

**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	0°C/3.8 V	0.002729	0.009585	0.002027	PASS
	10°C/3.8 V	0.001144	0.007436	0.001032	PASS
	20°C/3.8 V	0.002165	0.005218	-0.002600	PASS
	30°C/3.8 V	-0.000011	0.007521	-0.003490	PASS
	40°C/3.8 V	-0.001250	0.006362	-0.003890	PASS
	50°C/3.8 V	-0.004430	0.005532	-0.002750	PASS
	20°C/3.6 V	-0.001707	0.007207	-0.00214	PASS
	20°C/4.35 V	0.003585	0.005271	-0.00169	PASS
/	/	RMC			/
WCDMA Band II Channel 9400	0°C/3.8 V	-0.000995			PASS
	10°C/3.8 V	0.000340			PASS
	20°C/3.8 V	-0.000777			PASS
	30°C/3.8 V	-0.000314			PASS
	40°C/3.8 V	-0.000255			PASS
	50°C/3.8 V	0.000064			PASS
	20°C/3.6 V	-0.000101			PASS
	20°C/4.35 V	-0.000814			PASS



Bandwith	Test status	LTE Band II Channel 18900		Conclusion
		Test Results (ppm)		
		QPSK	16QAM	
1.4MHz	0°C/3.8 V	0.002340	-0.004362	PASS
	10°C/3.8 V	0.005000	-0.005213	PASS
	20°C/3.8 V	0.004415	-0.001436	PASS
	30°C/3.8 V	0.007872	-0.003191	PASS
	40°C/3.8 V	0.003989	-0.001011	PASS
	50°C/3.8 V	0.005479	-0.001968	PASS
	20°C/3.6 V	0.004681	-0.003670	PASS
	20°C/4.35 V	0.002553	-0.004947	PASS
3MHz	0°C/3.8 V	0.003936	-0.002340	PASS
	10°C/3.8 V	0.002660	-0.001383	PASS
	20°C/3.8 V	0.004468	-0.002606	PASS
	30°C/3.8 V	0.004840	-0.004468	PASS
	40°C/3.8 V	0.007021	-0.006223	PASS
	50°C/3.8 V	0.005798	-0.005053	PASS
	20°C/3.6 V	0.002979	0.008511	PASS
	20°C/4.35 V	0.006170	0.004628	PASS
5MHz	0°C/3.8 V	0.002713	0.005319	PASS
	10°C/3.8 V	0.001702	0.003191	PASS
	20°C/3.8 V	0.005213	0.002979	PASS
	30°C/3.8 V	0.001543	0.005638	PASS
	40°C/3.8 V	0.003245	0.005053	PASS
	50°C/3.8 V	0.002447	0.004202	PASS
	20°C/3.6 V	0.003511	0.005479	PASS
	20°C/4.35 V	0.002394	0.007660	PASS
10MHz	0°C/3.8 V	-0.004096	0.004362	PASS
	10°C/3.8 V	-0.001915	0.007553	PASS
	20°C/3.8 V	0.002234	0.004574	PASS
	30°C/3.8 V	0.001223	0.003298	PASS
	40°C/3.8 V	0.003404	0.005106	PASS
	50°C/3.8 V	0.002926	0.003883	PASS
	20°C/3.6 V	-0.006117	0.002926	PASS
	20°C/4.35 V	-0.002340	0.004628	PASS
15MHz	0°C/3.8 V	-0.005372	0.004894	PASS
	10°C/3.8 V	-0.007128	0.003777	PASS
	20°C/3.8 V	-0.004574	0.004096	PASS



	30°C/3.8 V	-0.005851	0.003085	PASS
	40°C/3.8 V	-0.005266	0.006596	PASS
	50°C/3.8 V	-0.004149	0.003457	PASS
	20°C/3.6 V	-0.002287	0.002606	PASS
	20°C/4.35 V	-0.003511	0.004787	PASS
20MHz	0°C/3.8 V	0.006755	-0.006755	PASS
	10°C/3.8 V	0.006170	-0.002979	PASS
	20°C/3.8 V	0.009628	-0.004734	PASS
	30°C/3.8 V	0.005745	-0.002553	PASS
	40°C/3.8 V	-0.003245	0.003617	PASS
	50°C/3.8 V	0.005213	-0.006011	PASS
	20°C/3.6 V	0.004309	-0.006489	PASS
	20°C/4.35 V	0.004096	-0.005904	PASS

### 5.7. Spurious Emissions at Antenna Terminals

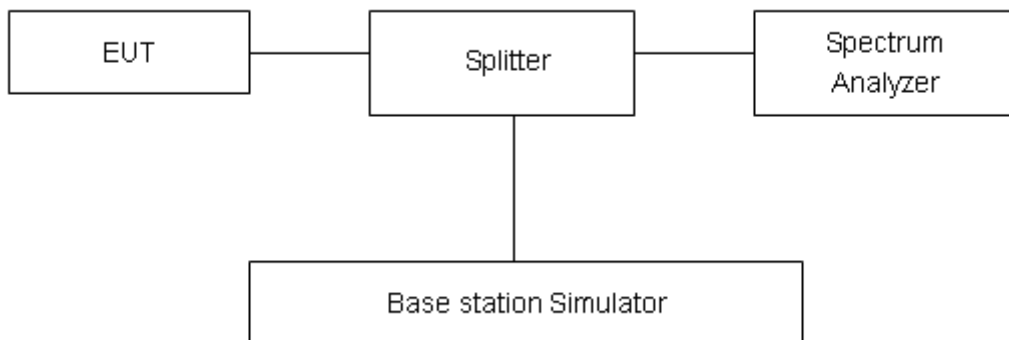
#### Ambient condition

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
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#### Measurement Uncertainty

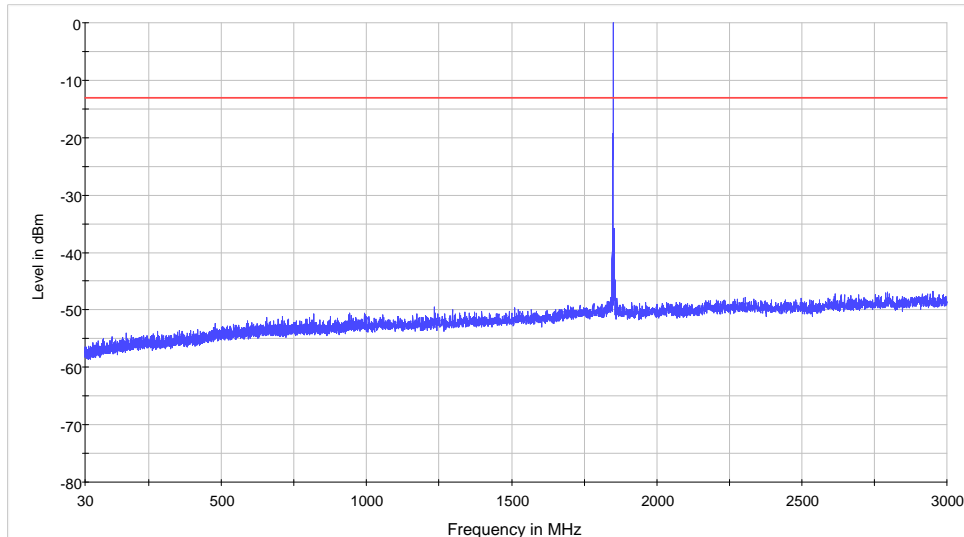
The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor  $k = 1.96$ .

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.

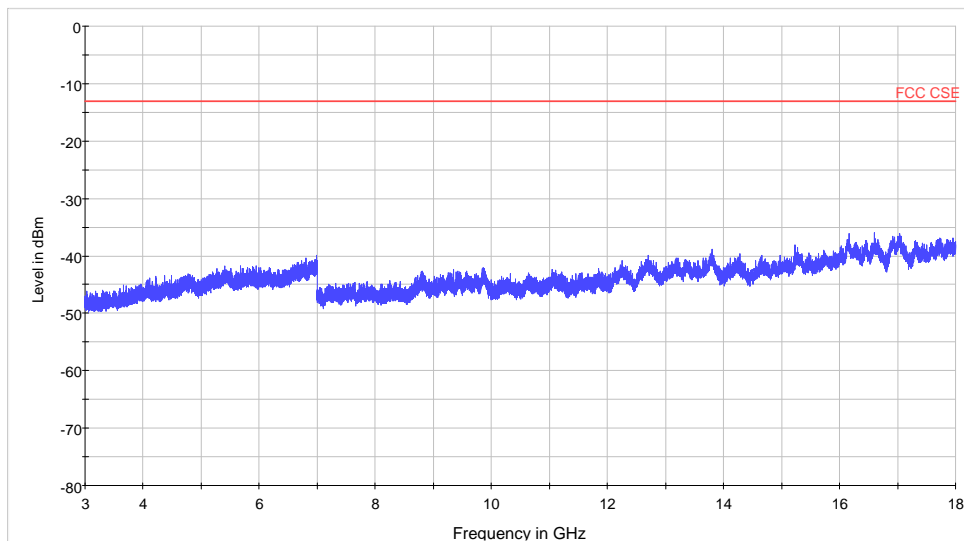
### GSM 1900 CH 512



MaxPeak-MaxHold-PK+ FCC CSE

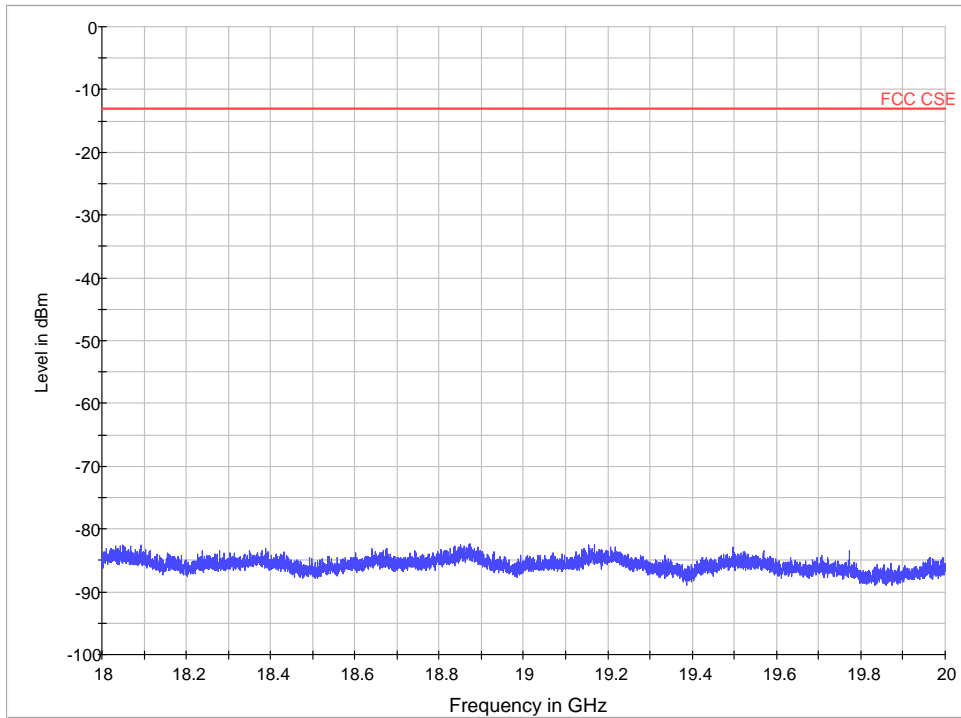
Note: The signal beyond the limit is carrier.

Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

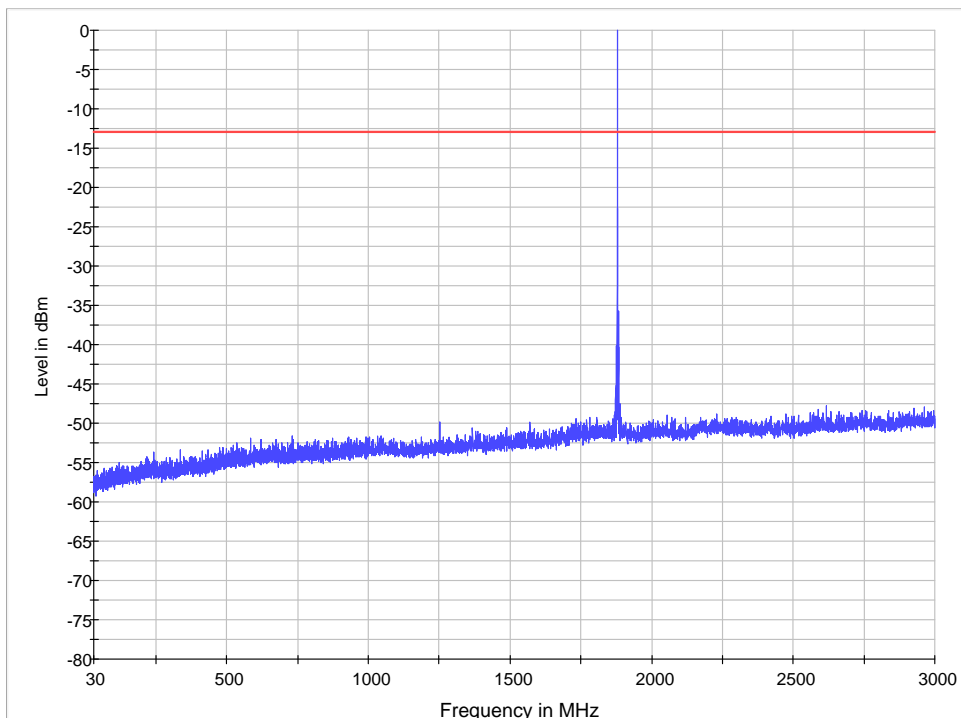
Spurious conducted emissions from 3GHz~18GHz



— MaxPeak-MaxHold-PK+ — FCC CSE

Spurious conducted emissions from 18GHz~20GHz

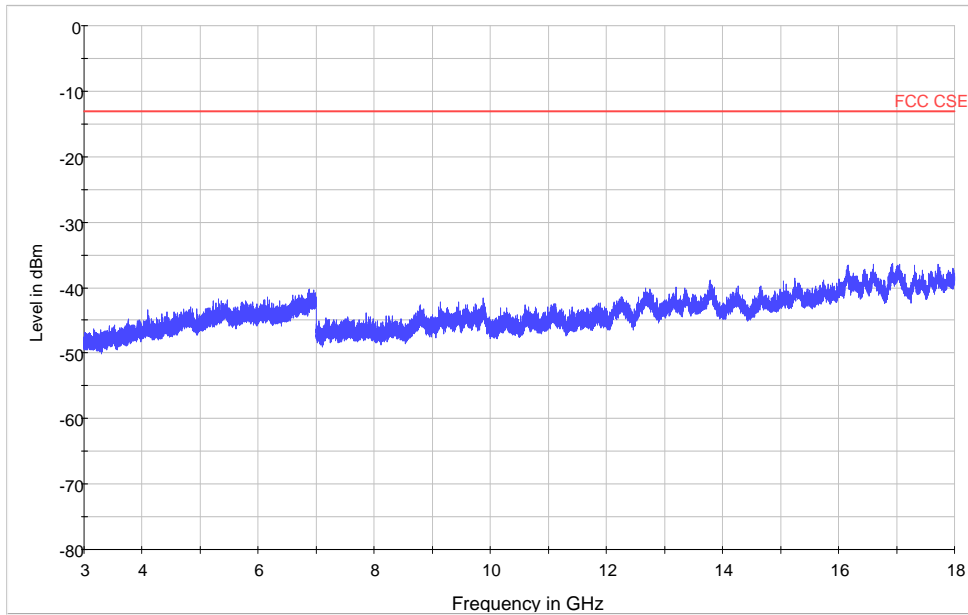
GSM 1900 CH 661



— MaxPeak-MaxHold-PK+ — FCC CSE

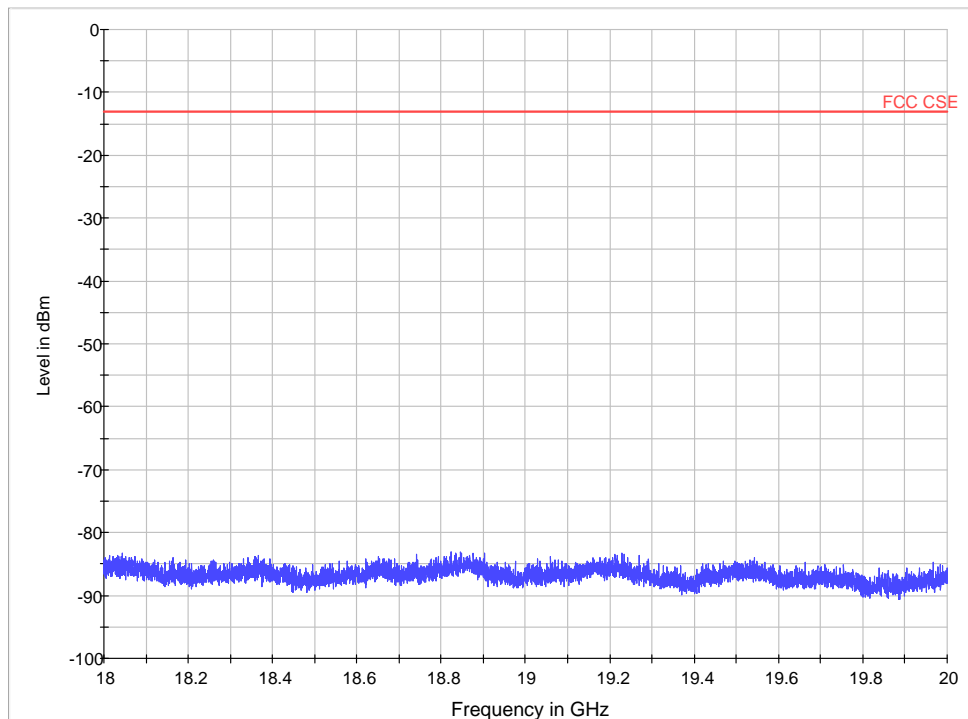
Note: The signal beyond the limit is carrier.

Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

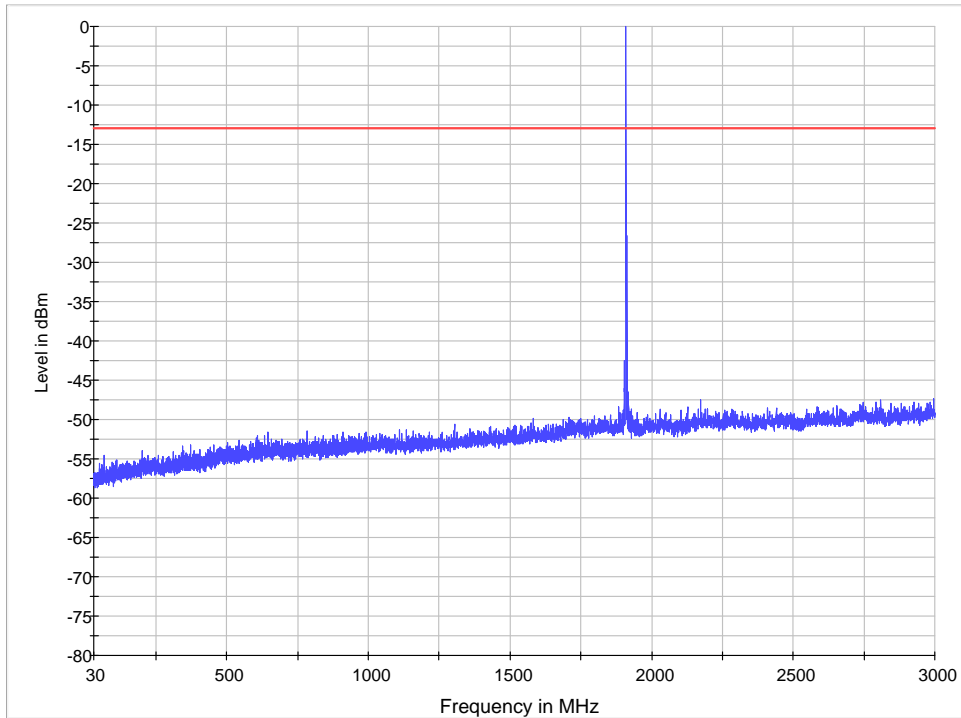


MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 18GHz~20GHz

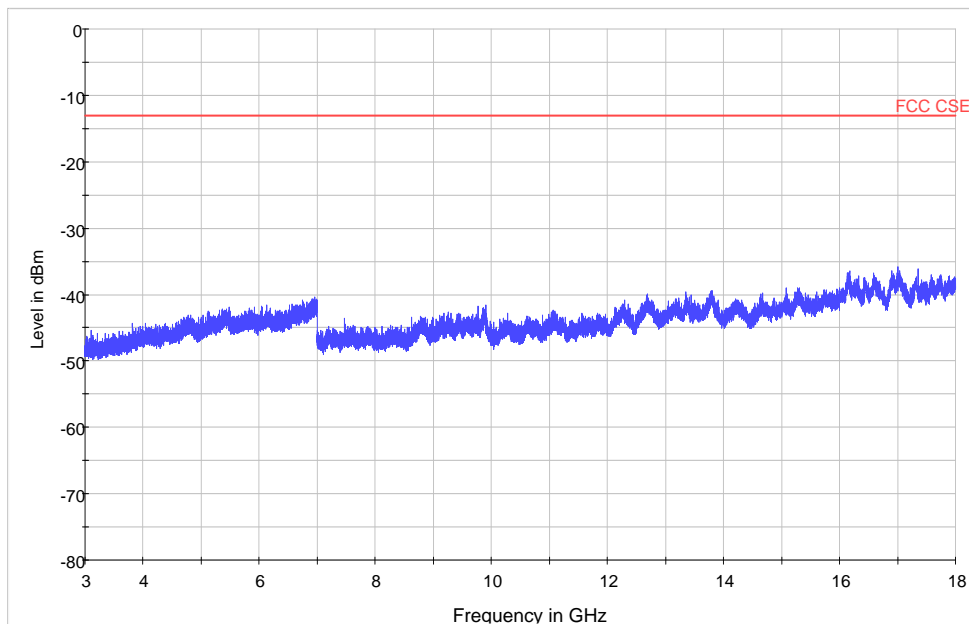


GSM 1900 CH 810



— MaxPeak-MaxHold-PK+ — FCC CSE

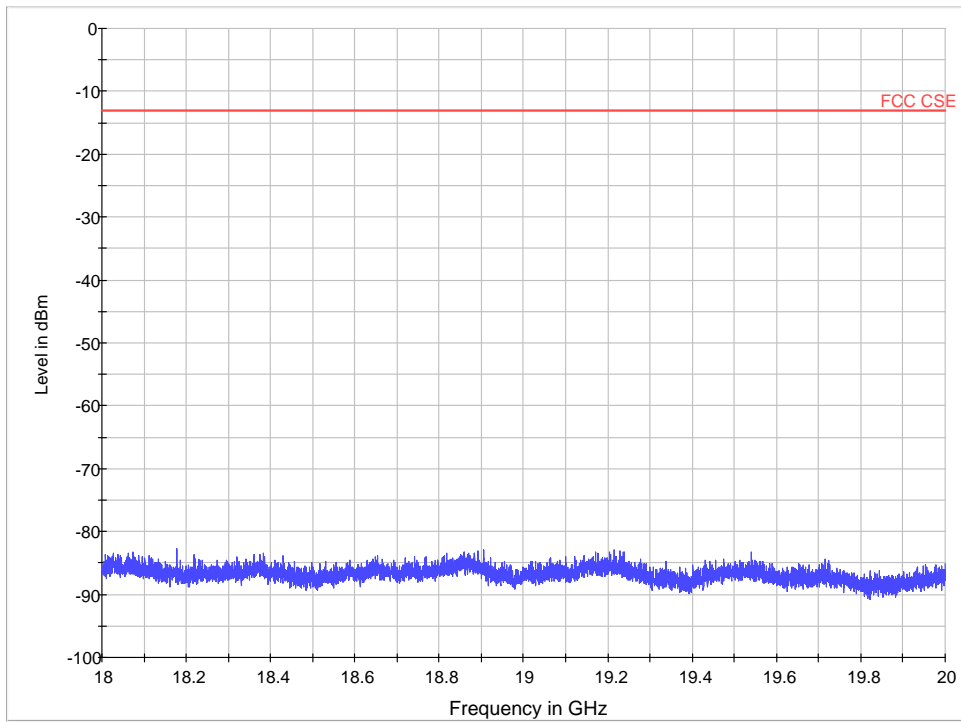
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



