RF TEST REPORT

Applicant	Xiaomi Communications Co., Ltd.
FCC ID	2AFZZPCA6G
Product	Mobile Phone
Brand	POCO
Model	2312FPCA6G
Report No.	R2309A0988-R2
Issue Date	October 26, 2023

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2022)/ FCC CFR 47 Part 24E (2022)**. 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	Radiated Spurious Emission	2.1053 / 24.238(a)	PASS
Date of Testing: September 23, 2023 ~ October 12, 2023 Date of Sample Received: September 20, 2023			
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.			

2312FPCA6G (Report No.: R2309A0988-R2) is a variant model of 23117RA68G (Report No.: R2309A0986-R2).

The difference between the two models is shown in the table below:

Item	Original	Variant
Brand	Redmi	POCO
Model	23117RA68G	2312FPCA6G
Camera(back) Spec	200M+OIS+8M uw	64M+OIS+8M uw
Battery cover material (the thickness are same)	Glass (thickness: 0.68mm)	PC+PMMA (thickness: 0.71mm)
Others	The same	

There is no test for variant in this report. Test values all duplicated from original report.

The detailed product change description please refers to the *Difference Declaration Letter.*

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, Pudong Shanghai, P.R.China
City:	Shanghai
Post code:	201201
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E-mail:	xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Xiaomi Communications Co., Ltd.
Applicant address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer	Xiaomi Communications Co., Ltd.
Manufacturer address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

2.2. General information

EUT Description			
Model	2312FPCA6G		
IMEI	Original	Conducted	IMEI 1: 863357060106127 IMEI 2: 863357060106135
		Radiated	IMEI 1: 863357060105624 IMEI 2: 863357060105632
	Variant	Radiated	IMEI 1: 867584060055626 IMEI 2: 867584060055634
Hardware Version	135100N6M0A01		
Software Version	MIUI 14		
Antenna Type	PIFA Antenna		
Antenna Gain	Low Antenna	0.02 dBi	
	Upper Antenna	1.10 dBi	
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	7		
LTE Category	13		
Maximum E.I.R.P	GSM 1900	29.85 dBm	
	WCDMA Band II	24.76 dBm	
	LTE Band 2	24.78 dBm	
Rated Power Supply Voltage	3.89V		
Operating Voltage	Minimum: 3.60V Maximum: 4.48V		
Operating Temperature	Lowest: 0°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
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.			

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 (2022)

FCC CFR47 Part 2 (2022)

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 (Low Antenna: X axis, vertical polarization for GSM/WCDMA and Y axis, horizontal polarization for LTE; Upper Antenna: Y axis, horizontal polarization for GSM/WCDMA and 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 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
Radiated 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
Radiated 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

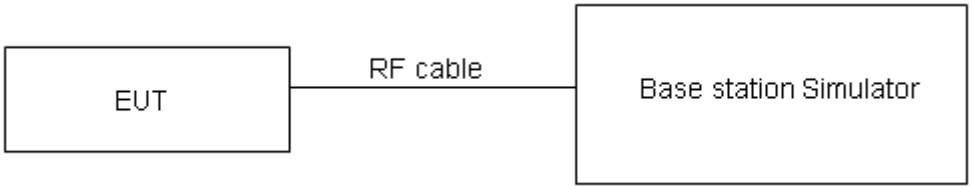
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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) + Antenna Gain (dBi)
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

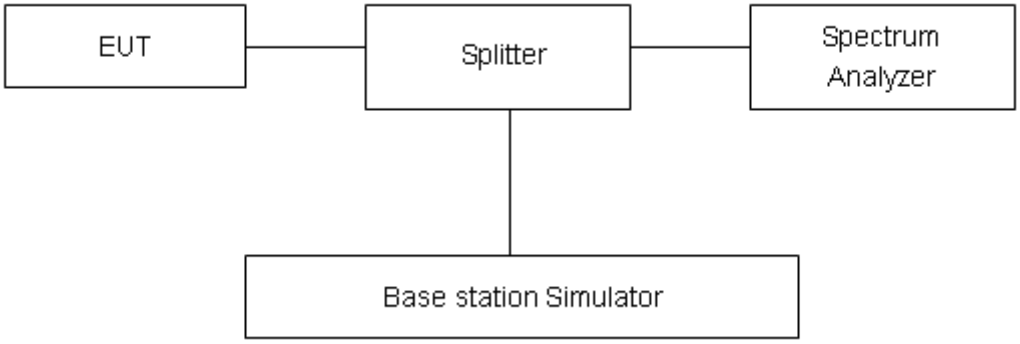
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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

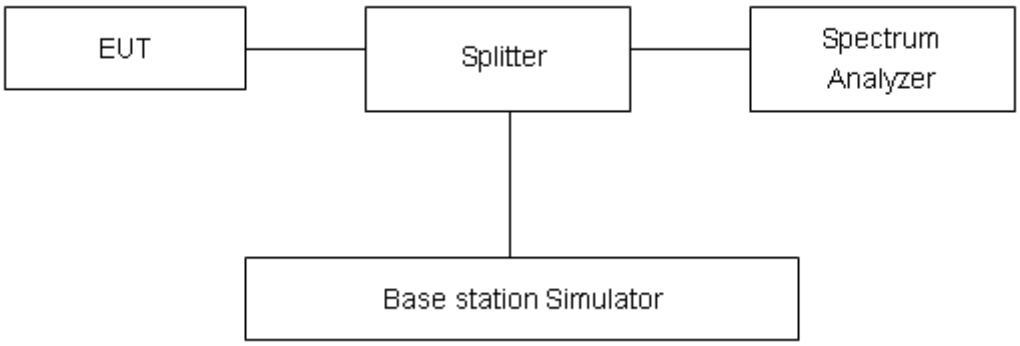
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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)

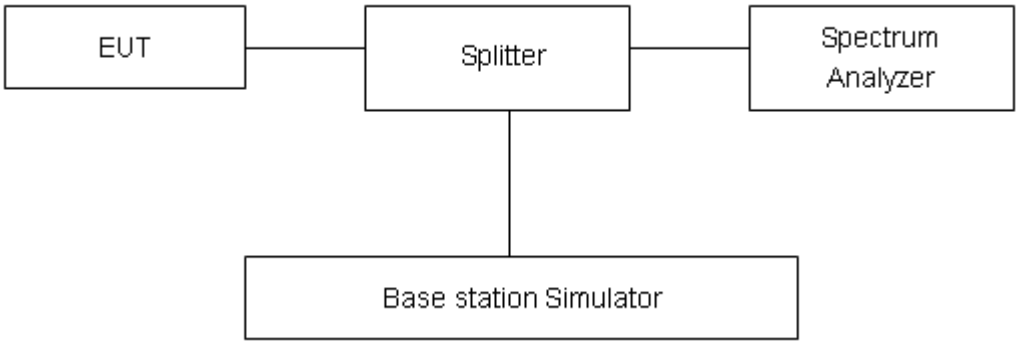
Ambient condition

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.

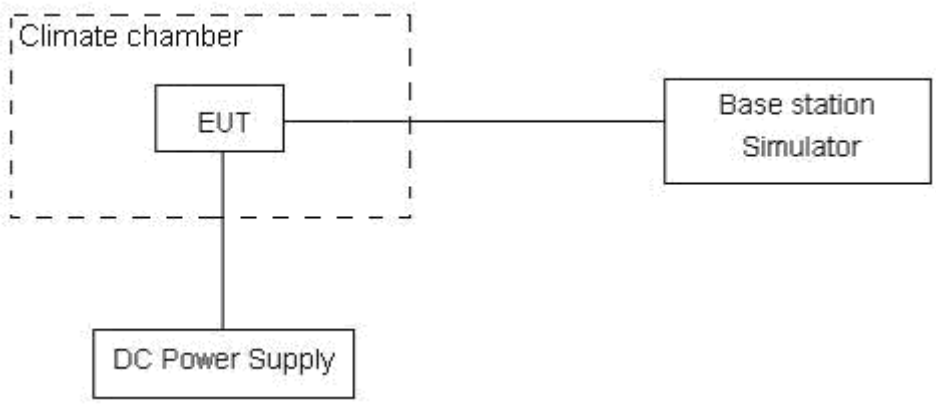
Frequency Stability (Voltage Variation)

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 3.6 V and 4.48 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

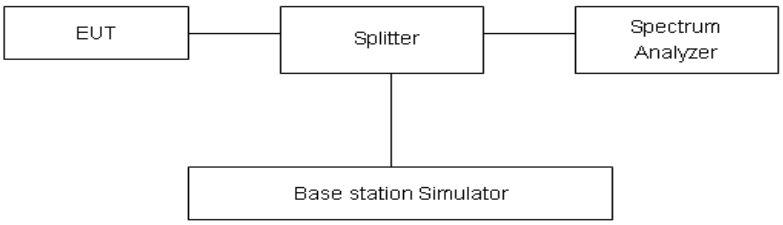
Ambient condition

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 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)
Sweep is set to AUTO.
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-20GHz	1.407 dB

Test Results

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

5.7. Radiated Spurious Emission

Ambient condition

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

Method of Measurement

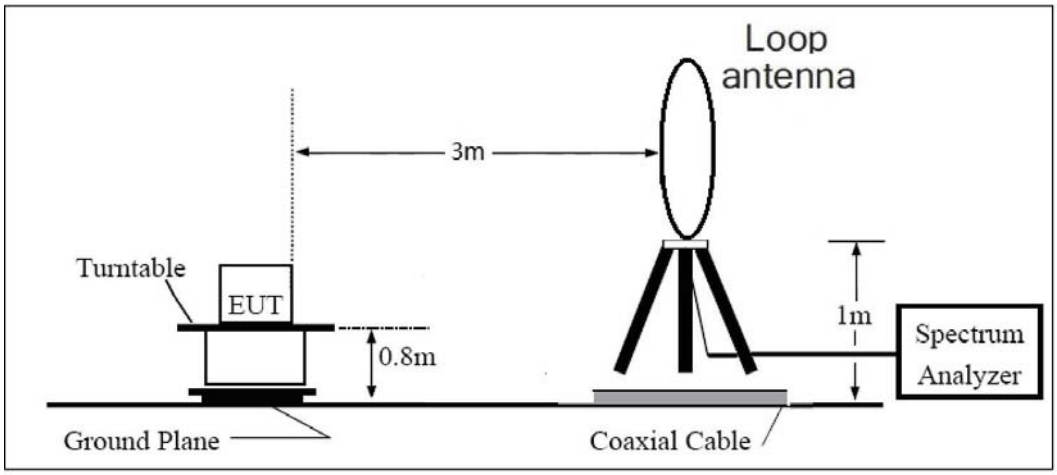
1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26-2015.
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable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

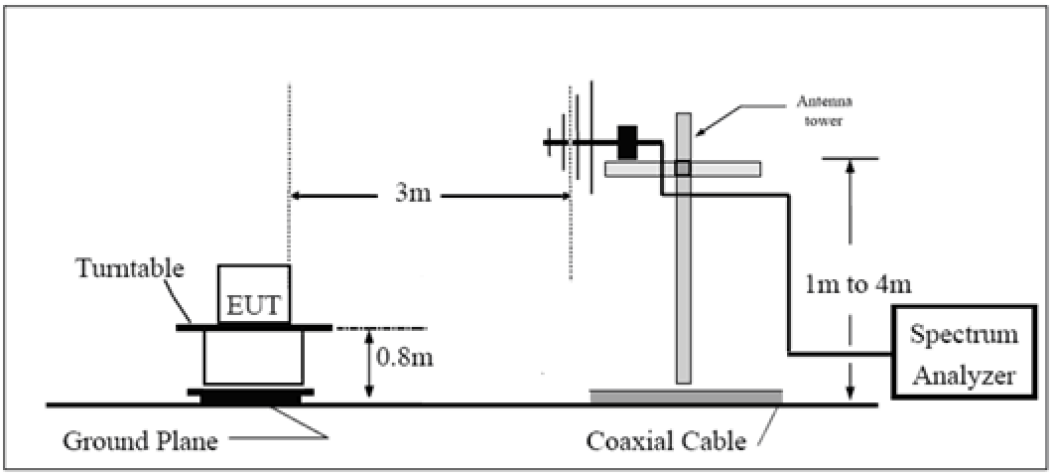
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

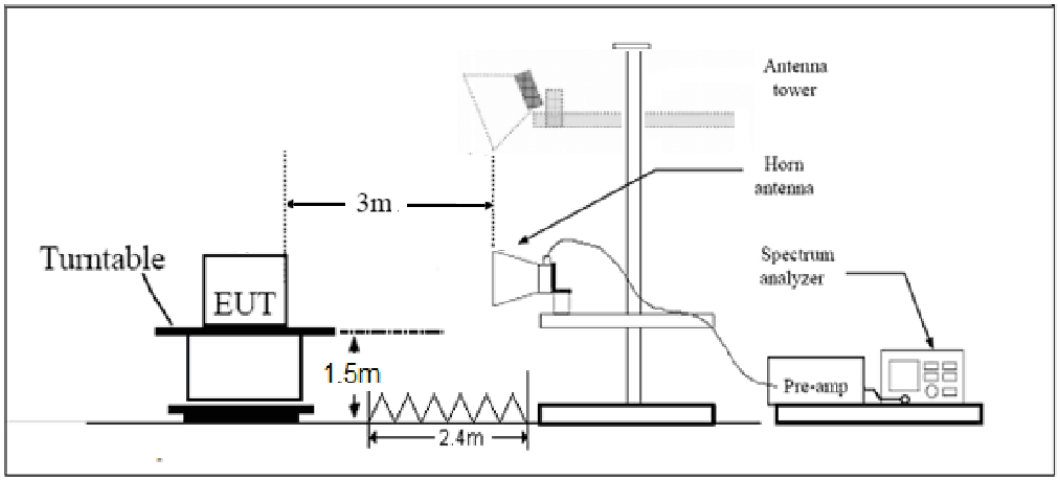
9KHz~ 30MHz



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

Low Antenna

GSM 1900		Burst-conducted power			EIRP (dBm)		
		Channel/ Frequency (MHz)			Channel/ Frequency (MHz)		
		512/1850.2	661/1880	810/1909.8	512/1850.2	661/1880	810/1909.8
GSM	CS	29.83	29.64	29.73	29.85	29.66	29.75
GPRS(GMSK)	1 Tx Slot	29.82	29.61	29.70	29.84	29.63	29.72
	2 Tx Slots	27.29	27.15	27.24	27.31	27.17	27.26
	3 Tx Slots	25.19	25.10	25.36	25.21	25.12	25.38
	4 Tx Slots	24.09	23.99	24.25	24.11	24.01	24.27
EGPRS (8PSK)	1 Tx Slot	26.15	25.89	26.17	26.17	25.91	26.19
	2 Tx Slots	23.05	23.02	22.94	23.07	23.04	22.96
	3 Tx Slots	20.93	20.85	20.81	20.95	20.87	20.83
	4 Tx Slots	19.59	19.60	19.47	19.61	19.62	19.49

WCDMA Band II		Conducted Power (dBm)			EIRP (dBm)		
		Channel/ Frequency (MHz)			Channel/ Frequency (MHz)		
		9262/1852.4	9400/1880	9538/1907.6	9262/1852.4	9400/1880	9538/1907.6
RMC	12.2k	24.40	24.68	24.45	24.42	24.70	24.47
HSDPA	Subtest 1	23.82	24.10	23.87	23.84	24.12	23.89
	Subtest 2	23.81	24.09	23.86	23.83	24.11	23.88
	Subtest 3	23.30	23.58	23.35	23.32	23.60	23.37
	Subtest 4	23.29	23.57	23.34	23.31	23.59	23.36
HSUPA	Subtest 1	22.78	23.06	22.83	22.80	23.08	22.85
	Subtest 2	20.77	21.05	20.82	20.79	21.07	20.84
	Subtest 3	21.75	22.04	21.81	21.77	22.06	21.83
	Subtest 4	20.74	21.03	20.80	20.76	21.05	20.82
	Subtest 5	24.23	24.52	24.29	24.25	24.54	24.31
DC-HSDPA	Subtest 1	23.74	24.04	23.79	23.76	24.06	23.81
	Subtest 2	23.73	24.03	23.78	23.75	24.05	23.80
	Subtest 3	23.31	23.52	23.29	23.33	23.54	23.31
	Subtest 4	23.30	23.51	23.28	23.32	23.53	23.30
HSPA+	16QAM	21.89	22.19	21.96	21.91	22.21	21.98

LTE Band 2						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP (dBm)
1.4	18607	1	#0	QPSK	24.39	24.41
1.4	18607	1	#Mid	QPSK	24.46	24.48
1.4	18607	1	#Max	QPSK	24.37	24.39
1.4	18607	3	#0	QPSK	24.38	24.40
1.4	18607	3	#Mid	QPSK	24.36	24.38
1.4	18607	3	#Max	QPSK	24.37	24.39
1.4	18607	6	#0	QPSK	23.44	23.46
1.4	18607	1	#0	16QAM	23.25	23.27
1.4	18607	1	#Mid	16QAM	23.31	23.33
1.4	18607	1	#Max	16QAM	23.23	23.25
1.4	18607	3	#0	16QAM	23.46	23.48
1.4	18607	3	#Mid	16QAM	23.44	23.46
1.4	18607	3	#Max	16QAM	23.45	23.47
1.4	18607	6	#0	16QAM	22.42	22.44
1.4	18900	1	#0	QPSK	24.50	24.52
1.4	18900	1	#Mid	QPSK	24.52	24.54
1.4	18900	1	#Max	QPSK	24.47	24.49
1.4	18900	3	#0	QPSK	24.52	24.54
1.4	18900	3	#Mid	QPSK	24.52	24.54
1.4	18900	3	#Max	QPSK	24.48	24.50
1.4	18900	6	#0	QPSK	23.63	23.65
1.4	18900	1	#0	16QAM	23.54	23.56
1.4	18900	1	#Mid	16QAM	23.63	23.65
1.4	18900	1	#Max	16QAM	23.63	23.65
1.4	18900	3	#0	16QAM	23.47	23.49
1.4	18900	3	#Mid	16QAM	23.48	23.50
1.4	18900	3	#Max	16QAM	23.50	23.52
1.4	18900	6	#0	16QAM	22.55	22.57
1.4	19193	1	#0	QPSK	24.62	24.64
1.4	19193	1	#Mid	QPSK	24.67	24.69
1.4	19193	1	#Max	QPSK	24.66	24.68
1.4	19193	3	#0	QPSK	24.49	24.51
1.4	19193	3	#Mid	QPSK	24.51	24.53
1.4	19193	3	#Max	QPSK	24.50	24.52
1.4	19193	6	#0	QPSK	23.69	23.71
1.4	19193	1	#0	16QAM	23.32	23.34
1.4	19193	1	#Mid	16QAM	23.35	23.37
1.4	19193	1	#Max	16QAM	23.35	23.37
1.4	19193	3	#0	16QAM	23.39	23.41

1.4	19193	3	#Mid	16QAM	23.40	23.42
1.4	19193	3	#Max	16QAM	23.41	23.43
1.4	19193	6	#0	16QAM	22.62	22.64
3	18615	1	#0	QPSK	24.19	24.21
3	18615	1	#Mid	QPSK	24.27	24.29
3	18615	1	#Max	QPSK	24.08	24.10
3	18615	8	#0	QPSK	23.33	23.35
3	18615	8	#Mid	QPSK	23.33	23.35
3	18615	8	#Max	QPSK	23.36	23.38
3	18615	15	#0	QPSK	23.37	23.39
3	18615	1	#0	16QAM	23.29	23.31
3	18615	1	#Mid	16QAM	23.36	23.38
3	18615	1	#Max	16QAM	23.20	23.22
3	18615	8	#0	16QAM	22.27	22.29
3	18615	8	#Mid	16QAM	22.29	22.31
3	18615	8	#Max	16QAM	22.30	22.32
3	18615	15	#0	16QAM	22.24	22.26
3	18900	1	#0	QPSK	24.34	24.36
3	18900	1	#Mid	QPSK	24.56	24.58
3	18900	1	#Max	QPSK	24.50	24.52
3	18900	8	#0	QPSK	23.50	23.52
3	18900	8	#Mid	QPSK	23.51	23.53
3	18900	8	#Max	QPSK	23.59	23.61
3	18900	15	#0	QPSK	23.54	23.56
3	18900	1	#0	16QAM	23.17	23.19
3	18900	1	#Mid	16QAM	23.33	23.35
3	18900	1	#Max	16QAM	23.27	23.29
3	18900	8	#0	16QAM	22.46	22.48
3	18900	8	#Mid	16QAM	22.49	22.51
3	18900	8	#Max	16QAM	22.58	22.60
3	18900	15	#0	16QAM	22.55	22.57
3	19185	1	#0	QPSK	24.36	24.38
3	19185	1	#Mid	QPSK	24.53	24.55
3	19185	1	#Max	QPSK	24.40	24.42
3	19185	8	#0	QPSK	23.53	23.55
3	19185	8	#Mid	QPSK	23.55	23.57
3	19185	8	#Max	QPSK	23.65	23.67
3	19185	15	#0	QPSK	23.54	23.56
3	19185	1	#0	16QAM	23.47	23.49
3	19185	1	#Mid	16QAM	23.61	23.63
3	19185	1	#Max	16QAM	23.52	23.54
3	19185	8	#0	16QAM	22.50	22.52
3	19185	8	#Mid	16QAM	22.49	22.51

3	19185	8	#Max	16QAM	22.56	22.58
3	19185	15	#0	16QAM	22.54	22.56
5	18625	1	#0	QPSK	24.40	24.42
5	18625	1	#Mid	QPSK	24.44	24.46
5	18625	1	#Max	QPSK	24.28	24.30
5	18625	12	#0	QPSK	23.31	23.33
5	18625	12	#Mid	QPSK	23.30	23.32
5	18625	12	#Max	QPSK	23.36	23.38
5	18625	25	#0	QPSK	23.36	23.38
5	18625	1	#0	16QAM	23.61	23.63
5	18625	1	#Mid	16QAM	23.66	23.68
5	18625	1	#Max	16QAM	23.50	23.52
5	18625	12	#0	16QAM	22.26	22.28
5	18625	12	#Mid	16QAM	22.29	22.31
5	18625	12	#Max	16QAM	22.33	22.35
5	18625	25	#0	16QAM	22.42	22.44
5	18900	1	#0	QPSK	24.58	24.60
5	18900	1	#Mid	QPSK	24.75	24.77
5	18900	1	#Max	QPSK	24.66	24.68
5	18900	12	#0	QPSK	23.59	23.61
5	18900	12	#Mid	QPSK	23.58	23.60
5	18900	12	#Max	QPSK	23.68	23.70
5	18900	25	#0	QPSK	23.63	23.65
5	18900	1	#0	16QAM	23.63	23.65
5	18900	1	#Mid	16QAM	23.84	23.86
5	18900	1	#Max	16QAM	23.75	23.77
5	18900	12	#0	16QAM	22.50	22.52
5	18900	12	#Mid	16QAM	22.51	22.53
5	18900	12	#Max	16QAM	22.65	22.67
5	18900	25	#0	16QAM	22.62	22.64
5	19175	1	#0	QPSK	24.53	24.55
5	19175	1	#Mid	QPSK	24.68	24.70
5	19175	1	#Max	QPSK	24.57	24.59
5	19175	12	#0	QPSK	23.51	23.53
5	19175	12	#Mid	QPSK	23.55	23.57
5	19175	12	#Max	QPSK	23.66	23.68
5	19175	25	#0	QPSK	23.62	23.64
5	19175	1	#0	16QAM	23.69	23.71
5	19175	1	#Mid	16QAM	23.83	23.85
5	19175	1	#Max	16QAM	23.76	23.78
5	19175	12	#0	16QAM	22.51	22.53
5	19175	12	#Mid	16QAM	22.52	22.54
5	19175	12	#Max	16QAM	22.63	22.65

