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## RADIO TEST REPORT

Report No.: STS2109174W06

Issued for

Trackimo INC.

450 Seventh Avenue, Suite 1408, New York, United States

|                       |                                  |
|-----------------------|----------------------------------|
| <b>Product Name:</b>  | GPS Tracker                      |
| <b>Brand Name:</b>    | Trackimo                         |
| <b>Model Name:</b>    | TRKM010B                         |
| <b>Series Model:</b>  | N/A                              |
| <b>FCC ID:</b>        | 2AAI6-TRKM010B                   |
| <b>Test Standard:</b> | 47 CFR Part 2, 22, 24(E), 27, 90 |

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**TEST RESULT CERTIFICATION****Applicant's Name** .....: Trackimo INC.

Address .....: 450 Seventh Avenue, Suite 1408, New York, United States

**Manufacturer's Name** .....: Trackimo INC.

Address .....: 450 Seventh Avenue, Suite 1408, New York, United States

**Product Description**

Product Name .....: GPS Tracker

Brand Name .....: Trackimo

Model Name .....: TRKM010B

Series Model .....: N/A

**Test Standards**.....: 47 CFR Part 2, 22, 24(E), 27, 90

Test Procedure .....: KDB 971168 D01 v03r01, ANSI C63.26 2015

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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**Date of Test**.....:

Date of receipt of test item.....: 24 Sept. 2021

Date (s) of performance of tests.: 24 Sept. 2021 ~ 22 Oct. 2021

Date of Issue .....: 22 Oct. 2021

Test Result .....: Pass

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean she)

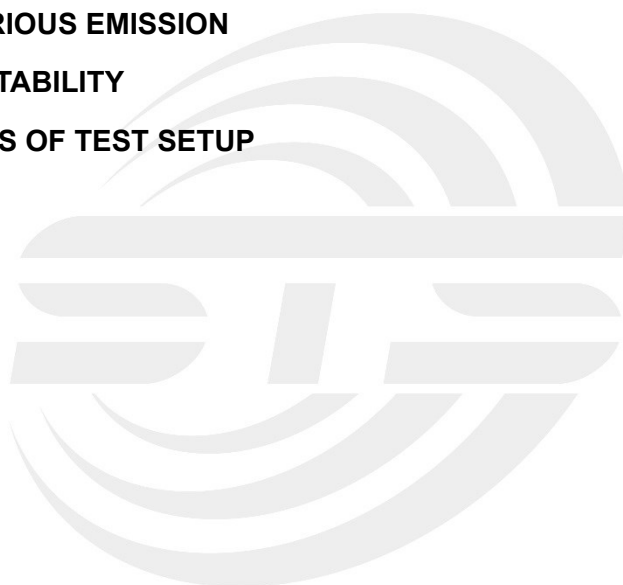
Authorized Signatory :

(Vita Li)





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**Revision History**

| Rev. | Issue Date   | Report NO.    | Effect Page | Contents      |
|------|--------------|---------------|-------------|---------------|
| 00   | 22 Oct. 2021 | STS2109174W06 | ALL         | Initial Issue |
|      |              |               |             |               |





## 1. TEST FACTORY & MEASUREMENT UNCERTAINTY

### 1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

### 1.2 MEASUREMENT UNCERTAINTY

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

| No. | Item                              | Uncertainty          |
|-----|-----------------------------------|----------------------|
| 1   | RF output power, conducted        | $\pm 0.68\text{dB}$  |
| 2   | Unwanted Emissions, conducted     | $\pm 2.988\text{dB}$ |
| 3   | All emissions, radiated 9K-30MHz  | $\pm 2.84\text{dB}$  |
| 4   | All emissions, radiated 30M-1GHz  | $\pm 4.39\text{dB}$  |
| 5   | All emissions, radiated 1G-6GHz   | $\pm 5.10\text{dB}$  |
| 6   | All emissions, radiated >6G       | $\pm 5.48\text{dB}$  |
| 7   | Conducted Emission (9KHz-150KHz)  | $\pm 2.79\text{dB}$  |
| 8   | Conducted Emission (150KHz-30MHz) | $\pm 2.80\text{dB}$  |



## 2. GENERAL INFORMATION

### 2.1 TECHNICAL SPECIFICATIONS AND REGULATIONS

#### 2.1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

|                         |                                                                                                                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name            | GPS Tracker                                                                                                                                                                                                  |
| Trade Name              | Trackimo                                                                                                                                                                                                     |
| Model Name              | TRKM010B                                                                                                                                                                                                     |
| Series Model            | N/A                                                                                                                                                                                                          |
| Model Difference        | N/A                                                                                                                                                                                                          |
| Frequency Bands         | U.S. Bands:<br>LTE FDD Band 2      LTE FDD Band 4<br>LTE FDD Band 5      LTE FDD Band 7<br>LTE FDD Band 12     LTE FDD Band 13<br>LTE FDD Band 17     LTE FDD Band 25<br>LTE FDD Band 26     LTE FDD Band 41 |
| SIM Card                | Only support single SIM Card.                                                                                                                                                                                |
| Antenna                 | PIFA                                                                                                                                                                                                         |
| Antenna gain            | LTEB2/B25: -1.66dBi, LTEB4: -1.75dBi, LTEB7: -1.61dBi,<br>LTEB5/B26: -6.02dBi, LTEB12/B13/B17: -6.54dBi,<br>LTEB41: -0.65dBi                                                                                 |
| Battery parameter       | Rated Voltage: 3.7V<br>Charge Limit Voltage: 4.2V<br>Capacity: 600mAh                                                                                                                                        |
| Rating                  | Input: DC 5V 500mA                                                                                                                                                                                           |
| Extreme Vol. Limits     | 3.3V to 4.2V (Nominal 3.7V)                                                                                                                                                                                  |
| Extreme Temp. Tolerance | -10°C to +55°C                                                                                                                                                                                               |
| Hardware version number | UB11 W307 V0.4                                                                                                                                                                                               |
| Software version number | 0.3                                                                                                                                                                                                          |

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



## 2.1.2 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

| Product Specification Subjective To This Standard |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tx Frequency                                      | LTE Band 2:1850~1910MHz<br>LTE Band 4:1710~1755MHz<br>LTE Band 5:824~849MHz<br>LTE Band 7:2500~2570MHz<br>LTE Band 12:699~716MHz<br>LTE Band 13:777~787MHz<br>LTE Band 17:704~716MHz<br>LTE Band 25:1850~1915MHz<br>LTE Band 26:814~849MHz<br>LTE Band 41:2555~2655MHz                                                                                                                                                                                                       |
| Rx Frequency                                      | LTE Band 2:1930 ~1990MHz<br>LTE Band 4:2110~2155MHz<br>LTE Band 5:869~894MHz<br>LTE Band 7:2620~2690MHz<br>LTE Band 12:729~746MHz<br>LTE Band 13:746~756MHz<br>LTE Band 17:734~746MHz<br>LTE Band 25:1930~1995MHz<br>LTE Band 26:859~894MHz<br>LTE Band 41:2555~2655MHz                                                                                                                                                                                                      |
| Bandwidth                                         | 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 41: 5MHz / 10MHz / 15MHz /20MHz |
| Maximum Output Power                              | LTE Band 2: 24.23 dBm<br>LTE Band 4: 24.88 dBm<br>LTE Band 5: 24.68 dBm<br>LTE Band 7: 23.95 dBm<br>LTE Band 12: 25.12 dBm<br>LTE Band 13: 24.23 dBm<br>LTE Band 17: 24.23 dBm<br>LTE Band 25: 24.66 dBm<br>LTE Band 26: 25.23 dBm<br>LTE Band 41: 24.35 dBm                                                                                                                                                                                                                 |
| Type of Modulation                                | QPSK /16QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



The Bandwidth channel frequency division table for Band 26:

| Part90 |            |         |           | Part22 |               |         |           |
|--------|------------|---------|-----------|--------|---------------|---------|-----------|
| TX     | 814MHz     | -       | 824MHz    | TX     | 824MHz        | -       | 849MHz    |
| RX     | 859MHz     | -       | 869MHz    | RX     | 869MHz        | -       | 894MHz    |
| Band26 | BW         | Channel | Frequency | Band26 | BW            | Channel | Frequency |
| Low    | 1.4M       | 26697   | 814.7     | Low    | 1.4M          | 26797   | 824.7     |
|        | 3M         | 26705   | 815.5     |        | 3M            | 26805   | 825.5     |
|        | 5M         | 26715   | 816.5     |        | 5M            | 26815   | 826.5     |
| Middle | 1.4/3/5/10 | 26740   | 819       | Middle | 10M           | 26840   | 829       |
| High   | 1.4M       | 26783   | 823.3     |        | 15M           | 26865   | 831.5     |
|        | 3M         | 26775   | 822.5     |        | 1.4/3/5/10/15 | 26915   | 836.5     |
|        | 5M         | 26765   | 821.5     | High   | 1.4M          | 27033   | 848.3     |
|        |            |         |           |        | 3M            | 27025   | 847.5     |
|        |            |         |           |        | 5M            | 27015   | 846.5     |
|        |            |         |           |        | 10M           | 26990   | 844       |
|        |            |         |           |        | 15M           | 26965   | 841.5     |

| RF Function | Band                       | UE Category UL | Modulation                         | Power Class | Ant Gain(dBi)                                                                                                                        | Ant Type | SIM Card                      |
|-------------|----------------------------|----------------|------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------|
| LTE         | FDD:2/4/5/7/12/13/17/25/26 |                | UL: QPSK, 16QAM<br>DL: QPSK, 16QAM | 3           | B2: -1.66<br>B4: -1.75<br>B5: -6.02<br>B7: -1.61<br>B12: -6.54<br>B13: -6.54<br>B17: -6.54<br>B25: -1.66<br>B26: -6.02<br>B41: -0.65 | PIFA     | 1<br>SIM 1 is used to tested. |
|             | TDD:41                     |                |                                    |             |                                                                                                                                      |          |                               |



### 2.1.3 EMISSION DESIGNATOR

| LTE Band 2  | Emission Designator | Emission Designator |
|-------------|---------------------|---------------------|
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 1.4         | 1M11G7D             | 1M11W7D             |
| 3           | 2M69G7D             | 2M69W7D             |
| 5           | 4M54G7D             | 4M55W7D             |
| 10          | 8M96G7D             | 8M95W7D             |
| 15          | 13M6G7D             | 13M5W7D             |
| 20          | 18M0G7D             | 18M0W7D             |
| LTE Band 4  | Emission Designator | Emission Designator |
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 1.4         | 1M11G7D             | 1M11W7D             |
| 3           | 2M69G7D             | 2M69W7D             |
| 5           | 4M54G7D             | 4M54W7D             |
| 10          | 8M96G7D             | 8M96W7D             |
| 15          | 13M5G7D             | 13M5W7D             |
| 20          | 18M0G7D             | 18M0W7D             |
| LTE Band 5  | Emission Designator | Emission Designator |
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 1.4         | 1M14G7D             | 1M13W7D             |
| 3           | 2M72G7D             | 2M71W7D             |
| 5           | 4M56G7D             | 4M57W7D             |
| 10          | 8M97G7D             | 8M96W7D             |
| LTE Band 7  | Emission Designator | Emission Designator |
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 5           | 4M53G7D             | 4M55W7D             |
| 10          | 8M95G7D             | 8M95W7D             |
| 15          | 13M5G7D             | 13M5W7D             |
| 20          | 18M0G7D             | 18M0W7D             |
| LTE Band 12 | Emission Designator | Emission Designator |
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 1.4         | 1M10G7D             | 1M10W7D             |
| 3           | 2M69G7D             | 2M69W7D             |
| 5           | 4M53G7D             | 4M56W7D             |
| 10          | 8M96G7D             | 8M95W7D             |
| LTE Band 13 | Emission Designator | Emission Designator |
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 5           | 4M53G7D             | 4M54W7D             |
| 10          | 8M91G7D             | 8M91W7D             |
| LTE Band 17 | Emission Designator | Emission Designator |
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 5           | 4M54G7D             | 4M54W7D             |
| 10          | 8M95G7D             | 8M95W7D             |
| LTE Band 25 | Emission Designator | Emission Designator |
| BW(MHz)     | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 1.4         | 1M11G7D             | 1M11W7D             |
| 3           | 2M69G7D             | 2M69W7D             |
| 5           | 4M52G7D             | 4M54W7D             |
| 10          | 8M96G7D             | 8M95W7D             |
| 15          | 13M5G7D             | 13M5W7D             |
| 20          | 18M0G7D             | 18M0W7D             |



| LTE Band 26<br>(Part 22) | Emission Designator | Emission Designator |
|--------------------------|---------------------|---------------------|
| BW(MHz)                  | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 1.4                      | 1M10G7D             | 1M11W7D             |
| 3                        | 2M69G7D             | 2M69W7D             |
| 5                        | 4M52G7D             | 4M56W7D             |
| 10                       | 8M96G7D             | 8M96W7D             |
| 15                       | 13M5G7D             | 13M5W7D             |
| LTE Band 26<br>(Part 90) | Emission Designator | Emission Designator |
| BW(MHz)                  | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 1.4                      | 1M11G7D             | 1M11W7D             |
| 3                        | 2M69G7D             | 2M69W7D             |
| 5                        | 4M52G7D             | 4M54W7D             |
| 10                       | 8M91G7D             | 8M90W7D             |
| LTE Band 41              | Emission Designator | Emission Designator |
| BW(MHz)                  | (99%OBW)QPSK        | (99%OBW)16QAM       |
| 5                        | 4M52G7D             | 4M52W7D             |
| 10                       | 8M95G7D             | 8M95W7D             |
| 15                       | 13M5G7D             | 13M5W7D             |
| 20                       | 17M9G7D             | 18M0W7D             |



