RF TEST REPORT

Applicant	ZTE Corporation
FCC ID	SRQ-A2023PG
Product	5G NR Multi model smart phone
Model	ZTE A2023PG
Report No.	R2205A0428-R2
Issue Date	June 10, 2022

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

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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: March 18, 2022 and May 11, 2022 Date of Sample Received: March 17, 2022			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

1. Test Laboratory

1.1. Notes of the test report

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

1.2. Test facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3. Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City:	Shanghai
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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 A2023PG		
SN	327324440042		
Hardware Version	z3aA		
Software Version	ZTE A2023PGHW1.0		
Power Supply	MyOS12.0.2_A2023PG_GLB		
Antenna Type	Internal Antenna		
Antenna Gain	Band	Antenna 2 Gain(dBi)	Antenna 4 Gain(dBi)
	GSM 1900:	-2.8	-8.3
	WCDMA Band II:	-2.8	-8.3
	LTE Band 2:	-2.8	-8.3
Test Mode(s)	GSM1900; WCDMA Band II; LTE Band 2;		
Test Modulation	(GSM/GPRS)GMSK, (EGPRS) GMSK/ 8PSK; (WCDMA) BPSK, QPSK,16QAM; (LTE)QPSK,16QAM, 64QAM;		
GPRS Multislot Class	12		
EGPRS Multislot Class	12		
HSDPA UE Category	24		
HSUPA UE Category	6		
HSPA+ UE Category	7		
Maximum E.I.R.P	GSM 1900:	26.81dBm	
	WCDMA Band II:	21.35dBm	
	LTE Band 2:	21.31dBm	
Rated Power Supply Voltage	3.89V		
Operating Voltage	Minimum: 3.70V Maximum: 4.45V		
Operating Temperature	Lowest: -10°C Highest: +40°C		
Testing Temperature	Lowest: -30°C Highest: +50°C		

Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	GSM1900	1850 ~ 1910	1930 ~ 1990
	WCDMA Band II	1850 ~ 1910	1930 ~ 1990
	LTE Band 2	1850 ~ 1910	1930 ~ 1990
EUT Accessory			
Adapter	Manufacturer: ShenZhen KunXing Technology Co., Ltd. Model: STC-A59152050AC-Z		
Battery	Manufacturer: Zhuhai Cosmx Battery Co., Ltd. Model: Li3949T44P8h806459		
Earphone 1	Manufacturer: JUWEI ELECTRONICS CO.,LTD Model: JWEP1092-Z01		
Earphone 2	Manufacturer: ShenZhen FDC Electronic Co.,Ltd Model: DEM-9A		
USB Cable 1	Manufacturer: King Power Electronics Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF		
USB Cable 2	Manufacturer: Luxshare-ICT Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF		
Type-C to 3.5 mm Headphone Jack	Manufacturer: JUWEI ELECTRONICS CO., LTD Model: 080503000100		
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There is more than one USB cable/ Earphone, each one should be applied throughout the compliance test respectively, and however, only the worst case (USB cable 1) 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

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

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (Z axis, horizontal polarization for GSM/WCDMA, 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 is set based on the maximum RF Output Power.

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

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

5. Test Case

5.1. RF Power Output and Effective Isotropic Radiated Power

Ambient condition

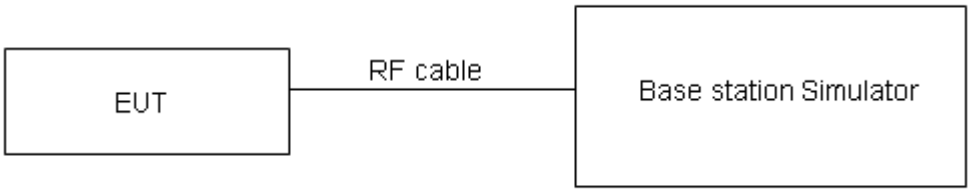
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBi)
where:dBd refers to gain relative to an ideal dipole.
EIRP (dBm) = ERP (dBm) + 2.15 (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	≤ 2 W (33 dBm)

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 for RF power output, k = 2, U= 1.19 dB for EIRP.

Test Results

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

5.2. Occupied Bandwidth

Ambient condition

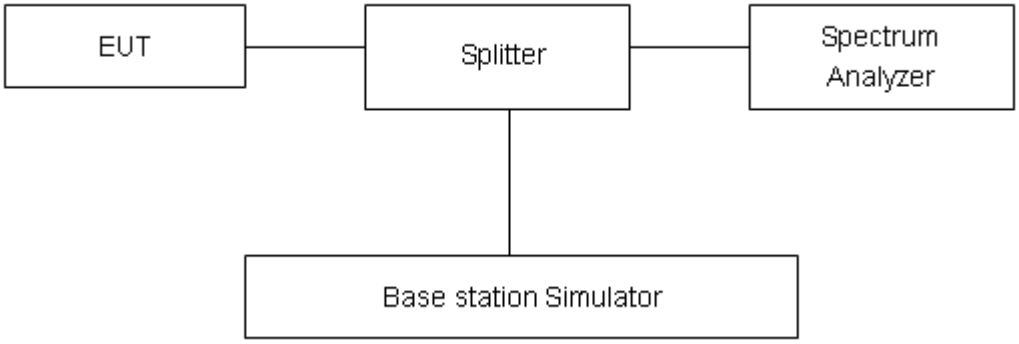
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 ≥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= 624Hz.

Test Results

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

5.3. Band Edge Compliance

Ambient condition

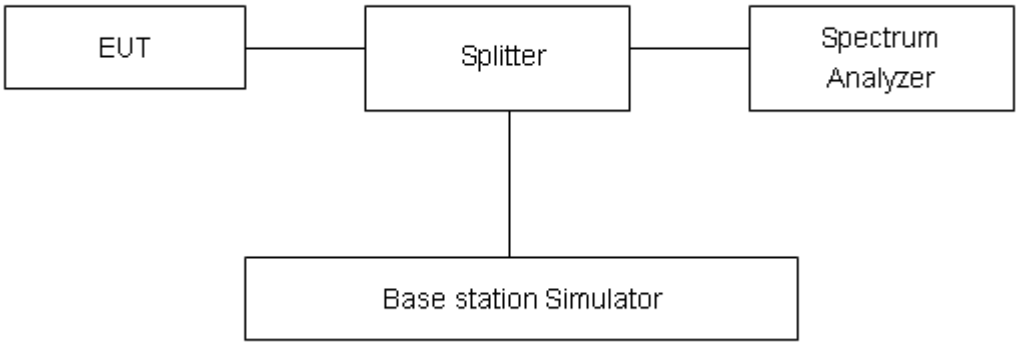
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 ⩾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 log10 (P) dB.”

Limit	-13 dBm

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U=0.684dB.

Test Results

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

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

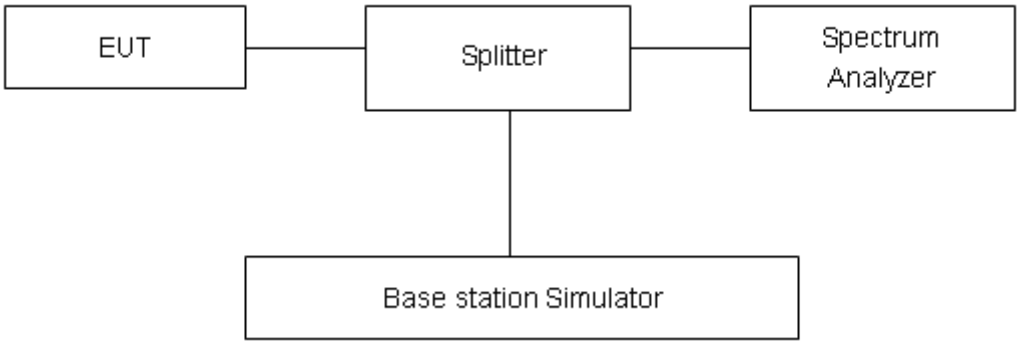
Ambient condition

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

Methods of Measurement

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

Test Setup



Limits

In measuring transmissions in this band using an average power technique, the peakto-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.

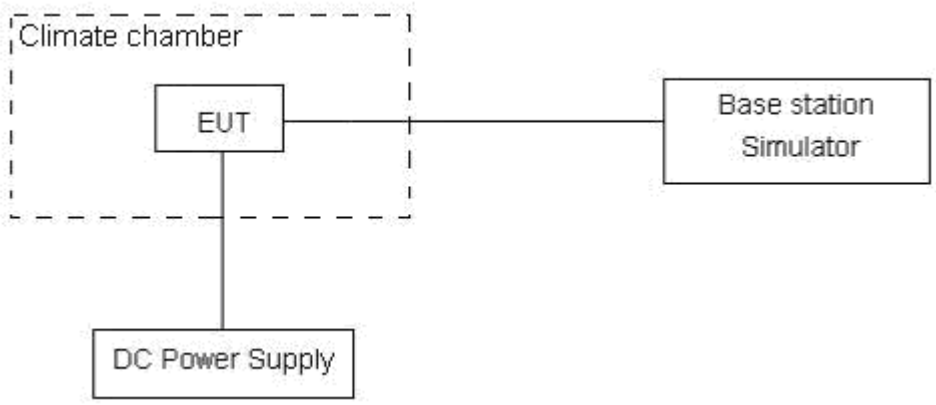
Frequency Stability (Voltage Variation)

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

Test setup



Limits

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

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75％ confidence level for the normal distribution is with the coverage factor *k* = 3, U= 0.01ppm.

Test Results

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

5.6. Spurious Emissions at Antenna Terminals

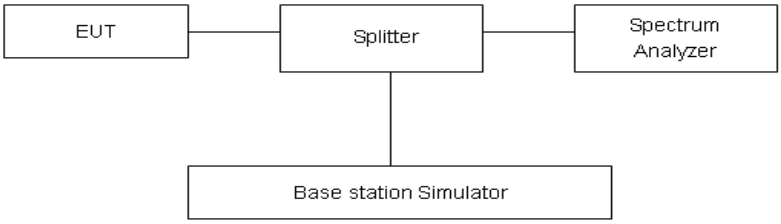
Ambient condition

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 log10 (P) dB.”

Limit	-13 dBm

Measurement Uncertainty

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

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

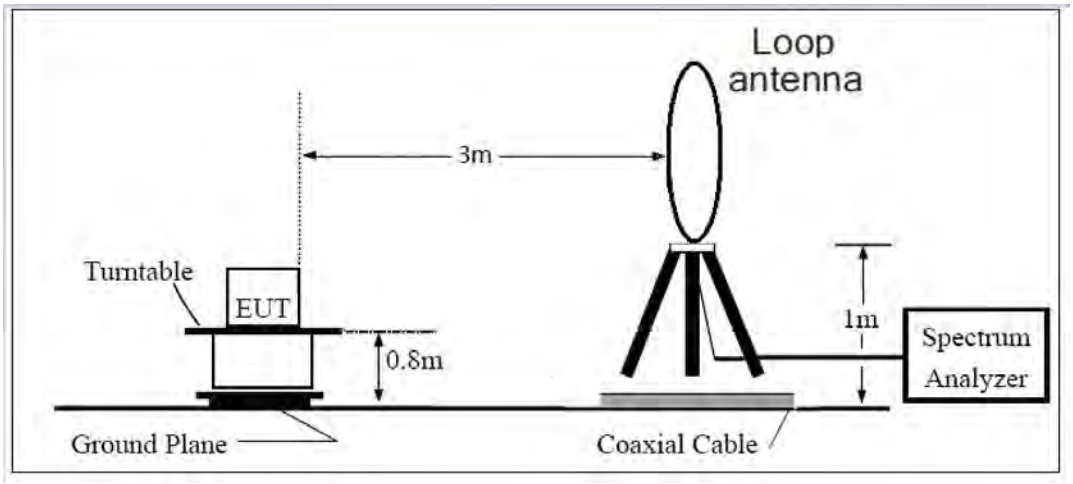
1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable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

= EIRP-2.15dB.

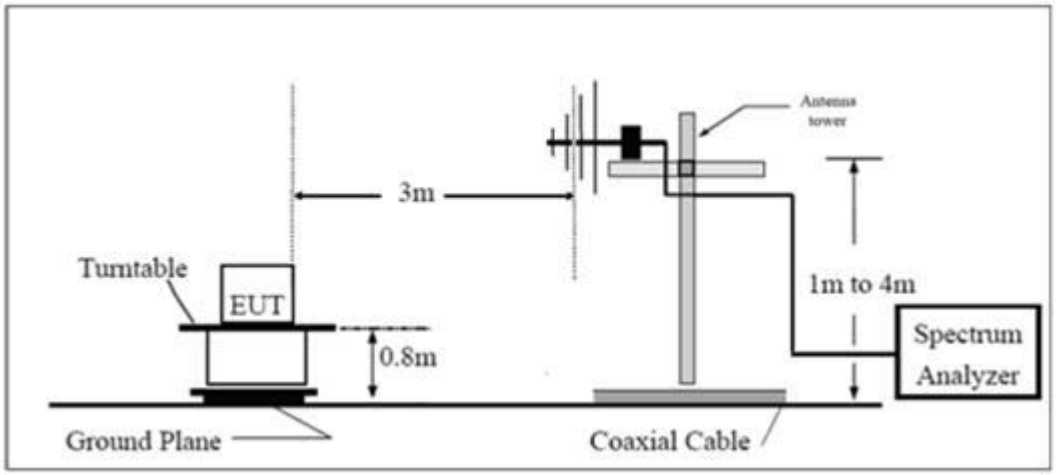
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

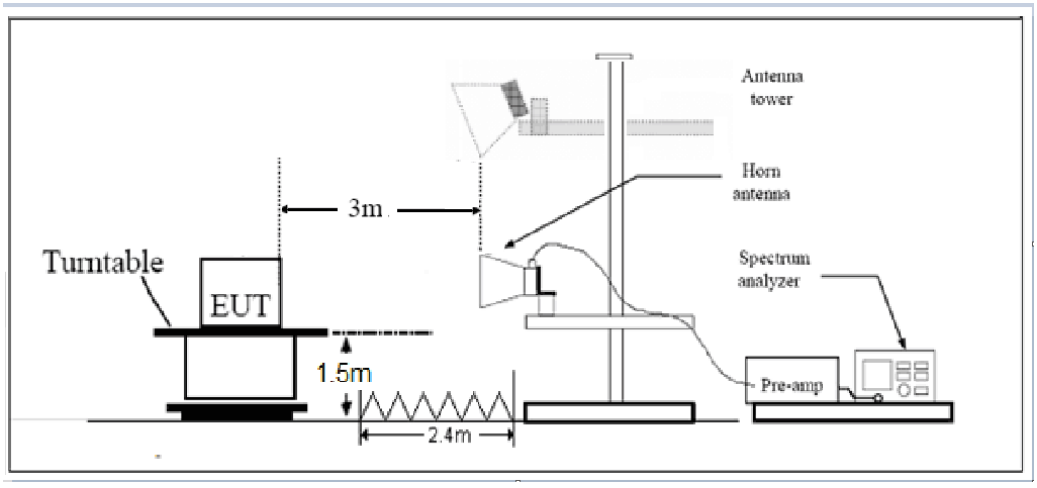
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m

Limits

Rule Part 24.238(a) specifies that “on any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log10 (P) dB.”

Limit	-13 dBm

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 2 EIRP (dBm)			Antenna 4 EIRP (dBm)		
		Channel 512	Channel 661	Channel 810	Channel 512	Channel 661	Channel 810	Channel 512	Channel 661	Channel 810
		1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)	1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)	1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)
GSM(GMSK)	Results	29.59	29.45	29.61	26.79	26.65	26.81	21.29	21.15	21.31
GPRS/EGPRS (GMSK)	1TXslot	29.51	29.55	29.60	26.71	26.75	26.80	21.21	21.25	21.30
	2TXslots	27.00	26.88	26.95	24.20	24.08	24.15	18.70	18.58	18.65
	3TXslots	24.88	24.78	24.62	22.08	21.98	21.82	16.58	16.48	16.32
	4TXslots	23.71	23.45	23.60	20.91	20.65	20.80	15.41	15.15	15.30
EGPRS (8PSK)	1TXslot	25.57	25.41	25.52	22.77	22.61	22.72	17.27	17.11	17.22
	2TXslots	22.81	22.81	22.75	20.01	20.01	19.95	14.51	14.51	14.45
	3TXslots	20.97	21.23	21.15	18.17	18.43	18.35	12.67	12.93	12.85
	4TXslots	19.97	19.93	19.96	17.17	17.13	17.16	11.67	11.63	11.66

WCDMA Band II		Maximum Output Power (dBm)			Antenna 2 EIRP (dBm)			Antenna 4 EIRP (dBm)		
		Channel 9262	Channel 9400	Channel 9538	Channel 9262	Channel 9400	Channel 9538	Channel 9262	Channel 9400	Channel 9538
		1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)	1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)	1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)
RMC		24.02	24.12	24.15	21.22	21.32	21.35	18.02	18.12	18.15
AMR		23.95	24.07	24.07	21.15	21.27	21.27	17.95	18.07	18.07
HSDPA	Sub - Test 1	23.48	23.54	23.59	20.68	20.74	20.79	17.48	17.54	17.59
	Sub - Test 2	23.47	23.56	23.56	20.67	20.76	20.76	17.47	17.56	17.56
	Sub - Test 3	22.94	23.06	23.08	20.14	20.26	20.28	16.94	17.06	17.08
	Sub - Test 4	22.95	23.07	23.06	20.15	20.27	20.26	16.95	17.07	17.06
HSUPA	Sub - Test 1	23.44	23.53	23.54	20.64	20.73	20.74	17.44	17.53	17.54
	Sub - Test 2	22.43	22.51	22.53	19.63	19.71	19.73	16.43	16.51	16.53
	Sub - Test 3	22.90	22.99	23.02	20.10	20.19	20.22	16.90	16.99	17.02
	Sub - Test 4	22.36	22.48	22.50	19.56	19.68	19.70	16.36	16.48	16.50
	Sub - Test 5	23.37	23.46	23.48	20.57	20.66	20.68	17.37	17.46	17.48
DC-HSDPA	Sub - Test 1	23.36	23.48	23.49	20.56	20.68	20.69	17.36	17.48	17.49
	Sub - Test 2	23.35	23.47	23.48	20.55	20.67	20.68	17.35	17.47	17.48
	Sub - Test 3	22.93	22.96	22.99	20.13	20.16	20.19	16.93	16.96	16.99
	Sub - Test 4	22.92	22.95	22.98	20.12	20.15	20.18	16.92	16.95	16.98
HSPA+	16QAM	22.91	23.03	23.05	20.11	20.23	20.25	16.91	17.03	17.05

LTE Band 2				Maximum Output Power(dBm)			Antenna 2 EIRP (dBm)			Antenna 4 EIRP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				18607/ 1850.7	18900/ 1880	19193/ 1909.3	18607/ 1850.7	18900/ 1880	19193/ 1909.3	18607/ 1850.7	18900/ 1880	19193/ 1909.3
1.4MHz	QPSK	1	0	23.83	23.95	23.95	21.03	21.15	21.15	17.83	17.95	17.95
		1	2	23.87	24.07	24.01	21.07	21.27	21.21	17.87	18.07	18.01
		1	5	23.82	24.05	23.98	21.02	21.25	21.18	17.82	18.05	17.98
		3	0	23.83	23.91	23.81	21.03	21.11	21.01	17.83	17.91	17.81
		3	2	23.82	23.88	23.89	21.02	21.08	21.09	17.82	17.88	17.89
		3	3	23.84	23.85	23.85	21.04	21.05	21.05	17.84	17.85	17.85
		6	0	22.94	22.92	22.91	20.14	20.12	20.11	16.94	16.92	16.91
	16QAM	1	0	23.17	23.16	23.26	20.37	20.36	20.46	17.17	17.16	17.26
		1	2	23.24	23.27	23.29	20.44	20.47	20.49	17.24	17.27	17.29
		1	5	23.02	23.13	23.17	20.22	20.33	20.37	17.02	17.13	17.17
		3	0	22.83	22.85	22.80	20.03	20.05	20.00	16.83	16.85	16.80
		3	2	22.90	22.87	22.95	20.10	20.07	20.15	16.90	16.87	16.95
		3	3	22.87	22.94	22.82	20.07	20.14	20.02	16.87	16.94	16.82
		6	0	21.94	21.95	21.91	19.14	19.15	19.11	15.94	15.95	15.91
	64QAM	1	0	22.16	22.08	22.02	19.36	19.28	19.22	16.16	16.08	16.02
		1	2	22.04	22.13	22.05	19.24	19.33	19.25	16.04	16.13	16.05
		1	5	21.91	22.07	21.97	19.11	19.27	19.17	15.91	16.07	15.97
		3	0	21.85	21.83	21.79	19.05	19.03	18.99	15.85	15.83	15.79
		3	2	21.90	21.88	21.91	19.10	19.08	19.11	15.90	15.88	15.91
		3	3	21.82	21.93	21.80	19.02	19.13	19.00	15.82	15.93	15.80
		6	0	20.96	20.94	20.92	18.16	18.14	18.12	14.96	14.94	14.92
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				18615/ 1851.5	18900/ 1880	19185/ 1908.5	18615/ 1851.5	18900/ 1880	19185/ 1908.5	18615/ 1851.5	18900/ 1880	19185/ 1908.5
3MHz	QPSK	1	0	23.85	23.99	23.98	21.05	21.19	21.18	17.85	17.99	17.98
		1	7	23.85	24.10	24.05	21.05	21.30	21.25	17.85	18.10	18.05
		1	14	23.85	24.10	24.02	21.05	21.30	21.22	17.85	18.10	18.02
		8	0	22.93	23.03	22.94	20.13	20.23	20.14	16.93	17.03	16.94
		8	4	22.94	22.98	23.01	20.14	20.18	20.21	16.94	16.98	17.01
		8	7	22.94	22.96	22.95	20.14	20.16	20.15	16.94	16.96	16.95
		15	0	22.94	22.96	22.94	20.14	20.16	20.14	16.94	16.96	16.94
	16QAM	1	0	23.17	23.18	23.29	20.37	20.38	20.49	17.17	17.18	17.29
		1	7	23.24	23.27	23.33	20.44	20.47	20.53	17.24	17.27	17.33
		1	14	23.04	23.17	23.20	20.24	20.37	20.40	17.04	17.17	17.20
		8	0	21.94	21.98	21.92	19.14	19.18	19.12	15.94	15.98	15.92
		8	4	22.01	22.00	22.07	19.21	19.20	19.27	16.01	16.00	16.07
		8	7	21.97	22.06	21.95	19.17	19.26	19.15	15.97	16.06	15.95

