

RF TEST REPORT

Applicant MeiG Smart Technology Co., Ltd
FCC ID 2APJ4-SLM336Q
Product LTE Cat1 Module
Brand MEIGLink
Model SLM336Q
Report No. R2407A0777-R3V3
Issue Date August 26, 2024

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2023)/ FCC CFR47 Part 27C (2023)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Xu Ying

Approved by: Xu Kai

Eurofins TA Technology (Shanghai) Co., Ltd.

Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China

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

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

TABLE OF CONTENT

1	Test Laboratory	5
1.1	Notes of the Test Report.....	5
1.2.	Test facility	5
1.3	Testing Location.....	5
2	General Description of Equipment under Test.....	6
2.1	Applicant and Manufacturer Information	6
2.2	General information	6
3	Applied Standards.....	8
4	Test Configuration	9
5	Test Case	11
5.1	RF Power Output and Effective Isotropic Radiated Power	11
5.2	Occupied Bandwidth.....	13
5.3	Band Edge Compliance	14
5.4	Peak-to-Average Power Ratio (PAPR).....	16
5.5	Frequency Stability	17
5.6	Spurious Emissions at Antenna Terminals	18
5.7	Radiated Spurious Emission	20
6	Test Results.....	23
6.1	RF Power Output and Effective Isotropic Radiated Power	23
6.2	Occupied Bandwidth.....	40
6.3	Band Edge Compliance	63
6.4	Peak-to-Average Power Ratio (PAPR).....	86
6.5	Frequency Stability	89
6.6	Spurious Emissions at Antenna Terminals	98
6.7	Radiated Spurious Emission	109
7	Main Test Instruments.....	116
	ANNEX A: The EUT Appearance	117
	ANNEX B: Test Setup Photos	118

Version	Revision Description	Issue Date
Rev.0	Initial issue of report.	August 7, 2024
Rev.1	Update data.	August 21, 2024
Rev.2	Update description.	August 26, 2024
Rev.3	Update data.	August 26, 2024
Note: This revised report (Report No.: R2407A0777-R3V3) supersedes and replaces the previously issued report (Report No.: R2407A0777-R3V2). 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(d)(4) /27.50(b)(10) /27.50(c)(10)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(h) /27.53(g) /27.53(f) /27.53(c)	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(h) /27.53(g) /27.53(f) /27.53(c)	PASS
7	Radiated Spurious Emission	2.1053 /27.53(h) /27.53(g) /27.53(f) /27.53(c)	PASS
Date of Testing: July 8, 2024 ~ July 23, 2024 Date of Sample Received: July 4, 2024			
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 Eurofins 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 **Eurofins 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)

Eurofins 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)

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

1.3 Testing Location

Company: Eurofins TA Technology (Shanghai) Co., Ltd.
Address: Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.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: <https://www.eurofins.com/electrical-and-electronics>
E-mail: Kain.Xu@cpt.eurofinscn.com

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	MeiG Smart Technology Co., Ltd
Applicant address	2nd Floor,Office Building,No.5 Lingxia Road,Fenghuang,Fuyong Street,Bao'an District,Shenzhen, China.
Manufacturer	MeiG Smart Technology Co., Ltd
Manufacturer address	2nd Floor,Office Building,No.5 Lingxia Road,Fenghuang,Fuyong Street,Bao'an District,Shenzhen, China.

2.2 General information

EUT Description			
Model	SLM336Q		
SN	Conducted	M336QA1AHE013000171	
	Radiated	M336QA1AHE013000107	
Hardware Version	SLM336QA1A_MB_V1.01		
Software Version	V08		
Power Supply	External power supply		
Antenna Type	External Antenna		
Antenna Gain	LTE Band 4	4.00 dBi	
	LTE Band 12	3.65 dBi	
	LTE Band 13	3.80 dBi	
	LTE Band 66	4.00 dBi	
	LTE Band 71	3.19 dBi	
Test Mode(s)	LTE Band 4/12/13/66/71		
Test Modulation	(LTE) QPSK, 16QAM;		
Channel Bandwidth	Band	QPSK	16QAM
	LTE Band 4	1.4/3/5/10/15/20MHz	1.4/3/5MHz
	LTE Band 12	1.4/3/5/10MHz	1.4/3/5MHz
	LTE Band 13	5/10MHz	5MHz
	LTE Band 66	1.4/3/5/10/15/20MHz	1.4/3/5MHz
	LTE Band 71	5/10/15/20MHz	5MHz
LTE Category	1		
Maximum E.I.R.P./ E.R.P.	LTE Band 4	26.72 dBm	
	LTE Band 12	24.32 dBm	
	LTE Band 13	24.50 dBm	
	LTE Band 66	26.95 dBm	
	LTE Band 71	24.31 dBm	
Rated Power Supply Voltage	3.8V		

Operating Voltage		Minimum: 3.5V Maximum: 4.2V	
Operating Temperature		Lowest: -35°C Highest: +75°C	
Testing Temperature		Lowest: -30°C Highest: +50°C	
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 13	777 ~ 787	746 ~ 756
	LTE Band 66	1710 ~ 1780	2110 ~ 2180
	LTE Band 71	663 ~ 698	617 ~ 652
Auxiliary Test Equipment			
Mother board		Manufacturer: MeiG Smart Technology Co., Ltd Model: /	
Note: 1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.			

3 Applied Standards

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

Test standards:

FCC CFR47 Part 27C (2023)

FCC CFR47 Part 2 (2023)

Reference standard:

ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (vertical), lie-down position (horizontal). The worst emission was found in stand-up position (vertical)

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 4/12/13/66/71:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 13	-	-	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 71	-	-	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 13	-	-	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 71	-	-	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 4	O	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 12	O	O	O	O	-	-	O	O	O	-	O	O	-	O
	LTE 13	-	-	O	O	-	-	O	O	O	-	O	O	-	O
	LTE 66	O	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 71	-	-	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 13	-	-	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 71	-	-	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 12	O	O	O	O	-	-	O	O	O	-	-	-	O	-
	LTE 13	-	-	O	O	-	-	O	O	O	-	-	-	O	-
	LTE 66	O	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 71	-	-	O	O	O	O	O	O	O	-	-	-	O	-
Spurious	LTE 4	O	O	O	O	O	O	O	-	O	-	-	O	O	O

Emissions at Antenna Terminals	LTE 12	O	O	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 13	-	-	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 66	O	O	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 71	-	-	O	O	O	O	O	-	O	-	-	O	O	O
Radiated Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 12	O	-	O	O	-	-	O	-	O	-	-	-	O	-
	LTE 13	-	-	O	O	-	-	O	-	O	-	-	-	O	-
	LTE 66	O	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 71	-	-	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
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Methods of Measurement

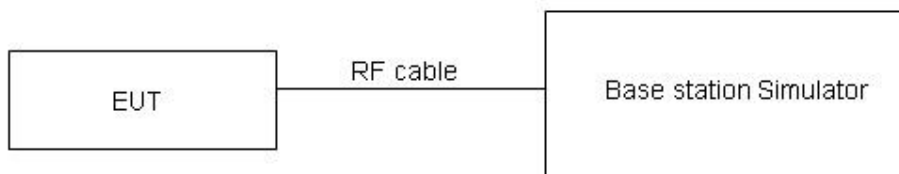
During the process of the testing, The EUT was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

ERP can then be calculated as follows:

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

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

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(b) (10) specifies that “Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP”

Rule Part 27.50(c) (10) 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”

Rule Part 27.50(d) (4) specifies that “Fixed, mobile and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”

Part 27.50(b)(10) Limit	$\leq 3 \text{ W}$ (34.77 dBm)
Part 27.50(c)(10) Limit	$\leq 3 \text{ W}$ (34.77 dBm)
Part 27.50(d)(4) Limit	$\leq 1 \text{ W}$ (30 dBm)

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=0.4$ dB for RF power output, $k = 2$, $U= 1.19$ dB for 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
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

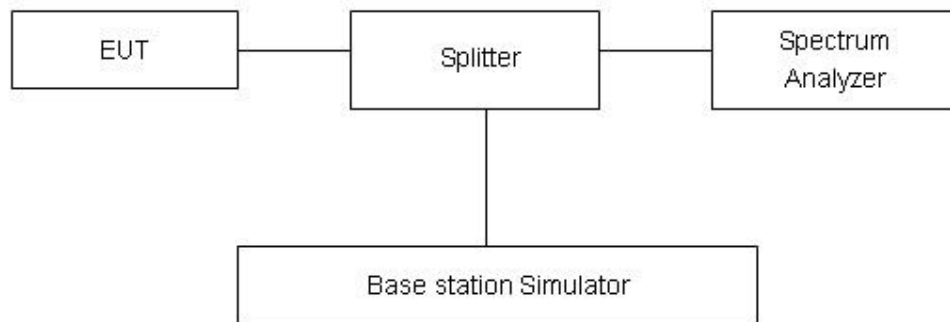
Method of Measurement

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
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

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.

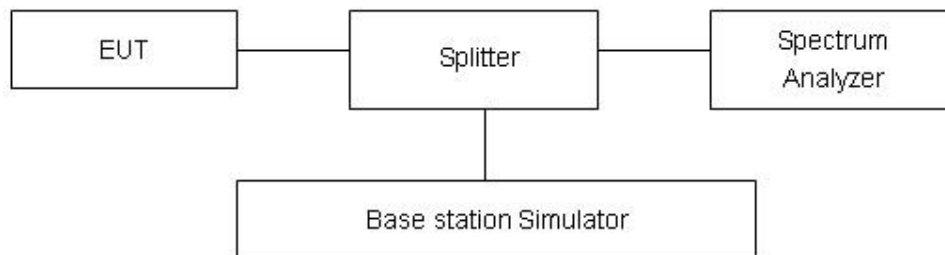
RBW is set to $\geq 1\%$ EBW, VBW is set to 3x RBW on spectrum analyzer.

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(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB”

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.

Rule Part 27.53(m) (4) specifies that “for BRS and EBS stations. For mobile digital stations, the

attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Example:

The limit line is derived from $43 + 10 \log (P)$ dB below the transmitter power P (Watts)
= $P(W) - [43 + 10 \log (P)]$ (dB)
= $[30 + 10 \log (P)]$ (dBm) - $[43 + 10 \log (P)]$ (dB) = -13dBm.

Rule Part 27.53(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

Rule Part 27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the 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 $k = 1.96$, $U=0.684$ dB.

Test Results

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

5.4 Peak-to-Average Power Ratio (PAPR)

Ambient condition

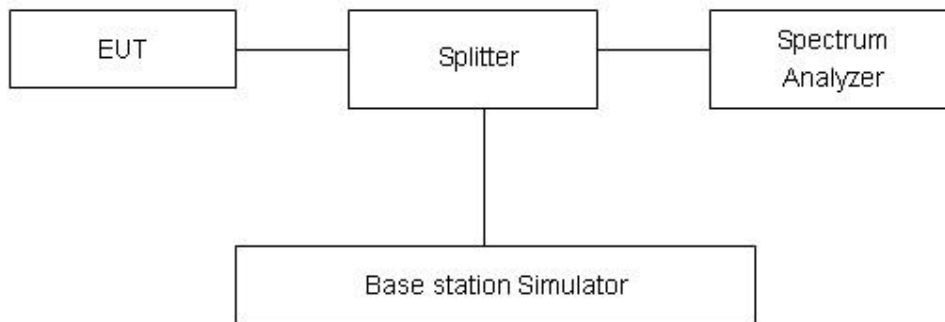
Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Methods of Measurement

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

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

Test Setup



Limits

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
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

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.

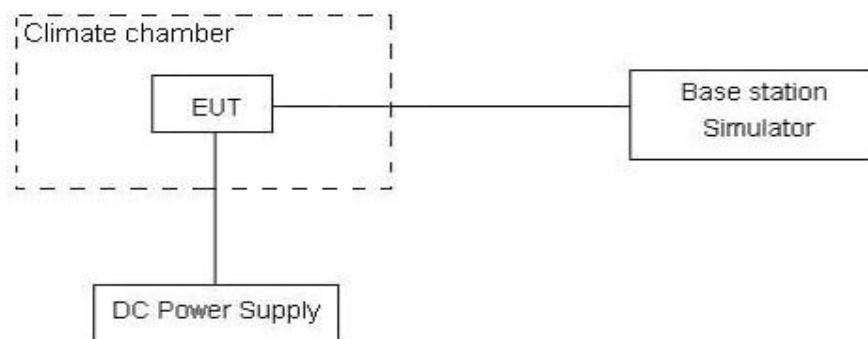
Frequency Stability (Voltage Variation)

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 3.5 V and 4.2 V, with a nominal voltage of 3.8V.

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
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

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

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

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

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

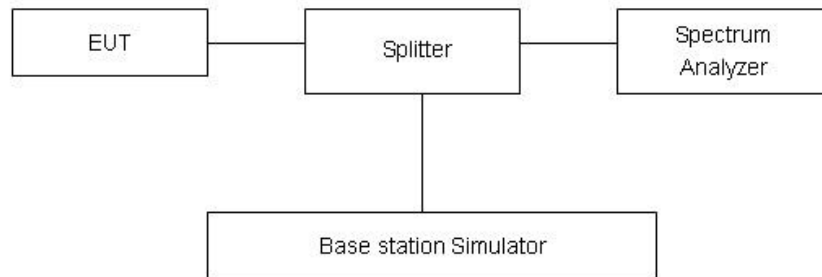
RBW is set to 1000 kHz (above 1000MHz)

Sweep is set to AUTO.

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(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB..”

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.

Rule Part 27.53(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands,

emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation. Part 27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

Part 27.53(h)/(g) Limit		-13 dBm
Part 27.53(f) Limit	Limit out of the band 1559-1610 MHz	-13 dBm
	Limit in the band 1559-1610 MHz	-40 dBm

Measurement Uncertainty

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

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-27GHz	1.407 dB

Test Results

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

5.7 Radiated Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26-2015.
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl), the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAG) should be recorded after test.
7. The measurement results are obtained as described below:

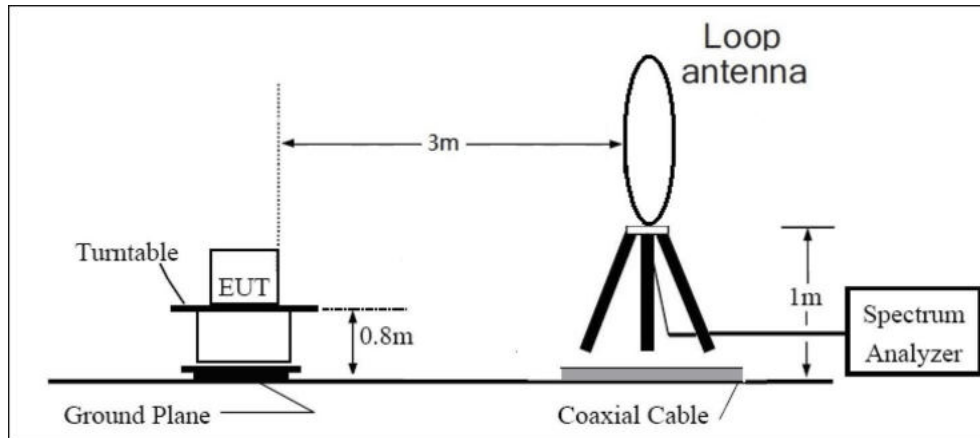
$$\text{Power(EIRP)} = \text{PMea} - \text{PAG} - \text{Pcl} + \text{Ga}$$
The measurement results are amend as described below:

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

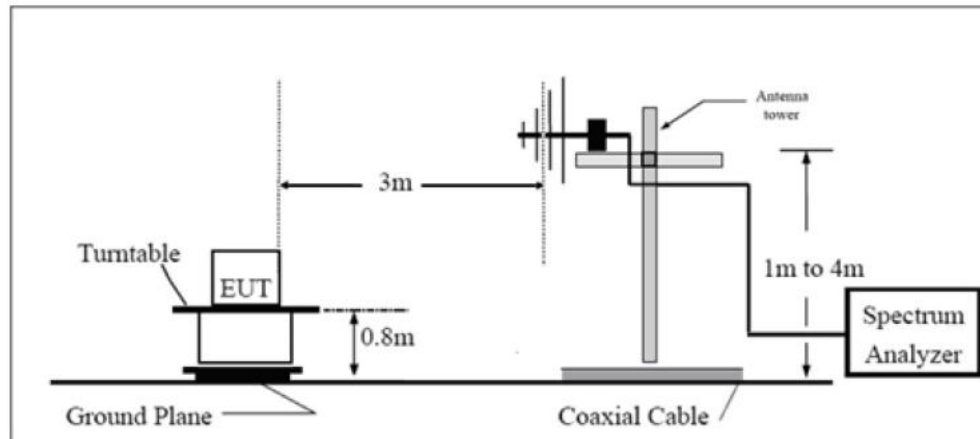
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

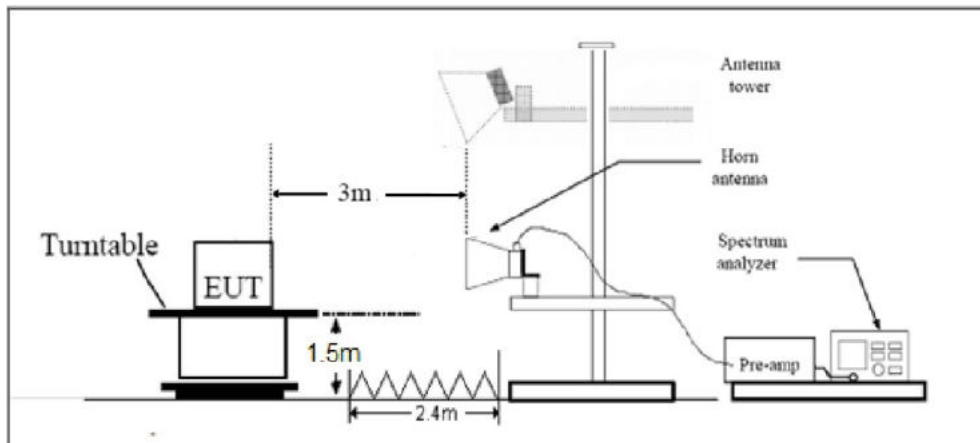
9KHz~ 30MHz



30MHz~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.”

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.

