



LTE Band 2		Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Conclusion
Modulation	Bandwidth						
1.4MHz	QPSK	18607	1850.7	27.677	22.39	5.29	PASS
		18900	1880.0	27.598	22.28	5.32	PASS
		19193	1909.3	27.631	22.28	5.35	PASS
	16QAM	18607	1850.7	27.336	21.51	5.83	PASS
		18900	1880.0	27.308	21.32	5.99	PASS
		19193	1909.3	27.342	21.43	5.91	PASS
3MHz	QPSK	18615	1851.5	27.807	22.42	5.39	PASS
		18900	1880	27.688	22.32	5.37	PASS
		19185	1908.5	27.661	22.31	5.35	PASS
	16QAM	18615	1851.5	27.546	21.54	6.01	PASS
		18900	1880	27.378	21.36	6.02	PASS
		19185	1908.5	27.452	21.46	5.99	PASS
5MHz	QPSK	18625	1852.5	27.787	22.40	5.39	PASS
		18900	1880	27.668	22.31	5.36	PASS
		19175	1907.5	27.671	22.29	5.38	PASS
	16QAM	18625	1852.5	27.646	21.52	6.13	PASS
		18900	1880	27.468	21.32	6.15	PASS
		19175	1907.5	27.612	21.41	6.20	PASS
10MHz	QPSK	18650	1855	27.737	22.48	5.26	PASS
		18900	1880	27.618	22.33	5.29	PASS
		19150	1905	27.641	22.33	5.31	PASS
	16QAM	18650	1855	27.556	21.55	6.01	PASS
		18900	1880	27.458	21.37	6.09	PASS
		19150	1905	27.502	21.45	6.05	PASS
15MHz	QPSK	18675	1857.5	27.917	22.46	5.46	PASS
		18900	1880	27.768	22.29	5.48	PASS
		19125	1902.5	27.731	22.28	5.45	PASS
	16QAM	18675	1857.5	27.596	21.52	6.08	PASS
		18900	1880	27.478	21.32	6.16	PASS
		19125	1902.5	27.522	21.41	6.11	PASS
20MHz	QPSK	18700	1860	27.677	22.43	5.25	PASS
		18900	1880	27.508	22.24	5.27	PASS
		19100	1900	27.541	22.24	5.30	PASS
	16QAM	18700	1860	27.476	21.50	5.98	PASS
		18900	1880	27.338	21.28	6.06	PASS
		19100	1900	27.412	21.38	6.03	PASS



LTE Band 25		Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Conclusion
Modulation	Bandwidth						
1.4MHz	QPSK	26047	1850.7	27.929	22.48	5.45	PASS
		26365	1882.5	27.891	22.46	5.43	PASS
		26683	1914.3	27.957	22.58	5.38	PASS
	16QAM	26047	1850.7	27.861	21.87	5.99	PASS
		26365	1882.5	27.491	21.43	6.06	PASS
		26683	1914.3	27.444	21.43	6.01	PASS
3MHz	QPSK	26055	1851.5	27.989	22.51	5.48	PASS
		26365	1882.5	27.901	22.50	5.40	PASS
		26675	1913.5	27.977	22.61	5.37	PASS
	16QAM	26055	1851.5	27.881	21.90	5.98	PASS
		26365	1882.5	27.691	21.47	6.22	PASS
		26675	1913.5	27.614	21.46	6.15	PASS
5MHz	QPSK	26065	1852.5	27.829	22.49	5.34	PASS
		26365	1882.5	27.851	22.49	5.36	PASS
		26665	1912.5	27.977	22.59	5.39	PASS
	16QAM	26065	1852.5	27.911	21.88	6.03	PASS
		26365	1882.5	27.571	21.43	6.14	PASS
		26665	1912.5	27.584	21.41	6.17	PASS
10MHz	QPSK	26090	1855	27.759	22.57	5.19	PASS
		26365	1882.5	27.781	22.51	5.27	PASS
		26640	1910	27.857	22.63	5.23	PASS
	16QAM	26090	1855	27.781	21.91	5.87	PASS
		26365	1882.5	27.551	21.48	6.07	PASS
		26640	1910	27.394	21.45	5.94	PASS
15MHz	QPSK	26115	1857.5	27.969	22.55	5.42	PASS
		26365	1882.5	27.931	22.47	5.46	PASS
		26615	1907.5	27.987	22.58	5.41	PASS
	16QAM	26115	1857.5	28.131	21.88	6.25	PASS
		26365	1882.5	27.591	21.43	6.16	PASS
		26615	1907.5	27.524	21.41	6.11	PASS
20MHz	QPSK	26140	1860	27.829	22.52	5.31	PASS
		26365	1882.5	27.701	22.42	5.28	PASS
		26590	1905	27.807	22.54	5.27	PASS
	16QAM	26140	1860	27.751	21.86	5.89	PASS
		26365	1882.5	27.451	21.39	6.06	PASS
		26590	1905	27.314	21.38	5.93	PASS

## 5.6. 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 0°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)

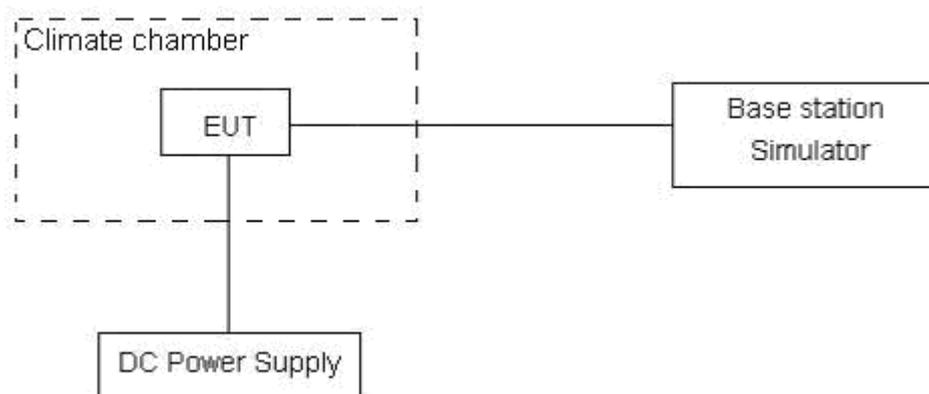
The frequency stability shall be measured with variation of primary supply voltage as follows:

(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 3.5V and 4.4V, with a nominal voltage of 3.8V.

### Test setup



### Limits

No specific frequency stability requirements in part 24.235

**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**

Mode	Test status	Test Results (ppm)			Conclusion
		GSM(GMSK)	GPRS(GMSK)	EGPRS(8PSK)	
GSM 1900 Channel 661	-30°C/3.84 V	-0.00027660	0.00636702	0.00930000	PASS
	-20°C/3.84 V	0.00077660	0.00732979	0.01010000	PASS
	-10°C/3.84 V	-0.00096277	0.01078723	0.00860000	PASS
	0°C/3.84 V	0.00086170	0.00580319	0.00970000	PASS
	10°C/3.84 V	-0.00095213	0.00929787	0.00990000	PASS
	20°C/3.84 V	-0.00042553	0.00708511	0.00890000	PASS
	30°C/3.84 V	0.00048936	0.00894149	0.00910000	PASS
	40°C/3.84 V	-0.00021277	0.00355319	0.00830000	PASS
	50°C/3.84 V	0.00026064	0.00759043	0.00950000	PASS
	20°C/3.5 V	0.00064362	0.00772340	0.00940000	PASS
	20°C/4.4 V	0.00085106	0.00702660	0.00870000	PASS
Mode	Test status	1xRTT			Conclusion
CDMA BC1 1xRTT	-30°C/3.84 V	0.00356			PASS
	-20°C/3.84 V	0.00388			PASS
	-10°C/3.84 V	0.00324			PASS
	0°C/3.84 V	0.00298			PASS
	10°C/3.84 V	0.00340			PASS
	20°C/3.84 V	0.00170			PASS
	30°C/3.84 V	0.00245			PASS
	40°C/3.84 V	0.00277			PASS
	50°C/3.84 V	0.00197			PASS
	20°C/3.5 V	0.00383			PASS
	20°C/4.4 V	0.00229			PASS
Mode	Test status	RMC			Conclusion
WCDMA Band II Channel 9400	-30°C/3.84 V	-0.00105900			PASS
	-20°C/3.84 V	-0.00031500			PASS
	-10°C/3.84 V	-0.00062900			PASS
	0°C/3.84 V	-0.00079800			PASS
	10°C/3.84 V	-0.00067600			PASS
	20°C/3.84 V	-0.00041700			PASS
	30°C/3.84 V	-0.00043000			PASS
	40°C/3.84 V	-0.00061700			PASS
	50°C/3.84 V	-0.00006600			PASS



	20°C/3.5 V	-0.00081200	PASS
	20°C/4.4 V	-0.00059800	PASS

Bandwith	Test status	LTE Band 2 Channel 18900		Conclusion
		Test Results (ppm)		
		QPSK	16QAM	
1.4MHz	-30°C/3.84 V	-0.00267	-0.00258	PASS
	-20°C/3.84 V	-0.00318	-0.00149	PASS
	-10°C/3.84 V	-0.00118	-0.0048	PASS
	0°C/3.84 V	-0.00153	-0.00327	PASS
	10°C/3.84 V	-0.00159	-0.0032	PASS
	20°C/3.84 V	-0.00229	-0.00432	PASS
	30°C/3.84 V	-0.00274	-0.00311	PASS
	40°C/3.84 V	-0.00432	-0.0032	PASS
	50°C/3.84 V	-0.00195	-0.00265	PASS
	20°C/3.5 V	-0.00291	-0.00479	PASS
	20°C/4.4 V	-0.00352	-0.00276	PASS
3MHz	-30°C/3.84 V	-0.00372	-0.0032	PASS
	-20°C/3.84 V	-0.00216	-0.00396	PASS
	-10°C/3.84 V	-0.00313	-0.00321	PASS
	0°C/3.84 V	-0.00219	-0.00258	PASS
	10°C/3.84 V	-0.00418	-0.00374	PASS
	20°C/3.84 V	-0.00282	-0.00371	PASS
	30°C/3.84 V	-0.00372	-0.00419	PASS
	40°C/3.84 V	-0.00265	-0.00308	PASS
	50°C/3.84 V	-0.00318	-0.00253	PASS
	20°C/3.5 V	-0.0032	-0.00358	PASS
	20°C/4.4 V	-0.00282	-0.00318	PASS
5MHz	-30°C/3.84 V	-0.0032	-0.00208	PASS
	-20°C/3.84 V	-0.00417	-0.00201	PASS
	-10°C/3.84 V	-0.00357	-0.00152	PASS
	0°C/3.84 V	-0.00268	-0.00323	PASS
	10°C/3.84 V	-0.00481	-0.00341	PASS
	20°C/3.84 V	-0.00323	-0.00252	PASS
	30°C/3.84 V	-0.00345	-0.00265	PASS
	40°C/3.84 V	-0.00307	-0.0024	PASS
	50°C/3.84 V	-0.00277	-0.00277	PASS
	20°C/3.5 V	-0.00453	-0.00279	PASS
	20°C/4.4 V	-0.00134	-0.00585	PASS



10MHz	-30°C/3.84 V	-0.00303	-0.00046	PASS
	-20°C/3.84 V	-0.00457	-0.00267	PASS
	-10°C/3.84 V	-0.00202	-0.00101	PASS
	0°C/3.84 V	-0.00401	-0.00215	PASS
	10°C/3.84 V	-0.00478	-0.00224	PASS
	20°C/3.84 V	-0.00062	-0.00371	PASS
	30°C/3.84 V	-0.00157	-0.00265	PASS
	40°C/3.84 V	-0.00331	-0.00444	PASS
	50°C/3.84 V	-0.00312	-0.00304	PASS
	20°C/3.5 V	-0.00361	-0.00108	PASS
	20°C/4.4 V	-0.00384	-0.00262	PASS
15MHz	-30°C/3.84 V	-0.00382	-0.00138	PASS
	-20°C/3.84 V	-0.0038	-0.00221	PASS
	-10°C/3.84 V	-0.00009	-0.00173	PASS
	0°C/3.84 V	-0.00262	-0.00264	PASS
	10°C/3.84 V	-0.00313	-0.00106	PASS
	20°C/3.84 V	-0.00379	-0.00373	PASS
	30°C/3.84 V	-0.00364	-0.00357	PASS
	40°C/3.84 V	-0.00368	-0.0016	PASS
	50°C/3.84 V	-0.00168	-0.00311	PASS
	20°C/3.5 V	-0.00366	-0.00051	PASS
	20°C/4.4 V	-0.00057	-0.00214	PASS
20MHz	-30°C/3.84 V	-0.00279	-0.00272	PASS
	-20°C/3.84 V	-0.00215	-0.00104	PASS
	-10°C/3.84 V	-0.0012	-0.00267	PASS
	0°C/3.84 V	-0.00157	-0.00122	PASS
	10°C/3.84 V	-0.00278	-0.00379	PASS
	20°C/3.84 V	-0.00327	-0.003	PASS
	30°C/3.84 V	-0.00071	-0.00148	PASS
	40°C/3.84 V	-0.00377	-0.00132	PASS
	50°C/3.84 V	-0.00384	-0.00209	PASS
	20°C/3.5 V	-0.00271	-0.0027	PASS
	20°C/4.4 V	-0.00103	-0.00214	PASS



Bandwidth	Test status	LTE Band 25 Channel 26365 Test Results (ppm)		Conclusion
		QPSK	16QAM	
1.4MHz	-30°C/3.84 V	0.00088	0.0004	PASS
	-20°C/3.84 V	0.00071	0.00065	PASS
	-10°C/3.84 V	0.00178	-0.00036	PASS
	0°C/3.84 V	-0.00114	-0.001	PASS
	10°C/3.84 V	0.00016	-0.00059	PASS
	20°C/3.84 V	0.001	0.00109	PASS
	30°C/3.84 V	-0.0007	-0.00089	PASS
	40°C/3.84 V	-0.00056	0.00162	PASS
	50°C/3.84 V	-0.0011	0.00184	PASS
	20°C/3.5 V	-0.00064	0.00226	PASS
	20°C/4.4 V	-0.00084	0.00098	PASS
3MHz	-30°C/3.84 V	-0.00074	-0.00124	PASS
	-20°C/3.84 V	0.00132	0.00171	PASS
	-10°C/3.84 V	0.00022	0.00142	PASS
	0°C/3.84 V	0.00078	0.00153	PASS
	10°C/3.84 V	-0.00002	-0.00013	PASS
	20°C/3.84 V	-0.00086	-0.00091	PASS
	30°C/3.84 V	-0.00076	-0.0009	PASS
	40°C/3.84 V	0.00166	0.00088	PASS
	50°C/3.84 V	0.0021	0.00068	PASS
	20°C/3.5 V	-0.00086	-0.00086	PASS
	20°C/4.4 V	-0.00122	-0.00128	PASS
5MHz	-30°C/3.84 V	0.00129	-0.00023	PASS
	-20°C/3.84 V	0.00095	-0.00092	PASS
	-10°C/3.84 V	0.00018	0.00049	PASS
	0°C/3.84 V	0.00076	0.00124	PASS
	10°C/3.84 V	-0.00067	0.00151	PASS
	20°C/3.84 V	-0.00018	-0.00065	PASS
	30°C/3.84 V	-0.00101	-0.00026	PASS
	40°C/3.84 V	-0.00086	-0.00044	PASS
	50°C/3.84 V	0.0014	-0.00076	PASS
	20°C/3.5 V	-0.00012	-0.00116	PASS
	20°C/4.4 V	-0.0014	0.0001	PASS
10MHz	-30°C/3.84 V	0.00107	-0.00014	PASS
	-20°C/3.84 V	0.00124	-0.00045	PASS
	-10°C/3.84 V	0.00097	-0.00092	PASS



	0°C/3.84 V	0.00035	0.00013	PASS
	10°C/3.84 V	-0.00088	0.00073	PASS
	20°C/3.84 V	-0.00129	0.00031	PASS
	30°C/3.84 V	-0.00148	-0.00006	PASS
	40°C/3.84 V	-0.00161	-0.0013	PASS
	50°C/3.84 V	0.00141	-0.00158	PASS
	20°C/3.5 V	-0.00097	-0.00148	PASS
	20°C/4.4 V	-0.00159	0.00124	PASS
15MHz	-30°C/3.84 V	-0.00064	0.00139	PASS
	-20°C/3.84 V	0.00046	0.0016	PASS
	-10°C/3.84 V	0.00024	0.00154	PASS
	0°C/3.84 V	0.00093	0.00015	PASS
	10°C/3.84 V	-0.00135	0.00018	PASS
	20°C/3.84 V	-0.00083	-0.00006	PASS
	30°C/3.84 V	-0.00011	-0.00131	PASS
	40°C/3.84 V	-0.00203	-0.00097	PASS
	50°C/3.84 V	0.00182	-0.00069	PASS
	20°C/3.5 V	-0.00189	-0.00091	PASS
	20°C/4.4 V	-0.00044	0.00078	PASS
20MHz	-30°C/3.84 V	-0.00015	0.00161	PASS
	-20°C/3.84 V	0.00029	0.00038	PASS
	-10°C/3.84 V	0.00148	0.00097	PASS
	0°C/3.84 V	0.00065	0.00092	PASS
	10°C/3.84 V	-0.00035	0.00124	PASS
	20°C/3.84 V	-0.00012	-0.00021	PASS
	30°C/3.84 V	-0.00071	-0.00012	PASS
	40°C/3.84 V	-0.00086	-0.00067	PASS
	50°C/3.84 V	0.00165	-0.00095	PASS
	20°C/3.5 V	-0.00126	-0.00084	PASS
	20°C/4.4 V	-0.00103	0.00144	PASS

### 5.7. Spurious Emissions at Antenna Terminals

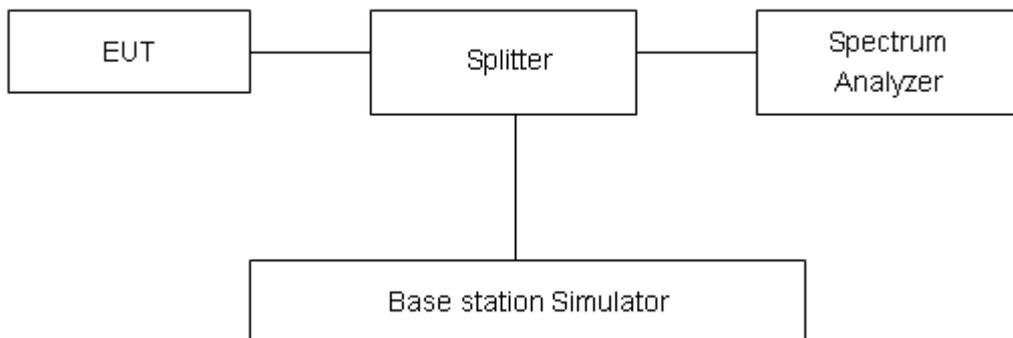
#### Ambient condition

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.

#### Test setup



#### Limits

Rule Part 24.238(a) specifies that “on any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10} (P)$  dB.”

