# Partial FCC Test Report
# (PART 22)

| | |
|---|---|
| **Report No.:** | RFBHTZ-WTW-P22090089-2 |
| **FCC ID:** | PPQ202008EG91NAXD |
| **Test Model:** | EG91NAXD |
| **Received Date:** | Sep. 16, 2022 |
| **Test Date:** | Feb. 09, 2023 |
| **Issued Date:** | Mar. 15, 2023 |
| **Applicant:** | LITE-ON Technology Corp. |
| **Address:** | Bldg. C, 90, Chien 1 Rd., Chung-Ho, New Taipei City 23585, Taiwan (R.O.C) |
| **Issued By:** | Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch<br>Lin Kou Laboratories |
| **Lab Address:** | No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan |
| **Test Location:** | No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan |
| **FCC Registration / Designation Number:** | 788550 / TW0003 |

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## Release Control Record

| Issue No. | Description | Date Issued |
|---|---|---|
| RFBHTZ-WTW-P22090089-2 | Original Release | Mar. 15, 2023 |

## 1 Certificate of Conformity

| | |
|---|---|
| **Product:** | EG91NAXD |
| **Brand:** | LITEON |
| **Test Model:** | EG91NAXD |
| **Sample Status:** | Engineering Sample |
| **Applicant:** | LITE-ON Technology Corp. |
| **Test Date:** | Feb. 09, 2023 |
| **Standards:** | FCC Part 22, Subpart H |

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :** Gina Liu , **Date:** Mar. 15, 2023

Gina Liu / Specialist

**Approved by :** Jeremy Lin , **Date:** Mar. 15, 2023

Jeremy Lin / Project Engineer

## 2 Summary of Test Results

| Applied Standard: FCC Part 22 & Part 2 | | | |
|---|---|---|---|
| **FCC Clause** | **Test Item** | **Result** | **Remarks** |
| 2.1046<br>22.913 (a) | Effective Radiated Power | Pass | Meet the requirement of limit. |
| 2.1047 | Modulation Characteristics | N/A | Refer to Note |
| 2.1046<br>22.913 (d) | Peak to Average Ratio | N/A | Refer to Note |
| 2.1055<br>22.355 | Frequency Stability | N/A | Refer to Note |
| 2.1049 | Occupied Bandwidth | N/A | Refer to Note |
| 22.917 | Band Edge Measurements | N/A | Refer to Note |
| 2.1051<br>22.917 | Conducted Spurious Emissions | N/A | Refer to Note |
| 2.1053<br>22.917 | Radiated Spurious Emissions | Pass | Meet the requirement of limit.<br>Minimum passing margin is -20.77 dB at 44.55 MHz. |

Note:

1. This report is a Class II change partial report. Therefore, only test item of Radiated Spurious Emissions tests and Effective Radiated Power were performed for this report. Other testing data please refer to TA Technology (Shanghai) Co., Ltd. report no.: R2006A0379-R1 and R2006A0379-R4.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 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** | **Frequency** | **Expanded Uncertainty (k=2) (±)** |
|---|---|---|
| Radiated Emissions up to 1 GHz | 9 kHz ~ 30 MHz | 2.44 dB |
| | 30 MHz ~ 200 MHz | 2.95 dB |
| | 200 MHz ~ 1000 MHz | 2.95 dB |
| Radiated Emissions above 1 GHz | 1 GHz ~ 18 GHz | 2.26 dB |
| | 18 GHz ~ 40 GHz | 1.94 dB |

## 2.2 Test Site and Instruments

| Description & Manufacturer | Model No. | Serial No. | Date of Calibration | Due Date of Calibration |
|---|---|---|---|---|
| Software<br>BV ADT | ADT_Radiated_<br>V7.6.15.9.5 | NA | NA | NA |
| Antenna Tower &Turn<br>Max-Full | MFA-440H | AT93021705 | NA | NA |
| Turn Table<br>Max-Full | MFT-201SS | NA | NA | NA |
| Turn Table Controller<br>Max-Full | MG-7802 | NA | NA | NA |
| Test Receiver<br>KEYSIGHT | N9038A | MY55420137 | Apr. 27, 2022 | Apr. 26, 2023 |
| Signal Analyzer<br>Agilent | N9010A | MY52220207 | Jan. 03, 2023 | Jan. 02, 2024 |
| Pre-amplifier<br>EMCI | EMC001340 | 980201 | Sep. 23, 2022 | Sep. 22, 2023 |
| RF Coaxial Cable<br>EMCI | 5D-NM-BM | 140903+140902 | Jan. 07, 2023 | Jan. 06, 2024 |
| Pre-Ammlifier<br>EMCI | EMC 330H | 980112 | Oct. 01, 2022 | Sep. 30, 2023 |
| Bi_Log Antenna<br>Schwarzbeck | VULB9168 | 9168-472 | Oct. 21, 2022 | Oct. 20, 2023 |
| RF Coaxial Cable<br>WORKEN | 8D-FB | Cable-Ch10-01 | Oct. 01, 2022 | Sep. 30, 2023 |
| Horn Antenna<br>Schwarzbeck | BBHA 9120D | 9120D-969 | Nov. 13, 2022 | Nov. 12, 2023 |
| Pre-Amplifier<br>EMCI | EMC 012645 | 980115 | Oct. 01, 2022 | Sep. 30, 2023 |
| RF Coaxial Cable<br>EMCI | EMC104-SM-SM-800<br>0+3000 | 171005 | Oct. 01, 2022 | Sep. 30, 2023 |
| RF Coaxial Cable<br>HUBER SUHNER | SUCOFLEX 104 | EMC104-SM-SM-<br>1000(140807) | Oct. 01, 2022 | Sep. 30, 2023 |
| RF FLITER<br>MICRO-TRONICS | BRM50716 | 060 | Jan. 11, 2023 | Jan. 10, 2024 |
| RF FLITER<br>MICRO-TRONICS | BRM17690 | 004 | Jan. 11, 2023 | Jan. 10, 2024 |
| Boresight antenna tower<br>fixture<br>BV | BAF-02 | 7 | NA | NA |
| Pre-Ammlifier<br>EMCI | EMC 184045 | 980116 | Oct. 01, 2022 | Sep. 30, 2023 |
| Horn Antenna<br>Schwarzbeck | BBHA 9170 | 148 | Nov. 13, 2022 | Nov. 12, 2023 |
| RF Coaxial Cable<br>EMCI | EMC102-KM-KM-600 | 150928 | Jul. 09, 2022 | Jul. 08, 2023 |
| RF Coaxial Cable<br>EMCI | EMC102-KM-KM-300<br>0 | 150929 | Jul. 09, 2022 | Jul. 08, 2023 |
| Radio Communication<br>Analyzer<br>Anritsu | MT8820C | 6201300640 | Aug. 26, 2021 | Aug. 25, 2023 |

Note: 1. The calibration interval of the above test instruments is 12 / 24 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HY - 966 chamber 5.

