



RF TEST REPORT

Applicant ZTE Corporation
FCC ID SRQ-ZTEA2023G
Product 5G NR Multi model smart phone
Model ZTE A2023G
Report No. R2204A0354-R9V1
Issue Date June 2, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2021)/ FCC CFR47 Part 27C (2021)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

TA Technology (Shanghai) Co., Ltd.

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

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

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



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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	May 30, 2022
Rev.1	Update information.	June 2, 2022

Note: This revised report (Report No. R2204A0354-R9V1) supersedes and replaces the previously issued report (Report No. R2204A0354-R9). Please discard or destroy the previously issued report and dispose of it accordingly.



Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(c)(13)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(g)	PASS
4	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 27.54	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 /27.53 (g)	PASS
7	Radiates Spurious Emission	2.1051 /27.53 (g)	PASS

Date of Testing: April 29, 2022 ~ May 27, 2022

Date of Sample Received: April 12, 2022

Note: PASS: The EUT complies with the essential requirements in the standard.

FAIL: The EUT does not comply with the essential requirements in the standard.

All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.



1 Test Laboratory

1.1 Notes of the Test Report

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

1.2. Test facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City: Shanghai
Post code: 201201
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, #55 Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, #55 Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, China

2.2 General information

EUT Description			
Model	ZTE A2023G		
SN	327324660005		
Hardware Version	ZTE A2023GHW1.0		
Software Version	MyOS12.0.2_A2023G_GLB		
Power Supply	Battery / AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Band	Main Antenna(dBi)	Second Antenna(dBi)
	LTE Band 28 Subset 1:	ANT 0:-6.0	ANT 6:-8.6
	LTE Band 28 Subset 2:	ANT 0:-6.0	ANT 6:-8.6
Test Mode(s)	LTE Band 28 Subset 1; LTE Band 28 Subset 2		
Test Modulation	(LTE)QPSK, 16QAM, 64QAM;		
Maximum E.I.R.P./ E.R.P.	LTE Band 28 Subset 1:	17.23dBm	
	LTE Band 28 Subset 2:	17.25dBm	
Rated Power Supply Voltage	3.89V		
Operating Voltage	Minimum: 3.70V Maximum: 4.45V		
Operating Temperature	Lowest: -10°C Highest: +40°C		
Testing Temperature	Lowest: -30°C Highest: +50°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	LTE Band 28 Subset 1:	703 ~ 716	758 ~ 771
	LTE Band 28 Subset 2:	728 ~ 746	783 ~ 801
EUT Accessory			
Adapter	Manufacturer: ShenZhen KunXing Technology Co., Ltd. Model: STC-A59152050AC-Z		
Battery	Manufacturer: Zhuhai CosMX Battery Co., Ltd Model: LI3949T44P8h806459		



Earphone 1	Manufacturer: JUWEI ELECTRONICS CO.,LTD Model: JWEP1092-Z01
Earphone 2	Manufacturer: ShenZhen FDC Electronic Co.,Ltd Model: DEM-9A
USB Cable 1	Manufacturer: King Power Electronics Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF
USB Cable 2	Manufacturer: Luxshare-ICT Co., Ltd Model: TC20-TC20-W-100-M-6A-HSF
Type-C to 3.5 mm Headphone Jack	Manufacturer: JUWEI ELECTRONICS CO., LTD Model: 080503000100
<p>Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.</p> <p>2. There is more than one USB cable/ Earphone, each one should be applied throughout the compliance test respectively, and however, only the worst case (USB cable 1) will be recorded in this report.</p>	



3 Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 27C (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) 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 LTE is set based on the maximum RF Output Power.

The following testing in different Bandwidth is set to detail in the following table:

Test modes are chosen to be reported as the worst case configuration below for LTE Band 28 subset 1/ LTE Band 28 subset 2:

Test items	Modes	Bandwidth (MHz)				Modulation		RB			Test Channel		
		3	5	10	15	QPSK	16QAM/64QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 28 subset 1	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 28 subset 2	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 28 subset 1	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 28 subset 2	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 28 subset 1	O	O	O	-	O	O	O	-	O	O	-	O
	LTE 28 subset 2	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 28 subset 1	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 28 subset 2	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 28 subset 1	O	O	O	-	O	O	O	-	-	-	O	-
	LTE 28 subset 2	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 28 subset 1	O	O	O	-	O	-	O	-	-	O	O	O
	LTE 28 subset 2	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 28 subset 1	O	O	O	-	O	-	O	-	-	-	O	-
	LTE 28 subset 2	O	O	-	O	O	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.												

5 Test Case

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

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

Methods of Measurement

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

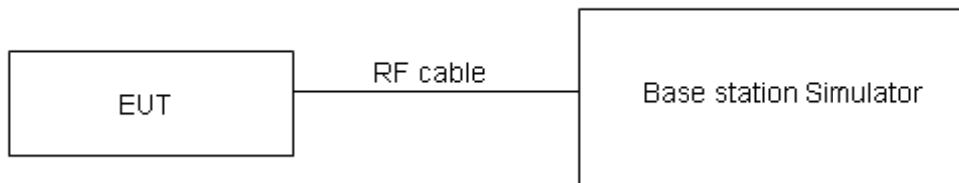
ERP can then be calculated as follows:

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

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 27.50(c) (13) specifies that “Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP”

Part 27.50(c)(13)Limit	$\leq 3 \text{ W}$ (34.77 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 $k = 2$, $U=0.4$ dB for RF power output, $k = 2$, $U= 1.19$ dB for ERP/EIRP.

Test Results

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

5.2 Occupied Bandwidth

Ambient condition

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

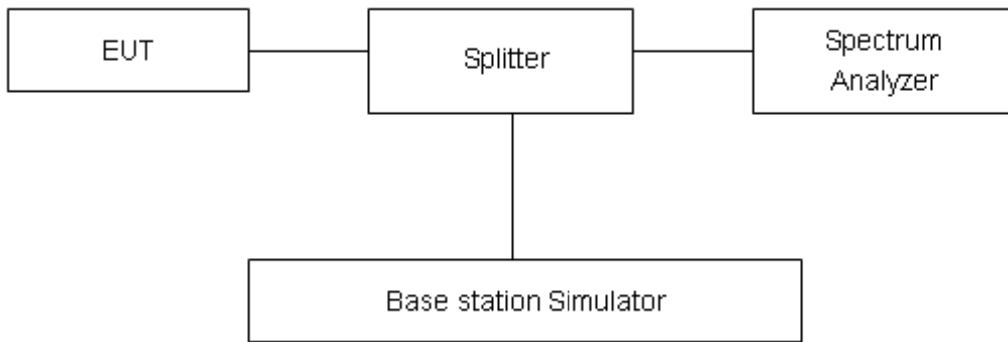
Method of Measurement

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

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

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

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

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

Test Results

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

5.3 Band Edge Compliance

Ambient condition

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

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.

The testing follows KDB 971168 D01 v03r01 Section 6.0

The EUT was connected to spectrum analyzer and system simulator via a power divider.

The band edges of low and high channels for the highest RF powers were measured.

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

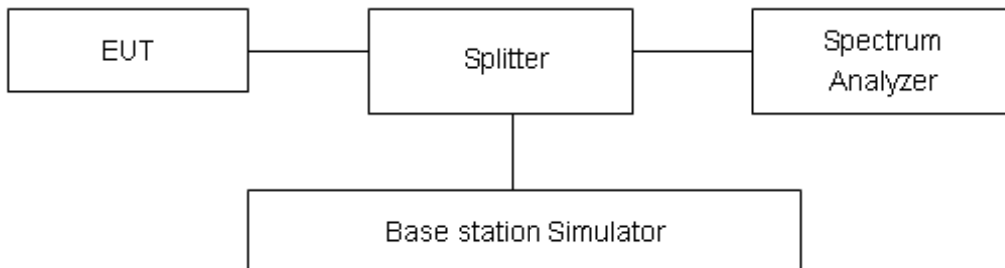
on spectrum analyzer.

Set spectrum analyzer with RMS detector.

The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

Checked that all the results comply with the emission limit line.

Test Setup



Limits

Rule Part 27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Measurement Uncertainty

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



Test Results

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

5.4 Peak-to-Average Power Ratio (PAPR)

Ambient condition

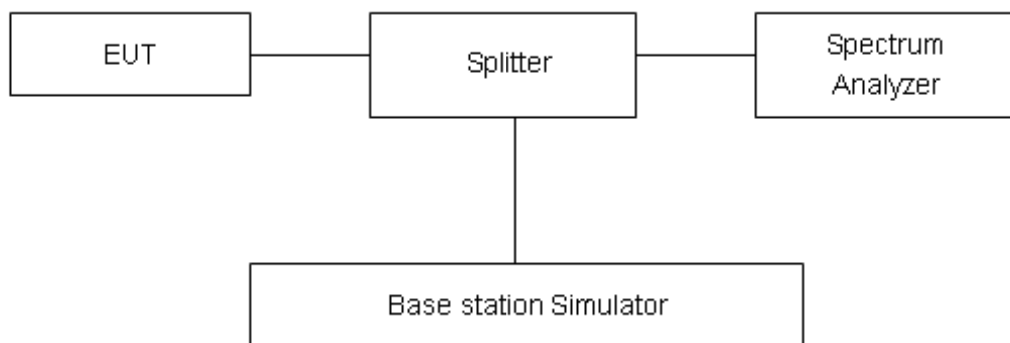
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

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

$$PAPR (dB) = PPk (dBm) - PAvg (dBm).$$

Test Setup



Limits

Rule Part 27.50(d)(5) Equipment employed must be authorized in accordance with the provisions of 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

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 -10°C and permitted to stabilize for three hours.

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

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

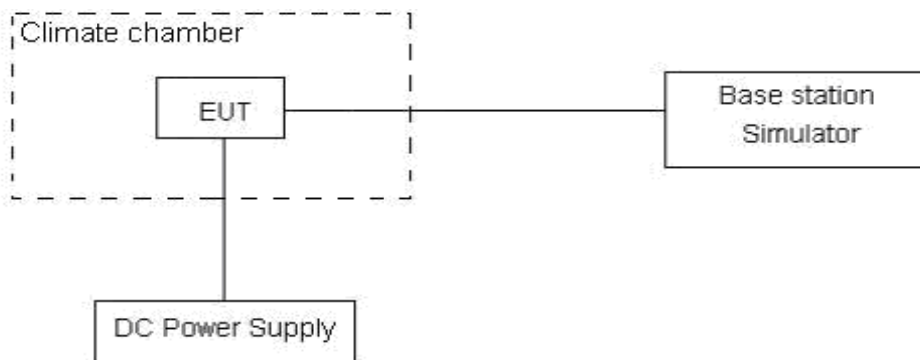
Frequency Stability (Voltage Variation)

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

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

This transceiver is specified to operate with an input voltage of between 3.70 V and 4.45 V, with a nominal voltage of 3.89V..

Test setup



Limits

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Measurement Uncertainty

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

Test Results

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

5.6 Spurious Emissions at Antenna Terminals

Ambient condition

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

Method of Measurement

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

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

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

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

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

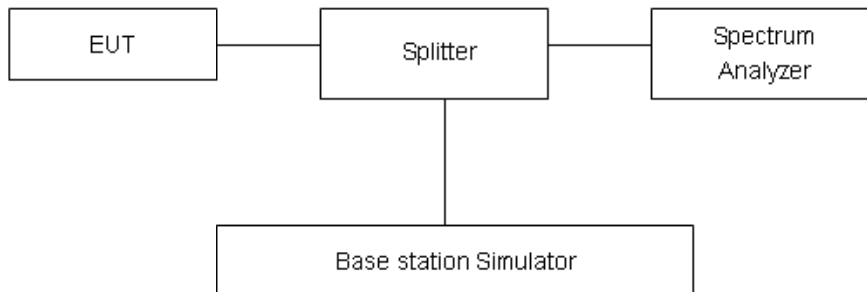
RBW is set to 100 kHz (30MHz~1000 MHz)

RBW is set to 1000 kHz (above 1000MHz)

Of those disturbances below (limit – 20 dB), the mark is not required for the EUT.

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

Test setup



Limits

Rule Part 27.53 (g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 27.53 (g) Limit	-13 dBm
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Measurement Uncertainty

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

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-30GHz	1.407 dB

Test Results

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

5.7 Radiates Spurious Emission

Ambient condition

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

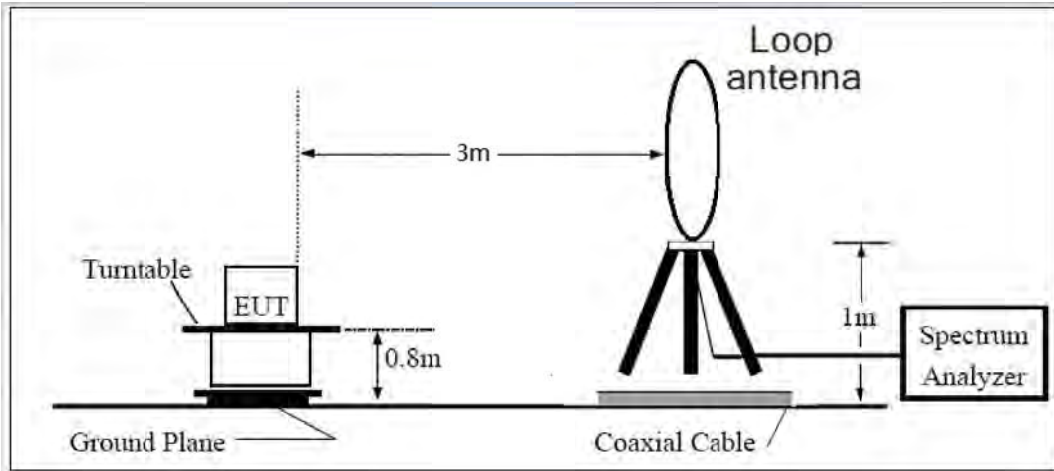
Method of Measurement

- The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
- 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).
- 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.
- 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 for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz, and the maximum value of the receiver should be recorded as (Pr).
- 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.
- 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.
- The measurement results are obtained as described below:
 $Power(EIRP)=PMea- PAg - Pcl + Ga$
 The measurement results are amend as described below:
 $Power(EIRP)=PMea- Pcl + Ga$
- 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, $ERP = EIRP-2.15dB$.

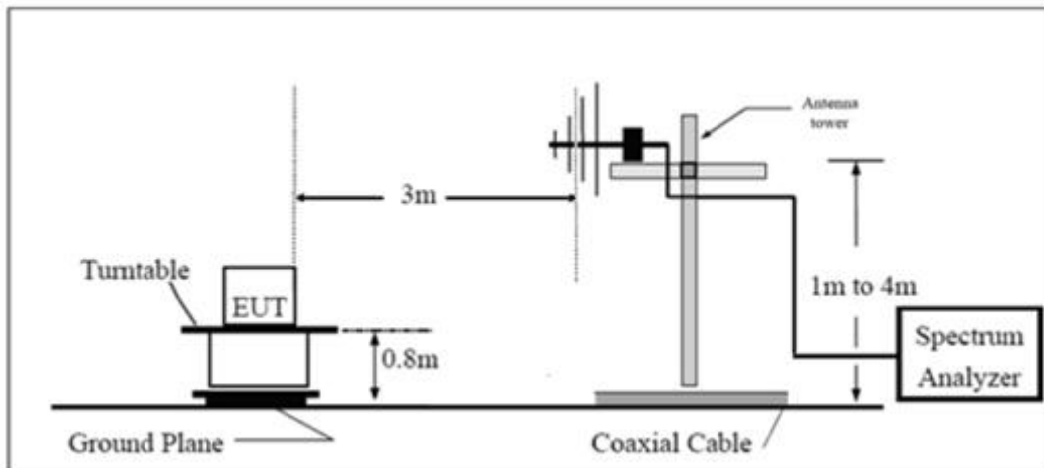
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

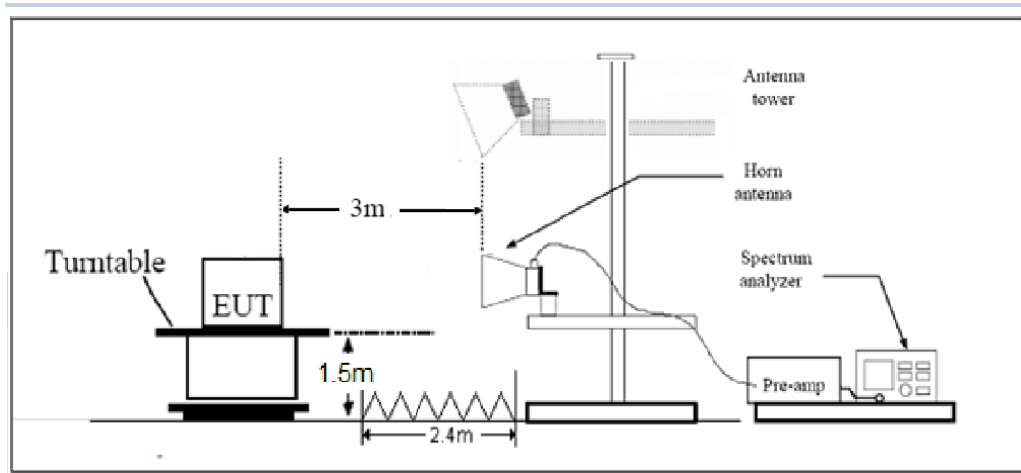
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m



Limits

Rule Part 27.53 (g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 27.53 (g) 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 $k = \pm 1.96$, $U = \pm 3.55$ dB.

Test Results

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



6 Test Results

6.1 RF Power Output and Effective Isotropic Radiated Power

LTE Band 28 Subset 1								
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Antenna 0 ERP(dBm)	Antenna 6 ERP(dBm)	Verdict
3.00	27225.00	1.00	#0	QPSK	25.22	17.07	14.47	PASS
3.00	27225.00	1.00	#Mid	QPSK	25.20	17.05	14.45	PASS
3.00	27225.00	1.00	#Max	QPSK	25.09	16.94	14.34	PASS
3.00	27225.00	8.00	#0	QPSK	24.30	16.15	13.55	PASS
3.00	27225.00	8.00	#Mid	QPSK	24.30	16.15	13.55	PASS
3.00	27225.00	8.00	#Max	QPSK	24.22	16.07	13.47	PASS
3.00	27225.00	15.00	#0	QPSK	24.29	16.14	13.54	PASS
3.00	27275.00	1.00	#0	QPSK	25.07	16.92	14.32	PASS
3.00	27275.00	1.00	#Mid	QPSK	25.18	17.03	14.43	PASS
3.00	27275.00	1.00	#Max	QPSK	25.15	17.00	14.40	PASS
3.00	27275.00	8.00	#0	QPSK	24.19	16.04	13.44	PASS
3.00	27275.00	8.00	#Mid	QPSK	24.17	16.02	13.42	PASS
3.00	27275.00	8.00	#Max	QPSK	24.24	16.09	13.49	PASS
3.00	27275.00	15.00	#0	QPSK	24.28	16.13	13.53	PASS
3.00	27325.00	1.00	#0	QPSK	25.27	17.12	14.52	PASS
3.00	27325.00	1.00	#Mid	QPSK	25.38	17.23	14.63	PASS
3.00	27325.00	1.00	#Max	QPSK	25.30	17.15	14.55	PASS
3.00	27325.00	8.00	#0	QPSK	24.26	16.11	13.51	PASS
3.00	27325.00	8.00	#Mid	QPSK	24.26	16.11	13.51	PASS
3.00	27325.00	8.00	#Max	QPSK	24.23	16.08	13.48	PASS
3.00	27325.00	15.00	#0	QPSK	24.27	16.12	13.52	PASS
5.00	27235.00	1.00	#0	QPSK	25.25	17.10	14.50	PASS
5.00	27235.00	1.00	#Mid	QPSK	25.22	17.07	14.47	PASS
5.00	27235.00	1.00	#Max	QPSK	25.12	16.97	14.37	PASS
5.00	27235.00	12.00	#0	QPSK	24.30	16.15	13.55	PASS
5.00	27235.00	12.00	#Mid	QPSK	24.30	16.15	13.55	PASS
5.00	27235.00	12.00	#Max	QPSK	24.25	16.10	13.50	PASS
5.00	27235.00	25.00	#0	QPSK	24.28	16.13	13.53	PASS
5.00	27275.00	1.00	#0	QPSK	25.19	17.04	14.44	PASS
5.00	27275.00	1.00	#Mid	QPSK	25.22	17.07	14.47	PASS
5.00	27275.00	1.00	#Max	QPSK	25.23	17.08	14.48	PASS



5.00	27275.00	12.00	#0	QPSK	24.23	16.08	13.48	PASS
5.00	27275.00	12.00	#Mid	QPSK	24.22	16.07	13.47	PASS
5.00	27275.00	12.00	#Max	QPSK	24.29	16.14	13.54	PASS
5.00	27275.00	25.00	#0	QPSK	24.26	16.11	13.51	PASS
5.00	27315.00	1.00	#0	QPSK	25.13	16.98	14.38	PASS
5.00	27315.00	1.00	#Mid	QPSK	25.20	17.05	14.45	PASS
5.00	27315.00	1.00	#Max	QPSK	25.17	17.02	14.42	PASS
5.00	27315.00	12.00	#0	QPSK	24.23	16.08	13.48	PASS
5.00	27315.00	12.00	#Mid	QPSK	24.24	16.09	13.49	PASS
5.00	27315.00	12.00	#Max	QPSK	24.26	16.11	13.51	PASS
5.00	27315.00	25.00	#0	QPSK	24.25	16.10	13.50	PASS
10.00	27260.00	1.00	#0	QPSK	25.17	17.02	14.42	PASS
10.00	27260.00	1.00	#Mid	QPSK	25.01	16.86	14.26	PASS
10.00	27260.00	1.00	#Max	QPSK	25.08	16.93	14.33	PASS
10.00	27260.00	25.00	#0	QPSK	24.27	16.12	13.52	PASS
10.00	27260.00	25.00	#Mid	QPSK	24.31	16.16	13.56	PASS
10.00	27260.00	25.00	#Max	QPSK	24.21	16.06	13.46	PASS
10.00	27260.00	50.00	#0	QPSK	24.24	16.09	13.49	PASS
10.00	27275.00	1.00	#0	QPSK	25.13	16.98	14.38	PASS
10.00	27275.00	1.00	#Mid	QPSK	25.08	16.93	14.33	PASS
10.00	27275.00	1.00	#Max	QPSK	25.15	17.00	14.40	PASS
10.00	27275.00	25.00	#0	QPSK	24.21	16.06	13.46	PASS
10.00	27275.00	25.00	#Mid	QPSK	24.21	16.06	13.46	PASS
10.00	27275.00	25.00	#Max	QPSK	24.17	16.02	13.42	PASS
10.00	27275.00	50.00	#0	QPSK	24.27	16.12	13.52	PASS
10.00	27290.00	1.00	#0	QPSK	25.20	17.05	14.45	PASS
10.00	27290.00	1.00	#Mid	QPSK	25.14	16.99	14.39	PASS
10.00	27290.00	1.00	#Max	QPSK	25.21	17.06	14.46	PASS
10.00	27290.00	25.00	#0	QPSK	24.25	16.10	13.50	PASS
10.00	27290.00	25.00	#Mid	QPSK	24.20	16.05	13.45	PASS
10.00	27290.00	25.00	#Max	QPSK	24.26	16.11	13.51	PASS
10.00	27290.00	50.00	#0	QPSK	24.26	16.11	13.51	PASS
3.00	27225.00	1.00	#0	QAM16	24.52	16.37	13.77	PASS
3.00	27225.00	1.00	#Mid	QAM16	24.57	16.42	13.82	PASS
3.00	27225.00	1.00	#Max	QAM16	24.47	16.32	13.72	PASS
3.00	27225.00	8.00	#0	QAM16	23.33	15.18	12.58	PASS
3.00	27225.00	8.00	#Mid	QAM16	23.34	15.19	12.59	PASS
3.00	27225.00	8.00	#Max	QAM16	23.26	15.11	12.51	PASS
3.00	27225.00	15.00	#0	QAM16	23.25	15.10	12.50	PASS
3.00	27275.00	1.00	#0	QAM16	24.33	16.18	13.58	PASS
3.00	27275.00	1.00	#Mid	QAM16	24.45	16.30	13.70	PASS
3.00	27275.00	1.00	#Max	QAM16	24.38	16.23	13.63	PASS
3.00	27275.00	8.00	#0	QAM16	23.20	15.05	12.45	PASS



