



RF TEST REPORT

Applicant Xiaomi Communications Co., Ltd.
FCC ID 2AFZZNC4L
Product Mobile Phone
Brand Redmi
Model 2212ARNC4L
Report No. R2209A0813-R1
Issue Date November 11, 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 22H (2021)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Radiated Power	2.1046 22.913(a)(5)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	2.1051 / 22.917(a)	PASS
4	Peak-to-Average Power Ratio	22.913(d) KDB 971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 22.355	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 / 22.917(a)	PASS
7	Radiated Spurious Emission	2.1053 / 22.917 (a)	PASS

Date of Testing: October 11, 2022 ~ October 24, 2022

Date of Sample Received: October 8, 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	Xiaomi Communications Co., Ltd.
Applicant address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer	Xiaomi Communications Co., Ltd.
Manufacturer address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

2.2. General Information

EUT Description			
Model	2212ARNC4L		
IMEI	IMEI 1: 861591060034168 IMEI 2: 861591060034176		
Hardware Version	P1.1		
Software Version	MIUI 13		
Antenna Type	PIFA Antenna		
Antenna Gain	Band	Low Antenna	Upper Antenna
	GSM 850	-3.3 dBi	-2.9 dBi
	WCDMA Band V	-3.3 dBi	-2.9 dBi
	LTE Band 5	-3.3 dBi	-2.9 dBi
	LTE Band 26	-3.6 dBi	-2.9 dBi
Test Mode(s)	GSM 850; WCDMA Band V; LTE Band 5/26;		
Test Modulation	(GSM/GPRS)GMSK, (EGPRS) GMSK/ 8PSK; (WCDMA) BPSK, QPSK; (LTE) QPSK, 16QAM, 64QAM;		
GPRS Multislot Class	12		
EGPRS Multislot Class	12		
HSDPA UE Category	4		
HSUPA UE Category	5		
LTE Category	5		
Maximum E.R.P.	GSM 850:	27.46 dBm	
	WCDMA Band V:	18.13 dBm	
	LTE Band 5:	18.55 dBm	
	LTE Band 26:	18.48 dBm	
Rated Power Supply Voltage	3.85V		
Operating Voltage	Minimum: 3.65V Maximum: 4.20V		
Operating Temperature	Lowest: 0°C Highest: +40°C		



Testing Temperature	Lowest: -30°C Highest: +50°C		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 ~ 849	869 ~ 894
	WCDMA Band V	824 ~ 849	869 ~ 894
	LTE Band 5	824 ~ 849	869 ~ 894
	LTE Band 26	824 ~ 849	869 ~ 894
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. Low antenna and Upper antenna can't transmit simultaneously.			



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 22H (2021)

FCC CFR47 Part 2 (2021)

Reference standard:

ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

4. Test Configuration

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

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (X axis, vertical polarization for Upper Antenna GSM/WCDMA/LTE Band; X axis, horizontal polarization for Low Antenna GSM/WCDMA Band; X axis, vertical polarization for Low Antenna LTE Band) 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 850	WCDMA Band V
RF Power Output and Effective Radiated power	GSM GPRS EGPRS	RMC/ AMR HSDPA/HSUPA DC-HSDPA
Occupied Bandwidth	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Band Edge Compliance	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Peak-to-Average Power Ratio	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Frequency Stability	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Spurious Emissions at Antenna Terminals	GSM	RMC
Radiated Spurious Emission	GSM	RMC



Test modes are chosen as the worst case configuration below for LTE Band 5/26

Test items	Modes	Bandwidth (MHz)					Modulation		RB			Test Channel		
		1.4	3	5	10	15	QPSK	16QAM/ 64QAM	1	50%	100%	L	M	H
RF power output and Effective Radiated power	LTE 5	O	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 5	O	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 5	O	O	O	O	-	O	O	O	-	O	O	-	O
	LTE 26	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 5	O	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 5	O	O	O	O	-	O	O	O	-	-	-	O	-
	LTE 26	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 5	O	O	O	O	-	O	-	O	-	-	O	O	O
	LTE 26	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiated Spurious Emission	LTE 5	O	-	O	O	-	O	-	O	-	-	-	O	-
	LTE 26	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 Radiated Power

Ambient condition

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

Methods of Measurement

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

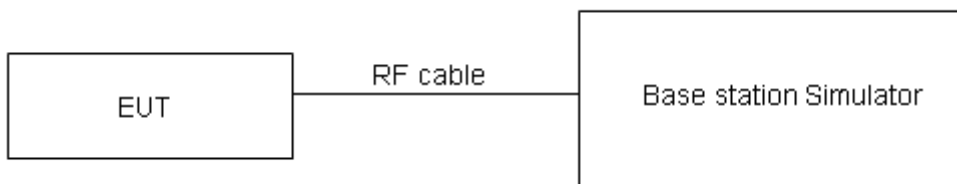
ERP can then be calculated as follows:

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

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

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

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 22.913(a)(5) specifies that "Mobile/portable stations are limited to 7 watts ERP".

Limit	$\leq 7 \text{ W}$ (38.45 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 ERP.

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

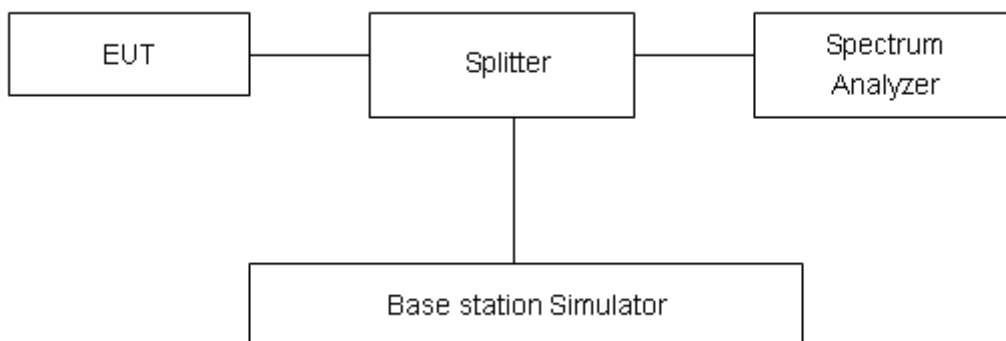
Method of Measurement

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

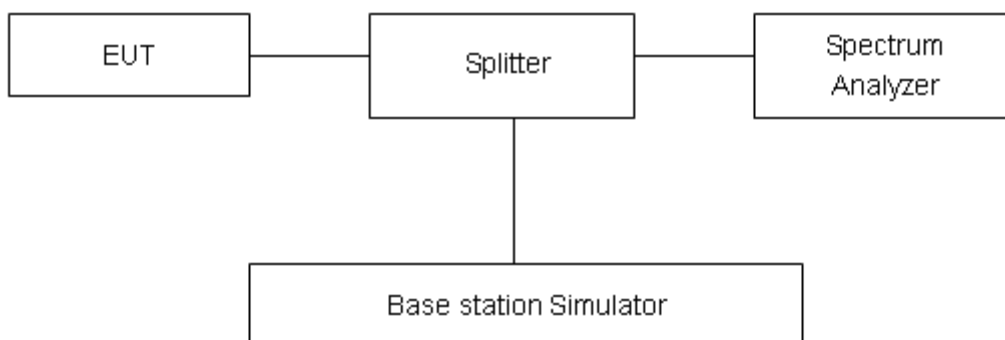
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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. 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 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ 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 $k = 1.96$, $U=0.684$ 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

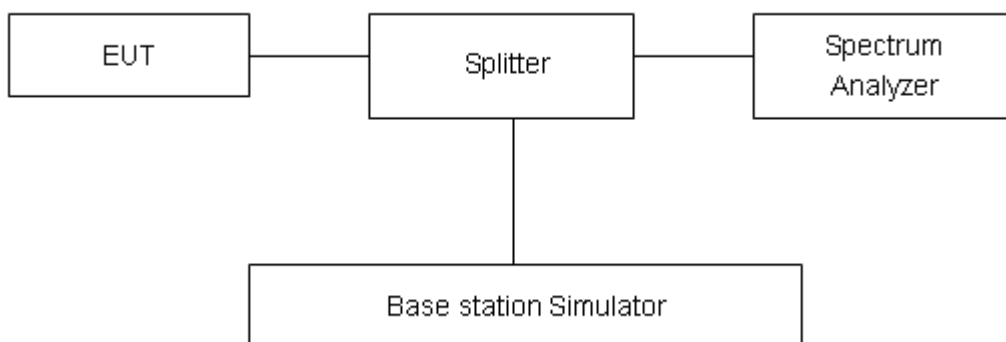
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

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

$$PAPR (dB) = P_{Pk} (dBm) - P_{Avg} (dBm).$$

Test Setup



Limits

According to the Sec. 22.913(d), The peak-to-average ratio (PAR) of the transmission must not exceed 13 dB.

Measurement Uncertainty

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

Test Results

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

5.5. Frequency Stability

Ambient condition

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

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size,

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

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

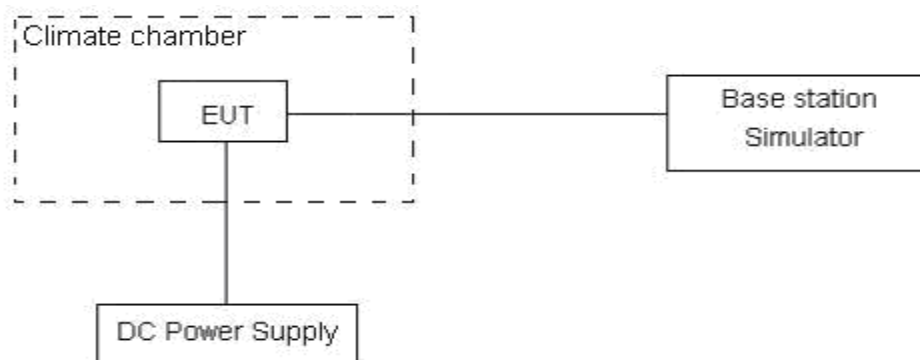
(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements. Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 3.65 V and 4.20 V, with a nominal voltage of 3.85V.

Test setup



Limits

According to the Sec. 22.355, the frequency stability of the carrier shall be accurate to within 2.5 ppm of the received frequency for mobile stations.

Limits	≤ 2.5 ppm
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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 $k = 3$, $U = 0.01\text{ppm}$.



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 1 kHz (0.009MHz~ 0.15 MHz),

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

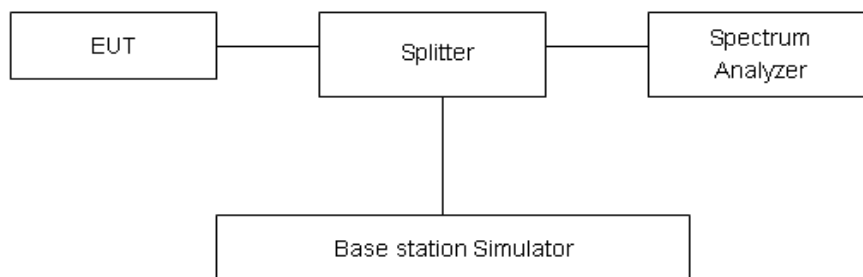
RBW is set to 100 kHz (30MHz~1000 MHz)

RBW is set to 1000 kHz (above 1000MHz)

Sweep is set to ATUO.

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

Test setup



Limits

Rule Part 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (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. Radiated Spurious Emission

Ambient condition

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

Method of Measurement

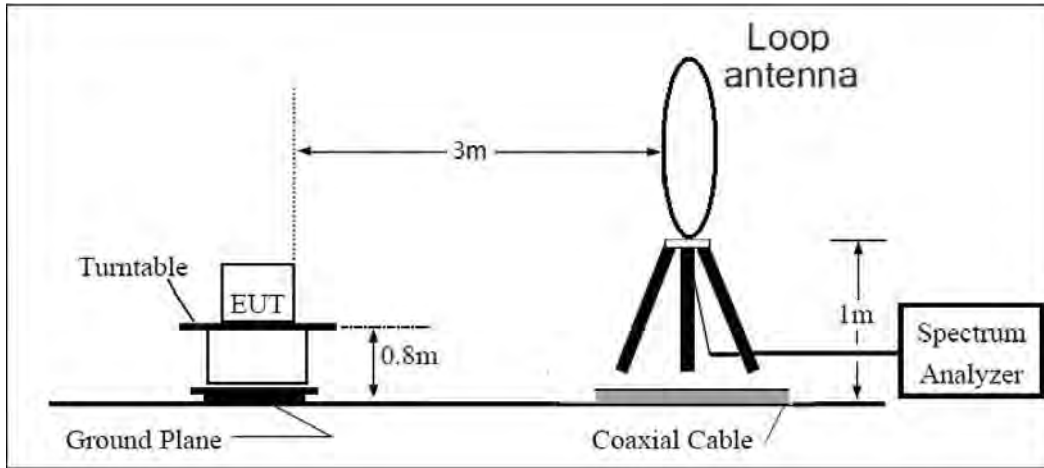
1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26-2015.
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl), the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:
Power(EIRP)=PMea- PAg - Pcl + Ga
The measurement results are amend as described below:
Power(EIRP)=PMea- Pcl + Ga
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dB.

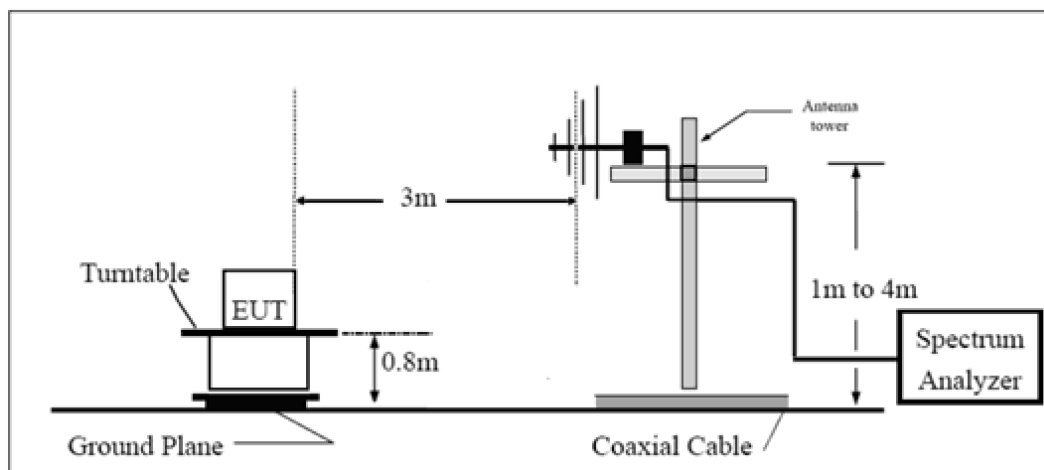
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

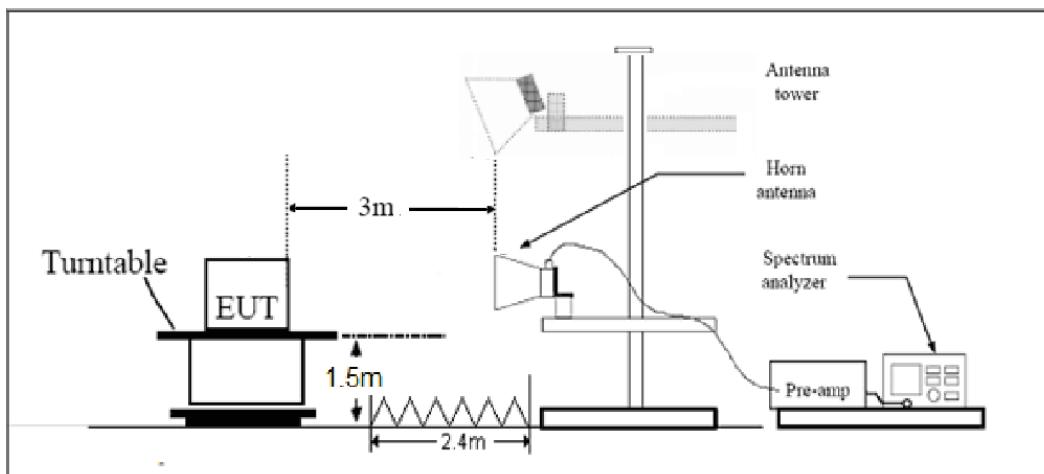
9KHz~ 30MHz



30MHz~ 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m



Limits

Rule Part 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ 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 Result

6.1. RF Power Output and Effective Radiated Power

GSM850 Low Antenna		Maximum Output Power (dBm)			ERP (dBm)		
		Channel/Frequency(MHz)			Channel/Frequency(MHz)		
		128/824.2	190/836.6	251/848.8	128/824.2	190/836.6	251/848.8
GSM	CS	31.73	31.78	31.66	26.28	26.33	26.21
GPRS/EGPRS (GMSK)	1 Tx Slot	31.79	31.74	31.72	26.34	26.29	26.27
	2 Tx Slots	29.47	29.39	29.40	24.02	23.94	23.95
	3 Tx Slots	26.42	26.32	26.29	20.97	20.87	20.84
	4 Tx Slots	25.48	25.36	25.36	20.03	19.91	19.91
EGPRS (8PSK)	1 Tx Slot	26.61	26.89	26.37	21.16	21.44	20.92
	2 Tx Slots	22.94	23.06	22.91	17.49	17.61	17.46
	3 Tx Slots	20.07	20.17	19.86	14.62	14.72	14.41
	4 Tx Slots	18.64	18.54	18.47	13.19	13.09	13.02

GSM850 Upper Antenna		Maximum Output Power (dBm)			ERP (dBm)		
		Channel/Frequency(MHz)			Channel/Frequency(MHz)		
		128/824.2	190/836.6	251/848.8	128/824.2	190/836.6	251/848.8
GSM	CS	32.51	32.45	32.31	27.46	27.40	27.26
GPRS/EGPRS (GMSK)	1 Tx Slot	32.50	32.45	32.30	27.45	27.40	27.25
	2 Tx Slots	30.14	30.08	29.96	25.09	25.03	24.91
	3 Tx Slots	27.04	26.97	26.81	21.99	21.92	21.76
	4 Tx Slots	26.08	26.00	25.87	21.03	20.95	20.82
EGPRS (8PSK)	1 Tx Slot	26.34	27.07	26.65	21.29	22.02	21.60
	2 Tx Slots	23.11	23.43	23.38	18.06	18.38	18.33
	3 Tx Slots	20.39	20.09	19.93	15.34	15.04	14.88
	4 Tx Slots	19.32	18.99	18.93	14.27	13.94	13.88



WCDMA Band V Low Antenna		Maximum Output Power (dBm)			ERP (dBm)		
		Channel/Frequency(MHz)			Channel/Frequency(MHz)		
		4132/826.4	4183/836.6	4233/846.6	4132/826.4	4183/836.6	4233/846.6
RMC	12.2k	23.19	23.18	23.13	17.74	17.73	17.68
AMR	12.2k	23.11	23.06	23.13	17.66	17.61	17.68
HSDPA	Subtest 1	22.03	22.16	22.03	16.58	16.71	16.58
	Subtest 2	22.07	22.06	21.99	16.62	16.61	16.54
	Subtest 3	21.83	21.56	21.57	16.38	16.11	16.12
	Subtest 4	21.81	21.72	21.69	16.36	16.27	16.24
HSUPA	Subtest 1	20.35	20.12	20.29	14.90	14.67	14.84
	Subtest 2	20.31	20.34	19.97	14.86	14.89	14.52
	Subtest 3	21.03	21.06	21.03	15.58	15.61	15.58
	Subtest 4	19.67	19.84	19.67	14.22	14.39	14.22
	Subtest 5	21.03	21.16	21.09	15.58	15.71	15.64
DC-HSDPA	Subtest 1	22.11	22.10	22.05	16.66	16.65	16.60
	Subtest 2	22.19	22.12	22.17	16.74	16.67	16.72
	Subtest 3	21.67	21.54	21.59	16.22	16.09	16.14
	Subtest 4	21.69	21.64	21.47	16.24	16.19	16.02

WCDMA Band V Upper Antenna		Maximum Output Power (dBm)			ERP (dBm)		
		Channel/Frequency(MHz)			Channel/Frequency(MHz)		
		4132/826.4	4183/836.6	4233/846.6	4132/826.4	4183/836.6	4233/846.6
RMC	12.2k	23.01	23.06	23.02	17.96	18.01	17.97
AMR	12.2k	23.07	23.18	23.01	18.02	18.13	17.96
HSDPA	Subtest 1	21.85	22.14	21.96	16.80	17.09	16.91
	Subtest 2	21.93	22.22	22.02	16.88	17.17	16.97
	Subtest 3	21.43	21.66	21.40	16.38	16.61	16.35
	Subtest 4	21.59	21.54	21.48	16.54	16.49	16.43
HSUPA	Subtest 1	20.07	20.06	20.03	15.02	15.01	14.98
	Subtest 2	19.91	20.02	19.98	14.86	14.97	14.93
	Subtest 3	21.03	21.18	21.14	15.98	16.13	16.09
	Subtest 4	19.45	19.64	19.46	14.40	14.59	14.41
	Subtest 5	21.15	21.14	20.88	16.10	16.09	15.83
DC-HSDPA	Subtest 1	21.99	21.90	22.06	16.94	16.85	17.01
	Subtest 2	21.93	22.14	22.12	16.88	17.09	17.07
	Subtest 3	21.41	21.56	21.58	16.36	16.51	16.53
	Subtest 4	21.53	21.66	21.64	16.48	16.61	16.59



LTE Band 5 Low Antenna				Maximum Output Power (dBm)			ERP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				20407/ 824.7	20525/ 836.5	20643/ 848.3	20407/ 824.7	20525/ 836.5	20643/ 848.3
1.4MHz	QPSK	1	0	23.60	23.65	23.60	18.15	18.20	18.15
		1	2	23.74	23.71	23.68	18.29	18.26	18.23
		1	5	23.62	23.58	23.55	18.17	18.13	18.10
		3	0	23.72	23.68	23.73	18.27	18.23	18.28
		3	2	23.66	23.69	23.67	18.21	18.24	18.22
		3	3	23.65	23.59	23.59	18.2	18.14	18.14
	16QAM	6	0	22.77	22.71	22.73	17.32	17.26	17.28
		1	0	22.85	22.95	22.92	17.40	17.50	17.47
		1	2	22.98	23.04	22.97	17.53	17.59	17.52
		1	5	22.95	22.91	22.79	17.5	17.46	17.34
		3	0	22.68	22.61	22.66	17.23	17.16	17.21
		3	2	22.66	22.65	22.65	17.21	17.20	17.20
		3	3	22.63	22.63	22.50	17.18	17.18	17.05
	64QAM	6	0	21.75	21.73	21.74	16.30	16.28	16.29
		1	0	21.78	21.80	21.82	16.33	16.35	16.37
		1	2	21.91	21.94	21.88	16.46	16.49	16.43
		1	5	21.83	21.87	21.74	16.38	16.42	16.29
		3	0	21.66	21.62	21.65	16.21	16.17	16.20
		3	2	21.66	21.62	21.62	16.21	16.17	16.17
		3	3	21.63	21.63	21.55	16.18	16.18	16.10
	3MHz	QPSK	6	0	20.76	20.71	20.74	15.31	15.26
1			0	23.59	23.67	23.59	18.14	18.22	18.14
1	7		23.70	23.70	23.69	18.25	18.25	18.24	
1	14		23.62	23.58	23.55	18.17	18.13	18.10	
8	0		22.79	22.75	22.82	17.34	17.30	17.37	
8	4		22.76	22.75	22.74	17.31	17.30	17.29	
8	7		22.73	22.68	22.65	17.28	17.23	17.20	
16QAM	15	0	22.77	22.74	22.74	17.32	17.29	17.29	
	1	0	22.85	22.93	22.92	17.40	17.48	17.47	
	1	7	22.98	23.02	22.98	17.53	17.57	17.53	
	1	14	22.94	22.93	22.78	17.49	17.48	17.33	
	8	0	21.77	21.70	21.75	16.32	16.25	16.30	
	8	4	21.74	21.73	21.73	16.29	16.28	16.28	
	8	7	21.70	21.70	21.59	16.25	16.25	16.14	
	15	0	21.76	21.73	21.72	16.31	16.28	16.27	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)						
				20425/826.5	20525/836.5	20625/846.5	20425/826.5	20525/836.5	20625/846.5				
				64QAM						1	0	21.78	21.82
64QAM						1	7	21.91	21.96	21.87	16.46	16.51	16.42
64QAM						1	14	21.86	21.84	21.73	16.41	16.39	16.28
64QAM						8	0	20.75	20.71	20.78	15.3	15.26	15.33
64QAM						8	4	20.74	20.70	20.70	15.29	15.25	15.25
64QAM						8	7	20.70	20.70	20.64	15.25	15.25	15.19
64QAM						15	0	20.77	20.71	20.72	15.32	15.26	15.27
5MHz						QPSK							
5MHz						16QAM							
5MHz						64QAM							
5MHz						1	0	23.60	23.64	23.60	18.15	18.19	18.15
5MHz						1	13	23.71	23.74	23.70	18.26	18.29	18.25
5MHz						1	24	23.61	23.57	23.54	18.16	18.12	18.09
5MHz						12	0	22.80	22.76	22.83	17.35	17.31	17.38
5MHz						12	6	22.76	22.75	22.74	17.31	17.3	17.29
5MHz						12	13	22.72	22.69	22.66	17.27	17.24	17.21
5MHz						25	0	22.79	22.72	22.73	17.34	17.27	17.28
5MHz						1	0	22.87	22.94	22.92	17.42	17.49	17.47
5MHz						1	13	23.00	23.03	22.99	17.55	17.58	17.54
5MHz						1	24	22.95	22.91	22.78	17.50	17.46	17.33
5MHz						12	0	21.77	21.73	21.76	16.32	16.28	16.31
5MHz						12	6	21.73	21.72	21.72	16.28	16.27	16.27
5MHz						12	13	21.71	21.71	21.60	16.26	16.26	16.15
5MHz						25	0	21.76	21.73	21.72	16.31	16.28	16.27
5MHz						1	0	21.75	21.79	21.82	16.3	16.34	16.37
5MHz						1	13	21.92	21.93	21.88	16.47	16.48	16.43
5MHz						1	24	21.86	21.85	21.77	16.41	16.40	16.32
5MHz						12	0	20.77	20.78	20.79	15.32	15.33	15.34
5MHz						12	6	20.74	20.71	20.72	15.29	15.26	15.27
5MHz						12	13	20.71	20.71	20.65	15.26	15.26	15.20
5MHz						25	0	20.77	20.71	20.72	15.32	15.26	15.27
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)						
				20450/829	20525/836.5	20600/844	20450/829	20525/836.5	20600/844				
10MHz						QPSK							
10MHz						16QAM							
10MHz						1	0	23.57	23.60	23.57	18.12	18.15	18.12
10MHz						1	25	23.70	23.70	23.68	18.25	18.25	18.23
10MHz						1	49	23.59	23.56	23.51	18.14	18.11	18.06
10MHz						25	0	22.77	22.71	22.79	17.32	17.26	17.34
10MHz						25	13	22.74	22.71	22.71	17.29	17.26	17.26
10MHz						25	25	22.69	22.64	22.62	17.24	17.19	17.17
10MHz						50	0	22.76	22.67	22.69	17.31	17.22	17.24
10MHz						1	0	22.84	22.90	22.87	17.39	17.45	17.42
10MHz						1	25	22.97	23.01	22.95	17.52	17.56	17.50



		1	49	22.92	22.88	22.76	17.47	17.43	17.31
		25	0	21.74	21.69	21.73	16.29	16.24	16.28
		25	13	21.70	21.70	21.69	16.25	16.25	16.24
		25	25	21.68	21.66	21.56	16.23	16.21	16.11
		50	0	21.74	21.69	21.69	16.29	16.24	16.24
	64QAM	1	0	21.73	21.75	21.77	16.28	16.3	16.32
		1	25	21.88	21.91	21.84	16.43	16.46	16.39
		1	49	21.80	21.79	21.71	16.35	16.34	16.26
		25	0	20.72	20.70	20.72	15.27	15.25	15.27
		25	13	20.70	20.67	20.66	15.25	15.22	15.21
		25	25	20.68	20.66	20.61	15.23	15.21	15.16
		50	0	20.75	20.67	20.69	15.30	15.22	15.24

LTE Band 5 Upper Antenna				Maximum Output Power (dBm)			ERP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				20407/ 824.7	20525/ 836.5	20643/ 848.3	20407/ 824.7	20525/ 836.5	20643/ 848.3
1.4MHz	QPSK	1	0	23.38	23.44	23.40	18.33	18.39	18.35
		1	2	23.57	23.56	23.48	18.52	18.51	18.43
		1	5	23.47	23.41	23.43	18.42	18.36	18.38
		3	0	23.53	23.53	23.53	18.48	18.48	18.48
		3	2	23.49	23.52	23.49	18.44	18.47	18.44
		3	3	23.46	23.48	23.41	18.41	18.43	18.36
		6	0	22.59	22.59	22.55	17.54	17.54	17.50
	16QAM	1	0	22.69	22.77	22.77	17.64	17.72	17.72
		1	2	22.88	22.87	22.84	17.83	17.82	17.79
		1	5	22.79	22.76	22.71	17.74	17.71	17.66
		3	0	22.53	22.47	22.48	17.48	17.42	17.43
		3	2	22.47	22.49	22.50	17.42	17.44	17.45
		3	3	22.43	22.48	22.34	17.38	17.43	17.29
		6	0	21.58	21.56	21.55	16.53	16.51	16.50
	64QAM	1	0	21.63	21.61	21.57	16.58	16.56	16.52
		1	2	21.78	21.71	21.65	16.73	16.66	16.60
		1	5	21.61	21.67	21.56	16.56	16.62	16.51
		3	0	21.50	21.46	21.47	16.45	16.41	16.42
		3	2	21.46	21.46	21.49	16.41	16.41	16.44
		3	3	21.42	21.47	21.38	16.37	16.42	16.33
		6	0	20.54	20.58	20.54	15.49	15.53	15.49
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				20415/ 825.5	20525/ 836.5	20635/ 847.5	20415/ 825.5	20525/ 836.5	20635/ 847.5
3MHz	QPSK	1	0	23.39	23.47	23.42	18.34	18.42	18.37
		1	7	23.56	23.60	23.53	18.51	18.55	18.48



		1	14	23.49	23.45	23.46	18.44	18.40	18.41	
		8	0	22.63	22.65	22.66	17.58	17.60	17.61	
		8	4	22.62	22.63	22.60	17.57	17.58	17.55	
		8	7	22.56	22.61	22.52	17.51	17.56	17.47	
		15	0	22.63	22.64	22.60	17.58	17.59	17.55	
	16QAM	1	0	22.73	22.78	22.79	17.68	17.73	17.74	
		1	7	22.92	22.89	22.88	17.87	17.84	17.83	
		1	14	22.81	22.80	22.73	17.76	17.75	17.68	
		8	0	21.65	21.61	21.61	16.60	16.56	16.56	
		8	4	21.57	21.61	21.61	16.52	16.56	16.56	
		8	7	21.53	21.60	21.47	16.48	16.55	16.42	
	64QAM	15	0	21.62	21.61	21.57	16.57	16.56	16.52	
		1	0	21.65	21.62	21.59	16.60	16.57	16.54	
		1	7	21.81	21.73	21.67	16.76	16.68	16.62	
		1	14	21.63	21.66	21.58	16.58	16.61	16.53	
		8	0	20.62	20.60	20.60	15.57	15.55	15.55	
		8	4	20.56	20.58	20.60	15.51	15.53	15.55	
		8	7	20.52	20.59	20.51	15.47	15.54	15.46	
	15	0	20.58	20.63	20.56	15.53	15.58	15.51		
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
					20425/ 826.5	20525/ 836.5	20625/ 846.5	20425/ 826.5	20525/ 836.5	20625/ 846.5
5MHz	QPSK	1	0	23.38	23.43	23.40	18.33	18.38	18.35	
		1	13	23.54	23.59	23.50	18.49	18.54	18.45	
		1	24	23.46	23.40	23.42	18.41	18.35	18.37	
		12	0	22.61	22.61	22.63	17.56	17.56	17.58	
		12	6	22.59	22.58	22.56	17.54	17.53	17.51	
		12	13	22.53	22.58	22.48	17.48	17.53	17.43	
		25	0	22.61	22.60	22.55	17.56	17.55	17.50	
	16QAM	1	0	22.71	22.76	22.77	17.66	17.71	17.72	
		1	13	22.90	22.86	22.86	17.85	17.81	17.81	
		1	24	22.79	22.76	22.70	17.74	17.71	17.65	
		12	0	21.62	21.59	21.58	16.57	16.54	16.53	
		12	6	21.54	21.56	21.57	16.49	16.51	16.52	
		12	13	21.51	21.56	21.44	16.46	16.51	16.39	
		25	0	21.59	21.56	21.53	16.54	16.51	16.48	
	64QAM	1	0	21.60	21.60	21.57	16.55	16.55	16.52	
		1	13	21.79	21.70	21.65	16.74	16.65	16.60	
		1	24	21.64	21.65	21.59	16.59	16.60	16.54	
		12	0	20.61	20.62	20.61	15.56	15.57	15.56	
		12	6	20.54	20.55	20.59	15.49	15.50	15.54	
		12	13	20.50	20.55	20.48	15.45	15.50	15.43	
		25	0	20.55	20.58	20.52	15.50	15.53	15.47	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				20450/829	20525/836.5	20600/844	20450/829	20525/836.5	20600/844
10MHz	QPSK	1	0	23.35	23.39	23.37	18.30	18.34	18.32
		1	25	23.55	23.55	23.48	18.50	18.50	18.43
		1	49	23.44	23.39	23.39	18.39	18.34	18.34
		25	0	22.60	22.56	22.59	17.55	17.51	17.54
		25	13	22.57	22.54	22.53	17.52	17.49	17.48
		25	25	22.50	22.53	22.44	17.45	17.48	17.39
		50	0	22.58	22.55	22.51	17.53	17.50	17.46
	16QAM	1	0	22.68	22.72	22.72	17.63	17.67	17.67
		1	25	22.87	22.84	22.82	17.82	17.79	17.77
		1	49	22.76	22.73	22.68	17.71	17.68	17.63
		25	0	21.59	21.55	21.55	16.54	16.50	16.50
		25	13	21.51	21.54	21.54	16.46	16.49	16.49
		25	25	21.48	21.51	21.40	16.43	16.46	16.35
		50	0	21.57	21.52	21.50	16.52	16.47	16.45
	64QAM	1	0	21.58	21.56	21.52	16.53	16.51	16.47
		1	25	21.75	21.68	21.61	16.70	16.63	16.56
		1	49	21.58	21.59	21.53	16.53	16.54	16.48
		25	0	20.56	20.54	20.54	15.51	15.49	15.49
		25	13	20.50	20.51	20.53	15.45	15.46	15.48
		25	25	20.47	20.50	20.44	15.42	15.45	15.39
		50	0	20.53	20.54	20.49	15.48	15.49	15.44

LTE Band 26 Low Antenna						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
1.4	26797	1	#0	QPSK	23.50	17.75
1.4	26797	1	#Mid	QPSK	23.75	18.00
1.4	26797	1	#Max	QPSK	23.51	17.76
1.4	26797	3	#0	QPSK	23.59	17.84
1.4	26797	3	#Mid	QPSK	23.57	17.82
1.4	26797	3	#Max	QPSK	23.56	17.81
1.4	26797	6	#0	QPSK	22.62	16.87
1.4	26797	1	#0	16QAM	22.72	16.97
1.4	26797	1	#Mid	16QAM	22.82	17.07
1.4	26797	1	#Max	16QAM	22.71	16.96
1.4	26797	3	#0	16QAM	22.52	16.77
1.4	26797	3	#Mid	16QAM	22.60	16.85
1.4	26797	3	#Max	16QAM	22.71	16.96
1.4	26797	6	#0	16QAM	21.68	15.93
1.4	26915	1	#0	QPSK	23.70	17.95
1.4	26915	1	#Mid	QPSK	23.86	18.11



