



RF TEST REPORT

Applicant XCHENG TECH CO.,LIMITED
FCC ID 2AZ4F-P1012-P10
Product P10 Stylish POS Terminal
Brand Kobile; Clip; YOCO; MPOS; Positivo
Model P10
Report No. R2208A0725-R2V1
Issue Date September 5, 2022

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

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	September 1, 2022
Rev.1	Update information and data.	September 5, 2022
Note: This revised report (Report No. R2208A0725-R2V1) supersedes and replaces the previously issued report (Report No. R2208A0725-R2). Please discard or destroy the previously issued report and dispose of it accordingly.		

Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 24.232(c)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	2.1051 /24.238(a)	PASS
4	Peak-to-Average Power Ratio	24.232/KDB 971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 24.235	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 / 24.238(a)	PASS
7	Radiates Spurious Emission	2.1053 / 24.238(a)	PASS
Date of Testing: August 6, 2022 ~ August 22, 2022			
Date of Sample Received: August 5, 2022			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			



1. Test Laboratory

1.1. Notes of the test report

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

1.2. Test facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
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City: Shanghai
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E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1.Applicant and Manufacturer Information

Applicant	XCHENG TECH CO.,LIMITED
Applicant address	ROOM 401F, Building 5, No.3000 LONG DONG Avenue, Pudong New District, Shanghai, China
Manufacturer	XCHENG TECH CO.,LIMITED
Manufacturer address	ROOM 401F, Building 5, No.3000 LONG DONG Avenue, Pudong New District, Shanghai, China

2.2.General information

EUT Description		
Model	P10	
IMEI	IMEI 1: 866805060000523 IMEI 2: 866805060002925	
Hardware Version	V1.0	
Software Version	SW1.0	
Power Supply	Battery / AC adapter	
Antenna Type	Dipole Antenna	
Antenna Gain	0dBi	
Test Mode(s)	GSM1900; WCDMA Band II; LTE Band 2/25;	
Test Modulation	(GPRS)GMSK, (EGPRS) GMSK/ 8PSK; (WCDMA) BPSK, QPSK,16QAM; (LTE)QPSK,16QAM, 64QAM;	
GPRS Multislot Class	12	
EGPRS Multislot Class	12	
HSDPA UE Category	12	
HSUPA UE Category	7	
DC-HSDPA UE Category	24	
HSPA+ UE Category	7	
LTE Category	7	
Maximum E.I.R.P	GSM 1900:	32.33 dBm
	WCDMA Band II:	25.55 dBm
	LTE Band 2:	25.77 dBm
	LTE Band 25:	25.80 dBm
Rated Power Supply Voltage	7.6V	
Operating Voltage	Minimum: 7.2V Maximum: 8.4V	
Operating Temperature	Lowest: -10°C Highest: +45°C	
Testing Temperature	Lowest:-10°C Highest: +45°C	



Operating Frequency Range(s)	Band	Tx (MHz)
	GSM1900	1850 ~ 1910
	WCDMA Band II	1850 ~ 1910
	LTE Band 2	1850 ~ 1910
	LTE Band 25	1850 ~ 1915
EUT Accessory		
Adapter	Manufacturer: Chongqing Lianmao Electronics Co., Ltd Model: 1110303-K022002	
Battery	Manufacturer: Pow-Tech New Power CO., LTD. Model: 18650-2600mAh-2S1P-7.2V (P1012)	
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 (2021)

FCC CFR47 Part 2 (2021)

Reference standard:

ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

4. Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (Z axis, vertical polarization) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

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

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

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

Test modes are chosen to be reported as the worst case configuration below for LTE Band 2/25:

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	O	O	O	O	O	O	O	O	O	O	O	O	O	O



Power														
Occupied Bandwidth	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	O	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	O	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	O	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	O	-	O	-	-	O	O	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.													

5. Test Case

5.1.RF Power Output and Effective Isotropic Radiated Power

Ambient condition

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

Methods of Measurement

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

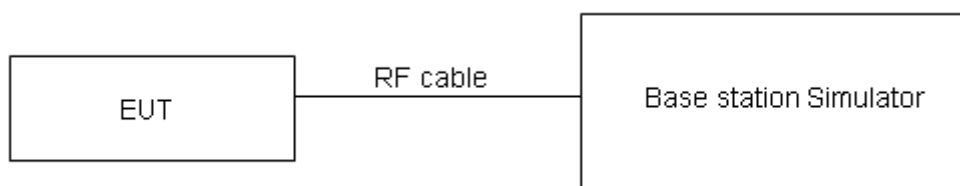
ERP can then be calculated as follows:

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

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

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

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

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

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

Limit	$\leq 2 \text{ W}$ (33 dBm)
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4 \text{ dB}$ for RF power output, $k = 2$, $U = 1.19 \text{ dB}$ for EIRP.

Test Results

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

5.2.Occupied Bandwidth

Ambient condition

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

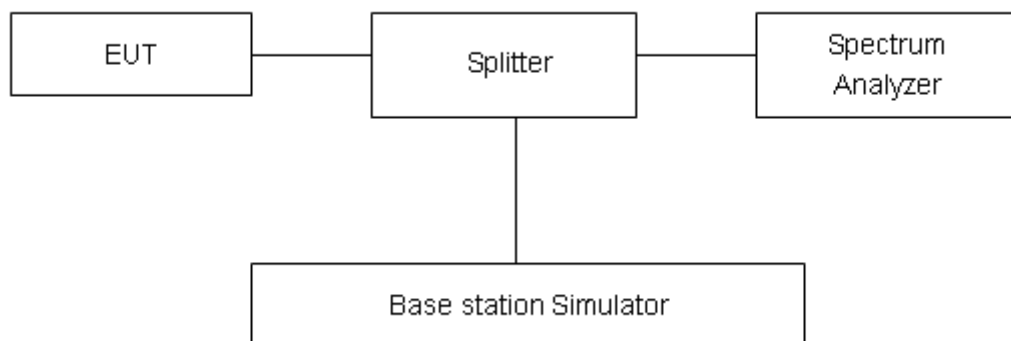
Method of Measurement

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

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

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

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

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

Test Results

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

5.3. Band Edge Compliance

Ambient condition

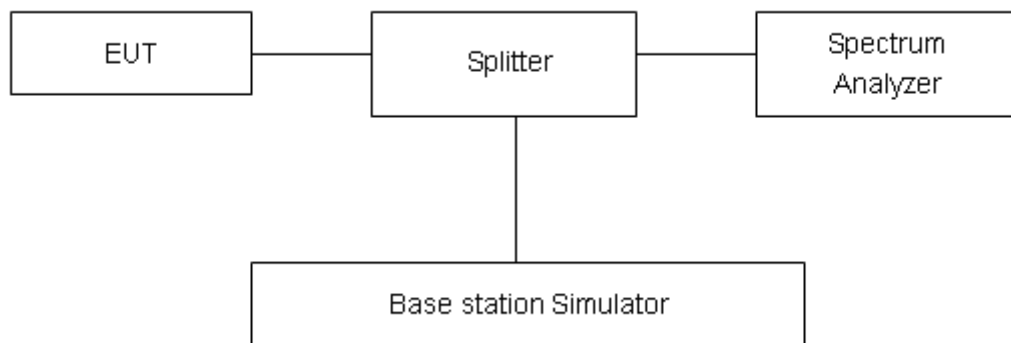
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

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

Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

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

Limit	-13 dBm
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Measurement Uncertainty

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

Test Results

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

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

Ambient condition

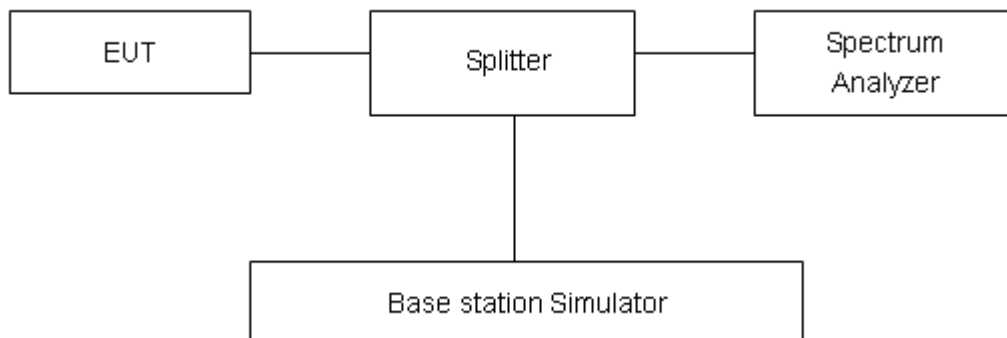
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

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

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

Test Setup



Limits

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

Measurement Uncertainty

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

Test Results

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

5.5.Frequency Stability

Ambient condition

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

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -10°C to +45°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 -10°C to +45°. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

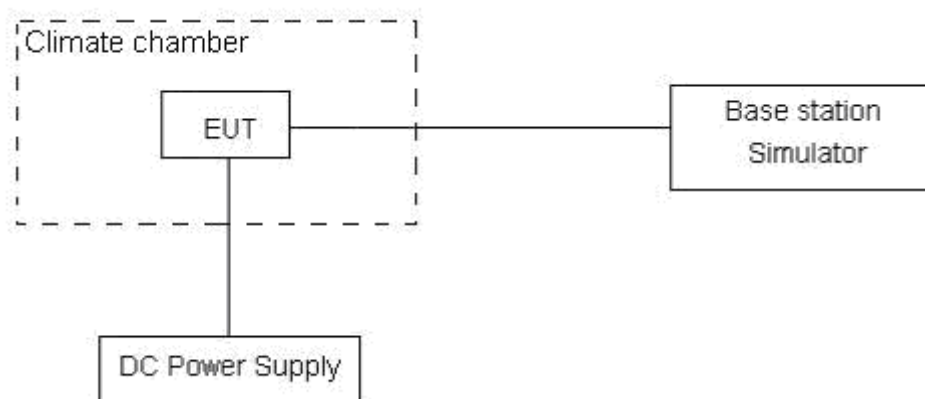
Frequency Stability (Voltage Variation)

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 7.2 V and 8.4V, with a nominal voltage of 7.6V.

Test setup



**Limits**

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

Measurement Uncertainty

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

Test Results

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

5.6. Spurious Emissions at Antenna Terminals

Ambient condition

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

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier. The peak detector is used.

RBW is set to 100kHz, VBW is set to 300kHz for 30MHz~1GHz

RBW is set to 1MHz, VBW is set to 3MHz for above 1GHz, Sweep is set to ATUO.

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

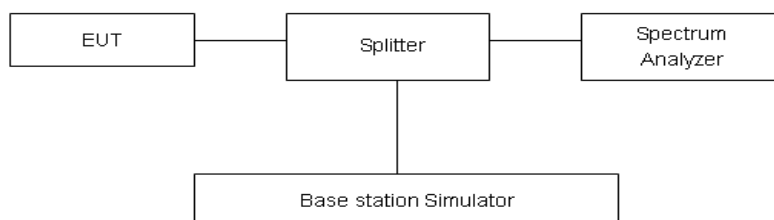
RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

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

RBW is set to 1000 kHz (above 1000MHz)

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

Test setup



Limits

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

Limit	-13 dBm
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Measurement Uncertainty

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

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-20GHz	1.407 dB

Test Results

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

5.7. Radiates Spurious Emission

Ambient condition

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

Method of Measurement

1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26-2015.
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=1MHz, VBW=3MHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:
$$\text{Power(EIRP)} = \text{PMea} - \text{PAg} - \text{Pcl} + \text{Ga}$$

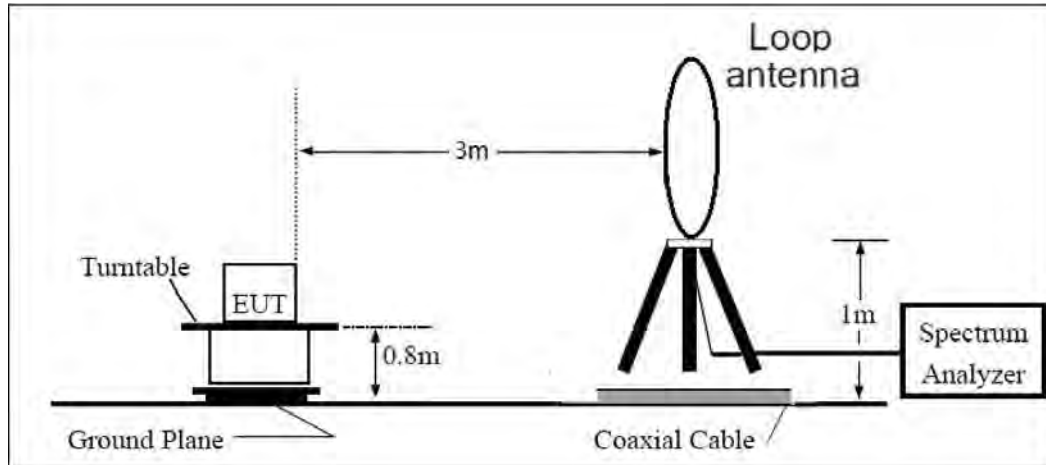
The measurement results are amend as described below:
$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the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

= EIRP-2.15dB.

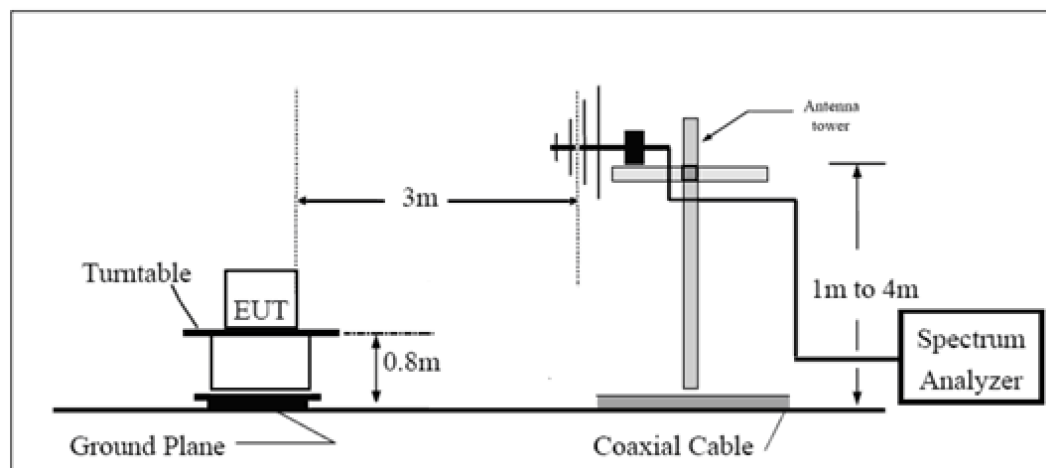
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

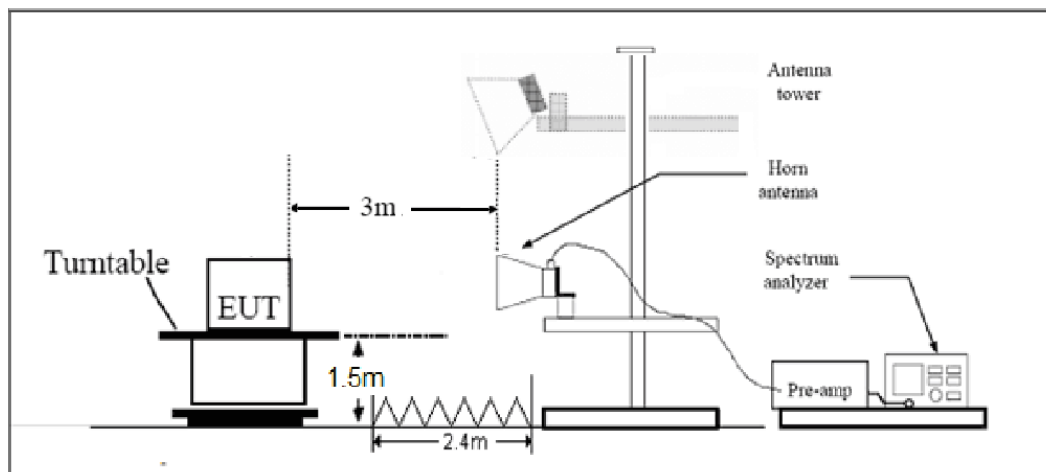
9KHz~ 30MHz



30MHz~ 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m

**Limits**

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

Limit	-13 dBm
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 3.55$ dB.

Test Results

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

6. Test Results

6.1.RF Power Output and Effective Isotropic Radiated Power

GSM 1900		Maximum Output Power (dBm)			EIRP (dBm)		
		Channel 512	Channel 661	Channel 810	Channel 512	Channel 661	Channel 810
		1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)	1850.2 (MHz)	1880 (MHz)	1909.8 (MHz)
GPRS (GMSK)	1TXslot	29.12	29.32	29.33	32.12	32.32	32.33
	2TXslots	29.11	29.33	29.33	32.11	32.33	32.33
	3TXslots	28.65	28.89	28.87	31.65	31.89	31.87
	4TXslots	26.17	27.40	27.45	29.17	30.40	30.45
EGPRS (8PSK)	1TXslot	26.13	26.35	25.37	29.13	29.35	28.37
	2TXslots	26.80	27.07	27.43	29.80	30.07	30.43
	3TXslots	25.74	26.46	26.58	28.74	29.46	29.58
	4TXslots	24.71	24.79	24.89	27.71	27.79	27.89

WCDMA Band II		Maximum Output Power (dBm)			EIRP (dBm)		
		Channel 9262	Channel 9400	Channel 9538	Channel 9262	Channel 9400	Channel 9538
		1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)	1852.4 (MHz)	1880 (MHz)	1907.6 (MHz)
RMC	12.2k	22.55	22.49	22.54	25.55	25.49	25.54
AMR	12.2k	22.45	22.40	22.41	25.45	25.40	25.41
HSDPA	Sub - Test 1	21.97	21.91	21.96	24.97	24.91	24.96
	Sub - Test 2	21.96	21.90	21.95	24.96	24.90	24.95
	Sub - Test 3	21.45	21.39	21.44	24.45	24.39	24.44
	Sub - Test 4	21.44	21.38	21.43	24.44	24.38	24.43
HSUPA	Sub - Test 1	20.93	20.87	20.92	23.93	23.87	23.92
	Sub - Test 2	18.92	18.86	18.91	21.92	21.86	21.91
	Sub - Test 3	19.90	19.85	19.90	22.90	22.85	22.90
	Sub - Test 4	18.89	18.84	18.89	21.89	21.84	21.89
	Sub - Test 5	22.38	22.33	22.38	25.38	25.33	25.38
DC-HSDPA	Sub - Test 1	21.89	21.85	21.88	24.89	24.85	24.88
	Sub - Test 2	21.88	21.84	21.87	24.88	24.84	24.87
	Sub - Test 3	21.46	21.33	21.38	24.46	24.33	24.38
	Sub - Test 4	21.45	21.32	21.37	24.45	24.32	24.37
HSPA+	16QAM	20.04	20.00	20.05	23.04	23.00	23.05



LTE Band 2				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				18607/1850.7	18900/1880	19193/1909.3	18607/1850.7	18900/1880	19193/1909.3
1.4MHz	QPSK	1	0	22.48	22.46	22.36	25.48	25.46	25.36
		1	2	22.77	22.69	22.65	25.77	25.69	25.65
		1	5	22.33	22.24	22.36	25.33	25.24	25.36
		3	0	22.68	22.67	22.61	25.68	25.67	25.61
		3	2	22.67	22.67	22.62	25.67	25.67	25.62
		3	3	22.62	22.62	22.50	25.62	25.62	25.50
		6	0	21.69	21.69	21.68	24.69	24.69	24.68
	16QAM	1	0	21.69	21.78	21.66	24.69	24.78	24.66
		1	2	21.89	22.03	21.95	24.89	25.03	24.95
		1	5	21.59	21.57	21.58	24.59	24.57	24.58
		3	0	21.65	21.59	21.62	24.65	24.59	24.62
		3	2	21.72	21.66	21.64	24.72	24.66	24.64
		3	3	21.62	21.61	21.46	24.62	24.61	24.46
		6	0	20.67	20.70	20.67	23.67	23.70	23.67
	64QAM	1	0	20.73	20.66	20.49	23.73	23.66	23.49
		1	2	20.92	20.90	20.76	23.92	23.90	23.76
		1	5	20.56	20.52	20.46	23.56	23.52	23.46
		3	0	20.67	20.63	20.62	23.67	23.63	23.62
		3	2	20.69	20.64	20.64	23.69	23.64	23.64
		3	3	20.64	20.58	20.49	23.64	23.58	23.49
		6	0	19.73	19.73	19.71	22.73	22.73	22.71
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				18615/1851.5	18900/1880	19185/1908.5	18615/1851.5	18900/1880	19185/1908.5
3MHz	QPSK	1	0	22.50	22.50	22.39	25.50	25.50	25.39
		1	7	22.75	22.72	22.69	25.75	25.72	25.69
		1	14	22.36	22.29	22.40	25.36	25.29	25.40
		8	0	21.78	21.79	21.74	24.78	24.79	24.74
		8	4	21.79	21.77	21.74	24.79	24.77	24.74
		8	7	21.72	21.73	21.60	24.72	24.73	24.60
		15	0	21.69	21.73	21.71	24.69	24.73	24.71
	16QAM	1	0	21.69	21.80	21.69	24.69	24.80	24.69
		1	7	21.89	22.03	21.99	24.89	25.03	24.99
		1	14	21.61	21.61	21.61	24.61	24.61	24.61
		8	0	20.76	20.72	20.74	23.76	23.72	23.74
		8	4	20.83	20.79	20.76	23.83	23.79	23.76
		8	7	20.72	20.73	20.59	23.72	23.73	23.59
		15	0	20.70	20.74	20.70	23.70	23.74	23.70
	64QAM	1	0	20.76	20.68	20.52	23.76	23.68	23.52



		1	7	20.95	20.90	20.78	23.95	23.90	23.78
		1	14	20.58	20.51	20.49	23.58	23.51	23.49
		8	0	19.78	19.76	19.74	22.78	22.76	22.74
		8	4	19.80	19.77	19.76	22.80	22.77	22.76
		8	7	19.74	19.70	19.62	22.74	22.70	22.62
		15	0	19.76	19.77	19.74	22.76	22.77	22.74
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				18625/1852.5	18900/1880	19175/1907.5	18625/1852.5	18900/1880	19175/1907.5
5MHz	QPSK	1	0	22.47	22.48	22.35	25.47	25.48	25.35
		1	13	22.73	22.68	22.66	25.73	25.68	25.66
		1	24	22.33	22.24	22.36	25.33	25.24	25.36
		12	0	21.75	21.74	21.70	24.75	24.74	24.70
		12	6	21.77	21.73	21.69	24.77	24.73	24.69
		12	13	21.70	21.71	21.56	24.70	24.71	24.56
		25	0	21.69	21.72	21.69	24.69	24.72	24.69
	16QAM	1	0	21.69	21.76	21.66	24.69	24.76	24.66
		1	13	21.89	22.01	21.96	24.89	25.01	24.96
		1	24	21.58	21.59	21.57	24.58	24.59	24.57
		12	0	20.74	20.68	20.71	23.74	23.68	23.71
		12	6	20.80	20.74	20.72	23.80	23.74	23.72
		12	13	20.69	20.68	20.55	23.69	23.68	23.55
		25	0	20.68	20.70	20.65	23.68	23.70	23.65
	64QAM	1	0	20.73	20.68	20.49	23.73	23.68	23.49
		1	13	20.92	20.92	20.75	23.92	23.92	23.75
		1	24	20.59	20.49	20.45	23.59	23.49	23.45
		12	0	19.76	19.72	19.75	22.76	22.72	22.75
		12	6	19.77	19.72	19.72	22.77	22.72	22.72
		12	13	19.71	19.65	19.58	22.71	22.65	22.58
		25	0	19.74	19.73	19.69	22.74	22.73	22.69
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				18650/1855	18900/1880	19150/1905	18650/1855	18900/1880	19150/1905
10MHz	QPSK	1	0	22.49	22.49	22.38	25.49	25.49	25.38
		1	25	22.76	22.73	22.70	25.76	25.73	25.70
		1	49	22.35	22.28	22.39	25.35	25.28	25.39
		25	0	21.78	21.79	21.74	24.78	24.79	24.74
		25	13	21.80	21.78	21.73	24.80	24.78	24.73
		25	25	21.72	21.75	21.61	24.72	24.75	24.61
		50	0	21.73	21.74	21.73	24.73	24.74	24.73
	16QAM	1	0	21.73	21.79	21.68	24.73	24.79	24.68
		1	25	21.93	22.05	21.99	24.93	25.05	24.99
		1	49	21.61	21.61	21.60	24.61	24.61	24.60
		25	0	20.77	20.73	20.75	23.77	23.73	23.75
		25	13	20.82	20.78	20.75	23.82	23.78	23.75



		25	25	20.72	20.73	20.59	23.72	23.73	23.59
		50	0	20.71	20.75	20.69	23.71	23.75	23.69
	64QAM	1	0	20.75	20.67	20.51	23.75	23.67	23.51
		1	25	20.95	20.92	20.78	23.95	23.92	23.78
		1	49	20.58	20.51	20.48	23.58	23.51	23.48
		25	0	19.79	19.77	19.75	22.79	22.77	22.75
		25	13	19.79	19.76	19.75	22.79	22.76	22.75
		25	25	19.74	19.70	19.62	22.74	22.70	22.62
		50	0	19.77	19.78	19.73	22.77	22.78	22.73
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				18675/1857.5	18900/1880	19125/1902.5	18675/1857.5	18900/1880	19125/1902.5
15MHz	QPSK	1	0	22.48	22.45	22.36	25.48	25.45	25.36
		1	38	22.74	22.72	22.67	25.74	25.72	25.67
		1	74	22.32	22.23	22.35	25.32	25.23	25.35
		36	0	21.76	21.75	21.71	24.76	24.75	24.71
		36	18	21.77	21.73	21.69	24.77	24.73	24.69
		36	39	21.69	21.72	21.57	24.69	24.72	24.57
		75	0	21.71	21.70	21.68	24.71	24.70	24.68
	16QAM	1	0	21.71	21.77	21.66	24.71	24.77	24.66
		1	38	21.91	22.02	21.97	24.91	25.02	24.97
		1	74	21.59	21.57	21.57	24.59	24.57	24.57
		36	0	20.74	20.71	20.72	23.74	23.71	23.72
		36	18	20.79	20.73	20.71	23.79	23.73	23.71
		36	39	20.70	20.69	20.56	23.70	23.69	23.56
		75	0	20.68	20.70	20.65	23.68	23.70	23.65
	64QAM	1	0	20.70	20.65	20.49	23.70	23.65	23.49
		1	38	20.93	20.89	20.76	23.93	23.89	23.76
		1	74	20.59	20.50	20.49	23.59	23.50	23.49
		36	0	19.78	19.79	19.76	22.78	22.79	22.76
		36	18	19.77	19.73	19.74	22.77	22.73	22.74
		36	39	19.72	19.66	19.59	22.72	22.66	22.59
		75	0	19.74	19.73	19.69	22.74	22.73	22.69
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				18700/1860	18900/1880	19100/1900	18700/1860	18900/1880	19100/1900
20MHz	QPSK	1	0	22.45	22.41	22.33	25.45	25.41	25.33
		1	50	22.73	22.68	22.65	25.73	25.68	25.65
		1	99	22.30	22.22	22.32	25.30	25.22	25.32
		50	0	21.73	21.70	21.67	24.73	24.70	24.67
		50	25	21.75	21.69	21.66	24.75	24.69	24.66
		50	50	21.66	21.67	21.53	24.66	24.67	24.53
		100	0	21.68	21.65	21.64	24.68	24.65	24.64
	16QAM	1	0	21.68	21.73	21.61	24.68	24.73	24.61
		1	50	21.88	22.00	21.93	24.88	25.00	24.93



		1	99	21.56	21.54	21.55	24.56	24.54	24.55
		50	0	20.71	20.67	20.69	23.71	23.67	23.69
		50	25	20.76	20.71	20.68	23.76	23.71	23.68
		50	50	20.67	20.64	20.52	23.67	23.64	23.52
		100	0	20.66	20.66	20.62	23.66	23.66	23.62
	64QAM	1	0	20.68	20.61	20.44	23.68	23.61	23.44
		1	50	20.89	20.87	20.72	23.89	23.87	23.72
		1	99	20.53	20.44	20.43	23.53	23.44	23.43
		50	0	19.73	19.71	19.69	22.73	22.71	22.69
		50	25	19.73	19.69	19.68	22.73	22.69	22.68
		50	50	19.69	19.61	19.55	22.69	22.61	22.55
		100	0	19.72	19.69	19.66	22.72	22.69	22.66

LTE Band 25				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				26047/1850.7	26365/1882.5	26683/1914.3	26047/1850.7	26365/1882.5	26683/1914.3
1.4MHz	QPSK	1	0	22.69	22.69	22.67	25.69	25.67	25.64
		1	2	22.70	22.70	22.76	25.70	25.76	25.73
		1	5	22.55	22.55	22.55	25.55	25.55	25.61
		3	0	22.64	22.64	22.76	25.64	25.76	25.69
		3	2	22.59	22.59	22.74	25.59	25.74	25.67
		3	3	22.59	22.59	22.61	25.59	25.61	25.62
		6	0	21.69	21.69	21.73	24.69	24.73	24.77
	16QAM	1	0	21.88	21.88	21.97	24.88	24.97	24.92
		1	2	21.94	21.94	22.02	24.94	25.02	24.99
		1	5	21.86	21.86	21.85	24.86	24.85	24.87
		3	0	21.60	21.60	21.61	24.60	24.61	24.65
		3	2	21.67	21.67	21.64	24.67	24.64	24.64
		3	3	21.59	21.59	21.61	24.59	24.61	24.57
		6	0	20.65	20.65	20.73	23.65	23.73	23.72
	64QAM	1	0	20.85	20.85	20.78	23.85	23.78	23.81
		1	2	20.88	20.88	20.82	23.88	23.82	23.86
		1	5	20.78	20.78	20.77	23.78	23.77	23.72
		3	0	20.61	20.61	20.60	23.61	23.60	23.66
		3	2	20.69	20.69	20.59	23.69	23.59	23.66
		3	3	20.64	20.64	20.66	23.64	23.66	23.56
		6	0	19.68	19.68	19.72	22.68	22.72	22.73
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				26055/1851.5	26365/1882.5	26675/1913.5	26055/1851.5	26365/1882.5	26675/1913.5
3MHz	QPSK	1	0	22.71	22.71	22.67	25.71	25.71	25.67
		1	7	22.68	22.79	22.77	25.68	25.79	25.77
		1	14	22.58	22.60	22.65	25.58	25.60	25.65
		8	0	21.74	21.88	21.82	24.74	24.88	24.82



		8	4	21.71	21.84	21.79	24.71	24.84	24.79
		8	7	21.69	21.72	21.72	24.69	24.72	24.72
		15	0	21.69	21.77	21.80	24.69	24.77	24.80
	16QAM	1	0	21.88	21.99	21.95	24.88	24.99	24.95
		1	7	21.94	22.02	22.03	24.94	25.02	25.03
		1	14	21.88	21.89	21.90	24.88	24.89	24.90
		8	0	20.71	20.74	20.77	23.71	23.74	23.77
		8	4	20.78	20.77	20.76	23.78	23.77	23.76
		8	7	20.69	20.73	20.70	23.69	23.73	23.70
		15	0	20.68	20.77	20.75	23.68	23.77	23.75
	64QAM	1	0	20.88	20.80	20.84	23.88	23.80	23.84
		1	7	20.91	20.82	20.88	23.91	23.82	23.88
		1	14	20.80	20.76	20.75	23.80	23.76	23.75
		8	0	19.72	19.73	19.78	22.72	22.73	22.78
		8	4	19.80	19.72	19.78	22.80	22.72	22.78
		8	7	19.74	19.78	19.69	22.74	22.78	22.69
		15	0	19.71	19.76	19.76	22.71	22.76	22.76
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				26065/1852.5	26365/1882.5	26665/1912.5	16.66	16.75	16.74
5MHz	QPSK	1	0	22.68	22.69	22.63	25.68	25.69	25.63
		1	13	22.66	22.75	22.74	25.66	25.75	25.74
		1	24	22.55	22.55	22.61	25.55	25.55	25.61
		12	0	21.71	21.83	21.78	24.71	24.83	24.78
		12	6	21.69	21.80	21.74	24.69	24.80	24.74
		12	13	21.67	21.70	21.68	24.67	24.70	24.68
		25	0	21.69	21.76	21.78	24.69	24.76	24.78
	16QAM	1	0	21.88	21.95	21.92	24.88	24.95	24.92
		1	13	21.94	22.00	22.00	24.94	25.00	25.00
		1	24	21.85	21.87	21.86	24.85	24.87	24.86
		12	0	20.69	20.70	20.74	23.69	23.70	23.74
		12	6	20.75	20.72	20.72	23.75	23.72	23.72
		12	13	20.66	20.68	20.66	23.66	23.68	23.66
		25	0	20.66	20.73	20.70	23.66	23.73	23.70
	64QAM	1	0	20.85	20.80	20.81	23.85	23.80	23.81
		1	13	20.88	20.84	20.85	23.88	23.84	23.85
		1	24	20.81	20.74	20.71	23.81	23.74	23.71
		12	0	19.70	19.69	19.79	22.70	22.69	22.79
		12	6	19.77	19.67	19.74	22.77	22.67	22.74
		12	13	19.71	19.73	19.65	22.71	22.73	22.65
		25	0	19.69	19.72	19.71	22.69	22.72	22.71
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				26090/1855	26365/1882.5	26640/1910	26090/1855	26365/1882.5	26640/1910
10MHz	QPSK	1	0	22.70	22.70	22.66	25.70	25.70	25.66



		1	25	22.69	22.80	22.78	25.69	25.80	25.78
		1	49	22.57	22.59	22.64	25.57	25.59	25.64
		25	0	21.74	21.88	21.82	24.74	24.88	24.82
		25	13	21.72	21.85	21.78	24.72	24.85	24.78
		25	25	21.69	21.74	21.73	24.69	24.74	24.73
		50	0	21.73	21.78	21.82	24.73	24.78	24.82
	16QAM	1	0	21.92	21.98	21.94	24.92	24.98	24.94
		1	25	21.98	22.04	22.03	24.98	25.04	25.03
		1	49	21.88	21.89	21.89	24.88	24.89	24.89
		25	0	20.72	20.75	20.78	23.72	23.75	23.78
		25	13	20.77	20.76	20.75	23.77	23.76	23.75
		25	25	20.69	20.73	20.70	23.69	23.73	23.70
		50	0	20.69	20.78	20.74	23.69	23.78	23.74
	64QAM	1	0	20.87	20.79	20.83	23.87	23.79	23.83
		1	25	20.91	20.84	20.88	23.91	23.84	23.88
		1	49	20.80	20.76	20.74	23.80	23.76	23.74
		25	0	19.73	19.74	19.79	22.73	22.74	22.79
		25	13	19.79	19.71	19.77	22.79	22.71	22.77
		25	25	19.74	19.78	19.69	22.74	22.78	22.69
		50	0	19.72	19.77	19.75	22.72	22.77	22.75
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				26115/1857.5	26365/1882.5	26615/1907.5	26115/1857.5	26365/1882.5	26615/1907.5
15MHz	QPSK	1	0	22.69	22.66	22.64	25.69	25.66	25.64
		1	38	22.67	22.79	22.75	25.67	25.79	25.75
		1	74	22.54	22.54	22.60	25.54	25.54	25.60
		36	0	21.72	21.84	21.79	24.72	24.84	24.79
		36	18	21.69	21.80	21.74	24.69	24.80	24.74
		36	39	21.66	21.71	21.69	24.66	24.71	24.69
		75	0	21.71	21.74	21.77	24.71	24.74	24.77
	16QAM	1	0	21.90	21.96	21.92	24.90	24.96	24.92
		1	38	21.96	22.01	22.01	24.96	25.01	25.01
		1	74	21.86	21.85	21.86	24.86	24.85	24.86
		36	0	20.69	20.73	20.75	23.69	23.73	23.75
		36	18	20.74	20.71	20.71	23.74	23.71	23.71
		36	39	20.67	20.69	20.67	23.67	23.69	23.67
		75	0	20.66	20.73	20.70	23.66	23.73	23.70
	64QAM	1	0	20.82	20.77	20.81	23.82	23.77	23.81
		1	38	20.89	20.81	20.86	23.89	23.81	23.86
		1	74	20.81	20.75	20.75	23.81	23.75	23.75
		36	0	19.72	19.76	19.80	22.72	22.76	22.80
		36	18	19.77	19.68	19.76	22.77	22.68	22.76
		36	39	19.72	19.74	19.66	22.72	22.74	22.66
		75	0	19.69	19.72	19.71	22.69	22.72	22.71



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				26140/1860	26140/1860	26140/1860	26140/1860	26140/1860	26140/1860
20MHz	QPSK	1	0	22.66	22.62	22.61	25.66	25.62	25.61
		1	50	22.66	22.75	22.73	25.66	25.75	25.73
		1	99	22.52	22.53	22.57	25.52	25.53	25.57
		50	0	21.69	21.79	21.75	24.69	24.79	24.75
		50	25	21.67	21.76	21.71	24.67	24.76	24.71
		50	50	21.63	21.66	21.65	24.63	24.66	24.65
		100	0	21.68	21.69	21.73	24.68	24.69	24.73
	16QAM	1	0	21.87	21.92	21.87	24.87	24.92	24.87
		1	50	21.93	21.99	21.97	24.93	24.99	24.97
		1	99	21.83	21.82	21.84	24.83	24.82	24.84
		50	0	20.66	20.69	20.72	23.66	23.69	23.72
		50	25	20.71	20.69	20.68	23.71	23.69	23.68
		50	50	20.64	20.64	20.63	23.64	23.64	23.63
		100	0	20.64	20.69	20.67	23.64	23.69	23.67
	64QAM	1	0	20.80	20.73	20.76	23.80	23.73	23.76
		1	50	20.85	20.79	20.82	23.85	23.79	23.82
		1	99	20.75	20.69	20.69	23.75	23.69	23.69
		50	0	19.67	19.68	19.73	22.67	22.68	22.73
		50	25	19.73	19.64	19.70	22.73	22.64	22.70
		50	50	19.69	19.69	19.62	22.69	22.69	22.62
		100	0	19.67	19.68	19.68	22.67	22.68	22.68