5	19175	25	#0	16QAM	22.58	22.60
10	18650	1	#0	QPSK	24.56	24.58
10	18650	1	#Mid	QPSK	24.43	24.45
10	18650	1	#Max	QPSK	24.29	24.31
10	18650	25	#0	QPSK	23.25	23.27
10	18650	25	#Mid	QPSK	23.25	23.27
10	18650	25	#Max	QPSK	23.31	23.33
10	18650	50	#0	QPSK	23.26	23.28
10	18650	1	#0	16QAM	23.31	23.33
10	18650	1	#Mid	16QAM	23.21	23.23
10	18650	1	#Max	16QAM	23.12	23.14
10	18650	25	#0	16QAM	22.24	22.26
10	18650	25	#Mid	16QAM	22.19	22.21
10	18650	25	#Max	16QAM	22.34	22.36
10	18650	50	#0	16QAM	22.30	22.32
10	18900	1	#0	QPSK	24.56	24.58
10	18900	1	#Mid	QPSK	24.65	24.67
10	18900	1	#Max	QPSK	24.71	24.73
10	18900	25	#0	QPSK	23.49	23.51
10	18900	25	#Mid	QPSK	23.48	23.50
10	18900	25	#Max	QPSK	23.70	23.72
10	18900	50	#0	QPSK	23.64	23.66
10	18900	1	#0	16QAM	23.77	23.79
10	18900	1	#Mid	16QAM	23.84	23.86
10	18900	1	#Max	16QAM	23.90	23.92
10	18900	25	#0	16QAM	22.55	22.57
10	18900	25	#Mid	16QAM	22.55	22.57
10	18900	25	#Max	16QAM	22.78	22.80
10	18900	50	#0	16QAM	22.67	22.69
10	19150	1	#0	QPSK	24.64	24.66
10	19150	1	#Mid	QPSK	24.64	24.66
10	19150	1	#Max	QPSK	24.71	24.73
10	19150	25	#0	QPSK	23.51	23.53
10	19150	25	#Mid	QPSK	23.58	23.60
10	19150	25	#Max	QPSK	23.65	23.67
10	19150	50	#0	QPSK	23.62	23.64
10	19150	1	#0	16QAM	23.71	23.73
10	19150	1	#Mid	16QAM	23.73	23.75
10	19150	1	#Max	16QAM	23.74	23.76
10	19150	25	#0	16QAM	22.60	22.62
10	19150	25	#Mid	16QAM	22.59	22.61
10	19150	25	#Max	16QAM	22.63	22.65
10	19150	50	#0	16QAM	22.59	22.61

15	18675	1	#0	QPSK	24.54	24.56
15	18675	1	#Mid	QPSK	24.40	24.42
15	18675	1	#Max	QPSK	24.30	24.32
15	18675	36	#0	QPSK	23.26	23.28
15	18675	36	#Mid	QPSK	23.27	23.29
15	18675	36	#Max	QPSK	23.28	23.30
15	18675	75	#0	QPSK	23.32	23.34
15	18675	1	#0	16QAM	23.38	23.40
15	18675	1	#Mid	16QAM	23.32	23.34
15	18675	1	#Max	16QAM	23.19	23.21
15	18675	36	#0	16QAM	22.19	22.21
15	18675	36	#Mid	16QAM	22.20	22.22
15	18675	36	#Max	16QAM	22.24	22.26
15	18675	75	#0	16QAM	22.30	22.32
15	18900	1	#0	QPSK	24.48	24.50
15	18900	1	#Mid	QPSK	24.76	24.78
15	18900	1	#Max	QPSK	24.65	24.67
15	18900	36	#0	QPSK	23.56	23.58
15	18900	36	#Mid	QPSK	23.53	23.55
15	18900	36	#Max	QPSK	23.77	23.79
15	18900	75	#0	QPSK	23.77	23.79
15	18900	1	#0	16QAM	23.64	23.66
15	18900	1	#Mid	16QAM	23.90	23.92
15	18900	1	#Max	16QAM	23.84	23.86
15	18900	36	#0	16QAM	22.53	22.55
15	18900	36	#Mid	16QAM	22.55	22.57
15	18900	36	#Max	16QAM	22.75	22.77
15	18900	75	#0	16QAM	22.69	22.71
15	19125	1	#0	QPSK	24.59	24.61
15	19125	1	#Mid	QPSK	24.69	24.71
15	19125	1	#Max	QPSK	24.61	24.63
15	19125	36	#0	QPSK	23.69	23.71
15	19125	36	#Mid	QPSK	23.71	23.73
15	19125	36	#Max	QPSK	23.76	23.78
15	19125	75	#0	QPSK	23.79	23.81
15	19125	1	#0	16QAM	23.63	23.65
15	19125	1	#Mid	16QAM	23.79	23.81
15	19125	1	#Max	16QAM	23.70	23.72
15	19125	36	#0	16QAM	22.65	22.67
15	19125	36	#Mid	16QAM	22.68	22.70
15	19125	36	#Max	16QAM	22.68	22.70
15	19125	75	#0	16QAM	22.67	22.69
20	18700	1	#0	QPSK	24.43	24.45

20	18700	1	#Mid	QPSK	24.42	24.44
20	18700	1	#Max	QPSK	24.36	24.38
20	18700	50	#0	QPSK	23.11	23.13
20	18700	50	#Mid	QPSK	23.12	23.14
20	18700	50	#Max	QPSK	23.18	23.20
20	18700	100	#0	QPSK	23.16	23.18
20	18700	1	#0	16QAM	23.24	23.26
20	18700	1	#Mid	16QAM	23.21	23.23
20	18700	1	#Max	16QAM	23.14	23.16
20	18700	50	#0	16QAM	22.09	22.11
20	18700	50	#Mid	16QAM	22.07	22.09
20	18700	50	#Max	16QAM	22.16	22.18
20	18700	100	#0	16QAM	22.18	22.20
20	18900	1	#0	QPSK	24.42	24.44
20	18900	1	#Mid	QPSK	24.76	24.78
20	18900	1	#Max	QPSK	24.67	24.69
20	18900	50	#0	QPSK	23.45	23.47
20	18900	50	#Mid	QPSK	23.45	23.47
20	18900	50	#Max	QPSK	23.82	23.84
20	18900	100	#0	QPSK	23.62	23.64
20	18900	1	#0	16QAM	23.13	23.15
20	18900	1	#Mid	16QAM	23.48	23.50
20	18900	1	#Max	16QAM	23.33	23.35
20	18900	50	#0	16QAM	22.47	22.49
20	18900	50	#Mid	16QAM	22.51	22.53
20	18900	50	#Max	16QAM	22.84	22.86
20	18900	100	#0	16QAM	22.68	22.70
20	19100	1	#0	QPSK	24.61	24.63
20	19100	1	#Mid	QPSK	24.75	24.77
20	19100	1	#Max	QPSK	24.62	24.64
20	19100	50	#0	QPSK	23.72	23.74
20	19100	50	#Mid	QPSK	23.74	23.76
20	19100	50	#Max	QPSK	23.57	23.59
20	19100	100	#0	QPSK	23.65	23.67
20	19100	1	#0	16QAM	23.67	23.69
20	19100	1	#Mid	16QAM	23.81	23.83
20	19100	1	#Max	16QAM	23.62	23.64
20	19100	50	#0	16QAM	22.70	22.72
20	19100	50	#Mid	16QAM	22.69	22.71
20	19100	50	#Max	16QAM	22.56	22.58
20	19100	100	#0	16QAM	22.65	22.67
1.4	18607	1	#0	64QAM	22.89	22.91
1.4	18607	1	#Mid	64QAM	22.99	23.01

1.4	18607	1	#Max	64QAM	22.91	22.93
1.4	18607	3	#0	64QAM	23.11	23.13
1.4	18607	3	#Mid	64QAM	23.10	23.12
1.4	18607	3	#Max	64QAM	23.12	23.14
1.4	18607	6	#0	64QAM	22.07	22.09
1.4	18900	1	#0	64QAM	23.21	23.23
1.4	18900	1	#Mid	64QAM	23.27	23.29
1.4	18900	1	#Max	64QAM	23.24	23.26
1.4	18900	3	#0	64QAM	23.13	23.15
1.4	18900	3	#Mid	64QAM	23.11	23.13
1.4	18900	3	#Max	64QAM	23.13	23.15
1.4	18900	6	#0	64QAM	22.18	22.20
1.4	19193	1	#0	64QAM	22.94	22.96
1.4	19193	1	#Mid	64QAM	22.97	22.99
1.4	19193	1	#Max	64QAM	22.99	23.01
1.4	19193	3	#0	64QAM	23.04	23.06
1.4	19193	3	#Mid	64QAM	23.04	23.06
1.4	19193	3	#Max	64QAM	23.03	23.05
1.4	19193	6	#0	64QAM	22.21	22.23
3	18615	1	#0	64QAM	22.94	22.96
3	18615	1	#Mid	64QAM	23.00	23.02
3	18615	1	#Max	64QAM	22.91	22.93
3	18615	8	#0	64QAM	21.87	21.89
3	18615	8	#Mid	64QAM	21.90	21.92
3	18615	8	#Max	64QAM	21.92	21.94
3	18615	15	#0	64QAM	21.90	21.92
3	18900	1	#0	64QAM	22.99	23.01
3	18900	1	#Mid	64QAM	23.11	23.13
3	18900	1	#Max	64QAM	23.12	23.14
3	18900	8	#0	64QAM	22.06	22.08
3	18900	8	#Mid	64QAM	22.06	22.08
3	18900	8	#Max	64QAM	22.16	22.18
3	18900	15	#0	64QAM	22.06	22.08
3	19185	1	#0	64QAM	22.77	22.79
3	19185	1	#Mid	64QAM	22.92	22.94
3	19185	1	#Max	64QAM	22.84	22.86
3	19185	8	#0	64QAM	22.11	22.13
3	19185	8	#Mid	64QAM	22.10	22.12
3	19185	8	#Max	64QAM	22.13	22.15
3	19185	15	#0	64QAM	22.15	22.17
5	18625	1	#0	64QAM	23.99	24.01
5	18625	1	#Mid	64QAM	24.03	24.05
5	18625	1	#Max	64QAM	23.88	23.90

5	18625	12	#0	64QAM	22.89	22.91
5	18625	12	#Mid	64QAM	22.86	22.88
5	18625	12	#Max	64QAM	22.95	22.97
5	18625	25	#0	64QAM	22.97	22.99
5	18900	1	#0	64QAM	24.17	24.19
5	18900	1	#Mid	64QAM	24.32	24.34
5	18900	1	#Max	64QAM	24.23	24.25
5	18900	12	#0	64QAM	23.14	23.16
5	18900	12	#Mid	64QAM	23.14	23.16
5	18900	12	#Max	64QAM	23.28	23.30
5	18900	25	#0	64QAM	23.23	23.25
5	19175	1	#0	64QAM	24.07	24.09
5	19175	1	#Mid	64QAM	24.27	24.29
5	19175	1	#Max	64QAM	24.15	24.17
5	19175	12	#0	64QAM	23.11	23.13
5	19175	12	#Mid	64QAM	23.11	23.13
5	19175	12	#Max	64QAM	23.25	23.27
5	19175	25	#0	64QAM	23.18	23.20
10	18650	1	#0	64QAM	23.24	23.26
10	18650	1	#Mid	64QAM	23.15	23.17
10	18650	1	#Max	64QAM	23.04	23.06
10	18650	25	#0	64QAM	21.86	21.88
10	18650	25	#Mid	64QAM	21.87	21.89
10	18650	25	#Max	64QAM	22.01	22.03
10	18650	50	#0	64QAM	21.88	21.90
10	18900	1	#0	64QAM	23.29	23.31
10	18900	1	#Mid	64QAM	23.37	23.39
10	18900	1	#Max	64QAM	23.40	23.42
10	18900	25	#0	64QAM	22.15	22.17
10	18900	25	#Mid	64QAM	22.11	22.13
10	18900	25	#Max	64QAM	22.35	22.37
10	18900	50	#0	64QAM	22.21	22.23
10	19150	1	#0	64QAM	23.03	23.05
10	19150	1	#Mid	64QAM	23.02	23.04
10	19150	1	#Max	64QAM	23.08	23.10
10	19150	25	#0	64QAM	22.15	22.17
10	19150	25	#Mid	64QAM	22.15	22.17
10	19150	25	#Max	64QAM	22.23	22.25
10	19150	50	#0	64QAM	22.19	22.21
15	18675	1	#0	64QAM	23.02	23.04
15	18675	1	#Mid	64QAM	22.95	22.97
15	18675	1	#Max	64QAM	22.80	22.82
15	18675	36	#0	64QAM	21.80	21.82

15	18675	36	#Mid	64QAM	21.76	21.78
15	18675	36	#Max	64QAM	21.83	21.85
15	18675	75	#0	64QAM	21.85	21.87
15	18900	1	#0	64QAM	23.26	23.28
15	18900	1	#Mid	64QAM	23.52	23.54
15	18900	1	#Max	64QAM	23.44	23.46
15	18900	36	#0	64QAM	22.14	22.16
15	18900	36	#Mid	64QAM	22.10	22.12
15	18900	36	#Max	64QAM	22.33	22.35
15	18900	75	#0	64QAM	22.27	22.29
15	19125	1	#0	64QAM	23.25	23.27
15	19125	1	#Mid	64QAM	23.37	23.39
15	19125	1	#Max	64QAM	23.27	23.29
15	19125	36	#0	64QAM	22.23	22.25
15	19125	36	#Mid	64QAM	22.21	22.23
15	19125	36	#Max	64QAM	22.25	22.27
15	19125	75	#0	64QAM	22.28	22.30
20	18700	1	#0	64QAM	22.70	22.72
20	18700	1	#Mid	64QAM	22.68	22.70
20	18700	1	#Max	64QAM	22.61	22.63
20	18700	50	#0	64QAM	21.70	21.72
20	18700	50	#Mid	64QAM	21.73	21.75
20	18700	50	#Max	64QAM	21.78	21.80
20	18700	100	#0	64QAM	21.73	21.75
20	18900	1	#0	64QAM	23.12	23.14
20	18900	1	#Mid	64QAM	23.50	23.52
20	18900	1	#Max	64QAM	23.32	23.34
20	18900	50	#0	64QAM	22.08	22.10
20	18900	50	#Mid	64QAM	22.06	22.08
20	18900	50	#Max	64QAM	22.44	22.46
20	18900	100	#0	64QAM	22.26	22.28
20	19100	1	#0	64QAM	22.97	22.99
20	19100	1	#Mid	64QAM	23.14	23.16
20	19100	1	#Max	64QAM	22.98	23.00
20	19100	50	#0	64QAM	22.25	22.27
20	19100	50	#Mid	64QAM	22.26	22.28
20	19100	50	#Max	64QAM	22.09	22.11
20	19100	100	#0	64QAM	22.25	22.27

Upper Antenna

GSM 1900		Burst-conducted power			EIRP (dBm)		
		Channel/ Frequency (MHz)			Channel/ Frequency (MHz)		
		512/1850.2	661/1880	810/1909.8	512/1850.2	661/1880	810/1909.8
GSM	CS	28.16	28.07	28.37	29.26	29.17	29.47
GPRS(GMSK)	1 Tx Slot	28.15	28.04	28.35	29.25	29.14	29.45
	2 Tx Slots	25.53	25.49	25.87	26.63	26.59	26.97
	3 Tx Slots	23.39	23.57	24.11	24.49	24.67	25.21
	4 Tx Slots	22.30	22.49	23.12	23.40	23.59	24.22
EGPRS (8PSK)	1 Tx Slot	24.26	24.56	24.57	25.36	25.66	25.67
	2 Tx Slots	21.72	21.61	21.65	22.82	22.71	22.75
	3 Tx Slots	19.42	19.35	19.80	20.52	20.45	20.90
	4 Tx Slots	18.34	18.47	18.37	19.44	19.57	19.47

WCDMA Band II		Conducted Power (dBm)			EIRP (dBm)		
		Channel/ Frequency (MHz)			Channel/ Frequency (MHz)		
		9262/1852.4	9400/1880	9538/1907.6	9262/1852.4	9400/1880	9538/1907.6
RMC	12.2k	23.66	23.29	22.65	24.76	24.39	23.75
HSDPA	Subtest 1	23.08	22.71	22.07	24.18	23.81	23.17
	Subtest 2	23.07	22.70	22.06	24.17	23.80	23.16
	Subtest 3	22.56	22.19	21.55	23.66	23.29	22.65
	Subtest 4	22.55	22.18	21.54	23.65	23.28	22.64
HSUPA	Subtest 1	22.04	21.67	21.03	23.14	22.77	22.13
	Subtest 2	20.03	19.66	19.02	21.13	20.76	20.12
	Subtest 3	21.01	20.65	20.01	22.11	21.75	21.11
	Subtest 4	20.00	19.64	19.00	21.10	20.74	20.10
	Subtest 5	23.49	23.13	22.49	24.59	24.23	23.59
DC-HSDPA	Subtest 1	23.00	22.65	21.99	24.10	23.75	23.09
	Subtest 2	22.99	22.64	21.98	24.09	23.74	23.08
	Subtest 3	22.57	22.13	21.49	23.67	23.23	22.59
	Subtest 4	22.56	22.12	21.48	23.66	23.22	22.58
HSPA+	16QAM	21.15	20.80	20.16	22.25	21.90	21.26

LTE Band 2						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP (dBm)
1.4	18607	1	#0	QPSK	23.88	24.98
1.4	18607	1	#Mid	QPSK	23.90	25.00
1.4	18607	1	#Max	QPSK	23.83	24.93
1.4	18607	3	#0	QPSK	23.80	24.90
1.4	18607	3	#Mid	QPSK	23.78	24.88
1.4	18607	3	#Max	QPSK	23.77	24.87
1.4	18607	6	#0	QPSK	22.86	23.96
1.4	18607	1	#0	16QAM	22.63	23.73
1.4	18607	1	#Mid	16QAM	22.73	23.83
1.4	18607	1	#Max	16QAM	22.65	23.75
1.4	18607	3	#0	16QAM	22.82	23.92
1.4	18607	3	#Mid	16QAM	22.83	23.93
1.4	18607	3	#Max	16QAM	22.84	23.94
1.4	18607	6	#0	16QAM	21.84	22.94
1.4	18900	1	#0	QPSK	23.22	24.32
1.4	18900	1	#Mid	QPSK	23.22	24.32
1.4	18900	1	#Max	QPSK	23.18	24.28
1.4	18900	3	#0	QPSK	23.28	24.38
1.4	18900	3	#Mid	QPSK	23.26	24.36
1.4	18900	3	#Max	QPSK	23.23	24.33
1.4	18900	6	#0	QPSK	22.33	23.43
1.4	18900	1	#0	16QAM	22.32	23.42
1.4	18900	1	#Mid	16QAM	22.35	23.45
1.4	18900	1	#Max	16QAM	22.31	23.41
1.4	18900	3	#0	16QAM	22.22	23.32
1.4	18900	3	#Mid	16QAM	22.22	23.32
1.4	18900	3	#Max	16QAM	22.22	23.32
1.4	18900	6	#0	16QAM	21.27	22.37
1.4	19193	1	#0	QPSK	22.67	23.77
1.4	19193	1	#Mid	QPSK	22.72	23.82
1.4	19193	1	#Max	QPSK	22.70	23.80
1.4	19193	3	#0	QPSK	22.64	23.74
1.4	19193	3	#Mid	QPSK	22.65	23.75
1.4	19193	3	#Max	QPSK	22.61	23.71
1.4	19193	6	#0	QPSK	21.77	22.87
1.4	19193	1	#0	16QAM	21.45	22.55
1.4	19193	1	#Mid	16QAM	21.50	22.60
1.4	19193	1	#Max	16QAM	21.46	22.56
1.4	19193	3	#0	16QAM	21.50	22.60

1.4	19193	3	#Mid	16QAM	21.50	22.60
1.4	19193	3	#Max	16QAM	21.52	22.62
1.4	19193	6	#0	16QAM	20.72	21.82
3	18615	1	#0	QPSK	23.57	24.67
3	18615	1	#Mid	QPSK	23.61	24.71
3	18615	1	#Max	QPSK	23.47	24.57
3	18615	8	#0	QPSK	22.71	23.81
3	18615	8	#Mid	QPSK	22.69	23.79
3	18615	8	#Max	QPSK	22.74	23.84
3	18615	15	#0	QPSK	22.69	23.79
3	18615	1	#0	16QAM	22.63	23.73
3	18615	1	#Mid	16QAM	22.70	23.80
3	18615	1	#Max	16QAM	22.56	23.66
3	18615	8	#0	16QAM	21.64	22.74
3	18615	8	#Mid	16QAM	21.61	22.71
3	18615	8	#Max	16QAM	21.60	22.70
3	18615	15	#0	16QAM	21.56	22.66
3	18900	1	#0	QPSK	23.09	24.19
3	18900	1	#Mid	QPSK	23.21	24.31
3	18900	1	#Max	QPSK	23.11	24.21
3	18900	8	#0	QPSK	22.18	23.28
3	18900	8	#Mid	QPSK	22.19	23.29
3	18900	8	#Max	QPSK	22.26	23.36
3	18900	15	#0	QPSK	22.26	23.36
3	18900	1	#0	16QAM	21.88	22.98
3	18900	1	#Mid	16QAM	22.00	23.10
3	18900	1	#Max	16QAM	21.91	23.01
3	18900	8	#0	16QAM	21.20	22.30
3	18900	8	#Mid	16QAM	21.17	22.27
3	18900	8	#Max	16QAM	21.26	22.36
3	18900	15	#0	16QAM	21.25	22.35
3	19185	1	#0	QPSK	22.42	23.52
3	19185	1	#Mid	QPSK	22.57	23.67
3	19185	1	#Max	QPSK	22.44	23.54
3	19185	8	#0	QPSK	21.59	22.69
3	19185	8	#Mid	QPSK	21.60	22.70
3	19185	8	#Max	QPSK	21.67	22.77
3	19185	15	#0	QPSK	21.69	22.79
3	19185	1	#0	16QAM	21.62	22.72
3	19185	1	#Mid	16QAM	21.73	22.83
3	19185	1	#Max	16QAM	21.68	22.78
3	19185	8	#0	16QAM	20.65	21.75
3	19185	8	#Mid	16QAM	20.63	21.73

3	19185	8	#Max	16QAM	20.69	21.79
3	19185	15	#0	16QAM	20.66	21.76
5	18625	1	#0	QPSK	23.72	24.82
5	18625	1	#Mid	QPSK	23.79	24.89
5	18625	1	#Max	QPSK	23.59	24.69
5	18625	12	#0	QPSK	22.66	23.76
5	18625	12	#Mid	QPSK	22.69	23.79
5	18625	12	#Max	QPSK	22.68	23.78
5	18625	25	#0	QPSK	22.71	23.81
5	18625	1	#0	16QAM	22.90	24.00
5	18625	1	#Mid	16QAM	22.98	24.08
5	18625	1	#Max	16QAM	22.81	23.91
5	18625	12	#0	16QAM	21.60	22.70
5	18625	12	#Mid	16QAM	21.60	22.70
5	18625	12	#Max	16QAM	21.69	22.79
5	18625	25	#0	16QAM	21.71	22.81
5	18900	1	#0	QPSK	23.36	24.46
5	18900	1	#Mid	QPSK	23.40	24.50
5	18900	1	#Max	QPSK	23.24	24.34
5	18900	12	#0	QPSK	22.24	23.34
5	18900	12	#Mid	QPSK	22.23	23.33
5	18900	12	#Max	QPSK	22.33	23.43
5	18900	25	#0	QPSK	22.29	23.39
5	18900	1	#0	16QAM	22.54	23.64
5	18900	1	#Mid	16QAM	22.63	23.73
5	18900	1	#Max	16QAM	22.47	23.57
5	18900	12	#0	16QAM	21.22	22.32
5	18900	12	#Mid	16QAM	21.23	22.33
5	18900	12	#Max	16QAM	21.24	22.34
5	18900	25	#0	16QAM	21.37	22.47
5	19175	1	#0	QPSK	22.66	23.76
5	19175	1	#Mid	QPSK	22.86	23.96
5	19175	1	#Max	QPSK	22.73	23.83
5	19175	12	#0	QPSK	21.65	22.75
5	19175	12	#Mid	QPSK	21.59	22.69
5	19175	12	#Max	QPSK	21.72	22.82
5	19175	25	#0	QPSK	21.71	22.81
5	19175	1	#0	16QAM	21.76	22.86
5	19175	1	#Mid	16QAM	21.89	22.99
5	19175	1	#Max	16QAM	21.85	22.95
5	19175	12	#0	16QAM	20.60	21.70
5	19175	12	#Mid	16QAM	20.63	21.73
5	19175	12	#Max	16QAM	20.72	21.82