3.00	27275.00	8.00	#Mid	QAM16	23.20	15.05	12.45	PASS
3.00	27275.00	8.00	#Max	QAM16	23.22	15.07	12.47	PASS
3.00	27275.00	15.00	#0	QAM16	23.20	15.05	12.45	PASS
3.00	27325.00	1.00	#0	QAM16	24.23	16.08	13.48	PASS
3.00	27325.00	1.00	#Mid	QAM16	24.30	16.15	13.55	PASS
3.00	27325.00	1.00	#Max	QAM16	24.26	16.11	13.51	PASS
3.00	27325.00	8.00	#0	QAM16	23.27	15.12	12.52	PASS
3.00	27325.00	8.00	#Mid	QAM16	23.25	15.10	12.50	PASS
3.00	27325.00	8.00	#Max	QAM16	23.24	15.09	12.49	PASS
3.00	27325.00	15.00	#0	QAM16	23.24	15.09	12.49	PASS
5.00	27235.00	1.00	#0	QAM16	24.63	16.48	13.88	PASS
5.00	27235.00	1.00	#Mid	QAM16	24.58	16.43	13.83	PASS
5.00	27235.00	1.00	#Max	QAM16	24.49	16.34	13.74	PASS
5.00	27235.00	12.00	#0	QAM16	23.30	15.15	12.55	PASS
5.00	27235.00	12.00	#Mid	QAM16	23.27	15.12	12.52	PASS
5.00	27235.00	12.00	#Max	QAM16	23.27	15.12	12.52	PASS
5.00	27235.00	25.00	#0	QAM16	23.32	15.17	12.57	PASS
5.00	27275.00	1.00	#0	QAM16	24.38	16.23	13.63	PASS
5.00	27275.00	1.00	#Mid	QAM16	24.45	16.30	13.70	PASS
5.00	27275.00	1.00	#Max	QAM16	24.47	16.32	13.72	PASS
5.00	27275.00	12.00	#0	QAM16	23.17	15.02	12.42	PASS
5.00	27275.00	12.00	#Mid	QAM16	23.17	15.02	12.42	PASS
5.00	27275.00	12.00	#Max	QAM16	23.29	15.14	12.54	PASS
5.00	27275.00	25.00	#0	QAM16	23.22	15.07	12.47	PASS
5.00	27315.00	1.00	#0	QAM16	24.51	16.36	13.76	PASS
5.00	27315.00	1.00	#Mid	QAM16	24.61	16.46	13.86	PASS
5.00	27315.00	1.00	#Max	QAM16	24.56	16.41	13.81	PASS
5.00	27315.00	12.00	#0	QAM16	23.31	15.16	12.56	PASS
5.00	27315.00	12.00	#Mid	QAM16	23.30	15.15	12.55	PASS
5.00	27315.00	12.00	#Max	QAM16	23.31	15.16	12.56	PASS
5.00	27315.00	25.00	#0	QAM16	23.21	15.06	12.46	PASS
10.00	27260.00	1.00	#0	QAM16	24.52	16.37	13.77	PASS
10.00	27260.00	1.00	#Mid	QAM16	24.43	16.28	13.68	PASS
10.00	27260.00	1.00	#Max	QAM16	24.53	16.38	13.78	PASS
10.00	27260.00	25.00	#0	QAM16	23.35	15.20	12.60	PASS
10.00	27260.00	25.00	#Mid	QAM16	23.35	15.20	12.60	PASS
10.00	27260.00	25.00	#Max	QAM16	23.32	15.17	12.57	PASS
10.00	27260.00	50.00	#0	QAM16	23.23	15.08	12.48	PASS
10.00	27275.00	1.00	#0	QAM16	24.44	16.29	13.69	PASS
10.00	27275.00	1.00	#Mid	QAM16	24.38	16.23	13.63	PASS
10.00	27275.00	1.00	#Max	QAM16	24.42	16.27	13.67	PASS
10.00	27275.00	25.00	#0	QAM16	23.26	15.11	12.51	PASS
10.00	27275.00	25.00	#Mid	QAM16	23.24	15.09	12.49	PASS



10.00	27275.00	25.00	#Max	QAM16	23.27	15.12	12.52	PASS
10.00	27275.00	50.00	#0	QAM16	23.25	15.10	12.50	PASS
10.00	27290.00	1.00	#0	QAM16	24.08	15.93	13.33	PASS
10.00	27290.00	1.00	#Mid	QAM16	24.07	15.92	13.32	PASS
10.00	27290.00	1.00	#Max	QAM16	24.09	15.94	13.34	PASS
10.00	27290.00	25.00	#0	QAM16	23.19	15.04	12.44	PASS
10.00	27290.00	25.00	#Mid	QAM16	23.20	15.05	12.45	PASS
10.00	27290.00	25.00	#Max	QAM16	23.27	15.12	12.52	PASS
10.00	27290.00	50.00	#0	QAM16	23.25	15.10	12.50	PASS
3.00	27225.00	1.00	#0	QAM64	24.12	15.97	13.37	PASS
3.00	27225.00	1.00	#Mid	QAM64	24.08	15.93	13.33	PASS
3.00	27225.00	1.00	#Max	QAM64	24.01	15.86	13.26	PASS
3.00	27225.00	8.00	#0	QAM64	22.86	14.71	12.11	PASS
3.00	27225.00	8.00	#Mid	QAM64	22.86	14.71	12.11	PASS
3.00	27225.00	8.00	#Max	QAM64	22.78	14.63	12.03	PASS
3.00	27225.00	15.00	#0	QAM64	22.82	14.67	12.07	PASS
3.00	27275.00	1.00	#0	QAM64	23.84	15.69	13.09	PASS
3.00	27275.00	1.00	#Mid	QAM64	23.92	15.77	13.17	PASS
3.00	27275.00	1.00	#Max	QAM64	23.92	15.77	13.17	PASS
3.00	27275.00	8.00	#0	QAM64	22.69	14.54	11.94	PASS
3.00	27275.00	8.00	#Mid	QAM64	22.72	14.57	11.97	PASS
3.00	27275.00	8.00	#Max	QAM64	22.71	14.56	11.96	PASS
3.00	27275.00	15.00	#0	QAM64	22.69	14.54	11.94	PASS
3.00	27325.00	1.00	#0	QAM64	23.71	15.56	12.96	PASS
3.00	27325.00	1.00	#Mid	QAM64	23.76	15.61	13.01	PASS
3.00	27325.00	1.00	#Max	QAM64	23.70	15.55	12.95	PASS
3.00	27325.00	8.00	#0	QAM64	22.74	14.59	11.99	PASS
3.00	27325.00	8.00	#Mid	QAM64	22.75	14.60	12.00	PASS
3.00	27325.00	8.00	#Max	QAM64	22.78	14.63	12.03	PASS
3.00	27325.00	15.00	#0	QAM64	22.75	14.60	12.00	PASS
5.00	27235.00	1.00	#0	QAM64	24.13	15.98	13.38	PASS
5.00	27235.00	1.00	#Mid	QAM64	24.07	15.92	13.32	PASS
5.00	27235.00	1.00	#Max	QAM64	24.00	15.85	13.25	PASS
5.00	27235.00	12.00	#0	QAM64	22.80	14.65	12.05	PASS
5.00	27235.00	12.00	#Mid	QAM64	22.79	14.64	12.04	PASS
5.00	27235.00	12.00	#Max	QAM64	22.79	14.64	12.04	PASS
5.00	27235.00	25.00	#0	QAM64	22.82	14.67	12.07	PASS
5.00	27275.00	1.00	#0	QAM64	23.90	15.75	13.15	PASS
5.00	27275.00	1.00	#Mid	QAM64	23.97	15.82	13.22	PASS
5.00	27275.00	1.00	#Max	QAM64	24.00	15.85	13.25	PASS
5.00	27275.00	12.00	#0	QAM64	22.69	14.54	11.94	PASS
5.00	27275.00	12.00	#Mid	QAM64	22.72	14.57	11.97	PASS
5.00	27275.00	12.00	#Max	QAM64	22.78	14.63	12.03	PASS



5.00	27275.00	25.00	#0	QAM64	22.76	14.61	12.01	PASS
5.00	27315.00	1.00	#0	QAM64	23.99	15.84	13.24	PASS
5.00	27315.00	1.00	#Mid	QAM64	24.09	15.94	13.34	PASS
5.00	27315.00	1.00	#Max	QAM64	24.06	15.91	13.31	PASS
5.00	27315.00	12.00	#0	QAM64	22.81	14.66	12.06	PASS
5.00	27315.00	12.00	#Mid	QAM64	22.76	14.61	12.01	PASS
5.00	27315.00	12.00	#Max	QAM64	22.83	14.68	12.08	PASS
5.00	27315.00	25.00	#0	QAM64	22.73	14.58	11.98	PASS
10.00	27260.00	1.00	#0	QAM64	24.15	16.00	13.40	PASS
10.00	27260.00	1.00	#Mid	QAM64	23.90	15.75	13.15	PASS
10.00	27260.00	1.00	#Max	QAM64	24.00	15.85	13.25	PASS
10.00	27260.00	25.00	#0	QAM64	22.86	14.71	12.11	PASS
10.00	27260.00	25.00	#Mid	QAM64	22.85	14.70	12.10	PASS
10.00	27260.00	25.00	#Max	QAM64	22.85	14.70	12.10	PASS
10.00	27260.00	50.00	#0	QAM64	22.74	14.59	11.99	PASS
10.00	27275.00	1.00	#0	QAM64	23.90	15.75	13.15	PASS
10.00	27275.00	1.00	#Mid	QAM64	23.85	15.70	13.10	PASS
10.00	27275.00	1.00	#Max	QAM64	23.92	15.77	13.17	PASS
10.00	27275.00	25.00	#0	QAM64	22.77	14.62	12.02	PASS
10.00	27275.00	25.00	#Mid	QAM64	22.76	14.61	12.01	PASS
10.00	27275.00	25.00	#Max	QAM64	22.80	14.65	12.05	PASS
10.00	27275.00	50.00	#0	QAM64	22.75	14.60	12.00	PASS
10.00	27290.00	1.00	#0	QAM64	23.66	15.51	12.91	PASS
10.00	27290.00	1.00	#Mid	QAM64	23.62	15.47	12.87	PASS
10.00	27290.00	1.00	#Max	QAM64	23.58	15.43	12.83	PASS
10.00	27290.00	25.00	#0	QAM64	22.70	14.55	11.95	PASS
10.00	27290.00	25.00	#Mid	QAM64	22.69	14.54	11.94	PASS
10.00	27290.00	25.00	#Max	QAM64	22.78	14.63	12.03	PASS
10.00	27290.00	50.00	#0	QAM64	22.75	14.60	12.00	PASS

LTE Band 28 Subset 2								
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Antenna 0 ERP(dBm)	Antenna 6 ERP(dBm)	Verdict
3.00	27475.00	1.00	#0	QPSK	25.12	16.97	14.37	PASS
3.00	27475.00	1.00	#Mid	QPSK	25.22	17.07	14.47	PASS
3.00	27475.00	1.00	#Max	QPSK	25.16	17.01	14.41	PASS
3.00	27475.00	8.00	#0	QPSK	24.27	16.12	13.52	PASS
3.00	27475.00	8.00	#Mid	QPSK	24.27	16.12	13.52	PASS
3.00	27475.00	8.00	#Max	QPSK	24.27	16.12	13.52	PASS
3.00	27475.00	15.00	#0	QPSK	24.31	16.16	13.56	PASS
3.00	27550.00	1.00	#0	QPSK	25.20	17.05	14.45	PASS



3.00	27550.00	1.00	#Mid	QPSK	25.34	17.19	14.59	PASS
3.00	27550.00	1.00	#Max	QPSK	25.23	17.08	14.48	PASS
3.00	27550.00	8.00	#0	QPSK	24.33	16.18	13.58	PASS
3.00	27550.00	8.00	#Mid	QPSK	24.32	16.17	13.57	PASS
3.00	27550.00	8.00	#Max	QPSK	24.32	16.17	13.57	PASS
3.00	27550.00	15.00	#0	QPSK	24.35	16.20	13.60	PASS
3.00	27625.00	1.00	#0	QPSK	25.34	17.19	14.59	PASS
3.00	27625.00	1.00	#Mid	QPSK	25.40	17.25	14.65	PASS
3.00	27625.00	1.00	#Max	QPSK	25.30	17.15	14.55	PASS
3.00	27625.00	8.00	#0	QPSK	24.35	16.20	13.60	PASS
3.00	27625.00	8.00	#Mid	QPSK	24.34	16.19	13.59	PASS
3.00	27625.00	8.00	#Max	QPSK	24.29	16.14	13.54	PASS
3.00	27625.00	15.00	#0	QPSK	24.33	16.18	13.58	PASS
5.00	27485.00	1.00	#0	QPSK	25.26	17.11	14.51	PASS
5.00	27485.00	1.00	#Mid	QPSK	25.31	17.16	14.56	PASS
5.00	27485.00	1.00	#Max	QPSK	25.27	17.12	14.52	PASS
5.00	27485.00	12.00	#0	QPSK	24.28	16.13	13.53	PASS
5.00	27485.00	12.00	#Mid	QPSK	24.29	16.14	13.54	PASS
5.00	27485.00	12.00	#Max	QPSK	24.34	16.19	13.59	PASS
5.00	27485.00	25.00	#0	QPSK	24.32	16.17	13.57	PASS
5.00	27550.00	1.00	#0	QPSK	25.26	17.11	14.51	PASS
5.00	27550.00	1.00	#Mid	QPSK	25.35	17.20	14.60	PASS
5.00	27550.00	1.00	#Max	QPSK	25.34	17.19	14.59	PASS
5.00	27550.00	12.00	#0	QPSK	24.31	16.16	13.56	PASS
5.00	27550.00	12.00	#Mid	QPSK	24.31	16.16	13.56	PASS
5.00	27550.00	12.00	#Max	QPSK	24.34	16.19	13.59	PASS
5.00	27550.00	25.00	#0	QPSK	24.36	16.21	13.61	PASS
5.00	27615.00	1.00	#0	QPSK	25.25	17.10	14.50	PASS
5.00	27615.00	1.00	#Mid	QPSK	25.26	17.11	14.51	PASS
5.00	27615.00	1.00	#Max	QPSK	25.22	17.07	14.47	PASS
5.00	27615.00	12.00	#0	QPSK	24.31	16.16	13.56	PASS
5.00	27615.00	12.00	#Mid	QPSK	24.27	16.12	13.52	PASS
5.00	27615.00	12.00	#Max	QPSK	24.32	16.17	13.57	PASS
5.00	27615.00	25.00	#0	QPSK	24.30	16.15	13.55	PASS
10.00	27510.00	1.00	#0	QPSK	25.29	17.14	14.54	PASS
10.00	27510.00	1.00	#Mid	QPSK	25.21	17.06	14.46	PASS
10.00	27510.00	1.00	#Max	QPSK	25.14	16.99	14.39	PASS
10.00	27510.00	25.00	#0	QPSK	24.28	16.13	13.53	PASS
10.00	27510.00	25.00	#Mid	QPSK	24.28	16.13	13.53	PASS
10.00	27510.00	25.00	#Max	QPSK	24.37	16.22	13.62	PASS
10.00	27510.00	50.00	#0	QPSK	24.32	16.17	13.57	PASS
10.00	27550.00	1.00	#0	QPSK	25.28	17.13	14.53	PASS
10.00	27550.00	1.00	#Mid	QPSK	25.27	17.12	14.52	PASS



10.00	27550.00	1.00	#Max	QPSK	25.24	17.09	14.49	PASS
10.00	27550.00	25.00	#0	QPSK	24.30	16.15	13.55	PASS
10.00	27550.00	25.00	#Mid	QPSK	24.31	16.16	13.56	PASS
10.00	27550.00	25.00	#Max	QPSK	24.31	16.16	13.56	PASS
10.00	27550.00	50.00	#0	QPSK	24.34	16.19	13.59	PASS
10.00	27590.00	1.00	#0	QPSK	25.36	17.21	14.61	PASS
10.00	27590.00	1.00	#Mid	QPSK	25.30	17.15	14.55	PASS
10.00	27590.00	1.00	#Max	QPSK	25.32	17.17	14.57	PASS
10.00	27590.00	25.00	#0	QPSK	24.32	16.17	13.57	PASS
10.00	27590.00	25.00	#Mid	QPSK	24.32	16.17	13.57	PASS
10.00	27590.00	25.00	#Max	QPSK	24.34	16.19	13.59	PASS
10.00	27590.00	50.00	#0	QPSK	24.32	16.17	13.57	PASS
15.00	27535.00	1.00	#0	QPSK	25.08	16.93	14.33	PASS
15.00	27535.00	1.00	#Mid	QPSK	25.07	16.92	14.32	PASS
15.00	27535.00	1.00	#Max	QPSK	25.08	16.93	14.33	PASS
15.00	27535.00	36.00	#0	QPSK	24.12	15.97	13.37	PASS
15.00	27535.00	36.00	#Mid	QPSK	24.17	16.02	13.42	PASS
15.00	27535.00	36.00	#Max	QPSK	24.13	15.98	13.38	PASS
15.00	27535.00	75.00	#0	QPSK	24.07	15.92	13.32	PASS
15.00	27550.00	1.00	#0	QPSK	25.06	16.91	14.31	PASS
15.00	27550.00	1.00	#Mid	QPSK	25.06	16.91	14.31	PASS
15.00	27550.00	1.00	#Max	QPSK	24.98	16.83	14.23	PASS
15.00	27550.00	36.00	#0	QPSK	24.15	16.00	13.40	PASS
15.00	27550.00	36.00	#Mid	QPSK	24.12	15.97	13.37	PASS
15.00	27550.00	36.00	#Max	QPSK	24.17	16.02	13.42	PASS
15.00	27550.00	75.00	#0	QPSK	24.10	15.95	13.35	PASS
15.00	27565.00	1.00	#0	QPSK	25.13	16.98	14.38	PASS
15.00	27565.00	1.00	#Mid	QPSK	25.17	17.02	14.42	PASS
15.00	27565.00	1.00	#Max	QPSK	25.07	16.92	14.32	PASS
15.00	27565.00	36.00	#0	QPSK	24.14	15.99	13.39	PASS
15.00	27565.00	36.00	#Mid	QPSK	24.14	15.99	13.39	PASS
15.00	27565.00	36.00	#Max	QPSK	24.16	16.01	13.41	PASS
15.00	27565.00	75.00	#0	QPSK	24.06	15.91	13.31	PASS
3.00	27475.00	1.00	#0	QAM16	24.51	16.36	13.76	PASS
3.00	27475.00	1.00	#Mid	QAM16	24.59	16.44	13.84	PASS
3.00	27475.00	1.00	#Max	QAM16	24.52	16.37	13.77	PASS
3.00	27475.00	8.00	#0	QAM16	23.28	15.13	12.53	PASS
3.00	27475.00	8.00	#Mid	QAM16	23.29	15.14	12.54	PASS
3.00	27475.00	8.00	#Max	QAM16	23.25	15.10	12.50	PASS
3.00	27475.00	15.00	#0	QAM16	23.25	15.10	12.50	PASS
3.00	27550.00	1.00	#0	QAM16	24.46	16.31	13.71	PASS
3.00	27550.00	1.00	#Mid	QAM16	24.56	16.41	13.81	PASS
3.00	27550.00	1.00	#Max	QAM16	24.51	16.36	13.76	PASS



3.00	27550.00	8.00	#0	QAM16	23.32	15.17	12.57	PASS
3.00	27550.00	8.00	#Mid	QAM16	23.32	15.17	12.57	PASS
3.00	27550.00	8.00	#Max	QAM16	23.30	15.15	12.55	PASS
3.00	27550.00	15.00	#0	QAM16	23.24	15.09	12.49	PASS
3.00	27625.00	1.00	#0	QAM16	24.25	16.10	13.50	PASS
3.00	27625.00	1.00	#Mid	QAM16	24.30	16.15	13.55	PASS
3.00	27625.00	1.00	#Max	QAM16	24.23	16.08	13.48	PASS
3.00	27625.00	8.00	#0	QAM16	23.36	15.21	12.61	PASS
3.00	27625.00	8.00	#Mid	QAM16	23.35	15.20	12.60	PASS
3.00	27625.00	8.00	#Max	QAM16	23.32	15.17	12.57	PASS
3.00	27625.00	15.00	#0	QAM16	23.35	15.20	12.60	PASS
5.00	27485.00	1.00	#0	QAM16	24.64	16.49	13.89	PASS
5.00	27485.00	1.00	#Mid	QAM16	24.71	16.56	13.96	PASS
5.00	27485.00	1.00	#Max	QAM16	24.62	16.47	13.87	PASS
5.00	27485.00	12.00	#0	QAM16	23.25	15.10	12.50	PASS
5.00	27485.00	12.00	#Mid	QAM16	23.24	15.09	12.49	PASS
5.00	27485.00	12.00	#Max	QAM16	23.31	15.16	12.56	PASS
5.00	27485.00	25.00	#0	QAM16	23.36	15.21	12.61	PASS
5.00	27550.00	1.00	#0	QAM16	24.47	16.32	13.72	PASS
5.00	27550.00	1.00	#Mid	QAM16	24.60	16.45	13.85	PASS
5.00	27550.00	1.00	#Max	QAM16	24.56	16.41	13.81	PASS
5.00	27550.00	12.00	#0	QAM16	23.26	15.11	12.51	PASS
5.00	27550.00	12.00	#Mid	QAM16	23.28	15.13	12.53	PASS
5.00	27550.00	12.00	#Max	QAM16	23.31	15.16	12.56	PASS
5.00	27550.00	25.00	#0	QAM16	23.32	15.17	12.57	PASS
5.00	27615.00	1.00	#0	QAM16	24.70	16.55	13.95	PASS
5.00	27615.00	1.00	#Mid	QAM16	24.73	16.58	13.98	PASS
5.00	27615.00	1.00	#Max	QAM16	24.61	16.46	13.86	PASS
5.00	27615.00	12.00	#0	QAM16	23.35	15.20	12.60	PASS
5.00	27615.00	12.00	#Mid	QAM16	23.33	15.18	12.58	PASS
5.00	27615.00	12.00	#Max	QAM16	23.35	15.20	12.60	PASS
5.00	27615.00	25.00	#0	QAM16	23.30	15.15	12.55	PASS
10.00	27510.00	1.00	#0	QAM16	24.67	16.52	13.92	PASS
10.00	27510.00	1.00	#Mid	QAM16	24.67	16.52	13.92	PASS
10.00	27510.00	1.00	#Max	QAM16	24.55	16.40	13.80	PASS
10.00	27510.00	25.00	#0	QAM16	23.38	15.23	12.63	PASS
10.00	27510.00	25.00	#Mid	QAM16	23.37	15.22	12.62	PASS
10.00	27510.00	25.00	#Max	QAM16	23.40	15.25	12.65	PASS
10.00	27510.00	50.00	#0	QAM16	23.27	15.12	12.52	PASS
10.00	27550.00	1.00	#0	QAM16	24.57	16.42	13.82	PASS
10.00	27550.00	1.00	#Mid	QAM16	24.46	16.31	13.71	PASS
10.00	27550.00	1.00	#Max	QAM16	24.47	16.32	13.72	PASS
10.00	27550.00	25.00	#0	QAM16	23.30	15.15	12.55	PASS



10.00	27550.00	25.00	#Mid	QAM16	23.27	15.12	12.52	PASS
10.00	27550.00	25.00	#Max	QAM16	23.34	15.19	12.59	PASS
10.00	27550.00	50.00	#0	QAM16	23.32	15.17	12.57	PASS
10.00	27590.00	1.00	#0	QAM16	24.24	16.09	13.49	PASS
10.00	27590.00	1.00	#Mid	QAM16	24.14	15.99	13.39	PASS
10.00	27590.00	1.00	#Max	QAM16	24.18	16.03	13.43	PASS
10.00	27590.00	25.00	#0	QAM16	23.33	15.18	12.58	PASS
10.00	27590.00	25.00	#Mid	QAM16	23.32	15.17	12.57	PASS
10.00	27590.00	25.00	#Max	QAM16	23.32	15.17	12.57	PASS
10.00	27590.00	50.00	#0	QAM16	23.28	15.13	12.53	PASS
15.00	27535.00	1.00	#0	QAM16	24.37	16.22	13.62	PASS
15.00	27535.00	1.00	#Mid	QAM16	24.51	16.36	13.76	PASS
15.00	27535.00	1.00	#Max	QAM16	24.39	16.24	13.64	PASS
15.00	27535.00	36.00	#0	QAM16	23.18	15.03	12.43	PASS
15.00	27535.00	36.00	#Mid	QAM16	23.17	15.02	12.42	PASS
15.00	27535.00	36.00	#Max	QAM16	23.21	15.06	12.46	PASS
15.00	27535.00	75.00	#0	QAM16	23.13	14.98	12.38	PASS
15.00	27550.00	1.00	#0	QAM16	24.45	16.30	13.70	PASS
15.00	27550.00	1.00	#Mid	QAM16	24.31	16.16	13.56	PASS
15.00	27550.00	1.00	#Max	QAM16	24.33	16.18	13.58	PASS
15.00	27550.00	36.00	#0	QAM16	23.12	14.97	12.37	PASS
15.00	27550.00	36.00	#Mid	QAM16	23.13	14.98	12.38	PASS
15.00	27550.00	36.00	#Max	QAM16	23.14	14.99	12.39	PASS
15.00	27550.00	75.00	#0	QAM16	23.10	14.95	12.35	PASS
15.00	27565.00	1.00	#0	QAM16	24.16	16.01	13.41	PASS
15.00	27565.00	1.00	#Mid	QAM16	24.16	16.01	13.41	PASS
15.00	27565.00	1.00	#Max	QAM16	24.01	15.86	13.26	PASS
15.00	27565.00	36.00	#0	QAM16	23.10	14.95	12.35	PASS
15.00	27565.00	36.00	#Mid	QAM16	23.11	14.96	12.36	PASS
15.00	27565.00	36.00	#Max	QAM16	23.08	14.93	12.33	PASS
15.00	27565.00	75.00	#0	QAM16	23.12	14.97	12.37	PASS
3.00	27475.00	1.00	#0	QAM64	24.03	15.88	13.28	PASS
3.00	27475.00	1.00	#Mid	QAM64	24.12	15.97	13.37	PASS
3.00	27475.00	1.00	#Max	QAM64	24.03	15.88	13.28	PASS
3.00	27475.00	8.00	#0	QAM64	22.78	14.63	12.03	PASS
3.00	27475.00	8.00	#Mid	QAM64	22.74	14.59	11.99	PASS
3.00	27475.00	8.00	#Max	QAM64	22.78	14.63	12.03	PASS
3.00	27475.00	15.00	#0	QAM64	22.80	14.65	12.05	PASS
3.00	27550.00	1.00	#0	QAM64	23.99	15.84	13.24	PASS
3.00	27550.00	1.00	#Mid	QAM64	24.07	15.92	13.32	PASS
3.00	27550.00	1.00	#Max	QAM64	23.98	15.83	13.23	PASS
3.00	27550.00	8.00	#0	QAM64	22.83	14.68	12.08	PASS
3.00	27550.00	8.00	#Mid	QAM64	22.84	14.69	12.09	PASS



