

Fig.25

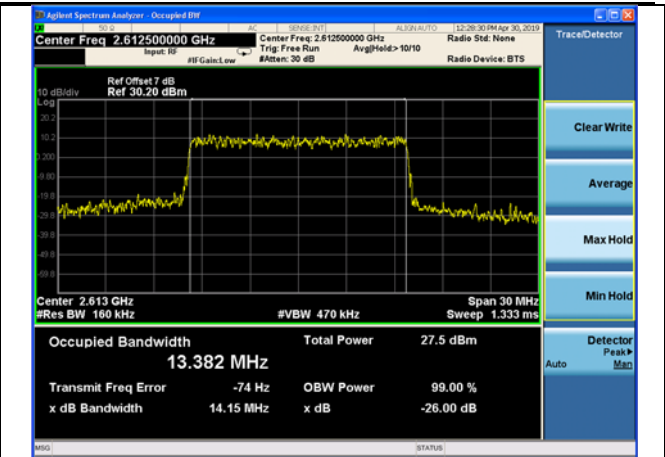


Fig.26

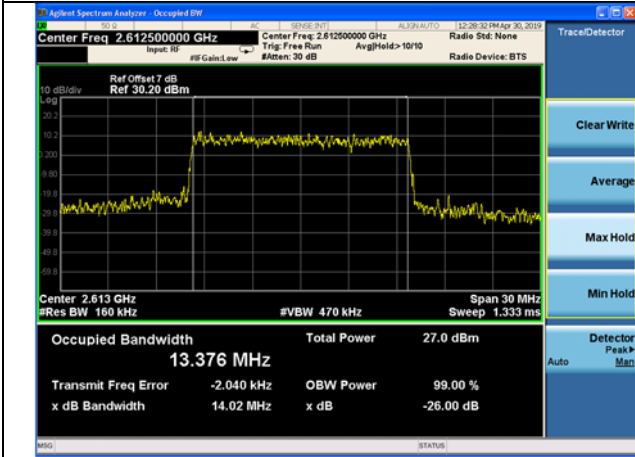


Fig.27

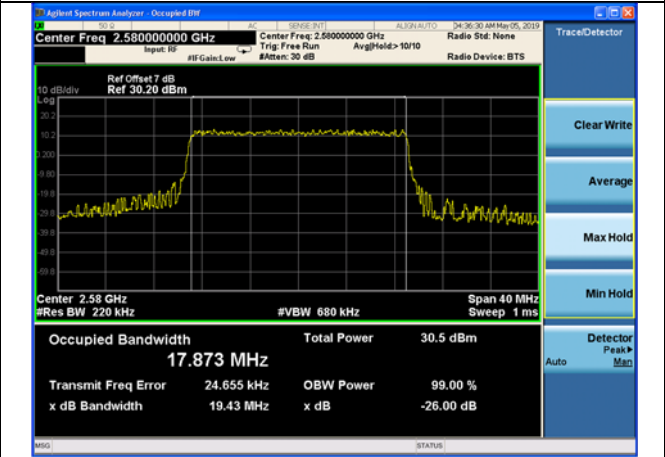


Fig.28

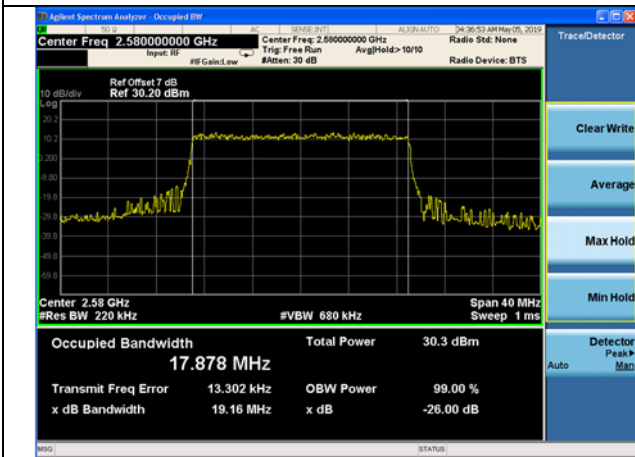


Fig.29

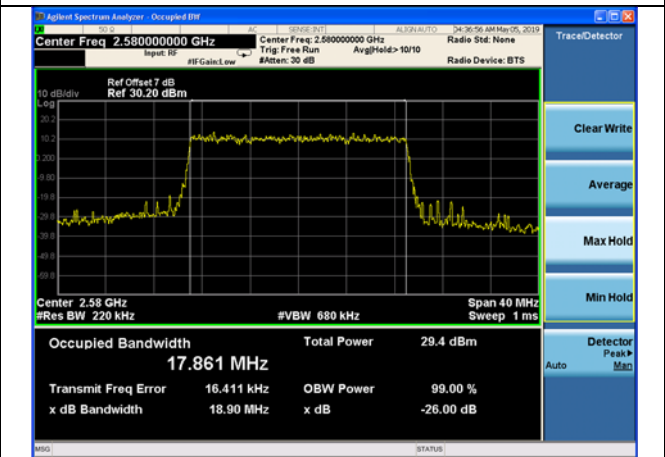


Fig.30

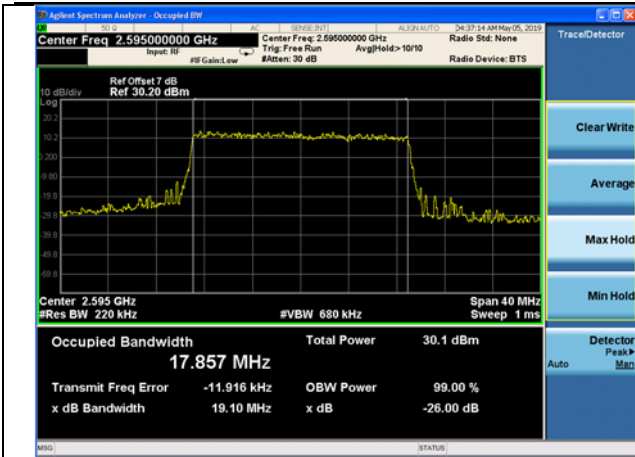


Fig.31

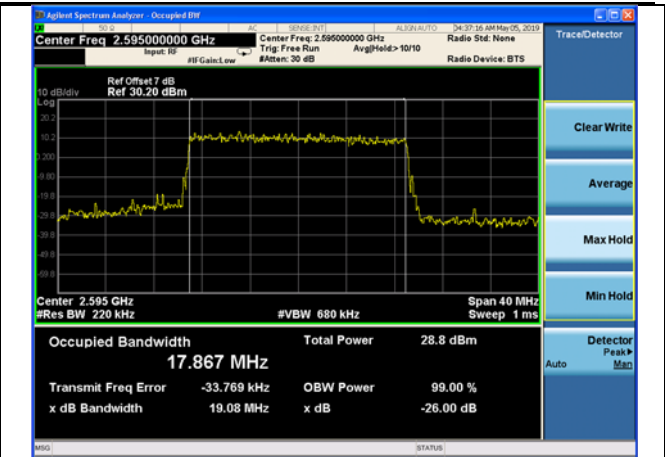


Fig.32