5	19175	25	#0	16QAM	20.70	21.80
10	18650	1	#0	QPSK	23.86	24.96
10	18650	1	#Mid	QPSK	23.73	24.83
10	18650	1	#Max	QPSK	23.53	24.63
10	18650	25	#0	QPSK	22.57	23.67
10	18650	25	#Mid	QPSK	22.55	23.65
10	18650	25	#Max	QPSK	22.61	23.71
10	18650	50	#0	QPSK	22.60	23.70
10	18650	1	#0	16QAM	22.93	24.03
10	18650	1	#Mid	16QAM	22.82	23.92
10	18650	1	#Max	16QAM	22.62	23.72
10	18650	25	#0	16QAM	21.56	22.66
10	18650	25	#Mid	16QAM	21.62	22.72
10	18650	25	#Max	16QAM	21.64	22.74
10	18650	50	#0	16QAM	21.62	22.72
10	18900	1	#0	QPSK	23.49	24.59
10	18900	1	#Mid	QPSK	23.48	24.58
10	18900	1	#Max	QPSK	23.33	24.43
10	18900	25	#0	QPSK	22.25	23.35
10	18900	25	#Mid	QPSK	22.25	23.35
10	18900	25	#Max	QPSK	22.29	23.39
10	18900	50	#0	QPSK	22.31	23.41
10	18900	1	#0	16QAM	22.21	23.31
10	18900	1	#Mid	16QAM	22.21	23.31
10	18900	1	#Max	16QAM	22.11	23.21
10	18900	25	#0	16QAM	21.24	22.34
10	18900	25	#Mid	16QAM	21.30	22.40
10	18900	25	#Max	16QAM	21.30	22.40
10	18900	50	#0	16QAM	21.35	22.45
10	19150	1	#0	QPSK	22.70	23.80
10	19150	1	#Mid	QPSK	22.65	23.75
10	19150	1	#Max	QPSK	22.72	23.82
10	19150	25	#0	QPSK	21.62	22.72
10	19150	25	#Mid	QPSK	21.65	22.75
10	19150	25	#Max	QPSK	21.63	22.73
10	19150	50	#0	QPSK	21.71	22.81
10	19150	1	#0	16QAM	21.89	22.99
10	19150	1	#Mid	16QAM	21.88	22.98
10	19150	1	#Max	16QAM	21.89	22.99
10	19150	25	#0	16QAM	20.80	21.90
10	19150	25	#Mid	16QAM	20.83	21.93
10	19150	25	#Max	16QAM	20.80	21.90
10	19150	50	#0	16QAM	20.68	21.78

15	18675	1	#0	QPSK	23.92	25.02
15	18675	1	#Mid	QPSK	23.74	24.84
15	18675	1	#Max	QPSK	23.53	24.63
15	18675	36	#0	QPSK	22.67	23.77
15	18675	36	#Mid	QPSK	22.64	23.74
15	18675	36	#Max	QPSK	22.57	23.67
15	18675	75	#0	QPSK	22.70	23.80
15	18675	1	#0	16QAM	22.76	23.86
15	18675	1	#Mid	16QAM	22.63	23.73
15	18675	1	#Max	16QAM	22.39	23.49
15	18675	36	#0	16QAM	21.56	22.66
15	18675	36	#Mid	16QAM	21.53	22.63
15	18675	36	#Max	16QAM	21.48	22.58
15	18675	75	#0	16QAM	21.59	22.69
15	18900	1	#0	QPSK	23.41	24.51
15	18900	1	#Mid	QPSK	23.39	24.49
15	18900	1	#Max	QPSK	23.09	24.19
15	18900	36	#0	QPSK	22.35	23.45
15	18900	36	#Mid	QPSK	22.34	23.44
15	18900	36	#Max	QPSK	22.32	23.42
15	18900	75	#0	QPSK	22.42	23.52
15	18900	1	#0	16QAM	22.57	23.67
15	18900	1	#Mid	16QAM	22.57	23.67
15	18900	1	#Max	16QAM	22.30	23.40
15	18900	36	#0	16QAM	21.31	22.41
15	18900	36	#Mid	16QAM	21.33	22.43
15	18900	36	#Max	16QAM	21.23	22.33
15	18900	75	#0	16QAM	21.35	22.45
15	19125	1	#0	QPSK	22.75	23.85
15	19125	1	#Mid	QPSK	22.79	23.89
15	19125	1	#Max	QPSK	22.73	23.83
15	19125	36	#0	QPSK	21.78	22.88
15	19125	36	#Mid	QPSK	21.82	22.92
15	19125	36	#Max	QPSK	21.77	22.87
15	19125	75	#0	QPSK	21.83	22.93
15	19125	1	#0	16QAM	21.86	22.96
15	19125	1	#Mid	16QAM	21.90	23.00
15	19125	1	#Max	16QAM	21.85	22.95
15	19125	36	#0	16QAM	20.79	21.89
15	19125	36	#Mid	16QAM	20.78	21.88
15	19125	36	#Max	16QAM	20.75	21.85
15	19125	75	#0	16QAM	20.79	21.89
20	18700	1	#0	QPSK	23.79	24.89

20	18700	1	#Mid	QPSK	23.66	24.76
20	18700	1	#Max	QPSK	23.41	24.51
20	18700	50	#0	QPSK	22.46	23.56
20	18700	50	#Mid	QPSK	22.50	23.60
20	18700	50	#Max	QPSK	22.48	23.58
20	18700	100	#0	QPSK	22.43	23.53
20	18700	1	#0	16QAM	22.42	23.52
20	18700	1	#Mid	16QAM	22.36	23.46
20	18700	1	#Max	16QAM	22.08	23.18
20	18700	50	#0	16QAM	21.45	22.55
20	18700	50	#Mid	16QAM	21.43	22.53
20	18700	50	#Max	16QAM	21.46	22.56
20	18700	100	#0	16QAM	21.46	22.56
20	18900	1	#0	QPSK	23.43	24.53
20	18900	1	#Mid	QPSK	23.46	24.56
20	18900	1	#Max	QPSK	23.01	24.11
20	18900	50	#0	QPSK	22.28	23.38
20	18900	50	#Mid	QPSK	22.31	23.41
20	18900	50	#Max	QPSK	22.34	23.44
20	18900	100	#0	QPSK	22.28	23.38
20	18900	1	#0	16QAM	22.47	23.57
20	18900	1	#Mid	16QAM	22.56	23.66
20	18900	1	#Max	16QAM	22.13	23.23
20	18900	50	#0	16QAM	21.25	22.35
20	18900	50	#Mid	16QAM	21.28	22.38
20	18900	50	#Max	16QAM	21.33	22.43
20	18900	100	#0	16QAM	21.29	22.39
20	19100	1	#0	QPSK	22.98	24.08
20	19100	1	#Mid	QPSK	22.93	24.03
20	19100	1	#Max	QPSK	22.73	23.83
20	19100	50	#0	QPSK	21.80	22.90
20	19100	50	#Mid	QPSK	21.78	22.88
20	19100	50	#Max	QPSK	21.58	22.68
20	19100	100	#0	QPSK	21.72	22.82
20	19100	1	#0	16QAM	21.73	22.83
20	19100	1	#Mid	16QAM	21.72	22.82
20	19100	1	#Max	16QAM	21.53	22.63
20	19100	50	#0	16QAM	20.84	21.94
20	19100	50	#Mid	16QAM	20.83	21.93
20	19100	50	#Max	16QAM	20.61	21.71
20	19100	100	#0	16QAM	20.75	21.85
1.4	18607	1	#0	64QAM	22.20	23.30
1.4	18607	1	#Mid	64QAM	22.27	23.37

1.4	18607	1	#Max	64QAM	22.20	23.30
1.4	18607	3	#0	64QAM	22.39	23.49
1.4	18607	3	#Mid	64QAM	22.39	23.49
1.4	18607	3	#Max	64QAM	22.40	23.50
1.4	18607	6	#0	64QAM	21.42	22.52
1.4	18900	1	#0	64QAM	21.94	23.04
1.4	18900	1	#Mid	64QAM	22.00	23.10
1.4	18900	1	#Max	64QAM	21.93	23.03
1.4	18900	3	#0	64QAM	21.82	22.92
1.4	18900	3	#Mid	64QAM	21.83	22.93
1.4	18900	3	#Max	64QAM	21.83	22.93
1.4	18900	6	#0	64QAM	20.89	21.99
1.4	19193	1	#0	64QAM	21.11	22.21
1.4	19193	1	#Mid	64QAM	21.12	22.22
1.4	19193	1	#Max	64QAM	21.14	22.24
1.4	19193	3	#0	64QAM	21.18	22.28
1.4	19193	3	#Mid	64QAM	21.18	22.28
1.4	19193	3	#Max	64QAM	21.18	22.28
1.4	19193	6	#0	64QAM	20.38	21.48
3	18615	1	#0	64QAM	22.28	23.38
3	18615	1	#Mid	64QAM	22.37	23.47
3	18615	1	#Max	64QAM	22.21	23.31
3	18615	8	#0	64QAM	21.29	22.39
3	18615	8	#Mid	64QAM	21.26	22.36
3	18615	8	#Max	64QAM	21.26	22.36
3	18615	15	#0	64QAM	21.24	22.34
3	18900	1	#0	64QAM	21.57	22.67
3	18900	1	#Mid	64QAM	21.72	22.82
3	18900	1	#Max	64QAM	21.65	22.75
3	18900	8	#0	64QAM	20.82	21.92
3	18900	8	#Mid	64QAM	20.85	21.95
3	18900	8	#Max	64QAM	20.89	21.99
3	18900	15	#0	64QAM	20.96	22.06
3	19185	1	#0	64QAM	21.31	22.41
3	19185	1	#Mid	64QAM	21.43	22.53
3	19185	1	#Max	64QAM	21.36	22.46
3	19185	8	#0	64QAM	20.32	21.42
3	19185	8	#Mid	64QAM	20.33	21.43
3	19185	8	#Max	64QAM	20.37	21.47
3	19185	15	#0	64QAM	20.32	21.42
5	18625	1	#0	64QAM	23.46	24.56
5	18625	1	#Mid	64QAM	23.48	24.58
5	18625	1	#Max	64QAM	23.34	24.44

5	18625	12	#0	64QAM	22.34	23.44
5	18625	12	#Mid	64QAM	22.35	23.45
5	18625	12	#Max	64QAM	22.38	23.48
5	18625	25	#0	64QAM	22.36	23.46
5	18900	1	#0	64QAM	23.05	24.15
5	18900	1	#Mid	64QAM	23.10	24.20
5	18900	1	#Max	64QAM	22.94	24.04
5	18900	12	#0	64QAM	21.97	23.07
5	18900	12	#Mid	64QAM	21.95	23.05
5	18900	12	#Max	64QAM	22.00	23.10
5	18900	25	#0	64QAM	22.00	23.10
5	19175	1	#0	64QAM	22.23	23.33
5	19175	1	#Mid	64QAM	22.45	23.55
5	19175	1	#Max	64QAM	22.34	23.44
5	19175	12	#0	64QAM	21.29	22.39
5	19175	12	#Mid	64QAM	21.26	22.36
5	19175	12	#Max	64QAM	21.36	22.46
5	19175	25	#0	64QAM	21.39	22.49
10	18650	1	#0	64QAM	22.63	23.73
10	18650	1	#Mid	64QAM	22.52	23.62
10	18650	1	#Max	64QAM	22.34	23.44
10	18650	25	#0	64QAM	21.29	22.39
10	18650	25	#Mid	64QAM	21.27	22.37
10	18650	25	#Max	64QAM	21.31	22.41
10	18650	50	#0	64QAM	21.29	22.39
10	18900	1	#0	64QAM	21.92	23.02
10	18900	1	#Mid	64QAM	21.91	23.01
10	18900	1	#Max	64QAM	21.79	22.89
10	18900	25	#0	64QAM	20.96	22.06
10	18900	25	#Mid	64QAM	20.96	22.06
10	18900	25	#Max	64QAM	20.95	22.05
10	18900	50	#0	64QAM	21.03	22.13
10	19150	1	#0	64QAM	21.59	22.69
10	19150	1	#Mid	64QAM	21.56	22.66
10	19150	1	#Max	64QAM	21.62	22.72
10	19150	25	#0	64QAM	20.48	21.58
10	19150	25	#Mid	64QAM	20.48	21.58
10	19150	25	#Max	64QAM	20.48	21.58
10	19150	50	#0	64QAM	20.38	21.48
15	18675	1	#0	64QAM	22.42	23.52
15	18675	1	#Mid	64QAM	22.33	23.43
15	18675	1	#Max	64QAM	22.09	23.19
15	18675	36	#0	64QAM	21.25	22.35

15	18675	36	#Mid	64QAM	21.24	22.34
15	18675	36	#Max	64QAM	21.18	22.28
15	18675	75	#0	64QAM	21.29	22.39
15	18900	1	#0	64QAM	22.25	23.35
15	18900	1	#Mid	64QAM	22.30	23.40
15	18900	1	#Max	64QAM	21.98	23.08
15	18900	36	#0	64QAM	21.00	22.10
15	18900	36	#Mid	64QAM	20.96	22.06
15	18900	36	#Max	64QAM	20.98	22.08
15	18900	75	#0	64QAM	21.02	22.12
15	19125	1	#0	64QAM	21.57	22.67
15	19125	1	#Mid	64QAM	21.55	22.65
15	19125	1	#Max	64QAM	21.50	22.60
15	19125	36	#0	64QAM	20.46	21.56
15	19125	36	#Mid	64QAM	20.43	21.53
15	19125	36	#Max	64QAM	20.41	21.51
15	19125	75	#0	64QAM	20.46	21.56
20	18700	1	#0	64QAM	22.12	23.22
20	18700	1	#Mid	64QAM	22.04	23.14
20	18700	1	#Max	64QAM	21.81	22.91
20	18700	50	#0	64QAM	21.17	22.27
20	18700	50	#Mid	64QAM	21.17	22.27
20	18700	50	#Max	64QAM	21.16	22.26
20	18700	100	#0	64QAM	21.16	22.26
20	18900	1	#0	64QAM	22.16	23.26
20	18900	1	#Mid	64QAM	22.27	23.37
20	18900	1	#Max	64QAM	21.81	22.91
20	18900	50	#0	64QAM	20.95	22.05
20	18900	50	#Mid	64QAM	20.92	22.02
20	18900	50	#Max	64QAM	20.95	22.05
20	18900	100	#0	64QAM	21.00	22.10
20	19100	1	#0	64QAM	21.43	22.53
20	19100	1	#Mid	64QAM	21.41	22.51
20	19100	1	#Max	64QAM	21.17	22.27
20	19100	50	#0	64QAM	20.47	21.57
20	19100	50	#Mid	64QAM	20.49	21.59
20	19100	50	#Max	64QAM	20.32	21.42
20	19100	100	#0	64QAM	20.41	21.51

6.2. Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
GSM 1900 (GMSK)	512	1850.2	0.25	0.31
	661	1880.0	0.25	0.32
	810	1909.8	0.25	0.31
GPRS 1900 (GMSK)	512	1850.2	0.24	0.31
	661	1880.0	0.25	0.30
	810	1909.8	0.25	0.31
EGPRS 1900 (8PSK)	512	1850.2	0.25	0.31
	661	1880.0	0.25	0.31
	810	1909.8	0.25	0.32
WCDMA Band II (RMC)	9262	1852.4	4.16	4.68
	9400	1880	4.15	4.67
	9538	1907.6	4.18	4.72

LTE Band 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	18607	1850.7	1.10	1.27
			18900	1880.0	1.10	1.26
			19193	1909.3	1.10	1.29
		3	18615	1851.5	2.70	2.97
			18900	1880	2.70	2.96
			19185	1908.5	2.69	2.99
		5	18625	1852.5	4.51	4.86
			18900	1880	4.52	4.90
			19175	1907.5	4.51	4.89
		10	18650	1855	8.96	9.68
			18900	1880	9.00	9.73
			19150	1905	8.98	9.75
		15	18675	1857.5	13.45	14.52
			18900	1880	13.47	14.36
			19125	1902.5	13.49	14.63
		20	18700	1860	17.86	19.17
			18900	1880	17.95	19.28

			19100	1900	17.96	19.22
	16QAM	1.4	18607	1850.7	1.10	1.27
			18900	1880.0	1.10	1.28
			19193	1909.3	1.10	1.30
		3	18615	1851.5	2.70	2.95
			18900	1880	2.69	2.95
			19185	1908.5	2.70	2.97
		5	18625	1852.5	4.50	4.90
			18900	1880	4.51	4.90
			19175	1907.5	4.51	4.90
		10	18650	1855	8.96	9.71
			18900	1880	8.96	9.70
			19150	1905	9.01	9.62
		15	18675	1857.5	13.40	14.42
			18900	1880	13.46	14.54
			19125	1902.5	13.48	14.47
		20	18700	1860	17.89	19.18
			18900	1880	17.93	19.32
			19100	1900	17.97	19.35
	64QAM	1.4	18607	1850.7	1.10	1.27
			18900	1880.0	1.10	1.28
			19193	1909.3	1.10	1.29
		3	18615	1851.5	2.68	3.00
			18900	1880	2.68	2.97
			19185	1908.5	2.69	2.97
		5	18625	1852.5	4.50	4.88
			18900	1880	4.51	4.91
			19175	1907.5	4.51	4.93
		10	18650	1855	8.97	9.63
			18900	1880	8.98	9.72
			19150	1905	8.97	9.71
		15	18675	1857.5	13.42	14.52
			18900	1880	13.47	14.52
			19125	1902.5	13.49	14.43
		20	18700	1860	17.90	19.23
			18900	1880	17.95	19.30
			19100	1900	17.98	19.32

