

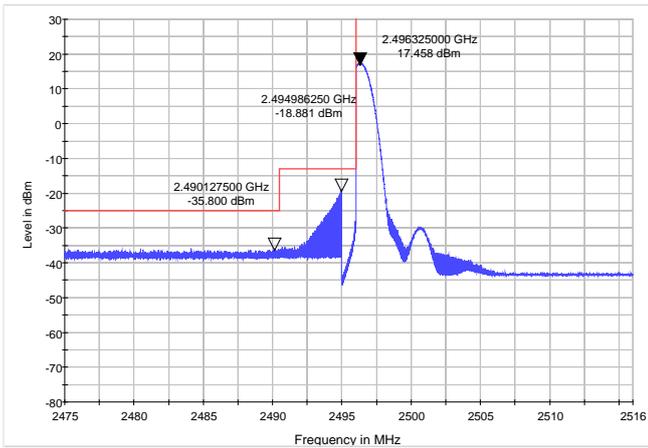
LTE Band 12 QPSK Bandwidth = 10MHz  
CH23130, RB 50



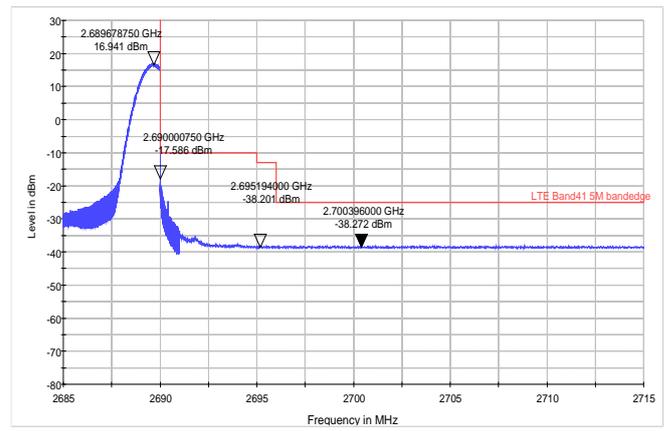
LTE Band 12 16QAM Bandwidth = 10MHz  
CH23130, RB 50



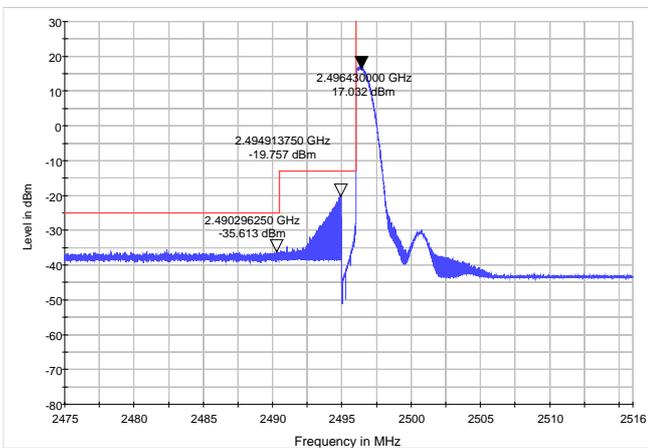
**LTE Band 41 QPSK Bandwidth = 5MHz CH39675, RB 1**



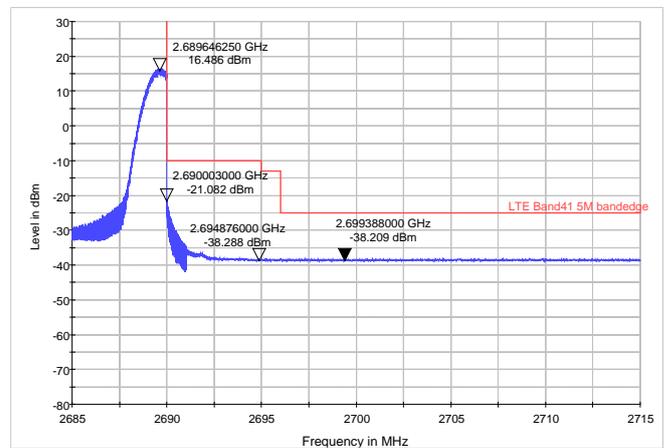
**LTE Band 41 QPSK Bandwidth = 5MHz CH41565, RB 1**



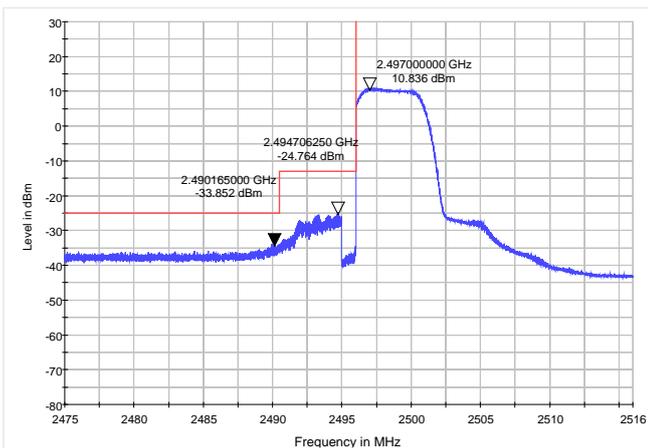
**LTE Band 41 16QAM Bandwidth = 5MHz CH39675, RB 1**



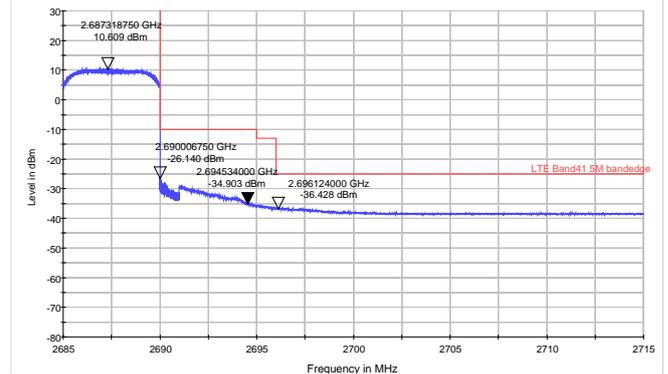
**LTE Band 41 16QAM Bandwidth = 5MHz CH41565, RB 1**



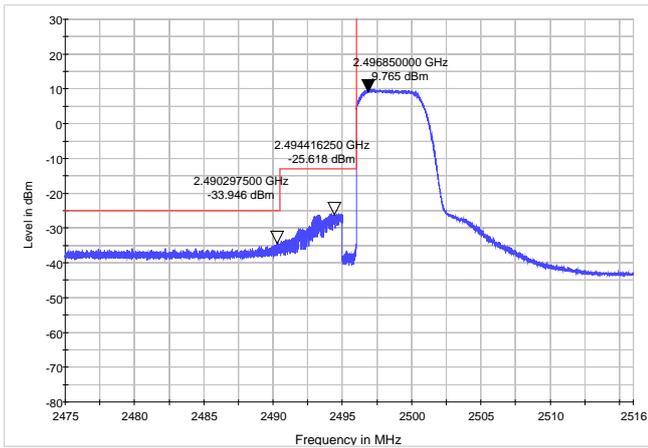
**LTE Band 41 QPSK Bandwidth = 5MHz CH39675, RB 25**



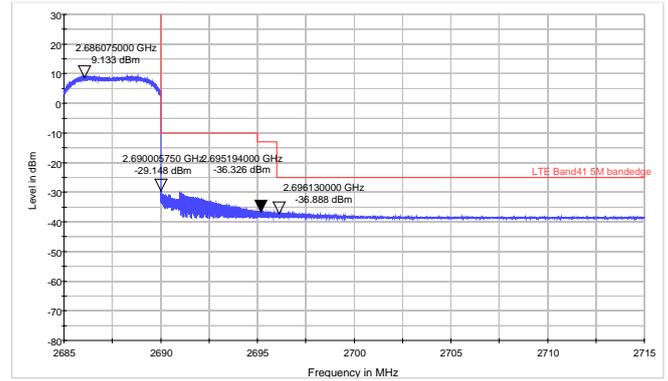
**LTE Band 41 QPSK Bandwidth = 5MHz CH41565, RB 25**



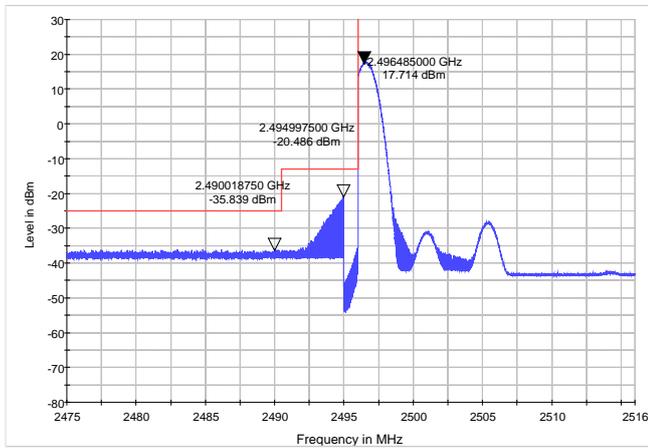
**LTE Band 41 16QAM Bandwidth = 5MHz CH39675, RB 25**



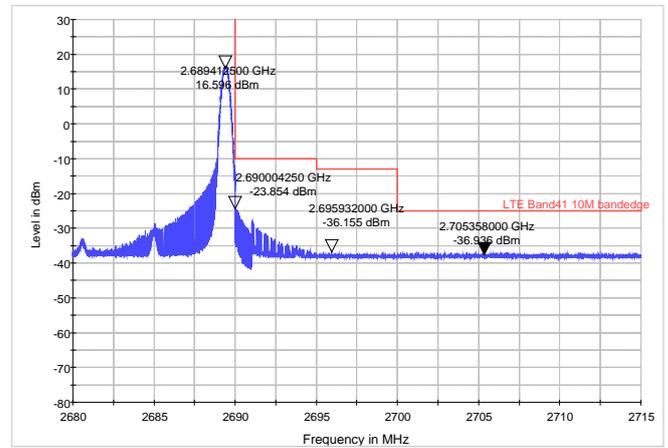
**LTE Band 41 16QAM Bandwidth = 5MHz CH41565, RB 25**



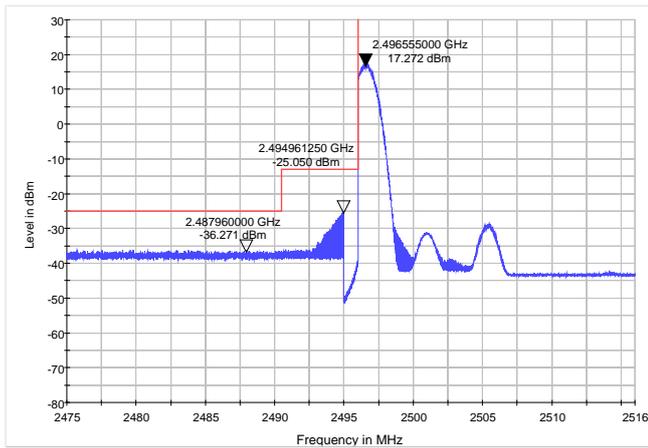
**LTE Band 41 QPSK Bandwidth = 10MHz CH39700, RB 1**



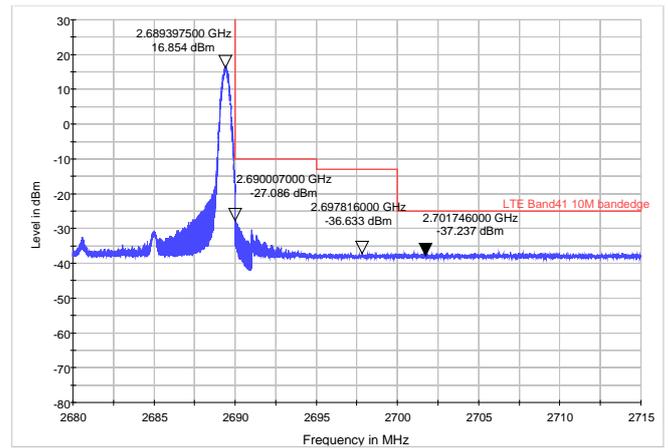
**LTE Band 41 QPSK Bandwidth = 10MHz CH41540, RB 1**



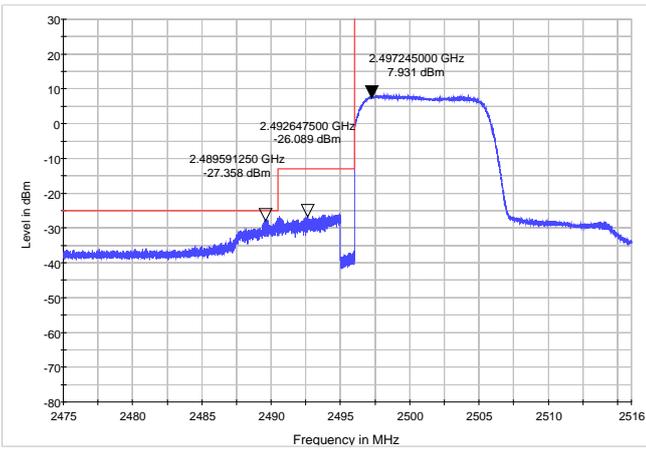
**LTE Band 41 16QAM Bandwidth=10MHz CH39700, RB 1**



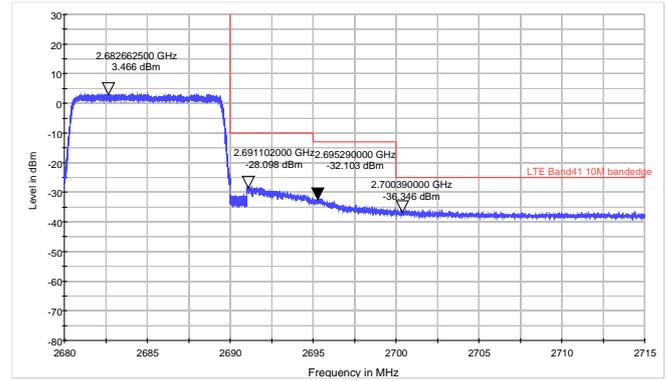
**LTE Band 41 16QAM Bandwidth = 10MHz CH41540, RB 1**



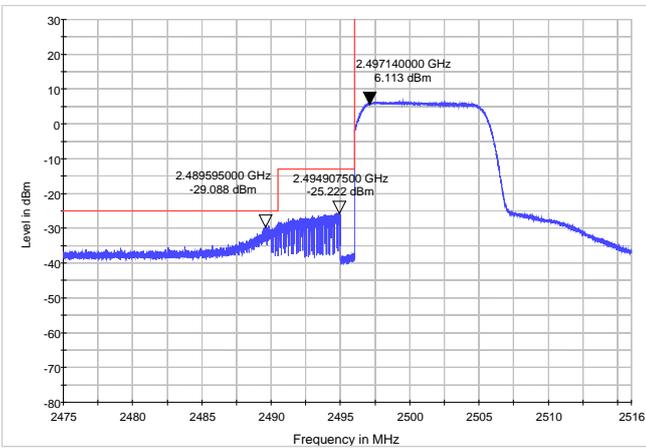
**LTE Band 41 QPSK Bandwidth = 10MHz CH39700, RB 50**



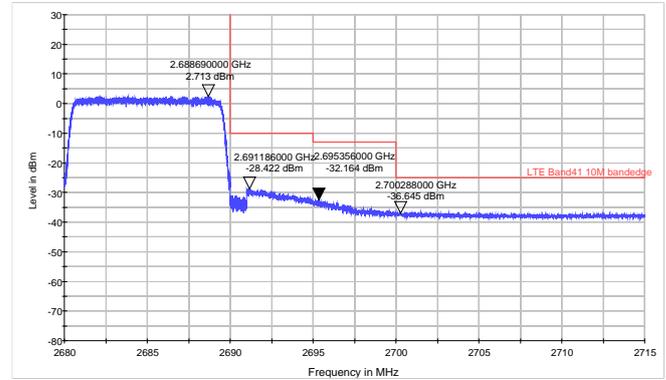
**LTE Band 41 QPSK Bandwidth = 10MHz CH41540, RB 50**



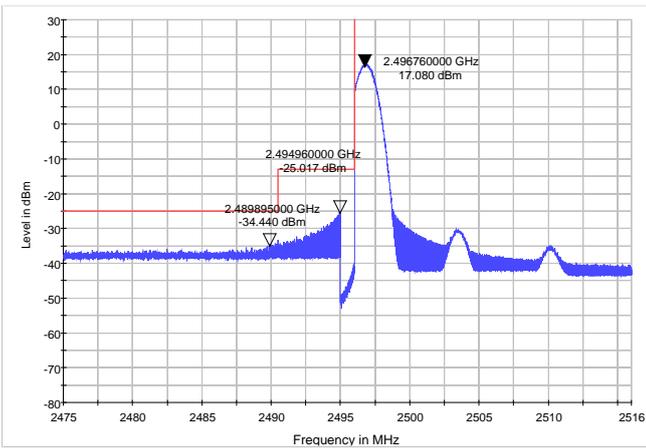
**LTE Band 41 16QAM Bandwidth = 10MHz CH39700, RB 50**



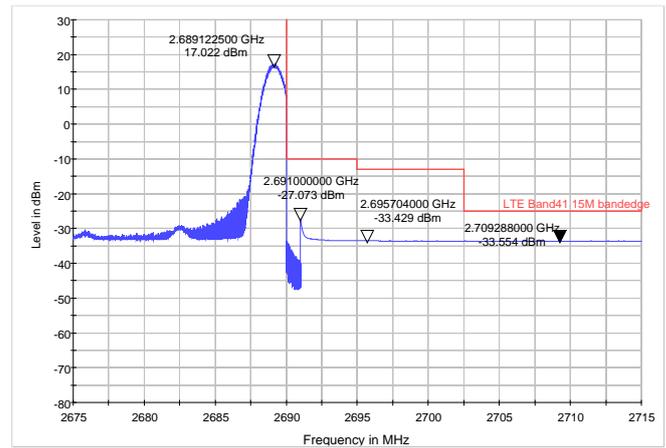
**LTE Band 41 16QAM Bandwidth = 10MHz CH41540, RB 50**



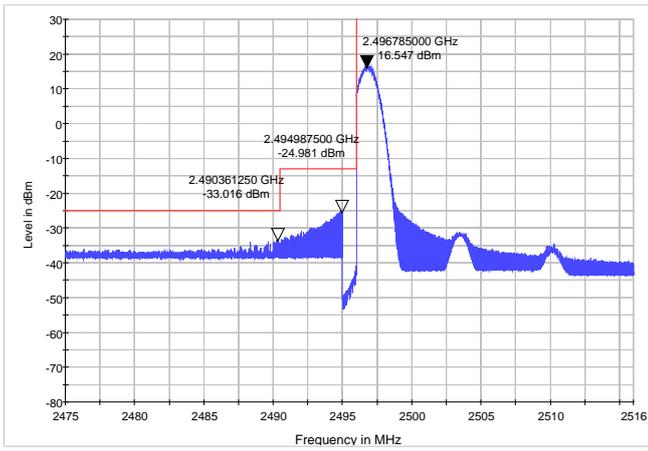
**LTE Band 41 QPSK Bandwidth = 15MHz CH39725, RB 1**



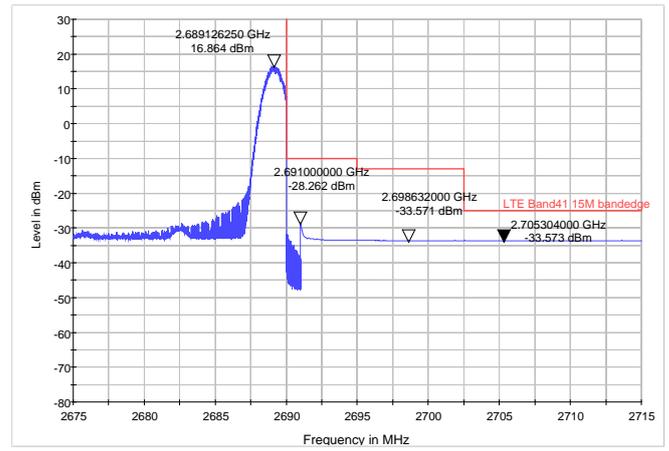
**LTE Band 41 QPSK Bandwidth = 15MHz CH41515, RB 1**



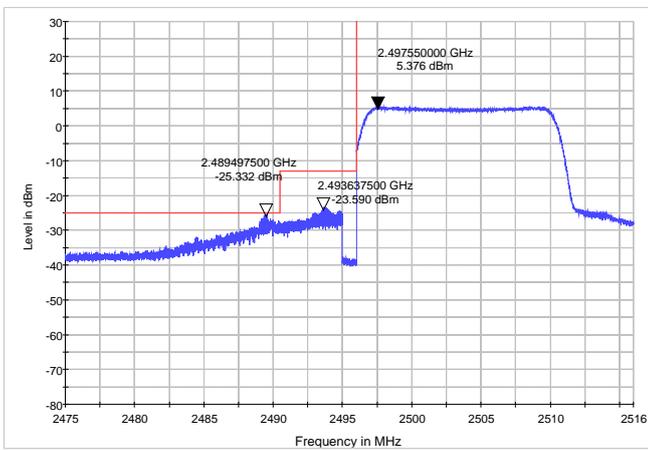
LTE Band 41 16QAM Bandwidth = 15MHz CH39725, RB 1



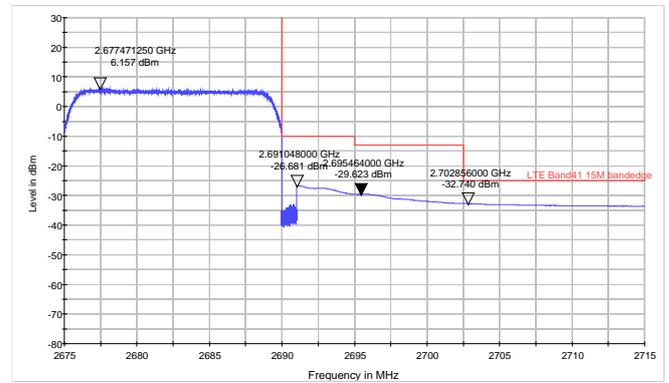
LTE Band 41 16QAM Bandwidth = 15MHz CH41515, RB 1



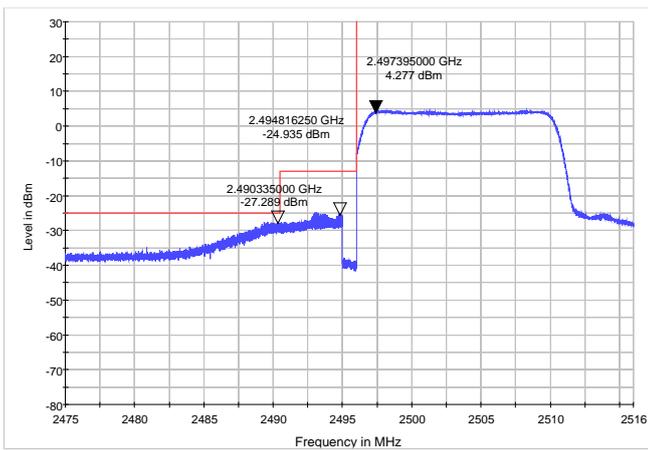
LTE Band 41 QPSK Bandwidth = 15MHz CH39725, RB 75



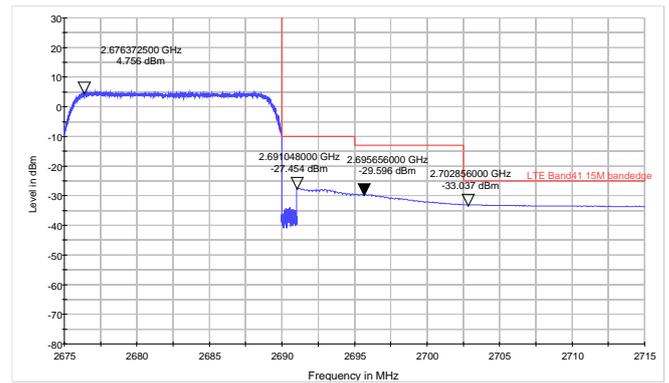
LTE Band 41 QPSK Bandwidth = 15MHz CH41515, RB 75