3.00	27550.00	8.00	#Max	QAM64	22.83	14.68	12.08	PASS
3.00	27550.00	15.00	#0	QAM64	22.73	14.58	11.98	PASS
3.00	27625.00	1.00	#0	QAM64	23.78	15.63	13.03	PASS
3.00	27625.00	1.00	#Mid	QAM64	23.79	15.64	13.04	PASS
3.00	27625.00	1.00	#Max	QAM64	23.72	15.57	12.97	PASS
3.00	27625.00	8.00	#0	QAM64	22.86	14.71	12.11	PASS
3.00	27625.00	8.00	#Mid	QAM64	22.86	14.71	12.11	PASS
3.00	27625.00	8.00	#Max	QAM64	22.80	14.65	12.05	PASS
3.00	27625.00	15.00	#0	QAM64	22.84	14.69	12.09	PASS
5.00	27485.00	1.00	#0	QAM64	24.10	15.95	13.35	PASS
5.00	27485.00	1.00	#Mid	QAM64	24.15	16.00	13.40	PASS
5.00	27485.00	1.00	#Max	QAM64	24.09	15.94	13.34	PASS
5.00	27485.00	12.00	#0	QAM64	22.74	14.59	11.99	PASS
5.00	27485.00	12.00	#Mid	QAM64	22.71	14.56	11.96	PASS
5.00	27485.00	12.00	#Max	QAM64	22.82	14.67	12.07	PASS
5.00	27485.00	25.00	#0	QAM64	22.87	14.72	12.12	PASS
5.00	27550.00	1.00	#0	QAM64	24.01	15.86	13.26	PASS
5.00	27550.00	1.00	#Mid	QAM64	24.07	15.92	13.32	PASS
5.00	27550.00	1.00	#Max	QAM64	24.09	15.94	13.34	PASS
5.00	27550.00	12.00	#0	QAM64	22.75	14.60	12.00	PASS
5.00	27550.00	12.00	#Mid	QAM64	22.75	14.60	12.00	PASS
5.00	27550.00	12.00	#Max	QAM64	22.83	14.68	12.08	PASS
5.00	27550.00	25.00	#0	QAM64	22.81	14.66	12.06	PASS
5.00	27615.00	1.00	#0	QAM64	24.18	16.03	13.43	PASS
5.00	27615.00	1.00	#Mid	QAM64	24.19	16.04	13.44	PASS
5.00	27615.00	1.00	#Max	QAM64	24.14	15.99	13.39	PASS
5.00	27615.00	12.00	#0	QAM64	22.84	14.69	12.09	PASS
5.00	27615.00	12.00	#Mid	QAM64	22.82	14.67	12.07	PASS
5.00	27615.00	12.00	#Max	QAM64	22.86	14.71	12.11	PASS
5.00	27615.00	25.00	#0	QAM64	22.79	14.64	12.04	PASS
10.00	27510.00	1.00	#0	QAM64	24.06	15.91	13.31	PASS
10.00	27510.00	1.00	#Mid	QAM64	24.17	16.02	13.42	PASS
10.00	27510.00	1.00	#Max	QAM64	24.01	15.86	13.26	PASS
10.00	27510.00	25.00	#0	QAM64	22.92	14.77	12.17	PASS
10.00	27510.00	25.00	#Mid	QAM64	22.86	14.71	12.11	PASS
10.00	27510.00	25.00	#Max	QAM64	22.92	14.77	12.17	PASS
10.00	27510.00	50.00	#0	QAM64	22.78	14.63	12.03	PASS
10.00	27550.00	1.00	#0	QAM64	24.08	15.93	13.33	PASS
10.00	27550.00	1.00	#Mid	QAM64	23.95	15.80	13.20	PASS
10.00	27550.00	1.00	#Max	QAM64	23.97	15.82	13.22	PASS
10.00	27550.00	25.00	#0	QAM64	22.84	14.69	12.09	PASS
10.00	27550.00	25.00	#Mid	QAM64	22.82	14.67	12.07	PASS
10.00	27550.00	25.00	#Max	QAM64	22.87	14.72	12.12	PASS



10.00	27550.00	50.00	#0	QAM64	22.83	14.68	12.08	PASS
10.00	27590.00	1.00	#0	QAM64	23.78	15.63	13.03	PASS
10.00	27590.00	1.00	#Mid	QAM64	23.69	15.54	12.94	PASS
10.00	27590.00	1.00	#Max	QAM64	23.70	15.55	12.95	PASS
10.00	27590.00	25.00	#0	QAM64	22.80	14.65	12.05	PASS
10.00	27590.00	25.00	#Mid	QAM64	22.79	14.64	12.04	PASS
10.00	27590.00	25.00	#Max	QAM64	22.77	14.62	12.02	PASS
10.00	27590.00	50.00	#0	QAM64	22.73	14.58	11.98	PASS
15.00	27535.00	1.00	#0	QAM64	23.85	15.70	13.10	PASS
15.00	27535.00	1.00	#Mid	QAM64	23.90	15.75	13.15	PASS
15.00	27535.00	1.00	#Max	QAM64	23.89	15.74	13.14	PASS
15.00	27535.00	36.00	#0	QAM64	22.65	14.50	11.90	PASS
15.00	27535.00	36.00	#Mid	QAM64	22.66	14.51	11.91	PASS
15.00	27535.00	36.00	#Max	QAM64	22.61	14.46	11.86	PASS
15.00	27535.00	75.00	#0	QAM64	22.59	14.44	11.84	PASS
15.00	27550.00	1.00	#0	QAM64	23.74	15.59	12.99	PASS
15.00	27550.00	1.00	#Mid	QAM64	23.78	15.63	13.03	PASS
15.00	27550.00	1.00	#Max	QAM64	23.73	15.58	12.98	PASS
15.00	27550.00	36.00	#0	QAM64	22.64	14.49	11.89	PASS
15.00	27550.00	36.00	#Mid	QAM64	22.62	14.47	11.87	PASS
15.00	27550.00	36.00	#Max	QAM64	22.65	14.50	11.90	PASS
15.00	27550.00	75.00	#0	QAM64	22.59	14.44	11.84	PASS
15.00	27565.00	1.00	#0	QAM64	23.63	15.48	12.88	PASS
15.00	27565.00	1.00	#Mid	QAM64	23.61	15.46	12.86	PASS
15.00	27565.00	1.00	#Max	QAM64	23.63	15.48	12.88	PASS
15.00	27565.00	36.00	#0	QAM64	22.60	14.45	11.85	PASS
15.00	27565.00	36.00	#Mid	QAM64	22.58	14.43	11.83	PASS
15.00	27565.00	36.00	#Max	QAM64	22.57	14.42	11.82	PASS
15.00	27565.00	75.00	#0	QAM64	22.65	14.50	11.90	PASS

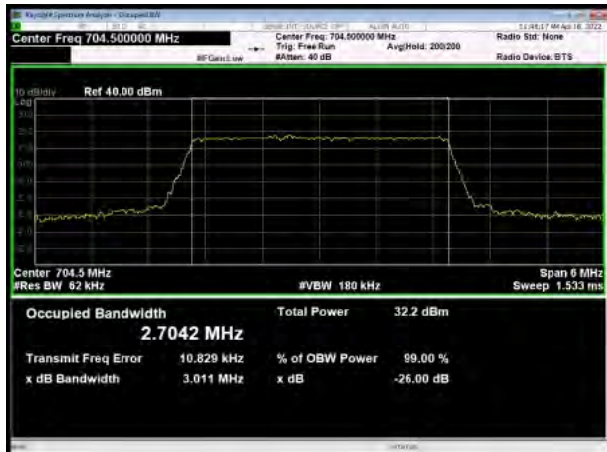
6.2 Occupied Bandwidth

LTE Band 28 Subset 1						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	3	27225	704.5	2.704	3.011
			27275	709	2.697	2.969
			27325	714.5	2.716	2.986
		5	27235	705.5	4.506	4.912
			27275	709	4.518	4.962
			27315	713.5	4.511	4.944
		10	27260	708	8.963	9.851
			27275	709	8.970	9.803
			27290	711	8.956	9.764
	16QAM	3	27225	704.5	2.695	2.971
			27275	709	2.704	3.008
			27325	714.5	2.700	3.004
		5	27235	705.5	4.509	4.948
			27275	709	4.526	4.962
			27315	713.5	4.528	4.938
		10	27260	708	8.981	9.741
			27275	709	8.976	9.678
			27290	711	8.978	9.810
	64QAM	3	27225	704.5	2.698	3.017
			27275	709	2.705	3.004
			27325	714.5	2.703	2.984
		5	27235	705.5	4.507	4.923
			27275	709	4.511	4.928
			27315	713.5	4.524	4.947
		10	27260	708	8.974	9.741
			27275	709	8.973	9.704
			27290	711	8.972	9.702



LTE Band 28 Subset 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	3	27475	729.5	2.701	2.979
			27550	737	2.707	2.997
			27625	744.5	2.708	2.980
		5	27485	730.5	4.522	4.913
			27550	737	4.528	4.957
			27615	743.5	4.504	4.905
		10	27510	733	8.984	9.745
			27550	737	9.021	9.813
			27590	741	8.975	9.754
		15	27535	735.5	13.494	14.557
			27550	737	13.487	14.583
			27565	738.5	13.480	14.506
	16QAM	3	27475	729.5	2.692	2.955
			27550	737	2.703	3.025
			27625	744.5	2.700	3.021
		5	27485	730.5	4.514	4.888
			27550	737	4.539	4.980
			27615	743.5	4.507	4.965
		10	27510	733	8.981	9.751
			27550	737	8.998	9.786
			27590	741	8.955	9.889
		15	27535	735.5	13.531	14.659
			27550	737	13.498	14.651
			27565	738.5	13.518	14.677
	64QAM	3	27475	729.5	2.687	2.949
			27550	737	2.708	3.004
			27625	744.5	2.698	3.010
		5	27485	730.5	4.508	4.953
			27550	737	4.512	4.957
			27615	743.5	4.531	4.994
10		27510	733	8.938	9.719	
		27550	737	8.989	9.774	
		27590	741	8.996	9.724	
15		27535	735.5	13.520	14.459	
		27550	737	13.484	14.556	
		27565	738.5	13.515	14.553	

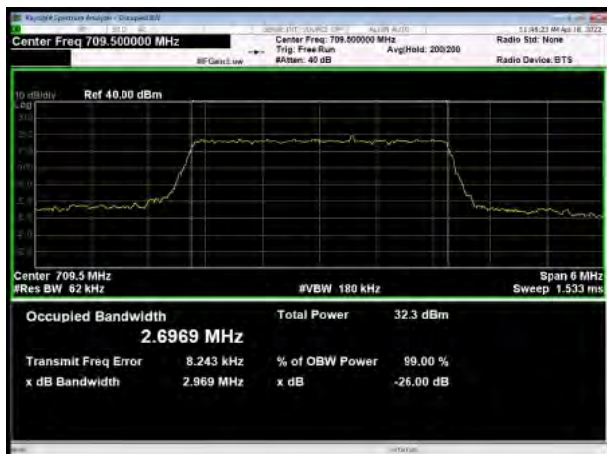
LTE band 28 subset 1 QPSK 3MHz CH-Low



LTE band 28 subset 1 QPSK 5MHz CH-Low



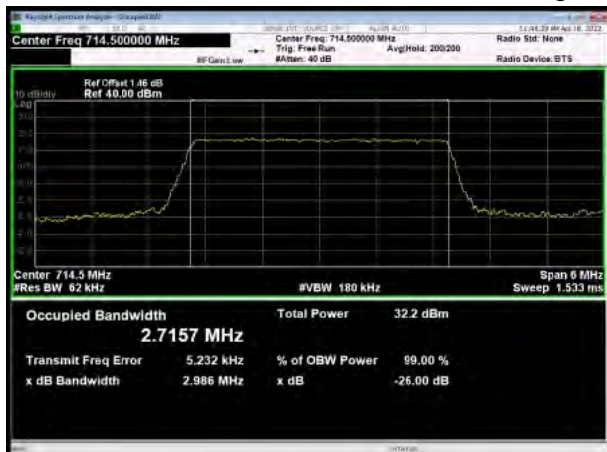
LTE band 28 subset 1 QPSK 3MHz CH-Middle



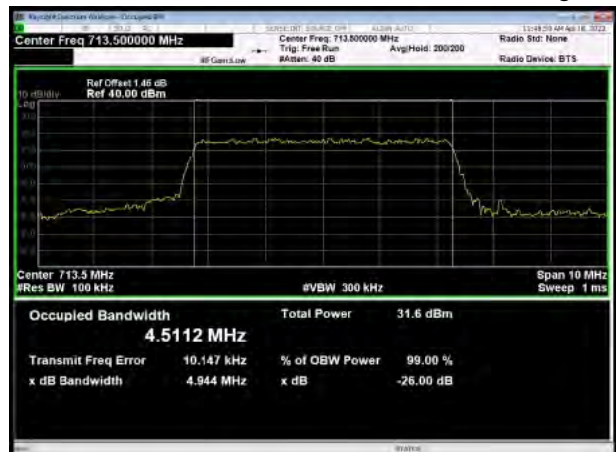
LTE band 28 subset 1 QPSK 5MHz CH-Middle

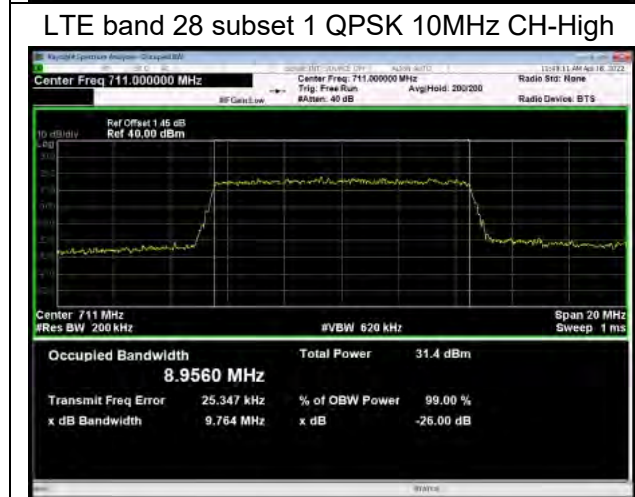
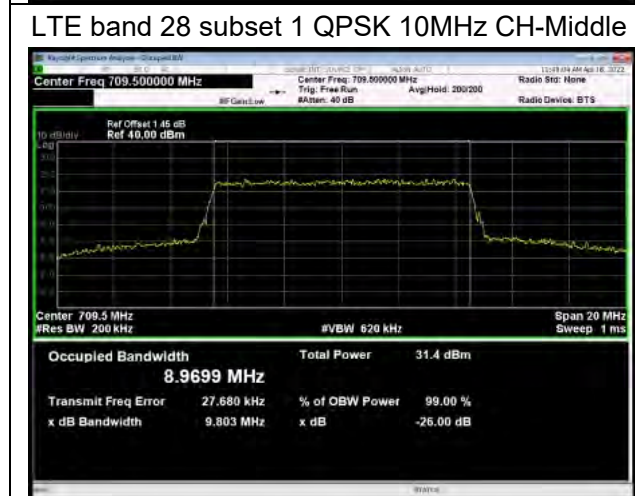
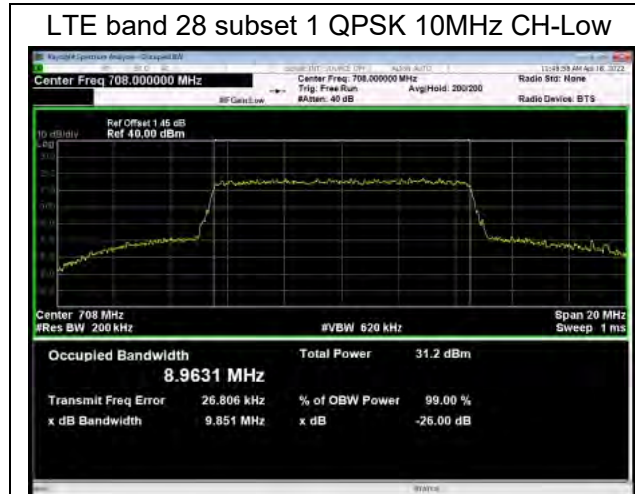


LTE band 28 subset 1 QPSK 3MHz CH-High



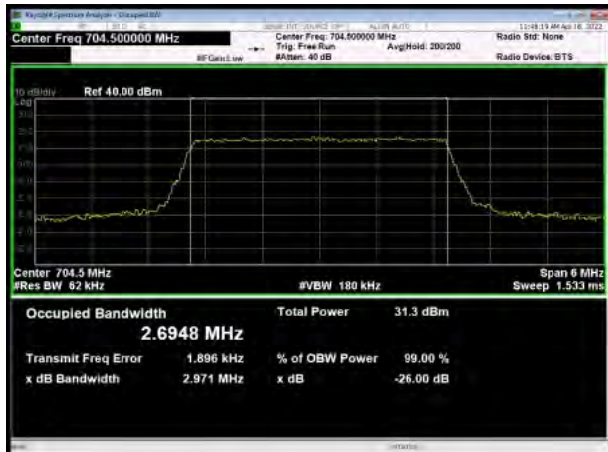
LTE band 28 subset 1 QPSK 5MHz CH-High



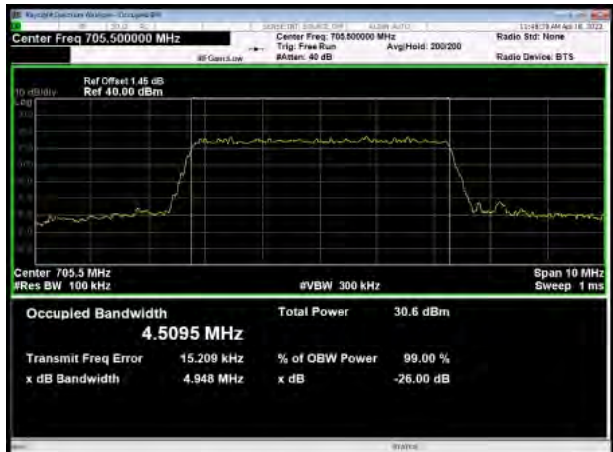




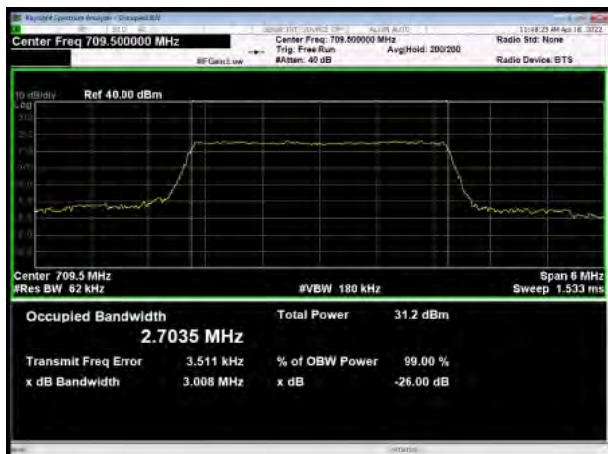
LTE band 28 subset 1 16QAM 3MHz CH-Low



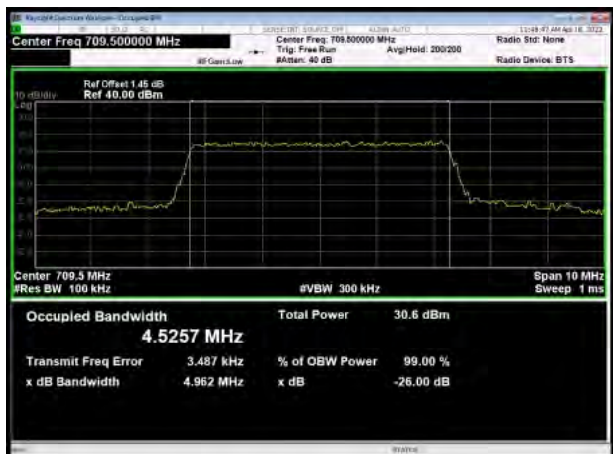
LTE band 28 subset 1 16QAM 5MHz CH-Low



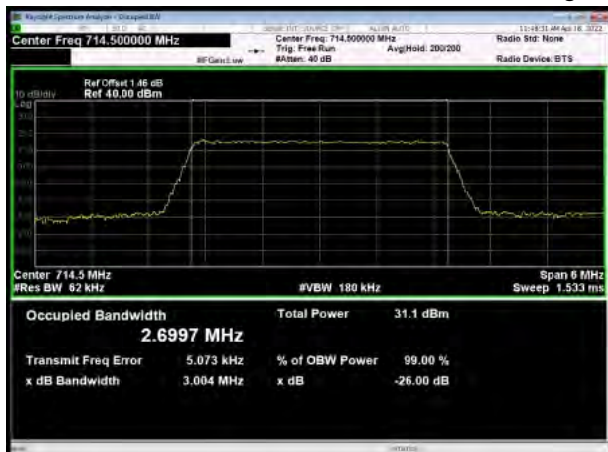
LTE band 28 subset 1 16QAM 3MHz CH-Middle



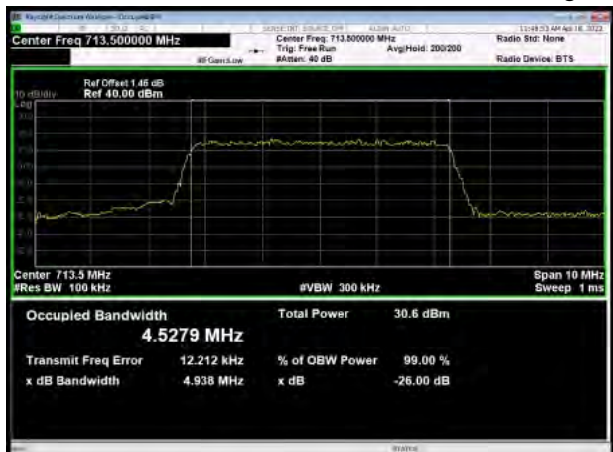
LTE band 28 subset 1 16QAM 5MHz CH-Middle

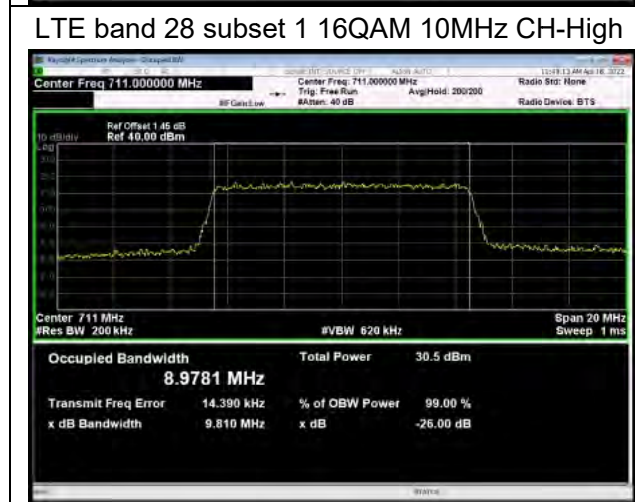
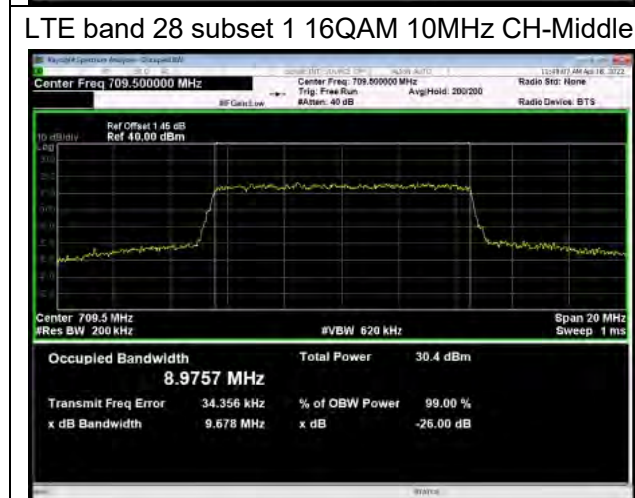
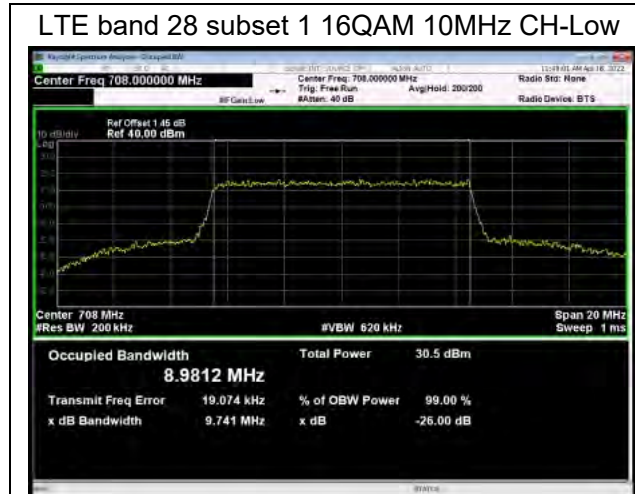