## 3 General Information

### 3.1 General Description of EUT

| | | | |
|---|---|---|---|
| **Product** | EG91NAXD | | |
| **Brand** | LITEON | | |
| **Test Model** | EG91NAXD | | |
| **Status of EUT** | Engineering Sample | | |
| **Power Supply Rating** | 208- 240Vac | | |
| **Modulation Type** | WCDMA | QPSK | |
| | LTE | QPSK, 16QAM | |
| **Frequency Range** | WCDMA Band 5 | 826.4 ~ 846.6 MHz | |
| | LTE 5 (Channel Bandwidth: 1.4 MHz) | 824.7 ~ 848.3 MHz | |
| | LTE 5 (Channel Bandwidth: 3 MHz) | 825.5 ~ 847.5 MHz | |
| | LTE 5 (Channel Bandwidth: 5 MHz) | 826.5 ~ 846.5 MHz | |
| | LTE 5 (Channel Bandwidth: 10 MHz) | 829 ~ 844 MHz | |
| | LTE 26 (Channel Bandwidth: 1.4 MHz) | 824.7 ~ 848.3 MHz | |
| | LTE 26 (Channel Bandwidth: 3 MHz) | 825.5 ~ 847.5 MHz | |
| | LTE 26 (Channel Bandwidth: 5 MHz) | 826.5 ~ 846.5 MHz | |
| | LTE 26 (Channel Bandwidth: 10 MHz) | 829 ~ 844 MHz | |
| | LTE 26 (Channel Bandwidth: 15 MHz) | 831.5 ~ 841.5 MHz | |
| **Max. ERP Power** | WCDMA Band 5 | 151.356 mW (21.80dBm) | |
| | | QPSK | 16QAM |
| | LTE 5 (Channel Bandwidth: 1.4 MHz) | 127.350 mW (21.05dBm) | 100.462 mW (20.02dBm) |
| | LTE 5 (Channel Bandwidth: 3 MHz) | 136.458 mW (21.35dBm) | 107.647 mW (20.32dBm) |
| | LTE 5 (Channel Bandwidth: 5 MHz) | 149.624 mW (21.75dBm) | 115.878 mW (20.64dBm) |
| | LTE 5 (Channel Bandwidth: 10 MHz) | 161.065 mW (22.07dBm) | 125.603 mW (20.99dBm) |
| | LTE 26 (Channel Bandwidth: 1.4 MHz) | 167.109 mW (22.23dBm) | 133.968 mW (21.27dBm) |
| | LTE 26 (Channel Bandwidth: 3 MHz) | 181.134 mW (22.58dBm) | 142.889 mW (21.55dBm) |
| | LTE 26 (Channel Bandwidth: 5 MHz) | 197.242 mW (22.95dBm) | 155.239 mW (21.91dBm) |
| | LTE 26 (Channel Bandwidth: 10 MHz) | 212.324 mW (23.27dBm) | 166.725 mW (22.22dBm) |
| | LTE 26 (Channel Bandwidth: 15 MHz) | 231.206 mW (23.64dBm) | 183.231 mW (22.63dBm) |
| **Antenna Type** | Monopole Coupling with 1.9 dBi gain | | |
| **Accessory Device** | N/A | | |
| **Data Cable Supplied** | N/A | | |

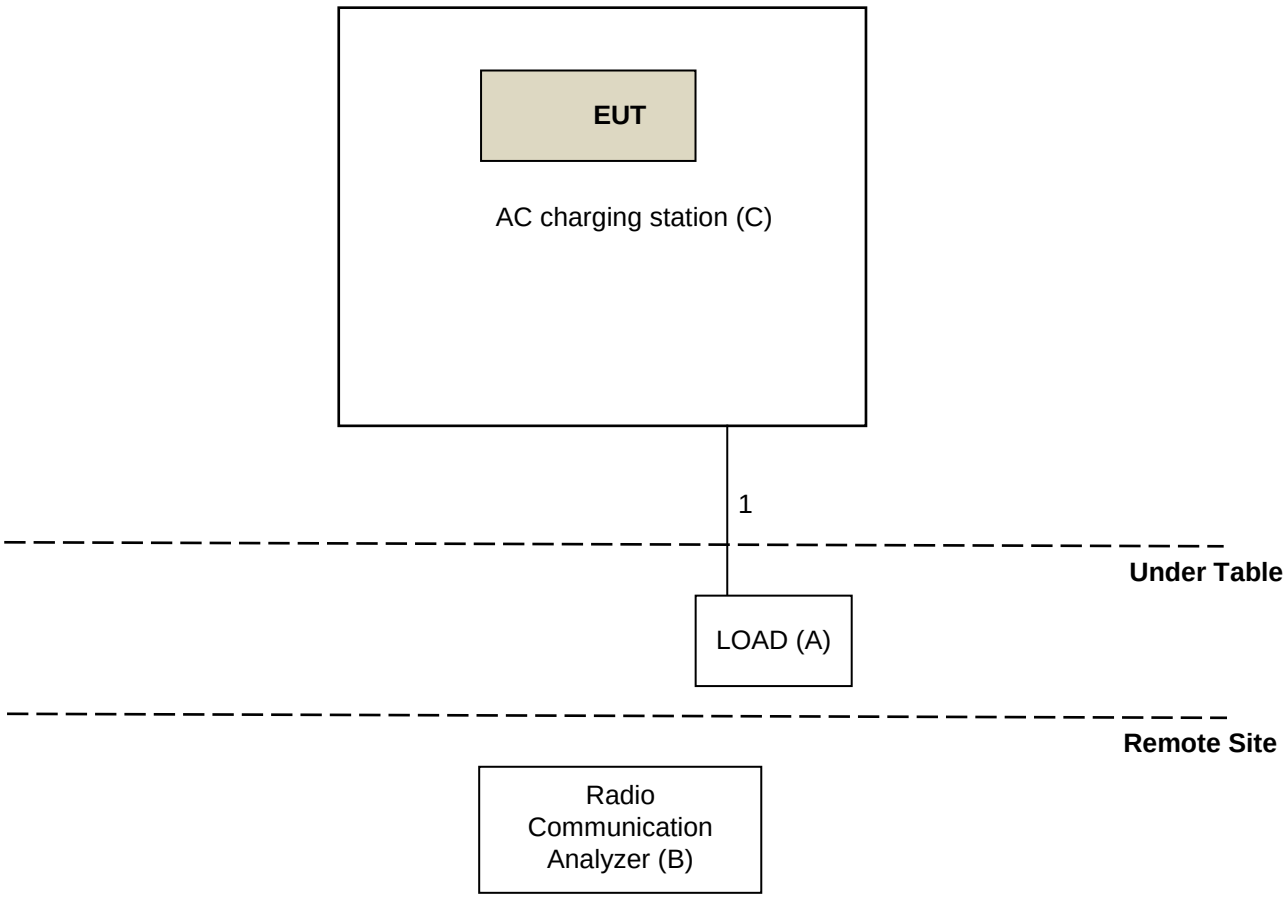
Note:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report to TA Technology (Shanghai) Co., Ltd. report no.: R2006A0379-R1 and R2006A0379-R4. The difference compared with original report are adding end-product and antenna (Brand: Auden / Model: D32788-30). Therefore, only test item of Effective Isotropic Radiated Power & Radiated Emissions were performed for this report. Other testing data please refer to original report.
2. The EUT is authorized for use in specific End-product. Please refer to below for more details.

| Model | W1-UC168-0MK1ER |
|---|---|
| LTE module (FCC: PPQ202008EG91NAXD) | ✓ |
| Wi-Fi module (FCC: PPQLILYW131) | ✓ |
| RFID module (FCC: PPQRYORR2L) | ✓ |
| Ethernet | ✓ |
| LCD module | ✓ |

3. Detail antenna specification please refer to antenna datasheet or an antenna gain measurement report.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

## 3.2 Configuration of System under Test




### 3.2.1 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 | Remarks |
|---|---|---|---|---|---|---|
| A | LOAD | NA | NA | NA | NA | Provided by Lab |
| B | Radio Communication Analyzer | Anritsu | MT8820C | 6201300640 | N/A | Provided by Lab |
| C | AC charging station | LITEON | EX-1193-M, | NA | NA | Provided by Client |

| ID | Cable Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | **Remarks** |
|---|---|---|---|---|---|---|
| 1. | RJ-45 Cable | 2 | 1.8 | N | 0 | Provided by Lab |

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Items B acted as communication partners to transfer data.