6.2.Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (kHz)	-26dBc Bandwidth(kHz)
GPRS 1900 (GMSK)	512	1850.2	243.62	321.20
	661	1880.0	246.84	318.90
	810	1909.8	245.25	309.30
EGPRS 1900 (8PSK)	512	1850.2	260.46	334.80
	661	1880.0	258.35	323.90
	810	1909.8	254.89	327.70

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band II (RMC)	9262	1852.4	4.16	4.67
	9400	1880	4.17	4.68
	9538	1907.6	4.17	4.71

LTE Band 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	18607	1850.7	1.09	1.28
			18900	1880.0	1.09	1.28
			19193	1909.3	1.09	1.30
		3	18615	1851.5	2.69	2.92
			18900	1880	2.69	2.92
			19185	1908.5	2.69	2.92
		5	18625	1852.5	4.50	4.87
			18900	1880	4.52	4.92
			19175	1907.5	4.51	4.88
		10	18650	1855	8.98	9.66
			18900	1880	9.00	9.66
			19150	1905	8.98	9.72
		15	18675	1857.5	13.43	14.59
			18900	1880	13.46	14.43
			19125	1902.5	13.43	14.55
		20	18700	1860	17.96	19.26



			18900	1880	17.93	19.16
			19100	1900	17.90	19.31
	16QAM	1.4	18607	1850.7	1.10	1.29
			18900	1880.0	1.10	1.29
			19193	1909.3	1.09	1.28
		3	18615	1851.5	2.69	2.94
			18900	1880	2.69	3.27
			19185	1908.5	2.69	2.93
		5	18625	1852.5	4.49	4.91
			18900	1880	4.50	4.93
			19175	1907.5	4.50	4.95
		10	18650	1855	8.96	9.72
			18900	1880	8.97	9.66
			19150	1905	8.97	9.69
		15	18675	1857.5	13.44	14.61
			18900	1880	13.45	14.44
			19125	1902.5	13.46	14.49
		20	18700	1860	17.91	19.28
			18900	1880	17.98	19.21
			19100	1900	17.92	19.23
	64QAM	1.4	18607	1850.7	1.10	1.30
			18900	1880.0	1.10	1.32
			19193	1909.3	1.09	1.29
		3	18615	1851.5	2.68	2.92
			18900	1880	2.69	2.93
			19185	1908.5	2.68	2.91
		5	18625	1852.5	4.51	4.93
			18900	1880	4.51	4.90
			19175	1907.5	4.50	4.88
		10	18650	1855	8.97	9.69
			18900	1880	8.99	9.64
			19150	1905	9.01	9.73
		15	18675	1857.5	13.48	14.50
			18900	1880	13.47	14.68
			19125	1902.5	13.51	14.46
		20	18700	1860	17.99	19.32
			18900	1880	17.99	19.28
			19100	1900	17.95	19.20

LTE Band 25						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	26047	1850.7	1.10	1.27
			26365	1882.5	1.10	1.27
			26683	1914.3	1.09	1.30
		3	26055	1851.5	2.69	2.91
			26365	1882.5	2.69	2.93
			26675	1913.5	2.69	2.90
		5	26065	1852.5	4.52	5.10
			26365	1882.5	4.52	5.17
			26665	1912.5	4.52	5.08
		10	26090	1855	8.99	10.03
			26365	1882.5	8.99	9.97
			26640	1910	9.03	9.92
		15	26115	1857.5	13.46	14.80
			26365	1882.5	13.49	14.72
			26615	1907.5	13.51	14.92
		20	26140	1860	18.01	19.42
			26365	1882.5	17.93	19.64
			26590	1905	18.01	19.73
	16QAM	1.4	26047	1850.7	1.09	1.28
			26365	1882.5	1.09	1.27
			26683	1914.3	1.09	1.28
		3	26055	1851.5	2.70	2.94
			26365	1882.5	2.69	2.95
			26675	1913.5	2.69	2.88
		5	26065	1852.5	4.53	5.13
			26365	1882.5	4.52	5.05
			26665	1912.5	4.52	5.16
		10	26090	1855	8.99	9.94
			26365	1882.5	9.00	9.89
			26640	1910	9.00	10.09
		15	26115	1857.5	13.45	15.01
			26365	1882.5	13.46	14.93
			26615	1907.5	13.51	14.88
		20	26140	1860	17.97	19.63
			26365	1882.5	18.01	19.59
			26590	1905	17.98	19.52



	64QAM	1.4	26047	1850.7	1.09	1.27
			26365	1882.5	1.10	1.31
			26683	1914.3	1.10	1.26
		3	26055	1851.5	2.69	2.92
			26365	1882.5	2.70	2.94
			26675	1913.5	2.69	2.94
		5	26065	1852.5	4.51	5.06
			26365	1882.5	4.52	5.13
			26665	1912.5	4.51	5.10
		10	26090	1855	9.00	9.89
			26365	1882.5	9.01	9.96
			26640	1910	9.03	9.88
		15	26115	1857.5	13.53	14.99
			26365	1882.5	13.49	14.92
			26615	1907.5	13.50	14.82
		20	26140	1860	17.95	19.66
			26365	1882.5	17.98	19.66
			26590	1905	17.95	19.40

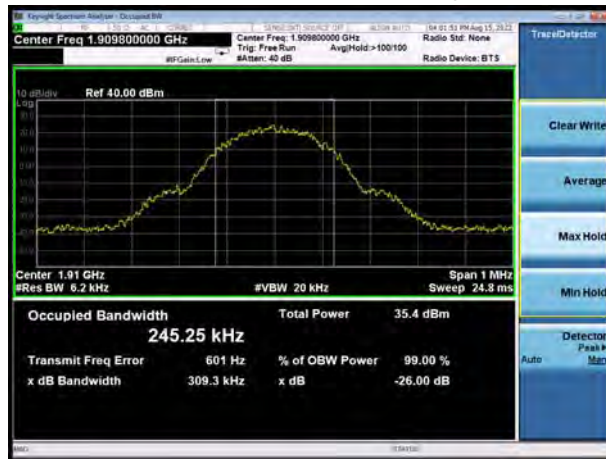
GSM1900 GPRS CH-Low



GSM 1900 GPRS CH-Middle



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



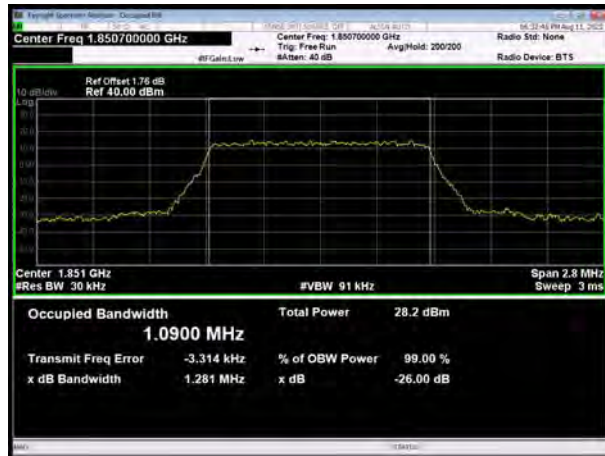
GSM 1900 EGPRS CH-High



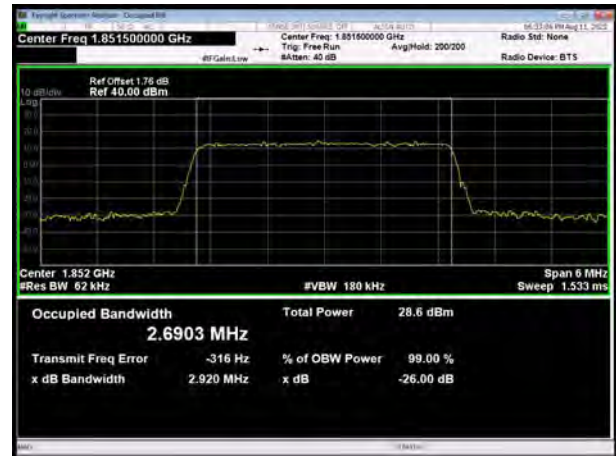
WCDMA Band II RMC CH-High



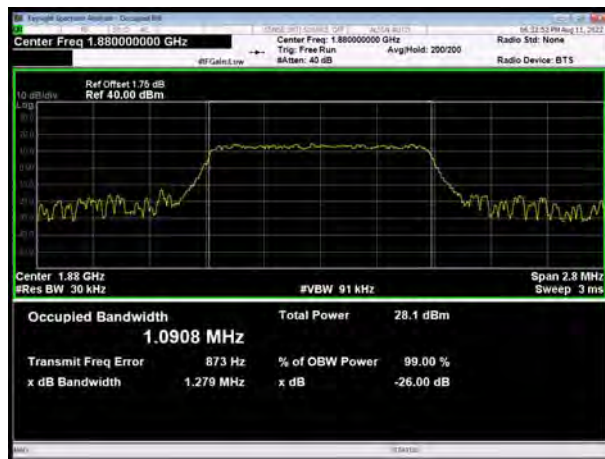
LTE Band 2 1.4MHz QPSK CH-Low



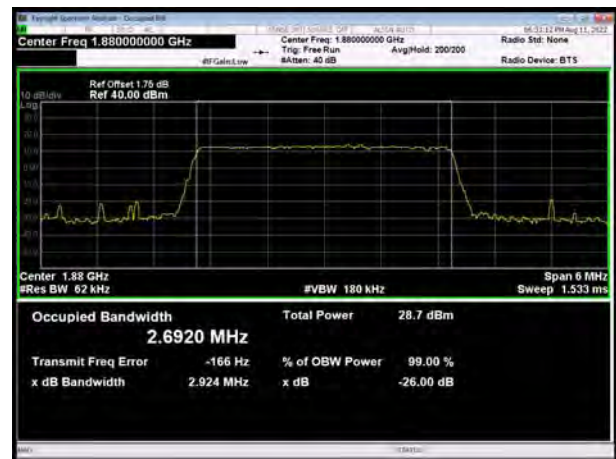
LTE Band 2 3MHz QPSK CH-Low



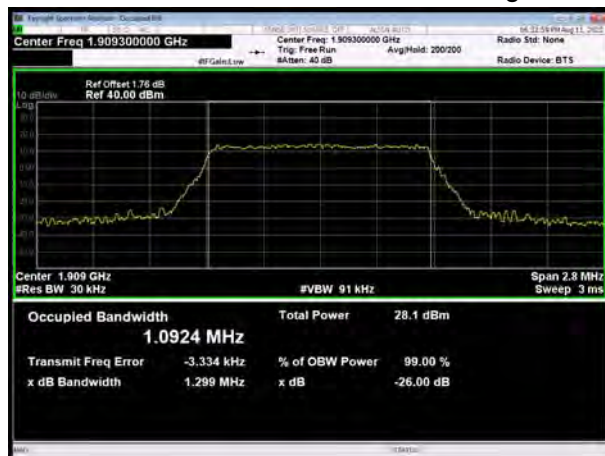
LTE Band 2 1.4MHz QPSK CH-Middle



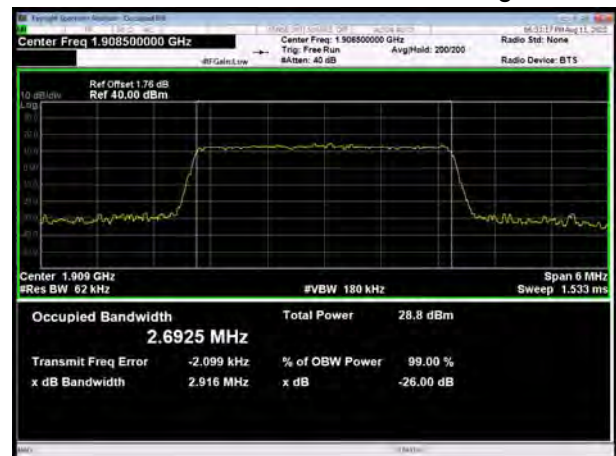
LTE Band 2 3MHz QPSK CH-Middle



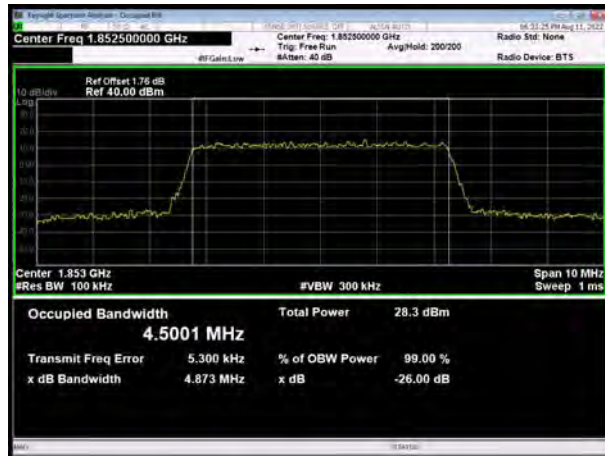
LTE Band 2 1.4MHz QPSK CH-High



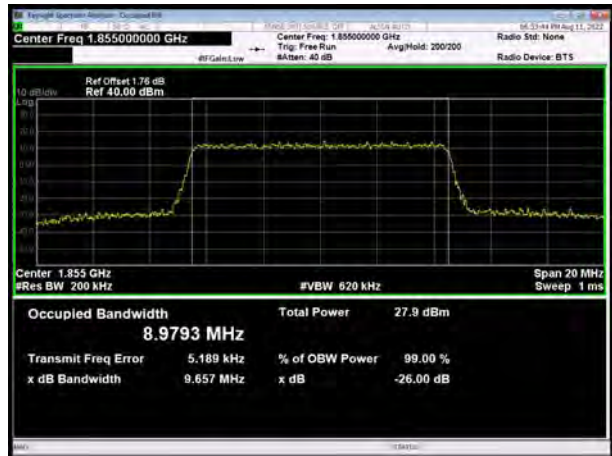
LTE Band 2 3MHz QPSK CH-High



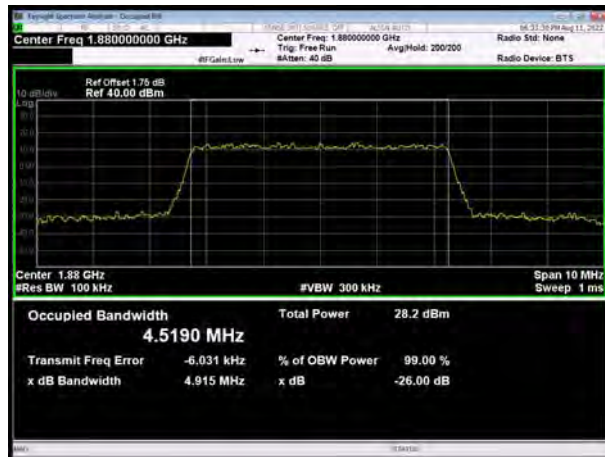
LTE Band 2 5MHz QPSK CH-Low



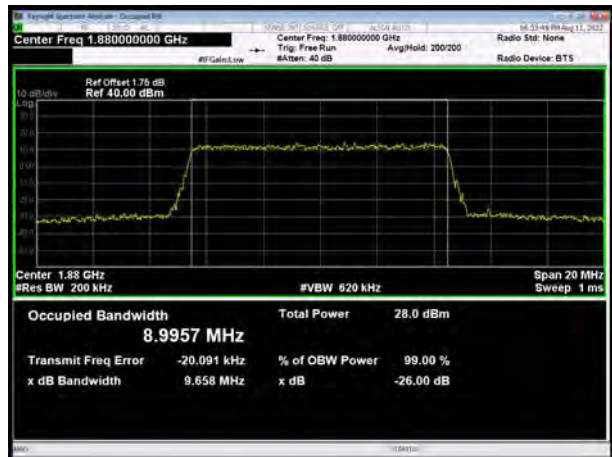
LTE Band 2 10MHz QPSK CH-Low



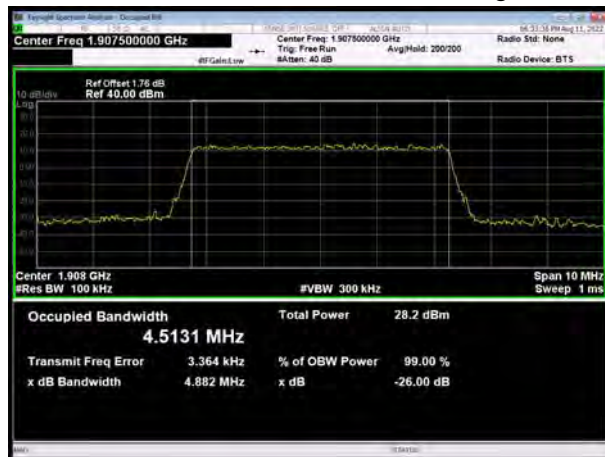
LTE Band 2 5MHz QPSK CH-Middle



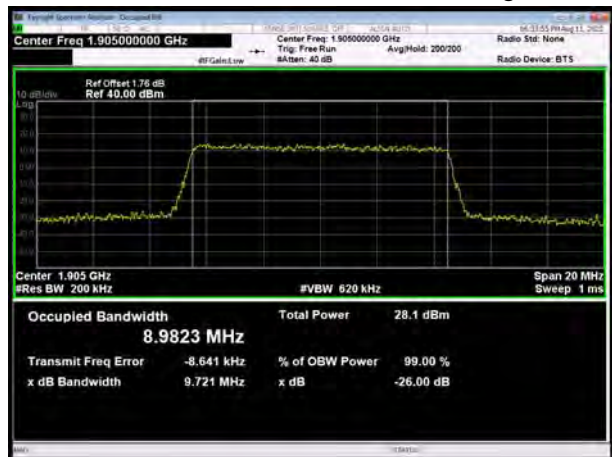
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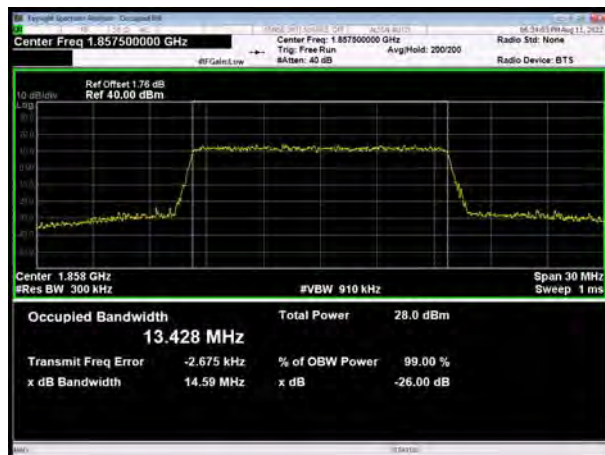
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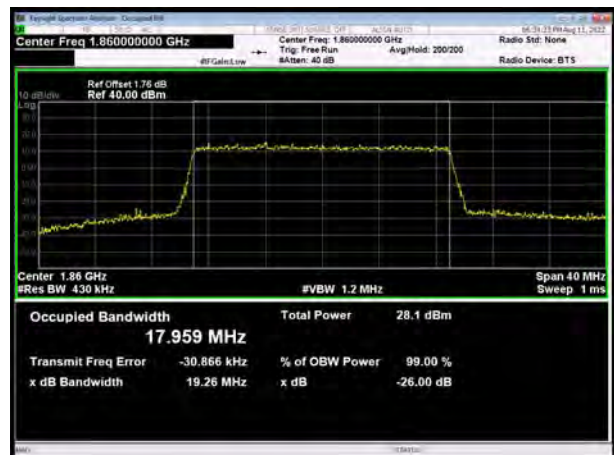
LTE Band 2 10MHz QPSK CH-High



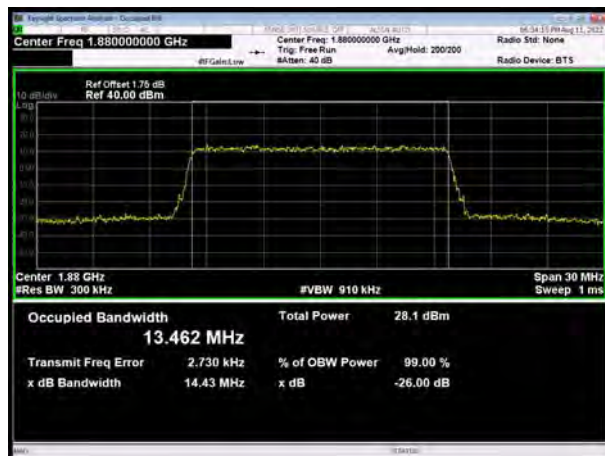
LTE Band 2 15MHz QPSK CH-Low



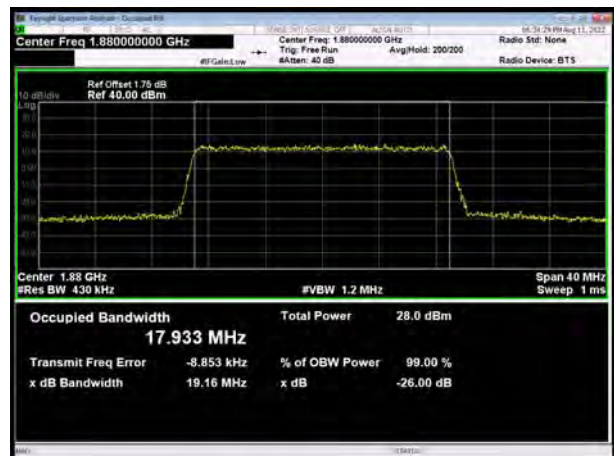
LTE Band 2 20MHz QPSK CH-Low



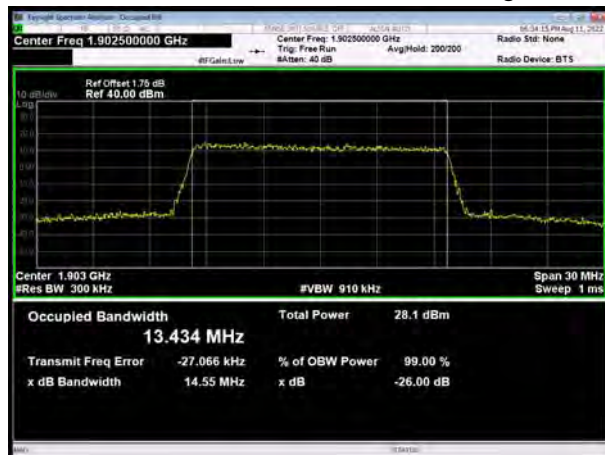
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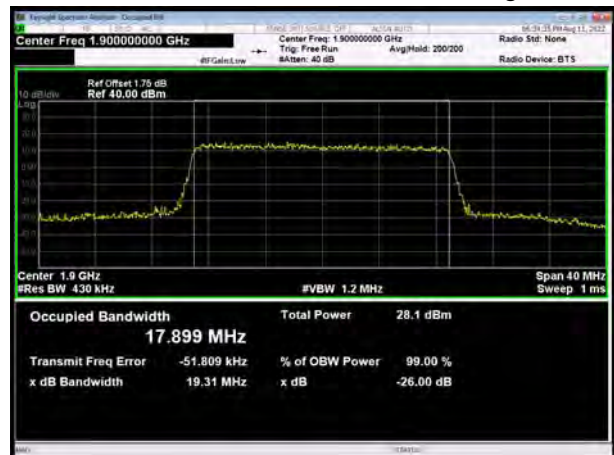
LTE Band 2 20MHz QPSK CH-Middle



