



# FCC RADIO TEST REPORT

FCC ID : PU5-TP00137BLF  
Equipment : Notebook Computer  
Brand Name : Lenovo  
Model Name : TP00137A, TP00137B  
Applicant : Wistron Corporation  
21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih  
Dist, New Taipei City 221, Taiwan  
Manufacturer : Lenovo PC HK Limited.  
23/F, Lincoln House, Taikoo Place, 979 King's  
Road, Quarry Bay, Hong Kong, P.R. China  
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27

Equipment: Fibocom L860-GL-16 tested inside of Lenovo Notebook Computer.

The product was received on Dec. 03, 2021 and testing was performed from Dec. 25, 2021 to Jan. 27, 2022. We, Sporton International Inc. Wensan 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 test results in this partial report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

*Sporton International Inc. Wensan Laboratory*



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## History of this test report

| Report No. | Version | Description                                                                                               | Issued Date   |
|------------|---------|-----------------------------------------------------------------------------------------------------------|---------------|
| FG1D0314B  | 01      | Initial issue of report                                                                                   | Jan. 28, 2022 |
| FG1D0314B  | 02      | 1. Revise WWAN Antenna Information and Frequency List of Low/Middle/High Channels<br>2. Revise Appendix A | Feb. 18, 2022 |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |
|            |         |                                                                                                           |               |

## Summary of Test Result

| Report Clause | Ref Std. Clause                                                                       | Test Items                                                                                                                       | Result (PASS/FAIL) | Remark   |
|---------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
| 3.2           | §2.1046                                                                               | Conducted Output Power                                                                                                           | Reporting only     | -        |
|               | §22.913 (a)(5)                                                                        | Effective Radiated Power (Band 5) (Band 26)                                                                                      | Pass               |          |
|               | §27.50 (b)(10)<br>§27.50 (c)(10)                                                      | Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)                                                                 |                    |          |
|               | §24.232 (c)<br>§27.50 (h)(2)                                                          | Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 7) (Band 38) (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                                                                                                            | -                  | See Note |
| -             | §2.1049                                                                               | Occupied Bandwidth                                                                                                               | -                  | See Note |
| -             | §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 17) (Band 25) (Band 26) (Band 66) (Band 71) | -                  | See Note |
|               | §2.1051<br>§27.53 (m)(4)                                                              | Conducted Band Edge Measurement (Band 7) (Band 38) (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 17) (Band 25) (Band 26) (Band 66) (Band 71)     | -                  | See Note |
|               | §2.1051<br>§27.53 (m)(4)                                                              | Conducted Spurious Emission (Band 7) (Band 38) (Band 41)                                                                         |                    |          |
| -             | §2.1055<br>§22.355<br>§24.235<br>§27.54                                               | Frequency Stability<br>Temperature & Voltage                                                                                     | -                  | See Note |

| Report Clause | Ref Std. Clause                                                                                  | Test Items                                                                                                                              | Result (PASS/FAIL) | Remark                                     |
|---------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------|
| 4.2           | §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 17)<br>(Band 25) (Band 26) (Band 66)<br>(Band 71) | Pass               | Under limit<br>15.94 dB at<br>1560.000 MHz |
|               | §2.1051<br>§27.53 (m)(4)                                                                         | Radiated Spurious Emission<br>(Band 7) (Band 38) (Band 41)                                                                              |                    |                                            |

**Note:**

1. The module (Model: L860-GL-16) makes no difference after verifying output power, this report reuses test data from the module report.
2. Conducted power was verified to be consistent with the original modular approval, so the output power level in the original modular grant is referenced in this report for determining ERP/EIRP of this host product

**Declaration of Conformity:**

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.  
It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".

**Comments and Explanations:**

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Sheng Kuo**

**Report Producer: Lucy Wu**

# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature                 |                       |
|---------------------------------|-----------------------|
| Equipment                       | Notebook Computer     |
| Brand Name                      | Lenovo                |
| Model Name                      | TP00137A, TP00137B    |
| FCC ID                          | PU5-TP00137BLF        |
| Sample 1                        | EUT with AVX Antenna  |
| Sample 2                        | EUT with AWAN Antenna |
| EUT supports Radios application | WCDMA/HSPA/LTE/GNSS   |
| EUT Stage                       | Production Unit       |

**Remark:**

1. The above EUT's information was declared by manufacturer.
2. Equipment: Fibocom L860-GL-16 tested inside of Lenovo Notebook Computer.

| WWAN Antenna Information |              |                |                 |                                                                                                                                                                                                                                                                                                    |
|--------------------------|--------------|----------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main Antenna             | Manufacturer | AVX            | Peak gain (dBi) | LTE Band 2 : 1.99<br>LTE Band 4 : 1.99<br>LTE Band 5 : 1.96<br>LTE Band 7 : 0.53<br>LTE Band 12 : -0.28<br>LTE Band 13 : 1.79<br>LTE Band 17 : -0.17<br>LTE Band 25 : 1.95<br>LTE Band 26 : 1.96<br>LTE Band 38 : -0.33<br>LTE Band 41 : 0.61<br>LTE Band 66 : 1.85<br>LTE Band 71 : -1.44         |
|                          | Part number  | 025.901X1.0001 | Type            | PIFA                                                                                                                                                                                                                                                                                               |
|                          | Manufacturer | AWAN           | Peak gain (dBi) | LTE Band 2 : -1.24<br>LTE Band 4 : -0.20<br>LTE Band 5 : -2.27<br>LTE Band 7 : -0.68<br>LTE Band 12 : -4.87<br>LTE Band 13 : -2.13<br>LTE Band 17 : -4.81<br>LTE Band 25 : -0.68<br>LTE Band 26 : -1.70<br>LTE Band 38 : -1.24<br>LTE Band 41 : 0.01<br>LTE Band 66 : -0.40<br>LTE Band 71 : -5.23 |
|                          | Part number  | 025.901WX.0001 | Type            | PIFA                                                                                                                                                                                                                                                                                               |
|                          |              |                |                 |                                                                                                                                                                                                                                                                                                    |
|                          |              |                |                 |                                                                                                                                                                                                                                                                                                    |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.



## 1.2 Product Specification of Equipment Under Test

| Product Specification is subject to this standard |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tx Frequency</b>                               | LTE Band 2: 1850.7 MHz ~ 1909.3 MHz<br>LTE Band 4: 1710.7 MHz ~ 1754.3 MHz<br>LTE Band 5: 824.7 MHz ~ 848.3 MHz<br>LTE Band 7: 2502.5 MHz ~ 2567.5 MHz<br>LTE Band 12: 699.7 MHz ~ 715.3 MHz<br>LTE Band 13: 779.5 MHz ~ 784.5 MHz<br>LTE Band 17 : 706.5 MHz ~ 713.5 MHz<br>LTE Band 25: 1850.7MHz ~ 1914.3 MHz<br>LTE Band 26: 824.7MHz ~ 848.3 MHz<br>LTE Band 38: 2572.5MHz ~ 2617.5MHz<br>LTE Band 41: 2498.5 MHz ~ 2687.5 MHz<br>LTE Band 66: 1710.7 MHz ~ 1779.3 MHz<br>LTE Band 71: 665.5 MHz ~ 695.5 MHz                                                                                                                         |
| <b>Rx Frequency</b>                               | LTE Band 2: 1930.7 MHz ~ 1989.3 MHz<br>LTE Band 4: 2110.7 MHz ~ 2154.3 MHz<br>LTE Band 5: 869.7 MHz ~ 893.3 MHz<br>LTE Band 7: 2622.5MHz ~ 2687.5 MHz<br>LTE Band 12: 729.7 MHz ~ 745.3 MHz<br>LTE Band 13: 748.5 MHz ~ 753.5 MHz<br>LTE Band 17 : 736.5 MHz ~ 743.5 MHz<br>LTE Band 25: 1930.7MHz ~ 1994.3 MHz<br>LTE Band 26: 869.7MHz ~ 893.3MHz<br>LTE Band 38: 2572.5MHz ~ 2617.5MHz<br>LTE Band 41: 2498.5 MHz ~ 2687.5 MHz<br>LTE Band 66: 2110.7 MHz ~ 2199.3 MHz<br>LTE Band 71: 619.5 MHz ~ 649.5 MHz                                                                                                                           |
| <b>Bandwidth</b>                                  | LTE Band 2: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 4: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 5: 1.4MHz / 3MHz / 5MHz / 10MHz<br>LTE Band 7: 5MHz/ 10MHz / 15MHz / 20MHz<br>LTE Band 12: 1.4MHz / 3MHz / 5MHz / 10MHz<br>LTE Band 13: 5MHz / 10MHz<br>LTE Band 17 : 5MHz / 10MHz<br>LTE Band 25: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 26: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz<br>LTE Band 38: 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 41: 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 66: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 71: 5MHz / 10MHz / 15MHz / 20MHz |

| Product Specification is subject to this standard |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Output Power to Antenna                   | LTE Band 2 : 23.31 dBm<br>LTE Band 4 : 22.98 dBm<br>LTE Band 5 : 22.92 dBm<br>LTE Band 5B : 23.06 dBm<br>LTE Band 7 : 23.26 dBm<br>LTE Band 7C : 23.95 dBm<br>LTE Band 12 : 22.86 dBm<br>LTE Band 13 : 22.73 dBm<br>LTE Band 17 : 22.85 dBm<br>LTE Band 25 : 23.32 dBm<br>LTE Band 26 : 22.93 dBm<br>LTE Band 38 : 23.46 dBm<br>LTE Band 38C : 23.57 dBm<br>LTE Band 41 : 25.35 dBm for HPUE<br>LTE Band 41C : 23.63 dBm<br>LTE Band 66 : 22.99 dBm<br>LTE Band 66B : 22.98 dBm<br>LTE Band 66C : 22.65 dBm<br>LTE Band 71 : 22.87 dBm |
| Type of Modulation                                | QPSK / 16QAM / 64QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

### 1.3 Modification of EUT

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



## 1.4 Testing Location

|                       |                                                                                                              |
|-----------------------|--------------------------------------------------------------------------------------------------------------|
| Test Site             | Sporton International Inc. EMC & Wireless Communications Laboratory                                          |
| Test Site Location    | No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333                                                        |
| Test Site No.         | <b>Sporton Site No.</b>                                                                                      |
|                       | TH03-HY (TAF Code: 1190)                                                                                     |
| Test Engineer         | Benjamin Lin                                                                                                 |
| Temperature (°C)      | 23.5~25                                                                                                      |
| Relative Humidity (%) | 49.4~52                                                                                                      |
| Remark                | The Conducted test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory |

|                       |                                                                              |
|-----------------------|------------------------------------------------------------------------------|
| Test Site             | Sporton International Inc. Wensan Laboratory                                 |
| Test Site Location    | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010 |
| Test Site No.         | <b>Sporton Site No.</b>                                                      |
|                       | 03CH15-HY                                                                    |
| Test Engineer         | Leo Li, Mancy Chou and Bigshow Wang                                          |
| Temperature (°C)      | 22.5~24.5                                                                    |
| Relative Humidity (%) | 45~55                                                                        |

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

FCC Designation No.: TW1190 and TW3786

## 1.5 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 412172 D01 Determining ERP and EIRP v01r01
- ♦ 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. 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, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in Tablet Type (three orthogonal axis (X: flat, Y: portrait, Z: landscape)) and Notebook Type, and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and find X Plane for LTE Band 7, 7C, 41C, 66B, 66C, and 71; Y Plane for LTE Band 5B and 41\_HPUE; Z Plane for LTE Band 12, 13, and 66; Notebook Type for LTE Band 25 and 26 as worst plane.

| 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 |
| Max.<br>Output<br>Power | 2    | v               | v | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 4    | v               | v | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 5    | v               | v | v | v  | -  | -  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 7    | -               | - | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 12   | v               | v | v | v  | -  | -  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 13   | -               | - | v | v  | -  | -  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 17   | -               | - | v | v  | -  | -  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 25   | v               | v | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 26   | v               | v | v | v  | v  | -  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 38   | -               | - | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 41   | -               | - | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 66   | v               | v | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |
|                         | 71   | -               | - | v | v  | v  | v  | v          | v     | v     | v    |      | v    | v            | v | v |



| 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 |
| E.R.P /<br>E.I.R.P               | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | v                  | v | v | v  | v  | v  | v          | v     | v     | Max. Power |      |      |              |   |   |
|                                  | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | v                  | v | v | v  | v  | v  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | v                  | v | v | v  | -  | -  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | - | v | v  | v  | v  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | v                  | v | v | v  | -  | -  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | - | v | v  | -  | -  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | - | v | v  | -  | -  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | v                  | v | v | v  | v  | v  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | v                  | v | v | v  | v  | -  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | - | v | v  | v  | v  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | - | v | v  | v  | v  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 66                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | v                  | v | v | v  | v  | v  | v          | v     | v     |            |      |      |              |   |   |
|                                  | 71                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | - | v | v  | v  | v  | v          | v     | v     |            |      |      |              |   |   |
| Radiated<br>Spurious<br>Emission | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Covered by Band 25 |   |   |    |    |    |            |       |       |            |      |      |              |   |   |
|                                  | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Covered by Band 66 |   |   |    |    |    |            |       |       |            |      |      |              |   |   |
|                                  | 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 |
|                                  | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Covered by Band 12 |   |   |    |    |    |            |       |       |            |      |      |              |   |   |
|                                  | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |   |   | v  |    |    | v          |       |       | v          |      |      | v            | v | v |
|                                  | 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |   |   | v  |    | -  | v          |       |       | v          |      |      | v            | v | v |
|                                  | 38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Covered by Band 41 |   |   |    |    |    |            |       |       |            |      |      |              |   |   |
|                                  | 41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | - |   | v  |    |    | v          |       |       | v          |      |      | v            | v | v |
|                                  | 66                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |   |   | v  |    |    | v          |       |       | v          |      |      | v            | v | v |
|                                  | 71                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | - |   | v  |    |    | v          |       |       | v          |      |      | v            | v | v |
| Remark                           | 1. The mark "v " means that this configuration is chosen for testing<br>2. The mark "- " means that this bandwidth is not supported.<br>3. 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.<br>4. All the radiated test cases were performed with Sample 1.<br>5. Wider operating range bandwidth covers narrower one when the power is higher or the same. |                    |   |   |    |    |    |            |       |       |            |      |      |              |   |   |

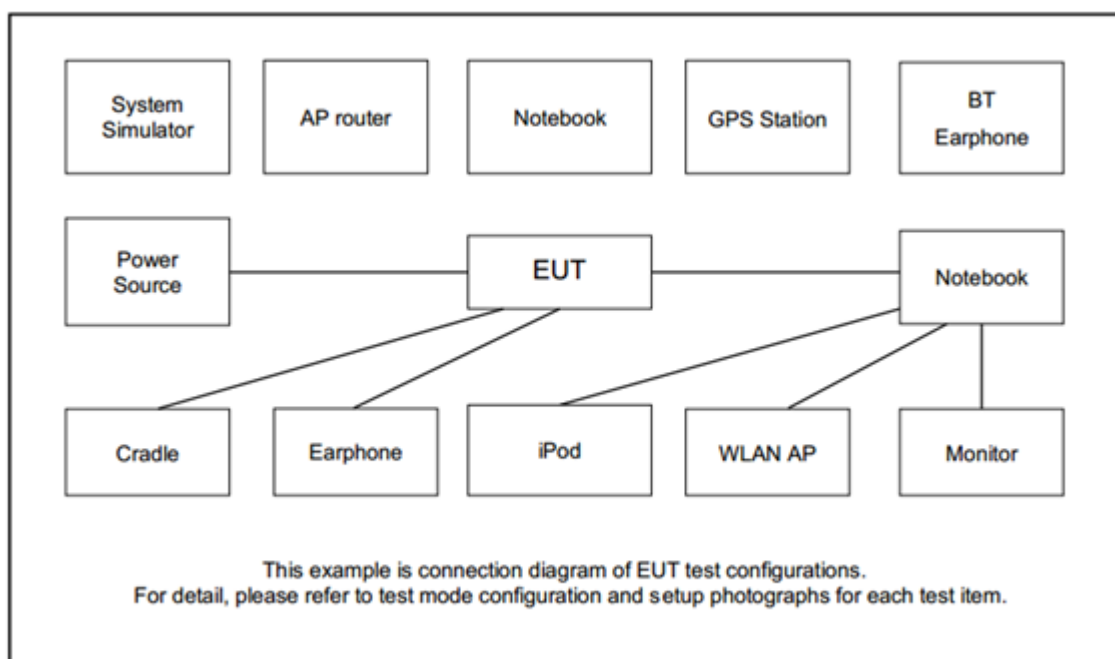


| Test Items                 | Band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bandwidth (MHz) |     |      |      |       | Modulation |       |       | RB #       |      |      | Test Channel |   |   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----|------|------|-------|------------|-------|-------|------------|------|------|--------------|---|---|
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3+5             | 5+3 | 5+10 | 10+5 | 10+10 | QPSK       | 16QAM | 64QAM | 1          | Half | Full | L            | M | H |
| Max. Output Power          | 5B_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -               | -   |      |      | v     | v          | v     | v     | v          |      | v    | v            | v | v |
| E.R.P.                     | 5B_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -               | -   |      |      | v     | v          | v     | v     | Max. Power |      |      |              |   |   |
| Radiated Spurious Emission | 5B_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |     |      |      | 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 Sample 1</li> </ol> |                 |     |      |      |       |            |       |       |            |      |      |              |   |   |

