



# RF TEST REPORT

Product Name: 618M

Model Name: WTQ-HT-100M

FCC ID: 2BPV5-WTQHT100M

Issued For : WeTraq Inc

1410 Birchmount Road, Toronto, ON, Canada - M1P 2E3

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park,  
No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan  
District, Shenzhen, Guangdong, China

Report Number: LGT25E014RF01

Sample Received Date: May 07, 2025

Date of Test: May 07, 2025 ~ June 11, 2025

Date of Issue: June 11, 2025

The test report is effective only with both signature and specialized stamp. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report only apply to the tested sample.

# TEST REPORT CERTIFICATION

**Applicant:** WeTraq Inc

Address: 1410 Birchmount Road, Toronto, ON, Canada - M1P 2E3

**Manufacturer:** COOSEA GROUP (HK) COMPANY LIMITED

Address: 1410 Birchmount Road, Toronto, ON, Canada - M1P 2E3

Product Name: 618M

Trademark: N/A

Model Name: WTQ-HT-100M

Sample Status: Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 24E and 27 KDB 971168 D01 v03r01, ANSI C63.26(2015)	PASS

Prepared by:

Zane Shan

Zane Shan  
Engineer

Approved by:

Vita Li

Vita Li  
Technical Director



Table of Contents	Page
<b>1. TEST FACTORY &amp; MEASUREMENT UNCERTAINTY</b>	<b>5</b>
<b>2. GENERAL INFORMATION</b>	<b>6</b>
<b>3. CONDUCTED OUTPUT POWER</b>	<b>12</b>
<b>4. RADIATED POWER AND EFFECTIVE ISOTROPIC RADIATED POWER</b>	<b>13</b>
<b>5. RADIATED SPURIOUS EMISSION</b>	<b>15</b>
<b>6. FREQUENCY STABILITY</b>	<b>17</b>
<b>APPENDIX I-PHOTOS OF TEST SETUP</b>	<b>18</b>
<b>APPENDIX II-TEST DATA</b>	<b>18</b>
CONDUCTED OUTPUT POWER	18
FREQUENCY STABILITY	23
PEAK-TO-AVERAGE RATIO	26
OCCUPIED BANDWIDTH	38
BAND EDGE	50
OUT-OF-BAND EMISSIONS	96
RADIATED SPURIOUS EMISSION	141

### **Revision History**

Rev.	Issue Date	Contents
00	June 11, 2025	Initial Issue

## 1. TEST FACTORY & MEASUREMENT UNCERTAINTY

### 1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate:	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136

### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Occupied Channel Bandwidth	$\pm 0.46\%$
2	RF Output Power, Conducted	$\pm 0.71\text{dB}$
3	Power Spectral Density, Conducted	$\pm 1.57\text{dB}$
4	Unwanted Emission, Conducted	$\pm 0.63\text{dB}$
5	Conducted emission	$\pm 2.80\text{dB}$
6	All Emissions, Radiated (0.009-30MHz)	$\pm 2.16\text{dB}$
7	All Emissions, Radiated (30MHz-1GHz)	$\pm 4.61\text{dB}$
8	All Emissions, Radiated (1GHz-18GHz)	$\pm 5.49\text{dB}$
9	Temperature	$\pm 0.5^\circ\text{C}$
10	Humidity	$\pm 2\%$
11	Duty Cycle	$\pm 2.3\%$

Note: The measurement uncertainty is not included in the test result.

## 2. GENERAL INFORMATION

### 2.1 TECHNICAL SPECIFICATIONS AND REGULATIONS

#### 2.1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Product Name:	618M
Trademark:	N/A
Model Name:	WTQ-HT-100M
Series Model:	N/A
Model Difference:	N/A
Frequency Bands:	Band 2/4/12
SIM Card:	Only supports one SIM card.
Antenna Type:	FPC
Antenna gain:	Band 2: 0dBi, Band 4: 0dBi, Band 12: 0dBi
Battery:	Capacity: 600mAh Rated Voltage: 3.7V
Extreme Vol. Limits:	3.3V to 4.2V (Nominal 3.7V)
Extreme Temp. Tolerance:	0°C to +40°C
Hardware Version:	SHERPA MAIN PCB V1.0
Software Version:	SHERPA.NB.V12

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

#### 2.1.2 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Product Specification Subjective To This Standard	
Tx Frequency	LTE Band 2:1850~1910MHz LTE Band 4:1710~1755MHz LTE Band 12: 699-716MHz
Rx Frequency	LTE Band 2: 1930-1990MHz LTE Band 4: 2110-2155MHz LTE Band 12: 729-746MHz
Bandwidth	LTE Band 2: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz /20MHz LTE Band 12: 1.4MHz / 3MHz / 5MHz / 10MHz
Type of Modulation	QPSK/16QAM

Test Channel List				
Band	Test mode	Bandwidth [MHz]	UL Channel	Frequency of Uplink [MHz]
Band 2	Low channel	1.4	18607	1850.7
		3	18615	1851.5
		5	18625	1852.5
		10	18650	1855
		15	18675	1857.5
		20	18700	1860
	Mid channel	1.4/3/5/10/15/20	18900	1880
	High channel	1.4	19193	1909.3
		3	19185	1908.5
		5	19175	1907.5
		10	19150	1905
		15	19125	1902.5
		20	19100	1900
Band 4	Low channel	1.4	19957	1710.7
		3	19965	1711.5
		5	19975	1712.5
		10	20000	1715
		15	20025	1717.5
		20	20050	1720
	Mid channel	1.4/3/5/10/15/20	20175	1732.5
	High channel	1.4	20393	1754.3
		3	20385	1753.5
		5	20375	1752.5
		10	20350	1750
		15	20325	1747.5
		20	20300	1745
Band 12	Low channel	1.4	23017	699.7
		3	23025	700.5
		5	23035	701.5
		10	23060	704
	Mid channel	1.4/3/5/10/15/20	23095	707.5
	High channel	1.4	23173	715.3
		3	23165	714.5
		5	23155	713.5
		10	23130	711

### 2.1.3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 v03r01 and ANSI C63.26 2015 Power Meas. License Digital Systems with maximum output power. Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Remark:

1. The mark 'v' means that this configuration is chosen for testing
2. The mark '-' means that this bandwidth is not supported.
3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated.

ITEMS	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
E.R.P.& E.I.R.P.	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v			v	v	v	v	v	v	v	v
Peak&Avera Ratio	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
26dB&99% Bandwidth	2	v	v	v	v	v	v	v	v				v	v	v
	4	v	v	v	v	v	v	v	v				v	v	v
	12	v	v	v	v			v	v				v	v	v
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v			v	v	v			v	v	v
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v				v	v	v
	4	v	v	v	v	v	v	v	v				v	v	v
	12	v	v	v	v			v	v				v	v	v
Frequency Stability	2					v		v	v				v		v
	4					v		v	v				v		v
	12			v				v	v				v		v
Radiated Spurious Emission	2					v		v		v			v	v	v
	4					v		v		v			v	v	v
	12			v				v		v			v	v	v

#### 2.1.4 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for filing to comply with the 47 CFR Part 24(E), 27.

#### 2.1.5 SPECIAL ACCESSORIES

The battery and the charger, earphone supplied by the applicant were used as accessories and being tested with eut intended for fcc grant together.

#### 2.1.6 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

#### 2.1.7 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

### 2.1.8 CONFIGURATION OF EUT SYSTEM

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

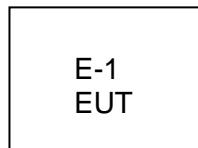


Table 2-1 Equipment Used in EUT System

Item	Equipment	Model No.	Length	Note
N/A				N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in «Length» column.
- (2) "YES" is means "with core"; "NO" is means "without core".

### 2.1.9 MEASUREMENT INSTRUMENTS

The radiated emission testing was performed according to the procedures of ANSI C63.26 2015 and FCC CFR 47 rules of 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057.

Radiated Test equipment					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2025.03.06	2026.03.05
Active loop Antenna	ETS	6502	00049544	2025.03.11	2028.03.10
Spectrum Analyzer	Keysight	N9010B	MY60242508	2025.03.05	2026.03.04
Trilog Broadband Antenna (30M-1G)	SCHWARZBECK	VULB 9168	2705	2024.05.17	2027.05.16
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2025.03.10	2028.03.09
Horn Antenna(18-40G)	SCHWARZBECK	BBHA 9170	685	2023.10.23	2026.10.22
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2025.03.06	2026.03.05
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2025.03.06	2026.03.05
Pre-amplifier(18-40G)	SCHWARZBECK	BBV 9721	9721-019	2024.10.21	2025.10.20
Wireless Communications Test Set	R&S	CMW 500	137737	2025.03.05	2026.03.04
Antenna Tower	SAEMC	BK-4AT-BS-D	SK2021093008	N.A	N.A
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2025.03.10	2026.03.09
Testing Software	EMC-I_V1.4.0.3_SKET				

Conducted Test equipment					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
Signal Analyzer	Keysight	N9010B	MY60242508	2025.03.05	2026.03.04
Signal Analyzer	Keysight	N9020A	MY52510057	2025.03.05	2026.03.04
Signal Analyzer	R&S	FSV40-N	102245	2025.02.17	2026.02.16
Wireless Communications Test Set	R&S	CMW 500	137737	2025.03.05	2026.03.04
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2025.03.05	2026.03.04
RF Automatic Test system	MW	MW200-RFCB	MW220322LG	2025.03.06	2026.03.05
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2025.03.10	2026.03.09
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2024.08.05	2025.08.04
Attenuator	eastsheep	90db	N.A	2025.03.06	2026.03.05
Digital multimeter	MASTECH	MS8261	MBGBC83053	2025.03.05	2026.03.04
DC source	Jiuyuan	QJ6010E	N.A	2025.03.09	2026.03.08
Testing Software	MTS8200_V2.0.0.0_MW				

### 3. CONDUCTED OUTPUT POWER

#### 3.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

##### 3.1.1 MEASUREMENT METHOD

A system simulator was used to establish communication with the eut. Its parameters were set to force the eut transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

Configuration follows KDB 971168 D01 v03r01.

##### 3.1.2 TEST SETUP



##### 3.1.3 TEST PROCEDURES

1. The transmitter output port was connected to system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest/middle/highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

##### 3.1.4 TEST RESULTS

Note: Test chart See Appendix II

#### 4. RADIATED POWER AND EFFECTIVE ISOTROPIC RADIATED POWER

#### 4.1 DESCRIPTION OF THE ERP/EIRP MEASUREMENT

#### 4.1.1 MEASUREMENT METHOD

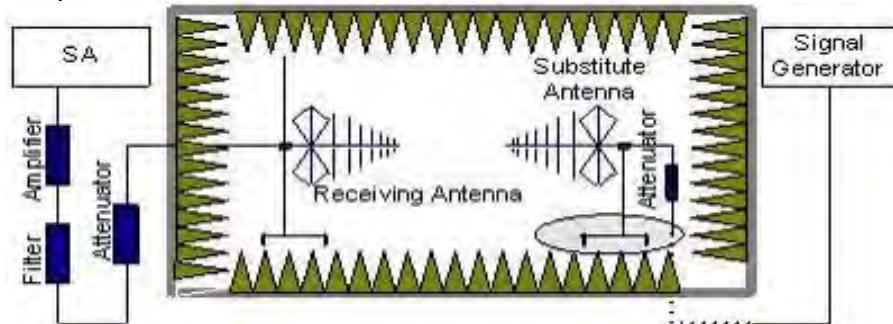
Effective radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas.

License Digital Systems. Mobile and portable (hand-held) stations operating are limited to average ERP, Equivalent isotropic radiated power output measurements by substitution method according to ANSI C63.26 2015, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas, Mobile and portable (hand-held) stations operating are limited to average EIRP.

