

# FCC RADIO TEST REPORT

FCC ID : ACJFZA3A20A  
Equipment : Radio module  
Brand Name : Panasonic  
Model Name : WW18A  
Marketing Name : WW18A  
Applicant : Panasonic Corporation of North America  
Two Riverfront Plaza, 9th Floor, Newark, NJ  
07102-5490  
Manufacturer : Panasonic Mobile Communications Co., Ltd.  
600 Saedo-cho, Tsuzuki-ku, Yokohama City  
224-8539, Japan  
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27

The product was received on Nov. 26, 2019 and testing was started from Jun. 10, 2020 and completed on Jun. 13, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



## Table of Contents

|                                                              |           |
|--------------------------------------------------------------|-----------|
| <b>History of this test report.....</b>                      | <b>3</b>  |
| <b>Summary of Test Result.....</b>                           | <b>4</b>  |
| <b>1 General Description .....</b>                           | <b>6</b>  |
| 1.1 Product Feature of Equipment Under Test.....             | 6         |
| 1.2 Modification of EUT .....                                | 6         |
| 1.3 Testing Location .....                                   | 7         |
| 1.4 Applicable Standards.....                                | 7         |
| <b>2 Test Configuration of Equipment Under Test .....</b>    | <b>8</b>  |
| 2.1 Test Mode.....                                           | 8         |
| 2.2 Connection Diagram of Test System.....                   | 8         |
| 2.3 Support Unit used in test configuration and system ..... | 9         |
| 2.4 Frequency List of Low/Middle/High Channels .....         | 9         |
| <b>3 Radiated Test Items .....</b>                           | <b>13</b> |
| 3.1 Measuring Instruments .....                              | 13        |
| 3.2 Radiated Spurious Emission Measurement .....             | 15        |
| <b>4 List of Measuring Equipment.....</b>                    | <b>16</b> |
| <b>5 Uncertainty of Evaluation .....</b>                     | <b>17</b> |
| <b>Appendix A. Test Results of Radiated Test</b>             |           |
| <b>Appendix B. Test Setup Photographs</b>                    |           |



## History of this test report

| Report No.   | Version | Description             | Issued Date   |
|--------------|---------|-------------------------|---------------|
| FG992410-07B | 01      | Initial issue of report | Jun. 18, 2020 |
|              |         |                         |               |
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|              |         |                         |               |

## Summary of Test Result

| Report Clause | Ref Std. Clause                                                                       | Test Items                                                                                         | Result (PASS/FAIL) | Remark |
|---------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------|--------|
| -             | §2.1046                                                                               | Conducted Output Power                                                                             | Not Required       | -      |
|               | §22.913 (a)(2)                                                                        | Effective Radiated Power (Band 5) (Band 26)                                                        |                    |        |
|               | §27.50 (b)(10)<br>§27.50 (c)(10)                                                      | Effective Radiated Power (Band 12) (Band 13)                                                       |                    |        |
|               | §24.232 (c)<br>§27.50 (h)(2)                                                          | Equivalent Isotropic Radiated Power (Band 2)(Band 7) (Band 41)                                     |                    |        |
|               | §27.50 (d)(4)                                                                         | Equivalent Isotropic Radiated Power (Band 4) (Band 66)                                             |                    |        |
| -             | §24.232 (d)<br>§27.50 (d)(5)                                                          | Peak-to-Average Ratio                                                                              | Not Required       | -      |
| -             | §2.1049                                                                               | Occupied Bandwidth                                                                                 | Not Required       | -      |
| -             | §2.1051<br>§22.917 (a)<br>§24.238 (a)<br>§27.53 (c)(2)(4)<br>§27.53 (g)<br>§27.53 (h) | Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 26) (Band 66) | Not Required       | -      |
|               | §2.1051<br>§27.53 (m)(4)                                                              | Conducted Band Edge Measurement (Band 7) (Band 41)                                                 |                    |        |
| -             | §2.1051<br>§22.917 (a)<br>§24.238 (a)<br>§27.53 (c)(2)<br>§27.53 (g)<br>§27.53 (h)    | Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 26) (Band 66)     | Not Required       | -      |
|               | §2.1051<br>§27.53 (m)(4)                                                              | Conducted Spurious Emission (Band 7) (Band 41)                                                     |                    |        |
| -             | §2.1055<br>§22.355<br>§24.235<br>§27.54                                               | Frequency Stability<br>Temperature & Voltage                                                       | Not Required       | -      |



| Report Clause | Ref Std. Clause                                                                                         | Test Items                                                                                             | Result (PASS/FAIL) | Remark                                    |
|---------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------|
| 3.2           | \$2.1053<br>\$22.917 (a)<br>\$24.238 (a)<br>\$27.53 (c)(2)<br>\$27.53 (f)<br>\$27.53 (g)<br>\$27.53 (h) | Radiated Spurious Emission<br>(Band 2) (Band 4) (Band 5)<br>(Band 12) (Band 13) (Band 26)<br>(Band 66) | Pass               | Under limit<br>7.58 dB at<br>5282.000 MHz |
|               | \$2.1051<br>\$27.53 (m)(4)                                                                              | Radiated Spurious Emission<br>(Band 7) (Band 41)                                                       |                    |                                           |

**Remark:**

1. Not required means after assessing, test items are not necessary to carry out.
2. This is a variant report by adding Vehicle Dock and External Antenna for host. All the test cases were performed on original report which can be referred to Sporton Report Number FG992410-02B.

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Wii Chang****Report Producer: Lucy Wu**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

WCDMA and LTE.

| Product Specification subjective to this standard |                                                                                                        |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Integrated the Host                               | Equipment Name: Tablet Computer<br>Brand Name: Panasonic<br>Model Name: FZ-A3<br>Marketing Name: FZ-A3 |
| Antenna Type                                      | WWAN: Fixed Internal Antenna                                                                           |

| Specification of Accessory for Host |            |                    |
|-------------------------------------|------------|--------------------|
| AC Adapter                          | Brand Name | Panasonic          |
|                                     | Model Name | CF-AA6413A         |
| Battery 1 (Small)                   | Brand Name | Panasonic          |
|                                     | Model Name | FZ-VZSUT10U        |
| Battery 2 (Large)                   | Brand Name | Panasonic          |
|                                     | Model Name | FZ-VZSUT11U        |
| USB Cable 1                         | Brand Name | Panasonic          |
|                                     | Model Name | K1HY24YY0021       |
| USB Cable 2                         | Brand Name | ELECOM             |
|                                     | Model Name | USB3-AC10BK        |
| Gadget 1 (2nd USB)                  | Brand Name | Panasonic          |
|                                     | Model Name | N/A                |
| Gadget 2 (BCR)                      | Brand Name | Panasonic          |
|                                     | Model Name | N/A                |
| Cradle                              | Brand Name | Panasonic          |
|                                     | Model Name | FZ-VEBA21U         |
| Vehicle Dock                        | Brand Name | Havis              |
|                                     | Model Name | DS-PAN-1401-2      |
| Shoulder Strap                      | Brand Name | Panasonic          |
|                                     | Model Name | CF-VNS331U         |
| Stylus Pen                          | Brand Name | Panasonic          |
|                                     | Model Name | CF-VNP025U         |
| External antenna (2.4G+5G+GNSS)     | Brand Name | Airgain            |
|                                     | Model Name | AP-PAN-MMF WG-Q-BL |
| External antenna (Cellular+2.4G)    | Brand Name | Airgain            |
|                                     | Model Name | AP-PAN-MMF-C-Q-BL  |
| External antenna (GNSS)             | Brand Name | Airgain            |
|                                     | Model Name | DHXX1052ZA/X1      |

Remark: The external antenna can only be connected to the Host WLAN antenna 1.