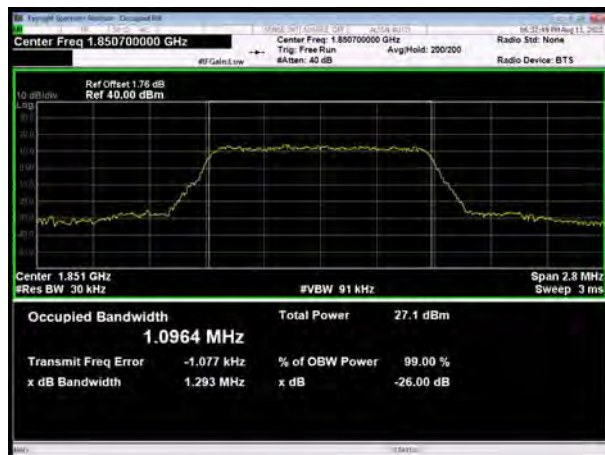
LTE Band 2 15MHz QPSK CH-High



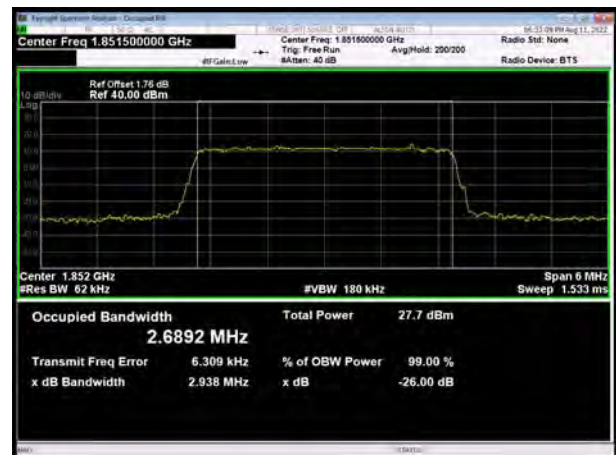
LTE Band 2 20MHz QPSK CH-High



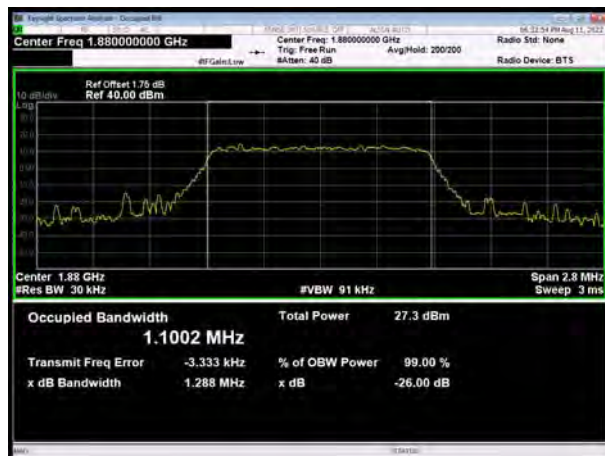
LTE Band 2 1.4MHz 16QAM CH-Low



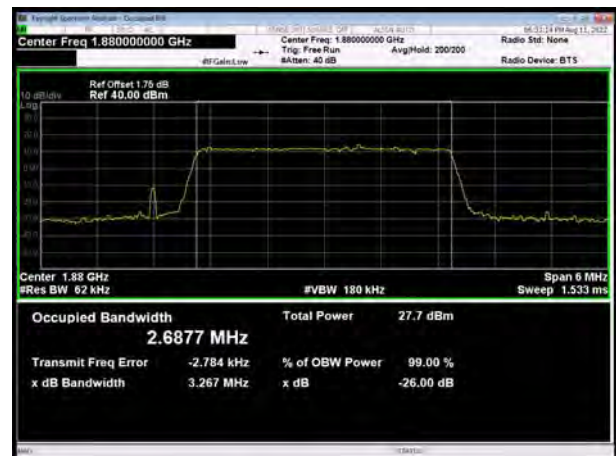
LTE Band 2 3MHz 16QAM CH-Low



LTE Band 2 1.4MHz 16QAM CH-Middle



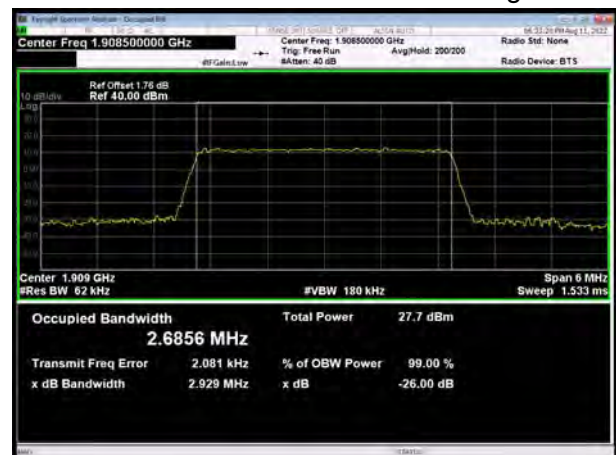
LTE Band 2 3MHz 16QAM CH-Middle



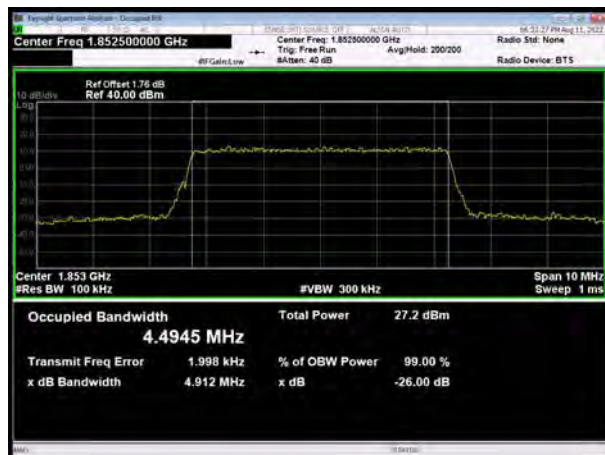
LTE Band 2 1.4MHz 16QAM CH-High



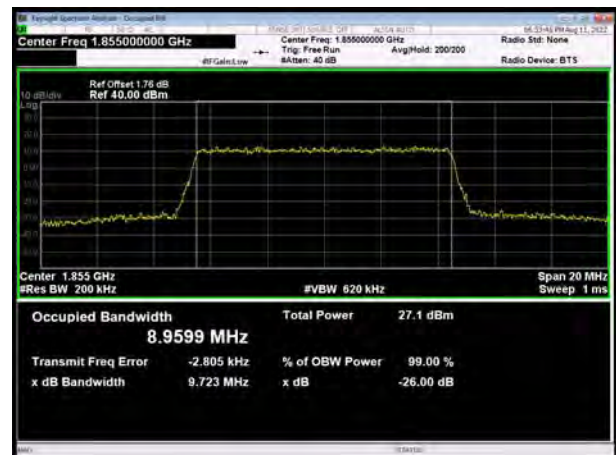
LTE Band 2 3MHz 16QAM CH-High



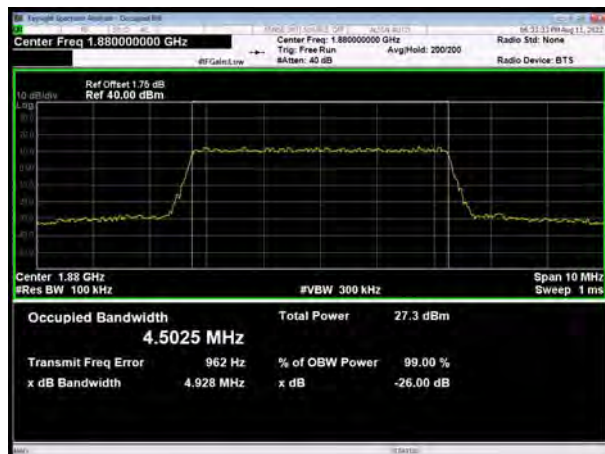
LTE Band 2 5MHz 16QAM CH-Low



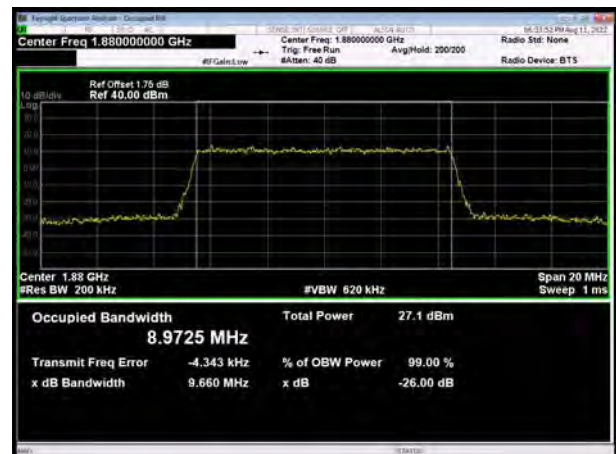
LTE Band 2 10MHz 16QAM CH-Low



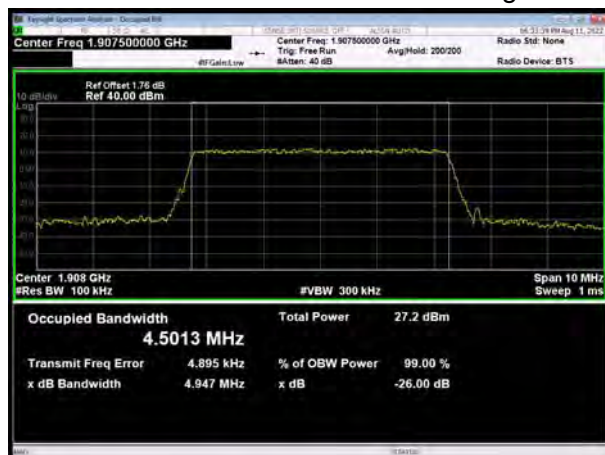
LTE Band 2 5MHz 16QAM CH-Middle



LTE Band 2 10MHz 16QAM CH-Middle



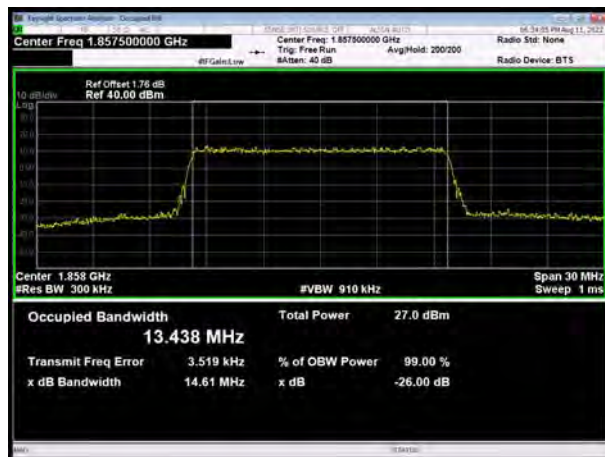
LTE Band 2 5MHz 16QAM CH-High



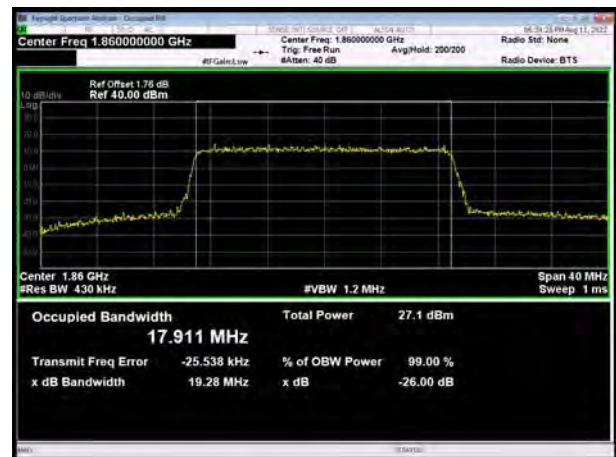
LTE Band 2 10MHz 16QAM CH-High



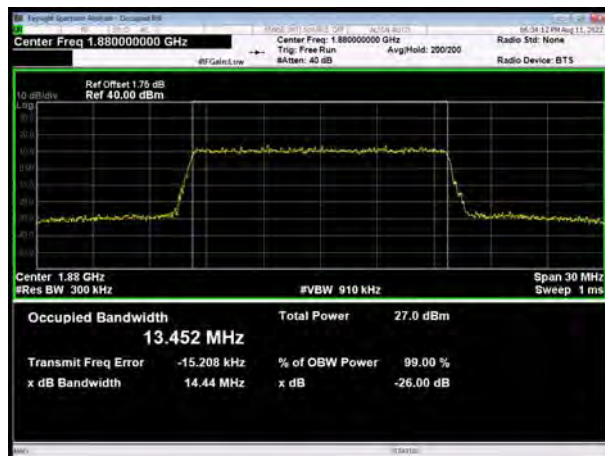
LTE Band 2 15MHz 16QAM CH-Low



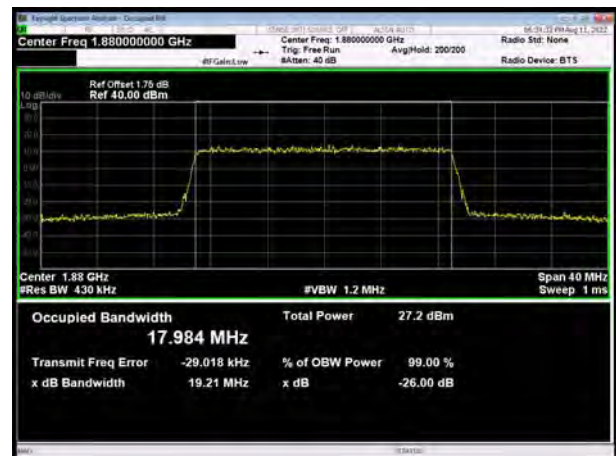
LTE Band 2 20MHz 16QAM CH-Low



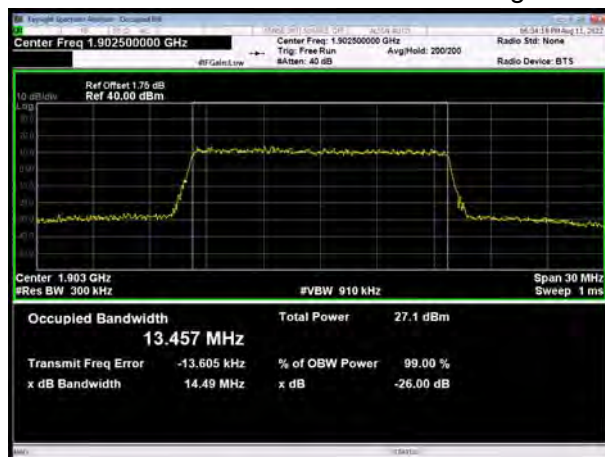
LTE Band 2 15MHz 16QAM CH-Middle



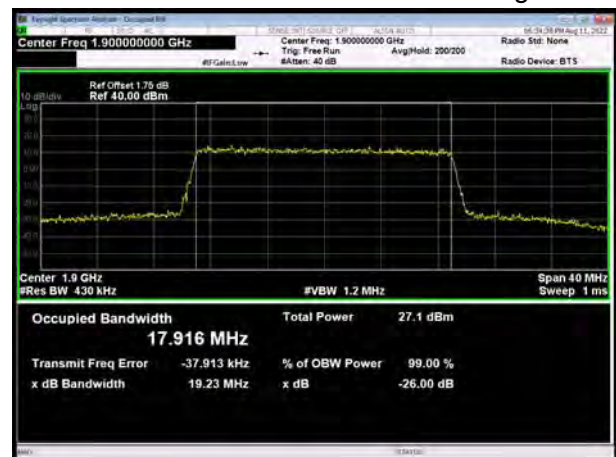
LTE Band 2 20MHz 16QAM CH-Middle



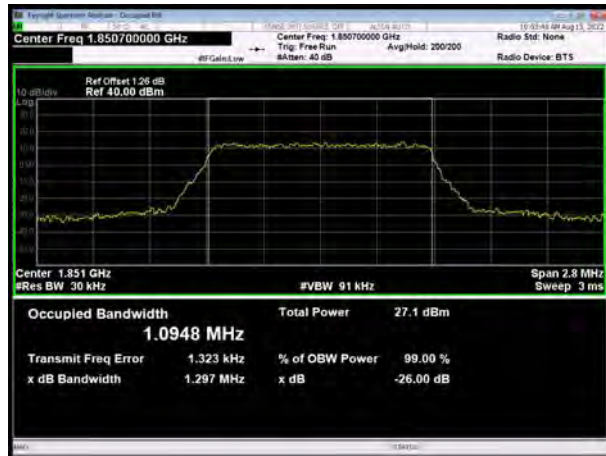
LTE Band 2 15MHz 16QAM CH-High



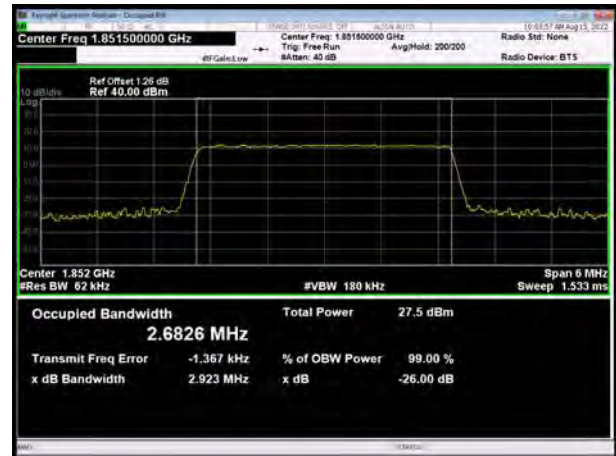
LTE Band 2 20MHz 16QAM CH-High



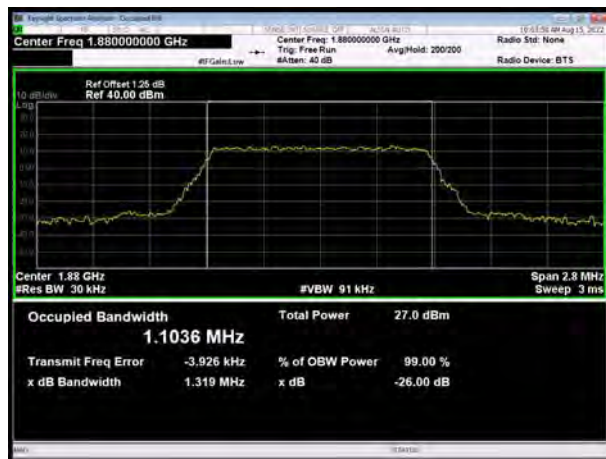
LTE Band 2 1.4MHz 64QAM CH-Low



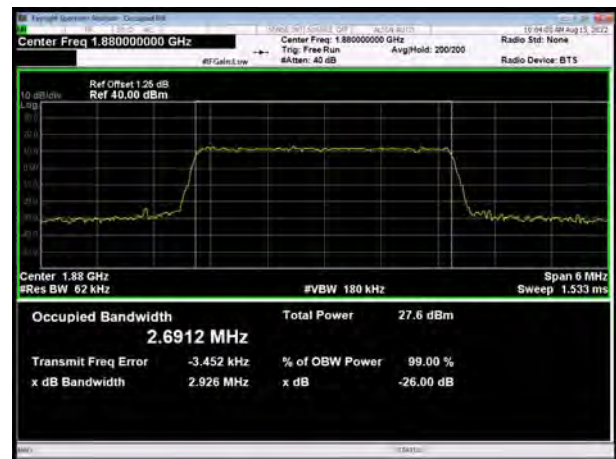
LTE Band 2 3MHz 64QAM CH-Low



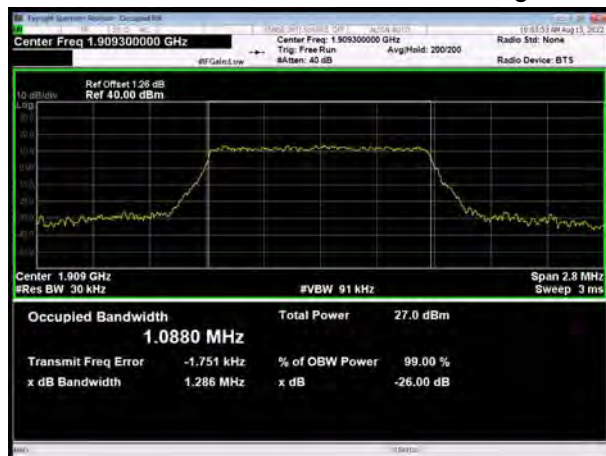
LTE Band 2 1.4MHz 64QAM CH-Middle



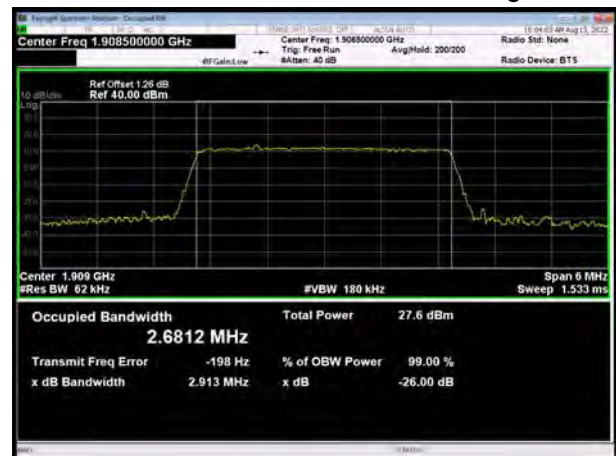
LTE Band 2 3MHz 64QAM CH-Middle



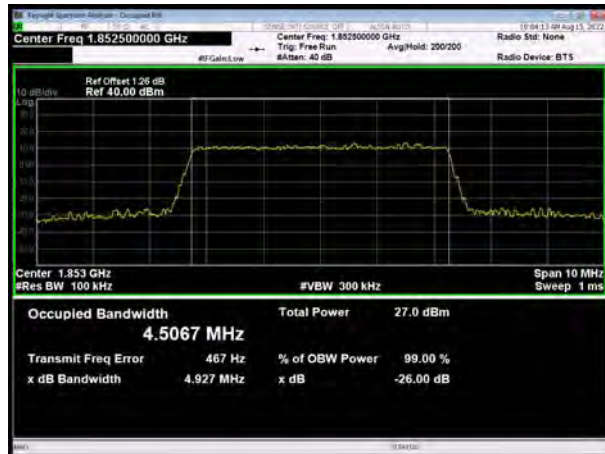
LTE Band 2 1.4MHz 64QAM CH-High



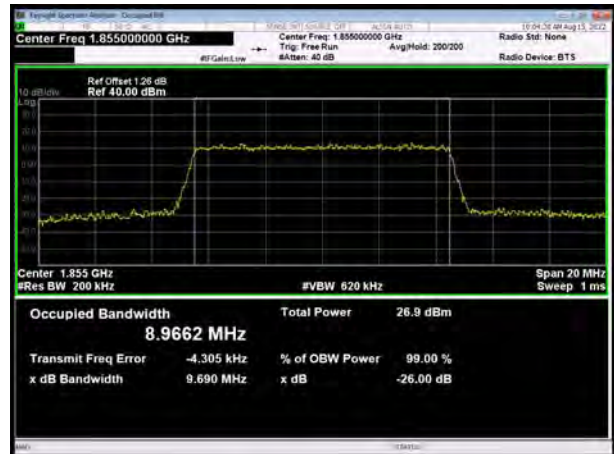
LTE Band 2 3MHz 64QAM CH-High



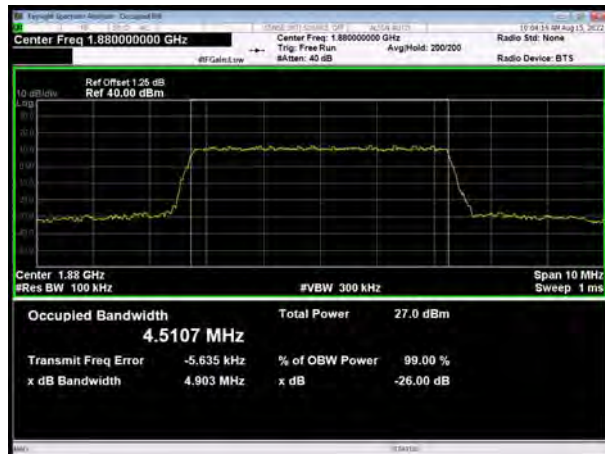
LTE Band 2 5MHz 64QAM CH-Low



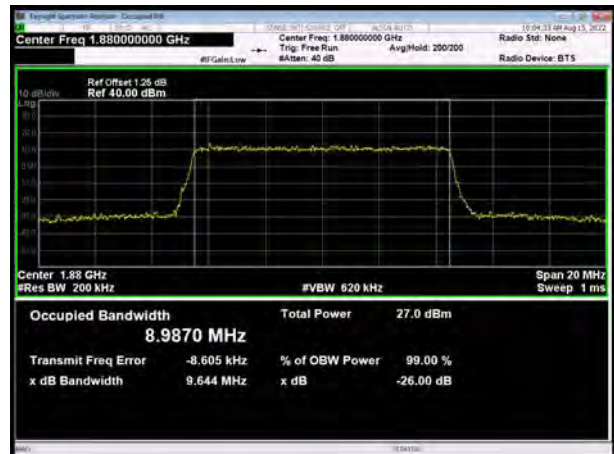
LTE Band 2 10MHz 64QAM CH-Low



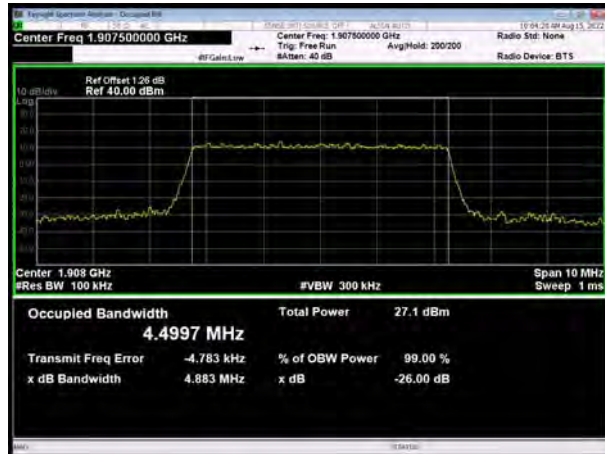
LTE Band 2 5MHz 64QAM CH-Middle



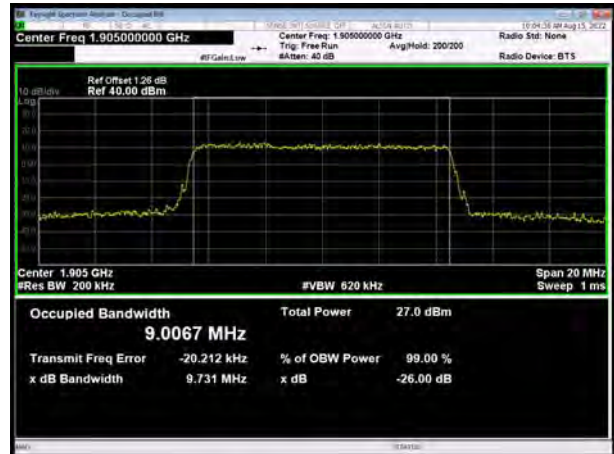
LTE Band 2 10MHz 64QAM CH-Middle



LTE Band 2 5MHz 64QAM CH-High

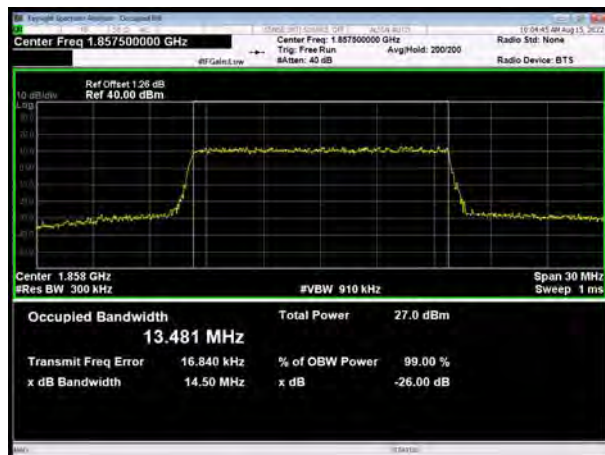


LTE Band 2 10MHz 64QAM CH-High

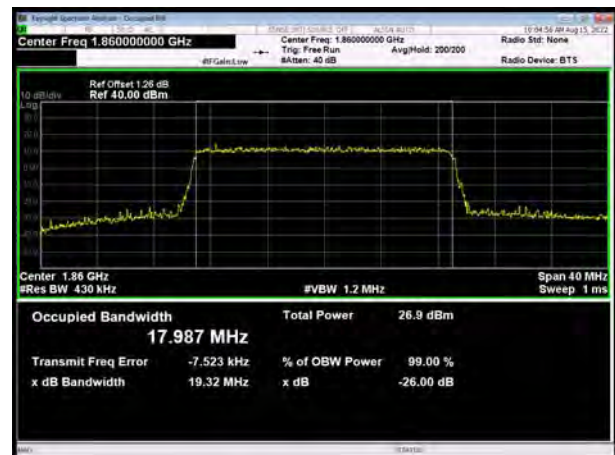




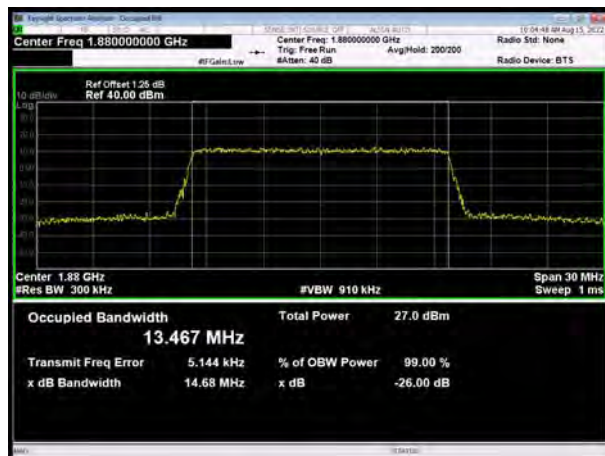
LTE Band 2 15MHz 64QAM CH-Low



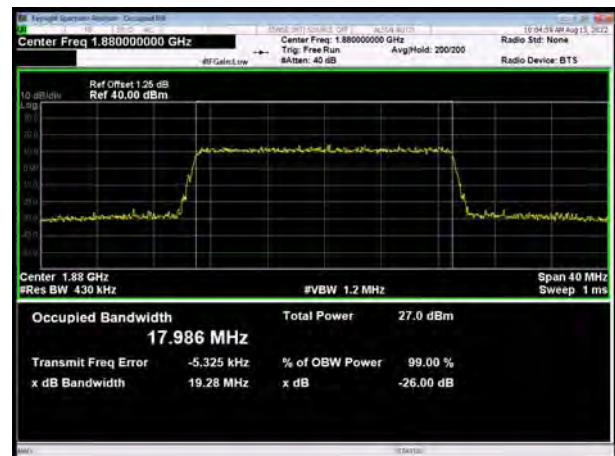
LTE Band 2 20MHz 64QAM CH-Low



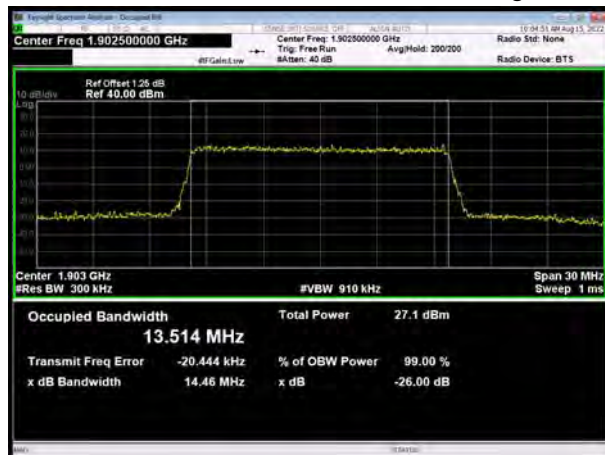
LTE Band 2 15MHz 64QAM CH-Middle



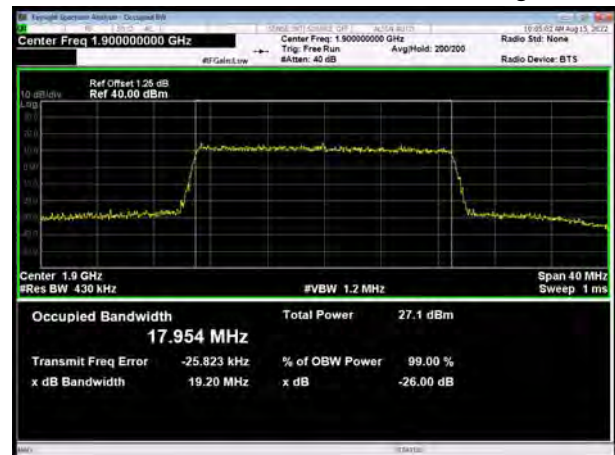
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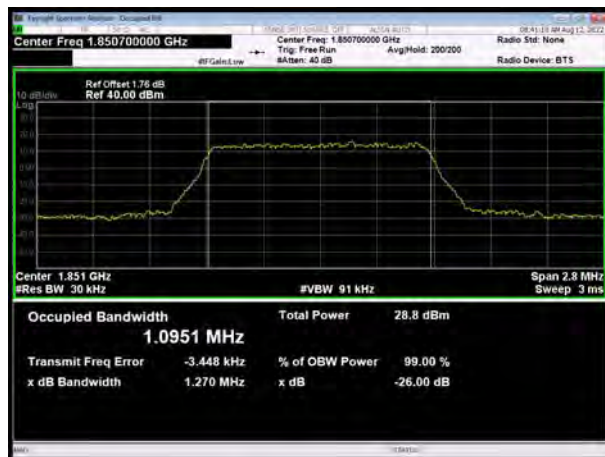
LTE Band 2 15MHz 64QAM CH-High



