



RF TEST REPORT

Applicant	ZTE Corporation
FCC ID	SRQ-ZTE7540NMX
Product	5G NR Multi model smart phone
Model	ZTE 7540N
Report No.	R2206A0499-R2
Issue Date	July 18, 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: Xu Ying

Approved by: Xu Kai

TA Technology (Shanghai) Co., Ltd.

Building 3, No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

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

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



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Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 24.232(c)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	2.1051 / 24.238(a)	PASS
4	Peak-to-Average Power Ratio	24.232/KDB 971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 24.235	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 / 24.238(a)	PASS
7	Radiates Spurious Emission	2.1053 / 24.238(a)	PASS
Date of Testing: June 16, 2022 ~ July 7, 2022			
Date of Sample Received: June 10, 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: Building 3, 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

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 7540N		
SN	324225110229		
Hardware Version	zs9A		
Software Version	MyOS11.0.0_7540N_TEL		
Power Supply	Battery / AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Band	Antenna	Gain(dBi)
	GSM 1900:	Antenna 7	-3.2
	WCDMA Band II:	Antenna 7	-3.2
	LTE Band 2:	Antenna 7	-3.2
	NR n2:	Antenna 7	-3.2
Test Mode(s)	GSM Band	GSM1900;	
	WCDMA Band	WCDMA Band II;	
	LTE Band	LTE Band 2	
	SA Band	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		
HSDPA UE Category	24		
HSUPA UE Category	6		
HSPA+ UE Category	7		
LTE Category	13		
Maximum E.I.R.P	GSM 1900:	26.86dBm	
	WCDMA Band II:	19.98dBm	
	LTE Band 2:	21.31dBm	



	NR n2:	19.86dBm	
Rated Power Supply Voltage	3.87V		
Operating Voltage	Minimum: 3.50V Maximum: 4.45V		
Operating Temperature	Lowest: -10°C Highest: +55°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
EUT Accessory			
Adapter 1	Manufacturer: Jiangsu Chenyang Electron Co., Ltd. Model: STC-A520A-Z		
Adapter 2	Manufacturer: Shenzhen Ruijing Industrial Co Ltd Model: STC-A520A-Z		
Battery	Manufacturer: ZHONGSHAN TIANMAO BATTERY CO.LTD. Model: Li3839T44P8h866445		
USB Cable1	Manufacturer: Shenzhen Luxshare Precision Industry Co.,Ltd. Model: USB-TC20-W-70-M-L		
USB Cable 2	Manufacturer: Dongguan Guojun Plastic Electronic Co.,Ltd Model: USB-TC20-W-70-M-L		
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There are more than one Adapter and USB Cable, each one should be applied throughout the compliance test respectively, however, only the worst case (Adapter 1, and USB Cable 2) will be recorded in this report.			



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

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 (Z axis, vertical polarization for GSM/WCDMA/NR, X axis, vertical polarization for LTE) 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 /NR is set based on the maximum RF Output Power.

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

Test items	Modes/Modulation	
	GSM 1900	WCDMA Band II
RF Power Output and Effective Isotropic Radiated Power	GSM GPRS EGPRS	RMC/AMR HSDPA/HSUPA 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
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.

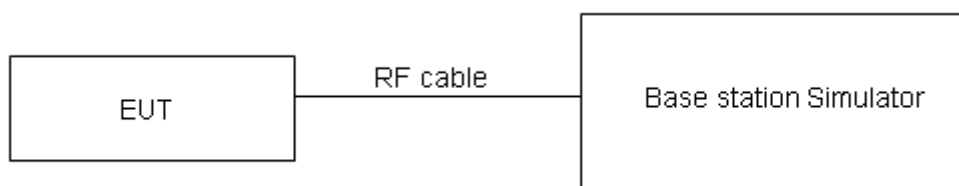
ERP can then be calculated as follows:

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

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

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

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

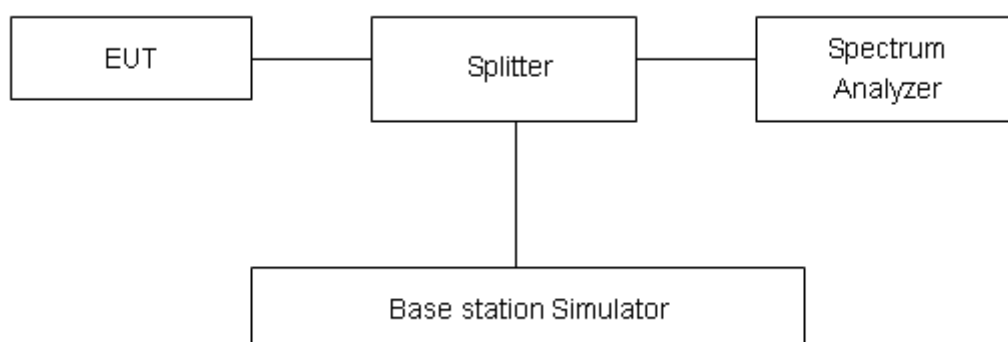
Method of Measurement

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

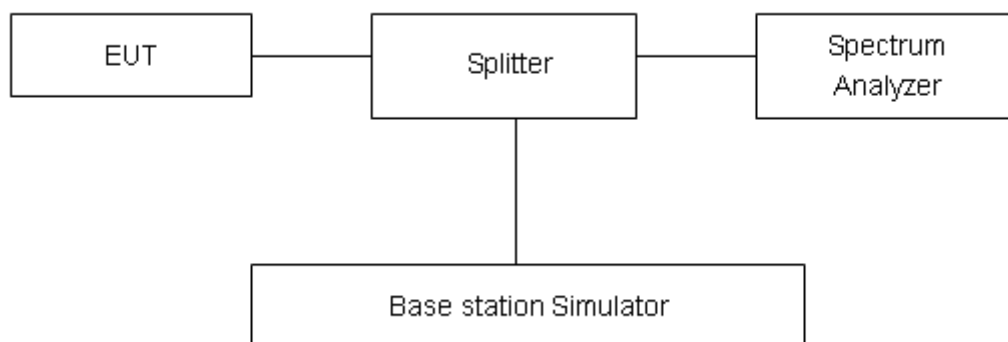
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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

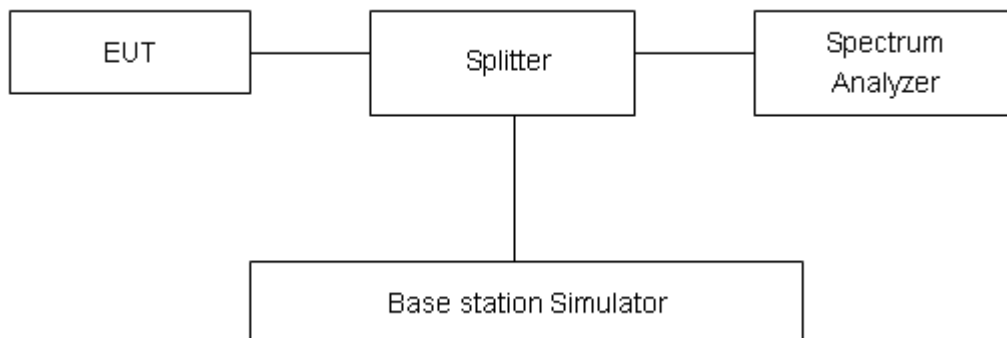
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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:

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

Test Setup



Limits

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

Measurement Uncertainty

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

Test Results

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.

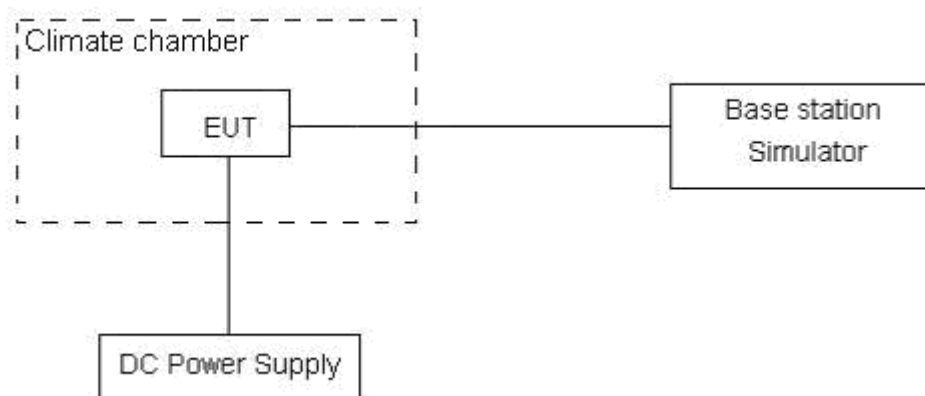
Frequency Stability (Voltage Variation)

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 3.50 V and 4.45 V, with a nominal voltage of 3.87V.

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),

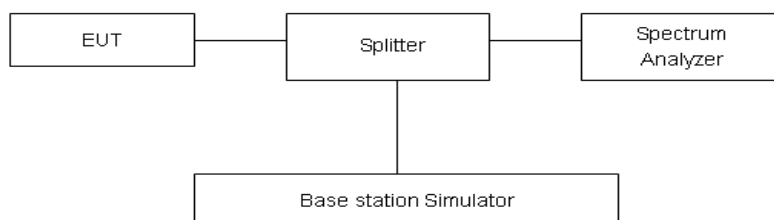
RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

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
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Measurement Uncertainty

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

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-30GHz	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:

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

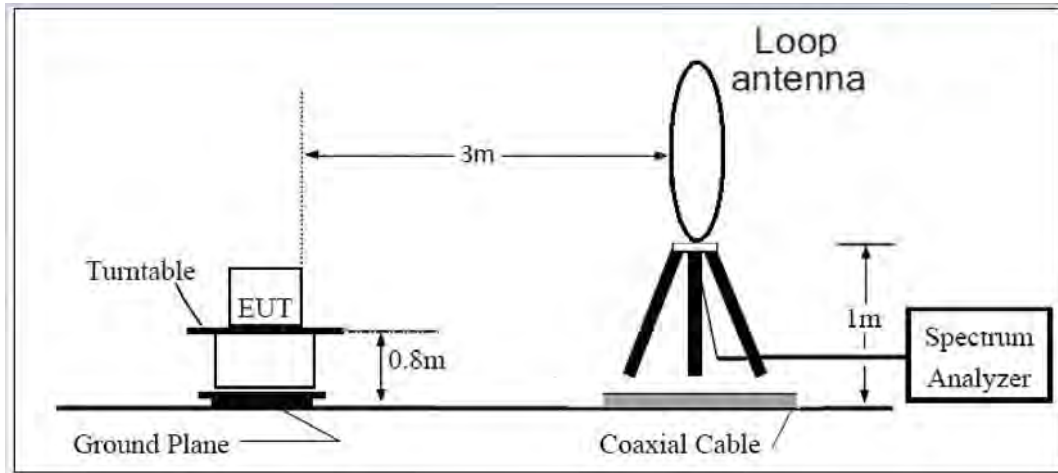
$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dB.

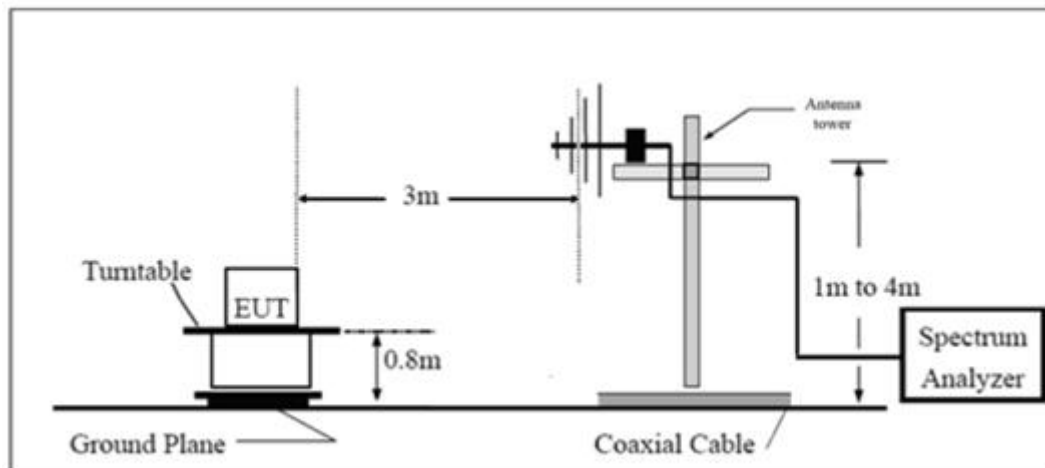
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

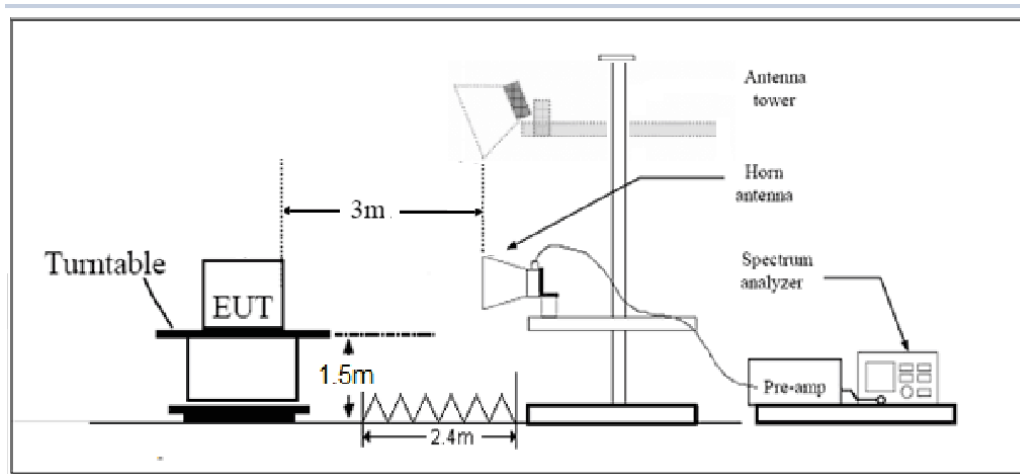
9KHz ~ 30MHz



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 7 EIRP (dBm)		
		Channel 512	Channel 661	Channel 810	Channel 512	Channel 661	Channel 810
		1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)	1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)
GSM(GMSK)	Results	30.06	29.85	29.55	26.86	26.65	26.35
GPRS/EGPRS (GMSK)	1TXslot	30.03	29.86	29.52	26.83	26.66	26.32
	2TXslots	29.10	29.05	28.51	25.9	25.85	25.31
	3TXslots	27.06	26.74	26.39	23.86	23.54	23.19
	4TXslots	25.97	25.88	25.31	22.77	22.68	22.11
EGPRS (8PSK)	1TXslot	24.15	23.76	23.34	20.95	20.56	20.14
	2TXslots	23.06	22.32	22.16	19.86	19.12	18.96
	3TXslots	20.56	20.15	19.92	17.36	16.95	16.72
	4TXslots	19.25	18.58	18.56	16.05	15.38	15.36

WCDMA Band II		Maximum Output Power (dBm)			Antenna 7 EIRP (dBm)		
		Channel 9262	Channel 9400	Channel 9538	Channel 9262	Channel 9400	Channel 9538
		1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)	1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)
RMC		23.06	23.13	22.97	19.86	19.93	19.77
AMR		23.18	23.01	23.13	19.98	19.81	19.93
HSDPA	Sub - Test 1	21.96	22.13	22.01	18.76	18.93	18.81
	Sub - Test 2	22.00	22.07	21.85	18.80	18.87	18.65
	Sub - Test 3	21.62	21.75	21.31	18.42	18.55	18.11
	Sub - Test 4	21.64	21.47	21.63	18.44	18.27	18.43
HSUPA	Sub - Test 1	21.58	21.81	21.73	18.38	18.61	18.53
	Sub - Test 2	20.16	20.13	19.99	16.96	16.93	16.79
	Sub - Test 3	21.04	21.19	21.01	17.84	17.99	17.81
	Sub - Test 4	20.12	20.05	19.95	16.92	16.85	16.75
	Sub - Test 5	21.66	21.89	21.57	18.46	18.69	18.37
HSPA+	16QAM	20.87	20.78	20.82	17.67	17.58	17.62

LTE Band 2				Maximum Output Power(dBm)			Antenna 7 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
1.4MHz	QPSK	1	0	22.89	22.89	22.72	19.69	19.69	19.52
		1	2	23.03	22.93	22.83	19.83	19.73	19.63
		1	5	22.72	22.75	22.67	19.52	19.55	19.47
		3	0	22.90	22.72	22.85	19.70	19.52	19.65
		3	2	22.77	22.82	22.74	19.57	19.62	19.54
		3	3	22.75	22.73	22.74	19.55	19.53	19.54
		6	0	21.92	21.83	21.90	18.72	18.63	18.70
	16QAM	1	0	22.25	22.21	22.26	19.05	19.01	19.06
		1	2	22.04	22.28	22.30	18.84	19.08	19.10
		1	5	22.09	22.05	22.07	18.89	18.85	18.87
		3	0	21.70	21.63	21.66	18.50	18.43	18.46
		3	2	21.83	21.76	21.81	18.63	18.56	18.61
		3	3	21.76	21.72	21.72	18.56	18.52	18.52
		6	0	20.78	20.75	20.79	17.58	17.55	17.59
	64QAM	1	0	21.23	21.15	21.20	18.03	17.95	18.00
		1	2	21.11	21.05	21.09	17.91	17.85	17.89
		1	5	21.07	21.07	21.04	17.87	17.87	17.84
		3	0	20.71	20.60	20.67	17.51	17.40	17.47
		3	2	20.86	20.78	20.83	17.66	17.58	17.63
		3	3	20.79	20.75	20.75	17.59	17.55	17.55
		6	0	19.81	19.79	19.83	16.61	16.59	16.63
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
3MHz	QPSK	1	0	22.91	22.93	22.75	19.71	19.73	19.55
		1	7	23.01	22.96	22.87	19.81	19.76	19.67
		1	14	22.75	22.80	22.71	19.55	19.60	19.51
		8	0	22.00	21.84	21.98	18.80	18.64	18.78
		8	4	21.89	21.92	21.86	18.69	18.72	18.66
		8	7	21.85	21.84	21.84	18.65	18.64	18.64
		15	0	21.92	21.87	21.93	18.72	18.67	18.73
	16QAM	1	0	22.25	22.23	22.29	19.05	19.03	19.09
		1	7	22.04	22.28	22.34	18.84	19.08	19.14
		1	14	22.11	22.09	22.10	18.91	18.89	18.90
		8	0	20.81	20.76	20.78	17.61	17.56	17.58
		8	4	20.94	20.89	20.93	17.74	17.69	17.73
		8	7	20.86	20.84	20.85	17.66	17.64	17.65



		15	0	20.81	20.79	20.82	17.61	17.59	17.62
		1	0	21.26	21.17	21.23	18.06	17.97	18.03
		1	7	21.14	21.05	21.11	17.94	17.85	17.91
		1	14	21.09	21.06	21.07	17.89	17.86	17.87
		8	0	19.82	19.73	19.79	16.62	16.53	16.59
		8	4	19.97	19.91	19.95	16.77	16.71	16.75
		8	7	19.89	19.87	19.88	16.69	16.67	16.68
		15	0	19.84	19.83	19.86	16.64	16.63	16.66
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
5MHz	QPSK	1	0	22.88	22.91	22.71	19.68	19.71	19.51
		1	13	22.99	22.92	22.84	19.79	19.72	19.64
		1	24	22.72	22.75	22.67	19.52	19.55	19.47
		12	0	21.97	21.79	21.94	18.77	18.59	18.74
		12	6	21.87	21.88	21.81	18.67	18.68	18.61
		12	13	21.83	21.82	21.80	18.63	18.62	18.60
		25	0	21.92	21.86	21.91	18.72	18.66	18.71
	16QAM	1	0	22.25	22.19	22.26	19.05	18.99	19.06
		1	13	22.04	22.26	22.31	18.84	19.06	19.11
		1	24	22.08	22.07	22.06	18.88	18.87	18.86
		12	0	20.79	20.72	20.75	17.59	17.52	17.55
		12	6	20.91	20.84	20.89	17.71	17.64	17.69
		12	13	20.83	20.79	20.81	17.63	17.59	17.61
		25	0	20.79	20.75	20.77	17.59	17.55	17.57
	64QAM	1	0	21.23	21.17	21.20	18.03	17.97	18.00
		1	13	21.11	21.07	21.08	17.91	17.87	17.88
		1	24	21.10	21.04	21.03	17.90	17.84	17.83
		12	0	19.80	19.69	19.80	16.60	16.49	16.60
		12	6	19.94	19.86	19.91	16.74	16.66	16.71
		12	13	19.86	19.82	19.84	16.66	16.62	16.64
		25	0	19.82	19.79	19.81	16.62	16.59	16.61
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				18650/ 1855	18900/ 1880	19150/ 1905	18650/ 1855	18900/ 1880	19150/ 1905
10MHz	QPSK	1	0	22.90	22.92	22.74	19.70	19.72	19.54
		1	25	23.02	22.97	22.88	19.82	19.77	19.68
		1	49	22.74	22.79	22.70	19.54	19.59	19.50
		25	0	22.00	21.84	21.98	18.80	18.64	18.78
		25	13	21.90	21.93	21.85	18.70	18.73	18.65
		25	25	21.85	21.86	21.85	18.65	18.66	18.65
		50	0	21.96	21.88	21.95	18.76	18.68	18.75
	16QAM	1	0	22.29	22.22	22.28	19.09	19.02	19.08



		1	25	22.08	22.30	22.34	18.88	19.10	19.14
		1	49	22.11	22.09	22.09	18.91	18.89	18.89
		25	0	20.82	20.77	20.79	17.62	17.57	17.59
		25	13	20.93	20.88	20.92	17.73	17.68	17.72
		25	25	20.86	20.84	20.85	17.66	17.64	17.65
		50	0	20.82	20.80	20.81	17.62	17.60	17.61
	64QAM	1	0	21.25	21.16	21.22	18.05	17.96	18.02
		1	25	21.14	21.07	21.11	17.94	17.87	17.91
		1	49	21.09	21.06	21.06	17.89	17.86	17.86
		25	0	19.83	19.74	19.80	16.63	16.54	16.60
		25	13	19.96	19.90	19.94	16.76	16.70	16.74
		25	25	19.89	19.87	19.88	16.69	16.67	16.68
		50	0	19.85	19.84	19.85	16.65	16.64	16.65
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
15MHz	QPSK	1	0	22.89	22.88	22.72	19.69	19.68	19.52
		1	38	23.00	22.96	22.85	19.80	19.76	19.65
		1	74	22.71	22.74	22.66	19.51	19.54	19.46
		36	0	21.98	21.80	21.95	18.78	18.60	18.75
		36	18	21.87	21.88	21.81	18.67	18.68	18.61
		36	39	21.82	21.83	21.81	18.62	18.63	18.61
		75	0	21.94	21.84	21.90	18.74	18.64	18.70
	16QAM	1	0	22.27	22.20	22.26	19.07	19.00	19.06
		1	38	22.06	22.27	22.32	18.86	19.07	19.12
		1	74	22.09	22.05	22.06	18.89	18.85	18.86
		36	0	20.79	20.75	20.76	17.59	17.55	17.56
		36	18	20.90	20.83	20.88	17.70	17.63	17.68
		36	39	20.84	20.80	20.82	17.64	17.60	17.62
		75	0	20.79	20.75	20.77	17.59	17.55	17.57
	64QAM	1	0	21.20	21.14	21.20	18.00	17.94	18.00
		1	38	21.12	21.04	21.09	17.92	17.84	17.89
		1	74	21.10	21.05	21.07	17.90	17.85	17.87
		36	0	19.82	19.76	19.81	16.62	16.56	16.61
		36	18	19.94	19.87	19.93	16.74	16.67	16.73
		36	39	19.87	19.83	19.85	16.67	16.63	16.65
		75	0	19.82	19.79	19.81	16.62	16.59	16.61
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20425 /826.5	20525 /836.5	20625 /846.5	20425 /826.5	20525 /836.5	20625 /846.5
20MHz	QPSK	1	0	22.86	22.84	22.69	19.66	19.64	19.49
		1	50	22.99	22.92	22.83	19.79	19.72	19.63
		1	99	22.69	22.73	22.63	19.49	19.53	19.43



			50	0	21.95	21.75	21.91	18.75	18.55	18.71
			50	25	21.85	21.84	21.78	18.65	18.64	18.58
			50	50	21.79	21.78	21.77	18.59	18.58	18.57
			100	0	21.91	21.79	21.86	18.71	18.59	18.66
		16QAM	1	0	22.24	22.16	22.21	19.04	18.96	19.01
			1	50	22.03	22.25	22.28	18.83	19.05	19.08
			1	99	22.06	22.02	22.04	18.86	18.82	18.84
			50	0	20.76	20.71	20.73	17.56	17.51	17.53
			50	25	20.87	20.81	20.85	17.67	17.61	17.65
			50	50	20.81	20.75	20.78	17.61	17.55	17.58
			100	0	20.77	20.71	20.74	17.57	17.51	17.54
		64QAM	1	0	21.18	21.10	21.15	17.98	17.90	17.95
			1	50	21.08	21.02	21.05	17.88	17.82	17.85
			1	99	21.04	20.99	21.01	17.84	17.79	17.81
			50	0	19.77	19.68	19.74	16.57	16.48	16.54
			50	25	19.90	19.83	19.87	16.70	16.63	16.67
			50	50	19.84	19.78	19.81	16.64	16.58	16.61
			100	0	19.80	19.75	19.78	16.60	16.55	16.58