| Test Items                 | Band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Bandwidth (MHz)       |       |       |       |       |      |      |       |       |       | Modulation |       |       | RB #       |      |      | Test Channel |   |   |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------|-------|-------|-------|------|------|-------|-------|-------|------------|-------|-------|------------|------|------|--------------|---|---|
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20+20                 | 20+15 | 15+20 | 20+10 | 10+20 | 20+5 | 5+20 | 15+15 | 15+10 | 10+15 | QPSK       | 16QAM | 64QAM | 1          | Half | Full | L            | M | H |
| Max. Output Power          | 7C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | v                     | v     | v     | v     | v     | -    | -    | v     | v     | -     | v          | v     | v     | v          |      | v    | v            | v | v |
|                            | 38C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v                     | -     | -     | -     | -     | -    | -    |       | -     | -     | v          | v     | v     | v          |      |      | v            | v | v |
|                            | 41C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v                     | v     | v     | v     | v     | v    | v    | v     | v     | v     | v          | v     | v     | v          |      | v    | v            | v | v |
|                            | 66C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v                     |       |       |       |       |      |      |       |       |       | v          | v     | v     | v          |      | v    | v            | v | v |
| E.I.R.P.                   | 7C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | v                     | v     | v     | v     | v     | -    | -    | v     | v     | -     | v          | v     | v     | Max. Power |      |      |              |   |   |
|                            | 38C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v                     | -     | -     | -     | -     | -    | -    |       | -     | -     | v          | v     | v     |            |      |      |              |   |   |
|                            | 41C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v                     | v     | v     | v     | v     | v    | v    | v     | v     | v     | v          | v     | v     |            |      |      |              |   |   |
|                            | 66C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v                     |       |       |       |       |      |      |       |       |       | v          | v     | v     |            |      |      |              |   |   |
| Radiated Spurious Emission | 7C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | v                     |       |       |       |       | -    | -    |       |       | -     | v          |       |       | v          |      |      | v            | v | v |
|                            | 38C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Covered by Band 41_CA |       |       |       |       |      |      |       |       |       |            |       |       |            |      |      |              |   |   |
|                            | 41C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v                     |       |       |       |       |      |      |       |       |       | v          |       |       | v          |      |      | v            | v | v |
|                            | 66C_CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 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 Sample1.</li> <li>Wider operating range bandwidth covers narrower one when the power is higher or the same.</li> </ol> |                       |       |       |       |       |      |      |       |       |       |            |       |       |            |      |      |              |   |   |

| Test Items                 | Band                                                                                                                                                                                                                                                                                                                                                                                                                                              | Bandwidth (MHz) |      |      |      |      |     | Modulation |       |       | RB #       |      |      | Test Channel |   |   |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------|------|------|------|-----|------------|-------|-------|------------|------|------|--------------|---|---|
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10+10           | 15+5 | 5+15 | 10+5 | 5+10 | 5+5 | QPSK       | 16QAM | 64QAM | 1          | Half | Full | L            | M | H |
| Max. Output Power          | 66B_CA                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 | v    |      |      |      |     | v          | v     | v     | v          |      | v    | v            | v | v |
| E.I.R.P.                   | 66B_CA                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 | v    |      |      |      |     | v          | v     | v     | Max. Power |      |      |              |   |   |
| Radiated Spurious Emission | 66B_CA                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 | v    |      |      |      |     | v          |       |       |            |      | v    | v            | v | v |
| Remark                     | 1. The mark "v" means that this configuration is chosen for testing<br>2. The mark "-" means that this bandwidth is not supported.<br>3. 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.<br>4. All the radiated test cases were performed with Sample1. |                 |      |      |      |      |     |            |       |       |            |      |      |              |   |   |

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration and system

| Item | Equipment        | Brand Name | Model No. | FCC ID       | Data Cable        | Power Cord        |
|------|------------------|------------|-----------|--------------|-------------------|-------------------|
| 1.   | System Simulator | Anritsu    | MT8820C   | N/A          | N/A               | Unshielded, 1.8 m |
| 2.   | System Simulator | Anritsu    | MT8821C   | N/A          | N/A               | Unshielded, 1.8 m |
| 3.   | iPod Earphone    | Apple      | N/A       | Verification | Unshielded, 1.0 m | N/A               |



## 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 17 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 10                                     | Channel                | 23780  | 23790  | 23800   |
|                                        | Frequency              | 709    | 710    | 711     |
| 5                                      | Channel                | 23755  | 23790  | 23825   |
|                                        | Frequency              | 706.5  | 710    | 713.5   |

| LTE Band 25 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                     | Channel                | 26140  | 26340  | 26590   |
|                                        | Frequency              | 1860   | 1880   | 1905    |
| 15                                     | Channel                | 26115  | 26340  | 26615   |
|                                        | Frequency              | 1857.5 | 1880   | 1907.5  |
| 10                                     | Channel                | 26090  | 26340  | 26640   |
|                                        | Frequency              | 1855   | 1880   | 1910    |
| 5                                      | Channel                | 26065  | 26340  | 26665   |
|                                        | Frequency              | 1852.5 | 1880   | 1912.5  |
| 3                                      | Channel                | 26055  | 26340  | 26675   |
|                                        | Frequency              | 1851.5 | 1880   | 1913.5  |
| 1.4                                    | Channel                | 26047  | 26340  | 26683   |
|                                        | Frequency              | 1850.7 | 1880   | 1914.3  |



| 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 38 Channel and Frequency List |                        |        |        |         |
|----------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                     | Channel                | 37850  | 38000  | 38150   |
|                                        | Frequency              | 2580.0 | 2595.0 | 2610.0  |
| 15                                     | Channel                | 37825  | 38000  | 38175   |
|                                        | Frequency              | 2577.5 | 2595.0 | 2612.5  |
| 10                                     | Channel                | 37800  | 38000  | 38200   |
|                                        | Frequency              | 2575.0 | 2595.0 | 2615.0  |
| 5                                      | Channel                | 37775  | 38000  | 38225   |
|                                        | Frequency              | 2572.5 | 2595.0 | 2617.5  |

| 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  |

| LTE Band 71 Channel and Frequency List |                        |           |        |        |         |
|----------------------------------------|------------------------|-----------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) |           | Lowest | Middle | Highest |
| 20                                     |                        | Channel   | 133222 | 133297 | 133372  |
|                                        |                        | Frequency | 673.0  | 680.5  | 688.0   |
| 15                                     |                        | Channel   | 133197 | 133297 | 133397  |
|                                        |                        | Frequency | 670.5  | 680.5  | 690.5   |
| 10                                     |                        | Channel   | 133172 | 133297 | 133422  |
|                                        |                        | Frequency | 668.0  | 680.5  | 693.0   |
| 5                                      |                        | Channel   | 133147 | 133297 | 133447  |
|                                        |                        | Frequency | 665.5  | 680.5  | 695.5   |

| LTE Band 5B Channel and Frequency List_CA |                        |           |        |        |         |
|-------------------------------------------|------------------------|-----------|--------|--------|---------|
| BW [MHz]                                  | Channel/Frequency(MHz) |           | Lowest | Middle | Highest |
| 10 + 10                                   | PCC                    | Channel   | 20450  | 20476  | 20501   |
|                                           |                        | Frequency | 829.0  | 831.6  | 834.1   |
|                                           | SCC                    | Channel   | 20549  | 20575  | 20600   |
|                                           |                        | Frequency | 838.9  | 841.5  | 844.0   |



| LTE Band 7C Channel and Frequency List_CA |                        |           |        |        |         |
|-------------------------------------------|------------------------|-----------|--------|--------|---------|
| BW [MHz]                                  | Channel/Frequency(MHz) |           | Lowest | Middle | Highest |
| 20 + 20                                   | PCC                    | Channel   | 20850  | 21001  | 21152   |
|                                           |                        | Frequency | 2510.0 | 2525.1 | 2540.2  |
|                                           | SCC                    | Channel   | 21048  | 21199  | 21350   |
|                                           |                        | Frequency | 2529.8 | 2544.9 | 2560.0  |
| 20 + 15                                   | PCC                    | Channel   | 20850  | 21026  | 21201   |
|                                           |                        | Frequency | 2510.0 | 2527.6 | 2545.1  |
|                                           | SCC                    | Channel   | 21021  | 21197  | 21372   |
|                                           |                        | Frequency | 2527.1 | 2544.7 | 2562.2  |
| 15 + 20                                   | PCC                    | Channel   | 20828  | 21003  | 21179   |
|                                           |                        | Frequency | 2507.8 | 2525.3 | 2542.9  |
|                                           | SCC                    | Channel   | 20999  | 21174  | 21350   |
|                                           |                        | Frequency | 2524.9 | 2542.4 | 2560.0  |
| 20 + 10                                   | PCC                    | Channel   | 20850  | 21051  | 21251   |
|                                           |                        | Frequency | 2510.0 | 2530.1 | 2550.1  |
|                                           | SCC                    | Channel   | 20994  | 21195  | 21395   |
|                                           |                        | Frequency | 2524.4 | 2544.5 | 2564.5  |
| 10 + 20                                   | PCC                    | Channel   | 20805  | 21006  | 21206   |
|                                           |                        | Frequency | 2505.5 | 2525.6 | 2545.6  |
|                                           | SCC                    | Channel   | 20949  | 21150  | 21350   |
|                                           |                        | Frequency | 2519.9 | 2540.0 | 2560.0  |
| 15 + 15                                   | PCC                    | Channel   | 20825  | 21025  | 21225   |
|                                           |                        | Frequency | 2507.5 | 2527.5 | 2547.5  |
|                                           | SCC                    | Channel   | 20975  | 21175  | 21375   |
|                                           |                        | Frequency | 2522.5 | 2542.5 | 2562.5  |
| 15 + 10                                   | PCC                    | Channel   | 20825  | 21051  | 21277   |
|                                           |                        | Frequency | 2507.5 | 2530.1 | 2552.7  |
|                                           | SCC                    | Channel   | 20945  | 21171  | 21397   |
|                                           |                        | Frequency | 2519.5 | 2542.1 | 2564.7  |



| LTE Band 38C Channel and Frequency List |                        |           |        |        |         |
|-----------------------------------------|------------------------|-----------|--------|--------|---------|
| BW [MHz]                                | Channel/Frequency(MHz) |           | Lowest | Middle | Highest |
| 20 + 20                                 | PCC                    | Channel   | 37850  | 37901  | 37952   |
|                                         |                        | Frequency | 2580.0 | 2585.1 | 2590.2  |
|                                         | SCC                    | Channel   | 38048  | 38099  | 38150   |
|                                         |                        | Frequency | 2599.8 | 2604.9 | 2610.0  |

| LTE Band 41C Channel and Frequency List |                        |           |        |        |         |
|-----------------------------------------|------------------------|-----------|--------|--------|---------|
| BW [MHz]                                | Channel/Frequency(MHz) |           | Lowest | Middle | Highest |
| 20 + 20                                 | PCC                    | Channel   | 39750  | 40521  | 41292   |
|                                         |                        | Frequency | 2506.0 | 2583.1 | 2660.2  |
|                                         | SCC                    | Channel   | 39948  | 40719  | 41490   |
|                                         |                        | Frequency | 2525.8 | 2602.9 | 2680.0  |
| 20 + 15                                 | PCC                    | Channel   | 39750  | 40546  | 41341   |
|                                         |                        | Frequency | 2506.0 | 2585.6 | 2665.1  |
|                                         | SCC                    | Channel   | 39921  | 40717  | 41512   |
|                                         |                        | Frequency | 2523.1 | 2602.7 | 2682.2  |
| 15 + 20                                 | PCC                    | Channel   | 39728  | 40523  | 41319   |
|                                         |                        | Frequency | 2503.8 | 2593.3 | 2662.9  |
|                                         | SCC                    | Channel   | 39899  | 40694  | 41490   |
|                                         |                        | Frequency | 2520.9 | 2600.4 | 2680.0  |
| 20 + 10                                 | PCC                    | Channel   | 39750  | 40571  | 41391   |
|                                         |                        | Frequency | 2506.0 | 2588.1 | 2670.1  |
|                                         | SCC                    | Channel   | 39894  | 40715  | 41535   |
|                                         |                        | Frequency | 2520.4 | 2602.5 | 2684.5  |
| 10 + 20                                 | PCC                    | Channel   | 39705  | 40526  | 41346   |
|                                         |                        | Frequency | 2501.5 | 2583.6 | 2665.6  |
|                                         | SCC                    | Channel   | 39849  | 40670  | 41490   |
|                                         |                        | Frequency | 2515.9 | 2598.0 | 2680.0  |



| LTE Band 41C Channel and Frequency List    |                        |           |        |        |         |
|--------------------------------------------|------------------------|-----------|--------|--------|---------|
| 20 + 5                                     | PCC                    | Channel   | 39750  | 40595  | 41440   |
|                                            |                        | Frequency | 2506.0 | 2590.5 | 2675.0  |
|                                            | SCC                    | Channel   | 39867  | 40712  | 41557   |
|                                            |                        | Frequency | 2517.7 | 2602.2 | 2686.7  |
| 5 + 20                                     | PCC                    | Channel   | 39683  | 40528  | 41373   |
|                                            |                        | Frequency | 2499.3 | 2583.8 | 2668.3  |
|                                            | SCC                    | Channel   | 39800  | 40645  | 41490   |
|                                            |                        | Frequency | 2511.0 | 2595.5 | 2680.0  |
| 15 + 15                                    | PCC                    | Channel   | 39725  | 40545  | 41365   |
|                                            |                        | Frequency | 2503.5 | 2585.5 | 2667.5  |
|                                            | SCC                    | Channel   | 39875  | 40695  | 41515   |
|                                            |                        | Frequency | 2518.5 | 2600.5 | 2682.5  |
| 10 + 15                                    | PCC                    | Channel   | 39703  | 40549  | 41395   |
|                                            |                        | Frequency | 2501.3 | 2585.9 | 2670.5  |
|                                            | SCC                    | Channel   | 39823  | 40669  | 41515   |
|                                            |                        | Frequency | 2513.3 | 2597.9 | 2682.5  |
| 15 + 10                                    | PCC                    | Channel   | 39725  | 40571  | 41417   |
|                                            |                        | Frequency | 2503.5 | 2588.1 | 2672.7  |
|                                            | SCC                    | Channel   | 39845  | 40691  | 41537   |
|                                            |                        | Frequency | 2515.5 | 2600.1 | 2684.7  |
| LTE Band 66B Channel and Frequency List_CA |                        |           |        |        |         |
| BW [MHz]                                   | Channel/Frequency(MHz) |           | Lowest | Middle | Highest |
| 15 + 5                                     | PCC                    | Channel   | 132047 | 132398 | 132549  |
|                                            |                        | Frequency | 1717.5 | 1752.6 | 1767.7  |
|                                            | SCC                    | Channel   | 132140 | 133391 | 132642  |
|                                            |                        | Frequency | 1726.8 | 1761.9 | 1777.0  |
| LTE Band 66C Channel and Frequency List_CA |                        |           |        |        |         |
| BW [MHz]                                   | Channel/Frequency(MHz) |           | Lowest | Middle | Highest |
| 20 + 20                                    | PCC                    | Channel   | 132072 | 132323 | 132374  |
|                                            |                        | Frequency | 1720.0 | 1745.1 | 1750.2  |
|                                            | SCC                    | Channel   | 132270 | 133421 | 132572  |
|                                            |                        | Frequency | 1739.8 | 1764.9 | 1770.0  |

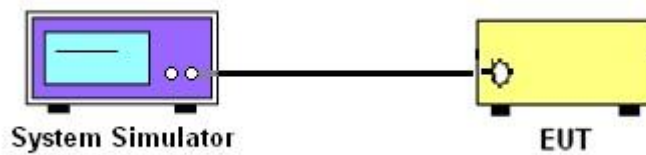
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.1 Test Setup

##### 3.1.2 Conducted Output Power



##### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

## 3.2 Conducted Output Power and ERP/EIRP

### 3.2.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

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

The ERP of mobile transmitters must not exceed 7 Watts for LTE Band 5 and Band 26

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12 and Band 13 and Band 17 and Band 71

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25 and Band 7 and Band 38 and Band 41

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$ ,  $ERP = EIRP - 2.15$ , where

$P_T$  = transmitter output power in dBm

$G_T$  = gain of the transmitting antenna in dBi

$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna in dB

### 3.2.2 Test Procedures

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

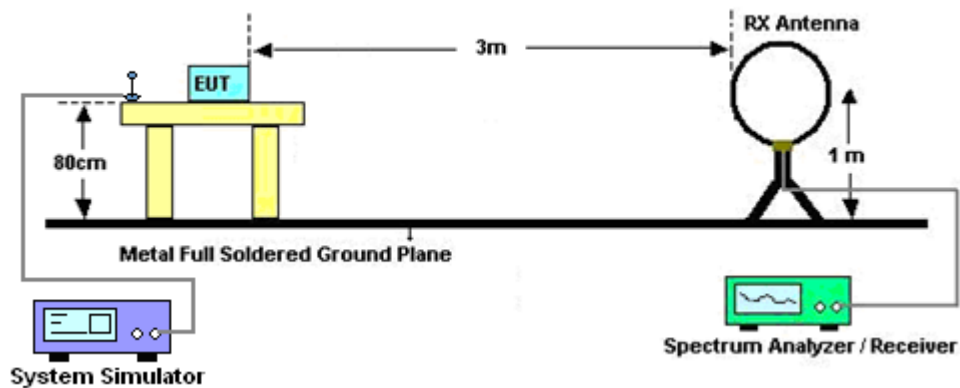
## 4 Radiated Test Items

### 4.1 Measuring Instruments

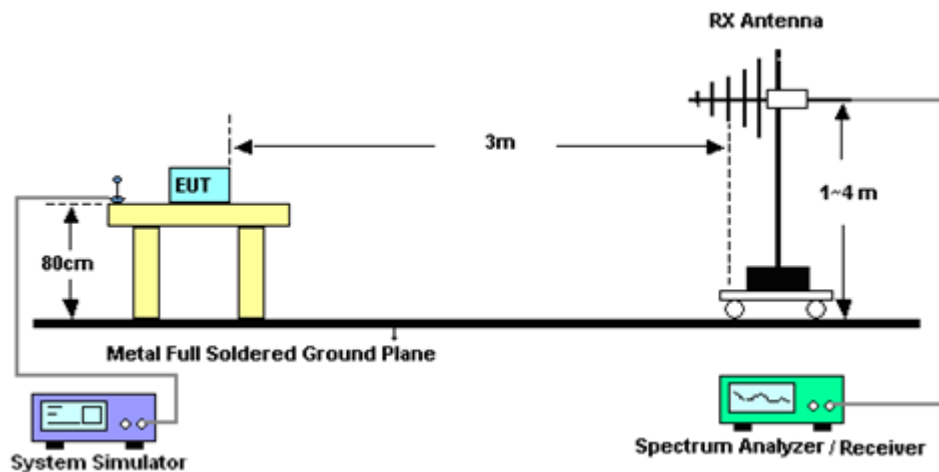
See list of measuring instruments of this test report.

