

Appendix A. Test Data

Duty cycle						
Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	5260	1.405	1.450	96.897	0.137	0.712
802.11n HT20	5260	1.315	1.360	96.691	0.146	0.760
802.11n HT40	5270	0.654	0.705	92.766	0.326	1.529
802.11ac VHT20	5260	0.484	0.536	90.299	0.443	2.066
802.11ac VHT40	5270	0.264	0.317	83.081	0.805	3.792
802.11ac VHT80	5290	0.150	0.205	73.438	1.341	6.649
802.11ac VHT160	5250	0.104	0.151	68.543	1.640	9.662
802.11ax HE20	5260	0.432	0.486	88.953	0.508	2.313
802.11ax HE40	5270	0.273	0.327	83.558	0.780	3.664
802.11ax HE80	5260	0.187	0.241	77.593	1.102	5.348
802.11ax HE160	5270	0.150	0.198	75.806	1.203	6.649

RF power setting in Test SW

Mode	CH	Frequency (MHz)	Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11a	52	5260	15	15	15	-	MT7981 QA 0.0.2.78
	56	5280	15	15	15	-	
	64	5320	15	15	15	-	
	100	5500	15	15	15	-	
	112	5560	15	15	15	-	
	140	5700	15.5	15.5	15.5	-	
	144	5720	15.5	15.5	15.5	-	
802.11n HT20	52	5260	15	15	15	-	
	56	5280	15	15	15	-	
	64	5320	15.5	15.5	15.5	-	
	100	5500	15.5	15.5	15.5	-	
	112	5560	15	15	15	-	
	140	5700	15	15	15	-	
	144	5720	16	16	16	-	
802.11n HT40	54	5270	17	17	17	-	
	62	5310	17	17	17	-	
	102	5510	17	17	17	-	
	110	5550	17	17	17	-	
	134	5670	17.5	17.5	17.5	-	
	142	5710	17.5	17.5	17.5	-	

RF power setting in Test SW

Mode	CH	Frequency (MHz)	Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11ac VHT20	52	5260	15	15	15	-	MT7981 QA 0.0.2.78
	56	5280	15	15	15	-	
	64	5320	15.5	15.5	15.5	-	
	100	5500	15.5	15.5	15.5	-	
	112	5560	15.5	15.5	15.5	-	
	140	5700	15.5	15.5	15.5	-	
802.11ac VHT40	144	5720	16	16	16	-	
	54	5270	17.5	17.5	17.5	-	
	62	5310	17	17	17	-	
	102	5510	17.5	17.5	17.5	-	
	110	5550	17.5	17.5	17.5	-	
	134	5670	17.5	17.5	17.5	-	
802.11ac VHT80	142	5710	17.5	17.5	17.5	-	
	58	5290	13.5	13.5	13.5	-	
	106	5530	16	16	16	-	
	122	5610	17.5	17.5	17.5	-	
802.11ac VHT160	138	5690	17.5	17.5	17.5	-	
	50	5250	14	14	14	-	
	114	5570	16.5	16.5	16.5	-	

RF power setting in Test SW

Mode	CH	Frequency (MHz)	Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11ax HE20	52	5260	15	15	15	-	MT7981 QA 0.0.2.78
	56	5280	15	15	15	-	
	64	5320	15.5	15.5	15.5	-	
	100	5500	15.5	15.5	15.5	-	
	112	5560	15.5	15.5	15.5	-	
	140	5700	16	16	16	-	
	144	5720	16	16	16	-	
802.11ax HE40	54	5270	17	17	17	-	
	62	5310	16	16	16	-	
	102	5510	17	17	17	-	
	110	5550	17	17	17	-	
	134	5670	17.5	17.5	17.5	-	
	142	5710	17.5	17.5	17.5	-	
802.11ax HE80	58	5290	13.5	13.5	13.5	-	
	106	5530	16	16	16	-	
	122	5610	17.5	17.5	17.5	-	
	138	5690	17.5	17.5	17.5	-	
802.11ax HE160	50	5250	14.5	14.5	14.5	-	
	114	5570	16.5	16.5	16.5	-	

Maximum Conducted Output Power Measurement								
Mode	CH	Frequency (MHz)	Average power					Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total	
			dBm	dBm	dBm	dBm	dBm	
802.11a	52	5260	14.80	15.68	15.37	-	20.07	24.00
	56	5280	14.86	15.72	15.54	-	20.16	24.00
	64	5320	14.54	15.38	15.25	-	19.84	24.00
	100	5500	14.47	15.30	15.21	-	19.78	24.00
	112	5560	14.76	15.46	15.37	-	19.98	24.00
	140	5700	14.78	15.31	14.82	-	19.74	24.00
	144	5720	15.09	15.53	15.10	-	20.01	22.87
802.11n HT20	52	5260	14.84	15.60	15.32	-	20.03	22.23
	56	5280	14.87	15.66	15.51	-	20.13	22.23
	64	5320	14.88	15.79	15.61	-	20.21	22.23
	100	5500	15.04	15.79	15.33	-	20.17	22.26
	112	5560	14.90	15.73	15.47	-	20.15	22.26
	140	5700	14.65	15.24	14.29	-	19.51	22.26
	144	5720	15.40	15.76	15.39	-	20.29	21.27
802.11n HT40	54	5270	16.96	17.72	17.46	-	22.16	22.23
	62	5310	16.56	17.35	17.23	-	21.83	22.23
	102	5510	16.51	17.42	16.85	-	21.71	22.26
	110	5550	16.56	17.52	17.03	-	21.82	22.26
	134	5670	16.91	17.51	16.69	-	21.82	22.26
	142	5710	16.89	17.46	16.71	-	21.80	22.26

