

## FCC TEST REPORT

Product Name: Tablet

Trade Mark:



Model No.: T8

Report Number: 200402011RFM-2

Test Standards: FCC 47 CFR Part 22  
FCC 47 CFR Part 24  
FCC 47 CFR Part 27  
FCC 47 CFR Part 90

FCC ID: 2AUOUT8

Test Result: PASS

Date of Issue: July 28, 2020

Prepared for:

Rhino Mobility LLC

8 The Green, Suite A, Dover, Delaware, 19901, USA

Prepared by:

Shenzhen UnionTrust Quality and Technology Co., Ltd.  
16/F, Block A, Building 6, Baoneng Science and Technology Park,  
Qingxiang Road No.1, Longhua New District, Shenzhen, China

TEL: +86-755-2823 0888

FAX: +86-755-2823 0886

Prepared by:

Henry Lu  
Team Leader

Reviewed by:

Kevin Liang  
Assistant Manager

Approved by:

Billy Li  
Technical Director

Date:

July 28, 2020

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China  
Tel: +86-755-28230888 Fax: +86-755-28230886 E-mail: info@uttlab.com

UTTR-RF-FCC4G-V1.0

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## Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| V1.0        | July 28, 2020 | Original    |



### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: [info@uttlab.com](mailto:info@uttlab.com)

<http://www.uttlab.com>

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### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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## 1. GENERAL INFORMATION

### 1.1 CLIENT INFORMATION

|                                 |                                                   |
|---------------------------------|---------------------------------------------------|
| <b>Applicant:</b>               | Rhino Mobility LLC                                |
| <b>Address of Applicant:</b>    | 8 The Green, Suite A, Dover, Delaware, 19901, USA |
| <b>Manufacturer:</b>            | Rhino Mobility LLC                                |
| <b>Address of Manufacturer:</b> | 8 The Green, Suite A, Dover, Delaware, 19901, USA |

### 1.2 EUT INFORMATION

#### 1.2.1 General Description of EUT

|                        |                                                                                   |                                                                                                |                |
|------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------|
| Product Name:          | Tablet                                                                            |                                                                                                |                |
| Model No.:             | T8                                                                                |                                                                                                |                |
| Trade Mark:            |  |                                                                                                |                |
| DUT Stage:             | Identical Prototype                                                               |                                                                                                |                |
| EUT Supports Function: | GSM Bands:                                                                        | GSM850/1900                                                                                    |                |
|                        | UTRA Bands:                                                                       | Band II/ Band IV/ Band V                                                                       |                |
|                        | E-UTRA Bands:                                                                     | FDD Band 2/ Band 4/ Band 5/ Band 7/ Band 12/Band 17/Band 25/ Band 26/ Band 30/Band 66/ Band 71 |                |
|                        |                                                                                   | TDD Band 41                                                                                    |                |
|                        | 2.4 GHz ISM Band:                                                                 | IEEE 802.11b/g/n                                                                               |                |
|                        |                                                                                   | Bluetooth 5.0                                                                                  |                |
|                        | 5 GHz U-NII Bands:                                                                | 5 150 MHz to 5 250 MHz                                                                         | IEEE 802.11a/n |
|                        |                                                                                   | 5 250 MHz to 5 350 MHz                                                                         | IEEE 802.11a/n |
|                        |                                                                                   | 5 470 MHz to 5 725 MHz                                                                         | IEEE 802.11a/n |
|                        |                                                                                   | 5 725 MHz to 5 850 MHz                                                                         | IEEE 802.11a/n |
| RNSS Bands:            | 1559 MHz to 1610 MHz                                                              | GPS/ GNSS/ GLONASS/ BDS                                                                        |                |
| NFC:                   | 13.553 MHz to 13.567 MHz                                                          |                                                                                                |                |
| Sample Received Date:  | April 3, 2020                                                                     |                                                                                                |                |
| Sample Tested Date:    | April 3, 2020 to July 20, 2020                                                    |                                                                                                |                |

**1.2.2 Description of Accessories**

| Adapter       |                                                                                                   |
|---------------|---------------------------------------------------------------------------------------------------|
| Model No.:    | TPA-10120150UU                                                                                    |
| Input:        | 100-240 V~50/60 Hz 0.6A Max                                                                       |
| Output:       | 3.6-6.0V $\Rightarrow$ 3.0A 18.0W/6.0-9.0V $\Rightarrow$ 2.0A 18.0W /9.0-12.0V $\Rightarrow$ 1.5A |
| DC Cable:     | 1.0 Meter, Unshielded without ferrite                                                             |
| Manufacturer: | SHENZHEN TIANYIN ELECTRONICS CO., LTD                                                             |

| Battery                 |                                   |
|-------------------------|-----------------------------------|
| Model No.:              | BPT8                              |
| Battery Type:           | Lithium-ion Rechargeable Battery  |
| Rated Voltage:          | 3.8 Vdc                           |
| Limited Charge Voltage: | 4.35 Vdc                          |
| Rated Capacity:         | 5100 mAh                          |
| Manufacturer:           | Dongguan Hongde Battery Co., Ltd. |

| Cable        |                            |
|--------------|----------------------------|
| Description: | USB Type-C Plug Cable      |
| Cable Type:  | Unshielded without ferrite |
| Length:      | 1.0 Meter                  |



### 1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

|                                  |                                           |                       |
|----------------------------------|-------------------------------------------|-----------------------|
| <b>Support Networks:</b>         | LTE                                       |                       |
| <b>Type of Modulation:</b>       | LTE Band 2/4/5/7/12/17/25/26/30/41/66/71: | UL:QPSK, 16QAM        |
|                                  |                                           | DL:QPSK, 16QAM, 64QAM |
| <b>Antenna Type:</b>             | FPCB Antenna                              |                       |
| <b>Antenna Gain:</b>             | LTE Band 2:                               | 2.2 dBi               |
|                                  | LTE Band 4:                               | 1.7dBi                |
|                                  | LTE Band 5:                               | 0.3 dBi               |
|                                  | LTE Band 7:                               | 3.6 dBi               |
|                                  | LTE Band 12:                              | 1.1 dBi               |
|                                  | LTE Band 17:                              | 4.2 dBi               |
|                                  | LTE Band 25:                              | 2.8 dBi               |
|                                  | LTE Band 26(824-849MHz):                  | 0.3 dBi               |
|                                  | LTE Band 26(814-824MHz):                  | 0.2 dBi               |
|                                  | LTE Band 30:                              | 2.5 dBi               |
|                                  | LTE Band 41:                              | 3.2 dBi               |
|                                  | LTE Band 66:                              | 1.84 dBi              |
|                                  | LTE Band 71:                              | 3.44 dBi              |
| <b>Normal Test Voltage:</b>      | 3.8 Vdc                                   |                       |
| <b>Extreme Test Voltage:</b>     | 3.5 to 4.2Vdc                             |                       |
| <b>Extreme Test Temperature:</b> | -20 °C to +55 °C                          |                       |



| Summary of Results: |       |            |                 |                           |                    |         |        |                     |
|---------------------|-------|------------|-----------------|---------------------------|--------------------|---------|--------|---------------------|
| Bands               | BW    | Modulation | Frequency Range | Max RF Output Power (dBm) |                    | EIRP    | 99% BW | Emission Designator |
|                     | (MHz) |            | (MHz)           | Conducted (Average)       | ERP/EIRP (Average) | (W)     | (MHz)  |                     |
| 2                   | 1.4   | QPSK       | 1850.7-1909.3   | 23.08                     | 25.28              | 0.33729 | 1.1017 | 1M10G7D             |
|                     |       | 16QAM      |                 | 22.27                     | 24.47              | 0.27990 | 1.0967 | 1M10W7D             |
|                     | 3     | QPSK       | 1851.5-1908.5   | 22.95                     | 25.15              | 0.32734 | 2.6925 | 2M69G7D             |
|                     |       | 16QAM      |                 | 22.16                     | 24.36              | 0.27290 | 2.6823 | 2M68W7D             |
|                     | 5     | QPSK       | 1852.5-1907.5   | 22.80                     | 25.00              | 0.31623 | 4.5283 | 4M53G7D             |
|                     |       | 16QAM      |                 | 22.32                     | 24.52              | 0.28314 | 4.5447 | 4M54W7D             |
|                     | 10    | QPSK       | 1855.0-1905.0   | 22.91                     | 25.11              | 0.32434 | 9.0121 | 9M01G7D             |
|                     |       | 16QAM      |                 | 22.23                     | 24.43              | 0.27733 | 9.0193 | 9M02W7D             |
|                     | 15    | QPSK       | 1857.5-1902.5   | 22.78                     | 24.98              | 0.31477 | 13.520 | 13M5G7D             |
|                     |       | 16QAM      |                 | 22.31                     | 24.51              | 0.28249 | 13.514 | 13M5W7D             |
|                     | 20    | QPSK       | 1860.0-1900.0   | 22.97                     | 25.17              | 0.32885 | 18.009 | 18M0G7D             |
|                     |       | 16QAM      |                 | 22.32                     | 24.52              | 0.28314 | 18.032 | 18M0W7D             |
| 4                   | 1.4   | QPSK       | 1710.7-1754.3   | 23.35                     | 25.05              | 0.31989 | 1.1020 | 1M10G7D             |
|                     |       | 16QAM      |                 | 22.92                     | 24.62              | 0.28973 | 1.0983 | 1M10W7D             |
|                     | 3     | QPSK       | 1711.5-1753.5   | 23.36                     | 25.06              | 0.32063 | 2.6906 | 2M69G7D             |
|                     |       | 16QAM      |                 | 22.79                     | 24.49              | 0.28119 | 2.6845 | 2M68W7D             |
|                     | 5     | QPSK       | 1712.5-1752.5   | 23.33                     | 25.03              | 0.31842 | 4.5286 | 4M53G7D             |
|                     |       | 16QAM      |                 | 22.97                     | 24.67              | 0.29309 | 4.5283 | 4M53W7D             |
|                     | 10    | QPSK       | 1715-1750       | 23.35                     | 25.05              | 0.31989 | 9.0117 | 9M01G7D             |
|                     |       | 16QAM      |                 | 22.82                     | 24.52              | 0.28314 | 9.0225 | 9M02W7D             |
|                     | 15    | QPSK       | 1717.5-1747.5   | 23.42                     | 25.12              | 0.32509 | 13.510 | 13M5G7D             |
|                     |       | 16QAM      |                 | 22.82                     | 24.52              | 0.28314 | 13.505 | 13M5W7D             |
|                     | 20    | QPSK       | 1720-1745       | 23.49                     | 25.16              | 0.32810 | 18.017 | 18M0G7D             |
|                     |       | 16QAM      |                 | 22.97                     | 24.67              | 0.29309 | 18.019 | 18M0W7D             |
| 5                   | 1.4   | QPSK       | 824.7-848.3     | 24.59                     | 22.74              | 0.18793 | 1.0964 | 1M10G7D             |
|                     |       | 16QAM      |                 | 23.63                     | 21.78              | 0.15066 | 1.0976 | 1M10W7D             |
|                     | 3     | QPSK       | 825.5-847.5     | 24.47                     | 22.62              | 0.18281 | 2.6930 | 2M69G7D             |
|                     |       | 16QAM      |                 | 23.62                     | 21.77              | 0.15031 | 2.6855 | 2M69W7D             |
|                     | 5     | QPSK       | 826.5-846.5     | 24.51                     | 22.66              | 0.18450 | 4.5424 | 4M54G7D             |
|                     |       | 16QAM      |                 | 23.49                     | 21.64              | 0.14588 | 4.5394 | 4M54W7D             |
|                     | 10    | QPSK       | 829-844         | 24.52                     | 22.67              | 0.18493 | 9.0366 | 9M04G7D             |
|                     |       | 16QAM      |                 | 23.64                     | 21.79              | 0.15101 | 9.0363 | 9M04W7D             |

### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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| Summary of Results: |       |            |                 |                           |                    |         |        |                     |
|---------------------|-------|------------|-----------------|---------------------------|--------------------|---------|--------|---------------------|
| Bands               | BW    | Modulation | Frequency Range | Max RF Output Power (dBm) |                    | EIRP    | 99% BW | Emission Designator |
|                     | (MHz) |            | (MHz)           | Conducted (Average)       | ERP/EIRP (Average) | (W)     | (MHz)  |                     |
| 7                   | 5     | QPSK       | 2502.5-2567.5   | 19.68                     | 23.28              | 0.21281 | 4.5279 | 4M52G7D             |
|                     |       | 16QAM      |                 | 19.22                     | 22.82              | 0.19143 | 4.5467 | 4M55W7D             |
|                     | 10    | QPSK       | 2505-2565       | 19.67                     | 23.27              | 0.21232 | 9.0144 | 9M01G7D             |
|                     |       | 16QAM      |                 | 19.19                     | 22.79              | 0.19011 | 8.9993 | 8M99W7D             |
|                     | 15    | QPSK       | 2507.5-2562.5   | 19.54                     | 23.14              | 0.20606 | 13.523 | 13M5G7D             |
|                     |       | 16QAM      |                 | 19.21                     | 22.81              | 0.19099 | 13.502 | 13M5W7D             |
|                     | 20    | QPSK       | 2510-2560       | 19.72                     | 23.32              | 0.21478 | 18.019 | 18M0G7D             |
|                     |       | 16QAM      |                 | 19.32                     | 22.92              | 0.19588 | 18.028 | 18M0W7D             |
| 12                  | 1.4   | QPSK       | 699.7-715.3     | 23.18                     | 25.23              | 0.33343 | 1.1019 | 1M10G7D             |
|                     |       | 16QAM      |                 | 22.32                     | 24.37              | 0.27353 | 1.1010 | 1M10W7D             |
|                     | 3     | QPSK       | 700.5-714.5     | 23.09                     | 25.14              | 0.32659 | 2.6906 | 2M69G7D             |
|                     |       | 16QAM      |                 | 22.41                     | 24.46              | 0.27925 | 2.6832 | 2M68W7D             |
|                     | 5     | QPSK       | 701.5-713.5     | 23.10                     | 25.15              | 0.32734 | 4.5333 | 4M53G7D             |
|                     |       | 16QAM      |                 | 22.33                     | 24.38              | 0.27416 | 4.5406 | 4M54W7D             |
|                     | 10    | QPSK       | 704-711         | 23.19                     | 25.24              | 0.33420 | 9.0065 | 9M01G7D             |
|                     |       | 16QAM      |                 | 22.43                     | 24.48              | 0.28054 | 9.0201 | 9M02W7D             |
| 17                  | 5     | QPSK       | 706.5-713.5     | 24.43                     | 26.48              | 0.44463 | 4.5335 | 4M53G7D             |
|                     |       | 16QAM      |                 | 23.60                     | 25.65              | 0.36728 | 4.5341 | 4M53W7D             |
|                     | 10    | QPSK       | 709-711         | 24.51                     | 25.56              | 0.35975 | 9.0321 | 9M03G7D             |
|                     |       | 16QAM      |                 | 23.65                     | 25.70              | 0.37154 | 9.0244 | 9M02W7D             |

| Summary of Results: |       |            |                 |                           |                    |         |        |                     |
|---------------------|-------|------------|-----------------|---------------------------|--------------------|---------|--------|---------------------|
| Bands               | BW    | Modulation | Frequency Range | Max RF Output Power (dBm) |                    | EIRP    | 99% BW | Emission Designator |
|                     | (MHz) |            | (MHz)           | Conducted (Average)       | ERP/EIRP (Average) | (W)     | (MHz)  |                     |
| 25                  | 1.4   | QPSK       | 1850.7-1914.3   | 23.05                     | 25.25              | 0.33497 | 1.1032 | 1M10G7D             |
|                     |       | 16QAM      |                 | 22.57                     | 24.77              | 0.29992 | 1.0991 | 1M10W7D             |
|                     | 3     | QPSK       | 1851.5-1913.5   | 23.20                     | 25.14              | 0.32659 | 2.6903 | 2M69G7D             |
|                     |       | 16QAM      |                 | 22.55                     | 24.75              | 0.29854 | 2.6840 | 2M68W7D             |
|                     | 5     | QPSK       | 1852.5-1912.5   | 23.21                     | 25.41              | 0.34754 | 4.5263 | 4M53G7D             |
|                     |       | 16QAM      |                 | 22.64                     | 24.84              | 0.30479 | 4.5347 | 4M53W7D             |
|                     | 10    | QPSK       | 1855.0-1910.0   | 23.06                     | 25.26              | 0.33574 | 9.0271 | 9M03G7D             |
|                     |       | 16QAM      |                 | 22.49                     | 24.69              | 0.29444 | 9.0119 | 9M01W7D             |
|                     | 15    | QPSK       | 1857.5-1907.5   | 23.10                     | 25.23              | 0.33343 | 13.515 | 13M5G7D             |
|                     |       | 16QAM      |                 | 22.59                     | 24.79              | 0.30130 | 13.515 | 13M5W7D             |
|                     | 20    | QPSK       | 1860.0-1905.0   | 23.21                     | 25.41              | 0.34754 | 18.031 | 18M0G7D             |
|                     |       | 16QAM      |                 | 22.64                     | 24.84              | 0.30479 | 17.997 | 18M0W7D             |
| 26                  | 1.4   | QPSK       | 824.7-848.3     | 24.21                     | 22.36              | 0.17219 | 1.1006 | 1M10G7D             |
|                     |       | 16QAM      |                 | 23.48                     | 21.63              | 0.14555 | 1.0928 | 1M09W7D             |
|                     | 3     | QPSK       | 825.5-847.5     | 24.23                     | 22.38              | 0.17298 | 2.6899 | 2M69G7D             |
|                     |       | 16QAM      |                 | 23.50                     | 21.65              | 0.14622 | 2.6846 | 2M68W7D             |
|                     | 5     | QPSK       | 826.5-846.5     | 24.18                     | 22.33              | 0.17100 | 4.5302 | 4M53G7D             |
|                     |       | 16QAM      |                 | 23.43                     | 21.58              | 0.14388 | 4.5435 | 4M54W7D             |
|                     | 10    | QPSK       | 829-844         | 24.22                     | 22.37              | 0.17258 | 9.0198 | 9M02G7D             |
|                     |       | 16QAM      |                 | 23.37                     | 21.52              | 0.14191 | 9.0219 | 9M02W7D             |
|                     | 15    | QPSK       | 831.5-841.5     | 24.27                     | 22.42              | 0.17458 | 13.532 | 13M5G7D             |
|                     |       | 16QAM      |                 | 23.51                     | 21.66              | 0.14655 | 13.505 | 13M5W7D             |

