



# RF TEST REPORT

<b>Applicant</b>	Huawei Device Co., Ltd.
<b>FCC ID</b>	2ATEYCTR-LX3
<b>Product</b>	Smart phone
<b>Model</b>	CTR-LX3
<b>Report No.</b>	R2205A0419-R2
<b>Issue Date</b>	June 15, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2021)/ FCC CFR 47 Part 24E (2021)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Approved by: Kai Xu

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## Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 24.232(c)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	2.1051 /24.238(a)	PASS
4	Peak-to-Average Power Ratio	24.232/KDB 971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 24.235	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 / 24.238(a)	PASS
7	Radiates Spurious Emission	2.1053 / 24.238(a)	PASS
Date of Testing: May 17, 2022 ~ June 14, 2022			
Date of Sample Received: May 17, 2022			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			



## 1. Test Laboratory

### 1.1. Notes of the test report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

### 1.2. Test facility

#### **FCC (Designation number: CN1179, Test Firm Registration Number: 446626)**

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

#### **A2LA (Certificate Number: 3857.01)**

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

### 1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.  
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong  
City: Shanghai  
Post code: 201201  
Country: P. R. China  
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Website: <http://www.ta-shanghai.com>  
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## 2. General Description of Equipment under Test

### 2.1. Applicant and Manufacturer Information

Applicant	Huawei Device Co., Ltd.
Applicant address	No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong 523808, People's Republic of China
Manufacturer	Huawei Device Co., Ltd.
Manufacturer address	No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong 523808, People's Republic of China

### 2.2. General information

EUT Description			
Model	CTR-LX3		
SN	A7F6R22423000346		
Hardware Version	LLDM599		
Software Version	12.0.1.108(C900E105R1P1)		
Power Supply	Battery / AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Band	Main Antenna (dBi)	Second Antenna (dBi)
	GSM 1900	-3.1	-3.5
	WCDMA Band II	-3.1	-3.5
	LTE Band 2	-3.1	-3.2
Test Mode(s)	GSM1900; WCDMA Band II; LTE Band 2;		
Test Modulation	(GSM/GPRS)GMSK, (EGPRS) GMSK/ 8PSK; (WCDMA) BPSK, QPSK; (LTE)QPSK,16QAM,64QAM		
GPRS Multislot Class	12		
EGPRS Multislot Class	12		
HSDPA UE Category	24		
HSUPA UE Category	6		
DC-HSDPA UE Category	24		
LTE Category	7		
Maximum E.I.R.P	GSM 1900	26.93 dBm	
	WCDMA Band II	19.20 dBm	
	LTE Band 2	20.17dBm	
Rated Power Supply Voltage	3.88V		
Operating Voltage	Minimum: 3.6V    Maximum: 4.48V		
Operating Temperature	Lowest: 0°C    Highest: +35°C		
Testing Temperature	Lowest: 0°C    Highest: +35°C		



Operating Frequency Range(s)		Band	Tx (MHz)	Rx (MHz)
		GSM1900	1850 ~ 1910	1930 ~ 1990
		WCDMA Band II	1850 ~ 1910	1930 ~ 1990
		LTE Band 2	1850 ~ 1910	1930 ~ 1990
<b>EUT Accessory</b>				
Accessory	Model	Manufacture		No
Adapter	HW-100400E01	Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		1
	HW-100400B01	Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		2
		Huawei Technologies Co., Ltd. (Manufacturer: HUIZHOU BYD ELECTRONIC CO., LTD.)		3
	HW-100400U01	Huawei Technologies Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		4
	HW-100400E02	Huawei Device Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		5
	HW-100400B02	Huawei Device Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		6
	HW-100400U02	Huawei Device Co., Ltd. (Manufacturer: ASAP TECHNOLOGY (Jiangxi) CO., LTD)		7
Battery	HB496493EGW	Dongguan NVT Technology Co., Ltd.		1
		Shenzhen Sunwoda Intelligence Technology Co., Ltd.		2
Earphone	MEND1532B528A11	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.		1
	1293-3283-3.5mm-339	Boluo County Quancheng Electronic Co.,Ltd.		2
	EPAB542-2WH05-DH	FOXCONN INTERCONNECT TECHNOLOGY LIMITED		3
USB Cable	WA0046	GUANGXI BROAD TELECOMMUNICATION CO.,LTD		1
	AU2-CHO006HF	FREEPORT RESOURCES ENTERPRISES (JIANGXI) CO.,LTD		2
	213-00989-0	DONGGUAN MINGJI ELECTRONICS TECHNOLOGY GROUP CO.,LTD		3
	L99UC138-CS-H	LUXSHARE PRECISION INDUSTRY CO.,LTD		4
<p>Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.</p> <p>2. There is more than Adapter/Battery/ Earphone /USB cable, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 4/ Battery 1/ Earphone 3/ USB cable 4) will be recorded in this report.</p>				

### 3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**Test standards:**

**FCC CFR 47 Part 24E (2021)**

**FCC CFR47 Part 2 (2021)**

**Reference standard:**

**ANSI C63.26-2015**

**KDB 971168 D01 Power Meas License Digital Systems v03r01**

## 4. Test Configuration

There is more than one SIM card slot, each one should be applied throughout the compliance test respectively, and however, only the worst case (SIM 1) will be recorded in this report.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. 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 (X axis, horizontal polarization for Main Antenna and Z axis, vertical polarization for Second Antenna) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated. Subsequently, only the worst case emissions are reported.

The following testing in GSM/WCDMA/LTE is set based on the maximum RF Output Power.

Test modes are chosen to be reported as the worst case configuration below:

Test items	Modes/Modulation	
	GSM 1900	WCDMA Band II
RF Power Output and Effective Isotropic Radiated Power	GSM GPRS EGPRS	RMC/AMR HSDPA/HSUPA DC-HSDPA
Occupied Bandwidth	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Band Edge Compliance	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Peak-to-Average Power Ratio	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Frequency Stability	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Spurious Emissions at Antenna Terminals	GSM	RMC
Radiates Spurious Emission	GSM	RMC





Test modes are chosen to be reported as the worst case configuration below for LTE Band 2:

Test items	Bandwidth (MHz)						Modulation		RB			Test Channel		
	1.4	3	5	10	15	20	QPSK	16QAM/ 64QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	O	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	O	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	O	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	O	-	O	-	-	O	O	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.													

## 5. Test Case

### 5.1. RF Power Output and Effective Isotropic Radiated Power

#### Ambient condition

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

#### Methods of Measurement

During the process of the testing, The EUT was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

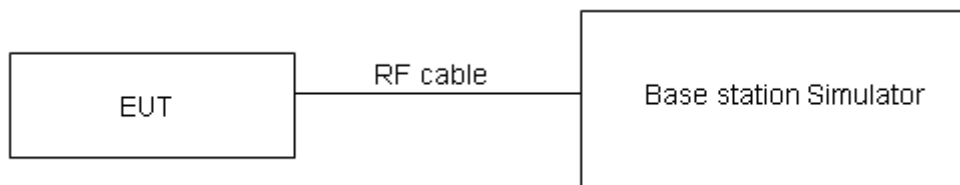
ERP can then be calculated as follows:

$$\text{EIRP (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$$

where:dBd refers to gain relative to an ideal dipole.

$$\text{EIRP (dBm)} = \text{ERP (dBm)} + 2.15 \text{ (dB.)}$$

#### Test Setup



#### Limits

No specific RF power output requirements in part 2.1046.

Rule Part 24.232(c) Mobile and portable stations are limited to 2 watts EIRP.

Rule Part 24.232(e) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

Limit	$\leq 2 \text{ W}$ (33 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  $k = 2$ ,  $U = 0.4 \text{ dB}$  for RF power output,  $k = 2$ ,  $U = 1.19 \text{ dB}$  for EIRP.

#### Test Results

Refer to the section 6.1 of this report for test data.

## 5.2.Occupied Bandwidth

### Ambient condition

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

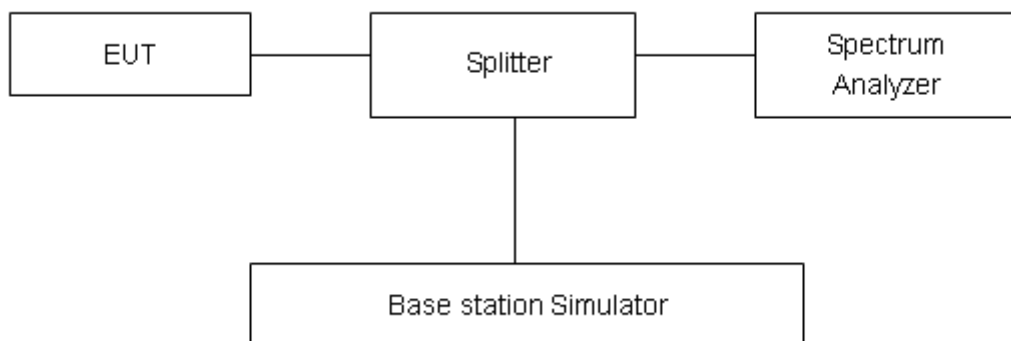
### Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer.

RBW is set to  $\geq 1\%EBW$ , VBW is set to 3x RBW.

99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

### Test Setup



### Limits

No specific occupied bandwidth requirements in part 2.1049.

### Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor  $k = 2$ ,  $U = 624\text{Hz}$ .

### Test Results

Refer to the section 6.2 of this report for test data.

### 5.3. Band Edge Compliance

#### Ambient condition

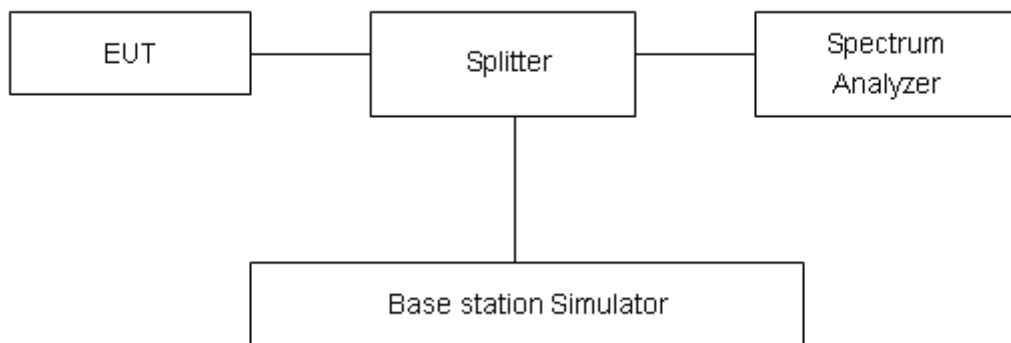
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

#### Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured. The Average detector is used and RBW is set to  $\geq 1\%EBW$ , VBW is set to 3x RBW.

Spectrum analyzer plots are included on the following pages.

#### 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 95% confidence level for the normal distribution is with the coverage factor  $k = 1.96$ ,  $U=0.684dB$ .

#### Test Results

Refer to the section 6.3 of this report for test data.

### 5.4. Peak-to-Average Power Ratio (PAPR)

#### Ambient condition

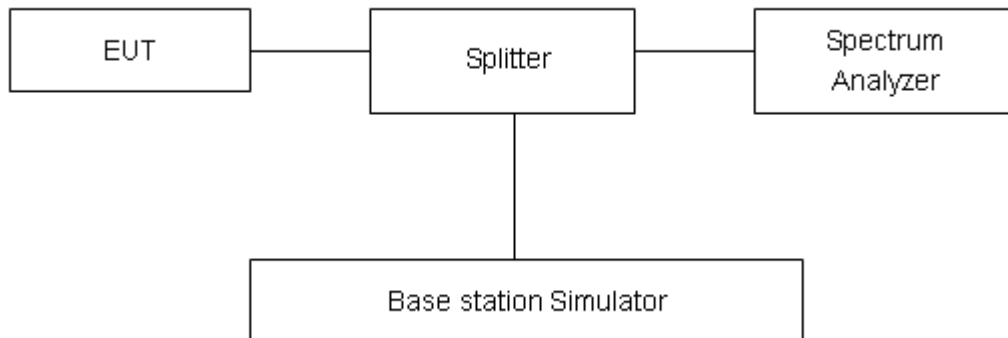
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

#### 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:

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

#### 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

Refer to the section 6.4 of this report for test data.

## 5.5. 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 0°C to +35°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 0°C to +35°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

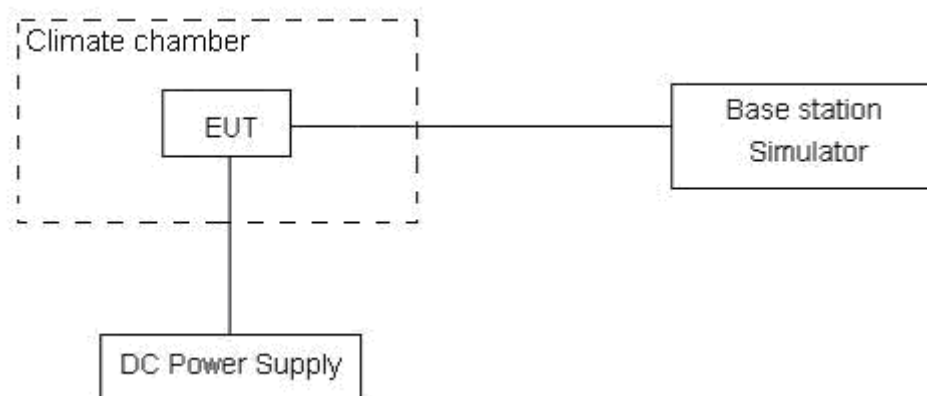
#### Frequency Stability (Voltage Variation)

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

**Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced 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 3.6 V and 4.48 V, with a nominal voltage of 3.88V.

### Test setup



**Limits**

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block

**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 Results**

Refer to the section 6.5 of this report for test data.

## 5.6. 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.

RBW is set to 1 kHz (0.009MHz~ 0.15 MHz),

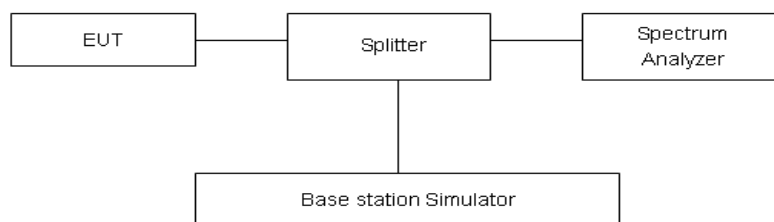
RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

RBW is set to 100 kHz (30MHz~1000 MHz)

RBW is set to 1000 kHz (above 1000MHz)

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

### 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 Results

Refer to the section 6.6 of this report for test data.



## 5.7. Radiates Spurious Emission

### Ambient condition

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

### Method of Measurement

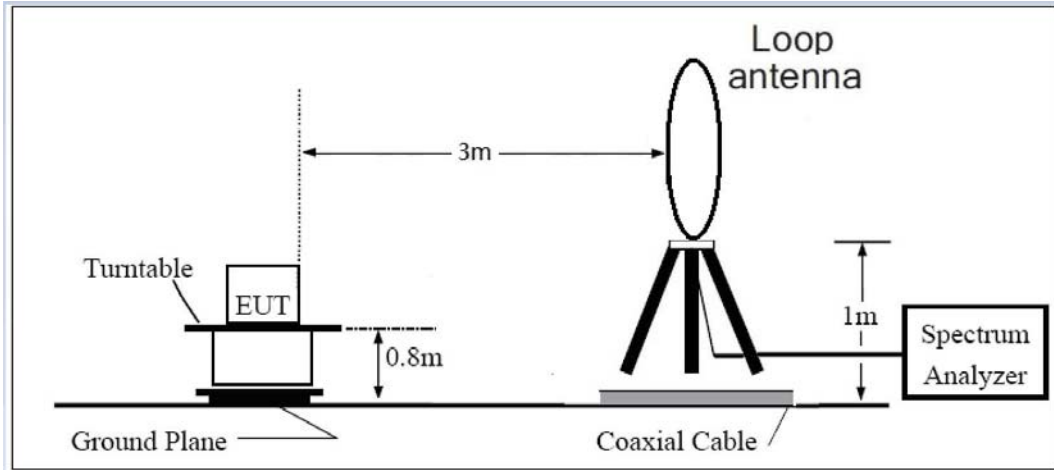
1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable 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). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 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 loop antenna, A log-periodic antenna or 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:  
Power(EIRP)=PMea- PAg - Pcl + Ga  
The measurement results are amend as described below:  
Power(EIRP)=PMea- Pcl + Ga
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dB.

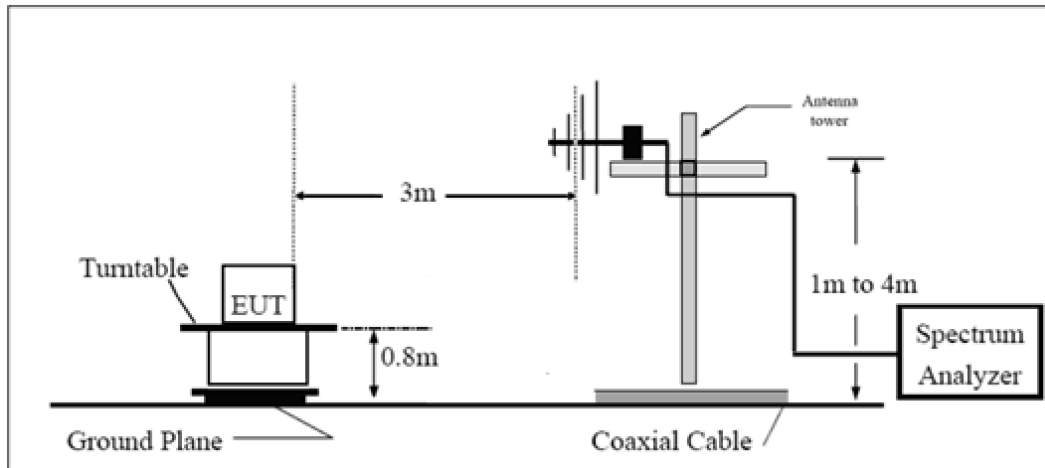
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

**Test setup**

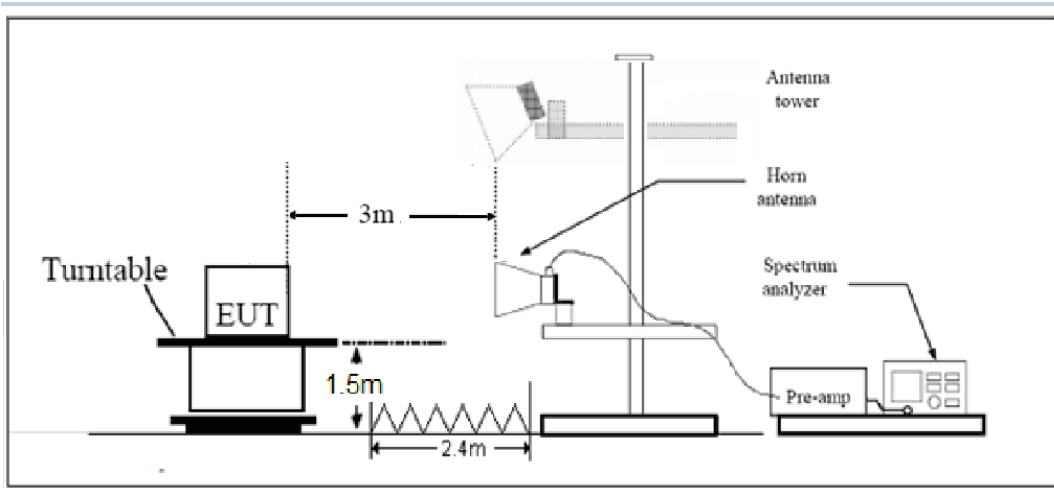
**9KHz ~ 30MHz**



**30MHz ~ 1GHz**



**Above 1GHz**



Note: Area side: 2.4mX3.6m

**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 Results**

Refer to the section 6.7 of this report for test data.

## 6. Test Results

### 6.1. RF Power Output and Effective Isotropic Radiated Power

GSM 1900		Maximum Output Power (dBm)			Main Antenna EIRP (dBm)			Second Antenna EIRP (dBm)		
		Channel 512	Channel 661	Channel 810	Channel 512	Channel 661	Channel 810	Channel 512	Channel 661	Channel 810
		1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)	1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)	1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)
GSM(GMSK)	Results	29.77	30.03	29.97	26.67	26.93	26.87	26.27	26.53	26.47
GPRS (GMSK)	1TXslot	29.42	30.01	29.81	26.32	26.91	26.71	25.92	26.51	26.31
	2TXslots	26.08	26.52	26.47	22.98	23.42	23.37	22.58	23.02	22.97
	3TXslots	23.71	24.21	24.05	20.61	21.11	20.95	20.21	20.71	20.55
	4TXslots	22.03	22.45	22.17	18.93	19.35	19.07	18.53	18.95	18.67
EGPRS (8PSK)	1TXslot	25.01	25.05	24.91	21.91	21.95	21.81	21.51	21.55	21.41
	2TXslots	22.65	23.02	22.45	19.55	19.92	19.35	19.15	19.52	18.95
	3TXslots	19.78	20.42	20.01	16.68	17.32	16.91	16.28	16.92	16.51
	4TXslots	18.39	18.70	18.51	15.29	15.60	15.41	14.89	15.20	15.01

WCDMA Band II		Maximum Output Power (dBm)			Main Antenna EIRP (dBm)			Second Antenna EIRP (dBm)		
		Channel 9262	Channel 9400	Channel 9538	Channel 9262	Channel 9400	Channel 9538	Channel 9262	Channel 9400	Channel 9538
		1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)	1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)	1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)
RMC		22.16	22.09	22.05	19.06	18.99	18.95	18.66	18.59	18.55
AMR		22.30	22.19	22.15	19.20	19.09	19.05	18.80	18.69	18.65
HSDPA	Sub - Test 1	22.18	21.99	22.21	19.08	18.89	19.11	18.68	18.49	18.71
	Sub - Test 2	22.22	22.21	21.93	19.12	19.11	18.83	18.72	18.71	18.43
	Sub - Test 3	21.72	21.57	21.67	18.62	18.47	18.57	18.22	18.07	18.17
	Sub - Test 4	21.52	21.61	21.51	18.42	18.51	18.41	18.02	18.11	18.01
HSUPA	Sub - Test 1	20.74	20.83	20.79	17.64	17.73	17.69	17.24	17.33	17.29
	Sub - Test 2	20.08	19.93	19.91	16.98	16.83	16.81	16.58	16.43	16.41
	Sub - Test 3	20.88	20.87	20.89	17.78	17.77	17.79	17.38	17.37	17.39
	Sub - Test 4	19.92	19.73	19.71	16.82	16.63	16.61	16.42	16.23	16.21
	Sub - Test 5	22.00	21.79	21.71	18.90	18.69	18.61	18.50	18.29	18.21
DC-HSDPA	Sub - Test 1	21.98	22.01	21.73	18.88	18.91	18.63	18.48	18.51	18.23
	Sub - Test 2	21.80	21.83	21.83	18.70	18.73	18.73	18.30	18.33	18.33
	Sub - Test 3	21.42	21.49	21.47	18.32	18.39	18.37	17.92	17.99	17.97
	Sub - Test 4	21.58	21.27	21.25	18.48	18.17	18.15	18.08	17.77	17.75



LTE Band 2				Maximum Output Power (dBm)			Main Antenna EIRP (dBm)			Second Antenna EIRP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)								
				18607/1850.7	18900/1880	19193/1909.3	18607/1850.7	18900/1880	19193/1909.3	18607/1850.7	18900/1880	19193/1909.3
1.4MHz	QPSK	1	0	22.47	22.48	22.49	19.37	19.38	19.39	19.27	19.28	19.29
		1	2	22.71	22.67	22.60	19.61	19.57	19.50	19.51	19.47	19.40
		1	5	22.14	22.07	22.09	19.04	18.97	18.99	18.94	18.87	18.89
		3	0	23.07	23.03	23.19	19.97	19.93	20.09	19.87	19.83	19.99
		3	2	23.12	23.18	23.27	20.02	20.08	20.17	19.92	19.98	20.07
		3	3	22.93	22.87	23.01	19.83	19.77	19.91	19.73	19.67	19.81
		6	0	22.09	22.15	22.13	18.99	19.05	19.03	18.89	18.95	18.93
	16QAM	1	0	22.03	22.27	22.31	18.93	19.17	19.21	18.83	19.07	19.11
		1	2	22.20	22.35	22.24	19.10	19.25	19.14	19.00	19.15	19.04
		1	5	21.78	21.84	21.73	18.68	18.74	18.63	18.58	18.64	18.53
		3	0	21.97	22.08	22.03	18.87	18.98	18.93	18.77	18.88	18.83
		3	2	22.07	22.16	22.04	18.97	19.06	18.94	18.87	18.96	18.84
		3	3	21.83	21.95	22.02	18.73	18.85	18.92	18.63	18.75	18.82
		6	0	21.01	21.13	21.04	17.91	18.03	17.94	17.81	17.93	17.84
	64QAM	1	0	20.95	21.11	21.08	17.85	18.01	17.98	17.75	17.91	17.88
		1	2	21.12	21.25	21.23	18.02	18.15	18.13	17.92	18.05	18.03
		1	5	20.85	20.83	20.72	17.75	17.73	17.62	17.65	17.63	17.52
		3	0	21.12	21.03	20.98	18.02	17.93	17.88	17.92	17.83	17.78
		3	2	21.08	21.20	21.17	17.98	18.10	18.07	17.88	18.00	17.97
		3	3	20.78	20.90	20.93	17.68	17.80	17.83	17.58	17.70	17.73
		6	0	20.16	20.13	19.94	17.06	17.03	16.84	16.96	16.93	16.74
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)								
				18615/1851.5	18900/1880	19185/1908.5	18615/1851.5	18900/1880	19185/1908.5	18615/1851.5	18900/1880	19185/1908.5
3MHz	QPSK	1	0	22.49	22.52	22.52	19.39	19.42	19.42	19.29	19.32	19.32
		1	7	22.69	22.70	22.64	19.59	19.60	19.54	19.49	19.50	19.44
		1	14	22.17	22.12	22.13	19.07	19.02	19.03	18.97	18.92	18.93
		8	0	22.17	22.15	22.32	19.07	19.05	19.22	18.97	18.95	19.12
		8	4	22.24	22.28	22.39	19.14	19.18	19.29	19.04	19.08	19.19
		8	7	22.03	21.98	22.11	18.93	18.88	19.01	18.83	18.78	18.91
		15	0	22.09	22.19	22.16	18.99	19.09	19.06	18.89	18.99	18.96
	16QAM	1	0	22.03	22.29	22.34	18.93	19.19	19.24	18.83	19.09	19.14
		1	7	22.20	22.35	22.28	19.10	19.25	19.18	19.00	19.15	19.08
		1	14	21.80	21.88	21.76	18.70	18.78	18.66	18.60	18.68	18.56
		8	0	21.08	21.21	21.15	17.98	18.11	18.05	17.88	18.01	17.95
		8	4	21.18	21.29	21.16	18.08	18.19	18.06	17.98	18.09	17.96
		8	7	20.93	21.07	21.15	17.83	17.97	18.05	17.73	17.87	17.95