NR n2										
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			Antenna 7 EIRP (dBm)		
					370500	376000	381500	370500	376000	381500
					1852.5	1880	1907.5	1852.5	1880	1907.5
5	PI/2 BPSK	15	1	0	21.67	21.38	21.43	18.47	18.18	18.23
			1	1	22.25	22.34	22.45	19.05	19.14	19.25
			12	6	22.60	22.58	22.79	19.40	19.38	19.59
			25	0	22.04	21.52	21.67	18.84	18.32	18.47
	QPSK		1	0	21.09	21.33	21.44	17.89	18.13	18.24
			1	1	22.10	22.40	22.41	18.90	19.20	19.21
			12	6	22.49	22.69	22.81	19.29	19.49	19.61
			25	0	22.04	21.47	21.72	18.84	18.27	18.52
	16QAM		1	0	20.25	20.25	20.23	17.05	17.05	17.03
			1	1	21.38	21.40	21.56	18.18	18.20	18.36
			12	6	21.35	21.50	21.74	18.15	18.30	18.54
			25	0	20.40	20.44	20.66	17.20	17.24	17.46
	64QAM		1	0	19.60	20.13	19.86	16.40	16.93	16.66
			1	1	19.67	20.01	19.84	16.47	16.81	16.64
			12	6	19.93	20.03	20.20	16.73	16.83	17.00
			25	0	19.90	19.92	20.13	16.70	16.72	16.93
	256QAM		1	0	17.43	17.91	17.73	14.23	14.71	14.53
			1	1	17.48	17.90	17.80	14.28	14.70	14.60
			12	6	17.98	18.10	18.23	14.78	14.90	15.03



			25	0	17.94	17.97	18.23	14.74	14.77	15.03
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			Antenna 7 EIRP (dBm)		
					371000	376000	381000	371000	376000	381000
					1855	1880	1905	1855	1880	1905
10	PI/2 BPSK	15	1	0	21.61	21.31	21.38	18.41	18.11	18.18
			1	1	22.20	22.31	22.41	19.00	19.11	19.21
			25	12	22.54	22.54	22.74	19.34	19.34	19.54
			50	0	21.99	21.49	21.63	18.79	18.29	18.43
	QPSK		1	0	21.04	21.30	21.40	17.84	18.10	18.20
			1	1	22.04	22.36	22.38	18.84	19.16	19.18
			25	12	22.49	22.63	22.77	19.29	19.43	19.57
			50	0	21.98	21.42	21.66	18.78	18.22	18.46
	16QAM		1	0	20.20	20.21	20.18	17.00	17.01	16.98
			1	1	21.33	21.34	21.51	18.13	18.14	18.31
			25	12	21.30	21.47	21.70	18.10	18.27	18.50
			50	0	20.34	20.40	20.61	17.14	17.20	17.41
	64QAM		1	0	19.55	20.10	19.82	16.35	16.90	16.62
			1	1	19.62	19.98	19.80	16.42	16.78	16.60
			25	12	19.87	19.98	20.14	16.67	16.78	16.94
			50	0	19.85	19.88	20.08	16.65	16.68	16.88
	256QAM		1	0	17.38	17.85	17.68	14.18	14.65	14.48
			1	1	17.43	17.87	17.76	14.23	14.67	14.56
			25	12	17.92	18.06	18.18	14.72	14.86	14.98
			50	0	17.89	17.94	18.19	14.69	14.74	14.99
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			Antenna 7 EIRP (dBm)		
					371500	376000	380500	371500	376000	380500
					1857.5	1880	1902.5	1857.5	1880	1902.5
15	PI/2 BPSK	15	1	0	21.68	21.35	21.44	18.48	18.15	18.24
			1	1	22.26	22.38	22.46	19.06	19.18	19.26
			36	18	22.59	22.57	22.78	19.39	19.37	19.58
			75	0	22.05	21.53	21.68	18.85	18.33	18.48
	QPSK		1	0	21.09	21.33	21.44	17.89	18.13	18.24
			1	1	22.09	22.41	22.42	18.89	19.21	19.22
			36	18	22.55	22.67	22.80	19.35	19.47	19.60
			75	0	22.01	21.48	21.72	18.81	18.28	18.52
	16QAM		1	0	20.26	20.26	20.24	17.06	17.06	17.04
			1	1	21.38	21.38	21.56	18.18	18.18	18.36
			36	18	21.35	21.53	21.75	18.15	18.33	18.55
			75	0	20.39	20.43	20.65	17.19	17.23	17.45
	64QAM		1	0	19.61	20.14	19.87	16.41	16.94	16.67
			1	1	19.67	20.01	19.84	16.47	16.81	16.64



			36	18	19.90	20.04	20.20	16.70	16.84	17.00
			75	0	19.91	19.93	20.14	16.71	16.73	16.94
	256QAM		1	0	17.43	17.89	17.73	14.23	14.69	14.53
			1	1	17.48	17.93	17.81	14.28	14.73	14.61
			36	18	17.97	18.09	18.22	14.77	14.89	15.02
			75	0	17.95	17.98	18.24	14.75	14.78	15.04
Bandwidth (MHz)	Modulation	SCS (KHz)	RB Allocation	RB Offset	Maximum Output Power(dBm)			Antenna 7 EIRP (dBm)		
					372000	376000	380000	372000	376000	380000
					1860	1880	1900	1860	1880	1900
20	PI/2 BPSK	15	1	0	21.95	21.61	21.71	18.75	18.41	18.51
			1	1	22.55	22.64	22.74	19.35	19.44	19.54
			50	25	22.87	22.86	23.05	19.67	19.66	19.85
			100	0	22.32	21.78	21.94	19.12	18.58	18.74
	QPSK		1	0	21.37	21.59	21.71	18.17	18.39	18.51
			1	1	22.36	22.66	22.68	19.16	19.46	19.48
			50	25	22.82	22.92	23.06	19.62	19.72	19.86
			100	0	22.29	21.74	21.97	19.09	18.54	18.77
	16QAM		1	0	20.52	20.54	20.50	17.32	17.34	17.30
			1	1	21.66	21.65	21.84	18.46	18.45	18.64
			50	25	21.62	21.79	22.02	18.42	18.59	18.82
			100	0	20.66	20.71	20.92	17.46	17.51	17.72
	64QAM		1	0	19.88	20.39	20.13	16.68	17.19	16.93
			1	1	19.95	20.27	20.11	16.75	17.07	16.91
			50	25	20.18	20.30	20.45	16.98	17.10	17.25
			100	0	20.17	20.21	20.40	16.97	17.01	17.20
	256QAM		1	0	17.71	18.16	18.01	14.51	14.96	14.81
			1	1	17.75	18.19	18.08	14.55	14.99	14.88
			50	25	18.24	18.37	18.49	15.04	15.17	15.29
			100	0	18.22	18.23	18.50	15.02	15.03	15.30

6.2.Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
GSM 1900 (GMSK)	512	1850.2	0.246	0.314
	661	1880.0	0.245	0.317
	810	1909.8	0.242	0.315
GPRS 1900 (GMSK)	512	1850.2	0.243	0.310
	661	1880.0	0.245	0.311
	810	1909.8	0.245	0.311
EGPRS 1900 (8PSK)	512	1850.2	0.244	0.312
	661	1880.0	0.244	0.306
	810	1909.8	0.247	0.312
WCDMA Band II (RMC)	9262	1852.4	4.139	4.640
	9400	1880	4.149	4.667
	9538	1907.6	4.140	4.686

LTE Band 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	18607	1850.7	1.100	1.259
			18900	1880.0	1.097	1.284
			19193	1909.3	1.095	1.300
		3	18615	1851.5	2.695	2.960
			18900	1880	2.688	2.919
			19185	1908.5	2.700	2.948
		5	18625	1852.5	4.533	4.917
			18900	1880	4.516	4.940
			19175	1907.5	4.502	4.905
		10	18650	1855	8.992	9.751
			18900	1880	8.974	9.680
			19150	1905	8.992	9.877
		15	18675	1857.5	13.485	14.567
			18900	1880	13.431	14.504
			19125	1902.5	13.478	14.524
		20	18700	1860	17.907	19.218
			18900	1880	17.977	19.270
			19100	1900	17.968	19.451



	16QAM	1.4	18607	1850.7	1.093	1.292
			18900	1880.0	1.098	1.287
			19193	1909.3	1.096	1.276
		3	18615	1851.5	2.691	2.933
			18900	1880	2.694	2.946
			19185	1908.5	2.700	3.015
		5	18625	1852.5	4.512	4.943
			18900	1880	4.508	4.978
			19175	1907.5	4.501	4.982
		10	18650	1855	8.981	9.715
			18900	1880	8.978	9.668
			19150	1905	8.983	9.766
		15	18675	1857.5	13.465	14.619
			18900	1880	13.470	14.441
			19125	1902.5	13.500	14.496
		20	18700	1860	17.934	19.286
			18900	1880	17.987	19.182
			19100	1900	17.979	19.169
	64QAM	1.4	18607	1850.7	1.092	1.305
			18900	1880.0	1.097	1.297
			19193	1909.3	1.092	1.271
		3	18615	1851.5	2.691	2.946
			18900	1880	2.693	2.937
			19185	1908.5	2.694	2.967
		5	18625	1852.5	4.496	4.956
			18900	1880	4.500	4.920
			19175	1907.5	4.513	4.981
		10	18650	1855	8.957	9.707
			18900	1880	8.959	9.752
			19150	1905	8.995	9.748
		15	18675	1857.5	13.528	14.639
			18900	1880	13.444	14.500
			19125	1902.5	13.480	14.568
		20	18700	1860	17.998	19.312
			18900	1880	17.929	19.373
			19100	1900	17.975	19.286



NR n2						
RB	Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	20M	P1/2 BPSK	372000	1860	18.406	21.310
			376000	1880	18.358	20.630
			380000	1900	18.480	20.310
		QPSK	372000	1860	18.443	20.460
			376000	1880	18.363	20.160
			380000	1900	18.438	20.220
		16QAM	372000	1860	18.361	20.730
			376000	1880	18.351	20.940
			380000	1900	18.421	21.260
		64QAM	372000	1860	18.422	20.610
			376000	1880	18.300	20.720
			380000	1900	18.415	20.300
		256QAM	372000	1860	18.435	21.380
			376000	1880	18.381	21.340
			380000	1900	18.439	20.660
1	20M	P1/2 BPSK	372000	1860	1.105	1.591
			376000	1880	1.236	1.622
			380000	1900	1.372	1.962
		QPSK	372000	1860	1.259	1.748
			376000	1880	1.295	1.716
			380000	1900	1.427	1.855
		16QAM	372000	1860	1.252	1.553
			376000	1880	1.242	1.669
			380000	1900	1.169	1.621
		64QAM	372000	1860	1.396	1.800
			376000	1880	1.027	1.337
			380000	1900	1.266	1.765
		256QAM	372000	1860	1.251	1.674
			376000	1880	1.158	1.499
			380000	1900	1.368	1.817