### 3.3 Test Mode Applicability and Tested Channel Detail

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 was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

| Band | Radiated Emission |
|---|---|
| **WCDMA Band 5** | Z-Axis |
| **LTE Band 5** | Z-Axis |
| **LTE Band 26** | Z-Axis |

**WCDMA Band 5**

| EUT Configure Mode | Test Item | Available Channel | Tested Channel | Mode |
|---|---|---|---|---|
| - | ERP | 4132 to 4233 | 4132, 4182, 4233 | WCDMA, HSDPA, HSUPA |
| - | Radiated Emission Below 1GHz | 4132 to 4233 | 4182 | WCDMA |
| - | Radiated Emission Above 1GHz | 4132 to 4233 | 4182 | WCDMA |

Note: For radiated emission, select the worst radiated emission channel (original report) for final testing.

**LTE Band 5**

| EUT Configure Mode | Test item | Available channel | Tested channel | Channel Bandwidth | Modulation | Mode |
|---|---|---|---|---|---|---|
| - | ERP | 20407 to 20643 | 20407, 20525, 20643 | 1.4MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20415 to 20635 | 20415, 20525, 20635 | 3MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20425 to 20625 | 20425, 20525, 20625 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 20450 to 20600 | 20450, 20525, 20600 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| - | Radiated Emission Below 1GHz | 20407 to 20643 | 20525 | 1.4MHz | QPSK | 1 RB / 0 RB Offset |
| - | Radiated Emission Above 1GHz | 20450 to 20600 | 20525 | 10MHz | QPSK | 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. For radiated emission, select the worst radiated emission channel (original report) for final testing.

**LTE Band 26**

| EUT Configure Mode | Test item | Available channel | Tested channel | Channel Bandwidth | Modulation | Mode |
|---|---|---|---|---|---|---|
| - | ERP | 26797 to 27033 | 26797, 26915, 27033 | 1.4MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 26805 to 27025 | 26805, 26915, 27025 | 3MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 26815 to 27015 | 26815, 26915, 27015 | 5MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 26840 to 26990 | 26840, 26915, 26990 | 10MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| | | 26865 to 26965 | 26865, 26915, 26965 | 15MHz | QPSK, 16QAM | 1 RB / 0 RB Offset |
| - | Radiated Emission Below 1GHz | 26865 to 26965 | 26915 | 15MHz | QPSK | 1 RB / 0 RB Offset |
| - | Radiated Emission Above 1GHz | 26865 to 26965 | 26915 | 15MHz | QPSK | 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. For radiated emission, select the worst radiated emission channel (original report) for final testing.

**Test Condition:**

| Test Item | Environmental Conditions | Input Power | Tested By |
|---|---|---|---|
| ERP | 25 deg. C, 60 % RH | 120 Vac, 60 Hz | Vincent Chen |
| Radiated Emission | 25 deg. C, 72 % RH | 120 Vac, 60 Hz | Vincent Chen |

### 3.4 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.

### 3.5 General Description of Applied Standards and references

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

**Test Standard:**

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 22**

ANSI 63.26-2015

**References Test Guidance:**

**KDB 971168 D01 Power Meas License Digital Systems v03r01**

**ANSI/TIA/EIA-603-E 2016**

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

# 4 Test Types and Results

## 4.1 Output Power Measurement

### 4.1.1 Limits of Output Power Measurement

Mobile / Portable station are limited to 7 watts e.r.p.

### 4.1.2 Test Procedures

**Conducted Power Measurement:**

The EUT was set up for the maximum power with CDMA, GSM, WCDMA, LTE 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.

**Maximum EIRP / ERP**

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$EIRP = P_{Meas} + G_T$

$ERP = P_{Meas} + G_T - 2.15$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as $P_{Meas}$, e.g., dBm or dBW)

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

$G_T$ gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

### 4.1.3 Test Setup

Conducted Power Measurement:

4.1.4 Test Results

**Conducted Output Power (dBm)**

| Band | WCDMA V | | |
|---|---|---|---|
| TX Channel | 4132 | 4182 | 4233 |
| Rx Channel | 4357 | 4407 | 4458 |
| Frequency | 826.4 | 836.4 | 846.6 |
| RMC 12.2K | 21.85 | 22.05 | 21.77 |
| HSDPA Subtest-1 | 21.56 | 21.76 | 21.52 |
| HSDPA Subtest-2 | 21.54 | 21.81 | 21.49 |
| HSDPA Subtest-3 | 21.12 | 21.31 | 20.96 |
| HSDPA Subtest-4 | 21.01 | 21.28 | 20.92 |
| DC-HSDPA Subtest-1 | 21.50 | 21.78 | 21.46 |
| DC-HSDPA Subtest-2 | 21.44 | 21.71 | 21.41 |
| DC-HSDPA Subtest-3 | 20.94 | 21.24 | 20.86 |
| DC-HSDPA Subtest-4 | 20.86 | 21.22 | 20.76 |
| HSUPA Subtest-1 | 21.56 | 21.70 | 21.50 |
| HSUPA Subtest-2 | 19.54 | 19.66 | 19.50 |
| HSUPA Subtest-3 | 20.51 | 20.72 | 20.41 |
| HSUPA Subtest-4 | 19.61 | 19.79 | 19.45 |
| HSUPA Subtest-5 | 21.39 | 21.74 | 21.52 |

| LTE Band 5 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20450 | 20525 | 20600 |
| | | Frequency (MHz) | | 829 | 836.5 | 844 |
| 10M | QPSK | 1 | 0 | 22.15 | **22.32** | 22.09 |
| | | 1 | 24 | 22.00 | 22.21 | 21.98 |
| | | 1 | 49 | 21.89 | 22.09 | 21.74 |
| | | 25 | 0 | 21.02 | 21.17 | 20.99 |
| | | 25 | 12 | 20.84 | 20.98 | 20.79 |
| | | 25 | 25 | 20.69 | 20.91 | 20.67 |
| | | 50 | 0 | 20.99 | 21.18 | 20.94 |
| 10M | 16QAM | 1 | 0 | 21.14 | 21.24 | 21.03 |
| | | 1 | 24 | 20.99 | 21.22 | 20.92 |
| | | 1 | 49 | 20.87 | 20.98 | 20.77 |
| | | 25 | 0 | 19.95 | 20.07 | 19.93 |
| | | 25 | 12 | 19.75 | 19.92 | 19.79 |
| | | 25 | 25 | 19.68 | 19.88 | 19.66 |
| | | 50 | 0 | 19.97 | 20.19 | 19.88 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20425 | 20525 | 20625 |
| | | Frequency (MHz) | | 826.5 | 836.5 | 846.5 |
| 5M | QPSK | 1 | 0 | 21.83 | 22.00 | 21.75 |
| | | 1 | 12 | 21.63 | 21.88 | 21.63 |
| | | 1 | 24 | 21.57 | 21.72 | 21.40 |
| | | 12 | 0 | 20.68 | 20.80 | 20.67 |
| | | 12 | 6 | 20.50 | 20.66 | 20.45 |
| | | 12 | 13 | 20.37 | 20.55 | 20.33 |
| | | 25 | 0 | 20.67 | 20.82 | 20.61 |
| 5M | 16QAM | 1 | 0 | 20.80 | 20.89 | 20.68 |
| | | 1 | 12 | 20.66 | 20.89 | 20.55 |
| | | 1 | 24 | 20.55 | 20.63 | 20.44 |
| | | 12 | 0 | 19.63 | 19.75 | 19.59 |
| | | 12 | 6 | 19.41 | 19.57 | 19.46 |
| | | 12 | 13 | 19.34 | 19.51 | 19.34 |
| | | 25 | 0 | 19.62 | 19.85 | 19.53 |

