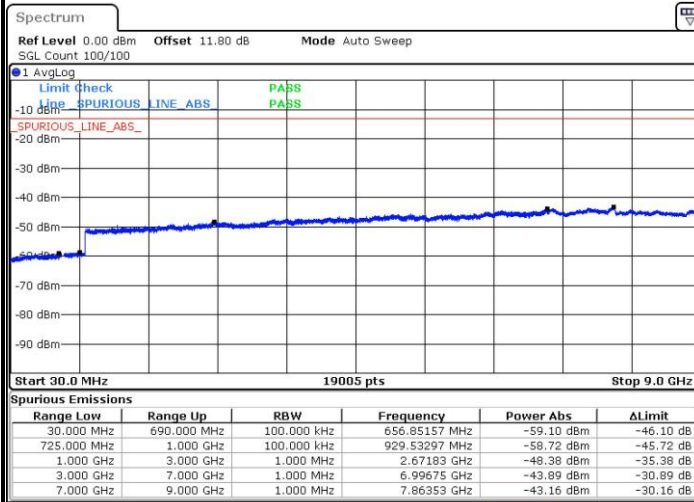




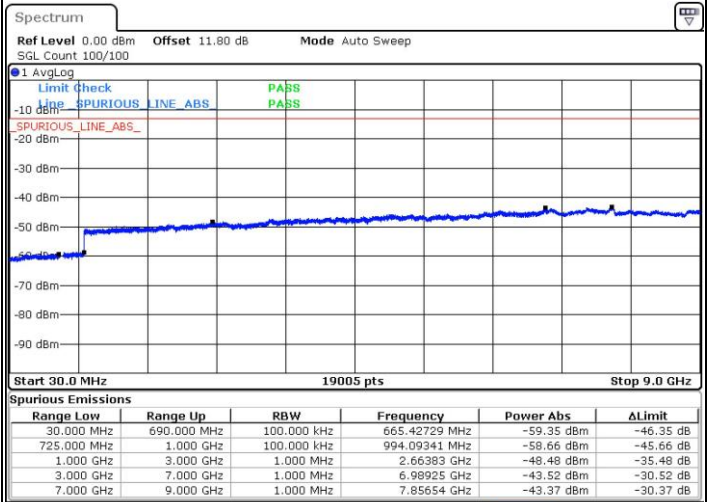
LTE Band 17 / 10MHz

Middle Channel / QPSK



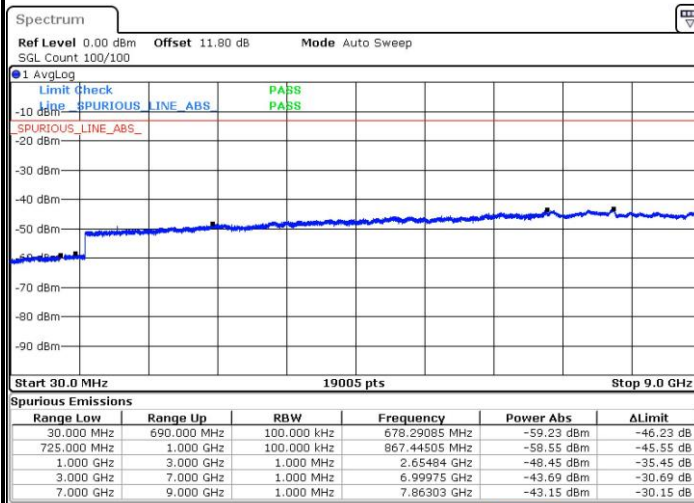
Date: 9 MAY 2015 12:05:35

Middle Channel / 16QAM



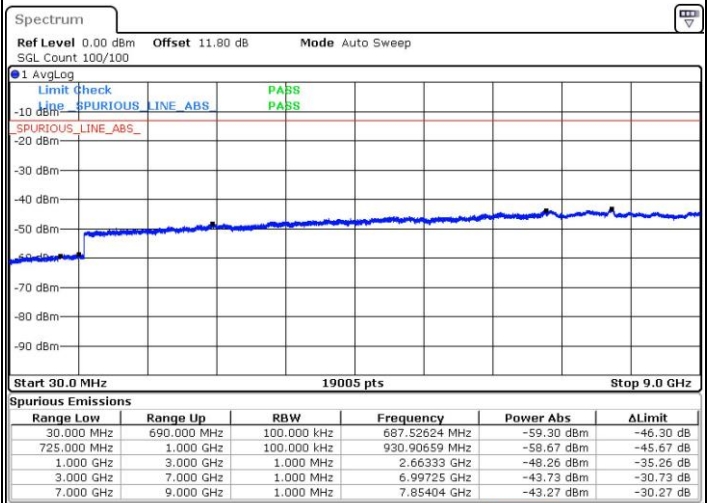
Date: 9 MAY 2015 12:06:47

Highest Channel / QPSK



Date: 9 MAY 2015 12:13:28

Highest Channel / 16QAM



Date: 9 MAY 2015 12:14:40

**Frequency Stability**

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0008	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0013	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

