

5 Band Edges Compliance

Test result

Test Result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
12	699.7	23017	1.4	1	0	Fig.1
				6	0	Fig.2
	715.3	23173		1	5	Fig.3
				6	0	Fig.4
	700.5	23025	3	1	0	Fig.5
				15	0	Fig.6
	714.5	23165		1	14	Fig.7
				15	0	Fig.8
	701.5	23035	5	1	0	Fig.9
				25	0	Fig.10
	713.5	23155		1	24	Fig.11
				25	0	Fig.12
	704	23060	10	1	0	Fig.13
				50	0	Fig.14
	711	23130		1	49	Fig.15
				50	0	Fig.16

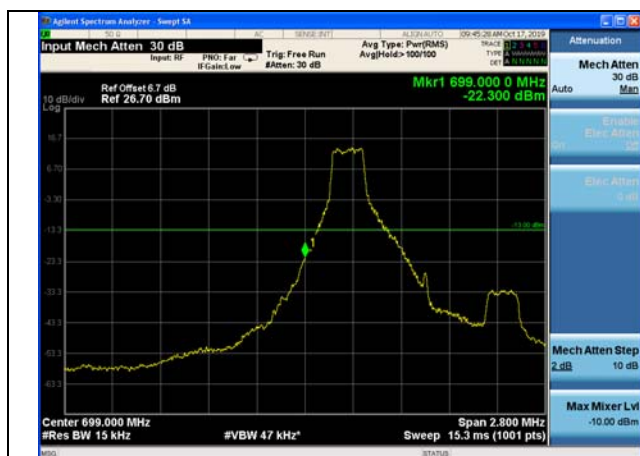


Fig.1

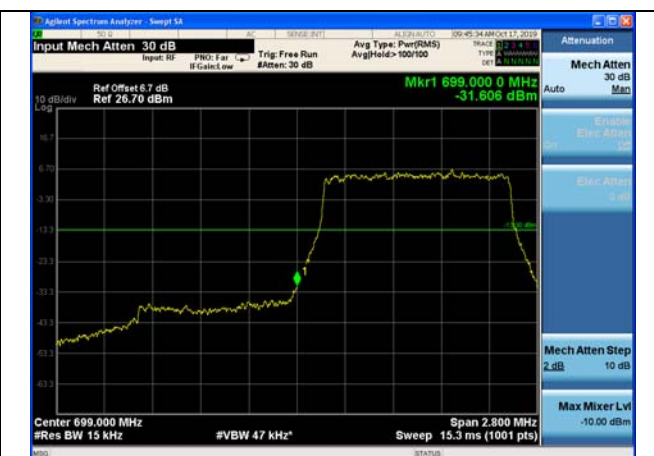


Fig.2

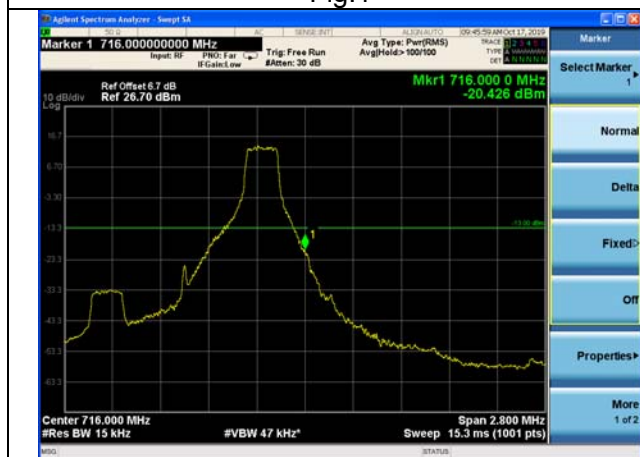


Fig.3



Fig.4

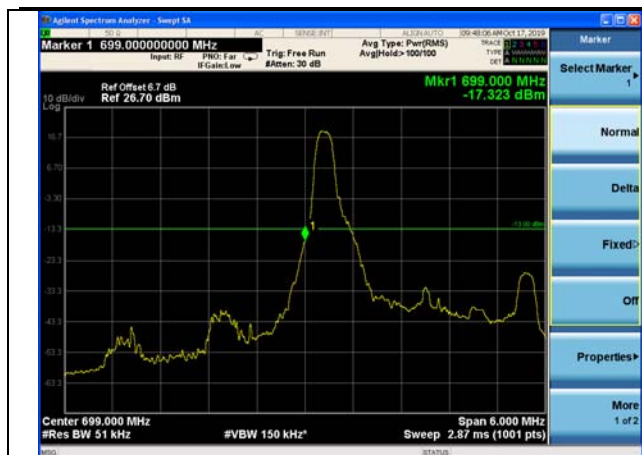


Fig.5

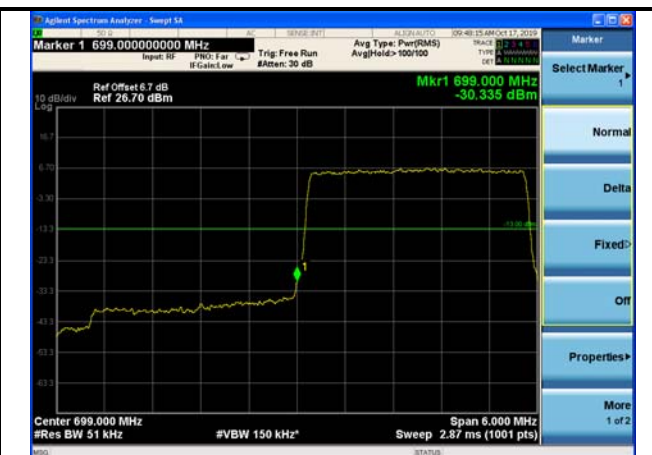


Fig.6

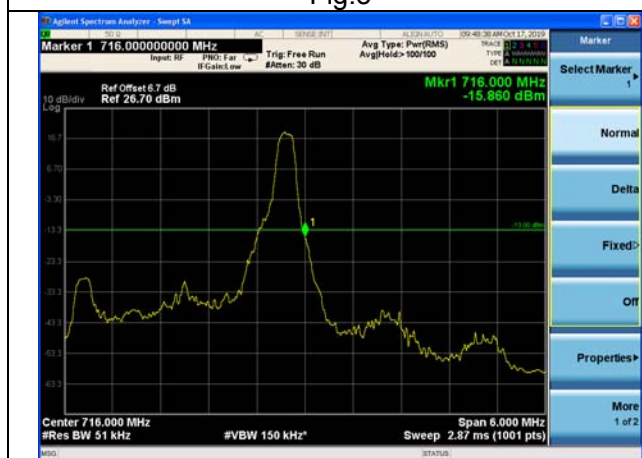


Fig.7



Fig.8

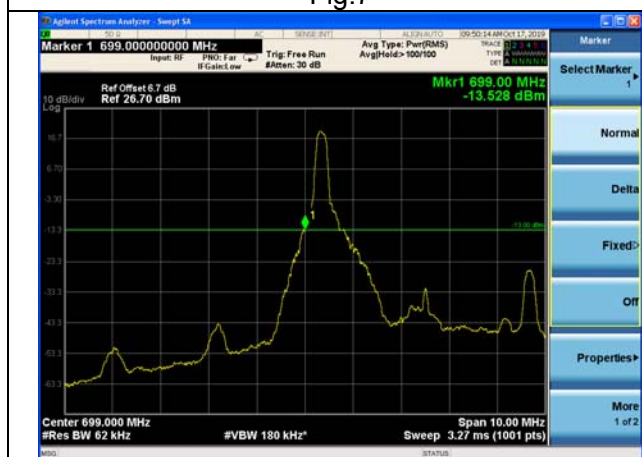


Fig.9