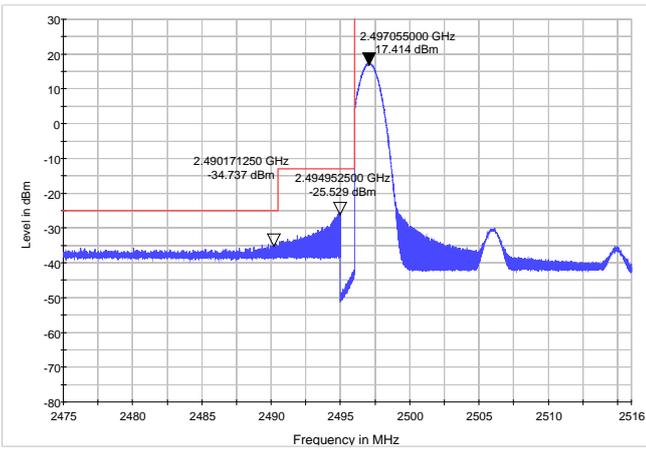
LTE Band 41 16QAM Bandwidth = 15MHz CH39725, RB 75



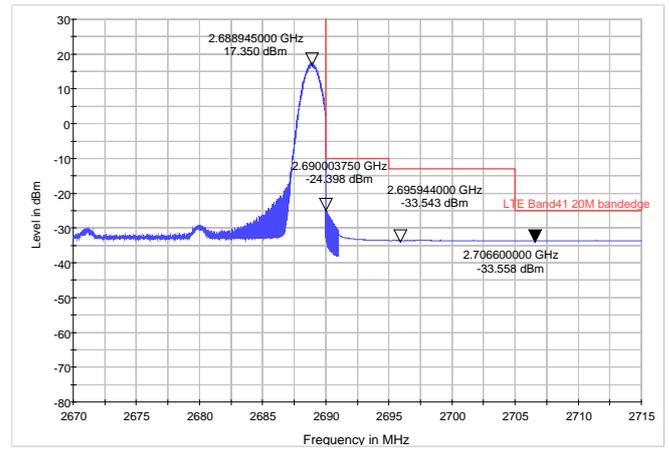
LTE Band 41 16QAM Bandwidth = 15MHz CH41515, RB 75



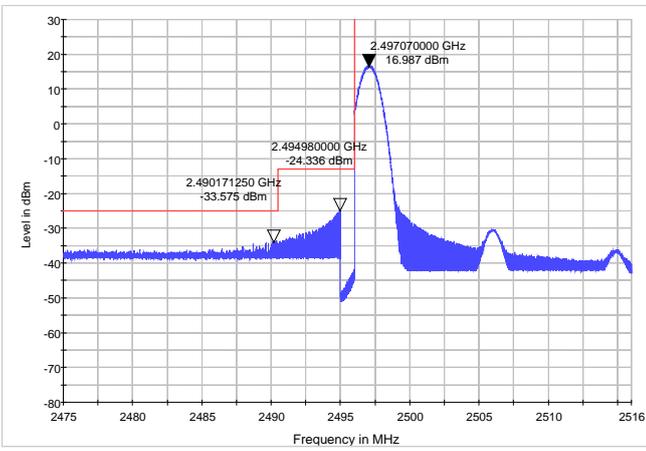
LTE Band 41 QPSK Bandwidth = 20MHz CH39750, RB 1



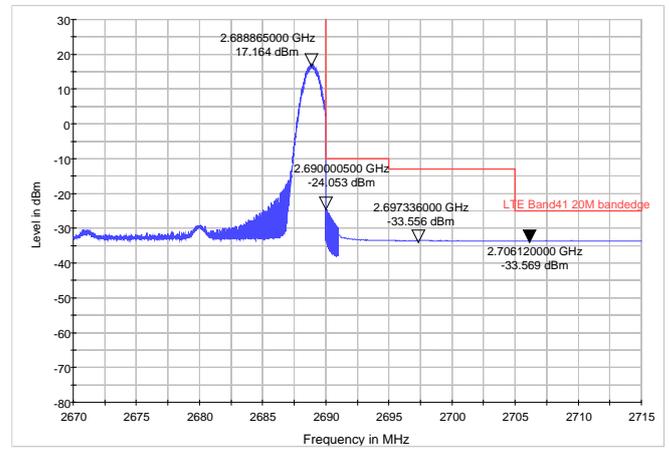
LTE Band 41 QPSK Bandwidth = 20MHz CH41490, RB 1



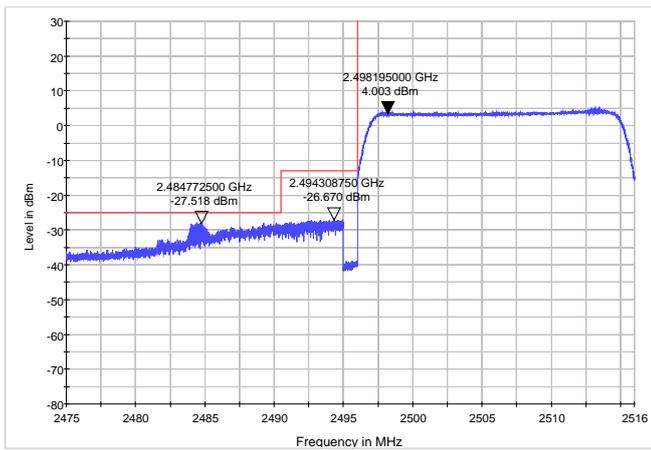
LTE Band 41 16QAM Bandwidth = 20MHz CH39750, RB 1



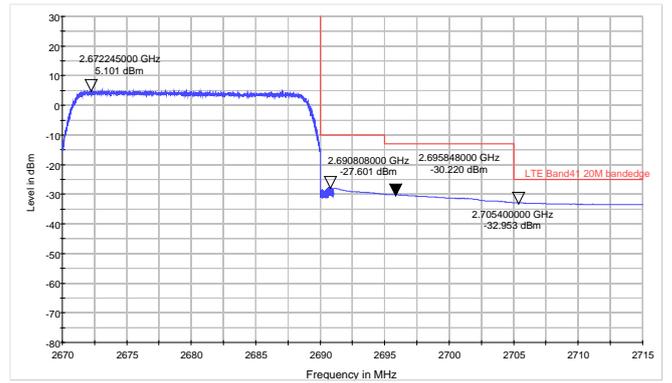
LTE Band 41 16QAM Bandwidth = 20MHz CH41490, RB 1



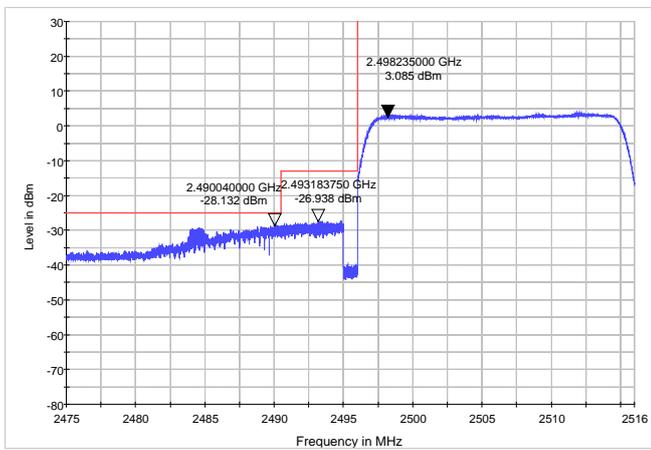
**LTE Band 41 QPSK Bandwidth = 20MHz CH39750, RB 100**



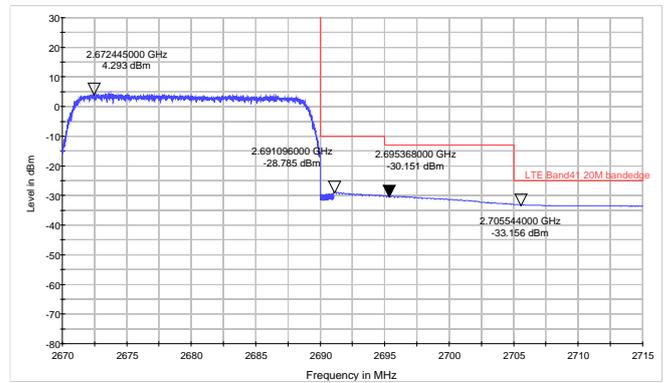
**LTE Band 41 QPSK Bandwidth = 20MHz CH41490, RB 100**



**LTE Band 41 16QAM Bandwidth = 20MHz CH39750, RB 100**



**LTE Band 41 16QAM Bandwidth = 20MHz CH41490, RB 100**



### 4.5 Peak-to-Average Power Ratio (PAPR)

#### Ambient condition

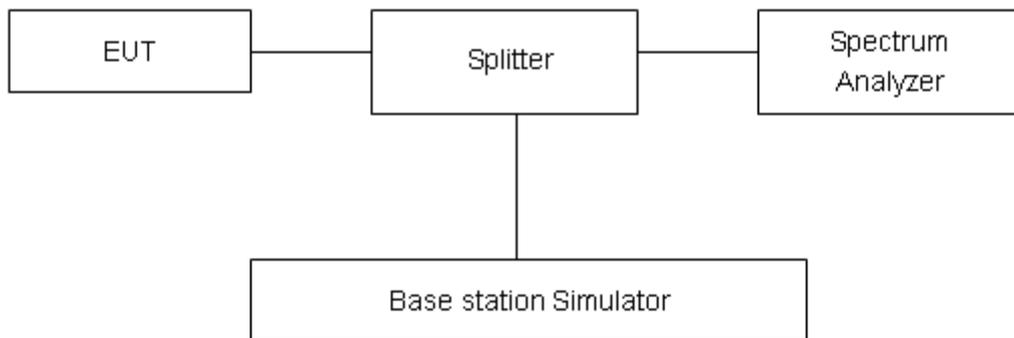
Temperature	Relative humidity
21°C ~25°C	40%~60%

#### Methods of Measurement

Measure the total peak power and record as PPk. And measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:

$$PAPR (dB) = PPk (dBm) - PAvg (dBm).$$

#### Test Setup



#### Limits

Equipment employed must be authorized in accordance with the provisions of 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.in Part27.50(d).

#### Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for thenormal distribution is with the coverage factor k = 2, U= 0.4 dB.

**Test Results**

WCDMA Band IV	Channel	Frequency (MHz)	Peak(dBm)	Avg(dBm)	PAPR(dB)	Conclusion
<b>RMC</b>	1312	1712.4	27.46	24.41	3.05	PASS
	1413	1732.6	27.47	24.47	3	PASS
	1513	1752.6	27.37	24.36	3.01	PASS

<b>LTE Band 4</b>							
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Conclusion
<b>QPSK</b>	1.4	19957	1710.7	27.407	22.177	5.23	PASS
		20175	1732.5	27.594	22.394	5.20	PASS
		20393	1754.3	27.672	22.422	5.25	PASS
	3	19965	1711.5	27.617	22.207	5.41	PASS
		20175	1732.5	27.874	22.434	5.44	PASS
		20385	1753.5	27.842	22.452	5.39	PASS
	5	19975	1712.5	27.397	22.187	5.21	PASS
		20175	1732.5	27.714	22.424	5.29	PASS
		20375	1752.5	27.672	22.432	5.24	PASS
	10	20000	1715	27.457	22.267	5.19	PASS
		20175	1732.5	27.684	22.444	5.24	PASS
		20350	1750	27.752	22.472	5.28	PASS
	15	20025	1717.5	27.537	22.247	5.29	PASS
		20175	1732.5	27.844	22.404	5.44	PASS
		20325	1747.5	27.782	22.422	5.36	PASS
	20	20050	1720	27.467	22.217	5.25	PASS
		20175	1732.5	27.584	22.354	5.23	PASS
		20300	1745	27.592	22.382	5.21	PASS
<b>16QAM</b>	1.4	19957	1710.7	26.791	21.231	5.56	PASS
		20175	1732.5	26.783	21.273	5.51	PASS
		20393	1754.3	26.863	21.383	5.48	PASS
	3	19965	1711.5	26.971	21.261	5.71	PASS
		20175	1732.5	27.063	21.313	5.75	PASS
		20385	1753.5	27.093	21.413	5.68	PASS
	5	19975	1712.5	27.231	21.241	5.99	PASS
		20175	1732.5	27.313	21.273	6.04	PASS
		20375	1752.5	27.373	21.363	6.01	PASS
	10	20000	1715	27.251	21.271	5.98	PASS
		20175	1732.5	27.343	21.323	6.02	PASS
		20350	1750	27.453	21.403	6.05	PASS

	15	20025	1717.5	27.341	21.241	6.10	PASS
		20175	1732.5	27.403	21.273	6.13	PASS
		20325	1747.5	27.473	21.363	6.11	PASS
	20	20050	1720	27.091	21.221	5.87	PASS
		20175	1732.5	27.223	21.233	5.99	PASS
		20300	1745	27.263	21.333	5.93	PASS

LTE Band 12							
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Conclusion
QPSK	1.4	23017	699.7	27.605	22.43	5.18	PASS
		23095	707.5	28.033	22.81	5.22	PASS
		23173	715.3	27.949	22.75	5.20	PASS
	3	23025	700.5	27.875	22.51	5.37	PASS
		23095	707.5	28.213	22.83	5.38	PASS
		23165	714.5	28.079	22.79	5.29	PASS
	5	23035	701.5	27.955	22.49	5.47	PASS
		23095	707.5	28.243	22.79	5.45	PASS
		23155	713.5	28.149	22.74	5.41	PASS
	10	23060	704	27.665	22.46	5.21	PASS
		23095	707.5	27.993	22.74	5.25	PASS
		23130	711	27.869	22.70	5.17	PASS
16QAM	1.4	23017	699.7	27.317	21.57	5.75	PASS
		23095	707.5	27.124	21.38	5.74	PASS
		23173	715.3	27.494	21.78	5.71	PASS
	3	23025	700.5	27.747	21.60	6.15	PASS
		23095	707.5	27.614	21.43	6.18	PASS
		23165	714.5	27.984	21.82	6.16	PASS
	5	23035	701.5	27.657	21.57	6.09	PASS
		23095	707.5	27.524	21.38	6.14	PASS
		23155	713.5	27.904	21.78	6.12	PASS
	10	23060	704	27.567	21.55	6.02	PASS
		23095	707.5	27.404	21.34	6.06	PASS
		23130	711	27.804	21.75	6.05	PASS

LTE Band 41							
Modulation	Bandwidth ((MHz))	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Conclusion
QPSK	5	39675	2498.5	28.307	19.16	9.15	PASS
		40620	2593	28.592	19.31	9.28	PASS
		41565	2687.5	28.705	19.48	9.23	PASS
	10	39700	2501	28.637	19.24	9.40	PASS
		40620	2593	28.792	19.33	9.46	PASS
		41540	2685	28.965	19.52	9.45	PASS
	15	39725	2503.5	28.717	19.22	9.50	PASS
		40620	2593	28.852	19.29	9.56	PASS
		41515	2682.5	28.985	19.47	9.52	PASS
	20	39750	2506	29.377	19.19	10.19	PASS
		40620	2593	29.582	19.24	10.34	PASS
		41490	2680	29.695	19.43	10.27	PASS
16QAM	5	39675	2498.5	28.119	18.23	9.89	PASS
		40620	2593	28.305	18.28	10.03	PASS
		41565	2687.5	28.088	18.16	9.93	PASS
	10	39700	2501	28.289	18.26	10.03	PASS
		40620	2593	28.535	18.33	10.21	PASS
		41540	2685	28.448	18.20	10.25	PASS
	15	39725	2503.5	28.599	18.23	10.37	PASS
		40620	2593	28.835	18.28	10.56	PASS
		41515	2682.5	28.638	18.16	10.48	PASS
	20	39750	2506	28.229	18.21	10.02	PASS
		40620	2593	28.385	18.24	10.15	PASS
		41490	2680	28.238	18.13	10.11	PASS

## 4.6 Frequency Stability

### Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

### Method of Measurement

#### 1. Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

(1) With all power removed, the temperature was decreased to -10°C and permitted to stabilize for three hours.

(2) Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

#### 2. Frequency Stability (Voltage Variation)

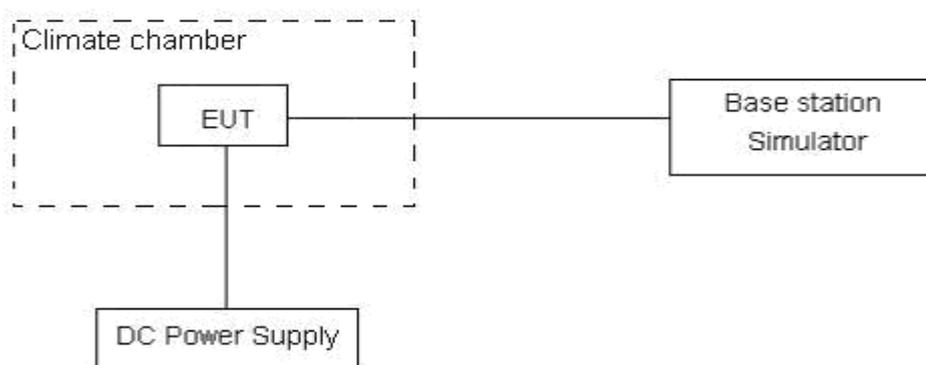
The frequency stability shall be measured with variation of primary supply voltage as follows:

(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

(2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery-operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 3.5 V and 4.4 V, with a nominal voltage of 3.8V.

### Test setup



### Limits

No specific frequency stability requirements in part 27.54

### Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor  $k = 3, U = 0.01\text{ppm}$ .

**Test Result**

WCDMA Band IV

Test status	WCDMA Band IV Channel 1413 RMC	
	Test Results (ppm)	Conclusion
50°C/3.84 V	0.00141100	PASS
40°C/3.84 V	0.00100600	PASS
30°C/3.84 V	0.00071100	PASS
20°C/3.84 V	0.00154000	PASS
10°C/3.84 V	0.00112800	PASS
0°C/3.84 V	0.00111600	PASS
-10°C/3.84 V	0.00125700	PASS
-20°C/3.84 V	0.00112200	PASS
-30°C/3.84 V	0.00094900	PASS
20°C/4.4 V	0.00015400	PASS
20°C/3.5 V	0.00124500	PASS

Bandwidth	Test status	LTE Band 4 Channel 20175 Test Results (ppm)		
		QPSK	16QAM	Conclusion
1.4MHz	50°C/3.84 V	-0.00532	-0.00723	PASS
	40°C/3.84 V	-0.00364	-0.00465	PASS
	30°C/3.84 V	-0.00194	-0.00421	PASS
	20°C/3.84 V	-0.00393	-0.00491	PASS
	10°C/3.84 V	-0.00445	-0.00366	PASS
	0°C/3.84 V	-0.00205	-0.00145	PASS
	-10°C/3.84 V	-0.00125	-0.00206	PASS
	-20°C/3.84 V	-0.00059	-0.00197	PASS
	-30°C/3.84 V	-0.00227	-0.00597	PASS
	20°C/4.4 V	-0.00579	-0.00502	PASS
20°C/3.5 V	-0.00292	-0.00440	PASS	
3MHz	50°C/3.84 V	-0.00189	0.00055	PASS
	40°C/3.84 V	-0.00140	0.00050	PASS
	30°C/3.84 V	-0.00180	0.00077	PASS
	20°C/3.84 V	-0.00071	-0.00121	PASS
	10°C/3.84 V	-0.00043	-0.00135	PASS
	0°C/3.84 V	-0.00155	-0.00202	PASS
	-10°C/3.84 V	-0.00091	-0.00131	PASS
	-20°C/3.84 V	0.00135	-0.00044	PASS



	-30°C/3.84 V	0.00063	-0.00083	PASS
	20°C/4.4 V	-0.00136	-0.00135	PASS
	20°C/3.5 V	-0.00084	-0.00031	PASS
5MHz	50°C/3.84 V	0.00171	0.00149	PASS
	40°C/3.84 V	-0.00103	0.00089	PASS
	30°C/3.84 V	-0.00089	-0.00013	PASS
	20°C/3.84 V	0.00044	-0.00022	PASS
	10°C/3.84 V	-0.00135	-0.00102	PASS
	0°C/3.84 V	0.00020	-0.00076	PASS
	-10°C/3.84 V	-0.00091	0.00103	PASS
	-20°C/3.84 V	-0.00115	0.00050	PASS
	-30°C/3.84 V	0.00077	-0.00059	PASS
	20°C/4.4 V	0.00102	0.00038	PASS
	20°C/3.5 V	-0.00063	0.00098	PASS
	10MHz	50°C/3.84 V	0.00170	-0.00089
40°C/3.84 V		-0.00075	-0.00031	PASS
30°C/3.84 V		-0.00013	-0.00039	PASS
20°C/3.84 V		0.00061	0.00076	PASS
10°C/3.84 V		0.00133	0.00099	PASS
0°C/3.84 V		-0.00155	0.00063	PASS
-10°C/3.84 V		-0.00103	-0.00051	PASS
-20°C/3.84 V		-0.00096	-0.00100	PASS
-30°C/3.84 V		-0.00139	-0.00118	PASS
20°C/4.4 V		0.00156	0.00061	PASS
20°C/3.5 V		0.00083	-0.00169	PASS
15MHz		50°C/3.84 V	0.00165	-0.00115
	40°C/3.84 V	0.00133	0.00098	PASS
	30°C/3.84 V	0.00086	0.00106	PASS
	20°C/3.84 V	-0.00083	0.00042	PASS
	10°C/3.84 V	-0.00075	-0.00032	PASS
	0°C/3.84 V	0.00033	0.00022	PASS
	-10°C/3.84 V	0.00020	-0.00104	PASS
	-20°C/3.84 V	-0.00059	-0.00099	PASS
	-30°C/3.84 V	-0.00064	-0.00058	PASS
	20°C/4.4 V	-0.00121	0.00038	PASS
	20°C/3.5 V	0.00136	0.00099	PASS
	20MHz	50°C/3.84 V	0.00109	-0.00127
40°C/3.84 V		-0.00102	0.00079	PASS
30°C/3.84 V		0.00139	0.00061	PASS
20°C/3.84 V		-0.00013	0.00041	PASS



	10°C/3.84 V	-0.00081	-0.00121	PASS
	0°C/3.84 V	-0.00177	-0.00104	PASS
	-10°C/3.84 V	0.00046	-0.00080	PASS
	-20°C/3.84 V	0.00089	0.00084	PASS
	-30°C/3.84 V	0.00133	0.00057	PASS
	20°C/4.4 V	-0.00096	-0.00084	PASS
	20°C/3.5 V	-0.00037	-0.00139	PASS

Bandwidth	Test status	LTE Band 12 Channel 23095 Test Results (ppm)		
		QPSK	16QAM	Conclusion
1.4M	50°C/3.84 V	-0.00386	0.00114	PASS
	40°C/3.84 V	-0.00297	-0.00174	PASS
	30°C/3.84 V	-0.00252	-0.00155	PASS
	20°C/3.84 V	-0.00174	-0.00358	PASS
	10°C/3.84 V	-0.00079	0.00037	PASS
	0°C/3.84 V	-0.00017	-0.00076	PASS
	-10°C/3.84 V	0.00099	-0.00103	PASS
	-20°C/3.84 V	0.00045	-0.00201	PASS
	-30°C/3.84 V	-0.00025	-0.00110	PASS
	20°C/4.4 V	-0.00187	-0.00064	PASS
	20°C/3.5 V	-0.00263	0.00085	PASS
3M	50°C/3.84 V	-0.00418	0.00114	PASS
	40°C/3.84 V	-0.00202	0.00038	PASS
	30°C/3.84 V	-0.00297	-0.00082	PASS
	20°C/3.84 V	-0.00229	-0.00202	PASS
	10°C/3.84 V	0.00058	-0.00229	PASS
	0°C/3.84 V	0.00021	-0.00266	PASS
	-10°C/3.84 V	0.00031	-0.00109	PASS
	-20°C/3.84 V	-0.00112	-0.00146	PASS
	-30°C/3.84 V	-0.00229	-0.00178	PASS
	20°C/4.4 V	-0.00300	0.00113	PASS
	20°C/3.5 V	-0.00298	-0.00369	PASS
5MHz	50°C/3.84 V	-0.00403	0.00100	PASS
	40°C/3.84 V	-0.00369	-0.00331	PASS
	30°C/3.84 V	-0.00257	-0.00261	PASS
	20°C/3.84 V	-0.00254	-0.00220	PASS
	10°C/3.84 V	-0.00144	-0.00273	PASS
	0°C/3.84 V	-0.00103	0.00017	PASS
	-10°C/3.84 V	0.00099	-0.00024	PASS