Limit	-13 dBm

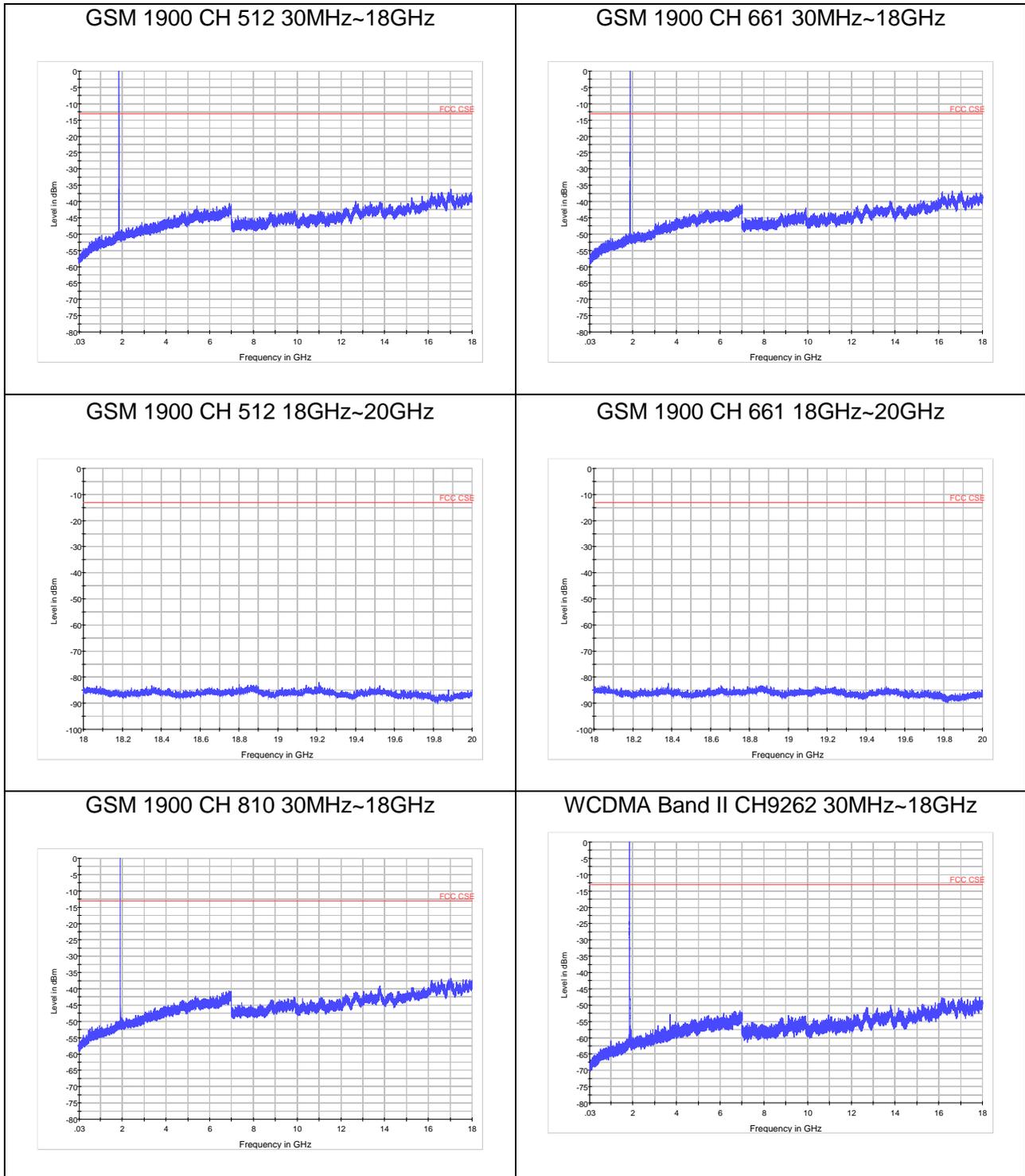
#### Measurement Uncertainty

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-18GHz	1.407 dB

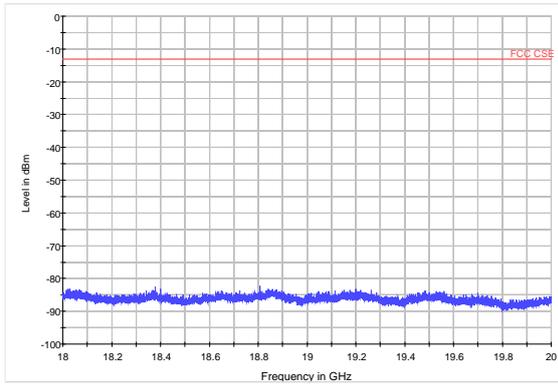
## Test Result

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.