Rule Part 27.53(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

Part 27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log(P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log(P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

Part 27.53 (h)/(g) Limit		-13 dBm
Part 27.53(f) Limit	Limit out of the band 1559-1610 MHz	-13 dBm
	Limit in the band 1559-1610 MHz	-40 dBm

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 4						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP (dBm)
1.4	19957	1	#0	QPSK	22.22	26.22
1.4	19957	1	#Mid	QPSK	22.32	26.32
1.4	19957	1	#Max	QPSK	22.26	26.26
1.4	19957	3	#0	QPSK	22.22	26.22
1.4	19957	3	#Mid	QPSK	22.20	26.20
1.4	19957	3	#Max	QPSK	22.16	26.16
1.4	19957	6	#0	QPSK	21.45	25.45
1.4	20175	1	#0	QPSK	21.92	25.92
1.4	20175	1	#Mid	QPSK	21.91	25.91
1.4	20175	1	#Max	QPSK	21.92	25.92
1.4	20175	3	#0	QPSK	22.00	26.00
1.4	20175	3	#Mid	QPSK	21.99	25.99
1.4	20175	3	#Max	QPSK	22.00	26.00
1.4	20175	6	#0	QPSK	21.03	25.03
1.4	20393	1	#0	QPSK	22.47	26.47
1.4	20393	1	#Mid	QPSK	22.44	26.44
1.4	20393	1	#Max	QPSK	22.40	26.40
1.4	20393	3	#0	QPSK	22.38	26.38
1.4	20393	3	#Mid	QPSK	22.36	26.36
1.4	20393	3	#Max	QPSK	22.35	26.35
1.4	20393	6	#0	QPSK	21.41	25.41
3	19965	1	#0	QPSK	22.03	26.03
3	19965	1	#Mid	QPSK	22.14	26.14
3	19965	1	#Max	QPSK	21.88	25.88
3	19965	8	#0	QPSK	21.32	25.32
3	19965	8	#Mid	QPSK	21.32	25.32
3	19965	8	#Max	QPSK	21.22	25.22
3	19965	15	#0	QPSK	21.25	25.25
3	20175	1	#0	QPSK	21.80	25.80
3	20175	1	#Mid	QPSK	21.94	25.94
3	20175	1	#Max	QPSK	21.76	25.76
3	20175	8	#0	QPSK	20.96	24.96
3	20175	8	#Mid	QPSK	20.98	24.98
3	20175	8	#Max	QPSK	21.02	25.02

3	20175	15	#0	QPSK	20.98	24.98
3	20385	1	#0	QPSK	22.34	26.34
3	20385	1	#Mid	QPSK	22.46	26.46
3	20385	1	#Max	QPSK	22.24	26.24
3	20385	8	#0	QPSK	21.39	25.39
3	20385	8	#Mid	QPSK	21.40	25.40
3	20385	8	#Max	QPSK	21.53	25.53
3	20385	15	#0	QPSK	21.50	25.50
5	19975	1	#0	QPSK	22.38	26.38
5	19975	1	#Mid	QPSK	22.30	26.30
5	19975	1	#Max	QPSK	22.14	26.14
5	19975	12	#0	QPSK	21.42	25.42
5	19975	12	#Mid	QPSK	21.42	25.42
5	19975	12	#Max	QPSK	21.29	25.29
5	19975	25	#0	QPSK	21.34	25.34
5	20175	1	#0	QPSK	21.95	25.95
5	20175	1	#Mid	QPSK	21.99	25.99
5	20175	1	#Max	QPSK	22.00	26.00
5	20175	12	#0	QPSK	21.01	25.01
5	20175	12	#Mid	QPSK	21.03	25.03
5	20175	12	#Max	QPSK	21.06	25.06
5	20175	25	#0	QPSK	21.05	25.05
5	20375	1	#0	QPSK	22.53	26.53
5	20375	1	#Mid	QPSK	22.46	26.46
5	20375	1	#Max	QPSK	22.51	26.51
5	20375	12	#0	QPSK	21.63	25.63
5	20375	12	#Mid	QPSK	21.66	25.66
5	20375	12	#Max	QPSK	21.62	25.62
5	20375	25	#0	QPSK	21.60	25.60
10	20000	1	#0	QPSK	22.27	26.27
10	20000	1	#Mid	QPSK	22.15	26.15
10	20000	1	#Max	QPSK	22.14	26.14
10	20000	25	#0	QPSK	21.26	25.26
10	20000	25	#Mid	QPSK	21.25	25.25
10	20000	25	#Max	QPSK	21.21	25.21
10	20000	50	#0	QPSK	21.22	25.22
10	20175	1	#0	QPSK	21.83	25.83
10	20175	1	#Mid	QPSK	21.97	25.97
10	20175	1	#Max	QPSK	22.17	26.17
10	20175	25	#0	QPSK	21.13	25.13
10	20175	25	#Mid	QPSK	21.15	25.15
10	20175	25	#Max	QPSK	21.27	25.27
10	20175	50	#0	QPSK	21.22	25.22

10	20350	1	#0	QPSK	22.57	26.57
10	20350	1	#Mid	QPSK	22.72	26.72
10	20350	1	#Max	QPSK	22.62	26.62
10	20350	25	#0	QPSK	21.68	25.68
10	20350	25	#Mid	QPSK	21.71	25.71
10	20350	25	#Max	QPSK	21.70	25.70
10	20350	50	#0	QPSK	21.70	25.70
15	20025	1	#0	QPSK	22.20	26.20
15	20025	1	#Mid	QPSK	22.08	26.08
15	20025	1	#Max	QPSK	21.98	25.98
15	20025	36	#0	QPSK	21.42	25.42
15	20025	36	#Mid	QPSK	21.41	25.41
15	20025	36	#Max	QPSK	21.41	25.41
15	20025	75	#0	QPSK	21.40	25.40
15	20175	1	#0	QPSK	21.95	25.95
15	20175	1	#Mid	QPSK	22.14	26.14
15	20175	1	#Max	QPSK	22.25	26.25
15	20175	36	#0	QPSK	21.13	25.13
15	20175	36	#Mid	QPSK	21.16	25.16
15	20175	36	#Max	QPSK	21.38	25.38
15	20175	75	#0	QPSK	21.27	25.27
15	20325	1	#0	QPSK	22.51	26.51
15	20325	1	#Mid	QPSK	22.68	26.68
15	20325	1	#Max	QPSK	22.60	26.60
15	20325	36	#0	QPSK	21.63	25.63
15	20325	36	#Mid	QPSK	21.66	25.66
15	20325	36	#Max	QPSK	21.72	25.72
15	20325	75	#0	QPSK	21.65	25.65
20	20050	1	#0	QPSK	22.41	26.41
20	20050	1	#Mid	QPSK	22.21	26.21
20	20050	1	#Max	QPSK	22.33	26.33
20	20050	50	#0	QPSK	21.52	25.52
20	20050	50	#Mid	QPSK	21.51	25.51
20	20050	50	#Max	QPSK	21.51	25.51
20	20050	100	#0	QPSK	21.51	25.51
20	20175	1	#0	QPSK	22.17	26.17
20	20175	1	#Mid	QPSK	22.29	26.29
20	20175	1	#Max	QPSK	22.41	26.41
20	20175	50	#0	QPSK	21.13	25.13
20	20175	50	#Mid	QPSK	21.16	25.16
20	20175	50	#Max	QPSK	21.41	25.41
20	20175	100	#0	QPSK	21.28	25.28
20	20300	1	#0	QPSK	22.57	26.57

20	20300	1	#Mid	QPSK	22.65	26.65
20	20300	1	#Max	QPSK	22.64	26.64
20	20300	50	#0	QPSK	21.69	25.69
20	20300	50	#Mid	QPSK	21.72	25.72
20	20300	50	#Max	QPSK	21.86	25.86
20	20300	100	#0	QPSK	21.78	25.78
1.4	19957	1	#0	16QAM	21.68	25.68
1.4	19957	1	#Mid	16QAM	21.80	25.80
1.4	19957	1	#Max	16QAM	21.71	25.71
1.4	19957	3	#0	16QAM	21.56	25.56
1.4	19957	3	#Mid	16QAM	21.65	25.65
1.4	19957	3	#Max	16QAM	21.66	25.66
1.4	19957	6	#0	16QAM	20.72	24.72
1.4	20175	1	#0	16QAM	21.53	25.53
1.4	20175	1	#Mid	16QAM	21.63	25.63
1.4	20175	1	#Max	16QAM	21.60	25.60
1.4	20175	3	#0	16QAM	21.23	25.23
1.4	20175	3	#Mid	16QAM	21.23	25.23
1.4	20175	3	#Max	16QAM	21.23	25.23
1.4	20175	6	#0	16QAM	20.26	24.26
1.4	20393	1	#0	16QAM	21.58	25.58
1.4	20393	1	#Mid	16QAM	21.58	25.58
1.4	20393	1	#Max	16QAM	21.54	25.54
1.4	20393	3	#0	16QAM	21.50	25.50
1.4	20393	3	#Mid	16QAM	21.63	25.63
1.4	20393	3	#Max	16QAM	21.64	25.64
1.4	20393	6	#0	16QAM	20.77	24.77
3	19965	1	#0	16QAM	21.54	25.54
3	19965	1	#Mid	16QAM	21.69	25.69
3	19965	1	#Max	16QAM	21.41	25.41
3	19965	8	#0	16QAM	20.56	24.56
3	19965	8	#Mid	16QAM	20.55	24.55
3	19965	8	#Max	16QAM	20.46	24.46
3	19965	15	#0	16QAM	20.41	24.41
3	20175	1	#0	16QAM	21.39	25.39
3	20175	1	#Mid	16QAM	21.63	25.63
3	20175	1	#Max	16QAM	21.45	25.45
3	20175	8	#0	16QAM	20.38	24.38
3	20175	8	#Mid	16QAM	20.38	24.38
3	20175	8	#Max	16QAM	20.41	24.41
3	20175	15	#0	16QAM	20.18	24.18
3	20385	1	#0	16QAM	21.52	25.52
3	20385	1	#Mid	16QAM	21.65	25.65

3	20385	1	#Max	16QAM	21.44	25.44
3	20385	8	#0	16QAM	20.82	24.82
3	20385	8	#Mid	16QAM	20.84	24.84
3	20385	8	#Max	16QAM	20.84	24.84
3	20385	15	#0	16QAM	20.81	24.81
5	19975	1	#0	16QAM	21.96	25.96
5	19975	1	#Mid	16QAM	21.84	25.84
5	19975	1	#Max	16QAM	21.77	25.77
5	19975	12	#0	16QAM	20.60	24.60
5	19975	12	#Mid	16QAM	20.60	24.60
5	19975	12	#Max	16QAM	20.48	24.48
5	19975	25	#0	16QAM	20.57	24.57
5	20175	1	#0	16QAM	21.38	25.38
5	20175	1	#Mid	16QAM	21.43	25.43
5	20175	1	#Max	16QAM	21.54	25.54
5	20175	12	#0	16QAM	20.38	24.38
5	20175	12	#Mid	16QAM	20.40	24.40
5	20175	12	#Max	16QAM	20.44	24.44
5	20175	25	#0	16QAM	20.41	24.41
5	20375	1	#0	16QAM	22.01	26.01
5	20375	1	#Mid	16QAM	22.06	26.06
5	20375	1	#Max	16QAM	22.03	26.03
5	20375	12	#0	16QAM	21.11	25.11
5	20375	12	#Mid	16QAM	21.13	25.13
5	20375	12	#Max	16QAM	21.09	25.09
5	20375	25	#0	16QAM	20.99	24.99

LTE Band12						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
1.4	23017	1	#0	QPSK	22.04	23.54
1.4	23017	1	#Mid	QPSK	22.05	23.55
1.4	23017	1	#Max	QPSK	22.16	23.66
1.4	23017	3	#0	QPSK	21.99	23.49
1.4	23017	3	#Mid	QPSK	21.97	23.47
1.4	23017	3	#Max	QPSK	22.04	23.54
1.4	23017	6	#0	QPSK	21.20	22.70
1.4	23095	1	#0	QPSK	22.27	23.77
1.4	23095	1	#Mid	QPSK	22.41	23.91
1.4	23095	1	#Max	QPSK	22.42	23.92
1.4	23095	3	#0	QPSK	22.37	23.87
1.4	23095	3	#Mid	QPSK	22.37	23.87
1.4	23095	3	#Max	QPSK	22.45	23.95

1.4	23095	6	#0	QPSK	21.44	22.94
1.4	23173	1	#0	QPSK	22.36	23.86
1.4	23173	1	#Mid	QPSK	22.31	23.81
1.4	23173	1	#Max	QPSK	22.32	23.82
1.4	23173	3	#0	QPSK	22.29	23.79
1.4	23173	3	#Mid	QPSK	22.29	23.79
1.4	23173	3	#Max	QPSK	22.28	23.78
1.4	23173	6	#0	QPSK	21.41	22.91
3	23025	1	#0	QPSK	22.09	23.59
3	23025	1	#Mid	QPSK	22.29	23.79
3	23025	1	#Max	QPSK	22.21	23.71
3	23025	8	#0	QPSK	21.22	22.72
3	23025	8	#Mid	QPSK	21.19	22.69
3	23025	8	#Max	QPSK	21.45	22.95
3	23025	15	#0	QPSK	21.39	22.89
3	23095	1	#0	QPSK	22.26	23.76
3	23095	1	#Mid	QPSK	22.44	23.94
3	23095	1	#Max	QPSK	22.25	23.75
3	23095	8	#0	QPSK	21.34	22.84
3	23095	8	#Mid	QPSK	21.34	22.84
3	23095	8	#Max	QPSK	21.47	22.97
3	23095	15	#0	QPSK	21.39	22.89
3	23165	1	#0	QPSK	22.32	23.82
3	23165	1	#Mid	QPSK	22.44	23.94
3	23165	1	#Max	QPSK	22.21	23.71
3	23165	8	#0	QPSK	21.44	22.94
3	23165	8	#Mid	QPSK	21.45	22.95
3	23165	8	#Max	QPSK	21.38	22.88
3	23165	15	#0	QPSK	21.44	22.94
5	23035	1	#0	QPSK	22.30	23.80
5	23035	1	#Mid	QPSK	22.49	23.99
5	23035	1	#Max	QPSK	22.69	24.19
5	23035	12	#0	QPSK	21.42	22.92
5	23035	12	#Mid	QPSK	21.43	22.93
5	23035	12	#Max	QPSK	21.67	23.17
5	23035	25	#0	QPSK	21.55	23.05
5	23095	1	#0	QPSK	22.44	23.94
5	23095	1	#Mid	QPSK	22.46	23.96
5	23095	1	#Max	QPSK	22.56	24.06
5	23095	12	#0	QPSK	21.47	22.97
5	23095	12	#Mid	QPSK	21.47	22.97
5	23095	12	#Max	QPSK	21.51	23.01
5	23095	25	#0	QPSK	21.51	23.01

5	23155	1	#0	QPSK	22.17	23.67
5	23155	1	#Mid	QPSK	22.07	23.57
5	23155	1	#Max	QPSK	21.97	23.47
5	23155	12	#0	QPSK	21.27	22.77
5	23155	12	#Mid	QPSK	21.28	22.78
5	23155	12	#Max	QPSK	21.18	22.68
5	23155	25	#0	QPSK	21.24	22.74
10	23060	1	#0	QPSK	22.03	23.53
10	23060	1	#Mid	QPSK	22.65	24.15
10	23060	1	#Max	QPSK	22.82	24.32
10	23060	25	#0	QPSK	21.55	23.05
10	23060	25	#Mid	QPSK	21.54	23.04
10	23060	25	#Max	QPSK	21.87	23.37
10	23060	50	#0	QPSK	21.70	23.20
10	23095	1	#0	QPSK	22.26	23.76
10	23095	1	#Mid	QPSK	22.46	23.96
10	23095	1	#Max	QPSK	22.50	24.00
10	23095	25	#0	QPSK	21.55	23.05
10	23095	25	#Mid	QPSK	21.54	23.04
10	23095	25	#Max	QPSK	21.63	23.13
10	23095	50	#0	QPSK	21.61	23.11
10	23130	1	#0	QPSK	22.19	23.69
10	23130	1	#Mid	QPSK	22.20	23.70
10	23130	1	#Max	QPSK	22.06	23.56
10	23130	25	#0	QPSK	21.17	22.67
10	23130	25	#Mid	QPSK	21.17	22.67
10	23130	25	#Max	QPSK	21.16	22.66
10	23130	50	#0	QPSK	21.17	22.67
1.4	23017	1	#0	16QAM	21.45	22.95
1.4	23017	1	#Mid	16QAM	21.44	22.94
1.4	23017	1	#Max	16QAM	21.55	23.05
1.4	23017	3	#0	16QAM	21.34	22.84
1.4	23017	3	#Mid	16QAM	21.33	22.83
1.4	23017	3	#Max	16QAM	21.31	22.81
1.4	23017	6	#0	16QAM	20.35	21.85
1.4	23095	1	#0	16QAM	21.67	23.17
1.4	23095	1	#Mid	16QAM	21.88	23.38
1.4	23095	1	#Max	16QAM	21.87	23.37
1.4	23095	3	#0	16QAM	21.40	22.90
1.4	23095	3	#Mid	16QAM	21.39	22.89
1.4	23095	3	#Max	16QAM	21.48	22.98
1.4	23095	6	#0	16QAM	20.48	21.98
1.4	23173	1	#0	16QAM	21.42	22.92

1.4	23173	1	#Mid	16QAM	21.36	22.86
1.4	23173	1	#Max	16QAM	21.39	22.89
1.4	23173	3	#0	16QAM	21.36	22.86
1.4	23173	3	#Mid	16QAM	21.35	22.85
1.4	23173	3	#Max	16QAM	21.34	22.84
1.4	23173	6	#0	16QAM	20.37	21.87
3	23025	1	#0	16QAM	21.50	23.00
3	23025	1	#Mid	16QAM	21.83	23.33
3	23025	1	#Max	16QAM	21.73	23.23
3	23025	8	#0	16QAM	20.47	21.97
3	23025	8	#Mid	16QAM	20.46	21.96
3	23025	8	#Max	16QAM	20.60	22.10
3	23025	15	#0	16QAM	20.43	21.93
3	23095	1	#0	16QAM	21.73	23.23
3	23095	1	#Mid	16QAM	21.85	23.35
3	23095	1	#Max	16QAM	21.71	23.21
3	23095	8	#0	16QAM	20.60	22.10
3	23095	8	#Mid	16QAM	20.59	22.09
3	23095	8	#Max	16QAM	20.71	22.21
3	23095	15	#0	16QAM	20.41	21.91
3	23165	1	#0	16QAM	21.49	22.99
3	23165	1	#Mid	16QAM	21.50	23.00
3	23165	1	#Max	16QAM	21.29	22.79
3	23165	8	#0	16QAM	20.63	22.13
3	23165	8	#Mid	16QAM	20.64	22.14
3	23165	8	#Max	16QAM	20.56	22.06
3	23165	15	#0	16QAM	20.56	22.06
5	23035	1	#0	16QAM	21.72	23.22
5	23035	1	#Mid	16QAM	22.07	23.57
5	23035	1	#Max	16QAM	22.20	23.70
5	23035	12	#0	16QAM	20.60	22.10
5	23035	12	#Mid	16QAM	20.61	22.11
5	23035	12	#Max	16QAM	20.85	22.35
5	23035	25	#0	16QAM	20.70	22.20
5	23095	1	#0	16QAM	21.76	23.26
5	23095	1	#Mid	16QAM	21.79	23.29
5	23095	1	#Max	16QAM	21.90	23.40
5	23095	12	#0	16QAM	20.66	22.16
5	23095	12	#Mid	16QAM	20.67	22.17
5	23095	12	#Max	16QAM	20.73	22.23
5	23095	25	#0	16QAM	20.64	22.14
5	23155	1	#0	16QAM	21.67	23.17
5	23155	1	#Mid	16QAM	21.59	23.09

5	23155	1	#Max	16QAM	21.50	23.00
5	23155	12	#0	16QAM	20.50	22.00
5	23155	12	#Mid	16QAM	20.51	22.01
5	23155	12	#Max	16QAM	20.41	21.91
5	23155	25	#0	16QAM	20.34	21.84

LTE Band13						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
5	23205	1	#0	QPSK	22.30	23.95
5	23205	1	#Mid	QPSK	22.48	24.13
5	23205	1	#Max	QPSK	22.82	24.47
5	23205	12	#0	QPSK	21.19	22.84
5	23205	12	#Mid	QPSK	21.18	22.83
5	23205	12	#Max	QPSK	21.80	23.45
5	23205	25	#0	QPSK	21.53	23.18
5	23230	1	#0	QPSK	22.61	24.26
5	23230	1	#Mid	QPSK	22.85	24.50
5	23230	1	#Max	QPSK	22.59	24.24
5	23230	12	#0	QPSK	21.92	23.57
5	23230	12	#Mid	QPSK	21.92	23.57
5	23230	12	#Max	QPSK	21.79	23.44
5	23230	25	#0	QPSK	21.84	23.49
5	23255	1	#0	QPSK	22.84	24.49
5	23255	1	#Mid	QPSK	22.64	24.29
5	23255	1	#Max	QPSK	22.56	24.21
5	23255	12	#0	QPSK	21.76	23.41
5	23255	12	#Mid	QPSK	21.77	23.42
5	23255	12	#Max	QPSK	21.61	23.26
5	23255	25	#0	QPSK	21.67	23.32
10	23230	1	#0	QPSK	22.32	23.97
10	23230	1	#Mid	QPSK	22.83	24.48
10	23230	1	#Max	QPSK	22.62	24.27
10	23230	25	#0	QPSK	21.76	23.41
10	23230	25	#Mid	QPSK	21.75	23.40
10	23230	25	#Max	QPSK	21.80	23.45
10	23230	50	#0	QPSK	21.76	23.41
5	23205	1	#0	16QAM	21.61	23.26
5	23205	1	#Mid	16QAM	21.80	23.45
5	23205	1	#Max	16QAM	22.16	23.81
5	23205	12	#0	16QAM	20.37	22.02
5	23205	12	#Mid	16QAM	20.37	22.02
5	23205	12	#Max	16QAM	21.03	22.68

5	23205	25	#0	16QAM	20.61	22.26
5	23230	1	#0	16QAM	22.06	23.71
5	23230	1	#Mid	16QAM	22.29	23.94
5	23230	1	#Max	16QAM	22.02	23.67
5	23230	12	#0	16QAM	21.06	22.71
5	23230	12	#Mid	16QAM	21.06	22.71
5	23230	12	#Max	16QAM	20.92	22.57
5	23230	25	#0	16QAM	20.95	22.60
5	23255	1	#0	16QAM	22.13	23.78
5	23255	1	#Mid	16QAM	21.91	23.56
5	23255	1	#Max	16QAM	21.86	23.51
5	23255	12	#0	16QAM	20.95	22.60
5	23255	12	#Mid	16QAM	20.96	22.61
5	23255	12	#Max	16QAM	20.79	22.44
5	23255	25	#0	16QAM	20.81	22.46