| LTE Band 5 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20415 | 20525 | 20635 |
| | | Frequency (MHz) | | 825.5 | 836.5 | 847.5 |
| 3M | QPSK | 1 | 0 | 21.47 | 21.60 | 21.38 |
| | | 1 | 7 | 21.29 | 21.55 | 21.29 |
| | | 1 | 14 | 21.23 | 21.35 | 21.05 |
| | | 8 | 0 | 20.33 | 20.45 | 20.28 |
| | | 8 | 3 | 20.10 | 20.26 | 20.08 |
| | | 8 | 7 | 20.02 | 20.23 | 19.98 |
| | | 15 | 0 | 20.30 | 20.46 | 20.20 |
| 3M | 16QAM | 1 | 0 | 20.45 | 20.57 | 20.33 |
| | | 1 | 7 | 20.30 | 20.54 | 20.21 |
| | | 1 | 14 | 20.17 | 20.25 | 20.04 |
| | | 8 | 0 | 19.24 | 19.40 | 19.24 |
| | | 8 | 3 | 19.11 | 19.23 | 19.11 |
| | | 8 | 7 | 18.94 | 19.15 | 18.96 |
| | | 15 | 0 | 19.30 | 19.50 | 19.19 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20407 | 20525 | 20643 |
| | | Frequency (MHz) | | 824.7 | 836.5 | 848.3 |
| 1.4M | QPSK | 1 | 0 | 21.10 | 21.30 | 21.05 |
| | | 1 | 2 | 20.98 | 21.22 | 20.88 |
| | | 1 | 5 | 20.91 | 21.02 | 20.73 |
| | | 3 | 0 | 20.00 | 20.16 | 19.98 |
| | | 3 | 1 | 19.81 | 19.91 | 19.71 |
| | | 3 | 3 | 19.67 | 19.87 | 19.65 |
| | | 6 | 0 | 19.99 | 20.12 | 19.90 |
| 1.4M | 16QAM | 1 | 0 | 20.10 | 20.27 | 20.04 |
| | | 1 | 2 | 19.95 | 20.18 | 19.84 |
| | | 1 | 5 | 19.80 | 19.94 | 19.69 |
| | | 3 | 0 | 18.93 | 19.05 | 18.90 |
| | | 3 | 1 | 18.78 | 18.92 | 18.74 |
| | | 3 | 3 | 18.62 | 18.83 | 18.64 |
| | | 6 | 0 | 18.91 | 19.16 | 18.87 |

| LTE Band 26 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26865 | 26915 | 26965 |
| | | Frequency (MHz) | | 831.5 | 836.5 | 841.5 |
| 15M | QPSK | 1 | 0 | 23.76 | 23.89 | 23.67 |
| | | 1 | 37 | 23.65 | 23.74 | 23.54 |
| | | 1 | 74 | 23.42 | 23.56 | 23.34 |
| | | 36 | 0 | 22.64 | 22.73 | 22.55 |
| | | 36 | 19 | 22.44 | 22.56 | 22.35 |
| | | 36 | 39 | 22.38 | 22.57 | 22.27 |
| | | 75 | 0 | 22.57 | 22.68 | 22.46 |
| 15M | 16QAM | 1 | 0 | 22.69 | 22.88 | 22.65 |
| | | 1 | 37 | 22.58 | 22.69 | 22.54 |
| | | 1 | 74 | 22.38 | 22.43 | 22.35 |
| | | 36 | 0 | 21.52 | 21.71 | 21.52 |
| | | 36 | 19 | 21.35 | 21.46 | 21.29 |
| | | 36 | 39 | 21.18 | 21.50 | 21.27 |
| | | 75 | 0 | 21.48 | 21.70 | 21.41 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26840 | 26915 | 26990 |
| | | Frequency (MHz) | | 829 | 836.5 | 844 |
| 10M | QPSK | 1 | 0 | 23.41 | 23.52 | 23.30 |
| | | 1 | 24 | 23.26 | 23.43 | 23.25 |
| | | 1 | 49 | 23.12 | 23.20 | 23.08 |
| | | 25 | 0 | 22.26 | 22.45 | 22.22 |
| | | 25 | 12 | 22.08 | 22.22 | 22.01 |
| | | 25 | 25 | 21.92 | 22.20 | 21.89 |
| | | 50 | 0 | 22.26 | 22.47 | 22.13 |
| 10M | 16QAM | 1 | 0 | 22.32 | 22.47 | 22.21 |
| | | 1 | 24 | 22.26 | 22.34 | 22.07 |
| | | 1 | 49 | 22.03 | 22.24 | 21.96 |
| | | 25 | 0 | 21.23 | 21.34 | 21.16 |
| | | 25 | 12 | 21.09 | 21.14 | 21.02 |
| | | 25 | 25 | 21.04 | 21.04 | 20.89 |
| | | 50 | 0 | 21.11 | 21.34 | 21.06 |

| LTE Band 26 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26815 | 26915 | 27015 |
| | | Frequency (MHz) | | 826.5 | 836.5 | 846.5 |
| 5M | QPSK | 1 | 0 | 23.08 | 23.20 | 22.98 |
| | | 1 | 12 | 22.93 | 23.11 | 22.86 |
| | | 1 | 24 | 22.77 | 22.86 | 22.69 |
| | | 12 | 0 | 21.96 | 22.13 | 21.86 |
| | | 12 | 6 | 21.75 | 21.89 | 21.60 |
| | | 12 | 13 | 21.59 | 21.84 | 21.55 |
| | | 25 | 0 | 21.93 | 22.11 | 21.80 |
| 5M | 16QAM | 1 | 0 | 21.99 | 22.16 | 21.95 |
| | | 1 | 12 | 21.88 | 22.00 | 21.83 |
| | | 1 | 24 | 21.72 | 21.96 | 21.56 |
| | | 12 | 0 | 20.94 | 20.97 | 20.70 |
| | | 12 | 6 | 20.74 | 20.87 | 20.64 |
| | | 12 | 13 | 20.61 | 20.76 | 20.56 |
| | | 25 | 0 | 20.84 | 20.92 | 20.71 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26805 | 26915 | 27025 |
| | | Frequency (MHz) | | 825.5 | 836.5 | 847.5 |
| 3M | QPSK | 1 | 0 | 22.77 | 22.83 | 22.67 |
| | | 1 | 7 | 22.60 | 22.76 | 22.54 |
| | | 1 | 14 | 22.43 | 22.55 | 22.36 |
| | | 8 | 0 | 21.60 | 21.77 | 21.53 |
| | | 8 | 3 | 21.41 | 21.57 | 21.23 |
| | | 8 | 7 | 21.27 | 21.53 | 21.21 |
| | | 15 | 0 | 21.56 | 21.74 | 21.46 |
| 3M | 16QAM | 1 | 0 | 21.66 | 21.80 | 21.62 |
| | | 1 | 7 | 21.55 | 21.63 | 21.51 |
| | | 1 | 14 | 21.39 | 21.62 | 21.19 |
| | | 8 | 0 | 20.60 | 20.60 | 20.37 |
| | | 8 | 3 | 20.40 | 20.53 | 20.28 |
| | | 8 | 7 | 20.26 | 20.40 | 20.24 |
| | | 15 | 0 | 20.49 | 20.56 | 20.37 |

| LTE Band 26 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26797 | 26915 | 27033 |
| | | Frequency (MHz) | | 824.7 | 836.5 | 848.3 |
| 1.4M | QPSK | 1 | 0 | 22.39 | 22.48 | 22.35 |
| | | 1 | 2 | 22.24 | 22.39 | 22.17 |
| | | 1 | 5 | 22.06 | 22.21 | 21.94 |
| | | 3 | 0 | 21.29 | 21.45 | 21.20 |
| | | 3 | 1 | 21.04 | 21.23 | 20.85 |
| | | 3 | 3 | 20.90 | 21.23 | 20.90 |
| | | 6 | 0 | 21.22 | 21.43 | 21.11 |
| 1.4M | 16QAM | 1 | 0 | 21.28 | 21.52 | 21.26 |
| | | 1 | 2 | 21.19 | 21.35 | 21.14 |
| | | 1 | 5 | 21.06 | 21.28 | 20.86 |
| | | 3 | 0 | 20.25 | 20.30 | 20.01 |
| | | 3 | 1 | 20.08 | 20.20 | 19.91 |
| | | 3 | 3 | 19.93 | 20.08 | 19.88 |
| | | 6 | 0 | 20.19 | 20.27 | 20.02 |