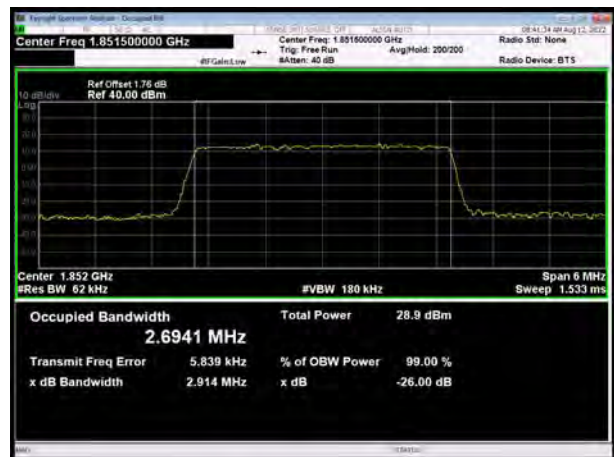
LTE Band 2 20MHz 64QAM CH-High



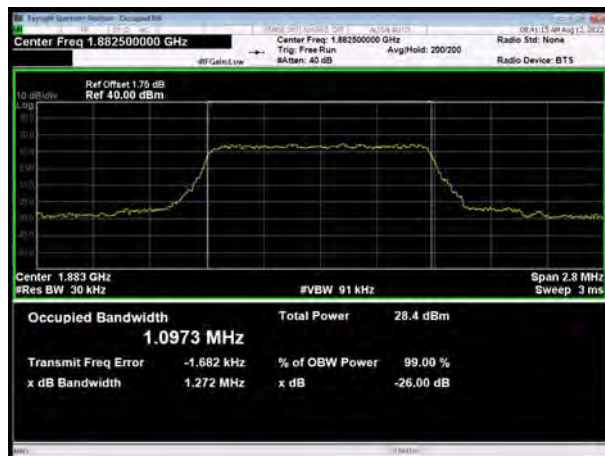
LTE Band 25 1.4MHz QPSK CH-Low



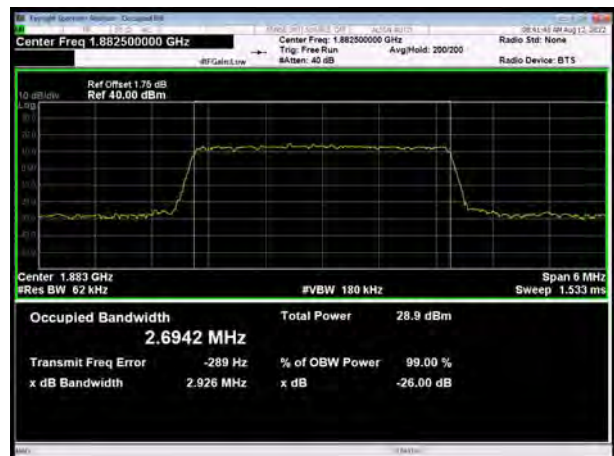
LTE Band 25 3MHz QPSK CH-Low



LTE Band 25 1.4MHz QPSK CH-Middle



LTE Band 25 3MHz QPSK CH-Middle



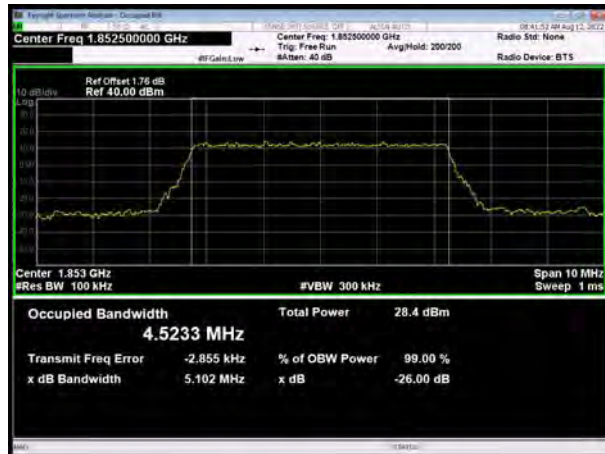
LTE Band 25 1.4MHz QPSK CH-High



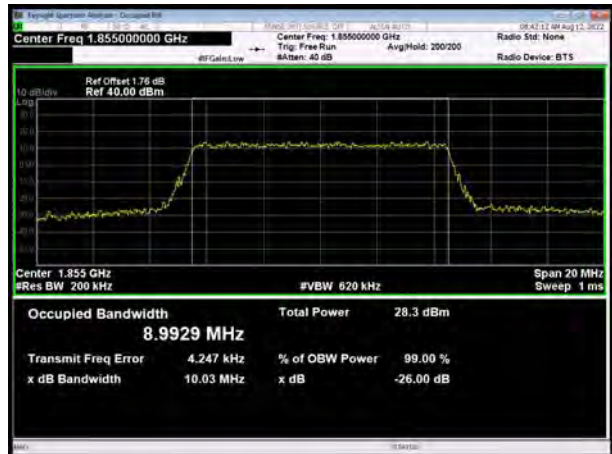
LTE Band 25 3MHz QPSK CH-High



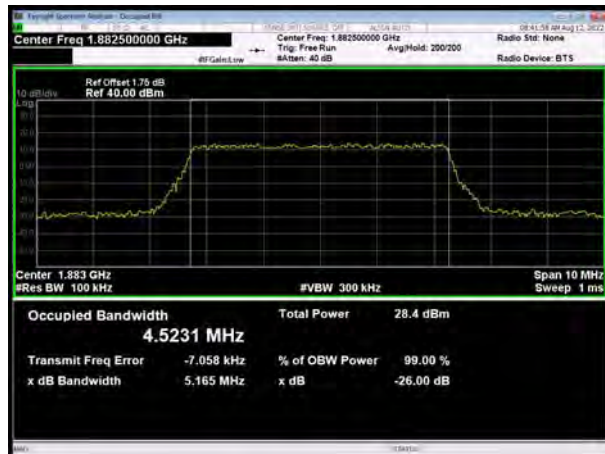
LTE Band 25 5MHz QPSK CH-Low



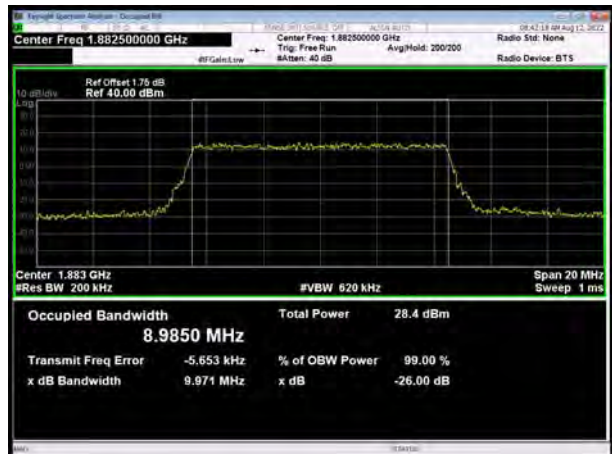
LTE Band 25 10MHz QPSK CH-Low



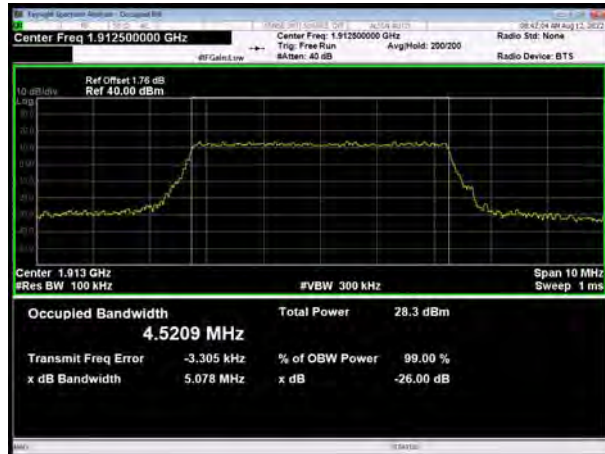
LTE Band 25 5MHz QPSK CH-Middle



LTE Band 25 10MHz QPSK CH-Middle



LTE Band 25 5MHz QPSK CH-High

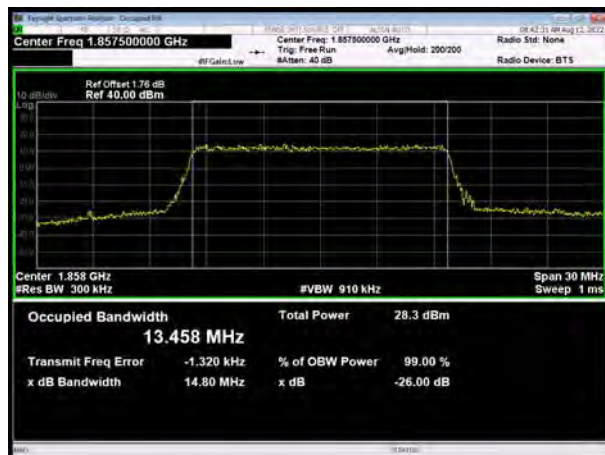


LTE Band 25 10MHz QPSK CH-High





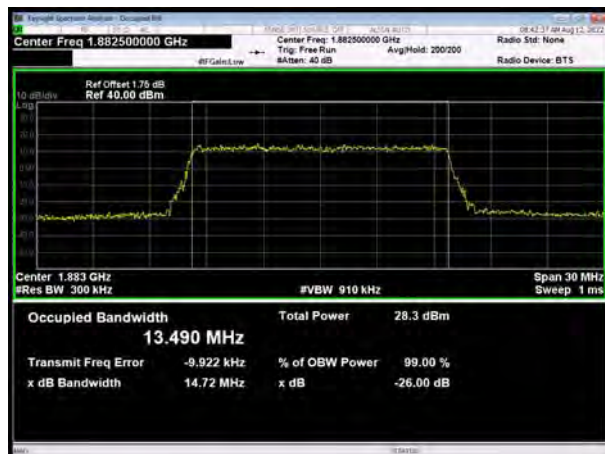
LTE Band 25 15MHz QPSK CH-Low



LTE Band 25 20MHz QPSK CH-Low



LTE Band 25 15MHz QPSK CH-Middle



LTE Band 25 20MHz QPSK CH-Middle



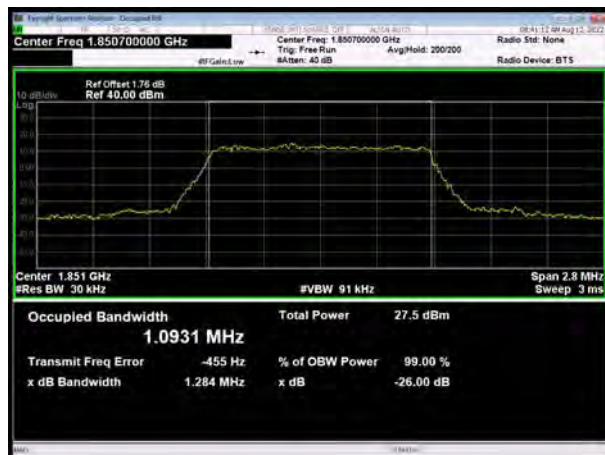
LTE Band 25 15MHz QPSK CH-High



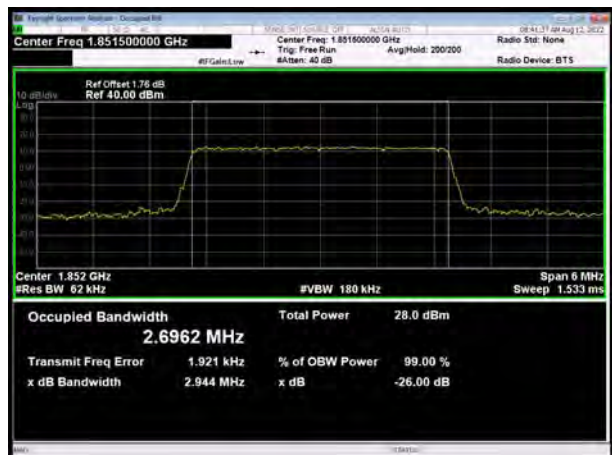
LTE Band 25 20MHz QPSK CH-High



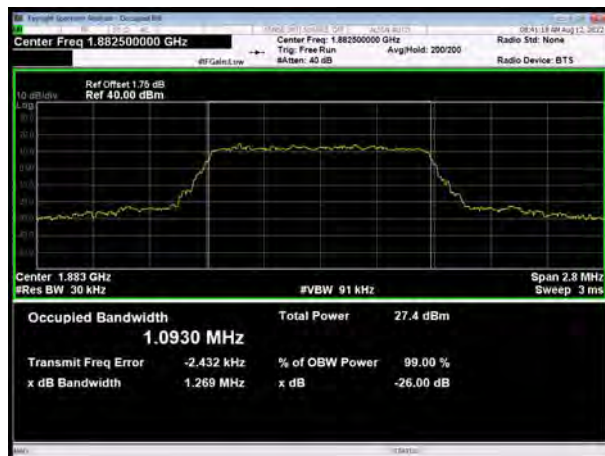
LTE Band 25 1.4MHz 16QAM CH-Low



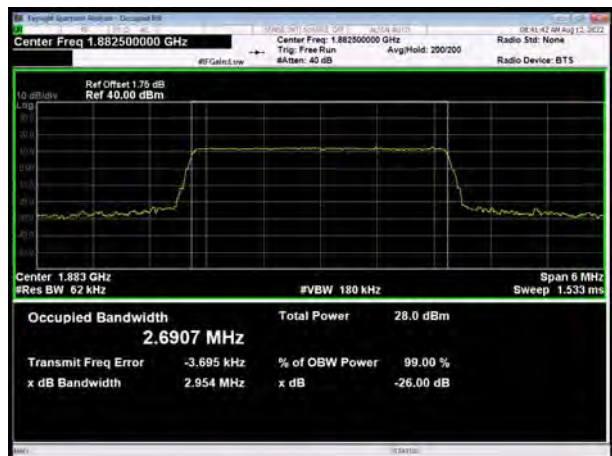
LTE Band 25 3MHz 16QAM CH-Low



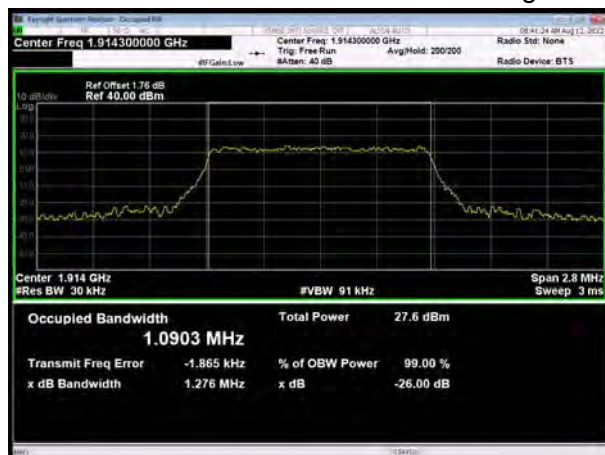
LTE Band 25 1.4MHz 16QAM CH-Middle



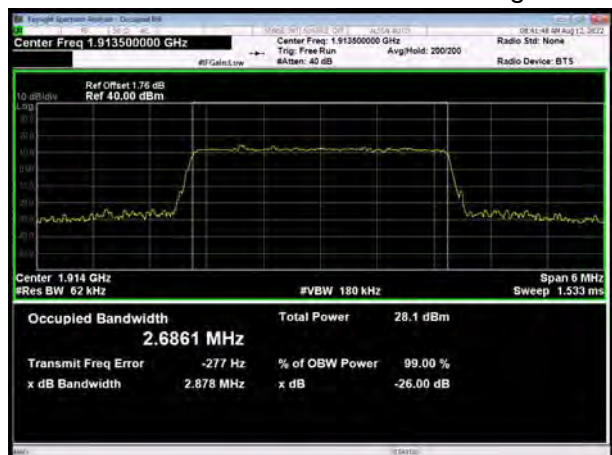
LTE Band 25 3MHz 16QAM CH-Middle



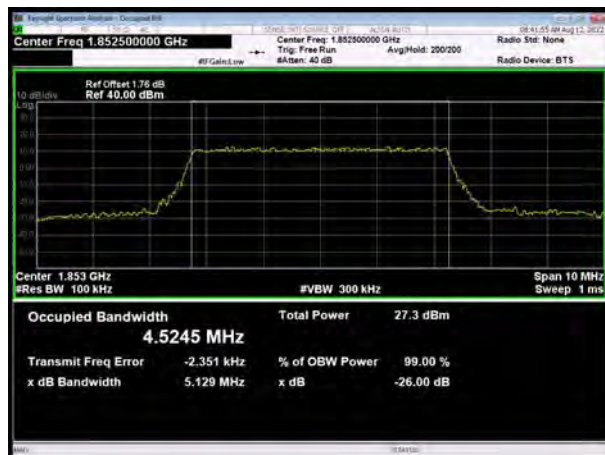
LTE Band 25 1.4MHz 16QAM CH-High



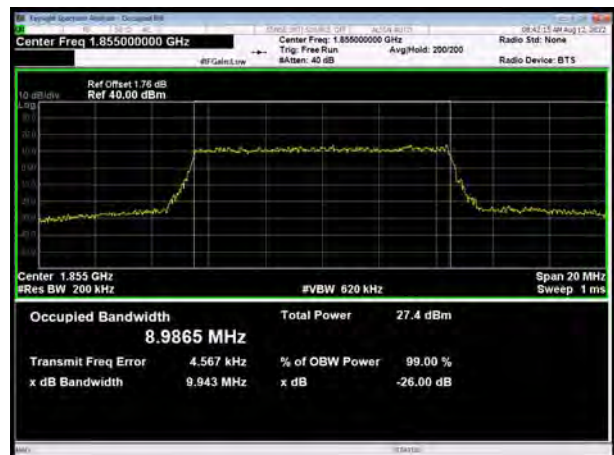
LTE Band 25 3MHz 16QAM CH-High



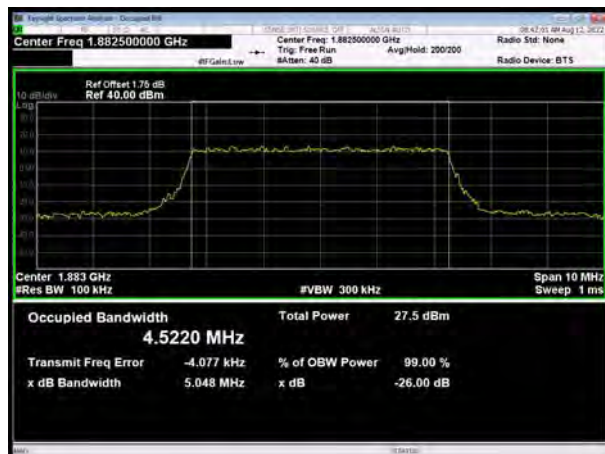
LTE Band 25 5MHz 16QAM CH-Low



LTE Band 25 10MHz 16QAM CH-Low



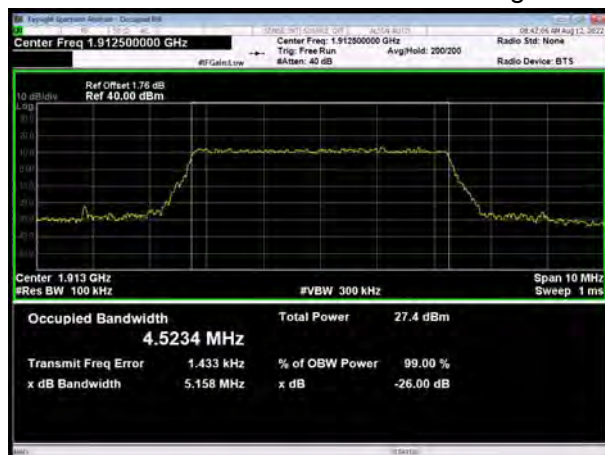
LTE Band 25 5MHz 16QAM CH-Middle



LTE Band 25 10MHz 16QAM CH-Middle



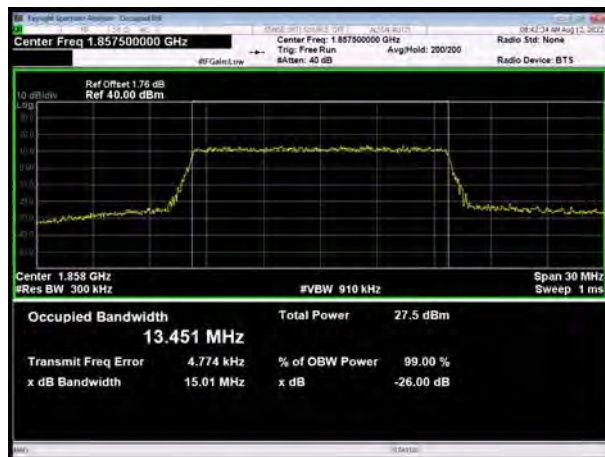
LTE Band 25 5MHz 16QAM CH-High



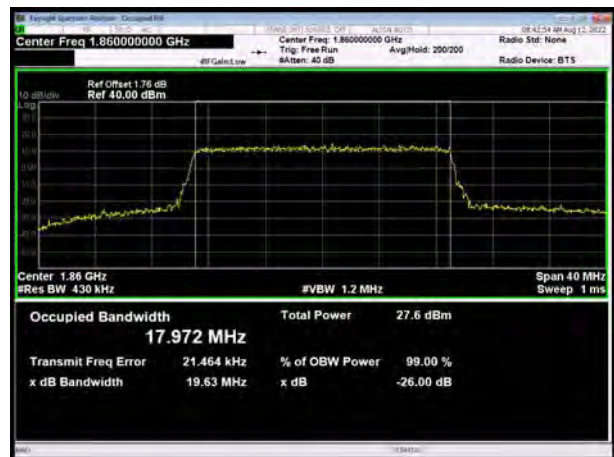
LTE Band 25 10MHz 16QAM CH-High



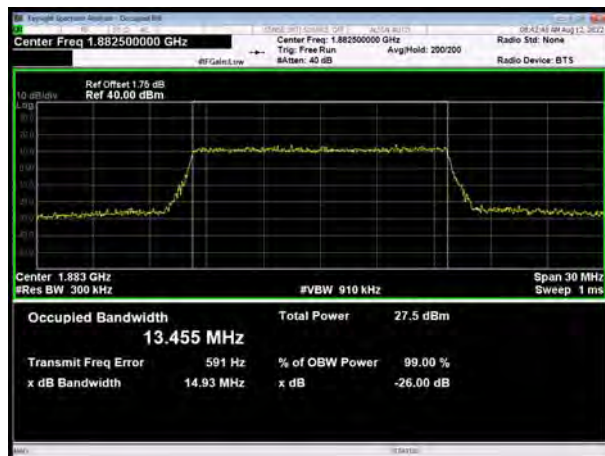
LTE Band 25 15MHz 16QAM CH-Low



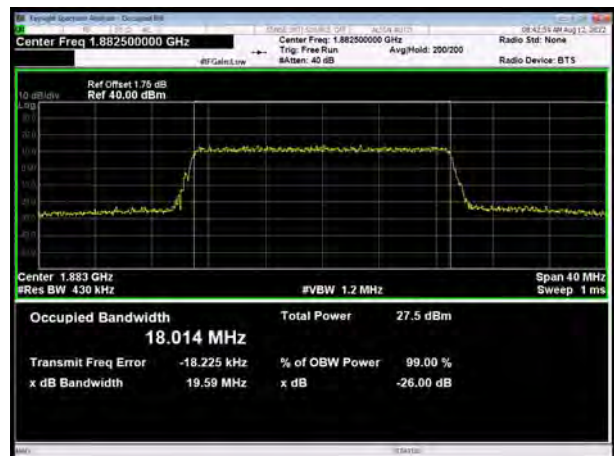
LTE Band 25 20MHz 16QAM CH-Low



LTE Band 25 15MHz 16QAM CH-Middle



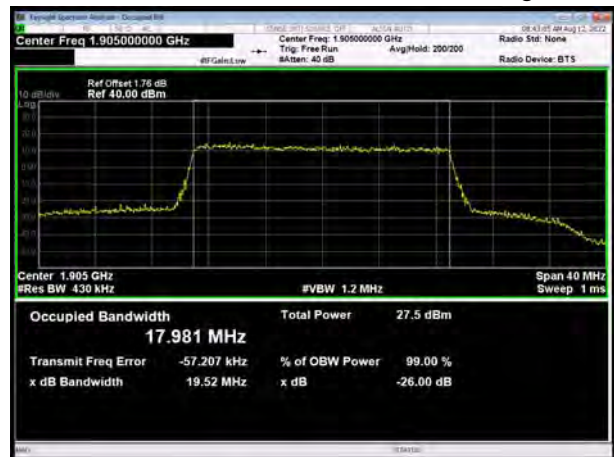
LTE Band 25 20MHz 16QAM CH-Middle



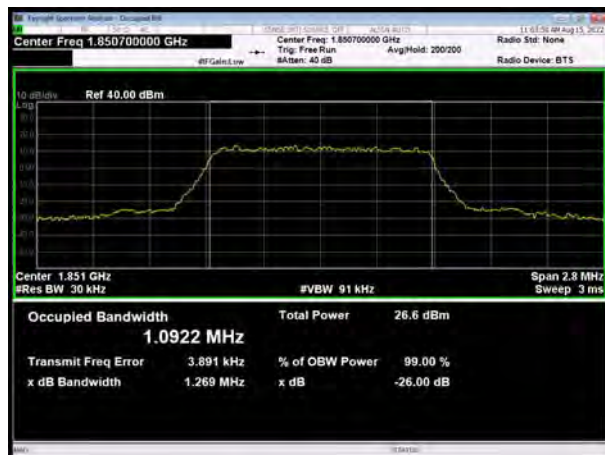
LTE Band 25 15MHz 16QAM CH-High



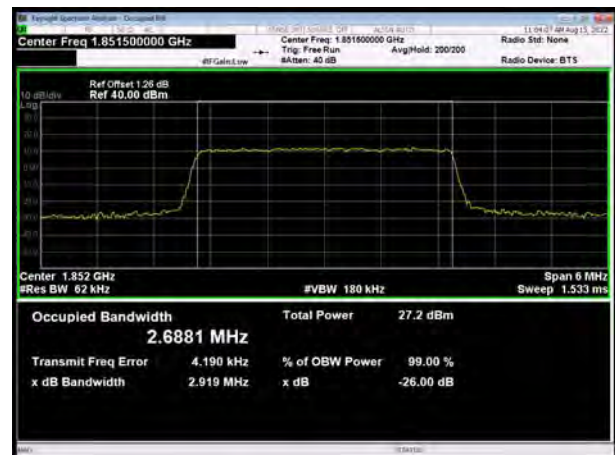
LTE Band 25 20MHz 16QAM CH-High



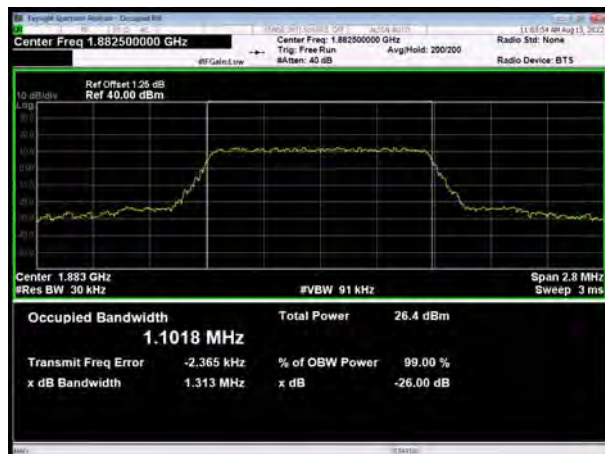
LTE Band 25 1.4MHz 64QAM CH-Low



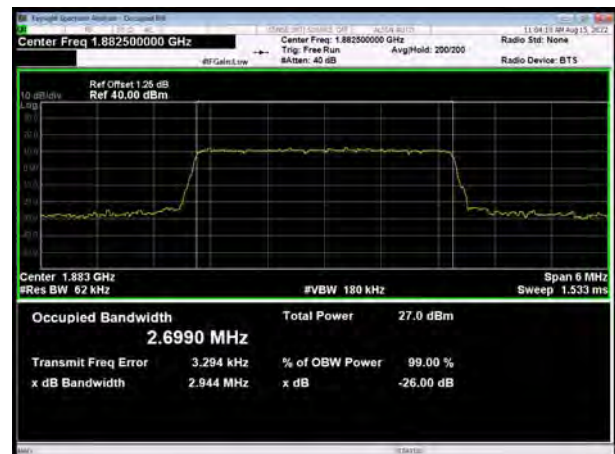
LTE Band 25 3MHz 64QAM CH-Low



LTE Band 25 1.4MHz 64QAM CH-Middle



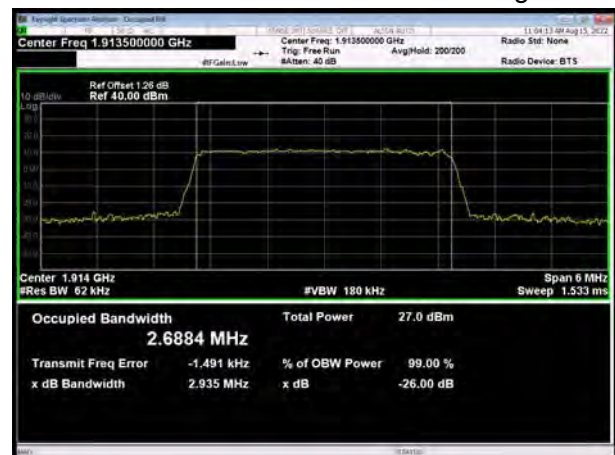
LTE Band 25 3MHz 64QAM CH-Middle



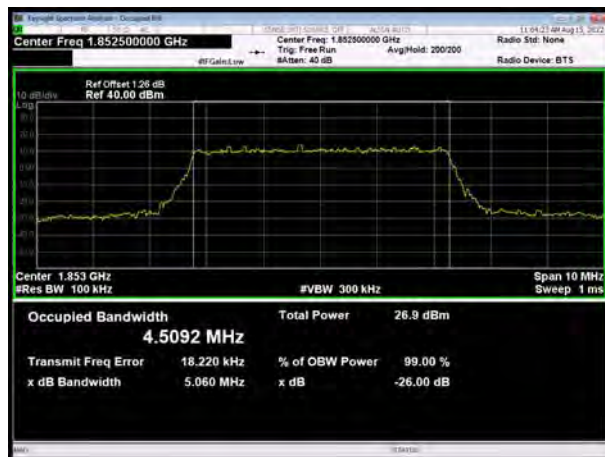
LTE Band 25 1.4MHz 64QAM CH-High



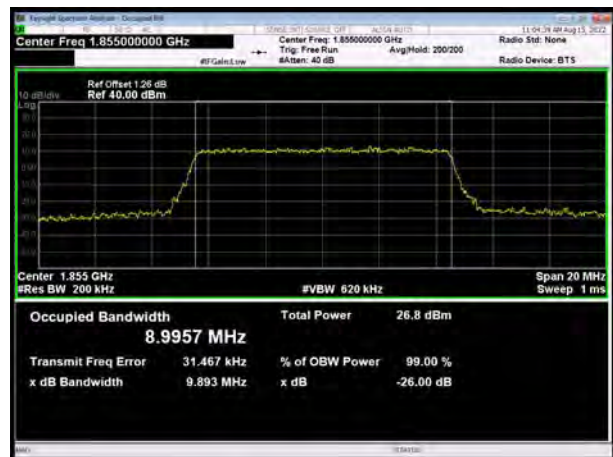
LTE Band 25 3MHz 64QAM CH-High



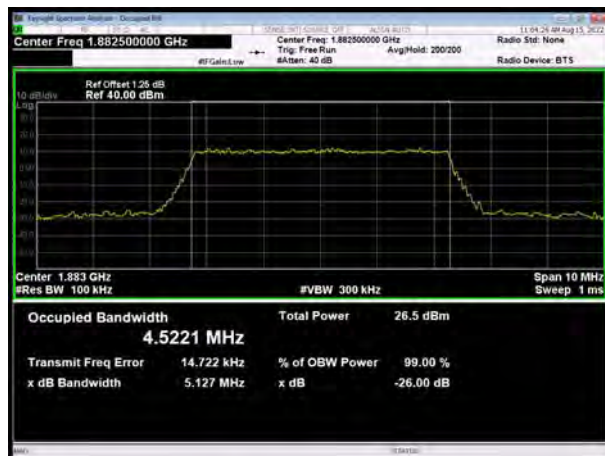
LTE Band 25 5MHz 64QAM CH-Low



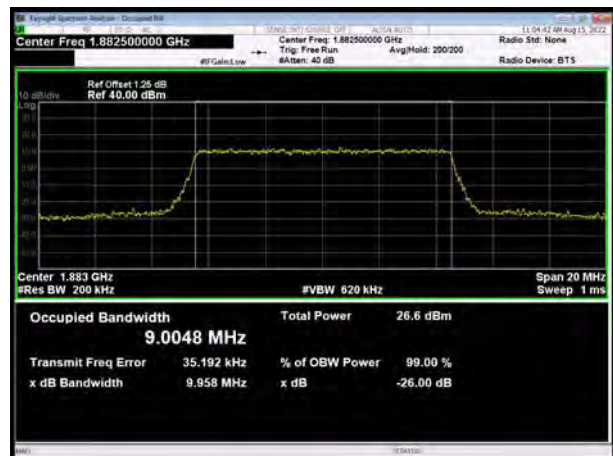
LTE Band 25 10MHz 64QAM CH-Low



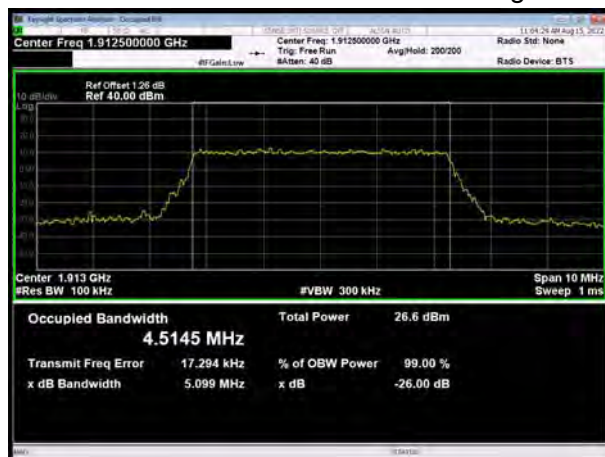
LTE Band 25 5MHz 64QAM CH-Middle



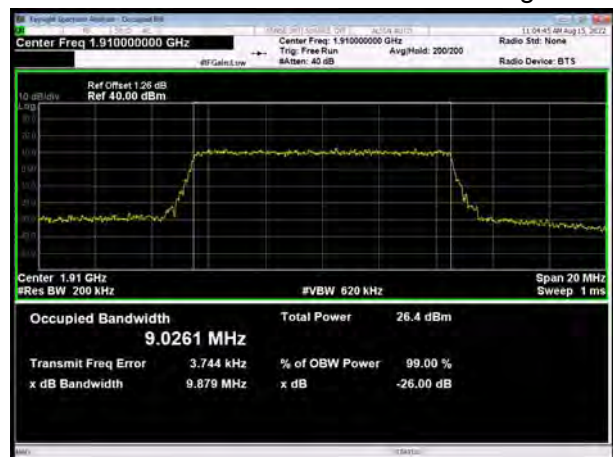
LTE Band 25 10MHz 64QAM CH-Middle



LTE Band 25 5MHz 64QAM CH-High

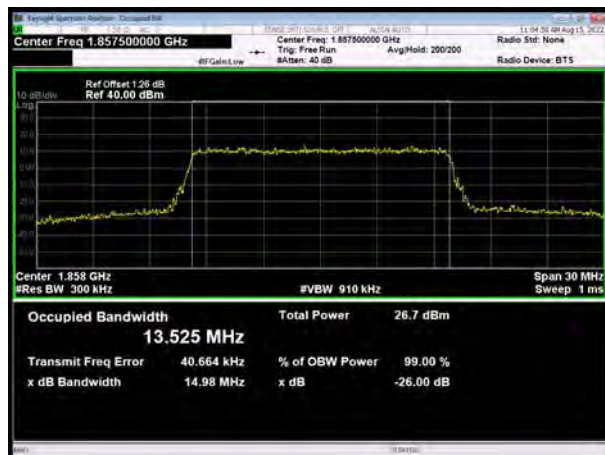


LTE Band 25 10MHz 64QAM CH-High

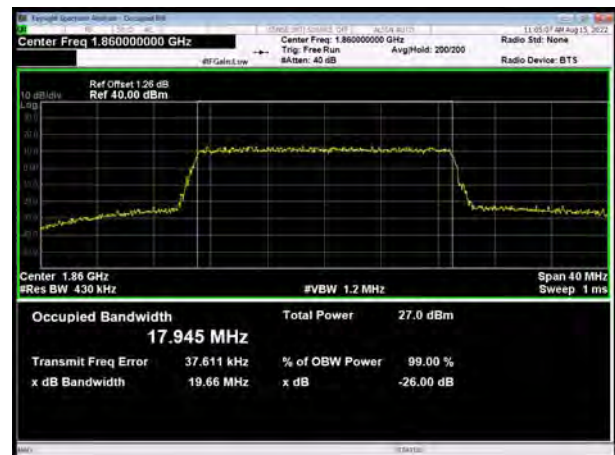




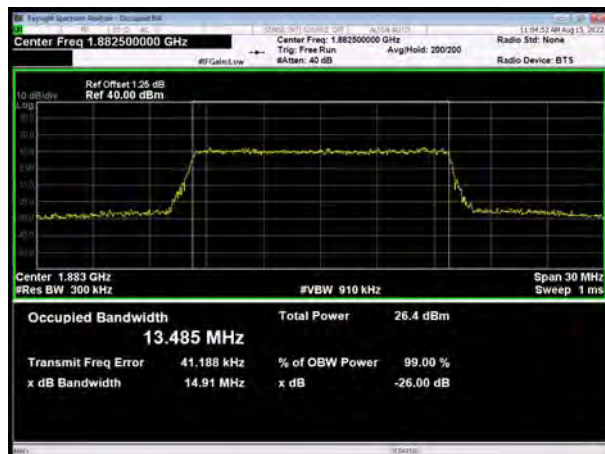
LTE Band 25 15MHz 64QAM CH-Low



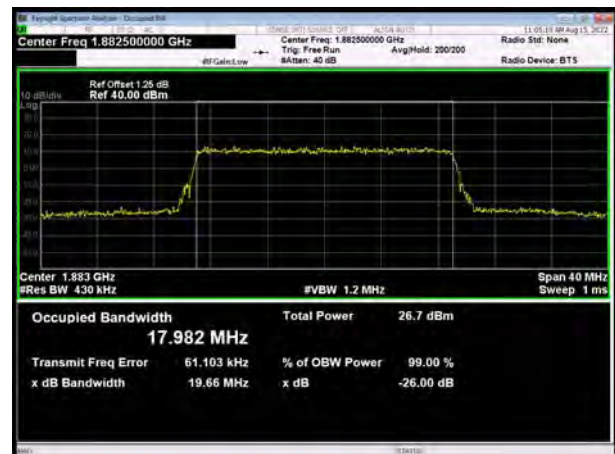
LTE Band 25 20MHz 64QAM CH-Low



LTE Band 25 15MHz 64QAM CH-Middle



LTE Band 25 20MHz 64QAM CH-Middle



LTE Band 25 15MHz 64QAM CH-High

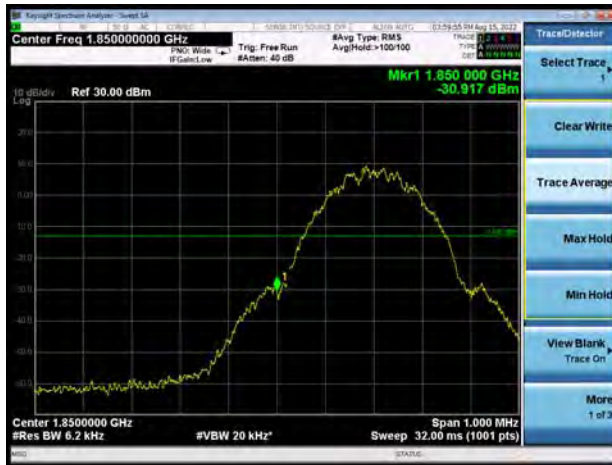


LTE Band 25 20MHz 64QAM CH-High



6.3. Band Edge Compliance

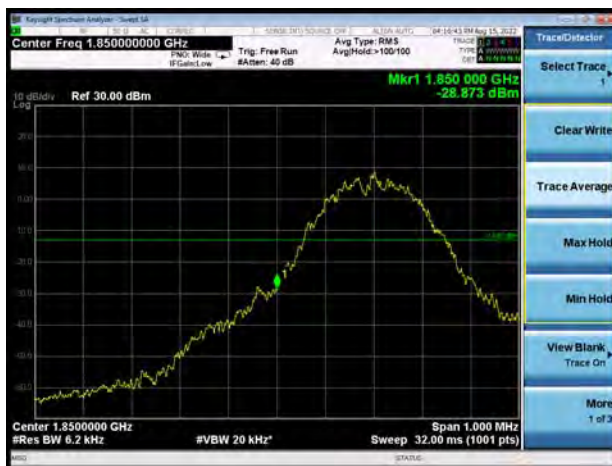
GSM1900 GPRS CH-Low



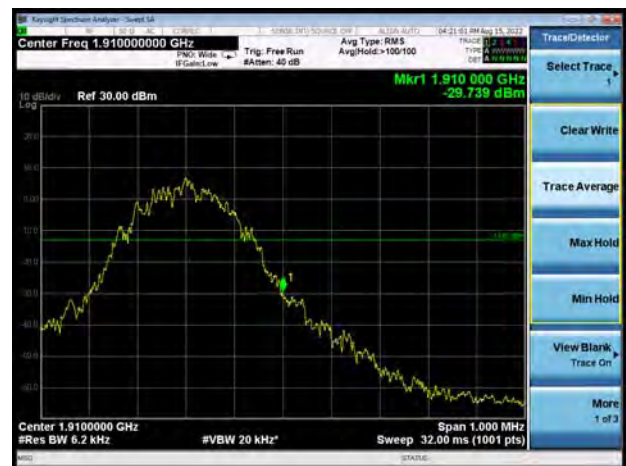
GSM 1900 GPRS CH-High



GSM1900 EGPRS CH-Low



GSM 1900 EGPRS CH-High



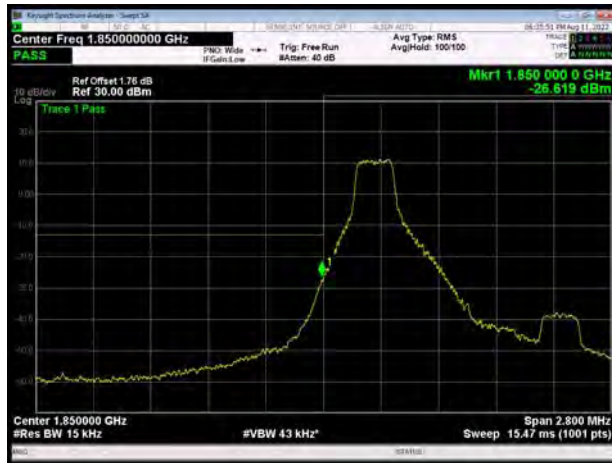
WCDMA Band II RMC CH-Low



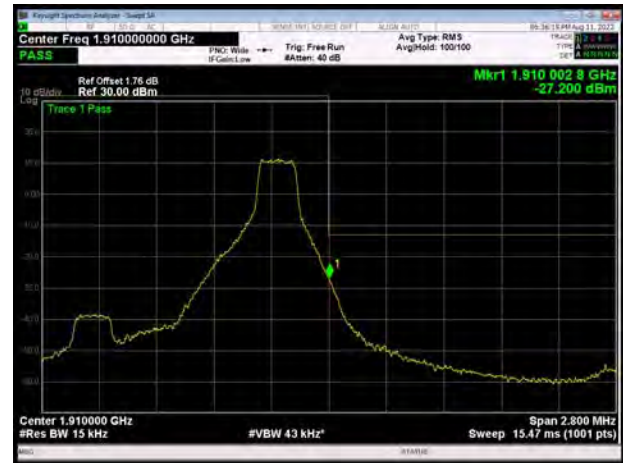
WCDMA Band II RMC CH-High



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



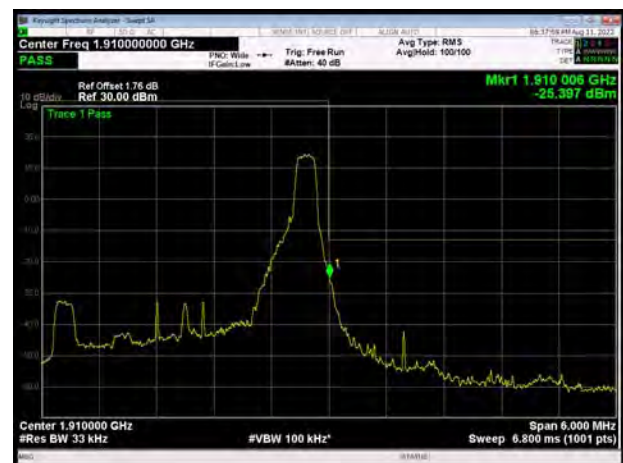
LTE Band 2 1.4MHz QPSK 100%RB CH-High



LTE Band 2 3MHz QPSK 1RB CH-Low



LTE Band 2 3MHz QPSK 1RB CH-High

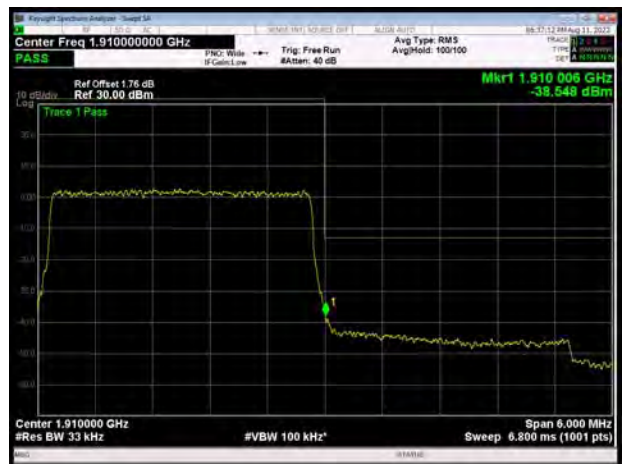




LTE Band 2 3MHz QPSK 100%RB CH-Low



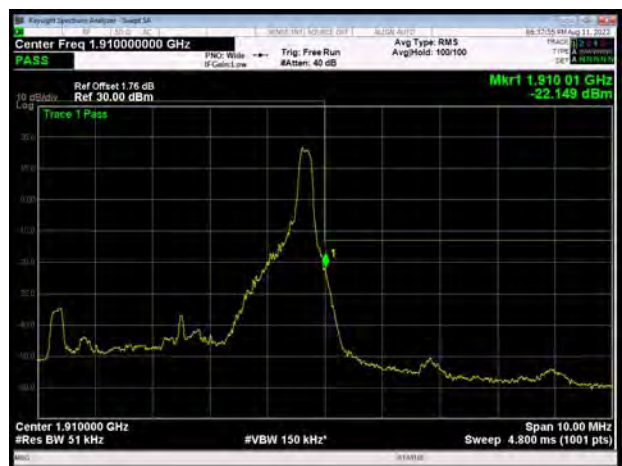
LTE Band 2 3MHz QPSK 100%RB CH-High



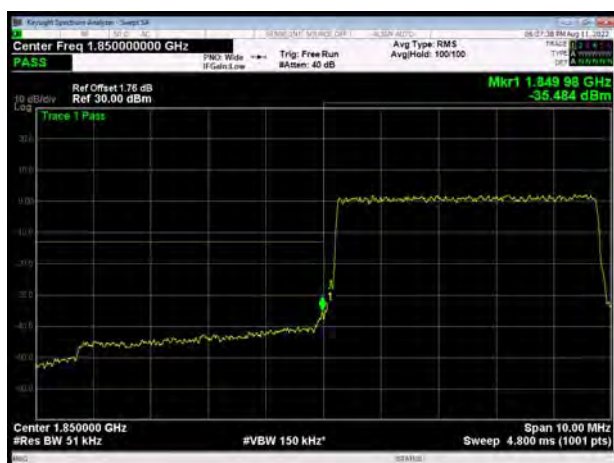
LTE Band 2 5MHz QPSK 1RB CH-Low



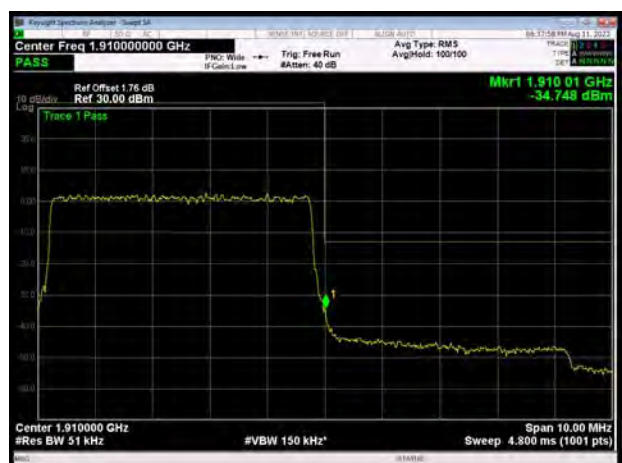
LTE Band 2 5MHz QPSK 1RB CH-High



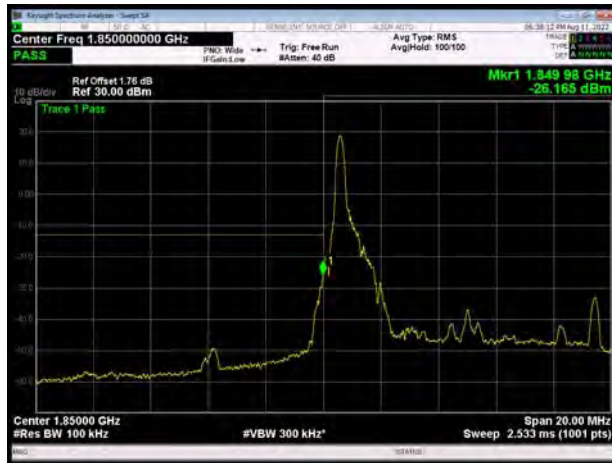
LTE Band 2 5MHz QPSK 100%RB CH-Low



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



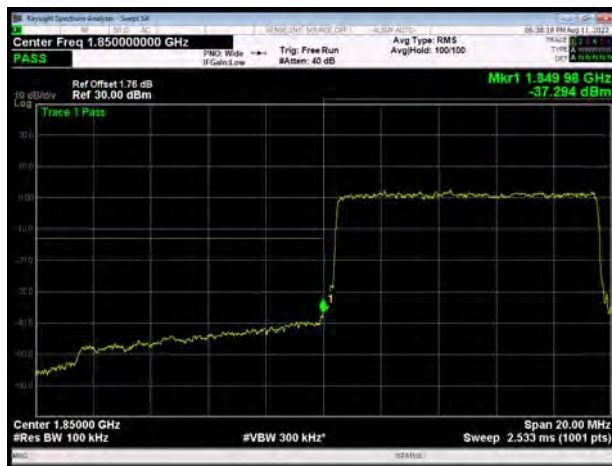
LTE Band 2 10MHz QPSK 1RB CH-Low



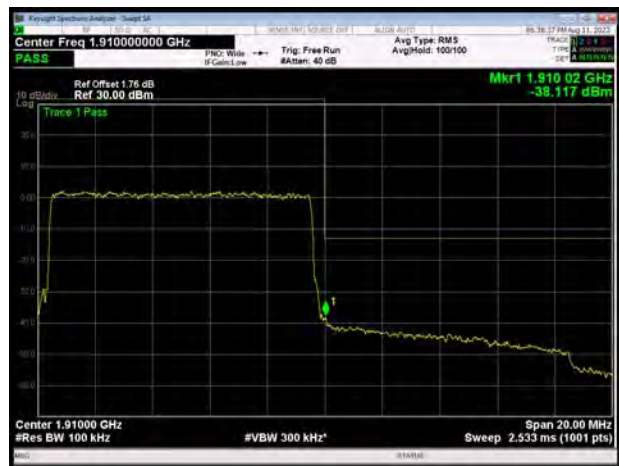
LTE Band 2 10MHz QPSK 1RB CH-High



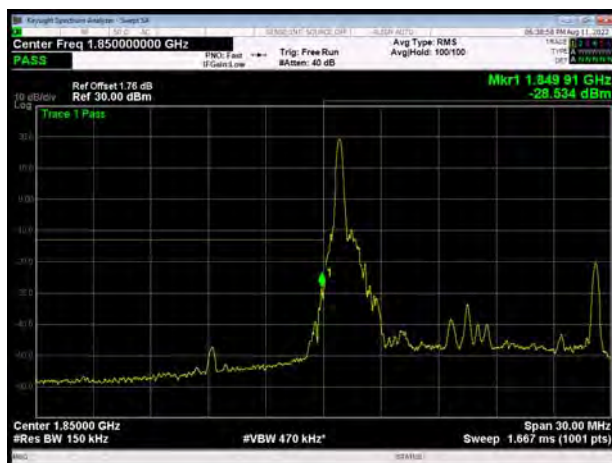
LTE Band 2 10MHz QPSK 100%RB CH-Low



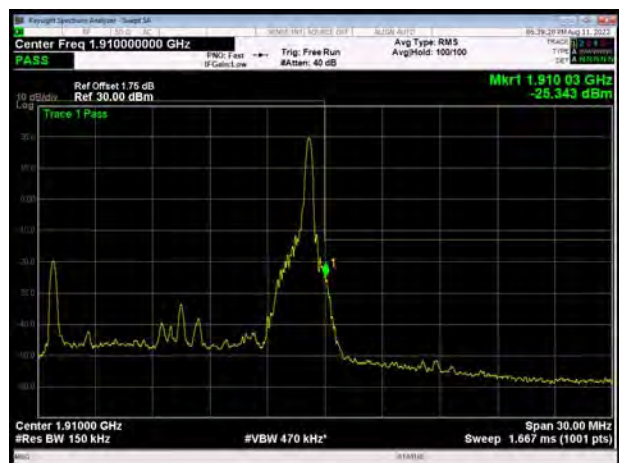
LTE Band 2 10MHz QPSK 100%RB CH-High