1.4	26915	1	#Max	QPSK	23.68	17.93
1.4	26915	3	#0	QPSK	23.75	18.00
1.4	26915	3	#Mid	QPSK	23.76	18.01
1.4	26915	3	#Max	QPSK	23.71	17.96
1.4	26915	6	#0	QPSK	22.74	16.99
1.4	26915	1	#0	16QAM	22.67	16.92
1.4	26915	1	#Mid	16QAM	22.73	16.98
1.4	26915	1	#Max	16QAM	22.60	16.85
1.4	26915	3	#0	16QAM	22.73	16.98
1.4	26915	3	#Mid	16QAM	22.72	16.97
1.4	26915	3	#Max	16QAM	22.74	16.99
1.4	26915	6	#0	16QAM	21.75	16.00
1.4	27033	1	#0	QPSK	23.83	18.08
1.4	27033	1	#Mid	QPSK	24.01	18.26
1.4	27033	1	#Max	QPSK	23.82	18.07
1.4	27033	3	#0	QPSK	23.82	18.07
1.4	27033	3	#Mid	QPSK	23.80	18.05
1.4	27033	3	#Max	QPSK	23.79	18.04
1.4	27033	6	#0	QPSK	22.81	17.06
1.4	27033	1	#0	16QAM	22.69	16.94
1.4	27033	1	#Mid	16QAM	22.96	17.21
1.4	27033	1	#Max	16QAM	22.73	16.98
1.4	27033	3	#0	16QAM	22.88	17.13
1.4	27033	3	#Mid	16QAM	22.89	17.14
1.4	27033	3	#Max	16QAM	22.92	17.17
1.4	27033	6	#0	16QAM	21.83	16.08
3	26805	1	#0	QPSK	23.73	17.98
3	26805	1	#Mid	QPSK	23.79	18.04
3	26805	1	#Max	QPSK	23.72	17.97
3	26805	8	#0	QPSK	22.75	17.00
3	26805	8	#Mid	QPSK	22.74	16.99
3	26805	8	#Max	QPSK	22.76	17.01
3	26805	15	#0	QPSK	22.73	16.98
3	26805	1	#0	16QAM	22.88	17.13
3	26805	1	#Mid	16QAM	22.90	17.15
3	26805	1	#Max	16QAM	22.92	17.17
3	26805	8	#0	16QAM	21.73	15.98
3	26805	8	#Mid	16QAM	21.72	15.97
3	26805	8	#Max	16QAM	21.73	15.98
3	26805	15	#0	16QAM	21.63	15.88
3	26915	1	#0	QPSK	23.76	18.01
3	26915	1	#Mid	QPSK	23.78	18.03
3	26915	1	#Max	QPSK	23.85	18.10



3	26915	8	#0	QPSK	22.74	16.99
3	26915	8	#Mid	QPSK	22.77	17.02
3	26915	8	#Max	QPSK	22.75	17.00
3	26915	15	#0	QPSK	22.77	17.02
3	26915	1	#0	16QAM	22.62	16.87
3	26915	1	#Mid	16QAM	22.65	16.90
3	26915	1	#Max	16QAM	22.65	16.90
3	26915	8	#0	16QAM	21.73	15.98
3	26915	8	#Mid	16QAM	21.75	16.00
3	26915	8	#Max	16QAM	21.74	15.99
3	26915	15	#0	16QAM	21.74	15.99
3	27025	1	#0	QPSK	23.66	17.91
3	27025	1	#Mid	QPSK	23.69	17.94
3	27025	1	#Max	QPSK	23.65	17.90
3	27025	8	#0	QPSK	22.75	17.00
3	27025	8	#Mid	QPSK	22.77	17.02
3	27025	8	#Max	QPSK	22.74	16.99
3	27025	15	#0	QPSK	22.72	16.97
3	27025	1	#0	16QAM	22.96	17.21
3	27025	1	#Mid	16QAM	22.96	17.21
3	27025	1	#Max	16QAM	22.90	17.15
3	27025	8	#0	16QAM	21.72	15.97
3	27025	8	#Mid	16QAM	21.67	15.92
3	27025	8	#Max	16QAM	21.65	15.90
3	27025	15	#0	16QAM	21.58	15.83
5	26815	1	#0	QPSK	23.54	17.79
5	26815	1	#Mid	QPSK	23.76	18.01
5	26815	1	#Max	QPSK	23.64	17.89
5	26815	12	#0	QPSK	22.77	17.02
5	26815	12	#Mid	QPSK	22.80	17.05
5	26815	12	#Max	QPSK	22.79	17.04
5	26815	25	#0	QPSK	22.74	16.99
5	26815	1	#0	16QAM	22.91	17.16
5	26815	1	#Mid	16QAM	23.04	17.29
5	26815	1	#Max	16QAM	22.96	17.21
5	26815	12	#0	16QAM	21.77	16.02
5	26815	12	#Mid	16QAM	21.80	16.05
5	26815	12	#Max	16QAM	21.72	15.97
5	26815	25	#0	16QAM	21.78	16.03
5	26915	1	#0	QPSK	23.68	17.93
5	26915	1	#Mid	QPSK	23.77	18.02
5	26915	1	#Max	QPSK	23.66	17.91
5	26915	12	#0	QPSK	22.76	17.01



5	26915	12	#Mid	QPSK	22.77	17.02
5	26915	12	#Max	QPSK	22.76	17.01
5	26915	25	#0	QPSK	22.81	17.06
5	26915	1	#0	16QAM	22.97	17.22
5	26915	1	#Mid	16QAM	23.06	17.31
5	26915	1	#Max	16QAM	22.93	17.18
5	26915	12	#0	16QAM	21.74	15.99
5	26915	12	#Mid	16QAM	21.72	15.97
5	26915	12	#Max	16QAM	21.71	15.96
5	26915	25	#0	16QAM	21.83	16.08
5	27015	1	#0	QPSK	23.69	17.94
5	27015	1	#Mid	QPSK	23.80	18.05
5	27015	1	#Max	QPSK	23.71	17.96
5	27015	12	#0	QPSK	22.84	17.09
5	27015	12	#Mid	QPSK	22.86	17.11
5	27015	12	#Max	QPSK	22.74	16.99
5	27015	25	#0	QPSK	22.79	17.04
5	27015	1	#0	16QAM	22.93	17.18
5	27015	1	#Mid	16QAM	22.97	17.22
5	27015	1	#Max	16QAM	22.85	17.10
5	27015	12	#0	16QAM	21.79	16.04
5	27015	12	#Mid	16QAM	21.73	15.98
5	27015	12	#Max	16QAM	21.66	15.91
5	27015	25	#0	16QAM	21.76	16.01
10	26840	1	#0	QPSK	23.74	17.99
10	26840	1	#Mid	QPSK	23.91	18.16
10	26840	1	#Max	QPSK	23.72	17.97
10	26840	25	#0	QPSK	22.87	17.12
10	26840	25	#Mid	QPSK	22.90	17.15
10	26840	25	#Max	QPSK	22.84	17.09
10	26840	50	#0	QPSK	22.85	17.10
10	26840	1	#0	16QAM	23.00	17.25
10	26840	1	#Mid	16QAM	23.22	17.47
10	26840	1	#Max	16QAM	23.03	17.28
10	26840	25	#0	16QAM	21.92	16.17
10	26840	25	#Mid	16QAM	21.97	16.22
10	26840	25	#Max	16QAM	21.90	16.15
10	26840	50	#0	16QAM	21.84	16.09
10	26915	1	#0	QPSK	23.84	18.09
10	26915	1	#Mid	QPSK	23.87	18.12
10	26915	1	#Max	QPSK	23.79	18.04
10	26915	25	#0	QPSK	22.88	17.13
10	26915	25	#Mid	QPSK	22.89	17.14



10	26915	25	#Max	QPSK	22.78	17.03
10	26915	50	#0	QPSK	22.83	17.08
10	26915	1	#0	16QAM	22.98	17.23
10	26915	1	#Mid	16QAM	22.99	17.24
10	26915	1	#Max	16QAM	23.00	17.25
10	26915	25	#0	16QAM	21.91	16.16
10	26915	25	#Mid	16QAM	21.87	16.12
10	26915	25	#Max	16QAM	21.77	16.02
10	26915	50	#0	16QAM	21.81	16.06
10	26990	1	#0	QPSK	23.84	18.09
10	26990	1	#Mid	QPSK	24.00	18.25
10	26990	1	#Max	QPSK	23.86	18.11
10	26990	25	#0	QPSK	22.88	17.13
10	26990	25	#Mid	QPSK	22.89	17.14
10	26990	25	#Max	QPSK	22.72	16.97
10	26990	50	#0	QPSK	22.82	17.07
10	26990	1	#0	16QAM	22.71	16.96
10	26990	1	#Mid	16QAM	22.74	16.99
10	26990	1	#Max	16QAM	22.62	16.87
10	26990	25	#0	16QAM	21.87	16.12
10	26990	25	#Mid	16QAM	21.90	16.15
10	26990	25	#Max	16QAM	21.71	15.96
10	26990	50	#0	16QAM	21.85	16.10
15	26865	1	#0	QPSK	23.73	17.98
15	26865	1	#Mid	QPSK	23.86	18.11
15	26865	1	#Max	QPSK	23.66	17.91
15	26865	36	#0	QPSK	22.95	17.20
15	26865	36	#Mid	QPSK	22.94	17.19
15	26865	36	#Max	QPSK	22.83	17.08
15	26865	75	#0	QPSK	22.92	17.17
15	26865	1	#0	16QAM	22.88	17.13
15	26865	1	#Mid	16QAM	23.03	17.28
15	26865	1	#Max	16QAM	22.83	17.08
15	26865	36	#0	16QAM	21.85	16.10
15	26865	36	#Mid	16QAM	21.84	16.09
15	26865	36	#Max	16QAM	21.81	16.06
15	26865	75	#0	16QAM	21.88	16.13
15	26915	1	#0	QPSK	23.83	18.08
15	26915	1	#Mid	QPSK	23.89	18.14
15	26915	1	#Max	QPSK	23.77	18.02
15	26915	36	#0	QPSK	22.89	17.14
15	26915	36	#Mid	QPSK	22.93	17.18
15	26915	36	#Max	QPSK	22.81	17.06



15	26915	75	#0	QPSK	22.91	17.16
15	26915	1	#0	16QAM	22.82	17.07
15	26915	1	#Mid	16QAM	22.89	17.14
15	26915	1	#Max	16QAM	22.82	17.07
15	26915	36	#0	16QAM	21.86	16.11
15	26915	36	#Mid	16QAM	21.86	16.11
15	26915	36	#Max	16QAM	21.79	16.04
15	26915	75	#0	16QAM	21.85	16.10
15	26965	1	#0	QPSK	23.72	17.97
15	26965	1	#Mid	QPSK	23.82	18.07
15	26965	1	#Max	QPSK	23.67	17.92
15	26965	36	#0	QPSK	22.89	17.14
15	26965	36	#Mid	QPSK	22.91	17.16
15	26965	36	#Max	QPSK	22.81	17.06
15	26965	75	#0	QPSK	22.87	17.12
15	26965	1	#0	16QAM	23.01	17.26
15	26965	1	#Mid	16QAM	23.11	17.36
15	26965	1	#Max	16QAM	22.92	17.17
15	26965	36	#0	16QAM	21.85	16.10
15	26965	36	#Mid	16QAM	21.84	16.09
15	26965	36	#Max	16QAM	21.79	16.04
15	26965	75	#0	16QAM	21.87	16.12
1.4	26797	1	#0	64QAM	21.85	16.10
1.4	26797	1	#Mid	64QAM	22.09	16.34
1.4	26797	1	#Max	64QAM	21.89	16.14
1.4	26797	3	#0	64QAM	22.05	16.30
1.4	26797	3	#Mid	64QAM	22.04	16.29
1.4	26797	3	#Max	64QAM	22.05	16.30
1.4	26797	6	#0	64QAM	21.07	15.32
1.4	26915	1	#0	64QAM	21.74	15.99
1.4	26915	1	#Mid	64QAM	21.79	16.04
1.4	26915	1	#Max	64QAM	21.71	15.96
1.4	26915	3	#0	64QAM	21.80	16.05
1.4	26915	3	#Mid	64QAM	21.82	16.07
1.4	26915	3	#Max	64QAM	21.82	16.07
1.4	26915	6	#0	64QAM	20.97	15.22
1.4	27033	1	#0	64QAM	21.81	16.06
1.4	27033	1	#Mid	64QAM	22.04	16.29
1.4	27033	1	#Max	64QAM	21.81	16.06
1.4	27033	3	#0	64QAM	21.96	16.21
1.4	27033	3	#Mid	64QAM	21.97	16.22
1.4	27033	3	#Max	64QAM	22.01	16.26
1.4	27033	6	#0	64QAM	21.03	15.28



3	26805	1	#0	64QAM	22.05	16.30
3	26805	1	#Mid	64QAM	22.06	16.31
3	26805	1	#Max	64QAM	22.05	16.30
3	26805	8	#0	64QAM	20.86	15.11
3	26805	8	#Mid	64QAM	20.87	15.12
3	26805	8	#Max	64QAM	20.87	15.12
3	26805	15	#0	64QAM	20.92	15.17
3	26915	1	#0	64QAM	21.74	15.99
3	26915	1	#Mid	64QAM	21.75	16.00
3	26915	1	#Max	64QAM	21.77	16.02
3	26915	8	#0	64QAM	20.86	15.11
3	26915	8	#Mid	64QAM	20.86	15.11
3	26915	8	#Max	64QAM	20.84	15.09
3	26915	15	#0	64QAM	21.00	15.25
3	27025	1	#0	64QAM	22.28	16.53
3	27025	1	#Mid	64QAM	22.23	16.48
3	27025	1	#Max	64QAM	22.17	16.42
3	27025	8	#0	64QAM	21.08	15.33
3	27025	8	#Mid	64QAM	21.10	15.35
3	27025	8	#Max	64QAM	21.06	15.31
3	27025	15	#0	64QAM	21.09	15.34
5	26815	1	#0	64QAM	22.22	16.47
5	26815	1	#Mid	64QAM	22.32	16.57
5	26815	1	#Max	64QAM	22.27	16.52
5	26815	12	#0	64QAM	21.09	15.34
5	26815	12	#Mid	64QAM	21.07	15.32
5	26815	12	#Max	64QAM	21.05	15.30
5	26815	25	#0	64QAM	21.20	15.45
5	26915	1	#0	64QAM	22.25	16.50
5	26915	1	#Mid	64QAM	22.32	16.57
5	26915	1	#Max	64QAM	22.22	16.47
5	26915	12	#0	64QAM	21.09	15.34
5	26915	12	#Mid	64QAM	21.10	15.35
5	26915	12	#Max	64QAM	21.09	15.34
5	26915	25	#0	64QAM	21.23	15.48
5	27015	1	#0	64QAM	22.27	16.52
5	27015	1	#Mid	64QAM	22.36	16.61
5	27015	1	#Max	64QAM	22.24	16.49
5	27015	12	#0	64QAM	21.06	15.31
5	27015	12	#Mid	64QAM	21.10	15.35
5	27015	12	#Max	64QAM	20.94	15.19
5	27015	25	#0	64QAM	21.22	15.47
10	26840	1	#0	64QAM	22.30	16.55



10	26840	1	#Mid	64QAM	22.39	16.64
10	26840	1	#Max	64QAM	22.39	16.64
10	26840	25	#0	64QAM	21.28	15.53
10	26840	25	#Mid	64QAM	21.27	15.52
10	26840	25	#Max	64QAM	21.22	15.47
10	26840	50	#0	64QAM	21.26	15.51
10	26915	1	#0	64QAM	22.26	16.51
10	26915	1	#Mid	64QAM	22.40	16.65
10	26915	1	#Max	64QAM	22.23	16.48
10	26915	25	#0	64QAM	21.14	15.39
10	26915	25	#Mid	64QAM	21.14	15.39
10	26915	25	#Max	64QAM	21.10	15.35
10	26915	50	#0	64QAM	21.26	15.51
10	26990	1	#0	64QAM	21.94	16.19
10	26990	1	#Mid	64QAM	22.13	16.38
10	26990	1	#Max	64QAM	21.98	16.23
10	26990	25	#0	64QAM	21.18	15.43
10	26990	25	#Mid	64QAM	21.18	15.43
10	26990	25	#Max	64QAM	21.00	15.25
10	26990	50	#0	64QAM	21.24	15.49
15	26865	1	#0	64QAM	22.10	16.35
15	26865	1	#Mid	64QAM	22.20	16.45
15	26865	1	#Max	64QAM	22.07	16.32
15	26865	36	#0	64QAM	21.17	15.42
15	26865	36	#Mid	64QAM	21.19	15.44
15	26865	36	#Max	64QAM	21.09	15.34
15	26865	75	#0	64QAM	21.19	15.44
15	26915	1	#0	64QAM	22.33	16.58
15	26915	1	#Mid	64QAM	22.35	16.60
15	26915	1	#Max	64QAM	22.27	16.52
15	26915	36	#0	64QAM	21.16	15.41
15	26915	36	#Mid	64QAM	21.19	15.44
15	26915	36	#Max	64QAM	21.08	15.33
15	26915	75	#0	64QAM	21.28	15.53
15	26965	1	#0	64QAM	22.18	16.43
15	26965	1	#Mid	64QAM	22.34	16.59
15	26965	1	#Max	64QAM	22.19	16.44
15	26965	36	#0	64QAM	21.12	15.37
15	26965	36	#Mid	64QAM	21.13	15.38
15	26965	36	#Max	64QAM	21.08	15.33
15	26965	75	#0	64QAM	21.20	15.45



LTE Band 26 Upper Antenna						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
1.4	26797	1	#0	QPSK	23.34	18.29
1.4	26797	1	#Mid	QPSK	23.53	18.48
1.4	26797	1	#Max	QPSK	23.29	18.24
1.4	26797	3	#0	QPSK	23.32	18.27
1.4	26797	3	#Mid	QPSK	23.34	18.29
1.4	26797	3	#Max	QPSK	23.31	18.26
1.4	26797	6	#0	QPSK	22.30	17.25
1.4	26797	1	#0	16QAM	22.28	17.23
1.4	26797	1	#Mid	16QAM	22.52	17.47
1.4	26797	1	#Max	16QAM	22.30	17.25
1.4	26797	3	#0	16QAM	22.48	17.43
1.4	26797	3	#Mid	16QAM	22.46	17.41
1.4	26797	3	#Max	16QAM	22.51	17.46
1.4	26797	6	#0	16QAM	21.34	16.29
1.4	26915	1	#0	QPSK	23.12	18.07
1.4	26915	1	#Mid	QPSK	23.38	18.33
1.4	26915	1	#Max	QPSK	23.11	18.06
1.4	26915	3	#0	QPSK	23.15	18.10
1.4	26915	3	#Mid	QPSK	23.16	18.11
1.4	26915	3	#Max	QPSK	23.19	18.14
1.4	26915	6	#0	QPSK	22.24	17.19
1.4	26915	1	#0	16QAM	22.30	17.25
1.4	26915	1	#Mid	16QAM	22.52	17.47
1.4	26915	1	#Max	16QAM	22.33	17.28
1.4	26915	3	#0	16QAM	22.22	17.17
1.4	26915	3	#Mid	16QAM	22.22	17.17
1.4	26915	3	#Max	16QAM	22.23	17.18
1.4	26915	6	#0	16QAM	21.20	16.15
1.4	27033	1	#0	QPSK	23.21	18.16
1.4	27033	1	#Mid	QPSK	23.39	18.34
1.4	27033	1	#Max	QPSK	23.26	18.21
1.4	27033	3	#0	QPSK	23.32	18.27
1.4	27033	3	#Mid	QPSK	23.28	18.23
1.4	27033	3	#Max	QPSK	23.28	18.23
1.4	27033	6	#0	QPSK	22.26	17.21
1.4	27033	1	#0	16QAM	22.12	17.07
1.4	27033	1	#Mid	16QAM	22.23	17.18
1.4	27033	1	#Max	16QAM	22.12	17.07
1.4	27033	3	#0	16QAM	22.22	17.17
1.4	27033	3	#Mid	16QAM	22.20	17.15



1.4	27033	3	#Max	16QAM	22.21	17.16
1.4	27033	6	#0	16QAM	21.29	16.24
3	26805	1	#0	QPSK	23.32	18.27
3	26805	1	#Mid	QPSK	23.31	18.26
3	26805	1	#Max	QPSK	23.31	18.26
3	26805	8	#0	QPSK	22.31	17.26
3	26805	8	#Mid	QPSK	22.30	17.25
3	26805	8	#Max	QPSK	22.32	17.27
3	26805	15	#0	QPSK	22.27	17.22
3	26805	1	#0	16QAM	22.50	17.45
3	26805	1	#Mid	16QAM	22.44	17.39
3	26805	1	#Max	16QAM	22.42	17.37
3	26805	8	#0	16QAM	21.32	16.27
3	26805	8	#Mid	16QAM	21.32	16.27
3	26805	8	#Max	16QAM	21.33	16.28
3	26805	15	#0	16QAM	21.20	16.15
3	26915	1	#0	QPSK	23.27	18.22
3	26915	1	#Mid	QPSK	23.30	18.25
3	26915	1	#Max	QPSK	23.33	18.28
3	26915	8	#0	QPSK	22.24	17.19
3	26915	8	#Mid	QPSK	22.23	17.18
3	26915	8	#Max	QPSK	22.27	17.22
3	26915	15	#0	QPSK	22.30	17.25
3	26915	1	#0	16QAM	22.13	17.08
3	26915	1	#Mid	16QAM	22.12	17.07
3	26915	1	#Max	16QAM	22.11	17.06
3	26915	8	#0	16QAM	21.24	16.19
3	26915	8	#Mid	16QAM	21.24	16.19
3	26915	8	#Max	16QAM	21.30	16.25
3	26915	15	#0	16QAM	21.31	16.26
3	27025	1	#0	QPSK	23.29	18.24
3	27025	1	#Mid	QPSK	23.29	18.24
3	27025	1	#Max	QPSK	23.20	18.15
3	27025	8	#0	QPSK	22.27	17.22
3	27025	8	#Mid	QPSK	22.29	17.24
3	27025	8	#Max	QPSK	22.24	17.19
3	27025	15	#0	QPSK	22.28	17.23
3	27025	1	#0	16QAM	22.54	17.49
3	27025	1	#Mid	16QAM	22.52	17.47
3	27025	1	#Max	16QAM	22.48	17.43
3	27025	8	#0	16QAM	21.33	16.28
3	27025	8	#Mid	16QAM	21.31	16.26
3	27025	8	#Max	16QAM	21.28	16.23



3	27025	15	#0	16QAM	21.29	16.24
5	26815	1	#0	QPSK	23.18	18.13
5	26815	1	#Mid	QPSK	23.32	18.27
5	26815	1	#Max	QPSK	23.19	18.14
5	26815	12	#0	QPSK	22.30	17.25
5	26815	12	#Mid	QPSK	22.32	17.27
5	26815	12	#Max	QPSK	22.31	17.26
5	26815	25	#0	QPSK	22.29	17.24
5	26815	1	#0	16QAM	22.42	17.37
5	26815	1	#Mid	16QAM	22.50	17.45
5	26815	1	#Max	16QAM	22.39	17.34
5	26815	12	#0	16QAM	21.24	16.19
5	26815	12	#Mid	16QAM	21.22	16.17
5	26815	12	#Max	16QAM	21.24	16.19
5	26815	25	#0	16QAM	21.28	16.23
5	26915	1	#0	QPSK	23.09	18.04
5	26915	1	#Mid	QPSK	23.20	18.15
5	26915	1	#Max	QPSK	23.08	18.03
5	26915	12	#0	QPSK	22.21	17.16
5	26915	12	#Mid	QPSK	22.21	17.16
5	26915	12	#Max	QPSK	22.21	17.16
5	26915	25	#0	QPSK	22.26	17.21
5	26915	1	#0	16QAM	22.37	17.32
5	26915	1	#Mid	16QAM	22.47	17.42
5	26915	1	#Max	16QAM	22.33	17.28
5	26915	12	#0	16QAM	21.27	16.22
5	26915	12	#Mid	16QAM	21.24	16.19
5	26915	12	#Max	16QAM	21.26	16.21
5	26915	25	#0	16QAM	21.32	16.27
5	27015	1	#0	QPSK	23.17	18.12
5	27015	1	#Mid	QPSK	23.29	18.24
5	27015	1	#Max	QPSK	23.14	18.09
5	27015	12	#0	QPSK	22.40	17.35
5	27015	12	#Mid	QPSK	22.36	17.31
5	27015	12	#Max	QPSK	22.23	17.18
5	27015	25	#0	QPSK	22.39	17.34
5	27015	1	#0	16QAM	22.46	17.41
5	27015	1	#Mid	16QAM	22.55	17.50
5	27015	1	#Max	16QAM	22.39	17.34
5	27015	12	#0	16QAM	21.34	16.29
5	27015	12	#Mid	16QAM	21.33	16.28
5	27015	12	#Max	16QAM	21.25	16.20
5	27015	25	#0	16QAM	21.45	16.40



10	26840	1	#0	QPSK	23.28	18.23
10	26840	1	#Mid	QPSK	23.45	18.40
10	26840	1	#Max	QPSK	23.28	18.23
10	26840	25	#0	QPSK	22.35	17.30
10	26840	25	#Mid	QPSK	22.35	17.30
10	26840	25	#Max	QPSK	22.33	17.28
10	26840	50	#0	QPSK	22.26	17.21
10	26840	1	#0	16QAM	22.57	17.52
10	26840	1	#Mid	16QAM	22.68	17.63
10	26840	1	#Max	16QAM	22.46	17.41
10	26840	25	#0	16QAM	21.42	16.37
10	26840	25	#Mid	16QAM	21.45	16.40
10	26840	25	#Max	16QAM	21.41	16.36
10	26840	50	#0	16QAM	21.35	16.30
10	26915	1	#0	QPSK	23.29	18.24
10	26915	1	#Mid	QPSK	23.38	18.33
10	26915	1	#Max	QPSK	23.30	18.25
10	26915	25	#0	QPSK	22.26	17.21
10	26915	25	#Mid	QPSK	22.29	17.24
10	26915	25	#Max	QPSK	22.26	17.21
10	26915	50	#0	QPSK	22.31	17.26
10	26915	1	#0	16QAM	22.41	17.36
10	26915	1	#Mid	16QAM	22.44	17.39
10	26915	1	#Max	16QAM	22.41	17.36
10	26915	25	#0	16QAM	21.30	16.25
10	26915	25	#Mid	16QAM	21.31	16.26
10	26915	25	#Max	16QAM	21.32	16.27
10	26915	50	#0	16QAM	21.31	16.26
10	26990	1	#0	QPSK	23.33	18.28
10	26990	1	#Mid	QPSK	23.52	18.47
10	26990	1	#Max	QPSK	23.27	18.22
10	26990	25	#0	QPSK	22.38	17.33
10	26990	25	#Mid	QPSK	22.39	17.34
10	26990	25	#Max	QPSK	22.20	17.15
10	26990	50	#0	QPSK	22.36	17.31
10	26990	1	#0	16QAM	22.15	17.10
10	26990	1	#Mid	16QAM	22.35	17.30
10	26990	1	#Max	16QAM	22.13	17.08
10	26990	25	#0	16QAM	21.44	16.39
10	26990	25	#Mid	16QAM	21.44	16.39
10	26990	25	#Max	16QAM	21.24	16.19
10	26990	50	#0	16QAM	21.40	16.35
15	26865	1	#0	QPSK	23.19	18.14



15	26865	1	#Mid	QPSK	23.31	18.26
15	26865	1	#Max	QPSK	23.11	18.06
15	26865	36	#0	QPSK	22.34	17.29
15	26865	36	#Mid	QPSK	22.31	17.26
15	26865	36	#Max	QPSK	22.32	17.27
15	26865	75	#0	QPSK	22.30	17.25
15	26865	1	#0	16QAM	22.48	17.43
15	26865	1	#Mid	16QAM	22.53	17.48
15	26865	1	#Max	16QAM	22.38	17.33
15	26865	36	#0	16QAM	21.32	16.27
15	26865	36	#Mid	16QAM	21.31	16.26
15	26865	36	#Max	16QAM	21.31	16.26
15	26865	75	#0	16QAM	21.37	16.32
15	26915	1	#0	QPSK	23.23	18.18
15	26915	1	#Mid	QPSK	23.29	18.24
15	26915	1	#Max	QPSK	23.21	18.16
15	26915	36	#0	QPSK	22.28	17.23
15	26915	36	#Mid	QPSK	22.28	17.23
15	26915	36	#Max	QPSK	22.23	17.18
15	26915	75	#0	QPSK	22.31	17.26
15	26915	1	#0	16QAM	22.41	17.36
15	26915	1	#Mid	16QAM	22.40	17.35
15	26915	1	#Max	16QAM	22.34	17.29
15	26915	36	#0	16QAM	21.29	16.24
15	26915	36	#Mid	16QAM	21.30	16.25
15	26915	36	#Max	16QAM	21.24	16.19
15	26915	75	#0	16QAM	21.29	16.24
15	26965	1	#0	QPSK	23.22	18.17
15	26965	1	#Mid	QPSK	23.35	18.30
15	26965	1	#Max	QPSK	23.15	18.10
15	26965	36	#0	QPSK	22.31	17.26
15	26965	36	#Mid	QPSK	22.30	17.25
15	26965	36	#Max	QPSK	22.19	17.14
15	26965	75	#0	QPSK	22.31	17.26
15	26965	1	#0	16QAM	22.23	17.18
15	26965	1	#Mid	16QAM	22.36	17.31
15	26965	1	#Max	16QAM	22.19	17.14
15	26965	36	#0	16QAM	21.32	16.27
15	26965	36	#Mid	16QAM	21.32	16.27
15	26965	36	#Max	16QAM	21.20	16.15
15	26965	75	#0	16QAM	21.32	16.27
1.4	26797	1	#0	64QAM	21.23	16.18
1.4	26797	1	#Mid	64QAM	21.48	16.43



1.4	26797	1	#Max	64QAM	21.19	16.14
1.4	26797	3	#0	64QAM	21.31	16.26
1.4	26797	3	#Mid	64QAM	21.34	16.29
1.4	26797	3	#Max	64QAM	21.39	16.34
1.4	26797	6	#0	64QAM	20.27	15.22
1.4	26915	1	#0	64QAM	21.25	16.20
1.4	26915	1	#Mid	64QAM	21.45	16.40
1.4	26915	1	#Max	64QAM	21.26	16.21
1.4	26915	3	#0	64QAM	21.15	16.10
1.4	26915	3	#Mid	64QAM	21.16	16.11
1.4	26915	3	#Max	64QAM	21.19	16.14
1.4	26915	6	#0	64QAM	20.15	15.10
1.4	27033	1	#0	64QAM	21.05	16.00
1.4	27033	1	#Mid	64QAM	21.20	16.15
1.4	27033	1	#Max	64QAM	21.06	16.01
1.4	27033	3	#0	64QAM	21.16	16.11
1.4	27033	3	#Mid	64QAM	21.16	16.11
1.4	27033	3	#Max	64QAM	21.12	16.07
1.4	27033	6	#0	64QAM	20.21	15.16
3	26805	1	#0	64QAM	21.16	16.11
3	26805	1	#Mid	64QAM	21.12	16.07
3	26805	1	#Max	64QAM	21.12	16.07
3	26805	8	#0	64QAM	20.21	15.16
3	26805	8	#Mid	64QAM	20.24	15.19
3	26805	8	#Max	64QAM	20.29	15.24
3	26805	15	#0	64QAM	20.25	15.20
3	26915	1	#0	64QAM	21.45	16.40
3	26915	1	#Mid	64QAM	21.38	16.33
3	26915	1	#Max	64QAM	21.41	16.36
3	26915	8	#0	64QAM	20.20	15.15
3	26915	8	#Mid	64QAM	20.19	15.14
3	26915	8	#Max	64QAM	20.22	15.17
3	26915	15	#0	64QAM	20.18	15.13
3	27025	1	#0	64QAM	21.38	16.33
3	27025	1	#Mid	64QAM	21.37	16.32
3	27025	1	#Max	64QAM	21.32	16.27
3	27025	8	#0	64QAM	20.26	15.21
3	27025	8	#Mid	64QAM	20.27	15.22
3	27025	8	#Max	64QAM	20.22	15.17
3	27025	15	#0	64QAM	20.16	15.11
5	26815	1	#0	64QAM	21.34	16.29
5	26815	1	#Mid	64QAM	21.49	16.44
5	26815	1	#Max	64QAM	21.36	16.31



5	26815	12	#0	64QAM	20.17	15.12
5	26815	12	#Mid	64QAM	20.20	15.15
5	26815	12	#Max	64QAM	20.24	15.19
5	26815	25	#0	64QAM	20.28	15.23
5	26915	1	#0	64QAM	21.32	16.27
5	26915	1	#Mid	64QAM	21.46	16.41
5	26915	1	#Max	64QAM	21.37	16.32
5	26915	12	#0	64QAM	20.11	15.06
5	26915	12	#Mid	64QAM	20.16	15.11
5	26915	12	#Max	64QAM	20.10	15.05
5	26915	25	#0	64QAM	20.27	15.22
5	27015	1	#0	64QAM	21.34	16.29
5	27015	1	#Mid	64QAM	21.42	16.37
5	27015	1	#Max	64QAM	21.27	16.22
5	27015	12	#0	64QAM	20.25	15.20
5	27015	12	#Mid	64QAM	20.23	15.18
5	27015	12	#Max	64QAM	20.15	15.10
5	27015	25	#0	64QAM	20.32	15.27
10	26840	1	#0	64QAM	21.47	16.42
10	26840	1	#Mid	64QAM	21.67	16.62
10	26840	1	#Max	64QAM	21.43	16.38
10	26840	25	#0	64QAM	20.37	15.32
10	26840	25	#Mid	64QAM	20.35	15.30
10	26840	25	#Max	64QAM	20.36	15.31
10	26840	50	#0	64QAM	20.25	15.20
10	26915	1	#0	64QAM	21.35	16.30
10	26915	1	#Mid	64QAM	21.54	16.49
10	26915	1	#Max	64QAM	21.36	16.31
10	26915	25	#0	64QAM	20.31	15.26
10	26915	25	#Mid	64QAM	20.30	15.25
10	26915	25	#Max	64QAM	20.25	15.20
10	26915	50	#0	64QAM	20.26	15.21
10	26990	1	#0	64QAM	21.08	16.03
10	26990	1	#Mid	64QAM	21.28	16.23
10	26990	1	#Max	64QAM	21.06	16.01
10	26990	25	#0	64QAM	20.34	15.29
10	26990	25	#Mid	64QAM	20.37	15.32
10	26990	25	#Max	64QAM	20.10	15.05
10	26990	50	#0	64QAM	20.32	15.27
15	26865	1	#0	64QAM	21.42	16.37
15	26865	1	#Mid	64QAM	21.50	16.45
15	26865	1	#Max	64QAM	21.31	16.26
15	26865	36	#0	64QAM	20.25	15.20



15	26865	36	#Mid	64QAM	20.27	15.22
15	26865	36	#Max	64QAM	20.24	15.19
15	26865	75	#0	64QAM	20.31	15.26
15	26915	1	#0	64QAM	21.29	16.24
15	26915	1	#Mid	64QAM	21.33	16.28
15	26915	1	#Max	64QAM	21.25	16.20
15	26915	36	#0	64QAM	20.23	15.18
15	26915	36	#Mid	64QAM	20.25	15.20
15	26915	36	#Max	64QAM	20.24	15.19
15	26915	75	#0	64QAM	20.26	15.21
15	26965	1	#0	64QAM	21.19	16.14
15	26965	1	#Mid	64QAM	21.27	16.22
15	26965	1	#Max	64QAM	21.14	16.09
15	26965	36	#0	64QAM	20.22	15.17
15	26965	36	#Mid	64QAM	20.24	15.19
15	26965	36	#Max	64QAM	20.12	15.07
15	26965	75	#0	64QAM	20.24	15.19



