

FCC TEST REPORT (PART 24)

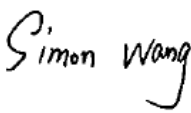

| | |
|------------|---|
| Applicant: | Thundercomm Technology Co., Ltd |
| Address: | No. 107, Middle Datagu Road, Xiantao Street, Yubei District, Chongqing, China, 401122 |

| | |
|---------------------------|---|
| Manufacturer or Supplier: | Thundercomm Technology Co., Ltd |
| Address: | No. 107, Middle Datagu Road, Xiantao Street, Yubei District, Chongqing, China, 401122 |
| Product: | TurboX CM2290-NA |
| Brand Name: | TURBOX |
| Model Name: | TurboX CM2290-NA |
| FCC ID: | 2AOHHCM2290NA |
| Date of tests: | Apr. 07, 2023 ~ Apr. 26, 2023 |

The tests have been carried out according to the requirements of the following standard:

- FCC PART 24, Subpart E**
 FCC PART 2
 ANSI/TIA/EIA-603-D
 ANSI/TIA/EIA-603-E
 ANSI C63.26-2015

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

| | |
|---|--|
| Prepared by Simon Wang Engineer / Mobile Department | Approved by Luke Lu Manager / Mobile Department |
|  |  |
| Date: Apr. 26, 2023 | Date: Apr. 26, 2023 |

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



TABLE OF CONTENTS

| | |
|--|-----------|
| RELEASE CONTROL RECORD | 4 |
| 1 SUMMARY OF TEST RESULTS | 5 |
| 1.1 MEASUREMENT UNCERTAINTY | 6 |
| 1.2 TEST SITE AND INSTRUMENTS | 7 |
| 2 GENERAL INFORMATION | 8 |
| 2.1 GENERAL DESCRIPTION OF EUT | 8 |
| 2.2 CONFIGURATION OF SYSTEM UNDER TEST | 11 |
| 2.3 DESCRIPTION OF SUPPORT UNITS | 12 |
| 2.4 TEST ITEM AND TEST CONFIGURATION..... | 12 |
| 2.5 EUT OPERATING CONDITIONS | 16 |
| 2.6 GENERAL DESCRIPTION OF APPLIED STANDARDS | 16 |
| 3 TEST TYPES AND RESULTS | 17 |
| 3.1 OUTPUT POWER MEASUREMENT | 17 |
| 3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT | 17 |
| 3.1.2 TEST PROCEDURES | 17 |
| 3.1.3 TEST SETUP | 18 |
| 3.1.4 TEST RESULTS | 18 |
| 3.2 FREQUENCY STABILITY MEASUREMENT | 42 |
| 3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT | 42 |
| 3.2.2 TEST PROCEDURE | 42 |
| 3.2.3 TEST SETUP | 42 |
| 3.2.4 TEST RESULTS | 43 |
| 3.3 OCCUPIED BANDWIDTH MEASUREMENT | 44 |
| 3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT | 44 |
| 3.3.2 TEST SETUP | 44 |
| 3.3.3 TEST PROCEDURES | 44 |
| 3.3.4 TEST RESULTS | 45 |
| 3.4 BAND EDGE MEASUREMENTC | 46 |
| 3.4.1 LIMITS OF BAND EDGE MEASUREMENT | 46 |
| 3.4.2 TEST SETUP | 46 |
| 3.4.3 TEST PROCEDURES | 47 |
| 3.4.4. TEST RESULTS | 48 |
| 3.5 CONDUCTED SPURIOUS EMISSIONS..... | 49 |
| 3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT | 49 |
| 3.5.2 TEST PROCEDURE | 49 |
| 3.5.3 TEST SETUP | 49 |
| 3.5.4 TEST RESULTS | 50 |
| 3.6 RADIATED EMISSION MEASUREMENT | 51 |
| 3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT | 51 |
| 3.6.2 TEST PROCEDURES..... | 51 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| | |
|---|-----------|
| 3.6.3 DEVIATION FROM TEST STANDARD | 51 |
| 3.6.4 TEST SETUP | 52 |
| 3.6.5 TEST RESULTS | 54 |
| 3.7 PEAK TO AVERAGE RATIO | 72 |
| 3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT | 72 |
| 3.7.2 TEST SETUP | 72 |
| 3.7.3 TEST PROCEDURES | 72 |
| 3.7.4 TEST RESULTS | 73 |
| 4 INFORMATION ON THE TESTING LABORATORIES | 74 |
| 5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB..... | 75 |
| 6 APPENDIX | 76 |
| LTE BAND 25(INCLUDING LTE BAND2) | 76 |



Test Report No.: W7L-P23030025RF05

RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|-------------------|-------------------|---------------|
| W7L-P23030025RF05 | Original release | Apr. 26, 2023 |



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC Part 24 & Part 2 | | | |
|--|-------------------------------------|------------|-----------|
| STANDARD SECTION | TEST TYPE | RESULT | TEST LAB* |
| §2.1046 | Conducted Output Power | Compliance | A |
| §24.232(c) | Equivalent Isotropic Radiated Power | Compliance | A |
| §2.1055 §24.235 | Frequency Stability | Compliance | A |
| §2.1049 | Occupied Bandwidth | Compliance | A |
| §24.232(d) | Peak to average ratio | Compliance | A |
| §24.238(a)(b) | Band Edge Measurements | Compliance | A |
| §2.1051 §24.238(a)(b) | Conducted Spurious Emissions | Compliance | A |
| §2.1053 §24.238(a)(b) | Radiated Spurious Emissions | Compliance | A |

***Test Lab Information Reference**

Lab A:

BV 7Layers Communications Technology (Shenzhen) Co., Ltd

Lab Address:

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

Accredited Test Lab Cert 3939.01

The FCC Site Registration No. : 525120; Designation No. : CN1171;

1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| MEASUREMENT | UNCERTAINTY |
|--|-----------------------|
| Frequency Stability | $\pm 76.97\text{Hz}$ |
| Radiated emissions (9KHz~30MHz) | $\pm 2.68\text{dB}$ |
| Radiated emissions & Radiated Power (30MHz~1GHz) | $\pm 4.98\text{dB}$ |
| Radiated emissions & Radiated Power (1GHz ~6GHz) | $\pm 4.70\text{dB}$ |
| Radiated emissions (6GHz ~18GHz) | $\pm 4.60\text{dB}$ |
| Radiated emissions (18GHz ~40GHz) | $\pm 4.12\text{dB}$ |
| Conducted emissions | $\pm 4.01\text{dB}$ |
| Occupied Channel Bandwidth | $\pm 43.58\text{KHz}$ |
| Conducted Output power | $\pm 2.06\text{dB}$ |
| Band Edge Measurements | $\pm 4.70\text{dB}$ |
| Peak to average ratio | $\pm 0.76\text{dB}$ |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



1.2 TEST SITE AND INSTRUMENTS

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---------------|-------------------------------------|-------------------------------------|------------|------------|
| MXE EMI Receiver | KEYSIGHT | N9038A-544 | MY54450026 | Feb. 17,23 | Feb. 16,24 |
| EXA Signal Analyzer | KEYSIGHT | N9010A-544 | MY54510355 | May.14,22 | May.13,23 |
| Loop Antenna | Schwarzbeck | FMZB 1519B | 00173 | Sep.03,22 | Sep.02,23 |
| Bilog Antenna | ETS-LINDGREN | 3143B | 00161965 | Mar. 05,23 | Mar. 04,24 |
| Horn Antenna | ETS-LINDGREN | 3117 | 00168692 | Mar. 05,23 | Mar. 04,24 |
| Horn Antenna (18GHz-40GHz) | N/A | QWH-SL-18-40- K-SG/QMS-003 61 | 15433 | Sep.04, 22 | Sep.03, 23 |
| Radio Communication Analyzer | ANRITSU | MT8820C | 6201465426 | Feb. 14,23 | Feb. 13,24 |
| Signal Pre-Amplifier | EMSI | EMC 9135 | 980249 | May.12,22 | May.11,23 |
| Signal Pre-Amplifier | EMSI | EMC 012645B | 980257 | May.12,22 | May.11,23 |
| Signal Pre-Amplifier | EMSI | EMC 184045B | 980259 | Feb. 17,23 | Feb.16,24 |
| 3m Semi-anechoic Chamber | ETS-LINDGREN | 9m*6m*6m | Euroshieldpn- CT0001143-121 6 | May. 19,20 | May. 18,23 |
| Test Software | E3 | V 9.160323 | N/A | N/A | N/A |
| Test Software | JS1120 | 3.1.36 | N/A | N/A | N/A |
| 10dB Attenuator | JFW/USA | 50HF-010-SMA | N/A | May. 12,22 | May. 11,23 |
| Power Meter | Anritsu | ML2495A | 1506002 | Feb. 14,23 | Feb. 13,24 |
| Power Sensor | Anritsu | MA2411B | 1339352 | Feb. 14,23 | Feb. 13,24 |
| Temperature Chamber | ESPEC | SH-242 | 93000855 | May. 12,22 | May. 11,23 |
| MXG Analog Microwave Signal Generator | KEYSIGHT | N5183A | MY50143024 | Feb. 14,23 | Feb. 13,24 |
| Base station R&S CMW500 | Rohde&Schwarz | CMW500 | 153085 | May.12,22 | May.11,23 |
| DC Source | Kikusui/JP | PMX18-5A | N/A | Aug. 12,22 | Aug. 11,23 |