		15	0	21.97	21.99	21.94	19.17	19.19	19.14	15.97	15.99	15.94
	64QAM	1	0	22.19	22.10	22.05	19.39	19.30	19.25	16.19	16.10	16.05
		1	7	22.07	22.13	22.07	19.27	19.33	19.27	16.07	16.13	16.07
		1	14	21.93	22.06	22.00	19.13	19.26	19.20	15.93	16.06	16.00
		8	0	20.96	20.96	20.91	18.16	18.16	18.11	14.96	14.96	14.91
		8	4	21.01	21.01	21.03	18.21	18.21	18.23	15.01	15.01	15.03
		8	7	20.92	21.05	20.93	18.12	18.25	18.13	14.92	15.05	14.93
		15	0	20.99	20.98	20.95	18.19	18.18	18.15	14.99	14.98	14.95
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				18625/ 1852.5	18900/ 1880	19175/ 1907.5	18625/ 1852.5	18900/ 1880	19175/ 1907.5	18625/ 1852.5	18900/ 1880	19175/ 1907.5
5MHz	QPSK	1	0	23.82	23.97	23.94	21.02	21.17	21.14	17.82	17.97	17.94
		1	13	23.83	24.06	24.02	21.03	21.26	21.22	17.83	18.06	18.02
		1	24	23.82	24.05	23.98	21.02	21.25	21.18	17.82	18.05	17.98
		12	0	22.90	22.98	22.90	20.10	20.18	20.10	16.90	16.98	16.90
		12	6	22.92	22.94	22.96	20.12	20.14	20.16	16.92	16.94	16.96
		12	13	22.92	22.94	22.91	20.12	20.14	20.11	16.92	16.94	16.91
		25	0	22.94	22.95	22.92	20.14	20.15	20.12	16.94	16.95	16.92
	16QAM	1	0	23.17	23.14	23.26	20.37	20.34	20.46	17.17	17.14	17.26
		1	13	23.24	23.25	23.30	20.44	20.45	20.50	17.24	17.25	17.30
		1	24	23.01	23.15	23.16	20.21	20.35	20.36	17.01	17.15	17.16
		12	0	21.92	21.94	21.89	19.12	19.14	19.09	15.92	15.94	15.89
		12	6	21.98	21.95	22.03	19.18	19.15	19.23	15.98	15.95	16.03
		12	13	21.94	22.01	21.91	19.14	19.21	19.11	15.94	16.01	15.91
		25	0	21.95	21.95	21.89	19.15	19.15	19.09	15.95	15.95	15.89
	64QAM	1	0	22.16	22.10	22.02	19.36	19.30	19.22	16.16	16.10	16.02
		1	13	22.04	22.15	22.04	19.24	19.35	19.24	16.04	16.15	16.04
		1	24	21.94	22.04	21.96	19.14	19.24	19.16	15.94	16.04	15.96
		12	0	20.94	20.92	20.92	18.14	18.12	18.12	14.94	14.92	14.92
		12	6	20.98	20.96	20.99	18.18	18.16	18.19	14.98	14.96	14.99
		12	13	20.89	21.00	20.89	18.09	18.20	18.09	14.89	15.00	14.89
		25	0	20.97	20.94	20.90	18.17	18.14	18.10	14.97	14.94	14.90
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				18650/ 1855	18900/ 1880	19150/ 1905	18650/ 1855	18900/ 1880	19150/ 1905	18650/ 1855	18900/ 1880	19150/ 1905
10MHz	QPSK	1	0	23.84	23.98	23.97	21.04	21.18	21.17	17.84	17.98	17.97
		1	25	23.86	24.11	24.06	21.06	21.31	21.26	17.86	18.11	18.06
		1	49	23.84	24.09	24.01	21.04	21.29	21.21	17.84	18.09	18.01
		25	0	22.93	23.03	22.94	20.13	20.23	20.14	16.93	17.03	16.94
		25	13	22.95	22.99	23.00	20.15	20.19	20.20	16.95	16.99	17.00
		25	25	22.94	22.98	22.96	20.14	20.18	20.16	16.94	16.98	16.96
		50	0	22.98	22.97	22.96	20.18	20.17	20.16	16.98	16.97	16.96
	16QAM	1	0	23.21	23.17	23.28	20.41	20.37	20.48	17.21	17.17	17.28

		1	25	23.28	23.29	23.33	20.48	20.49	20.53	17.28	17.29	17.33
		1	49	23.04	23.17	23.19	20.24	20.37	20.39	17.04	17.17	17.19
		25	0	21.95	21.99	21.93	19.15	19.19	19.13	15.95	15.99	15.93
		25	13	22.00	21.99	22.06	19.20	19.19	19.26	16.00	15.99	16.06
		25	25	21.97	22.06	21.95	19.17	19.26	19.15	15.97	16.06	15.95
		50	0	21.98	22.00	21.93	19.18	19.20	19.13	15.98	16.00	15.93
	64QAM	1	0	22.18	22.09	22.04	19.38	19.29	19.24	16.18	16.09	16.04
		1	25	22.07	22.15	22.07	19.27	19.35	19.27	16.07	16.15	16.07
		1	49	21.93	22.06	21.99	19.13	19.26	19.19	15.93	16.06	15.99
		25	0	20.97	20.97	20.92	18.17	18.17	18.12	14.97	14.97	14.92
		25	13	21.00	21.00	21.02	18.20	18.20	18.22	15.00	15.00	15.02
		25	25	20.92	21.05	20.93	18.12	18.25	18.13	14.92	15.05	14.93
		50	0	21.00	20.99	20.94	18.20	18.19	18.14	15.00	14.99	14.94
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				18675/ 1857.5	18900/ 1880	19125/ 1902.5	18675/ 1857.5	18900/ 1880	19125/ 1902.5	18675/ 1857.5	18900/ 1880	19125/ 1902.5
15MHz	QPSK	1	0	23.83	23.94	23.95	21.03	21.14	21.15	17.83	17.94	17.95
		1	38	23.84	24.10	24.03	21.04	21.30	21.23	17.84	18.10	18.03
		1	74	23.81	24.04	23.97	21.01	21.24	21.17	17.81	18.04	17.97
		36	0	22.91	22.99	22.91	20.11	20.19	20.11	16.91	16.99	16.91
		36	18	22.92	22.94	22.96	20.12	20.14	20.16	16.92	16.94	16.96
		36	39	22.91	22.95	22.92	20.11	20.15	20.12	16.91	16.95	16.92
		75	0	22.96	22.93	22.91	20.16	20.13	20.11	16.96	16.93	16.91
	16QAM	1	0	23.19	23.15	23.26	20.39	20.35	20.46	17.19	17.15	17.26
		1	38	23.26	23.26	23.31	20.46	20.46	20.51	17.26	17.26	17.31
		1	74	23.02	23.13	23.16	20.22	20.33	20.36	17.02	17.13	17.16
		36	0	21.92	21.97	21.90	19.12	19.17	19.10	15.92	15.97	15.90
		36	18	21.97	21.94	22.02	19.17	19.14	19.22	15.97	15.94	16.02
		36	39	21.95	22.02	21.92	19.15	19.22	19.12	15.95	16.02	15.92
		75	0	21.95	21.95	21.89	19.15	19.15	19.09	15.95	15.95	15.89
	64QAM	1	0	22.13	22.07	22.02	19.33	19.27	19.22	16.13	16.07	16.02
		1	38	22.05	22.12	22.05	19.25	19.32	19.25	16.05	16.12	16.05
		1	74	21.94	22.05	22.00	19.14	19.25	19.20	15.94	16.05	16.00
		36	0	20.96	20.99	20.93	18.16	18.19	18.13	14.96	14.99	14.93
		36	18	20.98	20.97	21.01	18.18	18.17	18.21	14.98	14.97	15.01
		36	39	20.90	21.01	20.90	18.10	18.21	18.10	14.90	15.01	14.90
		75	0	20.97	20.94	20.90	18.17	18.14	18.10	14.97	14.94	14.90
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	20425 /826.5	20525 /836.5	20625 /846.5
20MHz	QPSK	1	0	23.80	23.90	23.92	21.00	21.10	21.12	17.80	17.90	17.92
		1	50	23.83	24.06	24.01	21.03	21.26	21.21	17.83	18.06	18.01
		1	99	23.79	24.03	23.94	20.99	21.23	21.14	17.79	18.03	17.94

		50	0	22.88	22.94	22.87	20.08	20.14	20.07	16.88	16.94	16.87
		50	25	22.90	22.90	22.93	20.10	20.10	20.13	16.90	16.90	16.93
		50	50	22.88	22.90	22.88	20.08	20.10	20.08	16.88	16.90	16.88
		100	0	22.93	22.88	22.87	20.13	20.08	20.07	16.93	16.88	16.87
	16QAM	1	0	23.16	23.11	23.21	20.36	20.31	20.41	17.16	17.11	17.21
		1	50	23.23	23.24	23.27	20.43	20.44	20.47	17.23	17.24	17.27
		1	99	22.99	23.10	23.14	20.19	20.30	20.34	16.99	17.10	17.14
		50	0	21.89	21.93	21.87	19.09	19.13	19.07	15.89	15.93	15.87
		50	25	21.94	21.92	21.99	19.14	19.12	19.19	15.94	15.92	15.99
		50	50	21.92	21.97	21.88	19.12	19.17	19.08	15.92	15.97	15.88
		100	0	21.93	21.91	21.86	19.13	19.11	19.06	15.93	15.91	15.86
	64QAM	1	0	22.11	22.03	21.97	19.31	19.23	19.17	16.11	16.03	15.97
		1	50	22.01	22.10	22.01	19.21	19.30	19.21	16.01	16.10	16.01
		1	99	21.88	21.99	21.94	19.08	19.19	19.14	15.88	15.99	15.94
		50	0	20.91	20.91	20.86	18.11	18.11	18.06	14.91	14.91	14.86
		50	25	20.94	20.93	20.95	18.14	18.13	18.15	14.94	14.93	14.95
		50	50	20.87	20.96	20.86	18.07	18.16	18.06	14.87	14.96	14.86
		100	0	20.95	20.90	20.87	18.15	18.10	18.07	14.95	14.90	14.87

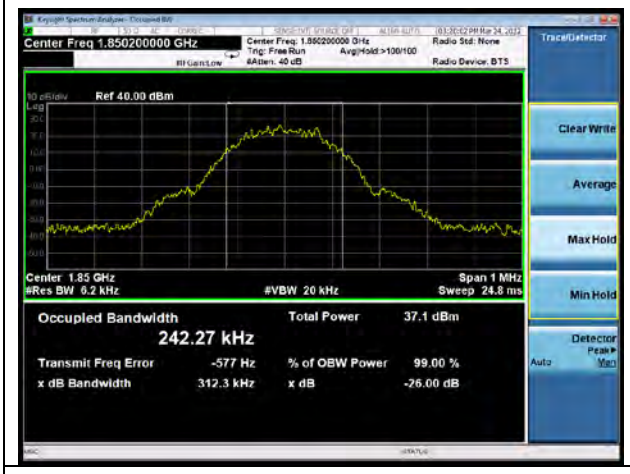
6.2. Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
GSM 1900 (GMSK)	512	1850.2	0.242	0.312
	661	1880.0	0.243	0.311
	810	1909.8	0.245	0.314
GPRS 1900 (GMSK)	512	1850.2	0.241	0.312
	661	1880.0	0.248	0.315
	810	1909.8	0.245	0.310
EGPRS 1900 (8PSK)	512	1850.2	0.243	0.303
	661	1880.0	0.241	0.305
	810	1909.8	0.243	0.308
WCDMA Band II (RMC)	9262	1852.4	4.156	4.707
	9400	1880	4.144	4.725
	9538	1907.6	4.151	4.703

LTE Band 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	18607	1850.7	1.109	1.348
			18900	1880.0	1.097	1.352
			19193	1909.3	1.100	1.329
		3	18615	1851.5	2.714	3.060
			18900	1880	2.710	3.042
			19185	1908.5	2.715	3.078
		5	18625	1852.5	4.532	5.067
			18900	1880	4.524	5.202
			19175	1907.5	4.531	5.121
		10	18650	1855	8.974	9.932
			18900	1880	8.989	10.007
			19150	1905	9.016	10.091
		15	18675	1857.5	13.456	14.704
			18900	1880	13.465	14.997
			19125	1902.5	13.460	14.862
		20	18700	1860	17.954	19.782
			18900	1880	18.007	19.862
			19100	1900	17.954	19.413

	16QAM	1.4	18607	1850.7	1.100	1.364
			18900	1880.0	1.098	1.360
			19193	1909.3	1.102	1.359
		3	18615	1851.5	2.716	3.063
			18900	1880	2.720	3.076
			19185	1908.5	2.708	3.056
		5	18625	1852.5	4.521	5.113
			18900	1880	4.531	5.114
			19175	1907.5	4.515	5.180
		10	18650	1855	9.003	9.967
			18900	1880	8.996	9.831
			19150	1905	9.003	10.018
		15	18675	1857.5	13.461	14.799
			18900	1880	13.465	14.845
			19125	1902.5	13.497	14.790
		20	18700	1860	17.953	19.585
			18900	1880	17.984	19.548
			19100	1900	17.972	19.488
	64QAM	1.4	18607	1850.7	1.107	1.354
			18900	1880.0	1.103	1.349
			19193	1909.3	1.109	1.391
		3	18615	1851.5	2.718	3.020
			18900	1880	2.702	3.094
			19185	1908.5	2.701	3.036
		5	18625	1852.5	4.544	5.070
			18900	1880	4.517	5.235
			19175	1907.5	4.515	5.050
		10	18650	1855	9.002	10.065
			18900	1880	9.019	9.921
			19150	1905	9.000	10.042
		15	18675	1857.5	13.445	14.609
			18900	1880	13.490	14.710
			19125	1902.5	13.479	14.918
		20	18700	1860	17.995	19.720
			18900	1880	18.029	19.750
			19100	1900	17.966	19.492