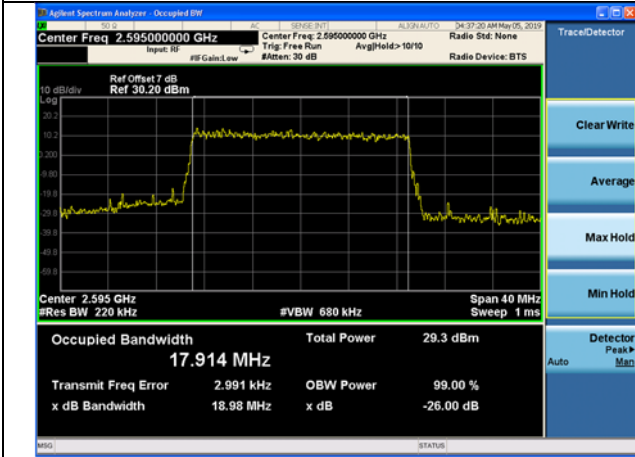


Fig.33

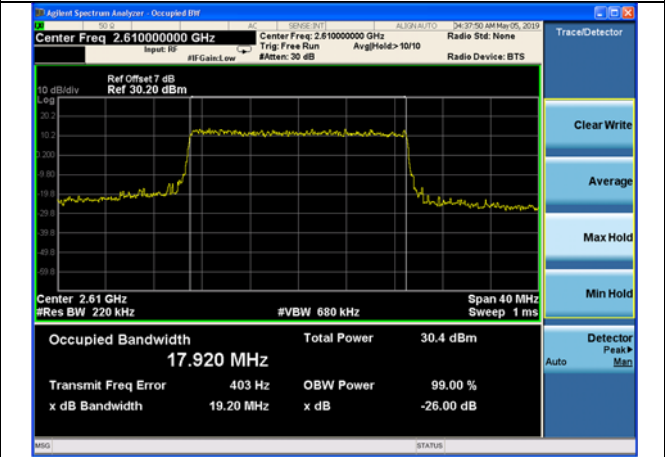


Fig.34

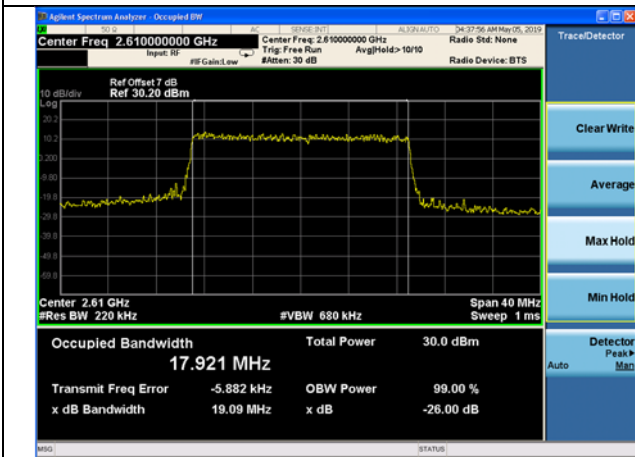


Fig.35

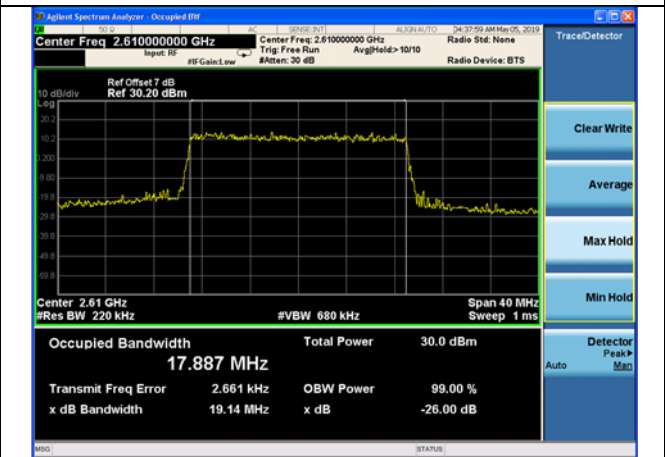


Fig.36

### 3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM	64-QAM
38	2595	38000	5	1	0	Fig.1	Fig.2	Fig.3
			10	1	0	Fig.4	Fig.5	Fig.6
			15	1	0	Fig.7	Fig.8	Fig.9
			20	1	0	Fig.10	Fig.11	Fig.12

