.95	25.23	25.09		
10	16QAM	1	0	25.27	25.17	25.18	25.27	25.19		
10	16QAM	1	25	25.22	25.12	25.10	25.46	25.32	26	
10	16QAM	1	49	25.21	25.17	25.10	25.24	25.03		
10	16QAM	25	0	23.99	23.93	23.95	24.19	24.14		
10	16QAM	25	12	24.01	23.98	23.99	24.38	24.20		
10	16QAM	25	25	23.96	23.92	23.89	24.21	24.07	25	
10	16QAM	50	0	24.03	23.98	23.98	24.30	24.15		
10	64QAM	1	0	24.08	23.95	23.94	24.00	23.97		
10	64QAM	1	25	24.10	24.02	24.00	24.34	23.78		
10	64QAM	1	49	24.01	23.99	23.91	24.04	23.39	25	
10	64QAM	25	0	23.10	23.03	23.05	23.25	23.06		
10	64QAM	25	12	23.11	23.05	23.08	23.45	22.94		
10	64QAM	25	25	23.08	23.01	23.03	23.29	22.71		
10	64QAM	50	0	23.06	22.97	23.02	23.28	22.81	24	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.92	25.78	25.73	26.07	25.98	27	
5	QPSK	1	12	25.88	25.78	25.77	26.11	25.93		
5	QPSK	1	24	25.87	25.77	25.77	26.05	25.84		
5	QPSK	12	0	25.04	24.94	24.96	25.24	25.15		
5	QPSK	12	7	25.08	24.98	24.98	25.26	25.13	26	
5	QPSK	12	13	25.02	24.93	24.94	25.29	25.10		
5	QPSK	25	0	25.00	24.91	24.98	25.22	25.09		
5	16QAM	1	0	25.27	25.15	25.15	25.43	25.33		
5	16QAM	1	12	25.23	25.16	25.17	25.46	25.30	26	
5	16QAM	1	24	25.25	25.14	25.17	25.47	25.28		
5	16QAM	12	0	24.06	23.98	23.98	24.30	24.17		
5	16QAM	12	7	24.09	23.98	24.02	24.32	24.18		
5	16QAM	12	13	24.05	23.94	23.99	24.32	24.11	25	
5	16QAM	25	0	24.01	23.94	23.97	24.25	24.16		
5	64QAM	1	0	24.05	23.93	23.92	24.24	23.76		
5	64QAM	1	12	24.01	23.91	23.94	24.27	23.59		
5	64QAM	1	24	24.04	23.91	23.95	24.25	23.45	25	
5	64QAM	12	0	23.09	23.02	23.05	23.33	22.81		
5	64QAM	12	7	23.15	23.09	23.11	23.35	22.75		
5	64QAM	12	13	23.09	23.06	23.05	23.37	22.64		
5	64QAM	25	0	23.09	23.01	23.09	23.33	22.73	24	

Band 48										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				55340	55830	56150	56640			
Frequency (MHz)				3560	3609	3641	3690			
20	QPSK	1	0	22.98	23.00	22.98	23.05	24.2		
20	QPSK	1	49	22.80	22.79	22.79	22.86			
20	QPSK	1	99	22.76	22.74	22.75	22.82			
20	QPSK	50	0	22.02	22.01	22.00	22.10			
20	QPSK	50	24	21.96	21.89	21.99	22.03	23.2		
20	QPSK	50	50	21.84	21.82	21.88	21.96			
20	QPSK	100	0	21.97	21.88	21.96	22.01			
20	16QAM	1	0	22.08	22.12	22.11	22.21			
20	16QAM	1	49	21.88	21.87	21.88	21.94	23.2		
20	16QAM	1	99	21.89	21.85	21.89	21.96			
20	16QAM	50	0	21.05	21.04	21.05	21.11			
20	16QAM	50	24	21.01	20.92	20.98	21.06			
20	16QAM	50	50	20.86	20.85	20.91	21.00	22.2		
20	16QAM	100	0	20.99	20.88	21.00	21.04			
20	64QAM	1	0	20.83	20.85	20.83	20.94			
20	64QAM	1	49	20.67	20.64	20.64	20.69			
20	64QAM	1	99	20.62	20.56	20.65	20.74	22.2		
20	64QAM	50	0	20.06	20.06	20.05	20.11			
20	64QAM	50	24	20.03	19.93	19.99	20.06			
20	64QAM	50	50	19.88	19.87	19.95	19.99			
20	64QAM	100	0	20.00	19.91	19.97	20.05			
Channel				55315	55820	56160	56665			
Frequency (MHz)				3557.5	3608	3642	3692.5	Tune-up limit (dBm)		
15	QPSK	1	0	22.90	22.89	22.91	22.97	24.2		
15	QPSK	1	37	22.80	22.78	22.78	22.82			
15	QPSK	1	74	22.79	22.74	22.77	22.84			
15	QPSK	36	0	22.01	21.99	21.97	22.07			
15	QPSK	36	20	21.89	21.86	21.95	21.99	23.2		
15	QPSK	36	39	21.86	21.83	21.89	21.94			
15	QPSK	75	0	21.92	21.88	21.94	22.02			
15	16QAM	1	0	22.06	22.04	22.05	22.12			
15	16QAM	1	37	21.85	21.84	21.81	21.89	23.2		
15	16QAM	1	74	21.95	21.92	21.95	22.02			
15	16QAM	36	0	20.97	20.96	20.97	21.03			
15	16QAM	36	20	20.85	20.83	20.91	20.98			
15	16QAM	36	39	20.81	20.78	20.85	20.93	22.2		
15	16QAM	75	0	20.93	20.87	20.95	21.04			
15	64QAM	1	0	20.80	20.80	20.80	20.85			
15	64QAM	1	37	20.67	20.65	20.63	20.71			
15	64QAM	1	74	20.67	20.65	20.69	20.78	22.2		
15	64QAM	36	0	20.04	20.01	20.01	20.10			
15	64QAM	36	20	19.90	19.87	19.96	20.02			
15	64QAM	36	39	19.87	19.86	19.92	19.98			
15	64QAM	75	0	19.95	19.91	19.96	20.03	21.2		
Channel				55290	55815	56165	56690			Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3642.5	3695			
10	QPSK	1	0	22.96	22.95	22.93	22.98	24.2		
10	QPSK	1	25	22.77	22.75	22.72	22.77			
10	QPSK	1	49	22.72	22.70	22.66	22.75			
10	QPSK	25	0	21.95	22.01	21.96	22.04			
10	QPSK	25	12	21.88	21.87	21.91	21.96	23.2		
10	QPSK	25	25	21.75	21.72	21.82	21.92			
10	QPSK	50	0	21.87	21.81	21.91	22.01			
10	16QAM	1	0	22.00	22.03	22.07	22.16			
10	16QAM	1	25	21.87	21.83	21.85	21.94	23.2		
10	16QAM	1	49	21.87	21.85	21.82	21.88			
10	16QAM	25	0	21.01	20.99	21.00	21.08			
10	16QAM	25	12	20.92	20.86	20.94	20.96			
10	16QAM	25	25	20.80	20.75	20.90	20.98	22.2		
10	16QAM	50	0	20.96	20.84	21.00	21.01			
10	64QAM	1	0	20.73	20.84	20.83	20.86			
10	64QAM	1	25	20.58	20.58	20.62	20.61			
10	64QAM	1	49	20.62	20.52	20.59	20.68	22.2		
10	64QAM	25	0	20.05	20.05	20.03	20.03			
10	64QAM	25	12	19.95	19.91	19.94	19.98			
10	64QAM	25	25	19.86	19.78	19.93	19.98			
10	64QAM	50	0	19.90	19.87	19.89	19.99			
Channel				55265	55810	56170	56715	Tune-up limit (dBm)		
Frequency (MHz)				3552.5	3607	3643	3697.5			
5	QPSK	1	0	22.89	22.89	22.91	22.98	24.2		
5	QPSK	1	12	22.89	22.82	22.83	22.92			
5	QPSK	1	24	22.86	22.76	22.81	22.90			
5	QPSK	12	0	22.01	21.96	21.97	22.07			
5	QPSK	12	7	22.02	21.96	21.98	22.07	23.2		
5	QPSK	12	13	22.01	21.95	21.96	22.05			
5	QPSK	25	0	21.98	21.95	21.98	22.07			
5	16QAM	1	0	22.04	21.99	22.03	22.09			
5	16QAM	1	12	22.12	22.06	22.06	22.15	23.2		
5	16QAM	1	24	22.04	21.96	22.00	22.04			
5	16QAM	12	0	21.00	20.93	21.02	21.05			
5	16QAM	12	7	21.03	20.95	20.97	21.05			
5	16QAM	12	13	21.00	20.94	20.97	21.01	22.2		
5	16QAM	25	0	21.05	21.00	21.01	21.08			
5	64QAM	1	0	20.80	20.76	20.80	20.89			
5	64QAM	1	12	20.81	20.73	20.77	20.84			
5	64QAM	1	24	20.81	20.71	20.74	20.80	22.2		
5	64QAM	12	0	20.09	20.00	20.03	20.11			
5	64QAM	12	7	20.08	20.02	20.05	20.13			
5	64QAM	12	13	20.02	20.02	19.98	20.11			
5	64QAM	25	0	20.05	20.04	20.06	20.12	21.2		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.42	24.28	24.28	25.7
20	QPSK	1	49	24.27	24.23	24.25	
20	QPSK	1	89	24.24	24.22	24.24	
20	QPSK	50	0	23.49	23.37	23.35	
20	QPSK	50	24	23.47	23.45	23.41	24.7
20	QPSK	50	50	23.43	23.40	23.38	
20	QPSK	100	0	23.48	23.42	23.35	
20	16QAM	1	0	23.43	23.41	23.42	
20	16QAM	1	49	23.35	23.34	23.33	24.7
20	16QAM	1	89	23.37	23.33	23.34	
20	16QAM	50	0	22.53	22.42	22.39	
20	16QAM	50	24	22.51	22.49	22.44	
20	16QAM	50	50	22.48	22.44	22.41	23.7
20	16QAM	100	0	22.46	22.45	22.35	
20	64QAM	1	0	22.14	22.11	22.10	
20	64QAM	1	49	22.07	22.04	22.09	
20	64QAM	1	89	22.09	22.11	22.08	22.7
20	64QAM	50	0	21.52	21.43	21.40	
20	64QAM	50	24	21.50	21.47	21.45	
20	64QAM	50	50	21.48	21.45	21.42	
20	64QAM	100	0	21.50	21.47	21.36	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.32	24.29	24.29	25.7
15	QPSK	1	37	24.26	24.25	24.20	
15	QPSK	1	74	24.29	24.25	24.18	
15	QPSK	36	0	23.53	23.39	23.38	
15	QPSK	36	20	23.51	23.46	23.40	24.7
15	QPSK	36	36	23.46	23.43	23.38	
15	QPSK	75	0	23.50	23.45	23.35	
15	16QAM	1	0	23.46	23.43	23.40	
15	16QAM	1	37	23.34	23.31	23.27	24.7
15	16QAM	1	74	23.44	23.39	23.35	
15	16QAM	36	0	22.50	22.37	22.36	
15	16QAM	36	20	22.46	22.42	22.40	
15	16QAM	36	36	22.45	22.40	22.36	23.7
15	16QAM	75	0	22.52	22.47	22.37	
15	64QAM	1	0	22.16	22.06	22.06	
15	64QAM	1	37	22.20	22.12	22.11	
15	64QAM	1	74	22.17	22.13	22.09	22.7
15	64QAM	36	0	21.55	21.44	21.39	
15	64QAM	36	20	21.51	21.49	21.43	
15	64QAM	36	36	21.50	21.46	21.42	
15	64QAM	75	0	21.54	21.46	21.36	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.41	24.35	24.36	25.7
10	QPSK	1	25	24.33	24.24	24.20	
10	QPSK	1	49	24.33	24.36	24.30	
10	QPSK	25	0	23.52	23.36	23.32	
10	QPSK	25	12	23.51	23.47	23.34	24.7
10	QPSK	25	25	23.49	23.47	23.41	
10	QPSK	50	0	23.49	23.45	23.33	
10	16QAM	1	0	23.58	23.52	23.43	
10	16QAM	1	25	23.50	23.42	23.41	24.7
10	16QAM	1	49	23.52	23.40	23.40	
10	16QAM	25	0	22.50	22.38	22.34	
10	16QAM	25	12	22.50	22.49	22.34	
10	16QAM	25	25	22.46	22.42	22.36	23.7
10	16QAM	50	0	22.55	22.47	22.37	
10	64QAM	1	0	22.46	22.33	22.30	
10	64QAM	1	25	22.24	22.18	22.14	
10	64QAM	1	49	22.16	22.10	22.05	22.7
10	64QAM	25	0	21.61	21.47	21.43	
10	64QAM	25	12	21.61	21.53	21.43	
10	64QAM	25	25	21.59	21.54	21.47	
10	64QAM	50	0	21.55	21.49	21.39	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.41	24.30	24.30	25.7
5	QPSK	1	12	24.35	24.28	24.30	
5	QPSK	1	24	24.33	24.32	24.29	
5	QPSK	12	0	23.50	23.39	23.39	
5	QPSK	12	7	23.52	23.43	23.41	24.7
5	QPSK	12	13	23.47	23.45	23.40	
5	QPSK	25	0	23.51	23.44	23.39	
5	16QAM	1	0	23.54	23.42	23.44	
5	16QAM	1	12	23.51	23.46	23.44	24.7
5	16QAM	1	24	23.53	23.50	23.44	
5	16QAM	12	0	22.49	22.36	22.38	
5	16QAM	12	7	22.50	22.46	22.42	
5	16QAM	12	13	22.45	22.42	22.37	23.7
5	16QAM	25	0	22.51	22.46	22.41	
5	64QAM	1	0	22.29	22.14	22.21	
5	64QAM	1	12	22.27	22.24	22.19	
5	64QAM	1	24	22.27	22.25	22.19	22.7
5	64QAM	12	0	21.52	21.41	21.45	
5	64QAM	12	7	21.53	21.52	21.45	
5	64QAM	12	13	21.52	21.48	21.44	
5	64QAM	25	0	21.54	21.49	21.47	

Band 41										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.60	24.31	24.27	24.72	24.40	25.7	
20	QPSK	1	49	24.49	24.23	24.14	24.89	24.72		
20	QPSK	1	99	24.44	24.20	24.21	24.44	24.58		
20	QPSK	50	0	23.70	23.43	23.25	23.89	23.72		
20	QPSK	50	24	23.67	23.41	23.32	23.99	23.83		
20	QPSK	50	50	23.62	23.37	23.28	23.84	23.79	24.7	
20	QPSK	100	0	23.68	23.41	23.31	23.89	23.76		
20	16QAM	1	0	23.76	23.45	23.36	23.82	23.51		
20	16QAM	1	49	23.59	23.35	23.24	24.00	23.83		
20	16QAM	1	99	23.56	23.33	23.31	23.53	23.70		
20	16QAM	50	0	22.73	22.47	22.28	22.92	22.75	23.7	
20	16QAM	50	24	22.71	22.45	22.35	23.02	22.86		
20	16QAM	50	50	22.67	22.41	22.32	22.86	22.79		
20	16QAM	100	0	22.69	22.43	22.32	22.90	22.77		
20	64QAM	1	0	22.50	22.19	21.99	22.47	22.21		
20	64QAM	1	49	22.36	22.09	22.01	22.77	22.63	23.7	
20	64QAM	1	99	22.27	22.03	22.04	22.22	22.42		
20	64QAM	50	0	21.75	21.47	21.30	21.92	21.73		
20	64QAM	50	24	21.73	21.44	21.34	22.01	21.88		
20	64QAM	50	50	21.66	21.41	21.33	21.87	21.81		
20	64QAM	100	0	21.71	21.45	21.34	21.94	21.79	22.7	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.62	24.34	24.21	24.86	24.56	25.7	
15	QPSK	1	37	24.54	24.24	24.13	24.87	24.69		
15	QPSK	1	74	24.48	24.32	24.25	24.67	24.67		
15	QPSK	36	0	23.73	23.44	23.26	23.92	23.75		
15	QPSK	36	20	23.70	23.43	23.32	24.02	23.86		
15	QPSK	36	39	23.66	23.42	23.30	23.90	23.80	24.7	
15	QPSK	75	0	23.71	23.43	23.32	23.94	23.77		
15	16QAM	1	0	23.78	23.48	23.37	23.95	23.66		
15	16QAM	1	37	23.58	23.33	23.23	23.96	23.84		
15	16QAM	1	74	23.62	23.46	23.38	23.79	23.81		
15	16QAM	36	0	22.71	22.43	22.28	22.88	22.73	23.7	
15	16QAM	36	20	22.67	22.39	22.29	22.97	22.81		
15	16QAM	36	39	22.65	22.39	22.27	22.88	22.77		
15	16QAM	75	0	22.74	22.46	22.34	22.96	22.83		
15	64QAM	1	0	22.53	22.22	21.99	22.62	22.32		
15	64QAM	1	37	22.42	22.15	22.03	22.77	22.61	23.7	
15	64QAM	1	74	22.28	22.14	22.09	22.48	22.58		
15	64QAM	36	0	21.75	21.47	21.31	21.94	21.79		
15	64QAM	36	20	21.72	21.43	21.34	22.03	21.88		
15	64QAM	36	39	21.71	21.46	21.34	21.90	21.83		
15	64QAM	75	0	21.76	21.47	21.36	22.00	21.81	22.7	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.57	24.24	24.11	24.77	24.48	25.7	
10	QPSK	1	25	24.44	24.17	24.07	24.78	24.81		
10	QPSK	1	49	24.38	24.26	24.20	24.67	24.61		
10	QPSK	25	0	23.73	23.43	23.26	23.86	23.71		
10	QPSK	25	12	23.61	23.42	23.24	24.01	23.77		
10	QPSK	25	25	23.65	23.36	23.21	23.82	23.72	24.7	
10	QPSK	50	0	23.66	23.36	23.27	23.90	23.74		
10	16QAM	1	0	23.77	23.48	23.29	23.95	23.59		
10	16QAM	1	25	23.52	23.27	23.15	23.87	23.77		
10	16QAM	1	49	23.62	23.37	23.35	23.72	23.81		
10	16QAM	25	0	22.61	22.35	22.18	22.81	22.67	23.7	
10	16QAM	25	12	22.67	22.31	22.26	22.88	22.81		
10	16QAM	25	25	22.55	22.35	22.20	22.83	22.72		
10	16QAM	50	0	22.65	22.37	22.34	22.96	22.79		
10	64QAM	1	0	22.49	22.21	21.94	22.57	22.30		
10	64QAM	1	25	22.33	22.13	21.97	22.75	22.53	23.7	
10	64QAM	1	49	22.20	22.11	22.05	22.45	22.58		
10	64QAM	25	0	21.67	21.46	21.25	21.91	21.73		
10	64QAM	25	12	21.64	21.39	21.24	22.03	21.87		
10	64QAM	25	25	21.66	21.36	21.34	21.86	21.80		
10	64QAM	50	0	21.75	21.41	21.27	21.95	21.75	22.7	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.72	24.36	24.15	24.86	24.77	25.7	
5	QPSK	1	12	24.67	24.33	24.23	24.88	24.72		
5	QPSK	1	24	24.63	24.30	24.21	24.86	24.65		
5	QPSK	12	0	23.79	23.47	23.37	24.01	23.88		
5	QPSK	12	7	23.80	23.51	23.40	24.08	23.90		
5	QPSK	12	13	23.78	23.47	23.36	24.04	23.82	24.7	
5	QPSK	25	0	23.76	23.45	23.37	24.04	23.84		
5	16QAM	1	0	23.81	23.48	23.32	24.00	23.91		
5	16QAM	1	12	23.84	23.53	23.45	24.11	23.93		
5	16QAM	1	24	23.85	23.54	23.41	24.02	23.81		
5	16QAM	12	0	22.77	22.46	22.33	22.89	22.85	23.7	
5	16QAM	12	7	22.80	22.45	22.36	23.04	22.83		
5	16QAM	12	13	22.77	22.42	22.37	23.00	22.84		
5	16QAM	25	0	22.83	22.49	22.42	23.06	22.89		
5	64QAM	1	0	22.80	22.26	22.08	22.77	22.62		
5	64QAM	1	12	22.57	22.29	22.17	22.81	22.66	23.7	
5	64QAM	1	24	22.59	22.26	22.15	22.80	22.60		
5	64QAM	12	0	21.84	21.52	21.39	22.00	21.89		
5	64QAM	12	7	21.85	21.51	21.44	22.11	21.89		
5	64QAM	12	13	21.84	21.48	21.42	22.05	21.90		
5	64QAM	25	0	21.83	21.51	21.42	22.09	21.92	22.7	



Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Middle Ch / Freq	Power High-Middle Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	26.37	26.10	26.03	26.55	26.26	27.5	
20	QPSK	1	49	26.24	26.02	25.90	26.77	26.57		
20	QPSK	1	99	26.19	25.99	25.98	26.31	26.46		
20	QPSK	50	0	25.58	25.29	25.13	25.85	25.65		
20	QPSK	50	24	25.54	25.31	25.19	25.93	25.76	26.5	
20	QPSK	50	50	25.49	25.26	25.17	25.77	25.72		
20	QPSK	100	0	25.55	25.29	25.21	25.84	25.70		
20	16QAM	1	0	25.79	25.47	25.34	25.88	25.82		
20	16QAM	1	49	25.63	25.40	25.24	26.13	25.97	26.5	
20	16QAM	1	99	25.53	25.31	25.33	25.60	25.75		
20	16QAM	50	0	24.59	24.32	24.16	24.87	24.68		
20	16QAM	50	24	24.61	24.31	24.22	24.97	24.79		
20	16QAM	50	50	24.52	24.28	24.20	24.83	24.74	25.5	
20	16QAM	100	0	24.59	24.30	24.21	24.89	24.72		
20	64QAM	1	0	24.82	24.30	24.13	24.72	24.44		
20	64QAM	1	49	24.44	24.20	24.11	25.00	24.83		
20	64QAM	1	99	24.37	24.12	24.17	24.49	24.65	25.5	
20	64QAM	50	0	23.60	23.33	23.17	23.87	23.70		
20	64QAM	50	24	23.59	23.34	23.25	23.97	23.81		
20	64QAM	50	50	23.54	23.30	23.21	23.83	23.76		
20	64QAM	100	0	23.59	23.31	23.24	23.88	23.72	24.5	
Channel				39725	40173	40620	41068	41515		Tune-up limit (dBm)
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	26.43	26.16	26.02	26.73	26.42	27.5	
15	QPSK	1	37	26.35	26.04	25.97	26.70	26.56		
15	QPSK	1	74	26.26	26.12	26.01	26.54	26.53		
15	QPSK	36	0	25.55	25.28	25.12	25.84	25.66		
15	QPSK	36	20	25.64	25.26	25.17	25.91	25.74	26.5	
15	QPSK	36	39	25.47	25.25	25.14	25.81	25.70		
15	QPSK	75	0	25.56	25.26	25.18	25.86	25.66		
15	16QAM	1	0	25.71	25.45	25.27	26.03	25.74		
15	16QAM	1	37	25.58	25.29	25.20	26.06	25.87	26.5	
15	16QAM	1	74	25.69	25.43	25.31	25.83	25.82		
15	16QAM	36	0	24.52	24.26	24.07	24.80	24.64		
15	16QAM	36	20	24.61	24.23	24.13	24.89	24.73		
15	16QAM	36	39	24.46	24.20	24.13	24.80	24.71	25.5	
15	16QAM	75	0	24.55	24.28	24.20	24.88	24.72		
15	64QAM	1	0	24.59	24.28	24.08	24.83	24.55		
15	64QAM	1	37	24.61	24.22	24.07	24.98	24.79		
15	64QAM	1	74	24.40	24.21	24.20	24.70	24.74	24.5	
15	64QAM	36	0	23.56	23.33	23.13	23.87	23.71		
15	64QAM	36	20	23.57	23.30	23.18	23.96	23.76		
15	64QAM	36	39	23.52	23.24	23.18	23.84	23.76		
15	64QAM	75	0	23.57	23.30	23.19	23.90	23.72	Tune-up limit (dBm)	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	26.33	26.11	26.01	26.71	26.35	27.5	
10	QPSK	1	25	26.35	26.00	25.93	26.60	26.56		
10	QPSK	1	49	26.25	26.02	25.96	26.52	26.49		
10	QPSK	25	0	25.61	25.18	25.10	25.80	25.59		
10	QPSK	25	12	25.54	25.26	25.08	25.88	25.66	26.5	
10	QPSK	25	25	25.42	25.17	25.12	25.78	25.70		
10	QPSK	50	0	25.48	25.18	25.14	25.83	25.63		
10	16QAM	1	0	25.68	25.35	25.19	26.02	25.70		
10	16QAM	1	25	25.49	25.23	25.19	26.03	25.78	26.5	
10	16QAM	1	49	25.67	25.39	25.28	25.79	25.80		
10	16QAM	25	0	24.61	24.22	24.03	24.74	24.57		
10	16QAM	25	12	24.45	24.21	24.12	24.85	24.73		
10	16QAM	25	25	24.42	24.19	24.04	24.78	24.63	25.5	
10	16QAM	50	0	24.49	24.27	24.18	24.81	24.64		
10	64QAM	1	0	24.65	24.25	23.98	24.75	24.47		
10	64QAM	1	25	24.51	24.15	24.02	24.90	24.76		
10	64QAM	1	49	24.36	24.20	24.15	24.65	24.66	25.5	
10	64QAM	25	0	23.50	23.33	23.03	23.79	23.51		
10	64QAM	25	12	23.49	23.25	23.17	23.86	23.75		
10	64QAM	25	25	23.43	23.20	23.13	23.75	23.66		
10	64QAM	50	0	23.54	23.22	23.10	23.84	23.67	Tune-up limit (dBm)	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.0	2687.5		
5	QPSK	1	0	26.35	26.06	25.94	26.72	26.37	27.5	
5	QPSK	1	12	26.31	26.02	25.97	26.66	26.50		
5	QPSK	1	24	26.16	26.05	25.94	26.54	26.48		
5	QPSK	12	0	25.50	25.18	25.10	25.83	25.58		
5	QPSK	12	7	25.48	25.24	25.17	25.91	25.72	26.5	
5	QPSK	12	13	25.40	25.15	25.11	25.76	25.66		
5	QPSK	25	0	25.47	25.18	25.16	25.84	25.64		
5	16QAM	1	0	25.71	25.36	25.17	25.95	25.65		
5	16QAM	1	12	25.62	25.27	25.12	26.05	25.86	26.5	
5	16QAM	1	24	25.50	25.36	25.30	25.80	25.77		
5	16QAM	12	0	24.45	24.24	24.04	24.70	24.61		
5	16QAM	12	7	24.43	24.20	24.06	24.87	24.69		
5	16QAM	12	13	24.43	24.16	24.04	24.76	24.65	25.5	
5	16QAM	25	0	24.48	24.26	24.19	24.82	24.70		
5	64QAM	1	0	24.57	24.19	24.08	24.76	24.45		
5	64QAM	1	12	24.45	24.15	23.97	24.83	24.71		
5	64QAM	1	24	24.35	24.18	24.16	24.70	24.72	24.5	
5	64QAM	12	0	23.49	23.25	23.06	23.87	23.63		
5	64QAM	12	7	23.56	23.23	23.18	23.95	23.76		
5	64QAM	12	13	23.49	23.23	23.10	23.83	23.68		
5	64QAM	25	0	23.54	23.20	23.14	23.81	23.63		