GSM1900 GSM CH-Low

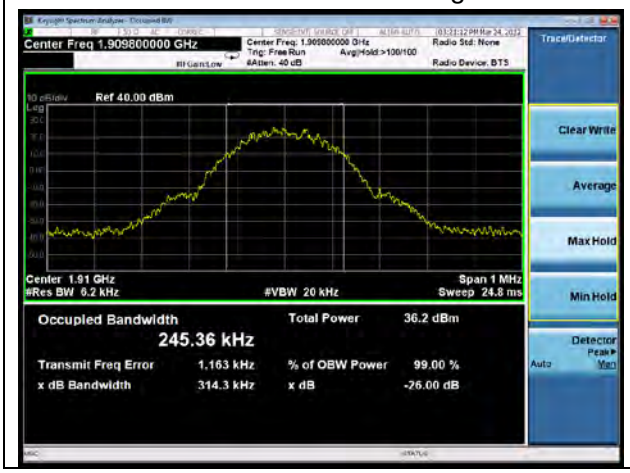


GSM1900 GPRS CH-Low

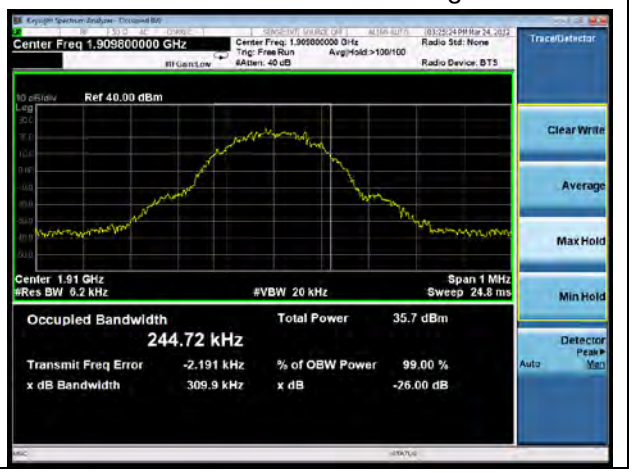
GSM 1900 GSM CH-Middle

GSM 1900 GPRS CH-Middle

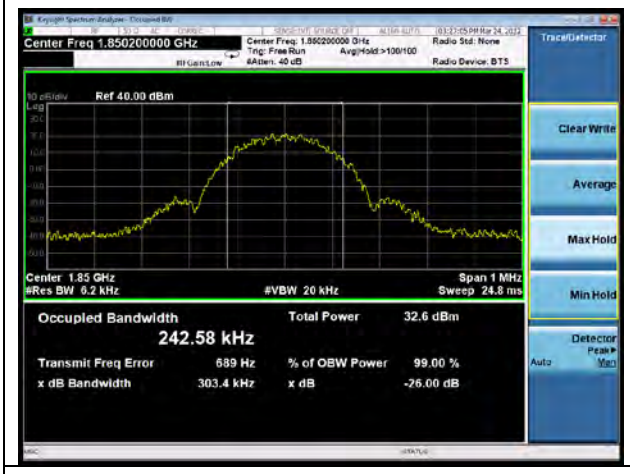
GSM 1900 GSM CH-High



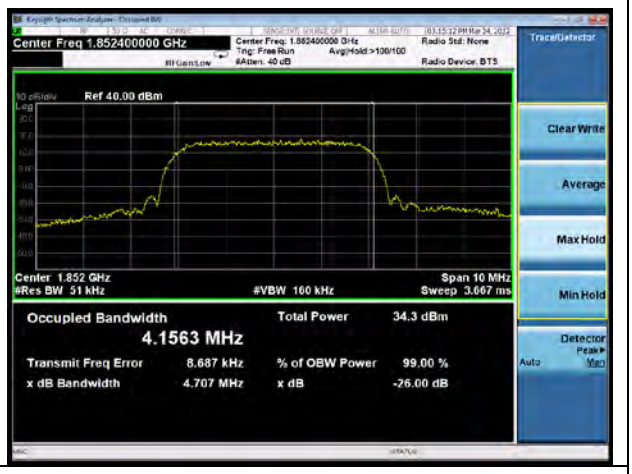
GSM 1900 GPRS CH-High



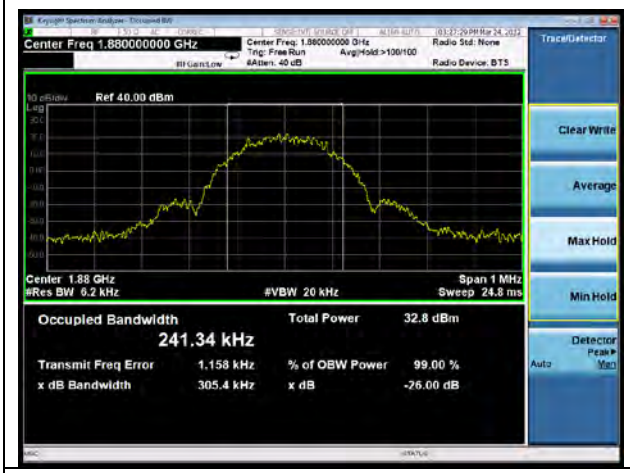
GSM1900 EGPRS CH-Low



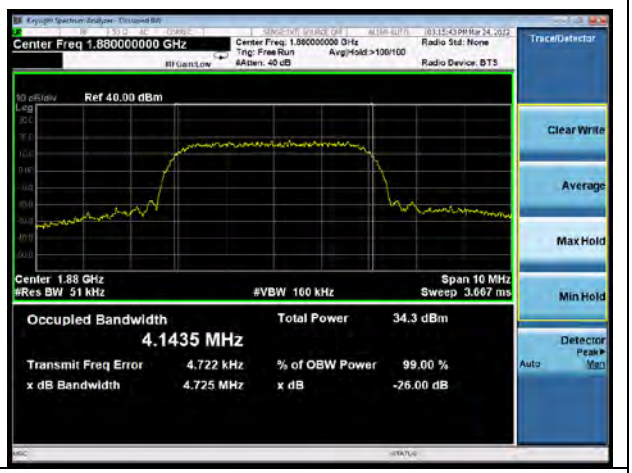
WCDMA Band II RMC CH-LOW



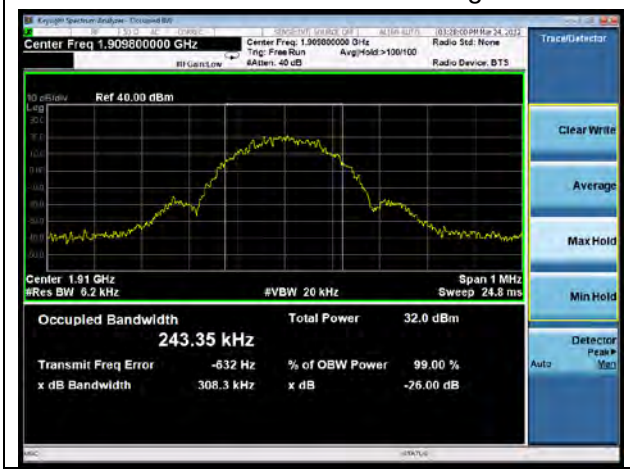
GSM 1900 EGPRS CH-Middle



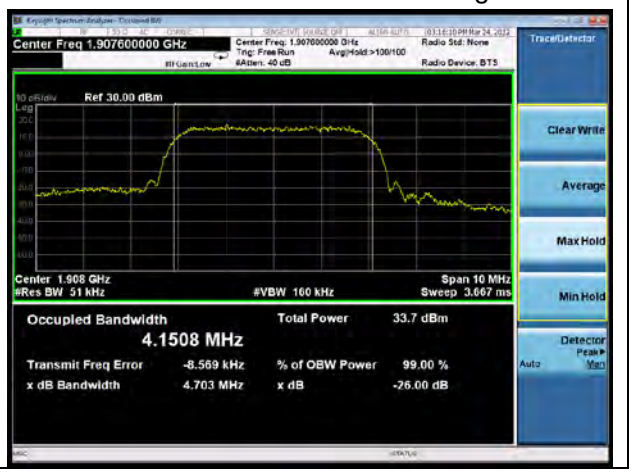
WCDMA Band II RMC CH-Middle



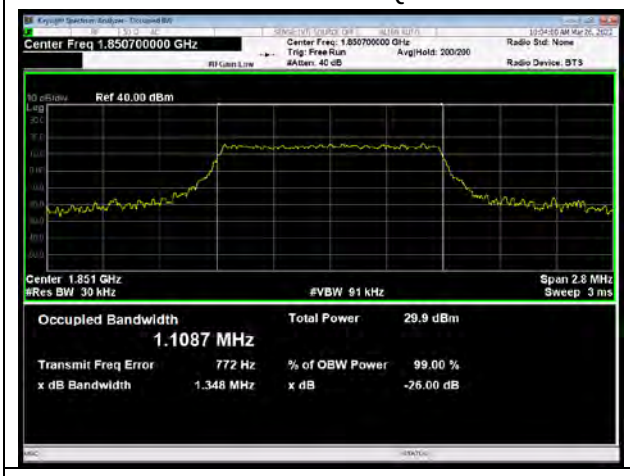
GSM 1900 EGPRS CH-High



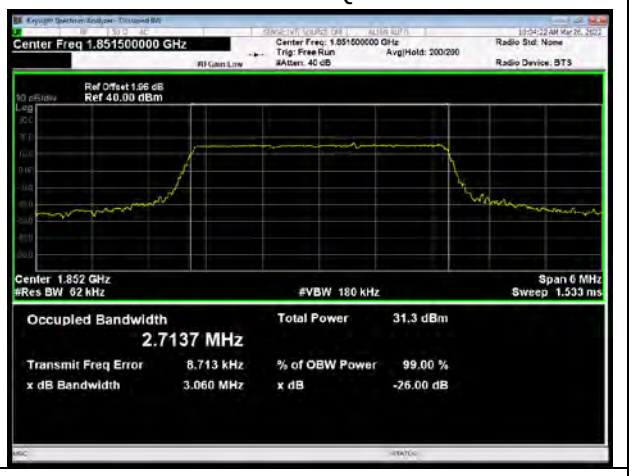
WCDMA Band II RMC CH-High



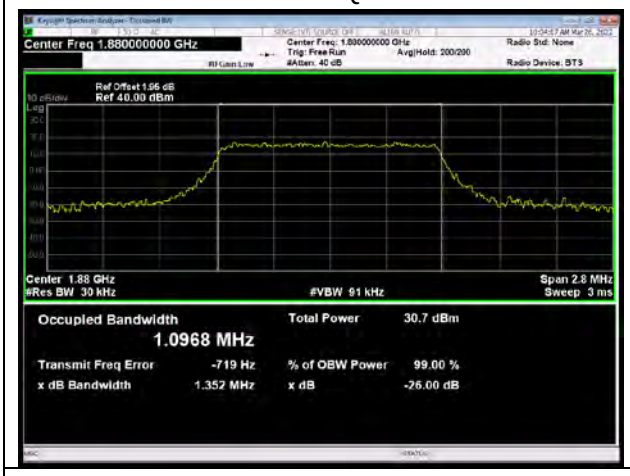
LTE Band 2 1.4MHz QPSK CH-Low



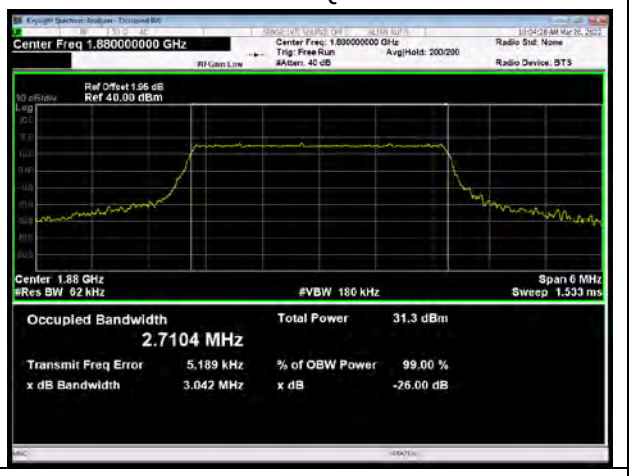
LTE Band 2 3MHz QPSK CH-Low



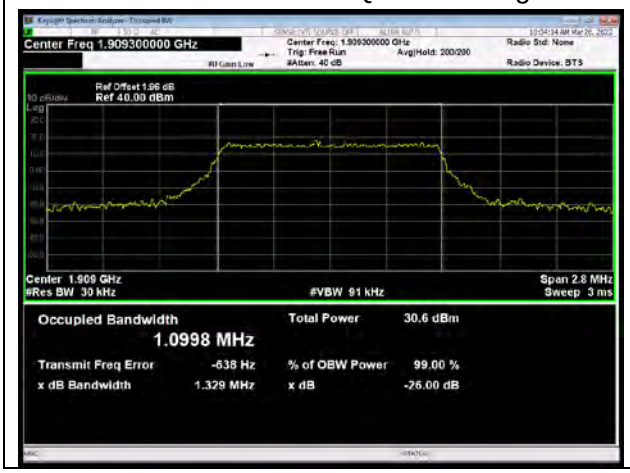
LTE Band 2 1.4MHz QPSK CH-Middle



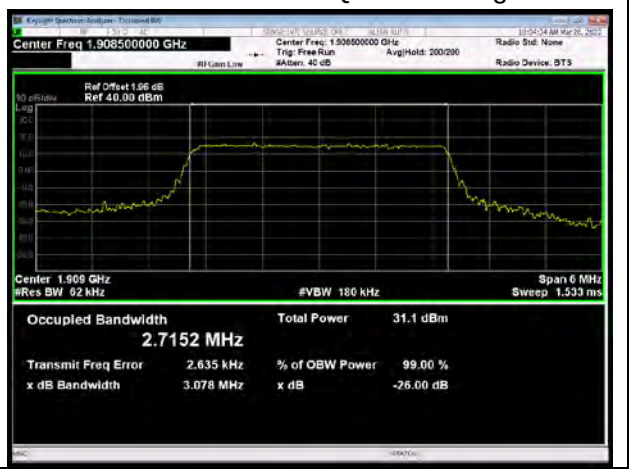
LTE Band 2 3MHz QPSK CH-Middle



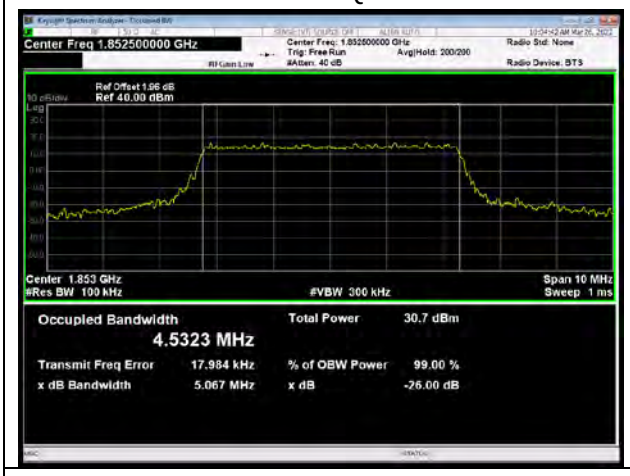
LTE Band 2 1.4MHz QPSK CH-High



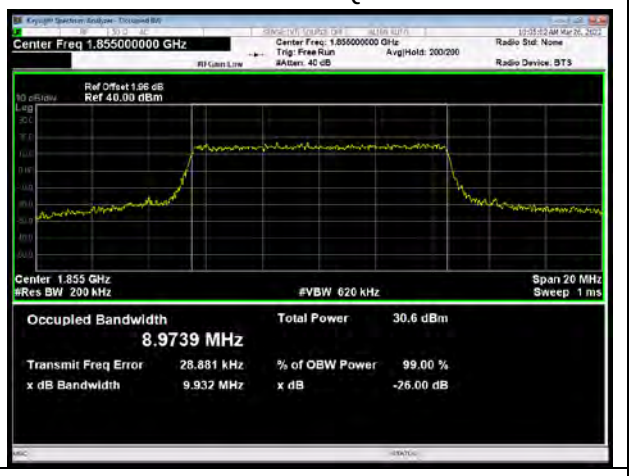
LTE Band 2 3MHz QPSK CH-High



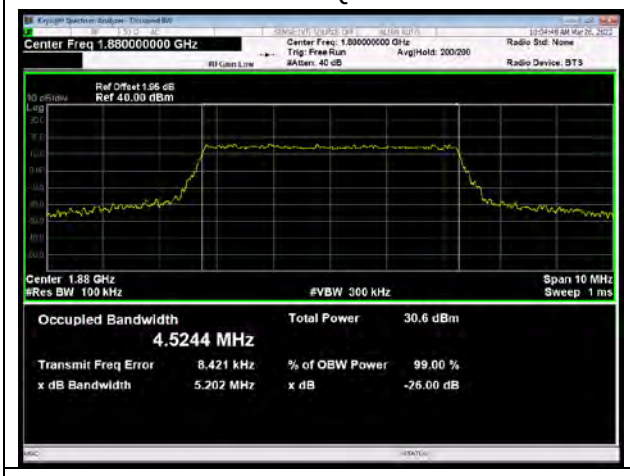
LTE Band 2 5MHz QPSK CH-Low



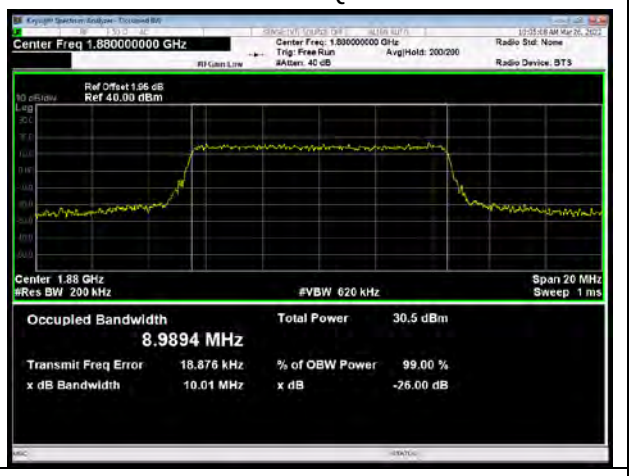
LTE Band 2 10MHz QPSK CH-Low



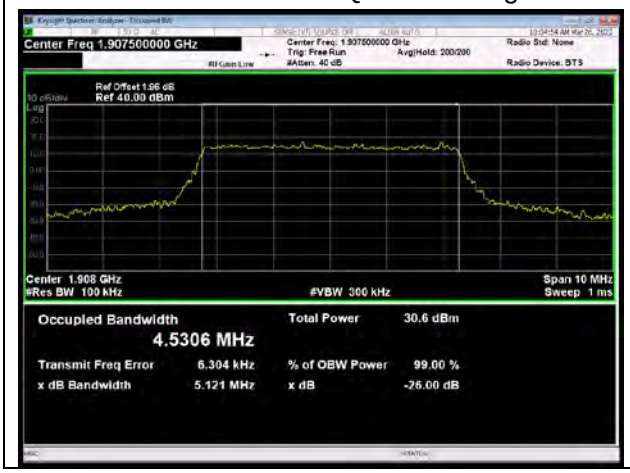
LTE Band 2 5MHz QPSK CH-Middle



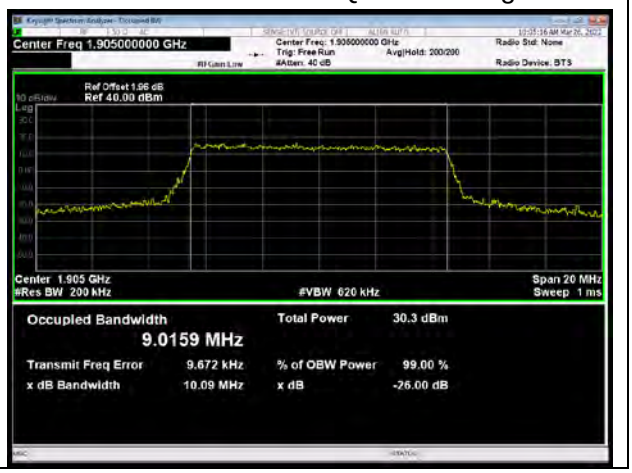
LTE Band 2 10MHz QPSK CH-Middle



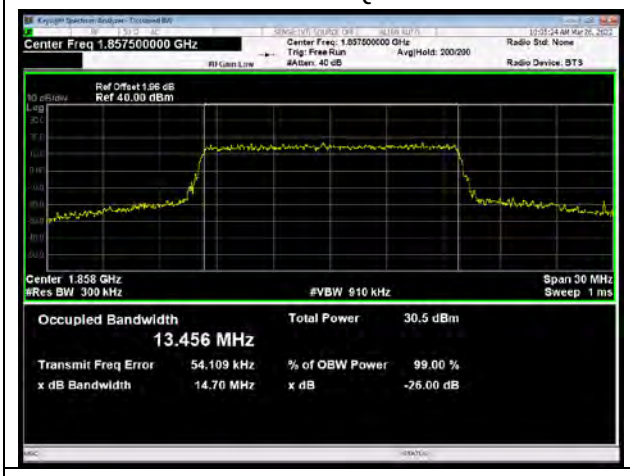
LTE Band 2 5MHz QPSK CH-High



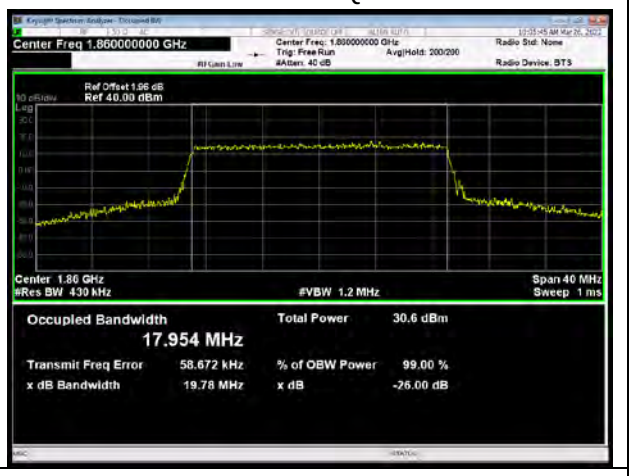
LTE Band 2 10MHz QPSK CH-High



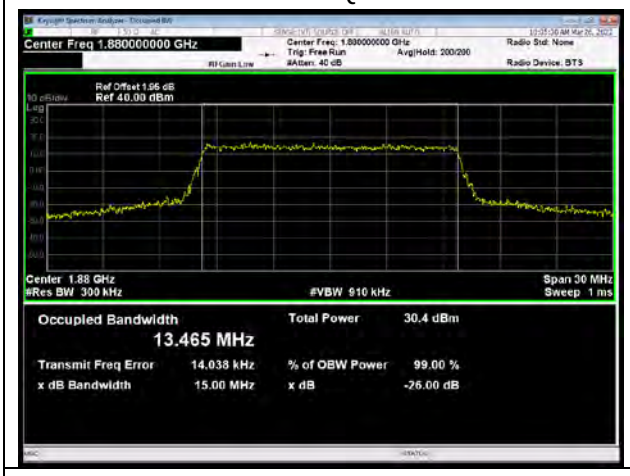
LTE Band 2 15MHz QPSK CH-Low



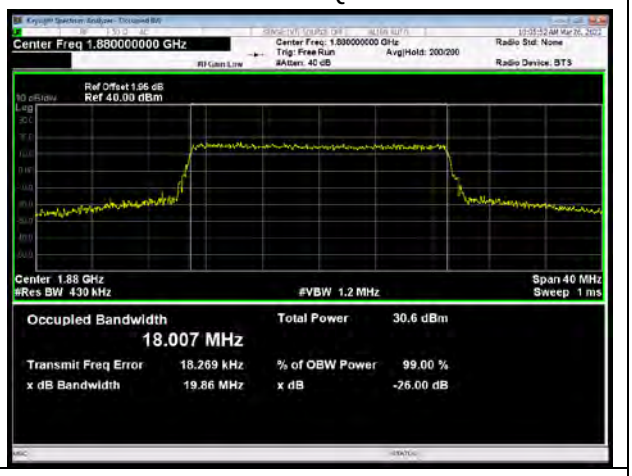
LTE Band 2 20MHz QPSK CH-Low



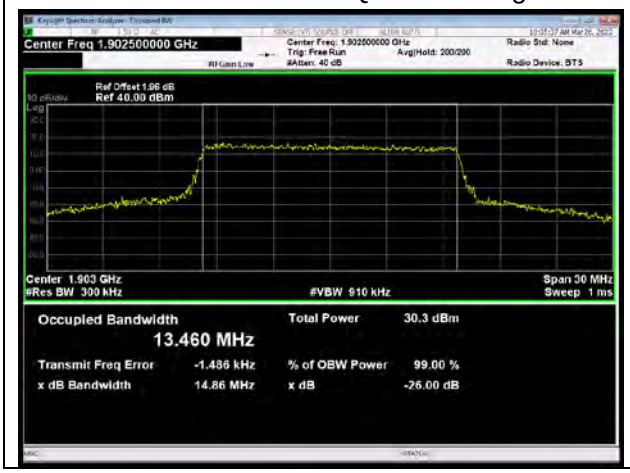
LTE Band 2 15MHz QPSK CH-Middle



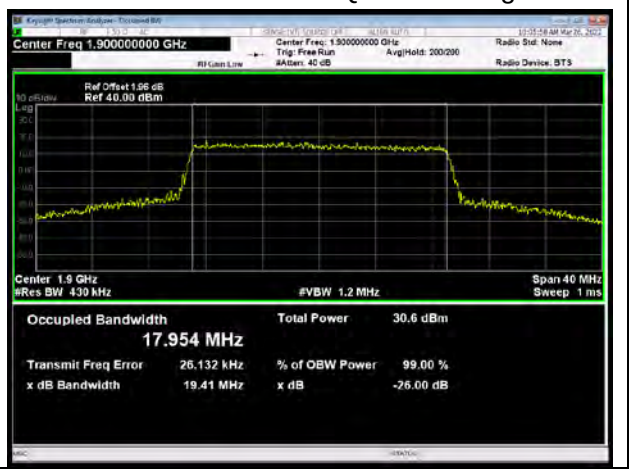
LTE Band 2 20MHz QPSK CH-Middle



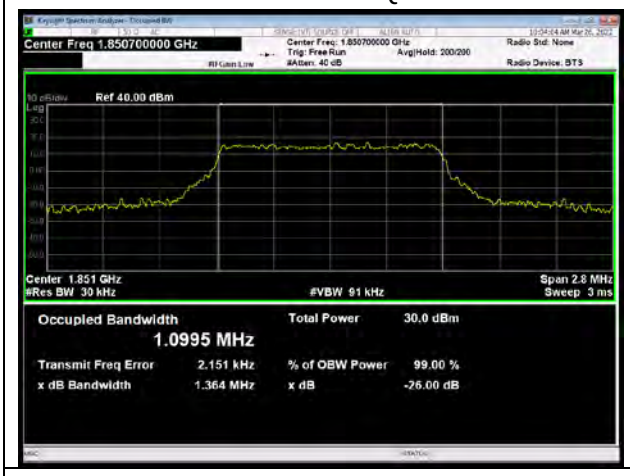
LTE Band 2 15MHz QPSK CH-High



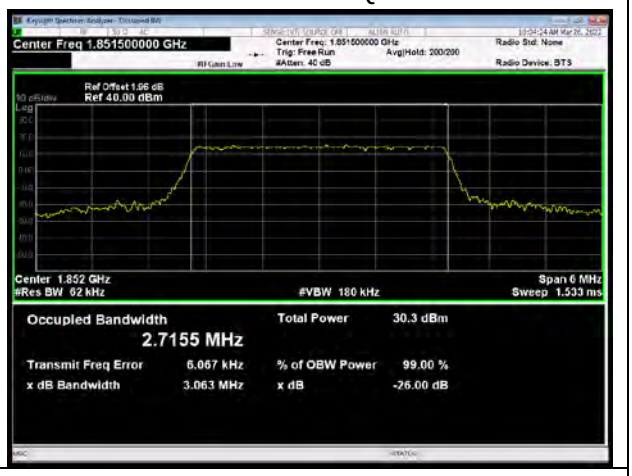
LTE Band 2 20MHz QPSK CH-High



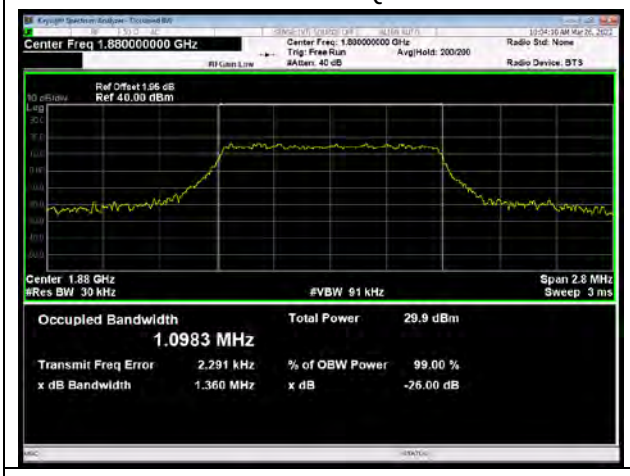
LTE Band 2 1.4MHz 16QAM CH-Low



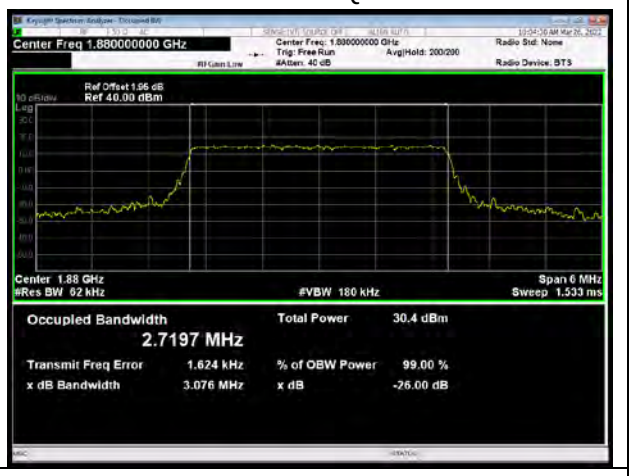
LTE Band 2 3MHz 16QAM CH-Low



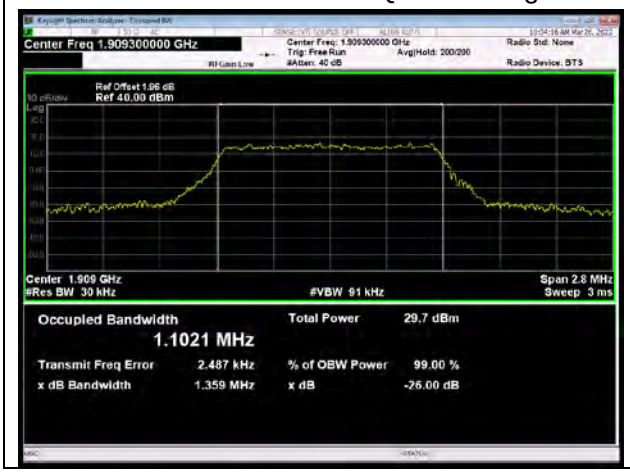
LTE Band 2 1.4MHz 16QAM CH-Middle



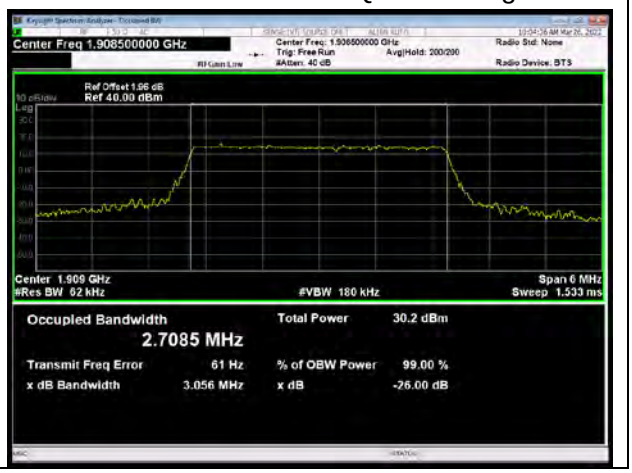
LTE Band 2 3MHz 16QAM CH-Middle



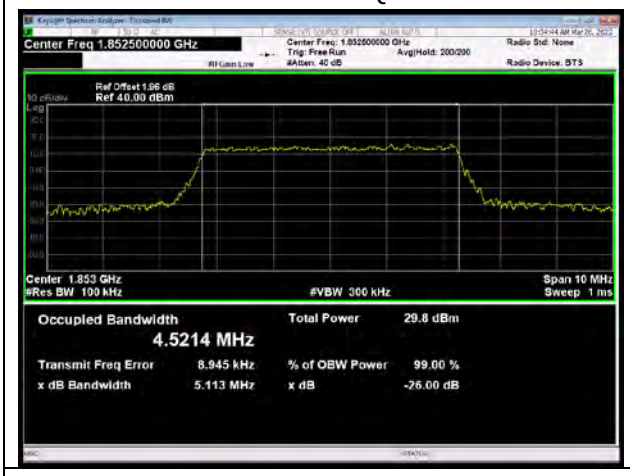
LTE Band 2 1.4MHz 16QAM CH-High



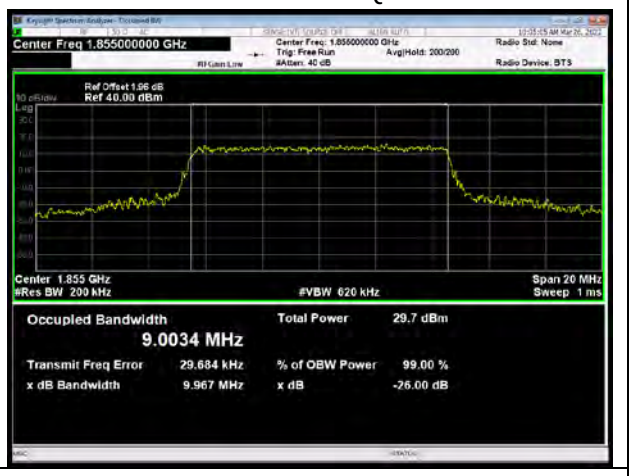
LTE Band 2 3MHz 16QAM CH-High



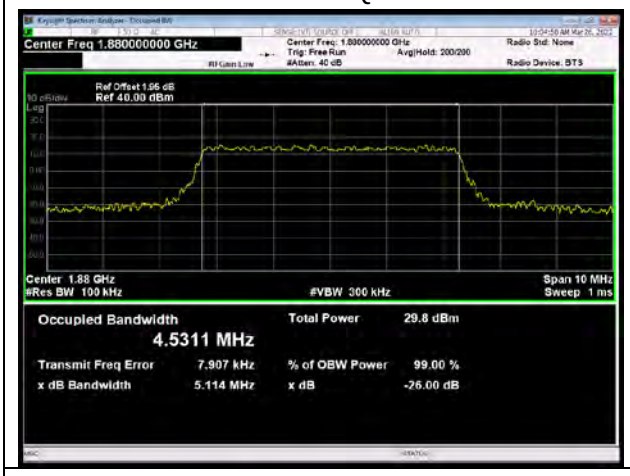
LTE Band 2 5MHz 16QAM CH-Low



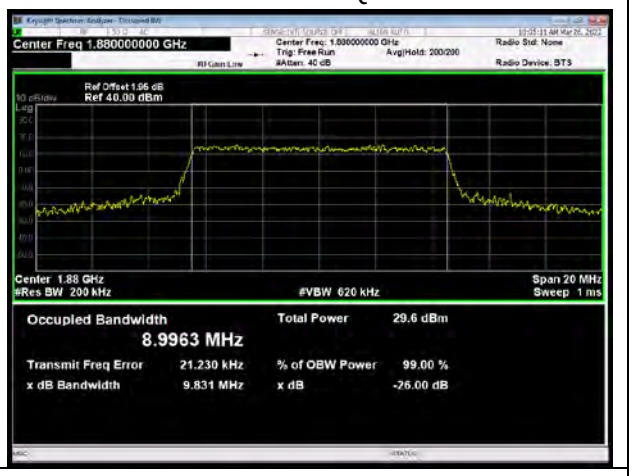