	-20°C/3.84 V	0.00030	-0.00071	PASS
	-30°C/3.84 V	-0.00253	-0.00230	PASS
	20°C/4.4 V	-0.00379	-0.00172	PASS
	20°C/3.5 V	-0.00114	0.00090	PASS
10MHz	50°C/3.84 V	-0.00389	-0.00232	PASS
	40°C/3.84 V	0.00096	-0.00253	PASS
	30°C/3.84 V	-0.00178	-0.00054	PASS
	20°C/3.84 V	-0.00076	-0.00017	PASS
	10°C/3.84 V	-0.00249	-0.00304	PASS
	0°C/3.84 V	-0.00336	-0.00298	PASS
	-10°C/3.84 V	-0.00370	-0.00131	PASS
	-20°C/3.84 V	-0.00086	-0.00140	PASS
	-30°C/3.84 V	0.00033	0.00086	PASS
	20°C/4.4 V	0.00064	0.00048	PASS
20°C/3.5 V	-0.00093	0.00028	PASS	

Bandwidth	Test status	LTE Band 41 Channel 40620 Test Results (ppm)		
		QPSK	16QAM	Conclusion
5MHz	50°C/3.84 V	-0.00052	0.00029	PASS
	40°C/3.84 V	-0.00090	-0.00056	PASS
	30°C/3.84 V	-0.00106	-0.00048	PASS
	20°C/3.84 V	-0.00073	-0.00020	PASS
	10°C/3.84 V	0.00055	0.00029	PASS
	0°C/3.84 V	0.00067	0.00055	PASS
	-10°C/3.84 V	0.00018	0.00103	PASS
	-20°C/3.84 V	0.00010	-0.00111	PASS
	-30°C/3.84 V	-0.00033	-0.00116	PASS
	20°C/4.4 V	-0.00028	-0.00099	PASS
20°C/3.5 V	0.00082	-0.00090	PASS	
10MHz	50°C/3.84 V	-0.00094	0.00068	PASS
	40°C/3.84 V	-0.00071	-0.00072	PASS
	30°C/3.84 V	-0.00060	-0.00052	PASS
	20°C/3.84 V	-0.00047	-0.00064	PASS
	10°C/3.84 V	-0.00039	-0.00028	PASS
	0°C/3.84 V	-0.00074	-0.00024	PASS
	-10°C/3.84 V	-0.00073	0.00031	PASS
	-20°C/3.84 V	-0.00082	0.00008	PASS
-30°C/3.84 V	0.00013	0.00013	PASS	



	20°C/4.4 V	0.00029	0.00069	PASS
	20°C/3.5 V	-0.00015	-0.00069	PASS
15MHz	50°C/3.84 V	0.00059	-0.00056	PASS
	40°C/3.84 V	-0.00050	-0.00102	PASS
	30°C/3.84 V	-0.00047	-0.00051	PASS
	20°C/3.84 V	-0.00064	-0.00017	PASS
	10°C/3.84 V	-0.00098	0.00052	PASS
	0°C/3.84 V	-0.00099	0.00021	PASS
	-10°C/3.84 V	0.00029	0.00043	PASS
	-20°C/3.84 V	0.00014	0.00040	PASS
	-30°C/3.84 V	-0.00029	-0.00071	PASS
	20°C/4.4 V	-0.00025	-0.00022	PASS
	20°C/3.5 V	0.00069	-0.00026	PASS
20MHz	50°C/3.84 V	0.00051	-0.00123	PASS
	40°C/3.84 V	0.00036	0.00083	PASS
	30°C/3.84 V	0.00052	0.00067	PASS
	20°C/3.84 V	-0.00064	-0.00017	PASS
	10°C/3.84 V	-0.00055	-0.00102	PASS
	0°C/3.84 V	-0.00094	-0.00111	PASS
	-10°C/3.84 V	-0.00116	0.00030	PASS
	-20°C/3.84 V	-0.00068	0.00034	PASS
	-30°C/3.84 V	-0.00055	-0.00027	PASS
	20°C/4.4 V	0.00029	-0.00072	PASS
	20°C/3.5 V	0.00025	-0.00063	PASS

### 4.7 Spurious Emissions at Antenna Terminals

#### Ambient condition

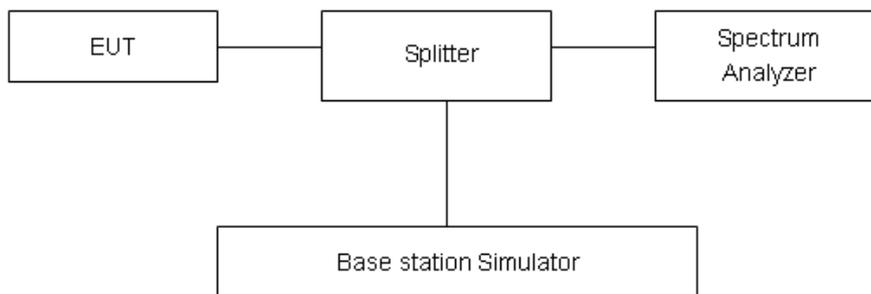
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

#### Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used. RBW and VBW are set to 100 kHz for the carrier frequency, or RBW and VBW are set to 1MHz (other frequency), Sweep is set to ATUO.

Of those disturbances below (limit – 20 dB), the mark is not required for the EUT.

#### Test setup



#### Limits

LTE -4/12 Rule Part 27.53(h) specifies that “the power of any emission outside a licensee’s frequency block shall be attenuated below the transmitter power (P) by at least 43 + 10 log<sub>10</sub>(P) dB.”

LTE -41 Rule Part 27.53(m) 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section.

LTE -4/12 Limit	-13 dBm
LTE -41 Limit	-25 dBm

#### Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor  $k = 1.96$ .

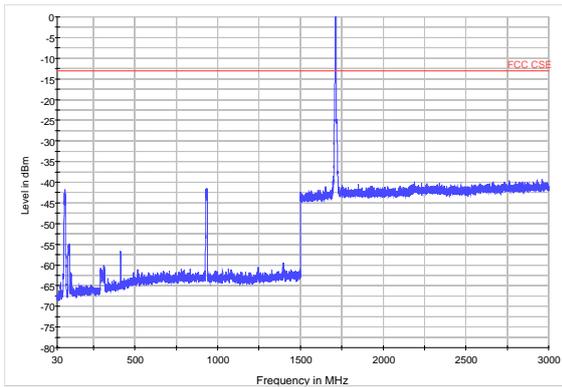
Frequency	Uncertainty
100kHz-2GHz	0.684 dB
2GHz-12.75GHz	1.407 dB

**Test Result: PASS**

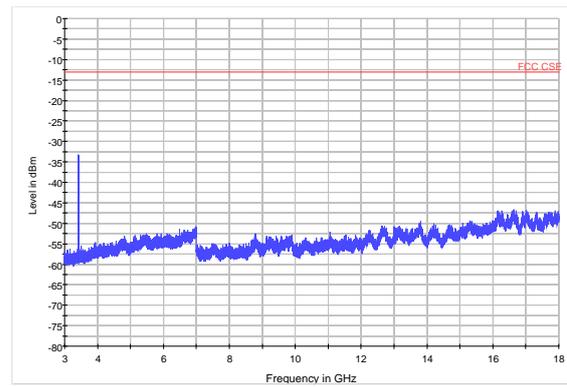
If disturbances were found more than 20dB below limit line, the mark is not required for the EUT.  
The signal beyond the limit is carrier in the following plots.

Test Data File Name	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
LTE B4 1.4M RB1_CHLOW_3-18GHz	3420.4	-31.36	-13	18.36
LTE B4 1.4M RB1_CHMID_3-18GHz	3463.9	-29.73	-13	16.73
LTE B4 3M RB1_CHLOW_3-18GHz	3420.4	-31.26	-13	18.26
LTE B4 3M RB1_CHMID_3-18GHz	3462.4	-29.97	-13	16.97
LTE B4 5M RB1_CHLOW_3-18GHz	3420.4	-31.35	-13	18.35
LTE B4 5M RB1_CHMID_3-18GHz	3460.5	-29.51	-13	16.51
LTE B4 10M RB1_CHLOW_3-18GHz	3429.8	-30.10	-13	17.10
LTE B4 10M RB1_CHMID_3-18GHz	3465.0	-30.02	-13	17.02
LTE B4 15M RB1_CHLOW_3-18GHz	3435.0	-29.80	-13	16.80
LTE B4 15M RB1_CHMID_3-18GHz	3465.0	-30.01	-13	17.01
LTE B4 20M RB1_CHLOW_3-18GHz	3439.9	-28.76	-13	15.76
LTE B4 20M RB1_CHMID_3-18GHz	3465.0	-30.04	-13	17.04
LTE B41 5M RB1_CHLOW_3-18GHz	7489.1	-26.47	-25.00	1.47
LTE B41 5M RB1_CHMID_3-18GHz	7771.9	-32.84	-25.00	7.84
LTE B41 5M RB1_CHMID_3-18GHz	7860.8	-42.20	-25.00	17.20
LTE B41 5M RB1_CHMID_3-18GHz	8056.1	-38.71	-25.00	13.71
LTE B41 10M RB1_CHLOW_3-18GHz	5002.5	-42.81	-25.00	17.81
LTE B41 10M RB1_CHLOW_3-18GHz	7503.4	-26.36	-25.00	1.36
LTE B41 10M RB1_CHMID_3-18GHz	7792.5	-34.44	-25.00	9.44
LTE B41 10M RB1_CHHIG_3-18GHz	4861.1	-41.98	-25.00	16.98
LTE B41 10M RB1_CHHIG_3-18GHz	7548.0	-43.49	-25.00	18.49
LTE B41 10M RB1_CHHIG_3-18GHz	8055.4	-38.86	-25.00	13.86
LTE B41 15M RB1_CHLOW_3-18GHz	5007.4	-44.88	-25.00	19.88
LTE B41 15M RB1_CHLOW_3-18GHz	7511.1	-26.19	-25.00	1.19
LTE B41 15M RB1_CHMID_3-18GHz	7758.8	-30.36	-25.00	5.36
LTE B41 15M RB1_CHHIG_3-18GHz	4856.6	-43.06	-25.00	18.06
LTE B41 15M RB1_CHHIG_3-18GHz	7540.5	-43.40	-25.00	18.40
LTE B41 15M RB1_CHHIG_3-18GHz	8048.3	-38.95	-25.00	13.95
LTE B41 20M RB1_CHLOW_3-18GHz	5012.3	-40.32	-25.00	15.32
LTE B41 20M RB1_CHLOW_3-18GHz	7518.4	-26.26	-25.00	1.26
LTE B41 20M RB1_CHMID_3-18GHz	3106.1	-39.71	-25.00	14.71
LTE B41 20M RB1_CHMID_3-18GHz	7779.0	-33.95	-25.00	8.95

WCDMA Band IV CH1312

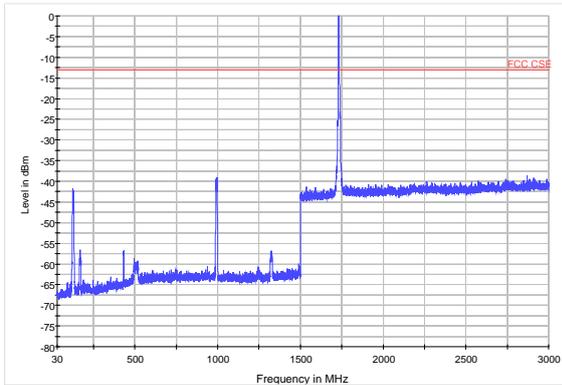


WCDMA Band IV Channel1312 30MHz~3GHz

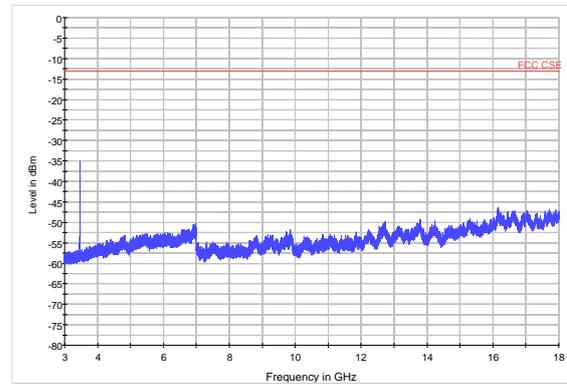


WCDMA Band IV Channel1312 3GHz ~18GHz

WCDMA Band IV CH1413

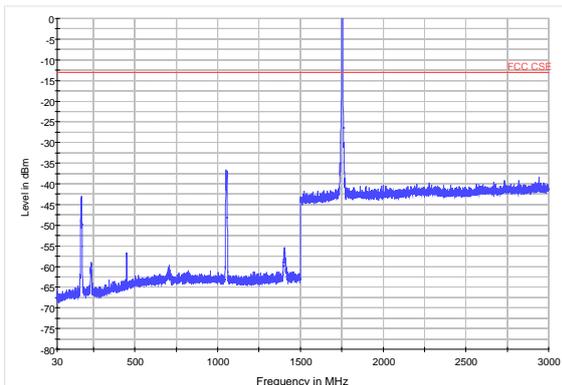


WCDMA Band IV Channel1413 30MHz~3GHz

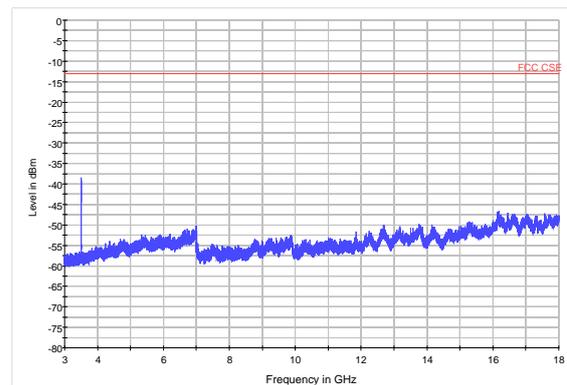


WCDMA Band IV Channel1413 3GHz ~18GHz

WCDMA Band IV CH1513

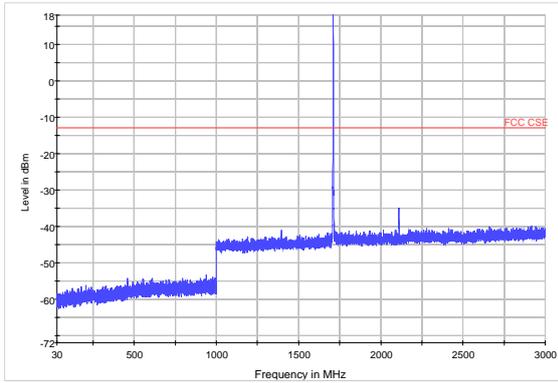


WCDMA Band IV Channel1513 30MHz~3GHz

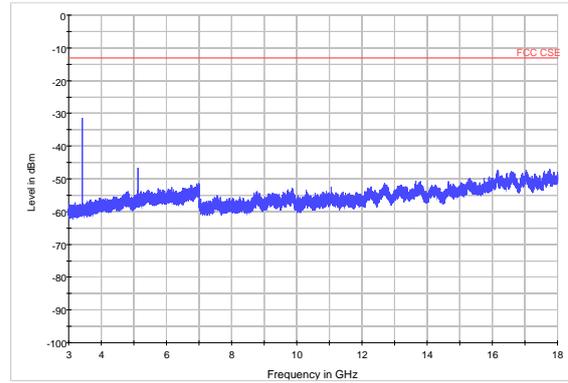


WCDMA Band IV Channel1513 3GHz ~18GHz

LTE Band 4 QPSK Bandwidth = 1.4MHz CH19957, RB 1

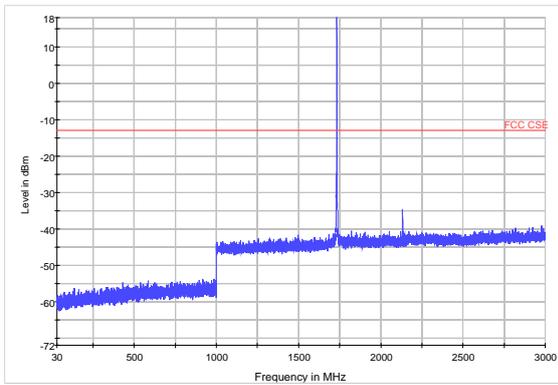


LTE Band 4 CH19957 30MHz~3GHz

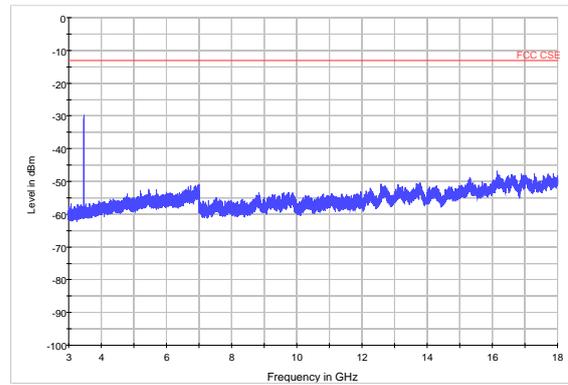


LTE Band 4 CH19957 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 1.4MHz CH20175, RB 1

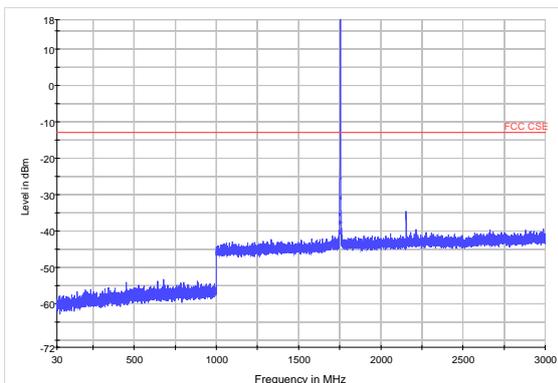


LTE Band 4 CH20175 30MHz~3GHz

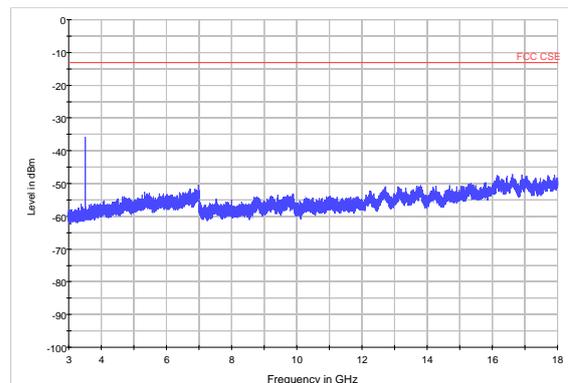


LTE Band 4 CH20175 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 1.4MHz CH20393, RB 1

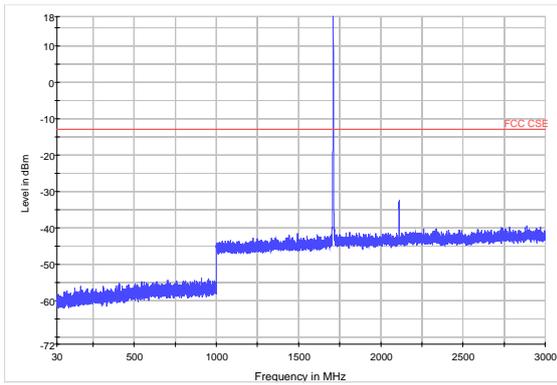


LTE Band 4 CH20393 30MHz~3GHz

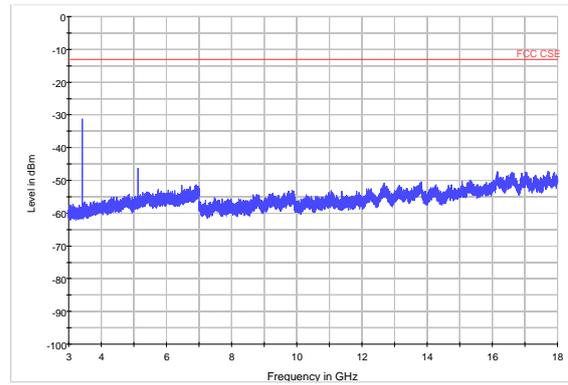


LTE Band 4 CH20393 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 3MHz CH19965, RB 1

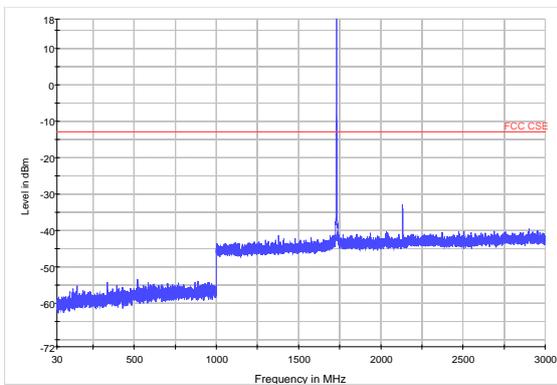


LTE Band 4 CH19965 30MHz~3GHz

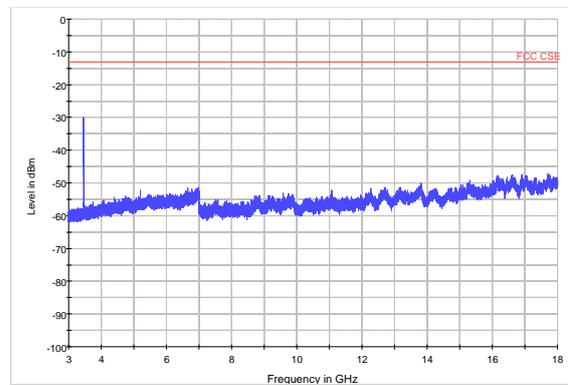


LTE Band 4 CH19965 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 3MHz CH20175, RB 1

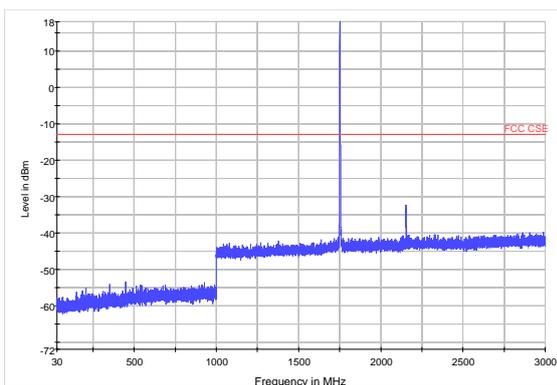


LTE Band 4 CH20175 30MHz~3GHz

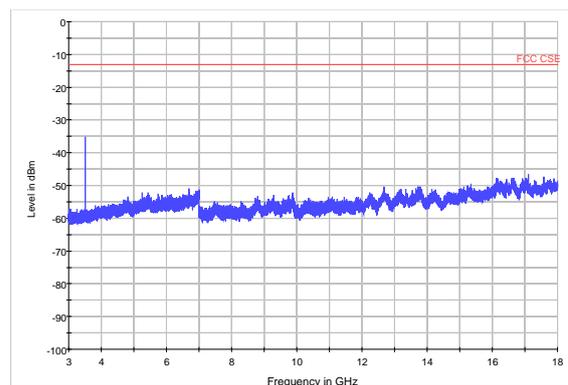


LTE Band 4 CH20175 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 3MHz CH20385, RB 1