	64QAM	15	0	21.04	21.17	21.07	17.94	18.07	17.97	17.84	17.97	17.87	
		1	0	20.98	21.13	21.11	17.88	18.03	18.01	17.78	17.93	17.91	
		1	7	21.15	21.25	21.25	18.05	18.15	18.15	17.95	18.05	18.05	
		1	14	20.87	20.82	20.75	17.77	17.72	17.65	17.67	17.62	17.55	
		8	0	20.23	20.16	20.10	17.13	17.06	17.00	17.03	16.96	16.90	
		8	4	20.19	20.33	20.29	17.09	17.23	17.19	16.99	17.13	17.09	
		8	7	19.88	20.02	20.06	16.78	16.92	16.96	16.68	16.82	16.86	
		15	0	20.19	20.17	19.97	17.09	17.07	16.87	16.99	16.97	16.77	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)									
				18625/1852.5	18900/1880	19175/1907.5	18625/1852.5	18900/1880	19175/1907.5	18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	22.46	22.50	22.48	19.36	19.40	19.38	19.26	19.30	19.28	
		1	13	22.67	22.66	22.61	19.57	19.56	19.51	19.47	19.46	19.41	
		1	24	22.14	22.07	22.09	19.04	18.97	18.99	18.94	18.87	18.89	
		12	0	22.14	22.10	22.28	19.04	19.00	19.18	18.94	18.90	19.08	
		12	6	22.22	22.24	22.34	19.12	19.14	19.24	19.02	19.04	19.14	
		12	13	22.01	21.96	22.07	18.91	18.86	18.97	18.81	18.76	18.87	
		25	0	22.09	22.18	22.14	18.99	19.08	19.04	18.89	18.98	18.94	
	16QAM	1	0	22.03	22.25	22.31	18.93	19.15	19.21	18.83	19.05	19.11	
		1	13	22.20	22.33	22.25	19.10	19.23	19.15	19.00	19.13	19.05	
		1	24	21.77	21.86	21.72	18.67	18.76	18.62	18.57	18.66	18.52	
		12	0	21.06	21.17	21.12	17.96	18.07	18.02	17.86	17.97	17.92	
		12	6	21.15	21.24	21.12	18.05	18.14	18.02	17.95	18.04	17.92	
		12	13	20.90	21.02	21.11	17.80	17.92	18.01	17.70	17.82	17.91	
		25	0	21.02	21.13	21.02	17.92	18.03	17.92	17.82	17.93	17.82	
	64QAM	1	0	20.95	21.13	21.08	17.85	18.03	17.98	17.75	17.93	17.88	
		1	13	21.12	21.27	21.22	18.02	18.17	18.12	17.92	18.07	18.02	
		1	24	20.88	20.80	20.71	17.78	17.70	17.61	17.68	17.60	17.51	
		12	0	20.21	20.12	20.11	17.11	17.02	17.01	17.01	16.92	16.91	
		12	6	20.16	20.28	20.25	17.06	17.18	17.15	16.96	17.08	17.05	
		12	13	19.85	19.97	20.02	16.75	16.87	16.92	16.65	16.77	16.82	
		25	0	20.17	20.13	19.92	17.07	17.03	16.82	16.97	16.93	16.72	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)								
					18650/1855	18900/1880	19150/1905	18650/1855	18900/1880	19150/1905	18650/1855	18900/1880	19150/1905
	10MHz	QPSK	1	0	22.48	22.51	22.51	19.38	19.41	19.41	19.28	19.31	19.31
1			25	22.70	22.71	22.65	19.60	19.61	19.55	19.50	19.51	19.45	
1			49	22.16	22.11	22.12	19.06	19.01	19.02	18.96	18.91	18.92	
25			0	22.17	22.15	22.32	19.07	19.05	19.22	18.97	18.95	19.12	
25			13	22.25	22.29	22.38	19.15	19.19	19.28	19.05	19.09	19.18	
25			25	22.03	22.00	22.12	18.93	18.90	19.02	18.83	18.80	18.92	
50			0	22.13	22.20	22.18	19.03	19.10	19.08	18.93	19.00	18.98	
16QAM		1	0	22.07	22.28	22.33	18.97	19.18	19.23	18.87	19.08	19.13	



		1	25	22.24	22.37	22.28	19.14	19.27	19.18	19.04	19.17	19.08	
		1	49	21.80	21.88	21.75	18.70	18.78	18.65	18.60	18.68	18.55	
		25	0	21.09	21.22	21.16	17.99	18.12	18.06	17.89	18.02	17.96	
		25	13	21.17	21.28	21.15	18.07	18.18	18.05	17.97	18.08	17.95	
		25	25	20.93	21.07	21.15	17.83	17.97	18.05	17.73	17.87	17.95	
		50	0	21.05	21.18	21.06	17.95	18.08	17.96	17.85	17.98	17.86	
	64QAM	1	0	20.97	21.12	21.10	17.87	18.02	18.00	17.77	17.92	17.90	
		1	25	21.15	21.27	21.25	18.05	18.17	18.15	17.95	18.07	18.05	
		1	49	20.87	20.82	20.74	17.77	17.72	17.64	17.67	17.62	17.54	
		25	0	20.24	20.17	20.11	17.14	17.07	17.01	17.04	16.97	16.91	
		25	13	20.18	20.32	20.28	17.08	17.22	17.18	16.98	17.12	17.08	
		25	25	19.88	20.02	20.06	16.78	16.92	16.96	16.68	16.82	16.86	
			50	0	20.20	20.18	19.96	17.10	17.08	16.86	17.00	16.98	16.76
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)								
18675/1857.5					18900/1880	19125/1902.5	18675/1857.5	18900/1880	19125/1902.5	18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.47	22.47	22.49	19.37	19.37	19.39	19.27	19.27	19.29	
		1	38	22.68	22.70	22.62	19.58	19.60	19.52	19.48	19.50	19.42	
		1	74	22.13	22.06	22.08	19.03	18.96	18.98	18.93	18.86	18.88	
		36	0	22.15	22.11	22.29	19.05	19.01	19.19	18.95	18.91	19.09	
		36	18	22.22	22.24	22.34	19.12	19.14	19.24	19.02	19.04	19.14	
		36	39	22.00	21.97	22.08	18.90	18.87	18.98	18.80	18.77	18.88	
		75	0	22.11	22.16	22.13	19.01	19.06	19.03	18.91	18.96	18.93	
	16QAM	1	0	22.05	22.26	22.31	18.95	19.16	19.21	18.85	19.06	19.11	
		1	38	22.22	22.34	22.26	19.12	19.24	19.16	19.02	19.14	19.06	
		1	74	21.78	21.84	21.72	18.68	18.74	18.62	18.58	18.64	18.52	
		36	0	21.06	21.20	21.13	17.96	18.10	18.03	17.86	18.00	17.93	
		36	18	21.14	21.23	21.11	18.04	18.13	18.01	17.94	18.03	17.91	
		36	39	20.91	21.03	21.12	17.81	17.93	18.02	17.71	17.83	17.92	
		75	0	21.02	21.13	21.02	17.92	18.03	17.92	17.82	17.93	17.82	
	64QAM	1	0	20.92	21.10	21.08	17.82	18.00	17.98	17.72	17.90	17.88	
		1	38	21.13	21.24	21.23	18.03	18.14	18.13	17.93	18.04	18.03	
		1	74	20.88	20.81	20.75	17.78	17.71	17.65	17.68	17.61	17.55	
		36	0	20.23	20.19	20.12	17.13	17.09	17.02	17.03	16.99	16.92	
		36	18	20.16	20.29	20.27	17.06	17.19	17.17	16.96	17.09	17.07	
		36	39	19.86	19.98	20.03	16.76	16.88	16.93	16.66	16.78	16.83	
		75	0	20.17	20.13	19.92	17.07	17.03	16.82	16.97	16.93	16.72	
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)									
				18700/1860	18900/1880	19100/1900	18700/1860	18900/1880	19100/1900	18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	22.44	22.43	22.46	19.34	19.33	19.36	19.24	19.23	19.26	
		1	50	22.67	22.66	22.60	19.57	19.56	19.50	19.47	19.46	19.40	
		1	99	22.11	22.05	22.05	19.01	18.95	18.95	18.91	18.85	18.85	



		50	0	22.12	22.06	22.25	19.02	18.96	19.15	18.92	18.86	19.05
		50	25	22.20	22.20	22.31	19.10	19.10	19.21	19.00	19.00	19.11
		50	50	21.97	21.92	22.04	18.87	18.82	18.94	18.77	18.72	18.84
		100	0	22.08	22.11	22.09	18.98	19.01	18.99	18.88	18.91	18.89
	16QAM	1	0	22.02	22.22	22.26	18.92	19.12	19.16	18.82	19.02	19.06
		1	50	22.19	22.32	22.22	19.09	19.22	19.12	18.99	19.12	19.02
		1	99	21.75	21.81	21.70	18.65	18.71	18.60	18.55	18.61	18.50
		50	0	21.03	21.16	21.10	17.93	18.06	18.00	17.83	17.96	17.90
		50	25	21.11	21.21	21.08	18.01	18.11	17.98	17.91	18.01	17.88
		50	50	20.88	20.98	21.08	17.78	17.88	17.98	17.68	17.78	17.88
		100	0	21.00	21.09	20.99	17.90	17.99	17.89	17.80	17.89	17.79
	64QAM	1	0	20.90	21.06	21.03	17.80	17.96	17.93	17.70	17.86	17.83
		1	50	21.09	21.22	21.19	17.99	18.12	18.09	17.89	18.02	17.99
		1	99	20.82	20.75	20.69	17.72	17.65	17.59	17.62	17.55	17.49
		50	0	20.18	20.11	20.05	17.08	17.01	16.95	16.98	16.91	16.85
		50	25	20.12	20.25	20.21	17.02	17.15	17.11	16.92	17.05	17.01
		50	50	19.83	19.93	19.99	16.73	16.83	16.89	16.63	16.73	16.79
		100	0	20.15	20.09	19.89	17.05	16.99	16.79	16.95	16.89	16.69



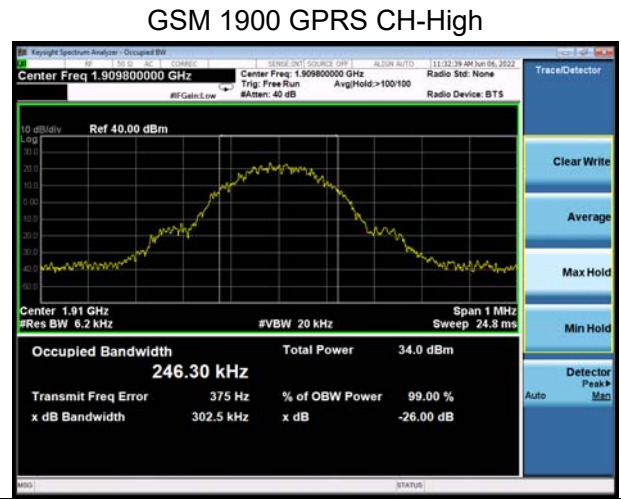
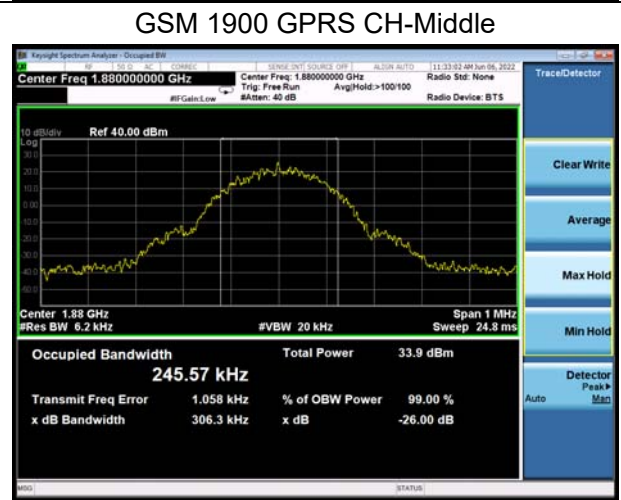
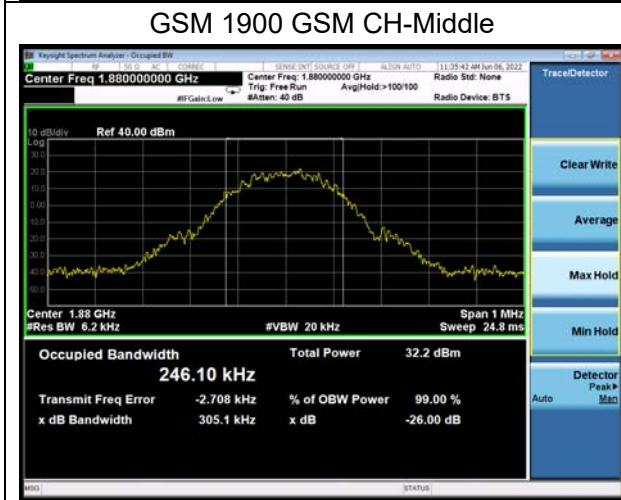
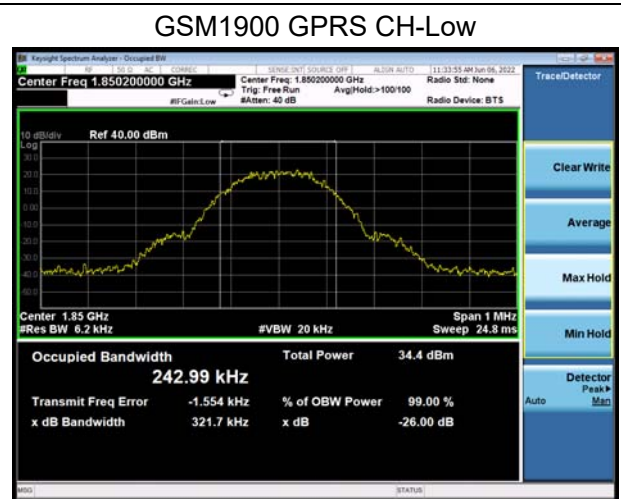
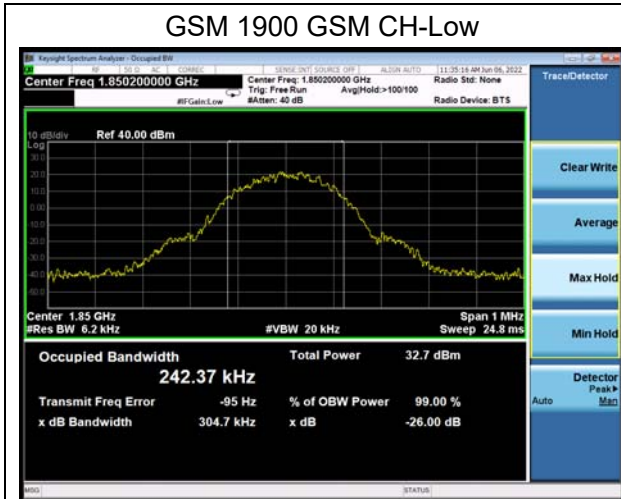
### 6.2.Occupied Bandwidth

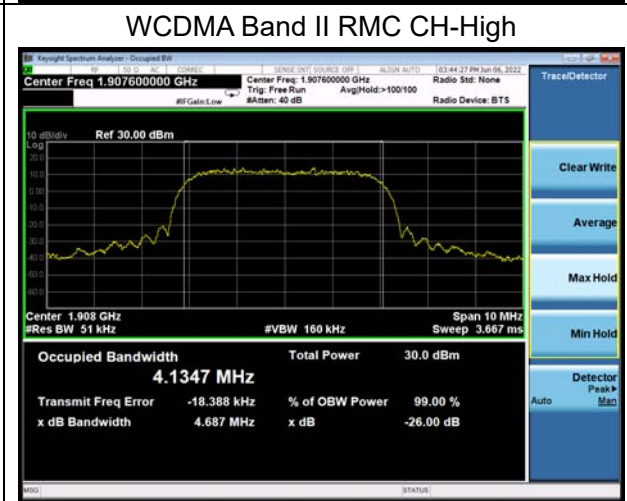
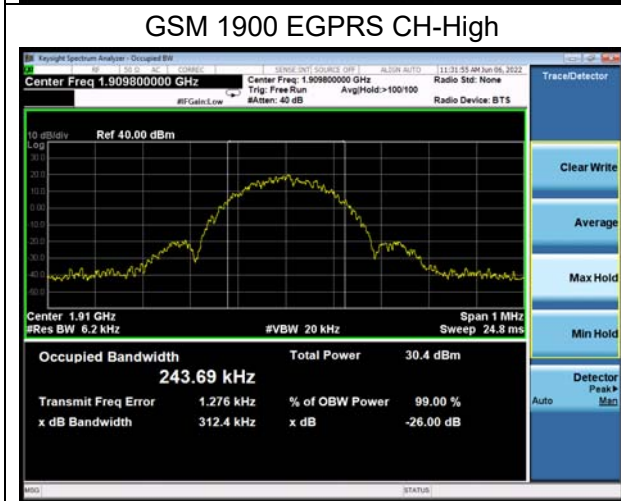
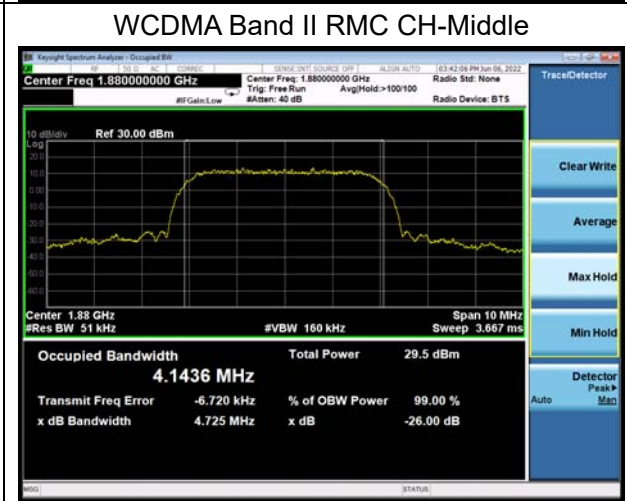
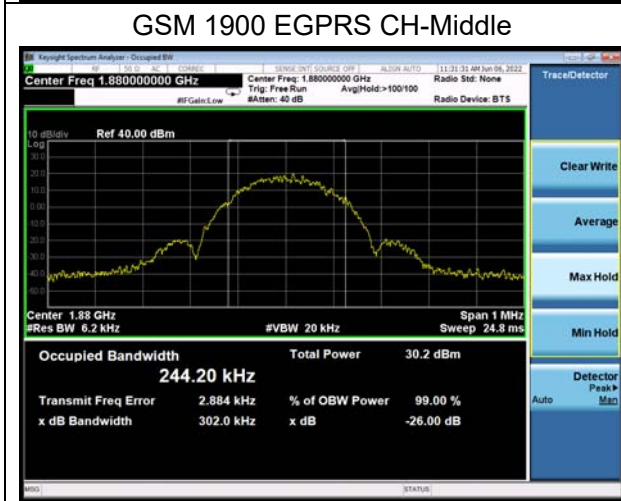
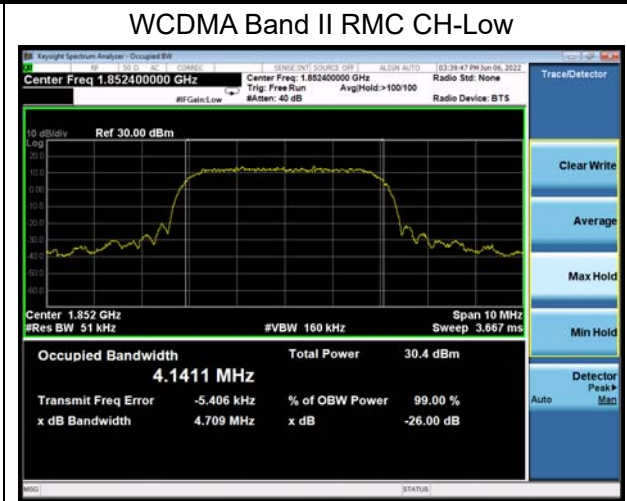
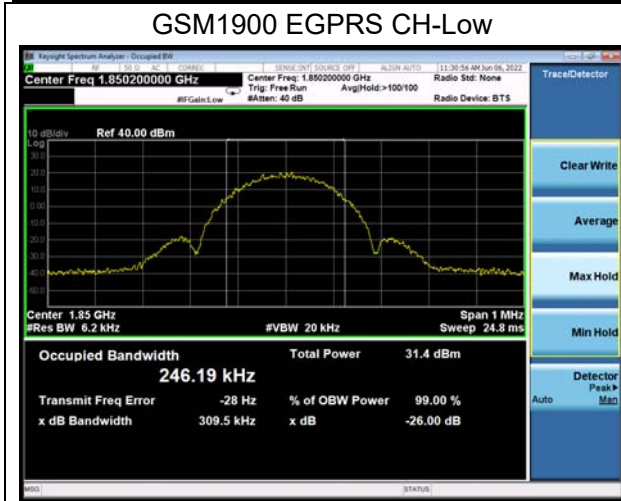
Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
<b>GSM 1900 (GMSK)</b>	512	1850.2	0.24237	0.3047
	661	1880.0	0.24610	0.3051
	810	1909.8	0.24293	0.3061
<b>GPRS 1900 (GMSK)</b>	512	1850.2	0.24299	0.3217
	661	1880.0	0.24557	0.3063
	810	1909.8	0.24630	0.3025
<b>EGPRS 1900 (8PSK)</b>	512	1850.2	0.24619	0.3095
	661	1880.0	0.24420	0.3020
	810	1909.8	0.24369	0.3124
<b>WCDMA Band II (RMC)</b>	9262	1852.4	4.1411	4.709
	9400	1880	4.1436	4.725
	9538	1907.6	4.1347	4.687

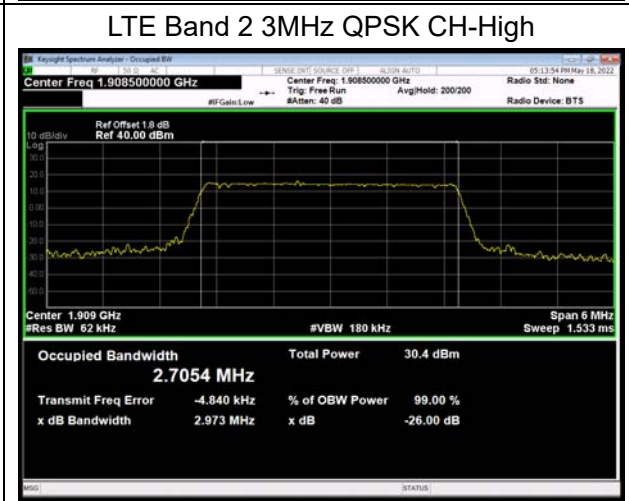
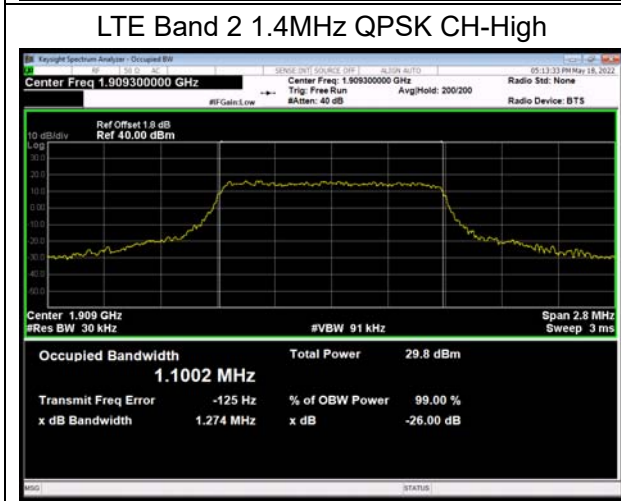
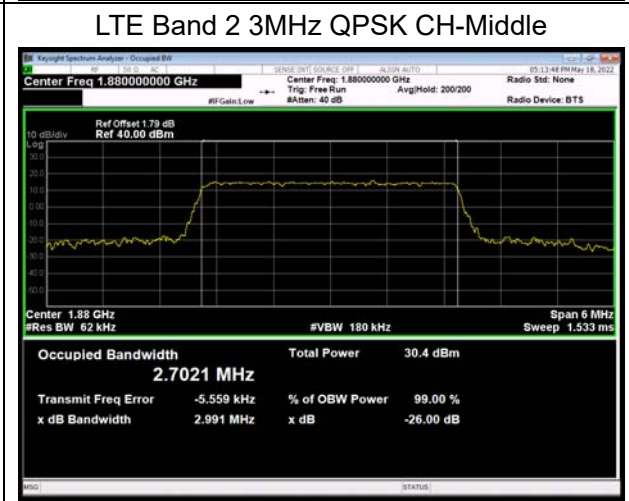
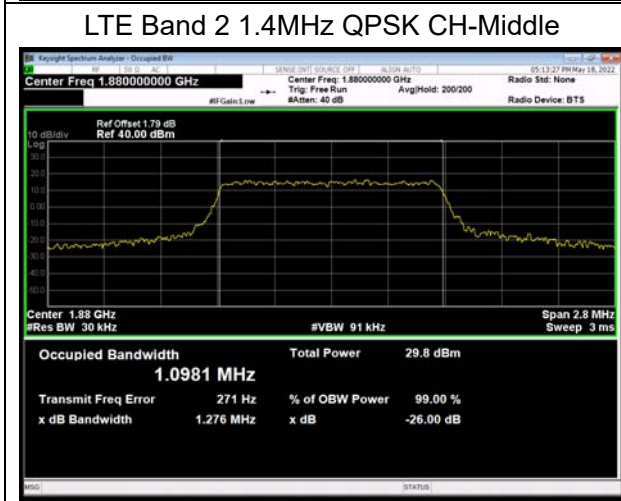
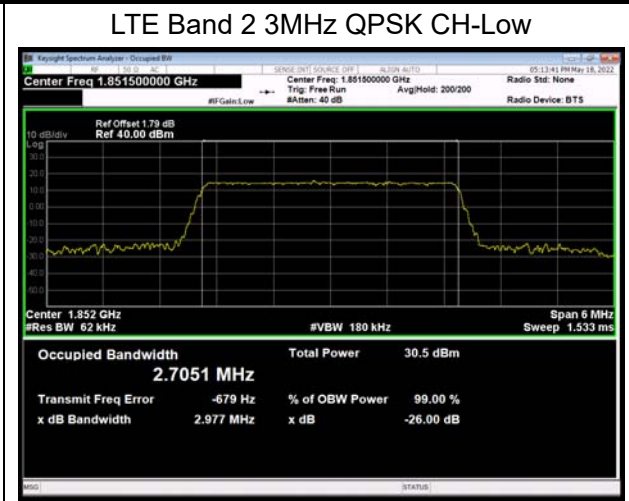
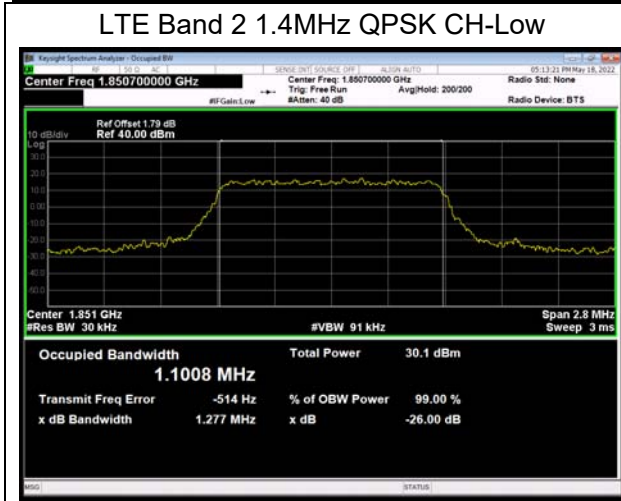
LTE Band 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	18607	1850.7	1.101	1.277
			18900	1880.0	1.098	1.276
			19193	1909.3	1.100	1.274
		3	18615	1851.5	2.705	2.977
			18900	1880	2.702	2.991
			19185	1908.5	2.705	2.973
		5	18625	1852.5	4.522	5.003
			18900	1880	4.521	5.019
			19175	1907.5	4.508	4.947
		10	18650	1855	8.970	9.842
			18900	1880	8.979	9.806
			19150	1905	8.968	9.649
		15	18675	1857.5	13.492	14.664
			18900	1880	13.422	14.512
			19125	1902.5	13.405	14.612
		20	18700	1860	17.951	19.404
			18900	1880	17.928	19.380