— MaxPeak-MaxHold-PK+ — FCC CSE

Spurious conducted emissions from 3GHz~18GHz



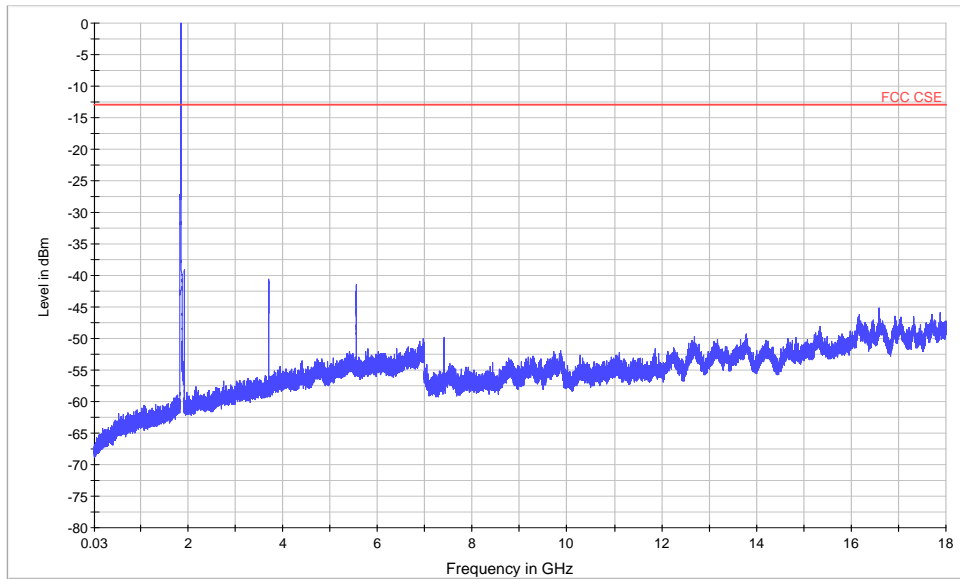


— MaxPeak-MaxHold-PK+ — FCC CSE

Spurious conducted emissions from 18GHz~20GHz

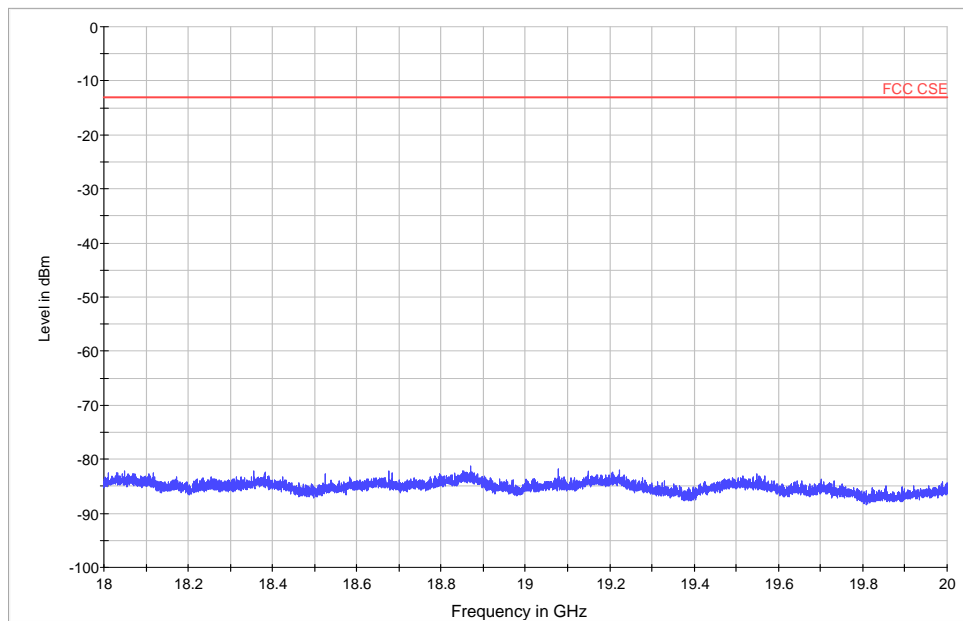


WCDMA Band II CH9262



MaxPeak-MaxHold-PK+      FCC CSE

Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~18GHz

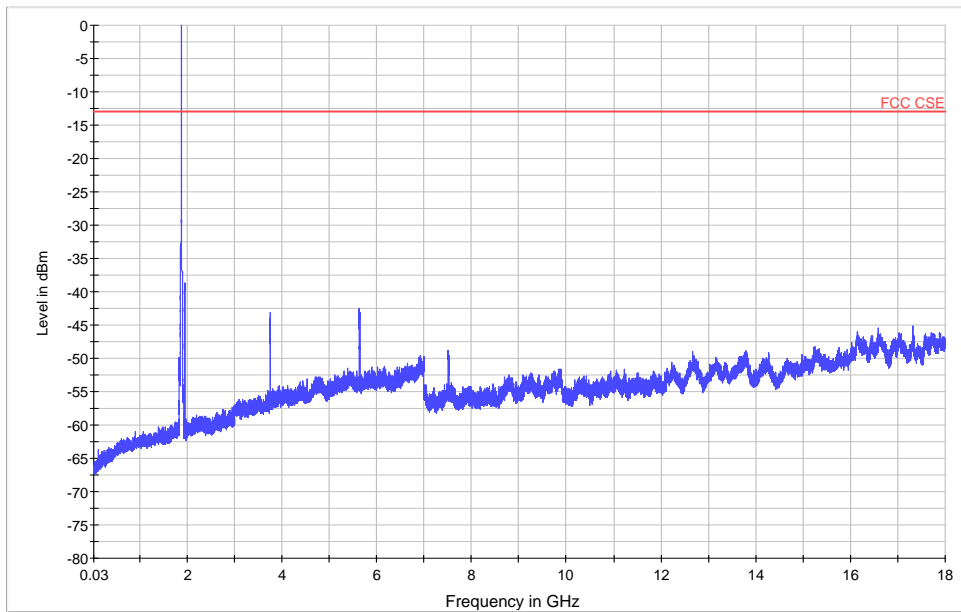


MaxPeak-MaxHold-PK+      FCC CSE

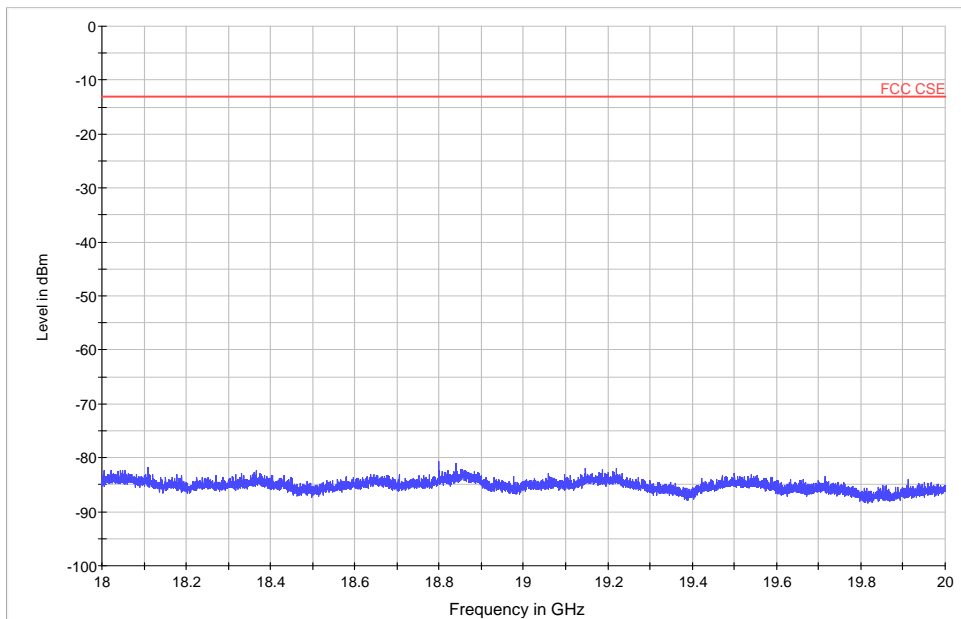
Spurious conducted emissions from 18GHz~20GHz



WCDMA Band II CH9400

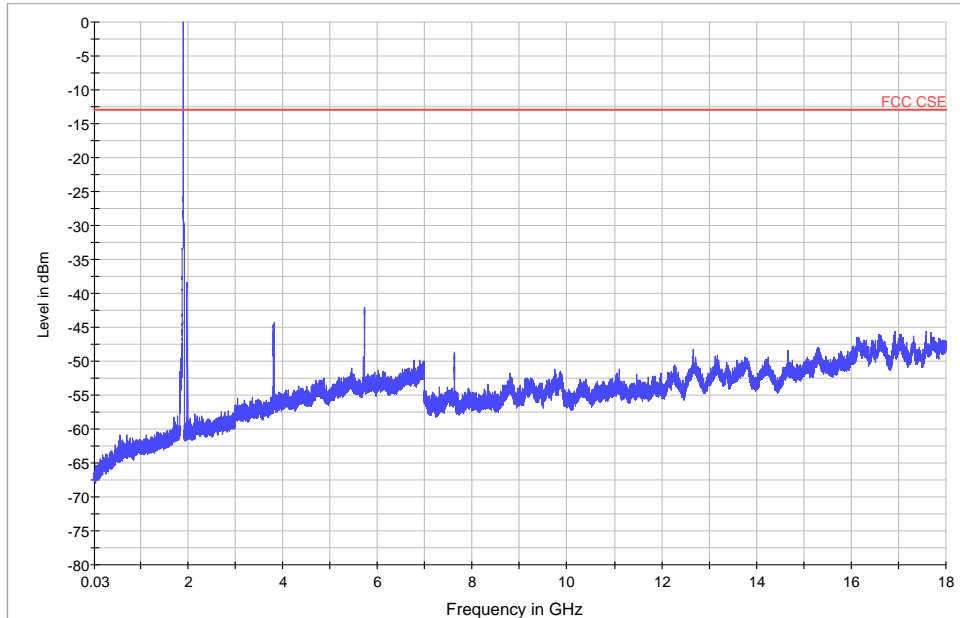


Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~18GHz



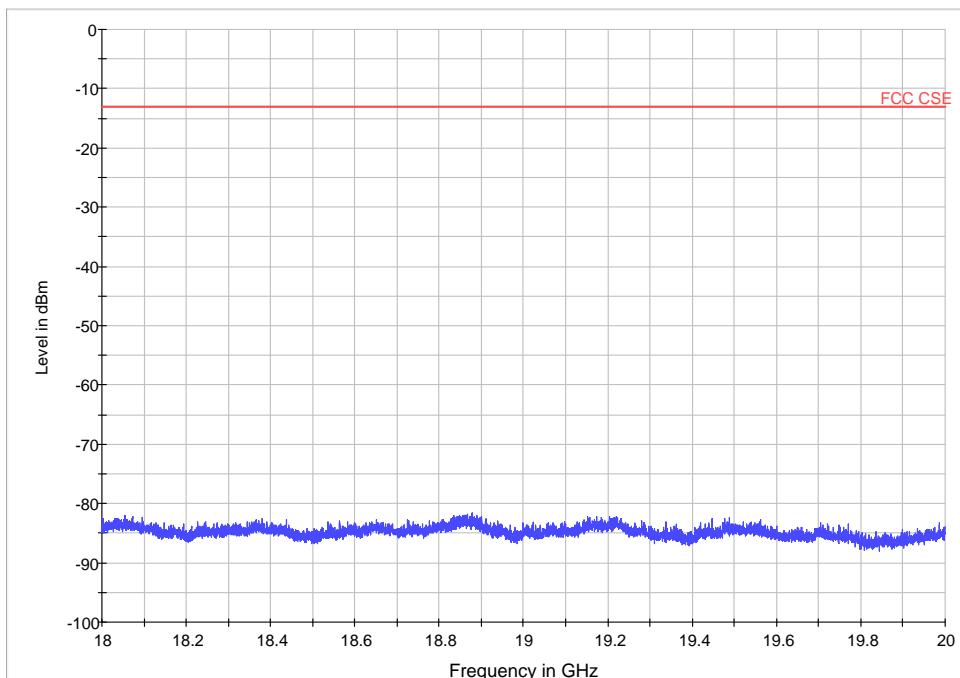
Spurious conducted emissions from 18GHz~20GHz

WCDMA Band II CH9538



MaxPeak-MaxHold-PK+      FCC CSE

Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~18GHz

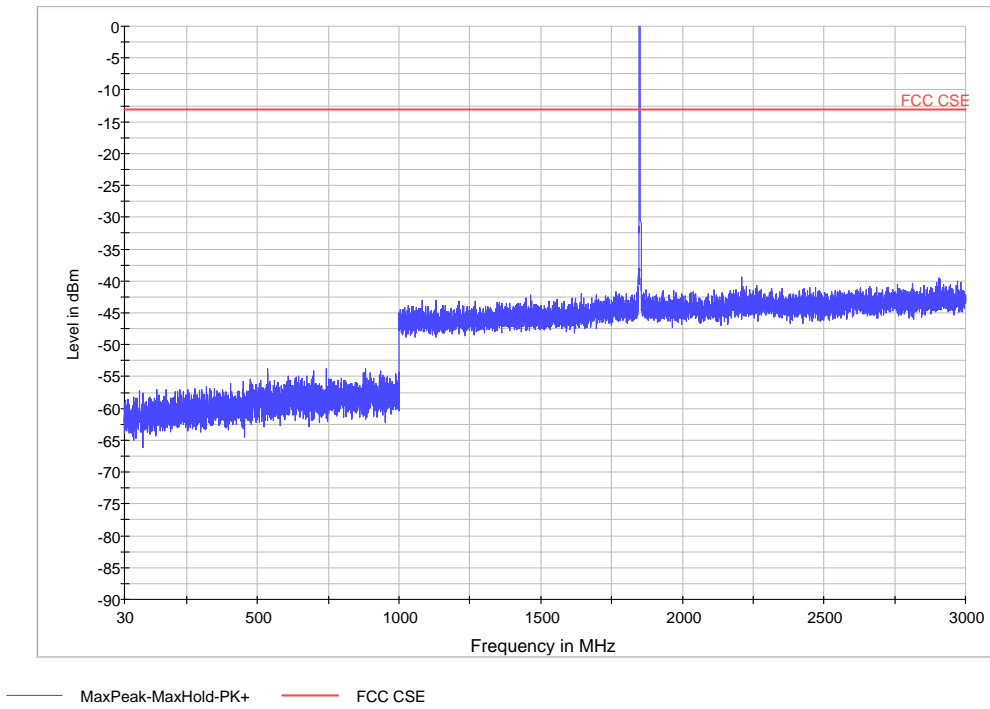


MaxPeak-MaxHold-PK+      FCC CSE

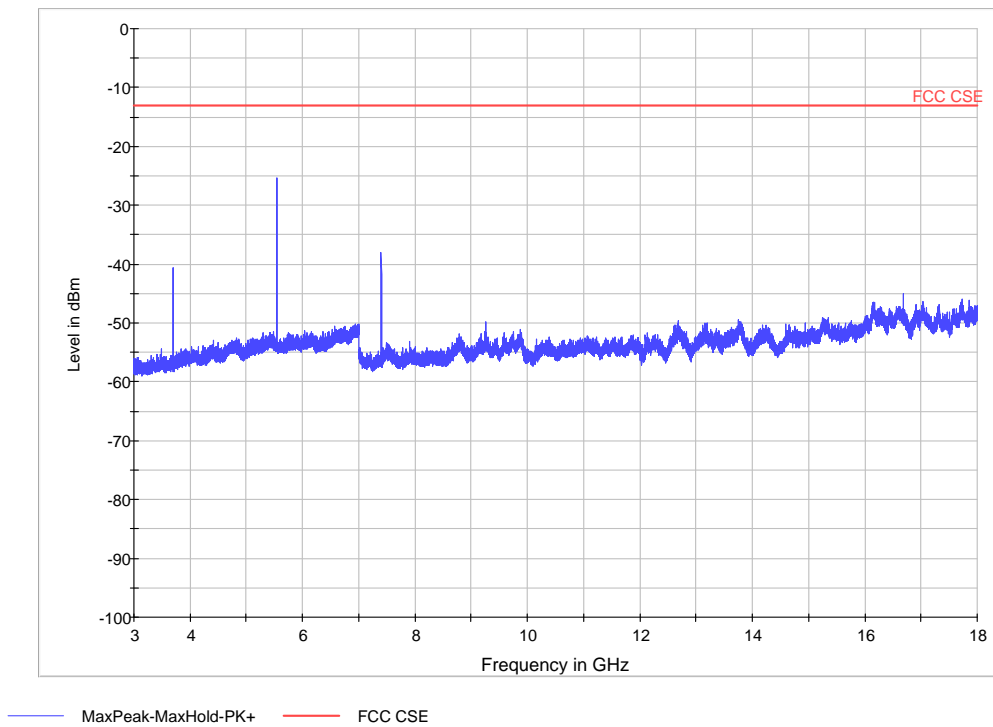
Spurious conducted emissions from 18GHz~20GHz



LTE Band II 1.4MHz CH18607

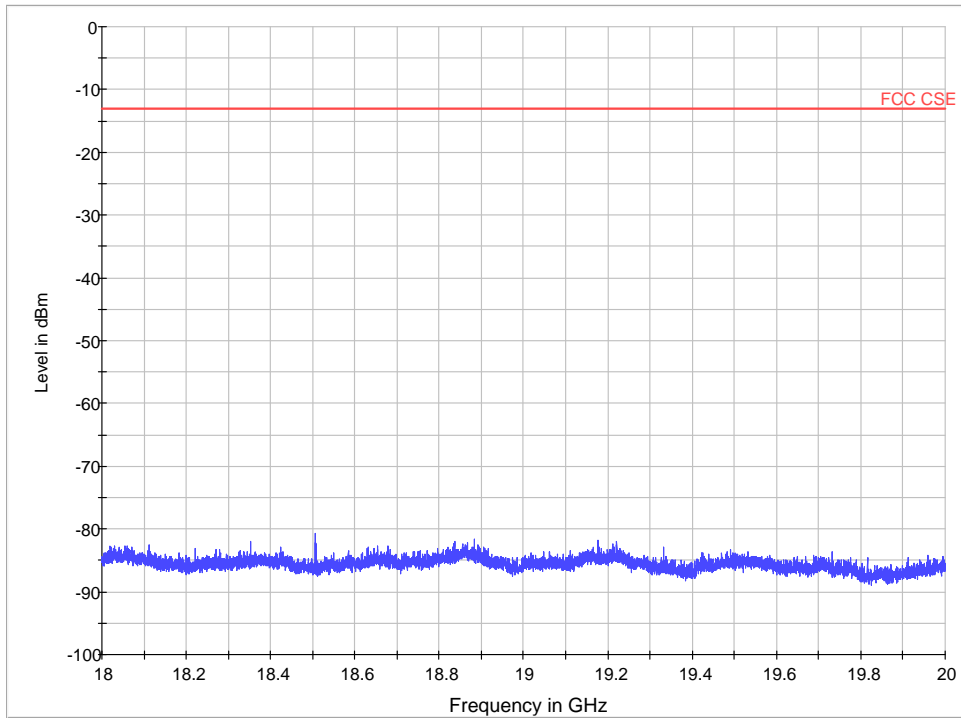


Note: The signal beyond the limit is carrier.  
 Spurious conducted emissions from 30MHz~3GHz