- NOTE:** 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

| | | | |
|--|--|---|----------|
| PRODUCT | TurboX CM2290-NA | | |
| BRAND NAME | TURBOX | | |
| MODEL NAME | TurboX CM2290-NA | | |
| NOMINAL VOLTAGE | EUT 4.0V | | |
| MODULATION TYPE | LTE Band 2/25: QPSK, 16QAM, 64QAM | | |
| FREQUENCY RANGE | LTE Band 2 Channel Bandwidth: 1.4MHz | 1850.7MHz ~ 1909.3MHz | |
| | LTE Band 2 Channel Bandwidth: 3MHz | 1851.5MHz ~ 1908.5MHz | |
| | LTE Band 2 Channel Bandwidth: 5MHz | 1852.5MHz ~ 1907.5MHz | |
| | LTE Band 2 Channel Bandwidth: 10MHz | 1855.0MHz ~ 1905.0MHz | |
| | LTE Band 2 Channel Bandwidth: 15MHz | 1857.5MHz ~ 1902.5MHz | |
| | LTE Band 2 Channel Bandwidth: 20MHz | 1860.0MHz ~ 1900.0MHz | |
| | LTE Band 25 Channel Bandwidth: 1.4MHz | 1850.7MHz ~ 1914.3MHz | |
| | LTE Band 25 Channel Bandwidth: 3MHz | 1851.5MHz ~ 1913.5MHz | |
| | LTE Band 25 Channel Bandwidth: 5MHz | 1852.5MHz ~ 1912.5MHz | |
| | LTE Band 25 Channel Bandwidth: 10MHz | 1855.0MHz ~ 1910.0MHz | |
| | LTE Band 25 Channel Bandwidth: 15MHz | 1857.5MHz ~ 1907.5MHz | |
| | LTE Band 25 Channel Bandwidth: 20MHz | 1860.0MHz ~ 1905.0MHz | |
| | MAX. EIRP POWER | LTE Band 2 Channel Bandwidth: 1.4MHz | 619.44mW |
| | | LTE Band 2 Channel Bandwidth: 3MHz | 619.44mW |
| LTE Band 2 Channel Bandwidth: 5MHz | | 619.44mW | |
| LTE Band 2 Channel Bandwidth: 10MHz | | 613.76mW | |
| LTE Band 2 Channel Bandwidth: 15MHz | | 620.87mW | |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| | | | |
|----------------------------|--|--|--|
| | LTE Band 2 Channel Bandwidth: 20MHz | 622.3mW | |
| | LTE Band 25 Channel Bandwidth: 1.4MHz | 555.9mW | |
| | LTE Band 25 Channel Bandwidth: 3MHz | 552.08mW | |
| | LTE Band 25 Channel Bandwidth: 5MHz | 555.9mW | |
| | LTE Band 25 Channel Bandwidth: 10MHz | 559.76mW | |
| | LTE Band 25 Channel Bandwidth: 15MHz | 559.76mW | |
| | LTE Band 25 Channel Bandwidth: 20MHz | 561.05mW | |
| EMISSION DESIGNATOR | LTE Band 25 Channel Bandwidth: 1.4MHz | QPSK: 1M09G7D | |
| | | 16QAM: 1M09W7D | |
| | | 64QAM: 1M09W7D | |
| | LTE Band 25 Channel Bandwidth: 3MHz | QPSK: 2M70G7D | |
| | | 16QAM: 2M69W7D | |
| | | 64QAM: 2M70W7D | |
| | LTE Band 25 Channel Bandwidth: 5MHz | QPSK: 4M50G7D | |
| | | 16QAM: 4M50W7D | |
| | | 64QAM: 4M50W7D | |
| | LTE Band 25 Channel Bandwidth: 10MHz | QPSK: 8M98G7D | |
| | | 16QAM: 8M96W7D | |
| | | 64QAM: 8M99W7D | |
| | LTE Band 25 Channel Bandwidth: 15MHz | QPSK: 13M4G7D | |
| | | 16QAM: 13M4W7D | |
| | | 64QAM: 13M4W7D | |
| | LTE Band 25 Channel Bandwidth: 20MHz | QPSK: 18M0G7D | |
| | | 16QAM: 17M9W7D | |
| | | 64QAM: 18M0W7D | |
| | ANTENNA TYPE | Flex Antenna with 4.8dBi gain for LTE B2/ LTE B25 | |
| | HW VERSION | V06 | |
| | SW VERSION | FlatBuild_Turbox-CM2290_cm2290_la1.0.1.v.userdebug.20230301.1952 | |
| | I/O PORTS | Refer to user's manual | |
| | CABLE SUPPLIED | N/A | |



| | |
|----------------------------|--------------|
| EXTREME TEMPERATURE | -25-75 °C |
| EXTREME VOLTAGE | 3.4V - 4.35V |

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

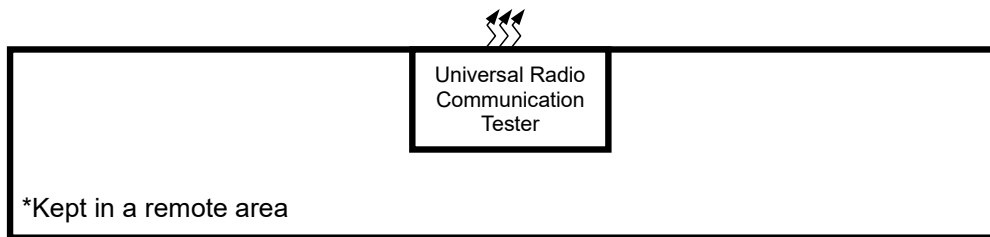
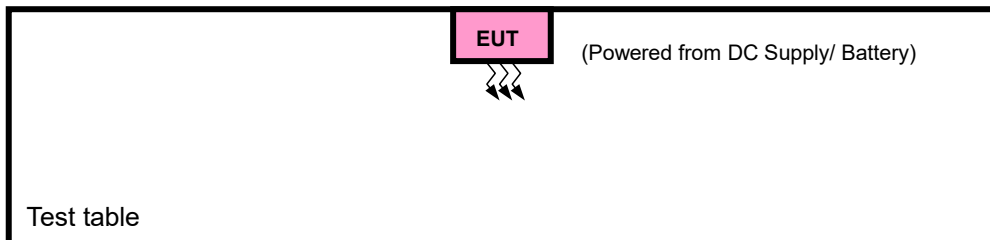
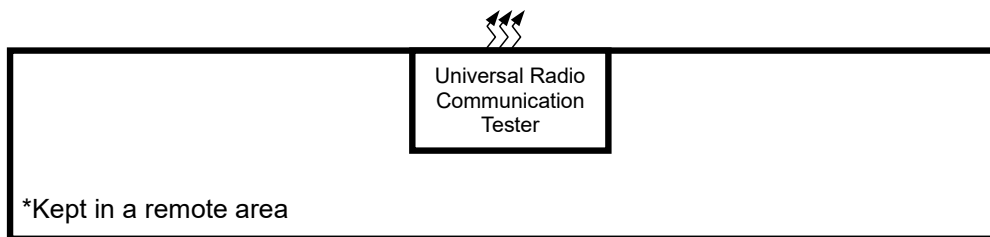
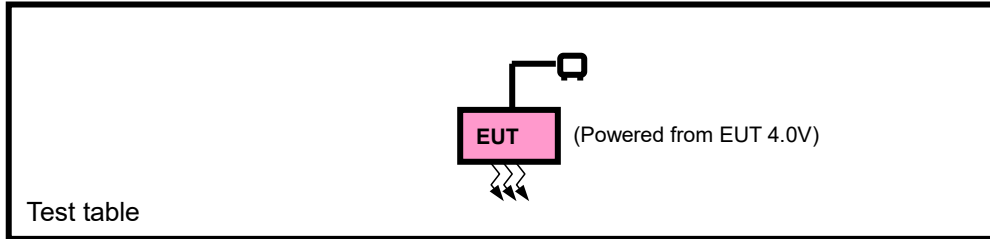
| MODULATION MODE | TX FUNCTION |
|------------------------|--------------------|
| LTE | 1TX/1RX |

