



# RF TEST REPORT

**Applicant** ZTE Corporation  
**FCC ID** SRQ-ZTEA2023G  
**Product** 5G NR Multi model smart phone  
**Model** ZTE A2023G  
**Report No.** R2204A0354-R2V1  
**Issue Date** June 2, 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.

Prepared by: Peng Tao

Approved by: Kai Xu

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**TA Technology (Shanghai) Co., Ltd.**

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000



## TABLE OF CONTENT

1. Test Laboratory .....	5
1.1. Notes of the test report .....	5
1.2. Test facility .....	5
1.3. Testing Location .....	5
2. General Description of Equipment under Test .....	6
2.1. Applicant and Manufacturer Information .....	6
2.2. General information .....	6
3. Applied Standards .....	8
4. Test Configuration .....	9
5. Test Case .....	11
5.1. RF Power Output and Effective Isotropic Radiated Power .....	11
5.2. Occupied Bandwidth .....	12
5.3. Band Edge Compliance .....	13
5.4. Peak-to-Average Power Ratio (PAPR) .....	14
5.5. Frequency Stability .....	15
5.6. Spurious Emissions at Antenna Terminals .....	17
5.7. Radiates Spurious Emission .....	18
6. Test Results .....	21
6.1. RF Power Output and Effective Isotropic Radiated Power .....	21
6.2. Occupied Bandwidth .....	29
6.3. Band Edge Compliance .....	49
6.4. Peak-to-Average Power Ratio (PAPR) .....	67
6.5. Frequency Stability .....	70
6.6. Spurious Emissions at Antenna Terminals .....	76
6.7. Radiates Spurious Emission .....	84
7. Main Test Instruments .....	92
ANNEX A: The EUT Appearance .....	93
ANNEX B: Test Setup Photos .....	94



Version	Revision description	Issue Date
Rev.0	Initial issue of report.	May 28, 2022
Rev.1	Update information.	June 2, 2022

Note: This revised report (Report No. R2204A0354-R2V1) supersedes and replaces the previously issued report (Report No. R2204A0354-R2). Please discard or destroy the previously issued report and dispose of it accordingly.



## 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: April 29, 2022 ~ May 27, 2022			
Date of Sample Received: April12, 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  
Contact: Xu Kai  
Telephone: +86-021-50791141/2/3  
Fax: +86-021-50791141/2/3-8000  
Website: <http://www.ta-shanghai.com>  
E-mail: [xukai@ta-shanghai.com](mailto:xukai@ta-shanghai.com)

## 2. General Description of Equipment under Test

### 2.1. Applicant and Manufacturer Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, #55 Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, #55 Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, China

### 2.2. General information

EUT Description			
Model	ZTE A2023G		
SN	327324660005		
Hardware Version	ZTE A2023GHW1.0		
Software Version	MyOS12.0.2_A2023G_GLB		
Power Supply	Battery / AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Band	Main Antenna Gain(dBi)	Second Antenna Gain(dBi)
	GSM 1900:	ANT1:-1.5	ANT4:-5.5
	WCDMA Band II:	ANT1:-1.5	ANT4:-5.5
	LTE Band 2:	ANT1:-1.5	ANT4:-5.5
	NR n2:	ANT1:-1.5	ANT4:-5.5
Test Mode(s)	GSM1900; WCDMA Band II; LTE Band 2; NR n2		
Test Modulation	(GSM/GPRS)GMSK, (EGPRS) GMSK/ 8PSK; (WCDMA) BPSK, QPSK,16QAM; (LTE)QPSK,16QAM, 64QAM; (NR) CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM; DFT-s OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM		
GPRS Multislot Class	12		
EGPRS Multislot Class	12		
HSDPA UE Category	24		
HSUPA UE Category	6		
HSPA+ UE Category	7		
Maximum E.I.R.P	GSM 1900:	27.86dBm	
	WCDMA Band II:	22.50dBm	
	LTE Band 2:	22.88dBm	
	NR n2:	21.74dBm	



Rated Power Supply Voltage	3.89V		
Operating Voltage	Minimum: 3.7V    Maximum: 4.45V		
Operating Temperature	Lowest: -10°C    Highest: +40°C		
Testing Temperature	Lowest: -30°C    Highest: +50°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
	NR n2	1850 ~ 1910	1930 ~ 1990
<b>EUT Accessory</b>			
Adapter	Manufacturer: ShenZhen KunXing Technology Co., Ltd. Model: STC-A59152050AC-Z		
Battery	Manufacturer: Zhuhai CosMX Battery Co., Ltd Model: LI3949T44P8h806459		
Earphone 1	Manufacturer: JUWEI ELECTRONICS CO.,LTD Model: JWEP1092-Z01		
Earphone 2	Manufacturer: ShenZhen FDC Electronic Co.,Ltd Model: DEM-9A		
USB Cable 1	Manufacturer: King Power Electronics Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF		
USB Cable 1	Manufacturer: Luxshare-ICT Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF		
Type-C to 3.5 mm Headphone Jack	Manufacturer: JUWEI ELECTRONICS CO., LTD Model: 080503000100		
<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 one USB cable/ Earphone, each one should be applied throughout the compliance test respectively, and however, only the worst case (USB cable 2) 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 (Main Antenna: X axis, horizontal polarization for GSM/WCDMA; Z axis, vertical polarization for LTE; Z axis, horizontal for NR; Second Antenna: X axis, horizontal polarization for GSM/WCDMA; Z axis, horizontal polarization for LTE; X axis, horizontal for NR) 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 HSDPA/HSUPA DC-HSDPA/HSPA+
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.													

Test modes are chosen to be reported as the worst case configuration below for NR n2:

Test items	Mode	Bandwidth (MHz)				Modulation					RB			Test Channel		
		5	10	15	20	PI/2 BPSK	QPSK	16 QAM	64 QAM	256 QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	NR n2	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	NR n2	-	-	-	O	O	O	O	O	O	O	O	-	O	O	O
Band Edge Compliance	NR n2	-	-	-	O	O	O	O	O	O	O	O	-	O	O	O
Peak-to-Average Power Ratio	NR n2	-	-	-	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	NR n2	O	O	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	NR n2	-	-	-	O	O	O	O	O	O	O	-	-	O	O	O
Radiates Spurious Emission	NR n2	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. 3. Sub 6GHz operates using 15kHz Subcarrier Spacing with both CP-OFDM and DFT-s OFDM waveforms. The band supports PI/2 BPSK, QPSK, 16QAM, 64QAM, and 256QAM modulation. The test data provided in this report represents the worst case configurations.															

## 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.

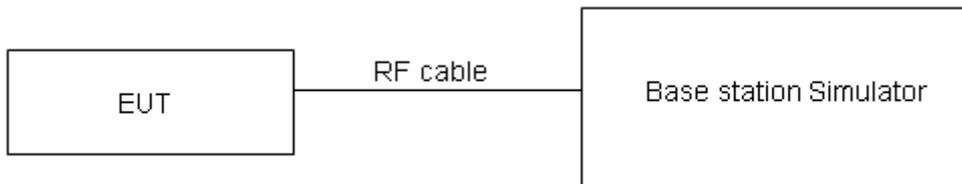
ERP can then be calculated as follows:

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

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

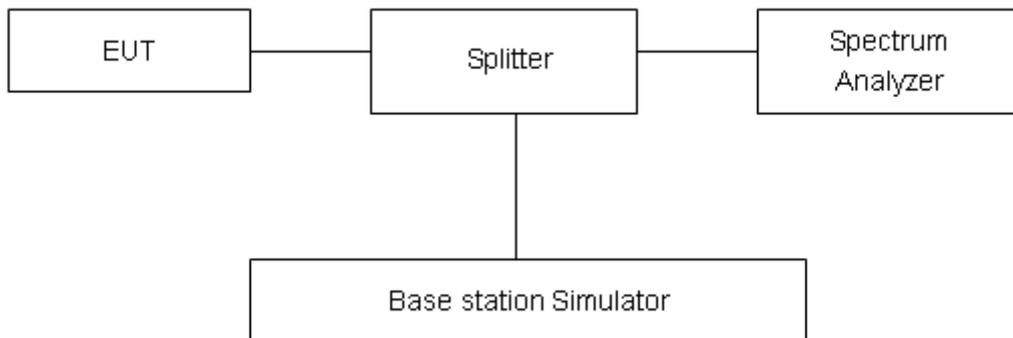
### Method of Measurement

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

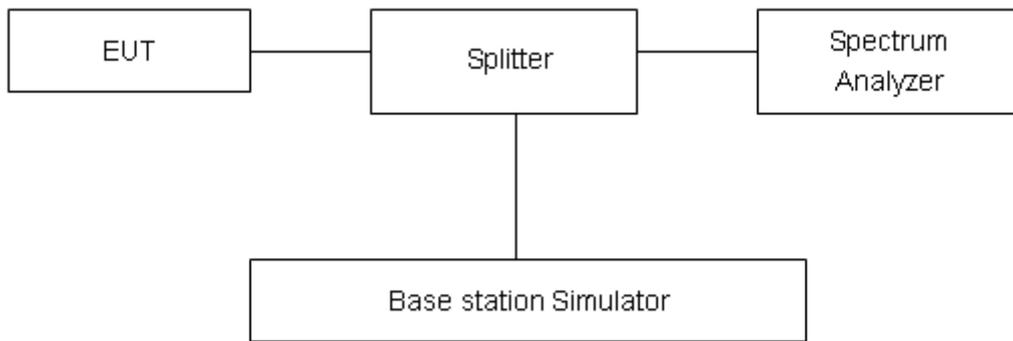
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

#### 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

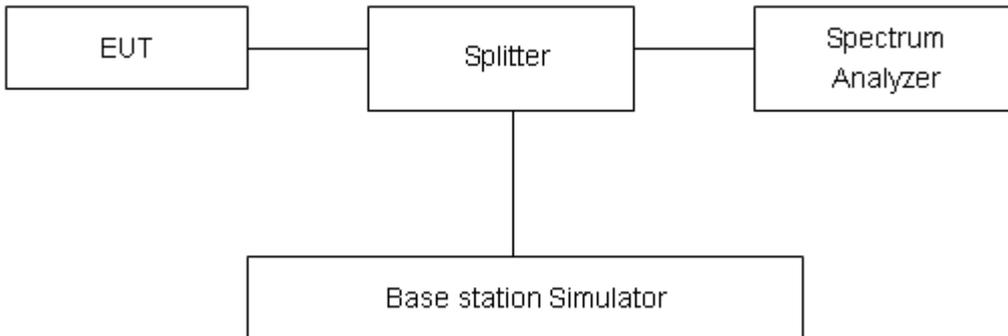
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

#### 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 -30°C to +50°C in 10°C step size,

(1) With all power removed, the temperature was decreased to 0°C and permitted to stabilize for three hours.

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

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

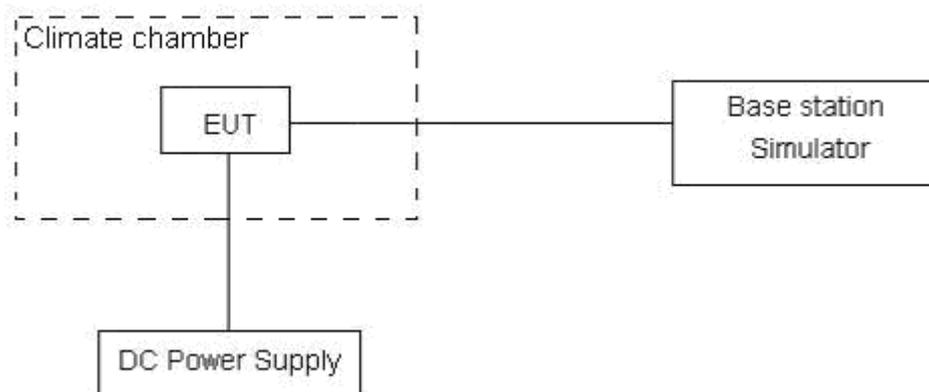
##### Frequency Stability (Voltage Variation)

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 3.7 V and 4.45 V, with a nominal voltage of 3.89V.

#### 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),

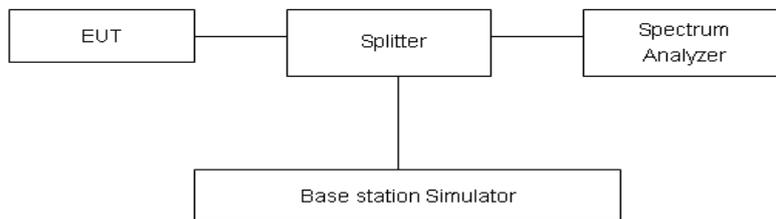
RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

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

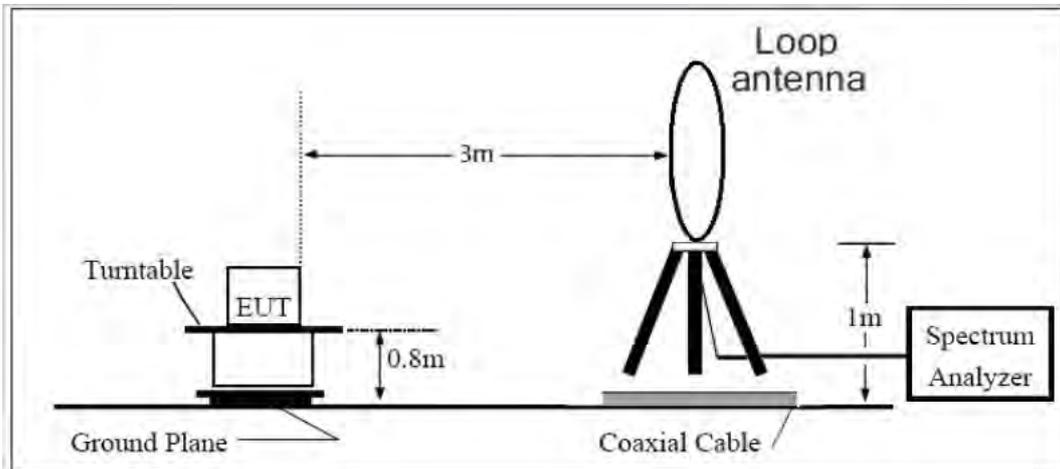
1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable 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.

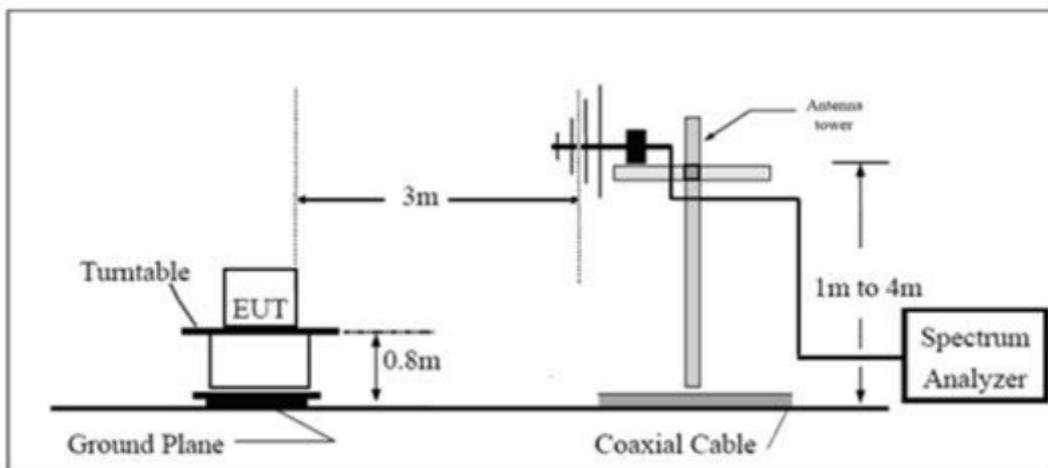
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

**Test setup**

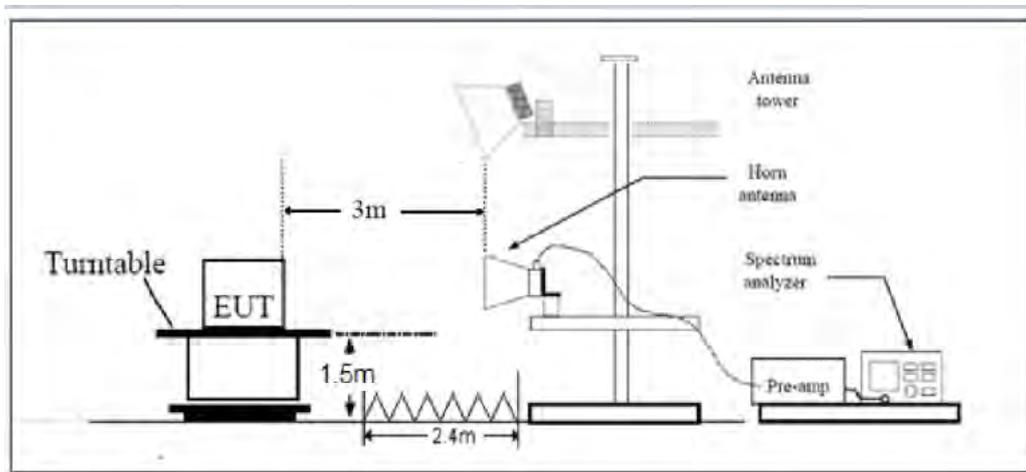
**9KHz ~ 30MHz**



**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)			Antenna 1 EIRP (dBm)			Antenna 4 EIRP (dBm)		
		Channel 128	Channel 190	Channel 251	Channel 128	Channel 190	Channel 251	Channel 128	Channel 190	Channel 251
		824.2 (MHz)	836.6 (MHz)	848.8 (MHz)	824.2 (MHz)	836.6 (MHz)	848.8 (MHz)	824.2 (MHz)	836.6 (MHz)	848.8 (MHz)
GSM(GMSK)	Results	29.35	29.05	29.32	27.85	27.55	27.82	23.85	23.55	23.82
GPRS (GMSK)	1TXslot	29.36	29.20	29.30	27.86	27.70	27.80	23.86	23.70	23.80
	2TXslots	27.22	26.85	26.71	25.72	25.35	25.21	21.72	21.35	21.21
	3TXslots	25.38	24.94	25.30	23.88	23.44	23.80	19.88	19.44	19.80
	4TXslots	24.12	24.12	24.18	22.62	22.62	22.68	18.62	18.62	18.68
EGPRS (8PSK)	1TXslot	25.67	25.50	25.58	24.17	24.00	24.08	20.17	20.00	20.08
	2TXslots	23.22	23.05	23.03	21.72	21.55	21.53	17.72	17.55	17.53
	3TXslots	21.51	20.96	21.22	20.01	19.46	19.72	16.01	15.46	15.72
	4TXslots	20.56	20.22	20.25	19.06	18.72	18.75	15.06	14.72	14.75

WCDMA Band II		Maximum Output Power (dBm)			Antenna 1 EIRP (dBm)			Antenna 4 EIRP (dBm)		
		Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233	Channel 4132	Channel 4183	Channel 4233
		826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)	826.4 (MHz)	836.6 (MHz)	846.6 (MHz)
RMC	12.2k	<b>24.00</b>	23.87	23.89	22.50	22.37	22.39	18.50	18.37	18.39
AMR	12.2k	23.94	23.73	23.73	22.44	22.23	22.23	18.44	18.23	18.23
HSDPA	Sub - Test 1	22.88	23.03	23.03	21.38	21.53	21.53	17.38	17.53	17.53
	Sub - Test 2	22.90	22.95	22.75	21.40	21.45	21.25	17.40	17.45	17.25
	Sub - Test 3	22.56	22.45	22.37	21.06	20.95	20.87	17.06	16.95	16.87
	Sub - Test 4	22.42	22.41	22.47	20.92	20.91	20.97	16.92	16.91	16.97
HSUPA	Sub - Test 1	23.10	22.79	23.05	21.60	21.29	21.55	17.60	17.29	17.55
	Sub - Test 2	20.90	20.99	20.87	19.40	19.49	19.37	15.40	15.49	15.37
	Sub - Test 3	22.00	21.83	21.95	20.50	20.33	20.45	16.50	16.33	16.45
	Sub - Test 4	21.00	21.01	20.95	19.50	19.51	19.45	15.50	15.51	15.45
	Sub - Test 5	23.02	23.01	23.05	21.52	21.51	21.55	17.52	17.51	17.55
DC-HSDPA	Sub - Test 1	23.00	22.79	22.85	21.50	21.29	21.35	17.50	17.29	17.35
	Sub - Test 2	22.90	22.77	22.75	21.40	21.27	21.25	17.40	17.27	17.25
	Sub - Test 3	22.48	22.47	22.31	20.98	20.97	20.81	16.98	16.97	16.81
	Sub - Test 4	22.54	22.45	22.43	21.04	20.95	20.93	17.04	16.95	16.93
HSPA+	16QAM	21.66	21.63	21.47	20.16	20.13	19.97	16.16	16.13	15.97



LTE Band 2				Maximum Output Power(dBm)			Antenna 1 EIRP (dBm)			Antenna 4 EIRP (dBm)		
BW	Modulation	RB size	RB 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	23.90	24.00	23.97	22.40	22.50	22.47	18.40	18.50	18.47
		1	2	24.05	24.15	24.14	22.55	22.65	22.64	18.55	18.65	18.64
		1	5	24.35	24.12	24.20	22.85	22.62	22.70	18.85	18.62	18.70
		3	0	24.21	24.19	23.97	22.71	22.69	22.47	18.71	18.69	18.47
		3	2	24.30	24.27	24.22	22.80	22.77	22.72	18.80	18.77	18.72
		3	3	24.33	24.28	24.24	22.83	22.78	22.74	18.83	18.78	18.74
		6	0	23.36	23.24	23.31	21.86	21.74	21.81	17.86	17.74	17.81
	16QAM	1	0	23.34	23.28	23.31	21.84	21.78	21.81	17.84	17.78	17.81
		1	2	23.48	23.44	23.44	21.98	21.94	21.94	17.98	17.94	17.94
		1	5	23.61	23.46	23.51	22.11	21.96	22.01	18.11	17.96	18.01
		3	0	23.22	23.09	23.11	21.72	21.59	21.61	17.72	17.59	17.61
		3	2	23.37	23.21	23.25	21.87	21.71	21.75	17.87	17.71	17.75
		3	3	23.39	23.28	23.29	21.89	21.78	21.79	17.89	17.78	17.79
		6	0	22.38	22.28	22.33	20.88	20.78	20.83	16.88	16.78	16.83
	64QAM	1	0	22.42	22.22	22.29	20.92	20.72	20.79	16.92	16.72	16.79
		1	2	22.52	22.51	22.40	21.02	21.01	20.90	17.02	17.01	16.90
		1	5	22.56	22.44	22.44	21.06	20.94	20.94	17.06	16.94	16.94
		3	0	22.29	22.18	22.20	20.79	20.68	20.70	16.79	16.68	16.70
		3	2	22.40	22.24	22.28	20.90	20.74	20.78	16.90	16.74	16.78
		3	3	22.44	22.33	22.34	20.94	20.83	20.84	16.94	16.83	16.84
		6	0	21.43	21.32	21.37	19.93	19.82	19.87	15.93	15.82	15.87
BW	Modulation	RB size	RB 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	23.92	24.04	24.00	22.42	22.54	22.50	18.42	18.54	18.50
		1	7	24.03	24.18	24.18	22.53	22.68	22.68	18.53	18.68	18.68
		1	14	24.38	24.17	24.24	22.88	22.67	22.74	18.88	18.67	18.74
		8	0	23.31	23.31	23.10	21.81	21.81	21.60	17.81	17.81	17.60
		8	4	23.42	23.37	23.34	21.92	21.87	21.84	17.92	17.87	17.84
		8	7	23.43	23.39	23.34	21.93	21.89	21.84	17.93	17.89	17.84
		15	0	23.36	23.28	23.34	21.86	21.78	21.84	17.86	17.78	17.84
	16QAM	1	0	23.34	23.30	23.34	21.84	21.80	21.84	17.84	17.80	17.84



		1	7	23.48	23.44	23.48	21.98	21.94	21.98	17.98	17.94	17.98
		1	14	23.63	23.50	23.54	22.13	22.00	22.04	18.13	18.00	18.04
		8	0	22.33	22.22	22.23	20.83	20.72	20.73	16.83	16.72	16.73
		8	4	22.48	22.34	22.37	20.98	20.84	20.87	16.98	16.84	16.87
		8	7	22.49	22.40	22.42	20.99	20.90	20.92	16.99	16.90	16.92
		15	0	22.41	22.32	22.36	20.91	20.82	20.86	16.91	16.82	16.86
	64QAM	1	0	22.45	22.24	22.32	20.95	20.74	20.82	16.95	16.74	16.82
		1	7	22.55	22.51	22.42	21.05	21.01	20.92	17.05	17.01	16.92
		1	14	22.58	22.43	22.47	21.08	20.93	20.97	17.08	16.93	16.97
		8	0	21.40	21.31	21.32	19.90	19.81	19.82	15.90	15.81	15.82
		8	4	21.51	21.37	21.40	20.01	19.87	19.90	16.01	15.87	15.90
		8	7	21.54	21.45	21.47	20.04	19.95	19.97	16.04	15.95	15.97
			15	0	21.46	21.36	21.40	19.96	19.86	19.90	15.96	15.86
BW	Modulation	RB size	RB 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	23.89	24.02	23.96	22.39	22.52	22.46	18.39	18.52	18.46
		1	13	24.01	24.14	24.15	22.51	22.64	22.65	18.51	18.64	18.65
		1	24	24.35	24.12	24.20	22.85	22.62	22.70	18.85	18.62	18.70
		12	0	23.28	23.26	23.06	21.78	21.76	21.56	17.78	17.76	17.56
		12	6	23.40	23.33	23.29	21.90	21.83	21.79	17.90	17.83	17.79
		12	13	23.41	23.37	23.30	21.91	21.87	21.80	17.91	17.87	17.80
		25	0	23.36	23.27	23.32	21.86	21.77	21.82	17.86	17.77	17.82
	16QAM	1	0	23.34	23.26	23.31	21.84	21.76	21.81	17.84	17.76	17.81
		1	13	23.48	23.42	23.45	21.98	21.92	21.95	17.98	17.92	17.95
		1	24	23.60	23.48	23.50	22.10	21.98	22.00	18.10	17.98	18.00
		12	0	22.31	22.18	22.20	20.81	20.68	20.70	16.81	16.68	16.70
		12	6	22.45	22.29	22.33	20.95	20.79	20.83	16.95	16.79	16.83
		12	13	22.46	22.35	22.38	20.96	20.85	20.88	16.96	16.85	16.88
		25	0	22.39	22.28	22.31	20.89	20.78	20.81	16.89	16.78	16.81
	64QAM	1	0	22.42	22.24	22.29	20.92	20.74	20.79	16.92	16.74	16.79
		1	13	22.52	22.53	22.39	21.02	21.03	20.89	17.02	17.03	16.89
		1	24	22.59	22.41	22.43	21.09	20.91	20.93	17.09	16.91	16.93
		12	0	21.38	21.27	21.33	19.88	19.77	19.83	15.88	15.77	15.83
		12	6	21.48	21.32	21.36	19.98	19.82	19.86	15.98	15.82	15.86
		12	13	21.51	21.40	21.43	20.01	19.90	19.93	16.01	15.90	15.93
		25	0	21.44	21.32	21.35	19.94	19.82	19.85	15.94	15.82	15.85



BW	Modulation	RB size	RB 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	23.91	24.03	23.99	22.41	22.53	22.49	18.41	18.53	18.49
		1	25	24.04	24.19	24.19	22.54	22.69	22.69	18.54	18.69	18.69
		1	49	24.37	24.16	24.23	22.87	22.66	22.73	18.87	18.66	18.73
		25	0	23.31	23.31	23.10	21.81	21.81	21.60	17.81	17.81	17.60
		25	13	23.43	23.38	23.33	21.93	21.88	21.83	17.93	17.88	17.83
		25	25	23.43	23.41	23.35	21.93	21.91	21.85	17.93	17.91	17.85
		50	0	23.40	23.29	23.36	21.90	21.79	21.86	17.90	17.79	17.86
	16QAM	1	0	23.38	23.29	23.33	21.88	21.79	21.83	17.88	17.79	17.83
		1	25	23.52	23.46	23.48	22.02	21.96	21.98	18.02	17.96	17.98
		1	49	23.63	23.50	23.53	22.13	22.00	22.03	18.13	18.00	18.03
		25	0	22.34	22.23	22.24	20.84	20.73	20.74	16.84	16.73	16.74
		25	13	22.47	22.33	22.36	20.97	20.83	20.86	16.97	16.83	16.86
		25	25	22.49	22.40	22.42	20.99	20.90	20.92	16.99	16.90	16.92
		50	0	22.42	22.33	22.35	20.92	20.83	20.85	16.92	16.83	16.85
	64QAM	1	0	22.44	22.23	22.31	20.94	20.73	20.81	16.94	16.73	16.81
		1	25	22.55	22.53	22.42	21.05	21.03	20.92	17.05	17.03	16.92
		1	49	22.58	22.43	22.46	21.08	20.93	20.96	17.08	16.93	16.96
		25	0	21.41	21.32	21.33	19.91	19.82	19.83	15.91	15.82	15.83
		25	13	21.50	21.36	21.39	20.00	19.86	19.89	16.00	15.86	15.89
		25	25	21.54	21.45	21.47	20.04	19.95	19.97	16.04	15.95	15.97
		50	0	21.47	21.37	21.39	19.97	19.87	19.89	15.97	15.87	15.89
BW	Modulation	RB size	RB 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	23.90	23.99	23.97	22.40	22.49	22.47	18.40	18.49	18.47
		1	38	24.02	24.18	24.16	22.52	22.68	22.66	18.52	18.68	18.66
		1	74	24.34	24.11	24.19	22.84	22.61	22.69	18.84	18.61	18.69
		36	0	23.29	23.27	23.07	21.79	21.77	21.57	17.79	17.77	17.57
		36	18	23.40	23.33	23.29	21.90	21.83	21.79	17.90	17.83	17.79
		36	39	23.40	23.38	23.31	21.90	21.88	21.81	17.90	17.88	17.81
		75	0	23.38	23.25	23.31	21.88	21.75	21.81	17.88	17.75	17.81
	16QAM	1	0	23.36	23.27	23.31	21.86	21.77	21.81	17.86	17.77	17.81
		1	38	23.50	23.43	23.46	22.00	21.93	21.96	18.00	17.93	17.96
		1	74	23.61	23.46	23.50	22.11	21.96	22.00	18.11	17.96	18.00