Maximum Conducted Output Power Measurement								
Mode	CH	Frequency (MHz)	Average power					Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total	
			dBm	dBm	dBm	dBm	dBm	
802.11ac VHT20	52	5260	14.84	15.68	15.35	-	20.08	22.23
	56	5280	14.91	15.69	15.46	-	20.14	22.23
	64	5320	14.97	15.84	15.60	-	20.26	22.23
	100	5500	14.94	15.68	15.60	-	20.19	22.26
	112	5560	15.19	15.83	15.72	-	20.36	22.26
	140	5700	14.81	15.23	14.75	-	19.71	22.26
	144	5720	15.40	15.82	15.43	-	20.33	21.27
802.11ac VHT40	54	5270	16.98	17.79	17.44	-	22.19	22.23
	62	5310	16.49	17.45	17.18	-	21.83	22.23
	102	5510	16.98	17.72	17.65	-	22.24	22.26
	110	5550	16.95	17.68	17.58	-	22.19	22.26
	134	5670	16.99	17.38	17.10	-	21.94	22.26
	142	5710	17.05	17.47	17.07	-	21.98	22.26
802.11ac VHT80	58	5290	12.31	13.19	12.90	-	17.59	22.23
	106	5530	14.86	15.66	15.41	-	20.09	22.26
	122	5610	16.68	17.39	16.68	-	21.70	22.26
	138	5690	16.43	16.95	16.51	-	21.41	22.26
802.11ac VHT160	50	5250	10.74	11.53	11.77	-	16.14	28.08
	114	5570	13.22	13.94	13.81	-	18.44	22.26

Maximum Conducted Output Power Measurement								
Mode	CH	Frequency (MHz)	Average power					Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total	
			dBm	dBm	dBm	dBm	dBm	
802.11ax HE20	52	5260	15.21	16.09	15.78	-	20.48	22.23
	56	5280	15.28	16.06	15.83	-	20.51	22.23
	64	5320	15.43	16.36	16.11	-	20.75	22.23
	100	5500	15.26	16.00	15.88	-	20.49	22.26
	112	5560	15.51	16.20	15.51	-	20.52	22.26
	140	5700	15.63	16.03	15.63	-	20.54	22.26
	144	5720	15.80	16.20	15.86	-	20.73	21.30
802.11ax HE40	54	5270	16.86	17.77	17.48	-	22.16	22.23
	62	5310	15.88	16.69	16.45	-	21.12	22.23
	102	5510	16.95	17.75	17.63	-	22.23	22.26
	110	5550	16.97	17.77	17.53	-	22.21	22.26
	134	5670	17.16	17.55	17.21	-	22.08	22.26
	142	5710	17.14	17.58	17.17	-	22.07	22.26
802.11ax HE80	58	5290	12.70	13.49	12.84	-	17.80	22.23
	106	5530	15.22	15.93	15.38	-	20.29	22.26
	122	5610	16.82	17.58	16.77	-	21.85	22.26
	138	5690	16.46	16.93	16.53	-	21.42	22.26
802.11ax HE160	50	5250	11.51	12.40	12.62	-	16.98	28.08
	114	5570	13.85	14.47	14.32	-	19.00	22.26

Maximum Conducted Output Power Measurement_Transmit power control

Mode	CH	Frequency (MHz)	Average power					Limit	E.I.R.P		EIRP Power Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total		Gain	Calculated Results	
			dBm	dBm	dBm	dBm	dBm		dBm	dBm	
802.11a	52	5260	8.80	9.68	9.37	-	14.07	18.00	3.09	17.16	23.23
	56	5280	8.86	9.72	9.54	-	14.16	18.00	3.09	17.25	23.23
	64	5320	8.54	9.38	9.25	-	13.84	18.00	3.09	16.93	23.23
	100	5500	8.47	9.30	9.21	-	13.78	18.00	3.08	16.86	23.23
	112	5560	8.76	9.46	9.37	-	13.98	18.00	3.08	17.06	23.23
	140	5700	8.78	9.31	8.82	-	13.74	18.00	3.08	16.82	23.23
	144	5720	9.09	9.53	9.10	-	14.01	16.87	3.08	17.09	22.25
802.11n HT20	52	5260	8.84	9.60	9.32	-	14.03	16.23	7.77	21.80	23.51
	56	5280	8.87	9.66	9.51	-	14.13	16.23	7.77	21.90	23.51
	64	5320	8.88	9.79	9.61	-	14.21	16.23	7.77	21.98	23.51
	100	5500	9.04	9.79	9.33	-	14.17	16.26	7.74	21.91	23.52
	112	5560	8.90	9.73	9.47	-	14.15	16.26	7.74	21.89	23.52
	140	5700	8.65	9.24	8.29	-	13.51	16.26	7.74	21.25	23.52
	144	5720	9.40	9.76	9.39	-	14.29	15.27	7.74	22.03	22.43
802.11n HT40	54	5270	10.96	11.72	11.46	-	16.16	16.23	7.77	23.93	24.00
	62	5310	10.56	11.35	11.23	-	15.83	16.23	7.77	23.60	24.00
	102	5510	10.51	11.42	10.85	-	15.71	16.26	7.74	23.45	24.00
	110	5550	10.56	11.52	11.03	-	15.82	16.26	7.74	23.56	24.00
	134	5670	10.91	11.51	10.69	-	15.82	16.26	7.74	23.56	24.00
	142	5710	10.89	11.46	10.71	-	15.80	16.26	7.74	23.54	24.00