2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|-----|-----------|------------|-----------|------------|--------|
| 1 | DC source | Kikusui/JP | PMX18-5A | 0000001 | N/A |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|---|
| 1 | DC Line: Unshielded, Detachable 1.0m |

2.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case in EIRP and radiated emission was found when positioned on X-plane for LTE. Following channel(s) was (were) selected for the final test as listed below:

| EUT CONFIGURE MODE | DESCRIPTION |
|--------------------|-------------------------------|
| A | EUT + adapter with LTE link |
| B | EUT + DC source with LTE link |



LTE BAND 2 MODE

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE |
|--------------------|-----------|-------------------|---------------------|-------------------|------------------|--------------------|
| A | EIRP | 18607 to 19193 | 18607, 18900, 19193 | 1.4MHz | QPSK,16QAM,64QAM | 1 RB / 0 RB Offset |
| | | 18615 to 19185 | 18615, 18900, 19185 | 3MHz | QPSK,16QAM,64QAM | 1 RB / 0 RB Offset |
| | | 18625 to 19175 | 18625, 18900, 19175 | 5MHz | QPSK,16QAM,64QAM | 1 RB / 0 RB Offset |
| | | 18650 to 19150 | 18650, 18900, 19150 | 10MHz | QPSK,16QAM,64QAM | 1 RB / 0 RB Offset |
| | | 18675 to 19125 | 18675, 18900, 19125 | 15MHz | QPSK,16QAM,64QAM | 1 RB / 0 RB Offset |
| | | 18700 to 19100 | 18700, 18900, 19100 | 20MHz | QPSK,16QAM,64QAM | 1 RB / 0 RB Offset |

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. LTE Band 2 are covered by LTE Band 25, Because it is a subset of LTE Band 25 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to LTE Band 25



LTE BAND 25 MODE

| EUT CONFIGURE MODE | TEST ITEM | AVAILABLE CHANNEL | TESTED CHANNEL | CHANNEL BANDWIDTH | MODULATION | MODE |
|--------------------|-----------------------|-------------------|---------------------|-------------------|-------------------|--|
| A | EIRP | 26047 to 26683 | 26047, 26365, 26683 | 1.4MHz | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset |
| | | 26055 to 26675 | 26055, 26365, 26675 | 3MHz | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset |
| | | 26065 to 26665 | 26065, 26365, 26665 | 5MHz | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset |
| | | 26090 to 26640 | 26090, 26365, 26640 | 10MHz | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset |
| | | 26115 to 26615 | 26115, 26365, 26615 | 15MHz | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset |
| | | 26140 to 26590 | 26140, 26365, 26590 | 20MHz | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset |
| B | FREQUENCY STABILITY | 26140 to 26590 | 26140, 26365, 26590 | 20MHz | QPSK | 100 RB / 0 RB Offset |
| A | OCCUPIED BANDWIDTH | 26047 to 26683 | 26047, 26365, 26683 | 1.4MHz | QPSK,16QAM, 64QAM | 6 RB / 0 RB Offset |
| | | 26055 to 26675 | 26055, 26365, 26675 | 3MHz | QPSK,16QAM, 64QAM | 15 RB / 0 RB Offset |
| | | 26065 to 26665 | 26065, 26365, 26665 | 5MHz | QPSK,16QAM, 64QAM | 25 RB / 0 RB Offset |
| | | 26090 to 26640 | 26090, 26365, 26640 | 10MHz | QPSK,16QAM, 64QAM | 50 RB / 0 RB Offset |
| | | 26115 to 26615 | 26115, 26365, 26615 | 15MHz | QPSK,16QAM, 64QAM | 75 RB / 0 RB Offset |
| | | 26140 to 26590 | 26140, 26365, 26590 | 20MHz | QPSK,16QAM, 64QAM | 100 RB / 0 RB Offset |
| A | PEAK TO AVERAGE RATIO | 26140 to 26590 | 26140, 26365, 26590 | 20MHz | QPSK,16QAM, 64QAM | 1 RB / 0 RB Offset 100 RB / 0 RB Offset |



BUREAU
VERITAS

Test Report No.: W7L-P23030025RF05

| | | | | | | | | |
|---|--------------------|----------------|---------------------|--------|--------------------|---------------------|--------------------|---------------------|
| A | BAND EDGE | 26047 to 26683 | 26047 | 1.4MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| | | | 26683 | 1.4MHz | QPSK, 16QAM, 64QAM | 6 RB / 0 RB Offset | | |
| | | 26055 to 26675 | 26055 | 3MHz | QPSK, 16QAM, 64QAM | 1 RB / 5 RB Offset | | |
| | | | 26675 | 3MHz | QPSK, 16QAM, 64QAM | 6 RB / 0 RB Offset | | |
| | | 26065 to 26665 | 26065 | 5MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| | | | 26665 | 5MHz | QPSK, 16QAM, 64QAM | 15 RB / 0 RB Offset | | |
| | | 26090 to 26640 | 26090 | 10MHz | QPSK, 16QAM, 64QAM | 1 RB / 14 RB Offset | | |
| | | | 26640 | 10MHz | QPSK, 16QAM, 64QAM | 15 RB / 0 RB Offset | | |
| | | 26115 to 26615 | 26115 | 15MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| | | | 26615 | 15MHz | QPSK, 16QAM, 64QAM | 25 RB / 0 RB Offset | | |
| | | 26140 to 26590 | 26140 | 20MHz | QPSK, 16QAM, 64QAM | 1 RB / 24 RB Offset | | |
| | | | 26590 | 20MHz | QPSK, 16QAM, 64QAM | 25 RB / 0 RB Offset | | |
| | | | | | 26090 | 10MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset |
| | | | | | 26640 | 10MHz | QPSK, 16QAM, 64QAM | 50 RB / 0 RB Offset |
| | | | | | 26115 | 15MHz | QPSK, 16QAM, 64QAM | 1 RB / 49 RB Offset |
| | | | | | 26615 | 15MHz | QPSK, 16QAM, 64QAM | 50 RB / 0 RB Offset |
| | | | 26140 | 20MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| | | | 26590 | 20MHz | QPSK, 16QAM, 64QAM | 75 RB / 0 RB Offset | | |
| A | CONDCUDED EMISSION | 26047 to 26683 | 26047, 26365, 26683 | 1.4MHz | QPSK, 16QAM, 64QAM | 1 RB / 74 RB Offset | | |
| | | 26055 to 26675 | 26055, 26365, 26675 | 3MHz | QPSK, 16QAM, 64QAM | 75 RB / 0 RB Offset | | |
| | | 26065 to 26665 | 26065, 26365, 26665 | 5MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| | | 26090 to 26640 | 26090, 26365, 26640 | 10MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| | | 26115 to 26615 | 26115, 26365, 26615 | 15MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| | | 26140 to 26590 | 26140, 26365, 26590 | 20MHz | QPSK, 16QAM, 64QAM | 1 RB / 0 RB Offset | | |
| A | RADIATED EMISSION | 26047 to 26683 | 26047, 26365, 26683 | 1.4MHz | QPSK | 1 RB / 0 RB Offset | | |
| | | 26055 to 26675 | 26365 | 3MHz | QPSK | 1 RB / 0 RB Offset | | |
| | | 26065 to 26665 | 26365 | 5MHz | QPSK | 1 RB / 0 RB Offset | | |
| | | 26090 to 26640 | 26365 | 10MHz | QPSK | 1 RB / 0 RB Offset | | |
| | | 26115 to 26615 | 26365 | 15MHz | QPSK | 1 RB / 0 RB Offset | | |
| | | 26140 to 26590 | 26365 | 20MHz | QPSK | 1 RB / 0 RB Offset | | |

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.