LTE Band 2 10MHz 16QAM CH-Low



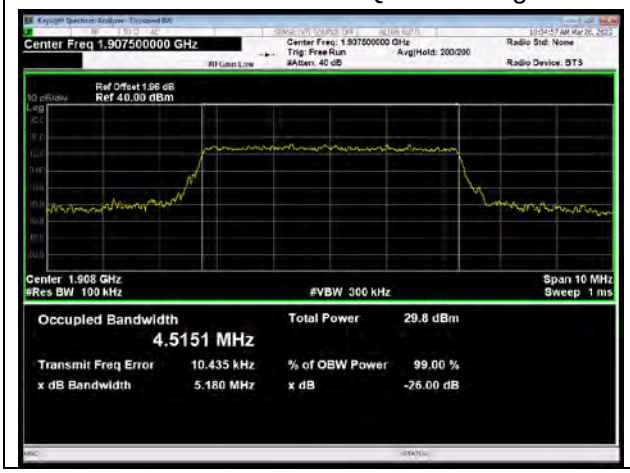
LTE Band 2 5MHz 16QAM CH-Middle



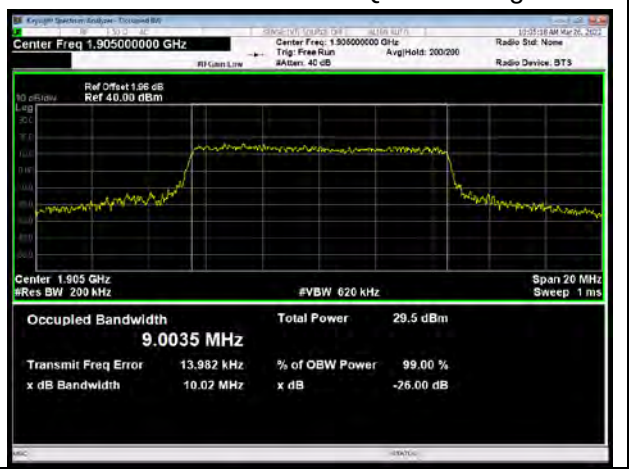
LTE Band 2 10MHz 16QAM CH-Middle



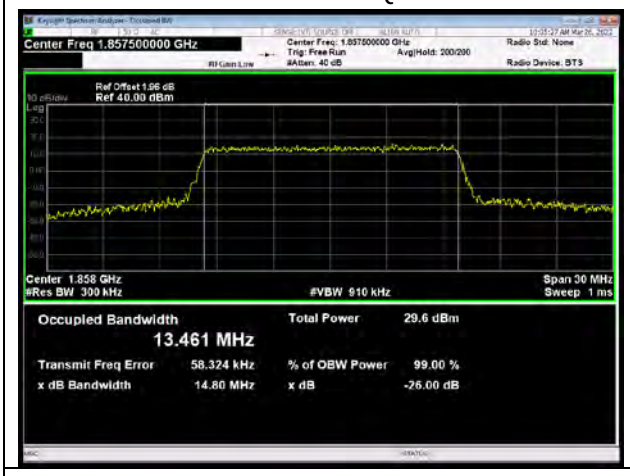
LTE Band 2 5MHz 16QAM CH-High



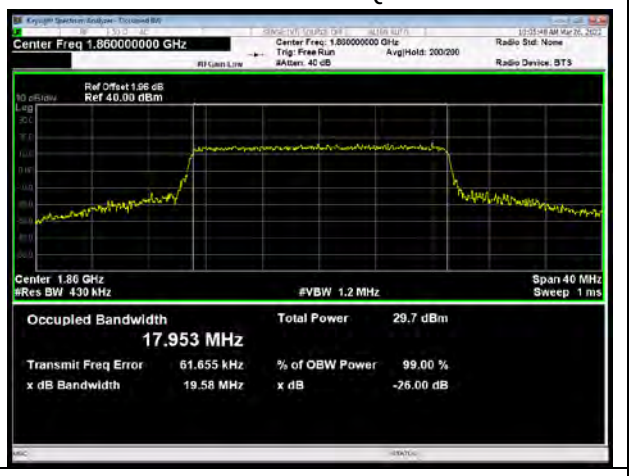
LTE Band 2 10MHz 16QAM CH-High



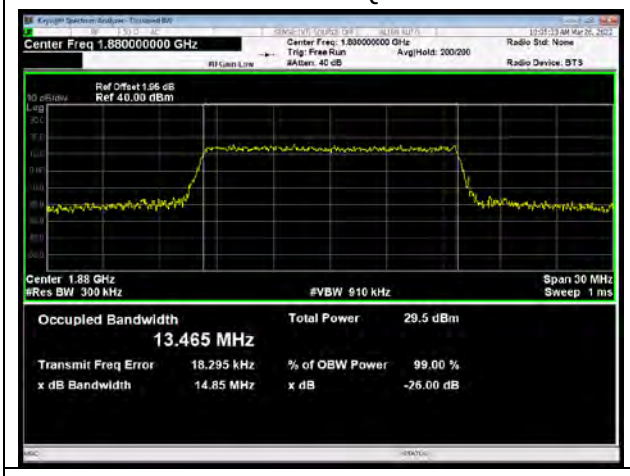
LTE Band 2 15MHz 16QAM CH-Low



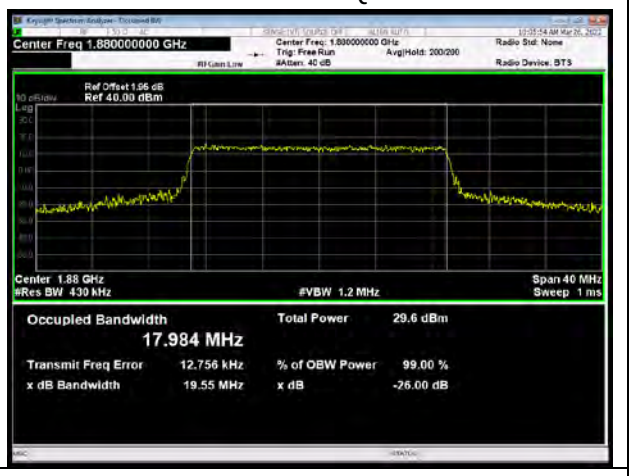
LTE Band 2 20MHz 16QAM CH-Low



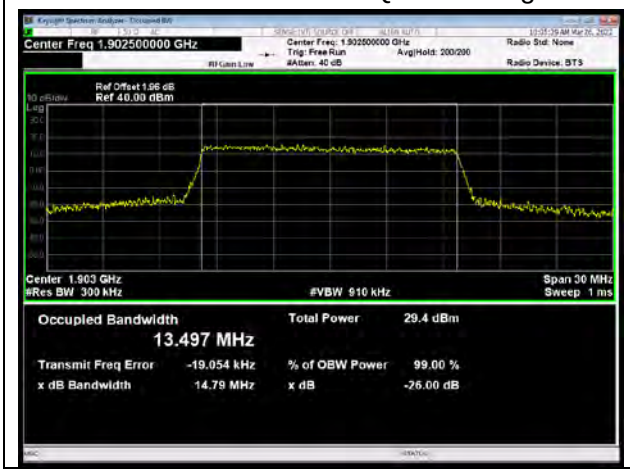
LTE Band 2 15MHz 16QAM CH-Middle



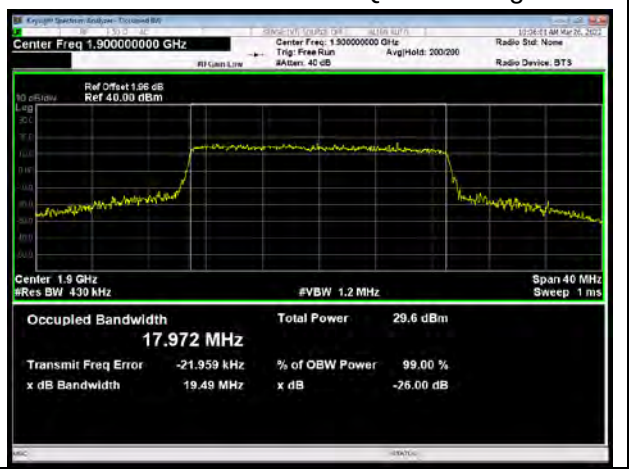
LTE Band 2 20MHz 16QAM CH-Middle



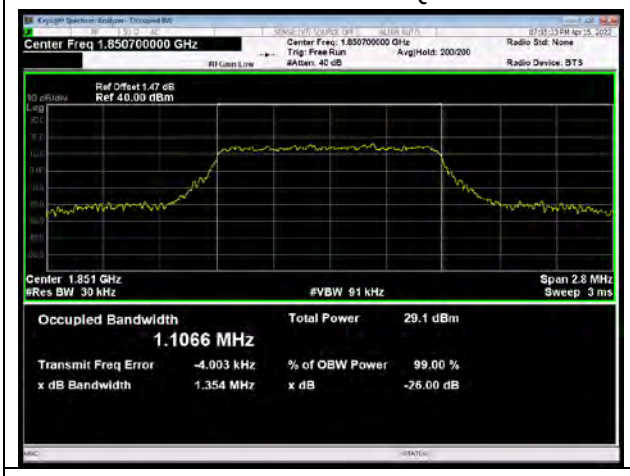
LTE Band 2 15MHz 16QAM CH-High



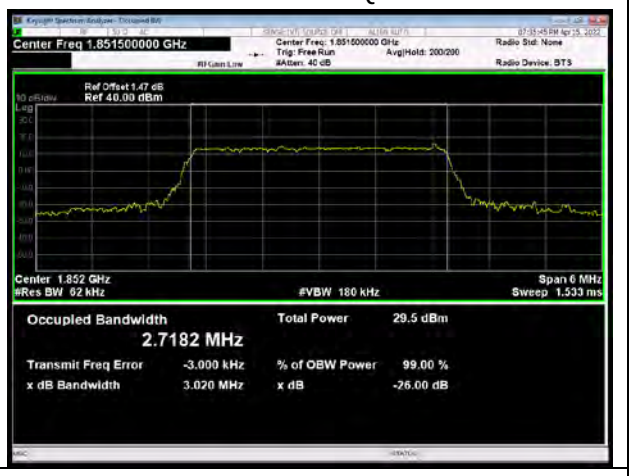
LTE Band 2 20MHz 16QAM CH-High



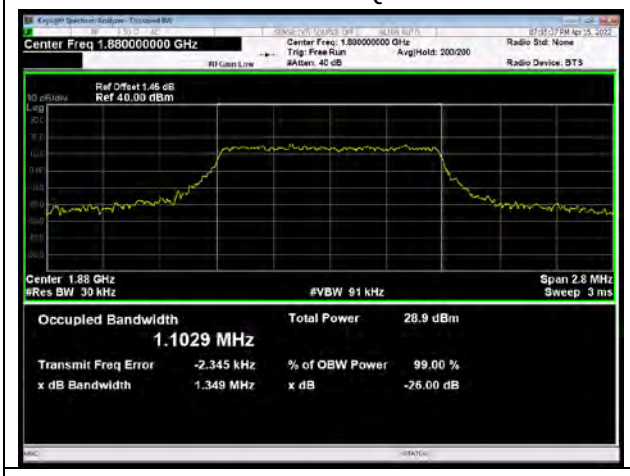
LTE Band 2 1.4MHz 64QAM CH-Low



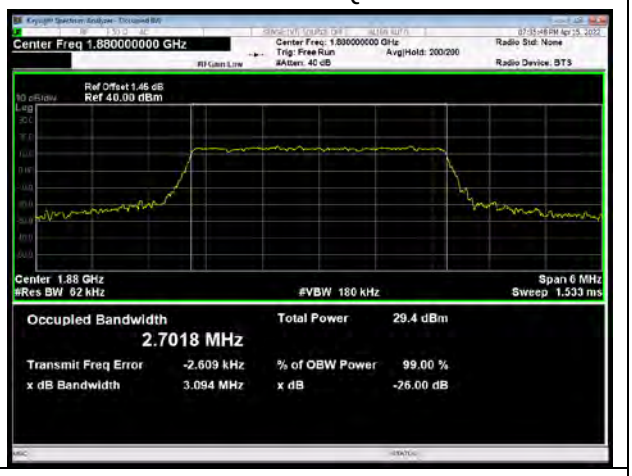
LTE Band 2 3MHz 64QAM CH-Low



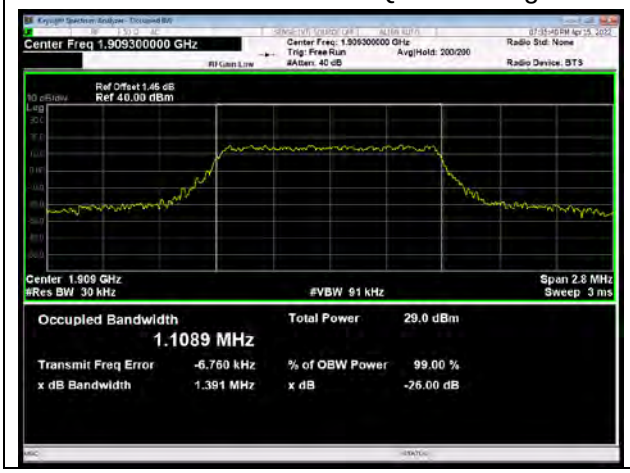
LTE Band 2 1.4MHz 64QAM CH-Middle



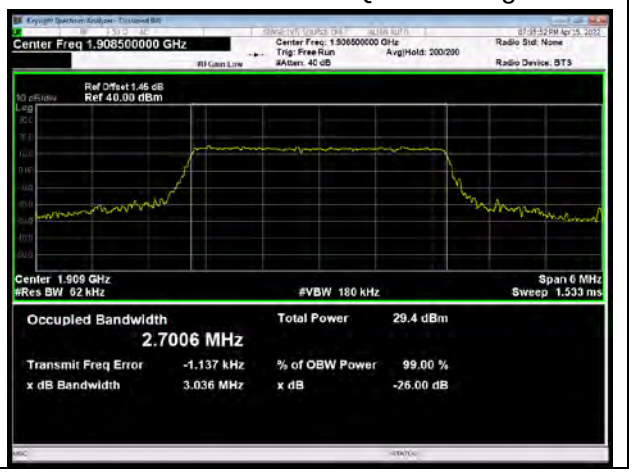
LTE Band 2 3MHz 64QAM CH-Middle



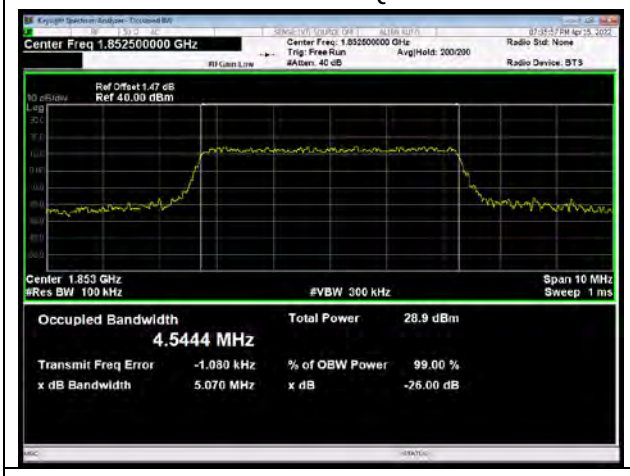
LTE Band 2 1.4MHz 64QAM CH-High



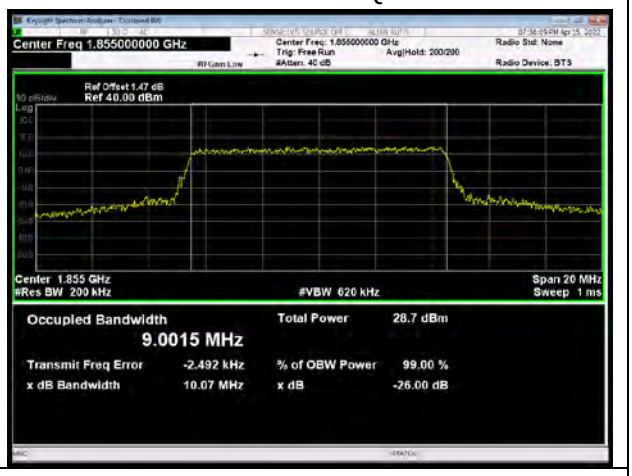
LTE Band 2 3MHz 64QAM CH-High



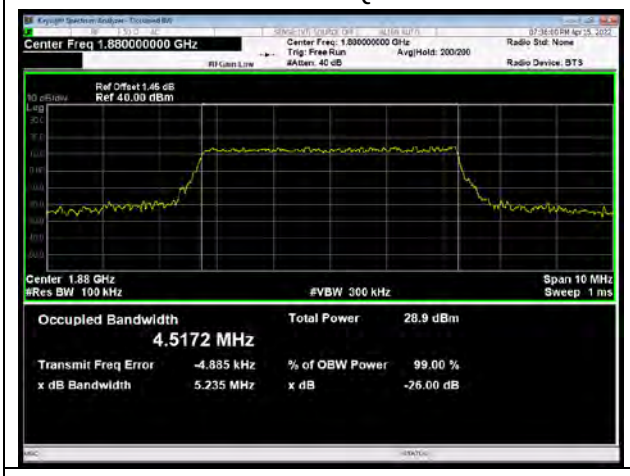
LTE Band 2 5MHz 64QAM CH-Low



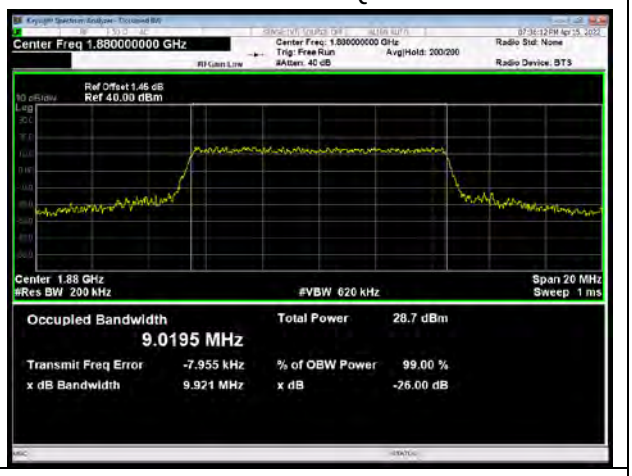
LTE Band 2 10MHz 64QAM CH-Low



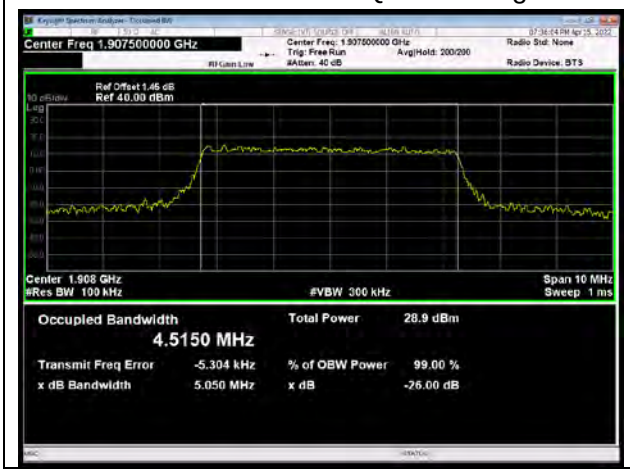
LTE Band 2 5MHz 64QAM CH-Middle



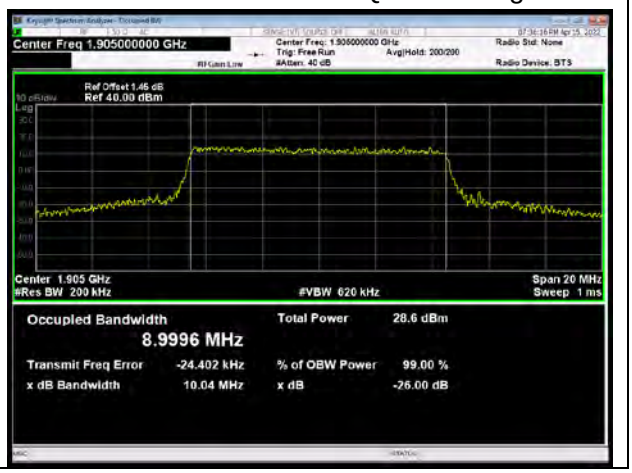
LTE Band 2 10MHz 64QAM CH-Middle



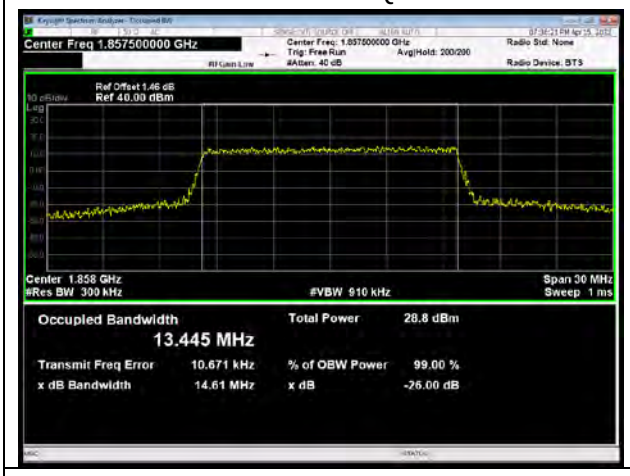
LTE Band 2 5MHz 64QAM CH-High



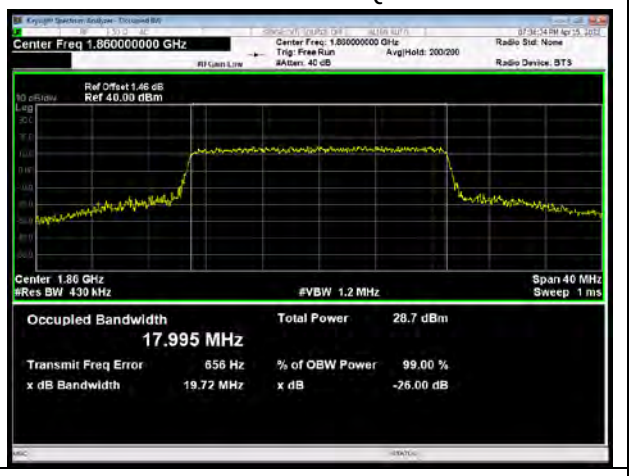
LTE Band 2 10MHz 64QAM CH-High



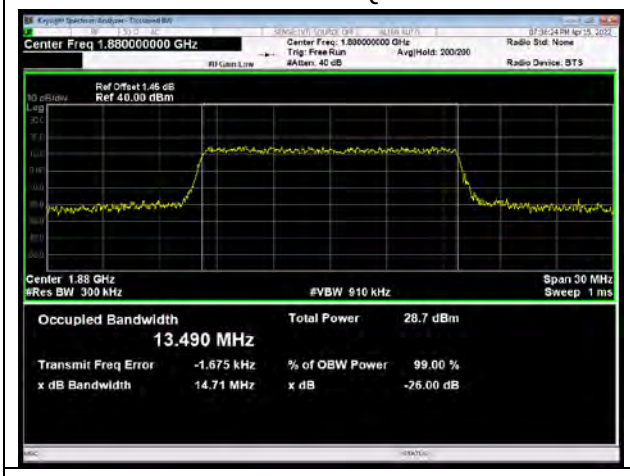
LTE Band 2 15MHz 64QAM CH-Low



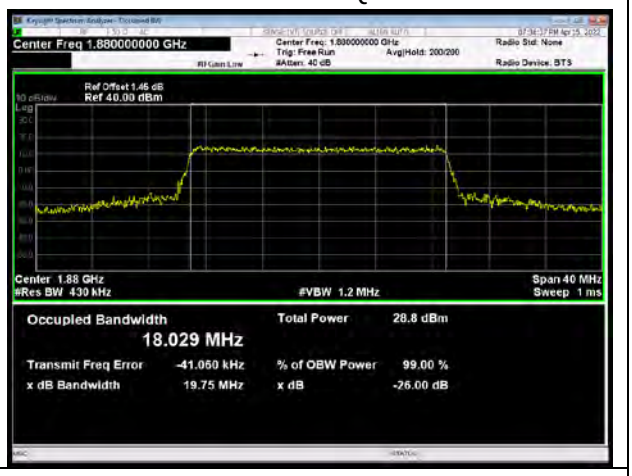
LTE Band 2 20MHz 64QAM CH-Low



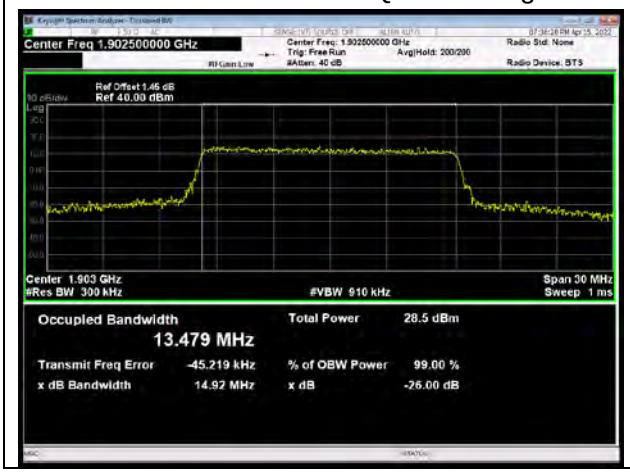
LTE Band 2 15MHz 64QAM CH-Middle



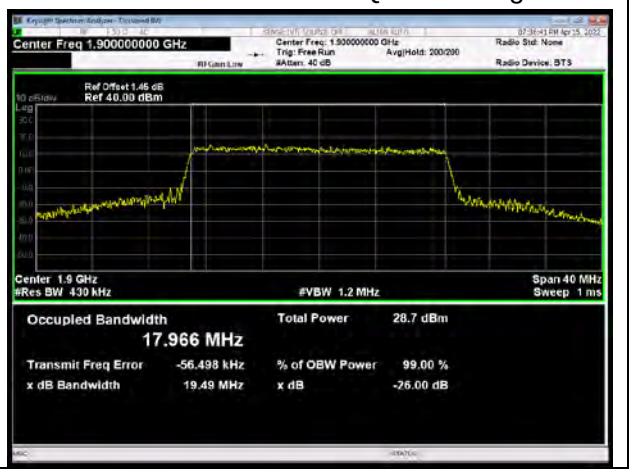
LTE Band 2 20MHz 64QAM CH-Middle



LTE Band 2 15MHz 64QAM CH-High



LTE Band 2 20MHz 64QAM CH-High



6.3. Band Edge Compliance

GSM1900 GSM CH-Low

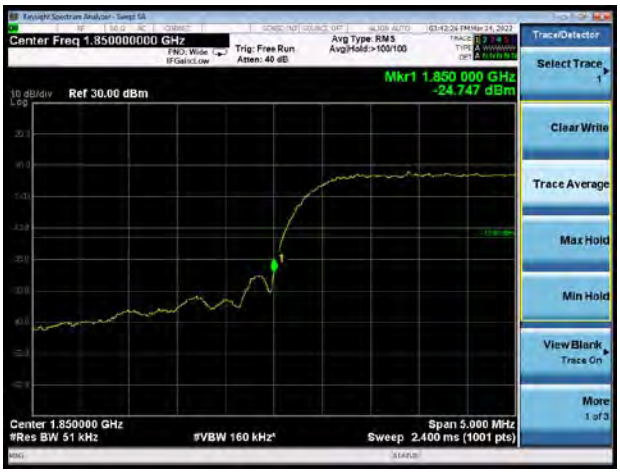
GSM 1900 GSM CH-High

GSM1900 GPRS CH-Low

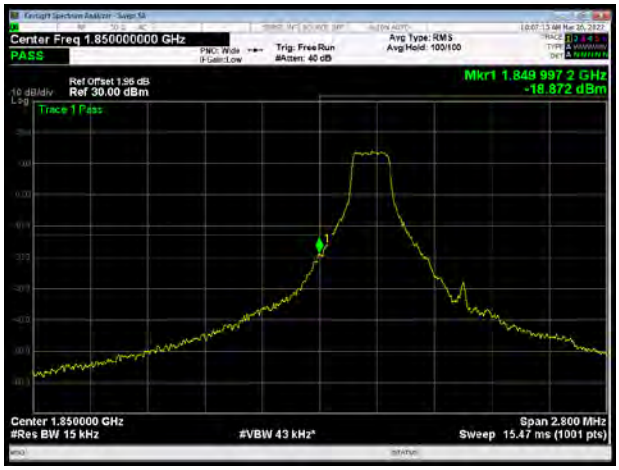
GSM 1900 GPRS CH-High

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

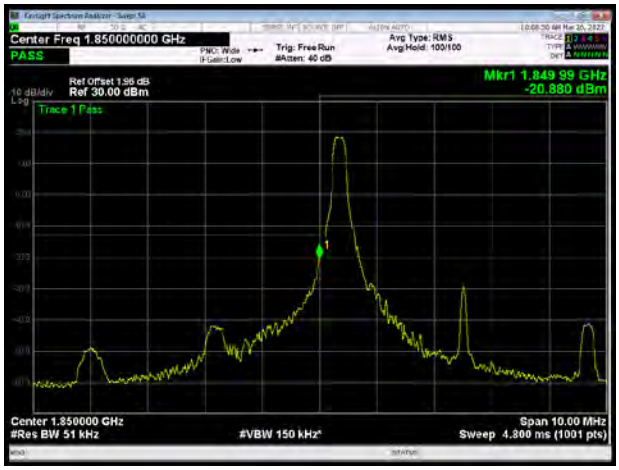
LTE Band 2 3MHz QPSK 1RB CH-Low

LTE Band 2 3MHz QPSK 1RB CH-High

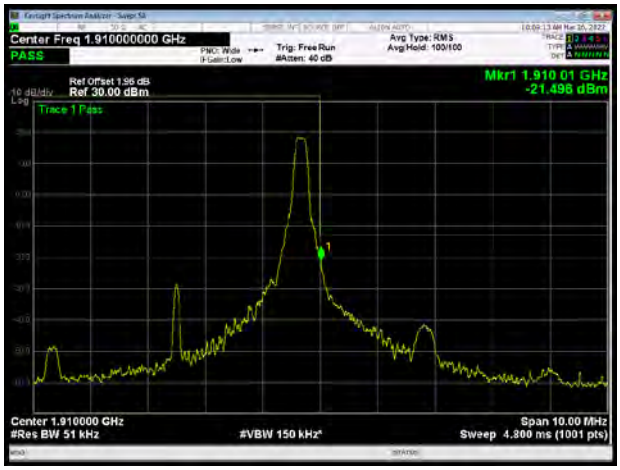
LTE Band 2 3MHz QPSK 100%RB CH-Low

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

LTE Band 2 5MHz QPSK 1RB CH-Low



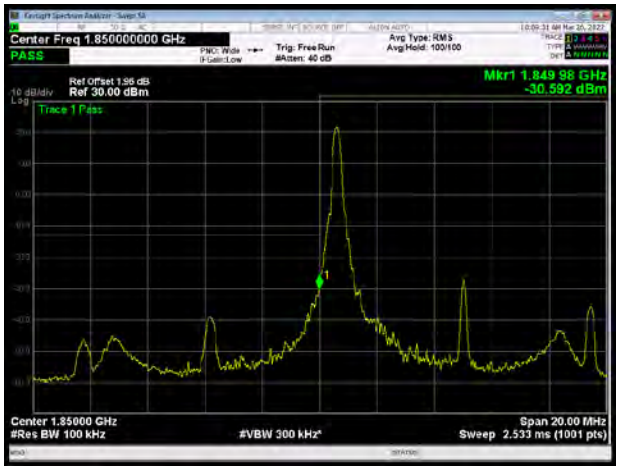