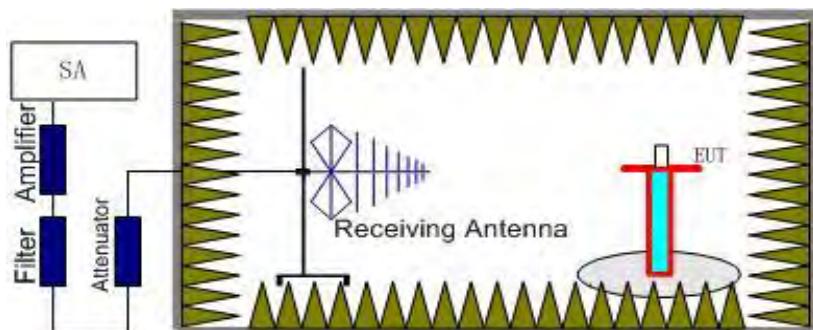
#### 4.1.2 TEST SETUP

The procedure of radiated spurious emissions is as follows:

a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as,  $RSE = Rx \text{ ( dBuV )} + CL \text{ ( dB )} + SA \text{ ( dB )} + Gain \text{ ( dBi )} - 107$  ( dBuV to dBm ) The SA is calibrated using following setup.



b) EUT was placed on a 1.5m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.



Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.

The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below:

Power=PMea+ARpl

#### 4.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01v03r01 Section 5.6 and ANSI C63.26 2015 Section 5.2.
2. The EUT was placed on a non-conductive rotating platform 1.5 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with Peak detector.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 m in both horizontally and vertically polarized orientations.
4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to ANSI C63.26 2015. The EUT was replaced by dipole antenna (substitution antenna) at same location and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna.  $EIRP = S.G. Level + Gain - Cable loss$ ;  $ERP = S.G. Level + Gain - Cable loss - 2.15$ .
5. RB Set greater than bandwidth, VB Set spectrum analyzer Maximum support.

#### 4.1.4 TEST RESULTS

Note: Test is divided into three directions, X/Y/Z. X pattern for the worst.

Note: Test chart See Appendix II

## 5. RADIATED SPURIOUS EMISSION

### 5.1 DESCRIPTION OF RADIATED SPURIOUS EMISSION

#### 5.1.1 MEASUREMENT METHOD

The radiated spurious emission was measured by substitution method according to ANSI C63.26 2015. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

For Band 7 The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $55 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

#### 5.1.2 TEST SETUP

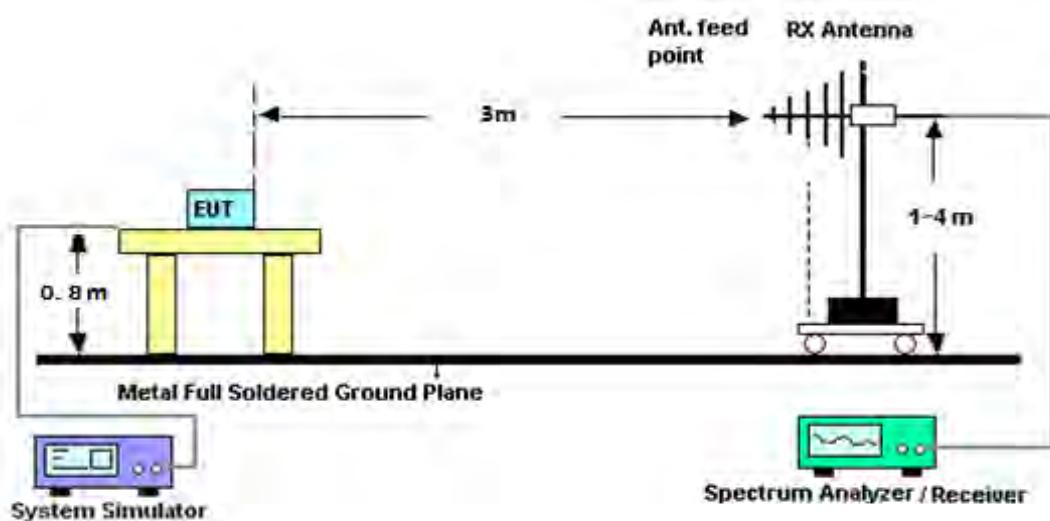
The procedure of radiated spurious emissions is as follows:

a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as,  $RSE = Rx(\text{dBuV}) + CL(\text{dB}) + SA(\text{dB}) + Gain(\text{dBi}) - 107$  (dBuV to dBm) The SA is calibrated using following setup.

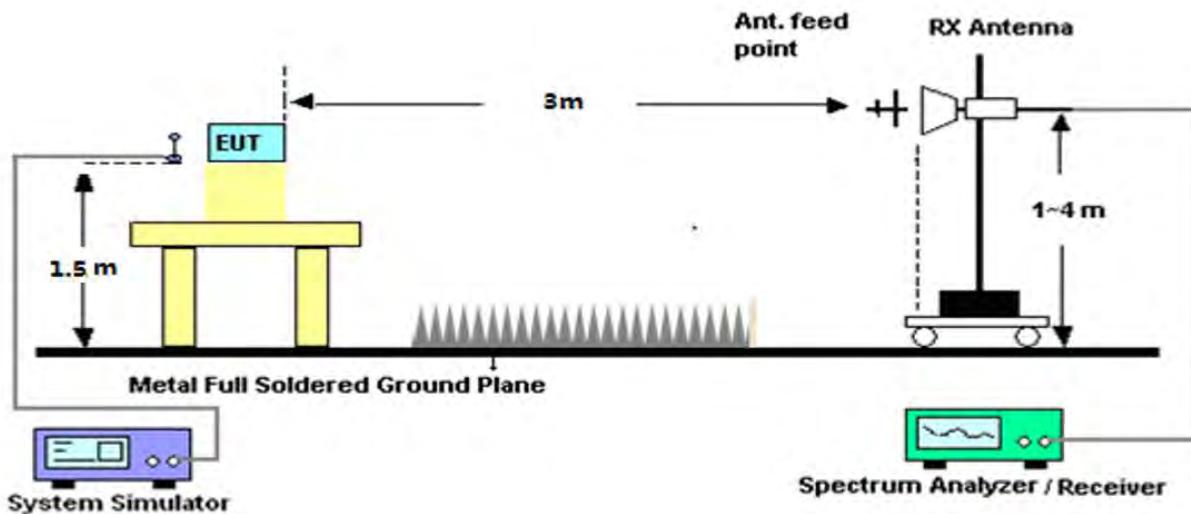
b) EUT was placed on 1.5 m non-conductive stand at a 3 m test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 m from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic measured with peak detector and 1MHz bandwidth.

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.

The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the ARpl is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below: Power=PMea+ARpl For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



### 5.1.3 TEST PROCEDURES

1. The testing FCC KDB 971168 D01 Section 7 and ANSI C63.26 2015 Section 5.5.
2. The EUT was placed on a rotatable wooden table with 1.5 meter above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$$

$$= -13 \text{ dBm}$$

For Band 7:

The limit line is derived from  $55 + 10\log(P)$  dB below the transmitter power P(Watts)

$$= [30 + 10\log(P)] \text{ (dBm)} - [55 + 10\log(P)] \text{ (dB)}$$

$$= -25 \text{ dBm}$$

PMea=S.G Level+ Ant-Cable loss; Margin=PMea-Limit.

### 5.1.4 TEST RESULTS

Note: Test chart See Appendix II

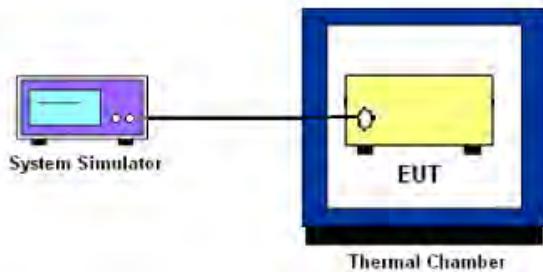
## 6. FREQUENCY STABILITY

### 6.1 DESCRIPTION OF FREQUENCY STABILITY MEASUREMENT

#### 6.1.1 MEASUREMENT METHOD

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5\text{ppm}$ ) of the center frequency.

#### 6.1.2 TEST SETUP



#### 6.1.3 TEST PROCEDURES FOR TEMPERATURE VARIATION

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to  $-30^\circ\text{C}$  and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in  $10^\circ\text{C}$  step up to  $50^\circ\text{C}$ . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

#### 6.1.4 TEST PROCEDURES FOR VOLTAGE VARIATION

1. The testing follows FCC KDB 971168 D01v01r03 Section 9.
2. The EUT was placed in a temperature chamber at  $25\pm 5^\circ\text{C}$  and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

#### 6.1.5 TEST RESULTS

Note: Test chart See Appendix II

## APPENDIX I-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

## APPENDIX II-TEST DATA

Conducted output power

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
Band2	1.4	18607	1	#0	0	QPSK	21.46	0	21.46	37	PASS
Band2	1.4	18607	6	#0	0	QPSK	19.67	0	19.67	37	PASS
Band2	1.4	18607	1	#0	0	16QAM	21.14	0	21.14	37	PASS
Band2	1.4	18607	5	#0	0	16QAM	19.75	0	19.75	37	PASS
Band2	1.4	18900	1	#0	0	QPSK	21.69	0	21.69	37	PASS
Band2	1.4	18900	6	#0	0	QPSK	19.30	0	19.30	37	PASS
Band2	1.4	18900	1	#0	0	16QAM	20.54	0	20.54	37	PASS
Band2	1.4	18900	5	#0	0	16QAM	19.00	0	19.00	37	PASS
Band2	1.4	19193	1	#Max	0	QPSK	21.08	0	21.08	37	PASS
Band2	1.4	19193	6	#Max	0	QPSK	19.40	0	19.40	37	PASS
Band2	1.4	19193	1	#Max	0	16QAM	20.29	0	20.29	37	PASS
Band2	1.4	19193	5	#Max	0	16QAM	19.15	0	19.15	37	PASS
Band2	3	18615	1	#0	0	QPSK	21.26	0	21.26	37	PASS
Band2	3	18615	6	#0	0	QPSK	19.73	0	19.73	37	PASS
Band2	3	18615	1	#0	0	16QAM	19.82	0	19.82	37	PASS
Band2	3	18615	5	#0	0	16QAM	19.22	0	19.22	37	PASS
Band2	3	18900	1	#0	0	QPSK	21.55	0	21.55	37	PASS
Band2	3	18900	6	#0	0	QPSK	19.49	0	19.49	37	PASS
Band2	3	18900	1	#0	0	16QAM	20.70	0	20.70	37	PASS
Band2	3	18900	5	#0	0	16QAM	19.36	0	19.36	37	PASS
Band2	3	19185	1	#Max	1	QPSK	21.30	0	21.30	37	PASS
Band2	3	19185	6	#Max	1	QPSK	19.06	0	19.06	37	PASS
Band2	3	19185	1	#Max	1	16QAM	20.05	0	20.05	37	PASS
Band2	3	19185	5	#Max	1	16QAM	18.65	0	18.65	37	PASS
Band2	5	18625	1	#0	0	QPSK	21.30	0	21.30	37	PASS
Band2	5	18625	6	#0	0	QPSK	20.59	0	20.59	37	PASS
Band2	5	18625	1	#0	0	16QAM	20.85	0	20.85	37	PASS
Band2	5	18625	5	#0	0	16QAM	20.29	0	20.29	37	PASS
Band2	5	18900	1	#0	0	QPSK	22.02	0	22.02	37	PASS
Band2	5	18900	6	#0	0	QPSK	20.82	0	20.82	37	PASS
Band2	5	18900	1	#0	0	16QAM	21.75	0	21.75	37	PASS
Band2	5	18900	5	#0	0	16QAM	19.45	0	19.45	37	PASS
Band2	5	19175	1	#Max	3	QPSK	21.14	0	21.14	37	PASS
Band2	5	19175	6	#Max	3	QPSK	20.32	0	20.32	37	PASS
Band2	5	19175	1	#Max	3	16QAM	20.92	0	20.92	37	PASS
Band2	5	19175	5	#Max	3	16QAM	19.13	0	19.13	37	PASS
Band2	10	18650	1	#0	0	QPSK	21.38	0	21.38	37	PASS
Band2	10	18650	4	#0	0	QPSK	21.30	0	21.30	37	PASS
Band2	10	18650	1	#0	0	16QAM	20.97	0	20.97	37	PASS
Band2	10	18650	4	#0	0	16QAM	20.28	0	20.28	37	PASS
Band2	10	18900	1	#0	0	QPSK	21.48	0	21.48	37	PASS
Band2	10	18900	4	#0	0	QPSK	21.71	0	21.71	37	PASS
Band2	10	18900	1	#0	0	16QAM	21.78	0	21.78	37	PASS
Band2	10	18900	4	#0	0	16QAM	20.24	0	20.24	37	PASS
Band2	10	19150	1	#Max	7	QPSK	20.93	0	20.93	37	PASS
Band2	10	19150	4	#Max	7	QPSK	21.13	0	21.13	37	PASS
Band2	10	19150	1	#Max	7	16QAM	21.21	0	21.21	37	PASS
Band2	10	19150	4	#Max	7	16QAM	19.85	0	19.85	37	PASS
Band2	15	18675	1	#0	7	QPSK	21.35	0	21.35	37	PASS
Band2	15	18675	6	#0	7	QPSK	21.50	0	21.50	37	PASS
Band2	15	18675	1	#0	0	16QAM	20.90	0	20.90	37	PASS
Band2	15	18675	5	#0	0	16QAM	20.95	0	20.95	37	PASS
Band2	15	18900	1	#0	7	QPSK	22.06	0	22.06	37	PASS