TEST CONDITION:

| TEST ITEM | ENVIRONMENTAL CONDITIONS | INPUT POWER | TESTED BY |
|-----------------------|--------------------------|-------------------------------|-----------|
| EIRP | 25deg. C, 57%RH | EUT 4.0V | Jace Hu |
| FREQUENCY STABILITY | 23deg. C, 61%RH | DC 3.4/4.0/4.35V By DC Source | James Fu |
| OCCUPIED BANDWIDTH | 23deg. C, 61%RH | EUT 4.0V | James Fu |
| PEAK TO AVERAGE RATIO | 23deg. C, 61%RH | EUT 4.0V | James Fu |
| BAND EDGE | 23deg. C, 61%RH | EUT 4.0V | James Fu |
| CONDCUDETED EMISSION | 23deg. C, 61%RH | EUT 4.0V | James Fu |
| RADIATED EMISSION | 23deg. C, 70%RH | EUT 4.0V | Jace Hu |

2.5 EUT OPERATING CONDITIONS

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

2.6 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 24

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

NOTE: All test items have been performed and recorded as per the above standards.



3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Mobile and portable stations are limited to 2 watts EIRP.

3.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}} - L_{\text{C}}$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as P_{Meas} , typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

G_{T} = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

L_{C} = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

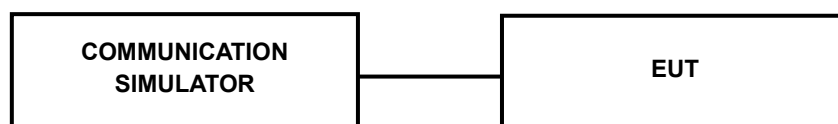
CONDUCTED POWER MEASUREMENT:

The EUT was set up for the maximum power with WCDMA link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP

EIRP / ERP Measurement:

CONDUCTED POWER MEASUREMENT:



3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

LTE BAND 2

| Band/BW | Modulation | RB Size | RB Offset | Low CH 18607 | Mid CH 18900 | High CH 19193 |
|---------|------------|---------|-----------|----------------------|--------------------|----------------------|
| | | | | Frequency 1850.7 MHz | Frequency 1880 MHz | Frequency 1909.3 MHz |
| 2/ 1.4 | QPSK | 1 | 0 | 22.78 | 22.77 | 22.96 |
| | | 1 | 2 | 22.95 | 22.83 | 23.12 |
| | | 1 | 5 | 22.76 | 22.72 | 22.91 |
| | | 3 | 0 | 22.32 | 22.24 | 22.52 |
| | | 3 | 1 | 22.36 | 22.27 | 22.41 |
| | | 3 | 3 | 22.27 | 22.19 | 22.45 |
| | | 6 | 0 | 21.84 | 21.75 | 21.91 |
| | 16QAM | 1 | 0 | 21.55 | 21.49 | 21.71 |
| | | 1 | 2 | 21.76 | 21.64 | 21.92 |
| | | 1 | 5 | 21.20 | 21.09 | 21.36 |
| | | 3 | 0 | 21.17 | 21.11 | 21.35 |
| | | 3 | 1 | 21.35 | 21.33 | 21.54 |
| | | 3 | 3 | 21.17 | 21.17 | 21.38 |
| | | 6 | 0 | 20.66 | 20.61 | 20.83 |
| | 64QAM | 1 | 0 | 20.95 | 20.95 | 21.20 |
| | | 1 | 2 | 21.16 | 21.18 | 21.30 |
| | | 1 | 5 | 20.87 | 20.79 | 21.08 |
| | | 3 | 0 | 20.33 | 20.29 | 20.46 |
| | | 3 | 1 | 20.31 | 20.34 | 20.43 |
| | | 3 | 3 | 20.25 | 20.18 | 20.46 |
| | | 6 | 0 | 19.72 | 19.63 | 19.85 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 18615 | Mid CH 18900 | High CH 19185 |
|---------|------------|---------|-----------|----------------------|--------------------|----------------------|
| | | | | Frequency 1851.5 MHz | Frequency 1880 MHz | Frequency 1908.5 MHz |
| 2/3 | QPSK | 1 | 0 | 22.77 | 22.76 | 22.99 |
| | | 1 | 7 | 22.96 | 22.81 | 23.12 |
| | | 1 | 14 | 22.73 | 22.71 | 22.95 |
| | | 8 | 0 | 21.84 | 21.77 | 21.99 |
| | | 8 | 3 | 21.79 | 21.78 | 21.94 |
| | | 8 | 7 | 21.78 | 21.72 | 22.00 |
| | | 15 | 0 | 21.79 | 21.79 | 21.88 |
| | 16QAM | 1 | 0 | 21.53 | 21.51 | 21.74 |
| | | 1 | 7 | 21.70 | 21.70 | 21.89 |
| | | 1 | 14 | 21.23 | 21.09 | 21.35 |
| | | 8 | 0 | 20.63 | 20.60 | 20.82 |
| | | 8 | 3 | 20.87 | 20.82 | 21.03 |
| | | 8 | 7 | 20.64 | 20.67 | 20.87 |
| | | 15 | 0 | 20.66 | 20.56 | 20.83 |
| | 64QAM | 1 | 0 | 20.95 | 20.95 | 21.20 |
| | | 1 | 7 | 21.16 | 21.18 | 21.29 |
| | | 1 | 14 | 20.81 | 20.86 | 21.08 |
| | | 8 | 0 | 19.87 | 19.80 | 19.96 |
| | | 8 | 3 | 19.79 | 19.85 | 19.97 |
| | | 8 | 7 | 19.76 | 19.71 | 19.89 |
| | | 15 | 0 | 19.70 | 19.66 | 19.87 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 18625 | Mid CH 18900 | High CH 19175 |
|---------|------------|---------|-----------|----------------------|--------------------|----------------------|
| | | | | Frequency 1852.5 MHz | Frequency 1880 MHz | Frequency 1907.5 MHz |
| 2 / 5 | QPSK | 1 | 0 | 22.77 | 22.82 | 22.95 |
| | | 1 | 12 | 22.91 | 22.84 | 23.12 |
| | | 1 | 24 | 22.72 | 22.72 | 22.91 |
| | | 12 | 0 | 21.81 | 21.77 | 22.02 |
| | | 12 | 6 | 21.79 | 21.77 | 21.93 |
| | | 12 | 13 | 21.74 | 21.76 | 21.99 |
| | | 25 | 0 | 21.81 | 21.76 | 21.85 |
| | 16QAM | 1 | 0 | 21.52 | 21.55 | 21.74 |
| | | 1 | 12 | 21.73 | 21.67 | 21.90 |
| | | 1 | 24 | 21.23 | 21.09 | 21.36 |
| | | 12 | 0 | 20.63 | 20.62 | 20.85 |
| | | 12 | 6 | 20.90 | 20.78 | 21.07 |
| | | 12 | 13 | 20.69 | 20.65 | 20.84 |
| | | 25 | 0 | 20.66 | 20.55 | 20.86 |
| | 64QAM | 1 | 0 | 21.01 | 20.98 | 21.14 |
| | | 1 | 12 | 21.19 | 21.12 | 21.29 |
| | | 1 | 24 | 20.88 | 20.81 | 21.08 |
| | | 12 | 0 | 19.86 | 19.83 | 19.97 |
| | | 12 | 6 | 19.85 | 19.78 | 19.98 |
| | | 12 | 13 | 19.72 | 19.72 | 19.92 |
| | | 25 | 0 | 19.74 | 19.60 | 19.89 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 18650 | Mid CH 18900 | High CH 19150 |
|---------|------------|---------|-----------|--------------------|--------------------|--------------------|
| | | | | Frequency 1855 MHz | Frequency 1880 MHz | Frequency 1905 MHz |
| 2/ 10 | QPSK | 1 | 0 | 22.82 | 22.80 | 22.93 |
| | | 1 | 24 | 22.94 | 22.86 | 23.08 |
| | | 1 | 49 | 22.76 | 22.78 | 22.92 |
| | | 25 | 0 | 21.82 | 21.77 | 22.03 |
| | | 25 | 12 | 21.86 | 21.77 | 21.94 |
| | | 25 | 25 | 21.74 | 21.70 | 21.99 |
| | | 50 | 0 | 21.84 | 21.77 | 21.90 |
| | 16QAM | 1 | 0 | 21.57 | 21.55 | 21.70 |
| | | 1 | 24 | 21.74 | 21.67 | 21.92 |
| | | 1 | 49 | 21.19 | 21.15 | 21.34 |
| | | 25 | 0 | 20.69 | 20.58 | 20.89 |
| | | 25 | 12 | 20.85 | 20.80 | 21.04 |
| | | 25 | 25 | 20.68 | 20.66 | 20.87 |
| | | 50 | 0 | 20.71 | 20.58 | 20.80 |
| | 64QAM | 1 | 0 | 20.96 | 20.97 | 21.18 |
| | | 1 | 24 | 21.22 | 21.13 | 21.30 |
| | | 1 | 49 | 20.83 | 20.79 | 21.08 |
| | | 25 | 0 | 19.90 | 19.83 | 19.96 |
| | | 25 | 12 | 19.80 | 19.78 | 19.93 |
| | | 25 | 25 | 19.78 | 19.75 | 19.93 |
| | | 50 | 0 | 19.74 | 19.60 | 19.89 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 18675 | Mid CH 18900 | High CH 19125 |
|---------|------------|---------|-----------|----------------------|--------------------|----------------------|
| | | | | Frequency 1857.5 MHz | Frequency 1880 MHz | Frequency 1902.5 MHz |
| 2/ 15 | QPSK | 1 | 0 | 22.75 | 22.80 | 22.96 |
| | | 1 | 37 | 22.96 | 22.81 | 23.13 |
| | | 1 | 74 | 22.70 | 22.75 | 22.91 |
| | | 36 | 0 | 21.85 | 21.76 | 22.02 |
| | | 36 | 19 | 21.85 | 21.72 | 21.94 |
| | | 36 | 39 | 21.76 | 21.69 | 21.99 |
| | | 75 | 0 | 21.84 | 21.79 | 21.85 |
| | 16QAM | 1 | 0 | 21.53 | 21.48 | 21.70 |
| | | 1 | 37 | 21.75 | 21.66 | 21.92 |
| | | 1 | 74 | 21.23 | 21.10 | 21.32 |
| | | 36 | 0 | 20.65 | 20.58 | 20.88 |
| | | 36 | 19 | 20.91 | 20.76 | 21.08 |
| | | 36 | 39 | 20.63 | 20.68 | 20.84 |
| | | 75 | 0 | 20.70 | 20.55 | 20.87 |
| | 64QAM | 1 | 0 | 20.96 | 20.95 | 21.21 |
| | | 1 | 37 | 21.23 | 21.18 | 21.30 |
| | | 1 | 74 | 20.81 | 20.80 | 21.08 |
| | | 36 | 0 | 19.90 | 19.81 | 20.01 |
| | | 36 | 19 | 19.84 | 19.85 | 19.93 |
| | | 36 | 39 | 19.76 | 19.71 | 19.95 |
| | | 75 | 0 | 19.75 | 19.62 | 19.88 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 18700 | Mid CH 18900 | High CH 19100 |
|---------|------------|---------|-----------|--------------------|--------------------|--------------------|
| | | | | Frequency 1860 MHz | Frequency 1880 MHz | Frequency 1900 MHz |
| 2/ 20 | QPSK | 1 | 0 | 22.83 | 22.84 | 23.01 |
| | | 1 | 50 | 22.98 | 22.89 | 23.14 |
| | | 1 | 99 | 22.78 | 22.79 | 22.96 |
| | | 50 | 0 | 21.88 | 21.82 | 22.04 |
| | | 50 | 25 | 21.87 | 21.79 | 21.99 |
| | | 50 | 50 | 21.82 | 21.77 | 22.01 |
| | | 100 | 0 | 21.85 | 21.81 | 21.93 |
| | 16QAM | 1 | 0 | 21.60 | 21.56 | 21.76 |
| | | 1 | 50 | 21.78 | 21.72 | 21.94 |
| | | 1 | 99 | 21.25 | 21.17 | 21.37 |
| | | 50 | 0 | 20.71 | 20.66 | 20.90 |
| | | 50 | 25 | 20.93 | 20.84 | 21.09 |
| | | 50 | 50 | 20.71 | 20.72 | 20.89 |
| | | 100 | 0 | 20.72 | 20.63 | 20.88 |
| | 64QAM | 1 | 0 | 21.02 | 21.00 | 21.22 |
| | | 1 | 50 | 21.24 | 21.20 | 21.35 |
| | | 1 | 99 | 20.89 | 20.87 | 21.10 |
| | | 50 | 0 | 19.91 | 19.85 | 20.04 |
| | | 50 | 25 | 19.87 | 19.86 | 19.99 |
| | | 50 | 50 | 19.80 | 19.76 | 19.97 |
| | | 100 | 0 | 19.76 | 19.68 | 19.90 |