Band 48										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				55340	55830	56150	56640			
Frequency (MHz)				3550	3609	3641	3690			
20	QPSK	1	0	21.63	21.66	21.62	21.59	22.6		
20	QPSK	1	49	21.45	21.47	21.42	21.33			
20	QPSK	1	99	21.43	21.43	21.38	21.25			
20	QPSK	50	0	20.65	20.68	20.62	20.58			
20	QPSK	50	24	20.64	20.56	20.58	20.52	21.6		
20	QPSK	50	50	20.48	20.48	20.53	20.41			
20	QPSK	100	0	20.62	20.54	20.57	20.48			
20	16QAM	1	0	20.74	20.80	20.73	20.72			
20	16QAM	1	49	20.55	20.55	20.49	20.44	21.6		
20	16QAM	1	99	20.56	20.54	20.49	20.38			
20	16QAM	50	0	19.70	19.73	19.67	19.63			
20	16QAM	50	24	19.66	19.59	19.65	19.55			
20	16QAM	50	50	19.55	19.51	19.55	19.45	20.6		
20	16QAM	100	0	19.65	19.57	19.63	19.55			
20	64QAM	1	0	19.49	19.55	19.46	19.45			
20	64QAM	1	49	19.30	19.33	19.26	19.16			
20	64QAM	1	99	19.27	19.23	19.27	19.14	20.6		
20	64QAM	50	0	18.72	18.71	18.69	18.61			
20	64QAM	50	24	18.67	18.61	18.65	18.56			
20	64QAM	50	50	18.54	18.54	18.56	18.45			
20	64QAM	100	0	18.69	18.59	18.63	18.55			
Channel				55315	55820	56160	56665			
Frequency (MHz)				3557.5	3608	3642	3692.5			
15	QPSK	1	0	21.53	21.56	21.55	21.47	22.6		
15	QPSK	1	37	21.46	21.43	21.41	21.30			
15	QPSK	1	74	21.46	21.43	21.39	21.26			
15	QPSK	36	0	20.65	20.66	20.63	20.57			
15	QPSK	36	20	20.54	20.54	20.58	20.48	21.6		
15	QPSK	36	39	20.48	20.47	20.51	20.41			
15	QPSK	75	0	20.54	20.56	20.57	20.52			
15	16QAM	1	0	20.67	20.72	20.67	20.61			
15	16QAM	1	37	20.52	20.47	20.41	20.36	21.6		
15	16QAM	1	74	20.59	20.61	20.55	20.42			
15	16QAM	36	0	19.62	19.63	19.59	19.53			
15	16QAM	36	20	19.50	19.50	19.53	19.44			
15	16QAM	36	39	19.47	19.47	19.49	19.40	20.6		
15	16QAM	75	0	19.56	19.55	19.60	19.51			
15	64QAM	1	0	19.43	19.46	19.42	19.37			
15	64QAM	1	37	19.30	19.31	19.26	19.18			
15	64QAM	1	74	19.33	19.32	19.32	19.20	20.6		
15	64QAM	36	0	18.68	18.70	18.65	18.60			
15	64QAM	36	20	18.58	18.56	18.59	18.51			
15	64QAM	36	39	18.54	18.52	18.54	18.43			
15	64QAM	75	0	18.57	18.59	18.60	18.52	19.6		
Channel				55290	55815	56165	56690			
Frequency (MHz)				3555	3607.5	3642.5	3695			
10	QPSK	1	0	21.53	21.53	21.45	21.46		22.6	
10	QPSK	1	25	21.42	21.42	21.40	21.30			
10	QPSK	1	49	21.43	21.37	21.34	21.29			
10	QPSK	25	0	20.69	20.69	20.66	20.60			
10	QPSK	25	12	20.70	20.69	20.67	20.58	21.6		
10	QPSK	25	25	20.55	20.53	20.60	20.50			
10	QPSK	50	0	20.58	20.65	20.63	20.53			
10	16QAM	1	0	20.89	20.90	20.82	20.80			
10	16QAM	1	25	20.79	20.79	20.79	20.68	21.6		
10	16QAM	1	49	20.72	20.72	20.71	20.61			
10	16QAM	25	0	19.68	19.69	19.68	19.59			
10	16QAM	25	12	19.72	19.72	19.68	19.59			
10	16QAM	25	25	19.53	19.56	19.61	19.54	20.6		
10	16QAM	50	0	19.59	19.72	19.67	19.61			
10	64QAM	1	0	19.78	19.84	19.76	19.70			
10	64QAM	1	25	19.73	19.75	19.77	19.63			
10	64QAM	1	49	19.64	19.64	19.65	19.56	20.6		
10	64QAM	25	0	18.75	18.79	18.76	18.68			
10	64QAM	25	12	18.75	18.80	18.77	18.68			
10	64QAM	25	25	18.64	18.66	18.69	18.60			
10	64QAM	50	0	18.64	18.72	18.69	18.59			
Channel				55265	55810	56170	56715			
Frequency (MHz)				3552.5	3607	3643	3697.5			
5	QPSK	1	0	21.52	21.54	21.47	21.39	22.6		
5	QPSK	1	12	21.47	21.50	21.48	21.36			
5	QPSK	1	24	21.43	21.42	21.38	21.30			
5	QPSK	12	0	20.69	20.70	20.66	20.55			
5	QPSK	12	7	20.72	20.72	20.67	20.54	21.6		
5	QPSK	12	13	20.71	20.67	20.66	20.52			
5	QPSK	25	0	20.69	20.66	20.65	20.54			
5	16QAM	1	0	20.84	20.82	20.79	20.73			
5	16QAM	1	12	20.82	20.81	20.78	20.67	21.6		
5	16QAM	1	24	20.83	20.81	20.76	20.63			
5	16QAM	12	0	19.76	19.69	19.71	19.61			
5	16QAM	12	7	19.79	19.72	19.71	19.63			
5	16QAM	12	13	19.69	19.70	19.65	19.57	20.6		
5	16QAM	25	0	19.74	19.70	19.67	19.60			
5	64QAM	1	0	19.71	19.75	19.68	19.63			
5	64QAM	1	12	19.71	19.72	19.67	19.58			
5	64QAM	1	24	19.70	19.71	19.64	19.56	20.6		
5	64QAM	12	0	18.76	18.78	18.73	18.65			
5	64QAM	12	7	18.79	18.80	18.75	18.65			
5	64QAM	12	13	18.75	18.71	18.66	18.55			
5	64QAM	25	0	18.78	18.76	18.73	18.61	19.6		

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	24.64	24.60	24.60	
20	QPSK	1	49	24.60	24.57	24.55	25.7
20	QPSK	1	89	24.57	24.56	24.56	
20	QPSK	50	0	23.78	23.69	23.68	
20	QPSK	50	24	23.75	23.74	23.77	24.7
20	QPSK	50	50	23.75	23.73	23.70	
20	QPSK	100	0	23.79	23.76	23.64	
20	16QAM	1	0	23.72	23.70	23.68	24.7
20	16QAM	1	49	23.68	23.63	23.64	
20	16QAM	1	89	23.68	23.65	23.65	
20	16QAM	50	0	22.82	22.71	22.72	
20	16QAM	50	24	22.80	22.78	22.78	23.7
20	16QAM	50	50	22.77	22.76	22.76	
20	16QAM	100	0	22.79	22.77	22.67	
20	64QAM	1	0	22.45	22.43	22.39	
20	64QAM	1	49	22.41	22.38	22.37	23.7
20	64QAM	1	89	22.40	22.40	22.36	
20	64QAM	50	0	21.83	21.74	21.72	
20	64QAM	50	24	21.82	21.80	21.77	22.7
20	64QAM	50	50	21.78	21.76	21.75	
20	64QAM	100	0	21.81	21.78	21.70	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	24.58	24.55	24.55	
15	QPSK	1	37	24.55	24.54	24.53	25.7
15	QPSK	1	74	24.55	24.56	24.56	
15	QPSK	36	0	23.77	23.68	23.67	
15	QPSK	36	20	23.72	23.74	23.73	24.7
15	QPSK	36	39	23.71	23.71	23.71	
15	QPSK	75	0	23.75	23.71	23.65	
15	16QAM	1	0	23.71	23.70	23.67	
15	16QAM	1	37	23.62	23.56	23.61	24.7
15	16QAM	1	74	23.70	23.68	23.67	
15	16QAM	36	0	22.75	22.65	22.65	
15	16QAM	36	20	22.72	22.68	22.69	23.7
15	16QAM	36	39	22.70	22.68	22.67	
15	16QAM	75	0	22.78	22.75	22.67	
15	64QAM	1	0	22.40	22.36	22.35	
15	64QAM	1	37	22.45	22.40	22.40	23.7
15	64QAM	1	74	22.43	22.40	22.38	
15	64QAM	36	0	21.82	21.70	21.70	
15	64QAM	36	20	21.75	21.74	21.74	22.7
15	64QAM	36	39	21.76	21.72	21.75	
15	64QAM	75	0	21.79	21.76	21.67	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	24.48	24.49	24.53	
10	QPSK	1	25	24.50	24.49	24.51	25.7
10	QPSK	1	49	24.45	24.54	24.52	
10	QPSK	25	0	23.72	23.66	23.62	
10	QPSK	25	12	23.67	23.73	23.68	24.7
10	QPSK	25	25	23.71	23.70	23.65	
10	QPSK	60	0	23.70	23.69	23.56	
10	16QAM	1	0	23.66	23.69	23.59	
10	16QAM	1	25	23.60	23.52	23.53	24.7
10	16QAM	1	49	23.61	23.62	23.66	
10	16QAM	25	0	22.70	22.55	22.63	
10	16QAM	25	12	22.70	22.67	22.65	23.7
10	16QAM	25	25	22.62	22.62	22.67	
10	16QAM	50	0	22.78	22.65	22.67	
10	64QAM	1	0	22.32	22.34	22.30	
10	64QAM	1	25	22.40	22.34	22.35	23.7
10	64QAM	1	49	22.40	22.38	22.31	
10	64QAM	25	0	21.80	21.66	21.66	
10	64QAM	25	12	21.75	21.73	21.67	22.7
10	64QAM	25	25	21.74	21.63	21.74	
10	64QAM	50	0	21.71	21.70	21.63	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	24.60	24.52	24.53	
5	QPSK	1	12	24.53	24.50	24.53	25.7
5	QPSK	1	24	24.52	24.48	24.52	
5	QPSK	12	0	23.71	23.61	23.69	
5	QPSK	12	7	23.74	23.70	23.68	24.7
5	QPSK	12	13	23.71	23.69	23.64	
5	QPSK	25	0	23.70	23.67	23.65	
5	16QAM	1	0	23.72	23.62	23.70	
5	16QAM	1	12	23.71	23.67	23.67	24.7
5	16QAM	1	24	23.74	23.72	23.70	
5	16QAM	12	0	22.69	22.58	22.68	
5	16QAM	12	7	22.71	22.66	22.66	23.7
5	16QAM	12	13	22.66	22.62	22.62	
5	16QAM	25	0	22.71	22.68	22.71	
5	64QAM	1	0	22.49	22.36	22.42	
5	64QAM	1	12	22.47	22.43	22.41	23.7
5	64QAM	1	24	22.47	22.44	22.42	
5	64QAM	12	0	21.76	21.67	21.72	
5	64QAM	12	7	21.75	21.73	21.73	22.7
5	64QAM	12	13	21.76	21.72	21.71	
5	64QAM	25	0	21.80	21.74	21.70	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.74	24.62	24.61	24.74	24.55	25.7	
20	QPSK	1	49	24.68	24.56	24.48	24.55	24.84		
20	QPSK	1	99	24.86	24.51	24.57	24.53	24.67		
20	QPSK	50	0	23.85	23.74	23.61	23.92	23.84		
20	QPSK	50	24	23.87	23.74	23.69	24.05	23.93	24.7	
20	QPSK	50	50	23.83	23.72	23.67	23.90	23.89		
20	QPSK	100	0	23.86	23.76	23.69	23.95	23.87		
20	16QAM	1	0	23.87	23.73	23.71	23.83	23.86		
20	16QAM	1	49	23.77	23.65	23.55	24.09	23.96	24.7	
20	16QAM	1	99	23.75	23.65	23.69	23.84	23.76		
20	16QAM	50	0	22.88	22.77	22.68	22.95	22.87		
20	16QAM	50	24	22.86	22.76	22.72	23.07	22.98		
20	16QAM	50	50	22.84	22.76	22.71	22.93	22.93	23.7	
20	16QAM	100	0	22.88	22.77	22.70	22.97	22.86		
20	64QAM	1	0	22.85	22.46	22.38	22.49	22.33		
20	64QAM	1	49	22.49	22.44	22.35	22.87	22.74		
20	64QAM	1	99	22.44	22.38	22.35	22.35	22.47	23.7	
20	64QAM	50	0	21.89	21.77	21.66	21.97	21.86		
20	64QAM	50	24	21.90	21.78	21.72	22.08	22.00		
20	64QAM	50	50	21.86	21.78	21.71	21.93	21.92		
20	64QAM	100	0	21.89	21.78	21.72	21.98	21.89	22.7	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	24.74	24.62	24.56	24.85	24.68	25.7	
15	QPSK	1	37	24.68	24.52	24.45	24.94	24.82		
15	QPSK	1	74	24.68	24.94	24.80	24.70	24.72		
15	QPSK	36	0	23.86	23.76	23.62	23.95	23.84		
15	QPSK	36	20	23.87	23.75	23.69	24.04	23.93	24.7	
15	QPSK	36	39	23.84	23.72	23.66	23.96	23.89		
15	QPSK	75	0	23.87	23.73	23.69	23.98	23.87		
15	16QAM	1	0	23.87	23.75	23.69	24.01	23.75		
15	16QAM	1	37	23.70	23.57	23.57	24.05	23.93	24.7	
15	16QAM	1	74	23.78	23.79	23.72	23.85	23.85		
15	16QAM	36	0	22.83	22.73	22.57	22.91	22.84		
15	16QAM	36	20	22.84	22.72	22.64	23.04	22.90		
15	16QAM	36	39	22.81	22.70	22.63	22.94	22.86	23.7	
15	16QAM	75	0	22.88	22.75	22.70	23.02	22.91		
15	64QAM	1	0	22.63	22.51	22.31	22.68	22.44		
15	64QAM	1	37	22.66	22.46	22.35	22.85	22.70		
15	64QAM	1	74	22.47	22.51	22.41	22.58	22.59	23.7	
15	64QAM	36	0	21.87	21.77	21.65	21.98	21.90		
15	64QAM	36	20	21.88	21.75	21.69	22.07	21.95		
15	64QAM	36	39	21.84	21.74	21.70	21.98	21.93		
15	64QAM	75	0	21.90	21.79	21.71	22.03	21.92	22.7	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.66	24.51	24.53	24.76	24.63	25.7	
10	QPSK	1	25	24.59	24.48	24.36	24.93	24.74		
10	QPSK	1	49	24.66	24.62	24.51	24.70	24.62		
10	QPSK	25	0	23.77	23.70	23.54	23.88	23.80		
10	QPSK	25	12	23.85	23.72	23.63	23.95	23.87	24.7	
10	QPSK	25	25	23.81	23.63	23.58	23.83	23.87		
10	QPSK	50	0	23.82	23.67	23.59	23.97	23.83		
10	16QAM	1	0	23.86	23.69	23.62	23.94	23.72		
10	16QAM	1	25	23.61	23.51	23.49	24.02	23.92	24.7	
10	16QAM	1	49	23.77	23.75	23.68	23.79	23.77		
10	16QAM	25	0	22.82	22.73	22.52	22.82	22.81		
10	16QAM	25	12	22.79	22.70	22.57	22.95	22.89		
10	16QAM	25	25	22.80	22.62	22.53	22.94	22.82	23.7	
10	16QAM	50	0	22.85	22.73	22.67	22.95	22.89		
10	64QAM	1	0	22.63	22.49	22.28	22.65	22.36		
10	64QAM	1	25	22.52	22.43	22.28	22.77	22.70		
10	64QAM	1	49	22.46	22.43	22.40	22.51	22.56	23.7	
10	64QAM	25	0	21.83	21.72	21.55	21.98	21.85		
10	64QAM	25	12	21.80	21.66	21.61	21.97	21.88		
10	64QAM	25	25	21.74	21.66	21.62	21.88	21.92		
10	64QAM	50	0	21.81	21.79	21.63	21.96	21.90	22.7	
Channel				39675	40148	40620	41093	41555		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	24.73	24.60	24.45	24.93	24.81	25.7	
5	QPSK	1	12	24.67	24.60	24.53	24.93	24.77		
5	QPSK	1	24	24.68	24.56	24.50	24.89	24.71		
5	QPSK	12	0	23.82	23.71	23.67	24.02	23.94		
5	QPSK	12	7	23.84	23.75	23.71	24.08	23.94	24.7	
5	QPSK	12	13	23.83	23.71	23.66	24.06	23.88		
5	QPSK	25	0	23.80	23.71	23.69	24.04	23.88		
5	16QAM	1	0	23.84	23.74	23.64	24.04	23.96		
5	16QAM	1	12	23.89	23.77	23.78	24.12	24.00	24.7	
5	16QAM	1	24	23.90	23.74	23.72	24.09	23.87		
5	16QAM	12	0	22.83	22.70	22.64	23.00	22.92		
5	16QAM	12	7	22.84	22.70	22.67	23.06	22.92		
5	16QAM	12	13	22.80	22.66	22.67	23.01	22.86	23.7	
5	16QAM	25	0	22.88	22.76	22.69	23.09	22.94		
5	64QAM	1	0	22.64	22.48	22.36	22.79	22.70		
5	64QAM	1	12	22.64	22.54	22.47	22.89	22.69		
5	64QAM	1	24	22.67	22.55	22.44	22.85	22.62	23.7	
5	64QAM	12	0	21.87	21.78	21.72	22.06	21.97		
5	64QAM	12	7	21.88	21.81	21.73	22.11	21.96		
5	64QAM	12	13	21.87	21.75	21.73	22.09	21.92		
5	64QAM	25	0	21.87	21.76	21.78	22.13	21.97		

Band 41 HPUE										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.71	25.63	25.81	25.86	25.68	27	
20	QPSK	1	49	25.64	25.61	25.63	26.11	25.95		
20	QPSK	1	99	25.81	25.81	25.62	25.59	25.76		
20	QPSK	50	0	24.99	24.92	24.91	25.17	25.11		
20	QPSK	50	24	24.95	24.91	24.94	25.25	25.21	26	
20	QPSK	50	50	24.88	24.89	24.89	25.12	25.13		
20	QPSK	100	0	24.94	24.90	24.95	25.18	25.10		
20	16QAM	1	0	25.14	25.04	25.22	25.23	25.04		
20	16QAM	1	49	25.05	25.02	24.99	25.49	25.34	26	
20	16QAM	1	99	24.96	24.96	25.01	24.96	25.14		
20	16QAM	50	0	23.99	23.92	23.95	24.22	24.13		
20	16QAM	50	24	23.99	23.97	23.99	24.32	24.26		
20	16QAM	50	50	23.96	23.92	23.99	24.17	24.17	25	
20	16QAM	100	0	24.00	23.92	23.98	24.22	24.14		
20	64QAM	1	0	23.90	23.74	23.88	23.92	23.74		
20	64QAM	1	49	23.74	23.76	23.75	24.26	24.13		
20	64QAM	1	99	23.69	23.79	23.70	23.74	23.54	25	
20	64QAM	50	0	23.01	22.93	22.98	23.23	23.16		
20	64QAM	50	24	23.01	22.97	23.02	23.35	23.24		
20	64QAM	50	50	22.96	22.95	22.94	23.17	22.91		
20	64QAM	100	0	23.00	22.95	22.98	23.21	23.13	24	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.84	25.80	25.83	26.08	25.92	27	
15	QPSK	1	37	25.78	25.73	25.78	26.10	26.08		
15	QPSK	1	74	25.78	25.84	25.80	25.89	25.93		
15	QPSK	36	0	24.98	24.90	24.90	25.17	25.09		
15	QPSK	36	20	24.98	24.91	24.94	25.20	25.18	26	
15	QPSK	36	39	24.92	24.89	24.87	25.17	25.11		
15	QPSK	75	0	24.96	24.92	24.92	25.12	25.14		
15	16QAM	1	0	25.11	25.05	25.13	25.34	25.16		
15	16QAM	1	37	25.00	24.99	24.97	25.44	25.33	26	
15	16QAM	1	74	25.03	25.07	25.03	25.16	25.20		
15	16QAM	36	0	23.94	23.90	23.87	24.20	24.09		
15	16QAM	36	20	23.92	23.90	23.90	24.20	24.17		
15	16QAM	36	39	23.88	23.87	23.87	24.18	24.10	25	
15	16QAM	75	0	23.96	23.85	23.97	24.17	24.13		
15	64QAM	1	0	23.89	23.79	23.81	24.08	23.84		
15	64QAM	1	37	23.83	23.77	23.74	24.24	24.04		
15	64QAM	1	74	23.75	23.89	23.80	23.98	23.52	25	
15	64QAM	36	0	22.98	22.92	22.93	23.23	23.16		
15	64QAM	36	20	23.00	22.95	22.97	23.25	23.08		
15	64QAM	36	39	22.96	22.92	22.92	23.19	22.82		
15	64QAM	75	0	23.01	22.95	23.00	23.20	23.01	24	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.89	25.78	25.73	25.81	25.79	27	
10	QPSK	1	25	25.81	25.73	25.74	26.08	25.92		
10	QPSK	1	49	25.87	25.81	25.77	25.79	25.62		
10	QPSK	25	0	24.98	24.94	24.98	25.16	25.14		
10	QPSK	25	12	25.02	24.98	24.99	25.31	25.19	26	
10	QPSK	25	25	24.98	24.90	24.91	25.19	25.05		
10	QPSK	50	0	24.98	24.93	24.95	25.23	25.09		
10	16QAM	1	0	25.27	25.17	25.18	25.27	25.19		
10	16QAM	1	25	25.22	25.12	25.10	25.46	25.32	26	
10	16QAM	1	49	25.21	25.17	25.10	25.24	25.03		
10	16QAM	25	0	23.99	23.93	23.95	24.19	24.14		
10	16QAM	25	12	24.01	23.98	23.99	24.38	24.20		
10	16QAM	25	25	23.96	23.92	23.89	24.21	24.07	25	
10	16QAM	50	0	24.03	23.98	23.98	24.30	24.15		
10	64QAM	1	0	24.08	23.95	23.94	24.00	23.97		
10	64QAM	1	25	24.10	24.02	24.00	24.34	23.78		
10	64QAM	1	49	24.01	23.99	23.91	24.04	23.39	25	
10	64QAM	25	0	23.10	23.03	23.05	23.25	23.06		
10	64QAM	25	12	23.11	23.05	23.08	23.45	22.94		
10	64QAM	25	25	23.08	23.01	23.03	23.29	22.71		
10	64QAM	50	0	23.06	22.97	23.02	23.28	22.81	24	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.92	25.78	25.73	26.07	25.98	27	
5	QPSK	1	12	25.88	25.78	25.77	26.11	25.93		
5	QPSK	1	24	25.87	25.77	25.77	26.05	25.84		
5	QPSK	12	0	25.04	24.94	24.96	25.24	25.15		
5	QPSK	12	7	25.08	24.98	24.98	25.26	25.13	26	
5	QPSK	12	13	25.02	24.93	24.94	25.29	25.10		
5	QPSK	25	0	25.00	24.91	24.98	25.22	25.09		
5	16QAM	1	0	25.27	25.15	25.15	25.43	25.33		
5	16QAM	1	12	25.23	25.16	25.17	25.46	25.30	26	
5	16QAM	1	24	25.25	25.14	25.17	25.47	25.28		
5	16QAM	12	0	24.06	23.98	23.98	24.30	24.17		
5	16QAM	12	7	24.09	23.98	24.02	24.32	24.18		
5	16QAM	12	13	24.05	23.94	23.99	24.32	24.11	25	
5	16QAM	25	0	24.01	23.94	23.97	24.25	24.16		
5	64QAM	1	0	24.05	23.93	23.92	24.24	23.76		
5	64QAM	1	12	24.01	23.91	23.94	24.27	23.59		
5	64QAM	1	24	24.04	23.91	23.95	24.25	23.45	25	
5	64QAM	12	0	23.09	23.02	23.05	23.33	22.81		
5	64QAM	12	7	23.15	23.09	23.11	23.35	22.75		
5	64QAM	12	13	23.09	23.06	23.05	23.37	22.64		
5	64QAM	25	0	23.09	23.01	23.09	23.33	22.73	24	