Band2	15	18900	6	#0	7	QPSK	21.52	0	21.52	37	PASS
Band2	15	18900	1	#0	0	16QAM	21.65	0	21.65	37	PASS
Band2	15	18900	5	#0	0	16QAM	21.03	0	21.03	37	PASS
Band2	15	19125	1	#Max	11	QPSK	21.26	0	21.26	37	PASS
Band2	15	19125	6	#Max	11	QPSK	21.21	0	21.21	37	PASS
Band2	15	19125	1	#Max	11	16QAM	20.84	0	20.84	37	PASS
Band2	15	19125	5	#Max	1	16QAM	20.79	0	20.79	37	PASS
Band2	20	18700	1	#0	0	QPSK	21.31	0	21.31	37	PASS
Band2	20	18700	6	#0	0	QPSK	21.52	0	21.52	37	PASS
Band2	20	18700	1	#0	0	16QAM	20.80	0	20.80	37	PASS
Band2	20	18700	5	#0	0	16QAM	20.96	0	20.96	37	PASS
Band2	20	18900	1	#0	0	QPSK	22.06	0	22.06	37	PASS
Band2	20	18900	6	#0	0	QPSK	21.47	0	21.47	37	PASS
Band2	20	18900	1	#0	0	16QAM	21.65	0	21.65	37	PASS
Band2	20	18900	5	#0	0	16QAM	20.98	0	20.98	37	PASS
Band2	20	19100	1	#Max	15	QPSK	21.20	0	21.20	37	PASS
Band2	20	19100	6	#Max	15	QPSK	21.33	0	21.33	37	PASS
Band2	20	19100	1	#Max	15	16QAM	20.82	0	20.82	37	PASS
Band2	20	19100	5	#Max	15	16QAM	20.63	0	20.63	37	PASS

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Power (dBm)	Gain (dB)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
Band4	1.4	19957	1	#0	0	QPSK	20.82	0	20.82	37	PASS
Band4	1.4	19957	6	#0	0	QPSK	20.81	0	20.81	37	PASS
Band4	1.4	19957	1	#0	0	16QAM	20.83	0	20.83	37	PASS
Band4	1.4	19957	5	#0	0	16QAM	21.05	0	21.05	37	PASS
Band4	1.4	20175	1	#0	0	QPSK	21.00	0	21.00	37	PASS
Band4	1.4	20175	6	#0	0	QPSK	21.00	0	21.00	37	PASS
Band4	1.4	20175	1	#0	0	16QAM	20.98	0	20.98	37	PASS
Band4	1.4	20175	5	#0	0	16QAM	21.09	0	21.09	37	PASS
Band4	1.4	20393	1	#Max	0	QPSK	20.92	0	20.92	37	PASS
Band4	1.4	20393	6	#Max	0	QPSK	20.91	0	20.91	37	PASS
Band4	1.4	20393	1	#Max	0	16QAM	20.90	0	20.90	37	PASS
Band4	1.4	20393	5	#Max	0	16QAM	20.92	0	20.92	37	PASS
Band4	3	19965	1	#0	0	QPSK	20.37	0	20.37	37	PASS
Band4	3	19965	6	#0	0	QPSK	20.64	0	20.64	37	PASS
Band4	3	19965	1	#0	0	16QAM	20.73	0	20.73	37	PASS
Band4	3	19965	5	#0	0	16QAM	20.52	0	20.52	37	PASS
Band4	3	20175	1	#0	0	QPSK	20.81	0	20.81	37	PASS
Band4	3	20175	6	#0	0	QPSK	20.96	0	20.96	37	PASS
Band4	3	20175	1	#0	0	16QAM	20.83	0	20.83	37	PASS
Band4	3	20175	5	#0	0	16QAM	20.88	0	20.88	37	PASS
Band4	3	20385	1	#Max	1	QPSK	20.67	0	20.67	37	PASS
Band4	3	20385	6	#Max	1	QPSK	20.95	0	20.95	37	PASS
Band4	3	20385	1	#Max	1	16QAM	20.91	0	20.91	37	PASS
Band4	3	20385	5	#Max	1	16QAM	20.84	0	20.84	37	PASS
Band4	5	19975	1	#0	0	QPSK	21.29	0	21.29	37	PASS
Band4	5	19975	6	#0	0	QPSK	21.23	0	21.23	37	PASS
Band4	5	19975	1	#0	0	16QAM	21.23	0	21.23	37	PASS
Band4	5	19975	5	#0	0	16QAM	21.23	0	21.23	37	PASS
Band4	5	20175	1	#0	0	QPSK	21.41	0	21.41	37	PASS
Band4	5	20175	6	#0	0	QPSK	21.39	0	21.39	37	PASS
Band4	5	20175	1	#0	0	16QAM	21.47	0	21.47	37	PASS
Band4	5	20175	5	#0	0	16QAM	21.23	0	21.23	37	PASS
Band4	5	20375	1	#Max	3	QPSK	21.31	0	21.31	37	PASS
Band4	5	20375	6	#Max	3	QPSK	21.32	0	21.32	37	PASS
Band4	5	20375	1	#Max	3	16QAM	21.32	0	21.32	37	PASS
Band4	5	20375	5	#Max	3	16QAM	21.35	0	21.35	37	PASS
Band4	10	20000	1	#0	0	QPSK	20.70	0	20.70	37	PASS
Band4	10	20000	4	#0	0	QPSK	20.67	0	20.67	37	PASS
Band4	10	20000	1	#0	0	16QAM	20.65	0	20.65	37	PASS
Band4	10	20000	4	#0	0	16QAM	20.65	0	20.65	37	PASS
Band4	10	20175	1	#0	0	QPSK	20.94	0	20.94	37	PASS
Band4	10	20175	4	#0	0	QPSK	20.93	0	20.93	37	PASS
Band4	10	20175	1	#0	0	16QAM	20.76	0	20.76	37	PASS
Band4	10	20175	4	#0	0	16QAM	20.78	0	20.78	37	PASS
Band4	10	20350	1	#Max	7	QPSK	20.54	0	20.54	37	PASS
Band4	10	20350	4	#Max	7	QPSK	20.55	0	20.55	37	PASS
Band4	10	20350	1	#Max	7	16QAM	20.55	0	20.55	37	PASS
Band4	10	20350	4	#Max	7	16QAM	20.53	0	20.53	37	PASS
Band4	15	20025	1	#0	7	QPSK	20.90	0	20.90	37	PASS
Band4	15	20025	6	#0	7	QPSK	20.86	0	20.86	37	PASS
Band4	15	20025	1	#0	0	16QAM	20.95	0	20.95	37	PASS
Band4	15	20025	5	#0	0	16QAM	20.97	0	20.97	37	PASS
Band4	15	20175	1	#0	7	QPSK	21.36	0	21.36	37	PASS
Band4	15	20175	6	#0	7	QPSK	20.90	0	20.90	37	PASS
Band4	15	20175	1	#0	0	16QAM	20.87	0	20.87	37	PASS
Band4	15	20175	5	#0	0	16QAM	20.89	0	20.89	37	PASS
Band4	15	20325	1	#Max	11	QPSK	21.24	0	21.24	37	PASS
Band4	15	20325	6	#Max	11	QPSK	21.23	0	21.23	37	PASS
Band4	15	20325	1	#Max	11	16QAM	21.23	0	21.23	37	PASS
Band4	15	20325	5	#Max	1	16QAM	21.11	0	21.11	37	PASS
Band4	20	20050	1	#0	0	QPSK	21.58	0	21.58	37	PASS
Band4	20	20050	6	#0	0	QPSK	21.55	0	21.55	37	PASS
Band4	20	20050	1	#0	0	16QAM	21.49	0	21.49	37	PASS
Band4	20	20050	5	#0	0	16QAM	21.52	0	21.52	37	PASS

Band4	20	20175	1	#0	0	QPSK	21.73	0	21.73	37	PASS
Band4	20	20175	6	#0	0	QPSK	21.71	0	21.71	37	PASS
Band4	20	20175	1	#0	0	16QAM	21.67	0	21.67	37	PASS
Band4	20	20175	5	#0	0	16QAM	21.50	0	21.50	37	PASS
Band4	20	20300	1	#Max	15	QPSK	21.95	0	21.95	37	PASS
Band4	20	20300	6	#Max	15	QPSK	21.92	0	21.92	37	PASS
Band4	20	20300	1	#Max	15	16QAM	21.92	0	21.92	37	PASS
Band4	20	20300	5	#Max	15	16QAM	21.91	0	21.91	37	PASS