LTE band 28 subset 1 16QAM 3MHz CH-High



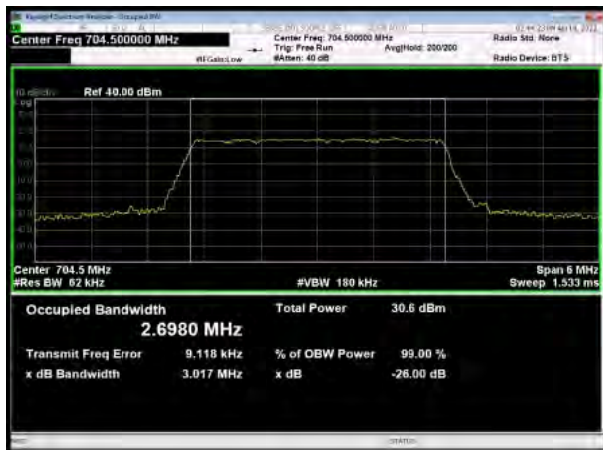
LTE band 28 subset 1 16QAM 5MHz CH-High







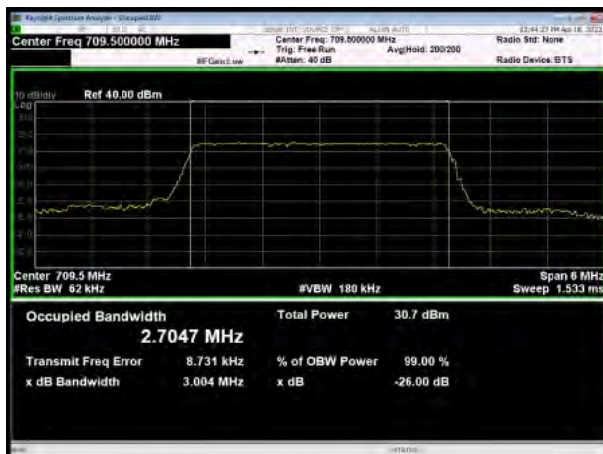
LTE band 28 subset 1 64QAM 3MHz CH-Low



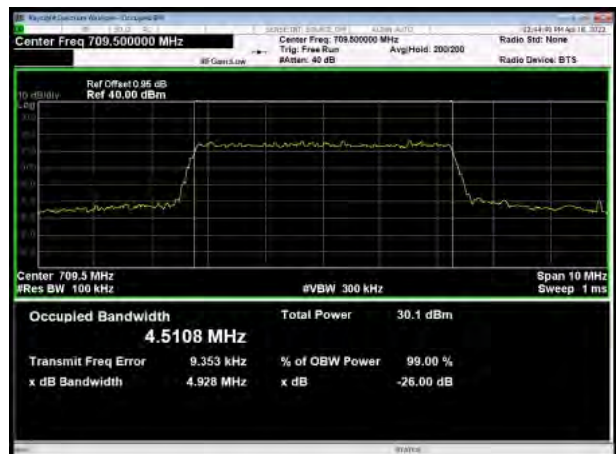
LTE band 28 subset 1 64QAM 5MHz CH-Low



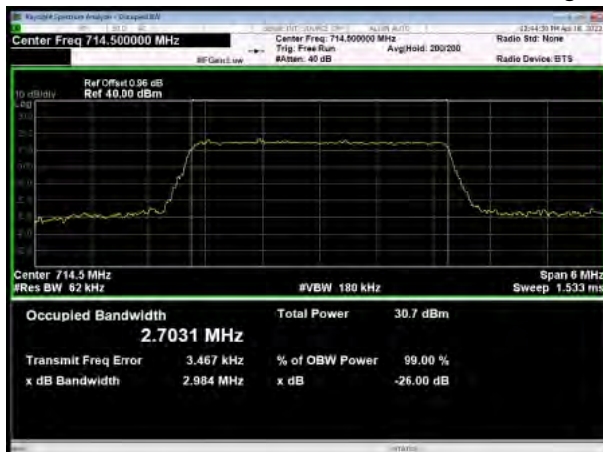
LTE band 28 subset 1 64QAM 3MHz CH-Middle



LTE band 28 subset 1 64QAM 5MHz CH-Middle



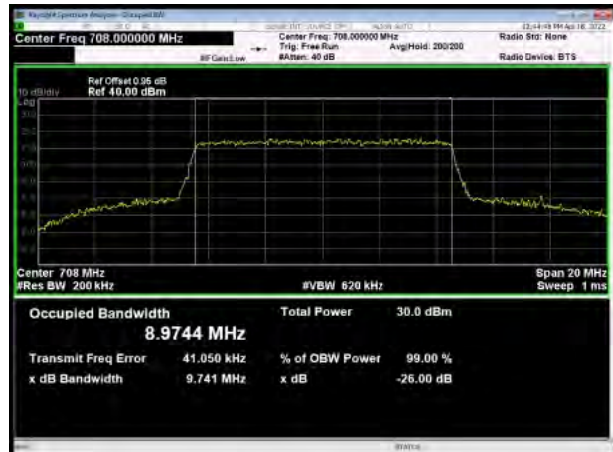
LTE band 28 subset 1 64QAM 3MHz CH-High



LTE band 28 subset 1 64QAM 5MHz CH-High



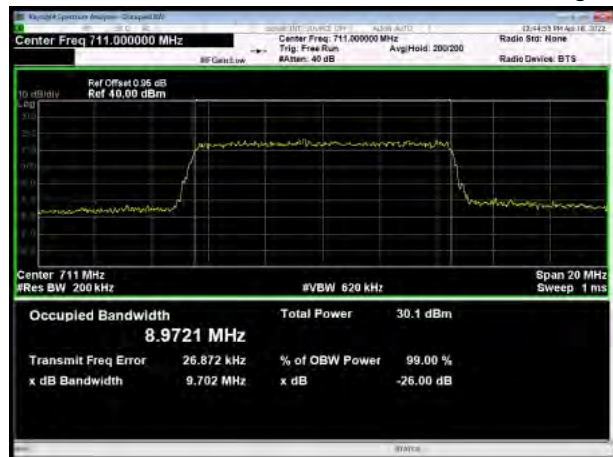
LTE band 28 subset 1 64QAM 10MHz CH-Low



LTE band 28 subset 1 64QAM 10MHz CH-Middle

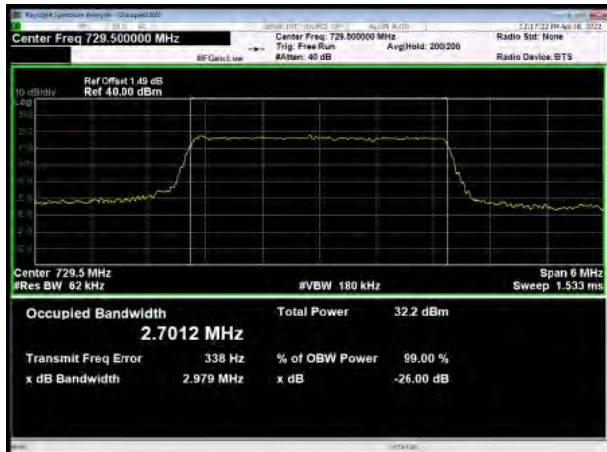


LTE band 28 subset 1 64QAM 10MHz CH-High

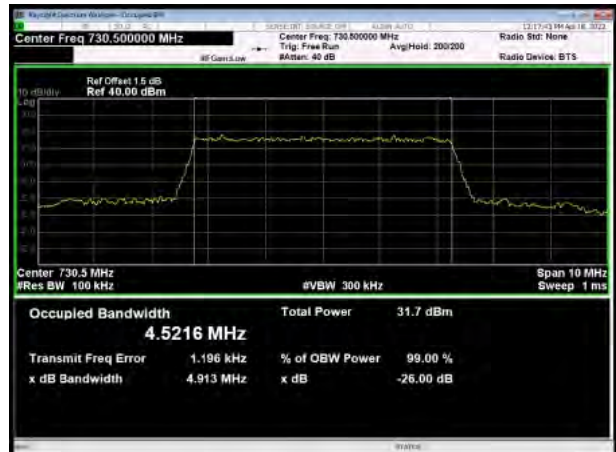




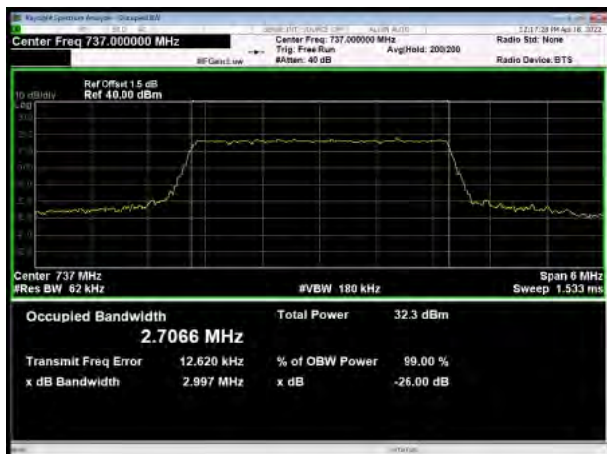
LTE band 28 subset 2 QPSK 3MHz CH-Low



LTE band 28 subset 2 QPSK 5MHz CH-Low



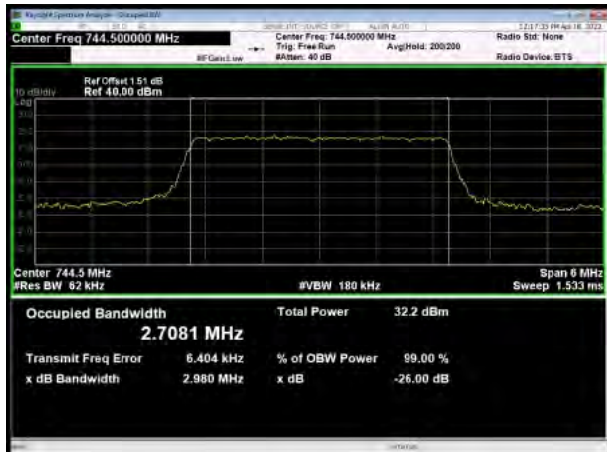
LTE band 28 subset 2 QPSK 3MHz CH-Middle



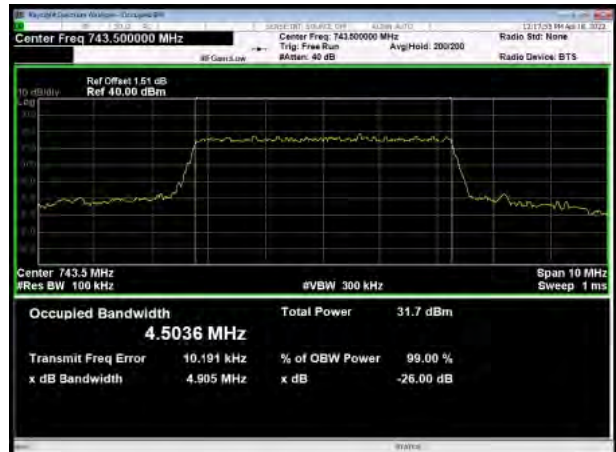
LTE band 28 subset 2 QPSK 5MHz CH-Middle



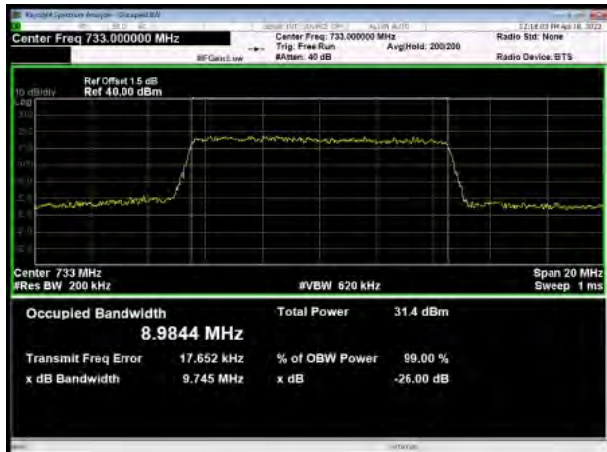
LTE band 28 subset 2 QPSK 3MHz CH-High



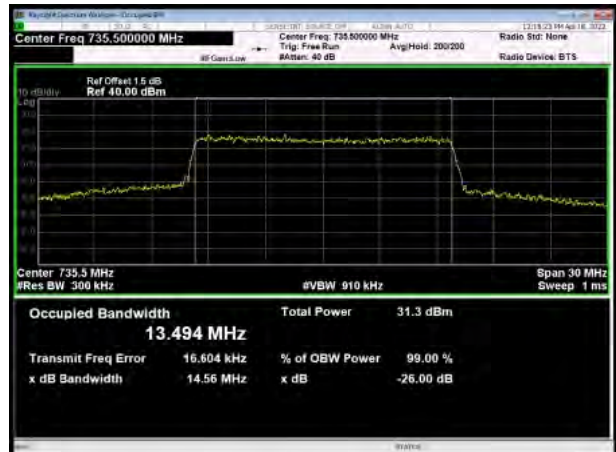
LTE band 28 subset 2 QPSK 5MHz CH-High



LTE band 28 subset 2 QPSK 10MHz CH-Low



LTE band 28 subset 2 QPSK 15MHz CH-Low



LTE band 28 subset 2 QPSK 10MHz CH-Middle



LTE band 28 subset 2 QPSK 15MHz CH-Middle



LTE band 28 subset 2 QPSK 10MHz CH-High

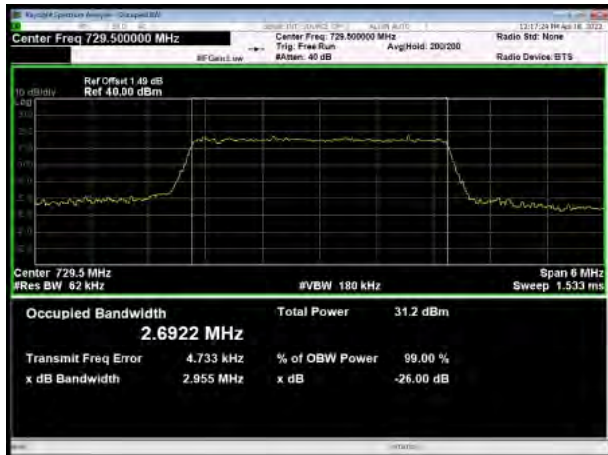


LTE band 28 subset 2 QPSK 15MHz CH-High





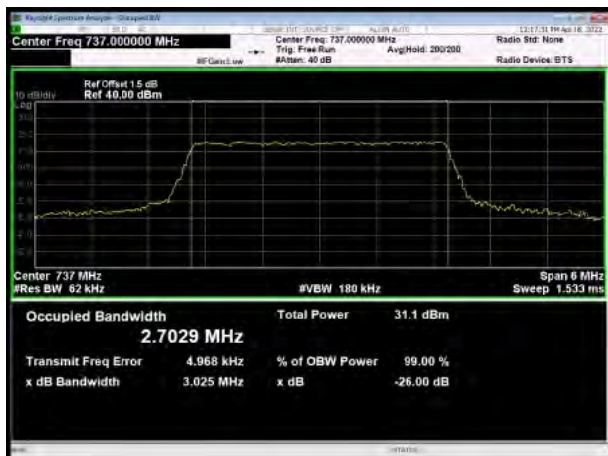
LTE band 28 subset 2 16QAM 3MHz CH-Low



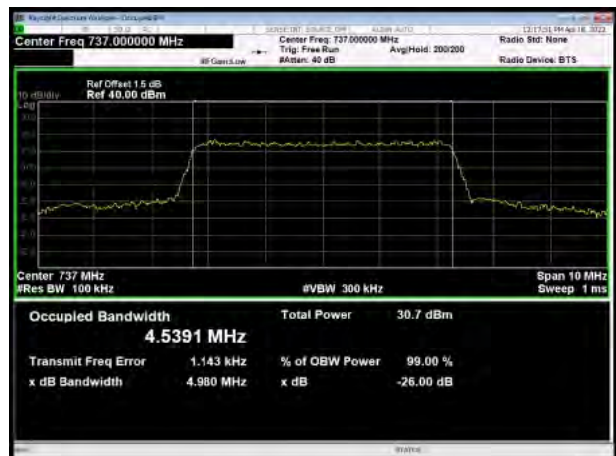
LTE band 28 subset 2 16QAM 5MHz CH-Low



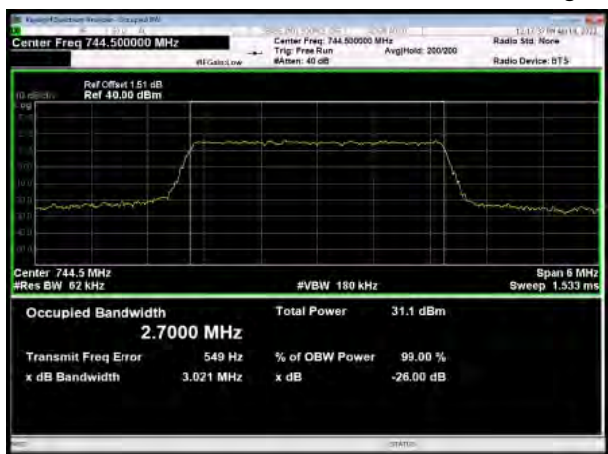
LTE band 28 subset 2 16QAM 3MHz CH-Middle



LTE band 28 subset 2 16QAM 5MHz CH-Middle



LTE band 28 subset 2 16QAM 3MHz CH-High

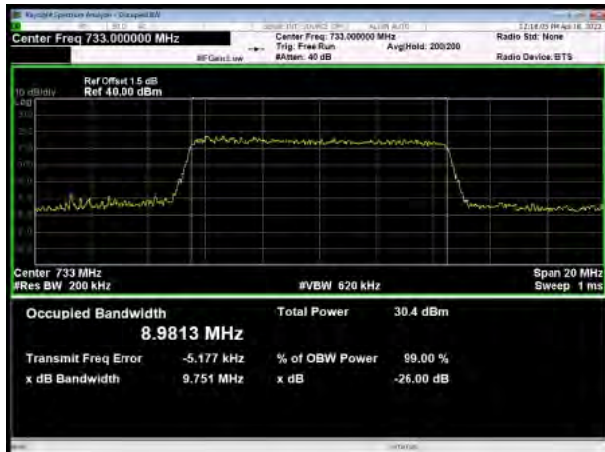


LTE band 28 subset 2 16QAM 5MHz CH-High

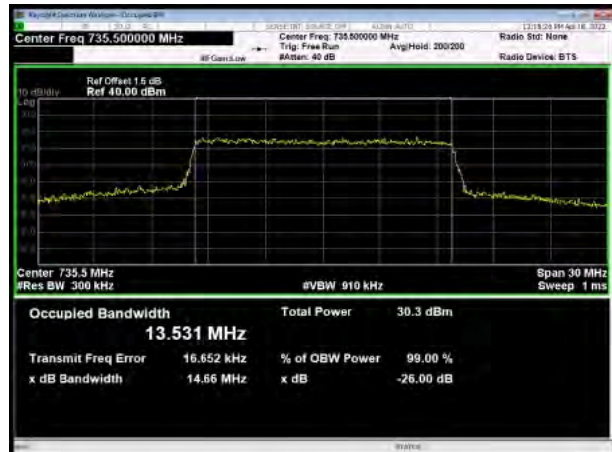




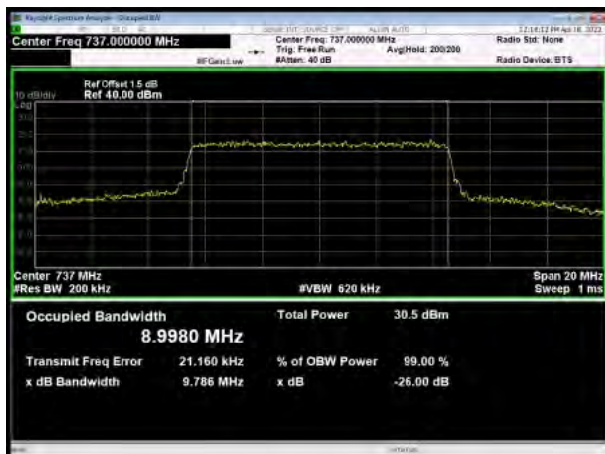
LTE band 28 subset 2 16QAM 10MHz CH-Low



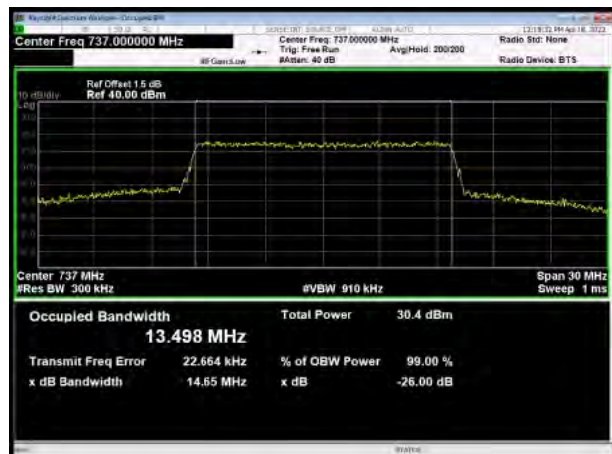
LTE band 28 subset 2 16QAM 15MHz CH-Low



LTE band 28 subset 2 16QAM 10MHz CH-Middle



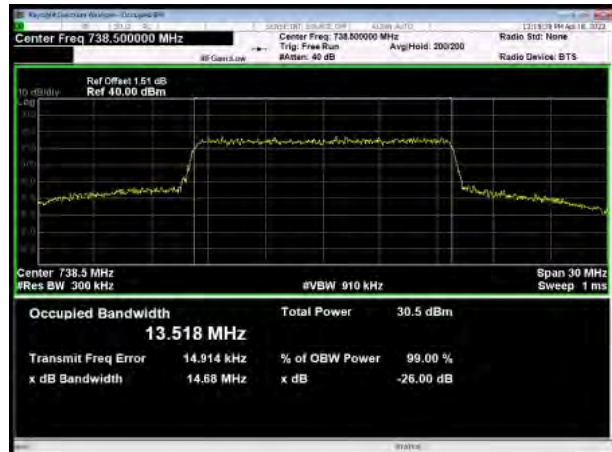
LTE band 28 subset 2 16QAM 15MHz CH-Middle



LTE band 28 subset 2 16QAM 10MHz CH-High



LTE band 28 subset 2 16QAM 15MHz CH-High

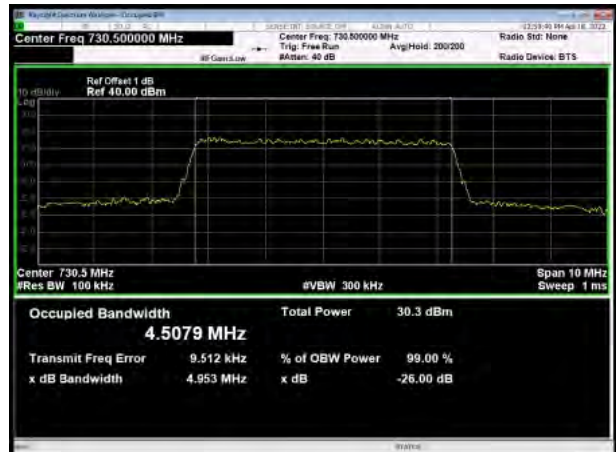




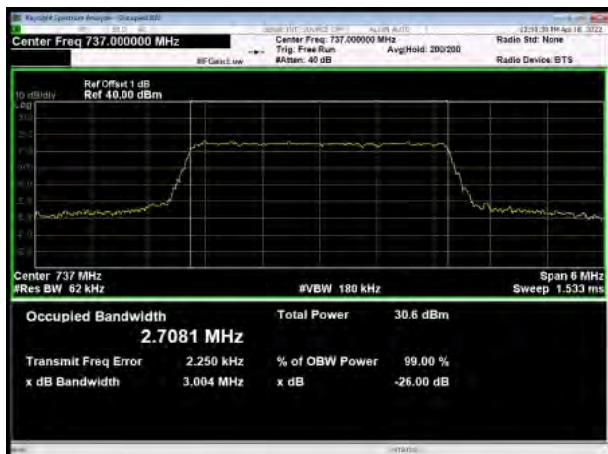
LTE band 28 subset 2 64QAM 3MHz CH-Low



LTE band 28 subset 2 64QAM 5MHz CH-Low



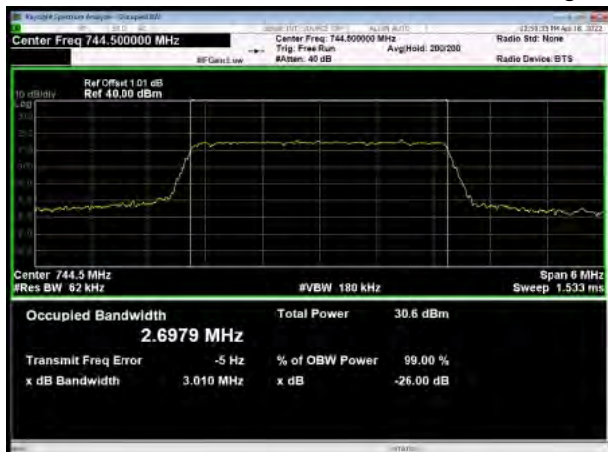
LTE band 28 subset 2 64QAM 3MHz CH-Middle