Band 48										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)		
Channel				55340	55830	56150	56640			
Frequency (MHz)				3560	3609	3641	3690			
20	QPSK	1	0	22.52	22.57	22.53	22.52	23.4		
20	QPSK	1	49	22.34	22.30	22.27	22.27			
20	QPSK	1	99	22.30	22.28	22.23	22.22			
20	QPSK	50	0	22.25	22.25	22.22	22.19			
20	QPSK	50	24	22.22	22.12	22.14	22.14	22.9		
20	QPSK	50	50	22.08	22.05	22.07	22.08			
20	QPSK	100	0	22.19	22.11	22.15	22.13			
20	16QAM	1	0	22.36	22.36	22.33	22.31			
20	16QAM	1	49	22.10	22.11	22.07	22.06	22.9		
20	16QAM	1	99	22.13	22.10	22.07	22.07			
20	16QAM	50	0	21.28	21.29	21.24	21.24			
20	16QAM	50	24	21.21	21.13	21.17	21.15			
20	16QAM	50	50	21.09	21.07	21.11	21.09	21.9		
20	16QAM	100	0	21.20	21.14	21.18	21.15			
20	64QAM	1	0	21.08	21.10	21.08	21.05			
20	64QAM	1	49	20.87	20.85	20.81	20.79	21.9		
20	64QAM	1	99	20.84	20.77	20.80	20.83			
20	64QAM	50	0	20.31	20.29	20.26	20.23			
20	64QAM	50	24	20.22	20.14	20.19	20.18	20.9		
20	64QAM	50	50	20.11	20.08	20.10	20.08			
20	64QAM	100	0	20.21	20.16	20.17	20.16			
Channel				55315	55820	56160	56665			
Frequency (MHz)				3557.5	3608	3642	3692.5	Tune-up limit (dBm)		
15	QPSK	1	0	22.42	22.48	22.40	22.39	23.4		
15	QPSK	1	37	22.31	22.32	22.26	22.21			
15	QPSK	1	74	22.30	22.27	22.25	22.26			
15	QPSK	36	0	22.22	22.23	22.17	22.16			
15	QPSK	36	20	22.09	22.09	22.10	22.11	22.9		
15	QPSK	36	39	22.03	22.06	22.07	22.08			
15	QPSK	75	0	22.12	22.11	22.13	22.12			
15	16QAM	1	0	22.29	22.30	22.25	22.24			
15	16QAM	1	37	22.06	22.07	21.97	21.97	22.9		
15	16QAM	1	74	22.16	22.16	22.09	22.13			
15	16QAM	36	0	21.18	21.20	21.13	21.13			
15	16QAM	36	20	21.06	21.05	21.09	21.08	21.9		
15	16QAM	36	39	21.04	21.02	21.05	21.04			
15	16QAM	75	0	21.13	21.11	21.15	21.13			
15	64QAM	1	0	21.04	21.04	21.01	21.00	21.9		
15	64QAM	1	37	20.87	20.88	20.81	20.82			
15	64QAM	1	74	20.86	20.87	20.87	20.89			
15	64QAM	36	0	20.25	20.28	20.19	20.19	20.9		
15	64QAM	36	20	20.10	20.10	20.12	20.13			
15	64QAM	36	39	20.08	20.08	20.07	20.07			
15	64QAM	75	0	20.14	20.13	20.14	20.13			
Channel				55290	55815	56165	56690	Tune-up limit (dBm)		
Frequency (MHz)				3555	3607.5	3642.5	3695			
10	QPSK	1	0	22.39	22.45	22.33	22.30	23.4		
10	QPSK	1	25	22.23	22.27	22.26	22.16			
10	QPSK	1	49	22.28	22.22	22.25	22.16			
10	QPSK	25	0	22.21	22.16	22.13	22.08			
10	QPSK	25	12	22.02	22.01	22.03	22.05	22.9		
10	QPSK	25	25	22.01	22.04	22.05	22.01			
10	QPSK	50	0	22.04	22.10	22.06	22.04			
10	16QAM	1	0	22.22	22.30	22.21	22.14	22.9		
10	16QAM	1	25	22.00	21.98	21.88	21.87			
10	16QAM	1	49	22.16	22.11	22.01	22.13			
10	16QAM	25	0	21.10	21.13	21.04	21.12	21.9		
10	16QAM	25	12	21.01	20.96	20.99	21.00			
10	16QAM	25	25	20.95	20.99	20.98	20.98			
10	16QAM	50	0	21.03	21.11	21.08	21.04			
10	64QAM	1	0	20.95	21.03	20.99	20.96	21.9		
10	64QAM	1	25	20.87	20.85	20.71	20.74			
10	64QAM	1	49	20.77	20.67	20.84	20.80			
10	64QAM	25	0	20.24	20.20	20.15	20.14	20.9		
10	64QAM	25	12	20.06	20.06	20.10	20.07			
10	64QAM	25	25	20.03	20.01	20.05	20.03			
10	64QAM	50	0	20.14	20.04	20.07	20.05			
Channel				55265	55810	56170	56715	Tune-up limit (dBm)		
Frequency (MHz)				3552.5	3607	3643	3697.5			
5	QPSK	1	0	22.38	22.41	22.40	22.37	23.4		
5	QPSK	1	12	22.38	22.35	22.32	22.34			
5	QPSK	1	24	22.36	22.38	22.31	22.30			
5	QPSK	12	0	22.24	22.21	22.16	22.18			
5	QPSK	12	7	22.25	22.22	22.17	22.20	22.9		
5	QPSK	12	13	22.20	22.17	22.16	22.15			
5	QPSK	25	0	22.17	22.18	22.14	22.17			
5	16QAM	1	0	22.23	22.23	22.18	22.16	22.9		
5	16QAM	1	12	22.28	22.26	22.24	22.18			
5	16QAM	1	24	22.22	22.22	22.17	22.16			
5	16QAM	12	0	21.21	21.23	21.16	21.16	21.9		
5	16QAM	12	7	21.23	21.23	21.18	21.18			
5	16QAM	12	13	21.15	21.14	21.10	21.10			
5	16QAM	25	0	21.24	21.25	21.18	21.17	21.9		
5	64QAM	1	0	20.99	20.98	20.92	20.92			
5	64QAM	1	12	20.99	20.96	20.91	20.94			
5	64QAM	1	24	21.00	21.00	20.95	20.90			
5	64QAM	12	0	20.28	20.27	20.21	20.21	20.9		
5	64QAM	12	7	20.26	20.24	20.23	20.24			
5	64QAM	12	13	20.21	20.22	20.15	20.16			
5	64QAM	25	0	20.24	20.24	20.22	20.19			

Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	21.22	21.19	21.16	22.8
20	QPSK	1	49	21.19	21.17	21.16	
20	QPSK	1	89	21.20	21.17	21.13	
20	QPSK	50	0	21.38	21.29	21.25	22.8
20	QPSK	50	24	21.38	21.32	21.23	
20	QPSK	50	50	21.33	21.30	21.27	
20	QPSK	100	0	21.38	21.34	21.23	22.8
20	16QAM	1	0	21.36	21.34	21.31	
20	16QAM	1	49	21.33	21.28	21.28	
20	16QAM	1	89	21.34	21.33	21.29	22.8
20	16QAM	50	0	21.43	21.33	21.28	
20	16QAM	50	24	21.42	21.40	21.28	
20	16QAM	50	50	21.37	21.36	21.31	22.8
20	16QAM	100	0	21.40	21.36	21.27	
20	64QAM	1	0	21.08	21.05	20.99	
20	64QAM	1	49	21.08	21.05	21.01	22.8
20	64QAM	1	89	21.05	21.07	21.00	
20	64QAM	50	0	21.25	21.13	21.10	22.8
20	64QAM	50	24	21.21	21.20	21.08	
20	64QAM	50	50	21.19	21.17	21.12	
20	64QAM	100	0	21.21	21.18	21.06	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	21.24	21.21	21.15	22.8
15	QPSK	1	37	21.18	21.15	21.11	
15	QPSK	1	74	21.22	21.15	21.11	
15	QPSK	36	0	21.41	21.30	21.30	22.8
15	QPSK	36	20	21.39	21.37	21.34	
15	QPSK	36	39	21.36	21.32	21.29	
15	QPSK	75	0	21.40	21.37	21.23	22.8
15	16QAM	1	0	21.37	21.40	21.35	
15	16QAM	1	37	21.34	21.29	21.25	
15	16QAM	1	74	21.40	21.38	21.33	22.8
15	16QAM	36	0	21.41	21.28	21.29	
15	16QAM	36	20	21.36	21.34	21.31	
15	16QAM	36	39	21.35	21.31	21.29	22.8
15	16QAM	75	0	21.44	21.39	21.31	
15	64QAM	1	0	21.09	21.06	21.04	
15	64QAM	1	37	21.12	21.11	21.09	22.8
15	64QAM	1	74	21.10	21.12	21.04	
15	64QAM	36	0	21.26	21.12	21.11	22.8
15	64QAM	36	20	21.24	21.17	21.15	
15	64QAM	36	39	21.21	21.17	21.13	
15	64QAM	75	0	21.25	21.18	21.07	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	21.18	21.20	21.10	22.8
10	QPSK	1	25	21.12	21.07	21.04	
10	QPSK	1	49	21.20	21.15	21.04	
10	QPSK	25	0	21.33	21.29	21.25	22.8
10	QPSK	25	12	21.31	21.27	21.24	
10	QPSK	25	25	21.30	21.29	21.24	
10	QPSK	60	0	21.30	21.28	21.23	22.8
10	16QAM	1	0	21.30	21.30	21.30	
10	16QAM	1	25	21.34	21.24	21.21	
10	16QAM	1	49	21.34	21.36	21.32	22.8
10	16QAM	25	0	21.36	21.19	21.25	
10	16QAM	25	12	21.27	21.33	21.28	
10	16QAM	25	25	21.26	21.31	21.28	22.8
10	16QAM	50	0	21.44	21.36	21.22	
10	64QAM	1	0	21.01	20.98	20.98	
10	64QAM	1	25	21.05	21.03	21.02	22.8
10	64QAM	1	49	21.07	21.03	21.04	
10	64QAM	25	0	21.18	21.12	21.03	22.8
10	64QAM	25	12	21.14	21.15	21.12	
10	64QAM	25	25	21.12	21.10	21.06	
10	64QAM	50	0	21.20	21.12	21.01	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	21.33	21.25	21.23	22.8
5	QPSK	1	12	21.28	21.24	21.19	
5	QPSK	1	24	21.30	21.24	21.19	
5	QPSK	12	0	21.42	21.34	21.34	22.8
5	QPSK	12	7	21.41	21.37	21.34	
5	QPSK	12	13	21.41	21.38	21.36	
5	QPSK	25	0	21.41	21.37	21.33	22.8
5	16QAM	1	0	21.45	21.37	21.36	
5	16QAM	1	12	21.48	21.39	21.37	
5	16QAM	1	24	21.48	21.39	21.34	22.8
5	16QAM	12	0	21.40	21.31	21.34	
5	16QAM	12	7	21.41	21.36	21.33	
5	16QAM	12	13	21.41	21.35	21.29	22.8
5	16QAM	25	0	21.46	21.39	21.37	
5	64QAM	1	0	21.22	21.13	21.12	
5	64QAM	1	12	21.22	21.19	21.16	22.8
5	64QAM	1	24	21.23	21.19	21.13	
5	64QAM	12	0	21.26	21.14	21.17	22.8
5	64QAM	12	7	21.26	21.26	21.21	
5	64QAM	12	13	21.26	21.20	21.18	
5	64QAM	25	0	21.30	21.25	21.18	

Band 41										
5W (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Middle Ch / Freq	Power Middle Ch / Freq	Power High-Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	21.19	21.13	21.15	21.34	21.07	22.8	
20	QPSK	1	49	21.13	21.08	21.04	21.27	21.43		
20	QPSK	1	99	21.12	21.08	21.06	21.08	21.28		
20	QPSK	50	0	21.26	21.18	21.14	21.54	21.42		
20	QPSK	50	24	21.32	21.28	21.19	21.56	21.52	22.8	
20	QPSK	50	50	21.27	21.24	21.17	21.49	21.49		
20	QPSK	100	0	21.31	21.25	21.20	21.47	21.44		
20	16QAM	1	0	21.33	21.25	21.31	21.47	21.17		
20	16QAM	1	49	21.22	21.19	21.13	21.66	21.54	22.8	
20	16QAM	1	99	21.24	21.21	21.20	21.11	21.42		
20	16QAM	50	0	21.26	21.24	21.17	21.56	21.41		
20	16QAM	50	24	21.33	21.33	21.24	21.60	21.53		
20	16QAM	50	50	21.28	21.30	21.23	21.52	21.53	22.8	
20	16QAM	100	0	21.31	21.30	21.24	21.48	21.47		
20	64QAM	1	0	21.00	20.90	20.86	21.13	20.84		
20	64QAM	1	49	20.96	20.92	20.82	21.45	21.33		
20	64QAM	1	99	21.01	20.91	20.89	20.84	21.16	22.8	
20	64QAM	50	0	21.09	21.03	20.97	21.58	21.43		
20	64QAM	50	24	21.14	21.11	21.01	21.62	21.55		
20	64QAM	50	50	21.10	21.06	21.00	21.54	21.53		
20	64QAM	100	0	21.15	21.08	21.02	21.53	21.48	Tune-up limit (dBm)	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5		
15	QPSK	1	0	21.20	21.13	21.12	21.48	21.21	22.8	
15	QPSK	1	37	21.13	21.09	21.03	21.55	21.36		
15	QPSK	1	74	21.10	21.21	21.12	21.32	21.34		
15	QPSK	36	0	21.32	21.22	21.18	21.58	21.44		
15	QPSK	36	20	21.32	21.25	21.22	21.64	21.52	22.8	
15	QPSK	36	39	21.29	21.27	21.22	21.53	21.49		
15	QPSK	75	0	21.35	21.27	21.22	21.60	21.49		
15	16QAM	1	0	21.36	21.33	21.24	21.55	21.31		
15	16QAM	1	37	21.19	21.19	21.14	21.64	21.50	22.8	
15	16QAM	1	74	21.27	21.37	21.32	21.40	21.51		
15	16QAM	36	0	21.30	21.22	21.16	21.55	21.42		
15	16QAM	36	20	21.27	21.27	21.20	21.63	21.50		
15	16QAM	36	39	21.25	21.26	21.20	21.61	21.49	22.8	
15	16QAM	75	0	21.33	21.32	21.26	21.64	21.52		
15	64QAM	1	0	21.04	20.91	20.86	21.26	21.03		
15	64QAM	1	37	21.05	20.97	20.90	21.43	21.32		
15	64QAM	1	74	21.00	21.03	20.97	21.13	21.28	22.8	
15	64QAM	36	0	21.13	21.02	20.97	21.61	21.47		
15	64QAM	36	20	21.14	21.10	21.04	21.70	21.58		
15	64QAM	36	39	21.10	21.07	21.01	21.57	21.55		
15	64QAM	75	0	21.16	21.09	21.06	21.66	21.53	Tune-up limit (dBm)	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	21.12	21.08	21.12	21.43	21.16	22.8	
10	QPSK	1	25	21.03	20.96	20.98	21.52	21.28		
10	QPSK	1	49	21.10	21.16	21.09	21.32	21.27		
10	QPSK	25	0	21.24	21.18	21.16	21.58	21.41		
10	QPSK	25	12	21.24	21.17	21.13	21.62	21.50	22.8	
10	QPSK	25	25	21.25	21.25	21.22	21.45	21.45		
10	QPSK	50	0	21.27	21.25	21.14	21.55	21.47		
10	16QAM	1	0	21.28	21.27	21.21	21.49	21.25		
10	16QAM	1	25	21.17	21.11	21.09	21.62	21.46	22.8	
10	16QAM	1	49	21.21	21.28	21.29	21.35	21.41		
10	16QAM	25	0	21.26	21.18	21.14	21.48	21.37		
10	16QAM	25	12	21.21	21.26	21.20	21.61	21.49		
10	16QAM	25	25	21.20	21.17	21.20	21.49	21.41	22.8	
10	16QAM	50	0	21.32	21.28	21.17	21.62	21.42		
10	64QAM	1	0	20.96	20.81	20.83	21.16	20.96		
10	64QAM	1	25	20.96	20.93	20.86	21.39	21.22		
10	64QAM	1	49	20.95	20.96	20.97	21.04	21.21	22.8	
10	64QAM	25	0	21.10	21.02	20.97	21.52	21.45		
10	64QAM	25	12	21.13	21.02	20.94	21.64	21.52		
10	64QAM	25	25	21.04	21.06	20.92	21.47	21.53		
10	64QAM	50	0	21.06	21.06	21.01	21.64	21.53	Tune-up limit (dBm)	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	21.33	21.10	21.05	21.53	21.47	22.8	
5	QPSK	1	12	21.24	21.21	21.10	21.58	21.44		
5	QPSK	1	24	21.24	21.12	21.09	21.49	21.37		
5	QPSK	12	0	21.38	21.28	21.16	21.62	21.57		
5	QPSK	12	7	21.41	21.30	21.25	21.65	21.59	22.8	
5	QPSK	12	13	21.36	21.29	21.25	21.69	21.55		
5	QPSK	25	0	21.36	21.28	21.24	21.64	21.57		
5	16QAM	1	0	21.46	21.27	21.22	21.67	21.60		
5	16QAM	1	12	21.45	21.37	21.36	21.81	21.64	22.8	
5	16QAM	1	24	21.45	21.34	21.27	21.72	21.56		
5	16QAM	12	0	21.40	21.30	21.19	21.62	21.57		
5	16QAM	12	7	21.39	21.31	21.25	21.63	21.55		
5	16QAM	12	13	21.35	21.30	21.23	21.68	21.52	22.8	
5	16QAM	25	0	21.41	21.33	21.32	21.65	21.59		
5	64QAM	1	0	21.22	21.00	20.91	21.48	21.37		
5	64QAM	1	12	21.16	21.06	21.01	21.52	21.37		
5	64QAM	1	24	21.18	21.04	21.04	21.44	21.34	22.8	
5	64QAM	12	0	21.23	21.11	21.01	21.68	21.61		
5	64QAM	12	7	21.21	21.15	21.10	21.68	21.66		
5	64QAM	12	13	21.22	21.12	21.09	21.72	21.60		
5	64QAM	25	0	21.21	21.15	21.10	21.73	21.65		

Band 41 HPUE										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.		Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2543.5	2593	2636.5	2680		
20	QPSK	1	0	22.85	22.77	22.77	23.00	22.71	24.6	
20	QPSK	1	49	22.78	22.76	22.67	23.19	23.03		
20	QPSK	1	99	22.76	22.76	22.71	22.71	22.92		
20	QPSK	50	0	23.01	22.94	22.89	23.29	23.14		
20	QPSK	50	24	23.09	23.05	22.96	23.31	23.26		
20	QPSK	50	50	23.01	23.00	22.93	23.19	23.23	24.6	
20	QPSK	100	0	23.08	23.02	22.95	23.21	23.18		
20	16QAM	1	0	23.19	23.08	23.10	23.40	22.99		
20	16QAM	1	49	23.14	23.12	23.05	23.38	23.40		
20	16QAM	1	99	23.10	23.07	23.06	23.05	23.28		
20	16QAM	50	0	23.05	22.96	22.93	23.34	23.17	24.6	
20	16QAM	50	24	23.10	23.06	22.98	23.35	23.28		
20	16QAM	50	50	23.06	23.00	22.97	23.26	23.25		
20	16QAM	100	0	23.09	23.04	22.97	23.26	23.21		
20	64QAM	1	0	23.05	22.93	22.93	23.13	22.87		
20	64QAM	1	49	23.01	22.97	22.90	23.45	23.30	24.6	
20	64QAM	1	99	22.99	22.96	22.92	22.89	23.14		
20	64QAM	50	0	22.94	22.88	22.84	23.35	23.15		
20	64QAM	50	24	23.01	22.99	22.92	23.39	23.29		
20	64QAM	50	50	22.96	22.93	22.88	23.28	23.25		
20	64QAM	100	0	23.02	22.95	22.90	23.28	23.21		Tune-up limit (dBm)
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	22.87	22.83	22.78	23.16	22.90	24.6	
15	QPSK	1	37	22.78	22.75	22.74	23.22	23.08		
15	QPSK	1	74	22.76	22.88	22.80	22.98	23.04		
15	QPSK	36	0	23.04	22.92	22.87	23.30	23.14		
15	QPSK	36	20	23.02	22.95	22.89	23.41	23.28		
15	QPSK	36	39	22.99	22.93	22.88	23.25	23.22	24.6	
15	QPSK	75	0	23.03	22.99	22.94	23.31	23.19		
15	16QAM	1	0	23.17	23.06	23.04	23.42	23.22		
15	16QAM	1	37	23.07	22.97	22.97	23.53	23.42		
15	16QAM	1	74	23.11	23.13	23.11	23.25	23.39		
15	16QAM	36	0	23.01	22.83	22.84	23.26	23.16	24.6	
15	16QAM	36	20	22.98	22.89	22.88	23.37	23.23		
15	16QAM	36	39	22.93	22.92	22.87	23.24	23.22		
15	16QAM	75	0	23.03	23.00	22.89	23.34	23.23		
15	64QAM	1	0	22.91	22.86	22.81	23.28	22.97		
15	64QAM	1	37	22.97	22.90	22.87	23.41	23.28	24.6	
15	64QAM	1	74	22.97	22.97	22.97	23.11	23.23		
15	64QAM	36	0	22.94	22.83	22.77	23.31	23.19		
15	64QAM	36	20	22.95	22.86	22.84	23.42	23.27		
15	64QAM	36	39	22.88	22.87	22.82	23.27	23.24		
15	64QAM	75	0	22.94	22.88	22.83	23.34	23.23		Tune-up limit (dBm)
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	22.81	22.81	22.69	23.10	22.89	24.6	
10	QPSK	1	25	22.89	22.74	22.64	23.13	23.05		
10	QPSK	1	49	22.68	22.84	22.71	22.92	23.00		
10	QPSK	25	0	22.97	22.84	22.77	23.30	23.10		
10	QPSK	25	12	22.84	22.93	22.83	23.34	23.23		
10	QPSK	25	25	22.98	22.92	22.79	23.19	23.12	24.6	
10	QPSK	50	0	23.00	22.90	22.92	23.30	23.18		
10	16QAM	1	0	23.13	23.06	22.97	23.38	23.16		
10	16QAM	1	25	22.98	22.88	22.97	23.46	23.35		
10	16QAM	1	49	23.03	23.06	23.02	23.22	23.35		
10	16QAM	25	0	23.01	22.77	22.84	23.23	23.11	24.6	
10	16QAM	25	12	22.95	22.89	22.82	23.28	23.19		
10	16QAM	25	25	22.86	22.90	22.83	23.21	23.21		
10	16QAM	50	0	22.93	22.92	22.84	23.26	23.15		
10	64QAM	1	0	22.87	22.80	22.74	23.20	22.89		
10	64QAM	1	25	22.95	22.81	22.79	23.34	23.23	24.6	
10	64QAM	1	49	22.90	22.95	22.96	23.08	23.16		
10	64QAM	25	0	22.85	22.83	22.77	23.22	23.12		
10	64QAM	25	12	22.90	22.83	22.82	23.39	23.17		
10	64QAM	25	25	22.81	22.84	22.79	23.18	23.16		
10	64QAM	50	0	22.87	22.84	22.80	23.33	23.23		Tune-up limit (dBm)
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	22.92	22.74	22.72	23.20	23.11	24.6	
5	QPSK	1	12	22.90	22.79	22.74	23.25	23.10		
5	QPSK	1	24	22.86	22.78	22.73	23.14	23.03		
5	QPSK	12	0	23.08	22.99	22.89	23.37	23.31		
5	QPSK	12	7	23.11	23.00	22.97	23.37	23.28		
5	QPSK	12	13	23.06	23.00	22.95	23.38	23.29	24.6	
5	QPSK	25	0	23.02	22.97	22.93	23.34	23.25		
5	16QAM	1	0	23.24	23.10	23.07	23.54	23.45		
5	16QAM	1	12	23.19	23.15	23.15	23.56	23.43		
5	16QAM	1	24	23.21	23.16	23.14	23.53	23.43		
5	16QAM	12	0	23.13	23.01	22.92	23.43	23.35	24.6	
5	16QAM	12	7	23.13	23.05	23.00	23.43	23.32		
5	16QAM	12	13	23.09	23.02	23.00	23.44	23.32		
5	16QAM	25	0	23.10	23.01	22.97	23.39	23.33		
5	64QAM	1	0	23.16	22.97	22.98	23.41	23.31		
5	64QAM	1	12	23.12	23.02	23.02	23.47	23.31	24.6	
5	64QAM	1	24	23.12	23.05	23.02	23.42	23.28		
5	64QAM	12	0	23.07	22.97	22.86	23.41	23.33		
5	64QAM	12	7	23.06	22.98	22.90	23.42	23.36		
5	64QAM	12	13	23.04	22.97	22.91	23.42	23.30		
5	64QAM	25	0	23.02	22.96	22.92	23.43	23.35		

Band 48									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low-Middle Ch. / Freq.	Power High-Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				55340	55830	56150	56640		
Frequency (MHz)				3560	3609	3641	3690		
20	QPSK	1	0	20.17	20.20	20.17	20.20	21.3	
20	QPSK	1	49	20.10	20.11	20.11	20.13		
20	QPSK	1	89	20.11	20.13	20.12	20.11		
20	QPSK	50	0	20.20	20.20	20.16	20.18		
20	QPSK	50	24	20.14	20.07	20.12	20.07	21.3	
20	QPSK	50	50	20.00	19.99	20.04	20.01		
20	QPSK	100	0	20.13	20.05	20.11	20.08		
20	16QAM	1	0	20.30	20.31	20.32	20.33		
20	16QAM	1	49	20.07	20.06	20.04	20.01	21.3	
20	16QAM	1	89	20.06	20.03	20.01	19.94		
20	16QAM	50	0	20.03	20.02	20.00	20.00		
20	16QAM	50	24	19.98	19.90	19.94	19.90		
20	16QAM	50	50	19.84	19.84	19.87	19.83	21.3	
20	16QAM	100	0	19.95	19.89	19.93	19.90		
20	64QAM	1	0	19.83	19.82	19.83	19.85		
20	64QAM	1	49	19.61	19.60	19.58	19.53		
20	64QAM	1	89	19.60	19.53	19.58	19.50	20.3	
20	64QAM	50	0	19.01	19.02	19.02	19.02		
20	64QAM	50	24	18.99	18.91	18.96	18.93		
20	64QAM	50	50	18.85	18.85	18.90	18.83		
20	64QAM	100	0	18.98	18.89	18.95	18.91	Tune-up limit (dBm)	
Channel				55315	55820	56160	56665		
Frequency (MHz)				3557.5	3608	3642	3692.5		
15	QPSK	1	0	20.15	20.21	20.17	20.11	21.3	
15	QPSK	1	37	20.12	20.14	20.13	20.13		
15	QPSK	1	74	20.12	20.16	20.14	20.11		
15	QPSK	36	0	19.95	20.19	20.15	20.12		
15	QPSK	36	20	19.84	20.06	20.08	20.05	21.3	
15	QPSK	36	39	19.80	20.00	20.04	19.99		
15	QPSK	75	0	19.87	20.08	20.12	20.04		
15	16QAM	1	0	20.03	20.26	20.22	20.21		
15	16QAM	1	37	19.84	20.03	19.95	19.91	21.3	
15	16QAM	1	74	19.90	20.14	20.08	20.00		
15	16QAM	36	0	19.94	19.95	19.91	19.91		
15	16QAM	36	20	19.81	19.82	19.85	19.81		
15	16QAM	36	39	19.78	19.79	19.81	19.77	21.3	
15	16QAM	75	0	19.86	19.89	19.92	19.87		
15	64QAM	1	0	19.77	19.80	19.75	19.72		
15	64QAM	1	37	19.60	19.64	19.58	19.54		
15	64QAM	1	74	19.63	19.59	19.64	19.56	20.3	
15	64QAM	36	0	19.00	19.00	18.97	18.95		
15	64QAM	36	20	18.85	18.88	18.91	18.85		
15	64QAM	36	39	18.82	18.84	18.88	18.81		
15	64QAM	75	0	18.88	18.88	18.93	18.89	Tune-up limit (dBm)	
Channel				55290	55815	56165	56690		
Frequency (MHz)				3555	3607.5	3642.5	3695		
10	QPSK	1	0	20.12	20.19	20.13	20.16	21.3	
10	QPSK	1	25	20.11	20.13	20.12	20.15		
10	QPSK	1	49	20.16	20.15	20.14	20.12		
10	QPSK	25	0	19.97	20.28	20.15	20.04		
10	QPSK	25	12	19.78	20.01	20.00	20.04	21.3	
10	QPSK	25	25	19.74	20.09	20.11	19.99		
10	QPSK	60	0	19.83	20.10	20.20	19.95		
10	16QAM	1	0	20.07	20.20	20.15	20.11		
10	16QAM	1	25	19.92	20.10	19.94	19.88	21.3	
10	16QAM	1	49	19.81	20.05	20.11	20.07		
10	16QAM	25	0	20.02	20.04	19.91	19.90		
10	16QAM	25	12	19.73	19.86	19.93	19.85		
10	16QAM	25	25	19.76	19.85	19.87	19.75	21.3	
10	16QAM	50	0	19.79	19.81	19.98	19.81		
10	64QAM	1	0	19.76	19.71	19.68	19.69		
10	64QAM	1	25	19.54	19.55	19.48	19.49		
10	64QAM	1	49	19.57	19.58	19.68	19.60	20.3	
10	64QAM	25	0	19.01	19.06	19.01	19.05		
10	64QAM	25	12	18.91	18.92	19.00	18.88		
10	64QAM	25	25	18.88	18.93	18.98	18.79		
10	64QAM	50	0	18.95	18.82	18.95	18.81	Tune-up limit (dBm)	
Channel				55265	55810	56170	56715		
Frequency (MHz)				3552.5	3607	3643	3697.5		
5	QPSK	1	0	20.13	20.24	20.10	20.11	21.3	
5	QPSK	1	12	20.12	20.13	20.15	20.13		
5	QPSK	1	24	20.11	20.10	20.13	20.14		
5	QPSK	12	0	19.93	20.22	20.08	20.12		
5	QPSK	12	7	19.85	19.92	19.94	20.14	21.3	
5	QPSK	12	13	19.81	20.16	20.17	19.89		
5	QPSK	25	0	19.85	20.09	20.29	20.00		
5	16QAM	1	0	20.14	20.18	20.18	20.06		
5	16QAM	1	12	19.93	20.14	19.91	19.97	21.3	
5	16QAM	1	24	19.86	20.01	20.10	20.03		
5	16QAM	12	0	20.10	19.96	19.95	19.86		
5	16QAM	12	7	19.76	19.86	19.84	19.91		
5	16QAM	12	13	19.72	19.88	19.79	19.81	20.3	
5	16QAM	25	0	19.76	19.90	20.07	19.76		
5	64QAM	1	0	19.68	19.76	19.58	19.65		
5	64QAM	1	12	19.52	19.65	19.36	19.56		
5	64QAM	1	24	19.50	19.67	19.78	19.61	20.3	
5	64QAM	12	0	18.93	18.96	18.91	18.99		
5	64QAM	12	7	18.83	18.99	19.09	18.96		
5	64QAM	12	13	18.84	18.93	18.97	18.83		
5	64QAM	25	0	18.93	18.72	18.89	18.82	Tune-up limit (dBm)	