LTE Band 66						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP (dBm)
1.4	131979	1	#0	QPSK	22.56	26.56
1.4	131979	1	#Mid	QPSK	22.62	26.62
1.4	131979	1	#Max	QPSK	22.58	26.58
1.4	131979	3	#0	QPSK	22.52	26.52
1.4	131979	3	#Mid	QPSK	22.62	26.62
1.4	131979	3	#Max	QPSK	22.62	26.62
1.4	131979	6	#0	QPSK	21.62	25.62
1.4	132322	1	#0	QPSK	22.52	26.52
1.4	132322	1	#Mid	QPSK	22.49	26.49
1.4	132322	1	#Max	QPSK	22.48	26.48
1.4	132322	3	#0	QPSK	22.55	26.55
1.4	132322	3	#Mid	QPSK	22.56	26.56
1.4	132322	3	#Max	QPSK	22.56	26.56
1.4	132322	6	#0	QPSK	21.57	25.57
1.4	132665	1	#0	QPSK	21.79	25.79
1.4	132665	1	#Mid	QPSK	21.83	25.83
1.4	132665	1	#Max	QPSK	21.76	25.76
1.4	132665	3	#0	QPSK	21.83	25.83
1.4	132665	3	#Mid	QPSK	21.82	25.82
1.4	132665	3	#Max	QPSK	21.73	25.73
1.4	132665	6	#0	QPSK	20.75	24.75
3	131987	1	#0	QPSK	22.37	26.37
3	131987	1	#Mid	QPSK	22.46	26.46
3	131987	1	#Max	QPSK	22.36	26.36

3	131987	8	#0	QPSK	21.53	25.53
3	131987	8	#Mid	QPSK	21.53	25.53
3	131987	8	#Max	QPSK	21.55	25.55
3	131987	15	#0	QPSK	21.51	25.51
3	132322	1	#0	QPSK	22.42	26.42
3	132322	1	#Mid	QPSK	22.61	26.61
3	132322	1	#Max	QPSK	22.38	26.38
3	132322	8	#0	QPSK	21.58	25.58
3	132322	8	#Mid	QPSK	21.59	25.59
3	132322	8	#Max	QPSK	21.62	25.62
3	132322	15	#0	QPSK	21.57	25.57
3	132657	1	#0	QPSK	21.82	25.82
3	132657	1	#Mid	QPSK	21.92	25.92
3	132657	1	#Max	QPSK	21.60	25.60
3	132657	8	#0	QPSK	20.81	24.81
3	132657	8	#Mid	QPSK	20.84	24.84
3	132657	8	#Max	QPSK	20.74	24.74
3	132657	15	#0	QPSK	20.76	24.76
5	131997	1	#0	QPSK	22.53	26.53
5	131997	1	#Mid	QPSK	22.57	26.57
5	131997	1	#Max	QPSK	22.48	26.48
5	131997	12	#0	QPSK	21.69	25.69
5	131997	12	#Mid	QPSK	21.69	25.69
5	131997	12	#Max	QPSK	21.67	25.67
5	131997	25	#0	QPSK	21.65	25.65
5	132322	1	#0	QPSK	22.55	26.55
5	132322	1	#Mid	QPSK	22.63	26.63
5	132322	1	#Max	QPSK	22.57	26.57
5	132322	12	#0	QPSK	21.63	25.63
5	132322	12	#Mid	QPSK	21.64	25.64
5	132322	12	#Max	QPSK	21.68	25.68
5	132322	25	#0	QPSK	21.63	25.63
5	132647	1	#0	QPSK	21.94	25.94
5	132647	1	#Mid	QPSK	21.84	25.84
5	132647	1	#Max	QPSK	21.64	25.64
5	132647	12	#0	QPSK	20.84	24.84
5	132647	12	#Mid	QPSK	20.86	24.86
5	132647	12	#Max	QPSK	20.75	24.75
5	132647	25	#0	QPSK	20.79	24.79
10	132022	1	#0	QPSK	22.41	26.41
10	132022	1	#Mid	QPSK	22.44	26.44
10	132022	1	#Max	QPSK	22.37	26.37
10	132022	25	#0	QPSK	21.73	25.73

10	132022	25	#Mid	QPSK	21.72	25.72
10	132022	25	#Max	QPSK	21.63	25.63
10	132022	50	#0	QPSK	21.68	25.68
10	132322	1	#0	QPSK	22.45	26.45
10	132322	1	#Mid	QPSK	22.59	26.59
10	132322	1	#Max	QPSK	22.54	26.54
10	132322	25	#0	QPSK	21.60	25.60
10	132322	25	#Mid	QPSK	21.62	25.62
10	132322	25	#Max	QPSK	21.70	25.70
10	132322	50	#0	QPSK	21.64	25.64
10	132622	1	#0	QPSK	21.93	25.93
10	132622	1	#Mid	QPSK	21.99	25.99
10	132622	1	#Max	QPSK	21.78	25.78
10	132622	25	#0	QPSK	21.04	25.04
10	132622	25	#Mid	QPSK	21.07	25.07
10	132622	25	#Max	QPSK	21.04	25.04
10	132622	50	#0	QPSK	21.05	25.05
15	132047	1	#0	QPSK	22.28	26.28
15	132047	1	#Mid	QPSK	22.35	26.35
15	132047	1	#Max	QPSK	22.28	26.28
15	132047	36	#0	QPSK	21.57	25.57
15	132047	36	#Mid	QPSK	21.56	25.56
15	132047	36	#Max	QPSK	21.51	25.51
15	132047	75	#0	QPSK	21.53	25.53
15	132322	1	#0	QPSK	22.52	26.52
15	132322	1	#Mid	QPSK	22.78	26.78
15	132322	1	#Max	QPSK	22.66	26.66
15	132322	36	#0	QPSK	21.71	25.71
15	132322	36	#Mid	QPSK	21.73	25.73
15	132322	36	#Max	QPSK	21.89	25.89
15	132322	75	#0	QPSK	21.79	25.79
15	132597	1	#0	QPSK	22.06	26.06
15	132597	1	#Mid	QPSK	22.10	26.10
15	132597	1	#Max	QPSK	21.91	25.91
15	132597	36	#0	QPSK	21.15	25.15
15	132597	36	#Mid	QPSK	21.17	25.17
15	132597	36	#Max	QPSK	21.19	25.19
15	132597	75	#0	QPSK	21.19	25.19
20	132072	1	#0	QPSK	22.53	26.53
20	132072	1	#Mid	QPSK	22.48	26.48
20	132072	1	#Max	QPSK	22.61	26.61
20	132072	50	#0	QPSK	21.73	25.73
20	132072	50	#Mid	QPSK	21.72	25.72

20	132072	50	#Max	QPSK	21.73	25.73
20	132072	100	#0	QPSK	21.74	25.74
20	132322	1	#0	QPSK	22.88	26.88
20	132322	1	#Mid	QPSK	22.93	26.93
20	132322	1	#Max	QPSK	22.95	26.95
20	132322	50	#0	QPSK	21.77	25.77
20	132322	50	#Mid	QPSK	21.79	25.79
20	132322	50	#Max	QPSK	21.91	25.91
20	132322	100	#0	QPSK	21.86	25.86
20	132572	1	#0	QPSK	22.15	26.15
20	132572	1	#Mid	QPSK	22.11	26.11
20	132572	1	#Max	QPSK	22.00	26.00
20	132572	50	#0	QPSK	21.24	25.24
20	132572	50	#Mid	QPSK	21.26	25.26
20	132572	50	#Max	QPSK	21.30	25.30
20	132572	100	#0	QPSK	21.27	25.27
1.4	131979	1	#0	16QAM	21.87	25.87
1.4	131979	1	#Mid	16QAM	22.03	26.03
1.4	131979	1	#Max	16QAM	21.93	25.93
1.4	131979	3	#0	16QAM	21.83	25.83
1.4	131979	3	#Mid	16QAM	21.81	25.81
1.4	131979	3	#Max	16QAM	21.79	25.79
1.4	131979	6	#0	16QAM	20.93	24.93
1.4	132322	1	#0	16QAM	22.04	26.04
1.4	132322	1	#Mid	16QAM	22.09	26.09
1.4	132322	1	#Max	16QAM	22.07	26.07
1.4	132322	3	#0	16QAM	21.67	25.67
1.4	132322	3	#Mid	16QAM	21.80	25.80
1.4	132322	3	#Max	16QAM	21.81	25.81
1.4	132322	6	#0	16QAM	20.98	24.98
1.4	132665	1	#0	16QAM	20.89	24.89
1.4	132665	1	#Mid	16QAM	20.85	24.85
1.4	132665	1	#Max	16QAM	20.78	24.78
1.4	132665	3	#0	16QAM	20.80	24.80
1.4	132665	3	#Mid	16QAM	20.80	24.80
1.4	132665	3	#Max	16QAM	20.73	24.73
1.4	132665	6	#0	16QAM	19.85	23.85
3	131987	1	#0	16QAM	21.85	25.85
3	131987	1	#Mid	16QAM	22.03	26.03
3	131987	1	#Max	16QAM	21.82	25.82
3	131987	8	#0	16QAM	20.84	24.84
3	131987	8	#Mid	16QAM	20.84	24.84
3	131987	8	#Max	16QAM	20.85	24.85

3	131987	15	#0	16QAM	20.75	24.75
3	132322	1	#0	16QAM	21.92	25.92
3	132322	1	#Mid	16QAM	22.09	26.09
3	132322	1	#Max	16QAM	21.85	25.85
3	132322	8	#0	16QAM	20.95	24.95
3	132322	8	#Mid	16QAM	20.96	24.96
3	132322	8	#Max	16QAM	21.08	25.08
3	132322	15	#0	16QAM	20.88	24.88
3	132657	1	#0	16QAM	20.94	24.94
3	132657	1	#Mid	16QAM	20.98	24.98
3	132657	1	#Max	16QAM	20.67	24.67
3	132657	8	#0	16QAM	20.12	24.12
3	132657	8	#Mid	16QAM	20.13	24.13
3	132657	8	#Max	16QAM	20.05	24.05
3	132657	15	#0	16QAM	20.06	24.06
5	131997	1	#0	16QAM	21.91	25.91
5	131997	1	#Mid	16QAM	21.95	25.95
5	131997	1	#Max	16QAM	21.97	25.97
5	131997	12	#0	16QAM	20.97	24.97
5	131997	12	#Mid	16QAM	20.98	24.98
5	131997	12	#Max	16QAM	20.96	24.96
5	131997	25	#0	16QAM	20.93	24.93
5	132322	1	#0	16QAM	21.92	25.92
5	132322	1	#Mid	16QAM	22.07	26.07
5	132322	1	#Max	16QAM	22.01	26.01
5	132322	12	#0	16QAM	21.02	25.02
5	132322	12	#Mid	16QAM	21.03	25.03
5	132322	12	#Max	16QAM	21.09	25.09
5	132322	25	#0	16QAM	20.93	24.93
5	132647	1	#0	16QAM	21.57	25.57
5	132647	1	#Mid	16QAM	21.46	25.46
5	132647	1	#Max	16QAM	21.30	25.30
5	132647	12	#0	16QAM	20.23	24.23
5	132647	12	#Mid	16QAM	20.25	24.25
5	132647	12	#Max	16QAM	20.15	24.15
5	132647	25	#0	16QAM	20.21	24.21

LTE Band 71						
Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
5	133147	1	#0	QPSK	22.28	23.32
5	133147	1	#Mid	QPSK	22.35	23.39
5	133147	1	#Max	QPSK	22.33	23.37

5	133147	12	#0	QPSK	21.55	22.59
5	133147	12	#Mid	QPSK	21.55	22.59
5	133147	12	#Max	QPSK	21.51	22.55
5	133147	25	#0	QPSK	21.55	22.59
5	133297	1	#0	QPSK	22.48	23.52
5	133297	1	#Mid	QPSK	22.54	23.58
5	133297	1	#Max	QPSK	22.49	23.53
5	133297	12	#0	QPSK	21.56	22.60
5	133297	12	#Mid	QPSK	21.58	22.62
5	133297	12	#Max	QPSK	21.57	22.61
5	133297	25	#0	QPSK	21.59	22.63
5	133447	1	#0	QPSK	22.56	23.60
5	133447	1	#Mid	QPSK	22.65	23.69
5	133447	1	#Max	QPSK	22.51	23.55
5	133447	12	#0	QPSK	21.79	22.83
5	133447	12	#Mid	QPSK	21.80	22.84
5	133447	12	#Max	QPSK	21.68	22.72
5	133447	25	#0	QPSK	21.73	22.77
10	133172	1	#0	QPSK	22.33	23.37
10	133172	1	#Mid	QPSK	22.42	23.46
10	133172	1	#Max	QPSK	22.63	23.67
10	133172	25	#0	QPSK	21.68	22.72
10	133172	25	#Mid	QPSK	21.67	22.71
10	133172	25	#Max	QPSK	21.86	22.90
10	133172	50	#0	QPSK	21.79	22.83
10	133297	1	#0	QPSK	22.58	23.62
10	133297	1	#Mid	QPSK	22.49	23.53
10	133297	1	#Max	QPSK	22.86	23.90
10	133297	25	#0	QPSK	21.65	22.69
10	133297	25	#Mid	QPSK	21.67	22.71
10	133297	25	#Max	QPSK	21.84	22.88
10	133297	50	#0	QPSK	21.75	22.79
10	133422	1	#0	QPSK	23.05	24.09
10	133422	1	#Mid	QPSK	22.75	23.79
10	133422	1	#Max	QPSK	22.74	23.78
10	133422	25	#0	QPSK	22.12	23.16
10	133422	25	#Mid	QPSK	22.12	23.16
10	133422	25	#Max	QPSK	21.96	23.00
10	133422	50	#0	QPSK	22.05	23.09
15	133197	1	#0	QPSK	22.46	23.50
15	133197	1	#Mid	QPSK	22.84	23.88
15	133197	1	#Max	QPSK	22.34	23.38
15	133197	36	#0	QPSK	21.86	22.90

15	133197	36	#Mid	QPSK	21.83	22.87
15	133197	36	#Max	QPSK	21.94	22.98
15	133197	75	#0	QPSK	21.94	22.98
15	133297	1	#0	QPSK	22.65	23.69
15	133297	1	#Mid	QPSK	22.55	23.59
15	133297	1	#Max	QPSK	22.46	23.50
15	133297	36	#0	QPSK	21.77	22.81
15	133297	36	#Mid	QPSK	21.79	22.83
15	133297	36	#Max	QPSK	21.96	23.00
15	133297	75	#0	QPSK	21.86	22.90
15	133397	1	#0	QPSK	22.90	23.94
15	133397	1	#Mid	QPSK	23.27	24.31
15	133397	1	#Max	QPSK	22.68	23.72
15	133397	36	#0	QPSK	22.07	23.11
15	133397	36	#Mid	QPSK	22.07	23.11
15	133397	36	#Max	QPSK	22.03	23.07
15	133397	75	#0	QPSK	22.09	23.13
20	133222	1	#0	QPSK	22.64	23.68
20	133222	1	#Mid	QPSK	22.75	23.79
20	133222	1	#Max	QPSK	22.55	23.59
20	133222	50	#0	QPSK	21.97	23.01
20	133222	50	#Mid	QPSK	21.97	23.01
20	133222	50	#Max	QPSK	21.88	22.92
20	133222	100	#0	QPSK	21.97	23.01
20	133322	1	#0	QPSK	22.83	23.87
20	133322	1	#Mid	QPSK	22.83	23.87
20	133322	1	#Max	QPSK	22.76	23.80
20	133322	50	#0	QPSK	21.68	22.72
20	133322	50	#Mid	QPSK	21.70	22.74
20	133322	50	#Max	QPSK	22.05	23.09
20	133322	100	#0	QPSK	21.88	22.92
20	133372	1	#0	QPSK	22.66	23.70
20	133372	1	#Mid	QPSK	23.03	24.07
20	133372	1	#Max	QPSK	22.82	23.86
20	133372	50	#0	QPSK	21.94	22.98
20	133372	50	#Mid	QPSK	21.94	22.98
20	133372	50	#Max	QPSK	22.20	23.24
20	133372	100	#0	QPSK	22.12	23.16
5	133147	1	#0	16QAM	21.90	22.94
5	133147	1	#Mid	16QAM	22.03	23.07
5	133147	1	#Max	16QAM	21.87	22.91
5	133147	12	#0	16QAM	20.75	21.79
5	133147	12	#Mid	16QAM	20.76	21.80

5	133147	12	#Max	16QAM	20.70	21.74
5	133147	25	#0	16QAM	20.70	21.74
5	133297	1	#0	16QAM	21.88	22.92
5	133297	1	#Mid	16QAM	21.93	22.97
5	133297	1	#Max	16QAM	21.91	22.95
5	133297	12	#0	16QAM	20.78	21.82
5	133297	12	#Mid	16QAM	20.80	21.84
5	133297	12	#Max	16QAM	20.78	21.82
5	133297	25	#0	16QAM	20.74	21.78
5	133447	1	#0	16QAM	21.99	23.03
5	133447	1	#Mid	16QAM	22.10	23.14
5	133447	1	#Max	16QAM	22.00	23.04
5	133447	12	#0	16QAM	20.99	22.03
5	133447	12	#Mid	16QAM	21.00	22.04
5	133447	12	#Max	16QAM	20.90	21.94
5	133447	25	#0	16QAM	20.79	21.83

6.2 Occupied Bandwidth

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	QPSK	1.4	19957	1710.7	1.094	1.292
			20175	1732.5	1.093	1.279
			20393	1754.3	1.094	1.284
		3	19965	1711.5	2.700	2.968
			20175	1732.5	2.696	2.958
			20385	1753.5	2.703	2.958
		5	19975	1712.5	4.507	4.930
			20175	1732.5	4.511	4.917
			20375	1752.5	4.503	4.868
		10	20000	1715	8.977	10.095
			20175	1732.5	9.016	10.065
			20350	1750	8.994	10.010
		15	20025	1717.5	13.501	15.170
			20175	1732.5	13.520	14.983
			20325	1747.5	13.485	14.912
		20	20050	1720	17.929	19.841
			20175	1732.5	17.999	19.890
			20300	1745	17.970	19.745
	16QAM	1.4	19957	1710.7	1.098	1.295
			20175	1732.5	1.098	1.297
			20393	1754.3	1.094	1.303
		3	19965	1711.5	2.713	2.953
			20175	1732.5	2.692	2.955
			20385	1753.5	2.695	2.970
		5	19975	1712.5	4.508	4.869
			20175	1732.5	4.504	4.894
			20375	1752.5	4.503	4.885

LTE Band 12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	QPSK	1.4	23017	699.7	1.092	1.299
			23095	707.5	1.096	1.300

		3	23173	715.3	1.089	1.293
			23025	700.5	2.690	2.972
			23095	707.5	2.699	2.965
			23165	714.5	2.702	2.956
		5	23035	701.5	4.515	4.946
			23095	707.5	4.503	4.903
			23155	713.5	4.504	4.885
		10	23060	704	9.010	10.316
			23095	707.5	8.989	9.906
			23130	711	8.975	10.072
	16QAM	1.4	23017	699.7	1.098	1.279
			23095	707.5	1.098	1.305
			23173	715.3	1.097	1.308
		3	23025	700.5	2.704	2.982
			23095	707.5	2.699	2.941
			23165	714.5	2.696	2.977
		5	23035	701.5	4.514	4.930
			23095	707.5	4.497	4.925
			23155	713.5	4.498	4.910

LTE Band 13						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	QPSK	5	23205	779.5	4.508	4.889
			23230	782	4.503	4.919
			23255	784.5	4.502	4.889
		10	23230	782	8.984	9.985
	16QAM	5	23205	779.5	4.512	4.874
			23230	782	4.498	4.882
			23255	784.5	4.512	4.925

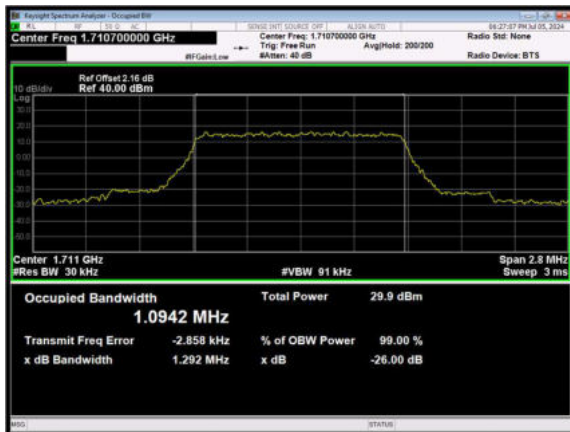
LTE Band 66						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	QPSK	1.4	131979	1710.7	1.094	1.287
			132322	1745	1.094	1.275
			132665	1779.3	1.094	1.301
		3	131987	1711.5	2.698	2.941

			132322	1745	2.699	2.967
			132657	1778.5	2.700	2.964
		5	131997	1712.5	4.512	4.925
			132322	1745	4.507	4.896
			132647	1777.5	4.501	4.971
		10	132022	1715	8.984	10.105
			132322	1745	8.981	10.227
			132622	1775	9.008	10.041
		15	132047	1717.5	13.526	15.266
			132322	1745	13.483	15.310
			132597	1772.5	13.462	14.999
		20	132072	1720	17.982	19.695
			132322	1745	17.966	19.905
			132572	1770	17.963	19.628
	16QAM	1.4	131979	1710.7	1.095	1.283
			132322	1745	1.096	1.308
			132665	1779.3	1.097	1.295
		3	131987	1711.5	2.717	2.974
			132322	1745	2.701	2.951
			132657	1778.5	2.694	2.965
		5	131997	1712.5	4.511	4.874
			132322	1745	4.504	4.915
			132647	1777.5	4.504	4.869