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Power (dBm)	Gain (dB)	ERP (dBm)	ERP Limit (dBm)	Verdict
Band12	1.4	23017	1	#0	0	QPSK	21.40	0	19.25	37	PASS
Band12	1.4	23017	6	#0	0	QPSK	19.95	0	17.80	37	PASS
Band12	1.4	23017	1	#0	0	16QAM	20.00	0	17.85	37	PASS
Band12	1.4	23017	5	#0	0	16QAM	19.60	0	17.45	37	PASS
Band12	1.4	23095	1	#0	0	QPSK	21.91	0	19.76	37	PASS
Band12	1.4	23095	6	#0	0	QPSK	20.13	0	17.98	37	PASS
Band12	1.4	23095	1	#0	0	16QAM	21.62	0	19.47	37	PASS
Band12	1.4	23095	5	#0	0	16QAM	20.20	0	18.05	37	PASS
Band12	1.4	23173	1	#Max	0	QPSK	22.80	0	20.65	37	PASS
Band12	1.4	23173	6	#Max	0	QPSK	19.87	0	17.72	37	PASS
Band12	1.4	23173	1	#Max	0	16QAM	21.29	0	19.14	37	PASS
Band12	1.4	23173	5	#Max	0	16QAM	19.15	0	17.00	37	PASS
Band12	3	23025	1	#0	0	QPSK	21.66	0	19.51	37	PASS
Band12	3	23025	6	#0	0	QPSK	19.53	0	17.38	37	PASS
Band12	3	23025	1	#0	0	16QAM	20.83	0	18.68	37	PASS
Band12	3	23025	5	#0	0	16QAM	19.45	0	17.30	37	PASS
Band12	3	23095	1	#0	0	QPSK	21.94	0	19.79	37	PASS
Band12	3	23095	6	#0	0	QPSK	19.84	0	17.69	37	PASS
Band12	3	23095	1	#0	0	16QAM	21.16	0	19.01	37	PASS
Band12	3	23095	5	#0	0	16QAM	19.75	0	17.60	37	PASS
Band12	3	23165	1	#Max	1	QPSK	21.92	0	19.77	37	PASS
Band12	3	23165	6	#Max	1	QPSK	20.01	0	17.86	37	PASS
Band12	3	23165	1	#Max	1	16QAM	20.63	0	18.48	37	PASS
Band12	3	23165	5	#Max	1	16QAM	20.07	0	17.92	37	PASS
Band12	5	23035	1	#0	0	QPSK	21.59	0	19.44	37	PASS
Band12	5	23035	6	#0	0	QPSK	21.34	0	19.19	37	PASS
Band12	5	23035	1	#0	0	16QAM	21.12	0	18.97	37	PASS
Band12	5	23035	5	#0	0	16QAM	19.83	0	17.68	37	PASS
Band12	5	23095	1	#0	0	QPSK	22.16	0	20.01	37	PASS
Band12	5	23095	6	#0	0	QPSK	21.41	0	19.26	37	PASS
Band12	5	23095	1	#0	0	16QAM	22.00	0	19.85	37	PASS
Band12	5	23095	5	#0	0	16QAM	19.37	0	17.22	37	PASS
Band12	5	23155	1	#Max	3	QPSK	22.01	0	19.86	37	PASS
Band12	5	23155	6	#Max	3	QPSK	21.28	0	19.13	37	PASS
Band12	5	23155	1	#Max	3	16QAM	21.71	0	19.56	37	PASS
Band12	5	23155	5	#Max	3	16QAM	19.97	0	17.82	37	PASS
Band12	10	23060	1	#0	0	QPSK	21.57	0	19.42	37	PASS
Band12	10	23060	4	#0	0	QPSK	21.29	0	19.14	37	PASS
Band12	10	23060	1	#0	0	16QAM	21.08	0	18.93	37	PASS
Band12	10	23060	4	#0	0	16QAM	20.19	0	18.04	37	PASS
Band12	10	23095	1	#0	0	QPSK	22.10	0	19.95	37	PASS
Band12	10	23095	4	#0	0	QPSK	21.68	0	19.53	37	PASS
Band12	10	23095	1	#0	0	16QAM	21.90	0	19.75	37	PASS
Band12	10	23095	4	#0	0	16QAM	20.49	0	18.34	37	PASS
Band12	10	23130	1	#Max	7	QPSK	22.01	0	19.86	37	PASS
Band12	10	23130	4	#Max	7	QPSK	21.66	0	19.51	37	PASS
Band12	10	23130	1	#Max	7	16QAM	21.61	0	19.46	37	PASS
Band12	10	23130	4	#Max	7	16QAM	20.47	0	18.32	37	PASS

Frequency stability

LTE-M Band 2 (QPSK) / 1880MHz / BW20M					
Temperature (°C)	Voltage (Volt)	Freq. Dev.	Freq. Dev.	Limit	Result
		(Hz)	(ppm)		
50	Normal Voltage	37.18	0.020	2.5ppm	PASS
40		37.55	0.020		
30		-37.71	-0.020		
20		-76.55	-0.041		
10		37.69	0.020		
0		37.71	0.020		
-10		-37.22	-0.020		
-20		37.70	0.020		
-30		37.61	0.020		
20	Maximum Voltage	-55.78	-0.030		
20	BEP	-55.78	-0.030		

LTE-M Band 2 (16QAM) / 1880MHz / BW20M					
Temperature (°C)	Voltage (Volt)	Freq. Dev.	Freq. Dev.	Limit	Result
		(Hz)	(ppm)		
50	Normal Voltage	-36.66	-0.020	2.5ppm	PASS
40		-36.45	-0.019		
30		36.91	0.020		
20		-75.09	-0.040		
10		36.79	0.020		
0		36.89	0.020		
-10		36.61	0.019		
-20		36.66	0.019		
-30		36.73	0.020		
20	Maximum Voltage	18.33	0.010		
20	BEP	-54.77	-0.029		

LTE-M Band 4 (QPSK) / 1733MHz / BW20M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	-202.58	-0.117		
40		-202.82	-0.117		
30		-202.90	-0.117		
20		-407.14	-0.235		
10		202.61	0.117		
0		-203.01	-0.117		
-10		202.66	0.117		
-20		-202.99	-0.117		
-30		202.45	0.117		
20	Maximum Voltage	-304.01	-0.175		
20	BEP	-303.75	-0.175		

LTE-M Band 4 (16QAM) / 1733MHz / BW20M					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	201.85	0.116		
40		202.00	0.117		
30		-201.62	-0.116		
20		-405.42	-0.234		
10		201.97	0.117		
0		-202.12	-0.117		
-10		-201.79	-0.116		
-20		-202.06	-0.117		
-30		201.69	0.116		
20	Maximum Voltage	100.88	0.058		
20	BEP	-302.90	-0.175		

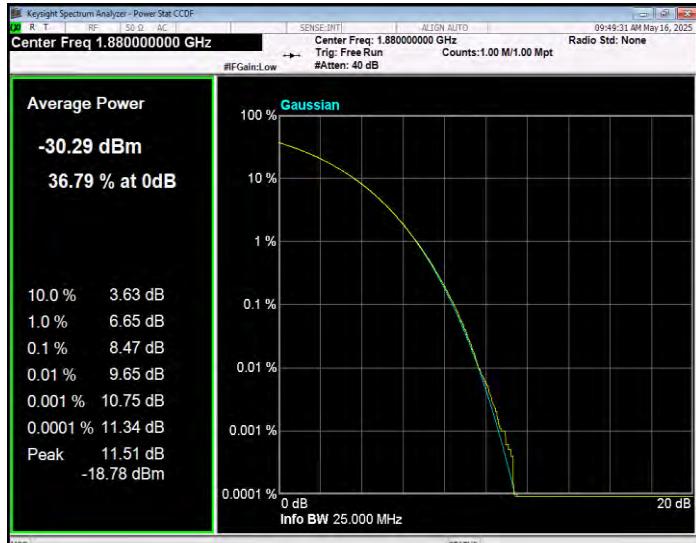
LTE-M Band 12 (QPSK) / 707.5MHz / BW10M					
Temperature (°C)	Voltage (Volt)	Freq. Dev.	Freq. Dev.	Limit	Result
		(Hz)	(ppm)		
50	Normal Voltage	125.19	0.177	2.5ppm	PASS
40		-125.22	-0.177		
30		-124.71	-0.176		
20		248.37	0.351		
10		125.22	0.177		
0		124.94	0.177		
-10		124.86	0.176		
-20		124.76	0.176		
-30		125.04	0.177		
20	Maximum Voltage	-62.37	-0.088		
20	BEP	-62.40	-0.088		

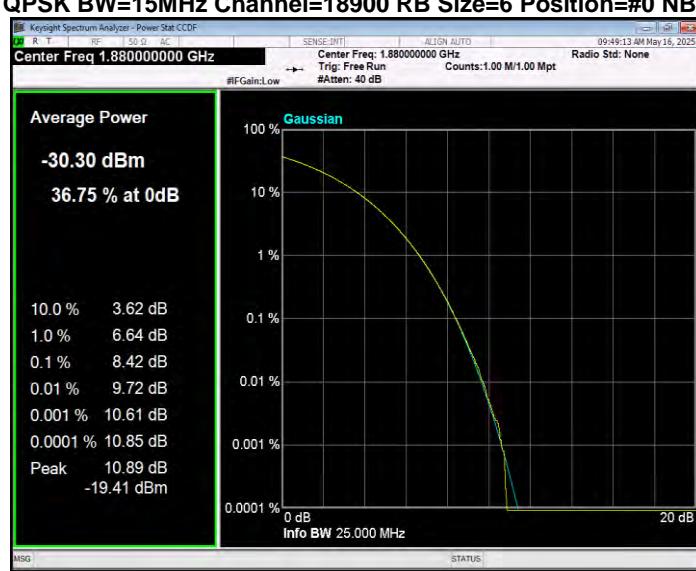
LTE-M Band 12 (16QAM) / 707.5MHz / BW10M					
Temperature (°C)	Voltage (Volt)	Freq. Dev.	Freq. Dev.	Limit	Result
		(Hz)	(ppm)		
50	Normal Voltage	-68.53	-0.097	2.5ppm	PASS
40		68.85	0.097		
30		68.92	0.097		
20		135.86	0.192		
10		-68.47	-0.097		
0		68.56	0.097		
-10		-68.77	-0.097		
-20		69.04	0.098		
-30		69.03	0.098		
20	Maximum Voltage	102.97	0.146		
20	BEP	-34.34	-0.049		

### Peak-to-Average Ratio

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Result (dB)	high Limit (dB)	Verdict
Band2	1.4	18900	6	#0	0	QPSK	8.43	13	PASS
Band2	1.4	18900	5	#0	0	16QAM	8.43	13	PASS
Band2	3	18900	6	#0	0	QPSK	8.44	13	PASS
Band2	3	18900	5	#0	0	16QAM	8.41	13	PASS
Band2	5	18900	6	#0	0	QPSK	8.42	13	PASS
Band2	5	18900	5	#0	0	16QAM	8.40	13	PASS
Band2	10	18900	6	#0	0	QPSK	8.41	13	PASS
Band2	10	18900	5	#0	0	16QAM	8.43	13	PASS
Band2	15	18900	6	#0	0	QPSK	8.42	13	PASS
Band2	15	18900	5	#0	0	16QAM	8.42	13	PASS
Band2	20	18900	6	#0	0	QPSK	8.42	13	PASS
Band2	20	18900	5	#0	0	16QAM	8.47	13	PASS
Band4	1.4	20175	6	#0	0	QPSK	8.90	13	PASS
Band4	1.4	20175	5	#0	0	16QAM	10.22	13	PASS
Band4	3	20175	6	#0	0	QPSK	9.81	13	PASS
Band4	3	20175	5	#0	0	16QAM	11.30	13	PASS
Band4	5	20175	6	#0	0	QPSK	10.39	13	PASS
Band4	5	20175	5	#0	0	16QAM	12.19	13	PASS
Band4	10	20175	6	#0	0	QPSK	10.93	13	PASS
Band4	10	20175	5	#0	0	16QAM	9.98	13	PASS
Band4	15	20175	6	#0	0	QPSK	10.31	13	PASS
Band4	15	20175	5	#0	0	16QAM	11.65	13	PASS
Band4	20	20175	6	#0	0	QPSK	9.12	13	PASS
Band4	20	20175	5	#0	0	16QAM	11.01	13	PASS
Band12	1.4	23095	6	#0	0	QPSK	9.55	13	PASS
Band12	1.4	23095	5	#0	0	16QAM	11.14	13	PASS
Band12	3	23095	6	#0	0	QPSK	10.21	13	PASS
Band12	3	23095	5	#0	0	16QAM	11.56	13	PASS
Band12	5	23095	6	#0	0	QPSK	8.68	13	PASS
Band12	5	23095	5	#0	0	16QAM	10.64	13	PASS
Band12	10	23095	6	#0	0	QPSK	10.41	13	PASS
Band12	10	23095	5	#0	0	16QAM	11.96	13	PASS

**Band2 16QAM BW=1.4MHz Channel=18900 RB Size=5 Position=#0 NB Index=0****Band2 16QAM BW=10MHz Channel=18900 RB Size=5 Position=#0 NB Index=0****Band2 16QAM BW=15MHz Channel=18900 RB Size=5 Position=#0 NB Index=0**

**Band2 16QAM BW=20MHz Channel=18900 RB Size=5 Position=#0 NB Index=0****Band2 16QAM BW=3MHz Channel=18900 RB Size=5 Position=#0 NB Index=0****Band2 16QAM BW=5MHz Channel=18900 RB Size=5 Position=#0 NB Index=0**