General Note:

1. NR implementation of n2, n5, n12, n25, n41, n66 and n71 is limited to EN-DC operations only (NSA), with LTE Bands 2/4/5/7/12/13/14/25/26/30/66/71/41/48 acting as anchor bands, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors. the detail EN-DC combination as below.
2. Following 5G NR support SCS 15KHz / 30KHz, DFT-s/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256QAM and support Bandwidth include as below EN-DC combination.
4. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM measurement is unnecessary
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, full measurement on Pi/2 BPSK and QPSK, for 16QAM/64QAM/256QAM spot check 1RB 1offset configuration to ensure the output power will not ½ dB higher than Pi/2 BPSK and QPSK, for smaller bandwidth output power will spot check 1RB 1offset configuration at Pi/2 BPSK to ensure output power will not ½ dB higher than largest supported bandwidth.
 - c. SAR testing start with the largest channel bandwidth and measure SAR for Pi/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
 - d. 50% RB allocation for Pi/2 BPSK SAR testing follows 1RB Pi/2 BPSK allocation procedure
 - e. Pi/2 BPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
 - f. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in Pi/2 BPSK, also reported SAR for the Pi/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
5. SAR testing for NR was performed using Factory Test Mode software to establish the connection, and according to manufacturer definition the TDD actual transmission cycle is 33%, but factory test mode software is set and perform SAR with 25%, therefore, the SAR test result will be scaled up to 33%

<3GPP 38.101 MPR for EN-DC>

Table 6.2.2-1 Maximum power reduction (MPR) for power class 3

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
		$\leq 0.5^2$	$\leq 0.5^2$	0 ²
	QPSK		≤ 1	0
	16 QAM		≤ 2	≤ 1
	64 QAM		≤ 2.5	
	256 QAM		≤ 4.5	
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM		≤ 3.5	
	256 QAM		≤ 6.5	

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

<EN-DC Combination>

ENDC	5G FR1	LTE Anchors Bands
	n2 (SCS: 15kHz), BW: 5/10/15/20	5/12/13/14
	n5 (SCS: 15kHz), BW: 5/10/15/20	2/7/30/48/66
	n12 (SCS: 15kHz), BW: 5/10/15	2/66
	n25 (SCS: 15kHz), BW: 5/10/15/20	12
	n41 (SCS: 30kHz), BW: 20/40/50/60/80/90/100	2/4/25/26/66
	n66 (SCS: 15kHz), BW: 5/10/15/20	5/12/13/14/48/71
	n71 (SCS: 15kHz), BW: 5/10/15/20	2/7/66



n2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	24.13	24.11	24.05	25.7
20	PI/2 BPSK	1	53	24.35	24.18	24.17	
20	PI/2 BPSK	1	104	24.11	24.17	24.13	
20	PI/2 BPSK	50	0	23.79	23.84	23.67	25.7
20	PI/2 BPSK	50	28	24.24	24.17	24.20	
20	PI/2 BPSK	50	56	23.71	23.72	23.69	
20	PI/2 BPSK	100	0	23.71	23.71	23.65	25.2
20	QPSK	1	1	24.27	24.22	24.15	25.7
20	QPSK	1	53	24.21	24.24	24.17	
20	QPSK	1	104	24.15	24.20	24.19	
20	QPSK	50	0	23.30	23.26	23.23	25.7
20	QPSK	50	28	24.16	24.28	24.17	
20	QPSK	50	56	23.34	23.29	23.29	
20	QPSK	100	0	23.36	23.30	23.25	24.7
20	16QAM	1	1	23.46	23.37	23.35	24.7
20	16QAM	1	53	23.32	23.58	23.32	
20	16QAM	1	104	23.38	23.35	23.31	
20	16QAM	50	0	22.28	22.19	22.25	24.7
20	16QAM	50	28	23.24	23.22	23.23	
20	16QAM	50	56	22.33	22.34	22.27	
20	16QAM	100	0	22.32	22.24	22.18	23.7
20	64QAM	1	1	21.84	21.85	21.83	23.2
20	64QAM	1	53	21.86	21.81	21.83	
20	64QAM	1	104	21.93	21.85	21.77	
20	64QAM	50	0	21.75	21.73	21.70	23.2
20	64QAM	50	28	21.84	21.84	21.80	
20	64QAM	50	56	21.95	21.85	21.80	
20	64QAM	100	0	21.86	21.65	21.68	23.2
20	256QAM	1	1	20.00	19.99	19.94	21.2
20	256QAM	1	53	19.98	19.96	19.86	
20	256QAM	1	104	19.98	19.92	19.94	
20	256QAM	50	0	20.02	19.88	19.91	21.2
20	256QAM	50	28	19.95	19.93	19.94	
20	256QAM	50	56	19.97	19.95	19.92	
20	256QAM	100	0	19.95	19.92	19.83	21.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	24.34	24.29	24.22	25.7
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	24.17	24.18	24.12	25.7
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	24.13	24.16	24.12	25.7



n5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				168800	167500	167600	
Frequency (MHz)				834	836.5	836	
20	PI/2 BPSK	1	1	23.87	23.80	23.70	25.0
20	PI/2 BPSK	1	53	23.72	23.70	23.64	
20	PI/2 BPSK	1	104	23.63	23.64	23.47	
20	PI/2 BPSK	50	0	22.96	23.28	23.20	25.0
20	PI/2 BPSK	50	28	23.57	23.75	23.72	
20	PI/2 BPSK	50	56	23.17	23.33	23.22	
20	PI/2 BPSK	100	0	23.25	23.24	23.23	24.5
20	QPSK	1	1	23.74	23.89	23.64	25.0
20	QPSK	1	53	23.67	23.75	23.70	
20	QPSK	1	104	23.66	23.64	23.37	
20	QPSK	50	0	22.58	22.60	22.57	25.0
20	QPSK	50	28	23.71	23.78	23.70	
20	QPSK	50	56	22.60	22.51	22.50	
20	QPSK	100	0	22.63	22.60	22.67	24.0
20	16QAM	1	1	22.59	22.59	22.48	24.0
20	16QAM	1	53	22.38	22.44	22.41	
20	16QAM	1	104	22.43	22.48	22.10	
20	16QAM	50	0	21.78	21.74	21.71	24.0
20	16QAM	50	28	22.57	22.59	22.56	
20	16QAM	50	56	21.67	21.64	21.62	
20	16QAM	100	0	21.67	21.70	21.75	23.0
20	64QAM	1	1	21.55	21.44	21.42	22.5
20	64QAM	1	53	21.49	21.55	21.50	
20	64QAM	1	104	21.48	21.43	21.41	
20	64QAM	50	0	21.19	21.12	21.13	22.5
20	64QAM	50	28	21.15	21.20	21.15	
20	64QAM	50	56	21.10	21.07	21.03	
20	64QAM	100	0	21.05	21.13	21.12	22.5
20	256QAM	1	1	19.39	19.39	19.44	20.5
20	256QAM	1	53	19.43	19.41	19.42	
20	256QAM	1	104	19.52	19.38	19.33	
20	256QAM	50	0	19.33	19.27	19.32	20.5
20	256QAM	50	28	19.27	19.23	19.35	
20	256QAM	50	56	19.35	19.25	19.18	
20	256QAM	100	0	19.26	19.27	19.34	20.5
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.83	23.79	23.72	25.0
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.75	23.71	23.63	25.0
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.86	23.83	23.74	25.0



n25							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	381000	25.7
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	24.86	24.79	24.85	25.7
20	PI/2 BPSK	1	53	24.85	24.78	24.69	
20	PI/2 BPSK	1	104	24.75	24.71	24.59	
20	PI/2 BPSK	50	0	24.25	24.45	24.33	25.7
20	PI/2 BPSK	50	28	24.86	24.85	24.73	
20	PI/2 BPSK	50	56	24.25	24.35	24.24	
20	PI/2 BPSK	100	0	24.40	24.39	24.30	25.2
20	QPSK	1	1	24.57	24.65	24.62	25.7
20	QPSK	1	53	24.53	24.66	24.67	
20	QPSK	1	104	24.56	24.64	24.46	
20	QPSK	50	0	23.71	23.85	23.79	25.7
20	QPSK	50	28	24.71	24.76	24.69	
20	QPSK	50	56	23.71	23.80	23.78	
20	QPSK	100	0	23.83	23.85	23.81	24.7
20	16QAM	1	1	23.52	23.66	23.67	24.7
20	16QAM	1	53	23.48	23.62	23.52	
20	16QAM	1	104	23.56	23.57	23.38	
20	16QAM	50	0	22.80	22.90	22.83	24.7
20	16QAM	50	28	23.80	23.82	23.77	
20	16QAM	50	56	22.76	22.86	22.80	
20	16QAM	100	0	22.85	22.92	22.87	23.7
20	64QAM	1	1	22.33	22.36	22.38	23.2
20	64QAM	1	53	22.35	22.42	22.45	
20	64QAM	1	104	22.22	22.35	22.46	
20	64QAM	50	0	22.32	22.36	22.29	23.2
20	64QAM	50	28	22.36	22.43	22.30	
20	64QAM	50	56	22.24	22.32	22.32	
20	64QAM	100	0	22.30	22.38	22.31	23.2
20	256QAM	1	1	20.15	20.29	20.29	21.2
20	256QAM	1	53	20.07	20.14	20.17	
20	256QAM	1	104	20.09	20.25	20.13	
20	256QAM	50	0	20.28	20.45	20.42	21.2
20	256QAM	50	28	20.41	20.48	20.40	
20	256QAM	50	56	20.38	20.37	20.29	
20	256QAM	100	0	20.39	20.36	20.32	21.2
Channel				371500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	PI/2 BPSK	1	1	24.74	24.75	24.76	25.7
Channel				371000	376000	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	PI/2 BPSK	1	1	24.55	24.56	24.63	25.7
Channel				370500	376000	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	PI/2 BPSK	1	1	24.56	24.59	24.61	25.7



n66							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				34000	34000	35000	25.7
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	24.57	24.40	24.34	25.7
20	PI/2 BPSK	1	53	24.31	24.25	24.24	
20	PI/2 BPSK	1	104	24.45	24.26	24.29	
20	PI/2 BPSK	50	0	23.91	23.75	23.86	25.7
20	PI/2 BPSK	50	28	24.44	24.37	24.40	
20	PI/2 BPSK	50	56	23.83	23.79	23.78	
20	PI/2 BPSK	100	0	23.86	23.74	23.80	25.2
20	QPSK	1	1	24.48	24.46	24.52	25.7
20	QPSK	1	53	24.35	24.42	24.45	
20	QPSK	1	104	24.56	24.56	24.41	
20	QPSK	50	0	23.42	23.48	23.45	25.7
20	QPSK	50	28	24.39	24.41	24.40	
20	QPSK	50	56	23.46	23.38	23.37	
20	QPSK	100	0	23.47	23.32	23.40	24.7
20	16QAM	1	1	23.56	23.60	23.62	24.7
20	16QAM	1	53	23.34	23.52	23.50	
20	16QAM	1	104	23.62	23.60	23.55	
20	16QAM	50	0	22.42	22.43	22.49	24.7
20	16QAM	50	28	23.30	23.34	23.47	
20	16QAM	50	56	22.49	22.52	22.47	
20	16QAM	100	0	22.43	22.45	22.54	23.7
20	64QAM	1	1	22.10	22.00	22.06	23.2
20	64QAM	1	53	21.86	21.85	21.87	
20	64QAM	1	104	22.09	22.00	21.95	
20	64QAM	50	0	21.99	21.89	21.93	23.2
20	64QAM	50	28	22.04	21.91	21.94	
20	64QAM	50	56	21.93	21.97	21.91	
20	64QAM	100	0	22.00	21.96	21.84	23.2
20	256QAM	1	1	19.91	20.28	19.90	21.2
20	256QAM	1	53	19.86	20.26	19.84	
20	256QAM	1	104	19.94	20.42	19.96	
20	256QAM	50	0	20.11	20.12	20.02	21.2
20	256QAM	50	28	20.09	20.10	20.01	
20	256QAM	50	56	20.08	20.13	20.06	
20	256QAM	100	0	20.10	20.02	20.05	21.2
Channel				34350	34900	35450	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	24.56	24.54	24.55	25.7
Channel				34300	34900	35000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	24.42	24.43	24.52	25.7
Channel				34250	34900	35500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	24.42	24.40	24.47	25.7



n71							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134650	136100	137650	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	24.51	24.29	24.46	25.7
20	PI/2 BPSK	1	53	24.30	24.19	24.28	
20	PI/2 BPSK	1	104	24.20	24.16	24.10	
20	PI/2 BPSK	50	0	23.93	23.72	23.74	25.7
20	PI/2 BPSK	50	28	24.39	24.35	24.43	
20	PI/2 BPSK	50	56	23.76	23.58	23.51	
20	PI/2 BPSK	100	0	23.85	23.77	23.62	25.2
20	QPSK	1	1	24.08	24.12	24.34	25.7
20	QPSK	1	53	24.38	24.28	24.20	
20	QPSK	1	104	24.24	24.16	23.86	
20	QPSK	50	0	23.68	23.48	23.37	25.7
20	QPSK	50	28	24.43	24.36	24.28	
20	QPSK	50	56	23.52	23.34	23.28	
20	QPSK	100	0	23.56	23.46	23.30	24.7
20	16QAM	1	1	22.87	22.85	23.45	24.7
20	16QAM	1	53	23.35	23.27	23.20	
20	16QAM	1	104	23.34	23.24	23.09	
20	16QAM	50	0	22.69	22.52	22.44	24.7
20	16QAM	50	28	23.53	23.44	23.29	
20	16QAM	50	56	22.55	22.37	22.31	
20	16QAM	100	0	22.55	22.45	22.28	23.7
20	64QAM	1	1	22.89	22.55	22.43	23.2
20	64QAM	1	53	22.43	22.34	22.25	
20	64QAM	1	104	22.27	22.23	22.06	
20	64QAM	50	0	22.24	21.99	21.92	23.2
20	64QAM	50	28	22.07	22.03	21.84	
20	64QAM	50	56	22.03	21.95	21.80	
20	64QAM	100	0	22.11	21.98	21.83	23.2
20	256QAM	1	1	20.58	20.42	20.37	21.2
20	256QAM	1	53	20.23	20.21	20.13	
20	256QAM	1	104	20.23	20.22	20.00	
20	256QAM	50	0	20.42	20.23	20.09	21.2
20	256QAM	50	28	20.19	20.14	19.99	
20	256QAM	50	56	20.13	20.01	19.90	
20	256QAM	100	0	20.19	20.06	19.88	21.2
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	24.50	24.49	24.49	25.7
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	24.42	24.38	24.44	25.7
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	24.46	24.41	24.49	25.7



n12							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141500	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	23.42	23.35	23.41	24.7
15	PI/2 BPSK	1	40	23.23	23.29	23.27	
15	PI/2 BPSK	1	77	23.10	23.12	23.14	
15	PI/2 BPSK	36	0	22.92	22.90	22.88	24.7
15	PI/2 BPSK	36	22	23.22	23.22	23.21	
15	PI/2 BPSK	36	43	22.76	22.74	22.74	
15	PI/2 BPSK	75	0	22.85	22.75	22.71	24.2
15	QPSK	1	1	23.34	23.34	23.33	24.7
15	QPSK	1	40	23.21	23.19	23.19	
15	QPSK	1	77	23.09	23.05	23.08	
15	QPSK	36	0	22.27	22.19	22.23	24.7
15	QPSK	36	22	23.16	23.23	23.14	
15	QPSK	36	43	22.11	22.07	22.09	
15	QPSK	75	0	22.17	22.23	22.16	23.7
15	16QAM	1	1	22.11	22.10	22.14	23.7
15	16QAM	1	40	21.95	21.95	22.05	
15	16QAM	1	77	21.82	21.80	21.83	
15	16QAM	36	0	21.43	21.38	21.31	23.7
15	16QAM	36	22	22.18	22.22	22.14	
15	16QAM	36	43	21.28	21.25	21.24	
15	16QAM	75	0	21.30	21.25	21.24	22.7
15	64QAM	1	1	21.29	21.27	21.18	22.2
15	64QAM	1	40	21.21	21.19	21.18	
15	64QAM	1	77	21.08	21.08	21.10	
15	64QAM	36	0	20.91	20.82	20.79	22.2
15	64QAM	36	22	20.82	20.90	20.82	
15	64QAM	36	43	20.77	20.73	20.73	
15	64QAM	75	0	20.88	20.84	20.86	22.2
15	256QAM	1	1	19.10	19.08	19.12	20.2
15	256QAM	1	40	19.03	18.94	18.97	
15	256QAM	1	77	18.90	18.92	18.91	
15	256QAM	36	0	18.92	18.90	18.92	20.2
15	256QAM	36	22	18.80	18.77	18.80	
15	256QAM	36	43	18.75	18.70	18.72	
15	256QAM	75	0	18.82	18.78	18.81	20.2
Channel				140800	141500	142200	
Frequency (MHz)				704	707.5	711	
10	PI/2 BPSK	1	1	23.35	23.27	23.38	24.7
Channel				140300	141500	142700	
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	23.40	23.35	23.40	24.7



n2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	24.99	24.90	24.89	25.7
20	PI/2 BPSK	1	53	24.83	24.81	24.84	
20	PI/2 BPSK	1	104	24.81	24.81	24.85	
20	PI/2 BPSK	50	0	24.50	24.33	24.50	25.7
20	PI/2 BPSK	50	28	24.80	24.71	24.78	
20	PI/2 BPSK	50	56	24.42	24.40	24.37	
20	PI/2 BPSK	100	0	24.35	24.25	24.34	25.2
20	QPSK	1	1	24.91	24.83	24.74	25.7
20	QPSK	1	53	24.81	24.79	24.86	
20	QPSK	1	104	24.84	24.82	24.53	
20	QPSK	50	0	23.91	23.86	23.80	25.7
20	QPSK	50	28	24.86	24.83	24.68	
20	QPSK	50	56	23.88	23.85	23.87	
20	QPSK	100	0	23.86	23.85	23.72	24.7
20	16QAM	1	1	23.83	23.81	23.73	24.7
20	16QAM	1	53	23.69	23.65	23.61	
20	16QAM	1	104	23.79	23.83	23.43	
20	16QAM	50	0	22.92	22.87	22.83	24.7
20	16QAM	50	28	23.85	23.85	23.68	
20	16QAM	50	56	22.89	22.88	22.89	
20	16QAM	100	0	22.85	22.82	22.69	23.7
20	64QAM	1	1	22.87	22.79	22.73	23.2
20	64QAM	1	53	22.84	22.75	22.75	
20	64QAM	1	104	22.81	22.83	22.70	
20	64QAM	50	0	22.45	22.36	22.35	23.2
20	64QAM	50	28	22.43	22.40	22.20	
20	64QAM	50	56	22.45	22.39	22.39	
20	64QAM	100	0	22.37	22.32	22.14	23.2
20	256QAM	1	1	21.07	20.98	20.90	21.2
20	256QAM	1	53	20.89	20.81	20.78	
20	256QAM	1	104	21.07	20.89	20.87	
20	256QAM	50	0	20.60	20.54	20.53	21.2
20	256QAM	50	28	20.55	20.54	20.44	
20	256QAM	50	56	20.51	20.51	20.50	
20	256QAM	100	0	20.43	20.42	20.47	21.2
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	24.98	24.94	24.88	25.7
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	24.96	24.85	24.80	25.7
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	24.80	24.75	24.69	25.7



n5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				168800	167500	167600	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	836	
20	PI/2 BPSK	1	1	23.90	23.96	23.86	25.0
20	PI/2 BPSK	1	53	23.91	24.03	23.67	
20	PI/2 BPSK	1	104	23.83	23.94	23.40	
20	PI/2 BPSK	50	0	23.30	23.48	23.33	25.0
20	PI/2 BPSK	50	28	23.76	24.02	23.95	
20	PI/2 BPSK	50	56	23.37	23.34	23.30	
20	PI/2 BPSK	100	0	23.35	23.40	23.37	24.5
20	QPSK	1	1	23.86	23.82	23.71	25.0
20	QPSK	1	53	23.82	23.88	23.62	
20	QPSK	1	104	23.79	23.57	23.60	
20	QPSK	50	0	22.74	22.73	22.66	25.0
20	QPSK	50	28	23.77	23.90	23.78	
20	QPSK	50	56	22.73	22.60	22.73	
20	QPSK	100	0	22.72	22.75	22.75	24.0
20	16QAM	1	1	22.64	22.65	22.61	24.0
20	16QAM	1	53	22.54	22.55	22.53	
20	16QAM	1	104	22.61	22.33	22.33	
20	16QAM	50	0	21.92	21.83	21.78	24.0
20	16QAM	50	28	22.61	22.72	22.67	
20	16QAM	50	56	21.80	21.77	21.84	
20	16QAM	100	0	21.80	21.83	21.86	23.0
20	64QAM	1	1	21.85	21.61	21.53	22.5
20	64QAM	1	53	21.61	21.70	21.62	
20	64QAM	1	104	21.55	21.52	21.52	
20	64QAM	50	0	21.25	21.25	21.21	22.5
20	64QAM	50	28	21.26	21.28	21.23	
20	64QAM	50	56	21.21	21.17	21.26	
20	64QAM	100	0	21.18	21.21	21.23	22.5
20	256QAM	1	1	19.77	19.62	19.59	20.5
20	256QAM	1	53	19.63	19.77	19.67	
20	256QAM	1	104	19.81	19.73	18.68	
20	256QAM	50	0	19.52	19.40	19.50	20.5
20	256QAM	50	28	19.48	19.52	19.52	
20	256QAM	50	56	19.51	19.42	19.42	
20	256QAM	100	0	19.47	19.52	19.53	20.5
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.85	23.92	23.80	25.0
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.82	23.93	23.78	25.0
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.89	23.98	23.86	25.0



n25							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	381000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	25.21	25.20	25.19	25.7
20	PI/2 BPSK	1	53	25.20	25.19	25.18	
20	PI/2 BPSK	1	104	25.18	25.17	24.17	
20	PI/2 BPSK	50	0	24.78	24.83	24.84	25.7
20	PI/2 BPSK	50	28	25.21	25.22	25.20	
20	PI/2 BPSK	50	56	24.79	24.87	24.31	
20	PI/2 BPSK	100	0	24.80	24.79	24.62	25.2
20	QPSK	1	1	25.15	25.20	25.14	25.7
20	QPSK	1	53	25.13	25.16	25.11	
20	QPSK	1	104	25.20	25.25	24.13	
20	QPSK	50	0	24.21	24.27	24.24	25.7
20	QPSK	50	28	25.08	25.12	25.16	
20	QPSK	50	56	24.20	24.12	24.19	
20	QPSK	100	0	24.19	24.22	24.00	24.7
20	16QAM	1	1	24.29	24.32	24.30	24.7
20	16QAM	1	53	24.30	24.33	24.28	
20	16QAM	1	104	24.33	24.33	23.22	
20	16QAM	50	0	23.19	23.29	23.22	24.7
20	16QAM	50	28	24.21	24.22	24.15	
20	16QAM	50	56	23.17	23.28	23.15	
20	16QAM	100	0	23.19	23.28	23.07	23.7
20	64QAM	1	1	23.15	23.17	23.15	23.2
20	64QAM	1	53	23.01	23.05	22.93	
20	64QAM	1	104	23.05	23.05	22.93	
20	64QAM	50	0	22.75	22.75	20.68	23.2
20	64QAM	50	28	22.67	22.75	22.68	
20	64QAM	50	56	22.67	22.75	22.66	
20	64QAM	100	0	22.67	22.75	22.58	23.2
20	256QAM	1	1	20.61	20.67	20.65	21.2
20	256QAM	1	53	20.62	20.72	20.58	
20	256QAM	1	104	20.61	20.65	20.61	
20	256QAM	50	0	20.80	20.86	20.79	21.2
20	256QAM	50	28	20.71	20.86	20.66	
20	256QAM	50	56	20.66	20.79	20.63	
20	256QAM	100	0	20.68	20.77	20.73	21.2
Channel				371500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	PI/2 BPSK	1	1	25.27	25.27	25.17	25.7
Channel				371000	376000	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	PI/2 BPSK	1	1	25.02	25.05	25.05	25.7
Channel				370500	376000	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	PI/2 BPSK	1	1	25.01	25.05	25.04	25.7



n66							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				34000	34000	35000	
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	24.95	24.83	24.81	25.7
20	PI/2 BPSK	1	53	24.73	24.80	24.80	
20	PI/2 BPSK	1	104	24.88	24.80	24.80	
20	PI/2 BPSK	50	0	24.22	24.45	24.30	25.7
20	PI/2 BPSK	50	28	24.94	24.93	24.99	
20	PI/2 BPSK	50	56	24.36	24.46	24.30	
20	PI/2 BPSK	100	0	24.42	24.40	24.25	25.2
20	QPSK	1	1	24.81	24.73	24.64	25.7
20	QPSK	1	53	24.55	24.56	24.58	
20	QPSK	1	104	24.72	24.70	24.80	
20	QPSK	50	0	24.24	24.19	24.15	25.7
20	QPSK	50	28	24.75	24.70	24.70	
20	QPSK	50	56	24.25	24.22	24.15	
20	QPSK	100	0	24.25	24.11	24.18	24.7
20	16QAM	1	1	24.22	23.91	24.07	24.7
20	16QAM	1	53	23.90	23.81	23.87	
20	16QAM	1	104	24.22	24.10	24.02	
20	16QAM	50	0	23.27	23.16	23.22	24.7
20	16QAM	50	28	24.15	24.12	24.15	
20	16QAM	50	56	23.20	23.18	23.18	
20	16QAM	100	0	23.23	23.07	23.11	23.7
20	64QAM	1	1	23.18	23.08	23.12	23.2
20	64QAM	1	53	22.99	23.00	23.02	
20	64QAM	1	104	23.16	23.07	23.02	
20	64QAM	50	0	22.71	22.71	22.77	23.2
20	64QAM	50	28	22.70	22.65	22.74	
20	64QAM	50	56	22.77	22.65	22.52	
20	64QAM	100	0	22.66	22.56	22.58	23.2
20	256QAM	1	1	21.20	21.29	21.20	21.2
20	256QAM	1	53	21.16	21.23	21.00	
20	256QAM	1	104	21.15	21.29	21.19	
20	256QAM	50	0	20.87	20.82	20.83	21.2
20	256QAM	50	28	20.80	20.86	20.70	
20	256QAM	50	56	20.73	20.81	20.83	
20	256QAM	100	0	20.73	20.70	20.75	21.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	24.92	24.79	24.73	25.7
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	24.88	24.76	24.69	25.7
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	24.82	24.73	24.65	25.7