6.2. Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
GSM 850 (GMSK)	128	824.2	0.2463	0.3042
	190	836.6	0.2481	0.3130
	251	848.8	0.2484	0.3068
GPRS 850 (GMSK)	128	824.2	0.2511	0.3174
	190	836.6	0.2444	0.3145
	251	848.8	0.2479	0.3137
EGPRS 850 (8PSK)	128	824.2	0.2461	0.3140
	190	836.6	0.2517	0.3029
	251	848.8	0.2444	0.3105

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band V	4132	826.4	4.1685	4.6840
	4183	836.6	4.1674	4.6870
	4233	846.6	4.1637	4.7030

LTE Band 5						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	20407	824.7	1.0951	1.2570
			20525	836.5	1.0917	1.2790
			20643	848.3	1.0874	1.2890
		3	20415	825.5	2.6958	2.9190
			20525	836.5	2.6985	2.9310
			20635	847.5	2.6869	2.8940
		5	20425	826.5	4.4945	4.8850
			20525	836.5	4.5216	4.9120
			20625	846.5	4.5100	4.8550
		10	20450	829	8.9826	9.7420
			20525	836.5	8.9837	9.7120
			20600	844	8.9980	9.6130



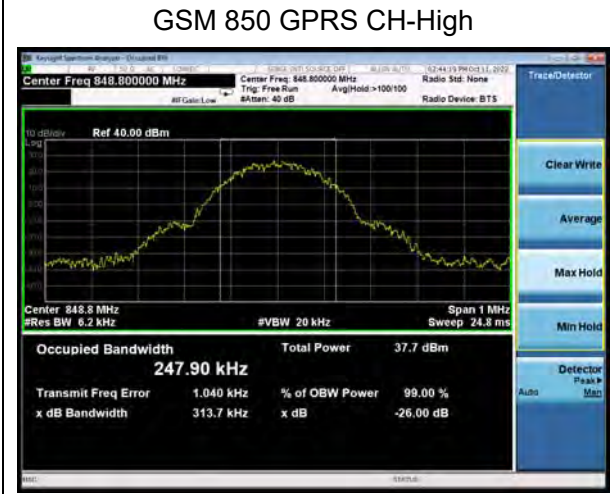
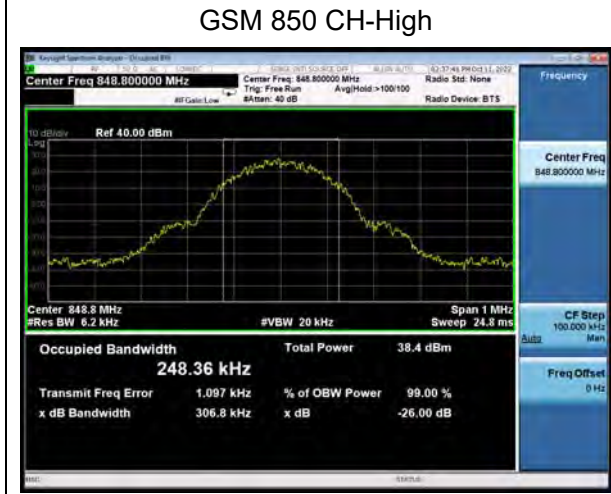
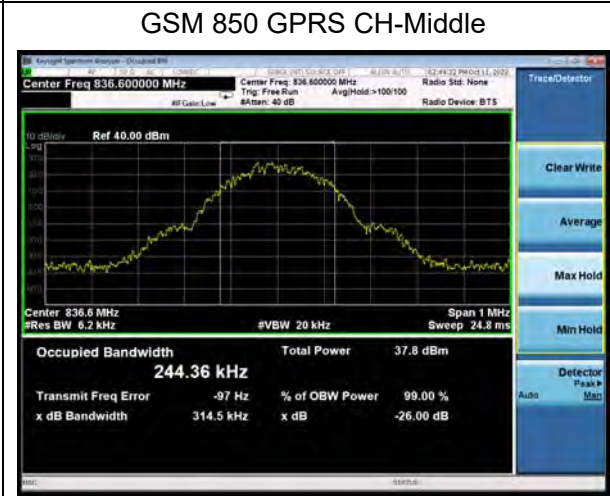
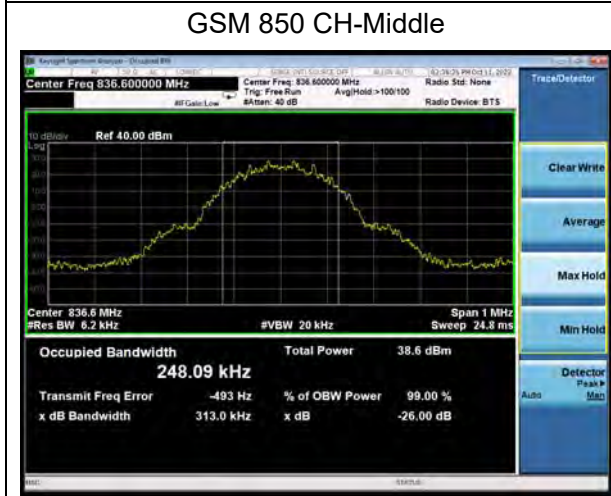
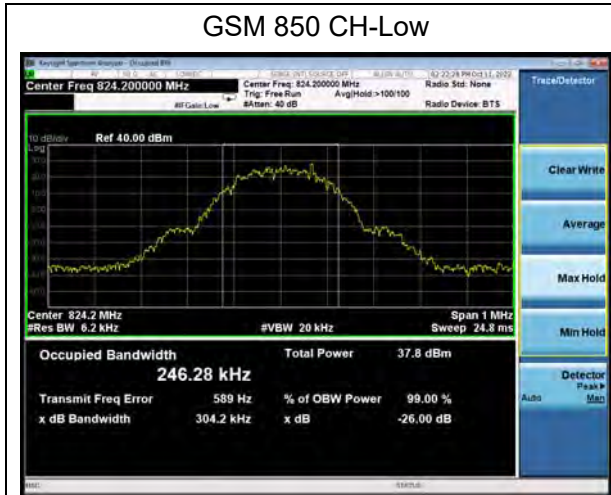
	16QAM	1.4	20407	824.7	1.0923	1.2800
			20525	836.5	1.0981	1.3010
			20643	848.3	1.0945	1.2600
		3	20415	825.5	2.6960	2.9130
			20525	836.5	2.6896	2.9220
			20635	847.5	2.6849	2.9290
		5	20425	826.5	4.4935	4.9050
			20525	836.5	4.5212	4.9350
			20625	846.5	4.5222	4.9500
		10	20450	829	8.9716	9.6810
			20525	836.5	8.9665	9.6970
			20600	844	8.9686	9.7230
	64QAM	1.4	20407	824.7	1.0950	1.2880
			20525	836.5	1.0975	1.3090
			20643	848.3	1.0912	1.2710
		3	20415	825.5	2.6893	2.9110
			20525	836.5	2.6827	2.9400
			20635	847.5	2.6797	2.9540
		5	20425	826.5	4.5116	4.9400
			20525	836.5	4.5015	4.9360
			20625	846.5	4.4987	4.9030
		10	20450	829	8.9821	9.6970
			20525	836.5	8.9829	9.6390
			20600	844	8.9845	9.6980

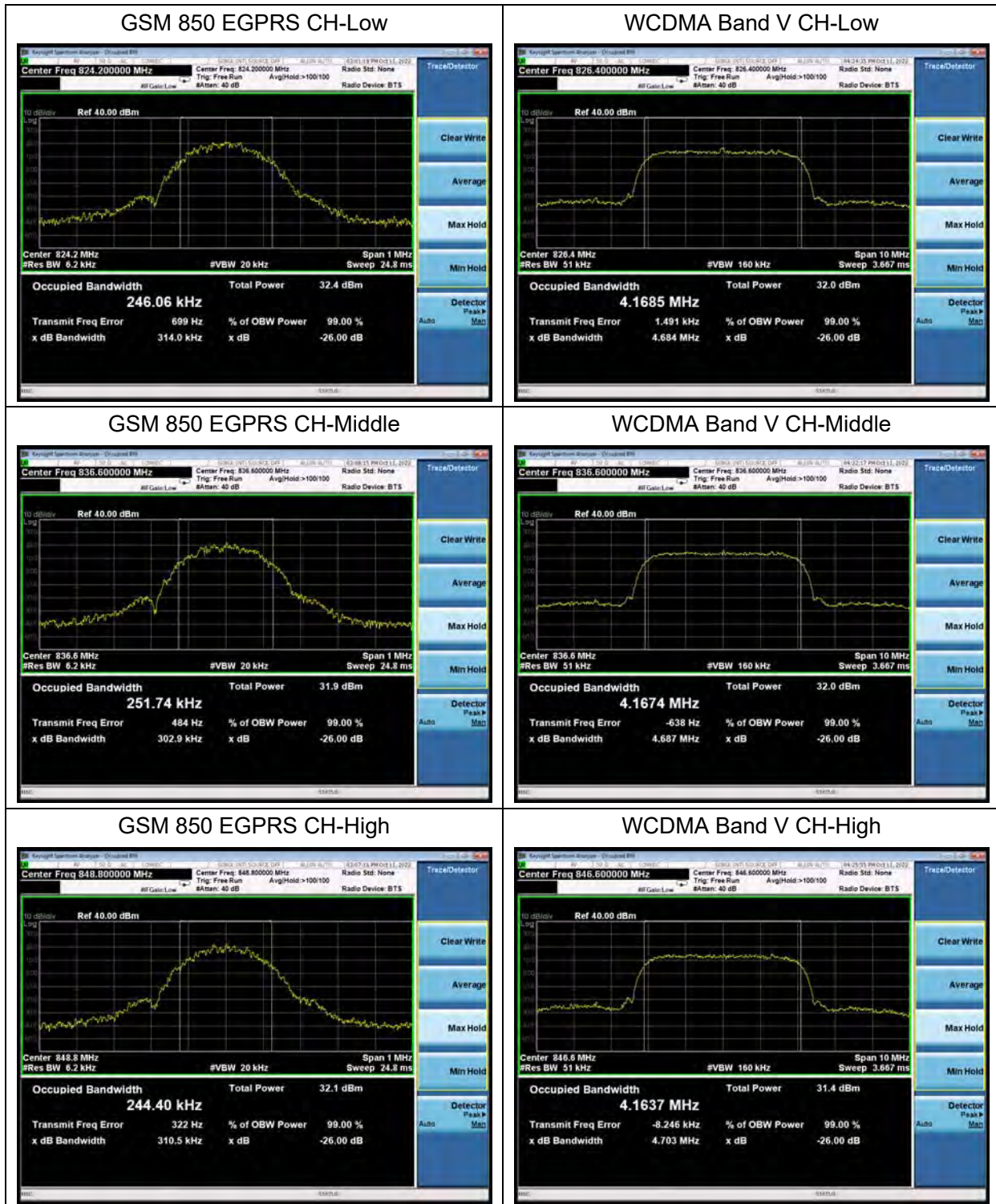


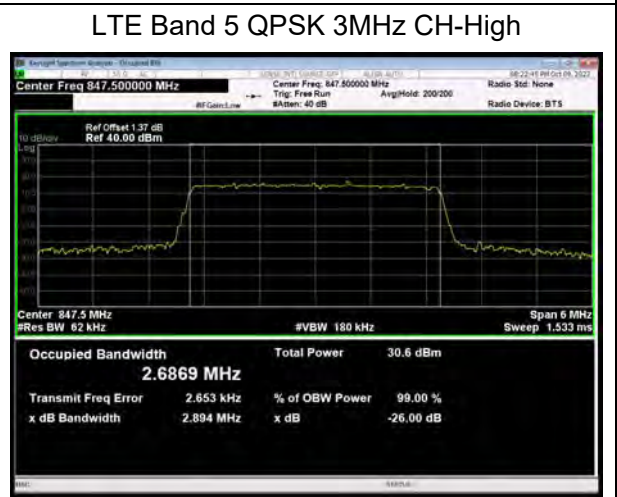
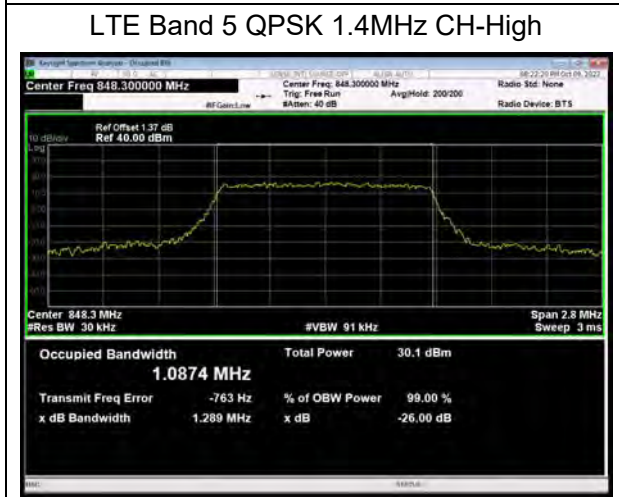
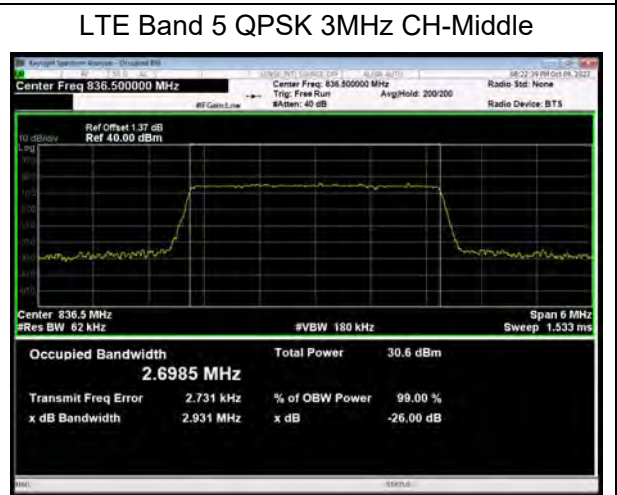
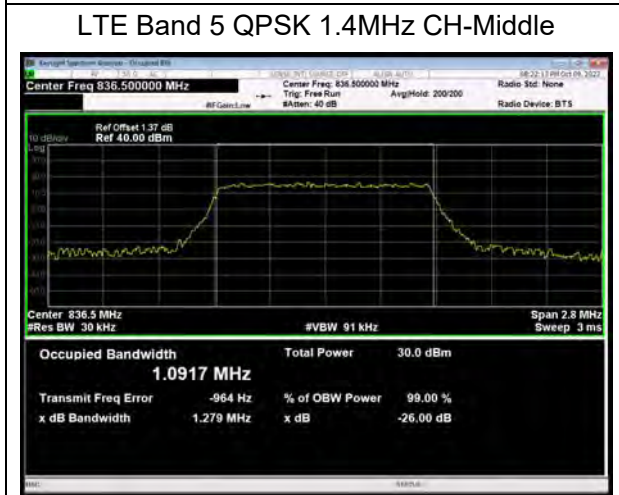
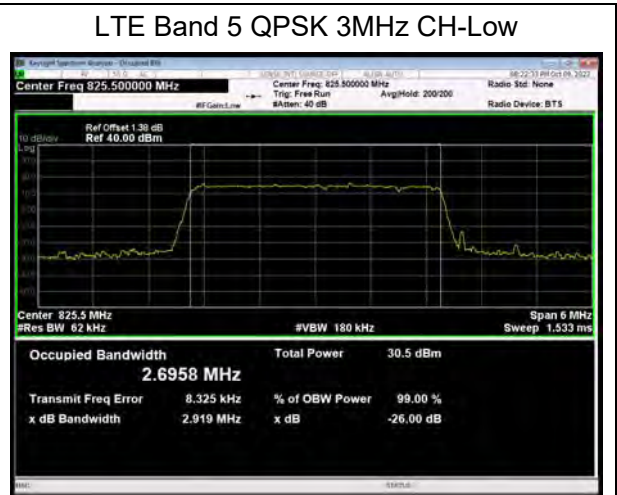
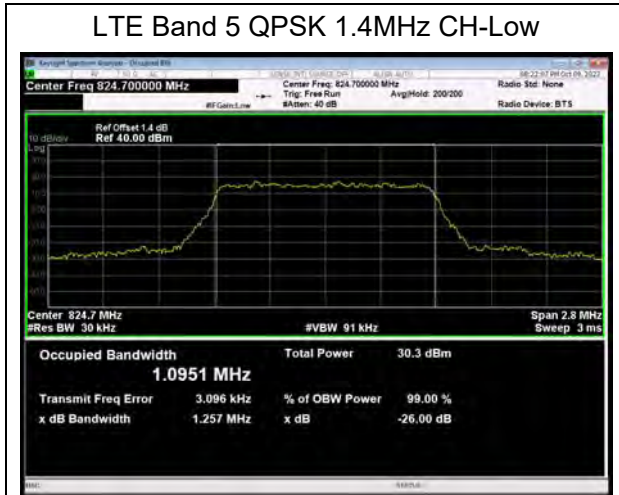
LTE Band 26							
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)	
100%	QPSK	1.4	26797	824.7	1.0976	1.2820	
			26915	836.5	1.0982	1.2940	
			27033	848.3	1.0889	1.2910	
		3	26805	825.5	2.6925	2.8910	
			26915	836.5	2.7019	2.9250	
			27025	847.5	2.6911	2.9210	
		5	26815	826.5	4.4937	4.8610	
			26915	836.5	4.5065	4.9020	
			27015	846.5	4.5141	4.9120	
		10	26840	829	8.9946	9.7150	
			26915	836.5	8.9914	9.7020	
			26990	844	8.9752	9.6410	
		15	26865	831.5	13.4610	14.6700	
			26915	836.5	13.4370	14.6260	
			26965	841.5	13.4650	14.4460	
		16QAM	1.4	26797	824.7	1.0959	1.2820
				26915	836.5	1.0936	1.2700
				27033	848.3	1.0995	1.3070
	3		26805	825.5	2.6930	2.9250	
			26915	836.5	2.6921	2.9200	
			27025	847.5	2.6881	2.9220	
	5		26815	826.5	4.5075	4.9320	
			26915	836.5	4.4951	4.8400	
			27015	846.5	4.4995	4.9010	
	10		26840	829	8.9825	9.7380	
			26915	836.5	8.9774	9.5660	
			26990	844	8.9831	9.7010	
	15		26865	831.5	13.4930	14.5450	
			26915	836.5	13.4590	14.4980	
			26965	841.5	13.4740	14.3580	
64QAM	1.4		26797	824.7	1.0935	1.3050	

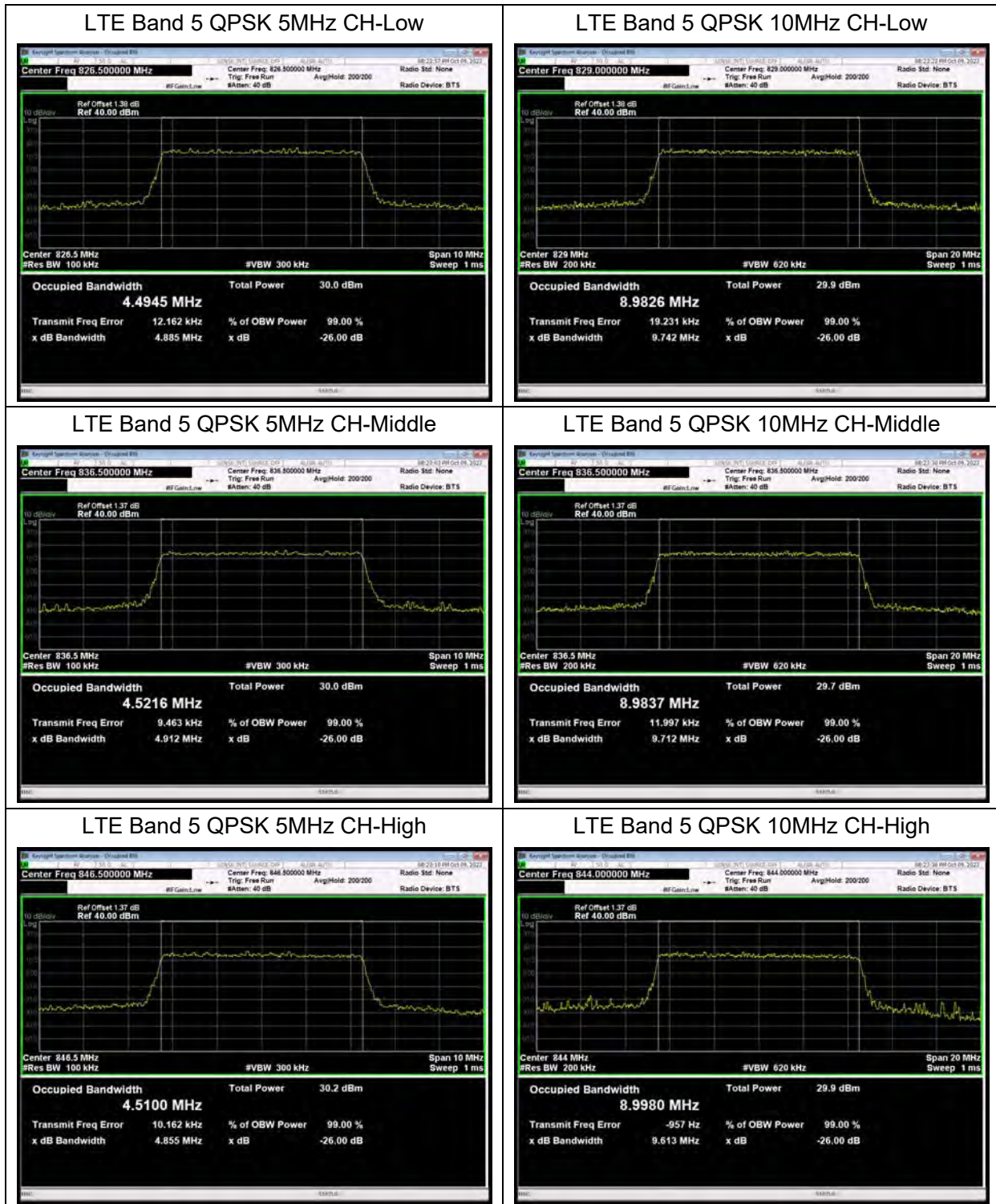


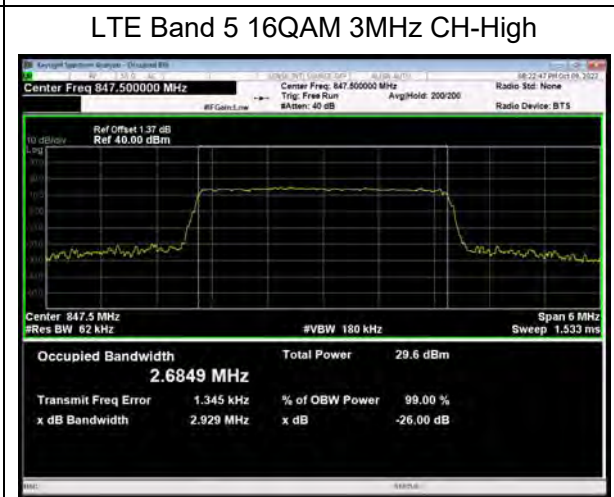
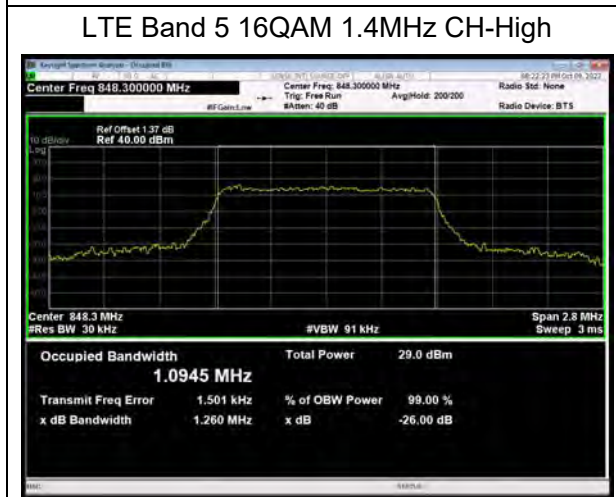
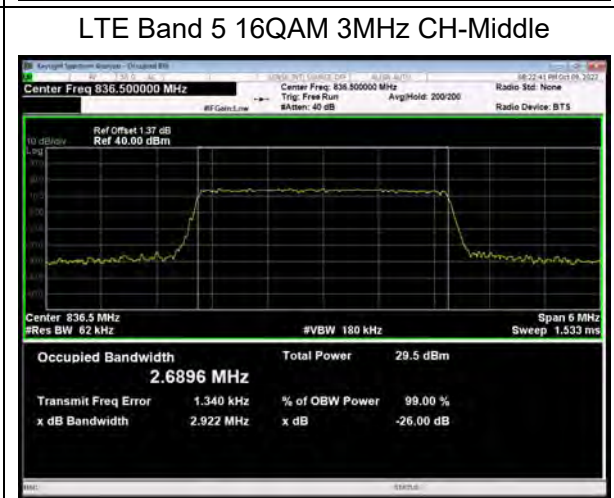
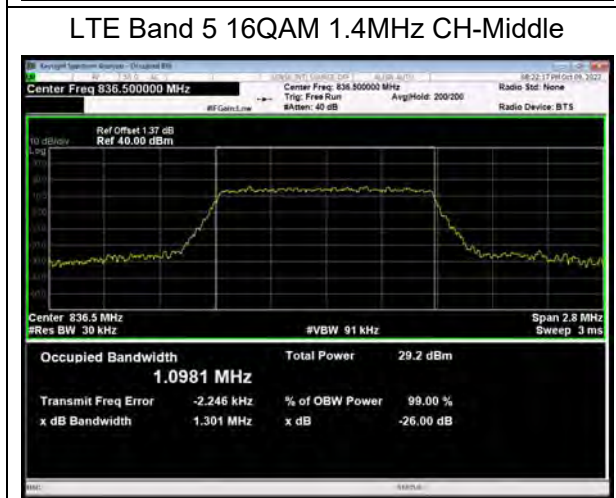
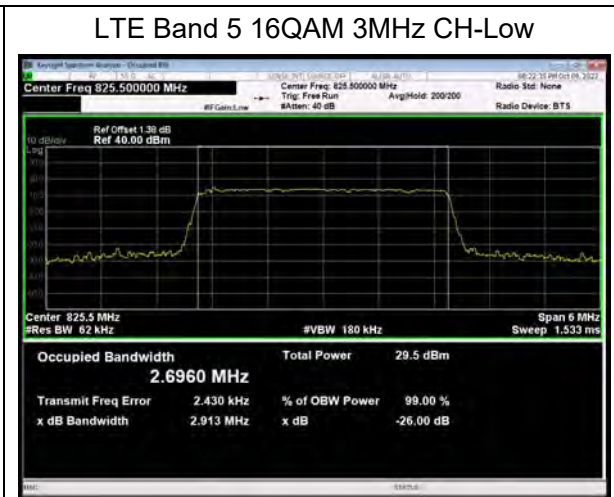
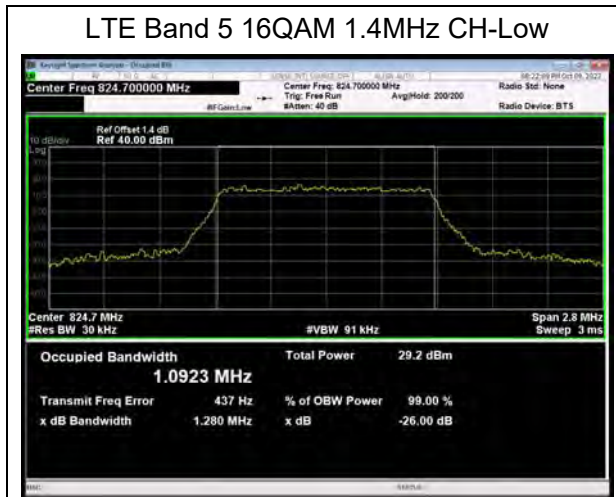
			26915	836.5	1.0917	1.2780
			27033	848.3	1.0922	1.2750
		3	26805	825.5	2.6808	2.9200
			26915	836.5	2.6878	2.9180
			27025	847.5	2.6844	2.9300
		5	26815	826.5	4.4989	4.9000
			26915	836.5	4.4995	4.9030
			27015	846.5	4.4970	4.8980
		10	26840	829	9.0032	9.7350
			26915	836.5	8.9601	9.7000
			26990	844	8.9760	9.5920
		15	26865	831.5	13.4660	14.5240
			26915	836.5	13.4480	14.5780
			26965	841.5	13.4420	14.5660

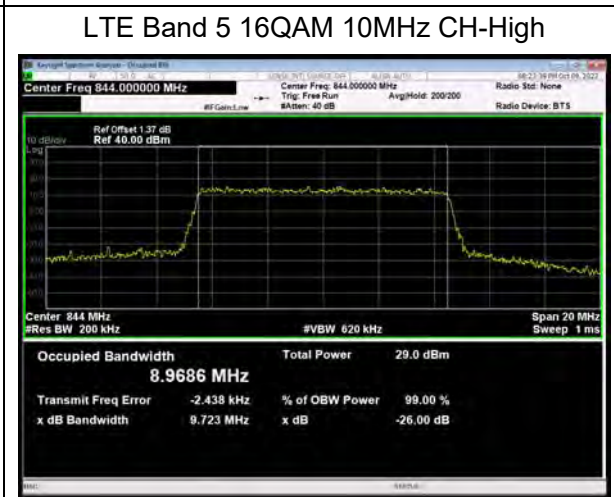
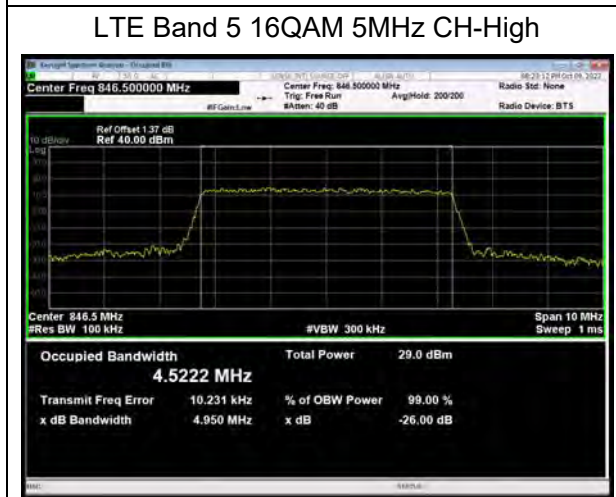
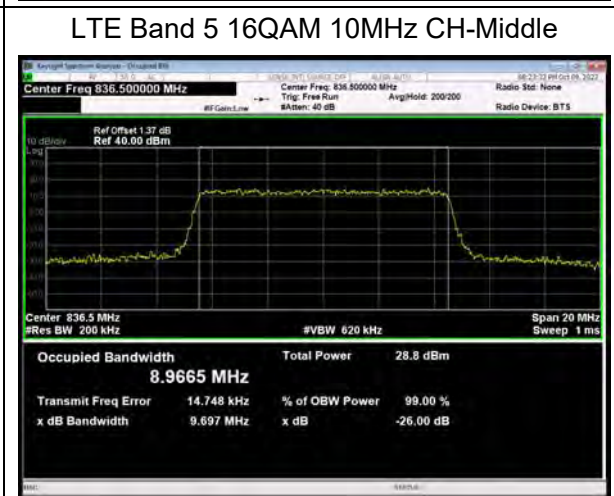
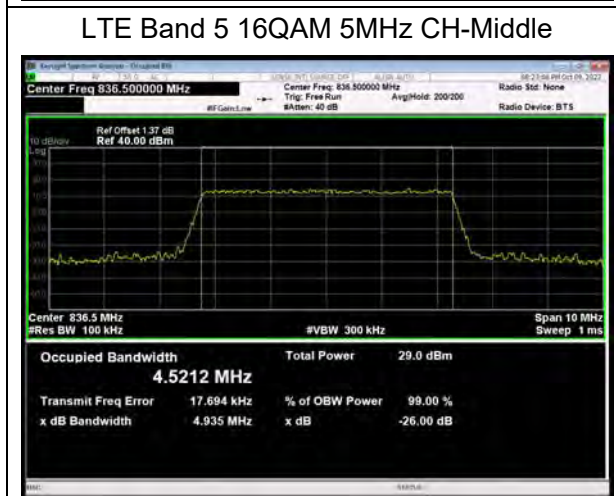
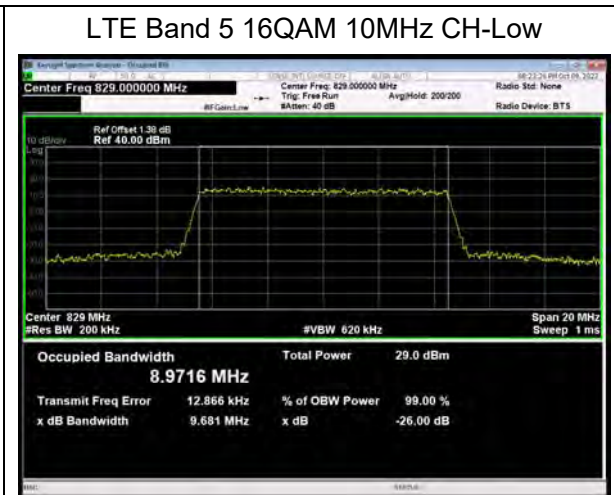
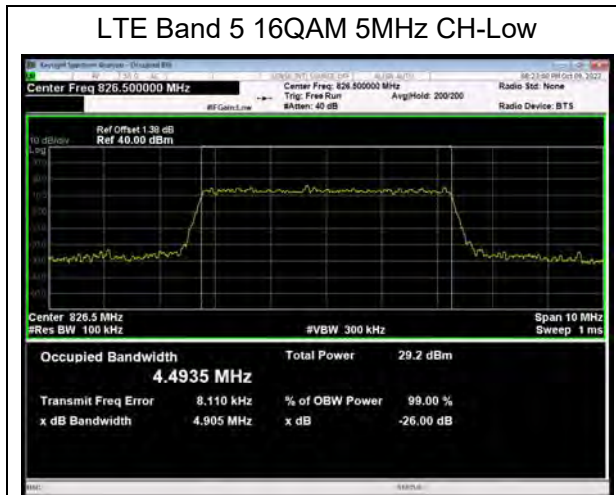