**Band2 QPSK BW=1.4MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=10MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=15MHz Channel=18900 RB Size=6 Position=#0 NB Index=0**

**Band2 QPSK BW=20MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=3MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=5MHz Channel=18900 RB Size=6 Position=#0 NB Index=0**

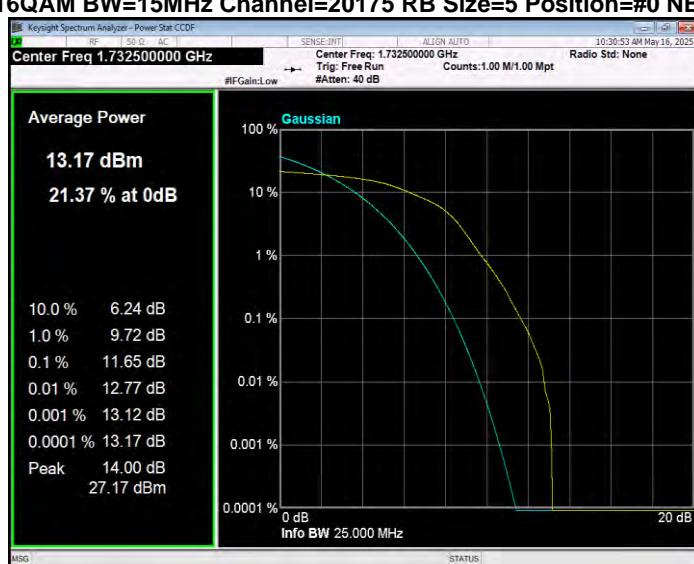
**Band4 16QAM BW=1.4MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**



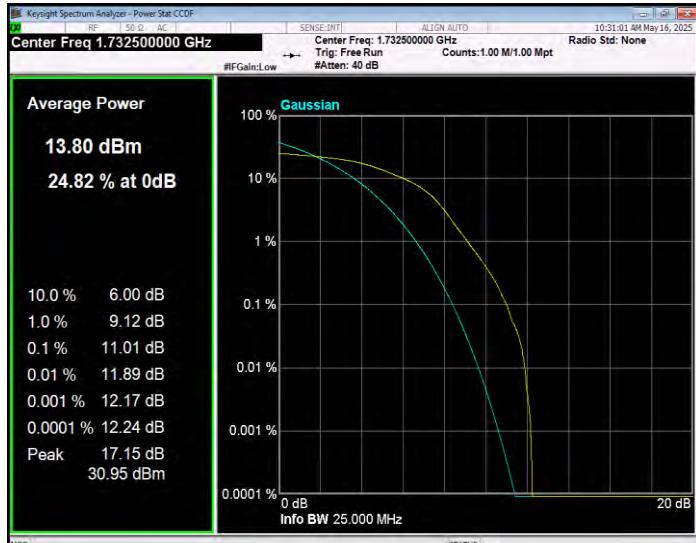
**Band4 16QAM BW=10MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**



**Band4 16QAM BW=15MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**



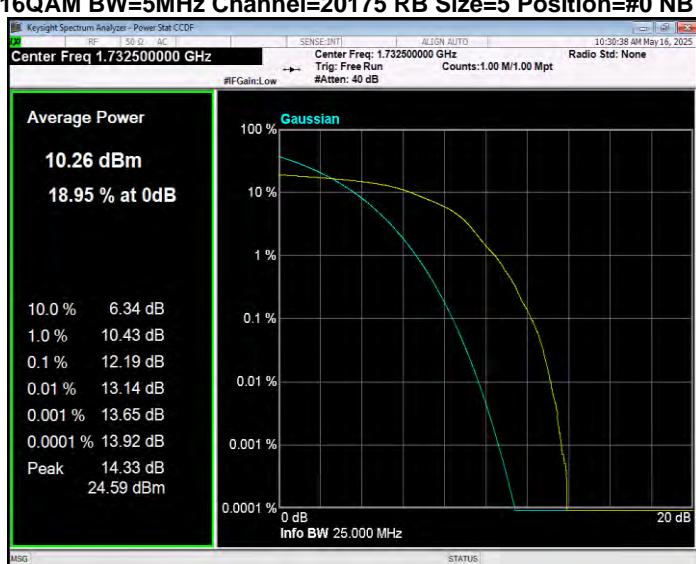
**Band4 16QAM BW=20MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**



**Band4 16QAM BW=3MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**



**Band4 16QAM BW=5MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**



**Band4 QPSK BW=1.4MHz Channel=20175 RB Size=6 Position=#0 NB Index=0****Band4 QPSK BW=10MHz Channel=20175 RB Size=6 Position=#0 NB Index=0****Band4 QPSK BW=15MHz Channel=20175 RB Size=6 Position=#0 NB Index=0**

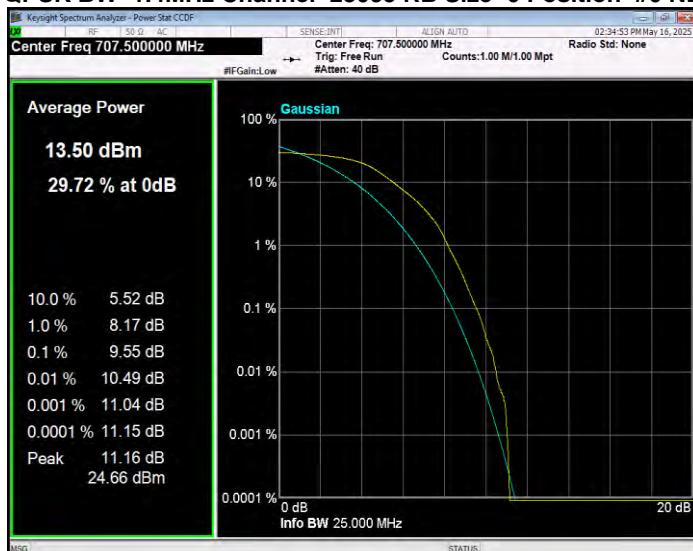
**Band4 QPSK BW=20MHz Channel=20175 RB Size=6 Position=#0 NB Index=0****Band4 QPSK BW=3MHz Channel=20175 RB Size=6 Position=#0 NB Index=0****Band4 QPSK BW=5MHz Channel=20175 RB Size=6 Position=#0 NB Index=0**

**Band12 16QAM BW=1.4MHz Channel=23095 RB Size=5 Position=#0 NB Index=0****Band12 16QAM BW=10MHz Channel=23095 RB Size=5 Position=#0 NB Index=0****Band12 16QAM BW=3MHz Channel=23095 RB Size=5 Position=#0 NB Index=0**

**Band12 16QAM BW=5MHz Channel=23095 RB Size=5 Position=#0 NB Index=0**

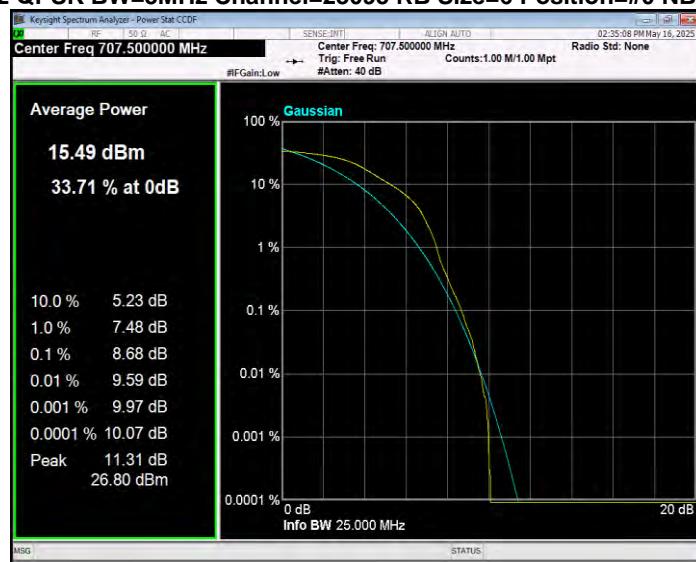


**Band12 QPSK BW=1.4MHz Channel=23095 RB Size=6 Position=#0 NB Index=0**



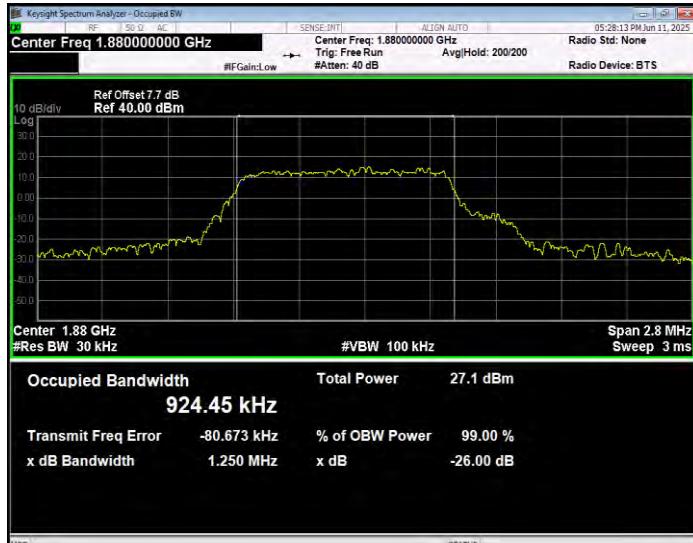
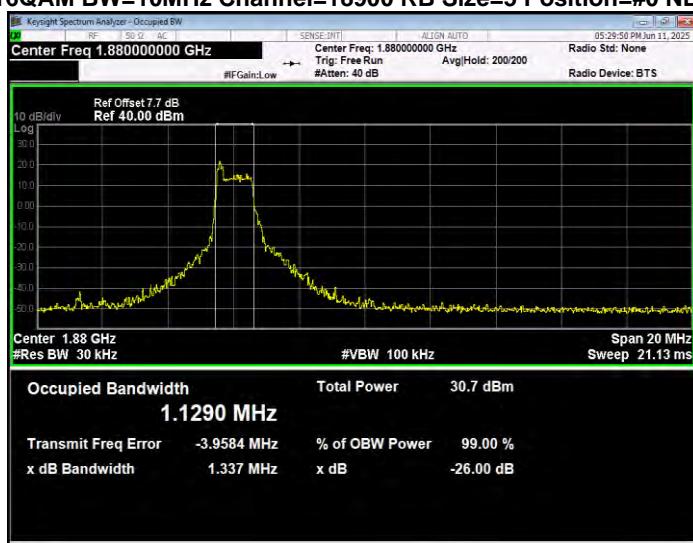
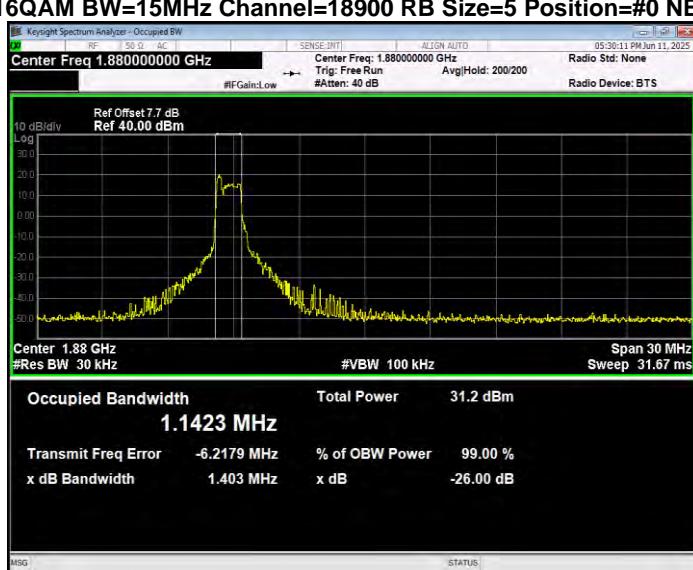
**Band12 QPSK BW=10MHz Channel=23095 RB Size=6 Position=#0 NB Index=0**