GSM1900 GSM CH-Low



GSM1900 GPRS CH-Low



GSM 1900 GSM CH-Middle



GSM 1900 GPRS CH-Middle



GSM 1900 GSM CH-High



GSM 1900 GPRS CH-High



GSM1900 EGPRS CH-Low



WCDMA Band II RMC CH-Low



GSM 1900 EGPRS CH-Middle



WCDMA Band II RMC CH-Middle



GSM 1900 EGPRS CH-High

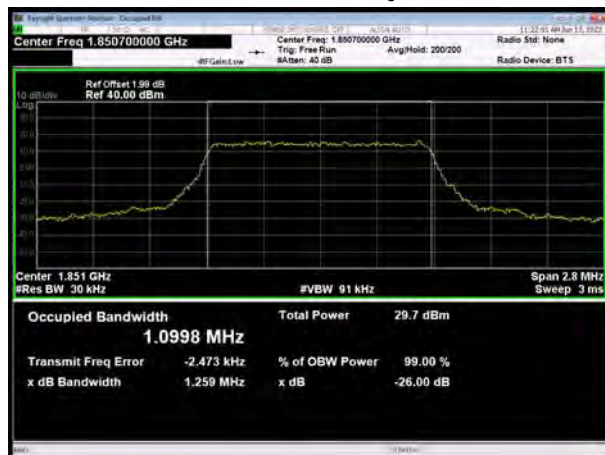


WCDMA Band II RMC CH-High

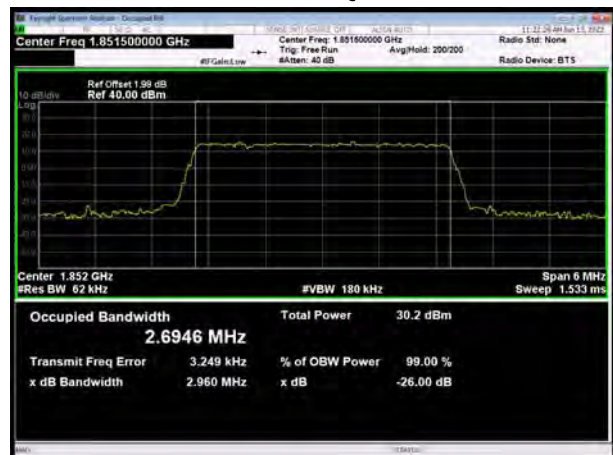




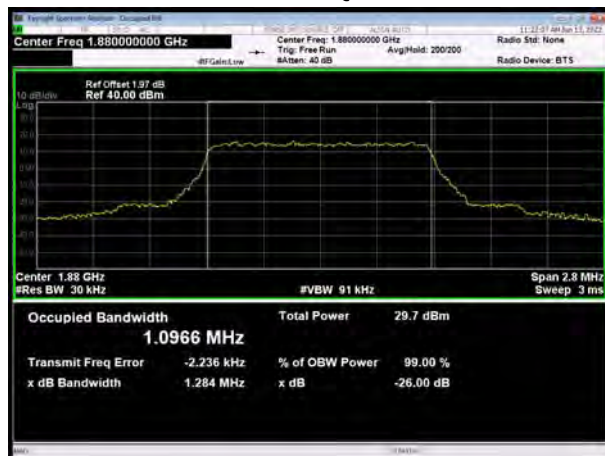
LTE Band 2 1.4MHz QPSK CH-Low



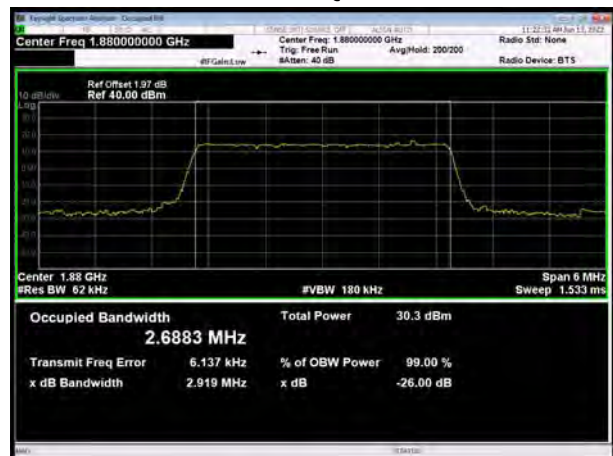
LTE Band 2 3MHz QPSK CH-Low



LTE Band 2 1.4MHz QPSK CH-Middle



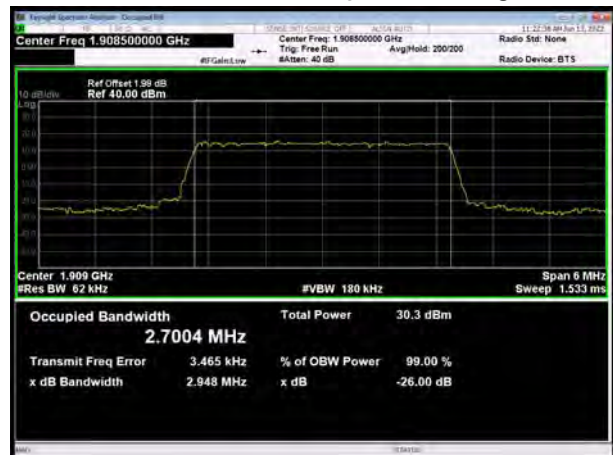
LTE Band 2 3MHz QPSK CH-Middle



LTE Band 2 1.4MHz QPSK CH-High

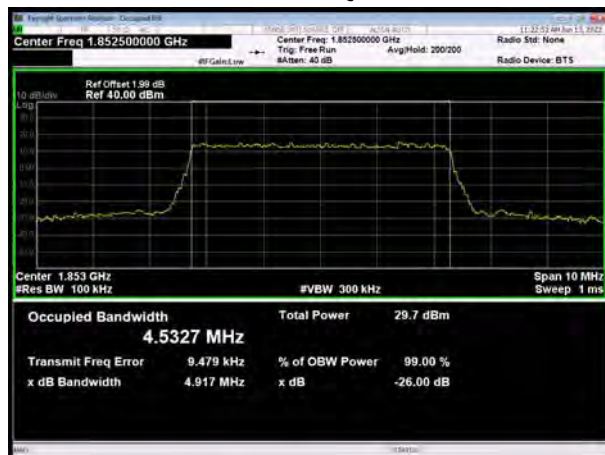


LTE Band 2 3MHz QPSK CH-High

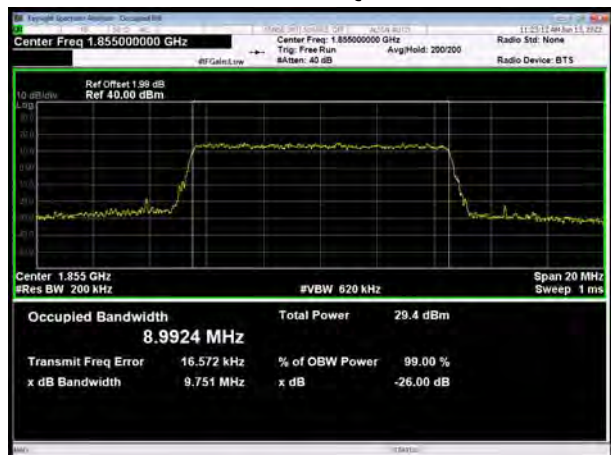




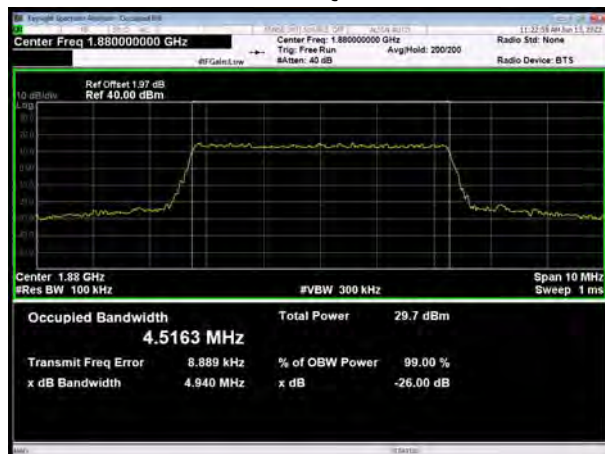
LTE Band 2 5MHz QPSK CH-Low



LTE Band 2 10MHz QPSK CH-Low



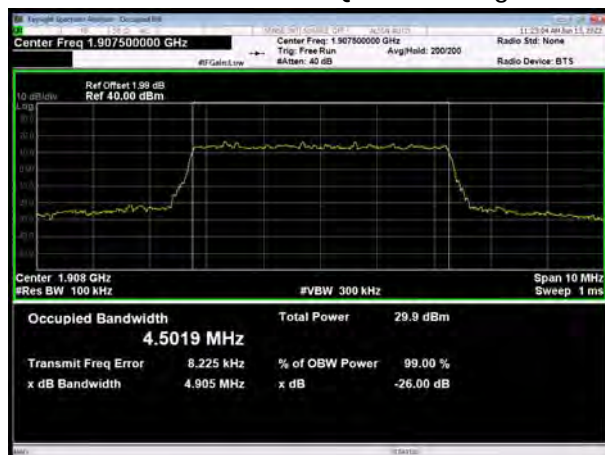
LTE Band 2 5MHz QPSK CH-Middle



LTE Band 2 10MHz QPSK CH-Middle



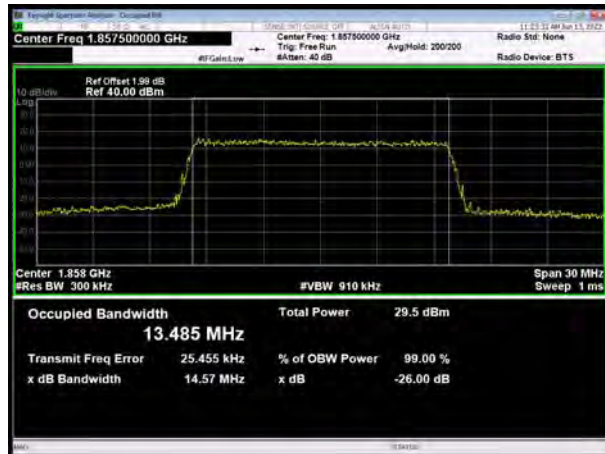
LTE Band 2 5MHz QPSK CH-High



LTE Band 2 10MHz QPSK CH-High



LTE Band 2 15MHz QPSK CH-Low



LTE Band 2 20MHz QPSK CH-Low



LTE Band 2 15MHz QPSK CH-Middle



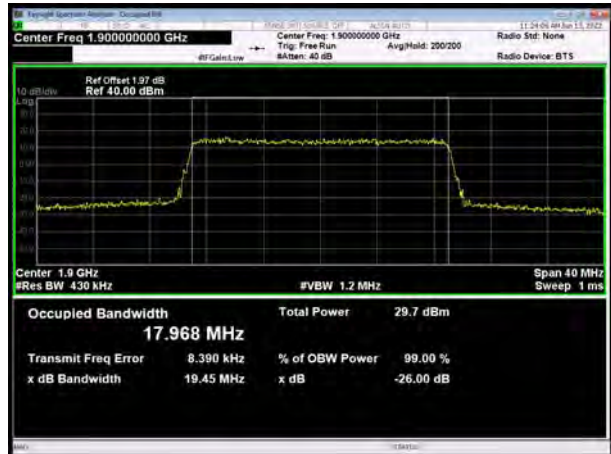
LTE Band 2 20MHz QPSK CH-Middle



LTE Band 2 15MHz QPSK CH-High

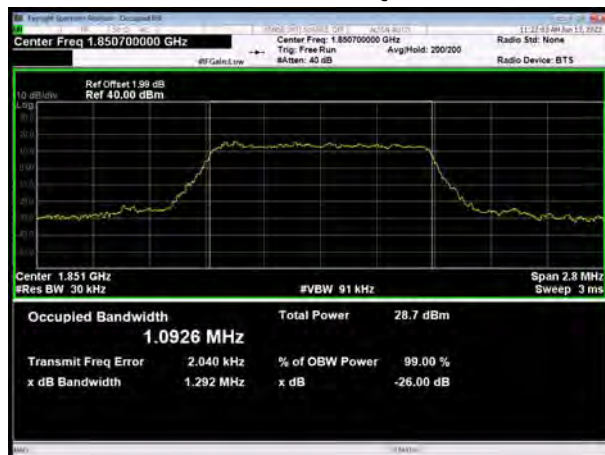


LTE Band 2 20MHz QPSK CH-High

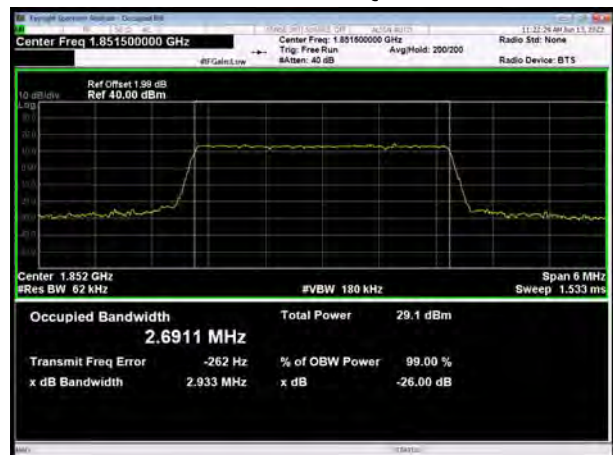




LTE Band 2 1.4MHz 16QAM CH-Low



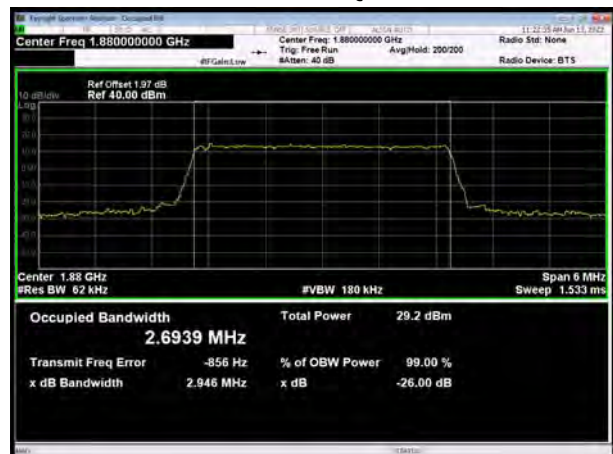
LTE Band 2 3MHz 16QAM CH-Low



LTE Band 2 1.4MHz 16QAM CH-Middle



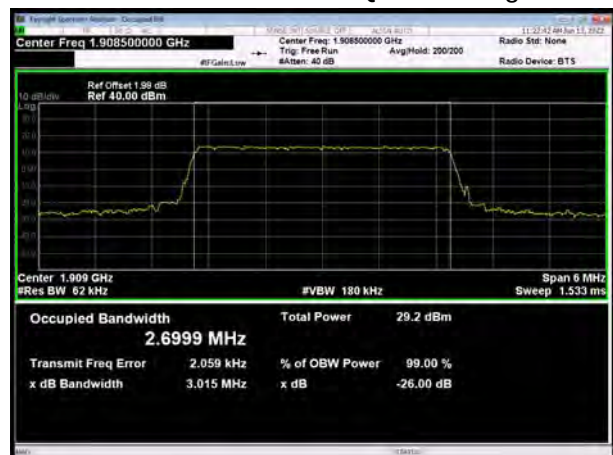
LTE Band 2 3MHz 16QAM CH-Middle



LTE Band 2 1.4MHz 16QAM CH-High

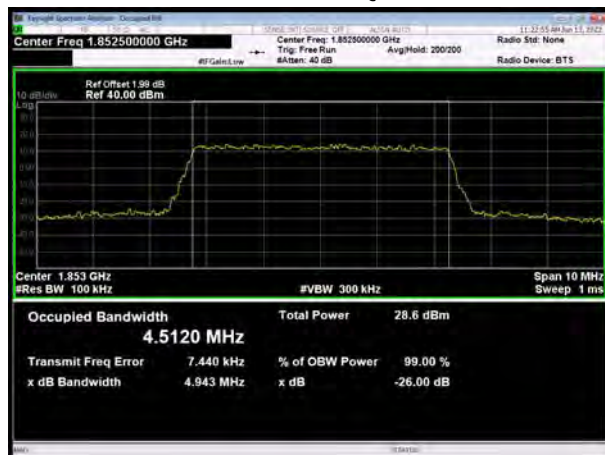


LTE Band 2 3MHz 16QAM CH-High

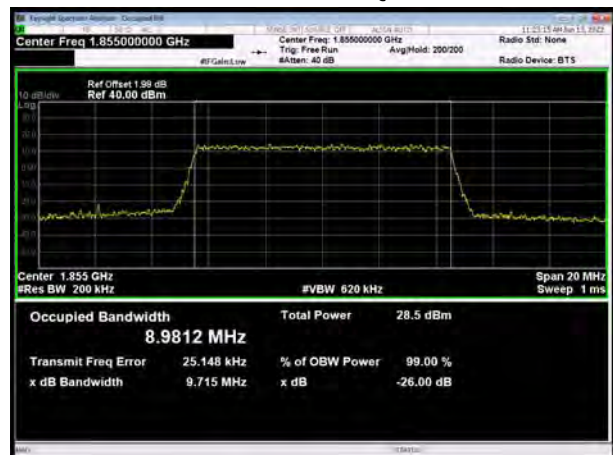




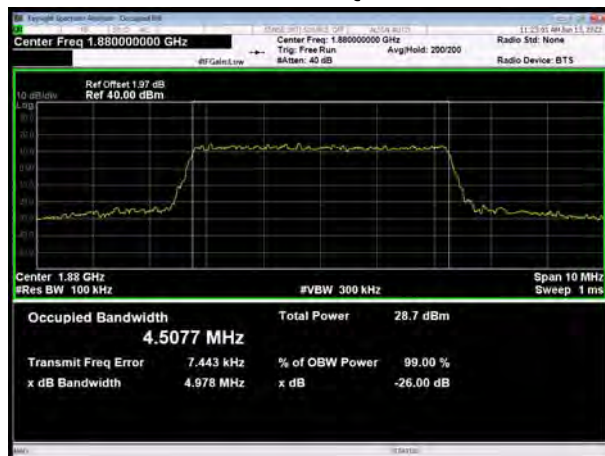
LTE Band 2 5MHz 16QAM CH-Low



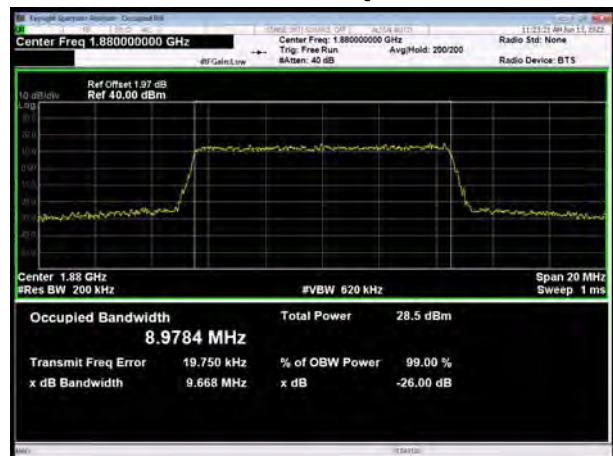
LTE Band 2 10MHz 16QAM CH-Low



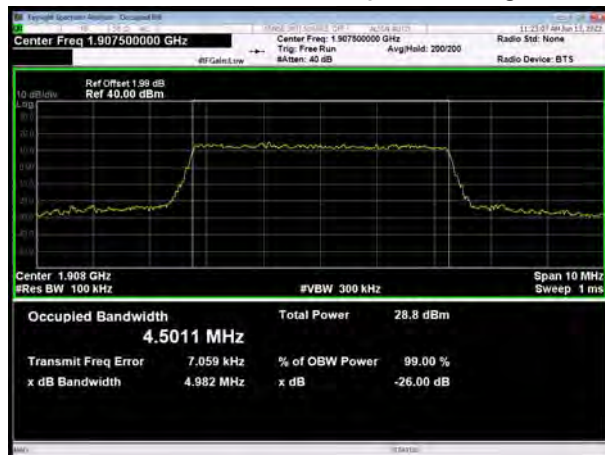
LTE Band 2 5MHz 16QAM CH-Middle



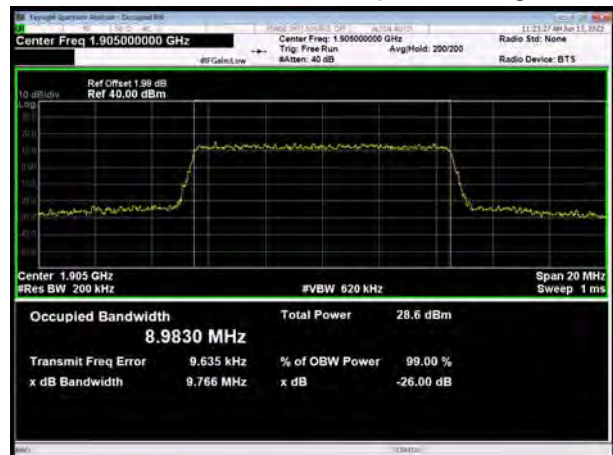
LTE Band 2 10MHz 16QAM CH-Middle



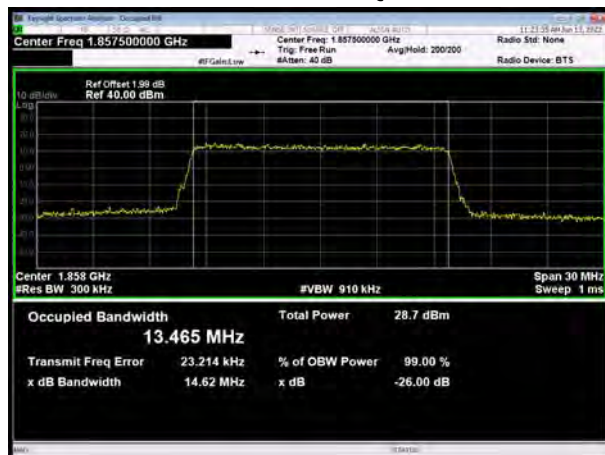
LTE Band 2 5MHz 16QAM CH-High



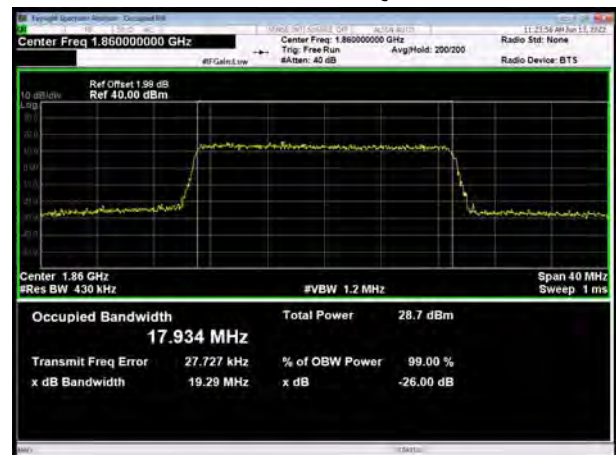
LTE Band 2 10MHz 16QAM CH-High



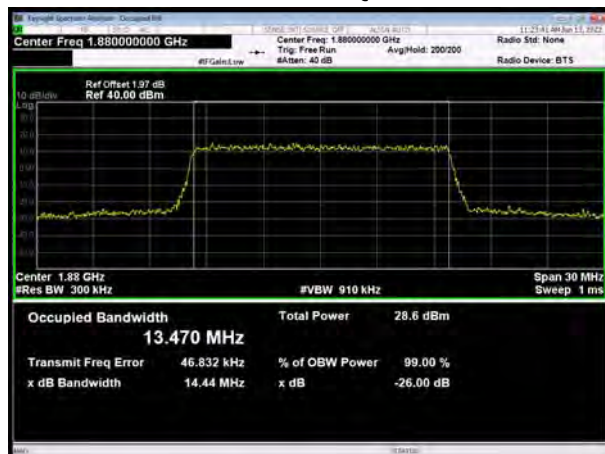
LTE Band 2 15MHz 16QAM CH-Low



LTE Band 2 20MHz 16QAM CH-Low



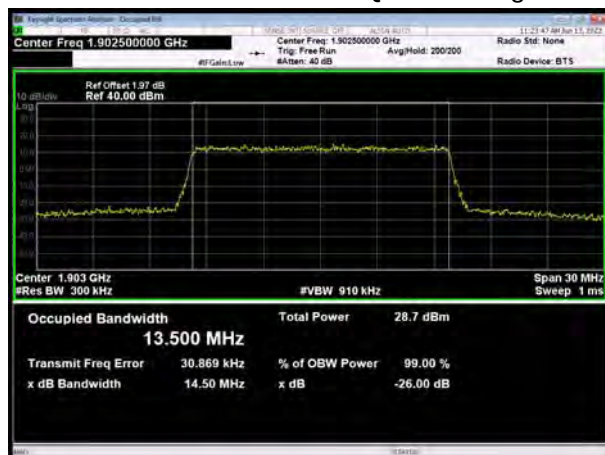
LTE Band 2 15MHz 16QAM CH-Middle



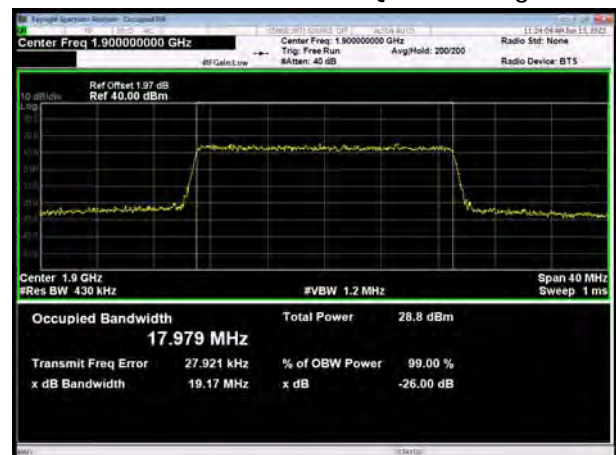
LTE Band 2 20MHz 16QAM CH-Middle



LTE Band 2 15MHz 16QAM CH-High



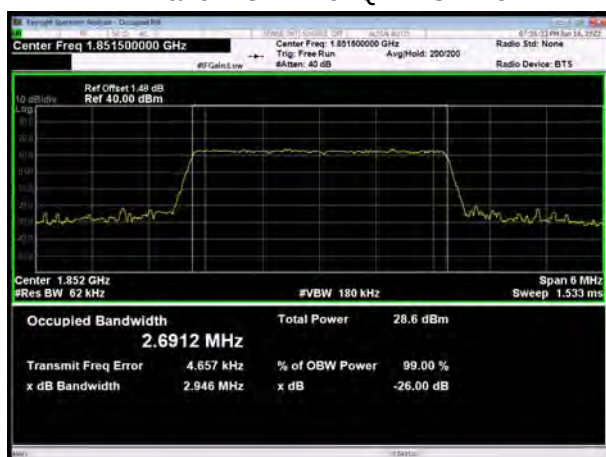
LTE Band 2 20MHz 16QAM CH-High



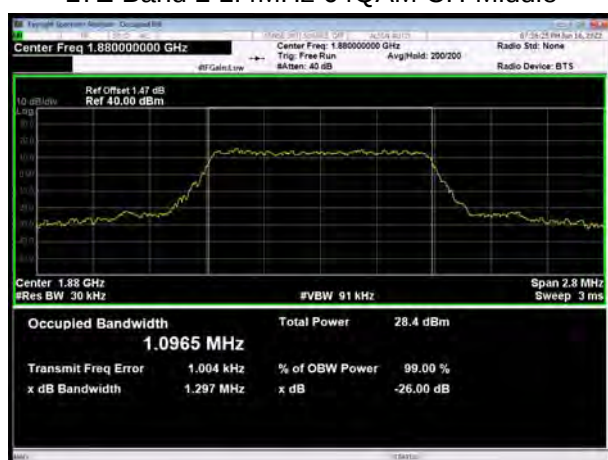
LTE Band 2 1.4MHz 64QAM CH-Low



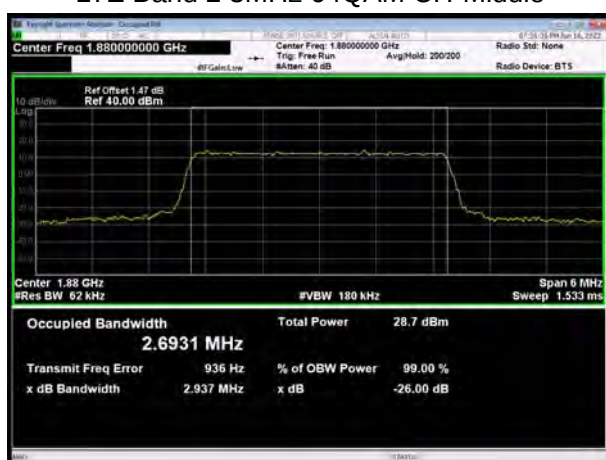
LTE Band 2 3MHz 64QAM CH-Low



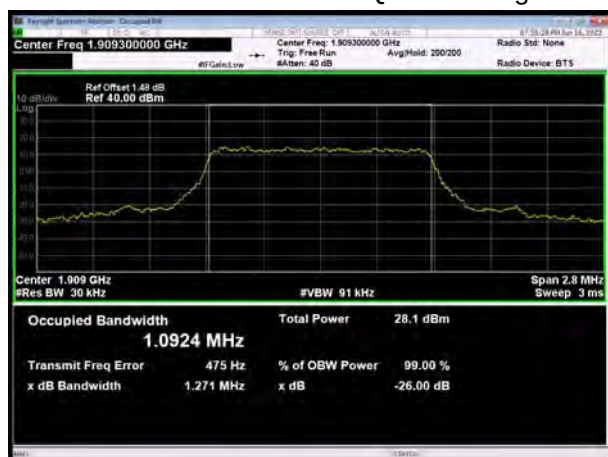
LTE Band 2 1.4MHz 64QAM CH-Middle



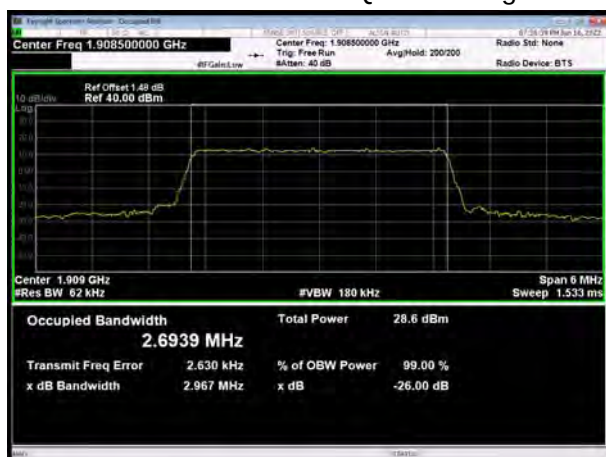
LTE Band 2 3MHz 64QAM CH-Middle



LTE Band 2 1.4MHz 64QAM CH-High

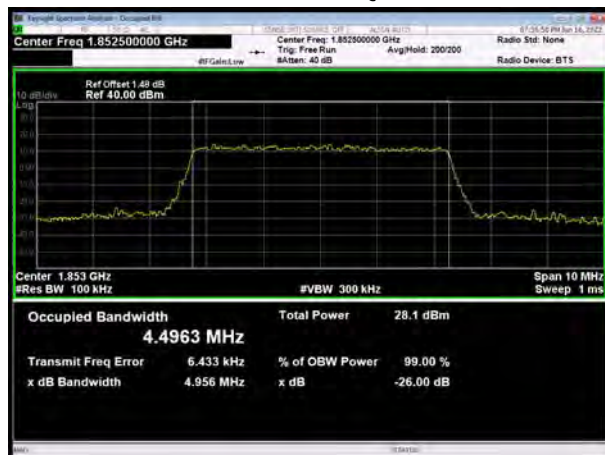


LTE Band 2 3MHz 64QAM CH-High

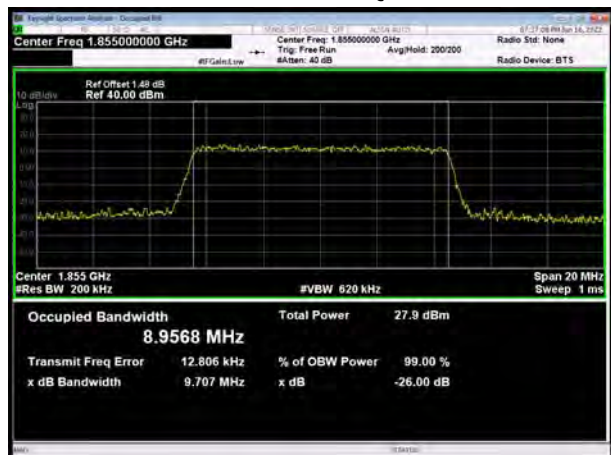




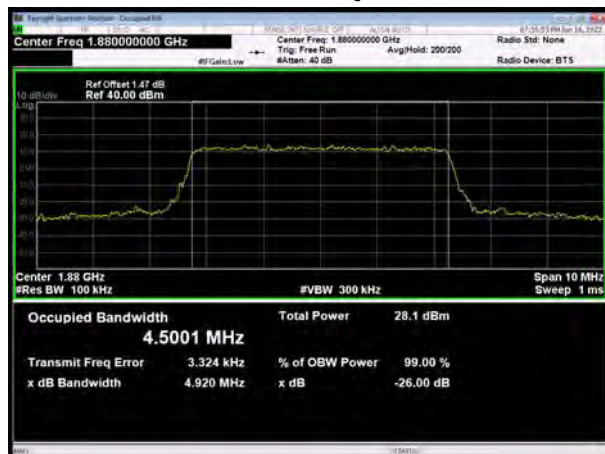
LTE Band 2 5MHz 64QAM CH-Low



LTE Band 2 10MHz 64QAM CH-Low



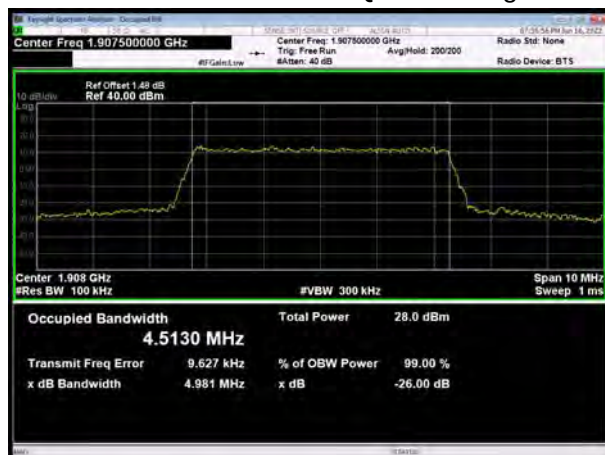
LTE Band 2 5MHz 64QAM CH-Middle



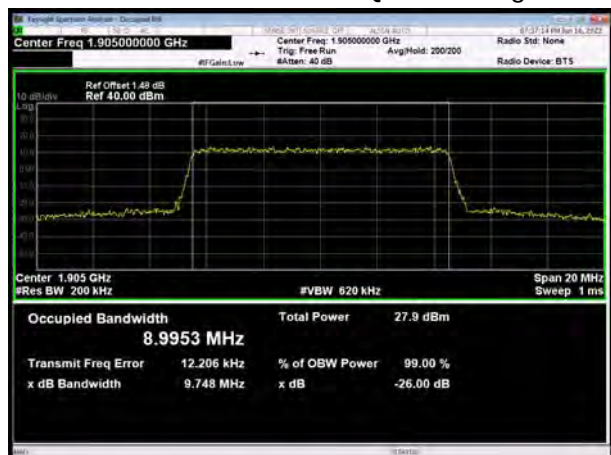
LTE Band 2 10MHz 64QAM CH-Middle



LTE Band 2 5MHz 64QAM CH-High

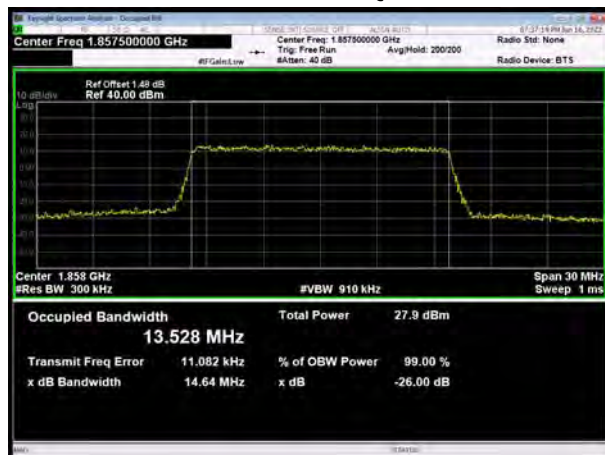


LTE Band 2 10MHz 64QAM CH-High

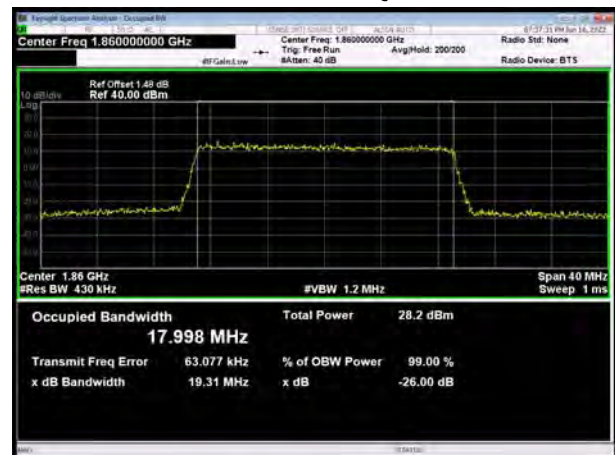




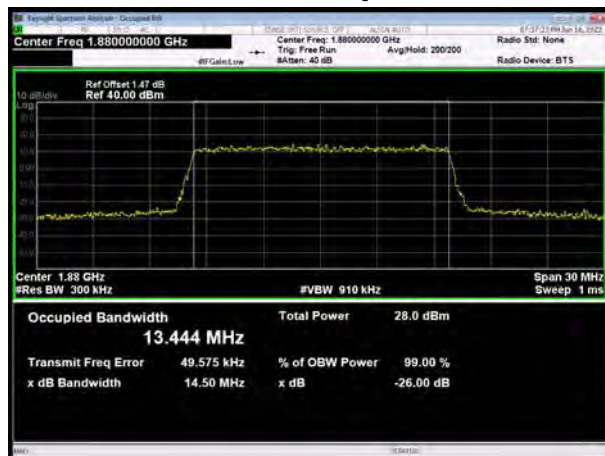
LTE Band 2 15MHz 64QAM CH-Low



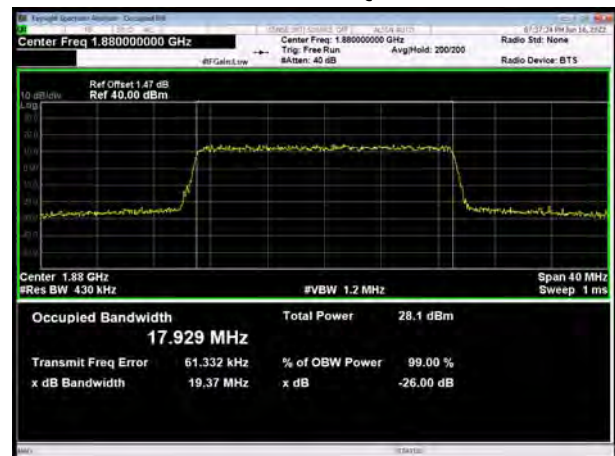
LTE Band 2 20MHz 64QAM CH-Low



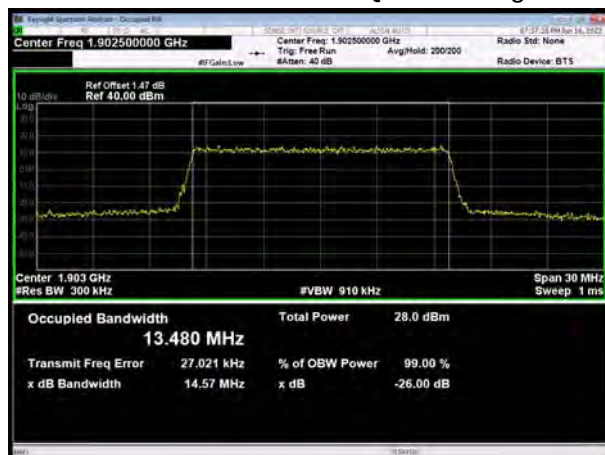
LTE Band 2 15MHz 64QAM CH-Middle



LTE Band 2 20MHz 64QAM CH-Middle



LTE Band 2 15MHz 64QAM CH-High



LTE Band 2 20MHz 64QAM CH-High



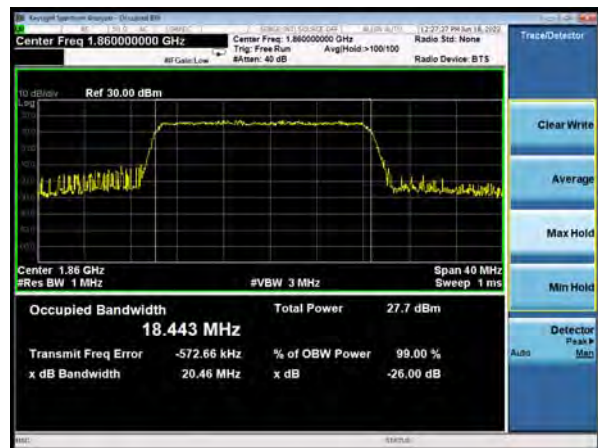


100% RB

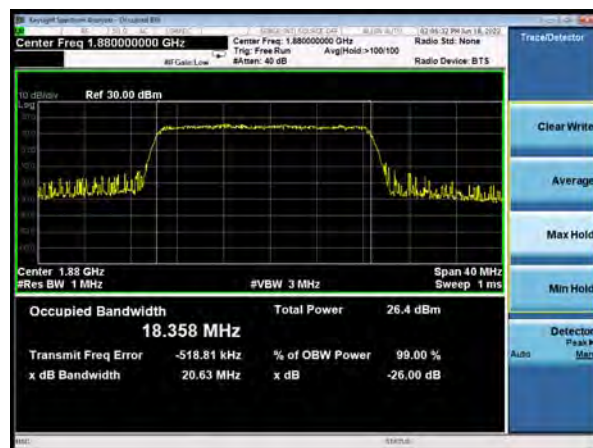
NR n2 P1/2 BPSK 20MHz CH-Low



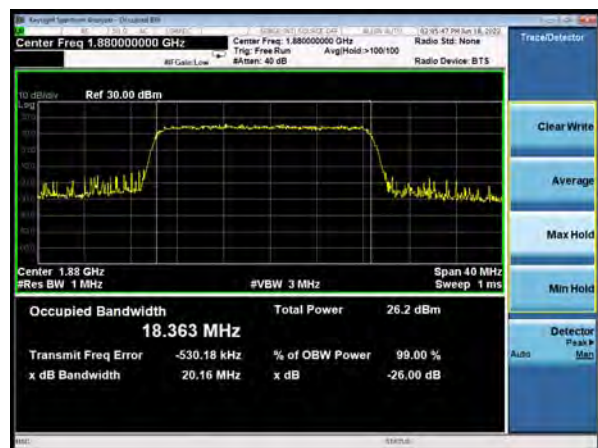
NR n2 QPSK 20MHz CH-Low



NR n2 P1/2 BPSK 20MHz CH-Middle



NR n2 QPSK 20MHz CH-Middle



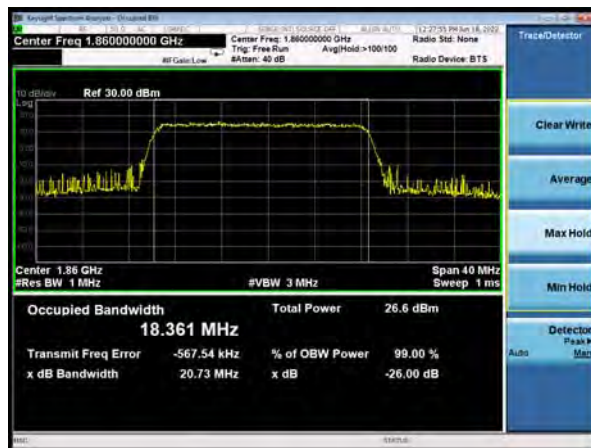
NR n2 P1/2 BPSK 20MHz CH-High



NR n2 QPSK 20MHz CH-High



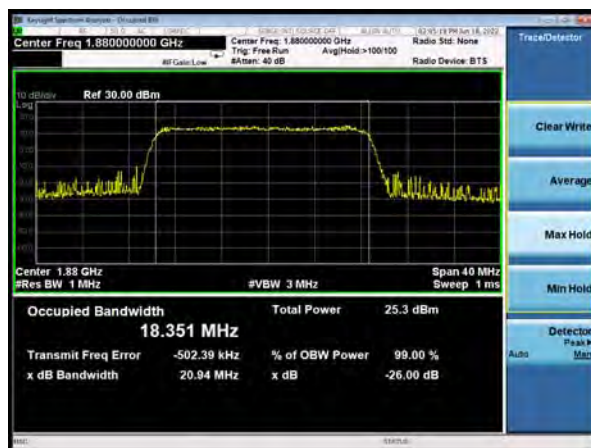
NR n2 16QAM 20MHz CH-Low



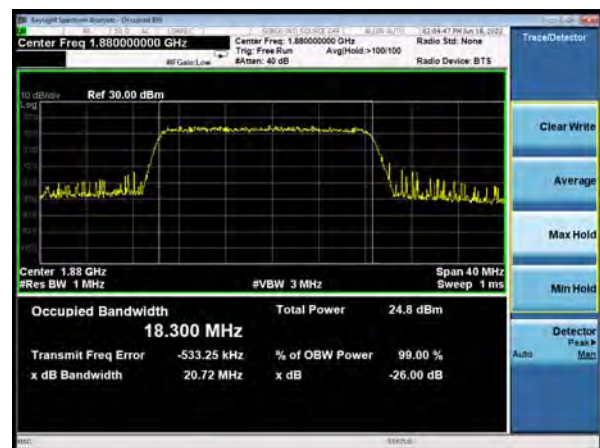
NR n2 64QAM 20MHz CH-Low



NR n2 16QAM 20MHz CH-Middle



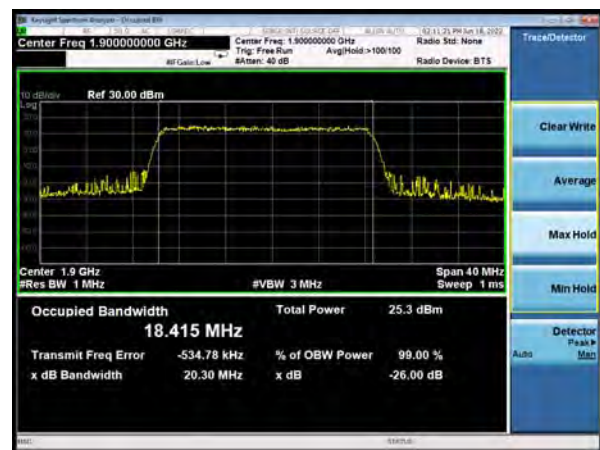
NR n2 64QAM 20MHz CH-Middle



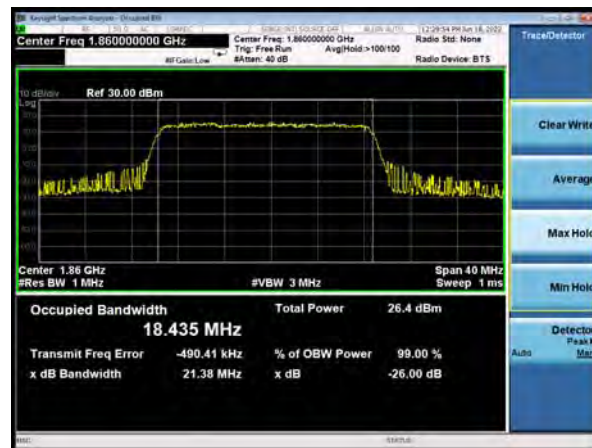
NR n2 16QAM 20MHz CH-High



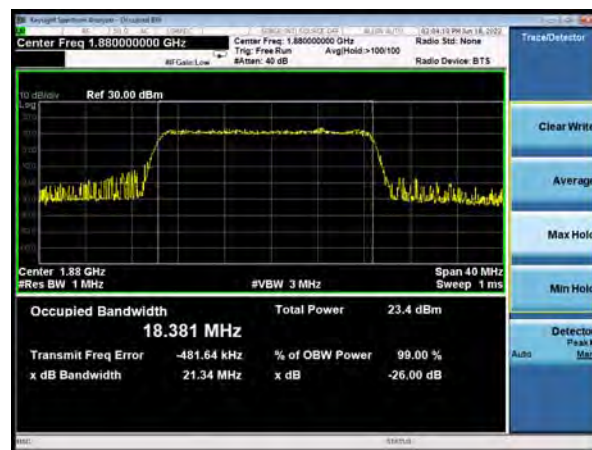
NR n2 64QAM 20MHz CH-High



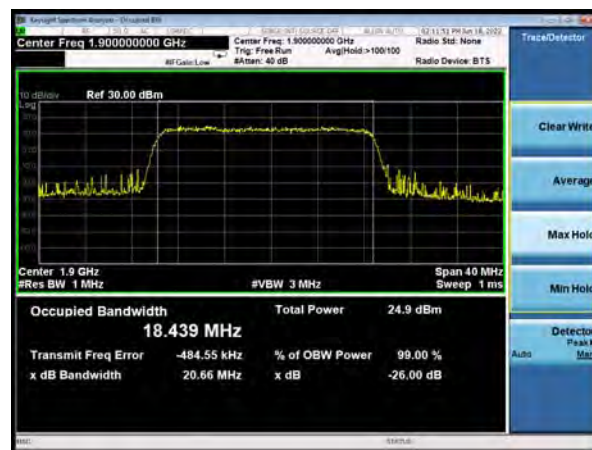
NR n2 256QAM 20MHz CH-Low



NR n2 256QAM 20MHz CH-Middle



NR n2 256QAM 20MHz CH-High





1 RB

NR n2 P1/2 BPSK 20MHz CH-Low



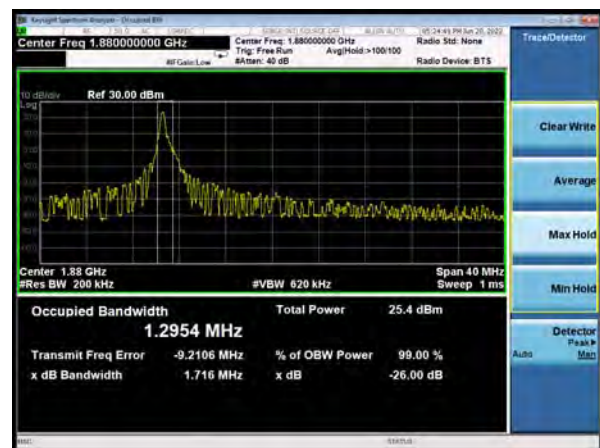
NR n2 QPSK 20MHz CH-Low



NR n2 P1/2 BPSK 20MHz CH-Middle