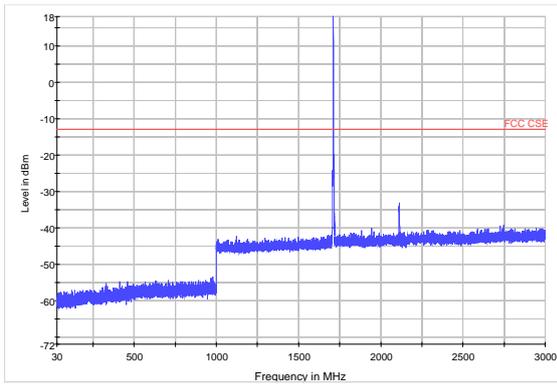


LTE Band 4 CH20385 30MHz~3GHz

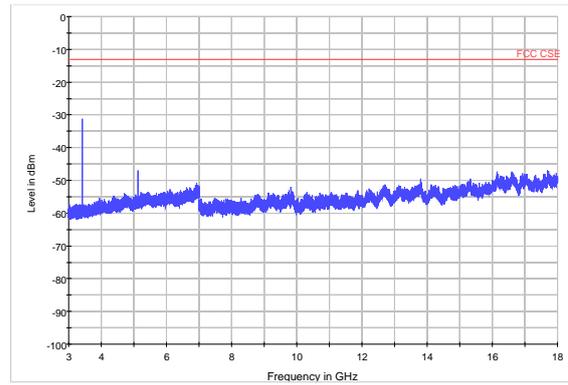


LTE Band 4 CH20385 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 5MHz CH19975, RB 1

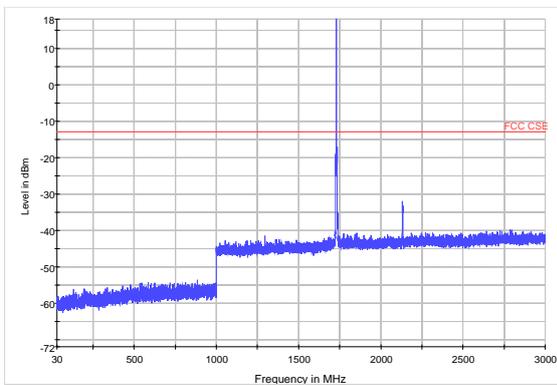


LTE Band 4 CH19975 30MHz~3GHz

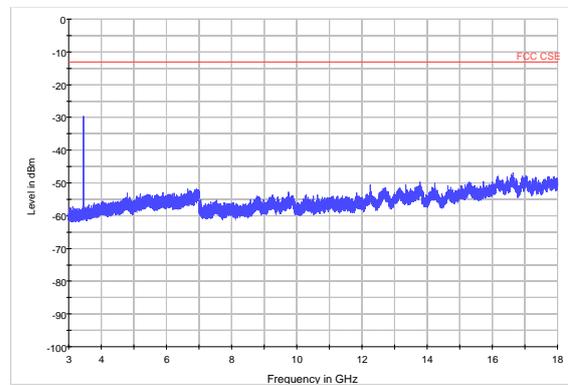


LTE Band 4 CH19975 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 5MHz CH20175, RB 1

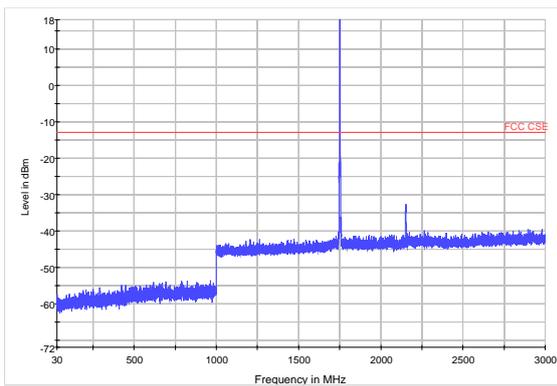


LTE Band 4 CH20175 30MHz~3GHz

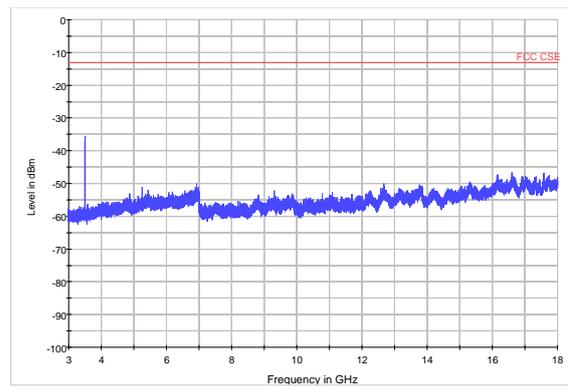


LTE Band 4 CH20175 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 5MHz CH20375, RB 1

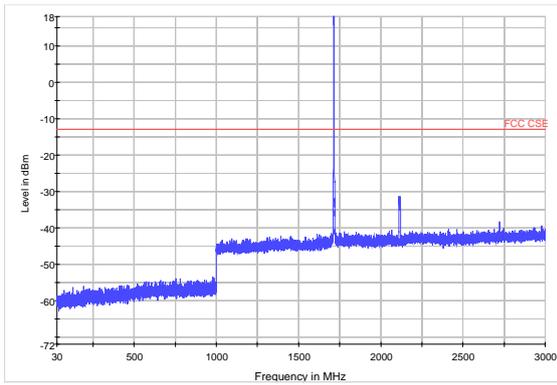


LTE Band 4 CH20375 30MHz~3GHz

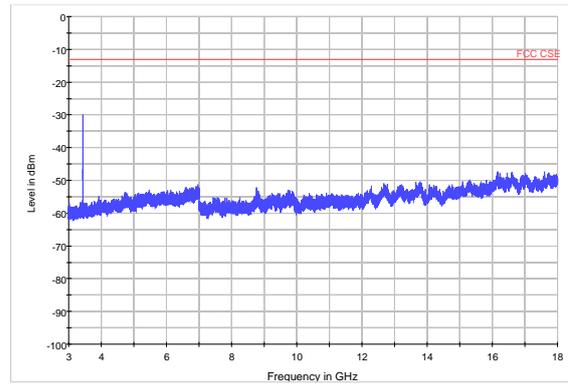


LTE Band 4 CH20375 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 10MHz CH20000, RB 1

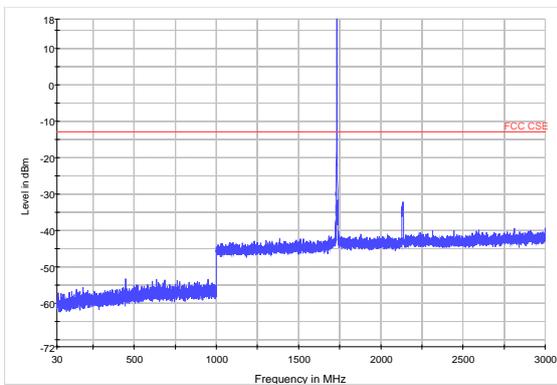


LTE Band 4 CH20000 30MHz~3GHz

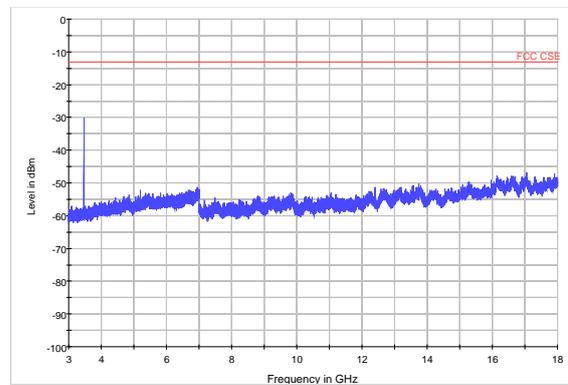


LTE Band 4 CH20000 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 10MHz CH20175, RB 1

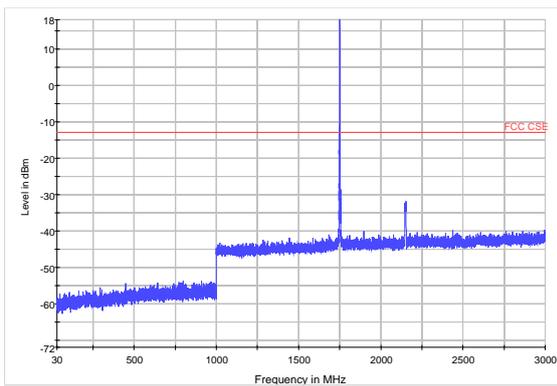


LTE Band 4 CH20175 30MHz~3GHz

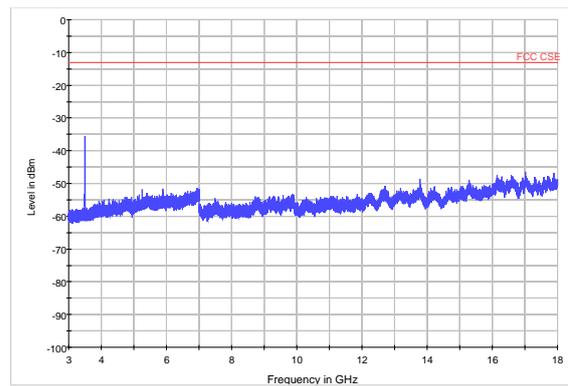


LTE Band 4 CH20175 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 10MHz CH20350, RB 1

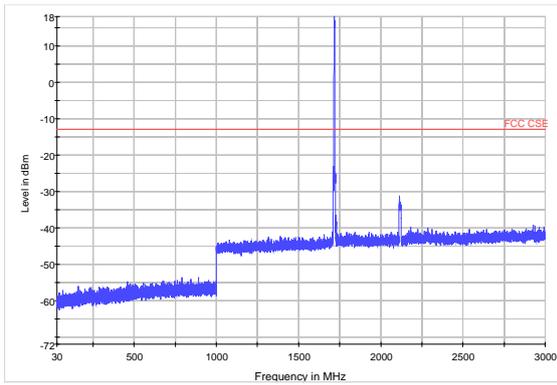


LTE Band 4 CH20350 30MHz~3GHz

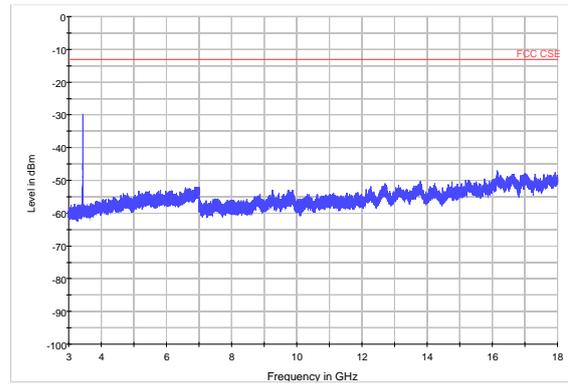


LTE Band 4 CH20350 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 15MHz CH20025, RB 1

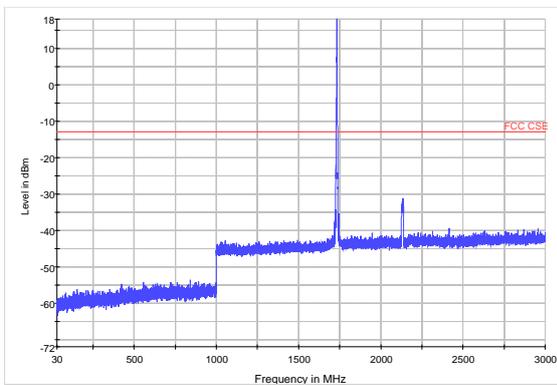


LTE Band 4 CH20025 30MHz~3GHz

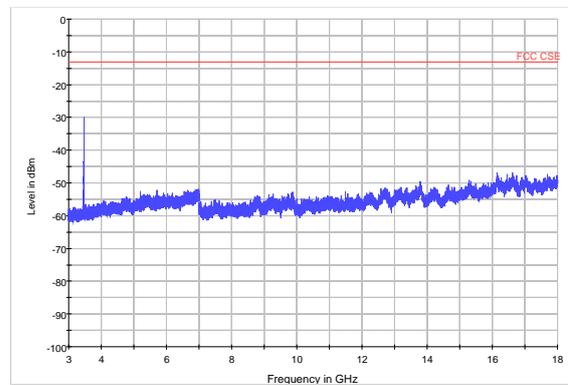


LTE Band 4 CH20025 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 15MHz CH20175, RB 1

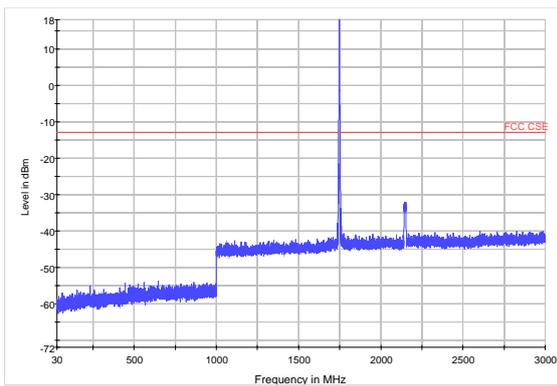


LTE Band 4 CH20175 30MHz~3GHz

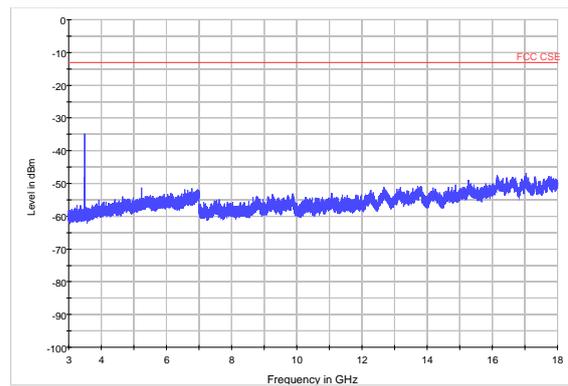


LTE Band 4 CH20175 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 15MHz CH20325, RB 1

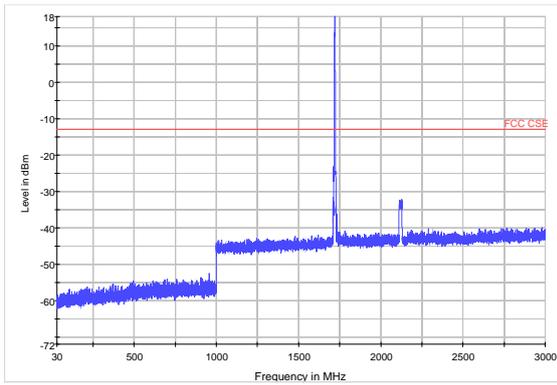


LTE Band 4 CH20325 30MHz~3GHz

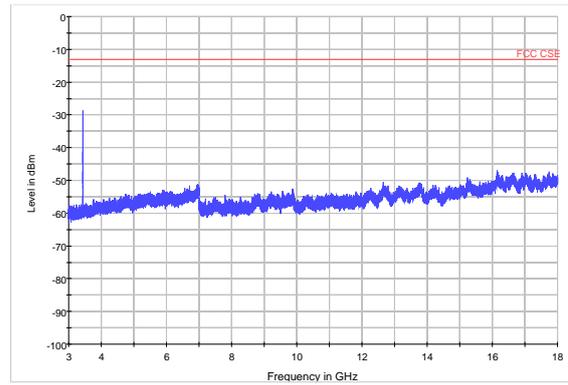


LTE Band 4 CH20325 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 20MHz CH20050, RB 1

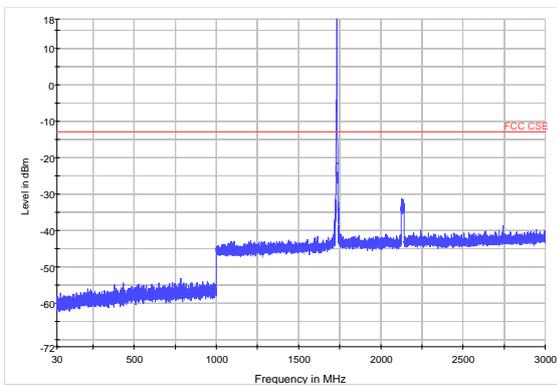


LTE Band 4 CH20050 30MHz~3GHz

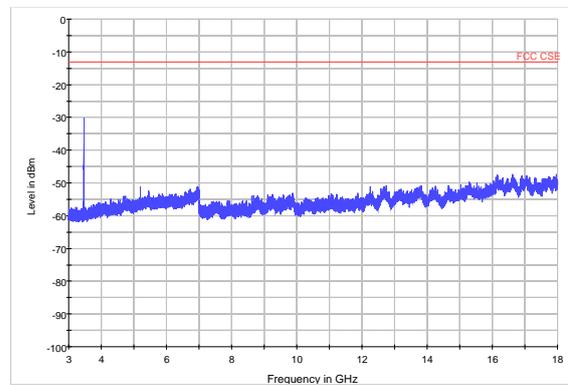


LTE Band 4 CH20050 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 20MHz CH20175, RB 1

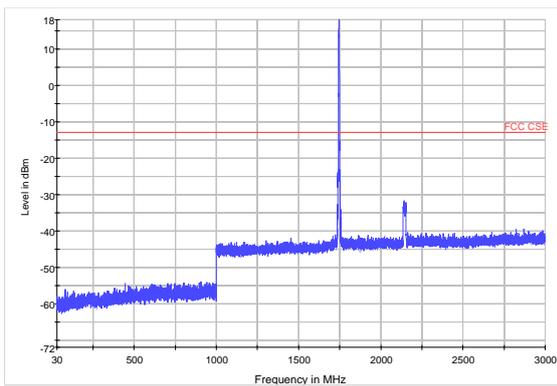


LTE Band 4 CH20175 30MHz~3GHz

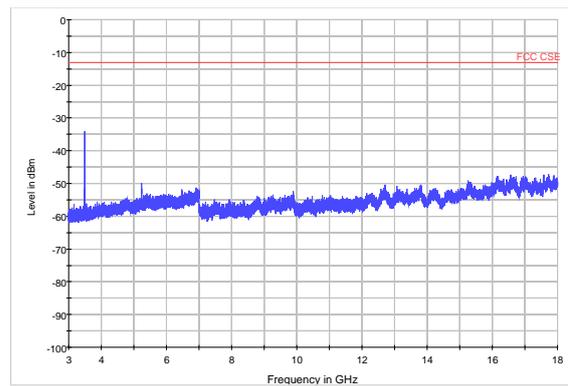


LTE Band 4 CH20175 3GHz~18GHz

LTE Band 4 QPSK Bandwidth = 20MHz CH20300, RB 1

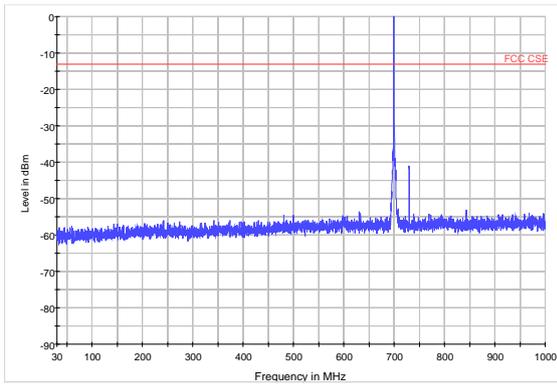


LTE Band 4 CH20300 30MHz~3GHz

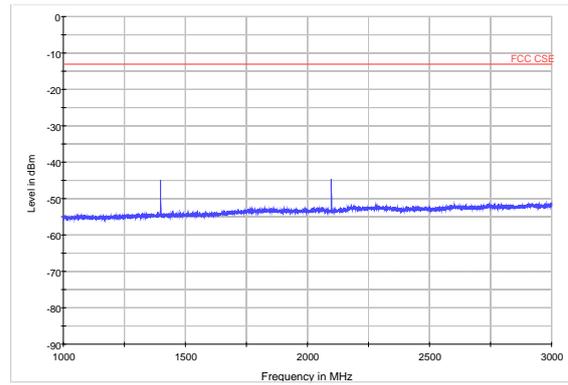


LTE Band 4 CH20300 3GHz~18GHz

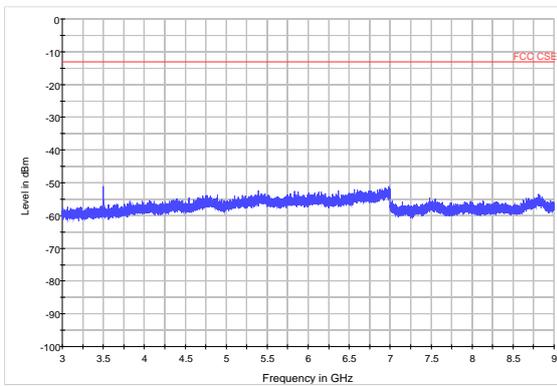
LTE Band 12 QPSK Bandwidth = 1.4MHz CH23017, RB 1



LTE Band 12 CH23017 30MHz~1GHz

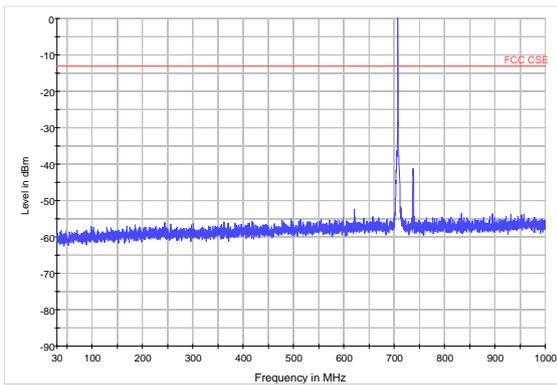


LTE Band 12 CH23017 1GHz~3GHz

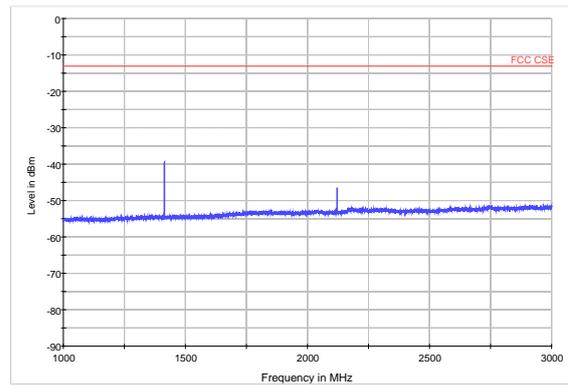


LTE Band 12 CH23017 3GHz~9GHz

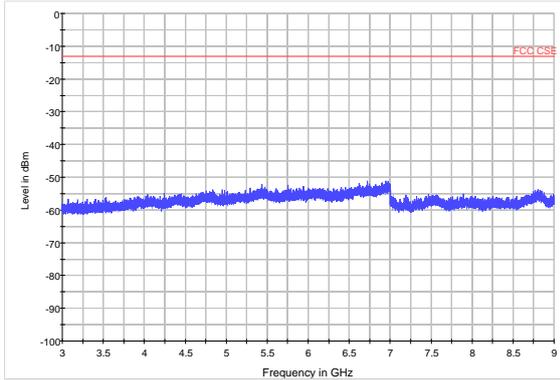
LTE Band 12 QPSK Bandwidth = 1.4MHz CH23095, RB 1