| Summary of Results: |       |            |                 |                           |                    |         |        |                     |
|---------------------|-------|------------|-----------------|---------------------------|--------------------|---------|--------|---------------------|
| Bands               | BW    | Modulation | Frequency Range | Max RF Output Power (dBm) |                    | EIRP    | 99% BW | Emission Designator |
|                     | (MHz) |            | (MHz)           | Conducted (Average)       | ERP/EIRP (Average) | (W)     | (MHz)  |                     |
| 26<br>(Part 90S)    | 1.4   | QPSK       | 814.7-823.3     | 23.43                     | 21.48              | 0.14060 | 1.1015 | 1M10G7D             |
|                     |       | 16QAM      |                 | 22.65                     | 20.70              | 0.11749 | 1.0981 | 1M10W7D             |
|                     | 3     | QPSK       | 815.5-822.5     | 23.46                     | 21.51              | 0.14158 | 2.6921 | 2M69G7D             |
|                     |       | 16QAM      |                 | 22.64                     | 20.69              | 0.11722 | 2.6842 | 2M68W7D             |
|                     | 5     | QPSK       | 816.5-821.5     | 23.45                     | 21.50              | 0.14125 | 4.5409 | 4M54G7D             |
|                     |       | 16QAM      |                 | 22.64                     | 20.69              | 0.11722 | 4.5470 | 4M55W7D             |
|                     | 10    | QPSK       | 819             | 23.39                     | 21.44              | 0.13932 | 9.0137 | 9M01G7D             |
|                     |       | 16QAM      |                 | 22.46                     | 20.51              | 0.11246 | 9.0217 | 9M02W7D             |
| 30                  | 5     | QPSK       | 2307.5-2312.5   | 21.32                     | 23.82              | 0.24099 | 4.5297 | 4M53G7D             |
|                     |       | 16QAM      |                 | 21.32                     | 23.82              | 0.24099 | 4.5480 | 4M5W7D              |
|                     | 10    | QPSK       | 2310-2310       | 21.41                     | 23.91              | 0.24604 | 9.0078 | 9M00G7D             |
|                     |       | 16QAM      |                 | 21.43                     | 23.93              | 0.24717 | 9.0130 | 9M01W7D             |
| 41                  | 5     | QPSK       | 2557.5-2562.5   | 25.69                     | 28.89              | 0.77446 | 4.5499 | 4M55G7D             |
|                     |       | 16QAM      |                 | 24.49                     | 27.99              | 0.62951 | 4.5276 | 4M53W7D             |
|                     | 10    | QPSK       | 2560-2650       | 25.49                     | 28.99              | 0.79250 | 9.0416 | 9M04G7D             |
|                     |       | 16QAM      |                 | 24.63                     | 27.83              | 0.60674 | 9.0247 | 9M02W7D             |
|                     | 15    | QPSK       | 2562.5-2647.5   | 25.76                     | 28.96              | 0.78705 | 13.596 | 13M6G7D             |
|                     |       | 16QAM      |                 | 24.68                     | 27.88              | 0.61376 | 13.587 | 13M6W7D             |
|                     | 20    | QPSK       | 2565-2645       | 25.87                     | 29.07              | 0.80724 | 18.083 | 18M1G7D             |
|                     |       | 16QAM      |                 | 24.82                     | 28.02              | 0.63387 | 18.082 | 18M1W7D             |

| Summary of Results: |       |            |                 |                           |                    |         |        |                     |
|---------------------|-------|------------|-----------------|---------------------------|--------------------|---------|--------|---------------------|
| Bands               | BW    | Modulation | Frequency Range | Max RF Output Power (dBm) |                    | EIRP    | 99% BW | Emission Designator |
|                     | (MHz) |            | (MHz)           | Conducted (Average)       | ERP/EIRP (Average) | (W)     | (MHz)  |                     |
| 66                  | 1.4   | QPSK       | 1710.7-1779.3   | 22.85                     | 24.69              | 0.29444 | 1.1019 | 1M10G7D             |
|                     |       | 16QAM      |                 | 22.27                     | 24.11              | 0.25763 | 1.0969 | 1M10W7D             |
|                     | 3     | QPSK       | 1711.5-1778.5   | 22.80                     | 24.64              | 0.29107 | 2.6881 | 2M69G7D             |
|                     |       | 16QAM      |                 | 22.22                     | 24.06              | 0.25468 | 2.6823 | 2M68W7D             |
|                     | 5     | QPSK       | 1712.5-1777.5   | 22.85                     | 24.69              | 0.29444 | 4.5367 | 4M54G7D             |
|                     |       | 16QAM      |                 | 22.26                     | 24.10              | 0.25704 | 4.5366 | 4M54W7D             |
|                     | 10    | QPSK       | 1715-1775       | 22.81                     | 24.65              | 0.29174 | 9.0205 | 9M02G7D             |
|                     |       | 16QAM      |                 | 22.29                     | 24.13              | 0.25882 | 9.0114 | 9M01W7D             |
|                     | 15    | QPSK       | 1717.5-1772.5   | 22.80                     | 24.64              | 0.29107 | 13.525 | 13M5G7D             |
|                     |       | 16QAM      |                 | 22.29                     | 24.13              | 0.25882 | 13.513 | 13M5W7D             |
|                     | 20    | QPSK       | 1720-1770       | 22.91                     | 24.75              | 0.29854 | 18.050 | 18M1G7D             |
|                     |       | 16QAM      |                 | 22.33                     | 24.17              | 0.26122 | 18.035 | 18M0W7D             |
| 71                  | 5     | QPSK       | 665.5-695.5     | 24.81                     | 28.25              | 0.29444 | 4.5259 | 4M53G7D             |
|                     |       | 16QAM      |                 | 24.33                     | 27.77              | 0.25763 | 4.5438 | 4M54W7D             |
|                     | 10    | QPSK       | 668-693         | 24.86                     | 28.30              | 0.29107 | 9.0269 | 9M03G7D             |
|                     |       | 16QAM      |                 | 24.18                     | 27.62              | 0.25468 | 9.0215 | 9M02W7D             |
|                     | 15    | QPSK       | 670.5-690.5     | 24.79                     | 28.23              | 0.29444 | 13.538 | 13M5G7D             |
|                     |       | 16QAM      |                 | 24.26                     | 27.70              | 0.25704 | 13.528 | 13M5W7D             |
|                     | 20    | QPSK       | 673-688         | 24.88                     | 28.32              | 0.29174 | 18.032 | 18M0G7D             |
|                     |       | 16QAM      |                 | 24.36                     | 27.80              | 0.25882 | 18.078 | 18M1W7D             |

## 1.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested with associated equipment below.

### 1) Support Equipment

| Description | Manufacturer | Model No. | Serial Number | Supplied by |
|-------------|--------------|-----------|---------------|-------------|
| Notebook    | Lenovo       | E450      | SL10G10780    | UnionTrust  |

### 2) Support Cable

| Cable No. | Description   | Connector | Length     | Supplied by |
|-----------|---------------|-----------|------------|-------------|
| 1         | Antenna Cable | SMA       | 0.30 Meter | UnionTrust  |

## 1.5 TEST LOCATION

### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China 518109

Telephone: +86 (0) 755 2823 0888

Fax: +86 (0) 755 2823 0886

## 1.6 TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

### CNAS-Lab Code: L9069

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC/EN 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

### A2LA-Lab Certificate No.: 4312.01

Shenzhen UnionTrust Quality and Technology Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

### ISED Wireless Device Testing Laboratories

CAB identifier: CN0032

### FCC Accredited Lab.

Designation Number: CN1194

Test Firm Registration Number: 259480

**1.7 DEVIATION FROM STANDARDS**

None.

**1.8 ABNORMALITIES FROM STANDARD CONDITIONS**

None.

**1.9 OTHER INFORMATION REQUESTED BY THE CUSTOMER**

None.

**1.10 MEASUREMENT UNCERTAINTY**

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

| No. | Item                                    | Measurement Uncertainty  |
|-----|-----------------------------------------|--------------------------|
| 1   | Conducted emission 9KHz-150KHz          | ±3.2 dB                  |
| 2   | Conducted emission 150KHz-30MHz         | ±2.7 dB                  |
| 3   | Radiated spurious emissions 30MHz-1GHz  | ± 4.9 dB                 |
| 4   | Radiated spurious emissions 1GHz-18GHz  | ± 4.8 dB                 |
| 5   | Radiated spurious emissions 18GHz-40GHz | ± 5.1 dB                 |
| 6   | Occupied Bandwidth                      | ± 1.86 %                 |
| 7   | DC Supply Voltages                      | ± 0.68 %                 |
| 8   | Temperature                             | ± 0.62 °C                |
| 9   | Humidity                                | ± 3.9 %                  |
| 10  | Conducted spurious emissions            | ± 2.7 dB                 |
| 11  | DC Supply Voltages                      | ± 0.68 %                 |
| 12  | AC Supply Voltages                      | ± 1.2 %                  |
| 13  | Radio Frequency                         | ± 6.5 × 10 <sup>-8</sup> |
| 14  | RF Power, Conducted                     | ± 0.9 dB                 |



## 2. TEST SUMMARY

| FCC 47 CFR Part 24 Test Cases (Band 2 & Band 25) |                                                       |                                         |        |
|--------------------------------------------------|-------------------------------------------------------|-----------------------------------------|--------|
| Test Item                                        | Test Requirement                                      | Test Method                             | Result |
| Equivalent Isotropic Radiated Power (EIRP)       | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 24.232(c) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Conducted Output Power                           | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 24.232(c) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Peak-to-average ratio                            | FCC 47 CFR Part 24.232(d)                             | KDB 971168 D01v03r01                    | PASS   |
| 99%&26dB Bandwidth                               | FCC 47 CFR Part 2.1049(h) & FCC 47 CFR Part 24.238(b) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                   | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 24.238(a)    | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals          | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 24.238(a)(b) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Field strength of spurious radiation             | FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 24.238(a)(b) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Frequency stability                              | FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 24.235       | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |

| FCC 47 CFR Part 27 Test Cases (LTE Band 4 & Band 66) |                                                         |                                         |        |
|------------------------------------------------------|---------------------------------------------------------|-----------------------------------------|--------|
| Test Item                                            | Test Requirement                                        | Test Method                             | Result |
| Equivalent Isotropic Radiated Power (EIRP)           | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(d)(4) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Conducted Output Power                               | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(d)(4) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Peak-to-average ratio                                | FCC 47 CFR Part 27.50(d)(5)                             | KDB 971168 D01v03r01                    | PASS   |
| 99%&26dB Bandwidth                                   | FCC 47 CFR Part 2.1049(h) & FCC 47 CFR Part 27.53(h)    | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                       | FCC 47 CFR Part 27.53(h)(1)                             | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals              | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53(h)       | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Field strength of spurious radiation                 | FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53(h)       | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Frequency stability                                  | FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54          | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |

| FCC 47 CFR Part 22 Test Cases (Band 5 & Band 26) |                                                       |                                         |        |
|--------------------------------------------------|-------------------------------------------------------|-----------------------------------------|--------|
| Test Item                                        | Test Requirement                                      | Test Method                             | Result |
| Effective Radiated Power (ERP)                   | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 22.913(a) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Conducted Output Power                           | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 22.913(a) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Peak-to-average ratio                            | FCC 47 CFR Part 22.913(a)                             | KDB 971168 D01v03r01                    | PASS   |
| 99%&26dB Bandwidth                               | FCC 47 CFR Part 2.1049(h)                             | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                   | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 22.917(a)    | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals          | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 22.917(a)(b) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Field strength of spurious radiation             | FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 22.917(a)(b) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Frequency stability                              | FCC 47 CFR Part 2.1055 &                              | ANSI C63.26-2015 &                      | PASS   |

### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.0

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|--|------------------------|----------------------|--|
|  | FCC 47 CFR Part 22.355 | KDB 971168 D01v03r01 |  |
|--|------------------------|----------------------|--|

| FCC 47 CFR Part 27 Test Cases (LTE Band 7 & Band 41) |                                                         |                                         |        |
|------------------------------------------------------|---------------------------------------------------------|-----------------------------------------|--------|
| Test Item                                            | Test Requirement                                        | Test Method                             | Result |
| Equivalent Isotropic Radiated Power (EIRP)           | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(h)(2) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Conducted Output Power                               | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(h)(2) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Peak-to-average ratio                                | FCC 47 CFR Part 27.50(d)(5)                             | KDB 971168 D01v03r01                    | PASS   |
| 99%&26dB Bandwidth                                   | FCC 47 CFR Part 2.1049(h)                               | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                       | FCC 47 CFR Part 27.53(m)(4)                             | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals              | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53(m)(4)    | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Field strength of spurious radiation                 | FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53(m)(4)    | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Frequency stability                                  | FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54          | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |

| FCC 47 CFR Part 27 Test Cases (LTE Band 12 & 17 & 71) |                                                          |                                         |        |
|-------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|--------|
| Test Item                                             | Test Requirement                                         | Test Method                             | Result |
| Effective Radiated Power (ERP)                        | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(c)(10) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Conducted Output Power                                | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(c)(10) | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Peak-to-average ratio                                 | FCC 47 CFR Part 27.50(d)(5)                              | KDB 971168 D01v03r01                    | PASS   |
| 99%&26dB Bandwidth                                    | FCC 47 CFR Part 2.1049(h)<br>FCC 47 CFR Part 27.53(g)    | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Band Edge at antenna terminals                        | FCC 47 CFR Part 27.53(g)                                 | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals               | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53(g)        | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Field strength of spurious radiation                  | FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53(g)        | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |
| Frequency stability                                   | FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54           | ANSI C63.26-2015 & KDB 971168 D01v03r01 | PASS   |

| FCC 47 CFR Part 90 Test Cases (LTE Band 26) |                                                    |                                            |        |
|---------------------------------------------|----------------------------------------------------|--------------------------------------------|--------|
| Test Item                                   | Test Requirement                                   | Test Method                                | Result |
| Effective Radiated Power (ERP)              | FCC 47 CFR Part 2.1046 & FCC 47 CFR Part 90.635    | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |
| Conducted Output Power                      | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 90.635 | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |
| Peak-to-average ratio                       | N/A                                                | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |
| 99%&26dB Bandwidth                          | FCC 47 CFR Part 2.1049(h)                          | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |
| Emission Mask                               | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 90.691    | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |
| Spurious emissions at antenna terminals     | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 90.691    | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |
| Field strength of spurious radiation        | FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 90.691    | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |
| Frequency stability                         | FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 90.213    | ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01 | PASS   |

| FCC 47 CFR Part 27 Test Cases (LTE Band 30) |                                                         |                                                |        |
|---------------------------------------------|---------------------------------------------------------|------------------------------------------------|--------|
| Test Item                                   | Test Requirement                                        | Test Method                                    | Result |
| Equivalent Isotropic Radiated Power (EIRP)  | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(a)(3) | ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02 | PASS   |
| Conducted Output Power                      | FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(a)(3) | ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02 | PASS   |
| Peak-to-average ratio                       | FCC 47 CFR Part 27.50(a)(B)                             | KDB 971168 D01v02r02                           | PASS   |
| 99%&26dB Bandwidth                          | FCC 47 CFR Part 2.1049(h)<br>FCC 47 CFR Part 27.50(a)   | ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02 | PASS   |
| Band Edge at antenna terminals              | FCC 47 CFR Part 27.53(a)(4)                             | ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02 | PASS   |
| Spurious emissions at antenna terminals     | FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53(a) (4)   | ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02 | PASS   |
| Field strength of spurious radiation        | FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53(a) (4)   | ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02 | PASS   |
| Frequency stability                         | FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54          | ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02 | PASS   |

### 3. EQUIPMENT LIST

| Radiated Emission Test Equipment List |                                     |              |            |                            |                         |                             |
|---------------------------------------|-------------------------------------|--------------|------------|----------------------------|-------------------------|-----------------------------|
| Used                                  | Equipment                           | Manufacturer | Model No.  | Serial Number              | Cal. date (mm dd, yyyy) | Cal. Due date (mm dd, yyyy) |
| <input checked="" type="checkbox"/>   | 3M Chamber & Accessory Equipment    | ETS-LINDGREN | 3M         | N/A                        | Dec. 03, 2018           | Dec. 03, 2021               |
| <input checked="" type="checkbox"/>   | Receiver                            | R&S          | ESIB26     | 100114                     | Nov. 24, 2019           | Nov. 23, 2020               |
| <input type="checkbox"/>              | Loop Antenna                        | ETS-LINDGREN | 6502       | 00202525                   | Nov. 24, 2019           | Nov. 23, 2020               |
| <input checked="" type="checkbox"/>   | Broadband Antenna                   | ETS-LINDGREN | 3142E      | 00201566                   | Nov. 16, 2019           | Nov. 15, 2020               |
| <input checked="" type="checkbox"/>   | 6dB Attenuator                      | Talent       | RA6A5-N-18 | 18103001                   | Nov. 16, 2019           | Nov. 15, 2020               |
| <input checked="" type="checkbox"/>   | Preamplifier                        | HP           | 8447F      | 2805A02960                 | Nov. 16, 2019           | Nov. 15, 2020               |
| <input type="checkbox"/>              | Broadband Antenna (Pre-amplifier)   | ETS-LINDGREN | 3142E-PA   | 00201891                   | Nov. 24, 2019           | Nov. 23, 2020               |
| <input type="checkbox"/>              | 6dB Attenuator                      | Talent       | RA6A5-N-18 | 18103002                   | Nov. 24, 2019           | Nov. 23, 2020               |
| <input type="checkbox"/>              | Horn Antenna                        | ETS-LINDGREN | 3117       | 00164202                   | Nov. 24, 2019           | Nov. 23, 2020               |
| <input checked="" type="checkbox"/>   | Horn Antenna (Pre-amplifier)        | ETS-LINDGREN | 3117-PA    | 00201874                   | Nov. 16, 2019           | Nov. 15, 2020               |
| <input checked="" type="checkbox"/>   | Horn Antenna (Pre-amplifier)        | ETS-LINDGREN | 3116C-PA   | 00202652                   | Nov. 16, 2019           | Nov. 15, 2020               |
| <input checked="" type="checkbox"/>   | Wideband Radio Communication Tester | R&S          | CMW500     | 119583                     | Jul. 31, 2019           | Jul. 31, 2020               |
| <input checked="" type="checkbox"/>   | Multi device Controller             | ETS-LINDGREN | 7006-001   | 00160105                   | N/A                     | N/A                         |
| <input checked="" type="checkbox"/>   | Test Software                       | Audix        | e3         | Software Version: 9.160323 |                         |                             |

| RF Test Equipment List              |                                     |              |               |                        |                         |                             |
|-------------------------------------|-------------------------------------|--------------|---------------|------------------------|-------------------------|-----------------------------|
| Used                                | Equipment                           | Manufacturer | Model No.     | Serial Number          | Cal. date (mm dd, yyyy) | Cal. Due date (mm dd, yyyy) |
| <input checked="" type="checkbox"/> | Receiver                            | R&S          | ESR7          | 1316.3003K07-101181-K3 | Nov. 24, 2019           | Nov. 23, 2020               |
| <input checked="" type="checkbox"/> | EXA Spectrum Analyzer               | KEYSIGHT     | N9010A        | MY51440197             | Nov. 24, 2019           | Nov. 23, 2020               |
| <input checked="" type="checkbox"/> | Wideband Radio Communication Tester | R&S          | CMW500        | 119583                 | Jul. 31, 2019           | Jul. 31, 2020               |
| <input checked="" type="checkbox"/> | DC Source                           | KIKUSUI      | PWR400L       | LK003024               | Sep. 09, 2019           | Sep. 08, 2020               |
| <input type="checkbox"/>            | Temp & Humidity chamber             | Espec        | GL(U)04K A(W) | 16921H201P3            | Sep. 09, 2019           | Sep. 08, 2020               |
| <input checked="" type="checkbox"/> | Temp & Humidity chamber             | Votisch      | VT4002        | 58566133290020         | May 11, 2020            | May 11, 2021                |

#### 4. TEST CONFIGURATION

##### 4.1 ENVIRONMENTAL CONDITIONS FOR TESTING

| Test Environment | Selected Values During Tests |             |                       |
|------------------|------------------------------|-------------|-----------------------|
| Test Condition   | Ambient                      |             |                       |
|                  | Temperature (°C)             | Voltage (V) | Relative Humidity (%) |
| TN/VN            | +15 to +35                   | 3.8         | 20 to 75              |
| TL/VL            | -20                          | 3.5         | 20 to 75              |
| TH/VL            | +55                          | 3.5         | 20 to 75              |
| TL/VH            | -20                          | 4.2         | 20 to 75              |
| TH/VH            | +55                          | 4.2         | 20 to 75              |