## 1.2 Modification of EUT

No modifications are made to the EUT during all test items.



### 1.3 Testing Location

|                           |                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory                                                                       |
| <b>Test Site Location</b> | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,<br>Taoyuan City, Taiwan (R.O.C.)<br>TEL: +886-3-327-0868<br>FAX: +886-3-327-0855 |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b><br>03CH13-HY                                                                                                      |
| <b>Test Engineer</b>      | Jacky Hung and Wilson Wu                                                                                                                  |
| <b>Temperature</b>        | 21.5~23.5℃                                                                                                                                |
| <b>Relative Humidity</b>  | 49.5~55.5%                                                                                                                                |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW0007

### 1.4 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 22(H), 24(E), 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. The TAF code is not including all the FCC KDB listed without accreditation.

## 2 Test Configuration of Equipment Under Test

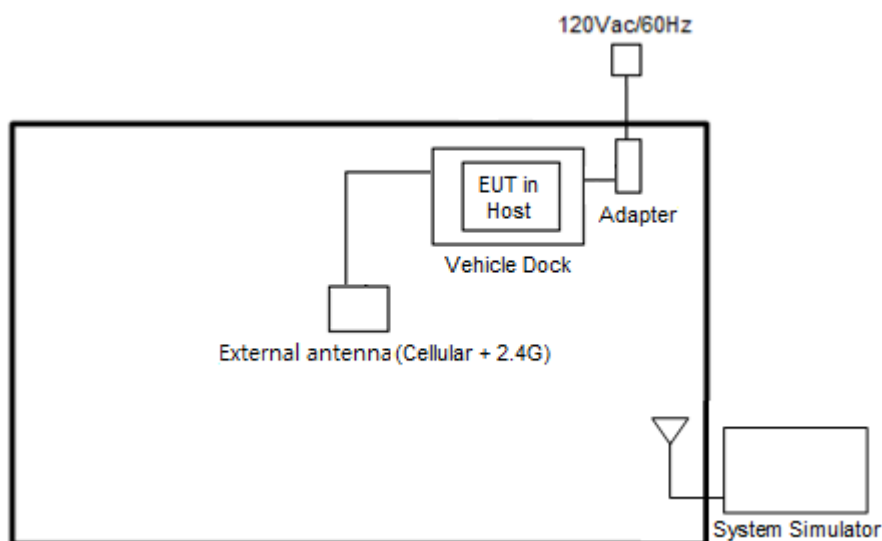
### 2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X Plane for LTE Band 2, 4, 12, 41, 66; Z Plane for LTE Band 7, 13, 26) were recorded in this report.

| Test Items                 | Band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bandwidth (MHz)    |   |   |    |    |    | Modulation |       |       | RB # |      |      | Test Channel |   |   |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---|---|----|----|----|------------|-------|-------|------|------|------|--------------|---|---|
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.4                | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 64QAM | 1    | Half | Full | L            | M | H |
| Radiated Spurious Emission | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |   |   |    |    | v  | v          |       |       |      |      | v    | v            | v | v |
|                            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |   |   |    |    | v  | v          |       |       |      |      | v    | v            | v | v |
|                            | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Covered by Band 26 |   |   |    |    |    |            |       |       |      |      |      |              |   |   |
|                            | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | - |   |    |    | v  | v          |       |       |      |      | v    | v            | v | v |
|                            | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |   |   | v  | -  | -  | v          |       |       |      |      | v    | v            | v | v |
|                            | 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | - | v | v  | -  | -  | v          |       |       |      |      | v    | v            | v | v |
|                            | 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |   |   |    | v  | -  | v          |       |       |      |      | v    | v            | v | v |
|                            | 41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | - |   |    |    | v  | v          |       |       |      |      | v    | v            | v | v |
|                            | 66                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |   |   |    |    | v  | v          |       |       |      |      | v    | v            | v | v |
| Remark                     | <ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.</li> <li>All the radiated test cases were performed with Battery 1.</li> <li>Wider operating range bandwidth covers narrower one when the power is higher or the same.</li> </ol> |                    |   |   |    |    |    |            |       |       |      |      |      |              |   |   |

### 2.2 Connection Diagram of Test System







## 2.3 Support Unit used in test configuration and system

| Item | Equipment        | Trade Name | Model No. | FCC ID | Data Cable | Power Cord        |
|------|------------------|------------|-----------|--------|------------|-------------------|
| 1.   | System Simulator | Anritsu    | MT8820C   | N/A    | N/A        | Unshielded, 1.8 m |

## 2.4 Frequency List of Low/Middle/High Channels

| LTE Band 2 Channel and Frequency List |                        |        |        |         |
|---------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                              | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                    | Channel                | 18700  | 18900  | 19100   |
|                                       | Frequency              | 1860   | 1880   | 1900    |
| 15                                    | Channel                | 18675  | 18900  | 19125   |
|                                       | Frequency              | 1857.5 | 1880   | 1902.5  |
| 10                                    | Channel                | 18650  | 18900  | 19150   |
|                                       | Frequency              | 1855   | 1880   | 1905    |
| 5                                     | Channel                | 18625  | 18900  | 19175   |
|                                       | Frequency              | 1852.5 | 1880   | 1907.5  |
| 3                                     | Channel                | 18615  | 18900  | 19185   |
|                                       | Frequency              | 1851.5 | 1880   | 1908.5  |
| 1.4                                   | Channel                | 18607  | 18900  | 19193   |
|                                       | Frequency              | 1850.7 | 1880   | 1909.3  |

| LTE Band 4 Channel and Frequency List |                        |        |        |         |
|---------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                              | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                    | Channel                | 20050  | 20175  | 20300   |
|                                       | Frequency              | 1720   | 1732.5 | 1745    |
| 15                                    | Channel                | 20025  | 20175  | 20325   |
|                                       | Frequency              | 1717.5 | 1732.5 | 1747.5  |
| 10                                    | Channel                | 20000  | 20175  | 20350   |
|                                       | Frequency              | 1715   | 1732.5 | 1750    |
| 5                                     | Channel                | 19975  | 20175  | 20375   |
|                                       | Frequency              | 1712.5 | 1732.5 | 1752.5  |
| 3                                     | Channel                | 19965  | 20175  | 20385   |
|                                       | Frequency              | 1711.5 | 1732.5 | 1753.5  |
| 1.4                                   | Channel                | 19957  | 20175  | 20393   |
|                                       | Frequency              | 1710.7 | 1732.5 | 1754.3  |