LTE Band 2 5MHz QPSK 1RB CH-High



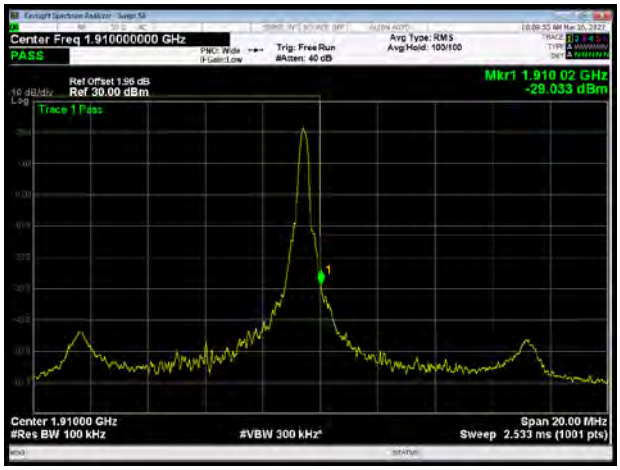
LTE Band 2 5MHz QPSK 100%RB CH-Low

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

LTE Band 2 10MHz QPSK 1RB CH-Low



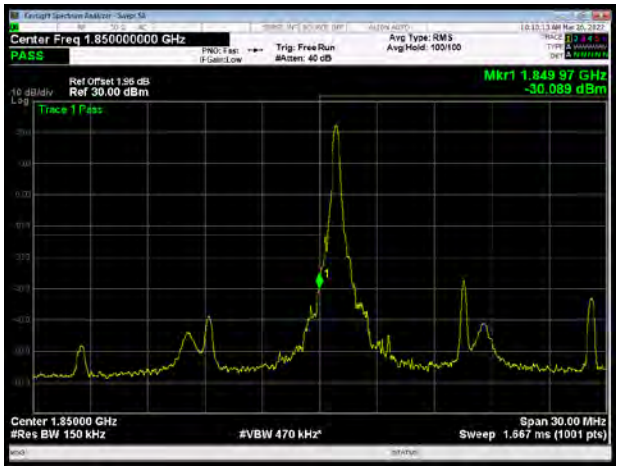
LTE Band 2 10MHz QPSK 1RB CH-High



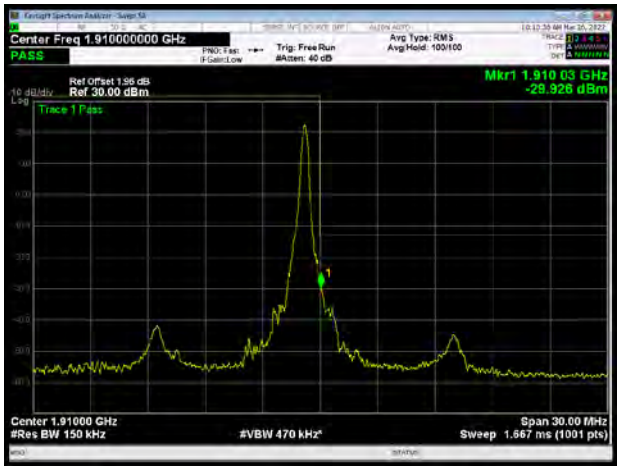
LTE Band 2 10MHz QPSK 100%RB CH-Low

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

LTE Band 2 15MHz QPSK 1RB CH-Low



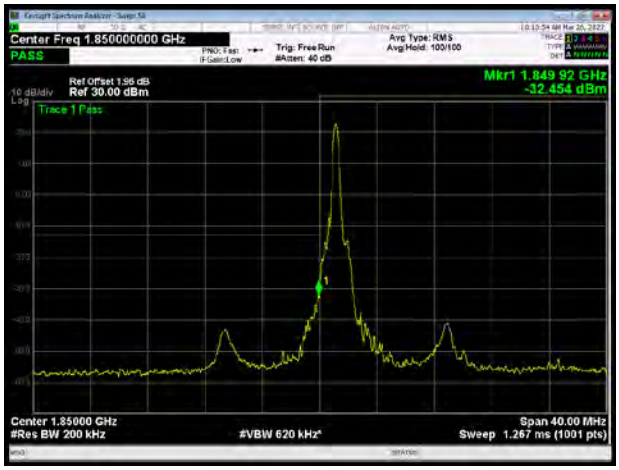
LTE Band 2 15MHz QPSK 1RB CH-High



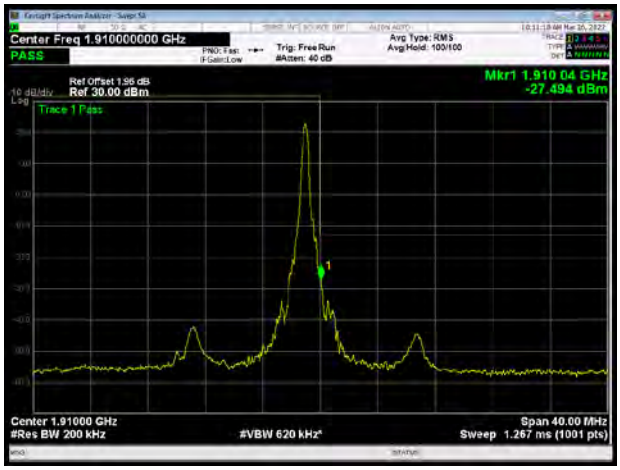
LTE Band 2 15MHz QPSK 100%RB CH-Low

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

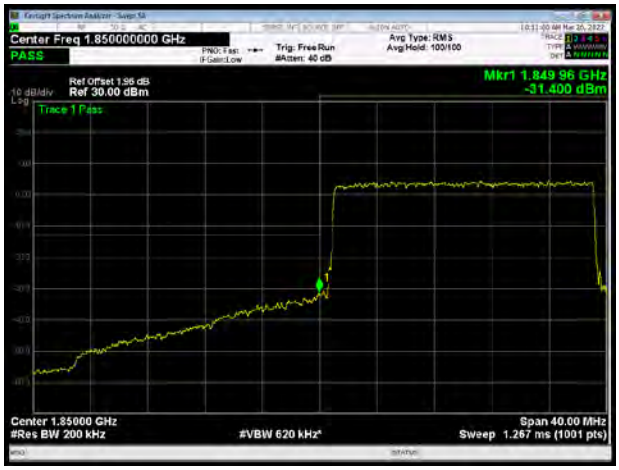
LTE Band 2 20MHz QPSK 1RB CH-Low



LTE Band 2 20MHz QPSK 1RB CH-High

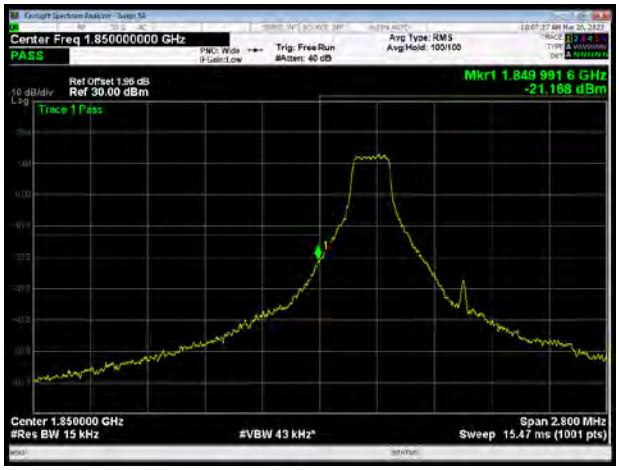


LTE Band 2 20MHz QPSK 100%RB CH-Low

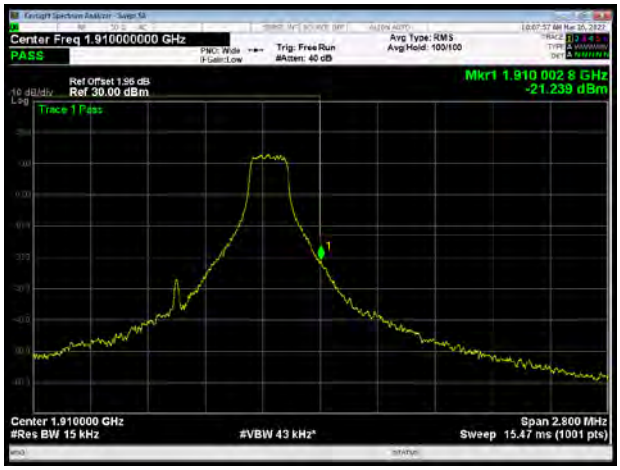


LTE Band 2 20MHz QPSK 100%RB CH-High

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



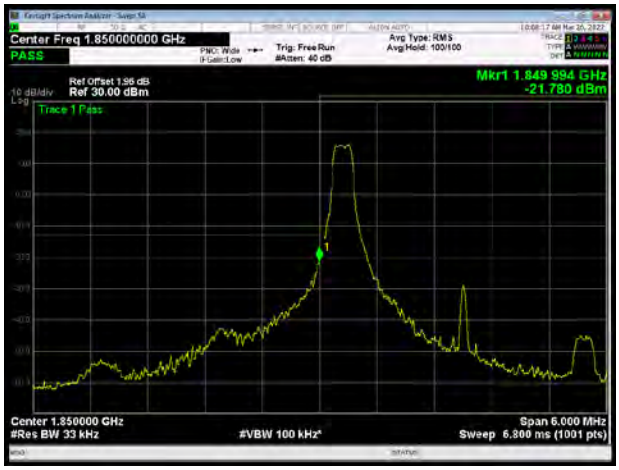
LTE Band 2 1.4MHz 16QAM 1RB CH-High



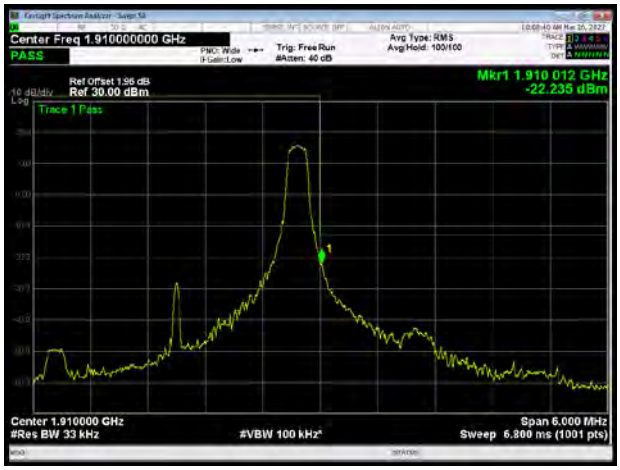
LTE Band 2 1.4MHz 16QAM 100%RB CH-Low

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

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



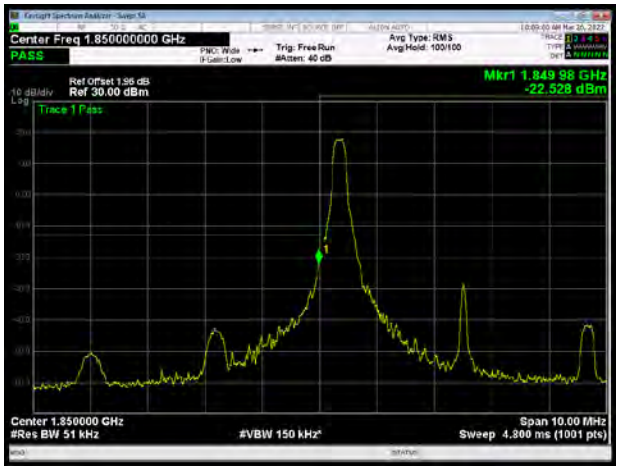
LTE Band 2 3MHz 16QAM 1RB CH-High



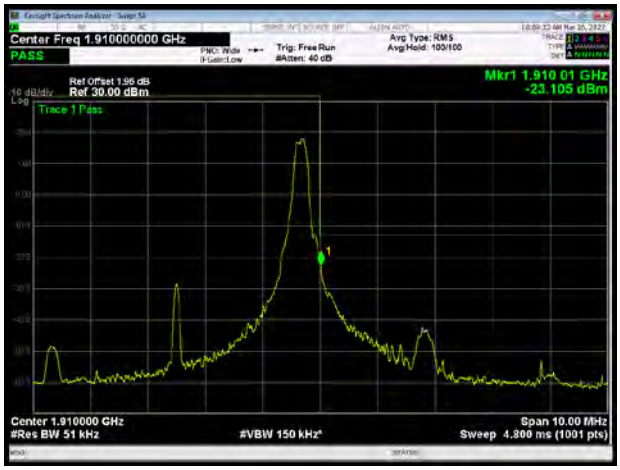
LTE Band 2 3MHz 16QAM 100%RB CH-Low

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

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



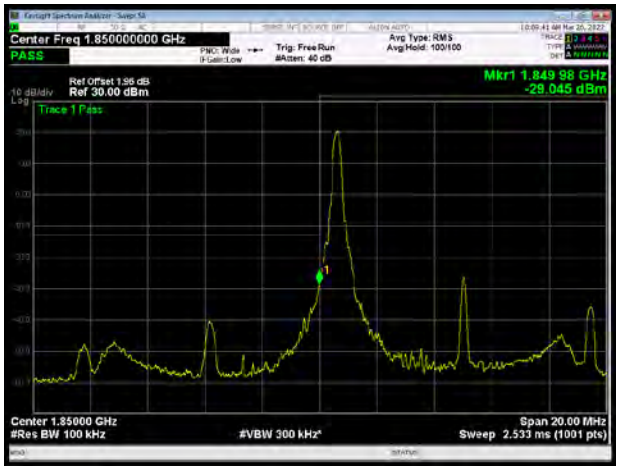
LTE Band 2 5MHz 16QAM 1RB CH-High



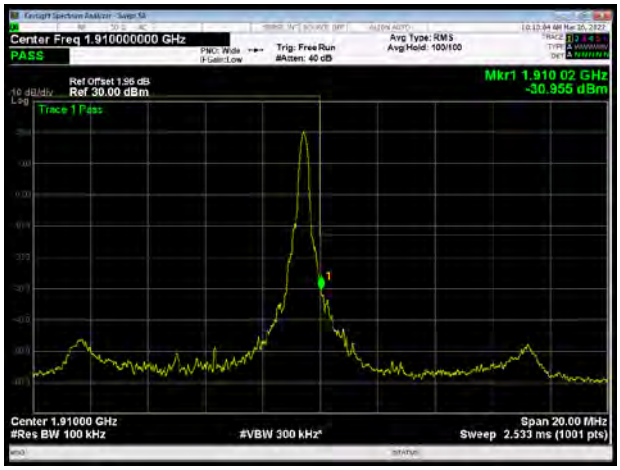
LTE Band 2 5MHz 16QAM 100%RB CH-Low

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

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



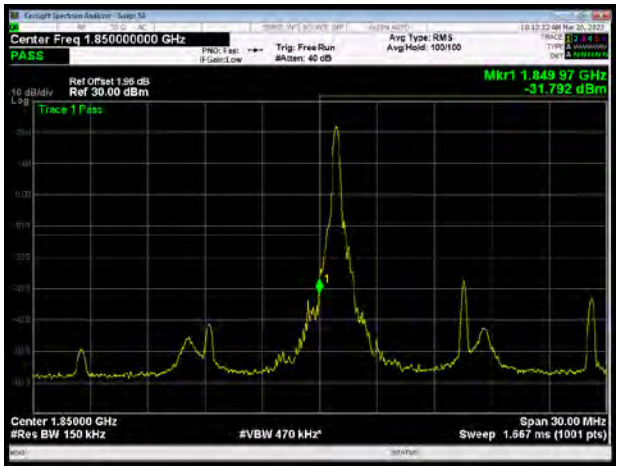
LTE Band 2 10MHz 16QAM 1RB CH-High



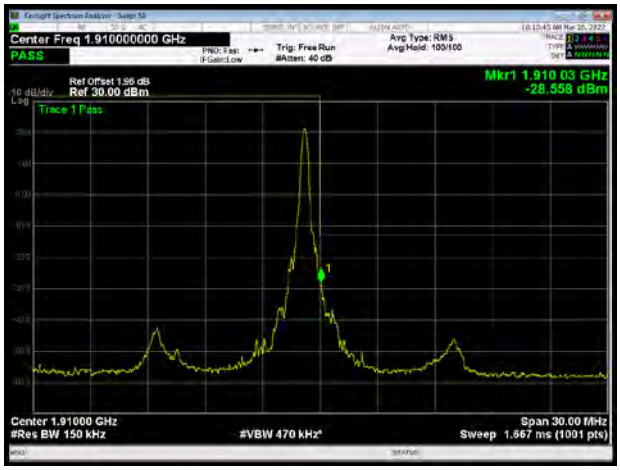
LTE Band 2 10MHz 16QAM 100%RB CH-Low

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

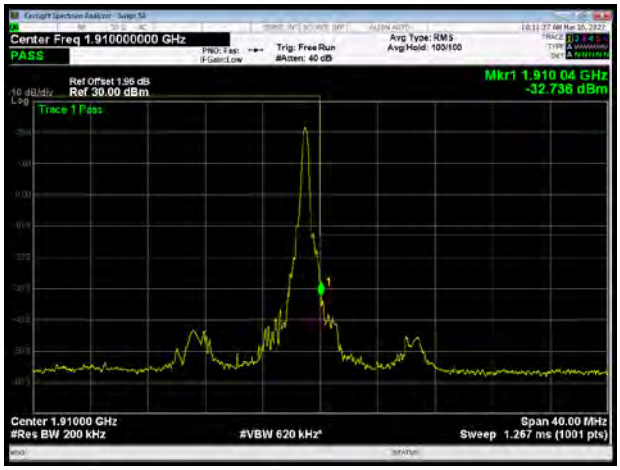


LTE Band 2 15MHz 16QAM 100%RB CH-Low

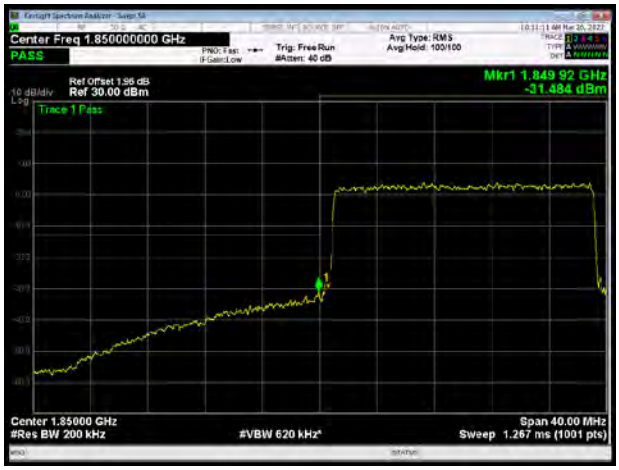
LTE Band 2 15MHz 16QAM 100%RB CH-High

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

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

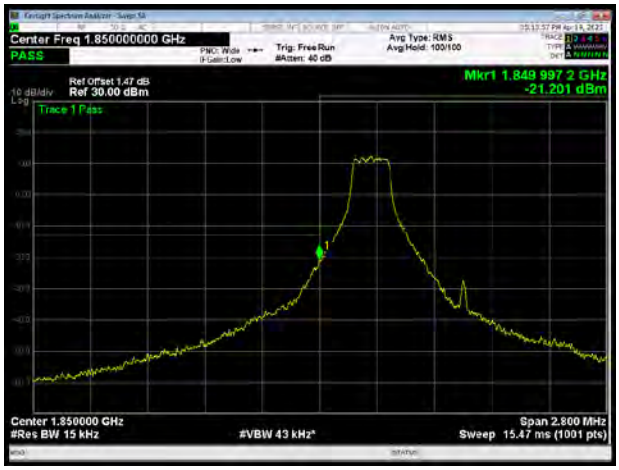


LTE Band 2 20MHz 16QAM 100%RB CH-Low

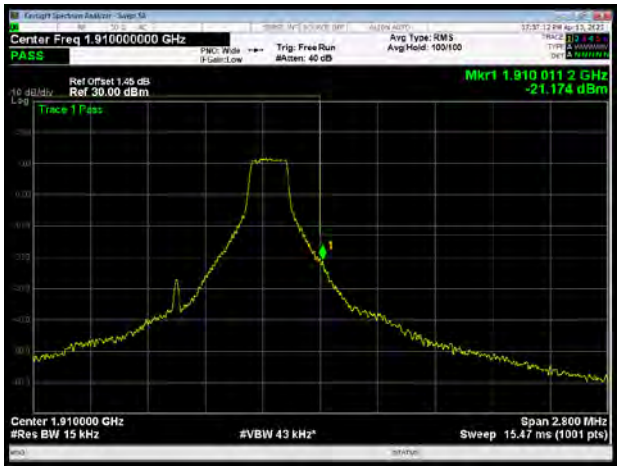


LTE Band 2 20MHz 16QAM 100%RB CH-High

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



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

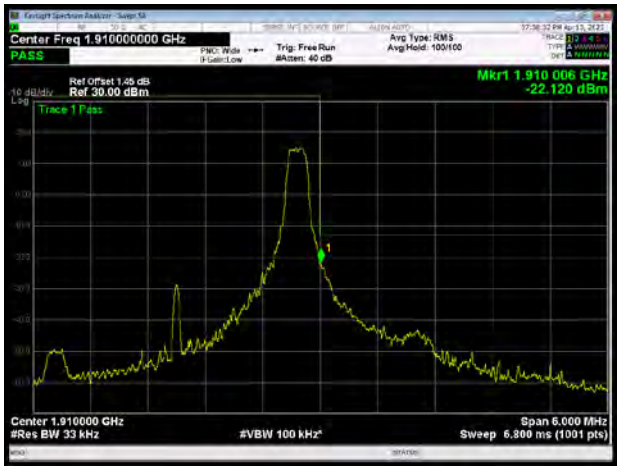


