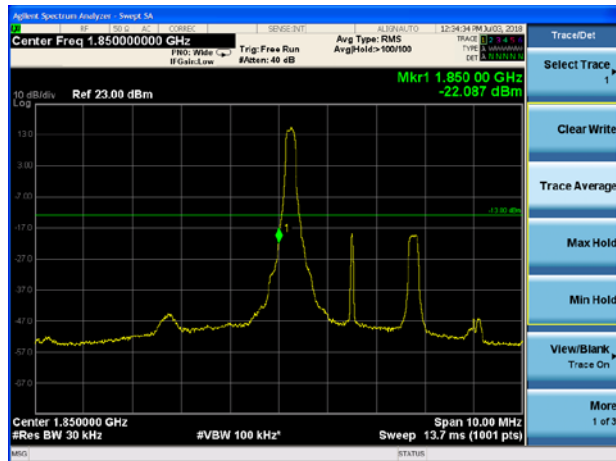
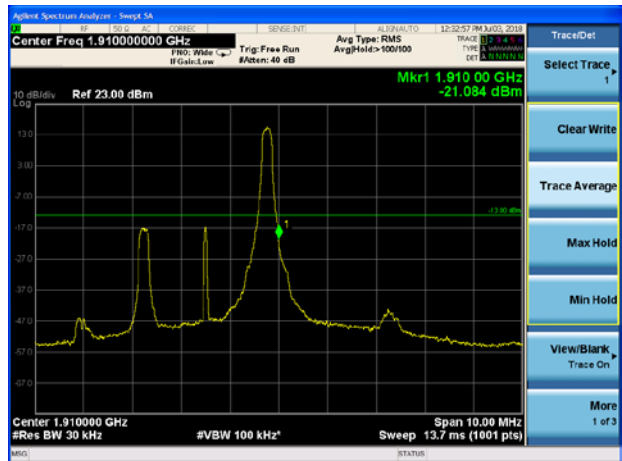