GSM1900 GSM CH-Low

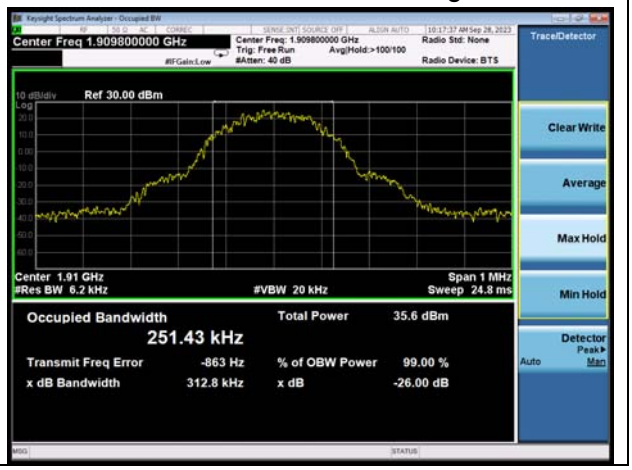
GSM1900 GPRS CH-Low

GSM 1900 GSM CH-Middle

GSM 1900 GPRS CH-Middle

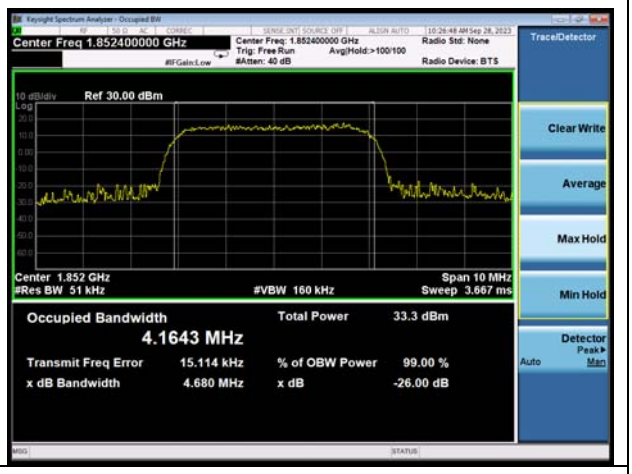
GSM 1900 GSM CH-High

GSM 1900 GPRS CH-High

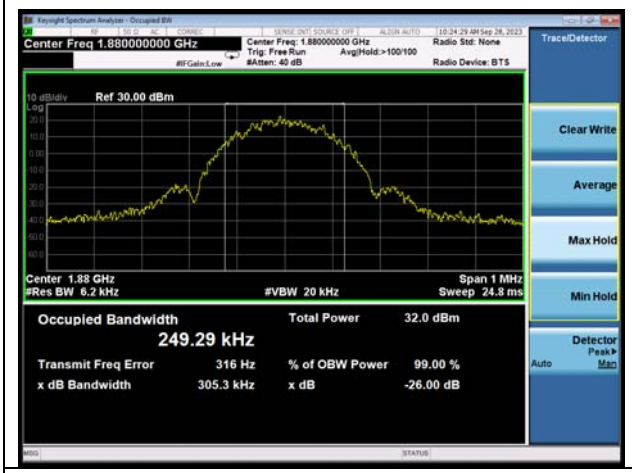


GSM1900 EGPRS CH-Low

WCDMA Band II RMC CH-LOW

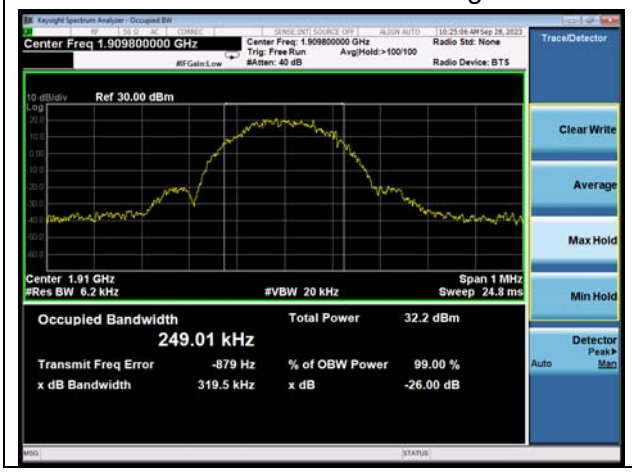


GSM 1900 EGPRS CH-Middle



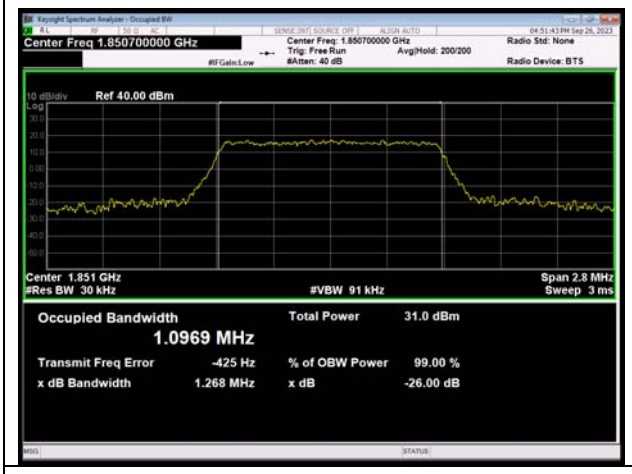
WCDMA Band II RMC CH-Middle

GSM 1900 EGPRS CH-High

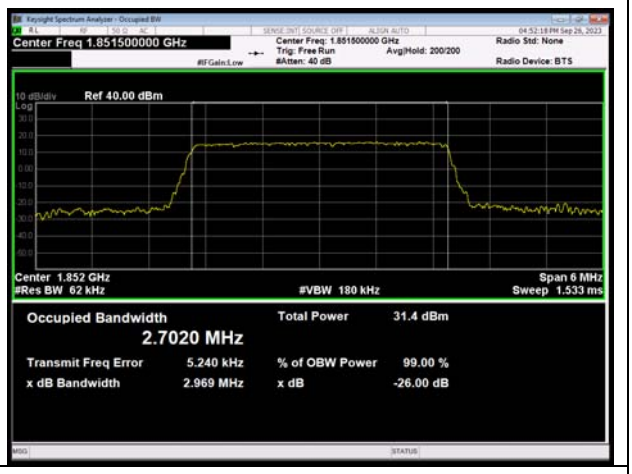


WCDMA Band II RMC CH-High

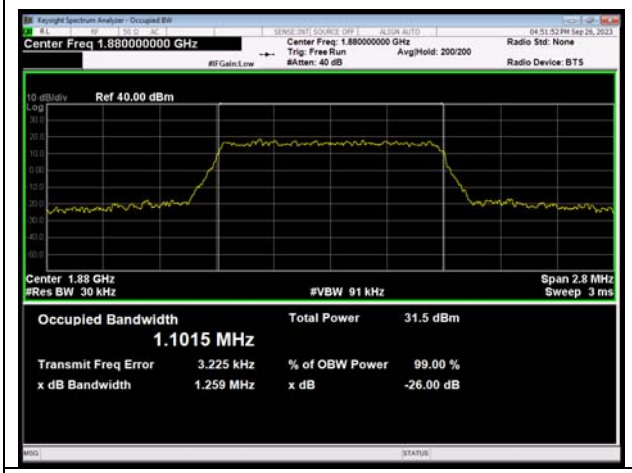
LTE Band 2 1.4MHz QPSK CH-Low



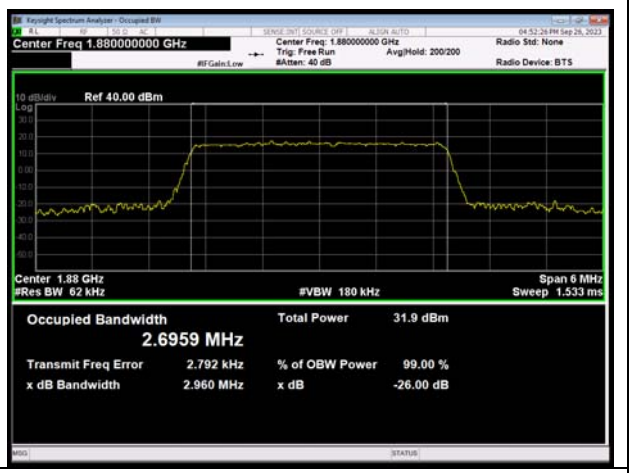
LTE Band 2 3MHz QPSK CH-Low



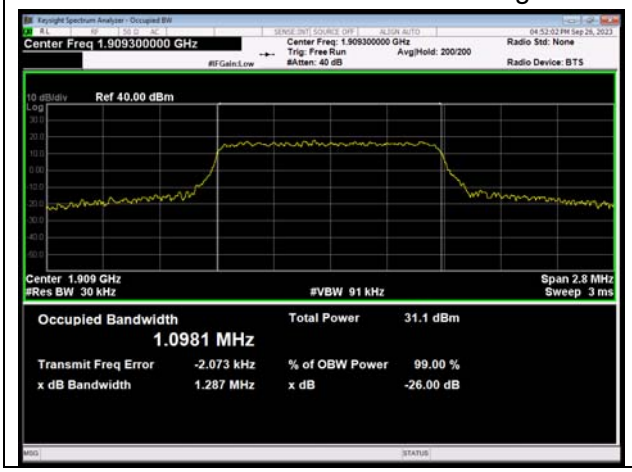
LTE Band 2 1.4MHz QPSK CH-Middle



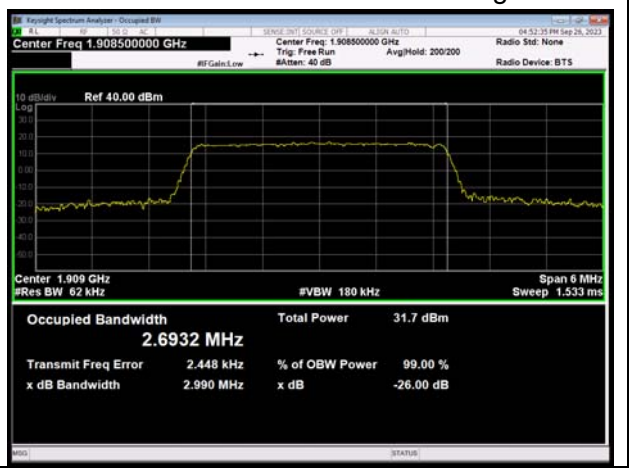
LTE Band 2 3MHz QPSK CH-Middle



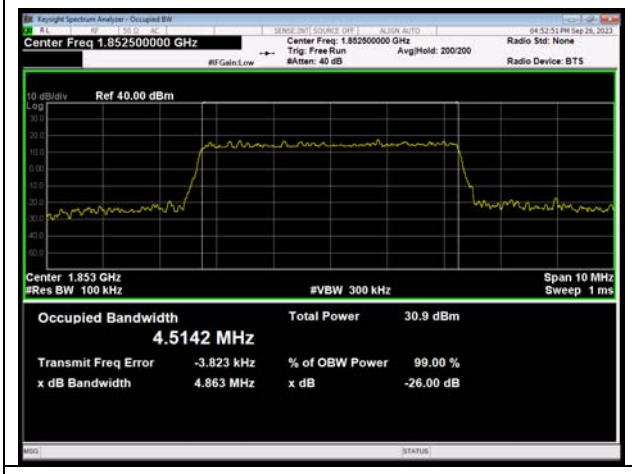
LTE Band 2 1.4MHz QPSK CH-High



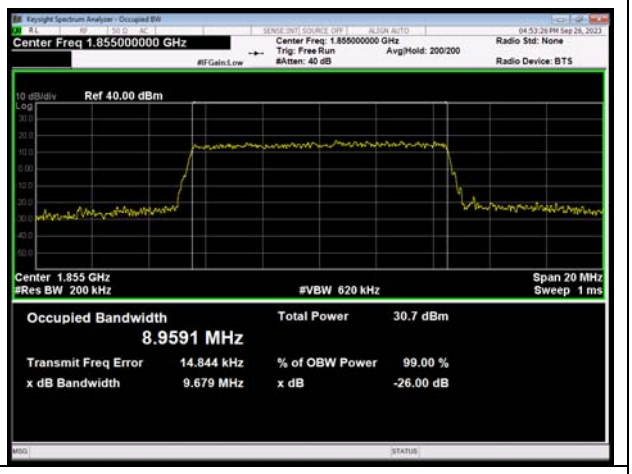
LTE Band 2 3MHz QPSK CH-High



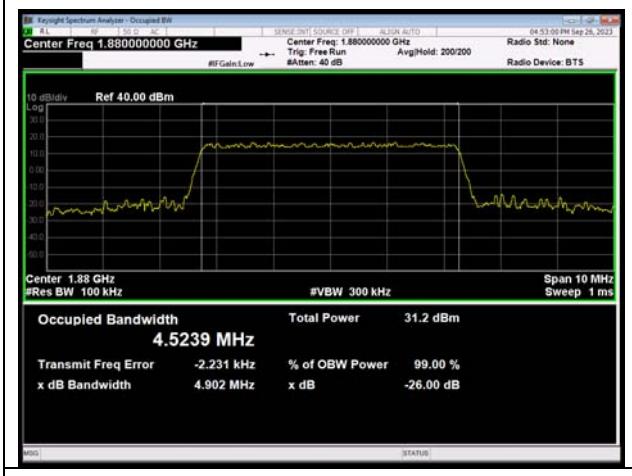
LTE Band 2 5MHz QPSK CH-Low



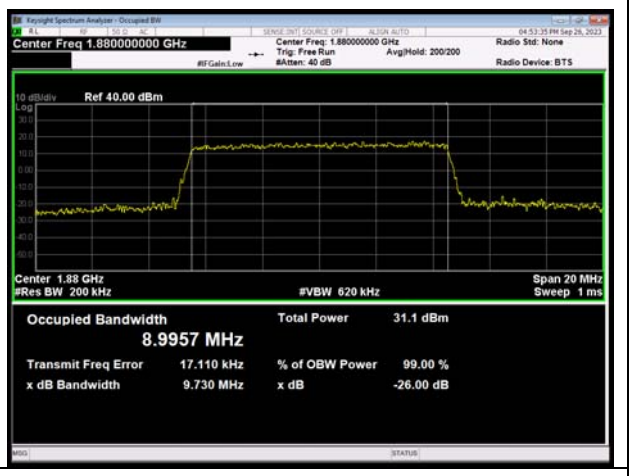
LTE Band 2 10MHz QPSK CH-Low



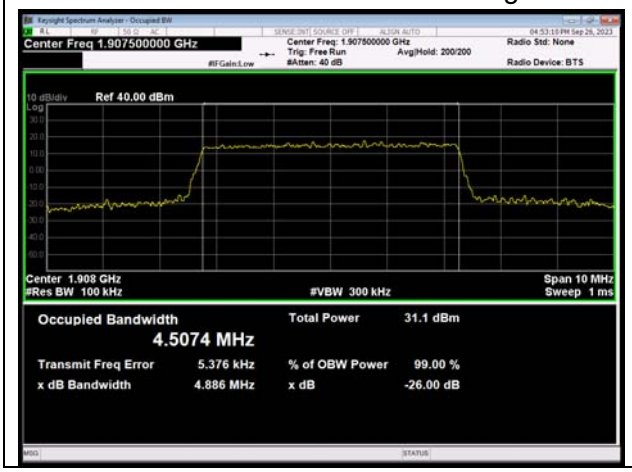
LTE Band 2 5MHz QPSK CH-Middle



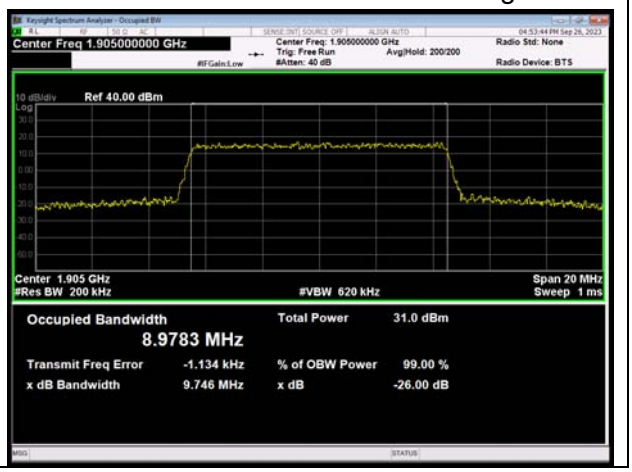
LTE Band 2 10MHz QPSK CH-Middle



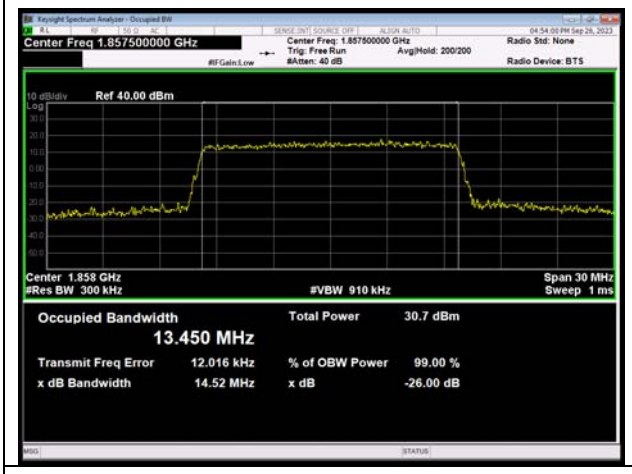
LTE Band 2 5MHz QPSK CH-High



LTE Band 2 10MHz QPSK CH-High

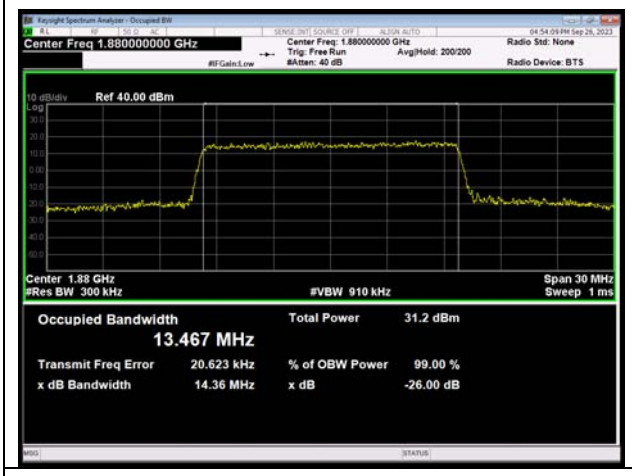


LTE Band 2 15MHz QPSK CH-Low

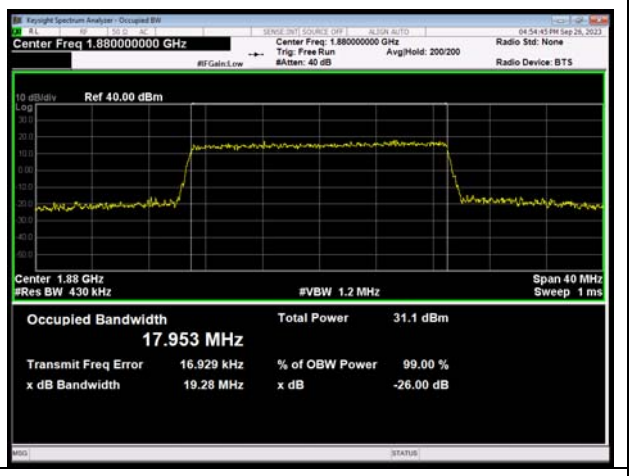


LTE Band 2 20MHz QPSK CH-Low

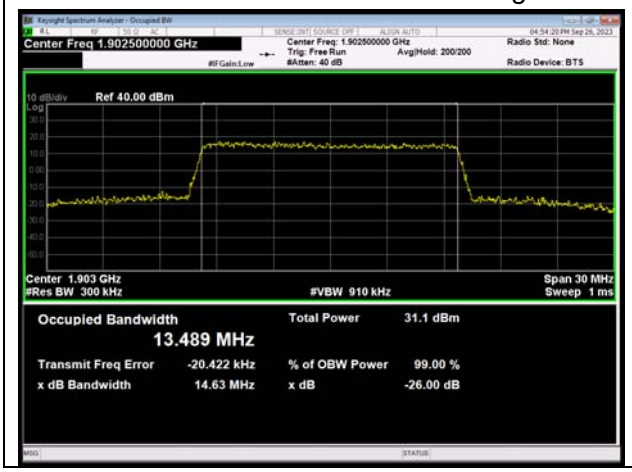
LTE Band 2 15MHz QPSK CH-Middle



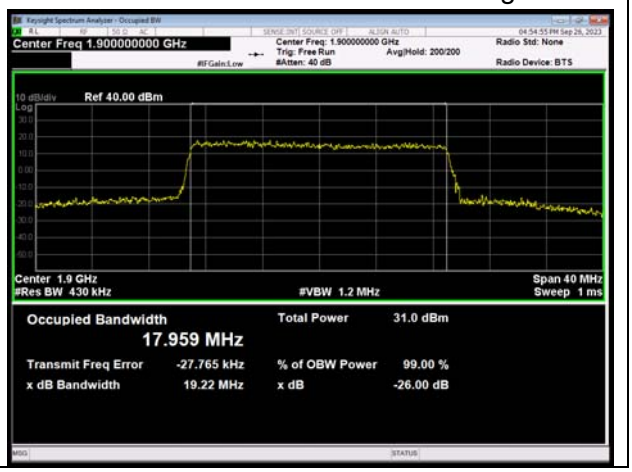
LTE Band 2 20MHz QPSK CH-Middle



LTE Band 2 15MHz QPSK CH-High

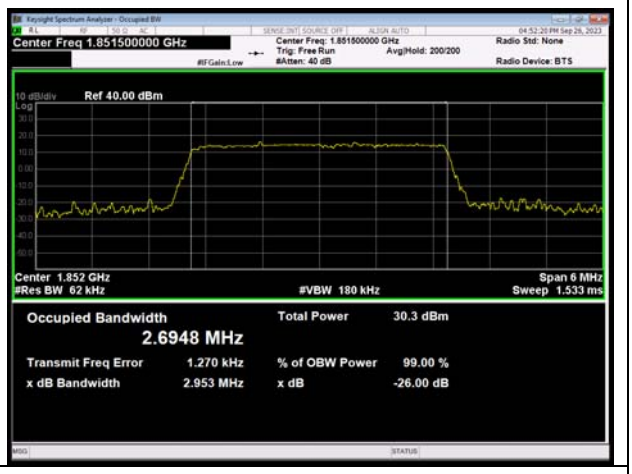


LTE Band 2 20MHz QPSK CH-High



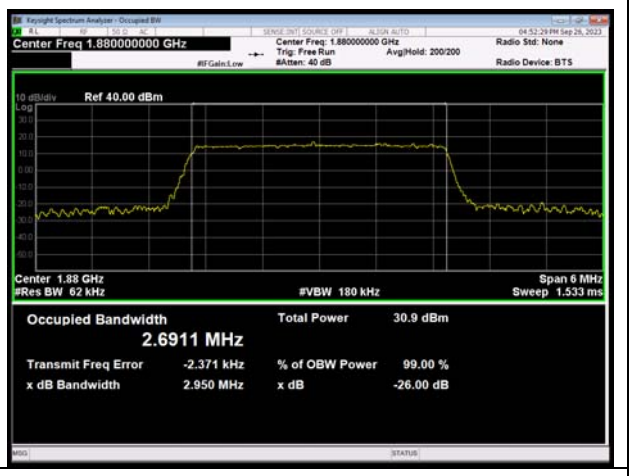
LTE Band 2 1.4MHz 16QAM CH-Low

LTE Band 2 3MHz 16QAM CH-Low

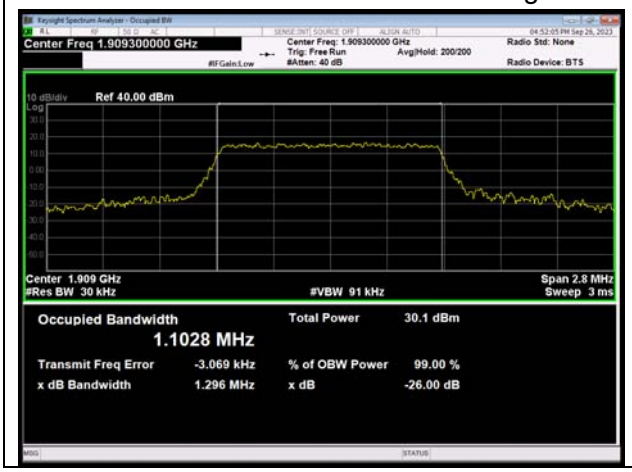


LTE Band 2 1.4MHz 16QAM CH-Middle

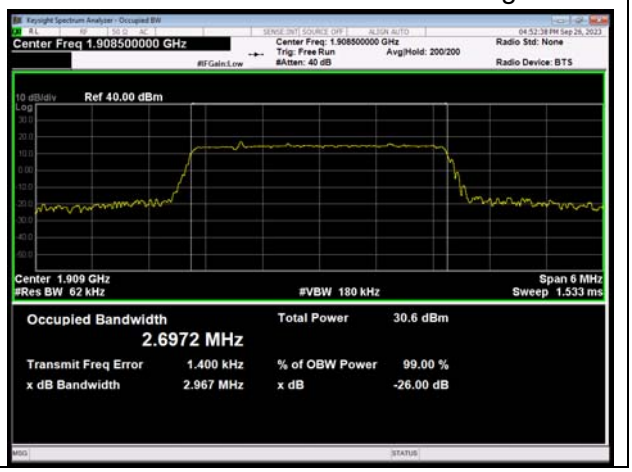
LTE Band 2 3MHz 16QAM CH-Middle



LTE Band 2 1.4MHz 16QAM CH-High

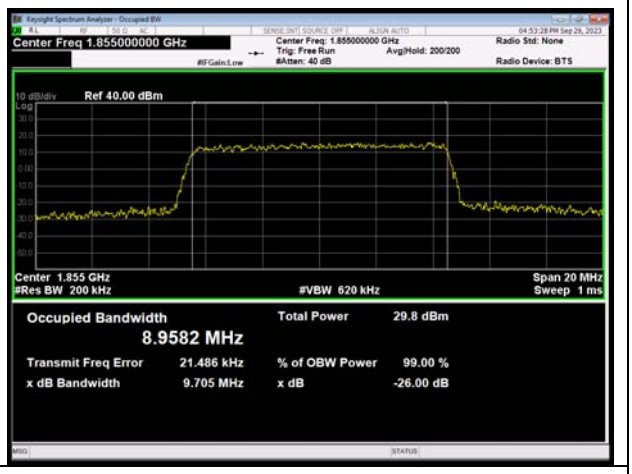


LTE Band 2 3MHz 16QAM CH-High

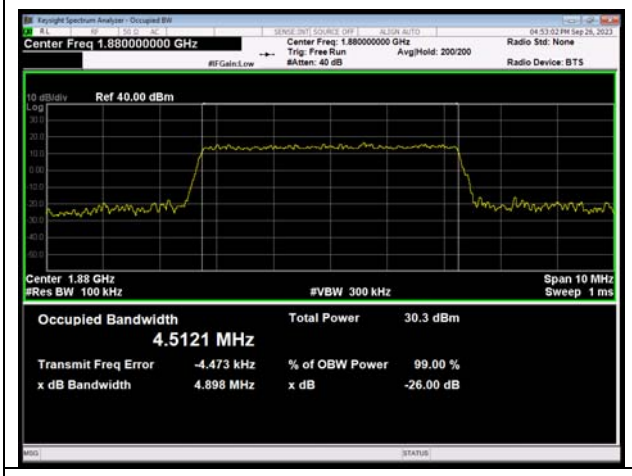


LTE Band 2 5MHz 16QAM CH-Low

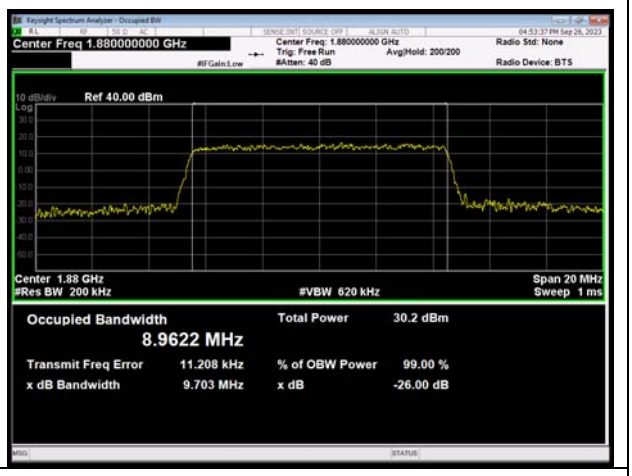
LTE Band 2 10MHz 16QAM CH-Low



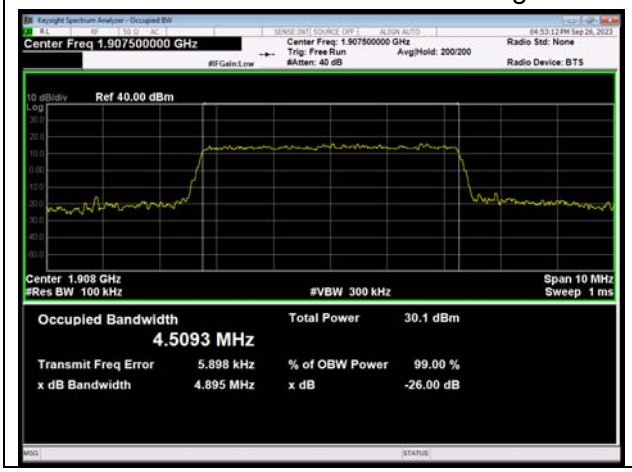
LTE Band 2 5MHz 16QAM CH-Middle



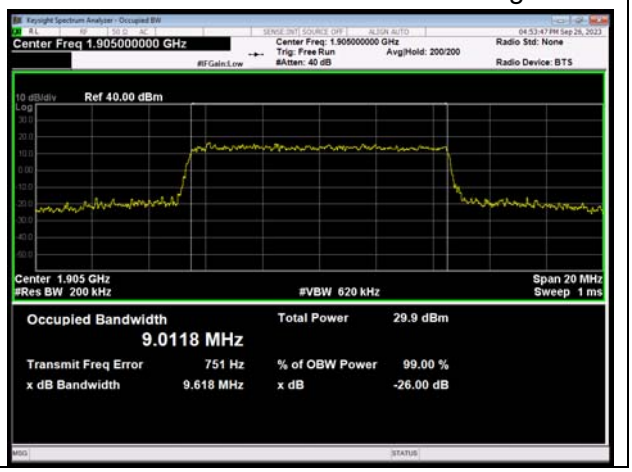
LTE Band 2 10MHz 16QAM CH-Middle



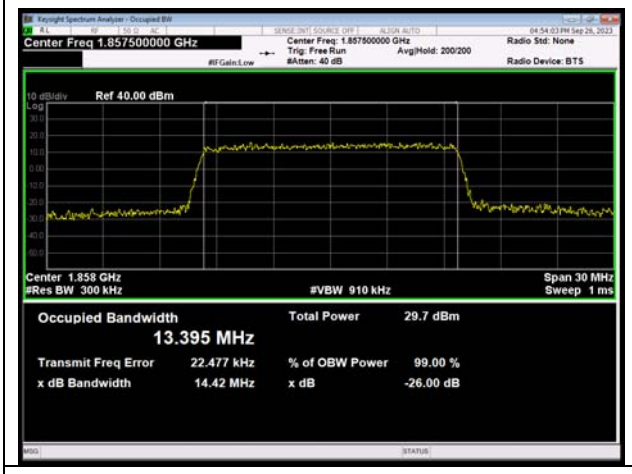
LTE Band 2 5MHz 16QAM CH-High



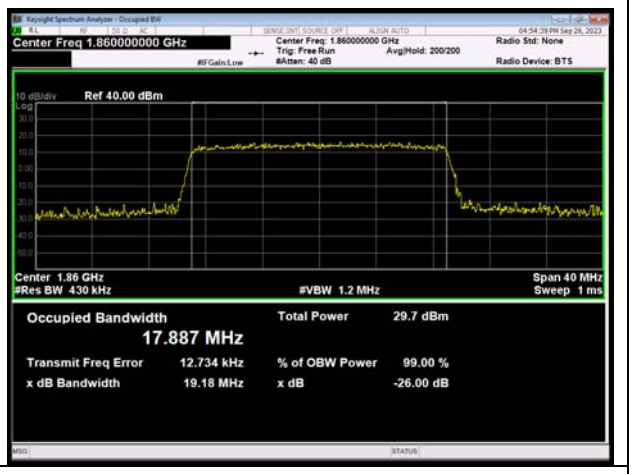
LTE Band 2 10MHz 16QAM CH-High



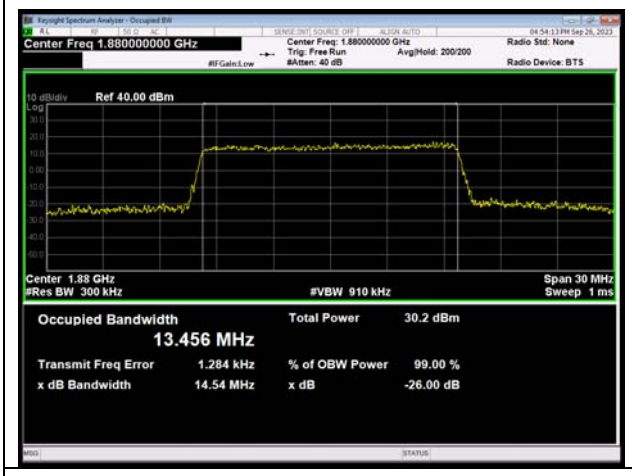
LTE Band 2 15MHz 16QAM CH-Low



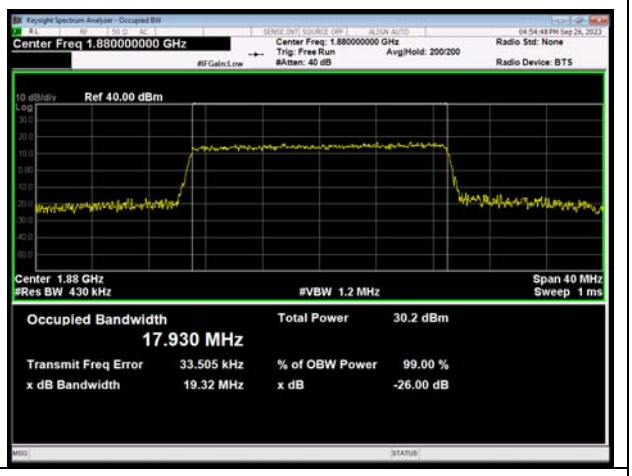
LTE Band 2 20MHz 16QAM CH-Low



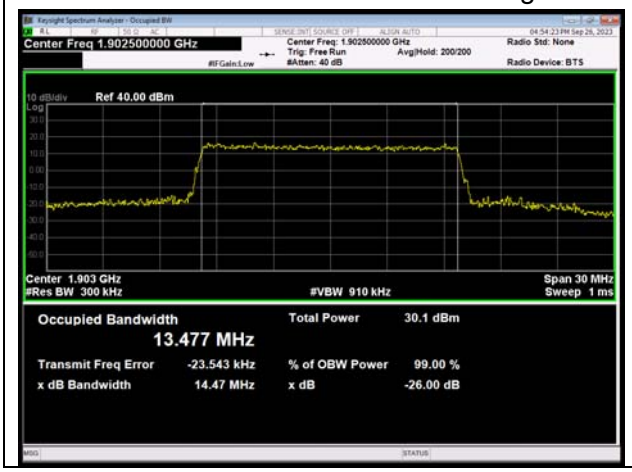
LTE Band 2 15MHz 16QAM CH-Middle



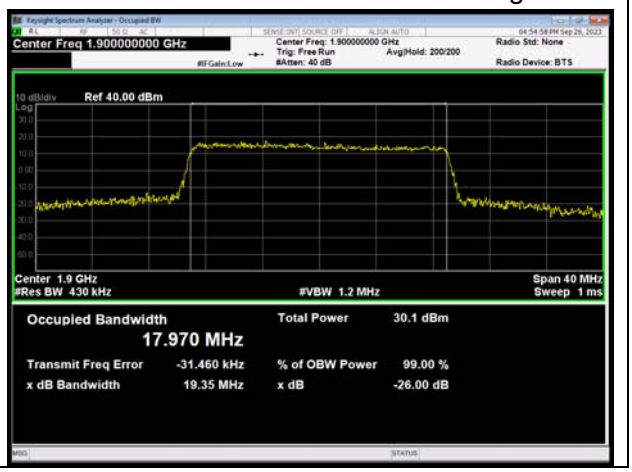
LTE Band 2 20MHz 16QAM CH-Middle