**ERP Power (dBm)**

| Band | WCDMA V | | |
|---|---|---|---|
| TX Channel | 4132 | 4182 | 4233 |
| Rx Channel | 4357 | 4407 | 4458 |
| Frequency | 826.4 | 836.4 | 846.6 |
| RMC 12.2K | 21.60 | 21.80 | 21.52 |
| HSDPA Subtest-1 | 21.31 | 21.51 | 21.27 |
| HSDPA Subtest-2 | 21.29 | 21.56 | 21.24 |
| HSDPA Subtest-3 | 20.87 | 21.06 | 20.71 |
| HSDPA Subtest-4 | 20.76 | 21.03 | 20.67 |
| DC-HSDPA Subtest-1 | 21.25 | 21.53 | 21.21 |
| DC-HSDPA Subtest-2 | 21.19 | 21.46 | 21.16 |
| DC-HSDPA Subtest-3 | 20.69 | 20.99 | 20.61 |
| DC-HSDPA Subtest-4 | 20.61 | 20.97 | 20.51 |
| HSUPA Subtest-1 | 21.31 | 21.45 | 21.25 |
| HSUPA Subtest-2 | 19.29 | 19.41 | 19.25 |
| HSUPA Subtest-3 | 20.26 | 20.47 | 20.16 |
| HSUPA Subtest-4 | 19.36 | 19.54 | 19.20 |
| HSUPA Subtest-5 | 21.14 | 21.49 | 21.27 |

*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

| LTE Band 5 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20450 | 20525 | 20600 |
| | | Frequency (MHz) | | 829 | 836.5 | 844 |
| 10M | QPSK | 1 | 0 | 21.90 | 22.07 | 21.84 |
| | | 1 | 24 | 21.75 | 21.96 | 21.73 |
| | | 1 | 49 | 21.64 | 21.84 | 21.49 |
| | | 25 | 0 | 20.77 | 20.92 | 20.74 |
| | | 25 | 12 | 20.59 | 20.73 | 20.54 |
| | | 25 | 25 | 20.44 | 20.66 | 20.42 |
| | | 50 | 0 | 20.74 | 20.93 | 20.69 |
| 10M | 16QAM | 1 | 0 | 20.89 | 20.99 | 20.78 |
| | | 1 | 24 | 20.74 | 20.97 | 20.67 |
| | | 1 | 49 | 20.62 | 20.73 | 20.52 |
| | | 25 | 0 | 19.70 | 19.82 | 19.68 |
| | | 25 | 12 | 19.50 | 19.67 | 19.54 |
| | | 25 | 25 | 19.43 | 19.63 | 19.41 |
| | | 50 | 0 | 19.72 | 19.94 | 19.63 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20425 | 20525 | 20625 |
| | | Frequency (MHz) | | 826.5 | 836.5 | 846.5 |
| 5M | QPSK | 1 | 0 | 21.58 | 21.75 | 21.50 |
| | | 1 | 12 | 21.38 | 21.63 | 21.38 |
| | | 1 | 24 | 21.32 | 21.47 | 21.15 |
| | | 12 | 0 | 20.43 | 20.55 | 20.42 |
| | | 12 | 6 | 20.25 | 20.41 | 20.20 |
| | | 12 | 13 | 20.12 | 20.30 | 20.08 |
| | | 25 | 0 | 20.42 | 20.57 | 20.36 |
| 5M | 16QAM | 1 | 0 | 20.55 | 20.64 | 20.43 |
| | | 1 | 12 | 20.41 | 20.64 | 20.30 |
| | | 1 | 24 | 20.30 | 20.38 | 20.19 |
| | | 12 | 0 | 19.38 | 19.50 | 19.34 |
| | | 12 | 6 | 19.16 | 19.32 | 19.21 |
| | | 12 | 13 | 19.09 | 19.26 | 19.09 |
| | | 25 | 0 | 19.37 | 19.60 | 19.28 |

*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

| LTE Band 5 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20415 | 20525 | 20635 |
| | | Frequency (MHz) | | 825.5 | 836.5 | 847.5 |
| 3M | QPSK | 1 | 0 | 21.22 | 21.35 | 21.13 |
| | | 1 | 7 | 21.04 | 21.30 | 21.04 |
| | | 1 | 14 | 20.98 | 21.10 | 20.80 |
| | | 8 | 0 | 20.08 | 20.20 | 20.03 |
| | | 8 | 3 | 19.85 | 20.01 | 19.83 |
| | | 8 | 7 | 19.77 | 19.98 | 19.73 |
| | | 15 | 0 | 20.05 | 20.21 | 19.95 |
| 3M | 16QAM | 1 | 0 | 20.20 | 20.32 | 20.08 |
| | | 1 | 7 | 20.05 | 20.29 | 19.96 |
| | | 1 | 14 | 19.92 | 20.00 | 19.79 |
| | | 8 | 0 | 18.99 | 19.15 | 18.99 |
| | | 8 | 3 | 18.86 | 18.98 | 18.86 |
| | | 8 | 7 | 18.69 | 18.90 | 18.71 |
| | | 15 | 0 | 19.05 | 19.25 | 18.94 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 20407 | 20525 | 20643 |
| | | Frequency (MHz) | | 824.7 | 836.5 | 848.3 |
| 1.4M | QPSK | 1 | 0 | 20.85 | 21.05 | 20.80 |
| | | 1 | 2 | 20.73 | 20.97 | 20.63 |
| | | 1 | 5 | 20.66 | 20.77 | 20.48 |
| | | 3 | 0 | 19.75 | 19.91 | 19.73 |
| | | 3 | 1 | 19.56 | 19.66 | 19.46 |
| | | 3 | 3 | 19.42 | 19.62 | 19.40 |
| | | 6 | 0 | 19.74 | 19.87 | 19.65 |
| 1.4M | 16QAM | 1 | 0 | 19.85 | 20.02 | 19.79 |
| | | 1 | 2 | 19.70 | 19.93 | 19.59 |
| | | 1 | 5 | 19.55 | 19.69 | 19.44 |
| | | 3 | 0 | 18.68 | 18.80 | 18.65 |
| | | 3 | 1 | 18.53 | 18.67 | 18.49 |
| | | 3 | 3 | 18.37 | 18.58 | 18.39 |
| | | 6 | 0 | 18.66 | 18.91 | 18.62 |

*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

| LTE Band 26 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26865 | 26915 | 26965 |
| | | Frequency (MHz) | | 831.5 | 836.5 | 841.5 |
| 15M | QPSK | 1 | 0 | 23.51 | 23.64 | 23.42 |
| | | 1 | 37 | 23.40 | 23.49 | 23.29 |
| | | 1 | 74 | 23.17 | 23.31 | 23.09 |
| | | 36 | 0 | 22.39 | 22.48 | 22.30 |
| | | 36 | 19 | 22.19 | 22.31 | 22.10 |
| | | 36 | 39 | 22.13 | 22.32 | 22.02 |
| | | 75 | 0 | 22.32 | 22.43 | 22.21 |
| 15M | 16QAM | 1 | 0 | 22.44 | 22.63 | 22.40 |
| | | 1 | 37 | 22.33 | 22.44 | 22.29 |
| | | 1 | 74 | 22.13 | 22.18 | 22.10 |
| | | 36 | 0 | 21.27 | 21.46 | 21.27 |
| | | 36 | 19 | 21.10 | 21.21 | 21.04 |
| | | 36 | 39 | 20.93 | 21.25 | 21.02 |
| | | 75 | 0 | 21.23 | 21.45 | 21.16 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26840 | 26915 | 26990 |
| | | Frequency (MHz) | | 829 | 836.5 | 844 |
| 10M | QPSK | 1 | 0 | 23.16 | 23.27 | 23.05 |
| | | 1 | 24 | 23.01 | 23.18 | 23.00 |
| | | 1 | 49 | 22.87 | 22.95 | 22.83 |
| | | 25 | 0 | 22.01 | 22.20 | 21.97 |
| | | 25 | 12 | 21.83 | 21.97 | 21.76 |
| | | 25 | 25 | 21.67 | 21.95 | 21.64 |
| | | 50 | 0 | 22.01 | 22.22 | 21.88 |
| 10M | 16QAM | 1 | 0 | 22.07 | 22.22 | 21.96 |
| | | 1 | 24 | 22.01 | 22.09 | 21.82 |
| | | 1 | 49 | 21.78 | 21.99 | 21.71 |
| | | 25 | 0 | 20.98 | 21.09 | 20.91 |
| | | 25 | 12 | 20.84 | 20.89 | 20.77 |
| | | 25 | 25 | 20.79 | 20.79 | 20.64 |
| | | 50 | 0 | 20.86 | 21.09 | 20.81 |