		36	0	22.31	22.21	22.21	20.81	20.71	20.71	16.81	16.71	16.71	
		36	18	22.44	22.28	22.32	20.94	20.78	20.82	16.94	16.78	16.82	
		36	39	22.47	22.36	22.39	20.97	20.86	20.89	16.97	16.86	16.89	
		75	0	22.39	22.28	22.31	20.89	20.78	20.81	16.89	16.78	16.81	
	64QAM	1	0	22.39	22.21	22.29	20.89	20.71	20.79	16.89	16.71	16.79	
		1	38	22.53	22.50	22.40	21.03	21.00	20.90	17.03	17.00	16.90	
		1	74	22.59	22.42	22.47	21.09	20.92	20.97	17.09	16.92	16.97	
		36	0	21.40	21.34	21.34	19.90	19.84	19.84	15.90	15.84	15.84	
		36	18	21.48	21.33	21.38	19.98	19.83	19.88	15.98	15.83	15.88	
		36	39	21.52	21.41	21.44	20.02	19.91	19.94	16.02	15.91	15.94	
		75	0	21.44	21.32	21.35	19.94	19.82	19.85	15.94	15.82	15.85	
	BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
					18650/ 1855	18900/ 1880	19150/ 1905	18650/ 1855	18900/ 1880	19150/ 1905	18650/ 1855	18900/ 1880	19150/ 1905
20MHz	QPSK	1	0	23.87	23.95	23.94	22.37	22.45	22.44	18.37	18.45	18.44	
		1	50	24.01	<b>24.14</b>	24.14	22.51	22.64	22.64	18.51	18.64	18.64	
		1	99	<b>24.32</b>	24.10	<b>24.16</b>	22.82	22.60	22.66	18.82	18.60	18.66	
		50	0	23.26	23.22	23.03	21.76	21.72	21.53	17.76	17.72	17.53	
		50	25	<b>23.38</b>	23.29	23.26	21.88	21.79	21.76	17.88	17.79	17.76	
		50	50	23.37	<b>23.33</b>	<b>23.27</b>	21.87	21.83	21.77	17.87	17.83	17.77	
		100	0	<b>23.35</b>	23.20	23.27	21.85	21.70	21.77	17.85	17.70	17.77	
	16QAM	1	0	23.33	23.23	23.26	21.83	21.73	21.76	17.83	17.73	17.76	
		1	50	23.47	23.41	23.42	21.97	21.91	21.92	17.97	17.91	17.92	
		1	99	23.58	23.43	23.48	22.08	21.93	21.98	18.08	17.93	17.98	
		50	0	22.28	22.17	22.18	20.78	20.67	20.68	16.78	16.67	16.68	
		50	25	22.41	22.26	22.29	20.91	20.76	20.79	16.91	16.76	16.79	
		50	50	22.44	22.31	22.35	20.94	20.81	20.85	16.94	16.81	16.85	
		100	0	22.37	22.24	22.28	20.87	20.74	20.78	16.87	16.74	16.78	
	64QAM	1	0	22.37	22.17	22.24	20.87	20.67	20.74	16.87	16.67	16.74	
		1	50	22.49	22.48	22.36	20.99	20.98	20.86	16.99	16.98	16.86	
		1	99	22.53	22.36	22.41	21.03	20.86	20.91	17.03	16.86	16.91	
		50	0	21.35	21.26	21.27	19.85	19.76	19.77	15.85	15.76	15.77	
		50	25	21.44	21.29	21.32	19.94	19.79	19.82	15.94	15.79	15.82	
		50	50	21.49	21.36	21.40	19.99	19.86	19.90	15.99	15.86	15.90	
		100	0	21.42	21.28	21.32	19.92	19.78	19.82	15.92	15.78	15.82	



NR n2													
Bandwidth(MHz)	Modulation	SCS(KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			Antenna 1 EIRP (dBm)			Antenna 4 EIRP (dBm)		
					370500	376000	381500	370500	376000	381500	370500	376000	381500
					1852.5	1880	1907.5	1852.5	1880	1907.5	1852.5	1880	1907.5
5	PI/2 BPSK	15	1	0	22.76	22.83	22.68	21.26	21.33	21.18	17.26	17.33	17.18
			1	1	22.73	22.63	22.66	21.23	21.13	21.16	17.23	17.13	17.16
			12	6	22.85	22.97	22.83	21.35	21.47	21.33	17.35	17.47	17.33
			25	0	22.86	22.79	22.50	21.36	21.29	21.00	17.36	17.29	17.00
	QPSK		1	0	22.75	22.77	22.72	21.25	21.27	21.22	17.25	17.27	17.22
			1	1	22.75	22.76	22.65	21.25	21.26	21.15	17.25	17.26	17.15
			12	6	22.84	22.88	22.89	21.34	21.38	21.39	17.34	17.38	17.39
			25	0	22.96	22.78	22.61	21.46	21.28	21.11	17.46	17.28	17.11
	16QAM		1	0	21.70	21.93	21.35	20.20	20.43	19.85	16.20	16.43	15.85
			1	1	22.85	<b>22.98</b>	22.46	21.35	21.48	20.96	17.35	17.48	16.96
			12	6	22.95	22.94	22.49	21.45	21.44	20.99	17.45	17.44	16.99
			25	0	21.97	21.84	21.90	20.47	20.34	20.40	16.47	16.34	16.40
	64QAM	1	0	21.60	21.26	21.16	20.10	19.76	19.66	16.10	15.76	15.66	
		1	1	21.62	21.29	21.18	20.12	19.79	19.68	16.12	15.79	15.68	
		12	6	21.47	21.40	21.37	19.97	19.90	19.87	15.97	15.90	15.87	
		25	0	21.46	21.23	21.19	19.96	19.73	19.69	15.96	15.73	15.69	
	256QAM	1	0	19.24	19.22	19.14	17.74	17.72	17.64	13.74	13.72	13.64	
		1	1	19.17	19.57	19.51	17.67	18.07	18.01	13.67	14.07	14.01	
12		6	18.89	19.31	19.08	17.39	17.81	17.58	13.39	13.81	13.58		
25		0	18.73	19.33	19.14	17.23	17.83	17.64	13.23	13.83	13.64		
Bandwidth(MHz)	Modulation	SCS(KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			Antenna 1 EIRP (dBm)			Antenna 4 EIRP (dBm)		
					371000	376000	381000	371000	376000	381000	371000	376000	381000
					1855	1880	1905	1855	1880	1905	1855	1880	1905
10	PI/2 BPSK	15	1	0	22.89	22.95	22.82	21.39	21.45	21.32	17.39	17.45	17.32
			1	1	22.87	22.79	22.81	21.37	21.29	21.31	17.37	17.29	17.31
			25	12	22.98	<b>23.13</b>	22.97	21.48	21.63	21.47	17.48	17.63	17.47
			50	0	23.00	22.95	22.65	21.50	21.45	21.15	17.50	17.45	17.15
	QPSK		1	0	22.89	22.93	22.87	21.39	21.43	21.37	17.39	17.43	17.37
			1	1	22.88	22.91	22.81	21.38	21.41	21.31	17.38	17.41	17.31
			25	12	23.03	23.01	23.04	21.53	21.51	21.54	17.53	17.51	17.54
	16QAM		50	0	23.09	22.92	22.74	21.59	21.42	21.24	17.59	17.42	17.24
			1	0	21.84	22.08	21.49	20.34	20.58	19.99	16.34	16.58	15.99
			1	1	22.99	23.11	22.60	21.49	21.61	21.10	17.49	17.61	17.10
25	12	23.12	23.10	22.64	21.62	21.60	21.14	17.62	17.60	17.14			



Bandwidth(MHz)	Modulation	SCS(KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			Antenna 1 EIRP (dBm)			Antenna 4 EIRP (dBm)			
					371500	376000	380500	371500	376000	380500	371500	376000	380500	
					1857.5	1880	1902.5	1857.5	1880	1902.5	1857.5	1880	1902.5	
15	64QAM	15	50	0	22.10	21.99	22.04	20.60	20.49	20.54	16.60	16.49	16.54	
			1	0	21.74	21.42	21.31	20.24	19.92	19.81	16.24	15.92	15.81	
			1	1	21.76	21.45	21.33	20.26	19.95	19.83	16.26	15.95	15.83	
			25	12	21.60	21.54	21.50	20.10	20.04	20.00	16.10	16.04	16.00	
	50		0	21.60	21.38	21.33	20.10	19.88	19.83	16.10	15.88	15.83		
	1		0	19.38	19.35	19.28	17.88	17.85	17.78	13.88	13.85	13.78		
	1		1	19.31	19.73	19.66	17.81	18.23	18.16	13.81	14.23	14.16		
	25		12	19.02	19.46	19.22	17.52	17.96	17.72	13.52	13.96	13.72		
	50	0	18.87	19.49	19.29	17.37	17.99	17.79	13.37	13.99	13.79			
	15	PI/2 BPSK	15	1	0	22.74	22.77	22.66	21.24	21.27	21.16	17.24	17.27	17.16
				1	1	22.71	22.64	22.64	21.21	21.14	21.14	17.21	17.14	17.14
				36	18	22.81	22.94	22.79	21.31	21.44	21.29	17.31	17.44	17.29
				75	0	22.84	22.77	22.48	21.34	21.27	20.98	17.34	17.27	16.98
		1		0	22.72	22.74	22.69	21.22	21.24	21.19	17.22	17.24	17.19	
		1		1	22.71	22.74	22.63	21.21	21.24	21.13	17.21	17.24	17.13	
		36		18	22.87	22.83	22.85	21.37	21.33	21.35	17.37	17.33	17.35	
		75		0	22.90	22.76	22.58	21.40	21.26	21.08	17.40	17.26	17.08	
		16QAM	15	1	0	21.68	21.91	21.33	20.18	20.41	19.83	16.18	16.41	15.83
				1	1	22.82	22.93	22.43	21.32	21.43	20.93	17.32	17.43	16.93
				36	18	<b>22.95</b>	22.94	22.47	21.45	21.44	20.97	17.45	17.44	16.97
75				0	21.93	21.80	21.86	20.43	20.30	20.36	16.43	16.30	16.36	
64QAM		15		1	0	21.58	21.24	21.14	20.08	19.74	19.64	16.08	15.74	15.64
				1	1	21.59	21.26	21.15	20.09	19.76	19.65	16.09	15.76	15.65
				36	18	21.41	21.38	21.34	19.91	19.88	19.84	15.91	15.88	15.84
				75	0	21.44	21.21	21.17	19.94	19.71	19.67	15.94	15.71	15.67
256QAM			15	1	0	19.21	19.17	19.11	17.71	17.67	17.61	13.71	13.67	13.61
				1	1	19.14	19.57	19.49	17.64	18.07	17.99	13.64	14.07	13.99
				36	18	18.85	19.27	19.04	17.35	17.77	17.54	13.35	13.77	13.54
				75	0	18.71	19.31	19.12	17.21	17.81	17.62	13.21	13.81	13.62
20	PI/2 BPSK	15		1	0	23.02	23.04	22.94	21.52	21.54	21.44	17.52	17.54	17.44
				1	1	23.01	22.91	22.93	21.51	21.41	21.43	17.51	17.41	17.43
				50	25	23.10	<b>23.24</b>	23.07	21.60	21.74	21.57	17.60	17.74	17.57
				100	0	23.12	23.03	22.75	21.62	21.53	21.25	17.62	17.53	17.25



	QPSK	1	0	23.01	23.01	22.97	21.51	21.51	21.47	17.51	17.51	17.47
		1	1	22.99	23.00	22.90	21.49	21.50	21.40	17.49	17.50	17.40
		50	25	23.15	23.09	23.12	21.65	21.59	21.62	17.65	17.59	17.62
		100	0	23.19	23.03	22.84	21.69	21.53	21.34	17.69	17.53	17.34
	16QAM	1	0	21.95	22.20	21.60	20.45	20.70	20.10	16.45	16.70	16.10
		1	1	23.11	23.21	22.72	21.61	21.71	21.22	17.61	17.71	17.22
		50	25	23.23	23.21	22.75	21.73	21.71	21.25	17.73	17.71	17.25
		100	0	22.21	22.09	22.14	20.71	20.59	20.64	16.71	16.59	16.64
	64QAM	1	0	21.86	21.50	21.41	20.36	20.00	19.91	16.36	16.00	15.91
		1	1	21.88	21.53	21.43	20.38	20.03	19.93	16.38	16.03	15.93
		50	25	21.70	21.65	21.60	20.20	20.15	20.10	16.20	16.15	16.10
		100	0	21.71	21.50	21.44	20.21	20.00	19.94	16.21	16.00	15.94
256QAM	1	0	19.50	19.45	19.40	18.00	17.95	17.90	14.00	13.95	13.90	
	1	1	19.42	19.84	19.77	17.92	18.34	18.27	13.92	14.34	14.27	
	50	25	19.13	19.56	19.32	17.63	18.06	17.82	13.63	14.06	13.82	
	100	0	18.99	19.57	19.39	17.49	18.07	17.89	13.49	14.07	13.89	

### 6.2.Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
<b>GSM 1900 (GMSK)</b>	512	1850.2	0.244	0.317
	661	1880.0	0.242	0.303
	810	1909.8	0.242	0.310
<b>GPRS 1900 (GMSK)</b>	512	1850.2	0.246	0.322
	661	1880.0	0.243	0.310
	810	1909.8	0.244	0.312
<b>EGPRS 1900 (8PSK)</b>	512	1850.2	0.248	0.318
	661	1880.0	0.247	0.304
	810	1909.8	0.246	0.300
<b>WCDMA Band II (RMC)</b>	9262	1852.4	4.153	4.721
	9400	1880	4.154	4.733
	9538	1907.6	4.160	4.727

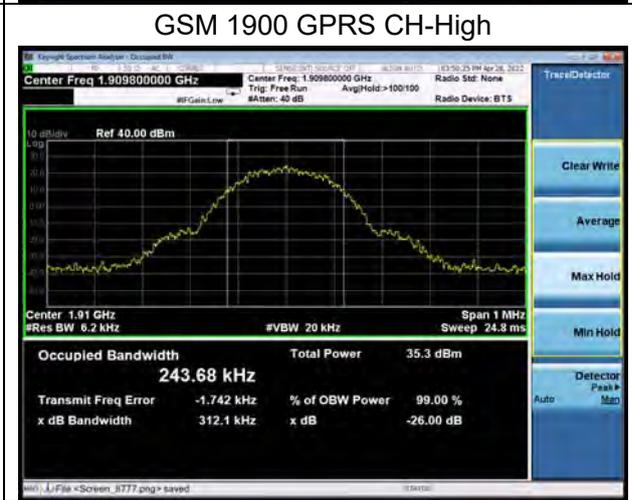
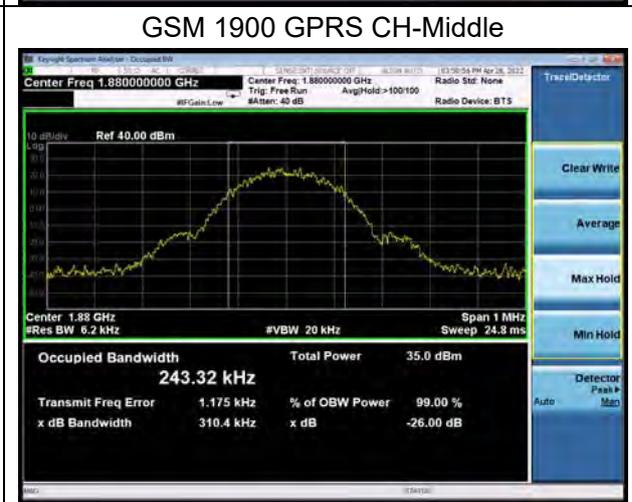
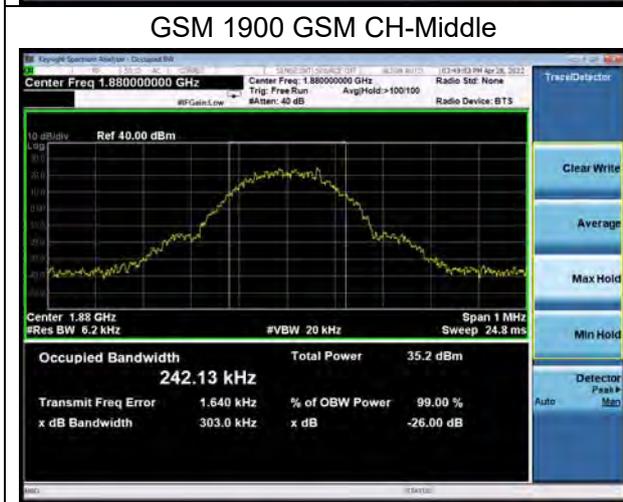
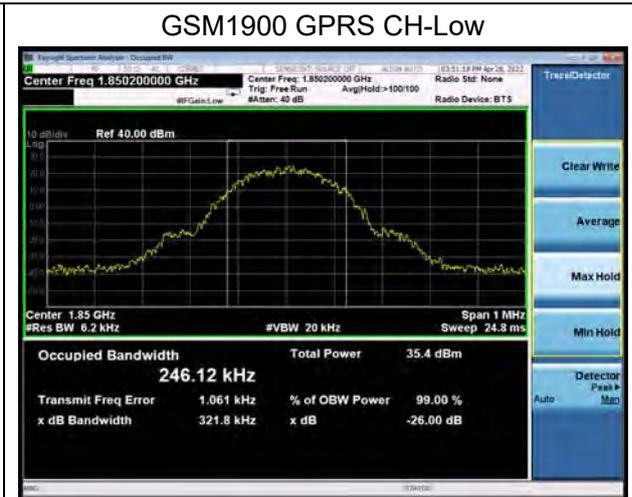
LTE Band 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	18607	1850.7	1.093	1.232
			18900	1880.0	1.090	1.226
			19193	1909.3	1.092	1.224
		3	18615	1851.5	2.707	3.030
			18900	1880	2.697	3.009
			19185	1908.5	2.701	2.983
		5	18625	1852.5	4.512	4.919
			18900	1880	4.511	4.933
			19175	1907.5	4.506	4.905
		10	18650	1855	8.985	9.852
			18900	1880	9.007	9.775
			19150	1905	8.987	9.654
		15	18675	1857.5	13.452	14.454
			18900	1880	13.464	14.611
			19125	1902.5	13.464	14.528
		20	18700	1860	17.963	19.319
			18900	1880	17.969	19.341

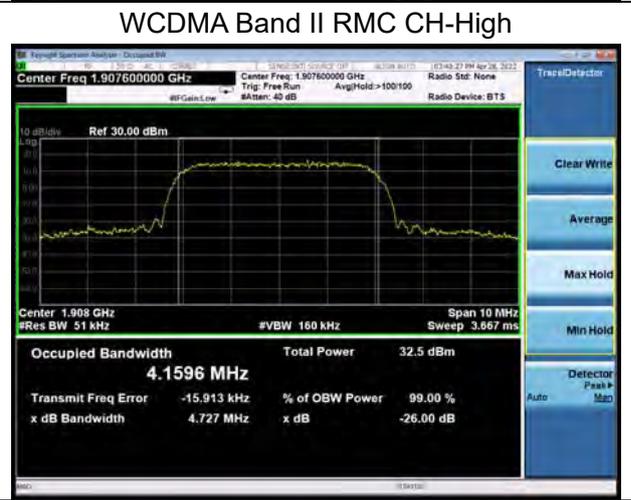
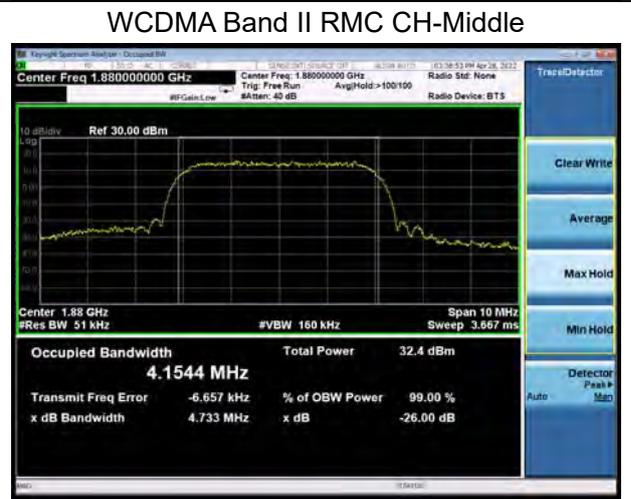
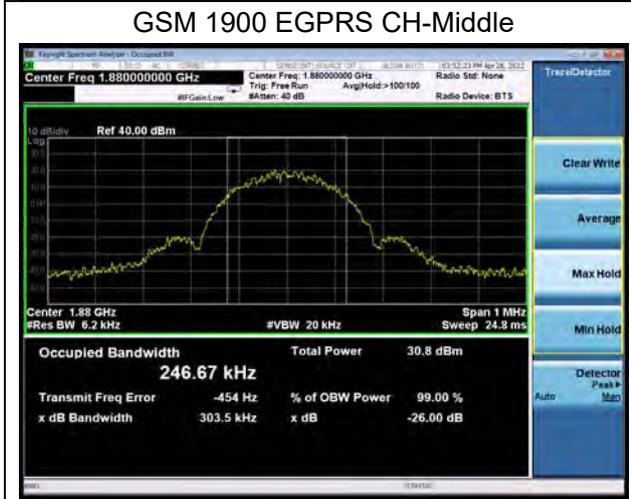
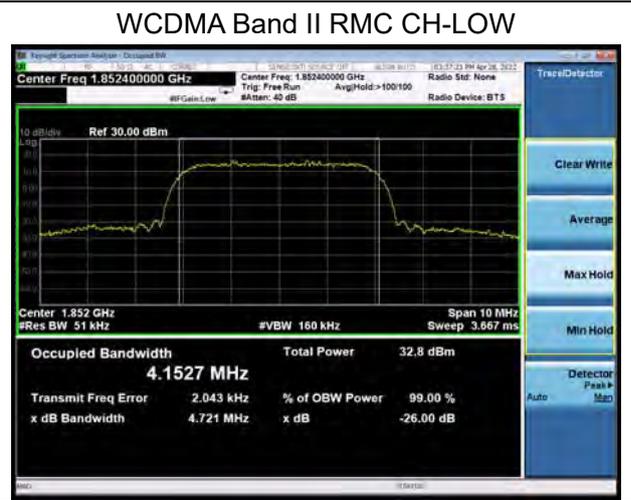


	16QAM	1.4	19100	1900	18.004	19.509
			18607	1850.7	1.098	1.237
			18900	1880.0	1.094	1.223
		19193	1909.3	1.094	1.240	
		3	18615	1851.5	2.695	2.984
			18900	1880	2.714	2.985
			19185	1908.5	2.701	3.002
		5	18625	1852.5	4.512	4.984
			18900	1880	4.532	5.010
			19175	1907.5	4.531	4.988
		10	18650	1855	9.014	9.759
			18900	1880	8.987	9.754
			19150	1905	9.007	9.734
		15	18675	1857.5	13.471	14.494
			18900	1880	13.479	14.724
			19125	1902.5	13.493	14.560
		20	18700	1860	17.953	19.399
			18900	1880	17.948	19.271
	19100		1900	17.949	19.236	
	64QAM	1.4	18607	1850.7	1.097	1.247
			18900	1880.0	1.091	1.241
			19193	1909.3	1.092	1.229
		3	18615	1851.5	2.703	2.993
			18900	1880	2.699	3.007
			19185	1908.5	2.693	2.970
		5	18625	1852.5	4.503	4.937
			18900	1880	4.505	4.979
			19175	1907.5	4.522	4.968
		10	18650	1855	9.017	9.840
			18900	1880	8.993	9.712
19150			1905	8.984	9.761	
15		18675	1857.5	13.477	14.638	
		18900	1880	13.478	14.575	
		19125	1902.5	13.475	14.578	
20		18700	1860	17.968	19.340	
		18900	1880	17.988	19.433	
		19100	1900	17.932	19.296	

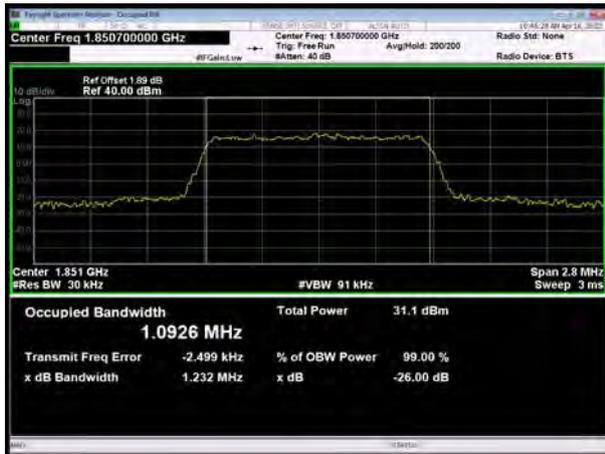


NR n2						
RB	Modulation	Bandwidth	Channel	Frequency (MHz)	99% Power	-26dBc Bandwidth(MHz)
		(MHz)			Bandwidth(MHz)	
100%	BPSK	20	372000	1860	18.371	20.16
			376000	1880	18.374	20.11
			380000	1900	18.394	20.15
	QPSK	20	372000	1860	18.385	20.12
			376000	1880	18.434	20.15
			380000	1900	18.329	20.18
	16QAM	20	372000	1860	18.393	20.19
			376000	1880	18.378	20.24
			380000	1900	18.303	20.12
	64QAM	20	372000	1860	18.377	20.11
			376000	1880	18.400	20.16
			380000	1900	18.310	20.15
256QAM	20	372000	1860	18.375	20.1	
		376000	1880	18.392	20.22	
		380000	1900	18.358	20.16	
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
1%	BPSK	20	372000	1860	2.1445	2.899
			376000	1880	2.1810	2.876
			380000	1900	2.1587	2.859
	QPSK	20	372000	1860	2.1662	2.853
			376000	1880	2.1577	2.821
			380000	1900	2.1492	2.88
	16QAM	20	372000	1860	2.1393	2.882
			376000	1880	2.1523	2.839
			380000	1900	2.1937	2.849
	64QAM	20	372000	1860	2.1517	2.862
			376000	1880	2.1657	2.898
			380000	1900	2.1466	2.788
256QAM	20	372000	1860	2.1813	2.892	
		376000	1880	2.1950	2.887	
		380000	1900	2.1860	2.83	

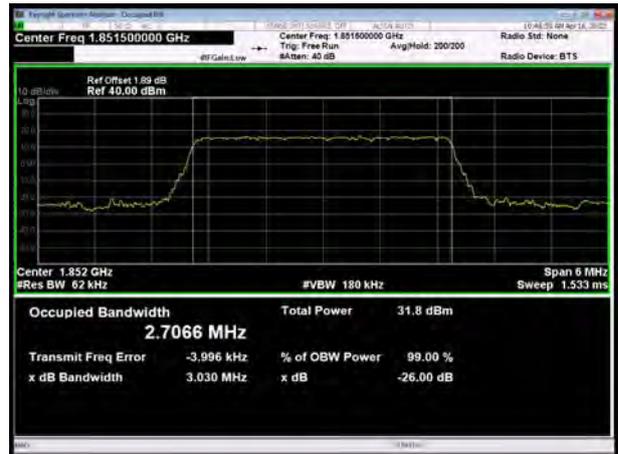




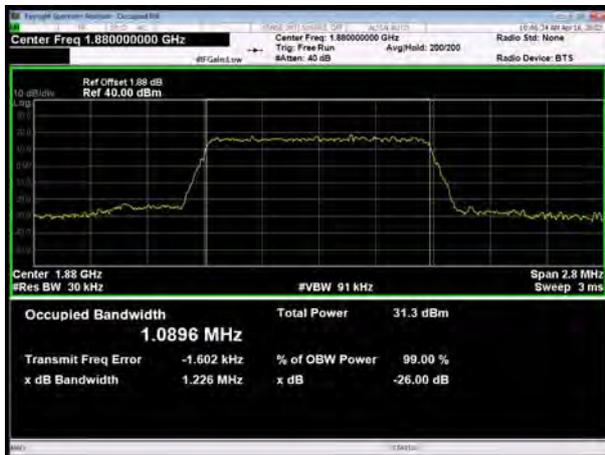
LTE Band 2 1.4MHz QPSK CH-Low



LTE Band 2 3MHz QPSK CH-Low



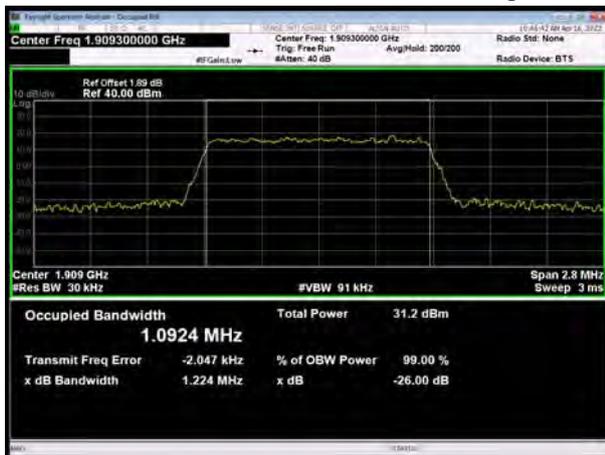
LTE Band 2 1.4MHz QPSK CH-Middle



LTE Band 2 3MHz QPSK CH-Middle



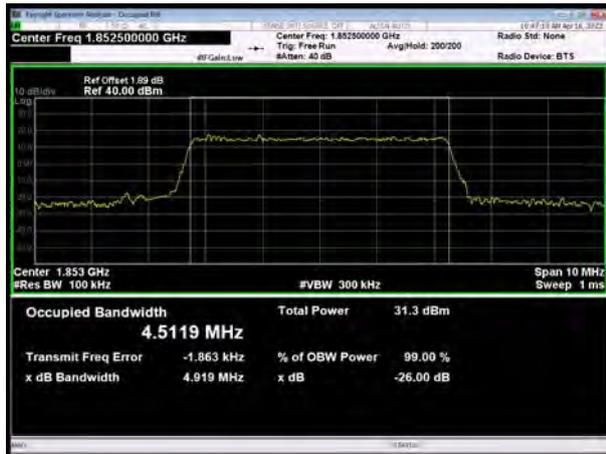
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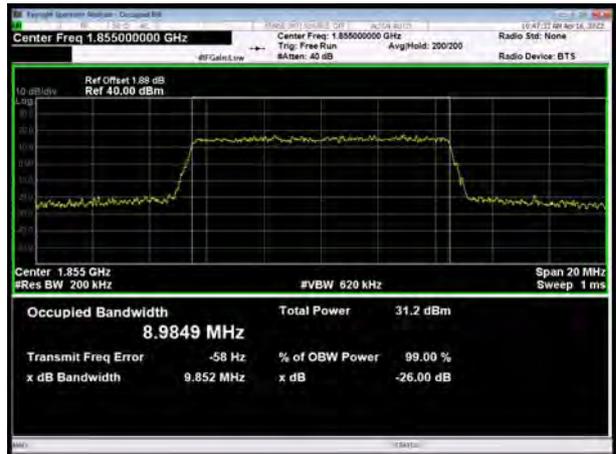
LTE Band 2 3MHz QPSK CH-High