#### 2.1.4 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

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

Remark:

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

| ITEMS              | Band | Bandwidth (MHz) |   |   |    |    |    | Modulation |       | RB # |      |      | Test Channel |   |   |
|--------------------|------|-----------------|---|---|----|----|----|------------|-------|------|------|------|--------------|---|---|
|                    |      | 1.4             | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 1    | Half | Full | L            | M | H |
| Max. Output 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 |   |
|                    | 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 |
|                    | 41   |                 |   | v | v  | v  | v  | v          | v     | v    | v    | v    | v            | v | v |
| Peak&Avera Ratio   | 2    |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
|                    | 4    |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
|                    | 5    |                 |   |   | v  |    |    | v          | v     | v    |      | v    | v            | v | v |
|                    | 7    |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
|                    | 12   |                 |   |   | v  |    |    | v          | v     | v    |      | v    | v            | v | v |
|                    | 13   |                 |   |   | v  |    |    | v          | v     | v    |      | v    |              | v |   |
|                    | 17   |                 |   |   | v  |    |    | v          | v     | v    |      | v    | v            | v | v |
|                    | 25   |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
|                    | 26   |                 |   |   |    | v  |    | v          | v     | v    |      | v    | v            | v | v |
|                    | 41   |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
| 26dB&99% Bandwidth | 2    | v               | v | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |
|                    | 4    | v               | v | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |
|                    | 5    | v               | v | v | v  |    |    | v          | v     |      |      | v    | v            | v | v |
|                    | 7    |                 |   | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |
|                    | 12   | v               | v | v | v  |    |    | v          | v     |      |      | v    | v            | v | v |
|                    | 13   |                 |   | v | v  |    |    | v          | v     |      |      | v    |              | v |   |
|                    | 17   |                 |   | v | v  |    |    | v          | v     |      |      | v    | v            | v | v |
|                    | 25   | v               | v | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |
|                    | 26   | v               | v | v | v  | v  |    | v          | v     |      |      | v    | v            | v | v |
|                    | 41   |                 |   | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |



|                             |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conducted Band Edge         | 2  | v | v | v | v | v | v | v | v | v | v | v | v | 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 |
|                             | 7  |   |   | v | v | v | v | v | v | v |   | v | v | v | v |
|                             | 12 | v | v | v | v |   |   | v | v | v |   | v | v | v | v |
|                             | 13 |   |   | v | v |   |   | v | v | v |   | v |   | v |   |
|                             | 17 |   |   | v | v |   |   | v | v | v |   | v | v | v | v |
|                             | 25 | 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 |
|                             | 41 |   |   | v | v | v | v | v | v | v |   | v | v | v | v |
| Conducted Spurious Emission | 2  | v | v | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 4  | v | v | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 5  | v | v | v | v |   |   | v | v | v |   |   | v | v | v |
|                             | 7  |   |   | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 12 | v | v | v | v |   |   | v | v | v |   |   | v | v | v |
|                             | 13 |   |   | v | v |   |   | v | v | v |   |   |   | v |   |
|                             | 17 |   |   | v | v |   |   | v | v | v |   |   | v | v | v |
|                             | 25 | v | v | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 26 | v | v | v | v | v |   | v | v | v |   |   | v | v | v |
|                             | 41 |   |   | v | v | v | v | v | v | v |   |   | v | v | v |
| Frequency Stability         | 2  |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 4  |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 5  |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 7  |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 12 |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 13 |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 17 |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 25 |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 26 |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
|                             | 41 |   |   |   | v |   |   | v |   |   |   | v |   | v |   |
| E.R.P.& E.I.R.P.            | 2  | v | v | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 4  | v | v | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 5  | v | v | v | v |   |   | v | v | v |   |   | v | v | v |
|                             | 7  |   |   | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 12 | v | v | v | v |   |   | v | v | v |   |   | v | v | v |
|                             | 13 |   |   | v | v |   |   | v | v | v |   |   |   | v |   |
|                             | 17 |   |   | v | v |   |   | v | v | v |   |   | v | v | v |
|                             | 25 | v | v | v | v | v | v | v | v | v |   |   | v | v | v |
|                             | 26 | v | v | v | v | v |   | v | v | v |   |   | v | v | v |
|                             | 41 |   |   | v | v | v | v | v | v | v |   |   | v | v | v |



|                                  |    |   |   |   |   |   |   |   |  |   |  |  |   |   |   |
|----------------------------------|----|---|---|---|---|---|---|---|--|---|--|--|---|---|---|
| Radiated<br>Spurious<br>Emission | 2  | v | v | v | v | v | v | v |  | v |  |  | v | v | v |
|                                  | 4  | v | v | v | v | v | v | v |  | v |  |  | v | v | v |
|                                  | 5  | v | v | v | v |   |   | v |  | v |  |  | v | v | v |
|                                  | 7  |   |   | v | v | v | v | v |  | v |  |  | v | v | v |
|                                  | 12 | v | v | v | v |   |   | v |  | v |  |  | v | v | v |
|                                  | 13 |   |   | v | v |   |   | v |  | v |  |  |   | v |   |
|                                  | 17 |   |   | v | v |   |   | v |  | v |  |  | v | v | v |
|                                  | 25 | v | v | v | v | v | v | v |  | v |  |  | v | v | v |
|                                  | 26 | v | v | v | v | v |   | v |  | v |  |  | v | v | v |
|                                  | 41 |   |   | v | v | v | v | v |  | v |  |  | v | v | v |





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

This submittal(s) (test report) is intended for filing to comply with the 47 CFR Part 2, 22, 24(E), 27, 90.

#### 2.1.6 SPECIAL ACCESSORIES

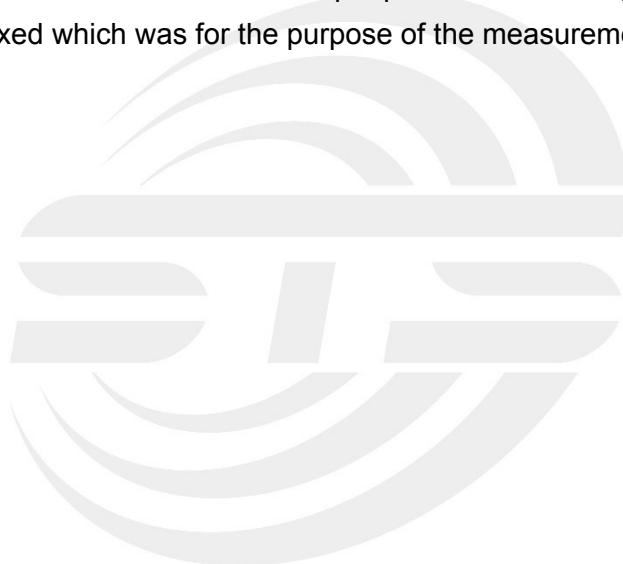
The battery and the charger, earphone supplied by the applicant were used as accessories and being tested with eut intended for fcc grant together.

#### 2.1.7 EUT CONFIGURATION

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

#### 2.1.8 EUT EXERCISE

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





### 2.1.9 CONFIGURATION OF EUT SYSTEM

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

E-1  
EUT

Table 2-1 Equipment Used in EUT System

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

Note:

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



## 2.1.10 MEASUREMENT INSTRUMENTS

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

## Radiation Test equipment

| Kind of Equipment                | Manufacturer | Type No.       | Serial No.   | Last calibration | Calibrated until |
|----------------------------------|--------------|----------------|--------------|------------------|------------------|
| Test Receiver                    | R&S          | ESCI           | 101427       | 2021.09.30       | 2022.09.29       |
| Signal Analyzer                  | R&S          | FSV 40-N       | 101823       | 2021.09.30       | 2022.09.29       |
| Signal Generator                 | Agilent      | 83752A         | 3610A02740   | 2021.09.30       | 2022.09.29       |
| Wireless Communications Test Set | R&S          | CMW 500        | 133884       | 2021.03.04       | 2022.03.03       |
| Bilog Antenna                    | TESEQ        | CBL6111D       | 34678        | 2020.10.12       | 2022.10.11       |
| Horn Antenna                     | SCHWARZBECK  | BBHA 9120D     | 02014        | 2021.10.11       | 2023.10.10       |
| Bilog Antenna                    | TESEQ        | CBL6111D       | 45873        | 2020.10.12       | 2022.10.11       |
| Horn Antenna                     | SCHWARZBECK  | BBHA 9120D     | 9120D-1343   | 2020.10.12       | 2022.10.11       |
| SHF-EHF Horn Antenna (18G-40GHz) | A-INFO       | LB-180400-KF   | J211020657   | 2020.10.12       | 2022.10.11       |
| Pre-Amplifier (0.1M-3GHz)        | EM           | EM330          | 060665       | 2021.10.08       | 2022.10.07       |
| Pre-Amplifier (1G-18GHz)         | SKET         | LNPA-01018G-45 | SK2018080901 | 2021.09.30       | 2022.09.29       |
| Pre-Amplifier (18G-40GHz)        | SKET         | LNPA-1840-50   | SK2018101801 | 2021.09.28       | 2022.09.27       |
| Turn table                       | EM           | SC100_1        | 60531        | N/A              | N/A              |
| Antenna mast                     | EM           | SC100          | N/A          | N/A              | N/A              |
| Temperature & Humidity           | HH660        | Mieo           | N/A          | 2021.10.09       | 2022.10.08       |
| Test SW                          | BULUN        | BL410-E/18.905 |              |                  |                  |

## RF Connected Test

| Kind of Equipment                    | Manufacturer | Type No.        | Serial No. | Last calibration | Calibrated until |
|--------------------------------------|--------------|-----------------|------------|------------------|------------------|
| Universal Radio communication tester | R&S          | CMU200          | 119907     | 2021.09.29       | 2022.09.28       |
| Wireless Communications Test Set     | R&S          | CMW 500         | 133884     | 2021.03.04       | 2022.03.03       |
| Signal Analyzer                      | Agilent      | N9020A          | MY52440124 | 2021.03.04       | 2022.03.03       |
| Temperature & Humidity test chamber  | Safety test  | AG80L           | 171200018  | 2021.03.04       | 2022.03.03       |
| Programmable power supply            | Agilent      | E3642A          | MY40002025 | 2021.10.08       | 2022.10.07       |
| Temperature & Humidity               | SW-108       | SuWei           | N/A        | 2021.03.04       | 2022.03.03       |
| Universal Radio communication tester | R&S          | CMU200          | 119907     | 2021.09.29       | 2022.09.28       |
| Test SW                              | FARAD        | LZ-RF /LzRf-3A3 |            |                  |                  |



## 2.1.11 MEASUREMENT RESULTS EXPLANATION EXAMPLE

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF Cable Loss + Attenuator Factor.*



### 3. CONDUCTED OUTPUT POWER

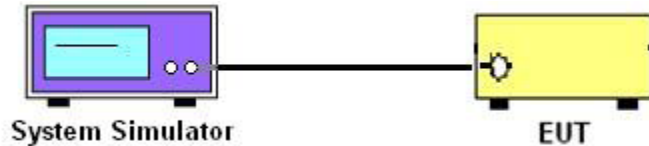
#### 3.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

##### 3.1.1 MEASUREMENT METHOD

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

Configuration follows KDB 971168 D01 v03r01.