n71							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134650	136100	137650	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	24.44	24.55	24.63	25.7
20	PI/2 BPSK	1	53	24.20	24.49	24.41	
20	PI/2 BPSK	1	104	24.18	24.34	24.17	
20	PI/2 BPSK	50	0	23.81	23.67	24.05	25.7
20	PI/2 BPSK	50	28	24.34	24.37	24.52	
20	PI/2 BPSK	50	56	23.75	24.32	23.89	
20	PI/2 BPSK	100	0	23.80	23.91	23.92	25.2
20	QPSK	1	1	24.20	24.39	24.47	25.7
20	QPSK	1	53	24.47	24.43	24.32	
20	QPSK	1	104	24.36	24.23	24.10	
20	QPSK	50	0	23.68	23.53	23.49	25.7
20	QPSK	50	28	24.53	24.44	24.32	
20	QPSK	50	56	23.65	23.42	23.40	
20	QPSK	100	0	23.51	23.58	23.40	24.7
20	16QAM	1	1	22.84	23.00	23.52	24.7
20	16QAM	1	53	23.48	23.43	23.33	
20	16QAM	1	104	23.48	23.37	23.28	
20	16QAM	50	0	22.66	22.62	22.48	24.7
20	16QAM	50	28	23.66	23.81	23.40	
20	16QAM	50	56	22.68	22.43	22.44	
20	16QAM	100	0	22.51	22.60	22.40	23.7
20	64QAM	1	1	22.82	22.64	22.56	23.2
20	64QAM	1	53	22.48	22.47	22.35	
20	64QAM	1	104	22.44	22.36	22.15	
20	64QAM	50	0	22.38	22.12	22.08	23.2
20	64QAM	50	28	22.20	22.13	21.93	
20	64QAM	50	56	22.20	22.02	21.95	
20	64QAM	100	0	22.07	22.07	21.86	23.2
20	256QAM	1	1	20.72	20.55	20.45	21.2
20	256QAM	1	53	20.43	20.35	20.28	
20	256QAM	1	104	20.26	20.27	20.16	
20	256QAM	50	0	20.38	20.29	20.18	21.2
20	256QAM	50	28	20.38	20.25	20.08	
20	256QAM	50	56	20.27	20.10	20.02	
20	256QAM	100	0	20.31	20.17	19.97	21.2
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	24.38	24.52	24.53	25.7
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	24.32	24.46	24.49	25.7
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	24.36	24.49	24.53	25.7



n12							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				141500	141500	141700	
Frequency (MHz)				706.5	707.5	708.5	
15	PI/2 BPSK	1	1	23.60	23.55	23.68	24.7
15	PI/2 BPSK	1	40	23.43	23.49	23.67	
15	PI/2 BPSK	1	77	23.30	23.32	23.54	
15	PI/2 BPSK	36	0	23.12	23.10	23.26	24.7
15	PI/2 BPSK	36	22	23.42	23.42	23.61	
15	PI/2 BPSK	36	43	22.96	22.94	23.24	
15	PI/2 BPSK	75	0	23.05	22.91	23.09	24.7
15	QPSK	1	1	22.51	23.48	23.40	24.7
15	QPSK	1	40	23.41	23.36	23.37	
15	QPSK	1	77	23.26	23.22	23.21	
15	QPSK	36	0	22.47	22.33	22.34	24.7
15	QPSK	36	22	23.35	23.24	23.31	
15	QPSK	36	43	22.28	22.31	22.22	
15	QPSK	75	0	22.40	22.29	22.23	24.7
15	16QAM	1	1	22.22	22.26	22.18	24.7
15	16QAM	1	40	22.15	22.23	22.11	
15	16QAM	1	77	22.00	22.00	21.97	
15	16QAM	36	0	21.49	21.52	21.46	24.7
15	16QAM	36	22	22.40	22.24	22.25	
15	16QAM	36	43	21.33	21.40	21.35	
15	16QAM	75	0	21.39	21.41	21.40	24.7
15	64QAM	1	1	21.44	21.39	21.30	24.7
15	64QAM	1	40	21.35	21.32	21.32	
15	64QAM	1	77	21.20	21.18	21.14	
15	64QAM	36	0	20.91	20.90	20.88	24.7
15	64QAM	36	22	20.89	20.88	20.89	
15	64QAM	36	43	20.82	20.83	20.78	
15	64QAM	75	0	20.99	20.94	20.94	24.7
15	256QAM	1	1	19.33	19.28	19.11	24.7
15	256QAM	1	40	19.14	19.15	19.07	
15	256QAM	1	77	19.02	19.05	18.93	
15	256QAM	36	0	19.03	19.00	18.95	24.7
15	256QAM	36	22	18.94	18.93	18.86	
15	256QAM	36	43	18.89	18.81	18.81	
15	256QAM	75	0	18.96	18.91	18.84	24.7
Channel				140500	141500	142700	
Frequency (MHz)				706.5	707.5	711	
10	PI/2 BPSK	1	1	23.43	23.35	23.41	24.7
Channel				140300	141500	142700	
Frequency (MHz)				701.5	707.5	713.5	
5	PI/2 BPSK	1	1	23.51	23.42	23.46	24.7



n5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	Tune-up limit (dBm)
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	23.37	23.35	23.38	24.3
20	PI/2 BPSK	1	53	23.34	23.31	23.31	
20	PI/2 BPSK	1	104	23.25	23.27	23.15	
20	PI/2 BPSK	50	0	23.25	23.20	23.24	
20	PI/2 BPSK	50	28	23.31	23.38	23.36	24.3
20	PI/2 BPSK	50	56	23.14	23.00	23.00	
20	PI/2 BPSK	100	0	23.21	23.18	23.19	
20	QPSK	1	1	23.27	23.28	23.31	
20	QPSK	1	53	23.29	23.32	23.27	24.3
20	QPSK	1	104	23.23	23.17	23.18	
20	QPSK	50	0	22.56	22.48	22.56	
20	QPSK	50	28	23.22	23.28	23.24	
20	QPSK	50	56	22.48	22.44	22.48	23.3
20	QPSK	100	0	22.48	22.59	22.54	
20	16QAM	1	1	22.40	22.49	22.43	
20	16QAM	1	53	22.35	22.48	22.50	
20	16QAM	1	104	22.42	22.21	22.14	23.3
20	16QAM	50	0	21.68	21.56	21.67	
20	16QAM	50	28	22.45	22.46	22.44	
20	16QAM	50	56	21.60	21.51	21.62	
20	16QAM	100	0	21.65	21.70	21.73	21.8
20	64QAM	1	1	21.20	21.08	21.14	
20	64QAM	1	53	21.15	21.21	21.17	
20	64QAM	1	104	21.19	21.09	21.03	
20	64QAM	50	0	21.07	20.95	20.93	21.8
20	64QAM	50	28	21.02	21.06	21.03	
20	64QAM	50	56	20.97	20.91	20.92	
20	64QAM	100	0	20.96	21.07	21.03	
20	256QAM	1	1	19.13	19.10	19.01	19.8
20	256QAM	1	53	19.10	19.25	19.08	
20	256QAM	1	104	19.18	19.24	19.03	
20	256QAM	50	0	19.33	19.38	19.26	
20	256QAM	50	28	19.25	19.31	19.32	19.8
20	256QAM	50	56	19.36	19.23	19.23	
20	256QAM	100	0	19.33	19.33	19.32	
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.42	23.39	23.37	24.3
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.23	23.20	23.22	24.3
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.31	23.25	23.29	24.3



n2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	23.87	23.90	23.92	25.3
20	PI/2 BPSK	1	53	23.92	23.90	23.95	
20	PI/2 BPSK	1	104	23.91	23.98	23.92	
20	PI/2 BPSK	50	0	23.93	23.78	23.82	25.3
20	PI/2 BPSK	50	28	24.08	24.06	24.02	
20	PI/2 BPSK	50	56	23.95	23.86	23.86	
20	PI/2 BPSK	100	0	23.60	23.78	23.78	24.8
20	QPSK	1	1	23.82	23.90	23.96	25.3
20	QPSK	1	53	23.85	23.90	23.88	
20	QPSK	1	104	23.82	23.90	23.88	
20	QPSK	50	0	23.78	23.78	23.76	25.3
20	QPSK	50	28	23.91	23.94	23.88	
20	QPSK	50	56	23.88	23.79	23.80	
20	QPSK	100	0	23.72	23.73	23.77	24.3
20	16QAM	1	1	23.58	24.10	24.10	24.3
20	16QAM	1	53	23.44	23.78	23.70	
20	16QAM	1	104	23.54	24.09	24.15	
20	16QAM	50	0	22.98	22.86	22.81	24.3
20	16QAM	50	28	23.81	23.66	23.74	
20	16QAM	50	56	22.93	22.85	22.90	
20	16QAM	100	0	22.78	22.81	22.82	23.3
20	64QAM	1	1	22.62	22.83	22.85	22.8
20	64QAM	1	53	22.52	22.85	22.86	
20	64QAM	1	104	22.62	22.90	22.84	
20	64QAM	50	0	22.45	22.35	22.42	22.8
20	64QAM	50	28	22.46	22.42	22.36	
20	64QAM	50	56	22.40	22.39	22.40	
20	64QAM	100	0	22.24	22.35	22.32	22.8
20	256QAM	1	1	20.52	20.63	20.72	20.8
20	256QAM	1	53	20.42	20.61	20.62	
20	256QAM	1	104	20.50	20.62	20.68	
20	256QAM	50	0	20.61	20.45	20.48	20.8
20	256QAM	50	28	20.54	20.44	20.52	
20	256QAM	50	56	20.60	20.58	20.53	
20	256QAM	100	0	20.56	20.45	20.51	20.8
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	23.95	23.97	23.94	25.3
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	23.86	23.81	23.80	25.3
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	23.82	23.84	23.81	25.3



n25							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	23.94	23.92	23.88	25.3
20	PI/2 BPSK	1	53	23.87	23.92	23.90	
20	PI/2 BPSK	1	104	23.94	23.95	23.90	
20	PI/2 BPSK	50	0	23.80	23.82	23.82	25.3
20	PI/2 BPSK	50	28	24.02	23.95	24.02	
20	PI/2 BPSK	50	56	23.92	23.83	23.76	
20	PI/2 BPSK	100	0	23.61	23.80	23.54	24.8
20	QPSK	1	1	23.93	23.88	23.96	25.3
20	QPSK	1	53	23.87	23.88	23.90	
20	QPSK	1	104	23.95	23.97	23.92	
20	QPSK	50	0	23.71	23.74	23.74	25.3
20	QPSK	50	28	23.90	23.90	23.88	
20	QPSK	50	56	23.75	23.84	23.68	
20	QPSK	100	0	23.71	23.76	23.71	24.3
20	16QAM	1	1	24.08	24.10	23.70	24.3
20	16QAM	1	53	23.62	23.70	23.71	
20	16QAM	1	104	24.00	24.10	23.33	
20	16QAM	50	0	22.82	22.83	22.85	24.3
20	16QAM	50	28	23.76	23.85	23.71	
20	16QAM	50	56	22.85	22.91	22.84	
20	16QAM	100	0	22.82	22.81	22.85	23.3
20	64QAM	1	1	22.86	22.81	22.82	22.8
20	64QAM	1	53	22.92	22.88	22.83	
20	64QAM	1	104	22.85	22.89	22.72	
20	64QAM	50	0	22.40	22.39	22.35	22.8
20	64QAM	50	28	22.42	22.35	22.34	
20	64QAM	50	56	22.39	22.42	22.36	
20	64QAM	100	0	22.28	22.37	22.28	22.8
20	256QAM	1	1	20.80	20.78	20.62	20.8
20	256QAM	1	53	20.71	20.54	20.96	
20	256QAM	1	104	20.76	20.61	20.47	
20	256QAM	50	0	20.49	20.59	20.43	20.8
20	256QAM	50	28	20.52	20.56	20.52	
20	256QAM	50	56	20.54	20.46	20.43	
20	256QAM	100	0	20.46	20.42	20.49	20.8
Channel				371500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	PI/2 BPSK	1	1	23.40	23.47	23.39	25.3
Channel				371000	376000	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	PI/2 BPSK	1	1	23.28	23.41	23.30	25.3
Channel				370500	376000	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	PI/2 BPSK	1	1	23.34	23.35	23.33	25.3



n2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	20.5
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	19.25	19.24	19.21	20.5
20	PI/2 BPSK	1	53	19.23	19.11	19.13	
20	PI/2 BPSK	1	104	19.21	19.18	19.08	
20	PI/2 BPSK	50	0	19.20	19.10	19.04	
20	PI/2 BPSK	50	28	19.37	19.32	19.23	20.5
20	PI/2 BPSK	50	56	19.22	19.17	19.03	
20	PI/2 BPSK	100	0	19.20	19.08	19.04	
20	QPSK	1	1	19.28	19.24	19.33	
20	QPSK	1	53	19.24	19.21	19.15	20.5
20	QPSK	1	104	19.18	19.20	19.23	
20	QPSK	50	0	19.14	19.15	19.23	
20	QPSK	50	28	19.24	19.17	19.17	
20	QPSK	50	56	19.08	19.04	19.13	20.5
20	QPSK	100	0	19.20	19.18	19.11	
20	16QAM	1	1	19.64	19.57	19.53	
20	16QAM	1	53	19.15	19.10	19.05	
20	16QAM	1	104	19.46	19.41	19.44	20.5
20	16QAM	50	0	19.09	19.01	19.02	
20	16QAM	50	28	19.05	19.04	19.00	
20	16QAM	50	56	19.13	19.09	19.10	
20	16QAM	100	0	19.13	19.05	19.00	20.5
20	64QAM	1	1	19.62	19.54	19.44	
20	64QAM	1	53	19.64	19.56	19.58	
20	64QAM	1	104	19.52	19.56	19.47	
20	64QAM	50	0	19.18	19.11	19.03	20.5
20	64QAM	50	28	19.14	19.13	19.17	
20	64QAM	50	56	19.18	19.09	19.03	
20	64QAM	100	0	19.09	19.13	19.18	
20	256QAM	1	1	19.58	19.47	19.50	20.5
20	256QAM	1	53	19.38	19.31	19.37	
20	256QAM	1	104	19.33	19.38	19.48	
20	256QAM	50	0	19.18	19.11	19.09	
20	256QAM	50	28	19.24	19.07	19.16	20.5
20	256QAM	50	56	19.16	19.13	19.06	
20	256QAM	100	0	19.15	19.03	19.07	
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	19.28	19.26	19.16	20.5
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	19.20	19.15	19.00	20.5
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	19.15	19.08	19.00	20.5



n25							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	381000	20.5
Frequency (MHz)				1860	1880	1905	
20	PI/2 BPSK	1	1	19.30	19.29	19.29	20.5
20	PI/2 BPSK	1	53	19.27	19.20	19.27	
20	PI/2 BPSK	1	104	19.28	19.19	19.12	
20	PI/2 BPSK	50	0	19.30	19.23	19.19	
20	PI/2 BPSK	50	28	19.35	19.45	19.37	20.5
20	PI/2 BPSK	50	56	19.13	19.20	19.19	
20	PI/2 BPSK	100	0	19.23	19.14	19.04	
20	QPSK	1	1	19.22	19.21	19.26	
20	QPSK	1	53	19.28	19.34	19.30	20.5
20	QPSK	1	104	19.17	19.27	19.25	
20	QPSK	50	0	19.10	19.02	19.01	
20	QPSK	50	28	19.28	19.37	19.43	
20	QPSK	50	56	19.10	19.17	19.27	20.5
20	QPSK	100	0	19.16	19.25	19.25	
20	16QAM	1	1	19.56	19.55	19.52	
20	16QAM	1	53	19.21	19.20	19.29	
20	16QAM	1	104	19.50	19.51	19.50	20.5
20	16QAM	50	0	19.18	19.08	19.14	
20	16QAM	50	28	19.12	19.13	19.18	
20	16QAM	50	56	19.08	19.06	19.07	
20	16QAM	100	0	19.17	19.13	19.06	20.5
20	64QAM	1	1	19.52	19.54	19.49	
20	64QAM	1	53	19.64	19.64	19.67	
20	64QAM	1	104	19.56	19.56	19.56	
20	64QAM	50	0	19.26	19.31	19.36	20.5
20	64QAM	50	28	19.23	19.26	19.36	
20	64QAM	50	56	19.14	19.09	19.15	
20	64QAM	100	0	19.10	19.06	19.04	
20	256QAM	1	1	19.49	19.54	19.55	20.5
20	256QAM	1	53	19.34	19.27	19.19	
20	256QAM	1	104	19.33	19.31	19.24	
20	256QAM	50	0	19.20	19.17	19.08	
20	256QAM	50	28	19.25	19.27	19.25	20.5
20	256QAM	50	56	19.14	19.16	19.11	
20	256QAM	100	0	19.19	19.29	19.22	
Channel				371500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	PI/2 BPSK	1	1	19.38	19.26	19.11	20.5
Channel				371000	376000	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	PI/2 BPSK	1	1	19.27	19.12	19.04	20.5
Channel				370500	376000	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	PI/2 BPSK	1	1	19.14	19.06	19.02	20.5



n66							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				34000	34000	35400	
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	19.95	19.93	19.94	21.2
20	PI/2 BPSK	1	53	19.74	19.70	19.60	
20	PI/2 BPSK	1	104	19.81	19.79	19.58	
20	PI/2 BPSK	50	0	19.75	19.72	19.62	21.2
20	PI/2 BPSK	50	28	19.89	19.84	19.75	
20	PI/2 BPSK	50	56	19.64	19.73	19.56	
20	PI/2 BPSK	100	0	19.71	19.61	19.60	21.2
20	QPSK	1	1	19.90	19.97	19.99	21.2
20	QPSK	1	53	19.71	19.64	19.65	
20	QPSK	1	104	19.81	19.82	19.78	
20	QPSK	50	0	19.64	19.66	19.72	21.2
20	QPSK	50	28	19.72	19.62	19.63	
20	QPSK	50	56	19.53	19.55	19.45	
20	QPSK	100	0	19.63	19.63	19.66	21.2
20	16QAM	1	1	20.18	20.20	20.13	21.2
20	16QAM	1	53	19.57	19.57	19.56	
20	16QAM	1	104	20.05	20.12	20.10	
20	16QAM	50	0	19.71	19.73	19.77	21.2
20	16QAM	50	28	19.54	19.59	19.67	
20	16QAM	50	56	19.60	19.63	19.59	
20	16QAM	100	0	19.62	19.71	19.69	21.2
20	64QAM	1	1	20.18	20.08	20.03	21.2
20	64QAM	1	53	20.05	20.04	20.01	
20	64QAM	1	104	20.06	19.97	20.04	
20	64QAM	50	0	19.65	19.73	19.79	21.2
20	64QAM	50	28	19.62	19.54	19.48	
20	64QAM	50	56	19.63	19.73	19.75	
20	64QAM	100	0	19.63	19.73	19.78	21.2
20	256QAM	1	1	19.85	19.80	19.90	21.2
20	256QAM	1	53	19.71	19.74	19.81	
20	256QAM	1	104	19.73	19.72	19.65	
20	256QAM	50	0	19.77	19.85	19.85	21.2
20	256QAM	50	28	19.70	19.64	19.62	
20	256QAM	50	56	19.71	19.70	19.60	
20	256QAM	100	0	19.61	19.58	19.57	21.2
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	19.86	19.79	19.72	21.2
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	19.73	19.73	19.66	21.2
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	19.73	19.75	19.68	21.2



n5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				166800	167300	167800	23.5
Frequency (MHz)				834	836.5	839	
20	PI/2 BPSK	1	1	23.37	23.35	23.38	23.5
20	PI/2 BPSK	1	53	23.34	23.31	23.31	
20	PI/2 BPSK	1	104	23.25	23.27	23.15	
20	PI/2 BPSK	50	0	23.25	23.20	23.24	
20	PI/2 BPSK	50	28	23.31	23.38	23.36	23.5
20	PI/2 BPSK	50	56	23.14	23.00	23.00	
20	PI/2 BPSK	100	0	23.21	23.18	23.19	
20	QPSK	1	1	23.27	23.28	23.31	
20	QPSK	1	53	23.29	23.32	23.27	23.5
20	QPSK	1	104	23.23	23.17	23.18	
20	QPSK	50	0	22.56	22.48	22.56	
20	QPSK	50	28	23.22	23.28	23.24	
20	QPSK	50	56	22.48	22.44	22.48	23.0
20	QPSK	100	0	22.48	22.59	22.54	
20	16QAM	1	1	22.40	22.49	22.43	
20	16QAM	1	53	22.35	22.48	22.50	
20	16QAM	1	104	22.42	22.21	22.14	23.0
20	16QAM	50	0	21.68	21.56	21.67	
20	16QAM	50	28	22.45	22.46	22.44	
20	16QAM	50	56	21.60	21.51	21.62	
20	16QAM	100	0	21.65	21.70	21.73	22.0
20	64QAM	1	1	21.20	21.08	21.14	
20	64QAM	1	53	21.15	21.21	21.17	
20	64QAM	1	104	21.19	21.09	21.03	
20	64QAM	50	0	21.07	20.95	20.93	21.5
20	64QAM	50	28	21.02	21.06	21.03	
20	64QAM	50	56	20.97	20.91	20.92	
20	64QAM	100	0	20.96	21.07	21.03	
20	256QAM	1	1	19.13	19.10	19.01	19.5
20	256QAM	1	53	19.10	19.25	19.08	
20	256QAM	1	104	19.18	19.24	19.03	
20	256QAM	50	0	19.33	19.38	19.26	
20	256QAM	50	28	19.25	19.31	19.32	19.5
20	256QAM	50	56	19.36	19.23	19.23	
20	256QAM	100	0	19.33	19.33	19.32	
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	PI/2 BPSK	1	1	23.42	23.39	23.37	23.5
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	PI/2 BPSK	1	1	23.23	23.20	23.22	23.5
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	PI/2 BPSK	1	1	23.31	23.25	23.29	23.5

n71							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	25.1
Frequency (MHz)				675	680.5	686	
20	PI/2 BPSK	1	1	24.44	24.55	24.63	25.1
20	PI/2 BPSK	1	53	24.20	24.49	24.41	
20	PI/2 BPSK	1	104	24.18	24.34	24.17	
20	PI/2 BPSK	50	0	23.81	23.67	24.05	
20	PI/2 BPSK	50	28	24.34	24.37	24.62	25.1
20	PI/2 BPSK	50	56	23.75	24.32	23.89	
20	PI/2 BPSK	100	0	23.80	23.91	23.92	
20	QPSK	1	1	24.20	24.39	24.47	
20	QPSK	1	53	24.47	24.43	24.32	25.1
20	QPSK	1	104	24.36	24.23	24.10	
20	QPSK	50	0	23.68	23.53	23.46	
20	QPSK	50	28	24.53	24.44	24.32	
20	QPSK	50	56	23.65	23.42	23.40	24.1
20	QPSK	100	0	23.51	23.58	23.40	
20	16QAM	1	1	22.94	23.00	23.52	
20	16QAM	1	53	23.46	23.43	23.33	
20	16QAM	1	104	23.46	23.37	23.28	24.1
20	16QAM	50	0	22.68	22.62	22.48	
20	16QAM	50	28	23.66	23.61	23.40	
20	16QAM	50	56	22.68	22.43	22.44	
20	16QAM	100	0	22.51	22.80	22.40	23.1
20	64QAM	1	1	22.82	22.64	22.56	
20	64QAM	1	53	22.48	22.47	22.35	
20	64QAM	1	104	22.44	22.36	22.15	
20	64QAM	50	0	22.38	22.12	22.08	22.6
20	64QAM	50	28	22.20	22.15	21.83	
20	64QAM	50	56	22.20	22.02	21.95	
20	64QAM	100	0	22.07	22.07	21.86	
20	256QAM	1	1	20.72	20.55	20.45	20.6
20	256QAM	1	53	20.43	20.35	20.28	
20	256QAM	1	104	20.26	20.27	20.16	
20	256QAM	50	0	20.38	20.29	20.18	
20	256QAM	50	28	20.38	20.25	20.08	20.6
20	256QAM	50	56	20.27	20.10	20.02	
20	256QAM	100	0	20.31	20.17	19.97	
Channel				134100	136100	138100	20.6
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	24.38	24.52	24.53	25.1
Channel				133600	136100	138600	25.1
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	24.32	24.46	24.49	25.1
Channel				133100	136100	139100	25.1
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	24.36	24.49	24.53	25.1



n2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	23.87	23.90	23.92	24.5
20	PI/2 BPSK	1	53	23.92	23.90	23.95	
20	PI/2 BPSK	1	104	23.91	23.98	23.92	
20	PI/2 BPSK	50	0	23.93	23.78	23.82	24.5
20	PI/2 BPSK	50	28	24.08	24.06	24.02	
20	PI/2 BPSK	50	56	23.95	23.86	23.86	
20	PI/2 BPSK	100	0	23.60	23.78	23.78	24.5
20	QPSK	1	1	23.82	23.90	23.96	24.5
20	QPSK	1	53	23.85	23.90	23.88	
20	QPSK	1	104	23.82	23.90	23.88	
20	QPSK	50	0	23.78	23.78	23.76	24.5
20	QPSK	50	28	23.91	23.94	23.88	
20	QPSK	50	56	23.88	23.79	23.80	
20	QPSK	100	0	23.72	23.73	23.77	24.5
20	16QAM	1	1	23.58	24.10	24.10	24.5
20	16QAM	1	53	23.44	23.78	23.70	
20	16QAM	1	104	23.54	24.09	24.15	
20	16QAM	50	0	22.98	22.86	22.81	24.5
20	16QAM	50	28	23.81	23.66	23.74	
20	16QAM	50	56	22.93	22.85	22.90	
20	16QAM	100	0	22.78	22.81	22.82	23.5
20	64QAM	1	1	22.62	22.83	22.85	
20	64QAM	1	53	22.52	22.85	22.86	
20	64QAM	1	104	22.62	22.90	22.84	23.5
20	64QAM	50	0	22.45	22.35	22.42	
20	64QAM	50	28	22.46	22.42	22.36	
20	64QAM	50	56	22.40	22.39	22.40	23.5
20	64QAM	100	0	22.24	22.35	22.32	
20	256QAM	1	1	20.52	20.63	20.72	21.0
20	256QAM	1	53	20.42	20.61	20.62	
20	256QAM	1	104	20.50	20.62	20.68	
20	256QAM	50	0	20.61	20.46	20.48	21.0
20	256QAM	50	28	20.54	20.44	20.52	
20	256QAM	50	56	20.60	20.58	20.53	
20	256QAM	100	0	20.56	20.45	20.51	21.0
Channel				371000	376000	380500	
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	23.55	23.97	23.94	24.5
Channel				371000	376000	381000	
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	23.86	23.81	23.80	24.5
Channel				370500	376000	381500	
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	23.82	23.84	23.81	24.5