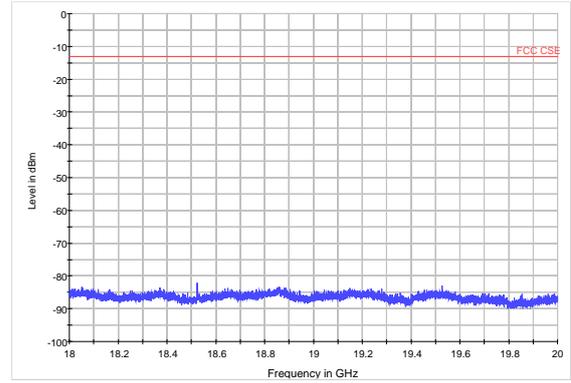




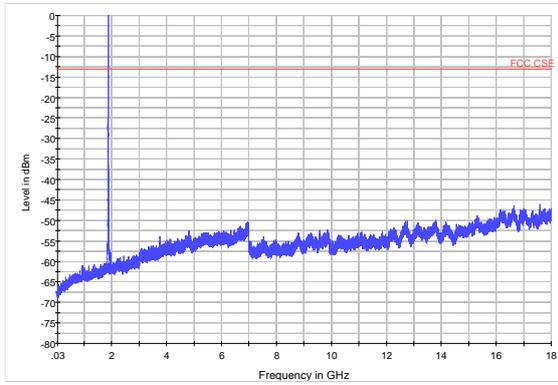
GSM 1900 CH 810 18GHz~20GHz



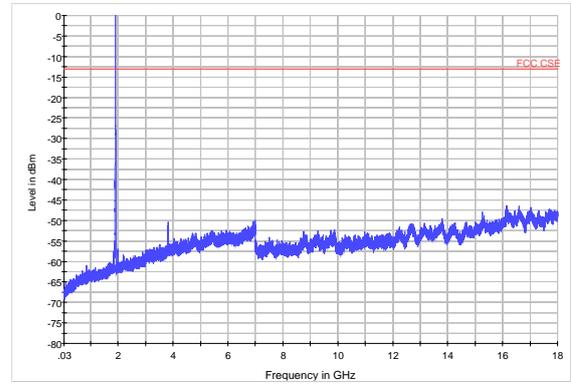
WCDMA Band II CH9262 18GHz~20GHz



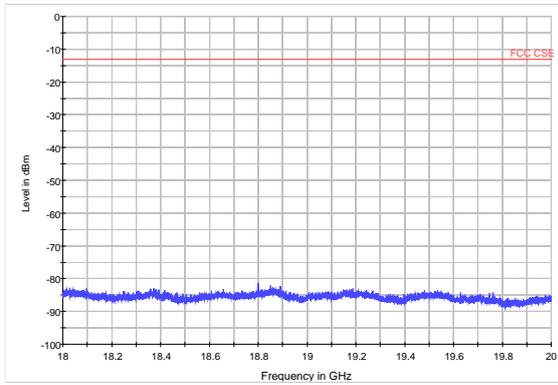
WCDMA Band II CH9400 30MHz~18GHz



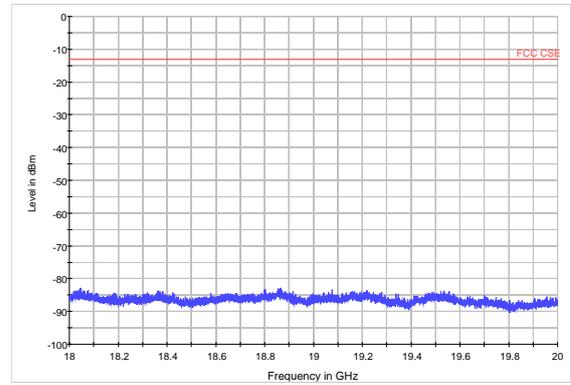
WCDMA Band II CH9538 30MHz~18GHz



WCDMA Band II CH9400 18GHz~20GHz

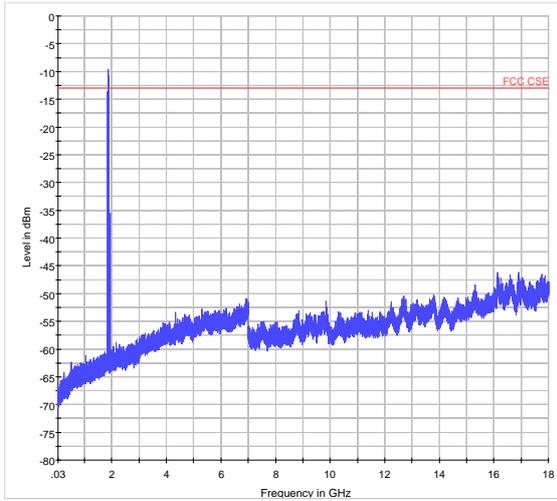


WCDMA Band II CH9538 18GHz~20GHz

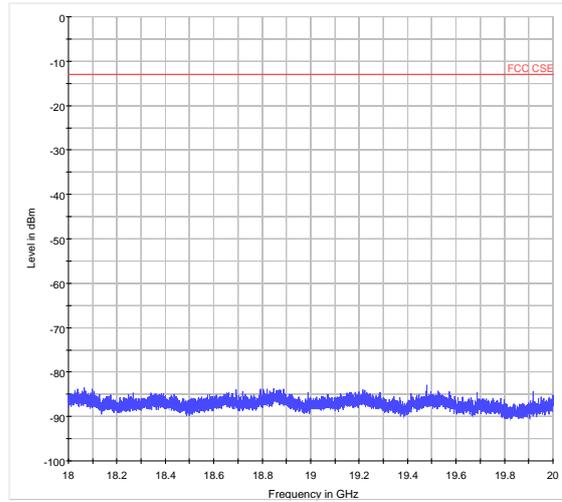




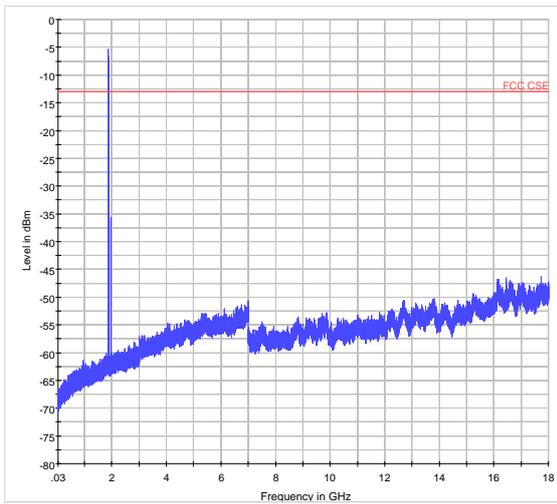
CDMA BC1 1xRTT CH25 30MHz~18GHz



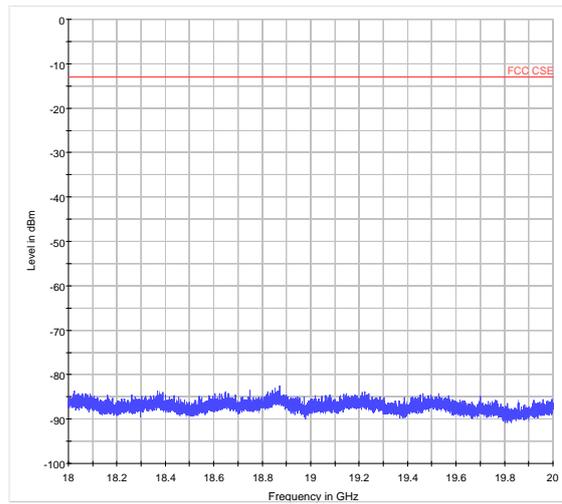
CDMA BC1 1xRTT CH25 18GHz~20GHz



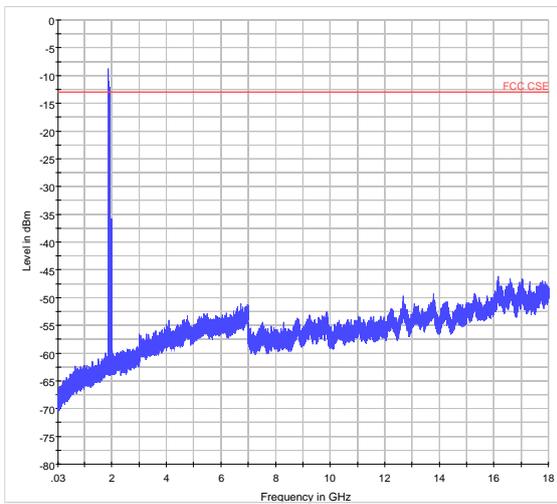
CDMA BC1 1xRTT CH600 30MHz~18GHz



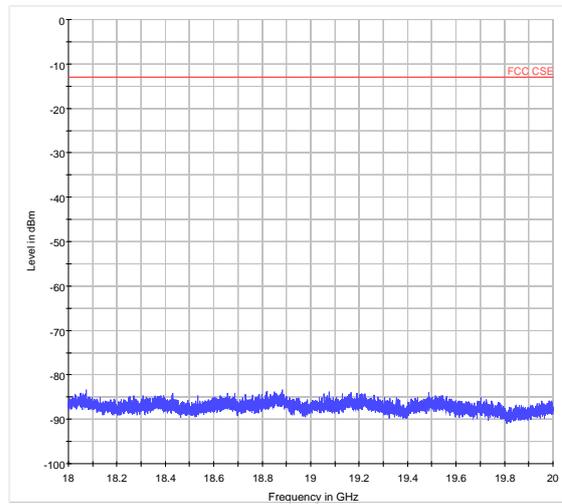
CDMA BC1 1xRTT CH600 18GHz~20GHz



CDMA BC1 1xRTT CH1175 30MHz~18GHz

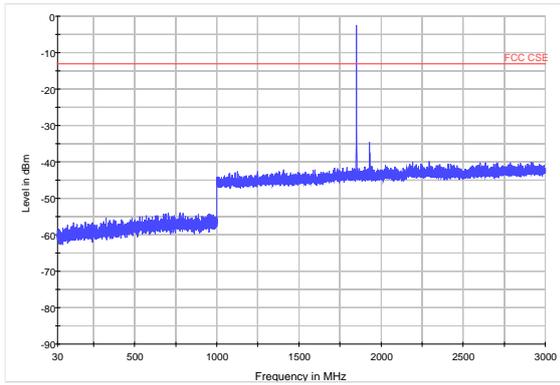


CDMA BC1 1xRTT CH1175 18GHz~20GHz

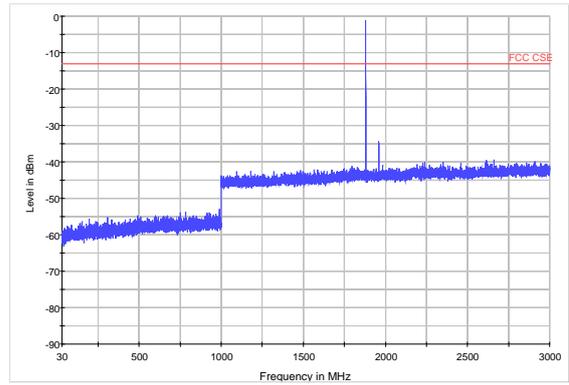




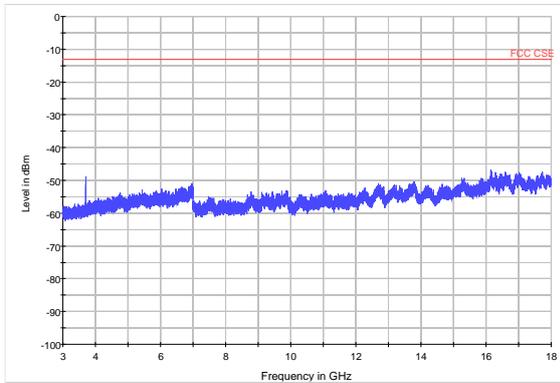
LTE Band 2 1.4MHz CH18607 30MHz~3GHz



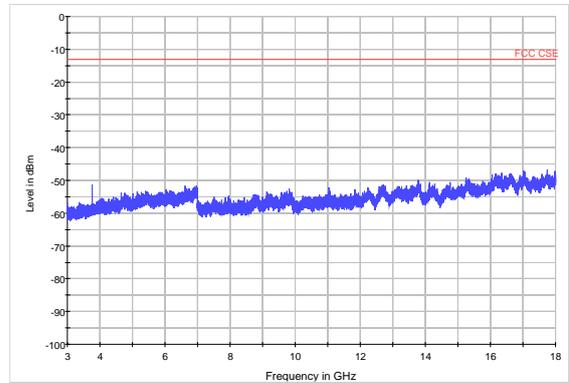
LTE Band 2 1.4MHz CH18900 30MHz~3GHz



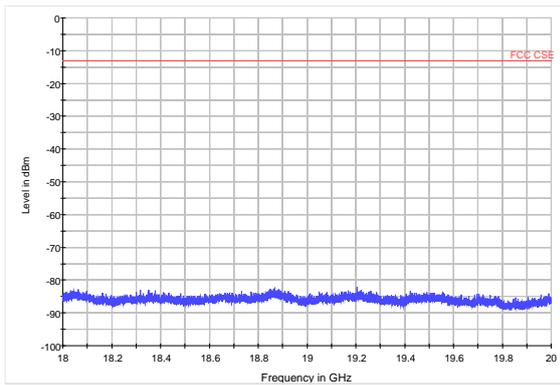
LTE Band 2 1.4MHz CH18607 3GHz~18GHz



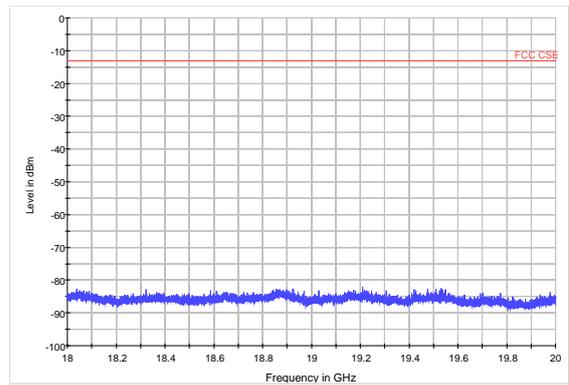
LTE Band 2 1.4MHz CH18900 3GHz~18GHz



LTE Band 2 1.4MHz CH18607 18GHz~20GHz

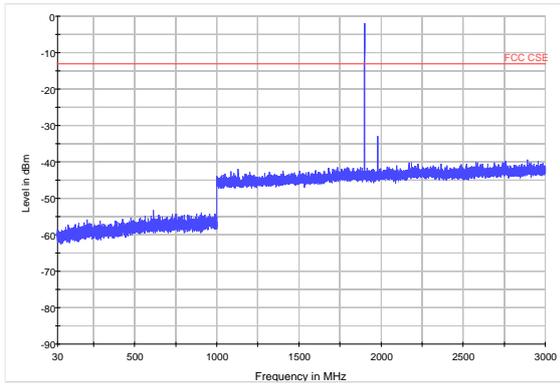


LTE Band 2 1.4MHz CH18900 18GHz~20GHz

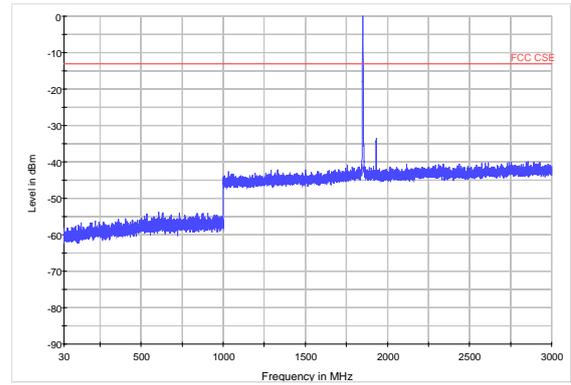




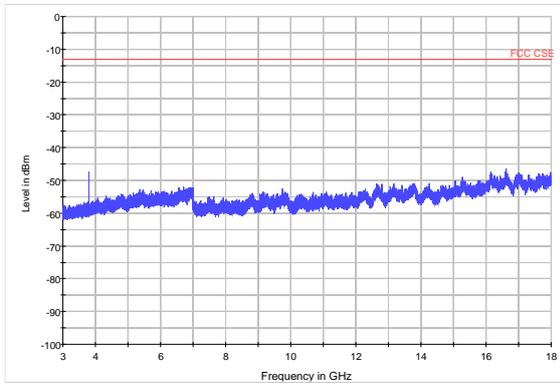
LTE Band 2 1.4MHz CH19193 30MHz~3GHz



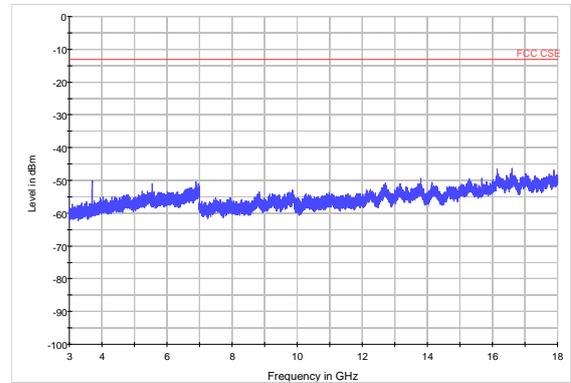
LTE Band 2 3MHz CH18615 30MHz~3GHz



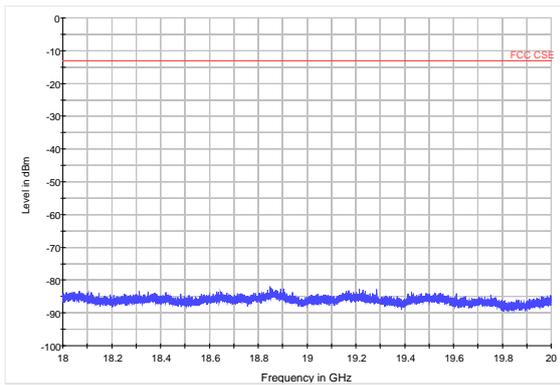
LTE Band 2 1.4MHz CH19193 3GHz~18GHz



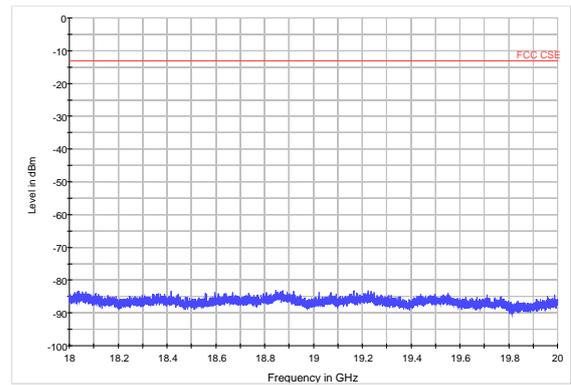
LTE Band 2 3MHz CH18615 3GHz~18GHz



LTE Band 2 1.4MHz CH19193 18GHz~20GHz

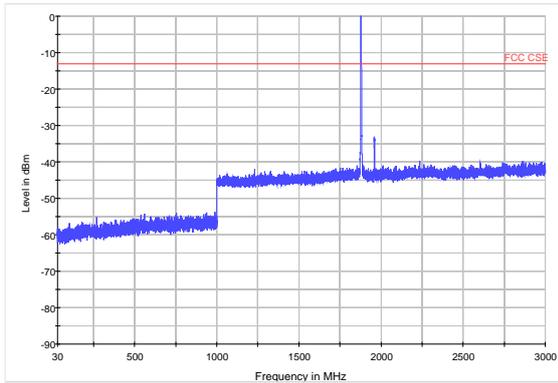


LTE Band 2 3MHz CH18615 18GHz~20GHz

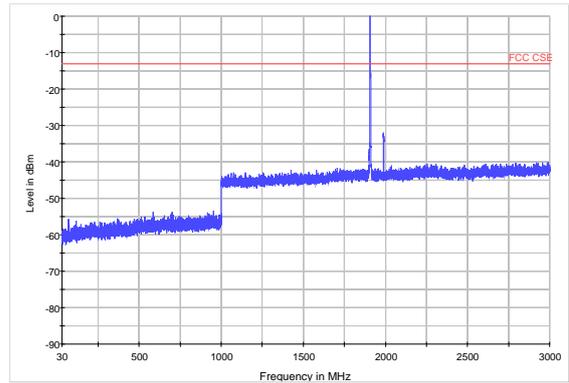




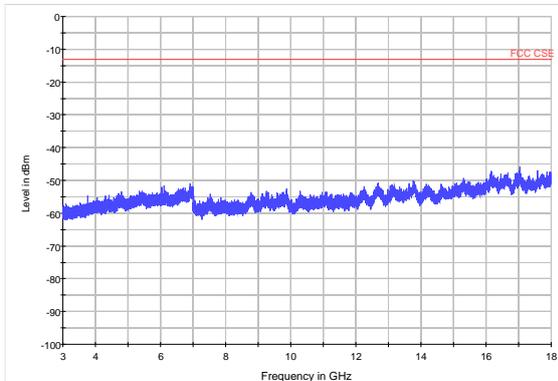
LTE Band 2 3MHz CH18900 30MHz~3GHz



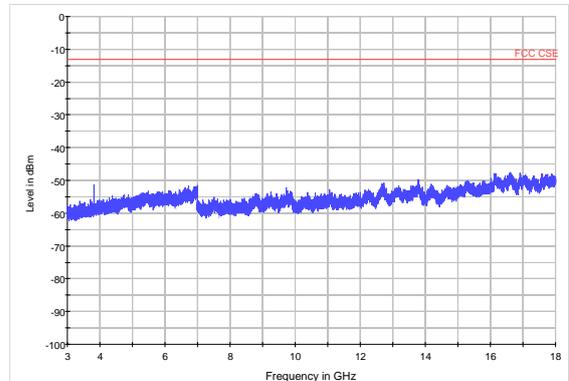
LTE Band 2 3MHz CH19185 30MHz~3GHz



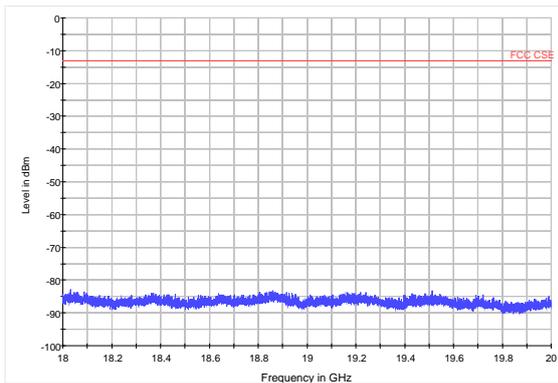
LTE Band 2 3MHz CH18900 3GHz~18GHz



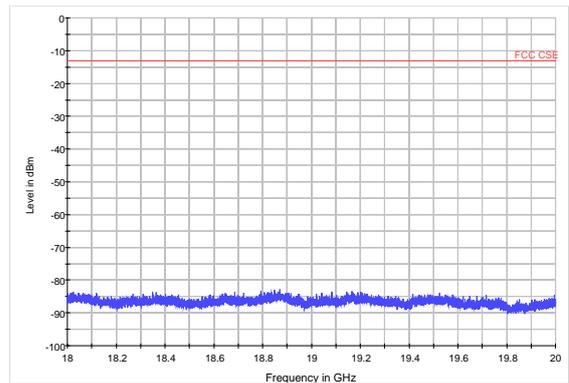
LTE Band 2 3MHz CH19185 3GHz~18GHz



LTE Band 2 3MHz CH18900 18GHz~20GHz

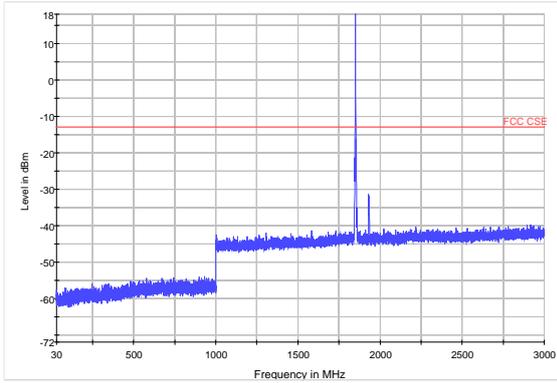


LTE Band 2 3MHz CH19185 18GHz~20GHz

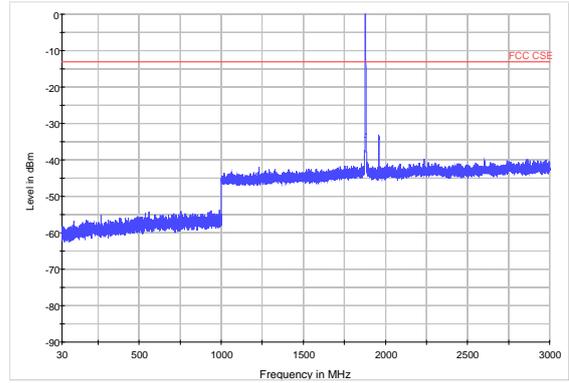




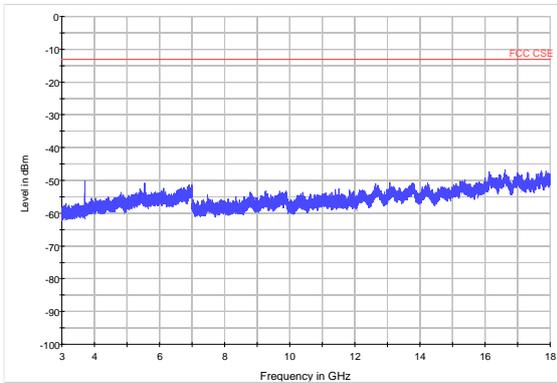
LTE Band 2 5MHz CH18625 30MHz~3GHz



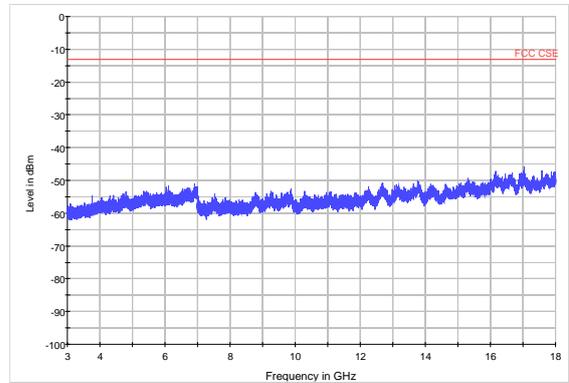
LTE Band 2 5MHz CH18900 30MHz~3GHz



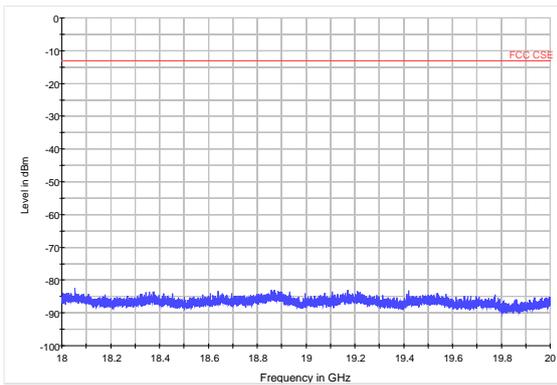
LTE Band 2 5MHz CH18625 3GHz~18GHz