LTE BAND 25

| Band/BW | Modulation | RB Size | RB Offset | Low CH 26047 | Mid CH 26365 | High CH 26683 |
|---------|------------|---------|-----------|----------------------|----------------------|----------------------|
| | | | | Frequency 1850.7 MHz | Frequency 1882.5 MHz | Frequency 1914.3 MHz |
| 25/ 1.4 | QPSK | 1 | 0 | 22.65 | 22.57 | 22.59 |
| | | 1 | 2 | 22.64 | 22.52 | 22.55 |
| | | 1 | 5 | 22.43 | 22.31 | 22.44 |
| | | 3 | 0 | 22.35 | 22.22 | 22.29 |
| | | 3 | 1 | 22.18 | 22.06 | 22.11 |
| | | 3 | 3 | 22.05 | 21.93 | 22.07 |
| | | 6 | 0 | 21.63 | 21.58 | 21.61 |
| | 16QAM | 1 | 0 | 21.40 | 21.33 | 21.40 |
| | | 1 | 2 | 21.50 | 21.45 | 21.52 |
| | | 1 | 5 | 20.70 | 20.63 | 20.68 |
| | | 3 | 0 | 21.15 | 21.05 | 21.09 |
| | | 3 | 1 | 21.18 | 21.19 | 21.19 |
| | | 3 | 3 | 21.12 | 20.93 | 21.05 |
| | | 6 | 0 | 20.59 | 20.51 | 20.59 |
| | 64QAM | 1 | 0 | 20.88 | 20.83 | 20.77 |
| | | 1 | 2 | 21.35 | 21.23 | 21.36 |
| | | 1 | 5 | 20.83 | 20.75 | 20.76 |
| | | 3 | 0 | 20.12 | 20.00 | 20.09 |
| | | 3 | 1 | 20.26 | 20.15 | 20.24 |
| | | 3 | 3 | 20.07 | 19.90 | 20.08 |
| | | 6 | 0 | 19.69 | 19.56 | 19.71 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 26055 | Mid CH 26365 | High CH 26675 |
|---------|------------|---------|-----------|-------------------------|-------------------------|-------------------------|
| | | | | Frequency 1851.5 MHz | Frequency 1882.5 MHz | Frequency 1913.5 MHz |
| 25/ 3 | QPSK | 1 | 0 | 22.60 | 22.52 | 22.62 |
| | | 1 | 7 | 22.62 | 22.55 | 22.59 |
| | | 1 | 14 | 22.36 | 22.35 | 22.40 |
| | | 8 | 0 | 21.82 | 21.78 | 21.82 |
| | | 8 | 3 | 21.66 | 21.59 | 21.55 |
| | | 8 | 7 | 21.52 | 21.50 | 21.56 |
| | | 15 | 0 | 21.62 | 21.58 | 21.62 |
| | 16QAM | 1 | 0 | 21.46 | 21.26 | 21.44 |
| | | 1 | 7 | 21.46 | 21.46 | 21.48 |
| | | 1 | 14 | 20.73 | 20.59 | 20.71 |
| | | 8 | 0 | 20.70 | 20.53 | 20.56 |
| | | 8 | 3 | 20.70 | 20.63 | 20.72 |
| | | 8 | 7 | 20.63 | 20.49 | 20.49 |
| | | 15 | 0 | 20.62 | 20.49 | 20.61 |
| | 64QAM | 1 | 0 | 20.93 | 20.79 | 20.81 |
| | | 1 | 7 | 21.35 | 21.29 | 21.30 |
| | | 1 | 14 | 20.85 | 20.72 | 20.80 |
| | | 8 | 0 | 19.62 | 19.52 | 19.62 |
| | | 8 | 3 | 19.76 | 19.65 | 19.75 |
| | | 8 | 7 | 19.54 | 19.47 | 19.57 |
| | | 15 | 0 | 19.69 | 19.56 | 19.72 |