Spurious conducted emissions from 3GHz~18GHz

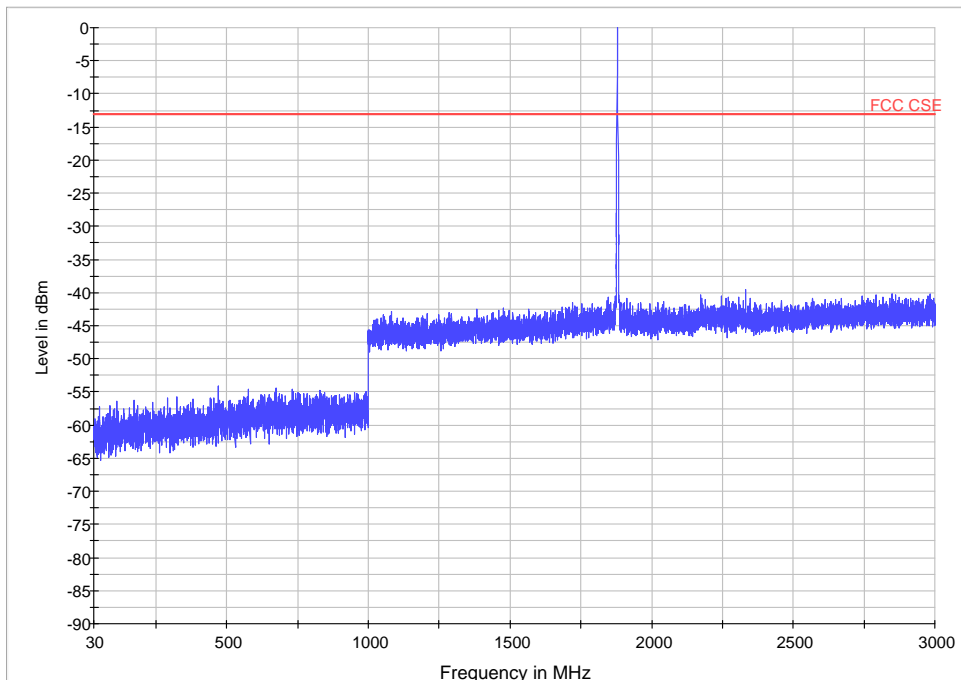
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5550.8	-25.30	-13.00	12.30



— MaxPeak-MaxHold-PK+ — FCC CSE

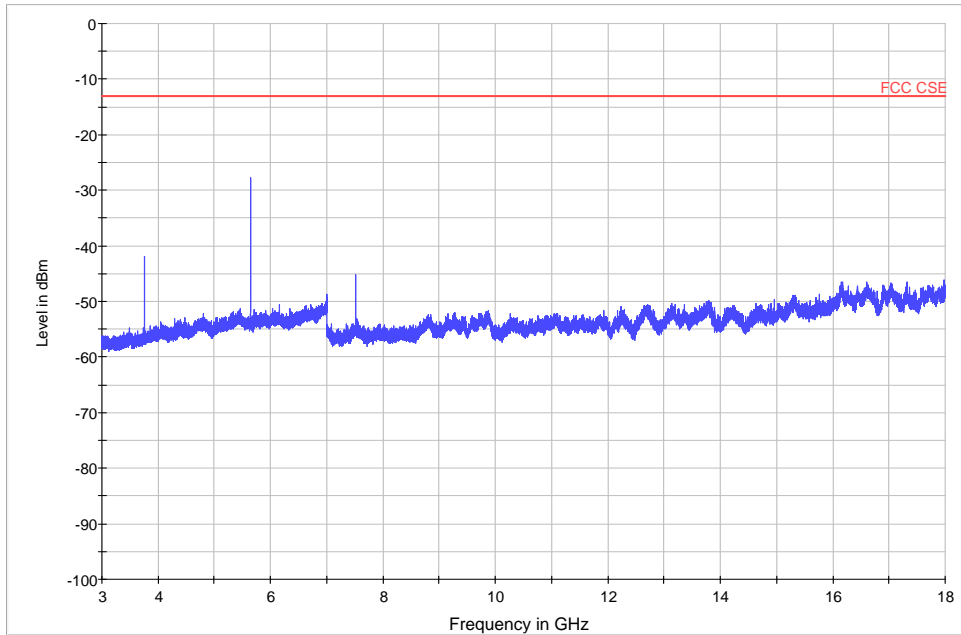
Spurious conducted emissions from 18GHz~20GHz

LTE Band II 1.4MHz CH18900



— MaxPeak-MaxHold-PK+ — FCC CSE

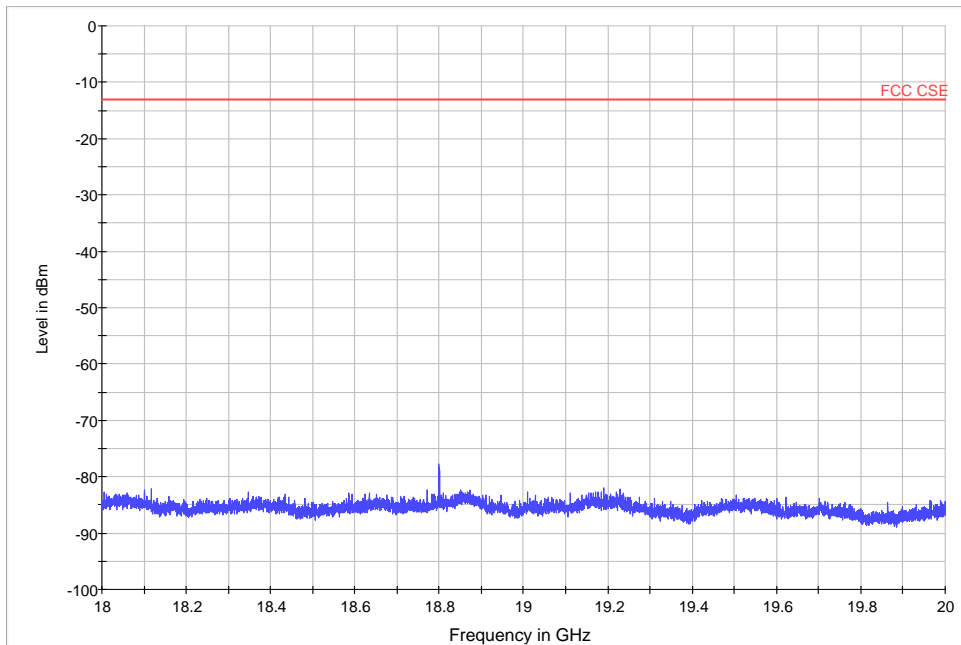
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5638.5	-27.8	-13.00	14.83

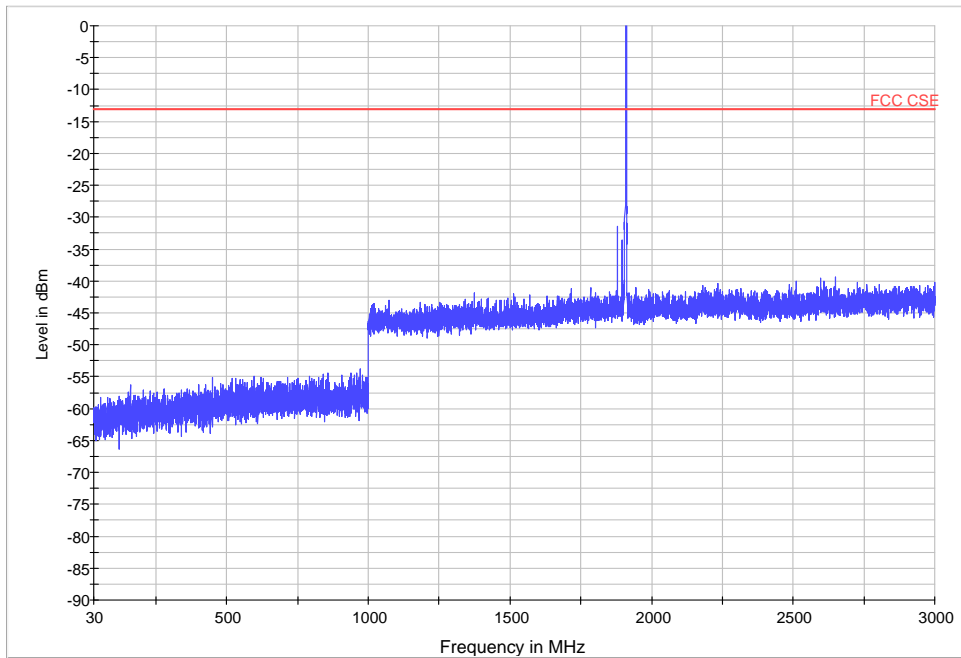


MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

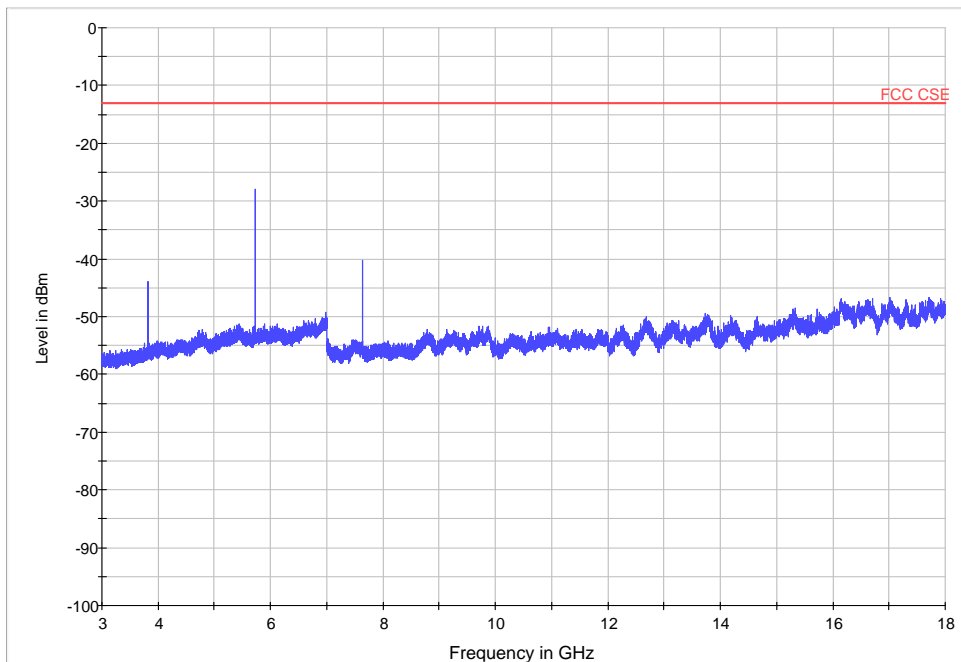


LTE Band II 1.4MHz CH19193



MaxPeak-MaxHold-PK+ FCC CSE

Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz

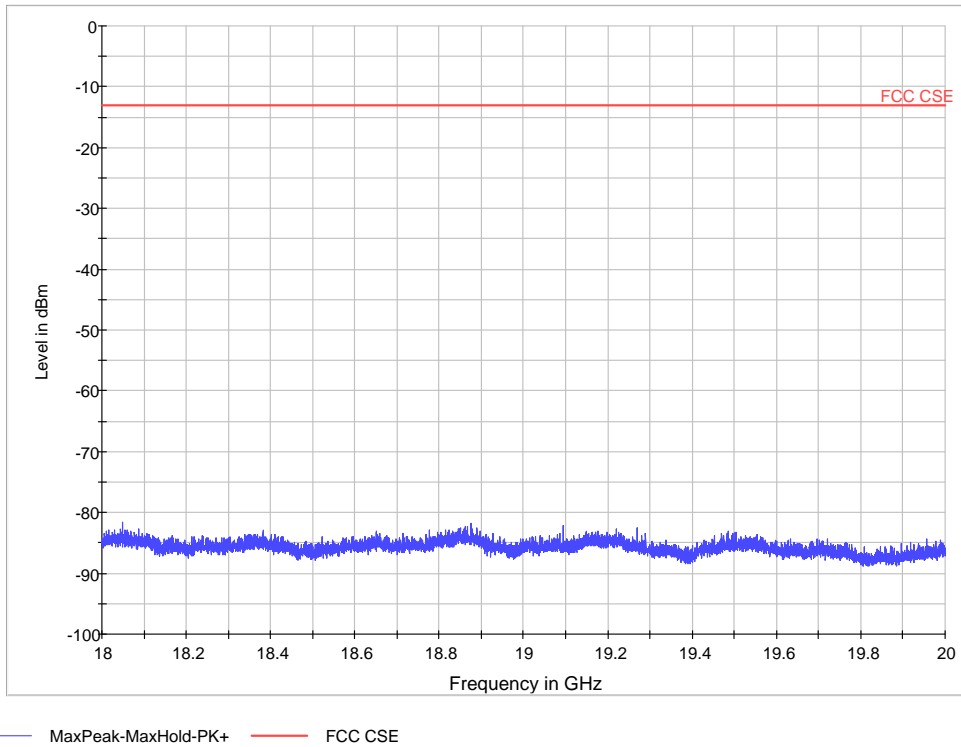


MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

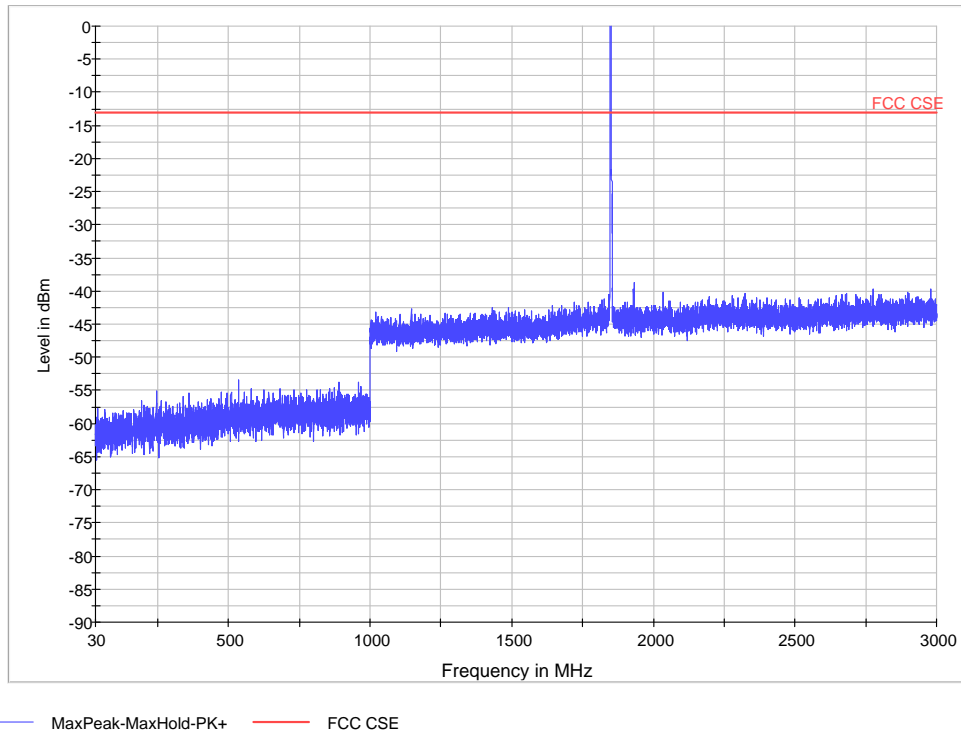
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5727.0	-27.87	-13.00	14.87



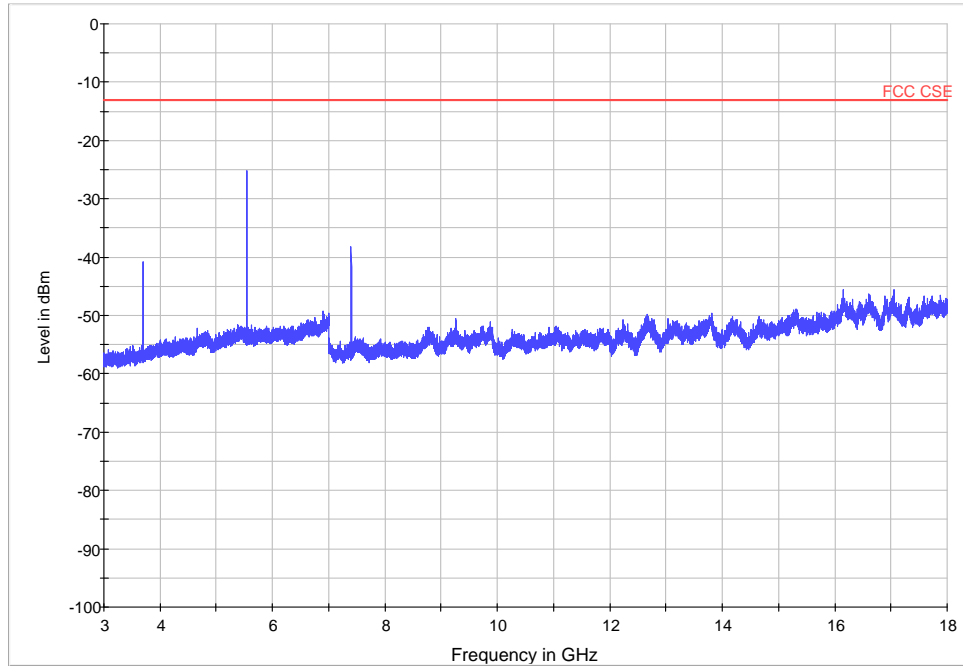


Spurious conducted emissions from 18GHz~26.5GHz

LTE Band II 3MHz CH18615



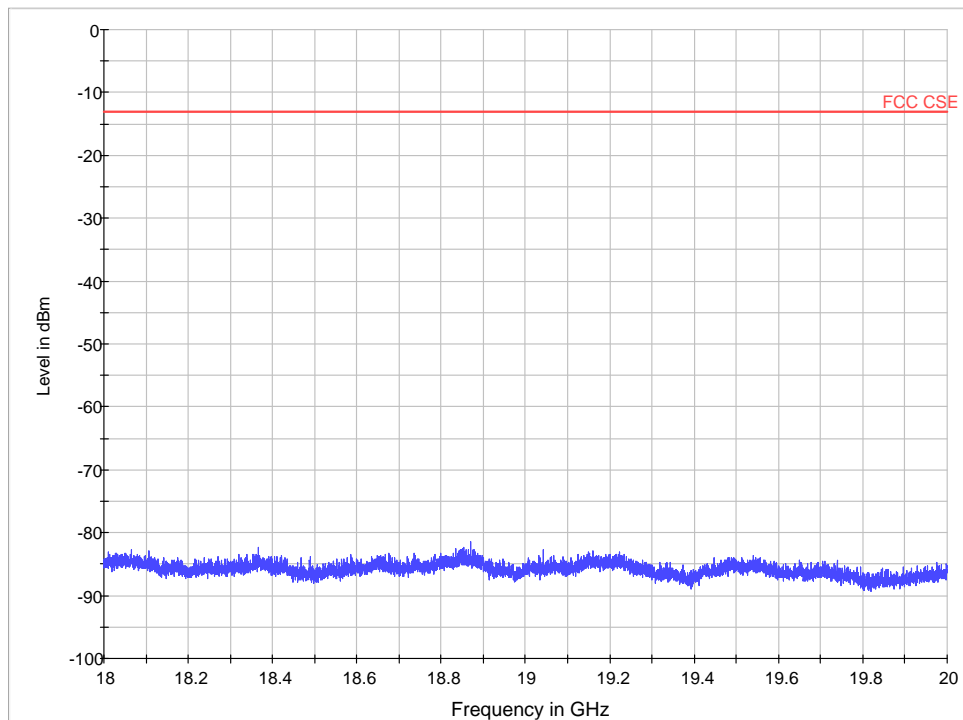
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5550.8	-25.27	-13.00	12.27

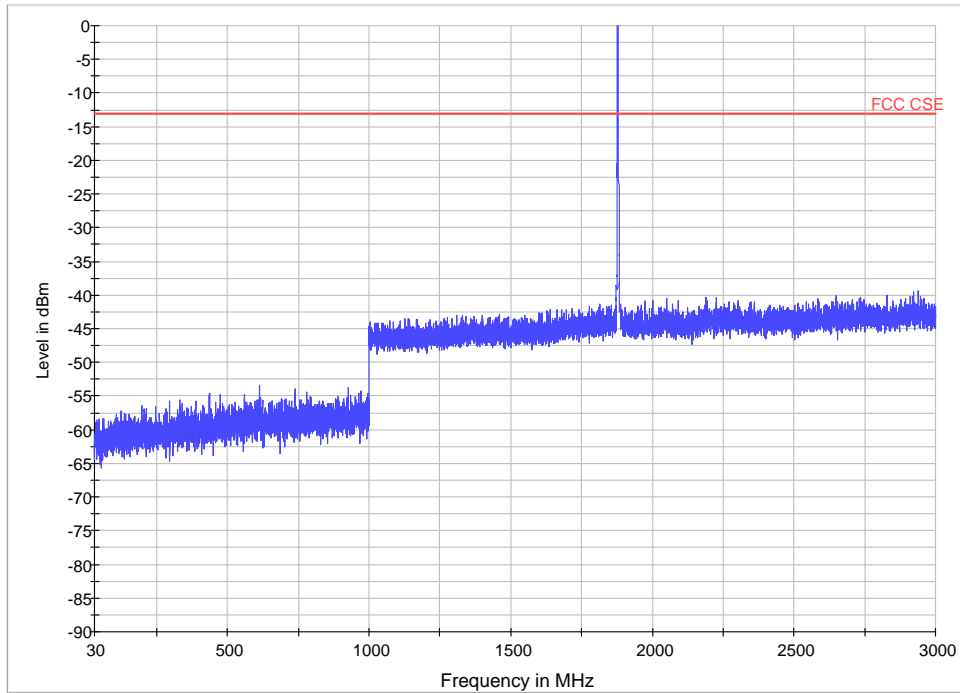


MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

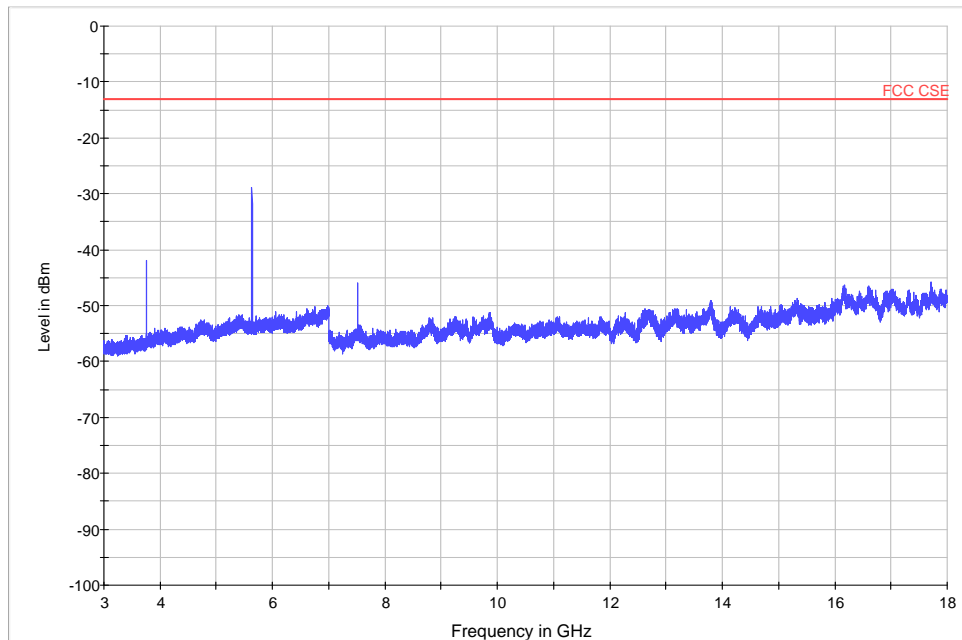


LTE Band II 3MHz CH18900



— MaxPeak-MaxHold-PK+     
 — FCC CSE

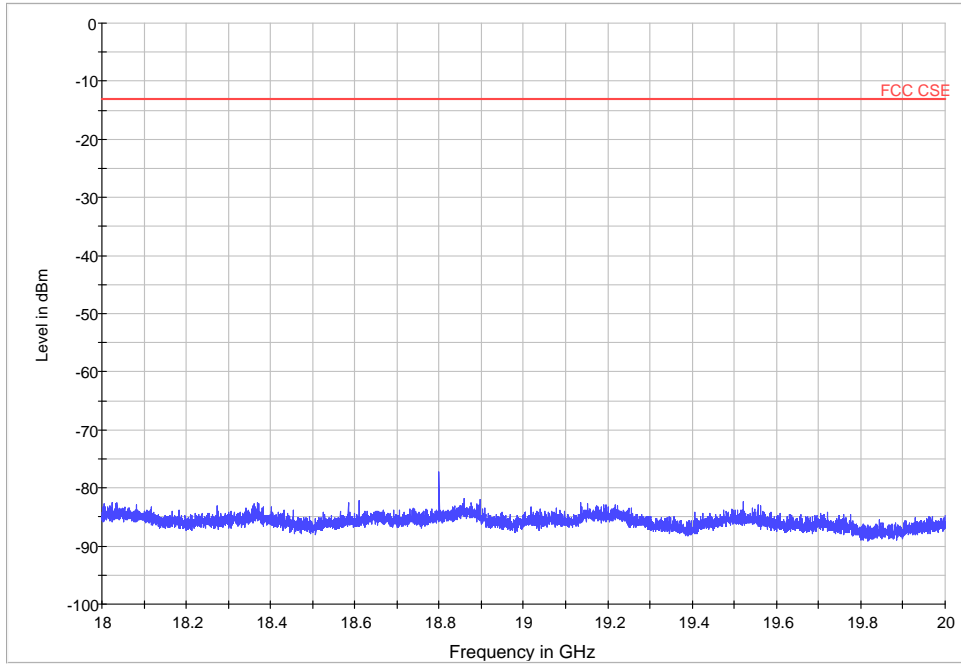
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