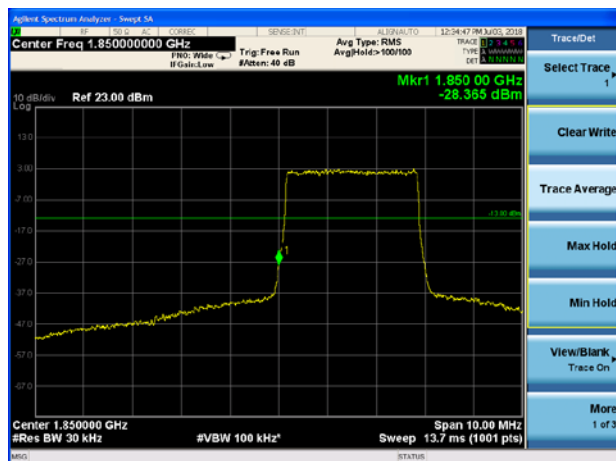
LTE Band 2 3MHz 16QAM 1RB CH-Low



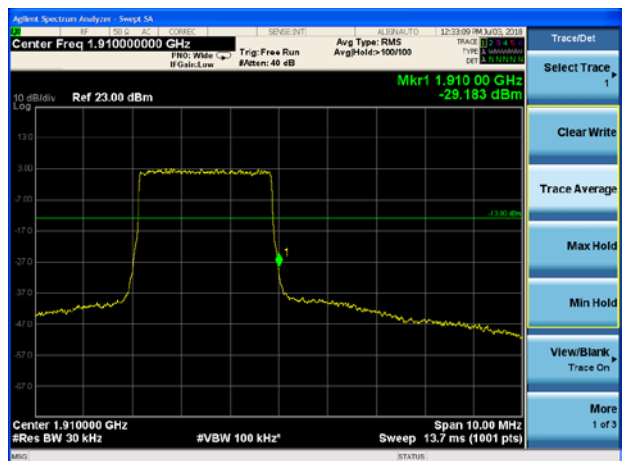
LTE Band 2 3MHz 16QAM 1RB CH-High



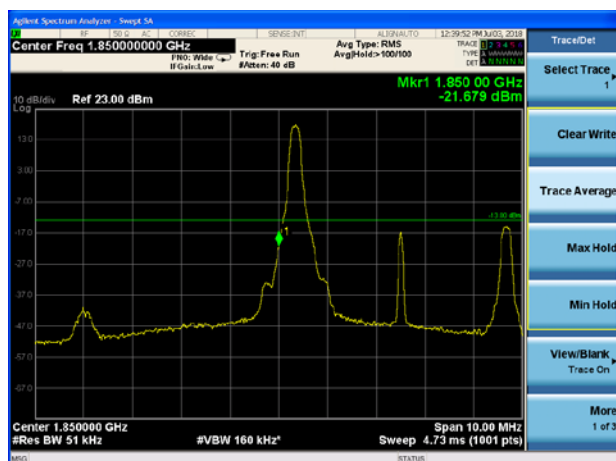
LTE Band 2 3MHz 16QAM 100%RB CH-Low



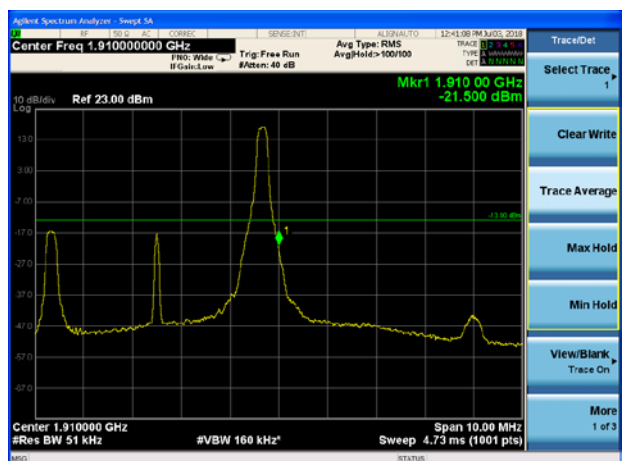
LTE Band 2 3MHz 16QAM 100%RB CH-High



LTE Band 2 5MHz 16QAM 1RB CH-Low

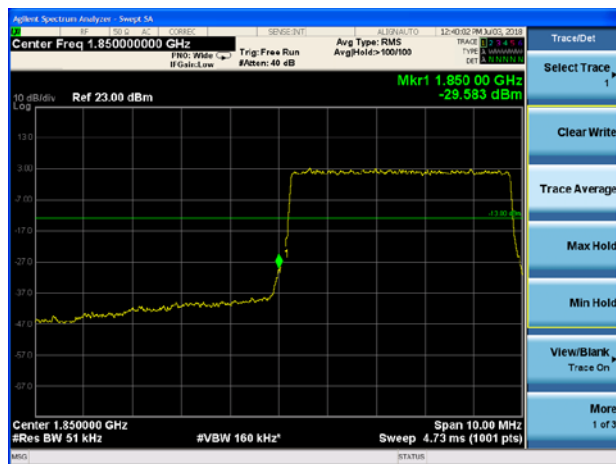


LTE Band 2 5MHz 16QAM 1RB CH-High

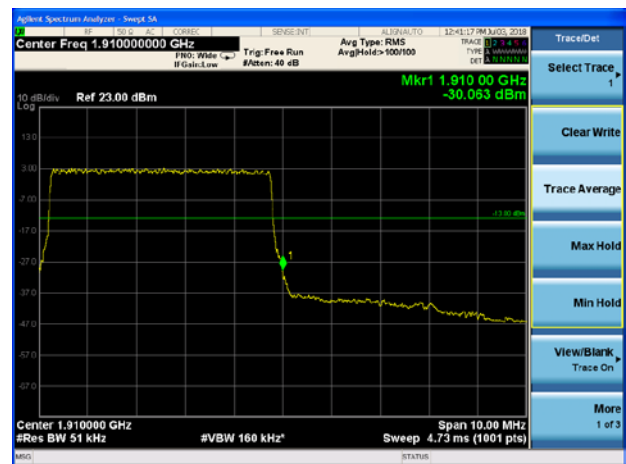




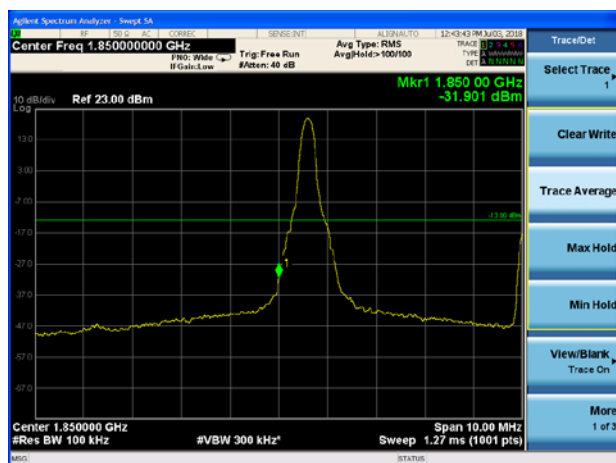
LTE Band 2 5MHz 16QAM 100%RB CH-Low



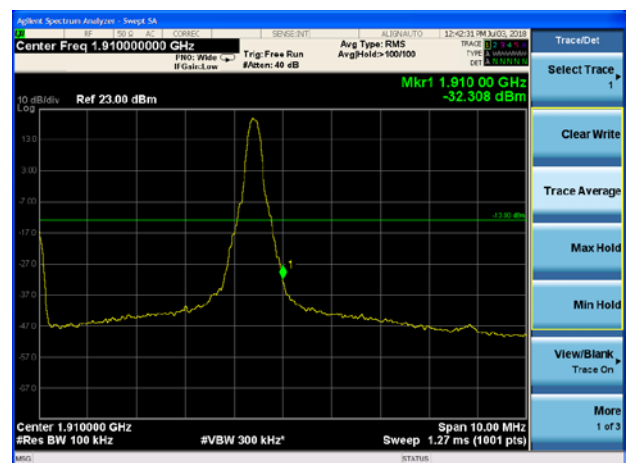
LTE Band 2 5MHz 16QAM 100%RB CH-High



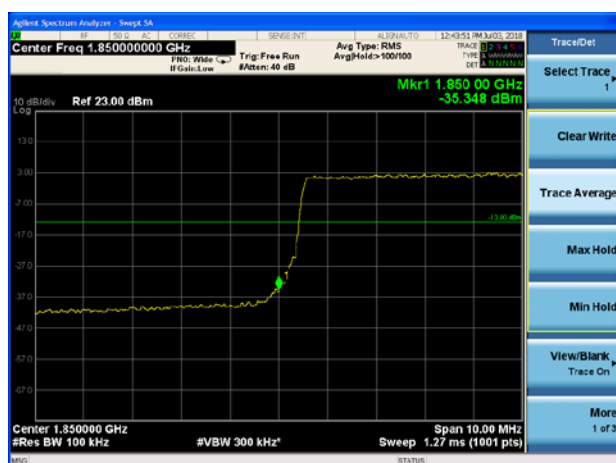
LTE Band 2 10MHz 16QAM 1RB CH-Low



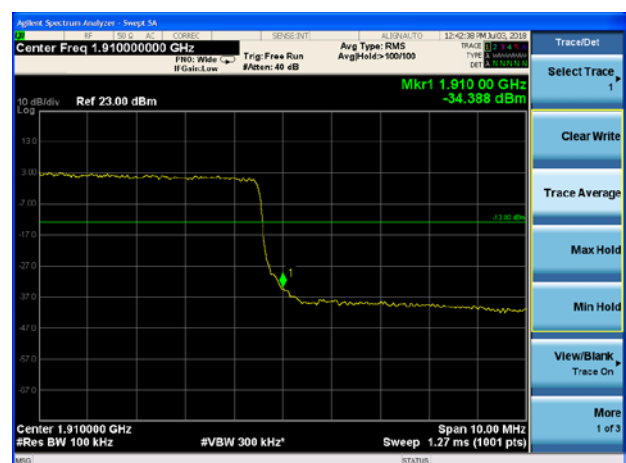
LTE Band 2 10MHz 16QAM 1RB CH-High



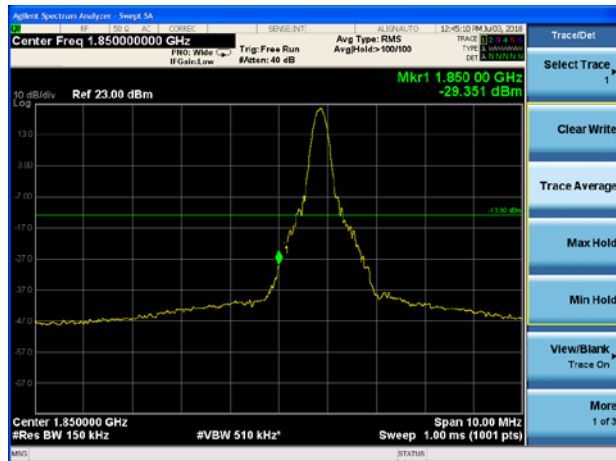
LTE Band 2 10MHz 16QAM 100%RB CH-Low



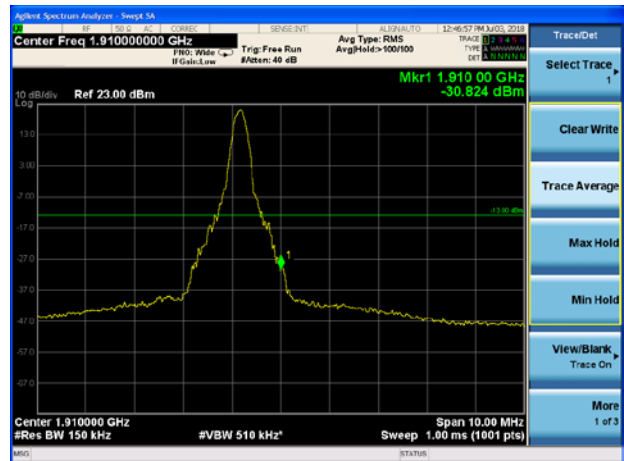
LTE Band 2 10MHz 16QAM 100%RB CH-High



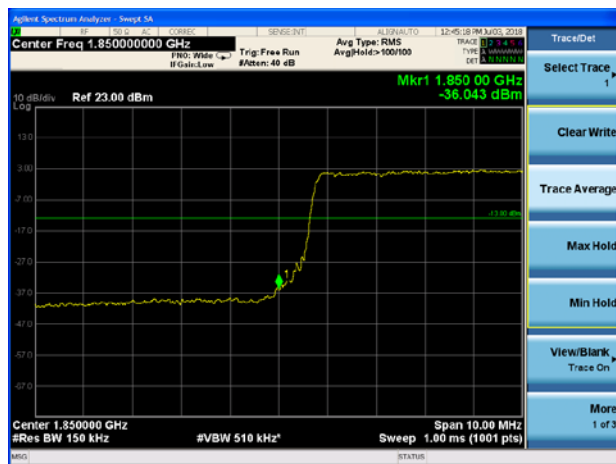
LTE Band 2 15MHz 16QAM 1RB CH-Low



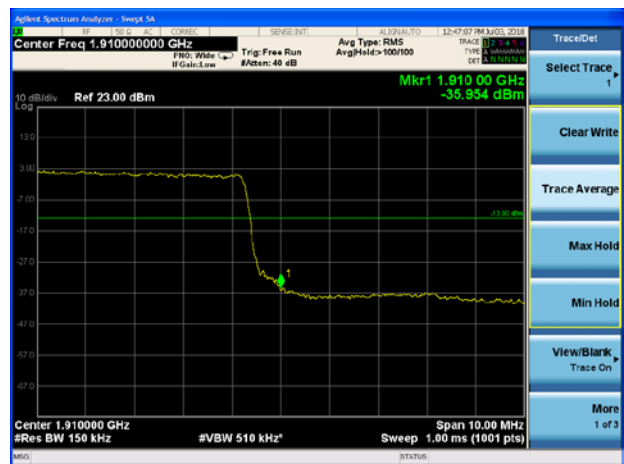
LTE Band 2 15MHz 16QAM 1RB CH-High



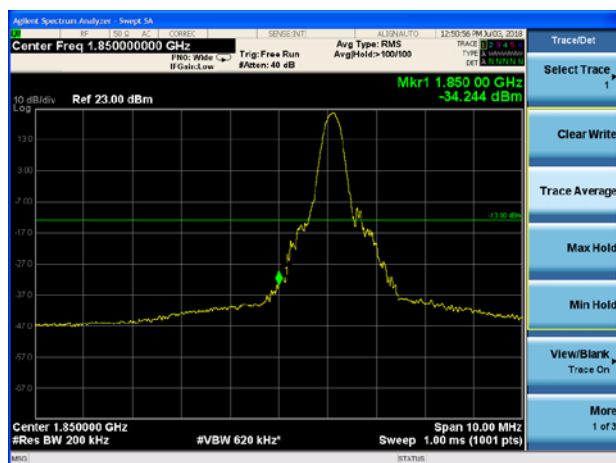
LTE Band 2 15MHz 16QAM 100%RB CH-Low



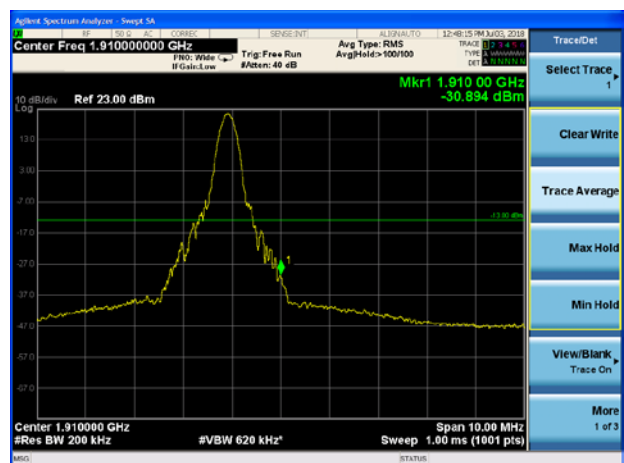
LTE Band 2 15MHz 16QAM 100%RB CH-High



LTE Band 2 20MHz 16QAM 1RB CH-Low

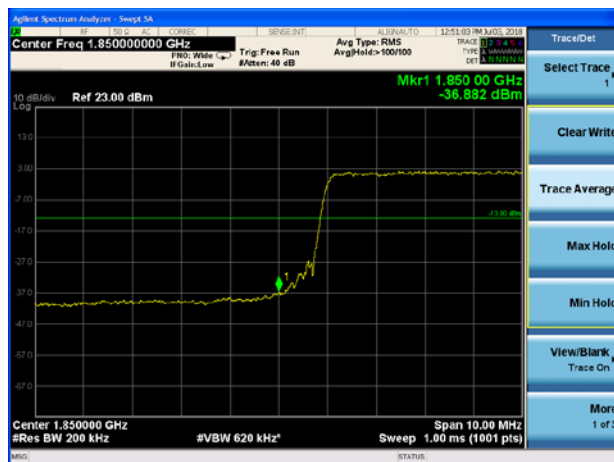


LTE Band 2 20MHz 16QAM 1RB CH-High

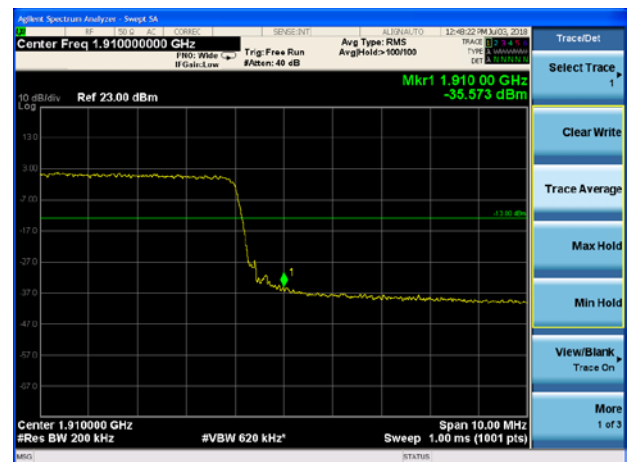




LTE Band 2 20MHz 16QAM 100%RB CH-Low



LTE Band 2 20MHz 16QAM 100%RB CH-High



5.5. Peak-to-Average Power Ratio (PAPR)

Ambient condition

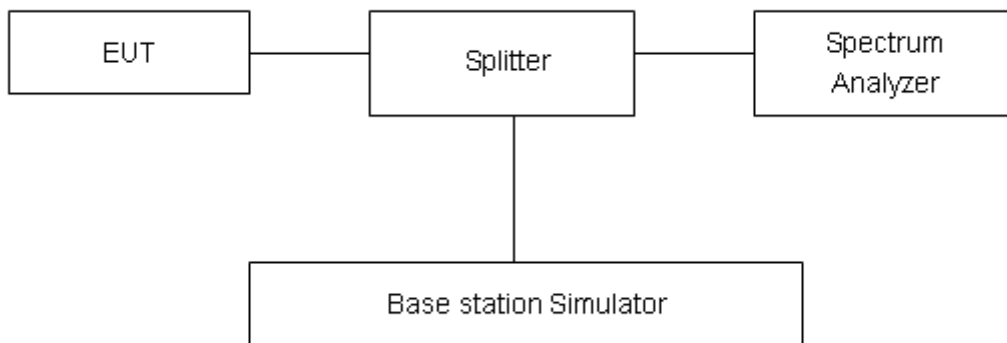
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

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

$$\text{PAPR (dB)} = \text{PPk (dBm)} - \text{PAvg (dBm)}.$$

Test Setup



Limits

In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB in 24.232(d).

Measurement Uncertainty

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



Test Results

Mode	Channel	Frequency (MHz)	Peak(dBm)	Avg(dBm)	PAPR(dB)	Limit(dB)	Conclusion
WCDMA Band II (RMC)	9262	1852.4	26.20	23.19	3.01	≤13	PASS
	9400	1880	26.14	23.05	3.09	≤13	PASS
	9538	1907.6	26.15	23.04	3.11	≤13	PASS

LTE Band 2								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	18607	1850.7	27.15	22.23	4.92	≤13	PASS
		18900	1880.0	27.66	22.49	5.17	≤13	PASS
		19193	1909.3	27.20	22.07	5.13	≤13	PASS
	3	18615	1851.5	27.28	22.26	5.02	≤13	PASS
		18900	1880	27.76	22.53	5.23	≤13	PASS
		19185	1908.5	27.24	22.10	5.14	≤13	PASS
	5	18625	1852.5	27.29	22.24	5.05	≤13	PASS
		18900	1880	27.72	22.52	5.20	≤13	PASS
		19175	1907.5	27.20	22.08	5.12	≤13	PASS
	10	18650	1855	27.37	22.32	5.05	≤13	PASS
		18900	1880	27.69	22.54	5.15	≤13	PASS
		19150	1905	27.14	22.12	5.02	≤13	PASS
	15	18675	1857.5	27.41	22.30	5.11	≤13	PASS
		18900	1880	27.75	22.50	5.25	≤13	PASS
		19125	1902.5	27.08	22.07	5.01	≤13	PASS
	20	18700	1860	27.29	22.27	5.02	≤13	PASS
		18900	1880	27.53	22.45	5.08	≤13	PASS
		19100	1900	26.92	22.03	4.89	≤13	PASS
16QAM	1.4	18607	1850.7	27.15	21.36	5.79	≤13	PASS
		18900	1880.0	27.27	21.29	5.98	≤13	PASS
		19193	1909.3	27.33	21.30	6.03	≤13	PASS
	3	18615	1851.5	27.25	21.39	5.86	≤13	PASS
		18900	1880	27.37	21.33	6.04	≤13	PASS
		19185	1908.5	27.29	21.33	5.96	≤13	PASS
	5	18625	1852.5	27.19	21.37	5.82	≤13	PASS
		18900	1880	27.28	21.29	5.99	≤13	PASS
		19175	1907.5	27.20	21.28	5.92	≤13	PASS
	10	18650	1855	27.25	21.40	5.85	≤13	PASS
		18900	1880	27.28	21.34	5.94	≤13	PASS
		19150	1905	27.16	21.32	5.84	≤13	PASS



	15	18675	1857.5	27.21	21.37	5.84	≤13	PASS
		18900	1880	27.26	21.29	5.97	≤13	PASS
		19125	1902.5	26.99	21.28	5.71	≤13	PASS
	20	18700	1860	27.17	21.35	5.82	≤13	PASS
		18900	1880	27.16	21.25	5.91	≤13	PASS
		19100	1900	26.96	21.25	5.71	≤13	PASS

5.6.Frequency Stability

Ambient condition

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

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -40°C to +85°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 -40°C to +85°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

Frequency Stability (Voltage Variation)