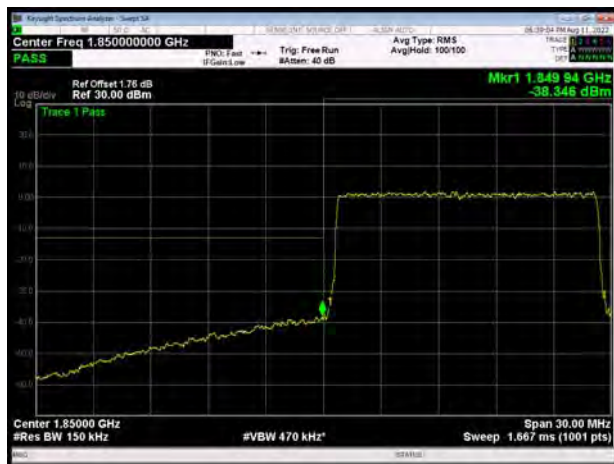
LTE Band 2 15MHz QPSK 1RB CH-Low



LTE Band 2 15MHz QPSK 1RB CH-High



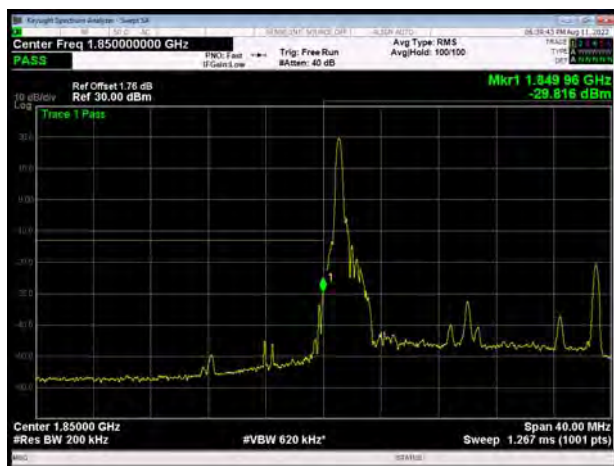
LTE Band 2 15MHz QPSK 100%RB CH-Low



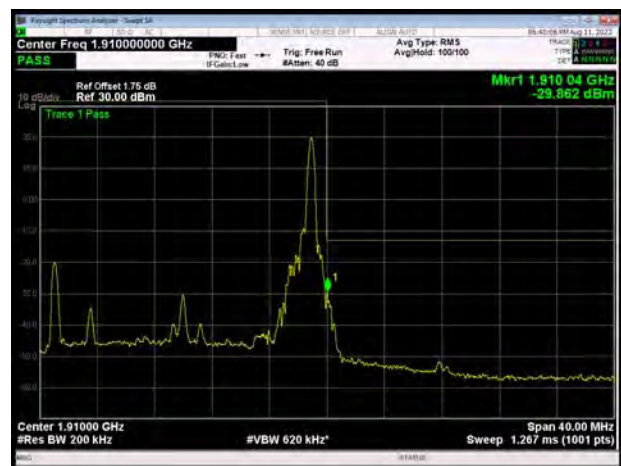
LTE Band 2 15MHz QPSK 100%RB CH-High



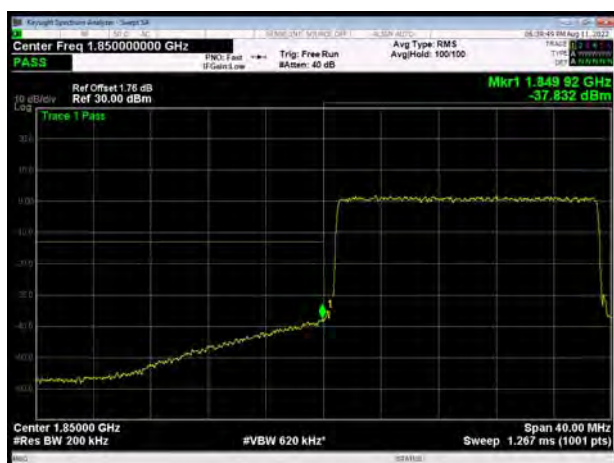
LTE Band 2 20MHz QPSK 1RB CH-Low



LTE Band 2 20MHz QPSK 1RB CH-High



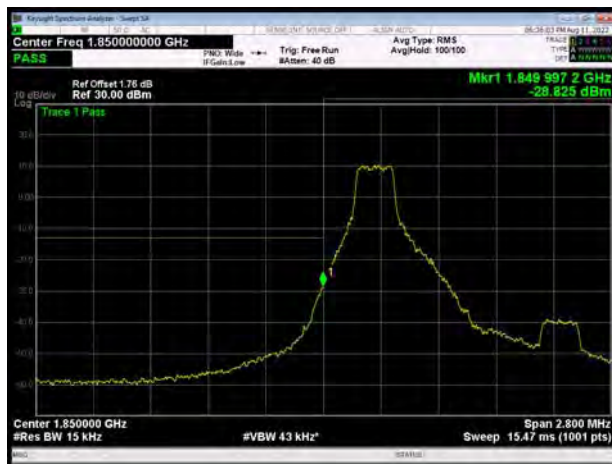
LTE Band 2 20MHz QPSK 100%RB CH-Low



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



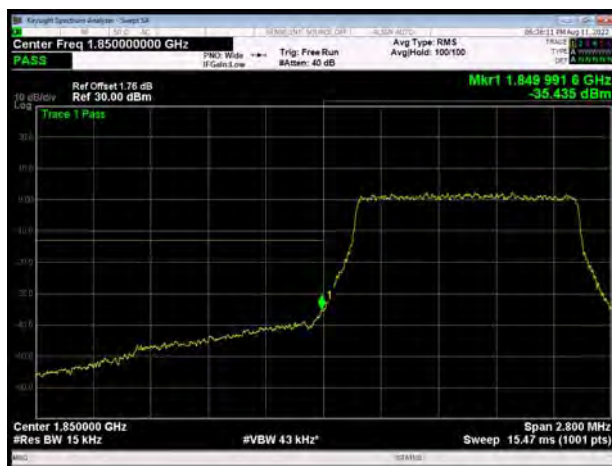
LTE Band 2 1.4MHz 16QAM 1RB CH-Low



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



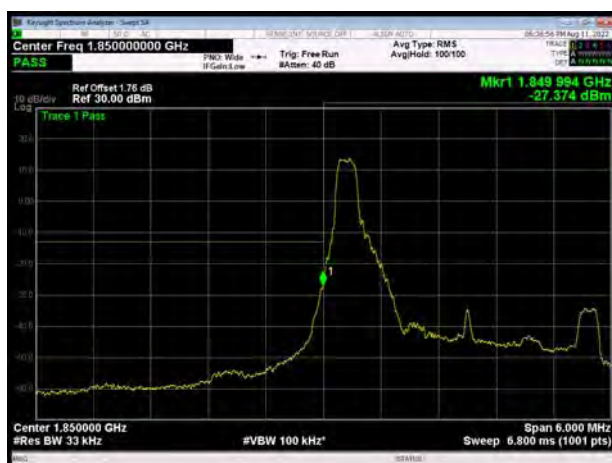
LTE Band 2 1.4MHz 16QAM 100%RB CH-Low



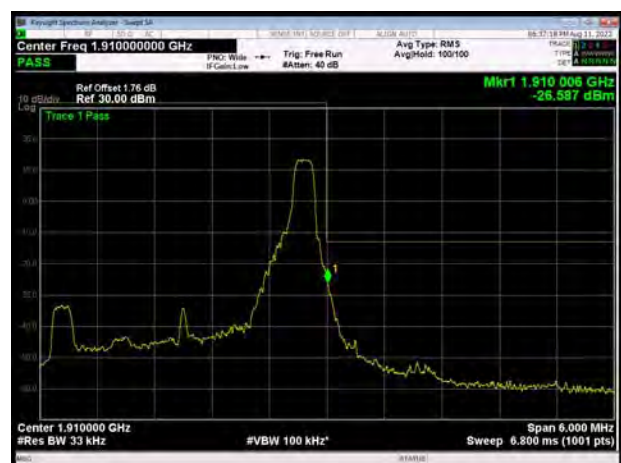
LTE Band 2 1.4MHz 16QAM 100%RB CH-High



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



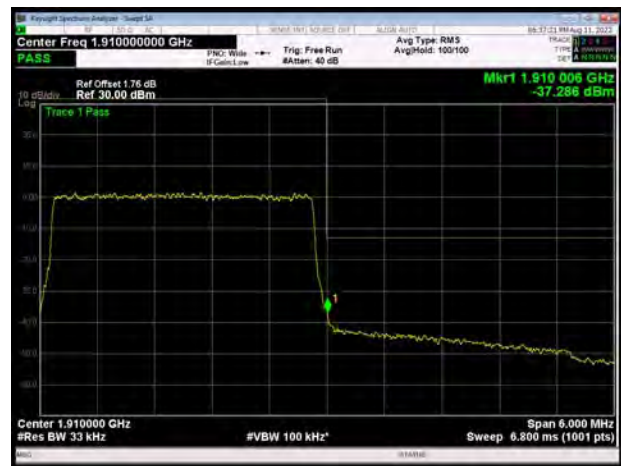
LTE Band 2 3MHz 16QAM 1RB CH-High



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



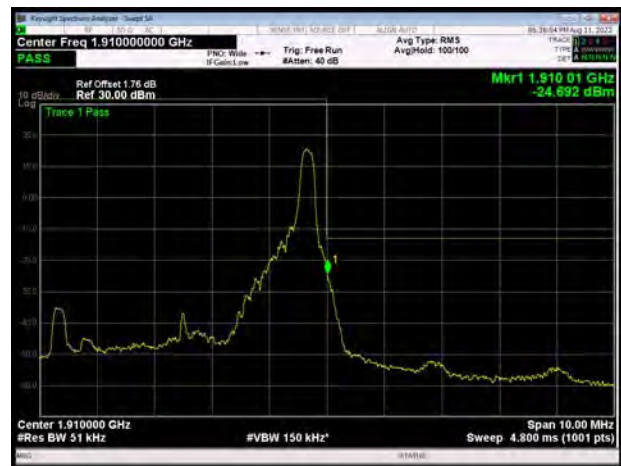
LTE Band 2 3MHz 16QAM 100%RB CH-High



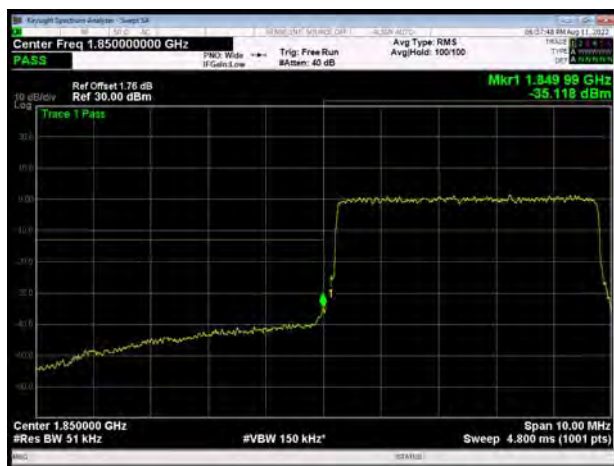
LTE Band 2 5MHz 16QAM 1RB CH-Low



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



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



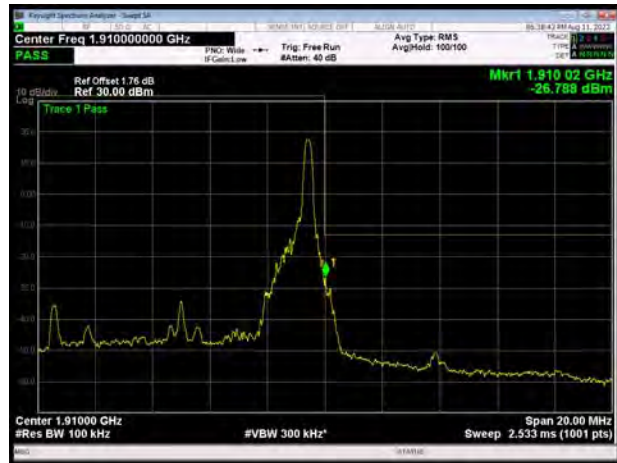
LTE Band 2 5MHz 16QAM 100%RB CH-High



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



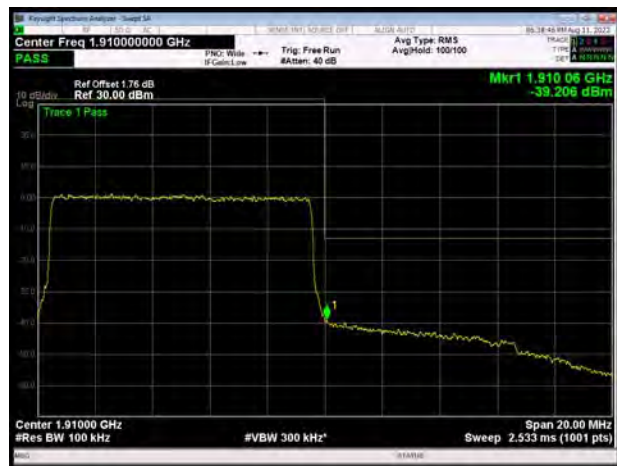
LTE Band 2 10MHz 16QAM 1RB CH-High



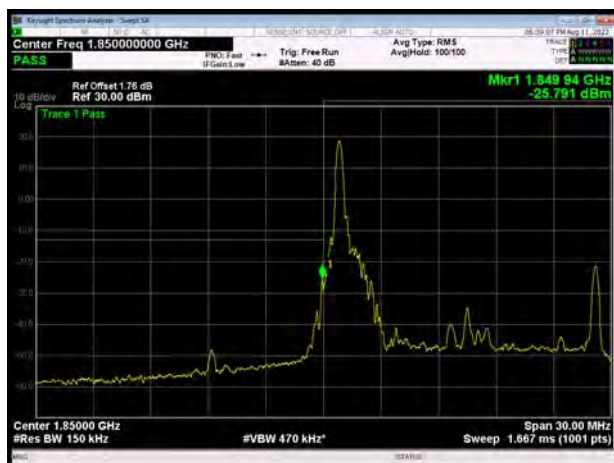
LTE Band 2 10MHz 16QAM 100%RB CH-Low



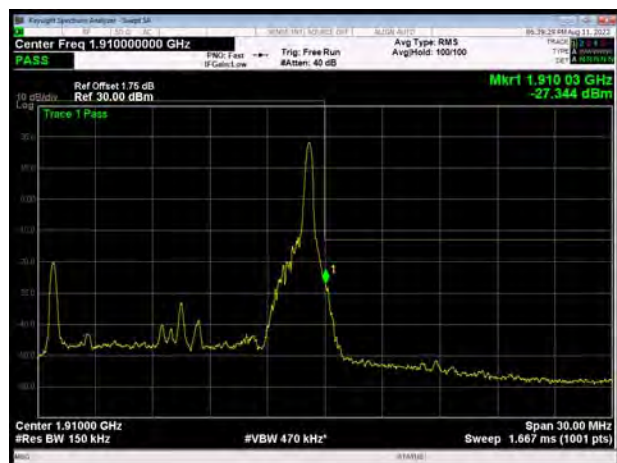
LTE Band 2 10MHz 16QAM 100%RB CH-High



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



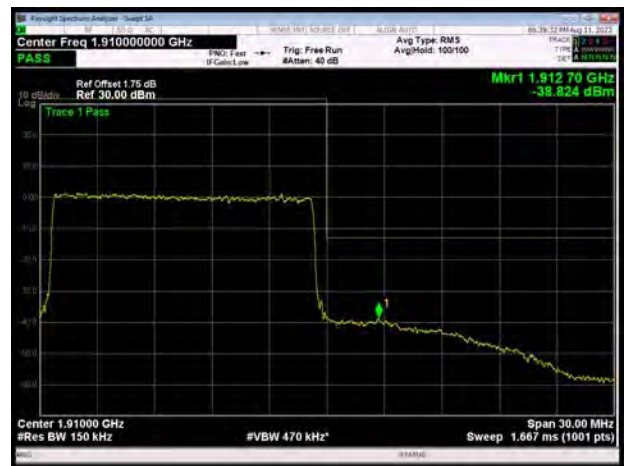
LTE Band 2 15MHz 16QAM 1RB CH-High



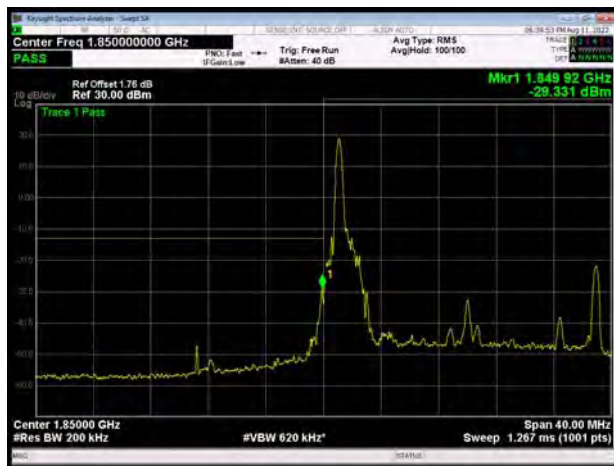
LTE Band 2 15MHz 16QAM 100%RB CH-Low



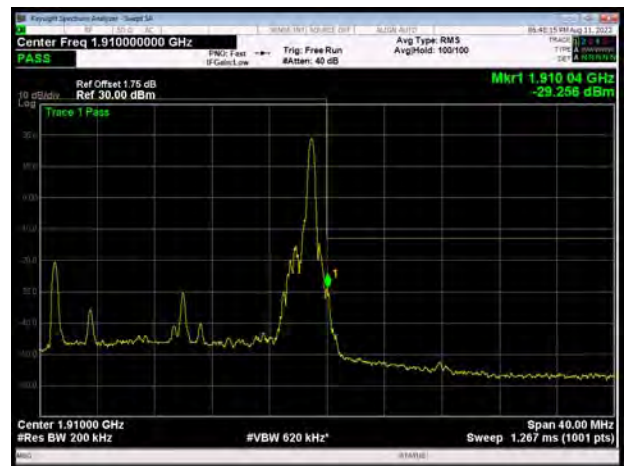
LTE Band 2 15MHz 16QAM 100%RB CH-High



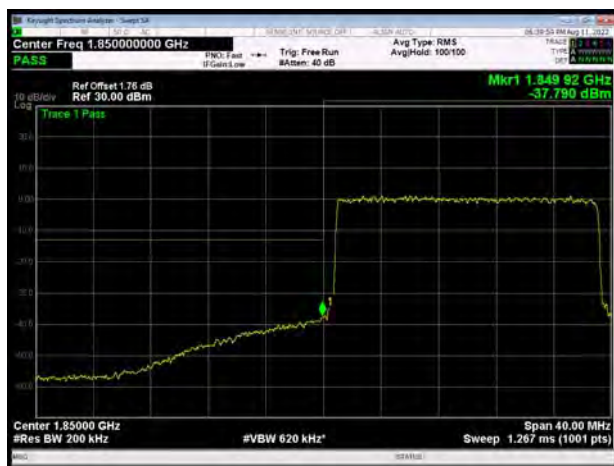
LTE Band 2 20MHz 16QAM 1RB CH-Low



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



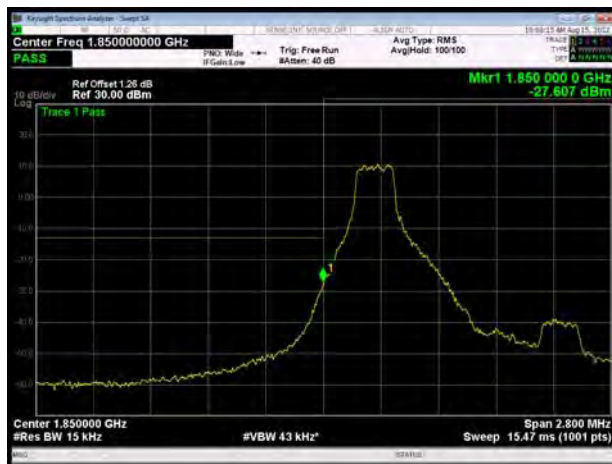
LTE Band 2 20MHz 16QAM 100%RB CH-Low



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



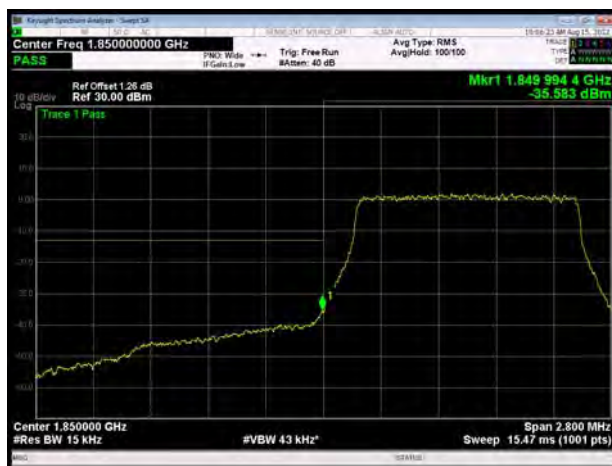
LTE Band 2 1.4MHz 64QAM 1RB CH-Low



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



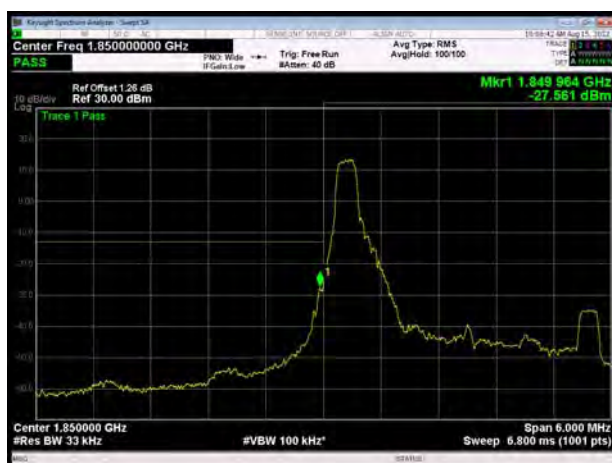
LTE Band 2 1.4MHz 64QAM 100%RB CH-Low



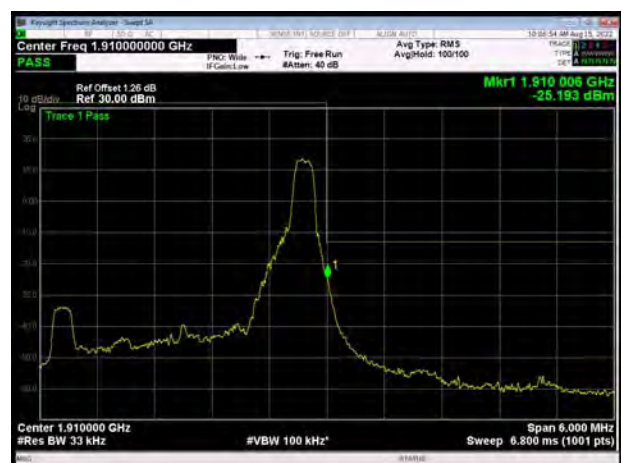
LTE Band 2 1.4MHz 64QAM 100%RB CH-High



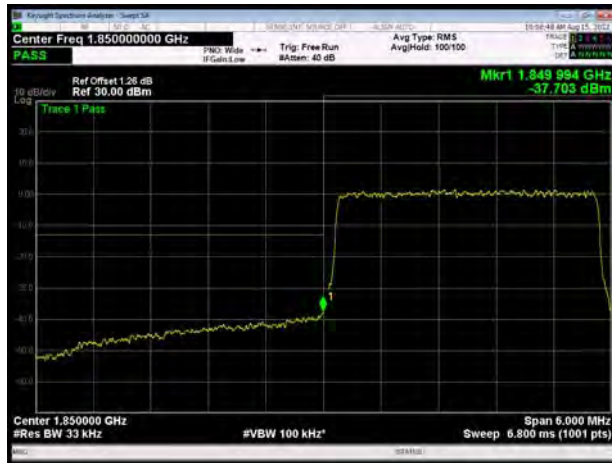
LTE Band 2 3MHz 64QAM 1RB CH-Low



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



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



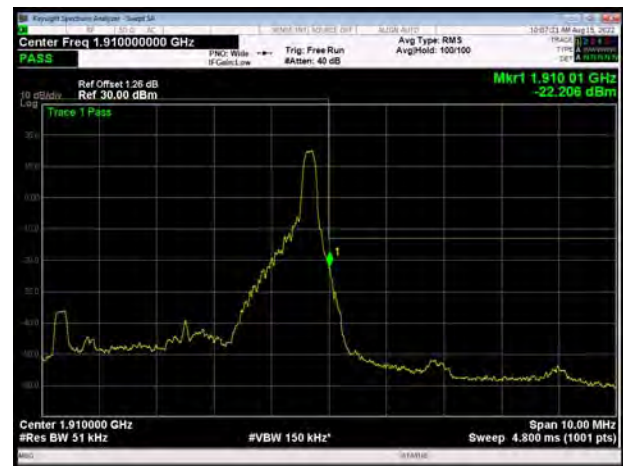
LTE Band 2 3MHz 64QAM 100%RB CH-High



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



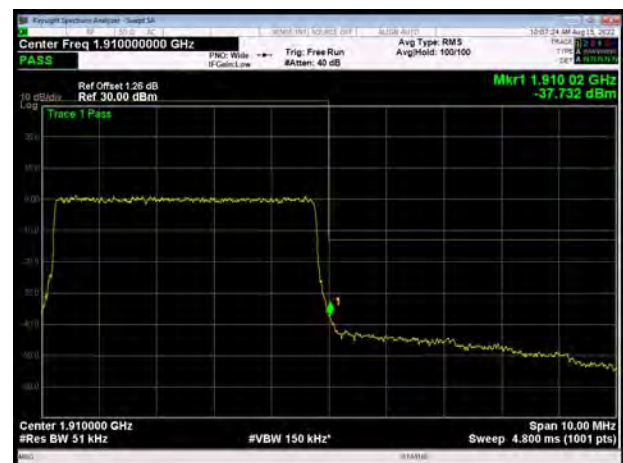
LTE Band 2 5MHz 64QAM 1RB CH-High



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



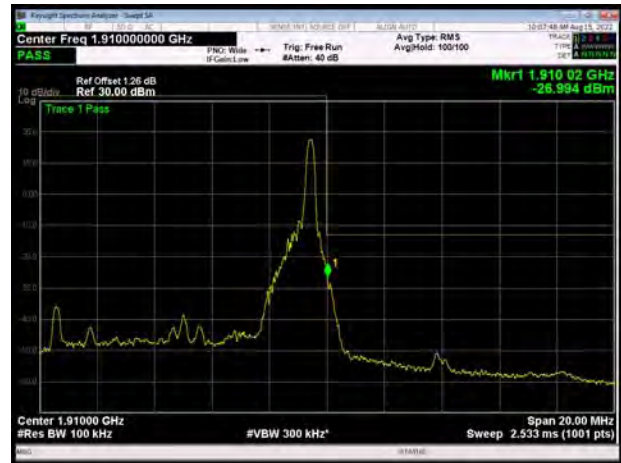
LTE Band 2 5MHz 64QAM 100%RB CH-High



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



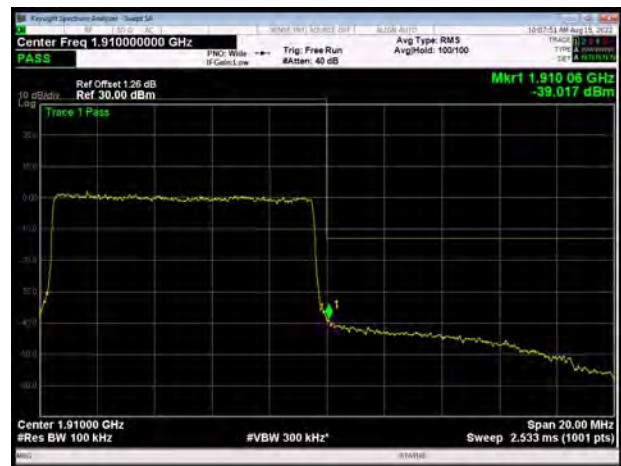
LTE Band 2 10MHz 64QAM 1RB CH-High



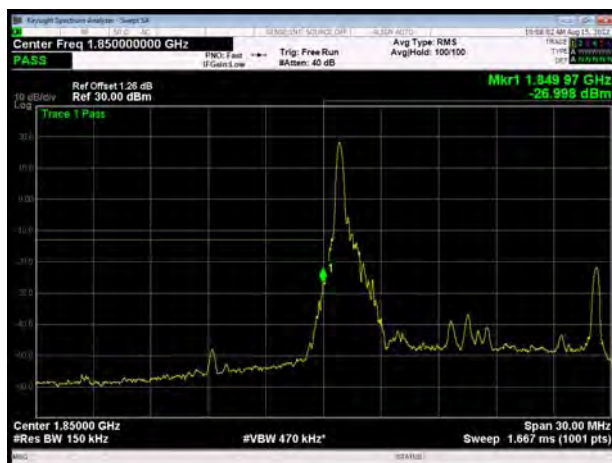
LTE Band 2 10MHz 64QAM 100%RB CH-Low



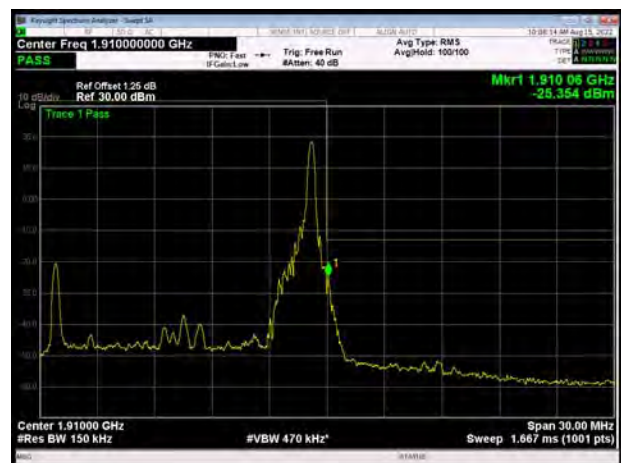
LTE Band 2 10MHz 64QAM 100%RB CH-High



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

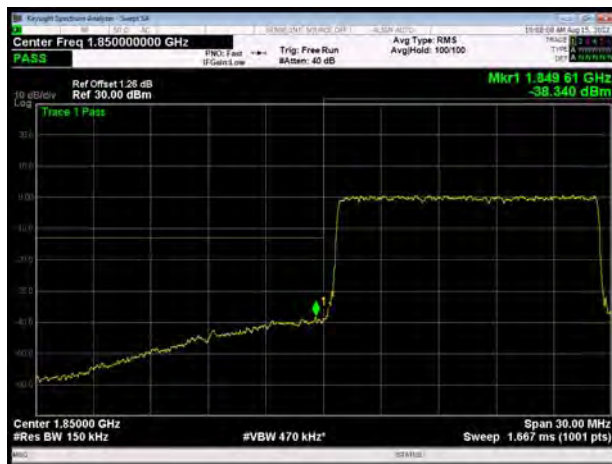


LTE Band 2 15MHz 64QAM 1RB CH-High





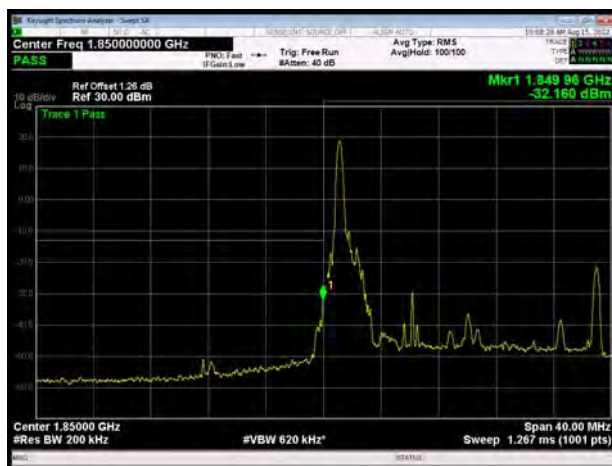
LTE Band 2 15MHz 64QAM 100%RB CH-Low



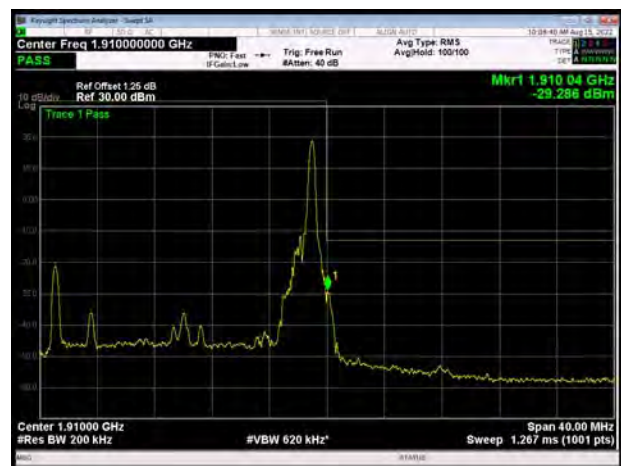
LTE Band 2 15MHz 64QAM 100%RB CH-High



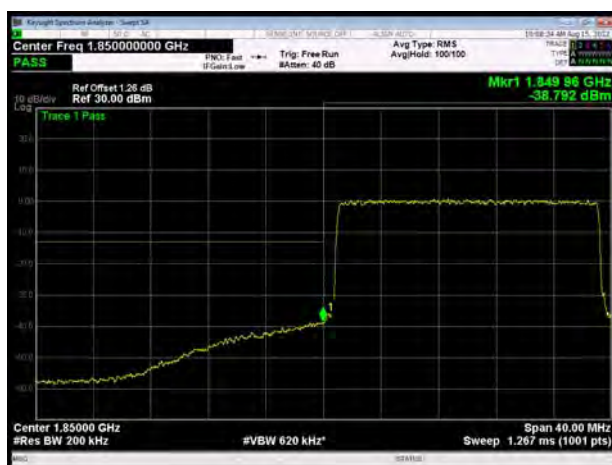
LTE Band 2 20MHz 64QAM 1RB CH-Low



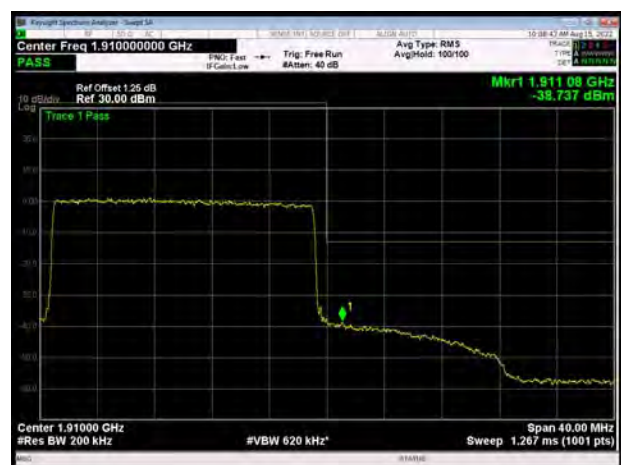
LTE Band 2 20MHz 64QAM 1RB CH-High



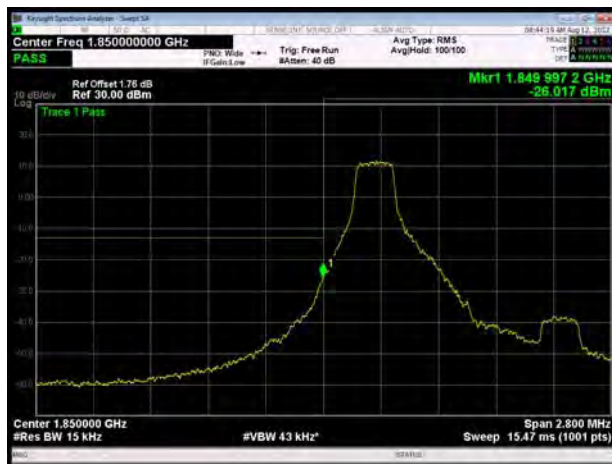
LTE Band 2 20MHz 64QAM 100%RB CH-Low



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



LTE Band 25 1.4MHz QPSK 1RB CH-Low



LTE Band 25 1.4MHz QPSK 1RB CH-High



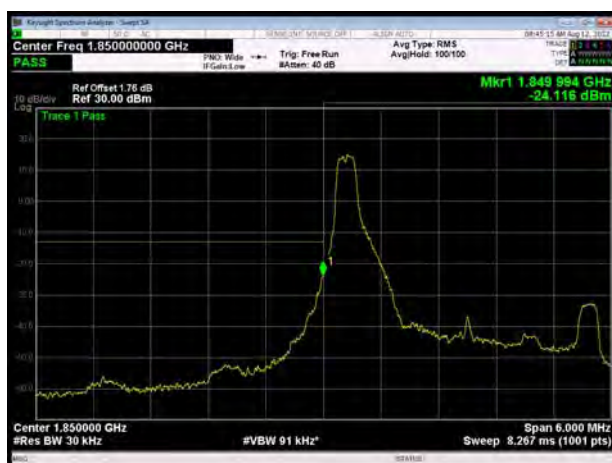
LTE Band 25 1.4MHz QPSK 100%RB CH-Low



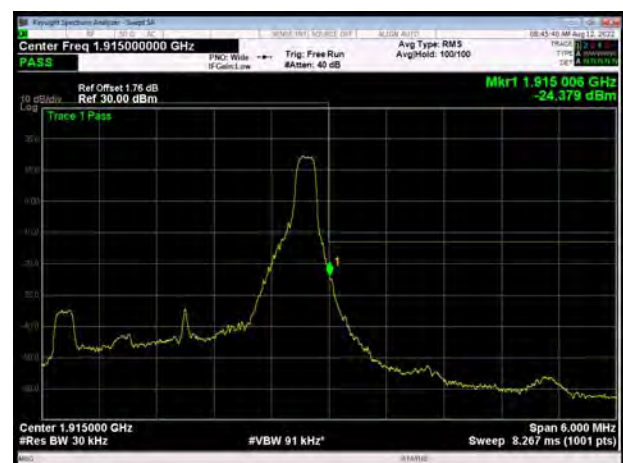
LTE Band 25 1.4MHz QPSK 100%RB CH-High



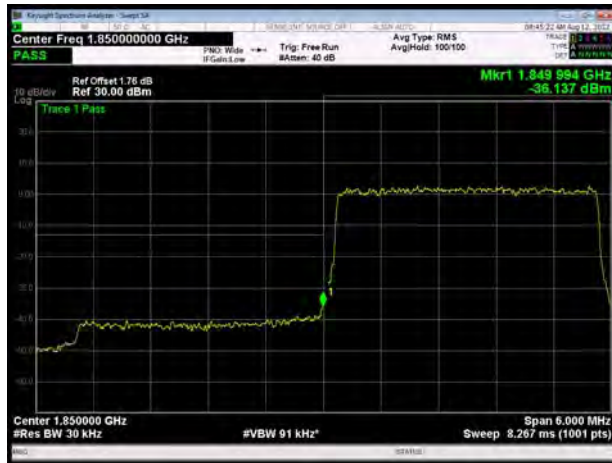
LTE Band 25 3MHz QPSK 1RB CH-Low



LTE Band 25 3MHz QPSK 1RB CH-High



LTE Band 25 3MHz QPSK 100%RB CH-Low



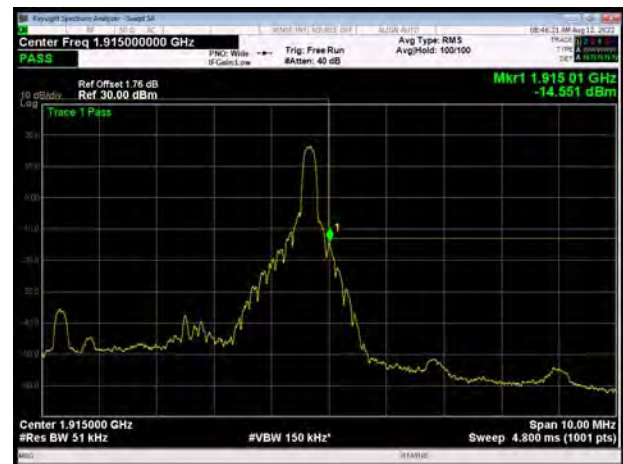
LTE Band 25 3MHz QPSK 100%RB CH-High



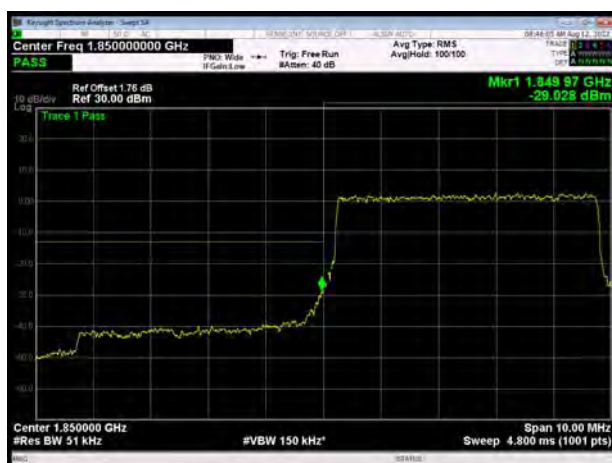
LTE Band 25 5MHz QPSK 1RB CH-Low



LTE Band 25 5MHz QPSK 1RB CH-High



LTE Band 25 5MHz QPSK 100%RB CH-Low



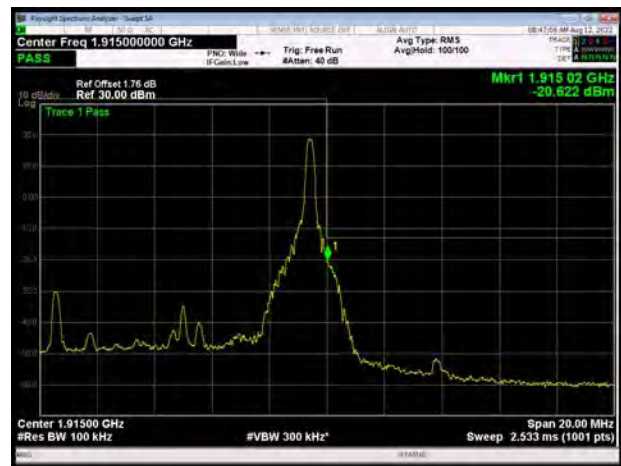
LTE Band 25 5MHz QPSK 100%RB CH-High



LTE Band 25 10MHz QPSK 1RB CH-Low



LTE Band 25 10MHz QPSK 1RB CH-High



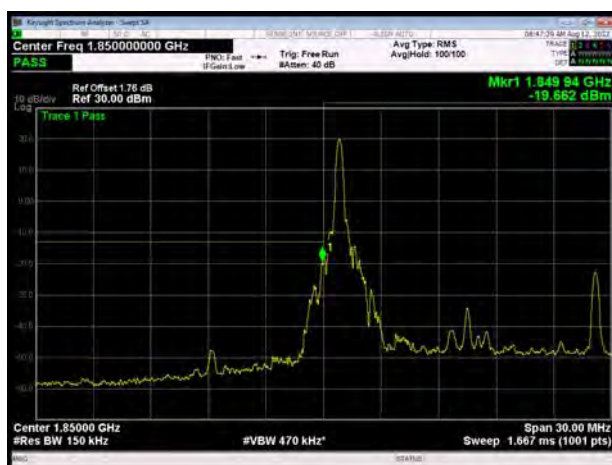
LTE Band 25 10MHz QPSK 100%RB CH-Low



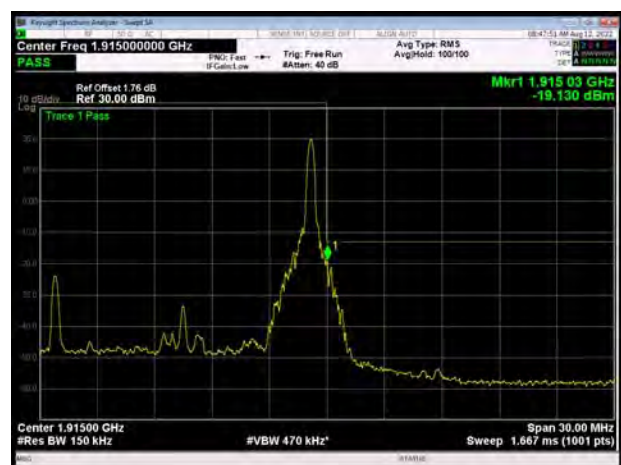