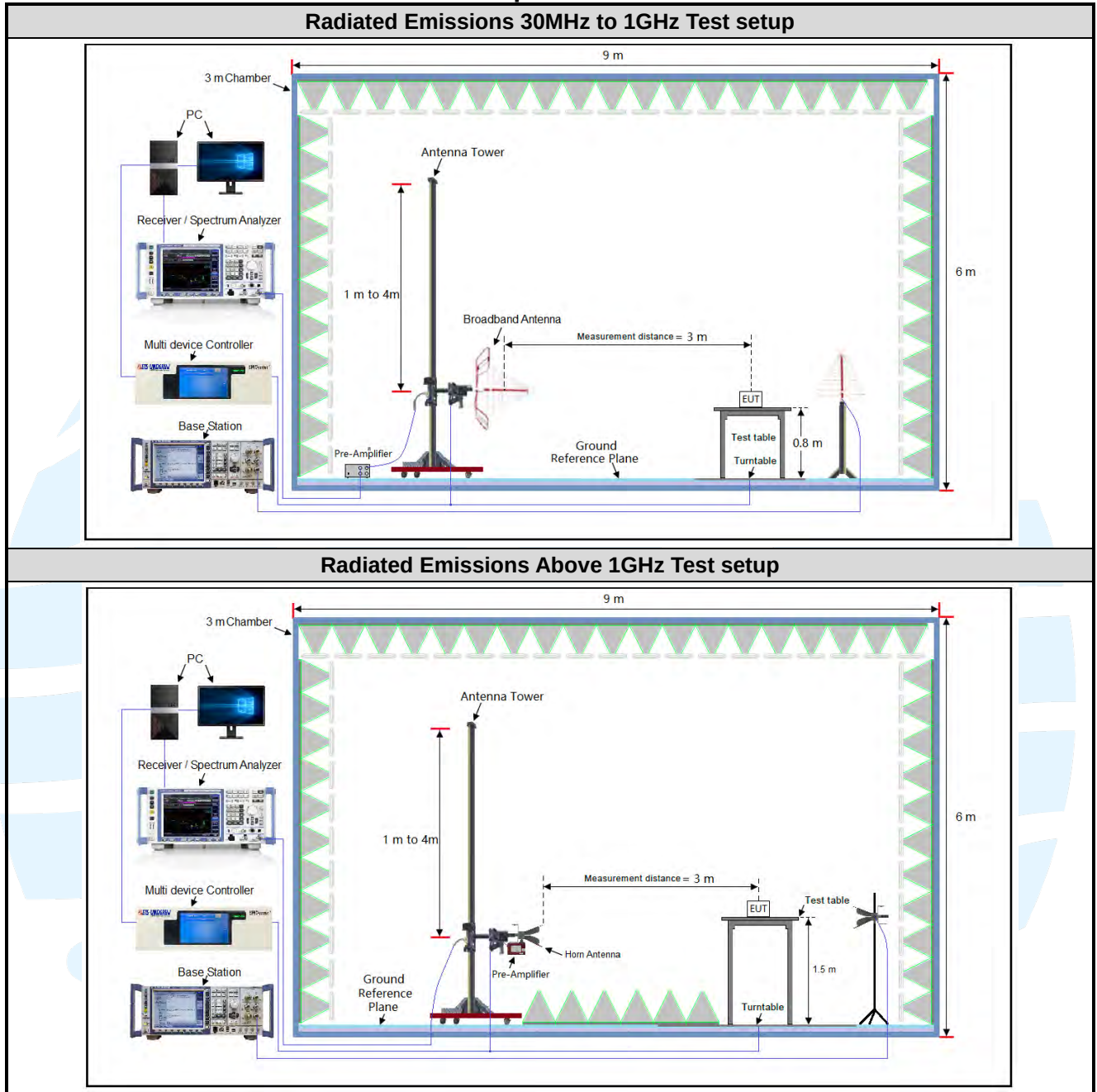
**Remark:**

- 1) The EUT just work in such extreme temperature of -20 °C to +55 °C and the extreme voltage of 3.5 V to 4.2 V, so here the EUT is tested in the temperature of -20 °C to +55 °C and the voltage of 3.5 V to 4.2 V.
- 2) VN: Normal Voltage; TN: Normal Temperature;  
TL: Low Extreme Test Temperature; TH: High Extreme Test Temperature;  
VL: Low Extreme Test Voltage; VH: High Extreme Test Voltage.

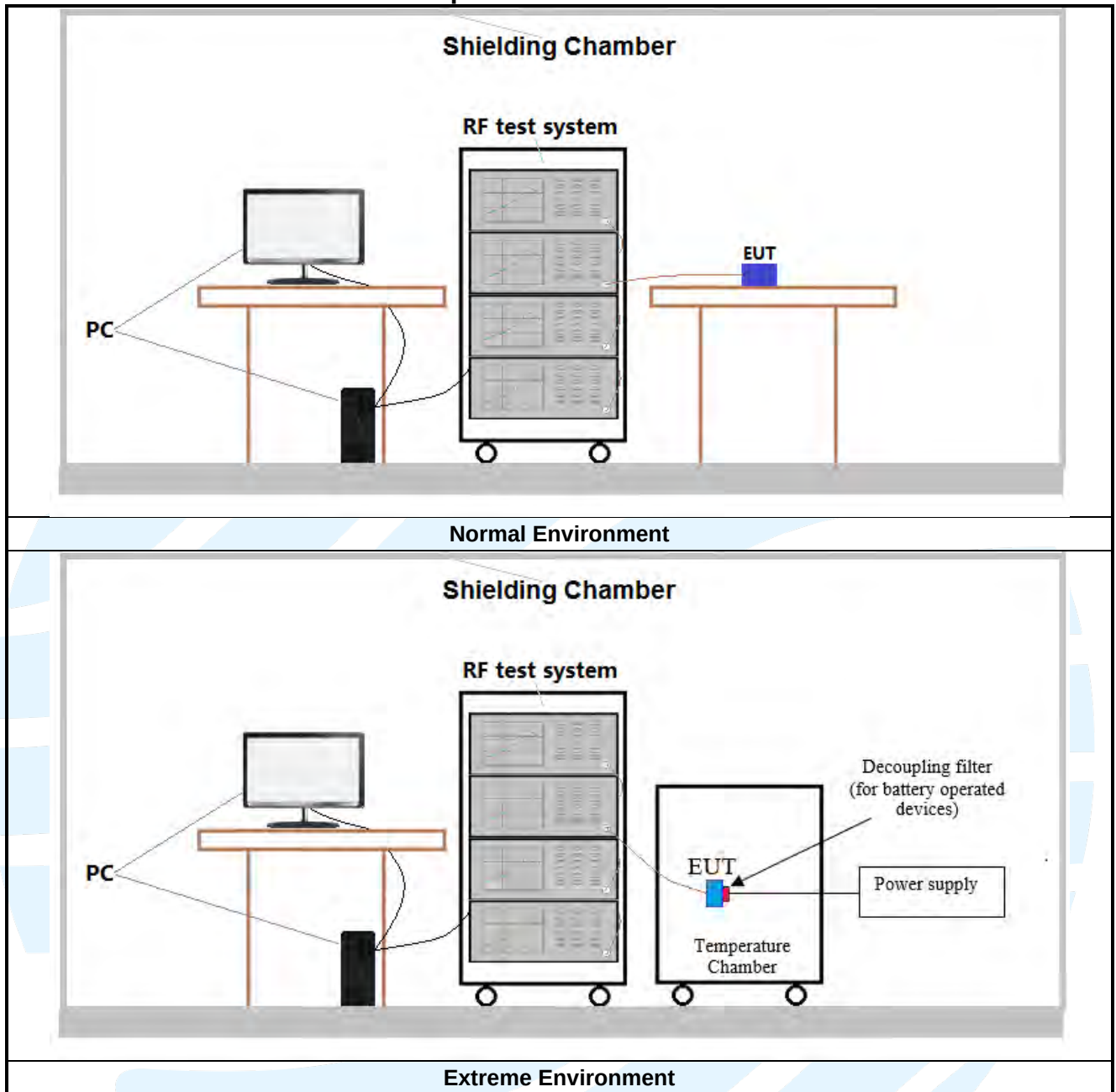


## 4.2 TEST SETUP

### 4.2.1 For Radiated Emissions test setup



#### 4.2.2 For Conducted RF test setup





### 4.3 TEST CHANNELS

| Band                           | Test Frequency ID | Bandwidth (MHz)   | Number [UL] | Frequency of Uplink (MHz) |
|--------------------------------|-------------------|-------------------|-------------|---------------------------|
| LTE Band 2<br>TX: 1850-1910MHz | Low Range         | 1.4               | 18607       | 1850.7                    |
|                                |                   | 3                 | 18615       | 1851.5                    |
|                                |                   | 5                 | 18625       | 1852.5                    |
|                                |                   | 10                | 18650       | 1855                      |
|                                |                   | 15                | 18675       | 1857.5                    |
|                                |                   | 20                | 18700       | 1860                      |
|                                | Middle Range      | 1.4/3/5/10/15/20  | 18900       | 1880                      |
|                                | High Range        | 1.4               | 19193       | 1909.3                    |
|                                |                   | 3                 | 19185       | 1908.5                    |
|                                |                   | 5                 | 19175       | 1907.5                    |
|                                |                   | 10                | 19150       | 1905                      |
|                                |                   | 15                | 19125       | 1902.5                    |
|                                |                   | 20                | 19100       | 1900                      |
| LTE Band 4<br>TX: 1710-1755MHz | Low Range         | 1.4               | 19957       | 1710.7                    |
|                                |                   | 3                 | 19965       | 1711.5                    |
|                                |                   | 5                 | 19975       | 1712.5                    |
|                                |                   | 10                | 20000       | 1715                      |
|                                |                   | 15                | 20025       | 1717.5                    |
|                                |                   | 20                | 20050       | 1720                      |
|                                | Middle Range      | 1.4/3/5/10/ 15/20 | 20175       | 1732.5                    |
|                                | High Range        | 1.4               | 20393       | 1754.3                    |
|                                |                   | 3                 | 20385       | 1753.5                    |
|                                |                   | 5                 | 20375       | 1752.5                    |
|                                |                   | 10                | 20350       | 1750                      |
|                                |                   | 15                | 20325       | 1747.5                    |
|                                |                   | 20                | 20300       | 1745                      |
| LTE band 5<br>TX: 824-849MHz   | Low Range         | 1.4               | 20407       | 824.7                     |
|                                |                   | 3                 | 20415       | 825.5                     |
|                                |                   | 5                 | 20425       | 826.5                     |
|                                |                   | 10                | 20450       | 829                       |
|                                | Middle Range      | 1.4/3/5/10        | 20525       | 836.5                     |
|                                | High Range        | 1.4               | 20643       | 848.3                     |
|                                |                   | 3                 | 20635       | 847.5                     |
|                                |                   | 5                 | 20625       | 846.5                     |
|                                |                   | 10                | 20600       | 844                       |
| LTE Band 7<br>TX: 2500-2570MHz | Low Range         | 5                 | 20775       | 2502.5                    |
|                                |                   | 10                | 20800       | 2505                      |
|                                |                   | 15                | 20825       | 2507.5                    |
|                                |                   | 20                | 20850       | 2510                      |
|                                | Middle Range      | 5/10/15/20        | 21100       | 2535                      |
|                                | High Range        | 5                 | 21425       | 2567.5                    |
|                                |                   | 10                | 21400       | 2565                      |
|                                |                   | 15                | 21375       | 2562.5                    |

#### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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|                                 |              |                  |       |        |
|---------------------------------|--------------|------------------|-------|--------|
|                                 |              | 20               | 21350 | 2560   |
| LTE Band 12<br>TX: 699-716MHz   | Low Range    | 1.4              | 23017 | 699.7  |
|                                 |              | 3                | 23025 | 700.5  |
|                                 |              | 5                | 23035 | 701.5  |
|                                 |              | 10               | 23060 | 704    |
|                                 | Middle Range | 1.4/3/5/10       | 23095 | 707.5  |
|                                 | High Range   | 1.4              | 23173 | 715.3  |
|                                 |              | 3                | 23165 | 714.5  |
|                                 |              | 5                | 23155 | 713.5  |
|                                 |              | 10               | 23130 | 711    |
| LTE Band 17<br>TX: 704-716MHz   | Low Range    | 5                | 23755 | 706.5  |
|                                 |              | 10               | 23780 | 709    |
|                                 | Middle Range | 5/10             | 23790 | 710    |
|                                 | High Range   | 5                | 23825 | 713.5  |
|                                 |              | 10               | 23800 | 711    |
| LTE Band 25<br>TX: 1850-1915MHz | Low Range    | 1.4              | 26047 | 1850.7 |
|                                 |              | 3                | 26055 | 1851.5 |
|                                 |              | 5                | 26065 | 1852.5 |
|                                 |              | 10               | 26090 | 1855   |
|                                 |              | 15               | 26115 | 1857.5 |
|                                 |              | 20               | 26140 | 1860   |
|                                 | Middle Range | 1.4/3/5/10/15/20 | 26340 | 1880   |
|                                 | High Range   | 1.4              | 26683 | 1914.3 |
|                                 |              | 3                | 26675 | 1913.5 |
|                                 |              | 5                | 26665 | 1912.5 |
|                                 |              | 10               | 26640 | 1910   |
|                                 |              | 15               | 26615 | 1907.5 |
|                                 |              | 20               | 26590 | 1905   |
| LTE band 26<br>TX: 824-849MHz   | Low Range    | 1.4              | 26797 | 824.7  |
|                                 |              | 3                | 26805 | 825.5  |
|                                 |              | 5                | 26815 | 826.5  |
|                                 |              | 10               | 26840 | 829    |
|                                 |              | 15               | 26865 | 831.5  |
|                                 | Middle Range | 1.4/3/5/10/15    | 26915 | 836.5  |
|                                 | High Range   | 1.4              | 27033 | 848.3  |
|                                 |              | 3                | 27025 | 847.5  |
|                                 |              | 5                | 27015 | 846.5  |
|                                 |              | 10               | 26990 | 844    |
|                                 |              | 15               | 26965 | 841.5  |
| LTE band 26<br>TX: 814-824MHz   | Low Range    | 1.4              | 26697 | 814.7  |
|                                 |              | 3                | 26705 | 815.5  |
|                                 |              | 5                | 26715 | 816.5  |
|                                 |              | 10               | /     | /      |
|                                 |              | 15               | /     | /      |
|                                 | Middle Range | 1.4/3/5/10       | 26740 | 819    |
|                                 | High Range   | 1.4              | 26783 | 823.3  |

### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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|                                 |              |                   |        |        |
|---------------------------------|--------------|-------------------|--------|--------|
|                                 |              | 3                 | 26775  | 822.5  |
|                                 |              | 5                 | 26765  | 821.5  |
|                                 |              | 10                | /      | /      |
|                                 |              | 15                | /      | /      |
| LTE Band 30<br>TX: 2305-2315MHz | Low Range    | 5                 | 27685  | 2307.5 |
|                                 |              | 10                | /      | /      |
|                                 | Middle Range | 5/10              | 27710  | 2310   |
|                                 |              | 5                 | 27735  | 2312.5 |
|                                 | High Range   | 10                | /      | /      |
| LTE Band 41<br>TX: 2496-2690MHz | Low Range    | 5                 | 39675  | 2498.5 |
|                                 |              | 10                | 39700  | 2501   |
|                                 |              | 15                | 39725  | 2503.5 |
|                                 |              | 20                | 39750  | 2506   |
|                                 | Middle Range | 5/10/ 15/20       | 40620  | 2593   |
|                                 | High Range   | 5                 | 41565  | 2687.5 |
|                                 |              | 10                | 41540  | 2685   |
|                                 |              | 15                | 41515  | 2682.5 |
|                                 |              | 20                | 41490  | 2680   |
| LTE Band 66<br>TX: 1710-1780MHz | Low Range    | 1.4               | 131979 | 1710.7 |
|                                 |              | 3                 | 131987 | 1711.5 |
|                                 |              | 5                 | 131997 | 1712.5 |
|                                 |              | 10                | 132022 | 1715   |
|                                 |              | 15                | 132047 | 1717.5 |
|                                 |              | 20                | 132072 | 1720   |
|                                 | Middle Range | 1.4/3/5/10/ 15/20 | 132322 | 1745   |
|                                 | High Range   | 1.4               | 132665 | 1779.3 |
|                                 |              | 3                 | 132657 | 1778.5 |
|                                 |              | 5                 | 132647 | 1777.5 |
|                                 |              | 10                | 132622 | 1775   |
|                                 |              | 15                | 132597 | 1772.5 |
|                                 |              | 20                | 132572 | 1770   |
| LTE Band 71<br>TX: 663-698MHz   | Low Range    | 5                 | 133147 | 665.5  |
|                                 |              | 10                | 133172 | 668    |
|                                 |              | 15                | 133197 | 670.5  |
|                                 |              | 20                | 133222 | 673    |
|                                 | Middle Range | 5/10/15           | 133297 | 680.5  |
|                                 |              | 20                | 133322 | 683    |
|                                 | High Range   | 5                 | 133447 | 695.5  |
|                                 |              | 10                | 133422 | 693    |
|                                 |              | 15                | 133397 | 690.5  |
|                                 |              | 20                | 133372 | 688    |

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Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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#### 4.4 SYSTEM TEST CONFIGURATION

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, radiated emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario. It was powered by a 3.8V battery. Only the worst case data were recorded in this test report.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, X/Y/Z axis, and antenna ports.

The worst case was found when positioned as the table below.

| Band        | Mode | Antenna Port | Worst-case axis positioning |
|-------------|------|--------------|-----------------------------|
| LTE Band 2  | 1TX  | Chain 0      | X axis                      |
| LTE Band 4  | 1TX  | Chain 0      | X axis                      |
| LTE Band 5  | 1TX  | Chain 0      | X axis                      |
| LTE Band 7  | 1TX  | Chain 0      | X axis                      |
| LTE Band 12 | 1TX  | Chain 0      | X axis                      |
| LTE Band 17 | 1TX  | Chain 0      | X axis                      |
| LTE Band 25 | 1TX  | Chain 0      | X axis                      |
| LTE Band 26 | 1TX  | Chain 0      | X axis                      |
| LTE Band 30 | 1TX  | Chain 0      | X axis                      |
| LTE Band 41 | 1TX  | Chain 0      | X axis                      |
| LTE Band 66 | 1TX  | Chain 0      | X axis                      |
| LTE Band 71 | 1TX  | Chain 0      | X axis                      |

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000MHz. The resolution is 1 MHz or greater for frequencies above 1000MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

## 4.5 PRE-SCAN

Pre-scan under all rate at lowest middle and highest channel, find the transmitter power as below.