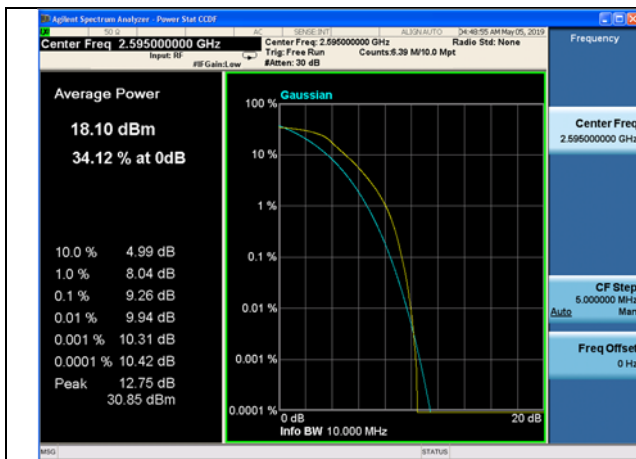


Fig.1

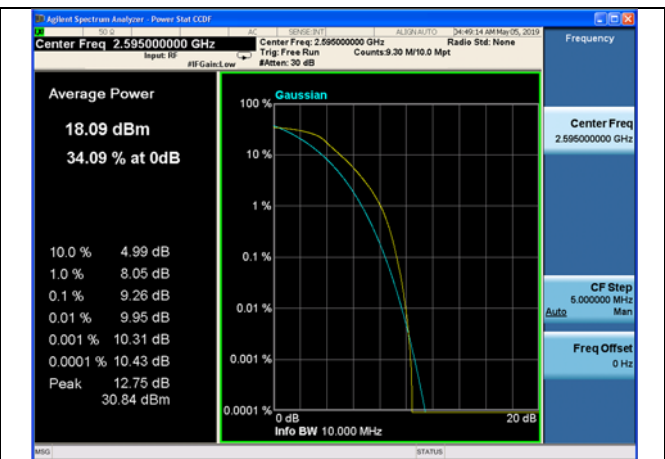


Fig.2

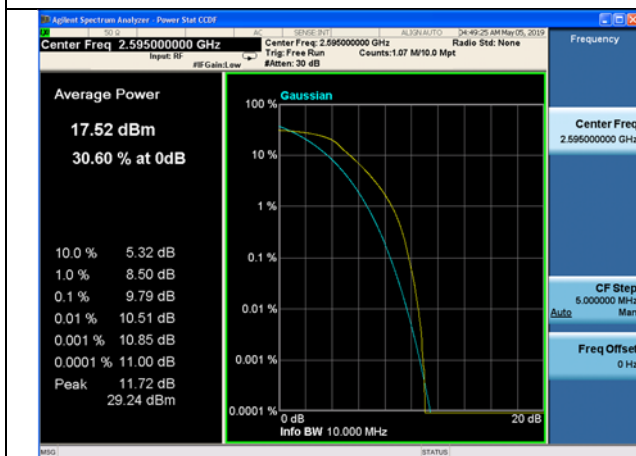


Fig.3

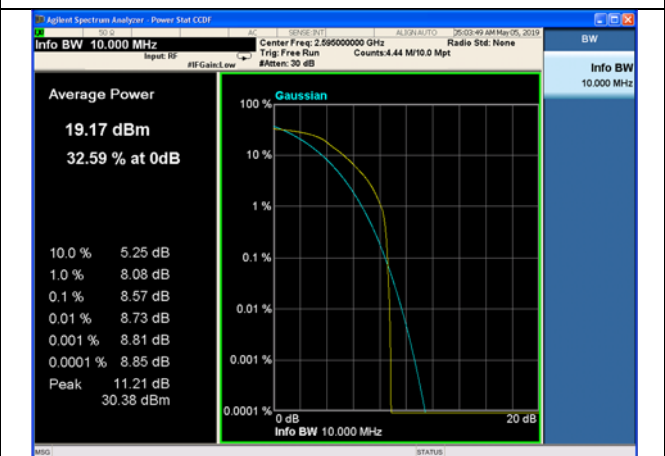


Fig.4

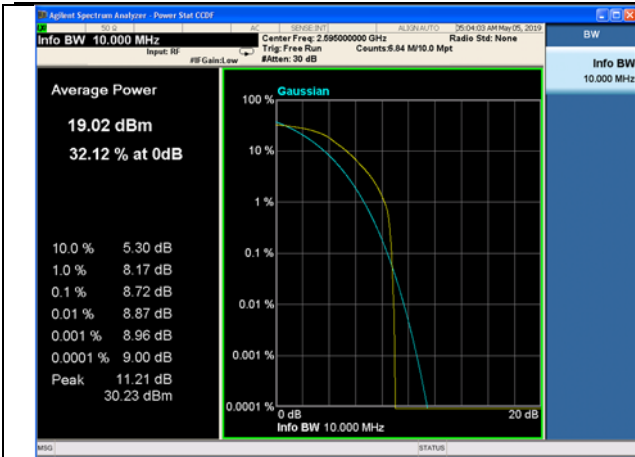


Fig.5

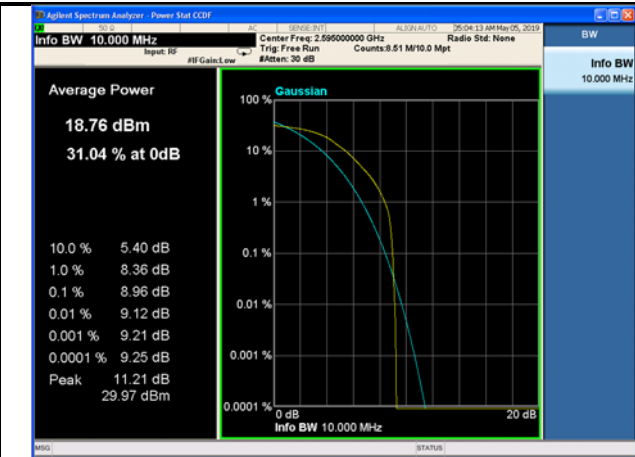


Fig.6

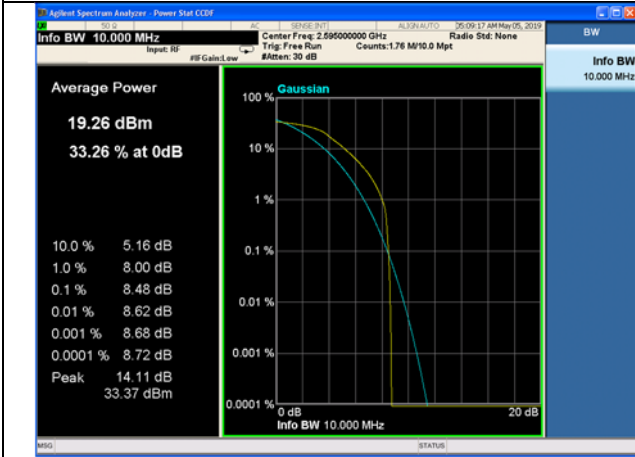


Fig.7

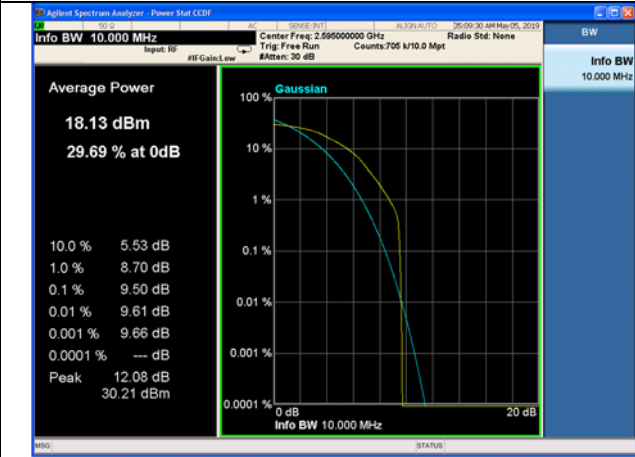


Fig.8

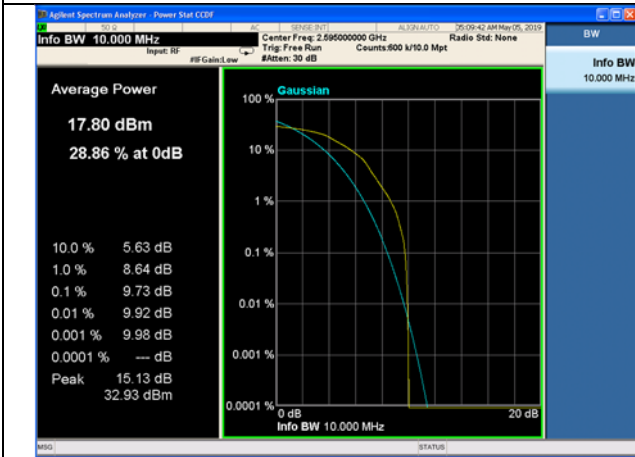


Fig.9

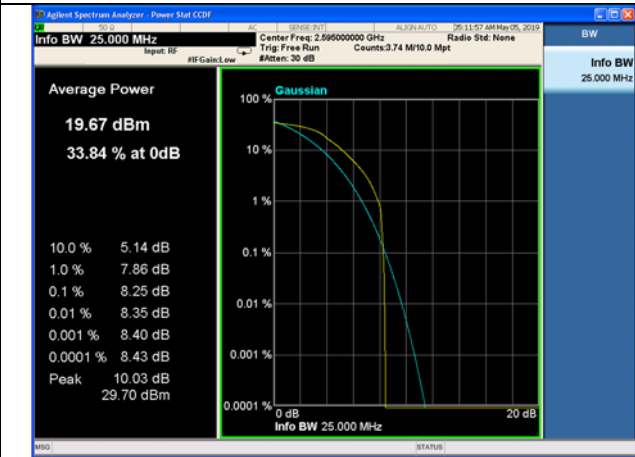


Fig.10

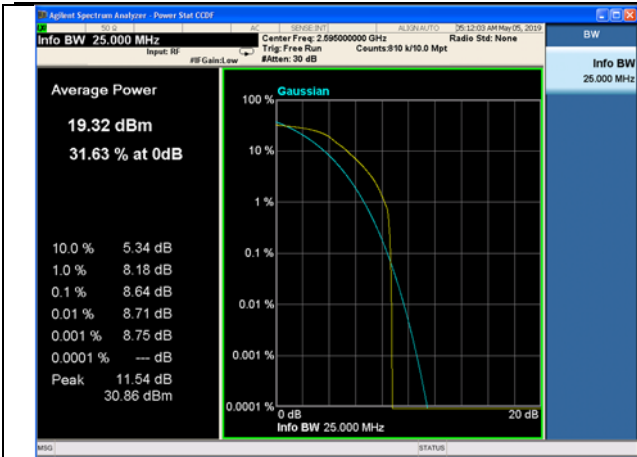


Fig.11



Fig.12