LTE Band 2 1.4MHz 64QAM 100%RB CH-Low

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

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

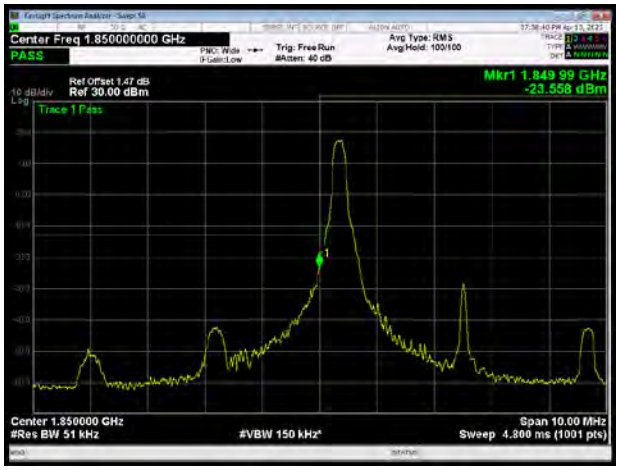
LTE Band 2 3MHz 64QAM 1RB CH-High



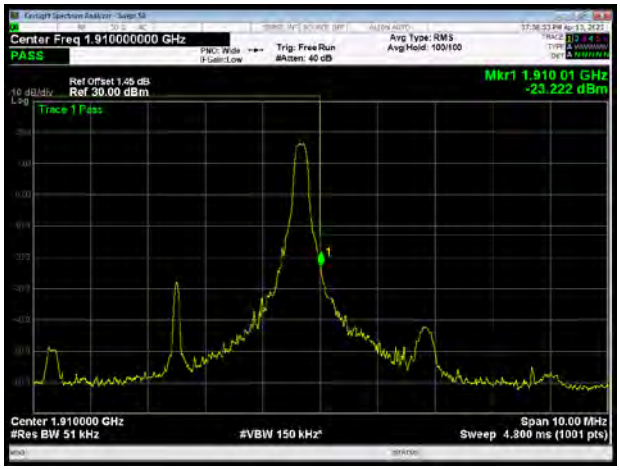
LTE Band 2 3MHz 64QAM 100%RB CH-Low

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

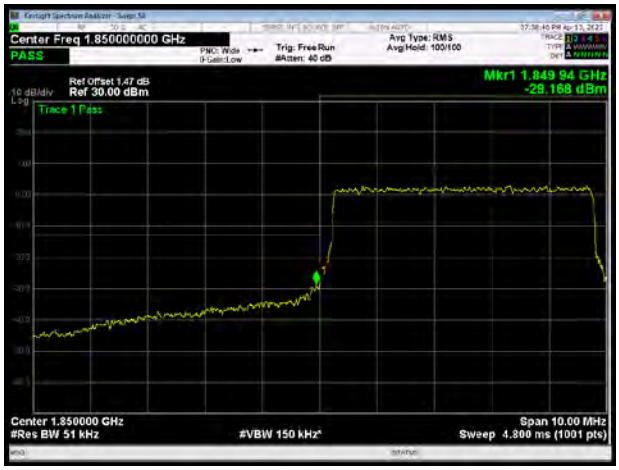
LTE Band 2 5MHz 64QAM 1RB CH-Low



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

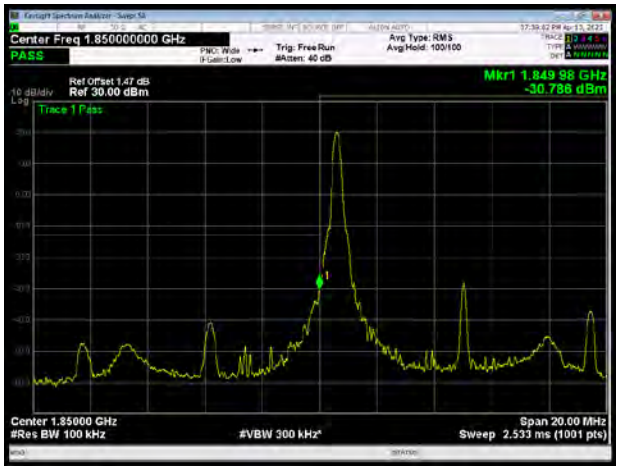


LTE Band 2 5MHz 64QAM 100%RB CH-Low



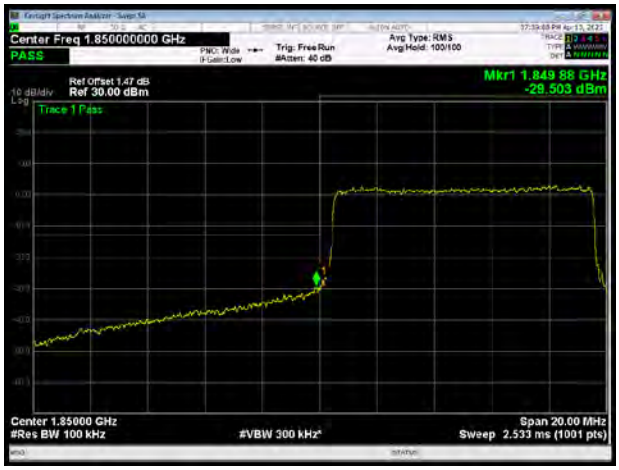
LTE Band 2 5MHz 64QAM 100%RB CH-High

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



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

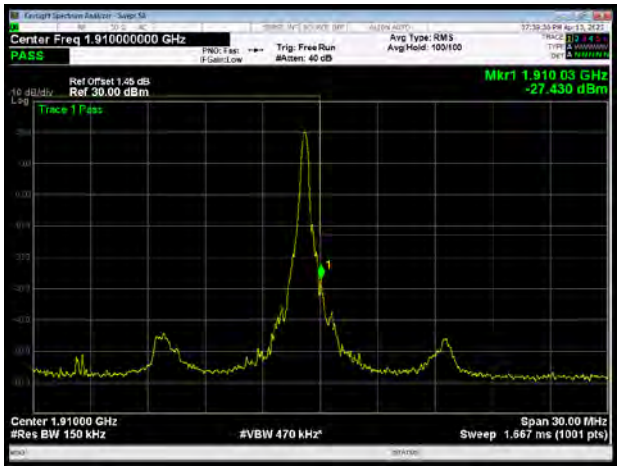
LTE Band 2 10MHz 64QAM 100%RB CH-Low



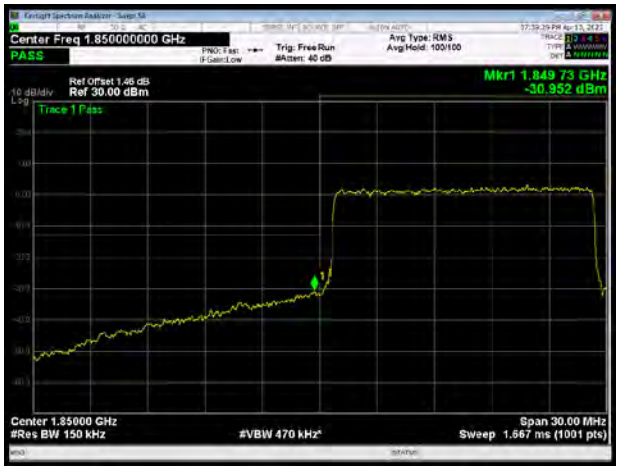
LTE Band 2 10MHz 64QAM 100%RB CH-High

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

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

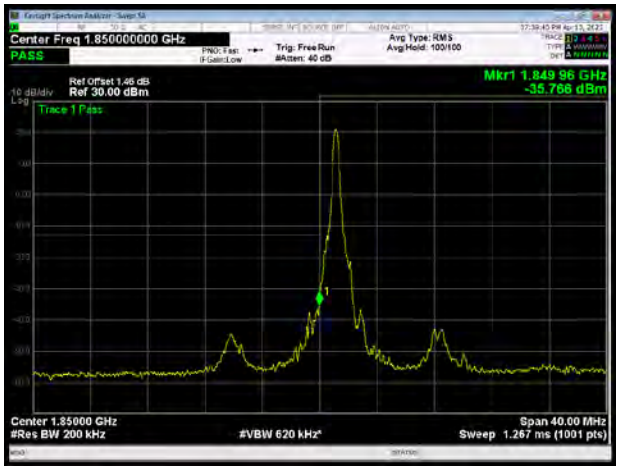


LTE Band 2 15MHz 64QAM 100%RB CH-Low

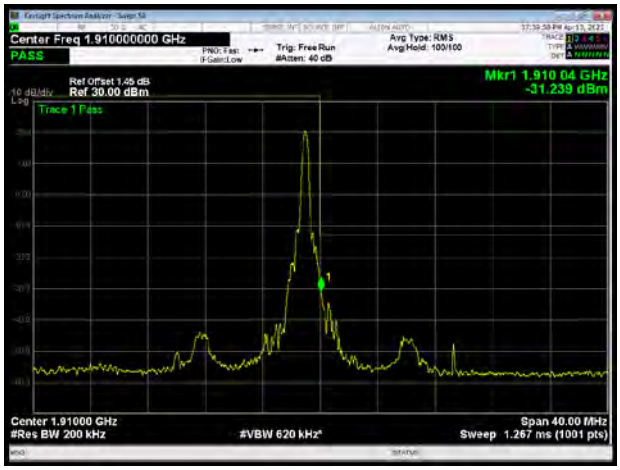


LTE Band 2 15MHz 64QAM 100%RB CH-High

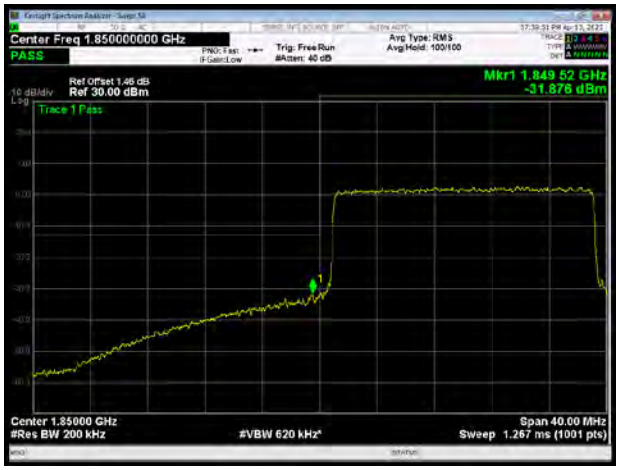
LTE Band 2 20MHz 64QAM 1RB CH-Low



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

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	30.97	27.81	3.16	≤13	PASS
	661	1880	31.63	28.43	3.20	≤13	PASS
	810	1909.8	30.64	27.43	3.21	≤13	PASS
GPRS 1900 (GMSK)	512	1850.2	30.69	27.52	3.17	≤13	PASS
	661	1880	31.24	28.01	3.23	≤13	PASS
	810	1909.8	29.91	26.64	3.27	≤13	PASS
EGPRS 1900 (8PSK)	512	1850.2	30.04	23.87	6.17	≤13	PASS
	661	1880	30.52	24.34	6.18	≤13	PASS
	810	1909.8	29.44	23.21	6.23	≤13	PASS
WCDMA Band II (RMC)	9262	1852.4	27.99	25.25	2.74	≤13	PASS
	9400	1880	28.23	25.68	2.55	≤13	PASS
	9538	1907.6	27.54	24.79	2.75	≤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	26.94	22.72	4.22	≤13	PASS
		18900	1880.0	26.90	22.62	4.28	≤13	PASS
		19193	1909.3	26.95	22.56	4.39	≤13	PASS
	3	18615	1851.5	27.01	22.74	4.27	≤13	PASS
		18900	1880	26.97	22.66	4.31	≤13	PASS
		19185	1908.5	27.06	22.60	4.46	≤13	PASS
	5	18625	1852.5	27.07	22.75	4.32	≤13	PASS
		18900	1880	26.97	22.66	4.31	≤13	PASS
		19175	1907.5	27.10	22.63	4.47	≤13	PASS
	10	18650	1855	27.29	22.76	4.53	≤13	PASS
		18900	1880	27.22	22.69	4.53	≤13	PASS
		19150	1905	27.29	22.57	4.72	≤13	PASS
	15	18675	1857.5	27.35	22.64	4.71	≤13	PASS
		18900	1880	27.25	22.55	4.70	≤13	PASS
		19125	1902.5	27.33	22.49	4.84	≤13	PASS
	20	18700	1860	27.52	22.67	4.85	≤13	PASS
		18900	1880	27.40	22.56	4.84	≤13	PASS
		19100	1900	27.40	22.56	4.84	≤13	PASS