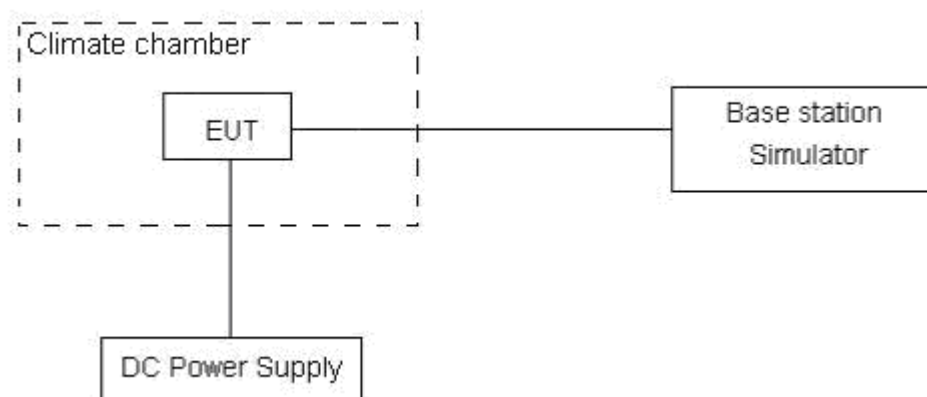
The frequency stability shall be measured with variation of primary supply voltage as follows:

(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 3.3 V and 4.3V, 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

WCDMA Band II					
Condition		1850	1910	Delta(Hz)	Frequency Stability(ppm)
Temperature	Voltage	F low@-13dBm(MHz)	F high@-13dBm(MHz)		
Normal (25°C)	Normal	1850.0291	1909.9496	-1.78	-0.00095
Extreme (85°C)		1850.0301	1909.9482	-8.18	-0.00435
Extreme (80°C)		1850.0262	1909.9519	-3.97	-0.00211
Extreme (70°C)		1850.0281	1909.9543	1.47	0.00078
Extreme (60°C)		1850.0267	1909.9514	-4.27	-0.00227
Extreme (50°C)		1850.0273	1909.9508	-2.93	-0.00156
Extreme (40°C)		1850.0286	1909.9495	-1.19	-0.00063
Extreme (30°C)		1850.0293	1909.9488	-1.01	-0.00054
Extreme (20°C)		1850.0272	1909.9509	-1.09	-0.00058
Extreme (10°C)		1850.0284	1909.9497	-3.50	-0.00186
Extreme (0°C)		1850.0271	1909.9514	-5.83	-0.00310
Extreme (-10°C)		1850.0266	1909.9515	-3.77	-0.00201
Extreme (-20°C)		1850.0277	1909.9504	0.31	0.00016
Extreme (-30°C)		1850.0312	1909.9471	-3.80	-0.00202
Extreme (-40°C)		1850.0322	1909.9459	1.15	0.00061
25°C	LV	1850.0274	1909.9507	-6.29	-0.00335
	HV	1850.0284	1909.9501	-2.78	-0.00148

LTE Band 2					
(QPSK, 20MHz BANDWIDTH)					
Condition		1850	1910	Delta(Hz)	Frequency Stability(ppm)
Temperature	Voltage	F low@-13dBm(MHz)	F high@-13dBm(MHz)		
Normal (25°C)	Normal	1850.6462	1909.4831	-1.29	-0.00069
Extreme (85°C)		1850.6471	1909.4827	-1.52	-0.00081
Extreme (80°C)		1850.6432	1909.4859	1.44	0.00077
Extreme (70°C)		1850.6451	1909.4845	0.86	0.00046
Extreme (60°C)		1850.6437	1909.4854	-2.69	-0.00143
Extreme (50°C)		1850.6443	1909.4848	-1.82	-0.00097
Extreme (40°C)		1850.6456	1909.4835	2.10	0.00112
Extreme (30°C)		1850.6463	1909.4828	0.86	0.00046
Extreme (20°C)		1850.6442	1909.4849	-0.07	-0.00004
Extreme (10°C)		1850.6454	1909.4837	0.35	0.00019



Extreme (0°C)		1850.6441	1909.4857	-0.40	-0.00021
Extreme (-10°C)		1850.6436	1909.4855	-0.20	-0.00011
Extreme (-20°C)		1850.6447	1909.4844	0.56	0.00030
Extreme (-30°C)		1850.6483	1909.4811	-2.60	-0.00138
Extreme (-40°C)		1850.6492	1909.4799	-0.42	-0.00022
25°C	LV	1850.6444	1909.4847	1.26	0.00067
	HV	1850.6455	1909.4841	3.50	0.00186
(16QAM, 20MHz BANDWIDTH)					
Condition		1850	1910	Delta(Hz)	Frequency Stability(ppm)
Temperature	Voltage	F low@-13dBm(MHz)	F high@-13dBm(MHz)		
Normal (25°C)	Normal	1850.5825	1909.4472	-2.00	-0.00106
Extreme (85°C)		1850.5836	1909.4461	-0.91	-0.00048
Extreme (80°C)		1850.5797	1909.4523	-4.48	-0.00238
Extreme (70°C)		1850.5816	1909.4481	-2.62	-0.00139
Extreme (60°C)		1850.5802	1909.4495	-4.00	-0.00213
Extreme (50°C)		1850.5808	1909.4489	1.51	0.00080
Extreme (40°C)		1850.5821	1909.4476	0.79	0.00042
Extreme (30°C)		1850.5828	1909.4469	0.47	0.00025
Extreme (20°C)		1850.5807	1909.4491	-4.84	-0.00257
Extreme (10C)		1850.5819	1909.4478	-1.19	-0.00063
Extreme (0°C)		1850.5806	1909.4491	-4.88	-0.00260
Extreme (-10°C)		1850.5801	1909.4496	-3.63	-0.00193
Extreme (-20°C)		1850.5812	1909.4485	-0.77	-0.00041
Extreme (-30°C)		1850.5845	1909.4452	-2.98	-0.00159
Extreme (-40°C)		1850.5857	1909.4449	-4.68	-0.00249
25°C	LV	1850.5809	1909.4488	-4.04	-0.00215
	HV	1850.5815	1909.4482	-5.46	-0.00290

5.7. Spurious Emissions at Antenna Terminals

Ambient condition

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

Method of Measurement

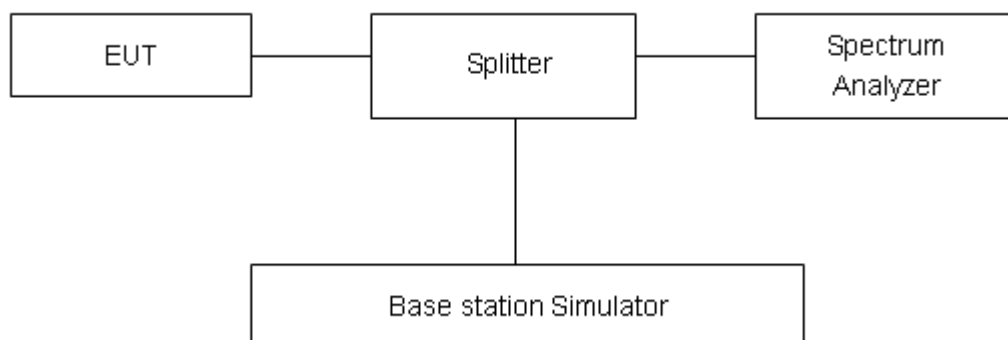
The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier. The peak detector is used.

RBW is set to 100kHz, VBW is set to 300kHz for 30MHz~1GHz

RBW is set to 1MHz, VBW is set to 3MHz for above 1GHz, Sweep is set to ATUO.

The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

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 $k = 1.96$.

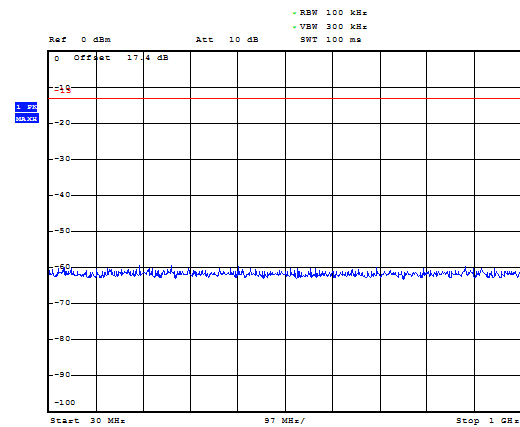
Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-20GHz	1.407 dB

Test Result

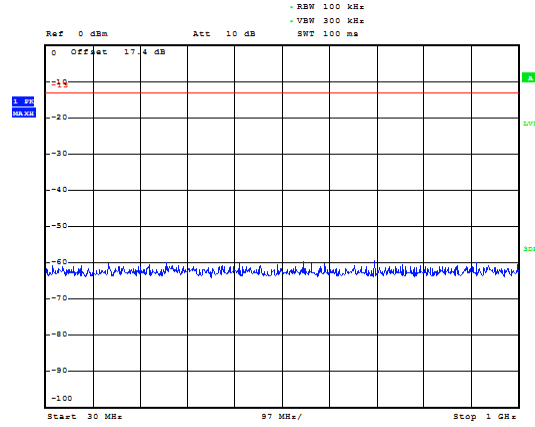
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier.