| LTE Band 5 Channel and Frequency List |                        |        |        |         |
|---------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                              | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 10                                    | Channel                | 20450  | 20525  | 20600   |
|                                       | Frequency              | 829    | 836.5  | 844     |
| 5                                     | Channel                | 20425  | 20525  | 20625   |
|                                       | Frequency              | 826.5  | 836.5  | 846.5   |
| 3                                     | Channel                | 20415  | 20525  | 20635   |
|                                       | Frequency              | 825.5  | 836.5  | 847.5   |
| 1.4                                   | Channel                | 20407  | 20525  | 20643   |
|                                       | Frequency              | 824.7  | 836.5  | 848.3   |

| LTE Band 7 Channel and Frequency List |                        |        |        |         |
|---------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                              | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                    | Channel                | 20850  | 21100  | 21350   |
|                                       | Frequency              | 2510   | 2535   | 2560    |
| 15                                    | Channel                | 20825  | 21100  | 21375   |
|                                       | Frequency              | 2507.5 | 2535   | 2562.5  |
| 10                                    | Channel                | 20800  | 21100  | 21400   |
|                                       | Frequency              | 2505   | 2535   | 2565    |
| 5                                     | Channel                | 20775  | 21100  | 21425   |
|                                       | Frequency              | 2502.5 | 2535   | 2567.5  |

| LTE Band 12 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 10                                     | Channel                | 23060  | 23095  | 23130   |
|                                        | Frequency              | 704    | 707.5  | 711     |
| 5                                      | Channel                | 23035  | 23095  | 23155   |
|                                        | Frequency              | 701.5  | 707.5  | 713.5   |
| 3                                      | Channel                | 23025  | 23095  | 23165   |
|                                        | Frequency              | 700.5  | 707.5  | 714.5   |
| 1.4                                    | Channel                | 23017  | 23095  | 23173   |
|                                        | Frequency              | 699.7  | 707.5  | 715.3   |



| LTE Band 13 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 10                                     | Channel                | -      | 23230  | -       |
|                                        | Frequency              | -      | 782    | -       |
| 5                                      | Channel                | 23205  | 23230  | 23255   |
|                                        | Frequency              | 779.5  | 782    | 784.5   |

| LTE Band 26 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 15                                     | Channel                | 26865  | 26915  | 26965   |
|                                        | Frequency              | 831.5  | 836.5  | 841.5   |
| 10                                     | Channel                | 26840  | 26915  | 26990   |
|                                        | Frequency              | 829.0  | 836.5  | 844.0   |
| 5                                      | Channel                | 26815  | 26915  | 27015   |
|                                        | Frequency              | 826.5  | 836.5  | 846.5   |
| 3                                      | Channel                | 26805  | 26915  | 27025   |
|                                        | Frequency              | 825.5  | 836.5  | 847.5   |
| 1.4                                    | Channel                | 26797  | 26915  | 27033   |
|                                        | Frequency              | 824.7  | 836.5  | 848.3   |

| LTE Band 41 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                     | Channel                | 39750  | 40620  | 41490   |
|                                        | Frequency              | 2506.0 | 2593.0 | 2680.0  |
| 15                                     | Channel                | 39725  | 40620  | 41515   |
|                                        | Frequency              | 2503.5 | 2593.0 | 2682.5  |
| 10                                     | Channel                | 39700  | 40620  | 41540   |
|                                        | Frequency              | 2501.0 | 2593.0 | 2685.0  |
| 5                                      | Channel                | 39675  | 40620  | 41565   |
|                                        | Frequency              | 2498.5 | 2593.0 | 2687.5  |



| LTE Band 66 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                     | Channel                | 132072 | 132322 | 132572  |
|                                        | Frequency              | 1720   | 1745   | 1770    |
| 15                                     | Channel                | 132047 | 132322 | 132597  |
|                                        | Frequency              | 1717.5 | 1745   | 1772.5  |
| 10                                     | Channel                | 132022 | 132322 | 132622  |
|                                        | Frequency              | 1715   | 1745   | 1775    |
| 5                                      | Channel                | 131997 | 132322 | 132647  |
|                                        | Frequency              | 1712.5 | 1745   | 1777.5  |
| 3                                      | Channel                | 131987 | 132322 | 132657  |
|                                        | Frequency              | 1711.5 | 1745   | 1778.5  |
| 1.4                                    | Channel                | 131979 | 132322 | 132665  |
|                                        | Frequency              | 1710.7 | 1745   | 1779.3  |