##### 3.1.2 TEST SETUP



##### 3.1.3 TEST PROCEDURES

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



## 3.1.4 TEST RESULTS

| LTE Band 2 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 1.4                                    | 1       | 0         | QPSK   | 23.94  | 23.20  | 22.59   |
| 1.4                                    | 1       | 2         |        | 23.69  | 22.91  | 22.34   |
| 1.4                                    | 1       | 5         |        | 23.49  | 22.62  | 22.08   |
| 1.4                                    | 3       | 0         |        | 23.28  | 22.38  | 21.84   |
| 1.4                                    | 3       | 1         |        | 23.03  | 22.17  | 21.59   |
| 1.4                                    | 3       | 2         |        | 22.81  | 21.88  | 21.34   |
| 1.4                                    | 6       | 0         |        | 22.56  | 21.60  | 21.09   |
| 1.4                                    | 1       | 0         | 16-QAM | 23.69  | 22.90  | 22.30   |
| 1.4                                    | 1       | 2         |        | 23.48  | 22.69  | 22.04   |
| 1.4                                    | 1       | 5         |        | 23.21  | 22.41  | 21.75   |
| 1.4                                    | 3       | 0         |        | 22.94  | 22.13  | 21.49   |
| 1.4                                    | 3       | 1         |        | 22.64  | 21.84  | 21.25   |
| 1.4                                    | 3       | 2         |        | 22.39  | 21.63  | 21.04   |
| 1.4                                    | 6       | 0         |        | 22.12  | 21.34  | 20.76   |
| 3                                      | 1       | 0         | QPSK   | 23.93  | 23.26  | 23.62   |
| 3                                      | 1       | 7         |        | 23.65  | 23.00  | 23.34   |
| 3                                      | 1       | 14        |        | 23.42  | 22.77  | 23.08   |
| 3                                      | 8       | 0         |        | 23.21  | 22.56  | 22.83   |
| 3                                      | 8       | 4         |        | 22.91  | 22.32  | 22.60   |
| 3                                      | 8       | 7         |        | 22.69  | 22.08  | 22.31   |
| 3                                      | 15      | 0         |        | 22.39  | 21.84  | 22.08   |
| 3                                      | 1       | 0         | 16-QAM | 23.69  | 22.97  | 23.35   |
| 3                                      | 1       | 7         |        | 23.43  | 22.76  | 23.07   |
| 3                                      | 1       | 14        |        | 23.23  | 22.54  | 22.85   |
| 3                                      | 8       | 0         |        | 22.95  | 22.34  | 22.60   |
| 3                                      | 8       | 4         |        | 22.72  | 22.05  | 22.34   |
| 3                                      | 8       | 7         |        | 22.48  | 21.75  | 22.13   |
| 3                                      | 15      | 0         |        | 22.28  | 21.49  | 21.92   |



| LTE Band 2 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                      | 1       | 0         | QPSK   | 23.95  | 23.32  | 23.66   |
| 5                                      | 1       | 12        |        | 23.70  | 23.05  | 23.44   |
| 5                                      | 1       | 24        |        | 23.48  | 22.84  | 23.14   |
| 5                                      | 12      | 0         |        | 23.24  | 22.61  | 22.85   |
| 5                                      | 12      | 6         |        | 23.03  | 22.40  | 22.64   |
| 5                                      | 12      | 11        |        | 22.81  | 22.18  | 22.43   |
| 5                                      | 25      | 0         |        | 22.59  | 21.95  | 22.23   |
| 5                                      | 1       | 0         | 16-QAM | 23.75  | 23.05  | 23.46   |
| 5                                      | 1       | 12        |        | 23.46  | 22.81  | 23.24   |
| 5                                      | 1       | 24        |        | 23.25  | 22.58  | 22.95   |
| 5                                      | 12      | 0         |        | 22.99  | 22.29  | 22.69   |
| 5                                      | 12      | 6         |        | 22.78  | 22.05  | 22.46   |
| 5                                      | 12      | 11        |        | 22.54  | 21.83  | 22.21   |
| 5                                      | 25      | 0         |        | 22.30  | 21.61  | 21.99   |
| 10                                     | 1       | 0         | QPSK   | 23.98  | 23.45  | 23.75   |
| 10                                     | 1       | 24        |        | 23.76  | 23.24  | 23.52   |
| 10                                     | 1       | 49        |        | 23.49  | 23.00  | 23.23   |
| 10                                     | 25      | 0         |        | 23.21  | 22.79  | 22.97   |
| 10                                     | 25      | 12        |        | 22.96  | 22.57  | 22.69   |
| 10                                     | 25      | 24        |        | 22.74  | 22.28  | 22.42   |
| 10                                     | 50      | 0         |        | 22.47  | 22.00  | 22.19   |
| 10                                     | 1       | 0         | 16-QAM | 23.73  | 23.17  | 23.47   |
| 10                                     | 1       | 24        |        | 23.51  | 22.96  | 23.23   |
| 10                                     | 1       | 49        |        | 23.25  | 22.76  | 22.94   |
| 10                                     | 25      | 0         |        | 23.02  | 22.49  | 22.68   |
| 10                                     | 25      | 12        |        | 22.76  | 22.21  | 22.47   |
| 10                                     | 25      | 24        |        | 22.47  | 21.94  | 22.19   |
| 10                                     | 50      | 0         |        | 22.27  | 21.69  | 21.94   |



| LTE Band 2 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 15                                     | 1       | 0         | QPSK   | 24.02  | 23.65  | 23.81   |
| 15                                     | 1       | 37        |        | 23.78  | 23.41  | 23.54   |
| 15                                     | 1       | 74        |        | 23.54  | 23.18  | 23.26   |
| 15                                     | 36      | 0         |        | 23.31  | 22.93  | 23.04   |
| 15                                     | 36      | 18        |        | 23.06  | 22.70  | 22.83   |
| 15                                     | 36      | 39        |        | 22.86  | 22.47  | 22.54   |
| 15                                     | 75      | 0         |        | 22.63  | 22.23  | 22.34   |
| 15                                     | 1       | 0         | 16-QAM | 23.76  | 23.40  | 23.54   |
| 15                                     | 1       | 38        |        | 23.52  | 23.14  | 23.27   |
| 15                                     | 1       | 75        |        | 23.23  | 22.92  | 22.98   |
| 15                                     | 36      | 0         |        | 23.02  | 22.69  | 22.70   |
| 15                                     | 36      | 18        |        | 22.75  | 22.40  | 22.48   |
| 15                                     | 36      | 39        |        | 22.51  | 22.12  | 22.25   |
| 15                                     | 75      | 0         |        | 22.24  | 21.89  | 21.98   |
| 20                                     | 1       | 0         | QPSK   | 24.23  | 24.03  | 24.12   |
| 20                                     | 1       | 49        |        | 24.00  | 23.82  | 23.82   |
| 20                                     | 1       | 99        |        | 23.70  | 23.52  | 23.57   |
| 20                                     | 50      | 0         |        | 23.41  | 23.31  | 23.30   |
| 20                                     | 50      | 24        |        | 23.16  | 23.10  | 23.08   |
| 20                                     | 50      | 49        |        | 22.88  | 22.87  | 22.81   |
| 20                                     | 100     | 0         |        | 22.60  | 22.62  | 22.55   |
| 20                                     | 1       | 0         | 16-QAM | 24.03  | 23.74  | 23.86   |
| 20                                     | 1       | 49        |        | 23.82  | 23.45  | 23.65   |
| 20                                     | 1       | 99        |        | 23.58  | 23.24  | 23.43   |
| 20                                     | 50      | 0         |        | 23.35  | 22.97  | 23.14   |
| 20                                     | 50      | 24        |        | 23.10  | 22.74  | 22.92   |
| 20                                     | 50      | 49        |        | 22.87  | 22.49  | 22.64   |
| 20                                     | 100     | 0         |        | 22.62  | 22.24  | 22.38   |



| LTE Band 4 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 1.4                                    | 1       | 0         | QPSK   | 23.89  | 23.78  | 23.92   |
| 1.4                                    | 1       | 2         |        | 23.63  | 23.55  | 23.71   |
| 1.4                                    | 1       | 5         |        | 23.43  | 23.33  | 23.46   |
| 1.4                                    | 3       | 0         |        | 23.15  | 23.07  | 23.26   |
| 1.4                                    | 3       | 1         |        | 22.95  | 22.80  | 23.05   |
| 1.4                                    | 3       | 2         |        | 22.67  | 22.60  | 22.80   |
| 1.4                                    | 6       | 0         |        | 22.45  | 22.31  | 22.52   |
| 1.4                                    | 1       | 0         | 16-QAM | 23.65  | 23.54  | 23.67   |
| 1.4                                    | 1       | 2         |        | 23.43  | 23.27  | 23.41   |
| 1.4                                    | 1       | 5         |        | 23.22  | 22.97  | 23.16   |
| 1.4                                    | 3       | 0         |        | 22.94  | 22.72  | 22.88   |
| 1.4                                    | 3       | 1         |        | 22.66  | 22.47  | 22.65   |
| 1.4                                    | 3       | 2         |        | 22.41  | 22.23  | 22.38   |
| 1.4                                    | 6       | 0         |        | 22.16  | 22.03  | 22.09   |
| 3                                      | 1       | 0         | QPSK   | 23.95  | 23.86  | 23.95   |
| 3                                      | 1       | 7         |        | 23.70  | 23.61  | 23.72   |
| 3                                      | 1       | 14        |        | 23.41  | 23.37  | 23.52   |
| 3                                      | 8       | 0         |        | 23.14  | 23.14  | 23.28   |
| 3                                      | 8       | 4         |        | 22.87  | 22.93  | 23.07   |
| 3                                      | 8       | 7         |        | 22.64  | 22.67  | 22.87   |
| 3                                      | 15      | 0         |        | 22.35  | 22.43  | 22.64   |
| 3                                      | 1       | 0         | 16-QAM | 23.68  | 23.57  | 23.74   |
| 3                                      | 1       | 7         |        | 23.45  | 23.32  | 23.47   |
| 3                                      | 1       | 14        |        | 23.21  | 23.02  | 23.22   |
| 3                                      | 8       | 0         |        | 22.97  | 22.75  | 22.93   |
| 3                                      | 8       | 4         |        | 22.69  | 22.47  | 22.69   |
| 3                                      | 8       | 7         |        | 22.44  | 22.20  | 22.45   |
| 3                                      | 15      | 0         |        | 22.15  | 21.96  | 22.15   |