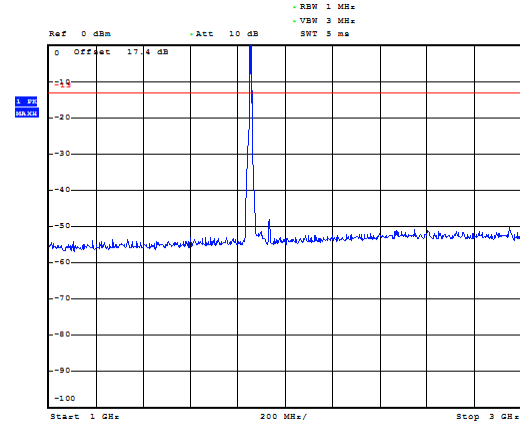
WCDMA Band II CH-Low 30MHz~1GHz



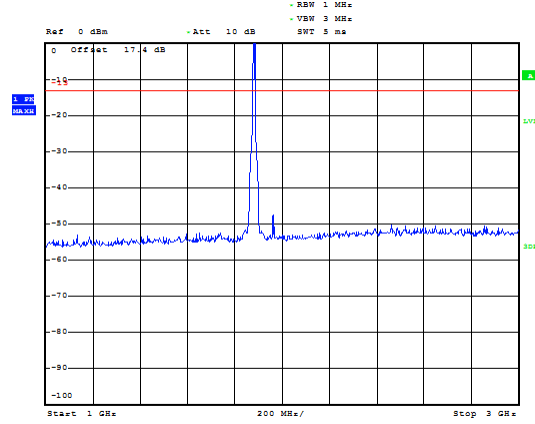
WCDMA Band II CH- Middle 30MHz~1GHz



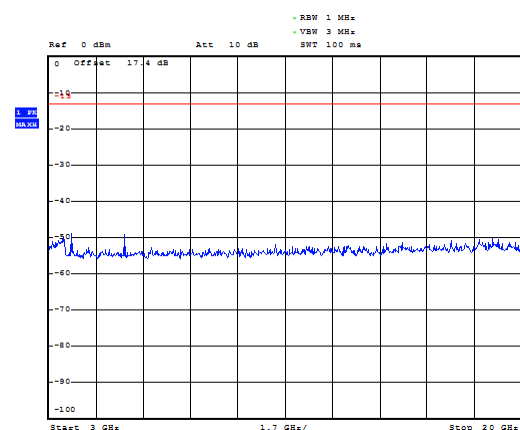
WCDMA BAND II CH-Low 1GHz~3GHz



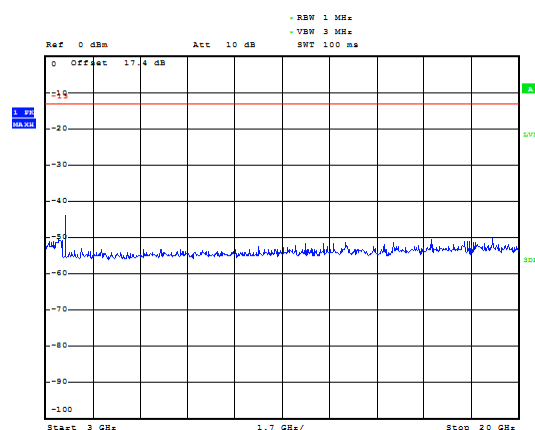
WCDMA BAND II CH-Middle 1GHz~3GHz



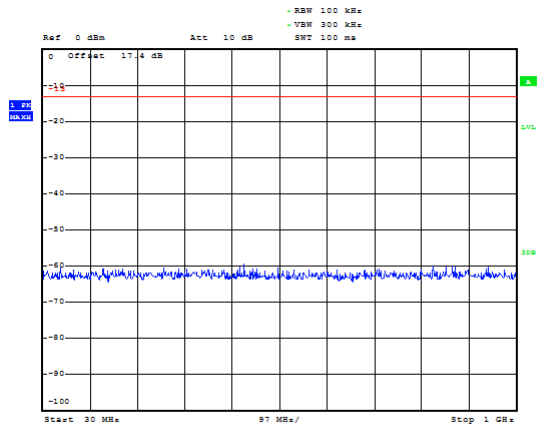
WCDMA BAND II CH-Low 3GHz~20GHz



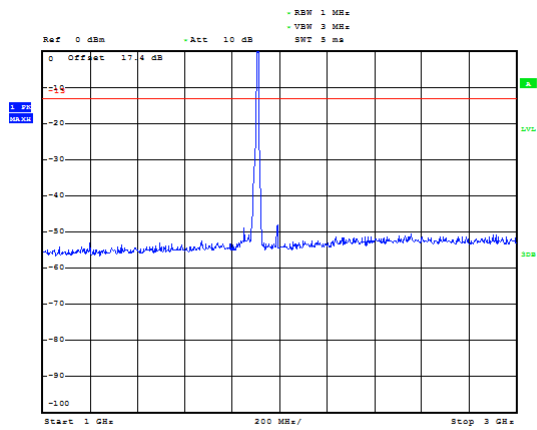
WCDMA BAND II CH-Middle 3GHz~20GHz



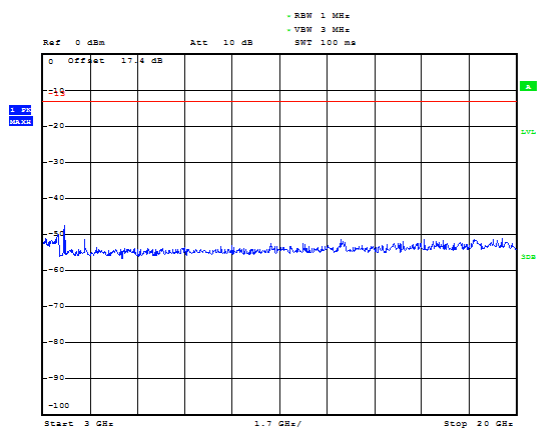
WCDMA Band II CH- High 30MHz~1GHz



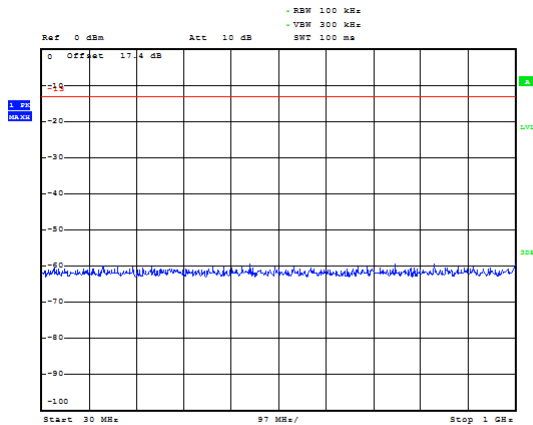
WCDMA BAND II CH-High 1GHz~3GHz



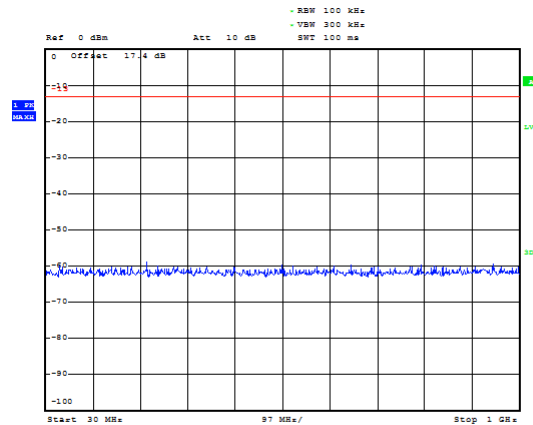
WCDMA BAND II CH-High 3GHz~20GHz



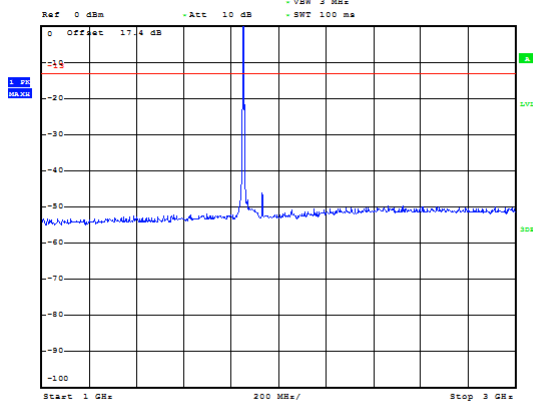
LTE Band 2 1.4MHz CH-Low 30MHz~1GHz



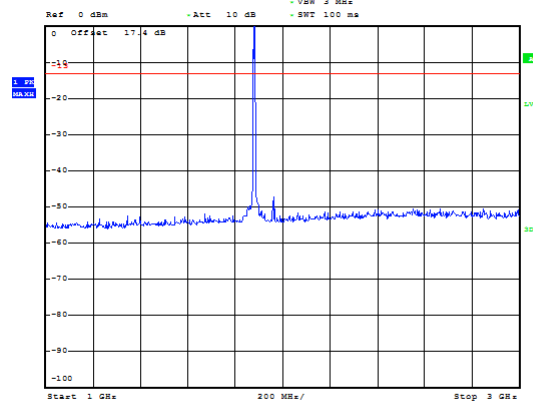
LTE Band 2 1.4MHz CH-Middle 30MHz~1GHz



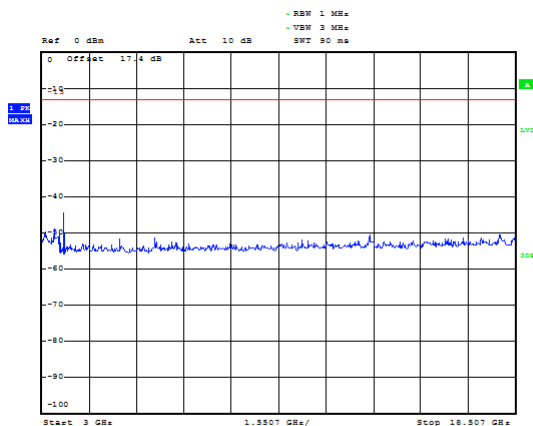
LTE Band 2 1.4MHz CH-Low 1GHz~3GHz



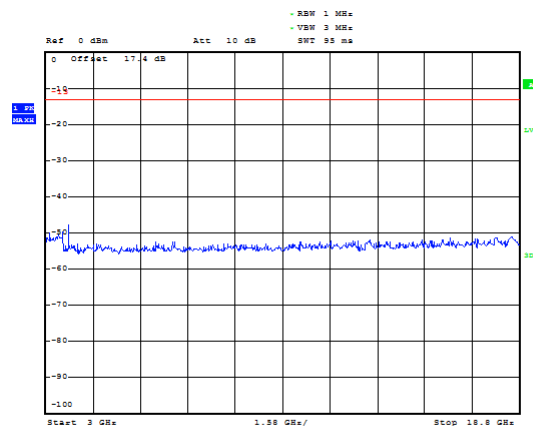
LTE Band 2 1.4MHz CH-Middle 1GHz~3GHz



LTE Band 2 1.4MHz CH-Low 3GHz~20GHz

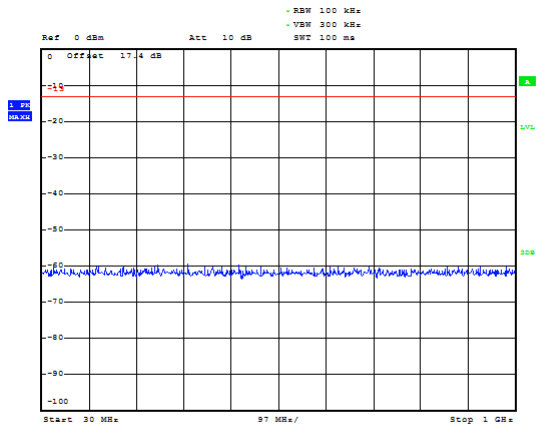


LTE Band 2 1.4MHz CH-Middle 3GHz~20GHz

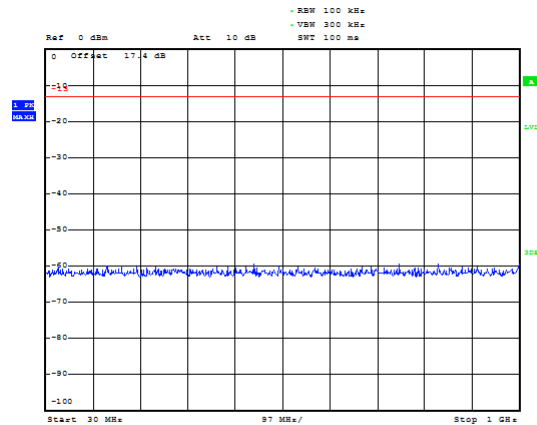




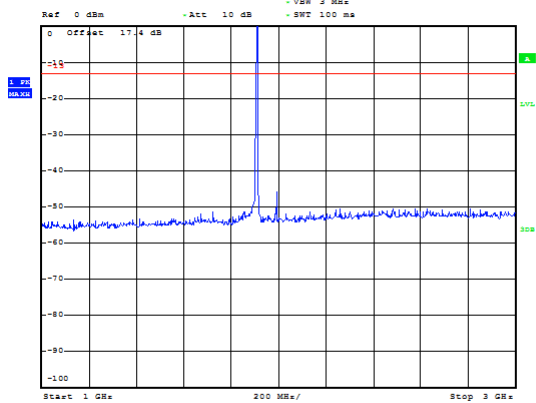
LTE Band 2 1.4MHz CH-High 30MHz~1GHz



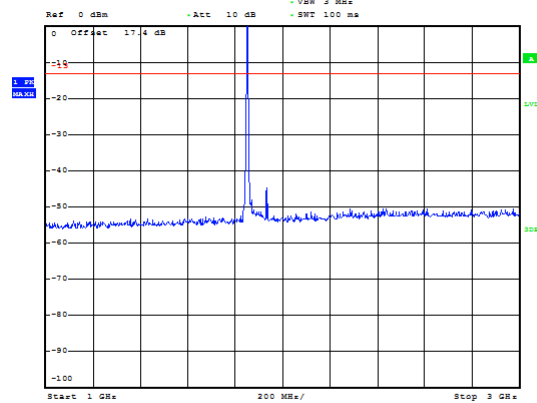
LTE Band 2 3MHz CH-Low 30MHz~1GHz



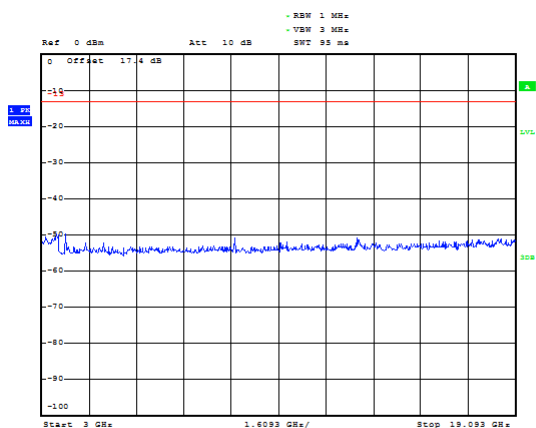