*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

| LTE Band 26 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26815 | 26915 | 27015 |
| | | Frequency (MHz) | | 826.5 | 836.5 | 846.5 |
| 5M | QPSK | 1 | 0 | 22.83 | 22.95 | 22.73 |
| | | 1 | 12 | 22.68 | 22.86 | 22.61 |
| | | 1 | 24 | 22.52 | 22.61 | 22.44 |
| | | 12 | 0 | 21.71 | 21.88 | 21.61 |
| | | 12 | 6 | 21.50 | 21.64 | 21.35 |
| | | 12 | 13 | 21.34 | 21.59 | 21.30 |
| | | 25 | 0 | 21.68 | 21.86 | 21.55 |
| 5M | 16QAM | 1 | 0 | 21.74 | 21.91 | 21.70 |
| | | 1 | 12 | 21.63 | 21.75 | 21.58 |
| | | 1 | 24 | 21.47 | 21.71 | 21.31 |
| | | 12 | 0 | 20.69 | 20.72 | 20.45 |
| | | 12 | 6 | 20.49 | 20.62 | 20.39 |
| | | 12 | 13 | 20.36 | 20.51 | 20.31 |
| | | 25 | 0 | 20.59 | 20.67 | 20.46 |
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26805 | 26915 | 27025 |
| | | Frequency (MHz) | | 825.5 | 836.5 | 847.5 |
| 3M | QPSK | 1 | 0 | 22.52 | 22.58 | 22.42 |
| | | 1 | 7 | 22.35 | 22.51 | 22.29 |
| | | 1 | 14 | 22.18 | 22.30 | 22.11 |
| | | 8 | 0 | 21.35 | 21.52 | 21.28 |
| | | 8 | 3 | 21.16 | 21.32 | 20.98 |
| | | 8 | 7 | 21.02 | 21.28 | 20.96 |
| | | 15 | 0 | 21.31 | 21.49 | 21.21 |
| 3M | 16QAM | 1 | 0 | 21.41 | 21.55 | 21.37 |
| | | 1 | 7 | 21.30 | 21.38 | 21.26 |
| | | 1 | 14 | 21.14 | 21.37 | 20.94 |
| | | 8 | 0 | 20.35 | 20.35 | 20.12 |
| | | 8 | 3 | 20.15 | 20.28 | 20.03 |
| | | 8 | 7 | 20.01 | 20.15 | 19.99 |
| | | 15 | 0 | 20.24 | 20.31 | 20.12 |

*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

| LTE Band 26 | | | | | | |
|---|---|---|---|---|---|---|
| BW | MCS Index | RB Size | RB Offset | Low | Mid | High |
| | | Channel | | 26797 | 26915 | 27033 |
| | | Frequency (MHz) | | 824.7 | 836.5 | 848.3 |
| 1.4M | QPSK | 1 | 0 | 22.14 | 22.23 | 22.10 |
| | | 1 | 2 | 21.99 | 22.14 | 21.92 |
| | | 1 | 5 | 21.81 | 21.96 | 21.69 |
| | | 3 | 0 | 21.04 | 21.20 | 20.95 |
| | | 3 | 1 | 20.79 | 20.98 | 20.60 |
| | | 3 | 3 | 20.65 | 20.98 | 20.65 |
| | | 6 | 0 | 20.97 | 21.18 | 20.86 |
| 1.4M | 16QAM | 1 | 0 | 21.03 | 21.27 | 21.01 |
| | | 1 | 2 | 20.94 | 21.10 | 20.89 |
| | | 1 | 5 | 20.81 | 21.03 | 20.61 |
| | | 3 | 0 | 20.00 | 20.05 | 19.76 |
| | | 3 | 1 | 19.83 | 19.95 | 19.66 |
| | | 3 | 3 | 19.68 | 19.83 | 19.63 |
| | | 6 | 0 | 19.94 | 20.02 | 19.77 |

*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

## 4.2 Radiated Emission Measurement

### 4.2.1 Limits of Radiated Emission 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 is equal to -13 dBm.

### 4.2.2 Test Procedure

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.

b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.

d. Following C63.26 section 5.5 and 5.2.7
   - EIRP (dBm) = E (dBμV/m) + 20log(D) - 104.8; where D is the measurement distance (in the far field region) in m.
   - ERP (dBm) = E (dBμV/m) + 20log(D) - 104.8 - 2.15; where D is the measurement distance (in the far field region) in m.

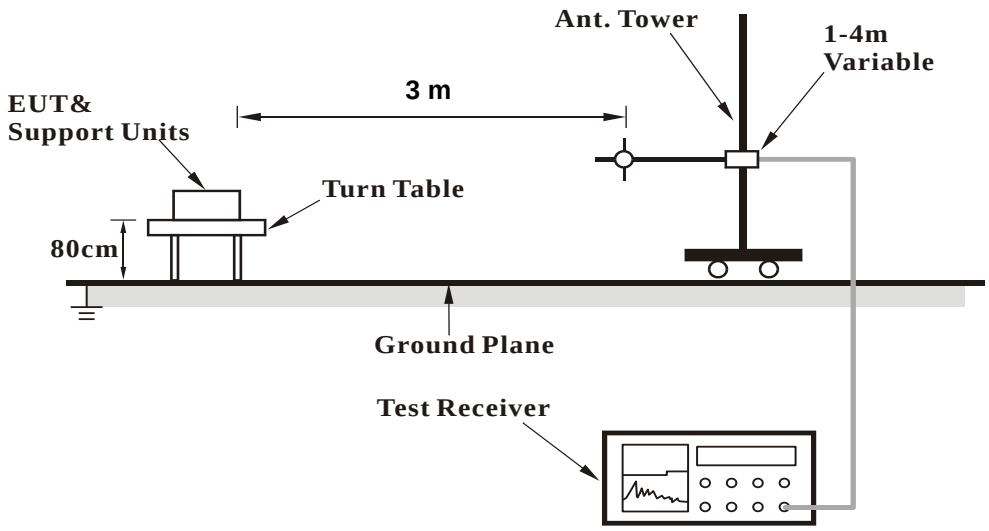
Note:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:
   The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

### 4.2.3 Deviation from Test Standard

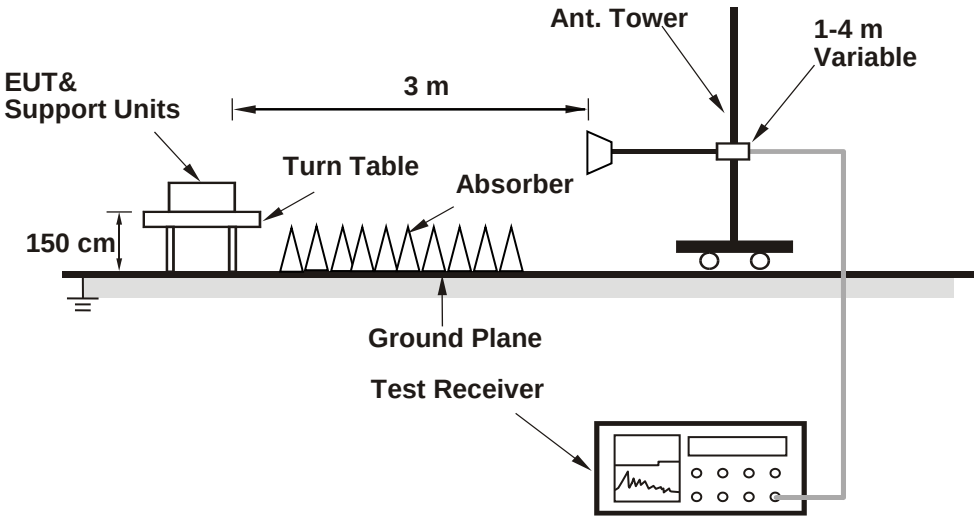
No deviation.