| LTE Band 4 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                      | 1       | 0         | QPSK   | 24.02  | 23.96  | 23.99   |
| 5                                      | 1       | 12        |        | 23.74  | 23.67  | 23.70   |
| 5                                      | 1       | 24        |        | 23.52  | 23.44  | 23.46   |
| 5                                      | 12      | 0         |        | 23.30  | 23.20  | 23.20   |
| 5                                      | 12      | 6         |        | 23.07  | 22.97  | 22.93   |
| 5                                      | 12      | 11        |        | 22.79  | 22.75  | 22.72   |
| 5                                      | 25      | 0         |        | 22.55  | 22.47  | 22.49   |
| 5                                      | 1       | 0         | 16-QAM | 23.74  | 23.73  | 23.75   |
| 5                                      | 1       | 12        |        | 23.46  | 23.48  | 23.55   |
| 5                                      | 1       | 24        |        | 23.17  | 23.25  | 23.33   |
| 5                                      | 12      | 0         |        | 22.96  | 22.98  | 23.04   |
| 5                                      | 12      | 6         |        | 22.67  | 22.72  | 22.75   |
| 5                                      | 12      | 11        |        | 22.42  | 22.48  | 22.45   |
| 5                                      | 25      | 0         |        | 22.16  | 22.25  | 22.22   |
| 10                                     | 1       | 0         | QPSK   | 24.23  | 24.12  | 24.13   |
| 10                                     | 1       | 24        |        | 23.98  | 23.92  | 23.93   |
| 10                                     | 1       | 49        |        | 23.78  | 23.71  | 23.64   |
| 10                                     | 25      | 0         |        | 23.57  | 23.41  | 23.36   |
| 10                                     | 25      | 12        |        | 23.35  | 23.11  | 23.09   |
| 10                                     | 25      | 24        |        | 23.05  | 22.85  | 22.80   |
| 10                                     | 50      | 0         |        | 22.78  | 22.58  | 22.60   |
| 10                                     | 1       | 0         | 16-QAM | 24.03  | 23.83  | 23.93   |
| 10                                     | 1       | 24        |        | 23.81  | 23.58  | 23.63   |
| 10                                     | 1       | 49        |        | 23.53  | 23.36  | 23.37   |
| 10                                     | 25      | 0         |        | 23.25  | 23.15  | 23.10   |
| 10                                     | 25      | 12        |        | 23.00  | 22.91  | 22.80   |
| 10                                     | 25      | 24        |        | 22.80  | 22.65  | 22.51   |
| 10                                     | 50      | 0         |        | 22.51  | 22.41  | 22.28   |



| LTE Band 4 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 15                                     | 1       | 0         | QPSK   | 24.32  | 24.26  | 24.29   |
| 15                                     | 1       | 37        |        | 24.10  | 24.00  | 24.01   |
| 15                                     | 1       | 74        |        | 23.83  | 23.71  | 23.75   |
| 15                                     | 36      | 0         |        | 23.58  | 23.44  | 23.50   |
| 15                                     | 36      | 18        |        | 23.31  | 23.21  | 23.30   |
| 15                                     | 36      | 39        |        | 23.03  | 23.01  | 23.09   |
| 15                                     | 75      | 0         |        | 22.73  | 22.71  | 22.84   |
| 15                                     | 1       | 0         | 16-QAM | 24.09  | 23.99  | 24.00   |
| 15                                     | 1       | 38        |        | 23.82  | 23.71  | 23.79   |
| 15                                     | 1       | 75        |        | 23.57  | 23.43  | 23.56   |
| 15                                     | 36      | 0         |        | 23.36  | 23.15  | 23.35   |
| 15                                     | 36      | 18        |        | 23.08  | 22.88  | 23.12   |
| 15                                     | 36      | 39        |        | 22.80  | 22.62  | 22.84   |
| 15                                     | 75      | 0         |        | 22.54  | 22.39  | 22.56   |
| 20                                     | 1       | 0         | QPSK   | 24.85  | 24.88  | 24.76   |
| 20                                     | 1       | 49        |        | 24.62  | 24.59  | 24.49   |
| 20                                     | 1       | 99        |        | 24.39  | 24.39  | 24.21   |
| 20                                     | 50      | 0         |        | 24.09  | 24.11  | 23.93   |
| 20                                     | 50      | 24        |        | 23.82  | 23.87  | 23.72   |
| 20                                     | 50      | 49        |        | 23.57  | 23.59  | 23.42   |
| 20                                     | 100     | 0         |        | 23.29  | 23.38  | 23.12   |
| 20                                     | 1       | 0         | 16-QAM | 24.63  | 24.62  | 24.53   |
| 20                                     | 1       | 49        |        | 24.37  | 24.34  | 24.24   |
| 20                                     | 1       | 99        |        | 24.15  | 24.10  | 23.97   |
| 20                                     | 50      | 0         |        | 23.89  | 23.83  | 23.73   |
| 20                                     | 50      | 24        |        | 23.60  | 23.63  | 23.50   |
| 20                                     | 50      | 49        |        | 23.36  | 23.37  | 23.20   |
| 20                                     | 100     | 0         |        | 23.09  | 23.14  | 22.92   |



| LTE Band 5 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 1.4                                    | 1       | 0         | QPSK   | 23.89  | 23.78  | 23.88   |
| 1.4                                    | 1       | 2         |        | 23.65  | 23.57  | 23.61   |
| 1.4                                    | 1       | 5         |        | 23.41  | 23.33  | 23.35   |
| 1.4                                    | 3       | 0         |        | 23.20  | 23.08  | 23.06   |
| 1.4                                    | 3       | 1         |        | 22.97  | 22.79  | 22.79   |
| 1.4                                    | 3       | 2         |        | 22.76  | 22.51  | 22.59   |
| 1.4                                    | 6       | 0         |        | 22.48  | 22.28  | 22.33   |
| 1.4                                    | 1       | 0         | 16-QAM | 23.66  | 23.58  | 23.61   |
| 1.4                                    | 1       | 2         |        | 23.41  | 23.34  | 23.34   |
| 1.4                                    | 1       | 5         |        | 23.21  | 23.10  | 23.13   |
| 1.4                                    | 3       | 0         |        | 22.98  | 22.80  | 22.84   |
| 1.4                                    | 3       | 1         |        | 22.72  | 22.53  | 22.58   |
| 1.4                                    | 3       | 2         |        | 22.45  | 22.26  | 22.36   |
| 1.4                                    | 6       | 0         |        | 22.17  | 22.03  | 22.13   |
| 3                                      | 1       | 0         | QPSK   | 23.98  | 23.86  | 23.95   |
| 3                                      | 1       | 7         |        | 23.74  | 23.63  | 23.74   |
| 3                                      | 1       | 14        |        | 23.51  | 23.34  | 23.49   |
| 3                                      | 8       | 0         |        | 23.29  | 23.13  | 23.20   |
| 3                                      | 8       | 4         |        | 23.00  | 22.89  | 22.98   |
| 3                                      | 8       | 7         |        | 22.77  | 22.61  | 22.75   |
| 3                                      | 15      | 0         |        | 22.49  | 22.36  | 22.46   |
| 3                                      | 1       | 0         | 16-QAM | 23.72  | 23.58  | 23.67   |
| 3                                      | 1       | 7         |        | 23.51  | 23.36  | 23.38   |
| 3                                      | 1       | 14        |        | 23.26  | 23.07  | 23.10   |
| 3                                      | 8       | 0         |        | 23.05  | 22.83  | 22.88   |
| 3                                      | 8       | 4         |        | 22.77  | 22.53  | 22.67   |
| 3                                      | 8       | 7         |        | 22.53  | 22.27  | 22.39   |
| 3                                      | 15      | 0         |        | 22.32  | 21.99  | 22.17   |



| LTE Band 5 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                      | 1       | 0         | QPSK   | 24.12  | 24.06  | 24.23   |
| 5                                      | 1       | 12        |        | 23.88  | 23.84  | 23.99   |
| 5                                      | 1       | 24        |        | 23.63  | 23.64  | 23.69   |
| 5                                      | 12      | 0         |        | 23.35  | 23.42  | 23.49   |
| 5                                      | 12      | 6         |        | 23.12  | 23.15  | 23.21   |
| 5                                      | 12      | 11        |        | 22.92  | 22.85  | 22.91   |
| 5                                      | 25      | 0         |        | 22.69  | 22.56  | 22.67   |
| 5                                      | 1       | 0         | 16-QAM | 23.85  | 23.82  | 23.95   |
| 5                                      | 1       | 12        |        | 23.59  | 23.58  | 23.68   |
| 5                                      | 1       | 24        |        | 23.34  | 23.33  | 23.39   |
| 5                                      | 12      | 0         |        | 23.06  | 23.03  | 23.09   |
| 5                                      | 12      | 6         |        | 22.83  | 22.82  | 22.80   |
| 5                                      | 12      | 11        |        | 22.63  | 22.58  | 22.52   |
| 5                                      | 25      | 0         |        | 22.34  | 22.29  | 22.22   |
| 10                                     | 1       | 0         | QPSK   | 24.56  | 24.62  | 24.68   |
| 10                                     | 1       | 24        |        | 24.27  | 24.37  | 24.40   |
| 10                                     | 1       | 49        |        | 24.01  | 24.08  | 24.17   |
| 10                                     | 25      | 0         |        | 23.80  | 23.81  | 23.90   |
| 10                                     | 25      | 12        |        | 23.51  | 23.54  | 23.69   |
| 10                                     | 25      | 24        |        | 23.29  | 23.32  | 23.39   |
| 10                                     | 50      | 0         |        | 23.00  | 23.10  | 23.16   |
| 10                                     | 1       | 0         | 16-QAM | 24.27  | 24.36  | 24.38   |
| 10                                     | 1       | 24        |        | 24.03  | 24.16  | 24.14   |
| 10                                     | 1       | 49        |        | 23.74  | 23.93  | 23.90   |
| 10                                     | 25      | 0         |        | 23.49  | 23.69  | 23.66   |
| 10                                     | 25      | 12        |        | 23.26  | 23.45  | 23.44   |
| 10                                     | 25      | 24        |        | 23.02  | 23.25  | 23.17   |
| 10                                     | 50      | 0         |        | 22.81  | 22.99  | 22.95   |



| LTE Band 7 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                      | 1       | 0         | QPSK   | 22.56  | 22.62  | 22.68   |
| 5                                      | 1       | 12        |        | 22.36  | 22.36  | 22.38   |
| 5                                      | 1       | 24        |        | 22.11  | 22.10  | 22.18   |
| 5                                      | 12      | 0         |        | 21.83  | 21.86  | 21.92   |
| 5                                      | 12      | 6         |        | 21.58  | 21.61  | 21.71   |
| 5                                      | 12      | 11        |        | 21.33  | 21.34  | 21.49   |
| 5                                      | 25      | 0         |        | 21.07  | 21.09  | 21.26   |
| 5                                      | 1       | 0         | 16-QAM | 22.31  | 22.40  | 22.45   |
| 5                                      | 1       | 12        |        | 22.05  | 22.17  | 22.20   |
| 5                                      | 1       | 24        |        | 21.81  | 21.94  | 21.91   |
| 5                                      | 12      | 0         |        | 21.58  | 21.66  | 21.67   |
| 5                                      | 12      | 6         |        | 21.35  | 21.46  | 21.46   |
| 5                                      | 12      | 11        |        | 21.13  | 21.20  | 21.21   |
| 5                                      | 25      | 0         |        | 20.91  | 20.96  | 21.01   |
| 10                                     | 1       | 0         | QPSK   | 22.75  | 22.78  | 22.86   |
| 10                                     | 1       | 24        |        | 22.47  | 22.52  | 22.65   |
| 10                                     | 1       | 49        |        | 22.21  | 22.23  | 22.36   |
| 10                                     | 25      | 0         |        | 22.00  | 21.94  | 22.10   |
| 10                                     | 25      | 12        |        | 21.73  | 21.71  | 21.90   |
| 10                                     | 25      | 24        |        | 21.43  | 21.42  | 21.64   |
| 10                                     | 50      | 0         |        | 21.17  | 21.13  | 21.37   |
| 10                                     | 1       | 0         | 16-QAM | 22.50  | 22.53  | 22.63   |
| 10                                     | 1       | 24        |        | 22.21  | 22.32  | 22.41   |
| 10                                     | 1       | 49        |        | 21.96  | 22.10  | 22.15   |
| 10                                     | 25      | 0         |        | 21.74  | 21.82  | 21.94   |
| 10                                     | 25      | 12        |        | 21.51  | 21.59  | 21.65   |
| 10                                     | 25      | 24        |        | 21.27  | 21.35  | 21.37   |
| 10                                     | 50      | 0         |        | 21.01  | 21.05  | 21.14   |