LTE Band 2 5MHz QPSK CH-Low



LTE Band 2 10MHz QPSK CH-Low



LTE Band 2 5MHz QPSK CH-Middle



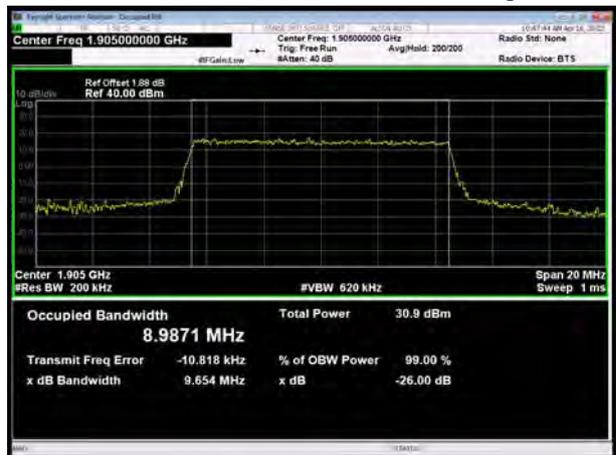
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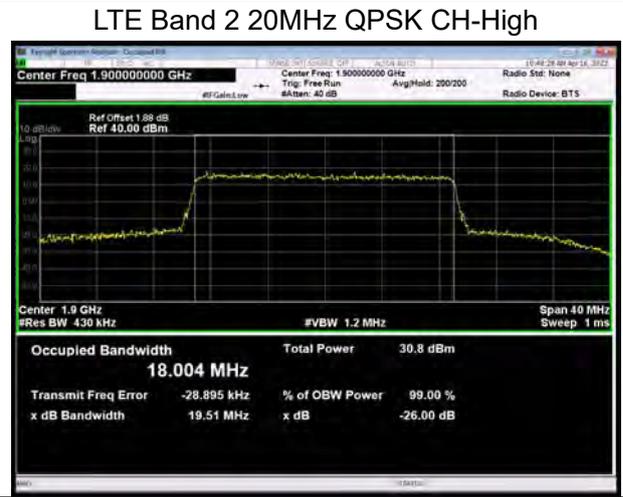
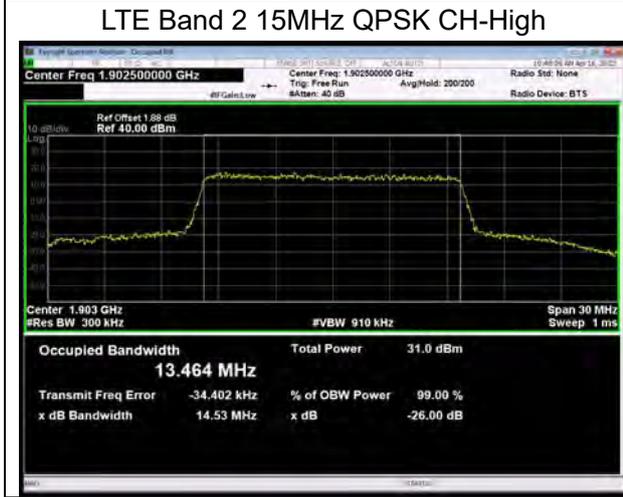
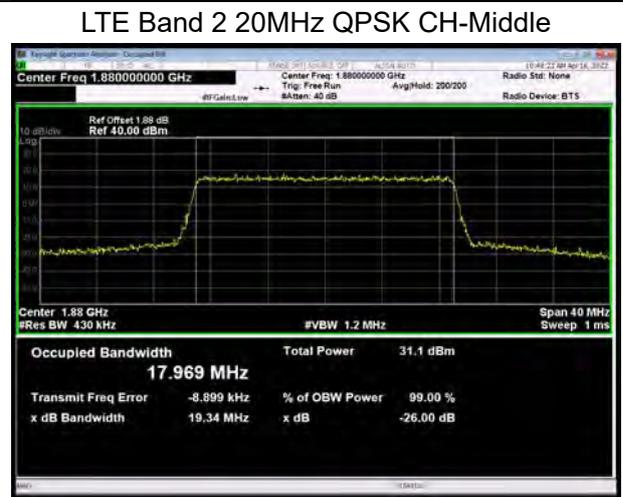
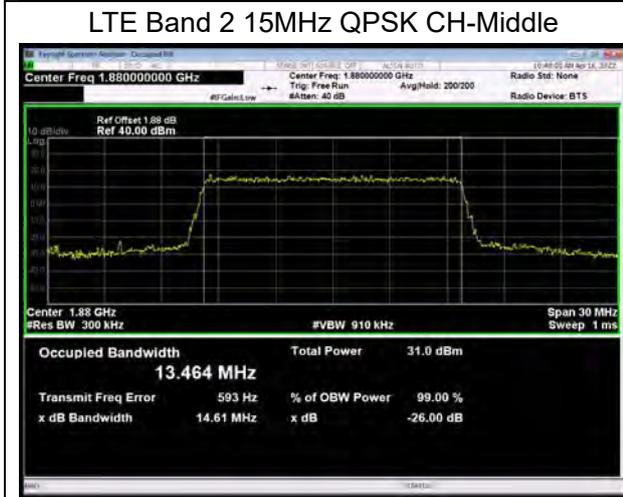
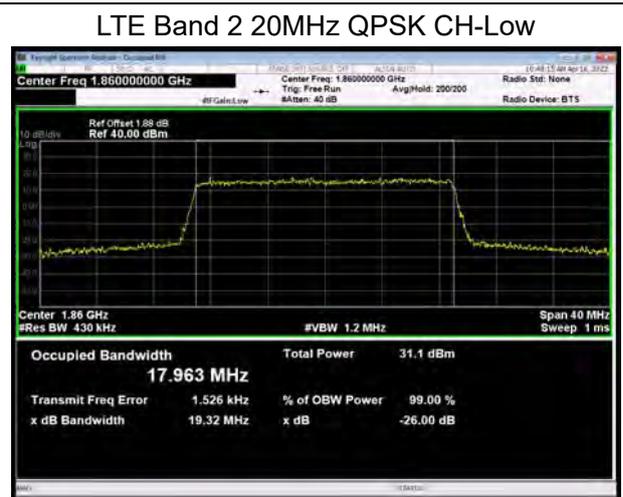
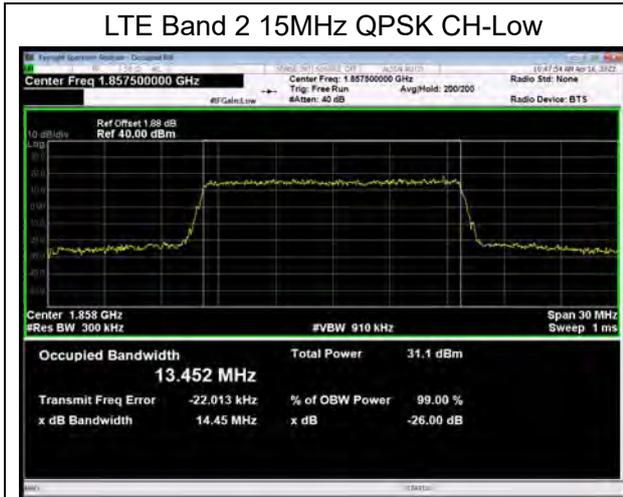


LTE Band 2 5MHz QPSK CH-High



LTE Band 2 10MHz QPSK CH-High



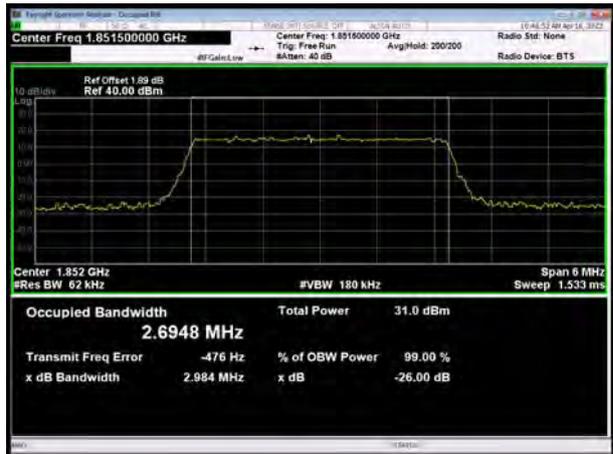




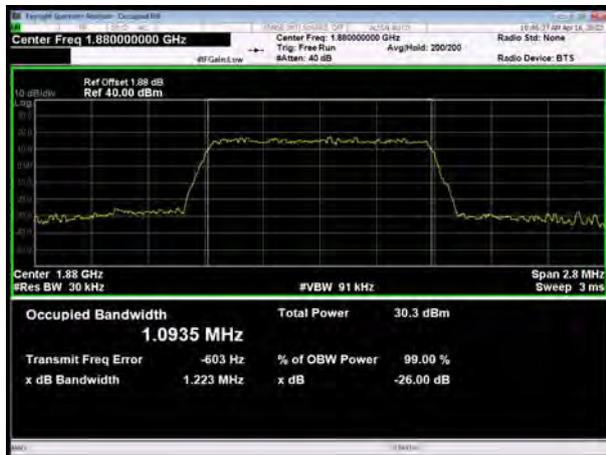
LTE Band 2 1.4MHz 16QAM CH-Low



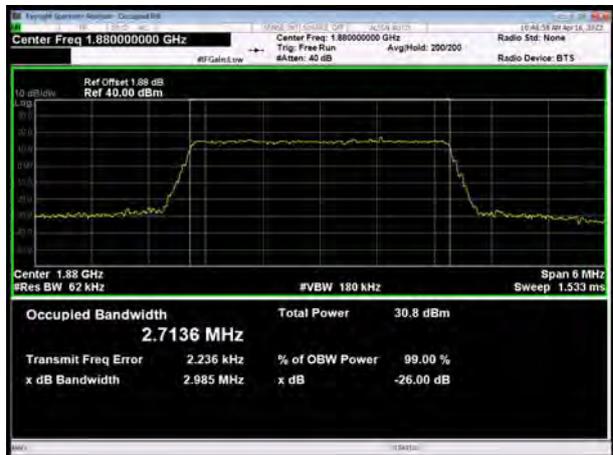
LTE Band 2 3MHz 16QAM CH-Low



LTE Band 2 1.4MHz 16QAM CH-Middle



LTE Band 2 3MHz 16QAM CH-Middle

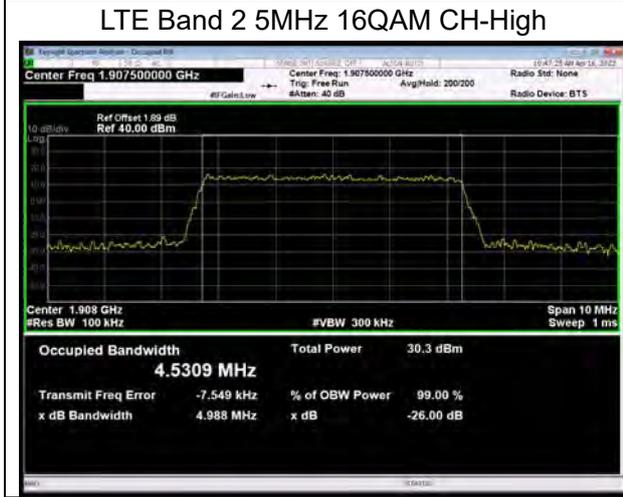
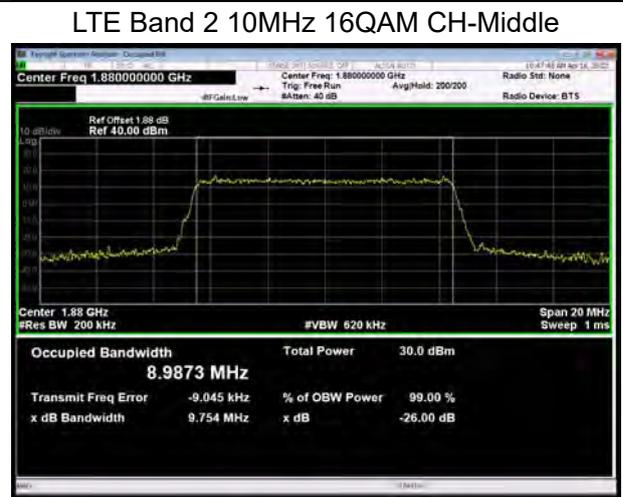
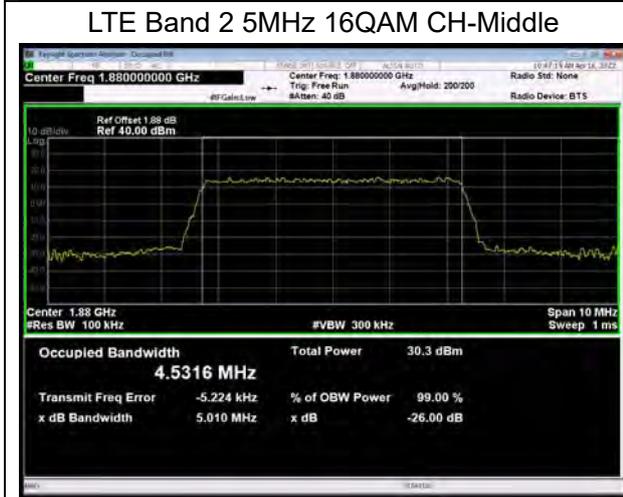
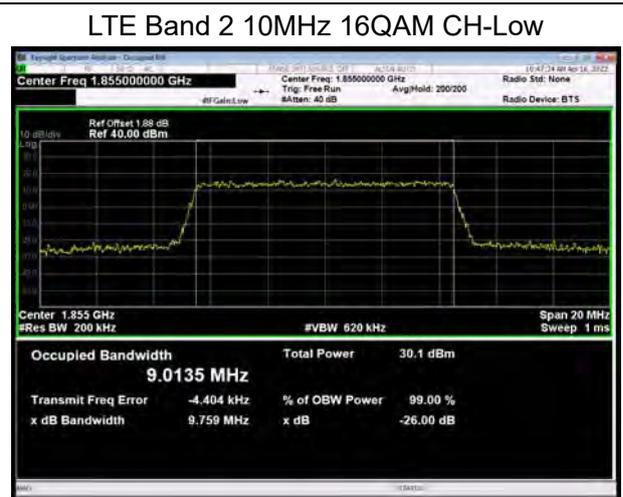
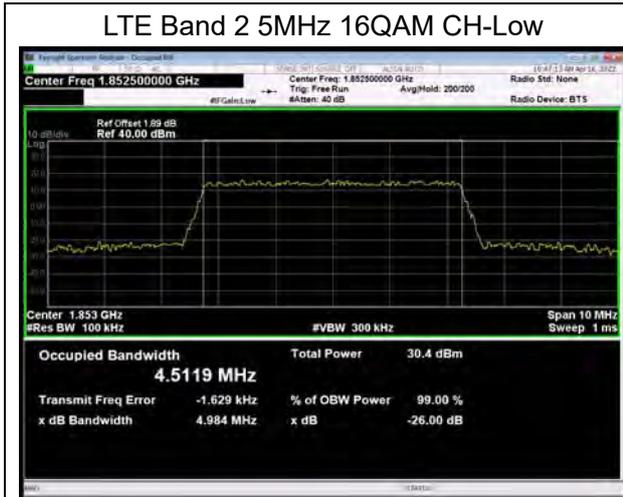


LTE Band 2 1.4MHz 16QAM CH-High



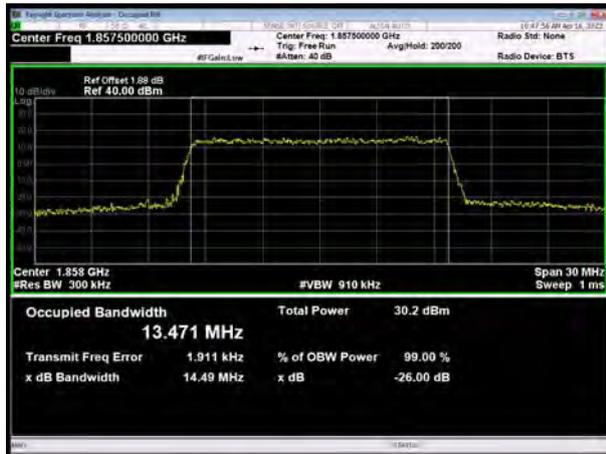
LTE Band 2 3MHz 16QAM CH-High



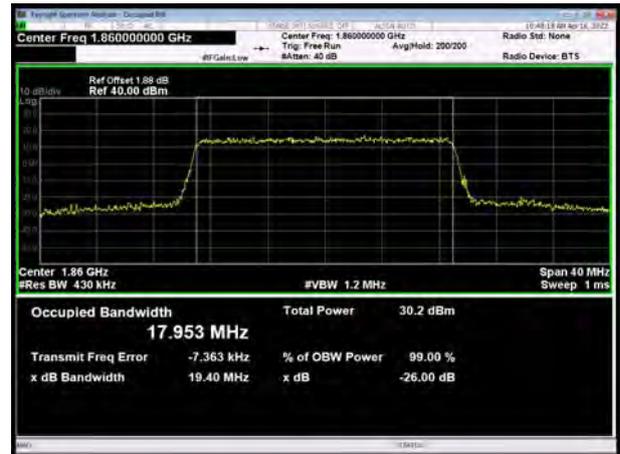




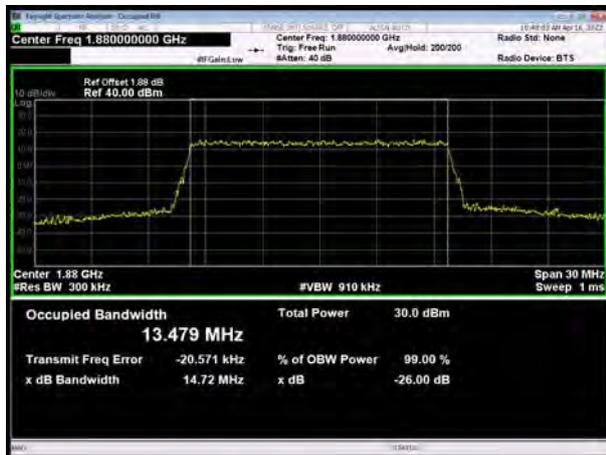
LTE Band 2 15MHz 16QAM CH-Low



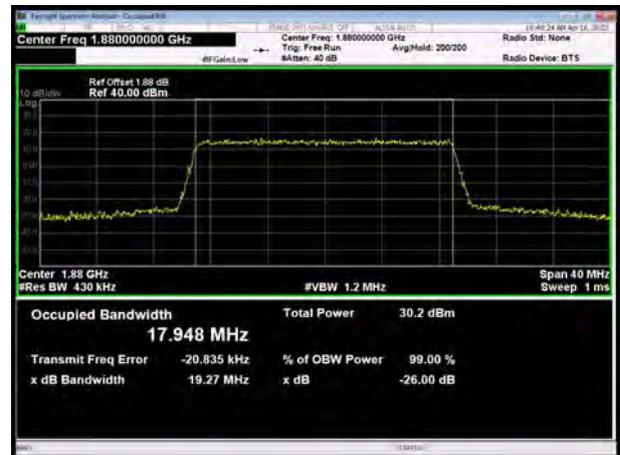
LTE Band 2 20MHz 16QAM CH-Low



LTE Band 2 15MHz 16QAM CH-Middle



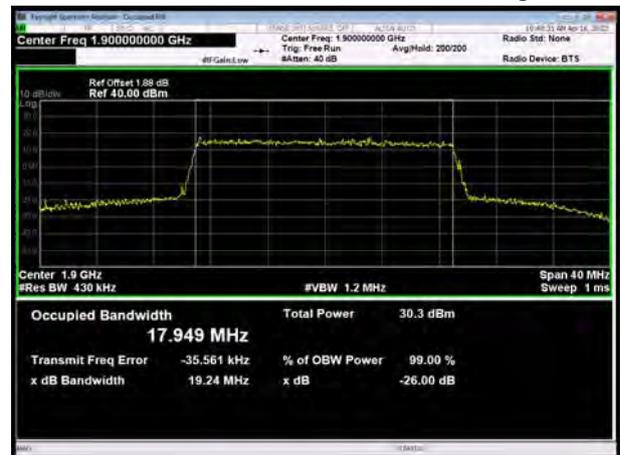
LTE Band 2 20MHz 16QAM CH-Middle

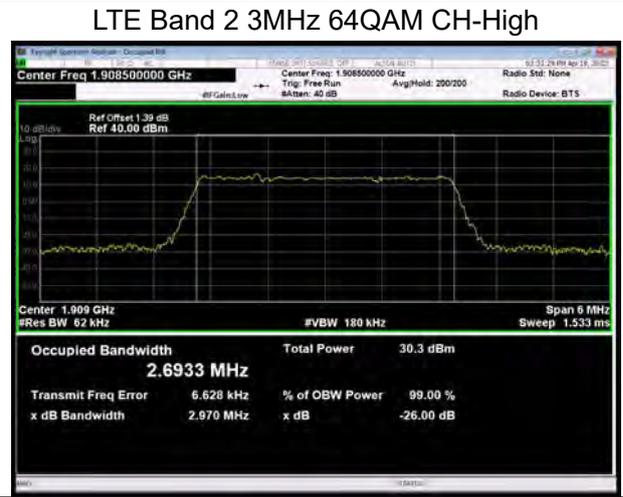
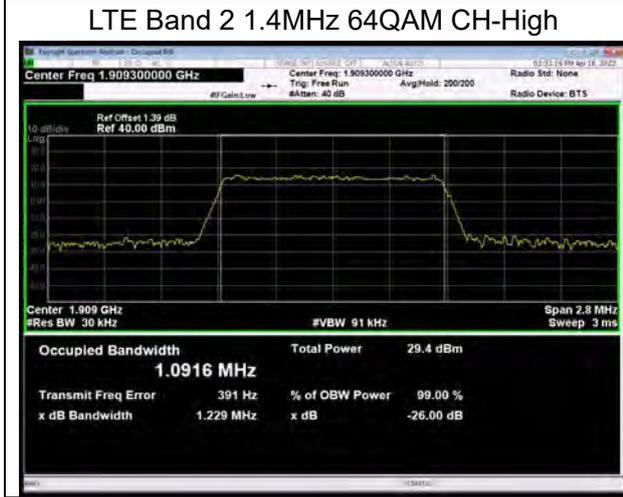
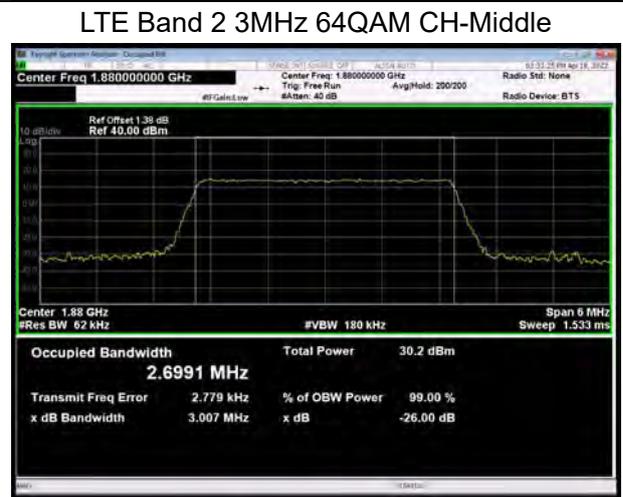
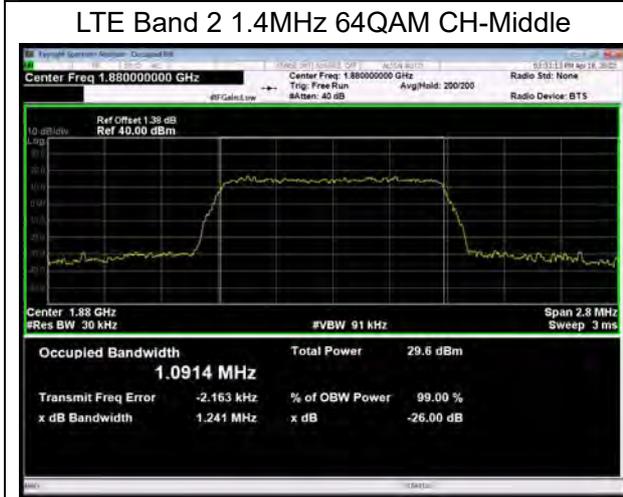
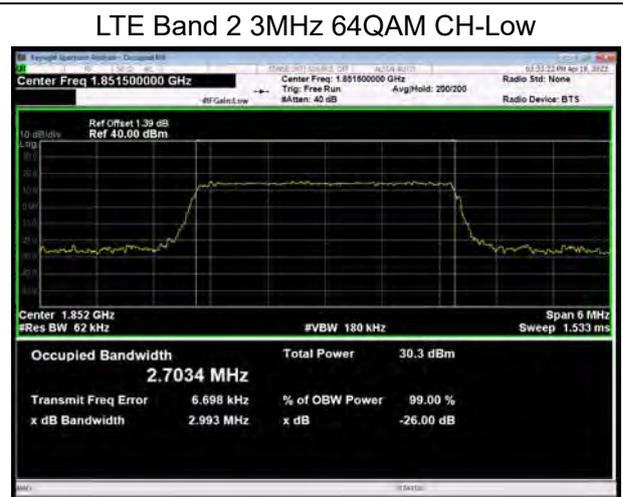
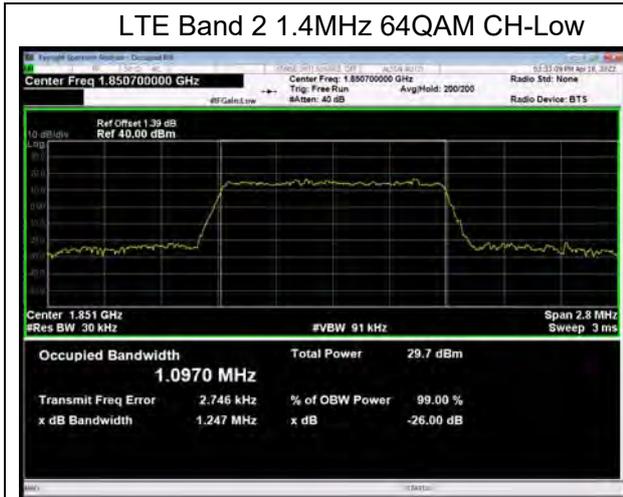


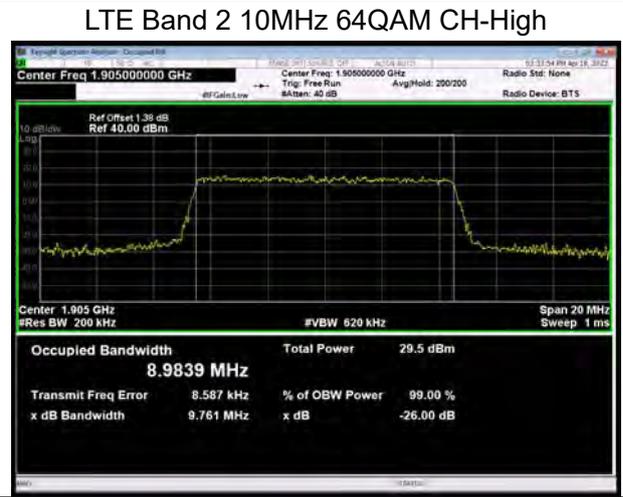
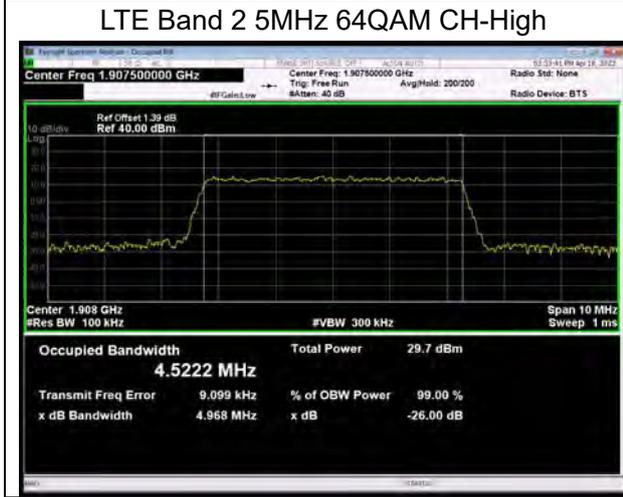
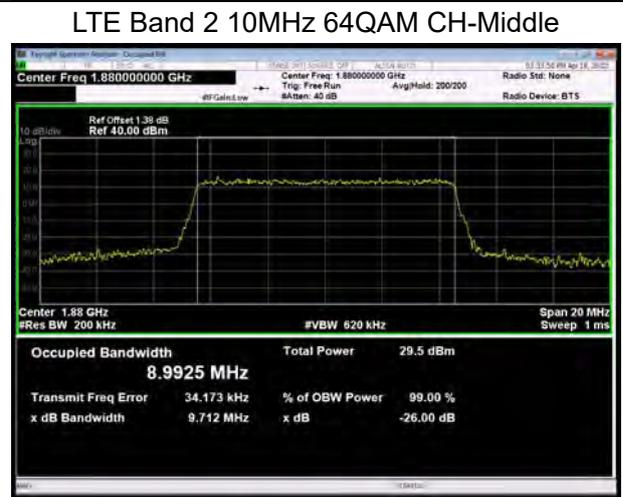
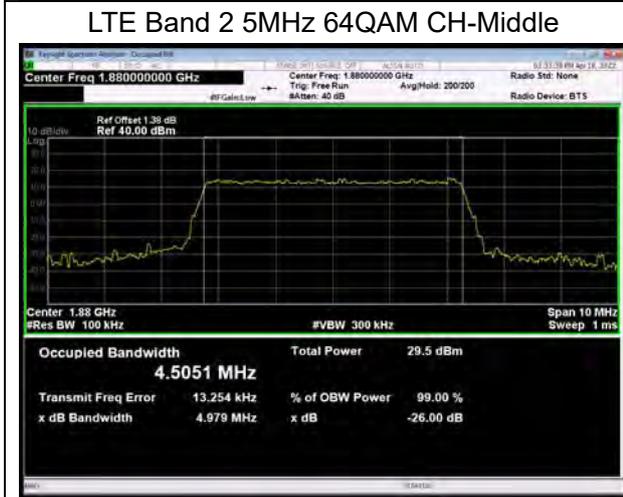
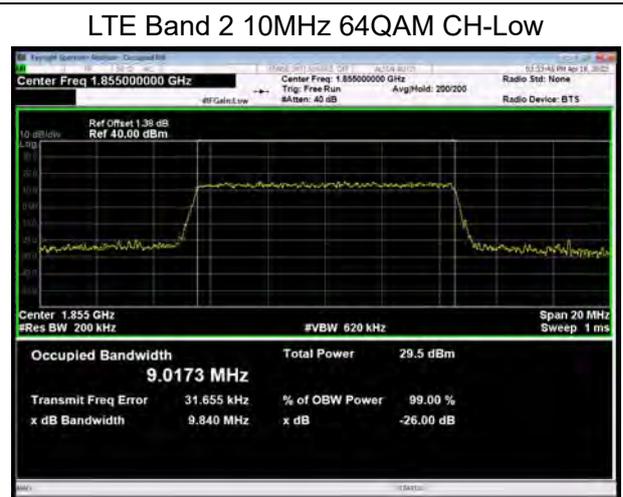
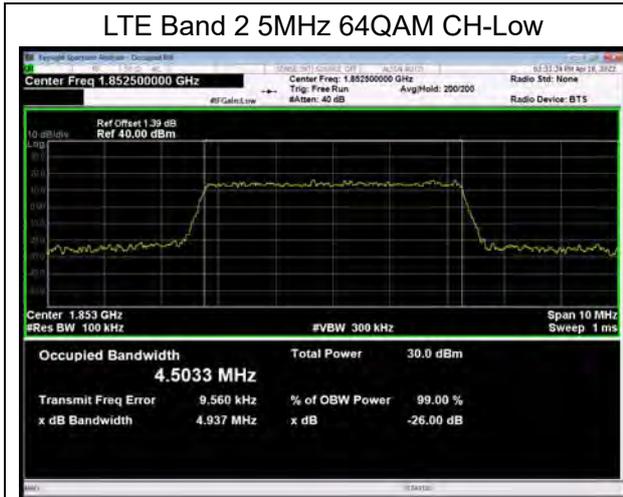
LTE Band 2 15MHz 16QAM CH-High