LTE Band 12 CH23095 30MHz~1GHz

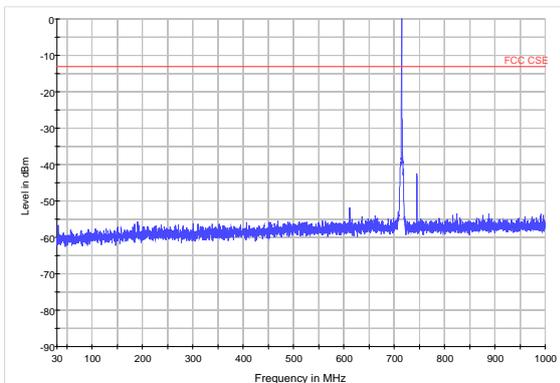


LTE Band 12 CH23095 1GHz~3GHz

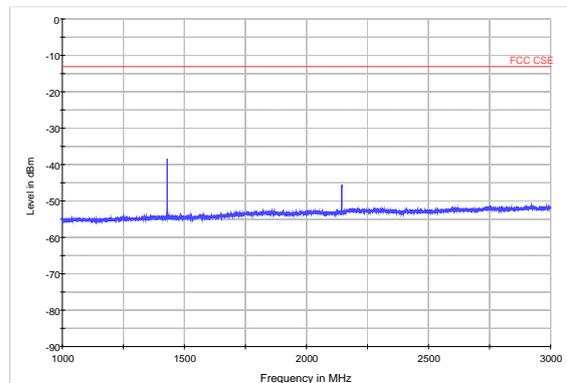


**LTE Band 12 CH23095 3GHz~9GHz**

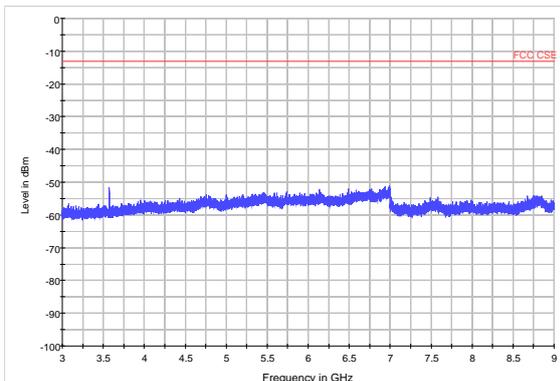
**LTE Band 12 QPSK Bandwidth = 1.4MHz CH23173, RB 1**



**LTE Band 12 CH23173 30MHz~1GHz**

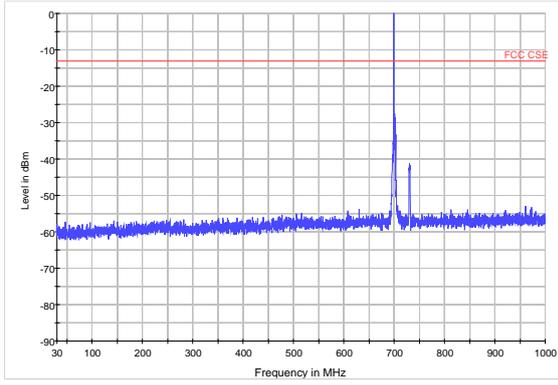


**LTE Band 12 CH23173 1GHz~3GHz**

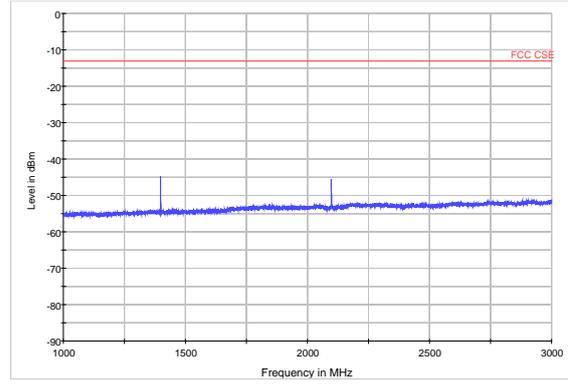


**LTE Band 12 CH23173 3GHz~9GHz**

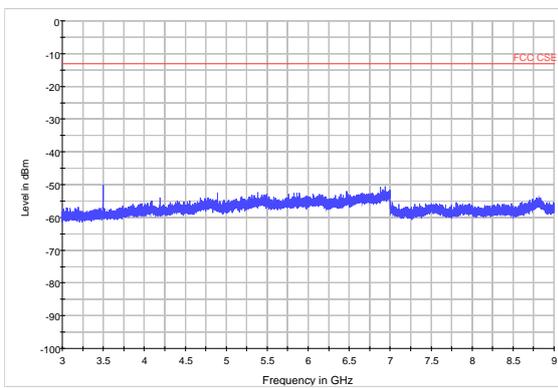
**LTE Band 12 QPSK Bandwidth = 3MHz CH23025, RB 1**



LTE Band 12 CH23025 30MHz~1GHz

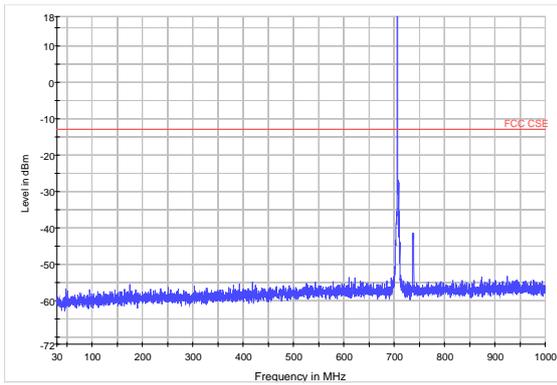


LTE Band 12 CH23025 1GHz~3GHz

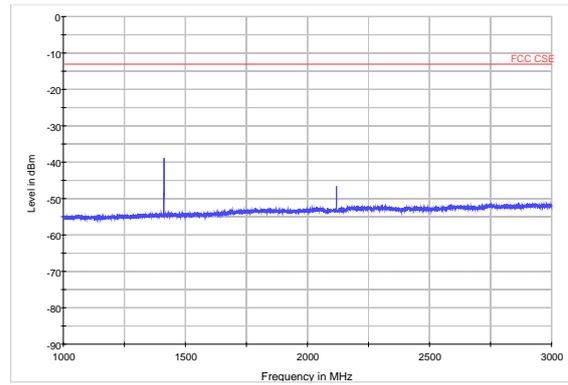


LTE Band 12 CH23025 3GHz~9GHz

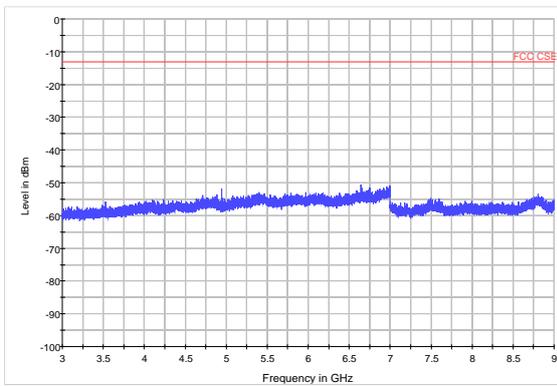
LTE Band 12 QPSK Bandwidth = 3MHz CH23095, RB 1



LTE Band 12 CH23095 30MHz~1GHz

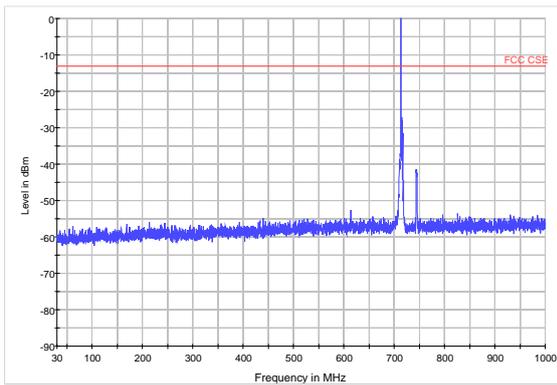


LTE Band 12 CH23095 1GHz~3GHz

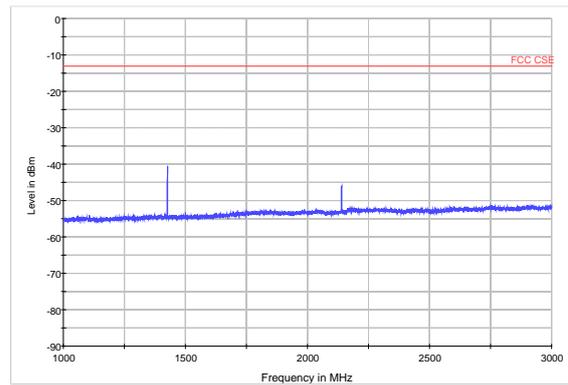


LTE Band 12 CH23095 3GHz~9GHz

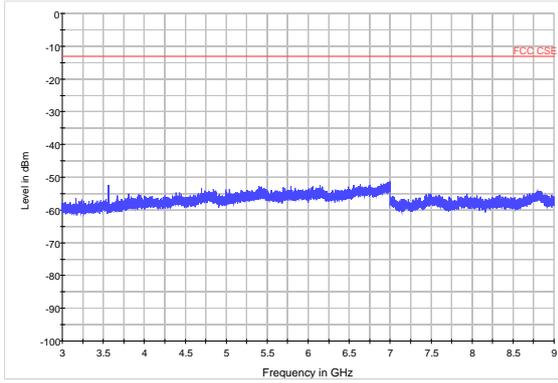
LTE Band 12 QPSK Bandwidth = 3MHz CH23165, RB 1



LTE Band 12 CH23165 30MHz~1GHz

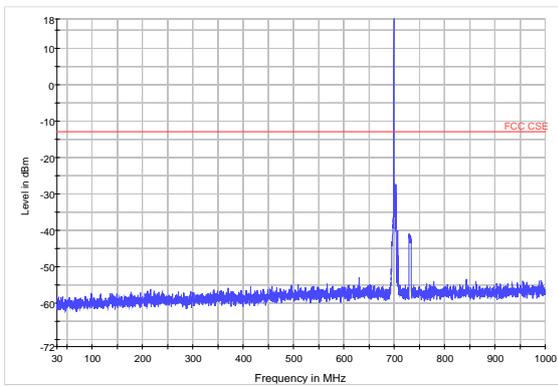


LTE Band 12 CH23165 1GHz~3GHz

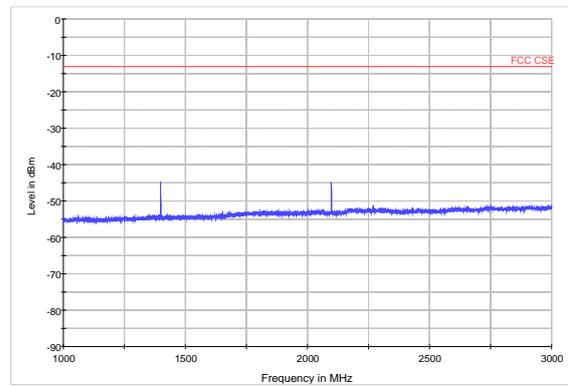


LTE Band 12 CH23165 3GHz~9GHz

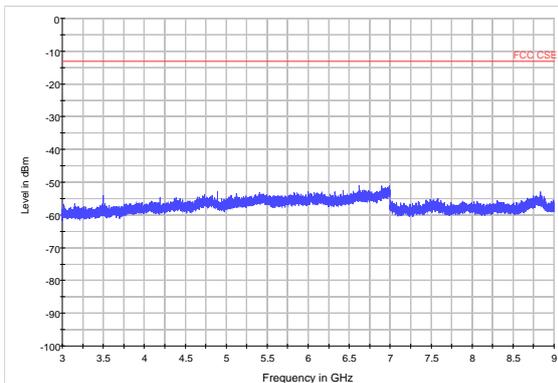
LTE Band 12 QPSK Bandwidth = 5MHz CH23035, RB 1



LTE Band 12 CH23035 30MHz~1GHz

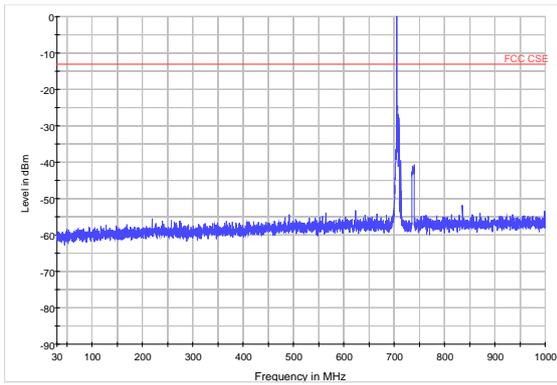


LTE Band 12 CH23035 1GHz~3GHz

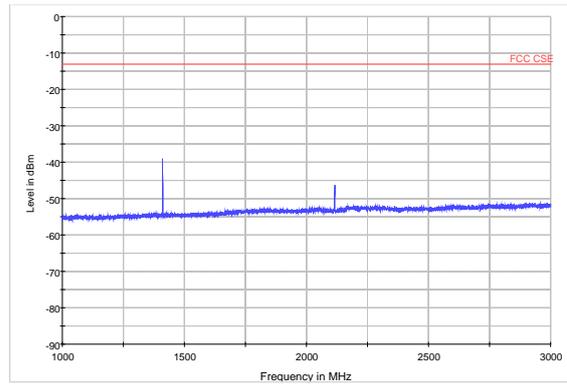


LTE Band 12 CH23035 3GHz~9GHz

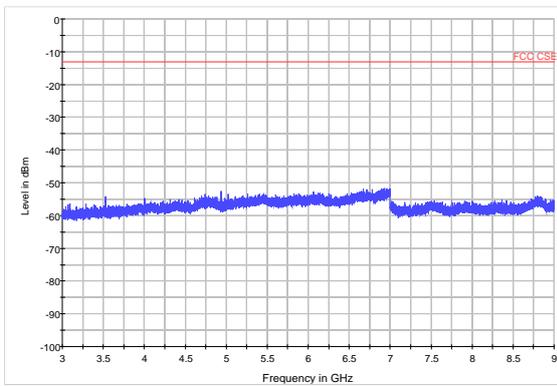
LTE Band 12 QPSK Bandwidth = 5MHz CH23095, RB 1



LTE Band 12 CH23095 30MHz~1GHz

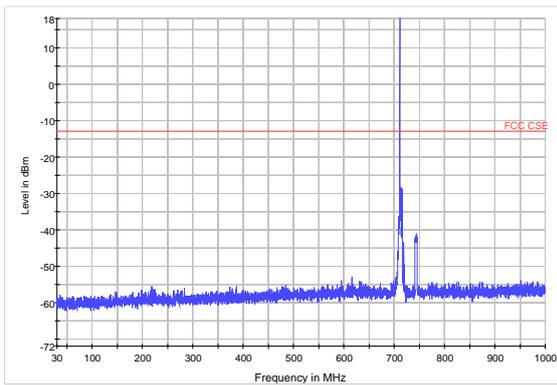


LTE Band 12 CH23095 1GHz~3GHz

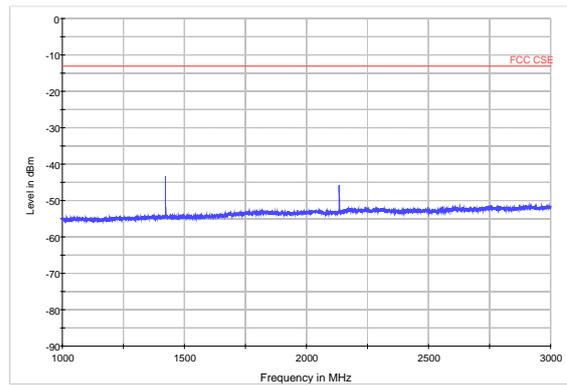


LTE Band 12 CH23095 3GHz~9GHz

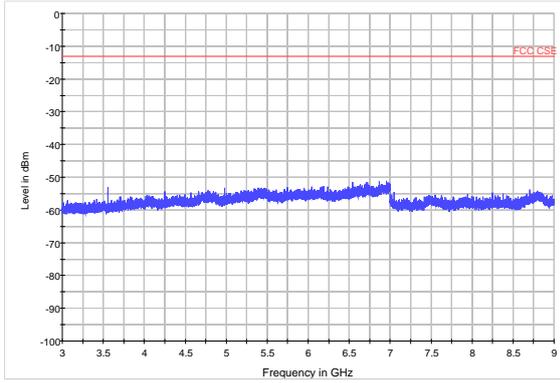
LTE Band 12 QPSK Bandwidth = 5MHz CH23155, RB 1



LTE Band 12 CH23155 30MHz~1GHz

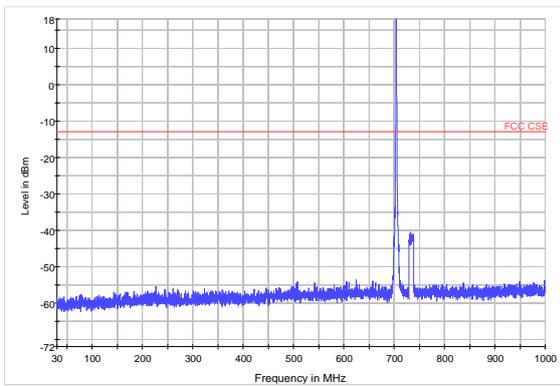


LTE Band 12 CH23155 1GHz~3GHz

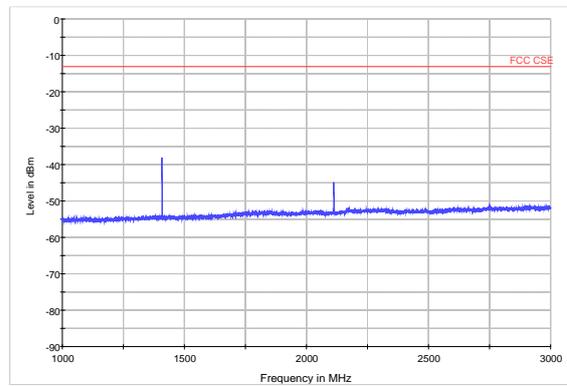


LTE Band 12 CH23155 3GHz~9GHz

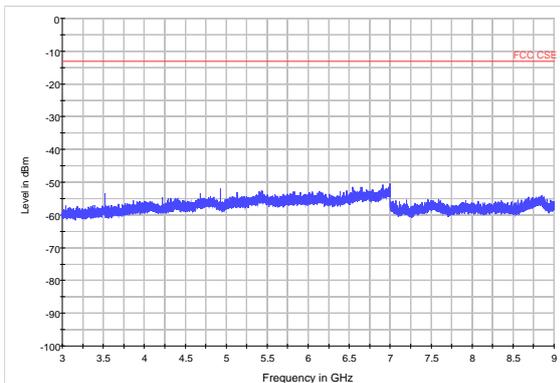
LTE Band 12 QPSK Bandwidth = 10MHz CH23060, RB 1



LTE Band 12 CH23060 30MHz~1GHz

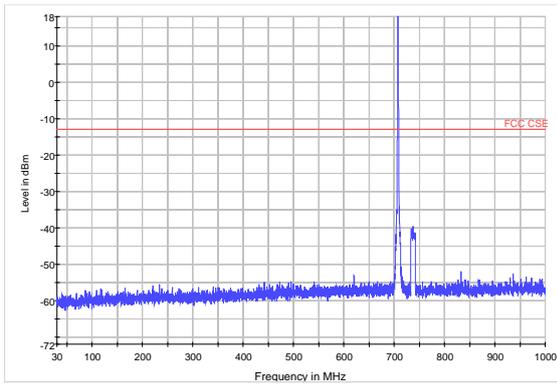


LTE Band 12 CH23060 1GHz~3GHz

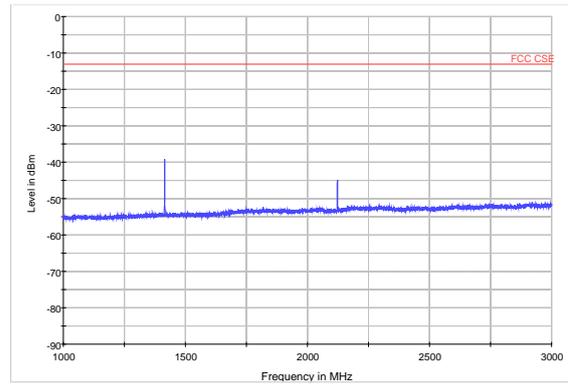


LTE Band 12 CH23060 3GHz~9GHz

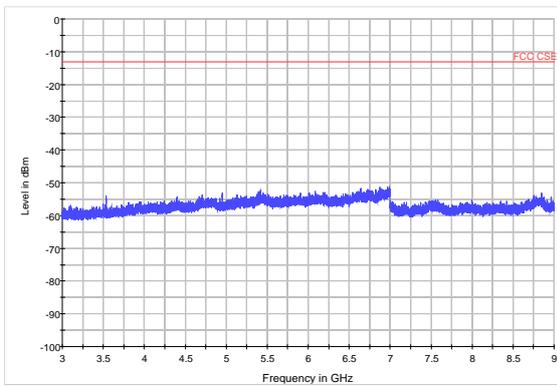
LTE Band 12 QPSK Bandwidth = 10MHz CH23095, RB 1



LTE Band 12 CH23095 30MHz~1GHz

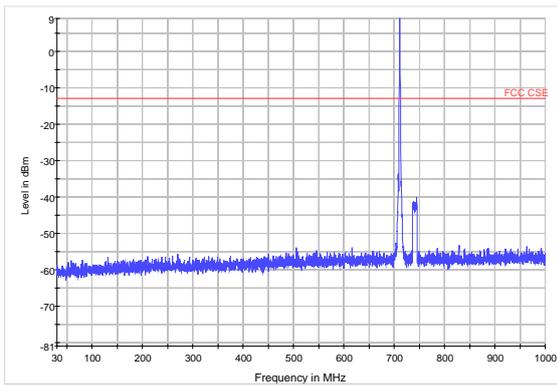


LTE Band 12 CH23095 1GHz~3GHz

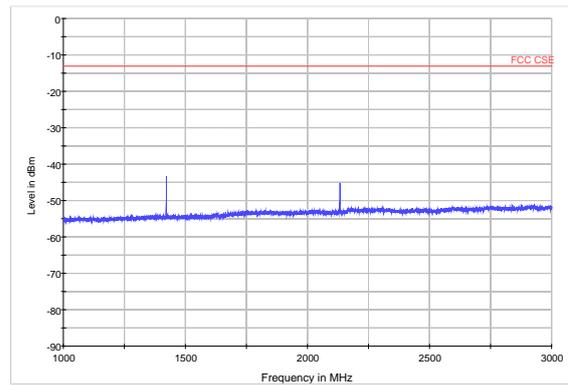


LTE Band 12 CH23095 3GHz~9GHz

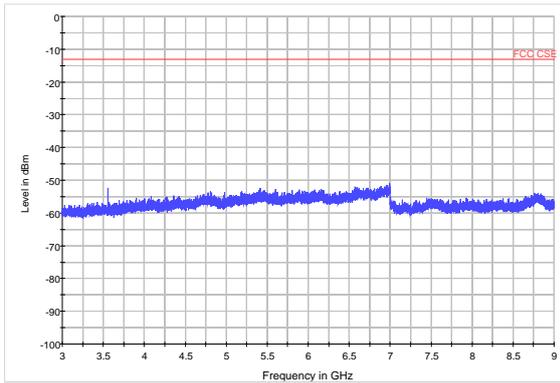
LTE Band 12 QPSK Bandwidth = 10MHz CH23130, RB 1



LTE Band 12 CH23130 30MHz~1GHz

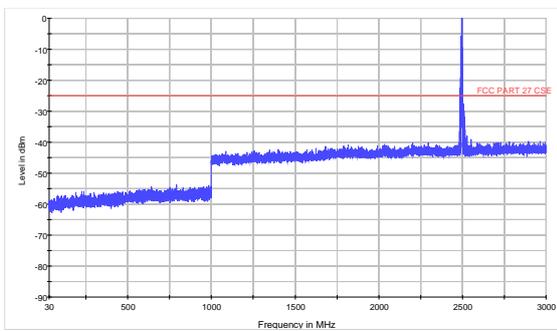


LTE Band 12 CH23130 1GHz~3GHz

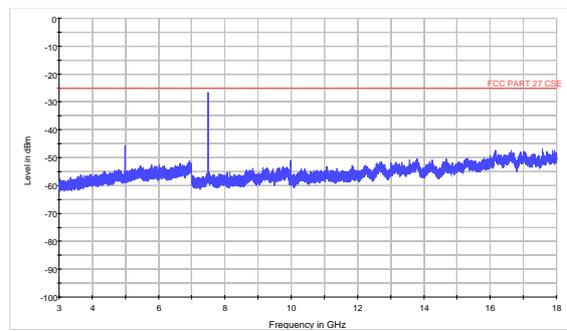


LTE Band 12 CH23130 3GHz~9GHz

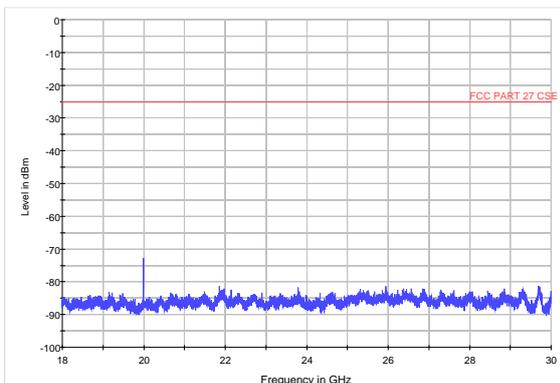
LTE Band 41 QPSK Bandwidth = 5MHz CH39675, RB 1