### 4.5.1 LTE Band 2

| LTE Band 2 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                             | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                        | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz             |      |        |              |       |       | Channel Bandwidth: 3 MHz  |        |              |       |       |
| QPSK                                   | 1    | 0      | 22.46        | 22.46 | 22.19 | 1                         | 0      | 22.44        | 22.44 | 22.26 |
|                                        | 1    | 2      | 22.87        | 22.72 | 22.68 | 1                         | 7      | 22.95        | 22.65 | 22.60 |
|                                        | 1    | 5      | 22.33        | 22.27 | 22.12 | 1                         | 14     | 22.36        | 22.16 | 22.19 |
|                                        | 3    | 0      | 23.08        | 22.91 | 22.73 | 8                         | 0      | 22.07        | 21.91 | 21.69 |
|                                        | 3    | 1      | 22.92        | 22.81 | 22.68 | 8                         | 3      | 21.97        | 21.84 | 21.69 |
|                                        | 3    | 3      | 23.02        | 23.04 | 22.79 | 8                         | 7      | 22.01        | 22.04 | 21.88 |
|                                        | 6    | 0      | 21.98        | 21.95 | 21.70 | 15                        | 0      | 22.05        | 22.03 | 21.71 |
| 16QAM                                  | 1    | 0      | 21.69        | 21.88 | 21.58 | 1                         | 0      | 21.74        | 21.88 | 21.70 |
|                                        | 1    | 2      | 22.27        | 22.16 | 22.00 | 1                         | 7      | 22.16        | 22.06 | 21.91 |
|                                        | 1    | 5      | 21.78        | 21.66 | 21.64 | 1                         | 14     | 21.64        | 21.83 | 21.63 |
|                                        | 3    | 0      | 21.87        | 21.80 | 21.43 | 8                         | 0      | 20.74        | 20.65 | 20.54 |
|                                        | 3    | 1      | 21.74        | 21.60 | 21.51 | 8                         | 3      | 20.77        | 20.53 | 20.65 |
|                                        | 3    | 3      | 21.78        | 21.55 | 21.41 | 8                         | 7      | 20.87        | 20.55 | 20.39 |
|                                        | 6    | 0      | 20.86        | 20.53 | 20.52 | 15                        | 0      | 20.79        | 20.58 | 20.46 |
| Channel Bandwidth: 5 MHz               |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 22.50        | 22.47 | 22.28 | 1                         | 0      | 22.56        | 22.35 | 22.26 |
|                                        | 1    | 12     | 22.80        | 22.71 | 22.61 | 1                         | 24     | 22.91        | 22.82 | 22.69 |
|                                        | 1    | 24     | 22.43        | 22.24 | 22.24 | 1                         | 49     | 22.35        | 22.28 | 22.19 |
|                                        | 12   | 0      | 22.02        | 22.00 | 21.65 | 25                        | 0      | 22.06        | 22.01 | 21.81 |
|                                        | 12   | 6      | 21.84        | 21.82 | 21.83 | 25                        | 12     | 21.97        | 21.81 | 21.75 |
|                                        | 12   | 13     | 22.13        | 22.06 | 21.87 | 25                        | 25     | 21.99        | 21.90 | 21.74 |
|                                        | 25   | 0      | 22.06        | 21.98 | 21.84 | 50                        | 0      | 22.05        | 21.96 | 21.83 |
| 16QAM                                  | 1    | 0      | 21.83        | 21.81 | 21.53 | 1                         | 0      | 21.84        | 21.85 | 21.70 |
|                                        | 1    | 12     | 22.32        | 22.23 | 21.93 | 1                         | 24     | 22.23        | 22.04 | 21.88 |
|                                        | 1    | 24     | 21.68        | 21.77 | 21.55 | 1                         | 49     | 21.78        | 21.77 | 21.53 |
|                                        | 12   | 0      | 20.75        | 20.77 | 20.50 | 25                        | 0      | 20.75        | 20.64 | 20.53 |
|                                        | 12   | 6      | 20.64        | 20.68 | 20.67 | 25                        | 12     | 20.63        | 20.52 | 20.62 |
|                                        | 12   | 13     | 20.74        | 20.63 | 20.52 | 25                        | 25     | 20.79        | 20.57 | 20.36 |
|                                        | 25   | 0      | 20.77        | 20.70 | 20.55 | 50                        | 0      | 20.83        | 20.56 | 20.43 |

| LTE Band 2 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                             | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                        | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 15 MHz              |      |        |              |       |       | Channel Bandwidth: 20 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 22.58        | 22.33 | 22.28 | 1                         | 0      | 22.61        | 22.47 | 22.33 |
|                                        | 1    | 37     | 22.77        | 22.78 | 22.52 | 1                         | 50     | 22.97        | 22.83 | 22.71 |
|                                        | 1    | 74     | 22.42        | 22.19 | 22.21 | 1                         | 99     | 22.49        | 22.34 | 22.28 |
|                                        | 37   | 0      | 22.08        | 21.98 | 21.70 | 50                        | 0      | 22.12        | 22.06 | 21.83 |
|                                        | 37   | 19     | 21.96        | 21.82 | 21.81 | 50                        | 25     | 22.02        | 21.98 | 21.87 |
|                                        | 37   | 39     | 22.09        | 22.02 | 21.84 | 50                        | 50     | 22.16        | 22.07 | 21.89 |
|                                        | 75   | 0      | 22.02        | 21.94 | 21.72 | 100                       | 0      | 22.12        | 22.05 | 21.88 |
| 16QAM                                  | 1    | 0      | 21.79        | 21.83 | 21.62 | 1                         | 0      | 21.86        | 21.92 | 21.72 |
|                                        | 1    | 37     | 22.31        | 22.23 | 21.94 | 1                         | 50     | 22.32        | 22.24 | 22.06 |
|                                        | 1    | 74     | 21.75        | 21.72 | 21.66 | 1                         | 99     | 21.83        | 21.86 | 21.72 |
|                                        | 37   | 0      | 20.70        | 20.77 | 20.51 | 50                        | 0      | 20.88        | 20.82 | 20.59 |
|                                        | 37   | 19     | 20.76        | 20.63 | 20.61 | 50                        | 25     | 20.78        | 20.72 | 20.68 |
|                                        | 37   | 39     | 20.85        | 20.59 | 20.51 | 50                        | 50     | 20.89        | 20.66 | 20.53 |
|                                        | 75   | 0      | 20.72        | 20.63 | 20.42 | 100                       | 0      | 20.88        | 20.71 | 20.56 |

#### 4.5.2 LTE Band 4

| LTE Band 4 Maximum Average Power (dBm) |      |        |              |       |       |                          |        |              |       |       |
|----------------------------------------|------|--------|--------------|-------|-------|--------------------------|--------|--------------|-------|-------|
| Modulation                             | RB   |        | Test Channel |       |       | RB                       |        | Test Channel |       |       |
|                                        | Size | Offset | Low          | Mid   | High  | Size                     | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz             |      |        |              |       |       | Channel Bandwidth: 3 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 22.83        | 22.79 | 22.75 | 1                        | 0      | 22.79        | 22.88 | 22.88 |
|                                        | 1    | 2      | 23.14        | 23.28 | 23.35 | 1                        | 7      | 23.26        | 23.22 | 23.36 |
|                                        | 1    | 5      | 22.92        | 22.88 | 22.97 | 1                        | 14     | 22.91        | 22.79 | 22.86 |
|                                        | 3    | 0      | 22.87        | 23.04 | 23.17 | 8                        | 0      | 21.95        | 22.06 | 22.11 |
|                                        | 3    | 1      | 23.11        | 23.21 | 23.13 | 8                        | 3      | 22.04        | 22.23 | 22.27 |
|                                        | 3    | 3      | 23.14        | 23.02 | 23.22 | 8                        | 7      | 22.04        | 22.04 | 22.17 |
|                                        | 6    | 0      | 22.02        | 22.13 | 22.18 | 15                       | 0      | 22.11        | 22.07 | 22.16 |
| 16QAM                                  | 1    | 0      | 21.96        | 22.30 | 22.21 | 1                        | 0      | 22.03        | 22.39 | 22.23 |
|                                        | 1    | 2      | 22.51        | 22.92 | 22.55 | 1                        | 7      | 22.63        | 22.79 | 22.62 |
|                                        | 1    | 5      | 22.21        | 22.42 | 22.32 | 1                        | 14     | 22.17        | 22.43 | 22.31 |
|                                        | 3    | 0      | 21.98        | 22.10 | 22.04 | 8                        | 0      | 20.92        | 21.10 | 21.04 |
|                                        | 3    | 1      | 22.06        | 22.17 | 22.13 | 8                        | 3      | 21.07        | 21.14 | 21.24 |
|                                        | 3    | 3      | 22.07        | 22.17 | 22.12 | 8                        | 7      | 21.05        | 21.16 | 21.23 |
|                                        | 6    | 0      | 21.00        | 21.18 | 21.25 | 15                       | 0      | 21.16        | 21.21 | 21.28 |



| LTE Band 4 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                             | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                        | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 5 MHz               |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 22.83        | 22.76 | 22.80 | 1                         | 0      | 22.83        | 22.76 | 22.77 |
|                                        | 1    | 12     | 23.24        | 23.22 | 23.33 | 1                         | 24     | 23.15        | 23.26 | 23.35 |
|                                        | 1    | 24     | 22.96        | 22.95 | 22.96 | 1                         | 49     | 22.96        | 22.78 | 22.88 |
|                                        | 12   | 0      | 22.06        | 22.01 | 22.10 | 25                        | 0      | 21.93        | 22.03 | 22.24 |
|                                        | 12   | 6      | 21.99        | 22.17 | 22.24 | 25                        | 12     | 21.99        | 22.12 | 22.25 |
|                                        | 12   | 13     | 22.05        | 22.20 | 22.13 | 25                        | 25     | 22.15        | 22.06 | 22.11 |
|                                        | 25   | 0      | 22.07        | 22.07 | 22.23 | 50                        | 0      | 22.02        | 21.99 | 22.19 |
| 16QAM                                  | 1    | 0      | 22.07        | 22.39 | 22.20 | 1                         | 0      | 22.05        | 22.34 | 22.27 |
|                                        | 1    | 12     | 22.47        | 22.97 | 22.56 | 1                         | 24     | 22.50        | 22.82 | 22.68 |
|                                        | 1    | 24     | 22.24        | 22.45 | 22.32 | 1                         | 49     | 22.11        | 22.35 | 22.26 |
|                                        | 12   | 0      | 20.94        | 21.17 | 21.19 | 25                        | 0      | 20.98        | 21.15 | 21.18 |
|                                        | 12   | 6      | 20.96        | 21.20 | 21.16 | 25                        | 12     | 20.91        | 21.16 | 21.24 |
|                                        | 12   | 13     | 21.05        | 21.21 | 21.26 | 25                        | 25     | 21.05        | 21.21 | 21.21 |
|                                        | 25   | 0      | 21.16        | 21.15 | 21.31 | 50                        | 0      | 21.13        | 21.17 | 21.28 |
| Channel Bandwidth: 15 MHz              |      |        |              |       |       | Channel Bandwidth: 20 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 22.87        | 22.87 | 22.74 | 1                         | 0      | 22.91        | 22.92 | 22.91 |
|                                        | 1    | 37     | 23.09        | 23.33 | 23.42 | 1                         | 50     | 23.26        | 23.38 | 23.46 |
|                                        | 1    | 74     | 22.78        | 22.90 | 23.01 | 1                         | 99     | 22.98        | 22.97 | 23.03 |
|                                        | 37   | 0      | 21.88        | 21.97 | 22.21 | 50                        | 0      | 22.06        | 22.15 | 22.24 |
|                                        | 37   | 19     | 22.10        | 22.23 | 22.26 | 50                        | 25     | 22.17        | 22.24 | 22.27 |
|                                        | 37   | 39     | 22.02        | 22.11 | 22.20 | 50                        | 50     | 22.16        | 22.21 | 22.23 |
|                                        | 75   | 0      | 22.04        | 22.05 | 22.20 | 100                       | 0      | 22.13        | 22.18 | 22.25 |
| 16QAM                                  | 1    | 0      | 21.95        | 22.36 | 22.23 | 1                         | 0      | 22.12        | 22.40 | 22.33 |
|                                        | 1    | 37     | 22.65        | 22.82 | 22.61 | 1                         | 50     | 22.65        | 22.97 | 22.73 |
|                                        | 1    | 74     | 22.20        | 22.34 | 22.41 | 1                         | 99     | 22.28        | 22.48 | 22.44 |
|                                        | 37   | 0      | 21.06        | 21.10 | 21.06 | 50                        | 0      | 21.07        | 21.23 | 21.22 |
|                                        | 37   | 19     | 20.96        | 21.13 | 21.24 | 50                        | 25     | 21.11        | 21.31 | 21.29 |
|                                        | 37   | 39     | 20.94        | 21.23 | 21.13 | 50                        | 50     | 21.13        | 21.29 | 21.27 |
|                                        | 75   | 0      | 20.98        | 21.26 | 21.15 | 100                       | 0      | 21.17        | 21.27 | 21.31 |