LTE Band 25 10MHz QPSK 100%RB CH-High



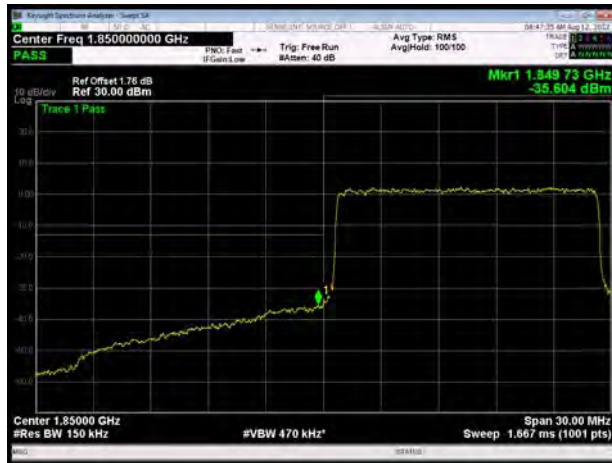
LTE Band 25 15MHz QPSK 1RB CH-Low



LTE Band 25 15MHz QPSK 1RB CH-High



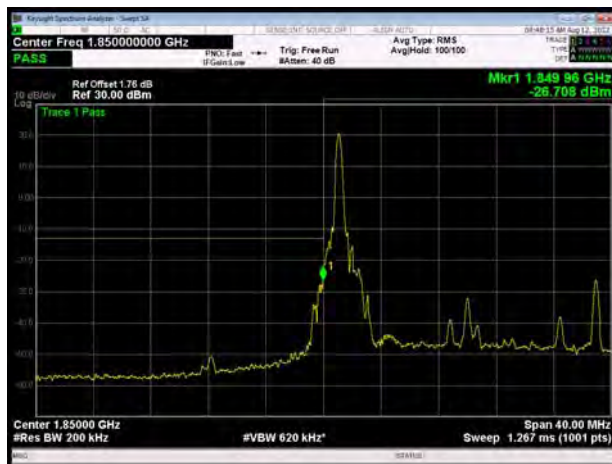
LTE Band 25 15MHz QPSK 100%RB CH-Low



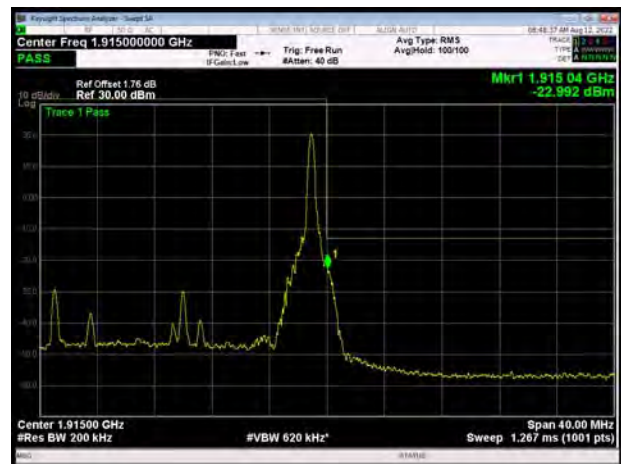
LTE Band 25 15MHz QPSK 100%RB CH-High



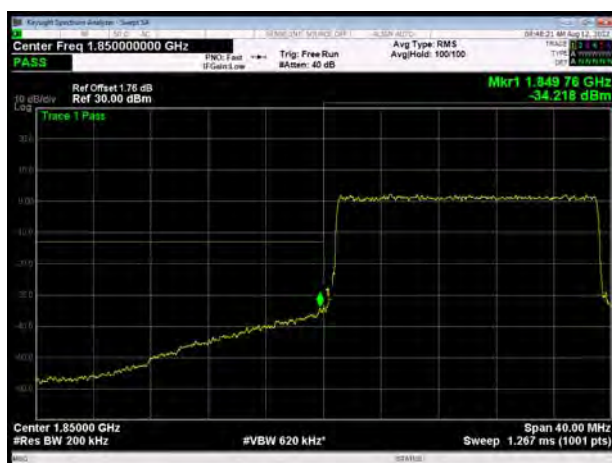
LTE Band 25 20MHz QPSK 1RB CH-Low



LTE Band 25 20MHz QPSK 1RB CH-High



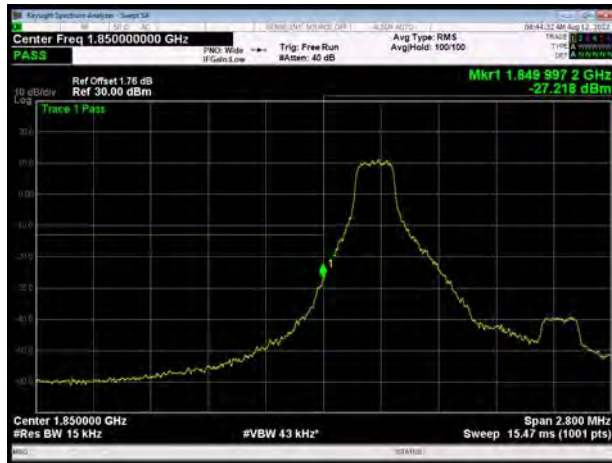
LTE Band 25 20MHz QPSK 100%RB CH-Low



LTE Band 25 20MHz QPSK 100%RB CH-High



LTE Band 25 1.4MHz 16QAM 1RB CH-Low



LTE Band 25 1.4MHz 16QAM 1RB CH-High



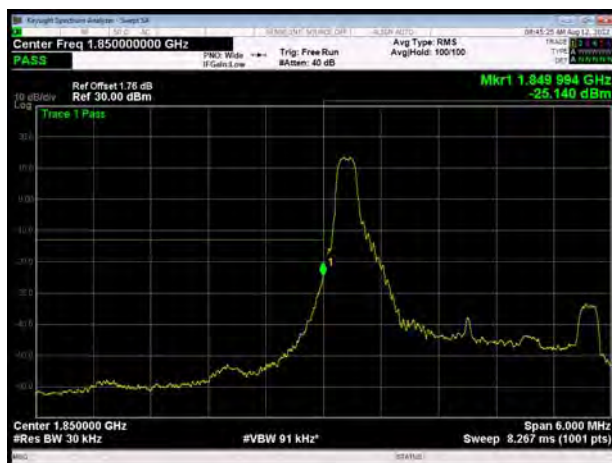
LTE Band 25 1.4MHz 16QAM 100%RB CH-Low



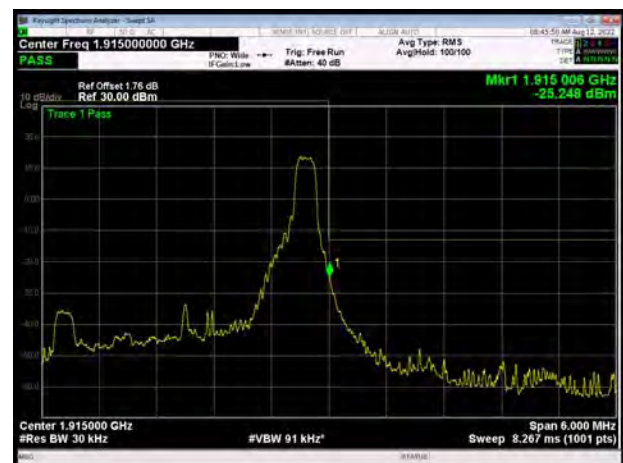
LTE Band 25 1.4MHz 16QAM 100%RB CH-High



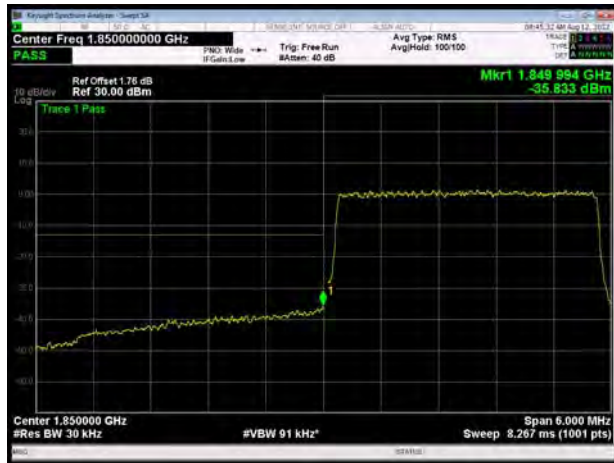
LTE Band 25 3MHz 16QAM 1RB CH-Low



LTE Band 25 3MHz 16QAM 1RB CH-High



LTE Band 25 3MHz 16QAM 100%RB CH-Low



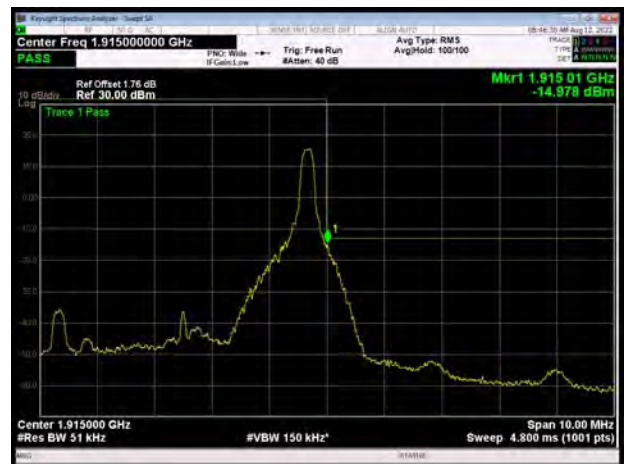
LTE Band 25 3MHz 16QAM 100%RB CH-High



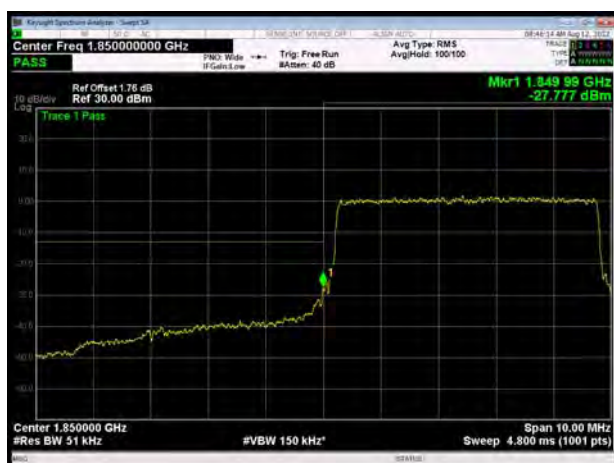
LTE Band 25 5MHz 16QAM 1RB CH-Low



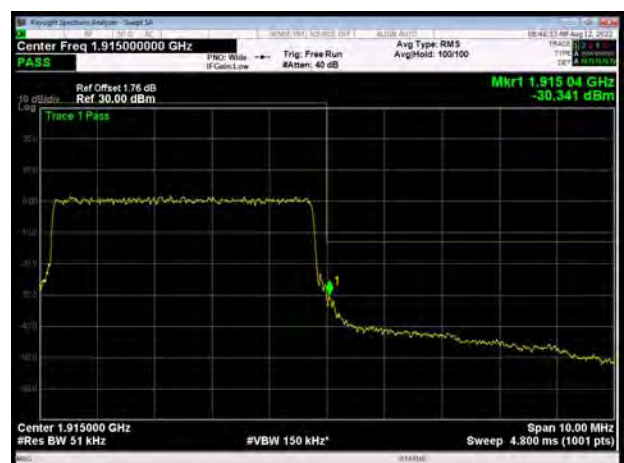
LTE Band 25 5MHz 16QAM 1RB CH-High



LTE Band 25 5MHz 16QAM 100%RB CH-Low



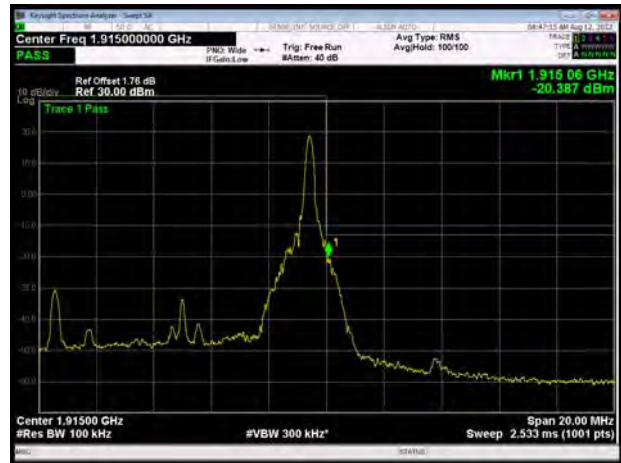
LTE Band 25 5MHz 16QAM 100%RB CH-High



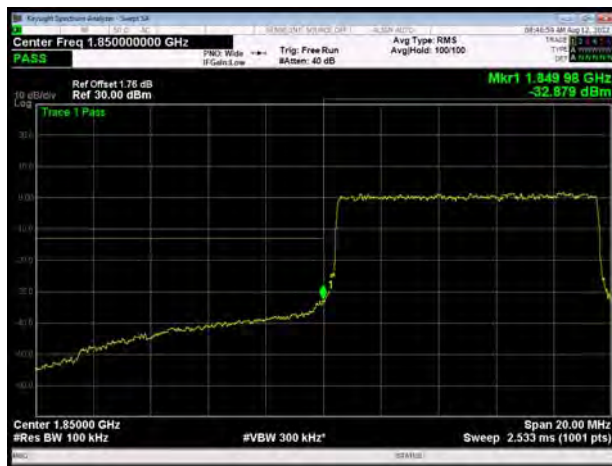
LTE Band 25 10MHz 16QAM 1RB CH-Low



LTE Band 25 10MHz 16QAM 1RB CH-High



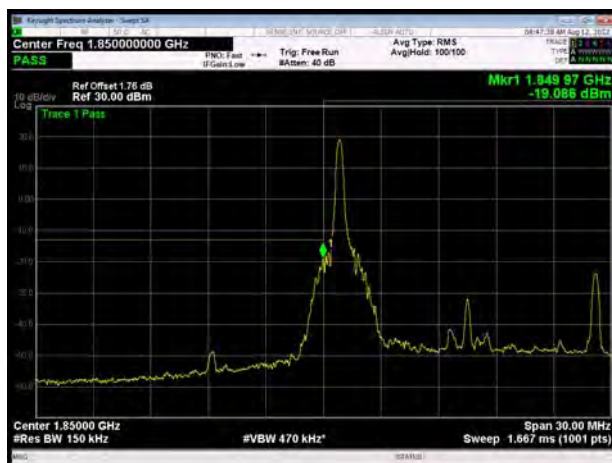
LTE Band 25 10MHz 16QAM 100%RB CH-Low



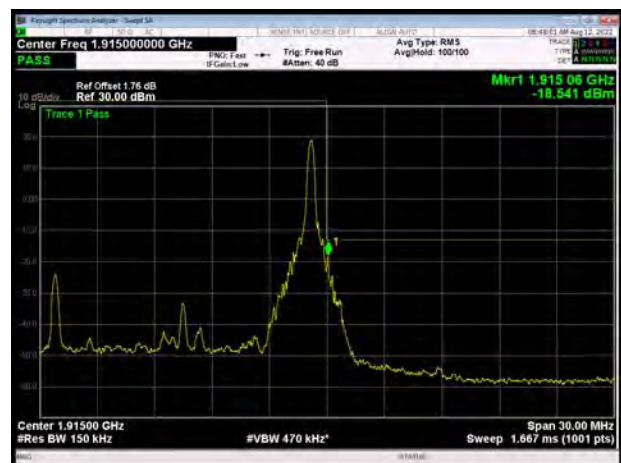
LTE Band 25 10MHz 16QAM 100%RB CH-High



LTE Band 25 15MHz 16QAM 1RB CH-Low



LTE Band 25 15MHz 16QAM 1RB CH-High





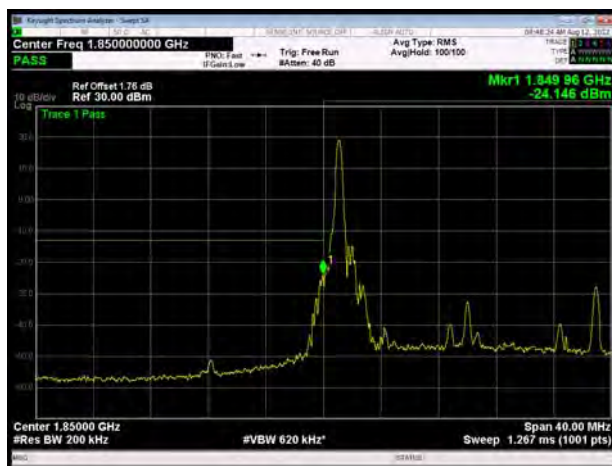
LTE Band 25 15MHz 16QAM 100%RB CH-Low



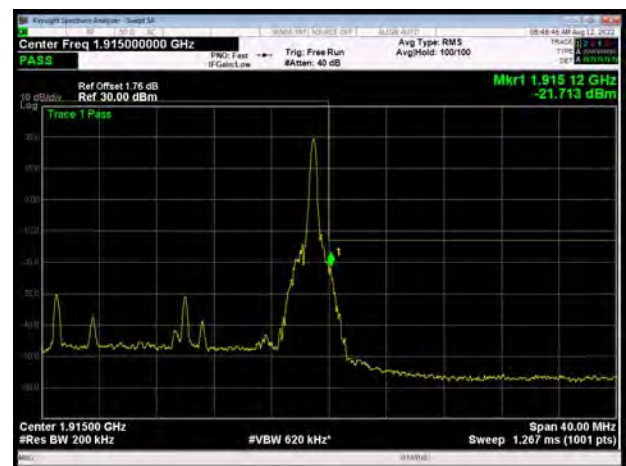
LTE Band 25 15MHz 16QAM 100%RB CH-High



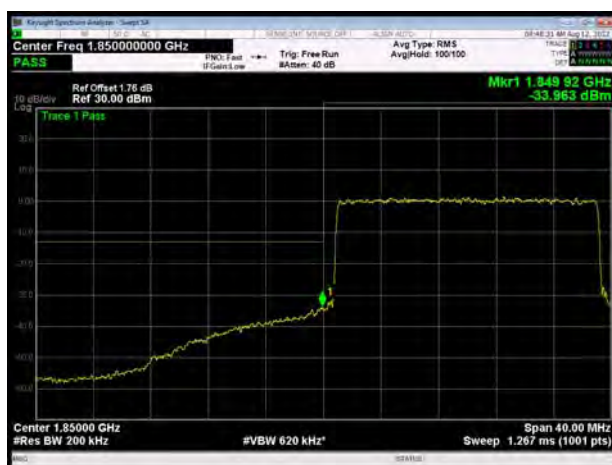
LTE Band 25 20MHz 16QAM 1RB CH-Low



LTE Band 25 20MHz 16QAM 1RB CH-High



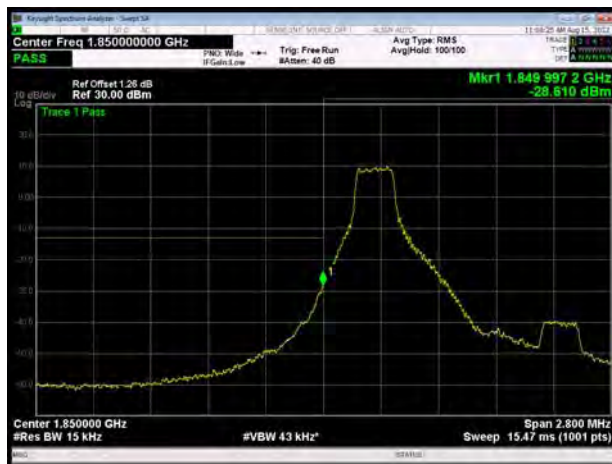
LTE Band 25 20MHz 16QAM 100%RB CH-Low



LTE Band 25 20MHz 16QAM 100%RB CH-High



LTE Band 25 1.4MHz 64QAM 1RB CH-Low



LTE Band 25 1.4MHz 64QAM 1RB CH-High



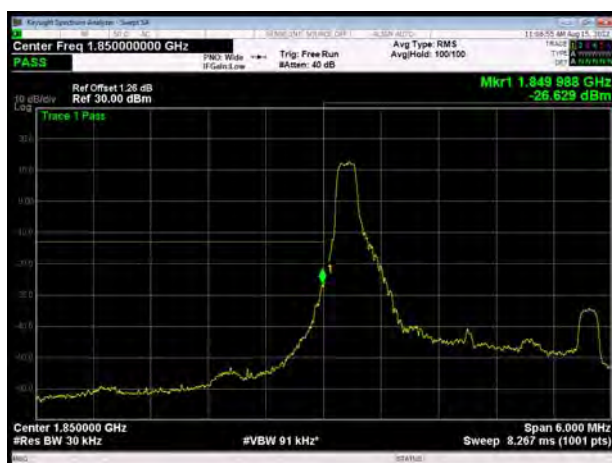
LTE Band 25 1.4MHz 64QAM 100%RB CH-Low



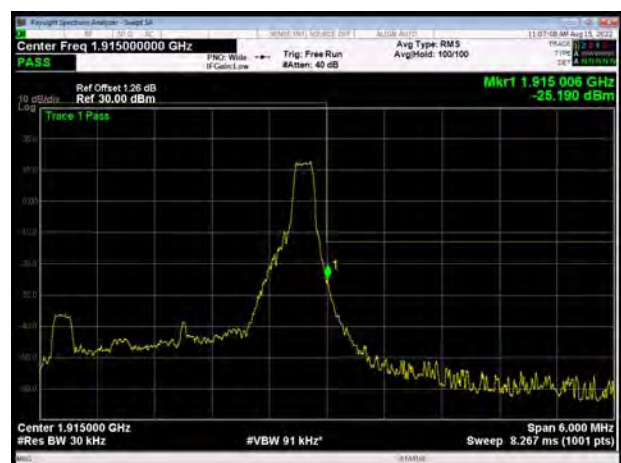
LTE Band 25 1.4MHz 64QAM 100%RB CH-High



LTE Band 25 3MHz 64QAM 1RB CH-Low



LTE Band 25 3MHz 64QAM 1RB CH-High





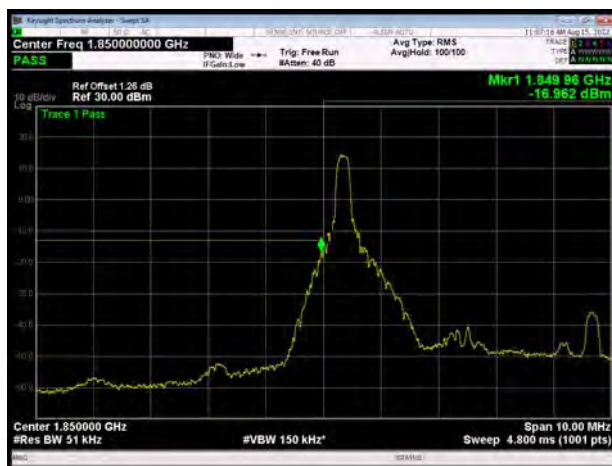
LTE Band 25 3MHz 64QAM 100%RB CH-Low



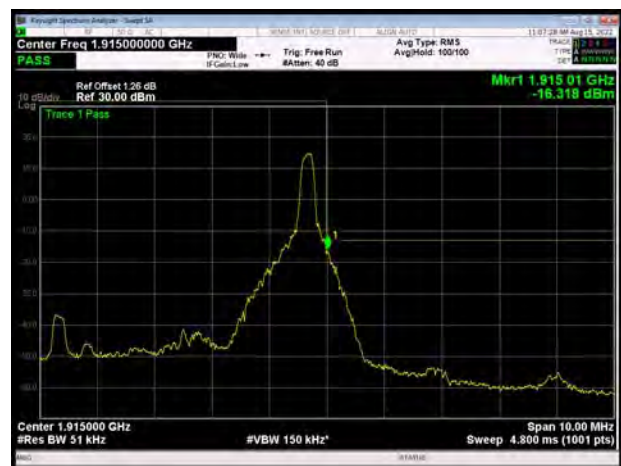
LTE Band 25 3MHz 64QAM 100%RB CH-High



LTE Band 25 5MHz 64QAM 1RB CH-Low



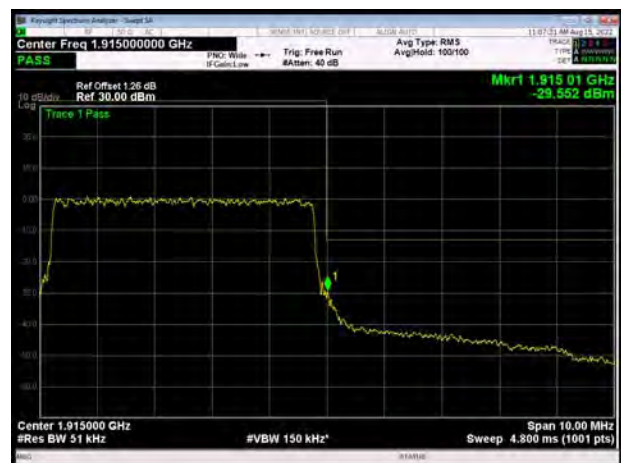
LTE Band 25 5MHz 64QAM 1RB CH-High



LTE Band 25 5MHz 64QAM 100%RB CH-Low



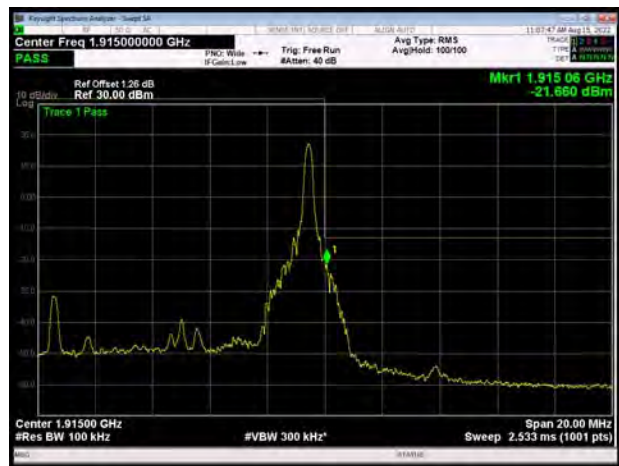
LTE Band 25 5MHz 64QAM 100%RB CH-High



LTE Band 25 10MHz 64QAM 1RB CH-Low



LTE Band 25 10MHz 64QAM 1RB CH-High



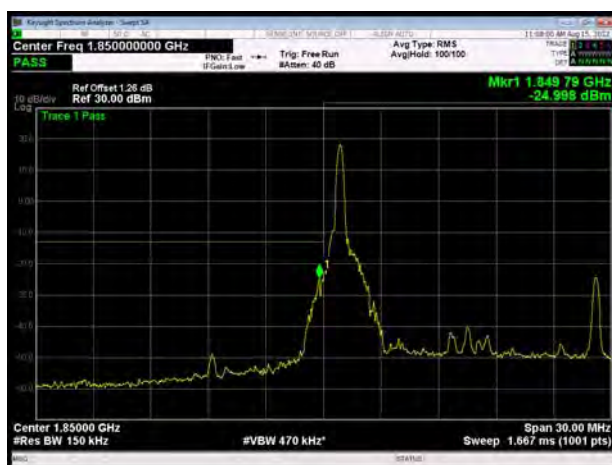
LTE Band 25 10MHz 64QAM 100%RB CH-Low



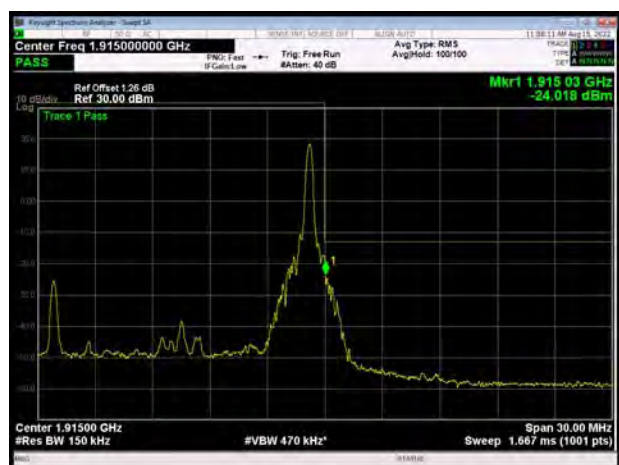
LTE Band 25 10MHz 64QAM 100%RB CH-High



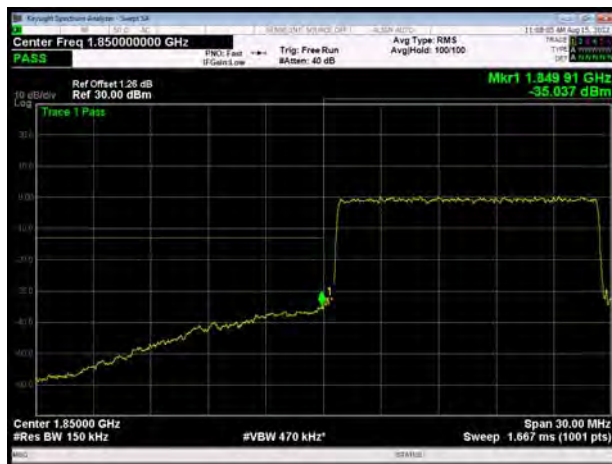
LTE Band 25 15MHz 64QAM 1RB CH-Low



LTE Band 25 15MHz 64QAM 1RB CH-High



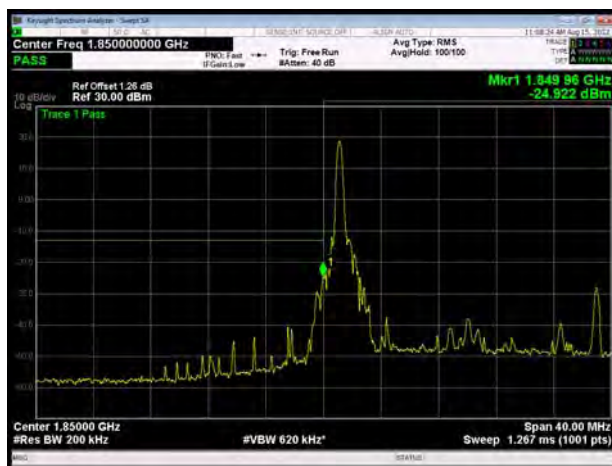
LTE Band 25 15MHz 64QAM 100%RB CH-Low



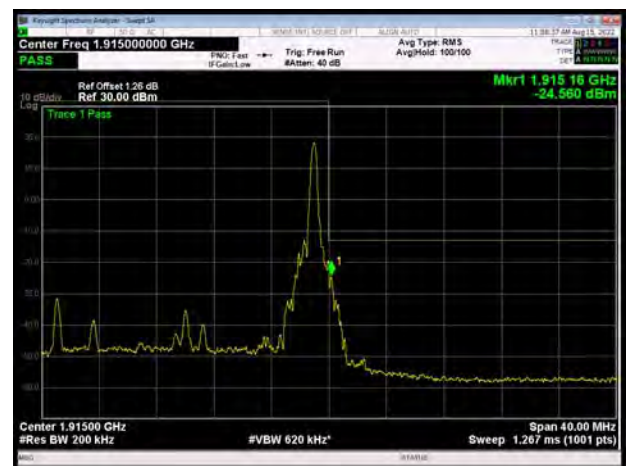
LTE Band 25 15MHz 64QAM 100%RB CH-High



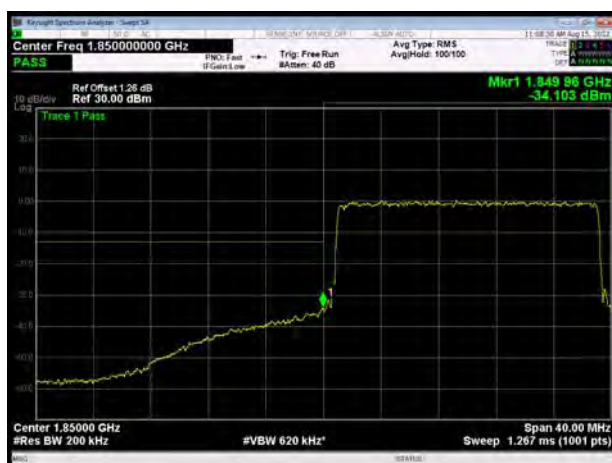
LTE Band 25 20MHz 64QAM 1RB CH-Low



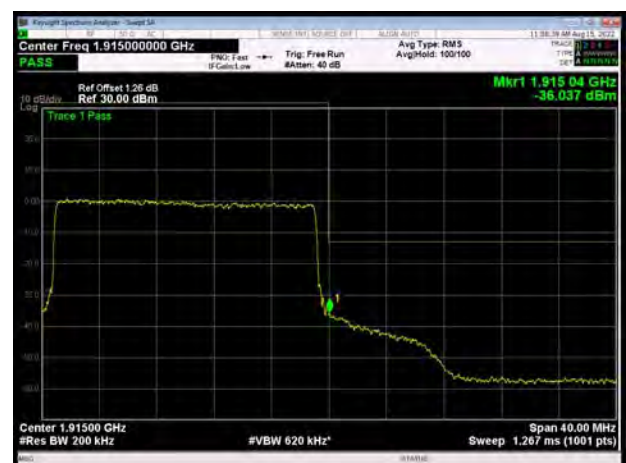
LTE Band 25 20MHz 64QAM 1RB CH-High



LTE Band 25 20MHz 64QAM 100%RB CH-Low



LTE Band 25 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
GPRS 1900 (GMSK)	512	1850.2	29.77	27.08	2.69	≤13	PASS
	661	1880	29.22	26.53	2.69	≤13	PASS
	810	1909.8	28.77	24.90	3.87	≤13	PASS
EGPRS 1900 (8PSK)	512	1850.2	30.73	25.63	5.10	≤13	PASS
	661	1880	29.58	24.45	5.13	≤13	PASS
	810	1909.8	28.98	22.78	6.20	≤13	PASS
WCDMA Band II (RMC)	9262	1852.4	26.08	23.12	2.96	≤13	PASS
	9400	1880	25.23	22.17	3.06	≤13	PASS
	9538	1907.6	24.77	21.78	2.99	≤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	25.79	20.39	5.40	≤13	PASS
		18900	1880.0	25.72	20.27	5.45	≤13	PASS
		19193	1909.3	25.48	20.16	5.32	≤13	PASS
	3	18615	1851.5	25.59	20.12	5.47	≤13	PASS
		18900	1880	25.74	20.16	5.58	≤13	PASS
		19185	1908.5	25.49	20.14	5.35	≤13	PASS
	5	18625	1852.5	25.64	20.08	5.56	≤13	PASS
		18900	1880	25.88	20.17	5.71	≤13	PASS
		19175	1907.5	25.65	20.17	5.48	≤13	PASS
	10	18650	1855	26.04	20.62	5.42	≤13	PASS
		18900	1880	26.01	20.33	5.68	≤13	PASS
		19150	1905	25.86	20.23	5.63	≤13	PASS
	15	18675	1857.5	26.35	20.63	5.72	≤13	PASS
		18900	1880	26.39	20.40	5.99	≤13	PASS
		19125	1902.5	26.15	20.22	5.93	≤13	PASS
	20	18700	1860	26.13	20.56	5.57	≤13	PASS
		18900	1880	26.07	20.37	5.70	≤13	PASS
		19100	1900	25.75	20.10	5.65	≤13	PASS
16QAM	1.4	18607	1850.7	25.67	19.56	6.11	≤13	PASS
		18900	1880.0	25.56	19.30	6.26	≤13	PASS
		19193	1909.3	25.36	19.19	6.17	≤13	PASS
	3	18615	1851.5	25.45	19.12	6.33	≤13	PASS