BUREAU
VERITAS

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 26065 | Mid CH 26365 | High CH 26665 |
|---------|------------|---------|-----------|----------------------|----------------------|----------------------|
| | | | | Frequency 1852.5 MHz | Frequency 1882.5 MHz | Frequency 1912.5 MHz |
| 25/ 5 | QPSK | 1 | 0 | 22.58 | 22.58 | 22.62 |
| | | 1 | 12 | 22.65 | 22.55 | 22.60 |
| | | 1 | 24 | 22.38 | 22.35 | 22.41 |
| | | 12 | 0 | 21.83 | 21.74 | 21.82 |
| | | 12 | 6 | 21.62 | 21.62 | 21.58 |
| | | 12 | 13 | 21.58 | 21.43 | 21.56 |
| | | 25 | 0 | 21.59 | 21.57 | 21.58 |
| | 16QAM | 1 | 0 | 21.42 | 21.32 | 21.39 |
| | | 1 | 12 | 21.47 | 21.45 | 21.51 |
| | | 1 | 24 | 20.70 | 20.58 | 20.68 |
| | | 12 | 0 | 20.65 | 20.55 | 20.59 |
| | | 12 | 6 | 20.68 | 20.69 | 20.68 |
| | | 12 | 13 | 20.56 | 20.50 | 20.55 |
| | | 25 | 0 | 20.63 | 20.52 | 20.59 |
| | 64QAM | 1 | 0 | 20.86 | 20.84 | 20.81 |
| | | 1 | 12 | 21.36 | 21.26 | 21.29 |
| | | 1 | 24 | 20.81 | 20.78 | 20.78 |
| | | 12 | 0 | 19.62 | 19.54 | 19.62 |
| | | 12 | 6 | 19.70 | 19.72 | 19.74 |
| | | 12 | 13 | 19.55 | 19.43 | 19.57 |
| | | 25 | 0 | 19.65 | 19.62 | 19.70 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 26090 | Mid CH 26365 | High CH 26640 |
|---------|------------|---------|-----------|--------------------|----------------------|--------------------|
| | | | | Frequency 1855 MHz | Frequency 1882.5 MHz | Frequency 1910 MHz |
| 25/ 10 | QPSK | 1 | 0 | 22.60 | 22.51 | 22.65 |
| | | 1 | 24 | 22.68 | 22.58 | 22.53 |
| | | 1 | 49 | 22.37 | 22.29 | 22.40 |
| | | 25 | 0 | 21.87 | 21.73 | 21.82 |
| | | 25 | 12 | 21.68 | 21.57 | 21.58 |
| | | 25 | 25 | 21.54 | 21.43 | 21.56 |
| | | 50 | 0 | 21.65 | 21.55 | 21.65 |
| | 16QAM | 1 | 0 | 21.40 | 21.30 | 21.40 |
| | | 1 | 24 | 21.52 | 21.42 | 21.52 |
| | | 1 | 49 | 20.68 | 20.61 | 20.68 |
| | | 25 | 0 | 20.69 | 20.54 | 20.59 |
| | | 25 | 12 | 20.74 | 20.64 | 20.69 |
| | | 25 | 25 | 20.58 | 20.43 | 20.55 |
| | | 50 | 0 | 20.66 | 20.55 | 20.59 |
| | 64QAM | 1 | 0 | 20.89 | 20.77 | 20.77 |
| | | 1 | 24 | 21.39 | 21.25 | 21.35 |
| | | 1 | 49 | 20.81 | 20.72 | 20.79 |
| | | 25 | 0 | 19.62 | 19.52 | 19.62 |
| | | 25 | 12 | 19.75 | 19.67 | 19.74 |
| | | 25 | 25 | 19.59 | 19.42 | 19.57 |
| | | 50 | 0 | 19.69 | 19.57 | 19.68 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 26115 | Mid CH 26365 | High CH 26615 |
|---------|------------|---------|-----------|-------------------------|-------------------------|-------------------------|
| | | | | Frequency 1857.5 MHz | Frequency 1882.5 MHz | Frequency 1907.5 MHz |
| 25/ 15 | QPSK | 1 | 0 | 22.60 | 22.54 | 22.66 |
| | | 1 | 37 | 22.68 | 22.58 | 22.56 |
| | | 1 | 74 | 22.36 | 22.30 | 22.44 |
| | | 36 | 0 | 21.89 | 21.75 | 21.81 |
| | | 36 | 19 | 21.67 | 21.63 | 21.57 |
| | | 36 | 39 | 21.56 | 21.46 | 21.56 |
| | | 75 | 0 | 21.61 | 21.61 | 21.63 |
| | 16QAM | 1 | 0 | 21.46 | 21.26 | 21.44 |
| | | 1 | 37 | 21.46 | 21.46 | 21.48 |
| | | 1 | 74 | 20.73 | 20.59 | 20.71 |
| | | 36 | 0 | 20.71 | 20.55 | 20.53 |
| | | 36 | 19 | 20.70 | 20.68 | 20.70 |
| | | 36 | 39 | 20.62 | 20.44 | 20.52 |
| | | 75 | 0 | 20.61 | 20.49 | 20.65 |
| | 64QAM | 1 | 0 | 20.93 | 20.83 | 20.75 |
| | | 1 | 37 | 21.33 | 21.23 | 21.31 |
| | | 1 | 74 | 20.85 | 20.79 | 20.77 |
| | | 36 | 0 | 19.68 | 19.48 | 19.66 |
| | | 36 | 19 | 19.72 | 19.70 | 19.72 |
| | | 36 | 39 | 19.60 | 19.40 | 19.58 |
| | | 75 | 0 | 19.63 | 19.57 | 19.71 |



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

| Band/BW | Modulation | RB Size | RB Offset | Low CH 26140 | Mid CH 26365 | High CH 26590 |
|---------|------------|---------|-----------|--------------------|----------------------|--------------------|
| | | | | Frequency 1860 MHz | Frequency 1882.5 MHz | Frequency 1905 MHz |
| 25/ 20 | QPSK | 1 | 0 | 22.66 | 22.59 | 22.67 |
| | | 1 | 50 | 22.69 | 22.60 | 22.61 |
| | | 1 | 99 | 22.44 | 22.37 | 22.46 |
| | | 50 | 0 | 21.90 | 21.79 | 21.84 |
| | | 50 | 25 | 21.70 | 21.64 | 21.63 |
| | | 50 | 50 | 21.60 | 21.51 | 21.58 |
| | | 100 | 0 | 21.67 | 21.63 | 21.66 |
| | 16QAM | 1 | 0 | 21.48 | 21.34 | 21.45 |
| | | 1 | 50 | 21.54 | 21.50 | 21.53 |
| | | 1 | 99 | 20.76 | 20.65 | 20.73 |
| | | 50 | 0 | 20.72 | 20.60 | 20.61 |
| | | 50 | 25 | 20.76 | 20.71 | 20.74 |
| | | 50 | 50 | 20.64 | 20.51 | 20.57 |
| | | 100 | 0 | 20.67 | 20.57 | 20.67 |
| | 64QAM | 1 | 0 | 20.94 | 20.85 | 20.83 |
| | | 1 | 50 | 21.40 | 21.31 | 21.37 |
| | | 1 | 99 | 20.87 | 20.80 | 20.81 |
| | | 50 | 0 | 19.70 | 19.56 | 19.67 |
| | | 50 | 25 | 19.78 | 19.73 | 19.76 |
| | | 50 | 50 | 19.62 | 19.48 | 19.59 |
| | | 100 | 0 | 19.71 | 19.64 | 19.73 |



EIRP POWER (dBm)

LTE BAND 2

CHANNEL BANDWIDTH: 1.4MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18607 | 1850.7 | 22.95 | 4.8 | 27.75 | 595.66 | 2 |
| 18900 | 1880.0 | 22.83 | 4.8 | 27.63 | 579.43 | 2 |
| 19193 | 1909.3 | 23.12 | 4.8 | 27.92 | 619.44 | 2 |

CHANNEL BANDWIDTH: 1.4MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18607 | 1850.7 | 21.76 | 4.8 | 26.56 | 452.9 | 2 |
| 18900 | 1880.0 | 21.64 | 4.8 | 26.44 | 440.55 | 2 |
| 19193 | 1909.3 | 21.92 | 4.8 | 26.72 | 469.89 | 2 |