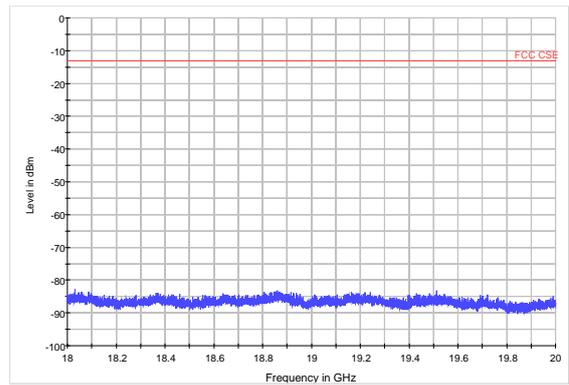
LTE Band 2 5MHz CH18900 3GHz~18GHz



LTE Band 2 5MHz CH18625 18GHz~20GHz

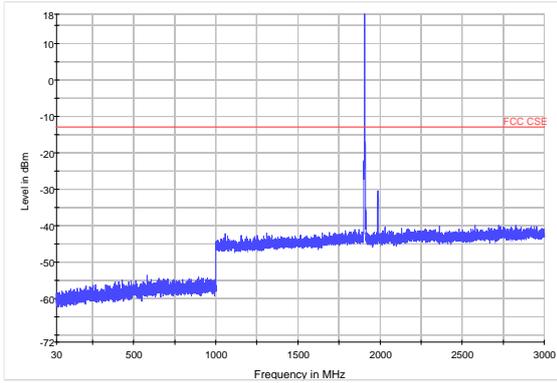


LTE Band 2 5MHz CH18900 18GHz~20GHz

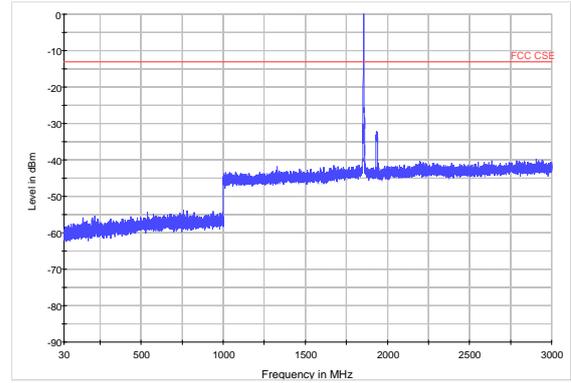




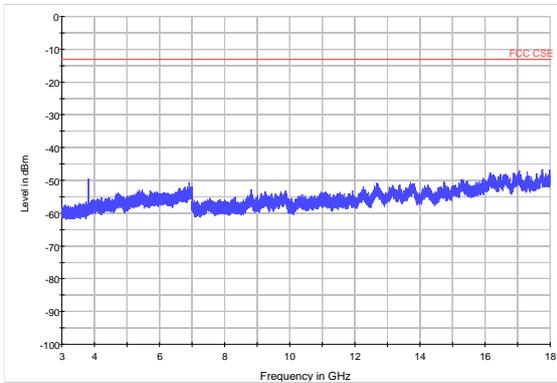
LTE Band 2 5MHz CH19175 30MHz~3GHz



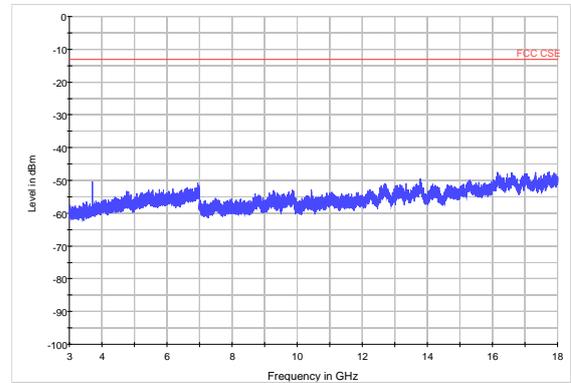
LTE Band 2 10MHz CH18650 30MHz~3GHz



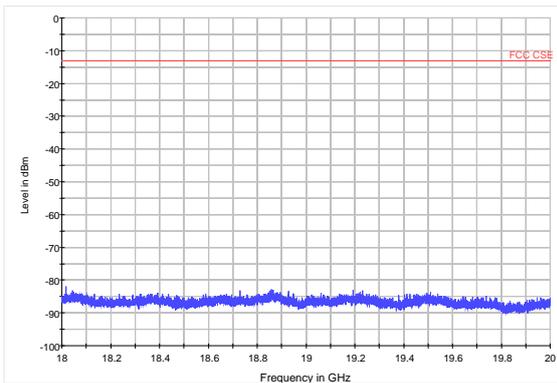
LTE Band 2 5MHz CH19175 3GHz~18GHz



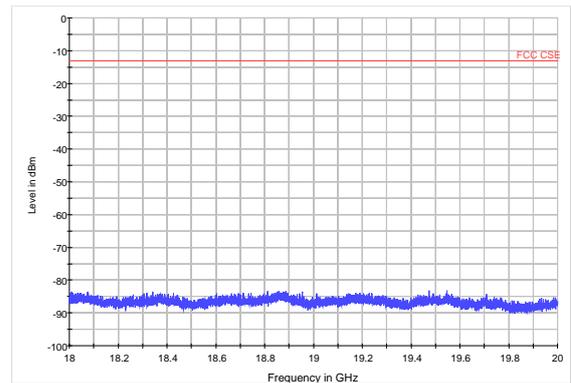
LTE Band 2 10MHz CH18650 3GHz~18GHz



LTE Band 2 5MHz CH19175 18GHz~20GHz

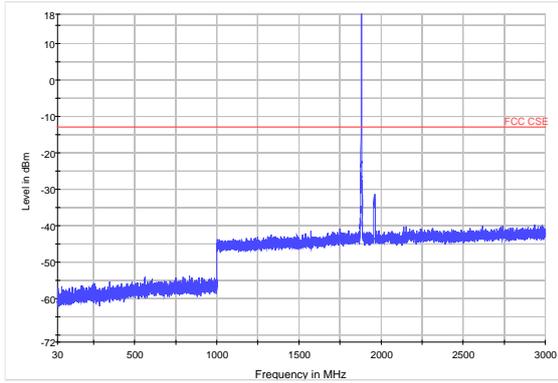


LTE Band 2 10MHz CH18650 18GHz~20GHz

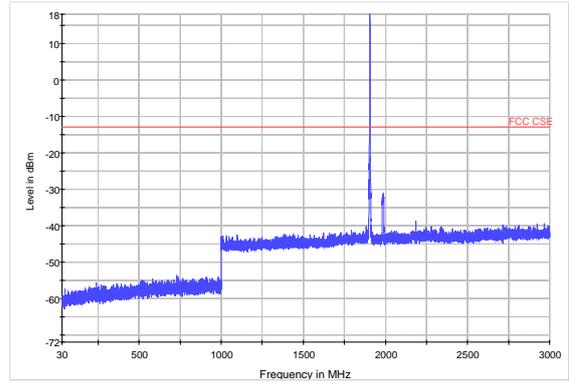




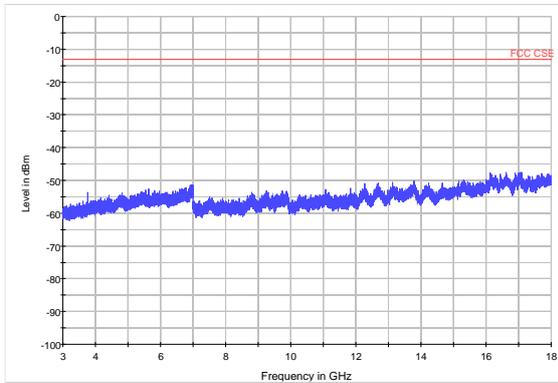
LTE Band 2 10MHz CH18900 30MHz~3GHz



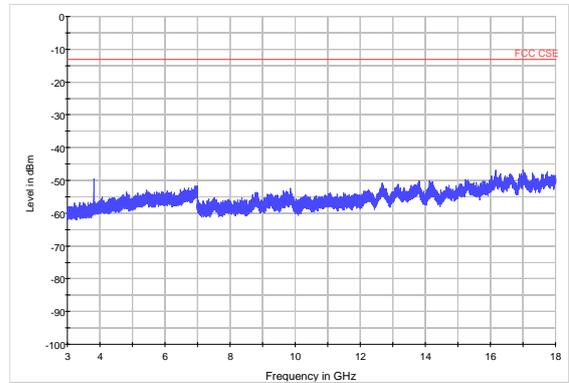
LTE Band 2 10MHz CH19150 30MHz~3GHz



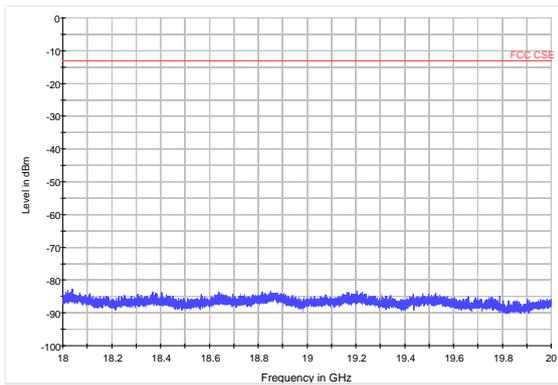
LTE Band 2 10MHz CH18900 3GHz~18GHz



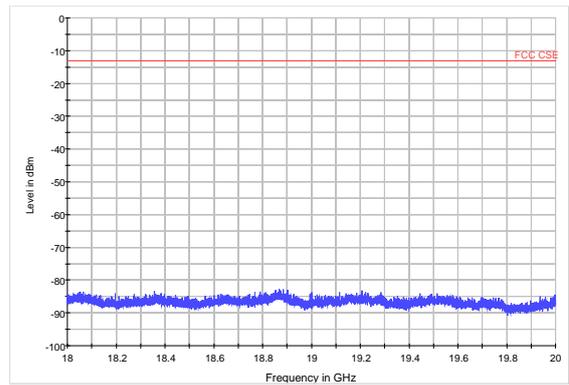
LTE Band 2 10MHz CH19150 3GHz~18GHz



LTE Band 2 10MHz CH18900 18GHz~20GHz

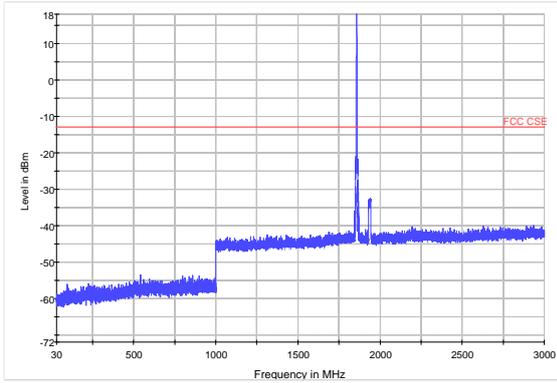


LTE Band 2 10MHz CH19150 18GHz~20GHz

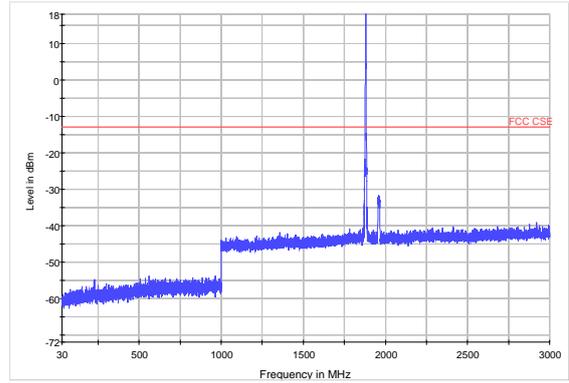




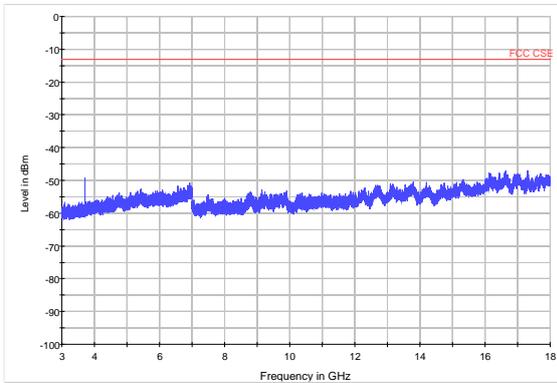
LTE Band 2 15MHz CH18675 30MHz~3GHz



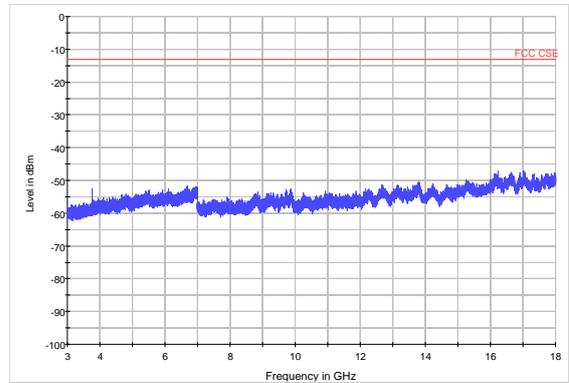
LTE Band 2 15MHz CH18900 30MHz~3GHz



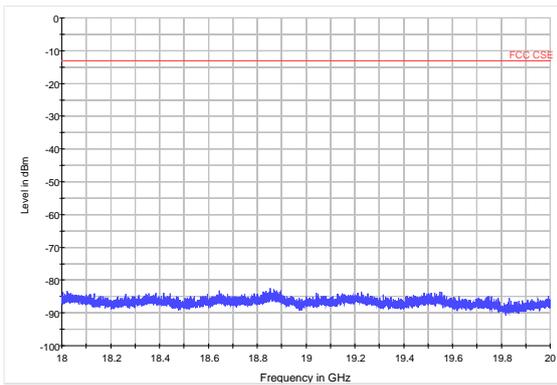
LTE Band 2 15MHz CH18675 3GHz~18GHz



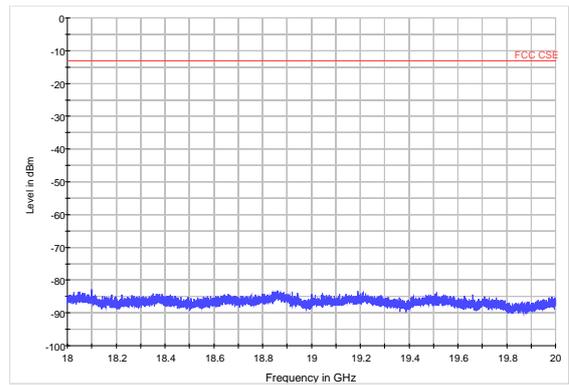
LTE Band 2 15MHz CH18900 3GHz~18GHz



LTE Band 2 15MHz CH18675 18GHz~20GHz

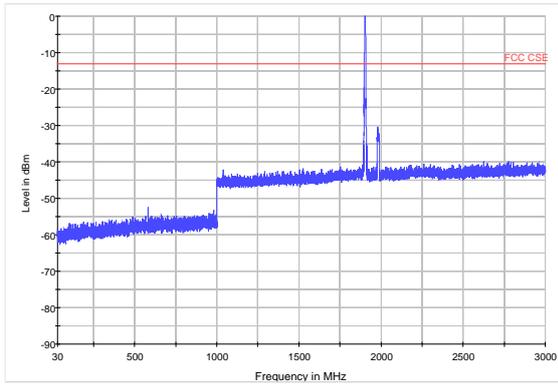


LTE Band 2 15MHz CH18900 18GHz~20GHz

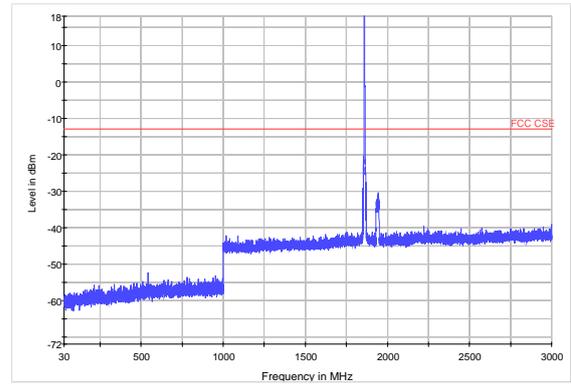




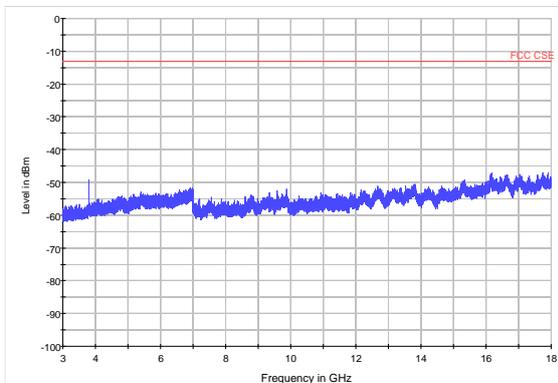
LTE Band 2 15MHz CH19175 30MHz~3GHz



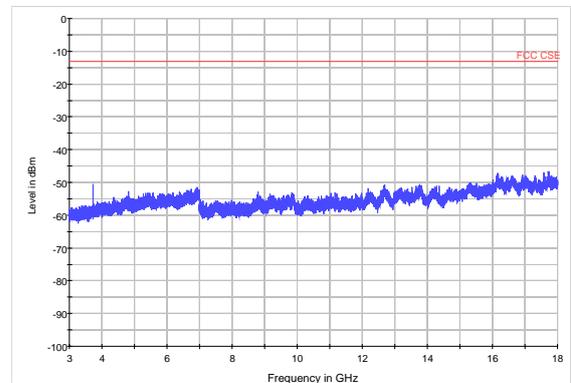
LTE Band 2 20MHz CH18700 30MHz~3GHz



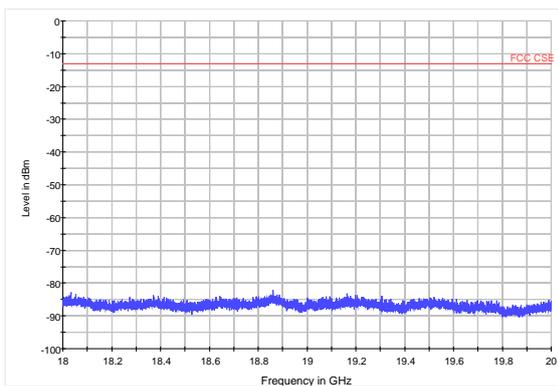
LTE Band 2 15MHz CH19175 3GHz~18GHz



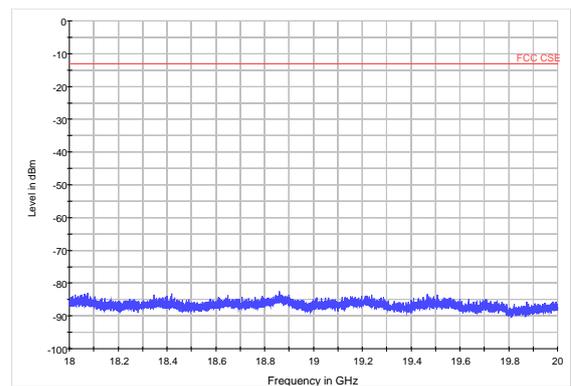
LTE Band 2 20MHz CH18700 3GHz~18GHz



LTE Band 2 15MHz CH19175 18GHz~20GHz

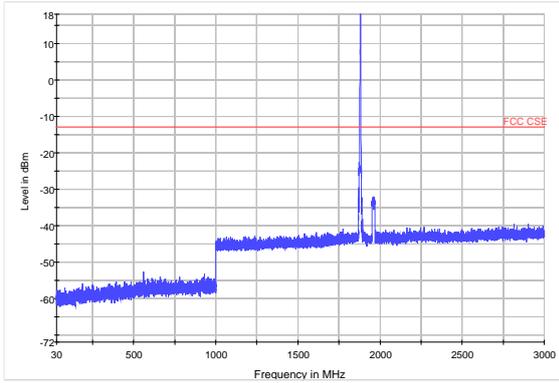


LTE Band 2 20MHz CH18700 18GHz~20GHz

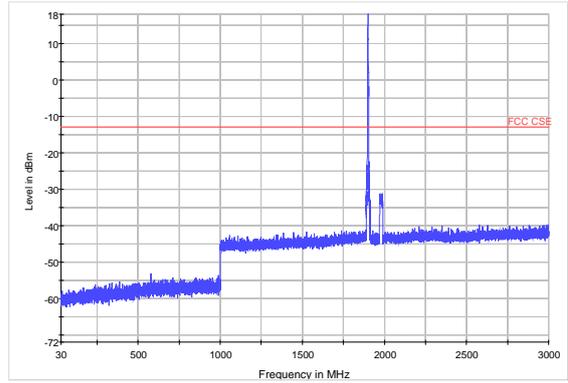




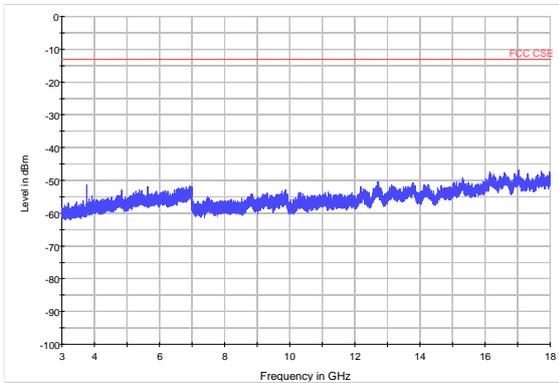
LTE Band 2 20MHz CH18900 30MHz~3GHz



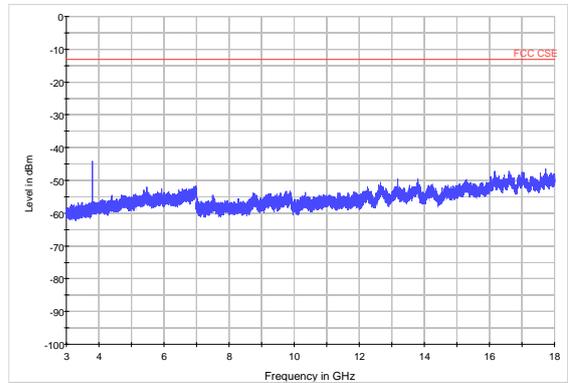
LTE Band 2 20MHz CH19200 30MHz~3GHz



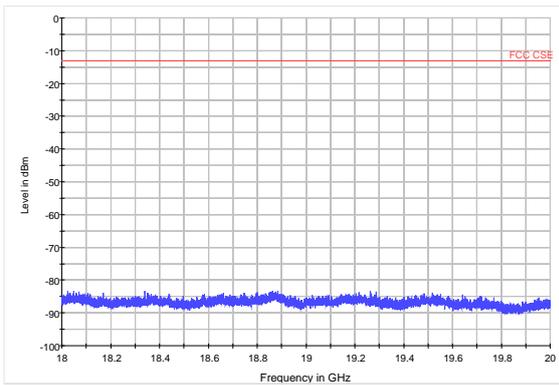
LTE Band 2 20MHz CH18900 3GHz~18GHz



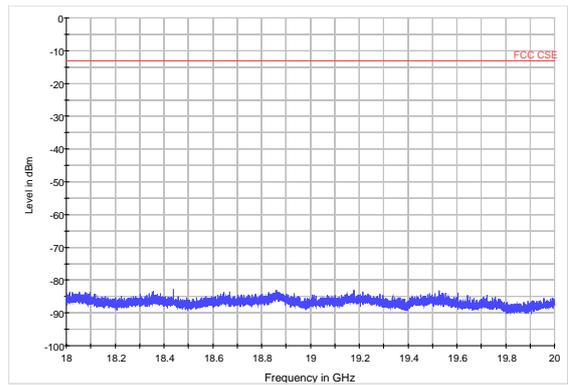
LTE Band 2 20MHz CH19200 3GHz~18GHz



LTE Band 2 20MHz CH18900 18GHz~20GHz

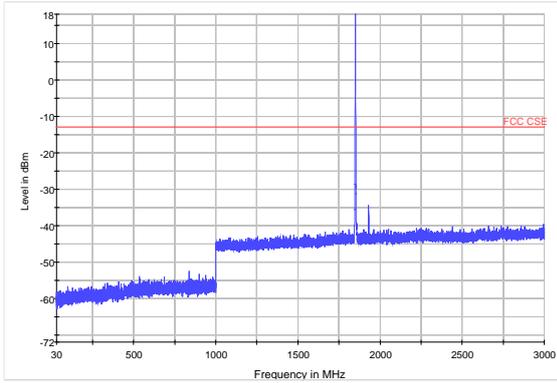


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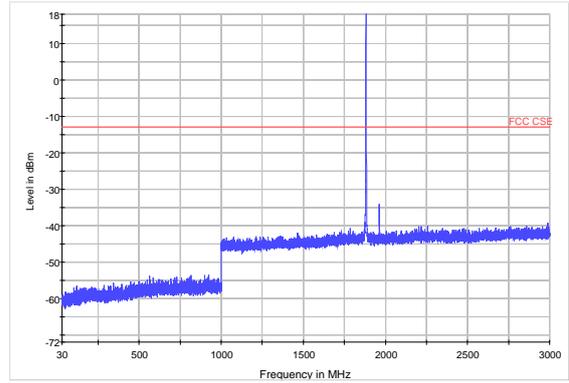