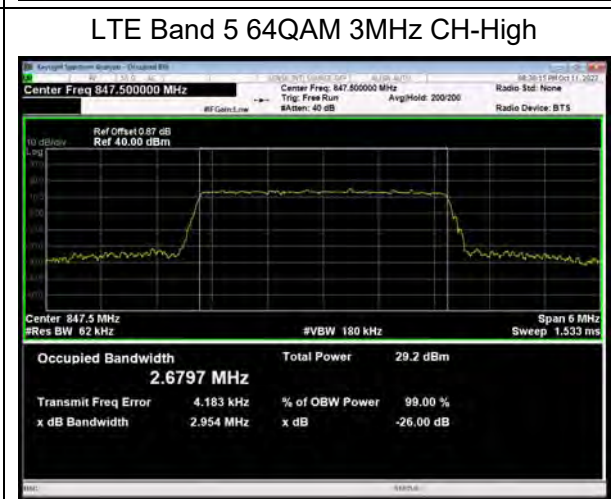
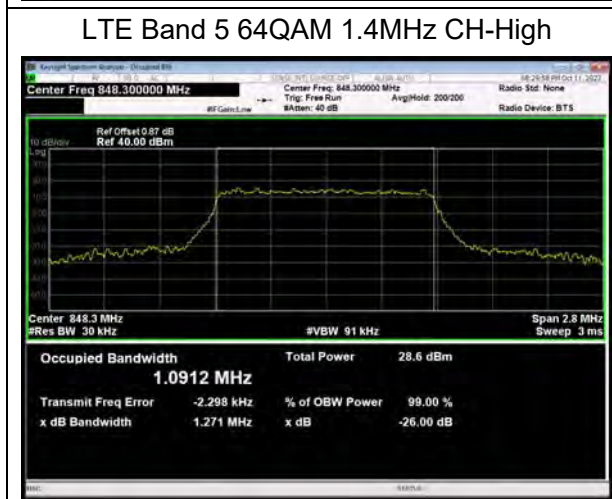
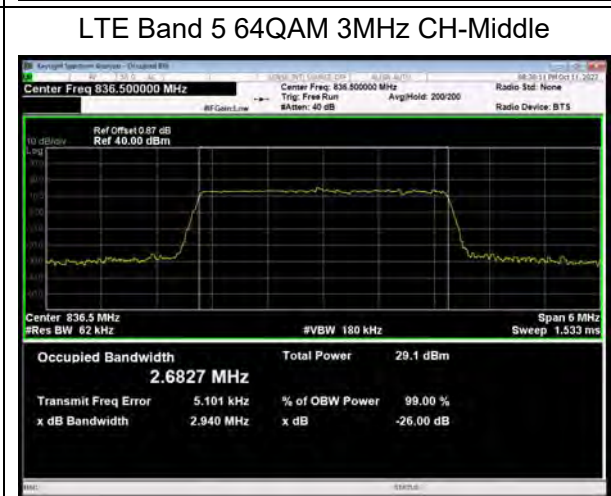
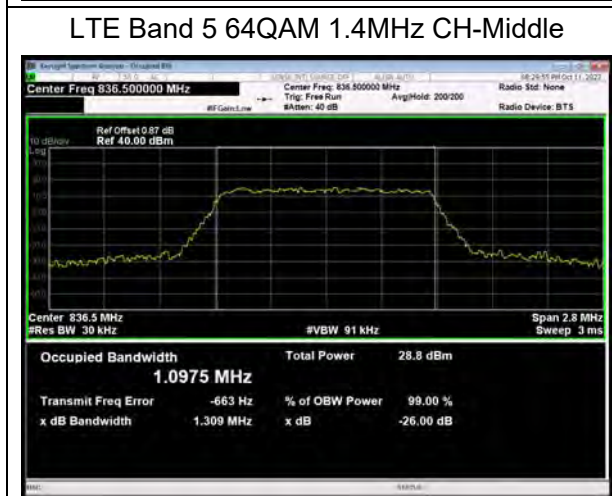
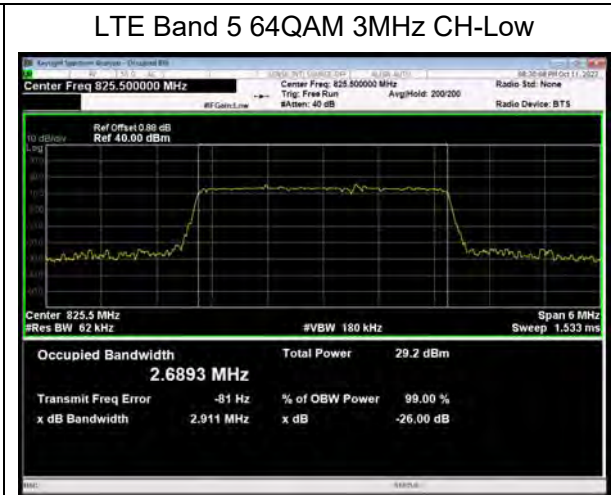
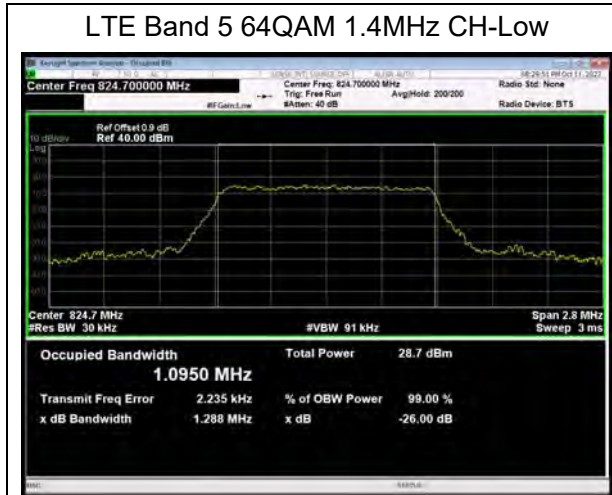


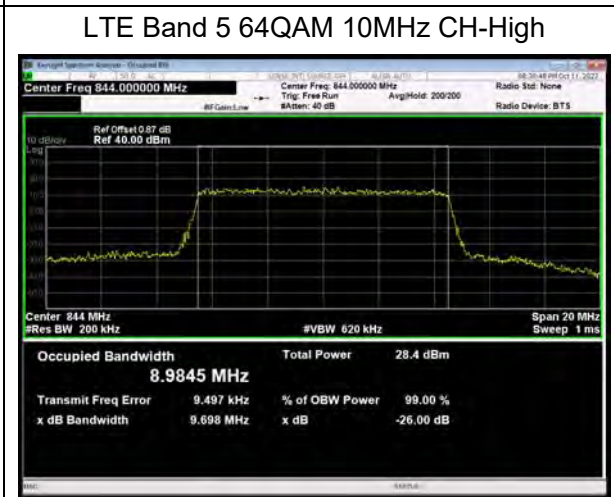
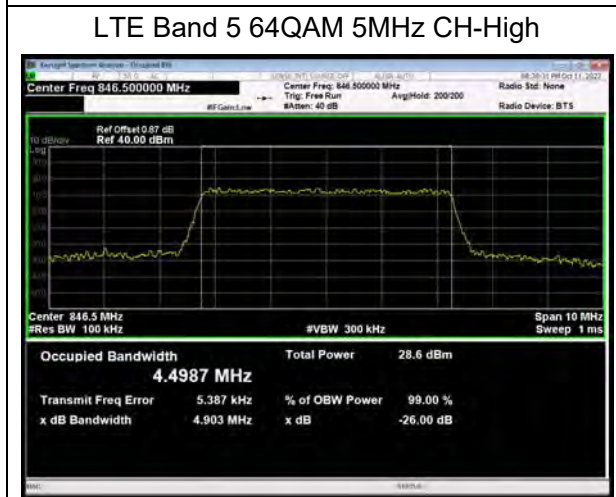
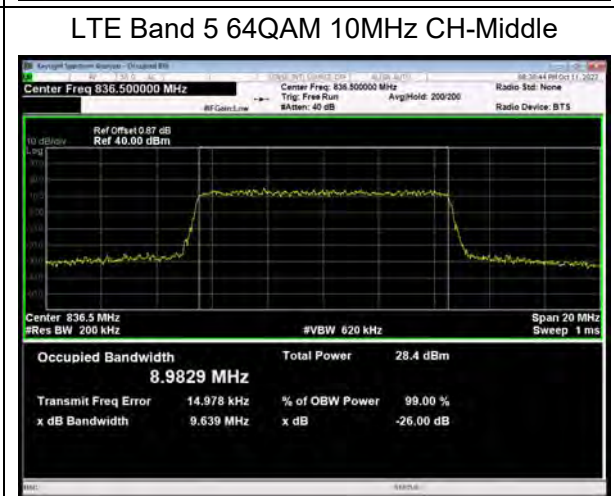
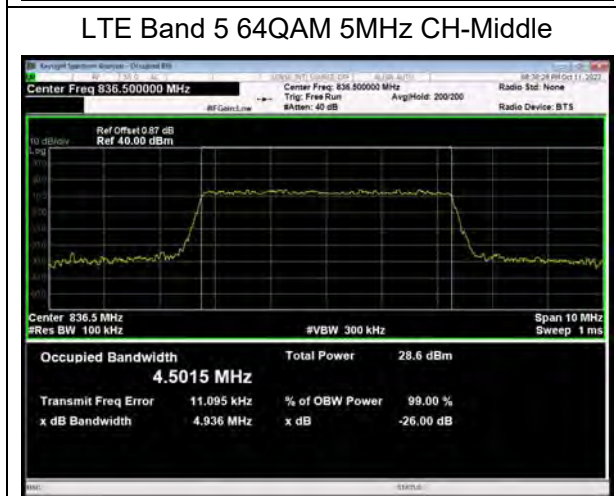
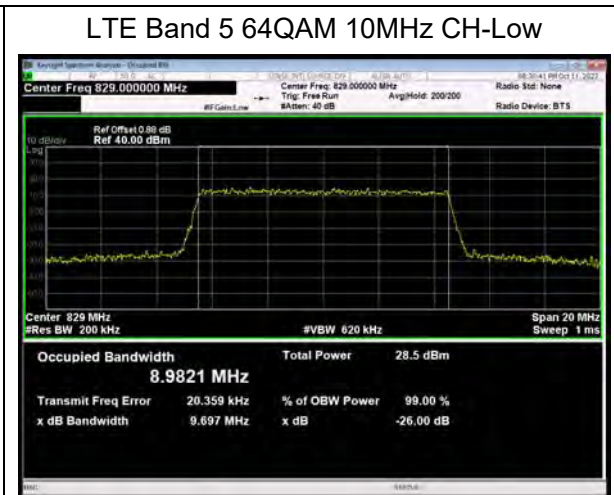
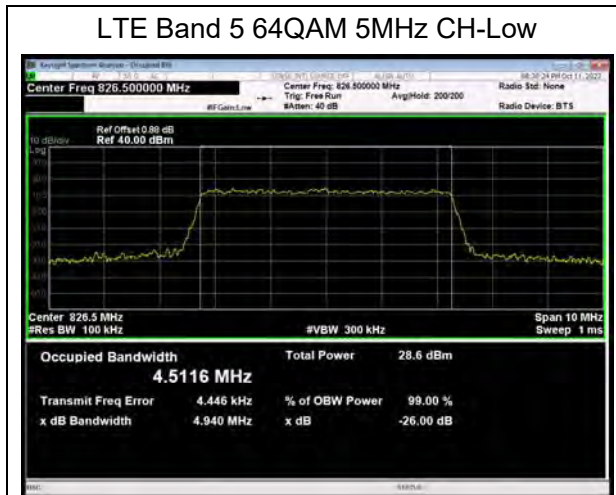


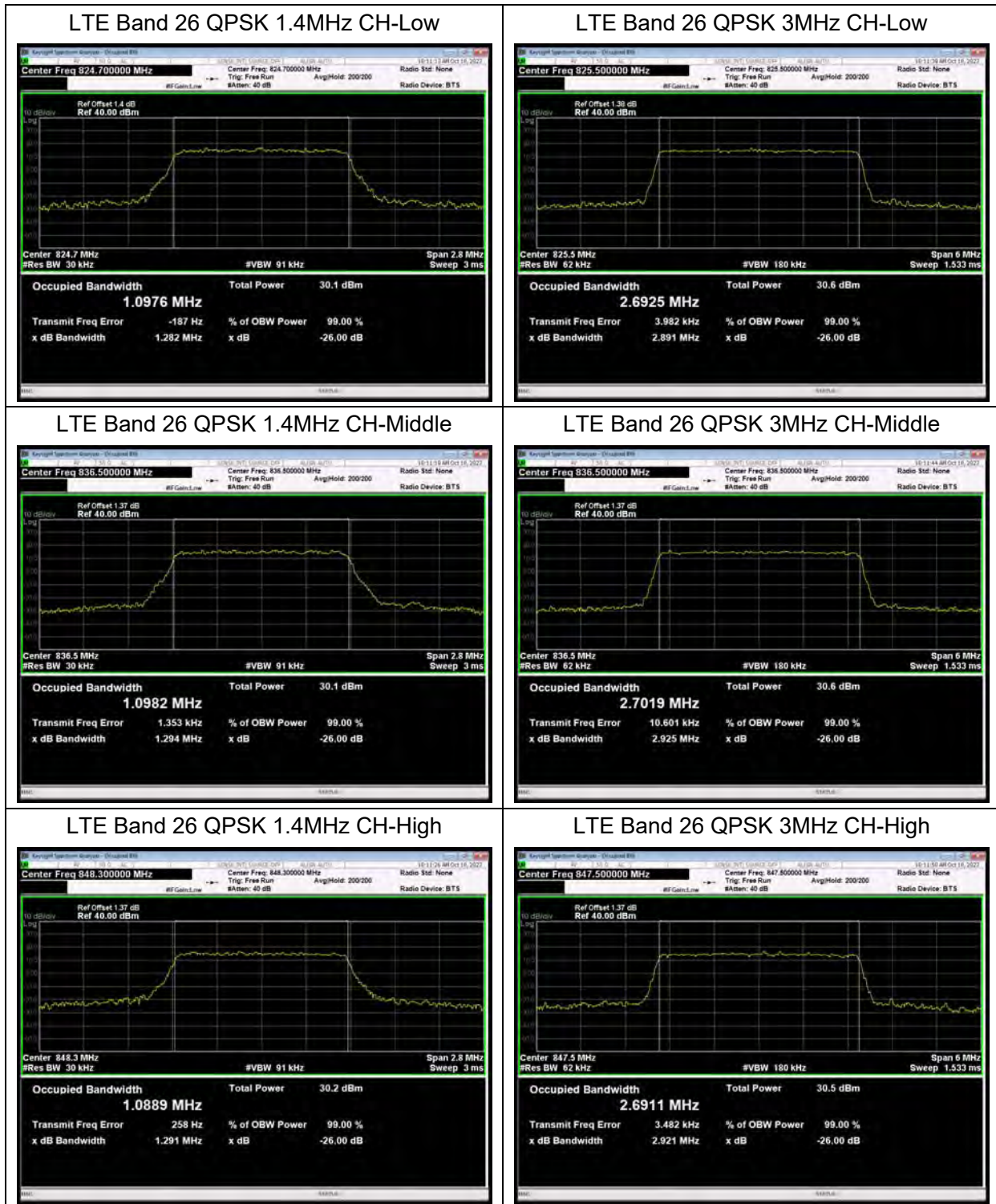


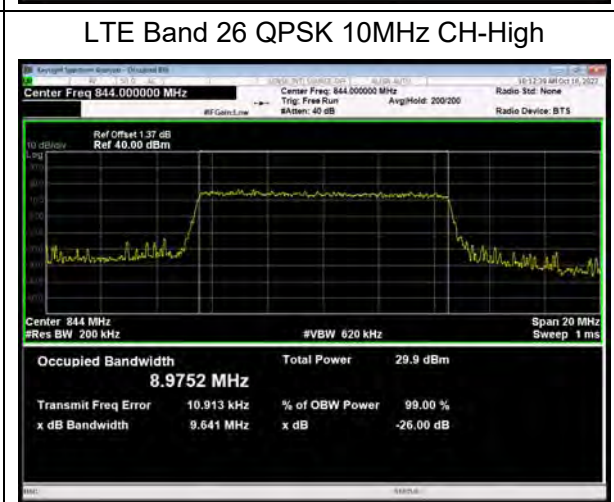
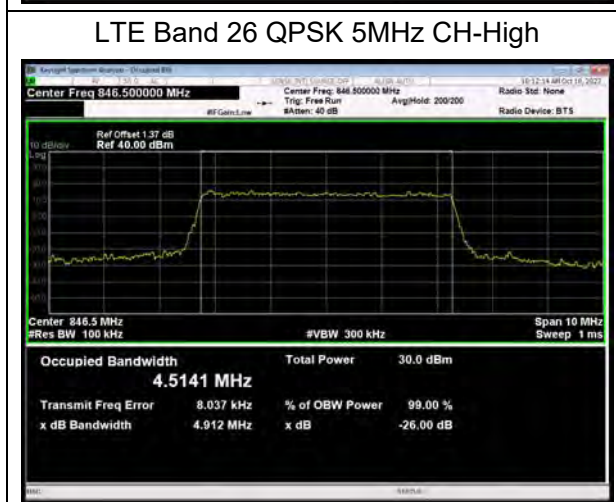
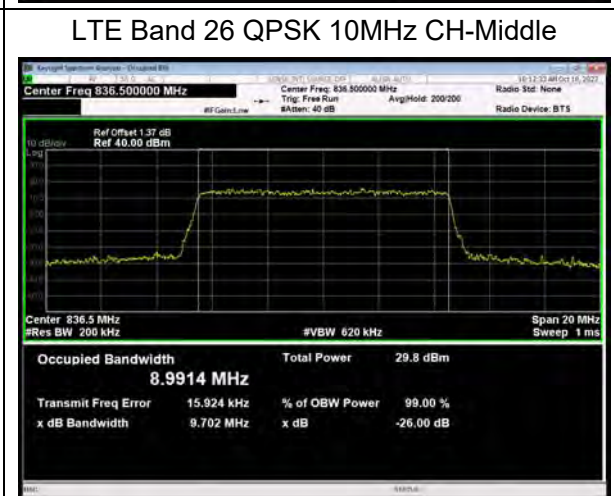
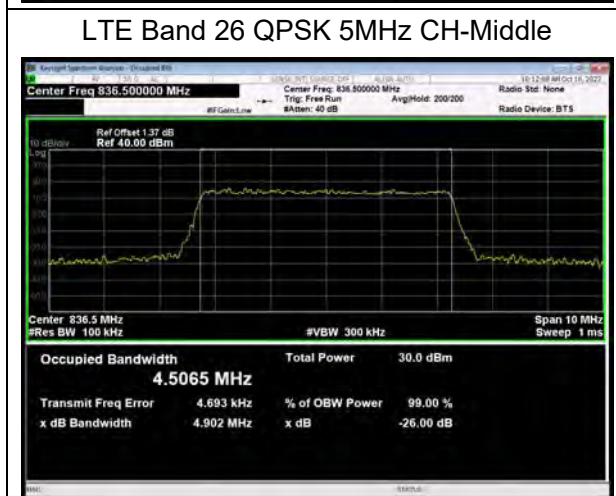
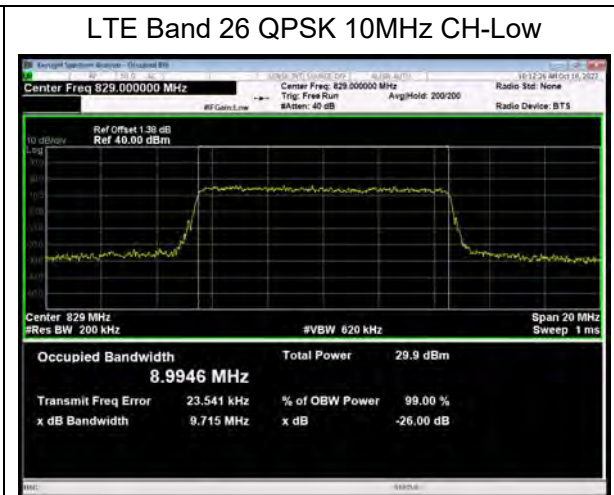
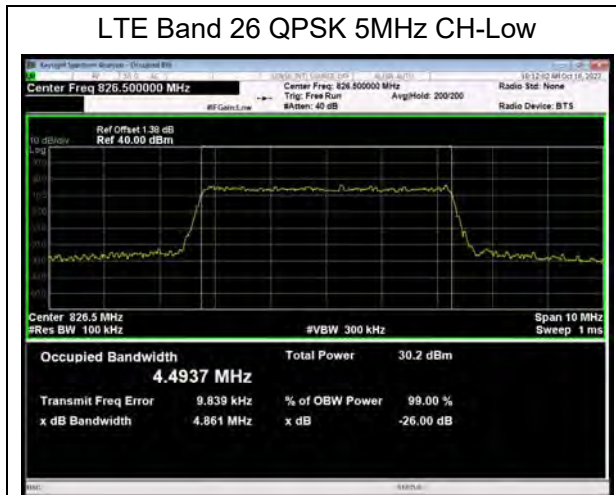