#### 4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
38	2580	37850	20	1	0	Fig.1
	2595	38000	20	1	0	Fig.2
	2610	38150	20	1	0	Fig.3

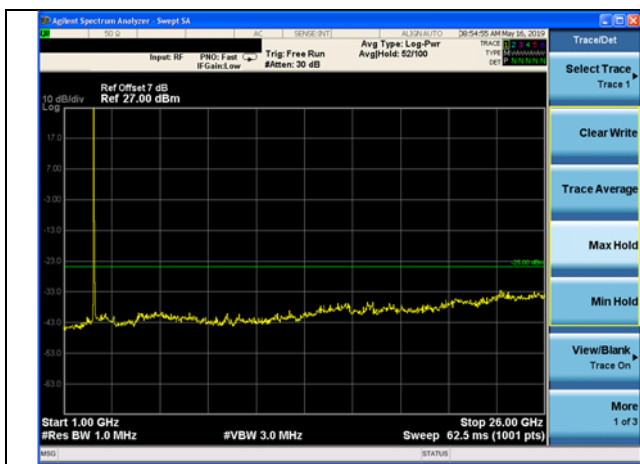


Fig.1

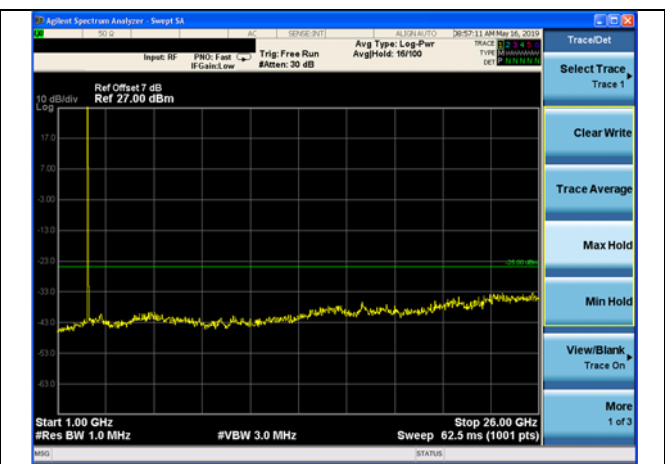


Fig.2

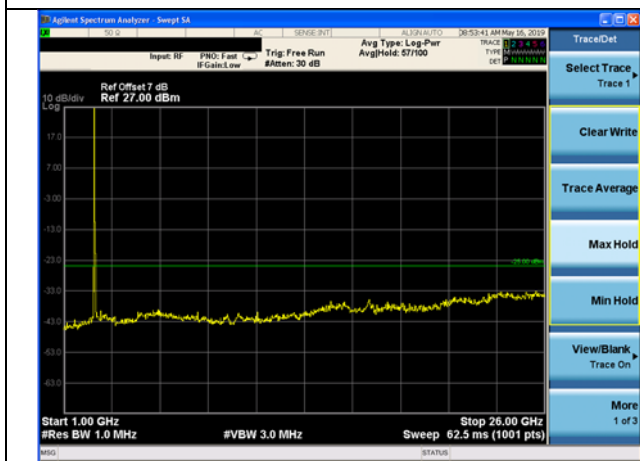


Fig3

**5 Band Edges Compliance**  
Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
38	2572.5	37775	5	25	0	Fig.1
	2617.5	38225		25	0	Fig.5
	2575	37800	10	50	0	Fig.2
	2615	38200		50	0	Fig.6
	2577.5	37825	15	75	0	Fig.3
	2612.5	38175		75	0	Fig.7
	2580	37850	20	100	0	Fig.4
	2610	38150		100	0	Fig.8