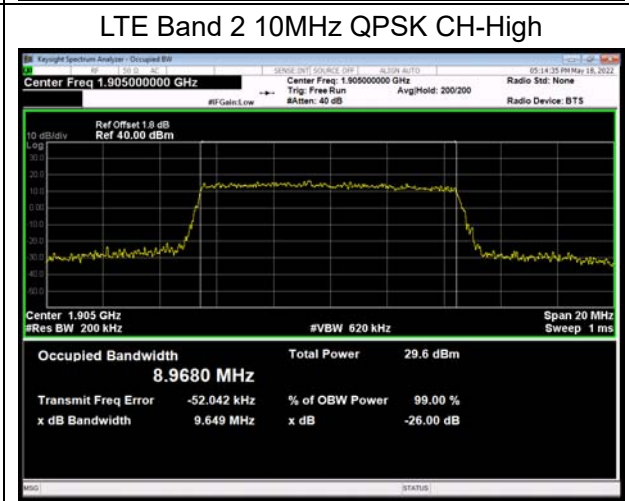
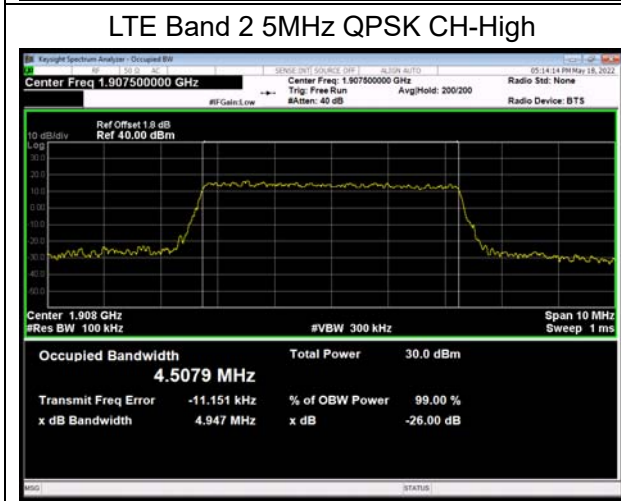
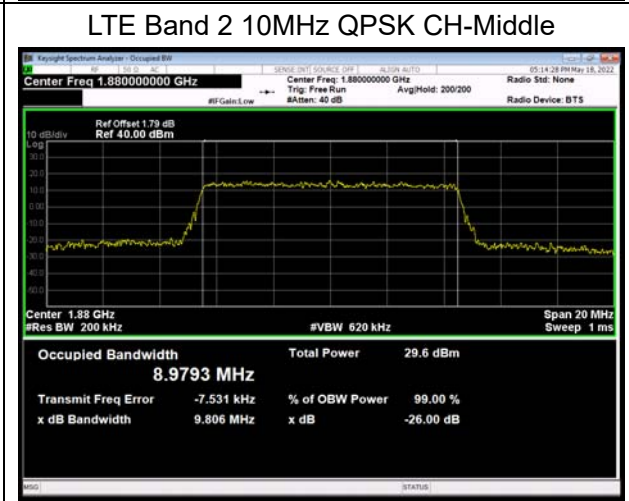
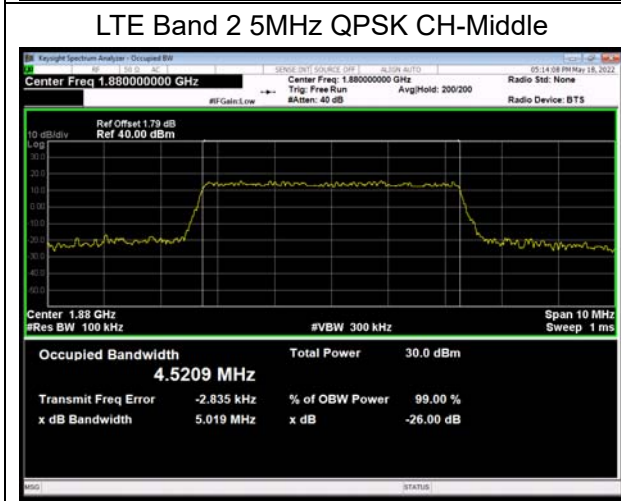
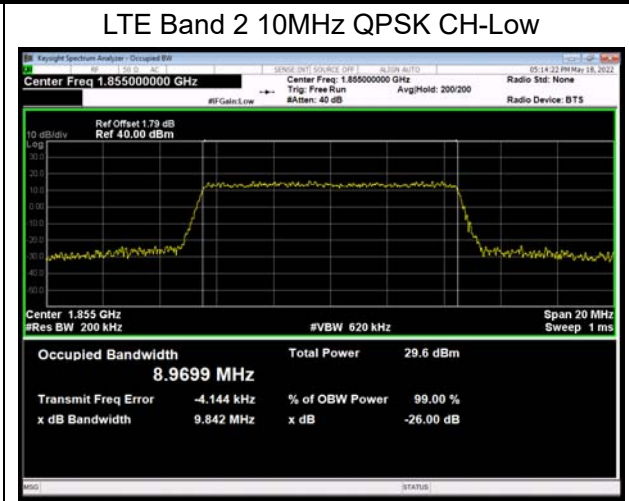
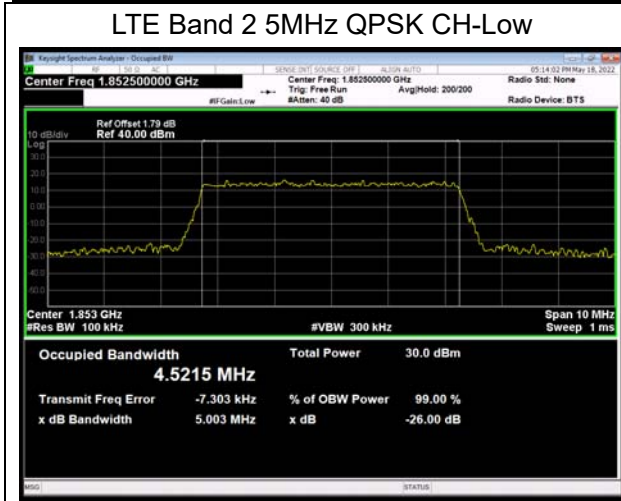
	16QAM	1.4	19100	1900	17.898	19.328
			18607	1850.7	1.098	1.309
			18900	1880.0	1.100	1.289
		19193	1909.3	1.098	1.268	
		3	18615	1851.5	2.703	2.949
			18900	1880	2.700	2.983
			19185	1908.5	2.698	2.998
		5	18625	1852.5	4.506	4.977
			18900	1880	4.532	5.011
			19175	1907.5	4.523	5.031
		10	18650	1855	8.980	9.815
			18900	1880	8.996	9.694
			19150	1905	8.935	9.737
		15	18675	1857.5	13.503	14.627
			18900	1880	13.463	14.534
			19125	1902.5	13.379	14.547
		20	18700	1860	17.949	19.390
			18900	1880	17.922	19.315
	19100		1900	17.901	19.032	
	64QAM	1.4	18607	1850.7	1.100	1.280
			18900	1880.0	1.099	1.285
			19193	1909.3	1.094	1.282
		3	18615	1851.5	2.691	2.972
			18900	1880	2.704	2.994
			19185	1908.5	2.695	3.005
		5	18625	1852.5	4.510	4.952
			18900	1880	4.532	5.024
			19175	1907.5	4.539	4.957
		10	18650	1855	8.984	9.810
			18900	1880	8.969	9.830
19150			1905	8.982	9.759	
15		18675	1857.5	13.434	14.768	
		18900	1880	13.447	14.711	
		19125	1902.5	13.408	14.391	
20		18700	1860	17.963	19.400	
		18900	1880	17.924	19.294	
		19100	1900	17.887	19.283	

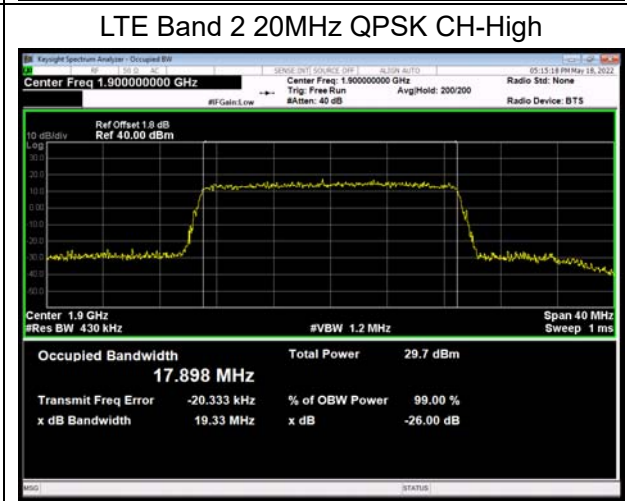
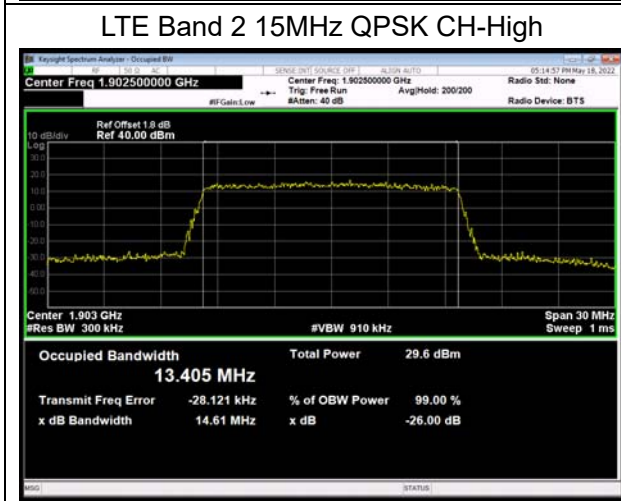
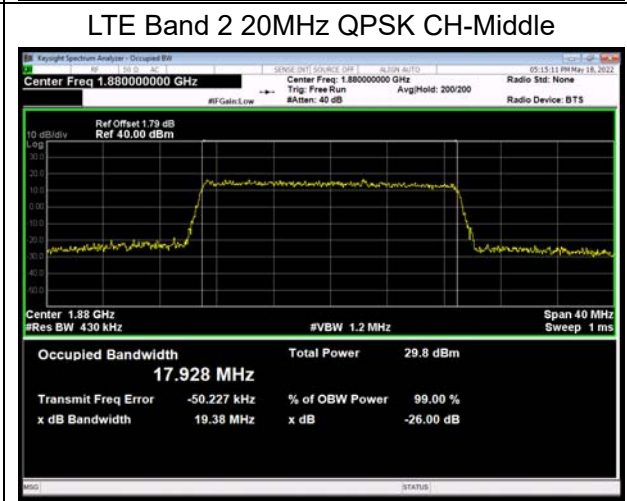
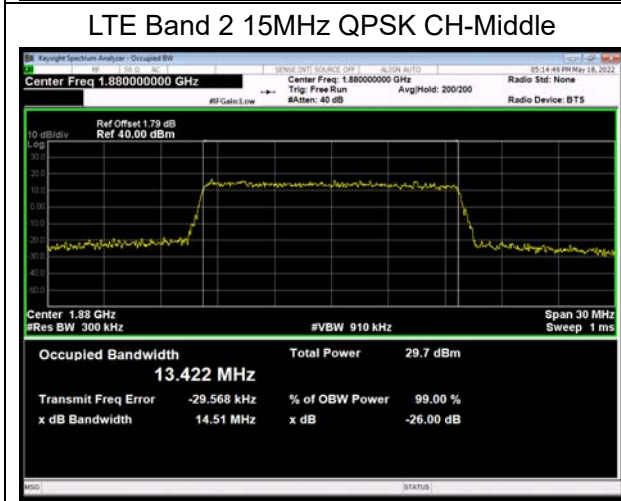
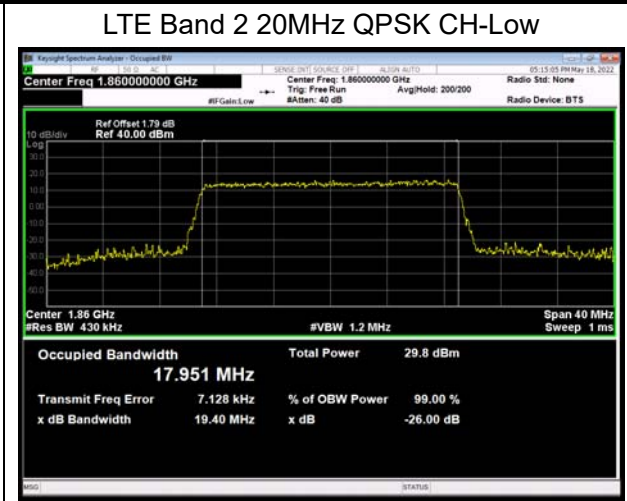
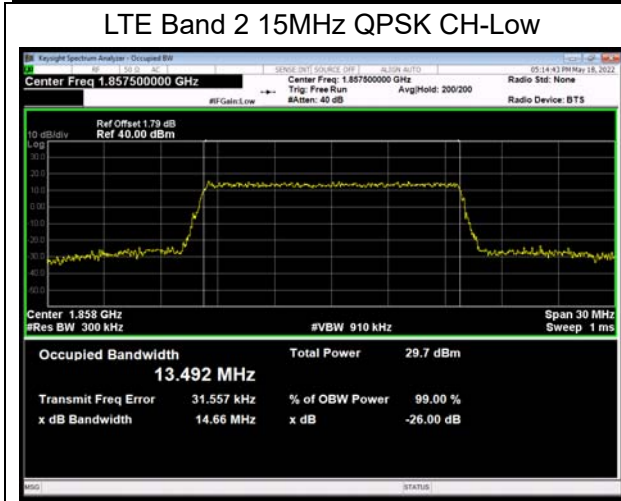


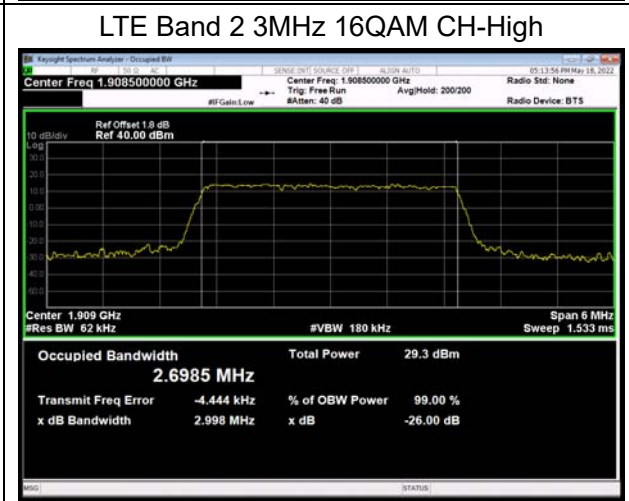
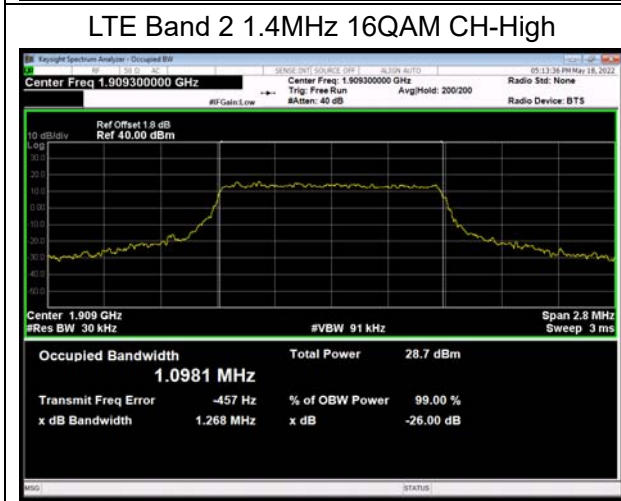
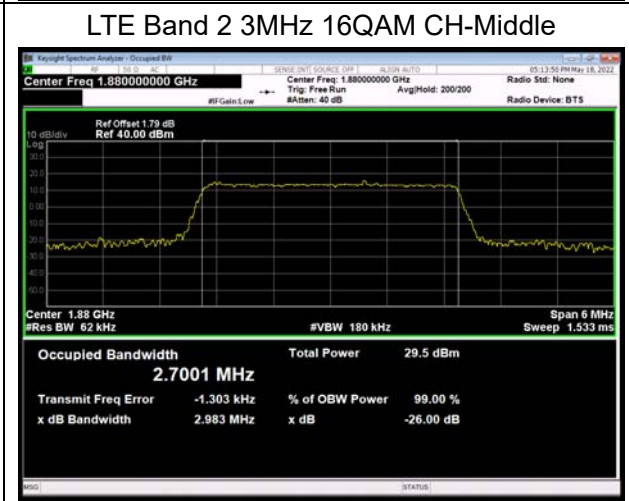
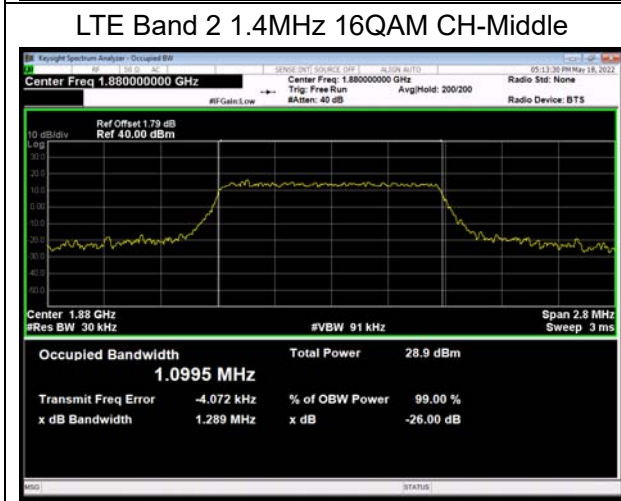
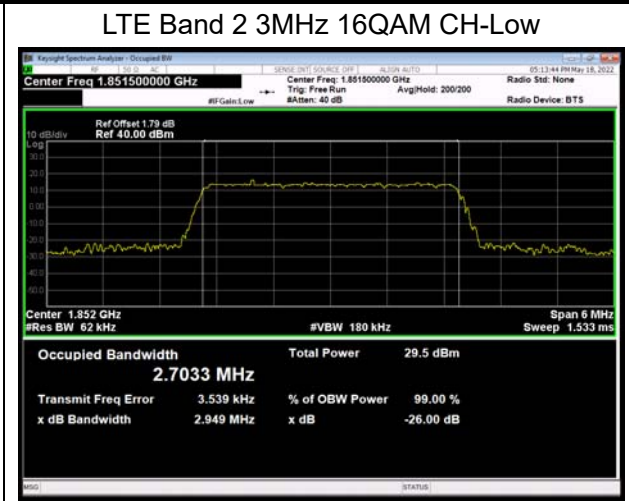
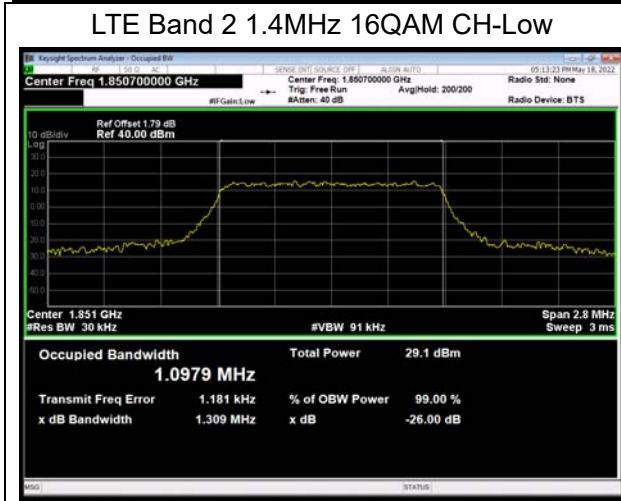




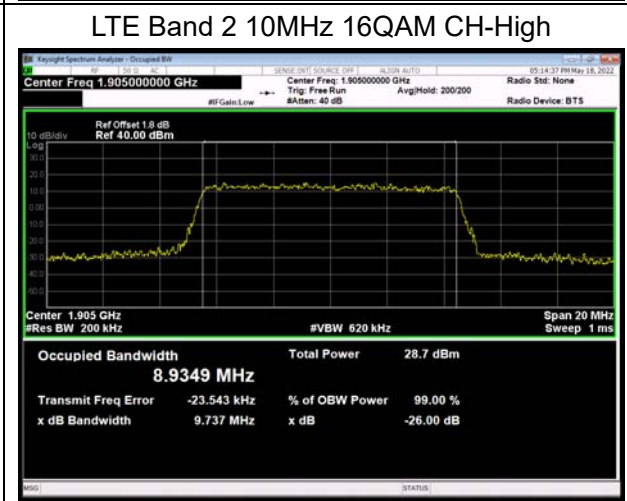
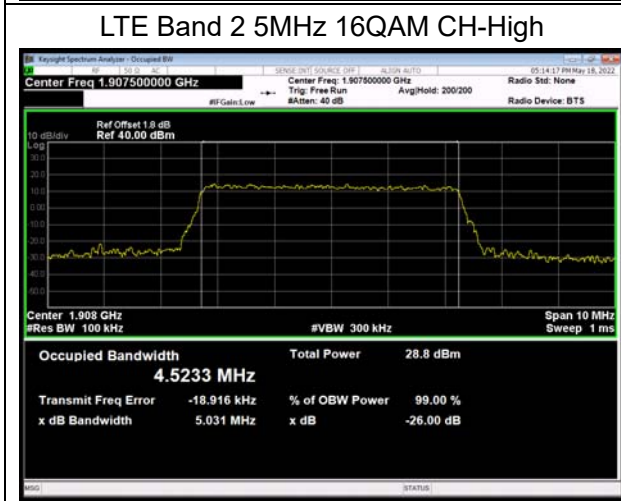
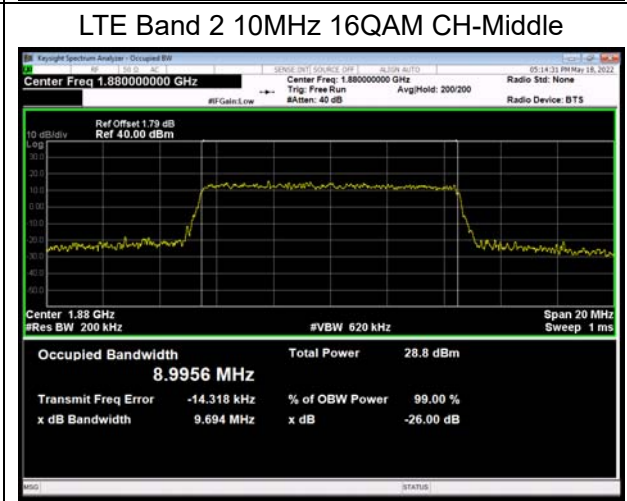
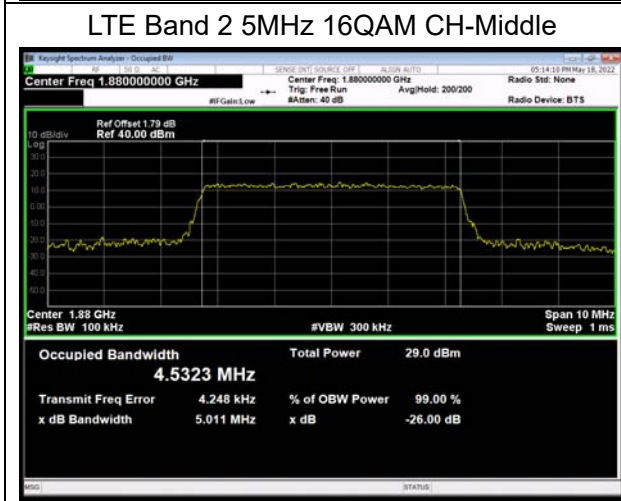
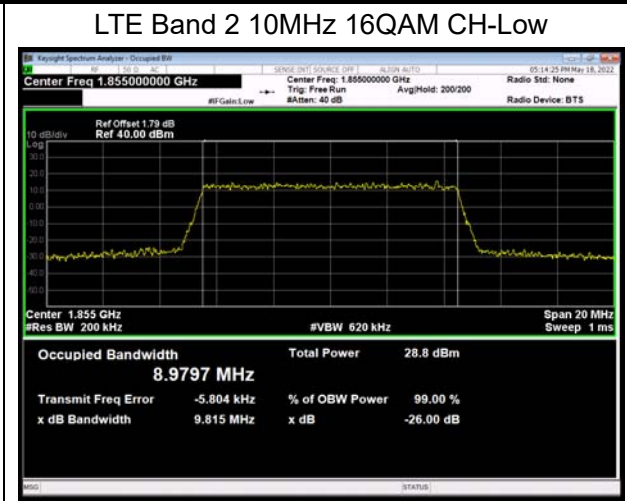
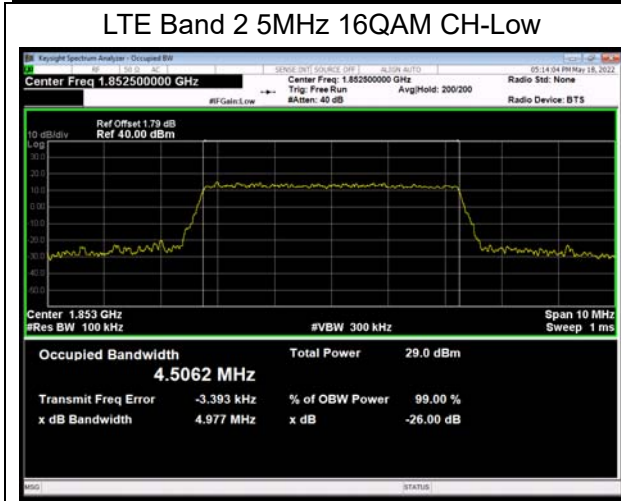