CHANNEL BANDWIDTH: 1.4MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18607 | 1850.7 | 21.16 | 4.8 | 25.96 | 394.46 | 2 |
| 18900 | 1880.0 | 21.18 | 4.8 | 25.98 | 396.28 | 2 |
| 19193 | 1908.3 | 21.3 | 4.8 | 26.1 | 407.38 | 2 |



CHANNEL BANDWIDTH: 3MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18615 | 1851.5 | 22.96 | 4.8 | 27.76 | 597.04 | 2 |
| 18900 | 1880.0 | 22.81 | 4.8 | 27.61 | 576.77 | 2 |
| 19185 | 1908.5 | 23.12 | 4.8 | 27.92 | 619.44 | 2 |

CHANNEL BANDWIDTH: 3MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18615 | 1851.5 | 21.7 | 4.8 | 26.5 | 446.68 | 2 |
| 18900 | 1880.0 | 21.7 | 4.8 | 26.5 | 446.68 | 2 |
| 19185 | 1908.5 | 21.89 | 4.8 | 26.69 | 466.66 | 2 |

CHANNEL BANDWIDTH: 3MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18615 | 1851.5 | 21.16 | 4.8 | 25.96 | 394.46 | 2 |
| 18900 | 1880.0 | 21.18 | 4.8 | 25.98 | 396.28 | 2 |
| 19185 | 1908.5 | 21.29 | 4.8 | 26.09 | 406.44 | 2 |



BUREAU
VERITAS

Test Report No.: W7L-P23030025RF05

CHANNEL BANDWIDTH: 5MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _T -L _C (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 18625 | 1852.5 | 22.91 | 4.8 | 27.71 | 590.2 | 2 |
| 18900 | 1880.0 | 22.84 | 4.8 | 27.64 | 580.76 | 2 |
| 19175 | 1907.5 | 23.12 | 4.8 | 27.92 | 619.44 | 2 |

CHANNEL BANDWIDTH: 5MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _T -L _C (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 18625 | 1852.5 | 21.73 | 4.8 | 26.53 | 449.78 | 2 |
| 18900 | 1880.0 | 21.67 | 4.8 | 26.47 | 443.61 | 2 |
| 19175 | 1907.5 | 21.9 | 4.8 | 26.7 | 467.74 | 2 |

CHANNEL BANDWIDTH: 5MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _T -L _C (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|-------------------------------------|------------|-----------|-----------|
| 18625 | 1852.5 | 21.19 | 4.8 | 25.99 | 397.19 | 2 |
| 18900 | 1880.0 | 21.12 | 4.8 | 25.92 | 390.84 | 2 |
| 19175 | 1907.5 | 21.29 | 4.8 | 26.09 | 406.44 | 2 |



CHANNEL BANDWIDTH: 10MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18650 | 1855.0 | 22.94 | 4.8 | 27.74 | 594.29 | 2 |
| 18900 | 1880.0 | 22.86 | 4.8 | 27.66 | 583.45 | 2 |
| 19150 | 1905.0 | 23.08 | 4.8 | 27.88 | 613.76 | 2 |

CHANNEL BANDWIDTH: 10MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18650 | 1855.0 | 21.74 | 4.8 | 26.54 | 450.82 | 2 |
| 18900 | 1880.0 | 21.67 | 4.8 | 26.47 | 443.61 | 2 |
| 19150 | 1905.0 | 21.92 | 4.8 | 26.72 | 469.89 | 2 |

CHANNEL BANDWIDTH: 10MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18650 | 1855.0 | 21.22 | 4.8 | 26.02 | 399.94 | 2 |
| 18900 | 1880.0 | 21.13 | 4.8 | 25.93 | 391.74 | 2 |
| 19150 | 1905.0 | 21.3 | 4.8 | 26.1 | 407.38 | 2 |



CHANNEL BANDWIDTH: 15MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18675 | 1857.5 | 22.96 | 4.8 | 27.76 | 597.04 | 2 |
| 18900 | 1880.0 | 22.81 | 4.8 | 27.61 | 576.77 | 2 |
| 19125 | 1902.5 | 23.13 | 4.8 | 27.93 | 620.87 | 2 |

CHANNEL BANDWIDTH: 15MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18675 | 1857.5 | 21.75 | 4.8 | 26.55 | 451.86 | 2 |
| 18900 | 1880.0 | 21.66 | 4.8 | 26.46 | 442.59 | 2 |
| 19125 | 1902.5 | 21.92 | 4.8 | 26.72 | 469.89 | 2 |

CHANNEL BANDWIDTH: 15MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18675 | 1857.5 | 21.23 | 4.8 | 26.03 | 400.87 | 2 |
| 18900 | 1880.0 | 21.18 | 4.8 | 25.98 | 396.28 | 2 |
| 19125 | 1902.5 | 21.3 | 4.8 | 26.1 | 407.38 | 2 |



CHANNEL BANDWIDTH: 20MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18700 | 1860 | 22.98 | 4.8 | 27.78 | 599.79 | 2 |
| 18900 | 1880 | 22.89 | 4.8 | 27.69 | 587.49 | 2 |
| 19100 | 1900 | 23.14 | 4.8 | 27.94 | 622.3 | 2 |

CHANNEL BANDWIDTH: 20MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18700 | 1860 | 21.78 | 4.8 | 26.58 | 454.99 | 2 |
| 18900 | 1880 | 21.72 | 4.8 | 26.52 | 448.75 | 2 |
| 19100 | 1900 | 21.94 | 4.8 | 26.74 | 472.06 | 2 |

CHANNEL BANDWIDTH: 20MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 18700 | 1860 | 21.24 | 4.8 | 26.04 | 401.79 | 2 |
| 18900 | 1880 | 21.2 | 4.8 | 26 | 398.11 | 2 |
| 19100 | 1900 | 21.35 | 4.8 | 26.15 | 412.1 | 2 |



LTE BAND 25

CHANNEL BANDWIDTH: 1.4MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26047 | 1850.7 | 22.65 | 4.8 | 27.45 | 555.9 | 2 |
| 26365 | 1882.5 | 22.57 | 4.8 | 27.37 | 545.76 | 2 |
| 26683 | 1914.3 | 22.59 | 4.8 | 27.39 | 548.28 | 2 |

CHANNEL BANDWIDTH: 1.4MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26047 | 1850.7 | 21.5 | 4.8 | 26.3 | 426.58 | 2 |
| 26365 | 1882.5 | 21.45 | 4.8 | 26.25 | 421.7 | 2 |
| 26683 | 1914.3 | 21.52 | 4.8 | 26.32 | 428.55 | 2 |

CHANNEL BANDWIDTH: 1.4MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26047 | 1850.7 | 21.35 | 4.8 | 26.15 | 412.1 | 2 |
| 26365 | 1882.5 | 21.23 | 4.8 | 26.03 | 400.87 | 2 |
| 26683 | 1914.3 | 21.36 | 4.8 | 26.16 | 413.05 | 2 |



CHANNEL BANDWIDTH: 3MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26055 | 1851.5 | 22.62 | 4.8 | 27.42 | 552.08 | 2 |
| 26365 | 1882.5 | 22.55 | 4.8 | 27.35 | 543.25 | 2 |
| 26675 | 1913.5 | 22.62 | 4.8 | 27.42 | 552.08 | 2 |

CHANNEL BANDWIDTH: 3MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26055 | 1851.5 | 21.46 | 4.8 | 26.26 | 422.67 | 2 |
| 26365 | 1882.5 | 21.46 | 4.8 | 26.26 | 422.67 | 2 |
| 26675 | 1913.5 | 21.48 | 4.8 | 26.28 | 424.62 | 2 |

CHANNEL BANDWIDTH: 3MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26047 | 1851.5 | 21.35 | 4.8 | 26.15 | 412.1 | 2 |
| 26365 | 1882.5 | 21.29 | 4.8 | 26.09 | 406.44 | 2 |
| 26683 | 1913.5 | 21.3 | 4.8 | 26.1 | 407.38 | 2 |



BUREAU
VERITAS

Test Report No.: W7L-P23030025RF05

CHANNEL BANDWIDTH: 5MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26065 | 1852.5 | 22.65 | 4.8 | 27.45 | 555.9 | 2 |
| 26365 | 1882.5 | 22.58 | 4.8 | 27.38 | 547.02 | 2 |
| 26665 | 1912.5 | 22.62 | 4.8 | 27.42 | 552.08 | 2 |

CHANNEL BANDWIDTH: 5MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26065 | 1852.5 | 21.47 | 4.8 | 26.27 | 423.64 | 2 |
| 26365 | 1882.5 | 21.45 | 4.8 | 26.25 | 421.7 | 2 |
| 26665 | 1912.5 | 21.51 | 4.8 | 26.31 | 427.56 | 2 |