#### 4.1.1 Test Setup

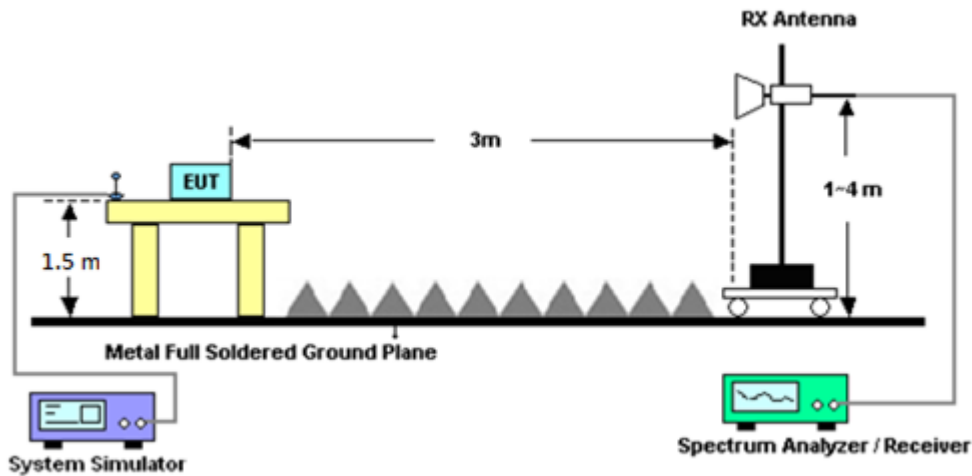
For radiated test below 30MHz



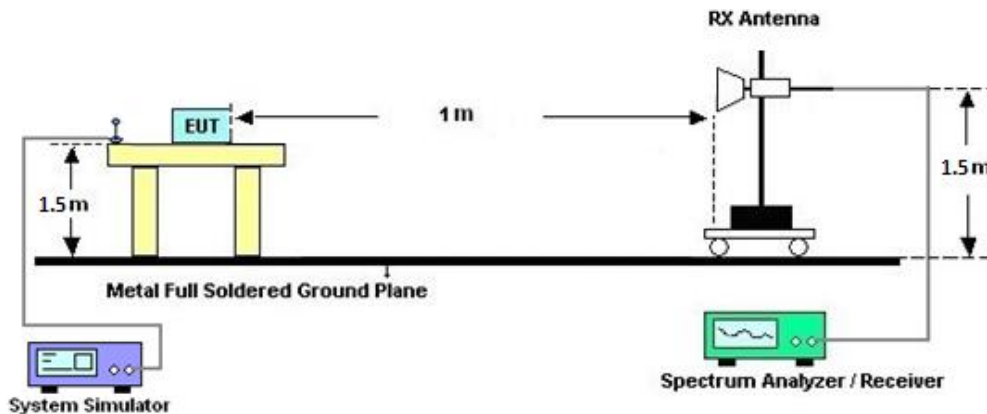
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



#### 4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

##### 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 adequate comparison measurement 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.



## **4.2 Radiated Spurious Emission Measurement**

### **4.2.1 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, 38, 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.

### **4.2.2 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, 38, 41

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

EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain

ERP (dBm) = EIRP - 2.15



## 5 List of Measuring Equipment

| Instrument           | Brand Name            | Model No.                  | Serial No.                       | Characteristics | Calibration Date | Test Date                   | Due Date      | Remark                |
|----------------------|-----------------------|----------------------------|----------------------------------|-----------------|------------------|-----------------------------|---------------|-----------------------|
| Loop Antenna         | Rohde & Schwarz       | HFH2-Z2                    | 100488                           | 9 kHz~30 MHz    | Sep. 07, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Sep. 06, 2022 | Radiation (03CH15-HY) |
| Bilog Antenna        | TESEQ                 | CBL 6111D & 00800N1D01N-06 | 37059 & 01                       | 30MHz~1GHz      | Oct. 09, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Oct. 08, 2022 | Radiation (03CH15-HY) |
| Bilog Antenna        | TESEQ                 | CBL6111D&00800N1D01N-06    | 41912 & 05                       | 30MHz to 1GHz   | Feb. 08, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Feb. 07, 2022 | Radiation (03CH15-HY) |
| Amplifier            | SONOMA                | 310N                       | 363440                           | 9kHz~1GHz       | Dec. 27, 2021    | Dec. 27, 2021~Jan. 27, 2022 | Dec. 26, 2022 | Radiation (03CH15-HY) |
| Horn Antenna         | SCHWARZBECK           | BBHA 9120 D                | 9120D-01620                      | 1-18GHz         | Oct. 25, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Oct. 24, 2022 | Radiation (03CH15-HY) |
| Horn Antenna         | SCHWARZBECK           | BBHA 9120 D                | 9120D-1326                       | 1GHz~18GHz      | Oct. 25, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Oct. 24, 2022 | Radiation (03CH15-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK           | BBHA 9170                  | 00991                            | 18GHz- 40GHz    | May 12, 2021     | Dec. 26, 2021~Jan. 27, 2022 | May 11, 2022  | Radiation (03CH15-HY) |
| Preamplifier         | Jet-Power             | JPA0118-55-303             | 1710001800055006                 | 1GHz~18GHz      | May 06, 2021     | Dec. 26, 2021~Jan. 27, 2022 | May 05, 2022  | Radiation (03CH15-HY) |
| Amplifier            | E-INSTRUMENT TECH LTD | ERA-10M-7000-MR            | EC1900247                        | 10MHz-7GHz      | Dec. 03, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Dec. 02, 2022 | Radiation (03CH15-HY) |
| Preamplifier         | EM Electronics        | EM01G18G                   | 060803                           | 1GHz-18GHz      | Dec. 16, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Dec. 15, 2022 | Radiation (03CH15-HY) |
| Preamplifier         | EMEC                  | EM18G40G                   | 060715                           | 18GHz~40GHz     | Dec. 24, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Dec. 23, 2022 | Radiation (03CH15-HY) |
| Spectrum Analyzer    | Keysight              | N9038A                     | MY54130085                       | 20MHz~8.4GHz    | Oct. 21, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Oct. 20, 2022 | Radiation (03CH15-HY) |
| Spectrum Analyzer    | Keysight              | N9010A                     | MY54200485                       | 10Hz~44GHz      | Mar. 05, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Mar. 04, 2022 | Radiation (03CH15-HY) |
| Antenna Mast         | ChainTek              | MBS-520-1                  | N/A                              | 1m~4m           | N/A              | Dec. 26, 2021~Jan. 27, 2022 | N/A           | Radiation (03CH15-HY) |
| Turn Table           | ChainTek              | T-200-S-1                  | N/A                              | 0~360 Degree    | N/A              | Dec. 26, 2021~Jan. 27, 2022 | N/A           | Radiation (03CH15-HY) |
| Software             | Audix                 | E3 6.2009-8-24(k5)         | RK-000451                        | N/A             | N/A              | Dec. 26, 2021~Jan. 27, 2022 | N/A           | Radiation (03CH15-HY) |
| RF Cable             | HUBER + SUHNER        | SUCOFLEX 104, 102E         | MY36980/4, MY9838/4PE, 508405/2E | 30MHz~18G       | Nov. 15, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Nov. 14, 2022 | Radiation (03CH15-HY) |
| RF Cable             | HUBER + SUHNER        | SUCOFLEX 102               | 505134/2                         | 30MHz-40GHz     | Feb. 22, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Feb. 21, 2022 | Radiation (03CH15-HY) |
| RF Cable             | HUBER + SUHNER        | SUCOFLEX 102               | 800740/2                         | 30MHz-40GHz     | Feb. 22, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Feb. 21, 2022 | Radiation (03CH15-HY) |
| RF Cable             | HUBER + SUHNER        | SUCOFLEX 104               | MY9837/4PE                       | 9kHz~30MHz      | Mar. 11, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Mar. 10, 2022 | Radiation (03CH15-HY) |



| Instrument             | Brand Name | Model No.                   | Serial No. | Characteristics         | Calibration Date | Test Date                   | Due Date      | Remark                |
|------------------------|------------|-----------------------------|------------|-------------------------|------------------|-----------------------------|---------------|-----------------------|
| Filter                 | Wainwright | WLK4-1000-1530-8000-40SS    | SN12       | 1.53GHz Low Pass Filter | Sep. 14, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Sep. 13, 2022 | Radiation (03CH15-HY) |
| Filter                 | Wainwright | WHKX12-935-1000-15000-40ST  | SN1        | 1GHz High Pass Filter   | Apr. 29, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Apr. 28, 2022 | Radiation (03CH15-HY) |
| Filter                 | Wainwright | WHKX12-2700-3000-18000-60ST | SN4        | 3GHz High Pass Filter   | Sep. 15, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Sep. 14, 2022 | Radiation (03CH15-HY) |
| Signal Generator       | Anritsu    | MG3694C                     | 163401     | 0.1Hz~40GHz             | Jan. 31, 2021    | Dec. 26, 2021~Jan. 27, 2022 | Jan. 30, 2022 | Radiation (03CH15-HY) |
| Base Station (Measure) | Anritsu    | MT8821C                     | 6262025341 | N/A                     | Oct. 05, 2021    | Dec. 25, 2021               | Oct. 04, 2022 | Conducted (TH03-HY)   |



## 6 Uncertainty of Evaluation

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

|                                                                         |         |
|-------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 2.92 dB |
|-------------------------------------------------------------------------|---------|

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

|                                                                         |         |
|-------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 3.72 dB |
|-------------------------------------------------------------------------|---------|

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

|                                                                         |         |
|-------------------------------------------------------------------------|---------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 3.94 dB |
|-------------------------------------------------------------------------|---------|



## Appendix A. Test Results of Conducted Test

### Conducted Output Power(Average power & ERP/EIRP)

| LTE Band 2 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 20                                                         | 1         | 0         | QPSK   | 23.23  | 22.65  | 23.31   | 25.30      | 0.3388   |
| 20                                                         | 1         | 99        |        | 22.65  | 21.86  | 23.26   |            |          |
| 20                                                         | 100       | 0         |        | 21.85  | 21.22  | 21.65   |            |          |
| 20                                                         | 1         | 0         | 16-QAM | 22.66  | 22.32  | 22.52   | 24.65      | 0.2917   |
| 20                                                         | 1         | 0         | 64-QAM | 21.33  | 20.89  | 21.66   | 23.65      | 0.2317   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 2 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 15                                                         | 1         | 0         | QPSK   | 23.05  | 22.75  | 23.15   | 25.14      | 0.3266   |
| 15                                                         | 1         | 0         | 16-QAM | 22.65  | 21.65  | 22.44   | 24.64      | 0.2911   |
| 15                                                         | 1         | 0         | 64-QAM | 21.36  | 21.23  | 21.52   | 23.51      | 0.2244   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 2 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 10                                                         | 1         | 0         | QPSK   | 22.79  | 22.86  | 22.58   | 24.85      | 0.3055   |
| 10                                                         | 1         | 0         | 16-QAM | 22.06  | 22.18  | 21.89   | 24.17      | 0.2612   |
| 10                                                         | 1         | 0         | 64-QAM | 21.32  | 20.86  | 20.73   | 23.31      | 0.2143   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |



| LTE Band 2 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 5                                                          | 1         | 0         | QPSK   | 23.11  | 23.02  | 22.95   | 25.10      | 0.3236   |
| 5                                                          | 1         | 0         | 16-QAM | 22.12  | 22.23  | 22.25   | 24.24      | 0.2655   |
| 5                                                          | 1         | 0         | 64-QAM | 21.52  | 21.25  | 21.36   | 23.51      | 0.2244   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 2 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 3                                                          | 1         | 0         | QPSK   | 22.96  | 23.06  | 23.09   | 25.08      | 0.3221   |
| 3                                                          | 1         | 0         | 16-QAM | 22.03  | 22.32  | 22.16   | 24.31      | 0.2698   |
| 3                                                          | 1         | 0         | 64-QAM | 21.25  | 21.56  | 21.36   | 23.55      | 0.2265   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 2 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 1.4                                                        | 1         | 0         | QPSK   | 23.05  | 23.16  | 23.25   | 25.24      | 0.3342   |
| 1.4                                                        | 1         | 0         | 16-QAM | 22.32  | 22.36  | 22.44   | 24.43      | 0.2773   |
| 1.4                                                        | 1         | 0         | 64-QAM | 22.13  | 21.23  | 21.25   | 24.12      | 0.2582   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |



| LTE Band 25 Maximum Average Power [dBm] (GT - LC = 1.95 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 20                                                          | 1         | 0         | QPSK   | 22.77  | 22.85  | 23.32   | 25.27      | 0.3365   |
| 20                                                          | 1         | 99        |        | 22.82  | 23.06  | 22.63   |            |          |
| 20                                                          | 100       | 0         |        | 21.87  | 22.05  | 22.13   |            |          |
| 20                                                          | 1         | 0         | 16-QAM | 22.01  | 21.87  | 22.63   | 24.58      | 0.2871   |
| 20                                                          | 1         | 0         | 64-QAM | 21.32  | 21.23  | 21.37   | 23.32      | 0.2148   |
| Limit                                                       | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 25 Maximum Average Power [dBm] (GT - LC = 1.95 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 15                                                          | 1         | 0         | QPSK   | 22.63  | 22.73  | 22.85   | 24.80      | 0.3020   |
| 15                                                          | 1         | 0         | 16-QAM | 21.68  | 22.25  | 21.87   | 24.20      | 0.2630   |
| 15                                                          | 1         | 0         | 64-QAM | 20.96  | 21.21  | 21.12   | 23.16      | 0.2070   |
| Limit                                                       | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 25 Maximum Average Power [dBm] (GT - LC = 1.95 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 10                                                          | 1         | 0         | QPSK   | 22.72  | 22.68  | 22.72   | 24.67      | 0.2931   |
| 10                                                          | 1         | 0         | 16-QAM | 21.86  | 21.82  | 21.63   | 23.81      | 0.2404   |
| 10                                                          | 1         | 0         | 64-QAM | 20.85  | 21.03  | 20.85   | 22.98      | 0.1986   |
| Limit                                                       | EIRP < 2W |           |        | Result |        |         | Pass       |          |