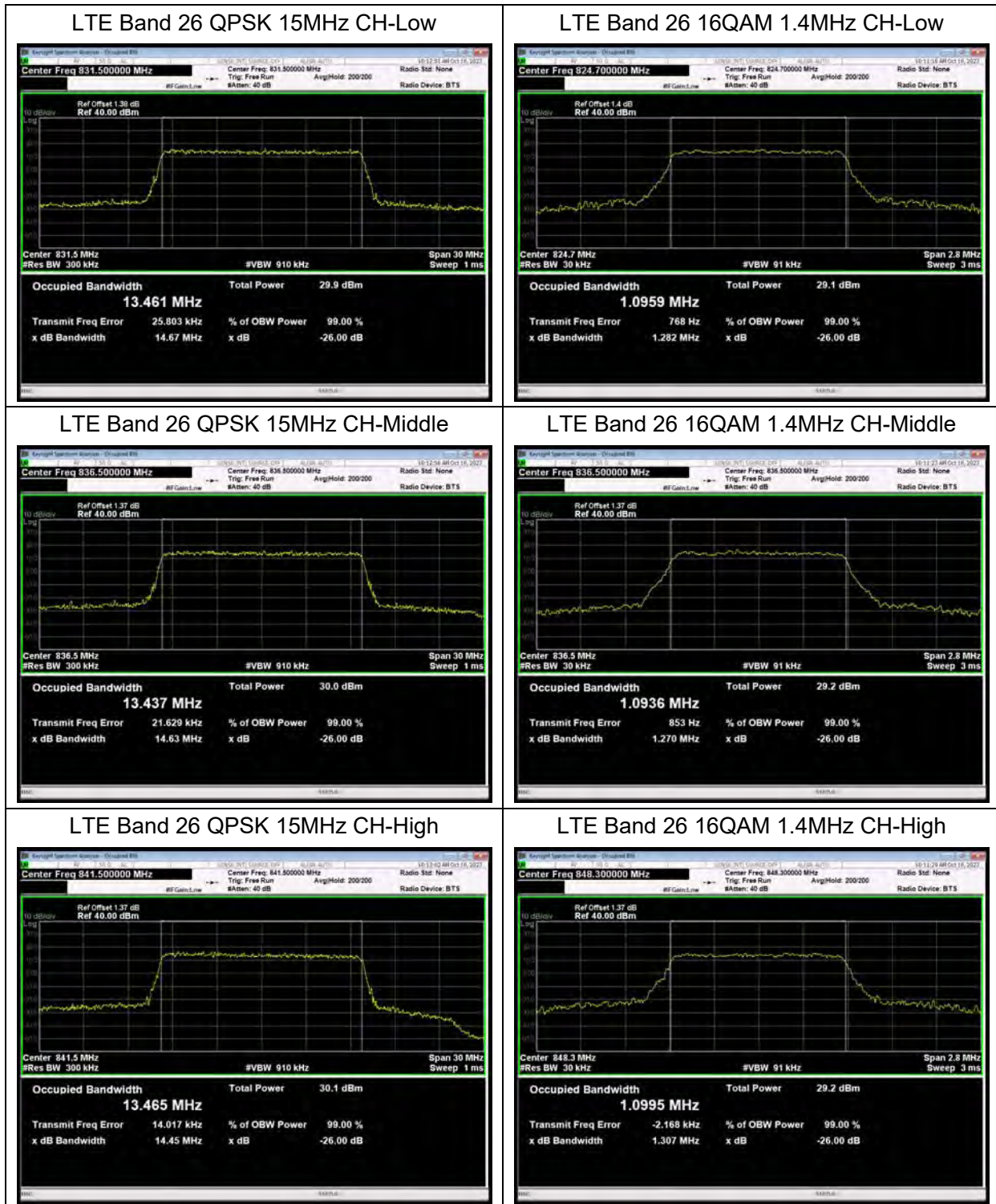


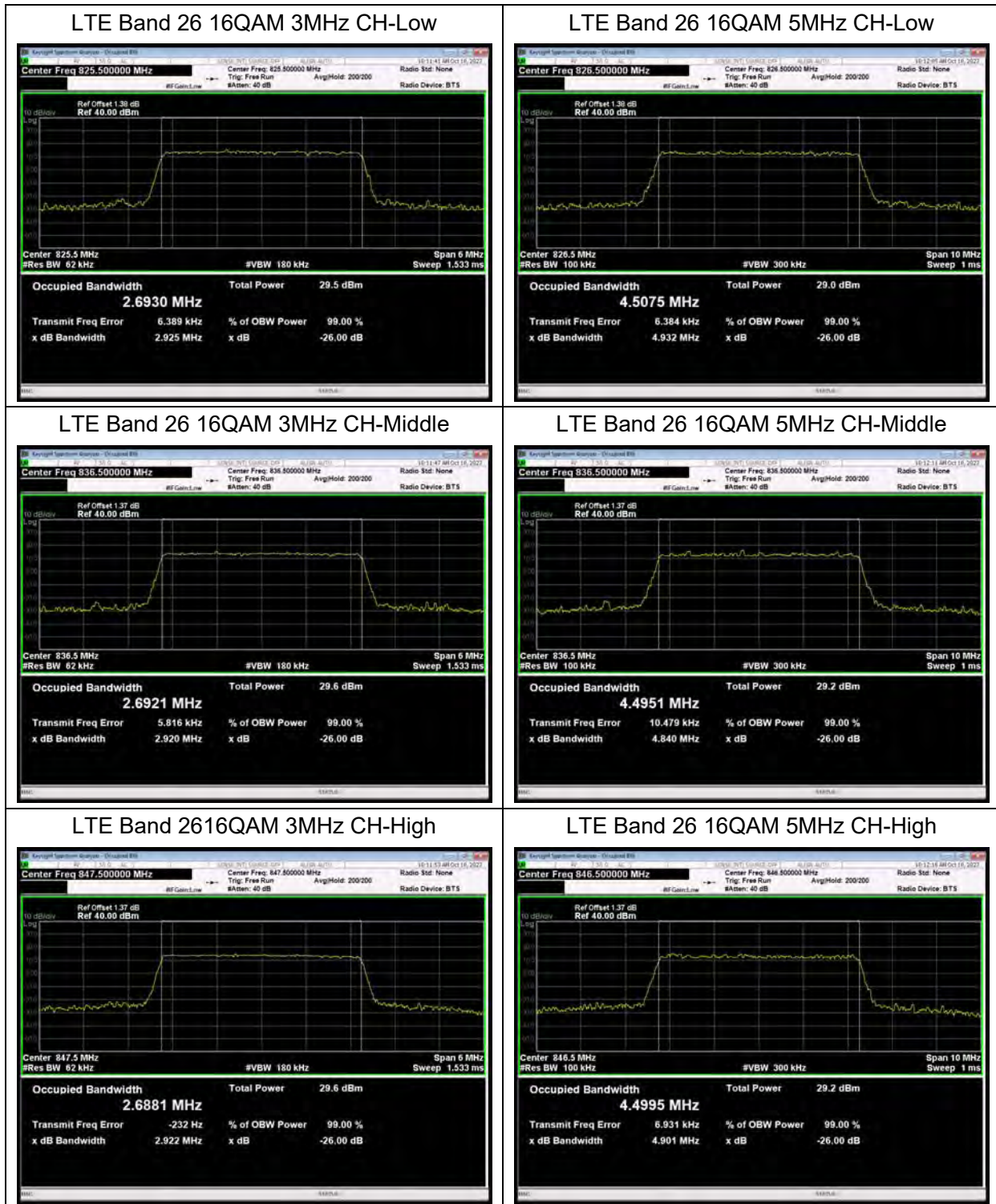


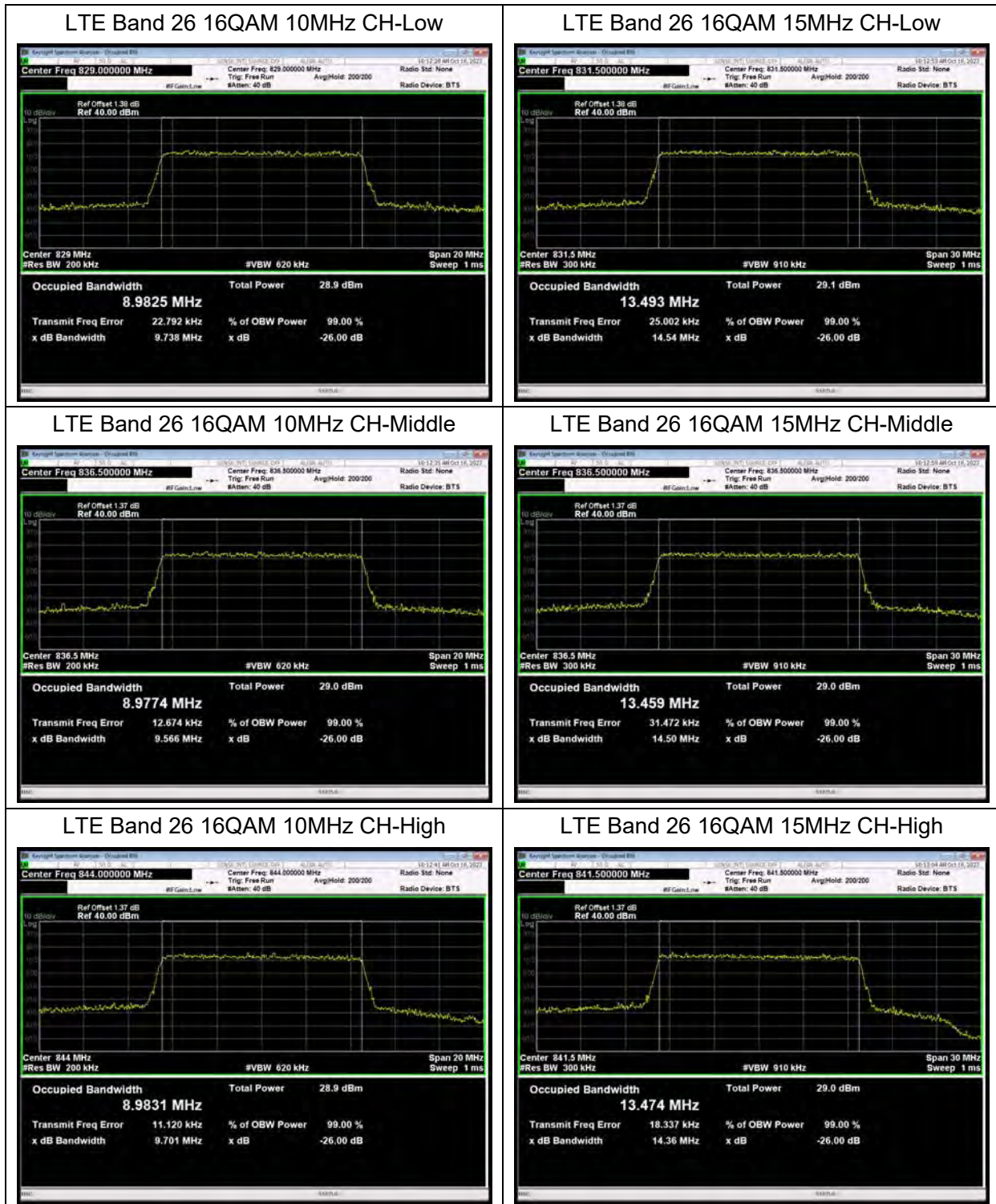


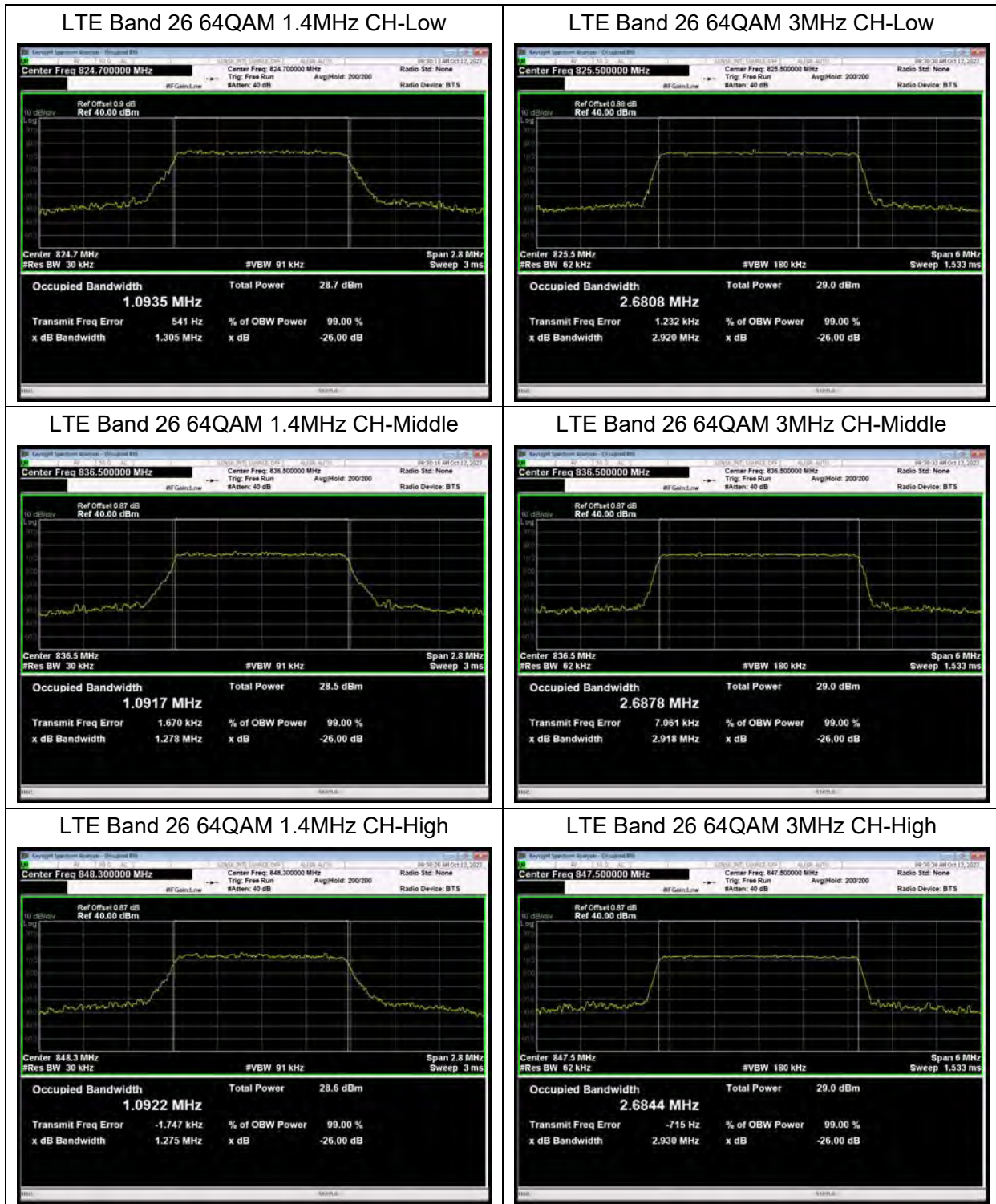


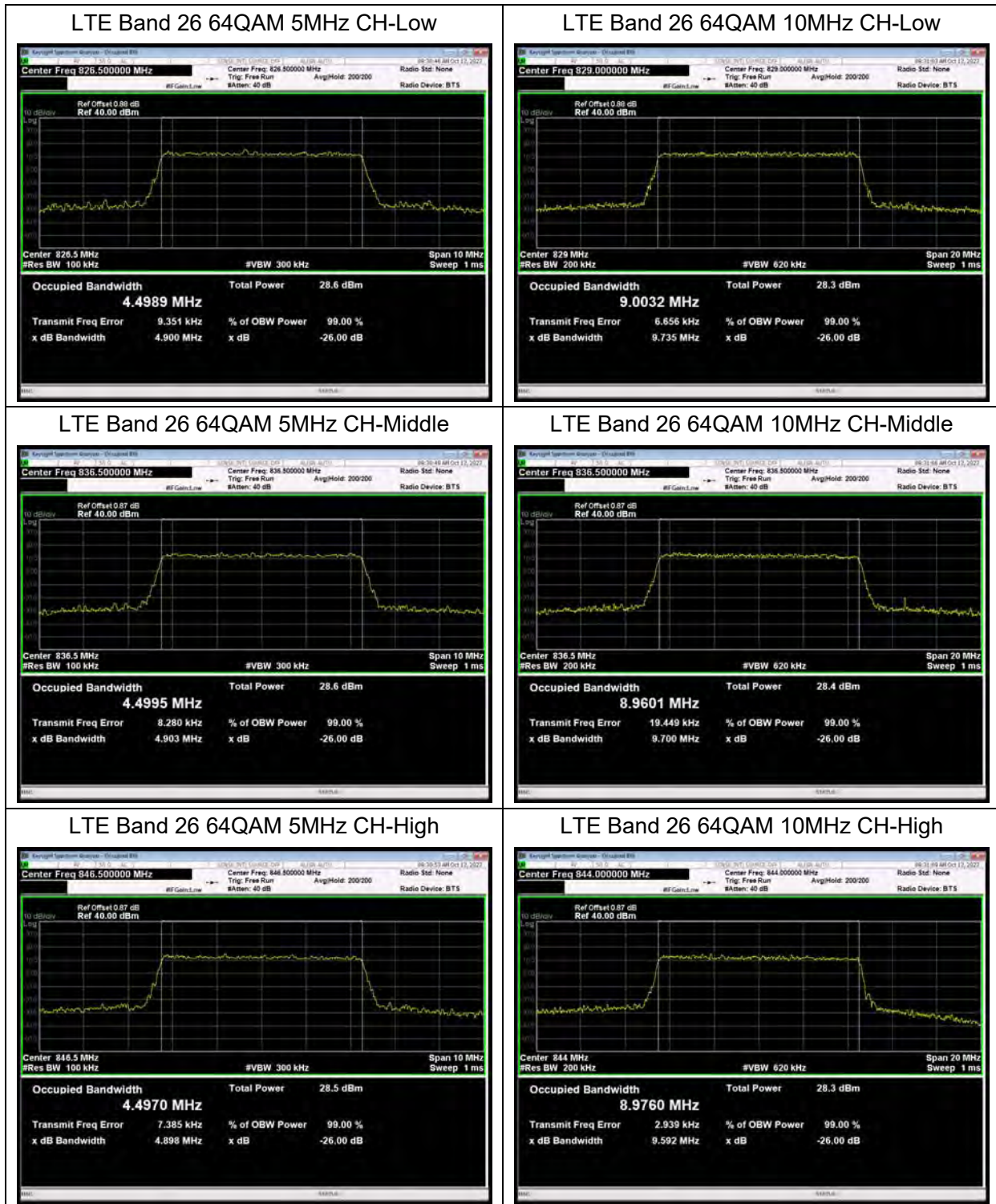




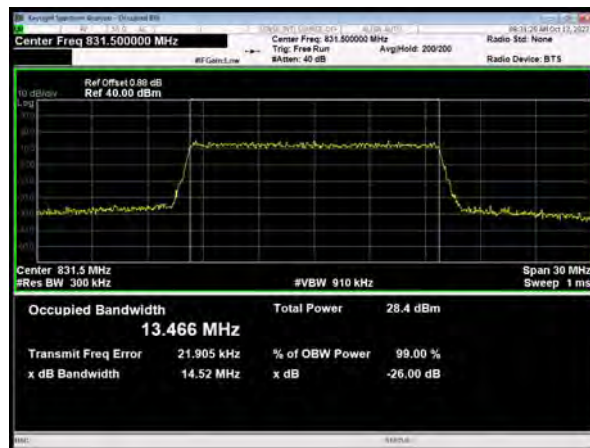




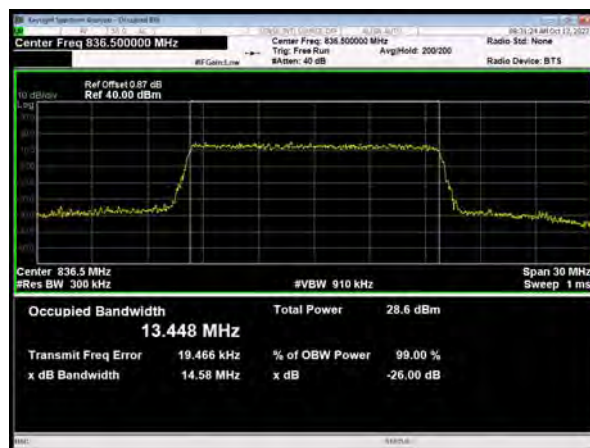




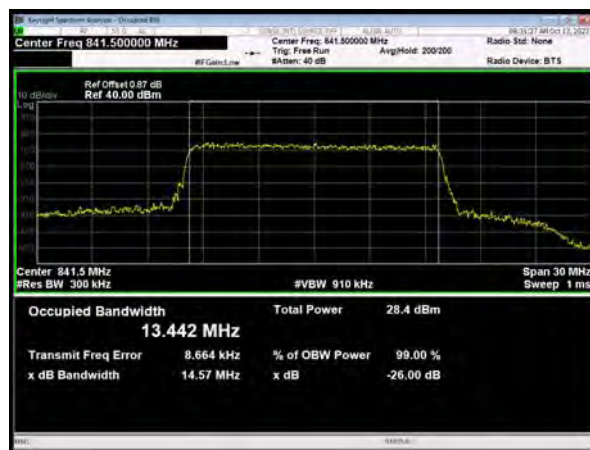
LTE Band 26 64QAM 15MHz CH-Low



LTE Band 26 64QAM 15MHz CH-Middle



LTE Band 26 64QAM 15MHz CH-High



6.3. Band Edge Compliance

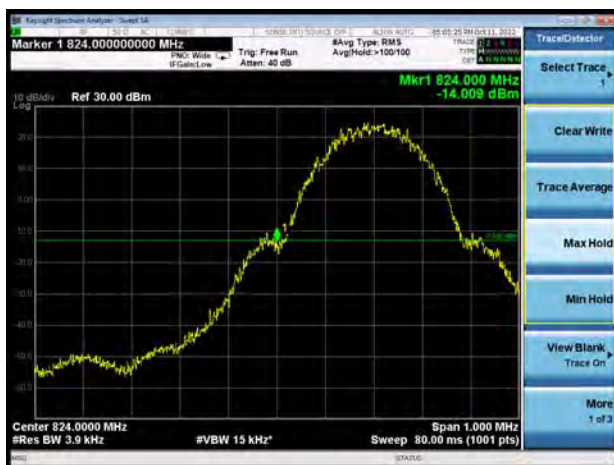
GSM 850 CH-Low



GSM 850 CH-High



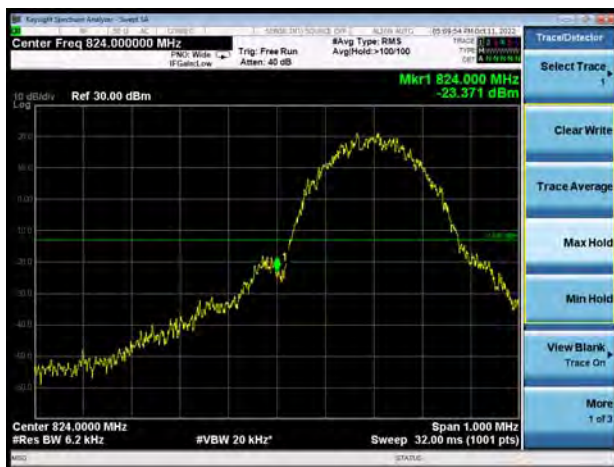
GSM 850 GPRS CH-Low



GSM 850 GPRS CH-High



GSM 850 EGPRS CH-Low

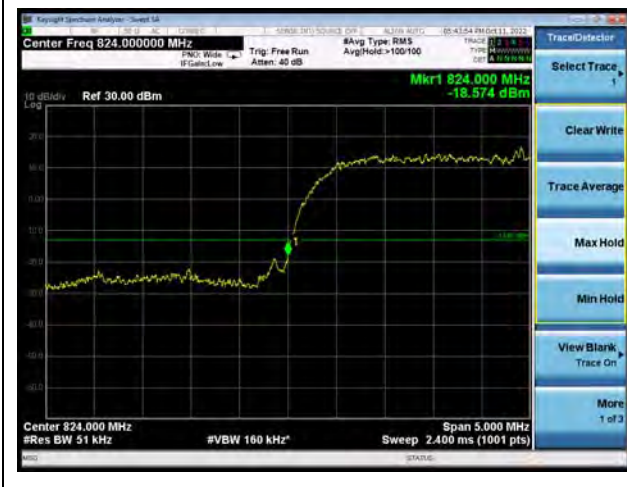


GSM 850 EGPRS CH-High





WCDMA Band V CH-Low

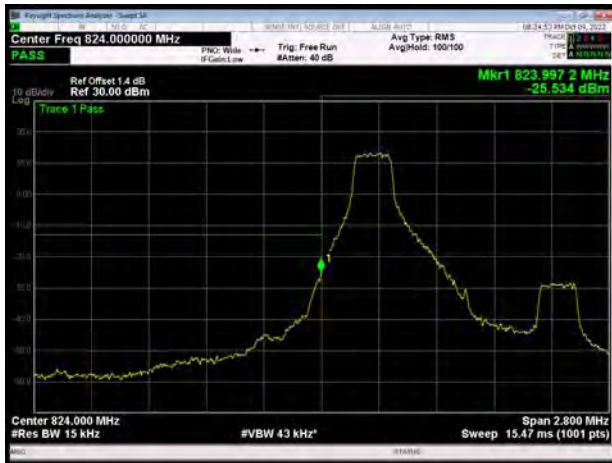


WCDMA Band V CH-High





LTE Band 5 QPSK 1.4MHz CH-Low 1RB



LTE Band 5 QPSK 1.4MHz CH-High 1RB



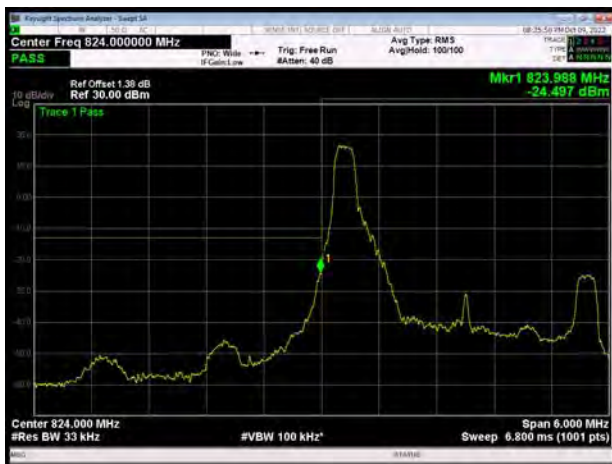
LTE Band 5 QPSK 1.4MHz CH-Low 100%RB



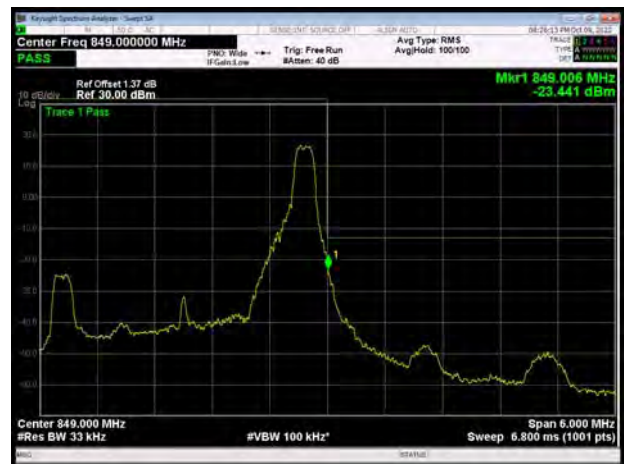
LTE Band 5 QPSK 1.4MHz CH-High 100%RB



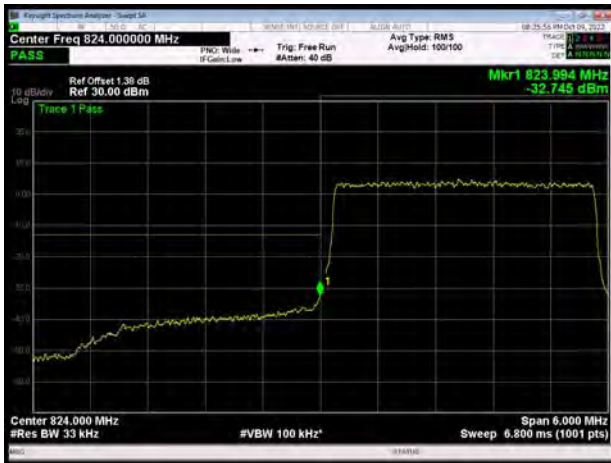
LTE Band 5 QPSK 3MHz CH-Low 1RB



LTE Band 5 QPSK 3MHz CH-High 1RB



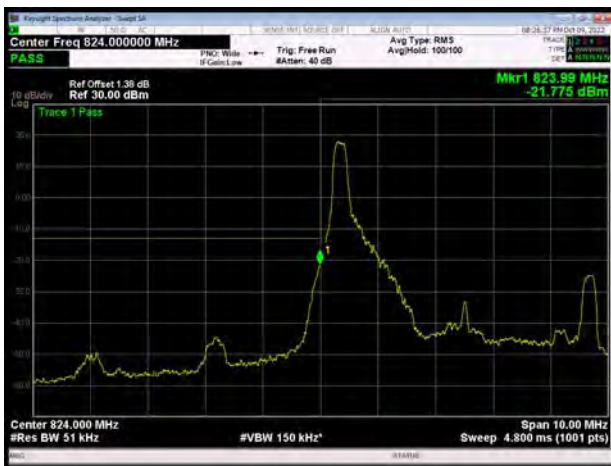
LTE Band 5 QPSK 3MHz CH-Low 100%RB



LTE Band 5 QPSK 3MHz CH-High 100%RB



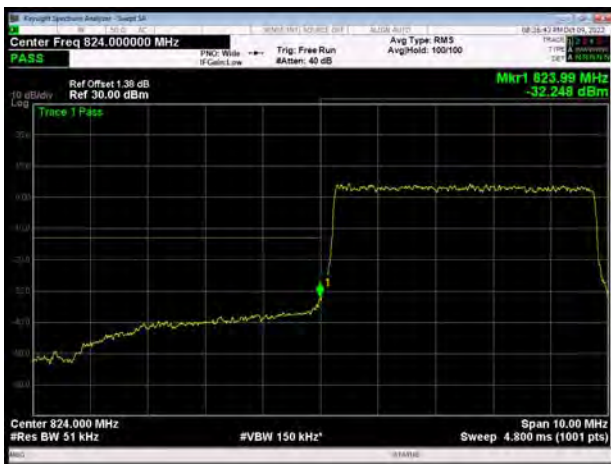
LTE Band 5 QPSK 5MHz CH-Low 1RB



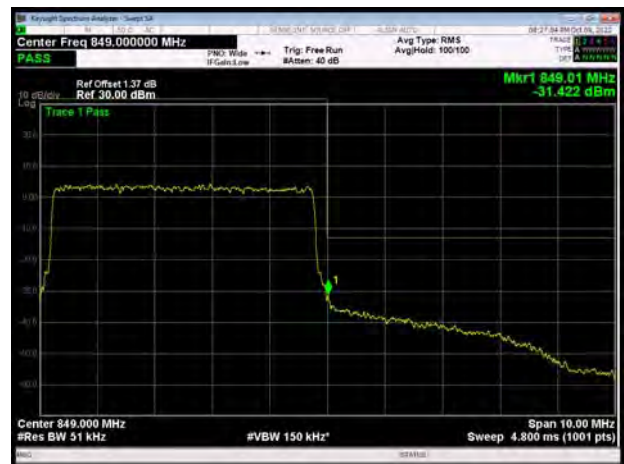
LTE Band 5 QPSK 5MHz CH-High 1RB



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



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





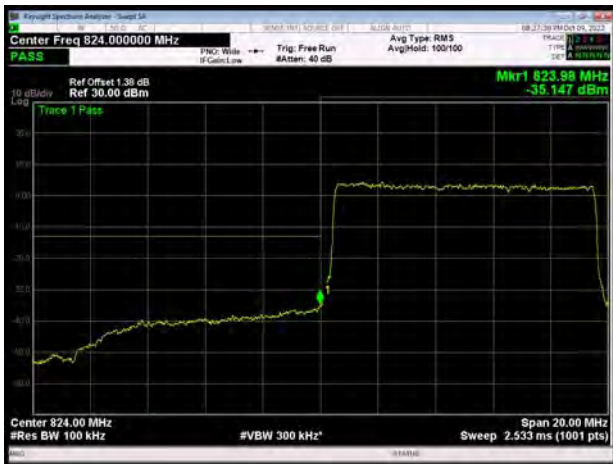
LTE Band 5 QPSK 10MHz CH-Low 1RB



LTE Band 5 QPSK 10MHz CH-High 1RB



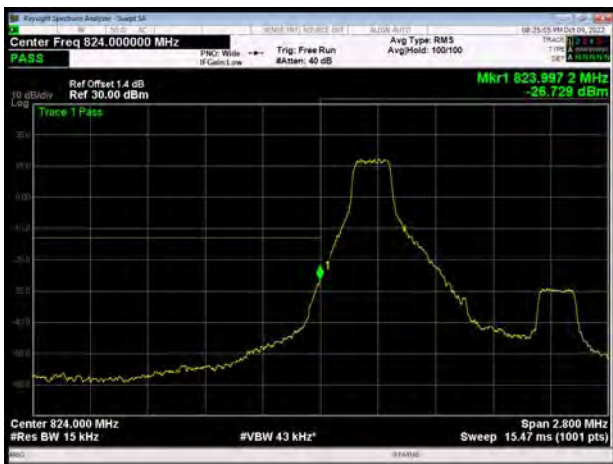
LTE Band 5 QPSK 10MHz CH-Low 100%RB



LTE Band 5 QPSK 10MHz CH-High 100%RB



LTE Band 5 16QAM 1.4MHz CH-Low 1RB

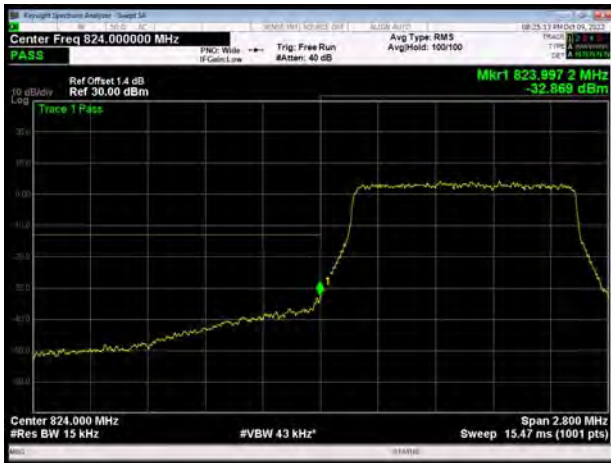


LTE Band 5 16QAM 1.4MHz CH-High 1RB





LTE Band 5 16QAM 1.4MHz CH-Low 100%RB



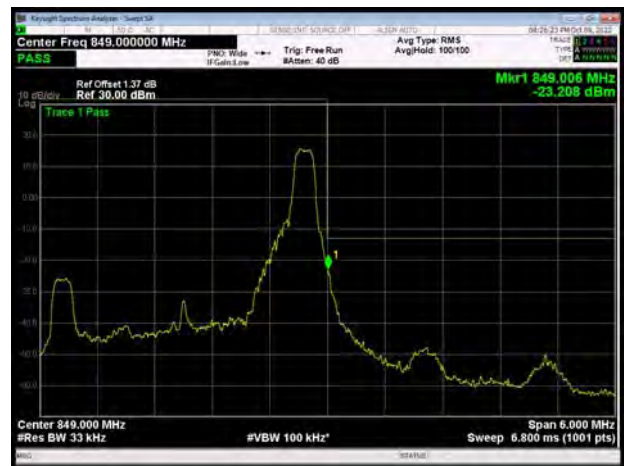
LTE Band 5 16QAM 1.4MHz CH-High 100%RB



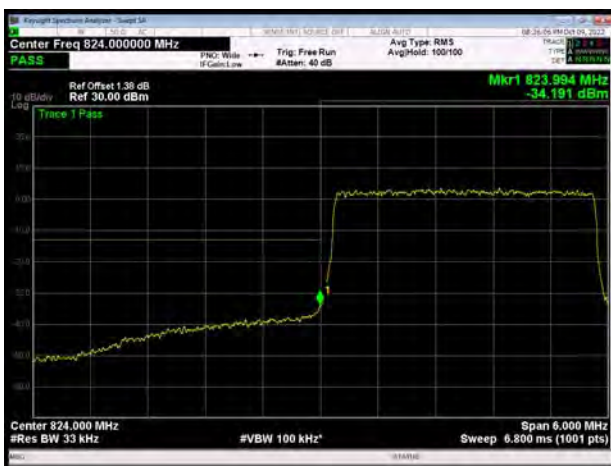
LTE Band 5 16QAM 3MHz CH-Low 1RB



LTE Band 5 16QAM 3MHz CH-High 1RB



LTE Band 5 16QAM 3MHz CH-Low 100%RB



LTE Band 5 16QAM 3MHz CH-High 100%RB

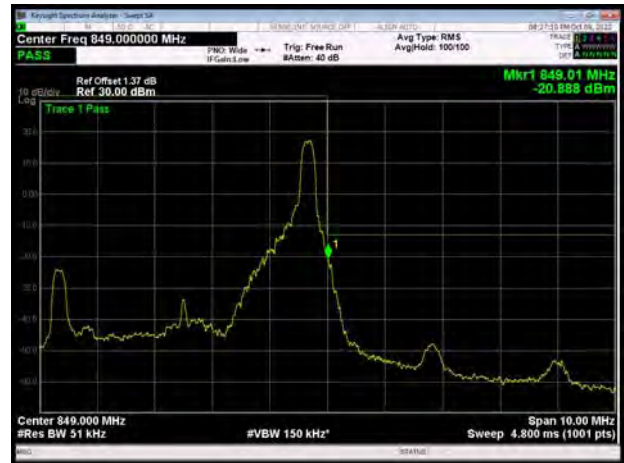




LTE Band 5 16QAM 5MHz CH-Low 1RB



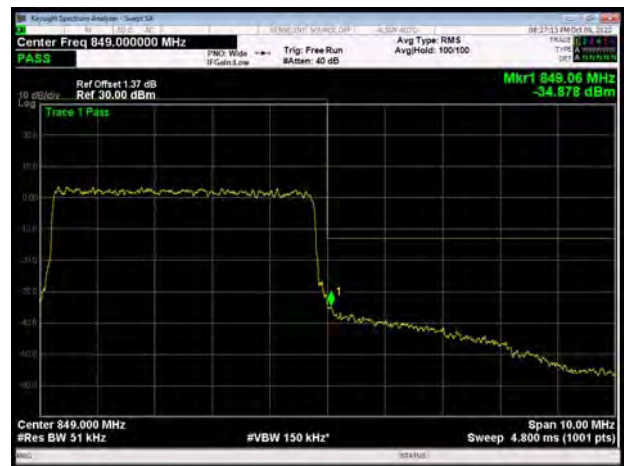
LTE Band 5 16QAM 5MHz CH-High 1RB



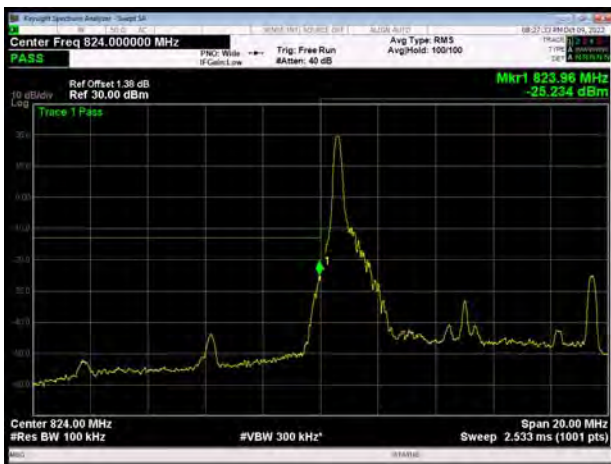
LTE Band 5 16QAM 5MHz CH-Low 100%RB



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



LTE Band 5 16QAM 10MHz CH-Low 1RB



LTE Band 5 16QAM 10MHz CH-High 1RB

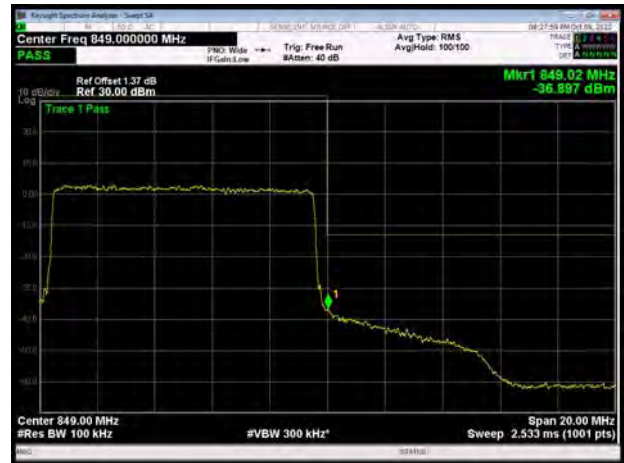




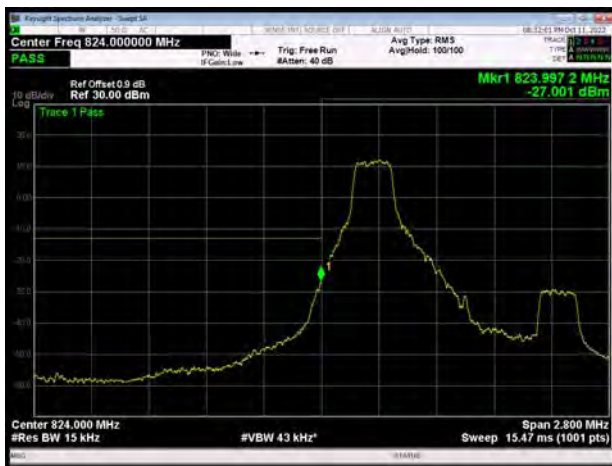
LTE Band 5 16QAM 10MHz CH-Low 100%RB



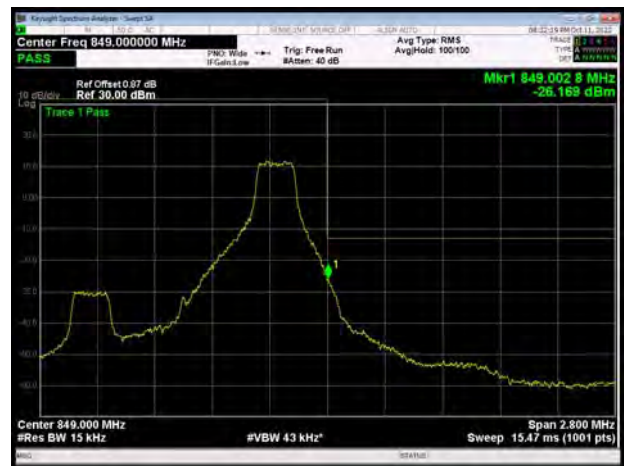
LTE Band 5 16QAM 10MHz CH-High 100%RB



LTE Band 5 64QAM 1.4MHz CH-Low 1RB



LTE Band 5 64QAM 1.4MHz CH-High 1RB



LTE Band 5 64QAM 1.4MHz CH-Low 100%RB

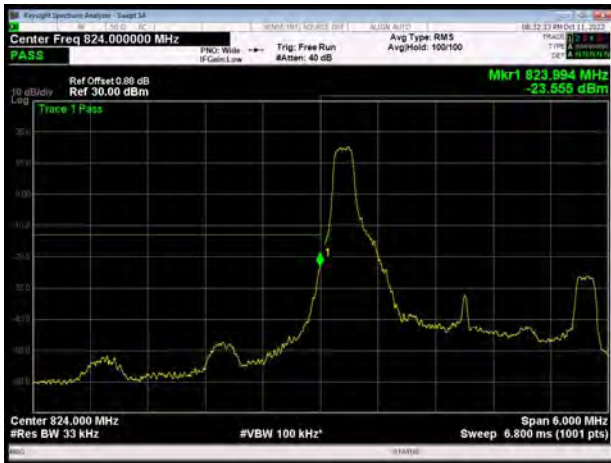


LTE Band 5 64QAM 1.4MHz CH-High 100%RB





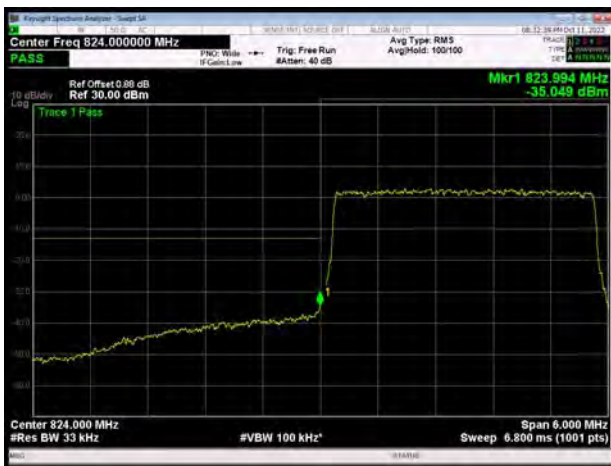
LTE Band 5 64QAM 3MHz CH-Low 1RB



LTE Band 5 64QAM 3MHz CH-High 1RB



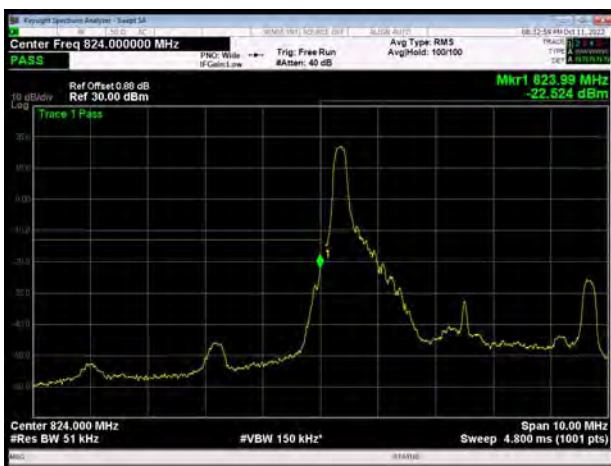
LTE Band 5 64QAM 3MHz CH-Low 100%RB



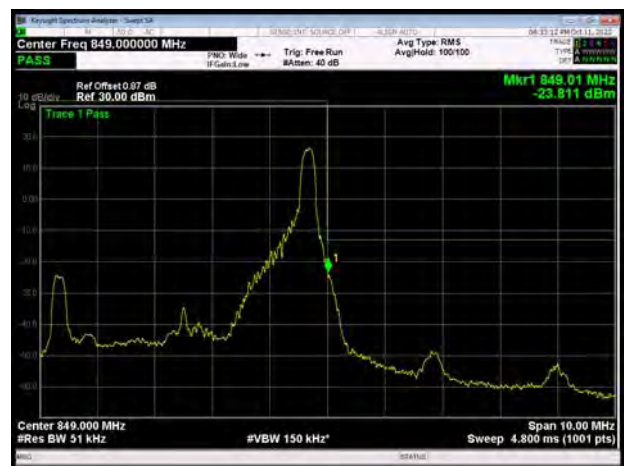
LTE Band 5 64QAM 3MHz CH-High 100%RB



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

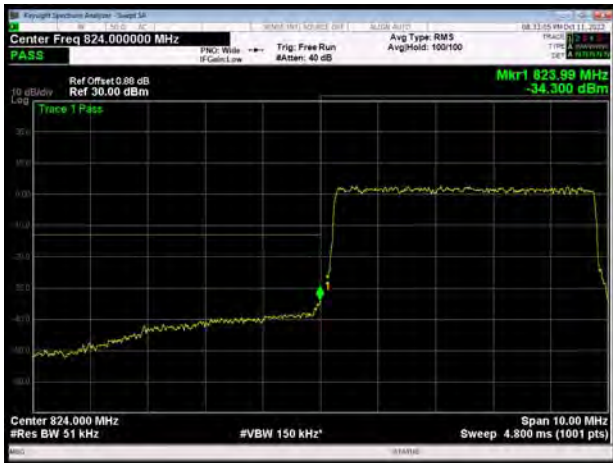


LTE Band 5 64QAM 5MHz CH-High 1RB





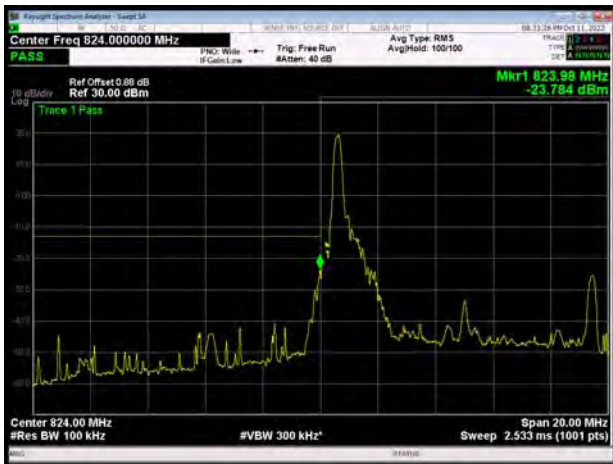
LTE Band 5 64QAM 5MHz CH-Low 100%RB



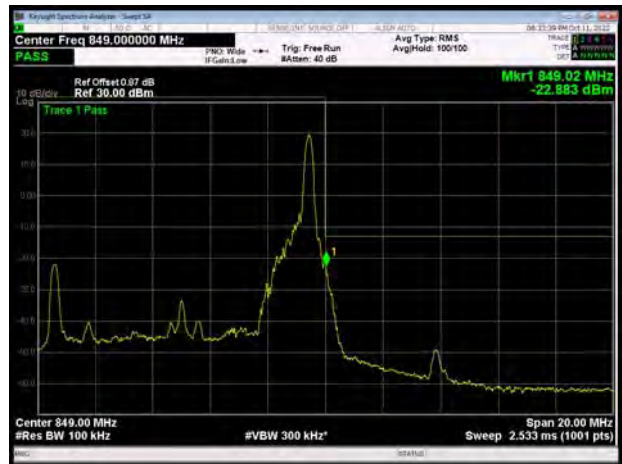
LTE Band 5 64QAM 5MHz CH-High 100%RB



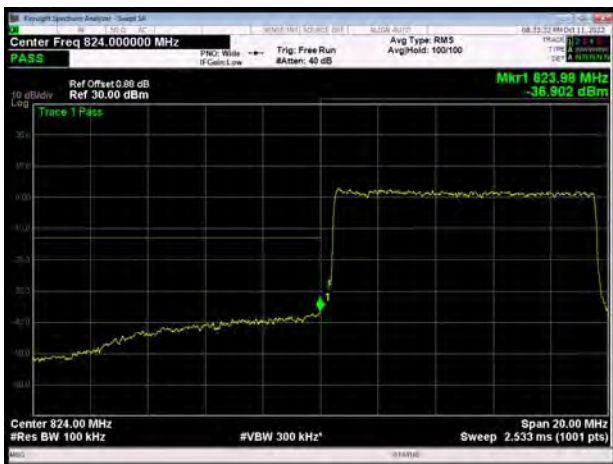
LTE Band 5 64QAM 10MHz CH-Low 1RB



LTE Band 5 64QAM 10MHz CH-High 1RB



LTE Band 5 64QAM 10MHz CH-Low 100%RB



LTE Band 5 64QAM 10MHz CH-High 100%RB





LTE Band 26 QPSK 1.4MHz CH-Low 1RB



LTE Band 26 QPSK 1.4MHz CH-High 1RB



LTE Band 26 QPSK 1.4MHz CH-Low 100%RB



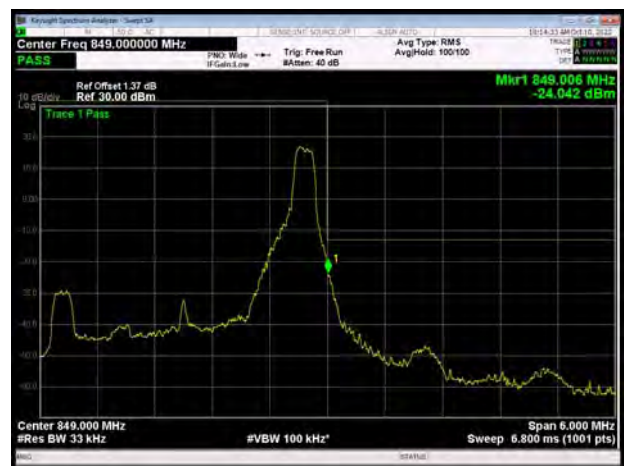
LTE Band 26 QPSK 1.4MHz CH-High 100%RB



LTE Band 26 QPSK 3MHz CH-Low 1RB

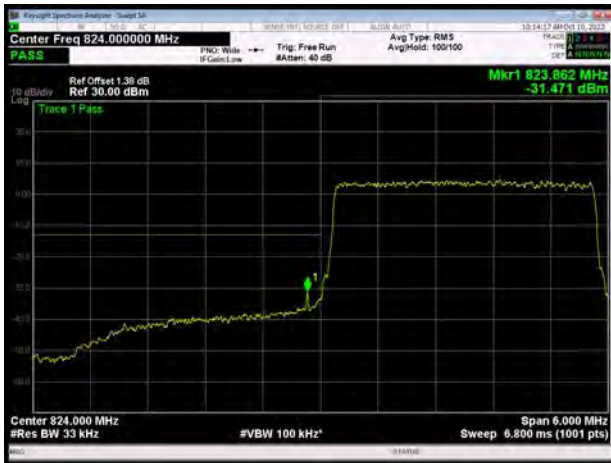


LTE Band 26 QPSK 3MHz CH-High 1RB