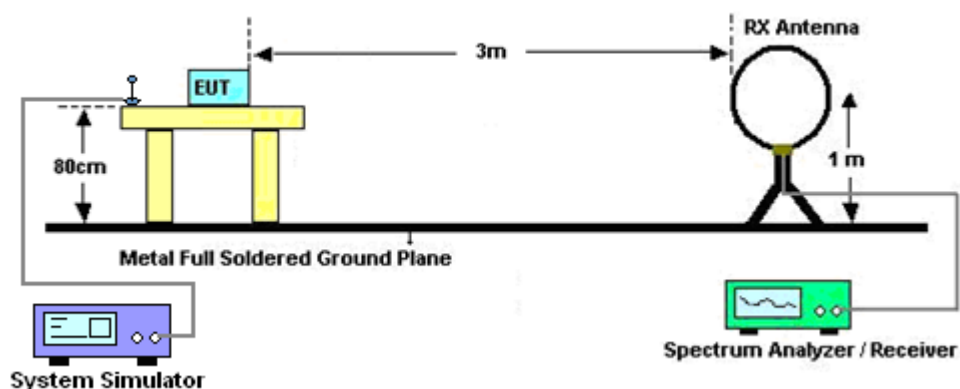
### 3 Radiated Test Items

#### 3.1 Measuring Instruments

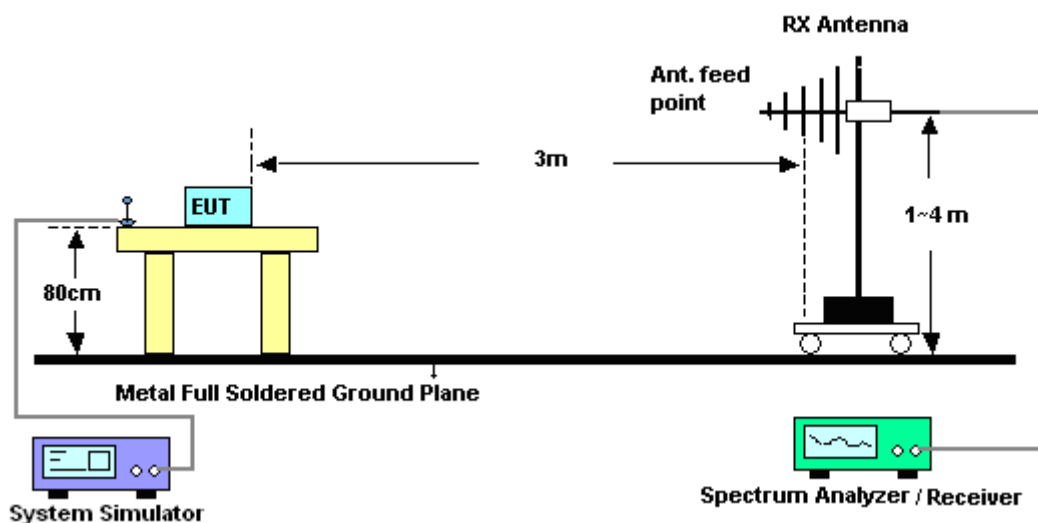
See list of measuring instruments of this test report.

##### 3.1.1 Test Setup

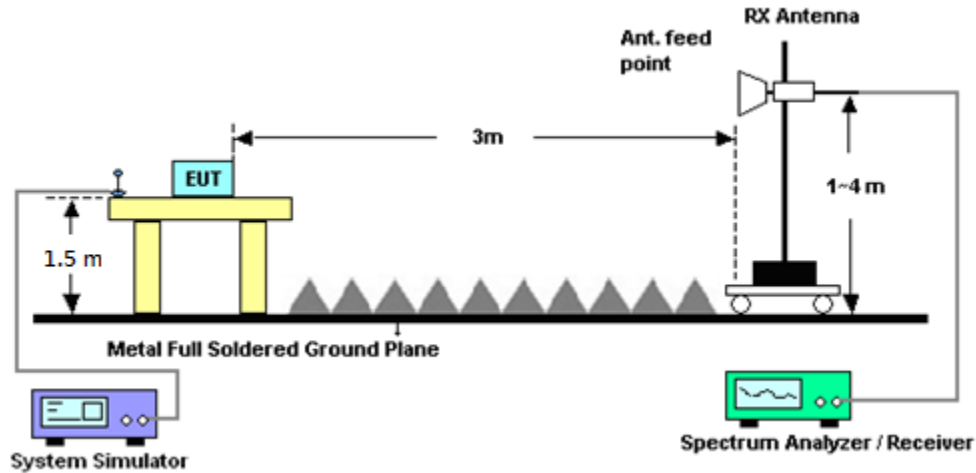
For radiated emissions below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



### 3.1.2 Test Result of Radiated Test

Please refer to Appendix A.

#### Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.



## **3.2 Radiated Spurious Emission Measurement**

### **3.2.1 Description of Radiated Spurious Emission Measurement**

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

For LTE Band 7, 41

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $55 + 10 \log (P)$  dB.

For LTE Band 13

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to  $-70$  dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and  $-80$  dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### **3.2.2 Test Procedures**

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

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

For LTE Band 7, 41

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

$EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$

$ERP \text{ (dBm)} = EIRP - 2.15$



## 4 List of Measuring Equipment

| Instrument              | Manufacturer      | Model No.                           | Serial No.      | Characteristics                  | Calibration Date | Test Date                       | Due Date      | Remark                   |
|-------------------------|-------------------|-------------------------------------|-----------------|----------------------------------|------------------|---------------------------------|---------------|--------------------------|
| Amplifier               | Sonoma-Instrument | 310 N                               | 187282          | 9KHz~1GHz                        | Dec. 17, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Dec. 16, 2020 | Radiation<br>(03CH13-HY) |
| Bilog Antenna           | TESEQ             | CBL<br>6111D&00800<br>N1D01N-06     | 40103&07        | 30MHz to 1GHz                    | Apr. 29, 2020    | Jun. 10, 2020~<br>Jun. 13, 2020 | Apr. 28, 2021 | Radiation<br>(03CH13-HY) |
| Bilog Antenna           | TESEQ             | CBL<br>6111D&00800<br>N1D01N-06     | 41912 & 07      | 30MHz to 1GHz                    | Apr. 29, 2020    | Jun. 10, 2020~<br>Jun. 13, 2020 | Apr. 28, 2021 | Radiation<br>(03CH13-HY) |
| Horn Antenna            | SCHWARZBECK       | BBHA 9120 D                         | 9120D-1241      | 1GHz ~ 18GHz                     | Jul. 02, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Jul. 01, 2020 | Radiation<br>(03CH13-HY) |
| Horn Antenna            | SCHWARZBECK       | BBHA 9120 D                         | 9120D-1212      | 1GHz ~ 18GHz                     | May 20, 2020     | Jun. 10, 2020~<br>Jun. 13, 2020 | May 19, 2021  | Radiation<br>(03CH13-HY) |
| Preamplifier            | MITEQ             | AMF-7D-0010<br>1800-30-10P          | 1590074         | 1GHz~18GHz                       | May 19, 2020     | Jun. 10, 2020~<br>Jun. 13, 2020 | May 18, 2021  | Radiation<br>(03CH13-HY) |
| Preamplifier            | Keysight          | 83017A                              | MY53270147      | 1GHz~26.5GHz                     | Oct. 28, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Oct. 27, 2020 | Radiation<br>(03CH13-HY) |
| Signal Generator        | Rohde & Schwarz   | SMF100A                             | 101107          | 100kHz~40GHz                     | Aug. 27, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Aug. 26, 2020 | Radiation<br>(03CH13-HY) |
| Spectrum Analyzer       | Keysight          | N9010A                              | MY55370526      | 10Hz~44GHz                       | Mar. 20, 2020    | Jun. 10, 2020~<br>Jun. 13, 2020 | Mar. 19, 2021 | Radiation<br>(03CH13-HY) |
| Controller              | EMEC              | EM1000                              | N/A             | Control Turn<br>table & Ant Mast | N/A              | Jun. 10, 2020~<br>Jun. 13, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| Antenna Mast            | EMEC              | AM-BS-4500-B                        | N/A             | 1m~4m                            | N/A              | Jun. 10, 2020~<br>Jun. 13, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| Turn Table              | EMEC              | TT2000                              | N/A             | 0~360 Degree                     | N/A              | Jun. 10, 2020~<br>Jun. 13, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| Software                | Audix             | E3<br>6.2009-8-24                   | RK-000992       | N/A                              | N/A              | Jun. 10, 2020~<br>Jun. 13, 2020 | N/A           | Radiation<br>(03CH13-HY) |
| Preamplifier            | EMEC              | EM18G40G                            | 060715          | 18GHz ~ 40GHz                    | Dec. 13, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Dec. 12, 2020 | Radiation<br>(03CH13-HY) |
| RF Cable                | HUBER +<br>SUHNER | SUCOFLEX<br>126E                    | 0030/126E       | 30M-18G                          | Feb. 12, 2020    | Jun. 10, 2020~<br>Jun. 13, 2020 | Feb. 21, 2021 | Radiation<br>(03CH13-HY) |
| RF Cable                | HUBER +<br>SUHNER | SUCOFLEX<br>104                     | 804793/4        | 30M-18G                          | Feb. 12, 2020    | Jun. 10, 2020~<br>Jun. 13, 2020 | Feb. 21, 2021 | Radiation<br>(03CH13-HY) |
| RF Cable                | HUBER +<br>SUHNER | SUCOFLEX<br>102                     | 505134/2        | 30M~40GHz                        | Feb. 25, 2020    | Jun. 10, 2020~<br>Jun. 13, 2020 | Feb. 24, 2021 | Radiation<br>(03CH13-HY) |
| SHF-EHF Horn<br>Antenna | SCHWARZBECK       | BBHA 9170                           | BBHA917058<br>4 | 18GHz- 40GHz                     | Dec. 10, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Dec. 09, 2020 | Radiation<br>(03CH13-HY) |
| SHF-EHF Horn<br>Antenna | SCHWARZBECK       | BBHA 9170                           | BBHA917098<br>0 | 18GHz~40GHz                      | Jan. 10, 2020    | Jun. 10, 2020~<br>Jun. 13, 2020 | Jan. 09, 2021 | Radiation<br>(03CH13-HY) |
| Filter                  | Wainwright        | WHKX12-2700<br>-3000-18000-6<br>OSS | SN2             | 3GHz High Pass<br>Filter         | Jul. 14, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Jul. 13, 2020 | Radiation<br>(03CH13-HY) |
| Filter                  | Wainwright        | WHKX12-1080<br>-1200-15000-6<br>OSS | SN3             | 1.2GHz High<br>Pass Filter       | Jul. 03, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Jul. 02, 2020 | Radiation<br>(03CH13-HY) |
| Hygrometer              | TECEPEL           | DTM-303B                            | TP157151        | N/A                              | Jun. 17, 2019    | Jun. 10, 2020~<br>Jun. 13, 2020 | Jun. 16, 2020 | Radiation<br>(03CH13-HY) |