| LTE Band 25 Maximum Average Power [dBm] (GT - LC = 1.95 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 5                                                           | 1         | 0         | QPSK   | 22.63  | 22.65  | 23.13   | 25.08      | 0.3221   |
| 5                                                           | 1         | 0         | 16-QAM | 22.12  | 21.85  | 22.62   | 24.57      | 0.2864   |
| 5                                                           | 1         | 0         | 64-QAM | 20.87  | 20.69  | 21.36   | 23.31      | 0.2143   |
| Limit                                                       | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 25 Maximum Average Power [dBm] (GT - LC = 1.95 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 3                                                           | 1         | 0         | QPSK   | 22.63  | 22.56  | 22.93   | 24.88      | 0.3076   |
| 3                                                           | 1         | 0         | 16-QAM | 21.85  | 21.86  | 21.93   | 23.88      | 0.2443   |
| 3                                                           | 1         | 0         | 64-QAM | 20.32  | 20.78  | 21.32   | 23.27      | 0.2123   |
| Limit                                                       | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 25 Maximum Average Power [dBm] (GT - LC = 1.95 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 1.4                                                         | 1         | 0         | QPSK   | 22.63  | 22.63  | 22.66   | 24.61      | 0.2891   |
| 1.4                                                         | 1         | 0         | 16-QAM | 21.56  | 21.68  | 21.92   | 23.87      | 0.2438   |
| 1.4                                                         | 1         | 0         | 64-QAM | 20.72  | 20.86  | 20.68   | 22.81      | 0.1910   |
| Limit                                                       | EIRP < 2W |           |        | Result |        |         | Pass       |          |



| LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 20                                                         | 1         | 0         | QPSK   | 22.98  | 22.78  | 22.89   | 24.97      | 0.3141   |
| 20                                                         | 1         | 99        |        | 22.63  | 22.86  | 22.85   |            |          |
| 20                                                         | 100       | 0         |        | 21.77  | 21.79  | 21.96   |            |          |
| 20                                                         | 1         | 0         | 16-QAM | 22.56  | 22.26  | 22.56   | 24.55      | 0.2851   |
| 20                                                         | 1         | 0         | 64-QAM | 21.65  | 20.80  | 21.25   | 23.64      | 0.2312   |
| Limit                                                      | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 15                                                         | 1         | 0         | QPSK   | 22.86  | 22.59  | 22.79   | 24.85      | 0.3055   |
| 15                                                         | 1         | 0         | 16-QAM | 22.38  | 22.21  | 21.58   | 24.37      | 0.2735   |
| 15                                                         | 1         | 0         | 64-QAM | 21.36  | 20.65  | 20.72   | 23.35      | 0.2163   |
| Limit                                                      | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 10                                                         | 1         | 0         | QPSK   | 22.78  | 22.60  | 22.89   | 24.88      | 0.3076   |
| 10                                                         | 1         | 0         | 16-QAM | 21.85  | 21.65  | 21.98   | 23.97      | 0.2495   |
| 10                                                         | 1         | 0         | 64-QAM | 21.18  | 20.85  | 21.36   | 23.35      | 0.2163   |
| Limit                                                      | EIRP < 1W |           |        | Result |        |         | Pass       |          |



| LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 5                                                          | 1         | 0         | QPSK   | 22.96  | 22.67  | 22.96   | 24.95      | 0.3126   |
| 5                                                          | 1         | 0         | 16-QAM | 22.16  | 21.69  | 22.22   | 24.21      | 0.2636   |
| 5                                                          | 1         | 0         | 64-QAM | 21.33  | 21.21  | 21.16   | 23.32      | 0.2148   |
| Limit                                                      | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 3                                                          | 1         | 0         | QPSK   | 22.82  | 22.44  | 22.77   | 24.81      | 0.3027   |
| 3                                                          | 1         | 0         | 16-QAM | 21.63  | 21.63  | 21.65   | 23.64      | 0.2312   |
| 3                                                          | 1         | 0         | 64-QAM | 20.86  | 20.75  | 21.18   | 23.17      | 0.2075   |
| Limit                                                      | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.99 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 1.4                                                        | 1         | 0         | QPSK   | 22.63  | 22.68  | 22.78   | 24.77      | 0.2999   |
| 1.4                                                        | 1         | 0         | 16-QAM | 21.65  | 21.75  | 22.13   | 24.12      | 0.2582   |
| 1.4                                                        | 1         | 0         | 64-QAM | 21.23  | 20.63  | 21.36   | 23.35      | 0.2163   |
| Limit                                                      | EIRP < 1W |           |        | Result |        |         | Pass       |          |



| LTE Band 5 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                   | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 10                                                         | 1        | 0         | QPSK   | 22.86  | 22.92  | 22.83   | 22.73     | 0.1875  |
| 10                                                         | 1        | 49        |        | 22.75  | 22.73  | 22.63   |           |         |
| 10                                                         | 50       | 0         |        | 21.78  | 21.82  | 21.83   |           |         |
| 10                                                         | 1        | 0         | 16-QAM | 21.85  | 21.89  | 21.86   | 21.70     | 0.1479  |
| 10                                                         | 1        | 0         | 64-QAM | 21.32  | 21.26  | 21.66   | 21.47     | 0.1403  |
| Limit                                                      | ERP < 7W |           |        | Result |        |         | Pass      |         |

| LTE Band 5 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                   | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 5                                                          | 1        | 0         | QPSK   | 22.78  | 22.76  | 22.77   | 22.59     | 0.1816  |
| 5                                                          | 1        | 0         | 16-QAM | 21.85  | 21.88  | 21.85   | 21.69     | 0.1476  |
| 5                                                          | 1        | 0         | 64-QAM | 21.25  | 21.56  | 21.36   | 21.37     | 0.1371  |
| Limit                                                      | ERP < 7W |           |        | Result |        |         | Pass      |         |

| LTE Band 5 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                   | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 3                                                          | 1        | 0         | QPSK   | 22.75  | 22.78  | 22.91   | 22.72     | 0.1871  |
| 3                                                          | 1        | 0         | 16-QAM | 21.86  | 21.66  | 22.22   | 22.03     | 0.1596  |
| 3                                                          | 1        | 0         | 64-QAM | 21.65  | 21.36  | 21.63   | 21.46     | 0.1400  |
| Limit                                                      | ERP < 7W |           |        | Result |        |         | Pass      |         |

| LTE Band 5 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                   | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 1.4                                                        | 1        | 0         | QPSK   | 22.78  | 22.86  | 22.86   | 22.67     | 0.1849  |
| 1.4                                                        | 1        | 0         | 16-QAM | 21.85  | 21.36  | 21.63   | 21.66     | 0.1466  |
| 1.4                                                        | 1        | 0         | 64-QAM | 20.96  | 21.26  | 21.35   | 21.16     | 0.1306  |
| Limit                                                      | ERP < 7W |           |        | Result |        |         | Pass      |         |



| LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.53 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 20                                                         | 1         | 0         | QPSK   | 23.12  | 23.26  | 22.77   | 23.79      | 0.2393   |
| 20                                                         | 1         | 99        |        | 23.03  | 22.86  | 23.26   |            |          |
| 20                                                         | 100       | 0         |        | 22.12  | 22.44  | 22.13   |            |          |
| 20                                                         | 1         | 0         | 16-QAM | 22.56  | 22.76  | 21.87   | 23.29      | 0.2133   |
| 20                                                         | 1         | 0         | 64-QAM | 21.22  | 21.59  | 20.86   | 22.12      | 0.1629   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.53 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 15                                                         | 1         | 0         | QPSK   | 23.13  | 23.22  | 22.89   | 23.75      | 0.2371   |
| 15                                                         | 1         | 0         | 16-QAM | 22.56  | 22.58  | 22.12   | 23.11      | 0.2046   |
| 15                                                         | 1         | 0         | 64-QAM | 21.58  | 21.36  | 21.23   | 22.11      | 0.1626   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.53 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 10                                                         | 1         | 0         | QPSK   | 23.23  | 23.23  | 23.13   | 23.76      | 0.2377   |
| 10                                                         | 1         | 0         | 16-QAM | 22.58  | 22.52  | 22.52   | 23.11      | 0.2046   |
| 10                                                         | 1         | 0         | 64-QAM | 21.21  | 21.62  | 21.52   | 22.15      | 0.1641   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.53 dB) |           |           |        |        |        |         |            |          |
|------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                   | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 5                                                          | 1         | 0         | QPSK   | 23.06  | 23.23  | 23.12   | 23.76      | 0.2377   |
| 5                                                          | 1         | 0         | 16-QAM | 22.55  | 22.44  | 22.56   | 23.09      | 0.2037   |
| 5                                                          | 1         | 0         | 64-QAM | 21.85  | 21.56  | 21.52   | 22.38      | 0.1730   |
| Limit                                                      | EIRP < 2W |           |        | Result |        |         | Pass       |          |



| LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.28 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 10                                                           | 1        | 0         | QPSK   | 22.58  | 22.86  | 22.72   | 20.43     | 0.1104  |
| 10                                                           | 1        | 49        |        | 22.62  | 22.56  | 22.63   |           |         |
| 10                                                           | 50       | 0         |        | 21.72  | 21.58  | 21.68   |           |         |
| 10                                                           | 1        | 0         | 16-QAM | 21.65  | 22.21  | 21.85   | 19.78     | 0.0951  |
| 10                                                           | 1        | 0         | 64-QAM | 20.75  | 21.97  | 20.65   | 19.54     | 0.0899  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.28 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 5                                                            | 1        | 0         | QPSK   | 22.63  | 22.69  | 22.63   | 20.26     | 0.1062  |
| 5                                                            | 1        | 0         | 16-QAM | 21.86  | 21.86  | 21.75   | 19.43     | 0.0877  |
| 5                                                            | 1        | 0         | 64-QAM | 20.96  | 20.96  | 21.13   | 18.70     | 0.0741  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.28 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 3                                                            | 1        | 0         | QPSK   | 22.63  | 22.63  | 22.66   | 20.23     | 0.1054  |
| 3                                                            | 1        | 0         | 16-QAM | 21.86  | 21.85  | 21.86   | 19.43     | 0.0877  |
| 3                                                            | 1        | 0         | 64-QAM | 20.75  | 20.96  | 20.96   | 18.53     | 0.0713  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.28 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 1.4                                                          | 1        | 0         | QPSK   | 22.56  | 22.68  | 22.69   | 20.26     | 0.1062  |
| 1.4                                                          | 1        | 0         | 16-QAM | 21.87  | 21.86  | 22.20   | 19.77     | 0.0948  |
| 1.4                                                          | 1        | 0         | 64-QAM | 21.86  | 20.96  | 20.98   | 19.43     | 0.0877  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |



| LTE Band 13 Maximum Average Power [dBm] (GT - LC = 1.79 dB) |          |           |        |        |        |         |           |         |
|-------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                    | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 10                                                          | 1        | 0         | QPSK   | -      | 22.73  | -       | 22.37     | 0.1726  |
| 10                                                          | 1        | 49        |        |        | 22.56  |         |           |         |
| 10                                                          | 50       | 0         |        |        | 21.65  |         |           |         |
| 10                                                          | 1        | 0         | 16-QAM |        | 21.86  |         | 21.50     | 0.1413  |
| 10                                                          | 1        | 0         | 64-QAM |        | 20.97  |         | 20.61     | 0.1151  |
| Limit                                                       | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 13 Maximum Average Power [dBm] (GT - LC = 1.79 dB) |          |           |        |        |        |         |           |         |
|-------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                    | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 5                                                           | 1        | 0         | QPSK   | 22.52  | 22.65  | 22.72   | 22.36     | 0.1722  |
| 5                                                           | 1        | 0         | 16-QAM | 21.52  | 21.85  | 21.36   | 21.49     | 0.1409  |
| 5                                                           | 1        | 0         | 64-QAM | 20.96  | 20.96  | 20.56   | 20.60     | 0.1148  |
| Limit                                                       | ERP < 3W |           |        | Result |        |         | Pass      |         |



# FCC RADIO TEST REPORT

Report No. : FG1D0314B

| LTE Band 17 Maximum Average Power [dBm] (GT - LC = -0.17 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 10                                                           | 1        | 0         | QPSK   | 22.85  | 22.63  | 22.75   | 20.53     | 0.1130  |
| 10                                                           | 1        | 49        |        | 22.72  | 22.69  | 22.32   |           |         |
| 10                                                           | 50       | 0         |        | 21.62  | 21.65  | 21.82   |           |         |
| 10                                                           | 1        | 0         | 16-QAM | 21.87  | 21.36  | 21.65   | 19.55     | 0.0902  |
| 10                                                           | 1        | 0         | 64-QAM | 21.32  | 20.85  | 21.12   | 19.00     | 0.0794  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 17 Maximum Average Power [dBm] (GT - LC = -0.17 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 5                                                            | 1        | 0         | QPSK   | 22.82  | 22.72  | 22.63   | 20.50     | 0.1122  |
| 5                                                            | 1        | 0         | 16-QAM | 21.86  | 21.69  | 21.71   | 19.54     | 0.0899  |
| 5                                                            | 1        | 0         | 64-QAM | 20.86  | 20.78  | 20.65   | 18.54     | 0.0714  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |



| LTE Band 26 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|-------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                    | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 15                                                          | 1        | 0         | QPSK   | 22.63  | 22.66  | 22.93   | 22.74     | 0.1879  |
| 15                                                          | 1        | 74        |        | 22.76  | 22.56  | 22.63   |           |         |
| 15                                                          | 75       | 0         |        | 21.86  | 21.78  | 21.68   |           |         |
| 15                                                          | 1        | 0         | 16-QAM | 20.85  | 21.72  | 21.52   | 21.53     | 0.1422  |
| 15                                                          | 1        | 0         | 64-QAM | 19.69  | 20.89  | 20.23   | 20.70     | 0.1175  |
| Limit                                                       | ERP < 7W |           |        | Result |        |         | Pass      |         |

| LTE Band 26 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|-------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                    | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 10                                                          | 1        | 0         | QPSK   | 22.75  | 22.76  | 22.73   | 22.57     | 0.1807  |
| 10                                                          | 1        | 0         | 16-QAM | 21.36  | 21.32  | 21.56   | 21.37     | 0.1371  |
| 10                                                          | 1        | 0         | 64-QAM | 20.63  | 20.53  | 20.25   | 20.44     | 0.1107  |
| Limit                                                       | ERP < 7W |           |        | Result |        |         | Pass      |         |

| LTE Band 26 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|-------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                    | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 5                                                           | 1        | 0         | QPSK   | 22.63  | 22.76  | 22.68   | 22.57     | 0.1807  |
| 5                                                           | 1        | 0         | 16-QAM | 21.71  | 21.35  | 21.52   | 21.52     | 0.1419  |
| 5                                                           | 1        | 0         | 64-QAM | 20.68  | 20.35  | 20.36   | 20.49     | 0.1119  |
| Limit                                                       | ERP < 7W |           |        | Result |        |         | Pass      |         |

| LTE Band 26 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|-------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                    | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 3                                                           | 1        | 0         | QPSK   | 22.66  | 22.77  | 22.76   | 22.58     | 0.1811  |
| 3                                                           | 1        | 0         | 16-QAM | 21.32  | 21.32  | 21.36   | 21.17     | 0.1309  |
| 3                                                           | 1        | 0         | 64-QAM | 20.85  | 20.25  | 20.33   | 20.66     | 0.1164  |
| Limit                                                       | ERP < 7W |           |        | Result |        |         | Pass      |         |

| LTE Band 26 Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |        |        |        |         |           |         |
|-------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                    | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 1.4                                                         | 1        | 0         | QPSK   | 22.69  | 22.76  | 22.86   | 22.67     | 0.1849  |
| 1.4                                                         | 1        | 0         | 16-QAM | 21.32  | 21.32  | 21.63   | 21.44     | 0.1393  |
| 1.4                                                         | 1        | 0         | 64-QAM | 20.23  | 20.32  | 20.65   | 20.46     | 0.1112  |
| Limit                                                       | ERP < 7W |           |        | Result |        |         | Pass      |         |



| LTE Band 38 Maximum Average Power [dBm] (GT - LC = -0.33 dB) |           |           |        |        |        |         |            |          |
|--------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                     | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 20                                                           | 1         | 0         | QPSK   | 23.44  | 23.46  | 23.26   | 23.13      | 0.2056   |
| 20                                                           | 1         | 99        |        | 23.39  | 23.21  | 23.13   |            |          |
| 20                                                           | 100       | 0         |        | 23.35  | 22.25  | 22.15   |            |          |
| 20                                                           | 1         | 0         | 16-QAM | 22.32  | 22.86  | 22.36   | 22.53      | 0.1791   |
| 20                                                           | 1         | 0         | 64-QAM | 21.36  | 21.58  | 21.52   | 21.25      | 0.1334   |
| Limit                                                        | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 38 Maximum Average Power [dBm] (GT - LC = -0.33 dB) |           |           |        |        |        |         |            |          |
|--------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                     | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 15                                                           | 1         | 0         | QPSK   | 23.44  | 23.36  | 23.21   | 23.11      | 0.2046   |
| 15                                                           | 1         | 0         | 16-QAM | 22.56  | 22.52  | 22.39   | 22.23      | 0.1671   |
| 15                                                           | 1         | 0         | 64-QAM | 21.36  | 21.23  | 21.82   | 21.49      | 0.1409   |
| Limit                                                        | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 38 Maximum Average Power [dBm] (GT - LC = -0.33 dB) |           |           |        |        |        |         |            |          |
|--------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                     | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 10                                                           | 1         | 0         | QPSK   | 23.13  | 23.25  | 23.13   | 22.92      | 0.1959   |
| 10                                                           | 1         | 0         | 16-QAM | 22.52  | 22.36  | 22.03   | 22.19      | 0.1656   |
| 10                                                           | 1         | 0         | 64-QAM | 21.63  | 21.32  | 21.29   | 21.30      | 0.1349   |
| Limit                                                        | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 38 Maximum Average Power [dBm] (GT - LC = -0.33 dB) |           |           |        |        |        |         |            |          |
|--------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                     | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 5                                                            | 1         | 0         | QPSK   | 23.36  | 23.26  | 23.13   | 23.03      | 0.2009   |
| 5                                                            | 1         | 0         | 16-QAM | 22.63  | 22.56  | 22.36   | 22.30      | 0.1698   |
| 5                                                            | 1         | 0         | 64-QAM | 21.58  | 21.63  | 21.36   | 21.30      | 0.1349   |
| Limit                                                        | EIRP < 2W |           |        | Result |        |         | Pass       |          |



| LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 0.61 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                          | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 20                                                                | 1         | 0         | QPSK   | 25.35  | 25.32  | 24.85   | 25.96      | 0.3945   |
| 20                                                                | 1         | 99        |        | 25.03  | 25.09  | 24.87   |            |          |
| 20                                                                | 100       | 0         |        | 24.26  | 24.32  | 24.36   |            |          |
| 20                                                                | 1         | 0         | 16-QAM | 24.56  | 24.62  | 24.52   | 25.23      | 0.3334   |
| 20                                                                | 1         | 0         | 64-QAM | 23.69  | 23.58  | 23.55   | 24.30      | 0.2692   |
| Limit                                                             | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 0.61 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                          | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 15                                                                | 1         | 0         | QPSK   | 25.33  | 25.32  | 24.96   | 25.94      | 0.3926   |
| 15                                                                | 1         | 0         | 16-QAM | 24.69  | 24.44  | 24.32   | 25.30      | 0.3388   |
| 15                                                                | 1         | 0         | 64-QAM | 23.75  | 23.51  | 23.36   | 24.36      | 0.2729   |
| Limit                                                             | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 0.61 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                          | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 10                                                                | 1         | 0         | QPSK   | 25.35  | 25.33  | 24.96   | 25.96      | 0.3945   |
| 10                                                                | 1         | 0         | 16-QAM | 24.77  | 24.86  | 24.25   | 25.47      | 0.3524   |
| 10                                                                | 1         | 0         | 64-QAM | 23.63  | 23.63  | 23.25   | 24.24      | 0.2655   |
| Limit                                                             | EIRP < 2W |           |        | Result |        |         | Pass       |          |

| LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 0.61 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                          | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 5                                                                 | 1         | 0         | QPSK   | 25.26  | 25.22  | 24.96   | 25.87      | 0.3864   |
| 5                                                                 | 1         | 0         | 16-QAM | 24.32  | 24.23  | 24.32   | 24.93      | 0.3112   |
| 5                                                                 | 1         | 0         | 64-QAM | 23.36  | 23.63  | 23.63   | 24.24      | 0.2655   |
| Limit                                                             | EIRP < 2W |           |        | Result |        |         | Pass       |          |



| LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 20                                                          | 1         | 0         | QPSK   | 22.99  | 22.76  | 22.63   | 24.84      | 0.3048   |
| 20                                                          | 1         | 99        |        | 22.63  | 22.85  | 22.87   |            |          |
| 20                                                          | 100       | 0         |        | 21.56  | 21.96  | 21.79   |            |          |
| 20                                                          | 1         | 0         | 16-QAM | 22.32  | 21.65  | 21.60   | 24.17      | 0.2612   |
| 20                                                          | 1         | 0         | 64-QAM | 21.70  | 20.82  | 20.85   | 23.55      | 0.2265   |
| Limit                                                       | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 15                                                          | 1         | 0         | QPSK   | 22.86  | 22.68  | 22.36   | 24.71      | 0.2958   |
| 15                                                          | 1         | 0         | 16-QAM | 22.12  | 22.06  | 21.89   | 23.97      | 0.2495   |
| 15                                                          | 1         | 0         | 64-QAM | 21.69  | 21.16  | 21.02   | 23.54      | 0.2259   |
| Limit                                                       | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 10                                                          | 1         | 0         | QPSK   | 22.78  | 22.75  | 22.52   | 24.63      | 0.2904   |
| 10                                                          | 1         | 0         | 16-QAM | 21.86  | 21.65  | 21.76   | 23.71      | 0.2350   |
| 10                                                          | 1         | 0         | 64-QAM | 20.85  | 20.63  | 20.56   | 22.70      | 0.1862   |
| Limit                                                       | EIRP < 1W |           |        | Result |        |         | Pass       |          |



| LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 5                                                           | 1         | 0         | QPSK   | 22.85  | 22.77  | 22.72   | 24.70      | 0.2951   |
| 5                                                           | 1         | 0         | 16-QAM | 21.76  | 21.63  | 21.58   | 23.61      | 0.2296   |
| 5                                                           | 1         | 0         | 64-QAM | 20.65  | 20.71  | 20.36   | 22.56      | 0.1803   |
| Limit                                                       | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 3                                                           | 1         | 0         | QPSK   | 22.77  | 22.63  | 22.76   | 24.62      | 0.2897   |
| 3                                                           | 1         | 0         | 16-QAM | 21.63  | 21.68  | 21.63   | 23.53      | 0.2254   |
| 3                                                           | 1         | 0         | 64-QAM | 20.73  | 20.32  | 20.58   | 22.58      | 0.1811   |
| Limit                                                       | EIRP < 1W |           |        | Result |        |         | Pass       |          |

| LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |        |        |        |         |            |          |
|-------------------------------------------------------------|-----------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                    | RB Size   | RB Offset | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| 1.4                                                         | 1         | 0         | QPSK   | 22.76  | 22.73  | 22.72   | 24.61      | 0.2891   |
| 1.4                                                         | 1         | 0         | 16-QAM | 21.32  | 21.58  | 21.54   | 23.43      | 0.2203   |
| 1.4                                                         | 1         | 0         | 64-QAM | 20.69  | 20.54  | 20.57   | 22.54      | 0.1795   |
| Limit                                                       | EIRP < 1W |           |        | Result |        |         | Pass       |          |



| LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.44 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 20                                                           | 1        | 0         | QPSK   | 22.87  | 22.63  | 22.63   | 19.28     | 0.0847  |
| 20                                                           | 1        | 99        |        | 22.56  | 22.32  | 22.02   |           |         |
| 20                                                           | 100      | 0         |        | 21.58  | 21.96  | 21.63   |           |         |
| 20                                                           | 1        | 0         | 16-QAM | 21.32  | 21.36  | 21.97   | 18.38     | 0.0689  |
| 20                                                           | 1        | 0         | 64-QAM | 20.36  | 20.97  | 20.69   | 17.38     | 0.0547  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.44 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 15                                                           | 1        | 0         | QPSK   | 22.44  | 22.74  | 22.77   | 19.18     | 0.0828  |
| 15                                                           | 1        | 0         | 16-QAM | 21.56  | 21.58  | 21.96   | 18.37     | 0.0687  |
| 15                                                           | 1        | 0         | 64-QAM | 20.96  | 20.74  | 20.58   | 17.37     | 0.0546  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.44 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 10                                                           | 1        | 0         | QPSK   | 22.36  | 22.82  | 22.86   | 19.27     | 0.0845  |
| 10                                                           | 1        | 0         | 16-QAM | 21.86  | 21.65  | 21.54   | 18.27     | 0.0671  |
| 10                                                           | 1        | 0         | 64-QAM | 20.66  | 20.69  | 20.38   | 17.10     | 0.0513  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |

| LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.44 dB) |          |           |        |        |        |         |           |         |
|--------------------------------------------------------------|----------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                     | RB Size  | RB Offset | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
| 5                                                            | 1        | 0         | QPSK   | 22.58  | 22.58  | 22.39   | 18.99     | 0.0793  |
| 5                                                            | 1        | 0         | 16-QAM | 21.52  | 21.63  | 21.85   | 18.26     | 0.0670  |
| 5                                                            | 1        | 0         | 64-QAM | 20.36  | 20.71  | 20.36   | 17.12     | 0.0515  |
| Limit                                                        | ERP < 3W |           |        | Result |        |         | Pass      |         |



| LTE Band 5B_CA Maximum Average Power [dBm] (GT - LC = 1.96 dB) |          |           |         |           |        |        |        |         |           |         |
|----------------------------------------------------------------|----------|-----------|---------|-----------|--------|--------|--------|---------|-----------|---------|
| BW [MHz]                                                       | PCC      |           | SCC     |           | Mod    | Lowest | Middle | Highest | ERP (dBm) | ERP (W) |
|                                                                | RB Size  | RB Offset | RB Size | RB Offset |        |        |        |         |           |         |
| 10+10                                                          | 50       | 0         | 50      | 0         | QPSK   | 20.67  | 20.58  | 20.64   | 22.87     | 0.1936  |
| 10+10                                                          | 1        | 0         | 1       | 49        |        | 12.48  | 12.25  | 12.30   |           |         |
| 10+10                                                          | 1        | 49        | 1       | 0         |        | 22.50  | 23.06  | 22.57   |           |         |
| 10+10                                                          | 1        | 0         | 1       | 49        | 16-QAM | 13.21  | 12.64  | 12.10   | 22.17     | 0.1648  |
| 10+10                                                          | 1        | 49        | 1       | 0         |        | 21.93  | 22.36  | 21.65   |           |         |
| 10+10                                                          | 1        | 0         | 1       | 49        | 64-QAM | 12.36  | 12.43  | 12.46   | 20.95     | 0.1245  |
| 10+10                                                          | 1        | 49        | 1       | 0         |        | 20.71  | 20.83  | 21.14   |           |         |
| Limit                                                          | ERP < 7W |           |         |           |        | Result |        |         | Pass      |         |



| LTE Band 66B_CA Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |         |           |        |        |        |         |            |          |
|-----------------------------------------------------------------|-----------|-----------|---------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                        | PCC       |           | SCC     |           | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
|                                                                 | RB Size   | RB Offset | RB Size | RB Offset |        |        |        |         |            |          |
| 15+5                                                            | 75        | 0         | 25      | 0         | QPSK   | 22.98  | 22.24  | 22.13   | 24.83      | 0.3041   |
| 15+5                                                            | 1         | 0         | 1       | 24        |        | 22.15  | 22.19  | 22.13   |            |          |
| 15+5                                                            | 1         | 74        | 1       | 0         |        | 21.65  | 22.78  | 22.65   |            |          |
| 15+5                                                            | 1         | 0         | 1       | 24        | 16-QAM | 22.50  | 22.10  | 22.16   | 24.62      | 0.2897   |
| 15+5                                                            | 1         | 74        | 1       | 0         |        | 22.51  | 22.77  | 22.57   |            |          |
| 15+5                                                            | 1         | 0         | 1       | 24        | 64-QAM | 22.44  | 22.13  | 22.56   | 24.41      | 0.2761   |
| 15+5                                                            | 1         | 74        | 1       | 0         |        | 22.31  | 22.50  | 22.26   |            |          |
| Limit                                                           | EIRP < 1W |           |         |           |        | Result |        |         | Pass       |          |



# FCC RADIO TEST REPORT

Report No. : FG1D0314B

| LTE Band 66C_CA Maximum Average Power [dBm] (GT - LC = 1.85 dB) |           |           |         |           |        |        |        |         |            |          |
|-----------------------------------------------------------------|-----------|-----------|---------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                        | PCC       |           | SCC     |           | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
|                                                                 | RB Size   | RB Offset | RB Size | RB Offset |        |        |        |         |            |          |
| 20+20                                                           | 100       | 0         | 100     | 0         | QPSK   | 20.51  | 20.31  | 20.43   | 24.50      | 0.2818   |
| 20+20                                                           | 1         | 0         | 1       | 99        |        | 13.74  | 13.42  | 13.52   |            |          |
| 20+20                                                           | 1         | 99        | 1       | 0         |        | 22.36  | 22.65  | 22.47   |            |          |
| 20+20                                                           | 1         | 0         | 1       | 99        | 16-QAM | 14.13  | 14.10  | 13.48   | 23.74      | 0.2366   |
| 20+20                                                           | 1         | 99        | 1       | 0         |        | 21.32  | 21.89  | 21.41   |            |          |
| 20+20                                                           | 1         | 0         | 1       | 99        | 64-QAM | 14.48  | 13.87  | 14.19   | 22.97      | 0.1982   |
| 20+20                                                           | 1         | 99        | 1       | 0         |        | 20.69  | 20.88  | 21.12   |            |          |
| Limit                                                           | EIRP < 1W |           |         |           |        | Result |        |         | Pass       |          |



| LTE Band 7C_CA Maximum Average Power [dBm] (GT - LC = 0.53 dB) |           |           |         |           |        |        |        |         |            |          |
|----------------------------------------------------------------|-----------|-----------|---------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                       | PCC       |           | SCC     |           | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
|                                                                | RB Size   | RB Offset | RB Size | RB Offset |        |        |        |         |            |          |
| 20+20                                                          | 100       | 0         | 100     | 0         | QPSK   | 21.86  | 21.85  | 22.13   | 24.48      | 0.2805   |
| 20+20                                                          | 1         | 0         | 1       | 99        |        | 15.12  | 14.96  | 15.03   |            |          |
| 20+20                                                          | 1         | 99        | 1       | 0         |        | 23.91  | 23.79  | 23.95   |            |          |
| 20+20                                                          | 1         | 0         | 1       | 99        | 16-QAM | 15.32  | 15.55  | 15.65   | 24.19      | 0.2624   |
| 20+20                                                          | 1         | 99        | 1       | 0         |        | 23.66  | 23.26  | 23.36   |            |          |
| 20+20                                                          | 1         | 0         | 1       | 99        | 64-QAM | 15.13  | 15.12  | 15.52   | 22.75      | 0.1884   |
| 20+20                                                          | 1         | 99        | 1       | 0         |        | 22.21  | 22.03  | 22.22   |            |          |
| 20+15                                                          | 100       | 0         | 75      | 0         | QPSK   | 20.40  | 20.23  | 20.37   | 22.91      | 0.1954   |
| 20+15                                                          | 1         | 0         | 1       | 74        |        | 13.93  | 13.36  | 13.81   |            |          |
| 20+15                                                          | 1         | 99        | 1       | 0         |        | 22.36  | 22.38  | 22.13   |            |          |
| 20+15                                                          | 1         | 0         | 1       | 74        | 16-QAM | 14.26  | 13.96  | 13.64   | 22.73      | 0.1875   |
| 20+15                                                          | 1         | 99        | 1       | 0         |        | 22.20  | 21.80  | 21.83   |            |          |
| 15+20                                                          | 75        | 0         | 100     | 0         | QPSK   | 20.41  | 20.34  | 20.33   | 23.89      | 0.2449   |
| 15+20                                                          | 1         | 0         | 1       | 99        |        | 13.46  | 13.05  | 13.75   |            |          |
| 15+20                                                          | 1         | 74        | 1       | 0         |        | 22.82  | 22.19  | 23.36   |            |          |
| 15+20                                                          | 1         | 0         | 1       | 99        | 16-QAM | 13.70  | 13.83  | 14.30   | 22.38      | 0.1730   |
| 15+20                                                          | 1         | 74        | 1       | 0         |        | 21.60  | 21.66  | 21.85   |            |          |
| 20+10                                                          | 100       | 0         | 75      | 0         | QPSK   | 20.34  | 20.22  | 20.31   | 22.92      | 0.1959   |
| 20+10                                                          | 1         | 0         | 1       | 74        |        | 13.71  | 13.70  | 13.76   |            |          |
| 20+10                                                          | 1         | 99        | 1       | 0         |        | 22.31  | 22.18  | 22.39   |            |          |
| 20+10                                                          | 1         | 0         | 1       | 74        | 16-QAM | 14.31  | 13.98  | 14.21   | 22.81      | 0.1910   |
| 20+10                                                          | 1         | 99        | 1       | 0         |        | 21.74  | 21.42  | 22.28   |            |          |
| 10+20                                                          | 75        | 0         | 100     | 0         | QPSK   | 20.31  | 20.24  | 20.12   | 22.88      | 0.1941   |
| 10+20                                                          | 1         | 0         | 1       | 99        |        | 13.58  | 13.70  | 13.71   |            |          |
| 10+20                                                          | 1         | 74        | 1       | 0         |        | 22.35  | 22.19  | 22.35   |            |          |
| 10+20                                                          | 1         | 0         | 1       | 99        | 16-QAM | 14.49  | 13.92  | 13.52   | 22.07      | 0.1611   |
| 10+20                                                          | 1         | 74        | 1       | 0         |        | 21.28  | 21.49  | 21.54   |            |          |
| 15+15                                                          | 75        | 0         | 100     | 0         | QPSK   | 20.35  | 20.24  | 20.30   | 22.89      | 0.1945   |
| 15+15                                                          | 1         | 0         | 1       | 99        |        | 13.64  | 13.67  | 13.67   |            |          |
| 15+15                                                          | 1         | 74        | 1       | 0         |        | 22.36  | 22.10  | 22.31   |            |          |
| 15+15                                                          | 1         | 0         | 1       | 99        | 16-QAM | 14.06  | 13.82  | 13.83   | 22.54      | 0.1795   |
| 15+15                                                          | 1         | 74        | 1       | 0         |        | 22.01  | 21.49  | 21.39   |            |          |
| 15+10                                                          | 75        | 0         | 100     | 0         | QPSK   | 20.34  | 20.15  | 20.31   | 22.84      | 0.1923   |
| 15+10                                                          | 1         | 0         | 1       | 99        |        | 13.80  | 20.32  | 13.94   |            |          |
| 15+10                                                          | 1         | 74        | 1       | 0         |        | 22.31  | 22.23  | 22.27   |            |          |
| 15+10                                                          | 1         | 0         | 1       | 99        | 16-QAM | 13.78  | 19.36  | 14.28   | 22.47      | 0.1766   |
| 15+10                                                          | 1         | 74        | 1       | 0         |        | 21.40  | 21.94  | 21.69   |            |          |
| Limit                                                          | EIRP < 2W |           |         |           |        | Result |        |         | Pass       |          |