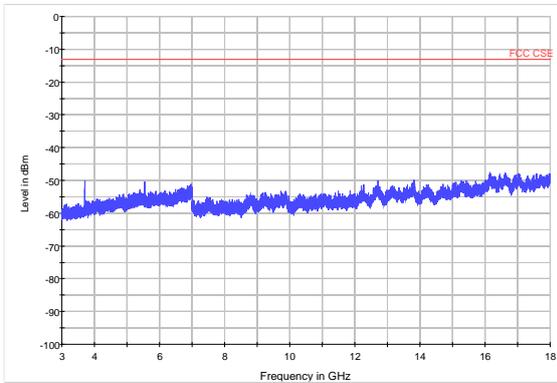
LTE Band 25 1.4MHz CH26047 30MHz~3GHz



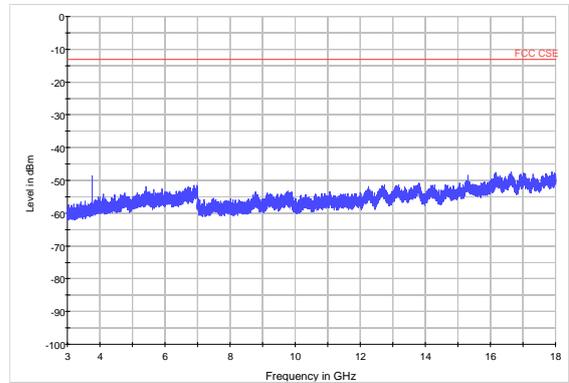
LTE Band 25 1.4MHz CH26365 30MHz~3GHz



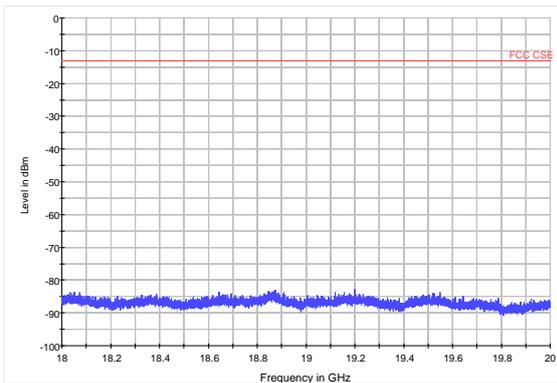
LTE Band 25 1.4MHz CH26047 3GHz~18GHz



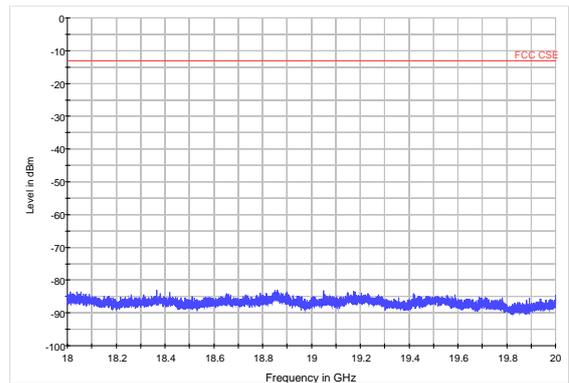
LTE Band 25 1.4MHz CH26365 3GHz~18GHz



LTE Band 25 1.4MHz CH26047 18GHz~20GHz

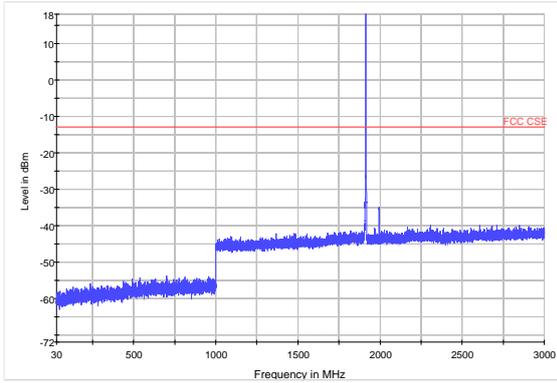


LTE Band 25 1.4MHz CH26365 18GHz~20GHz

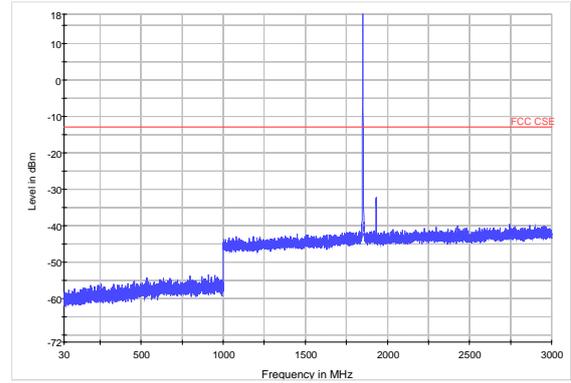




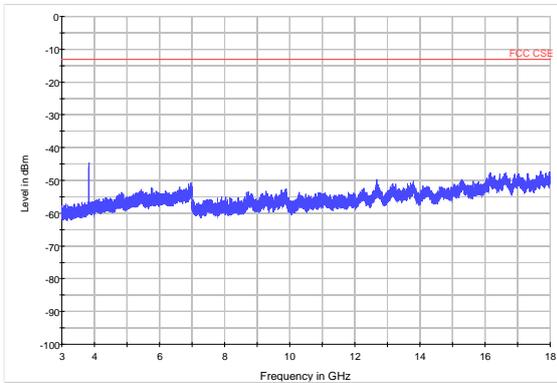
LTE Band 25 1.4MHz CH26683 30MHz~3GHz



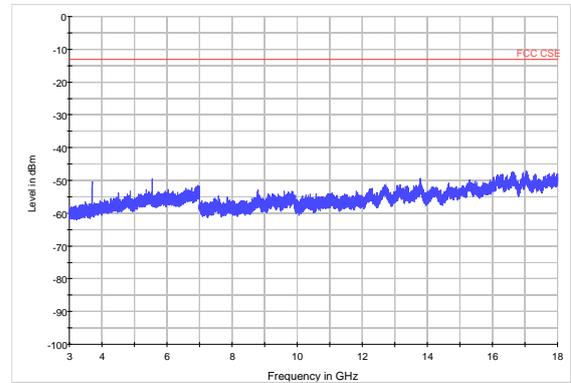
LTE Band 25 3MHz CH26055 30MHz~3GHz



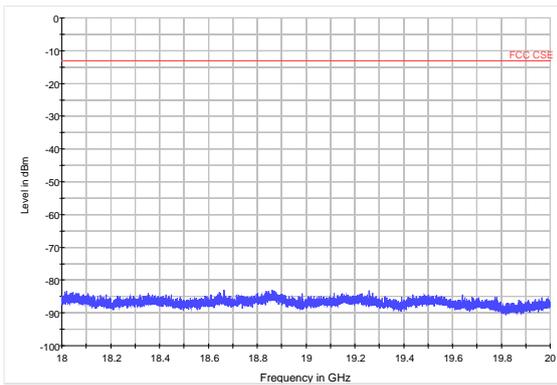
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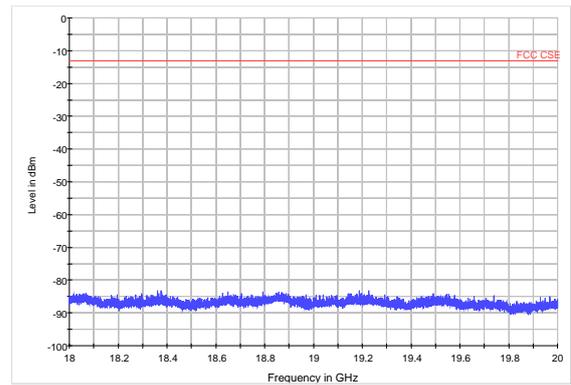
LTE Band 25 3MHz CH26055 3GHz~18GHz



LTE Band 25 1.4MHz CH26683 18GHz~20GHz

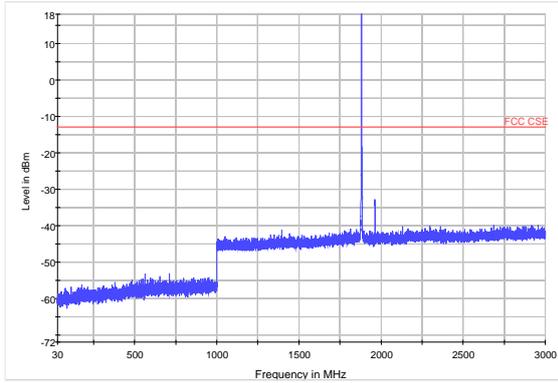


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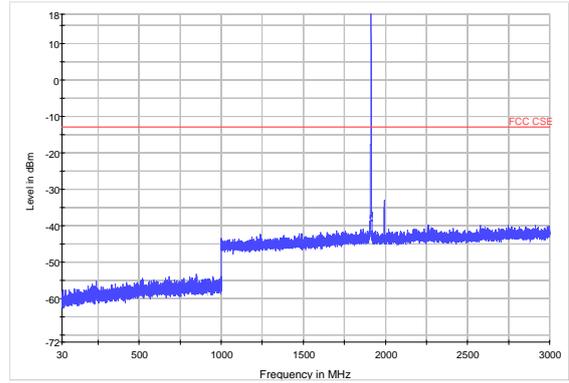




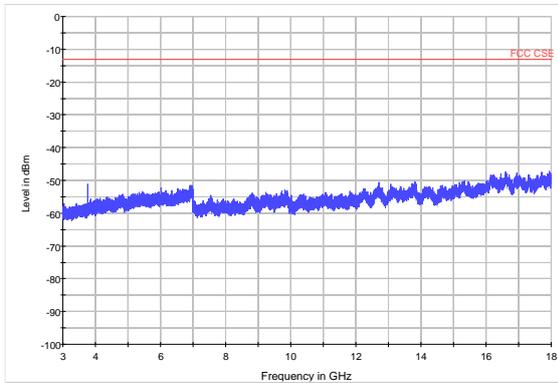
LTE Band 25 3MHz CH26365 30MHz~3GHz



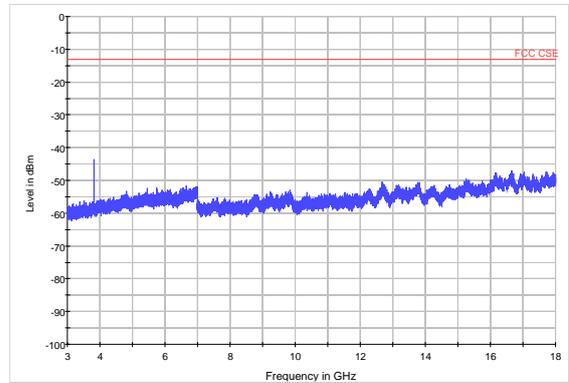
LTE Band 25 3MHz CH26675 30MHz~3GHz



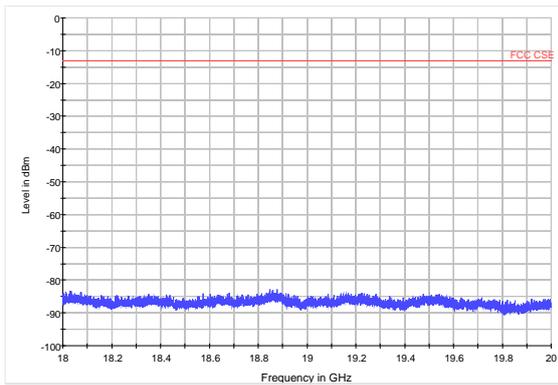
LTE Band 25 3MHz CH26365 3GHz~18GHz



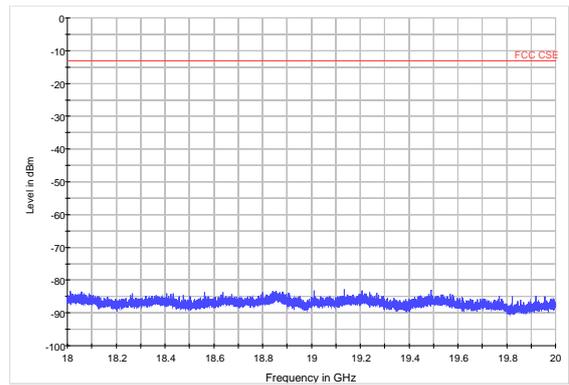
LTE Band 25 3MHz CH26675 3GHz~18GHz



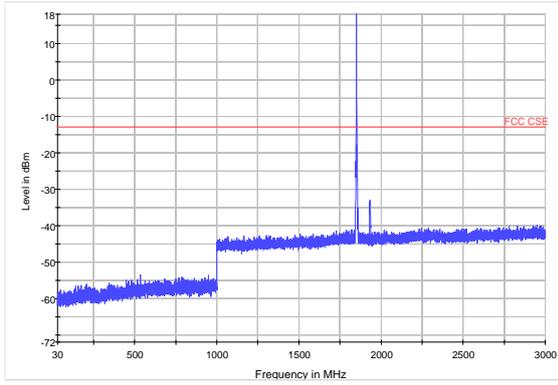
LTE Band 25 3MHz CH26365 18GHz~20GHz



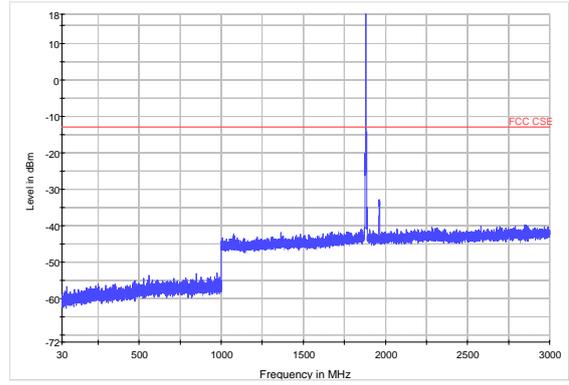
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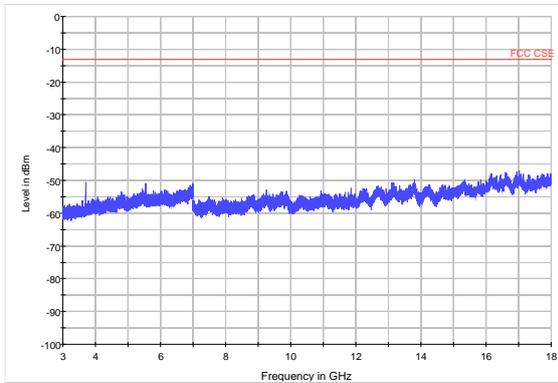
LTE Band 25 5MHz CH26065 30MHz~3GHz



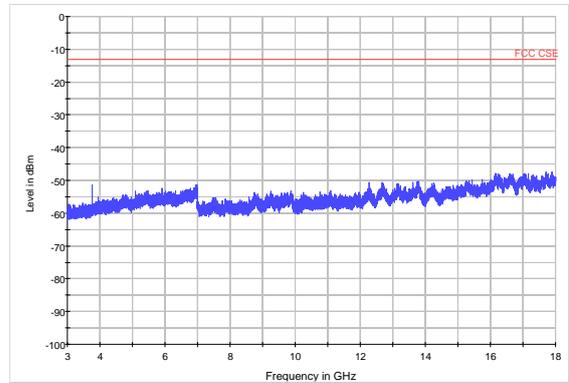
LTE Band 25 5MHz CH26365 30MHz~3GHz



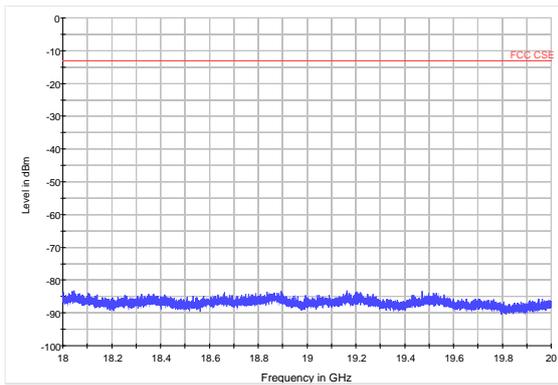
LTE Band 25 5MHz CH26065 3GHz~18GHz



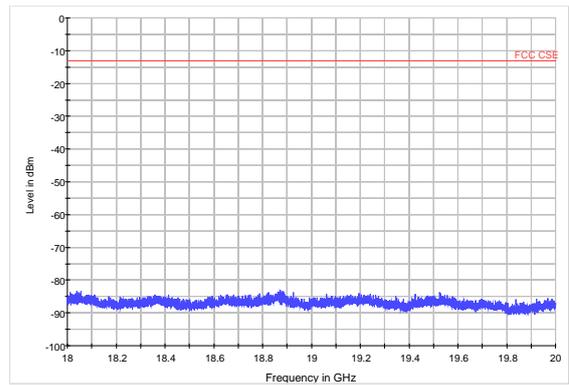
LTE Band 25 5MHz CH26365 3GHz~18GHz



LTE Band 25 5MHz CH26065 18GHz~20GHz

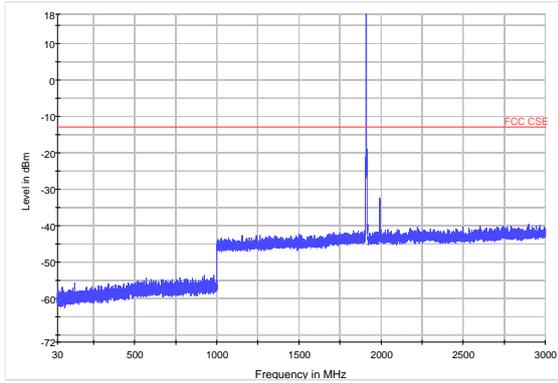


LTE Band 25 5MHz CH26365 18GHz~20GHz

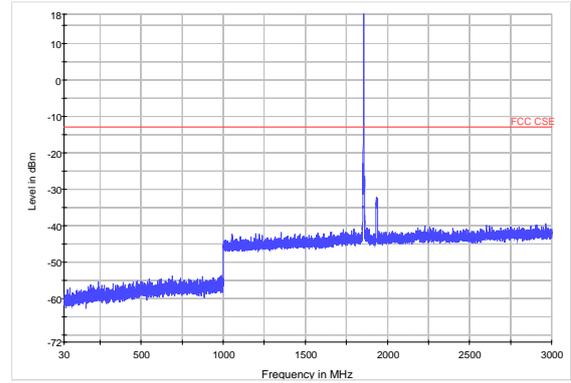




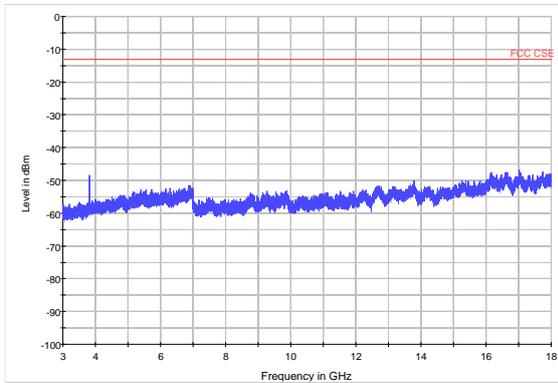
LTE Band 25 5MHz CH26665 30MHz~3GHz



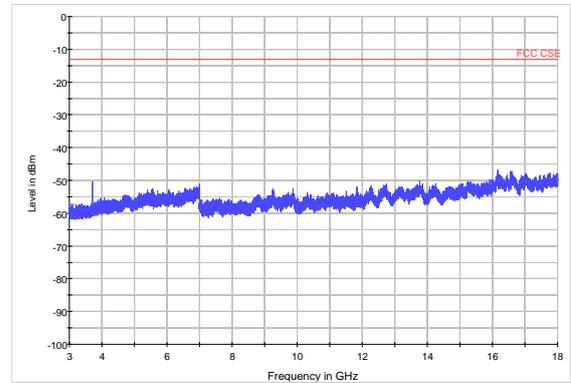
LTE Band 25 10MHz CH26090 30MHz~3GHz



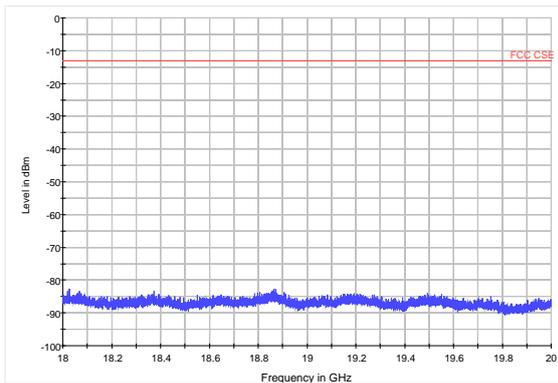
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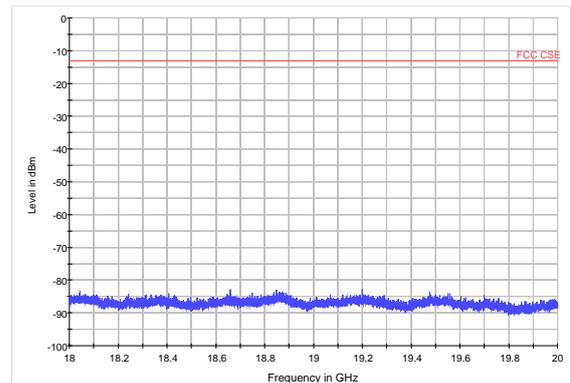
LTE Band 25 10MHz CH26090 3GHz~18GHz