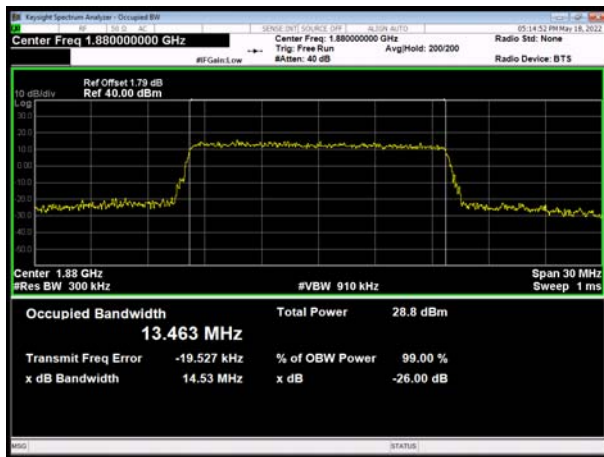
LTE Band 2 15MHz 16QAM CH-Low



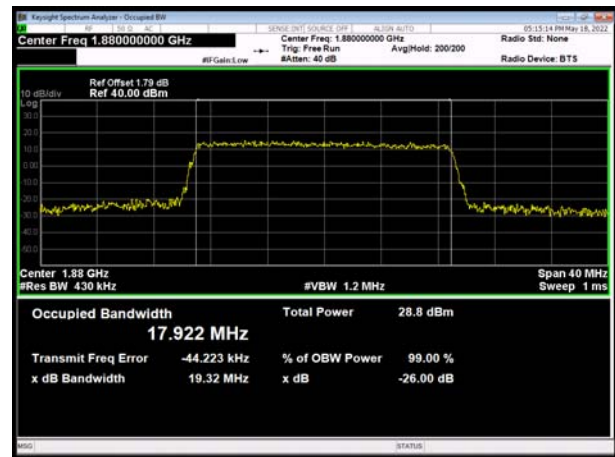
LTE Band 2 20MHz 16QAM CH-Low



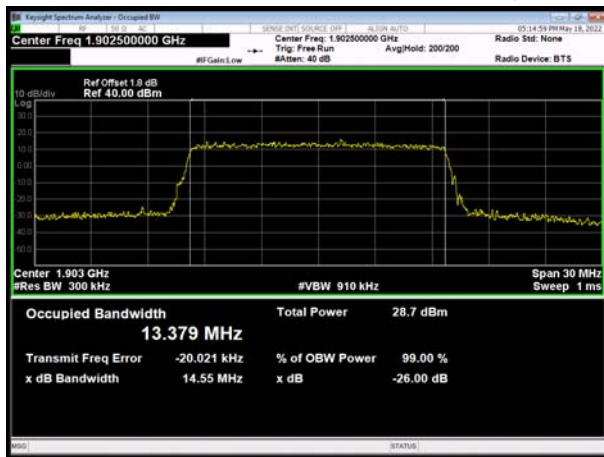
LTE Band 2 15MHz 16QAM CH-Middle



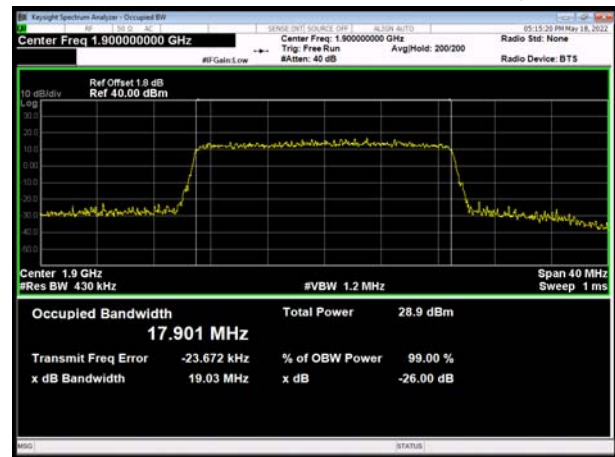
LTE Band 2 20MHz 16QAM CH-Middle

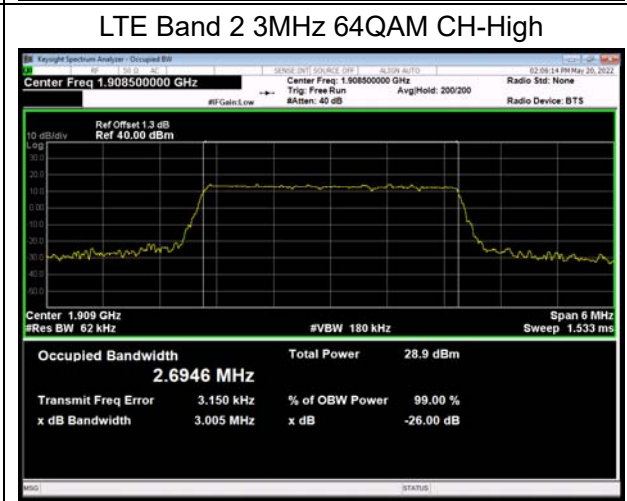
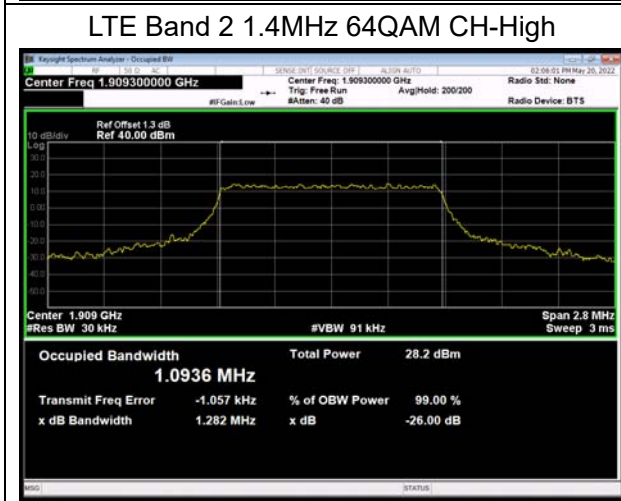
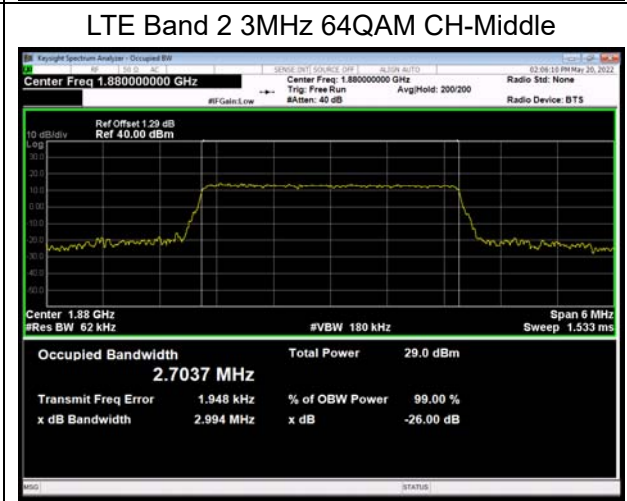
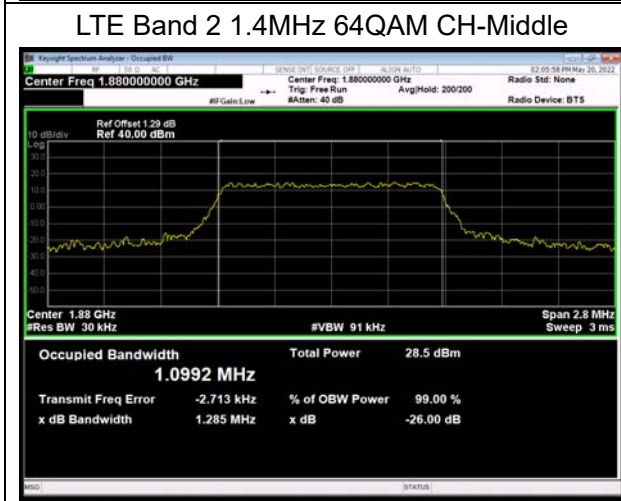
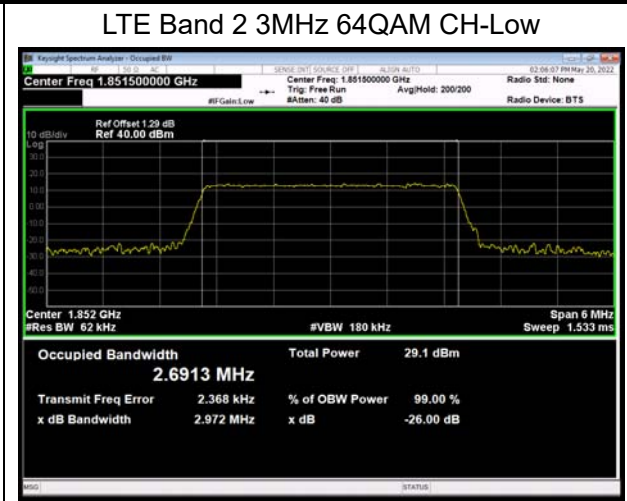
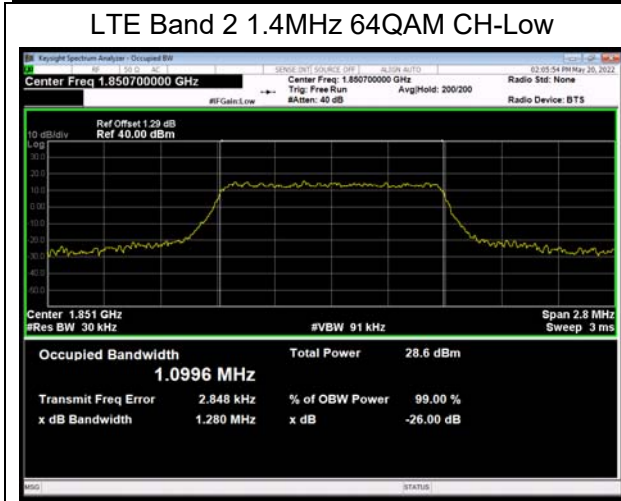


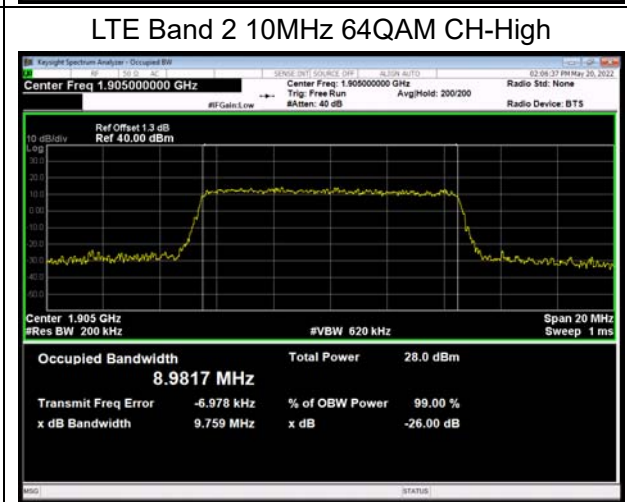
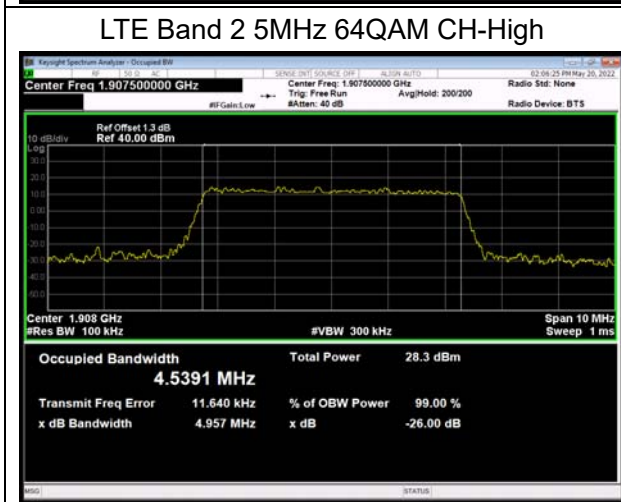
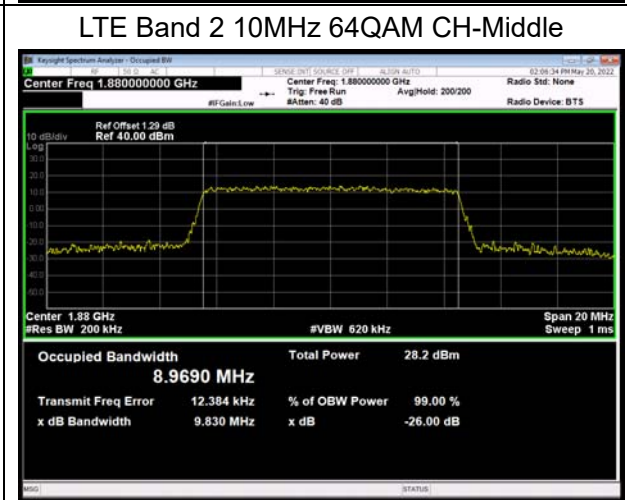
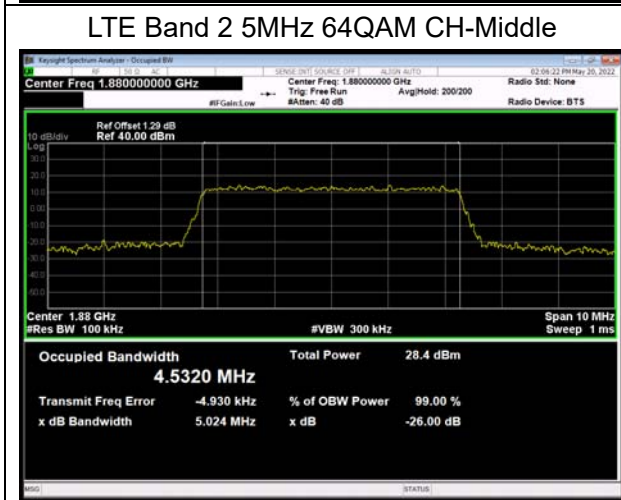
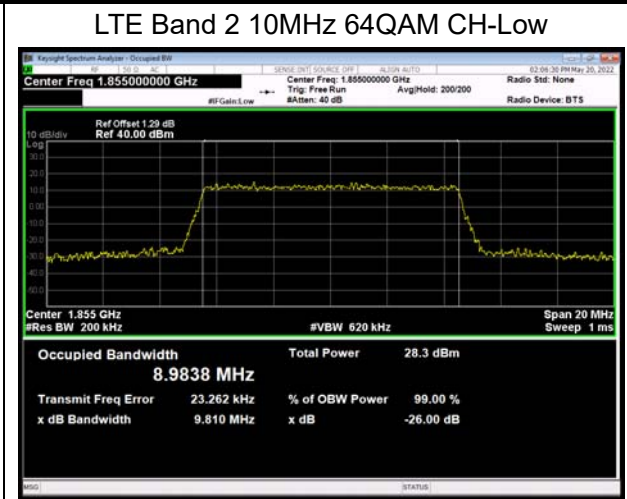
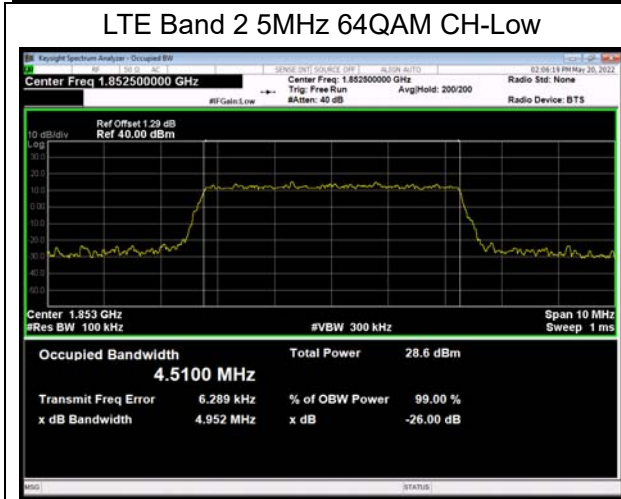
LTE Band 2 15MHz 16QAM CH-High