LTE band 28 subset 2 64QAM 5MHz CH-Middle



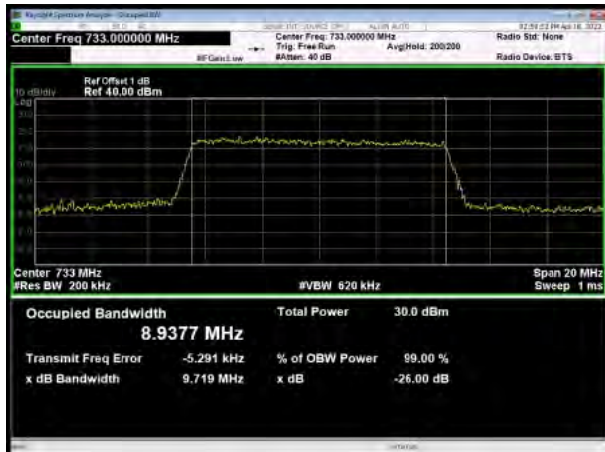
LTE band 28 subset 2 64QAM 3MHz CH-High



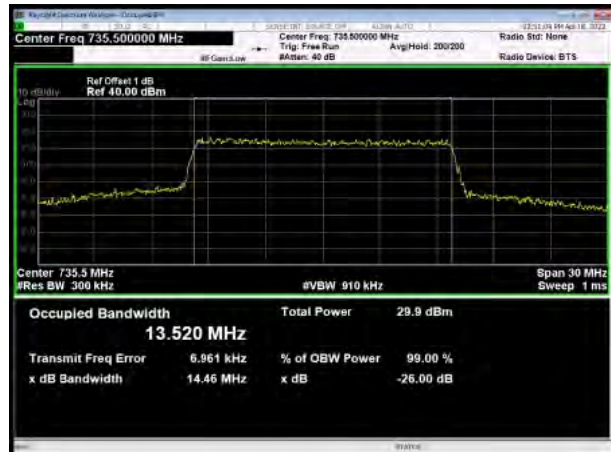
LTE band 28 subset 2 64QAM 5MHz CH-High



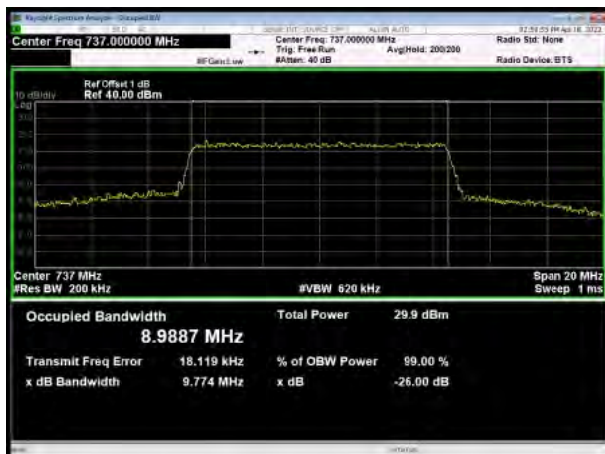
LTE band 28 subset 2 64QAM 10MHz CH-Low



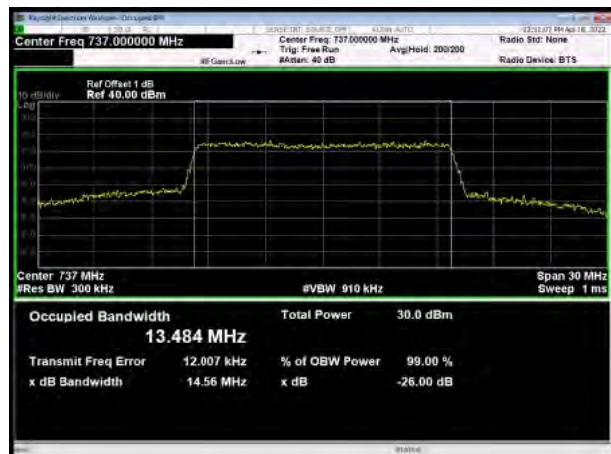
LTE band 28 subset 2 64QAM 15MHz CH-Low



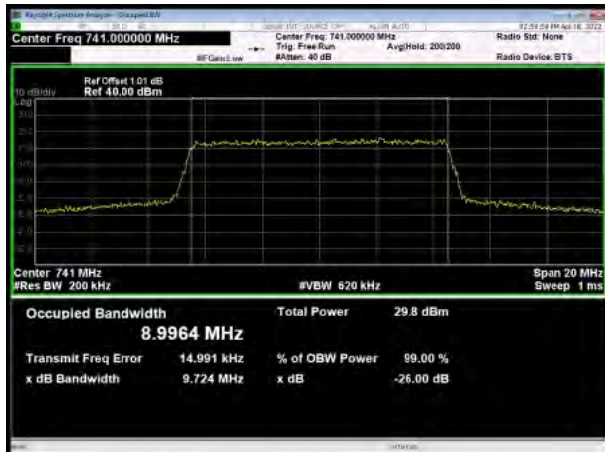
LTE band 28 subset 2 64QAM 10MHz CH-Middle



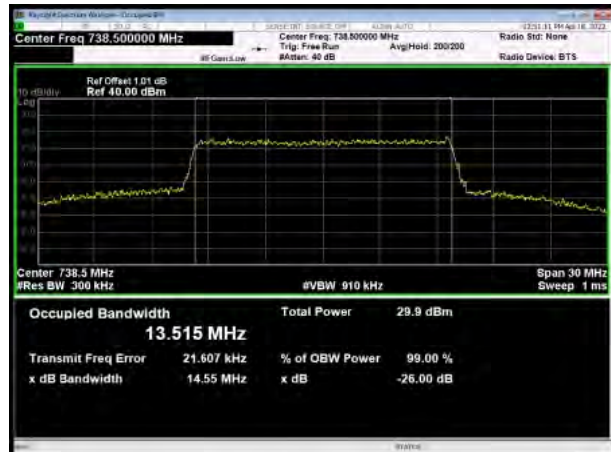
LTE band 28 subset 2 64QAM 15MHz CH-Middle



LTE band 28 subset 2 64QAM 10MHz CH-High

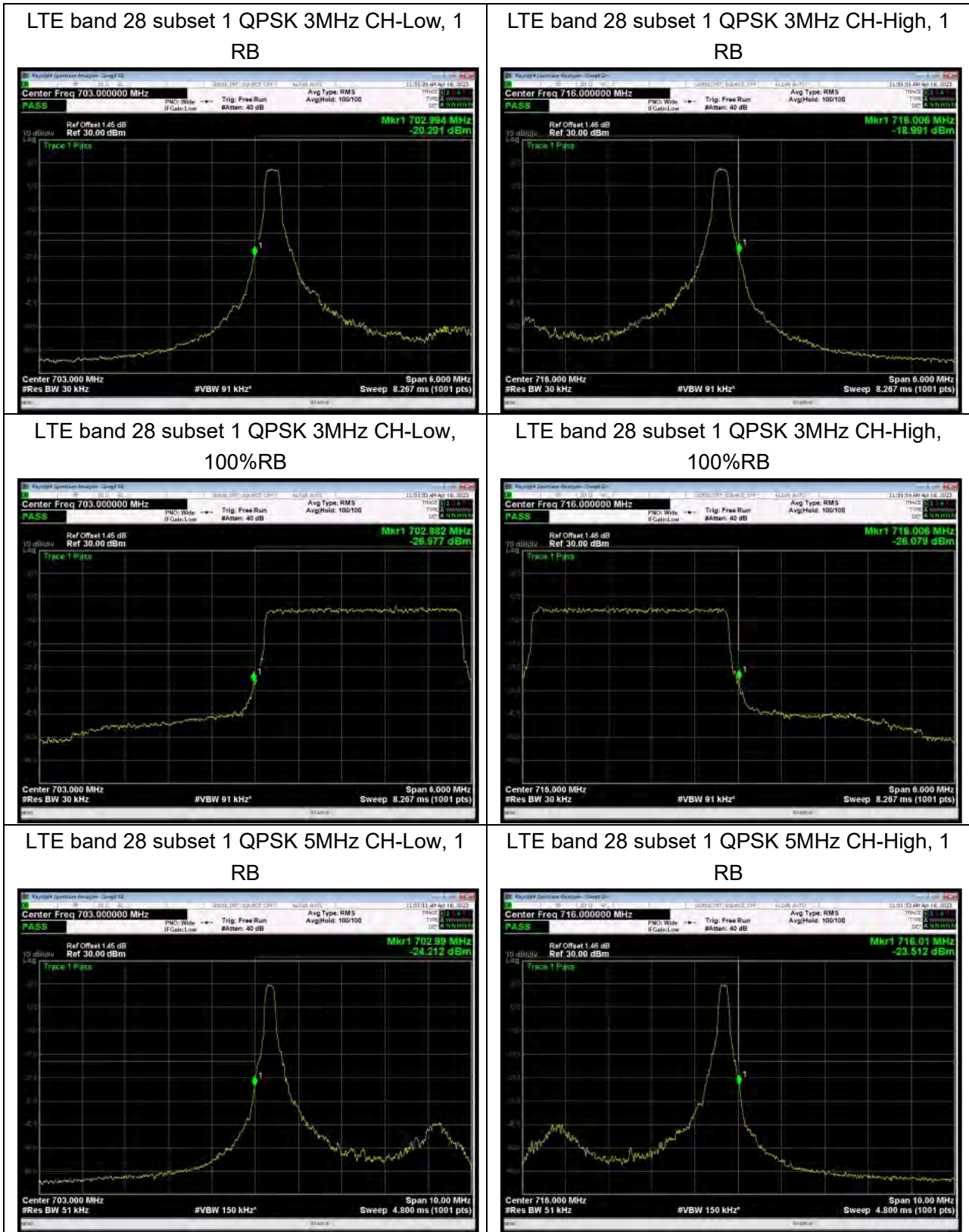


LTE band 28 subset 2 64QAM 15MHz CH-High



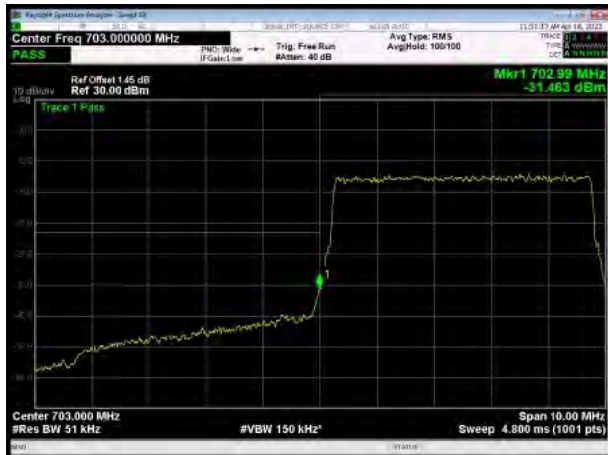
6.3 Band Edge Compliance

All the test traces in the plots shows the test results clearly.





LTE band 28 subset 1 QPSK 5MHz CH-Low, 100%RB



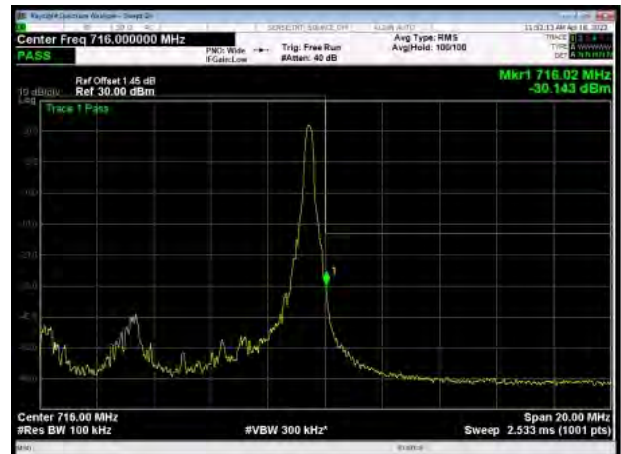
LTE band 28 subset 1 QPSK 5MHz CH-High, 100%RB



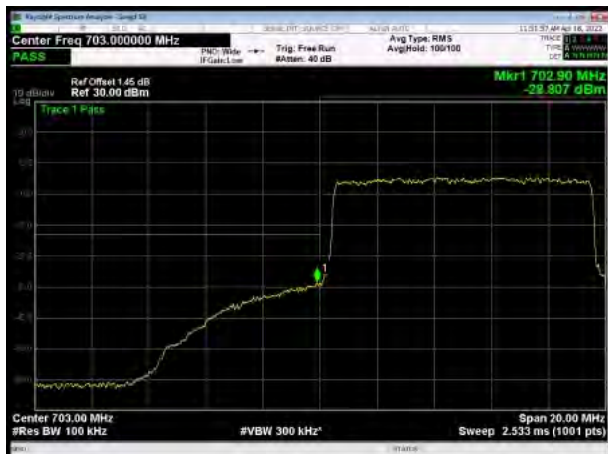
LTE band 28 subset 1 QPSK 10MHz CH-Low, 1 RB



LTE band 28 subset 1 QPSK 10MHz CH-High, 1 RB



LTE band 28 subset 1 QPSK 10MHz CH-Low, 100%RB

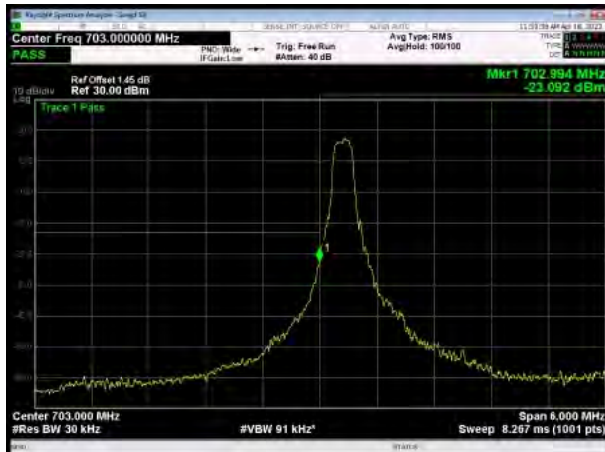


LTE band 28 subset 1 QPSK 10MHz CH-High, 100%RB

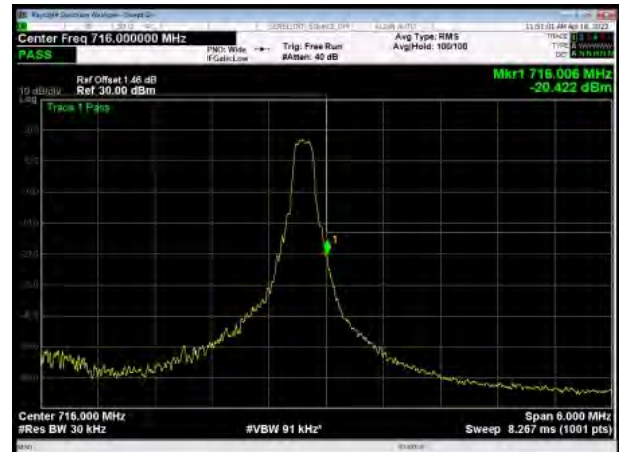




LTE band 28 subset 1 16QAM 3MHz CH-Low, 1 RB



LTE band 28 subset 1 16QAM 3MHz CH-High, 1 RB



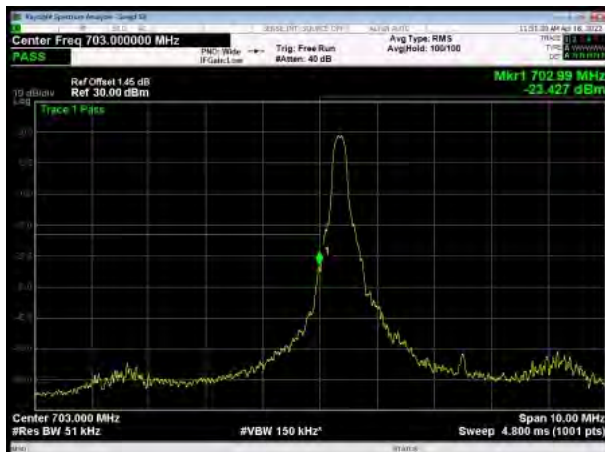
LTE band 28 subset 1 16QAM 3MHz CH-Low, 100%RB



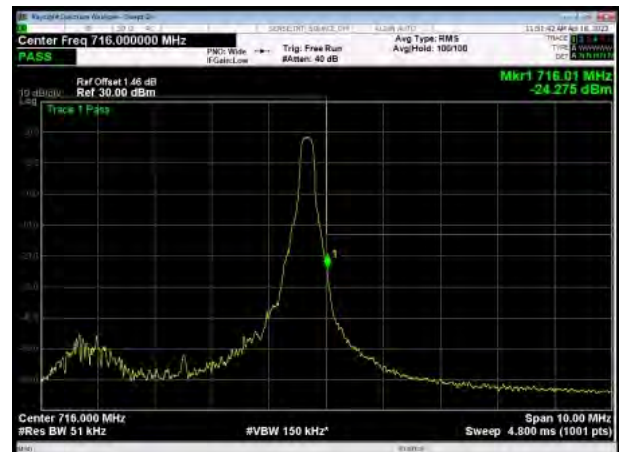
LTE band 28 subset 1 16QAM 3MHz CH-High, 100%RB



LTE band 28 subset 1 16QAM 5MHz CH-Low, 1 RB

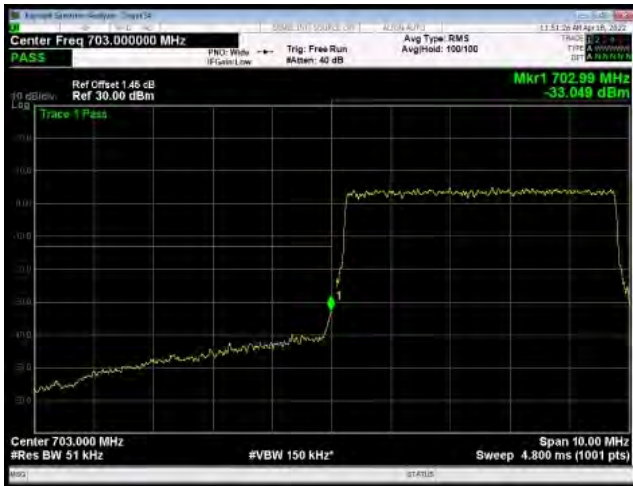


LTE band 28 subset 1 16QAM 5MHz CH-High, 1 RB

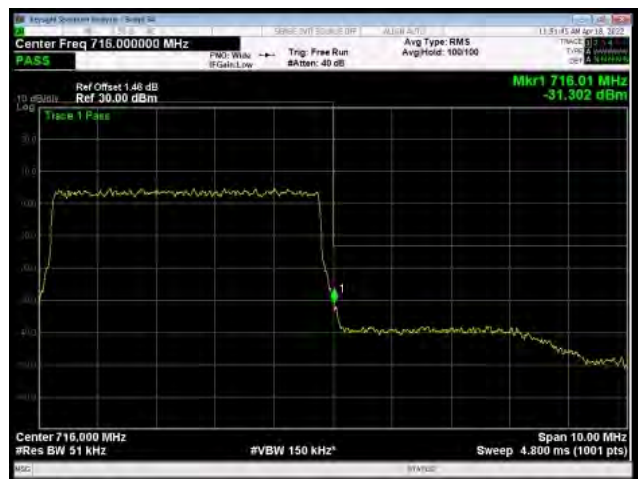




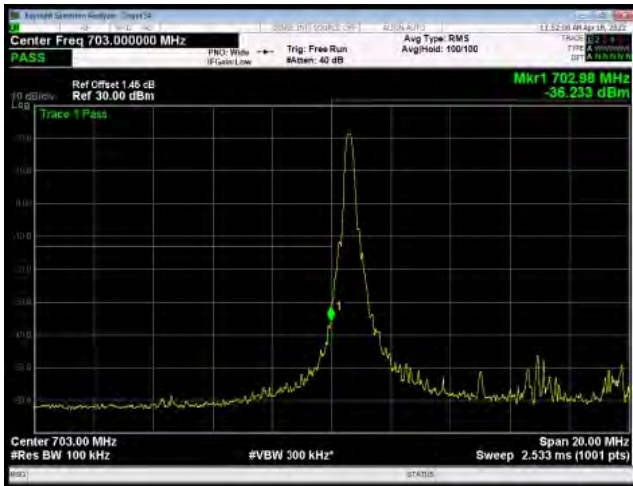
LTE band 28 subset 1 16QAM 5MHz CH-Low, 100%RB



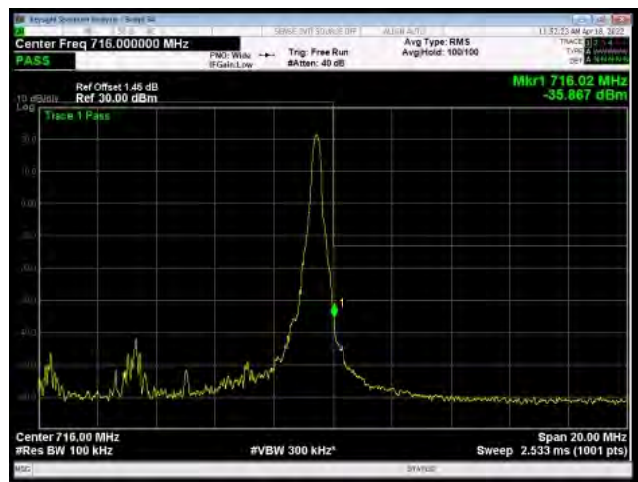
LTE band 28 subset 1 16QAM 5MHz CH-High, 100%RB



LTE band 28 subset 1 16QAM 10MHz CH-Low, 1 RB



LTE band 28 subset 1 16QAM 10MHz CH-High, 1 RB



LTE band 28 subset 1 16QAM 10MHz CH-Low, 100%RB

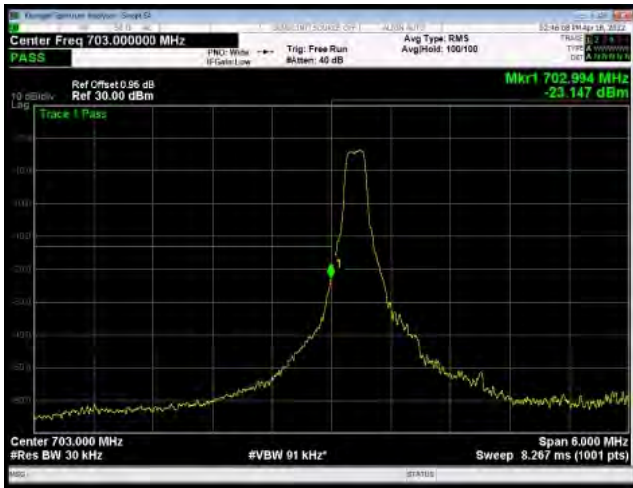


LTE band 28 subset 1 16QAM 10MHz CH-High, 100%RB

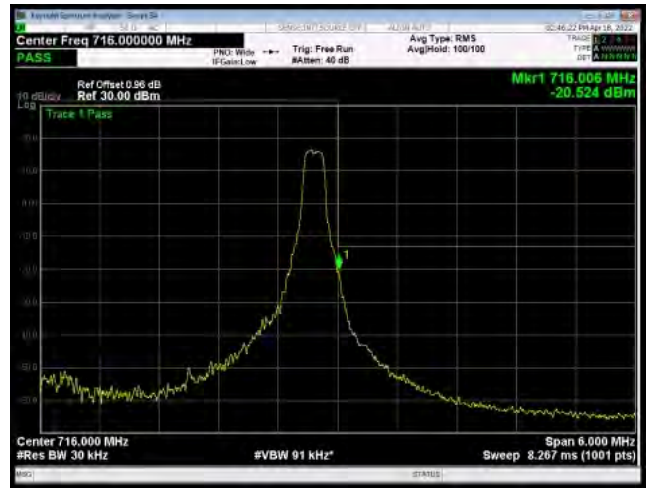




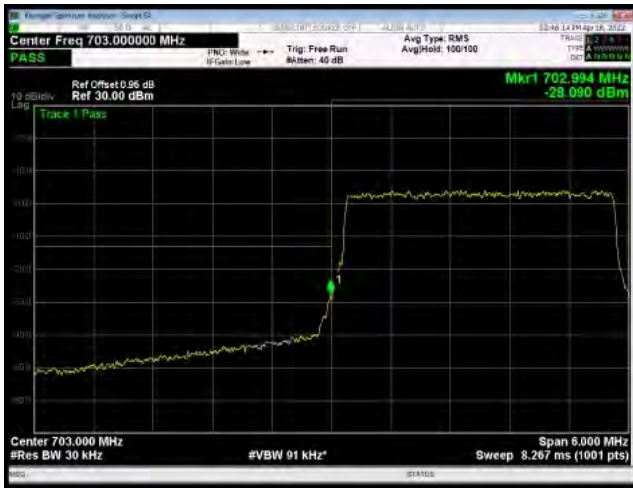
LTE band 28 subset 1 64QAM 3MHz CH-Low, 1 RB



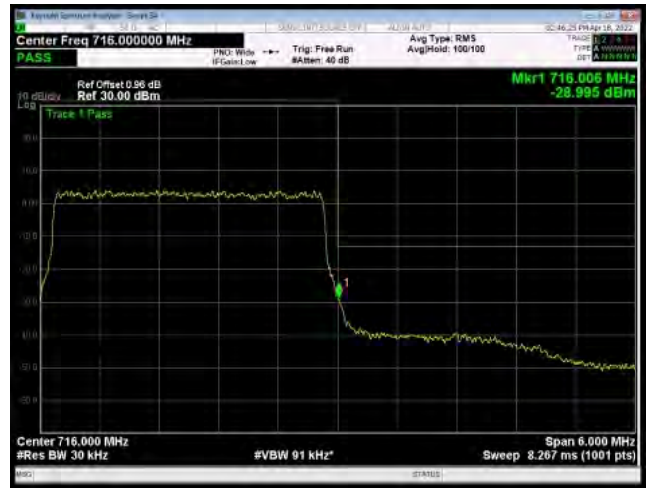
LTE band 28 subset 1 64QAM 3MHz CH-High, 1 RB