		18900	1880	25.52	19.17	6.35	≤13	PASS
		19185	1908.5	25.38	19.17	6.21	≤13	PASS
	5	18625	1852.5	25.42	19.14	6.28	≤13	PASS
		18900	1880	25.63	19.22	6.41	≤13	PASS
		19175	1907.5	25.41	19.20	6.21	≤13	PASS
	10	18650	1855	25.82	19.55	6.27	≤13	PASS
		18900	1880	25.70	19.25	6.45	≤13	PASS
		19150	1905	25.59	19.25	6.34	≤13	PASS
	15	18675	1857.5	25.92	19.55	6.37	≤13	PASS
		18900	1880	25.78	19.23	6.55	≤13	PASS
		19125	1902.5	25.65	19.18	6.47	≤13	PASS
	20	18700	1860	25.88	19.51	6.37	≤13	PASS
		18900	1880	25.66	19.20	6.46	≤13	PASS
		19100	1900	25.50	19.09	6.41	≤13	PASS
64QAM	1.4	18607	1850.7	25.12	19.02	6.10	≤13	PASS
		18900	1880.0	25.35	19.09	6.26	≤13	PASS
		19193	1909.3	25.15	19.12	6.03	≤13	PASS
	3	18615	1851.5	25.18	19.01	6.17	≤13	PASS
		18900	1880	25.46	19.12	6.34	≤13	PASS
		19185	1908.5	25.26	19.06	6.20	≤13	PASS
	5	18625	1852.5	25.22	19.05	6.17	≤13	PASS
		18900	1880	25.45	19.12	6.33	≤13	PASS
		19175	1907.5	25.33	19.07	6.26	≤13	PASS
	10	18650	1855	25.29	19.09	6.20	≤13	PASS
		18900	1880	25.53	19.15	6.38	≤13	PASS
		19150	1905	25.42	19.13	6.29	≤13	PASS
	15	18675	1857.5	25.39	19.06	6.33	≤13	PASS
		18900	1880	25.56	19.11	6.45	≤13	PASS
		19125	1902.5	25.43	19.07	6.36	≤13	PASS
	20	18700	1860	25.40	19.06	6.34	≤13	PASS
		18900	1880	25.51	19.07	6.44	≤13	PASS
		19100	1900	25.32	18.98	6.34	≤13	PASS



LTE Band 25								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	26047	1850.7	25.52	20.03	5.49	≤13	PASS
		26365	1882.5	25.64	20.00	5.64	≤13	PASS
		26683	1914.3	25.20	20.09	5.11	≤13	PASS
	3	26055	1851.5	25.83	20.46	5.37	≤13	PASS
		26365	1882.5	25.94	20.42	5.52	≤13	PASS
		26675	1913.5	25.49	20.33	5.16	≤13	PASS
	5	26065	1852.5	25.96	20.48	5.48	≤13	PASS
		26365	1882.5	26.07	20.46	5.61	≤13	PASS
		26665	1912.5	25.72	20.47	5.25	≤13	PASS
	10	26090	1855	26.01	20.50	5.51	≤13	PASS
		26365	1882.5	26.16	20.53	5.63	≤13	PASS
		26640	1910	25.88	20.52	5.36	≤13	PASS
	15	26115	1857.5	26.34	20.49	5.85	≤13	PASS
		26365	1882.5	26.48	20.52	5.96	≤13	PASS
		26615	1907.5	26.34	20.57	5.77	≤13	PASS
	20	26140	1860	26.06	20.45	5.61	≤13	PASS
		26365	1882.5	26.14	20.44	5.70	≤13	PASS
		26590	1905	25.98	20.24	5.74	≤13	PASS
16QAM	1.4	26047	1850.7	25.23	18.99	6.24	≤13	PASS
		26365	1882.5	25.43	19.04	6.39	≤13	PASS
		26683	1914.3	25.09	19.12	5.97	≤13	PASS
	3	26055	1851.5	25.75	19.49	6.26	≤13	PASS
		26365	1882.5	25.77	19.38	6.39	≤13	PASS
		26675	1913.5	25.24	19.23	6.01	≤13	PASS
	5	26065	1852.5	25.83	19.55	6.28	≤13	PASS
		26365	1882.5	25.87	19.51	6.36	≤13	PASS
		26665	1912.5	25.45	19.44	6.01	≤13	PASS
	10	26090	1855	25.89	19.57	6.32	≤13	PASS
		26365	1882.5	25.97	19.58	6.39	≤13	PASS
		26640	1910	25.68	19.51	6.17	≤13	PASS
	15	26115	1857.5	25.96	19.56	6.40	≤13	PASS
		26365	1882.5	26.03	19.53	6.50	≤13	PASS
		26615	1907.5	25.90	19.53	6.37	≤13	PASS
	20	26140	1860	25.94	19.52	6.42	≤13	PASS
		26365	1882.5	25.89	19.38	6.51	≤13	PASS
		26590	1905	25.73	19.28	6.45	≤13	PASS
64QAM	1.4	26047	1850.7	24.63	18.42	6.21	≤13	PASS
		26365	1882.5	24.78	18.45	6.33	≤13	PASS
		26683	1914.3	24.52	18.59	5.93	≤13	PASS



	3	26055	1851.5	24.78	18.48	6.30	≤13	PASS
		26365	1882.5	24.85	18.43	6.42	≤13	PASS
		26675	1913.5	24.55	18.50	6.05	≤13	PASS
	5	26065	1852.5	24.79	18.45	6.34	≤13	PASS
		26365	1882.5	24.89	18.48	6.41	≤13	PASS
		26665	1912.5	24.58	18.49	6.09	≤13	PASS
	10	26090	1855	24.93	18.50	6.43	≤13	PASS
		26365	1882.5	25.02	18.54	6.48	≤13	PASS
		26640	1910	24.75	18.50	6.25	≤13	PASS
	15	26115	1857.5	25.29	18.73	6.56	≤13	PASS
		26365	1882.5	25.09	18.50	6.59	≤13	PASS
		26615	1907.5	24.95	18.52	6.43	≤13	PASS
	20	26140	1860	24.98	18.49	6.49	≤13	PASS
		26365	1882.5	25.02	18.49	6.53	≤13	PASS
		26590	1905	24.98	18.53	6.45	≤13	PASS

6.5. Frequency Stability

GSM1900						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	GMSK	8PSK	GMSK	8PSK	
Normal (25℃)	Normal	6.28	14.74	0.00334	0.00784	PASS
Extreme (45℃)		9.70	2.53	0.00516	0.00135	PASS
Extreme (40℃)		2.74	10.19	0.00146	0.00542	PASS
Extreme (30℃)		6.80	14.56	0.00362	0.00775	PASS
Extreme (20℃)		11.17	6.95	0.00594	0.00370	PASS
Extreme (10℃)		3.62	15.35	0.00193	0.00817	PASS
Extreme (0℃)		9.91	12.30	0.00527	0.00654	PASS
Extreme (-10℃)		11.64	11.89	0.00619	0.00632	PASS
25℃	LV	15.17	9.91	0.00807	0.00527	PASS
	HV	17.85	8.89	0.00949	0.00473	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	9.75	12.49	0.00519	0.00665	PASS
Extreme (45℃)		11.14	9.41	0.00593	0.00501	PASS
Extreme (40℃)		15.36	17.91	0.00817	0.00953	PASS
Extreme (30℃)		14.28	12.10	0.00760	0.00644	PASS
Extreme (20℃)		15.01	8.17	0.00799	0.00435	PASS
Extreme (10℃)		17.31	5.56	0.00921	0.00296	PASS
Extreme (0℃)		9.13	17.36	0.00485	0.00923	PASS
Extreme (-10℃)		3.72	16.99	0.00198	0.00904	PASS
25℃	LV	3.65	14.33	0.00194	0.00762	PASS
	HV	7.50	8.41	0.00399	0.00447	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	12.50	3.38	1.23	0.00665	0.00180	0.00066	PASS
Extreme (45℃)		10.96	6.34	4.03	0.00583	0.00337	0.00214	PASS
Extreme (40℃)		12.94	12.88	4.51	0.00688	0.00685	0.00240	PASS
Extreme (30℃)		9.56	17.35	13.39	0.00508	0.00923	0.00712	PASS
Extreme (20℃)		12.69	10.85	8.24	0.00675	0.00577	0.00438	PASS
Extreme (10℃)		1.11	8.84	2.42	0.00059	0.00470	0.00129	PASS
Extreme (0℃)		5.59	4.72	9.48	0.00297	0.00251	0.00504	PASS
Extreme (-10℃)		15.50	15.62	8.79	0.00825	0.00831	0.00468	PASS
25℃	LV	8.63	14.35	2.66	0.00459	0.00763	0.00141	PASS
	HV	15.41	6.73	14.53	0.00820	0.00358	0.00773	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	15.61	14.10	13.00	0.00831	0.00750	0.00691	PASS
Extreme (45℃)		5.67	11.72	8.04	0.00302	0.00624	0.00427	PASS
Extreme (40℃)		11.50	16.05	6.32	0.00612	0.00853	0.00336	PASS
Extreme (30℃)		10.40	8.01	17.59	0.00553	0.00426	0.00935	PASS
Extreme (20℃)		15.52	3.56	12.53	0.00825	0.00190	0.00666	PASS
Extreme (10℃)		10.60	13.03	1.10	0.00564	0.00693	0.00059	PASS
Extreme (0℃)		3.85	14.92	10.18	0.00205	0.00794	0.00542	PASS
Extreme (-10℃)		1.89	4.50	13.35	0.00100	0.00240	0.00710	PASS
25℃	LV	16.16	1.78	7.45	0.00860	0.00095	0.00396	PASS
	HV	14.42	8.19	6.06	0.00767	0.00436	0.00323	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	11.42	12.49	1.43	0.00607	0.00664	0.00076	PASS
Extreme (45℃)		8.93	3.55	4.38	0.00475	0.00189	0.00233	PASS
Extreme (40℃)		7.04	2.97	16.08	0.00375	0.00158	0.00855	PASS
Extreme (30℃)		16.31	11.33	2.58	0.00868	0.00603	0.00137	PASS
Extreme (20℃)		14.83	11.98	16.55	0.00789	0.00637	0.00880	PASS
Extreme (10℃)		7.38	6.90	2.27	0.00392	0.00367	0.00121	PASS



Extreme (0℃)		10.39	6.00	16.17	0.00553	0.00319	0.00860	PASS
Extreme (-10℃)		13.39	2.78	4.81	0.00712	0.00148	0.00256	PASS
25℃	LV	16.72	8.79	15.50	0.00889	0.00468	0.00824	PASS
	HV	1.91	8.61	17.27	0.00102	0.00458	0.00918	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	7.03	9.90	13.54	0.00374	0.00527	0.00720	PASS
Extreme (45℃)		9.44	3.35	6.17	0.00502	0.00178	0.00328	PASS
Extreme (40℃)		13.36	10.12	11.85	0.00711	0.00538	0.00631	PASS
Extreme (30℃)		11.99	9.94	11.66	0.00638	0.00529	0.00620	PASS
Extreme (20℃)		12.22	6.12	15.33	0.00650	0.00326	0.00816	PASS
Extreme (10℃)		7.41	17.13	1.62	0.00394	0.00911	0.00086	PASS
Extreme (0℃)		17.48	3.90	4.72	0.00930	0.00207	0.00251	PASS
Extreme (-10℃)		2.61	12.42	13.63	0.00139	0.00661	0.00725	PASS
25℃	LV	4.29	3.03	12.05	0.00228	0.00161	0.00641	PASS
	HV	15.23	14.10	7.18	0.00810	0.00750	0.00382	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	1.32	6.04	9.62	0.00070	0.00321	0.00512	PASS
Extreme (45℃)		2.93	10.92	15.05	0.00156	0.00581	0.00800	PASS
Extreme (40℃)		1.01	17.57	8.03	0.00054	0.00935	0.00427	PASS
Extreme (30℃)		13.52	7.51	12.24	0.00719	0.00399	0.00651	PASS
Extreme (20℃)		13.18	17.52	2.91	0.00701	0.00932	0.00155	PASS
Extreme (10℃)		12.06	6.67	8.45	0.00641	0.00355	0.00450	PASS
Extreme (0℃)		3.63	8.25	1.00	0.00193	0.00439	0.00053	PASS
Extreme (-10℃)		3.02	3.33	3.76	0.00161	0.00177	0.00200	PASS
25℃	LV	1.90	2.33	7.73	0.00101	0.00124	0.00411	PASS
	HV	7.75	13.61	12.16	0.00412	0.00724	0.00647	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	3.25	3.32	7.92	0.00173	0.00176	0.00421	PASS
Extreme (45℃)		11.27	5.47	11.77	0.00599	0.00291	0.00626	PASS
Extreme (40℃)		3.91	14.76	8.65	0.00208	0.00785	0.00460	PASS
Extreme (30℃)		2.72	17.16	1.96	0.00145	0.00913	0.00104	PASS



Extreme (20℃)		8.51	13.02	3.86	0.00453	0.00693	0.00205	PASS
Extreme (10℃)		12.52	8.44	5.45	0.00666	0.00449	0.00290	PASS
Extreme (0℃)		12.03	13.22	7.82	0.00640	0.00703	0.00416	PASS
Extreme (-10℃)		12.53	8.03	16.95	0.00666	0.00427	0.00901	PASS
25℃	LV	4.50	1.08	6.94	0.00239	0.00058	0.00369	PASS
	HV	8.21	5.04	16.98	0.00437	0.00268	0.00903	PASS

LTE Band 25								
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	10.44	15.39	14.77	0.00554	0.00817	0.00785	
Extreme (45℃)		17.41	4.98	2.07	0.00925	0.00264	0.00110	PASS
Extreme (40℃)		15.65	13.62	4.76	0.00832	0.00724	0.00253	PASS
Extreme (30℃)		8.74	16.64	1.42	0.00464	0.00884	0.00075	PASS
Extreme (20℃)		15.18	10.29	1.19	0.00806	0.00547	0.00063	PASS
Extreme (10℃)		14.56	16.52	7.13	0.00773	0.00877	0.00379	PASS
Extreme (0℃)		12.53	1.65	13.61	0.00666	0.00088	0.00723	PASS
Extreme (-10℃)		12.28	8.30	15.70	0.00652	0.00441	0.00834	PASS
25℃	LV	14.59	11.72	4.43	0.00775	0.00622	0.00236	PASS
	HV	1.64	16.62	11.52	0.00087	0.00883	0.00612	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	7.87	3.18	10.85	0.00418	0.00169	0.00576	
Extreme (45℃)		3.25	5.48	6.85	0.00173	0.00291	0.00364	PASS
Extreme (40℃)		14.56	11.77	14.72	0.00773	0.00625	0.00782	PASS
Extreme (30℃)		9.37	1.37	7.97	0.00498	0.00073	0.00423	PASS
Extreme (20℃)		9.31	9.58	7.52	0.00495	0.00509	0.00400	PASS
Extreme (10℃)		11.03	4.11	9.59	0.00586	0.00218	0.00510	PASS
Extreme (0℃)		3.68	12.24	7.08	0.00196	0.00650	0.00376	PASS
Extreme (-10℃)		5.18	4.03	7.21	0.00275	0.00214	0.00383	PASS
25℃	LV	10.68	14.99	1.16	0.00567	0.00796	0.00062	PASS
	HV	1.42	1.34	5.72	0.00075	0.00071	0.00304	PASS



LTE Band 25								
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	7.96	2.23	10.91	0.00423	0.00119	0.00579	PASS
Extreme (45℃)		3.12	15.49	15.40	0.00166	0.00823	0.00818	PASS
Extreme (40℃)		16.03	3.73	10.31	0.00851	0.00198	0.00548	PASS
Extreme (30℃)		9.03	5.20	12.98	0.00480	0.00276	0.00690	PASS
Extreme (20℃)		3.18	6.21	10.96	0.00169	0.00330	0.00582	PASS
Extreme (10℃)		2.58	10.85	3.99	0.00137	0.00576	0.00212	PASS
Extreme (0℃)		8.12	5.70	1.16	0.00431	0.00303	0.00062	PASS
Extreme (-10℃)		5.99	13.58	13.80	0.00318	0.00721	0.00733	PASS
25℃	LV	12.66	14.44	9.98	0.00672	0.00767	0.00530	PASS
	HV	5.98	2.55	8.14	0.00317	0.00135	0.00432	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	10.08	2.75	4.31	0.00536	0.00146	0.00229	PASS
Extreme (45℃)		1.80	2.11	14.98	0.00096	0.00112	0.00796	PASS
Extreme (40℃)		16.85	11.83	13.75	0.00895	0.00629	0.00730	PASS
Extreme (30℃)		3.62	1.58	12.12	0.00193	0.00084	0.00644	PASS
Extreme (20℃)		3.47	4.51	12.20	0.00184	0.00240	0.00648	PASS
Extreme (10℃)		15.87	6.89	11.37	0.00843	0.00366	0.00604	PASS
Extreme (0℃)		9.70	7.03	2.59	0.00515	0.00374	0.00137	PASS
Extreme (-10℃)		17.56	17.24	10.73	0.00933	0.00916	0.00570	PASS
25℃	LV	3.30	10.03	9.41	0.00175	0.00533	0.00500	PASS
	HV	6.70	9.23	16.28	0.00356	0.00490	0.00865	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	14.65	14.90	2.36	0.00778	0.00791	0.00125	PASS
Extreme (45℃)		2.55	4.97	1.31	0.00135	0.00264	0.00070	PASS
Extreme (40℃)		6.86	6.02	12.29	0.00365	0.00320	0.00653	PASS
Extreme (30℃)		8.18	16.66	12.68	0.00434	0.00885	0.00674	PASS
Extreme (20℃)		2.62	9.96	8.23	0.00139	0.00529	0.00437	PASS
Extreme (10℃)		11.76	6.24	2.69	0.00625	0.00332	0.00143	PASS

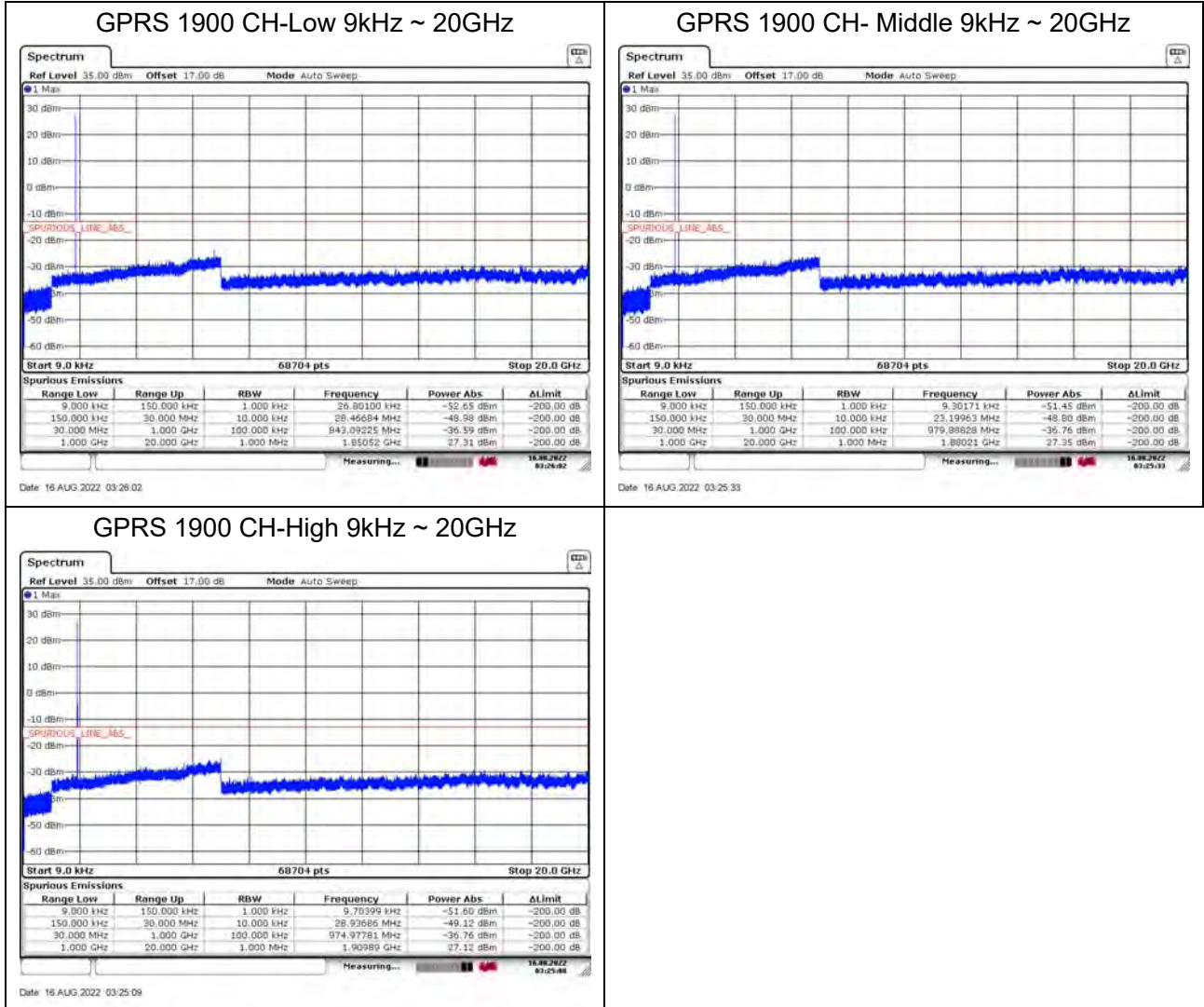


Extreme (0℃)		8.42	1.19	4.06	0.00447	0.00063	0.00216	PASS
Extreme (-10℃)		3.15	9.40	6.15	0.00167	0.00499	0.00327	PASS
25℃	LV	5.78	16.61	8.95	0.00307	0.00882	0.00475	PASS
	HV	2.58	1.69	4.58	0.00137	0.00090	0.00243	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25℃)	Normal	6.10	11.82	7.94	0.00324	0.00628	0.00422	PASS
Extreme (45℃)		7.71	8.95	6.15	0.00410	0.00475	0.00327	PASS
Extreme (40℃)		11.30	6.08	2.43	0.00600	0.00323	0.00129	PASS
Extreme (30℃)		16.19	14.97	7.23	0.00860	0.00795	0.00384	PASS
Extreme (20℃)		6.74	10.23	12.16	0.00358	0.00543	0.00646	PASS
Extreme (10℃)		4.13	17.59	6.98	0.00220	0.00934	0.00371	PASS
Extreme (0℃)		15.88	11.04	3.35	0.00844	0.00586	0.00178	PASS
Extreme (-10℃)		18.00	17.08	2.08	0.00956	0.00907	0.00110	PASS
25℃	LV	4.14	3.62	11.00	0.00220	0.00192	0.00584	PASS
	HV	14.00	12.47	13.44	0.00744	0.00662	0.00714	PASS

6.6. Spurious Emissions at Antenna Terminals

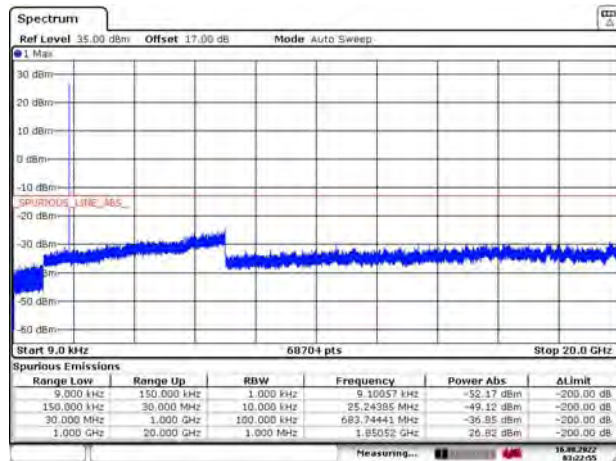
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier.