LTE Band 2 20MHz 16QAM CH-High

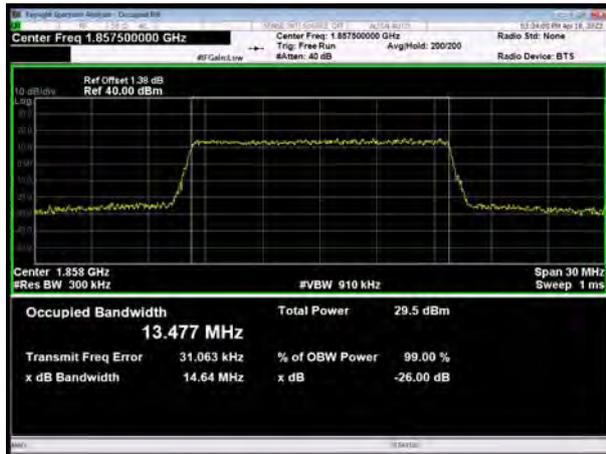




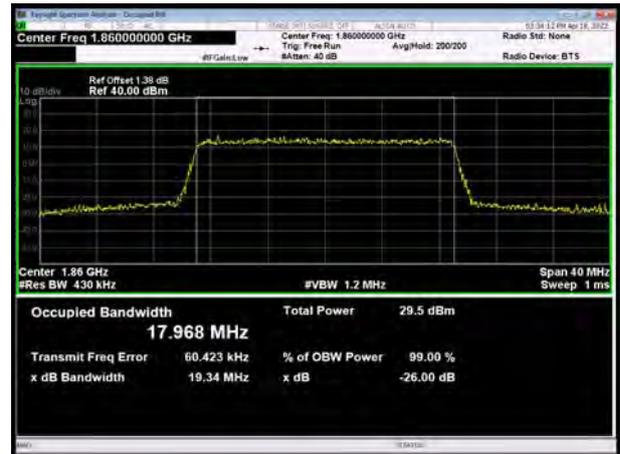




LTE Band 2 15MHz 64QAM CH-Low



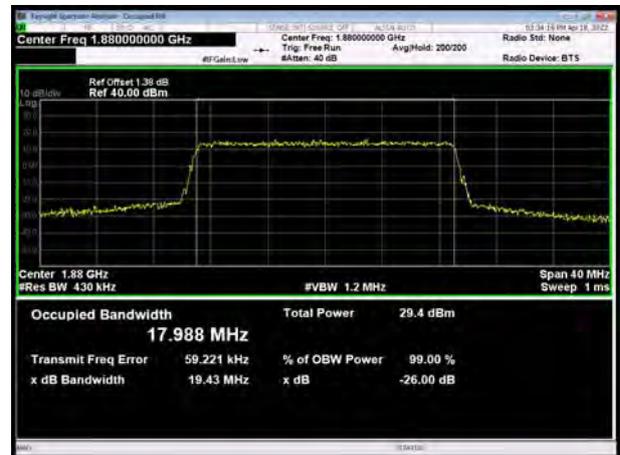
LTE Band 2 20MHz 64QAM CH-Low



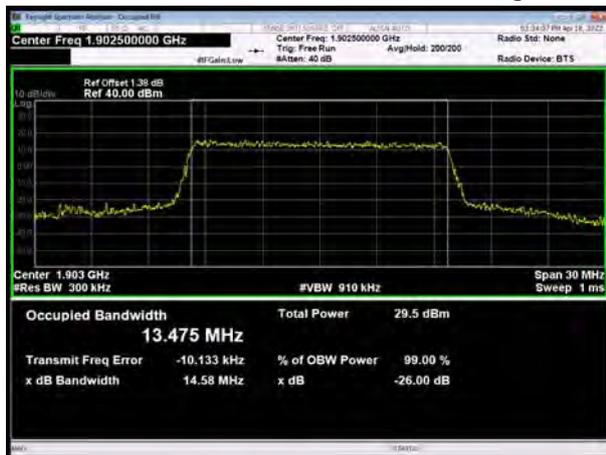
LTE Band 2 15MHz 64QAM CH-Middle



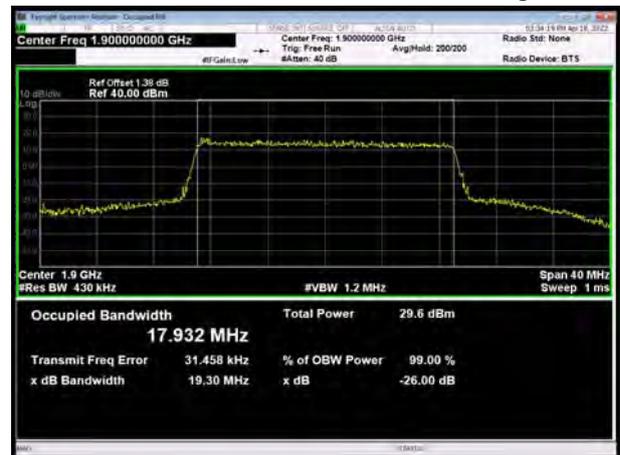
LTE Band 2 20MHz 64QAM CH-Middle



LTE Band 2 15MHz 64QAM CH-High

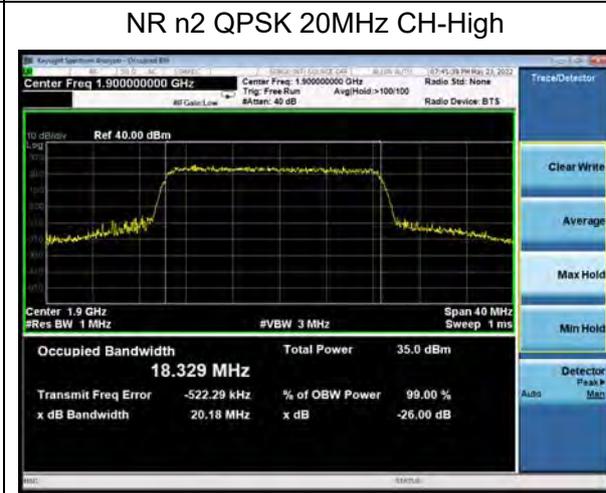
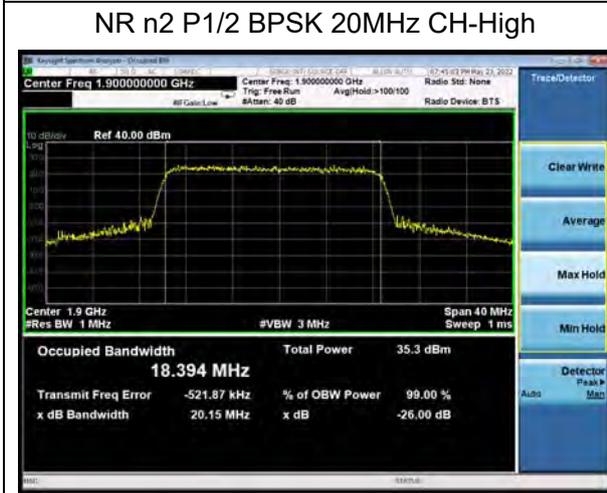
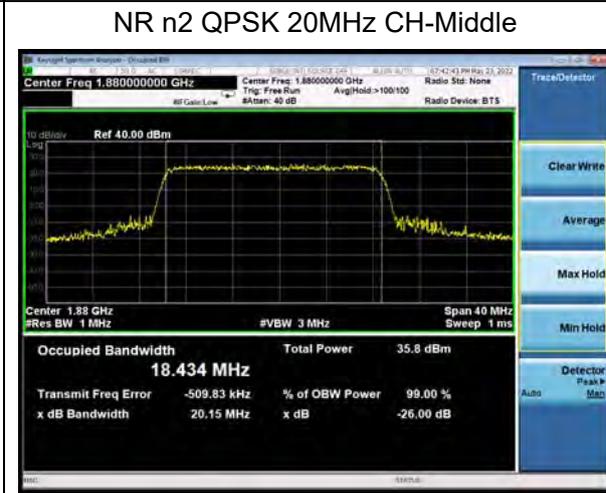
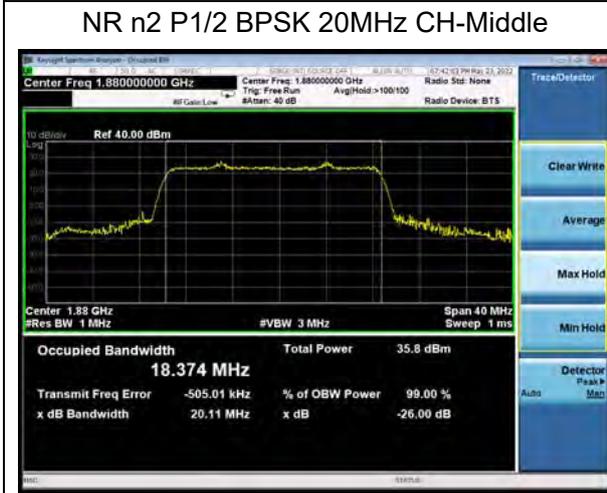
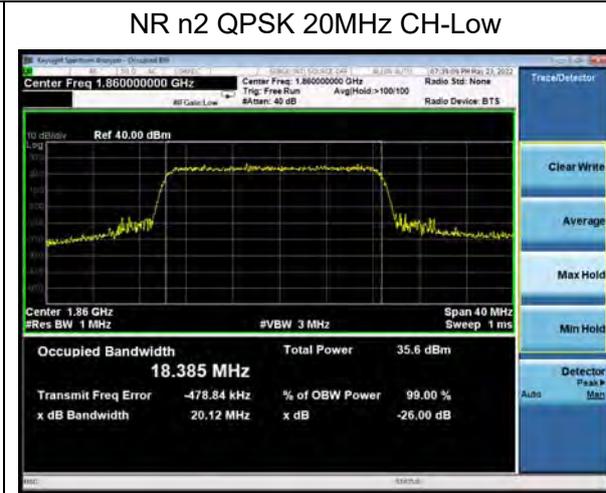
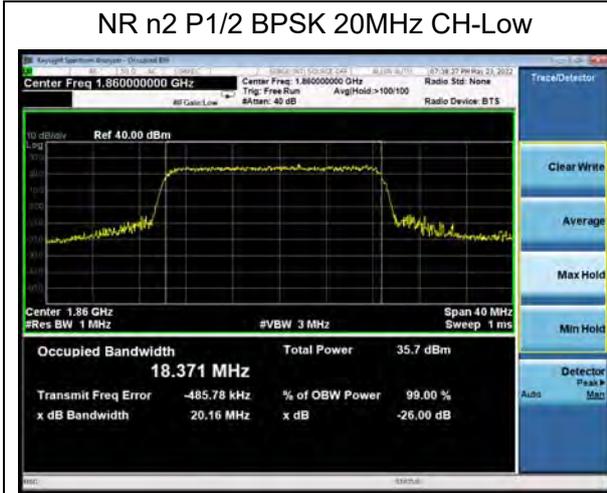


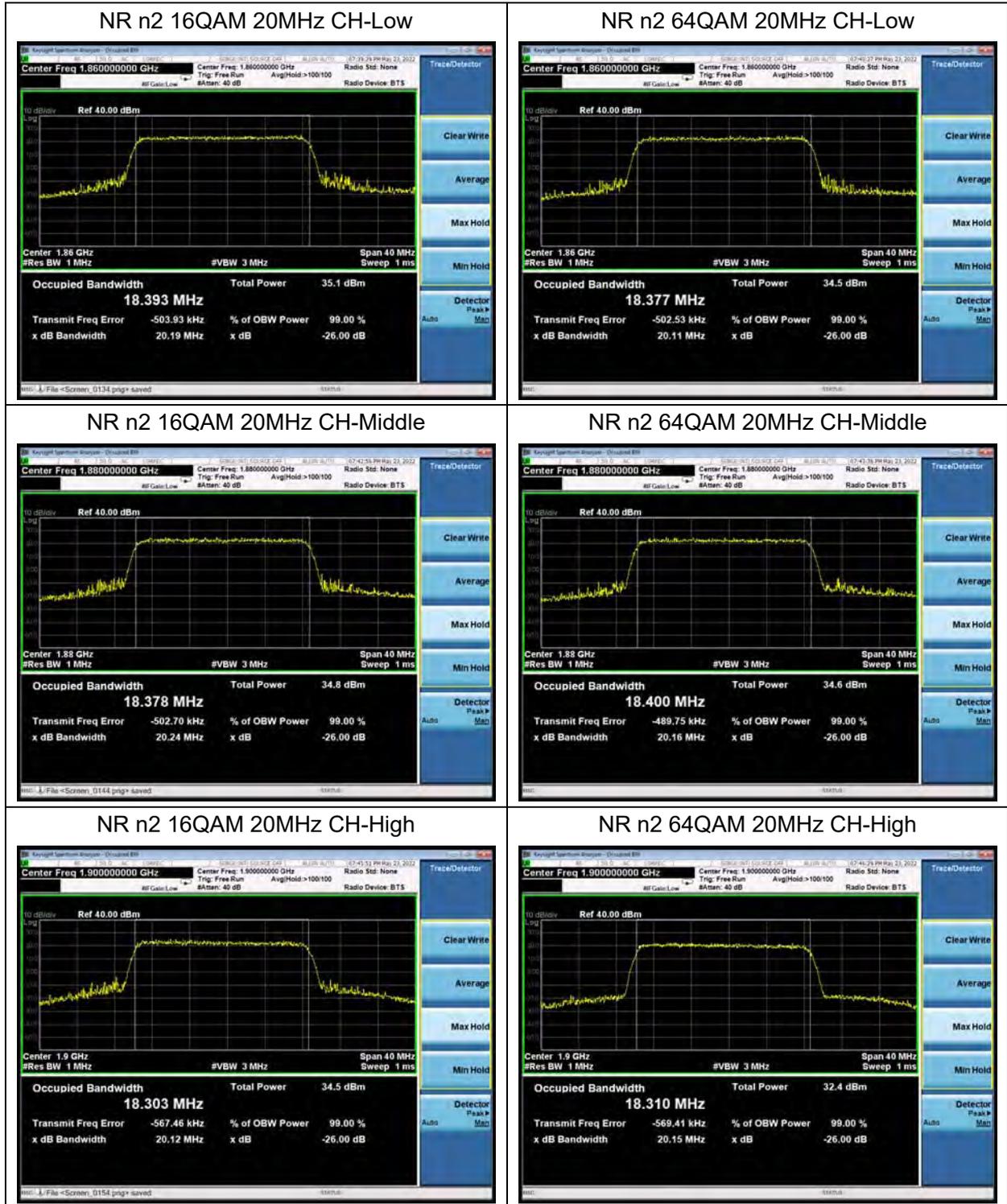
LTE Band 2 20MHz 64QAM CH-High

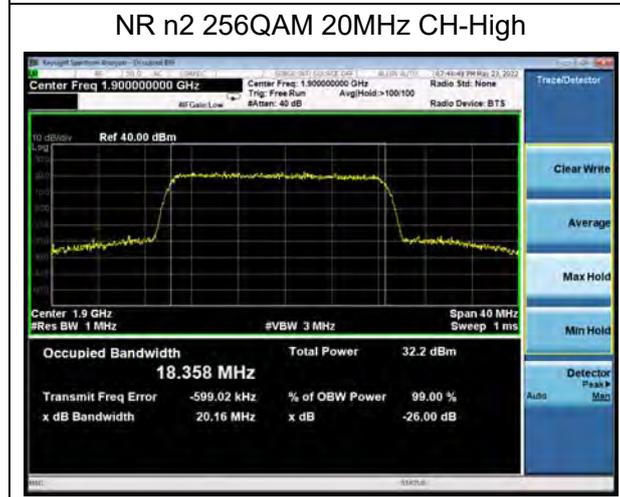
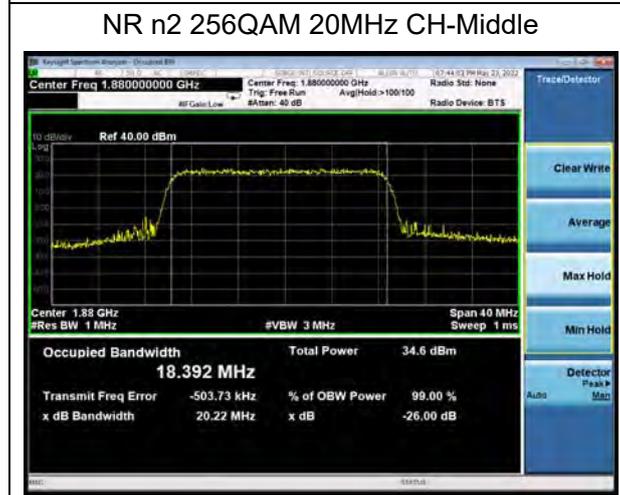
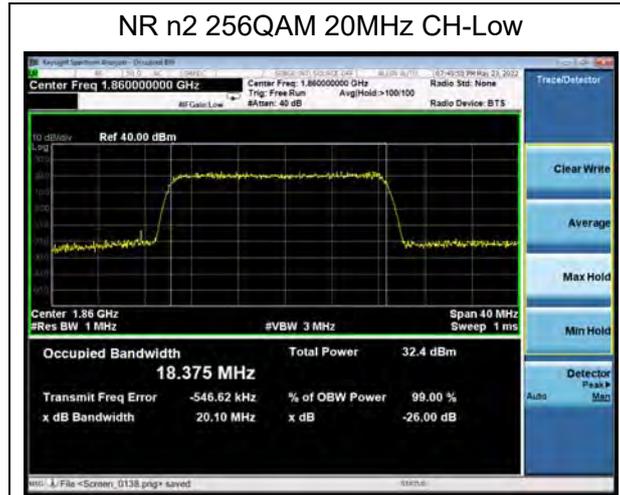




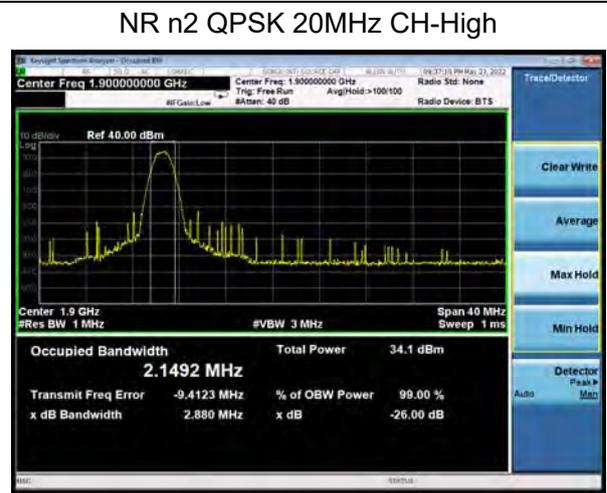
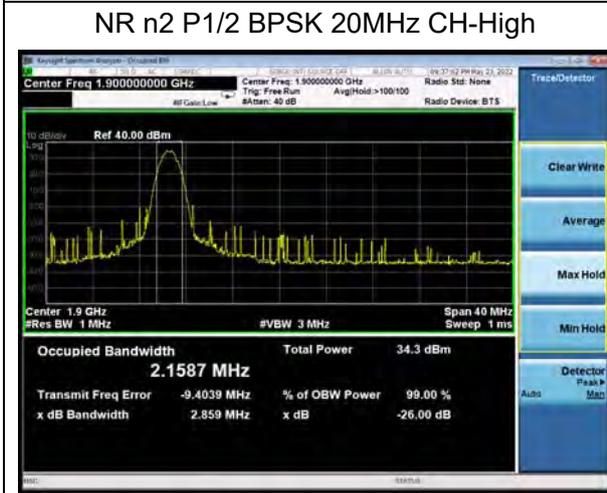
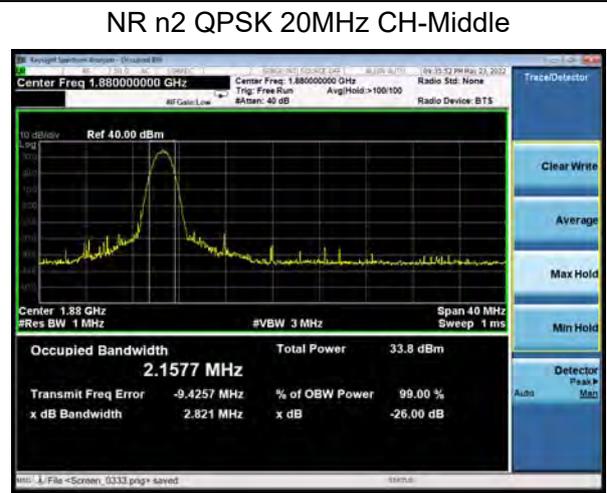
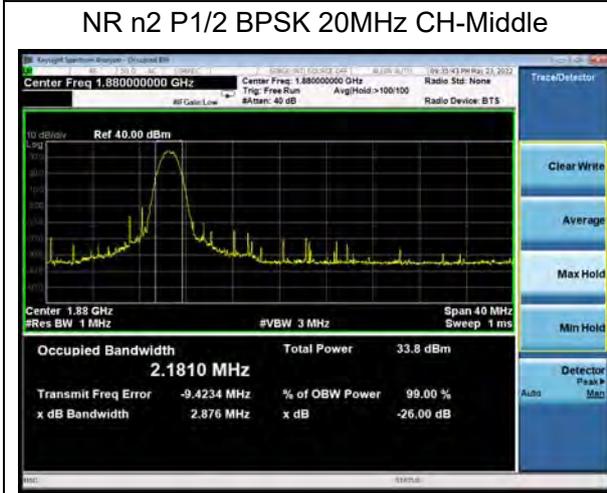
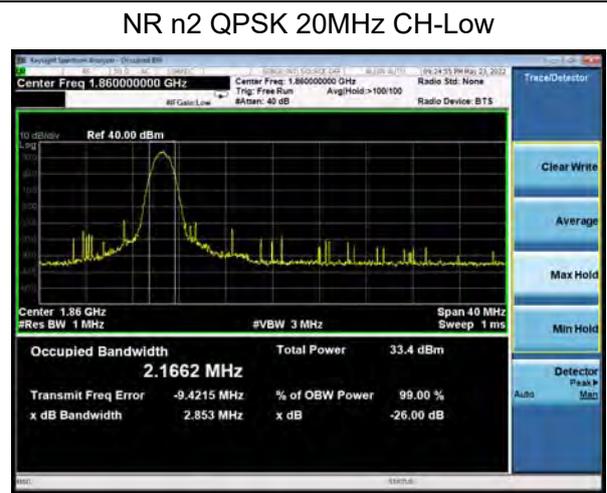
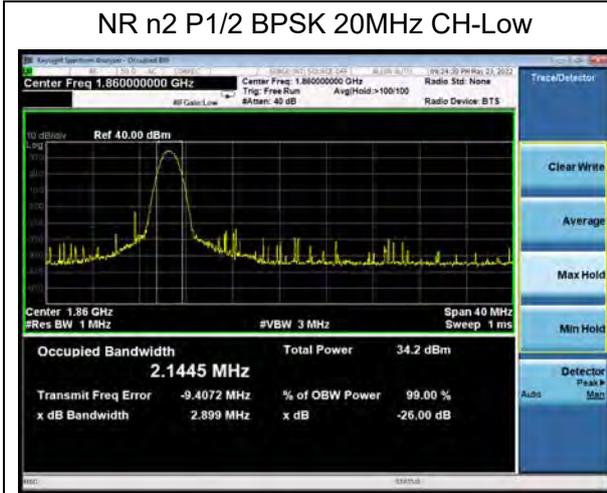
100% RB

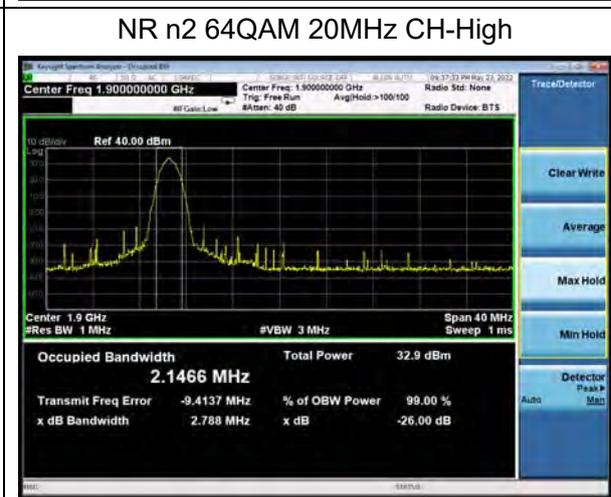
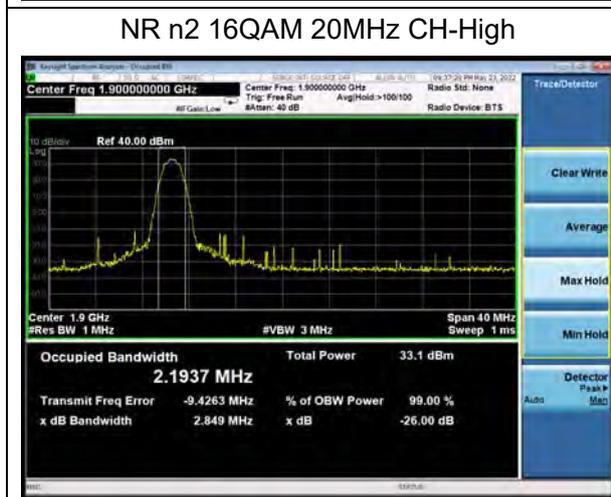
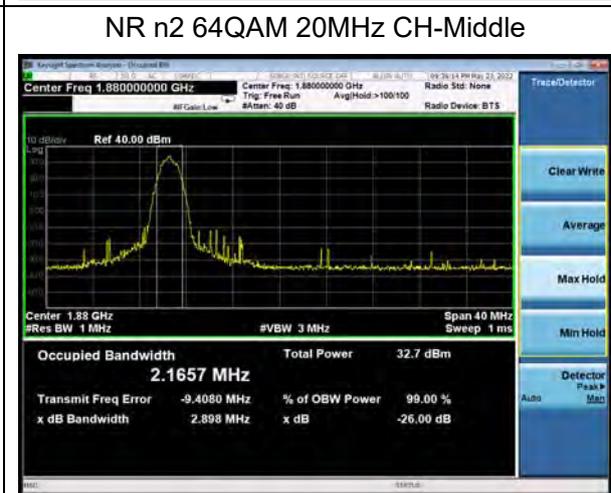
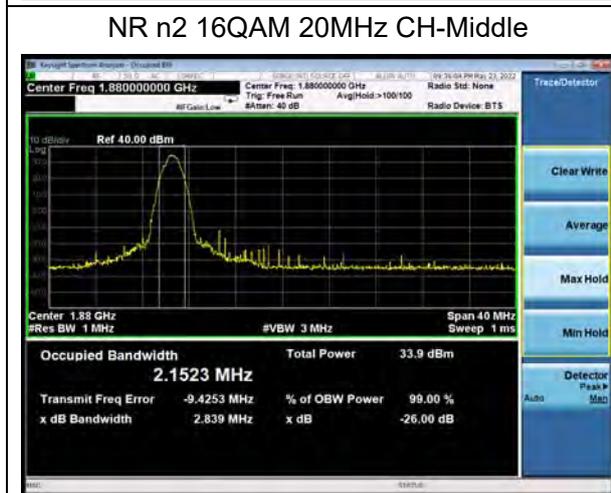
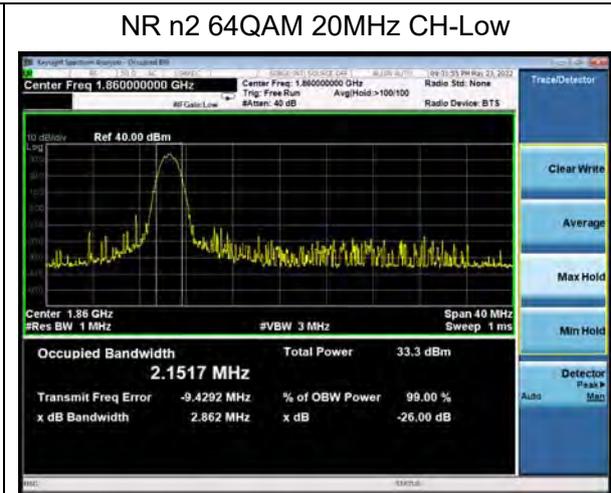
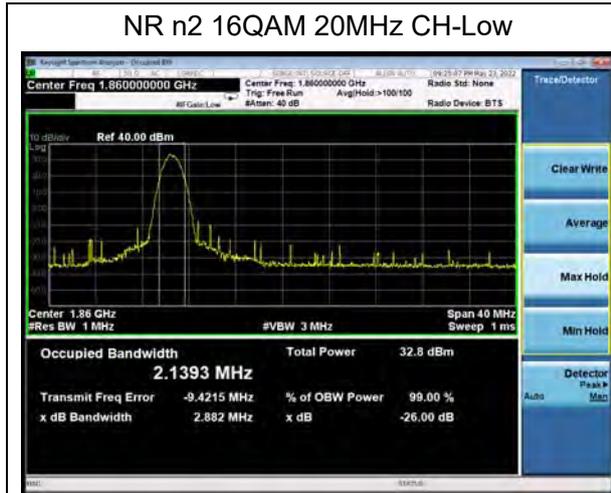