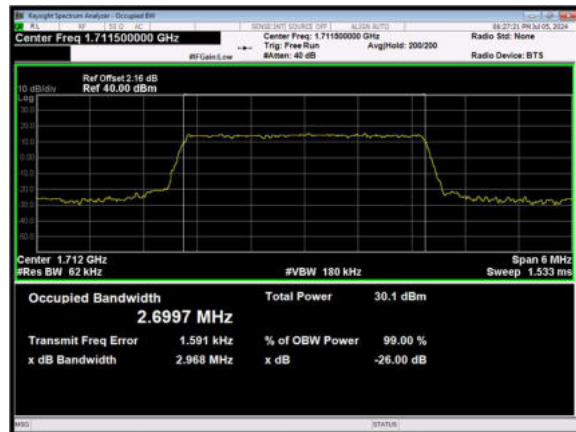
LTE Band 71						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth (MHz)
100%	QPSK	5	133147	665.5	4.497	4.931
			133297	680.5	4.503	4.912
			133447	695.5	4.500	4.882
		10	133172	668	9.007	10.059
			133297	680.5	9.022	10.062
			133422	693	8.955	10.032
		15	133197	670.5	13.500	15.055
			133297	680.5	13.552	15.357
			133397	690.5	13.495	15.027
		20	133222	673	17.903	19.858
			133322	683	18.037	19.805
			133372	688	18.021	19.768