Maximum Conducted Output Power Measurement_Transmit power control

Mode	CH	Frequency (MHz)	Average power					Limit	E.I.R.P		EIRP Power Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total		Gain	Calculated Results	
			dBm	dBm	dBm	dBm	dBm		dBm	dBm	
802.11ac VHT20	52	5260	8.84	9.68	9.35	-	14.08	16.23	7.77	21.85	23.51
	56	5280	8.91	9.69	9.46	-	14.14	16.23	7.77	21.91	23.51
	64	5320	8.97	9.84	9.60	-	14.26	16.23	7.74	22.00	23.52
	100	5500	8.94	9.68	9.60	-	14.19	16.26	7.74	21.93	23.52
	112	5560	9.19	9.83	9.72	-	14.36	16.26	7.74	22.10	23.52
	140	5700	8.81	9.23	8.75	-	13.71	16.26	7.74	21.45	22.43
	144	5720	9.40	9.82	9.43	-	14.33	15.27	7.08	21.41	22.43
802.11ac VHT40	54	5270	10.98	11.79	11.44	-	16.19	16.23	7.77	23.96	24.00
	62	5310	10.49	11.45	11.18	-	15.83	16.23	7.74	23.57	24.00
	102	5510	10.98	11.72	11.65	-	16.24	16.26	7.74	23.98	24.00
	110	5550	10.95	11.68	11.58	-	16.19	16.26	7.74	23.93	24.00
	134	5670	10.99	11.38	11.10	-	15.94	16.26	7.74	23.68	24.00
	142	5710	11.05	11.47	11.07	-	15.98	16.26	7.08	23.06	24.00
802.11ac VHT80	58	5290	6.31	7.19	6.90	-	11.59	16.23	7.74	19.33	24.00
	106	5530	8.86	9.66	9.41	-	14.09	16.26	7.74	21.83	24.00
	122	5610	10.68	11.39	10.68	-	15.70	16.26	7.74	23.44	24.00
	138	5690	10.43	10.95	10.51	-	15.41	16.26	7.08	22.49	24.00
802.11ac VHT160	50	5250	1.85	2.57	2.81	-	7.20	17.51	7.77	14.97	24.00
	114	5570	7.22	7.94	7.81	-	12.44	16.26	0.00	12.44	24.00

Maximum Conducted Output Power Measurement_Transmit power control											
Mode	CH	Frequency (MHz)	Average power					Limit dBm	E.I.R.P		EIRP Power Limit dBm
			Ant-0	Ant-1	Ant-2	Ant-3	Total		Gain	Calculated Results	
			dBm	dBm	dBm	dBm	dBm		dBm	dBm	
802.11ax HE20	52	5260	9.21	10.09	9.78	-	14.48	16.23	7.77	22.25	23.80
	56	5280	9.28	10.06	9.83	-	14.51	16.23	7.77	22.28	23.80
	64	5320	9.43	10.36	10.11	-	14.75	16.23	7.74	22.49	23.80
	100	5500	9.26	10.00	9.88	-	14.49	16.26	7.74	22.23	23.80
	112	5560	9.51	10.20	9.51	-	14.52	16.26	7.74	22.26	23.80
	140	5700	9.63	10.03	9.63	-	14.54	16.26	7.74	22.28	22.62
	144	5720	9.80	10.20	9.86	-	14.73	15.30	7.08	21.81	22.62
802.11ax HE40	54	5270	10.86	11.77	11.48	-	16.16	16.23	7.77	23.93	24.00
	62	5310	9.88	10.69	10.45	-	15.12	16.23	7.74	22.86	24.00
	102	5510	10.95	11.75	11.63	-	16.23	16.26	7.74	23.97	24.00
	110	5550	10.97	11.77	11.53	-	16.21	16.26	7.74	23.95	24.00
	134	5670	11.16	11.55	11.21	-	16.08	16.26	7.74	23.82	24.00
	142	5710	11.14	11.58	11.17	-	16.07	16.26	7.08	23.15	24.00
802.11ax HE80	58	5290	6.70	7.49	6.84	-	11.80	16.23	7.74	19.54	24.00
	106	5530	9.22	9.93	9.38	-	14.29	16.26	7.74	22.03	24.00
	122	5610	10.82	11.58	10.77	-	15.85	16.26	7.74	23.59	24.00
	138	5690	10.46	10.93	10.53	-	15.42	16.26	7.08	22.50	24.00
802.11ax HE160	50	5250	2.51	3.36	3.56	-	7.94	18.00	7.92	15.86	24.00
	114	5570	7.85	8.47	8.32	-	13.00	16.26	7.74	20.74	24.00