n25							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	381000	
Frequency (MHz)				1860	1880	1905	
20	PI/2 BPSK	1	1	23.94	23.92	23.88	24.5
20	PI/2 BPSK	1	53	23.87	23.92	23.90	
20	PI/2 BPSK	1	104	23.94	23.95	23.90	
20	PI/2 BPSK	50	0	23.80	23.82	23.82	
20	PI/2 BPSK	50	28	24.02	23.96	24.02	24.5
20	PI/2 BPSK	50	56	23.92	23.83	23.76	
20	PI/2 BPSK	100	0	23.61	23.80	23.54	
20	QPSK	1	1	23.93	23.88	23.96	
20	QPSK	1	53	23.87	23.86	23.90	24.5
20	QPSK	1	104	23.95	23.97	23.92	
20	QPSK	50	0	23.71	23.74	23.74	
20	QPSK	50	28	23.90	23.90	23.88	
20	QPSK	50	56	23.75	23.84	23.68	24.5
20	QPSK	100	0	23.71	23.76	23.71	
20	16QAM	1	1	24.08	24.10	23.70	
20	16QAM	1	53	23.62	23.70	23.71	
20	16QAM	1	104	24.00	24.10	23.33	24.5
20	16QAM	50	0	22.82	22.83	22.85	
20	16QAM	50	28	23.76	23.65	23.71	
20	16QAM	50	56	22.85	22.91	22.84	
20	16QAM	100	0	22.82	22.81	22.85	24.5
20	64QAM	1	1	22.86	22.81	22.82	
20	64QAM	1	53	22.92	22.88	22.83	
20	64QAM	1	104	22.85	22.89	22.72	
20	64QAM	50	0	22.40	22.39	22.35	23.5
20	64QAM	50	28	22.42	22.35	22.34	
20	64QAM	50	56	22.39	22.42	22.38	
20	64QAM	100	0	22.28	22.37	22.28	
20	256QAM	1	1	20.80	20.78	20.62	21.0
20	256QAM	1	53	20.71	20.54	20.56	
20	256QAM	1	104	20.76	20.61	20.47	
20	256QAM	50	0	20.49	20.59	20.43	
20	256QAM	50	28	20.52	20.56	20.52	21.0
20	256QAM	50	56	20.54	20.46	20.43	
20	256QAM	100	0	20.46	20.42	20.49	
Channel				371000	376000	381500	
Frequency (MHz)				1857.5	1880	1917.5	
15	PI/2 BPSK	1	1	23.40	23.47	23.39	24.5
Channel				371000	376000	382000	
Frequency (MHz)				1855	1880	1910	
10	PI/2 BPSK	1	1	23.28	23.41	23.30	24.5
Channel				370500	376000	382500	
Frequency (MHz)				1852.5	1880	1912.5	
5	PI/2 BPSK	1	1	23.34	23.35	23.33	24.5



n66							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				344000	346000	354000	
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	24.57	24.40	24.34	25.0
20	PI/2 BPSK	1	53	24.31	24.25	24.24	
20	PI/2 BPSK	1	104	24.45	24.26	24.29	
20	PI/2 BPSK	50	0	23.91	23.75	23.86	25.0
20	PI/2 BPSK	50	28	24.44	24.37	24.40	
20	PI/2 BPSK	50	56	23.83	23.79	23.78	
20	PI/2 BPSK	100	0	23.88	23.74	23.80	25.0
20	QPSK	1	1	24.48	24.46	24.52	25.0
20	QPSK	1	53	24.35	24.42	24.45	
20	QPSK	1	104	24.56	24.56	24.41	
20	QPSK	50	0	23.42	23.48	23.45	25.0
20	QPSK	50	28	24.39	24.41	24.40	
20	QPSK	50	56	23.46	23.38	23.37	
20	QPSK	100	0	23.47	23.32	23.40	25.0
20	16QAM	1	1	23.56	23.60	23.62	25.0
20	16QAM	1	53	23.34	23.52	23.50	
20	16QAM	1	104	23.62	23.60	23.55	
20	16QAM	50	0	22.42	22.43	22.49	25.0
20	16QAM	50	28	23.30	23.34	23.47	
20	16QAM	50	56	22.49	22.52	22.47	
20	16QAM	100	0	22.43	22.45	22.54	25.0
20	64QAM	1	1	22.10	22.00	22.06	24.0
20	64QAM	1	53	21.86	21.85	21.87	
20	64QAM	1	104	22.09	22.00	21.95	
20	64QAM	50	0	21.99	21.89	21.93	24.0
20	64QAM	50	28	22.04	21.91	21.94	
20	64QAM	50	56	21.93	21.97	21.91	
20	64QAM	100	0	22.00	21.96	21.84	24.0
20	256QAM	1	1	19.91	20.28	19.90	21.5
20	256QAM	1	53	19.86	20.26	19.84	
20	256QAM	1	104	19.94	20.42	19.96	
20	256QAM	50	0	20.11	20.12	20.02	21.5
20	256QAM	50	28	20.09	20.10	20.01	
20	256QAM	50	56	20.08	20.13	20.06	
20	256QAM	100	0	20.10	20.02	20.05	21.5
Channel				343000	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	24.55	24.54	24.55	
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	24.42	24.43	24.52	
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	24.42	24.40	24.47	



n2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	380000	
Frequency (MHz)				1860	1880	1900	
20	PI/2 BPSK	1	1	19.25	19.24	19.21	19.7
20	PI/2 BPSK	1	53	19.23	19.11	19.13	
20	PI/2 BPSK	1	104	19.21	19.18	19.08	
20	PI/2 BPSK	50	0	19.20	19.10	19.04	
20	PI/2 BPSK	50	28	19.37	19.32	19.23	19.7
20	PI/2 BPSK	50	56	19.22	19.17	19.03	
20	PI/2 BPSK	100	0	19.20	19.08	19.04	
20	QPSK	1	1	19.28	19.24	19.33	
20	QPSK	1	53	19.24	19.21	19.15	19.7
20	QPSK	1	104	19.18	19.20	19.23	
20	QPSK	50	0	19.14	19.15	19.23	
20	QPSK	50	28	19.24	19.17	19.17	
20	QPSK	50	56	19.08	19.04	19.13	19.7
20	QPSK	100	0	19.20	19.18	19.11	
20	16QAM	1	1	19.64	19.57	19.53	
20	16QAM	1	53	19.15	19.10	19.05	
20	16QAM	1	104	19.46	19.41	19.44	19.7
20	16QAM	50	0	19.09	19.01	19.02	
20	16QAM	50	28	19.05	19.04	19.00	
20	16QAM	50	56	19.13	19.09	19.10	
20	16QAM	100	0	19.13	19.05	19.00	19.7
20	64QAM	1	1	19.62	19.54	19.44	
20	64QAM	1	53	19.64	19.56	19.58	
20	64QAM	1	104	19.52	19.56	19.47	
20	64QAM	50	0	19.18	19.11	19.03	19.7
20	64QAM	50	28	19.14	19.13	19.17	
20	64QAM	50	56	19.18	19.09	19.03	
20	64QAM	100	0	19.09	19.13	19.18	
20	256QAM	1	1	19.58	19.47	19.50	19.7
20	256QAM	1	53	19.38	19.31	19.37	
20	256QAM	1	104	19.33	19.38	19.48	
20	256QAM	50	0	19.18	19.11	19.09	
20	256QAM	50	28	19.24	19.07	19.16	19.7
20	256QAM	50	56	19.16	19.13	19.06	
20	256QAM	100	0	19.15	19.03	19.07	
Channel				371500	376000	380500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	PI/2 BPSK	1	1	19.28	19.26	19.16	19.7
Channel				371000	376000	381000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	PI/2 BPSK	1	1	19.20	19.15	19.00	19.7
Channel				370500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	PI/2 BPSK	1	1	19.15	19.08	19.00	19.7



n25							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				372000	376000	381000	
Frequency (MHz)				1860	1880	1905	
20	PI/2 BPSK	1	1	19.30	19.29	19.29	19.7
20	PI/2 BPSK	1	53	19.27	19.20	19.27	
20	PI/2 BPSK	1	104	19.26	19.19	19.12	
20	PI/2 BPSK	50	0	19.30	19.23	19.19	
20	PI/2 BPSK	50	28	19.35	19.43	19.37	19.7
20	PI/2 BPSK	50	56	19.13	19.20	19.19	
20	PI/2 BPSK	100	0	19.23	19.14	19.04	
20	QPSK	1	1	19.22	19.21	19.26	
20	QPSK	1	53	19.28	19.34	19.30	19.7
20	QPSK	1	104	19.17	19.27	19.25	
20	QPSK	50	0	19.10	19.02	19.01	
20	QPSK	50	28	19.28	19.37	19.43	
20	QPSK	50	56	19.10	19.17	19.27	19.7
20	QPSK	100	0	19.16	19.25	19.25	
20	16QAM	1	1	19.26	19.55	19.52	
20	16QAM	1	53	19.21	19.20	19.29	
20	16QAM	1	104	19.50	19.51	19.50	19.7
20	16QAM	50	0	19.18	19.08	19.14	
20	16QAM	50	28	19.12	19.13	19.18	
20	16QAM	50	56	19.08	19.06	19.07	
20	16QAM	100	0	19.17	19.13	19.06	19.7
20	64QAM	1	1	19.52	19.54	19.49	
20	64QAM	1	53	19.64	19.64	19.57	
20	64QAM	1	104	19.56	19.56	19.56	
20	64QAM	50	0	19.26	19.31	19.36	19.7
20	64QAM	50	28	19.23	19.26	19.36	
20	64QAM	50	56	19.14	19.09	19.15	
20	64QAM	100	0	19.10	19.06	19.04	
20	256QAM	1	1	19.49	19.54	19.55	19.7
20	256QAM	1	53	19.34	19.27	19.19	
20	256QAM	1	104	19.33	19.31	19.24	
20	256QAM	50	0	19.20	19.17	19.06	
20	256QAM	50	28	19.25	19.27	19.25	19.7
20	256QAM	50	56	19.14	19.16	19.11	
20	256QAM	100	0	19.19	19.29	19.22	
Channel				371500	376000	381500	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1907.5	
15	PI/2 BPSK	1	1	19.38	19.26	19.11	19.7
Channel				371000	376000	382000	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1910	
10	PI/2 BPSK	1	1	19.27	19.12	19.04	19.7
Channel				370500	376000	382500	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1912.5	
5	PI/2 BPSK	1	1	19.14	19.06	19.02	19.7



n66							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				344000	349000	354000	
Frequency (MHz)				1720	1745	1770	
20	PI/2 BPSK	1	1	19.95	19.93	19.94	20.4
20	PI/2 BPSK	1	53	19.74	19.70	19.60	
20	PI/2 BPSK	1	104	19.81	19.79	19.58	
20	PI/2 BPSK	50	0	19.75	19.72	19.62	
20	PI/2 BPSK	50	28	19.89	19.84	19.75	20.4
20	PI/2 BPSK	50	56	19.64	19.73	19.56	
20	PI/2 BPSK	100	0	19.71	19.61	19.60	
20	QPSK	1	1	19.90	19.97	19.99	
20	QPSK	1	53	19.71	19.64	19.65	20.4
20	QPSK	1	104	19.81	19.82	19.79	
20	QPSK	50	0	19.64	19.66	19.72	
20	QPSK	50	28	19.72	19.62	19.53	
20	QPSK	50	56	19.53	19.55	19.45	20.4
20	QPSK	100	0	19.63	19.63	19.66	
20	16QAM	1	1	20.18	20.20	20.13	
20	16QAM	1	53	19.57	19.57	19.66	
20	16QAM	1	104	20.05	20.12	20.10	20.4
20	16QAM	50	0	19.71	19.73	19.77	
20	16QAM	50	28	19.54	19.59	19.67	
20	16QAM	50	56	19.60	19.63	19.59	
20	16QAM	100	0	19.62	19.71	19.69	20.4
20	64QAM	1	1	20.16	20.08	20.03	
20	64QAM	1	53	20.05	20.04	20.01	
20	64QAM	1	104	20.06	19.97	20.04	
20	64QAM	50	0	19.65	19.73	19.79	20.4
20	64QAM	50	28	19.62	19.54	19.48	
20	64QAM	50	56	19.63	19.73	19.75	
20	64QAM	100	0	19.63	19.73	19.78	
20	256QAM	1	1	19.85	19.80	19.90	20.4
20	256QAM	1	53	19.71	19.74	19.81	
20	256QAM	1	104	19.73	19.72	19.65	
20	256QAM	50	0	19.77	19.85	19.85	
20	256QAM	50	28	19.70	19.84	19.82	20.4
20	256QAM	50	56	19.71	19.70	19.60	
20	256QAM	100	0	19.61	19.68	19.57	
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	19.86	19.79	19.72	20.4
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	19.73	19.73	19.66	20.4
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	19.73	19.75	19.68	20.4



n41							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				50200	518598	538000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	24.52	24.91	24.68	25.7
100	PI/2 BPSK	1	137	24.29	24.61	24.67	
100	PI/2 BPSK	1	271	24.50	24.65	24.69	
100	PI/2 BPSK	135	0	24.45	24.32	24.44	
100	PI/2 BPSK	135	69	24.59	24.62	24.61	25.7
100	PI/2 BPSK	135	138	24.24	24.38	24.43	
100	PI/2 BPSK	270	0	24.39	24.36	24.49	
100	QPSK	1	1	24.77	24.74	24.74	
100	QPSK	1	137	24.57	24.62	24.68	25.7
100	QPSK	1	271	24.56	24.76	24.92	
100	QPSK	135	0	23.87	23.81	23.94	
100	QPSK	135	69	24.62	24.61	24.68	
100	QPSK	135	138	23.82	23.89	23.99	24.7
100	QPSK	270	0	23.86	23.86	23.97	
100	16QAM	1	1	23.98	24.06	24.01	
100	16QAM	1	137	23.97	23.95	23.99	
100	16QAM	1	271	23.78	24.01	23.92	24.7
100	16QAM	135	0	22.91	22.81	22.86	
100	16QAM	135	69	23.75	23.76	23.87	
100	16QAM	135	138	22.77	22.91	22.98	
100	16QAM	270	0	22.93	22.87	22.99	23.2
100	64QAM	1	1	22.65	22.57	22.51	
100	64QAM	1	137	22.41	22.42	22.52	
100	64QAM	1	271	22.38	22.60	22.59	
100	64QAM	135	0	22.48	22.34	22.38	23.2
100	64QAM	135	69	22.33	22.32	22.43	
100	64QAM	135	138	22.32	22.43	22.45	
100	64QAM	270	0	22.38	22.36	22.49	
100	256QAM	1	1	20.35	20.29	20.22	21.2
100	256QAM	1	137	20.10	20.09	20.21	
100	256QAM	1	271	20.02	20.28	20.26	
100	256QAM	135	0	20.46	20.28	20.43	
100	256QAM	135	69	20.27	20.25	20.41	21.2
100	256QAM	135	138	20.28	20.48	20.46	
100	256QAM	270	0	20.39	20.39	20.48	
Channel				508200	518598	528998	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	24.82	24.74	24.81	25.7
Channel				507204	518598	528998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	24.83	24.75	24.73	25.7
Channel				505200	518598	531998	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	24.84	24.69	24.73	25.7
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	24.88	24.67	24.76	25.7
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	24.90	24.87	24.88	25.7
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	24.73	24.74	24.76	25.7



n41 HPUE							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				508202	518598	528500	
Frequency (MHz)				2548.01	2592.99	2540	
100	PV2 BPSK	1	1	26.79	26.45	26.04	27.5
100	PV2 BPSK	1	137	26.38	25.96	25.70	
100	PV2 BPSK	1	271	26.13	25.88	25.88	
100	PV2 BPSK	135	0	26.34	26.08	25.90	27.5
100	PV2 BPSK	135	69	26.37	25.95	25.91	
100	PV2 BPSK	135	138	25.92	25.84	25.89	
100	PV2 BPSK	270	0	26.20	26.01	25.92	27.0
100	QPSK	1	1	26.70	26.14	25.94	27.5
100	QPSK	1	137	26.30	25.53	25.90	
100	QPSK	1	271	26.00	25.98	26.01	
100	QPSK	135	0	25.86	25.82	25.85	27.5
100	QPSK	135	69	26.34	25.95	25.77	
100	QPSK	135	138	25.50	25.67	25.73	
100	QPSK	270	0	25.74	25.79	25.72	26.5
100	16QAM	1	1	25.80	25.79	25.85	26.5
100	16QAM	1	137	25.54	25.70	25.69	
100	16QAM	1	271	25.22	25.77	25.71	
100	16QAM	135	0	24.53	24.63	24.50	26.5
100	16QAM	135	69	25.56	25.73	25.55	
100	16QAM	135	138	24.50	24.73	24.72	
100	16QAM	270	0	24.73	24.75	24.75	25.5
100	64QAM	1	1	24.09	24.30	24.28	25.0
100	64QAM	1	137	23.73	24.00	23.94	
100	64QAM	1	271	23.54	23.99	24.03	
100	64QAM	135	0	24.15	24.26	23.64	25.0
100	64QAM	135	69	23.95	24.14	24.06	
100	64QAM	135	138	23.73	24.13	24.08	
100	64QAM	270	0	23.99	24.19	24.11	25.0
100	256QAM	1	1	22.04	22.29	22.28	23.0
100	256QAM	1	137	21.59	22.20	22.00	
100	256QAM	1	271	21.63	22.30	22.25	
100	256QAM	135	0	22.11	22.25	22.06	23.0
100	256QAM	135	69	21.86	22.07	22.00	
100	256QAM	135	138	21.68	22.06	22.00	
100	256QAM	270	0	21.98	22.21	22.09	23.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PV2 BPSK	1	1	26.68	26.31	26.07	27.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PV2 BPSK	1	1	26.66	26.30	26.06	27.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2525	2592.99	2659.98	
60	PV2 BPSK	1	1	26.69	26.35	26.11	27.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PV2 BPSK	1	1	26.62	26.29	26.02	27.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PV2 BPSK	1	1	26.61	26.25	26.02	27.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PV2 BPSK	1	1	26.63	26.27	26.04	27.5



n41							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				50200	518598	535000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	24.48	24.51	24.33	25.7
100	PI/2 BPSK	1	137	24.22	24.21	24.28	
100	PI/2 BPSK	1	271	24.12	24.32	24.33	
100	PI/2 BPSK	135	0	24.12	23.99	23.90	
100	PI/2 BPSK	135	69	24.20	24.21	24.20	25.7
100	PI/2 BPSK	135	138	23.82	23.86	23.89	
100	PI/2 BPSK	270	0	24.08	23.91	24.00	
100	QPSK	1	1	24.45	24.33	24.24	
100	QPSK	1	137	24.15	24.07	24.15	25.7
100	QPSK	1	271	24.02	24.22	24.40	
100	QPSK	135	0	23.55	23.44	23.36	
100	QPSK	135	69	24.18	24.12	24.21	
100	QPSK	135	138	23.35	23.40	23.44	24.7
100	QPSK	270	0	23.51	23.41	23.47	
100	16QAM	1	1	23.61	23.39	23.27	
100	16QAM	1	137	23.23	23.15	23.17	
100	16QAM	1	271	23.06	23.23	23.28	24.7
100	16QAM	135	0	22.58	22.39	22.44	
100	16QAM	135	69	23.37	23.33	23.38	
100	16QAM	135	138	22.36	22.45	22.42	
100	16QAM	270	0	22.58	22.42	22.50	23.2
100	64QAM	1	1	22.17	22.02	21.93	
100	64QAM	1	137	21.82	21.80	21.85	
100	64QAM	1	271	21.67	21.93	22.02	
100	64QAM	135	0	22.10	21.91	22.00	23.2
100	64QAM	135	69	21.90	21.83	21.91	
100	64QAM	135	138	21.85	21.95	22.00	
100	64QAM	270	0	22.05	21.90	22.00	
100	256QAM	1	1	20.14	19.96	19.89	21.2
100	256QAM	1	137	19.83	19.72	19.81	
100	256QAM	1	271	19.69	19.86	19.94	
100	256QAM	135	0	20.07	19.90	19.90	
100	256QAM	135	69	19.89	19.82	19.88	21.2
100	256QAM	135	138	19.88	19.92	19.83	
100	256QAM	270	0	20.10	20.12	20.09	
Channel				508200	518598	528598	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	24.57	24.35	24.34	25.7
Channel				507204	518598	528598	Tune-up limit (dBm)
Frequency (MHz)				2538.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	24.59	24.36	24.36	25.7
Channel				505200	518598	531998	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	24.67	25.57	24.48	25.7
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	24.42	24.23	24.29	25.7
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	24.63	25.43	24.44	25.7
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	24.96	25.48	25.50	25.7



n41 HPUE							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				50202	51898	53502	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	26.79	26.45	26.04	27.5
100	PI/2 BPSK	1	137	26.38	25.96	25.70	
100	PI/2 BPSK	1	271	26.13	25.88	25.88	
100	PI/2 BPSK	135	0	26.34	26.08	25.90	
100	PI/2 BPSK	135	69	26.37	25.93	25.81	27.5
100	PI/2 BPSK	135	138	25.92	25.84	25.89	
100	PI/2 BPSK	270	0	26.20	26.01	25.92	
100	QPSK	1	1	26.70	26.14	25.94	
100	QPSK	1	137	26.30	25.93	25.90	27.5
100	QPSK	1	271	26.00	25.86	26.01	
100	QPSK	135	0	25.86	25.82	25.85	
100	QPSK	135	69	26.34	25.95	25.77	
100	QPSK	135	138	25.50	25.67	25.73	26.5
100	QPSK	270	0	25.74	25.79	25.72	
100	16QAM	1	1	25.80	25.79	25.65	
100	16QAM	1	137	25.54	25.70	25.69	
100	16QAM	1	271	25.22	25.77	25.71	26.5
100	16QAM	135	0	24.53	24.63	24.50	
100	16QAM	135	69	25.56	25.73	25.55	
100	16QAM	135	138	24.50	24.73	24.72	
100	16QAM	270	0	24.73	24.75	24.75	25.0
100	64QAM	1	1	24.09	24.30	24.28	
100	64QAM	1	137	23.73	24.00	23.94	
100	64QAM	1	271	23.54	23.99	24.03	
100	64QAM	135	0	24.15	24.26	23.64	25.0
100	64QAM	135	69	23.95	24.14	24.06	
100	64QAM	135	138	23.73	24.13	24.08	
100	64QAM	270	0	23.99	24.19	24.11	
100	256QAM	1	1	22.04	22.29	22.28	23.0
100	256QAM	1	137	21.59	22.20	22.00	
100	256QAM	1	271	21.63	22.30	22.25	
100	256QAM	135	0	22.11	22.25	22.08	
100	256QAM	135	69	21.86	22.07	22.00	23.0
100	256QAM	135	138	21.68	22.06	22.00	
100	256QAM	270	0	21.98	22.21	22.09	
Channel				503200	51898	53598	
Frequency (MHz)				2541	2592.99	2641.99	
90	PI/2 BPSK	1	1	26.68	26.31	26.07	27.5
Channel				507204	51898	53598	
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	26.66	26.30	26.06	27.5
Channel				505200	51898	53198	
Frequency (MHz)				2525	2592.99	2658.99	
60	PI/2 BPSK	1	1	26.69	26.35	26.11	27.5
Channel				504204	51898	53298	
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	26.62	26.29	26.02	27.5
Channel				503202	51898	53400	
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	26.61	26.25	26.02	27.5
Channel				501204	51898	53598	
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	26.63	26.27	26.04	27.5



n41 HPUE							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				50202	51898	53202	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	26.79	26.45	26.04	26.8
100	PI/2 BPSK	1	137	26.38	25.96	25.70	
100	PI/2 BPSK	1	271	26.13	25.88	25.88	
100	PI/2 BPSK	135	0	26.34	26.08	25.90	
100	PI/2 BPSK	135	69	26.37	25.93	25.81	26.8
100	PI/2 BPSK	135	138	25.92	25.84	25.89	
100	PI/2 BPSK	270	0	26.20	26.01	25.92	
100	QPSK	1	1	26.70	26.14	25.94	
100	QPSK	1	137	26.30	25.93	25.90	26.8
100	QPSK	1	271	26.00	25.86	26.01	
100	QPSK	135	0	25.86	25.82	25.65	
100	QPSK	135	69	26.34	25.95	25.77	
100	QPSK	135	138	25.50	25.67	25.73	25.8
100	QPSK	270	0	25.74	25.79	25.72	
100	16QAM	1	1	25.80	25.79	25.65	
100	16QAM	1	137	25.54	25.70	25.69	
100	16QAM	1	271	25.22	25.77	25.71	25.8
100	16QAM	135	0	24.53	24.63	24.50	
100	16QAM	135	69	25.56	25.73	25.55	
100	16QAM	135	138	24.50	24.73	24.72	
100	16QAM	270	0	24.73	24.75	24.75	24.8
100	64QAM	1	1	24.09	24.30	24.28	
100	64QAM	1	137	23.73	24.00	23.94	
100	64QAM	1	271	23.54	23.99	24.03	
100	64QAM	135	0	24.15	24.26	23.64	24.3
100	64QAM	135	69	23.95	24.14	24.06	
100	64QAM	135	138	23.73	24.13	24.08	
100	64QAM	270	0	23.99	24.19	24.11	
100	256QAM	1	1	22.04	22.29	22.28	22.3
100	256QAM	1	137	21.59	22.20	22.00	
100	256QAM	1	271	21.63	22.30	22.25	
100	256QAM	135	0	22.11	22.25	22.08	
100	256QAM	135	69	21.86	22.07	22.00	22.3
100	256QAM	135	138	21.68	22.06	22.00	
100	256QAM	270	0	21.98	22.21	22.09	
100	256QAM	270	0	21.98	22.21	22.09	
Channel				503200	51898	532998	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2641.99	
90	PI/2 BPSK	1	1	26.68	26.31	26.07	26.8
Channel				507204	51898	532998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	26.66	26.30	26.06	26.8
Channel				505200	51898	531998	Tune-up limit (dBm)
Frequency (MHz)				2525	2592.99	2638.99	
60	PI/2 BPSK	1	1	26.69	26.35	26.11	26.8
Channel				504204	51898	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	26.62	26.29	26.02	26.8
Channel				503202	51898	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	26.61	26.25	26.02	26.8
Channel				501204	51898	532998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	26.63	26.27	26.04	26.8

1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
2. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
3. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
4. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.¹⁸ The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closest/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.