	16QAM	5	133147	665.5	4.513	4.943
			133297	680.5	4.499	4.936
			133447	695.5	4.498	4.891

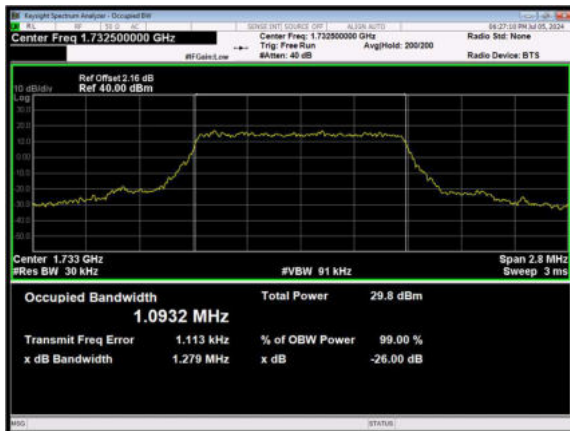
LTE Band 4 QPSK 1.4MHz CH-Low



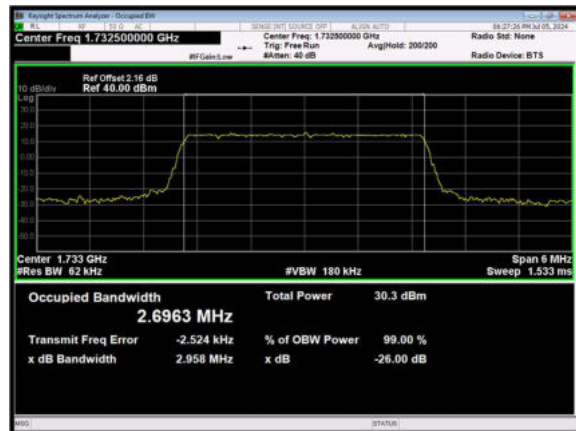
LTE Band 4 QPSK 3MHz CH-Low



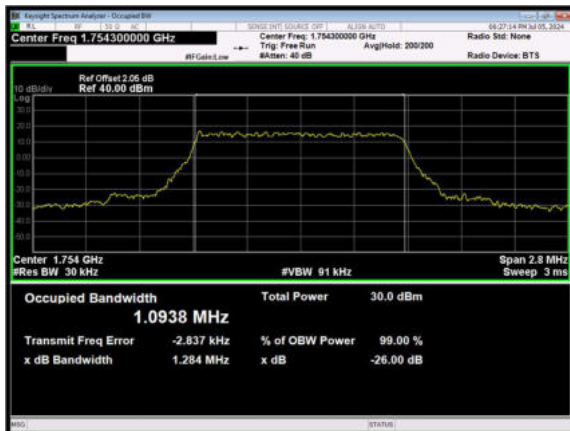
LTE Band 4 QPSK 1.4MHz CH-Middle



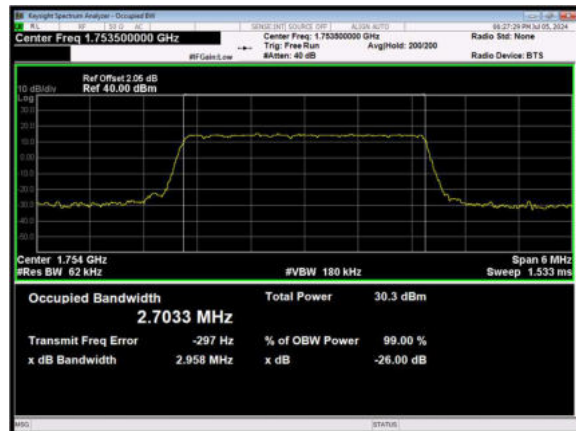
LTE Band 4 QPSK 3MHz CH-Middle



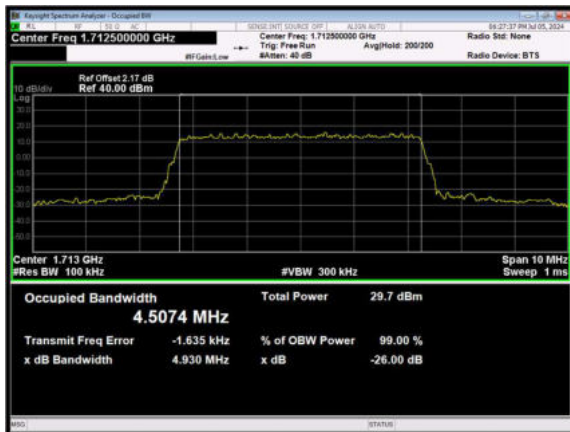
LTE Band 4 QPSK 1.4MHz CH-High



LTE Band 4 QPSK 3MHz CH-High



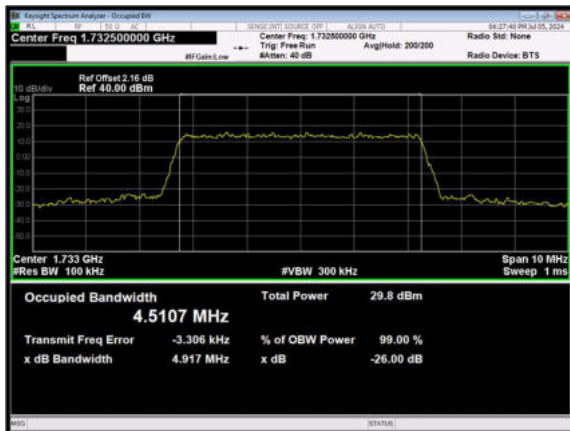
LTE Band 4 QPSK 5MHz CH-Low



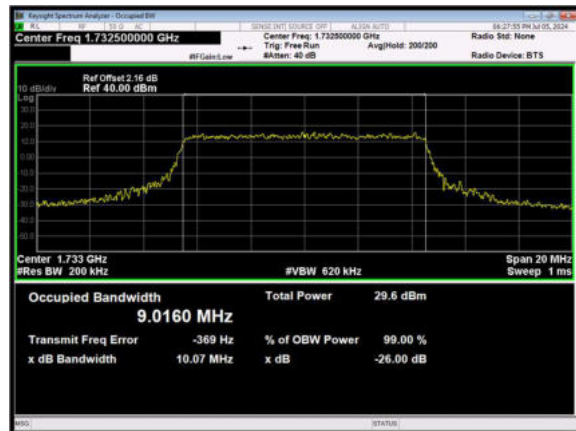
LTE Band 4 QPSK 10MHz CH-Low



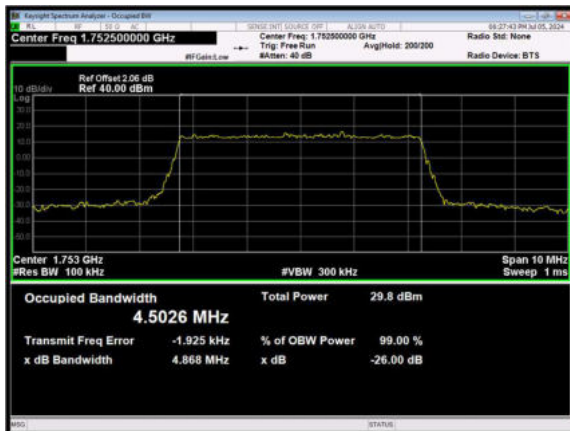
LTE Band 4 QPSK 5MHz CH-Middle



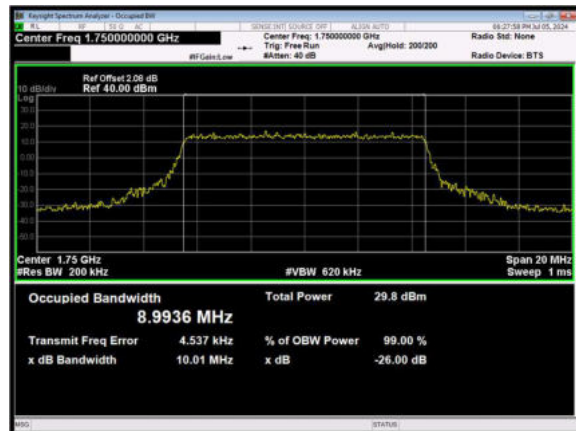
LTE Band 4 QPSK 10MHz CH-Middle



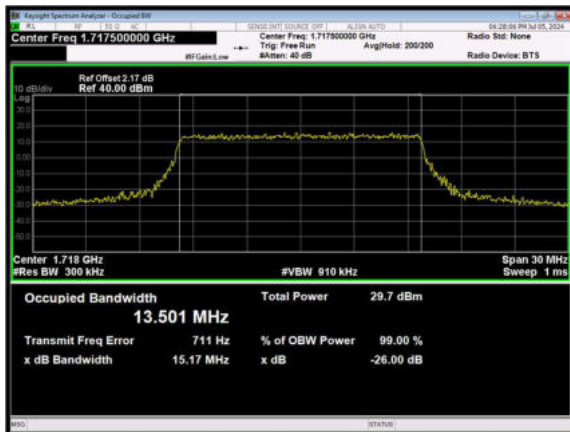
LTE Band 4 QPSK 5MHz CH-High



LTE Band 4 QPSK 10MHz CH-High



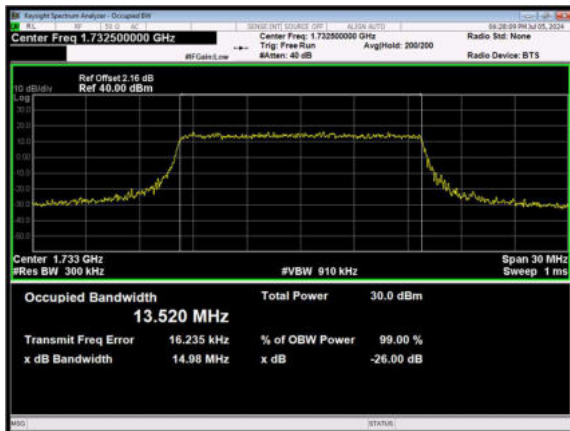
LTE Band 4 QPSK 15MHz CH-Low



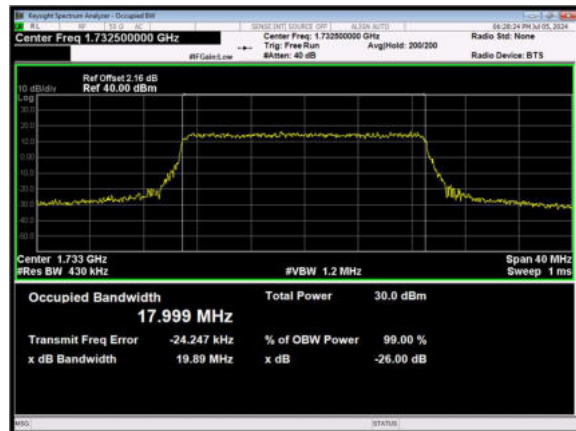
LTE Band 4 QPSK 20MHz CH-Low



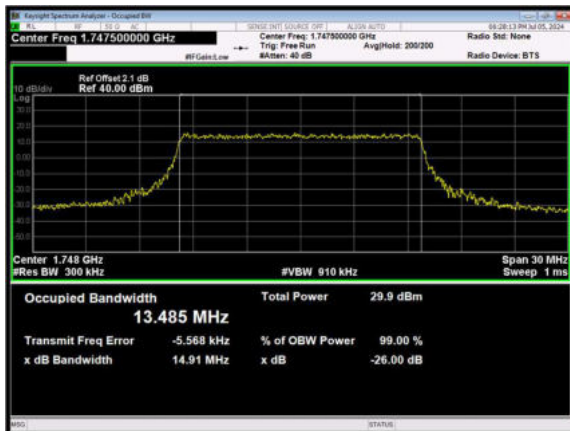
LTE Band 4 QPSK 15MHz CH-Middle



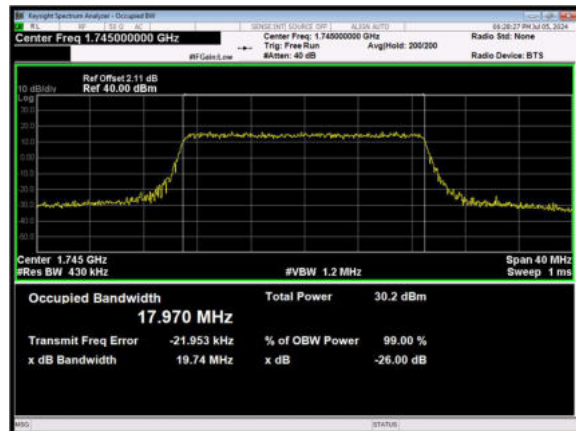
LTE Band 4 QPSK 20MHz CH-Middle



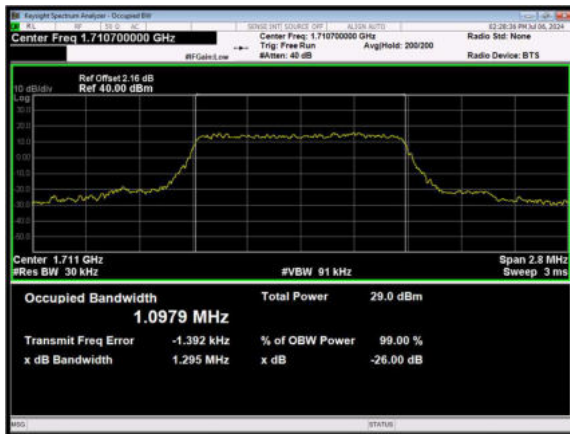
LTE Band 4 QPSK 15MHz CH-High



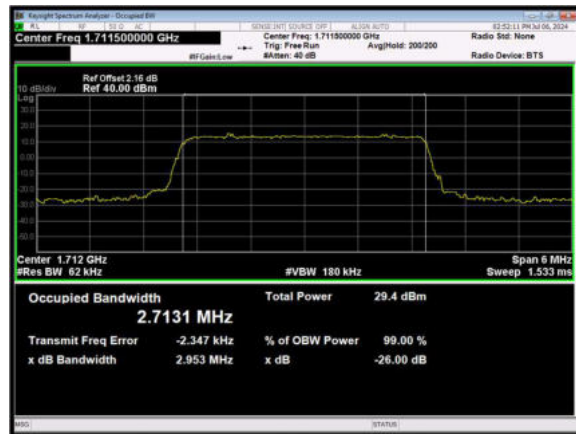
LTE Band 4 QPSK 20MHz CH-High



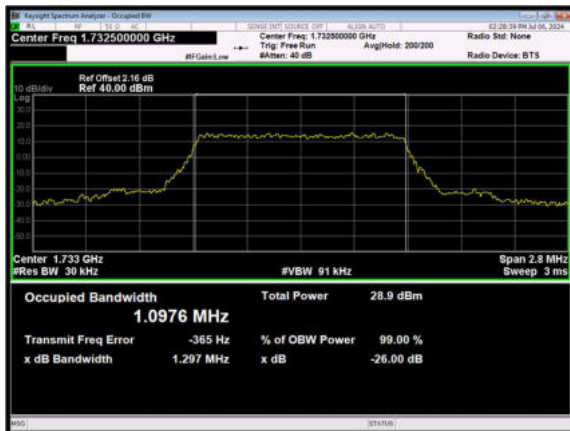
LTE Band 4 16QAM 1.4MHz CH-Low



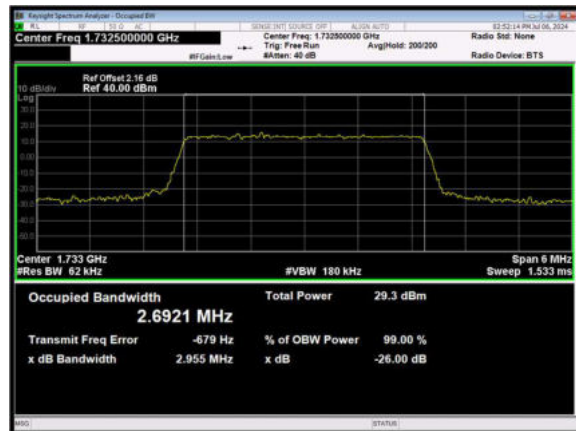
LTE Band 4 16QAM 3MHz CH-Low



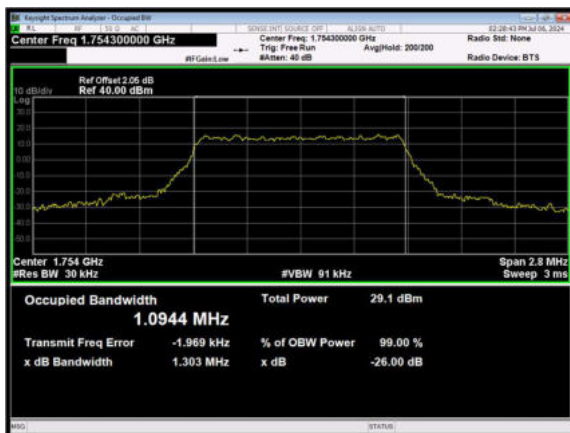
LTE Band 4 16QAM 1.4MHz CH-Middle



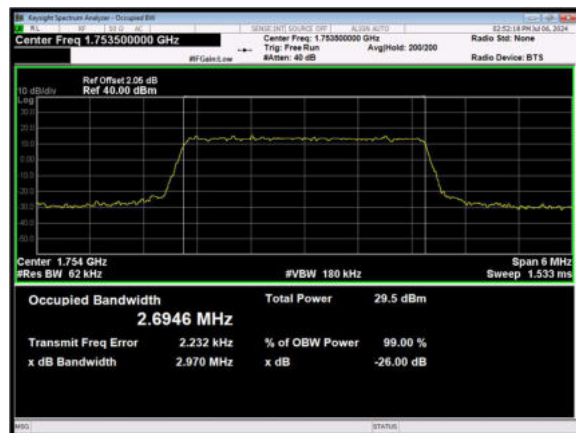
LTE Band 4 16QAM 3MHz CH-Middle



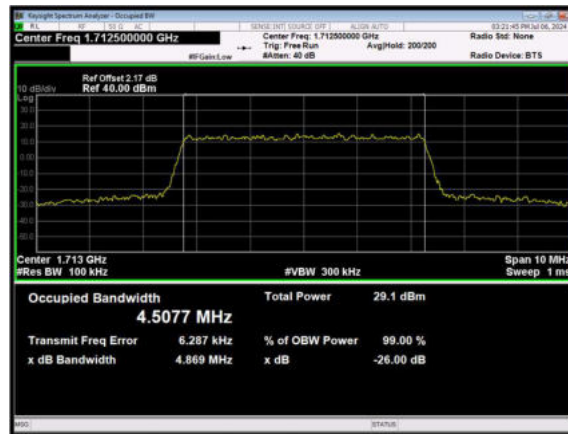
LTE Band 4 16QAM 1.4MHz CH-High



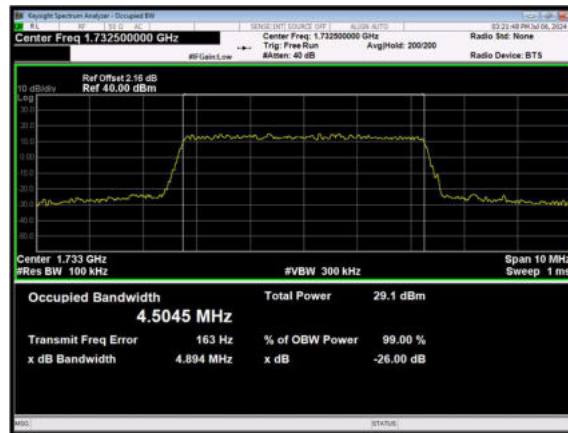
LTE Band 4 16QAM 3MHz CH-High



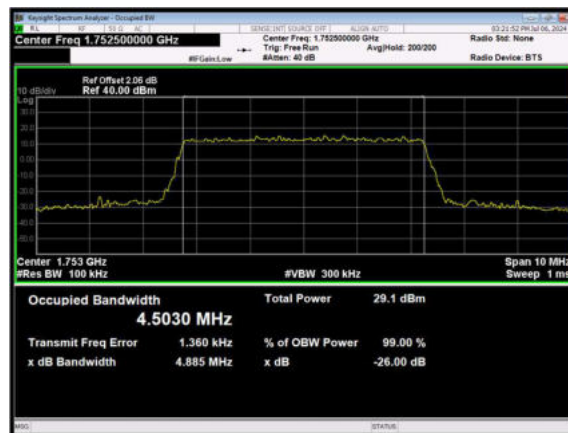
LTE Band 4 16QAM 5MHz CH-Low



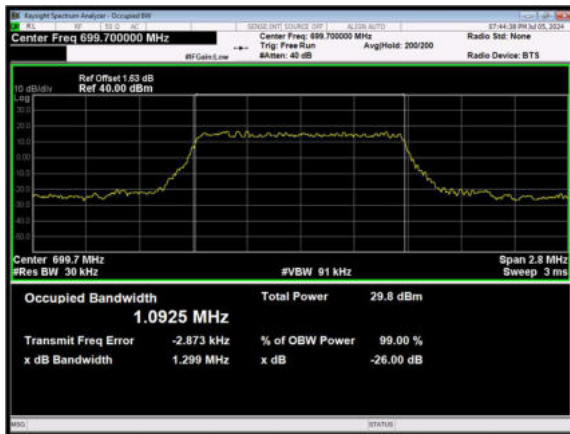
LTE Band 4 16QAM 5MHz CH-Middle



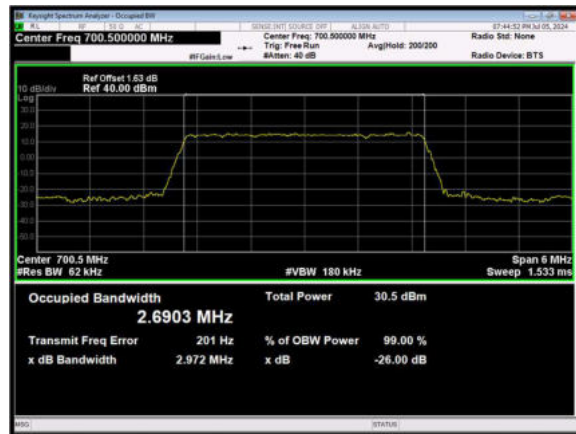
LTE Band 4 16QAM 5MHz CH-High



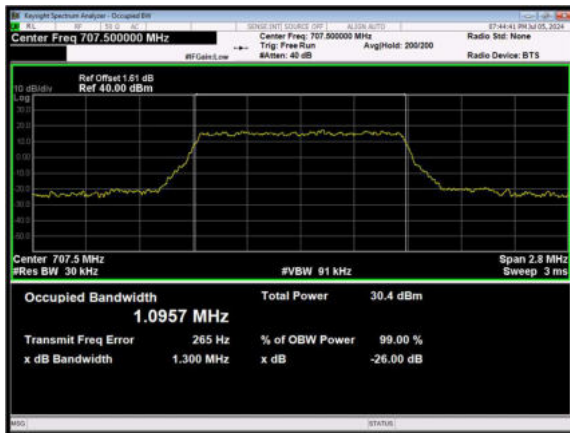
LTE Band 12 QPSK 1.4MHz CH-Low



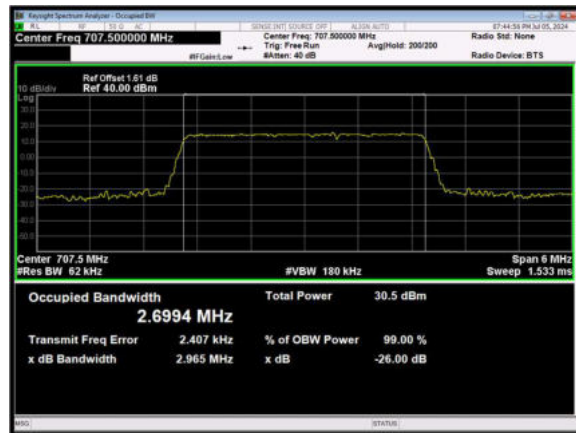
LTE Band 12 QPSK 3MHz CH-Low



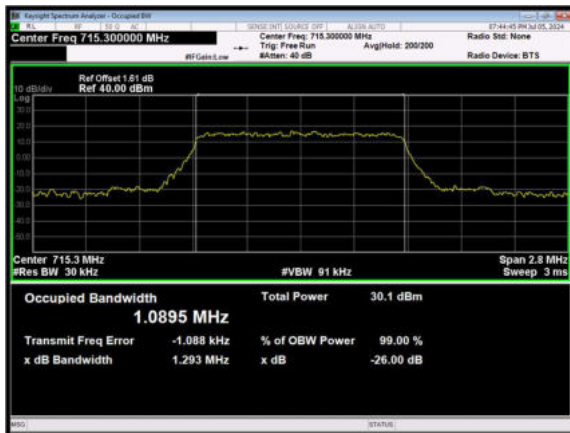
LTE Band 12 QPSK 1.4MHz CH-Middle



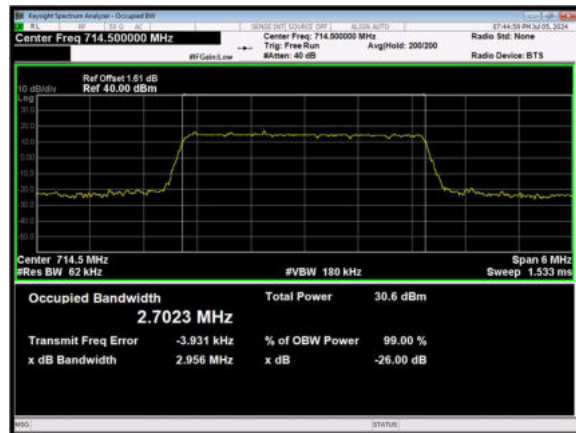
LTE Band 12 QPSK 3MHz CH-Middle