26 dB & 99 % RF Bandwidth Measurement

Mode	CH	Freq. (MHz)	99 % Bandwidth				26 dB Bandwidth			
			Ant-0	Ant-1	Ant-2	Ant-3	Ant-0	Ant-1	Ant-2	Ant-3
			MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz
802.11a	52	5260	16.886	16.750	16.698	-	21.340	21.250	21.210	-
	56	5280	16.900	16.734	16.704	-	21.930	21.460	21.000	-
	64	5320	17.227	17.141	17.056	-	30.080	27.010	29.000	-
	100	5500	17.210	17.104	17.016	-	32.000	26.700	27.050	-
	112	5560	16.914	16.757	16.694	-	21.840	20.860	20.910	-
	140	5700	17.127	17.013	17.002	-	27.470	28.250	26.290	-
	144	5720	13.401	13.390	13.331	-	15.850	15.500	15.370	-
802.11n HT20	52	5260	18.079	17.874	17.834	-	22.760	22.120	21.740	-
	56	5280	18.040	17.889	17.834	-	22.860	21.800	21.880	-
	64	5320	18.327	18.195	18.142	-	30.960	28.670	27.240	-
	100	5500	18.388	18.149	18.103	-	28.980	27.120	28.980	-
	112	5560	18.021	17.876	17.851	-	22.570	22.080	21.700	-
	140	5700	18.250	18.103	18.094	-	28.220	26.390	28.390	-
	144	5720	13.973	13.884	13.900	-	16.360	15.870	15.870	-
802.11n HT40	54	5270	36.368	36.409	36.424	-	40.930	40.970	40.950	-
	62	5310	36.829	36.699	36.747	-	64.480	57.780	56.050	-
	102	5510	36.804	36.715	36.630	-	57.450	55.210	53.410	-
	110	5550	36.413	36.463	36.424	-	40.920	40.530	41.350	-
	134	5670	37.157	36.898	36.817	-	66.550	64.930	62.930	-
	142	5710	32.995	32.963	32.922	-	35.520	35.670	35.240	-

26 dB & 99 % RF Bandwidth Measurement

Mode	CH	Freq. (MHz)	99 % Bandwidth				26 dB Bandwidth			
			Ant-0	Ant-1	Ant-2	Ant-3	Ant-0	Ant-1	Ant-2	Ant-3
			MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz
802.11ac VHT20	52	5260	18.079	17.874	17.834	-	22.760	22.120	21.740	-
	56	5280	18.040	17.889	17.834	-	22.860	21.800	21.880	-
	64	5320	18.327	18.195	18.142	-	30.960	28.670	27.240	-
	100	5500	18.388	18.149	18.103	-	28.980	27.120	28.980	-
	112	5560	18.021	17.876	17.851	-	22.570	22.080	21.700	-
	140	5700	18.250	18.103	18.094	-	28.220	26.390	28.390	-
	144	5720	13.973	13.884	13.900	-	16.360	15.870	15.870	-
802.11ac VHT40	54	5270	36.368	36.409	36.424	-	40.930	40.970	40.950	-
	62	5310	36.827	36.637	36.793	-	62.540	55.810	55.930	-
	102	5510	36.804	36.715	36.630	-	57.450	55.210	53.410	-
	110	5550	36.413	36.463	36.424	-	40.920	40.530	41.350	-
	134	5670	37.157	36.898	36.817	-	66.550	64.930	62.930	-
802.11ac VHT80	142	5710	32.995	32.963	32.922	-	35.520	35.670	35.240	-
	58	5290	75.788	75.755	75.586	-	98.970	99.340	109.910	-
	106	5530	75.599	75.596	75.592	-	102.070	104.810	104.190	-
	122	5610	75.246	75.268	75.279	-	80.460	80.500	80.050	-
	138	5690	72.136	72.121	72.240	-	75.330	75.290	75.120	-
802.11ac VHT160	50	5250	76.897	76.826	76.408	-	82.200	84.130	84.740	-
	50	5250	76.821	76.426	76.465	-	86.780	86.290	86.710	-
	114	5570	153.975	153.721	154.021	-	168.840	168.520	167.720	-

26 dB & 99 % RF Bandwidth Measurement

Mode	CH	Freq. (MHz)	99 % Bandwidth				26 dB Bandwidth			
			Ant-0	Ant-1	Ant-2	Ant-3	Ant-0	Ant-1	Ant-2	Ant-3
			MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz
802.11ax HE20	52	5260	19.140	19.086	19.077	-	22.590	22.450	22.190	-
	56	5280	19.109	19.067	19.079	-	22.230	22.190	22.250	-
	64	5320	19.289	19.221	19.177	-	29.100	28.540	28.330	-
	100	5500	19.292	19.183	19.212	-	31.210	29.130	29.680	-
	112	5560	19.064	19.074	19.078	-	22.910	22.670	22.760	-
	140	5700	19.166	19.186	19.156	-	26.760	27.340	26.160	-
	144	5720	14.513	14.524	14.540	-	16.200	15.980	16.140	-
802.11ax HE40	54	5270	37.606	37.631	37.606	-	39.750	39.880	40.050	-
	62	5310	37.711	37.815	37.731	-	43.190	44.210	45.970	-
	102	5510	37.899	37.796	37.806	-	52.210	45.240	49.990	-
	110	5550	37.623	37.659	37.571	-	39.930	39.980	39.940	-
	134	5670	37.928	37.903	37.843	-	52.470	55.440	50.850	-
	142	5710	33.669	33.704	33.642	-	34.900	34.950	34.990	-
802.11ax HE80	58	5290	77.187	77.223	77.076	-	93.250	99.940	87.610	-
	106	5530	77.142	77.230	77.120	-	86.030	91.810	85.220	-
	122	5610	76.953	76.841	77.034	-	81.120	80.770	80.890	-
	138	5690	72.914	72.913	73.010	-	75.540	75.440	75.690	-
802.11ax HE160	50	5250	77.808	77.601	77.612	-	80.820	81.970	82.660	-
	50	5250	78.101	77.972	77.911	-	80.960	80.680	80.590	-
	114	5570	155.358	155.607	155.548	-	164.960	163.470	162.820	-