Transmit Antenna			Ant 4				Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	19.30	19.50	98.72	19.10	19.50	98.92	19.40	19.50	19.10	19.50	22.26	22.5	98.92
		6	2437	19.30	19.50		19.40	19.50		19.40	19.50	19.40	19.50	22.41	22.5	
		11	2462	19.10	19.50		19.40	19.50		19.20	19.50	19.40	19.50	22.31	22.5	
	802.11g 6Mbps	1	2412	17.10	17.50	97.87	17.10	17.50	98.35	17.20	17.50	17.10	17.50	20.16	20.5	98.35
		6	2437	19.20	19.50		19.20	19.50		19.30	19.50	19.20	19.50	22.26	22.5	
		11	2462	17.80	18.00		17.90	18.00		17.90	18.00	17.90	18.00	20.91	21.0	
	802.11n-HT20 MCS0	1	2412	16.40	16.50	97.97	16.40	16.50	97.72	16.50	16.50	16.40	16.50	19.46	19.5	97.72
		6	2437	19.30	19.50		19.40	19.50		19.40	19.50	19.40	19.50	22.41	22.5	
		11	2462	16.40	16.50		16.50	16.50		16.40	16.50	16.50	16.50	19.46	19.5	
	802.11ac-VHT20 MCS0	1	2412	16.30	16.50	97.48	16.30	16.50	97.73	16.40	16.50	16.30	16.50	19.36	19.5	97.73
		6	2437	19.20	19.50		19.30	19.50		19.30	19.50	19.30	19.50	22.31	22.5	
		11	2462	16.30	16.50		16.40	16.50		16.30	16.50	16.40	16.50	19.36	19.5	

Transmit Antenna			Ant 4				Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	17.30	17.50	97.87	16.90	17.50	97.87	17.30	17.50	17.00	17.50	20.16	20.5	97.87
		40	5200	17.20	17.50		17.00	17.50		17.20	17.50	17.10	17.50	20.16	20.5	
		44	5220	17.20	17.50		17.00	17.50		17.20	17.50	17.10	17.50	20.16	20.5	
		48	5240	17.30	17.50		16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
	802.11n-HT20 MCS0	36	5180	17.40	17.50	97.72	17.20	17.50	97.47	17.40	17.50	17.30	17.50	20.36	20.5	97.72
		40	5200	17.40	17.50		17.20	17.50		17.40	17.50	17.30	17.50	20.36	20.5	
		44	5220	17.40	17.50		17.30	17.50		17.40	17.50	17.40	17.50	20.41	20.5	
		48	5240	17.40	17.50		16.50	17.50		17.40	17.50	17.00	17.50	20.21	20.5	
	802.11n-VHT40 MCS0	38	5190	13.50	13.50	95.93	13.00	13.50	95.96	13.50	13.50	13.10	13.50	16.31	16.5	95.93
		46	5230	17.40	17.50		17.00	17.50		17.40	17.50	17.10	17.50	20.26	20.5	
	802.11ac-VHT20 MCS0	36	5180	17.30	17.50	97.49	17.10	17.50	97.98	17.30	17.50	17.20	17.50	20.26	20.5	97.49
		40	5200	17.30	17.50		17.10	17.50		17.30	17.50	17.20	17.50	20.26	20.5	
		44	5220	17.30	17.50		17.20	17.50		17.30	17.50	17.30	17.50	20.31	20.5	
		48	5240	17.30	17.50		16.80	17.50		17.30	17.50	16.90	17.50	20.11	20.5	
	802.11ac-VHT40 MCS0	38	5190	13.40	13.50	95.74	12.90	13.50	96.00	13.40	13.50	13.00	13.50	16.21	16.5	95.74
		46	5230	17.30	17.50		16.90	17.50		17.30	17.50	17.00	17.50	20.16	20.5	
	802.11ac-VHT80 MCS0	42	5210	12.80	13.00	92.00	12.80	13.00	92.00	12.80	13.00	12.90	13.00	15.86	16.0	92.00

Transmit Antenna			Ant 4				Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) 1+2(1)	Tune-Up Limit 1+2(1)	Average power (dBm) 1+2(2)	Tune-Up Limit 1+2(2)	Average power (dBm) 1+2	Tune-Up Limit 1+2	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	17.40	17.50	97.87	16.50	17.50	97.87	17.40	17.50	16.60	17.50	20.03	20.5	97.87
		56	5280	17.30	17.50		16.60	17.50		17.30	17.50	16.70	17.50	20.03	20.5	
		60	5300	17.40	17.50		16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		64	5320	17.40	17.50		16.80	17.50		17.40	17.50	16.90	17.50	20.17	20.5	
	802.11n-HT20 MCS0	52	5260	17.40	17.50	97.72	16.70	17.50	97.47	17.40	17.50	16.80	17.50	20.12	20.5	97.72
		56	5280	17.40	17.50		16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		60	5300	17.40	17.50		16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		64	5320	17.40	17.50		16.80	17.50		17.40	17.50	16.90	17.50	20.17	20.5	
	802.11n-VHT40 MCS0	54	5270	17.40	17.50	95.93	16.90	17.50	95.96	17.40	17.50	17.00	17.50	20.21	20.5	95.93
		62	5310	13.80	14.00		13.50	14.00		13.80	14.00	13.60	14.00	16.71	17.0	
	802.11ac-VHT20 MCS0	52	5260	17.30	17.50	97.49	16.60	17.50	97.98	17.30	17.50	16.70	17.50	20.02	20.5	97.49
		56	5280	17.30	17.50		16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
		60	5300	17.30	17.50		16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
		64	5320	17.30	17.50		16.70	17.50		17.30	17.50	16.80	17.50	20.07	20.5	
	802.11ac-VHT40 MCS0	54	5270	17.30	17.50	95.74	16.80	17.50	96.00	17.30	17.50	16.90	17.50	20.11	20.5	95.74
		62	5310	13.70	14.00		13.40	14.00		13.70	14.00	13.50	14.00	16.61	17.0	
	802.11ac-VHT80 MCS0	58	5290	12.00	12.00	92.00	11.70	12.00	92.00	12.00	12.00	11.80	12.00	14.91	15.0	92.00



Transmit Antenna		Ant 4					Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	17.40	17.50	97.87	16.90	17.50	97.87	17.40	17.50	17.00	17.50	20.21	20.5	97.87
		116	5580	17.40	17.50		17.30	17.50		17.40	17.50	17.40	17.50	20.41	20.5	
		124	5620	17.30	17.50		17.20	17.50		17.30	17.50	17.30	17.50	20.31	20.5	
		132	5660	17.30	17.50		16.40	17.50		17.30	17.50	16.70	17.50	20.03	20.5	
		140	5700	17.40	17.50		16.50	17.50		17.40	17.50	16.60	17.50	20.03	20.5	
	802.11n-HT20 MCS0	144	5720	17.40	17.50	97.72	16.70	17.50	97.47	17.40	17.50	16.80	17.50	20.12	20.5	97.72
		100	5500	17.30	17.50		17.00	17.50		17.30	17.50	17.10	17.50	20.21	20.5	
		116	5580	17.40	17.50		17.30	17.50		17.40	17.50	17.40	17.50	20.41	20.5	
		124	5620	17.30	17.50		17.30	17.50		17.30	17.50	17.30	17.50	20.31	20.5	
		132	5660	17.90	18.00		16.90	18.00		17.90	18.00	17.00	18.00	20.48	21.0	
	802.11n-HT40 MCS0	140	5700	17.90	18.00	95.93	16.90	18.00	95.96	17.90	18.00	17.10	18.00	20.53	21.0	95.93
		144	5720	17.40	17.50		16.80	17.50		17.40	17.50	16.90	17.50	20.17	20.5	
		102	5510	15.70	16.00		15.40	16.00		15.70	16.00	15.50	16.00	18.61	19.0	
		110	5550	17.40	17.50		16.90	17.50		17.40	17.50	17.00	17.50	20.21	20.5	
		126	5630	17.30	17.50		16.70	17.50		17.30	17.50	16.90	17.50	20.11	20.5	
	802.11ac-VHT20 MCS0	134	5670	17.40	17.50	97.49	16.70	17.50	97.98	17.40	17.50	16.80	17.50	20.12	20.5	97.49
		142	5710	17.40	17.50		16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		100	5500	17.20	17.50		16.90	17.50		17.20	17.50	17.00	17.50	20.11	20.5	
		116	5580	17.30	17.50		17.20	17.50		17.30	17.50	17.30	17.50	20.31	20.5	
		124	5620	17.20	17.50		17.20	17.50		17.20	17.50	17.20	17.50	20.21	20.5	
	802.11ac-VHT40 MCS0	132	5660	17.80	18.00	95.74	16.80	18.00	96.00	17.80	18.00	16.90	18.00	20.38	21.0	95.74
		140	5700	17.80	18.00		16.80	18.00		17.80	18.00	16.90	18.00	20.38	21.0	
		144	5720	17.30	17.50		16.70	17.50		17.30	17.50	16.80	17.50	20.07	20.5	
		102	5510	15.60	16.00		15.30	16.00		15.60	16.00	15.40	16.00	18.51	19.0	
		110	5550	17.30	17.50		16.80	17.50		17.30	17.50	16.90	17.50	20.11	20.5	
	802.11ac-VHT80 MCS0	126	5630	17.20	17.50	92.00	16.60	17.50	92.00	17.20	17.50	16.80	17.50	20.01	20.5	92.00
		134	5670	17.30	17.50		16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
		142	5710	17.30	17.50		16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
		106	5530	12.00	12.50		12.10	12.50		12.00	12.50	12.20	12.50	15.11	15.5	
		122	5610	16.90	17.00		16.60	17.00		16.90	17.00	16.70	17.00	19.81	20.0	
		138	5690	16.90	17.00		16.00	17.00		16.90	17.00	16.10	17.00	19.53	20.0	

Transmit Antenna		Ant 4					Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	18.30	18.50	97.87	17.60	18.50	97.87	18.30	18.50	17.70	18.50	21.02	21.5	97.87
		157	5785	18.40	18.50		17.80	18.50		18.40	18.50	17.90	18.50	21.17	21.5	
		165	5825	18.40	18.50		17.50	18.50		18.40	18.50	17.60	18.50	21.03	21.5	
	802.11n-HT20 MCS0	149	5745	18.30	18.50	97.72	17.80	18.50	97.47	18.30	18.50	17.90	18.50	21.11	21.5	97.72
		157	5785	18.40	18.50		17.70	18.50		18.40	18.50	17.80	18.50	21.12	21.5	
		165	5825	18.40	18.50		17.70	18.50		18.40	18.50	17.80	18.50	21.12	21.5	
	802.11n-HT40 MCS0	151	5755	17.40	17.50	95.93	17.00	17.50	95.96	17.40	17.50	17.10	17.50	20.26	20.5	95.93
		159	5795	17.40	17.50		16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		149	5745	18.20	18.50		17.70	18.50		18.20	18.50	17.80	18.50	21.01	21.5	
	802.11ac-VHT20 MCS0	157	5785	18.30	18.50	97.49	17.60	18.50	97.98	18.30	18.50	17.70	18.50	21.02	21.5	97.49
		165	5825	18.30	18.50		17.60	18.50		18.30	18.50	17.70	18.50	21.02	21.5	
		151	5755	17.30	17.50		16.90	17.50		17.30	17.50	17.00	17.50	20.16	20.5	
	802.11ac-VHT40 MCS0	159	5795	17.30	17.50	95.74	16.60	17.50	96.00	17.30	17.50	16.70	17.50	20.02	20.5	95.74
		155	5775	16.90	17.00		16.10	17.00		16.90	17.00	16.20	17.00	19.57	20.0	



Transmit Antenna							Ant 4				Ant 3				Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	19.30	19.50	98.72	2412	19.10	19.50	98.92	2412	19.10	19.50	98.92	19.40	19.50	19.10	19.50	22.26	22.5	98.92
		6	2437	19.30	19.50		2437	19.40	19.50		2437	19.40	19.50		19.40	19.50	19.40	19.50	22.41	22.5	
		11	2462	19.10	19.50		2462	19.40	19.50		2462	19.40	19.50		19.20	19.50	19.40	19.50	22.31	22.5	
	802.11g 6Mbps	1	2412	17.10	17.50	97.87	2412	17.10	17.50	98.35	2412	17.10	17.50	98.35	17.20	17.50	17.10	17.50	20.16	20.5	98.35
		6	2437	19.20	19.50		2437	19.20	19.50		2437	19.20	19.50		19.30	19.50	19.20	19.50	22.26	22.5	
		11	2462	17.80	18.00		2462	17.90	18.00		2462	17.90	18.00		17.90	18.00	17.90	18.00	20.91	21.0	
	802.11n-HT20 MCS0	1	2412	16.40	16.50	97.97	2412	16.40	16.50	97.72	2412	16.40	16.50	97.72	16.50	16.50	16.40	16.50	19.46	19.5	97.72
		6	2437	19.30	19.50		2437	19.40	19.50		2437	19.40	19.50		19.40	19.50	19.40	19.50	22.41	22.5	
		11	2462	16.40	16.50		2462	16.50	16.50		2462	16.50	16.50		16.40	16.50	16.50	16.50	19.46	19.5	
	802.11ac-VHT20 MCS0	1	2412	16.30	16.50	97.48	2412	16.30	16.50	97.73	2412	16.30	16.50	97.73	16.40	16.50	16.30	16.50	19.36	19.5	97.73
		6	2437	19.20	19.50		2437	19.30	19.50		2437	19.30	19.50		19.30	19.50	19.30	19.50	22.31	22.5	
		11	2462	16.30	16.50		2462	16.40	16.50		2462	16.40	16.50		16.30	16.50	16.40	16.50	19.36	19.5	

Transmit Antenna							Ant 4				Ant 3				Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	17.30	17.50	97.87	5180	16.90	17.50	97.87	5180	16.90	17.50	97.87	17.30	17.50	17.00	17.50	20.16	20.5	97.87
		40	5200	17.20	17.50		5200	17.00	17.50		5200	17.00	17.50		17.20	17.50	17.10	17.50	20.16	20.5	
		44	5220	17.20	17.50		5220	17.00	17.50		5220	17.00	17.50		17.20	17.50	17.10	17.50	20.16	20.5	
		48	5240	17.30	17.50		5240	16.60	17.50		5240	16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
	802.11n-HT20 MCS0	36	5180	17.40	17.50	97.72	5180	17.20	17.50	97.47	5180	17.20	17.50	97.47	17.40	17.50	17.30	17.50	20.36	20.5	97.72
		40	5200	17.40	17.50		5200	17.20	17.50		5200	17.20	17.50		17.40	17.50	17.30	17.50	20.36	20.5	
		44	5220	17.40	17.50		5220	17.30	17.50		5220	17.30	17.50		17.40	17.50	17.40	17.50	20.41	20.5	
		48	5240	17.40	17.50		5240	16.90	17.50		5240	16.90	17.50		17.40	17.50	17.00	17.50	20.21	20.5	
	802.11n-HT40 MCS0	38	5190	13.50	13.50	95.93	5190	13.00	13.50	95.96	5190	13.00	13.50	95.96	13.50	13.50	13.10	13.50	16.31	16.5	95.93
		46	5230	17.40	17.50		5230	17.00	17.50		5230	17.00	17.50		17.40	17.50	17.10	17.50	20.26	20.5	
	802.11ac-VHT20 MCS0	36	5180	17.30	17.50	97.49	5180	17.10	17.50	97.98	5180	17.10	17.50	97.98	17.30	17.50	17.20	17.50	20.26	20.5	97.49
		40	5200	17.30	17.50		5200	17.10	17.50		5200	17.10	17.50		17.30	17.50	17.20	17.50	20.26	20.5	
		44	5220	17.30	17.50		5220	17.20	17.50		5220	17.20	17.50		17.30	17.50	17.30	17.50	20.31	20.5	
		48	5240	17.30	17.50		5240	16.80	17.50		5240	16.80	17.50		17.30	17.50	16.90	17.50	20.11	20.5	
	802.11ac-VHT40 MCS0	38	5190	13.40	13.50	95.74	5190	12.90	13.50	96.00	5190	12.90	13.50	96.00	13.40	13.50	13.00	13.50	16.21	16.5	95.74
		46	5230	17.30	17.50		5230	16.90	17.50		5230	16.90	17.50		17.30	17.50	17.00	17.50	20.16	20.5	
	802.11ac-VHT80 MCS0	42	5210	12.80	13.00	92.00	5210	12.80	13.00	92.00	5210	12.80	13.00	92.00	12.80	13.00	12.90	13.00	15.86	16.0	92.00

Transmit Antenna							Ant 4				Ant 3				Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) 1+2(1)	Tune-Up Limit 1+2(1)	Average power (dBm) 1+2(2)	Tune-Up Limit 1+2(2)	Average power (dBm) 1+2	Tune-Up Limit 1+2	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	17.40	17.50	97.87	5260	16.50	17.50	97.87	5260	16.50	17.50	97.87	17.40	17.50	16.60	17.50	20.03	20.5	97.87
		56	5280	17.30	17.50		5280	16.60	17.50		5280	16.60	17.50		17.30	17.50	16.70	17.50	20.03	20.5	
		60	5300	17.40	17.50		5300	16.70	17.50		5300	16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		64	5320	17.40	17.50		5320	16.80	17.50		5320	16.80	17.50		17.40	17.50	16.90	17.50	20.17	20.5	
	802.11n-HT20 MCS0	52	5260	17.40	17.50	97.72	5260	16.70	17.50	97.47	5260	16.70	17.50	97.47	17.40	17.50	16.80	17.50	20.12	20.5	97.72
		56	5280	17.40	17.50		5280	16.70	17.50		5280	16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		60	5300	17.40	17.50		5300	16.70	17.50		5300	16.70	17.50		17.40	17.50	16.80	17.50	20.12	20.5	
		64	5320	17.40	17.50		5320	16.80	17.50		5320	16.80	17.50		17.40	17.50	16.90	17.50	20.17	20.5	
	802.11n-HT40 MCS0	54	5270	17.40	17.50	95.93	5270	16.90	17.50	95.96	5270	16.90	17.50	95.96	17.40	17.50	17.00	17.50	20.21	20.5	95.93
		62	5310	13.80	14.00		5310	13.50	14.00		5310	13.50	14.00		13.80	14.00	13.60	14.00	16.71	17.0	
	802.11ac-VHT20 MCS0	52	5260	17.30	17.50	97.49	5260	16.60	17.50	97.98	5260	16.60	17.50	97.98	17.30	17.50	16.70	17.50	20.02	20.5	97.49
		56	5280	17.30	17.50		5280	16.60	17.50		5280	16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
		60	5300	17.30	17.50		5300	16.60	17.50		5300	16.60	17.50		17.30	17.50	16.70	17.50	20.02	20.5	
		64	5320	17.30	17.50		5320	16.70	17.50		5320	16.70	17.50		17.30	17.50	16.80	17.50	20.07	20.5	
	802.11ac-VHT40 MCS0	54	5270	17.30	17.50	95.74	5270	16.80	17.50	96.00	5270	16.80	17.50	96.00	17.30	17.50	16.90	17.50	20.11	20.5	95.74
		62	5310	13.70	14.00		5310	13.40	14.00		5310	13.40	14.00		13.70	14.00	13.50	14.00	16.61	17.0	
	802.11ac-VHT80 MCS0	58	5290	12.00	12.00	92.00	5290	11.70	12.00	92.00	5290	11.70	12.00	92.00	12.00	12.00	11.80	12.00	14.91	15.0	92.00



	Transmit Antenna					Ant 4					Ant 3					Ant 4+3(4)					Ant 4+3(3)					Ant 4+3				
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %											
5.5GHz WLAN	802.11a 6Mbps	100	5500	17.10	17.50	97.83	5500	13.40	13.50	97.87	17.10	17.50	15.00	16.00	19.19	19.8	97.83													
		116	5580	17.40	17.50		5580	13.30	13.50		17.40	17.50	15.40	16.00	19.52	19.8														
		124	5620	17.30	17.50		5620	13.30	13.50		17.30	17.50	15.30	16.00	19.42	19.8														
		132	5660	16.90	17.50		5660	13.40	13.50		16.90	17.50	15.10	16.00	19.10	19.8														
		140	5700	16.90	17.50		5700	13.40	13.50		16.90	17.50	15.40	16.00	19.22	19.8														
		144	5720	17.10	17.50		5720	13.40	13.50		17.10	17.50	15.40	16.00	19.34	19.8														
	802.11n-HT20 MCS0	100	5500	17.40	17.50	97.69	5500	13.30	13.50	97.47	17.40	17.50	15.30	16.00	19.49	19.8	97.69													
		116	5580	17.20	17.50		5580	13.40	13.50		17.20	17.50	15.30	16.00	19.36	19.8														
		124	5620	17.10	17.50		5620	13.40	13.50		17.10	17.50	15.10	16.00	19.22	19.8														
		132	5660	17.30	18.00		5660	13.30	13.50		17.30	18.00	15.40	16.00	19.46	20.1														
		140	5700	17.20	18.00		5700	13.40	13.50		17.20	18.00	15.20	16.00	19.32	20.1														
		144	5720	17.10	17.50		5720	13.40	13.50		17.10	17.50	15.40	16.00	19.34	19.8														
	802.11n-HT40 MCS0	102	5510	15.30	16.00	95.34	5510	13.30	13.50	95.96	15.30	16.00	15.20	16.00	18.26	19.0	95.34													
		110	5550	17.20	17.50		5550	13.30	13.50		17.20	17.50	15.30	16.00	19.36	19.8														
		126	5630	17.10	17.50		5630	13.30	13.50		17.10	17.50	15.10	16.00	19.22	19.8														
		134	5670	17.10	17.50		5670	13.40	13.50		17.10	17.50	15.20	16.00	19.26	19.8														
		142	5710	17.40	17.50		5710	13.40	13.50		17.40	17.50	15.20	16.00	19.45	19.8														
		100	5500	17.30	17.50		5500	13.20	13.50		17.30	17.50	15.20	16.00	19.39	19.8														
	802.11ac-VHT20 MCS0	116	5580	17.10	17.50	97.69	5580	13.30	13.50	97.98	17.10	17.50	15.20	16.00	19.26	19.8	97.69													
		124	5620	17.00	17.50		5620	13.30	13.50		17.00	17.50	15.00	16.00	19.12	19.8														
		132	5660	17.00	18.00		5660	13.20	13.50		17.00	18.00	15.30	16.00	19.24	20.1														
		140	5700	17.00	18.00		5700	13.30	13.50		17.00	18.00	15.10	16.00	19.16	20.1														
		144	5720	17.00	17.50		5720	13.30	13.50		17.00	17.50	15.30	16.00	19.24	19.8														
		102	5510	15.20	16.00		5510	13.20	13.50		15.20	16.00	15.10	16.00	18.16	19.0														
	802.11ac-VHT40 MCS0	110	5550	17.10	17.50	95.41	5550	13.20	13.50	96.00	17.10	17.50	15.20	16.00	19.26	19.8	95.41													
		126	5630	17.00	17.50		5630	13.20	13.50		17.00	17.50	15.00	16.00	19.12	19.8														
		134	5670	17.00	17.50		5670	13.30	13.50		17.00	17.50	15.10	16.00	19.16	19.8														
		142	5710	17.30	17.50		5710	13.30	13.50		17.30	17.50	15.10	16.00	19.35	19.8														
	802.11ac-VHT80 MCS0	106	5530	12.00	12.50	91.87	5530	12.40	12.50	92.00	12.00	12.50	12.20	12.50	15.11	15.5	91.87													
		122	5610	16.80	17.00		5610	13.10	13.50		16.80	17.00	15.20	16.00	19.08	19.5														
		138	5690	16.90	17.00		5690	13.10	13.50		16.90	17.00	15.10	16.00	19.10	19.5														

	Transmit Antenna					Ant 4					Ant 3					Ant 4+3(4)					Ant 4+3(3)					Ant 4+3				
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %											
5.8GHz WLAN	802.11a 6Mbps	149	5745	18.30	18.50	97.83	5745	13.40	13.50	97.87	18.30	18.50	15.60	16.00	20.17	20.4	97.83													
		157	5785	18.40	18.50		5785	13.40	13.50		18.40	18.50	15.80	16.00	20.30	20.4														
		165	5825	18.20	18.50		5825	13.20	13.50		18.20	18.50	15.80	16.00	20.17	20.4														
	802.11n-HT20 MCS0	149	5745	18.10	18.50	97.69	5745	13.40	13.50	97.47	18.10	18.50	15.90	16.00	20.15	20.4	97.69													
		157	5785	18.20	18.50		5785	13.30	13.50		18.20	18.50	15.60	16.00	20.10	20.4														
		165	5825	18.10	18.50		5825	13.40	13.50		18.10	18.50	15.60	16.00	20.04	20.4														
	802.11n-HT40 MCS0	151	5755	17.40	17.50	95.34	5755	13.30	13.50	95.96	17.40	17.50	15.90	16.00	19.72	19.8	95.34													
		159	5795	17.10	17.50		5795	13.40	13.50		17.10	17.50	15.70	16.00	19.47	19.8														
		149	5745	18.00	18.50		5745	13.30	13.50		18.00	18.50	15.80	16.00	20.05	20.4														
	802.11ac-VHT20 MCS0	157	5785	18.10	18.50	97.69	5785	13.20	13.50	97.98	18.10	18.50	15.50	16.00	20.00	20.4	97.69													
		165	5825	18.00	18.50		5825	13.30	13.50		18.00	18.50	15.50	16.00	19.94	20.4														
		151	5755	17.30	17.50		5755	13.20	13.50		17.30	17.50	15.80	16.00	19.62	19.8														
	802.11ac-VHT40 MCS0	159	5795	17.00	17.50	95.41	5795	13.30	13.50	96.00	17.00	17.50	15.60	16.00	19.37	19.8	95.41													
	802.11ac-VHT80 MCS0	155	5775	16.90	17.00		5775	13.30	13.50		16.90	17.00	15.80	16.00	19.40	19.5		91.87												



Transmit Antenna			Ant 4				Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	11.90	12.00	98.72	14.90	15.00	98.92	13.70	14.00	14.90	15.00	17.35	17.5	98.92
		6	2437	11.90	12.00		14.70	15.00		13.80	14.00	14.70	15.00	17.20	17.5	
		11	2462	11.90	12.00		14.70	15.00		13.80	14.00	14.70	15.00	17.28	17.5	
	802.11g 6Mbps	1	2412	11.80	12.00	97.87	14.90	15.00	98.35	13.70	14.00	14.90	15.00	17.35	17.5	98.35
		6	2437	11.70	12.00		14.90	15.00		13.80	14.00	14.90	15.00	17.40	17.5	
		11	2462	11.70	12.00		14.90	15.00		13.80	14.00	14.90	15.00	17.31	17.5	
	802.11n-HT20 MCS0	1	2412	11.80	12.00	97.97	14.70	15.00	97.72	13.60	14.00	14.70	15.00	17.20	17.5	97.72
		6	2437	11.90	12.00		14.90	15.00		13.70	14.00	14.90	15.00	17.35	17.5	
		11	2462	11.90	12.00		14.70	15.00		13.90	14.00	14.70	15.00	17.33	17.5	
	802.11ac-VHT20 MCS0	1	2412	11.70	12.00	97.48	14.60	15.00	97.73	13.50	14.00	14.60	15.00	17.10	17.5	97.73
		6	2437	11.80	12.00		14.80	15.00		13.60	14.00	14.80	15.00	17.25	17.5	
		11	2462	11.80	12.00		14.60	15.00		13.80	14.00	14.60	15.00	17.23	17.5	