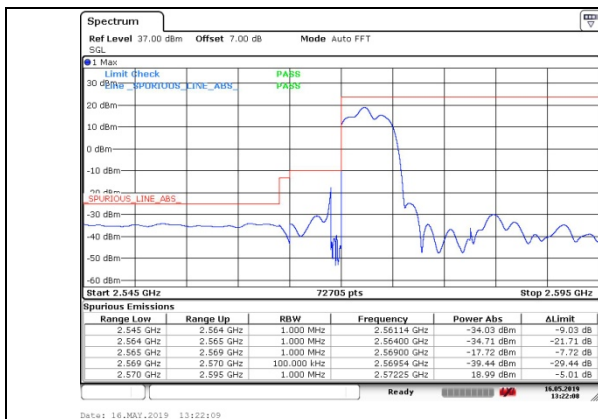


Fig.1

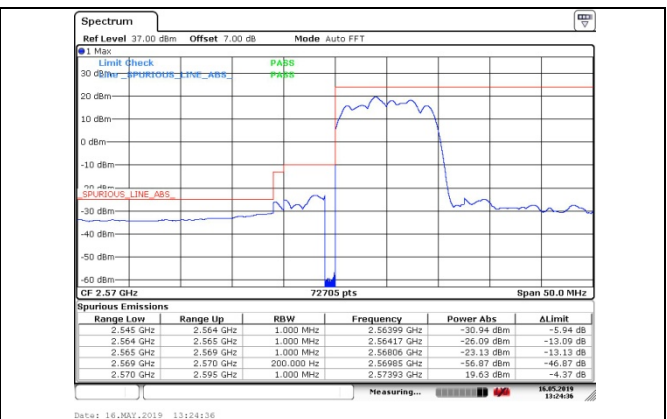


Fig.2

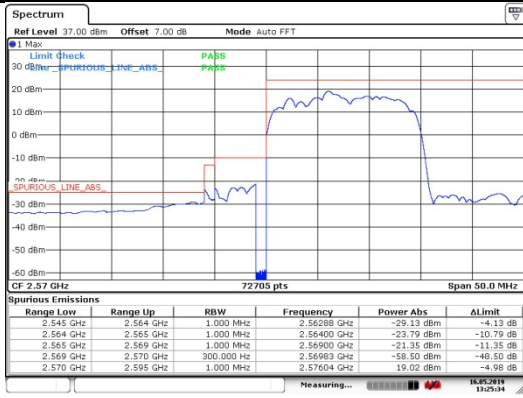


Fig.3

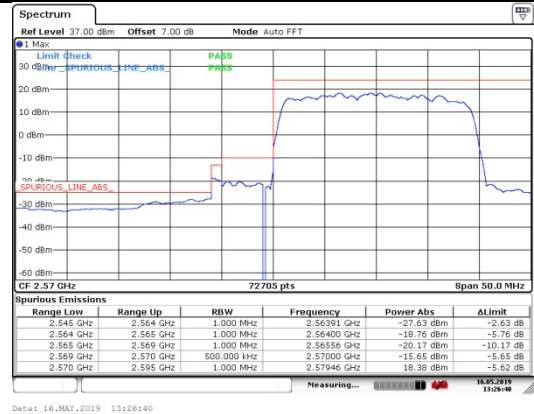


Fig.4

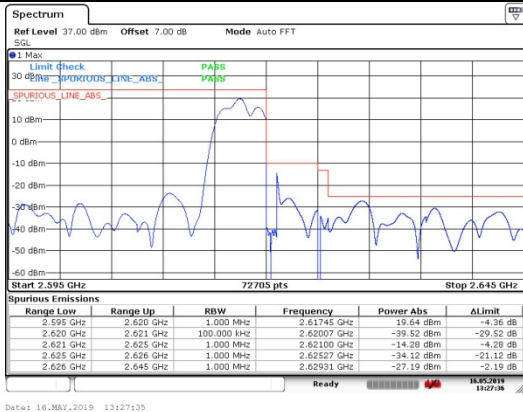


Fig.5

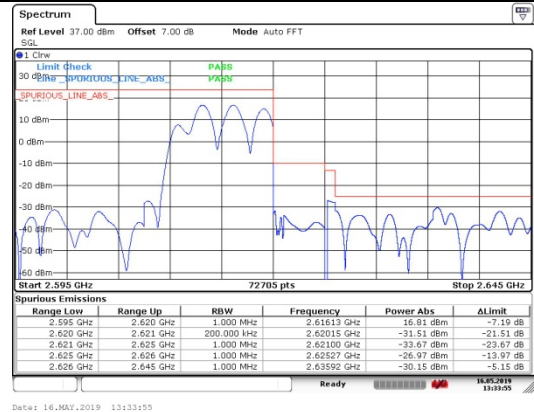


Fig.6

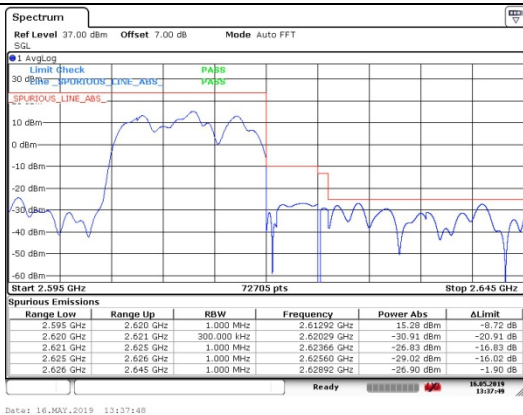


Fig.7

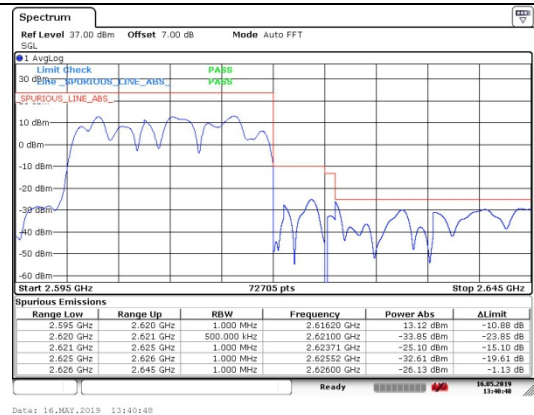


Fig.8



## 6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band38 Low Channel			
		5M	10M	15M	20M
-10	NV	0.022	-0.002	0.010	0.003
0	NV	0.018	0.006	0.011	0.017
+10	NV	0.012	0.018	0.005	0.014
+20	NV	0.010	0.003	0.004	0.007
+30	NV	0.011	0.016	0.007	0.006
+40	NV	0.004	0.003	0.016	0.018
+50	NV	0.006	0.004	0.004	0.006
+55	NV	0.018	0.002	0.006	0.005
+20	LV	0.021	0.003	0.013	0.013
+20	HV	0.006	0.011	0.001	0.013