LTE Band 2 1.4MHz CH-High 1GHz~3GHz



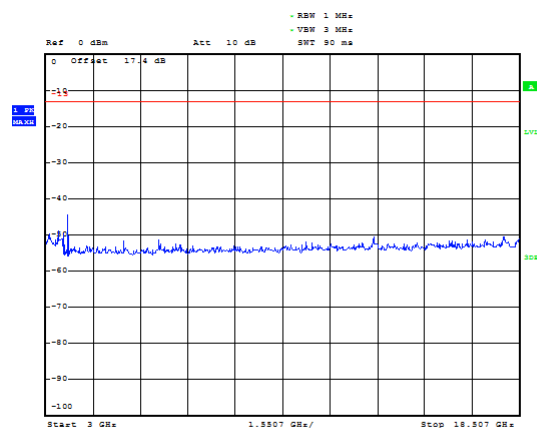
LTE Band 2 3MHz CH-Low 1GHz~3GHz



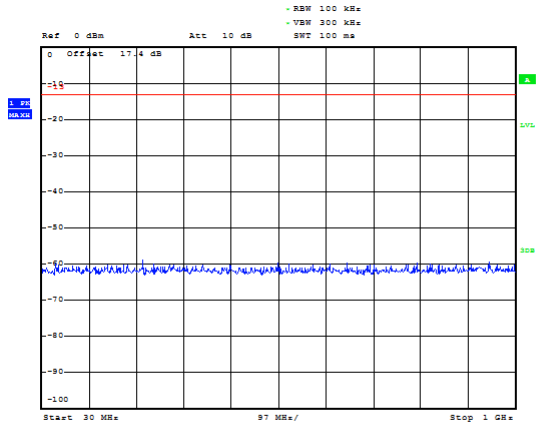
LTE Band 2 1.4MHz CH-High 3GHz~20GHz



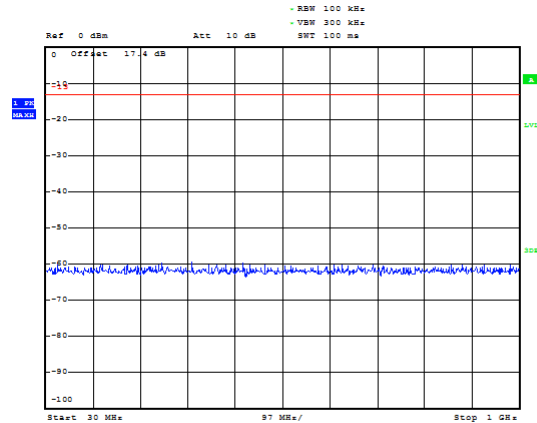
LTE Band 2 3MHz CH-Low 3GHz~20GHz



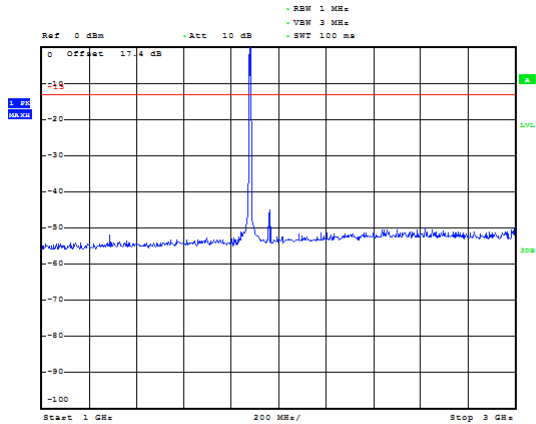
LTE Band 2 3MHz CH-Middle 30MHz~1GHz



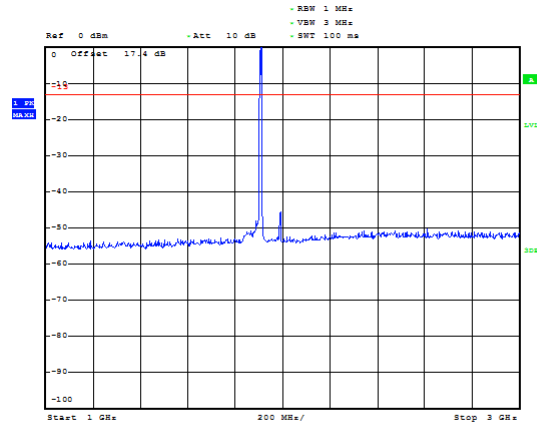
LTE Band 2 3MHz CH-High 30MHz~1GHz



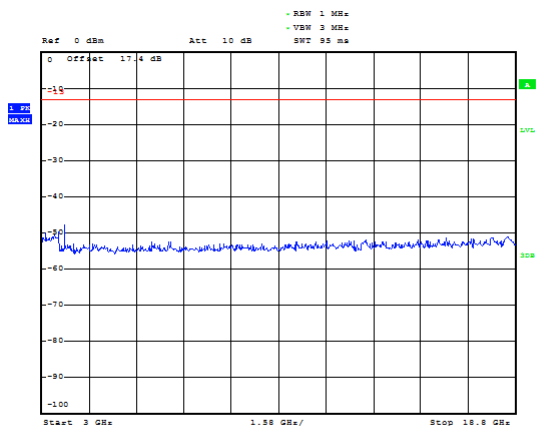
LTE Band 2 3MHz CH-Middle 1GHz~3GHz



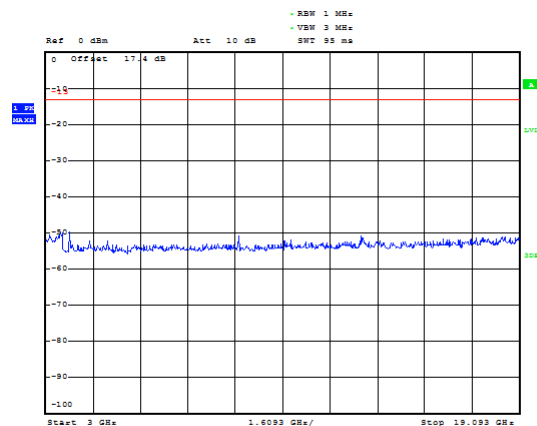
LTE Band 2 3MHz CH-High 1GHz~3GHz



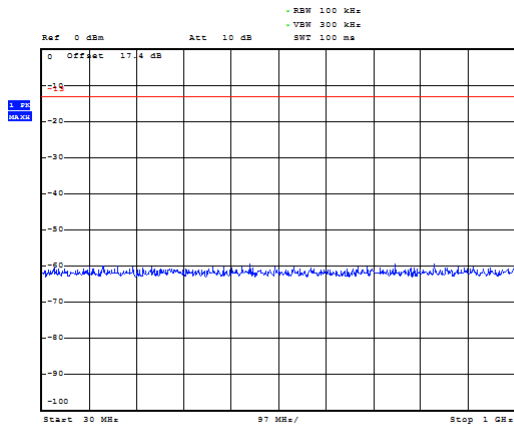
LTE Band 2 3MHz CH-Middle 3GHz~20GHz



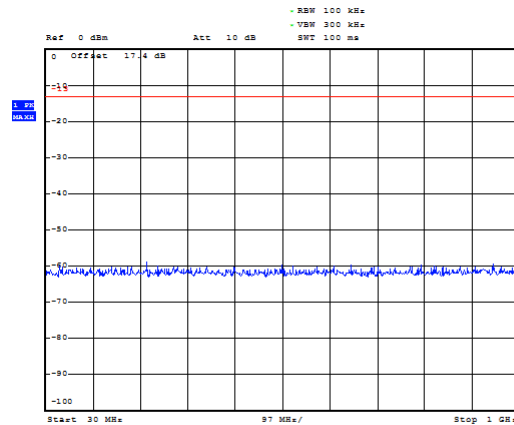
LTE Band 2 3MHz CH-High 3GHz~20GHz



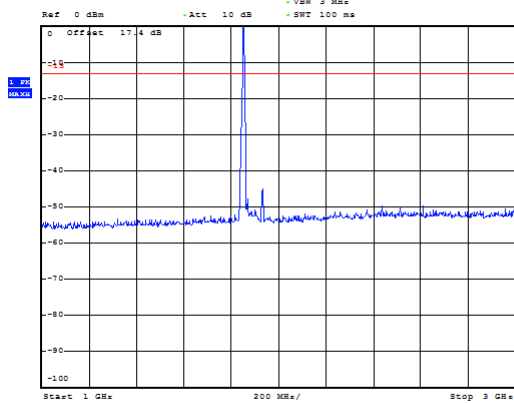
LTE Band 2 5MHz CH-Low 30MHz~1GHz



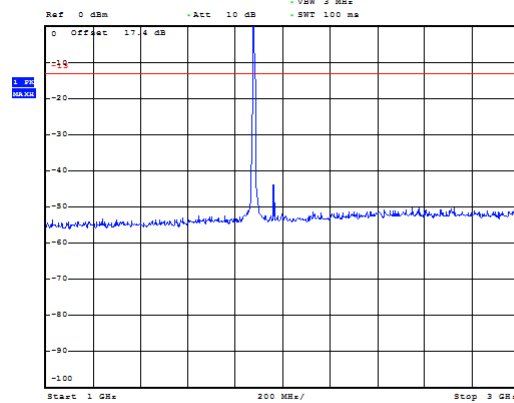
LTE Band 2 5MHz CH-Middle 30MHz~1GHz



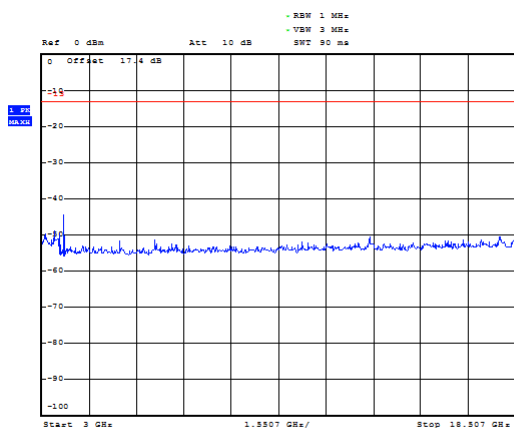
LTE Band 2 5MHz CH-Low 1GHz~3GHz



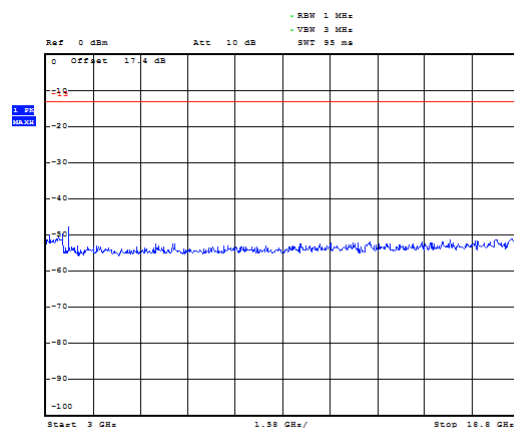
LTE Band 2 5MHz CH-Middle 1GHz~3GHz



LTE Band 2 5MHz CH-Low 3GHz~20GHz

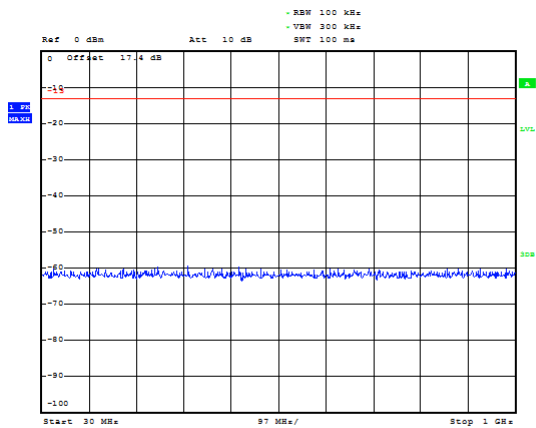


LTE Band 2 5MHz CH-Middle 3GHz~20GHz

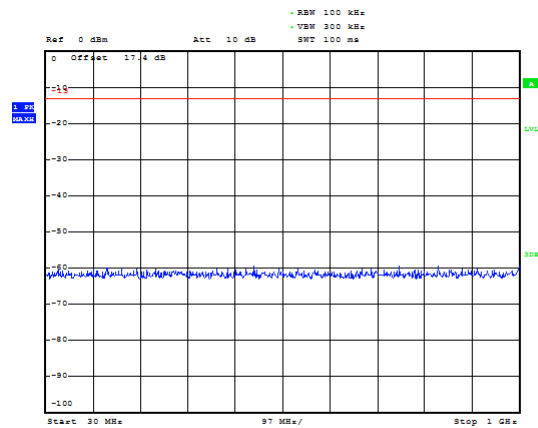




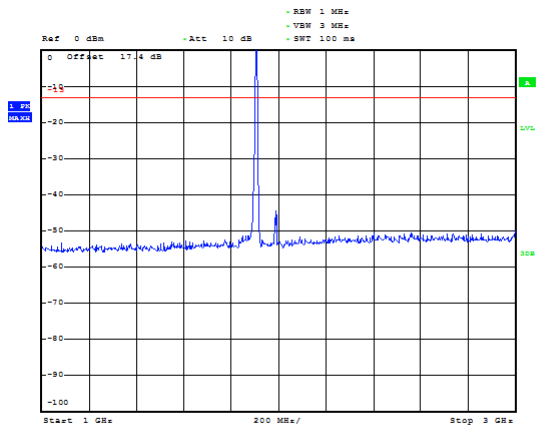
LTE Band 2 5MHz CH-High 30MHz~1GHz



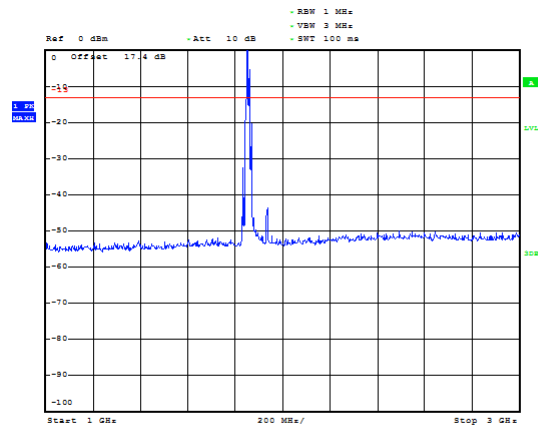
LTE Band 2 10MHz CH-Low 30MHz~1GHz