LTE Band 25 5MHz CH26665 18GHz~20GHz

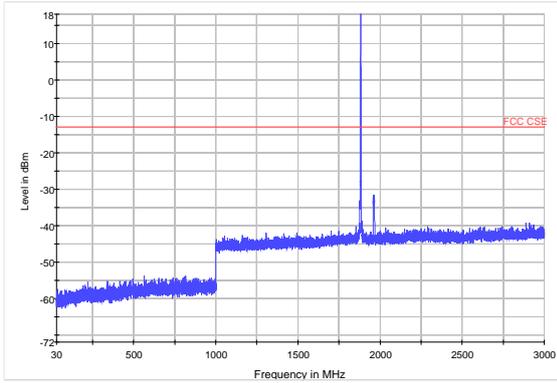


LTE Band 25 10MHz CH26090 18GHz~20GHz

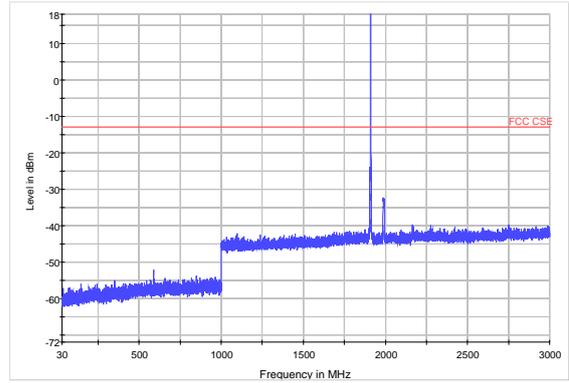




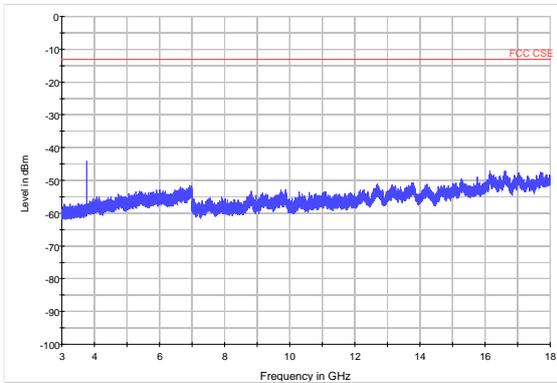
LTE Band 25 10MHz CH26365 30MHz~3GHz



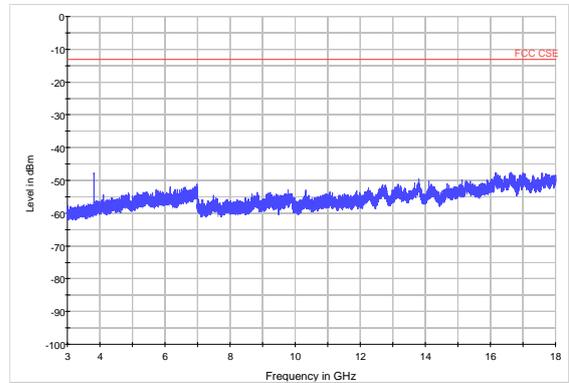
LTE Band 25 10MHz CH26640 30MHz~3GHz



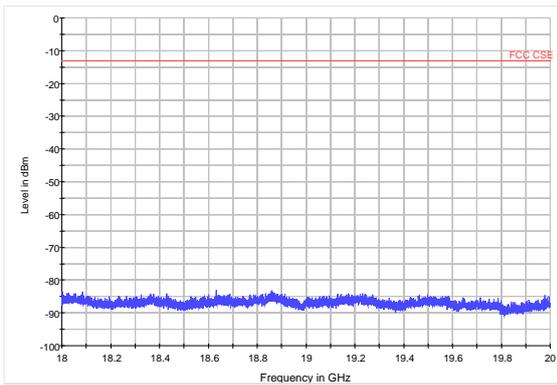
LTE Band 25 10MHz CH26365 3GHz~18GHz



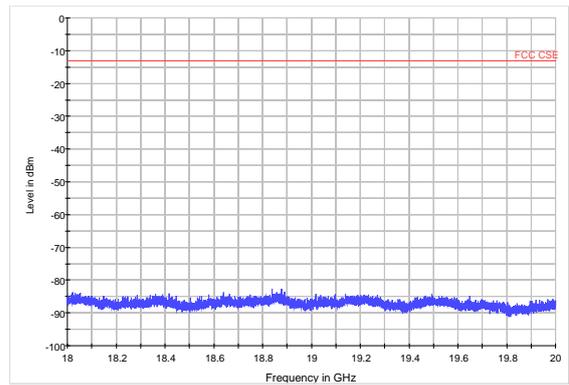
LTE Band 25 10MHz CH26640 3GHz~18GHz



LTE Band 25 10MHz CH26365 18GHz~20GHz

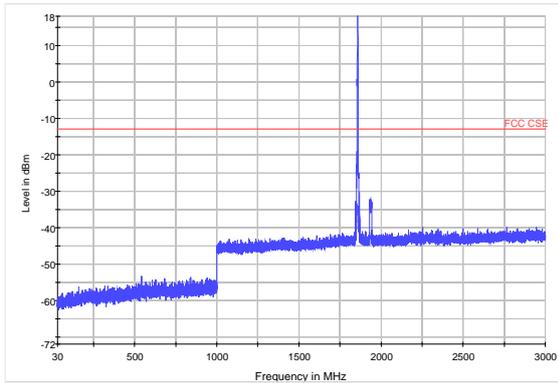


LTE Band 25 10MHz CH26640 18GHz~20GHz

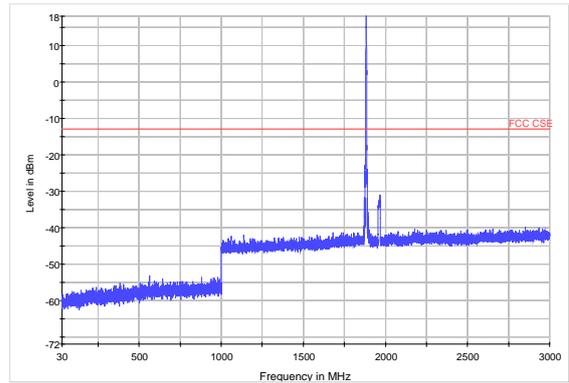




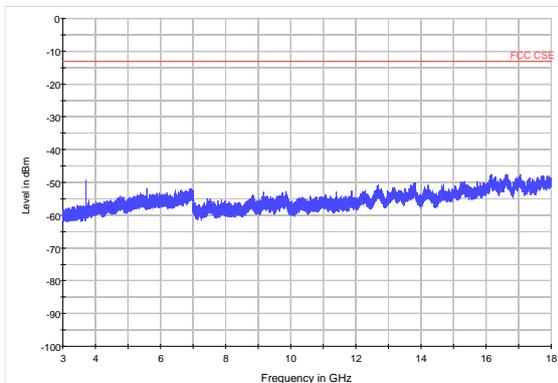
LTE Band 25 15MHz CH26115 30MHz~3GHz



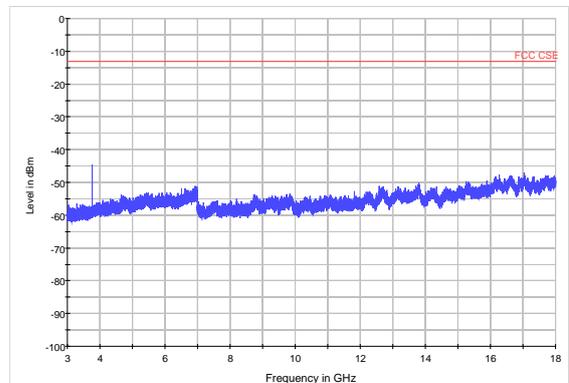
LTE Band 25 15MHz CH26365 30MHz~3GHz



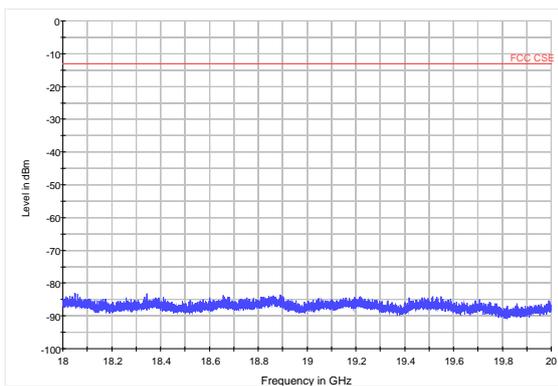
LTE Band 25 15MHz CH26115 3GHz~18GHz



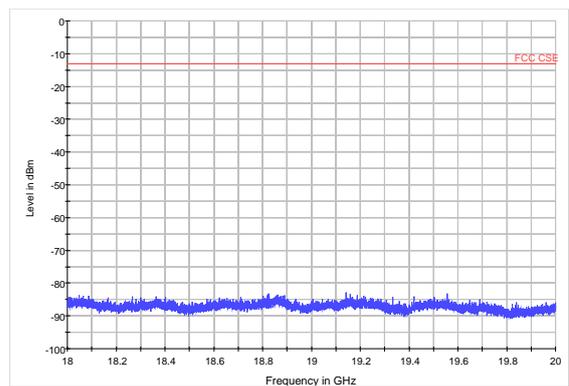
LTE Band 25 15MHz CH26365 3GHz~18GHz



LTE Band 25 15MHz CH26115 18GHz~20GHz

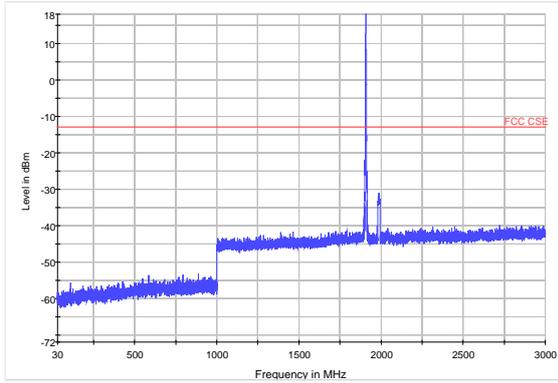


LTE Band 25 15MHz CH26365 18GHz~20GHz

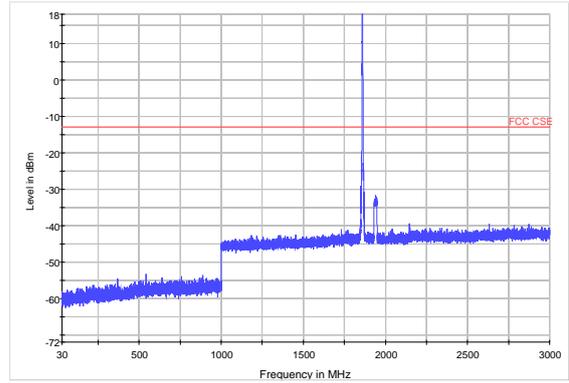




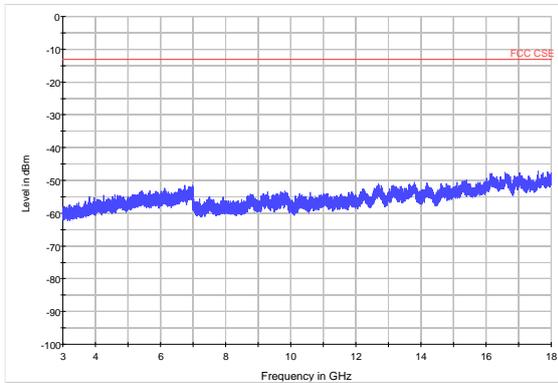
LTE Band 25 15MHz CH26615 30MHz~3GHz



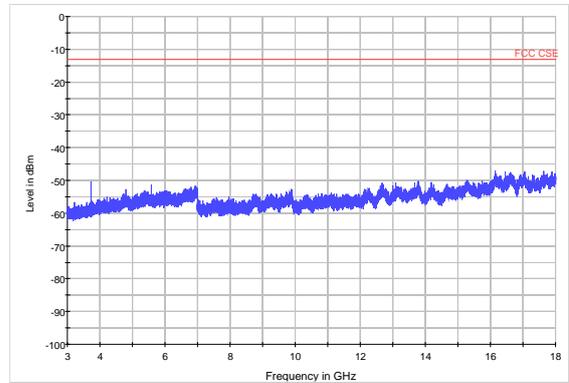
LTE Band 25 20MHz CH26140 30MHz~3GHz



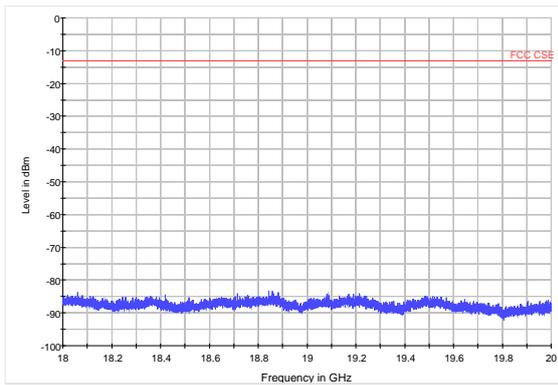
LTE Band 25 15MHz CH26615 3GHz~18GHz



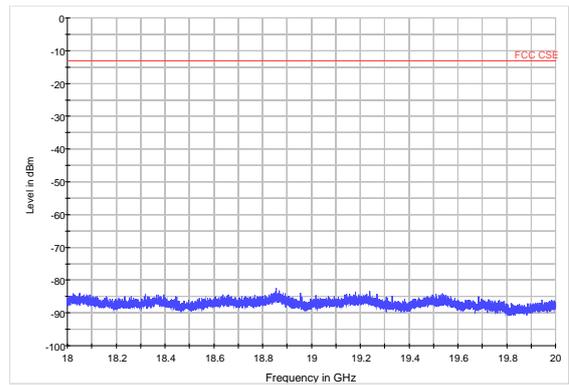
LTE Band 25 20MHz CH26140 3GHz~18GHz



LTE Band 25 15MHz CH26615 18GHz~20GHz

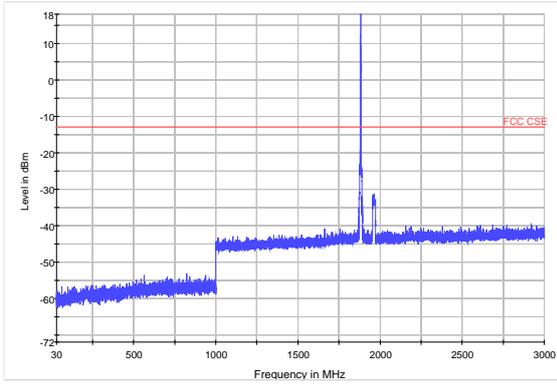


LTE Band 25 20MHz CH26140 18GHz~20GHz

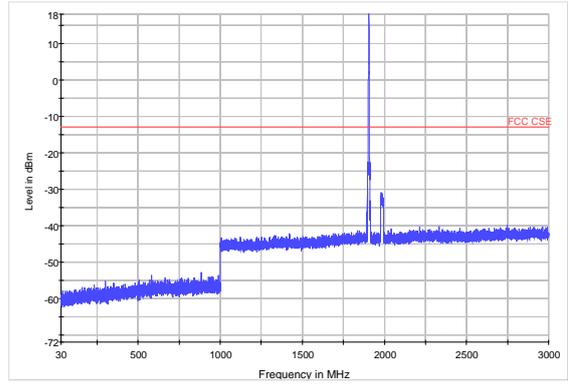




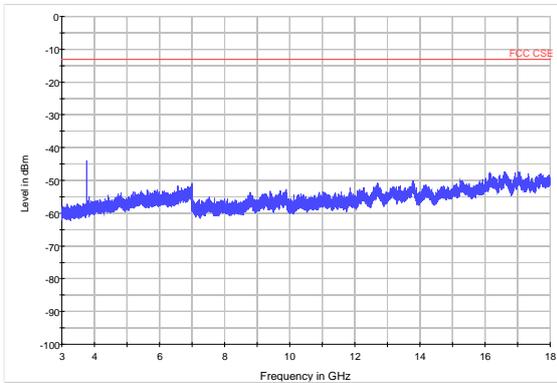
LTE Band 25 20MHz CH26365 30MHz~3GHz



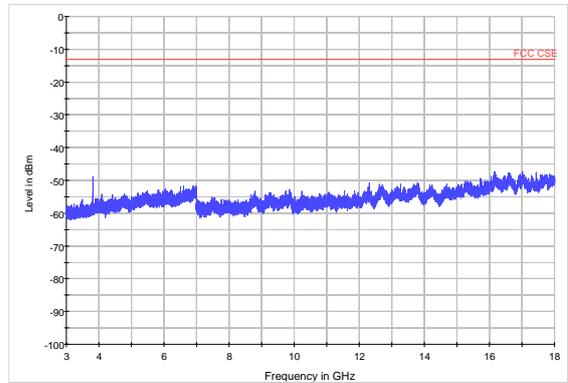
LTE Band 25 20MHz CH26590 30MHz~3GHz



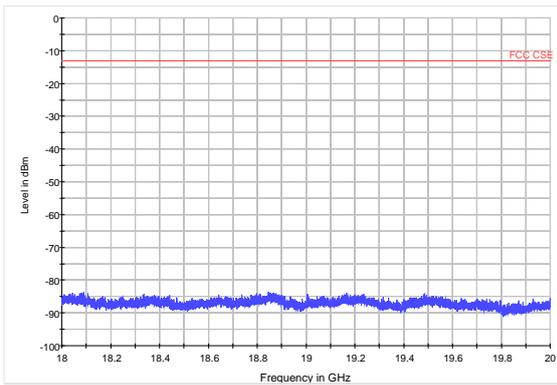
LTE Band 25 20MHz CH26365 3GHz~18GHz



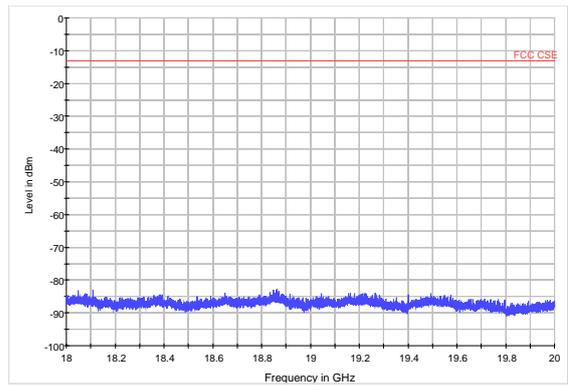
LTE Band 25 20MHz CH26590 3GHz~18GHz



LTE Band 25 20MHz CH26365 18GHz~20GHz



LTE Band 25 20MHz CH26590 18GHz~20GHz



### 5.8.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.

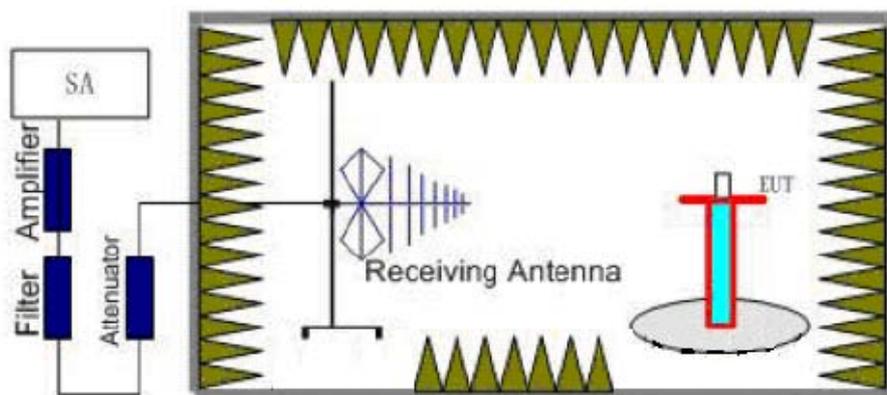
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment.

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

The procedure of Radiates Spurious Emission is as follows:

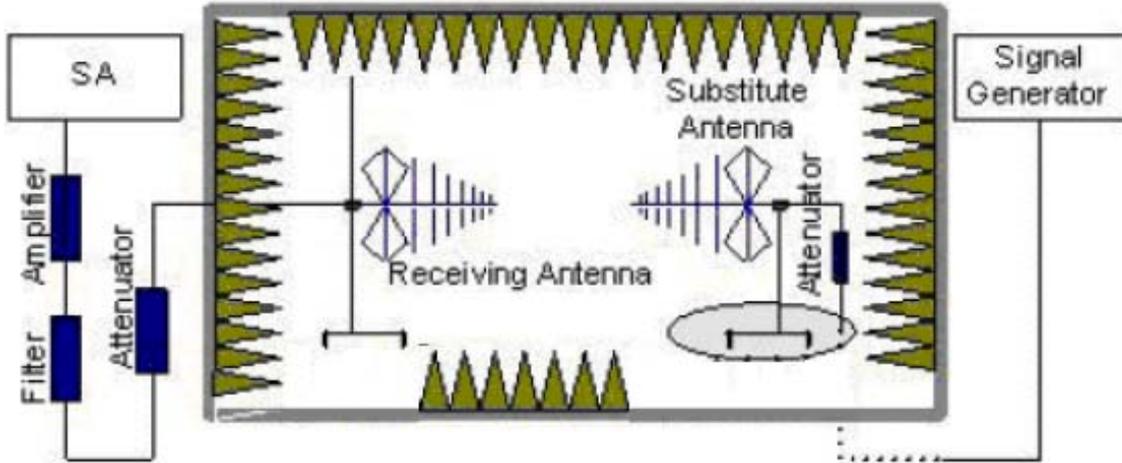
Step 1:

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 3MHz. 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.