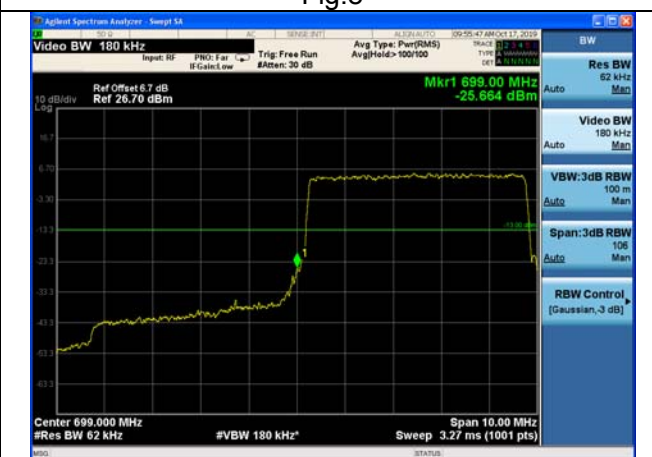


Fig.10

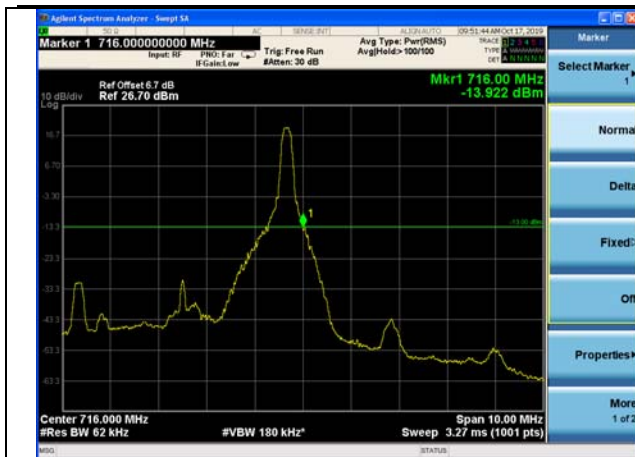


Fig.11

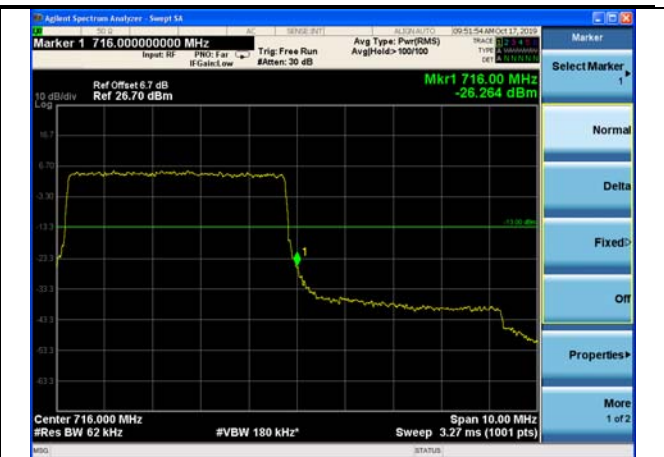


Fig.12

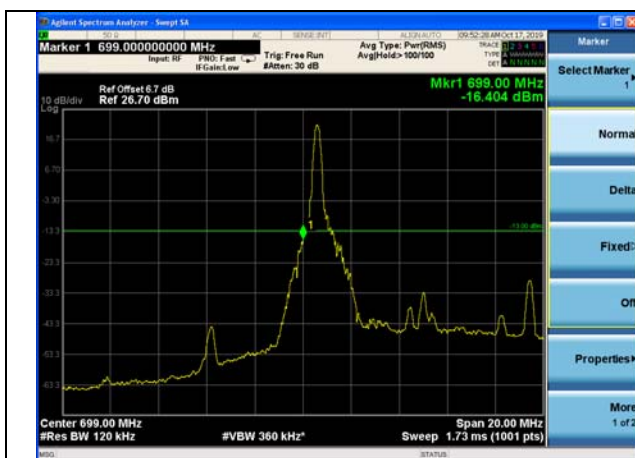


Fig.13

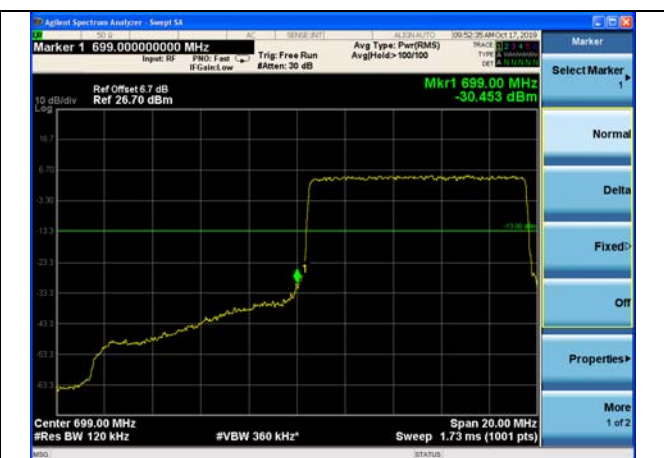


Fig.14

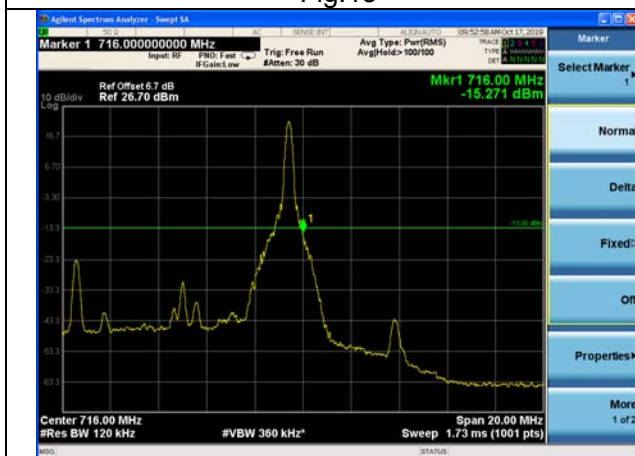


Fig.15



Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band12 Low Channel			
		1.4M	3M	5M	10M
0	NV	0.072	-0.039	0.036	-0.078
+10	NV	0.025	0.075	0.031	0.078
+20	NV	0.097	-0.095	0.094	0.019
+30	NV	-0.066	0.091	-0.079	-0.026
+40	NV	-0.041	-0.016	-0.062	0.062
+50	NV	0.091	0.068	0.099	-0.024
+20	LV	0.017	0.051	-0.025	0.044
+20	HV	0.030	0.043	-0.078	-0.017

Temperature(°C)	Voltage	Test Result (ppm) Band12 High Channel			
		1.4M	3M	5M	10M
0	NV	-0.082	0.016	-0.009	0.081
+10	NV	-0.001	-0.012	-0.079	-0.085
+20	NV	0.054	0.064	-0.047	0.081