LTE Band 41 CH39675 30MHz~3GHz

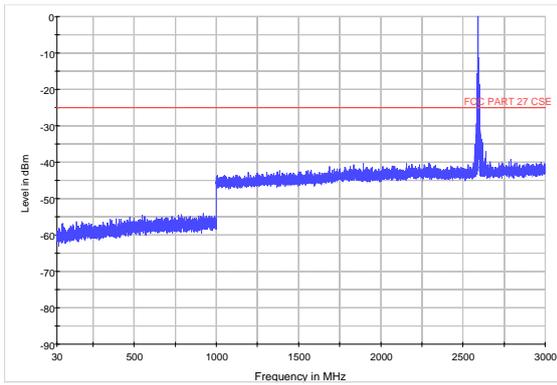


LTE Band CH427235 3GHz~18GHz

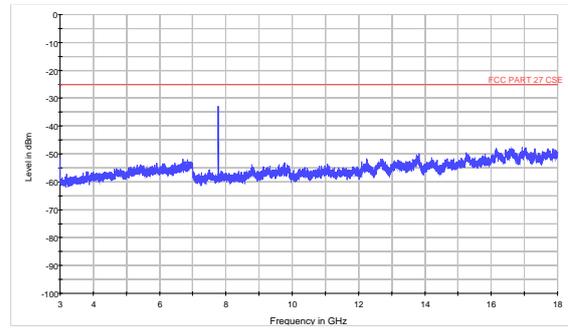


LTE Band 41 CH39675 18GHz~30GHz

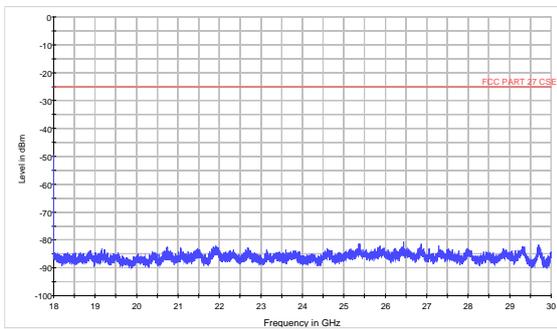
LTE Band 41 QPSK Bandwidth = 5MHz CH40620, RB 1



LTE Band 41 CH40620 30MHz~3GHz

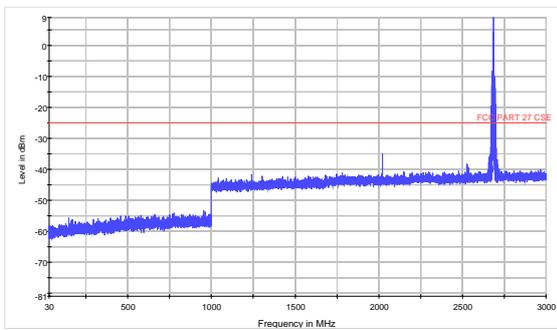


LTE Band 41 CH40620 3GHz~18GHz

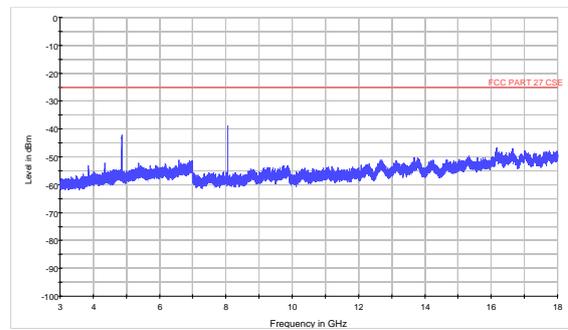


LTE Band 41 CH40620 18GHz~30GHz

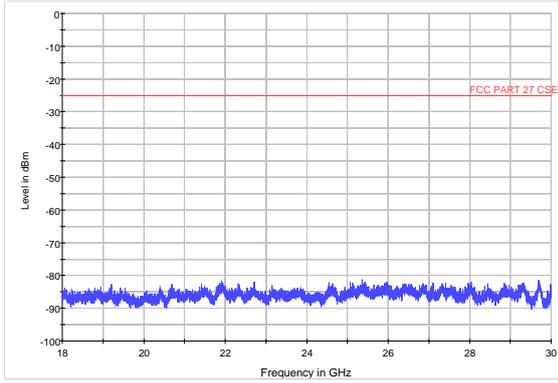
LTE Band 41 QPSK Bandwidth = 5MHz CH41565, RB 1



LTE Band 41 CH41565 30MHz~3GHz

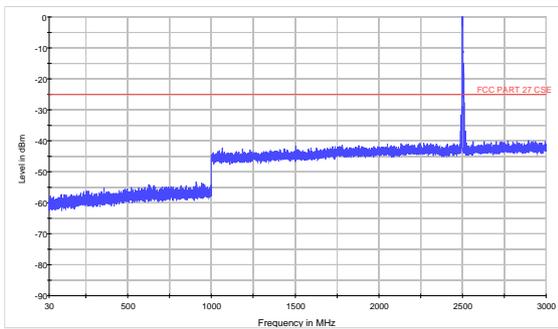


LTE Band 41 CH41565 3GHz~18GHz

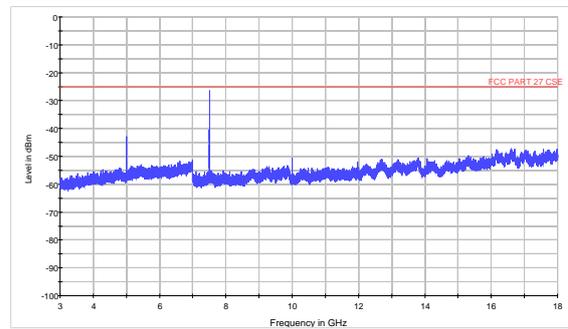


LTE Band 41 CH41565 18GHz~30GHz

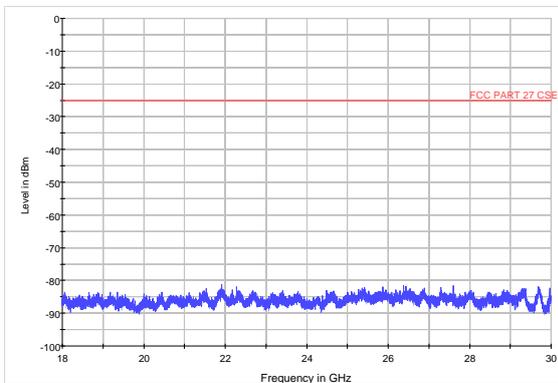
LTE Band 41 QPSK Bandwidth = 10MHz CH39700, RB 1



LTE Band 41 CH39700 30MHz~3GHz

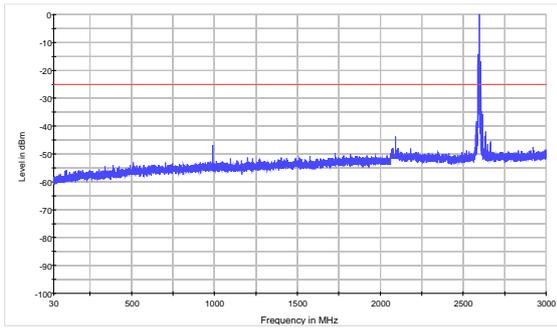


LTE Band 41 CH39700 3GHz~18GHz

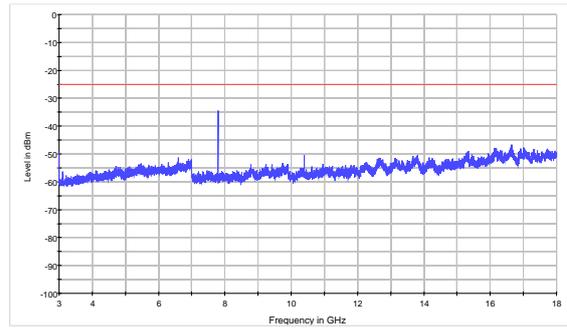


LTE Band 41 CH39700 18GHz~30GHz

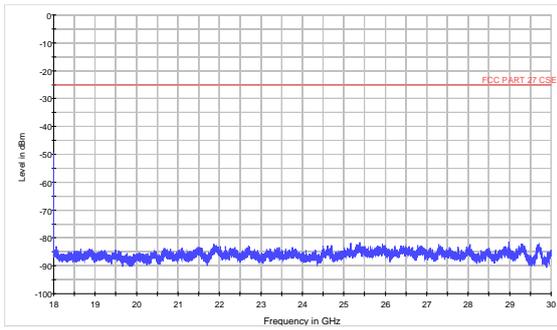
LTE Band 41 QPSK Bandwidth = 10MHz CH40620, RB 1



LTE Band 41 CH40620 30MHz~3GHz

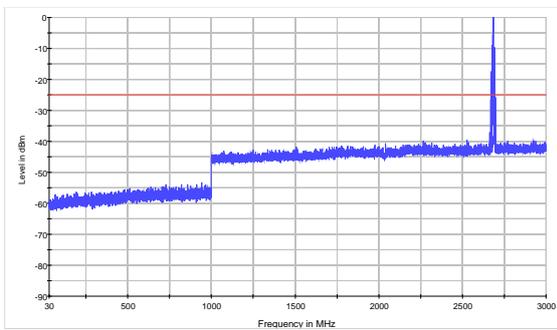


LTE Band 41 CH40620 3GHz~18GHz

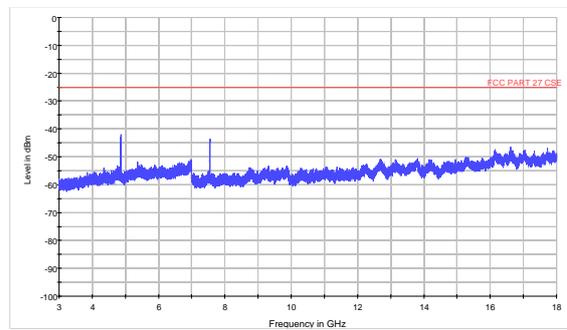


LTE Band 41 CH40620 18GHz~30GHz

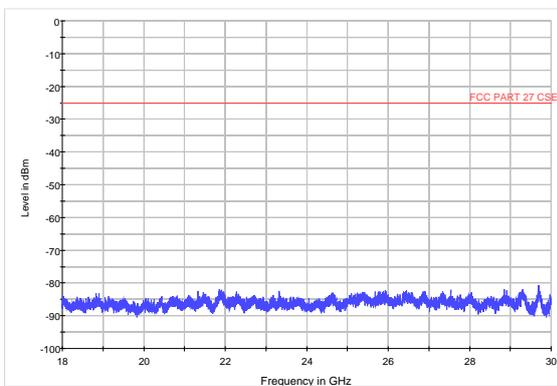
LTE Band 41 QPSK Bandwidth = 10MHz CH41540, RB 1



LTE Band 41 CH41540 30MHz~3GHz

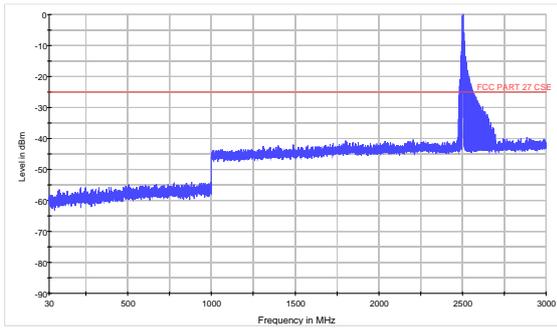


LTE Band 41 CH41540 3GHz~18GHz

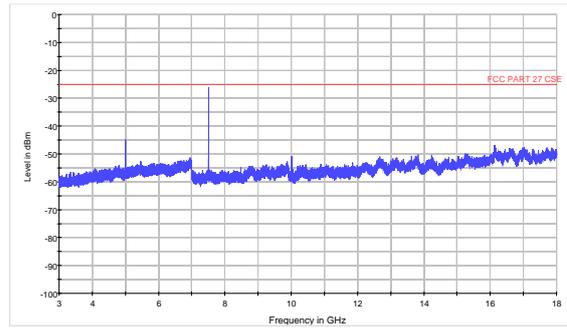


LTE Band 41 CH41540 18GHz~30GHz

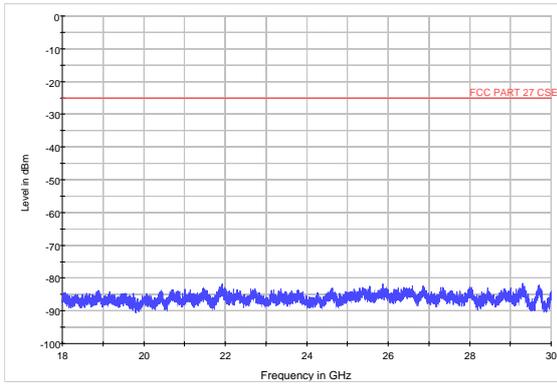
LTE Band 41 QPSK Bandwidth = 15MHz CH39725, RB 1



LTE Band 41 CH39725 30MHz~3GHz

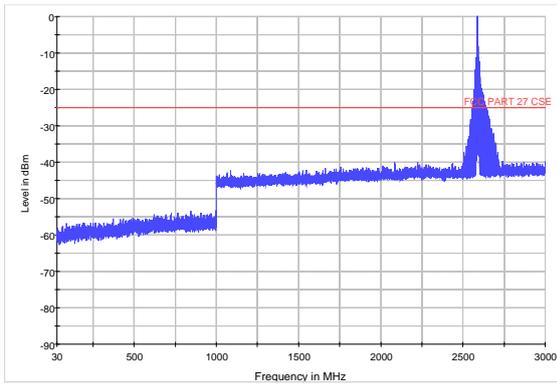


LTE Band 41 CH39725 3GHz~18GHz

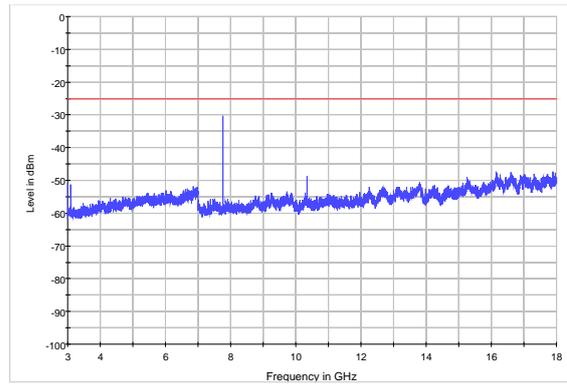


LTE Band 41 CH39725 18GHz~30GHz

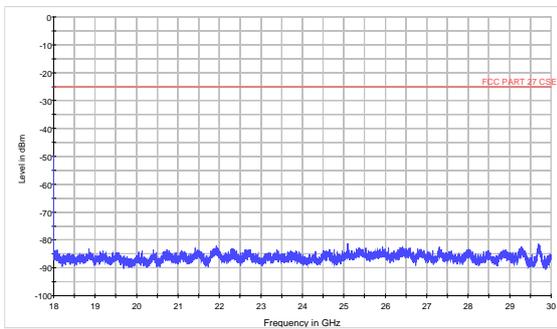
LTE Band 41 QPSK Bandwidth = 15MHz CH40620, RB 1



LTE Band 41 CH40620 30MHz~3GHz

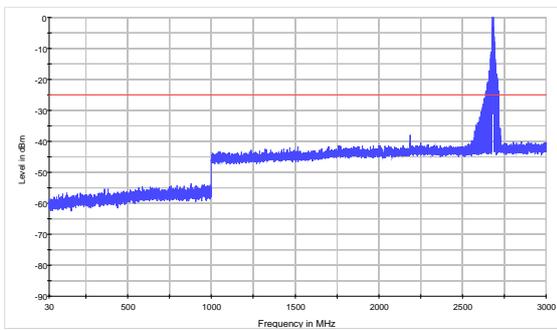


LTE Band 41 CH40620 3GHz~18GHz

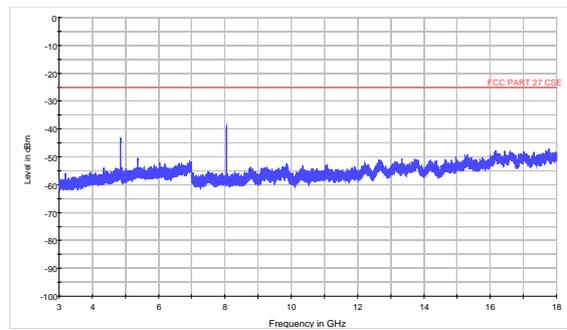


LTE Band 41 CH40620 18GHz~30GHz

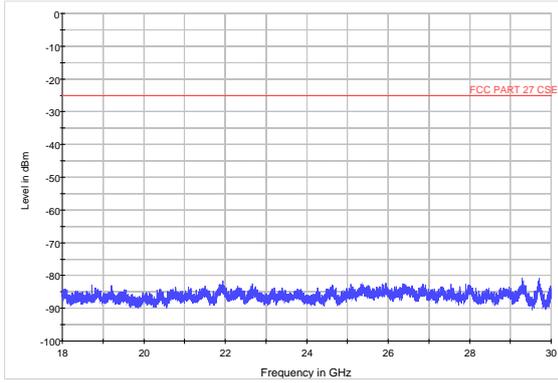
LTE Band 41 QPSK Bandwidth = 15MHz CH41515, RB 1



LTE Band 41 CH41515 30MHz~3GHz

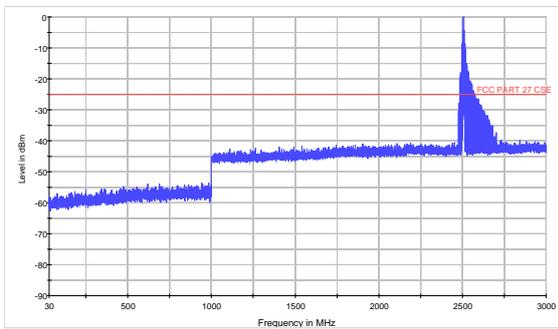


LTE Band 41 CH41515 3GHz~18GHz

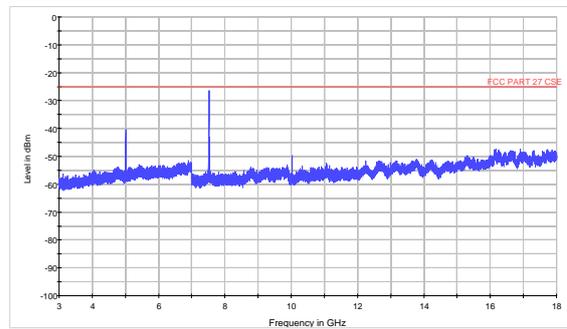


**LTE Band 41 CH41515 18GHz~30GHz**

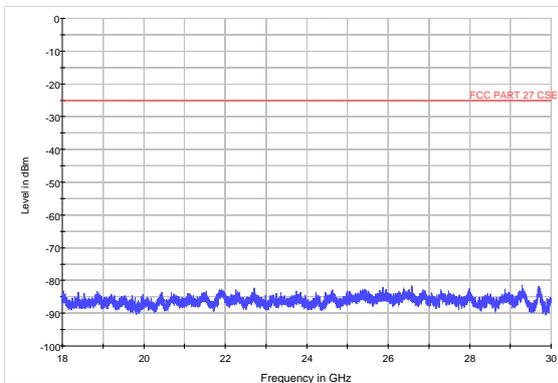
**LTE Band 41 QPSK Bandwidth = 20MHz CH39750, RB 1**



**LTE Band 41 CH39750 30MHz~3GHz**

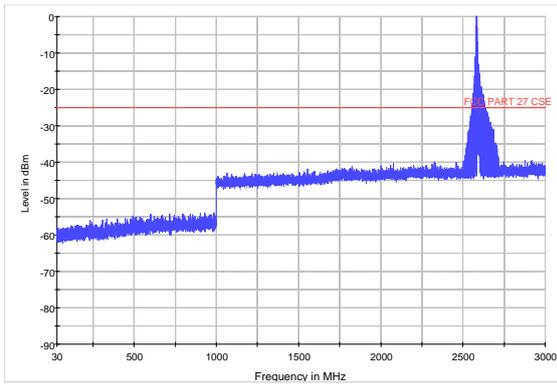


**LTE Band 41 CH39750 3GHz~18GHz**

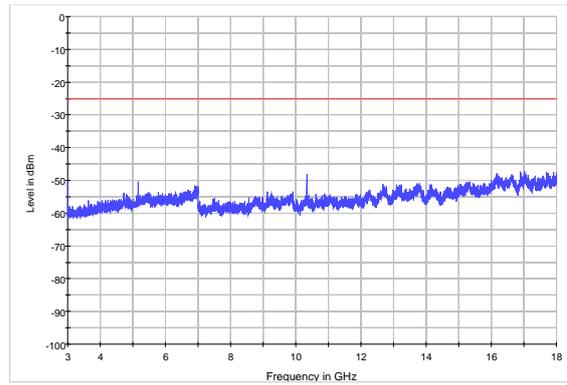


**LTE Band 41 CH39750 18GHz~30GHz**

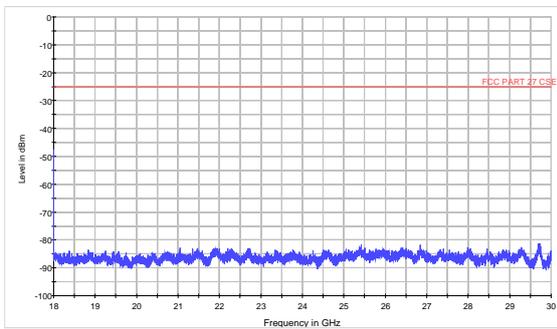
LTE Band 41 QPSK Bandwidth = 20MHz CH40620, RB 1



LTE Band 41 CH40620 30MHz~3GHz

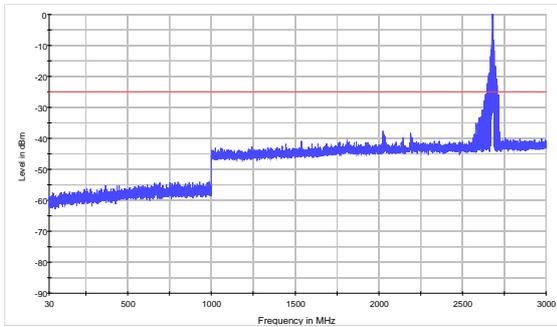


LTE Band 41 CH40620 3GHz~18GHz

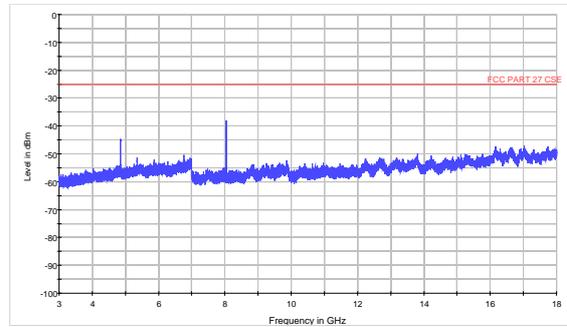


LTE Band 41 CH40620 18GHz~30GHz

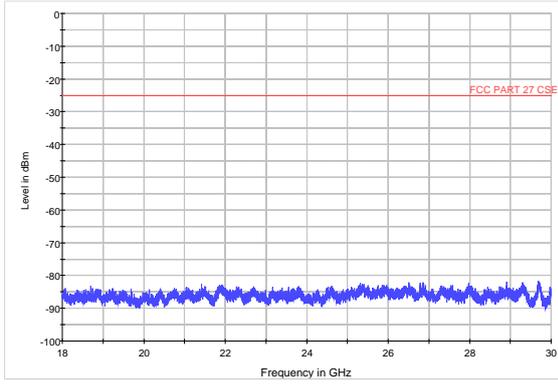
LTE Band 41 QPSK Bandwidth = 20MHz CH41490, RB 1



LTE Band 41 CH41490 30MHz~3GHz



LTE Band 41 CH41490 3GHz~18GHz



LTE Band 41 CH41490 18GHz~30GHz

## 4.8 Radiates Spurious Emission

### Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

### Method of Measurement

The measurements procedures in TIA -603-D are used.