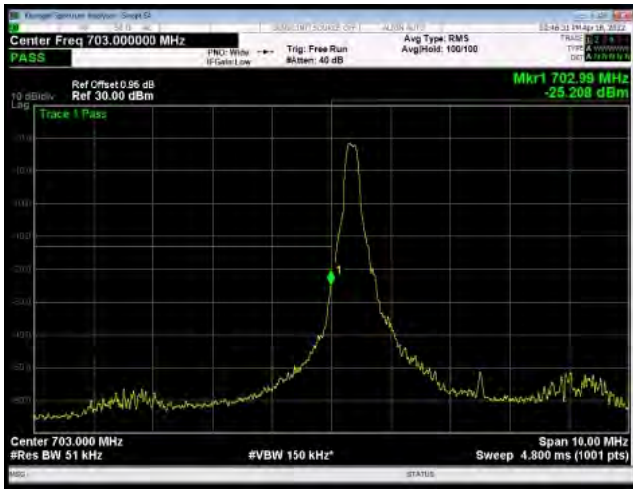
LTE band 28 subset 1 64QAM 3MHz CH-Low, 100%RB



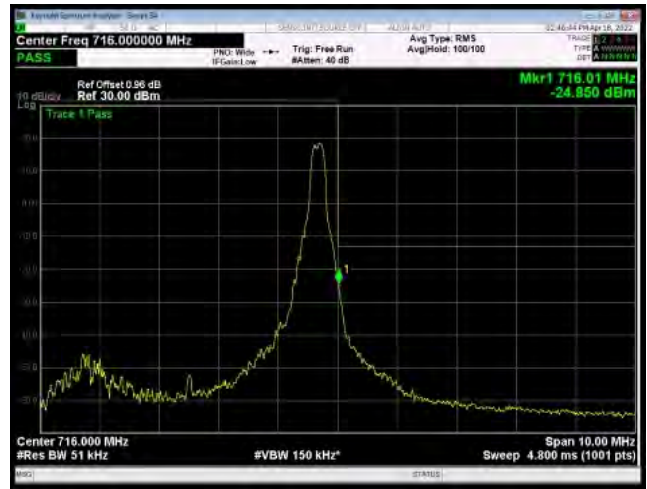
LTE band 28 subset 1 64QAM 3MHz CH-High, 100%RB



LTE band 28 subset 1 64QAM 5MHz CH-Low, 1 RB

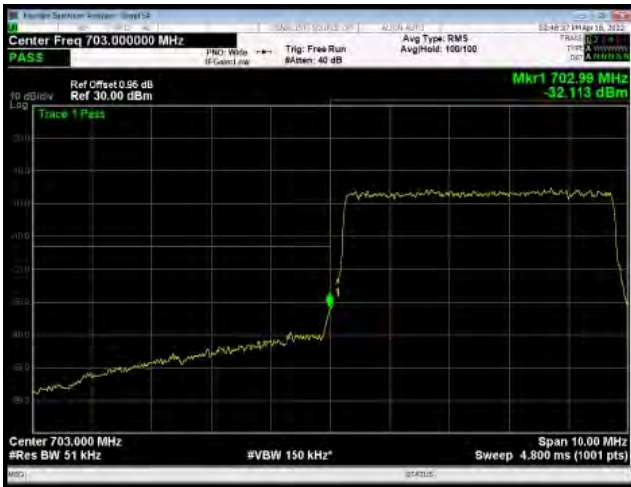


LTE band 28 subset 1 64QAM 5MHz CH-High, 1 RB





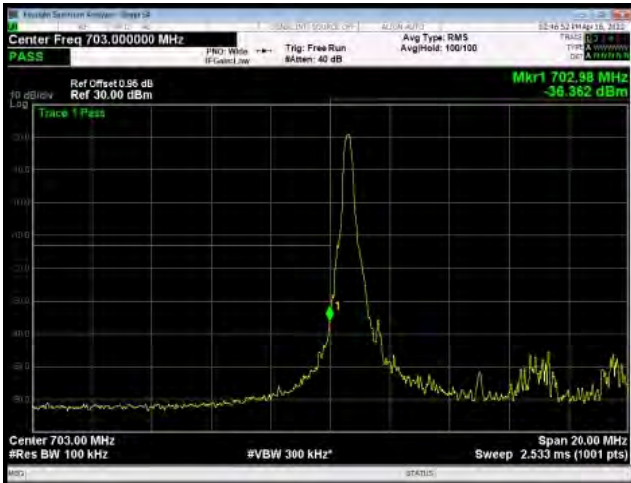
LTE band 28 subset 1 64QAM 5MHz CH-Low, 100%RB



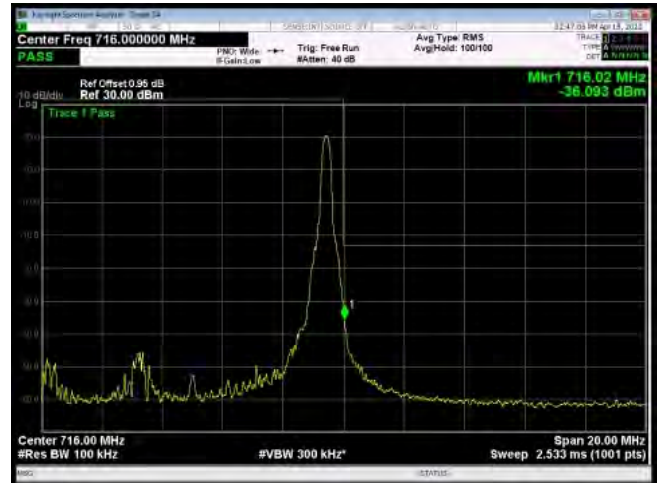
LTE band 28 subset 1 64QAM 5MHz CH-High, 100%RB



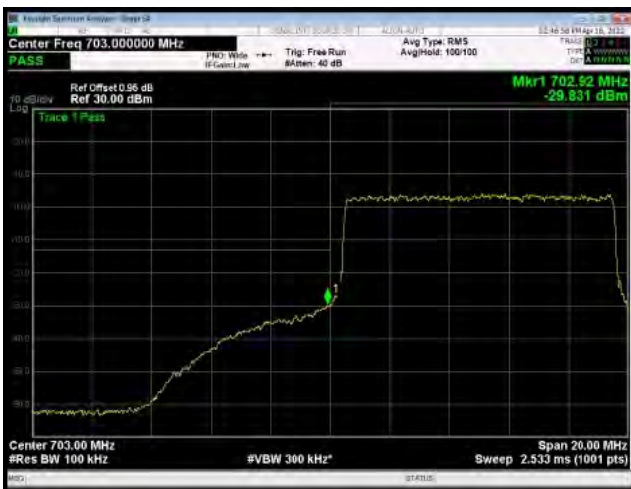
LTE band 28 subset 1 64QAM 10MHz CH-Low, 1 RB



LTE band 28 subset 1 64QAM 10MHz CH-High, 1 RB



LTE band 28 subset 1 64QAM 10MHz CH-Low, 100%RB

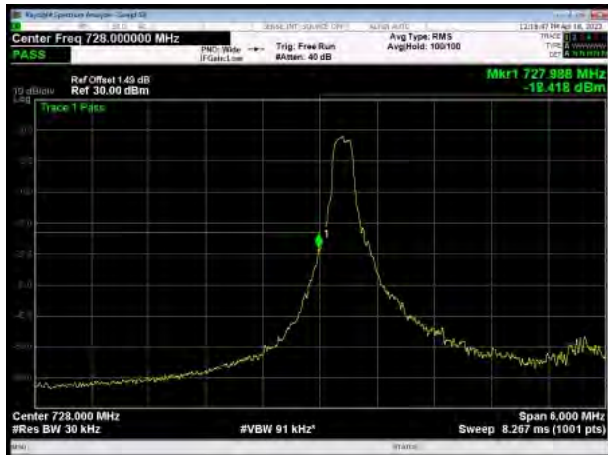


LTE band 28 subset 1 64QAM 10MHz CH-High, 100%RB

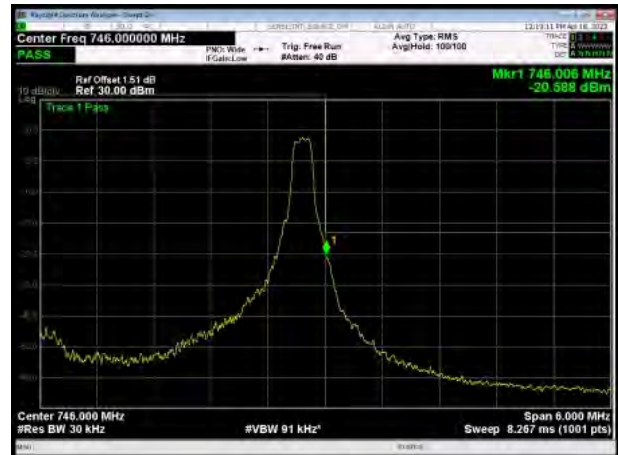




LTE band 28 subset 2 QPSK 3MHz CH-Low, 1 RB



LTE band 28 subset 2 QPSK 3MHz CH-High, 1 RB



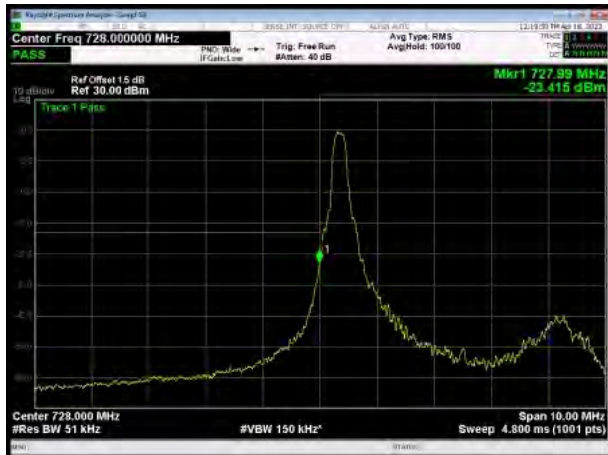
LTE band 28 subset 2 QPSK 3MHz CH-Low, 100%RB



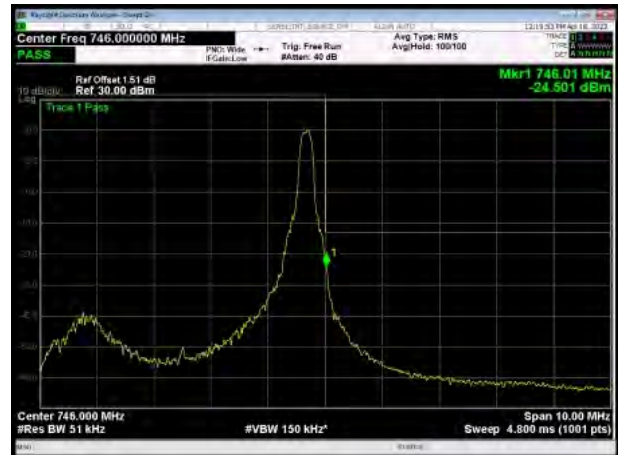
LTE band 28 subset 2 QPSK 3MHz CH-High, 100%RB



LTE band 28 subset 2 QPSK 5MHz CH-Low, 1 RB



LTE band 28 subset 2 QPSK 5MHz CH-High, 1 RB

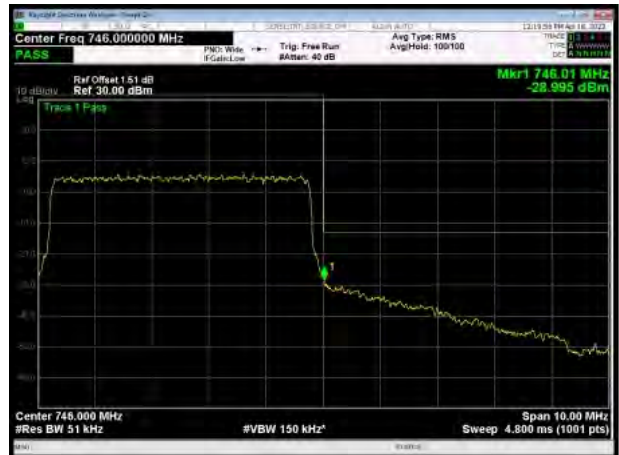




LTE band 28 subset 2 QPSK 5MHz CH-Low, 100%RB



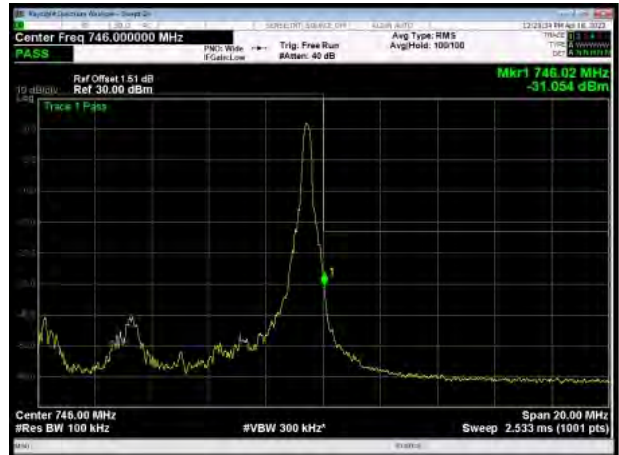
LTE band 28 subset 2 QPSK 5MHz CH-High, 100%RB



LTE band 28 subset 2 QPSK 10MHz CH-Low, 1 RB



LTE band 28 subset 2 QPSK 10MHz CH-High, 1 RB



LTE band 28 subset 2 QPSK 10MHz CH-Low, 100%RB

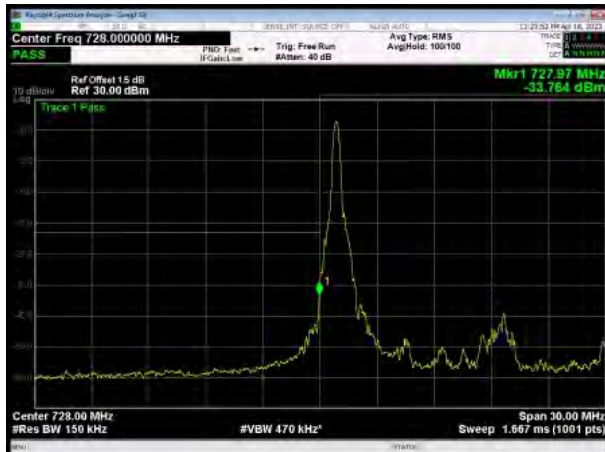


LTE band 28 subset 2 QPSK 10MHz CH-High, 100%RB





LTE band 28 subset 2 QPSK 15MHz CH-Low, 1 RB



LTE band 28 subset 2 QPSK 15MHz CH-High, 1 RB



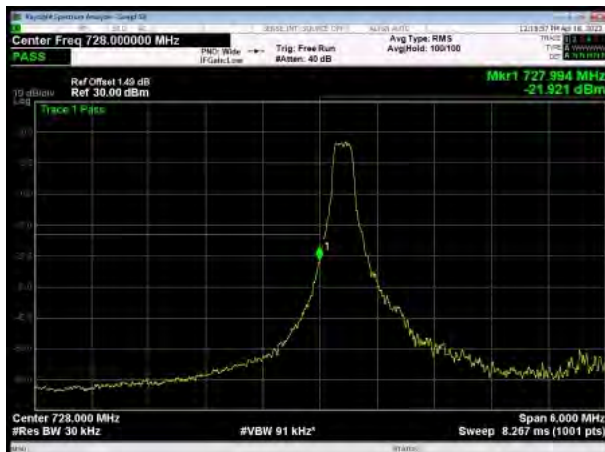
LTE band 28 subset 2 QPSK 15MHz CH-Low, 100%RB



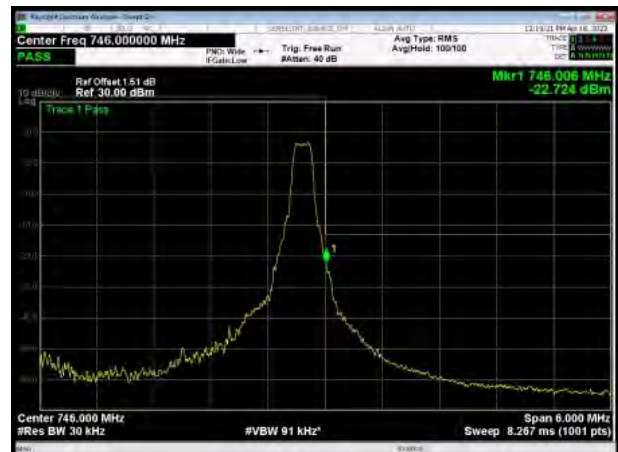
LTE band 28 subset 2 QPSK 15MHz CH-High, 100%RB



LTE band 28 subset 2 16QAM 3MHz CH-Low, 1 RB



LTE band 28 subset 2 16QAM 3MHz CH-High, 1 RB





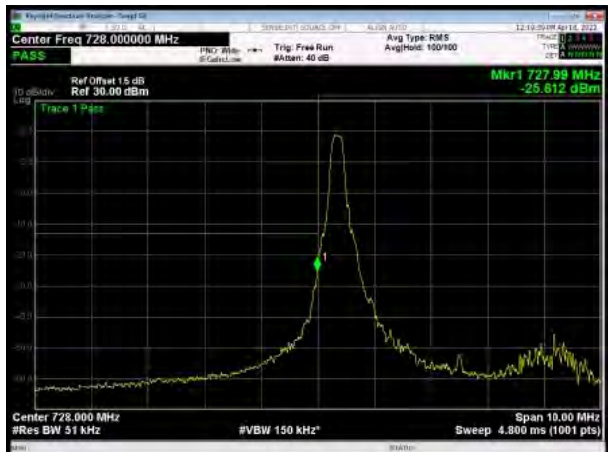
LTE band 28 subset 2 16QAM 3MHz CH-Low, 100%RB



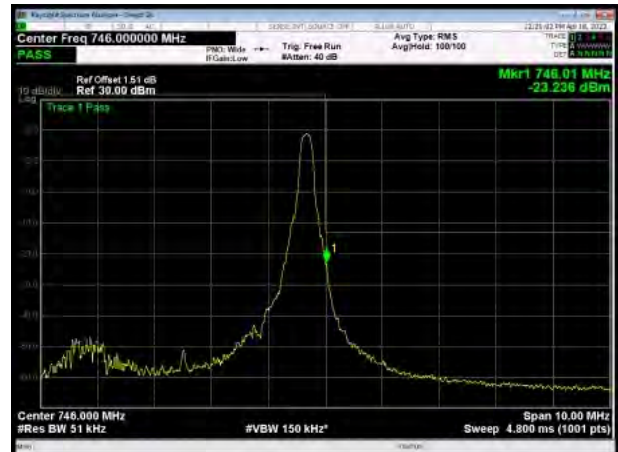
LTE band 28 subset 2 16QAM 3MHz CH-High, 100%RB



LTE band 28 subset 2 16QAM 5MHz CH-Low, 1 RB



LTE band 28 subset 2 16QAM 5MHz CH-High, 1 RB



LTE band 28 subset 2 16QAM 5MHz CH-Low, 100%RB

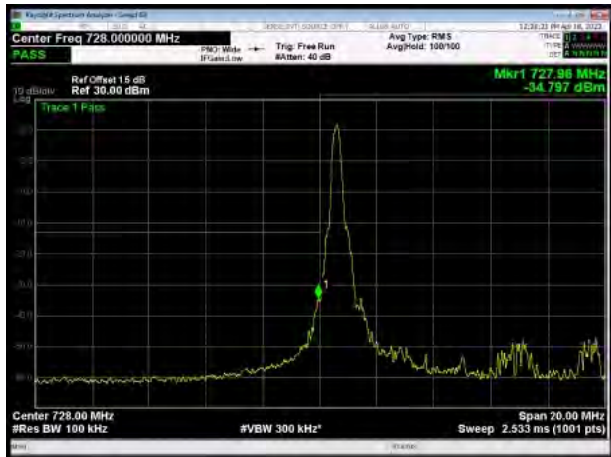


LTE band 28 subset 2 16QAM 5MHz CH-High, 100%RB

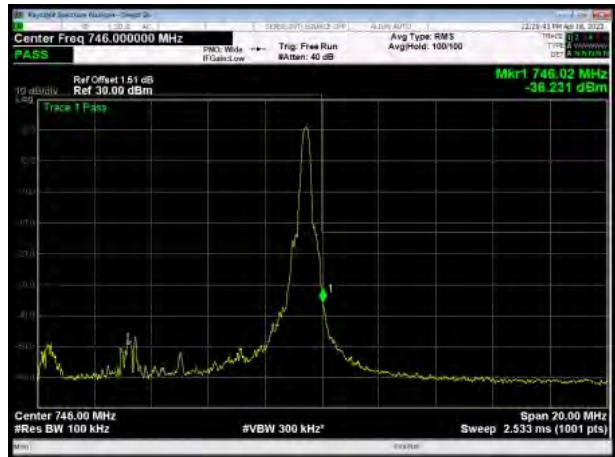




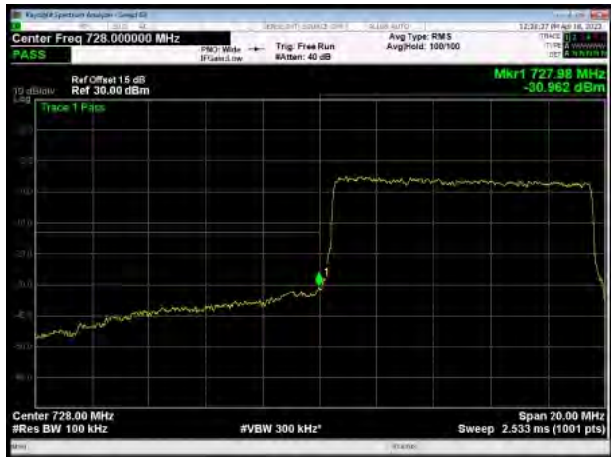
LTE band 28 subset 2 16QAM 10MHz CH-Low, 1 RB



LTE band 28 subset 2 16QAM 10MHz CH-High, 1 RB



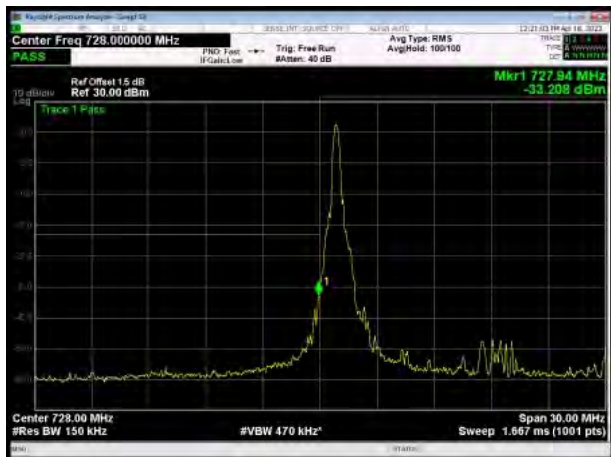
LTE band 28 subset 2 16QAM 10MHz CH-Low, 100%RB



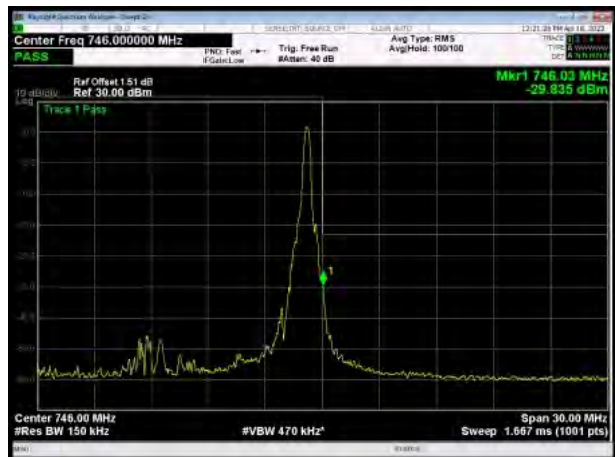
LTE band 28 subset 2 16QAM 10MHz CH-High, 100%RB



LTE band 28 subset 2 16QAM 15MHz CH-Low, 1 RB



LTE band 28 subset 2 16QAM 15MHz CH-High, 1 RB





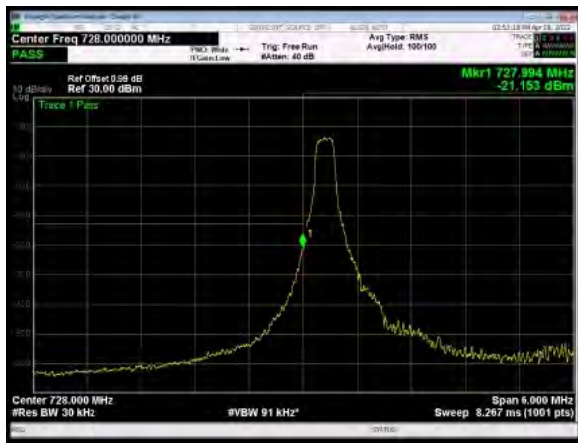
LTE band 28 subset 2 16QAM 15MHz
CH-Low, 100%RB



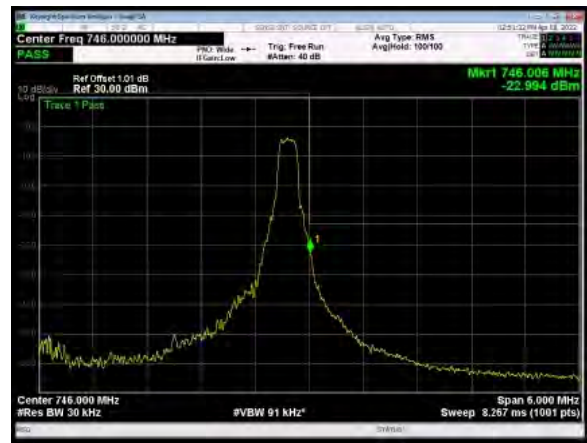
LTE band 28 subset 2 16QAM 15MHz
CH-High, 100%RB