+30	NV	0.058	-0.097	0.039	0.100
+40	NV	0.087	0.070	-0.038	-0.056
+50	NV	0.090	-0.005	0.002	-0.082
+20	LV	-0.015	0.046	-0.045	-0.084
+20	HV	-0.032	-0.019	-0.053	-0.030

APPENDIX B – TEST DATA OF RADIATED EMISSION

LTE band 2

Test result:

band	Modulation	BW (MHz)	Channel	RB/ RB offset	EIRP/ERP (dBm)	EIRP/ERP (W)
Band2	QPSK	1.4	18607	1#0	23.74	0.237
Band2	QPSK	1.4	18900	1#0	24.37	0.274
Band2	QPSK	1.4	19193	1#0	24.45	0.279
Band2	16QAM	1.4	18607	1#0	22.80	0.190
Band2	16QAM	1.4	18900	1#0	23.32	0.215
Band2	16QAM	1.4	19193	1#0	23.97	0.250
Band2	QPSK	3	18615	1#0	23.47	0.222
Band2	QPSK	3	18900	1#0	24.05	0.254
Band2	QPSK	3	19185	1#0	24.21	0.264
Band2	16QAM	3	18615	1#0	23.18	0.208
Band2	16QAM	3	18900	1#0	23.33	0.215
Band2	16QAM	3	19185	1#0	23.82	0.241
Band2	QPSK	5	18625	1#0	23.65	0.231
Band2	QPSK	5	18900	1#0	24.09	0.256