Temperature(°C)	Voltage	Test Result (ppm) Band38 High Channel			
		5M	10M	15M	20M
-10	NV	0.019	-0.002	0.010	0.003
0	NV	0.015	0.018	0.002	0.011
+10	NV	0.019	-0.002	0.010	0.003
+20	NV	0.011	0.012	0.015	0.016
+30	NV	-0.018	0.000	0.014	-0.004
+40	NV	0.016	0.019	-0.016	0.014
+50	NV	0.012	0.005	0.000	0.009
+55	NV	-0.006	0.017	0.011	-0.009
+20	LV	0.009	0.008	0.007	0.021
+20	HV	-0.006	0.013	0.004	0.009

## **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	25.71	0.372
Band2	QPSK	1.4	18900	1#0	25.59	0.362
Band2	QPSK	1.4	19193	1#0	25.19	0.330
Band2	16QAM	1.4	18607	1#0	24.26	0.267
Band2	16QAM	1.4	18900	1#0	24.50	0.282
Band2	16QAM	1.4	19193	1#0	25.00	0.316
Band2	64QAM	1.4	18607	1#0	25.18	0.330
Band2	64QAM	1.4	18900	1#0	24.42	0.277
Band2	64QAM	1.4	19193	1#0	24.71	0.296
Band2	QPSK	3	18615	1#0	25.71	0.372
Band2	QPSK	3	18900	1#0	26.07	0.405
Band2	QPSK	3	19185	1#0	25.45	0.351
Band2	16QAM	3	18615	1#0	25.06	0.321
Band2	16QAM	3	18900	1#0	24.74	0.298
Band2	16QAM	3	19185	1#0	24.75	0.299
Band2	64QAM	3	18615	1#0	24.49	0.281
Band2	64QAM	3	18900	1#0	24.81	0.303
Band2	64QAM	3	19185	1#0	24.39	0.275
Band2	QPSK	5	18625	1#0	25.36	0.344
Band2	QPSK	5	18900	1#0	25.19	0.330
Band2	QPSK	5	19175	1#0	25.72	0.373
Band2	16QAM	5	18625	1#0	24.31	0.270
Band2	16QAM	5	18900	1#0	25.26	0.336
Band2	16QAM	5	19175	1#0	24.97	0.314
Band2	64QAM	5	18625	1#0	24.88	0.308
Band2	64QAM	5	18900	1#0	24.63	0.290
Band2	64QAM	5	19175	1#0	24.18	0.262
Band2	QPSK	10	18650	1#0	25.96	0.394
Band2	QPSK	10	18900	1#0	26.06	0.404
Band2	QPSK	10	19150	1#0	25.96	0.394
Band2	16QAM	10	18650	1#0	25.04	0.319
Band2	16QAM	10	18900	1#0	24.34	0.272
Band2	16QAM	10	19150	1#0	24.37	0.274
Band2	64QAM	10	18650	1#0	25.11	0.324
Band2	64QAM	10	18900	1#0	25.16	0.328
Band2	64QAM	10	19150	1#0	24.80	0.302
Band2	QPSK	15	18675	1#0	25.36	0.344
Band2	QPSK	15	18900	1#0	25.85	0.385
Band2	QPSK	15	19125	1#0	25.24	0.334
Band2	16QAM	15	18675	1#0	24.28	0.268
Band2	16QAM	15	18900	1#0	25.23	0.333

Band2	16QAM	15	19125	1#0	25.06	0.321
Band2	64QAM	15	18675	1#0	24.92	0.310
Band2	64QAM	15	18900	1#0	24.67	0.293
Band2	64QAM	15	19125	1#0	24.68	0.294
Band2	QPSK	20	18700	1#0	25.93	0.392
Band2	QPSK	20	18900	1#0	26.06	0.404
Band2	QPSK	20	19100	1#0	25.53	0.357
Band2	16QAM	20	18700	1#0	24.49	0.281
Band2	16QAM	20	18900	1#0	25.17	0.329
Band2	16QAM	20	19100	1#0	24.32	0.270
Band2	64QAM	20	18700	1#0	24.30	0.269
Band2	64QAM	20	18900	1#0	25.06	0.321
Band2	64QAM	20	19100	1#0	24.52	0.283

Test result:

Channel 19100

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2458.52	-48.76	-13	Vertical
2780.37	-47.71	-13	Vertical
3725.58	-40.62	-13	Vertical
6678.84	-40.04	-13	Vertical
9962.92	-37.07	-13	Vertical
17821.76	-34.24	-13	Vertical

Channel 18900

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2457.93	-48.65	-13	Vertical
2780.53	-47.77	-13	Vertical
3726.52	-40.68	-13	Vertical
6676.52	-39.83	-13	Vertical
9961.99	-37.40	-13	Vertical
17821.26	-34.29	-13	Vertical