LTE Band 2 20MHz 16QAM CH-High

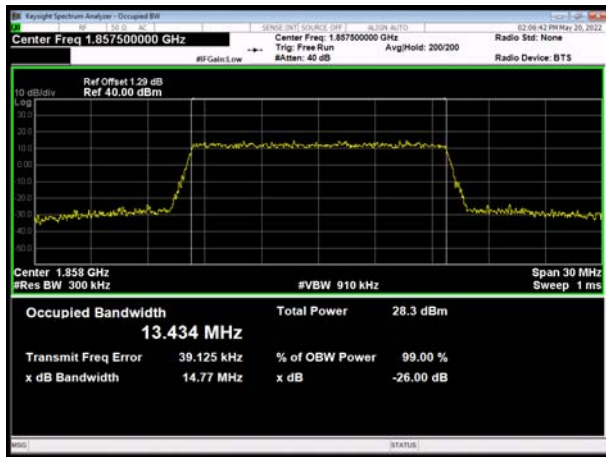




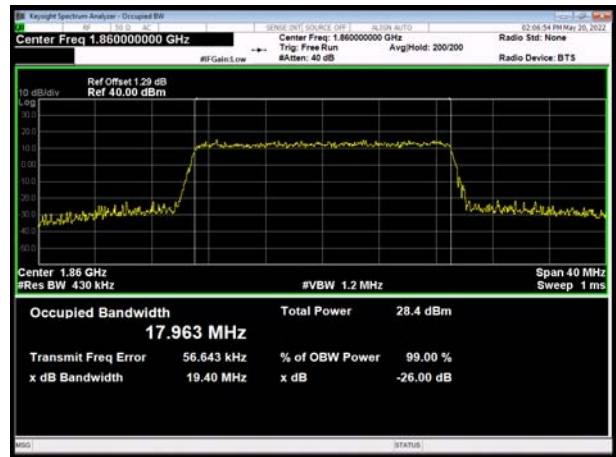




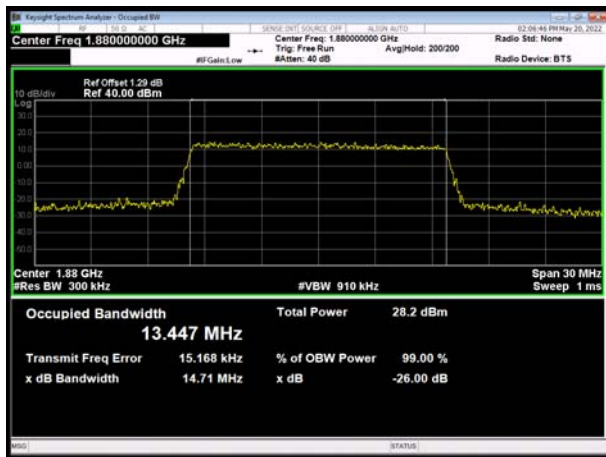
LTE Band 2 15MHz 64QAM CH-Low



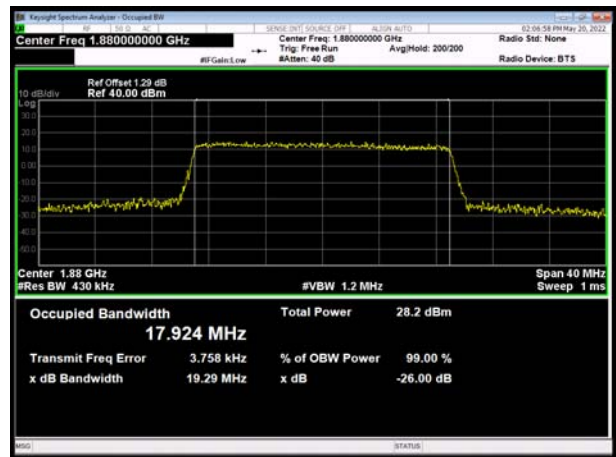
LTE Band 2 20MHz 64QAM CH-Low



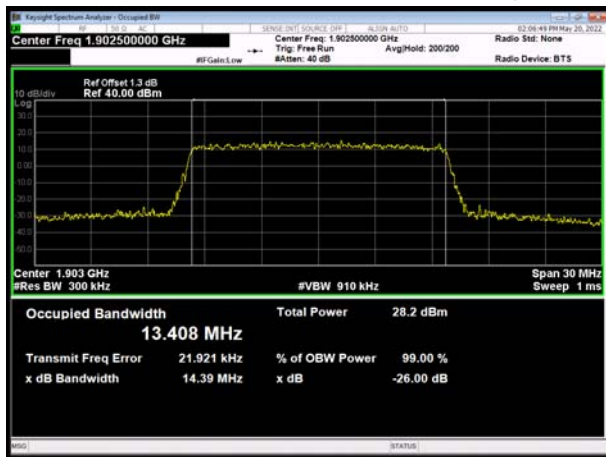
LTE Band 2 15MHz 64QAM CH-Middle



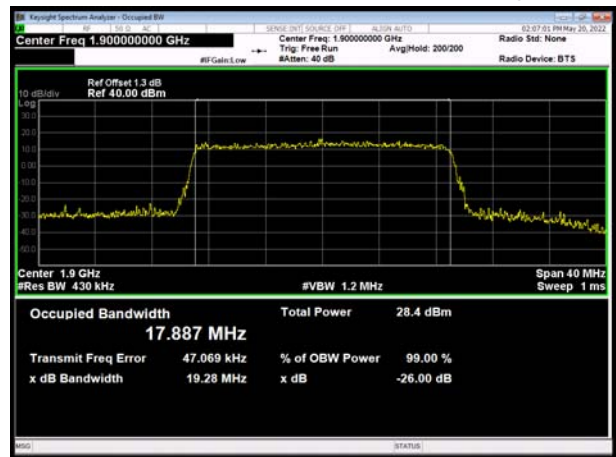
LTE Band 2 20MHz 64QAM CH-Middle



LTE Band 2 15MHz 64QAM CH-High

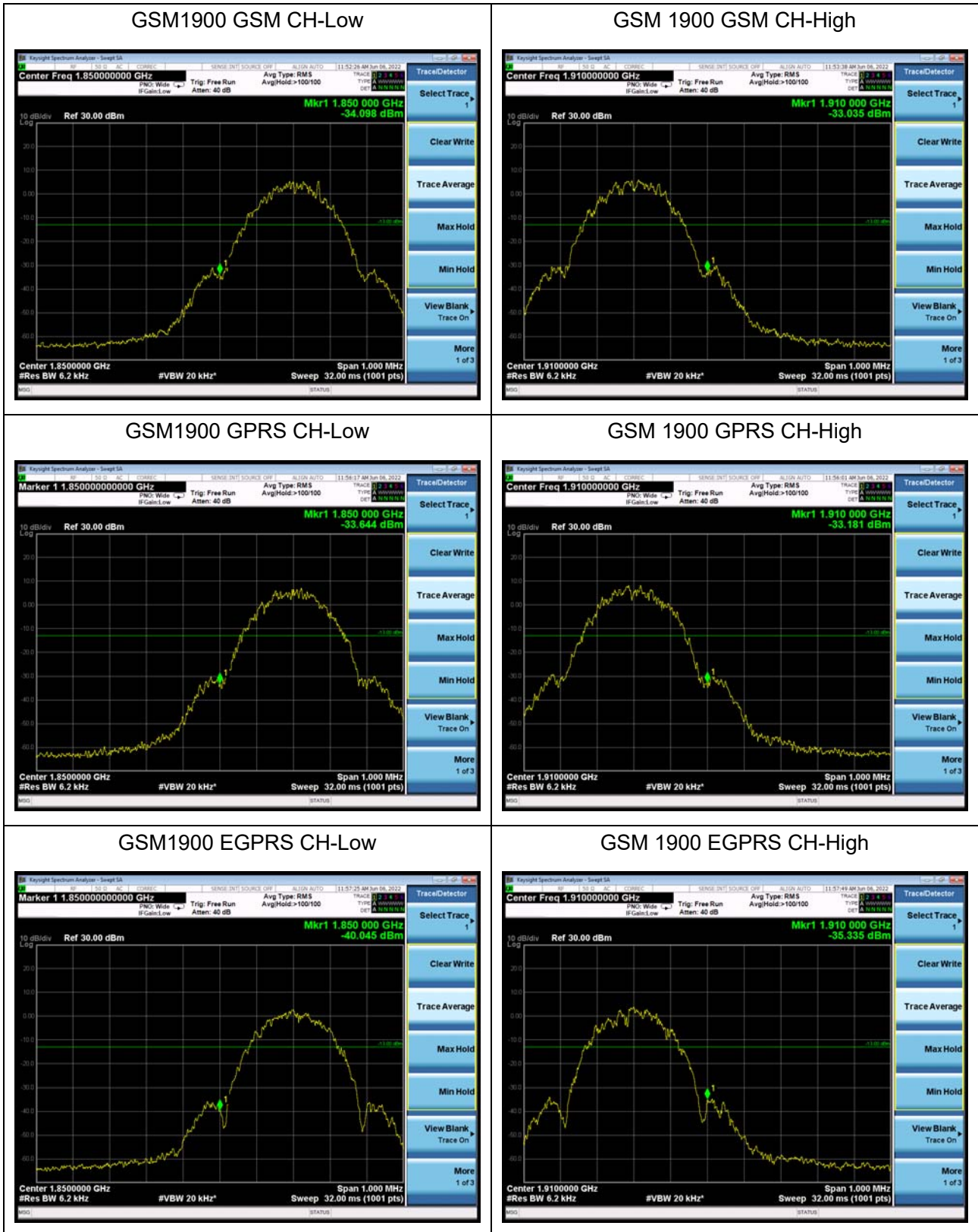


LTE Band 2 20MHz 64QAM CH-High





### 6.3. Band Edge Compliance





WCDMA Band II RMC CH-Low

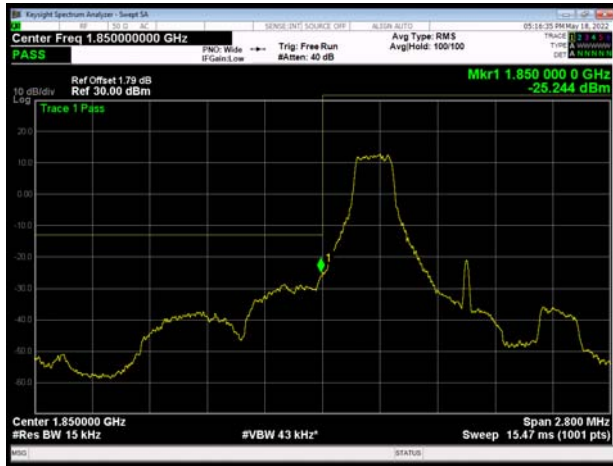


WCDMA Band II RMC CH-High

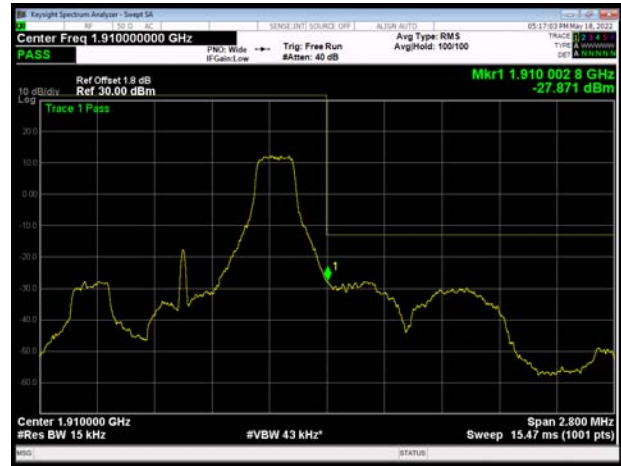




LTE Band 2 1.4MHz QPSK 1RB CH-Low



LTE Band 2 1.4MHz QPSK 1RB CH-High



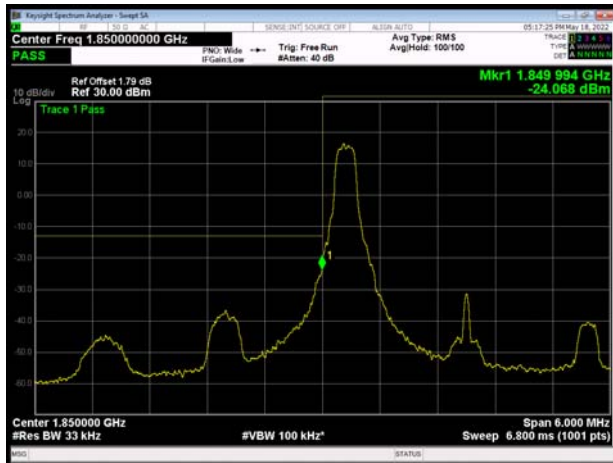
LTE Band 2 1.4MHz QPSK 100%RB CH-Low



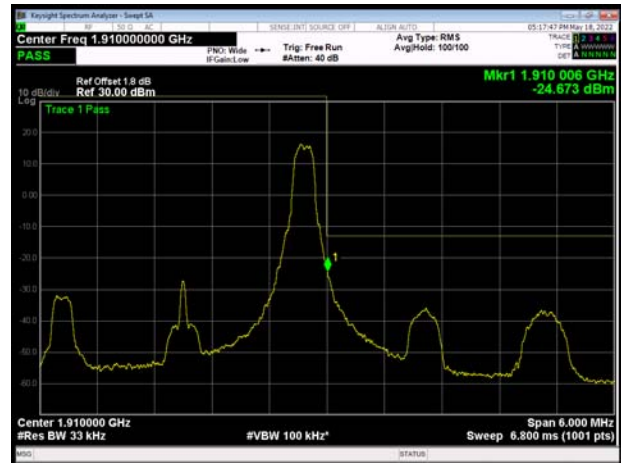
LTE Band 2 1.4MHz QPSK 100%RB CH-High



LTE Band 2 3MHz QPSK 1RB CH-Low



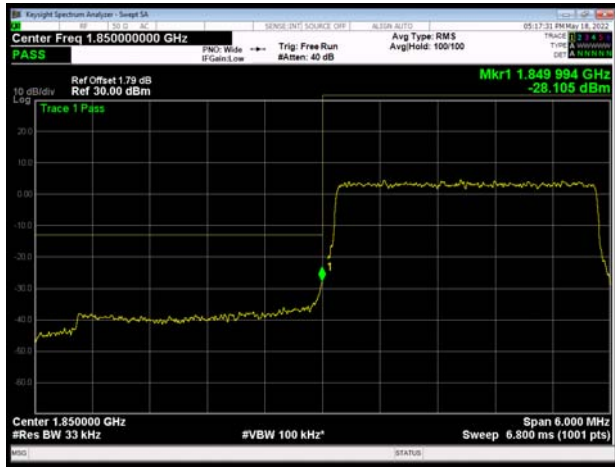
LTE Band 2 3MHz QPSK 1RB CH-High



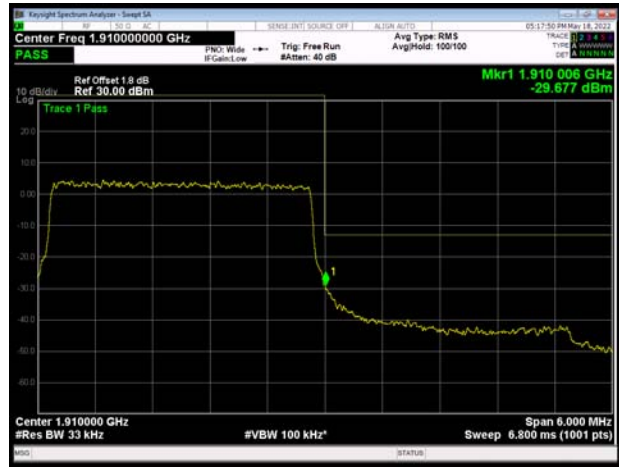




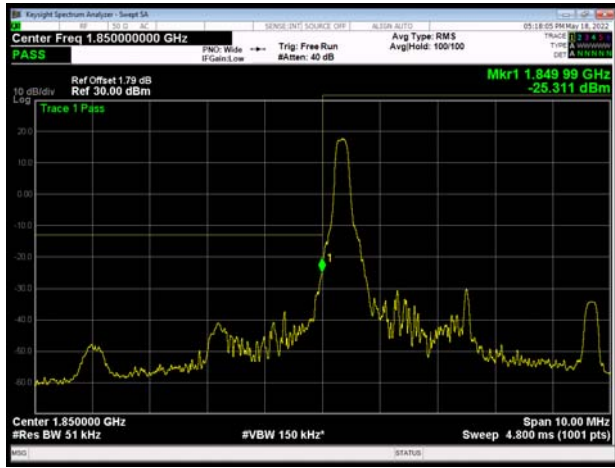
LTE Band 2 3MHz QPSK 100%RB CH-Low



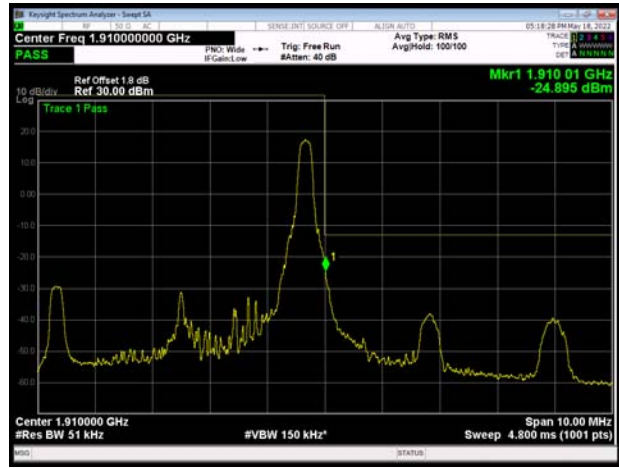
LTE Band 2 3MHz QPSK 100%RB CH-High



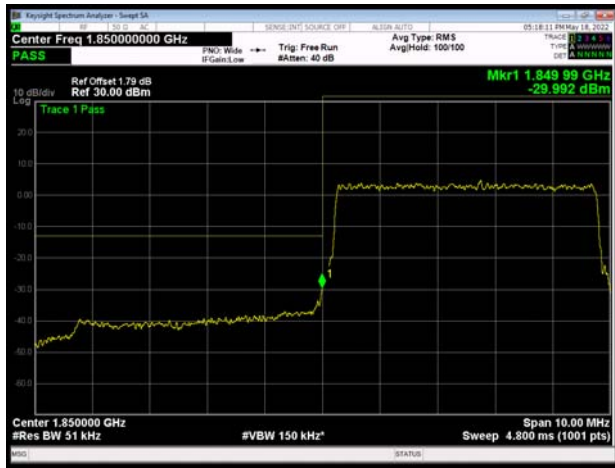
LTE Band 2 5MHz QPSK 1RB CH-Low



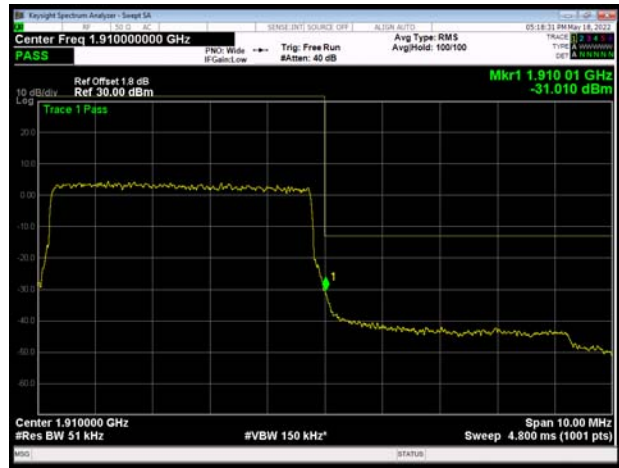
LTE Band 2 5MHz QPSK 1RB CH-High



LTE Band 2 5MHz QPSK 100%RB CH-Low

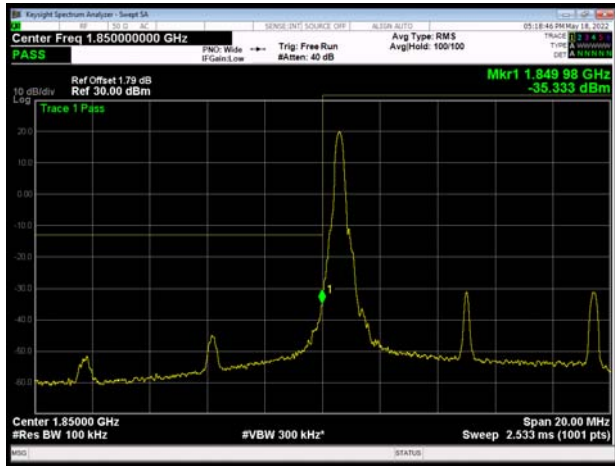


LTE Band 2 5MHz QPSK 100%RB CH-High

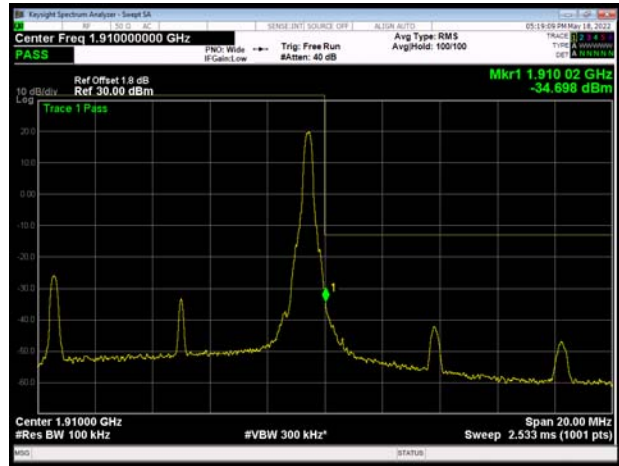




LTE Band 2 10MHz QPSK 1RB CH-Low



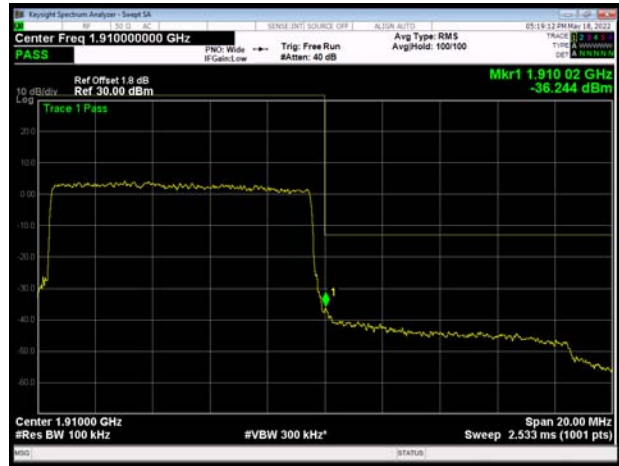
LTE Band 2 10MHz QPSK 1RB CH-High



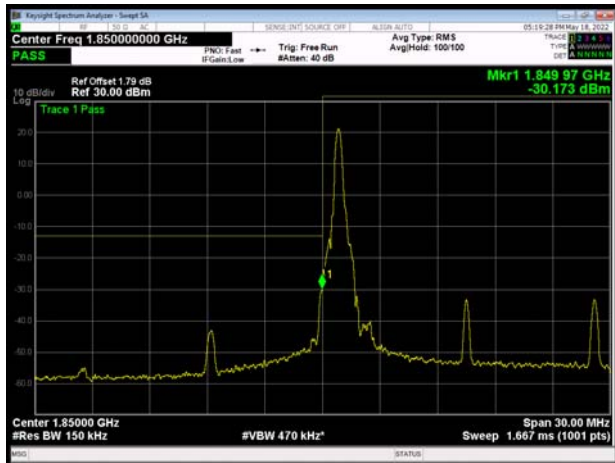
LTE Band 2 10MHz QPSK 100%RB CH-Low



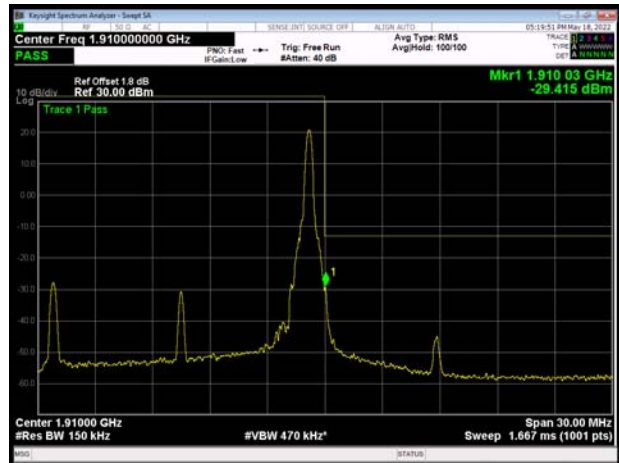
LTE Band 2 10MHz QPSK 100%RB CH-High



LTE Band 2 15MHz QPSK 1RB CH-Low



LTE Band 2 15MHz QPSK 1RB CH-High





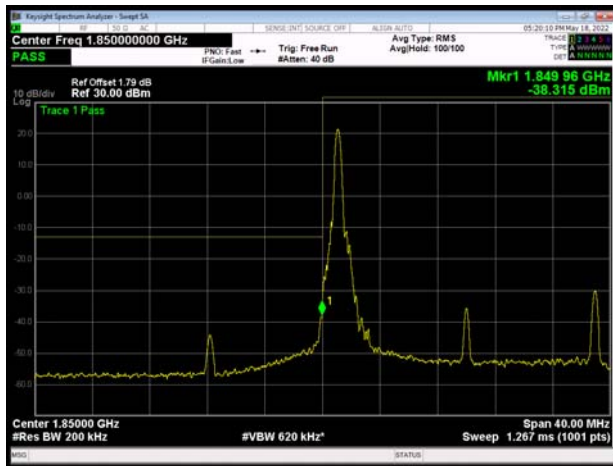
LTE Band 2 15MHz QPSK 100%RB CH-Low



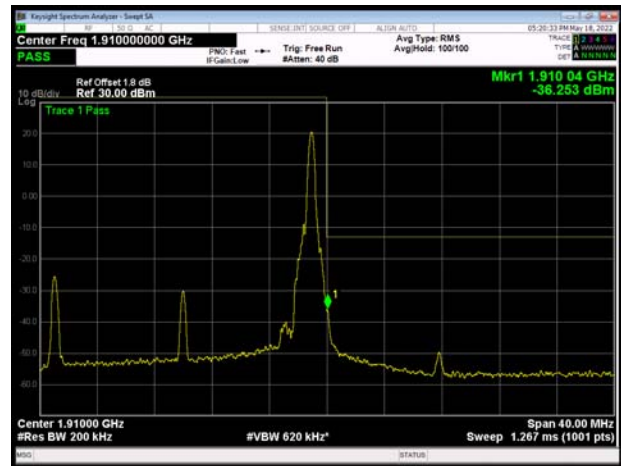
LTE Band 2 15MHz QPSK 100%RB CH-High



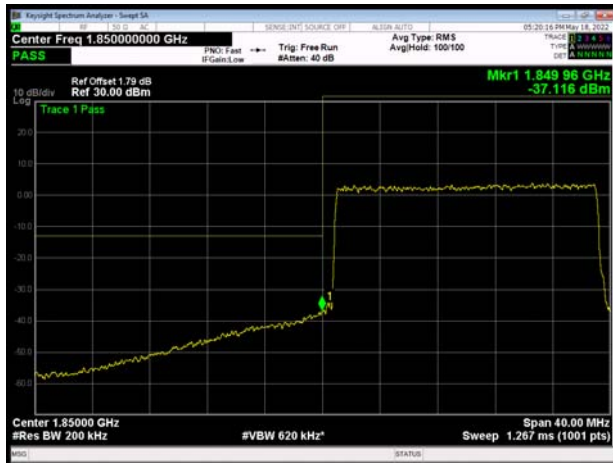
LTE Band 2 20MHz QPSK 1RB CH-Low



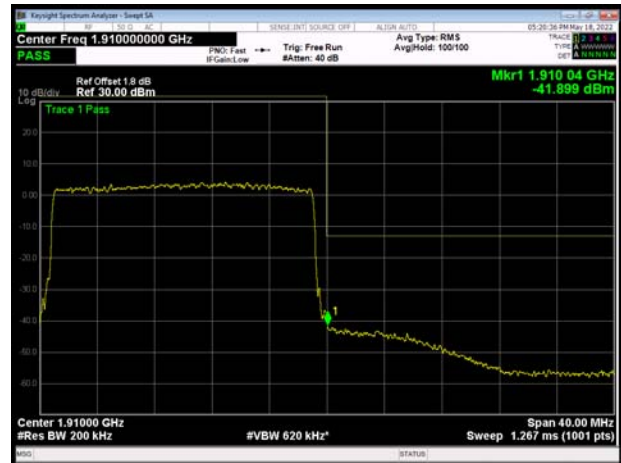
LTE Band 2 20MHz QPSK 1RB CH-High



LTE Band 2 20MHz QPSK 100%RB CH-Low

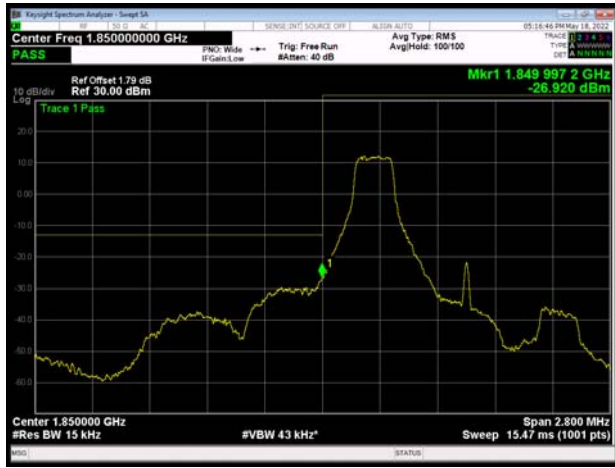


LTE Band 2 20MHz QPSK 100%RB CH-High

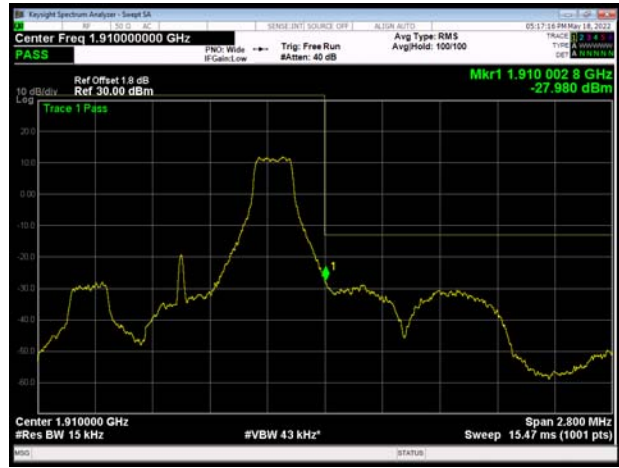




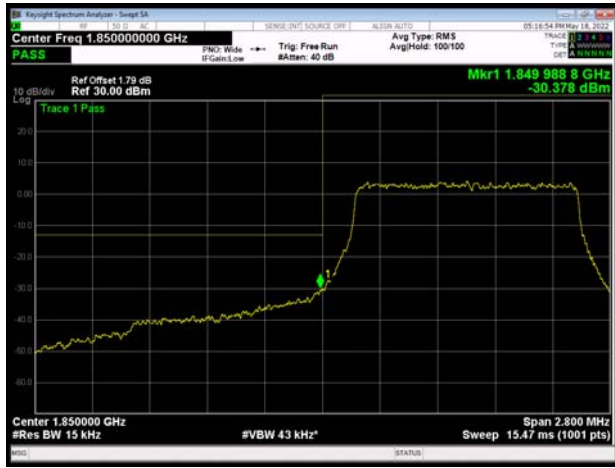
LTE Band 2 1.4MHz 16QAM 1RB CH-Low



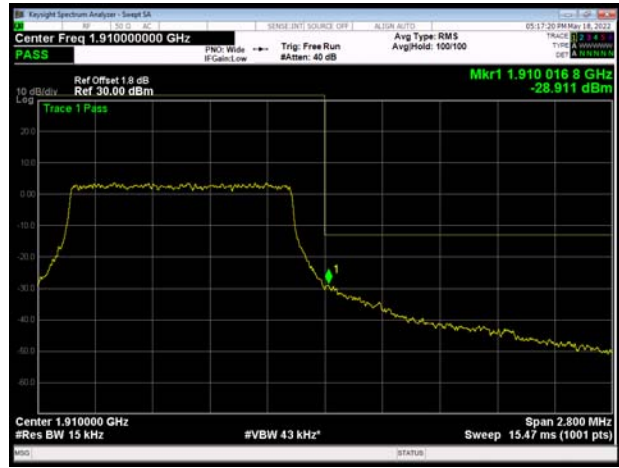
LTE Band 2 1.4MHz 16QAM 1RB CH-High



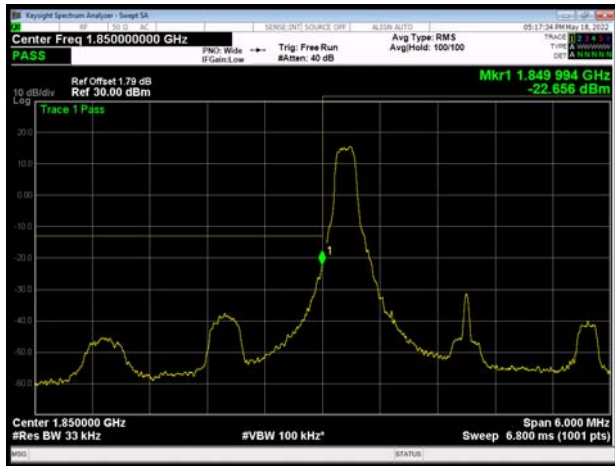
LTE Band 2 1.4MHz 16QAM 100%RB CH-Low



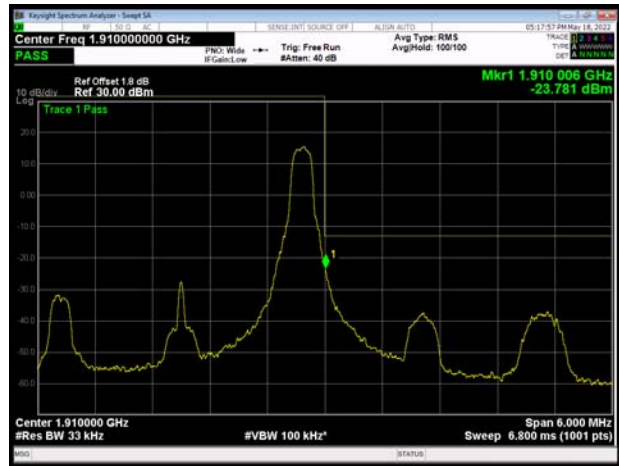
LTE Band 2 1.4MHz 16QAM 100%RB CH-High



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



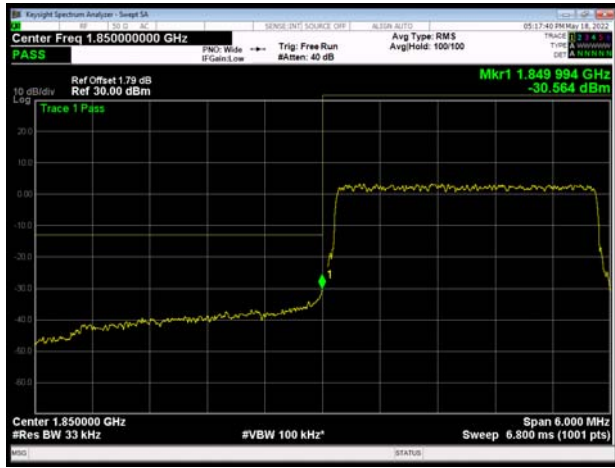
LTE Band 2 3MHz 16QAM 1RB CH-High



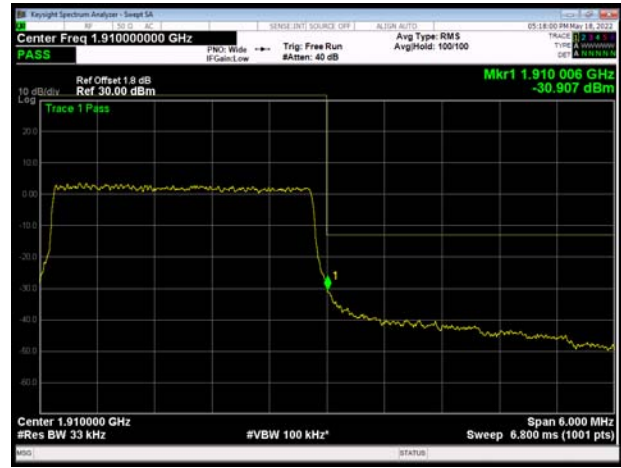




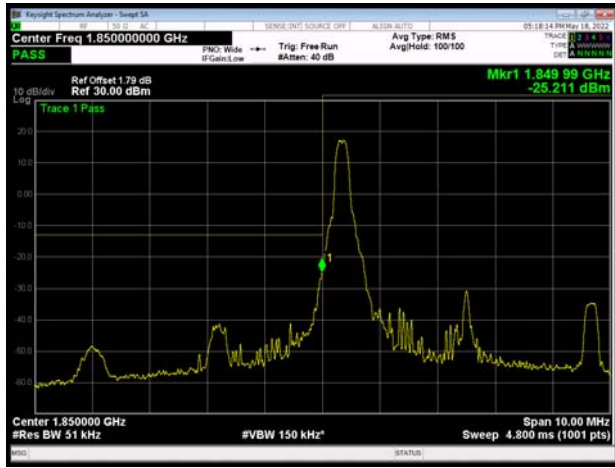
LTE Band 2 3MHz 16QAM 100%RB CH-Low



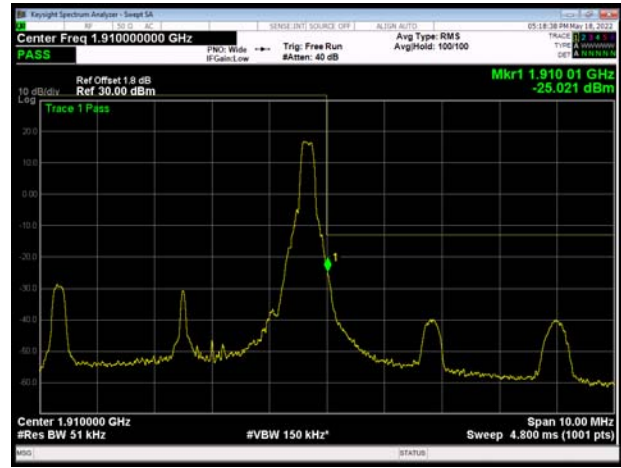
LTE Band 2 3MHz 16QAM 100%RB CH-High



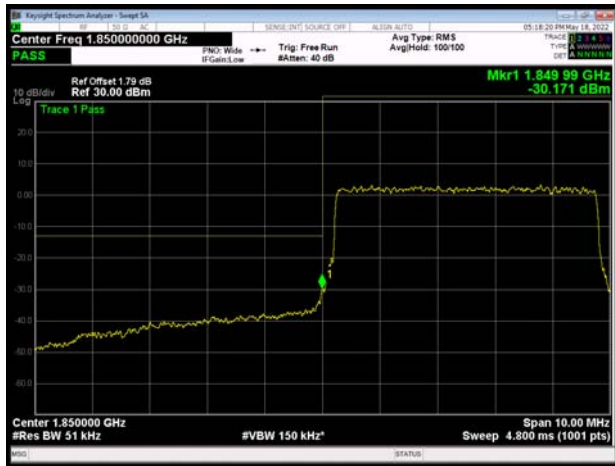
LTE Band 2 5MHz 16QAM 1RB CH-Low



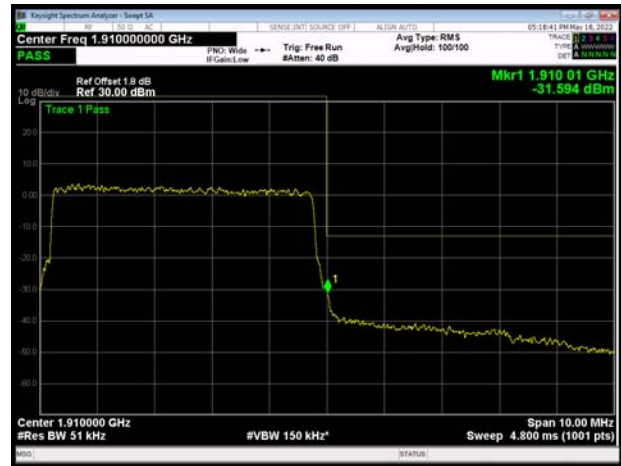
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LTE Band 2 5MHz 16QAM 100%RB CH-Low