— MaxPeak-MaxHold-PK+     
 — FCC CSE

Spurious conducted emissions from 3GHz~18GHz

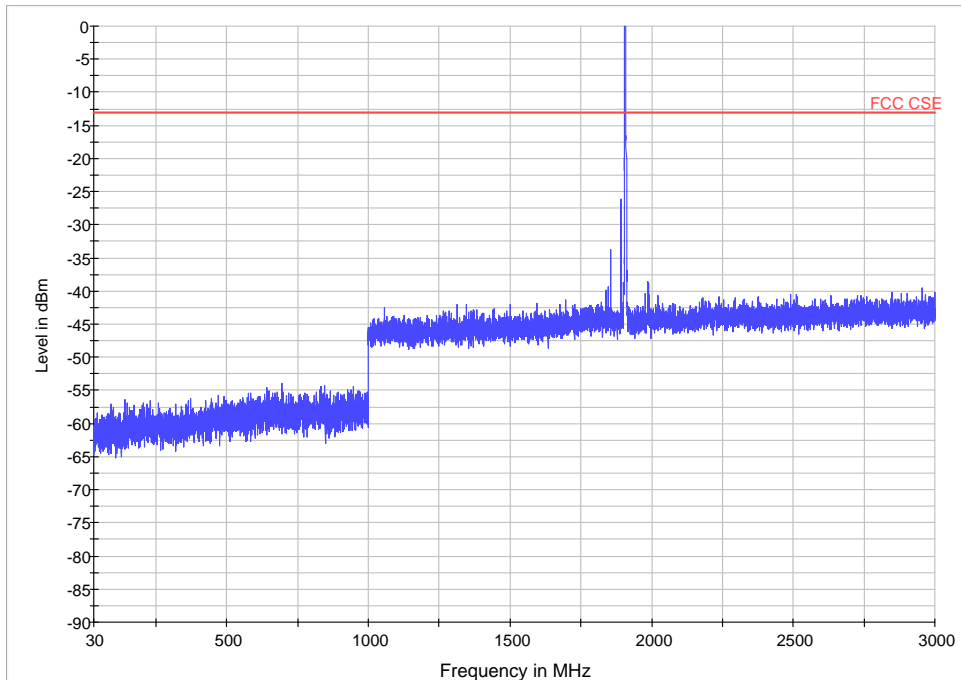
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5636.3	-28.92	-13.00	15.92



MaxPeak-MaxHold-PK+    FCC CSE

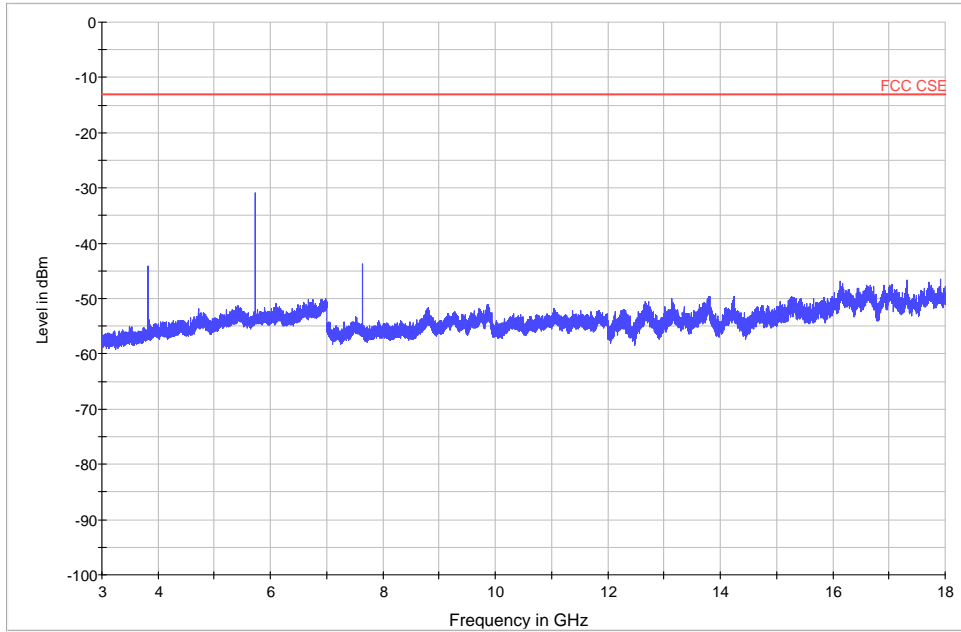
Spurious conducted emissions from 18GHz~26.5GHz

LTE Band II 3MHz CH19185



MaxPeak-MaxHold-PK+    FCC CSE

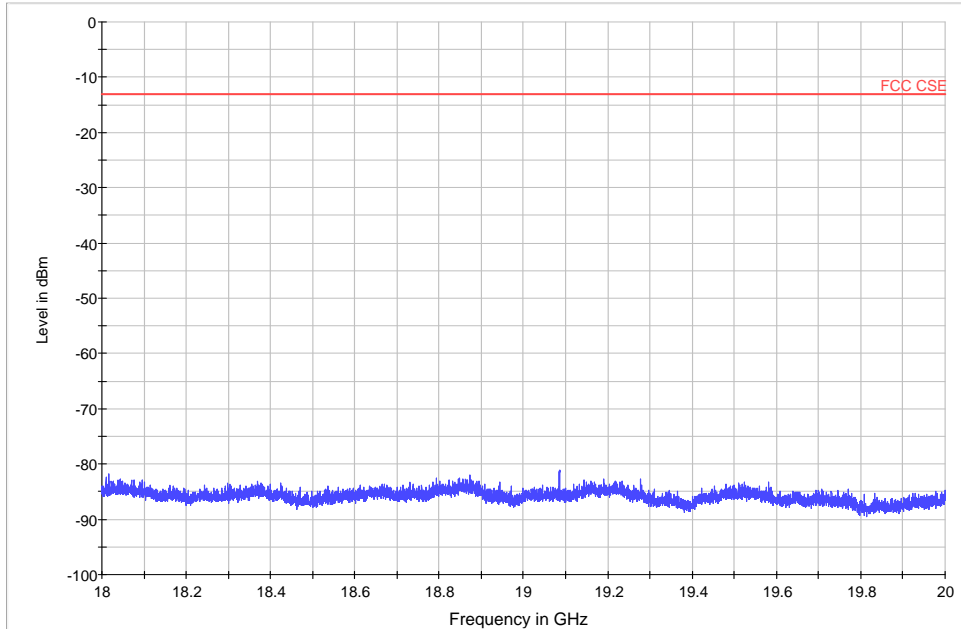
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+      FCC CSE

Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5721.9	-30.81	-13.00	17.81

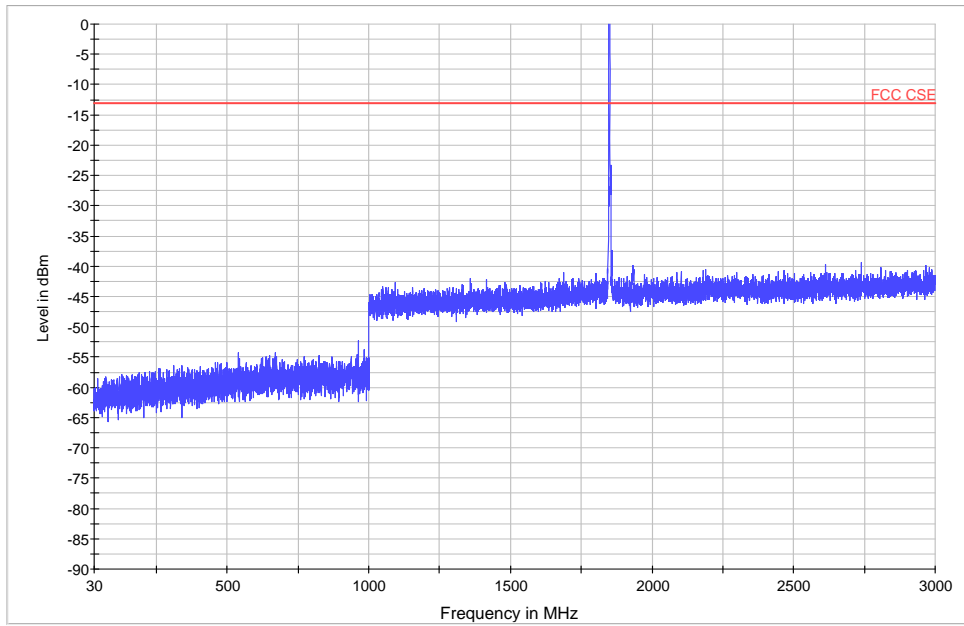


MaxPeak-MaxHold-PK+      FCC CSE

Spurious conducted emissions from 18GHz~20GHz

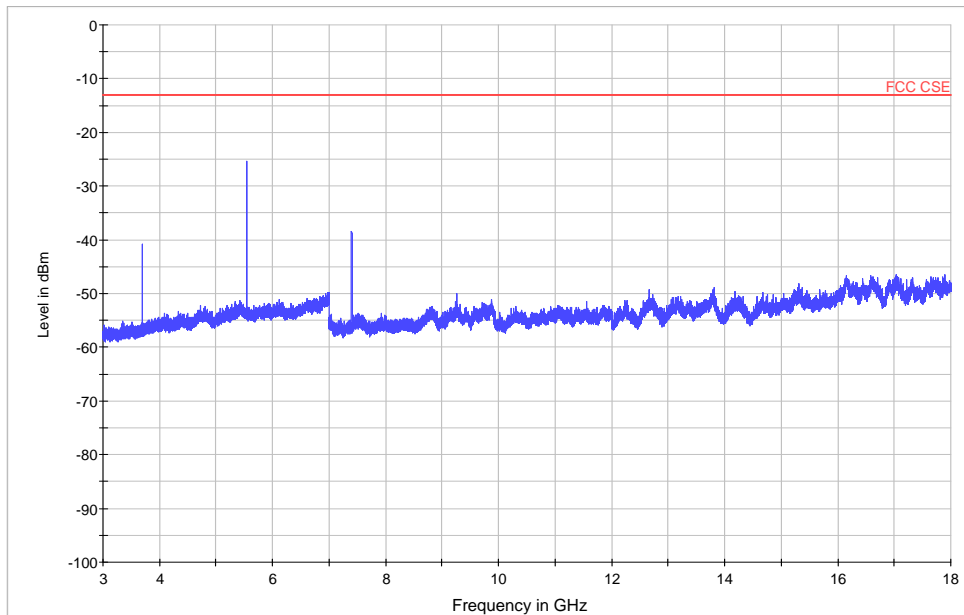


LTE Band II 5MHz CH18625



MaxPeak-MaxHold-PK+ FCC CSE

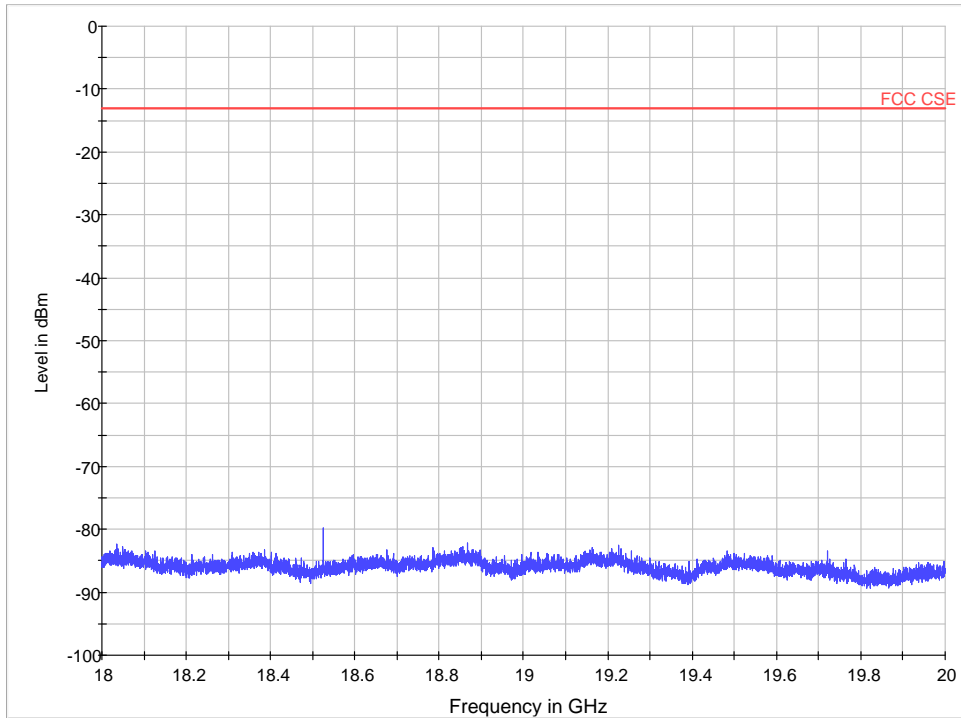
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

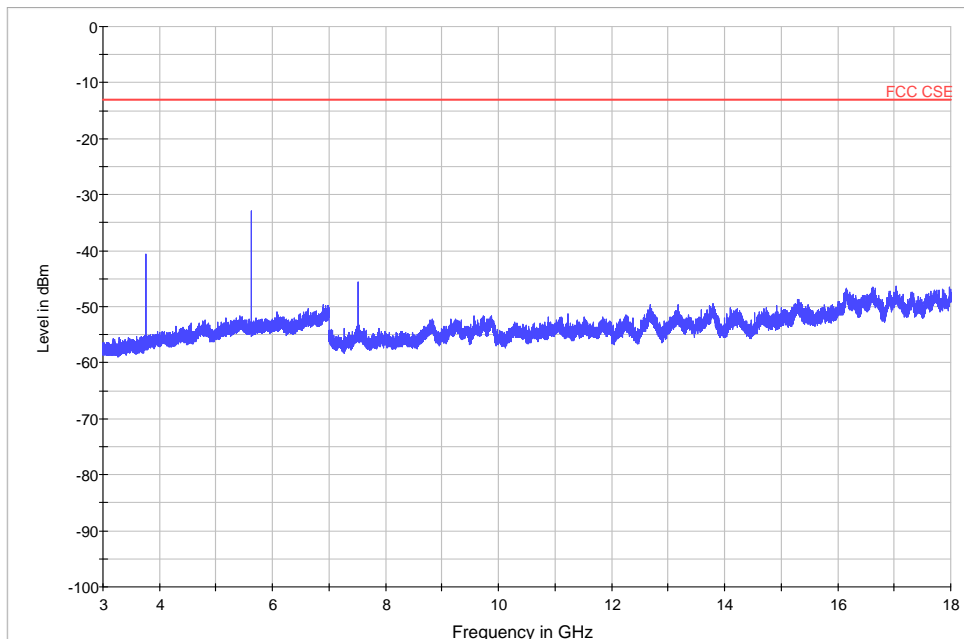
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5551.1	-25.45	-13.00	12.45



MaxPeak-MaxHold-PK+    FCC CSE

Spurious conducted emissions from 18GHz~20GHz

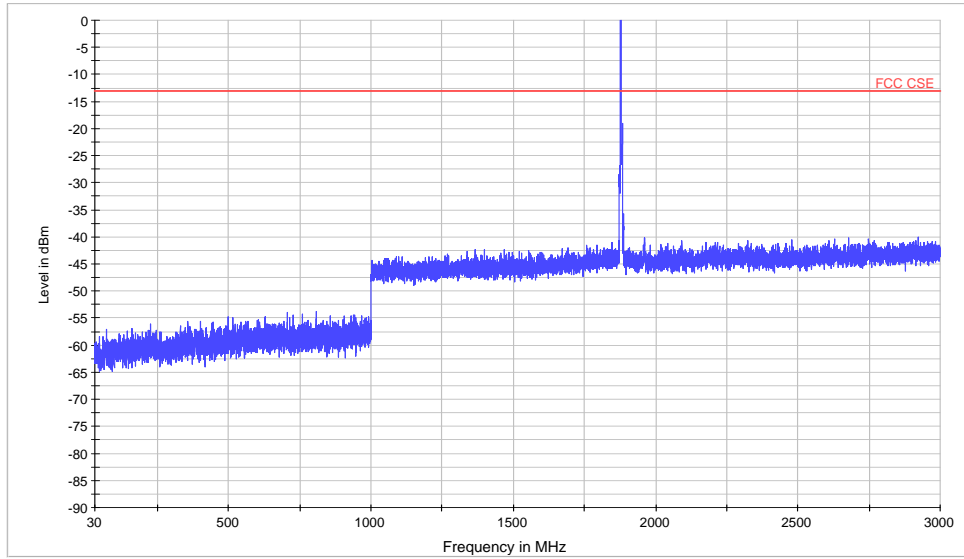
LTE Band II 5MHz CH18900



MaxPeak-MaxHold-PK+    FCC CSE

Note: The signal beyond the limit is carrier.