4.2.4 Test Setup

**<Radiated Emission below or equal 1 GHz>**




**<Radiated Emission above 1 GHz>**




For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.5 Test Results

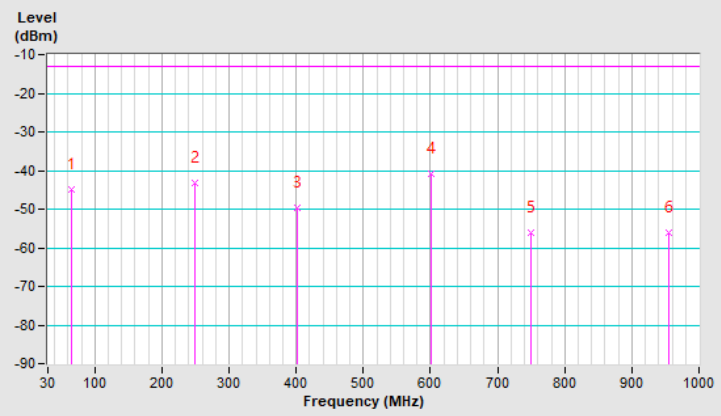
**Below 1GHz**

| RF Mode | WCDMA Band V | Channel | CH 4182：836.4 MHz |
|---|---|---|---|
| Frequency Range | 30 MHz ~ 1 GHz | | |

| Antenna Polarity & Test Distance : Horizontal at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 65.89 | -44.98 | -13.00 | -31.98 | 1.00 H | 313 | 66.19 | -111.17 |
| 2 | 248.25 | -43.07 | -13.00 | -30.07 | 1.50 H | 214 | 68.01 | -111.08 |
| 3 | 401.51 | -49.61 | -13.00 | -36.61 | 2.00 H | 30 | 57.30 | -106.91 |
| 4 | 601.33 | -40.93 | -13.00 | -27.93 | 1.00 H | 2 | 61.83 | -102.76 |
| 5 | 749.74 | -56.27 | -13.00 | -43.27 | 1.50 H | 352 | 43.13 | -99.40 |
| 6 | 954.41 | -56.21 | -13.00 | -43.21 | 1.50 H | 13 | 41.55 | -97.76 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

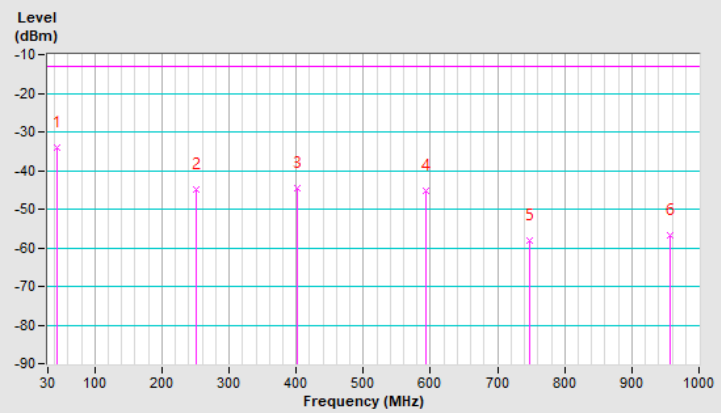


| RF Mode | WCDMA Band V | Channel | CH 4182：836.4 MHz |
|---|---|---|---|
| Frequency Range | 30 MHz ~ 1 GHz | | |

| Antenna Polarity & Test Distance : Vertical at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 44.55 | -33.92 | -13.00 | -20.92 | 1.50 V | 240 | 75.78 | -109.70 |
| 2 | 251.16 | -44.96 | -13.00 | -31.96 | 1.00 V | 18 | 66.03 | -110.99 |
| 3 | 401.51 | -44.73 | -13.00 | -31.73 | 2.00 V | 246 | 62.18 | -106.91 |
| 4 | 592.60 | -45.36 | -13.00 | -32.36 | 1.50 V | 265 | 57.57 | -102.93 |
| 5 | 747.80 | -58.00 | -13.00 | -45.00 | 1.00 V | 321 | 41.45 | -99.45 |
| 6 | 956.35 | -56.90 | -13.00 | -43.90 | 1.00 V | 98 | 40.82 | -97.72 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



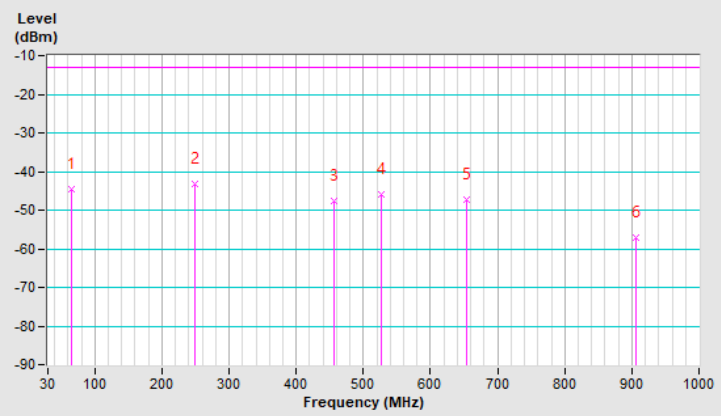
LTE Band 5, Channel Bandwidth 1.4MHz

| | | | |
|---|---|---|---|
| **RF Mode** | LTE Band 5<br>Channel Bandwidth: 10MHz | **Channel** | CH 20525：836.5 MHz |
| **Frequency Range** | 30 MHz ~ 1 GHz | | |

| Antenna Polarity & Test Distance : Horizontal at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **No** | **Frequency (MHz)** | **ERP (dBm)** | **Limit (dBm)** | **Margin (dB)** | **Antenna Height (m)** | **Table Angle (Degree)** | **Raw Value (dBuV)** | **Correction Factor (dB/m)** |
| 1 | 65.89 | -44.63 | -13.00 | -31.63 | 1.00 H | 321 | 66.54 | -111.17 |
| 2 | 248.25 | -43.15 | -13.00 | -30.15 | 1.50 H | 195 | 67.93 | -111.08 |
| 3 | 455.83 | -47.49 | -13.00 | -34.49 | 1.00 H | 193 | 57.82 | -105.31 |
| 4 | 527.61 | -45.79 | -13.00 | -32.79 | 2.00 H | 233 | 57.93 | -103.72 |
| 5 | 654.68 | -47.42 | -13.00 | -34.42 | 1.00 H | 18 | 54.33 | -101.75 |
| 6 | 905.91 | -57.14 | -13.00 | -44.14 | 1.50 H | 2 | 41.25 | -98.39 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