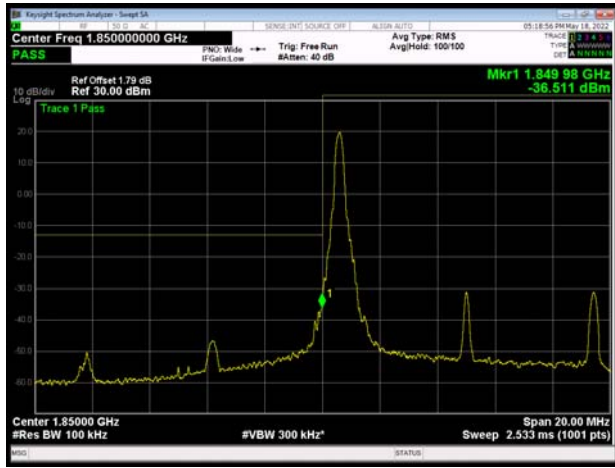


LTE Band 2 5MHz 16QAM 100%RB CH-High

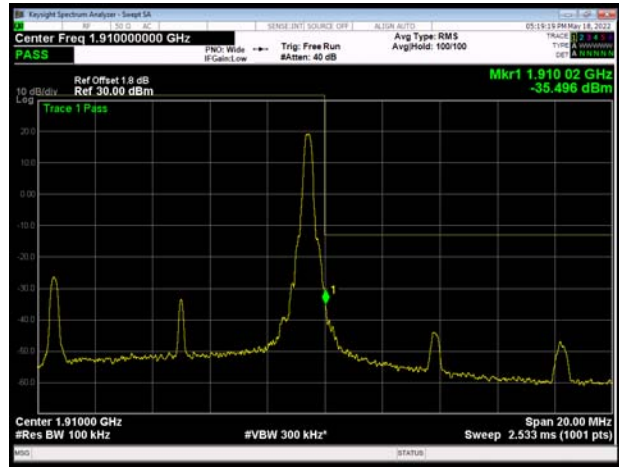




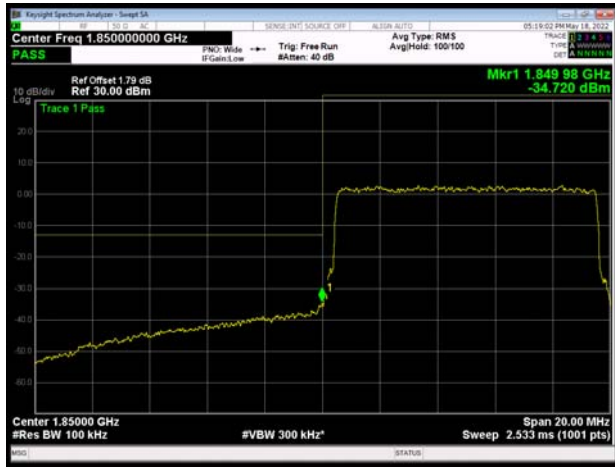
LTE Band 2 10MHz 16QAM 1RB CH-Low



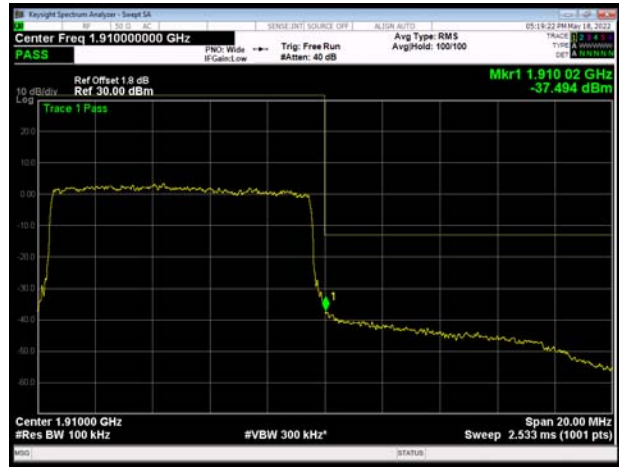
LTE Band 2 10MHz 16QAM 1RB CH-High



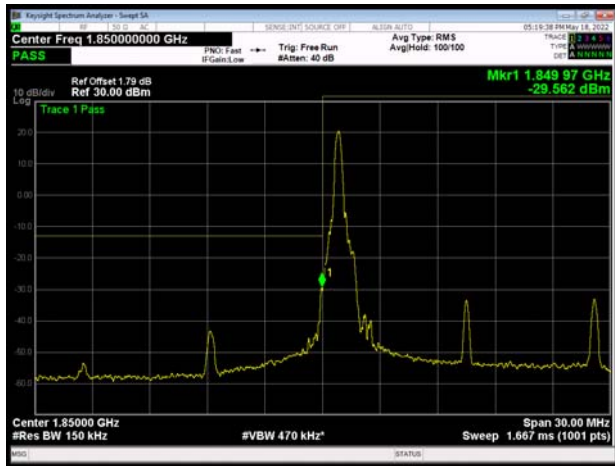
LTE Band 2 10MHz 16QAM 100%RB CH-Low



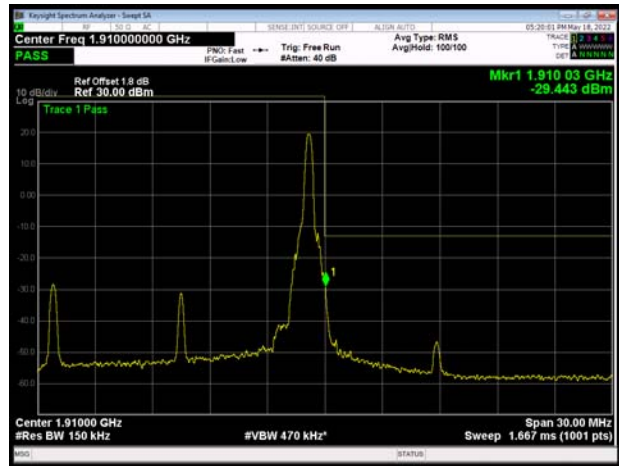
LTE Band 2 10MHz 16QAM 100%RB CH-High



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

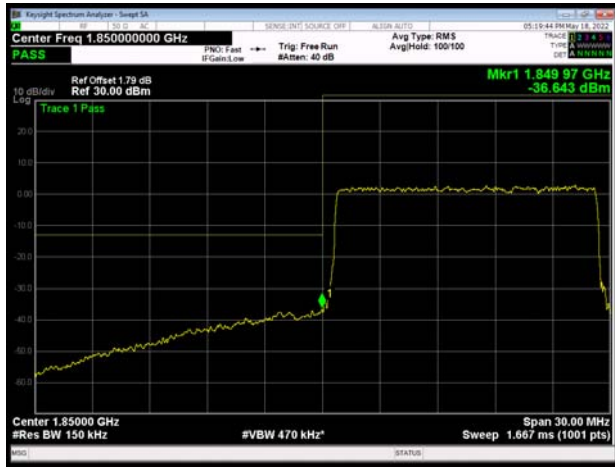


LTE Band 2 15MHz 16QAM 1RB CH-High

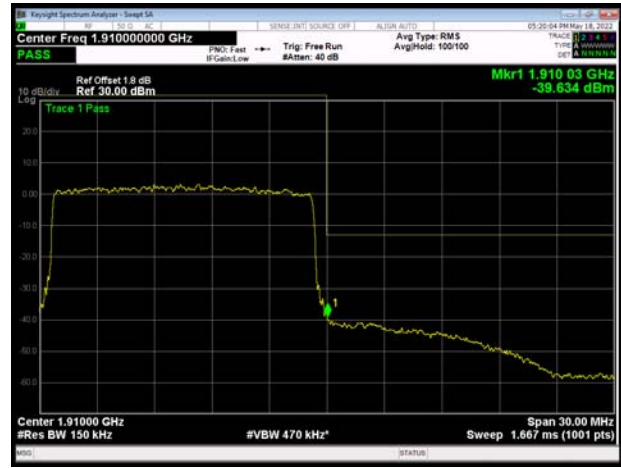




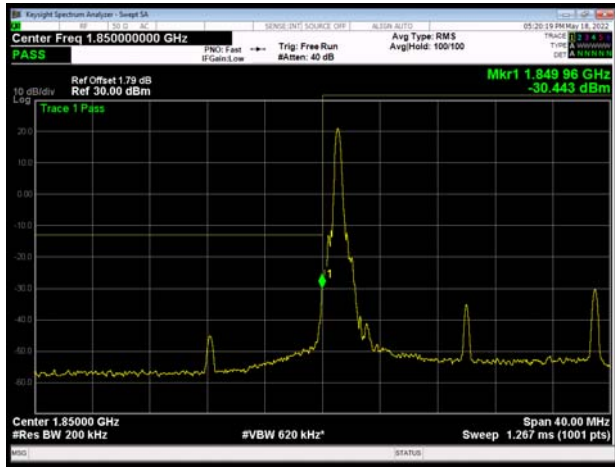
LTE Band 2 15MHz 16QAM 100%RB CH-Low



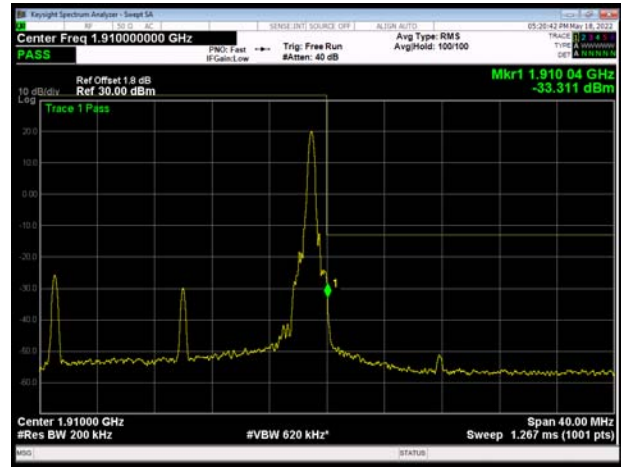
LTE Band 2 15MHz 16QAM 100%RB CH-High



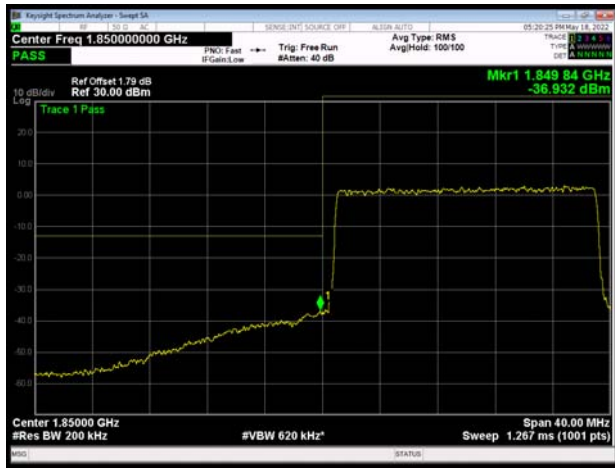
LTE Band 2 20MHz 16QAM 1RB CH-Low



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



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

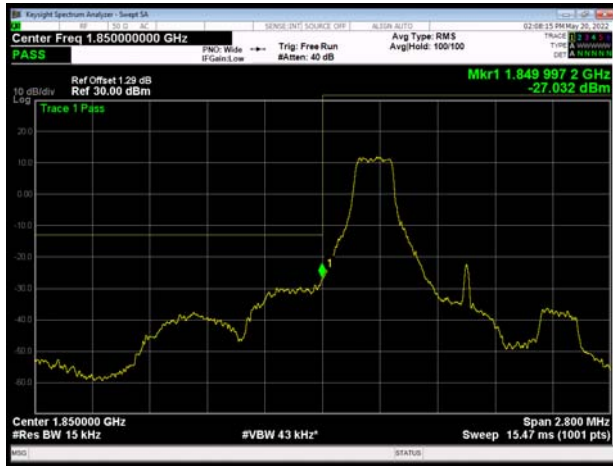


LTE Band 2 20MHz 16QAM 100%RB CH-High





LTE Band 2 1.4MHz 64QAM 1RB CH-Low



LTE Band 2 1.4MHz 64QAM 1RB CH-High



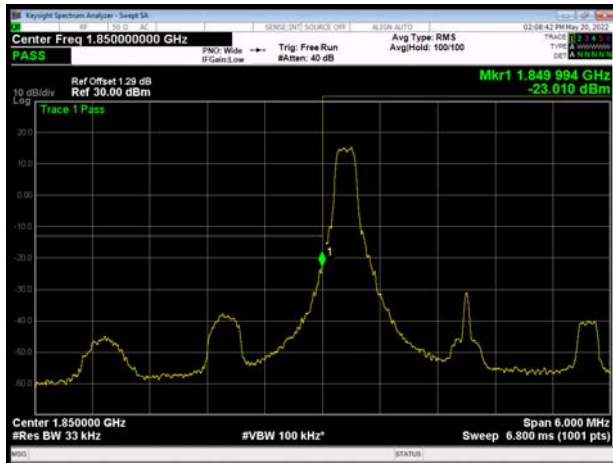
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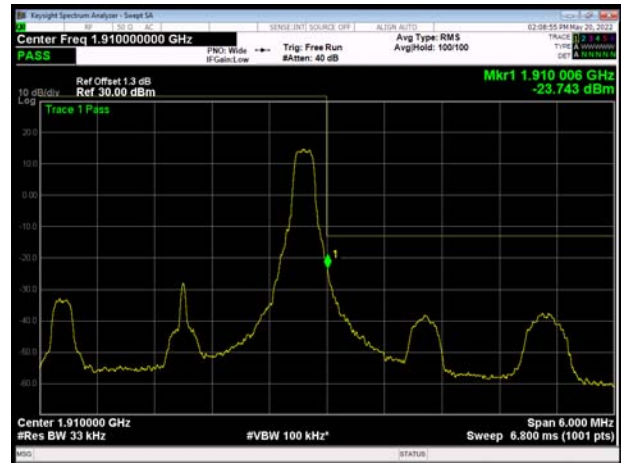
LTE Band 2 1.4MHz 64QAM 100%RB CH-High



LTE Band 2 3MHz 64QAM 1RB CH-Low



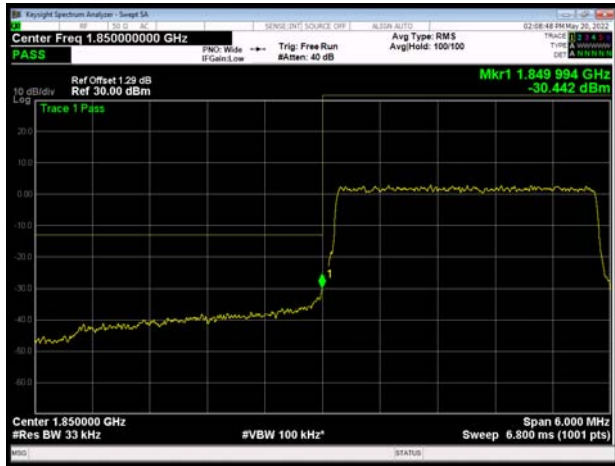
LTE Band 2 3MHz 64QAM 1RB CH-High



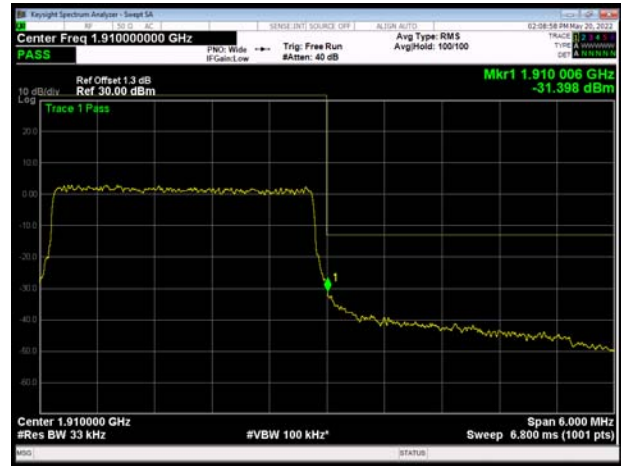




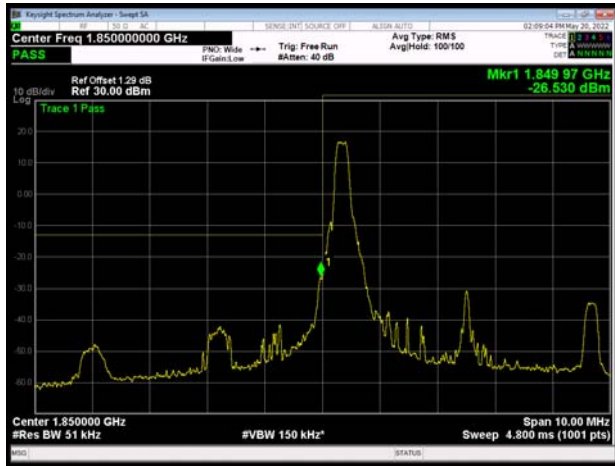
LTE Band 2 3MHz 64QAM 100%RB CH-Low



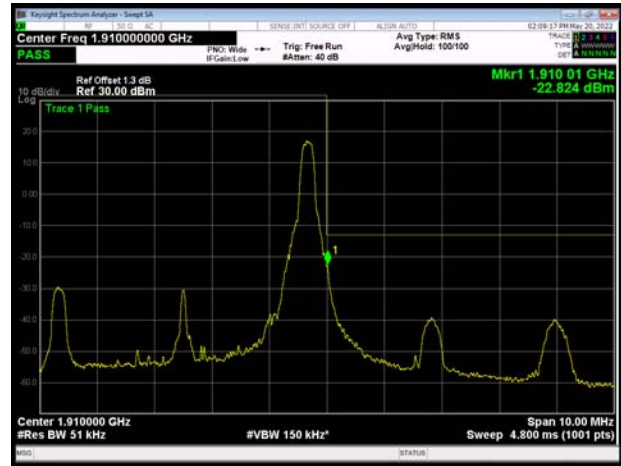
LTE Band 2 3MHz 64QAM 100%RB CH-High



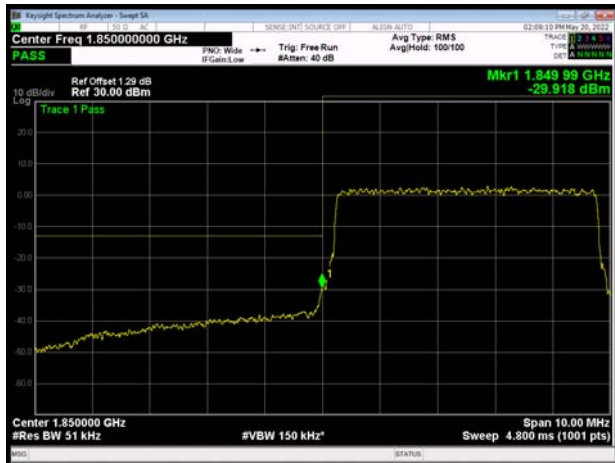
LTE Band 2 5MHz 64QAM 1RB CH-Low



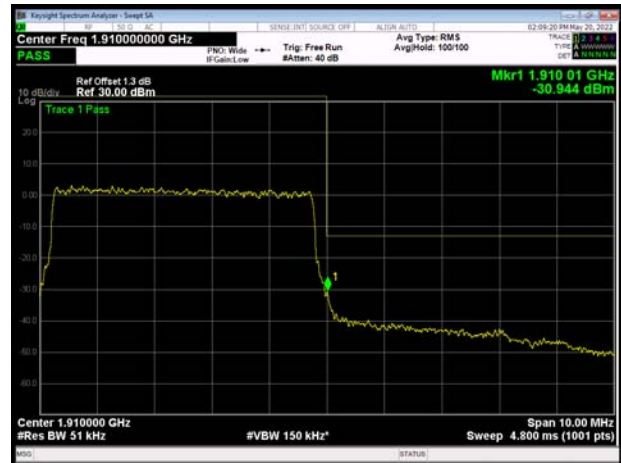
LTE Band 2 5MHz 64QAM 1RB CH-High



LTE Band 2 5MHz 64QAM 100%RB CH-Low

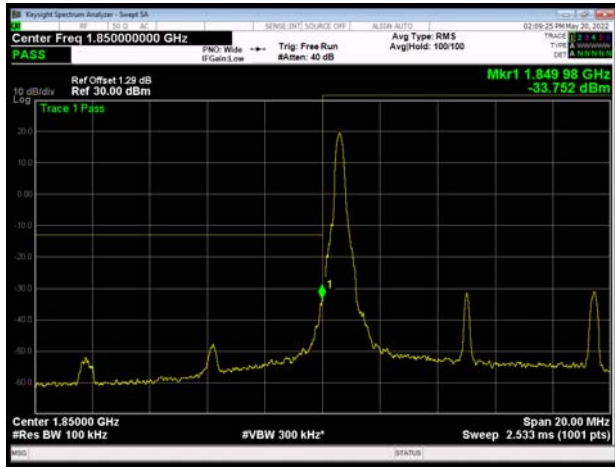


LTE Band 2 5MHz 64QAM 100%RB CH-High

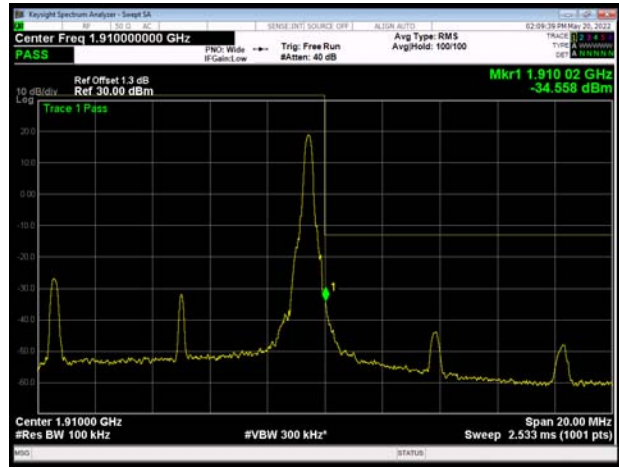




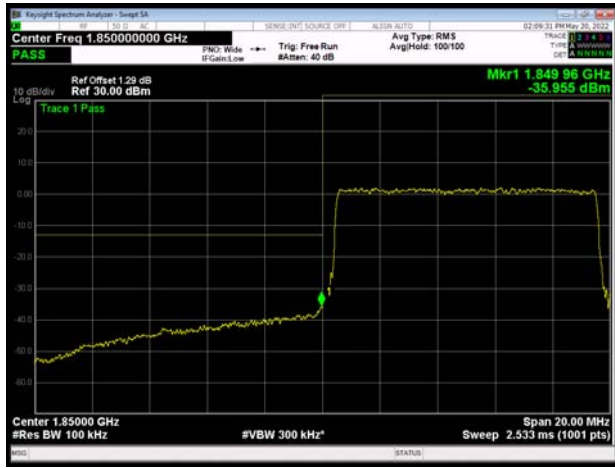
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LTE Band 2 10MHz 64QAM 1RB CH-High