LTE band 28 subset 2 64QAM 3MHz CH-Low,
1 RB



LTE band 28 subset 2 64QAM 3MHz CH-High,
1 RB



LTE band 28 subset 2 64QAM 3MHz CH-Low,
100%RB

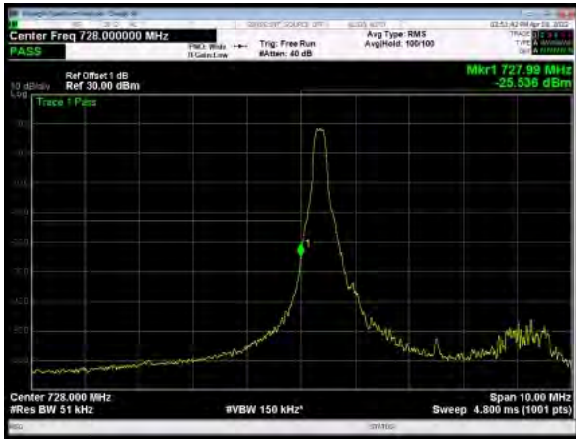


LTE band 28 subset 2 64QAM 3MHz CH-High,
100%RB

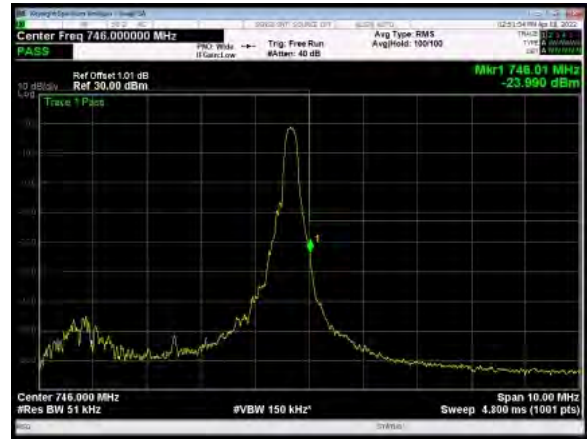




LTE band 28 subset 2 64QAM 5MHz CH-Low, 1 RB



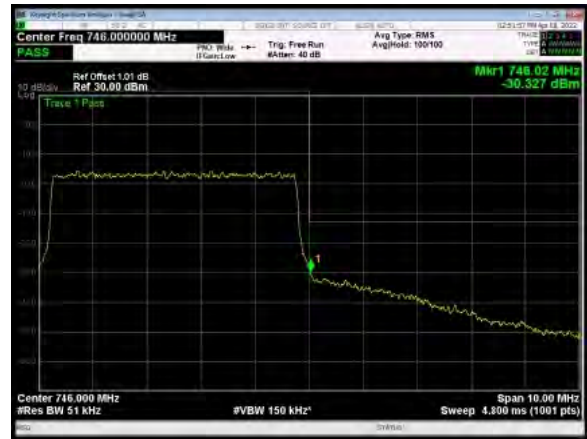
LTE band 28 subset 2 64QAM 5MHz CH-High, 1 RB



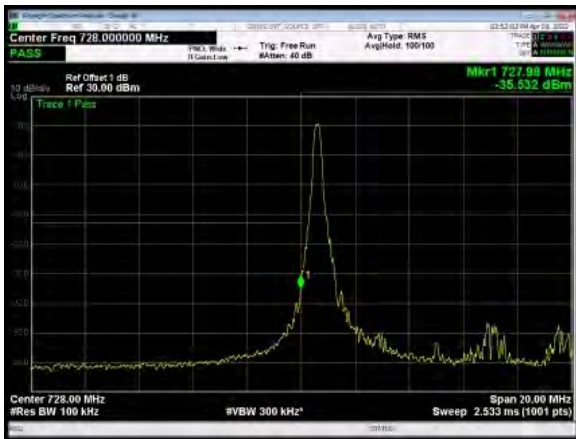
LTE band 28 subset 2 64QAM 5MHz CH-Low, 100%RB



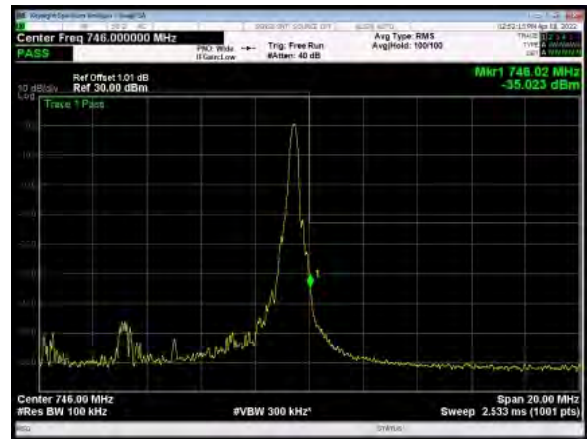
LTE band 28 subset 2 64QAM 5MHz CH-High, 100%RB



LTE band 28 subset 2 64QAM 10MHz CH-Low, 1 RB



LTE band 28 subset 2 64QAM 10MHz CH-High, 1 RB





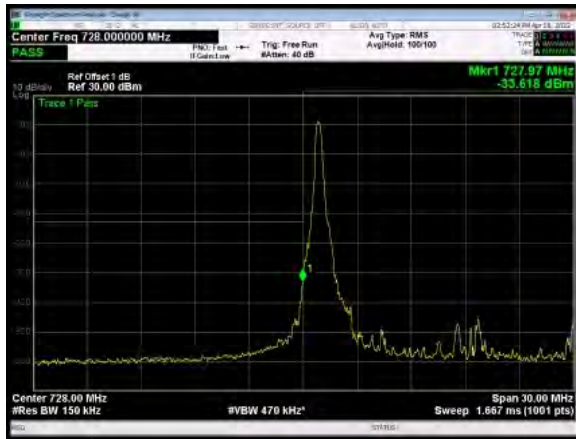
LTE band 28 subset 2 64QAM 10MHz
CH-Low, 100%RB



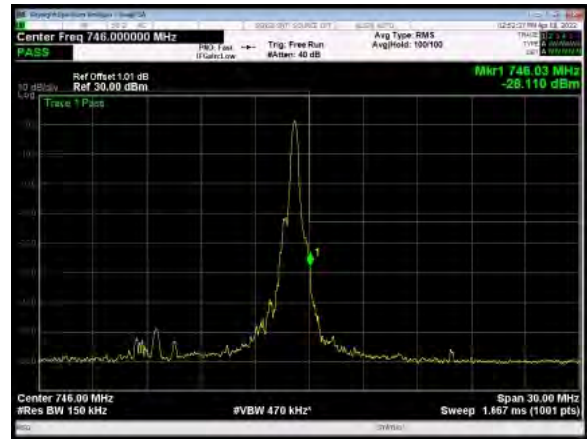
LTE band 28 subset 2 64QAM 10MHz
CH-High, 100%RB



LTE band 28 subset 2 64QAM 15MHz
CH-Low, 1 RB



LTE band 28 subset 2 64QAM 15MHz
CH-High, 1 RB



LTE band 28 subset 2 64QAM 15MHz
CH-Low, 100%RB



LTE band 28 subset 2 64QAM 15MHz
CH-High, 100%RB



6.4 Peak-to-Average Power Ratio (PAPR)

LTE Band 28 Subset 1							
Modulation	Bandwidth (MHz)	Channel	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	3	L	28.83	23.59	5.24	≤13	PASS
		M	28.68	23.58	5.10	≤13	PASS
		H	28.75	23.56	5.19	≤13	PASS
	5	L	28.89	23.62	5.27	≤13	PASS
		M	28.76	23.61	5.15	≤13	PASS
		H	28.79	23.60	5.19	≤13	PASS
	10	L	28.83	23.61	5.22	≤13	PASS
		M	28.76	23.60	5.16	≤13	PASS
		H	28.64	23.64	5.00	≤13	PASS
16QAM	3	L	28.69	22.68	6.01	≤13	PASS
		M	28.53	22.60	5.93	≤13	PASS
		H	28.59	22.56	6.03	≤13	PASS
	5	L	28.67	22.59	6.08	≤13	PASS
		M	28.53	22.62	5.91	≤13	PASS
		H	28.56	22.60	5.96	≤13	PASS
	10	L	28.54	22.60	5.94	≤13	PASS
		M	28.53	22.58	5.95	≤13	PASS
		H	28.44	22.58	5.86	≤13	PASS
64QAM	3	L	28.17	22.19	5.98	≤13	PASS
		M	28.05	22.16	5.89	≤13	PASS
		H	28.10	22.13	5.97	≤13	PASS
	5	L	28.19	22.15	6.04	≤13	PASS
		M	28.03	22.17	5.86	≤13	PASS
		H	28.08	22.13	5.95	≤13	PASS
	10	L	28.02	22.12	5.90	≤13	PASS
		M	28.08	22.14	5.94	≤13	PASS
		H	27.93	22.13	5.80	≤13	PASS



LTE Band 28 Subset 2							
Modulation	Bandwidth (MHz)	Channel	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	3	L	29.07	23.64	5.43	≤13	PASS
		M	28.82	23.68	5.14	≤13	PASS
		H	29.05	23.64	5.41	≤13	PASS
	5	L	29.15	23.67	5.48	≤13	PASS
		M	28.91	23.67	5.24	≤13	PASS
		H	29.15	23.61	5.54	≤13	PASS
	10	L	29.04	23.62	5.42	≤13	PASS
		M	29.11	23.67	5.44	≤13	PASS
		H	28.74	23.55	5.19	≤13	PASS
	15	L	29.34	23.41	5.93	≤13	PASS
		M	29.33	23.40	5.93	≤13	PASS
		H	29.11	23.37	5.74	≤13	PASS
16QAM	3	L	28.93	22.63	6.30	≤13	PASS
		M	28.67	22.66	6.01	≤13	PASS
		H	28.89	22.64	6.25	≤13	PASS
	5	L	28.93	22.66	6.27	≤13	PASS
		M	28.69	22.67	6.02	≤13	PASS
		H	28.83	22.62	6.21	≤13	PASS
	10	L	28.80	22.60	6.20	≤13	PASS
		M	28.88	22.65	6.23	≤13	PASS
		H	28.71	22.56	6.15	≤13	PASS
	15	L	29.02	22.44	6.58	≤13	PASS
		M	29.08	22.46	6.62	≤13	PASS
		H	28.85	22.44	6.41	≤13	PASS
64QAM	3	L	28.47	22.19	6.28	≤13	PASS
		M	28.16	22.14	6.02	≤13	PASS
		H	28.40	22.17	6.23	≤13	PASS
	5	L	28.46	22.19	6.27	≤13	PASS
		M	28.19	22.20	5.99	≤13	PASS
		H	28.29	22.11	6.18	≤13	PASS
	10	L	28.34	22.13	6.21	≤13	PASS
		M	28.39	22.18	6.21	≤13	PASS
		H	28.16	22.09	6.07	≤13	PASS
	15	L	28.41	21.94	6.47	≤13	PASS
		M	28.42	21.93	6.49	≤13	PASS
		H	28.29	21.93	6.36	≤13	PASS



6.5 Frequency Stability

LTE Band 28 Subset 1								
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	15.00	17.42	17.53	0.02115	0.02457	0.02473	PASS
Extreme (50°C)		9.53	12.11	7.78	0.01344	0.01708	0.01098	PASS
Extreme (40°C)		15.01	1.83	13.63	0.02117	0.00258	0.01923	PASS
Extreme (30°C)		6.22	4.92	16.47	0.00877	0.00693	0.02323	PASS
Extreme (20°C)		6.98	8.26	13.97	0.00984	0.01165	0.01971	PASS
Extreme (10°C)		13.45	11.63	14.01	0.01897	0.01640	0.01975	PASS
Extreme (0°C)		14.55	16.19	15.09	0.02053	0.02283	0.02128	PASS
Extreme (-10°C)		1.74	9.85	6.63	0.00245	0.01389	0.00935	PASS
Extreme (-20°C)		9.61	1.04	9.80	0.01355	0.00147	0.01383	PASS
Extreme (-30°C)		1.11	17.97	4.52	0.00157	0.02535	0.00637	PASS
25°C	LV	17.19	11.79	16.12	0.02424	0.01663	0.02274	PASS
	HV	9.90	5.87	11.58	0.01396	0.00828	0.01633	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	2.02	16.98	16.83	0.00286	0.02395	0.02373	PASS
Extreme (50°C)		10.95	8.65	3.05	0.01544	0.01220	0.00430	PASS
Extreme (40°C)		16.59	12.63	3.65	0.02340	0.01781	0.00515	PASS
Extreme (30°C)		12.32	1.93	6.97	0.01738	0.00273	0.00983	PASS
Extreme (20°C)		5.72	10.37	13.77	0.00807	0.01463	0.01942	PASS
Extreme (10°C)		9.30	9.82	14.35	0.01311	0.01384	0.02024	PASS
Extreme (0°C)		1.87	13.28	3.19	0.00263	0.01873	0.00449	PASS
Extreme (-10°C)		14.66	9.77	3.63	0.02068	0.01377	0.00512	PASS
Extreme (-20°C)		1.72	16.71	3.49	0.00242	0.02357	0.00492	PASS
Extreme (-30°C)		4.00	16.19	3.25	0.00564	0.02283	0.00458	PASS
25°C	LV	8.34	16.39	8.66	0.01176	0.02312	0.01221	PASS
	HV	12.96	2.49	13.83	0.01828	0.00351	0.01950	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	12.90	8.75	2.20	0.01819	0.01235	0.00310	PASS
Extreme (50°C)		2.99	11.30	10.51	0.00421	0.01594	0.01483	PASS



Extreme (40°C)		8.50	6.02	12.55	0.01198	0.00848	0.01770	PASS
Extreme (30°C)		9.57	2.20	7.10	0.01349	0.00310	0.01001	PASS
Extreme (20°C)		6.78	2.18	13.95	0.00957	0.00307	0.01967	PASS
Extreme (10°C)		13.86	12.92	13.02	0.01955	0.01823	0.01837	PASS
Extreme (0°C)		14.41	8.53	3.00	0.02032	0.01203	0.00423	PASS
Extreme (-10°C)		11.94	17.97	14.50	0.01684	0.02535	0.02045	PASS
Extreme (-20°C)		9.41	7.86	2.80	0.01328	0.01109	0.00395	PASS
Extreme (-30°C)		3.48	3.01	12.10	0.00491	0.00425	0.01707	PASS
25°C	LV	12.82	14.05	9.27	0.01808	0.01982	0.01308	PASS
	HV	7.99	15.48	7.66	0.01128	0.02183	0.01080	PASS

LTE Band 28 Subset 2								
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	5.00	9.93	2.83	0.00678	0.01348	0.00384	PASS
Extreme (50°C)		1.00	10.59	7.28	0.00136	0.01436	0.00988	PASS
Extreme (40°C)		3.00	4.48	8.04	0.00407	0.00608	0.01092	PASS
Extreme (30°C)		5.00	14.72	14.90	0.00678	0.01997	0.02022	PASS
Extreme (20°C)		1.00	8.74	4.45	0.00136	0.01186	0.00604	PASS
Extreme (10°C)		8.00	14.21	3.21	0.01085	0.01928	0.00435	PASS
Extreme (0°C)		6.00	1.36	7.28	0.00814	0.00185	0.00988	PASS
Extreme (-10°C)		2.00	17.05	2.64	0.00271	0.02313	0.00358	PASS
Extreme (-20°C)		7.00	6.43	6.10	0.00950	0.00873	0.00828	PASS
Extreme (-30°C)		15.00	4.89	4.23	0.02035	0.00664	0.00574	PASS
25°C	LV	17.00	17.43	2.62	0.02307	0.02365	0.00355	PASS
	HV	6.00	1.43	14.43	0.00814	0.00193	0.01958	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	16.00	7.64	14.73	0.02171	0.01037	0.01998	PASS
Extreme (50°C)		5.00	12.57	1.24	0.00678	0.01705	0.00168	PASS
Extreme (40°C)		4.00	15.10	15.06	0.00543	0.02049	0.02044	PASS
Extreme (30°C)		12.00	13.23	6.61	0.01628	0.01795	0.00897	PASS
Extreme (20°C)		3.00	6.17	8.38	0.00407	0.00837	0.01137	PASS
Extreme (10°C)		11.00	16.12	8.53	0.01493	0.02187	0.01157	PASS
Extreme (0°C)		11.00	2.64	4.03	0.01493	0.00359	0.00546	PASS
Extreme (-10°C)		12.00	15.30	16.67	0.01628	0.02076	0.02262	PASS
Extreme (-20°C)		1.00	8.79	1.52	0.00136	0.01192	0.00206	PASS



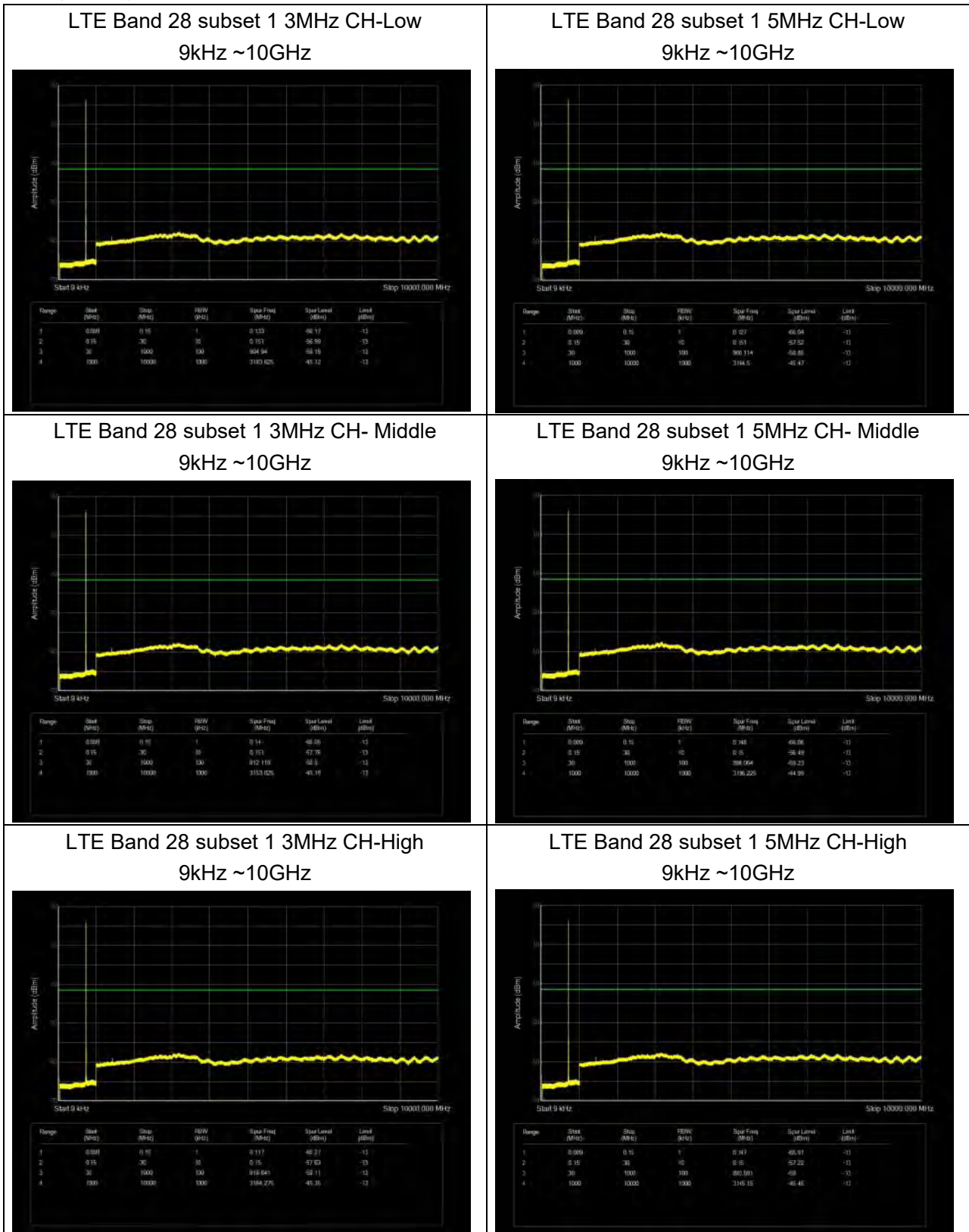
Extreme (-30°C)		9.00	16.46	7.04	0.01221	0.02234	0.00955	PASS
25°C	LV	13.00	17.22	8.08	0.01764	0.02337	0.01096	PASS
	HV	9.00	1.14	3.54	0.01221	0.00155	0.00480	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability (ppm)	Frequency Stability (ppm)	Frequency Stability (ppm)	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal (25°C)	Normal	7.00	15.18	4.00	0.00950	0.02060	0.00543	PASS
Extreme (50°C)		6.00	11.44	15.75	0.00814	0.01552	0.02137	PASS
Extreme (40°C)		11.00	4.55	15.13	0.01493	0.00617	0.02052	PASS
Extreme (30°C)		12.00	11.83	1.61	0.01628	0.01605	0.00218	PASS
Extreme (20°C)		7.00	2.07	15.22	0.00950	0.00281	0.02065	PASS
Extreme (10°C)		10.00	15.46	16.32	0.01357	0.02097	0.02215	PASS
Extreme (0°C)		13.00	5.97	6.79	0.01764	0.00809	0.00921	PASS
Extreme (-10°C)		6.00	14.39	10.10	0.00814	0.01953	0.01371	PASS
Extreme (-20°C)		3.00	15.96	4.70	0.00407	0.02166	0.00638	PASS
Extreme (-30°C)		9.00	9.48	10.95	0.01221	0.01286	0.01485	PASS
25°C		LV	2.00	2.67	4.99	0.00271	0.00363	0.00677
	HV	1.00	11.48	1.46	0.00136	0.01558	0.00198	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	13.00	4.97	12.83	0.01764	0.00675	0.01741	PASS
Extreme (50°C)		7.00	11.05	16.84	0.00950	0.01499	0.02284	PASS
Extreme (40°C)		14.00	17.76	16.61	0.01900	0.02410	0.02253	PASS
Extreme (30°C)		9.00	16.40	9.31	0.01221	0.02225	0.01264	PASS
Extreme (20°C)		15.00	2.41	14.37	0.02035	0.00327	0.01950	PASS
Extreme (10°C)		1.00	9.36	11.17	0.00136	0.01270	0.01516	PASS
Extreme (0°C)		16.00	11.35	13.38	0.02171	0.01540	0.01815	PASS
Extreme (-10°C)		10.00	6.49	12.72	0.01357	0.00881	0.01726	PASS
Extreme (-20°C)		4.00	11.68	5.82	0.00543	0.01585	0.00789	PASS
Extreme (-30°C)		1.00	8.72	4.37	0.00136	0.01184	0.00593	PASS
25°C		LV	9.00	1.72	5.65	0.01221	0.00233	0.00766
	HV	6.00	14.24	7.82	0.00814	0.01932	0.01062	PASS



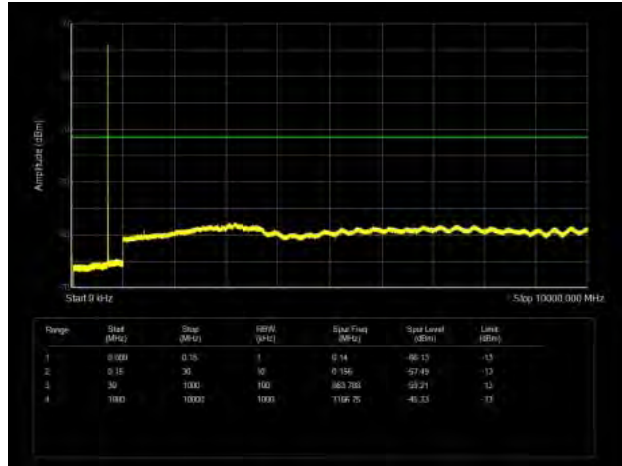
6.6 Spurious Emissions at Antenna Terminals

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.

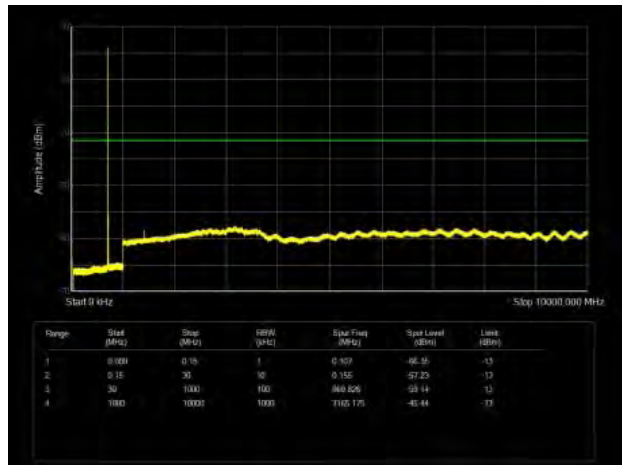
The signal beyond the limit is carrier.