| LTE Band 7 Maximum Average Power [dBm] |         |           |        |        |        |         |
|----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 15                                     | 1       | 0         | QPSK   | 23.12  | 23.23  | 23.18   |
| 15                                     | 1       | 37        |        | 22.87  | 23.02  | 22.95   |
| 15                                     | 1       | 74        |        | 22.62  | 22.76  | 22.69   |
| 15                                     | 36      | 0         |        | 22.33  | 22.51  | 22.47   |
| 15                                     | 36      | 18        |        | 22.08  | 22.21  | 22.18   |
| 15                                     | 36      | 39        |        | 21.85  | 21.95  | 21.92   |
| 15                                     | 75      | 0         |        | 21.59  | 21.66  | 21.63   |
| 15                                     | 1       | 0         | 16-QAM | 22.87  | 22.96  | 22.93   |
| 15                                     | 1       | 38        |        | 22.61  | 22.68  | 22.66   |
| 15                                     | 1       | 75        |        | 22.31  | 22.45  | 22.44   |
| 15                                     | 36      | 0         |        | 22.06  | 22.17  | 22.17   |
| 15                                     | 36      | 18        |        | 21.80  | 21.92  | 21.94   |
| 15                                     | 36      | 39        |        | 21.57  | 21.70  | 21.74   |
| 15                                     | 75      | 0         |        | 21.28  | 21.46  | 21.54   |
| 20                                     | 1       | 0         | QPSK   | 23.89  | 23.95  | 23.94   |
| 20                                     | 1       | 49        |        | 23.67  | 23.65  | 23.67   |
| 20                                     | 1       | 99        |        | 23.46  | 23.36  | 23.47   |
| 20                                     | 50      | 0         |        | 23.20  | 23.10  | 23.23   |
| 20                                     | 50      | 24        |        | 22.91  | 22.81  | 22.96   |
| 20                                     | 50      | 49        |        | 22.64  | 22.56  | 22.75   |
| 20                                     | 100     | 0         |        | 22.36  | 22.30  | 22.50   |
| 20                                     | 1       | 0         | 16-QAM | 23.60  | 23.70  | 23.68   |
| 20                                     | 1       | 49        |        | 23.36  | 23.44  | 23.43   |
| 20                                     | 1       | 99        |        | 23.12  | 23.18  | 23.22   |
| 20                                     | 50      | 0         |        | 22.85  | 22.95  | 22.97   |
| 20                                     | 50      | 24        |        | 22.88  | 22.75  | 22.88   |
| 20                                     | 50      | 49        |        | 22.59  | 22.51  | 22.61   |
| 20                                     | 100     | 0         |        | 22.25  | 22.22  | 22.42   |



| LTE Band 12 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 1.4                                     | 1       | 0         | QPSK   | 24.89  | 24.62  | 24.88   |
| 1.4                                     | 1       | 2         |        | 24.60  | 24.35  | 24.66   |
| 1.4                                     | 1       | 5         |        | 24.33  | 24.12  | 24.36   |
| 1.4                                     | 3       | 0         |        | 24.08  | 23.88  | 24.09   |
| 1.4                                     | 3       | 1         |        | 23.81  | 23.59  | 23.81   |
| 1.4                                     | 3       | 2         |        | 23.54  | 23.33  | 23.51   |
| 1.4                                     | 6       | 0         |        | 23.31  | 23.13  | 23.22   |
| 1.4                                     | 1       | 0         | 16-QAM | 24.68  | 24.33  | 24.60   |
| 1.4                                     | 1       | 2         |        | 24.42  | 24.03  | 24.39   |
| 1.4                                     | 1       | 5         |        | 24.16  | 23.74  | 24.17   |
| 1.4                                     | 3       | 0         |        | 23.88  | 23.48  | 23.96   |
| 1.4                                     | 3       | 1         |        | 23.64  | 23.24  | 23.71   |
| 1.4                                     | 3       | 2         |        | 23.35  | 23.00  | 23.43   |
| 1.4                                     | 6       | 0         |        | 23.09  | 22.78  | 23.18   |
| 3                                       | 1       | 0         | QPSK   | 24.92  | 24.85  | 24.96   |
| 3                                       | 1       | 7         |        | 24.70  | 24.56  | 24.73   |
| 3                                       | 1       | 14        |        | 24.44  | 24.31  | 24.47   |
| 3                                       | 8       | 0         |        | 24.16  | 24.07  | 24.19   |
| 3                                       | 8       | 4         |        | 23.86  | 23.78  | 23.97   |
| 3                                       | 8       | 7         |        | 23.61  | 23.55  | 23.72   |
| 3                                       | 15      | 0         |        | 23.32  | 23.27  | 23.44   |
| 3                                       | 1       | 0         | 16-QAM | 24.64  | 24.56  | 24.72   |
| 3                                       | 1       | 7         |        | 24.37  | 24.35  | 24.43   |
| 3                                       | 1       | 14        |        | 24.17  | 24.12  | 24.23   |
| 3                                       | 8       | 0         |        | 23.90  | 23.84  | 23.98   |
| 3                                       | 8       | 4         |        | 23.67  | 23.56  | 23.72   |
| 3                                       | 8       | 7         |        | 23.43  | 23.31  | 23.45   |
| 3                                       | 15      | 0         |        | 23.17  | 23.01  | 23.20   |



| LTE Band 12 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                       | 1       | 0         | QPSK   | 24.93  | 24.92  | 24.96   |
| 5                                       | 1       | 12        |        | 24.66  | 24.63  | 24.69   |
| 5                                       | 1       | 24        |        | 24.42  | 24.37  | 24.46   |
| 5                                       | 12      | 0         |        | 24.13  | 24.13  | 24.20   |
| 5                                       | 12      | 6         |        | 23.90  | 23.85  | 23.96   |
| 5                                       | 12      | 11        |        | 23.67  | 23.55  | 23.76   |
| 5                                       | 25      | 0         |        | 23.41  | 23.34  | 23.55   |
| 5                                       | 1       | 0         | 16-QAM | 24.72  | 24.72  | 24.73   |
| 5                                       | 1       | 12        |        | 24.50  | 24.44  | 24.52   |
| 5                                       | 1       | 24        |        | 24.27  | 24.18  | 24.27   |
| 5                                       | 12      | 0         |        | 23.99  | 23.97  | 24.00   |
| 5                                       | 12      | 6         |        | 23.69  | 23.77  | 23.76   |
| 5                                       | 12      | 11        |        | 23.47  | 23.50  | 23.50   |
| 5                                       | 25      | 0         |        | 23.19  | 23.21  | 23.28   |
| 10                                      | 1       | 0         | QPSK   | 25.02  | 25.12  | 25.06   |
| 10                                      | 1       | 24        |        | 24.79  | 24.92  | 24.84   |
| 10                                      | 1       | 49        |        | 24.55  | 24.71  | 24.55   |
| 10                                      | 25      | 0         |        | 24.27  | 24.48  | 24.29   |
| 10                                      | 25      | 12        |        | 23.98  | 24.21  | 24.01   |
| 10                                      | 25      | 24        |        | 23.70  | 24.00  | 23.78   |
| 10                                      | 50      | 0         |        | 23.44  | 23.70  | 23.52   |
| 10                                      | 1       | 0         | 16-QAM | 24.72  | 24.89  | 24.82   |
| 10                                      | 1       | 24        |        | 24.52  | 24.67  | 24.57   |
| 10                                      | 1       | 49        |        | 24.32  | 24.44  | 24.34   |
| 10                                      | 25      | 0         |        | 24.09  | 24.16  | 24.05   |
| 10                                      | 25      | 12        |        | 23.83  | 23.92  | 23.79   |
| 10                                      | 25      | 24        |        | 23.53  | 23.71  | 23.59   |
| 10                                      | 50      | 0         |        | 23.33  | 23.49  | 23.30   |



| LTE Band 13 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                       | 1       | 0         | QPSK   | 23.23  | 23.26  | 23.35   |
| 5                                       | 1       | 12        |        | 22.96  | 23.02  | 23.09   |
| 5                                       | 1       | 24        |        | 22.75  | 22.78  | 22.82   |
| 5                                       | 12      | 0         |        | 22.46  | 22.51  | 22.54   |
| 5                                       | 12      | 6         |        | 22.21  | 22.30  | 22.31   |
| 5                                       | 12      | 11        |        | 21.99  | 22.04  | 22.03   |
| 5                                       | 25      | 0         |        | 21.78  | 21.76  | 21.83   |
| 5                                       | 1       | 0         | 16-QAM | 23.00  | 23.06  | 23.11   |
| 5                                       | 1       | 12        |        | 22.80  | 22.77  | 22.85   |
| 5                                       | 1       | 24        |        | 22.55  | 22.51  | 22.55   |
| 5                                       | 12      | 0         |        | 22.33  | 22.28  | 22.27   |
| 5                                       | 12      | 6         |        | 22.09  | 22.07  | 22.01   |
| 5                                       | 12      | 11        |        | 21.86  | 21.86  | 21.75   |
| 5                                       | 25      | 0         |        | 21.58  | 21.58  | 21.49   |
| 10                                      | 1       | 0         | QPSK   | N/A    | 24.23  | N/A     |
| 10                                      | 1       | 24        |        | N/A    | 23.96  | N/A     |
| 10                                      | 1       | 49        |        | N/A    | 23.67  | N/A     |
| 10                                      | 25      | 0         |        | N/A    | 23.45  | N/A     |
| 10                                      | 25      | 12        |        | N/A    | 23.19  | N/A     |
| 10                                      | 25      | 24        |        | N/A    | 22.90  | N/A     |
| 10                                      | 50      | 0         |        | N/A    | 22.66  | N/A     |
| 10                                      | 1       | 0         | 16-QAM | N/A    | 23.95  | N/A     |
| 10                                      | 1       | 24        |        | N/A    | 23.70  | N/A     |
| 10                                      | 1       | 49        |        | N/A    | 23.44  | N/A     |
| 10                                      | 25      | 0         |        | N/A    | 23.21  | N/A     |
| 10                                      | 25      | 12        |        | N/A    | 22.96  | N/A     |
| 10                                      | 25      | 24        |        | N/A    | 22.71  | N/A     |
| 10                                      | 50      | 0         |        | N/A    | 22.42  | N/A     |



| LTE Band 17 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                       | 1       | 0         | QPSK   | 23.56  | 23.62  | 23.68   |
| 5                                       | 1       | 12        |        | 23.34  | 23.40  | 23.40   |
| 5                                       | 1       | 24        |        | 23.06  | 23.14  | 23.17   |
| 5                                       | 12      | 0         |        | 22.79  | 22.89  | 22.93   |
| 5                                       | 12      | 6         |        | 22.57  | 22.65  | 22.66   |
| 5                                       | 12      | 11        |        | 22.35  | 22.36  | 22.37   |
| 5                                       | 25      | 0         |        | 22.14  | 22.13  | 22.07   |
| 5                                       | 1       | 0         | 16-QAM | 23.28  | 23.33  | 23.44   |
| 5                                       | 1       | 12        |        | 23.01  | 23.05  | 23.24   |
| 5                                       | 1       | 24        |        | 22.74  | 22.83  | 23.02   |
| 5                                       | 12      | 0         |        | 22.46  | 22.53  | 22.78   |
| 5                                       | 12      | 6         |        | 22.23  | 22.30  | 22.53   |
| 5                                       | 12      | 11        |        | 21.99  | 22.08  | 22.23   |
| 5                                       | 25      | 0         |        | 21.72  | 21.85  | 21.98   |
| 10                                      | 1       | 0         | QPSK   | 24.03  | 24.12  | 24.23   |
| 10                                      | 1       | 24        |        | 23.77  | 23.89  | 23.95   |
| 10                                      | 1       | 49        |        | 23.56  | 23.64  | 23.65   |
| 10                                      | 25      | 0         |        | 23.35  | 23.41  | 23.36   |
| 10                                      | 25      | 12        |        | 23.05  | 23.19  | 23.08   |
| 10                                      | 25      | 24        |        | 22.82  | 22.98  | 22.87   |
| 10                                      | 50      | 0         |        | 22.57  | 22.69  | 22.57   |
| 10                                      | 1       | 0         | 16-QAM | 23.80  | 23.89  | 24.03   |
| 10                                      | 1       | 24        |        | 23.54  | 23.60  | 23.75   |
| 10                                      | 1       | 49        |        | 23.26  | 23.33  | 23.49   |
| 10                                      | 25      | 0         |        | 22.99  | 23.04  | 23.28   |
| 10                                      | 25      | 12        |        | 22.73  | 22.76  | 23.04   |
| 10                                      | 25      | 24        |        | 22.44  | 22.50  | 22.81   |
| 10                                      | 50      | 0         |        | 22.16  | 22.26  | 22.53   |