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

**Limits**

Rule Part 24.238(a) specifies that “on any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10} (P)$  dB.”

Limit	-13 dBm
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**Measurement Uncertainty**

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

**Test Result**

GSM 1900 CH 512

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.1	-47.56	5.1	11.05	vertical	-41.61	-13	28.61	135
3	5551.1	-53.89	5.42	12.65	vertical	-46.66	-13	33.66	45
4	7401	-58.53	6.7	13.85	vertical	-51.38	-13	38.38	45
5	9250.9	-54.99	7.01	14.75	vertical	-47.25	-13	34.25	45
6	11101.5	-54.15	7.48	15.95	vertical	-45.68	-13	32.68	315
7	12951.4	-60.43	7.51	16.55	vertical	-51.39	-13	38.39	270
8	14801.6	-56.07	8.24	15.35	vertical	-48.96	-13	35.96	45
9	16651.8	-50.52	8.41	14.95	vertical	-43.98	-13	30.98	180
10	18502.0	-82.76	8.54	15.45	vertical	-75.85	-13	62.85	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.

GSM 1900 CH 661

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3759.8	-46.18	5.1	11.05	vertical	-40.23	-13	27.23	270
3	5640.4	-52.52	5.42	12.65	vertical	-45.29	-13	32.29	315
4	7520	-59.43	6.7	13.85	vertical	-52.28	-13	39.28	270
5	9399.8	-53.84	7.01	14.75	vertical	-46.10	-13	33.10	180
6	11280.0	-58.64	7.48	15.95	vertical	-50.17	-13	37.17	180
7	13160.0	-58.53	7.51	16.55	vertical	-49.49	-13	36.49	45
8	15040.0	-55.80	8.24	15.35	vertical	-48.69	-13	35.69	315
9	16920.0	-51.43	8.41	14.95	vertical	-44.89	-13	31.89	270
10	18800.0	-85.47	8.54	15.45	vertical	-78.56	-13	65.56	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.



## GSM 1900 CH 810

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3819.4	-46.09	5.1	11.05	vertical	-40.14	-13	27.14	315
3	5729.3	-55.66	5.42	12.65	vertical	-48.43	-13	35.43	45
4	7639	-60.03	6.7	13.85	vertical	-52.88	-13	39.88	135
5	9548.6	-50.98	7.01	14.75	vertical	-43.24	-13	30.24	180
6	11458.8	-60.03	7.48	15.95	vertical	-51.56	-13	38.56	45
7	13368.6	-57.66	7.51	16.55	vertical	-48.62	-13	35.62	315
8	15278.4	-56.12	8.24	15.35	vertical	-49.01	-13	36.01	270
9	17188.2	-51.81	8.41	14.95	vertical	-45.27	-13	32.27	45
10	19098.0	-83.16	8.54	15.45	vertical	-76.25	-13	63.25	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 II CH9662

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3702.8	-42.46	5.1	11.05	vertical	-36.51	-13	23.51	135
3	5557.2	-60.83	5.42	12.65	vertical	-53.60	-13	40.60	315
4	7409.6	-60.91	6.7	13.85	vertical	-53.76	-13	40.76	270
5	9262.0	-56.31	7.01	14.75	vertical	-48.57	-13	35.57	45
6	11114.4	-58.27	7.48	15.95	vertical	-49.80	-13	36.80	180
7	12966.8	-59.07	7.51	16.55	vertical	-50.03	-13	37.03	0
8	14819.2	-55.17	8.24	15.35	vertical	-48.06	-13	35.06	270
9	16671.6	-50.19	8.41	14.95	vertical	-43.65	-13	30.65	315
10	18524.0	-82.05	8.54	15.45	vertical	-75.14	-13	62.14	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 II CH9800

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3757.9	-48.68	5.1	11.05	vertical	-42.73	-13	29.73	45
3	5640	-54.21	5.42	12.65	vertical	-46.98	-13	33.98	45
4	7520	-61.04	6.7	13.85	vertical	-53.89	-13	40.89	180
5	9400	-61.18	7.01	14.75	vertical	-53.44	-13	40.44	90
6	11280	-55.33	7.48	15.95	vertical	-46.86	-13	33.86	225
7	13160	-55.08	7.51	16.55	vertical	-46.04	-13	33.04	270
8	15040	-52.51	8.24	15.35	vertical	-45.4	-13	32.40	180
9	16920	-48.33	8.41	14.95	vertical	-41.79	-13	28.79	135
10	18502	-85.23	8.54	15.45	vertical	-78.32	-13	65.32	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.

## WCDMA Band II CH9938

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3813.0	-45.35	5.1	11.05	vertical	-39.40	-13	26.40	135
3	5722.8	-59.39	5.42	12.65	vertical	-52.16	-13	39.16	135
4	7630.4	-59.80	6.7	13.85	vertical	-52.65	-13	39.65	45
5	9538.0	-55.99	7.01	14.75	vertical	-48.25	-13	35.25	45
6	11445.6	-56.73	7.48	15.95	vertical	-48.26	-13	35.26	315
7	13353.2	-60.29	7.51	16.55	vertical	-51.25	-13	38.25	270
8	15260.8	-56.06	8.24	15.35	vertical	-48.95	-13	35.95	45
9	17168.4	-49.67	8.41	14.95	vertical	-43.13	-13	30.13	180
10	19076.0	-81.14	8.54	15.45	vertical	-74.23	-13	61.23	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.

CDMA BC1 1XRTT CH25

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3702.50	-58.45	5.1	11.05	vertical	-52.50	-13	39.50	315
3	5553.75	-61.75	5.42	12.65	vertical	-54.52	-13	41.52	135
4	7405.00	-57.79	6.7	13.85	vertical	-50.64	-13	37.64	180
5	9256.25	-58.92	7.01	14.75	vertical	-51.18	-13	38.18	225
6	11107.50	-60.66	7.48	15.95	vertical	-52.19	-13	39.19	180
7	12958.75	-58.74	7.51	16.55	vertical	-49.70	-13	36.70	225
8	14810.00	-52.85	8.24	15.35	vertical	-45.74	-13	32.74	135
9	16661.25	-50.33	8.41	14.95	vertical	-43.79	-13	30.79	90
10	18512.50	-85.60	8.54	15.45	vertical	-78.69	-13	65.69	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.

CDMA BC1 1XRTT CH600

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-55.58	5.1	11.05	vertical	-49.63	-13	36.63	270
3	5640.00	-63.45	5.42	12.65	vertical	-56.22	-13	43.22	45
4	7520.00	-49.57	6.7	13.85	vertical	-42.42	-13	29.42	225
5	9400.00	-58.12	7.01	14.75	vertical	-50.38	-13	37.38	180
6	11280.00	-61.83	7.48	15.95	vertical	-53.36	-13	40.36	225
7	13160.00	-58.07	7.51	16.55	vertical	-49.03	-13	36.03	0
8	15040.00	-53.39	8.24	15.35	vertical	-46.28	-13	33.28	45
9	16920.00	-49.62	8.41	14.95	vertical	-43.08	-13	30.08	315
10	18800.00	-86.08	8.54	15.45	vertical	-79.17	-13	66.17	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.



## CDMA BC1 1XRTT CH1175

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3817.50	-58.71	5.1	11.05	vertical	-52.76	-13	39.76	135
3	5726.25	-59.39	5.42	12.65	vertical	-52.16	-13	39.16	180
4	7635.00	-55.71	6.7	13.85	vertical	-48.56	-13	35.56	225
5	9543.75	-58.74	7.01	14.75	vertical	-51.00	-13	38.00	180
6	11452.50	-59.84	7.48	15.95	vertical	-51.37	-13	38.37	225
7	13361.25	-59.09	7.51	16.55	vertical	-50.05	-13	37.05	135
8	15270.00	-53.05	8.24	15.35	vertical	-45.94	-13	32.94	90
9	17178.75	-49.92	8.41	14.95	vertical	-43.38	-13	30.38	270
10	19087.5	-84.26	8.54	15.45	vertical	-77.35	-13	64.35	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 2 1.4MHz CH607

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.1	-50.77	5.1	11.05	vertical	-44.82	-13	31.82	45
3	5550.8	-48.04	5.42	12.65	vertical	-40.81	-13	27.81	225
4	7401.0	-48.53	6.7	13.85	vertical	-41.38	-13	28.38	135
5	9250.9	-54.43	7.01	14.75	vertical	-46.69	-13	33.69	270
6	11101.5	-55.79	7.48	15.95	vertical	-47.32	-13	34.32	225
7	12954.9	-58.36	7.51	16.55	vertical	-49.32	-13	36.32	135
8	14805.6	-57.37	8.24	15.35	vertical	-50.26	-13	37.26	90
9	16656.3	-54.03	8.41	14.95	vertical	-47.49	-13	34.49	45
10	18507.0	-79.10	8.54	15.45	vertical	-72.19	-13	59.19	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 2 1.4MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3759.0	-47.64	5.10	11.05	vertical	-41.69	-13	28.69	225
3	5638.9	-50.33	5.42	12.65	vertical	-43.10	-13	30.10	135
4	7518.4	-53.29	6.70	13.85	vertical	-46.14	-13	33.14	270
5	9397.1	-52.17	7.01	14.75	vertical	-44.43	-13	31.43	90
6	11277.0	-56.52	7.48	15.95	vertical	-48.05	-13	35.05	45
7	13160.0	-58.91	7.51	16.55	vertical	-49.87	-13	36.87	135
8	15040.0	-57.46	8.24	15.35	vertical	-50.35	-13	37.35	180
9	16920.0	-54.11	8.41	14.95	vertical	-47.57	-13	34.57	45
10	18800	-78.96	8.54	15.45	vertical	-72.05	-13	59.05	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 2 1.4MHz CH1193

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3817.9	-50.69	5.10	11.05	vertical	-44.74	-13	31.74	90
3	5726.6	-49.57	5.42	12.65	vertical	-42.34	-13	29.34	315
4	7635.4	-47.55	6.70	13.85	vertical	-40.40	-13	27.40	180
5	9543.4	-51.96	7.01	14.75	vertical	-44.22	-13	31.22	225
6	11455.8	-58.60	7.48	15.95	vertical	-50.13	-13	37.13	90
7	13365.1	-58.53	7.51	16.55	vertical	-49.49	-13	36.49	135
8	15274.4	-58.36	8.24	15.35	vertical	-51.25	-13	38.25	90
9	17183.7	-53.89	8.41	14.95	vertical	-47.35	-13	34.35	45
10	19093	-79.94	8.54	15.45	vertical	-73.03	-13	60.03	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 2 3MHz CH615

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.5	-41.95	5.10	11.05	vertical	-36.00	-13	23.00	135
3	5550.8	-48.10	5.42	12.65	vertical	-40.87	-13	27.87	180
4	7400.6	-54.68	6.70	13.85	vertical	-47.53	-13	34.53	135
5	9250.9	-52.28	7.01	14.75	vertical	-44.54	-13	31.54	225
6	11101.5	-52.31	7.48	15.95	vertical	-43.84	-13	30.84	90
7	12960.5	-58.62	7.51	16.55	vertical	-49.58	-13	36.58	135
8	14812.0	-58.53	8.24	15.35	vertical	-51.42	-13	38.42	90
9	16663.5	-53.56	8.41	14.95	vertical	-47.02	-13	34.02	45
10	18515.0	-79.10	8.54	15.45	vertical	-72.19	-13	59.19	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 2 3MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3757.5	-38.64	5.10	11.05	vertical	-32.69	-13	19.69	135
3	5636.3	-49.48	5.42	12.65	vertical	-42.25	-13	29.25	180
4	7515.4	-58.79	6.70	13.85	vertical	-51.64	-13	38.64	45
5	9393.8	-49.51	7.01	14.75	vertical	-41.77	-13	28.77	180
6	11272.5	-53.51	7.48	15.95	vertical	-45.04	-13	32.04	90
7	13160.0	-58.52	7.51	16.55	vertical	-49.48	-13	36.48	135
8	15040.0	-57.84	8.24	15.35	vertical	-50.73	-13	37.73	180
9	16920.0	-54.39	8.41	14.95	vertical	-47.85	-13	34.85	45
10	18800	-78.96	8.54	15.45	vertical	-72.05	-13	59.05	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 2 3MHz CH1185

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3814.5	-41.53	5.10	11.05	vertical	-35.58	-13	22.58	135
3	5721.8	-44.60	5.42	12.65	vertical	-37.37	-13	24.37	225
4	7628.6	-56.29	6.70	13.85	vertical	-49.14	-13	36.14	180
5	9535.5	-51.33	7.01	14.75	vertical	-43.59	-13	30.59	225
6	11443.5	-56.46	7.48	15.95	vertical	-47.99	-13	34.99	45
7	13359.5	-58.91	7.51	16.55	vertical	-49.87	-13	36.87	0
8	15268.0	-58.65	8.24	15.35	vertical	-51.54	-13	38.54	90
9	17176.5	-53.98	8.41	14.95	vertical	-47.44	-13	34.44	90
10	19085	-80.16	8.54	15.45	vertical	-73.25	-13	60.25	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 2 5MHz CH625

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.5	-42.07	5.10	11.05	vertical	-36.12	-13	23.12	135
3	5551.1	-47.36	5.42	12.65	vertical	-40.13	-13	27.13	180
4	7401.4	-54.34	6.70	13.85	vertical	-47.19	-13	34.19	225
5	9250.9	-52.71	7.01	14.75	vertical	-44.97	-13	31.97	90
6	11102.6	-51.57	7.48	15.95	vertical	-43.10	-13	30.10	135
7	12967.5	-58.18	7.51	16.55	vertical	-49.14	-13	36.14	0
8	14820.0	-58.48	8.24	15.35	vertical	-51.37	-13	38.37	180
9	16672.5	-54.48	8.41	14.95	vertical	-47.94	-13	34.94	315
10	18525.0	-79.16	8.54	15.45	vertical	-72.25	-13	59.25	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 2 5MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3755.6	-38.17	5.10	11.05	vertical	-32.22	-13	19.22	225
3	5633.6	-49.21	5.42	12.65	vertical	-41.98	-13	28.98	180
4	7511.3	-57.81	6.70	13.85	vertical	-50.66	-13	37.66	270
5	9388.1	-50.18	7.01	14.75	vertical	-42.44	-13	29.44	180
6	11266.9	-53.02	7.48	15.95	vertical	-44.55	-13	31.55	90
7	13160.0	-58.30	7.51	16.55	vertical	-49.26	-13	36.26	180
8	15040.0	-59.06	8.24	15.35	vertical	-51.95	-13	38.95	45
9	16920.0	-53.86	8.41	14.95	vertical	-47.32	-13	34.32	315
10	18800.0	-79.05	8.54	15.45	vertical	-72.14	-13	59.14	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 2 5MHz CH1175

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3810.4	-40.39	5.10	11.05	vertical	-34.44	-13	21.44	135
3	5716.1	-44.45	5.42	12.65	vertical	-37.22	-13	24.22	225
4	7621.5	-56.60	6.70	13.85	vertical	-49.45	-13	36.45	270
5	9526.5	-49.55	7.01	14.75	vertical	-41.81	-13	28.81	90
6	11432.3	-57.17	7.48	15.95	vertical	-48.70	-13	35.70	315
7	13352.5	-58.76	7.51	16.55	vertical	-49.72	-13	36.72	0
8	15260.0	-58.93	8.24	15.35	vertical	-51.82	-13	38.82	45
9	17167.5	-53.88	8.41	14.95	vertical	-47.34	-13	34.34	225
10	19075.0	-79.96	8.54	15.45	vertical	-73.05	-13	60.05	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 2 10MHz CH650

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.9	-42.25	5.10	11.05	vertical	-36.30	-13	23.30	135
3	5551.9	-46.55	5.42	12.65	vertical	-39.32	-13	26.32	180
4	7402.1	-54.73	6.70	13.85	vertical	-47.58	-13	34.58	225
5	9252.0	-52.09	7.01	14.75	vertical	-44.35	-13	31.35	315
6	11103.8	-53.25	7.48	15.95	vertical	-44.78	-13	31.78	90
7	12985.0	-58.17	7.51	16.55	vertical	-49.13	-13	36.13	90
8	14840.0	-59.03	8.24	15.35	vertical	-51.92	-13	38.92	45
9	16695.0	-53.79	8.41	14.95	vertical	-47.25	-13	34.25	315
10	18550	-79.63	8.54	15.45	vertical	-72.72	-13	59.72	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 2 10MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3751.1	-37.49	5.10	11.05	vertical	-31.54	-13	18.54	225
3	5626.9	-48.48	5.42	12.65	vertical	-41.25	-13	28.25	180
4	7501.9	-57.50	6.70	13.85	vertical	-50.35	-13	37.35	270
5	9378.0	-49.04	7.01	14.75	vertical	-41.30	-13	28.30	180
6	11253.4	-54.50	7.48	15.95	vertical	-46.03	-13	33.03	90
7	13160.0	-58.26	7.51	16.55	vertical	-49.22	-13	36.22	180
8	15040.0	-58.44	8.24	15.35	vertical	-51.33	-13	38.33	45
9	16920.0	-54.09	8.41	14.95	vertical	-47.55	-13	34.55	270
10	18800.0	-79.82	8.54	15.45	vertical	-72.91	-13	59.91	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 2 10MHz CH1150

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3801.0	-40.28	5.10	11.05	vertical	-34.33	-13	21.33	135
3	5701.9	-46.91	5.42	12.65	vertical	-39.68	-13	26.68	225
4	7620.0	-61.68	6.70	13.85	vertical	-54.53	-13	41.53	180
5	9501.8	-50.47	7.01	14.75	vertical	-42.73	-13	29.73	90
6	11430.0	-58.62	7.48	15.95	vertical	-50.15	-13	37.15	45
7	13335.0	-58.22	7.51	16.55	vertical	-49.18	-13	36.18	0
8	15240.0	-58.39	8.24	15.35	vertical	-51.28	-13	38.28	45
9	17145.0	-53.72	8.41	14.95	vertical	-47.18	-13	34.18	90
10	19050.0	-80.71	8.54	15.45	vertical	-73.80	-13	60.80	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 2 15MHz CH675

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3701.6	-42.12	5.10	11.05	vertical	-36.17	-13	23.17	135
3	5552.6	-46.25	5.42	12.65	vertical	-39.02	-13	26.02	180
4	7403.3	-54.40	6.70	13.85	vertical	-47.25	-13	34.25	225
5	9253.1	-52.39	7.01	14.75	vertical	-44.65	-13	31.65	135
6	11104.9	-52.55	7.48	15.95	vertical	-44.08	-13	31.08	90
7	13002.5	-58.40	7.51	16.55	vertical	-49.36	-13	36.36	45
8	14860.0	-58.16	8.24	15.35	vertical	-51.05	-13	38.05	45
9	16717.5	-53.77	8.41	14.95	vertical	-47.23	-13	34.23	180
10	18575.0	-79.02	8.54	15.45	vertical	-72.11	-13	59.11	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 2 15MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3746.6	-37.29	5.10	11.05	vertical	-31.34	-13	18.34	225
3	5620.1	-49.67	5.42	12.65	vertical	-42.44	-13	29.44	180
4	7492.9	-58.36	6.70	13.85	vertical	-51.21	-13	38.21	315
5	9366.8	-49.35	7.01	14.75	vertical	-41.61	-13	28.61	225
6	11239.9	-54.97	7.48	15.95	vertical	-46.50	-13	33.50	90
7	13160.0	-58.07	7.51	16.55	vertical	-49.03	-13	36.03	45
8	15040.0	-58.31	8.24	15.35	vertical	-51.20	-13	38.20	315
9	16920.0	-54.48	8.41	14.95	vertical	-47.94	-13	34.94	225
10	18800.0	-79.23	8.54	15.45	vertical	-72.32	-13	59.32	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 2 15MHz CH1125