Channel 19100

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.74	-48.75	-13	Vertical
2780.12	-47.59	-13	Vertical
3724.91	-40.73	-13	Vertical
6678.58	-39.52	-13	Vertical
9962.67	-37.31	-13	Vertical
17820.29	-33.88	-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	25.43	0.349
Band4	QPSK	1.4	20175	1#0	25.50	0.355
Band4	QPSK	1.4	20393	1#0	25.38	0.345
Band4	16QAM	1.4	19957	1#0	25.61	0.364
Band4	16QAM	1.4	20175	1#0	24.46	0.279
Band4	16QAM	1.4	20393	1#0	24.53	0.284
Band4	64QAM	1.4	19957	1#0	25.10	0.324
Band4	64QAM	1.4	20175	1#0	25.28	0.337
Band4	64QAM	1.4	20393	1#0	25.04	0.319
Band4	QPSK	3	19965	1#0	25.52	0.356
Band4	QPSK	3	20175	1#0	25.25	0.335
Band4	QPSK	3	20385	1#0	25.92	0.391
Band4	16QAM	3	19965	1#0	25.50	0.355
Band4	16QAM	3	20175	1#0	24.96	0.313
Band4	16QAM	3	20385	1#0	24.45	0.279
Band4	64QAM	3	19965	1#0	25.02	0.318
Band4	64QAM	3	20175	1#0	25.12	0.325
Band4	64QAM	3	20385	1#0	25.17	0.329
Band4	QPSK	5	19975	1#0	25.38	0.345
Band4	QPSK	5	20175	1#0	25.94	0.393
Band4	QPSK	5	20375	1#0	26.04	0.402
Band4	16QAM	5	19975	1#0	24.89	0.308
Band4	16QAM	5	20175	1#0	25.06	0.321
Band4	16QAM	5	20375	1#0	24.58	0.287
Band4	64QAM	5	19975	1#0	24.66	0.292
Band4	64QAM	5	20175	1#0	24.61	0.289
Band4	64QAM	5	20375	1#0	24.27	0.267
Band4	QPSK	10	20000	1#0	25.85	0.385
Band4	QPSK	10	20175	1#0	25.88	0.387
Band4	QPSK	10	20350	1#0	25.97	0.395
Band4	16QAM	10	20000	1#0	25.45	0.351
Band4	16QAM	10	20175	1#0	25.00	0.316
Band4	16QAM	10	20350	1#0	25.01	0.317
Band4	64QAM	10	20000	1#0	24.67	0.293
Band4	64QAM	10	20175	1#0	24.48	0.281
Band4	64QAM	10	20350	1#0	24.44	0.278
Band4	QPSK	15	20025	1#0	25.91	0.390
Band4	QPSK	15	20175	1#0	25.86	0.385
Band4	QPSK	15	20325	1#0	25.31	0.340
Band4	16QAM	15	20025	1#0	25.51	0.356
Band4	16QAM	15	20175	1#0	25.00	0.316
Band4	16QAM	15	20325	1#0	24.73	0.297

Band4	64QAM	15	20025	1#0	25.25	0.335
Band4	64QAM	15	20175	1#0	24.86	0.306
Band4	64QAM	15	20325	1#0	24.45	0.279
Band4	QPSK	20	20050	1#0	25.56	0.360
Band4	QPSK	20	20175	1#0	25.51	0.356
Band4	QPSK	20	20300	1#0	25.30	0.339
Band4	16QAM	20	20050	1#0	24.81	0.303
Band4	16QAM	20	20175	1#0	25.00	0.316
Band4	16QAM	20	20300	1#0	24.70	0.295
Band4	64QAM	20	20050	1#0	24.55	0.285
Band4	64QAM	20	20175	1#0	24.86	0.306
Band4	64QAM	20	20300	1#0	25.19	0.330

Test result:

Channel 20050

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.05	-49.40	-13	Vertical
2779.36	-47.60	-13	Vertical
3724.82	-40.89	-13	Vertical
6674.98	-39.76	-13	Vertical
9963.32	-37.11	-13	Vertical
17822.18	-33.84	-13	Vertical

Channel 20175

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2458.40	-49.42	-13	Vertical
2781.20	-46.91	-13	Vertical
3725.48	-40.61	-13	Vertical
6678.48	-39.25	-13	Vertical
9959.57	-37.09	-13	Vertical
17819.36	-33.87	-13	Vertical

Channel 20300

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.74	-48.81	-13	Vertical
2781.09	-47.29	-13	Vertical
3728.25	-40.99	-13	Vertical
6675.00	-39.25	-13	Vertical
9962.82	-36.96	-13	Vertical
17820.89	-33.64	-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	24.13	0.259
Band5	QPSK	1.4	20525	1#0	24.43	0.277
Band5	QPSK	1.4	20643	1#0	24.75	0.299
Band5	16QAM	1.4	20407	1#0	23.98	0.250
Band5	16QAM	1.4	20525	1#0	23.42	0.220
Band5	16QAM	1.4	20643	1#0	23.53	0.225
Band5	64QAM	1.4	20407	1#0	24.16	0.261
Band5	64QAM	1.4	20525	1#0	23.70	0.234
Band5	64QAM	1.4	20643	1#0	23.61	0.230
Band5	QPSK	3	20415	1#0	24.33	0.271
Band5	QPSK	3	20525	1#0	24.67	0.293
Band5	QPSK	3	20635	1#0	23.89	0.245
Band5	16QAM	3	20415	1#0	23.56	0.227
Band5	16QAM	3	20525	1#0	23.72	0.236
Band5	16QAM	3	20635	1#0	24.24	0.265
Band5	64QAM	3	20415	1#0	24.05	0.254
Band5	64QAM	3	20525	1#0	24.29	0.269
Band5	64QAM	3	20635	1#0	24.03	0.253
Band5	QPSK	5	20425	1#0	24.61	0.289
Band5	QPSK	5	20525	1#0	24.66	0.292
Band5	QPSK	5	20625	1#0	24.08	0.256
Band5	16QAM	5	20425	1#0	24.02	0.252
Band5	16QAM	5	20525	1#0	24.20	0.263
Band5	16QAM	5	20625	1#0	23.92	0.247
Band5	64QAM	5	20425	1#0	24.41	0.276
Band5	64QAM	5	20525	1#0	23.65	0.232
Band5	64QAM	5	20625	1#0	23.36	0.217
Band5	QPSK	10	20450	1#0	24.08	0.256
Band5	QPSK	10	20525	1#0	24.15	0.260
Band5	QPSK	10	20600	1#0	24.72	0.296
Band5	16QAM	10	20450	1#0	24.40	0.275
Band5	16QAM	10	20525	1#0	24.00	0.251
Band5	16QAM	10	20600	1#0	23.83	0.242
Band5	64QAM	10	20450	1#0	24.33	0.271
Band5	64QAM	10	20525	1#0	23.57	0.228
Band5	64QAM	10	20600	1#0	24.02	0.252

Test result:  
Channel 20450

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1647.22	-53.08	-13	Vertical
1667.49	-51.63	-13	Vertical
2535.53	-44.24	-13	Vertical
2576.80	-44.14	-13	Vertical
8961.79	-39.20	-13	Vertical
9973.61	-36.27	-13	Vertical

Channel 20525

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1647.12	-53.23	-13	Vertical
1665.81	-51.47	-13	Vertical
2534.89	-44.44	-13	Vertical
2577.06	-44.15	-13	Vertical
8961.49	-39.37	-13	Vertical
9973.59	-36.27	-13	Vertical