NR n2 QPSK 20MHz CH-Middle



NR n2 P1/2 BPSK 20MHz CH-High



NR n2 QPSK 20MHz CH-High



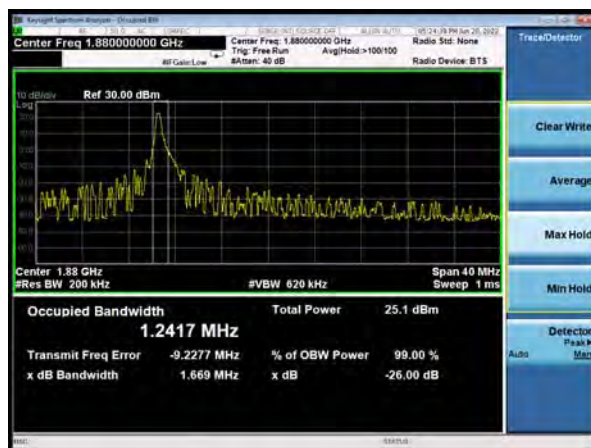
NR n2 16QAM 20MHz CH-Low



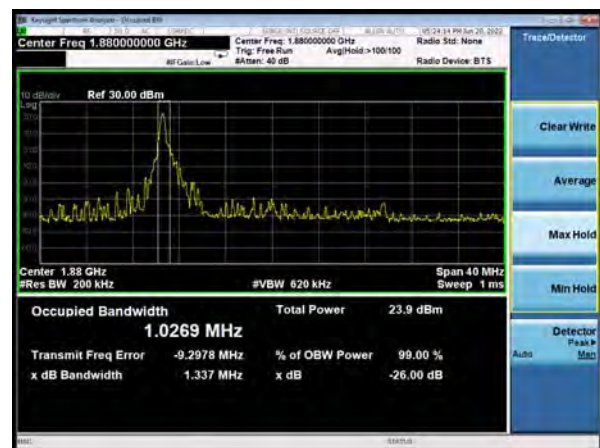
NR n2 64QAM 20MHz CH-Low



NR n2 16QAM 20MHz CH-Middle



NR n2 64QAM 20MHz CH-Middle



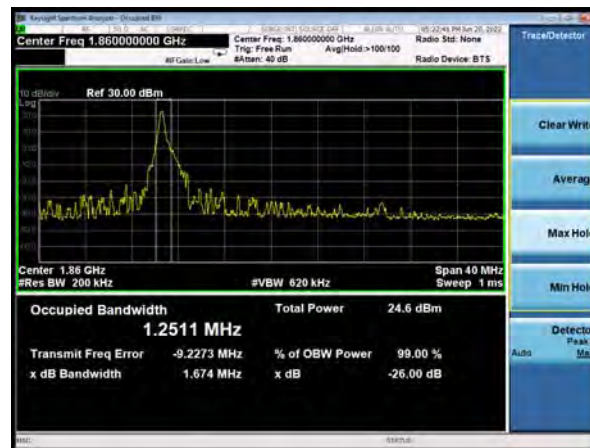
NR n2 16QAM 20MHz CH-High



NR n2 64QAM 20MHz CH-High



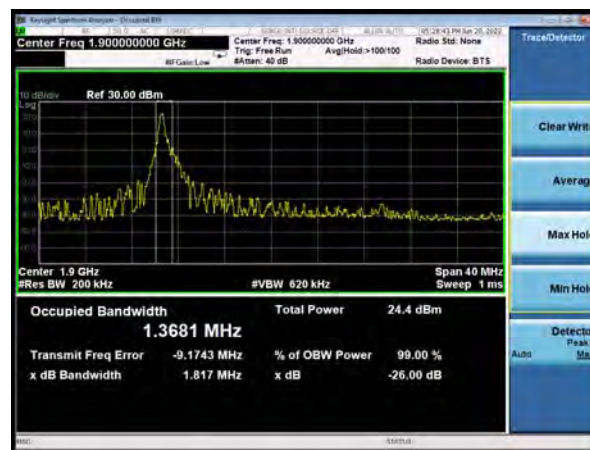
NR n2 256QAM 20MHz CH-Low



NR n2 256QAM 20MHz CH-Middle



NR n2 256QAM 20MHz CH-High



6.3. Band Edge Compliance

GSM1900 GSM CH-Low



GSM 1900 GSM CH-High



GSM1900 GPRS CH-Low



GSM 1900 GPRS CH-High



GSM1900 EGPRS CH-Low



GSM 1900 EGPRS CH-High





WCDMA Band II RMC CH-Low

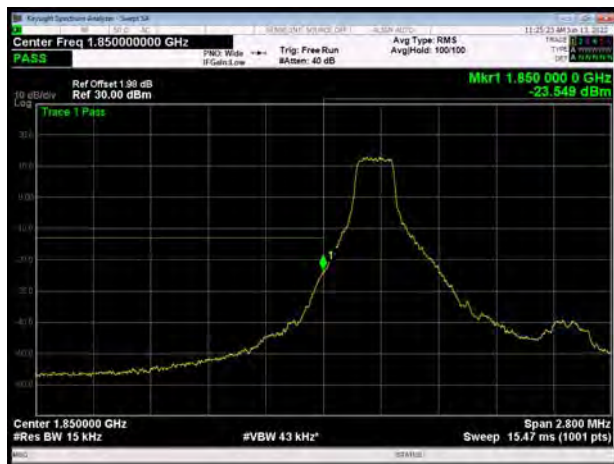


WCDMA Band II RMC CH-High





LTE Band 2 1.4MHz QPSK 1RB CH-Low



LTE Band 2 1.4MHz QPSK 1RB CH-High



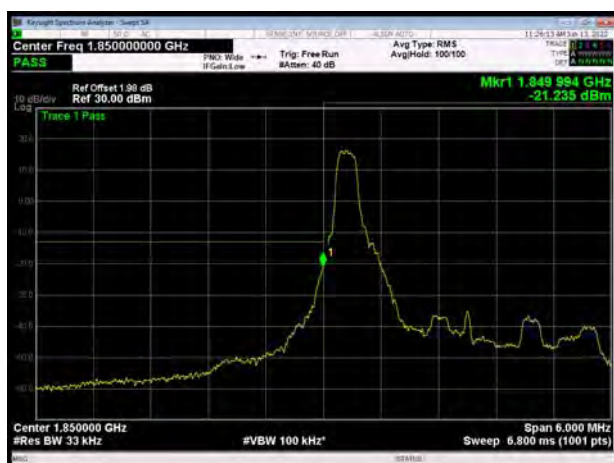
LTE Band 2 1.4MHz QPSK 100%RB CH-Low



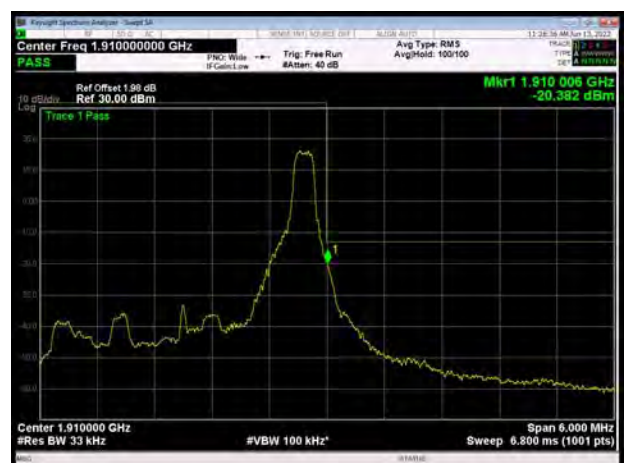
LTE Band 2 1.4MHz QPSK 100%RB CH-High



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



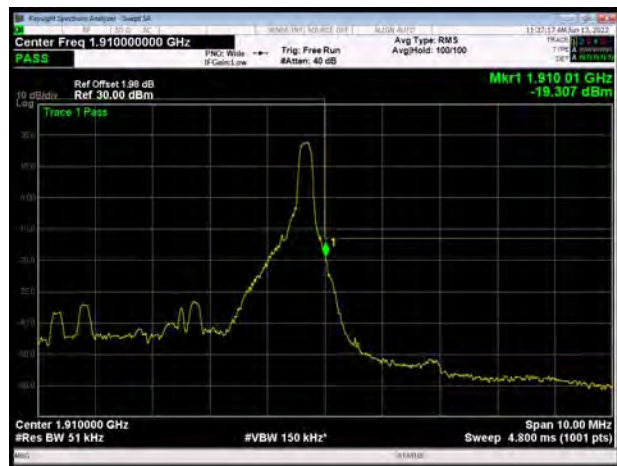
LTE Band 2 3MHz QPSK 100%RB CH-High



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

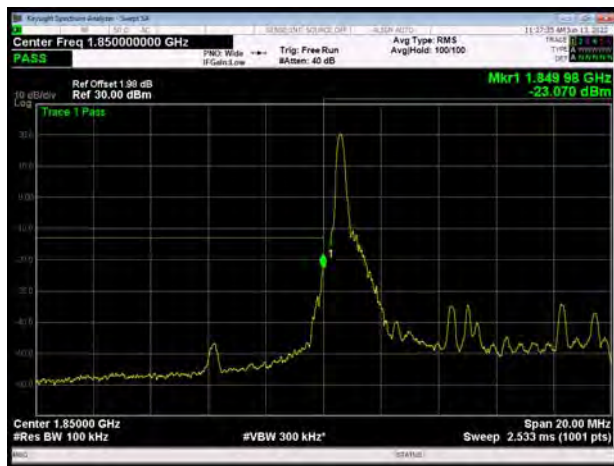


LTE Band 2 5MHz QPSK 100%RB CH-High

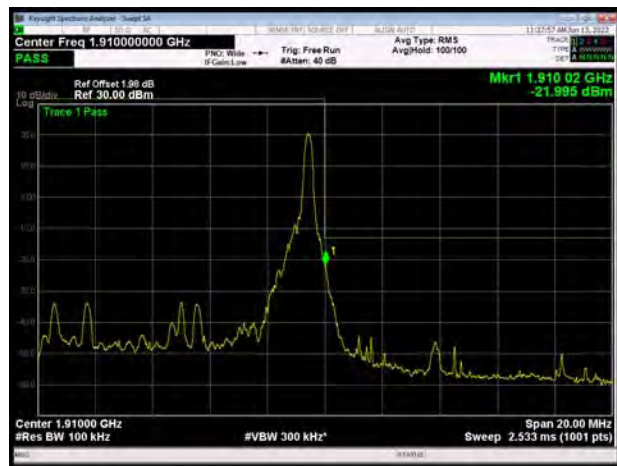




LTE Band 2 10MHz QPSK 1RB CH-Low



LTE Band 2 10MHz QPSK 1RB CH-High



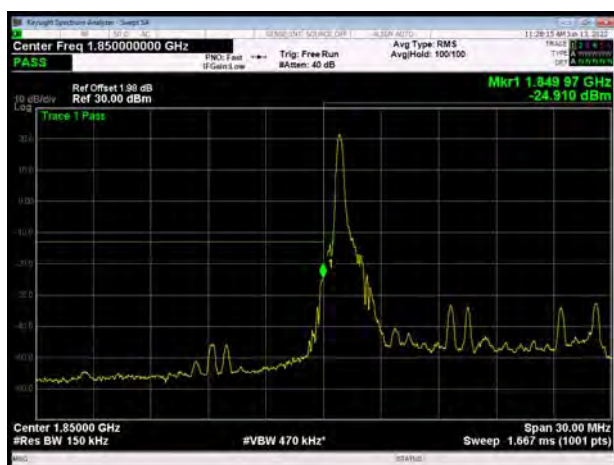
LTE Band 2 10MHz QPSK 100%RB CH-Low



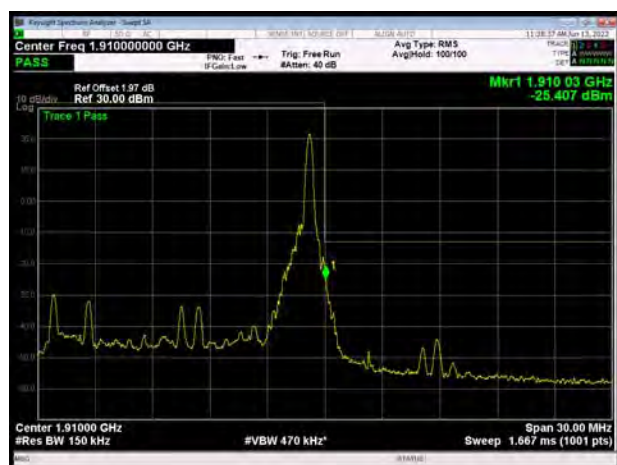
LTE Band 2 10MHz QPSK 100%RB CH-High



LTE Band 2 15MHz QPSK 1RB CH-Low



LTE Band 2 15MHz QPSK 1RB CH-High





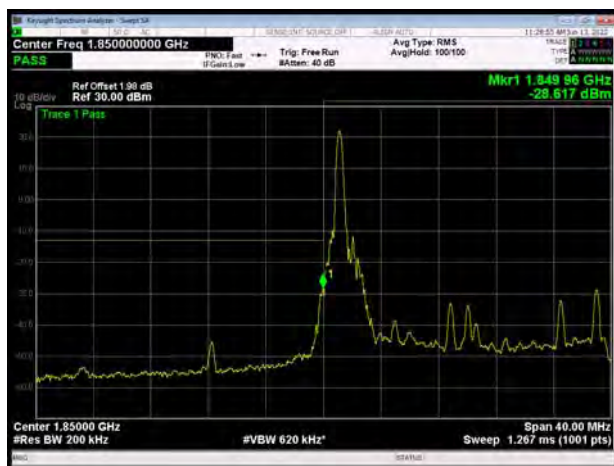
LTE Band 2 15MHz QPSK 100%RB CH-Low



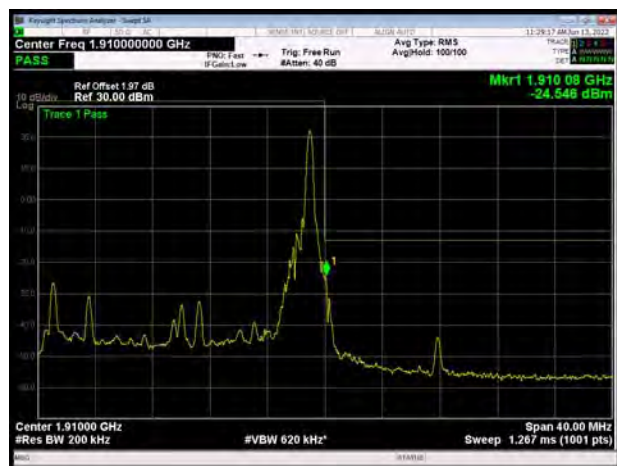
LTE Band 2 15MHz QPSK 100%RB CH-High



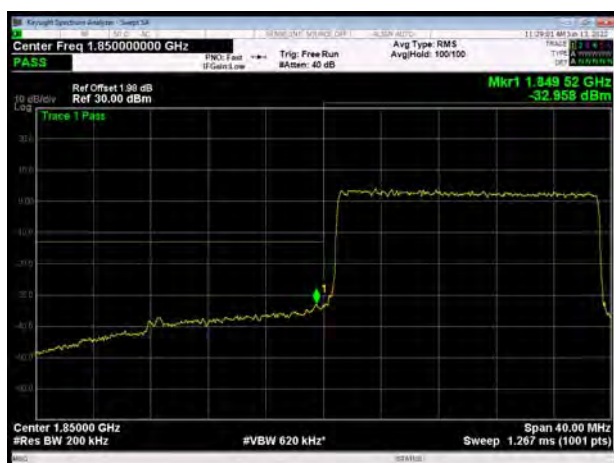
LTE Band 2 20MHz QPSK 1RB CH-Low



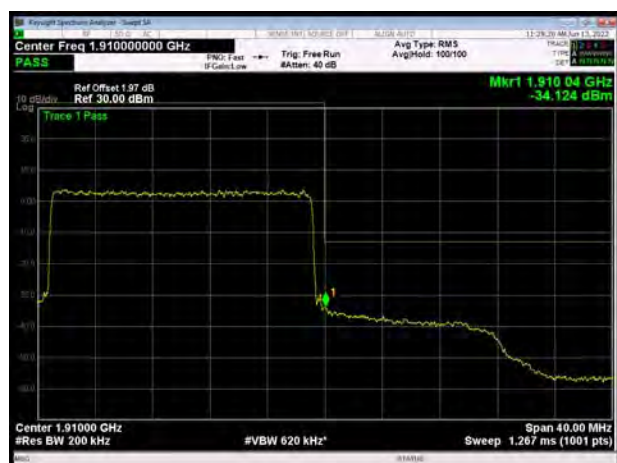
LTE Band 2 20MHz QPSK 1RB CH-High



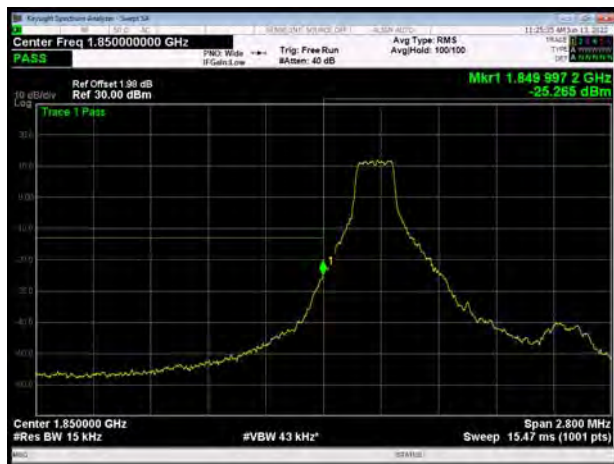
LTE Band 2 20MHz QPSK 100%RB CH-Low



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



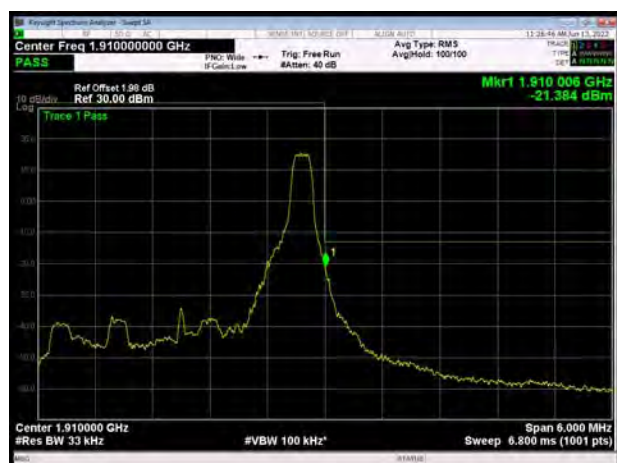
LTE Band 2 1.4MHz 16QAM 100%RB CH-High



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



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





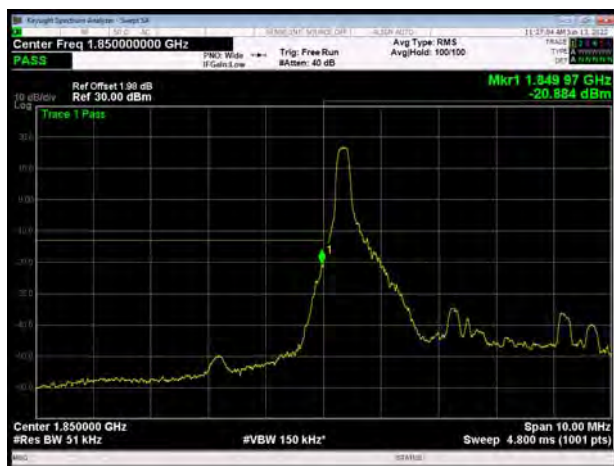
LTE Band 2 3MHz 16QAM 100%RB CH-Low



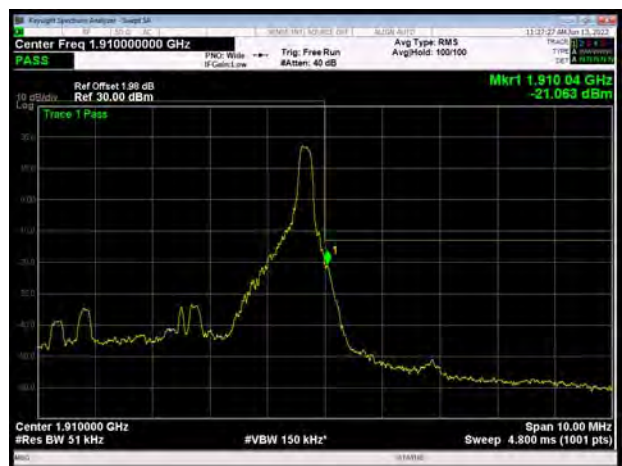
LTE Band 2 3MHz 16QAM 100%RB CH-High



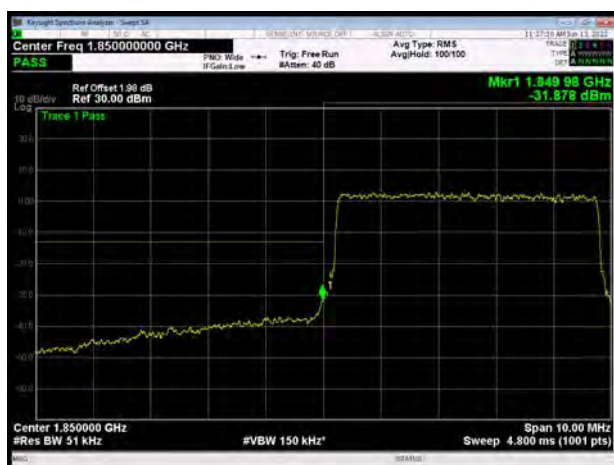
LTE Band 2 5MHz 16QAM 1RB CH-Low



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



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

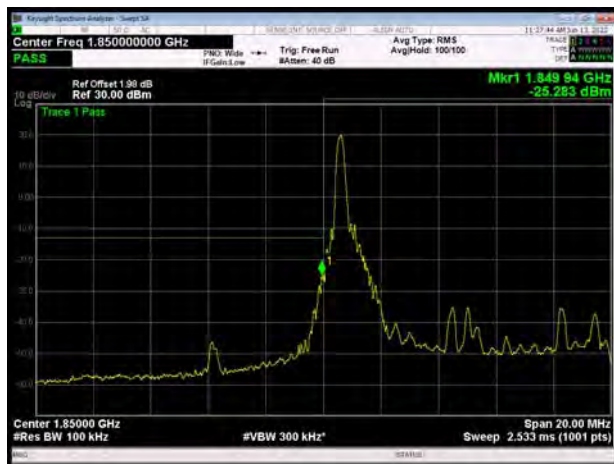


LTE Band 2 5MHz 16QAM 100%RB CH-High

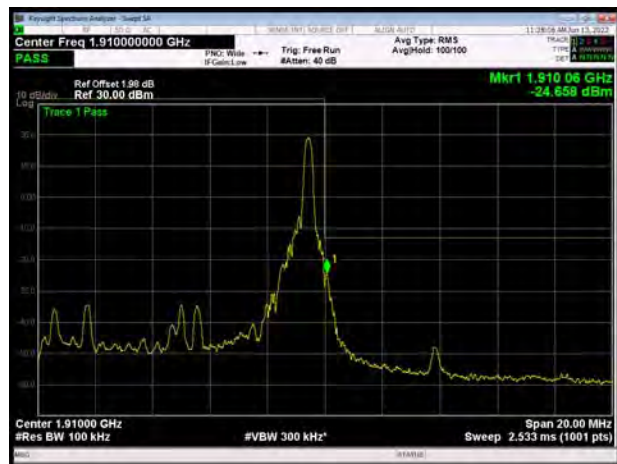




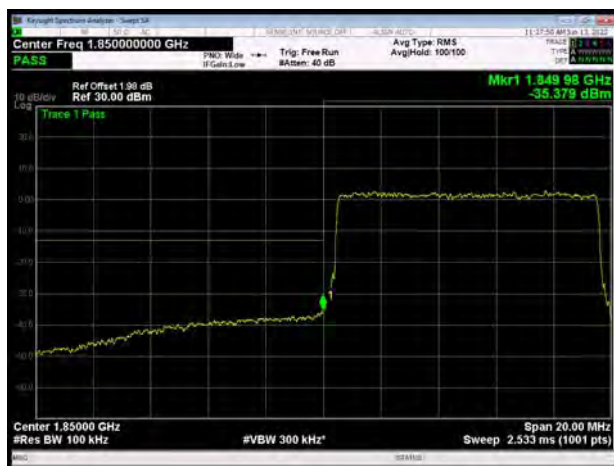
LTE Band 2 10MHz 16QAM 1RB CH-Low



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



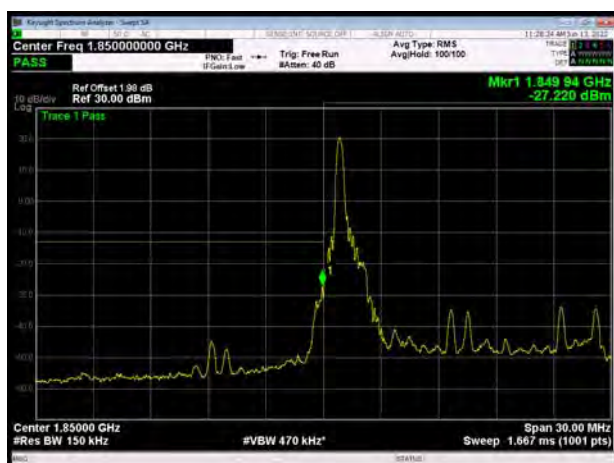
LTE Band 2 10MHz 16QAM 100%RB CH-Low



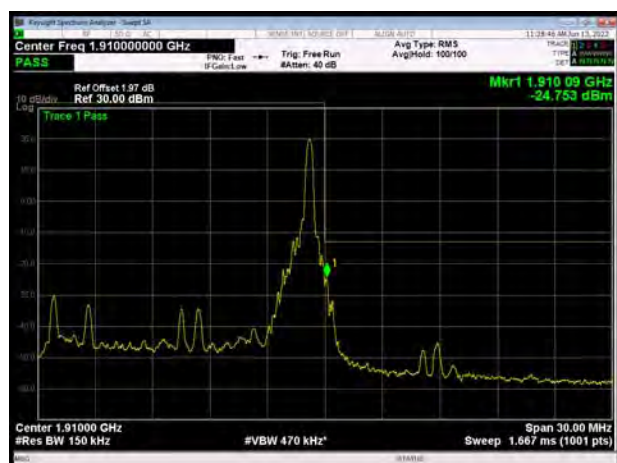
LTE Band 2 10MHz 16QAM 100%RB CH-High



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



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





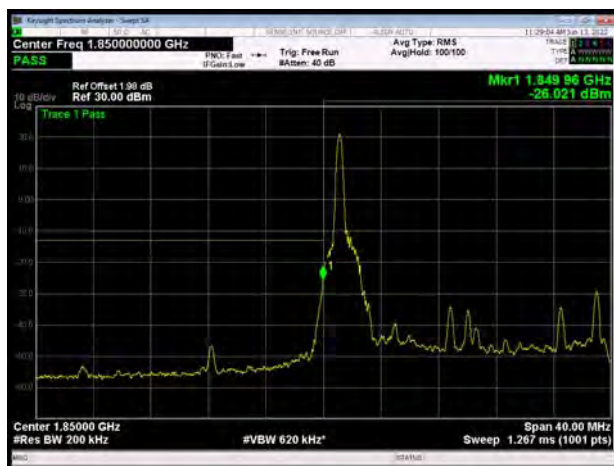
LTE Band 2 15MHz 16QAM 100%RB CH-Low



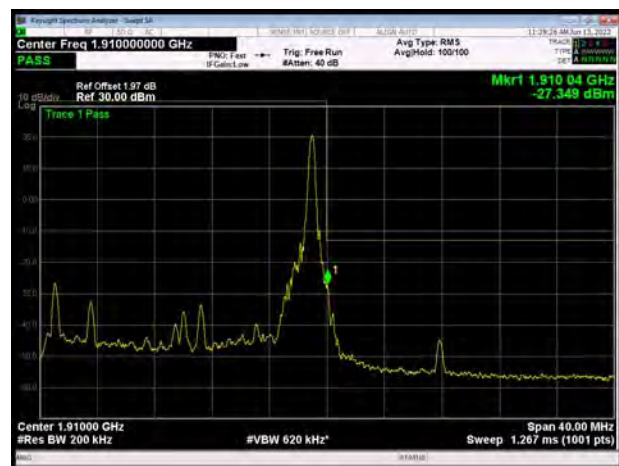
LTE Band 2 15MHz 16QAM 100%RB CH-High



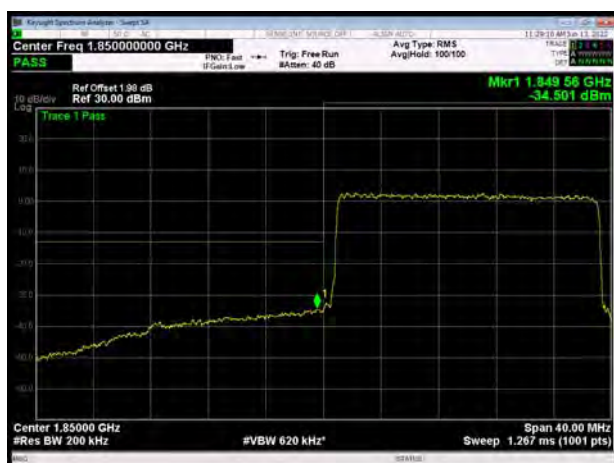
LTE Band 2 20MHz 16QAM 1RB CH-Low



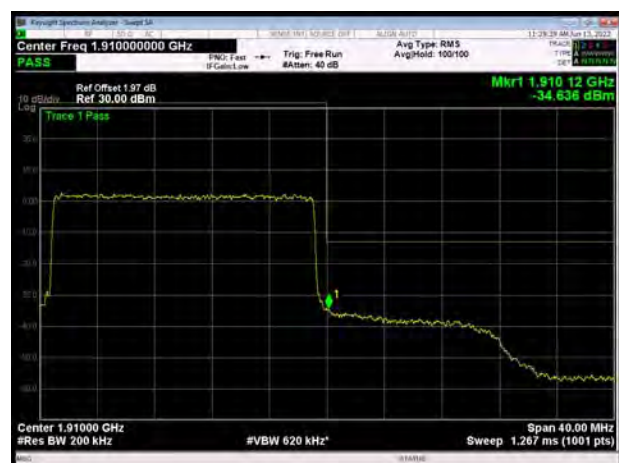
LTE Band 2 20MHz 16QAM 1RB CH-High



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

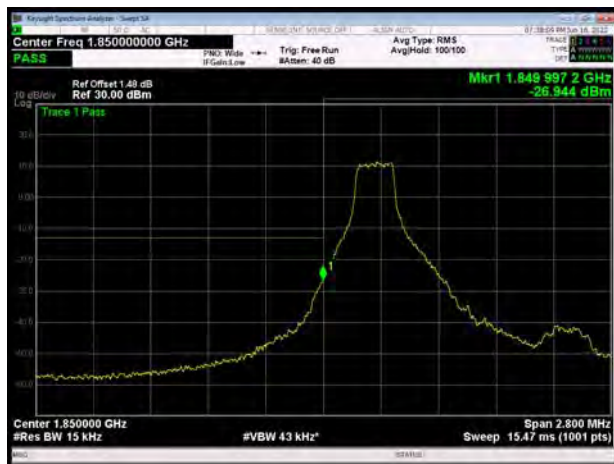


LTE Band 2 20MHz 16QAM 100%RB CH-High

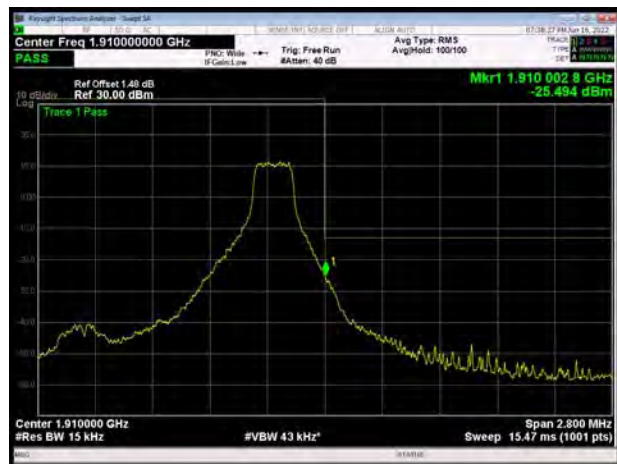




LTE Band 2 1.4MHz 64QAM 1RB CH-Low



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



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



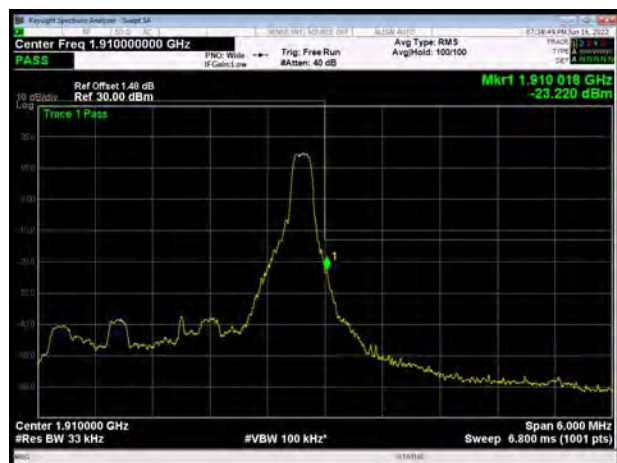
LTE Band 2 1.4MHz 64QAM 100%RB CH-High



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



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





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



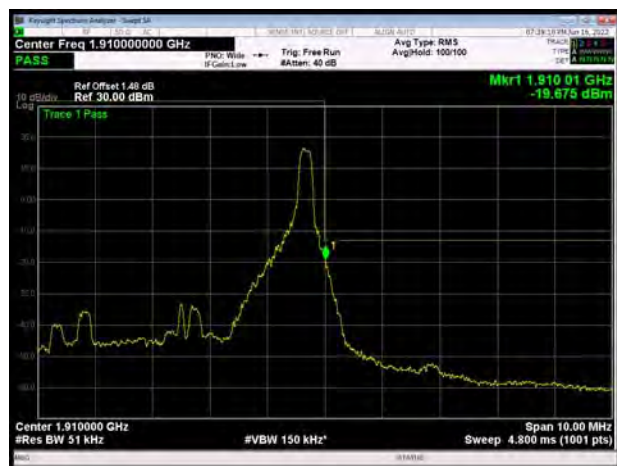
LTE Band 2 3MHz 64QAM 100%RB CH-High



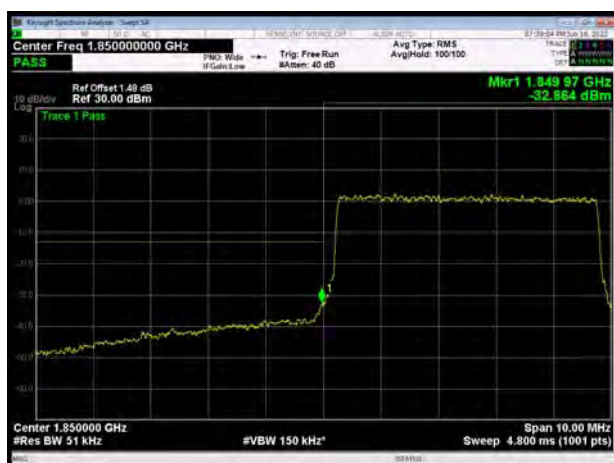
LTE Band 2 5MHz 64QAM 1RB CH-Low



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



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



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

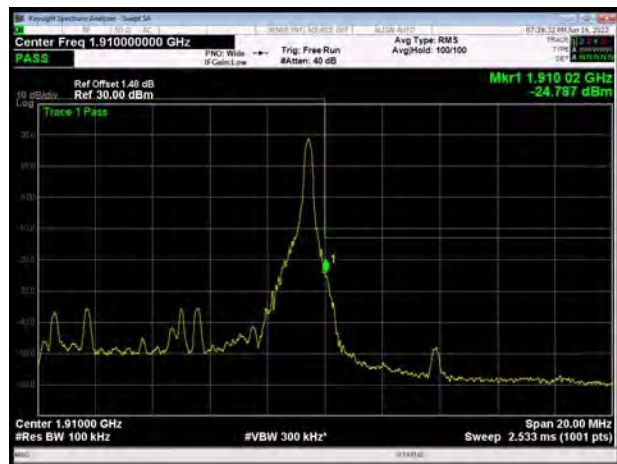




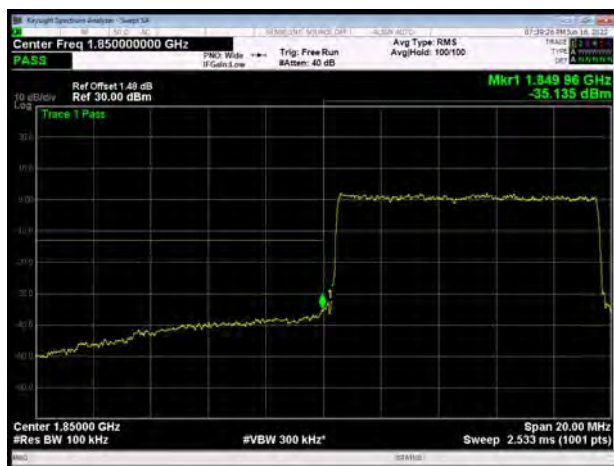
LTE Band 2 10MHz 64QAM 1RB CH-Low



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



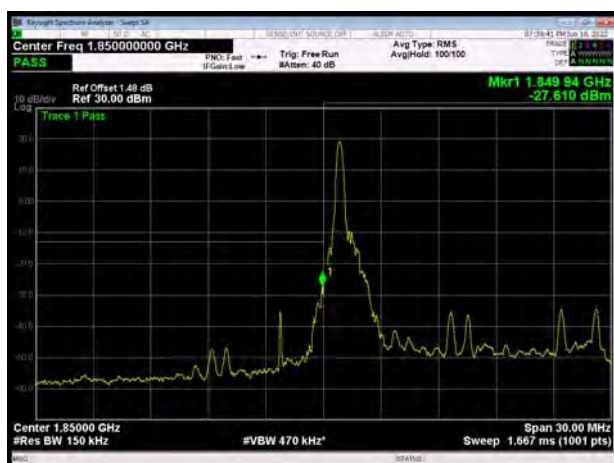
LTE Band 2 10MHz 64QAM 100%RB CH-Low



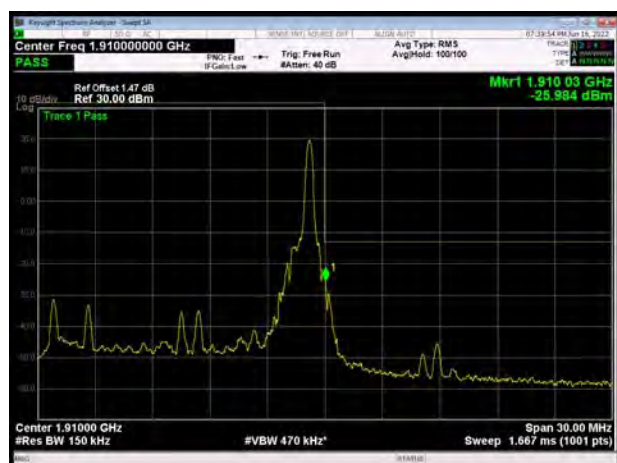
LTE Band 2 10MHz 64QAM 100%RB CH-High



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