| LTE Band 25 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 1.4                                     | 1       | 0         | QPSK   | 23.32  | 23.45  | 23.56   |
| 1.4                                     | 1       | 2         |        | 23.10  | 23.21  | 23.36   |
| 1.4                                     | 1       | 5         |        | 22.82  | 22.92  | 23.06   |
| 1.4                                     | 3       | 0         |        | 22.58  | 22.67  | 22.84   |
| 1.4                                     | 3       | 1         |        | 22.37  | 22.40  | 22.58   |
| 1.4                                     | 3       | 2         |        | 22.09  | 22.19  | 22.32   |
| 1.4                                     | 6       | 0         |        | 21.85  | 21.91  | 22.07   |
| 1.4                                     | 1       | 0         | 16-QAM | 23.05  | 23.19  | 23.34   |
| 1.4                                     | 1       | 2         |        | 22.83  | 22.90  | 23.05   |
| 1.4                                     | 1       | 5         |        | 22.62  | 22.64  | 22.78   |
| 1.4                                     | 3       | 0         |        | 22.39  | 22.36  | 22.51   |
| 1.4                                     | 3       | 1         |        | 22.17  | 22.09  | 22.23   |
| 1.4                                     | 3       | 2         |        | 21.89  | 21.87  | 21.99   |
| 1.4                                     | 6       | 0         |        | 21.59  | 21.59  | 21.73   |
| 3                                       | 1       | 0         | QPSK   | 23.56  | 23.62  | 23.68   |
| 3                                       | 1       | 7         |        | 23.28  | 23.33  | 23.39   |
| 3                                       | 1       | 14        |        | 22.99  | 23.09  | 23.17   |
| 3                                       | 8       | 0         |        | 22.78  | 22.88  | 22.90   |
| 3                                       | 8       | 4         |        | 22.58  | 22.59  | 22.64   |
| 3                                       | 8       | 7         |        | 22.33  | 22.31  | 22.36   |
| 3                                       | 15      | 0         |        | 22.11  | 22.07  | 22.10   |
| 3                                       | 1       | 0         | 16-QAM | 23.30  | 23.39  | 23.47   |
| 3                                       | 1       | 7         |        | 23.05  | 23.15  | 23.19   |
| 3                                       | 1       | 14        |        | 22.80  | 22.92  | 22.97   |
| 3                                       | 8       | 0         |        | 22.58  | 22.66  | 22.68   |
| 3                                       | 8       | 4         |        | 22.37  | 22.42  | 22.41   |
| 3                                       | 8       | 7         |        | 22.09  | 22.22  | 22.20   |
| 3                                       | 15      | 0         |        | 21.86  | 22.01  | 21.96   |



| LTE Band 25 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                       | 1       | 0         | QPSK   | 23.85  | 23.89  | 23.92   |
| 5                                       | 1       | 12        |        | 23.58  | 23.64  | 23.64   |
| 5                                       | 1       | 24        |        | 23.33  | 23.37  | 23.41   |
| 5                                       | 12      | 0         |        | 23.12  | 23.12  | 23.12   |
| 5                                       | 12      | 6         |        | 22.83  | 22.90  | 22.85   |
| 5                                       | 12      | 11        |        | 22.55  | 22.61  | 22.59   |
| 5                                       | 25      | 0         |        | 22.33  | 22.39  | 22.37   |
| 5                                       | 1       | 0         | 16-QAM | 23.57  | 23.62  | 23.63   |
| 5                                       | 1       | 12        |        | 23.33  | 23.40  | 23.34   |
| 5                                       | 1       | 24        |        | 23.09  | 23.10  | 23.12   |
| 5                                       | 12      | 0         |        | 22.88  | 22.85  | 22.85   |
| 5                                       | 12      | 6         |        | 22.65  | 22.58  | 22.64   |
| 5                                       | 12      | 11        |        | 22.45  | 22.36  | 22.37   |
| 5                                       | 25      | 0         |        | 22.17  | 22.14  | 22.10   |
| 10                                      | 1       | 0         | QPSK   | 23.95  | 23.96  | 23.99   |
| 10                                      | 1       | 24        |        | 23.72  | 23.68  | 23.76   |
| 10                                      | 1       | 49        |        | 23.51  | 23.39  | 23.48   |
| 10                                      | 25      | 0         |        | 23.27  | 23.10  | 23.25   |
| 10                                      | 25      | 12        |        | 23.03  | 22.84  | 22.97   |
| 10                                      | 25      | 24        |        | 22.75  | 22.59  | 22.73   |
| 10                                      | 50      | 0         |        | 22.46  | 22.36  | 22.53   |
| 10                                      | 1       | 0         | 16-QAM | 23.69  | 23.72  | 23.70   |
| 10                                      | 1       | 24        |        | 23.45  | 23.43  | 23.46   |
| 10                                      | 1       | 49        |        | 23.19  | 23.15  | 23.16   |
| 10                                      | 25      | 0         |        | 22.90  | 22.89  | 22.90   |
| 10                                      | 25      | 12        |        | 22.69  | 22.61  | 22.66   |
| 10                                      | 25      | 24        |        | 22.42  | 22.35  | 22.46   |
| 10                                      | 50      | 0         |        | 22.16  | 22.13  | 22.22   |



| LTE Band 25 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 15                                      | 1       | 0         | QPSK   | 24.13  | 24.23  | 24.32   |
| 15                                      | 1       | 37        |        | 23.90  | 23.94  | 24.04   |
| 15                                      | 1       | 74        |        | 23.69  | 23.69  | 23.77   |
| 15                                      | 36      | 0         |        | 23.48  | 23.43  | 23.48   |
| 15                                      | 36      | 18        |        | 23.21  | 23.22  | 23.18   |
| 15                                      | 36      | 39        |        | 22.98  | 22.94  | 22.93   |
| 15                                      | 75      | 0         |        | 22.71  | 22.74  | 22.72   |
| 15                                      | 1       | 0         | 16-QAM | 23.87  | 23.99  | 24.09   |
| 15                                      | 1       | 38        |        | 23.58  | 23.72  | 23.88   |
| 15                                      | 1       | 75        |        | 23.30  | 23.49  | 23.68   |
| 15                                      | 36      | 0         |        | 23.09  | 23.26  | 23.48   |
| 15                                      | 36      | 18        |        | 22.80  | 22.96  | 23.22   |
| 15                                      | 36      | 39        |        | 22.54  | 22.73  | 22.97   |
| 15                                      | 75      | 0         |        | 22.30  | 22.51  | 22.76   |
| 20                                      | 1       | 0         | QPSK   | 24.56  | 24.62  | 24.66   |
| 20                                      | 1       | 49        |        | 24.35  | 24.34  | 24.36   |
| 20                                      | 1       | 99        |        | 24.08  | 24.07  | 24.14   |
| 20                                      | 50      | 0         |        | 23.85  | 23.78  | 23.91   |
| 20                                      | 50      | 24        |        | 23.58  | 23.49  | 23.68   |
| 20                                      | 50      | 49        |        | 23.29  | 23.21  | 23.40   |
| 20                                      | 100     | 0         |        | 23.06  | 22.94  | 23.15   |
| 20                                      | 1       | 0         | 16-QAM | 24.33  | 24.35  | 24.44   |
| 20                                      | 1       | 49        |        | 24.07  | 24.06  | 24.20   |
| 20                                      | 1       | 99        |        | 23.82  | 23.81  | 23.95   |
| 20                                      | 50      | 0         |        | 23.57  | 23.57  | 23.74   |
| 20                                      | 50      | 24        |        | 23.32  | 23.32  | 23.46   |
| 20                                      | 50      | 49        |        | 23.07  | 23.09  | 23.17   |
| 20                                      | 100     | 0         |        | 22.83  | 22.81  | 22.88   |



| LTE Band 26(Part 22) Maximum Average Power [dBm] |         |           |        |        |        |         |
|--------------------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                         | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 1.4                                              | 1       | 0         | QPSK   | 24.85  | 24.89  | 24.92   |
| 1.4                                              | 1       | 2         |        | 24.65  | 24.66  | 24.70   |
| 1.4                                              | 1       | 5         |        | 24.42  | 24.41  | 24.49   |
| 1.4                                              | 3       | 0         |        | 24.15  | 24.21  | 24.26   |
| 1.4                                              | 3       | 1         |        | 23.85  | 23.98  | 24.04   |
| 1.4                                              | 3       | 2         |        | 23.63  | 23.72  | 23.79   |
| 1.4                                              | 6       | 0         |        | 23.40  | 23.51  | 23.53   |
| 1.4                                              | 1       | 0         | 16-QAM | 24.58  | 24.63  | 24.64   |
| 1.4                                              | 1       | 2         |        | 24.32  | 24.40  | 24.37   |
| 1.4                                              | 1       | 5         |        | 24.05  | 24.17  | 24.16   |
| 1.4                                              | 3       | 0         |        | 23.76  | 23.93  | 23.94   |
| 1.4                                              | 3       | 1         |        | 23.50  | 23.67  | 23.65   |
| 1.4                                              | 3       | 2         |        | 23.29  | 23.43  | 23.37   |
| 1.4                                              | 6       | 0         |        | 23.06  | 23.18  | 23.13   |
| 3                                                | 1       | 0         | QPSK   | 24.86  | 24.92  | 24.96   |
| 3                                                | 1       | 7         |        | 24.57  | 24.62  | 24.69   |
| 3                                                | 1       | 14        |        | 24.27  | 24.34  | 24.40   |
| 3                                                | 8       | 0         |        | 24.06  | 24.13  | 24.13   |
| 3                                                | 8       | 4         |        | 23.80  | 23.86  | 23.83   |
| 3                                                | 8       | 7         |        | 23.60  | 23.62  | 23.59   |
| 3                                                | 15      | 0         |        | 23.32  | 23.40  | 23.38   |
| 3                                                | 1       | 0         | 16-QAM | 24.66  | 24.66  | 24.72   |
| 3                                                | 1       | 7         |        | 24.43  | 24.44  | 24.49   |
| 3                                                | 1       | 14        |        | 24.22  | 24.22  | 24.28   |
| 3                                                | 8       | 0         |        | 24.01  | 23.93  | 24.06   |
| 3                                                | 8       | 4         |        | 23.76  | 23.68  | 23.83   |
| 3                                                | 8       | 7         |        | 23.47  | 23.43  | 23.62   |
| 3                                                | 15      | 0         |        | 23.26  | 23.20  | 23.38   |