Band2	QPSK	5	19175	1#0	24.33	0.271
Band2	16QAM	5	18625	1#0	23.09	0.203
Band2	16QAM	5	18900	1#0	23.83	0.242
Band2	16QAM	5	19175	1#0	23.43	0.220
Band2	QPSK	10	18650	1#0	23.52	0.225
Band2	QPSK	10	18900	1#0	24.23	0.265
Band2	QPSK	10	19150	1#0	24.59	0.288
Band2	16QAM	10	18650	1#0	23.47	0.222
Band2	16QAM	10	18900	1#0	23.29	0.213
Band2	16QAM	10	19150	1#0	23.72	0.236
Band2	QPSK	15	18675	1#0	24.06	0.255
Band2	QPSK	15	18900	1#0	24.36	0.273
Band2	QPSK	15	19125	1#0	24.01	0.252
Band2	16QAM	15	18675	1#0	23.30	0.214
Band2	16QAM	15	18900	1#0	23.18	0.208
Band2	16QAM	15	19125	1#0	23.77	0.238
Band2	QPSK	20	18700	1#0	23.88	0.244
Band2	QPSK	20	18900	1#0	24.32	0.270
Band2	QPSK	20	19100	1#0	24.14	0.259
Band2	16QAM	20	18700	1#0	23.54	0.226
Band2	16QAM	20	18900	1#0	23.67	0.233
Band2	16QAM	20	19100	1#0	23.86	0.243