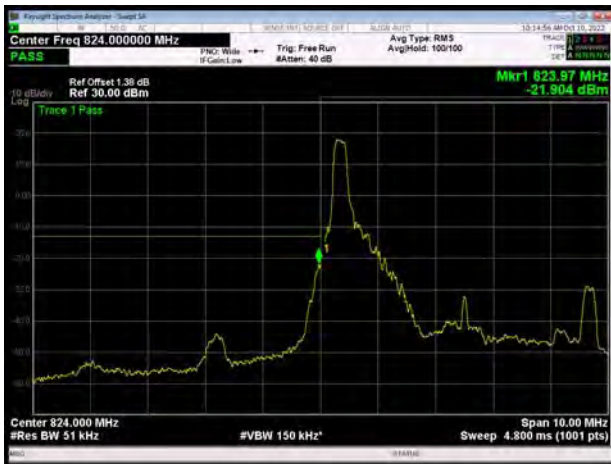
LTE Band 26 QPSK 3MHz CH-Low 100%RB



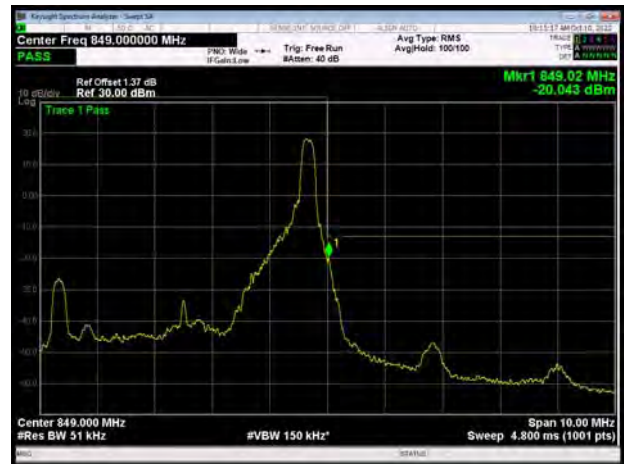
LTE Band 26 QPSK 3MHz CH-High 100%RB



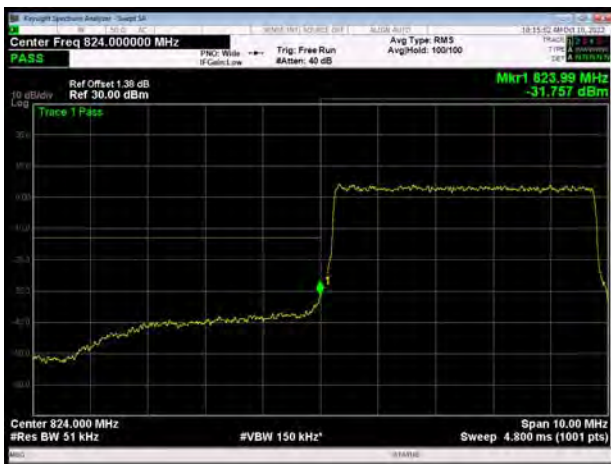
LTE Band 26 QPSK 5MHz CH-Low 1RB



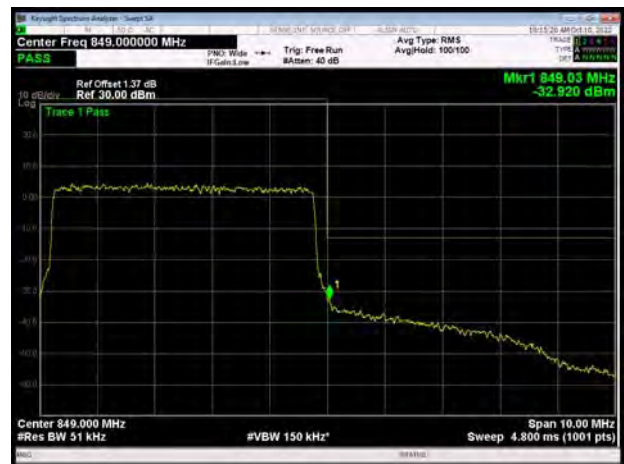
LTE Band 26 QPSK 5MHz CH-High 1RB



LTE Band 26 QPSK 5MHz CH-Low 100%RB

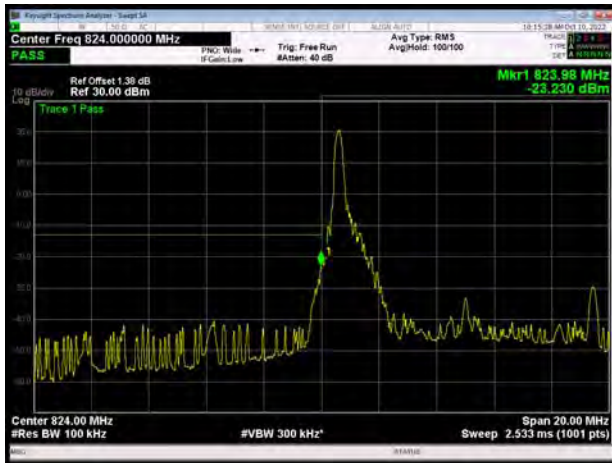


LTE Band 26 QPSK 5MHz CH-High 100%RB





LTE Band 26 QPSK 10MHz CH-Low 1RB



LTE Band 26 QPSK 10MHz CH-High 1RB



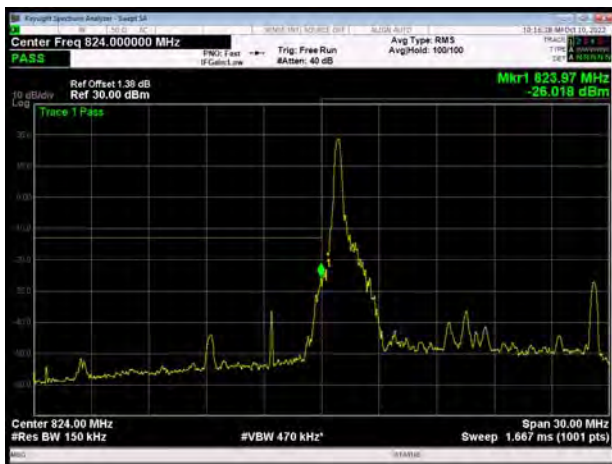
LTE Band 26 QPSK 10MHz CH-Low 100%RB



LTE Band 26 QPSK 10MHz CH-High 100%RB



LTE Band 26 QPSK 15MHz CH-Low 1RB



LTE Band 26 QPSK 15MHz CH-High 1RB





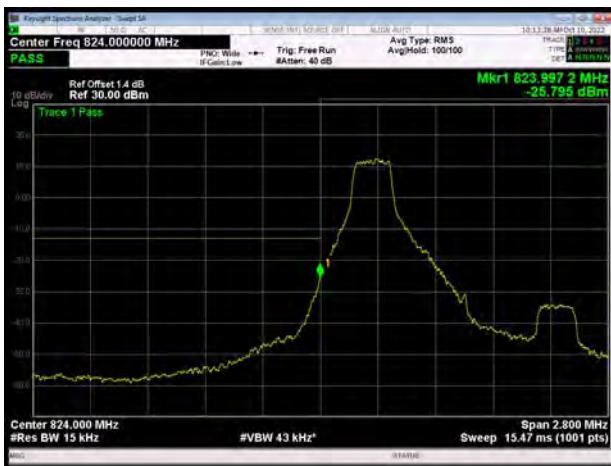
LTE Band 26 QPSK 15MHz CH-Low 100%RB



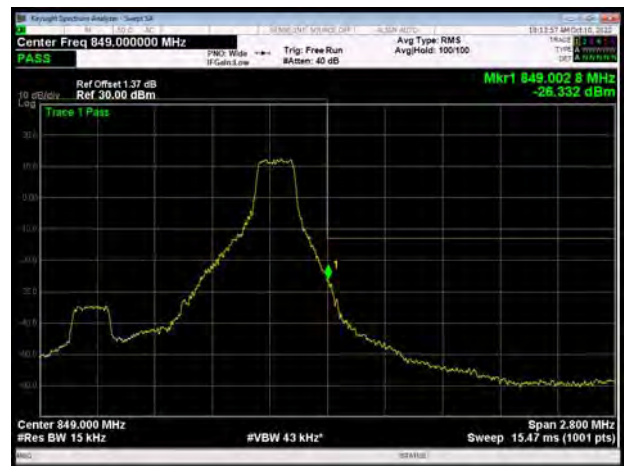
LTE Band 26 QPSK 15MHz CH-High 100%RB



LTE Band 26 16QAM 1.4MHz CH-Low 1RB



LTE Band 26 16QAM 1.4MHz CH-High 1RB



LTE Band 26 16QAM 1.4MHz CH-Low 100%RB

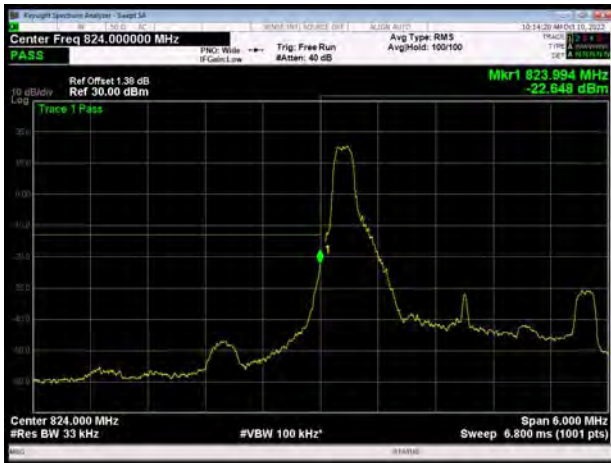


LTE Band 26 16QAM 1.4MHz CH-High 100%RB





LTE Band 26 16QAM 3MHz CH-Low 1RB



LTE Band 26 16QAM 3MHz CH-High 1RB



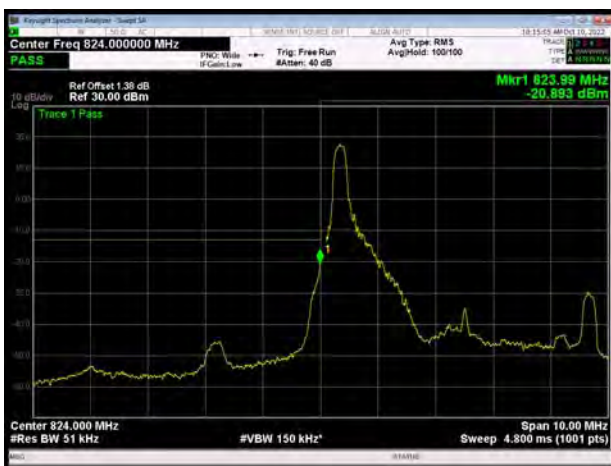
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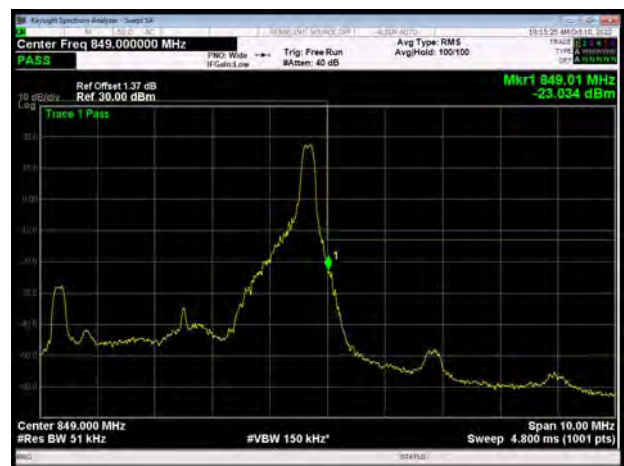
LTE Band 26 16QAM 3MHz CH-High 100%RB



LTE Band 26 16QAM 5MHz CH-Low 1RB

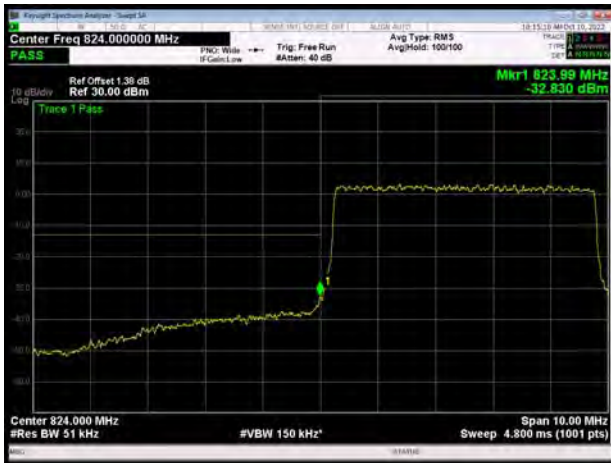


LTE Band 26 16QAM 5MHz CH-High 1RB

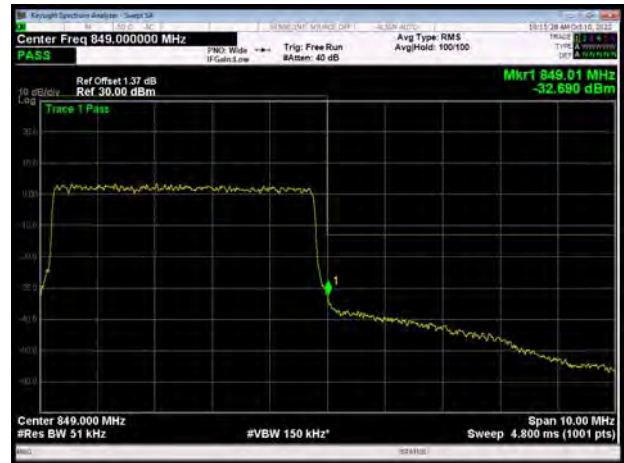




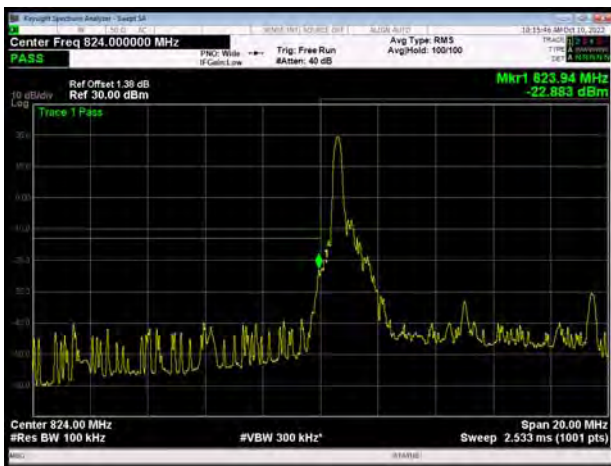
LTE Band 26 16QAM 5MHz CH-Low 100%RB



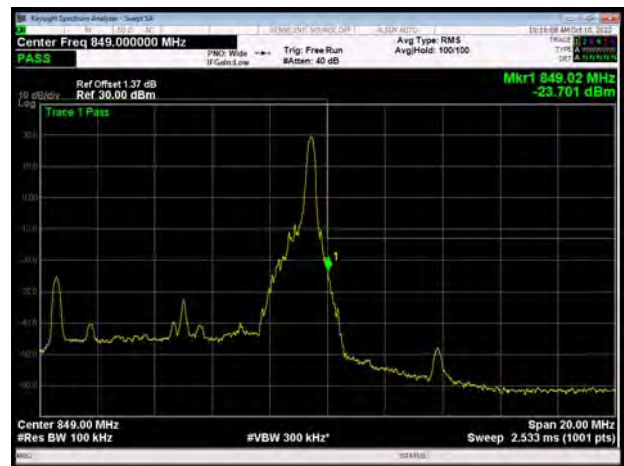
LTE Band 26 16QAM 5MHz CH-High 100%RB



LTE Band 26 16QAM 10MHz CH-Low 1RB



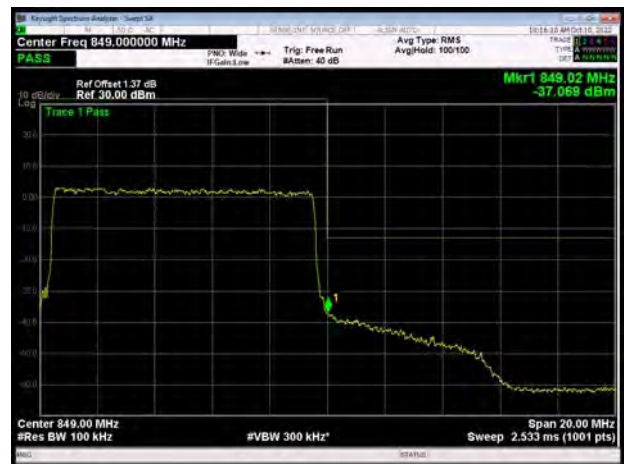
LTE Band 26 16QAM 10MHz CH-High 1RB



LTE Band 26 16QAM 10MHz CH-Low 100%RB

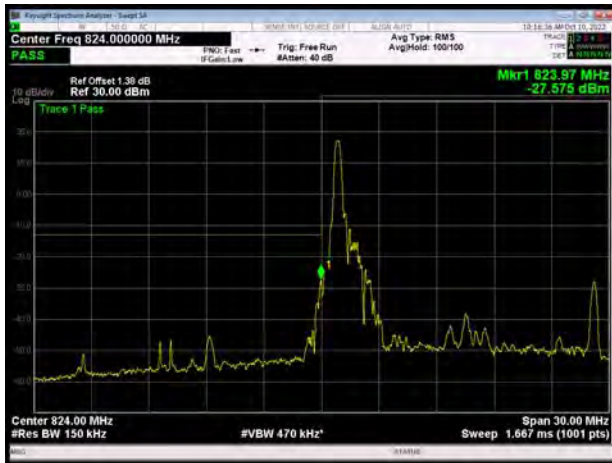


LTE Band 26 16QAM 10MHz CH-High 100%RB

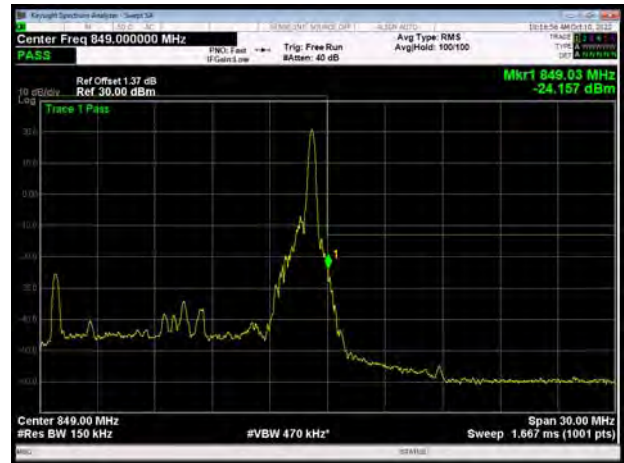




LTE Band 26 16QAM 15MHz CH-Low 1RB



LTE Band 26 16QAM 15MHz CH-High 1RB



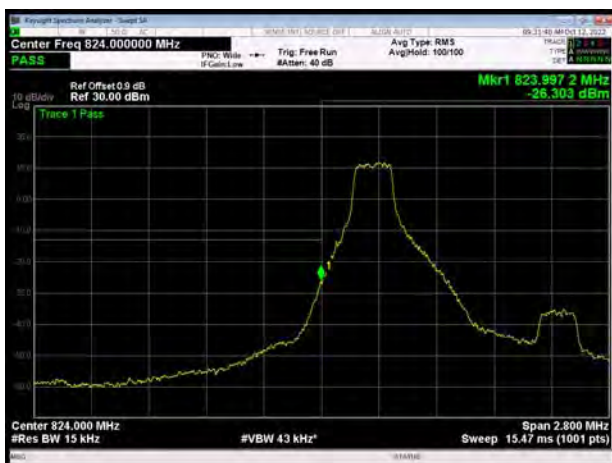
LTE Band 26 16QAM 15MHz CH-Low 100%RB



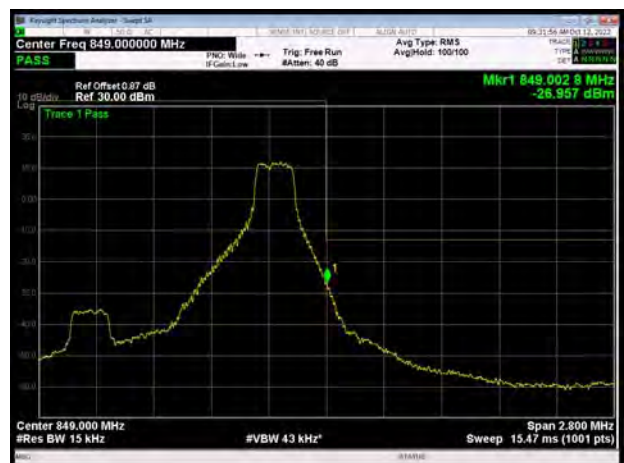
LTE Band 26 16QAM 15MHz CH-High 100%RB



LTE Band 26 64QAM 1.4MHz CH-Low 1RB



LTE Band 26 64QAM 1.4MHz CH-High 1RB





LTE Band 26 64QAM 1.4MHz CH-Low 100%RB



LTE Band 26 64QAM 1.4MHz CH-High 100%RB



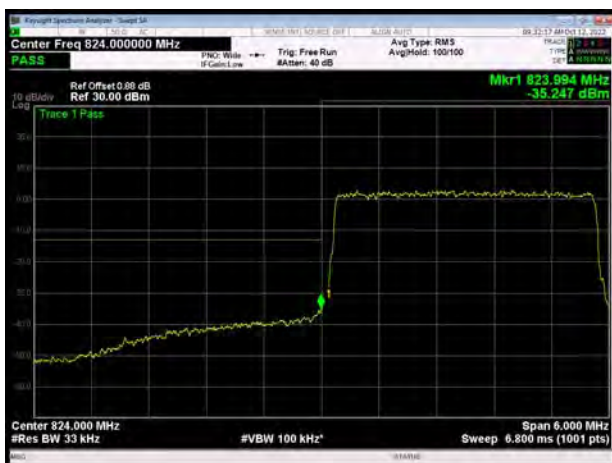
LTE Band 26 64QAM 3MHz CH-Low 1RB



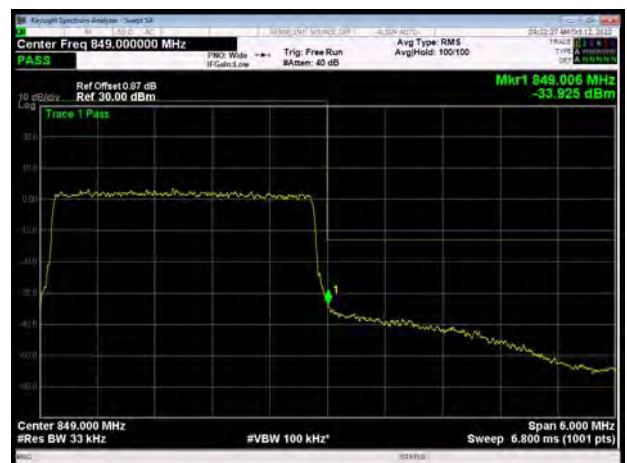
LTE Band 26 64QAM 3MHz CH-High 1RB



LTE Band 26 64QAM 3MHz CH-Low 100%RB

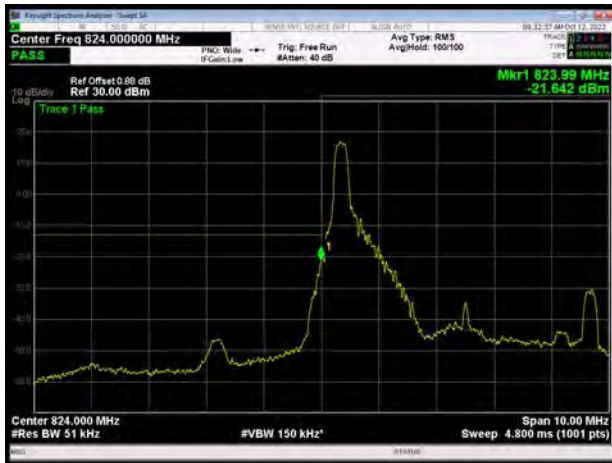


LTE Band 26 64QAM 3MHz CH-High 100%RB

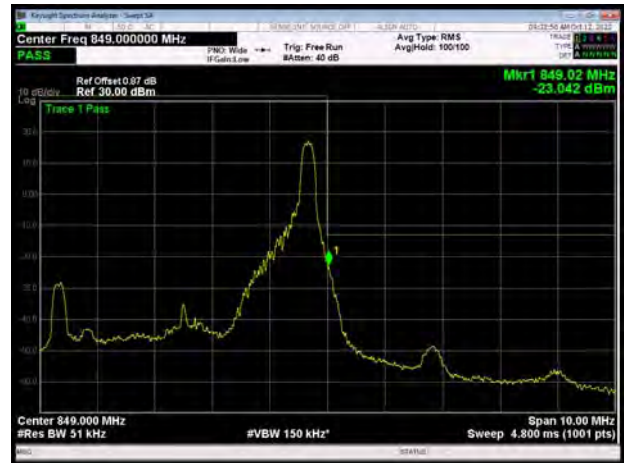




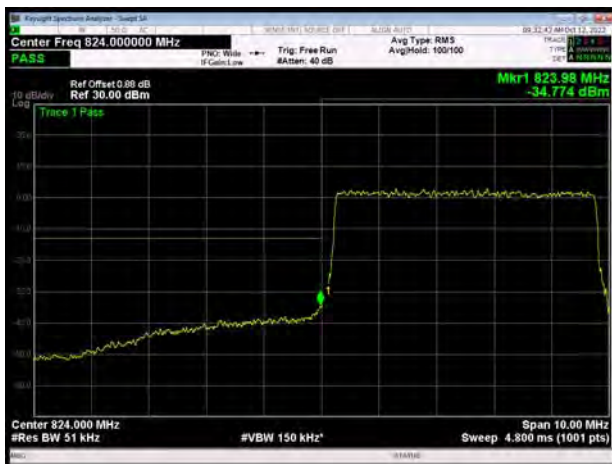
LTE Band 26 64QAM 5MHz CH-Low 1RB



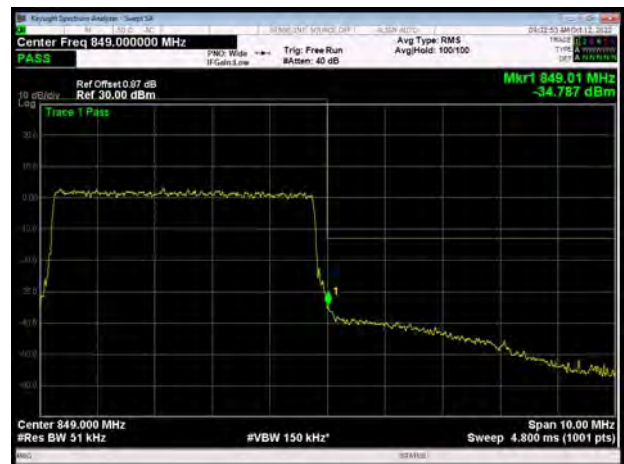
LTE Band 26 64QAM 5MHz CH-High 1RB



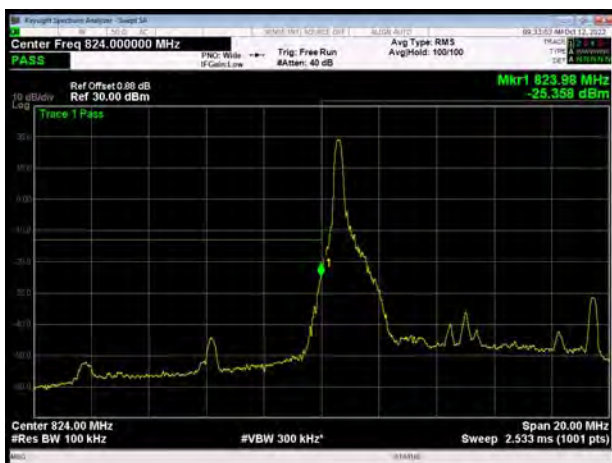
LTE Band 26 64QAM 5MHz CH-Low 100%RB



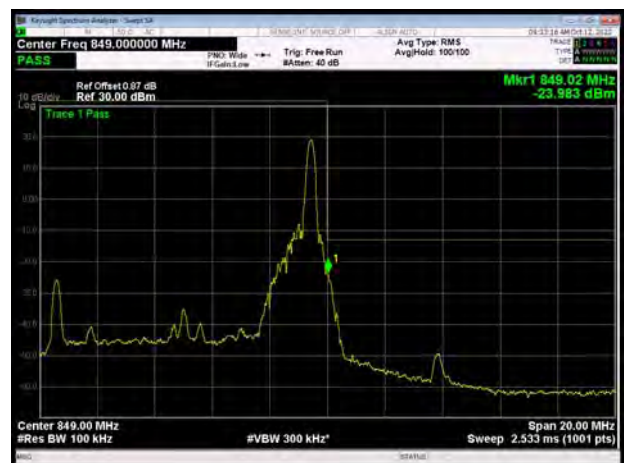
LTE Band 26 64QAM 5MHz CH-High 100%RB



LTE Band 26 64QAM 10MHz CH-Low 1RB

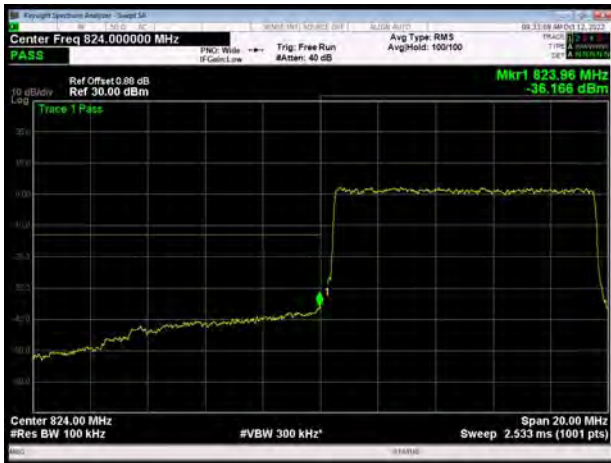


LTE Band 26 64QAM 10MHz CH-High 1RB





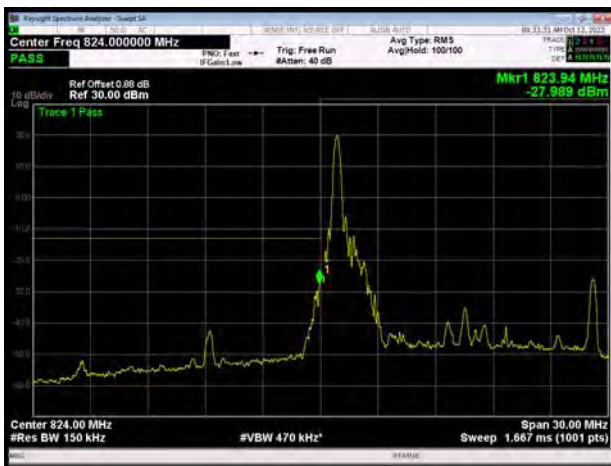
LTE Band 26 64QAM 10MHz CH-Low 100%RB



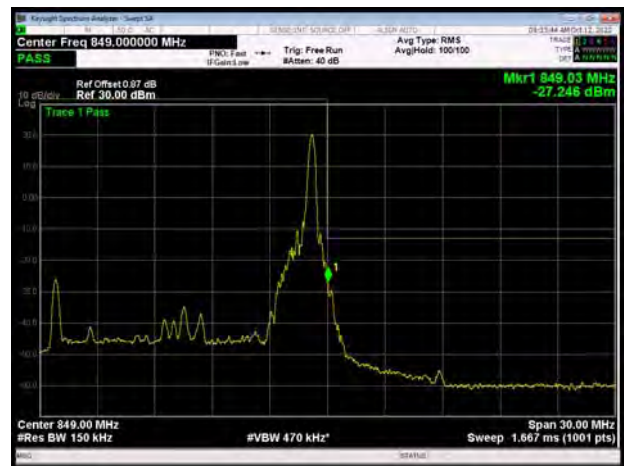
LTE Band 26 64QAM 10MHz CH-High 100%RB



LTE Band 26 64QAM 15MHz CH-Low 1RB



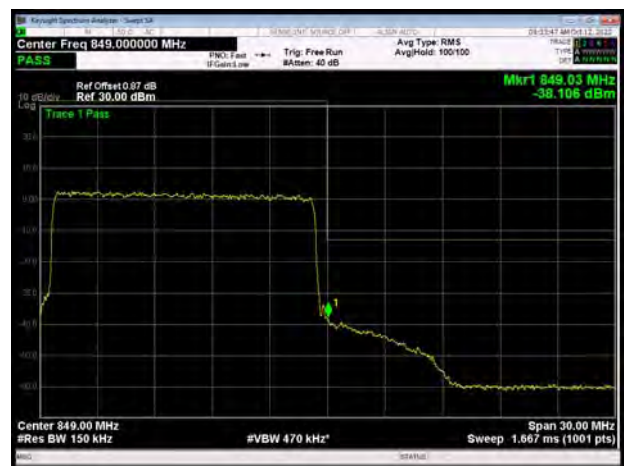
LTE Band 26 64QAM 15MHz CH-High 1RB



LTE Band 26 64QAM 15MHz CH-Low 100%RB



LTE Band 26 64QAM 15MHz CH-High 100%RB



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

Mode	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
GSM 850 (GMSK)	128	824.2	32.39	29.79	2.60	≤13	PASS
	190	836.6	32.32	29.71	2.61	≤13	PASS
	251	848.8	32.20	29.60	2.60	≤13	PASS
GPRS 850 (GMSK)	128	824.2	32.38	29.78	2.60	≤13	PASS
	190	836.6	32.25	29.65	2.60	≤13	PASS
	251	848.8	32.24	29.63	2.61	≤13	PASS
EGPRS 850 (8PSK)	128	824.2	29.86	24.04	5.82	≤13	PASS
	190	836.6	29.72	23.89	5.83	≤13	PASS
	251	848.8	29.67	23.81	5.86	≤13	PASS
WCDMA Band V (RMC)	4132	826.4	25.78	22.82	2.96	≤13	PASS
	4183	836.6	25.78	22.76	3.02	≤13	PASS
	4233	846.6	25.81	22.78	3.03	≤13	PASS