LTE Band 2 15MHz 16QAM CH-High

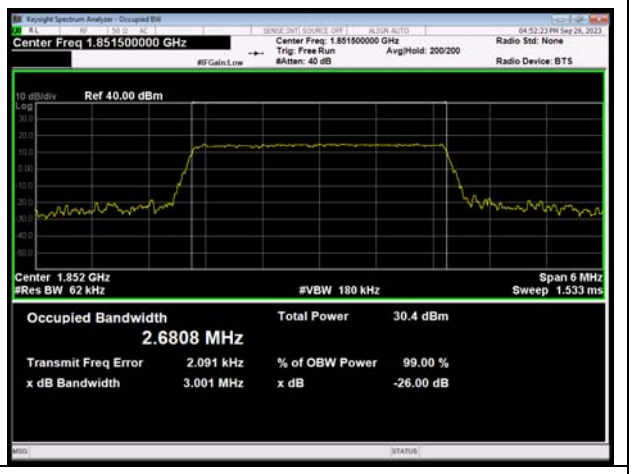


LTE Band 2 20MHz 16QAM CH-High

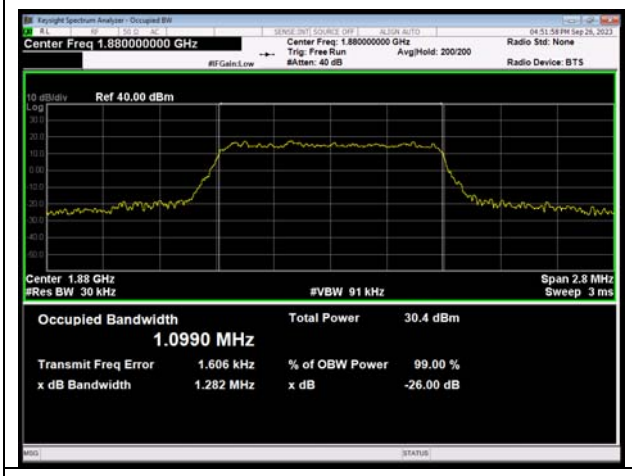


LTE Band 2 1.4MHz 64QAM CH-Low

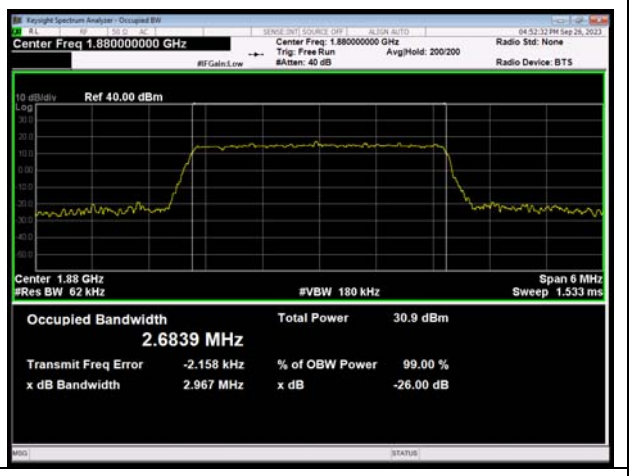
LTE Band 2 3MHz 64QAM CH-Low



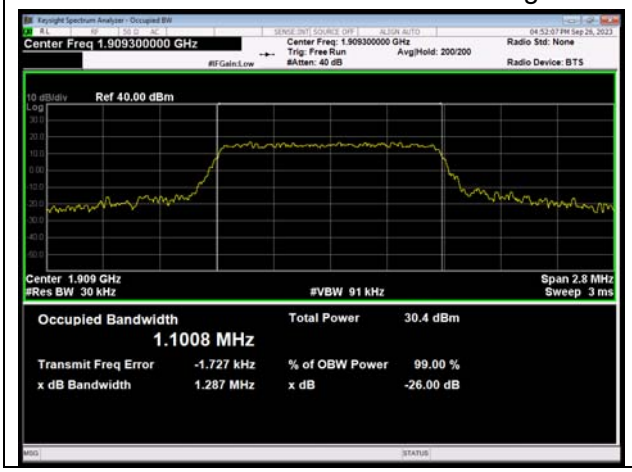
LTE Band 2 1.4MHz 64QAM CH-Middle



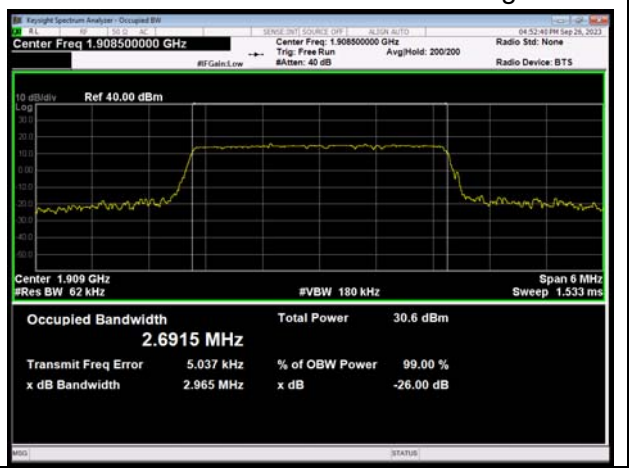
LTE Band 2 3MHz 64QAM CH-Middle



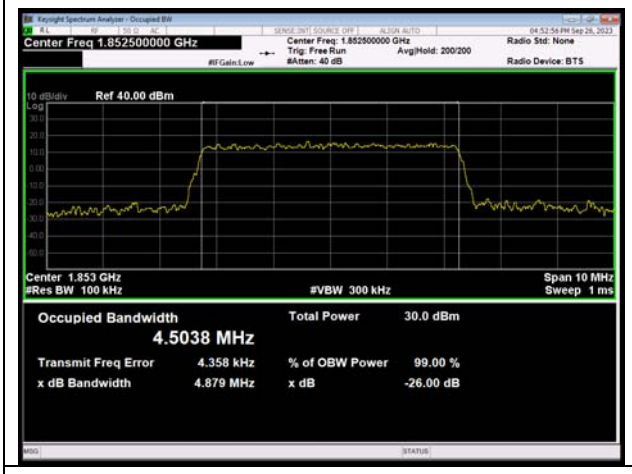
LTE Band 2 1.4MHz 64QAM CH-High



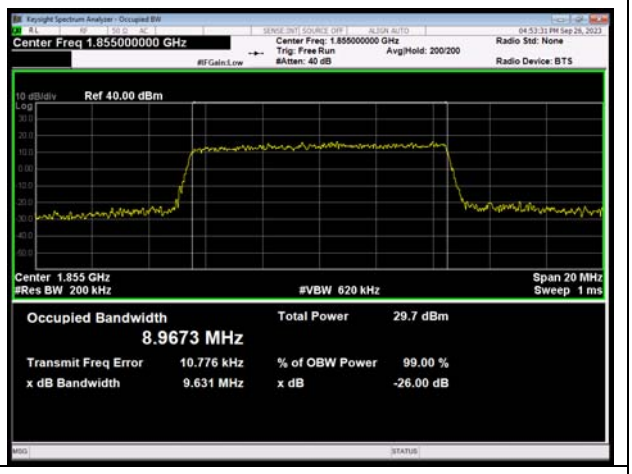
LTE Band 2 3MHz 64QAM CH-High



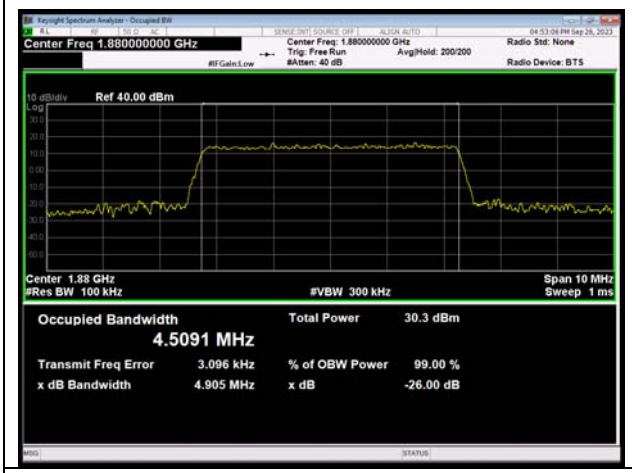
LTE Band 2 5MHz 64QAM CH-Low



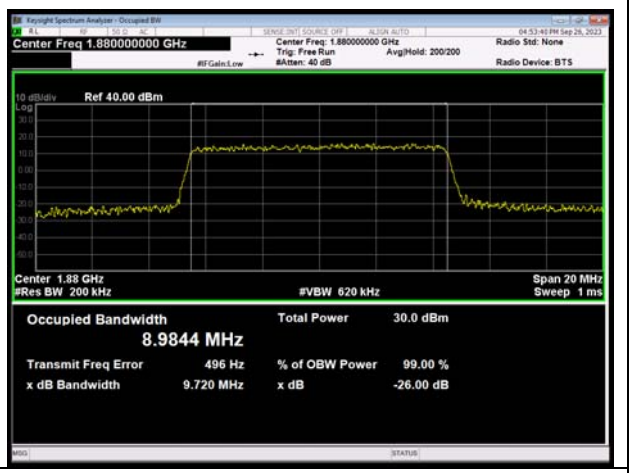
LTE Band 2 10MHz 64QAM CH-Low



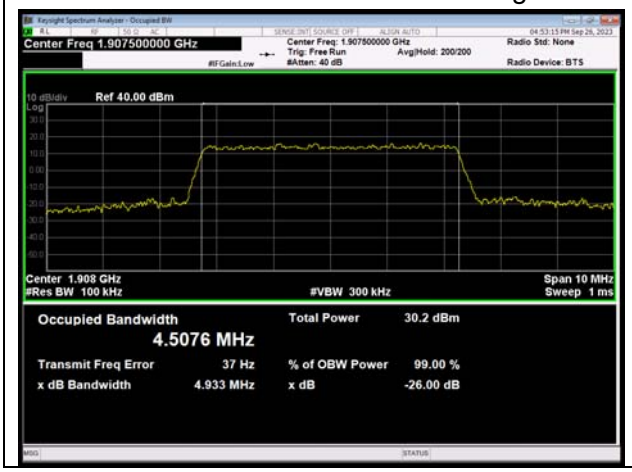
LTE Band 2 5MHz 64QAM CH-Middle



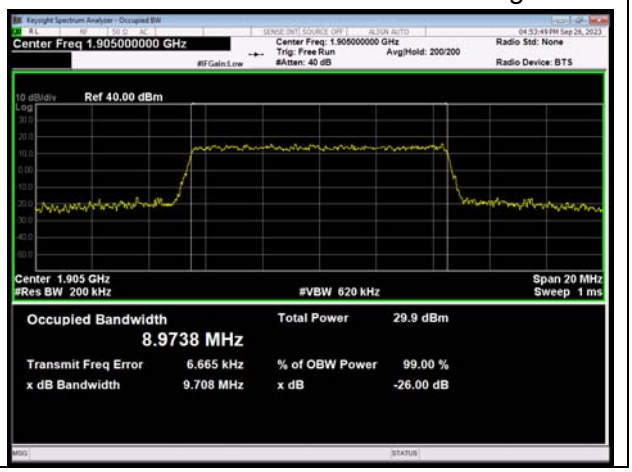
LTE Band 2 10MHz 64QAM CH-Middle



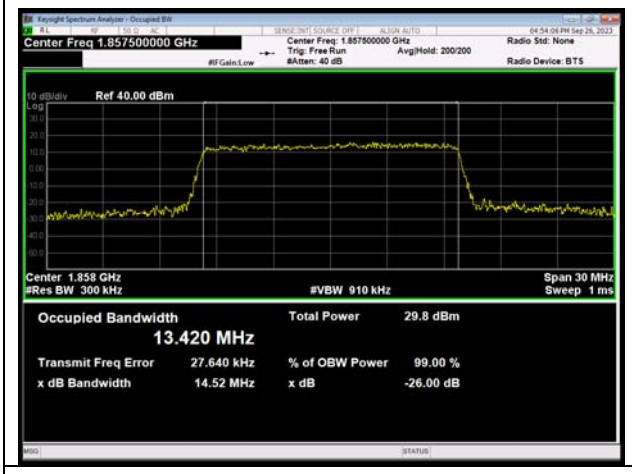
LTE Band 2 5MHz 64QAM CH-High



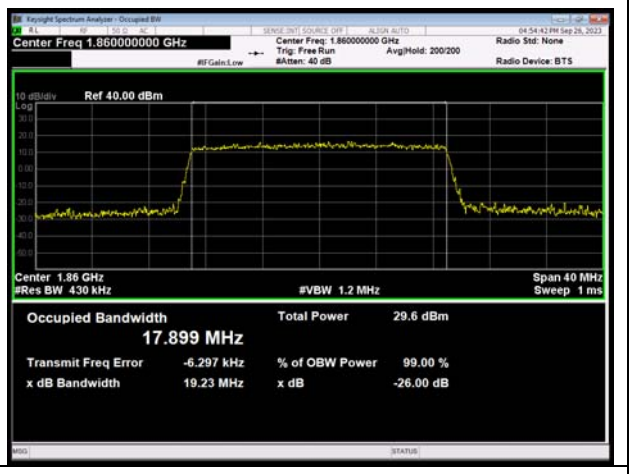
LTE Band 2 10MHz 64QAM CH-High



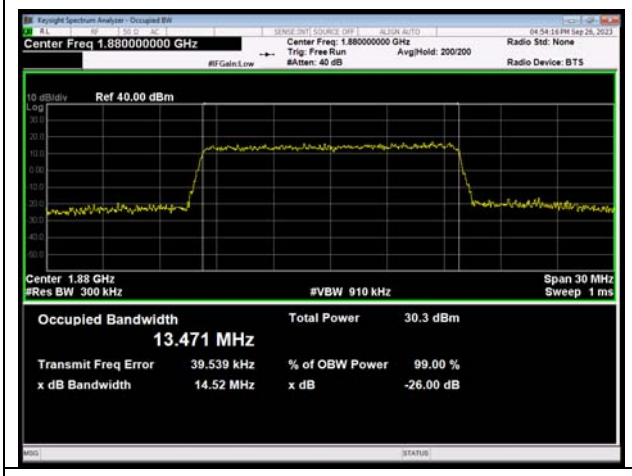
LTE Band 2 15MHz 64QAM CH-Low



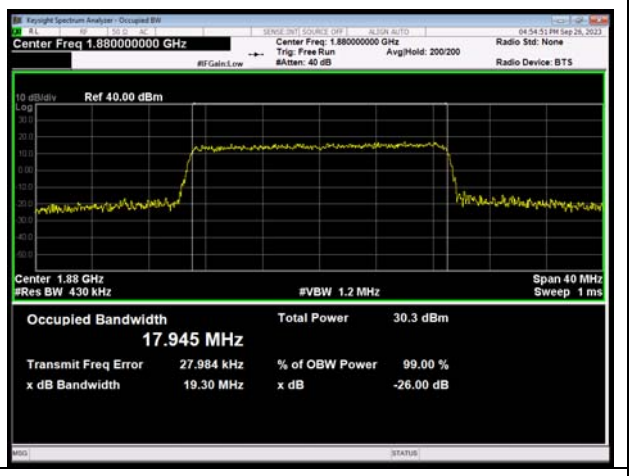
LTE Band 2 20MHz 64QAM CH-Low



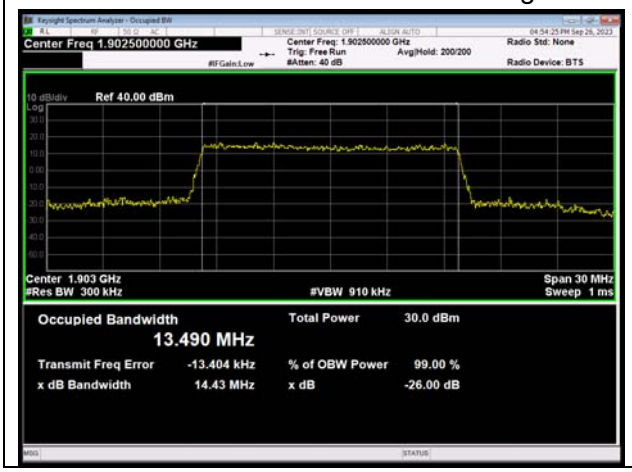
LTE Band 2 15MHz 64QAM CH-Middle



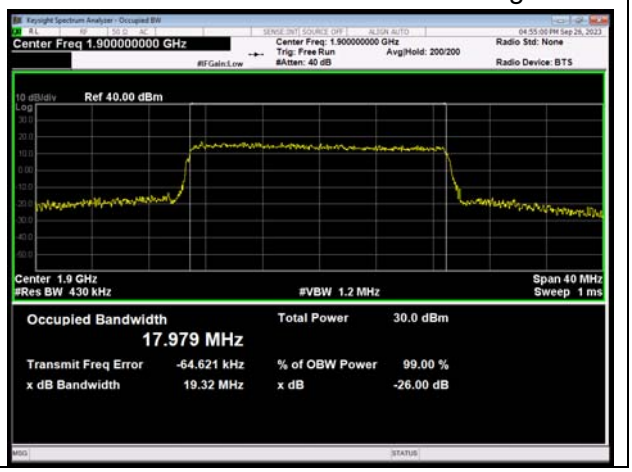
LTE Band 2 20MHz 64QAM CH-Middle



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

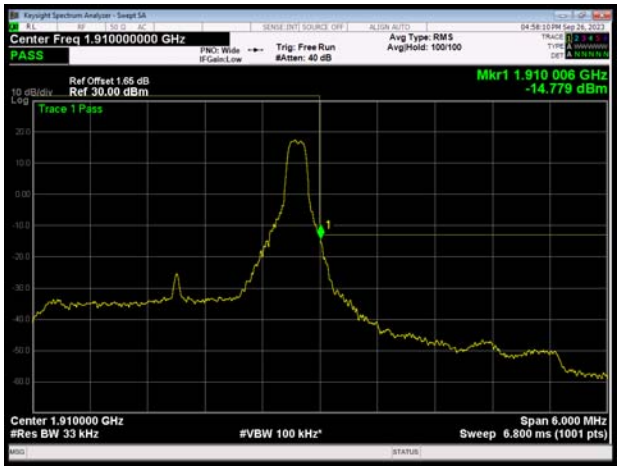
LTE Band 2 1.4MHz QPSK 1RB CH-High

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

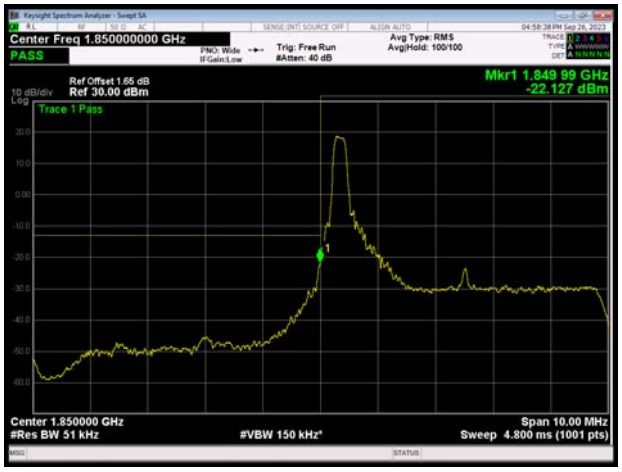
LTE Band 2 3MHz QPSK 1RB CH-High



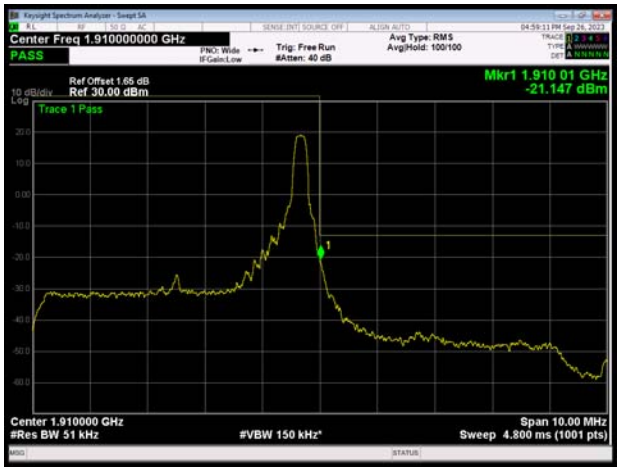
LTE Band 2 3MHz QPSK 100%RB CH-Low

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

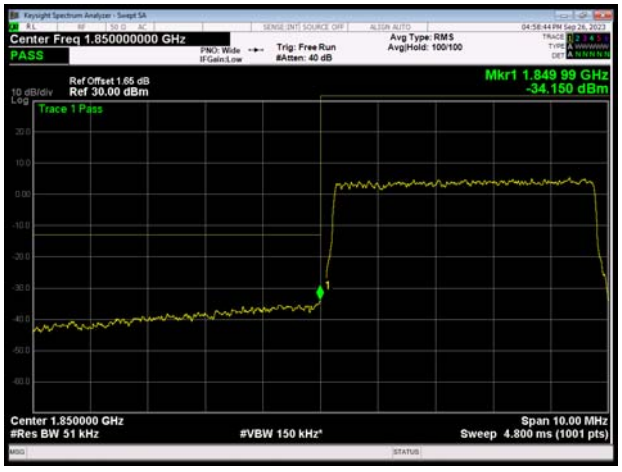
LTE Band 2 5MHz QPSK 1RB CH-Low



LTE Band 2 5MHz QPSK 1RB CH-High

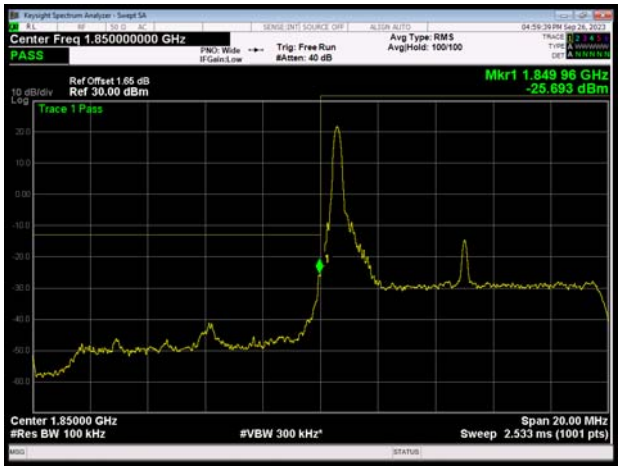


LTE Band 2 5MHz QPSK 100%RB CH-Low



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

LTE Band 2 10MHz QPSK 1RB CH-Low

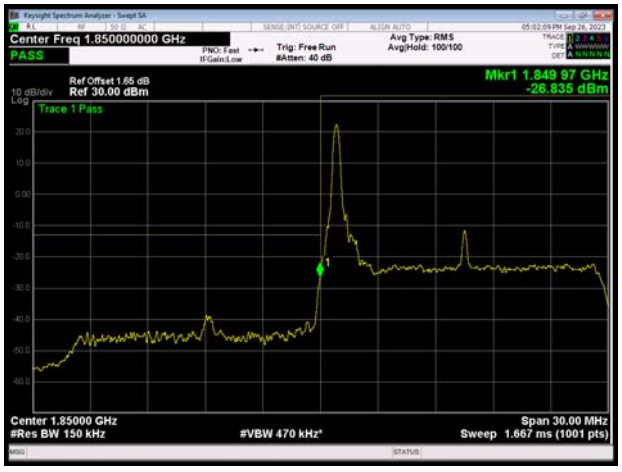


LTE Band 2 10MHz QPSK 1RB CH-High

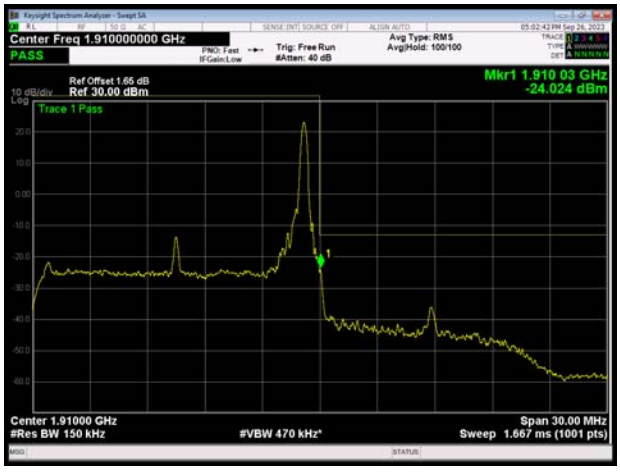
LTE Band 2 10MHz QPSK 100%RB CH-Low

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

LTE Band 2 15MHz QPSK 1RB CH-Low



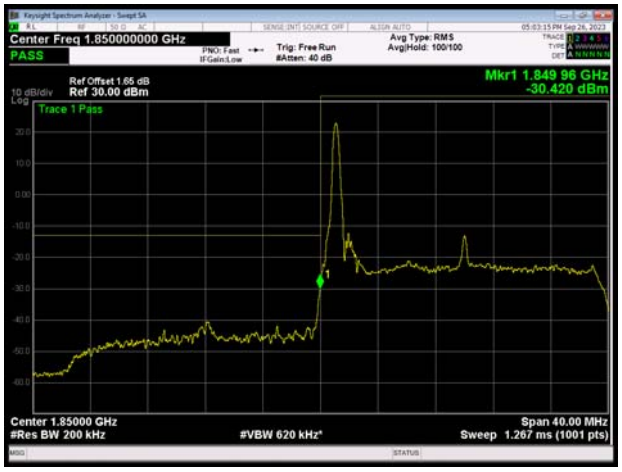
LTE Band 2 15MHz QPSK 1RB CH-High



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

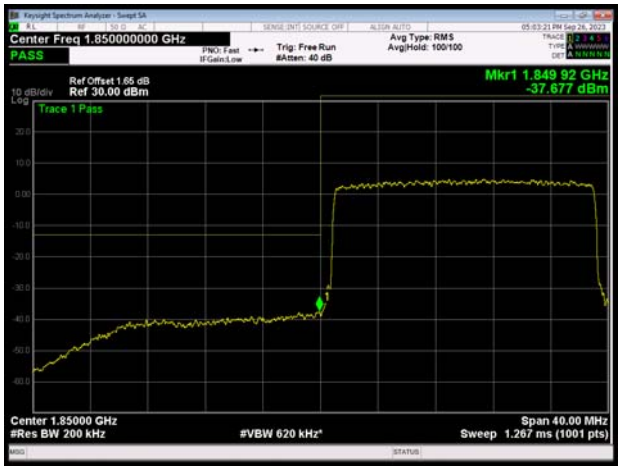
LTE Band 2 15MHz QPSK 100%RB CH-High

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

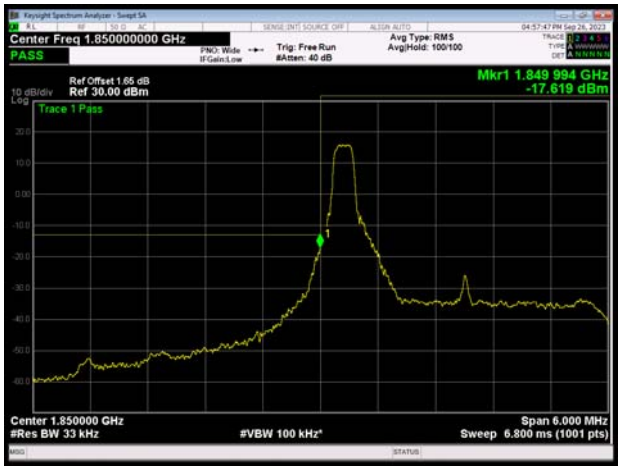
LTE Band 2 1.4MHz 16QAM 1RB CH-Low

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

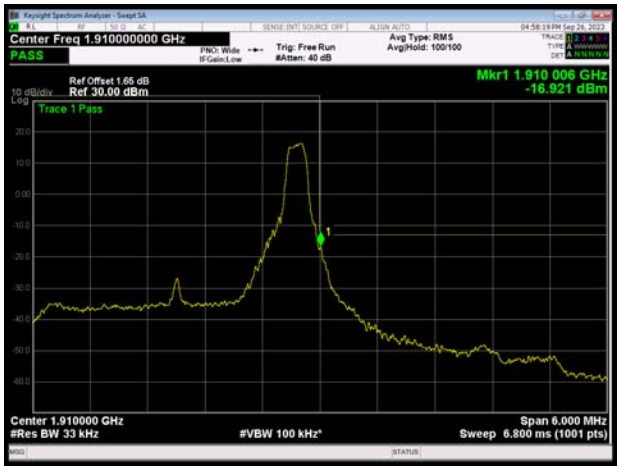
LTE Band 2 1.4MHz 16QAM 100%RB CH-Low

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

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



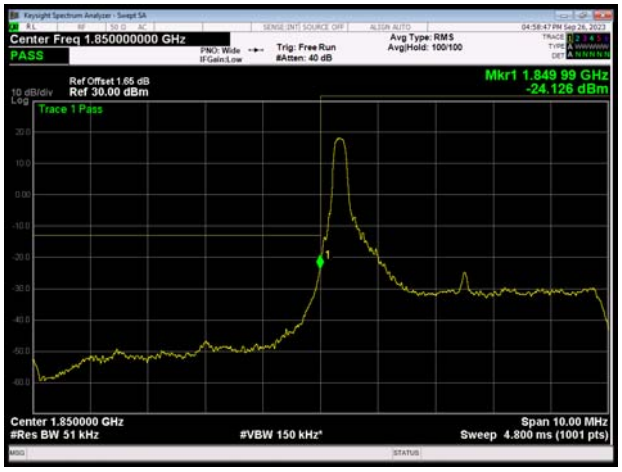
LTE Band 2 3MHz 16QAM 1RB CH-High