Test result:

Channel 18700

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2461.08	-49.40	-13	Vertical
2779.97	-47.04	-13	Vertical
3725.87	-40.75	-13	Vertical
6678.57	-39.18	-13	Vertical
9960.93	-36.93	-13	Vertical
17818.56	-33.95	-13	Vertical

Channel 18900

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2461.15	-48.53	-13	Vertical
2781.91	-47.78	-13	Vertical
3726.47	-40.45	-13	Vertical
6676.37	-39.91	-13	Vertical
9961.83	-37.72	-13	Vertical
17819.68	-33.58	-13	Vertical

Channel 19100

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2459.87	-49.12	-13	Vertical
2781.10	-46.98	-13	Vertical
3726.25	-40.68	-13	Vertical
6676.88	-39.58	-13	Vertical
9959.67	-37.50	-13	Vertical
17821.45	-33.55	-13	Vertical

LTE band 4

Test result:

band	Modulation	BW (MHz)	Channel	RB/ RB offset	EIRP/ERP (dBm)	EIRP/ERP (W)
Band4	QPSK	1.4	19957	1#0	24.54	0.285
Band4	QPSK	1.4	20175	1#0	23.87	0.244
Band4	QPSK	1.4	20393	1#0	24.51	0.283
Band4	16QAM	1.4	19957	1#0	23.66	0.232
Band4	16QAM	1.4	20175	1#0	23.18	0.208
Band4	16QAM	1.4	20393	1#0	23.69	0.234
Band4	QPSK	3	19965	1#0	24.39	0.275
Band4	QPSK	3	20175	1#0	24.06	0.255
Band4	QPSK	3	20385	1#0	23.82	0.241
Band4	16QAM	3	19965	1#0	23.00	0.200
Band4	16QAM	3	20175	1#0	23.50	0.224
Band4	16QAM	3	20385	1#0	23.41	0.219
Band4	QPSK	5	19975	1#0	24.46	0.279
Band4	QPSK	5	20175	1#0	24.42	0.277
Band4	QPSK	5	20375	1#0	23.78	0.239
Band4	16QAM	5	19975	1#0	23.43	0.221
Band4	16QAM	5	20175	1#0	23.44	0.221
Band4	16QAM	5	20375	1#0	23.65	0.232
Band4	QPSK	10	20000	1#0	24.54	0.285
Band4	QPSK	10	20175	1#0	24.44	0.278
Band4	QPSK	10	20350	1#0	24.34	0.272
Band4	16QAM	10	20000	1#0	23.87	0.244
Band4	16QAM	10	20175	1#0	23.37	0.217
Band4	16QAM	10	20350	1#0	23.51	0.224
Band4	QPSK	15	20025	1#0	24.08	0.256
Band4	QPSK	15	20175	1#0	24.09	0.256
Band4	QPSK	15	20325	1#0	24.00	0.251
Band4	16QAM	15	20025	1#0	23.01	0.200
Band4	16QAM	15	20175	1#0	23.63	0.231
Band4	16QAM	15	20325	1#0	23.60	0.229
Band4	QPSK	20	20050	1#0	24.21	0.264
Band4	QPSK	20	20175	1#0	24.51	0.282
Band4	QPSK	20	20300	1#0	24.11	0.258
Band4	16QAM	20	20050	1#0	23.48	0.223
Band4	16QAM	20	20175	1#0	23.83	0.241
Band4	16QAM	20	20300	1#0	23.72	0.236

Test result:

Channel 20050

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.65	-49.21	-13	Vertical
2779.51	-47.29	-13	Vertical
3725.65	-41.16	-13	Vertical
6678.11	-39.60	-13	Vertical
9962.72	-37.48	-13	Vertical
17821.96	-33.81	-13	Vertical

Channel 20175

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2459.63	-49.30	-13	Vertical
2780.38	-46.94	-13	Vertical
3724.88	-40.97	-13	Vertical
6674.98	-40.07	-13	Vertical
9960.88	-36.92	-13	Vertical
17818.80	-34.30	-13	Vertical