Band III_6 dB & 99 % RF Bandwidth Measurement

Mode	CH	Freq. (MHz)	99 % Bandwidth				6 dB Bandwidth				6dB Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Ant-0	Ant-1	Ant-2	Ant-3	
			MHz	MHz	MHz	MHz	kHz	kHz	kHz	kHz	
802.11a	144	5720	3.810	3.752	3.750	-	3144.000	3150.000	3153.000	-	≥ 500 kHz
802.11ac VHT20	144	5720	4.245	4.360	4.210	-	3775.000	3771.000	3773.000	-	
802.11ac VHT40	142	5710	3.840	3.870	3.870	-	3144.000	3155.000	3143.000	-	
802.11ac VHT80	138	5690	3.821	3.738	3.667	-	3135.000	3155.000	3145.000	-	
802.11ax HE20	144	5720	4.653	4.706	4.661	-	4461.000	4521.000	4483.000	-	
802.11ax HE40	142	5710	4.124	4.117	4.118	-	4026.000	4011.000	4007.000	-	
802.11ax HE80	138	5690	4.176	4.203	4.201	-	4012.000	4020.000	3998.000	-	

Power Spectral Density Measurement

Mode	CH	Frequency (MHz)	Measurement				Duty Factor	Calculated	Limit
			Ant-0	Ant-1	Ant-2	Ant-3		Total	
			dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	dB	dBm/MHz	dBm/MHz
802.11a	52	5260	3.655	4.711	4.297	-	0.137	9.150	9.230
	56	5280	3.650	4.715	4.459	-	0.137	9.206	9.230
	64	5320	3.326	4.050	3.979	-	0.137	8.705	9.230
	100	5500	3.301	4.399	4.033	-	0.137	8.843	9.260
	112	5560	3.658	4.260	4.461	-	0.137	9.048	9.260
	140	5700	3.644	4.081	3.697	-	0.137	8.720	9.260
	144	5720	3.613	4.606	3.835	-	0.137	8.948	9.260
802.11ac VHT20	52	5260	3.331	3.686	3.815	-	0.443	8.830	9.230
	56	5280	3.066	3.813	3.638	-	0.443	8.732	9.230
	64	5320	3.257	4.434	3.730	-	0.443	9.048	9.230
	100	5500	3.217	3.195	4.136	-	0.443	8.753	9.260
	112	5560	3.519	3.888	4.135	-	0.443	9.069	9.260
	140	5700	3.102	3.324	2.984	-	0.443	8.353	9.260
	144	5720	3.360	4.087	3.673	-	0.443	8.931	9.260
802.11ac VHT40	54	5270	2.772	3.457	3.162	-	0.805	8.715	9.230
	62	5310	2.104	2.847	2.309	-	0.805	8.008	9.230
	102	5510	3.007	3.360	3.479	-	0.805	8.863	9.260
	110	5550	2.909	3.544	3.132	-	0.805	8.779	9.260
	134	5670	2.393	2.751	2.388	-	0.805	8.090	9.260
	142	5710	2.505	2.832	2.817	-	0.805	8.297	9.260
802.11ac VHT80	58	5290	-5.202	-4.156	-4.828	-	1.341	1.405	9.230
	106	5530	-2.258	-1.695	-2.285	-	1.341	4.041	9.260
	122	5610	-1.387	-0.414	-1.422	-	1.341	5.063	9.260
	138	5690	-1.539	-0.973	-1.150	-	1.341	4.898	9.260
802.11ac VHT160	50	5250	-9.388	-8.413	-7.627	-	1.640	-2.005	15.080
	50	5250	-8.838	-8.554	-7.972	-	1.640	-2.028	9.230
	114	5570	-6.849	-6.129	-6.262	-	1.640	0.009	9.260

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.

Power Spectral Density Measurement

Mode	CH	Frequency (MHz)	Measurement				Duty Factor	Calculated	Limit
			Ant-0	Ant-1	Ant-2	Ant-3		Total	
			dBm/MHz	dBm/MHz	dBm/MHz	dBm/MHz	dB	dBm/MHz	dBm/MHz
802.11ax HE20	52	5260	2.925	3.942	3.490	-	0.508	8.752	9.230
	56	5280	3.245	3.961	3.949	-	0.508	9.011	9.230
	64	5320	3.084	3.863	3.653	-	0.508	8.825	9.230
	100	5500	3.645	4.168	4.087	-	0.508	9.253	9.260
	112	5560	3.431	3.918	3.944	-	0.508	9.050	9.260
	140	5700	3.451	3.844	3.561	-	0.508	8.902	9.260
	144	5720	3.712	3.952	3.795	-	0.508	9.100	9.260
802.11ax HE40	54	5270	2.573	3.809	3.501	-	0.780	8.876	9.230
	62	5310	1.278	2.016	2.218	-	0.780	7.407	9.230
	102	5510	2.168	3.183	3.022	-	0.780	8.365	9.260
	110	5550	2.578	3.206	3.277	-	0.780	8.583	9.260
	134	5670	2.315	3.100	3.037	-	0.780	8.383	9.260
	142	5710	2.733	3.010	3.168	-	0.780	8.525	9.260
802.11ax HE80	58	5290	-5.009	-3.799	-4.703	-	1.102	1.400	9.230
	106	5530	-2.007	-1.326	-2.281	-	1.102	4.021	9.260
	122	5610	-1.114	0.038	-0.862	-	1.102	5.256	9.260
	138	5690	-1.213	-0.709	-1.060	-	1.102	4.884	9.260
802.11ax HE160	50	5250	-8.436	-7.565	-7.298	-	1.203	-1.766	15.080
	50	5250	-8.238	-6.520	-7.054	-	1.203	-1.239	9.230
	114	5570	-6.170	-5.571	-5.708	-	1.203	0.165	9.260