# FCC RADIO TEST REPORT

Report No. : FG1D0314B

| LTE Band 38C_CA Maximum Average Power [dBm] (GT - LC = -0.33 dB) |           |           |         |           |        |        |        |         |            |          |
|------------------------------------------------------------------|-----------|-----------|---------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                         | PCC       |           | SCC     |           | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
|                                                                  | RB Size   | RB Offset | RB Size | RB Offset |        |        |        |         |            |          |
| 20+20                                                            | 1         | 99        | 1       | 0         | QPSK   | 23.57  | 23.52  | 23.55   | 23.24      | 0.2109   |
| 20+20                                                            | 1         | 99        | 1       | 0         | 16-QAM | 22.58  | 22.49  | 22.44   | 22.25      | 0.1679   |
| 20+20                                                            | 1         | 99        | 1       | 0         | 64-QAM | 21.54  | 21.46  | 21.46   | 21.21      | 0.1321   |
| Limit                                                            | EIRP < 2W |           |         |           |        | Result |        |         | Pass       |          |



| LTE Band 41C_CA Maximum Average Power [dBm] (GT - LC = 0.61 dB) |           |           |         |           |        |        |        |         |            |          |
|-----------------------------------------------------------------|-----------|-----------|---------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                        | PCC       |           | SCC     |           | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
|                                                                 | RB Size   | RB Offset | RB Size | RB Offset |        |        |        |         |            |          |
| 20+20                                                           | 100       | 0         | 100     | 0         | QPSK   | 21.59  | 21.19  | 21.31   | 24.24      | 0.2655   |
| 20+20                                                           | 1         | 0         | 1       | 99        |        | 15.03  | 14.42  | 14.62   |            |          |
| 20+20                                                           | 1         | 99        | 1       | 0         |        | 23.63  | 23.18  | 23.14   |            |          |
| 20+20                                                           | 1         | 0         | 1       | 99        | 16-QAM | 15.22  | 14.77  | 15.29   | 23.72      | 0.2355   |
| 20+20                                                           | 1         | 99        | 1       | 0         |        | 23.11  | 22.81  | 22.47   |            |          |
| 20+20                                                           | 1         | 0         | 1       | 99        | 64-QAM | 15.55  | 14.54  | 15.25   | 23.64      | 0.2312   |
| 20+20                                                           | 1         | 99        | 1       | 0         |        | 23.03  | 21.63  | 21.58   |            |          |
| 20+15                                                           | 100       | 0         | 75      | 0         | QPSK   | 21.49  | 21.13  | 21.16   | 24.12      | 0.2582   |
| 20+15                                                           | 1         | 0         | 1       | 74        |        | 14.88  | 14.47  | 14.72   |            |          |
| 20+15                                                           | 1         | 99        | 1       | 0         |        | 23.51  | 23.22  | 22.96   |            |          |
| 20+15                                                           | 1         | 0         | 1       | 74        | 16-QAM | 15.44  | 15.09  | 14.88   | 23.70      | 0.2344   |
| 20+15                                                           | 1         | 99        | 1       | 0         |        | 23.09  | 22.97  | 22.82   |            |          |
| 15+20                                                           | 75        | 0         | 100     | 0         | QPSK   | 21.48  | 21.28  | 21.08   | 23.94      | 0.2477   |
| 15+20                                                           | 1         | 0         | 1       | 99        |        | 14.79  | 14.59  | 14.57   |            |          |
| 15+20                                                           | 1         | 74        | 1       | 0         |        | 22.41  | 23.33  | 23.01   |            |          |
| 15+20                                                           | 1         | 0         | 1       | 99        | 16-QAM | 15.38  | 15.28  | 14.64   | 23.42      | 0.2198   |
| 15+20                                                           | 1         | 74        | 1       | 0         |        | 22.39  | 22.81  | 22.55   |            |          |
| 20+10                                                           | 100       | 0         | 50      | 0         | QPSK   | 21.41  | 21.14  | 21.11   | 24.11      | 0.2576   |
| 20+10                                                           | 1         | 0         | 1       | 49        |        | 14.89  | 14.55  | 14.78   |            |          |
| 20+10                                                           | 1         | 99        | 1       | 0         |        | 23.50  | 23.32  | 22.95   |            |          |
| 20+10                                                           | 1         | 0         | 1       | 49        | 16-QAM | 15.44  | 15.17  | 15.14   | 23.87      | 0.2438   |
| 20+10                                                           | 1         | 99        | 1       | 0         |        | 23.26  | 22.61  | 22.24   |            |          |
| 10+20                                                           | 50        | 0         | 100     | 0         | QPSK   | 21.32  | 21.17  | 21.10   | 24.16      | 0.2606   |
| 10+20                                                           | 1         | 0         | 1       | 99        |        | 14.85  | 14.45  | 14.61   |            |          |
| 10+20                                                           | 1         | 49        | 1       | 0         |        | 23.55  | 23.12  | 23.06   |            |          |
| 10+20                                                           | 1         | 0         | 1       | 99        | 16-QAM | 15.36  | 14.94  | 15.24   | 23.99      | 0.2506   |
| 10+20                                                           | 1         | 49        | 1       | 0         |        | 23.38  | 22.67  | 22.68   |            |          |
| Limit                                                           | EIRP < 2W |           |         |           |        | Result |        |         | Pass       |          |



| LTE Band 41C_CA Maximum Average Power [dBm] (GT - LC = 0.61 dB) |           |           |         |           |        |        |        |         |            |          |
|-----------------------------------------------------------------|-----------|-----------|---------|-----------|--------|--------|--------|---------|------------|----------|
| BW [MHz]                                                        | PCC       |           | SCC     |           | Mod    | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
|                                                                 | RB Size   | RB Offset | RB Size | RB Offset |        |        |        |         |            |          |
| 20+5                                                            | 100       | 0         | 25      | 0         | QPSK   | 21.54  | 21.21  | 20.99   | 23.83      | 0.2415   |
| 20+5                                                            | 1         | 0         | 1       | 24        |        | 14.98  | 14.62  | 14.67   |            |          |
| 20+5                                                            | 1         | 99        | 1       | 0         |        | 22.68  | 23.22  | 22.72   |            |          |
| 20+5                                                            | 1         | 0         | 1       | 24        | 16-QAM | 15.47  | 15.32  | 15.41   | 23.80      | 0.2399   |
| 20+5                                                            | 1         | 99        | 1       | 0         |        | 23.19  | 22.79  | 22.56   |            |          |
| 5+20                                                            | 25        | 0         | 100     | 0         | QPSK   | 21.47  | 21.18  | 21.06   | 23.25      | 0.2113   |
| 5+20                                                            | 1         | 0         | 1       | 99        |        | 14.82  | 14.47  | 14.61   |            |          |
| 5+20                                                            | 1         | 24        | 1       | 0         |        | 22.13  | 22.64  | 22.58   |            |          |
| 5+20                                                            | 1         | 0         | 1       | 99        | 16-QAM | 22.86  | 15.05  | 15.07   | 23.47      | 0.2223   |
| 5+20                                                            | 1         | 24        | 1       | 0         |        | 22.51  | 22.39  | 22.29   |            |          |
| 15+10                                                           | 75        | 0         | 50      | 0         | QPSK   | 21.44  | 21.11  | 20.99   | 24.20      | 0.2630   |
| 15+10                                                           | 1         | 0         | 1       | 49        |        | 14.85  | 14.52  | 14.71   |            |          |
| 15+10                                                           | 1         | 74        | 1       | 0         |        | 23.59  | 23.09  | 22.88   |            |          |
| 15+10                                                           | 1         | 0         | 1       | 49        | 16-QAM | 15.36  | 15.05  | 15.32   | 23.69      | 0.2339   |
| 15+10                                                           | 1         | 74        | 1       | 0         |        | 23.08  | 22.64  | 21.83   |            |          |
| 10+15                                                           | 50        | 0         | 75      | 0         | QPSK   | 21.41  | 21.16  | 21.11   | 24.06      | 0.2547   |
| 10+15                                                           | 1         | 0         | 1       | 74        |        | 14.87  | 14.64  | 14.57   |            |          |
| 10+15                                                           | 1         | 49        | 1       | 0         |        | 23.45  | 23.25  | 23.02   |            |          |
| 10+15                                                           | 1         | 0         | 1       | 74        | 16-QAM | 15.28  | 14.95  | 14.90   | 23.74      | 0.2366   |
| 10+15                                                           | 1         | 49        | 1       | 0         |        | 23.13  | 22.44  | 22.59   |            |          |
| 15+15                                                           | 75        | 0         | 75      | 0         | QPSK   | 20.76  | 21.08  | 21.07   | 24.07      | 0.2553   |
| 15+15                                                           | 1         | 0         | 1       | 74        |        | 14.88  | 14.43  | 14.61   |            |          |
| 15+15                                                           | 1         | 74        | 1       | 0         |        | 23.46  | 23.26  | 22.97   |            |          |
| 15+15                                                           | 1         | 0         | 1       | 74        | 16-QAM | 15.36  | 14.96  | 14.78   | 23.72      | 0.2355   |
| 15+15                                                           | 1         | 74        | 1       | 0         |        | 23.11  | 22.61  | 22.47   |            |          |
| Limit                                                           | EIRP < 2W |           |         |           |        | Result |        |         | Pass       |          |



## Appendix B. Test Results of Radiated Test

### LTE Band 25

| LTE Band 25 / 10MHz / 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                 | -47.31          | -13              | -34.31                  | -38.41                  | -56.94                   | 2.77                       | 12.40                       | H                     |
|                            | 5548                 | -57.54          | -13              | -44.54                  | -53.63                  | -67.47                   | 3.46                       | 13.39                       | H                     |
|                            | 7403                 | -59.50          | -13              | -46.50                  | -62.1                   | -66.71                   | 3.98                       | 11.19                       | H                     |
|                            | 9251                 | -57.93          | -13              | -44.93                  | -62.57                  | -64.26                   | 4.47                       | 10.80                       | H                     |
|                            | 11103                | -56.55          | -13              | -43.55                  | -61.62                  | -62.62                   | 4.94                       | 11.01                       | H                     |
|                            | 12954                | -54.95          | -13              | -41.95                  | -61.98                  | -63.13                   | 5.38                       | 13.55                       | H                     |
|                            | 14807                | -56.06          | -13              | -43.06                  | -60.99                  | -61.71                   | 5.79                       | 11.44                       | H                     |
|                            | 3700                 | -46.01          | -13              | -33.01                  | -37.52                  | -55.64                   | 2.77                       | 12.40                       | V                     |
|                            | 5548                 | -56.90          | -13              | -43.90                  | -53.04                  | -66.83                   | 3.46                       | 13.39                       | V                     |
|                            | 7403                 | -55.03          | -13              | -42.03                  | -58.11                  | -62.24                   | 3.98                       | 11.19                       | V                     |
|                            | 9251                 | -57.53          | -13              | -44.53                  | -61.6                   | -63.86                   | 4.47                       | 10.80                       | V                     |
|                            | 11102                | -55.36          | -13              | -42.36                  | -60.27                  | -61.43                   | 4.94                       | 11.01                       | V                     |
|                            | 12945                | -56.50          | -13              | -43.50                  | -62.12                  | -64.67                   | 5.38                       | 13.55                       | V                     |
|                            | 14807                | -49.43          | -13              | -36.43                  | -55.93                  | -55.08                   | 5.79                       | 11.44                       | V                     |



|         |         |        |     |        |        |        |      |       |   |
|---------|---------|--------|-----|--------|--------|--------|------|-------|---|
| Middle  | 3749    | -45.98 | -13 | -32.98 | -37.35 | -55.70 | 2.78 | 12.50 | H |
|         | 5625    | -59.93 | -13 | -46.93 | -56.05 | -69.85 | 3.48 | 13.40 | H |
|         | 7501    | -59.72 | -13 | -46.72 | -62.52 | -66.92 | 4.00 | 11.20 | H |
|         | 9377    | -57.11 | -13 | -44.11 | -62.06 | -63.46 | 4.50 | 10.85 | H |
|         | 11254   | -55.90 | -13 | -42.90 | -61.1  | -62.30 | 4.96 | 11.35 | H |
|         | 13129   | -54.70 | -13 | -41.70 | -62.03 | -63.06 | 5.41 | 13.77 | H |
|         | 15004   | -56.09 | -13 | -43.09 | -61.38 | -62.46 | 5.86 | 12.23 | H |
|         | 3749    | -45.34 | -13 | -32.34 | -37.1  | -55.06 | 2.78 | 12.50 | V |
|         | 5625    | -57.98 | -13 | -44.98 | -54.33 | -67.90 | 3.48 | 13.40 | V |
|         | 7501    | -55.47 | -13 | -42.47 | -58.62 | -62.67 | 4.00 | 11.20 | V |
|         | 9377    | -56.42 | -13 | -43.42 | -60.48 | -62.77 | 4.50 | 10.85 | V |
|         | 11254   | -54.24 | -13 | -41.24 | -59.49 | -60.64 | 4.96 | 11.35 | V |
|         | 13125.5 | -56.72 | -13 | -43.72 | -62.55 | -65.09 | 5.41 | 13.78 | V |
|         | 15006.5 | -48.36 | -13 | -35.36 | -55.5  | -54.75 | 5.86 | 12.25 | V |
| Highest | 3812    | -46.74 | -13 | -33.74 | -38.39 | -56.32 | 2.79 | 12.38 | H |
|         | 5716    | -59.19 | -13 | -46.19 | -55.95 | -69.09 | 3.50 | 13.40 | H |
|         | 7620    | -57.48 | -13 | -44.48 | -59.88 | -64.88 | 4.04 | 11.44 | H |
|         | 9527    | -56.96 | -13 | -43.96 | -62.57 | -63.57 | 4.54 | 11.15 | H |
|         | 11433   | -56.78 | -13 | -43.78 | -62.15 | -63.04 | 4.97 | 11.23 | H |
|         | 13339   | -55.30 | -13 | -42.30 | -62.55 | -63.18 | 5.44 | 13.32 | H |
|         | 15244   | -55.26 | -13 | -42.26 | -60.74 | -63.39 | 5.92 | 14.05 | H |
|         | 3812    | -47.76 | -13 | -34.76 | -39.8  | -57.34 | 2.79 | 12.38 | V |
|         | 5716    | -58.08 | -13 | -45.08 | -55.07 | -67.98 | 3.50 | 13.40 | V |
|         | 7620    | -51.42 | -13 | -38.42 | -54.36 | -58.82 | 4.04 | 11.44 | V |
|         | 9531    | -55.90 | -13 | -42.90 | -60.33 | -62.50 | 4.54 | 11.14 | V |
|         | 11434.5 | -52.61 | -13 | -39.61 | -58.27 | -58.87 | 4.97 | 11.23 | V |
|         | 13339   | -56.83 | -13 | -43.83 | -62.67 | -64.71 | 5.44 | 13.32 | V |
|         | 15244   | -49.80 | -13 | -36.80 | -56.48 | -57.93 | 5.92 | 14.05 | V |