Note:

1. Normal Voltage = 3.95V. ; Battery End Point (BEP) = 3.55 V. ; Maximum Voltage =4.35 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Appendix B. Test Results of Radiated Test

ERP/EIRP

LTE Band 2 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	24.98	0.315	22.32	0.171
Middle		1	0	25.53	0.357	22.77	0.189
Highest		1	0	25.39	0.346	22.52	0.179
Lowest	16QAM	1	0	24.26	0.267	21.68	0.147
Middle		1	0	24.87	0.307	22.18	0.165
Highest		1	0	24.81	0.303	22.13	0.163
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	25.13	0.326	22.46	0.176
Middle		1	0	25.67	0.369	22.91	0.195
Highest		1	0	25.83	0.383	22.98	0.199
Lowest	16QAM	1	0	24.38	0.274	21.73	0.149
Middle		1	0	24.97	0.314	22.24	0.167
Highest		1	0	25.03	0.318	22.26	0.168
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	24.69	0.294	21.70	0.148
Middle		1	0	25.56	0.360	22.66	0.185
Highest		1	0	25.55	0.359	22.70	0.186
Lowest	16QAM	1	0	24.00	0.251	21.05	0.127
Middle		1	0	24.89	0.308	21.98	0.158
Highest		1	0	25.00	0.316	22.25	0.168
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	25.06	0.321	22.03	0.160
Middle		1	0	25.57	0.361	22.59	0.182
Highest		1	0	25.59	0.362	22.71	0.187
Lowest	16QAM	1	0	24.31	0.270	21.27	0.134
Middle		1	0	24.89	0.308	21.85	0.153
Highest		1	0	24.86	0.306	21.92	0.156
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	25.17	0.329	22.07	0.161
Middle		1	0	25.64	0.366	22.43	0.175
Highest		1	0	25.53	0.357	22.86	0.193
Lowest	16QAM	1	0	24.25	0.266	21.13	0.130
Middle		1	0	24.91	0.310	21.77	0.150
Highest		1	0	25.11	0.324	22.11	0.163
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	25.04	0.319	21.88	0.154
Middle		1	0	25.73	0.374	22.60	0.182
Highest		1	0	25.76	0.377	22.73	0.187
Lowest	16QAM	1	0	24.37	0.274	21.17	0.131
Middle		1	0	24.83	0.304	21.77	0.150
Highest		1	0	24.92	0.310	22.06	0.161
Limit	EIRP < 2W			Result		PASS	



LTE Band 5 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	11.01	0.013	19.67	0.093
Middle		1	0	12.31	0.017	19.68	0.093
Highest		1	0	13.54	0.023	19.86	0.097
Lowest	16QAM	1	0	10.10	0.010	18.77	0.075
Middle		1	0	11.09	0.013	18.74	0.075
Highest		1	0	12.72	0.019	19.02	0.080
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	10.89	0.012	19.67	0.093
Middle		1	0	12.24	0.017	19.65	0.092
Highest		1	0	13.64	0.023	19.96	0.099
Lowest	16QAM	1	0	10.30	0.011	18.91	0.078
Middle		1	0	11.41	0.014	18.83	0.076
Highest		1	0	12.73	0.019	19.05	0.080
Limit	ERP < 7W			Result		PASS	



LTE Band 5 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	10.91	0.012	19.66	0.092
Middle		1	0	12.05	0.016	19.55	0.090
Highest		1	0	13.37	0.022	19.80	0.095
Lowest	16QAM	1	0	10.31	0.011	18.84	0.077
Middle		1	0	11.13	0.013	18.67	0.074
Highest		1	0	12.35	0.017	18.78	0.076
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	9.81	0.010	18.65	0.073
Middle		1	0	10.42	0.011	18.53	0.071
Highest		1	0	11.32	0.014	18.65	0.073
Lowest	16QAM	1	0	8.94	0.008	17.69	0.059
Middle		1	0	9.69	0.009	17.62	0.058
Highest		1	0	11.01	0.013	18.18	0.066
Limit	ERP < 7W			Result		PASS	



LTE Band 12 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	12.68	0.019	20.51	0.112
Middle		1	0	13.28	0.021	20.11	0.103
Highest		1	0	14.26	0.027	20.08	0.102
Lowest	16QAM	1	0	12.96	0.020	20.72	0.118
Middle		1	0	12.23	0.017	19.13	0.082
Highest		1	0	13.19	0.021	18.91	0.078
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	12.25	0.017	20.46	0.111
Middle		1	0	13.63	0.023	21.02	0.126
Highest		1	0	15.05	0.032	21.28	0.134
Lowest	16QAM	1	0	11.55	0.014	19.88	0.097
Middle		1	0	13.18	0.021	20.54	0.113
Highest		1	0	14.51	0.028	20.78	0.120
Limit	ERP < 3W			Result		PASS	