## 5 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ ) | 3.21 |
|--------------------------------------------------------------------------|------|

### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ ) | 3.24 |
|--------------------------------------------------------------------------|------|

### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

|                                                                          |      |
|--------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_c(y)$ ) | 3.99 |
|--------------------------------------------------------------------------|------|



## Appendix A. Test Results of Radiated Test

LTE Band 4

| LTE Band 4 / 20MHz / QPSK |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|---------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                   | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                    | 3420                 | -30.49          | -13              | -17.49                  | -49.52                  | -40.85                   | 1.80                       | 12.16                       | H                     |
|                           | 5135                 | -40.10          | -13              | -27.10                  | -63.51                  | -49.92                   | 2.30                       | 12.13                       | H                     |
|                           | 6843                 | -45.31          | -13              | -32.31                  | -71.49                  | -54.00                   | 2.37                       | 11.06                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 3420                 | -37.67          | -13              | -24.67                  | -57.33                  | -48.03                   | 1.80                       | 12.16                       | V                     |
|                           | 5135                 | -34.16          | -13              | -21.16                  | -58.14                  | -43.98                   | 2.30                       | 12.13                       | V                     |
|                           | 6843                 | -43.42          | -13              | -30.42                  | -70.15                  | -52.11                   | 2.37                       | 11.06                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                    | 3448                 | -28.57          | -13              | -15.57                  | -47.86                  | -38.99                   | 1.83                       | 12.24                       | H                     |
|                           | 5170                 | -36.77          | -13              | -23.77                  | -60.21                  | -46.61                   | 2.29                       | 12.13                       | H                     |
|                           | 6892                 | -42.60          | -13              | -29.60                  | -68.93                  | -51.22                   | 2.38                       | 11.01                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 3448                 | -38.37          | -13              | -25.37                  | -58.23                  | -48.79                   | 1.83                       | 12.24                       | V                     |
|                           | 5170                 | -33.58          | -13              | -20.58                  | -57.58                  | -43.42                   | 2.29                       | 12.13                       | V                     |
|                           | 6892                 | -41.10          | -13              | -28.10                  | -68.02                  | -49.72                   | 2.38                       | 11.01                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 3469 | -30.35 | -13 | -17.35 | -49.84 | -40.81 | 1.84 | 12.31 | H |
|         | 5205 | -32.70 | -13 | -19.70 | -56.17 | -42.57 | 2.28 | 12.14 | H |
|         | 6941 | -41.76 | -13 | -28.76 | -68.25 | -50.32 | 2.40 | 10.96 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 3469 | -37.99 | -13 | -24.99 | -58.04 | -48.45 | 1.84 | 12.31 | V |
|         | 5205 | -28.60 | -13 | -15.60 | -52.62 | -38.47 | 2.28 | 12.14 | V |
|         | 6941 | -34.96 | -13 | -21.96 | -62.07 | -43.52 | 2.40 | 10.96 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**LTE Band 66**

| LTE Band 66 / 20MHz / QPSK |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                    | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                     | 3420                 | -29.80          | -13              | -16.80                  | -48.83                  | -40.16                   | 1.80                       | 12.16                       | H                     |
|                            | 5135                 | -37.12          | -13              | -24.12                  | -60.53                  | -46.94                   | 2.30                       | 12.13                       | H                     |
|                            | 6843                 | -46.04          | -13              | -33.04                  | -72.22                  | -54.73                   | 2.37                       | 11.06                       | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            | 3420                 | -37.51          | -13              | -24.51                  | -57.17                  | -47.87                   | 1.80                       | 12.16                       | V                     |
|                            | 5135                 | -34.14          | -13              | -21.14                  | -58.12                  | -43.96                   | 2.30                       | 12.13                       | V                     |
|                            | 6843                 | -41.85          | -13              | -28.85                  | -68.58                  | -50.54                   | 2.37                       | 11.06                       | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 3476                 | -27.82          | -13              | -14.82                  | -47.37                  | -38.30                   | 1.85                       | 12.33                       | H                     |
|                            | 5212                 | -29.41          | -13              | -16.41                  | -52.88                  | -39.28                   | 2.27                       | 12.14                       | H                     |
|                            | 6948                 | -37.95          | -13              | -24.95                  | -64.45                  | -46.50                   | 2.40                       | 10.95                       | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            | 3476                 | -33.64          | -13              | -20.64                  | -53.69                  | -44.12                   | 1.85                       | 12.33                       | V                     |
|                            | 5212                 | -27.15          | -13              | -14.15                  | -51.17                  | -37.02                   | 2.27                       | 12.14                       | V                     |
|                            | 6948                 | -36.06          | -13              | -23.06                  | -63.19                  | -44.61                   | 2.40                       | 10.95                       | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 3525 | -29.36 | -13 | -16.36 | -49.27 | -39.86 | 1.88 | 12.39 | H |
|         | 5282 | -22.02 | -13 | -9.02  | -45.55 | -31.93 | 2.24 | 12.16 | H |
|         | 7046 | -36.98 | -13 | -23.98 | -63.91 | -45.41 | 2.39 | 10.82 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 3525 | -33.07 | -13 | -20.07 | -53.46 | -43.57 | 1.88 | 12.39 | V |
|         | 5282 | -20.58 | -13 | -7.58  | -44.64 | -30.49 | 2.24 | 12.16 | V |
|         | 7046 | -34.64 | -13 | -21.64 | -62.17 | -43.07 | 2.39 | 10.82 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**LTE Band 12**