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.

Band III_ Power Spectral Density Measurement

Mode	CH	Frequency (MHz)	Measurement								Duty Factor	Calculated	Limit	PASS/FAIL
			Ant-0		Ant-1		Ant-2		Ant-3			Total		
			dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dBm/100 kHz	dBm/500 kHz	dB	dBm/500 kHz	dBm/500 kHz	
802.11a	144	5720	-6.517	0.609	-6.413	0.714	-6.188	0.939	-	-	0.137	5.527	28.92	PASS
802.11ac VHT20	144	5720	-5.738	1.695	-6.090	1.343	-6.398	1.035	-	-	0.443	6.137	28.92	PASS
802.11ac VHT40	142	5710	-9.151	-1.357	-7.885	-0.090	-8.797	-1.002	-	-	0.805	3.988	28.92	PASS
802.11ac VHT80	138	5690	-13.126	-4.795	-12.688	-4.357	-12.897	-4.566	-	-	1.341	0.202	28.92	PASS
802.11ax HE20	144	5720	-7.094	0.404	-5.775	1.723	-6.504	0.994	-	-	0.508	5.845	28.92	PASS
802.11ax HE40	142	5710	-8.984	-1.214	-8.313	-0.543	-8.603	-0.833	-	-	0.780	3.916	28.92	PASS
802.11ax HE80	138	5690	-12.562	-4.471	-12.885	-4.794	-12.956	-4.865	-	-	1.102	0.065	28.92	PASS

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.
Conversion ratio = 10*Log(500 k/100 k)

Duty cycle (Beamforming on)						
Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11n HT20	5260	2.490	2.860	87.063	0.602	0.402
802.11n HT40	5260	2.410	2.720	88.603	0.526	0.415
802.11ac VHT20	5270	2.500	2.810	88.968	0.508	0.400
802.11ac VHT40	5260	2.420	2.730	88.645	0.523	0.413
802.11ac VHT80	5270	1.140	1.440	79.167	1.015	0.877
802.11ac VHT160	5290	0.595	0.910	65.385	1.845	1.681
802.11ax HE20	5250	3.780	4.120	91.748	0.374	0.265
802.11ax HE40	5260	1.930	2.250	85.778	0.666	0.518
802.11ax HE80	5270	0.945	1.245	75.904	1.197	1.058
802.11ax HE160	5260	0.500	0.800	62.500	2.041	2.000

RF power setting in Test SW(Beamforming on)

Mode	CH	Frequency (MHz)	Ant-0	Ant-1	Ant-2	Ant-3	Test SW Version
802.11n HT20	52	5260	29	29	29	-	Command
	56	5280	29	29	29	-	
	64	5320	29	29	29	-	
	100	5500	29	29	29	-	
	112	5560	30	30	30	-	
	140	5700	29	29	29	-	
	144	5720	30	30	30	-	
802.11n HT40	54	5270	33	33	33	-	
	62	5310	33	33	33	-	
	102	5510	33	33	33	-	
	110	5550	33	33	33	-	
	134	5670	33	33	33	-	
	142	5710	33	33	33	-	
802.11ac VHT20	52	5260	29	29	29	-	
	56	5280	29	29	29	-	
	64	5320	29	29	29	-	
	100	5500	29	29	29	-	
	112	5560	30	30	30	-	
	140	5700	29	29	29	-	
	144	5720	30	30	30	-	
802.11ac VHT40	54	5270	33	33	33	-	
	62	5310	33	33	33	-	
	102	5510	34	34	34	-	
	110	5550	34	34	34	-	
	134	5670	33	33	33	-	
	142	5710	33	33	33	-	
802.11ac VHT80	58	5290	25	25	25	-	
	106	5530	30	30	30	-	
	122	5610	34	34	34	-	
	138	5690	34	34	34	-	
802.11ac VHT160	50	5250	26	26	26	-	
	114	5570	31	31	31	-	
802.11ax HE20	52	5260	30	30	30	-	
	56	5280	30	30	30	-	
	64	5320	30	30	30	-	
	100	5500	30	30	30	-	
	112	5560	30	30	30	-	
	140	5700	30	30	30	-	
	144	5720	31	31	31	-	
802.11ax HE40	54	5270	33	33	33	-	
	62	5310	31	31	31	-	
	102	5510	33	33	33	-	
	110	5550	33	33	33	-	
	134	5670	34	34	34	-	
	142	5710	34	34	34	-	
802.11ax HE80	58	5290	26	26	26	-	
	106	5530	31	31	31	-	
	122	5610	34	34	34	-	
	138	5690	33	33	33	-	
802.11ax HE160	50	5250	27	27	27	-	
	114	5570	31	31	31	-	