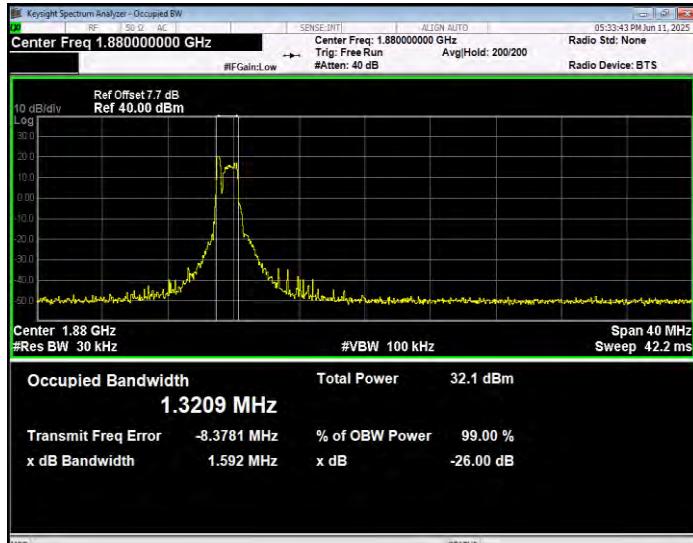
**Band12 QPSK BW=3MHz Channel=23095 RB Size=6 Position=#0 NB Index=0****Band12 QPSK BW=5MHz Channel=23095 RB Size=6 Position=#0 NB Index=0**

Occupied bandwidth

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	99% OBW (MHz)	-26dB EBW (MHz)	Verdict
Band2	1.4	18900	6	#0	0	QPSK	1.083	1.272	PASS
Band2	1.4	18900	5	#0	0	16QAM	0.924	1.250	PASS
Band2	3	18900	6	#0	0	QPSK	1.093	1.286	PASS
Band2	3	18900	5	#0	0	16QAM	0.934	1.249	PASS
Band2	5	18900	6	#0	0	QPSK	1.097	1.270	PASS
Band2	5	18900	5	#0	0	16QAM	0.935	1.103	PASS
Band2	10	18900	6	#0	0	QPSK	1.289	1.442	PASS
Band2	10	18900	5	#0	0	16QAM	1.129	1.337	PASS
Band2	15	18900	6	#0	0	QPSK	1.299	1.487	PASS
Band2	15	18900	5	#0	0	16QAM	1.142	1.403	PASS
Band2	20	18900	6	#0	0	QPSK	1.351	1.635	PASS
Band2	20	18900	5	#0	0	16QAM	1.321	1.592	PASS
Band4	1.4	20175	6	#0	0	QPSK	1.090	1.301	PASS
Band4	1.4	20175	5	#0	0	16QAM	0.926	1.261	PASS
Band4	3	20175	6	#0	0	QPSK	1.086	1.294	PASS
Band4	3	20175	5	#0	0	16QAM	0.933	1.261	PASS
Band4	5	20175	6	#0	0	QPSK	1.109	1.248	PASS
Band4	5	20175	5	#0	0	16QAM	0.932	1.082	PASS
Band4	10	20175	6	#0	0	QPSK	1.283	1.434	PASS
Band4	10	20175	5	#0	0	16QAM	1.122	1.398	PASS
Band4	15	20175	6	#0	0	QPSK	1.290	1.444	PASS
Band4	15	20175	5	#0	0	16QAM	1.131	1.344	PASS
Band4	20	20175	6	#0	0	QPSK	1.329	1.557	PASS
Band4	20	20175	5	#0	0	16QAM	1.311	1.586	PASS
Band12	1.4	23095	6	#0	0	QPSK	1.089	1.287	PASS
Band12	1.4	23095	5	#0	0	16QAM	0.938	1.246	PASS
Band12	3	23095	6	#0	0	QPSK	1.103	1.281	PASS
Band12	3	23095	5	#0	0	16QAM	0.939	1.254	PASS
Band12	5	23095	6	#0	0	QPSK	1.100	1.255	PASS
Band12	5	23095	5	#0	0	16QAM	0.932	1.113	PASS
Band12	10	23095	6	#0	0	QPSK	1.288	1.457	PASS
Band12	10	23095	5	#0	0	16QAM	1.128	1.431	PASS

**Band2 16QAM BW=1.4MHz Channel=18900 RB Size=5 Position=#0 NB Index=0****Band2 16QAM BW=10MHz Channel=18900 RB Size=5 Position=#0 NB Index=0****Band2 16QAM BW=15MHz Channel=18900 RB Size=5 Position=#0 NB Index=0**

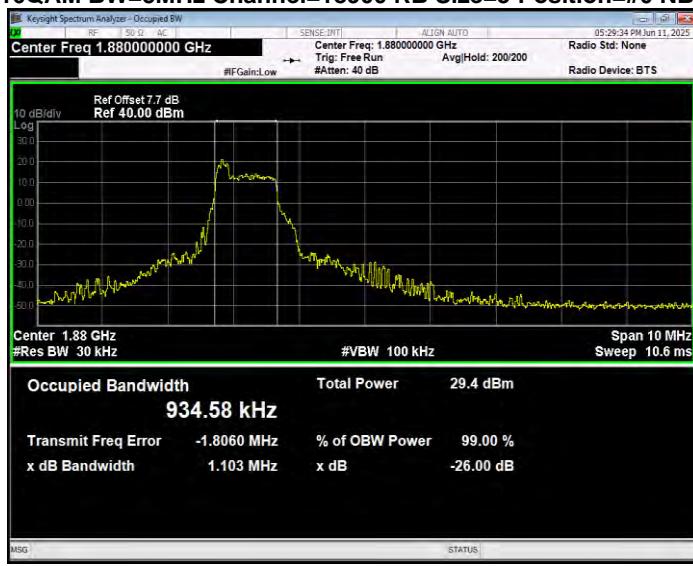
**Band2 16QAM BW=20MHz Channel=18900 RB Size=5 Position=#0 NB Index=0**

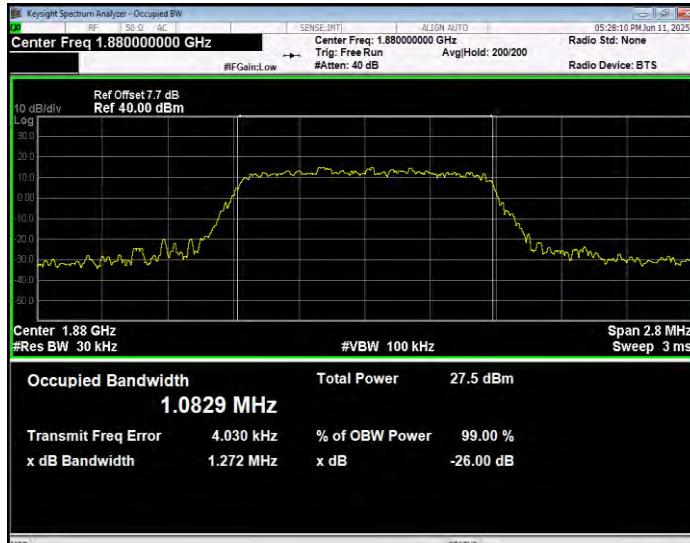
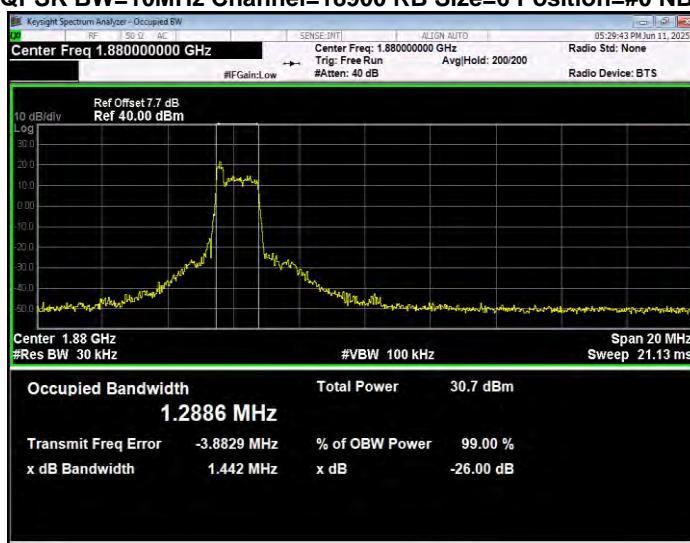
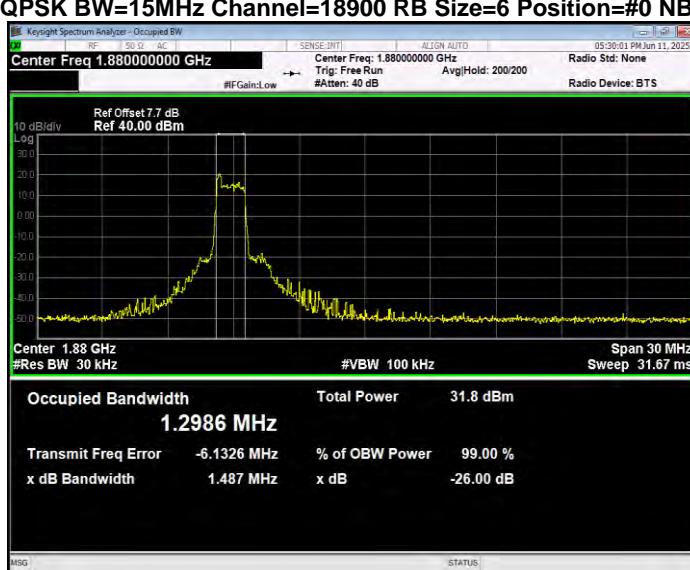


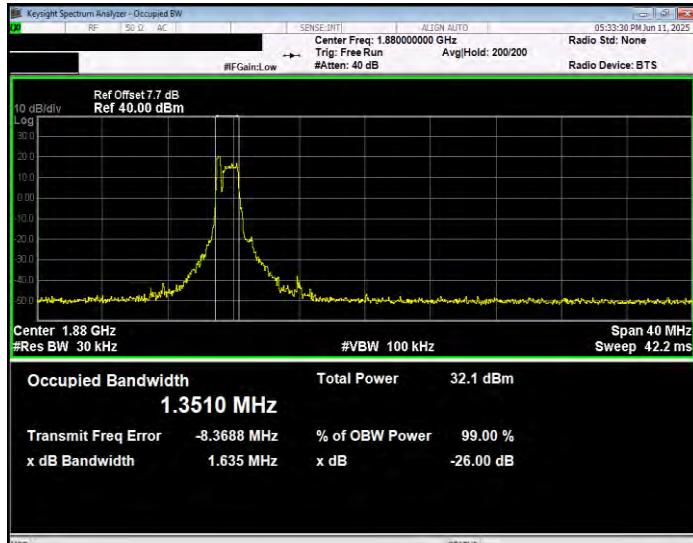
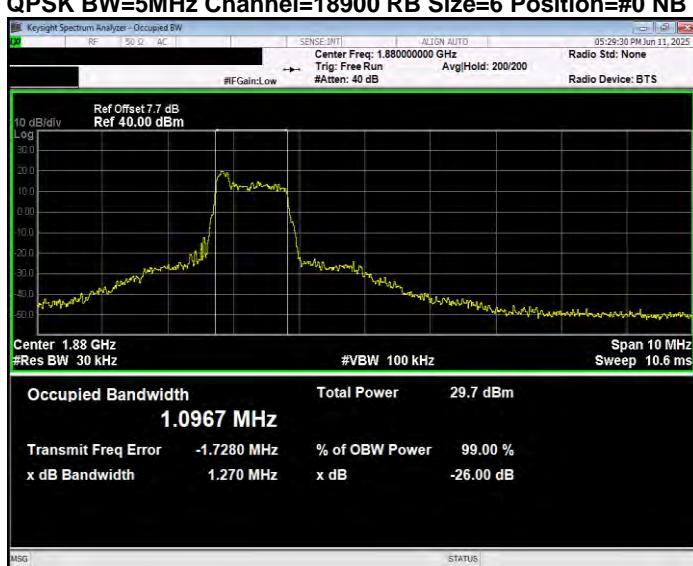
**Band2 16QAM BW=3MHz Channel=18900 RB Size=5 Position=#0 NB Index=0**