| LTE Band 26(Part 22) Maximum Average Power [dBm] |         |           |        |        |        |         |
|--------------------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                         | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                                | 1       | 0         | QPSK   | 24.93  | 24.96  | 24.99   |
| 5                                                | 1       | 12        |        | 24.72  | 24.72  | 24.76   |
| 5                                                | 1       | 24        |        | 24.43  | 24.48  | 24.53   |
| 5                                                | 12      | 0         |        | 24.16  | 24.19  | 24.30   |
| 5                                                | 12      | 6         |        | 23.91  | 23.91  | 24.04   |
| 5                                                | 12      | 11        |        | 23.62  | 23.69  | 23.81   |
| 5                                                | 25      | 0         |        | 23.39  | 23.40  | 23.56   |
| 5                                                | 1       | 0         | 16-QAM | 24.69  | 24.73  | 24.76   |
| 5                                                | 1       | 12        |        | 24.47  | 24.49  | 24.50   |
| 5                                                | 1       | 24        |        | 24.26  | 24.25  | 24.25   |
| 5                                                | 12      | 0         |        | 23.96  | 24.00  | 24.03   |
| 5                                                | 12      | 6         |        | 23.67  | 23.74  | 23.75   |
| 5                                                | 12      | 11        |        | 23.41  | 23.45  | 23.49   |
| 5                                                | 25      | 0         |        | 23.16  | 23.17  | 23.27   |
| 10                                               | 1       | 0         | QPSK   | 24.99  | 25.01  | 25.03   |
| 10                                               | 1       | 24        |        | 24.77  | 24.71  | 24.74   |
| 10                                               | 1       | 49        |        | 24.48  | 24.47  | 24.52   |
| 10                                               | 25      | 0         |        | 24.23  | 24.22  | 24.23   |
| 10                                               | 25      | 12        |        | 24.01  | 24.00  | 24.00   |
| 10                                               | 25      | 24        |        | 23.80  | 23.80  | 23.79   |
| 10                                               | 50      | 0         |        | 23.59  | 23.54  | 23.59   |
| 10                                               | 1       | 0         | 16-QAM | 24.70  | 24.77  | 24.73   |
| 10                                               | 1       | 24        |        | 24.41  | 24.54  | 24.53   |
| 10                                               | 1       | 49        |        | 24.19  | 24.30  | 24.28   |
| 10                                               | 25      | 0         |        | 23.99  | 24.03  | 24.02   |
| 10                                               | 25      | 12        |        | 23.71  | 23.80  | 23.75   |
| 10                                               | 25      | 24        |        | 23.47  | 23.54  | 23.53   |
| 10                                               | 50      | 0         |        | 23.17  | 23.29  | 23.24   |



| LTE Band 26(Part 22) Maximum Average Power [dBm] |         |           |        |        |        |         |
|--------------------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                         | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 15                                               | 1       | 0         | QPSK   | 25.12  | 25.19  | 25.23   |
| 15                                               | 1       | 37        |        | 24.83  | 24.90  | 24.94   |
| 15                                               | 1       | 74        |        | 24.58  | 24.67  | 24.70   |
| 15                                               | 36      | 0         |        | 24.29  | 24.42  | 24.44   |
| 15                                               | 36      | 18        |        | 24.03  | 24.16  | 24.23   |
| 15                                               | 36      | 39        |        | 23.73  | 23.95  | 23.95   |
| 15                                               | 75      | 0         |        | 23.52  | 23.70  | 23.70   |
| 15                                               | 1       | 0         | 16-QAM | 24.91  | 24.92  | 24.95   |
| 15                                               | 1       | 38        |        | 24.65  | 24.70  | 24.68   |
| 15                                               | 1       | 75        |        | 24.39  | 24.49  | 24.47   |
| 15                                               | 36      | 0         |        | 24.16  | 24.24  | 24.17   |
| 15                                               | 36      | 18        |        | 23.88  | 24.04  | 23.93   |
| 15                                               | 36      | 39        |        | 23.67  | 23.75  | 23.68   |
| 15                                               | 75      | 0         |        | 23.44  | 23.45  | 23.45   |





| LTE Band 26(Part 90) Maximum Average Power [dBm] |         |           |        |        |        |         |
|--------------------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                         | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 1.4                                              | 1       | 0         | QPSK   | 24.35  | 24.89  | 24.93   |
| 1.4                                              | 1       | 2         |        | 24.06  | 24.61  | 24.65   |
| 1.4                                              | 1       | 5         |        | 23.78  | 24.38  | 24.40   |
| 1.4                                              | 3       | 0         |        | 23.49  | 24.14  | 24.11   |
| 1.4                                              | 3       | 1         |        | 23.27  | 23.92  | 23.82   |
| 1.4                                              | 3       | 2         |        | 23.02  | 23.63  | 23.59   |
| 1.4                                              | 6       | 0         |        | 22.74  | 23.40  | 23.35   |
| 1.4                                              | 1       | 0         | 16-QAM | 24.08  | 24.66  | 24.71   |
| 1.4                                              | 1       | 2         |        | 23.78  | 24.42  | 24.49   |
| 1.4                                              | 1       | 5         |        | 23.51  | 24.21  | 24.21   |
| 1.4                                              | 3       | 0         |        | 23.23  | 23.98  | 23.91   |
| 1.4                                              | 3       | 1         |        | 22.98  | 23.75  | 23.66   |
| 1.4                                              | 3       | 2         |        | 22.74  | 23.49  | 23.43   |
| 1.4                                              | 6       | 0         |        | 22.54  | 23.28  | 23.22   |
| 3                                                | 1       | 0         | QPSK   | 24.55  | 24.93  | 24.98   |
| 3                                                | 1       | 7         |        | 24.32  | 24.72  | 24.74   |
| 3                                                | 1       | 14        |        | 24.07  | 24.44  | 24.45   |
| 3                                                | 8       | 0         |        | 23.81  | 24.18  | 24.23   |
| 3                                                | 8       | 4         |        | 23.57  | 23.94  | 23.96   |
| 3                                                | 8       | 7         |        | 23.29  | 23.70  | 23.72   |
| 3                                                | 15      | 0         |        | 22.99  | 23.41  | 23.44   |
| 3                                                | 1       | 0         | 16-QAM | 24.34  | 24.73  | 24.71   |
| 3                                                | 1       | 7         |        | 24.10  | 24.52  | 24.50   |
| 3                                                | 1       | 14        |        | 23.86  | 24.26  | 24.21   |
| 3                                                | 8       | 0         |        | 23.61  | 24.03  | 23.91   |
| 3                                                | 8       | 4         |        | 23.41  | 23.79  | 23.63   |
| 3                                                | 8       | 7         |        | 23.19  | 23.58  | 23.38   |
| 3                                                | 15      | 0         |        | 22.96  | 23.36  | 23.12   |



| LTE Band 26(Part 90) Maximum Average Power [dBm] |         |           |        |        |        |         |
|--------------------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                         | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                                | 1       | 0         | QPSK   | 24.89  | 25.02  | 25.06   |
| 5                                                | 1       | 12        |        | 24.66  | 24.73  | 24.77   |
| 5                                                | 1       | 24        |        | 24.46  | 24.44  | 24.49   |
| 5                                                | 12      | 0         |        | 24.17  | 24.18  | 24.28   |
| 5                                                | 12      | 6         |        | 23.90  | 23.95  | 24.06   |
| 5                                                | 12      | 11        |        | 23.66  | 23.73  | 23.85   |
| 5                                                | 25      | 0         |        | 23.39  | 23.51  | 23.57   |
| 5                                                | 1       | 0         | 16-QAM | 24.67  | 24.75  | 24.79   |
| 5                                                | 1       | 12        |        | 24.38  | 24.49  | 24.57   |
| 5                                                | 1       | 24        |        | 24.14  | 24.22  | 24.37   |
| 5                                                | 12      | 0         |        | 23.86  | 24.00  | 24.07   |
| 5                                                | 12      | 6         |        | 23.63  | 23.70  | 23.86   |
| 5                                                | 12      | 11        |        | 23.36  | 23.47  | 23.61   |
| 5                                                | 25      | 0         |        | 23.12  | 23.18  | 23.34   |
| 10                                               | 1       | 0         | QPSK   | N/A    | 25.23  | N/A     |
| 10                                               | 1       | 24        |        | N/A    | 24.93  | N/A     |
| 10                                               | 1       | 49        |        | N/A    | 24.67  | N/A     |
| 10                                               | 25      | 0         |        | N/A    | 24.40  | N/A     |
| 10                                               | 25      | 12        |        | N/A    | 24.15  | N/A     |
| 10                                               | 25      | 24        |        | N/A    | 23.92  | N/A     |
| 10                                               | 50      | 0         |        | N/A    | 23.65  | N/A     |
| 10                                               | 1       | 0         | 16-QAM | N/A    | 24.94  | N/A     |
| 10                                               | 1       | 24        |        | N/A    | 24.64  | N/A     |
| 10                                               | 1       | 49        |        | N/A    | 24.41  | N/A     |
| 10                                               | 25      | 0         |        | N/A    | 24.14  | N/A     |
| 10                                               | 25      | 12        |        | N/A    | 23.86  | N/A     |
| 10                                               | 25      | 24        |        | N/A    | 23.61  | N/A     |
| 10                                               | 50      | 0         |        | N/A    | 23.37  | N/A     |



| LTE Band 41 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 5                                       | 1       | 0         | QPSK   | 23.35  | 23.42  | 23.52   |
| 5                                       | 1       | 12        |        | 23.08  | 23.13  | 23.26   |
| 5                                       | 1       | 24        |        | 22.81  | 22.90  | 22.99   |
| 5                                       | 12      | 0         |        | 22.53  | 22.64  | 22.73   |
| 5                                       | 12      | 6         |        | 22.24  | 22.39  | 22.43   |
| 5                                       | 12      | 11        |        | 21.98  | 22.17  | 22.20   |
| 5                                       | 25      | 0         |        | 21.70  | 21.96  | 21.96   |
| 5                                       | 1       | 0         | 16-QAM | 23.09  | 23.16  | 23.26   |
| 5                                       | 1       | 12        |        | 22.83  | 22.94  | 23.02   |
| 5                                       | 1       | 24        |        | 22.57  | 22.64  | 22.82   |
| 5                                       | 12      | 0         |        | 22.31  | 22.43  | 22.53   |
| 5                                       | 12      | 6         |        | 22.11  | 22.22  | 22.33   |
| 5                                       | 12      | 11        |        | 21.83  | 21.98  | 22.12   |
| 5                                       | 25      | 0         |        | 21.55  | 21.69  | 21.89   |
| 10                                      | 1       | 0         | QPSK   | 23.52  | 23.59  | 23.69   |
| 10                                      | 1       | 24        |        | 23.23  | 23.32  | 23.49   |
| 10                                      | 1       | 49        |        | 22.98  | 23.06  | 23.23   |
| 10                                      | 25      | 0         |        | 22.71  | 22.85  | 22.94   |
| 10                                      | 25      | 12        |        | 22.46  | 22.59  | 22.69   |
| 10                                      | 25      | 24        |        | 22.17  | 22.29  | 22.41   |
| 10                                      | 50      | 0         |        | 21.90  | 22.08  | 22.13   |
| 10                                      | 1       | 0         | 16-QAM | 23.28  | 23.30  | 23.41   |
| 10                                      | 1       | 24        |        | 23.04  | 23.09  | 23.16   |
| 10                                      | 1       | 49        |        | 22.76  | 22.89  | 22.86   |
| 10                                      | 25      | 0         |        | 22.56  | 22.67  | 22.66   |
| 10                                      | 25      | 12        |        | 22.28  | 22.45  | 22.45   |
| 10                                      | 25      | 24        |        | 22.08  | 22.25  | 22.18   |
| 10                                      | 50      | 0         |        | 21.87  | 22.03  | 21.93   |