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





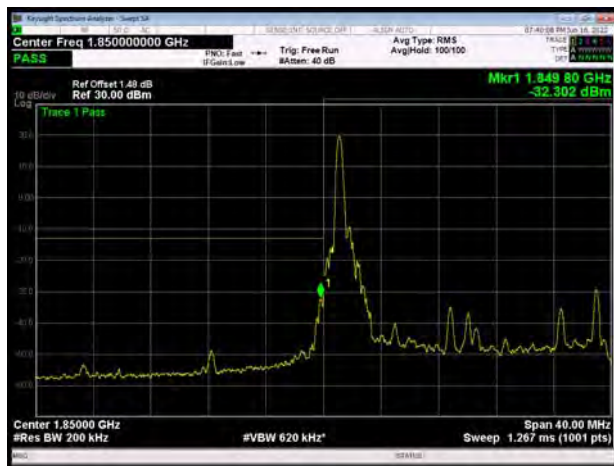
LTE Band 2 15MHz 64QAM 100%RB CH-Low



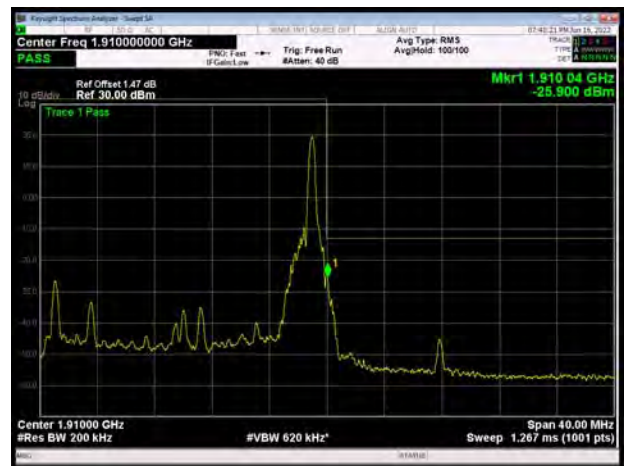
LTE Band 2 15MHz 64QAM 100%RB CH-High



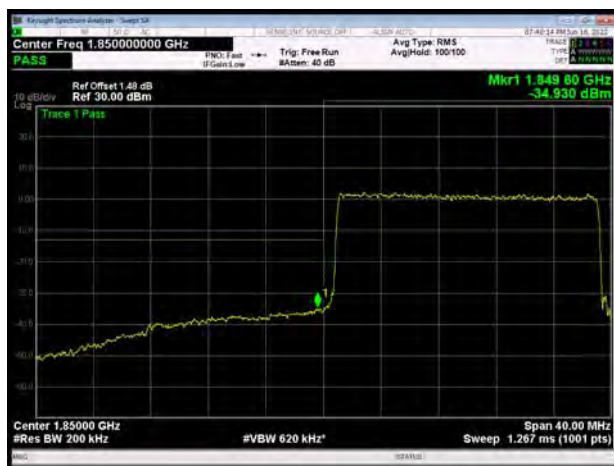
LTE Band 2 20MHz 64QAM 1RB CH-Low



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



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

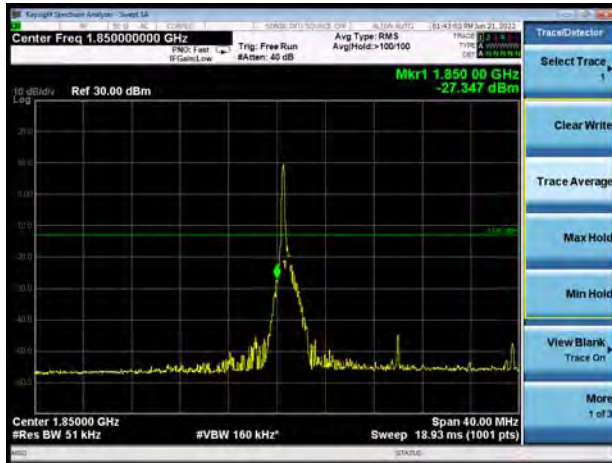


LTE Band 2 20MHz 64QAM 100%RB CH-High

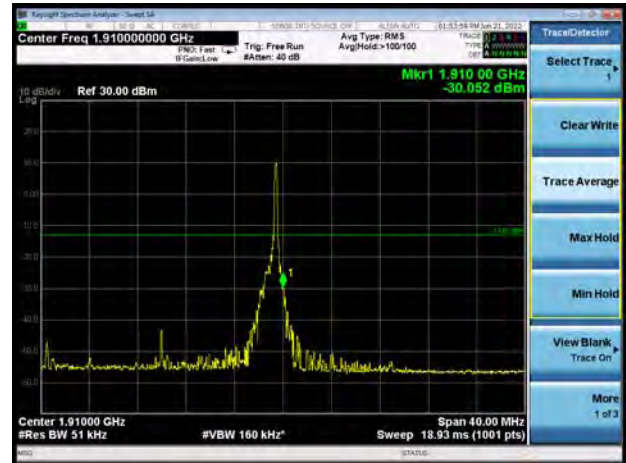




NR n2 P1/2 BPSK 20MHz CH-Low 1RB



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



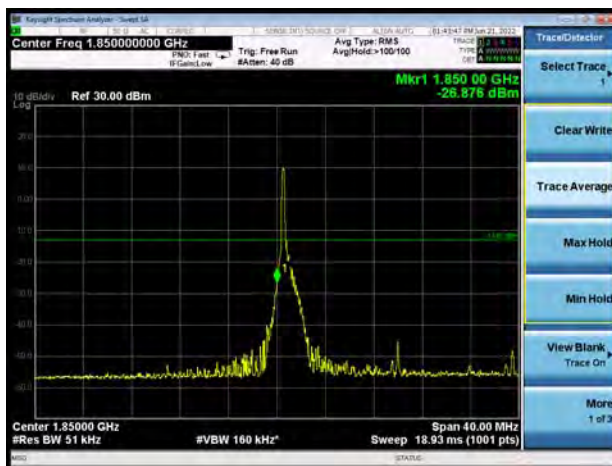
NR n2 P1/2 BPSK 20MHz CH-Low 100%RB



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



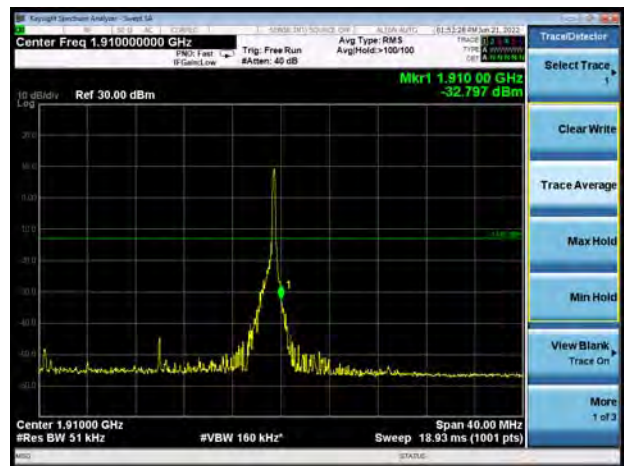
NR n2 QPSK 20MHz CH-High 100%RB



NR n2 16QAM 20MHz CH-Low 1RB



NR n2 16QAM 20MHz CH-High 1RB



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

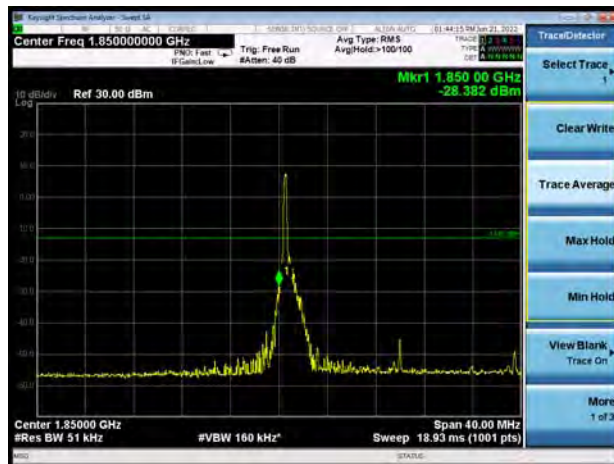


NR n2 16QAM 20MHz CH-High 100%RB





NR n2 64QAM 20MHz CH-Low 1RB



NR n2 64QAM 20MHz CH-High 1RB



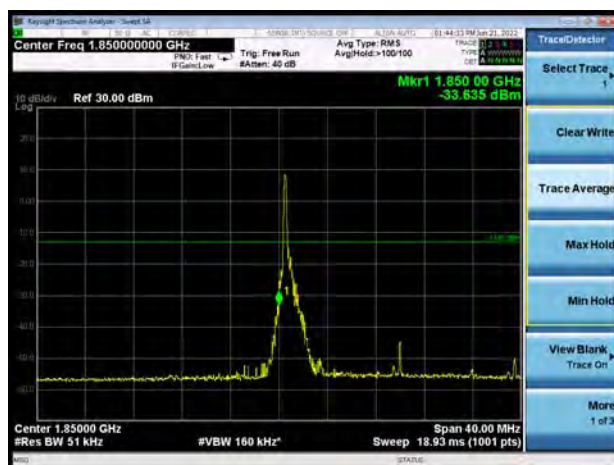
NR n2 64QAM 20MHz CH-Low 100%RB



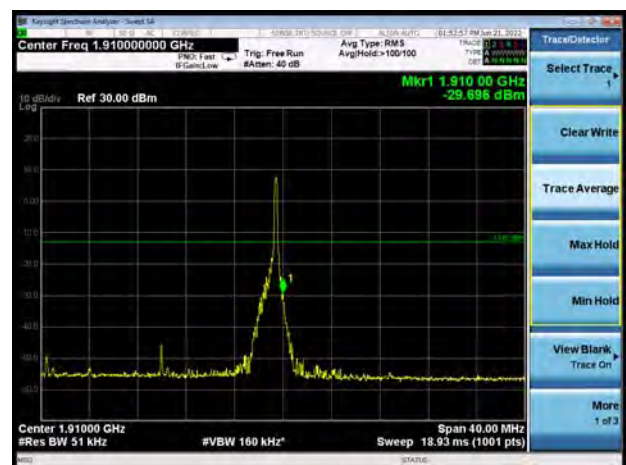
NR n2 64QAM 20MHz CH-High 100%RB



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	26.89	24.21	2.68	≤13	PASS
	661	1880	27.67	25.02	2.65	≤13	PASS
	810	1909.8	26.92	24.21	2.71	≤13	PASS
GPRS 1900 (GMSK)	512	1850.2	26.81	24.13	2.68	≤13	PASS
	661	1880	27.66	25.01	2.65	≤13	PASS
	810	1909.8	26.69	23.97	2.72	≤13	PASS
EGPRS 1900 (8PSK)	512	1850.2	23.28	17.31	5.97	≤13	PASS
	661	1880	25.14	19.07	6.07	≤13	PASS
	810	1909.8	23.53	17.51	6.02	≤13	PASS
WCDMA Band II (RMC)	9262	1852.4	25.08	22.14	2.94	≤13	PASS
	9400	1880	24.92	21.80	3.12	≤13	PASS
	9538	1907.6	25.00	21.94	3.06	≤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	27.26	21.66	5.60	≤13	PASS
		18900	1880.0	27.40	21.71	5.69	≤13	PASS
		19193	1909.3	27.28	21.74	5.54	≤13	PASS
	3	18615	1851.5	27.26	21.64	5.62	≤13	PASS
		18900	1880	27.39	21.67	5.72	≤13	PASS
		19185	1908.5	27.30	21.71	5.59	≤13	PASS
	5	18625	1852.5	27.28	21.65	5.63	≤13	PASS
		18900	1880	27.49	21.73	5.76	≤13	PASS
		19175	1907.5	27.42	21.76	5.66	≤13	PASS
	10	18650	1855	27.25	21.68	5.57	≤13	PASS
		18900	1880	27.45	21.70	5.75	≤13	PASS
		19150	1905	27.43	21.74	5.69	≤13	PASS
	15	18675	1857.5	27.63	21.68	5.95	≤13	PASS
		18900	1880	27.68	21.66	6.02	≤13	PASS
		19125	1902.5	27.72	21.70	6.02	≤13	PASS
	20	18700	1860	27.41	21.72	5.69	≤13	PASS
		18900	1880	27.34	21.63	5.71	≤13	PASS
		19100	1900	27.43	21.75	5.68	≤13	PASS



16QAM	1.4	18607	1850.7	26.95	20.60	6.35	≤13	PASS
		18900	1880.0	27.10	20.70	6.40	≤13	PASS
		19193	1909.3	27.13	20.72	6.41	≤13	PASS
	3	18615	1851.5	27.04	20.64	6.40	≤13	PASS
		18900	1880	27.14	20.63	6.51	≤13	PASS
		19185	1908.5	27.19	20.72	6.47	≤13	PASS
	5	18625	1852.5	26.96	20.67	6.29	≤13	PASS
		18900	1880	27.27	20.74	6.53	≤13	PASS
		19175	1907.5	27.16	20.76	6.40	≤13	PASS
	10	18650	1855	27.03	20.66	6.37	≤13	PASS
		18900	1880	27.20	20.70	6.50	≤13	PASS
		19150	1905	27.21	20.70	6.51	≤13	PASS
	15	18675	1857.5	27.11	20.63	6.48	≤13	PASS
		18900	1880	27.22	20.66	6.56	≤13	PASS
		19125	1902.5	27.23	20.69	6.54	≤13	PASS
	20	18700	1860	27.16	20.70	6.46	≤13	PASS
		18900	1880	27.08	20.63	6.45	≤13	PASS
		19100	1900	27.22	20.74	6.48	≤13	PASS
64QAM	1.4	18607	1850.7	26.28	19.92	6.36	≤13	PASS
		18900	1880.0	26.54	20.12	6.42	≤13	PASS
		19193	1909.3	26.52	20.09	6.43	≤13	PASS
	3	18615	1851.5	26.33	19.93	6.40	≤13	PASS
		18900	1880	26.69	20.09	6.60	≤13	PASS
		19185	1908.5	26.58	20.07	6.51	≤13	PASS
	5	18625	1852.5	26.27	20.00	6.27	≤13	PASS
		18900	1880	26.65	20.14	6.51	≤13	PASS
		19175	1907.5	26.58	20.11	6.47	≤13	PASS
	10	18650	1855	26.34	20.01	6.33	≤13	PASS
		18900	1880	26.64	20.10	6.54	≤13	PASS
		19150	1905	26.57	20.07	6.50	≤13	PASS
	15	18675	1857.5	26.50	20.02	6.48	≤13	PASS
		18900	1880	26.64	20.04	6.60	≤13	PASS
		19125	1902.5	26.64	20.06	6.58	≤13	PASS
	20	18700	1860	26.53	20.10	6.43	≤13	PASS
		18900	1880	26.51	20.02	6.49	≤13	PASS
		19100	1900	26.62	20.10	6.52	≤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	25.00	19.31	5.69	≤13	PASS
		376000	1880	23.77	18.04	5.73	≤13	PASS
		380000	1900	23.03	18.46	4.57	≤13	PASS
	QPSK	372000	1860	25.02	19.32	5.70	≤13	PASS
		376000	1880	23.76	18.04	5.72	≤13	PASS
		380000	1900	23.04	18.47	4.57	≤13	PASS
	16QAM	372000	1860	24.80	18.32	6.48	≤13	PASS
		376000	1880	23.49	17.00	6.49	≤13	PASS
		380000	1900	23.45	16.91	6.54	≤13	PASS
	64QAM	372000	1860	24.79	18.31	6.48	≤13	PASS
		376000	1880	23.16	16.53	6.63	≤13	PASS
		380000	1900	23.46	16.91	6.55	≤13	PASS
	256QAM	372000	1860	24.51	17.78	6.73	≤13	PASS
		376000	1880	21.47	14.65	6.82	≤13	PASS
		380000	1900	23.16	16.37	6.79	≤13	PASS

6.5.Frequency Stability

GSM 1900						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	GMSK	8PSK	GMSK	8PSK	
Normal (25℃)	Normal	7.67	2.30	0.00408	0.00122	PASS