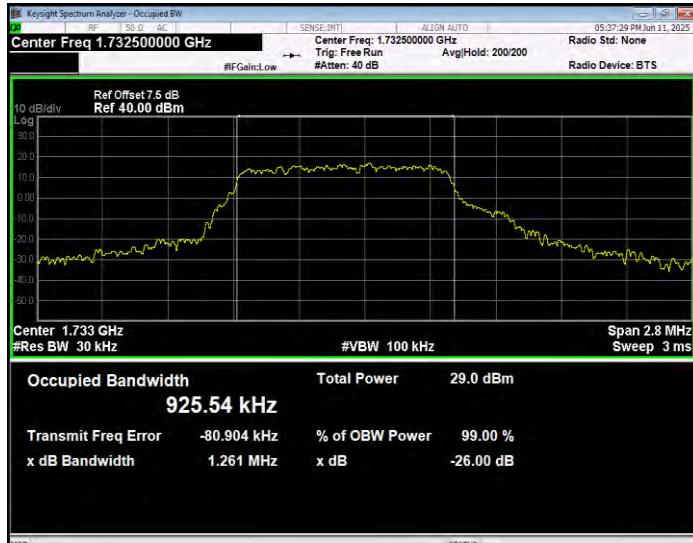
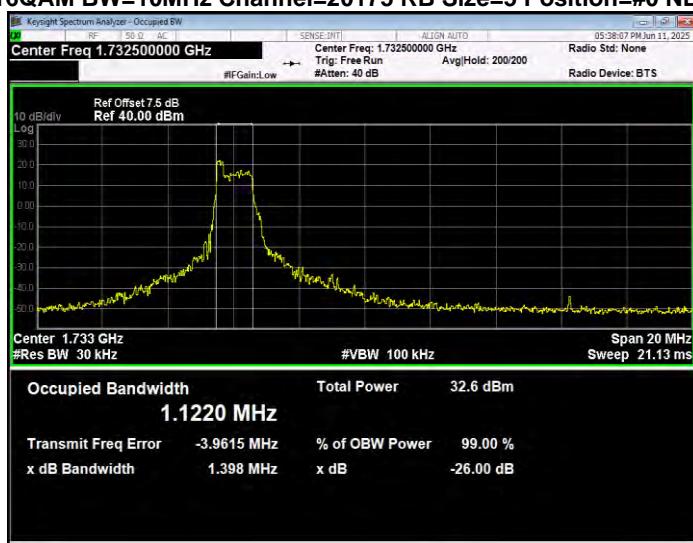
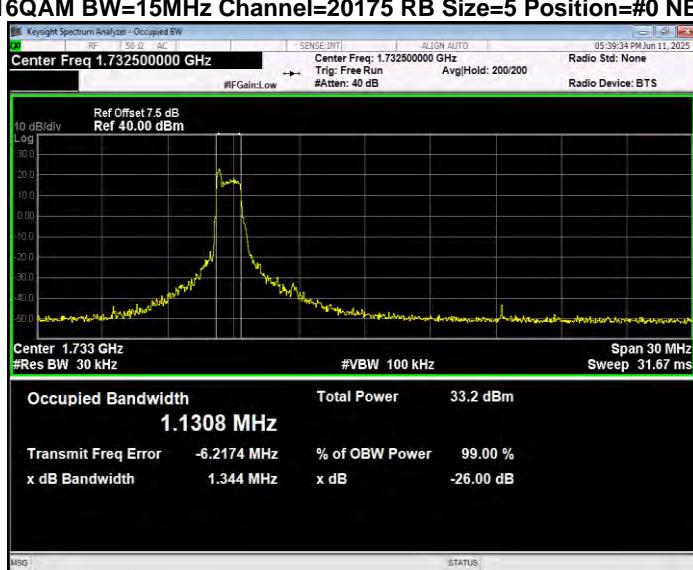


**Band2 16QAM BW=5MHz Channel=18900 RB Size=5 Position=#0 NB Index=0**

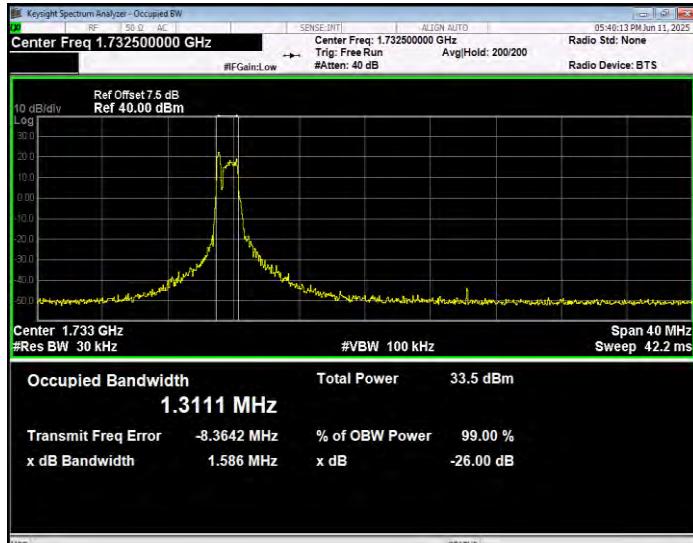


**Band2 QPSK BW=1.4MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=10MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=15MHz Channel=18900 RB Size=6 Position=#0 NB Index=0**

**Band2 QPSK BW=20MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=3MHz Channel=18900 RB Size=6 Position=#0 NB Index=0****Band2 QPSK BW=5MHz Channel=18900 RB Size=6 Position=#0 NB Index=0**

**Band4 16QAM BW=1.4MHz Channel=20175 RB Size=5 Position=#0 NB Index=0****Band4 16QAM BW=10MHz Channel=20175 RB Size=5 Position=#0 NB Index=0****Band4 16QAM BW=15MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**

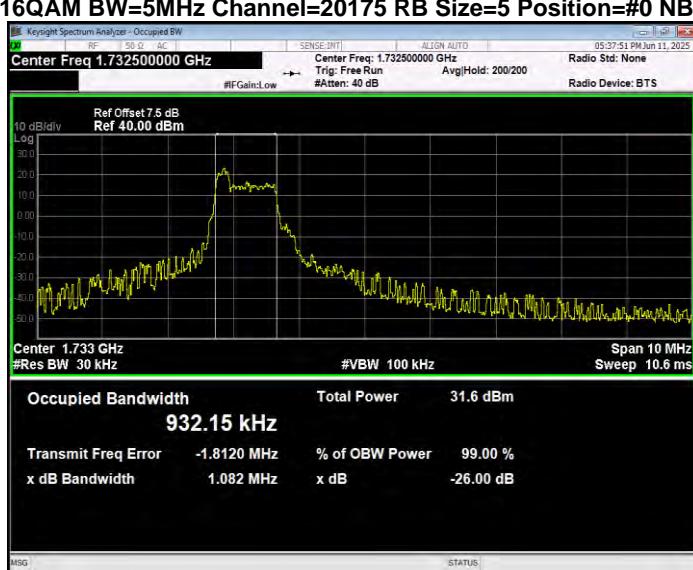
**Band4 16QAM BW=20MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**

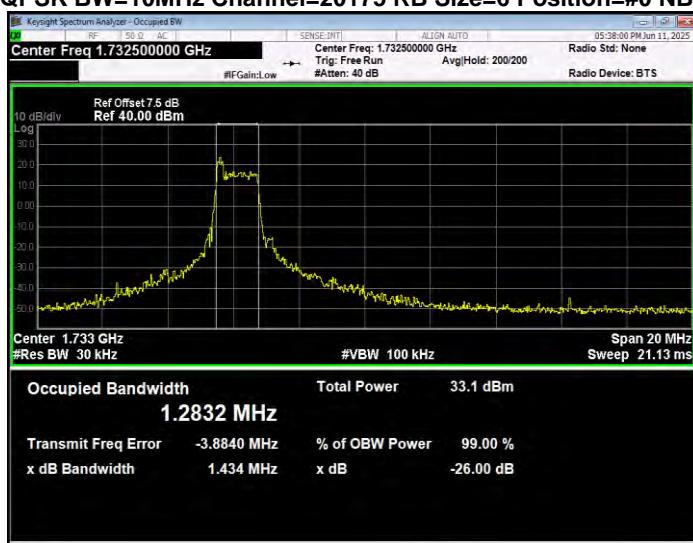
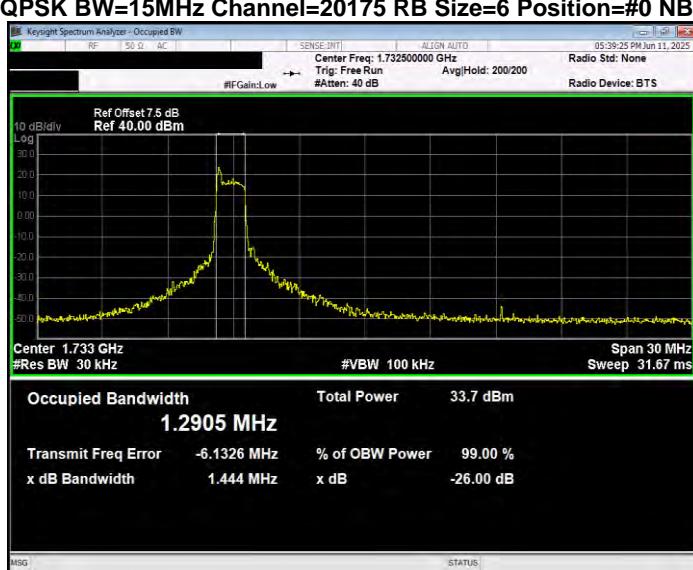


**Band4 16QAM BW=3MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**

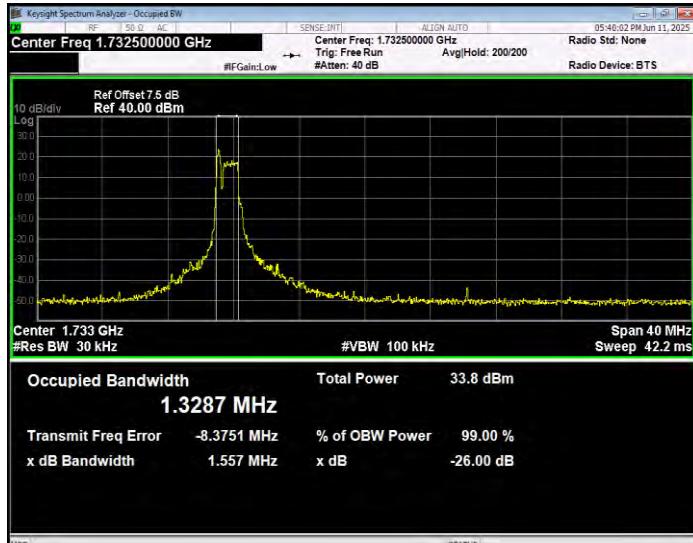


**Band4 16QAM BW=5MHz Channel=20175 RB Size=5 Position=#0 NB Index=0**



**Band4 QPSK BW=1.4MHz Channel=20175 RB Size=6 Position=#0 NB Index=0****Band4 QPSK BW=10MHz Channel=20175 RB Size=6 Position=#0 NB Index=0****Band4 QPSK BW=15MHz Channel=20175 RB Size=6 Position=#0 NB Index=0**