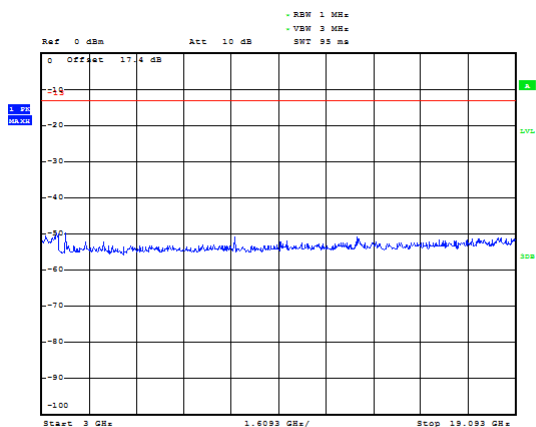
LTE Band 2 5MHz CH-High 1GHz~3GHz



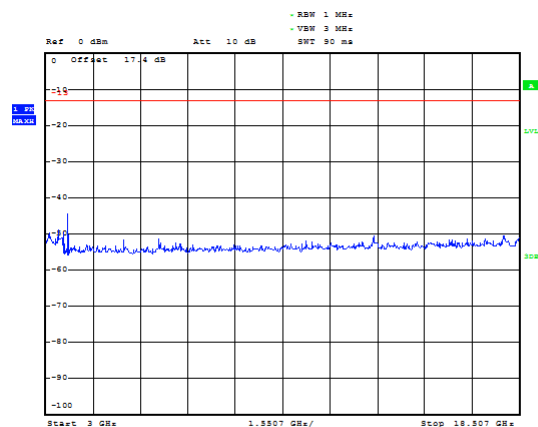
LTE Band 2 10MHz CH-Low 1GHz~3GHz



LTE Band 2 5MHz CH-High 3GHz~20GHz

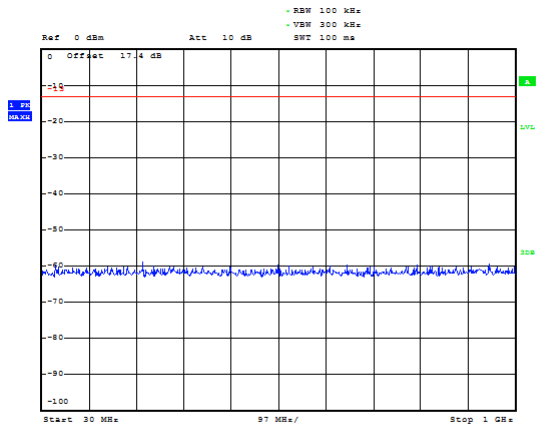


LTE Band 2 10MHz CH-Low 3GHz~20GHz

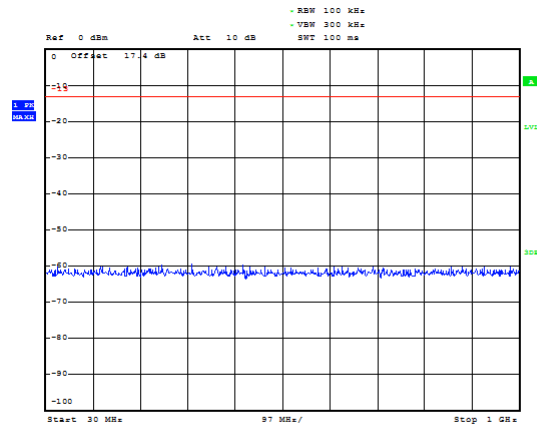




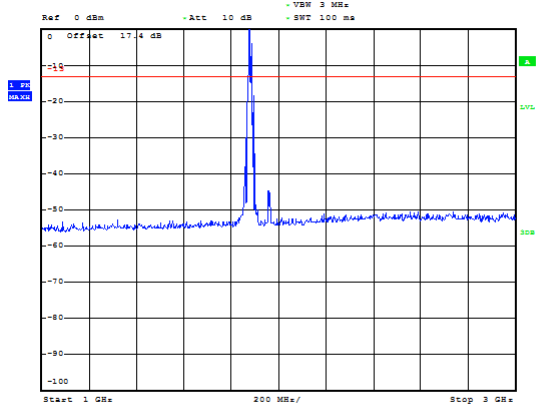
LTE Band 2 10MHz CH-Middle 30MHz~1GHz



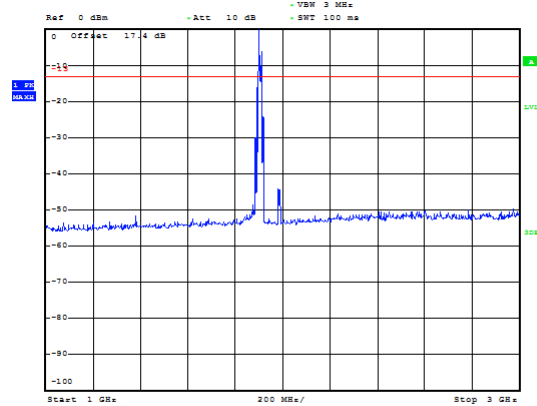
LTE Band 2 10MHz CH-High 30MHz~1GHz



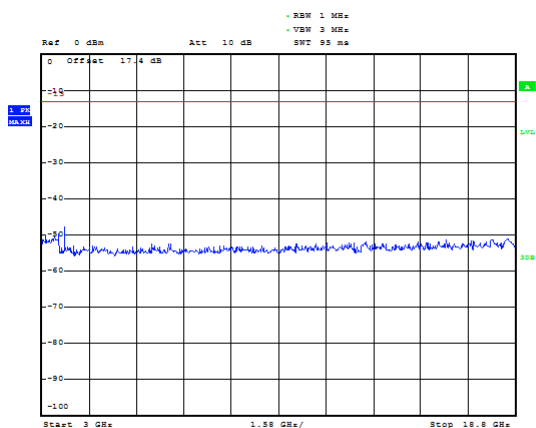
LTE Band 2 10MHz CH-Middle 1GHz~3GHz



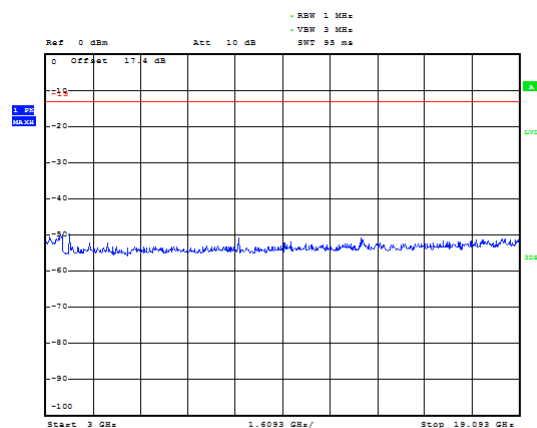
LTE Band 2 10MHz CH-High 1GHz~3GHz



LTE Band 2 10MHz CH-Middle 3GHz~20GHz

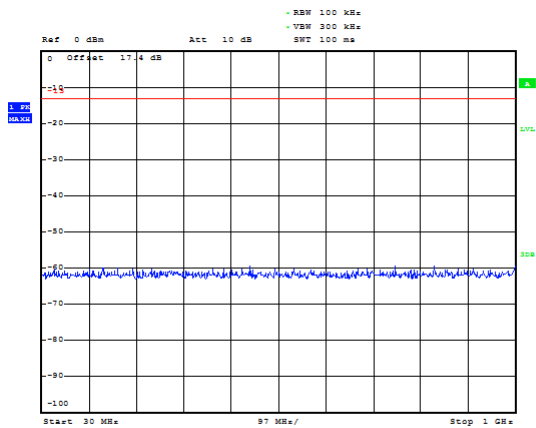


LTE Band 2 10MHz CH-High 3GHz~20GHz

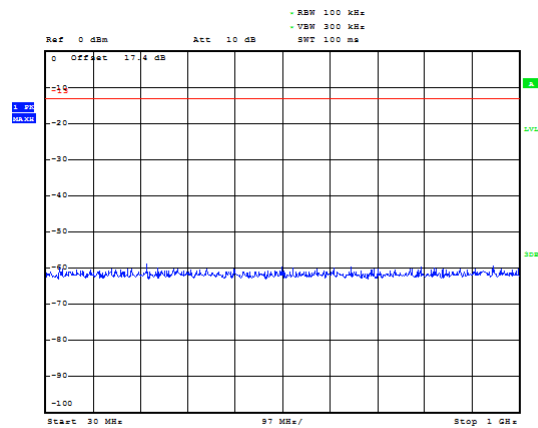




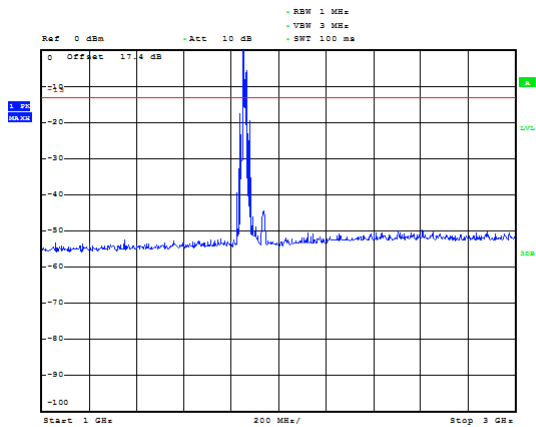
LTE Band 2 15MHz CH-Low 30MHz~1GHz



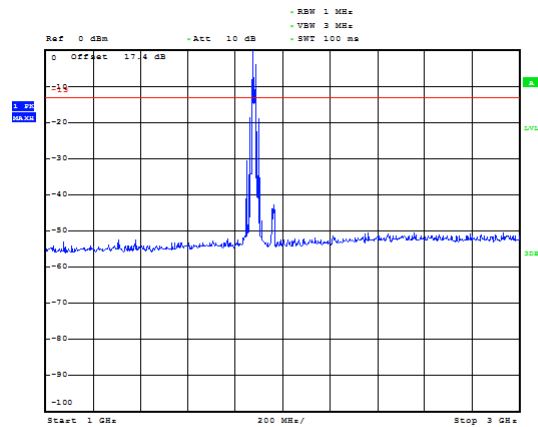
LTE Band 2 15MHz CH-Middle 30MHz~1GHz



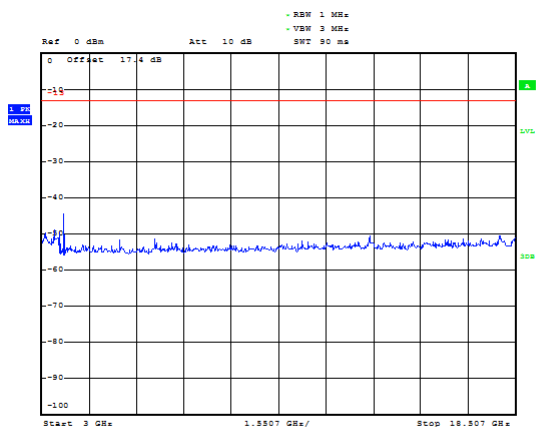
LTE Band 2 15MHz CH-Low 1GHz~3GHz



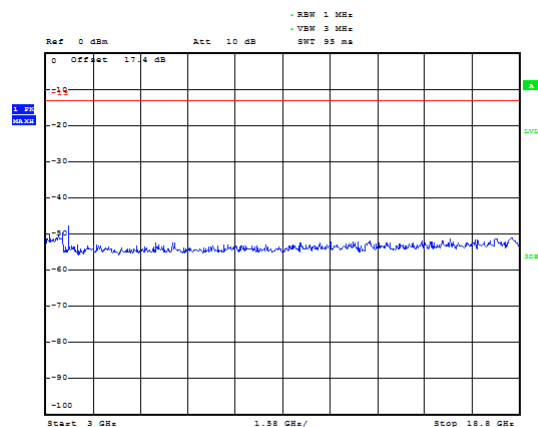
LTE Band 2 15MHz CH-Middle 1GHz~3GHz



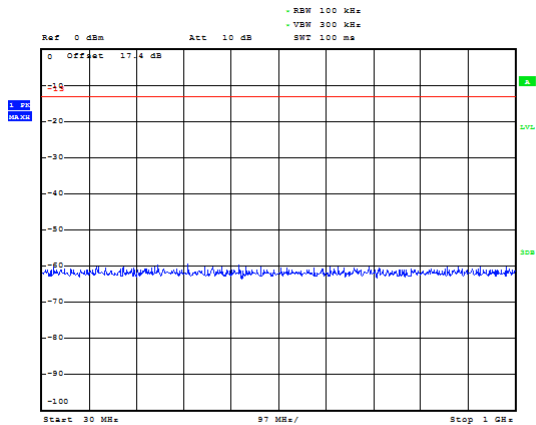
LTE Band 2 15MHz CH-Low 3GHz~20GHz



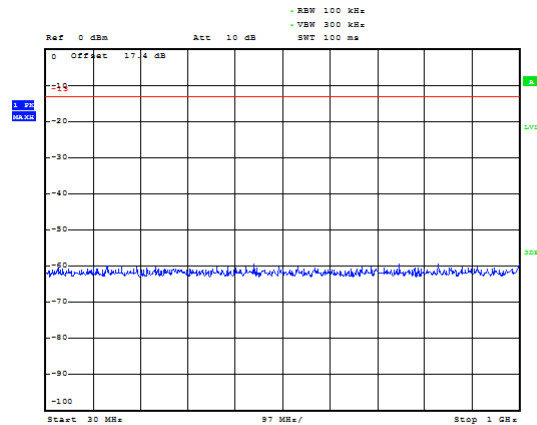
LTE Band 2 15MHz CH-Middle 3GHz~20GHz



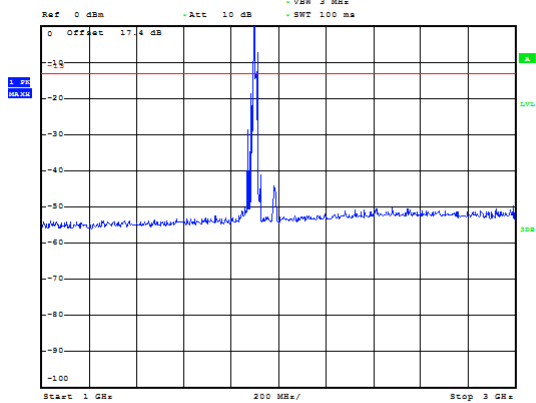
LTE Band 2 15MHz CH-High 30MHz~1GHz



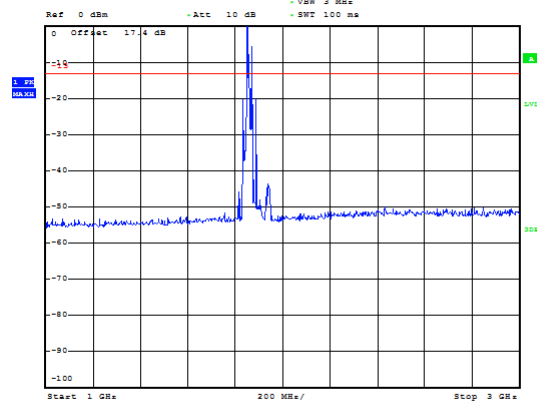