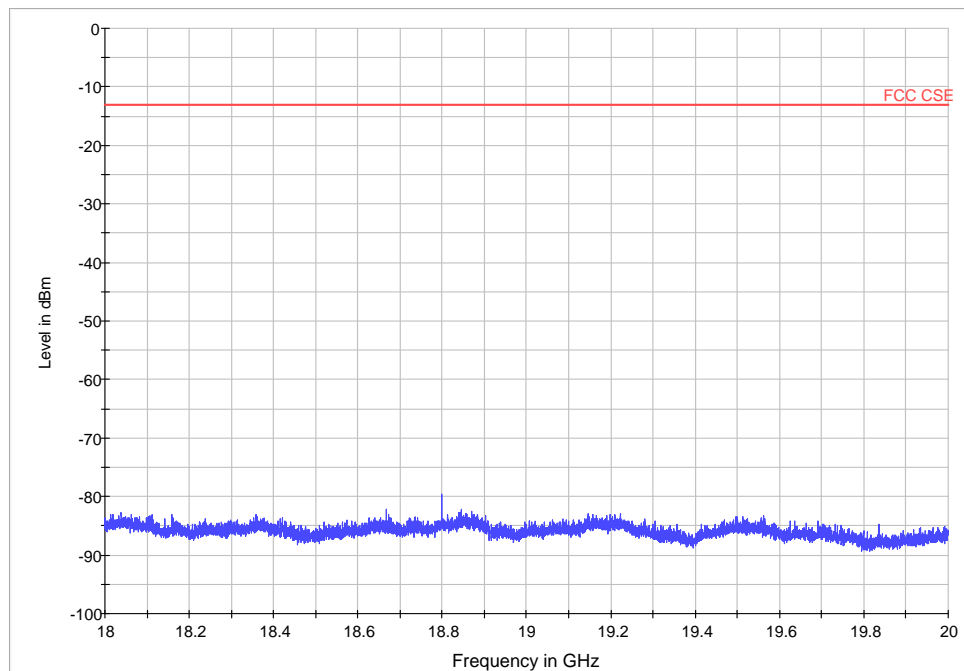
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+      FCC CSE

Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5633.3	-32.93	-13.00	19.93



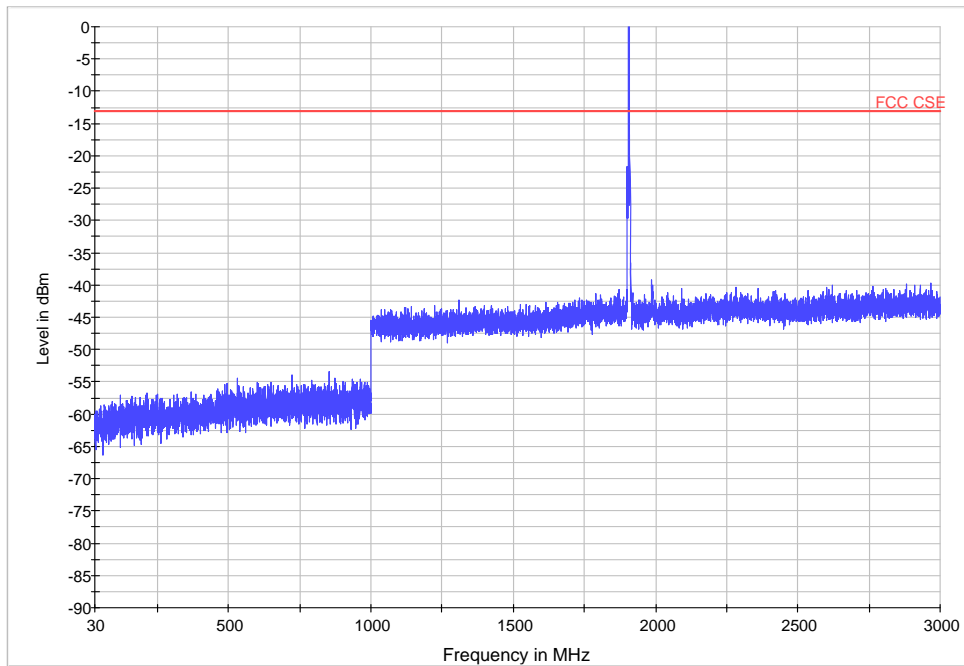
MaxPeak-MaxHold-PK+      FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz



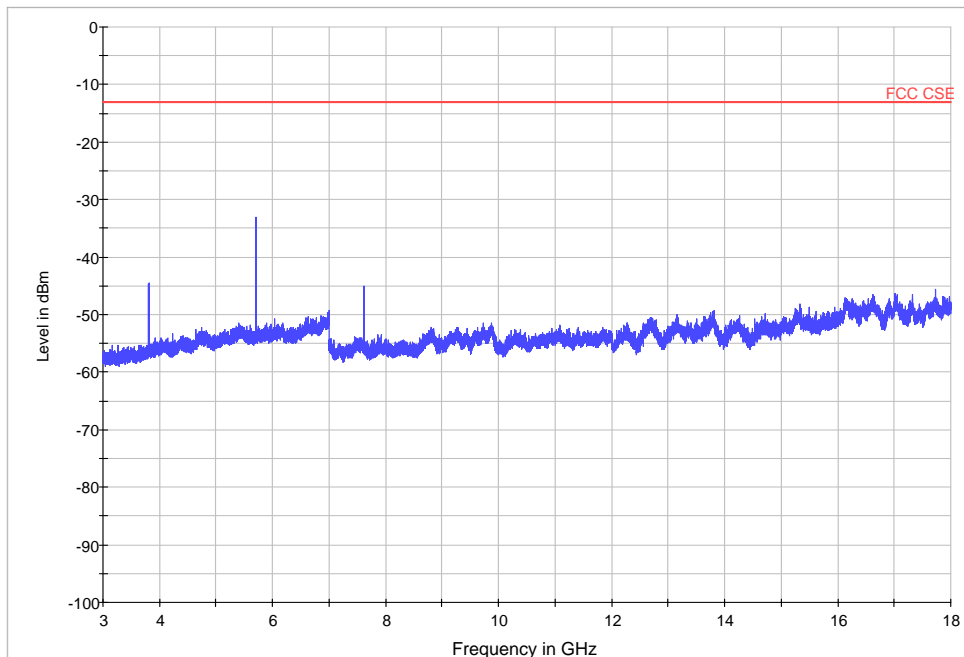


LTE Band II 5MHz CH19175



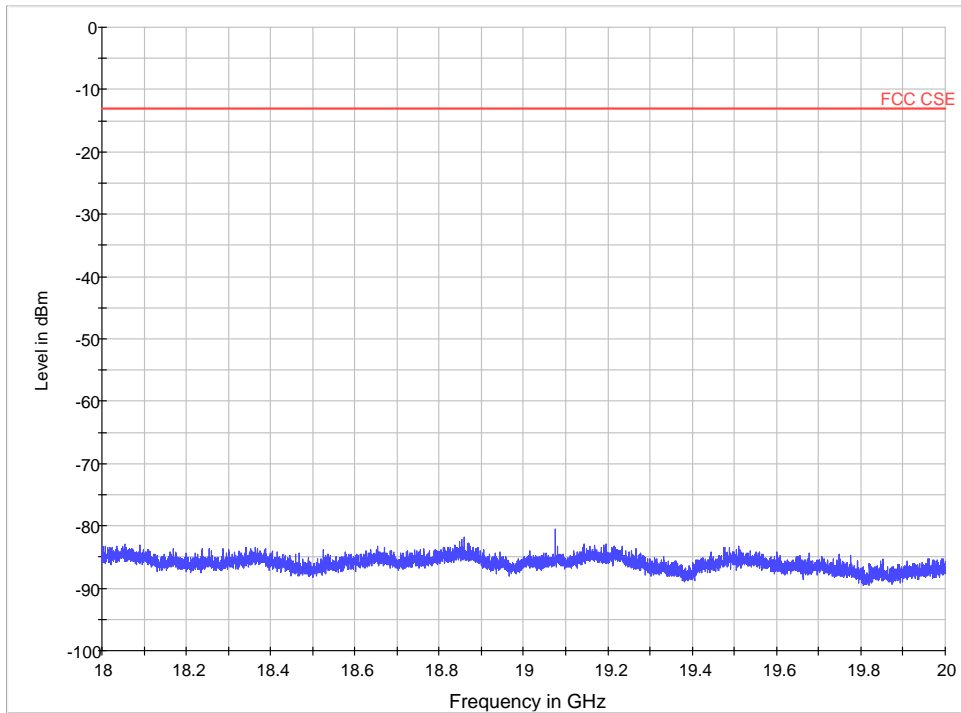
MaxPeak-MaxHold-PK+      FCC CSE

Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+      FCC CSE

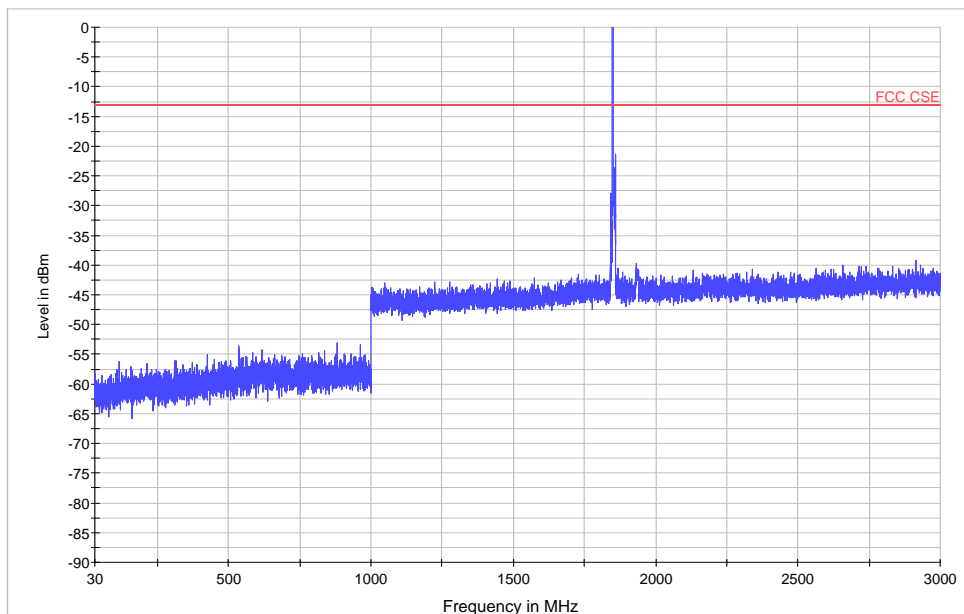
Spurious conducted emissions from 3GHz~18GHz



— MaxPeak-MaxHold-PK+ — FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

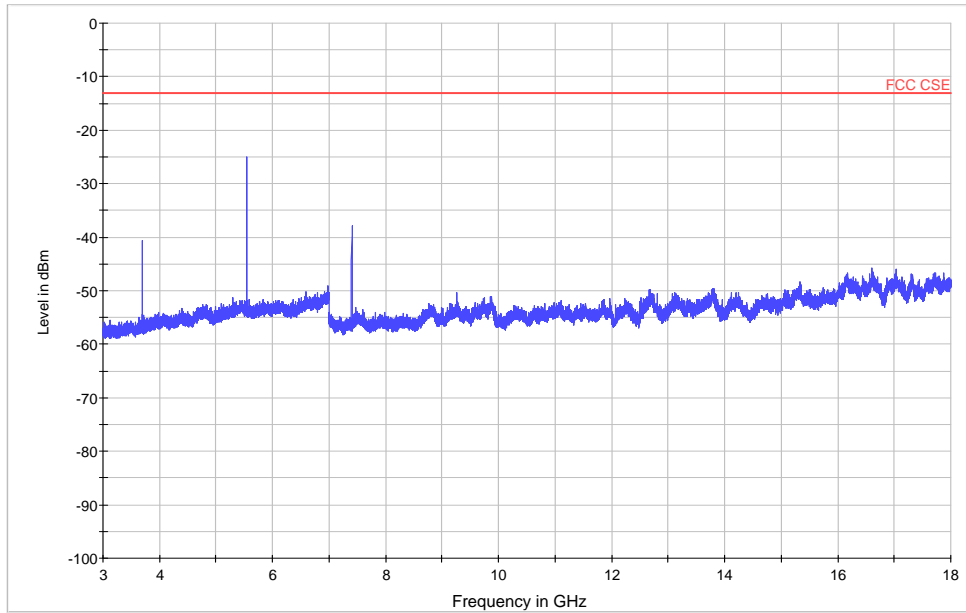
LTE Band II 10MHz CH18650



— MaxPeak-MaxHold-PK+ — FCC CSE

Note: The signal beyond the limit is carrier.

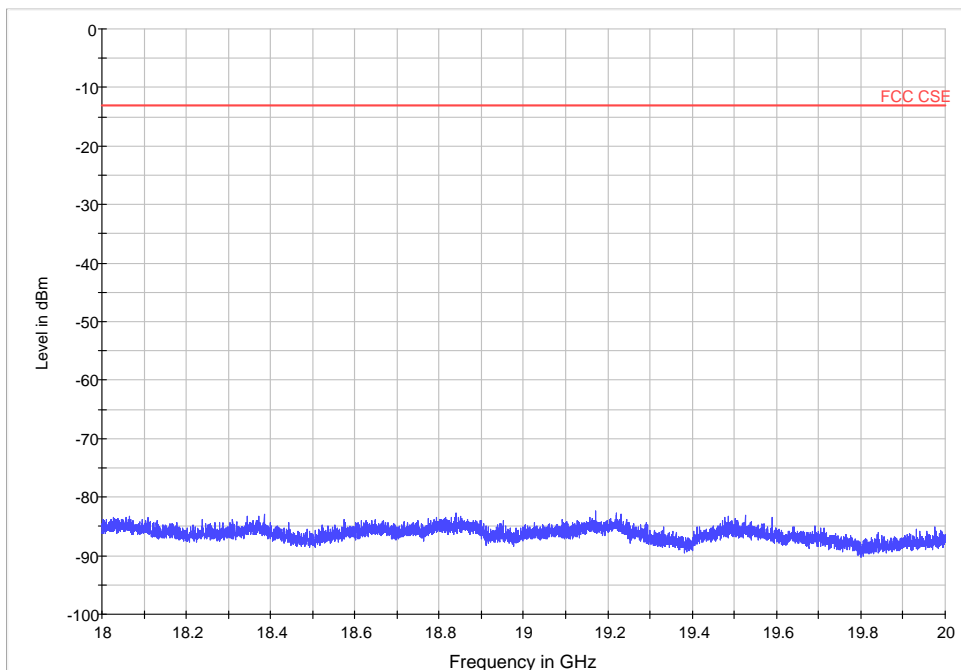
Spurious conducted emissions from 30MHz~3GHz



— MaxPeak-MaxHold-PK+ — FCC CSE

Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5551.9	-25.00	-13.00	12.00

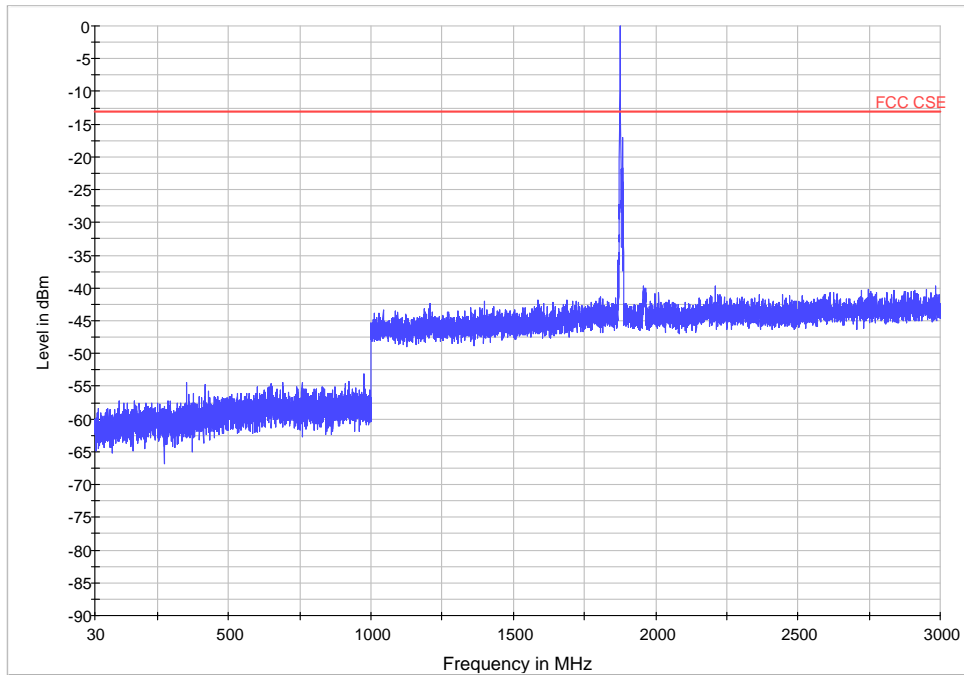


— MaxPeak-MaxHold-PK+ — FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

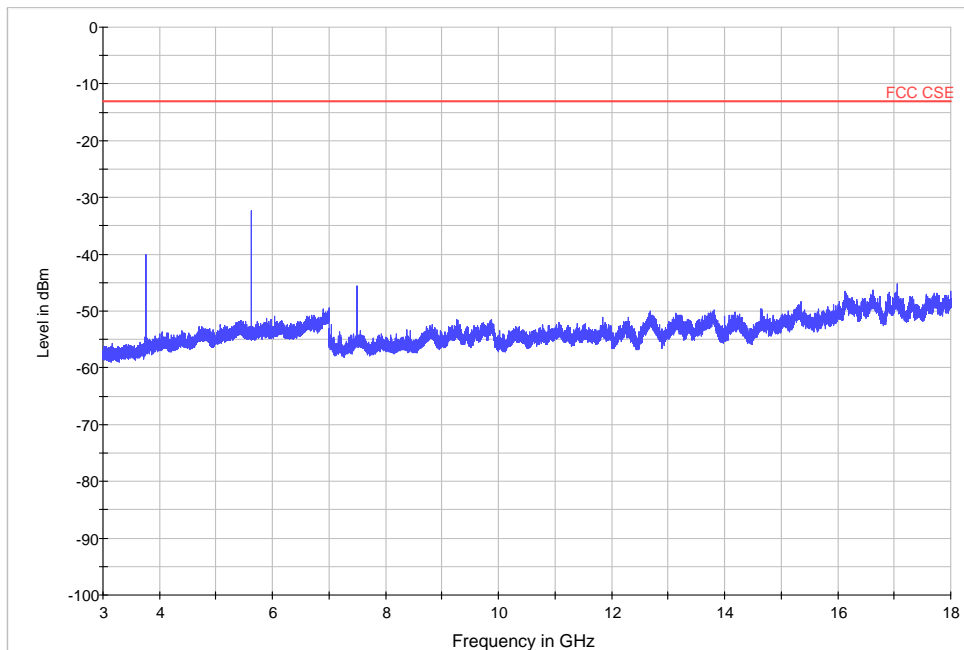


LTE Band II 10MHz CH18900



MaxPeak-MaxHold-PK+ FCC CSE

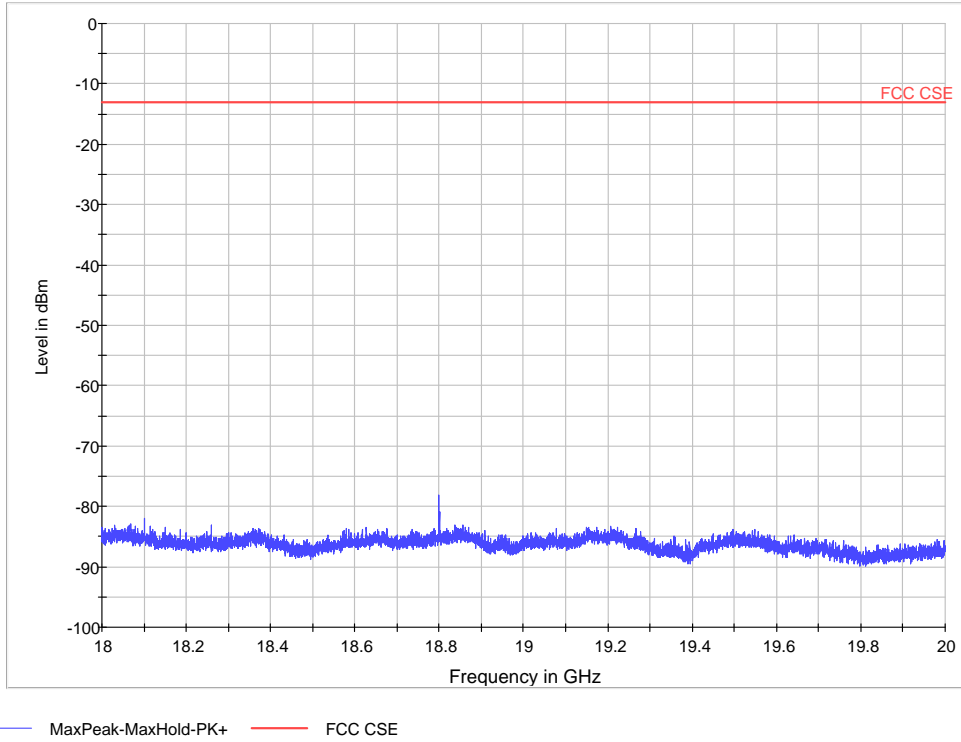
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

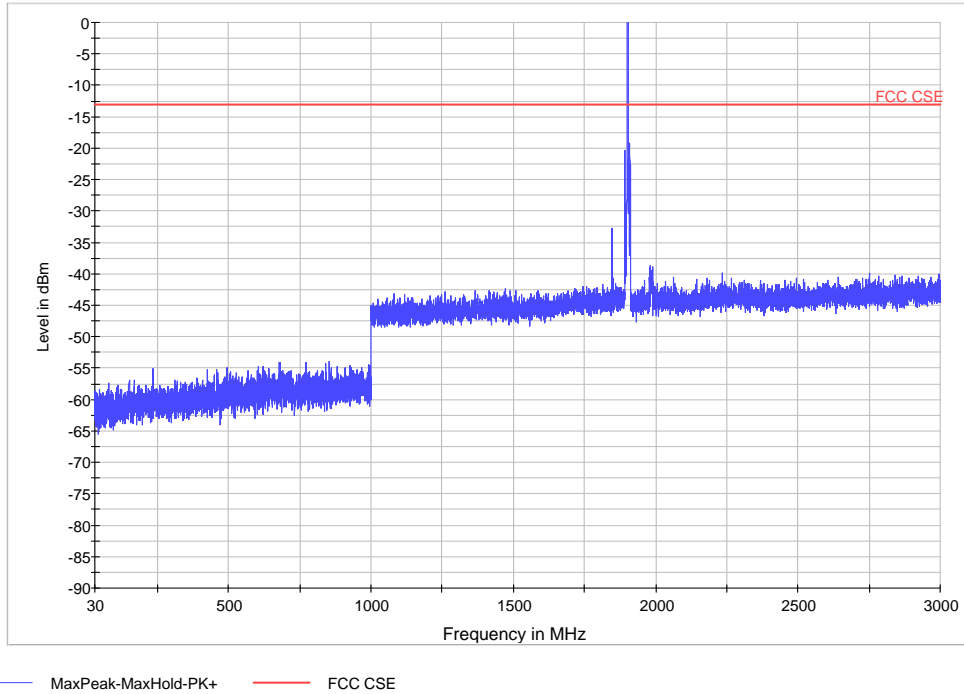
Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5626.9	-32.4	-13.00	19.36