Channel 20300

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.40	-48.71	-13	Vertical
2781.03	-47.60	-13	Vertical
3725.26	-41.12	-13	Vertical
6676.47	-39.64	-13	Vertical
9963.07	-37.52	-13	Vertical
17819.67	-33.51	-13	Vertical

LTE band 5

Test result:

band	Modulation	BW (MHz)	Channel	RB/ RB offset	EIRP/ERP (dBm)	EIRP/ERP (W)
Band5	QPSK	1.4	20407	1#0	24.33	0.271
Band5	QPSK	1.4	20525	1#0	23.84	0.242
Band5	QPSK	1.4	20643	1#0	23.93	0.247
Band5	16QAM	1.4	20407	1#0	22.79	0.190
Band5	16QAM	1.4	20525	1#0	23.33	0.215
Band5	16QAM	1.4	20643	1#0	23.48	0.223
Band5	QPSK	3	20415	1#0	23.88	0.245
Band5	QPSK	3	20525	1#0	23.66	0.232
Band5	QPSK	3	20635	1#0	24.05	0.254
Band5	16QAM	3	20415	1#0	23.01	0.200
Band5	16QAM	3	20525	1#0	23.55	0.226
Band5	16QAM	3	20635	1#0	22.87	0.194
Band5	QPSK	5	20425	1#0	23.73	0.236
Band5	QPSK	5	20525	1#0	23.92	0.247
Band5	QPSK	5	20625	1#0	24.16	0.261
Band5	16QAM	5	20425	1#0	23.43	0.220
Band5	16QAM	5	20525	1#0	23.36	0.217
Band5	16QAM	5	20625	1#0	22.98	0.198
Band5	QPSK	10	20450	1#0	24.30	0.269
Band5	QPSK	10	20525	1#0	23.82	0.241
Band5	QPSK	10	20600	1#0	23.66	0.232
Band5	16QAM	10	20450	1#0	23.44	0.221
Band5	16QAM	10	20525	1#0	23.85	0.243
Band5	16QAM	10	20600	1#0	23.56	0.227

Test result:

Channel 20450

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1650.14	-53.36	-13	Vertical
1667.92	-51.01	-13	Vertical
2533.34	-44.15	-13	Vertical
2578.84	-43.91	-13	Vertical
8963.86	-39.33	-13	Vertical
9971.22	-36.14	-13	Vertical

Channel 20525

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1650.48	-53.44	-13	Vertical
1666.95	-50.96	-13	Vertical
2535.71	-44.31	-13	Vertical
2578.44	-43.97	-13	Vertical
8964.19	-39.84	-13	Vertical
9971.90	-36.61	-13	Vertical

Channel 20600

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1647.39	-53.22	-13	Vertical
1667.09	-51.41	-13	Vertical
2535.55	-44.55	-13	Vertical
2578.81	-43.82	-13	Vertical
8963.60	-39.08	-13	Vertical
9971.20	-35.88	-13	Vertical

LTE band 7

Test result:

band	Modulation	BW (MHz)	Channel	RB/ RB offset	EIRP/ERP (dBm)	EIRP/ERP (W)
Band7	QPSK	5	20775	1#0	24.12	0.258
Band7	QPSK	5	21100	1#0	24.29	0.269
Band7	QPSK	5	21425	1#0	23.94	0.248
Band7	16QAM	5	20775	1#0	23.49	0.224
Band7	16QAM	5	21100	1#0	23.16	0.207
Band7	16QAM	5	21425	1#0	23.87	0.244
Band7	QPSK	10	20800	1#0	24.27	0.267
Band7	QPSK	10	21100	1#0	24.69	0.294
Band7	QPSK	10	21400	1#0	23.93	0.247
Band7	16QAM	10	20800	1#0	23.63	0.231
Band7	16QAM	10	21100	1#0	23.43	0.220
Band7	16QAM	10	21400	1#0	23.96	0.249
Band7	QPSK	15	20825	1#0	24.48	0.280
Band7	QPSK	15	21100	1#0	24.45	0.279
Band7	QPSK	15	21375	1#0	24.11	0.258
Band7	16QAM	15	20825	1#0	23.09	0.204
Band7	16QAM	15	21100	1#0	23.42	0.220
Band7	16QAM	15	21375	1#0	23.26	0.212
Band7	QPSK	20	20850	1#0	24.30	0.269
Band7	QPSK	20	21100	1#0	24.37	0.274
Band7	QPSK	20	21350	1#0	24.77	0.300
Band7	16QAM	20	20850	1#0	23.28	0.213
Band7	16QAM	20	21100	1#0	23.81	0.240
Band7	16QAM	20	21350	1#0	23.55	0.226