LTE Band 2 20MHz CH-Low 30MHz~1GHz



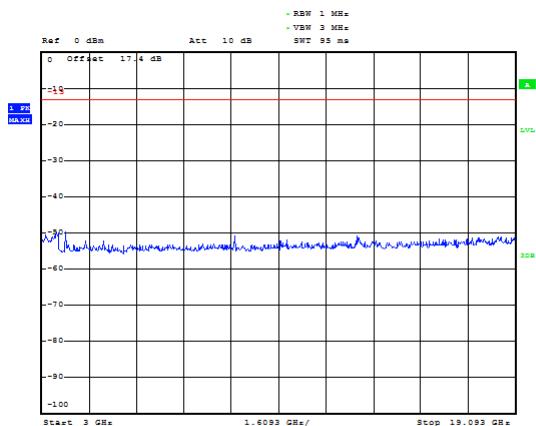
LTE Band 2 15MHz CH-High 1GHz~3GHz



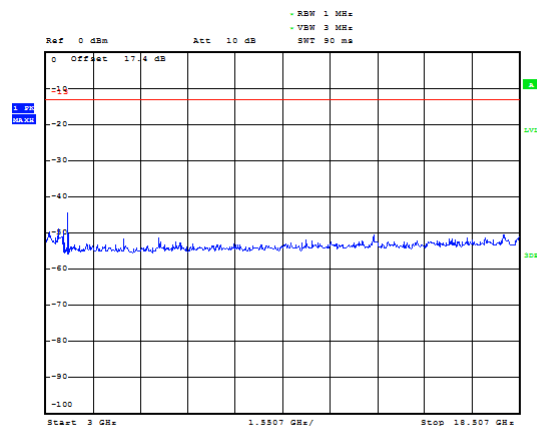
LTE Band 2 20MHz CH-Low 1GHz~3GHz



LTE Band 2 15MHz CH-High 3GHz~20GHz

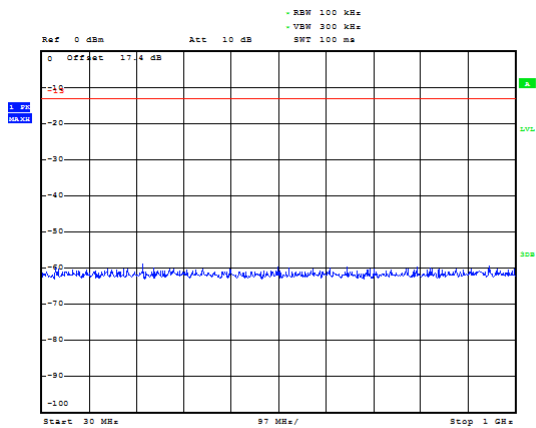


LTE Band 2 20MHz CH-Low 3GHz~20GHz

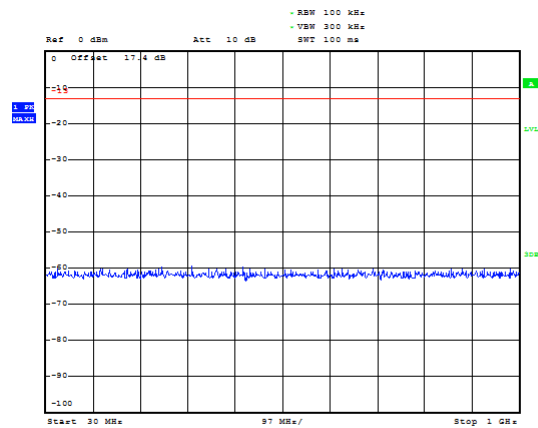




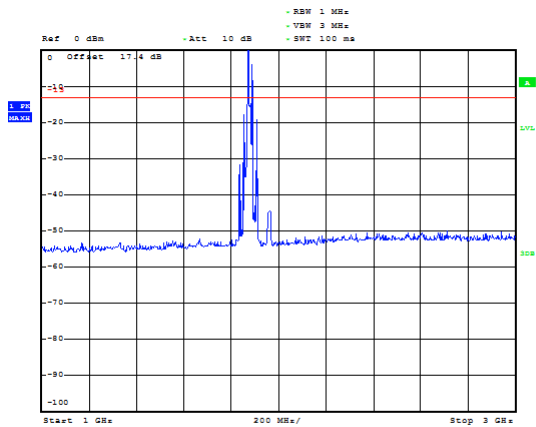
LTE Band 2 20MHz CH-Middle 30MHz~1GHz



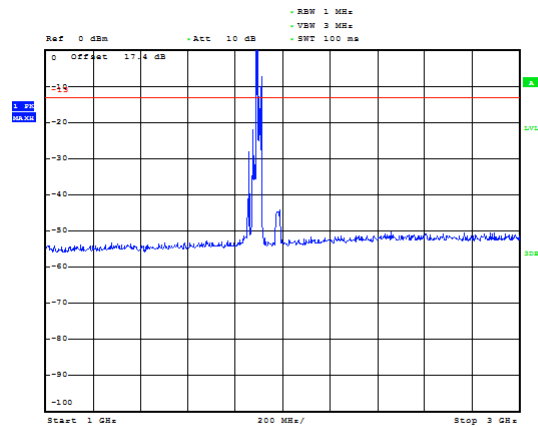
LTE Band 2 20MHz CH-High 30MHz~1GHz



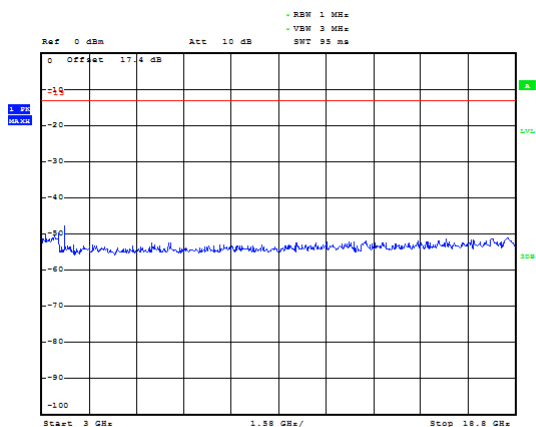
LTE Band 2 20MHz CH-Middle 1GHz~3GHz



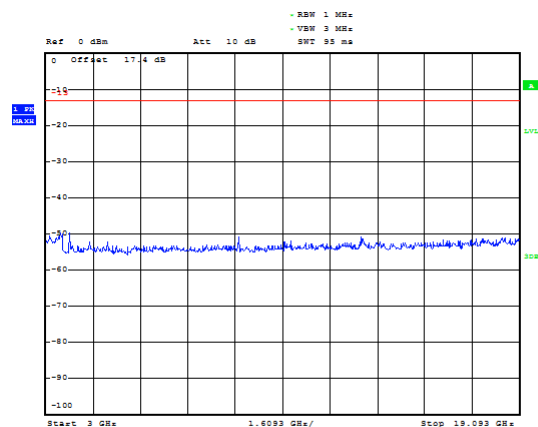
LTE Band 2 20MHz CH-High 1GHz~3GHz



LTE Band 2 20MHz CH-Middle 3GHz~20GHz



LTE Band 2 20MHz CH-High 3GHz~20GHz



5.8.Radiates Spurious Emission

Ambient condition

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

Method of Measurement

1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI/TIA-603-E (2016).
2. The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=1MHz, VBW=3MHz, And the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:

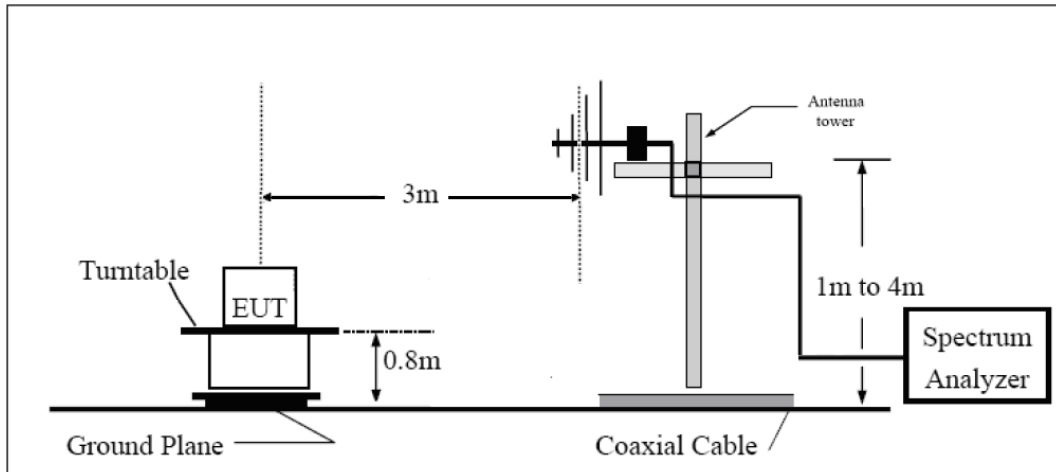
$$\text{Power(EIRP)} = \text{PMea} - \text{PAg} - \text{Pcl} + \text{Ga}$$
The measurement results are amend as described below:

$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, $\text{ERP} = \text{EIRP} - 2.15\text{dBi}$.