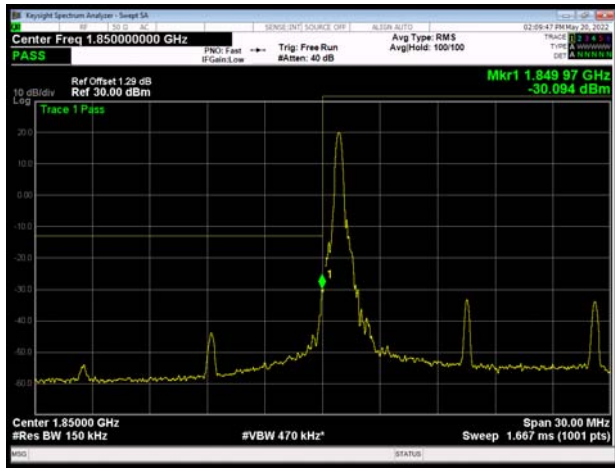
LTE Band 2 10MHz 64QAM 100%RB CH-Low



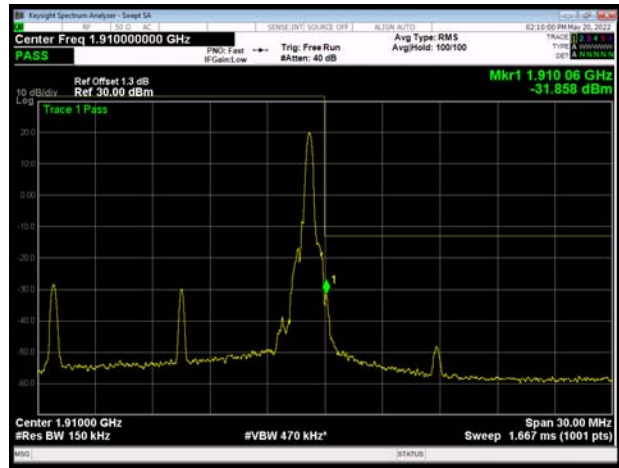
LTE Band 2 10MHz 64QAM 100%RB CH-High



LTE Band 2 15MHz 64QAM 1RB CH-Low

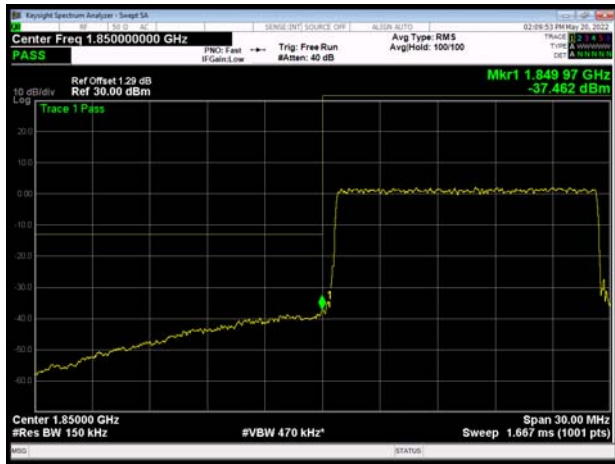


LTE Band 2 15MHz 64QAM 1RB CH-High





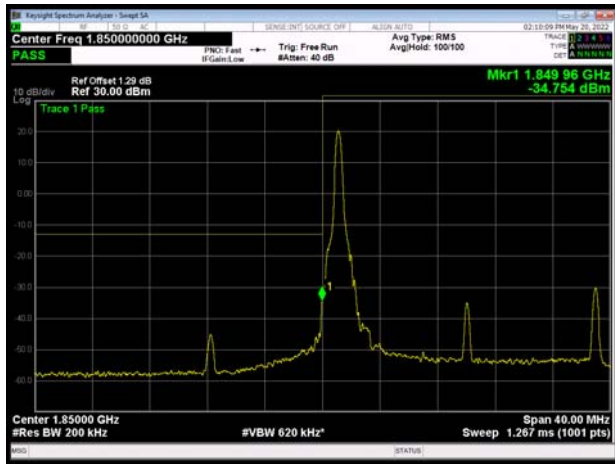
LTE Band 2 15MHz 64QAM 100%RB CH-Low



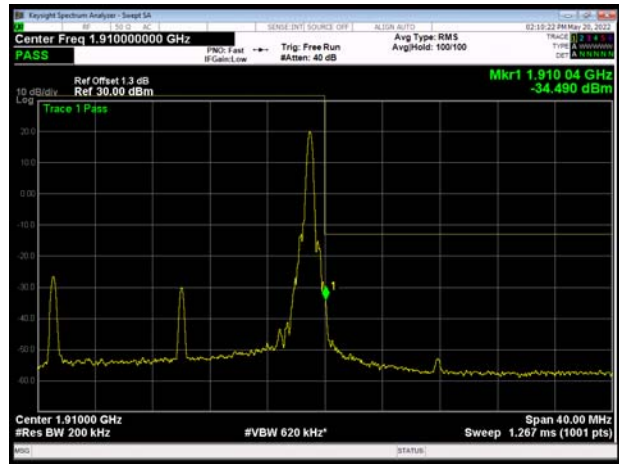
LTE Band 2 15MHz 64QAM 100%RB CH-High



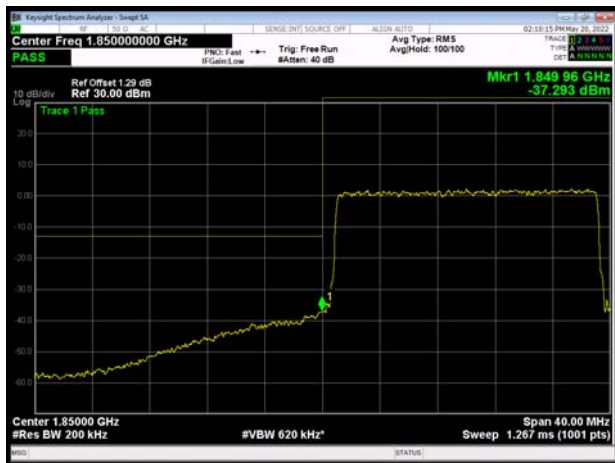
LTE Band 2 20MHz 64QAM 1RB CH-Low



LTE Band 2 20MHz 64QAM 1RB CH-High



LTE Band 2 20MHz 64QAM 100%RB CH-Low



LTE Band 2 20MHz 64QAM 100%RB CH-High



### 6.4. Peak-to-Average Power Ratio (PAPR)

Mode	Channel	Frequency (MHz)	Peak(dBm)	Avg(dBm)	PAPR(dB)	Limit(dB)	Conclusion
GSM 1900 (GMSK)	512	1850.2	26.53	23.75	2.78	≤13	PASS
	661	1880	26.73	23.92	2.81	≤13	PASS
	810	1909.8	27.34	23.04	4.30	≤13	PASS
GPRS 1900 (GMSK)	512	1850.2	28.05	25.31	2.74	≤13	PASS
	661	1880	28.39	25.60	2.79	≤13	PASS
	810	1909.8	28.78	24.84	3.94	≤13	PASS
EGPRS 1900 (8PSK)	512	1850.2	27.13	21.26	5.87	≤13	PASS
	661	1880	27.27	21.31	5.96	≤13	PASS
	810	1909.8	27.78	20.17	7.61	≤13	PASS
WCDMA Band II (RMC)	9262	1852.4	23.82	20.92	2.90	≤13	PASS
	9400	1880	22.93	20.34	2.59	≤13	PASS
	9538	1907.6	23.83	20.85	2.98	≤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	27.00	21.90	5.10	≤13	PASS
		18900	1880.0	26.33	21.83	4.50	≤13	PASS
		19193	1909.3	27.00	21.71	5.29	≤13	PASS
	3	18615	1851.5	27.12	21.94	5.18	≤13	PASS
		18900	1880	26.41	21.87	4.54	≤13	PASS
		19185	1908.5	27.04	21.74	5.30	≤13	PASS
	5	18625	1852.5	27.23	21.97	5.26	≤13	PASS
		18900	1880	26.47	21.95	4.52	≤13	PASS
		19175	1907.5	27.10	21.90	5.20	≤13	PASS
	10	18650	1855	27.28	21.91	5.37	≤13	PASS
		18900	1880	26.57	21.88	4.69	≤13	PASS
		19150	1905	26.87	21.74	5.13	≤13	PASS
	15	18675	1857.5	27.69	21.88	5.81	≤13	PASS
		18900	1880	27.01	21.78	5.23	≤13	PASS
		19125	1902.5	27.23	21.75	5.48	≤13	PASS
	20	18700	1860	27.35	21.82	5.53	≤13	PASS
		18900	1880	27.06	21.84	5.22	≤13	PASS
		19100	1900	27.11	21.76	5.35	≤13	PASS



16QAM	1.4	18607	1850.7	26.86	20.91	5.95	≤13	PASS
		18900	1880.0	26.27	20.86	5.41	≤13	PASS
		19193	1909.3	26.85	20.77	6.08	≤13	PASS
	3	18615	1851.5	27.03	20.95	6.08	≤13	PASS
		18900	1880	26.33	20.89	5.44	≤13	PASS
		19185	1908.5	26.95	20.83	6.12	≤13	PASS
	5	18625	1852.5	27.00	20.97	6.03	≤13	PASS
		18900	1880	26.39	20.98	5.41	≤13	PASS
		19175	1907.5	26.88	20.85	6.03	≤13	PASS
	10	18650	1855	27.05	20.85	6.20	≤13	PASS
		18900	1880	26.44	20.84	5.60	≤13	PASS
		19150	1905	26.74	20.71	6.03	≤13	PASS
	15	18675	1857.5	27.29	20.92	6.37	≤13	PASS
		18900	1880	26.70	20.77	5.93	≤13	PASS
		19125	1902.5	26.86	20.78	6.08	≤13	PASS
20	18700	1860	27.08	20.71	6.37	≤13	PASS	
	18900	1880	26.73	20.70	6.03	≤13	PASS	
	19100	1900	26.95	20.78	6.17	≤13	PASS	
64QAM	1.4	18607	1850.7	26.37	20.41	5.96	≤13	PASS
		18900	1880.0	25.67	20.40	5.27	≤13	PASS
		19193	1909.3	26.44	20.28	6.16	≤13	PASS
	3	18615	1851.5	26.50	20.47	6.03	≤13	PASS
		18900	1880	25.78	20.36	5.42	≤13	PASS
		19185	1908.5	26.40	20.31	6.09	≤13	PASS
	5	18625	1852.5	26.49	20.48	6.01	≤13	PASS
		18900	1880	25.81	20.44	5.37	≤13	PASS
		19175	1907.5	26.37	20.36	6.01	≤13	PASS
	10	18650	1855	26.52	20.35	6.17	≤13	PASS
		18900	1880	25.92	20.40	5.52	≤13	PASS
		19150	1905	26.19	20.20	5.99	≤13	PASS
	15	18675	1857.5	26.75	20.40	6.35	≤13	PASS
		18900	1880	26.17	20.30	5.87	≤13	PASS
		19125	1902.5	26.42	20.33	6.09	≤13	PASS
20	18700	1860	26.62	20.33	6.29	≤13	PASS	
	18900	1880	26.23	20.26	5.97	≤13	PASS	
	19100	1900	26.43	20.29	6.14	≤13	PASS	



### 6.5. Frequency Stability

GSM1900						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	GMSK	8PSK	GMSK	8PSK	
Normal (25°C)	Normal	1.26	13.80	0.00067	0.00734	PASS
Extreme (35°C)		2.91	1.47	0.00155	0.00078	PASS
Extreme (30°C)		15.99	17.75	0.00850	0.00944	PASS
Extreme (20°C)		2.64	14.31	0.00141	0.00761	PASS
Extreme (10°C)		3.93	7.29	0.00209	0.00388	PASS
Extreme (0°C)		9.43	3.79	0.00502	0.00201	PASS
25°C	LV	14.99	3.96	0.00798	0.00211	PASS
	HV	13.42	11.53	0.00714	0.00614	PASS

WCDMA Band II						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	BPSK	QPSK	BPSK	QPSK	
Normal (25°C)	Normal	7.99	10.51	0.00425	0.00559	PASS
Extreme (35°C)		4.53	6.22	0.00241	0.00331	PASS
Extreme (30°C)		15.20	8.65	0.00809	0.00460	PASS
Extreme (20°C)		13.89	1.05	0.00739	0.00056	PASS
Extreme (10°C)		8.39	10.55	0.00446	0.00561	PASS
Extreme (0°C)		8.03	15.41	0.00427	0.00820	PASS
25°C	LV	15.05	17.43	0.00800	0.00927	PASS
	HV	3.96	14.79	0.00211	0.00786	PASS

LTE Band 2								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	6.03	9.30	8.55	0.00321	0.00494	0.00455	PASS
Extreme (35°C)		11.73	12.09	10.05	0.00624	0.00643	0.00534	PASS
Extreme (30°C)		13.21	6.76	2.68	0.00703	0.00360	0.00142	PASS
Extreme (20°C)		8.97	15.24	15.35	0.00477	0.00811	0.00816	PASS



Extreme (10°C)		6.63	11.69	14.43	0.00353	0.00622	0.00768	PASS
Extreme (0°C)		1.81	13.95	1.34	0.00096	0.00742	0.00071	PASS
25°C	LV	12.46	10.08	7.47	0.00663	0.00536	0.00397	PASS
	HV	17.96	13.33	3.81	0.00955	0.00709	0.00203	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	13.29	3.77	1.87	0.00707	0.00200	0.00100	PASS
Extreme (35°C)		11.58	1.39	12.48	0.00616	0.00074	0.00664	PASS
Extreme (30°C)		12.13	14.86	12.71	0.00645	0.00790	0.00676	PASS
Extreme (20°C)		2.52	1.84	8.84	0.00134	0.00098	0.00470	PASS
Extreme (10°C)		12.67	9.46	14.19	0.00674	0.00503	0.00755	PASS
Extreme (0°C)		4.68	1.68	1.05	0.00249	0.00089	0.00056	PASS
25°C		LV	9.04	9.76	8.23	0.00481	0.00519	0.00438
	HV	13.49	6.62	11.11	0.00718	0.00352	0.00591	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	4.12	4.79	4.46	0.00219	0.00255	0.00237	PASS
Extreme (35°C)		4.66	3.08	7.63	0.00248	0.00164	0.00406	PASS
Extreme (30°C)		11.98	12.49	12.32	0.00637	0.00665	0.00655	PASS
Extreme (20°C)		1.27	7.31	7.88	0.00068	0.00389	0.00419	PASS
Extreme (10°C)		8.79	16.92	8.41	0.00468	0.00900	0.00447	PASS
Extreme (0°C)		10.90	12.15	6.71	0.00580	0.00646	0.00357	PASS
25°C	LV	17.32	10.48	2.32	0.00921	0.00557	0.00123	PASS
	HV	14.37	2.45	8.23	0.00764	0.00130	0.00438	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	7.68	4.57	15.30	0.00408	0.00243	0.00814	PASS
Extreme (35°C)		6.62	17.50	2.80	0.00352	0.00931	0.00149	PASS
Extreme (30°C)		17.01	17.18	2.87	0.00905	0.00914	0.00153	PASS
Extreme (20°C)		8.97	9.05	10.27	0.00477	0.00481	0.00546	PASS
Extreme (10°C)		10.15	12.10	17.58	0.00540	0.00644	0.00935	PASS
Extreme (0°C)		16.12	8.17	7.18	0.00857	0.00435	0.00382	PASS
25°C	LV	2.75	6.34	13.32	0.00146	0.00337	0.00709	PASS
	HV	3.78	2.95	8.68	0.00201	0.00157	0.00462	PASS

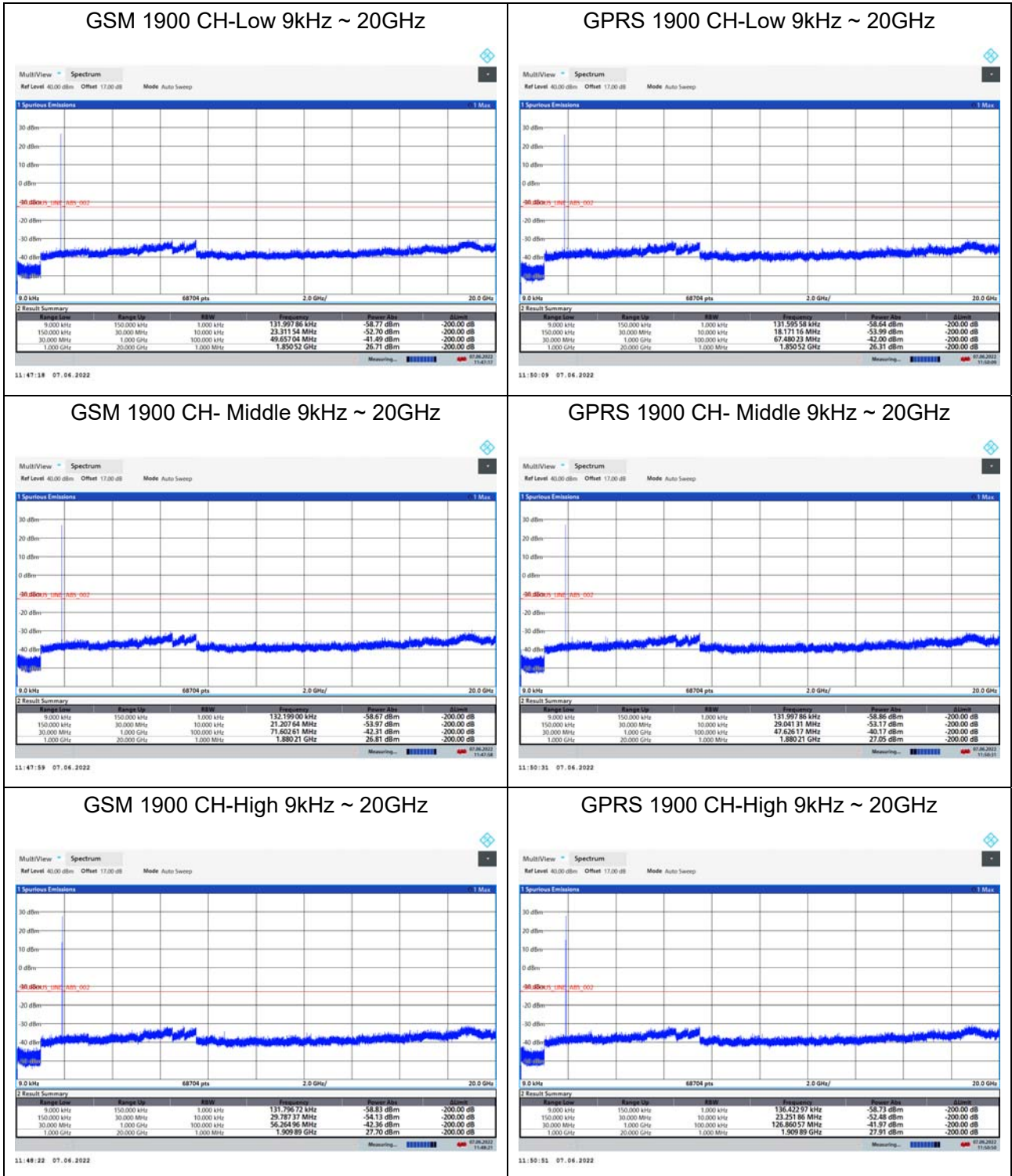


Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	8.31	12.76	6.98	0.00442	0.00679	0.00371	PASS
Extreme (35°C)		12.00	8.94	3.77	0.00638	0.00476	0.00200	PASS
Extreme (30°C)		15.24	13.64	1.10	0.00810	0.00725	0.00059	PASS
Extreme (20°C)		14.62	7.32	3.85	0.00778	0.00389	0.00205	PASS
Extreme (10°C)		4.00	3.55	1.27	0.00213	0.00189	0.00068	PASS
Extreme (0°C)		8.08	16.17	1.02	0.00430	0.00860	0.00054	PASS
25°C	LV	3.37	13.76	11.78	0.00179	0.00732	0.00627	PASS
	HV	8.70	12.87	3.47	0.00463	0.00684	0.00185	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	9.27	14.74	9.48	0.00493	0.00784	0.00504	PASS
Extreme (35°C)		14.03	4.29	11.07	0.00746	0.00228	0.00589	PASS
Extreme (30°C)		7.09	15.15	11.05	0.00377	0.00806	0.00588	PASS
Extreme (20°C)		16.25	15.40	13.87	0.00864	0.00819	0.00738	PASS
Extreme (10°C)		17.78	3.74	17.19	0.00946	0.00199	0.00914	PASS
Extreme (0°C)		3.86	1.66	11.81	0.00205	0.00088	0.00628	PASS
25°C	LV	17.12	7.20	11.24	0.00911	0.00383	0.00598	PASS
	HV	17.14	17.12	2.27	0.00912	0.00911	0.00121	PASS



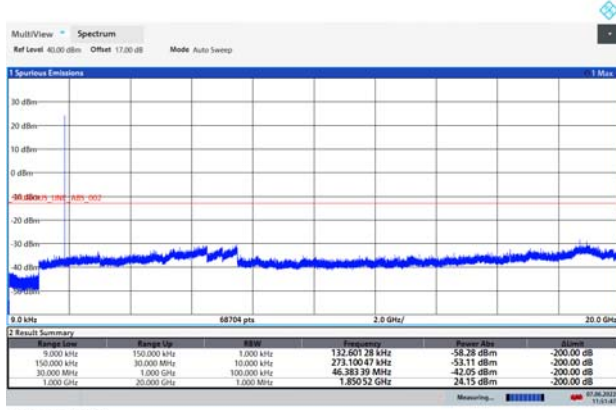
### 6.6. Spurious Emissions at Antenna Terminals

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.