Test result:

Channel 20850

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.29	-48.95	-25	Vertical
2780.69	-47.74	-25	Vertical
3725.54	-40.36	-25	Vertical
6676.75	-39.91	-25	Vertical
9960.71	-37.28	-25	Vertical
17822.21	-34.13	-25	Vertical

Channel 21100

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2458.10	-48.77	-25	Vertical
2778.38	-47.56	-25	Vertical
3728.20	-40.63	-25	Vertical
6678.63	-39.62	-25	Vertical
9961.41	-37.23	-25	Vertical
17819.91	-33.99	-25	Vertical

Channel 21350

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2458.18	-49.20	-25	Vertical
2781.13	-47.80	-25	Vertical
3725.47	-40.71	-25	Vertical
6676.95	-39.39	-25	Vertical
9963.25	-36.94	-25	Vertical
17819.56	-34.45	-25	Vertical

LTE band 12

Test result:

band	Modulation	BW (MHz)	Channel	RB/ RB offset	EIRP/ERP (dBm)	EIRP/ERP (W)
Band12	QPSK	1.4	23017	1#0	24.40	0.275
Band12	QPSK	1.4	23095	1#0	24.07	0.255
Band12	QPSK	1.4	23173	1#0	24.20	0.263
Band12	16QAM	1.4	23017	1#0	23.57	0.227
Band12	16QAM	1.4	23095	1#0	23.73	0.236
Band12	16QAM	1.4	23173	1#0	23.78	0.239
Band12	QPSK	3	23025	1#0	24.47	0.280
Band12	QPSK	3	23095	1#0	24.04	0.254
Band12	QPSK	3	23165	1#0	24.54	0.285
Band12	16QAM	3	23025	1#0	23.36	0.217
Band12	16QAM	3	23095	1#0	22.92	0.196
Band12	16QAM	3	23165	1#0	23.42	0.220
Band12	QPSK	5	23035	1#0	23.79	0.240
Band12	QPSK	5	23095	1#0	24.52	0.283
Band12	QPSK	5	23155	1#0	24.40	0.275
Band12	16QAM	5	23035	1#0	23.32	0.215
Band12	16QAM	5	23095	1#0	23.24	0.211
Band12	16QAM	5	23155	1#0	23.81	0.240
Band12	QPSK	10	23060	1#0	24.22	0.264
Band12	QPSK	10	23095	1#0	23.79	0.240
Band12	QPSK	10	23130	1#0	23.94	0.248
Band12	16QAM	10	23060	1#0	23.21	0.209
Band12	16QAM	10	23095	1#0	23.37	0.217
Band12	16QAM	10	23130	1#0	23.40	0.219

Test result:

Channel 23060

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1649.76	-53.31	-13	Vertical
1668.05	-51.66	-13	Vertical
2533.78	-44.34	-13	Vertical
2577.36	-44.34	-13	Vertical
8963.57	-39.30	-13	Vertical
9970.34	-36.26	-13	Vertical

Channel 23095

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1647.18	-52.70	-13	Vertical
1667.68	-51.49	-13	Vertical
2532.45	-44.65	-13	Vertical
2578.84	-44.16	-13	Vertical
8964.27	-39.40	-13	Vertical
9972.38	-36.54	-13	Vertical

Channel 23130

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1648.45	-53.32	-13	Vertical
1665.77	-51.15	-13	Horizontal
2535.75	-44.33	-13	Vertical
2578.24	-43.71	-13	Vertical
8963.84	-39.13	-13	Vertical
9971.06	-36.67	-13	Vertical

Test with secondary supply:

LTE Band 4 channel 20300 is selected as the worst point for RSE.

TE Band 4 channel 20300:

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.82	-48.53	-13	Vertical
2778.38	-47.42	-13	Vertical
3725.19	-40.87	-13	Vertical
6678.44	-39.98	-13	Vertical
9962.55	-37.69	-13	Vertical
17820.54	-34.13	-13	Vertical

---The end of the test report---