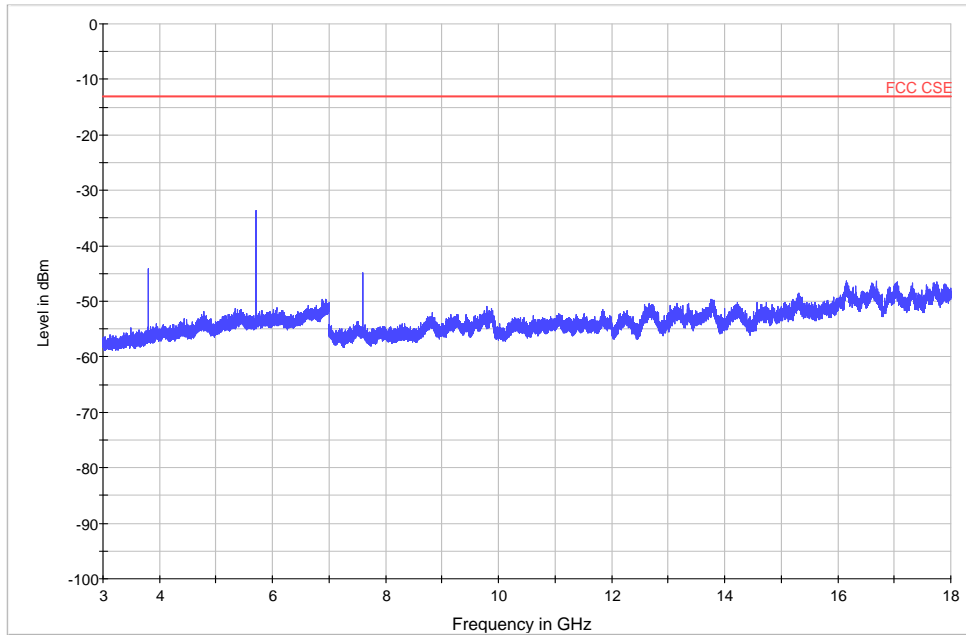


Spurious conducted emissions from 18GHz~26.5GHz

LTE Band II 10MHz CH19150

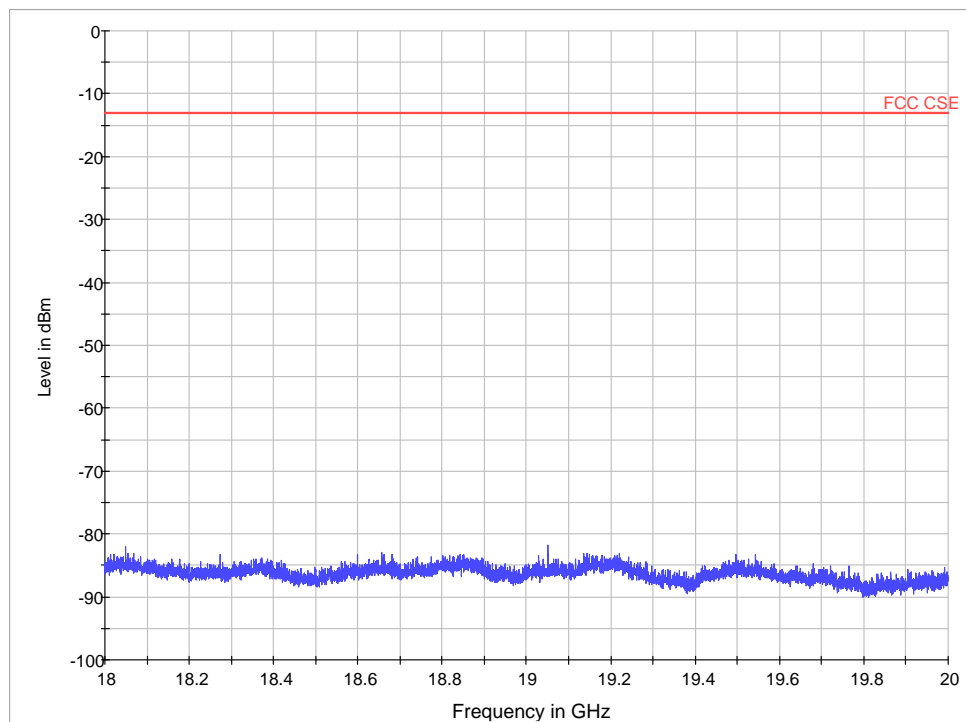


Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



— MaxPeak-MaxHold-PK+ — FCC CSE

### Spurious conducted emissions from 3GHz~18GHz

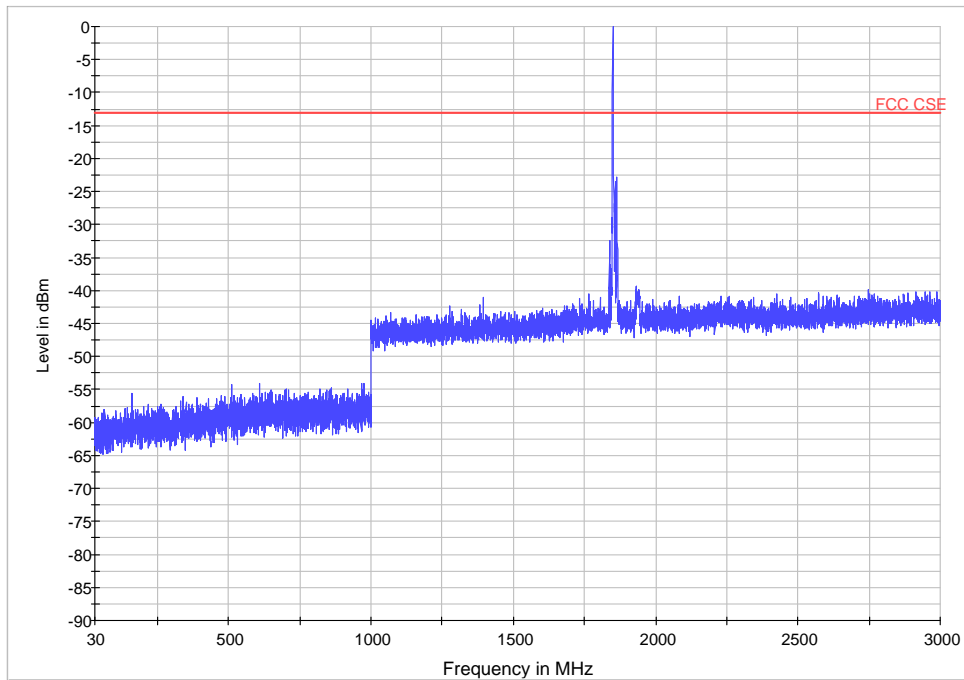


— MaxPeak-MaxHold-PK+ — FCC CSE

### Spurious conducted emissions from 18GHz~26.5GHz

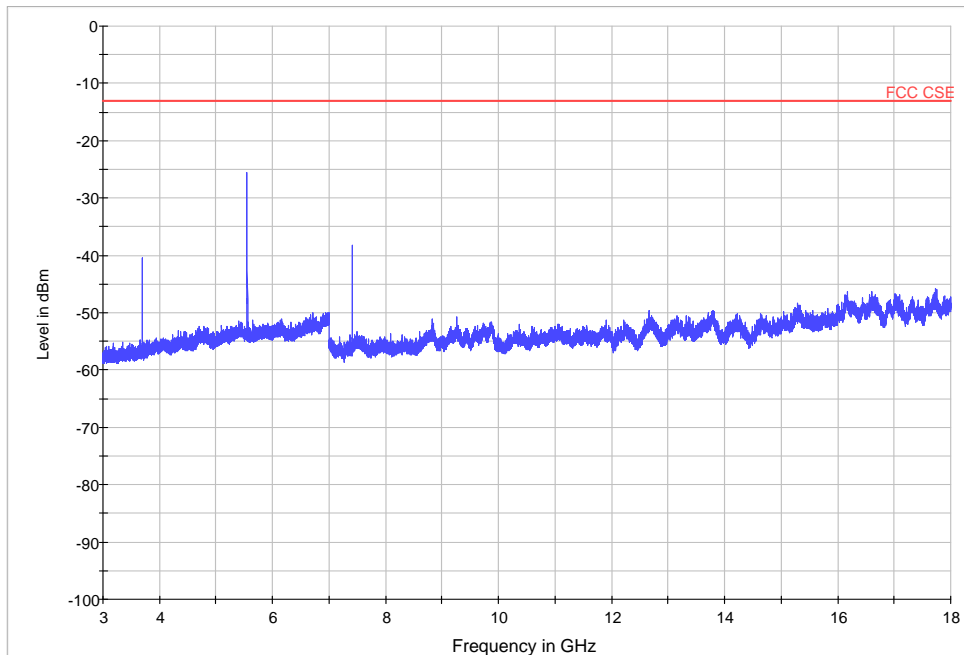


LTE Band II 15MHz CH18675



MaxPeak-MaxHold-PK+ FCC CSE

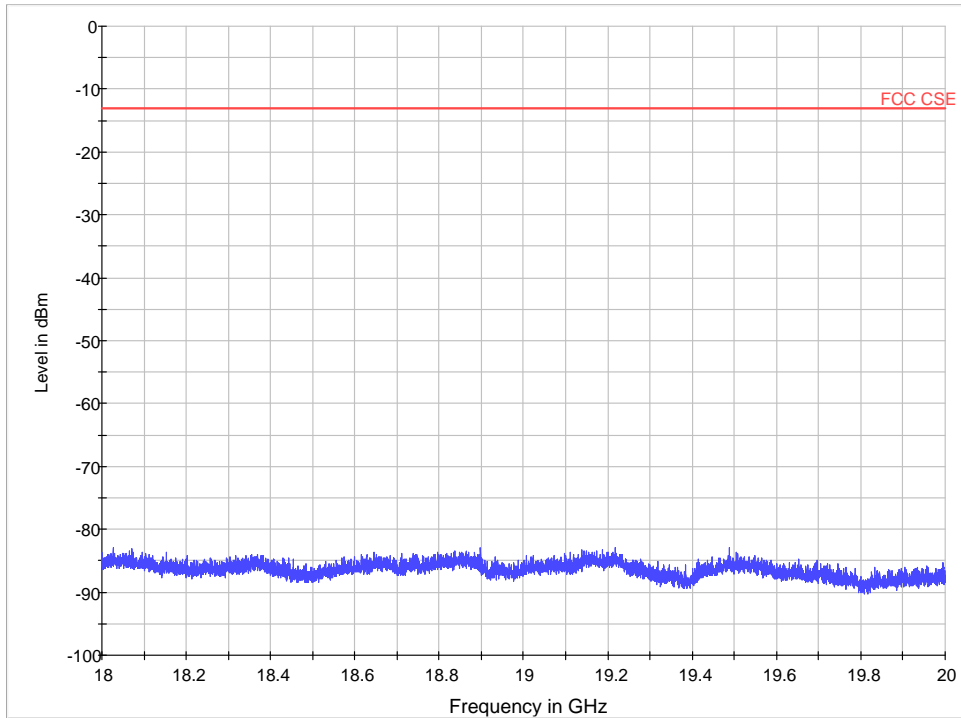
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

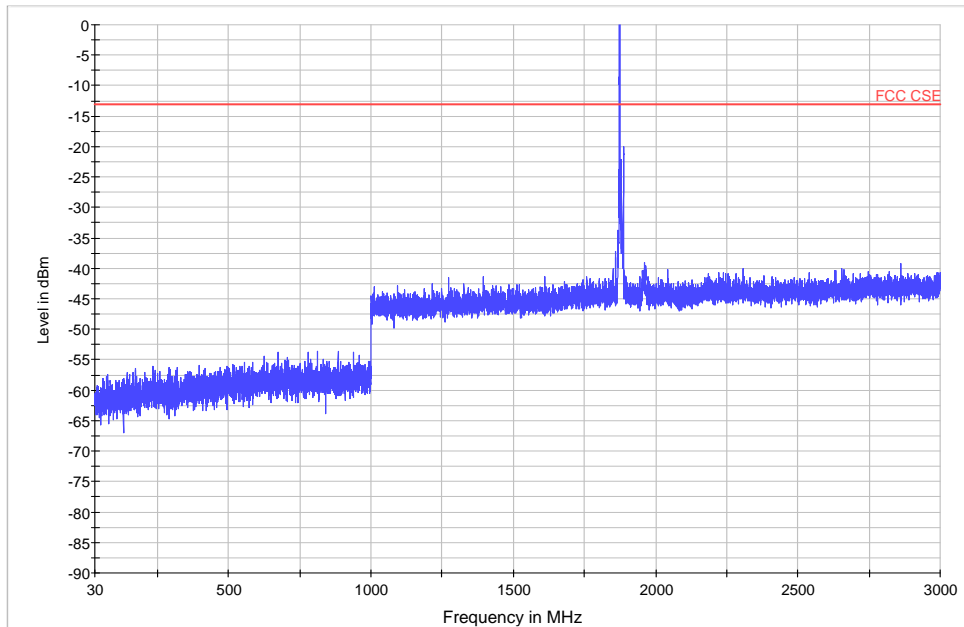
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5552.6	-25.51	-13.00	12.51



— MaxPeak-MaxHold-PK+ — FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

LTE Band II 15MHz CH18900

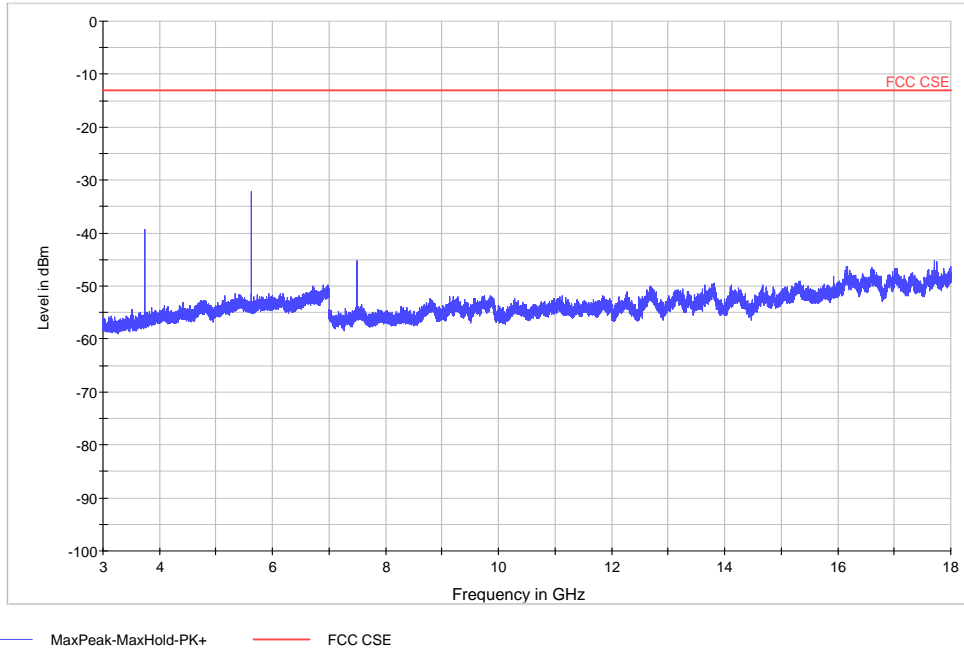


— MaxPeak-MaxHold-PK+ — FCC CSE

Note: The signal beyond the limit is carrier.

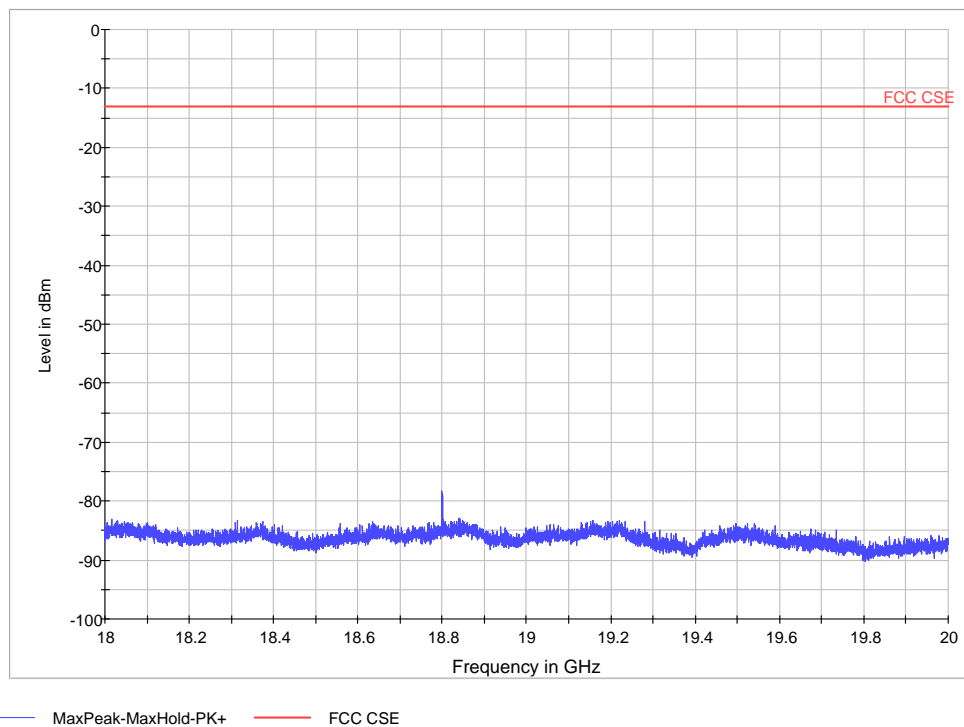
Spurious conducted emissions from 30MHz~3GHz





Spurious conducted emissions from 3GHz~18GHz

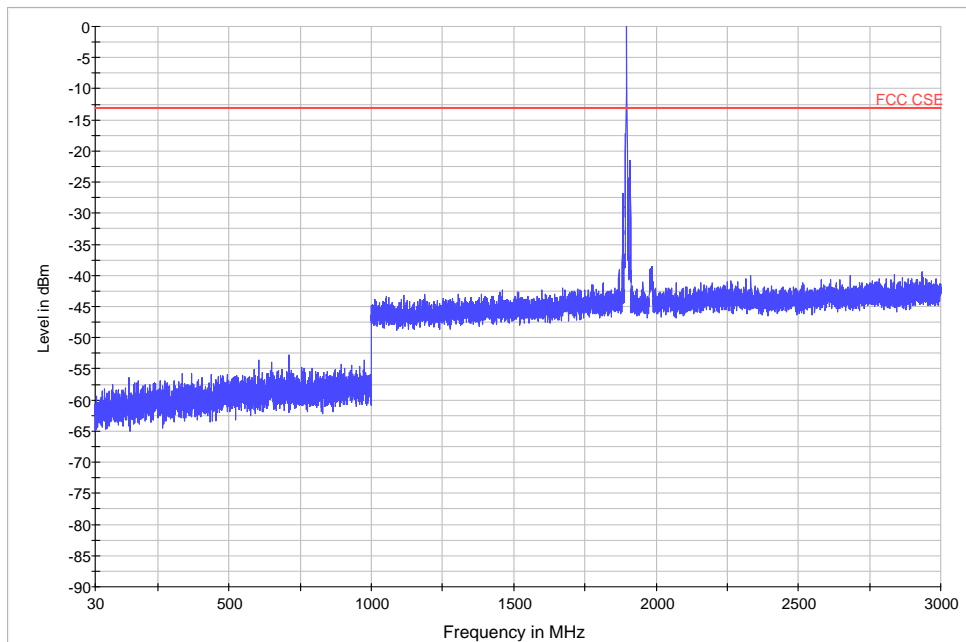
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5620.1	-32.20	-13.00	19.20



Spurious conducted emissions from 18GHz~26.5GHz

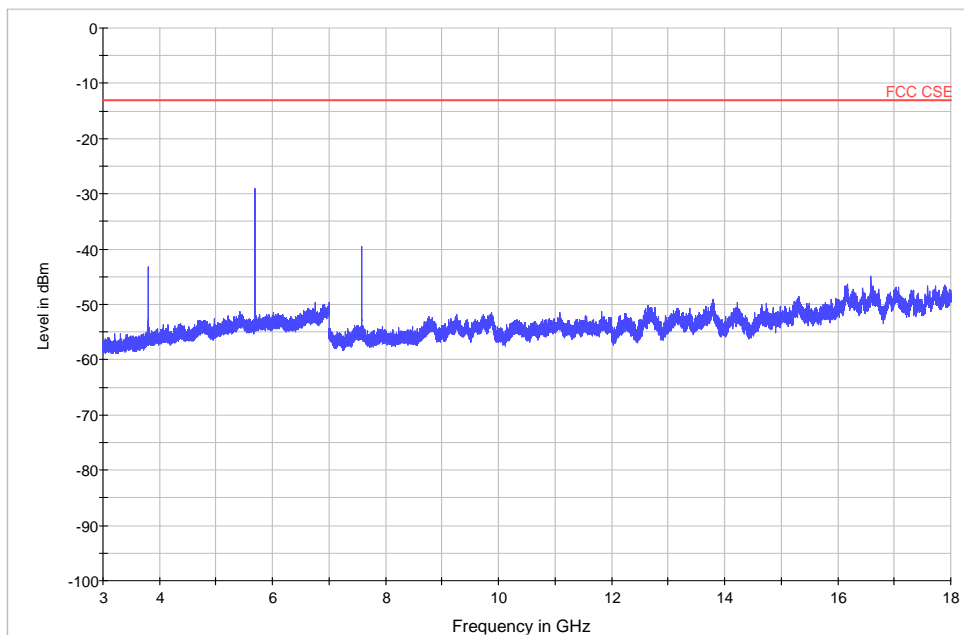


LTE Band II 15MHz CH19125



— MaxPeak-MaxHold-PK+    
 — FCC CSE

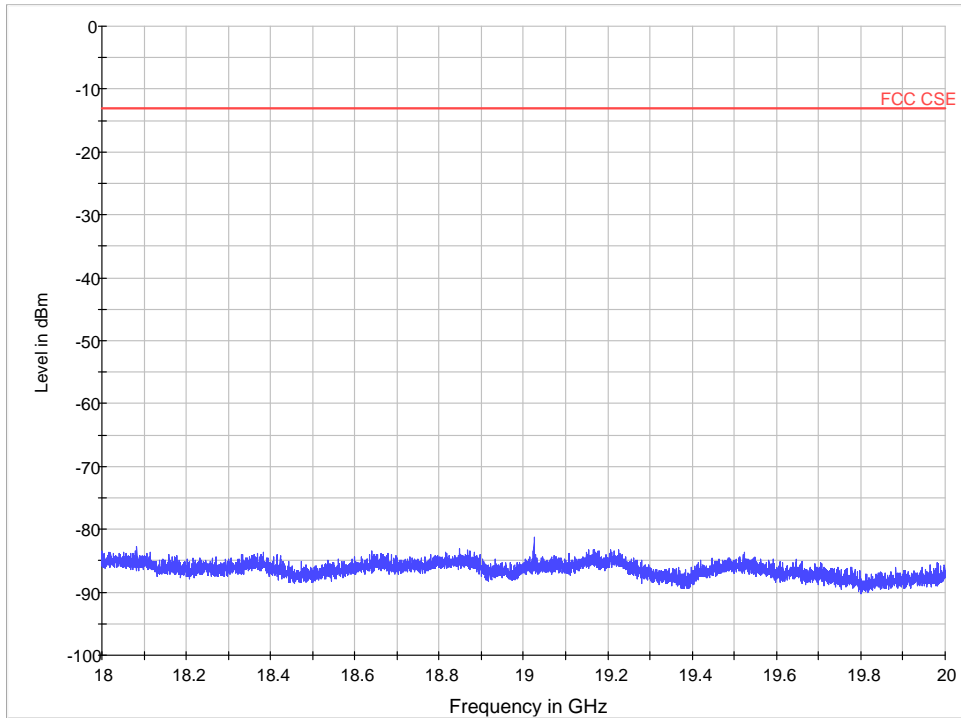
Note: The signal beyond the limit is carrier.  
 Spurious conducted emissions from 30MHz~3GHz