Transmit Antenna			Ant 4				Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	10.80	11.00	97.87	15.30	15.50	97.87	10.80	11.00	15.30	15.50	16.62	16.8	97.87
		40	5200	10.80	11.00		15.40	15.50		10.80	11.00	15.30	15.50	16.62	16.8	
		44	5220	10.90	11.00		15.40	15.50		10.90	11.00	15.40	15.50	16.72	16.8	
		48	5240	10.90	11.00		15.30	15.50		10.90	11.00	15.40	15.50	16.72	16.8	
	802.11n-HT20 MCS0	36	5180	10.80	11.00	97.72	15.40	15.50	97.47	10.80	11.00	15.20	15.50	16.55	16.8	97.72
		40	5200	10.80	11.00		15.30	15.50		10.80	11.00	15.20	15.50	16.55	16.8	
		44	5220	10.90	11.00		15.40	15.50		10.90	11.00	15.30	15.50	16.65	16.8	
		48	5240	10.80	11.00		15.30	15.50		10.80	11.00	15.30	15.50	16.62	16.8	
	802.11n-HT40 MCS0	38	5190	10.90	11.00	95.93	13.00	13.50	95.96	10.90	11.00	13.40	13.50	15.34	15.4	95.93
		46	5230	10.90	11.00		15.30	15.50		10.90	11.00	15.40	15.50	16.72	16.8	
	802.11ac-VHT40 MCS0	36	5180	10.70	11.00	97.49	15.30	15.50	97.98	10.70	11.00	15.10	15.50	16.45	16.8	97.49
		40	5200	10.70	11.00		15.20	15.50		10.70	11.00	15.10	15.50	16.45	16.8	
		44	5220	10.80	11.00		15.30	15.50		10.80	11.00	15.20	15.50	16.55	16.8	
		48	5240	10.70	11.00		15.20	15.50		10.70	11.00	15.20	15.50	16.52	16.8	
	802.11ac-VHT40 MCS0	38	5190	10.80	11.00	95.74	12.90	13.50	96.00	10.80	11.00	13.50	13.50	15.37	15.4	95.74
		46	5230	10.80	11.00		15.20	15.50		10.80	11.00	15.30	15.50	16.62	16.8	
	802.11ac-VHT80 MCS0	42	5210	10.80	11.00	92.00	12.80	13.00	92.00	10.80	11.00	12.30	13.00	14.62	15.1	92.00

Transmit Antenna			Ant 4				Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) 1+2(1)	Tune-Up Limit 1+2(1)	Average power (dBm) 1+2(2)	Tune-Up Limit 1+2(2)	Average power (dBm) 1+2	Tune-Up Limit 1+2	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	10.80	11.00	97.87	15.40	15.50	97.87	10.80	11.00	15.40	15.50	16.69	16.8	97.87
		56	5280	10.70	11.00		15.30	15.50		10.70	11.00	15.30	15.50	16.55	16.8	
		60	5300	10.80	11.00		15.30	15.50		10.80	11.00	15.20	15.50	16.55	16.8	
		64	5320	10.80	11.00		15.40	15.50		10.80	11.00	15.20	15.50	16.55	16.8	
	802.11n-HT20 MCS0	52	5260	10.70	11.00	97.72	15.40	15.50	97.47	10.70	11.00	15.40	15.50	16.67	16.8	97.72
		56	5280	10.60	11.00		15.30	15.50		10.60	11.00	15.30	15.50	16.57	16.8	
		60	5300	10.70	11.00		15.30	15.50		10.70	11.00	15.40	15.50	16.67	16.8	
		64	5320	10.70	11.00		15.40	15.50		10.70	11.00	15.30	15.50	16.59	16.8	
	802.11n-HT40 MCS0	54	5270	10.80	11.00	95.93	15.40	15.50	95.96	10.80	11.00	15.30	15.50	16.62	16.8	95.93
		62	5310	10.90	11.00		13.50	14.00		10.90	11.00	13.80	14.00	15.60	15.8	
	802.11ac-VHT20 MCS0	52	5260	10.60	11.00	97.49	15.30	15.50	97.98	10.60	11.00	15.30	15.50	16.57	16.8	97.49
		56	5280	10.50	11.00		15.20	15.50		10.50	11.00	15.20	15.50	16.47	16.8	
		60	5300	10.60	11.00		15.20	15.50		10.60	11.00	15.30	15.50	16.57	16.8	
		64	5320	10.60	11.00		15.30	15.50		10.60	11.00	15.20	15.50	16.49	16.8	
	802.11ac-VHT40 MCS0	54	5270	10.70	11.00	95.74	15.30	15.50	96.00	10.70	11.00	15.20	15.50	16.52	16.8	95.74
		62	5310	10.80	11.00		13.40	14.00		10.80	11.00	13.80	14.00	15.56	15.8	
	802.11ac-VHT80 MCS0	58	5290	10.90	11.00	92.00	11.70	12.00	92.00	10.90	11.00	11.90	12.00	14.44	14.5	92.00



	Transmit Antenna				Ant 4		Ant 3		Ant 4+3(4)		Ant 4+3(3)		Ant 4+3			
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	12.90	13.00	97.87	11.90	12.00	97.87	12.90	13.00	11.90	12.00	15.44	15.5	97.87
		116	5580	12.80	13.00		11.80	12.00		12.80	13.00	11.90	12.00	15.38	15.5	
		124	5620	12.70	13.00		11.80	12.00		12.70	13.00	11.80	12.00	15.28	15.5	
		132	5660	12.70	13.00		11.70	12.00		12.70	13.00	11.90	12.00	15.33	15.5	
		140	5700	12.70	13.00		11.70	12.00		12.70	13.00	11.90	12.00	15.33	15.5	
		144	5720	12.90	13.00		11.80	12.00		12.90	13.00	11.90	12.00	15.44	15.5	
	802.11n-HT20 MCS0	100	5500	12.70	13.00	97.72	11.80	12.00	97.47	12.70	13.00	11.90	12.00	15.33	15.5	97.72
		116	5580	12.80	13.00		11.80	12.00		12.80	13.00	11.90	12.00	15.38	15.5	
		124	5620	12.80	13.00		11.70	12.00		12.80	13.00	11.90	12.00	15.38	15.5	
		132	5660	12.70	13.00		11.80	12.00		12.70	13.00	11.80	12.00	15.28	15.5	
		140	5700	12.80	13.00		11.90	12.00		12.80	13.00	11.90	12.00	15.38	15.5	
		144	5720	12.90	13.00		11.90	12.00		12.90	13.00	11.90	12.00	15.44	15.5	
	802.11n-HT40 MCS0	102	5510	12.80	13.00	95.93	11.80	12.00	95.96	12.80	13.00	11.90	12.00	15.38	15.5	95.93
		110	5550	12.80	13.00		11.80	12.00		12.80	13.00	11.90	12.00	15.38	15.5	
		126	5630	12.80	13.00		11.80	12.00		12.80	13.00	11.70	12.00	15.28	15.5	
		134	5670	12.70	13.00		11.80	12.00		12.70	13.00	11.80	12.00	15.28	15.5	
		142	5710	12.90	13.00		11.80	12.00		12.90	13.00	11.80	12.00	15.40	15.5	
		146	5730	12.70	13.00		11.70	12.00		12.60	13.00	11.80	12.00	15.23	15.5	
	802.11ac-VHT20 MCS0	100	5500	12.60	13.00	97.49	11.70	12.00	97.98	12.60	13.00	11.80	12.00	15.23	15.5	97.49
		116	5580	12.70	13.00		11.70	12.00		12.70	13.00	11.80	12.00	15.28	15.5	
		124	5620	12.70	13.00		11.60	12.00		12.70	13.00	11.80	12.00	15.28	15.5	
		132	5660	12.60	13.00		11.70	12.00		12.60	13.00	11.70	12.00	15.18	15.5	
		140	5700	12.70	13.00		11.80	12.00		12.70	13.00	11.80	12.00	15.28	15.5	
		144	5720	12.80	13.00		11.80	12.00		12.80	13.00	11.80	12.00	15.34	15.5	
	802.11ac-VHT40 MCS0	102	5510	12.70	13.00	95.74	11.70	12.00	96.00	12.70	13.00	11.80	12.00	15.28	15.5	95.74
		110	5550	12.70	13.00		11.70	12.00		12.70	13.00	11.80	12.00	15.28	15.5	
		126	5630	12.70	13.00		11.70	12.00		12.70	13.00	11.60	12.00	15.18	15.5	
		134	5670	12.60	13.00		11.70	12.00		12.60	13.00	11.70	12.00	15.18	15.5	
		142	5710	12.80	13.00		11.70	12.00		12.80	13.00	11.70	12.00	15.30	15.5	
		146	5730	12.40	12.50		11.60	12.00		12.40	12.50	11.90	12.00	15.17	15.3	
	802.11ac-VHT80 MCS0	122	5610	12.80	13.00	92.00	11.80	12.00	92.00	12.80	13.00	11.80	12.00	15.34	15.5	92.00
		138	5690	12.90	13.00		11.80	12.00		12.90	13.00	11.90	12.00	15.44	15.5	

	Transmit Antenna				Ant 4		Ant 3		Ant 4+3(4)		Ant 4+3(3)		Ant 4+3			
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	14.30	14.50	97.87	12.30	12.50	97.87	14.30	14.50	12.40	12.50	16.46	16.6	97.87
		157	5785	14.30	14.50		12.40	12.50		14.30	14.50	12.40	12.50	16.46	16.6	
		165	5825	14.20	14.50		12.30	12.50		14.20	14.50	12.30	12.50	16.36	16.6	
	802.11n-HT20 MCS0	149	5745	14.20	14.50	97.72	12.40	12.50	97.47	14.20	14.50	12.40	12.50	16.40	16.6	97.72
		157	5785	14.20	14.50		12.40	12.50		14.20	14.50	12.40	12.50	16.40	16.6	
		165	5825	14.30	14.50		12.40	12.50		14.30	14.50	12.30	12.50	16.42	16.6	
	802.11n-HT40 MCS0	151	5755	14.40	14.50	95.93	12.40	12.50	95.96	14.40	14.50	12.30	12.50	16.49	16.6	95.93
		159	5795	14.30	14.50		12.40	12.50		14.30	14.50	12.30	12.50	16.42	16.6	
		167	5835	14.10	14.50		12.30	12.50		14.10	14.50	12.30	12.50	16.30	16.6	
	802.11ac-VHT20 MCS0	157	5785	14.10	14.50	97.49	12.30	12.50	97.98	14.10	14.50	12.30	12.50	16.30	16.6	97.49
		165	5825	14.20	14.50		12.30	12.50		14.20	14.50	12.20	12.50	16.32	16.6	
		173	5865	14.30	14.50		12.30	12.50		14.30	14.50	12.20	12.50	16.39	16.6	
	802.11ac-VHT40 MCS0	151	5755	14.30	14.50	95.74	12.30	12.50	96.00	14.30	14.50	12.20	12.50	16.32	16.6	95.74
		159	5795	14.20	14.50		12.30	12.50		14.20	14.50	12.20	12.50	16.32	16.6	
	802.11ac-VHT80 MCS0	155	5775	14.40	14.50	92.00	12.40	12.50	92.00	14.40	14.50	12.30	12.50	16.49	16.6	92.00



Transmit Antenna							Ant 4			Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11b 1Mbps	1	2412	14.40	14.50	98.72	18.70	19.00	98.92	18.70	17.00	98.92	18.70	17.00	18.70	19.00	20.82	21.1	98.92
		6	2437	14.40	14.50		18.80	19.00		18.70	17.00		18.70	17.00	18.80	19.00	20.89	21.1	
		11	2462	14.30	14.50		18.70	19.00		18.80	17.00		18.70	17.00	19.00	19.00	20.86	21.1	
	802.11g 6Mbps	1	2412	14.30	14.50	97.87	17.20	17.50	98.35	18.90	17.00	98.35	18.90	17.00	17.20	17.50	20.06	20.3	98.35
		6	2437	14.20	14.50		18.80	19.00		18.70	17.00		18.70	17.00	18.80	19.00	20.89	21.1	
		11	2462	14.40	14.50		18.70	19.00		18.80	17.00		18.70	17.00	19.00	19.00	20.86	21.1	
	802.11n-HT20 MCS0	1	2412	14.40	14.50	97.97	16.40	16.50	97.72	18.90	19.00	97.72	16.50	16.50	16.40	16.50	19.46	19.5	97.72
		6	2437	14.40	14.50		16.30	16.50		18.70	17.00		16.70	17.00	18.90	19.00	20.95	21.1	
		11	2462	14.40	14.50		16.50	16.50		16.40	16.50		16.40	16.50	16.50	16.50	19.46	19.5	
	802.11ac-VHT20 MCS0	1	2412	14.30	14.50	97.48	16.30	16.50	97.73	16.30	16.50	97.73	16.50	16.50	16.30	16.50	19.41	19.5	97.73
		6	2437	14.30	14.50		18.80	19.00		16.60	17.00		16.60	17.00	18.80	19.00	20.85	21.1	
		11	2462	14.30	14.50		16.40	16.50		16.30	16.50		16.30	16.50	16.40	16.50	19.36	19.5	

Transmit Antenna							Ant 4			Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	36	5180	15.40	16.50	97.83	13.90	14.00	97.87	15.40	16.50	97.87	15.40	16.50	13.60	14.50	17.60	18.6	97.83
		40	5200	15.40	16.50		13.80	14.00		15.40	16.50		15.40	16.50	13.60	14.50	17.60	18.6	
		44	5220	15.40	16.50		13.80	14.00		15.40	16.50		15.40	16.50	13.90	14.50	17.72	18.6	
		48	5240	15.40	16.50		13.90	14.00		15.40	16.50		15.40	16.50	13.70	14.50	17.64	18.6	
	802.11n-HT20 MCS0	36	5180	15.30	16.50	97.69	13.90	14.00	97.47	15.30	16.50	97.47	15.30	16.50	13.60	14.50	17.54	18.6	97.69
		40	5200	15.30	16.50		13.80	14.00		15.30	16.50		15.30	16.50	13.80	14.50	17.62	18.6	
		44	5220	15.30	16.50		13.90	14.00		15.30	16.50		15.30	16.50	13.80	14.50	17.62	18.6	
		48	5240	15.40	16.50		13.80	14.00		15.40	16.50		15.40	16.50	13.90	14.50	17.72	18.6	
	802.11n-HT40 MCS0	38	5190	13.50	13.50	95.34	13.00	13.50	95.96	13.50	13.50	95.96	13.50	13.50	13.10	13.50	16.31	16.5	95.34
		46	5230	15.20	16.50		13.90	14.00		15.20	16.50		15.20	16.50	13.60	14.50	17.48	18.6	
	802.11ac-VHT20 MCS0	36	5180	15.20	16.50	97.69	13.80	14.00	97.98	15.20	16.50	97.98	15.20	16.50	13.50	14.50	17.44	18.6	97.69
		40	5200	15.20	16.50		13.70	14.00		15.20	16.50		15.20	16.50	13.70	14.50	17.52	18.6	
		44	5220	15.20	16.50		13.80	14.00		15.20	16.50		15.20	16.50	13.70	14.50	17.52	18.6	
		48	5240	15.30	16.50		13.70	14.00		15.30	16.50		15.30	16.50	13.80	14.50	17.62	18.6	
	802.11ac-VHT40 MCS0	38	5190	13.50	13.50	95.41	12.90	13.50	96.00	13.50	13.50	96.00	13.50	13.50	13.00	13.50	16.27	16.5	95.41
		46	5230	15.10	16.50		13.80	14.00		15.10	16.50		15.10	16.50	13.50	14.50	17.38	18.6	
	802.11ac-VHT80 MCS0	42	5210	12.80	13.00	91.87	12.80	13.00	92.00	12.80	13.00	92.00	12.80	13.00	12.90	13.00	15.86	16.0	91.87

Transmit Antenna							Ant 4			Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm) 1+2(1)	Tune-Up Limit 1+2(1)	Average power (dBm) 1+2(2)	Tune-Up Limit 1+2(2)	Average power (dBm) 1+2	Tune-Up Limit 1+2	Duty Cycle %
	802.11a 6Mbps	52	5260	17.10	17.50	97.83	13.80	14.00	97.87	17.10	17.50	97.87	17.10	17.50	14.70	15.00	19.07	19.4	97.83
		56	5280	17.10	17.50		13.80	14.00		17.10	17.50		17.10	17.50	14.70	15.00	19.07	19.4	
		60	5300	17.40	17.50		13.80	14.00		17.40	17.50		17.40	17.50	14.60	15.00	19.23	19.4	
		64	5320	17.40	17.50		13.90	14.00		17.40	17.50		17.40	17.50	14.60	15.00	19.23	19.4	
	802.11n-HT20 MCS0	52	5260	17.30	17.50	97.69	13.90	14.00	97.47	17.30	17.50	97.47	17.30	17.50	14.80	15.00	19.24	19.4	97.69
		56	5280	17.30	17.50		13.80	14.00		17.30	17.50		17.30	17.50	14.80	15.00	19.24	19.4	
		60	5300	17.40	17.50		13.90	14.00		17.40	17.50		17.40	17.50	14.90	15.00	19.34	19.4	
		64	5320	17.40	17.50		13.80	14.00		17.40	17.50		17.40	17.50	14.90	15.00	19.34	19.4	
	802.11n-HT40 MCS0	54	5270	17.20	17.50	95.34	13.90	14.00	95.96	17.20	17.50	95.96	17.20	17.50	14.70	15.00	19.14	19.4	95.34
		62	5310	13.60	14.00		13.50	14.00		13.60	14.00		13.60	14.00	13.90	14.00	16.76	17.0	
	802.11ac-VHT20 MCS0	52	5260	17.20	17.50	97.69	13.80	14.00	97.98	17.20	17.50	97.98	17.20	17.50	14.70	15.00	19.14	19.4	97.69
		56	5280	17.20	17.50		13.70	14.00		17.20	17.50		17.20	17.50	14.70	15.00	19.14	19.4	
		60	5300	17.30	17.50		13.80	14.00		17.30	17.50		17.30	17.50	14.80	15.00	19.24	19.4	
		64	5320	17.30	17.50		13.70	14.00		17.30	17.50		17.30	17.50	14.80	15.00	19.24	19.4	
	802.11ac-VHT40 MCS0	54	5270	17.10	17.50	95.41	13.80	14.00	96.00	17.10	17.50	96.00	17.10	17.50	14.60	15.00	19.04	19.4	95.41
		62	5310	13.50	14.00		13.40	14.00		13.50	14.00		13.50	14.00	13.80	14.00	16.66	17.0	
	802.11ac-VHT80 MCS0	58	5290	11.60	12.00	91.87	11.70	12.00	92.00	11.60	12.00	92.00	11.60	12.00	11.80	12.00	14.71	15.0	91.87



Transmit Antenna		Ant 4					Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	17.10	17.50	97.83	9.40	10.50	97.87	17.10	17.50	11.30	11.50	18.11	18.47	97.83
		116	5580	17.40	17.50		9.30	10.50		17.40	17.50	11.20	11.50	18.33	18.47	
		124	5620	17.30	17.50		9.30	10.50		17.30	17.50	11.10	11.50	18.23	18.47	
		132	5660	17.00	17.50		9.30	10.50		17.00	17.50	11.40	11.50	18.06	18.47	
		140	5700	17.00	17.50		9.30	10.50		17.00	17.50	11.10	11.50	17.99	18.47	
		144	5720	17.10	17.50		9.30	10.50		17.10	17.50	11.20	11.50	18.09	18.47	
	802.11n-HT20 MCS0	100	5500	17.40	17.50	97.69	9.30	10.50	97.47	17.40	17.50	11.20	11.50	18.33	18.47	97.69
		116	5580	17.20	17.50		9.30	10.50		17.20	17.50	11.10	11.50	18.15	18.47	
		124	5620	17.10	17.50		9.20	10.50		17.10	17.50	11.10	11.50	18.07	18.47	
		132	5660	17.30	18.00		9.30	10.50		17.30	18.00	11.30	11.50	18.27	18.88	
		140	5700	17.20	18.00		9.40	10.50		17.20	18.00	11.40	11.50	18.21	18.88	
		144	5720	17.10	17.50		9.30	10.50		17.10	17.50	11.50	11.50	18.16	18.47	
	802.11n-HT40 MCS0	102	5510	16.00	16.00	95.34	9.40	10.50	95.96	16.00	16.00	11.10	11.50	17.22	17.32	95.34
		110	5550	17.20	17.50		9.30	10.50		17.20	17.50	11.10	11.50	18.15	18.47	
		126	5630	17.10	17.50		9.30	10.50		17.10	17.50	11.40	11.50	18.14	18.47	
		134	5670	17.10	17.50		9.40	10.50		17.10	17.50	11.10	11.50	18.07	18.47	
		142	5710	17.40	17.50		9.40	10.50		17.40	17.50	11.10	11.50	18.31	18.47	
		140	5700	17.10	17.50		9.20	10.50		17.30	17.50	11.10	11.50	18.23	18.47	
	802.11ac-VHT20 MCS0	116	5580	17.10	17.50	97.69	9.20	10.50	97.98	17.10	17.50	11.50	11.50	18.16	18.47	97.69
		124	5620	17.00	17.50		9.10	10.50		17.00	17.50	11.50	11.50	18.08	18.47	
		132	5660	17.20	18.00		9.20	10.50		17.20	18.00	11.20	11.50	18.17	18.88	
		140	5700	17.10	18.00		9.30	10.50		17.10	18.00	11.20	11.50	18.09	18.88	
		144	5720	17.00	17.50		9.20	10.50		17.00	17.50	11.30	11.50	18.04	18.47	
		102	5510	16.00	16.00		9.30	10.50		16.00	16.00	11.50	11.50	17.32	17.32	
	802.11ac-VHT40 MCS0	110	5550	17.10	17.50	95.41	9.20	10.50	96.00	17.10	17.50	11.50	11.50	18.16	18.47	95.41
		126	5630	17.00	17.50		9.20	10.50		17.00	17.50	11.30	11.50	18.04	18.47	
		134	5670	17.00	17.50		9.30	10.50		17.00	17.50	11.50	11.50	18.08	18.47	
		142	5710	17.30	17.50		9.30	10.50		17.30	17.50	11.50	11.50	18.31	18.47	
	802.11ac-VHT80 MCS0	106	5530	12.00	12.50	91.87	9.30	10.50	92.00	12.00	12.50	11.50	11.50	14.77	15.94	91.87
		122	5610	16.80	17.00		9.30	10.50		16.80	17.00	11.40	11.50	17.90	18.08	
		138	5690	16.90	17.00		9.40	10.50		16.90	17.00	11.40	11.50	17.98	18.08	

Transmit Antenna		Ant 4					Ant 3			Ant 4+3(4)		Ant 4+3(3)		Ant 4+3		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	18.30	18.50	97.83	9.30	10.00	97.87	18.30	18.50	9.90	10.50	18.89	19.1	97.83
		157	5785	18.40	18.50		9.40	10.00		18.40	18.50	9.70	10.50	18.95	19.1	
		165	5825	18.20	18.50		9.40	10.00		18.20	18.50	9.70	10.50	18.77	19.1	
	802.11n-HT20 MCS0	149	5745	18.10	18.50	97.69	9.40	10.00	97.47	18.10	18.50	9.70	10.50	18.69	19.1	97.69
		157	5785	18.20	18.50		9.40	10.00		18.20	18.50	9.90	10.50	18.80	19.1	
		165	5825	18.10	18.50		9.40	10.00		18.10	18.50	9.90	10.50	18.71	19.1	
	802.11n-HT40 MCS0	151	5755	17.40	17.50	95.34	9.30	10.00	95.96	17.40	17.50	9.80	10.50	18.10	18.3	95.34
		159	5795	17.10	17.50		9.30	10.00		17.10	17.50	9.60	10.50	17.81	18.3	
	802.11ac-VHT20 MCS0	149	5745	18.00	18.50	97.69	9.30	10.00	97.98	18.00	18.50	9.60	10.50	18.59	19.1	97.69
		157	5785	18.10	18.50		9.30	10.00		18.10	18.50	9.80	10.50	18.70	19.1	
		165	5825	18.00	18.50		9.30	10.00		18.00	18.50	9.80	10.50	18.61	19.1	
	802.11ac-VHT40 MCS0	151	5755	17.30	17.50	95.41	9.20	10.00	96.00	17.30	17.50	9.70	10.50	18.00	18.3	95.41
		159	5795	17.00	17.50		9.20	10.00		17.00	17.50	9.50	10.50	17.71	18.3	
	802.11ac-VHT80 MCS0	155	5775	16.90	17.00	91.87	9.30	10.00	92.00	16.90	17.00	9.90	10.50	17.69	17.9	91.87

**General Note:**

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps due to its highest average power and duty cycle is 77.13% considered in SAR testing, and the duty cycle would be scaled to theoretical 83.3% in reported SAR calculation.

Bluetooth Default Power Table

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	17.92	17.96	17.99
	CH 39	2441	17.87	17.95	17.97
	CH 78	2480	17.29	17.30	17.33
Tune-up Limit			18	18	18

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	12.00	12.00
	CH 19	2440	12.40	12.40
	CH 39	2480	11.60	11.60
Tune-up Limit			12.5	12.5

Bluetooth Power Table 2

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	11.38	11.82	11.80
	CH 39	2441	11.97	10.97	10.97
	CH 78	2480	11.77	11.95	11.88
Tune-up Limit			12	12	12

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	11.40	11.40
	CH 19	2440	11.90	11.90
	CH 39	2480	11.90	11.90
Tune-up Limit			12	12

Bluetooth Power Table 3

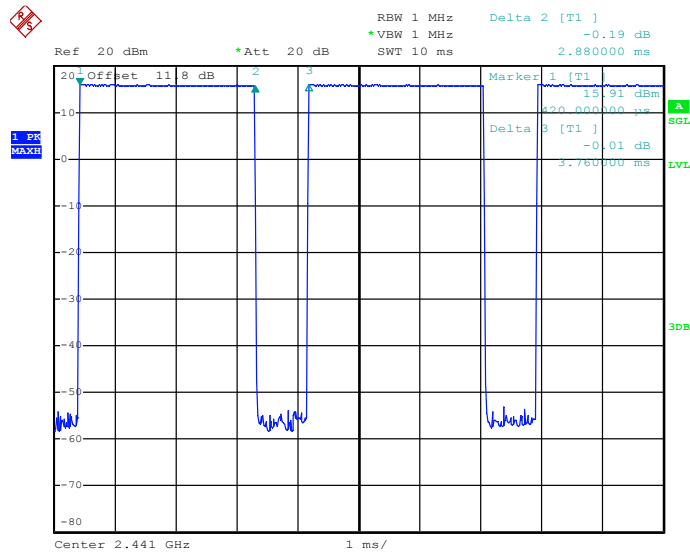
Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	15.49	15.44	15.48
	CH 39	2441	15.50	15.49	15.48
	CH 78	2480	15.33	15.35	15.47
Tune-up Limit			15.5	15.5	15.5

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	12.00	12.00
	CH 19	2440	12.40	12.40
	CH 39	2480	11.60	11.60
Tune-up Limit			12.5	12.5

Bluetooth Power Table 1

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	17.92	17.96	17.99
	CH 39	2441	17.87	17.95	17.97
	CH 78	2480	17.29	17.30	17.33
Tune-up Limit			18	18	18

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	12.00	12.00
	CH 19	2440	12.40	12.40
	CH 39	2480	11.60	11.60
Tune-up Limit			12.5	12.5



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