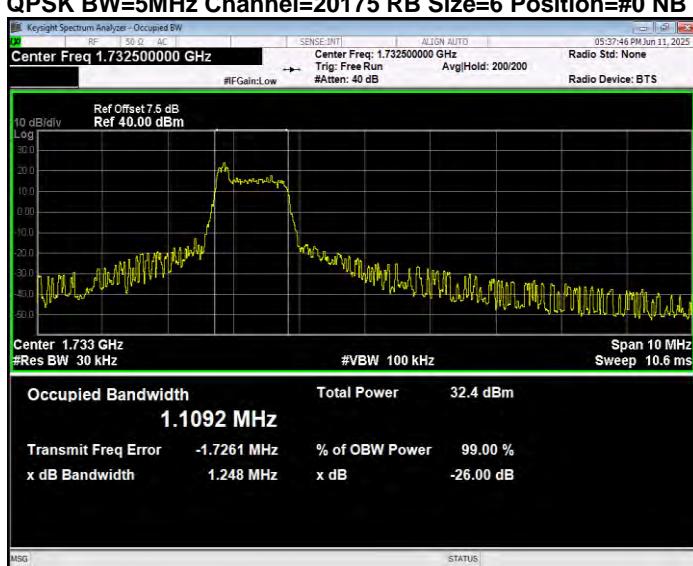
**Band4 QPSK BW=20MHz Channel=20175 RB Size=6 Position=#0 NB Index=0**

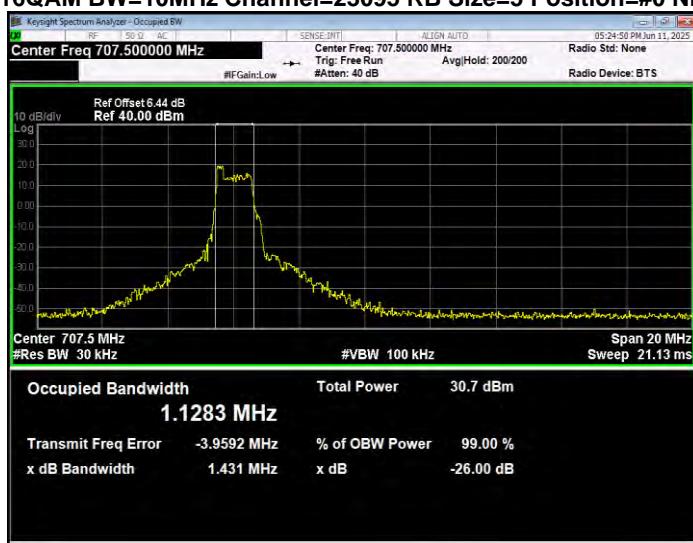
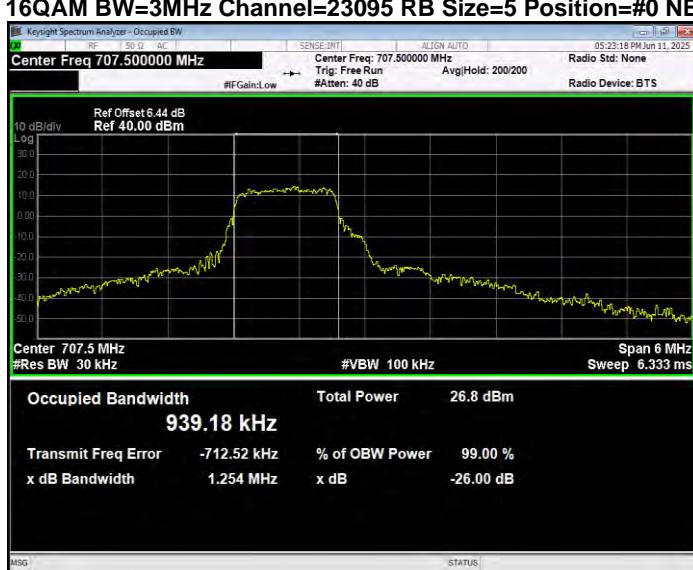


**Band4 QPSK BW=3MHz Channel=20175 RB Size=6 Position=#0 NB Index=0**



**Band4 QPSK BW=5MHz Channel=20175 RB Size=6 Position=#0 NB Index=0**



**Band12 16QAM BW=1.4MHz Channel=23095 RB Size=5 Position=#0 NB Index=0****Band12 16QAM BW=10MHz Channel=23095 RB Size=5 Position=#0 NB Index=0****Band12 16QAM BW=3MHz Channel=23095 RB Size=5 Position=#0 NB Index=0**

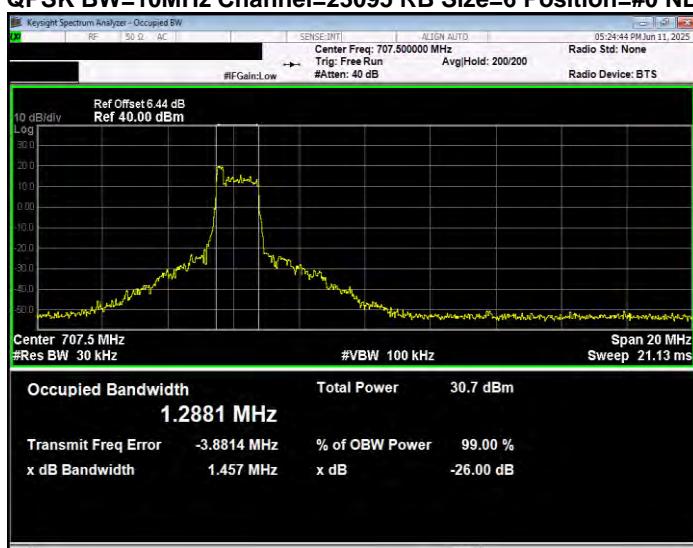
**Band12 16QAM BW=5MHz Channel=23095 RB Size=5 Position=#0 NB Index=0**



**Band12 QPSK BW=1.4MHz Channel=23095 RB Size=6 Position=#0 NB Index=0**



**Band12 QPSK BW=10MHz Channel=23095 RB Size=6 Position=#0 NB Index=0**



**Band12 QPSK BW=3MHz Channel=23095 RB Size=6 Position=#0 NB Index=0****Band12 QPSK BW=5MHz Channel=23095 RB Size=6 Position=#0 NB Index=0**

Band edge

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	NB Index	Modulation	Spur Freq (MHz)	Spur Level (dBm)	Limit (dBm)	Verdict
Band2	1.4	18607	1	#0	0	QPSK	1849.9944	-24.52	-13	PASS
Band2	1.4	18607	6	#0	0	QPSK	1850	-30.31	-13	PASS
Band2	1.4	18607	1	#0	0	QAM16	1850	-29.48	-13	PASS
Band2	1.4	18607	6	#0	0	QAM16	1849.9944	-29.66	-13	PASS
Band2	1.4	19193	1	#Max	0	QPSK	1910	-22.78	-13	PASS
Band2	1.4	19193	6	#Max	0	QPSK	1910.0084	-28.65	-13	PASS
Band2	1.4	19193	1	#Max	0	QAM16	1910	-26.23	-13	PASS
Band2	1.4	19193	6	#Max	0	QAM16	1910	-29.82	-13	PASS
Band2	3	18615	1	#0	0	QPSK	1849.988	-36.18	-13	PASS
Band2	3	18615	6	#0	0	QPSK	1849.892	-30.10	-13	PASS
Band2	3	18615	1	#0	0	QAM16	1849.994	-38.65	-13	PASS
Band2	3	18615	6	#0	0	QAM16	1849.958	-30.34	-13	PASS
Band2	3	19185	1	#Max	1	QPSK	1910.006	-34.31	-13	PASS
Band2	3	19185	6	#Max	1	QPSK	1910.072	-28.30	-13	PASS
Band2	3	19185	1	#Max	1	QAM16	1910.006	-28.27	-13	PASS
Band2	3	19185	6	#Max	1	QAM16	1910.072	-27.18	-13	PASS
Band2	5	18625	1	#0	0	QPSK	1849.81	-29.10	-13	PASS
Band2	5	18625	6	#0	0	QPSK	1849.97	-22.63	-13	PASS
Band2	5	18625	1	#0	0	QAM16	1849.94	-29.91	-13	PASS
Band2	5	18625	6	#0	0	QAM16	1849.92	-23.01	-13	PASS
Band2	5	19175	1	#Max	3	QPSK	1910.01	-22.55	-13	PASS
Band2	5	19175	6	#Max	3	QPSK	1910	-21.42	-13	PASS
Band2	5	19175	1	#Max	3	QAM16	1910.08	-31.18	-13	PASS
Band2	5	19175	6	#Max	3	QAM16	1910.06	-19.73	-13	PASS
Band2	10	18650	1	#0	0	QPSK	1849.54	-33.53	-13	PASS
Band2	10	18650	4	#0	0	QPSK	1849.98	-31.54	-13	PASS
Band2	10	18650	1	#0	0	QAM16	1849.02	-35.79	-13	PASS
Band2	10	18650	4	#0	0	QAM16	1849.7	-33.98	-13	PASS
Band2	10	19150	1	#Max	7	QPSK	1911.06	-34.87	-13	PASS
Band2	10	19150	4	#Max	7	QPSK	1910	-26.24	-13	PASS
Band2	10	19150	1	#Max	7	QAM16	1910.1	-35.38	-13	PASS
Band2	10	19150	4	#Max	7	QAM16	1910	-26.20	-13	PASS
Band2	15	18675	1	#0	7	QPSK	1841.69	-50.38	-13	PASS
Band2	15	18675	6	#0	7	QPSK	1837.55	-50.10	-13	PASS
Band2	15	18675	1	#0	0	QAM16	1849.19	-34.55	-13	PASS
Band2	15	18675	6	#0	0	QAM16	1850	-27.54	-13	PASS
Band2	15	19125	1	#Max	11	QPSK	1910.09	-30.14	-13	PASS
Band2	15	19125	6	#Max	11	QPSK	1910	-24.38	-13	PASS
Band2	15	19125	1	#Max	11	QAM16	1910.81	-34.36	-13	PASS
Band2	15	19125	6	#Max	1	QAM16	1913.39	-49.74	-13	PASS
Band2	20	18700	1	#0	0	QPSK	1849.76	-32.71	-13	PASS
Band2	20	18700	6	#0	0	QPSK	1849.76	-37.13	-13	PASS
Band2	20	18700	1	#0	0	QAM16	1849.72	-33.58	-13	PASS
Band2	20	18700	6	#0	0	QAM16	1849.96	-36.51	-13	PASS
Band2	20	19100	1	#Max	15	QPSK	1910.28	-34.09	-13	PASS
Band2	20	19100	6	#Max	15	QPSK	1910.12	-36.26	-13	PASS
Band2	20	19100	1	#Max	15	QAM16	1910.44	-31.29	-13	PASS
Band2	20	19100	6	#Max	15	QAM16	1910.28	-36.31	-13	PASS
Band4	1.4	19957	1	#0	0	QPSK	1710	-23.53	-13	PASS
Band4	1.4	19957	6	#0	0	QPSK	1709.9832	-31.53	-13	PASS
Band4	1.4	19957	1	#0	0	QAM16	1710	-25.61	-13	PASS
Band4	1.4	19957	6	#0	0	QAM16	1710	-30.66	-13	PASS
Band4	1.4	20393	1	#Max	0	QPSK	1755	-27.96	-13	PASS
Band4	1.4	20393	6	#Max	0	QPSK	1755.0476	-32.69	-13	PASS
Band4	1.4	20393	1	#Max	0	QAM16	1755.0056	-27.12	-13	PASS
Band4	1.4	20393	6	#Max	0	QAM16	1755	-30.13	-13	PASS
Band4	3	19965	1	#0	0	QPSK	1709.904	-33.38	-13	PASS