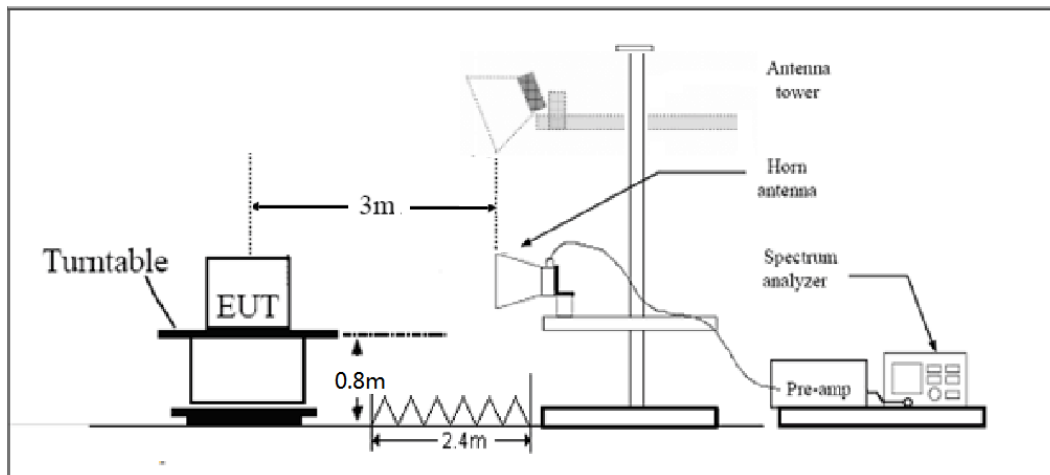
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

30MHz~~~ 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

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

Sweep the whole frequency band through the range from 30MHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

WCDMA Band II CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.0	-60.14	5.1	11.05	Horizontal	-54.19	-13.00	41.19	135
3	5636.6	-54.67	5.42	12.65	Horizontal	-47.44	-13.00	34.44	45
4	7520.0	-58.79	6.7	13.85	Horizontal	-51.64	-13.00	38.64	90
5	9400.0	-56.45	7.01	14.75	Horizontal	-48.71	-13.00	35.71	315
6	11280.0	-54.49	7.48	15.95	Horizontal	-46.02	-13.00	33.02	90
7	13160.0	-54.96	7.51	16.55	Horizontal	-45.92	-13.00	32.92	45
8	15040.0	-52.76	8.24	15.35	Horizontal	-45.65	-13.00	32.65	135
9	16920.0	-49.65	8.41	14.95	Horizontal	-43.11	-13.00	30.11	180
10	18800.0	-	-	-	-	-	-	-	-

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 Horizontal position.

LTE Band 2 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3755.6	-59.00	5.10	11.05	Horizontal	-53.05	-13.00	40.05	90
3	5633.6	-48.59	5.42	12.65	Horizontal	-41.36	-13.00	28.36	270
4	7520.0	-59.07	6.70	13.85	Horizontal	-51.92	-13.00	38.92	315
5	9400.0	-56.98	7.01	14.75	Horizontal	-49.24	-13.00	36.24	135
6	11280.0	-55.23	7.48	15.95	Horizontal	-46.76	-13.00	33.76	90
7	13160.0	-54.47	7.51	16.55	Horizontal	-45.43	-13.00	32.43	45
8	15040.0	-52.80	8.24	15.35	Horizontal	-45.69	-13.00	32.69	180
9	16920.0	-49.50	8.41	14.95	Horizontal	-42.96	-13.00	29.96	0
10	18800.0	-	-	-	-	-	-	-	-

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 Horizontal position.

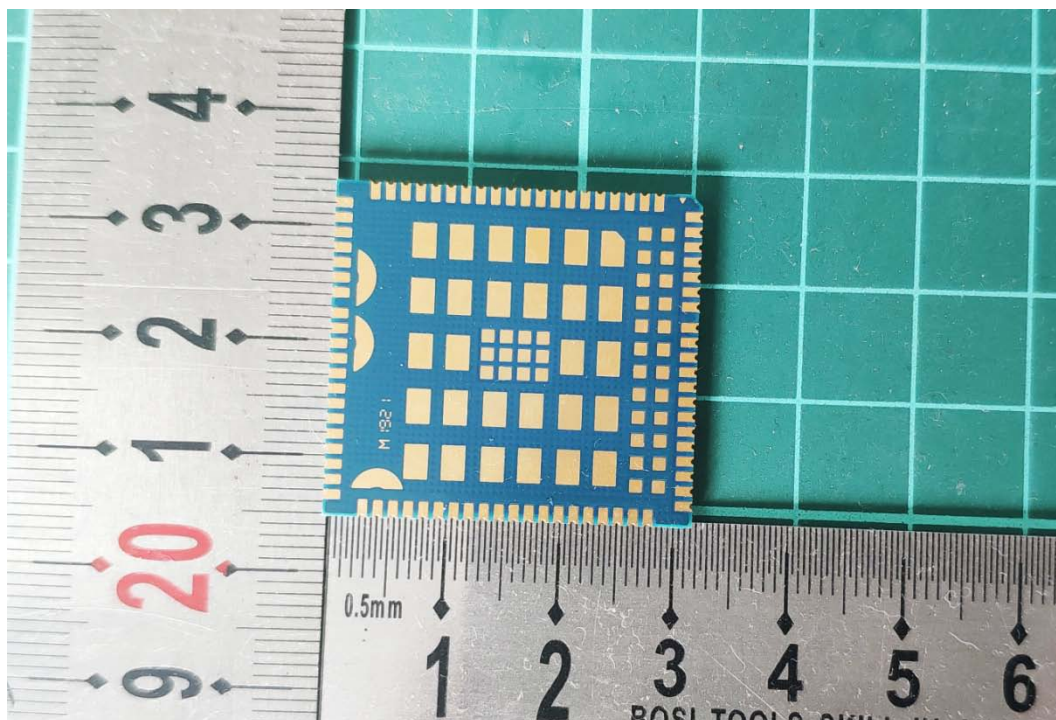
6. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMU200	118133	2019-05-19	2020-05-18
Base Station Simulator	R&S	CMW500	113824	2019-05-19	2020-05-18
Power Splitter	Hua Xiang	SHX-GF2-2-13	10120101	/	/
Spectrum Analyzer	Key sight	N9010A	MY50210259	2019-05-19	2020-05-18
Universal Radio Communication Tester	Key sight	E5515C	MY48367192	2019-05-19	2020-05-18
Signal Analyzer	R&S	FSV30	100815	2018-12-16	2019-12-15
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2017-09-26	2019-09-25
Trilog Antenna	SCHWARZBECK	VUBL 9163	9163-201	2017-11-18	2019-11-17
Horn Antenna	R&S	HF907	100126	2018-07-07	2020-07-06
Signal generator	R&S	SMB 100A	102594	2019-05-19	2020-05-18
Climatic Chamber	ESPEC	SU-242	93000506	2017-12-17	2020-12-16
Preamplifier	R&S	SCU18	102327	2019-05-19	2020-05-18
MOB COMMS DC SUPPLY	Keysight	66319D	MY43004105	2019-05-19	2020-05-18
RF Cable	Agilent	SMA 15cm	0001	2019-06-14	2019-09-13
Software	R&S	EMC32	9.26.0	/	/

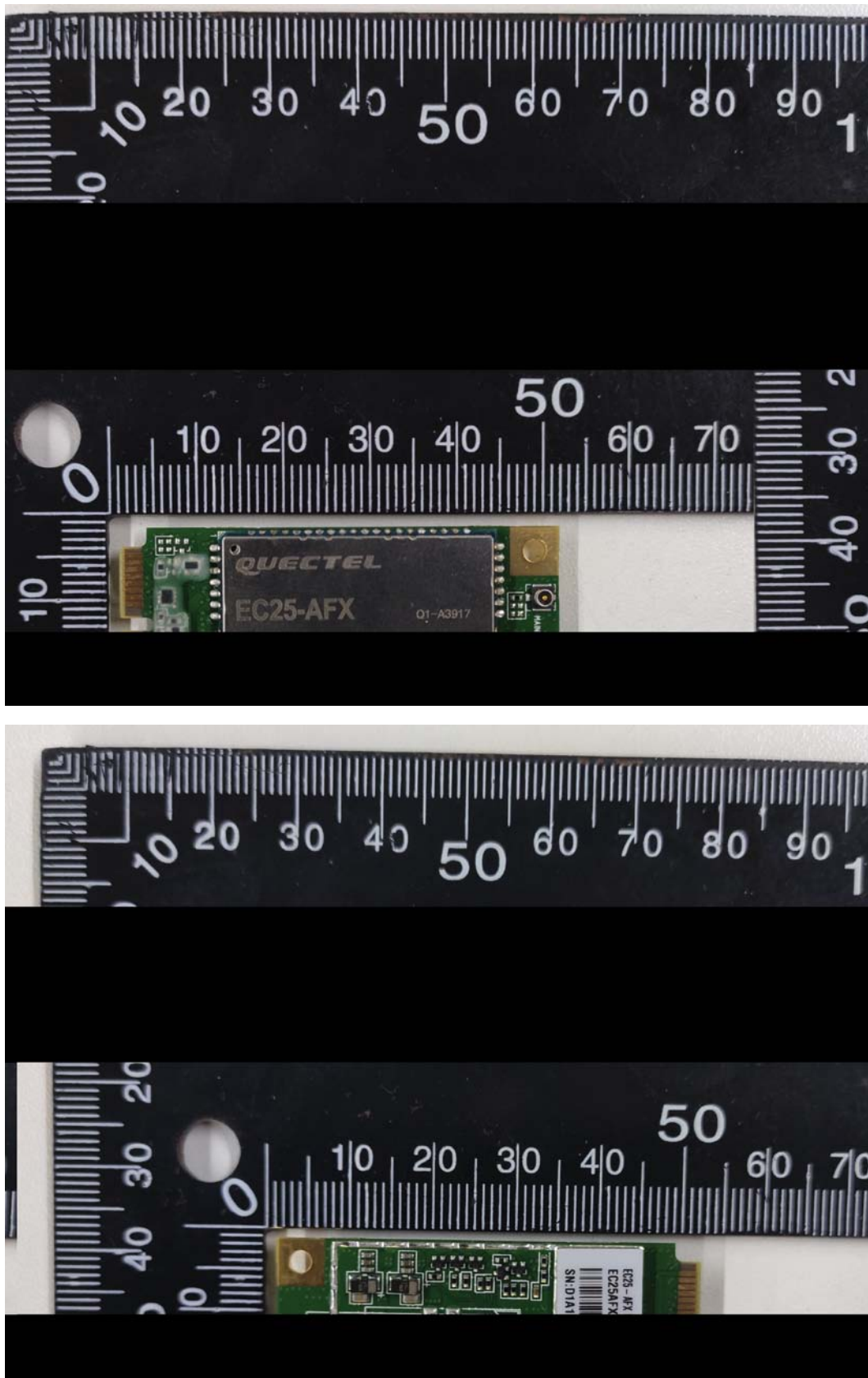
*****END OF REPORT *****

ANNEX A: EUT Appearance and Test Setup

A.1 EUT Appearance



EC25-AFX



EC25-AFX MINIPCIE

a: EUT

Picture 1 EUT and Accessory

A.2 Test Setup



Picture 2: Radiated Spurious Emissions Test setup