LTE Band 12 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	12.79	0.019	21.12	0.129
Middle		1	0	14.63	0.029	22.14	0.164
Highest		1	0	14.09	0.026	20.60	0.115
Lowest	16QAM	1	0	11.97	0.016	20.31	0.107
Middle		1	0	13.68	0.023	21.20	0.132
Highest		1	0	13.42	0.022	19.94	0.099
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	13.05	0.020	21.34	0.136
Middle		1	0	14.00	0.025	21.79	0.151
Highest		1	0	13.82	0.024	21.13	0.130
Lowest	16QAM	1	0	11.99	0.016	20.36	0.109
Middle		1	0	13.17	0.021	20.88	0.122
Highest		1	0	13.43	0.022	20.59	0.115
Limit	ERP < 3W			Result		PASS	



LTE Band 17 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	14.13	0.026	21.71	0.148
Middle		1	0	13.34	0.022	20.48	0.112
Highest		1	0	14.03	0.025	20.51	0.112
Lowest	16QAM	1	0	12.94	0.020	20.02	0.100
Middle		1	0	14.01	0.025	20.35	0.108
Highest		1	0	13.90	0.025	19.91	0.098
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	14.44	0.028	22.00	0.158
Middle		1	0	14.67	0.029	22.09	0.162
Highest		1	0	13.91	0.025	21.24	0.133
Lowest	16QAM	1	0	13.40	0.022	20.84	0.121
Middle		1	0	13.92	0.025	21.33	0.136
Highest		1	0	13.30	0.021	20.65	0.116
Limit	ERP < 3W			Result		PASS	



LTE Band 4 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	26.53	0.4498	22.87	0.1936
Middle		1	0	26.68	0.4656	22.71	0.1866
Highest		1	0	27.12	0.5152	23.10	0.2042
Lowest	16QAM	1	0	23.10	0.2042	19.56	0.0904
Middle		1	0	23.28	0.2128	19.40	0.0871
Highest		1	0	23.41	0.2193	19.61	0.0914
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	26.26	0.4227	22.81	0.1910
Middle		1	0	26.71	0.4688	22.82	0.1914
Highest		1	0	26.59	0.4560	22.77	0.1892
Lowest	16QAM	1	0	23.03	0.2009	19.50	0.0891
Middle		1	0	23.34	0.2158	19.43	0.0877
Highest		1	0	23.25	0.2113	19.39	0.0869
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	24.46	0.2793	22.92	0.1959
Middle		1	0	26.47	0.4436	22.63	0.1832
Highest		1	0	26.54	0.4508	22.79	0.1901
Lowest	16QAM	1	0	22.89	0.1945	19.40	0.0871
Middle		1	0	23.08	0.2032	19.30	0.0851
Highest		1	0	23.20	0.2089	19.34	0.0859
Limit	EIRP < 1W			Result		PASS	



LTE Band 4/ 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	26.66	0.4634	23.17	0.2075
Middle		1	0	26.98	0.4989	23.11	0.2046
Highest		1	0	27.00	0.5012	23.32	0.2148
Lowest	16QAM	1	0	23.34	0.2158	19.86	0.0968
Middle		1	0	24.12	0.2582	20.25	0.1059
Highest		1	0	23.83	0.2415	20.17	0.1040
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	26.98	0.4989	23.46	0.2218
Middle		1	0	27.09	0.5117	23.22	0.2099
Highest		1	0	27.42	0.5521	23.32	0.2148
Lowest	16QAM	1	0	23.82	0.2410	19.82	0.0959
Middle		1	0	24.07	0.2553	20.29	0.1069
Highest		1	0	23.80	0.2399	19.96	0.0991
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	26.88	0.4875	23.35	0.2163
Middle		1	0	27.03	0.5047	23.36	0.2168
Highest		1	0	27.20	0.5248	23.41	0.2193
Lowest	16QAM	1	0	23.44	0.2208	19.93	0.0984
Middle		1	0	23.43	0.2203	20.11	0.1026
Highest		1	0	23.67	0.2328	19.76	0.0946
Limit	EIRP < 1W			Result		PASS	