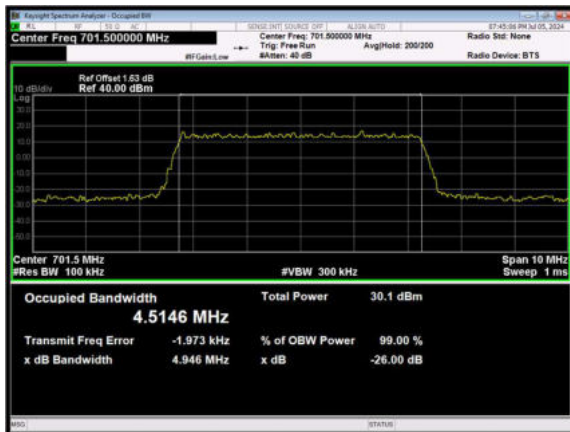
LTE Band 12 QPSK 1.4MHz CH-High



LTE Band 12 QPSK 3MHz CH-High



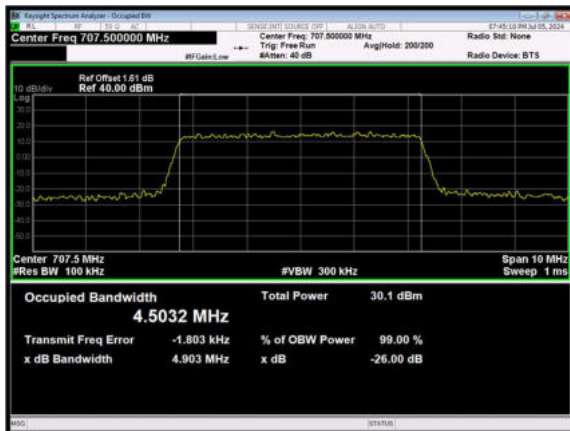
LTE Band 12 QPSK 5MHz CH-Low



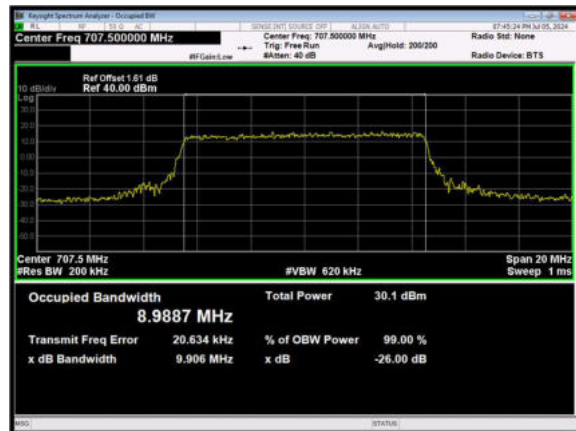
LTE Band 12 QPSK 10MHz CH-Low



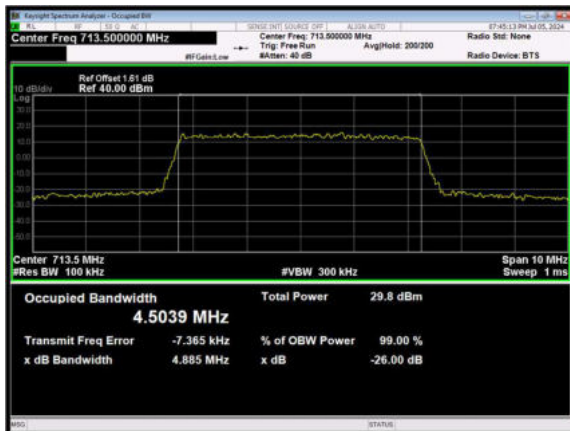
LTE Band 12 QPSK 5MHz CH-Middle



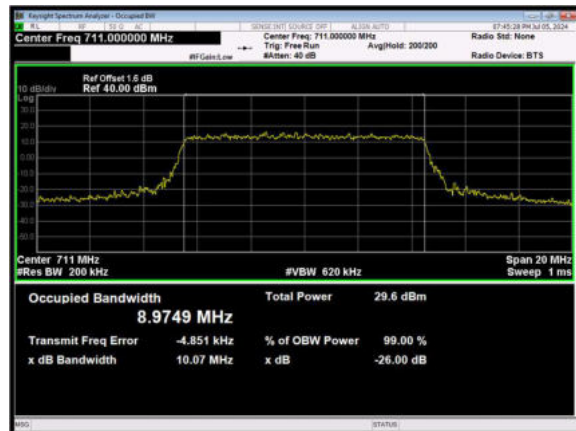
LTE Band 12 QPSK 10MHz CH-Middle



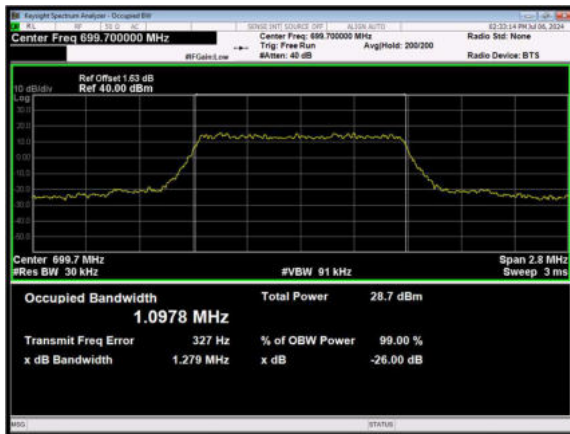
LTE Band 12 QPSK 5MHz CH-High



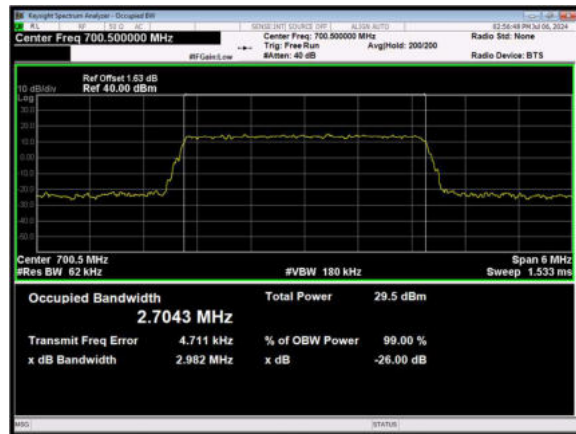
LTE Band 12 QPSK 10MHz CH-High



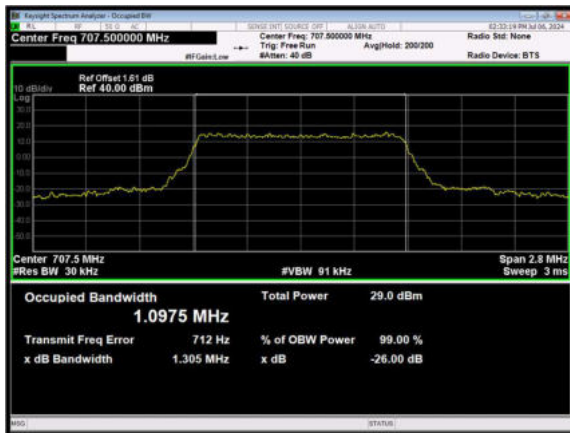
LTE Band 12 16QAM 1.4MHz CH-Low



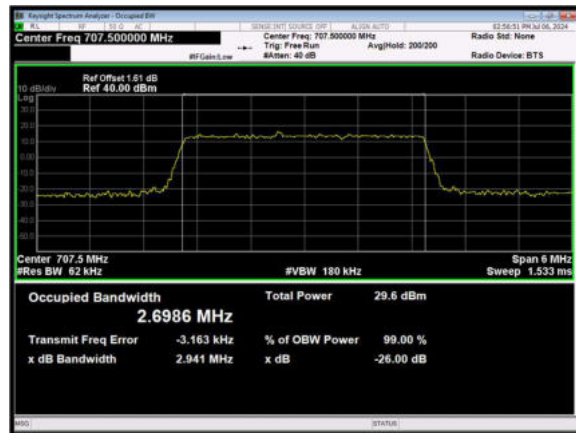
LTE Band 12 16QAM 3MHz CH-Low



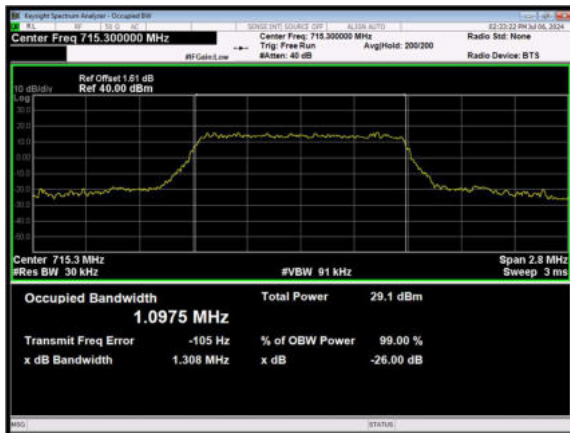
LTE Band 12 16QAM 1.4MHz CH-Middle



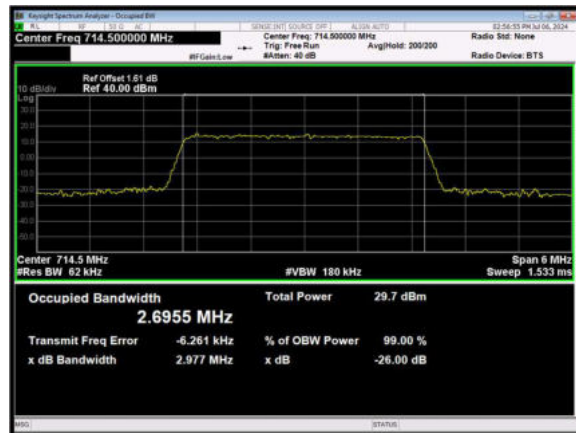
LTE Band 12 16QAM 3MHz CH-Middle



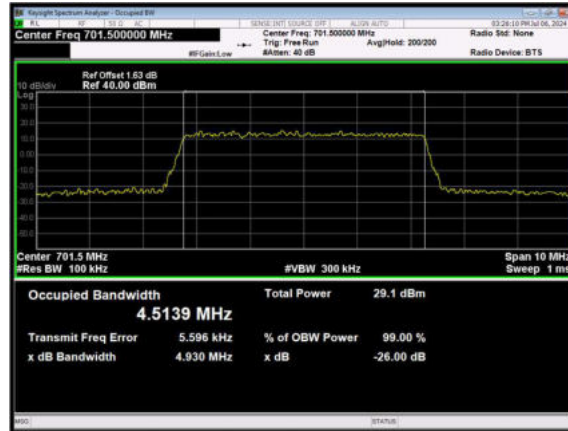
LTE Band 12 16QAM 1.4MHz CH-High



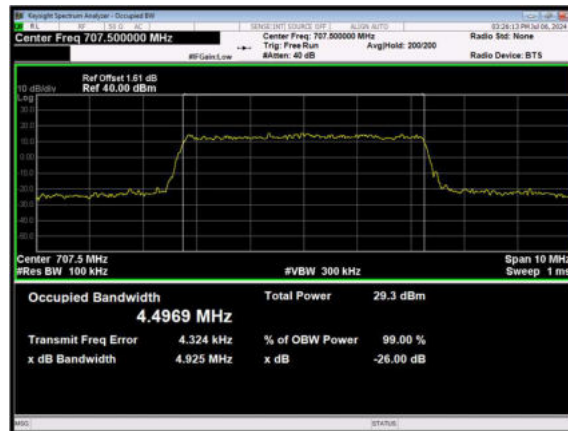
LTE Band 12 16QAM 3MHz CH-High



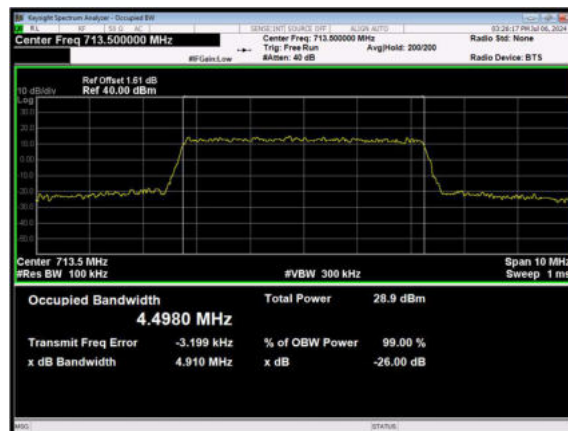
LTE Band 12 16QAM 5MHz CH-Low



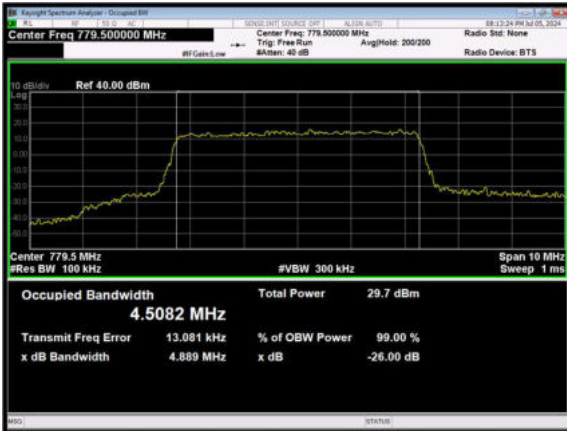
LTE Band 12 16QAM 5MHz CH-Middle



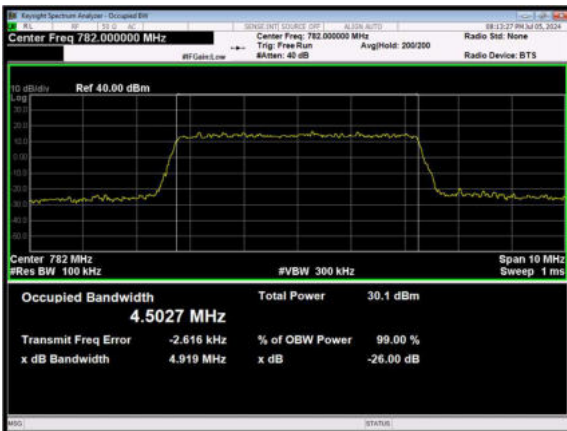
LTE Band 12 16QAM 5MHz CH-High



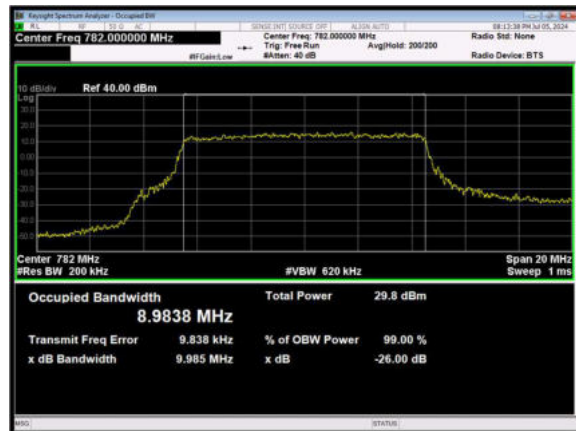
LTE Band 13 QPSK 5MHz CH-Low



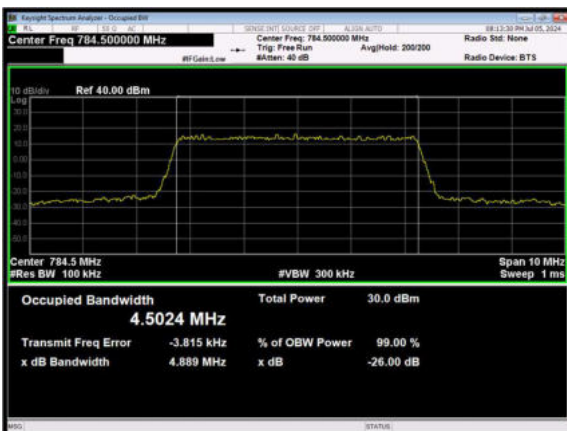
LTE Band 13 QPSK 5MHz CH-Middle



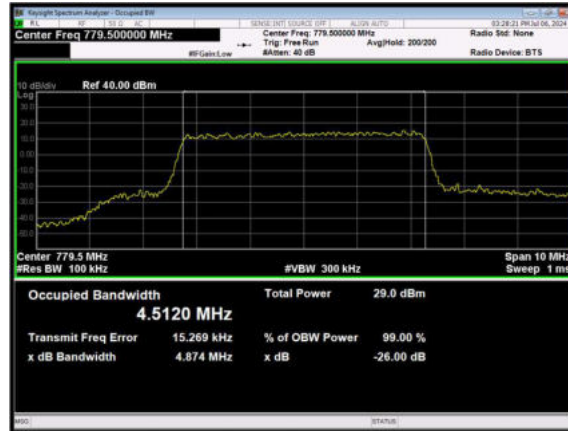
LTE Band 13 QPSK 10MHz CH-Middle



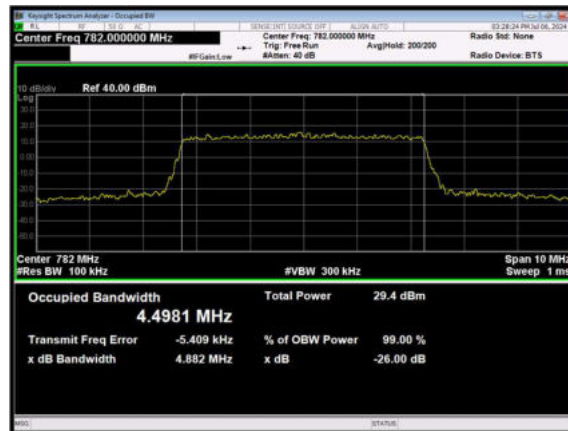
LTE Band 13 QPSK 5MHz CH-High



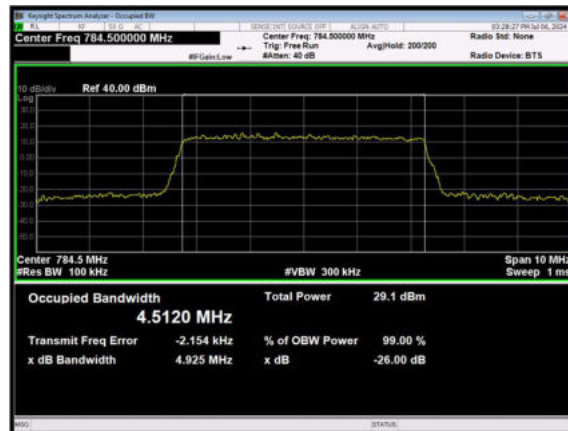
LTE Band 13 16QAM 5MHz CH-Low



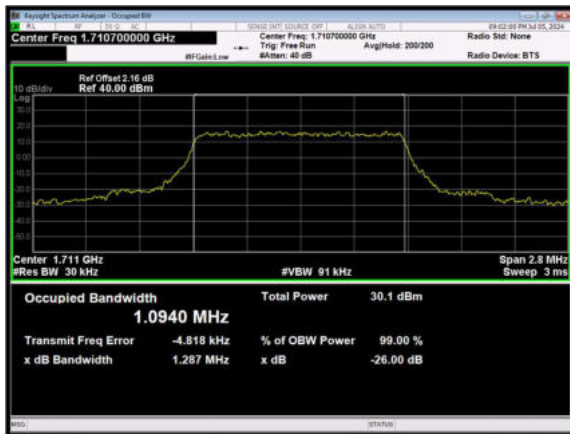
LTE Band 13 16QAM 5MHz CH-Middle



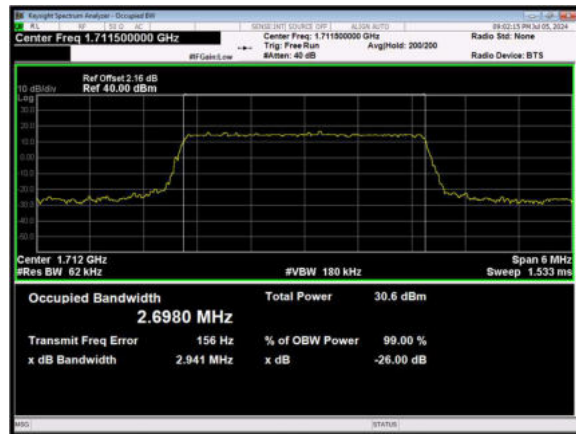
LTE Band 13 16QAM 5MHz CH-High



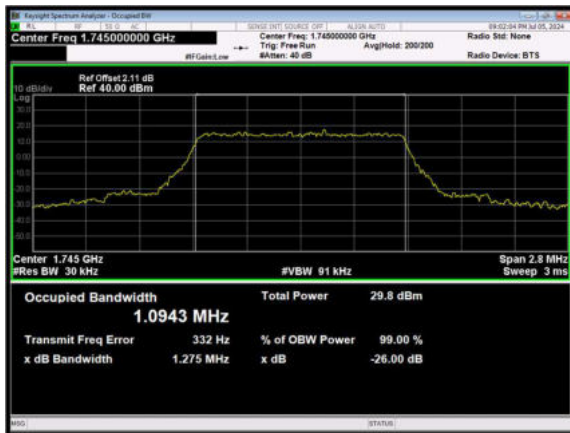
LTE Band 66 QPSK 1.4MHz CH-Low



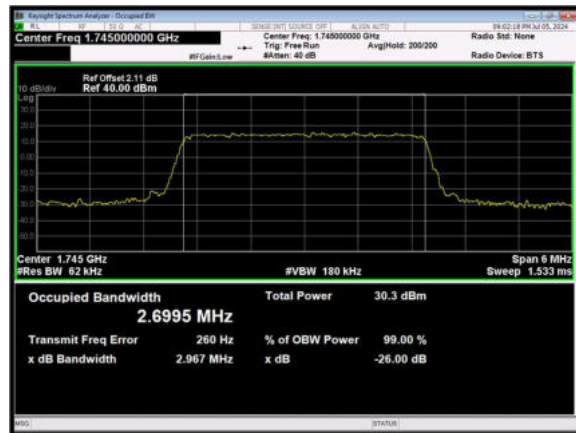
LTE Band 66 QPSK 3MHz CH-Low



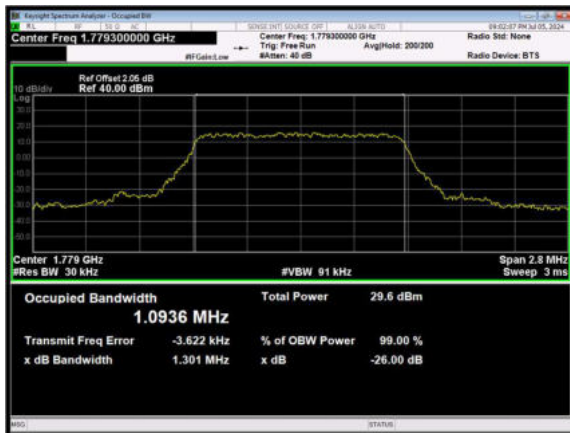
LTE Band 66 QPSK 1.4MHz CH-Middle



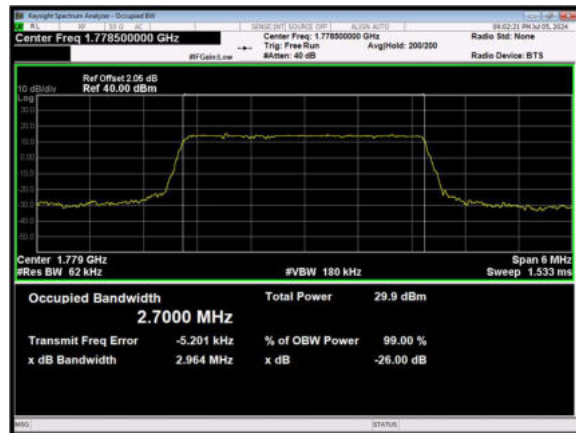
LTE Band 66 QPSK 3MHz CH-Middle



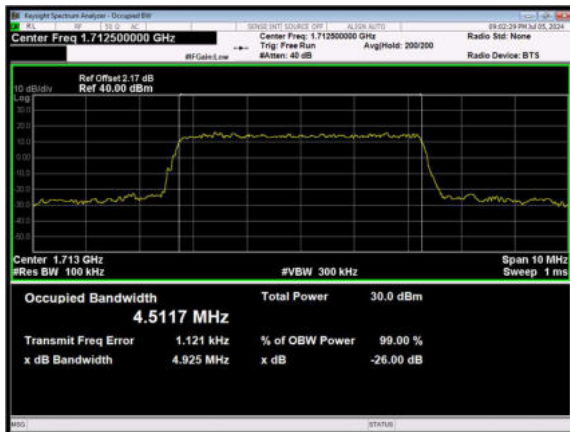
LTE Band 66 QPSK 1.4MHz CH-High



LTE Band 66 QPSK 3MHz CH-High



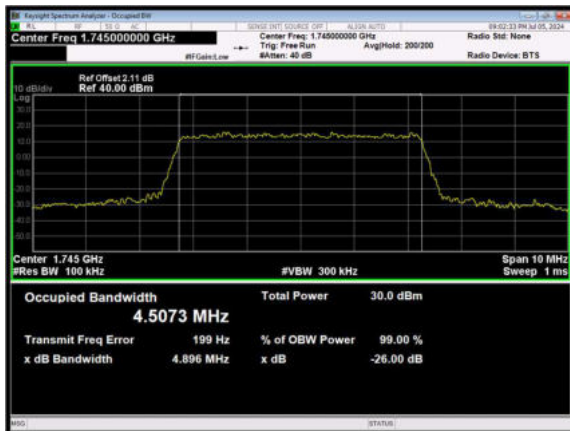
LTE Band 66 QPSK 5MHz CH-Low



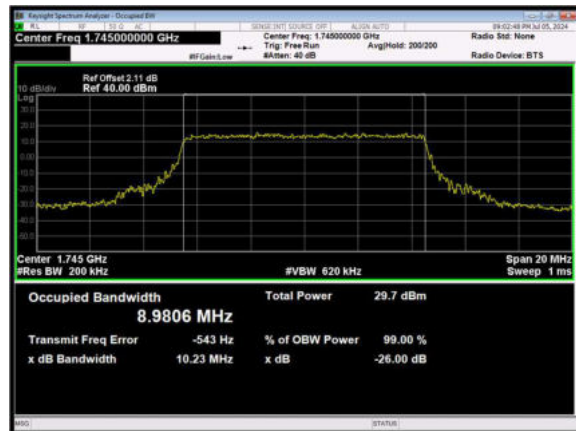
LTE Band 66 QPSK 10MHz CH-Low



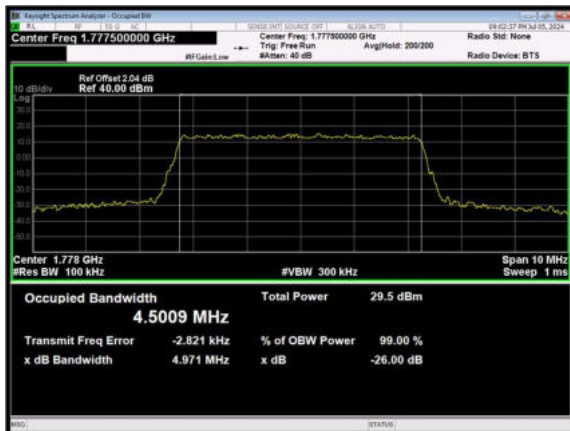