| LTE Band 41 Maximum Average Power [dBm] |         |           |        |        |        |         |
|-----------------------------------------|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 15                                      | 1       | 0         | QPSK   | 23.72  | 23.75  | 23.88   |
| 15                                      | 1       | 37        |        | 23.48  | 23.52  | 23.64   |
| 15                                      | 1       | 74        |        | 23.25  | 23.23  | 23.37   |
| 15                                      | 36      | 0         |        | 23.03  | 23.01  | 23.15   |
| 15                                      | 36      | 18        |        | 22.76  | 22.72  | 22.90   |
| 15                                      | 36      | 39        |        | 22.52  | 22.43  | 22.63   |
| 15                                      | 75      | 0         |        | 22.25  | 22.17  | 22.41   |
| 15                                      | 1       | 0         | 16-QAM | 23.48  | 23.47  | 23.62   |
| 15                                      | 1       | 38        |        | 23.27  | 23.27  | 23.37   |
| 15                                      | 1       | 75        |        | 23.07  | 23.05  | 23.10   |
| 15                                      | 36      | 0         |        | 22.82  | 22.81  | 22.89   |
| 15                                      | 36      | 18        |        | 22.56  | 22.52  | 22.61   |
| 15                                      | 36      | 39        |        | 22.34  | 22.27  | 22.36   |
| 15                                      | 75      | 0         |        | 22.07  | 22.05  | 22.06   |
| 20                                      | 1       | 0         | QPSK   | 24.22  | 24.23  | 24.35   |
| 20                                      | 1       | 49        |        | 23.98  | 23.94  | 24.10   |
| 20                                      | 1       | 99        |        | 23.70  | 23.65  | 23.80   |
| 20                                      | 50      | 0         |        | 23.42  | 23.44  | 23.55   |
| 20                                      | 50      | 24        |        | 23.20  | 23.21  | 23.26   |
| 20                                      | 50      | 49        |        | 22.95  | 23.00  | 23.01   |
| 20                                      | 100     | 0         |        | 22.70  | 22.72  | 22.79   |
| 20                                      | 1       | 0         | 16-QAM | 23.98  | 23.93  | 24.09   |
| 20                                      | 1       | 49        |        | 23.72  | 23.65  | 23.86   |
| 20                                      | 1       | 99        |        | 23.43  | 23.35  | 23.57   |
| 20                                      | 50      | 0         |        | 23.22  | 23.07  | 23.30   |
| 20                                      | 50      | 24        |        | 22.96  | 22.83  | 23.02   |
| 20                                      | 50      | 49        |        | 22.67  | 22.61  | 22.73   |
| 20                                      | 100     | 0         |        | 22.45  | 22.38  | 22.46   |

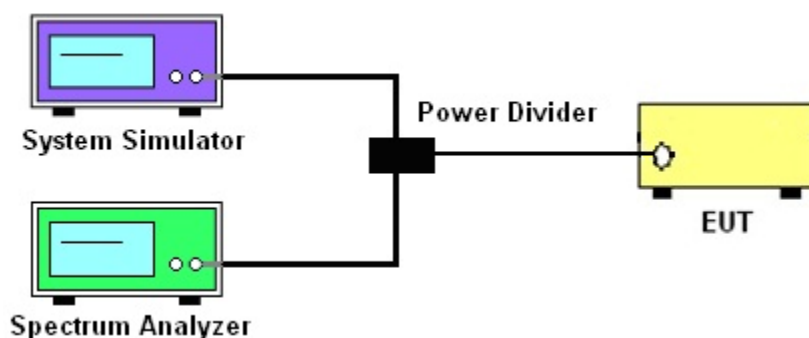
## 4. PEAK-TO-AVERAGE RATIO

### 4.1 DESCRIPTION OF THE CONDUCTED OUTPUT POWER MEASUREMENT

#### 4.1.1 MEASUREMENT METHOD

Use one of the procedures presented in 4.1.3 to measure the total peak power and record as PPK. Use one of the applicable procedures presented 4.1.3 to measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:  
 $PAPR (dB) = PPK (dBm) - PAvg (dBm)$ .

#### 4.1.2 TEST SETUP



#### 4.1.3 TEST PROCEDURES

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.7 and ANSI C63.26 2015 Section 5.2.6.
2. The EUT was connected to spectrum and system simulator via a power divider
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Set the test probe and measure the peak and average power of the spectrum analyzer
5. Record the deviation as Peak to Average Ratio.

|             | LTE    |        |        |        |         |         |
|-------------|--------|--------|--------|--------|---------|---------|
| LTE BW      | 1.4M   | 3M     | 5M     | 10M    | 15M     | 20M     |
| Span        | 3MHz   | 6MHz   | 10MHz  | 20MHz  | 30MHz   | 40MHz   |
| RBW         | 30kHz  | 30kHz  | 100kHz | 100kHz | 300kHz  | 300kHz  |
| VBW         | 100kHz | 100kHz | 300kHz | 300kHz | 1000kHz | 1000kHz |
| Detector    | PK/AVG | PK/AVG | PK/AVG | PK/AVG | PK/AVG  | PK/AVG  |
| Trace       | Max    | Max    | Max    | Max    | Max     | Max     |
| Sweep Count | Auto   | Auto   | Auto   | Auto   | Auto    | Auto    |



## 4.1.4 TEST RESULTS

| LTE Band 2 PAR [dBm] |         |            |        |        |         |
|----------------------|---------|------------|--------|--------|---------|
| BW [MHz]             | RB Size | Modulation | Lowest | Middle | Highest |
|                      |         |            | P-A    | P-A    | P-A     |
| 20                   | 1       | QPSK       | 3.3    | 4.85   | 4.63    |
| 20                   | 100     |            | 5.17   | 5.5    | 5.43    |
| 20                   | 1       | 16-QAM     | 4.53   | 5.51   | 5.36    |
| 20                   | 100     |            | 5.84   | 6.23   | 6.06    |
| Limit                |         |            | ≤13dB  |        |         |

| LTE Band 4 PAR [dBm] |            |        |        |         |
|----------------------|------------|--------|--------|---------|
| RB Size              | Modulation | Lowest | Middle | Highest |
|                      |            | P-A    | P-A    | P-A     |
| 1                    | QPSK       | 4.09   | 5.68   | 4.78    |
| 100                  |            | 5.58   | 5.34   | 5.88    |
| 1                    | 16-QAM     | 4.6    | 5.73   | 5.5     |
| 100                  |            | 6.17   | 6.14   | 6.67    |
| Limit                |            |        | ≤13dB  |         |

| LTE Band 5 PAR [dBm] |         |            |        |        |         |
|----------------------|---------|------------|--------|--------|---------|
| BW [MHz]             | RB Size | Modulation | Lowest | Middle | Highest |
|                      |         |            | P-A    | P-A    | P-A     |
| 10                   | 1       | QPSK       | 2.14   | 3.98   | 5.21    |
| 10                   | 50      |            | 4.26   | 3.66   | 4.23    |
| 10                   | 1       | 16-QAM     | 2.57   | 4.67   | 3.79    |
| 10                   | 50      |            | 5.12   | 4.39   | 4.98    |
| Limit                |         |            | ≤13dB  |        |         |

| LTE Band 7 PAR [dBm] |         |            |        |        |         |
|----------------------|---------|------------|--------|--------|---------|
| BW [MHz]             | RB Size | Modulation | Lowest | Middle | Highest |
|                      |         |            | P-A    | P-A    | P-A     |
| 20                   | 1       | QPSK       | 4.62   | 4.9    | 4.53    |
| 20                   | 100     |            | 5.8    | 5.42   | 5.67    |
| 20                   | 1       | 16-QAM     | 6.09   | 5.55   | 5.58    |
| 20                   | 100     |            | 6.49   | 6.22   | 6.38    |
| Limit                |         |            | ≤13dB  |        |         |

| LTE Band 12 PAR [dBm] |         |            |        |        |         |
|-----------------------|---------|------------|--------|--------|---------|
| BW [MHz]              | RB Size | Modulation | Lowest | Middle | Highest |
|                       |         |            | P-A    | P-A    | P-A     |
| 10                    | 1       | QPSK       | 4.25   | 4.99   | 5.37    |
| 10                    | 50      |            | 5.49   | 5.35   | 5.36    |
| 10                    | 1       | 16-QAM     | 4.91   | 5.51   | 5.52    |
| 10                    | 50      |            | 6.29   | 6.05   | 6.27    |
| Limit                 |         |            | ≤13dB  |        |         |



| LTE Band 13 PAR [dBm] |         |            |        |
|-----------------------|---------|------------|--------|
| BW [MHz]              | RB Size | Modulation | Middle |
|                       |         |            | P-A    |
| 10                    | 1       | QPSK       | 5.09   |
| 10                    | 50      |            | 5.1    |
| 10                    | 1       | 16-QAM     | 5.98   |
| 10                    | 50      |            | 5.86   |
| Limit                 |         |            | ≤13dB  |

| LTE Band 17 PAR [dBm] |         |            |        |        |         |
|-----------------------|---------|------------|--------|--------|---------|
| BW [MHz]              | RB Size | Modulation | Lowest | Middle | Highest |
|                       |         |            | P-A    | P-A    | P-A     |
| 10                    | 1       | QPSK       | 5.41   | 5.2    | 4.77    |
| 10                    | 50      |            | 5.44   | 5.48   | 5.54    |
| 10                    | 1       | 16-QAM     | 5.67   | 6.08   | 6.14    |
| 10                    | 50      |            | 6.16   | 6.03   | 6.23    |
| Limit                 |         |            | ≤13dB  |        |         |

| LTE Band 17 PAR [dBm] |         |            |        |        |         |
|-----------------------|---------|------------|--------|--------|---------|
| BW [MHz]              | RB Size | Modulation | Lowest | Middle | Highest |
|                       |         |            | P-A    | P-A    | P-A     |
| 10                    | 1       | QPSK       | 5.41   | 5.2    | 4.77    |
| 10                    | 50      |            | 5.44   | 5.48   | 5.54    |
| 10                    | 1       | 16-QAM     | 5.67   | 6.08   | 6.14    |
| 10                    | 50      |            | 6.16   | 6.03   | 6.23    |
| Limit                 |         |            | ≤13dB  |        |         |

| LTE Band 25 PAR [dBm] |         |            |        |        |         |
|-----------------------|---------|------------|--------|--------|---------|
| BW [MHz]              | RB Size | Modulation | Lowest | Middle | Highest |
|                       |         |            | P-A    | P-A    | P-A     |
| 20                    | 1       | QPSK       | 4.17   | 3.57   | 4.24    |
| 20                    | 100     |            | 5.3    | 5.75   | 5.51    |
| 20                    | 1       | 16-QAM     | 5.05   | 4.08   | 4.56    |
| 20                    | 100     |            | 5.95   | 6.42   | 6.19    |
| Limit                 |         |            | ≤13dB  |        |         |

| LTE Band 26(Part 22) PAR [dBm] |         |            |        |        |         |
|--------------------------------|---------|------------|--------|--------|---------|
| BW [MHz]                       | RB Size | Modulation | Lowest | Middle | Highest |
|                                |         |            | P-A    | P-A    | P-A     |
| 15                             | 1       | QPSK       | 4.05   | 5.56   | 4.97    |
| 15                             | 75      |            | 5.89   | 5.36   | 5.59    |
| 15                             | 1       | 16-QAM     | 4.18   | 6.17   | 5.78    |
| 15                             | 75      |            | 6.31   | 5.97   | 6.1     |
| Limit                          |         |            | ≤13dB  |        |         |



| LTE Band 26(Part 90) PAR [dBm] |         |            |        |
|--------------------------------|---------|------------|--------|
| BW [MHz]                       | RB Size | Modulation | Middle |
|                                |         |            | P-A    |
| 10                             | 1       | QPSK       | 5.47   |
| 10                             | 50      |            | 5.1    |
| 10                             | 1       | 16-QAM     | 6.31   |
| 10                             | 50      |            | 5.75   |
| Limit                          |         |            | ≤13dB  |

| LTE Band 41PAR [dBm] |         |            |        |        |         |
|----------------------|---------|------------|--------|--------|---------|
| BW [MHz]             | RB Size | Modulation | Lowest | Middle | Highest |
|                      |         |            | P-A    | P-A    | P-A     |
| 20                   | 1       | QPSK       | 5.11   | 4.65   | 4.59    |
| 20                   | 100     |            | 5.97   | 6.67   | 5.72    |
| 20                   | 1       | 16-QAM     | 6.38   | 5.24   | 5.08    |
| 20                   | 100     |            | 6.4    | 6.83   | 7.86    |
| Limit                |         |            | ≤13dB  |        |         |

Note: Test chart See Appendix D