— MaxPeak-MaxHold-PK+    
 — FCC CSE

Spurious conducted emissions from 3GHz~18GHz

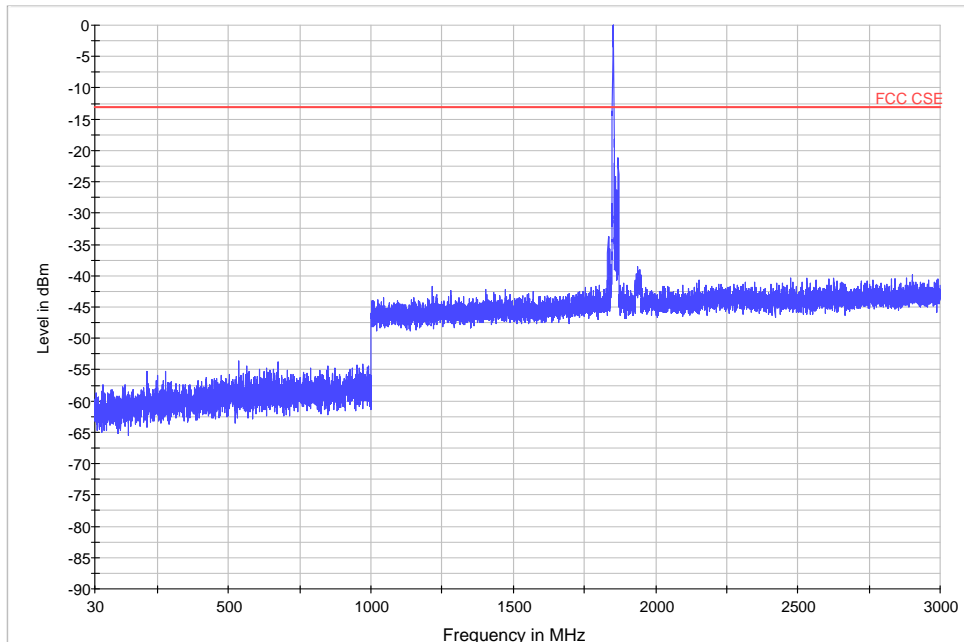
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5687.6	-29.03	-13.00	16.03



— MaxPeak-MaxHold-PK+ — FCC CSE

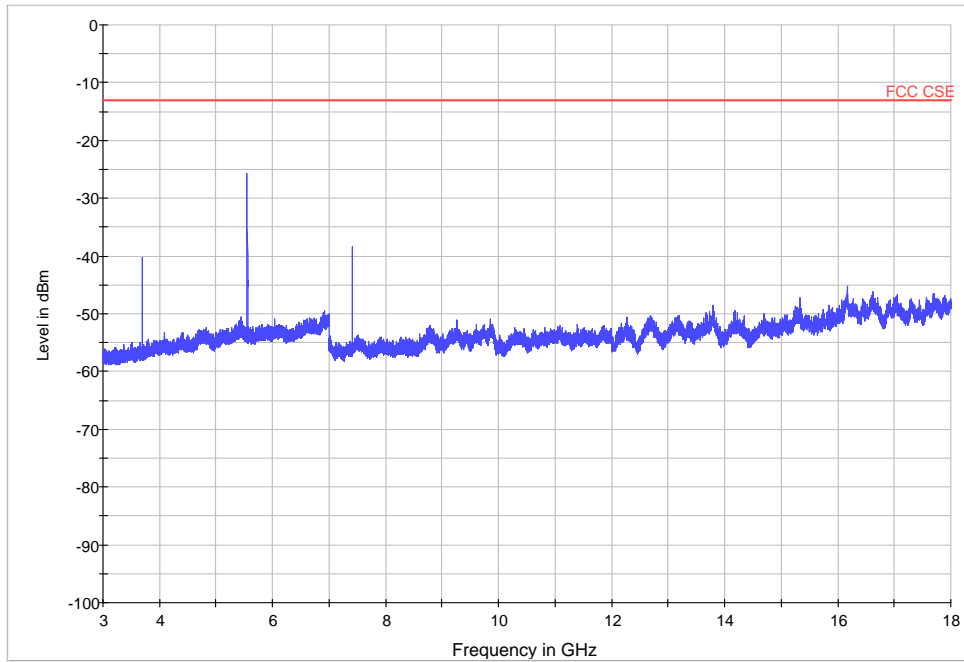
Spurious conducted emissions from 18GHz~26.5GHz

LTE Band II 20MHz CH18700



— MaxPeak-MaxHold-PK+ — FCC CSE

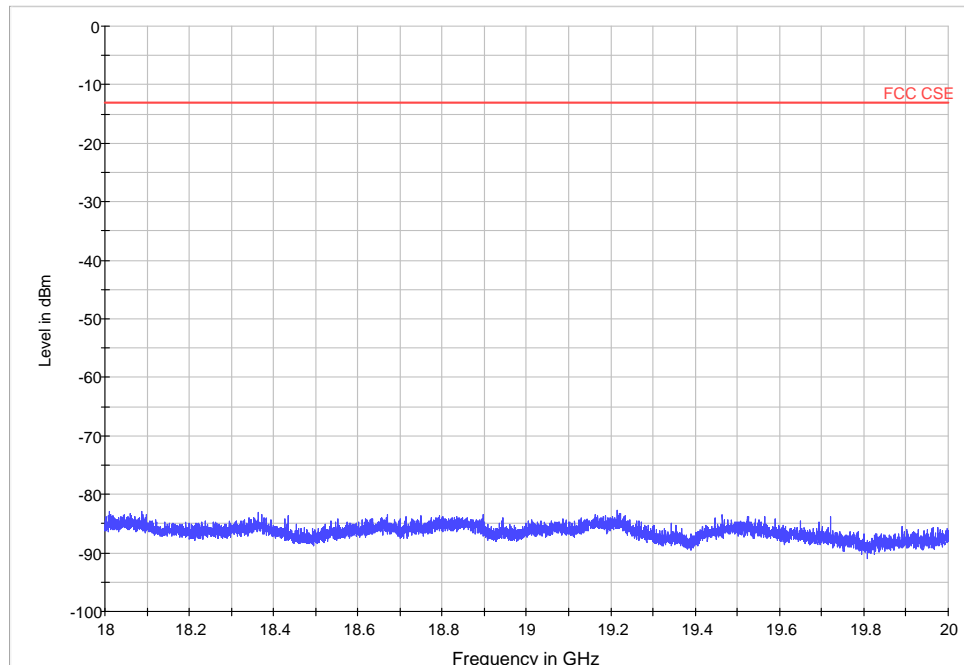
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5553.8	-25.95	-13.00	12.95

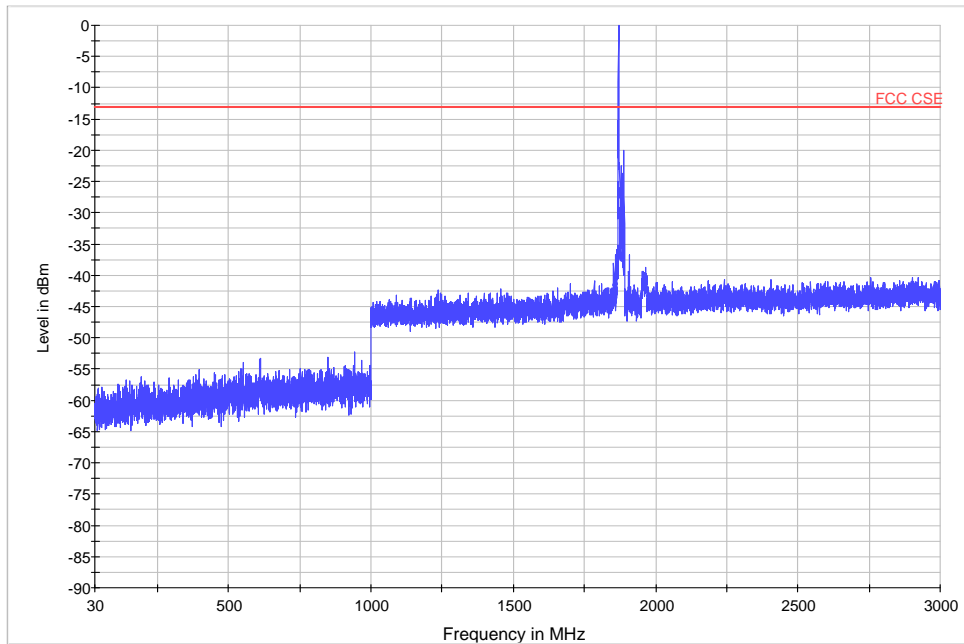


MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

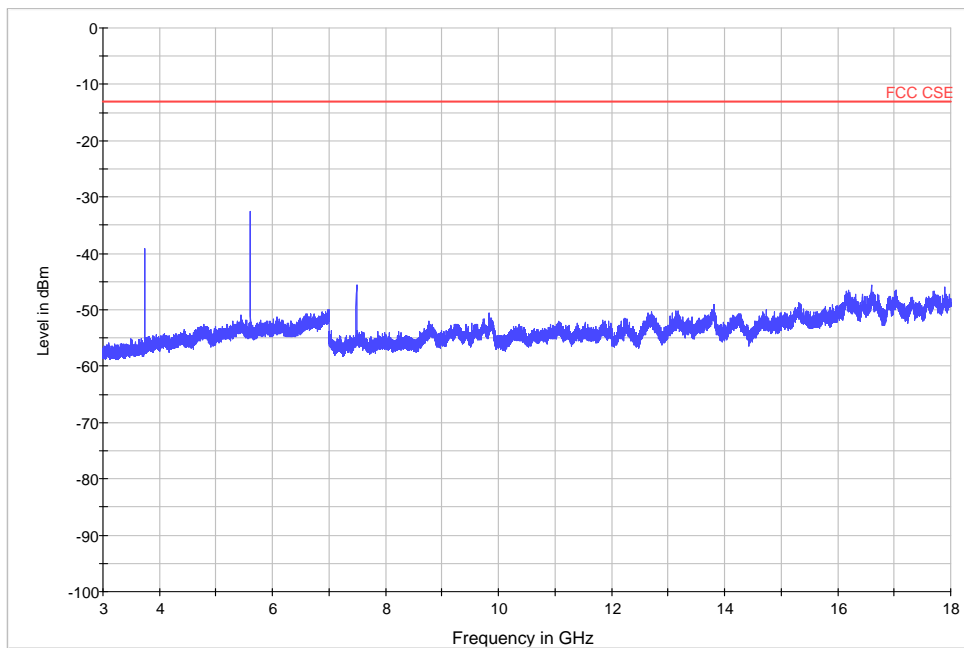


LTE Band II 20MHz CH18900



— MaxPeak-MaxHold-PK+     — FCC CSE

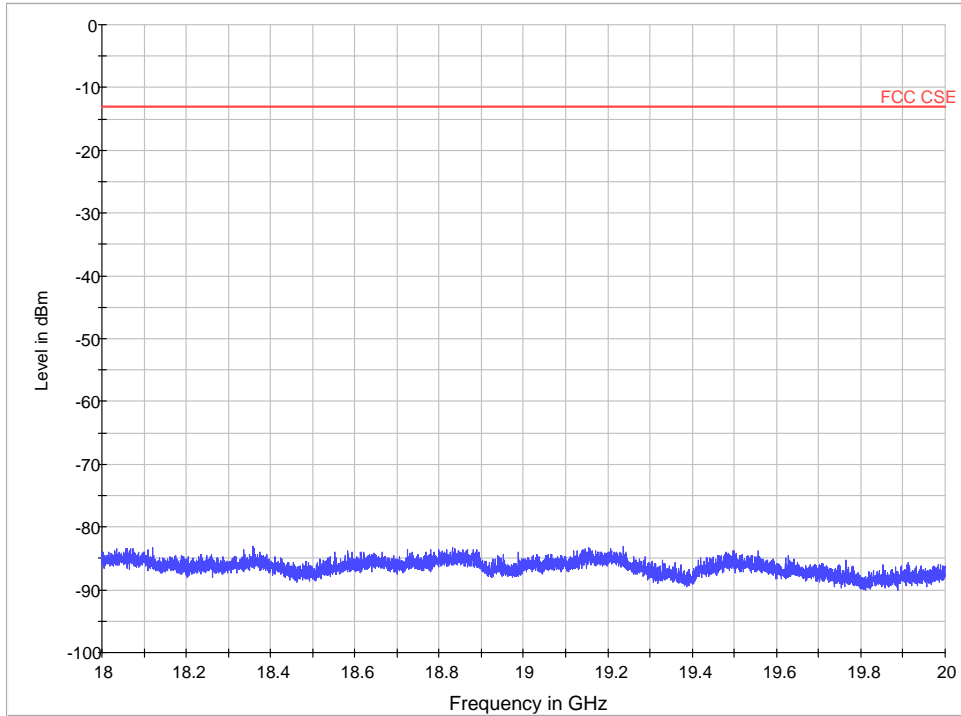
Note: The signal beyond the limit is carrier.  
Spurious conducted emissions from 30MHz~3GHz



— MaxPeak-MaxHold-PK+     — FCC CSE

Spurious conducted emissions from 3GHz~18GHz

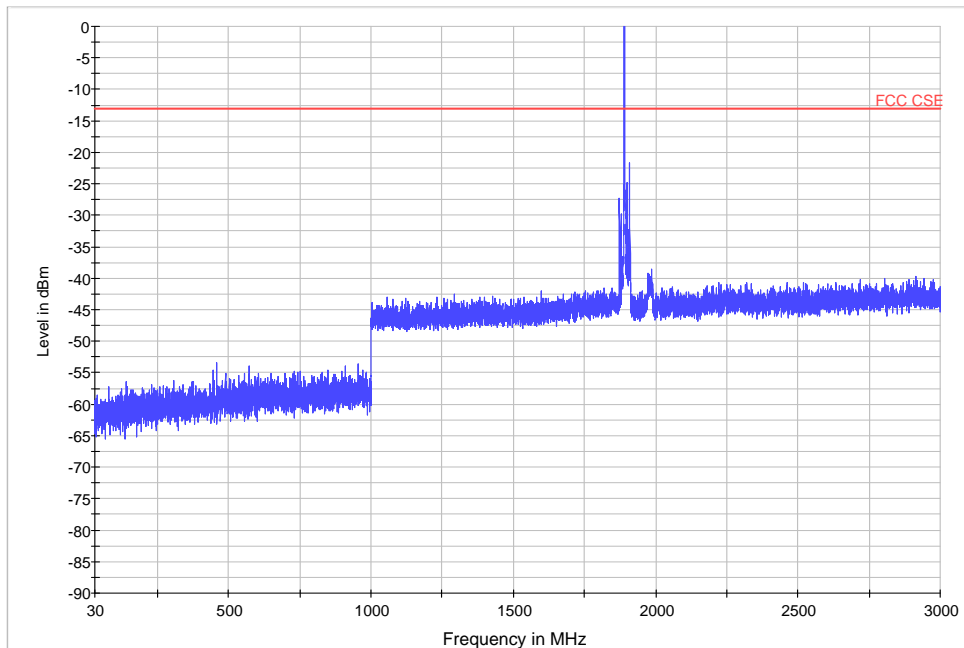
Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5613.38	-32.63	-13.00	19.63



MaxPeak-MaxHold-PK+    FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

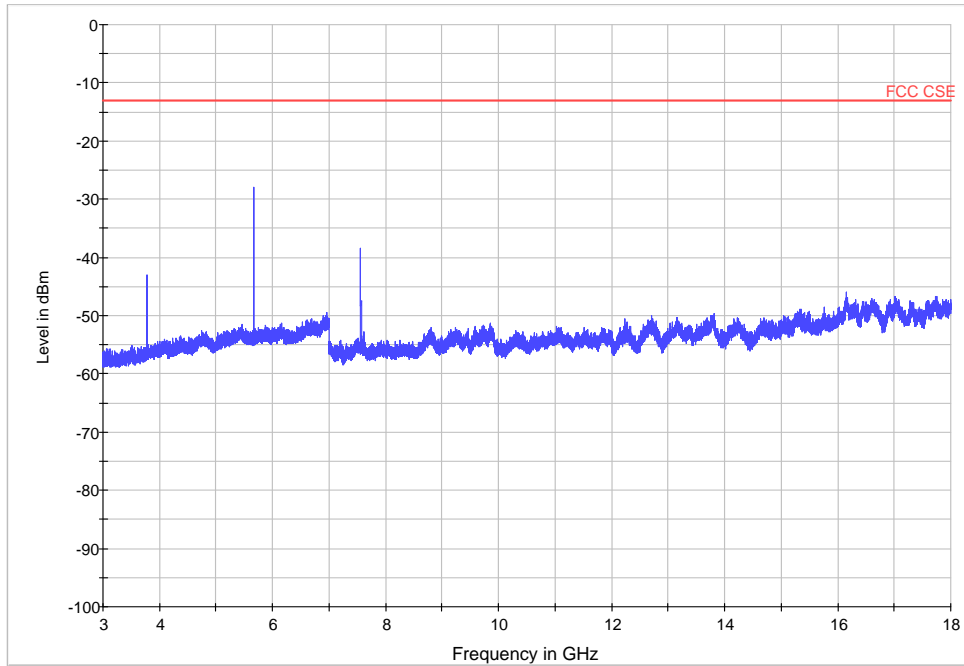
LTE Band II 20MHz CH19100



MaxPeak-MaxHold-PK+    FCC CSE

Note: The signal beyond the limit is carrier.

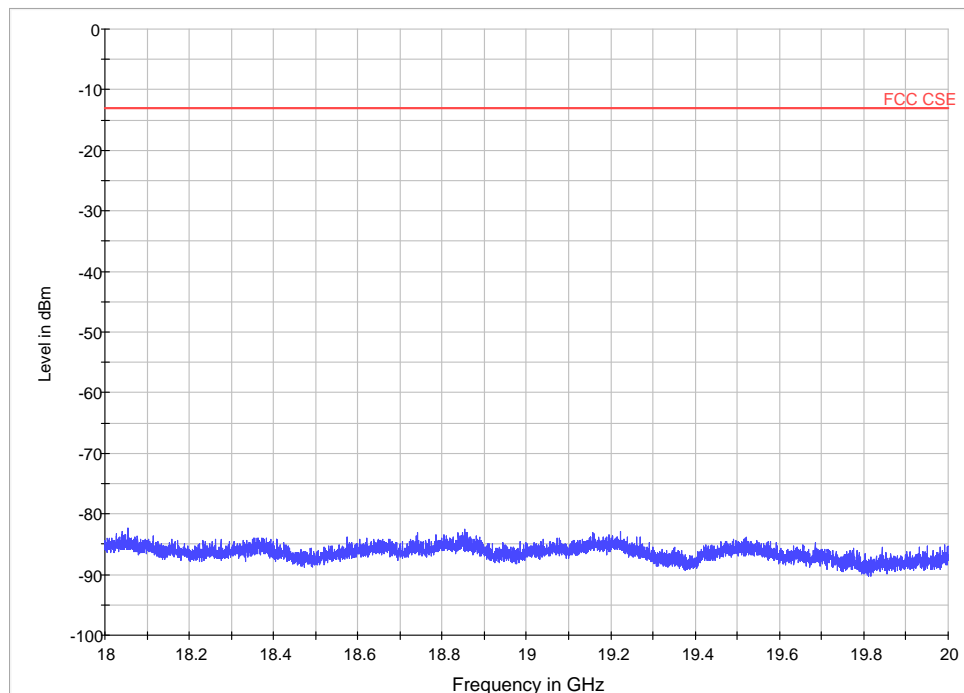
Spurious conducted emissions from 30MHz~3GHz



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 3GHz~18GHz

Harmonic	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
3	5673.8	-28.20	-13.00	15.20



MaxPeak-MaxHold-PK+ FCC CSE

Spurious conducted emissions from 18GHz~26.5GHz

## 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 ANSI/TIA 603-D are used.

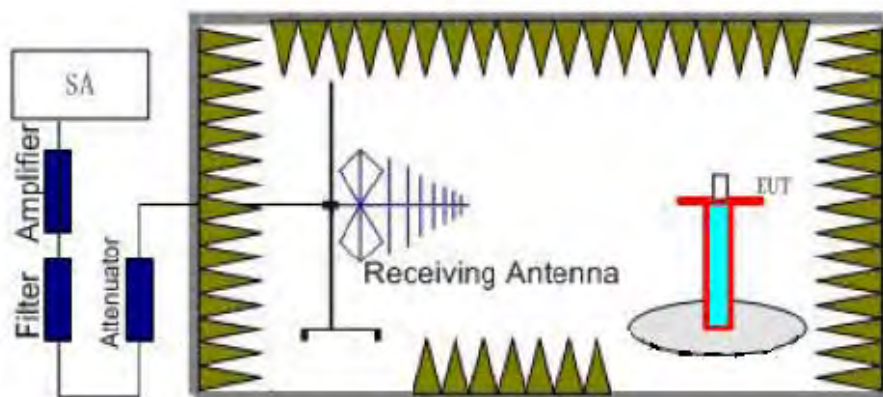
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment.