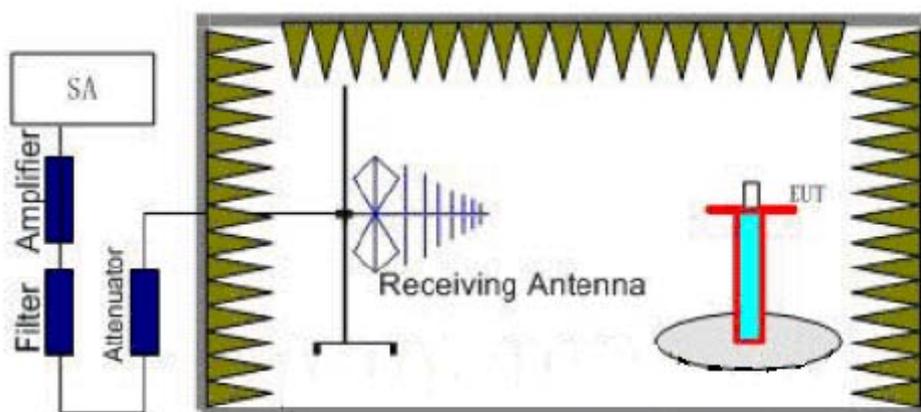
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment.

The emissions less than 20 dB below the permissible value are reported.

The procedure of Radiates Spurious Emission is as follows:

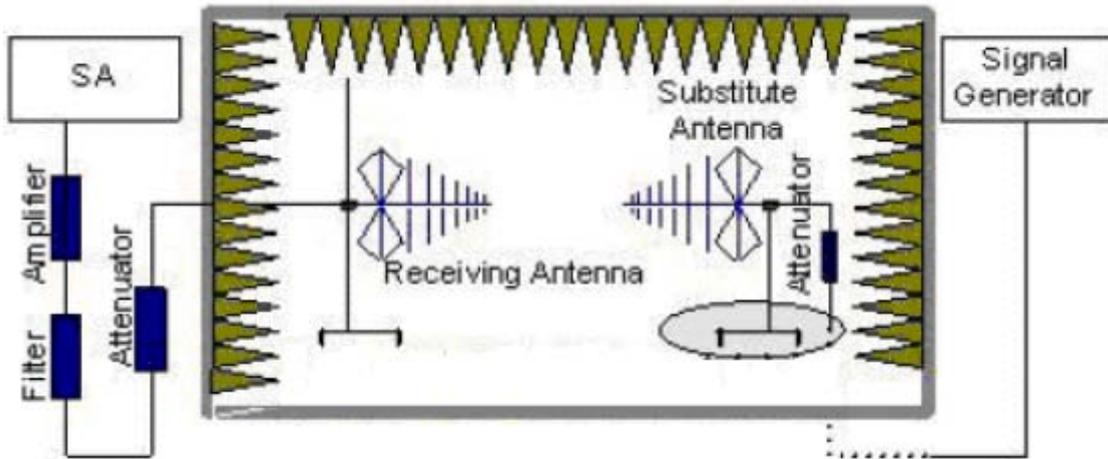
Step 1:

The measurement is carried out in the semi-anechoic chamber. EUT was placed on a 1.5 meters high non-conductive table at a 3 meters test distance from the test receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT. A radio link shall be established between EUT and Tester. The output power of the cell signal of the tester will be decreased until the output power of the EUT reach a maximum value. A peak detector is used while RBW and VBW are both set to 1MHz. During the measurement, the highest emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna moved up and down over a range from 1 to 4 meters in both horizontally and vertically polarized orientations. The test setup refers to figure below.



Step 2:

A dipole antenna shall be substituted in place of the EUT. The antenna will be driven by a signal generator with a adjustable S.G. applied through a Tx cable. Adjust the level of the signal generator output until the value of the receiver reach the previously recorded analyzer power level (LVL). Then The E.R.P. /E.I.R.P. of the EUT can be calculated through the level of the signal generator, Tx cable loss and the gain of the substitution antenna. The test setup refers to figure below.



$E.R.P \text{ (peak power)} = S.G. - Tx \text{ Cable loss} + \text{Substitution antenna gain} - 2.15.$   
 $EIRP = E.R.P + 2.15$

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), The worst emission was found in position (Z axis, vertical polarization) and the worst case was recorded.

**Limits**

LTE -4/12 Rule Part 27.53(h) specifies that “the power of any emission outside a licensee’s frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB.”  
 LTE -41 Rule Part 27.53(m)  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section.

LTE -4/12 Limit	-13 dBm
LTE -41 Limit	-25 dBm

**Measurement Uncertainty**

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor  $k = \pm 1.96$ ,  $U = \pm 3.55$  dB.

**Test Result**
**WCDMA Band IV CH1312**

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3422.6	-55.16	2.6	10.15	Vertical	-47.61	-13	34.61	135
3	5137.2	-62.20	2.4	11.35	Vertical	-53.25	-13	40.25	135
4	6849.6	-59.00	4.5	10.85	Vertical	-52.65	-13	39.65	135
5	8556.8	-55.39	5.1	11.35	Vertical	-49.14	-13	36.14	270
6	10279.9	-53.13	5.3	11.95	Vertical	-46.48	-13	33.48	45
7	11986.8	-57.38	5.5	13.55	Vertical	-49.33	-13	36.33	180
8	13699.2	-59.40	6.3	13.75	Vertical	-51.95	-13	38.95	0
9	15411.6	-56.47	6.7	13.85	Vertical	-49.32	-13	36.32	135
10	17124.0	-51.67	6.8	14.25	Vertical	-44.22	-13	31.22	135

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.  
 2. The worst emission was found in the antenna is vertical position.

**WCDMA Band IV CH1413**

Harmonic	TX ch.1413 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3466.9	-56.17	2.6	10.75	Vertical	-48.02	-13	35.02	180
3	5197.8	-64.09	2.4	11.05	Vertical	-55.44	-13	42.44	90
4	6926.3	-56.25	4.5	11.15	Vertical	-49.60	-13	36.60	135
5	8657.6	-55.09	5.1	11.35	Vertical	-48.84	-13	35.84	270
6	10390.1	-51.07	5.3	11.95	Vertical	-44.42	-13	31.42	135
7	12128.2	-55.44	5.5	13.55	Vertical	-47.39	-13	34.39	45
8	13860.8	-59.94	6.3	13.75	Vertical	-52.49	-13	39.49	135
9	15593.4	-51.53	6.7	13.85	Vertical	-44.38	-13	31.38	315
10	17326.0	-50.47	6.8	14.25	Vertical	-43.02	-13	30.02	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.  
 2.The worst emission was found in the antenna is vertical position.

**WCDMA Band IV CH1513**

Harmonic	TX ch.1513 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3507.0	-56.83	2.6	10.15	Vertical	-49.28	-13	36.28	135
3	5257.8	-62.90	2.4	11.05	Vertical	-54.25	-13	41.25	0
4	7010.4	-60.60	4.5	11.15	Vertical	-53.95	-13	40.95	180
5	8757.8	-54.50	5.1	11.35	Vertical	-48.25	-13	35.25	135
6	10515.6	-56.81	5.3	11.95	Vertical	-50.16	-13	37.16	45
7	12268.2	-55.51	5.5	13.55	Vertical	-47.46	-13	34.46	90
8	14020.8	-59.73	6.3	13.75	Vertical	-52.28	-13	39.28	135
9	15773.4	-51.39	6.7	13.85	Vertical	-44.24	-13	31.24	225
10	17526.0	-50.47	6.8	14.25	Vertical	-43.02	-13	30.02	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2.The worst emission was found in the antenna is vertical position.

**LTE Band 4 QPSK Bandwidth = 1.4MHz CH19957, RB 1**

Harmonic	CH19957 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3420.4	-50.96	2.6	10.15	Vertical	-43.41	-13	30.41	180
3	5131.1	-53.89	2.4	11.35	Vertical	-44.94	-13	31.94	135
4	6840.8	-56.51	4.5	10.85	Vertical	-50.16	-13	37.16	270
5	8551.5	-50.93	5.1	11.35	Vertical	-44.68	-13	31.68	270
6	10261.1	-47.33	5.3	11.95	Vertical	-40.68	-13	27.68	135
7	11974.9	-57.43	5.5	13.55	Vertical	-49.38	-13	36.38	90
8	13685.6	-57.10	6.3	13.75	Vertical	-49.65	-13	36.65	180
9	15396.3	-58.32	6.7	13.85	Vertical	-51.17	-13	38.17	45
10	17107.0	-55.17	6.8	14.25	Vertical	-47.72	-13	34.72	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 1.4MHz CH20175, RB 1

Harmonic	CH20175 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3463.9	-54.55	2.6	10.75	Vertical	-46.40	-13	33.40	180
3	5196.4	-58.40	2.4	11.05	Vertical	-49.75	-13	36.75	135
4	6928.5	-55.00	4.5	11.15	Vertical	-48.35	-13	35.35	270
5	8660.3	-50.98	5.1	11.35	Vertical	-44.73	-13	31.73	270
6	10391.6	-49.41	5.3	11.95	Vertical	-42.76	-13	29.76	135
7	12127.5	-57.80	5.5	13.55	Vertical	-49.75	-13	36.75	90
8	13860.0	-57.12	6.3	13.75	Vertical	-49.67	-13	36.67	180
9	15592.5	-58.58	6.7	13.85	Vertical	-51.43	-13	38.43	225
10	17325.0	-55.20	6.8	14.25	Vertical	-47.75	-13	34.75	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 1.4MHz CH20393, RB 1

Harmonic	CH20393 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3507.4	-53.70	2.6	10.15	Vertical	-46.15	-13	33.15	180
3	5261.6	-57.93	2.4	11.05	Vertical	-49.28	-13	36.28	135
4	7015.1	-53.50	4.5	11.15	Vertical	-46.85	-13	33.85	270
5	8769.4	-50.50	5.1	11.35	Vertical	-44.25	-13	31.25	270
6	10523.3	-47.31	5.3	11.95	Vertical	-40.66	-13	27.66	135
7	12280.1	-57.80	5.5	13.55	Vertical	-49.75	-13	36.75	90
8	14034.4	-57.12	6.3	13.75	Vertical	-49.67	-13	36.67	180
9	15788.7	-58.58	6.7	13.85	Vertical	-51.43	-13	38.43	225
10	17543.0	-55.20	6.8	14.25	Vertical	-47.75	-13	34.75	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 3MHz CH19965, RB 1

Harmonic	CH19965 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3420.4	-51.11	2.6	10.15	Vertical	-43.56	-13	30.56	180
3	5130.8	-54.30	2.4	11.35	Vertical	-45.35	-13	32.35	135
4	6840.8	-55.94	4.5	10.85	Vertical	-49.59	-13	36.59	270
5	8551.1	-51.26	5.1	11.35	Vertical	-45.01	-13	32.01	270
6	10261.1	-46.65	5.3	11.95	Vertical	-40.00	-13	27.00	135
7	11980.5	-57.31	5.5	13.55	Vertical	-49.26	-13	36.26	90
8	13692.0	-57.22	6.3	13.75	Vertical	-49.77	-13	36.77	0
9	15403.5	-58.47	6.7	13.85	Vertical	-51.32	-13	38.32	180
10	17115.0	-55.20	6.8	14.25	Vertical	-47.75	-13	34.75	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 3MHz CH20175, RB 1

Harmonic	CH20175 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3462.4	-54.05	2.6	10.75	Vertical	-45.90	-13	32.90	180
3	5193.4	-59.49	2.4	11.05	Vertical	-50.84	-13	37.84	135
4	6925.1	-56.03	4.5	11.15	Vertical	-49.38	-13	36.38	270
5	8656.9	-50.72	5.1	11.35	Vertical	-44.47	-13	31.47	270
6	10387.1	-49.56	5.3	11.95	Vertical	-42.91	-13	29.91	135
7	12127.5	-57.38	5.5	13.55	Vertical	-49.33	-13	36.33	90
8	13860.0	-57.01	6.3	13.75	Vertical	-49.56	-13	36.56	0
9	15592.5	-58.37	6.7	13.85	Vertical	-51.22	-13	38.22	180
10	17325.0	-54.71	6.8	14.25	Vertical	-47.26	-13	34.26	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 3MHz CH20385, RB 1

Harmonic	CH20385 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3504.4	-53.58	2.6	10.15	Vertical	-46.03	-13	33.03	180
3	5256.8	-58.90	2.4	11.05	Vertical	-50.25	-13	37.25	135
4	7008.8	-54.33	4.5	11.15	Vertical	-47.68	-13	34.68	270
5	8761.5	-50.77	5.1	11.35	Vertical	-44.52	-13	31.52	270
6	10513.1	-47.70	5.3	11.95	Vertical	-41.05	-13	28.05	135
7	12274.5	-57.34	5.5	13.55	Vertical	-49.29	-13	36.29	90
8	14028.0	-56.62	6.3	13.75	Vertical	-49.17	-13	36.17	90
9	15781.5	-58.61	6.7	13.85	Vertical	-51.46	-13	38.46	180
10	17535.0	-54.98	6.8	14.25	Vertical	-47.53	-13	34.53	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 5MHz CH19975, RB 1

Harmonic	CH19975 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3420.4	-51.38	2.6	10.15	Vertical	-43.83	-13	30.83	180
3	5131.1	-54.41	2.4	11.35	Vertical	-45.46	-13	32.46	180
4	6841.1	-55.91	4.5	10.85	Vertical	-49.56	-13	36.56	270
5	8551.9	-50.93	5.1	11.35	Vertical	-44.68	-13	31.68	270
6	10261.1	-46.70	5.3	11.95	Vertical	-40.05	-13	27.05	135
7	11987.5	-57.24	5.5	13.55	Vertical	-49.19	-13	36.19	90
8	13700.0	-57.09	6.3	13.75	Vertical	-49.64	-13	36.64	0
9	15412.5	-58.48	6.7	13.85	Vertical	-51.33	-13	38.33	180
10	17125.0	-54.50	6.8	14.25	Vertical	-47.05	-13	34.05	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 5MHz CH20175, RB 1

Harmonic	CH20175 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3460.5	-54.24	2.6	10.75	Vertical	-46.09	-13	33.09	180
3	5191.1	-62.56	2.4	11.05	Vertical	-53.91	-13	40.91	180
4	6921.0	-55.71	4.5	11.15	Vertical	-49.06	-13	36.06	270
5	8651.6	-51.50	5.1	11.35	Vertical	-45.25	-13	32.25	270
6	10381.5	-51.34	5.3	11.95	Vertical	-44.69	-13	31.69	135
7	12127.5	-57.08	5.5	13.55	Vertical	-49.03	-13	36.03	90
8	13860.0	-56.58	6.3	13.75	Vertical	-49.13	-13	36.13	0
9	15592.5	-58.67	6.7	13.85	Vertical	-51.52	-13	38.52	45
10	17325.0	-54.77	6.8	14.25	Vertical	-47.32	-13	34.32	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 5MHz CH20375, RB 1

Harmonic	CH20375 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3500.6	-53.50	2.6	10.15	Vertical	-45.95	-13	32.95	180
3	5251.1	-59.23	2.4	11.05	Vertical	-50.58	-13	37.58	180
4	7001.3	-53.75	4.5	11.15	Vertical	-47.10	-13	34.10	270
5	8752.1	-50.49	5.1	11.35	Vertical	-44.24	-13	31.24	270
6	10500.8	-47.91	5.3	11.95	Vertical	-41.26	-13	28.26	135
7	12267.5	-57.20	5.5	13.55	Vertical	-49.15	-13	36.15	90
8	14020.0	-56.73	6.3	13.75	Vertical	-49.28	-13	36.28	0
9	15772.5	-58.75	6.7	13.85	Vertical	-51.60	-13	38.60	45
10	17525.0	-54.53	6.8	14.25	Vertical	-47.08	-13	34.08	180

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 10MHz CH20000, RB 1

Harmonic	CH20000 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3421.1	-51.29	2.6	10.15	Vertical	-43.74	-13	30.74	180
3	5131.9	-53.38	2.4	11.35	Vertical	-44.43	-13	31.43	225
4	6842.6	-55.79	4.5	10.85	Vertical	-49.44	-13	36.44	270
5	8553.0	-50.36	5.1	11.35	Vertical	-44.11	-13	31.11	270
6	10263.4	-47.15	5.3	11.95	Vertical	-40.50	-13	27.50	225
7	12005.0	-57.32	5.5	13.55	Vertical	-49.27	-13	36.27	90
8	13720.0	-56.90	6.3	13.75	Vertical	-49.45	-13	36.45	225
9	15435.0	-58.53	6.7	13.85	Vertical	-51.38	-13	38.38	135
10	17150.0	-54.63	6.8	14.25	Vertical	-47.18	-13	34.18	270

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 10MHz CH20175, RB 1

Harmonic	CH20175 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3456.0	-53.97	2.6	10.75	Vertical	-45.82	-13	32.82	180
3	5184.4	-58.31	2.4	11.05	Vertical	-49.66	-13	36.66	225
4	6912.4	-56.05	4.5	11.15	Vertical	-49.40	-13	36.40	270
5	8640.8	-51.72	5.1	11.35	Vertical	-45.47	-13	32.47	270
6	10368.0	-50.30	5.3	11.95	Vertical	-43.65	-13	30.65	225
7	12127.5	-57.18	5.5	13.55	Vertical	-49.13	-13	36.13	90
8	13860.0	-56.82	6.3	13.75	Vertical	-49.37	-13	36.37	225
9	15592.5	-59.00	6.7	13.85	Vertical	-51.85	-13	38.85	135
10	17325.0	-54.87	6.8	14.25	Vertical	-47.42	-13	34.42	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 10MHz CH20350, RB 1

Harmonic	CH20350 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3490.9	-53.38	2.6	10.15	Vertical	-45.83	-13	32.83	180
3	5236.9	-57.95	2.4	11.05	Vertical	-49.30	-13	36.30	225
4	6982.1	-53.61	4.5	11.15	Vertical	-46.96	-13	33.96	270
5	8728.1	-51.05	5.1	11.35	Vertical	-44.80	-13	31.80	270
6	10473.8	-47.75	5.3	11.95	Vertical	-41.10	-13	28.10	225
7	12250.0	-57.93	5.5	13.55	Vertical	-49.88	-13	36.88	90
8	14000.0	-57.10	6.3	13.75	Vertical	-49.65	-13	36.65	225
9	15750.0	-58.36	6.7	13.85	Vertical	-51.21	-13	38.21	135
10	17500.0	-54.81	6.8	14.25	Vertical	-47.36	-13	34.36	270

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 15MHz CH20025, RB 1

Harmonic	CH20025 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3421.5	-51.07	2.6	10.15	Vertical	-43.52	-13	30.52	135
3	5132.6	-53.29	2.4	11.35	Vertical	-44.34	-13	31.34	225
4	6843.4	-55.85	4.5	10.85	Vertical	-49.50	-13	36.50	270
5	8554.5	-50.88	5.1	11.35	Vertical	-44.63	-13	31.63	270
6	10264.5	-46.97	5.3	11.95	Vertical	-40.32	-13	27.32	135
7	12022.5	-57.21	5.5	13.55	Vertical	-49.16	-13	36.16	90
8	13740.0	-57.20	6.3	13.75	Vertical	-49.75	-13	36.75	90
9	15457.5	-58.74	6.7	13.85	Vertical	-51.59	-13	38.59	135
10	17175.0	-55.02	6.8	14.25	Vertical	-47.57	-13	34.57	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 15MHz CH20175, RB 1

Harmonic	CH20175 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3451.5	-53.13	2.6	10.75	Vertical	-44.98	-13	31.98	135
3	5177.6	-58.81	2.4	11.05	Vertical	-50.16	-13	37.16	225
4	6903.4	-56.86	4.5	11.15	Vertical	-50.21	-13	37.21	270
5	8629.1	-51.64	5.1	11.35	Vertical	-45.39	-13	32.39	270
6	10354.5	-51.35	5.3	11.95	Vertical	-44.70	-13	31.70	135
7	12127.5	-57.50	5.5	13.55	Vertical	-49.45	-13	36.45	90
8	13860.0	-56.72	6.3	13.75	Vertical	-49.27	-13	36.27	90
9	15592.5	-58.52	6.7	13.85	Vertical	-51.37	-13	38.37	135
10	17325.0	-54.61	6.8	14.25	Vertical	-47.16	-13	34.16	270

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 15MHz CH20325, RB 1

Harmonic	CH20325 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3481.5	-53.82	2.6	10.15	Vertical	-46.27	-13	33.27	135
3	5222.6	-58.34	2.4	11.05	Vertical	-49.69	-13	36.69	225
4	6963.4	-54.03	4.5	11.15	Vertical	-47.38	-13	34.38	270
5	8704.1	-50.61	5.1	11.35	Vertical	-44.36	-13	31.36	270
6	10444.5	-48.12	5.3	11.95	Vertical	-41.47	-13	28.47	135
7	12232.5	-57.80	5.5	13.55	Vertical	-49.75	-13	36.75	90
8	13980.0	-56.89	6.3	13.75	Vertical	-49.44	-13	36.44	0
9	15727.5	-58.44	6.7	13.85	Vertical	-51.29	-13	38.29	135
10	17475.0	-54.80	6.8	14.25	Vertical	-47.35	-13	34.35	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 20MHz CH20050, RB 1

Harmonic	CH20050 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3421.9	-51.11	2.6	10.15	Vertical	-43.56	-13	30.56	135
3	5133.4	-53.05	2.4	11.35	Vertical	-44.10	-13	31.10	225
4	6844.1	-54.98	4.5	10.85	Vertical	-48.63	-13	35.63	270
5	8555.6	-50.63	5.1	11.35	Vertical	-44.38	-13	31.38	270
6	10266.8	-46.55	5.3	11.95	Vertical	-39.90	-13	26.90	135
7	12040.0	-57.56	5.5	13.55	Vertical	-49.51	-13	36.51	90
8	13760.0	-57.08	6.3	13.75	Vertical	-49.63	-13	36.63	0
9	15480.0	-58.74	6.7	13.85	Vertical	-51.59	-13	38.59	135
10	17200.0	-55.20	6.8	14.25	Vertical	-47.75	-13	34.75	180

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 20MHz CH20175, RB 1

Harmonic	CH20175 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3447.0	-52.48	2.6	10.75	Vertical	-44.33	-13	31.33	135
3	5170.9	-57.58	2.4	11.05	Vertical	-48.93	-13	35.93	225
4	6894.4	-57.08	4.5	11.15	Vertical	-50.43	-13	37.43	270
5	8618.3	-52.84	5.1	11.35	Vertical	-46.59	-13	33.59	270
6	10341.0	-51.94	5.3	11.95	Vertical	-45.29	-13	32.29	135
7	12127.5	-57.30	5.5	13.55	Vertical	-49.25	-13	36.25	90
8	13860.0	-56.79	6.3	13.75	Vertical	-49.34	-13	36.34	45
9	15592.5	-58.31	6.7	13.85	Vertical	-51.16	-13	38.16	135
10	17325.0	-54.97	6.8	14.25	Vertical	-47.52	-13	34.52	270

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 4 QPSK Bandwidth = 20MHz CH20300, RB 1