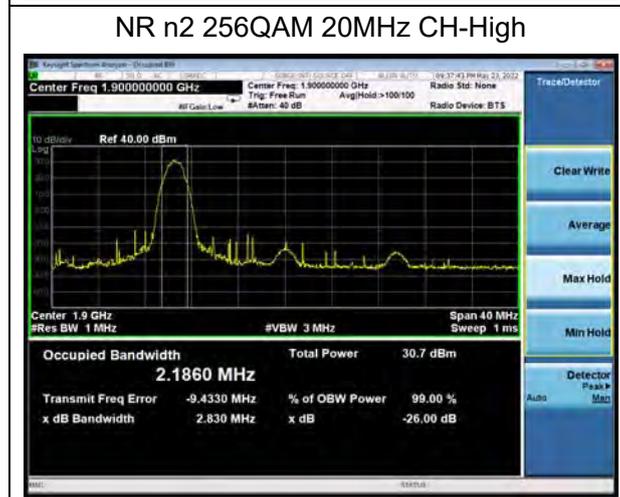
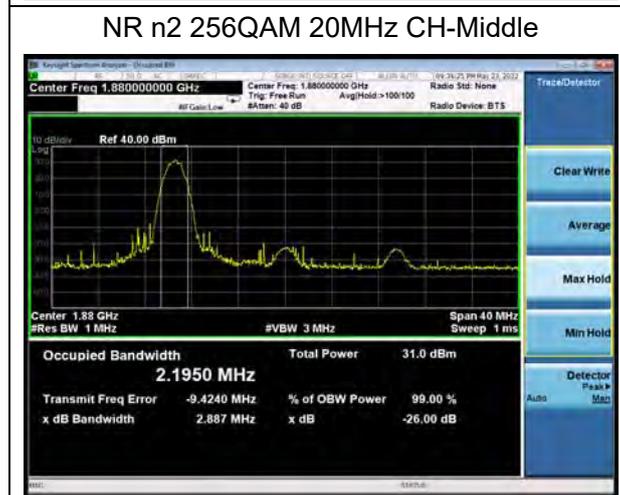
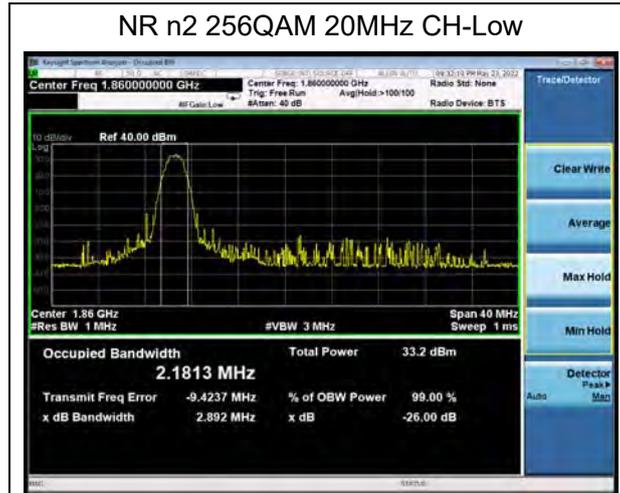




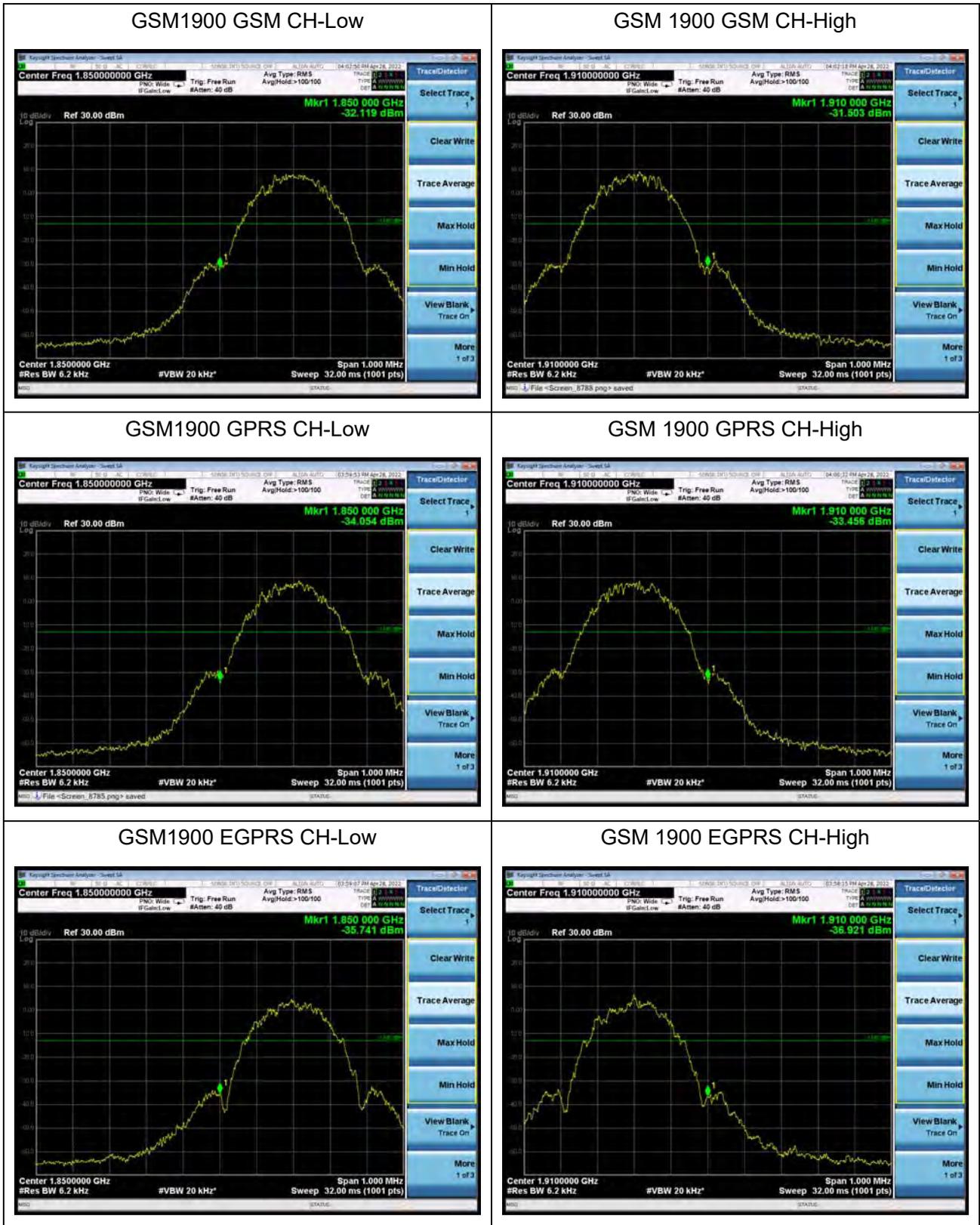
1 RB







### 6.3. Band Edge Compliance





### WCDMA Band II RMC CH-Low

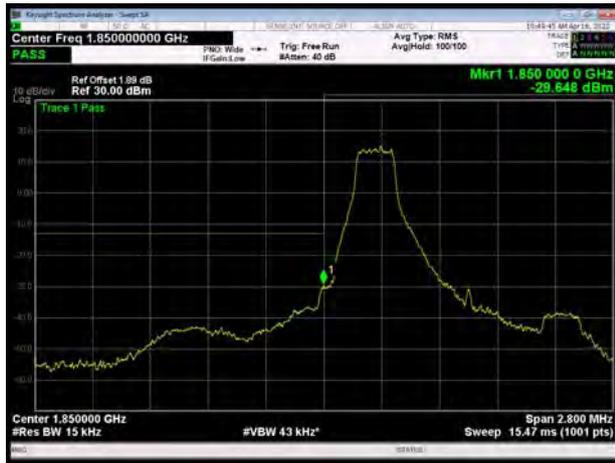


### WCDMA Band II RMC CH-High

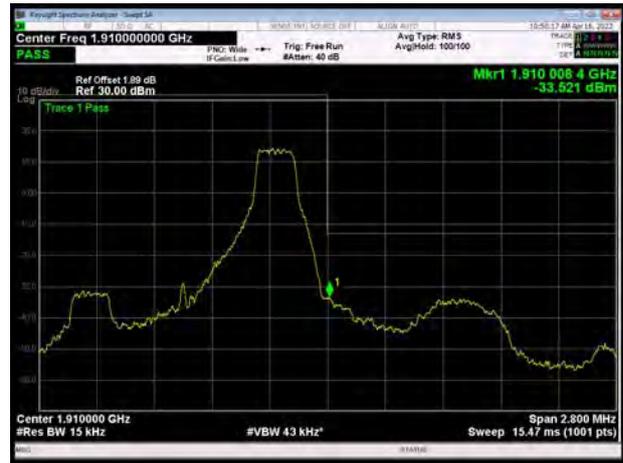




LTE Band 2 1.4MHz QPSK 1RB CH-Low



LTE Band 2 1.4MHz QPSK 1RB CH-High



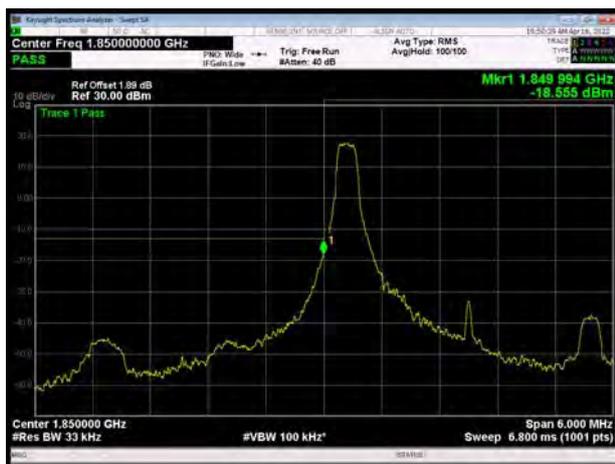
LTE Band 2 1.4MHz QPSK 100%RB CH-Low



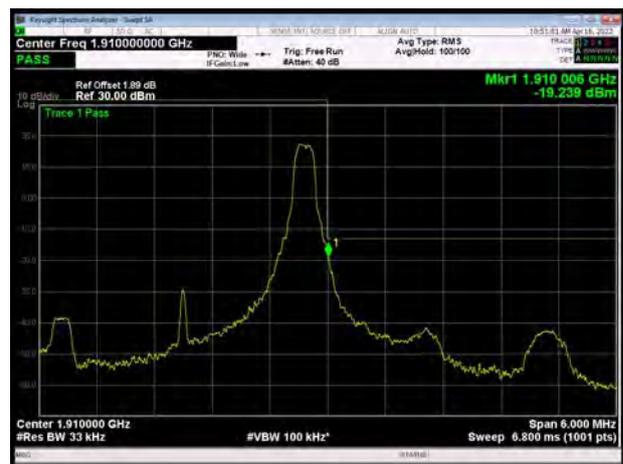
LTE Band 2 1.4MHz QPSK 100%RB CH-High



LTE Band 2 3MHz QPSK 1RB CH-Low



LTE Band 2 3MHz QPSK 1RB CH-High





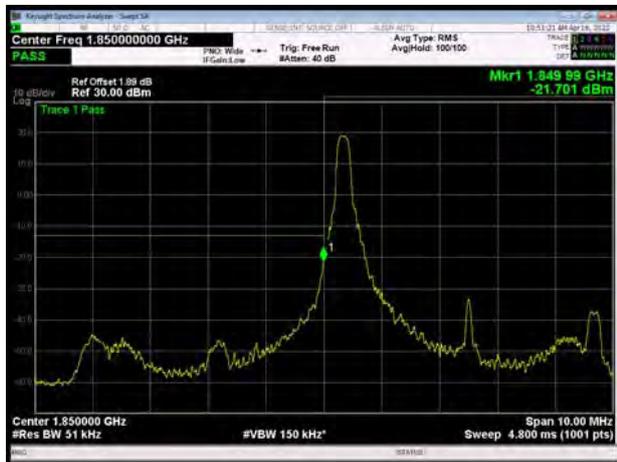
LTE Band 2 3MHz QPSK 100%RB CH-Low



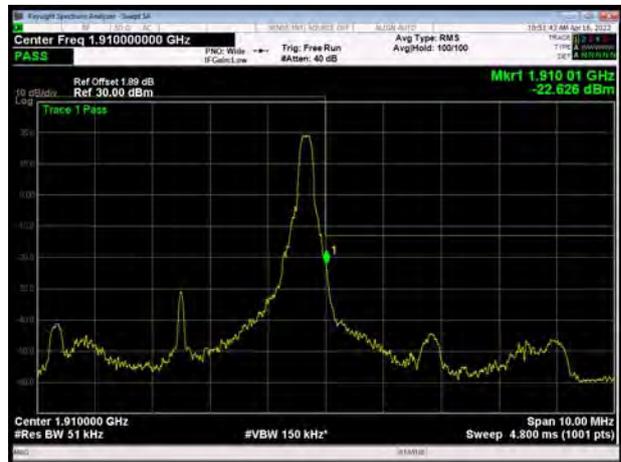
LTE Band 2 3MHz QPSK 100%RB CH-High



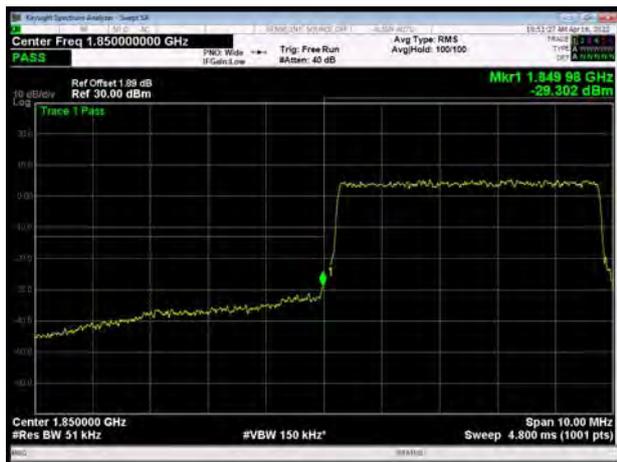
LTE Band 2 5MHz QPSK 1RB CH-Low



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

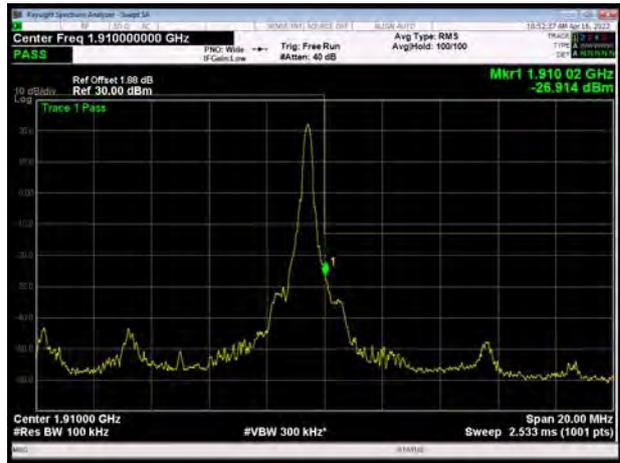




LTE Band 2 10MHz QPSK 1RB CH-Low



LTE Band 2 10MHz QPSK 1RB CH-High



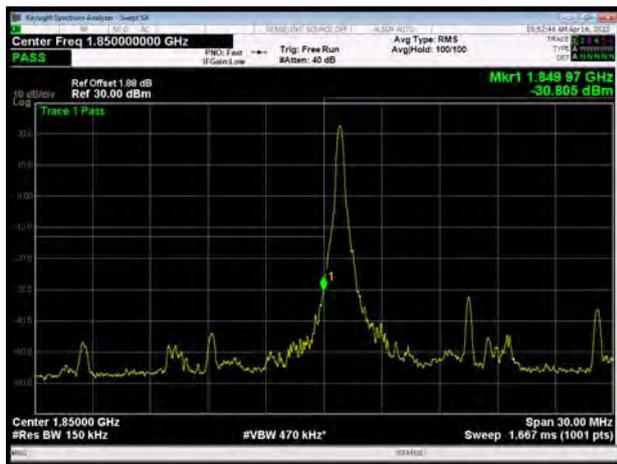
LTE Band 2 10MHz QPSK 100%RB CH-Low



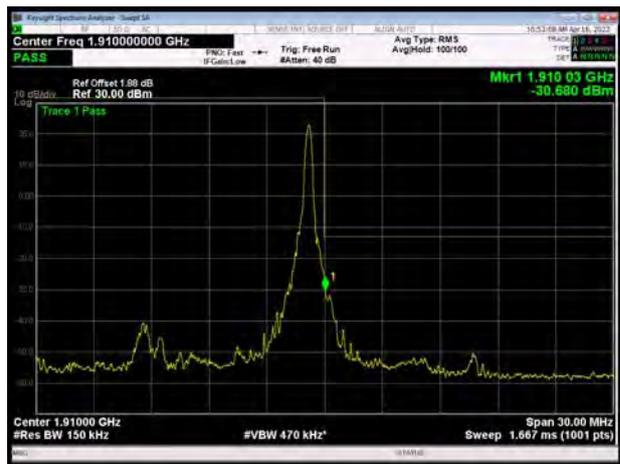
LTE Band 2 10MHz QPSK 100%RB CH-High



LTE Band 2 15MHz QPSK 1RB CH-Low



LTE Band 2 15MHz QPSK 1RB CH-High





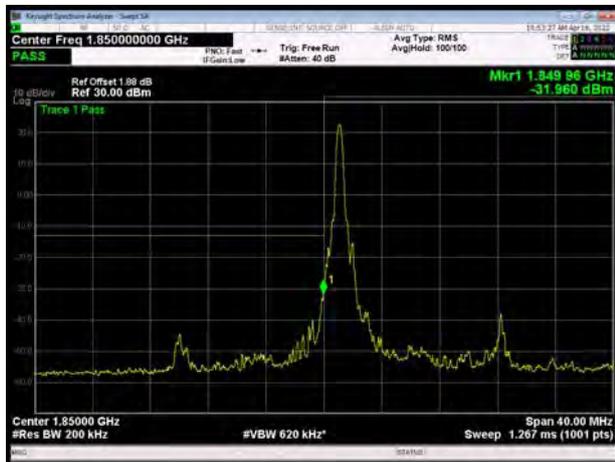
LTE Band 2 15MHz QPSK 100%RB CH-Low



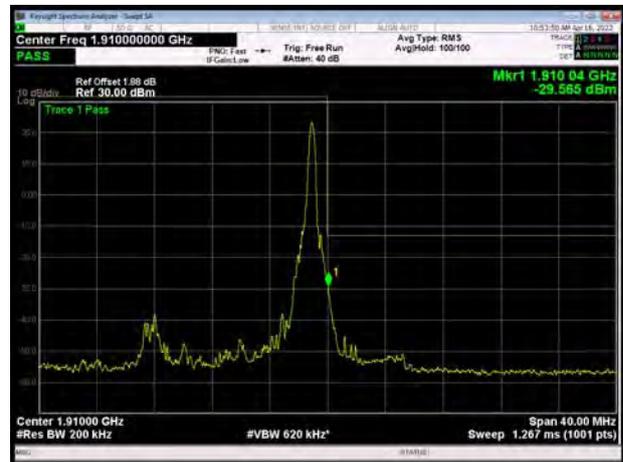
LTE Band 2 15MHz QPSK 100%RB CH-High



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

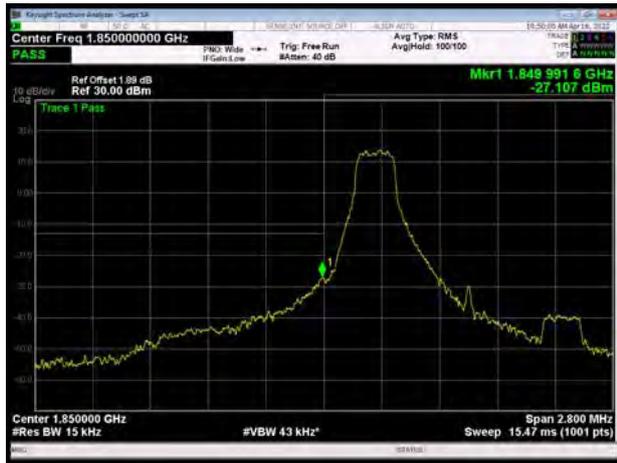


LTE Band 2 20MHz QPSK 100%RB CH-High





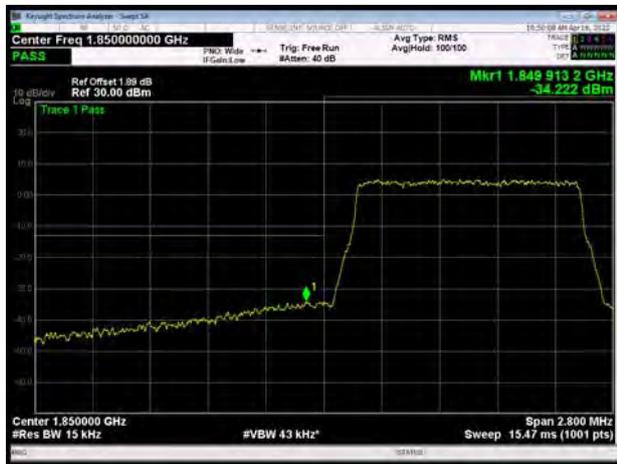
LTE Band 2 1.4MHz 16QAM 1RB CH-Low



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



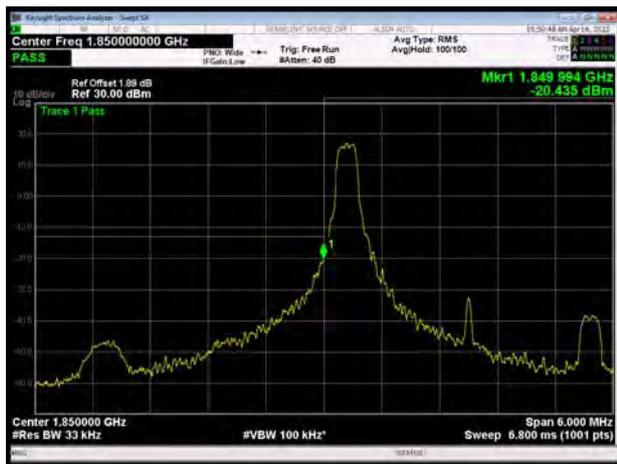
LTE Band 2 1.4MHz 16QAM 100%RB CH-Low



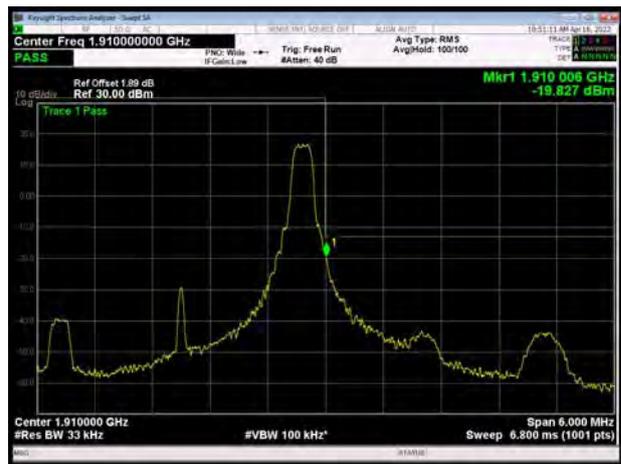
LTE Band 2 1.4MHz 16QAM 100%RB CH-High



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



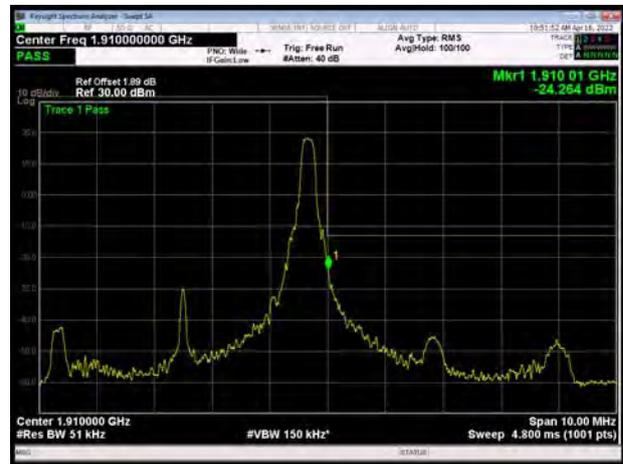
LTE Band 2 3MHz 16QAM 100%RB CH-High



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



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



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

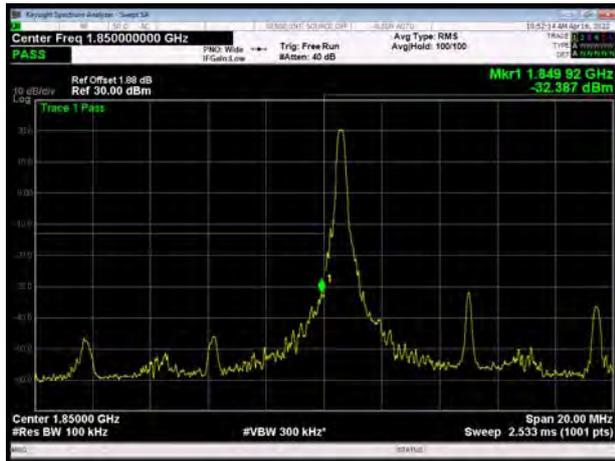


LTE Band 2 5MHz 16QAM 100%RB CH-High

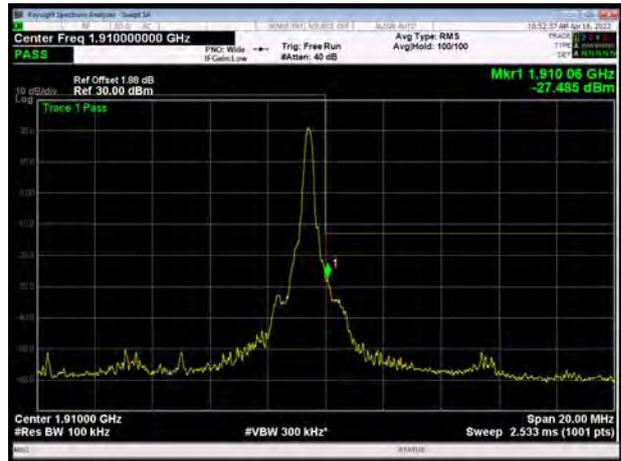




LTE Band 2 10MHz 16QAM 1RB CH-Low



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



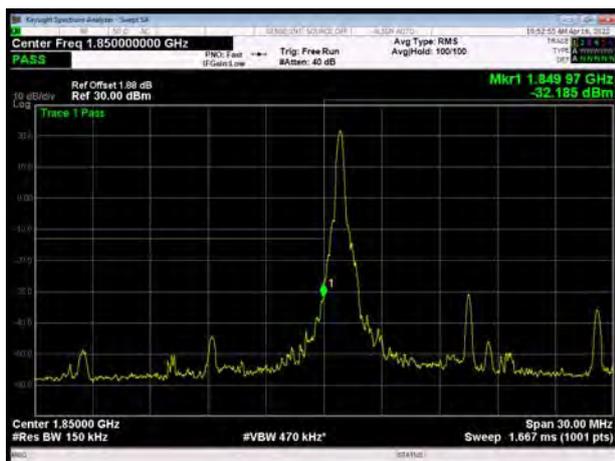
LTE Band 2 10MHz 16QAM 100%RB CH-Low



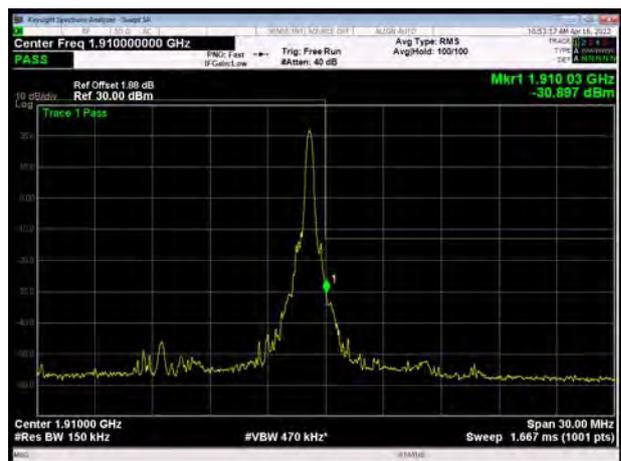
LTE Band 2 10MHz 16QAM 100%RB CH-High



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



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





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



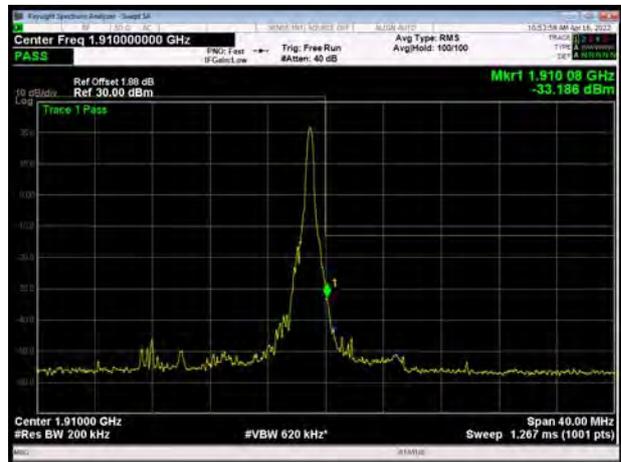
LTE Band 2 15MHz 16QAM 100%RB CH-High



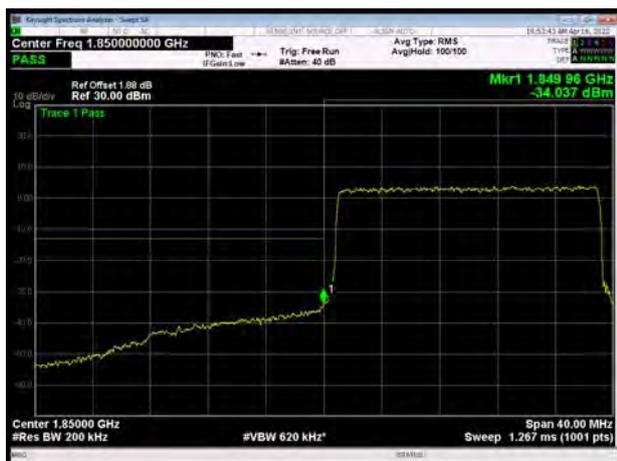
LTE Band 2 20MHz 16QAM 1RB CH-Low



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



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

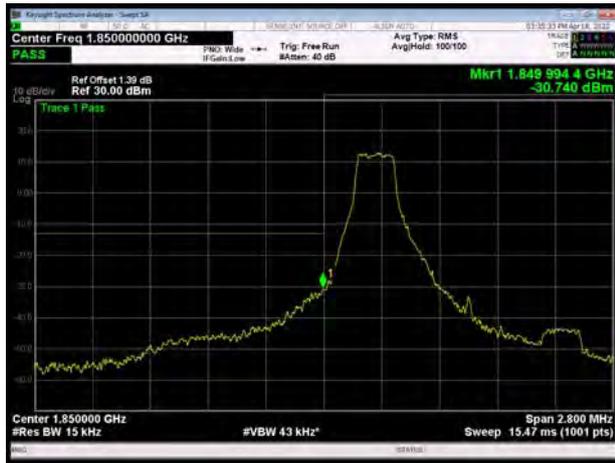


LTE Band 2 20MHz 16QAM 100%RB CH-High





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



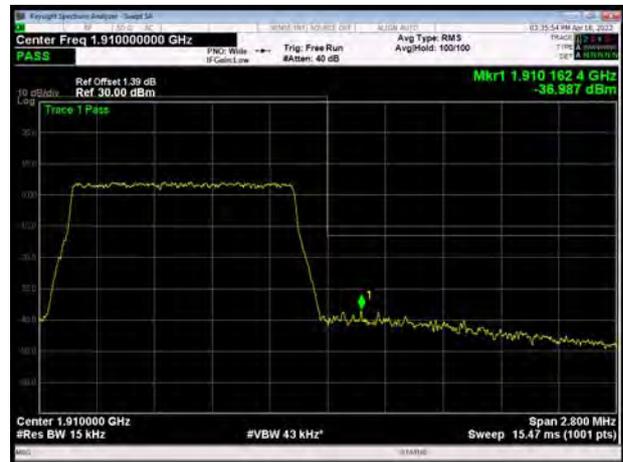
LTE Band 2 1.4MHz 64QAM 1RB CH-High



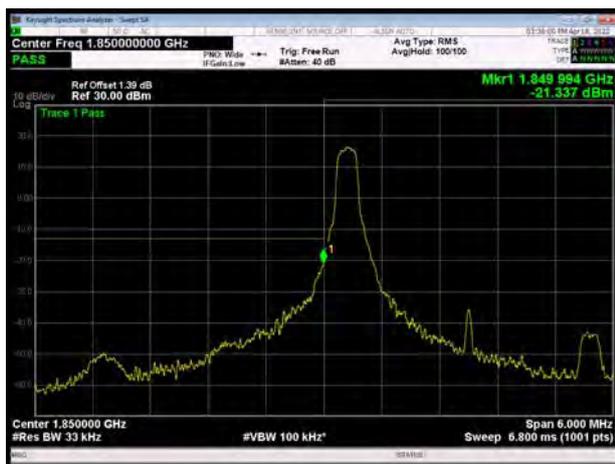
LTE Band 2 1.4MHz 64QAM 100%RB CH-Low



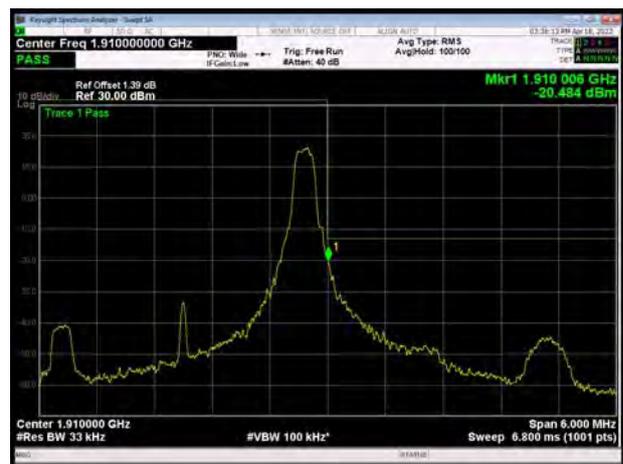
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LTE Band 2 3MHz 64QAM 1RB CH-Low