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

The procedure of Radiates Spurious Emission is as follows:

Step 1:

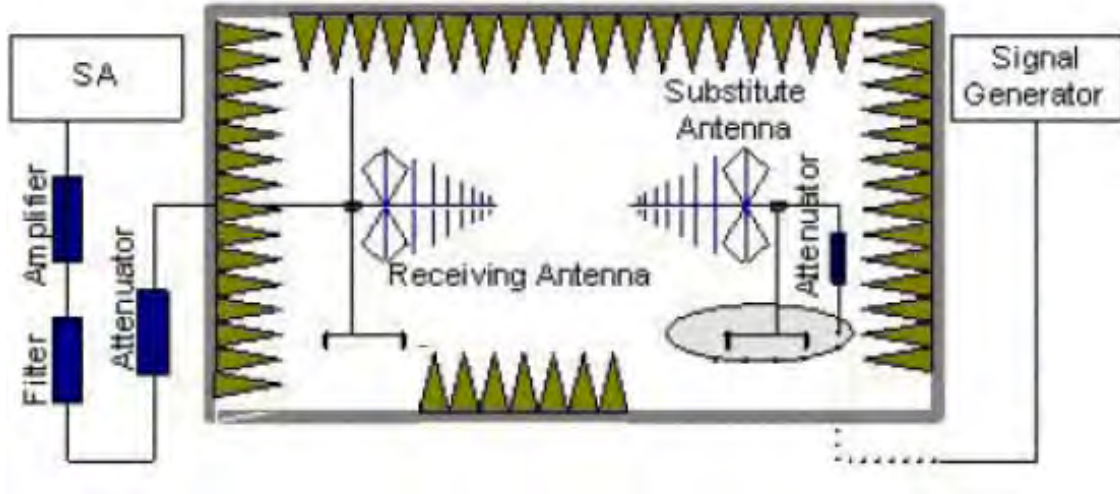
The measurement is carried out in the semi-anechoic chamber. EUT was placed on a 1.5 meters high non-conductive table at a 3 meters test distance from the test receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT. A radio link shall be established between EUT and 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.





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

$$\text{EIRP} = \text{E.R.P} + 2.15$$

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	-48.22	5.1	11.05	vertical	-42.27	-13.00	29.27	0
3	5551	-54.37	5.42	12.65	vertical	-47.14	-13.00	34.14	90
4	7401	-58.53	6.7	13.85	vertical	-51.38	-13.00	38.38	45
5	9251	-58	7.01	14.75	vertical	-50.26	-13.00	37.26	180
6	11101	-58.5	7.48	15.95	vertical	-50.03	-13.00	37.03	90
7	12951	-56.48	7.51	16.55	vertical	-47.44	-13.00	34.44	135
8	14802	-51.31	8.24	15.35	vertical	-44.20	-13.00	31.20	0
9	16652	-48.71	8.41	14.95	vertical	-42.17	-13.00	29.17	45
10	18502	-47.32	8.54	15.45	vertical	-40.41	-13.00	27.41	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 661

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760	-46.34	5.1	11.05	vertical	-40.39	-13.00	27.39	90
3	5640	-52.8	5.42	12.65	vertical	-45.57	-13.00	32.57	225
4	7520	-59.43	6.7	13.85	vertical	-52.28	-13.00	39.28	270
5	9400	-58.9	7.01	14.75	vertical	-51.16	-13.00	38.16	180
6	11280	-58.7	7.48	15.95	vertical	-50.23	-13.00	37.23	135
7	13160	-57.58	7.51	16.55	vertical	-48.54	-13.00	35.54	270
8	15040	-52.81	8.24	15.35	vertical	-45.70	-13.00	32.70	0
9	16920	-50.11	8.41	14.95	vertical	-43.57	-13.00	30.57	180
10	18800	-48.22	8.54	15.45	vertical	-41.31	-13.00	28.31	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.

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	-45.57	5.1	11.05	vertical	-39.62	-13.00	26.62	225
3	5730	-52.29	5.42	12.65	vertical	-45.06	-13.00	32.06	270
4	7639	-60.03	6.7	13.85	vertical	-52.88	-13.00	39.88	135
5	9549	-59.36	7.01	14.75	vertical	-51.62	-13.00	38.62	45
6	11459	-60.00	7.48	15.95	vertical	-51.53	-13.00	38.53	180
7	13369	-55.78	7.51	16.55	vertical	-46.74	-13.00	33.74	90
8	15278	-52.31	8.24	15.35	vertical	-45.20	-13.00	32.20	135
9	17188	-50.21	8.41	14.95	vertical	-43.67	-13.00	30.67	0
10	19098	-47.86	8.54	15.45	vertical	-40.95	-13.00	27.95	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.

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	3705	-55.34	5.1	11.05	vertical	-49.39	-13.00	36.39	180
3	5557	-56.62	5.42	12.65	vertical	-49.39	-13.00	36.39	90
4	7410	-57.71	6.7	13.85	vertical	-50.56	-13.00	37.56	225
5	9262	-57.19	7.01	14.75	vertical	-49.45	-13.00	36.45	270
6	11114	-58.06	7.48	15.95	vertical	-49.59	-13.00	36.59	180
7	12967	-55.84	7.51	16.55	vertical	-46.8	-13.00	33.80	135
8	14819	-51.22	8.24	15.35	vertical	-44.11	-13.00	31.11	270
9	16672	-48.62	8.41	14.95	vertical	-42.08	-13.00	29.08	0
10	18524	-47.00	8.54	15.45	vertical	-40.09	-13.00	27.09	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	3760	-55.82	5.1	11.05	vertical	-49.87	-13.00	36.87	0
3	5640	-54.21	5.42	12.65	vertical	-46.98	-13.00	33.98	45
4	7520	-61.04	6.7	13.85	vertical	-53.89	-13.00	40.89	180
5	9400	-61.18	7.01	14.75	vertical	-53.44	-13.00	40.44	90
6	11280	-55.33	7.48	15.95	vertical	-46.86	-13.00	33.86	225
7	13160	-55.08	7.51	16.55	vertical	-46.04	-13.00	33.04	270
8	15040	-52.51	8.24	15.35	vertical	-45.4	-13.00	32.40	180
9	16920	-48.33	8.41	14.95	vertical	-41.79	-13.00	28.79	135
10	18502	-50.75	8.54	15.45	vertical	-43.84	-13.00	30.84	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	3815	-57.44	5.1	11.05	vertical	-51.49	-13.00	38.49	0
3	5723	-55.43	5.42	12.65	vertical	-48.2	-13.00	35.20	180
4	7630	-55.78	6.7	13.85	vertical	-48.63	-13.00	35.63	90
5	9538	-58.98	7.01	14.75	vertical	-51.24	-13.00	38.24	225
6	11446	-55.44	7.48	15.95	vertical	-46.97	-13.00	33.97	270
7	13353	-55.63	7.51	16.55	vertical	-46.59	-13.00	33.59	135
8	15261	-49.39	8.24	15.35	vertical	-42.28	-13.00	29.28	45
9	17168	-48.02	8.41	14.95	vertical	-41.48	-13.00	28.48	225
10	19076	-49.01	8.54	15.45	vertical	-42.1	-13.00	29.10	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 II 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	3701	-58.84	5.1	11.05	vertical	-52.89	-13.00	39.89	270
3	5552	-55.57	5.42	12.65	vertical	-48.34	-13.00	35.34	180
4	7403	-62.57	6.7	13.85	vertical	-55.42	-13.00	42.42	135
5	9254	-60.69	7.01	14.75	vertical	-52.95	-13.00	39.95	270
6	11104	-70.28	7.48	15.95	vertical	-61.81	-13.00	48.81	0
7	12955	-68.84	7.51	16.55	vertical	-59.8	-13.00	46.80	180
8	14806	-64.52	8.24	15.35	vertical	-57.41	-13.00	44.41	90
9	16656	-61.73	8.41	14.95	vertical	-55.19	-13.00	42.19	225
10	18507	-59.10	8.54	15.45	vertical	-52.19	-13.00	39.19	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 II 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	3760	-60.11	5.10	11.05	vertical	-54.16	-13.00	41.16	0
3	5640	-55.83	5.42	12.65	vertical	-48.60	-13.00	35.60	135
4	7520	-62.37	6.70	13.85	vertical	-55.22	-13.00	42.22	0
5	9400	-60.36	7.01	14.75	vertical	-52.62	-13.00	39.62	135
6	11280	-70.42	7.48	15.95	vertical	-61.95	-13.00	48.95	0
7	13160	-68.94	7.51	16.55	vertical	-59.90	-13.00	46.90	45
8	15040	-63.62	8.24	15.35	vertical	-56.51	-13.00	43.51	180
9	16920	-61.21	8.41	14.95	vertical	-54.67	-13.00	41.67	90
10	18800	-62.11	8.54	15.45	vertical	-55.20	-13.00	42.20	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 II 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	3819	-60.40	5.10	11.05	vertical	-54.45	-13.00	41.45	270
3	5728	-55.30	5.42	12.65	vertical	-48.07	-13.00	35.07	180
4	7637	-60.04	6.70	13.85	vertical	-52.89	-13.00	39.89	135
5	9547	-60.25	7.01	14.75	vertical	-52.51	-13.00	39.51	270
6	11456	-69.25	7.48	15.95	vertical	-60.78	-13.00	47.78	0
7	13365	-67.69	7.51	16.55	vertical	-58.65	-13.00	45.65	180
8	15274	-62.82	8.24	15.35	vertical	-55.71	-13.00	42.71	90
9	17184	-61.02	8.41	14.95	vertical	-54.48	-13.00	41.48	225
10	19093	-59.29	8.54	15.45	vertical	-52.38	-13.00	39.38	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 II 3MHz CH615

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3703	-70.15	5.10	11.05	vertical	-64.2	-13.00	51.20	270
3	5555	-63.52	5.42	12.65	vertical	-56.29	-13.00	43.29	45
4	7406	-70.96	6.70	13.85	vertical	-63.81	-13.00	50.81	0
5	9258	-69.50	7.01	14.75	vertical	-61.76	-13.00	48.76	270
6	11109	-70.83	7.48	15.95	vertical	-62.36	-13.00	49.36	315
7	12961	-67.94	7.51	16.55	vertical	-58.9	-13.00	45.90	225
8	14812	-64.15	8.24	15.35	vertical	-57.04	-13.00	44.04	135
9	16664	-61.36	8.41	14.95	vertical	-54.82	-13.00	41.82	270
10	18515	-60.89	8.54	15.45	vertical	-53.98	-13.00	40.98	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 II 3MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760	-60.23	5.10	11.05	vertical	-54.28	-13.00	41.28	135
3	5640	-55.22	5.42	12.65	vertical	-47.99	-13.00	34.99	0
4	7520	-63.23	6.70	13.85	vertical	-56.08	-13.00	43.08	135
5	9400	-62.69	7.01	14.75	vertical	-54.95	-13.00	41.95	0
6	11280	-68.06	7.48	15.95	vertical	-59.59	-13.00	46.59	45
7	13160	-68.48	7.51	16.55	vertical	-59.44	-13.00	46.44	180
8	15040	-63.91	8.24	15.35	vertical	-56.8	-13.00	43.80	90
9	16920	-60.32	8.41	14.95	vertical	-53.78	-13.00	40.78	225
10	18800	-59.42	8.54	15.45	vertical	-52.51	-13.00	39.51	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 II 3MHz CH1185

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3817	-62.33	5.10	11.05	vertical	-56.38	-13.00	43.38	225
3	5726	-54.41	5.42	12.65	vertical	-47.18	-13.00	34.18	135
4	7634	-61.74	6.70	13.85	vertical	-54.59	-13.00	41.59	270
5	9543	-64.50	7.01	14.75	vertical	-56.76	-13.00	43.76	0
6	11451	-68.96	7.48	15.95	vertical	-60.49	-13.00	47.49	135
7	13360	-67.54	7.51	16.55	vertical	-58.5	-13.00	45.50	0
8	15268	-63.22	8.24	15.35	vertical	-56.11	-13.00	43.11	45
9	17177	-61.14	8.41	14.95	vertical	-54.6	-13.00	41.60	180
10	19085	-60.11	8.54	15.45	vertical	-53.2	-13.00	40.20	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 II 5MHz CH625

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3705	-59.07	5.10	11.05	vertical	-53.12	-13.00	40.12	225
3	5558	-56.71	5.42	12.65	vertical	-49.48	-13.00	36.48	270
4	7410	-64.17	6.70	13.85	vertical	-57.02	-13.00	44.02	180
5	9263	-63.13	7.01	14.75	vertical	-55.39	-13.00	42.39	135
6	11115	-71.55	7.48	15.95	vertical	-63.08	-13.00	50.08	270
7	12968	-68.54	7.51	16.55	vertical	-59.5	-13.00	46.50	0
8	14820	-64.09	8.24	15.35	vertical	-56.98	-13.00	43.98	180
9	16673	-60.98	8.41	14.95	vertical	-54.44	-13.00	41.44	90
10	18525	-59.74	8.54	15.45	vertical	-52.83	-13.00	39.83	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 II 5MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760	-61.14	5.10	11.05	vertical	-55.19	-13.00	42.19	90
3	5640	-55.48	5.42	12.65	vertical	-48.25	-13.00	35.25	225
4	7520	-64.17	6.70	13.85	vertical	-57.02	-13.00	44.02	270
5	9400	-60.24	7.01	14.75	vertical	-52.5	-13.00	39.50	135
6	11280	-69.47	7.48	15.95	vertical	-61	-13.00	48.00	45
7	13160	-68.40	7.51	16.55	vertical	-59.36	-13.00	46.36	0
8	15040	-63.07	8.24	15.35	vertical	-55.96	-13.00	42.96	270
9	16920	-61.24	8.41	14.95	vertical	-54.7	-13.00	41.70	315
10	18800	-62.19	8.54	15.45	vertical	-55.28	-13.00	42.28	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 II 5MHz CH1175

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3815	-61.92	5.10	11.05	vertical	-55.97	-13.00	42.97	270
3	5723	-53.53	5.42	12.65	vertical	-46.3	-13.00	33.30	135
4	7630	-62.37	6.70	13.85	vertical	-55.22	-13.00	42.22	45
5	9538	-66.18	7.01	14.75	vertical	-58.44	-13.00	45.44	0
6	11445	-69.54	7.48	15.95	vertical	-61.07	-13.00	48.07	270
7	13353	-67.97	7.51	16.55	vertical	-58.93	-13.00	45.93	315
8	15260	-62.56	8.24	15.35	vertical	-55.45	-13.00	42.45	225
9	17168	-60.90	8.41	14.95	vertical	-54.36	-13.00	41.36	135
10	19075	-64.78	8.54	15.45	vertical	-57.87	-13.00	44.87	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 II 10MHz CH650

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3710	-59.65	5.10	11.05	vertical	-53.70	-13.00	40.70	0
3	5565	-55.62	5.42	12.65	vertical	-48.39	-13.00	35.39	135
4	7420	-63.62	6.70	13.85	vertical	-56.47	-13.00	43.47	0
5	9275	-59.73	7.01	14.75	vertical	-51.99	-13.00	38.99	45
6	11130	-71.03	7.48	15.95	vertical	-62.56	-13.00	49.56	90
7	12985	-67.90	7.51	16.55	vertical	-58.86	-13.00	45.86	225
8	14840	-64.28	8.24	15.35	vertical	-57.17	-13.00	44.17	270
9	16695	-60.86	8.41	14.95	vertical	-54.32	-13.00	41.32	180
10	18550	-62.77	8.54	15.45	vertical	-55.86	-13.00	42.86	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 II 10MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760	-59.12	5.10	11.05	vertical	-53.17	-13.00	40.17	270
3	5640	-53.80	5.42	12.65	vertical	-46.57	-13.00	33.57	0
4	7520	-64.17	6.70	13.85	vertical	-57.02	-13.00	44.02	180
5	9400	-60.37	7.01	14.75	vertical	-52.63	-13.00	39.63	90
6	11280	-69.82	7.48	15.95	vertical	-61.35	-13.00	48.35	180
7	13160	-68.22	7.51	16.55	vertical	-59.18	-13.00	46.18	90
8	15040	-63.45	8.24	15.35	vertical	-56.34	-13.00	43.34	225
9	16920	-60.44	8.41	14.95	vertical	-53.9	-13.00	40.90	270
10	18800	-61.16	8.54	15.45	vertical	-54.25	-13.00	41.25	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.

## LTE Band II 10MHz CH1150

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3810	-58.81	5.10	11.05	vertical	-52.86	39.86	-13.00	45
3	5715	-54.55	5.42	12.65	vertical	-47.32	34.32	-13.00	0
4	7620	-63.44	6.70	13.85	vertical	-56.29	43.29	-13.00	225
5	9525	-66.97	7.01	14.75	vertical	-59.23	46.23	-13.00	135
6	11430	-69.27	7.48	15.95	vertical	-60.8	47.80	-13.00	270
7	13335	-67.77	7.51	16.55	vertical	-58.73	45.73	-13.00	0
8	15240	-62.71	8.24	15.35	vertical	-55.6	42.60	-13.00	135
9	17145	-61.25	8.41	14.95	vertical	-54.71	41.71	-13.00	0
10	19050	-65.14	8.54	15.45	vertical	-58.23	45.23	-13.00	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 II 15MHz CH675

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3715.0	-59.09	5.10	11.05	vertical	-53.14	40.14	-13.00	90
3	5572.5	-56.48	5.42	12.65	vertical	-49.25	36.25	-13.00	225
4	7430.0	-63.98	6.70	13.85	vertical	-56.83	43.83	-13.00	270
5	9287.5	-63.72	7.01	14.75	vertical	-55.98	42.98	-13.00	180
6	11145.0	-69.05	7.48	15.95	vertical	-60.58	47.58	-13.00	135
7	13002.5	-67.78	7.51	16.55	vertical	-58.74	45.74	-13.00	270
8	14860.0	-63.61	8.24	15.35	vertical	-56.5	43.50	-13.00	0
9	16717.5	-61.37	8.41	14.95	vertical	-54.83	41.83	-13.00	90
10	18575.0	-63.20	8.54	15.45	vertical	-56.29	43.29	-13.00	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 II 15MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.0	-59.08	5.10	11.05	vertical	-53.13	40.13	-13.00	90
3	5640.0	-54.27	5.42	12.65	vertical	-47.04	34.04	-13.00	225
4	7520.0	-64.38	6.70	13.85	vertical	-57.23	44.23	-13.00	270
5	9400.0	-61.27	7.01	14.75	vertical	-53.53	40.53	-13.00	135
6	11280.0	-69.20	7.48	15.95	vertical	-60.73	47.73	-13.00	45
7	13160.0	-68.06	7.51	16.55	vertical	-59.02	46.02	-13.00	0
8	15040.0	-63.29	8.24	15.35	vertical	-56.18	43.18	-13.00	225
9	16920.0	-60.44	8.41	14.95	vertical	-53.9	40.90	-13.00	135
10	18800.0	-61.53	8.54	15.45	vertical	-54.62	41.62	-13.00	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 II 15MHz CH1125

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3805.0	-57.18	5.10	11.05	vertical	-51.23	38.23	-13.00	0
3	5707.5	-55.13	5.42	12.65	vertical	-47.9	34.90	-13.00	135
4	7610.0	-63.69	6.70	13.85	vertical	-56.54	43.54	-13.00	0
5	9512.5	-62.35	7.01	14.75	vertical	-54.61	41.61	-13.00	45
6	11415.0	-69.85	7.48	15.95	vertical	-61.38	48.38	-13.00	90
7	13317.5	-68.33	7.51	16.55	vertical	-59.29	46.29	-13.00	135
8	15220.0	-62.75	8.24	15.35	vertical	-55.64	42.64	-13.00	0
9	17122.5	-61.26	8.41	14.95	vertical	-54.72	41.72	-13.00	45
10	19025.0	-65.15	8.54	15.45	vertical	-58.24	45.24	-13.00	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 II 20MHz CH700

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3720.0	-58.97	5.10	11.05	vertical	-53.02	40.02	-13.00	225
3	5580.0	-56.64	5.42	12.65	vertical	-49.41	36.41	-13.00	270
4	7440.0	-63.89	6.70	13.85	vertical	-56.74	43.74	-13.00	180
5	9300.0	-64.76	7.01	14.75	vertical	-57.02	44.02	-13.00	135
6	11160.0	-69.75	7.48	15.95	vertical	-61.28	48.28	-13.00	270
7	13020.0	-68.02	7.51	16.55	vertical	-58.98	45.98	-13.00	0
8	14880.0	-63.74	8.24	15.35	vertical	-56.63	43.63	-13.00	90
9	16740.0	-61.76	8.41	14.95	vertical	-55.22	42.22	-13.00	180
10	18600.0	-60.17	8.54	15.45	vertical	-53.26	40.26	-13.00	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 II 20MHz CH900

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.0	-58.09	5.10	11.05	vertical	-52.14	39.14	-13.00	225
3	5640.0	-54.56	5.42	12.65	vertical	-47.33	34.33	-13.00	270
4	7520.0	-64.29	6.70	13.85	vertical	-57.14	44.14	-13.00	135
5	9400.0	-62.29	7.01	14.75	vertical	-54.55	41.55	-13.00	45
6	11280.0	-68.99	7.48	15.95	vertical	-60.52	47.52	-13.00	135
7	13160.0	-67.67	7.51	16.55	vertical	-58.63	45.63	-13.00	270
8	15040.0	-62.91	8.24	15.35	vertical	-55.8	42.80	-13.00	0
9	16920.0	-60.60	8.41	14.95	vertical	-54.06	41.06	-13.00	135
10	18800.0	-62.60	8.54	15.45	vertical	-55.69	42.69	-13.00	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 II 20MHz CH1100

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3800.0	-57.80	5.10	11.05	vertical	-51.85	38.85	-13.00	45
3	5700.0	-54.96	5.42	12.65	vertical	-47.73	34.73	-13.00	90
4	7600.0	-63.09	6.70	13.85	vertical	-55.94	42.94	-13.00	135
5	9500.0	-61.48	7.01	14.75	vertical	-53.74	40.74	-13.00	0
6	11400.0	-69.44	7.48	15.95	vertical	-60.97	47.97	-13.00	45
7	13300.0	-67.55	7.51	16.55	vertical	-58.51	45.51	-13.00	90
8	15200.0	-63.28	8.24	15.35	vertical	-56.17	43.17	-13.00	225
9	17100.0	-61.94	8.41	14.95	vertical	-55.4	42.40	-13.00	270
10	19000.0	-60.54	8.54	15.45	vertical	-53.63	40.63	-13.00	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	CMU200	R&S	118133	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	2014-12-18	2015-12-17
Signal generator	SMB100A	R&S	102594	2015-05-22	2016-05-21
EMI Test Receiver	ESCI	R&S	100948	2015-05-22	2016-05-21
Trilog Antenna	VUBL9163	SCHWARZBECK	9163-201	2014-12-06	2017-12-05
Trilog Antenna	VUBL9163	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	2018-07-17
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	SMA15cm	Agilent	0001	2015-11-09	2016-01-08

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

## ANNEX A: EUT Appearance and Test Setup

### A.1 EUT Appearance



Front Side



Back Side

a: EUT





b: Battery

Picture 1 EUT and Auxiliary



## A.2 Test Setup



Picture 2: Radiated Spurious Emissions Test setup