| LTE Band 12 / 10MHz / QPSK |                      |                |                  |                         |                         |                          |                            |                             |                       |
|----------------------------|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                    | Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                     | 1408                 | -59.44         | -13.00           | -46.44                  | -73.71                  | -63.92                   | 1.15                       | 7.78                        | H                     |
|                            | 2112                 | -58.33         | -13.00           | -45.33                  | -75.36                  | -64.99                   | 1.38                       | 10.19                       | H                     |
|                            | 2816                 | -57.61         | -13.00           | -44.61                  | -75.42                  | -64.76                   | 1.45                       | 10.75                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            | 1408                 | -59.80         | -13.00           | -46.80                  | -73.53                  | -64.28                   | 1.15                       | 7.78                        | V                     |
|                            | 2112                 | -58.36         | -13.00           | -45.36                  | -75.67                  | -65.02                   | 1.38                       | 10.19                       | V                     |
|                            | 2816                 | -57.05         | -13.00           | -44.05                  | -75.28                  | -64.20                   | 1.45                       | 10.75                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 1415                 | -59.70         | -13.00           | -46.70                  | -73.96                  | -64.21                   | 1.15                       | 7.81                        | H                     |
|                            | 2123                 | -58.11         | -13.00           | -45.11                  | -75.32                  | -64.78                   | 1.38                       | 10.20                       | H                     |
|                            | 2830                 | -57.33         | -13.00           | -44.33                  | -75.18                  | -64.49                   | 1.45                       | 10.76                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1415                 | -60.10         | -13.00           | -47.10                  | -73.83                  | -64.61                   | 1.15                       | 7.81                        | V                     |
|                            | 2123                 | -57.85         | -13.00           | -44.85                  | -75.37                  | -64.52                   | 1.38                       | 10.20                       | V                     |
|                            | 2830                 | -57.41         | -13.00           | -44.41                  | -75.68                  | -64.57                   | 1.45                       | 10.76                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |        |        |        |        |      |       |   |
|---------|------|--------|--------|--------|--------|--------|------|-------|---|
| Highest | 1422 | -59.63 | -13.00 | -46.63 | -73.85 | -64.17 | 1.15 | 7.84  | H |
|         | 2133 | -57.75 | -13.00 | -44.75 | -75.13 | -64.43 | 1.38 | 10.21 | H |
|         | 2844 | -57.53 | -13.00 | -44.53 | -75.41 | -64.70 | 1.45 | 10.78 | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         | 1422 | -60.29 | -13.00 | -47.29 | -74.00 | -64.83 | 1.15 | 7.84  | V |
|         | 2133 | -57.66 | -13.00 | -44.66 | -75.37 | -64.34 | 1.38 | 10.21 | V |
|         | 2844 | -57.07 | -13.00 | -44.07 | -75.37 | -64.24 | 1.45 | 10.78 | V |
|         |      |        |        |        |        |        |      |       | V |
|         |      |        |        |        |        |        |      |       | V |
|         |      |        |        |        |        |        |      |       | V |
|         |      |        |        |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**LTE Band 13**

| LTE Band 13 / 5MHz / QPSK |                      |                |                  |                         |                         |                          |                            |                             |                       |
|---------------------------|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                   | Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                    | 1554                 | -61.05         | -13              | -48.05                  | -74.41                  | -66.11                   | 1.19                       | 8.41                        | H                     |
|                           | 2332                 | -58.01         | -13              | -45.01                  | -75.52                  | -64.81                   | 1.41                       | 10.37                       | H                     |
|                           | 3109                 | -57.04         | -13              | -44.04                  | -75.80                  | -64.57                   | 1.55                       | 11.23                       | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           | 1554                 | -61.53         | -13.00           | -48.53                  | -74.67                  | -66.59                   | 1.19                       | 8.41                        | V                     |
|                           | 2332                 | -57.31         | -13              | -44.31                  | -75.35                  | -64.11                   | 1.41                       | 10.37                       | V                     |
|                           | 3109                 | -56.64         | -13              | -43.64                  | -75.69                  | -64.17                   | 1.55                       | 11.23                       | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                    | 1560                 | -61.31         | -42.15           | -19.16                  | -74.61                  | -66.40                   | 1.19                       | 8.43                        | H                     |
|                           | 2339                 | -58.14         | -13              | -45.14                  | -75.59                  | -64.95                   | 1.41                       | 10.37                       | H                     |
|                           | 3120                 | -56.97         | -13              | -43.97                  | -75.79                  | -64.52                   | 1.56                       | 11.26                       | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           | 1560                 | -61.92         | -42.15           | -19.77                  | -75.00                  | -67.01                   | 1.19                       | 8.43                        | V                     |
|                           | 2339                 | -57.26         | -13              | -44.26                  | -75.24                  | -64.07                   | 1.41                       | 10.37                       | V                     |
|                           | 3120                 | -56.23         | -13              | -43.23                  | -75.32                  | -63.78                   | 1.56                       | 11.26                       | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |





|         |      |        |        |        |        |        |      |       |   |
|---------|------|--------|--------|--------|--------|--------|------|-------|---|
| Highest | 1569 | -61.71 | -42.15 | -19.56 | -74.91 | -66.83 | 1.20 | 8.46  | H |
|         | 2354 | -58.13 | -13    | -45.13 | -75.48 | -64.95 | 1.42 | 10.38 | H |
|         | 3138 | -56.78 | -13    | -43.78 | -75.67 | -64.37 | 1.57 | 11.31 | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         | 1569 | -61.74 | -42.15 | -19.59 | -74.73 | -66.86 | 1.20 | 8.46  | V |
|         | 2354 | -57.36 | -13    | -44.36 | -75.24 | -64.18 | 1.42 | 10.38 | V |
|         | 3138 | -56.26 | -13    | -43.26 | -75.39 | -63.85 | 1.57 | 11.31 | V |
|         |      |        |        |        |        |        |      |       | V |
|         |      |        |        |        |        |        |      |       | V |
|         |      |        |        |        |        |        |      |       | V |
|         |      |        |        |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