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



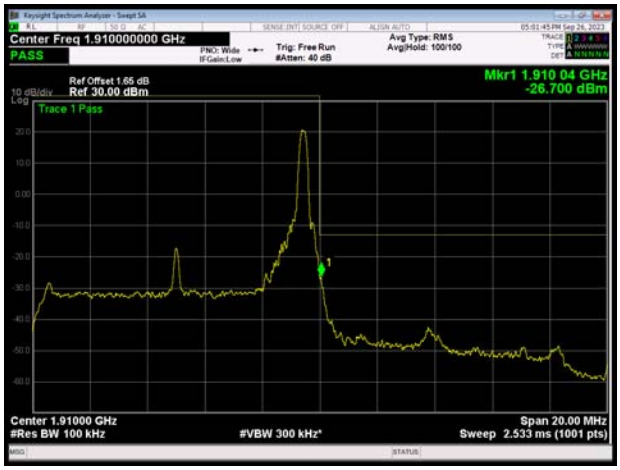
LTE Band 2 5MHz 16QAM 1RB CH-High

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

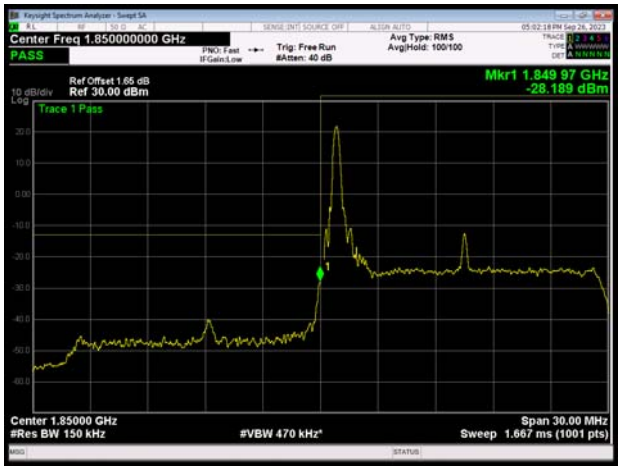
LTE Band 2 10MHz 16QAM 1RB CH-High



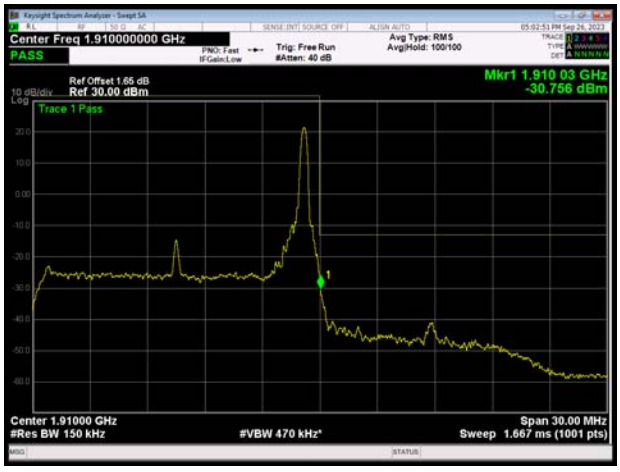
LTE Band 2 10MHz 16QAM 100%RB CH-Low

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

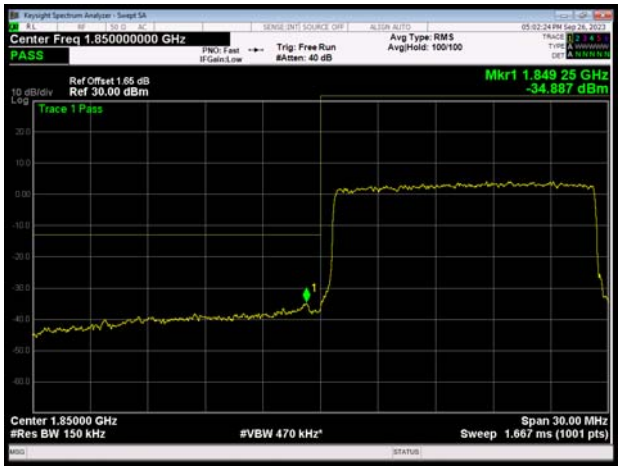
LTE Band 2 15MHz 16QAM 1RB CH-Low



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

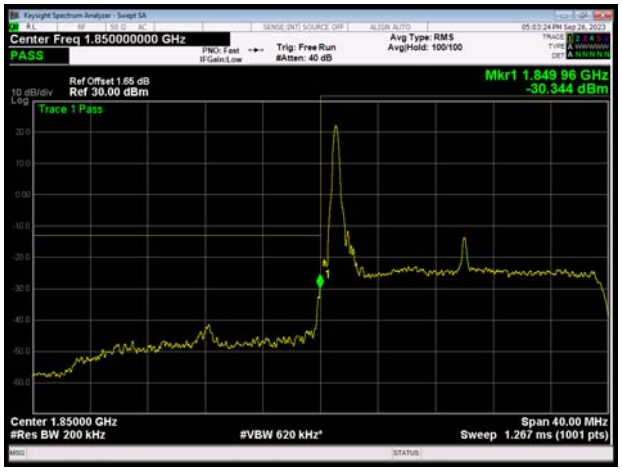


LTE Band 2 15MHz 16QAM 100%RB CH-Low



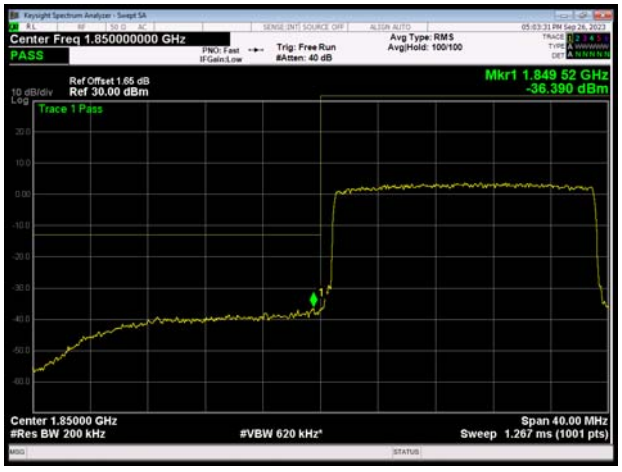
LTE Band 2 15MHz 16QAM 100%RB CH-High

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

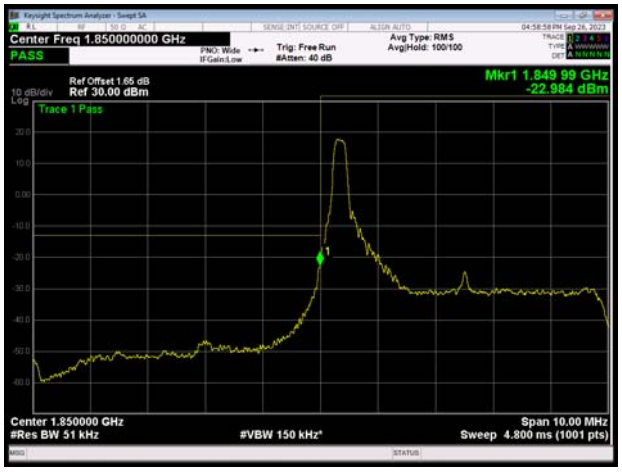
LTE Band 2 3MHz 64QAM 1RB CH-Low

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

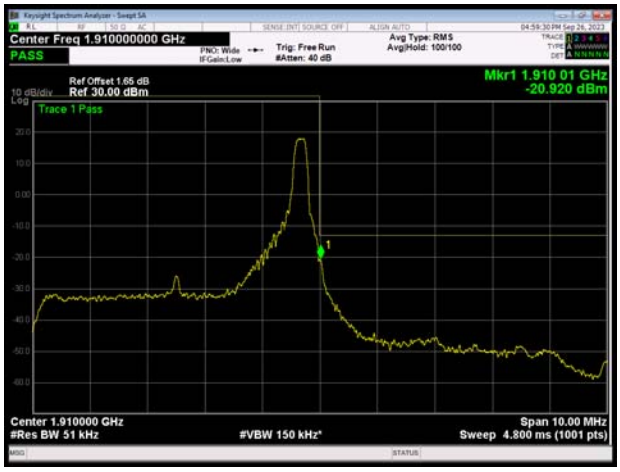
LTE Band 2 3MHz 64QAM 100%RB CH-Low

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

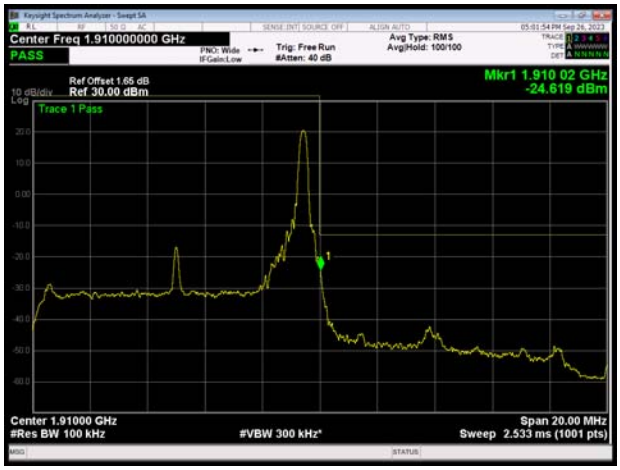


LTE Band 2 5MHz 64QAM 100%RB CH-Low

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

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

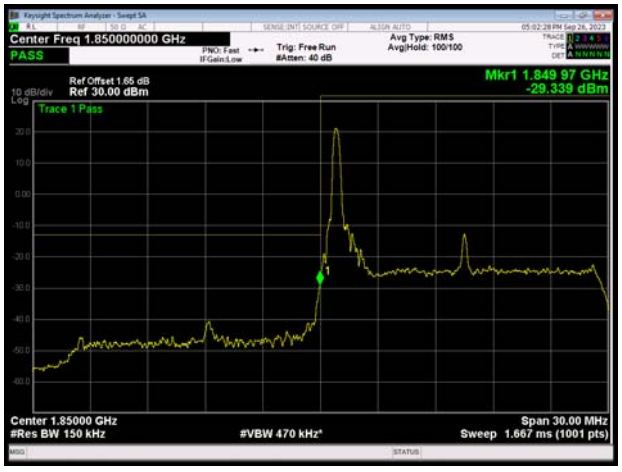
LTE Band 2 10MHz 64QAM 1RB CH-High



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

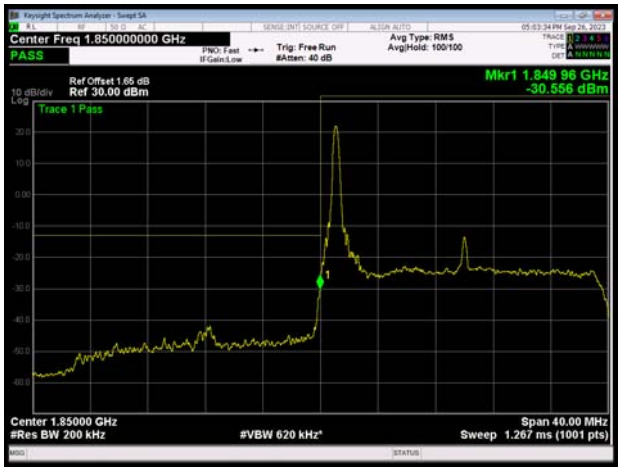


LTE Band 2 15MHz 64QAM 1RB CH-High

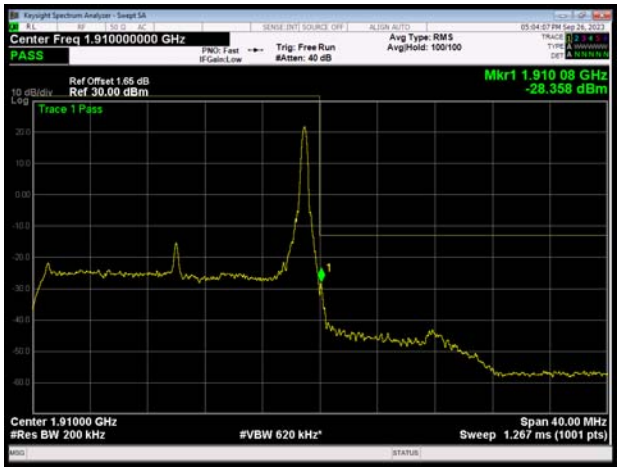
LTE Band 2 15MHz 64QAM 100%RB CH-Low

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

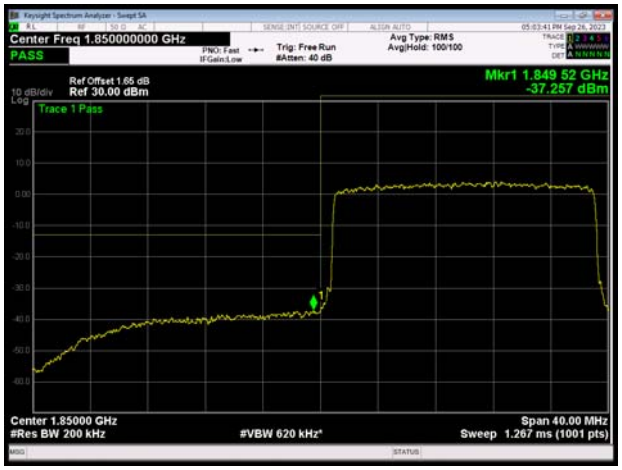
LTE Band 2 20MHz 64QAM 1RB CH-Low



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	29.93	27.34	2.59	≤13	PASS
	661	1880	30.00	27.40	2.60	≤13	PASS
	810	1909.8	30.28	27.17	3.11	≤13	PASS
GPRS 1900 (GMSK)	512	1850.2	29.91	27.32	2.59	≤13	PASS
	661	1880	30.00	27.41	2.59	≤13	PASS
	810	1909.8	30.31	27.32	2.99	≤13	PASS
EGPRS 1900 (8PSK)	512	1850.2	29.18	23.49	5.69	≤13	PASS
	661	1880	29.26	23.58	5.68	≤13	PASS
	810	1909.8	29.48	23.57	5.91	≤13	PASS
WCDMA Band II (RMC)	9262	1852.4	27.63	24.79	2.84	≤13	PASS
	9400	1880	27.73	24.85	2.88	≤13	PASS
	9538	1907.6	27.26	24.54	2.72	≤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	27.67	22.95	4.72	≤13	PASS
		18900	1880.0	27.99	23.33	4.66	≤13	PASS
		19193	1909.3	27.35	23.19	4.16	≤13	PASS
	3	18615	1851.5	27.67	22.83	4.84	≤13	PASS
		18900	1880	27.92	23.22	4.70	≤13	PASS
		19185	1908.5	27.32	23.04	4.28	≤13	PASS
	5	18625	1852.5	27.87	22.91	4.96	≤13	PASS
		18900	1880	28.09	23.32	4.77	≤13	PASS
		19175	1907.5	27.44	23.10	4.34	≤13	PASS
	10	18650	1855	27.81	22.81	5.00	≤13	PASS
		18900	1880	28.08	23.31	4.77	≤13	PASS
		19150	1905	27.58	23.11	4.47	≤13	PASS
	15	18675	1857.5	28.13	22.85	5.28	≤13	PASS
		18900	1880	28.51	23.38	5.13	≤13	PASS
		19125	1902.5	28.14	23.26	4.88	≤13	PASS
	20	18700	1860	27.83	22.66	5.17	≤13	PASS
		18900	1880	28.37	23.27	5.10	≤13	PASS
		19100	1900	28.19	23.18	5.01	≤13	PASS