LTE Band 5								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	20407	824.7	27.26	22.12	5.14	≤13	PASS
		20525	836.5	27.29	22.02	5.27	≤13	PASS
		20643	848.3	26.81	22.07	4.74	≤13	PASS
	3	20415	825.5	27.25	22.05	5.20	≤13	PASS
		20525	836.5	27.30	22.01	5.29	≤13	PASS
		20635	847.5	26.98	22.01	4.97	≤13	PASS
	5	20425	826.5	27.34	22.06	5.28	≤13	PASS
		20525	836.5	27.41	22.03	5.38	≤13	PASS
		20625	846.5	27.11	22.00	5.11	≤13	PASS
	10	20450	829	27.39	22.10	5.29	≤13	PASS
		20525	836.5	27.40	22.05	5.35	≤13	PASS
		20600	844	27.33	22.04	5.29	≤13	PASS
16QAM	1.4	20407	824.7	27.03	21.06	5.97	≤13	PASS
		20525	836.5	27.02	21.05	5.97	≤13	PASS
		20643	848.3	26.65	21.07	5.58	≤13	PASS
	3	20415	825.5	27.08	21.02	6.06	≤13	PASS



		20525	836.5	27.17	21.04	6.13	≤13	PASS
		20635	847.5	26.76	21.02	5.74	≤13	PASS
	5	20425	826.5	27.01	21.06	5.95	≤13	PASS
		20525	836.5	27.12	21.03	6.09	≤13	PASS
		20625	846.5	26.89	20.99	5.90	≤13	PASS
	10	20450	829	27.15	21.09	6.06	≤13	PASS
		20525	836.5	27.15	21.04	6.11	≤13	PASS
		20600	844	27.09	21.01	6.08	≤13	PASS
64QAM	1.4	20407	824.7	26.58	20.64	5.94	≤13	PASS
		20525	836.5	26.54	20.58	5.96	≤13	PASS
		20643	848.3	26.21	20.58	5.63	≤13	PASS
	3	20415	825.5	26.62	20.55	6.07	≤13	PASS
		20525	836.5	26.68	20.55	6.13	≤13	PASS
		20635	847.5	26.33	20.55	5.78	≤13	PASS
	5	20425	826.5	26.60	20.60	6.00	≤13	PASS
		20525	836.5	26.69	20.58	6.11	≤13	PASS
		20625	846.5	26.45	20.55	5.90	≤13	PASS
	10	20450	829	26.75	20.66	6.09	≤13	PASS
		20525	836.5	26.72	20.60	6.12	≤13	PASS
		20600	844	26.63	20.56	6.07	≤13	PASS

LTE Band 26								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	26797	824.7	27.29	22.11	5.18	≤13	PASS
		26915	836.5	27.35	22.05	5.30	≤13	PASS
		27033	848.3	26.82	22.09	4.73	≤13	PASS
	3	26805	825.5	27.24	22.06	5.18	≤13	PASS
		26915	836.5	27.31	22.03	5.28	≤13	PASS
		27025	847.5	27.02	22.03	4.99	≤13	PASS
	5	26815	826.5	27.38	22.07	5.31	≤13	PASS
		26915	836.5	27.44	22.06	5.38	≤13	PASS
		27015	846.5	27.16	22.04	5.12	≤13	PASS
	10	26840	829	27.42	22.11	5.31	≤13	PASS
		26915	836.5	27.43	22.07	5.36	≤13	PASS
		26990	844	27.36	22.06	5.30	≤13	PASS
	15	26865	831.5	27.82	22.17	5.65	≤13	PASS
		26915	836.5	27.80	22.11	5.69	≤13	PASS
		26965	841.5	27.77	22.11	5.66	≤13	PASS



16QAM	1.4	26797	824.7	26.99	21.10	5.89	≤13	PASS
		26915	836.5	26.97	21.02	5.95	≤13	PASS
		27033	848.3	26.66	21.10	5.56	≤13	PASS
	3	26805	825.5	27.07	21.02	6.05	≤13	PASS
		26915	836.5	27.21	21.07	6.14	≤13	PASS
		27025	847.5	26.77	21.00	5.77	≤13	PASS
	5	26815	826.5	27.08	21.06	6.02	≤13	PASS
		26915	836.5	27.17	21.06	6.11	≤13	PASS
		27015	846.5	26.92	21.04	5.88	≤13	PASS
	10	26840	829	27.17	21.09	6.08	≤13	PASS
		26915	836.5	27.14	21.06	6.08	≤13	PASS
		26990	844	27.12	21.07	6.05	≤13	PASS
	15	26865	831.5	27.29	21.13	6.16	≤13	PASS
		26915	836.5	27.28	21.07	6.21	≤13	PASS
		26965	841.5	27.30	21.10	6.20	≤13	PASS
64QAM	1.4	26797	824.7	26.52	20.55	5.97	≤13	PASS
		26915	836.5	26.48	20.45	6.03	≤13	PASS
		27033	848.3	26.11	20.49	5.62	≤13	PASS
	3	26805	825.5	26.54	20.48	6.06	≤13	PASS
		26915	836.5	26.56	20.42	6.14	≤13	PASS
		27025	847.5	26.25	20.43	5.82	≤13	PASS
	5	26815	826.5	26.55	20.51	6.04	≤13	PASS
		26915	836.5	26.56	20.47	6.09	≤13	PASS
		27015	846.5	26.32	20.45	5.87	≤13	PASS
	10	26840	829	26.60	20.53	6.07	≤13	PASS
		26915	836.5	26.62	20.50	6.12	≤13	PASS
		26990	844	26.53	20.45	6.08	≤13	PASS
	15	26865	831.5	26.79	20.57	6.22	≤13	PASS
		26915	836.5	26.72	20.50	6.22	≤13	PASS
		26965	841.5	26.70	20.51	6.19	≤13	PASS

6.5. Frequency Stability

GSM850						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	GMSK	8PSK	GMSK	8PSK	
Normal (25°C)	Normal	7.55	13.79	0.00902	0.01648	PASS
Extreme (50°C)		3.04	3.69	0.00364	0.00441	PASS
Extreme (40°C)		3.93	9.51	0.00470	0.01137	PASS
Extreme (30°C)		15.81	6.19	0.01890	0.00739	PASS
Extreme (20°C)		16.86	8.52	0.02016	0.01019	PASS
Extreme (10°C)		7.21	10.18	0.00862	0.01217	PASS
Extreme (0°C)		15.48	2.58	0.01850	0.00309	PASS
Extreme (-10°C)		12.43	2.77	0.01486	0.00331	PASS
Extreme (-20°C)		11.85	1.87	0.01417	0.00223	PASS
Extreme (-30°C)		2.28	16.91	0.00272	0.02022	PASS
25°C	LV	13.91	15.37	0.01663	0.01837	PASS
	HV	15.21	16.21	0.01818	0.01938	PASS

WCDMA Band V						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
Temperature	Voltage	BPSK	QPSK	BPSK	QPSK	
Normal (25°C)	Normal	6.00	6.95	0.00717	0.00831	PASS
Extreme (50°C)		16.90	15.31	0.02021	0.01831	PASS
Extreme (40°C)		16.90	15.46	0.02020	0.01847	PASS
Extreme (30°C)		9.78	4.52	0.01169	0.00541	PASS
Extreme (20°C)		15.19	9.42	0.01816	0.01125	PASS
Extreme (10°C)		13.57	17.86	0.01622	0.02135	PASS
Extreme (0°C)		9.33	2.88	0.01115	0.00345	PASS
Extreme (-10°C)		16.60	4.55	0.01984	0.00544	PASS
Extreme (-20°C)		8.72	9.50	0.01042	0.01136	PASS
Extreme (-30°C)		10.20	16.41	0.01220	0.01961	PASS
25°C	LV	8.26	7.66	0.00987	0.00916	PASS
	HV	17.15	2.73	0.02050	0.00326	PASS



LTE Band 5								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	8.11	15.44	7.35	0.00969	0.01846	0.00879	PASS
Extreme (50°C)		9.12	15.35	10.84	0.01090	0.01835	0.01296	PASS
Extreme (40°C)		3.87	16.89	3.68	0.00463	0.02019	0.00440	PASS
Extreme (30°C)		7.95	4.29	16.95	0.00950	0.00513	0.02026	PASS
Extreme (20°C)		9.67	3.59	9.02	0.01156	0.00429	0.01078	PASS
Extreme (10°C)		7.01	16.51	17.75	0.00838	0.01974	0.02122	PASS
Extreme (0°C)		9.19	12.09	12.44	0.01099	0.01446	0.01487	PASS
Extreme (-10°C)		15.88	2.49	6.13	0.01898	0.00297	0.00733	PASS
Extreme (-20°C)		3.79	2.26	12.32	0.00453	0.00270	0.01473	PASS
Extreme (-30°C)		5.13	3.25	12.34	0.00613	0.00388	0.01476	PASS
25°C		LV	16.42	15.42	11.55	0.01963	0.01844	0.01381
	HV	15.13	16.64	1.96	0.01809	0.01990	0.00235	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	9.17	17.02	4.04	0.01096	0.02034	0.00483	PASS
Extreme (50°C)		4.54	15.64	11.03	0.00543	0.01870	0.01318	PASS
Extreme (40°C)		11.82	5.92	5.69	0.01413	0.00707	0.00681	PASS
Extreme (30°C)		1.75	17.60	11.49	0.00209	0.02103	0.01374	PASS
Extreme (20°C)		13.34	9.82	15.29	0.01594	0.01174	0.01828	PASS
Extreme (10°C)		3.88	17.92	14.22	0.00464	0.02142	0.01700	PASS
Extreme (0°C)		11.44	9.15	14.06	0.01368	0.01094	0.01681	PASS
Extreme (-10°C)		6.56	9.07	5.27	0.00784	0.01085	0.00630	PASS
Extreme (-20°C)		2.26	8.47	5.57	0.00270	0.01013	0.00666	PASS
Extreme (-30°C)		12.19	7.70	4.03	0.01457	0.00921	0.00482	PASS
25°C		LV	1.12	13.18	9.35	0.00134	0.01575	0.01118
	HV	3.12	10.98	14.61	0.00373	0.01313	0.01747	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	17.56	8.30	7.03	0.02099	0.00992	0.00840	PASS
Extreme (50°C)		2.55	3.31	1.34	0.00304	0.00396	0.00160	PASS



Extreme (40°C)		1.69	11.75	4.62	0.00201	0.01405	0.00552	PASS
Extreme (30°C)		3.43	8.00	7.14	0.00410	0.00956	0.00854	PASS
Extreme (20°C)		3.02	9.95	16.27	0.00362	0.01190	0.01945	PASS
Extreme (10°C)		14.74	13.34	13.21	0.01762	0.01595	0.01579	PASS
Extreme (0°C)		15.24	4.79	9.60	0.01821	0.00573	0.01147	PASS
Extreme (-10°C)		11.82	10.64	15.48	0.01413	0.01272	0.01850	PASS
Extreme (-20°C)		1.73	14.04	2.86	0.00207	0.01679	0.00342	PASS
Extreme (-30°C)		12.90	3.48	6.28	0.01543	0.00416	0.00751	PASS
25°C	LV	3.26	9.84	14.96	0.00389	0.01176	0.01789	PASS
	HV	8.96	6.13	2.93	0.01071	0.00733	0.00350	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	6.85	15.73	9.37	0.00819	0.01880	0.01121	PASS
Extreme (50°C)		1.43	2.31	16.38	0.00171	0.00276	0.01958	PASS
Extreme (40°C)		10.96	5.70	2.22	0.01310	0.00681	0.00265	PASS
Extreme (30°C)		11.64	11.25	17.97	0.01392	0.01345	0.02148	PASS
Extreme (20°C)		6.65	3.30	15.63	0.00795	0.00394	0.01868	PASS
Extreme (10°C)		17.70	1.67	3.10	0.02116	0.00200	0.00371	PASS
Extreme (0°C)		11.35	11.16	8.34	0.01357	0.01334	0.00998	PASS
Extreme (-10°C)		4.94	5.80	9.50	0.00590	0.00693	0.01135	PASS
Extreme (-20°C)		5.23	14.41	14.87	0.00625	0.01722	0.01778	PASS
Extreme (-30°C)		4.42	10.33	2.65	0.00528	0.01235	0.00317	PASS
25°C	LV	14.20	4.78	5.16	0.01698	0.00572	0.00617	PASS
	HV	16.61	6.16	15.06	0.01986	0.00736	0.01800	PASS

LTE Band 26								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	9.21	13.31	10.02	0.01102	0.01591	0.01198	PASS
Extreme (50°C)		17.34	3.80	5.06	0.02073	0.00455	0.00605	PASS
Extreme (40°C)		10.13	3.90	6.91	0.01211	0.00467	0.00827	PASS
Extreme (30°C)		10.06	14.97	17.25	0.01202	0.01790	0.02063	PASS
Extreme (20°C)		13.70	9.24	1.77	0.01637	0.01105	0.00212	PASS
Extreme (10°C)		8.72	3.05	14.66	0.01043	0.00365	0.01752	PASS
Extreme (0°C)		12.99	13.08	15.31	0.01553	0.01563	0.01830	PASS
Extreme (-10°C)		1.78	3.39	12.17	0.00212	0.00405	0.01455	PASS
Extreme (-20°C)		10.23	12.23	13.87	0.01223	0.01462	0.01658	PASS



Extreme (-30°C)		4.36	3.24	13.10	0.00522	0.00387	0.01566	PASS
25°C	LV	12.65	8.68	12.31	0.01512	0.01038	0.01472	PASS
	HV	9.35	4.49	10.24	0.01118	0.00536	0.01224	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	5.70	7.41	5.87	0.00681	0.00886	0.00702	PASS
Extreme (50°C)		14.41	4.32	9.54	0.01723	0.00517	0.01140	PASS
Extreme (40°C)		10.53	12.48	3.35	0.01259	0.01491	0.00401	PASS
Extreme (30°C)		17.68	14.98	4.04	0.02114	0.01791	0.00482	PASS
Extreme (20°C)		12.00	1.23	12.72	0.01434	0.00147	0.01521	PASS
Extreme (10°C)		10.45	10.09	5.35	0.01249	0.01207	0.00639	PASS
Extreme (0°C)		16.10	6.24	6.05	0.01925	0.00745	0.00723	PASS
Extreme (-10°C)		3.41	1.90	1.37	0.00408	0.00227	0.00164	PASS
Extreme (-20°C)		11.13	13.25	16.80	0.01331	0.01584	0.02008	PASS
Extreme (-30°C)		13.89	10.15	6.11	0.01661	0.01214	0.00730	PASS
25°C	LV	8.98	2.12	5.05	0.01073	0.00253	0.00603	PASS
	HV	12.55	4.82	8.04	0.01500	0.00576	0.00961	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	2.06	6.51	13.59	0.00246	0.00778	0.01625	PASS
Extreme (50°C)		6.92	10.50	2.81	0.00827	0.01255	0.00336	PASS
Extreme (40°C)		10.85	12.10	4.01	0.01297	0.01446	0.00479	PASS
Extreme (30°C)		4.77	10.31	16.63	0.00570	0.01232	0.01988	PASS
Extreme (20°C)		12.72	3.85	16.48	0.01520	0.00460	0.01970	PASS
Extreme (10°C)		6.89	17.74	2.16	0.00824	0.02120	0.00258	PASS
Extreme (0°C)		13.66	2.49	16.00	0.01633	0.00298	0.01913	PASS
Extreme (-10°C)		4.33	3.05	9.50	0.00518	0.00364	0.01136	PASS
Extreme (-20°C)		12.20	3.00	12.31	0.01459	0.00359	0.01471	PASS
Extreme (-30°C)		17.45	6.44	13.80	0.02086	0.00770	0.01650	PASS
25°C	LV	4.41	15.54	5.55	0.00527	0.01858	0.00664	PASS
	HV	12.97	9.50	6.60	0.01551	0.01135	0.00789	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	4.55	17.38	13.37	0.00543	0.02077	0.01599	PASS



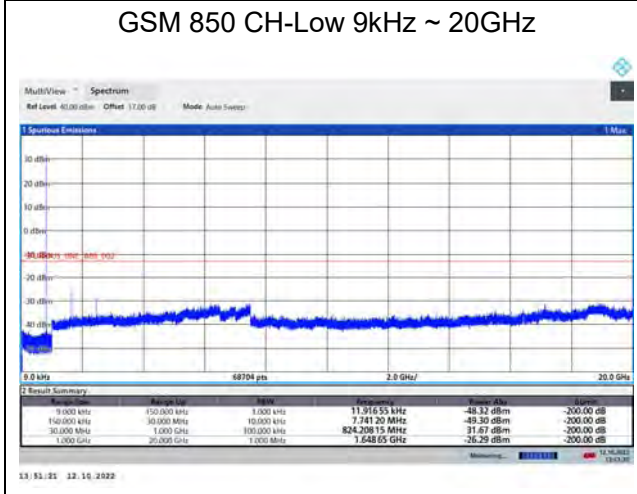
Extreme (50°C)		1.61	14.49	1.15	0.00193	0.01732	0.00138	PASS
Extreme (40°C)		2.42	1.40	16.37	0.00290	0.00167	0.01957	PASS
Extreme (30°C)		16.67	2.12	11.96	0.01993	0.00254	0.01430	PASS
Extreme (20°C)		4.27	14.43	13.36	0.00510	0.01725	0.01597	PASS
Extreme (10°C)		15.92	2.00	16.06	0.01903	0.00239	0.01919	PASS
Extreme (0°C)		12.36	10.98	9.86	0.01478	0.01313	0.01178	PASS
Extreme (-10°C)		7.78	14.60	10.79	0.00930	0.01745	0.01289	PASS
Extreme (-20°C)		3.87	13.85	12.92	0.00463	0.01656	0.01544	PASS
Extreme (-30°C)		13.70	8.82	2.78	0.01637	0.01054	0.00332	PASS
25°C	LV	7.64	3.02	6.91	0.00914	0.00361	0.00826	PASS
	HV	7.77	14.77	9.89	0.00929	0.01766	0.01182	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	3.66	16.66	1.23	0.00437	0.01992	0.00147	
Extreme (50°C)		4.11	1.65	7.26	0.00491	0.00197	0.00868	PASS
Extreme (40°C)		1.15	15.98	5.33	0.00137	0.01910	0.00637	PASS
Extreme (30°C)		12.14	15.89	14.63	0.01452	0.01900	0.01749	PASS
Extreme (20°C)		7.31	7.17	14.29	0.00874	0.00857	0.01708	PASS
Extreme (10°C)		8.47	3.76	6.11	0.01013	0.00450	0.00730	PASS
Extreme (0°C)		2.85	11.92	14.76	0.00340	0.01425	0.01764	PASS
Extreme (-10°C)		3.69	9.54	3.72	0.00441	0.01141	0.00445	PASS
Extreme (-20°C)		14.23	16.29	16.49	0.01701	0.01948	0.01972	PASS
Extreme (-30°C)		10.69	9.38	6.03	0.01277	0.01121	0.00721	PASS
25°C	LV	10.01	11.02	8.47	0.01196	0.01318	0.01012	PASS
	HV	4.04	11.08	8.61	0.00483	0.01325	0.01030	PASS

6.6. Spurious Emissions at Antenna Terminals

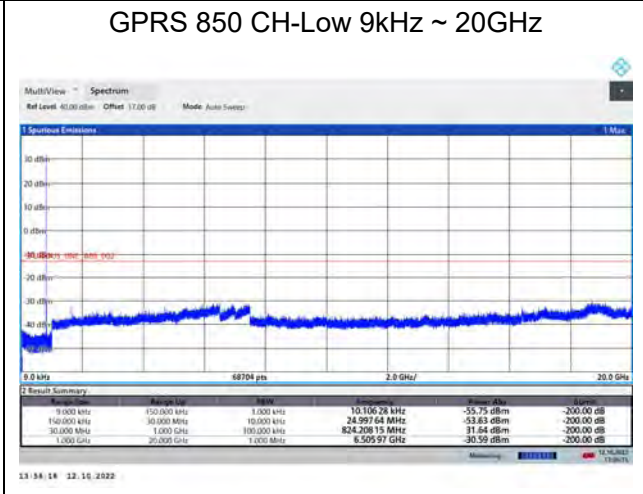
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier.