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

**LTE Band 66**

| LTE Band 66 / 10MHz / 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                 | -43.42          | -13              | -30.42                  | -32.88                  | -53.34                   | 2.68                       | 12.60                       | H                     |
|                            | 5128                 | -55.42          | -13              | -42.42                  | -50.82                  | -64.52                   | 3.32                       | 12.41                       | H                     |
|                            | 6843                 | -59.06          | -13              | -46.06                  | -59.26                  | -67.60                   | 3.86                       | 12.40                       | H                     |
|                            | 8551                 | -46.57          | -13              | -33.57                  | -50.26                  | -53.86                   | 4.31                       | 11.60                       | H                     |
|                            | 10264                | -57.11          | -13              | -44.11                  | -61.6                   | -63.53                   | 4.75                       | 11.17                       | H                     |
|                            | 11976                | -51.44          | -13              | -38.44                  | -56.97                  | -58.91                   | 5.18                       | 12.65                       | H                     |
|                            | 13684                | -55.69          | -13              | -42.69                  | -61.93                  | -63.25                   | 5.53                       | 13.08                       | H                     |
|                            | 15392                | -52.90          | -13              | -39.90                  | -58.5                   | -61.81                   | 5.95                       | 14.87                       | H                     |
|                            | 3420                 | -47.39          | -13              | -34.39                  | -37.22                  | -57.31                   | 2.68                       | 12.60                       | V                     |
|                            | 5128                 | -54.78          | -13              | -41.78                  | -50.73                  | -63.88                   | 3.32                       | 12.41                       | V                     |
|                            | 6843                 | -61.11          | -13              | -48.11                  | -61.68                  | -69.65                   | 3.86                       | 12.40                       | V                     |
|                            | 8551                 | -48.95          | -13              | -35.95                  | -52.72                  | -56.24                   | 4.31                       | 11.60                       | V                     |
|                            | 10263                | -58.29          | -13              | -45.29                  | -62.07                  | -64.72                   | 4.75                       | 11.17                       | V                     |
|                            | 11976                | -55.38          | -13              | -42.38                  | -60.25                  | -62.85                   | 5.18                       | 12.65                       | V                     |
|                            | 13684                | -56.58          | -13              | -43.58                  | -62.01                  | -64.14                   | 5.53                       | 13.08                       | V                     |
|                            | 15392                | -51.78          | -13              | -38.78                  | -58.17                  | -60.69                   | 5.95                       | 14.87                       | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Middle  | 3483 | -46.00 | -13 | -33.00 | -36.02 | -55.76 | 2.71 | 12.47 | H |
|         | 5219 | -52.57 | -13 | -39.57 | -48.2  | -62.17 | 3.35 | 12.95 | H |
|         | 6962 | -59.30 | -13 | -46.30 | -59.97 | -67.38 | 3.90 | 11.98 | H |
|         | 8705 | -48.19 | -13 | -35.19 | -52.24 | -55.22 | 4.35 | 11.38 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       |   |
|         | 3483 | -44.98 | -13 | -31.98 | -35.37 | -54.74 | 2.71 | 12.47 | V |
|         | 5219 | -54.95 | -13 | -41.95 | -51.04 | -64.55 | 3.35 | 12.95 | V |
|         | 6962 | -60.13 | -13 | -47.13 | -60.78 | -68.21 | 3.90 | 11.98 | V |
|         | 8705 | -52.97 | -13 | -39.97 | -56.71 | -60.00 | 4.35 | 11.38 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       | V |
| Highest | 3539 | -44.12 | -13 | -31.12 | -34.43 | -53.63 | 2.73 | 12.24 | H |
|         | 5310 | -48.82 | -13 | -35.82 | -44.4  | -58.86 | 3.38 | 13.42 | H |
|         | 7081 | -58.79 | -13 | -45.79 | -59.85 | -66.34 | 3.92 | 11.48 | H |
|         | 8852 | -55.24 | -13 | -42.24 | -59.69 | -62.07 | 4.38 | 11.20 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 3539 | -45.59 | -13 | -32.59 | -36.3  | -55.10 | 2.73 | 12.24 | V |
|         | 5310 | -50.35 | -13 | -37.35 | -46.24 | -60.39 | 3.38 | 13.42 | V |
|         | 7082 | -60.16 | -13 | -47.16 | -61.31 | -67.71 | 3.92 | 11.47 | V |
|         | 8852 | -56.61 | -13 | -43.61 | -60.28 | -63.44 | 4.38 | 11.20 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |

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

**LTE Band 66B**

| LTE Band 66B / 15MHz+5MHz / 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                           | 3441                 | -63.00          | -13              | -50.00                  | -52.65                  | -72.91                   | 2.69                       | 12.60                       | H                     |
|                                  | 5174                 | -66.16          | -13              | -53.16                  | -61.71                  | -75.47                   | 3.33                       | 12.64                       | H                     |
|                                  | 6899                 | -62.28          | -13              | -49.28                  | -62.7                   | -70.41                   | 3.88                       | 12.01                       | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  | 3441                 | -58.68          | -13              | -45.68                  | -48.7                   | -68.59                   | 2.69                       | 12.60                       | V                     |
|                                  | 5174                 | -65.81          | -13              | -52.81                  | -61.87                  | -75.12                   | 3.33                       | 12.64                       | V                     |
|                                  | 6899                 | -62.33          | -13              | -49.33                  | -62.93                  | -70.46                   | 3.88                       | 12.01                       | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                           | 3511                 | -60.03          | -13              | -47.03                  | -50.24                  | -69.66                   | 2.72                       | 12.36                       | H                     |
|                                  | 5257                 | -65.68          | -13              | -52.68                  | -61.28                  | -75.55                   | 3.36                       | 13.23                       | H                     |
|                                  | 7010                 | -61.53          | -13              | -48.53                  | -62.37                  | -69.46                   | 3.91                       | 11.84                       | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                  | 3511                 | -55.08          | -13              | -42.08                  | -45.66                  | -64.71                   | 2.72                       | 12.36                       | V                     |
|                                  | 5257                 | -65.05          | -13              | -52.05                  | -61.05                  | -74.92                   | 3.36                       | 13.23                       | V                     |
|                                  | 7010                 | -61.19          | -13              | -48.19                  | -61.92                  | -69.12                   | 3.91                       | 11.84                       | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 3550 | -58.83 | -13 | -45.83 | -49.19 | -68.30 | 2.73 | 12.20 | H |
|         | 5324 | -65.30 | -13 | -52.30 | -60.87 | -75.36 | 3.39 | 13.45 | H |
|         | 7099 | -61.20 | -13 | -48.20 | -62.32 | -68.68 | 3.93 | 11.40 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 3550 | -53.55 | -13 | -40.55 | -44.31 | -63.02 | 2.73 | 12.20 | V |
|         | 5324 | -64.91 | -13 | -51.91 | -60.77 | -74.97 | 3.39 | 13.45 | V |
|         | 7099 | -60.78 | -13 | -47.78 | -62.05 | -68.26 | 3.93 | 11.40 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |

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

**LTE Band 66C**

| LTE Band 66C / 20MHz+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                            | 3422                 | -59.84          | -13              | -46.84                  | -49.33                  | -69.76                   | 2.68                       | 12.60                       | H                     |
|                                   | 5133                 | -64.27          | -13              | -51.27                  | -59.68                  | -73.38                   | 3.32                       | 12.43                       | H                     |
|                                   | 6843                 | -61.54          | -13              | -48.54                  | -61.74                  | -70.08                   | 3.86                       | 12.40                       | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   | 3422                 | -59.51          | -13              | -46.51                  | -49.37                  | -69.43                   | 2.68                       | 12.60                       | V                     |
|                                   | 5133                 | -62.50          | -13              | -49.50                  | -58.46                  | -71.61                   | 3.32                       | 12.43                       | V                     |
|                                   | 6843                 | -61.82          | -13              | -48.82                  | -62.39                  | -70.36                   | 3.86                       | 12.40                       | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                            | 3472                 | -56.42          | -13              | -43.42                  | -46.34                  | -66.23                   | 2.71                       | 12.51                       | H                     |
|                                   | 5209                 | -65.25          | -13              | -52.25                  | -60.88                  | -74.78                   | 3.35                       | 12.87                       | H                     |
|                                   | 6945                 | -60.96          | -13              | -47.96                  | -61.56                  | -69.07                   | 3.89                       | 12.00                       | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                   | 3472                 | -61.24          | -13              | -48.24                  | -51.53                  | -71.05                   | 2.71                       | 12.51                       | V                     |
|                                   | 5209                 | -63.38          | -13              | -50.38                  | -59.49                  | -72.91                   | 3.35                       | 12.87                       | V                     |
|                                   | 6945                 | -61.06          | -13              | -48.06                  | -61.7                   | -69.17                   | 3.89                       | 12.00                       | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                   |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 3483 | -55.28 | -13 | -42.28 | -45.3  | -65.04 | 2.71 | 12.47 | H |
|         | 5224 | -64.87 | -13 | -51.87 | -60.49 | -74.51 | 3.35 | 12.99 | H |
|         | 6965 | -60.91 | -13 | -47.91 | -61.58 | -68.98 | 3.90 | 11.97 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 3483 | -59.84 | -13 | -46.84 | -50.23 | -69.60 | 2.71 | 12.47 | V |
|         | 5224 | -63.82 | -13 | -50.82 | -59.9  | -73.46 | 3.35 | 12.99 | V |
|         | 6965 | -60.91 | -13 | -47.91 | -61.55 | -68.98 | 3.90 | 11.97 | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |
|         |      |        |     |        |        |        |      |       | V |

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

**LTE Band 5B**

| LTE Band 5B / 10MHz+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                           | 1664                 | -66.05         | -13              | -53.05                  | -72.74                  | -71.44                   | 1.84                       | 9.38                        | H                     |
|                                  | 2500                 | -63.94         | -13              | -50.94                  | -74.81                  | -70.33                   | 2.26                       | 10.80                       | H                     |
|                                  | 3333                 | -62.38         | -13              | -49.38                  | -74.88                  | -70.15                   | 2.64                       | 12.56                       | H                     |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  | 1664                 | -65.82         | -13              | -52.82                  | -73                     | -71.21                   | 1.84                       | 9.38                        | V                     |
|                                  | 2500                 | -63.60         | -13              | -50.60                  | -74.51                  | -69.99                   | 2.26                       | 10.80                       | V                     |
|                                  | 3333                 | -61.99         | -13              | -48.99                  | -74.87                  | -69.76                   | 2.64                       | 12.56                       | V                     |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
| Middle                           | 1672                 | -66.25         | -13              | -53.25                  | -72.99                  | -71.69                   | 1.85                       | 9.43                        | H                     |
|                                  | 2508                 | -63.51         | -13              | -50.51                  | -74.35                  | -69.90                   | 2.26                       | 10.80                       | H                     |
|                                  | 3344                 | -62.26         | -13              | -49.26                  | -74.73                  | -70.12                   | 2.65                       | 12.65                       | H                     |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  | 1672                 | -66.07         | -13              | -53.07                  | -73.28                  | -71.51                   | 1.85                       | 9.43                        | V                     |
|                                  | 2508                 | -63.77         | -13              | -50.77                  | -74.7                   | -70.16                   | 2.26                       | 10.80                       | V                     |
|                                  | 3344                 | -62.46         | -13              | -49.46                  | -75.32                  | -70.32                   | 2.65                       | 12.65                       | V                     |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                |                  |                         |                         |                          |                            |                             |                       |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 1680 | -65.80 | -13 | -52.80 | -72.6  | -71.28 | 1.85 | 9.48  | H |
|         | 2515 | -63.47 | -13 | -50.47 | -74.28 | -69.85 | 2.27 | 10.80 | H |
|         | 3354 | -62.94 | -13 | -49.94 | -75.38 | -70.83 | 2.65 | 12.69 | H |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       |   |
|         | 1680 | -65.45 | -13 | -52.45 | -72.7  | -70.93 | 1.85 | 9.48  | V |
|         | 2515 | -63.10 | -13 | -50.10 | -74.04 | -69.48 | 2.27 | 10.80 | V |
|         | 3354 | -62.55 | -13 | -49.55 | -75.38 | -70.44 | 2.65 | 12.69 | V |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       |   |
|         |      |        |     |        |        |        |      |       |   |

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

**LTE Band 71**

| LTE Band 71 / 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                     | 1328                 | -65.27         | -13              | -52.27                  | -71.89                  | -70.09                   | 1.64                       | 6.46                        | H                     |
|                            | 1990                 | -65.32         | -13              | -52.32                  | -72.92                  | -73.20                   | 2.02                       | 9.90                        | H                     |
|                            | 2654                 | -63.70         | -13              | -50.70                  | -74.48                  | -72.17                   | 2.33                       | 10.80                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1328                 | -65.43         | -13              | -52.43                  | -72.04                  | -70.25                   | 1.64                       | 6.46                        | V                     |
|                            | 1990                 | -65.50         | -13              | -52.50                  | -73.36                  | -73.38                   | 2.02                       | 9.90                        | V                     |
|                            | 2654                 | -63.03         | -13              | -50.03                  | -74.37                  | -71.50                   | 2.33                       | 10.80                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 1344                 | -64.67         | -13              | -51.67                  | -71.29                  | -69.51                   | 1.65                       | 6.49                        | H                     |
|                            | 2020                 | -65.62         | -13              | -52.62                  | -73.45                  | -73.48                   | 2.04                       | 9.90                        | H                     |
|                            | 2694                 | -63.56         | -13              | -50.56                  | -74.58                  | -72.01                   | 2.35                       | 10.80                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1344                 | -65.82         | -13              | -52.82                  | -72.47                  | -70.66                   | 1.65                       | 6.49                        | V                     |
|                            | 2020                 | -65.05         | -13              | -52.05                  | -73.18                  | -72.91                   | 2.04                       | 9.90                        | V                     |
|                            | 2694                 | -62.73         | -13              | -49.73                  | -74.22                  | -71.18                   | 2.35                       | 10.80                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 1376 | -64.91 | -13 | -51.91 | -71.51 | -69.95 | 1.67 | 6.71  | H |
|         | 2065 | -64.87 | -13 | -51.87 | -73.19 | -72.59 | 2.06 | 9.78  | H |
|         | 2754 | -63.61 | -13 | -50.61 | -74.99 | -72.25 | 2.37 | 11.02 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 1376 | -63.35 | -13 | -50.35 | -70.07 | -68.39 | 1.67 | 6.71  | V |
|         | 2065 | -62.68 | -13 | -49.68 | -71.39 | -70.40 | 2.06 | 9.78  | V |
|         | 2754 | -62.85 | -13 | -49.85 | -74.59 | -71.49 | 2.37 | 11.02 | 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 / 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                     | 1648                 | -70.70         | -13              | -57.70                  | -51.5                   | -76.00                   | 1.83                       | 9.28                        | H                     |
|                            | 2473                 | -69.15         | -13              | -56.15                  | -55.04                  | -75.39                   | 2.25                       | 10.64                       | H                     |
|                            | 3298                 | -67.56         | -13              | -54.56                  | -56.16                  | -75.08                   | 2.62                       | 12.29                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1648                 | -70.55         | -13              | -57.55                  | -51.81                  | -75.85                   | 1.83                       | 9.28                        | V                     |
|                            | 2473                 | -68.80         | -13              | -55.80                  | -54.92                  | -75.04                   | 2.25                       | 10.64                       | V                     |
|                            | 3298                 | -67.84         | -13              | -54.84                  | -56.84                  | -75.36                   | 2.62                       | 12.29                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 1664                 | -69.21         | -13              | -56.21                  | -50.12                  | -74.60                   | 1.84                       | 9.38                        | H                     |
|                            | 2496                 | -68.77         | -13              | -55.77                  | -54.87                  | -75.14                   | 2.26                       | 10.78                       | H                     |
|                            | 3328                 | -67.93         | -13              | -54.93                  | -56.46                  | -75.67                   | 2.64                       | 12.52                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1664                 | -69.50         | -13              | -56.50                  | -50.88                  | -74.89                   | 1.84                       | 9.38                        | V                     |
|                            | 2496                 | -68.96         | -13              | -55.96                  | -55.13                  | -75.33                   | 2.26                       | 10.78                       | V                     |
|                            | 3328                 | -67.56         | -13              | -54.56                  | -56.49                  | -75.30                   | 2.64                       | 12.52                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |     |        |        |        |      |       |   |
|---------|------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 1680 | -70.56 | -13 | -57.56 | -51.59 | -76.04 | 1.85 | 9.48  | H |
|         | 2518 | -69.38 | -13 | -56.38 | -55.46 | -75.76 | 2.27 | 10.80 | H |
|         | 3360 | -68.17 | -13 | -55.17 | -56.65 | -76.05 | 2.65 | 12.68 | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         |      |        |     |        |        |        |      |       | H |
|         | 1680 | -69.93 | -13 | -56.93 | -51.43 | -75.41 | 1.85 | 9.48  | V |
|         | 2518 | -69.08 | -13 | -56.08 | -55.31 | -75.46 | 2.27 | 10.80 | V |
|         | 3358 | -67.60 | -13 | -54.60 | -56.47 | -75.48 | 2.65 | 12.68 | 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 / 10MHz / 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                    | 4998                 | -61.36          | -25              | -36.36                  | -56.33                  | -70.69                   | 3.27                       | 12.60                       | H                     |
|                           | 7500                 | -58.91          | -25              | -33.91                  | -61.72                  | -66.11                   | 4.00                       | 11.20                       | H                     |
|                           | 9999                 | -58.05          | -25              | -33.05                  | -62.06                  | -64.58                   | 4.67                       | 11.20                       | H                     |
|                           | 12501                | -56.28          | -25              | -31.28                  | -59.88                  | -64.82                   | 5.26                       | 13.80                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 4998                 | -55.60          | -25              | -30.60                  | -51.25                  | -64.93                   | 3.27                       | 12.60                       | V                     |
|                           | 7500                 | -56.03          | -25              | -31.03                  | -59.19                  | -63.23                   | 4.00                       | 11.20                       | V                     |
|                           | 9999                 | -57.12          | -25              | -32.12                  | -60.9                   | -63.65                   | 4.67                       | 11.20                       | V                     |
|                           | 12501                | -52.03          | -25              | -27.03                  | -56.05                  | -60.57                   | 5.26                       | 13.80                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                    | 5064                 | -65.32          | -25              | -40.32                  | -60.5                   | -74.40                   | 3.29                       | 12.37                       | H                     |
|                           | 7591                 | -60.77          | -25              | -35.77                  | -63.18                  | -68.10                   | 4.03                       | 11.36                       | H                     |
|                           | 10125                | -57.25          | -25              | -32.25                  | -61.49                  | -63.92                   | 4.71                       | 11.38                       | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                           | 5058                 | -60.55          | -25              | -35.55                  | -56.34                  | -69.64                   | 3.29                       | 12.38                       | V                     |
|                           | 7590                 | -59.18          | -25              | -34.18                  | -62.12                  | -66.51                   | 4.03                       | 11.36                       | V                     |
|                           | 10125                | -57.81          | -25              | -32.81                  | -61.59                  | -64.48                   | 4.71                       | 11.38                       | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |       |        |     |        |        |        |      |       |   |
|---------|-------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 5118  | -62.22 | -25 | -37.22 | -57.58 | -71.28 | 3.31 | 12.37 | H |
|         | 7680  | -60.85 | -25 | -35.85 | -63.35 | -68.35 | 4.06 | 11.56 | H |
|         | 10242 | -57.66 | -25 | -32.66 | -62.11 | -64.13 | 4.74 | 11.22 | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         | 5118  | -56.12 | -25 | -31.12 | -52.05 | -65.18 | 3.31 | 12.37 | V |
|         | 7680  | -59.46 | -25 | -34.46 | -62.48 | -66.96 | 4.06 | 11.56 | V |
|         | 10242 | -58.16 | -25 | -33.16 | -61.94 | -64.63 | 4.74 | 11.22 | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |