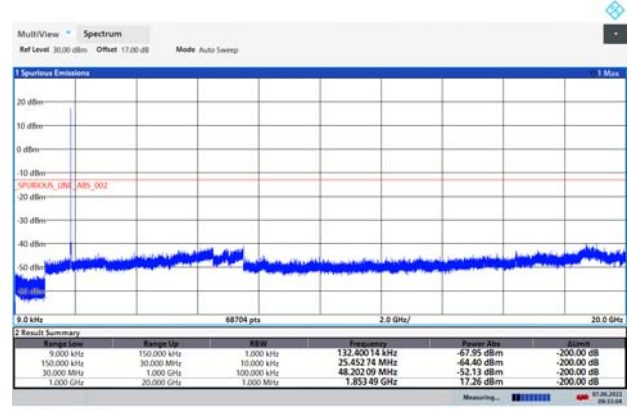


### EGPRS 1900 CH-Low 9kHz ~ 20GHz



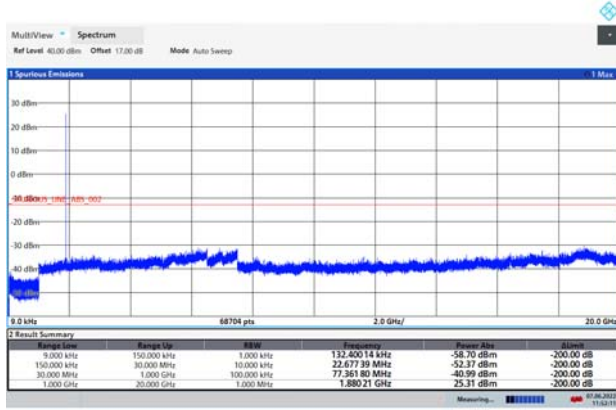
11:51:48 07.04.2022

### WCDMA BAND II CH-Low 9kHz ~ 20GHz



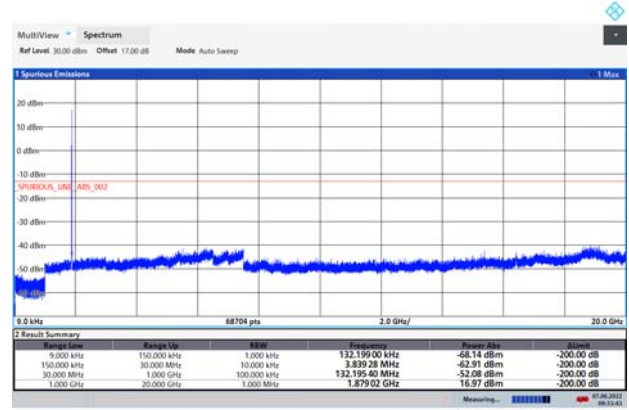
09:33:04 07.04.2022

### EGPRS 1900 CH- Middle 9kHz ~ 20GHz



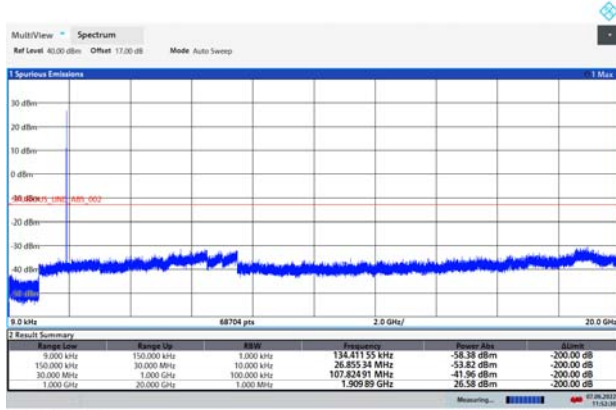
11:52:12 07.04.2022

### WCDMA BAND II CH- Middle 9kHz ~ 20GHz



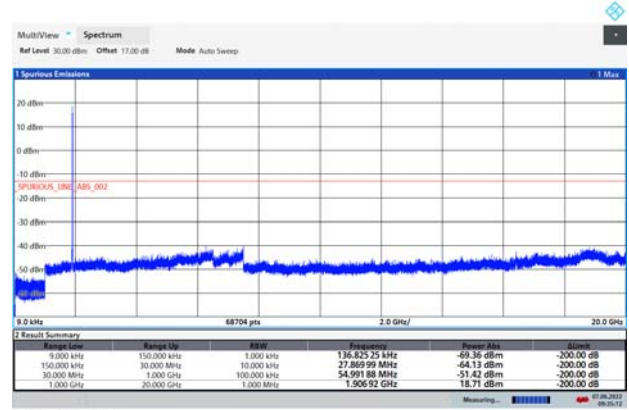
09:33:43 07.04.2022

### EGPRS 1900 CH-High 9kHz ~ 20GHz



11:52:32 07.04.2022

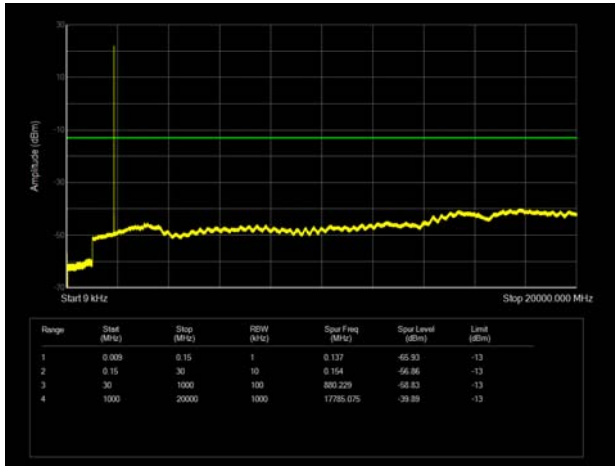
### WCDMA BAND II CH-High 9kHz ~ 20GHz



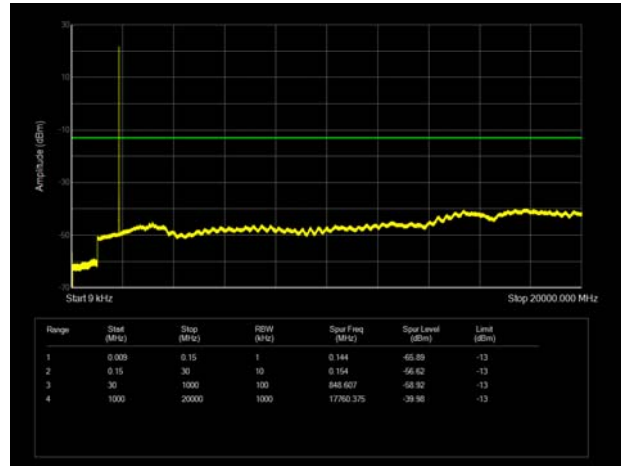
09:33:13 07.04.2022



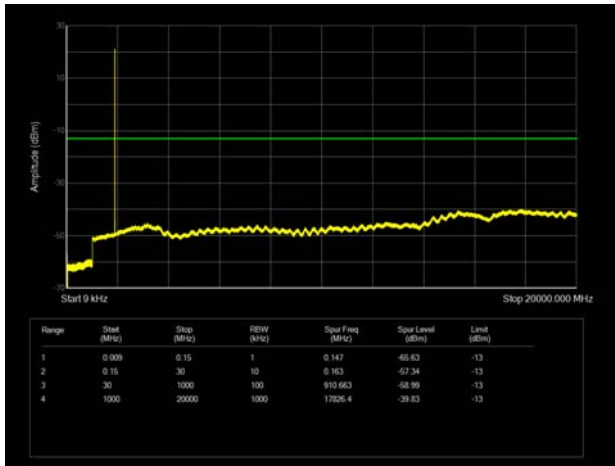
LTE Band 2 1.4MHz CH-Low 9kHz~20GHz



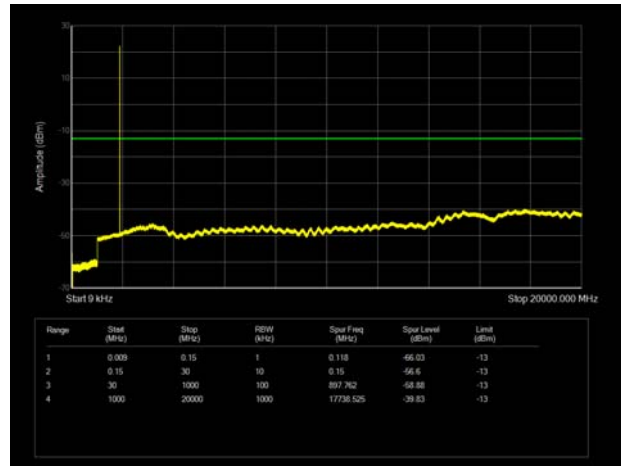
LTE Band 2 3MHz CH-Low 9kHz~20GHz



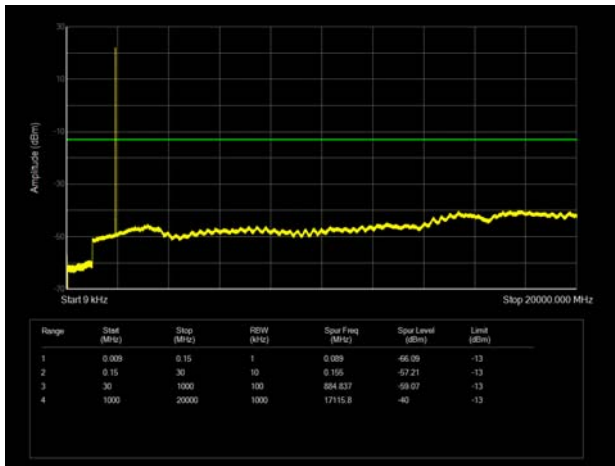
LTE Band 2 1.4MHz CH-Middle 9kHz~20GHz



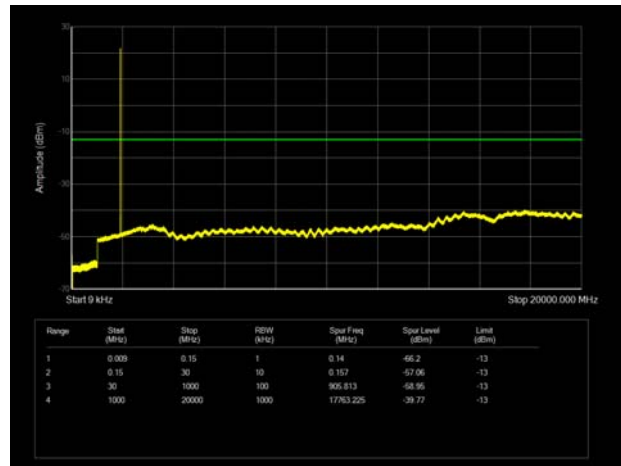
LTE Band 2 3MHz CH-Middle 9kHz~20GHz



LTE Band 2 1.4MHz CH-High 9kHz~20GHz

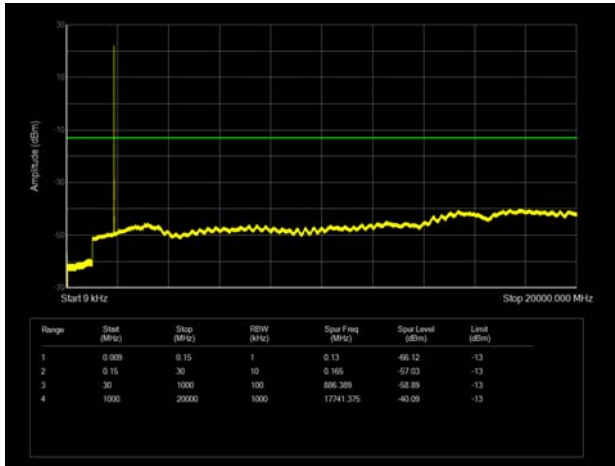


LTE Band 2 3MHz CH-High 9kHz~20GHz

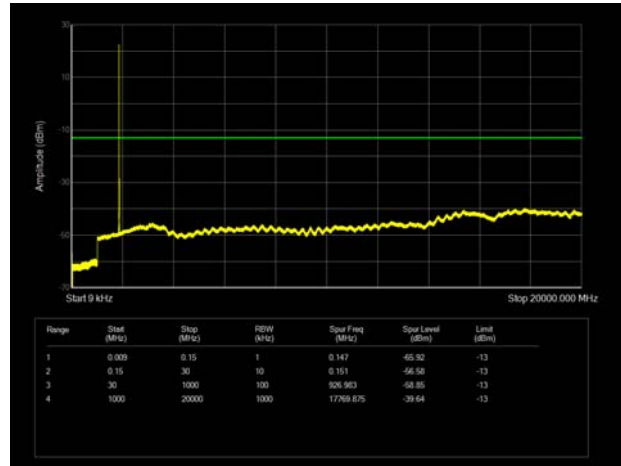




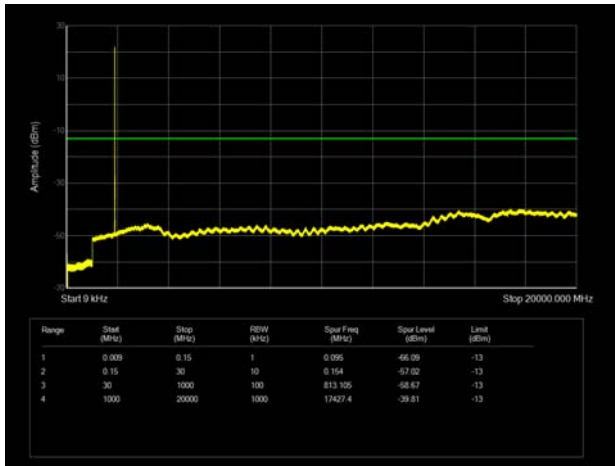
LTE Band 2 5MHz CH-Low 9kHz~20GHz



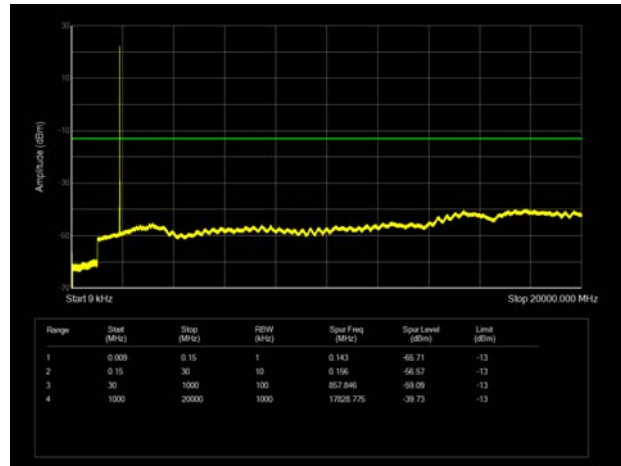
LTE Band 2 10MHz CH-Low 9kHz~20GHz



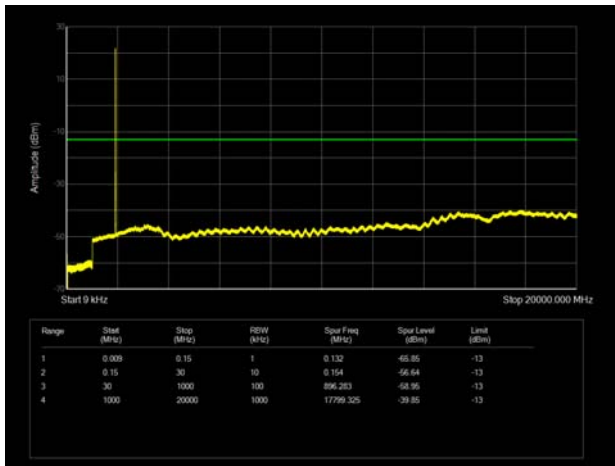
LTE Band 2 5MHz CH-Middle 9kHz~20GHz



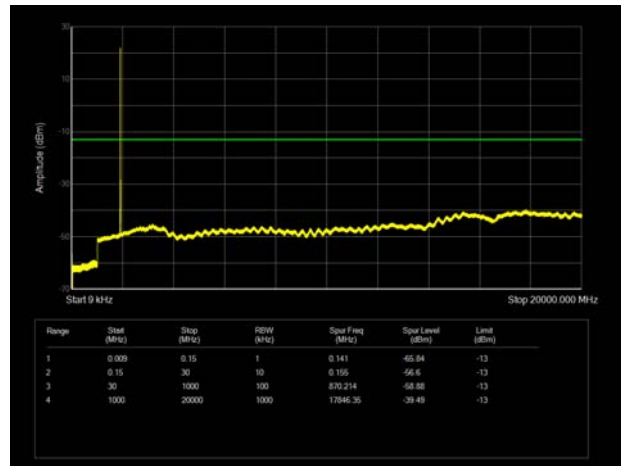
LTE Band 2 10MHz CH-Middle 9kHz~20GHz



LTE Band 2 5MHz CH-High 9kHz~20GHz

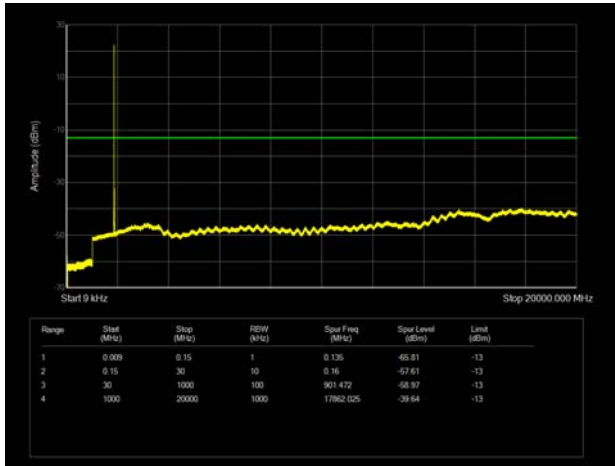


LTE Band 2 10MHz CH-High 9kHz~20GHz

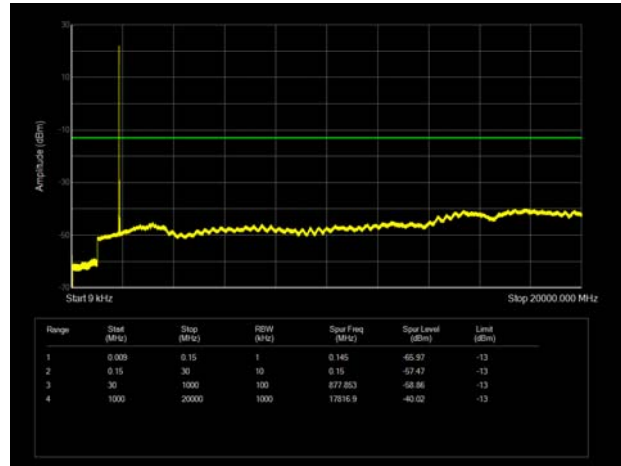




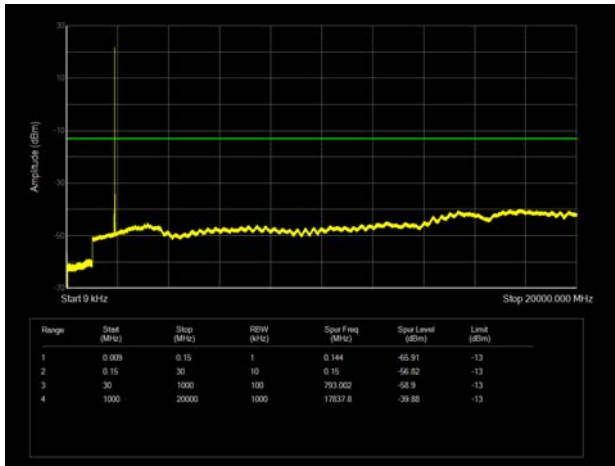
LTE Band 2 15MHz CH-Low 9kHz~20GHz



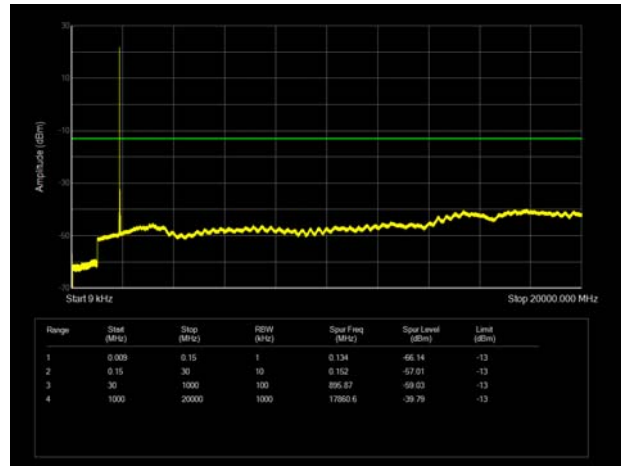
LTE Band 2 20MHz CH-Low 9kHz~20GHz



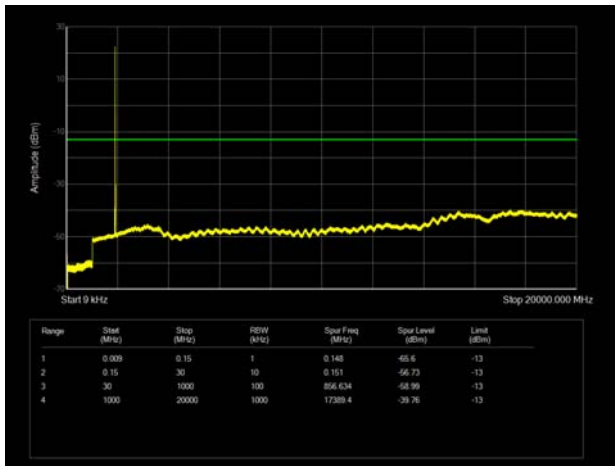
LTE Band 2 15MHz CH-Middle 9kHz~20GHz



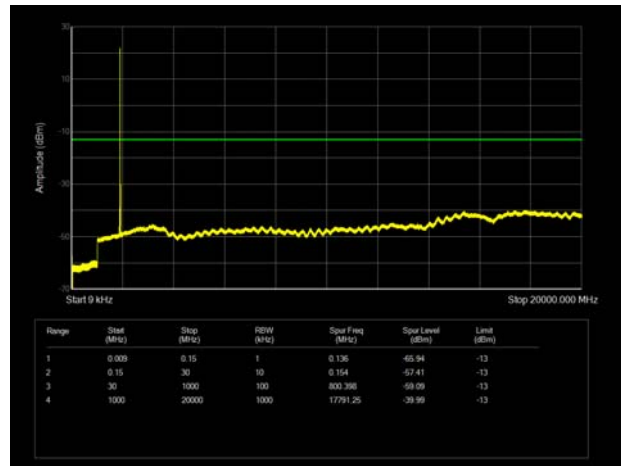
LTE Band 2 20MHz CH-Middle 9kHz~20GHz



LTE Band 2 15MHz CH-High 9kHz~20GHz



LTE Band 2 20MHz CH-High 9kHz~20GHz



## 6.7. Radiates Spurious Emission

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

### Main Antenna

GSM 1900 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-62.98	2.60	12.50	Horizontal	-53.08	-13.00	40.08	90
3	5640.00	-59.52	3.30	12.50	Horizontal	-50.32	-13.00	37.32	180
4	7520.00	-58.43	4.20	12.20	Horizontal	-50.43	-13.00	37.43	0
5	9400.00	-54.04	4.30	11.10	Horizontal	-47.24	-13.00	34.24	135
6	11280.00	-52.81	5.90	11.90	Horizontal	-46.81	-13.00	33.81	225
7	13160.00	-52.54	5.70	14.00	Horizontal	-44.24	-13.00	31.24	45
8	15040.00	-50.41	5.80	13.10	Horizontal	-43.11	-13.00	30.11	0
9	16920.00	-50.60	6.10	14.60	Horizontal	-42.10	-13.00	29.10	315
10	18800.00	--	--	--	--	--	--	--	--

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.

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	3760.00	-65.39	2.60	12.50	Horizontal	-55.49	-13.00	42.49	0
3	5640.00	-61.81	3.30	12.50	Horizontal	-52.61	-13.00	39.61	270
4	7520.00	-59.67	4.20	12.20	Horizontal	-51.67	-13.00	38.67	135
5	9400.00	-56.63	4.30	11.10	Horizontal	-49.83	-13.00	36.83	45
6	11280.00	-54.51	5.90	11.90	Horizontal	-48.51	-13.00	35.51	225
7	13160.00	-54.05	5.70	14.00	Horizontal	-45.75	-13.00	32.75	0
8	15040.00	-50.34	5.80	13.10	Horizontal	-43.04	-13.00	30.04	135
9	16920.00	-54.08	6.10	14.60	Horizontal	-45.58	-13.00	32.58	315
10	18800.00	--	--	--	--	--	--	--	--

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 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.30	-61.75	2.60	12.50	Horizontal	-51.85	-13.00	38.85	0
3	5638.88	-61.78	3.30	12.50	Horizontal	-52.58	-13.00	39.58	315
4	7520.00	-60.91	4.20	12.20	Horizontal	-52.91	-13.00	39.91	45
5	9400.00	-56.08	4.30	11.10	Horizontal	-49.28	-13.00	36.28	225
6	11280.00	-53.49	5.90	11.90	Horizontal	-47.49	-13.00	34.49	90
7	13160.00	-56.01	5.70	14.00	Horizontal	-47.71	-13.00	34.71	180
8	15040.00	-52.00	5.80	13.10	Horizontal	-44.70	-13.00	31.70	135
9	16920.00	-53.25	6.10	14.60	Horizontal	-44.75	-13.00	31.75	90
10	18800.00	--	--	--	--	--	--	--	--

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.

TE 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	3755.63	-62.13	2.60	12.50	Horizontal	-52.23	-13.00	39.23	45
3	5633.63	-60.16	3.30	12.50	Horizontal	-50.96	-13.00	37.96	0
4	7520.00	-60.83	4.20	12.20	Horizontal	-52.83	-13.00	39.83	225
5	9400.00	-56.36	4.30	11.10	Horizontal	-49.56	-13.00	36.56	270
6	11280.00	-53.20	5.90	11.90	Horizontal	-47.20	-13.00	34.20	180
7	13160.00	-56.09	5.70	14.00	Horizontal	-47.79	-13.00	34.79	225
8	15040.00	-52.00	5.80	13.10	Horizontal	-44.70	-13.00	31.70	135
9	16920.00	-53.04	6.10	14.60	Horizontal	-44.54	-13.00	31.54	0
10	18800.00	--	--	--	--	--	--	--	--

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 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3742.13	-64.79	2.60	12.50	Horizontal	-54.89	-13.00	41.89	45
3	5613.38	-62.45	3.30	12.50	Horizontal	-53.25	-13.00	40.25	90
4	7484.63	-59.38	4.20	12.20	Horizontal	-51.38	-13.00	38.38	225
5	9400.00	-56.38	4.30	11.10	Horizontal	-49.58	-13.00	36.58	315
6	11280.00	-53.01	5.90	11.90	Horizontal	-47.01	-13.00	34.01	180
7	13160.00	-56.39	5.70	14.00	Horizontal	-48.09	-13.00	35.09	90
8	15040.00	-51.82	5.80	13.10	Horizontal	-44.52	-13.00	31.52	45
9	16920.00	-54.46	6.10	14.60	Horizontal	-45.96	-13.00	32.96	135
10	18800.00	--	--	--	--	--	--	--	--

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.

## Second Antenna

## GSM 1900 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-66.80	2.60	12.50	Horizontal	-56.90	-13.00	43.90	90
3	5640.00	-60.72	3.30	12.50	Horizontal	-51.52	-13.00	38.52	180
4	7520.00	-58.60	4.20	12.20	Horizontal	-50.60	-13.00	37.60	0
5	9400.00	-55.91	4.30	11.10	Horizontal	-49.11	-13.00	36.11	135
6	11280.00	-52.97	5.90	11.90	Horizontal	-46.97	-13.00	33.97	225
7	13160.00	-55.87	5.70	14.00	Horizontal	-47.57	-13.00	34.57	45
8	15040.00	-51.09	5.80	13.10	Horizontal	-43.79	-13.00	30.79	0
9	16920.00	-53.68	6.10	14.60	Horizontal	-45.18	-13.00	32.18	315
10	18800.00	--	--	--	--	--	--	--	--

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.





## 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	3760.00	-64.54	2.60	12.50	Horizontal	-54.64	-13.00	41.64	0
3	5640.00	-60.67	3.30	12.50	Horizontal	-51.47	-13.00	38.47	270
4	7520.00	-60.57	4.20	12.20	Horizontal	-52.57	-13.00	39.57	135
5	9400.00	-56.04	4.30	11.10	Horizontal	-49.24	-13.00	36.24	45
6	11280.00	-53.41	5.90	11.90	Horizontal	-47.41	-13.00	34.41	225
7	13160.00	-55.79	5.70	14.00	Horizontal	-47.49	-13.00	34.49	0
8	15040.00	-51.12	5.80	13.10	Horizontal	-43.82	-13.00	30.82	135
9	16920.00	-53.86	6.10	14.60	Horizontal	-45.36	-13.00	32.36	315
10	18800.00	--	--	--	--	--	--	--	--

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 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3759.20	-62.34	2.60	12.50	Vertical	-52.44	-13.00	39.44	45
3	5638.88	-61.13	3.30	12.50	Vertical	-51.93	-13.00	38.93	270
4	7520.00	-58.38	4.20	12.20	Vertical	-50.38	-13.00	37.38	180
5	9400.00	-55.89	4.30	11.10	Vertical	-49.09	-13.00	36.09	225
6	11280.00	-51.81	5.90	11.90	Vertical	-45.81	-13.00	32.81	0
7	13160.00	-55.74	5.70	14.00	Vertical	-47.44	-13.00	34.44	0
8	15040.00	-49.74	5.80	13.10	Vertical	-42.44	-13.00	29.44	135
9	16920.00	-52.51	6.10	14.60	Vertical	-44.01	-13.00	31.01	180
10	18800.00	--	--	--	--	--	--	--	--

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.



## TE 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	3755.63	-62.94	2.60	12.50	Vertical	-53.04	-13.00	40.04	225
3	5633.63	-60.16	3.30	12.50	Vertical	-50.96	-13.00	37.96	135
4	7520.00	-59.94	4.20	12.20	Vertical	-51.94	-13.00	38.94	315
5	9400.00	-56.01	4.30	11.10	Vertical	-49.21	-13.00	36.21	0
6	11280.00	-52.53	5.90	11.90	Vertical	-46.53	-13.00	33.53	135
7	13160.00	-54.94	5.70	14.00	Vertical	-46.64	-13.00	33.64	135
8	15040.00	-49.62	5.80	13.10	Vertical	-42.32	-13.00	29.32	225
9	16920.00	-52.39	6.10	14.60	Vertical	-43.89	-13.00	30.89	135
10	18800.00	--	--	--	--	--	--	--	--

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

## LTE Band 2 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3742.13	-65.22	2.60	12.50	Vertical	-55.32	-13.00	42.32	180
3	5613.38	-61.88	3.30	12.50	Vertical	-52.68	-13.00	39.68	90
4	7484.63	-59.05	4.20	12.20	Vertical	-51.05	-13.00	38.05	90
5	9400.00	-56.38	4.30	11.10	Vertical	-49.58	-13.00	36.58	90
6	11280.00	-51.57	5.90	11.90	Vertical	-45.57	-13.00	32.57	135
7	13160.00	-53.89	5.70	14.00	Vertical	-45.59	-13.00	32.59	315
8	15040.00	-50.49	5.80	13.10	Vertical	-43.19	-13.00	30.19	135
9	16920.00	-52.73	6.10	14.60	Vertical	-44.23	-13.00	31.23	180
10	18800.00	--	--	--	--	--	--	--	--

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.



## 7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Climate Chamber	ESPEC	SU-242	93000506	2021-12-12	2022-12-11
Universal Radio Communication Tester	R&S	CMW500	150415	2022-05-14	2023-05-13
Spectrum Analyzer	Keysight	N9020A	MY50510203	2021-12-12	2022-12-11
Communication tester	Agilent	E5515C	GB444400275	2021-12-12	2022-12-11
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-11
Spectrum Analyzer	R&S	FSV40	101297	2021-12-12	2022-12-11
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	01111	2019-09-12	2022-09-11
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
Software	R&S	EMC32	10.35.10	/	/

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



## **ANNEX A: The EUT Appearance**

**The EUT Appearance is submitted separately.**



## **ANNEX B: Test Setup Photos**

**The Test Setup Photos is submitted separately.**