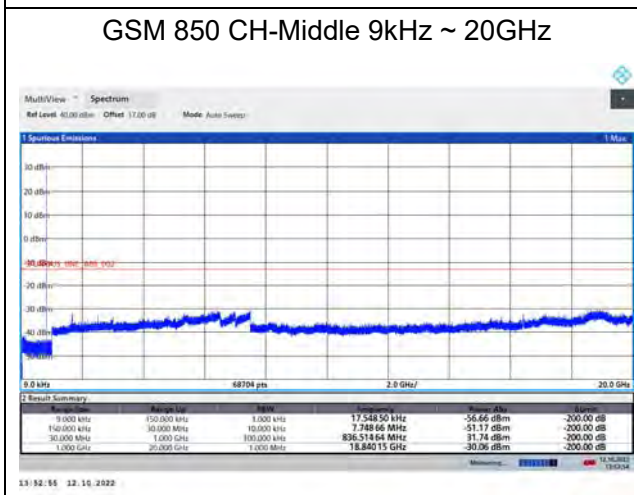
GSM 850 CH-Low 9kHz ~ 20GHz



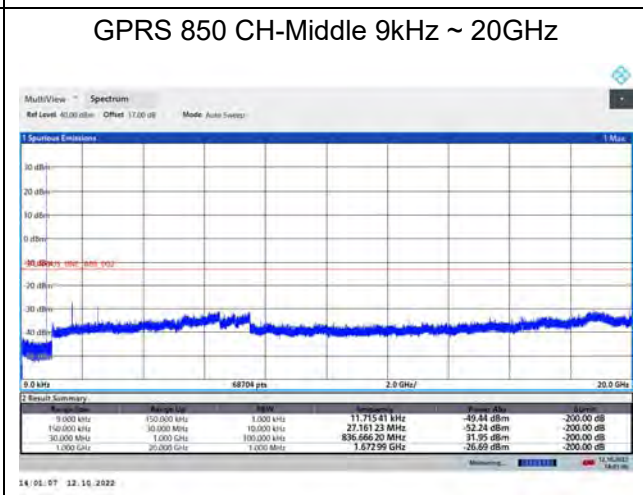
GPRS 850 CH-Low 9kHz ~ 20GHz



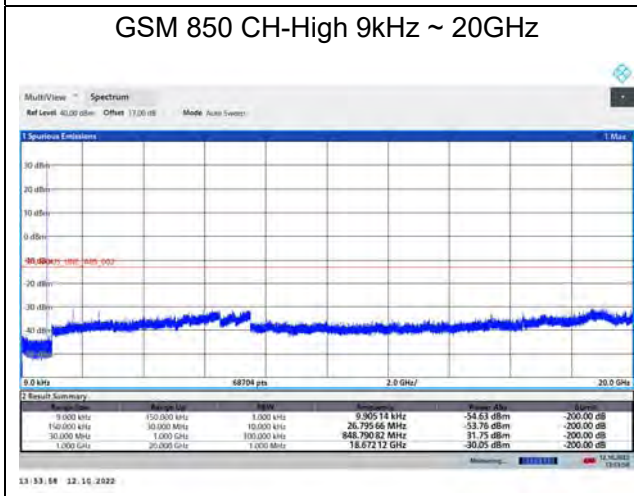
GSM 850 CH-Middle 9kHz ~ 20GHz



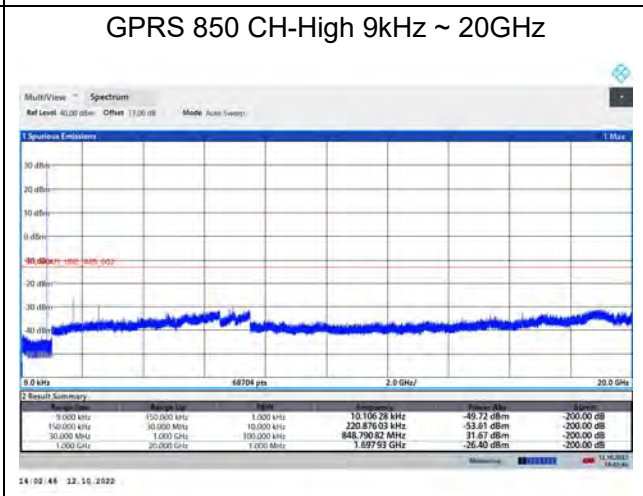
GPRS 850 CH-Middle 9kHz ~ 20GHz



GSM 850 CH-High 9kHz ~ 20GHz

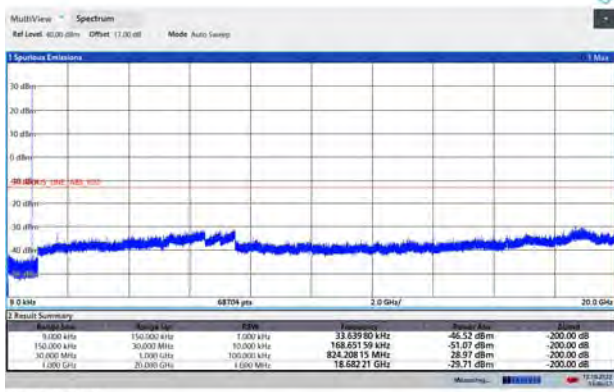


GPRS 850 CH-High 9kHz ~ 20GHz



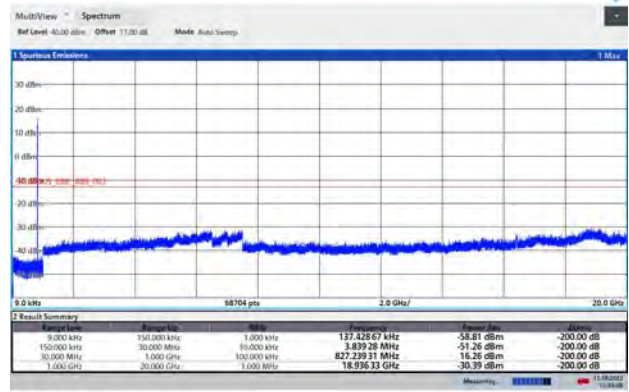


EGPRS 850 CH-Low 9kHz ~ 20GHz



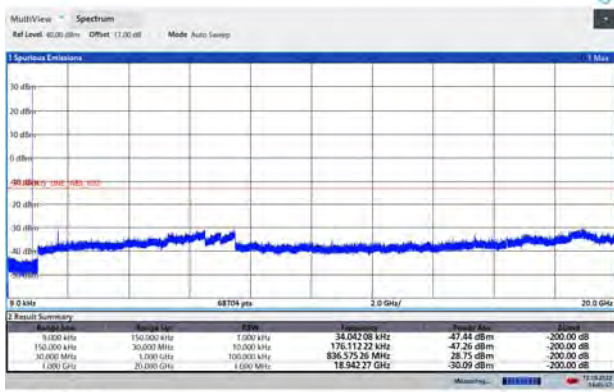
14:04:58 12.10.2022

WCDMA BAND V CH-Low 9kHz ~ 20GHz



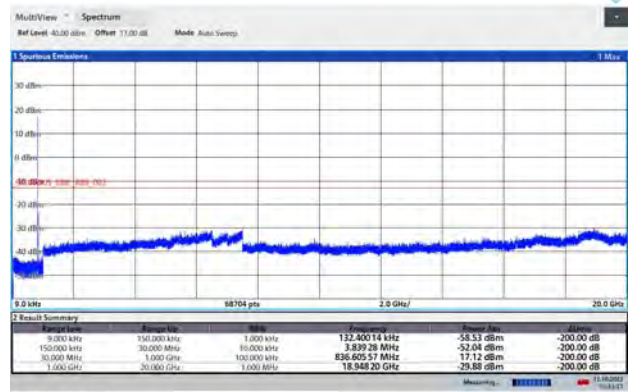
15:14:06 12.10.2022

EGPRS 850 CH-Middle 9kHz ~ 20GHz



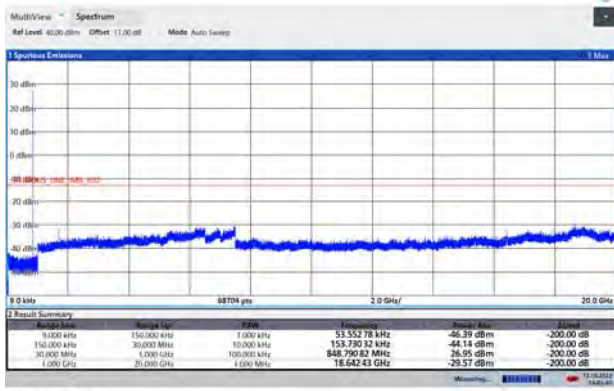
14:05:58 12.10.2022

WCDMA BAND V CH-Middle 9kHz ~ 20GHz



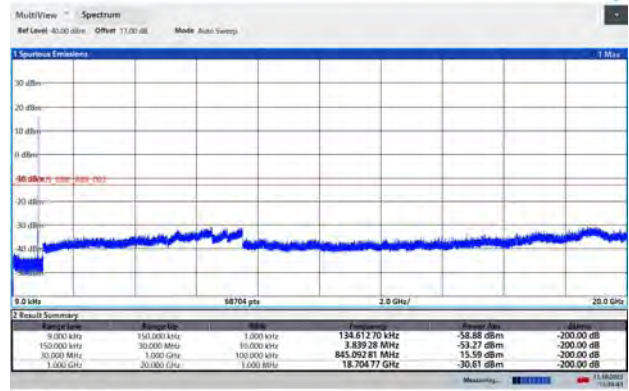
15:14:22 12.10.2022

EGPRS 850 CH-High 9kHz ~ 20GHz



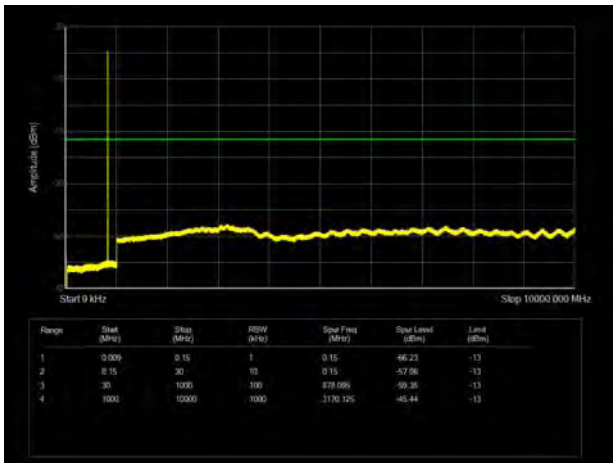
14:03:41 12.10.2022

WCDMA BAND V CH-High 9kHz ~ 20GHz

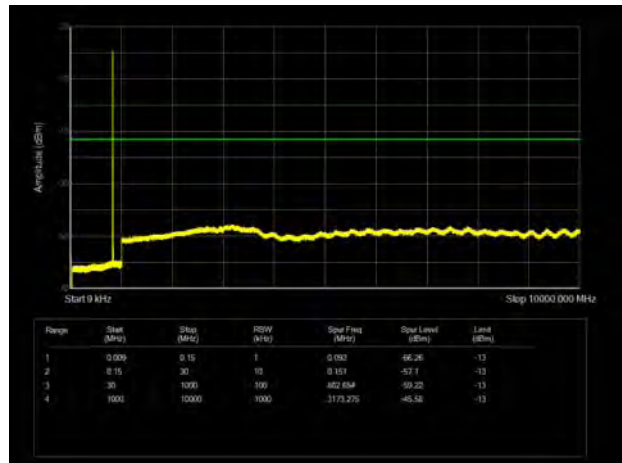


15:14:44 12.10.2022

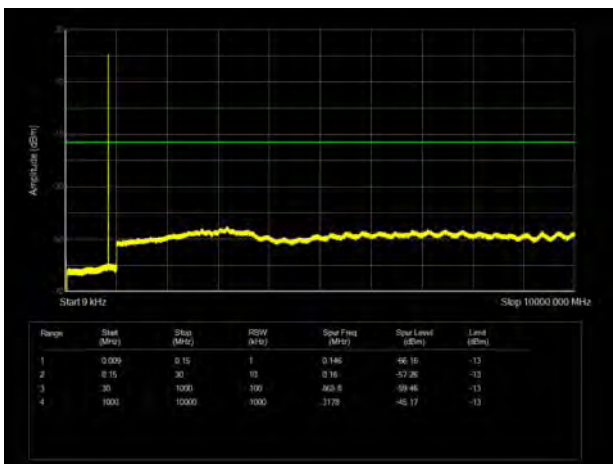
LTE Band 5 1.4MHz CH-Low 9kHz~10GHz



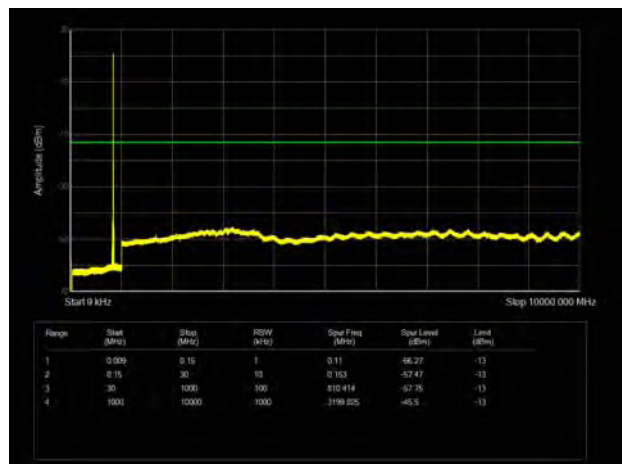
LTE Band 5 3MHz CH-Low 9kHz~10GHz



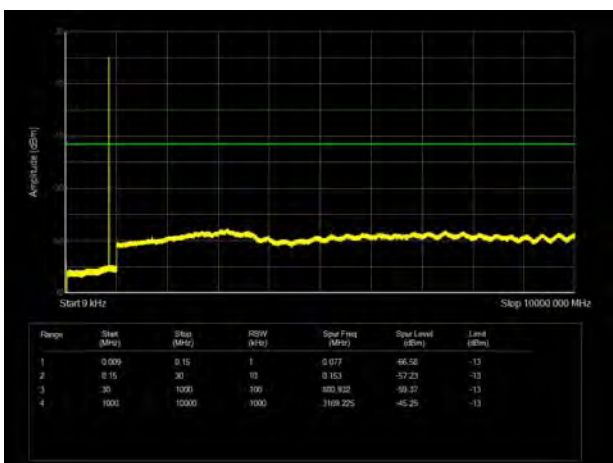
LTE Band 5 1.4MHz CH-Middle 9kHz~10GHz



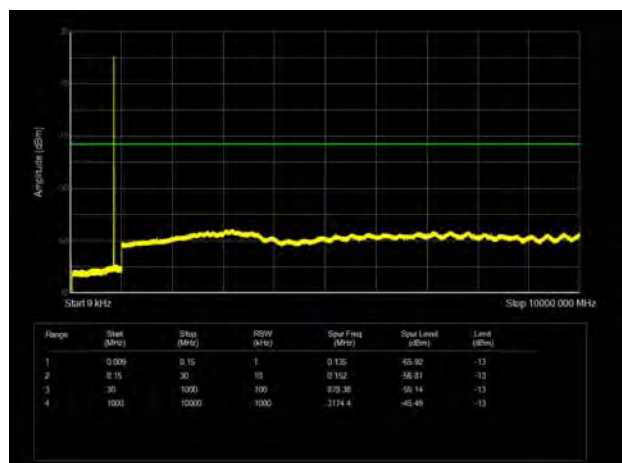
LTE Band 5 3MHz CH-Middle 9kHz~10GHz



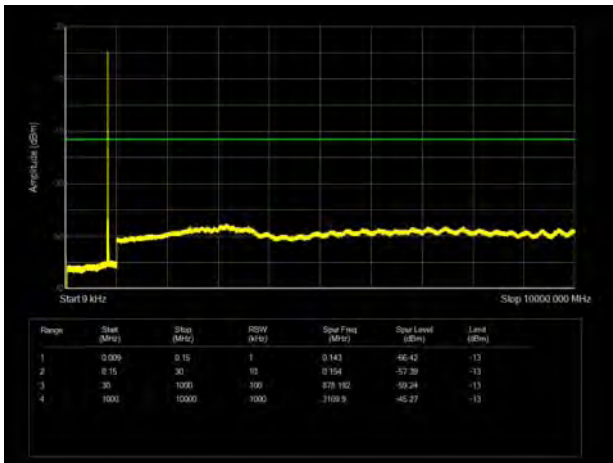
LTE Band 5 1.4MHz CH-High 9kHz~10GHz



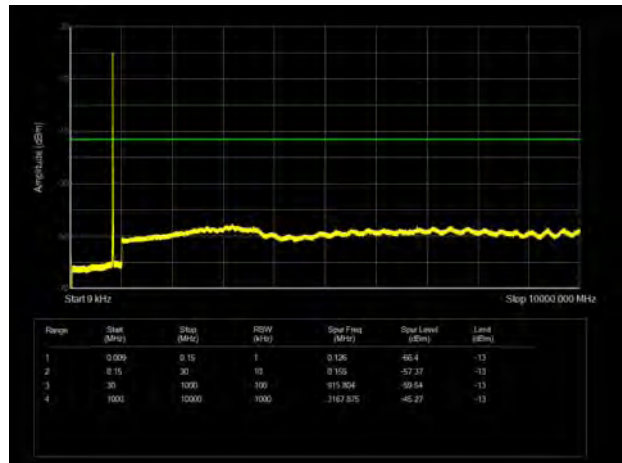
LTE Band 5 3MHz CH-High 9kHz~10GHz



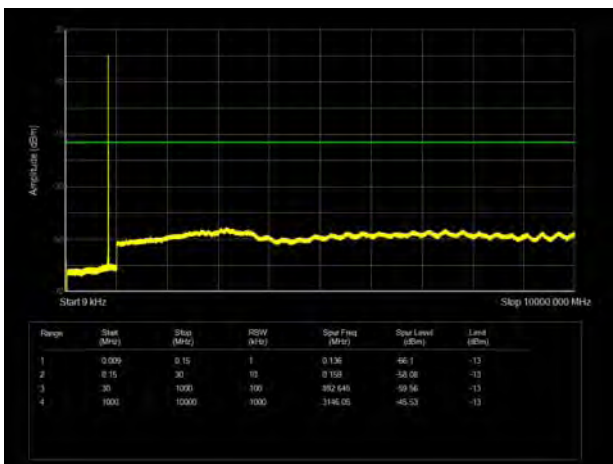
LTE Band 5 5MHz CH-Low 9kHz~10GHz



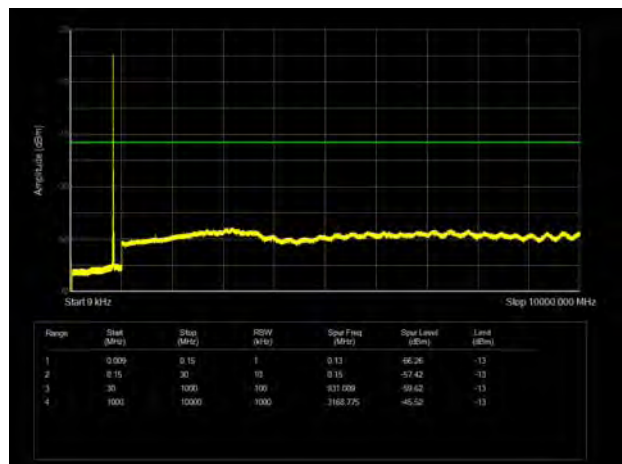
LTE Band 5 10MHz CH-Low 9kHz~10GHz



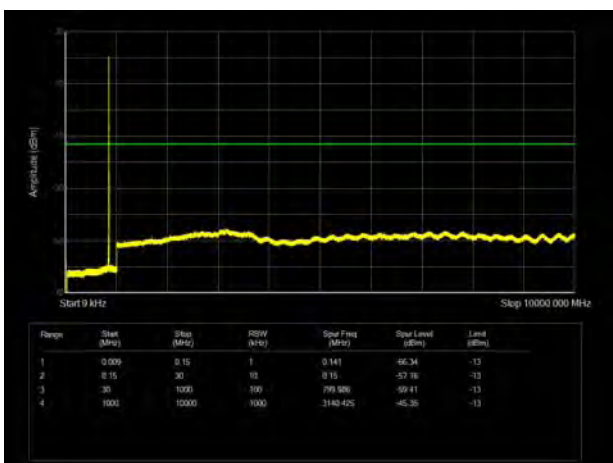
LTE Band 5 5MHz CH-Middle 9kHz~10GHz



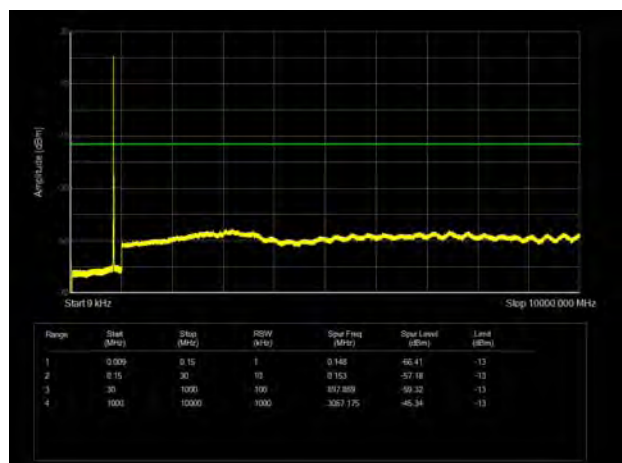
LTE Band 5 10MHz CH-Middle 9kHz~10GHz



LTE Band 5 5MHz CH-High 9kHz~10GHz

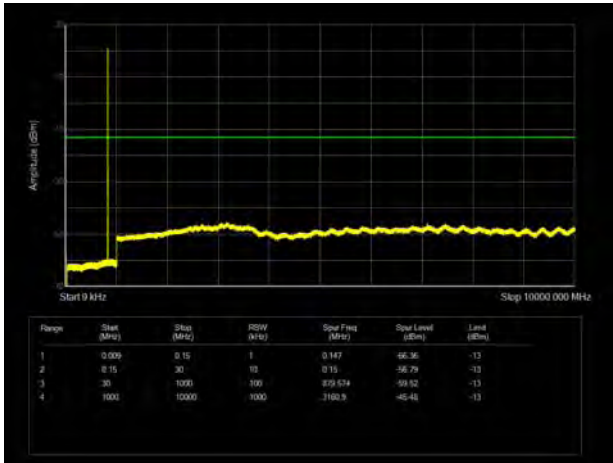


LTE Band 5 10MHz CH-High 9kHz~10GHz

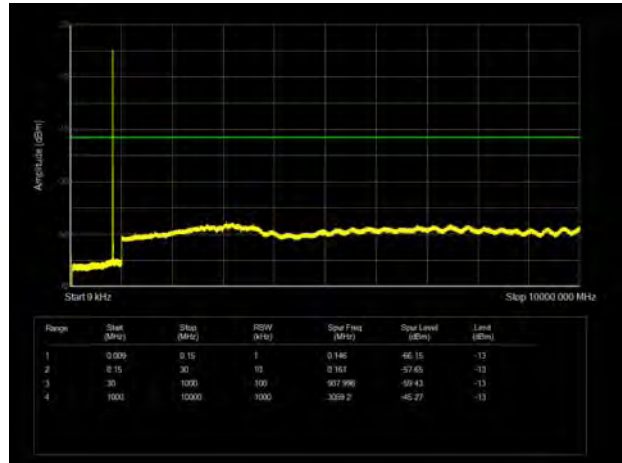




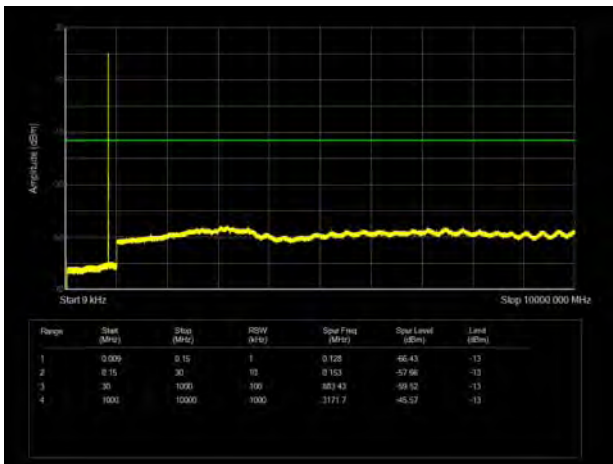
LTE Band 26 1.4MHz CH-Low 9kHz~10GHz



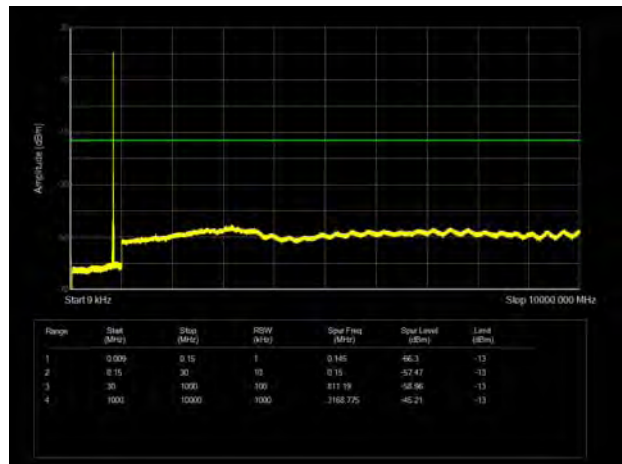
LTE Band 26 3MHz CH-Low 9kHz~10GHz



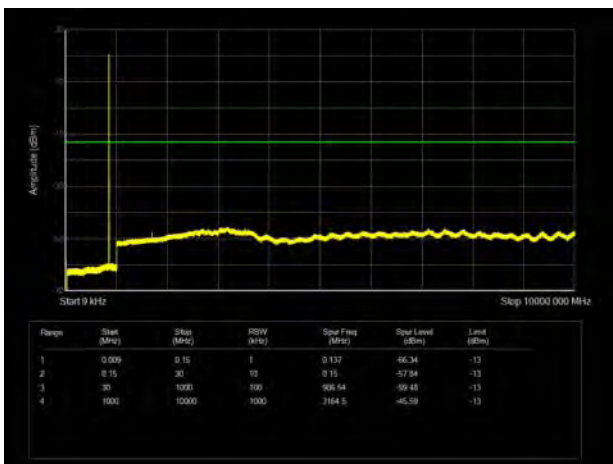
LTE Band 26 1.4MHz CH-Middle 9kHz~10GHz



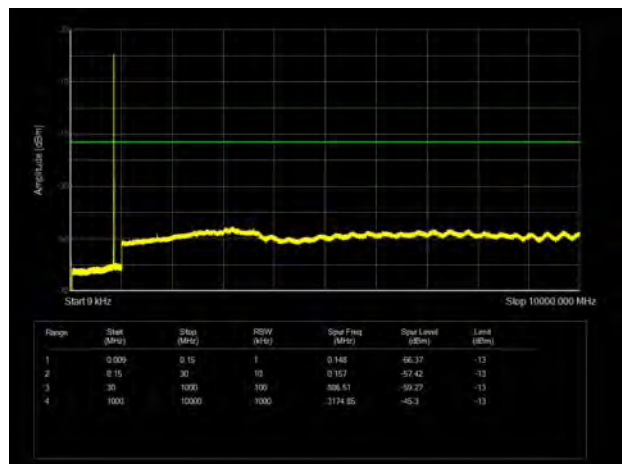
LTE Band 26 3MHz CH-Middle 9kHz~10GHz



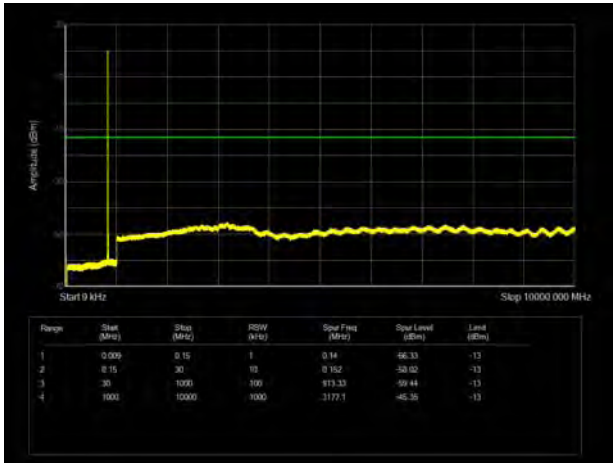
LTE Band 26 1.4MHz CH-High 9kHz~10GHz



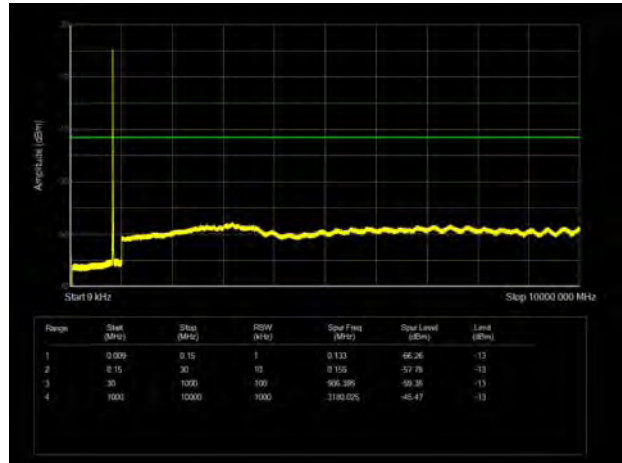
LTE Band 26 3MHz CH-High 9kHz~10GHz



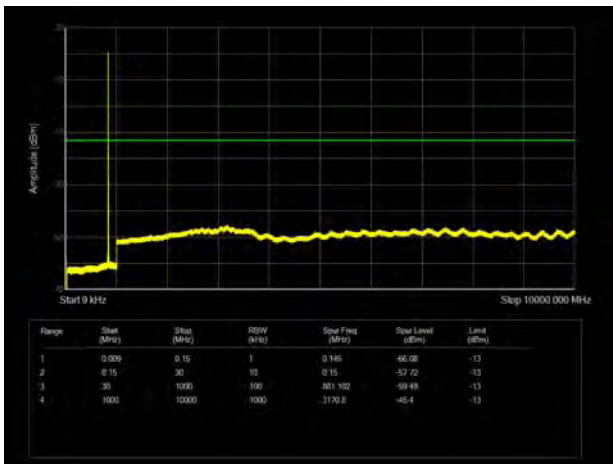
LTE Band 26 5MHz CH-Low 9kHz~10GHz



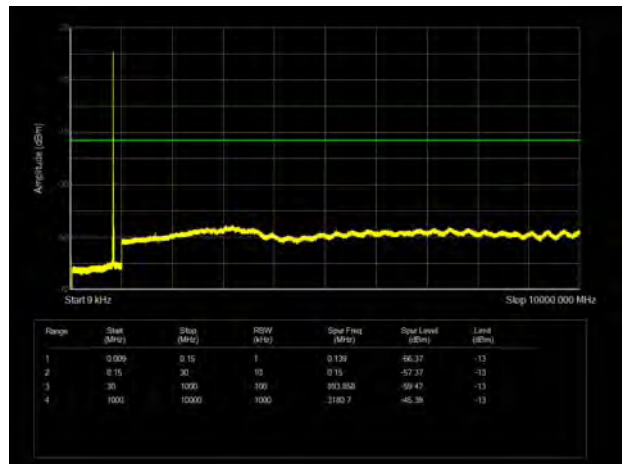
LTE Band 26 10MHz CH-Low 9kHz~10GHz



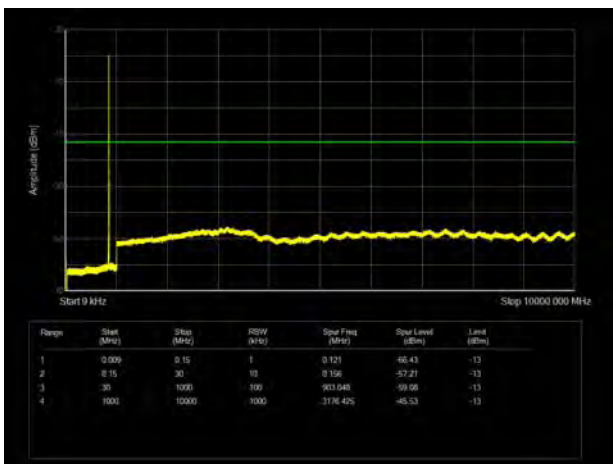
LTE Band 26 5MHz CH-Middle 9kHz~10GHz



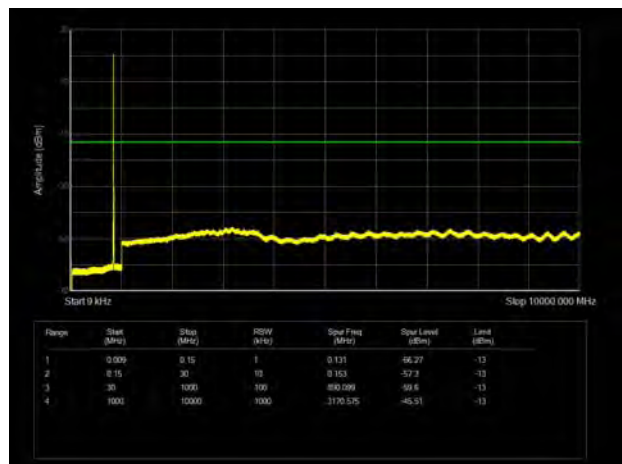
LTE Band 26 10MHz CH-Middle 9kHz~10GHz



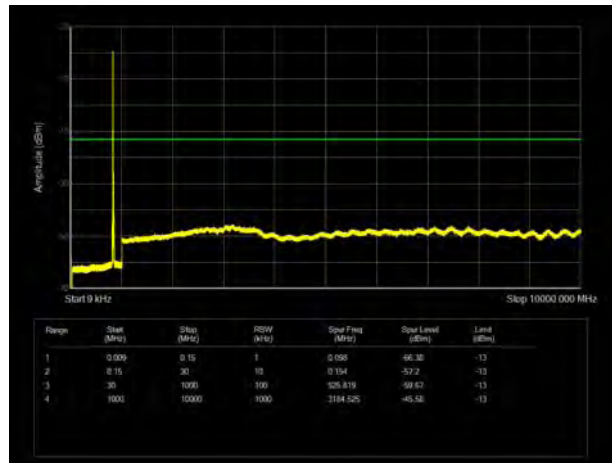
LTE Band 26 5MHz CH-High 9kHz~10GHz



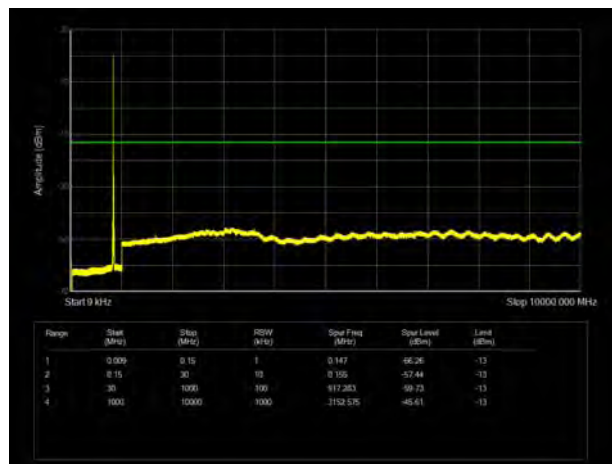
LTE Band 26 10MHz CH-High 9kHz~10GHz



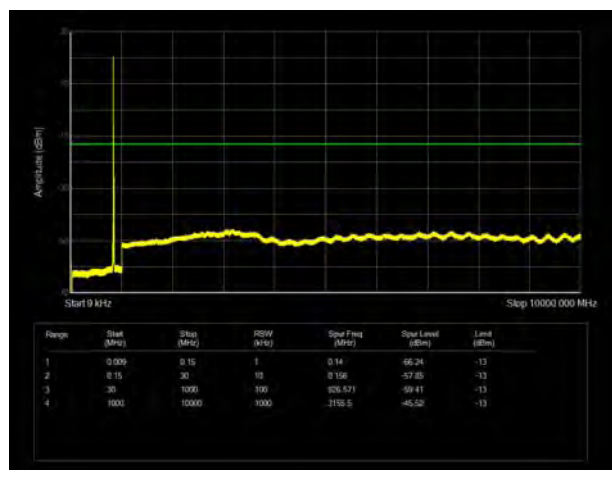
LTE Band 26 15MHz CH-Low 9kHz~10GHz



LTE Band 26 15MHz CH-Middle 9kHz~10GHz



LTE Band 26 15MHz CH-High 9kHz~10GHz





6.7. Radiated Spurious Emission

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

Upper Antenna

GSM 850 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.70	-58.40	2.30	12.00	Vertical	-50.85	-13.00	37.85	94
3	2509.45	-46.35	1.70	8.70	Vertical	-41.50	-13.00	28.50	211
4	3346.40	-67.55	2.70	12.70	Vertical	-59.70	-13.00	46.70	67
5	4183.00	-63.63	3.00	12.50	Vertical	-56.28	-13.00	43.28	112
6	5019.60	-62.89	3.40	12.50	Vertical	-55.94	-13.00	42.94	39
7	5856.20	-61.11	3.40	12.80	Vertical	-53.86	-13.00	40.86	51
8	6692.80	-59.76	4.10	11.50	Vertical	-54.51	-13.00	41.51	206
9	7529.40	-54.91	4.20	12.20	Vertical	-49.06	-13.00	36.06	257
10	8366.00	-54.77	4.30	12.50	Vertical	-48.72	-13.00	35.72	162

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 V CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1676.00	-66.81	1.70	8.70	Vertical	-61.96	-13.00	48.96	119
3	2518.80	-66.75	2.30	12.00	Vertical	-59.20	-13.00	46.20	162
4	3346.40	-66.92	2.70	12.70	Vertical	-59.07	-13.00	46.07	112
5	4183.00	-65.00	3.00	12.50	Vertical	-57.65	-13.00	44.65	139
6	5019.60	-60.36	3.40	12.50	Vertical	-53.41	-13.00	40.41	27
7	5856.20	-61.41	3.40	12.80	Vertical	-54.16	-13.00	41.16	68
8	6692.80	-58.41	4.10	11.50	Vertical	-53.16	-13.00	40.16	151
9	7529.40	-56.20	4.20	12.20	Vertical	-50.35	-13.00	37.35	17
10	8366.00	-55.94	4.30	12.50	Vertical	-49.89	-13.00	36.89	72

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 5 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-65.81	1.70	8.70	Vertical	-60.96	-13.00	47.96	180
3	2509.50	-66.77	2.30	12.00	Vertical	-59.22	-13.00	46.22	311
4	3346.00	-66.65	2.70	12.70	Vertical	-58.80	-13.00	45.80	101
5	4182.50	-65.14	3.00	12.50	Vertical	-57.79	-13.00	44.79	31
6	5019.00	-61.21	3.40	12.50	Vertical	-54.26	-13.00	41.26	59
7	5855.50	-61.31	3.40	12.80	Vertical	-54.06	-13.00	41.06	228
8	6692.00	-59.14	4.10	11.50	Vertical	-53.89	-13.00	40.89	17
9	7528.50	-55.43	4.20	12.20	Vertical	-49.58	-13.00	36.58	162
10	8365.00	-54.37	4.30	12.50	Vertical	-48.32	-13.00	35.32	173

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 5 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.60	-65.99	1.70	8.70	Vertical	-61.14	-13.00	48.14	90
3	2503.30	-65.58	2.30	12.00	Vertical	-58.03	-13.00	45.03	231
4	3337.50	-66.88	2.70	12.70	Vertical	-59.03	-13.00	46.03	62
5	4171.88	-64.32	3.00	12.50	Vertical	-56.97	-13.00	43.97	39
6	5006.25	-60.65	3.40	12.50	Vertical	-53.70	-13.00	40.70	127
7	5840.63	-60.12	3.40	12.80	Vertical	-52.87	-13.00	39.87	201
8	6675.00	-58.72	4.10	11.50	Vertical	-53.47	-13.00	40.47	314
9	7509.38	-54.62	4.20	12.20	Vertical	-48.77	-13.00	35.77	249
10	8343.75	-55.32	4.30	12.50	Vertical	-49.27	-13.00	36.27	72

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 5 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.40	-68.60	1.70	8.70	Vertical	-63.75	-13.00	50.75	11
3	2496.60	-67.54	2.30	12.00	Vertical	-59.99	-13.00	46.99	222
4	3326.00	-66.65	2.70	12.70	Vertical	-58.80	-13.00	45.80	139
5	4157.50	-63.92	3.00	12.50	Vertical	-56.57	-13.00	43.57	237
6	4989.00	-62.74	3.40	12.50	Vertical	-55.79	-13.00	42.79	105
7	5820.50	-60.29	3.40	12.80	Vertical	-53.04	-13.00	40.04	19
8	6652.00	-57.88	4.10	11.50	Vertical	-52.63	-13.00	39.63	264
9	7483.50	-55.03	4.20	12.20	Vertical	-49.18	-13.00	36.18	73
10	8315.00	-55.02	4.30	12.50	Vertical	-48.97	-13.00	35.97	89

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 26 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-67.29	1.70	8.70	Vertical	-62.44	-13.00	49.44	229
3	2509.50	-66.56	2.30	12.00	Vertical	-59.01	-13.00	46.01	38
4	3346.00	-66.45	2.70	12.70	Vertical	-58.60	-13.00	45.60	34
5	4182.50	-63.43	3.00	12.50	Vertical	-56.08	-13.00	43.08	193
6	5019.00	-61.60	3.40	12.50	Vertical	-54.65	-13.00	41.65	307
7	5855.50	-61.30	3.40	12.80	Vertical	-54.05	-13.00	41.05	186
8	6692.00	-58.98	4.10	11.50	Vertical	-53.73	-13.00	40.73	93
9	7528.50	-55.89	4.20	12.20	Vertical	-50.04	-13.00	37.04	48
10	8365.00	-55.53	4.30	12.50	Vertical	-49.48	-13.00	36.48	31

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 26 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.00	-65.57	1.70	8.70	Vertical	-60.72	-13.00	47.72	36
3	2502.00	-66.96	2.30	12.00	Vertical	-59.41	-13.00	46.41	190
4	3336.00	-66.93	2.70	12.70	Vertical	-59.08	-13.00	46.08	9
5	4170.00	-63.87	3.00	12.50	Vertical	-56.52	-13.00	43.52	264
6	5004.00	-61.47	3.40	12.50	Vertical	-54.52	-13.00	41.52	34
7	5838.00	-59.81	3.40	12.80	Vertical	-52.56	-13.00	39.56	69
8	6672.00	-59.75	4.10	11.50	Vertical	-54.50	-13.00	41.50	183
9	7506.00	-55.42	4.20	12.20	Vertical	-49.57	-13.00	36.57	94
10	8340.00	-56.08	4.30	12.50	Vertical	-50.03	-13.00	37.03	55

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 26 15MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1658.00	-65.62	1.70	8.70	Vertical	-60.77	-13.00	47.77	49
3	2487.00	-64.89	2.30	12.00	Vertical	-57.34	-13.00	44.34	280
4	3316.00	-65.98	2.70	12.70	Vertical	-58.13	-13.00	45.13	134
5	4145.00	-63.77	3.00	12.50	Vertical	-56.42	-13.00	43.42	267
6	4974.00	-62.66	3.40	12.50	Vertical	-55.71	-13.00	42.71	49
7	5803.00	-60.89	3.40	12.80	Vertical	-53.64	-13.00	40.64	315
8	6632.00	-56.74	4.10	11.50	Vertical	-51.49	-13.00	38.49	39
9	7461.00	-55.57	4.20	12.20	Vertical	-49.72	-13.00	36.72	27
10	8290.00	-56.13	4.30	12.50	Vertical	-50.08	-13.00	37.08	149

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.

**Low Antenna**

GSM 850 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.55	-48.67	1.70	8.70	Horizontal	-43.82	-13.00	30.82	122
3	2509.80	-34.88	2.30	12.00	Horizontal	-27.33	-13.00	14.33	176
4	3346.40	-66.57	2.70	12.70	Horizontal	-58.72	-13.00	45.72	20
5	4183.00	-55.20	3.00	12.50	Horizontal	-47.85	-13.00	34.85	314
6	5019.60	-61.45	3.40	12.50	Horizontal	-54.50	-13.00	41.50	80
7	5856.20	-61.06	3.40	12.80	Horizontal	-53.81	-13.00	40.81	48
8	6692.80	-58.88	4.10	11.50	Horizontal	-53.63	-13.00	40.63	165
9	7529.40	-55.34	4.20	12.20	Horizontal	-49.49	-13.00	36.49	35
10	8366.00	-54.83	4.30	12.50	Horizontal	-48.78	-13.00	35.78	280

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

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

WCDMA Band V CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1676.00	-62.91	1.70	8.70	Horizontal	-58.06	-13.00	45.06	277
3	2518.80	-56.20	2.30	12.00	Horizontal	-48.65	-13.00	35.65	13
4	3346.40	-68.42	2.70	12.70	Horizontal	-60.57	-13.00	47.57	280
5	4183.00	-65.31	3.00	12.50	Horizontal	-57.96	-13.00	44.96	318
6	5019.60	-62.18	3.40	12.50	Horizontal	-55.23	-13.00	42.23	5
7	5856.20	-61.87	3.40	12.80	Horizontal	-54.62	-13.00	41.62	188
8	6692.80	-59.77	4.10	11.50	Horizontal	-54.52	-13.00	41.52	322
9	7529.40	-56.23	4.20	12.20	Horizontal	-50.38	-13.00	37.38	24
10	8366.00	-56.67	4.30	12.50	Horizontal	-50.62	-13.00	37.62	181

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

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



LTE Band 5 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-60.63	1.70	8.70	Vertical	-55.78	-13.00	42.78	311
3	2509.50	-59.78	2.30	12.00	Vertical	-52.23	-13.00	39.23	42
4	3346.00	-66.76	2.70	12.70	Vertical	-58.91	-13.00	45.91	46
5	4182.50	-65.04	3.00	12.50	Vertical	-57.69	-13.00	44.69	135
6	5019.00	-62.39	3.40	12.50	Vertical	-55.44	-13.00	42.44	222
7	5855.50	-61.26	3.40	12.80	Vertical	-54.01	-13.00	41.01	135
8	6692.00	-59.36	4.10	11.50	Vertical	-54.11	-13.00	41.11	252
9	7528.50	-55.66	4.20	12.20	Vertical	-49.81	-13.00	36.81	315
10	8365.00	-55.20	4.30	12.50	Vertical	-49.15	-13.00	36.15	181

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 5 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.60	-60.06	1.70	8.70	Vertical	-55.21	-13.00	42.21	182
3	2503.30	-59.48	2.30	12.00	Vertical	-51.93	-13.00	38.93	42
4	3337.50	-68.37	2.70	12.70	Vertical	-60.52	-13.00	47.52	12
5	4171.88	-65.45	3.00	12.50	Vertical	-58.10	-13.00	45.10	269
6	5006.25	-63.02	3.40	12.50	Vertical	-56.07	-13.00	43.07	311
7	5840.63	-61.54	3.40	12.80	Vertical	-54.29	-13.00	41.29	68
8	6675.00	-59.09	4.10	11.50	Vertical	-53.84	-13.00	40.84	132
9	7509.38	-56.07	4.20	12.20	Vertical	-50.22	-13.00	37.22	270
10	8343.75	-55.73	4.30	12.50	Vertical	-49.68	-13.00	36.68	180

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 5 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.40	-64.33	1.70	8.70	Vertical	-59.48	-13.00	46.48	158
3	2496.60	-61.79	2.30	12.00	Vertical	-54.24	-13.00	41.24	187
4	3326.00	-67.41	2.70	12.70	Vertical	-59.56	-13.00	46.56	10
5	4157.50	-64.98	3.00	12.50	Vertical	-57.63	-13.00	44.63	180
6	4989.00	-63.38	3.40	12.50	Vertical	-56.43	-13.00	43.43	45
7	5820.50	-61.74	3.40	12.80	Vertical	-54.49	-13.00	41.49	135
8	6652.00	-59.82	4.10	11.50	Vertical	-54.57	-13.00	41.57	270
9	7483.50	-57.18	4.20	12.20	Vertical	-51.33	-13.00	38.33	315
10	8315.00	-56.13	4.30	12.50	Vertical	-50.08	-13.00	37.08	186

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 26 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1672.20	-55.95	1.70	8.70	Vertical	-51.10	-13.00	38.10	29
3	2508.30	-51.13	2.30	12.00	Vertical	-43.58	-13.00	30.58	75
4	3346.00	-67.21	2.70	12.70	Vertical	-59.36	-13.00	46.36	94
5	4182.50	-64.41	3.00	12.50	Vertical	-57.06	-13.00	44.06	67
6	5019.00	-61.47	3.40	12.50	Vertical	-54.52	-13.00	41.52	115
7	5855.50	-61.58	3.40	12.80	Vertical	-54.33	-13.00	41.33	37
8	6692.00	-59.17	4.10	11.50	Vertical	-53.92	-13.00	40.92	67
9	7528.50	-55.53	4.20	12.20	Vertical	-49.68	-13.00	36.68	29
10	8365.00	-54.84	4.30	12.50	Vertical	-48.79	-13.00	35.79	301

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 26 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.75	-56.98	1.70	8.70	Vertical	-52.13	-13.00	39.13	0
3	2503.05	-52.25	2.30	12.00	Vertical	-44.70	-13.00	31.70	167
4	3336.00	-67.14	2.70	12.70	Vertical	-59.29	-13.00	46.29	39
5	4170.00	-64.17	3.00	12.50	Vertical	-56.82	-13.00	43.82	63
6	5004.00	-61.06	3.40	12.50	Vertical	-54.11	-13.00	41.11	61
7	5838.00	-61.10	3.40	12.80	Vertical	-53.85	-13.00	40.85	119
8	6672.00	-58.36	4.10	11.50	Vertical	-53.11	-13.00	40.11	162
9	7506.00	-55.67	4.20	12.20	Vertical	-49.82	-13.00	36.82	209
10	8340.00	-55.64	4.30	12.50	Vertical	-49.59	-13.00	36.59	71

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 26 15MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1659.75	-57.17	1.70	8.70	Vertical	-52.32	-13.00	39.32	28
3	2489.70	-52.57	2.30	12.00	Vertical	-45.02	-13.00	32.02	137
4	3316.00	-66.42	2.70	12.70	Vertical	-58.57	-13.00	45.57	82
5	4145.00	-63.96	3.00	12.50	Vertical	-56.61	-13.00	43.61	239
6	4974.00	-62.20	3.40	12.50	Vertical	-55.25	-13.00	42.25	164
7	5803.00	-61.27	3.40	12.80	Vertical	-54.02	-13.00	41.02	56
8	6632.00	-58.70	4.10	11.50	Vertical	-53.45	-13.00	40.45	89
9	7461.00	-54.95	4.20	12.20	Vertical	-49.10	-13.00	36.10	134
10	8290.00	-54.92	4.30	12.50	Vertical	-48.87	-13.00	35.87	306

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

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



7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	150415	2022-05-14	2023-05-13
Spectrum Analyzer	Key sight	N9020A	MY50510203	2021-12-12	2022-12-11
Universal Radio Communication Tester	Key sight	E5515C	GB44400275	2021-12-12	2022-12-11
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-11
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	1023	2020-05-05	2023-05-04
Climatic Chamber	ESPEC	SU-242	93000506	2021-12-12	2022-12-11
Spectrum Analyzer	R&S	FSV30	104028	2021-12-12	2022-12-11
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
Software	R&S	EMC32	10.35.10	/	/

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



ANNEX A: The EUT Appearance

The EUT Appearance is submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos is submitted separately.