LTE Band 66 QPSK 5MHz CH-Middle



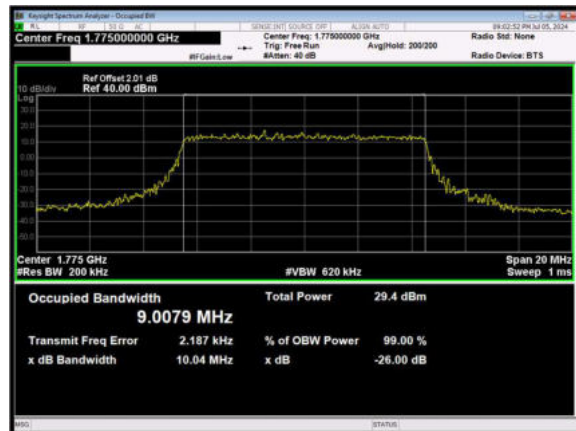
LTE Band 66 QPSK 10MHz CH-Middle



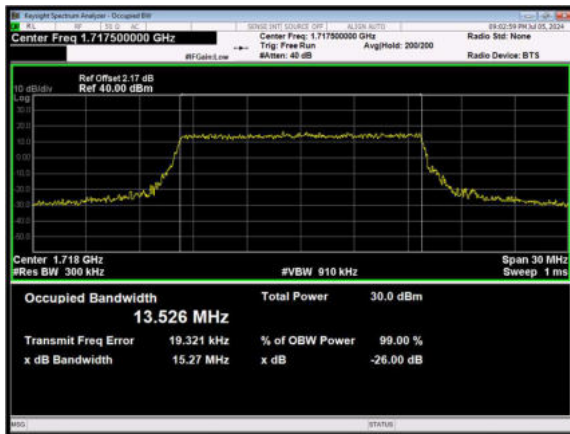
LTE Band 66 QPSK 5MHz CH-High



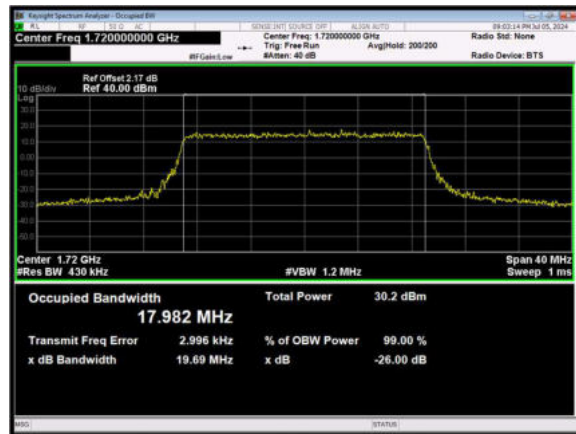
LTE Band 66 QPSK 10MHz CH-High



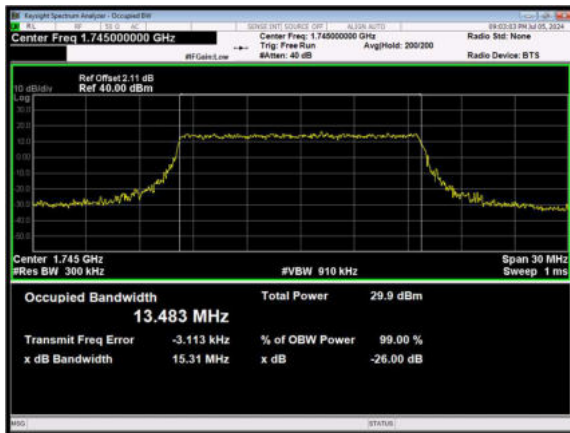
LTE Band 66 QPSK 15MHz CH-Low



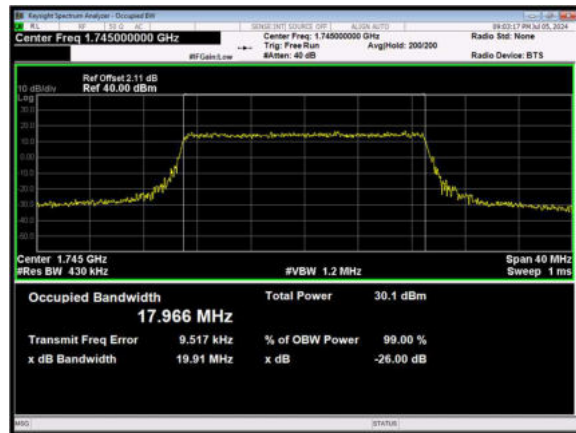
LTE Band 66 QPSK 20MHz CH-Low



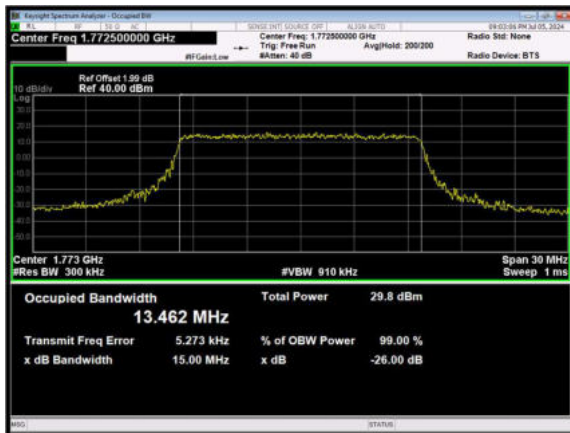
LTE Band 66 QPSK 15MHz CH-Middle



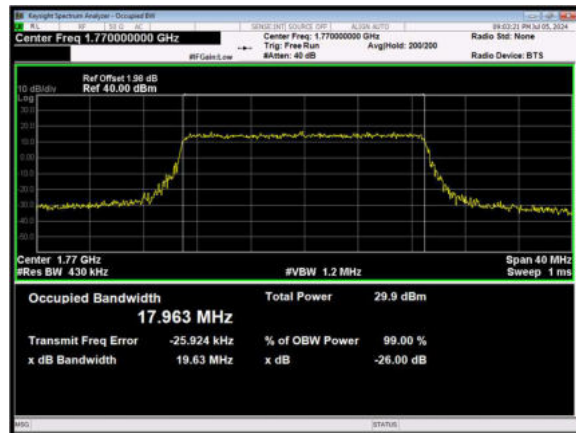
LTE Band 66 QPSK 20MHz CH-Middle



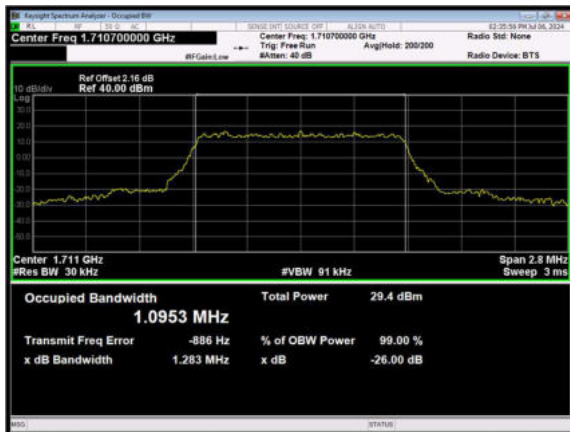
LTE Band 66 QPSK 15MHz CH-High



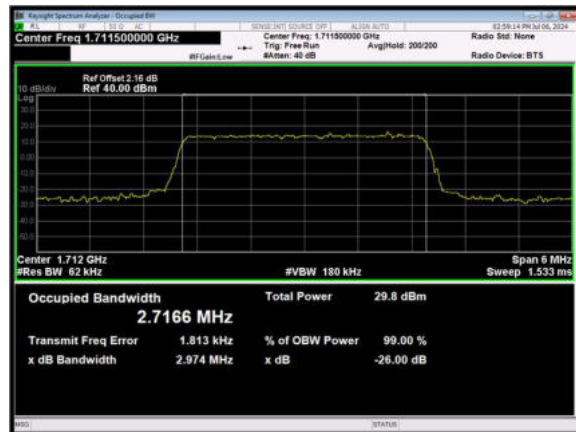
LTE Band 66 QPSK 20MHz CH-High



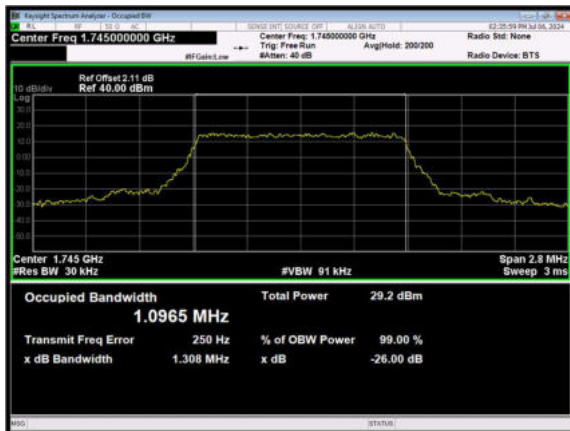
LTE Band 66 16QAM 1.4MHz CH-Low



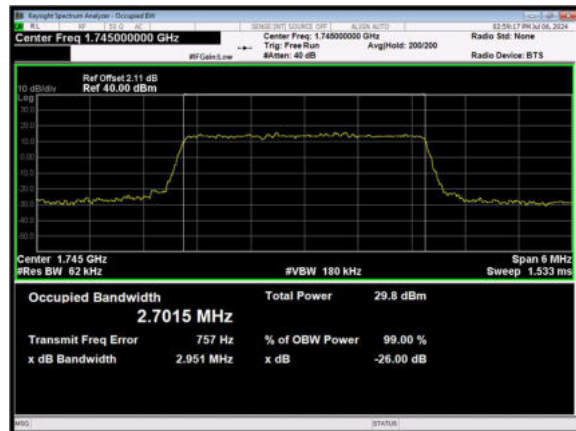
LTE Band 66 16QAM 3MHz CH-Low



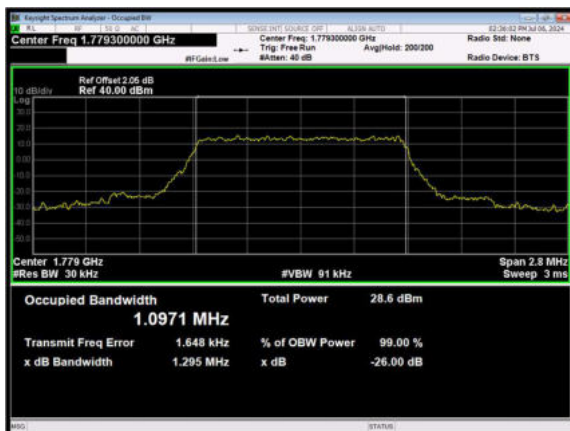
LTE Band 66 16QAM 1.4MHz CH-Middle



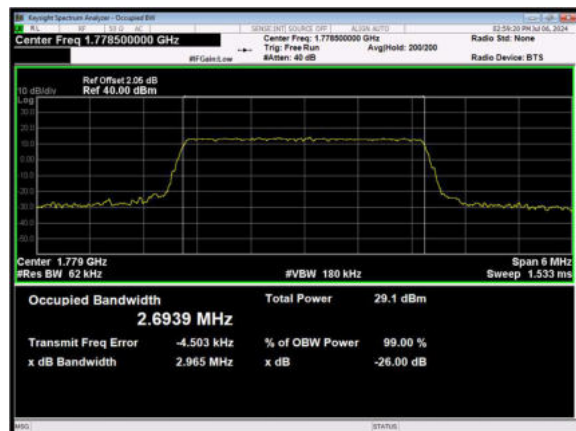
LTE Band 66 16QAM 3MHz CH-Middle



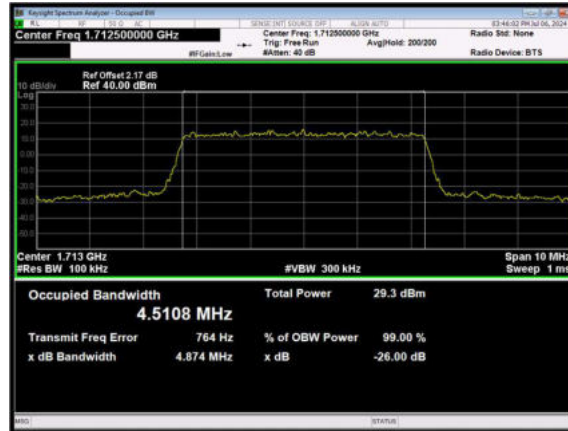
LTE Band 66 16QAM 1.4MHz CH-High



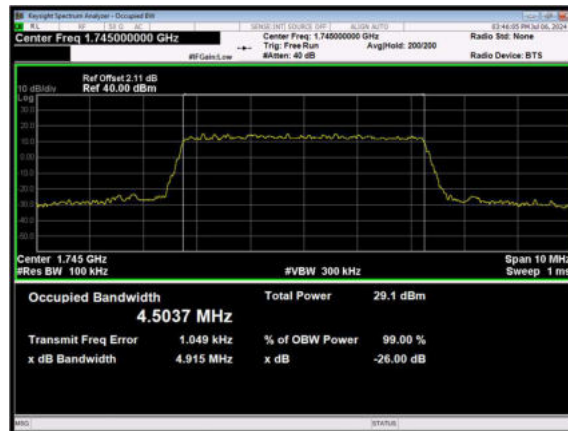
LTE Band 66 16QAM 3MHz CH-High



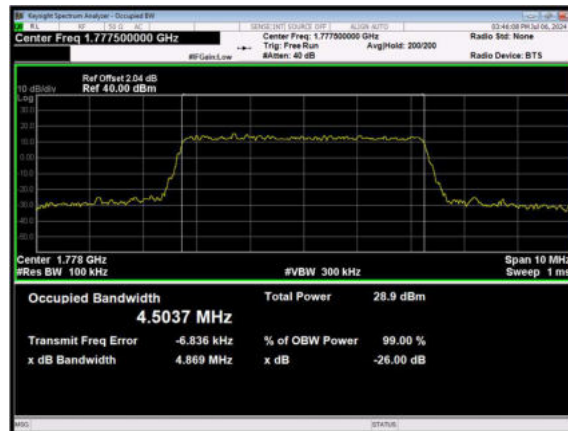
LTE Band 66 16QAM 5MHz CH-Low



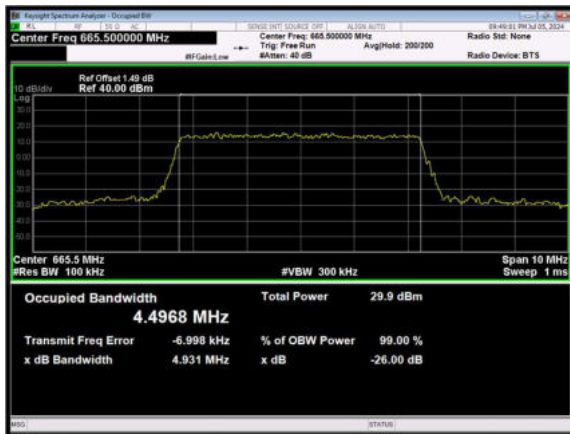
LTE Band 66 16QAM 5MHz CH-Middle



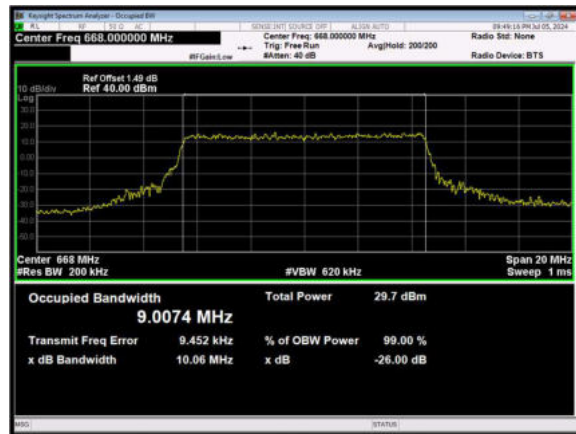
LTE Band 66 16QAM 5MHz CH-High



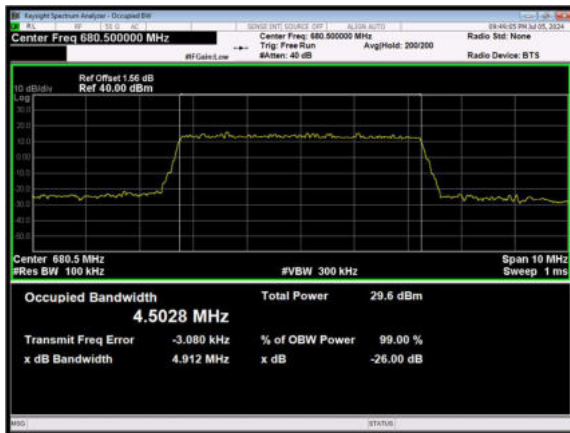
LTE Band 71 QPSK 5MHz CH-Low



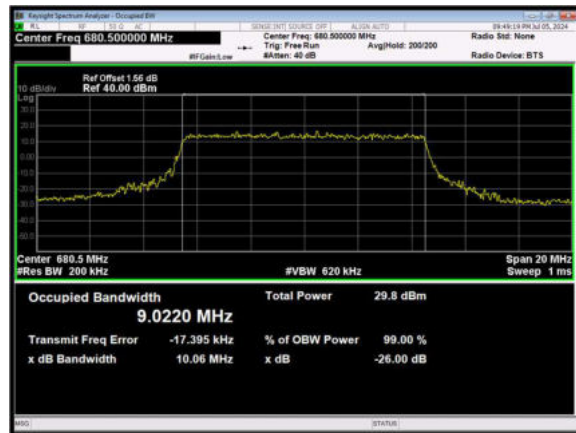
LTE Band 71 QPSK 10MHz CH-Low



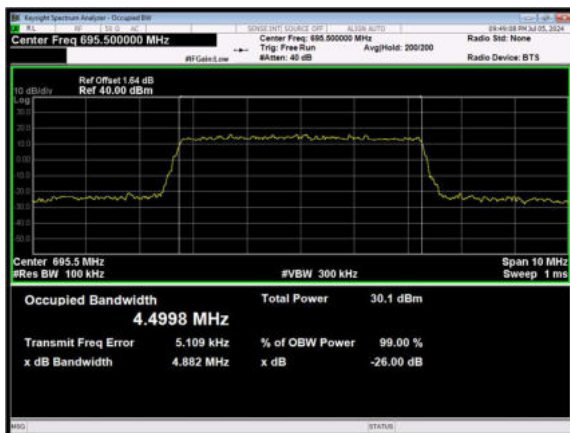
LTE Band 71 QPSK 5MHz CH-Middle



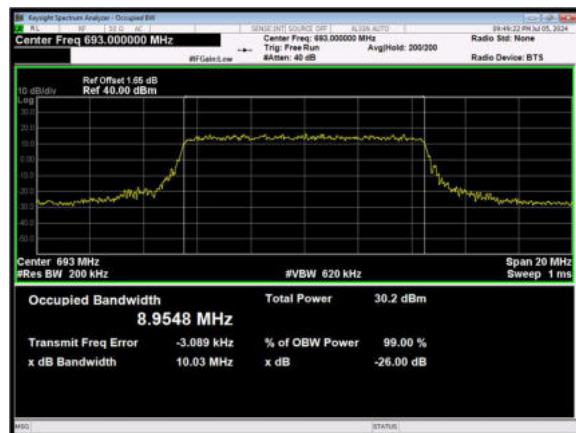
LTE Band 71 QPSK 10MHz CH-Middle



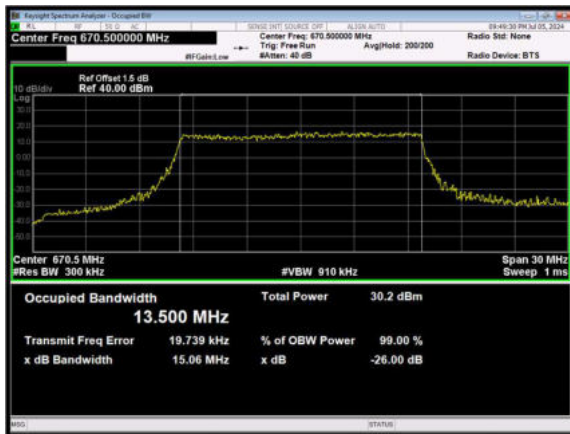
LTE Band 71 QPSK 5MHz CH-High



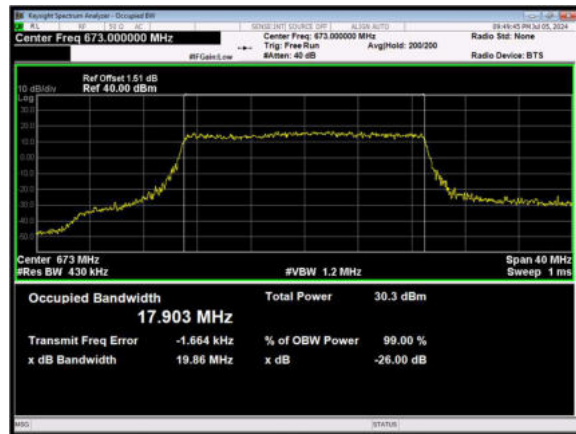
LTE Band 71 QPSK 10MHz CH-High



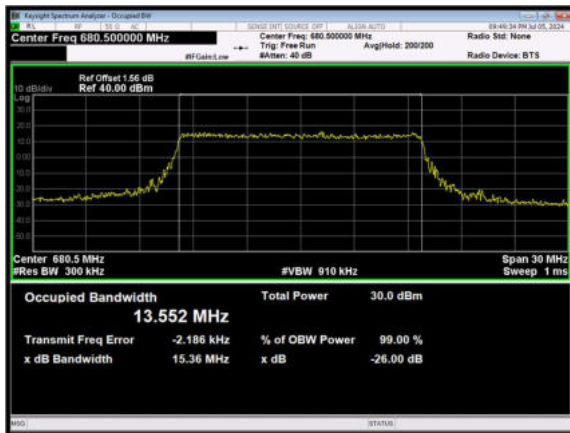
LTE Band 71 QPSK 15MHz CH-Low



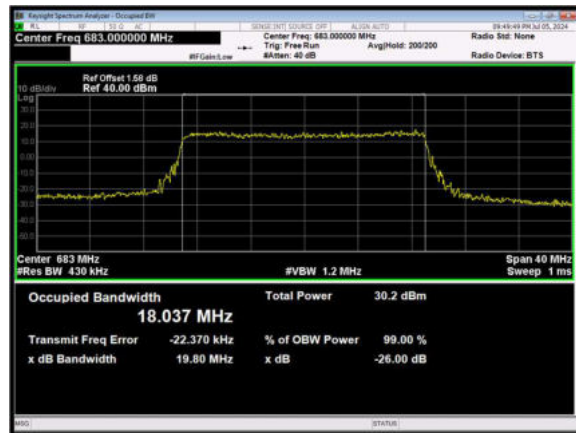
LTE Band 71 QPSK 20MHz CH-Low



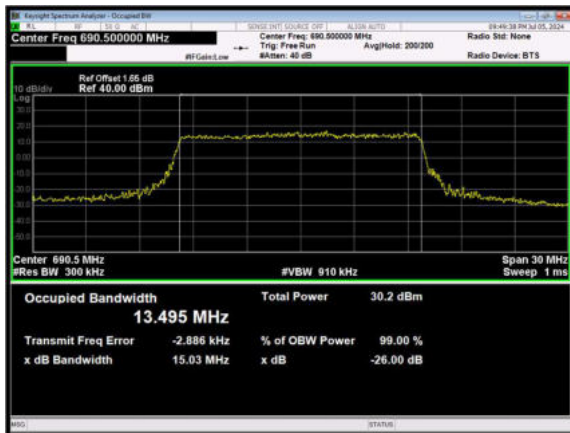
LTE Band 71 QPSK 15MHz CH-Middle



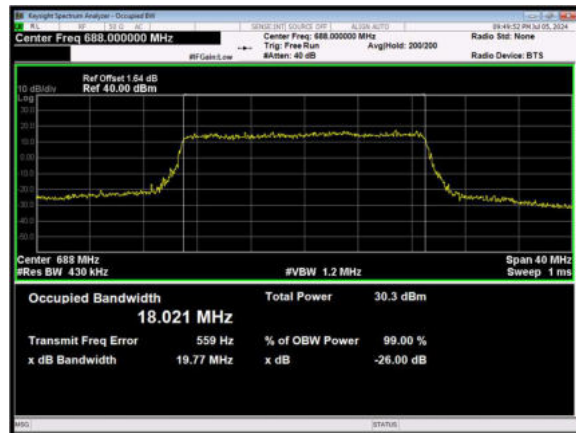
LTE Band 71 QPSK 20MHz CH-Middle



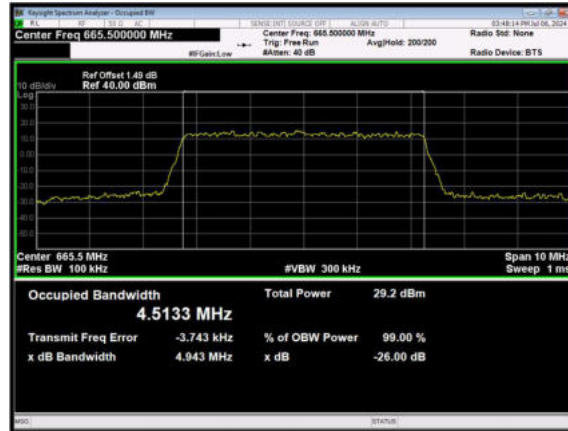
LTE Band 71 QPSK 15MHz CH-High



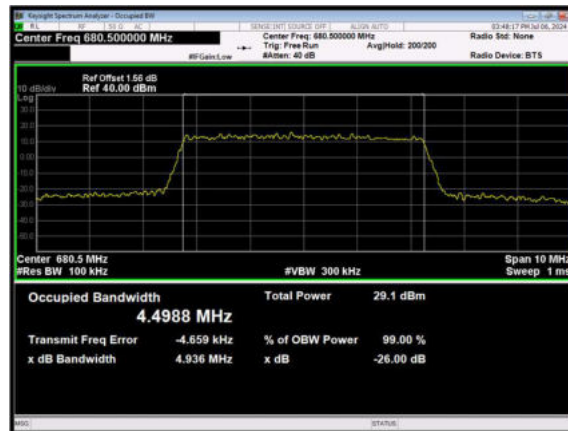
LTE Band 71 QPSK 20MHz CH-High



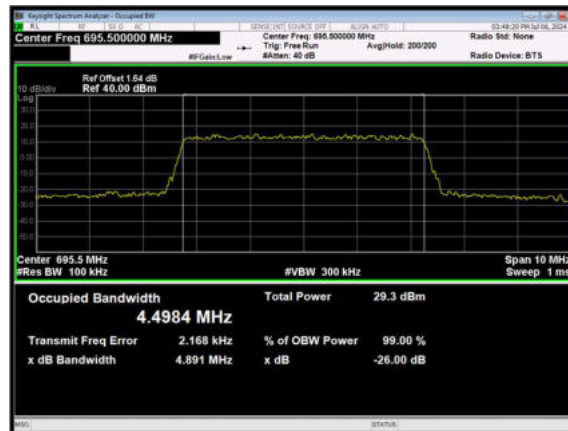