16QAM	1.4	18607	1850.7	27.56	21.99	5.57	≤13	PASS
		18900	1880.0	27.91	22.36	5.55	≤13	PASS
		19193	1909.3	27.18	22.12	5.06	≤13	PASS
	3	18615	1851.5	27.61	21.81	5.80	≤13	PASS
		18900	1880	27.84	22.20	5.64	≤13	PASS
		19185	1908.5	27.21	22.00	5.21	≤13	PASS
	5	18625	1852.5	27.64	21.95	5.69	≤13	PASS
		18900	1880	27.98	22.35	5.63	≤13	PASS
		19175	1907.5	27.33	22.14	5.19	≤13	PASS
	10	18650	1855	27.63	21.80	5.83	≤13	PASS
		18900	1880	27.94	22.32	5.62	≤13	PASS
		19150	1905	27.43	22.09	5.34	≤13	PASS
	15	18675	1857.5	27.74	21.79	5.95	≤13	PASS
		18900	1880	28.18	22.35	5.83	≤13	PASS
		19125	1902.5	27.78	22.14	5.64	≤13	PASS
	20	18700	1860	27.64	21.67	5.97	≤13	PASS
		18900	1880	28.16	22.30	5.86	≤13	PASS
		19100	1900	27.91	22.19	5.72	≤13	PASS
64QAM	1.4	18607	1850.7	27.57	22.00	5.57	≤13	PASS
		18900	1880.0	27.94	22.36	5.58	≤13	PASS
		19193	1909.3	27.20	22.12	5.08	≤13	PASS
	3	18615	1851.5	27.52	21.81	5.71	≤13	PASS
		18900	1880	27.80	22.19	5.61	≤13	PASS
		19185	1908.5	27.23	22.02	5.21	≤13	PASS
	5	18625	1852.5	27.65	21.96	5.69	≤13	PASS
		18900	1880	27.96	22.39	5.57	≤13	PASS
		19175	1907.5	27.32	22.11	5.21	≤13	PASS
	10	18650	1855	27.60	21.79	5.81	≤13	PASS
		18900	1880	27.90	22.34	5.56	≤13	PASS
		19150	1905	27.46	22.14	5.32	≤13	PASS
	15	18675	1857.5	27.73	21.80	5.93	≤13	PASS
		18900	1880	28.17	22.35	5.82	≤13	PASS
		19125	1902.5	27.80	22.15	5.65	≤13	PASS
	20	18700	1860	27.62	21.67	5.95	≤13	PASS
		18900	1880	28.19	22.33	5.86	≤13	PASS
		19100	1900	27.92	22.17	5.75	≤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	5.08	16.16	0.00270	0.00860	PASS
Extreme（50℃）		5.05	1.23	0.00269	0.00065	PASS
Extreme（40℃）		12.88	3.25	0.00685	0.00173	PASS
Extreme（30℃）		1.56	5.11	0.00083	0.00272	PASS
Extreme（20℃）		17.45	5.91	0.00928	0.00314	PASS
Extreme（10℃）		16.77	2.83	0.00892	0.00150	PASS
Extreme（0℃）		9.34	10.90	0.00497	0.00580	PASS
Extreme（-10℃）		5.47	8.20	0.00291	0.00436	PASS
Extreme（-20℃）		12.35	11.32	0.00657	0.00602	PASS
Extreme（-30℃）		7.68	1.32	0.00409	0.00070	PASS
25℃	LV	17.47	2.31	0.00929	0.00123	PASS
	HV	3.72	12.18	0.00198	0.00648	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	10.30	7.59	0.00548	0.00404	PASS
Extreme（50℃）		7.03	5.03	0.00374	0.00267	PASS
Extreme（40℃）		4.56	11.14	0.00242	0.00593	PASS
Extreme（30℃）		10.40	7.33	0.00553	0.00390	PASS
Extreme（20℃）		17.56	17.83	0.00934	0.00948	PASS
Extreme（10℃）		16.24	1.35	0.00864	0.00072	PASS
Extreme（0℃）		10.20	8.20	0.00543	0.00436	PASS
Extreme（-10℃）		12.00	14.76	0.00639	0.00785	PASS
Extreme（-20℃）		10.99	3.76	0.00584	0.00200	PASS
Extreme（-30℃）		13.23	5.81	0.00704	0.00309	PASS
25℃	LV	17.34	11.80	0.00922	0.00628	PASS
	HV	9.03	12.13	0.00480	0.00645	PASS

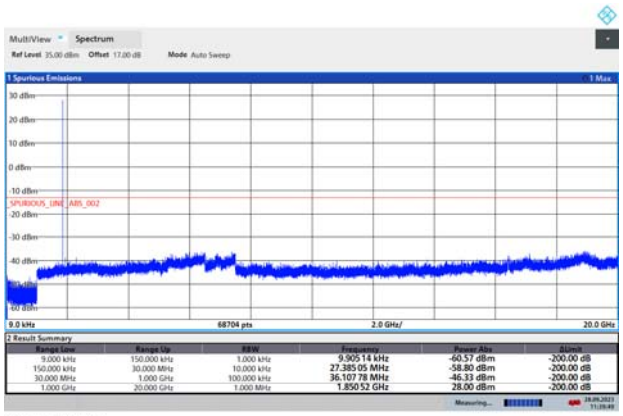
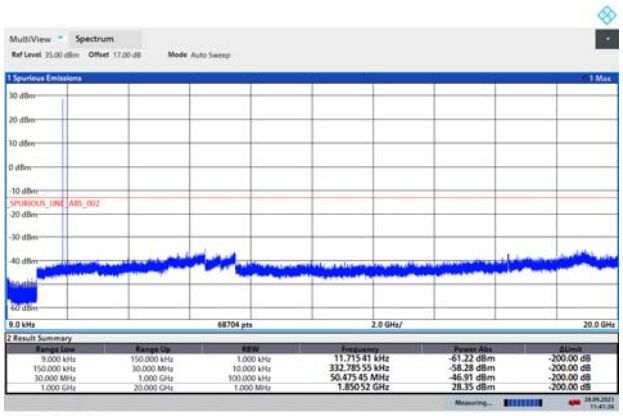
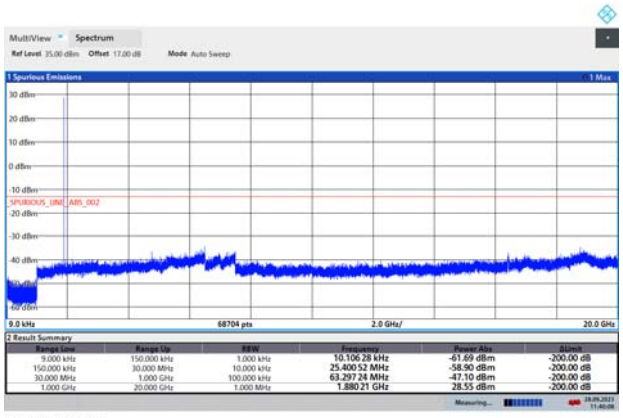
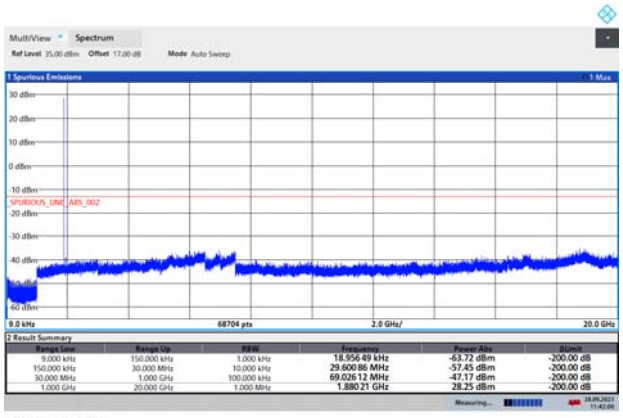
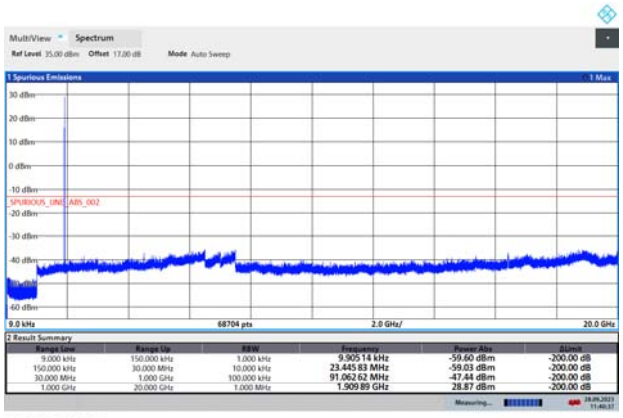
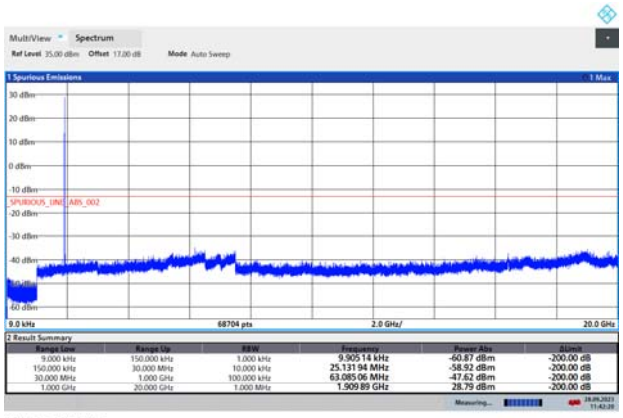
LTE Band 2								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	10.56	1.54	2.83	0.00561	0.00082	0.00151	PASS
Extreme（50℃）		8.36	6.05	6.38	0.00445	0.00322	0.00339	PASS
Extreme（40℃）		8.94	12.87	16.74	0.00476	0.00685	0.00890	PASS
Extreme（30℃）		14.34	6.31	5.58	0.00763	0.00335	0.00297	PASS
Extreme（20℃）		1.57	11.73	2.06	0.00083	0.00624	0.00110	PASS
Extreme（10℃）		13.66	16.77	11.34	0.00727	0.00892	0.00603	PASS
Extreme（0℃）		7.48	7.91	1.89	0.00398	0.00421	0.00100	PASS
Extreme（-10℃）		6.19	4.37	13.32	0.00329	0.00233	0.00708	PASS
Extreme（-20℃）		1.37	15.87	14.10	0.00073	0.00844	0.00750	PASS
Extreme（-30℃）		17.80	2.35	16.44	0.00947	0.00125	0.00875	PASS
25℃	LV	10.17	7.44	2.39	0.00541	0.00396	0.00127	PASS
	HV	17.01	2.61	3.12	0.00905	0.00139	0.00166	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	3.02	8.41	12.44	0.00161	0.00447	0.00661	PASS
Extreme（50℃）		13.94	10.05	3.30	0.00742	0.00534	0.00176	PASS
Extreme（40℃）		2.56	14.86	9.71	0.00136	0.00790	0.00516	PASS
Extreme（30℃）		1.77	6.61	13.48	0.00094	0.00351	0.00717	PASS
Extreme（20℃）		5.44	11.17	14.38	0.00289	0.00594	0.00765	PASS
Extreme（10℃）		1.72	12.24	10.04	0.00092	0.00651	0.00534	PASS
Extreme（0℃）		5.78	15.82	15.84	0.00307	0.00842	0.00843	PASS
Extreme（-10℃）		16.63	16.30	4.70	0.00885	0.00867	0.00250	PASS
Extreme（-20℃）		16.47	17.23	1.52	0.00876	0.00916	0.00081	PASS
Extreme（-30℃）		2.51	12.45	9.49	0.00134	0.00662	0.00505	PASS
25℃	LV	6.38	2.32	6.70	0.00339	0.00124	0.00356	PASS
	HV	14.81	1.40	10.16	0.00788	0.00075	0.00540	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	9.24	6.52	2.91	0.00491	0.00347	0.00155	PASS
Extreme（50℃）		9.03	7.09	10.81	0.00480	0.00377	0.00575	PASS
Extreme（40℃）		4.20	7.61	2.79	0.00223	0.00405	0.00148	PASS
Extreme（30℃）		4.11	8.96	9.32	0.00219	0.00476	0.00496	PASS
Extreme（20℃）		11.58	13.68	1.53	0.00616	0.00727	0.00081	PASS

Extreme（10℃）		4.75	15.69	16.54	0.00253	0.00834	0.00880	PASS
Extreme（0℃）		10.51	3.51	18.00	0.00559	0.00186	0.00957	PASS
Extreme（-10℃）		14.56	12.03	2.30	0.00775	0.00640	0.00123	PASS
Extreme（-20℃）		11.98	1.77	13.39	0.00637	0.00094	0.00712	PASS
Extreme（-30℃）		1.59	11.85	3.92	0.00084	0.00630	0.00209	PASS
25℃	LV	2.65	12.27	16.57	0.00141	0.00653	0.00881	PASS
	HV	4.12	13.05	5.74	0.00219	0.00694	0.00305	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	17.90	15.85	8.60	0.00952	0.00843	0.00457	PASS
Extreme（50℃）		2.44	5.30	8.14	0.00130	0.00282	0.00433	PASS
Extreme（40℃）		9.71	13.46	4.79	0.00516	0.00716	0.00255	PASS
Extreme（30℃）		12.22	17.80	5.17	0.00650	0.00947	0.00275	PASS
Extreme（20℃）		9.73	4.34	10.83	0.00517	0.00231	0.00576	PASS
Extreme（10℃）		10.40	13.02	5.12	0.00553	0.00693	0.00272	PASS
Extreme（0℃）		3.77	4.75	9.90	0.00200	0.00253	0.00527	PASS
Extreme（-10℃）		10.28	12.42	16.86	0.00547	0.00661	0.00897	PASS
Extreme（-20℃）		5.13	1.25	8.75	0.00273	0.00066	0.00465	PASS
Extreme（-30℃）		3.99	3.90	12.34	0.00212	0.00207	0.00656	PASS
25℃	LV	3.52	12.59	9.71	0.00187	0.00670	0.00517	PASS
	HV	6.67	10.07	10.25	0.00355	0.00536	0.00545	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	5.04	3.34	6.98	0.00268	0.00178	0.00371	PASS
Extreme（50℃）		5.95	12.86	5.21	0.00317	0.00684	0.00277	PASS
Extreme（40℃）		11.11	1.26	4.66	0.00591	0.00067	0.00248	PASS
Extreme（30℃）		9.73	12.74	9.29	0.00518	0.00678	0.00494	PASS
Extreme（20℃）		12.86	2.33	11.86	0.00684	0.00124	0.00631	PASS
Extreme（10℃）		3.96	4.46	11.77	0.00211	0.00237	0.00626	PASS
Extreme（0℃）		4.75	1.86	12.10	0.00252	0.00099	0.00644	PASS
Extreme（-10℃）		15.12	5.67	16.19	0.00804	0.00302	0.00861	PASS
Extreme（-20℃）		16.53	7.32	15.14	0.00879	0.00389	0.00805	PASS
Extreme（-30℃）		1.89	17.50	8.66	0.00101	0.00931	0.00460	PASS
25℃	LV	3.30	13.18	6.95	0.00176	0.00701	0.00370	PASS
	HV	4.05	6.34	11.90	0.00216	0.00337	0.00633	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	

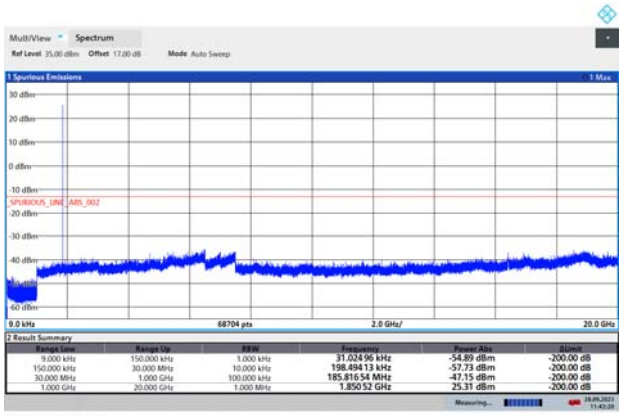
Normal（25℃）	Normal	14.38	13.21	7.16	0.00765	0.00703	0.00381	PASS
Extreme（50℃）		16.52	17.32	13.66	0.00878	0.00921	0.00726	PASS
Extreme（40℃）		2.34	1.26	5.94	0.00125	0.00067	0.00316	PASS
Extreme（30℃）		3.72	7.67	8.20	0.00198	0.00408	0.00436	PASS
Extreme（20℃）		13.59	9.05	8.05	0.00723	0.00481	0.00428	PASS
Extreme（10℃）		7.23	11.91	16.69	0.00385	0.00634	0.00888	PASS
Extreme（0℃）		15.81	9.43	10.30	0.00841	0.00501	0.00548	PASS
Extreme（-10℃）		5.78	2.81	12.06	0.00307	0.00149	0.00642	PASS
Extreme（-20℃）		8.55	1.99	12.03	0.00455	0.00106	0.00640	PASS
Extreme（-30℃）		13.44	11.23	1.40	0.00715	0.00597	0.00074	PASS
25℃	LV	10.09	16.27	9.93	0.00536	0.00865	0.00528	PASS
	HV	1.25	5.56	1.32	0.00066	0.00296	0.00070	PASS

6.6. Spurious Emissions at Antenna Terminals

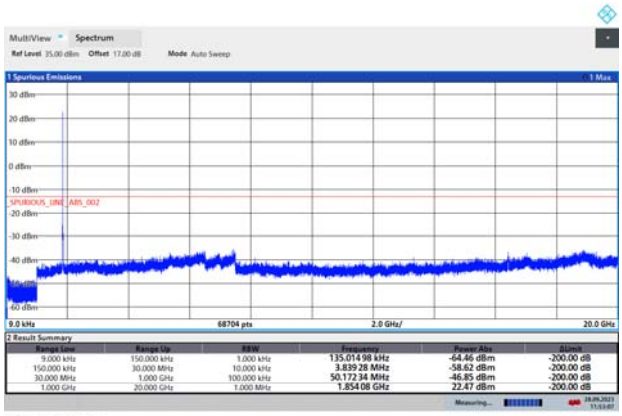
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.
The signal beyond the limit is carrier.