Extreme (50℃)		4.89	12.45	0.00260	0.00662	PASS
Extreme (40℃)		2.93	15.05	0.00156	0.00800	PASS
Extreme (30℃)		17.88	12.51	0.00951	0.00666	PASS
Extreme (20℃)		11.86	6.90	0.00631	0.00367	PASS
Extreme (10℃)		12.67	3.37	0.00674	0.00179	PASS
Extreme (0℃)		5.56	4.33	0.00296	0.00230	PASS
Extreme (-10℃)		10.22	1.63	0.00544	0.00087	PASS
Extreme (-20℃)		8.53	15.98	0.00454	0.00850	PASS
Extreme (-30℃)		16.06	6.79	0.00854	0.00361	PASS
25℃	LV	13.02	3.11	0.00692	0.00166	PASS
	HV	7.05	5.90	0.00375	0.00314	PASS

WCDMA Band II						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	BPSK	QPSK	BPSK	QPSK	
Normal (25℃)	Normal	4.12	9.18	0.00219	0.00488	PASS
Extreme (50℃)		10.06	14.22	0.00535	0.00756	PASS
Extreme (40℃)		4.05	7.78	0.00216	0.00414	PASS
Extreme (30℃)		14.34	16.21	0.00763	0.00862	PASS
Extreme (20℃)		14.09	13.31	0.00749	0.00708	PASS
Extreme (10℃)		17.44	5.59	0.00928	0.00297	PASS
Extreme (0℃)		8.74	10.37	0.00465	0.00552	PASS
Extreme (-10℃)		17.97	16.91	0.00956	0.00900	PASS
Extreme (-20℃)		3.54	14.80	0.00188	0.00787	PASS
Extreme (-30℃)		1.10	5.62	0.00059	0.00299	PASS
25℃	LV	16.24	6.47	0.00864	0.00344	PASS
	HV	8.56	6.61	0.00455	0.00352	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	PASS
Normal (25℃)	Normal	17.71	4.38	8.27	0.00942	0.00233	0.00440	
Extreme (50℃)		6.63	1.13	8.55	0.00353	0.00060	0.00455	
Extreme (40℃)		16.73	12.55	10.75	0.00890	0.00668	0.00572	
Extreme (30℃)		12.87	2.98	17.90	0.00685	0.00158	0.00952	
Extreme (20℃)		10.64	5.66	16.21	0.00566	0.00301	0.00862	
Extreme (10℃)		2.16	17.44	4.08	0.00115	0.00928	0.00217	
Extreme (0℃)		16.88	4.44	17.17	0.00898	0.00236	0.00913	
Extreme (-10℃)		12.50	5.52	11.55	0.00665	0.00294	0.00615	
Extreme (-20℃)		11.56	9.75	12.73	0.00615	0.00519	0.00677	
Extreme (-30℃)		8.53	7.34	11.47	0.00454	0.00390	0.00610	
25℃	LV	7.07	3.38	6.97	0.00376	0.00180	0.00371	PASS
	HV	5.17	5.74	2.82	0.00275	0.00306	0.00150	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	PASS
Normal (25℃)	Normal	12.01	11.53	9.84	0.00639	0.00613	0.00523	
Extreme (50℃)		16.17	5.42	11.88	0.00860	0.00288	0.00632	
Extreme (40℃)		16.18	15.75	6.03	0.00861	0.00838	0.00321	
Extreme (30℃)		13.31	5.10	4.38	0.00708	0.00271	0.00233	
Extreme (20℃)		3.03	1.17	16.78	0.00161	0.00062	0.00892	
Extreme (10℃)		17.44	16.96	7.33	0.00928	0.00902	0.00390	
Extreme (0℃)		16.04	3.19	15.87	0.00853	0.00170	0.00844	
Extreme (-10℃)		5.31	7.78	11.22	0.00283	0.00414	0.00597	
Extreme (-20℃)		3.94	16.90	11.62	0.00209	0.00899	0.00618	
Extreme (-30℃)		8.59	3.21	4.56	0.00457	0.00171	0.00243	
25℃	LV	14.15	10.01	6.57	0.00752	0.00533	0.00349	PASS
	HV	9.30	5.24	14.75	0.00495	0.00279	0.00785	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	PASS
Normal (25℃)	Normal	3.07	9.34	15.13	0.00163	0.00497	0.00805	
Extreme (50℃)		10.68	8.09	6.28	0.00568	0.00430	0.00334	



Extreme (40℃)		2.68	9.27	11.04	0.00143	0.00493	0.00587	PASS
Extreme (30℃)		7.45	10.15	5.71	0.00396	0.00540	0.00304	PASS
Extreme (20℃)		10.63	13.66	5.62	0.00566	0.00726	0.00299	PASS
Extreme (10℃)		1.17	5.70	11.29	0.00062	0.00303	0.00600	PASS
Extreme (0℃)		13.00	6.63	7.11	0.00691	0.00353	0.00378	PASS
Extreme (-10℃)		12.64	17.74	15.25	0.00672	0.00943	0.00811	PASS
Extreme (-20℃)		6.15	9.66	8.20	0.00327	0.00514	0.00436	PASS
Extreme (-30℃)		5.99	11.58	5.34	0.00319	0.00616	0.00284	PASS
25℃	LV	17.35	17.87	10.16	0.00923	0.00951	0.00541	PASS
	HV	3.80	2.90	6.23	0.00202	0.00154	0.00331	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℃)	Normal	11.80	15.95	16.17	0.00628	0.00848	0.00860	PASS
Extreme (50℃)		14.27	3.96	7.16	0.00759	0.00211	0.00381	PASS
Extreme (40℃)		10.41	6.62	13.57	0.00553	0.00352	0.00722	PASS
Extreme (30℃)		10.76	8.62	12.51	0.00572	0.00459	0.00665	PASS
Extreme (20℃)		13.97	1.00	6.90	0.00743	0.00053	0.00367	PASS
Extreme (10℃)		11.05	4.58	4.91	0.00588	0.00244	0.00261	PASS
Extreme (0℃)		15.98	7.30	5.15	0.00850	0.00388	0.00274	PASS
Extreme (-10℃)		15.53	10.81	7.28	0.00826	0.00575	0.00387	PASS
Extreme (-20℃)		6.31	5.29	5.72	0.00336	0.00281	0.00304	PASS
Extreme (-30℃)		3.38	5.28	12.70	0.00180	0.00281	0.00676	PASS
25℃	LV	10.83	16.94	8.59	0.00576	0.00901	0.00457	PASS
	HV	2.68	14.99	16.52	0.00142	0.00797	0.00879	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℃)	Normal	1.93	12.85	3.69	0.00103	0.00683	0.00196	PASS
Extreme (50℃)		16.08	16.81	8.13	0.00855	0.00894	0.00432	PASS
Extreme (40℃)		17.53	4.39	9.66	0.00932	0.00233	0.00514	PASS
Extreme (30℃)		11.50	7.29	2.29	0.00612	0.00388	0.00122	PASS
Extreme (20℃)		2.66	15.06	5.53	0.00141	0.00801	0.00294	PASS
Extreme (10℃)		1.14	4.81	10.93	0.00061	0.00256	0.00581	PASS
Extreme (0℃)		15.98	12.39	11.15	0.00850	0.00659	0.00593	PASS
Extreme (-10℃)		2.11	9.06	15.70	0.00112	0.00482	0.00835	PASS
Extreme (-20℃)		16.74	13.50	3.99	0.00890	0.00718	0.00212	PASS
Extreme (-30℃)		14.65	9.48	9.91	0.00779	0.00504	0.00527	PASS
25℃	LV	12.48	5.51	17.23	0.00664	0.00293	0.00916	PASS