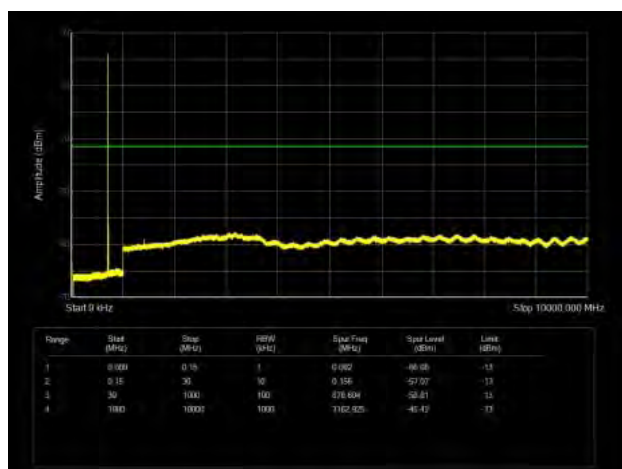
LTE Band 28 subset 1 10MHz CH-Low
9kHz ~10GHz



LTE Band 28 subset 1 10MHz CH- Middle
9kHz ~10GHz

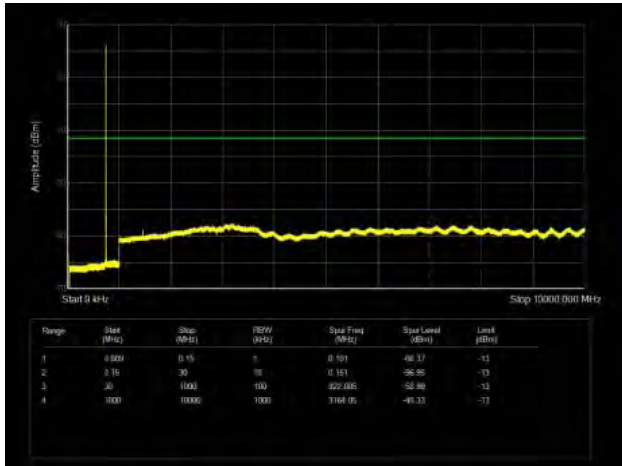


LTE Band 28 subset 1 10MHz CH-High
9kHz ~10GHz

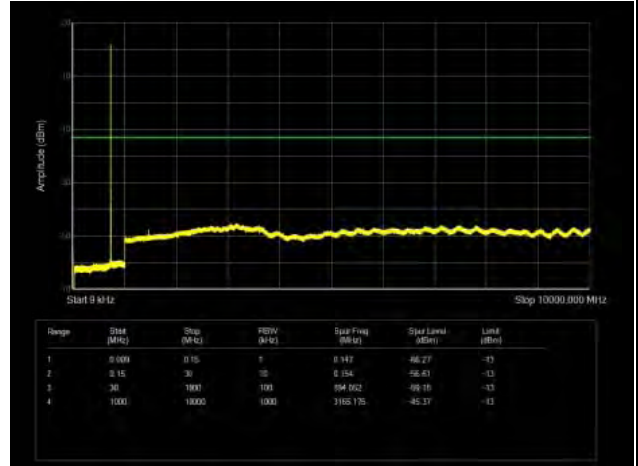




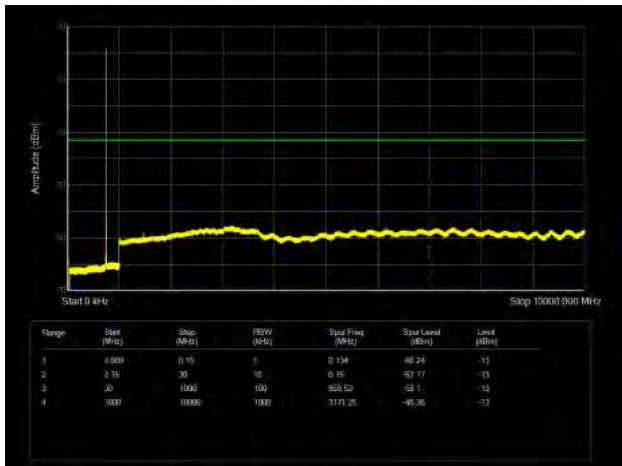
LTE Band 28 subset 2 3MHz CH-Low
9kHz ~10GHz



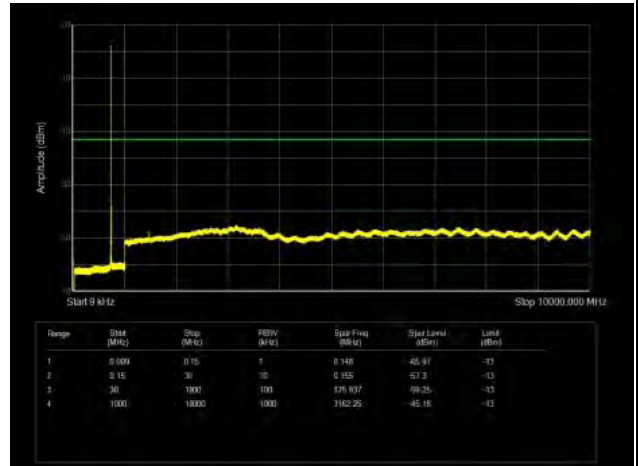
LTE Band 28 subset 2 5MHz CH-Low
9kHz ~10GHz



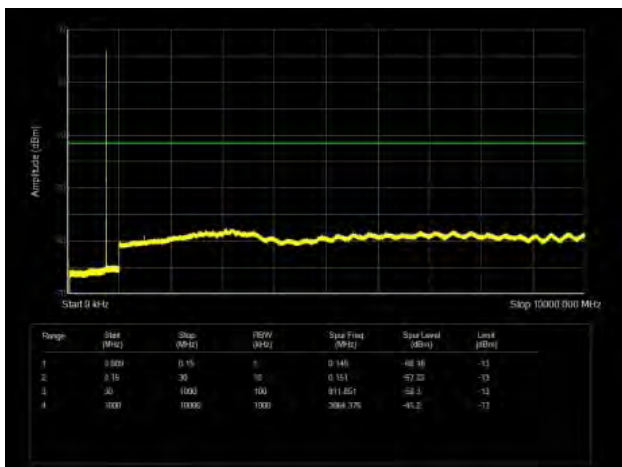
LTE Band 28 subset 2 3MHz CH- Middle
9kHz ~10GHz



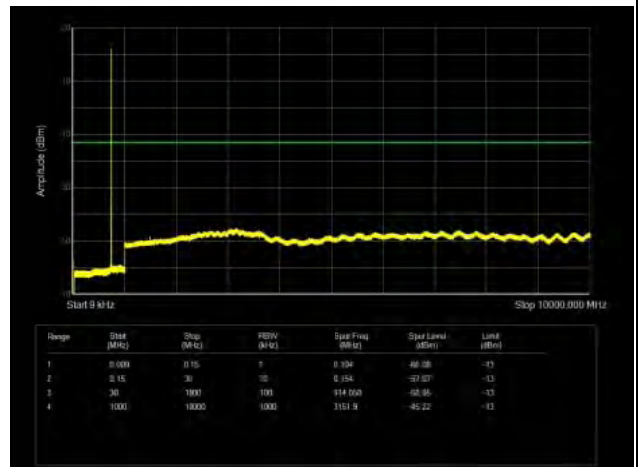
LTE Band 28 subset 2 5MHz CH- Middle
9kHz ~10GHz



LTE Band 28 subset 2 3MHz CH-High
9kHz ~10GHz

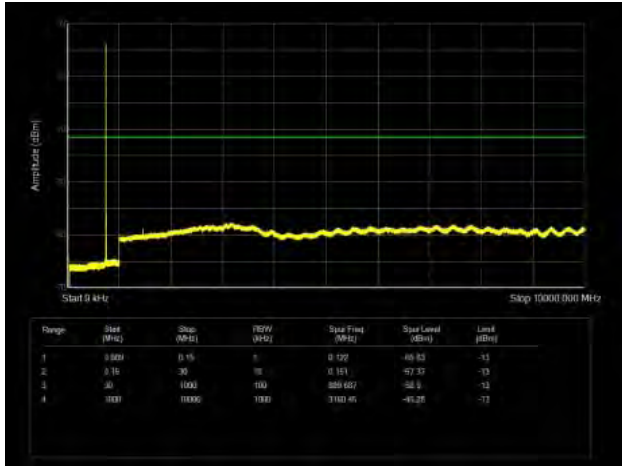


LTE Band 28 subset 2 5MHz CH-High
9kHz ~10GHz

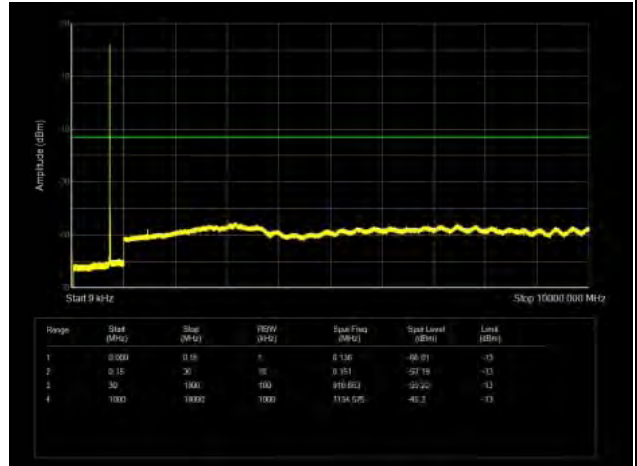




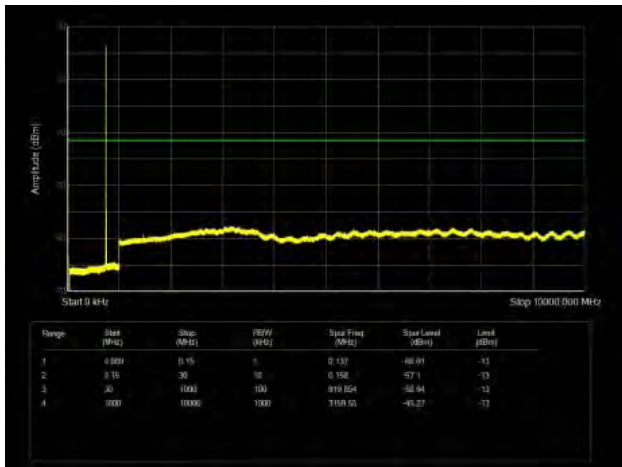
LTE Band 28 subset 2 10MHz CH-Low
9kHz ~10GHz



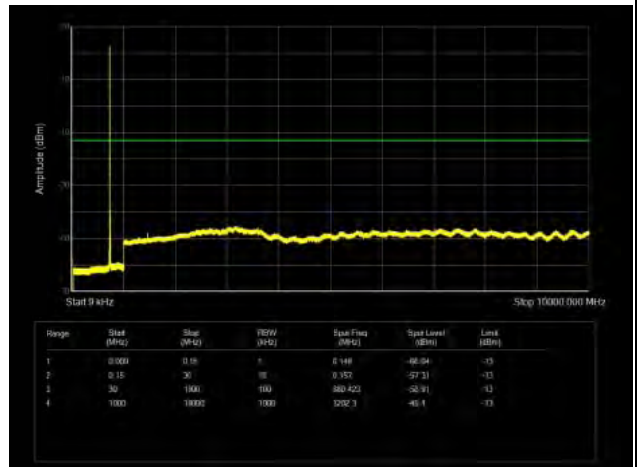
LTE Band 28 subset 2 15MHz CH-Low
9kHz ~10GHz



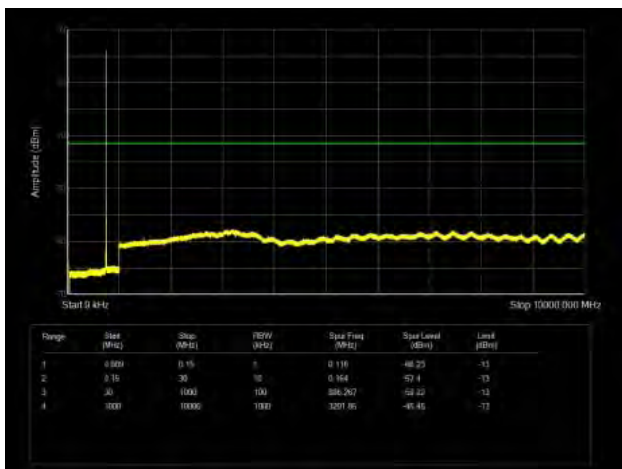
LTE Band 28 subset 2 10MHz CH- Middle
9kHz ~10GHz



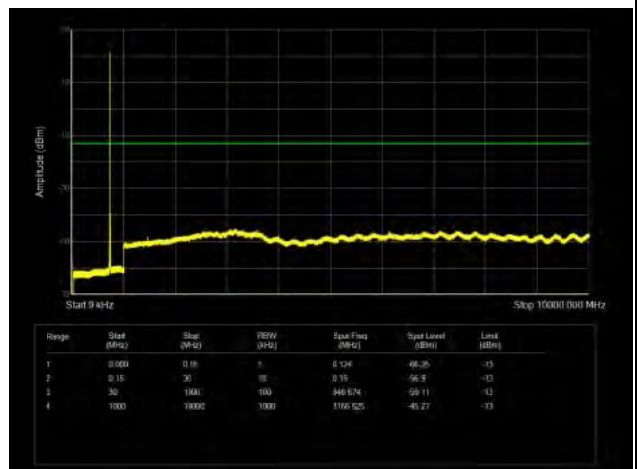
LTE Band 28 subset 2 15MHz CH- Middle
9kHz ~10GHz



LTE Band 28 subset 2 10MHz CH-High
9kHz ~10GHz



LTE Band 28 subset 2 15MHz CH-High
9kHz ~10GHz





6.7 Radiates Spurious Emission

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

Main Antenna

LTE band 28 subset 1 QPSK 3MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1433.00	-65.99	1.70	8.70	Vertical	-61.14	-13.00	48.14	270
3	2149.50	-64.04	2.10	11.10	Vertical	-57.19	-13.00	44.19	90
4	2866.00	-65.18	2.30	13.10	Vertical	-56.53	-13.00	43.53	180
5	3541.30	-62.45	2.60	12.70	Vertical	-54.50	-13.00	41.50	0
6	4092.80	-61.88	3.30	12.50	Vertical	-54.83	-13.00	41.83	180
7	5015.50	-63.71	3.40	12.50	Vertical	-56.76	-13.00	43.76	45
8	5732.00	-64.02	3.30	12.50	Vertical	-56.97	-13.00	43.97	0
9	6448.50	-60.07	3.80	11.50	Vertical	-54.52	-13.00	41.52	180
10	7165.00	-55.86	4.20	11.80	Vertical	-50.41	-13.00	37.41	90

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 28 subset 1 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1431.00	-67.56	1.70	8.70	Vertical	-62.71	-13.00	49.71	0
3	2146.50	-64.67	2.10	11.10	Vertical	-57.82	-13.00	44.82	180
4	2862.00	-66.15	2.30	13.10	Vertical	-57.50	-13.00	44.50	90
5	3536.00	-60.22	2.60	12.70	Vertical	-52.27	-13.00	39.27	0
6	4299.00	-63.02	3.30	12.50	Vertical	-55.97	-13.00	42.97	180
7	5008.50	-61.95	3.40	12.50	Vertical	-55.00	-13.00	42.00	90
8	5724.00	-63.15	3.30	12.50	Vertical	-56.10	-13.00	43.10	0
9	6439.50	-59.58	3.80	11.50	Vertical	-54.03	-13.00	41.03	180
10	7155.00	-55.65	4.20	11.80	Vertical	-50.20	-13.00	37.20	90

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 28 subset 1 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1418.20	-64.95	1.70	8.70	Vertical	-60.10	-13.00	47.10	180
3	2115.25	-63.33	2.10	11.10	Vertical	-56.48	-13.00	43.48	90
4	2836.40	-65.56	2.30	13.10	Vertical	-56.91	-13.00	43.91	315
5	3525.20	-58.89	2.60	12.70	Vertical	-50.94	-13.00	37.94	270
6	4230.60	-61.75	3.30	12.50	Vertical	-54.70	-13.00	41.70	180
7	4963.70	-62.86	3.40	12.50	Vertical	-55.91	-13.00	42.91	0
8	5672.80	-61.21	3.30	12.50	Vertical	-54.16	-13.00	41.16	45
9	6381.90	-59.30	3.80	11.50	Vertical	-53.75	-13.00	40.75	315
10	7091.00	-55.76	4.20	11.80	Vertical	-50.31	-13.00	37.31	0

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 28 subset 2 QPSK 3MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1471.51	-58.06	1.70	8.70	Vertical	-53.21	-13.00	40.21	315
3	2207.45	-50.26	2.10	11.10	Vertical	-43.41	-13.00	30.41	90
4	2926.00	-66.25	2.30	13.10	Vertical	-57.60	-13.00	44.60	45
5	3657.50	-64.78	2.60	12.70	Vertical	-56.83	-13.00	43.83	315
6	4389.00	-63.52	3.30	12.50	Vertical	-56.47	-13.00	43.47	0
7	5120.50	-62.80	3.40	12.50	Vertical	-55.85	-13.00	42.85	180
8	5916.90	-62.08	3.30	12.50	Vertical	-55.03	-13.00	42.03	90
9	6583.50	-58.80	3.80	11.50	Vertical	-53.25	-13.00	40.25	0
10	7315.00	-54.49	4.20	11.80	Vertical	-49.04	-13.00	36.04	45

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 28 subset 2 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1469.50	-57.47	1.70	8.70	Vertical	-52.62	-13.00	39.62	90
3	2204.40	-50.02	2.10	11.10	Vertical	-43.17	-13.00	30.17	180
4	2922.00	-65.35	2.30	13.10	Vertical	-56.70	-13.00	43.70	315
5	3680.00	-64.47	2.60	12.70	Vertical	-56.52	-13.00	43.52	90
6	4306.00	-63.00	3.30	12.50	Vertical	-55.95	-13.00	42.95	0
7	5154.20	-63.06	3.40	12.50	Vertical	-56.11	-13.00	43.11	180
8	5844.00	-63.75	3.30	12.50	Vertical	-56.70	-13.00	43.70	225
9	6574.50	-59.16	3.80	11.50	Vertical	-53.61	-13.00	40.61	270
10	7305.00	-57.77	4.20	11.80	Vertical	-52.32	-13.00	39.32	0

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 28 subset 2 QPSK 15MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1460.60	-56.73	1.70	8.70	Vertical	-51.88	-13.00	38.88	180
3	2191.05	-48.63	2.10	11.10	Vertical	-41.78	-13.00	28.78	0
4	2892.50	-65.35	2.30	13.10	Vertical	-56.70	-13.00	43.70	45
5	3620.00	-65.32	2.60	12.70	Vertical	-57.37	-13.00	44.37	315
6	4344.00	-63.47	3.30	12.50	Vertical	-56.42	-13.00	43.42	90
7	5068.00	-63.73	3.40	12.50	Vertical	-56.78	-13.00	43.78	180
8	5792.00	-61.13	3.30	12.50	Vertical	-54.08	-13.00	41.08	45
9	6516.00	-58.05	3.80	11.50	Vertical	-52.50	-13.00	39.50	180
10	7240.00	-54.75	4.20	11.80	Vertical	-49.30	-13.00	36.30	0

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.

**Second Antenna**

LTE band 28 subset 1 QPSK 3MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1433.00	-65.64	1.70	8.70	Horizontal	-60.79	-13.00	47.79	90
3	2149.50	-63.91	2.10	11.10	Horizontal	-57.06	-13.00	44.06	45
4	2866.00	-65.22	2.30	13.10	Horizontal	-56.57	-13.00	43.57	90
5	3541.30	-62.15	2.60	12.70	Horizontal	-54.20	-13.00	41.20	180
6	4092.80	-64.04	3.30	12.50	Horizontal	-56.99	-13.00	43.99	0
7	5015.50	-59.69	3.40	12.50	Horizontal	-52.74	-13.00	39.74	45
8	5732.00	-57.54	3.30	12.50	Horizontal	-50.49	-13.00	37.49	225
9	6448.50	-58.98	3.80	11.50	Horizontal	-53.43	-13.00	40.43	135
10	7165.00	-56.12	4.20	11.80	Horizontal	-50.67	-13.00	37.67	45

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 28 subset 1 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1431.00	-67.11	1.70	8.70	Horizontal	-62.26	-13.00	49.26	180
3	2146.50	-63.06	2.10	11.10	Horizontal	-56.21	-13.00	43.21	0
4	2862.00	-64.06	2.30	13.10	Horizontal	-55.41	-13.00	42.41	45
5	3536.00	-62.60	2.60	12.70	Horizontal	-54.65	-13.00	41.65	0
6	4299.00	-60.12	3.30	12.50	Horizontal	-53.07	-13.00	40.07	45
7	5008.50	-58.88	3.40	12.50	Horizontal	-51.93	-13.00	38.93	180
8	5724.00	-59.48	3.30	12.50	Horizontal	-52.43	-13.00	39.43	90
9	6439.50	-57.59	3.80	11.50	Horizontal	-52.04	-13.00	39.04	0
10	7155.00	-57.04	4.20	11.80	Horizontal	-51.59	-13.00	38.59	225

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 28 subset 1 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1418.20	-65.20	1.70	8.70	Horizontal	-60.35	-13.00	47.35	315
3	2115.25	-63.15	2.10	11.10	Horizontal	-56.30	-13.00	43.30	225
4	2836.40	-65.61	2.30	13.10	Horizontal	-56.96	-13.00	43.96	270
5	3525.20	-59.76	2.60	12.70	Horizontal	-51.81	-13.00	38.81	135
6	4230.60	-59.98	3.30	12.50	Horizontal	-52.93	-13.00	39.93	45
7	4963.70	-59.78	3.40	12.50	Horizontal	-52.83	-13.00	39.83	225
8	5672.80	-58.58	3.30	12.50	Horizontal	-51.53	-13.00	38.53	135
9	6381.90	-59.15	3.80	11.50	Horizontal	-53.60	-13.00	40.60	0
10	7091.00	-57.17	4.20	11.80	Horizontal	-51.72	-13.00	38.72	45

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 28 subset 2 QPSK 3MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1471.51	-63.83	1.70	8.70	Horizontal	-58.98	-13.00	45.98	90
3	2207.45	-62.29	2.10	11.10	Horizontal	-55.44	-13.00	42.44	0
4	2926.00	-64.63	2.30	13.10	Horizontal	-55.98	-13.00	42.98	180
5	3657.50	-62.92	2.60	12.70	Horizontal	-54.97	-13.00	41.97	0
6	4389.00	-61.53	3.30	12.50	Horizontal	-54.48	-13.00	41.48	315
7	5120.50	-59.44	3.40	12.50	Horizontal	-52.49	-13.00	39.49	90
8	5916.90	-58.99	3.30	12.50	Horizontal	-51.94	-13.00	38.94	225
9	6583.50	-56.86	3.80	11.50	Horizontal	-51.31	-13.00	38.31	0
10	7315.00	-55.57	4.20	11.80	Horizontal	-50.12	-13.00	37.12	135

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 28 subset 2 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1469.50	-66.48	1.70	8.70	Horizontal	-61.63	-13.00	48.63	225
3	2204.40	-63.88	2.10	11.10	Horizontal	-57.03	-13.00	44.03	135
4	2922.00	-65.57	2.30	13.10	Horizontal	-56.92	-13.00	43.92	45
5	3680.00	-65.15	2.60	12.70	Horizontal	-57.20	-13.00	44.20	90
6	4306.00	-61.36	3.30	12.50	Horizontal	-54.31	-13.00	41.31	0
7	5154.20	-58.27	3.40	12.50	Horizontal	-51.32	-13.00	38.32	180
8	5844.00	-58.51	3.30	12.50	Horizontal	-51.46	-13.00	38.46	225
9	6574.50	-57.98	3.80	11.50	Horizontal	-52.43	-13.00	39.43	315
10	7305.00	-55.16	4.20	11.80	Horizontal	-49.71	-13.00	36.71	225

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 28 subset 2 QPSK 15MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1460.60	-65.86	1.70	8.70	Horizontal	-61.01	-13.00	48.01	0
3	2191.05	-56.97	2.10	11.10	Horizontal	-50.12	-13.00	37.12	45
4	2892.50	-65.76	2.30	13.10	Horizontal	-57.11	-13.00	44.11	45
5	3620.00	-59.26	2.60	12.70	Horizontal	-51.31	-13.00	38.31	135
6	4344.00	-59.93	3.30	12.50	Horizontal	-52.88	-13.00	39.88	45
7	5068.00	-58.64	3.40	12.50	Horizontal	-51.69	-13.00	38.69	0
8	5792.00	-57.42	3.30	12.50	Horizontal	-50.37	-13.00	37.37	45
9	6516.00	-57.78	3.80	11.50	Horizontal	-52.23	-13.00	39.23	225
10	7240.00	-55.11	4.20	11.80	Horizontal	-49.66	-13.00	36.66	135

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.



7 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Communication tester	Anritsu	MT8821C	6201538758	2021-05-15	2022-05-14
				2022-05-15	2023-05-14
Climate Chamber	ESPEC	SU-242	93000506	2021-12-12	2022-12-11
Universal Radio Communication Tester	R&S	CMW500	150415	2021-05-15	2022-05-14
				2022-05-15	2023-05-14
Spectrum Analyzer	Keysight	N9020A	MY54420163	2021-12-12	2022-12-11
Universal Radio Communication Tester	StarPoint	SP9500	SP9500-20440	2021-05-15	2022-05-14
				2022-05-15	2023-05-14
Spectrum Analyzer	R&S	FSV40	101297	2021-12-12	2022-12-11
Signal Analyzer	R&S	FSV3030	101411	2021-12-12	2022-12-11
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	01111	2019-09-12	2022-09-11
Horn Antenna	Schwarzbeck	BBHA 9120D	1594	2020-12-17	2023-12-16
Horn Antenna	ETS-Lindgren	3160-09	00102643	2021-10-10	2024-10-09
Horn Antenna	STEATITE	QSH-SL-26-40-K-15	16779	2019-12-24	2022-12-23
Software	R&S	EMC32	10.35.10	/	/

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



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.