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
	

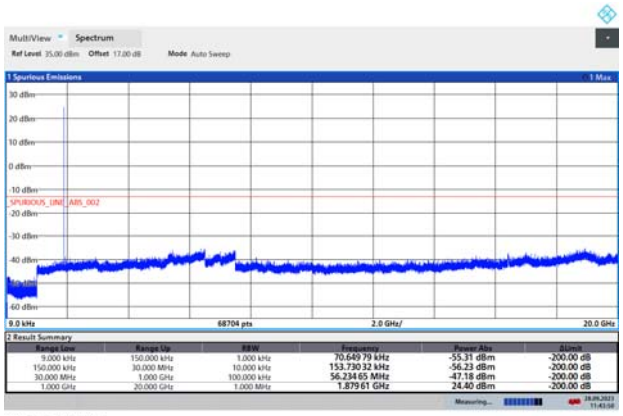
EGPRS 1900 CH-Low 9kHz ~ 20GHz



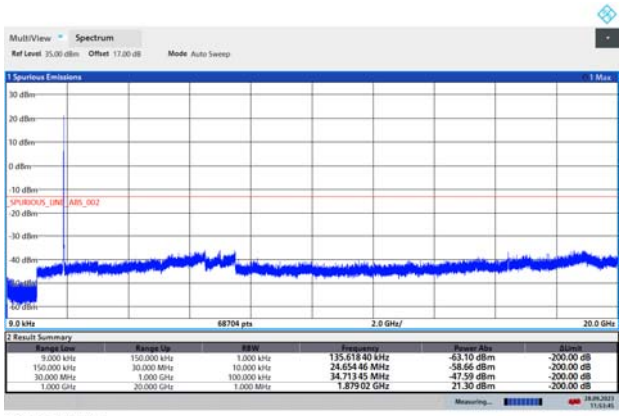
WCDMA BAND II CH-Low 9kHz ~ 20GHz



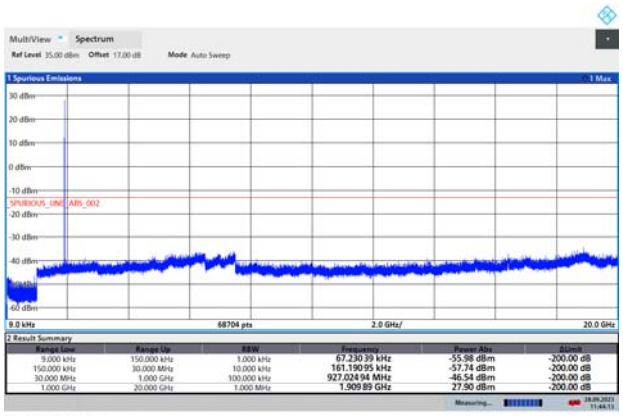
EGPRS 1900 CH- Middle 9kHz ~ 20GHz



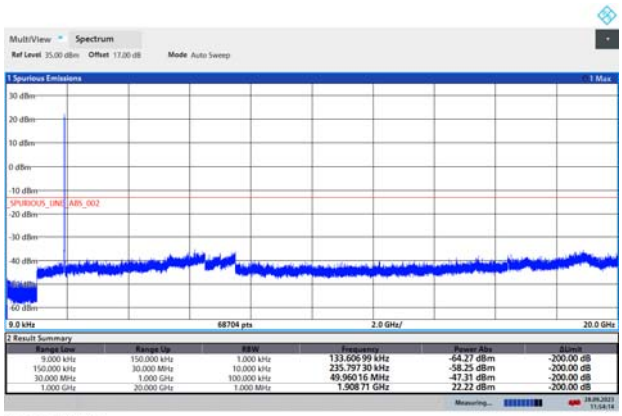
WCDMA BAND II CH- Middle 9kHz ~ 20GHz



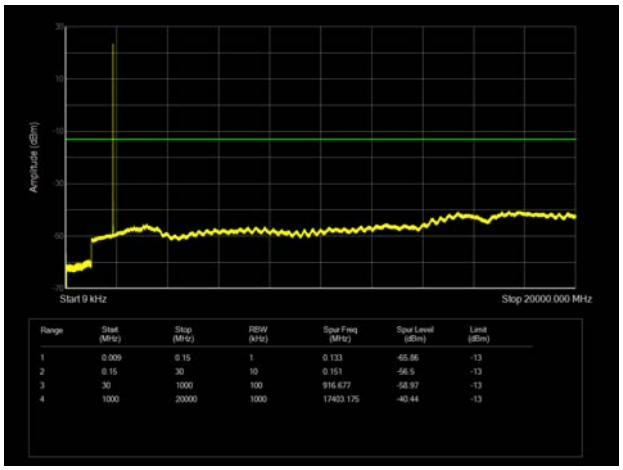
EGPRS 1900 CH-High 9kHz ~ 20GHz



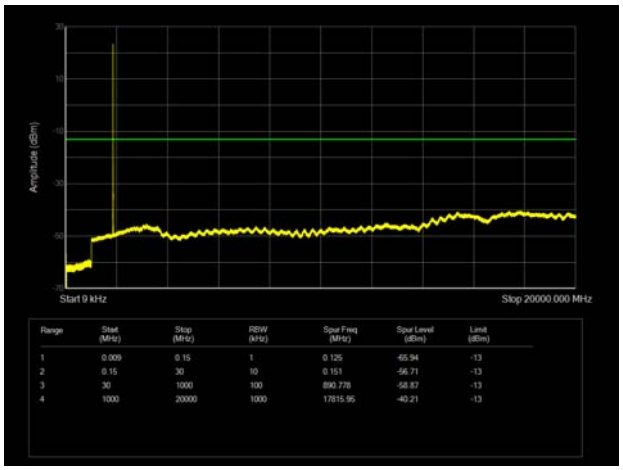
WCDMA BAND II CH-High 9kHz ~ 20GHz



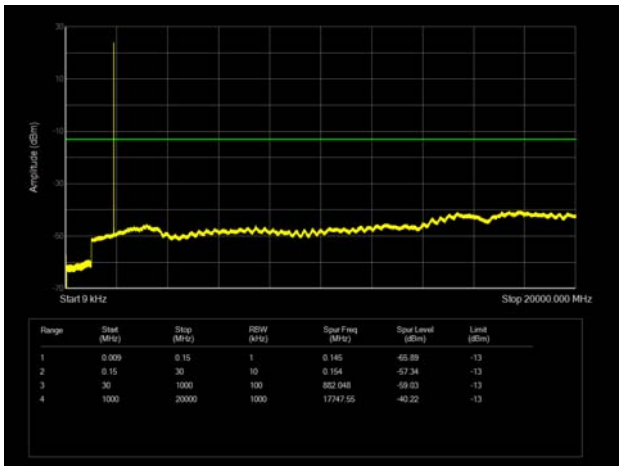
LTE Band 2 1.4MHz CH-Low 9kHz~20GHz



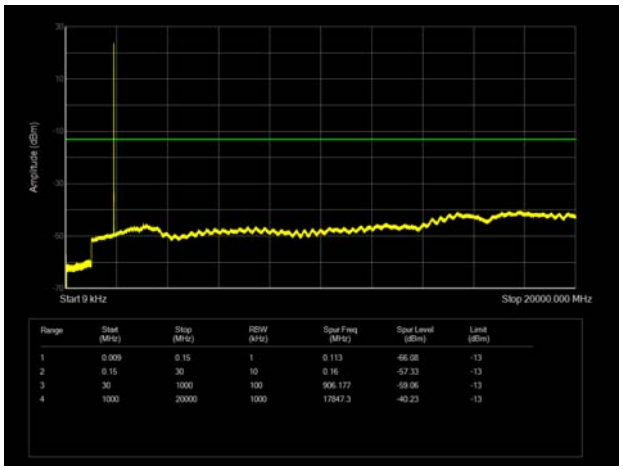
LTE Band 2 3MHz CH-Low 9kHz~20GHz



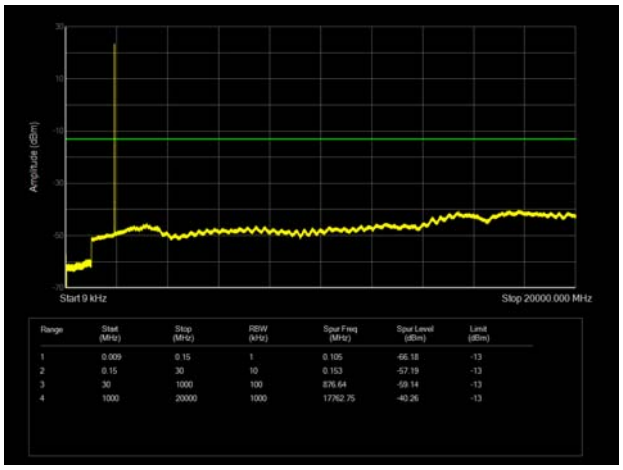
LTE Band 2 1.4MHz CH-Middle 9kHz~20GHz



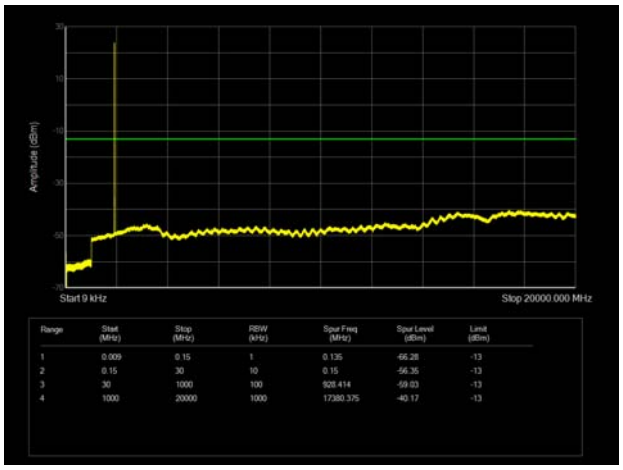
LTE Band 2 3MHz CH-Middle 9kHz~20GHz



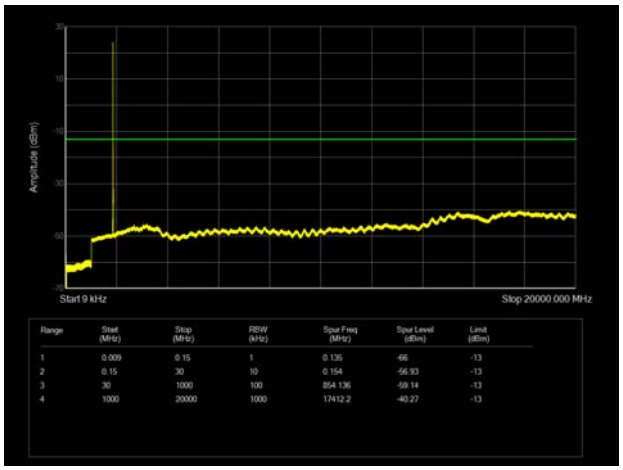
LTE Band 2 1.4MHz CH-High 9kHz~20GHz



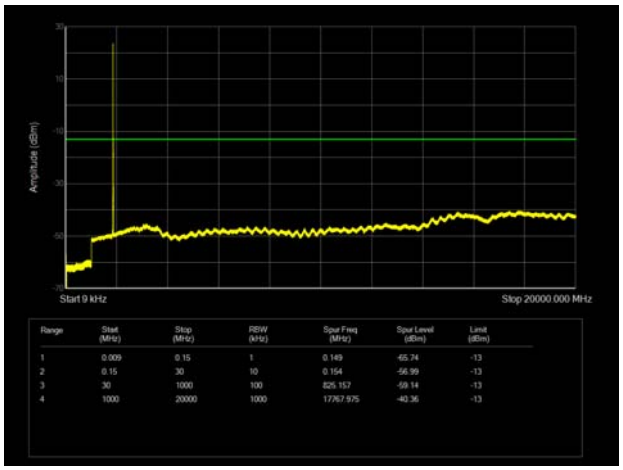
LTE Band 2 3MHz CH-High 9kHz~20GHz



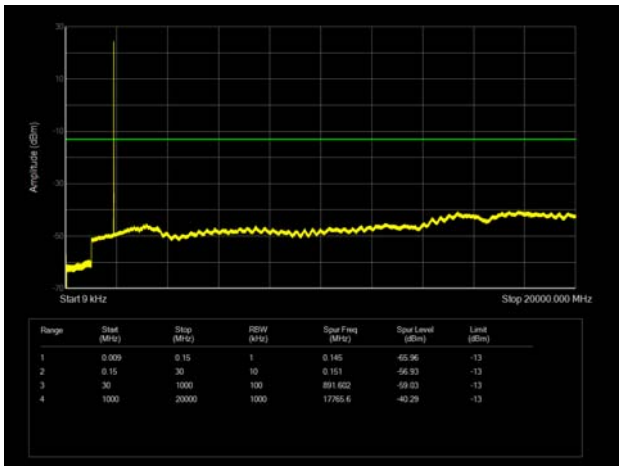
LTE Band 2 5MHz CH-Low 9kHz~20GHz



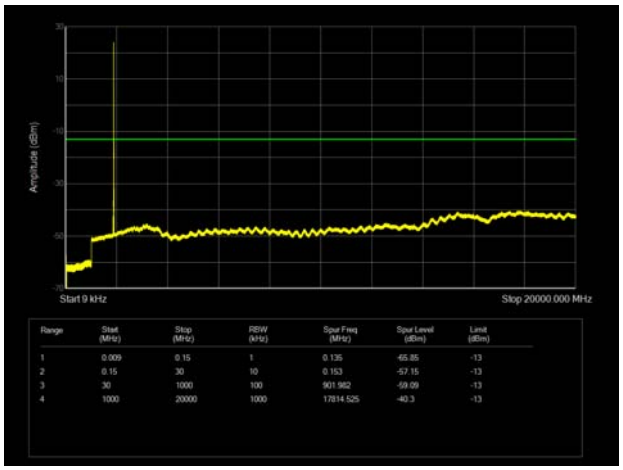
LTE Band 2 10MHz CH-Low 9kHz~20GHz



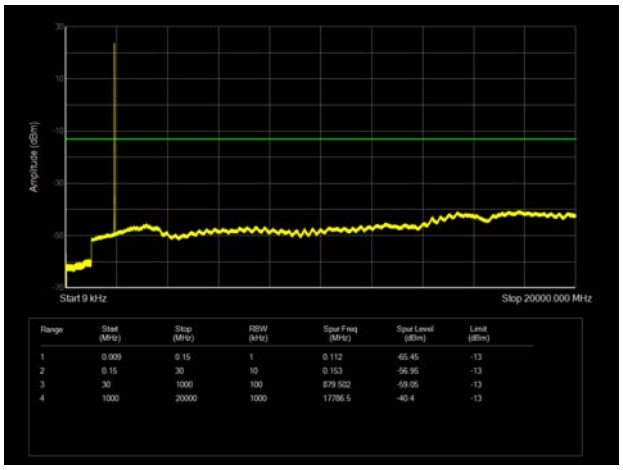
LTE Band 2 5MHz CH-Middle 9kHz~20GHz



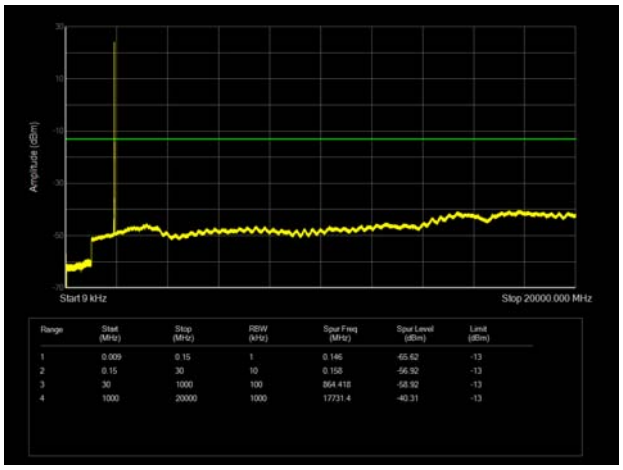
LTE Band 2 10MHz CH-Middle 9kHz~20GHz



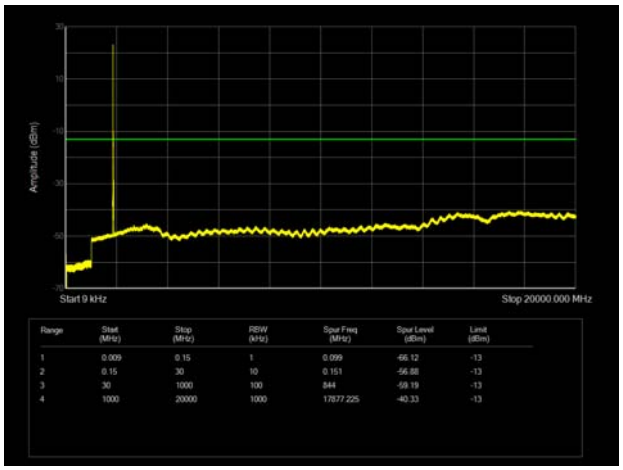
LTE Band 2 5MHz CH-High 9kHz~20GHz



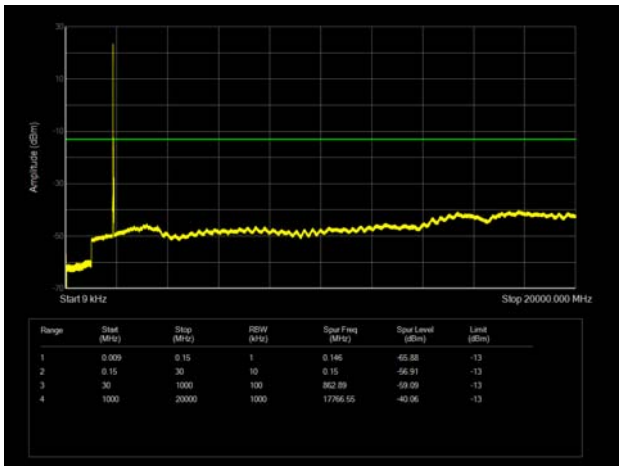
LTE Band 2 10MHz CH-High 9kHz~20GHz



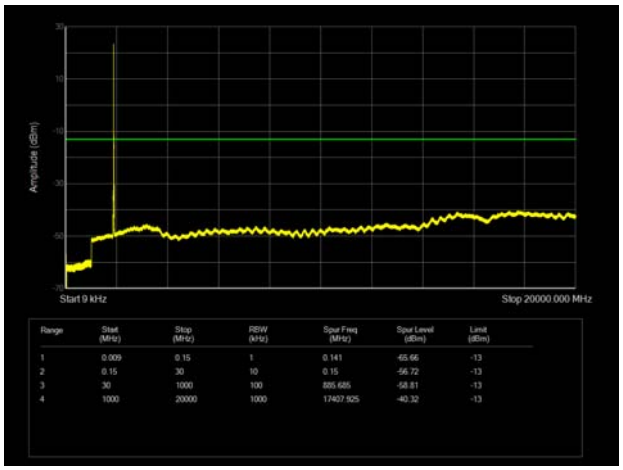
LTE Band 2 15MHz CH-Low 9kHz~20GHz



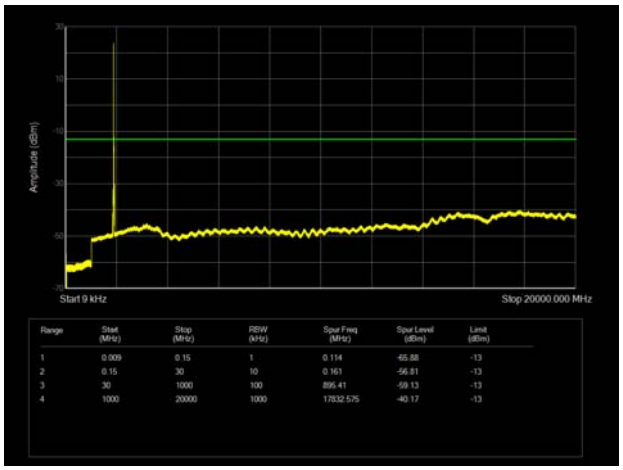
LTE Band 2 20MHz CH-Low 9kHz~20GHz



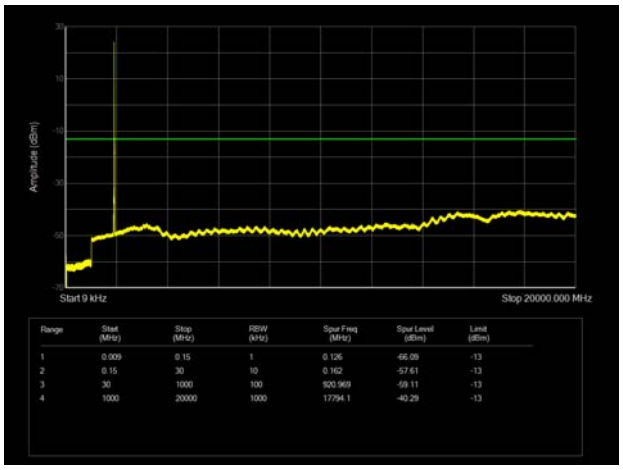
LTE Band 2 15MHz CH-Middle 9kHz~20GHz



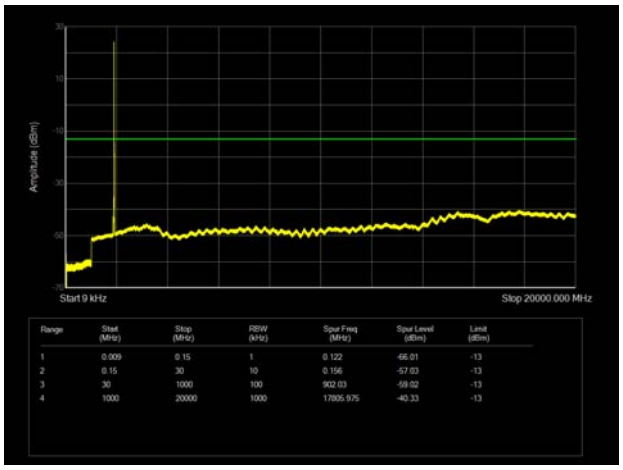
LTE Band 2 20MHz CH-Middle 9kHz~20GHz



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



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



6.7. Radiated 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.

Low Antenna

GSM 1900 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-61.89	2.60	12.50	Vertical	-51.99	-13.00	38.99	274
3	5640.00	-46.68	3.30	12.50	Vertical	-37.48	-13.00	24.48	169
4	7520.00	-58.17	4.20	12.20	Vertical	-50.17	-13.00	37.17	32
5	9400.00	-55.27	4.30	11.10	Vertical	-48.47	-13.00	35.47	7
6	11280.00	-49.31	5.90	11.90	Vertical	-43.31	-13.00	30.31	22
7	13160.00	-51.99	5.70	14.00	Vertical	-43.69	-13.00	30.69	25
8	15040.00	-51.74	5.80	13.10	Vertical	-44.44	-13.00	31.44	114
9	16920.00	-52.75	6.10	14.60	Vertical	-44.25	-13.00	31.25	21
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	-66.69	2.60	12.50	Vertical	-56.79	-13.00	43.79	123
3	5640.00	-63.11	3.30	12.50	Vertical	-53.91	-13.00	40.91	38
4	7520.00	-58.93	4.20	12.20	Vertical	-50.93	-13.00	37.93	14
5	9400.00	-55.46	4.30	11.10	Vertical	-48.66	-13.00	35.66	28
6	11280.00	-50.40	5.90	11.90	Vertical	-44.40	-13.00	31.40	111
7	13160.00	-52.43	5.70	14.00	Vertical	-44.13	-13.00	31.13	24
8	15040.00	-52.48	5.80	13.10	Vertical	-45.18	-13.00	32.18	33
9	16920.00	-52.15	6.10	14.60	Vertical	-43.65	-13.00	30.65	14
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	3759.00	-67.26	2.60	12.50	Horizontal	-57.36	-13.00	44.36	102
3	5638.88	-51.50	3.30	12.50	Horizontal	-42.30	-13.00	29.30	88
4	7520.00	-57.92	4.20	12.20	Horizontal	-49.92	-13.00	36.92	90
5	9400.00	-54.70	4.30	11.10	Horizontal	-47.90	-13.00	34.90	135
6	11280.00	-50.23	5.90	11.90	Horizontal	-44.23	-13.00	31.23	71
7	13160.00	-50.95	5.70	14.00	Horizontal	-42.65	-13.00	29.65	118
8	15040.00	-52.32	5.80	13.10	Horizontal	-45.02	-13.00	32.02	204
9	16920.00	-52.43	6.10	14.60	Horizontal	-43.93	-13.00	30.93	163
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 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	-67.26	2.60	12.50	Horizontal	-57.36	-13.00	44.36	45
3	5633.63	-51.97	3.30	12.50	Horizontal	-42.77	-13.00	29.77	62
4	7510.00	-58.19	4.20	12.20	Horizontal	-50.19	-13.00	37.19	17
5	9387.50	-54.76	4.30	11.10	Horizontal	-47.96	-13.00	34.96	101
6	11265.00	-49.95	5.90	11.90	Horizontal	-43.95	-13.00	30.95	95
7	13142.00	-50.81	5.70	14.00	Horizontal	-42.51	-13.00	29.51	237
8	15020.00	-52.85	5.80	13.10	Horizontal	-45.55	-13.00	32.55	90
9	16897.50	-51.28	6.10	14.60	Horizontal	-42.78	-13.00	29.78	180
10	18800.00	-	-	-	-	-	-	-	-
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 2 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3742.13	-67.80	2.60	12.50	Horizontal	-57.90	-13.00	44.90	15
3	5613.38	-49.90	3.30	12.50	Horizontal	-40.70	-13.00	27.70	38
4	7484.63	-58.62	4.20	12.20	Horizontal	-50.62	-13.00	37.62	104
5	9355.33	-55.51	4.30	11.10	Horizontal	-48.71	-13.00	35.71	90
6	11226.39	-50.36	5.90	11.90	Horizontal	-44.36	-13.00	31.36	201
7	13097.46	-52.06	5.70	14.00	Horizontal	-43.76	-13.00	30.76	135
8	14968.52	-51.94	5.80	13.10	Horizontal	-44.64	-13.00	31.64	116
9	16938.59	-53.34	6.10	14.60	Horizontal	-44.84	-13.00	31.84	88
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.

Upper Antenna

GSM 1900 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-64.71	2.60	12.50	Horizontal	-54.81	-13.00	41.81	135
3	5640.00	-59.45	3.30	12.50	Horizontal	-50.25	-13.00	37.25	285
4	7520.00	-55.08	4.20	12.20	Horizontal	-47.08	-13.00	34.08	76
5	9400.00	-55.40	4.30	11.10	Horizontal	-48.60	-13.00	35.60	72
6	11280.00	-49.54	5.90	11.90	Horizontal	-43.54	-13.00	30.54	12
7	13160.00	-51.39	5.70	14.00	Horizontal	-43.09	-13.00	30.09	33
8	15040.00	-51.03	5.80	13.10	Horizontal	-43.73	-13.00	30.73	25
9	16920.00	-50.67	6.10	14.60	Horizontal	-42.17	-13.00	29.17	138
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	-66.74	2.60	12.50	Horizontal	-56.84	-13.00	43.84	38
3	5640.00	-63.46	3.30	12.50	Horizontal	-54.26	-13.00	41.26	11
4	7520.00	-58.01	4.20	12.20	Horizontal	-50.01	-13.00	37.01	86
5	9400.00	-54.50	4.30	11.10	Horizontal	-47.70	-13.00	34.70	14
6	11280.00	-49.58	5.90	11.90	Horizontal	-43.58	-13.00	30.58	38
7	13160.00	-51.65	5.70	14.00	Horizontal	-43.35	-13.00	30.35	14
8	15040.00	-51.32	5.80	13.10	Horizontal	-44.02	-13.00	31.02	11
9	16920.00	-52.46	6.10	14.60	Horizontal	-43.96	-13.00	30.96	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 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	-67.40	2.60	12.50	Vertical	-57.50	-13.00	44.50	102
3	5638.88	-57.64	3.30	12.50	Vertical	-48.44	-13.00	35.44	88
4	7520.00	-57.80	4.20	12.20	Vertical	-49.80	-13.00	36.80	90
5	9400.00	-54.97	4.30	11.10	Vertical	-48.17	-13.00	35.17	135
6	11280.00	-50.20	5.90	11.90	Vertical	-44.20	-13.00	31.20	71
7	13160.00	-51.49	5.70	14.00	Vertical	-43.19	-13.00	30.19	118
8	15040.00	-52.62	5.80	13.10	Vertical	-45.32	-13.00	32.32	204
9	16920.00	-52.39	6.10	14.60	Vertical	-43.89	-13.00	30.89	163
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	-67.50	2.60	12.50	Vertical	-57.60	-13.00	44.60	45
3	5633.63	-59.58	3.30	12.50	Vertical	-50.38	-13.00	37.38	62
4	7510.00	-57.75	4.20	12.20	Vertical	-49.75	-13.00	36.75	17
5	9387.50	-55.37	4.30	11.10	Vertical	-48.57	-13.00	35.57	101
6	11265.00	-50.98	5.90	11.90	Vertical	-44.98	-13.00	31.98	95
7	13142.00	-51.37	5.70	14.00	Vertical	-43.07	-13.00	30.07	237
8	15020.00	-52.03	5.80	13.10	Vertical	-44.73	-13.00	31.73	90
9	16897.50	-52.58	6.10	14.60	Vertical	-44.08	-13.00	31.08	180
10	18800.00	-	-	-	-	-	-	-	-
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

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	-67.72	2.60	12.50	Vertical	-57.82	-13.00	44.82	15
3	5613.38	-56.85	3.30	12.50	Vertical	-47.65	-13.00	34.65	38
4	7484.63	-57.69	4.20	12.20	Vertical	-49.69	-13.00	36.69	104
5	9355.33	-55.39	4.30	11.10	Vertical	-48.59	-13.00	35.59	90
6	11226.39	-49.91	5.90	11.90	Vertical	-43.91	-13.00	30.91	201
7	13097.46	-52.28	5.70	14.00	Vertical	-43.98	-13.00	30.98	135
8	14968.52	-51.16	5.80	13.10	Vertical	-43.86	-13.00	30.86	116
9	16938.59	-52.20	6.10	14.60	Vertical	-43.70	-13.00	30.70	88
10	18800.00	-	-	-	-	-	-	-	-
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.									

7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Climate Chamber	WEISS	VT 4002	58226119450010	2023-05-12	2024-05-11
Wireless Communication Tester	R&S	CMW500	150415	2023-05-12	2024-05-11
Spectrum Analyzer	Keysight	N9020A	MY50510203	2023-05-12	2024-05-11
Wireless Communication Tester	Agilent	E5515C	MY48367192	2023-05-12	2024-05-11
DC Power Supply	UNI-T	UTP1310+	C220795889	2023-05-12	2024-05-11
Spectrum Analyzer	R&S	FSV3030	101411	2022-12-10	2023-12-09
Radiated Spurious Emission					
Signal Analyzer	R&S	FSV30	100815	2022-12-10	2023-12-09
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2023-04-16	2026-04-15
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	391	2022-09-29	2025-09-28
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
Horn Antenna	ETS-Lindgren	3160-09	00102643	2021-10-10	2024-10-09
Software	R&S	EMC32	10.35.10	/	/

ANNEX A: The EUT Appearance

The EUT Appearance is submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos is submitted separately.

ANNEX C: Product Change Description

The Product Change Description are submitted separately.

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