Maximum Conducted Output Power Measurement (Beamforming on)

Mode	CH	Frequency (MHz)	Average power					Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total	
			dBm	dBm	dBm	dBm	dBm	
802.11n HT20	52	5260	15.39	15.57	14.57	-	19.97	22.23
	56	5280	15.32	15.44	14.46	-	19.87	22.23
	64	5320	15.22	15.48	14.56	-	19.88	22.23
	100	5500	15.31	15.38	14.84	-	19.96	22.26
	112	5560	15.46	15.33	15.02	-	20.05	22.26
	140	5700	14.98	14.78	13.91	-	19.35	22.26
	144	5720	15.46	15.17	14.48	-	19.83	21.27
802.11n HT40	54	5270	16.95	17.11	16.68	-	21.68	22.23
	62	5310	17.09	16.99	16.60	-	21.67	22.23
	102	5510	17.09	17.13	16.51	-	21.69	22.26
	110	5550	16.89	17.09	16.74	-	21.68	22.26
	134	5670	16.97	16.67	16.09	-	21.36	22.26
	142	5710	17.15	16.50	15.94	-	21.32	22.26

Maximum Conducted Output Power Measurement

Mode	CH	Frequency (MHz)	Average power					Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total	
			dBm	dBm	dBm	dBm	dBm	
802.11ac VHT20	52	5260	15.40	15.53	14.68	-	19.99	22.23
	56	5280	15.38	15.54	14.58	-	19.96	22.23
	64	5320	15.32	15.47	14.82	-	19.98	22.23
	100	5500	15.26	15.54	14.98	-	20.03	22.26
	112	5560	15.75	15.62	15.14	-	20.28	22.26
	140	5700	14.95	14.78	14.07	-	19.39	22.26
	144	5720	15.48	15.34	14.39	-	19.87	21.27
802.11ac VHT40	54	5270	17.13	17.15	16.64	-	21.75	22.23
	62	5310	17.14	17.13	16.55	-	21.72	22.23
	102	5510	17.55	17.54	17.07	-	22.17	22.26
	110	5550	17.39	17.51	17.17	-	22.13	22.26
	134	5670	16.96	17.27	16.20	-	21.61	22.26
	142	5710	16.97	17.09	16.70	-	21.70	22.26
802.11ac VHT80	58	5290	12.47	12.70	12.00	-	17.18	22.23
	106	5530	15.06	15.28	14.52	-	19.74	22.26
	122	5610	16.73	17.32	15.93	-	21.47	22.26
	138	5690	16.70	16.24	15.58	-	20.97	22.26
802.11ac VHT160	50	5250	11.17	11.24	11.09	-	15.93	28.08
	114	5570	13.60	13.44	13.13	-	18.16	22.26

Maximum Conducted Output Power Measurement

Mode	CH	Frequency (MHz)	Average power					Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total	
			dBm	dBm	dBm	dBm	dBm	
802.11ax HE20	52	5260	15.88	16.08	14.91	-	20.43	22.23
	56	5280	15.89	15.79	15.24	-	20.42	22.23
	64	5320	15.96	16.06	15.21	-	20.53	22.23
	100	5500	15.76	15.95	15.22	-	20.43	22.26
	112	5560	15.65	16.02	15.28	-	20.44	22.26
	140	5700	15.43	15.65	14.88	-	20.11	22.26
	144	5720	16.03	16.00	15.37	-	20.59	21.30
802.11ax HE40	54	5270	17.20	17.32	16.49	-	21.79	22.23
	62	5310	16.28	16.40	15.74	-	20.92	22.23
	102	5510	17.23	17.51	16.71	-	21.93	22.26
	110	5550	17.02	17.31	16.81	-	21.82	22.26
	134	5670	17.54	17.50	16.66	-	22.02	22.26
	142	5710	17.49	17.21	16.55	-	21.87	22.26
802.11ax HE80	58	5290	13.19	13.35	12.44	-	17.78	22.23
	106	5530	15.61	15.58	15.14	-	20.22	22.26
	122	5610	17.24	17.36	16.29	-	21.76	22.26
	138	5690	16.66	16.52	15.56	-	21.04	22.26
802.11ax HE160	50	5250	11.85	12.06	11.69	-	16.64	28.08
	114	5570	14.39	13.92	13.25	-	18.65	22.26

Maximum Conducted Output Power Measurement_Transmit power control (Beamforming on)

Mode	CH	Frequency (MHz)	Average power					Limit	E.I.R.P		EIRP Power Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total		Gain	Calculated Results	
			dBm	dBm	dBm	dBm	dBm	dBm	dBi	dBm	dBm
802.11n HT20	52	5260	9.39	9.57	8.57	-	13.97	16.23	7.77	21.74	23.51
	56	5280	9.32	9.44	8.46	-	13.87	16.23	7.77	21.64	23.51
	64	5320	9.22	9.48	8.56	-	13.88	16.23	7.77	21.65	23.51
	100	5500	9.31	9.38	8.84	-	13.96	16.26	7.74	21.70	23.52
	112	5560	9.46	9.33	9.02	-	14.05	16.26	7.74	21.79	23.52
	140	5700	8.98	8.78	7.91	-	13.35	16.26	7.74	21.09	23.52
	144	5720	9.46	9.17	8.48	-	13.83	15.27	7.74	21.57	22.43
802.11n HT40	54	5270	10.95	11.11	10.68	-	15.68	16.23	7.77	23.45	24.00
	62	5310	11.09	10.99	10.60	-	15.67	16.23	7.77	23.44	24.00
	102	5510	11.09	11.13	10.51	-	15.69	16.26	7.74	23.43	24.00
	110	5550	10.89	11.09	10.74	-	15.68	16.26	7.74	23.42	24.00
	134	5670	10.97	10.67	10.09	-	15.36	16.26	7.74	23.10	24.00
	142	5710	11.15	10.50	9.94	-	15.32	16.26	7.74	23.06	24.00