16QAM	1.4	18607	1850.7	26.89	21.74	5.15	≤13	PASS
		18900	1880.0	26.83	21.64	5.19	≤13	PASS
		19193	1909.3	26.81	21.48	5.33	≤13	PASS
	3	18615	1851.5	26.96	21.77	5.19	≤13	PASS
		18900	1880	26.92	21.66	5.26	≤13	PASS
		19185	1908.5	26.93	21.57	5.36	≤13	PASS
	5	18625	1852.5	27.01	21.80	5.21	≤13	PASS
		18900	1880	26.91	21.65	5.26	≤13	PASS
		19175	1907.5	27.02	21.60	5.42	≤13	PASS
	10	18650	1855	27.25	21.80	5.45	≤13	PASS
		18900	1880	27.04	21.68	5.36	≤13	PASS
		19150	1905	27.15	21.56	5.59	≤13	PASS
	15	18675	1857.5	27.38	21.68	5.70	≤13	PASS
		18900	1880	27.21	21.59	5.62	≤13	PASS
		19125	1902.5	27.29	21.49	5.80	≤13	PASS
	20	18700	1860	27.47	21.65	5.82	≤13	PASS
		18900	1880	27.32	21.57	5.75	≤13	PASS
		19100	1900	27.41	21.55	5.86	≤13	PASS
64QAM	1.4	18607	1850.7	26.05	20.85	5.20	≤13	PASS
		18900	1880.0	25.93	20.78	5.15	≤13	PASS
		19193	1909.3	25.95	20.73	5.22	≤13	PASS
	3	18615	1851.5	26.03	20.85	5.18	≤13	PASS
		18900	1880	26.00	20.82	5.18	≤13	PASS
		19185	1908.5	26.01	20.75	5.26	≤13	PASS
	5	18625	1852.5	26.04	20.85	5.19	≤13	PASS
		18900	1880	26.07	20.85	5.22	≤13	PASS
		19175	1907.5	26.11	20.77	5.34	≤13	PASS
	10	18650	1855	26.23	20.88	5.35	≤13	PASS
		18900	1880	26.15	20.82	5.33	≤13	PASS
		19150	1905	26.28	20.72	5.56	≤13	PASS
	15	18675	1857.5	26.37	20.74	5.63	≤13	PASS
		18900	1880	26.34	20.72	5.62	≤13	PASS
		19125	1902.5	26.39	20.65	5.74	≤13	PASS
	20	18700	1860	26.54	20.76	5.78	≤13	PASS
		18900	1880	26.44	20.73	5.71	≤13	PASS
		19100	1900	26.53	20.73	5.80	≤13	PASS

6.5. Frequency Stability

GSM1900						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
Temperature	Voltage	GMSK	8PSK	GMSK	8PSK	
Normal（25℃）	Normal	17.40	11.79	0.02080	0.01409	PASS
Extreme（50℃）		7.93	5.21	0.00948	0.00622	PASS
Extreme（40℃）		11.42	14.97	0.01365	0.01789	PASS
Extreme（30℃）		2.38	4.54	0.00285	0.00542	PASS
Extreme（20℃）		5.98	7.52	0.00714	0.00899	PASS
Extreme（10℃）		17.15	16.30	0.02050	0.01948	PASS
Extreme（0℃）		6.68	14.43	0.00799	0.01725	PASS
Extreme（-10℃）		17.64	9.38	0.02108	0.01122	PASS
Extreme（-20℃）		12.12	6.10	0.01449	0.00730	PASS
Extreme（-30℃）		4.81	12.62	0.00575	0.01509	PASS
25℃	LV	12.08	5.49	0.01443	0.00656	PASS
	HV	4.28	16.33	0.00511	0.01952	PASS

WCDMA Band II						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
Temperature	Voltage	QPSK	BPSK	QPSK	BPSK	
Normal（25℃）	Normal	12.00	3.17	0.00638	0.00168	PASS
Extreme（50℃）		12.16	1.45	0.00647	0.00077	PASS
Extreme（40℃）		12.75	6.66	0.00678	0.00354	PASS
Extreme（30℃）		3.15	15.54	0.00168	0.00826	PASS
Extreme（20℃）		17.37	8.70	0.00924	0.00463	PASS
Extreme（10℃）		11.74	8.45	0.00625	0.00449	PASS
Extreme（0℃）		2.54	6.83	0.00135	0.00363	PASS
Extreme（-10℃）		2.17	6.93	0.00115	0.00369	PASS
Extreme（-20℃）		11.64	3.64	0.00619	0.00194	PASS
Extreme（-30℃）		14.07	10.23	0.00749	0.00544	PASS
25℃	LV	11.69	2.17	0.00622	0.00115	PASS
	HV	13.12	1.47	0.00698	0.00078	PASS

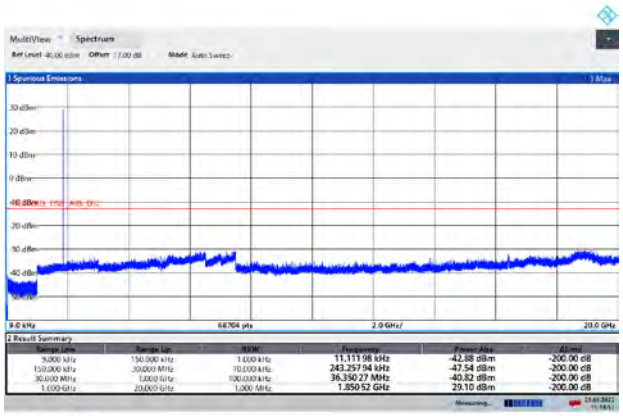
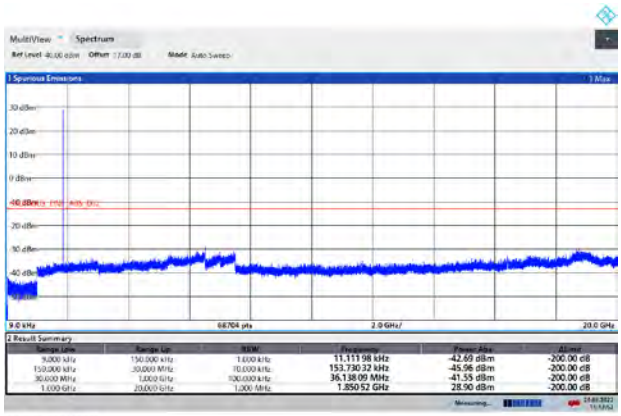
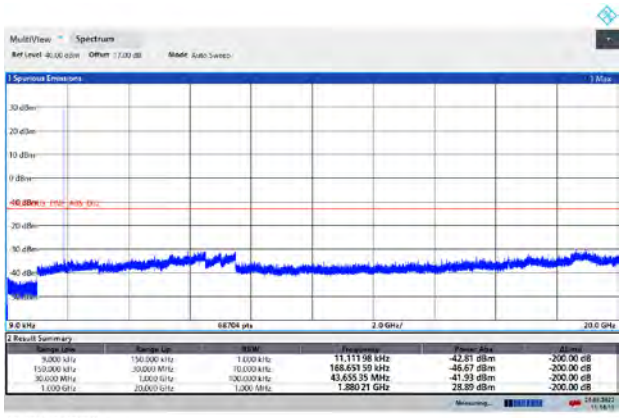
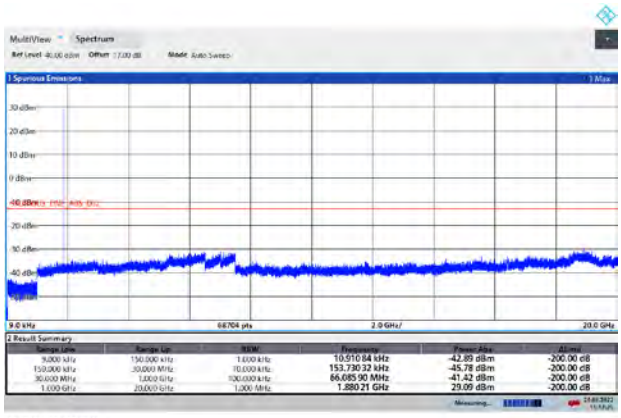
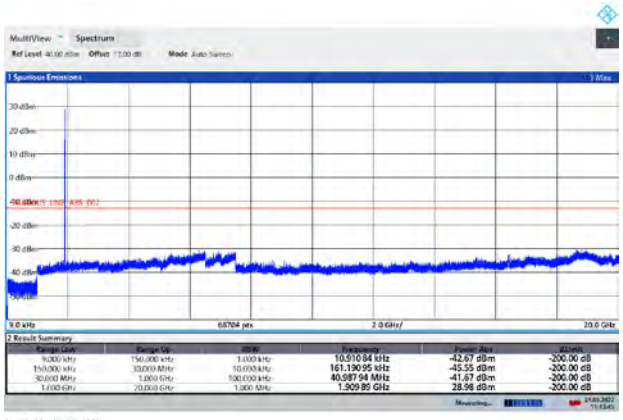
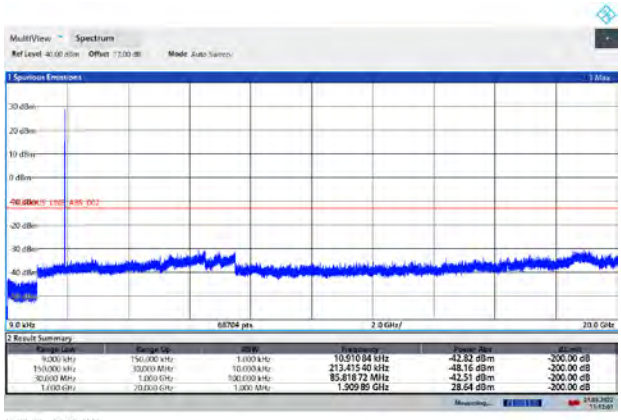
LTE Band2								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	11.90	14.03	13.95	0.00633	0.00747	0.00742	PASS
Extreme（50℃）		15.02	9.52	1.52	0.00799	0.00507	0.00081	PASS
Extreme（40℃）		8.28	3.01	8.76	0.00440	0.00160	0.00466	PASS
Extreme（30℃）		17.60	3.43	6.74	0.00936	0.00183	0.00358	PASS
Extreme（20℃）		17.35	1.46	4.76	0.00923	0.00078	0.00253	PASS
Extreme（10℃）		5.18	2.19	4.01	0.00276	0.00117	0.00213	PASS
Extreme（0℃）		17.68	6.60	3.70	0.00941	0.00351	0.00197	PASS
Extreme（-10℃）		15.51	1.21	8.13	0.00825	0.00064	0.00433	PASS
Extreme（-20℃）		10.18	14.23	5.21	0.00541	0.00757	0.00277	PASS
Extreme（-30℃）		3.31	17.65	14.42	0.00176	0.00939	0.00767	PASS
25℃	LV	2.39	13.98	8.19	0.00127	0.00744	0.00436	PASS
	HV	5.66	8.96	17.17	0.00301	0.00477	0.00913	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	16.08	11.69	6.11	0.00856	0.00622	0.00325	PASS
Extreme（50℃）		5.44	17.53	7.33	0.00289	0.00932	0.00390	PASS
Extreme（40℃）		5.49	12.72	4.26	0.00292	0.00676	0.00227	PASS
Extreme（30℃）		15.25	2.27	3.12	0.00811	0.00121	0.00166	PASS
Extreme（20℃）		17.03	10.07	11.68	0.00906	0.00536	0.00621	PASS
Extreme（10℃）		1.95	15.73	13.84	0.00104	0.00837	0.00736	PASS
Extreme（0℃）		11.78	7.49	13.77	0.00627	0.00398	0.00733	PASS
Extreme（-10℃）		7.54	14.81	8.59	0.00401	0.00788	0.00457	PASS
Extreme（-20℃）		15.26	5.45	8.80	0.00811	0.00290	0.00468	PASS
Extreme（-30℃）		11.26	6.41	14.12	0.00599	0.00341	0.00751	PASS
25℃	LV	16.61	14.50	16.24	0.00884	0.00772	0.00864	PASS
	HV	4.97	17.81	15.33	0.00264	0.00947	0.00816	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	4.05	12.54	17.32	0.00215	0.00667	0.00921	PASS
Extreme（50℃）		10.98	3.39	10.97	0.00584	0.00180	0.00583	PASS

Extreme（40℃）		15.98	5.45	16.87	0.00850	0.00290	0.00898	PASS
Extreme（30℃）		5.81	14.89	16.91	0.00309	0.00792	0.00900	PASS
Extreme（20℃）		15.14	13.18	5.09	0.00805	0.00701	0.00271	PASS
Extreme（10℃）		10.27	17.69	8.57	0.00546	0.00941	0.00456	PASS
Extreme（0℃）		16.96	13.08	13.68	0.00902	0.00696	0.00727	PASS
Extreme（-10℃）		7.13	8.49	6.47	0.00379	0.00452	0.00344	PASS
Extreme（-20℃）		14.84	8.94	9.60	0.00789	0.00475	0.00511	PASS
Extreme（-30℃）		12.72	8.34	4.71	0.00677	0.00443	0.00251	PASS
25℃	LV	8.07	10.93	15.69	0.00429	0.00581	0.00834	PASS
	HV	11.20	3.37	1.75	0.00596	0.00179	0.00093	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	7.79	1.87	13.01	0.00414	0.00099	0.00692	PASS
Extreme（50℃）		10.41	5.70	17.03	0.00554	0.00303	0.00906	PASS
Extreme（40℃）		1.56	5.09	10.88	0.00083	0.00271	0.00579	PASS
Extreme（30℃）		17.28	8.87	10.29	0.00919	0.00472	0.00547	PASS
Extreme（20℃）		1.95	2.71	3.33	0.00104	0.00144	0.00177	PASS
Extreme（10℃）		10.64	16.51	11.25	0.00566	0.00878	0.00598	PASS
Extreme（0℃）		11.27	1.13	10.23	0.00600	0.00060	0.00544	PASS
Extreme（-10℃）		14.96	15.13	3.77	0.00796	0.00805	0.00200	PASS
Extreme（-20℃）		16.22	7.13	1.81	0.00863	0.00379	0.00096	PASS
Extreme（-30℃）		6.66	4.58	5.17	0.00354	0.00244	0.00275	PASS
25℃	LV	8.56	9.26	12.00	0.00455	0.00493	0.00638	PASS
	HV	17.76	3.75	6.07	0.00945	0.00199	0.00323	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	15.54	14.70	14.70	0.00827	0.00782	0.00782	PASS
Extreme（50℃）		13.97	2.65	15.85	0.00743	0.00141	0.00843	PASS
Extreme（40℃）		4.10	1.73	3.79	0.00218	0.00092	0.00202	PASS
Extreme（30℃）		6.96	12.99	1.14	0.00370	0.00691	0.00061	PASS
Extreme（20℃）		5.98	11.73	16.24	0.00318	0.00624	0.00864	PASS
Extreme（10℃）		16.35	10.30	16.15	0.00870	0.00548	0.00859	PASS
Extreme（0℃）		3.56	3.99	15.75	0.00190	0.00212	0.00838	PASS
Extreme（-10℃）		1.88	5.10	2.10	0.00100	0.00271	0.00111	PASS
Extreme（-20℃）		11.91	17.31	8.20	0.00634	0.00921	0.00436	PASS
Extreme（-30℃）		6.76	2.66	14.82	0.00359	0.00141	0.00788	PASS
25℃	LV	13.99	9.34	16.35	0.00744	0.00497	0.00870	PASS

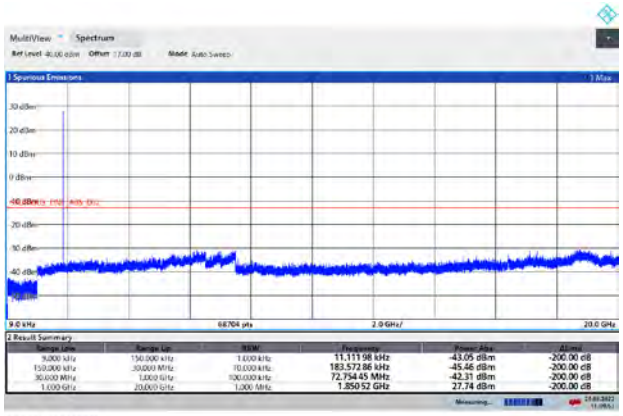
	HV	3.25	16.90	13.28	0.00173	0.00899	0.00706	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	9.46	12.08	1.32	0.00503	0.00642	0.00070	PASS
Extreme（50℃）		8.79	7.95	5.23	0.00468	0.00423	0.00278	PASS
Extreme（40℃）		5.71	6.11	5.17	0.00304	0.00325	0.00275	PASS
Extreme（30℃）		5.38	1.21	13.11	0.00286	0.00064	0.00698	PASS
Extreme（20℃）		3.18	5.24	13.00	0.00169	0.00279	0.00691	PASS
Extreme（10℃）		8.29	9.72	8.72	0.00441	0.00517	0.00464	PASS
Extreme（0℃）		10.62	2.25	3.69	0.00565	0.00120	0.00196	PASS
Extreme（-10℃）		5.82	5.68	8.13	0.00309	0.00302	0.00433	PASS
Extreme（-20℃）		17.67	7.30	8.20	0.00940	0.00388	0.00436	PASS
Extreme（-30℃）		4.71	9.98	17.50	0.00251	0.00531	0.00931	PASS
25℃	LV	16.30	7.06	10.51	0.00867	0.00375	0.00559	PASS
	HV	2.75	4.76	1.85	0.00146	0.00253	0.00099	PASS

6.6. Spurious Emissions at Antenna Terminals

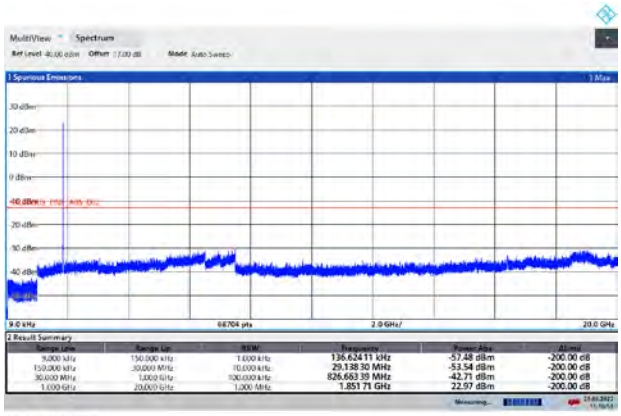
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.
The signal beyond the limit is carrier.