LTE Band 7 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.21	0.2094	18.83	0.0764
Middle		1	0	23.40	0.2188	18.35	0.0684
Highest		1	0	23.09	0.2037	17.94	0.0622
Lowest	16QAM	1	0	23.41	0.2193	18.99	0.0793
Middle		1	0	23.60	0.2291	18.55	0.0716
Highest		1	0	23.15	0.2065	17.99	0.0630
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.38	0.2178	19.08	0.0809
Middle		1	0	23.62	0.2301	18.60	0.0724
Highest		1	0	23.35	0.2163	18.01	0.0632
Lowest	16QAM	1	0	23.57	0.2275	19.15	0.0822
Middle		1	0	23.71	0.2350	18.70	0.0741
Highest		1	0	23.46	0.2218	18.12	0.0649
Limit	EIRP < 2W			Result		PASS	



LTE Band 7 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.45	0.2213	19.52	0.0895
Middle		1	0	23.69	0.2339	18.51	0.0710
Highest		1	0	23.51	0.2244	18.42	0.0695
Lowest	16QAM	1	0	23.68	0.2333	19.54	0.0899
Middle		1	0	23.96	0.2489	18.75	0.0750
Highest		1	0	23.62	0.2301	18.23	0.0665
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.40	0.2188	19.09	0.0811
Middle		1	0	23.43	0.2203	18.75	0.0750
Highest		1	0	23.52	0.2249	18.88	0.0773
Lowest	16QAM	1	0	23.61	0.2296	19.11	0.0815
Middle		1	0	23.35	0.2163	18.95	0.0785
Highest		1	0	23.63	0.2307	18.86	0.0769
Limit	EIRP < 2W			Result		PASS	

**Radiated Spurious Emission**

LTE Band 2 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-42.53	-13	-29.53	-61.39	-49.1	1.67	8.24	H
	5548	-42.23	-13	-29.23	-67.16	-49.3	2.65	9.72	H
	7400	-52.36	-13	-39.36	-79.08	-61.5	2.46	11.60	H
	3700	-40.23	-13	-27.23	-60.46	-46.8	1.67	8.24	V
	5548	-41.63	-13	-28.63	-67.64	-48.7	2.65	9.72	V
	7400	-51.16	-13	-38.16	-79.26	-60.3	2.46	11.60	V
Middle	3756	-47.18	-13	-34.18	-66.77	-53.8	1.68	8.31	H
	5639	-45.45	-13	-32.45	-70.28	-52.5	2.71	9.76	H
	7517	-52.41	-13	-39.41	-79.28	-61.8	2.42	11.81	H
	3756	-44.18	-13	-31.18	-64.43	-50.8	1.68	8.31	V
	5639	-44.75	-13	-31.75	-70.8	-51.8	2.71	9.76	V
	7517	-50.21	-13	-37.21	-79.09	-59.6	2.42	11.81	V
Highest	3819	-41.07	-13	-28.07	-61.94	-45.6	1.70	8.38	H
	5723	-38.51	-13	-25.51	-63.49	-43.4	2.75	9.79	H
	7634	-51.26	-13	-38.26	-79.08	-58.6	2.39	11.88	H
	3819	-37.87	-13	-24.87	-59.32	-42.4	1.70	8.38	V
	5723	-38.21	-13	-25.21	-63.89	-43.1	2.75	9.79	V
	7634	-49.66	-13	-36.66	-78.96	-57	2.39	11.88	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 2 / 3MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-42.63	-13	-29.63	-62	-49.2	1.67	8.24	H
	5548	-42.33	-13	-29.33	-67.24	-49.4	2.65	9.72	H
	7400	-52.56	-13	-39.56	-79.06	-61.7	2.46	11.60	H
	3700	-39.73	-13	-26.73	-60.11	-46.3	1.67	8.24	V
	5548	-42.43	-13	-29.43	-68.3	-49.5	2.65	9.72	V
	7400	-51.06	-13	-38.06	-79.05	-60.2	2.46	11.60	V
Middle	3756	-46.98	-13	-33.98	-66.55	-53.6	1.68	8.31	H
	5639	-44.75	-13	-31.75	-69.79	-51.8	2.71	9.76	H
	7514	-51.82	-13	-38.82	-78.93	-61.2	2.42	11.81	H
	3756	-45.28	-13	-32.28	-65.84	-51.9	1.68	8.31	V
	5639	-43.45	-13	-30.45	-69.55	-50.5	2.71	9.76	V
	7514	-50.62	-13	-37.62	-79.05	-60	2.42	11.81	V
Highest	3812	-44.88	-13	-31.88	-65.79	-49.4	1.70	8.37	H
	5723	-40.31	-13	-27.31	-65.32	-45.2	2.75	9.79	H
	7628	-51.76	-13	-38.76	-79.08	-59.1	2.39	11.88	H
	3812	-41.08	-13	-28.08	-62.43	-45.6	1.70	8.37	V
	5723	-40.31	-13	-27.31	-66.25	-45.2	2.75	9.79	V
	7628	-49.76	-13	-36.76	-78.88	-57.1	2.39	11.88	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.