Maximum Conducted Output Power Measurement_Transmit power control

Mode	CH	Frequency (MHz)	Average power					Limit	E.I.R.P		EIRP Power Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total		Gain	Calculated Results	
			dBm	dBm	dBm	dBm	dBm		dBm	dBm	
802.11ac VHT20	52	5260	9.40	9.53	8.68	-	13.99	16.23	7.77	21.76	23.51
	56	5280	9.38	9.54	8.58	-	13.96	16.23	7.77	21.73	23.51
	64	5320	9.32	9.47	8.82	-	13.98	16.23	7.74	21.72	23.52
	100	5500	9.26	9.54	8.98	-	14.03	16.26	7.74	21.77	23.52
	112	5560	9.75	9.62	9.14	-	14.28	16.26	7.74	22.02	23.52
	140	5700	8.95	8.78	8.07	-	13.39	16.26	7.74	21.13	22.43
	144	5720	9.48	9.34	8.39	-	13.87	15.27	7.08	20.95	22.43
802.11ac VHT40	54	5270	11.13	11.15	10.64	-	15.75	16.23	7.77	23.52	24.00
	62	5310	11.14	11.13	10.55	-	15.72	16.23	7.74	23.46	24.00
	102	5510	11.55	11.54	11.07	-	16.17	16.26	7.74	23.91	24.00
	110	5550	11.39	11.51	11.17	-	16.13	16.26	7.74	23.87	24.00
	134	5670	10.96	11.27	10.20	-	15.61	16.26	7.74	23.35	24.00
	142	5710	10.97	11.09	10.70	-	15.70	16.26	7.08	22.78	24.00
802.11ac VHT80	58	5290	6.47	6.70	6.00	-	11.18	16.23	7.74	18.92	24.00
	106	5530	9.06	9.28	8.52	-	13.74	16.26	7.74	21.48	24.00
	122	5610	10.73	11.32	9.93	-	15.47	16.26	7.74	23.21	24.00
	138	5690	10.70	10.24	9.58	-	14.97	16.26	7.08	22.05	24.00
802.11ac VHT160	50	5250	2.27	2.28	2.12	-	7.00	17.51	7.77	14.77	24.00
	114	5570	7.60	7.44	7.13	-	12.16	16.26	0.00	12.16	24.00

Maximum Conducted Output Power Measurement_Transmit power control

Mode	CH	Frequency (MHz)	Average power					Limit	E.I.R.P		EIRP Power Limit
			Ant-0	Ant-1	Ant-2	Ant-3	Total		Gain	Calculated Results	
			dBm	dBm	dBm	dBm	dBm		dBm	dBm	
802.11ax HE20	52	5260	9.88	10.08	8.91	-	14.43	16.23	7.77	22.20	23.80
	56	5280	9.89	9.79	9.24	-	14.42	16.23	7.77	22.19	23.80
	64	5320	9.96	10.06	9.21	-	14.53	16.23	7.74	22.27	23.80
	100	5500	9.76	9.95	9.22	-	14.43	16.26	7.74	22.17	23.80
	112	5560	9.65	10.02	9.28	-	14.44	16.26	7.74	22.18	23.80
	140	5700	9.43	9.65	8.88	-	14.11	16.26	7.74	21.85	22.62
	144	5720	10.03	10.00	9.37	-	14.59	15.30	7.08	21.67	22.62
802.11ax HE40	54	5270	11.20	11.32	10.49	-	15.79	16.23	7.77	23.56	24.00
	62	5310	10.28	10.40	9.74	-	14.92	16.23	7.74	22.66	24.00
	102	5510	11.23	11.51	10.71	-	15.93	16.26	7.74	23.67	24.00
	110	5550	11.02	11.31	10.81	-	15.82	16.26	7.74	23.56	24.00
	134	5670	11.54	11.50	10.66	-	16.02	16.26	7.74	23.76	24.00
	142	5710	11.49	11.21	10.55	-	15.87	16.26	7.08	22.95	24.00
802.11ax HE80	58	5290	7.19	7.35	6.44	-	11.78	16.23	7.74	19.52	24.00
	106	5530	9.61	9.58	9.14	-	14.22	16.26	7.74	21.96	24.00
	122	5610	11.24	11.36	10.29	-	15.76	16.26	7.74	23.50	24.00
	138	5690	10.66	10.52	9.56	-	15.04	16.26	7.08	22.12	24.00
802.11ax HE160	50	5250	2.84	3.02	2.63	-	7.60	18.00	7.92	15.52	24.00
	114	5570	8.39	7.92	7.25	-	12.65	16.26	7.74	20.39	24.00