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
	

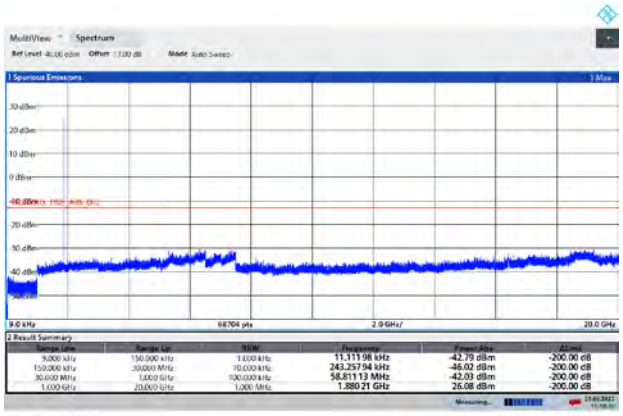
EGPRS 1900 CH-Low 9kHz ~ 20GHz



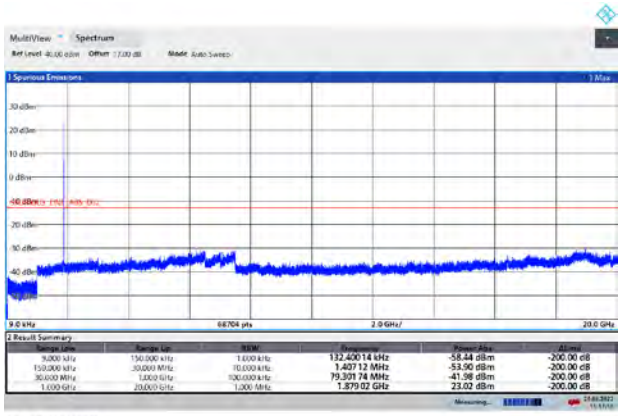
WCDMA BAND II CH-Low 9kHz ~ 20GHz



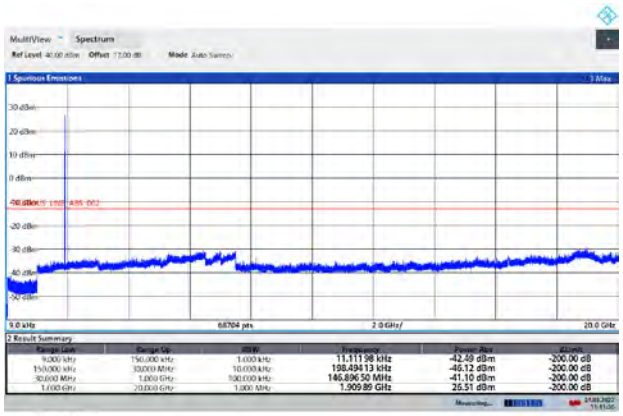
EGPRS 1900 CH- Middle 9kHz ~ 20GHz



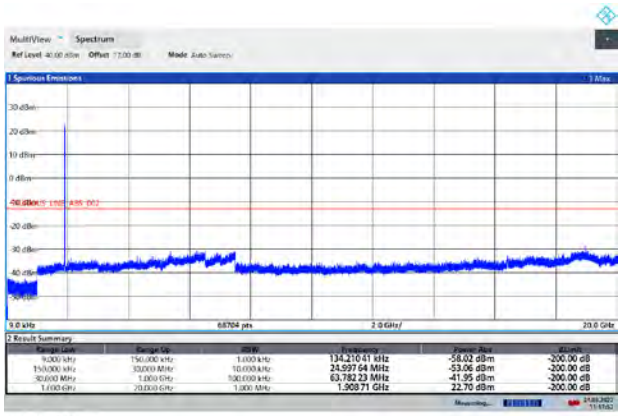
WCDMA BAND II CH- Middle 9kHz ~ 20GHz



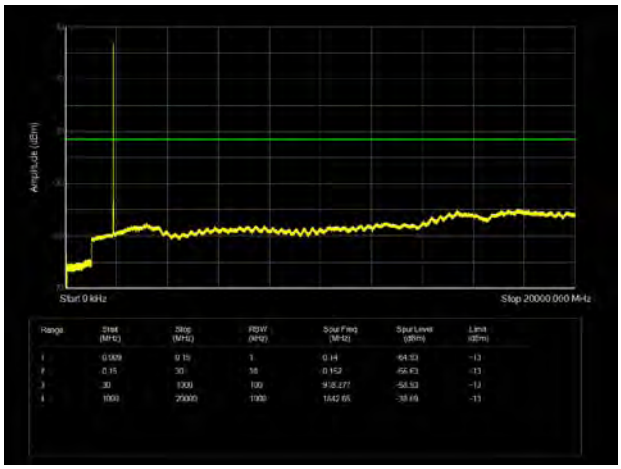
EGPRS 1900 CH-High 9kHz ~ 20GHz



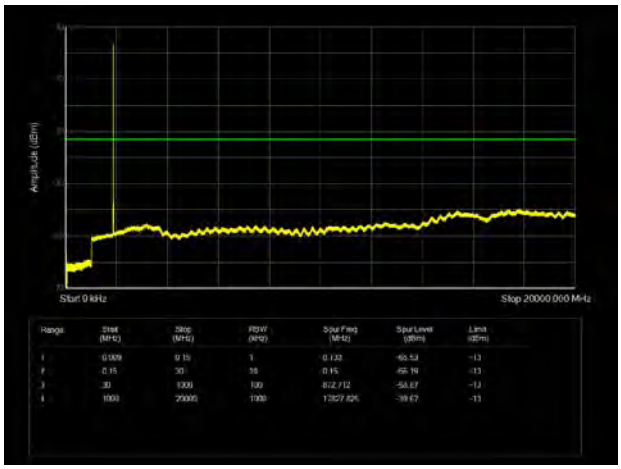
WCDMA BAND II CH-High 9kHz ~ 20GHz



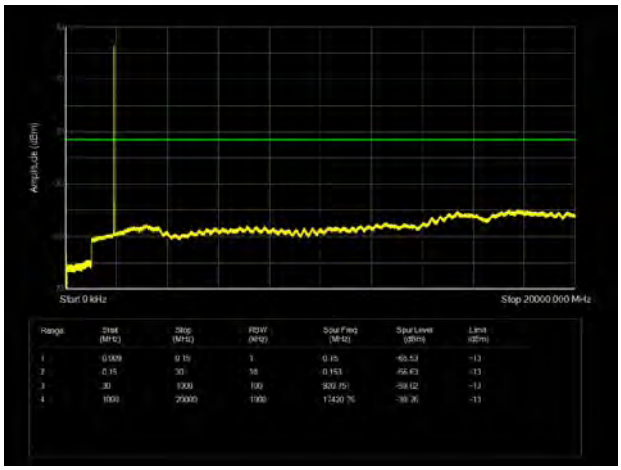
LTE Band 2 1.4MHz CH-Low 9kHz~20GHz



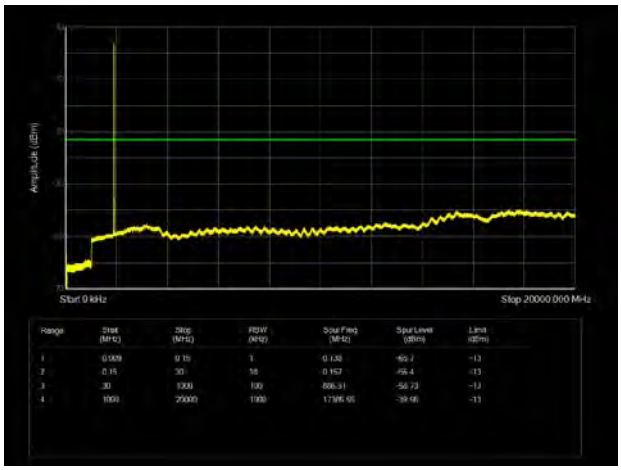
LTE Band 2 3MHz CH-Low 9kHz~20GHz



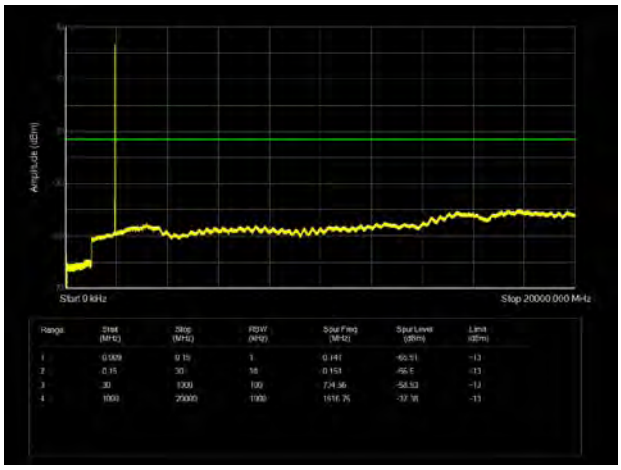
LTE Band 2 1.4MHz CH-Middle 9kHz~20GHz



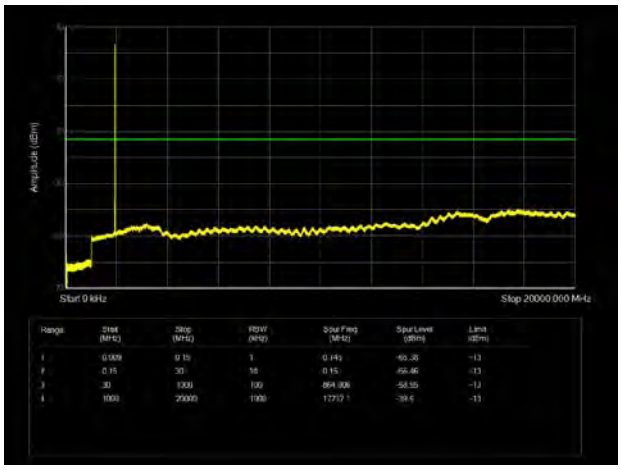
LTE Band 2 3MHz CH-Middle 9kHz~20GHz



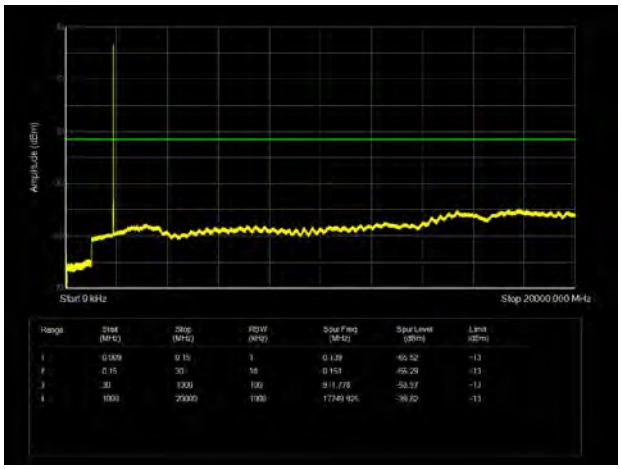
LTE Band 2 1.4MHz CH-High 9kHz~20GHz



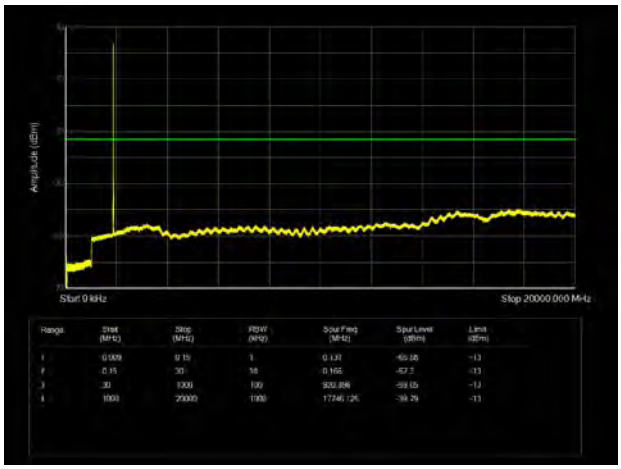
LTE Band 2 3MHz CH-High 9kHz~20GHz



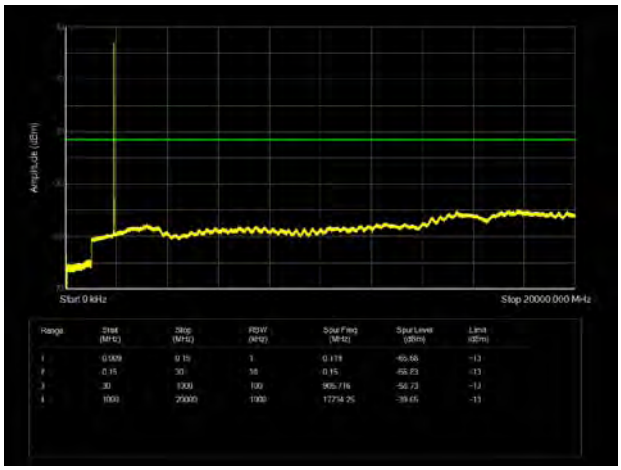
LTE Band 2 5MHz CH-Low 9kHz~20GHz



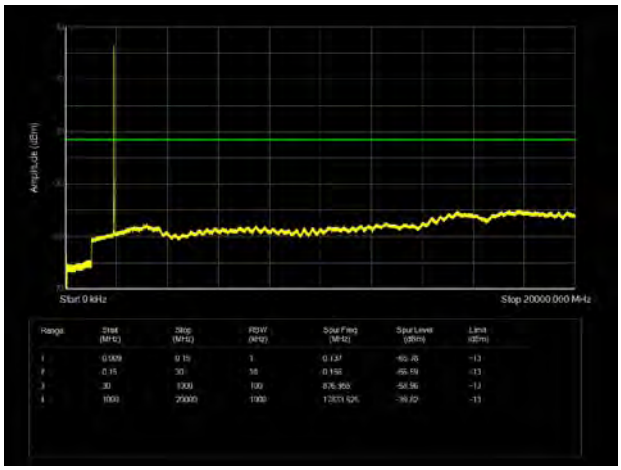
LTE Band 2 10MHz CH-Low 9kHz~20GHz



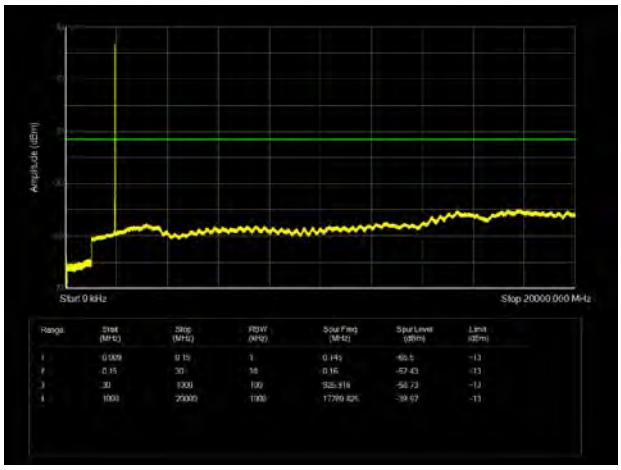
LTE Band 2 5MHz CH-Middle 9kHz~20GHz



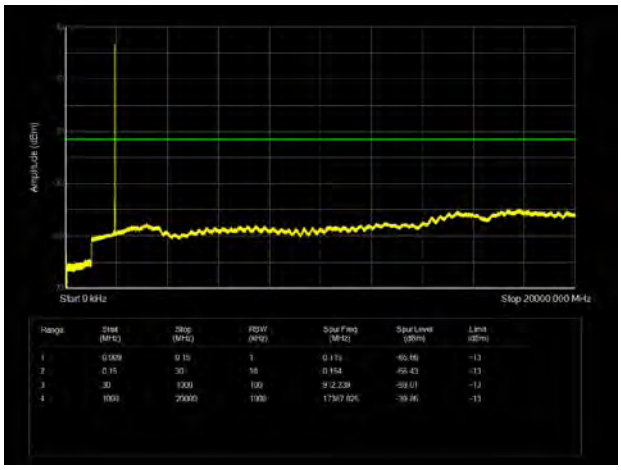
LTE Band 2 10MHz CH-Middle 9kHz~20GHz



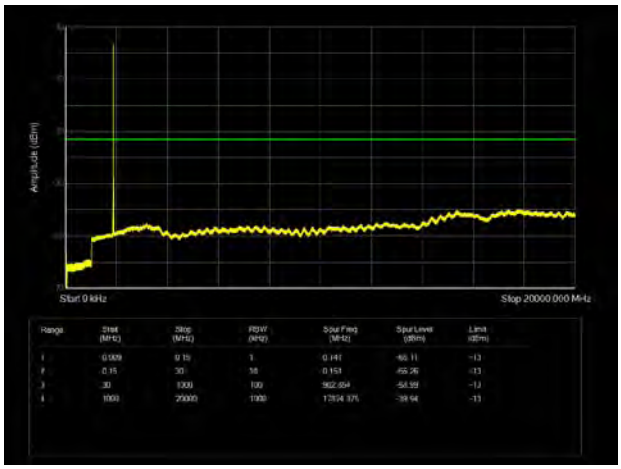
LTE Band 2 5MHz CH-High 9kHz~20GHz



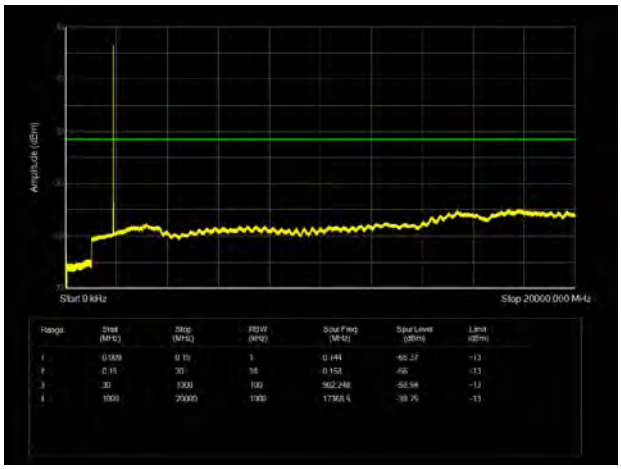
LTE Band 2 10MHz CH-High 9kHz~20GHz



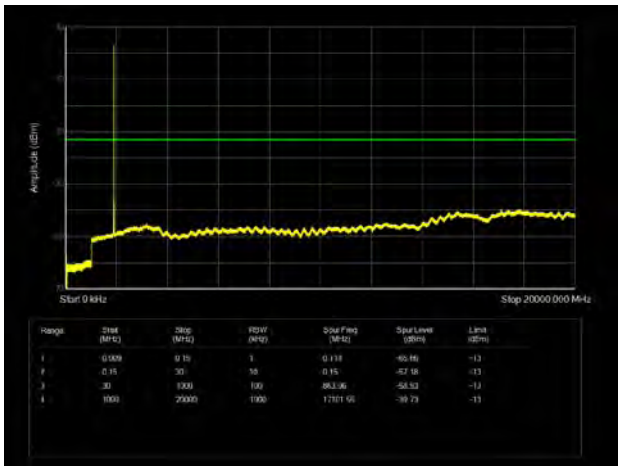
LTE Band 2 15MHz CH-Low 9kHz~20GHz



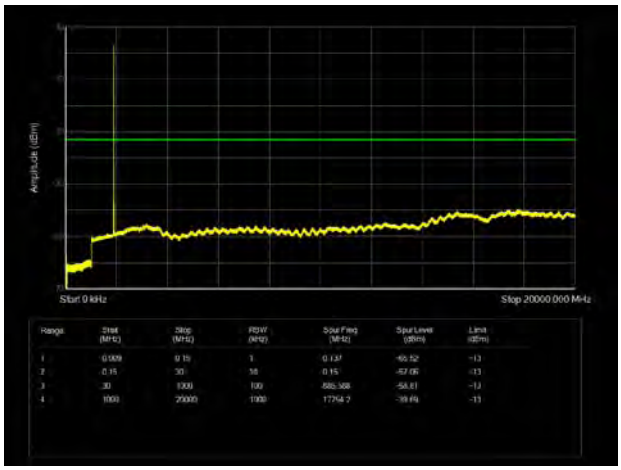
LTE Band 2 20MHz CH-Low 9kHz~20GHz



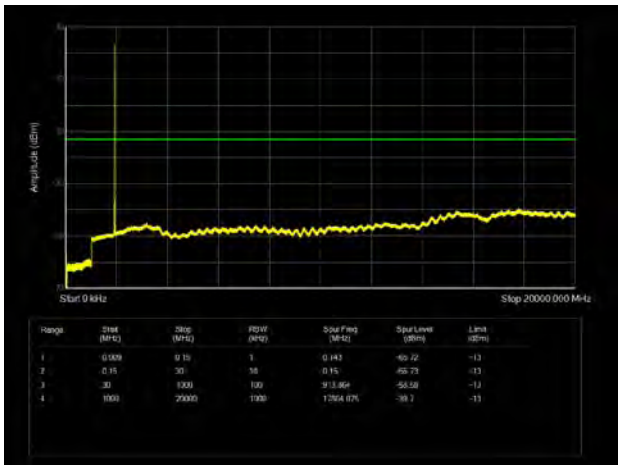
LTE Band 2 15MHz CH-Middle 9kHz~20GHz



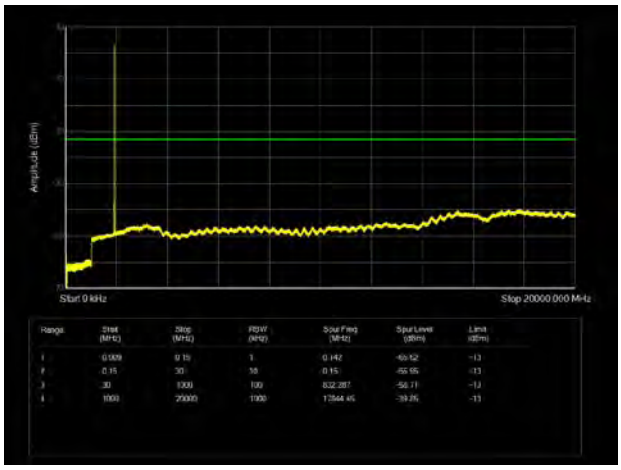
LTE Band 2 20MHz CH-Middle 9kHz~20GHz



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



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



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.

During the test, preliminary tests were performed allAntenna, and the Main Antenna was sele cted as the worst case. Worst-case test data is documented in this 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	-60.24	2.60	12.50	Horizontal	-50.34	-13.00	37.34	90
3	5640.00	-52.30	3.30	12.50	Horizontal	-43.10	-13.00	30.10	180
4	7520.00	-56.57	4.20	12.20	Horizontal	-48.57	-13.00	35.57	0
5	9400.00	-51.43	4.30	11.10	Horizontal	-44.63	-13.00	31.63	135
6	11280.00	-50.40	5.90	11.90	Horizontal	-44.40	-13.00	31.40	90
7	13160.00	-51.75	5.70	14.00	Horizontal	-43.45	-13.00	30.45	45
8	15040.00	-46.99	5.80	13.10	Horizontal	-39.69	-13.00	26.69	0
9	16920.00	-47.91	6.10	14.60	Horizontal	-39.41	-13.00	26.41	315
10	18800.00	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

WCDMA Band II CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-65.39	2.60	12.50	Horizontal	-55.49	-13.00	42.49	0
3	5640.00	-63.52	3.30	12.50	Horizontal	-54.32	-13.00	41.32	270
4	7520.00	-56.93	4.20	12.20	Horizontal	-48.93	-13.00	35.93	135
5	9400.00	-51.74	4.30	11.10	Horizontal	-44.94	-13.00	31.94	0
6	11280.00	-48.82	5.90	11.90	Horizontal	-42.82	-13.00	29.82	225
7	13160.00	-51.93	5.70	14.00	Horizontal	-43.63	-13.00	30.63	90
8	15040.00	-46.46	5.80	13.10	Horizontal	-39.16	-13.00	26.16	135
9	16920.00	-50.14	6.10	14.60	Horizontal	-41.64	-13.00	28.64	0
10	18800.00	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 2 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	3759.00	-61.85	2.60	12.50	Vertical	-51.95	-13.00	38.95	0
3	5638.88	-45.87	3.30	12.50	Vertical	-36.67	-13.00	23.67	315
4	7520.00	-57.70	4.20	12.20	Vertical	-49.70	-13.00	36.70	45
5	9400.00	-54.08	4.30	11.10	Vertical	-47.28	-13.00	34.28	225
6	11280.00	-49.81	5.90	11.90	Vertical	-43.81	-13.00	30.81	90
7	13160.00	-52.27	5.70	14.00	Vertical	-43.97	-13.00	30.97	180
8	15040.00	-47.78	5.80	13.10	Vertical	-40.48	-13.00	27.48	135
9	16920.00	-50.25	6.10	14.60	Vertical	-41.75	-13.00	28.75	90
10	18800.00	--	--	--	--	--	--	--	--

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is 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	3755.63	-63.02	2.60	12.50	Vertical	-53.12	-13.00	40.12	45
3	5633.63	-55.01	3.30	12.50	Vertical	-45.81	-13.00	32.81	0
4	7520.00	-57.78	4.20	12.20	Vertical	-49.78	-13.00	36.78	225
5	9400.00	-52.83	4.30	11.10	Vertical	-46.03	-13.00	33.03	270
6	11280.00	-51.02	5.90	11.90	Vertical	-45.02	-13.00	32.02	180
7	13160.00	-53.39	5.70	14.00	Vertical	-45.09	-13.00	32.09	225
8	15040.00	-47.41	5.80	13.10	Vertical	-40.11	-13.00	27.11	135
9	16920.00	-50.62	6.10	14.60	Vertical	-42.12	-13.00	29.12	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.

LTE Band 2 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3742.13	-61.91	2.60	12.50	Vertical	-52.01	-13.00	39.01	45
3	5613.38	-51.72	3.30	12.50	Vertical	-42.52	-13.00	29.52	90
4	7484.63	-57.05	4.20	12.20	Vertical	-49.05	-13.00	36.05	225
5	9400.00	-51.82	4.30	11.10	Vertical	-45.02	-13.00	32.02	315
6	11280.00	-50.86	5.90	11.90	Vertical	-44.86	-13.00	31.86	180
7	13160.00	-52.43	5.70	14.00	Vertical	-44.13	-13.00	31.13	90
8	15040.00	-48.01	5.80	13.10	Vertical	-40.71	-13.00	27.71	45
9	16920.00	-48.83	6.10	14.60	Vertical	-40.33	-13.00	27.33	135
10	18800.00	--	--	--	--	--	--	--	--

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

7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Wireless Communication Tester	Anritsu	MT8000A	6261844783	2021-05-15	2022-05-14
Wireless Communication Tester	Anritsu	MT8821C	6201538758	2021-05-15	2022-05-14
Climate Chamber	WEISS	VT 4002	582261194500 10	2021-05-15	2022-05-14
Base Station Simulator	R&S	CMW500	150415	2021-05-15	2022-05-14
Spectrum Analyzer	Keysight	N9020A	MY52330084	2021-05-15	2022-05-14
Universal Radio Communication Tester	Agilent	E5515C	GB44400275	2021-05-15	2022-05-14
Universal Radio Communication Tester	StarPoint	SP9500	SP9500-2044 0	2021-05-15	2022-05-14
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-11
Spectrum Analyzer	R&S	FSV30	104028	2021-05-15	2022-05-14
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2020-04-02	2023-04-01
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	01111	2019-09-12	2022-09-11
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
Horn Antenna	ETS-Lindgren	3160-09	00102643	2020-08-11	2023-08-10
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.