CHANNEL BANDWIDTH: 5MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26065 | 1852.5 | 21.36 | 4.8 | 26.16 | 413.05 | 2 |
| 26365 | 1882.5 | 21.26 | 4.8 | 26.06 | 403.65 | 2 |
| 26665 | 1912.5 | 21.29 | 4.8 | 26.09 | 406.44 | 2 |



CHANNEL BANDWIDTH: 10MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26090 | 1855 | 22.68 | 4.8 | 27.48 | 559.76 | 2 |
| 26365 | 1882.5 | 22.58 | 4.8 | 27.38 | 547.02 | 2 |
| 26640 | 1910 | 22.65 | 4.8 | 27.45 | 555.9 | 2 |

CHANNEL BANDWIDTH: 10MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26090 | 1855 | 21.52 | 4.8 | 26.32 | 428.55 | 2 |
| 26365 | 1882.5 | 21.42 | 4.8 | 26.22 | 418.79 | 2 |
| 26640 | 1910 | 21.52 | 4.8 | 26.32 | 428.55 | 2 |

CHANNEL BANDWIDTH: 10MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26090 | 1855 | 21.39 | 4.8 | 26.19 | 415.91 | 2 |
| 26365 | 1882.5 | 21.25 | 4.8 | 26.05 | 402.72 | 2 |
| 26640 | 1910 | 21.35 | 4.8 | 26.15 | 412.1 | 2 |



CHANNEL BANDWIDTH: 15MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26115 | 1857.5 | 22.68 | 4.8 | 27.48 | 559.76 | 2 |
| 26365 | 1882.5 | 22.58 | 4.8 | 27.38 | 547.02 | 2 |
| 26615 | 1907.5 | 22.66 | 4.8 | 27.46 | 557.19 | 2 |

CHANNEL BANDWIDTH: 15MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26115 | 1857.5 | 21.46 | 4.8 | 26.26 | 422.67 | 2 |
| 26365 | 1882.5 | 21.46 | 4.8 | 26.26 | 422.67 | 2 |
| 26615 | 1907.5 | 21.48 | 4.8 | 26.28 | 424.62 | 2 |

CHANNEL BANDWIDTH: 15MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26115 | 1857.5 | 21.33 | 4.8 | 26.13 | 410.2 | 2 |
| 26365 | 1882.5 | 21.23 | 4.8 | 26.03 | 400.87 | 2 |
| 26615 | 1907.5 | 21.31 | 4.8 | 26.11 | 408.32 | 2 |



CHANNEL BANDWIDTH: 20MHz QPSK

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26140 | 1860 | 22.69 | 4.8 | 27.49 | 561.05 | 2 |
| 26365 | 1882.5 | 22.6 | 4.8 | 27.4 | 549.54 | 2 |
| 26590 | 1905 | 22.67 | 4.8 | 27.47 | 558.47 | 2 |

CHANNEL BANDWIDTH: 20MHz 16QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26140 | 1860 | 21.54 | 4.8 | 26.34 | 430.53 | 2 |
| 26365 | 1882.5 | 21.5 | 4.8 | 26.3 | 426.58 | 2 |
| 26590 | 1905 | 21.53 | 4.8 | 26.33 | 429.54 | 2 |

CHANNEL BANDWIDTH: 20MHz 64QAM

| Channel | Frequency (MHz) | Conducted Power (dBm) | G _{T-Lc} (dB) | EIRP (dBm) | EIRP (mW) | Limit (W) |
|---------|-----------------|-----------------------|------------------------|------------|-----------|-----------|
| 26140 | 1860 | 21.4 | 4.8 | 26.2 | 416.87 | 2 |
| 26365 | 1882.5 | 21.31 | 4.8 | 26.11 | 408.32 | 2 |
| 26590 | 1905 | 21.37 | 4.8 | 26.17 | 414 | 2 |

REMARKS: ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).



3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

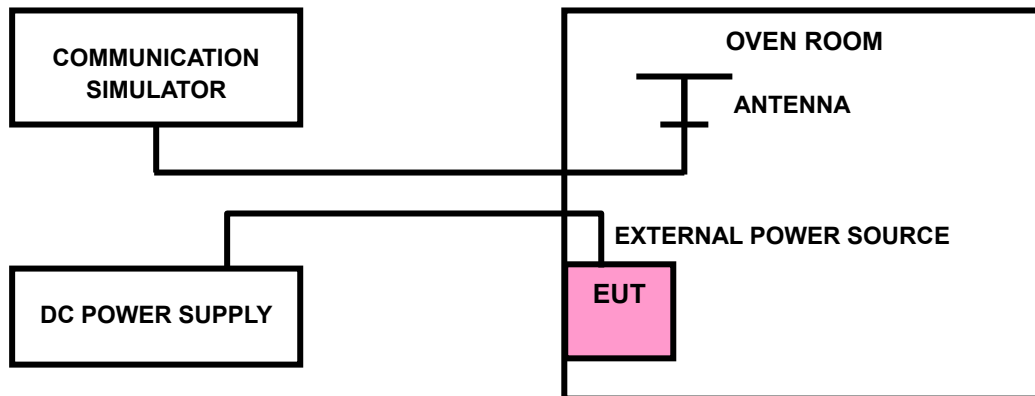
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.2.2 TEST PROCEDURE

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP





**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

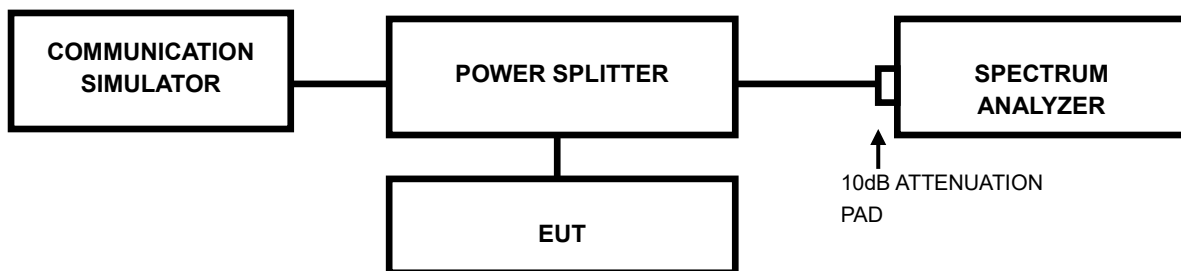


3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.



Test Report No.: W7L-P23030025RF05

3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.

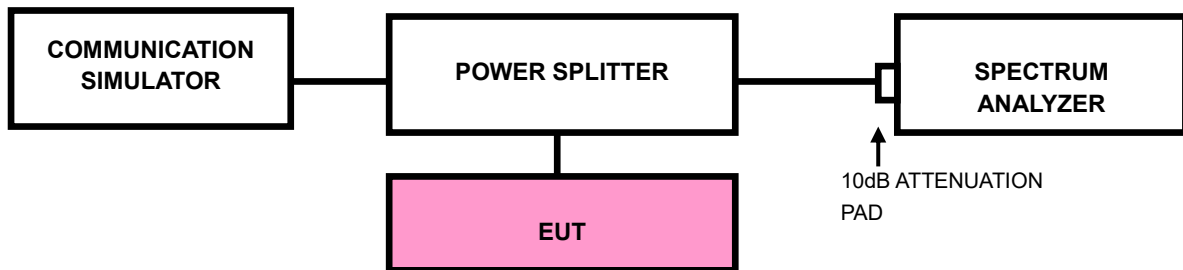


3.4 BAND EDGE MEASUREMENTC

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

3.4.2 TEST SETUP





3.4.3 TEST PROCEDURES

- a) All measurements were done at low and high operational frequency range
- b) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- c) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW)
- d) .Set the resolution bandwidth (RBW) $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
- e) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- f) Set the video bandwidth (VBW) to $\geq 3 \times$ RBW.
- g) Select the average power (RMS) display detector.
- h) Set the number of measurement points to ≥ 1001 .
- i) Use auto-coupled sweep time.
- j) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- k) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.
- l) Record the max trace plot into the test report.



**BUREAU
VERITAS**

Test Report No.: W7L-P23030025RF05

3.4.4. TEST RESULTS

Please Refer to Appendix Of this test report.



3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm .

3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 30MHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

3.5.3 TEST SETUP