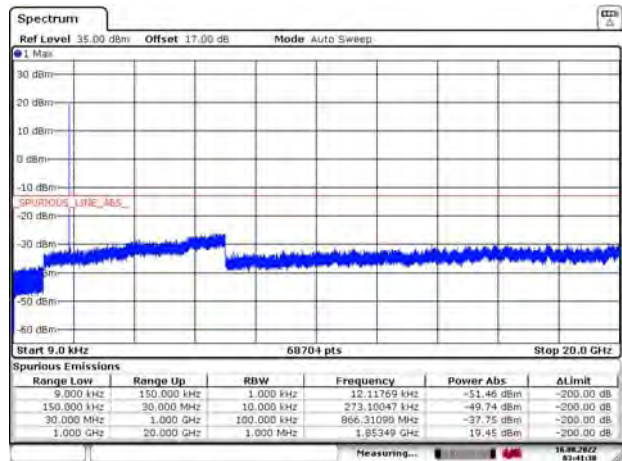




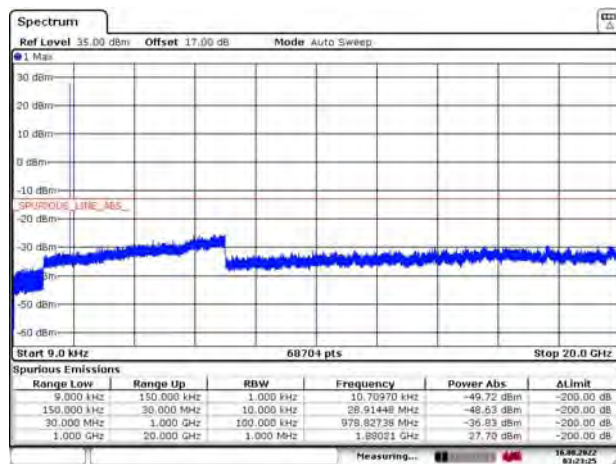
EGPRS 1900 CH-Low 9kHz ~ 20GHz



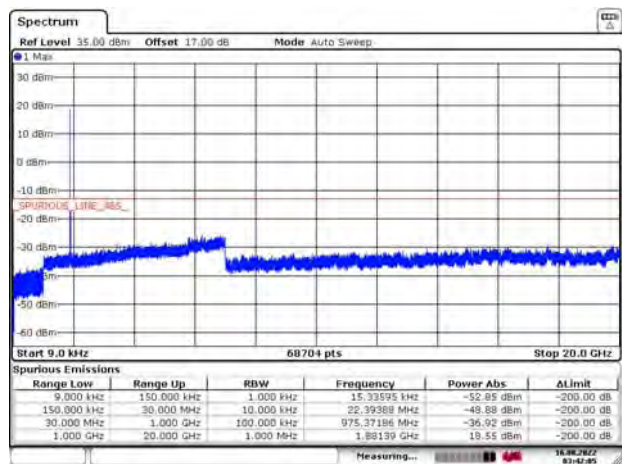
WCDMA BAND II CH-Low 9kHz ~ 20GHz



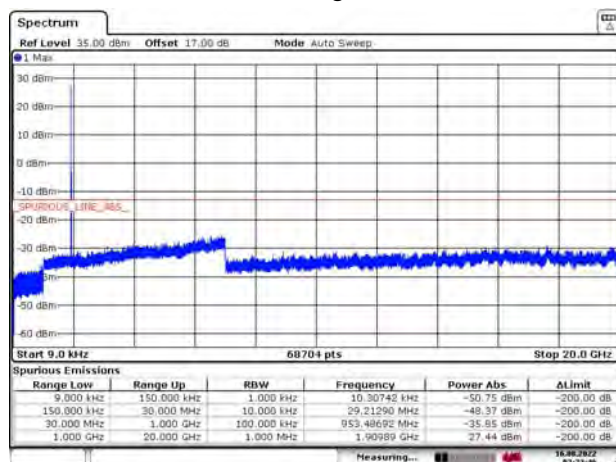
EGPRS 1900 CH- Middle 9kHz ~ 20GHz



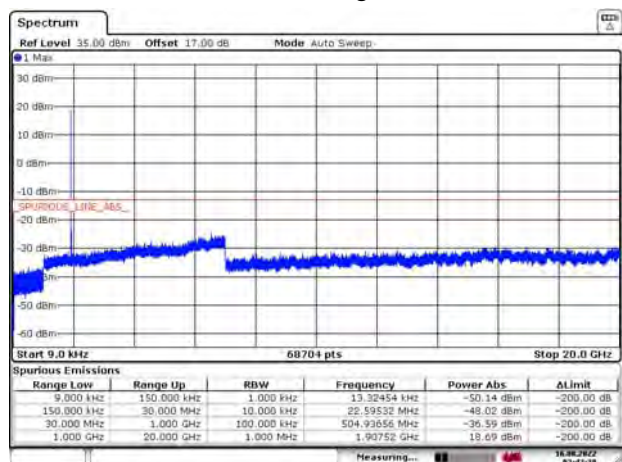
WCDMA BAND II CH- Middle 9kHz ~ 20GHz



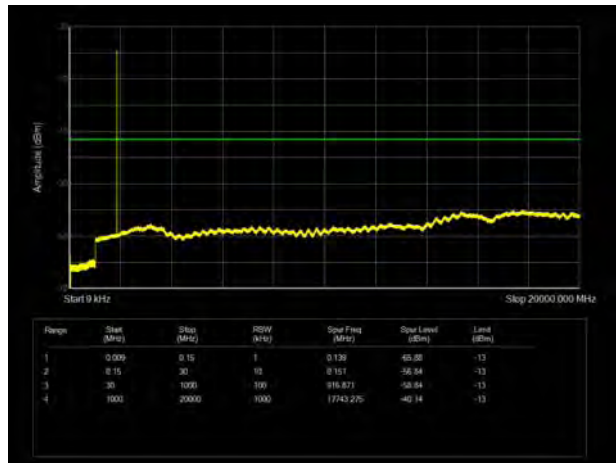
EGPRS 1900 CH-High 9kHz ~ 20GHz



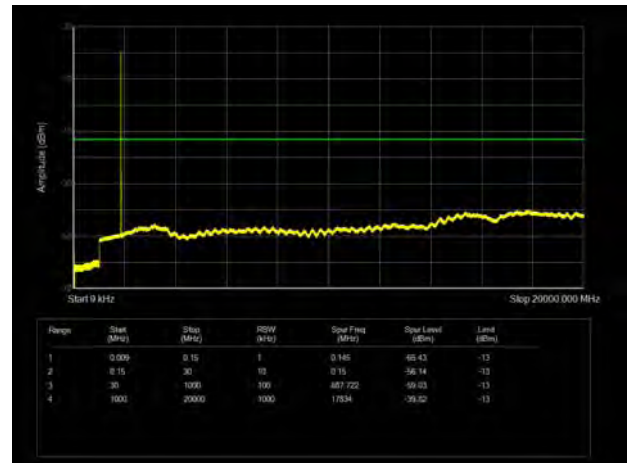
WCDMA BAND II CH-High 9kHz ~ 20GHz



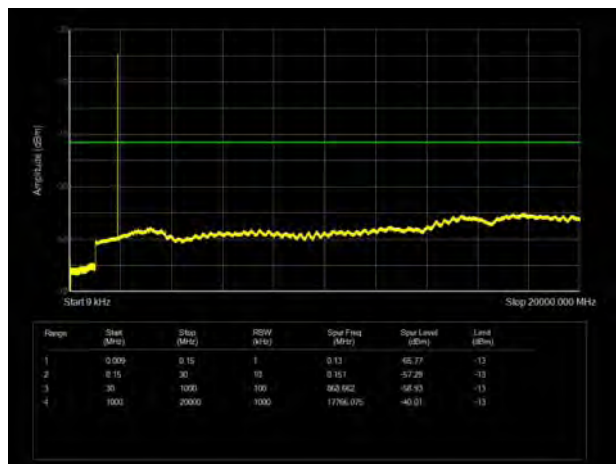
LTE Band 2 1.4MHz CH-Low 9kHz~20GHz



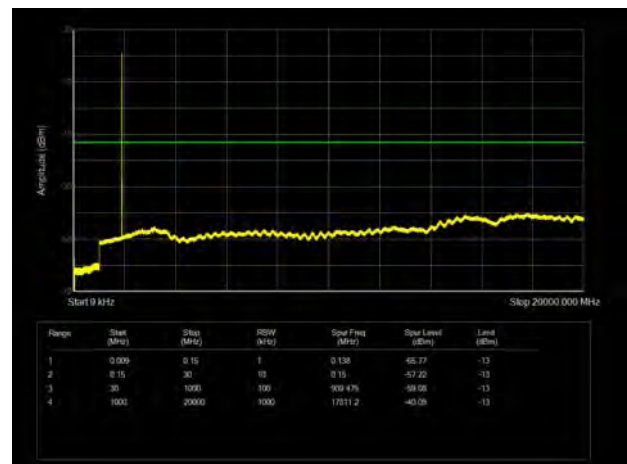
LTE Band 2 3MHz CH-Low 9kHz~20GHz



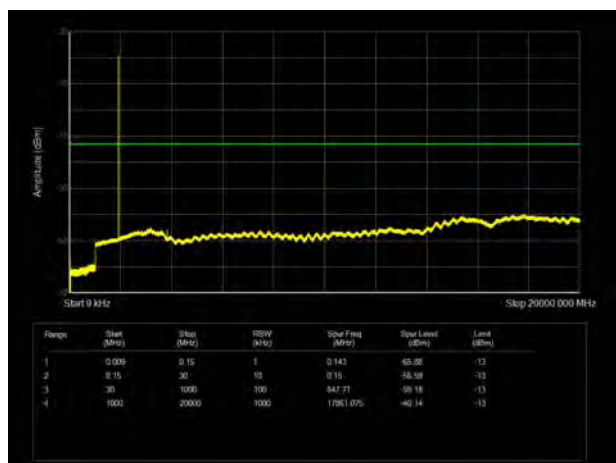
LTE Band 2 1.4MHz CH-Middle 9kHz~20GHz



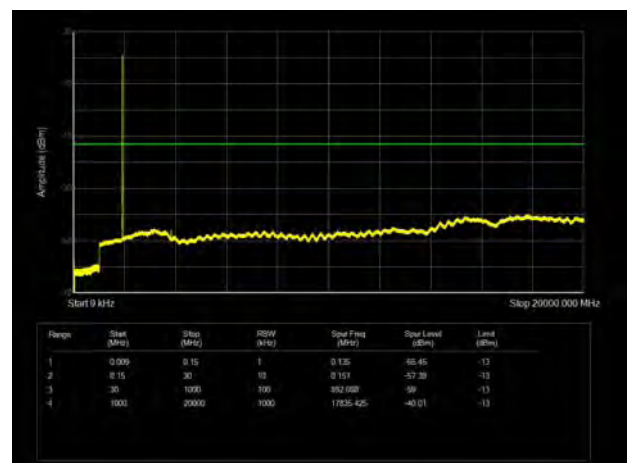
LTE Band 2 3MHz CH-Middle 9kHz~20GHz



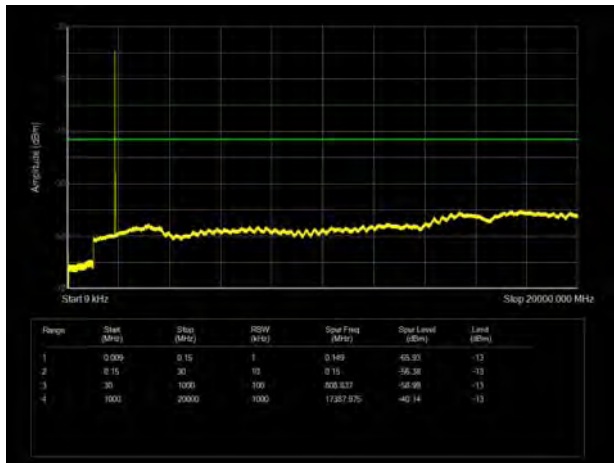
LTE Band 2 1.4MHz CH-High 9kHz~20GHz



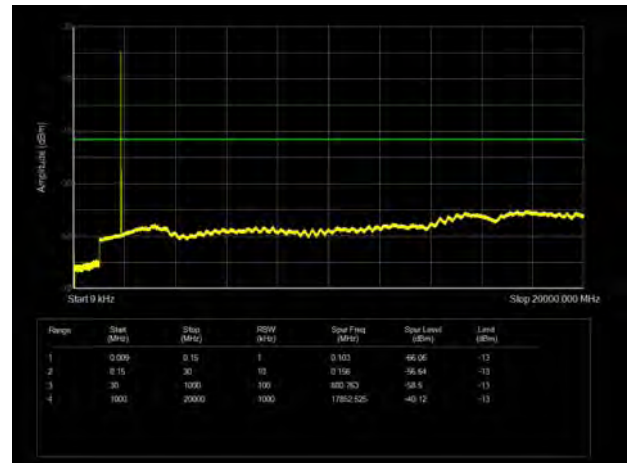
LTE Band 2 3MHz CH-High 9kHz~20GHz



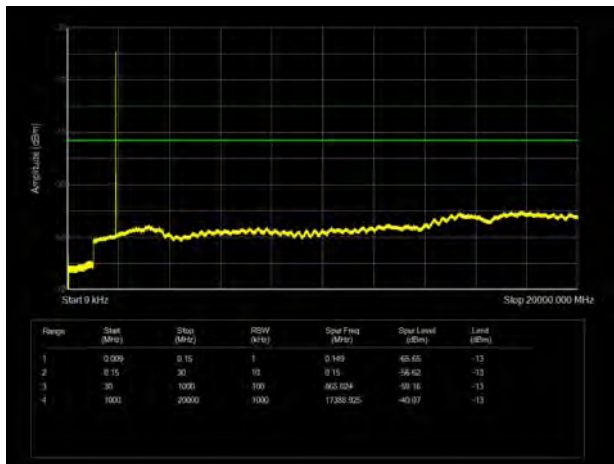
LTE Band 2 5MHz CH-Low 9kHz~20GHz



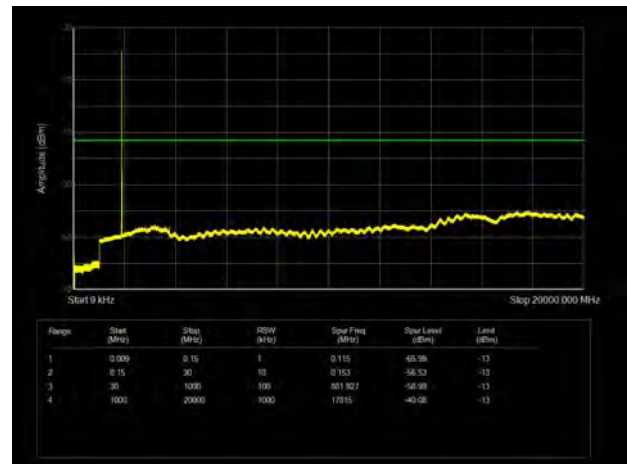
LTE Band 2 10MHz CH-Low 9kHz~20GHz



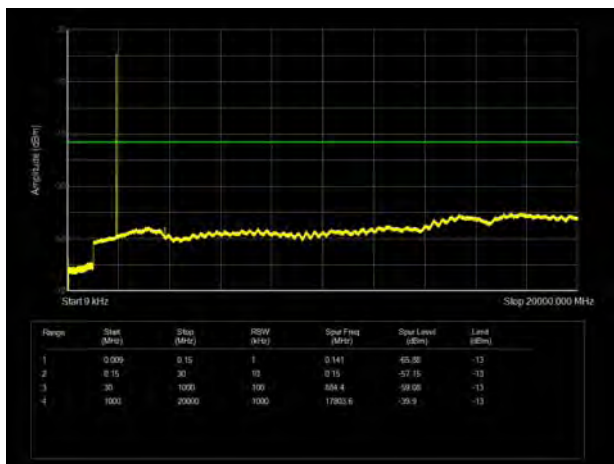
LTE Band 2 5MHz CH-Middle 9kHz~20GHz



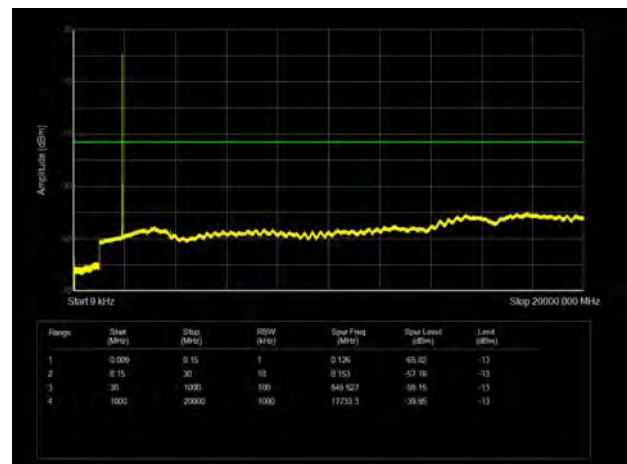
LTE Band 2 10MHz CH-Middle 9kHz~20GHz



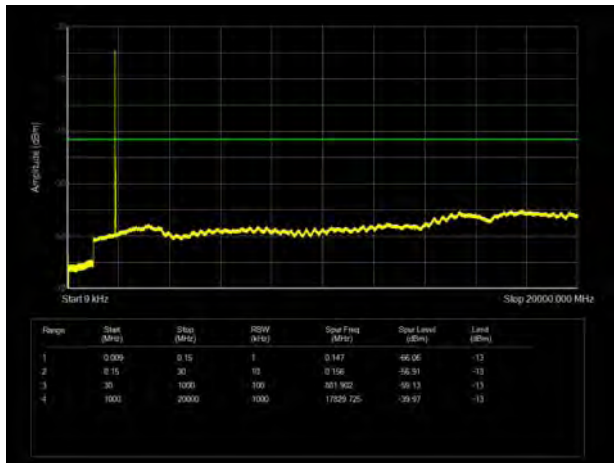
LTE Band 2 5MHz CH-High 9kHz~20GHz



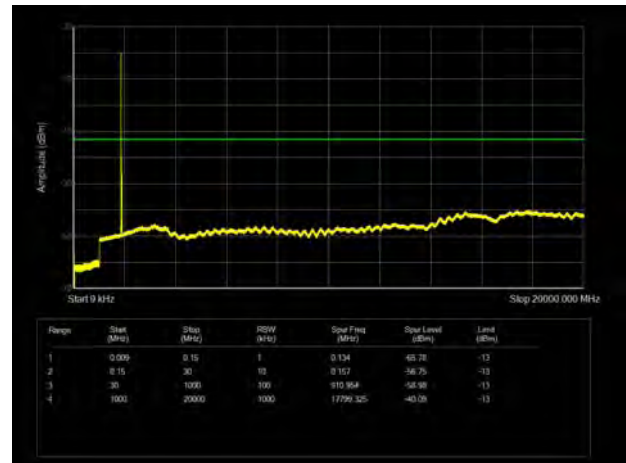
LTE Band 2 10MHz CH-High 9kHz~20GHz



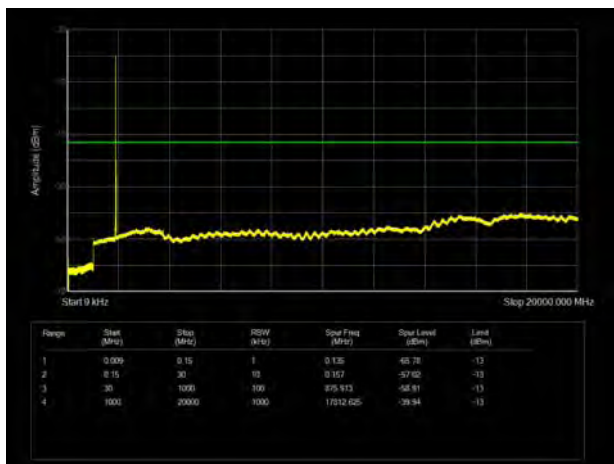
LTE Band 2 15MHz CH-Low 9kHz~20GHz



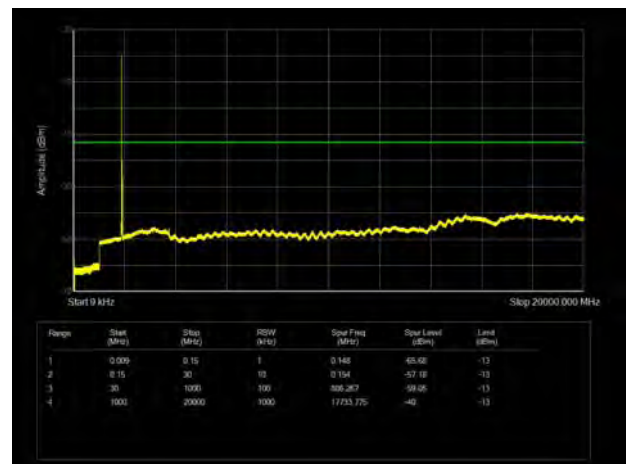
LTE Band 2 20MHz CH-Low 9kHz~20GHz



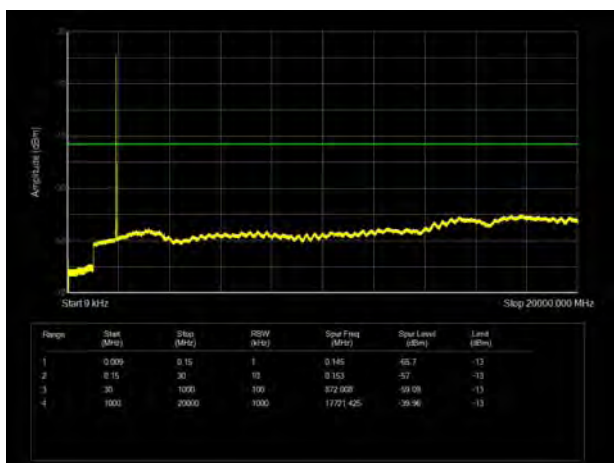
LTE Band 2 15MHz CH-Middle 9kHz~20GHz



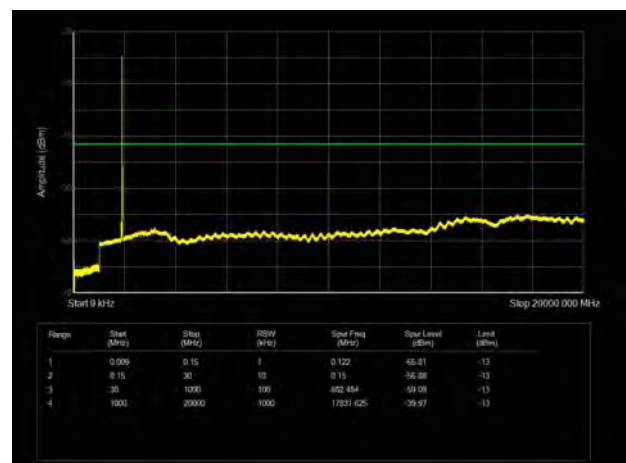
LTE Band 2 20MHz CH-Middle 9kHz~20GHz



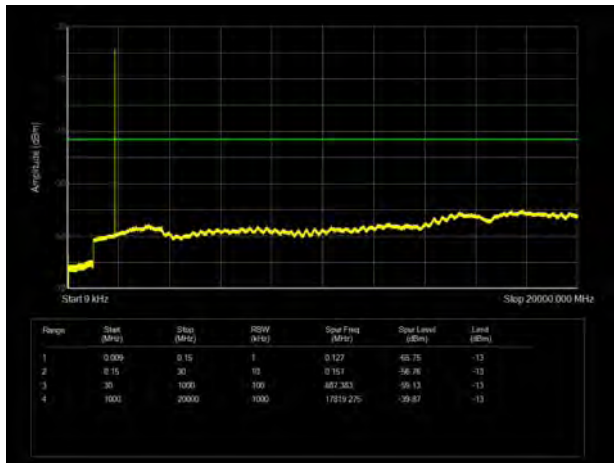
LTE Band 2 15MHz CH-High 9kHz~20GHz



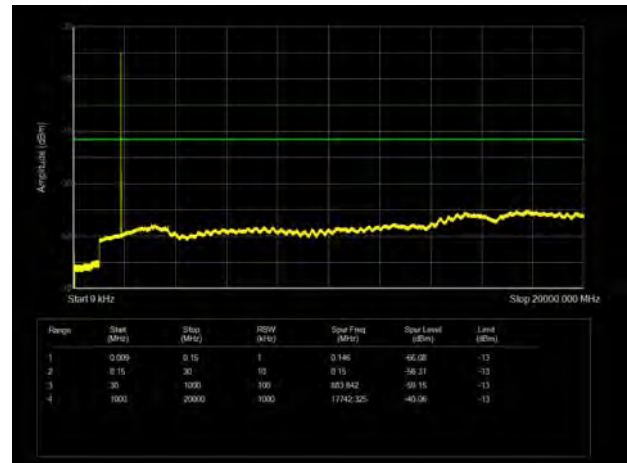
LTE Band 2 20MHz CH-High 9kHz~20GHz



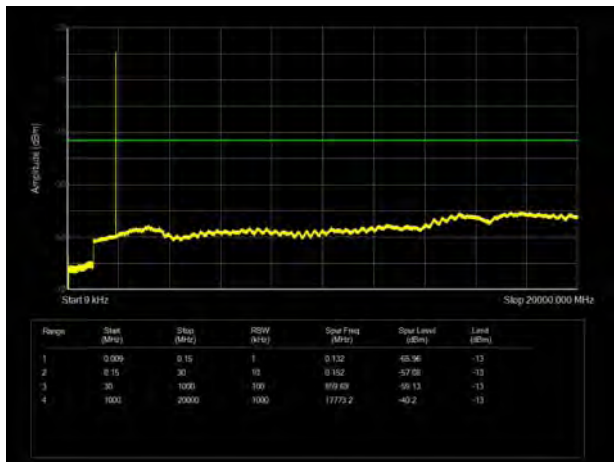
LTE Band 25 1.4MHz CH-Low 9kHz~20GHz



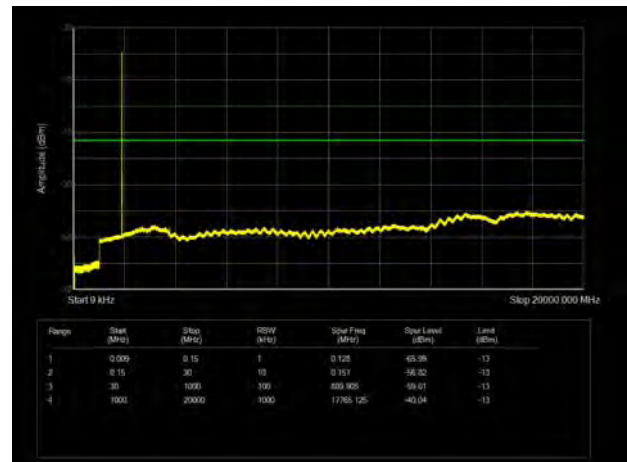
LTE Band 25 3MHz CH-Low 9kHz~20GHz



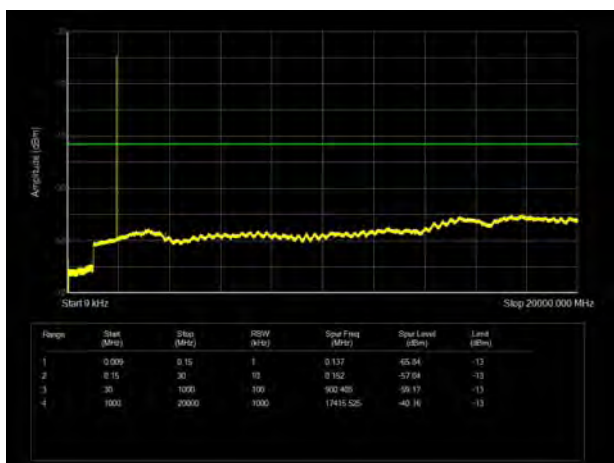
LTE Band 25 1.4MHz CH-Middle 9kHz~20GHz



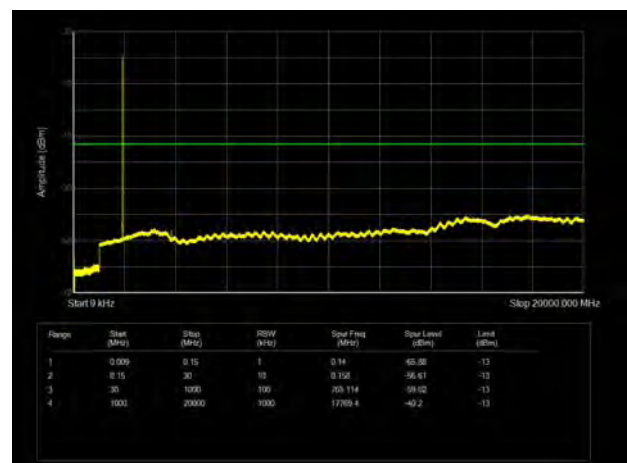
LTE Band 25 3MHz CH-Middle 9kHz~20GHz



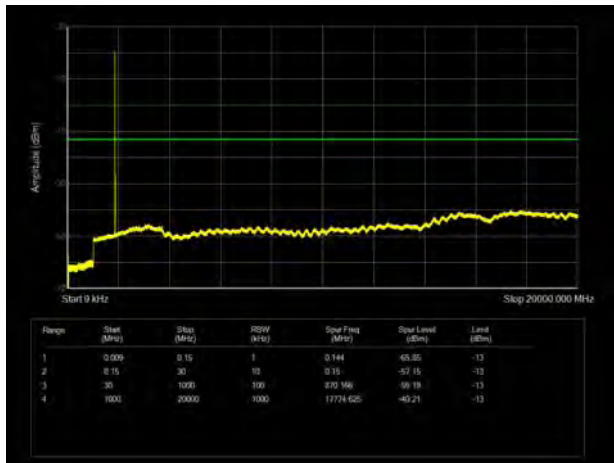
LTE Band 25 1.4MHz CH-High 9kHz~20GHz



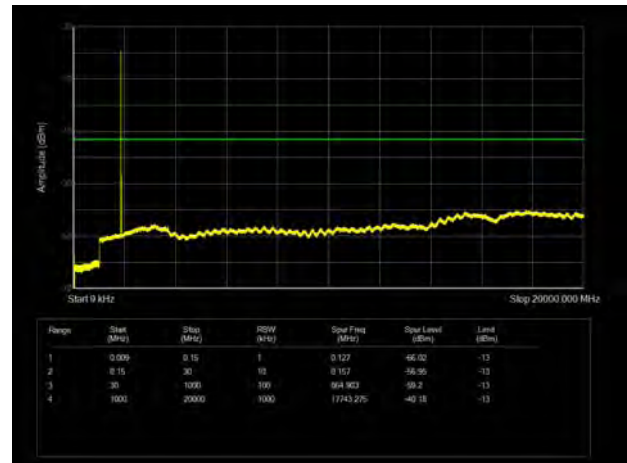
LTE Band 25 3MHz CH-High 9kHz~20GHz



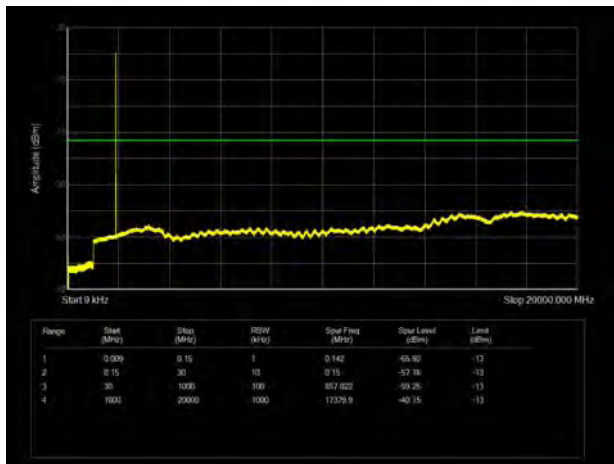
LTE Band 25 5MHz CH-Low 9kHz~20GHz



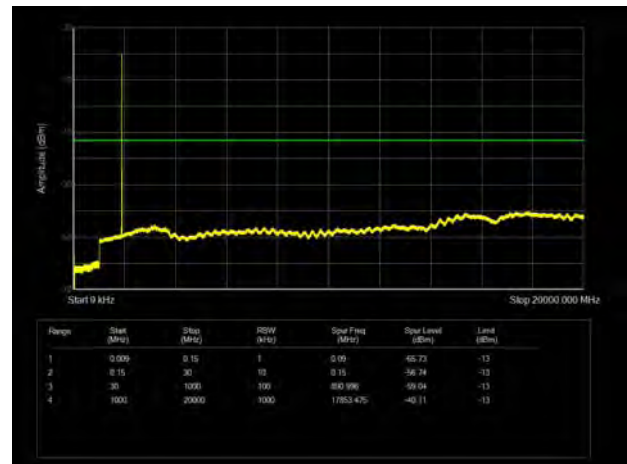
LTE Band 25 10MHz CH-Low 9kHz~20GHz



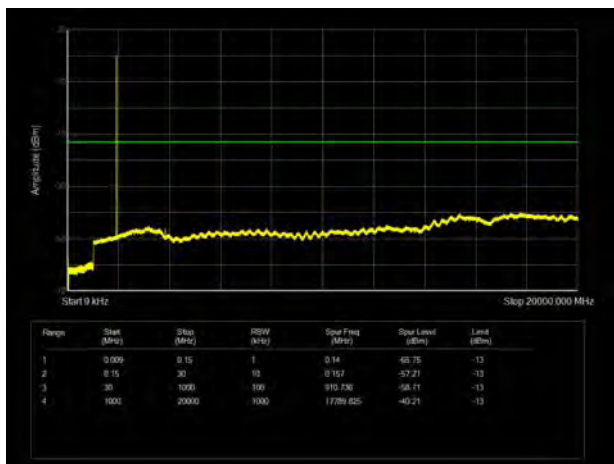
LTE Band 25 5MHz CH-Middle 9kHz~20GHz



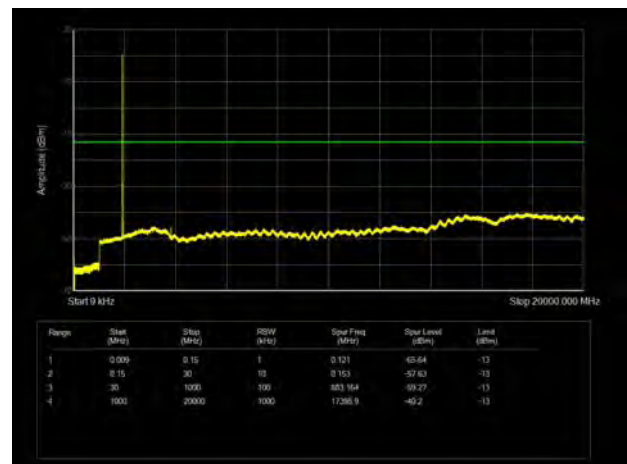
LTE Band 25 10MHz CH-Middle 9kHz~20GHz



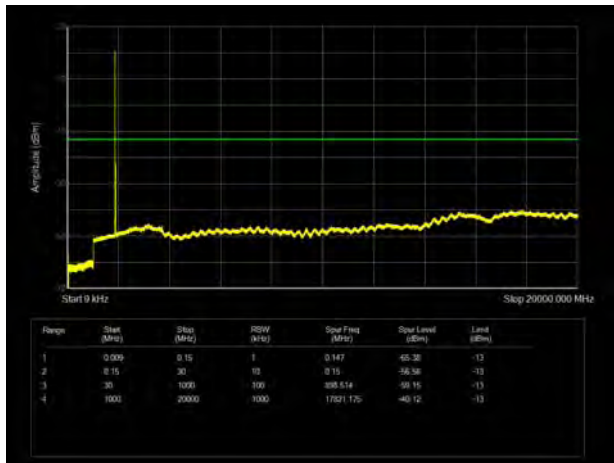
LTE Band 25 5MHz CH-High 9kHz~20GHz



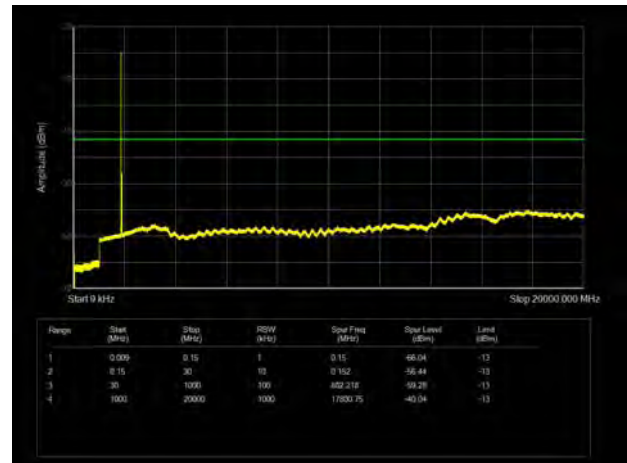
LTE Band 25 10MHz CH-High 9kHz~20GHz



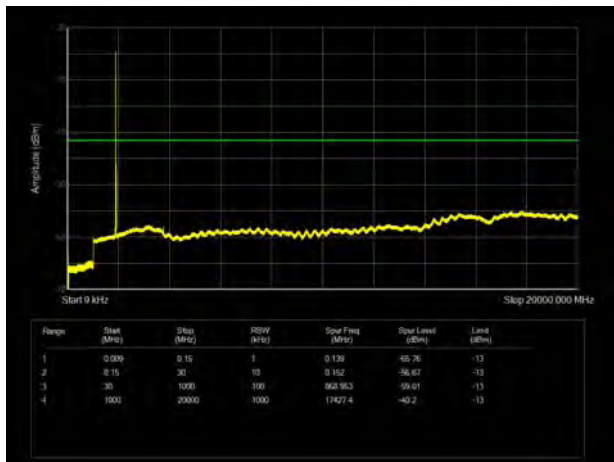
LTE Band 25 15MHz CH-Low 9kHz~20GHz



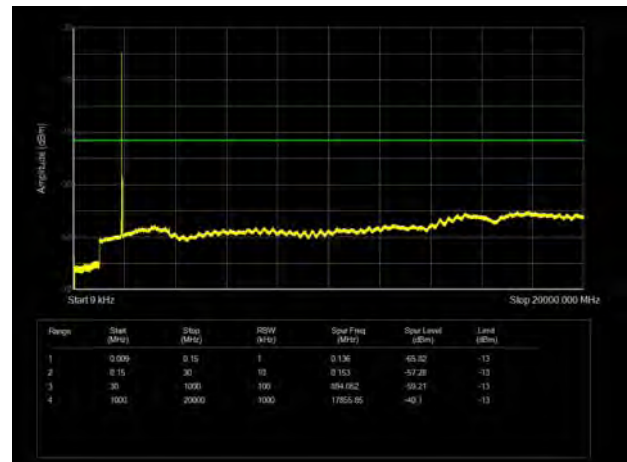
LTE Band 25 20MHz CH-Low 9kHz~20GHz



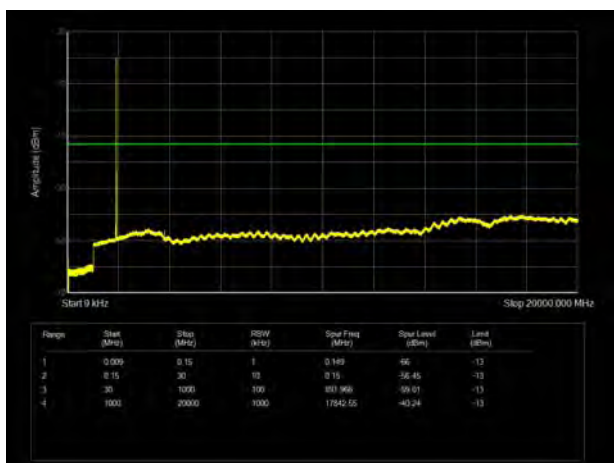
LTE Band 25 15MHz CH-Middle 9kHz~20GHz



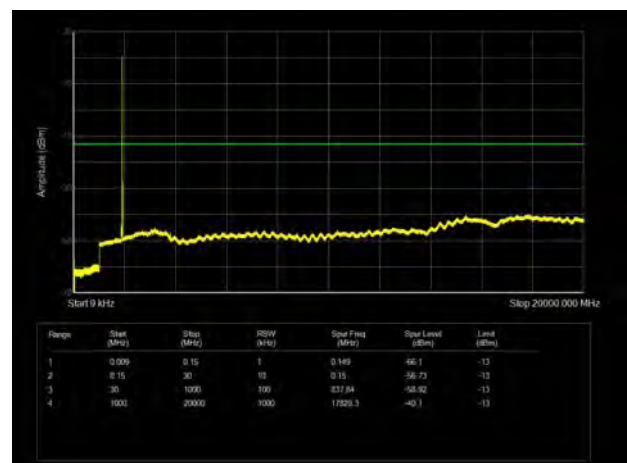
LTE Band 25 20MHz CH-Middle 9kHz~20GHz



LTE Band 25 15MHz CH-High 9kHz~20GHz



LTE Band 25 20MHz CH-High 9kHz~20GHz



6.7. Radiates Spurious Emission

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

GSM 1900 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-66.27	2.60	12.50	Vertical	-56.37	-13.00	43.37	90
3	5640.00	-33.45	3.30	12.50	Vertical	-24.25	-13.00	11.25	225
4	7520.00	-56.83	4.20	12.20	Vertical	-48.83	-13.00	35.83	45
5	9400.00	-51.80	4.30	11.10	Vertical	-45.00	-13.00	32.00	315
6	11280.00	-49.01	5.90	11.90	Vertical	-43.01	-13.00	30.01	90
7	13160.00	-51.47	5.70	14.00	Vertical	-43.17	-13.00	30.17	0
8	15040.00	-51.80	5.80	13.10	Vertical	-44.50	-13.00	31.50	45
9	16920.00	-48.61	6.10	14.60	Vertical	-40.11	-13.00	27.11	135
10	18800.00	--	--	--	--	--	--	--	--

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

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

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	-62.20	2.60	12.50	Vertical	-52.30	-13.00	39.30	270
3	5640.00	-56.26	3.30	12.50	Vertical	-47.06	-13.00	34.06	45
4	7520.00	-47.98	4.20	12.20	Vertical	-39.98	-13.00	26.98	225
5	9400.00	-41.09	4.30	11.10	Vertical	-34.29	-13.00	21.29	0
6	11280.00	-49.89	5.90	11.90	Vertical	-43.89	-13.00	30.89	45
7	13160.00	-51.45	5.70	14.00	Vertical	-43.15	-13.00	30.15	315
8	15040.00	-51.52	5.80	13.10	Vertical	-44.22	-13.00	31.22	90
9	16920.00	-49.42	6.10	14.60	Vertical	-40.92	-13.00	27.92	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 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	-56.89	2.60	12.50	Vertical	-46.99	-13.00	33.99	45
3	5639.00	-46.68	3.30	12.50	Vertical	-37.48	-13.00	24.48	180
4	7518.20	-42.34	4.20	12.20	Vertical	-34.34	-13.00	21.34	315
5	9397.20	-35.46	4.30	11.10	Vertical	-28.66	-13.00	15.66	180
6	11277.80	-47.27	5.90	11.90	Vertical	-41.27	-13.00	28.27	0
7	13160.00	-50.02	5.70	14.00	Vertical	-41.72	-13.00	28.72	45
8	15040.00	-52.89	5.80	13.10	Vertical	-45.59	-13.00	32.59	225
9	16920.00	-49.97	6.10	14.60	Vertical	-41.47	-13.00	28.47	270
10	18800.00	--	--	--	--	--	--	--	--

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

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

LTE Band 2 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3755.50	-56.45	2.60	12.50	Vertical	-46.55	-13.00	33.55	180
3	5633.60	-46.24	3.30	12.50	Vertical	-37.04	-13.00	24.04	0
4	7511.40	-38.40	4.20	12.20	Vertical	-30.40	-13.00	17.40	315
5	9388.80	-33.15	4.30	11.10	Vertical	-26.35	-13.00	13.35	180
6	11280.00	-46.43	5.90	11.90	Vertical	-40.43	-13.00	27.43	0
7	13160.00	-50.47	5.70	14.00	Vertical	-42.17	-13.00	29.17	315
8	15040.00	-53.10	5.80	13.10	Vertical	-45.80	-13.00	32.80	180
9	16920.00	-50.39	6.10	14.60	Vertical	-41.89	-13.00	28.89	45
10	18800.00	--	--	--	--	--	--	--	--

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

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

LTE Band 2 20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3742.10	-56.46	2.60	12.50	Vertical	-46.56	-13.00	33.56	180
3	5613.60	-47.67	3.30	12.50	Vertical	-38.47	-13.00	25.47	0
4	7484.60	-45.49	4.20	12.20	Vertical	-37.49	-13.00	24.49	315
5	9355.60	-32.29	4.30	11.10	Vertical	-25.49	-13.00	12.49	0
6	11226.60	-47.35	5.90	11.90	Vertical	-41.35	-13.00	28.35	45
7	13160.00	-49.70	5.70	14.00	Vertical	-41.40	-13.00	28.40	0
8	15040.00	-53.04	5.80	13.10	Vertical	-45.74	-13.00	32.74	180
9	16920.00	-50.02	6.10	14.60	Vertical	-41.52	-13.00	28.52	315
10	18800.00	--	--	--	--	--	--	--	--

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

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

LTE Band 25 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	3764.20	-51.85	2.60	12.50	Vertical	-41.95	-13.00	28.95	90
3	5646.00	-48.63	3.30	12.50	Vertical	-39.43	-13.00	26.43	180
4	7528.00	-41.46	4.20	12.20	Vertical	-33.46	-13.00	20.46	315
5	9410.20	-33.60	4.30	11.10	Vertical	-26.80	-13.00	13.80	0
6	11292.60	-44.86	5.90	11.90	Vertical	-38.86	-13.00	25.86	180
7	13177.50	-50.35	5.70	14.00	Vertical	-42.05	-13.00	29.05	90
8	15060.00	-52.47	5.80	13.10	Vertical	-45.17	-13.00	32.17	315
9	16942.50	-49.59	6.10	14.60	Vertical	-41.09	-13.00	28.09	0
10	18825.00	--	--	--	--	--	--	--	--

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	3760.30	-53.54	2.60	12.50	Vertical	-43.64	-13.00	30.64	45
3	5641.00	-42.78	3.30	12.50	Vertical	-33.58	-13.00	20.58	180
4	7521.20	-42.79	4.20	12.20	Vertical	-34.79	-13.00	21.79	315
5	9401.60	-36.14	4.30	11.10	Vertical	-29.34	-13.00	16.34	0
6	11282.20	-44.37	5.90	11.90	Vertical	-38.37	-13.00	25.37	180
7	13177.50	-50.27	5.70	14.00	Vertical	-41.97	-13.00	28.97	315
8	15060.00	-50.63	5.80	13.10	Vertical	-43.33	-13.00	30.33	0
9	16942.50	-49.94	6.10	14.60	Vertical	-41.44	-13.00	28.44	180
10	18825.00	--	--	--	--	--	--	--	--

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	3746.90	-56.61	2.60	12.50	Vertical	-46.71	-13.00	33.71	180
3	5620.90	-46.59	3.30	12.50	Vertical	-37.39	-13.00	24.39	45
4	7494.80	-41.52	4.20	12.20	Vertical	-33.52	-13.00	20.52	0
5	9368.00	-31.01	4.30	11.10	Vertical	-24.21	-13.00	11.21	180
6	11241.20	-39.60	5.90	11.90	Vertical	-33.60	-13.00	20.60	315
7	13115.40	-46.52	5.70	14.00	Vertical	-38.22	-13.00	25.22	0
8	14992.00	-50.17	5.80	13.10	Vertical	-42.87	-13.00	29.87	90
9	16866.00	-48.93	6.10	14.60	Vertical	-40.43	-13.00	27.43	180
10	18740.00	--	--	--	--	--	--	--	--

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

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



7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Climate Chamber	ESPEC	SU-242	93000506	2021-12-12	2022-12-11
Comprehensive tester	R&S	CMW500	150415	2022-05-14	2023-05-13
Spectrum Analyzer	Keysight	N9020A	MY50510203	2021-12-12	2022-12-11
Wireless communication tester	Agilent	E5515C	GB44400275	2021-12-12	2022-12-11
Spectrum Analyzer	R&S	FSV40	101297	2021-12-12	2022-12-11
Radiated Spurious Emissions					
Spectrum Analyzer	R&S	FSV30	104028	2021-12-12	2022-12-11
log periodic antenna	Schwarzbeck	VULB 9163	01111	2019-09-12	2022-09-11
high frequency horn antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
software	R&S	EMC32	10.35.10	/	/

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



ANNEX A: The EUT Appearance

The EUT Appearance is submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos is submitted separately.