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





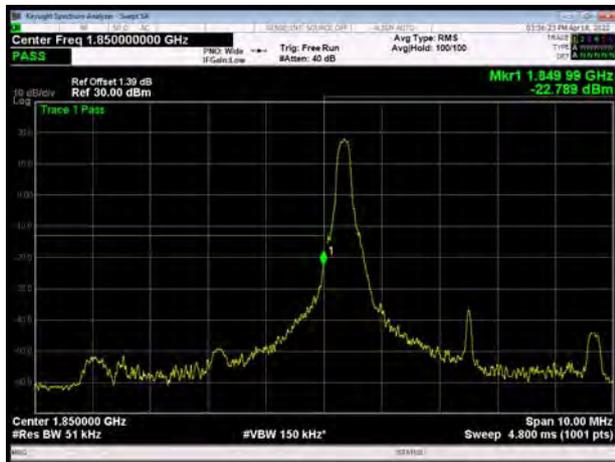
LTE Band 2 3MHz 64QAM 100%RB CH-Low



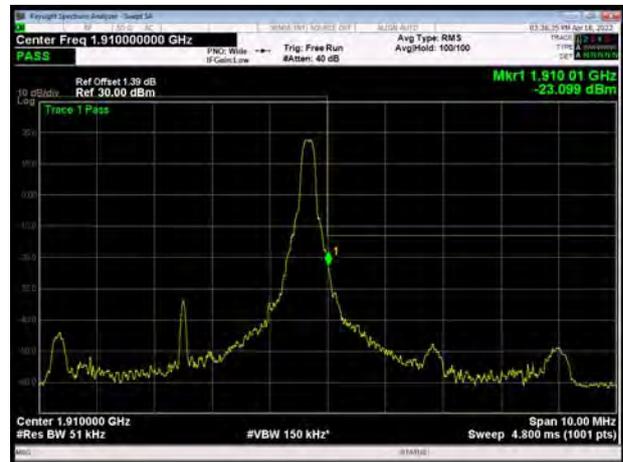
LTE Band 2 3MHz 64QAM 100%RB CH-High



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

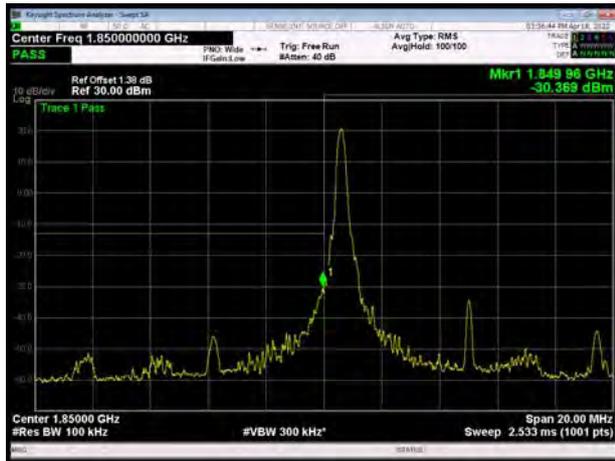


LTE Band 2 5MHz 64QAM 100%RB CH-High

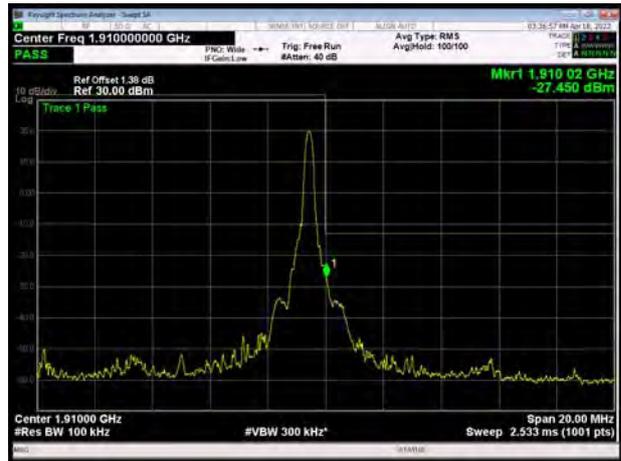




LTE Band 2 10MHz 64QAM 1RB CH-Low



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



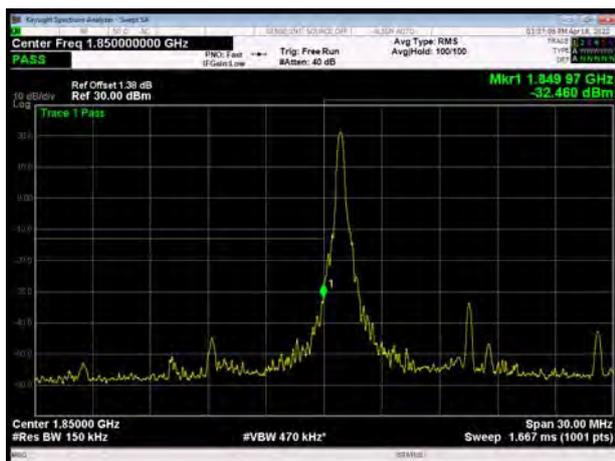
LTE Band 2 10MHz 64QAM 100%RB CH-Low



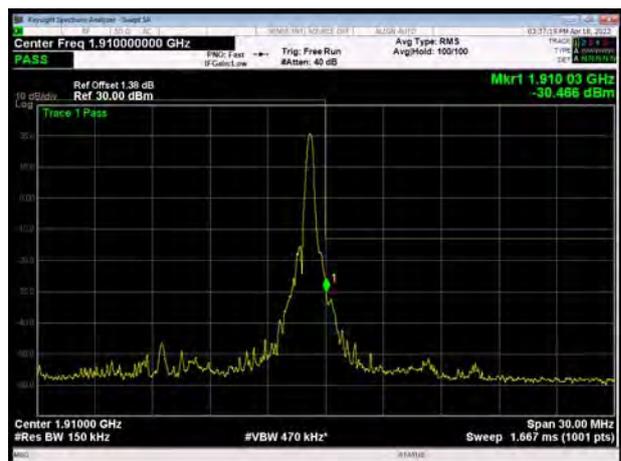
LTE Band 2 10MHz 64QAM 100%RB CH-High



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

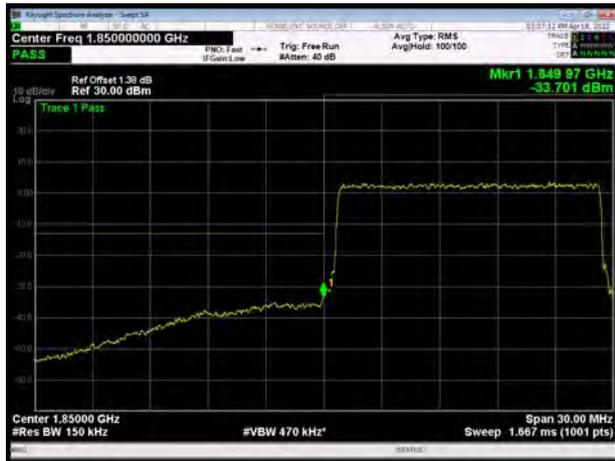


LTE Band 2 15MHz 64QAM 1RB CH-High





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

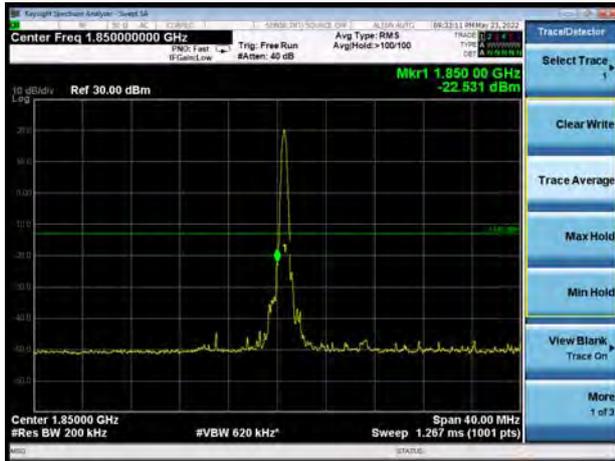


LTE Band 2 20MHz 64QAM 100%RB CH-High

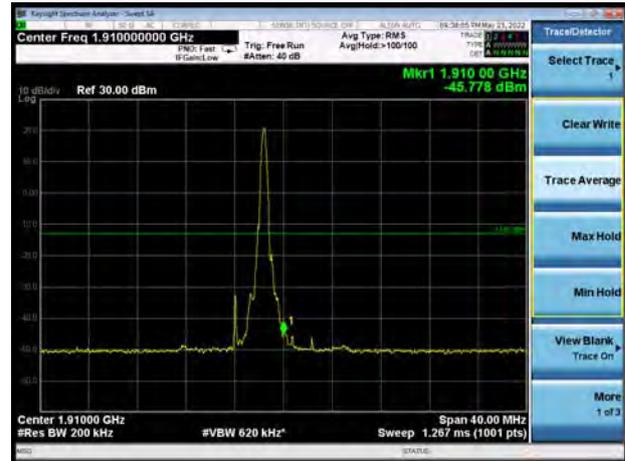




NR n2 P1/2 BPSK 20MHz CH-Low 1RB



NR n2 P1/2 BPSK 20MHz CH-High 1RB



NR n2 P1/2 BPSK 20MHz CH-Low 100%RB



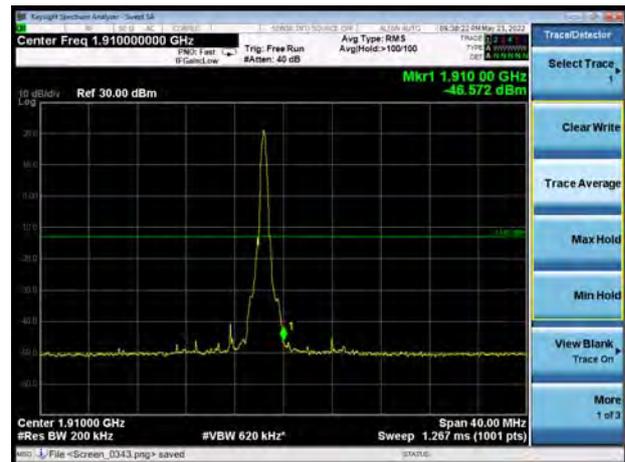
NR n2 P1/2 BPSK 20MHz CH-High 100%RB



NR n2 QPSK 20MHz CH-Low 1RB



NR n2 QPSK 20MHz CH-High 1RB





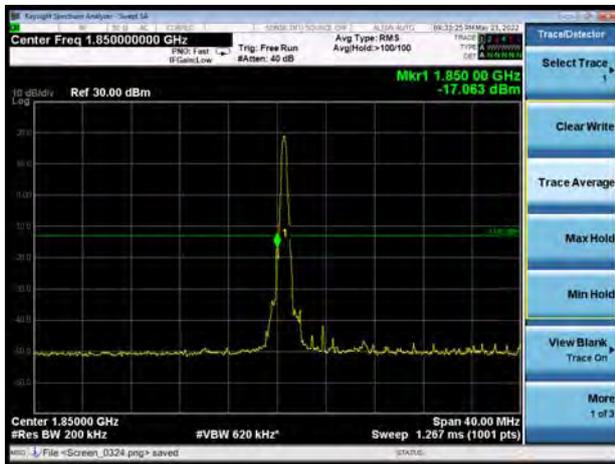
NR n2 QPSK 20MHz CH-Low 100%RB



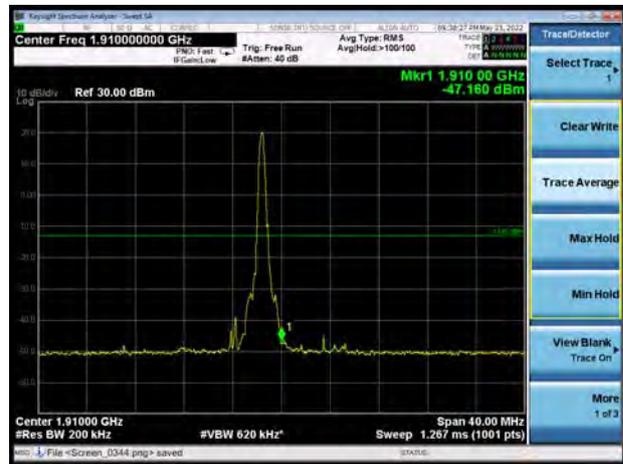
NR n2 QPSK 20MHz CH-High 100%RB



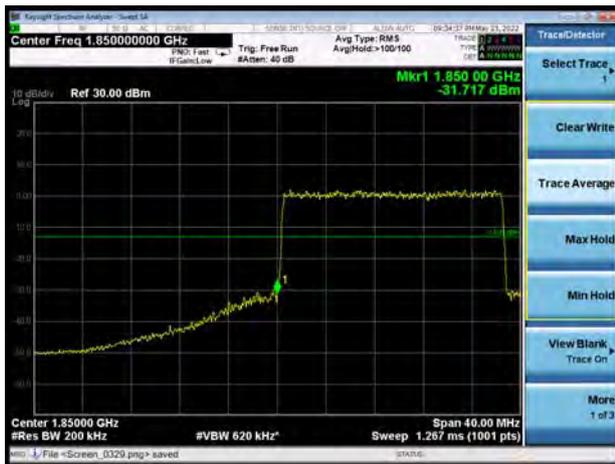
NR n2 16QAM 20MHz CH-Low 1RB



NR n2 16QAM 20MHz CH-High 1RB



NR n2 16QAM 20MHz CH-Low 100%RB

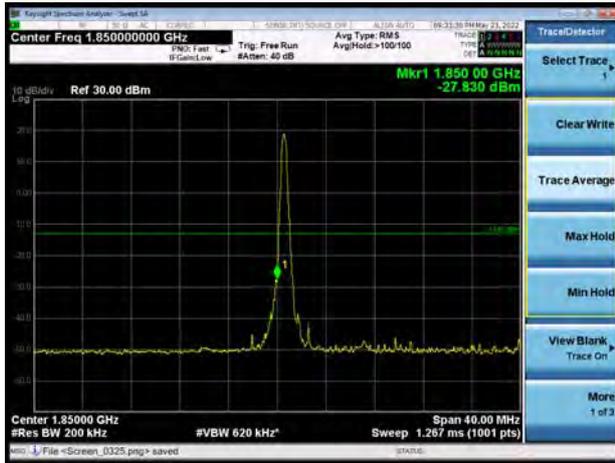


NR n2 16QAM 20MHz CH-High 100%RB

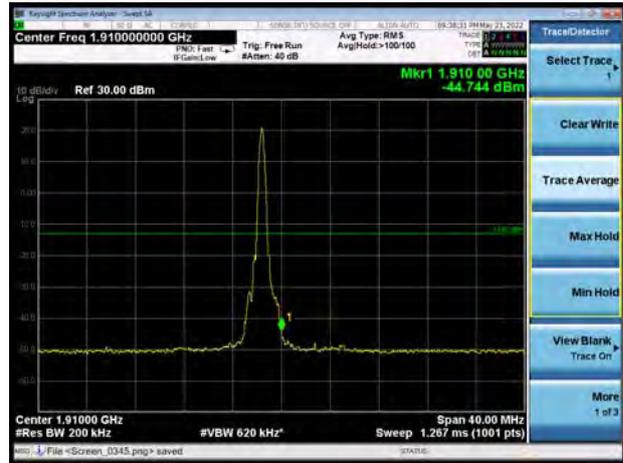




NR n2 64QAM 20MHz CH-Low 1RB



NR n2 64QAM 20MHz CH-High 1RB



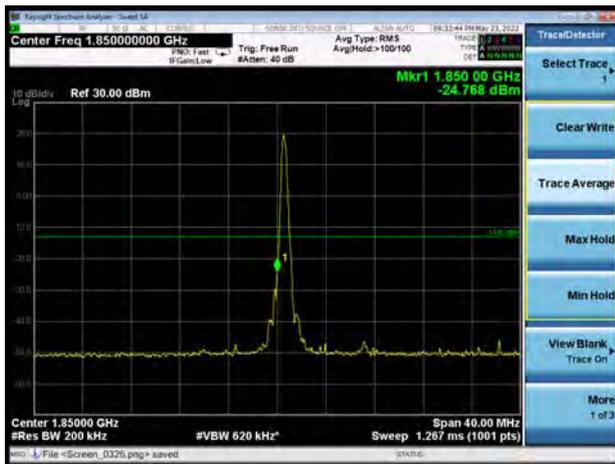
NR n2 64QAM 20MHz CH-Low 100%RB



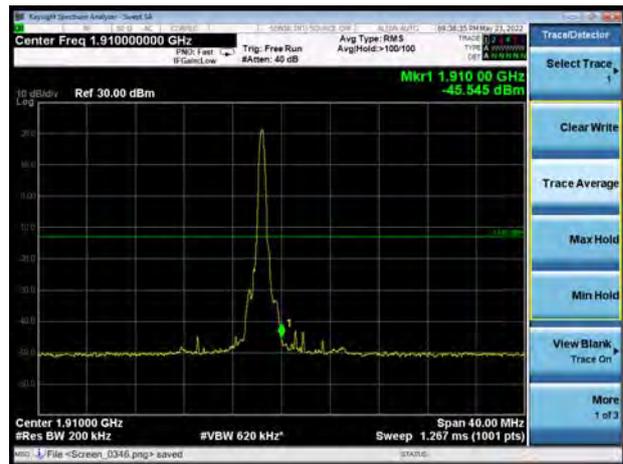
NR n2 64QAM 20MHz CH-High 100%RB



NR n2 256QAM 20MHz CH-Low 1RB



NR n2 256QAM 20MHz CH-High 1RB





NR n2 256QAM 20MHz CH-Low 100%RB



NR n2 256QAM 20MHz CH-High 100%RB



**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	29.45	26.70	2.75	≤13	PASS
	661	1880	29.37	26.61	2.76	≤13	PASS
	810	1909.8	29.63	26.86	2.77	≤13	PASS
GPRS 1900 (GMSK)	512	1850.2	29.48	26.73	2.75	≤13	PASS
	661	1880	29.43	26.66	2.77	≤13	PASS
	810	1909.8	29.71	26.93	2.78	≤13	PASS
EGPRS 1900 (8PSK)	512	1850.2	28.48	22.37	6.11	≤13	PASS
	661	1880	28.33	22.28	6.05	≤13	PASS
	810	1909.8	28.51	22.33	6.18	≤13	PASS
WCDMA Band II (RMC)	9262	1852.4	25.26	22.66	2.60	≤13	PASS
	9400	1880	25.41	22.75	2.66	≤13	PASS
	9538	1907.6	25.67	23.12	2.55	≤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	27.78	23.25	4.53	≤13	PASS
		18900	1880.0	28.70	23.20	5.50	≤13	PASS
		19193	1909.3	27.71	23.17	4.54	≤13	PASS
	3	18615	1851.5	27.83	23.33	4.50	≤13	PASS
		18900	1880	28.66	23.30	5.36	≤13	PASS
		19185	1908.5	27.89	23.24	4.65	≤13	PASS
	5	18625	1852.5	27.84	23.32	4.52	≤13	PASS
		18900	1880	28.63	23.27	5.36	≤13	PASS
		19175	1907.5	28.06	23.29	4.77	≤13	PASS
	10	18650	1855	28.11	23.35	4.76	≤13	PASS
		18900	1880	28.62	23.30	5.32	≤13	PASS
		19150	1905	28.23	23.22	5.01	≤13	PASS
	15	18675	1857.5	28.41	23.18	5.23	≤13	PASS
		18900	1880	28.68	23.12	5.56	≤13	PASS
		19125	1902.5	28.38	23.07	5.31	≤13	PASS
	20	18700	1860	28.41	23.22	5.19	≤13	PASS
		18900	1880	28.50	23.18	5.32	≤13	PASS
		19100	1900	28.33	23.13	5.20	≤13	PASS



16QAM	1.4	18607	1850.7	27.79	22.24	5.55	≤13	PASS
		18900	1880.0	28.54	22.23	6.31	≤13	PASS
		19193	1909.3	27.77	22.18	5.59	≤13	PASS
	3	18615	1851.5	27.82	22.34	5.48	≤13	PASS
		18900	1880	28.45	22.28	6.17	≤13	PASS
		19185	1908.5	27.94	22.26	5.68	≤13	PASS
	5	18625	1852.5	27.85	22.36	5.49	≤13	PASS
		18900	1880	28.51	22.32	6.19	≤13	PASS
		19175	1907.5	28.08	22.30	5.78	≤13	PASS
	10	18650	1855	28.07	22.36	5.71	≤13	PASS
		18900	1880	28.49	22.31	6.18	≤13	PASS
		19150	1905	28.17	22.21	5.96	≤13	PASS
	15	18675	1857.5	28.26	22.20	6.06	≤13	PASS
		18900	1880	28.42	22.12	6.30	≤13	PASS
		19125	1902.5	28.19	22.08	6.11	≤13	PASS
	20	18700	1860	28.29	22.23	6.06	≤13	PASS
		18900	1880	28.28	22.14	6.14	≤13	PASS
		19100	1900	28.23	22.17	6.06	≤13	PASS
64QAM	1.4	18607	1850.7	27.04	21.53	5.51	≤13	PASS
		18900	1880.0	27.67	21.51	6.16	≤13	PASS
		19193	1909.3	26.95	21.59	5.36	≤13	PASS
	3	18615	1851.5	27.07	21.67	5.40	≤13	PASS
		18900	1880	27.80	21.63	6.17	≤13	PASS
		19185	1908.5	27.13	21.65	5.48	≤13	PASS
	5	18625	1852.5	27.05	21.60	5.45	≤13	PASS
		18900	1880	27.72	21.62	6.10	≤13	PASS
		19175	1907.5	27.32	21.65	5.67	≤13	PASS
	10	18650	1855	27.27	21.66	5.61	≤13	PASS
		18900	1880	27.70	21.61	6.09	≤13	PASS
		19150	1905	27.50	21.53	5.97	≤13	PASS
	15	18675	1857.5	27.49	21.49	6.00	≤13	PASS
		18900	1880	27.70	21.45	6.25	≤13	PASS
		19125	1902.5	27.52	21.41	6.11	≤13	PASS
	20	18700	1860	27.50	21.49	6.01	≤13	PASS
		18900	1880	27.53	21.45	6.08	≤13	PASS
		19100	1900	27.53	21.44	6.09	≤13	PASS



NR n2								
Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
20	P1/2 BPSK	372000	1860	32.93	21.51	11.42	≤13	PASS
		376000	1880	31.93	20.20	11.73	≤13	PASS
		380000	1900	32.67	20.79	11.88	≤13	PASS
	QPSK	372000	1860	32.84	21.24	11.60	≤13	PASS
		376000	1880	33.13	21.83	11.30	≤13	PASS
		380000	1900	32.69	21.04	11.65	≤13	PASS
	16QAM	372000	1860	32.54	19.59	12.95	≤13	PASS
		376000	1880	32.81	20.69	12.12	≤13	PASS
		380000	1900	32.47	20.27	12.20	≤13	PASS
	64QAM	372000	1860	32.30	19.81	12.49	≤13	PASS
		376000	1880	32.50	20.29	12.21	≤13	PASS
		380000	1900	30.55	18.79	11.76	≤13	PASS
	256QAM	372000	1860	30.43	18.35	12.08	≤13	PASS
		376000	1880	32.53	20.28	12.25	≤13	PASS
		380000	1900	30.34	17.55	12.79	≤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	1.08	10.67	0.00057	0.00568	PASS
Extreme (55°C)		9.06	8.41	0.00482	0.00448	PASS
Extreme (50°C)		12.03	15.30	0.00640	0.00814	PASS
Extreme (40°C)		9.06	6.07	0.00482	0.00323	PASS
Extreme (30°C)		9.38	13.43	0.00499	0.00714	PASS
Extreme (20°C)		9.78	5.01	0.00520	0.00267	PASS
Extreme (10°C)		2.71	14.44	0.00144	0.00768	PASS
Extreme (0°C)		3.63	17.94	0.00193	0.00954	PASS
Extreme (-10°C)		11.21	8.41	0.00596	0.00448	PASS
Extreme (-20°C)		2.91	5.90	0.00155	0.00314	PASS
Extreme (-30°C)		6.44	9.73	0.00343	0.00518	PASS
25°C	LV	16.88	6.66	0.00898	0.00354	PASS
	HV	1.08	10.67	0.00057	0.00568	PASS

WCDMA Band II						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	QPSK	BPSK	QPSK	BPSK	
Normal (25°C)	Normal	10.32	2.25	0.00549	0.00120	PASS
Extreme (55°C)		10.84	1.01	0.00577	0.00054	PASS
Extreme (50°C)		14.95	12.85	0.00795	0.00683	PASS
Extreme (40°C)		14.86	11.61	0.00791	0.00618	PASS
Extreme (30°C)		5.92	10.17	0.00315	0.00541	PASS
Extreme (20°C)		15.92	14.52	0.00847	0.00772	PASS
Extreme (10°C)		1.89	15.39	0.00101	0.00819	PASS
Extreme (0°C)		12.55	8.79	0.00668	0.00467	PASS
Extreme (-10°C)		7.74	5.99	0.00412	0.00318	PASS
Extreme (-20°C)		6.51	4.42	0.00346	0.00235	PASS
Extreme (-30°C)		14.88	11.35	0.00791	0.00604	PASS
25°C	LV	5.28	7.84	0.00281	0.00417	PASS
	HV	10.32	2.25	0.00549	0.00120	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	6.25	4.42	3.05	0.00332	0.00235	0.00162	PASS
Extreme (50°C)		14.92	11.03	16.66	0.00794	0.00587	0.00886	PASS
Extreme (40°C)		17.34	10.24	3.11	0.00922	0.00545	0.00166	PASS
Extreme (30°C)		14.69	3.68	2.62	0.00782	0.00196	0.00139	PASS
Extreme (20°C)		9.82	12.16	12.42	0.00522	0.00647	0.00661	PASS
Extreme (10°C)		13.26	15.62	4.87	0.00705	0.00831	0.00259	PASS
Extreme (0°C)		6.54	12.26	2.74	0.00348	0.00652	0.00146	PASS
Extreme (-10°C)		10.04	11.98	1.25	0.00534	0.00637	0.00066	PASS
Extreme (-20°C)		14.90	3.67	9.89	0.00793	0.00195	0.00526	PASS
Extreme (-30°C)		4.91	9.25	14.71	0.00261	0.00492	0.00783	PASS
25°C	LV	8.03	11.65	16.11	0.00427	0.00620	0.00857	PASS
	HV	11.57	5.29	3.77	0.00615	0.00281	0.00201	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	12.23	2.91	2.89	0.00650	0.00155	0.00154	PASS
Extreme (50°C)		2.37	6.04	15.88	0.00126	0.00321	0.00845	PASS
Extreme (40°C)		9.03	6.01	16.37	0.00480	0.00320	0.00871	PASS
Extreme (30°C)		5.49	13.36	5.12	0.00292	0.00711	0.00273	PASS
Extreme (20°C)		15.78	15.16	5.38	0.00840	0.00806	0.00286	PASS
Extreme (10°C)		3.60	11.87	7.50	0.00192	0.00631	0.00399	PASS
Extreme (0°C)		16.82	8.87	9.98	0.00895	0.00472	0.00531	PASS
Extreme (-10°C)		12.77	2.95	2.89	0.00679	0.00157	0.00154	PASS
Extreme (-20°C)		6.77	16.64	12.82	0.00360	0.00885	0.00682	PASS
Extreme (-30°C)		10.68	5.61	4.11	0.00568	0.00299	0.00219	PASS
25°C	LV	13.03	2.71	9.09	0.00693	0.00144	0.00483	PASS
	HV	17.94	13.77	8.40	0.00954	0.00733	0.00447	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	10.37	2.29	9.75	0.00552	0.00122	0.00519	PASS
Extreme (50°C)		12.07	7.17	6.80	0.00642	0.00381	0.00362	PASS