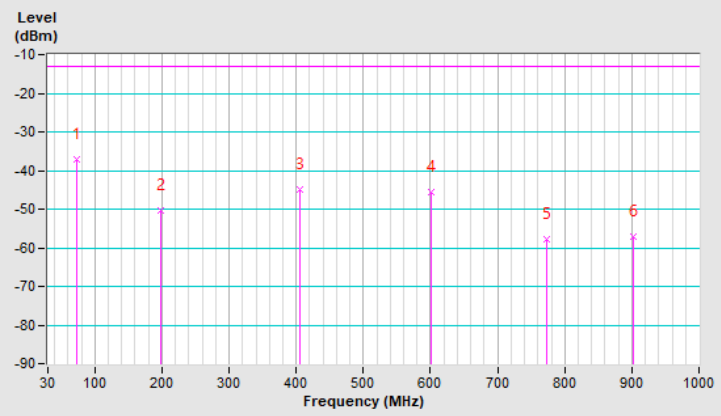


| RF Mode | LTE Band 5<br>Channel Bandwidth: 10MHz | Channel | CH 20525：836.5 MHz |
|---|---|---|---|
| Frequency Range | 30 MHz ~ 1 GHz | | |

| Antenna Polarity & Test Distance : Vertical at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 73.65 | -37.13 | -13.00 | -24.13 | 1.00 V | 101 | 75.39 | -112.52 |
| 2 | 198.78 | -50.24 | -13.00 | -37.24 | 1.00 V | 330 | 62.79 | -113.03 |
| 3 | 405.39 | -44.85 | -13.00 | -31.85 | 1.00 V | 2 | 61.98 | -106.83 |
| 4 | 600.36 | -45.45 | -13.00 | -32.45 | 1.50 V | 340 | 57.33 | -102.78 |
| 5 | 773.99 | -57.68 | -13.00 | -44.68 | 2.00 V | 161 | 41.43 | -99.11 |
| 6 | 903.00 | -57.10 | -13.00 | -44.10 | 2.00 V | 246 | 41.34 | -98.44 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



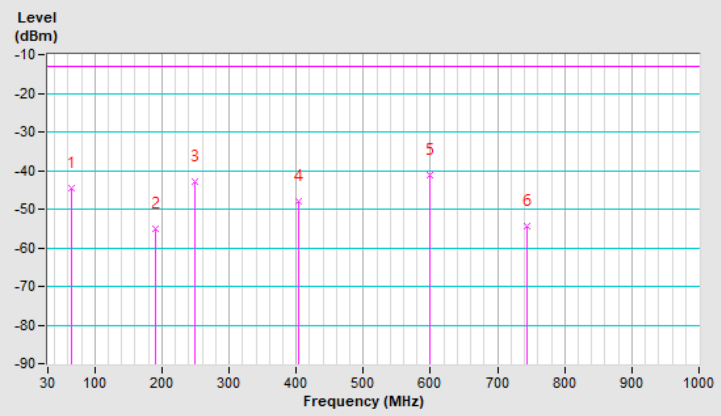
LTE Band 26, Channel Bandwidth 15MHz

| RF Mode | LTE Band 26<br>Channel Bandwidth: 15MHz | Channel | CH 26915：836.5 MHz |
|---|---|---|---|
| Frequency Range | 30 MHz ~ 1 GHz | | |

| Antenna Polarity & Test Distance : Horizontal at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 65.89 | -44.73 | -13.00 | -31.73 | 1.50 H | 319 | 66.44 | -111.17 |
| 2 | 190.05 | -55.02 | -13.00 | -42.02 | 1.50 H | 237 | 57.48 | -112.50 |
| 3 | 248.25 | -42.97 | -13.00 | -29.97 | 1.00 H | 208 | 68.11 | -111.08 |
| 4 | 404.42 | -47.85 | -13.00 | -34.85 | 2.00 H | 45 | 59.01 | -106.86 |
| 5 | 599.39 | -41.31 | -13.00 | -28.31 | 2.00 H | 12 | 61.49 | -102.80 |
| 6 | 743.92 | -54.42 | -13.00 | -41.42 | 1.00 H | 180 | 45.16 | -99.58 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

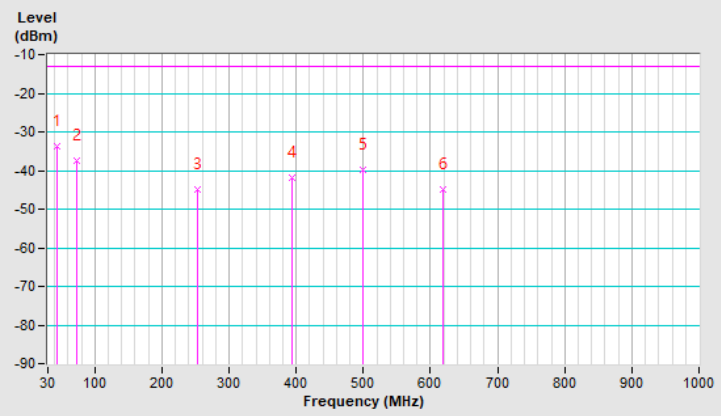


| RF Mode | LTE Band 26<br>Channel Bandwidth: 15MHz | Channel | CH 26915：836.5 MHz |
|---|---|---|---|
| Frequency Range | 30 MHz ~ 1 GHz | | |

| Antenna Polarity & Test Distance : Vertical at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| **1** | **44.55** | **-33.77** | **-13.00** | **-20.77** | **1.00 V** | **255** | **75.93** | **-109.70** |
| 2 | 73.65 | -37.50 | -13.00 | -24.50 | 2.00 V | 84 | 75.02 | -112.52 |
| 3 | 252.13 | -44.86 | -13.00 | -31.86 | 1.00 V | 18 | 66.09 | -110.95 |
| 4 | 393.75 | -41.96 | -13.00 | -28.96 | 1.50 V | 251 | 65.07 | -107.03 |
| 5 | 498.51 | -39.68 | -13.00 | -26.68 | 1.00 V | 18 | 64.67 | -104.35 |
| 6 | 617.82 | -44.89 | -13.00 | -31.89 | 2.00 V | 341 | 57.38 | -102.27 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



**Above 1GHz**

| RF Mode | WCDMA Band V | Channel | CH 4182：836.4 MHz |
|---|---|---|---|
| Frequency Range | 1 GHz ~ 18 GHz | | |

| Antenna Polarity & Test Distance : Horizontal at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 1672.80 | -48.27 | -13.00 | -35.27 | 1.05 H | 334 | 69.72 | -117.99 |
| **Antenna Polarity & Test Distance : Vertical at 3 m** | | | | | | | | |
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 1672.80 | -52.14 | -13.00 | -39.14 | 1.23 V | 232 | 65.85 | -117.99 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

| RF Mode | LTE Band 5<br>Channel Bandwidth: 10MHz | Channel | CH 20525：836.5 MHz |
|---|---|---|---|
| Frequency Range | 1 GHz ~ 18 GHz | | |

| Antenna Polarity & Test Distance : Horizontal at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 1673.00 | -48.20 | -13.00 | -35.20 | 1.23 H | 324 | 69.79 | -117.99 |
| **Antenna Polarity & Test Distance : Vertical at 3 m** | | | | | | | | |
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 1673.00 | -52.05 | -13.00 | -39.05 | 1.05 V | 243 | 65.94 | -117.99 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

| RF Mode | LTE Band 26<br>Channel Bandwidth: 15MHz | Channel | CH 26915：836.5 MHz |
|---|---|---|---|
| Frequency Range | 1 GHz ~ 18 GHz | | |

| Antenna Polarity & Test Distance : Horizontal at 3 m | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 1673.00 | -41.72 | -13.00 | -28.72 | 1.12 H | 152 | 76.27 | -117.99 |
| **Antenna Polarity & Test Distance : Vertical at 3 m** | | | | | | | | |
| No | Frequency (MHz) | ERP (dBm) | Limit (dBm) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
| 1 | 1673.00 | -39.43 | -13.00 | -26.43 | 2.87 V | 182 | 78.56 | -117.99 |

**Remarks:**

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

## 5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

**Appendix – Information of the Testing Laboratories**

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following: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The address and road map of all our labs can be found in our web site also.

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