	HV	13.93	8.33	15.95	0.00741	0.00443	0.00849	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℃)	Normal	12.23	15.95	16.42	0.00650	0.00848	0.00873	PASS
Extreme (50℃)		17.95	4.26	7.22	0.00955	0.00227	0.00384	PASS
Extreme (40℃)		2.87	4.56	6.15	0.00153	0.00243	0.00327	PASS
Extreme (30℃)		10.74	4.55	7.85	0.00571	0.00242	0.00417	PASS
Extreme (20℃)		13.76	2.06	10.00	0.00732	0.00110	0.00532	PASS
Extreme (10℃)		4.74	7.55	9.63	0.00252	0.00402	0.00512	PASS
Extreme (0℃)		17.67	6.09	10.89	0.00940	0.00324	0.00579	PASS
Extreme (-10℃)		6.12	14.90	15.88	0.00326	0.00793	0.00845	PASS
Extreme (-20℃)		17.19	11.51	5.48	0.00914	0.00612	0.00291	PASS
Extreme (-30℃)		7.93	16.03	8.32	0.00422	0.00853	0.00443	PASS
25℃	LV	1.39	13.33	7.50	0.00074	0.00709	0.00399	PASS
	HV	2.95	9.30	16.71	0.00157	0.00495	0.00889	PASS

NR n2

Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz											
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	17.46	12.14	10.26	11.70	10.14	0.00929	0.00646	0.00545	0.00622	0.00540	PASS
Extreme (50℃)		1.82	13.38	2.98	16.91	17.38	0.00097	0.00712	0.00159	0.00899	0.00925	PASS
Extreme (40℃)		5.44	5.31	15.49	11.58	13.31	0.00289	0.00283	0.00824	0.00616	0.00708	PASS
Extreme (30℃)		7.39	14.64	17.06	15.69	3.64	0.00393	0.00779	0.00908	0.00834	0.00194	PASS
Extreme (20℃)		2.86	13.88	13.80	8.46	3.88	0.00152	0.00738	0.00734	0.00450	0.00206	PASS
Extreme (10℃)		4.75	11.17	10.16	6.73	8.17	0.00253	0.00594	0.00540	0.00358	0.00435	PASS
Extreme (0℃)		7.31	6.86	13.68	11.79	10.86	0.00389	0.00365	0.00728	0.00627	0.00578	PASS
Extreme (-10℃)		4.79	10.74	14.99	6.12	16.74	0.00255	0.00571	0.00797	0.00326	0.00891	PASS
Extreme (-20℃)		12.14	14.68	9.51	11.59	14.68	0.00646	0.00781	0.00506	0.00617	0.00781	PASS
Extreme (-30℃)		11.04	9.53	13.90	13.17	6.53	0.00587	0.00507	0.00739	0.00701	0.00348	PASS
25℃	LV	8.78	2.19	17.74	5.62	13.19	0.00467	0.00116	0.00944	0.00299	0.00702	PASS
	HV	9.80	10.09	17.12	10.37	13.09	0.00521	0.00537	0.00911	0.00552	0.00696	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz											
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	16.39	15.21	3.57	4.40	13.21	0.00872	0.00809	0.00190	0.00234	0.00703	PASS



Extreme (50℃)		4.04	2.59	12.49	4.72	14.59	0.00215	0.00138	0.00665	0.00251	0.00776	PASS
Extreme (40℃)		4.27	13.02	13.48	4.56	11.02	0.00227	0.00693	0.00717	0.00243	0.00586	PASS
Extreme (30℃)		16.42	6.47	14.11	7.57	4.47	0.00873	0.00344	0.00751	0.00403	0.00238	PASS
Extreme (20℃)		15.72	6.16	1.52	17.11	12.16	0.00836	0.00328	0.00081	0.00910	0.00647	PASS
Extreme (10℃)		11.74	3.79	16.97	11.93	3.79	0.00625	0.00201	0.00903	0.00635	0.00201	PASS
Extreme (0℃)		16.55	1.89	12.32	17.80	6.89	0.00880	0.00101	0.00655	0.00947	0.00367	PASS
Extreme (-10℃)		4.65	14.42	12.39	2.59	16.42	0.00247	0.00767	0.00659	0.00138	0.00873	PASS
Extreme (-20℃)		11.08	2.45	16.76	2.91	4.45	0.00589	0.00130	0.00892	0.00155	0.00237	PASS
Extreme (-30℃)		1.80	4.94	10.86	12.32	2.94	0.00096	0.00263	0.00578	0.00655	0.00156	PASS
25℃	LV	17.90	16.31	12.55	14.83	14.31	0.00952	0.00867	0.00667	0.00789	0.00761	PASS
	HV	13.86	17.68	2.31	8.02	6.68	0.00737	0.00940	0.00123	0.00426	0.00355	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	15MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	16.64	2.91	2.69	15.11	3.91	0.00885	0.00155	0.00143	0.00804	0.00208	PASS
Extreme (50℃)		9.06	14.18	1.48	4.91	16.18	0.00482	0.00754	0.00079	0.00261	0.00861	PASS
Extreme (40℃)		14.61	1.33	1.85	13.03	8.33	0.00777	0.00071	0.00099	0.00693	0.00443	PASS
Extreme (30℃)		16.19	15.74	16.54	15.82	9.74	0.00861	0.00837	0.00880	0.00842	0.00518	PASS
Extreme (20℃)		4.40	9.92	4.39	15.81	3.92	0.00234	0.00528	0.00234	0.00841	0.00208	PASS
Extreme (10℃)		11.89	1.92	2.10	9.70	12.92	0.00632	0.00102	0.00112	0.00516	0.00687	PASS
Extreme (0℃)		7.44	14.45	15.82	5.61	11.45	0.00395	0.00769	0.00842	0.00298	0.00609	PASS
Extreme (-10℃)		12.38	2.38	10.03	16.98	9.38	0.00658	0.00127	0.00534	0.00903	0.00499	PASS
Extreme (-20℃)		6.36	8.21	14.15	16.18	12.21	0.00339	0.00437	0.00753	0.00860	0.00649	PASS
Extreme (-30℃)		16.36	6.07	4.44	12.85	8.07	0.00870	0.00323	0.00236	0.00684	0.00429	PASS
25℃	LV	7.33	5.09	7.49	17.53	8.09	0.00390	0.00270	0.00398	0.00933	0.00430	PASS
	HV	2.93	2.17	12.45	1.74	14.17	0.00156	0.00116	0.00662	0.00093	0.00754	PASS
Condition		Freq.Error	Freq.Error	Freq.Error	Freq.Error	Freq.Error	Frequency	Frequency	Frequency	Frequency	Frequency	Verdict
BANDWIDTH	20MHz	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	Stability (ppm)	
Temperature	Voltage	256QAM	BPSK	64QAM	16QAM	QPSK	256QAM	BPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	4.76	7.12	3.41	4.02	4.12	0.00253	0.00379	0.00181	0.00214	0.00219	PASS
Extreme (50℃)		1.63	15.93	12.70	7.05	10.93	0.00087	0.00847	0.00675	0.00375	0.00581	PASS
Extreme (40℃)		7.47	1.14	10.05	4.28	6.14	0.00397	0.00060	0.00535	0.00228	0.00326	PASS
Extreme (30℃)		11.08	17.36	16.18	14.43	9.36	0.00589	0.00923	0.00860	0.00767	0.00498	PASS
Extreme (20℃)		10.68	8.22	3.41	17.17	2.22	0.00568	0.00437	0.00181	0.00913	0.00118	PASS
Extreme (10℃)		9.93	8.81	7.10	8.84	11.81	0.00528	0.00468	0.00378	0.00470	0.00628	PASS
Extreme (0℃)		11.66	5.02	1.58	15.60	6.02	0.00620	0.00267	0.00084	0.00830	0.00320	PASS
Extreme (-10℃)		8.58	6.05	4.09	16.96	15.05	0.00457	0.00322	0.00217	0.00902	0.00801	PASS
Extreme (-20℃)		14.86	15.00	12.85	12.58	11.00	0.00791	0.00798	0.00683	0.00669	0.00585	PASS
Extreme (-30℃)		10.51	7.31	5.80	13.39	2.31	0.00559	0.00389	0.00309	0.00712	0.00123	PASS



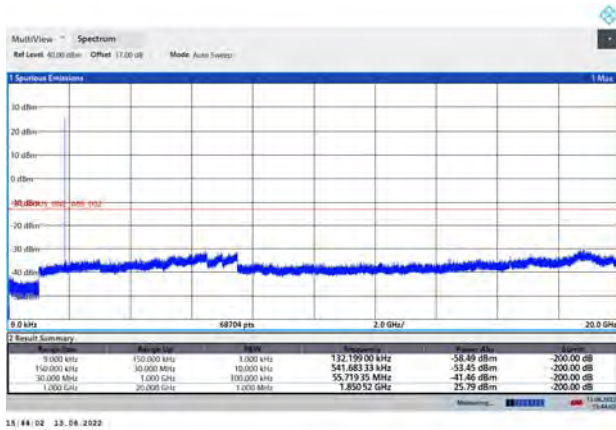
25℃	LV	12.76	12.14	17.72	12.31	2.14	0.00679	0.00646	0.00943	0.00655	0.00114	PASS
	HV	3.46	15.20	5.70	6.50	13.20	0.00184	0.00809	0.00303	0.00346	0.00702	PASS

6.6. Spurious Emissions at Antenna Terminals

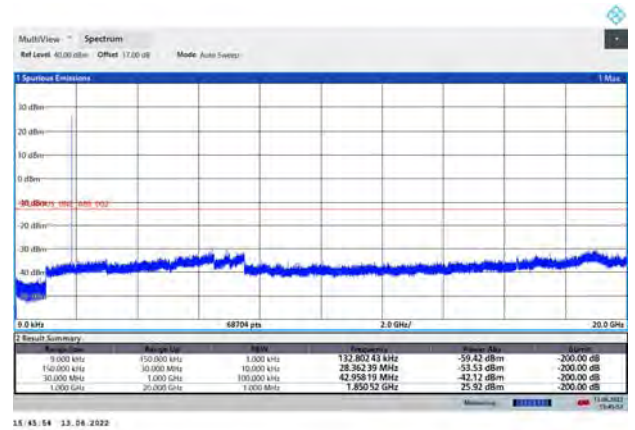
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier.