Extreme (40°C)		10.08	2.74	10.37	0.00536	0.00146	0.00551	PASS
Extreme (30°C)		4.80	14.12	17.21	0.00255	0.00751	0.00915	PASS
Extreme (20°C)		7.85	2.48	1.39	0.00417	0.00132	0.00074	PASS
Extreme (10°C)		12.35	4.88	15.33	0.00657	0.00259	0.00815	PASS
Extreme (0°C)		8.28	17.37	13.90	0.00440	0.00924	0.00740	PASS
Extreme (-10°C)		15.20	7.68	16.36	0.00809	0.00409	0.00870	PASS
Extreme (-20°C)		12.56	10.07	13.54	0.00668	0.00535	0.00720	PASS
Extreme (-30°C)		16.94	14.98	10.33	0.00901	0.00797	0.00550	PASS
25°C	LV	13.80	10.96	8.39	0.00734	0.00583	0.00446	PASS
	HV	2.79	14.93	10.97	0.00148	0.00794	0.00583	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	11.26	16.96	15.15	0.00599	0.00902	0.00806	PASS
Extreme (50°C)		9.78	8.57	13.19	0.00520	0.00456	0.00702	PASS
Extreme (40°C)		5.98	9.18	13.96	0.00318	0.00488	0.00743	PASS
Extreme (30°C)		10.17	10.86	15.68	0.00541	0.00578	0.00834	PASS
Extreme (20°C)		15.34	5.71	17.65	0.00816	0.00304	0.00939	PASS
Extreme (10°C)		4.53	12.35	13.87	0.00241	0.00657	0.00738	PASS
Extreme (0°C)		17.68	16.21	16.07	0.00940	0.00862	0.00855	PASS
Extreme (-10°C)		17.78	12.73	17.21	0.00946	0.00677	0.00915	PASS
Extreme (-20°C)		8.55	3.17	8.80	0.00455	0.00169	0.00468	PASS
Extreme (-30°C)		8.42	16.92	10.92	0.00448	0.00900	0.00581	PASS
25°C	LV	3.34	4.92	4.86	0.00177	0.00262	0.00258	PASS
	HV	5.38	9.88	6.27	0.00286	0.00525	0.00333	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	13.16	6.33	1.84	0.00700	0.00337	0.00098	PASS
Extreme (50°C)		2.56	7.96	7.61	0.00136	0.00423	0.00405	PASS
Extreme (40°C)		15.18	15.64	5.59	0.00808	0.00832	0.00297	PASS
Extreme (30°C)		9.28	4.04	8.74	0.00494	0.00215	0.00465	PASS
Extreme (20°C)		13.54	3.49	1.60	0.00720	0.00186	0.00085	PASS
Extreme (10°C)		2.53	2.18	5.14	0.00134	0.00116	0.00273	PASS
Extreme (0°C)		9.74	1.16	17.73	0.00518	0.00062	0.00943	PASS
Extreme (-10°C)		6.85	7.94	8.46	0.00364	0.00422	0.00450	PASS
Extreme (-20°C)		8.94	11.93	16.98	0.00475	0.00635	0.00903	PASS
Extreme (-30°C)		4.03	4.76	13.47	0.00214	0.00253	0.00717	PASS
25°C	LV	10.07	13.94	6.99	0.00535	0.00741	0.00372	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	9.94	3.37	16.20	0.00529	0.00179	0.00862	PASS
Extreme (50°C)		7.79	10.66	11.77	0.00415	0.00567	0.00626	PASS
Extreme (40°C)		9.15	13.91	14.66	0.00487	0.00740	0.00780	PASS
Extreme (30°C)		16.67	6.24	5.48	0.00887	0.00332	0.00291	PASS
Extreme (20°C)		4.93	15.51	16.26	0.00262	0.00825	0.00865	PASS
Extreme (10°C)		4.09	16.85	15.78	0.00218	0.00896	0.00839	PASS
Extreme (0°C)		11.21	17.90	12.02	0.00596	0.00952	0.00639	PASS
Extreme (-10°C)		1.06	4.42	10.86	0.00056	0.00235	0.00578	PASS
Extreme (-20°C)		3.15	6.67	7.17	0.00167	0.00355	0.00381	PASS
Extreme (-30°C)		11.22	1.04	16.29	0.00597	0.00055	0.00866	PASS
25°C	LV	15.27	17.96	4.99	0.00812	0.00955	0.00265	PASS
	HV	8.78	16.89	12.39	0.00467	0.00898	0.00659	PASS

NR n2											
Condition		Freq.Error (Hz)	Frequency Stability (ppm)								
BANDWIDTH	5MHz										
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK
Normal (25°C)	Normal	13.92	6.25	1.97	15.46	4.25	0.00740	0.00332	0.00105	0.00822	0.00226
Extreme (50°C)		16.54	1.12	12.24	16.37	12.12	0.00880	0.00060	0.00651	0.00871	0.00645
Extreme (40°C)		14.04	9.81	3.73	3.42	1.81	0.00747	0.00522	0.00198	0.00182	0.00096
Extreme (30°C)		16.95	17.29	8.94	10.38	2.29	0.00902	0.00919	0.00476	0.00552	0.00122
Extreme (20°C)		13.55	16.89	17.58	12.82	10.89	0.00721	0.00899	0.00935	0.00682	0.00579
Extreme (10°C)		8.97	3.77	1.70	6.61	15.77	0.00477	0.00200	0.00090	0.00352	0.00839
Extreme (0°C)		13.86	3.86	14.46	17.08	2.86	0.00737	0.00205	0.00769	0.00909	0.00152
Extreme (-10°C)		11.46	3.22	4.12	10.47	3.22	0.00610	0.00171	0.00219	0.00557	0.00171
Extreme (-20°C)		17.93	10.84	5.59	16.18	5.84	0.00954	0.00576	0.00297	0.00861	0.00310
Extreme (-30°C)		7.28	4.33	16.02	4.37	15.33	0.00387	0.00231	0.00852	0.00233	0.00816
25°C	LV	17.88	12.75	9.43	15.50	16.75	0.00951	0.00678	0.00502	0.00824	0.00891
	HV	11.92	12.79	16.79	7.94	12.79	0.00634	0.00680	0.00893	0.00422	0.00680
Condition		Freq.Error (Hz)	Frequency Stability (ppm)								
BANDWIDTH	10MHz										



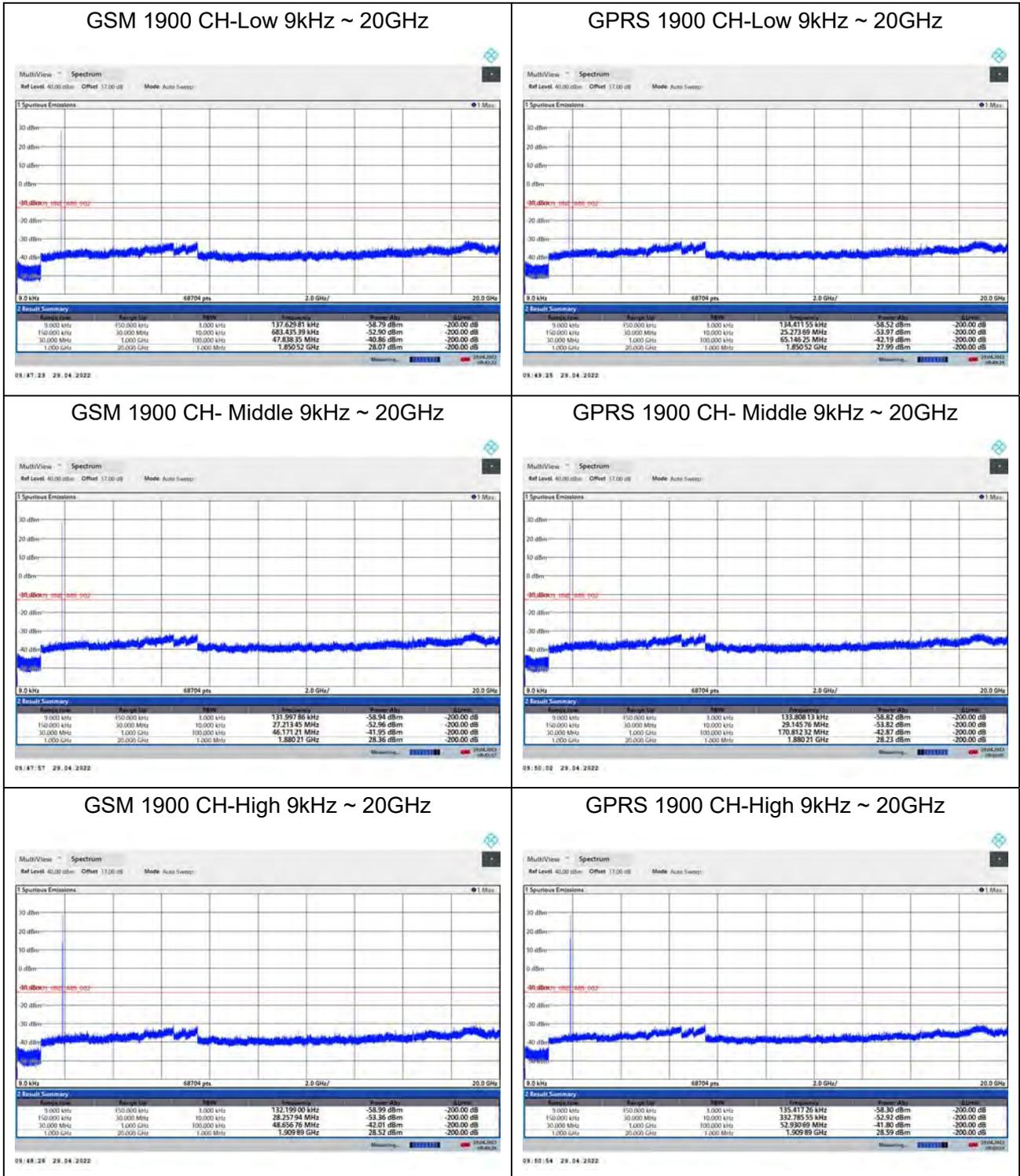
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK
Normal (25°C)	Normal	16.72	9.75	17.67	17.92	1.75	0.00889	0.00519	0.00940	0.00953	0.00093
Extreme (50°C)		11.10	10.40	10.56	4.91	1.40	0.00590	0.00553	0.00561	0.00261	0.00074
Extreme (40°C)		2.32	16.01	5.61	6.53	2.01	0.00124	0.00852	0.00298	0.00347	0.00107
Extreme (30°C)		8.50	16.28	5.33	13.27	6.28	0.00452	0.00866	0.00283	0.00706	0.00334
Extreme (20°C)		6.61	3.83	1.81	16.39	14.83	0.00351	0.00204	0.00096	0.00872	0.00789
Extreme (10°C)		11.32	15.26	9.96	10.99	4.26	0.00602	0.00812	0.00530	0.00585	0.00227
Extreme (0°C)		13.36	12.93	6.73	15.76	12.93	0.00711	0.00688	0.00358	0.00838	0.00688
Extreme (-10°C)		9.06	3.70	11.96	9.61	13.70	0.00482	0.00197	0.00636	0.00511	0.00728
Extreme (-20°C)		4.99	12.60	13.86	14.93	9.60	0.00265	0.00670	0.00737	0.00794	0.00511
Extreme (-30°C)		3.61	3.24	11.70	14.67	14.24	0.00192	0.00172	0.00622	0.00780	0.00757
25°C	LV	7.81	7.31	17.09	16.82	14.31	0.00415	0.00389	0.00909	0.00895	0.00761
	HV	2.63	15.80	17.80	8.20	6.80	0.00140	0.00840	0.00947	0.00436	0.00362
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency
BANDWIDTH	15MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	Stability	Stability
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK
Normal (25°C)	Normal	17.02	10.40	12.05	10.19	10.40	0.00906	0.00553	0.00641	0.00542	0.00553
Extreme (50°C)		4.39	6.13	1.25	13.98	5.13	0.00234	0.00326	0.00067	0.00744	0.00273
Extreme (40°C)		11.45	7.71	2.65	14.21	5.71	0.00609	0.00410	0.00141	0.00756	0.00304
Extreme (30°C)		3.97	8.31	17.19	4.79	13.31	0.00211	0.00442	0.00915	0.00255	0.00708
Extreme (20°C)		10.97	10.32	14.33	10.85	3.32	0.00583	0.00549	0.00762	0.00577	0.00177
Extreme (10°C)		5.13	17.16	5.31	9.57	5.16	0.00273	0.00913	0.00283	0.00509	0.00275
Extreme (0°C)		17.14	12.46	6.85	3.10	7.46	0.00912	0.00663	0.00364	0.00165	0.00397
Extreme (-10°C)		3.66	4.70	13.73	9.85	5.70	0.00195	0.00250	0.00730	0.00524	0.00303
Extreme (-20°C)		17.04	5.23	5.92	3.63	1.23	0.00906	0.00278	0.00315	0.00193	0.00065
Extreme (-30°C)		9.29	2.58	1.44	15.18	4.58	0.00494	0.00137	0.00077	0.00808	0.00244
25°C	LV	1.35	9.67	12.89	7.57	13.67	0.00072	0.00514	0.00686	0.00403	0.00727
	HV	11.36	13.63	5.43	14.41	13.63	0.00604	0.00725	0.00289	0.00766	0.00725
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability	Stability	Stability	Stability	Stability
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK
Normal (25°C)	Normal	14.63	9.10	5.74	15.18	15.10	0.00778	0.00484	0.00305	0.00807	0.00803
Extreme (50°C)		6.61	11.23	8.08	17.55	10.23	0.00352	0.00597	0.00430	0.00934	0.00544
Extreme (40°C)		13.02	16.84	4.51	13.44	15.84	0.00692	0.00896	0.00240	0.00715	0.00842
Extreme (30°C)		1.91	4.04	11.19	14.20	3.04	0.00102	0.00215	0.00595	0.00755	0.00162
Extreme (20°C)		16.24	6.51	7.97	14.07	3.51	0.00864	0.00346	0.00424	0.00748	0.00187



Extreme (10°C)		2.15	15.43	13.27	4.56	2.43	0.00114	0.00821	0.00706	0.00242	0.00129
Extreme (0°C)		11.83	15.69	4.81	13.02	15.69	0.00629	0.00835	0.00256	0.00693	0.00835
Extreme (-10°C)		2.40	12.23	16.48	3.52	4.23	0.00128	0.00651	0.00877	0.00187	0.00225
Extreme (-20°C)		3.78	16.19	16.87	6.74	12.19	0.00201	0.00861	0.00898	0.00358	0.00648
Extreme (-30°C)		12.02	11.95	5.61	9.30	12.95	0.00639	0.00636	0.00298	0.00495	0.00689
25°C	LV	9.98	2.63	12.88	7.91	3.63	0.00531	0.00140	0.00685	0.00421	0.00193
	HV	10.41	9.08	6.09	9.12	7.08	0.00554	0.00483	0.00324	0.00485	0.00377

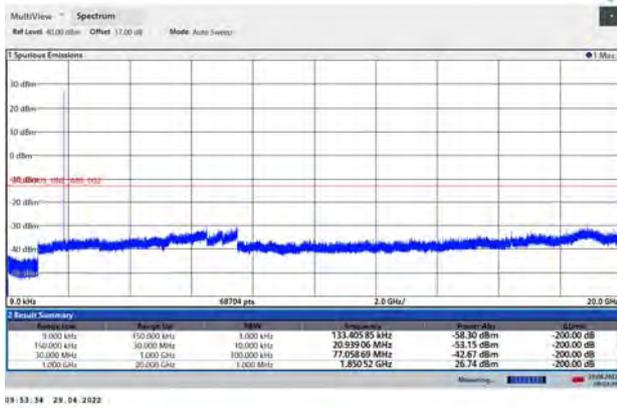
### 6.6. Spurious Emissions at Antenna Terminals

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.

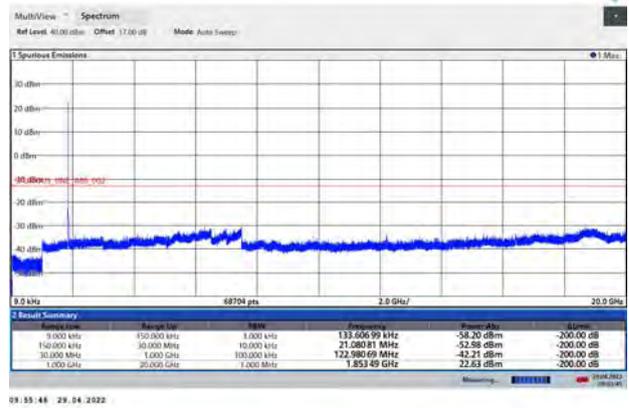




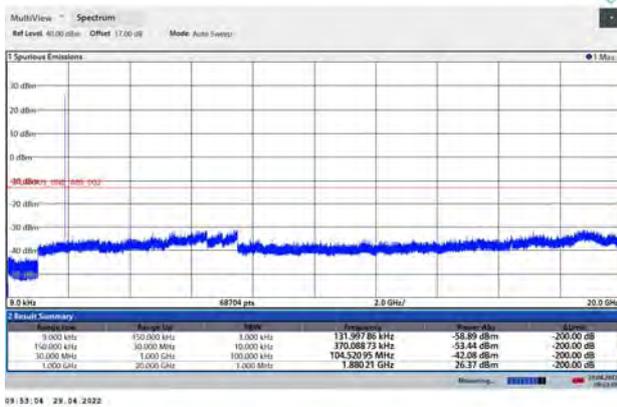
### EGPRS 1900 CH-Low 9kHz ~ 20GHz



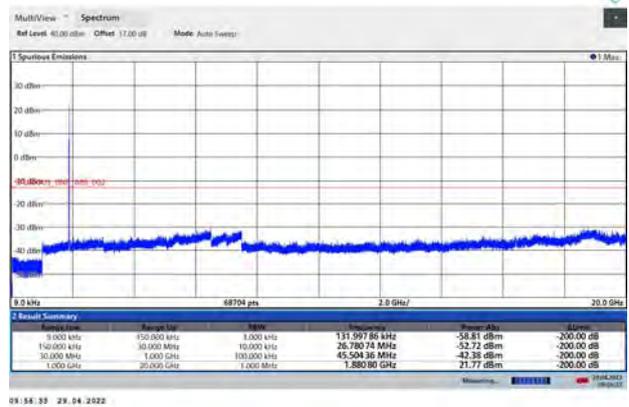
### WCDMA BAND II CH-Low 9kHz ~ 20GHz



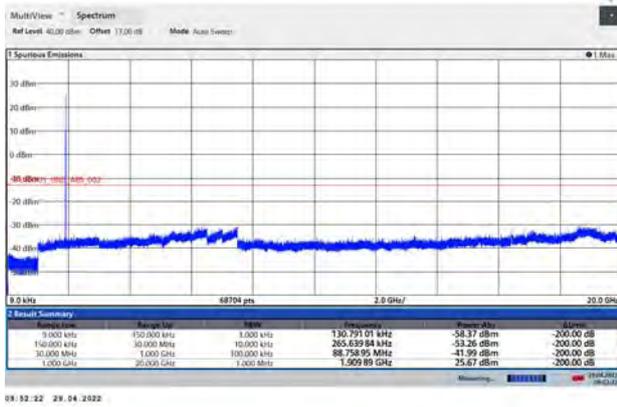
### EGPRS 1900 CH- Middle 9kHz ~ 20GHz



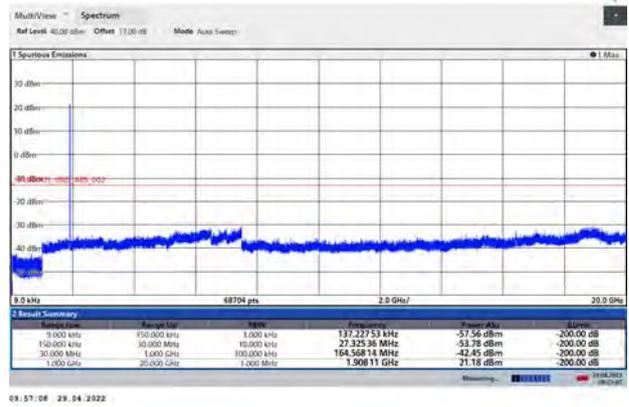
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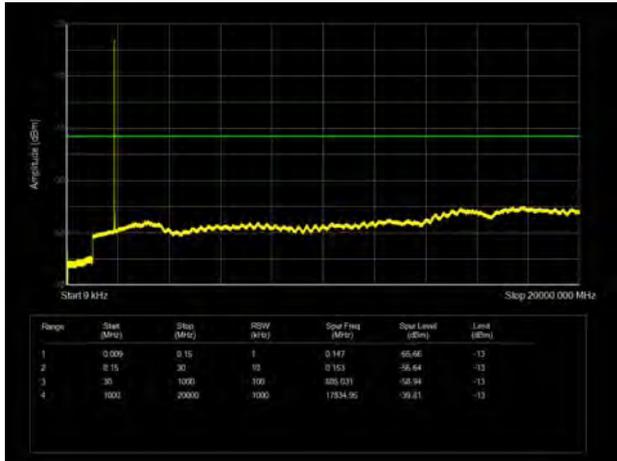
### EGPRS 1900 CH-High 9kHz ~ 20GHz