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3791.6	-42.10	5.10	11.05	vertical	-36.15	-13	23.15	135
3	5687.6	-46.53	5.42	12.65	vertical	-39.30	-13	26.30	180
4	7583.3	-57.91	6.70	13.85	vertical	-50.76	-13	37.76	90
5	9479.3	-54.02	7.01	14.75	vertical	-46.28	-13	33.28	225
6	11374.9	-58.04	7.48	15.95	vertical	-49.57	-13	36.57	45
7	13317.5	-58.98	7.51	16.55	vertical	-49.94	-13	36.94	90
8	15220.0	-58.17	8.24	15.35	vertical	-51.06	-13	38.06	45
9	17122.5	-53.70	8.41	14.95	vertical	-47.16	-13	34.16	315
10	19025.0	-80.17	8.54	15.45	vertical	-73.26	-13	60.26	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 2 20MHz CH700

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3702.4	-42.14	5.10	11.05	vertical	-36.19	-13	23.19	135
3	5553.4	-46.24	5.42	12.65	vertical	-39.01	-13	26.01	180
4	7404.4	-54.10	6.70	13.85	vertical	-46.95	-13	33.95	180
5	9255.4	-52.45	7.01	14.75	vertical	-44.71	-13	31.71	225
6	11106.0	-52.84	7.48	15.95	vertical	-44.37	-13	31.37	45
7	13020.0	-58.86	7.51	16.55	vertical	-49.82	-13	36.82	45
8	14880.0	-58.74	8.24	15.35	vertical	-51.63	-13	38.63	225
9	16740.0	-53.89	8.41	14.95	vertical	-47.35	-13	34.35	315
10	18600.0	-79.16	8.54	15.45	vertical	-72.25	-13	59.25	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 2 20MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3742.1	-37.44	5.10	11.05	vertical	-31.49	-13	18.49	225
3	5613.4	-49.16	5.42	12.65	vertical	-41.93	-13	28.93	180
4	7520.0	-60.39	6.70	13.85	vertical	-53.24	-13	40.24	225
5	9355.5	-49.86	7.01	14.75	vertical	-42.12	-13	29.12	180
6	11226.4	-56.39	7.48	15.95	vertical	-47.92	-13	34.92	90
7	13160.0	-58.05	7.51	16.55	vertical	-49.01	-13	36.01	45
8	15040.0	-58.67	8.24	15.35	vertical	-51.56	-13	38.56	0
9	16920.0	-53.88	8.41	14.95	vertical	-47.34	-13	34.34	270
10	18800.0	-79.43	8.54	15.45	vertical	-72.52	-13	59.52	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 2 20MHz CH1100

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3782.3	-43.41	5.10	11.05	vertical	-37.46	-13	24.46	135
3	5673.4	-44.97	5.42	12.65	vertical	-37.74	-13	24.74	180
4	7564.5	-56.86	6.70	13.85	vertical	-49.71	-13	36.71	270
5	9455.6	-53.83	7.01	14.75	vertical	-46.09	-13	33.09	225
6	11345.6	-58.17	7.48	15.95	vertical	-49.70	-13	36.70	90
7	13300.0	-58.61	7.51	16.55	vertical	-49.57	-13	36.57	180
8	15200.0	-58.44	8.24	15.35	vertical	-51.33	-13	38.33	0
9	17100.0	-54.26	8.41	14.95	vertical	-47.72	-13	34.72	315
10	19000.0	-80.26	8.54	15.45	vertical	-73.35	-13	60.35	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 25 1.4MHz CH26047

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.5	-42.64	5.1	11.05	vertical	-36.69	-13	23.69	135
3	5550.8	-48.05	5.42	12.65	vertical	-40.82	-13	27.82	180
4	7400.6	-56.83	6.7	13.85	vertical	-49.68	-13	36.68	225
5	9250.9	-52.61	7.01	14.75	vertical	-44.87	-13	31.87	180
6	11101.5	-52.14	7.48	15.95	vertical	-43.67	-13	30.67	225
7	12954.9	-59.33	7.51	16.55	vertical	-50.29	-13	37.29	45
8	14805.6	-56.27	8.24	15.35	vertical	-49.16	-13	36.16	225
9	16656.3	-48.79	8.41	14.95	vertical	-42.25	-13	29.25	315
10	18507	-81.04	8.54	15.45	vertical	-74.13	-13	61.13	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 25 1.4MHz CH26365

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3763.9	-40.53	5.10	11.05	vertical	-34.58	-13	21.58	135
3	5646.4	-48.47	5.42	12.65	vertical	-41.24	-13	28.24	180
4	9409.5	-50.80	6.70	13.85	vertical	-43.65	-13	30.65	180
5	11291.6	-51.94	7.01	14.75	vertical	-44.20	-13	31.20	225
6	13177.5	-58.50	7.48	15.95	vertical	-50.03	-13	37.03	90
7	15060	-58.42	7.51	16.55	vertical	-49.38	-13	36.38	225
8	16942.5	-49.48	8.24	15.35	vertical	-42.37	-13	29.37	270
9	18825	-81.90	8.41	14.95	vertical	-75.36	-13	62.36	135
10	3763.9	-41.49	8.54	15.45	vertical	-34.58	-13	21.58	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 25 1.4MHz CH26683

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3827.6	-44.47	5.10	11.05	vertical	-38.52	-13	25.52	135
3	5746.3	-42.25	5.42	12.65	vertical	-35.02	-13	22.02	180
4	7655.6	-51.91	6.70	13.85	vertical	-44.76	-13	31.76	225
5	9569.3	-54.42	7.01	14.75	vertical	-46.68	-13	33.68	180
6	11482.9	-55.05	7.48	15.95	vertical	-46.58	-13	33.58	225
7	13400.1	-59.47	7.51	16.55	vertical	-50.43	-13	37.43	135
8	15314.4	-56.27	8.24	15.35	vertical	-49.16	-13	36.16	225
9	17228.7	-49.29	8.41	14.95	vertical	-42.75	-13	29.75	90
10	19143	-85.38	8.54	15.45	vertical	-78.47	-13	65.47	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 25 3MHz CH26055

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.5	-42.72	5.10	11.05	vertical	-36.77	-13	23.77	135
3	5550.8	-48.01	5.42	12.65	vertical	-40.78	-13	27.78	180
4	7400.6	-56.09	6.70	13.85	vertical	-48.94	-13	35.94	225
5	9250.9	-52.75	7.01	14.75	vertical	-45.01	-13	32.01	180
6	11101.5	-52.04	7.48	15.95	vertical	-43.57	-13	30.57	225
7	13794.8	-54.75	7.51	16.55	vertical	-45.71	-13	32.71	315
8	14812	-56.84	8.24	15.35	vertical	-49.73	-13	36.73	135
9	16663.5	-49.09	8.41	14.95	vertical	-42.55	-13	29.55	90
10	18515	-81.20	8.54	15.45	vertical	-74.29	-13	61.29	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 25 3MHz CH26365

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3762.4	-40.49	5.10	11.05	vertical	-34.54	-13	21.54	135
3	5643.8	-48.34	5.42	12.65	vertical	-41.11	-13	28.11	180
4	7524.8	-57.87	6.70	13.85	vertical	-50.72	-13	37.72	225
5	9406.1	-51.23	7.01	14.75	vertical	-43.49	-13	30.49	180
6	11287.1	-53.35	7.48	15.95	vertical	-44.88	-13	31.88	225
7	13177.5	-59.86	7.51	16.55	vertical	-50.82	-13	37.82	315
8	15060	-56.86	8.24	15.35	vertical	-49.75	-13	36.75	225
9	16942.5	-48.97	8.41	14.95	vertical	-42.43	-13	29.43	270
10	18825	-82.44	8.54	15.45	vertical	-75.53	-13	62.53	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 25 3MHz CH26675

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3824.3	-46.36	5.10	11.05	vertical	-40.41	-13	27.41	135
3	5736.8	-42.95	5.42	12.65	vertical	-35.72	-13	22.72	180
4	7648.9	-53.83	6.70	13.85	vertical	-46.68	-13	33.68	225
5	9560.3	-54.80	7.01	14.75	vertical	-47.06	-13	34.06	180
6	11472.8	-57.49	7.48	15.95	vertical	-49.02	-13	36.02	225
7	13394.50	-59.88	7.51	16.55	vertical	-50.84	-13	37.84	0
8	15308	-56.70	8.24	15.35	vertical	-49.59	-13	36.59	45
9	17221.5	-48.86	8.41	14.95	vertical	-42.32	-13	29.32	135
10	19135	-85.81	8.54	15.45	vertical	-78.90	-13	65.90	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 25 5MHz CH26065

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.5	-43.02	5.10	11.05	vertical	-37.07	-13	24.07	135
3	5551.1	-48.53	5.42	12.65	vertical	-41.30	-13	28.30	180
4	7401.0	-55.93	6.70	13.85	vertical	-48.78	-13	35.78	225
5	9250.9	-52.25	7.01	14.75	vertical	-44.51	-13	31.51	180
6	11102.6	-52.33	7.48	15.95	vertical	-43.86	-13	30.86	225
7	12967.5	-58.23	7.51	16.55	vertical	-49.19	-13	36.19	90
8	14820	-56.47	8.24	15.35	vertical	-49.36	-13	36.36	45
9	16672.5	-49.06	8.41	14.95	vertical	-42.52	-13	29.52	225
10	18525	-81.34	8.54	15.45	vertical	-74.43	-13	61.43	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 25 5MHz CH26365

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.5	-40.57	5.10	11.05	vertical	-34.62	-13	21.62	135
3	5641.1	-51.19	5.42	12.65	vertical	-43.96	-13	30.96	180
4	7521.4	-58.44	6.70	13.85	vertical	-51.29	-13	38.29	225
5	9401.6	-50.27	7.01	14.75	vertical	-42.53	-13	29.53	180
6	11281.5	-55.19	7.48	15.95	vertical	-46.72	-13	33.72	225
7	13177.5	-58.42	7.51	16.55	vertical	-49.38	-13	36.38	0
8	15060	-56.68	8.24	15.35	vertical	-49.57	-13	36.57	45
9	16942.5	-48.74	8.41	14.95	vertical	-42.20	-13	29.20	315
10	18825	-82.75	8.54	15.45	vertical	-75.84	-13	62.84	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 25 5MHz CH26665

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3820.5	-45.65	5.10	11.05	vertical	-39.70	-13	26.70	135
3	5731.1	-44.77	5.42	12.65	vertical	-37.54	-13	24.54	180
4	7641.8	-56.20	6.70	13.85	vertical	-49.05	-13	36.05	225
5	9551.3	-53.67	7.01	14.75	vertical	-45.93	-13	32.93	180
6	11461.5	-57.43	7.48	15.95	vertical	-48.96	-13	35.96	225
7	13387.5	-58.31	7.51	16.55	vertical	-49.27	-13	36.27	135
8	15300	-56.57	8.24	15.35	vertical	-49.46	-13	36.46	90
9	17212.5	-49.38	8.41	14.95	vertical	-42.84	-13	29.84	270
10	19125	-85.34	8.54	15.45	vertical	-78.43	-13	65.43	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 25 10MHz CH26090

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3700.9	-43.06	5.10	11.05	vertical	-37.11	-13	24.11	135
3	5551.9	-48.20	5.42	12.65	vertical	-40.97	-13	27.97	180
4	7402.5	-57.54	6.70	13.85	vertical	-50.39	-13	37.39	225
5	9252.0	-52.93	7.01	14.75	vertical	-45.19	-13	32.19	180
6	11103.8	-53.05	7.48	15.95	vertical	-44.58	-13	31.58	225
7	12953.1	-60.28	7.51	16.55	vertical	-51.24	-13	38.24	225
8	14803.5	-55.44	8.24	15.35	vertical	-48.33	-13	35.33	225
9	16653.9	-50.77	8.41	14.95	vertical	-44.23	-13	31.23	225
10	18504.4	-81.24	8.54	15.45	vertical	-74.33	-13	61.33	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 25 10MHz CH26365

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3756.0	-40.03	5.10	11.05	vertical	-34.08	-13	21.08	135
3	5634.4	-50.46	5.42	12.65	vertical	-43.23	-13	30.23	180
4	7512.0	-58.16	6.70	13.85	vertical	-51.01	-13	38.01	225
5	9390.4	-50.40	7.01	14.75	vertical	-42.66	-13	29.66	180
6	11268.0	-52.78	7.48	15.95	vertical	-44.31	-13	31.31	225
7	13146.9	-59.59	7.51	16.55	vertical	-50.55	-13	37.55	225
8	15025.0	-54.46	8.24	15.35	vertical	-47.35	-13	34.35	225
9	16903.1	-50.32	8.41	14.95	vertical	-43.78	-13	30.78	225
10	18781.3	-82.17	8.54	15.45	vertical	-75.26	-13	62.26	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 25 10MHz CH26640

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3811.1	-42.05	5.10	11.05	vertical	-36.10	-13	23.10	135
3	5716.9	-46.49	5.42	12.65	vertical	-39.26	-13	26.26	180
4	7622.3	-57.43	6.70	13.85	vertical	-50.28	-13	37.28	225
5	9527.6	-51.42	7.01	14.75	vertical	-43.68	-13	30.68	180
6	11898.0	-58.23	7.48	15.95	vertical	-49.76	-13	36.76	225
7	13338.9	-60.99	7.51	16.55	vertical	-51.95	-13	38.95	225
8	15244.5	-54.17	8.24	15.35	vertical	-47.06	-13	34.06	225
9	17150.1	-48.00	8.41	14.95	vertical	-41.46	-13	28.46	225
10	19055.6	-85.15	8.54	15.45	vertical	-78.24	-13	65.24	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 25 15MHz CH26115

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3701.6	-43.05	5.10	11.05	vertical	-37.10	-13	24.10	135
3	5552.6	-49.10	5.42	12.65	vertical	-41.87	-13	28.87	180
4	7403.3	-57.27	6.70	13.85	vertical	-50.12	-13	37.12	225
5	9253.1	-52.50	7.01	14.75	vertical	-44.76	-13	31.76	180
6	11104.9	-52.95	7.48	15.95	vertical	-44.48	-13	31.48	225
7	12955.7	-60.29	7.51	16.55	vertical	-51.25	-13	38.25	225
8	14806.5	-54.95	8.24	15.35	vertical	-47.84	-13	34.84	225
9	16657.3	-48.19	8.41	14.95	vertical	-41.65	-13	28.65	225
10	18508.1	-81.18	8.54	15.45	vertical	-74.27	-13	61.27	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 25 15MHz CH26365

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3751.5	-39.52	5.10	11.05	vertical	-33.57	-13	20.57	135
3	5627.6	-52.20	5.42	12.65	vertical	-44.97	-13	31.97	180
4	7503.4	-58.62	6.70	13.85	vertical	-51.47	-13	38.47	225
5	9379.1	-50.36	7.01	14.75	vertical	-42.62	-13	29.62	180
6	11254.5	-53.32	7.48	15.95	vertical	-44.85	-13	31.85	225
7	13131.1	-59.53	7.51	16.55	vertical	-50.49	-13	37.49	225
8	15007.0	-54.35	8.24	15.35	vertical	-47.24	-13	34.24	225
9	16882.9	-48.89	8.41	14.95	vertical	-42.35	-13	29.35	225
10	18758.8	-82.27	8.54	15.45	vertical	-75.36	-13	62.36	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 25 15MHz CH26615

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3801.8	-41.91	5.10	11.05	vertical	-35.96	-13	22.96	135
3	5702.6	-47.79	5.42	12.65	vertical	-40.56	-13	27.56	180
4	7603.5	-57.87	6.70	13.85	vertical	-50.72	-13	37.72	225
5	9504.0	-51.38	7.01	14.75	vertical	-43.64	-13	30.64	180
6	11404.1	-57.99	7.48	15.95	vertical	-49.52	-13	36.52	225
7	13306.1	-59.99	7.51	16.55	vertical	-50.95	-13	37.95	225
8	15207.0	-53.36	8.24	15.35	vertical	-46.25	-13	33.25	225
9	17107.9	-48.59	8.41	14.95	vertical	-42.05	-13	29.05	225
10	19008.8	-84.86	8.54	15.45	vertical	-77.95	-13	64.95	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 25 20MHz CH26140

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3702.0	-42.73	5.10	11.05	vertical	-36.78	-13	23.78	225
3	5553.4	-48.12	5.42	12.65	vertical	-40.89	-13	27.89	135
4	7404.4	-57.40	6.70	13.85	vertical	-50.25	-13	37.25	180
5	9255.4	-52.89	7.01	14.75	vertical	-45.15	-13	32.15	225
6	11106.0	-53.48	7.48	15.95	vertical	-45.01	-13	32.01	180
7	12957.9	-60.09	7.51	16.55	vertical	-51.05	-13	38.05	180
8	14809.0	-54.37	8.24	15.35	vertical	-47.26	-13	34.26	180
9	16660.1	-48.85	8.41	14.95	vertical	-42.31	-13	29.31	180
10	18511.3	-82.86	8.54	15.45	vertical	-75.95	-13	62.95	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 25 20MHz CH26365

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3747.0	-39.18	5.10	11.05	vertical	-33.23	-13	20.23	225
3	5620.5	-53.21	5.42	12.65	vertical	-45.98	-13	32.98	135
4	7494.0	-57.83	6.70	13.85	vertical	-50.68	-13	37.68	180
5	9366.8	-51.03	7.01	14.75	vertical	-43.29	-13	30.29	225
6	11241.0	-56.43	7.48	15.95	vertical	-47.96	-13	34.96	180
7	13114.5	-59.89	7.51	16.55	vertical	-50.85	-13	37.85	180
8	14988.0	-55.05	8.24	15.35	vertical	-47.94	-13	34.94	180
9	16861.5	-50.38	8.41	14.95	vertical	-43.84	-13	30.84	180
10	18735.0	-82.10	8.54	15.45	vertical	-75.19	-13	62.19	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 25 20MHz CH26590

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3792.0	-43.49	5.10	11.05	vertical	-37.54	-13	24.54	225
3	5688.4	-48.29	5.42	12.65	vertical	-41.06	-13	28.06	135
4	7444.9	-59.32	6.70	13.85	vertical	-52.17	-13	39.17	180
5	9479.3	-54.55	7.01	14.75	vertical	-46.81	-13	33.81	225
6	11376.0	-58.59	7.48	15.95	vertical	-50.12	-13	37.12	180
7	13272.9	-59.07	7.51	16.55	vertical	-50.03	-13	37.03	180
8	15169.0	-54.16	8.24	15.35	vertical	-47.05	-13	34.05	180
9	17065.1	-49.89	8.41	14.95	vertical	-43.35	-13	30.35	180
10	18961.3	-84.17	8.54	15.45	vertical	-77.26	-13	64.26	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.



## 6. Main Test Instruments

Name	Type	Manufacturer	Serial Number	Calibration Date	Expiration Time
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
Spectrum Analyzer	N9010A	Agilent	MY47191109	2015-05-22	2016-05-21
Universal Radio Communication Tester	E5515C	Agilent	MY48367192	2015-05-22	2016-05-21
Signal Analyzer	FSV30	R&S	100815	2015-12-17	2016-12-16
Signal generator	SMB 100A	R&S	102594	2015-05-22	2016-05-21
Signal generator	SMR27	R&S	100365	2015-05-22	2016-05-21
EMI Test Receiver	ESCI	R&S	100948	2015-05-22	2016-05-21
Trilog Antenna	VUBL 9163	SCHWARZBECK	9163-201	2014-12-06	2017-12-05
Trilog Antenna	VUBL 9163	SCHWARZBECK	9163-391	2014-12-06	2017-12-05
Horn Antenna	HF907	R&S	100126	2014-12-06	2017-12-05
Horn Antenna	HF907	R&S	100125	2014-12-06	2017-12-05
Climatic Chamber	PT-30B	Re Ce	20101891	2015-07-18	2016-07-17
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
RF Cable	SMA 15cm	Agilent	0001	2016-03-09	2016-05-08

\*\*\*\*\*END OF REPORT \*\*\*\*\*