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

**LTE Band 7C**

| LTE Band 7C / 20MHz+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                           | 5040                 | -65.46          | -25              | -40.46                  | -60.57                  | -74.62                   | 3.28                       | 12.44                       | H                     |
|                                  | 7556                 | -61.91          | -25              | -36.91                  | -64.47                  | -69.11                   | 4.02                       | 11.22                       | H                     |
|                                  | 10071                | -58.20          | -25              | -33.20                  | -62.34                  | -64.85                   | 4.69                       | 11.34                       | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  | 5040                 | -64.51          | -25              | -39.51                  | -60.25                  | -73.67                   | 3.28                       | 12.44                       | V                     |
|                                  | 7556                 | -61.44          | -25              | -36.44                  | -64.47                  | -68.64                   | 4.02                       | 11.22                       | V                     |
|                                  | 10071                | -58.69          | -25              | -33.69                  | -62.47                  | -65.34                   | 4.69                       | 11.34                       | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
| Middle                           | 5070                 | -65.25          | -25              | -40.25                  | -60.46                  | -74.31                   | 3.30                       | 12.36                       | H                     |
|                                  | 7602                 | -61.31          | -25              | -36.31                  | -63.98                  | -68.68                   | 4.04                       | 11.40                       | H                     |
|                                  | 10134                | -57.73          | -25              | -32.73                  | -61.98                  | -64.39                   | 4.71                       | 11.37                       | H                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  | 5070                 | -65.05          | -25              | -40.05                  | -60.87                  | -74.11                   | 3.30                       | 12.36                       | V                     |
|                                  | 7602                 | -60.68          | -25              | -35.68                  | -63.6                   | -68.05                   | 4.04                       | 11.40                       | V                     |
|                                  | 10134                | -58.09          | -25              | -33.09                  | -61.87                  | -64.75                   | 4.71                       | 11.37                       | V                     |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|                                  |                      |                 |                  |                         |                         |                          |                            |                             |                       |



|         |       |        |     |        |        |        |      |       |   |
|---------|-------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 5124  | -64.89 | -25 | -39.89 | -60.27 | -73.97 | 3.31 | 12.40 | H |
|         | 7684  | -61.25 | -25 | -36.25 | -63.75 | -68.75 | 4.07 | 11.57 | H |
|         | 10242 | -57.71 | -25 | -32.71 | -62.16 | -64.18 | 4.74 | 11.22 | H |
|         |       |        |     |        |        |        |      |       |   |
|         |       |        |     |        |        |        |      |       |   |
|         |       |        |     |        |        |        |      |       |   |
|         |       |        |     |        |        |        |      |       |   |
|         | 5124  | -64.37 | -25 | -39.37 | -60.32 | -73.45 | 3.31 | 12.40 | V |
|         | 7684  | -60.63 | -25 | -35.63 | -63.66 | -68.13 | 4.07 | 11.57 | V |
|         | 10242 | -58.60 | -25 | -33.60 | -62.38 | -65.07 | 4.74 | 11.22 | 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                     | 1400                 | -64.33         | -13.00           | -51.33                  | -45.32                  | -67.39                   | 1.69                       | 6.90                        | H                     |
|                            | 2096                 | -56.48         | -13.00           | -43.48                  | -39.78                  | -61.79                   | 2.07                       | 9.53                        | H                     |
|                            | 2800                 | -68.28         | -13.00           | -55.28                  | -55.44                  | -74.94                   | 2.39                       | 11.20                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1400                 | -63.28         | -13.00           | -50.28                  | -44.46                  | -66.34                   | 1.69                       | 6.90                        | V                     |
|                            | 2096                 | -56.74         | -13.00           | -43.74                  | -40.50                  | -62.05                   | 2.07                       | 9.53                        | V                     |
|                            | 2800                 | -67.93         | -13.00           | -54.93                  | -55.34                  | -74.59                   | 2.39                       | 11.20                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 1408                 | -63.79         | -13.00           | -50.79                  | -44.82                  | -66.91                   | 1.69                       | 6.96                        | H                     |
|                            | 2112                 | -55.78         | -13.00           | -42.78                  | -39.28                  | -60.93                   | 2.08                       | 9.38                        | H                     |
|                            | 2812                 | -67.99         | -13.00           | -54.99                  | -55.16                  | -74.64                   | 2.40                       | 11.20                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1408                 | -62.75         | -13.00           | -49.75                  | -43.93                  | -65.87                   | 1.69                       | 6.96                        | V                     |
|                            | 2112                 | -54.15         | -13.00           | -41.15                  | -38.15                  | -59.30                   | 2.08                       | 9.38                        | V                     |
|                            | 2812                 | -68.06         | -13.00           | -55.06                  | -55.50                  | -74.71                   | 2.40                       | 11.20                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |        |        |        |        |      |       |   |
|---------|------|--------|--------|--------|--------|--------|------|-------|---|
| Highest | 1416 | -58.59 | -13.00 | -45.59 | -39.65 | -61.77 | 1.70 | 7.03  | H |
|         | 2120 | -49.91 | -13.00 | -36.91 | -33.52 | -54.97 | 2.09 | 9.30  | H |
|         | 2824 | -68.65 | -13.00 | -55.65 | -55.83 | -75.30 | 2.40 | 11.20 | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         | 1416 | -60.86 | -13.00 | -47.86 | -42.03 | -64.04 | 1.70 | 7.03  | V |
|         | 2120 | -53.04 | -13.00 | -40.04 | -37.16 | -58.10 | 2.09 | 9.30  | V |
|         | 2826 | -48.24 | -13.00 | -35.24 | -55.73 | -54.89 | 2.40 | 11.20 | 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                    | 1552                 | -55.27         | -13              | -42.27                  | -36.20                  | -59.95                   | 1.78                       | 8.61                        | H                     |
|                           | 2328                 | -48.64         | -13              | -35.64                  | -33.64                  | -53.98                   | 2.18                       | 9.67                        | H                     |
|                           | 3109                 | -68.03         | -13              | -55.03                  | -56.14                  | -74.67                   | 2.53                       | 11.32                       | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           | 1552                 | -59.54         | -13              | -46.54                  | -40.55                  | -64.22                   | 1.78                       | 8.61                        | V                     |
|                           | 2328                 | -45.38         | -13              | -32.38                  | -31.09                  | -50.72                   | 2.18                       | 9.67                        | V                     |
|                           | 3109                 | -67.24         | -13              | -54.24                  | -55.90                  | -73.88                   | 2.53                       | 11.32                       | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                    | 1560                 | -59.25         | -42.15           | -17.10                  | -40.10                  | -63.98                   | 1.78                       | 8.66                        | H                     |
|                           | 2340                 | -54.45         | -13              | -41.45                  | -39.48                  | -59.85                   | 2.19                       | 9.74                        | H                     |
|                           | 3119                 | -68.11         | -13              | -55.11                  | -56.30                  | -74.76                   | 2.54                       | 11.34                       | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                           | 1560                 | -58.09         | -42.15           | -15.94                  | -39.08                  | -62.82                   | 1.78                       | 8.66                        | V                     |
|                           | 2340                 | -51.75         | -13              | -38.75                  | -37.49                  | -57.15                   | 2.19                       | 9.74                        | V                     |
|                           | 3119                 | -67.28         | -13              | -54.28                  | -56.00                  | -73.93                   | 2.54                       | 11.34                       | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                           |                      |                |                  |                         |                         |                          |                            |                             | V                     |



|         |      |        |        |        |        |        |      |       |   |
|---------|------|--------|--------|--------|--------|--------|------|-------|---|
| Highest | 1560 | -61.10 | -42.15 | -18.95 | -41.95 | -65.83 | 1.78 | 8.66  | H |
|         | 2344 | -45.76 | -13    | -32.76 | -30.80 | -51.19 | 2.19 | 9.76  | H |
|         | 3128 | -68.30 | -13    | -55.30 | -56.55 | -74.96 | 2.54 | 11.36 | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         |      |        |        |        |        |        |      |       | H |
|         | 1560 | -58.57 | -42.15 | -16.42 | -39.56 | -63.30 | 1.78 | 8.66  | V |
|         | 2344 | -44.99 | -13    | -31.99 | -30.75 | -50.42 | 2.19 | 9.76  | V |
|         | 3128 | -67.03 | -13    | -54.03 | -55.81 | -73.69 | 2.54 | 11.36 | 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                 | -59.42         | -13              | -46.42                  | -40.35                  | -64.10                   | 1.78                       | 8.61                        | H                     |
|                            | 2328                 | -53.13         | -13              | -40.13                  | -38.13                  | -58.47                   | 2.18                       | 9.67                        | H                     |
|                            | 3112                 | -68.04         | -13              | -55.04                  | -56.17                  | -74.68                   | 2.53                       | 11.32                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1552                 | -59.29         | -13              | -46.29                  | -40.3                   | -63.97                   | 1.78                       | 8.61                        | V                     |
|                            | 2328                 | -50.51         | -13              | -37.51                  | -36.25                  | -55.85                   | 2.18                       | 9.67                        | V                     |
|                            | 3112                 | -67.35         | -13              | -54.35                  | -56.02                  | -73.99                   | 2.53                       | 11.32                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |

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

**LTE Band 41 HPUE**

| LTE Band 41_HPUE / 10MHz / 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                          | 4992                 | -59.05          | -25              | -34.05                  | -54.69                  | -68.40                   | 3.27                       | 12.62                       | H                     |
|                                 | 7488                 | -58.21          | -25              | -33.21                  | -61.36                  | -65.39                   | 4.00                       | 11.18                       | H                     |
|                                 | 9986                 | -56.73          | -25              | -31.73                  | -60.8                   | -63.24                   | 4.67                       | 11.17                       | H                     |
|                                 | 12483                | -52.97          | -25              | -27.97                  | -56.63                  | -61.48                   | 5.26                       | 13.77                       | H                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                 | 4992                 | -57.05          | -25              | -32.05                  | -52.69                  | -66.40                   | 3.27                       | 12.62                       | V                     |
|                                 | 7488                 | -56.21          | -25              | -31.21                  | -59.36                  | -63.39                   | 4.00                       | 11.18                       | V                     |
|                                 | 9986                 | -58.10          | -25              | -33.10                  | -61.92                  | -64.61                   | 4.67                       | 11.17                       | V                     |
|                                 | 12483                | -52.45          | -25              | -27.45                  | -56.5                   | -60.96                   | 5.26                       | 13.77                       | V                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                          | 5178                 | -59.60          | -25              | -34.60                  | -55.16                  | -68.93                   | 3.33                       | 12.67                       | H                     |
|                                 | 7764                 | -58.66          | -25              | -33.66                  | -61.28                  | -66.38                   | 4.10                       | 11.82                       | H                     |
|                                 | 10350                | -57.05          | -25              | -32.05                  | -61.7                   | -63.13                   | 4.78                       | 10.85                       | H                     |
|                                 | 12942                | -55.02          | -25              | -30.02                  | -61.96                  | -63.19                   | 5.37                       | 13.54                       | H                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                 | 5178                 | -56.06          | -25              | -31.06                  | -52.13                  | -65.39                   | 3.33                       | 12.67                       | V                     |
|                                 | 7764                 | -58.31          | -25              | -33.31                  | -61.43                  | -66.03                   | 4.10                       | 11.82                       | V                     |
|                                 | 10350                | -57.83          | -25              | -32.83                  | -61.62                  | -63.91                   | 4.78                       | 10.85                       | V                     |
|                                 | 12942                | -56.32          | -25              | -31.32                  | -61.92                  | -64.49                   | 5.37                       | 13.54                       | V                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                 |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |       |        |     |        |        |        |      |       |   |
|---------|-------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 5358  | -58.06 | -25 | -33.06 | -53.62 | -68.11 | 3.40 | 13.45 | H |
|         | 8042  | -58.45 | -25 | -33.45 | -61.88 | -65.23 | 4.19 | 10.97 | H |
|         | 10719 | -56.45 | -25 | -31.45 | -61.39 | -62.64 | 4.87 | 11.06 | H |
|         | 13401 | -54.83 | -25 | -29.83 | -62.06 | -62.58 | 5.45 | 13.20 | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         | 5358  | -57.23 | -25 | -32.23 | -53.02 | -67.28 | 3.40 | 13.45 | V |
|         | 8042  | -56.50 | -25 | -31.50 | -60.17 | -63.28 | 4.19 | 10.97 | V |
|         | 10719 | -57.17 | -25 | -32.17 | -61.35 | -63.36 | 4.87 | 11.06 | V |
|         | 13401 | -55.95 | -25 | -30.95 | -61.81 | -63.70 | 5.45 | 13.20 | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |

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

**LTE Band 41C**

| LTE Band 41C / 20MHz+ 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                             | 5070                 | -65.46          | -25              | -40.46                  | -60.67                  | -74.52                   | 3.30                       | 12.36                       | H                     |
|                                    | 7602                 | -61.14          | -25              | -36.14                  | -63.51                  | -68.51                   | 4.04                       | 11.40                       | H                     |
|                                    | 10143                | -57.64          | -25              | -32.64                  | -61.91                  | -64.28                   | 4.71                       | 11.36                       | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    | 5070                 | -64.42          | -25              | -39.42                  | -60.24                  | -73.48                   | 3.30                       | 12.36                       | V                     |
|                                    | 7602                 | -60.48          | -25              | -35.48                  | -63.4                   | -67.85                   | 4.04                       | 11.40                       | V                     |
|                                    | 10143                | -57.87          | -25              | -32.87                  | -61.66                  | -64.51                   | 4.71                       | 11.36                       | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                             | 5226                 | -65.05          | -25              | -40.05                  | -60.68                  | -74.71                   | 3.35                       | 13.01                       | H                     |
|                                    | 7835                 | -59.93          | -25              | -34.93                  | -62.75                  | -67.34                   | 4.12                       | 11.53                       | H                     |
|                                    | 10449                | -57.22          | -25              | -32.22                  | -62.05                  | -63.11                   | 4.80                       | 10.70                       | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                                    | 5226                 | -64.40          | -25              | -39.40                  | -60.47                  | -74.06                   | 3.35                       | 13.01                       | V                     |
|                                    | 7835                 | -59.48          | -25              | -34.48                  | -62.72                  | -66.89                   | 4.12                       | 11.53                       | V                     |
|                                    | 10449                | -58.29          | -25              | -33.29                  | -62.08                  | -64.18                   | 4.80                       | 10.70                       | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
|                                    |                      |                 |                  |                         |                         |                          |                            |                             | V                     |



|         |       |        |     |        |        |        |      |       |   |
|---------|-------|--------|-----|--------|--------|--------|------|-------|---|
| Highest | 5376  | -65.06 | -25 | -40.06 | -60.62 | -75.00 | 3.41 | 13.34 | H |
|         | 8064  | -59.84 | -25 | -34.84 | -63.23 | -66.64 | 4.20 | 11.00 | H |
|         | 10755 | -56.34 | -25 | -31.34 | -61.28 | -62.45 | 4.88 | 10.99 | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         |       |        |     |        |        |        |      |       | H |
|         | 5376  | -64.60 | -25 | -39.60 | -60.35 | -74.54 | 3.41 | 13.34 | V |
|         | 8064  | -59.54 | -25 | -34.54 | -63.26 | -66.34 | 4.20 | 11.00 | V |
|         | 10755 | -57.62 | -25 | -32.62 | -61.86 | -63.73 | 4.88 | 10.99 | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |
|         |       |        |     |        |        |        |      |       | V |

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