Harmonic	CH20300 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3472.1	-54.25	2.6	10.15	Vertical	-46.70	-13	33.70	135
3	5208.4	-58.58	2.4	11.05	Vertical	-49.93	-13	36.93	225
4	6944.3	-54.28	4.5	11.15	Vertical	-47.63	-13	34.63	270
5	8680.5	-50.55	5.1	11.35	Vertical	-44.30	-13	31.30	270
6	10415.4	-49.00	5.3	11.95	Vertical	-42.35	-13	29.35	135
7	12215.0	-57.30	5.5	13.55	Vertical	-49.25	-13	36.25	90
8	13960.0	-56.79	6.3	13.75	Vertical	-49.34	-13	36.34	45
9	15705.0	-58.31	6.7	13.85	Vertical	-51.16	-13	38.16	135
10	17450.0	-54.97	6.8	14.25	Vertical	-47.52	-13	34.52	270

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 1.4MHz CH23017, RB 1

Harmonic	CH23017 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1399.4	-61.61	2.00	10.15	Vertical	-53.46	-13	40.46	135
3	2099.1	-59.35	2.50	11.35	Vertical	-50.50	-13	37.50	90
4	2798.8	-52.21	4.20	10.85	Vertical	-45.56	-13	32.56	270
5	3498.5	-53.18	5.20	11.35	Vertical	-47.03	-13	34.03	90
6	4198.2	-50.38	5.50	11.95	Vertical	-43.93	-13	30.93	45
7	4897.9	-50.17	5.70	13.55	Vertical	-42.32	-13	29.32	225
8	5597.6	-49.51	6.30	13.75	Vertical	-42.06	-13	29.06	315
9	6297.3	-47.06	6.80	13.85	Vertical	-40.01	-13	27.01	45
10	6997	-46.30	6.90	14.25	Vertical	-38.95	-13	25.95	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 1.4MHz CH23095, RB 1

Harmonic	CH23095 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415	-62.14	2.00	10.75	Vertical	-53.39	-13	40.39	90
3	2122.5	-59.39	2.51	11.05	Vertical	-50.85	-13	37.85	225
4	2830	-52.68	4.20	11.15	Vertical	-45.73	-13	32.73	45
5	3537.5	-53.11	5.20	11.15	Vertical	-47.16	-13	34.16	225
6	4245	-50.20	5.50	11.95	Vertical	-43.75	-13	30.75	45
7	4952.5	-50.28	5.70	13.55	Vertical	-42.43	-13	29.43	135
8	5660	-49.71	6.30	13.75	Vertical	-42.26	-13	29.26	315
9	6367.5	-47.40	6.80	13.85	Vertical	-40.35	-13	27.35	90
10	7075	-46.09	6.90	14.25	Vertical	-38.74	-13	25.74	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 1.4MHz CH23173, RB 1

Harmonic	CH23173 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1430.6	-61.79	2.00	10.15	Vertical	-53.64	-13	40.64	0
3	2145.9	-58.89	2.51	11.05	Vertical	-50.35	-13	37.35	225
4	2861.2	-52.87	4.20	11.15	Vertical	-45.92	-13	32.92	180
5	3576.5	-53.00	5.20	11.15	Vertical	-47.05	-13	34.05	225
6	4291.8	-50.05	5.50	11.95	Vertical	-43.60	-13	30.60	0
7	5007.1	-50.14	5.70	13.55	Vertical	-42.29	-13	29.29	135
8	5722.4	-49.76	6.30	13.75	Vertical	-42.31	-13	29.31	270
9	6437.7	-47.58	6.80	13.85	Vertical	-40.53	-13	27.53	90
10	7153	-45.99	6.90	14.25	Vertical	-38.64	-13	25.64	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 3MHz CH23025, RB 1

Harmonic	CH23025 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1401	-61.44	2.00	10.15	Vertical	-53.29	-13	40.29	135
3	2101.5	-59.19	2.51	11.35	Vertical	-50.35	-13	37.35	270
4	2802	-51.85	4.20	10.85	Vertical	-45.20	-13	32.20	135
5	3502.5	-53.27	5.20	11.35	Vertical	-47.12	-13	34.12	90
6	4203	-50.24	5.50	11.95	Vertical	-43.79	-13	30.79	45
7	4903.5	-50.28	5.70	13.55	Vertical	-42.43	-13	29.43	225
8	5604	-49.78	6.30	13.75	Vertical	-42.33	-13	29.33	315
9	6304.5	-47.21	6.80	13.85	Vertical	-40.16	-13	27.16	45
10	7005	-46.07	6.90	14.25	Vertical	-38.72	-13	25.72	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 3MHz CH23095, RB 1

Harmonic	CH23095 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415	-62.50	2.00	10.75	Vertical	-53.75	-13	40.75	0
3	2122.5	-59.30	2.51	11.05	Vertical	-50.76	-13	37.76	315
4	2830	-52.67	4.20	11.15	Vertical	-45.72	-13	32.72	45
5	3537.5	-53.41	5.20	11.15	Vertical	-47.46	-13	34.46	45
6	4245	-50.12	5.50	11.95	Vertical	-43.67	-13	30.67	45
7	4952.5	-50.02	5.70	13.55	Vertical	-42.17	-13	29.17	135
8	5660	-49.80	6.30	13.75	Vertical	-42.35	-13	29.35	270
9	6367.5	-47.47	6.80	13.85	Vertical	-40.42	-13	27.42	90
10	7075	-45.43	6.90	14.25	Vertical	-38.08	-13	25.08	135

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 3MHz CH23165, RB 1

Harmonic	CH23165 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1429	-61.57	2.00	10.15	Vertical	-53.42	-13	40.42	45
3	2143.5	-59.38	2.51	11.05	Vertical	-50.84	-13	37.84	90
4	2858	-52.87	4.20	11.15	Vertical	-45.92	-13	32.92	225
5	3572.5	-53.11	5.20	11.15	Vertical	-47.16	-13	34.16	225
6	4287	-50.10	5.50	11.95	Vertical	-43.65	-13	30.65	45
7	5001.5	-50.31	5.70	13.55	Vertical	-42.46	-13	29.46	135
8	5716	-49.68	6.30	13.75	Vertical	-42.23	-13	29.23	270
9	6430.5	-47.37	6.80	13.85	Vertical	-40.32	-13	27.32	90
10	7145	-45.83	6.90	14.25	Vertical	-38.48	-13	25.48	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 5MHz CH23035, RB 1

Harmonic	CH23035 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1403	-61.44	2.00	10.15	Vertical	-53.29	-13	40.29	135
3	2104.5	-59.20	2.50	11.35	Vertical	-50.35	-13	37.35	270
4	2806	-51.85	4.20	10.85	Vertical	-45.20	-13	32.20	135
5	3507.5	-53.39	5.20	11.35	Vertical	-47.24	-13	34.24	90
6	4209	-50.10	5.50	11.95	Vertical	-43.65	-13	30.65	45
7	4910.5	-50.37	5.70	13.55	Vertical	-42.52	-13	29.52	225
8	5612	-49.61	6.30	13.75	Vertical	-42.16	-13	29.16	90
9	6313.5	-47.37	6.80	13.85	Vertical	-40.32	-13	27.32	45
10	7015	-46.04	6.90	14.25	Vertical	-38.69	-13	25.69	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 5MHz CH23095, RB 1

Harmonic	CH23095 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415	-62.50	2.00	10.75	Vertical	-53.75	-13	40.75	0
3	2122.5	-59.30	2.51	11.05	Vertical	-50.76	-13	37.76	315
4	2830	-52.67	4.20	11.15	Vertical	-45.72	-13	32.72	45
5	3537.5	-53.20	5.20	11.15	Vertical	-47.25	-13	34.25	45
6	4245	-50.04	5.50	11.95	Vertical	-43.59	-13	30.59	45
7	4952.5	-50.22	5.70	13.55	Vertical	-42.37	-13	29.37	135
8	5660	-50.03	6.30	13.75	Vertical	-42.58	-13	29.58	45
9	6367.5	-47.75	6.80	13.85	Vertical	-40.70	-13	27.70	90
10	7075	-45.81	6.90	14.25	Vertical	-38.46	-13	25.46	135

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 5MHz CH23155, RB 1

Harmonic	CH23155 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1427	-61.57	2.00	10.15	Vertical	-53.42	-13	40.42	45
3	2140.5	-59.38	2.51	11.05	Vertical	-50.84	-13	37.84	90
4	2854	-52.87	4.20	11.15	Vertical	-45.92	-13	32.92	225
5	3567.5	-53.76	5.20	11.15	Vertical	-47.81	-13	34.81	225
6	4281	-49.93	5.50	11.95	Vertical	-43.48	-13	30.48	45
7	4994.5	-50.75	5.70	13.55	Vertical	-42.90	-13	29.90	0
8	5708	-49.69	6.30	13.75	Vertical	-42.24	-13	29.24	270
9	6421.5	-47.50	6.80	13.85	Vertical	-40.45	-13	27.45	135
10	7135	-46.05	6.90	14.25	Vertical	-38.70	-13	25.70	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 10MHz CH23060, RB 1

Harmonic	CH23060 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1408	-61.74	2.00	10.15	Vertical	-53.59	-13	40.59	45
3	2112	-59.58	2.51	11.35	Vertical	-50.74	-13	37.74	90
4	2816	-52.11	4.20	10.85	Vertical	-45.46	-13	32.46	0
5	3520	-53.57	5.20	11.35	Vertical	-47.42	-13	34.42	90
6	4224	-49.97	5.50	11.95	Vertical	-43.52	-13	30.52	45
7	4928	-50.31	5.70	13.55	Vertical	-42.46	-13	29.46	225
8	5632	-50.10	6.30	13.75	Vertical	-42.65	-13	29.65	90
9	6336	-47.27	6.80	13.85	Vertical	-40.22	-13	27.22	45
10	7040	-45.53	6.90	14.25	Vertical	-38.18	-13	25.18	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 10MHz CH23095, RB 1

Harmonic	CH23095 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415	-62.30	2.00	10.75	Vertical	-53.55	-13	40.55	90
3	2122.5	-59.27	2.51	11.05	Vertical	-50.73	-13	37.73	135
4	2830	-52.41	4.20	11.15	Vertical	-45.46	-13	32.46	45
5	3537.5	-53.27	5.20	11.15	Vertical	-47.32	-13	34.32	45
6	4245	-49.86	5.50	11.95	Vertical	-43.41	-13	30.41	45
7	4952.5	-50.15	5.70	13.55	Vertical	-42.30	-13	29.30	135
8	5660	-49.70	6.30	13.75	Vertical	-42.25	-13	29.25	45
9	6367.5	-47.68	6.80	13.85	Vertical	-40.63	-13	27.63	90
10	7075	-45.85	6.90	14.25	Vertical	-38.50	-13	25.50	135

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 12 QPSK Bandwidth = 10MHz CH23130, RB 1

Harmonic	CH23130 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1422	-61.68	2.00	10.15	Vertical	-53.53	-13	40.53	0
3	2133	-59.49	2.51	11.05	Vertical	-50.95	-13	37.95	315
4	2844	-52.70	4.20	11.15	Vertical	-45.75	-13	32.75	90
5	3555	-53.11	5.20	11.15	Vertical	-47.16	-13	34.16	225
6	4266	-49.81	5.50	11.95	Vertical	-43.36	-13	30.36	45
7	4977	-50.31	5.70	13.55	Vertical	-42.46	-13	29.46	0
8	5688	-50.21	6.30	13.75	Vertical	-42.76	-13	29.76	270
9	6399	-47.56	6.80	13.85	Vertical	-40.51	-13	27.51	135
10	7110	-45.76	6.90	14.25	Vertical	-38.41	-13	25.41	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 5MHz CH39675, RB 1

Harmonic	CH39675 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	4992.8	-51.38	2.00	9.15	Vertical	-44.23	-25	19.23	135
3	7488.8	-45.35	2.50	11.35	Vertical	-36.50	-25	11.50	180
4	9985.5	-40.20	4.20	12.05	Vertical	-32.35	-25	7.35	90
5	12775.00	-59.88	5.20	12.85	Vertical	-52.23	-25	27.23	315
6	15330.00	-89.40	5.50	14.23	Vertical	-80.67	-25	55.67	45
7	17885.00	-91.35	5.70	14.15	Vertical	-82.90	-25	57.9	90
8	20440.00	-92.33	6.30	13.76	Vertical	-84.87	-25	59.87	315
9	22995.00	-88.89	6.80	14.05	Vertical	-81.64	-25	56.64	180
10	25550.00	-87.24	6.90	14.84	Vertical	-79.30	-25	54.3	90

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 5MHz CH40620, RB 1

Harmonic	CH40620 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5181.8	-52.08	2.00	9.15	Vertical	-44.93	-25	19.93	270
3	7772.6	-49.50	2.50	11.35	Vertical	-40.65	-25	15.65	270
4	10363.5	-37.75	4.20	12.05	Vertical	-29.90	-25	4.90	180
5	12953.3	-53.79	5.20	12.85	Vertical	-46.14	-25	21.14	135
6	15558.00	-90.35	5.50	14.23	Vertical	-81.62	-25	56.62	45
7	18151.00	-90.09	5.70	14.15	Vertical	-81.64	-25	56.64	0
8	20744.00	-90.73	6.30	13.76	Vertical	-83.27	-25	58.27	180
9	23337.00	-87.42	6.80	14.05	Vertical	-80.17	-25	55.17	135
10	25930.00	-87.38	6.90	14.84	Vertical	-79.44	-25	54.44	315

- Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.  
 2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 5MHz CH41565, RB 1

Harmonic	CH41565 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5370.8	-56.42	2.00	9.15	Vertical	-49.27	-25	24.27	135
3	8056.1	-47.54	2.50	11.35	Vertical	-38.69	-25	13.69	180
4	10741.5	-43.85	4.20	12.05	Vertical	-36.00	-25	11.00	180
5	13437.50	-43.29	5.20	12.85	Vertical	-35.64	-25	10.64	225
6	16125.00	-89.03	5.50	14.23	Vertical	-80.30	-25	55.3	90
7	18812.50	-91.07	5.70	14.15	Vertical	-82.62	-25	57.62	135
8	21500.00	-91.19	6.30	13.76	Vertical	-83.73	-25	58.73	270
9	24187.50	-88.89	6.80	14.05	Vertical	-81.64	-25	56.64	225
10	26875.00	-87.68	6.90	14.84	Vertical	-79.74	-25	54.74	225

- Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.  
 2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 10MHz CH39700, RB 1

Harmonic	CH39700 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5011.1	-50.06	2.00	9.15	Vertical	-42.91	-25	17.91	90
3	7516.1	-37.72	2.50	11.35	Vertical	-28.87	-25	3.87	90
4	10021.5	-41.09	4.20	12.05	Vertical	-33.24	-25	8.24	90
5	12505.00	-51.27	5.20	12.85	Vertical	-43.62	-25	18.62	225
6	15006.00	-90.37	5.50	14.23	Vertical	-81.64	-25	56.64	315
7	17507.00	-91.06	5.70	14.15	Vertical	-82.61	-25	57.61	180
8	20008.00	-92.33	6.30	13.76	Vertical	-84.87	-25	59.87	270
9	22509.00	-88.89	6.80	14.05	Vertical	-81.64	-25	56.64	270
10	25010.00	-87.67	6.90	14.84	Vertical	-79.73	-25	54.73	135

- Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.  
 2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 10MHz CH40620, RB 1

Harmonic	CH40620 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5194.9	-52.52	2.00	9.15	Vertical	-45.37	-25	20.37	135
3	7792.1	-46.06	2.50	11.35	Vertical	-37.21	-25	12.21	135
4	10389.4	-36.88	4.20	12.05	Vertical	-29.03	-25	4.03	135
5	12965.00	-41.68	5.20	12.85	Vertical	-34.03	-25	9.03	225
6	15558.00	-90.37	5.50	14.23	Vertical	-81.64	-25	56.64	135
7	18151.00	-89.85	5.70	14.15	Vertical	-81.4	-25	56.4	180
8	20744.00	-90.73	6.30	13.76	Vertical	-83.27	-25	58.27	270
9	23337.00	-87.42	6.80	14.05	Vertical	-80.17	-25	55.17	135
10	25930.00	-87.86	6.90	14.84	Vertical	-79.92	-25	54.92	315

- Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.  
 2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 10MHz CH41540, RB 1

Harmonic	CH41540 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5370.00	-54.47	2.00	10.15	Vertical	-46.32	-25	21.32	90
3	8055.00	-48.72	2.50	11.35	Vertical	-39.87	-25	14.87	45
4	10757.3	-44.53	4.20	12.05	Vertical	-36.68	-25	11.68	180
5	13425.00	-45.21	5.20	14.85	Vertical	-35.56	-25	10.56	45
6	16110.00	-88.03	5.50	13.23	Vertical	-80.30	-25	55.3	0
7	18795.00	-88.69	5.70	12.15	Vertical	-82.24	-25	57.24	90
8	21480.00	-91.19	6.30	13.76	Vertical	-83.73	-25	58.73	90
9	24165.00	-87.98	6.80	14.05	Vertical	-80.73	-25	55.73	180
10	26850.00	-87.28	6.90	14.84	Vertical	-79.34	-25	54.34	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 15MHz CH39725, RB 1

Harmonic	CH39725 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	4993.5	-49.31	2.00	10.15	Vertical	-41.16	-25	16.16	180
3	7490.3	-47.71	2.50	11.35	Vertical	-38.86	-25	13.86	225
4	9986.6	-35.64	4.20	12.05	Vertical	-27.79	-25	2.79	225
5	12517.50	-50.01	5.20	14.85	Vertical	-40.36	-25	15.36	180
6	15021.00	-88.40	5.50	13.23	Vertical	-80.67	-25	55.67	225
7	17524.50	-86.49	5.70	12.15	Vertical	-80.04	-25	55.04	180
8	20028.00	-87.86	6.30	13.76	Vertical	-80.40	-25	55.4	45
9	22531.50	-88.49	6.80	14.05	Vertical	-81.24	-25	56.24	270
10	25035.00	-87.32	6.90	14.84	Vertical	-79.38	-25	54.38	270

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 15MHz CH40620, RB 1

Harmonic	CH40620 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5172.8	-54.36	2.00	10.15	Vertical	-46.21	-25	21.21	270
3	7759.1	-52.37	2.50	11.35	Vertical	-43.52	-25	18.52	225
4	10345.5	-38.17	4.20	12.05	Vertical	-30.32	-25	5.32	135
5	12965.00	-44.99	5.20	14.85	Vertical	-35.34	-25	10.34	180
6	15558.00	-88.46	5.50	13.23	Vertical	-80.73	-25	55.73	225
7	18151.00	-86.37	5.70	12.15	Vertical	-79.92	-25	54.92	315
8	20744.00	-90.73	6.30	13.76	Vertical	-83.27	-25	58.27	180
9	23337.00	-87.42	6.80	14.05	Vertical	-80.17	-25	55.17	45
10	25930.00	-87.46	6.90	14.84	Vertical	-79.52	-25	54.52	135

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 15MHz CH41515, RB 1

Harmonic	CH20325 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5351.6	-53.52	2.00	10.15	Vertical	-45.37	-25	20.37	225
3	8027.3	-47.48	2.50	11.35	Vertical	-38.63	-25	13.63	135
4	10703.3	-46.76	4.20	12.05	Vertical	-38.91	-25	13.91	135
5	13412.50	-45.27	5.20	14.85	Vertical	-35.62	-25	10.62	270
6	16095.00	-88.03	5.50	13.23	Vertical	-80.30	-25	55.3	90
7	18777.50	-89.07	5.70	12.15	Vertical	-82.62	-25	57.62	180
8	21460.00	-91.19	6.30	13.76	Vertical	-83.73	-25	58.73	270
9	24142.50	-87.98	6.80	14.05	Vertical	-80.73	-25	55.73	270
10	26825.00	-87.86	6.90	14.84	Vertical	-79.92	-25	54.92	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 20MHz CH39750, RB 1

Harmonic	CH39750 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	4999.1	-51.03	2.00	10.15	Vertical	-42.88	-25	17.88	135
3	7498.1	-49.12	2.50	11.35	Vertical	-40.27	-25	15.27	225
4	9996.8	-34.78	4.20	12.05	Vertical	-26.93	-25	1.93	225
5	12496.0	-55.62	5.20	14.85	Vertical	-45.97	-25	20.97	270
6	15036.00	-89.45	5.50	13.23	Vertical	-81.72	-25	56.72	225
7	17542.00	-88.54	5.70	12.15	Vertical	-82.09	-25	57.09	225
8	20048.00	-92.18	6.30	13.76	Vertical	-84.72	-25	59.72	90
9	22554.00	-88.89	6.80	14.05	Vertical	-81.64	-25	56.64	270
10	25060.00	-87.33	6.90	14.84	Vertical	-79.39	-25	54.39	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 20MHz CH40620, RB 1

Harmonic	CH40620 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5168.3	-54.37	2.00	10.15	Vertical	-46.22	-25	21.22	225
3	7752.4	-51.38	2.50	11.35	Vertical	-42.53	-25	17.53	225
4	10336.5	-38.19	4.20	12.05	Vertical	-30.34	-25	5.34	135
5	12965.00	-44.69	5.20	14.85	Vertical	-35.04	-25	10.04	90
6	15558.00	-88.97	5.50	13.23	Vertical	-81.24	-25	56.24	135
7	18151.00	-87.80	5.70	12.15	Vertical	-81.35	-25	56.35	225
8	20744.00	-91.16	6.30	13.76	Vertical	-83.70	-25	58.7	90
9	23337.00	-87.42	6.80	14.05	Vertical	-80.17	-25	55.17	270
10	25930.00	-87.11	6.90	14.84	Vertical	-79.17	-25	54.17	180

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

LTE Band 41 QPSK Bandwidth = 20MHz CH41490, RB 1

Harmonic	CH41490 Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5342.3	-53.34	2.00	10.15	Vertical	-45.19	-25	20.19	225
3	8013.4	-47.99	2.50	11.35	Vertical	-39.14	-25	14.14	270
4	10684.1	-45.44	4.20	12.05	Vertical	-37.59	-25	12.59	225
5	13400.00	-45.58	5.20	14.85	Vertical	-35.93	-25	10.93	270
6	16080.00	-87.77	5.50	13.23	Vertical	-80.04	-25	55.04	315
7	18760.00	-87.69	5.70	12.15	Vertical	-81.24	-25	56.24	90
8	21440.00	-90.76	6.30	13.76	Vertical	-83.30	-25	58.3	135
9	24120.00	-87.98	6.80	14.05	Vertical	-80.73	-25	55.73	90
10	26800.00	-87.18	6.90	14.84	Vertical	-79.24	-25	54.24	270

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is vertical position.

## 5 Main Test Equipment

Name of Equipment	Type/ Model	Manufacturer	Serial Number	Last Cal.	Cal. Due Date
Base Station Simulator	CMW500	R&S	113645	2015-05-22	2016-05-21
Power Splitter	SHX-GF2-2-13	Hua Xiang	10120101	NA	NA
Spectrum Analyzer	E4445A	Agilent	MY46181146	2015-05-22	2016-05-21
Universal Radio Communication Tester	E5515C	Agilent	MY48367192	2015-12-17	2016-12-16
Spectrum Analyzer	N9010A	Agilent	MY47191109	2015-05-22	2016-05-21
Spectrum Analyzer	FSP13	R&S	100679	2015-12-17	2016-12-16
Signal Analyzer	FSV30	R&S	100815	2015-12-17	2016-12-16
Signal generator	SMB 100A	R&S	102594	2015-05-06	2016-05-05
Signal generator	SMR27	R&S	100365	2015-05-22	2016-05-21
EMI Test Receiver	ESCI	R&S	100948	2015-05-25	2016-05-24
Trilog Antenna	VUBL 9163	SCHWARZBECK	9163-201	2013-11-25	2016-11-24
Trilog Antenna	VUBL 9163	SCHWARZBECK	9163-391	2014-12-06	2017-12-05
Horn Antenna	HF907	R&S	100126	2015-07-01	2018-06-30
Horn Antenna	HF907	R&S	100125	2014-12-06	2017-12-05
Horn Antenna	3160-09	ETS-Lindgren	00102643	2014-12-06	2017-12-05
Horn Antenna	3160-09	ETS-Lindgren	00102644	2014-12-06	2017-12-05
Climatic Chamber	PT-30B	Re Ce	20101891	2015-07-18	2016-07-17
RF Cable	SMA 15cm	Agilent	0001	2016-03-09	2016-05-08