Channel 20600

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
1648.35	-52.98	-13	Vertical
1666.40	-51.32	-13	Vertical
2533.22	-43.96	-13	Vertical
2576.95	-44.65	-13	Vertical
8961.36	-39.80	-13	Vertical
9973.00	-36.64	-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	24.32	0.270
Band7	QPSK	5	21100	1#0	24.46	0.279
Band7	QPSK	5	21425	1#0	24.70	0.295
Band7	16QAM	5	20775	1#0	24.26	0.267
Band7	16QAM	5	21100	1#0	23.93	0.247
Band7	16QAM	5	21425	1#0	23.60	0.229
Band7	64QAM	5	20775	1#0	23.62	0.230
Band7	64QAM	5	21100	1#0	23.61	0.230
Band7	64QAM	5	21425	1#0	23.78	0.239
Band7	QPSK	10	20800	1#0	24.98	0.315
Band7	QPSK	10	21100	1#0	24.20	0.263
Band7	QPSK	10	21400	1#0	23.98	0.250
Band7	16QAM	10	20800	1#0	23.89	0.245
Band7	16QAM	10	21100	1#0	24.10	0.257
Band7	16QAM	10	21400	1#0	23.26	0.212
Band7	64QAM	10	20800	1#0	23.39	0.218
Band7	64QAM	10	21100	1#0	23.36	0.217
Band7	64QAM	10	21400	1#0	23.14	0.206
Band7	QPSK	15	20825	1#0	24.84	0.305
Band7	QPSK	15	21100	1#0	24.76	0.299
Band7	QPSK	15	21375	1#0	24.50	0.282
Band7	16QAM	15	20825	1#0	23.83	0.242
Band7	16QAM	15	21100	1#0	23.74	0.237
Band7	16QAM	15	21375	1#0	22.99	0.199
Band7	64QAM	15	20825	1#0	23.40	0.219
Band7	64QAM	15	21100	1#0	23.93	0.247
Band7	64QAM	15	21375	1#0	22.93	0.196
Band7	QPSK	20	20850	1#0	25.11	0.324
Band7	QPSK	20	21100	1#0	24.79	0.301
Band7	QPSK	20	21350	1#0	24.96	0.313
Band7	16QAM	20	20850	1#0	24.14	0.259
Band7	16QAM	20	21100	1#0	23.56	0.227
Band7	16QAM	20	21350	1#0	23.95	0.248
Band7	64QAM	20	20850	1#0	23.25	0.211
Band7	64QAM	20	21100	1#0	23.86	0.243
Band7	64QAM	20	21350	1#0	23.58	0.228



Test result:  
Channel 20850

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2461.48	-48.93	-25	Vertical
2779.49	-47.84	-25	Vertical
3726.10	-40.69	-25	Vertical
6678.22	-39.47	-25	Vertical
9963.09	-36.89	-25	Vertical
17821.70	-33.47	-25	Vertical

Channel 21100

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2459.04	-48.80	-25	Vertical
2781.86	-46.99	-25	Vertical
3727.02	-40.80	-25	Vertical
6678.54	-39.78	-25	Vertical
9960.22	-37.60	-25	Vertical
17819.72	-33.77	-25	Vertical

Channel 21350

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2458.91	-48.64	-25	Vertical
2781.02	-47.63	-25	Vertical
3725.32	-40.78	-25	Vertical
6675.69	-39.70	-25	Vertical
9961.86	-37.30	-25	Vertical
17821.12	-33.85	-25	Vertical

LTE band 38

Test result:

band	Modulation	BW (MHz)	Channel	RB/ RB offset	EIRP/ERP (dBm)	EIRP/ERP (W)
Band38	QPSK	5	37775	1#0	25.04	0.319
Band38	QPSK	5	38000	1#0	25.04	0.319
Band38	QPSK	5	38225	1#0	25.06	0.321
Band38	16QAM	5	37775	1#0	23.59	0.229
Band38	16QAM	5	38000	1#0	23.75	0.237
Band38	16QAM	5	38225	1#0	23.95	0.248
Band38	64QAM	5	37775	1#0	23.56	0.227
Band38	64QAM	5	38000	1#0	23.91	0.246
Band38	64QAM	5	38225	1#0	23.52	0.225
Band38	QPSK	10	37800	1#0	25.23	0.333
Band38	QPSK	10	38000	1#0	25.37	0.344
Band38	QPSK	10	38200	1#0	24.89	0.308
Band38	16QAM	10	37800	1#0	23.87	0.244
Band38	16QAM	10	38000	1#0	23.62	0.230
Band38	16QAM	10	38200	1#0	23.96	0.249
Band38	64QAM	10	37800	1#0	23.93	0.247
Band38	64QAM	10	38000	1#0	24.08	0.256
Band38	64QAM	10	38200	1#0	23.82	0.241
Band38	QPSK	15	37825	1#0	24.43	0.277
Band38	QPSK	15	38000	1#0	24.61	0.289
Band38	QPSK	15	38175	1#0	25.02	0.318
Band38	16QAM	15	37825	1#0	24.39	0.275
Band38	16QAM	15	38000	1#0	24.28	0.268
Band38	16QAM	15	38175	1#0	24.10	0.257
Band38	64QAM	15	37825	1#0	24.09	0.256
Band38	64QAM	15	38000	1#0	24.42	0.277
Band38	64QAM	15	38175	1#0	24.01	0.252
Band38	QPSK	20	37850	1#0	24.90	0.309
Band38	QPSK	20	38000	1#0	24.94	0.312
Band38	QPSK	20	38150	1#0	25.05	0.320
Band38	16QAM	20	37850	1#0	23.71	0.235
Band38	16QAM	20	38000	1#0	24.36	0.273
Band38	16QAM	20	38150	1#0	24.32	0.270
Band38	64QAM	20	37850	1#0	24.20	0.263
Band38	64QAM	20	38000	1#0	24.59	0.288
Band38	64QAM	20	38150	1#0	23.98	0.250

Test result:  
Channel 37850

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2460.29	-48.50	-25	Vertical
2781.38	-47.65	-25	Vertical
3726.65	-41.16	-25	Vertical
6676.93	-39.56	-25	Vertical
9962.77	-36.84	-25	Vertical
17818.72	-33.79	-25	Vertical

Channel 38000

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2461.55	-48.69	-25	Vertical
2781.18	-47.01	-25	Vertical
3724.52	-41.00	-25	Vertical
6675.86	-39.69	-25	Vertical
9961.38	-37.38	-25	Vertical
17820.75	-34.37	-25	Vertical

Channel 38150

Frequency (MHz)	Power (dBm)	Limited (dBm)	Polarization
2461.12	-49.37	-25	Vertical
2780.80	-47.64	-25	Vertical
3725.87	-41.20	-25	Vertical
6675.42	-40.00	-25	Vertical
9960.27	-37.49	-25	Vertical
17820.13	-33.70	-25	Vertical

---End of Test Report---