| LTE Band 13 / 10MHz / QPSK |                      |                |                  |                         |                         |                          |                            |                             |                       |
|----------------------------|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                    | Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Middle                     | 1552                 | -61.45         | -13              | -48.45                  | -74.83                  | -66.51                   | 1.19                       | 8.40                        | H                     |
|                            | 2328                 | -57.83         | -13              | -44.83                  | -75.37                  | -64.63                   | 1.41                       | 10.36                       | H                     |
|                            | 3112                 | -56.99         | -13              | -43.99                  | -75.77                  | -64.52                   | 1.55                       | 11.24                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1552                 | -61.37         | -13              | -48.37                  | -74.53                  | -66.43                   | 1.19                       | 8.40                        | V                     |
|                            | 2328                 | -57.43         | -13              | -44.43                  | -75.5                   | -64.23                   | 1.41                       | 10.36                       | V                     |
|                            | 3112                 | -56.73         | -13              | -43.73                  | -75.79                  | -64.26                   | 1.55                       | 11.24                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**LTE Band 7**

| LTE Band 7 / 20MHz / QPSK |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|---------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                   | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                    | 5002                 | -64.79          | -25              | -39.79                  | -57.73                  | -74.53                   | 2.36                       | 12.10                       | H                     |
|                           | 7501                 | -58.73          | -25              | -33.73                  | -57.15                  | -66.62                   | 2.11                       | 10.00                       | H                     |
|                           | 12508                | -48.18          | -25              | -23.18                  | -53.19                  | -58.92                   | 2.55                       | 13.29                       | H                     |
|                           | 15000                | -57.43          | -25              | -32.43                  | -63.35                  | -67.86                   | 2.67                       | 13.10                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 5002                 | -65.35          | -25              | -40.35                  | -58.91                  | -75.09                   | 2.36                       | 12.10                       | V                     |
|                           | 7501                 | -55.52          | -25              | -30.52                  | -53.8                   | -63.41                   | 2.11                       | 10.00                       | V                     |
|                           | 12508                | -43.00          | -25              | -18.00                  | -46.86                  | -53.74                   | 2.55                       | 13.29                       | V                     |
|                           | 15000                | -52.55          | -25              | -27.55                  | -60.74                  | -62.98                   | 2.67                       | 13.10                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                    | 7578                 | -60.84          | -25              | -35.84                  | -58.88                  | -69.01                   | 2.11                       | 10.28                       | H                     |
|                           | 10099                | -54.03          | -25              | -29.03                  | -56.53                  | -63.91                   | 1.96                       | 11.84                       | H                     |
|                           | 12623.5              | -52.23          | -25              | -27.23                  | -57.17                  | -62.84                   | 2.54                       | 13.15                       | H                     |
|                           | 15164.5              | -56.45          | -25              | -31.45                  | -62.76                  | -67.79                   | 2.58                       | 13.92                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 7578                 | -58.96          | -25              | -33.96                  | -56.99                  | -67.13                   | 2.11                       | 10.28                       | V                     |
|                           | 10099                | -56.99          | -25              | -31.99                  | -58.75                  | -66.87                   | 1.96                       | 11.84                       | V                     |
|                           | 12623.5              | -49.49          | -25              | -24.49                  | -53.39                  | -60.10                   | 2.54                       | 13.15                       | V                     |
|                           | 15164.5              | -51.76          | -25              | -26.76                  | -59.55                  | -63.10                   | 2.58                       | 13.92                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |         |        |     |        |        |        |      |       |   |
|---------|---------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 7655    | -59.92 | -25 | -34.92 | -58.02 | -68.36 | 2.11 | 10.56 | H |
|         | 10198   | -55.71 | -25 | -30.71 | -58.38 | -65.48 | 2.11 | 11.88 | H |
|         | 12755.5 | -51.64 | -25 | -26.64 | -56.47 | -62.10 | 2.53 | 12.99 | H |
|         | 15313   | -53.71 | -25 | -28.71 | -60.38 | -65.88 | 2.49 | 14.67 | H |
|         |         |        |     |        |        |        |      |       | H |
|         |         |        |     |        |        |        |      |       | H |
|         |         |        |     |        |        |        |      |       | H |
|         | 7655    | -58.41 | -25 | -33.41 | -56.56 | -66.85 | 2.11 | 10.56 | V |
|         | 10198   | -56.17 | -25 | -31.17 | -58.29 | -65.94 | 2.11 | 11.88 | V |
|         | 12755.5 | -50.06 | -25 | -25.06 | -54    | -60.52 | 2.53 | 12.99 | V |
|         | 15313   | -49.69 | -25 | -24.69 | -57.12 | -61.86 | 2.49 | 14.67 | V |
|         |         |        |     |        |        |        |      |       | V |
|         |         |        |     |        |        |        |      |       | V |
|         |         |        |     |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**LTE Band 41**

| LTE Band 41 / 20MHz / QPSK |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                    | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                     | 7508                 | -52.38          | -25              | -27.38                  | -50.77                  | -60.29                   | 2.11                       | 10.03                       | H                     |
|                            | 12508                | -56.57          | -25              | -31.57                  | -61.58                  | -67.31                   | 2.55                       | 13.29                       | H                     |
|                            | 15016                | -53.42          | -25              | -28.42                  | -59.38                  | -63.94                   | 2.66                       | 13.18                       | H                     |
|                            | 17508                | -53.14          | -25              | -28.14                  | -61.33                  | -63.45                   | 2.33                       | 12.63                       | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            | 7508                 | -49.06          | -25              | -24.06                  | -47.31                  | -56.97                   | 2.11                       | 10.03                       | V                     |
|                            | 12508                | -56.02          | -25              | -31.02                  | -59.88                  | -66.76                   | 2.55                       | 13.29                       | V                     |
|                            | 15016                | -49.02          | -25              | -24.02                  | -57.17                  | -59.54                   | 2.66                       | 13.18                       | V                     |
|                            | 17508                | -47.19          | -25              | -22.19                  | -56.59                  | -57.50                   | 2.33                       | 12.63                       | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 5176                 | -64.50          | -25              | -39.50                  | -57.97                  | -74.35                   | 2.29                       | 12.14                       | H                     |
|                            | 7764                 | -60.42          | -25              | -35.42                  | -58.85                  | -69.26                   | 2.11                       | 10.95                       | H                     |
|                            | 12937                | -55.26          | -25              | -30.26                  | -59.97                  | -65.52                   | 2.52                       | 12.78                       | H                     |
|                            | 15528                | -56.80          | -25              | -31.80                  | -63.87                  | -70.10                   | 2.40                       | 15.70                       | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            | 5176                 | -63.61          | -25              | -38.61                  | -57.64                  | -73.46                   | 2.29                       | 12.14                       | V                     |
|                            | 7764                 | -60.18          | -25              | -35.18                  | -58.67                  | -69.02                   | 2.11                       | 10.95                       | V                     |
|                            | 12937                | -57.12          | -25              | -32.12                  | -61.12                  | -67.38                   | 2.52                       | 12.78                       | V                     |
|                            | 15528                | -55.04          | -25              | -30.04                  | -61.98                  | -68.34                   | 2.40                       | 15.70                       | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |         |        |     |        |        |        |      |       |   |
|---------|---------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 5352    | -61.97 | -25 | -36.97 | -55.99 | -71.92 | 2.22 | 12.17 | H |
|         | 8028    | -60.33 | -25 | -35.33 | -60.16 | -70.06 | 2.11 | 11.84 | H |
|         | 13382.5 | -43.60 | -25 | -18.60 | -49.07 | -53.77 | 2.53 | 12.70 | H |
|         |         |        |     |        |        |        |      |       | H |
|         |         |        |     |        |        |        |      |       | H |
|         |         |        |     |        |        |        |      |       | H |
|         |         |        |     |        |        |        |      |       | H |
|         | 5352    | -61.14 | -25 | -36.14 | -55.67 | -71.09 | 2.22 | 12.17 | V |
|         | 8028    | -60.15 | -25 | -35.15 | -59.72 | -69.88 | 2.11 | 11.84 | V |
|         | 13382.5 | -42.36 | -25 | -17.36 | -47.44 | -52.53 | 2.53 | 12.70 | V |
|         |         |        |     |        |        |        |      |       | V |
|         |         |        |     |        |        |        |      |       | V |
|         |         |        |     |        |        |        |      |       | V |
|         |         |        |     |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**LTE Band 2**