LTE Band 71 16QAM 5MHz CH-Low



LTE Band 71 16QAM 5MHz CH-Middle

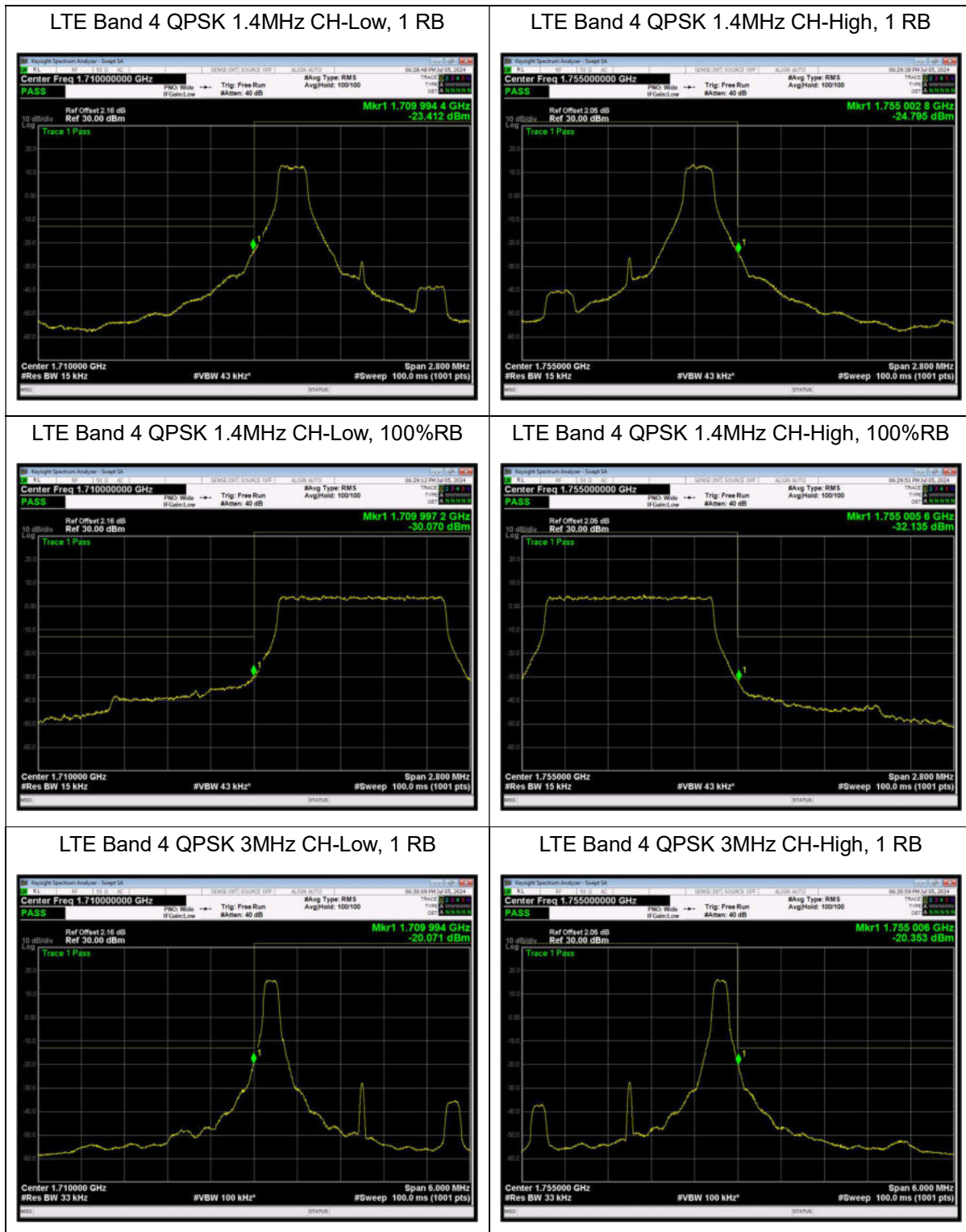


LTE Band 71 16QAM 5MHz CH-High

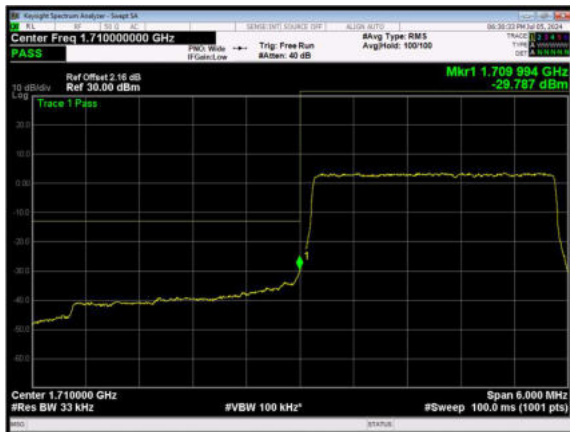


6.3 Band Edge Compliance

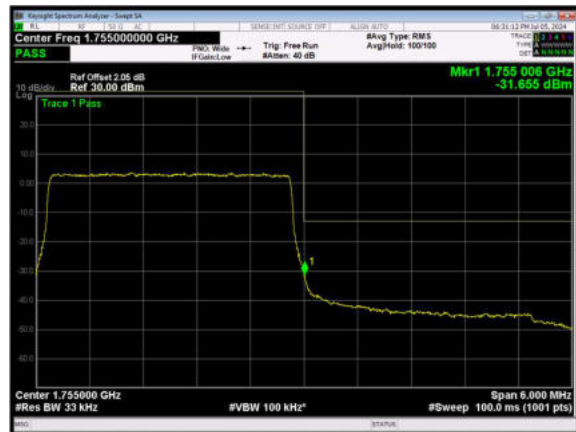
All the test traces in the plots shows the test results clearly.



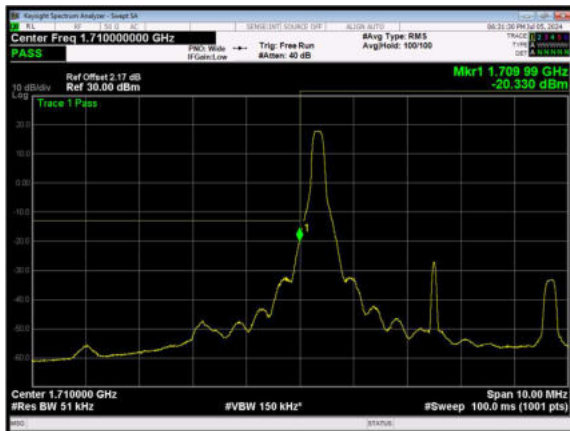
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



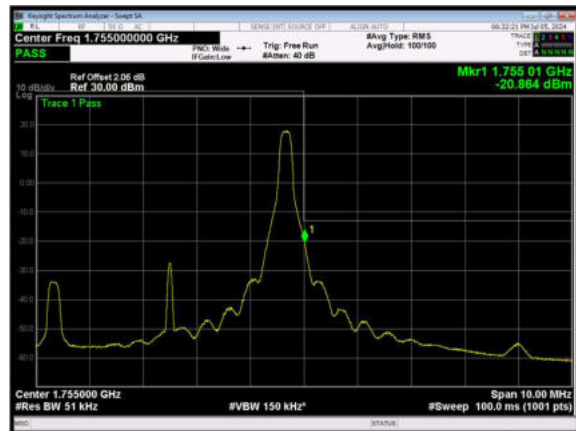
LTE Band 4 QPSK 3MHz CH-High, 100%RB



LTE Band 4 QPSK 5MHz CH-Low, 1 RB



LTE Band 4 QPSK 5MHz CH-High, 1 RB



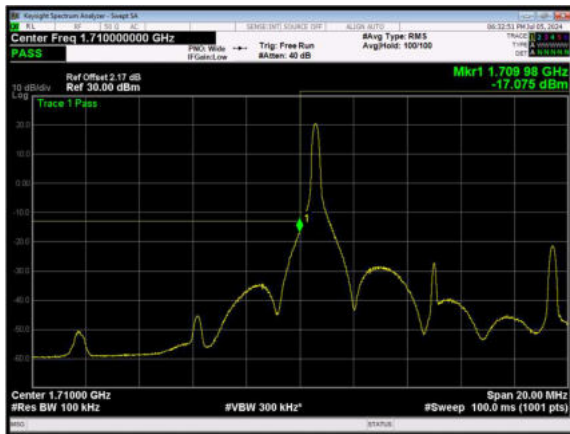
LTE Band 4 QPSK 5MHz CH-Low, 100%RB



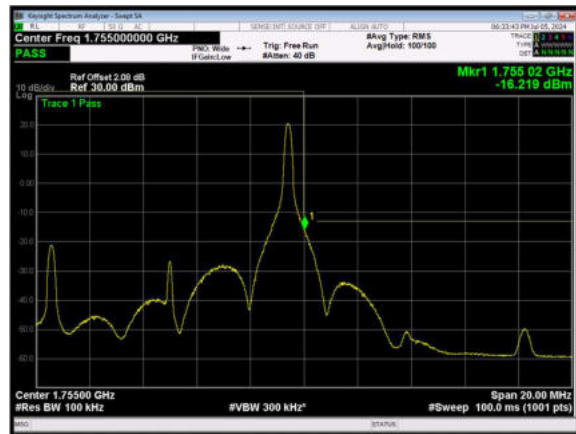
LTE Band 4 QPSK 5MHz CH-High, 100%RB



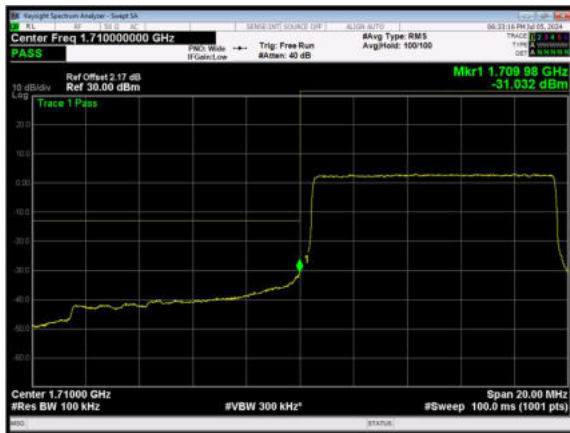
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



LTE Band 4 QPSK 10MHz CH-High, 1 RB



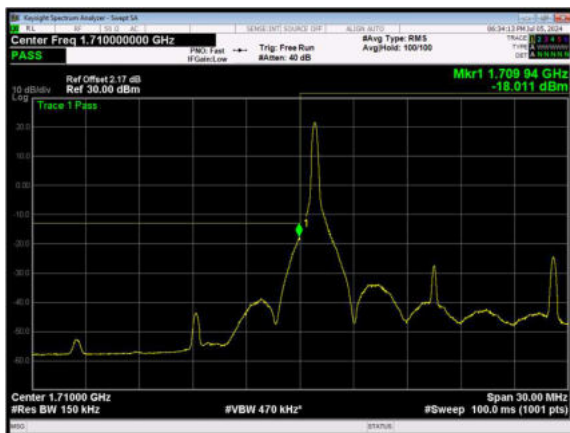
LTE Band 4 QPSK 10MHz CH-Low, 100%RB



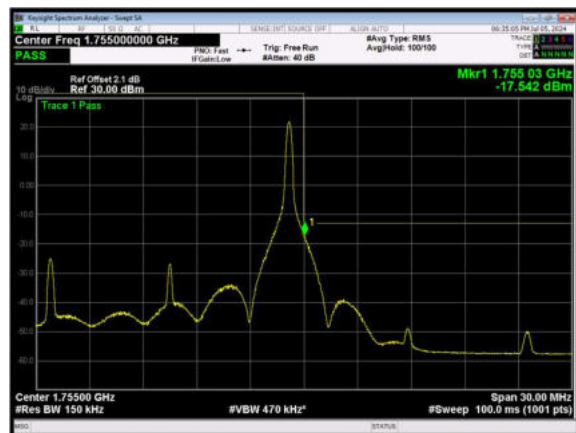
LTE Band 4 QPSK 10MHz CH-High, 100%RB



LTE Band 4 QPSK 15MHz CH-Low, 1 RB



LTE Band 4 QPSK 15MHz CH-High, 1 RB



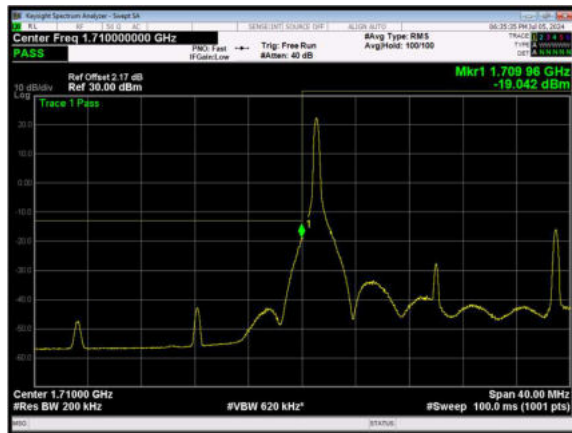
LTE Band 4 QPSK 15MHz CH-Low, 100%RB



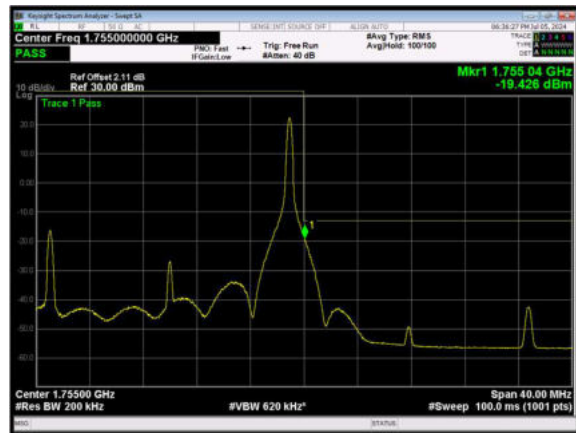
LTE Band 4 QPSK 15MHz CH-High, 100%RB



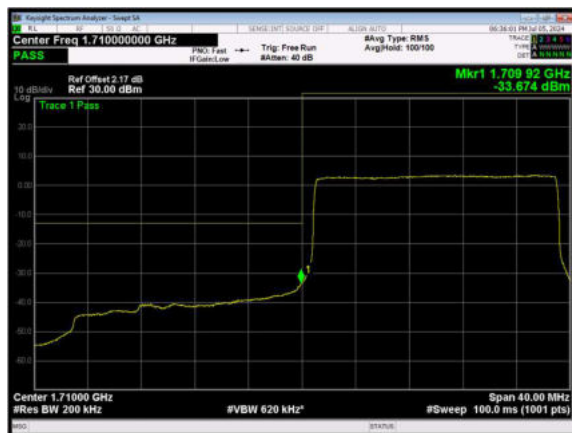
LTE Band 4 QPSK 20MHz CH-Low, 1 RB



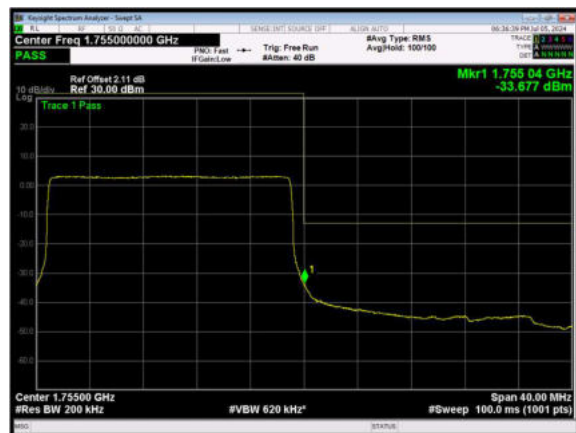
LTE Band 4 QPSK 20MHz CH-High, 1 RB



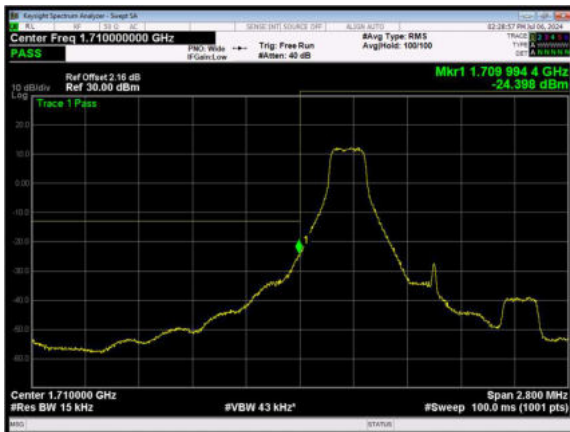
LTE Band 4 QPSK 20MHz CH-Low, 100%RB



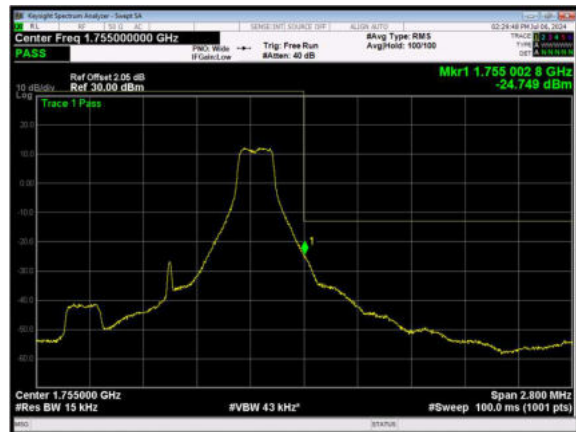
LTE Band 4 QPSK 20MHz CH-High, 100%RB



LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB



LTE Band 4 16QAM 1.4MHz CH-High, 1 RB



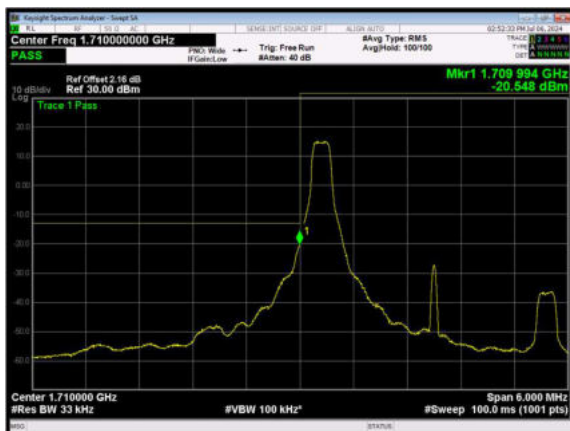
LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB



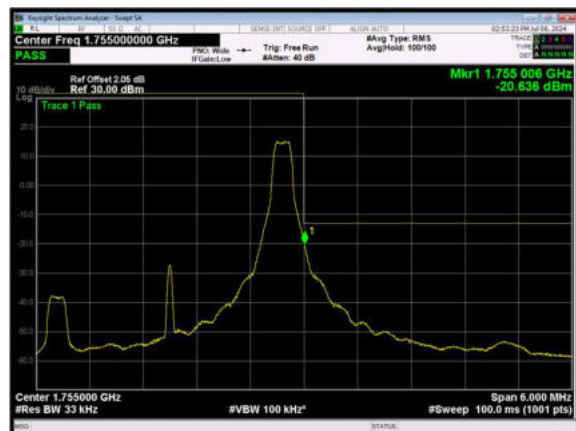
LTE Band 4 16QAM 1.4MHz CH-High, 100%RB



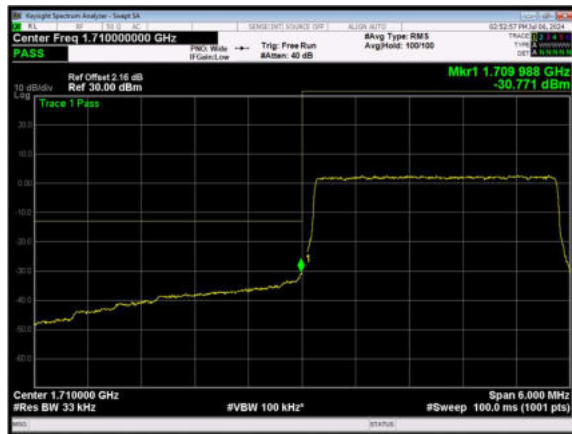
LTE Band 4 16QAM 3MHz CH-Low, 1 RB



LTE Band 4 16QAM 3MHz CH-High, 1 RB



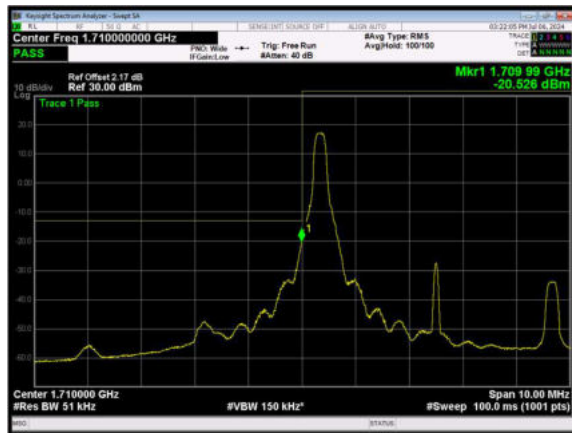
LTE Band 4 16QAM 3MHz CH-Low, 100%RB



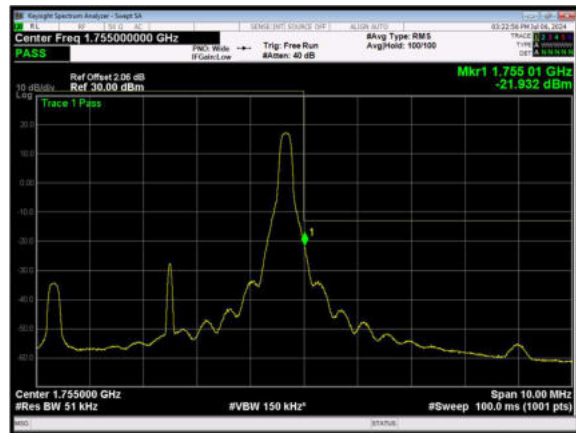
LTE Band 4 16QAM 3MHz CH-High, 100%RB



LTE Band 4 16QAM 5MHz CH-Low, 1 RB



LTE Band 4 16QAM 5MHz CH-High, 1 RB



LTE Band 4 16QAM 5MHz CH-Low, 100%RB



LTE Band 4 16QAM 5MHz CH-High, 100%RB