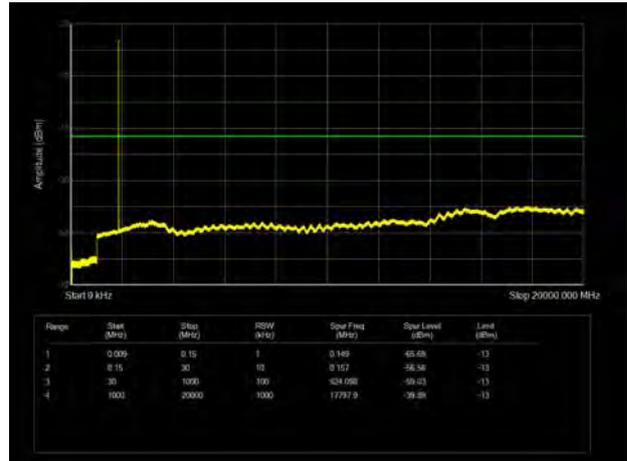
### WCDMA BAND II CH-High 9kHz ~ 20GHz



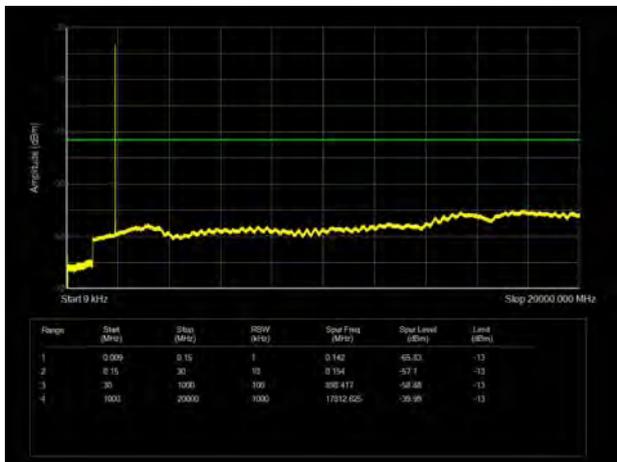
LTE Band 2 1.4MHz CH-Low 9kHz~20GHz



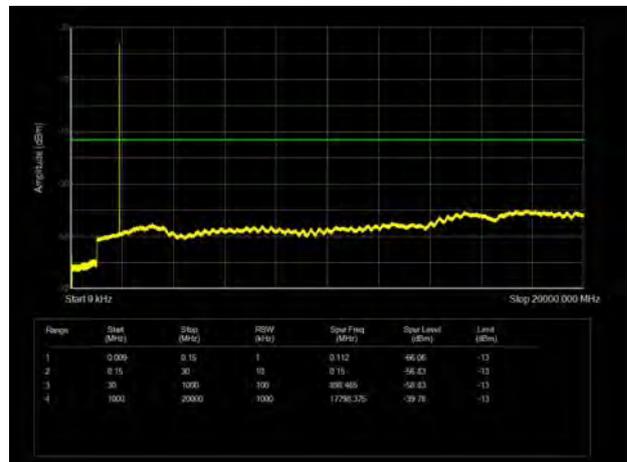
LTE Band 2 3MHz CH-Low 9kHz~20GHz



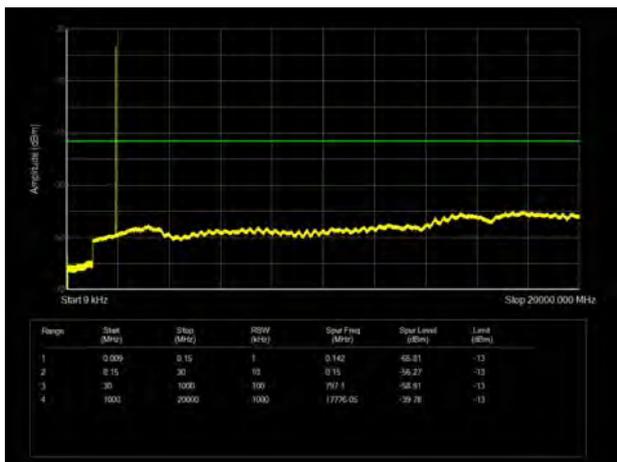
LTE Band 2 1.4MHz CH-Middle 9kHz~20GHz



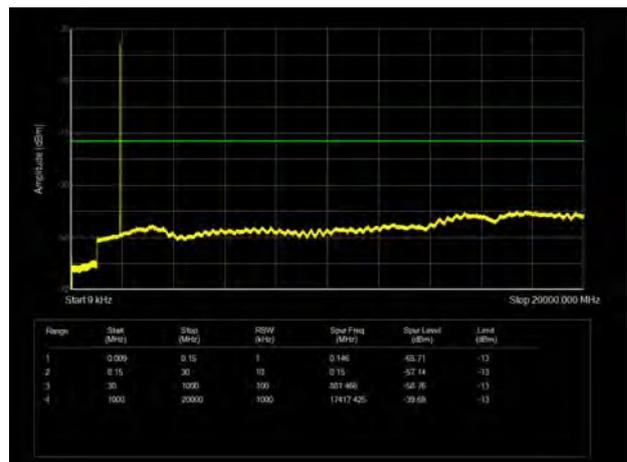
LTE Band 2 3MHz CH-Middle 9kHz~20GHz



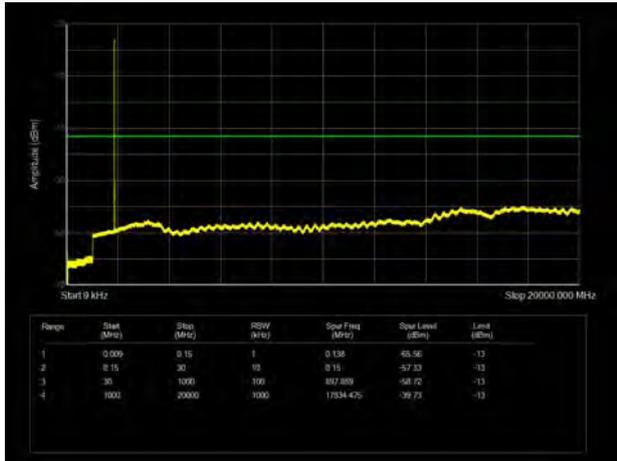
LTE Band 2 1.4MHz CH-High 9kHz~20GHz



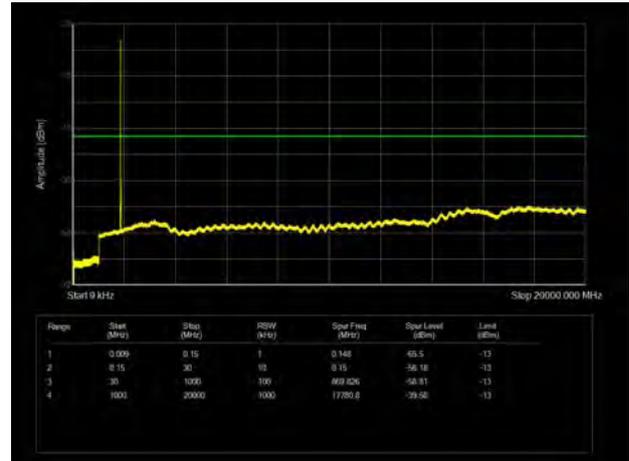
LTE Band 2 3MHz CH-High 9kHz~20GHz



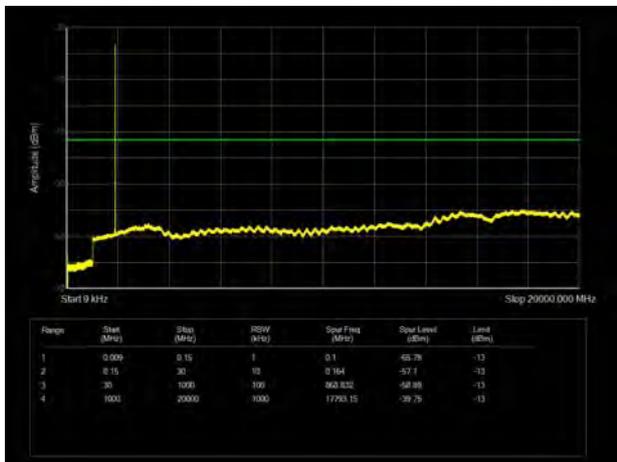
LTE Band 2 5MHz CH-Low 9kHz~20GHz



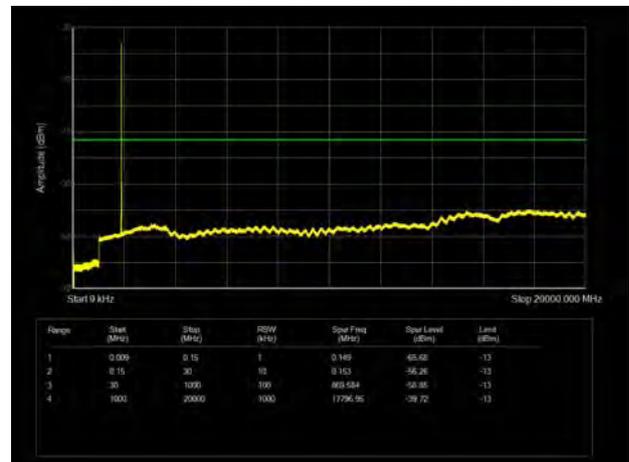
LTE Band 2 10MHz CH-Low 9kHz~20GHz



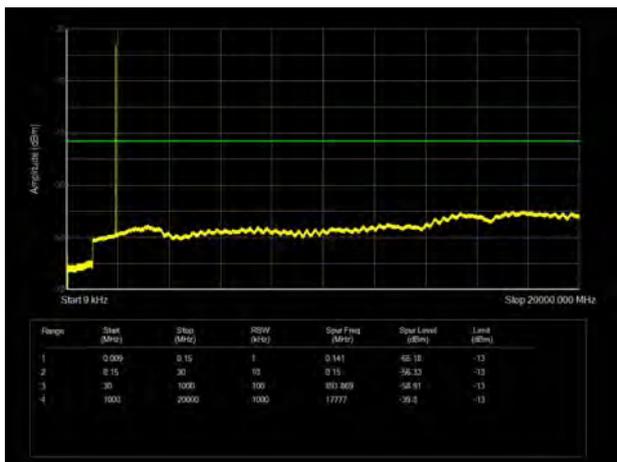
LTE Band 2 5MHz CH-Middle 9kHz~20GHz



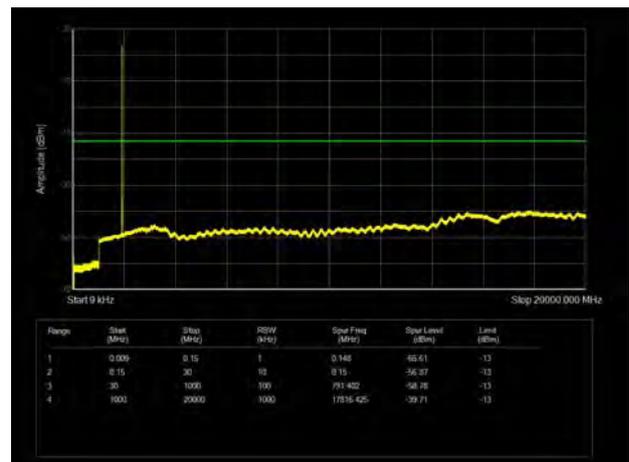
LTE Band 2 10MHz CH-Middle 9kHz~20GHz



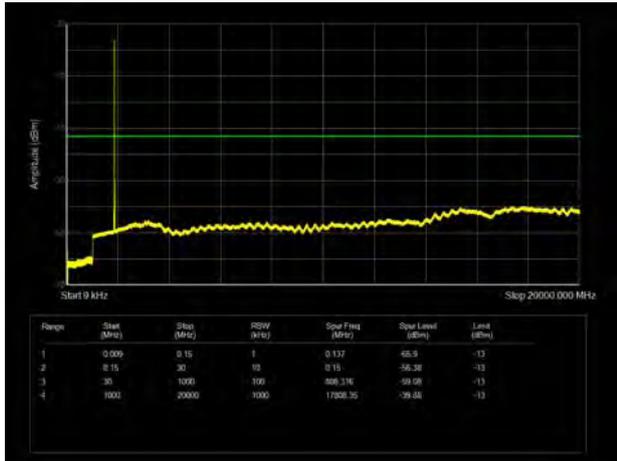
LTE Band 2 5MHz CH-High 9kHz~20GHz



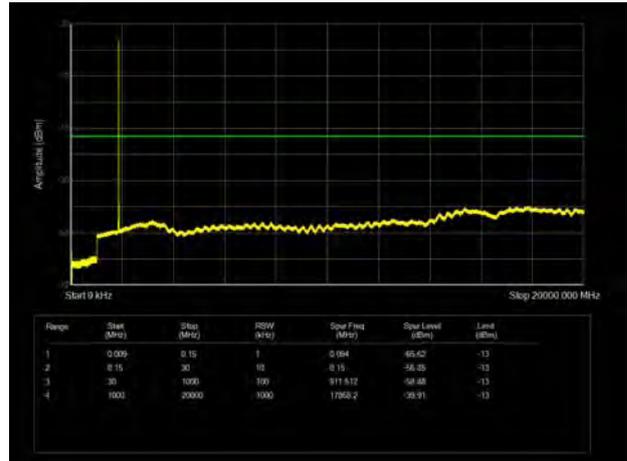
LTE Band 2 10MHz CH-High 9kHz~20GHz



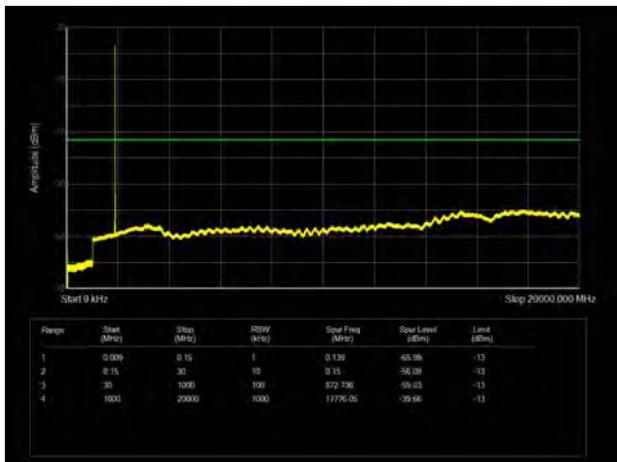
LTE Band 2 15MHz CH-Low 9kHz~20GHz



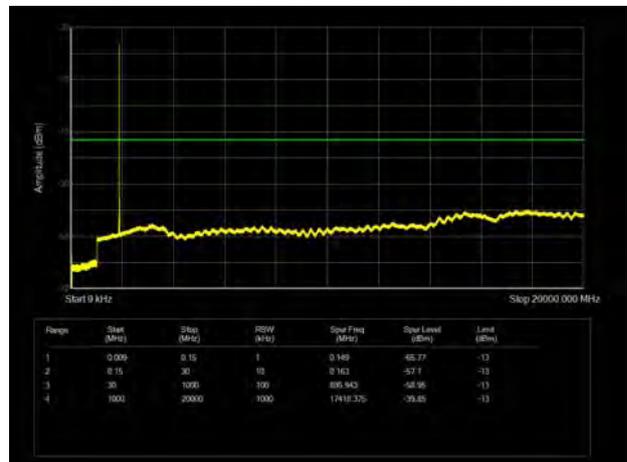
LTE Band 2 20MHz CH-Low 9kHz~20GHz



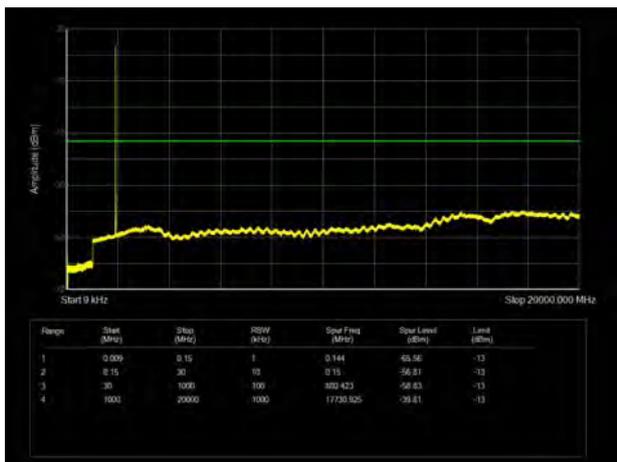
LTE Band 2 15MHz CH-Middle 9kHz~20GHz



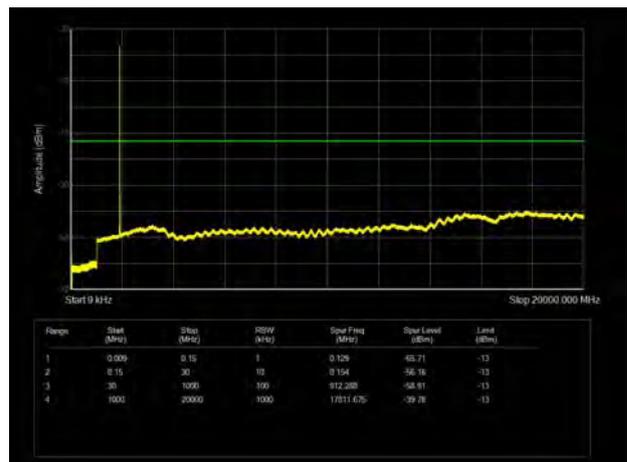
LTE Band 2 20MHz CH-Middle 9kHz~20GHz



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

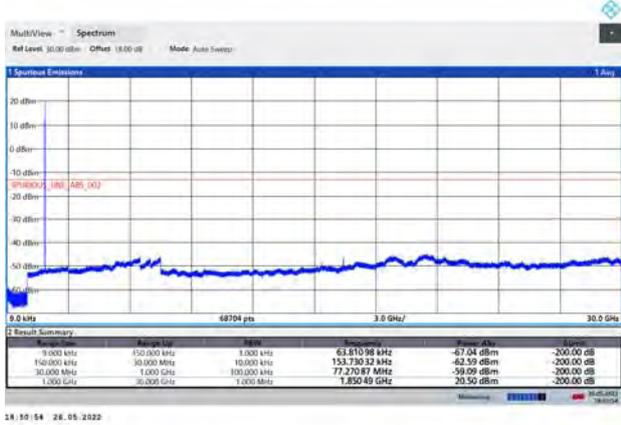


LTE Band 2 20MHz CH-High 9kHz~20GHz

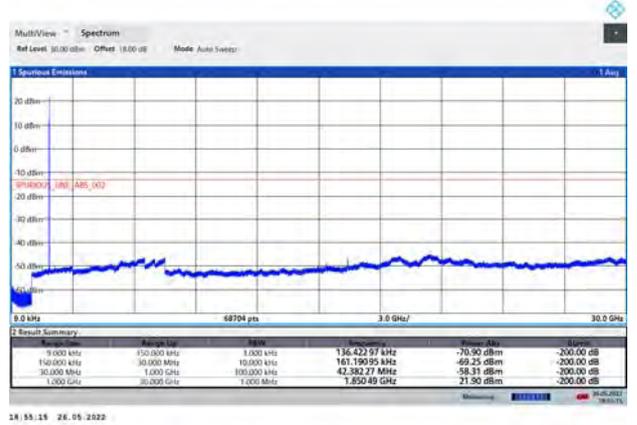




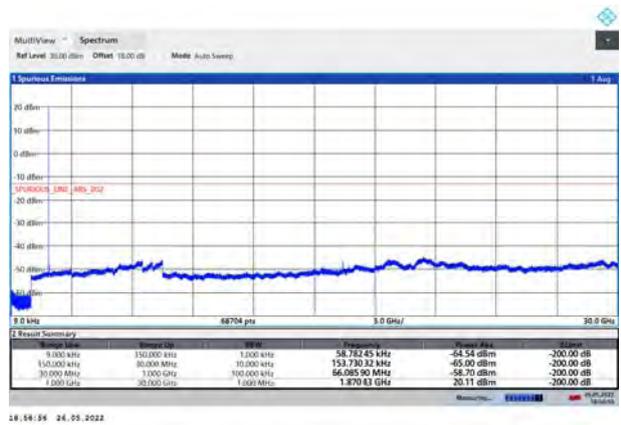
NR n2 P1/2 BPSK 20MHz CH-Low 9kHz~20GHz



NR n2 QPSK 20MHz CH-Low 9kHz~20GHz



NR n2 P1/2 BPSK 20MHz CH-Middle 9kHz~20GHz



NR n2 QPSK 20MHz CH-Middle 9kHz~20GHz



NR n2 P1/2 BPSK 20MHz CH-High 9kHz~20GHz



NR n2 QPSK 20MHz CH-High 9kHz~20GHz





### NR n2 16QAM 20MHz CH-Low 9kHz~20GHz



### NR n2 64QAM 20MHz CH-Low 9kHz~20GHz



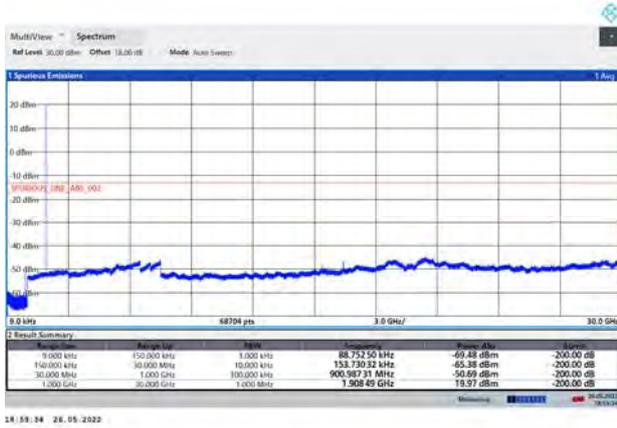
### NR n2 16QAM 20MHz CH-Middle 9kHz~20GHz



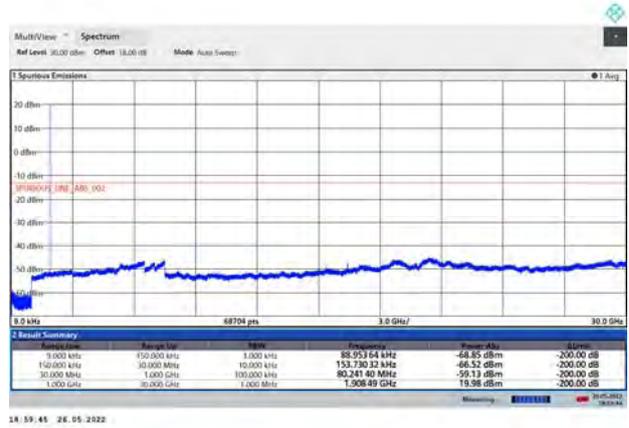
### NR n2 64QAM 20MHz CH-Middle 9kHz~20GHz



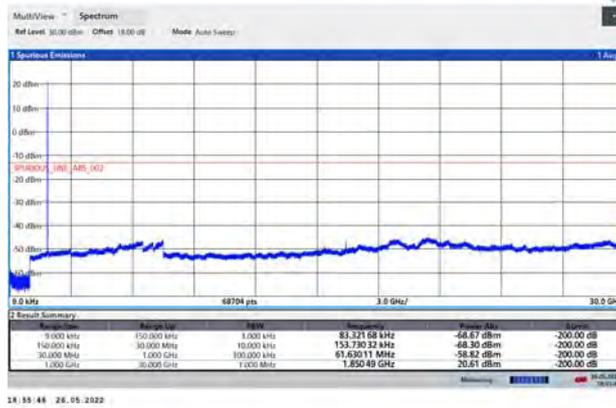
### NR n2 16QAM 20MHz CH-High 9kHz~20GHz



### NR n2 64QAM 20MHz CH-High 9kHz~20GHz



### NR n2 256QAM 20MHz CH-Low 9kHz~20GHz



### NR n2 256QAM 20MHz CH-Middle 9kHz~20GHz



### NR n2 256QAM 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	3759.9	-66.15	2.60	12.50	Horizontal	-56.25	-13.00	43.25	270
3	5640.2	-63.56	3.30	12.50	Horizontal	-54.36	-13.00	41.36	45
4	7519.5	-58.77	4.20	12.20	Horizontal	-50.77	-13.00	37.77	225
5	9402.8	-54.45	4.30	11.10	Horizontal	-47.65	-13.00	34.65	90
6	11279.3	-48.44	5.90	11.90	Horizontal	-42.44	-13.00	29.44	45
7	13159.1	-51.16	5.70	14.00	Horizontal	-42.86	-13.00	29.86	315
8	15041.3	-52.62	5.80	13.10	Horizontal	-45.32	-13.00	32.32	90
9	16922.3	-50.82	6.10	14.60	Horizontal	-42.32	-13.00	29.32	270
10	18800.0	--	--	--	--	--	--	--	--

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

WCDMA Band II CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.0	-66.03	2.60	12.50	Horizontal	-56.13	-13.00	43.13	45
3	5640.0	-67.03	3.30	12.50	Horizontal	-57.83	-13.00	44.83	90
4	7520.0	-57.24	4.20	12.20	Horizontal	-49.24	-13.00	36.24	45
5	9400.0	-53.65	4.30	11.10	Horizontal	-46.85	-13.00	33.85	225
6	11280.0	-50.58	5.90	11.90	Horizontal	-44.58	-13.00	31.58	180
7	13160.0	-50.39	5.70	14.00	Horizontal	-42.09	-13.00	29.09	315
8	15040.0	-51.23	5.80	13.10	Horizontal	-43.93	-13.00	30.93	90
9	16920.0	-50.83	6.10	14.60	Horizontal	-42.33	-13.00	29.33	225
10	18800.0	--	--	--	--	--	--	--	--

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

LTE Band 2 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	3759.0	-63.68	2.60	12.50	Vertical	-53.78	-13.00	40.78	225
3	5638.9	-51.80	3.30	12.50	Vertical	-42.60	-13.00	29.60	315
4	7520.0	-56.63	4.20	12.20	Vertical	-48.63	-13.00	35.63	45
5	9400.0	-49.55	4.30	11.10	Vertical	-42.75	-13.00	29.75	180
6	11280.0	-47.56	5.90	11.90	Vertical	-41.56	-13.00	28.56	225
7	13160.0	-50.62	5.70	14.00	Vertical	-42.32	-13.00	29.32	180
8	15040.0	-48.54	5.80	13.10	Vertical	-41.24	-13.00	28.24	90
9	16920.0	-48.75	6.10	14.60	Vertical	-40.25	-13.00	27.25	135
10	18800.0	--	--	--	--	--	--	--	--

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

LTE Band 2 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.0	-63.40	2.60	12.50	Vertical	-53.50	-13.00	40.50	45
3	5640.0	-52.04	3.30	12.50	Vertical	-42.84	-13.00	29.84	135
4	7520.0	-57.32	4.20	12.20	Vertical	-49.32	-13.00	36.32	0
5	9400.0	-55.11	4.30	11.10	Vertical	-48.31	-13.00	35.31	180
6	11280.0	-47.12	5.90	11.90	Vertical	-41.12	-13.00	28.12	225
7	13160.0	-49.93	5.70	14.00	Vertical	-41.63	-13.00	28.63	315
8	15040.0	-47.54	5.80	13.10	Vertical	-40.24	-13.00	27.24	45
9	16920.0	-48.82	6.10	14.60	Vertical	-40.32	-13.00	27.32	180
10	18800.0	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.  
 2. The worst emission was found in the antenna is 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	3760.0	-62.90	2.60	12.50	Vertical	-53.00	-13.00	40.00	135
3	5640.0	-52.04	3.30	12.50	Vertical	-42.84	-13.00	29.84	45
4	7520.0	-58.03	4.20	12.20	Vertical	-50.03	-13.00	37.03	0
5	9400.0	-54.08	4.30	11.10	Vertical	-47.28	-13.00	34.28	225
6	11280.0	-48.02	5.90	11.90	Vertical	-42.02	-13.00	29.02	180
7	13160.0	-50.02	5.70	14.00	Vertical	-41.72	-13.00	28.72	90
8	15040.0	-49.27	5.80	13.10	Vertical	-41.97	-13.00	28.97	315
9	16920.0	-55.17	6.10	14.60	Vertical	-46.67	-13.00	33.67	45
10	18800.0	--	--	--	--	--	--	--	--

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

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

## NR n2 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	3741.20	-67.32	2.60	12.50	Horizontal	-57.42	-13.00	44.42	315
3	5611.50	-57.85	3.30	12.50	Horizontal	-48.65	-13.00	35.65	90
4	7480.00	-58.64	4.20	12.20	Horizontal	-50.64	-13.00	37.64	225
5	9350.00	-54.54	4.30	11.10	Horizontal	-47.74	-13.00	34.74	315
6	11222.60	-46.53	5.90	11.90	Horizontal	-40.53	-38.97	27.53	90
7	13090.00	-52.72	5.70	14.00	Horizontal	-44.42	-13.00	31.42	180
8	14960.00	-51.65	5.80	13.10	Horizontal	-44.35	-13.00	31.35	270
9	16830.00	-49.68	6.10	14.60	Horizontal	-41.18	-13.00	28.18	0
10	18700.00	--	--	--	--	--	--	--	--

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.

NR n2 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3741.10	-67.41	2.60	12.50	Horizontal	-57.51	-13.00	44.51	90
3	5611.60	-57.80	3.30	12.50	Horizontal	-48.60	-13.00	35.60	180
4	7500.00	-58.76	4.20	12.20	Horizontal	-50.76	-13.00	37.76	90
5	9375.00	-55.12	4.30	11.10	Horizontal	-48.32	-13.00	35.32	270
6	11250.00	-46.53	5.90	11.90	Horizontal	-40.53	-13.00	27.53	315
7	13125.00	-50.71	5.70	14.00	Horizontal	-42.41	-13.00	29.41	90
8	15000.00	-52.98	5.80	13.10	Horizontal	-45.68	-13.00	32.68	90
9	16875.00	-50.10	6.10	14.60	Horizontal	-41.60	-13.00	28.60	135
10	18750.00	--	--	--	--	--	--	--	--

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.

NR n2 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	3741.10	-66.15	2.60	12.50	Horizontal	-56.25	-13.00	43.25	225
3	5632.50	-53.19	3.30	12.50	Horizontal	-43.99	-13.00	30.99	180
4	7510.00	-58.21	4.20	12.20	Horizontal	-50.21	-13.00	37.21	315
5	9387.50	-53.15	4.30	11.10	Horizontal	-46.35	-13.00	33.35	90
6	11266.60	-49.17	5.90	11.90	Horizontal	-43.17	-13.00	30.17	135
7	13142.50	-51.78	5.70	14.00	Horizontal	-43.48	-13.00	30.48	225
8	15020.00	-52.39	5.80	13.10	Horizontal	-45.09	-13.00	32.09	90
9	16897.50	-50.46	6.10	14.60	Horizontal	-41.96	-13.00	28.96	225
10	18775.00	--	--	--	--	--	--	--	--

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	3759.9	-67.58	2.60	12.50	Horizontal	-57.68	-13.00	44.68	45
3	5640.2	-63.66	3.30	12.50	Horizontal	-54.46	-13.00	41.46	0
4	7519.5	-59.06	4.20	12.20	Horizontal	-51.06	-13.00	38.06	45
5	9402.8	-55.17	4.30	11.10	Horizontal	-48.37	-13.00	35.37	225
6	11279.3	-55.57	5.90	11.90	Horizontal	-49.57	-13.00	36.57	135
7	13159.1	-53.53	5.70	14.00	Horizontal	-45.23	-13.00	32.23	45
8	15041.3	-51.29	5.80	13.10	Horizontal	-43.99	-13.00	30.99	225
9	16922.3	-52.00	6.10	14.60	Horizontal	-43.50	-13.00	30.50	135
10	18800.0	--	--	--	--	--	--	--	--

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

WCDMA Band II CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.0	-66.18	2.60	12.50	Horizontal	-56.28	-13.00	43.28	90
3	5640.0	-62.63	3.30	12.50	Horizontal	-53.43	-13.00	40.43	315
4	7520.0	-60.53	4.20	12.20	Horizontal	-52.53	-13.00	39.53	45
5	9400.0	-54.98	4.30	11.10	Horizontal	-48.18	-13.00	35.18	0
6	11280.0	-55.42	5.90	11.90	Horizontal	-49.42	-13.00	36.42	315
7	13160.0	-52.26	5.70	14.00	Horizontal	-43.96	-13.00	30.96	45
8	15040.0	-48.97	5.80	13.10	Horizontal	-41.67	-13.00	28.67	225
9	16920.0	-49.81	6.10	14.60	Horizontal	-41.31	-13.00	28.31	135
10	18800.0	--	--	--	--	--	--	--	--

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



## LTE Band 2 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	3759.0	-68.44	2.60	12.50	Horizontal	-58.54	-13.00	45.54	0
3	5638.9	-50.97	3.30	12.50	Horizontal	-41.77	-13.00	28.77	135
4	7520.0	-60.26	4.20	12.20	Horizontal	-52.26	-13.00	39.26	90
5	9400.0	-53.30	4.30	11.10	Horizontal	-46.50	-13.00	33.50	270
6	11280.0	-51.64	5.90	11.90	Horizontal	-45.64	-13.00	32.64	0
7	13160.0	-52.82	5.70	14.00	Horizontal	-44.52	-13.00	31.52	45
8	15040.0	-49.50	5.80	13.10	Horizontal	-42.20	-13.00	29.20	0
9	16920.0	-51.16	6.10	14.60	Horizontal	-42.66	-13.00	29.66	180
10	18800.0	--	--	--	--	--	--	--	--

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

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

## LTE Band 2 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.0	-64.57	2.60	12.50	Horizontal	-54.67	-13.00	41.67	225
3	5640.0	-53.18	3.30	12.50	Horizontal	-43.98	-13.00	30.98	315
4	7520.0	-60.37	4.20	12.20	Horizontal	-52.37	-13.00	39.37	90
5	9400.0	-55.41	4.30	11.10	Horizontal	-48.61	-13.00	35.61	0
6	11280.0	-51.66	5.90	11.90	Horizontal	-45.66	-13.00	32.66	180
7	13160.0	-54.35	5.70	14.00	Horizontal	-46.05	-13.00	33.05	45
8	15040.0	-50.45	5.80	13.10	Horizontal	-43.15	-13.00	30.15	225
9	16920.0	-51.10	6.10	14.60	Horizontal	-42.60	-13.00	29.60	315
10	18800.0	--	--	--	--	--	--	--	--

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

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



## LTE Band 2 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	3760.0	-64.26	2.60	12.50	Horizontal	-54.36	-13.00	41.36	180
3	5640.0	-55.73	3.30	12.50	Horizontal	-46.53	-13.00	33.53	135
4	7520.0	-60.80	4.20	12.20	Horizontal	-52.80	-13.00	39.80	90
5	9400.0	-56.09	4.30	11.10	Horizontal	-49.29	-13.00	36.29	135
6	11280.0	-50.98	5.90	11.90	Horizontal	-44.98	-13.00	31.98	45
7	13160.0	-55.00	5.70	14.00	Horizontal	-46.70	-13.00	33.70	135
8	15040.0	-50.63	5.80	13.10	Horizontal	-43.33	-13.00	30.33	90
9	16920.0	-53.78	6.10	14.60	Horizontal	-45.28	-13.00	32.28	135
10	18800.0	--	--	--	--	--	--	--	--

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

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

## NR n2 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	3741.20	-66.03	2.60	12.50	Horizontal	-56.13	-13.00	43.13	225
3	5611.50	-66.07	3.30	12.50	Horizontal	-56.87	-13.00	43.87	45
4	7480.00	-57.56	4.20	12.20	Horizontal	-49.56	-13.00	36.56	90
5	9350.00	-54.96	4.30	11.10	Horizontal	-48.16	-13.00	35.16	45
6	11222.60	-45.78	5.90	11.90	Horizontal	-39.78	-38.97	26.78	135
7	13090.00	-53.51	5.70	14.00	Horizontal	-45.21	-13.00	32.21	0
8	14960.00	-51.10	5.80	13.10	Horizontal	-43.80	-13.00	30.80	0
9	16830.00	-51.84	6.10	14.60	Horizontal	-43.34	-13.00	30.34	45
10	18700.00	--	--	--	--	--	--	--	--

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.

NR n2 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3741.10	-65.99	2.60	12.50	Horizontal	-56.09	-13.00	43.09	90
3	5611.60	-65.98	3.30	12.50	Horizontal	-56.78	-13.00	43.78	45
4	7500.00	-57.97	4.20	12.20	Horizontal	-49.97	-13.00	36.97	45
5	9375.00	-54.35	4.30	11.10	Horizontal	-47.55	-13.00	34.55	90
6	11250.00	-45.74	5.90	11.90	Horizontal	-39.74	-13.00	26.74	0
7	13125.00	-52.65	5.70	14.00	Horizontal	-44.35	-13.00	31.35	270
8	15000.00	-51.53	5.80	13.10	Horizontal	-44.23	-13.00	31.23	90
9	16875.00	-51.82	6.10	14.60	Horizontal	-43.32	-13.00	30.32	315
10	18750.00	--	--	--	--	--	--	--	--

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.

NR n2 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	3741.10	-66.32	2.60	12.50	Horizontal	-56.42	-13.00	43.42	45
3	5632.50	-66.30	3.30	12.50	Horizontal	-57.10	-13.00	44.10	0
4	7510.00	-57.52	4.20	12.20	Horizontal	-49.52	-13.00	36.52	90
5	9387.50	-53.20	4.30	11.10	Horizontal	-46.40	-13.00	33.40	225
6	11266.60	-44.11	5.90	11.90	Horizontal	-38.11	-13.00	25.11	45
7	13142.50	-52.92	5.70	14.00	Horizontal	-44.62	-13.00	31.62	0
8	15020.00	-53.23	5.80	13.10	Horizontal	-45.93	-13.00	32.93	135
9	16897.50	-51.35	6.10	14.60	Horizontal	-42.85	-13.00	29.85	0
10	18775.00	--	--	--	--	--	--	--	--

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.



## 7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Communication tester	Anritsu	MT8821C	6201538758	2021-05-15	2022-05-14
				2022-05-15	2023-05-14
Climate Chamber	ESPEC	SU-242	93000506	2021-12-12	2022-12-11
Universal Radio Communication Tester	R&S	CMW500	150415	2021-05-15	2022-05-14
				2022-05-15	2023-05-14
Spectrum Analyzer	Keysight	N9020A	MY54420163	2021-12-12	2022-12-11
Universal Radio Communication Tester	StarPoint	SP9500	SP9500-20440	2021-05-15	2022-05-14
				2022-05-15	2023-05-14
Spectrum Analyzer	R&S	FSV40	101297	2021-12-12	2022-12-11
Signal Analyzer	R&S	FSV3030	101411	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.