| LTE Band 2 / 20MHz / QPSK |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|---------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                   | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                    | 3700                 | -31.68          | -13              | -18.68                  | -52.22                  | -41.99                   | 1.97                       | 12.28                       | H                     |
|                           | 5555                 | -43.30          | -13              | -30.30                  | -66.87                  | -53.43                   | 2.14                       | 12.28                       | H                     |
|                           | 7410                 | -47.84          | -13              | -34.84                  | -75.92                  | -55.83                   | 2.17                       | 10.16                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 3700                 | -34.50          | -13              | -21.50                  | -55.56                  | -44.81                   | 1.97                       | 12.28                       | V                     |
|                           | 5555                 | -33.19          | -13              | -20.19                  | -57.38                  | -43.32                   | 2.14                       | 12.28                       | V                     |
|                           | 7410                 | -47.17          | -13              | -34.17                  | -75.21                  | -55.16                   | 2.17                       | 10.16                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                    | 3742                 | -34.07          | -13              | -21.07                  | -54.71                  | -44.33                   | 2.00                       | 12.25                       | H                     |
|                           | 5611                 | -44.94          | -13              | -31.94                  | -68.46                  | -55.17                   | 2.13                       | 12.36                       | H                     |
|                           | 7480                 | -47.76          | -13              | -34.76                  | -75.73                  | -55.67                   | 2.13                       | 10.04                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 3742                 | -35.08          | -13              | -22.08                  | -56.23                  | -45.34                   | 2.00                       | 12.25                       | V                     |
|                           | 5611                 | -32.64          | -13              | -19.64                  | -56.81                  | -42.87                   | 2.13                       | 12.36                       | V                     |
|                           | 7480                 | -47.55          | -13              | -34.55                  | -75.4                   | -55.46                   | 2.13                       | 10.04                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 3784 | -35.31 | -13 | -22.31 | -56.05 | -45.52 | 2.02 | 12.23 | H |
|         | 5674 | -34.44 | -13 | -21.44 | -58.26 | -44.77 | 2.11 | 12.44 | H |
|         | 7571 | -48.16 | -13 | -35.16 | -75.62 | -56.30 | 2.11 | 10.26 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 3784 | -36.19 | -13 | -23.19 | -57.42 | -46.40 | 2.02 | 12.23 | V |
|         | 5674 | -27.04 | -13 | -14.04 | -51.45 | -37.37 | 2.11 | 12.44 | V |
|         | 7571 | -48.34 | -13 | -35.34 | -75.79 | -56.48 | 2.11 | 10.26 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



**LTE Band 26**

| LTE Band 26 / 15MHz / QPSK |                      |                |                  |                         |                         |                          |                            |                             |                       |
|----------------------------|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                    | Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                     | 1648                 | -62.14         | -13              | -49.14                  | -75.11                  | -67.53                   | 1.23                       | 8.76                        | H                     |
|                            | 2472                 | -58.76         | -13              | -45.76                  | -75.59                  | -65.65                   | 1.44                       | 10.48                       | H                     |
|                            | 3299                 | -57.15         | -13              | -44.15                  | -75.73                  | -65.09                   | 1.71                       | 11.80                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1648                 | -62.22         | -13              | -49.22                  | -75.07                  | -67.61                   | 1.23                       | 8.76                        | V                     |
|                            | 2472                 | -58.53         | -13              | -45.53                  | -75.65                  | -65.42                   | 1.44                       | 10.48                       | V                     |
|                            | 3299                 | -56.71         | -13              | -43.71                  | -75.69                  | -64.65                   | 1.71                       | 11.80                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 1659                 | -62.00         | -13              | -49.00                  | -75                     | -67.42                   | 1.23                       | 8.80                        | H                     |
|                            | 2489                 | -58.61         | -13              | -45.61                  | -75.4                   | -65.51                   | 1.44                       | 10.49                       | H                     |
|                            | 3319                 | -57.72         | -13              | -44.72                  | -76.17                  | -65.71                   | 1.72                       | 11.86                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1659                 | -61.90         | -13              | -48.90                  | -74.78                  | -67.32                   | 1.23                       | 8.80                        | V                     |
|                            | 2489                 | -58.39         | -13              | -45.39                  | -75.41                  | -65.29                   | 1.44                       | 10.49                       | V                     |
|                            | 3319                 | -56.98         | -13              | -43.98                  | -75.59                  | -64.97                   | 1.72                       | 11.86                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 1672 | -61.99 | -13 | -48.99 | -75.01 | -67.46 | 1.24 | 8.85  | H |
|         | 2504 | -58.94 | -13 | -45.94 | -75.7  | -65.85 | 1.44 | 10.50 | H |
|         | 3336 | -57.27 | -13 | -44.27 | -75.62 | -65.29 | 1.74 | 11.91 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 1672 | -61.77 | -13 | -48.77 | -74.68 | -67.24 | 1.24 | 8.85  | V |
|         | 2504 | -58.73 | -13 | -45.73 | -75.68 | -65.64 | 1.44 | 10.50 | V |
|         | 3336 | -56.69 | -13 | -43.69 | -75.55 | -64.71 | 1.74 | 11.91 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.