GSM 1900 CH-Low 9kHz ~ 20GHz



GPRS 1900 CH-Low 9kHz ~ 20GHz



GSM 1900 CH- Middle 9kHz ~ 20GHz



GPRS 1900 CH- Middle 9kHz ~ 20GHz



GSM 1900 CH-High 9kHz ~ 20GHz

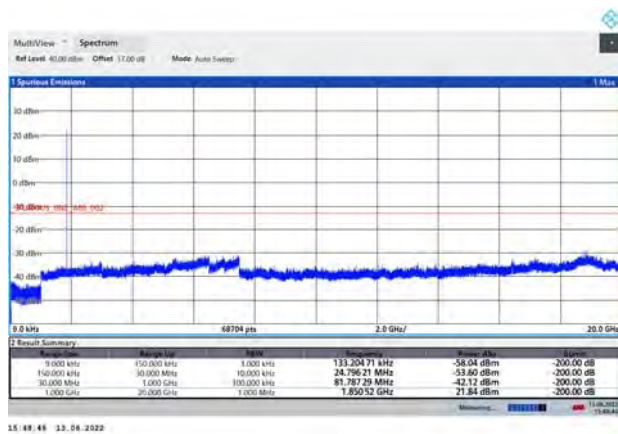


GPRS 1900 CH-High 9kHz ~ 20GHz

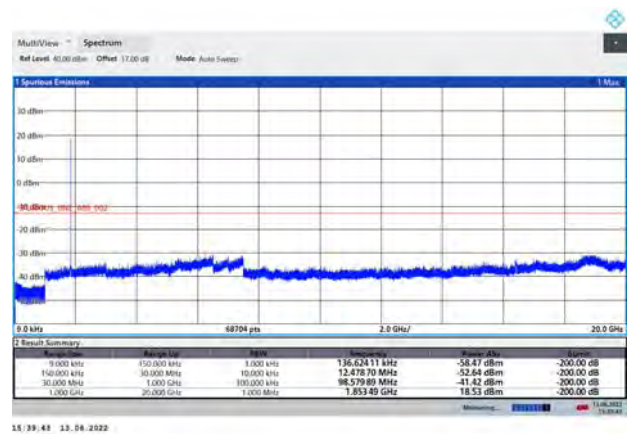




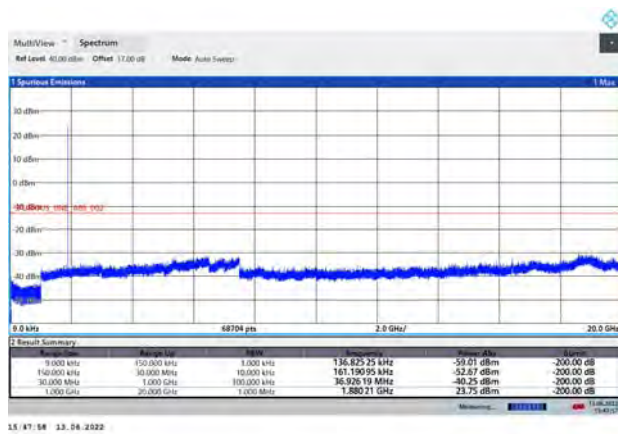
EGPRS 1900 CH-Low 9kHz ~ 20GHz



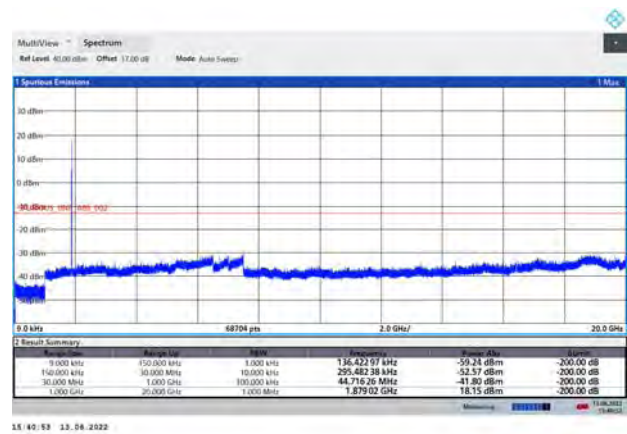
WCDMA BAND II CH-Low 9kHz ~ 20GHz



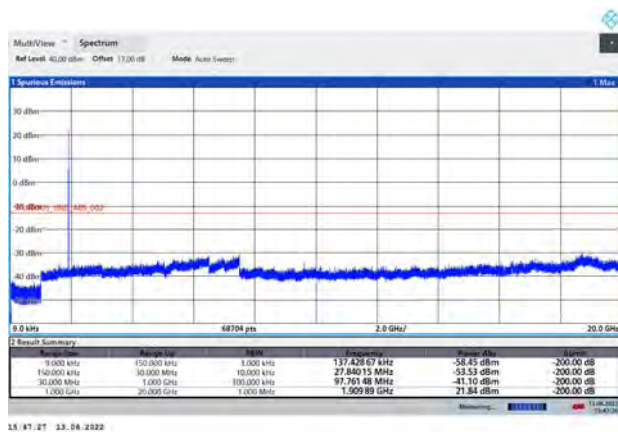
EGPRS 1900 CH- Middle 9kHz ~ 20GHz



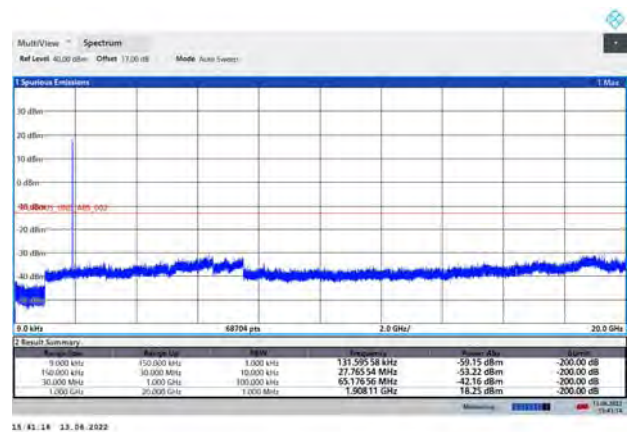
WCDMA BAND II CH- Middle 9kHz ~ 20GHz



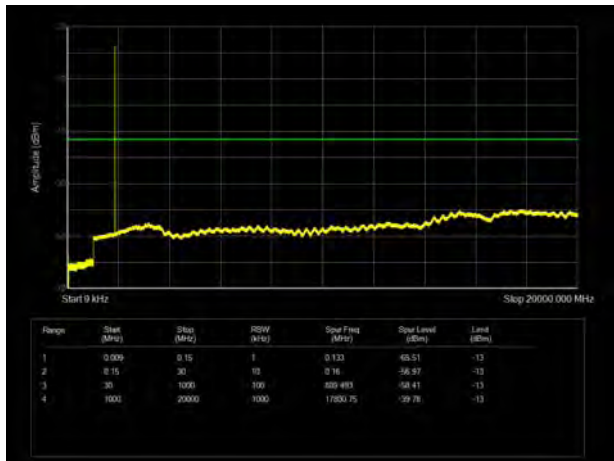
EGPRS 1900 CH-High 9kHz ~ 20GHz



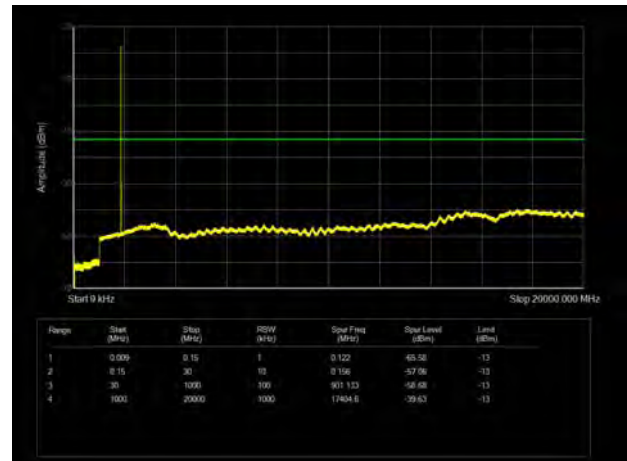
WCDMA BAND II CH-High 9kHz ~ 20GHz



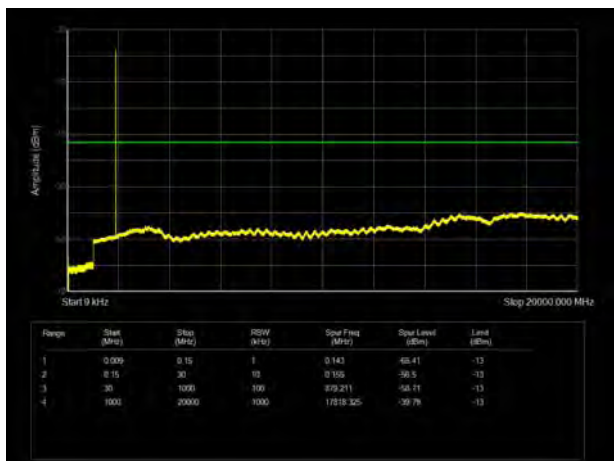
LTE Band 2 1.4MHz CH-Low 9kHz~20GHz



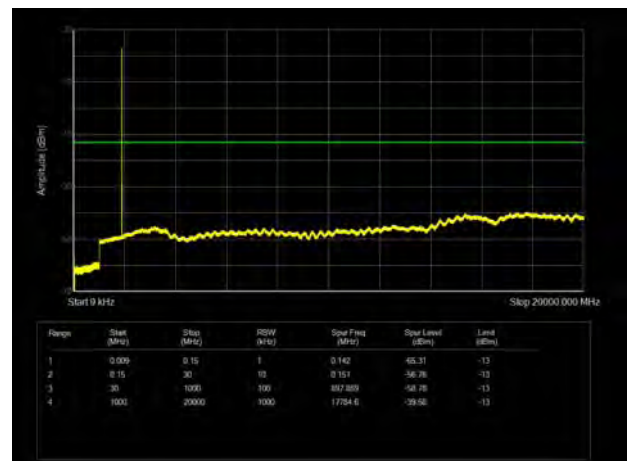
LTE Band 2 3MHz CH-Low 9kHz~20GHz



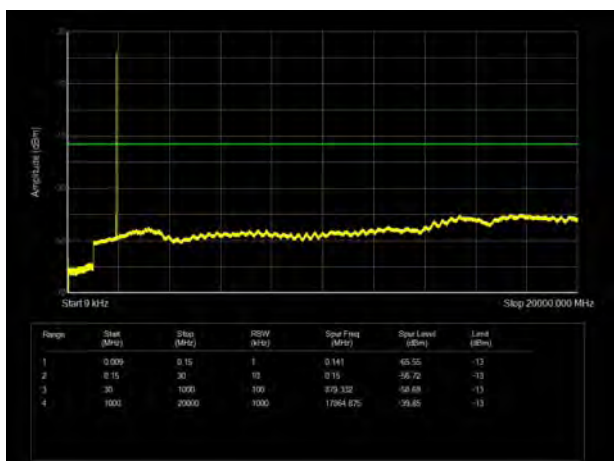
LTE Band 2 1.4MHz CH-Middle 9kHz~20GHz



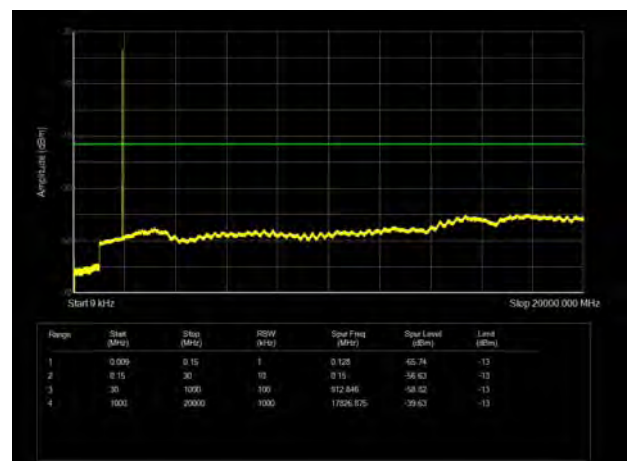
LTE Band 2 3MHz CH-Middle 9kHz~20GHz



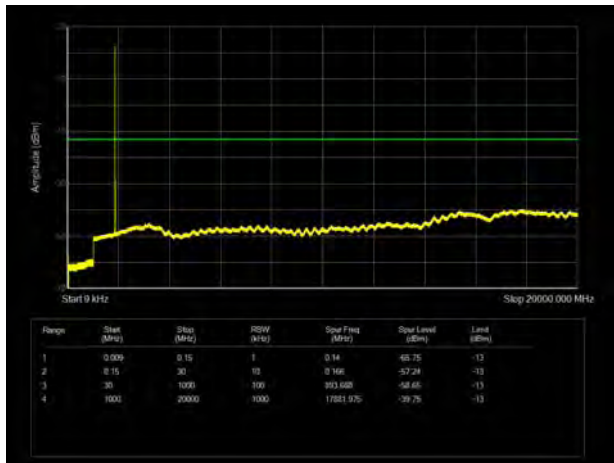
LTE Band 2 1.4MHz CH-High 9kHz~20GHz



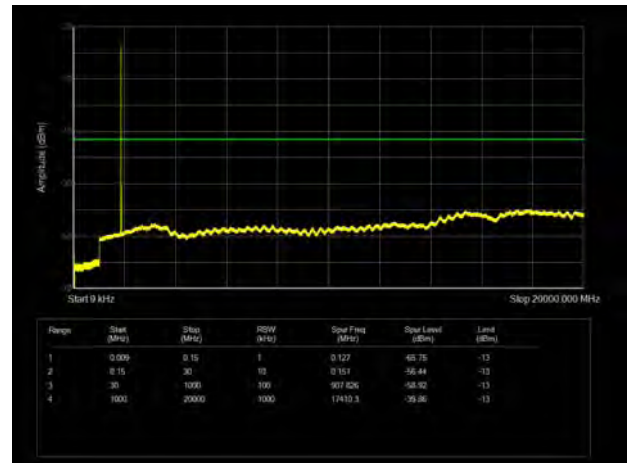
LTE Band 2 3MHz CH-High 9kHz~20GHz



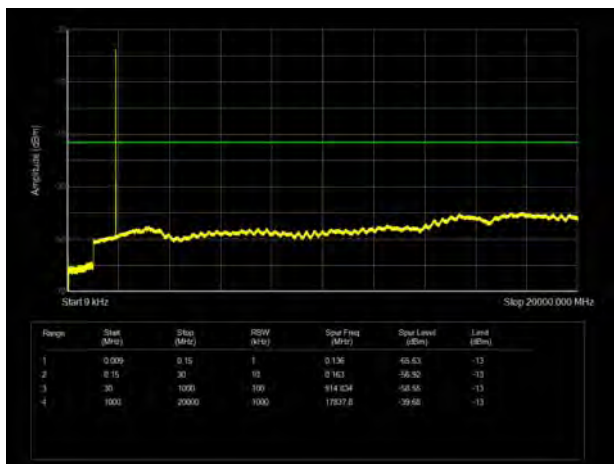
LTE Band 2 5MHz CH-Low 9kHz~20GHz



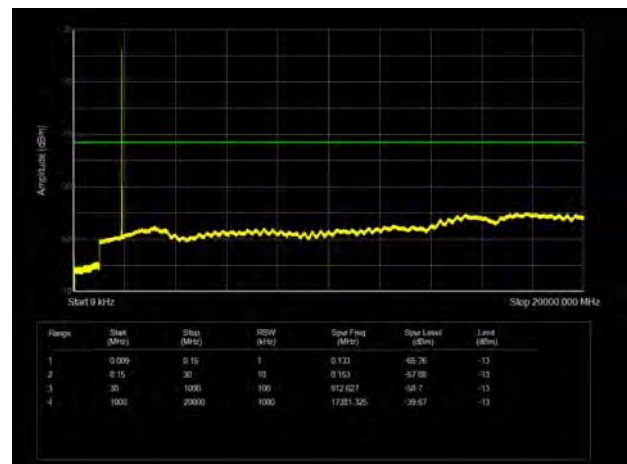
LTE Band 2 10MHz CH-Low 9kHz~20GHz



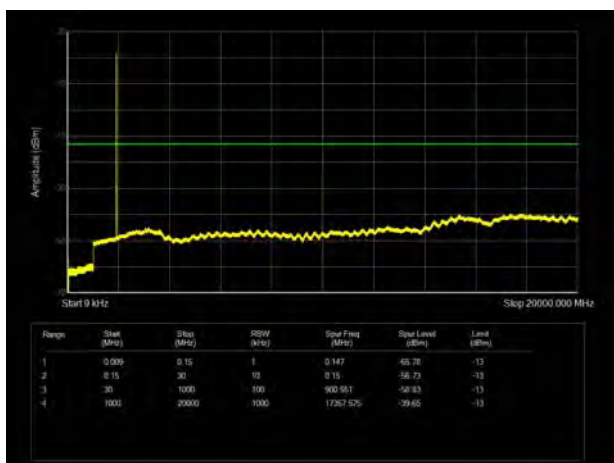
LTE Band 2 5MHz CH-Middle 9kHz~20GHz



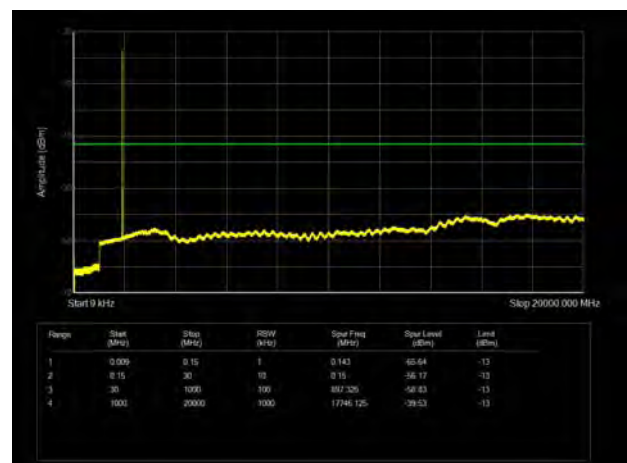
LTE Band 2 10MHz CH-Middle 9kHz~20GHz



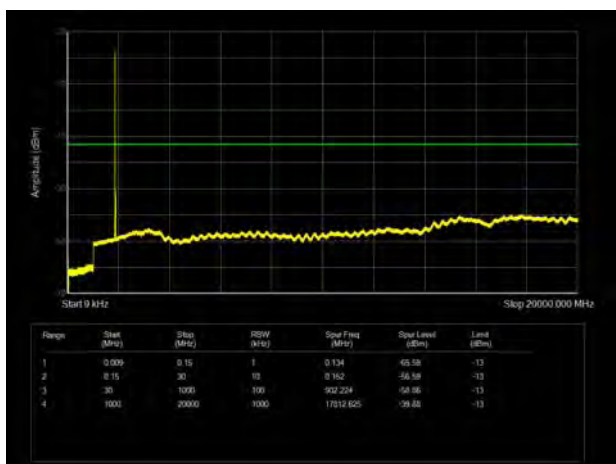
LTE Band 2 5MHz CH-High 9kHz~20GHz



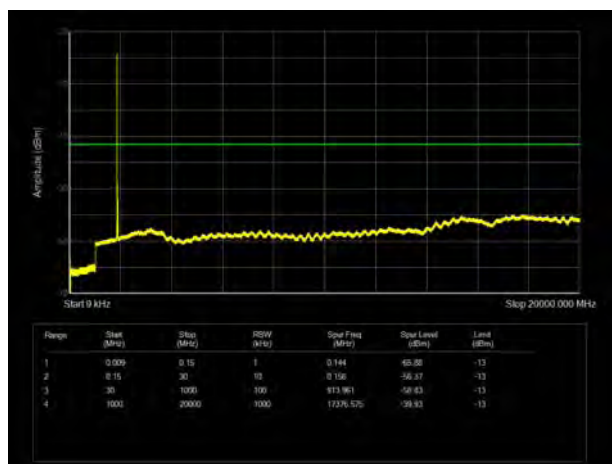
LTE Band 2 10MHz CH-High 9kHz~20GHz



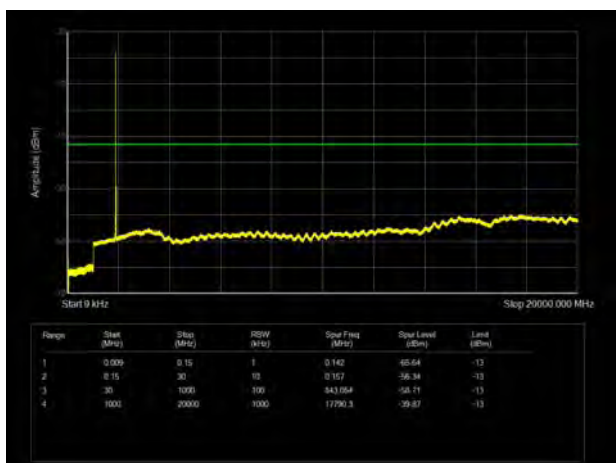
LTE Band 2 15MHz CH-Low 9kHz~20GHz



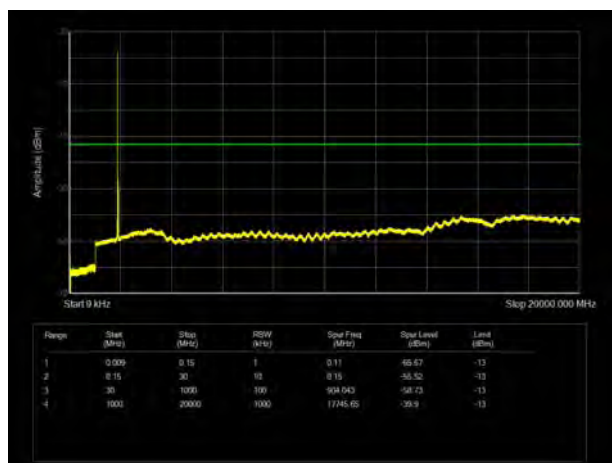
LTE Band 2 20MHz CH-Low 9kHz~20GHz



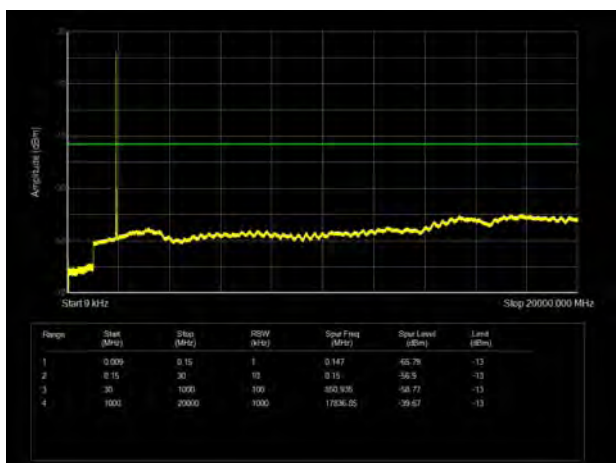
LTE Band 2 15MHz CH-Middle 9kHz~20GHz



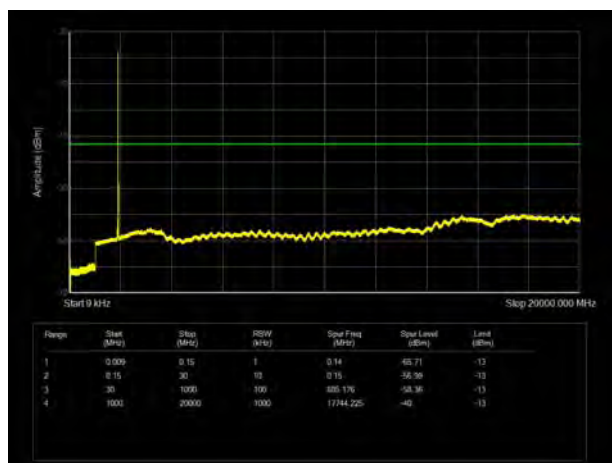
LTE Band 2 20MHz CH-Middle 9kHz~20GHz



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



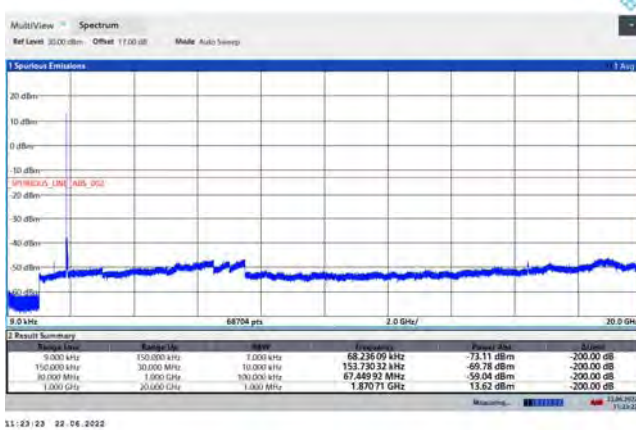
11:09:17 22.06.2022

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



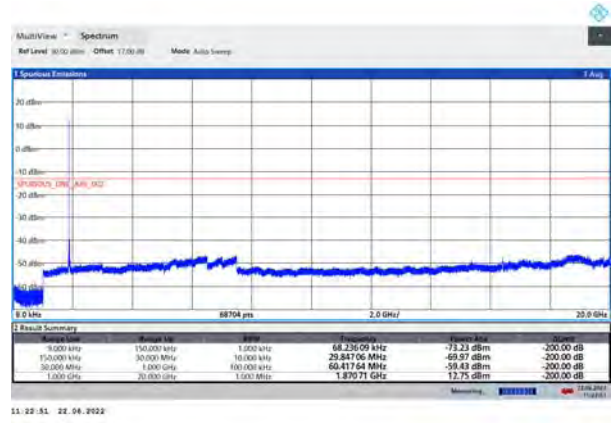
11:14:14 22.06.2022

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



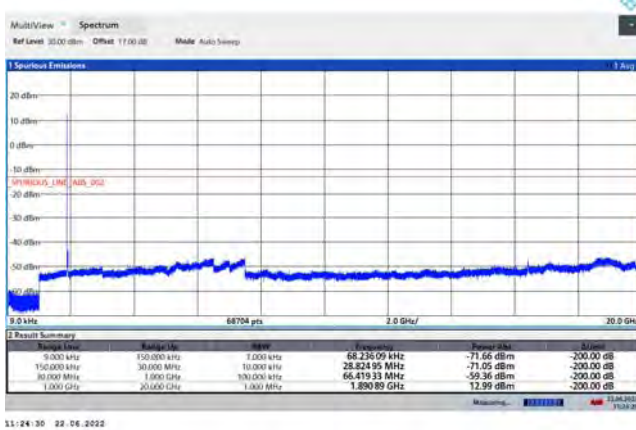
11:23:23 22.06.2022

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



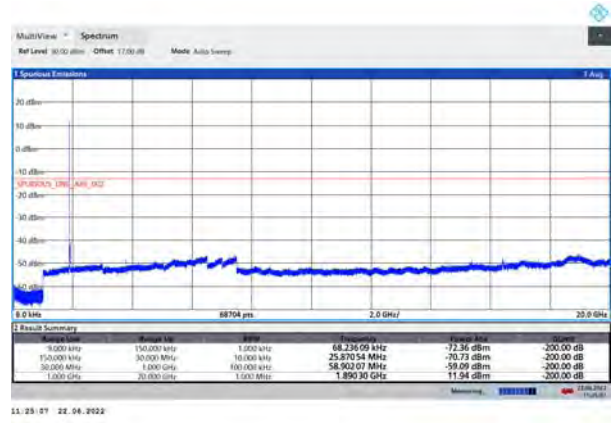
11:23:51 22.06.2022

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



11:24:30 22.06.2022

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



11:25:07 22.06.2022

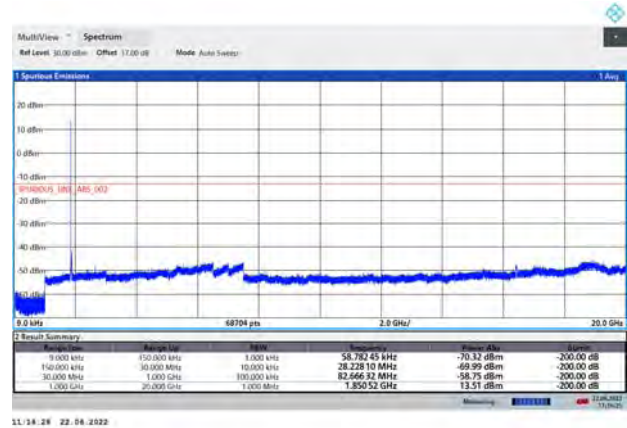


NR n2 16QAM 20MHz CH-Low 9kHz~20GHz



11/25/22 22:04:2022

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



11/25/22 22:04:2022

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



11/25/22 22:04:2022

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



11/25/22 22:04:2022

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



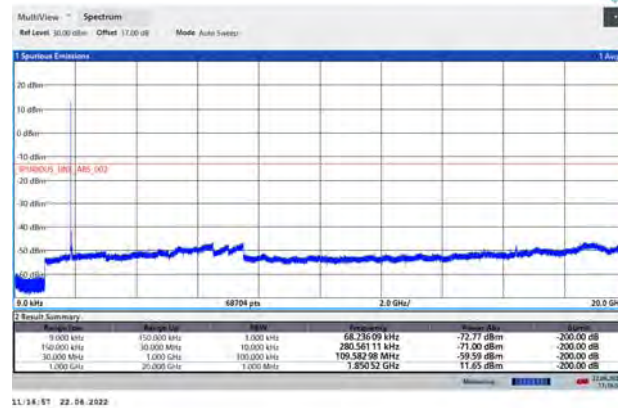
11/25/22 22:04:2022

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

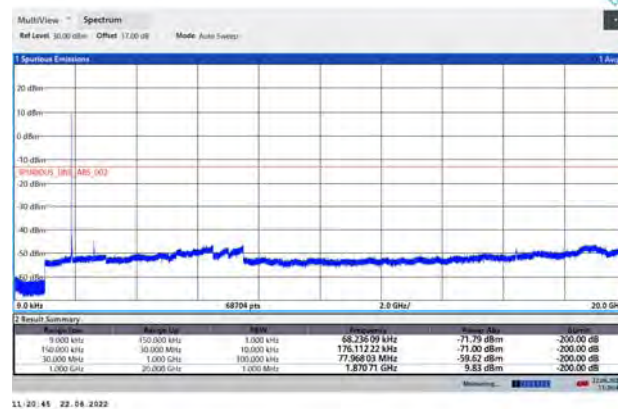


11/25/22 22:04:2022

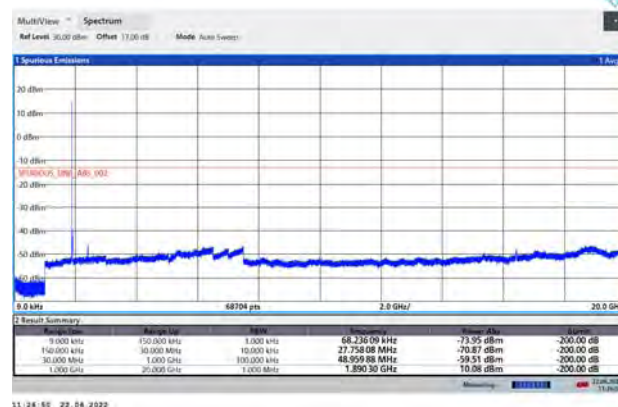
NR n2 256QAM 20MHz CH-Low 9kHz~20GHz



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.

GSM 1900 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-57.35	2.60	12.50	Vertical	-47.45	-13.00	34.45	225
3	5640.00	-53.23	3.30	12.50	Vertical	-44.03	-13.00	31.03	90
4	7520.00	-59.88	4.20	12.20	Vertical	-51.88	-13.00	38.88	135
5	9400.00	-51.82	4.30	11.10	Vertical	-45.02	-13.00	32.02	270
6	11280.00	-52.30	5.90	11.90	Vertical	-46.30	-13.00	33.30	135
7	13160.00	-52.21	5.70	14.00	Vertical	-43.91	-13.00	30.91	180
8	15040.00	-49.52	5.80	13.10	Vertical	-42.22	-13.00	29.22	45
9	16920.00	-51.49	6.10	14.60	Vertical	-42.99	-13.00	29.99	0
10	18800.00	--	--	--	--	--	--	--	--

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

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

WCDMA Band II CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-52.72	2.60	12.50	Vertical	-42.82	-13.00	29.82	225
3	5640.00	-56.14	3.30	12.50	Vertical	-46.94	-13.00	33.94	135
4	7520.00	-60.20	4.20	12.20	Vertical	-52.20	-13.00	39.20	270
5	9400.00	-55.39	4.30	11.10	Vertical	-48.59	-13.00	35.59	45
6	11280.00	-52.76	5.90	11.90	Vertical	-46.76	-13.00	33.76	135
7	13160.00	-53.20	5.70	14.00	Vertical	-44.90	-13.00	31.90	0
8	15040.00	-47.50	5.80	13.10	Vertical	-40.20	-13.00	27.20	270
9	16920.00	-52.38	6.10	14.60	Vertical	-43.88	-13.00	30.88	90
10	18800.00	--	--	--	--	--	--	--	--

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

2. The worst emission was found in the antenna is Vertical 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	3759.10	-47.43	2.60	12.50	Vertical	-37.53	-13.00	24.53	135
3	5638.50	-42.07	3.30	12.50	Vertical	-32.87	-13.00	19.87	225
4	7520.00	-57.75	4.20	12.20	Vertical	-49.75	-13.00	36.75	45
5	9400.00	-53.53	4.30	11.10	Vertical	-46.73	-13.00	33.73	180
6	11280.00	-57.49	5.90	11.90	Vertical	-51.49	-13.00	38.49	135
7	13160.00	-54.20	5.70	14.00	Vertical	-45.90	-13.00	32.90	45
8	15036.60	-40.31	5.80	13.10	Vertical	-33.01	-13.00	20.01	90
9	16920.00	-53.14	6.10	14.60	Vertical	-44.64	-13.00	31.64	270
10	18800.00	--	--	--	--	--	--	--	--

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

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

LTE Band 2 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3755.60	-52.19	2.60	12.50	Vertical	-42.29	-13.00	29.29	225
3	5633.70	-46.26	3.30	12.50	Vertical	-37.06	-13.00	24.06	45
4	7519.60	-60.45	4.20	12.20	Vertical	-52.45	-13.00	39.45	270
5	9399.40	-56.21	4.30	11.10	Vertical	-49.41	-13.00	36.41	0
6	11267.00	-51.73	5.90	11.90	Vertical	-45.73	-13.00	32.73	135
7	13144.80	-53.80	5.70	14.00	Vertical	-45.50	-13.00	32.50	90
8	15022.80	-40.56	5.80	13.10	Vertical	-33.26	-13.00	20.26	180
9	16898.80	-53.67	6.10	14.60	Vertical	-45.17	-13.00	32.17	225
10	18800.00	--	--	--	--	--	--	--	--

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

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

LTE Band 2 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3742.10	-53.22	2.60	12.50	Vertical	-43.32	-13.00	30.32	225
3	5613.50	-49.63	3.30	12.50	Vertical	-40.43	-13.00	27.43	135
4	7484.40	-58.54	4.20	12.20	Vertical	-50.54	-13.00	37.54	45
5	9355.40	-53.92	4.30	11.10	Vertical	-47.12	-13.00	34.12	270
6	11226.60	-50.08	5.90	11.90	Vertical	-44.08	-13.00	31.08	135
7	13093.80	-54.48	5.70	14.00	Vertical	-46.18	-13.00	33.18	90
8	14969.00	-36.90	5.80	13.10	Vertical	-29.60	-13.00	16.60	80
9	16829.80	-52.58	6.10	14.60	Vertical	-44.08	-13.00	31.08	315
10	18800.00	--	--	--	--	--	--	--	--

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

2. The worst emission was found in the antenna is 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	3755.00	-56.81	2.60	12.50	Vertical	-46.91	-13.00	33.91	315
3	5632.50	-53.92	3.30	12.50	Vertical	-44.72	-13.00	31.72	90
4	7510.00	-58.42	4.20	12.20	Vertical	-50.42	-13.00	37.42	225
5	9387.50	-53.10	4.30	11.10	Vertical	-46.30	-13.00	33.30	315
6	11265.00	-49.58	5.90	11.90	Vertical	-43.58	-38.97	30.58	90
7	13142.50	-52.17	5.70	14.00	Vertical	-43.87	-13.00	30.87	180
8	15020.00	-46.35	5.80	13.10	Vertical	-39.05	-13.00	26.05	270
9	16897.50	-49.44	6.10	14.60	Vertical	-40.94	-13.00	27.94	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 Vertical 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	3750.00	-57.95	2.60	12.50	Vertical	-48.05	-13.00	35.05	90
3	5625.00	-54.40	3.30	12.50	Vertical	-45.20	-13.00	32.20	180
4	7500.00	-59.56	4.20	12.20	Vertical	-51.56	-13.00	38.56	90
5	9375.00	-51.92	4.30	11.10	Vertical	-45.12	-13.00	32.12	270
6	11250.00	-50.09	5.90	11.90	Vertical	-44.09	-13.00	31.09	315
7	13125.00	-52.56	5.70	14.00	Vertical	-44.26	-13.00	31.26	90
8	15000.00	-46.35	5.80	13.10	Vertical	-39.05	-13.00	26.05	90
9	16875.00	-48.69	6.10	14.60	Vertical	-40.19	-13.00	27.19	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 Vertical 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	3740.00	-55.50	2.60	12.50	Vertical	-45.60	-13.00	32.60	225
3	5610.00	-49.30	3.30	12.50	Vertical	-40.10	-13.00	27.10	180
4	7480.00	-58.46	4.20	12.20	Vertical	-50.46	-13.00	37.46	315
5	9350.00	-51.81	4.30	11.10	Vertical	-45.01	-13.00	32.01	90
6	11220.00	-47.54	5.90	11.90	Vertical	-41.54	-13.00	28.54	135
7	13090.00	-53.22	5.70	14.00	Vertical	-44.92	-13.00	31.92	225
8	14960.00	-42.72	5.80	13.10	Vertical	-35.42	-13.00	22.42	90
9	16830.00	-49.24	6.10	14.60	Vertical	-40.74	-13.00	27.74	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 Vertical position.



7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	150415	2022-05-14	2023-05-13
Universal Radio Communication Tester	StarPoint	SP9500	SP9500-20440	2022-05-14	2023-05-13
Spectrum Analyzer	Keysight	N9020A	MY50510203	2021-12-12	2022-12-11
Universal Radio Communication Tester	Agilent	E5515C	GB44400275	2021-12-12	2022-12-11
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-11
Climatic Chamber	ESPEC	SU-242	93000506	2021-12-12	2022-12-11
Radiates Spurious Emission					
Signal Analyzer	R&S	FSV30	100815	2021-12-12	2022-12-11
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2020-04-02	2023-04-01
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	391	2019-12-16	2022-12-15
Horn Antenna	R&S	HF907	102723	2020-08-11	2023-08-10
Horn Antenna	ETS-Lindgren	3160-09	00102643	2021-10-10	2024-10-09
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.