### 4.5.3 LTE Band 5

| LTE Band 5 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                             | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                        | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz             |      |        |              |       |       | Channel Bandwidth: 3 MHz  |        |              |       |       |
| QPSK                                   | 1    | 0      | 24.24        | 24.19 | 24.17 | 1                         | 0      | 24.25        | 24.22 | 24.22 |
|                                        | 1    | 2      | 24.33        | 24.33 | 24.33 | 1                         | 7      | 24.32        | 24.47 | 24.38 |
|                                        | 1    | 5      | 24.15        | 24.21 | 24.35 | 1                         | 14     | 24.32        | 24.30 | 24.21 |
|                                        | 3    | 0      | 24.56        | 24.31 | 24.59 | 8                         | 0      | 23.58        | 23.47 | 23.58 |
|                                        | 3    | 1      | 24.59        | 24.35 | 24.45 | 8                         | 3      | 23.53        | 23.36 | 23.48 |
|                                        | 3    | 3      | 24.44        | 24.39 | 24.45 | 8                         | 7      | 23.51        | 23.43 | 23.53 |
|                                        | 6    | 0      | 23.45        | 23.33 | 23.51 | 15                        | 0      | 23.49        | 23.40 | 23.51 |
| 16QAM                                  | 1    | 0      | 23.37        | 23.35 | 23.28 | 1                         | 0      | 23.28        | 23.27 | 23.25 |
|                                        | 1    | 2      | 23.51        | 23.63 | 23.44 | 1                         | 7      | 23.62        | 23.55 | 23.36 |
|                                        | 1    | 5      | 23.30        | 23.41 | 23.22 | 1                         | 14     | 23.27        | 23.39 | 23.39 |
|                                        | 3    | 0      | 23.38        | 23.27 | 23.24 | 8                         | 0      | 22.35        | 22.28 | 22.29 |
|                                        | 3    | 1      | 23.40        | 23.40 | 23.28 | 8                         | 3      | 22.41        | 22.36 | 22.31 |
|                                        | 3    | 3      | 23.47        | 23.26 | 23.16 | 8                         | 7      | 22.47        | 22.25 | 22.25 |
|                                        | 6    | 0      | 22.35        | 22.26 | 22.35 | 15                        | 0      | 22.31        | 22.21 | 22.34 |
| Channel Bandwidth: 5 MHz               |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 24.31        | 24.18 | 24.25 | 1                         | 0      | 24.35        | 24.32 | 24.33 |
|                                        | 1    | 12     | 24.31        | 24.51 | 24.46 | 1                         | 24     | 24.50        | 24.52 | 24.49 |
|                                        | 1    | 24     | 24.14        | 24.34 | 24.30 | 1                         | 49     | 24.34        | 24.36 | 24.37 |
|                                        | 12   | 0      | 23.46        | 23.36 | 23.58 | 25                        | 0      | 23.60        | 23.47 | 23.59 |
|                                        | 12   | 6      | 23.49        | 23.30 | 23.43 | 25                        | 12     | 23.62        | 23.50 | 23.60 |
|                                        | 12   | 13     | 23.50        | 23.39 | 23.49 | 25                        | 25     | 23.61        | 23.48 | 23.53 |
|                                        | 25   | 0      | 23.56        | 23.44 | 23.47 | 50                        | 0      | 23.59        | 23.52 | 23.57 |
| 16QAM                                  | 1    | 0      | 23.28        | 23.41 | 23.20 | 1                         | 0      | 23.40        | 23.44 | 23.38 |
|                                        | 1    | 12     | 23.44        | 23.49 | 23.43 | 1                         | 24     | 23.62        | 23.64 | 23.48 |
|                                        | 1    | 24     | 23.37        | 23.38 | 23.35 | 1                         | 49     | 23.43        | 23.44 | 23.42 |
|                                        | 12   | 0      | 22.34        | 22.29 | 22.23 | 25                        | 0      | 22.42        | 22.36 | 22.38 |
|                                        | 12   | 6      | 22.32        | 22.29 | 22.23 | 25                        | 12     | 22.45        | 22.43 | 22.36 |
|                                        | 12   | 13     | 22.47        | 22.27 | 22.27 | 25                        | 25     | 22.49        | 22.33 | 22.35 |
|                                        | 25   | 0      | 22.27        | 22.27 | 22.22 | 50                        | 0      | 22.42        | 22.34 | 22.37 |

#### 4.5.4 LTE Band 7

| LTE Band 7 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                             | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                        | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 5 MHz               |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 19.30        | 19.06 | 18.97 | 1                         | 0      | 19.40        | 19.22 | 19.04 |
|                                        | 1    | 12     | 19.68        | 19.49 | 19.22 | 1                         | 24     | 19.67        | 19.37 | 19.29 |
|                                        | 1    | 24     | 19.29        | 18.96 | 18.92 | 1                         | 49     | 19.18        | 19.06 | 18.84 |
|                                        | 12   | 0      | 18.64        | 18.31 | 18.17 | 25                        | 0      | 18.59        | 18.38 | 18.25 |
|                                        | 12   | 6      | 18.72        | 18.37 | 18.18 | 25                        | 12     | 18.75        | 18.37 | 18.27 |
|                                        | 12   | 13     | 18.65        | 18.33 | 18.19 | 25                        | 25     | 18.62        | 18.44 | 18.24 |
|                                        | 25   | 0      | 18.64        | 18.41 | 18.23 | 50                        | 0      | 18.71        | 18.38 | 18.32 |
| 16QAM                                  | 1    | 0      | 18.94        | 18.70 | 18.34 | 1                         | 0      | 18.78        | 18.68 | 18.42 |
|                                        | 1    | 12     | 19.22        | 19.09 | 18.75 | 1                         | 24     | 19.19        | 19.06 | 18.71 |
|                                        | 1    | 24     | 18.87        | 18.75 | 18.42 | 1                         | 49     | 18.92        | 18.57 | 18.42 |
|                                        | 12   | 0      | 17.65        | 17.47 | 17.22 | 25                        | 0      | 17.73        | 17.38 | 17.19 |
|                                        | 12   | 6      | 17.70        | 17.52 | 17.22 | 25                        | 12     | 17.66        | 17.46 | 17.27 |
|                                        | 12   | 13     | 17.53        | 17.40 | 17.30 | 25                        | 25     | 17.57        | 17.54 | 17.22 |
|                                        | 25   | 0      | 17.75        | 17.34 | 17.20 | 50                        | 0      | 17.69        | 17.36 | 17.23 |
| Channel Bandwidth: 15 MHz              |      |        |              |       |       | Channel Bandwidth: 20 MHz |        |              |       |       |
| QPSK                                   | 1    | 0      | 19.39        | 19.11 | 18.92 | 1                         | 0      | 19.43        | 19.24 | 19.12 |
|                                        | 1    | 37     | 19.54        | 19.54 | 19.27 | 1                         | 50     | 19.72        | 19.55 | 19.38 |
|                                        | 1    | 74     | 19.30        | 19.09 | 18.95 | 1                         | 99     | 19.36        | 19.14 | 18.96 |
|                                        | 37   | 0      | 18.70        | 18.38 | 18.10 | 50                        | 0      | 18.77        | 18.51 | 18.29 |
|                                        | 37   | 19     | 18.77        | 18.45 | 18.24 | 50                        | 25     | 18.79        | 18.55 | 18.33 |
|                                        | 37   | 39     | 18.60        | 18.39 | 18.31 | 50                        | 50     | 18.72        | 18.47 | 18.36 |
|                                        | 75   | 0      | 18.70        | 18.34 | 18.33 | 100                       | 0      | 18.74        | 18.51 | 18.34 |
| 16QAM                                  | 1    | 0      | 18.85        | 18.83 | 18.34 | 1                         | 0      | 18.97        | 18.83 | 18.50 |
|                                        | 1    | 37     | 19.21        | 18.95 | 18.85 | 1                         | 50     | 19.32        | 19.13 | 18.88 |
|                                        | 1    | 74     | 18.84        | 18.64 | 18.37 | 1                         | 99     | 18.96        | 18.76 | 18.43 |
|                                        | 37   | 0      | 17.71        | 17.49 | 17.27 | 50                        | 0      | 17.81        | 17.55 | 17.37 |
|                                        | 37   | 19     | 17.71        | 17.44 | 17.21 | 50                        | 25     | 17.85        | 17.54 | 17.37 |
|                                        | 37   | 39     | 17.66        | 17.41 | 17.25 | 50                        | 50     | 17.72        | 17.56 | 17.33 |
|                                        | 75   | 0      | 17.80        | 17.41 | 17.28 | 100                       | 0      | 17.80        | 17.54 | 17.33 |

#### 4.5.5 LTE Band 12

| LTE Band 12 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz              |      |        |              |       |       | Channel Bandwidth: 3 MHz  |        |              |       |       |
| QPSK                                    | 1    | 0      | 22.99        | 22.89 | 22.86 | 1                         | 0      | 22.97        | 22.83 | 22.75 |
|                                         | 1    | 2      | 23.13        | 23.05 | 23.06 | 1                         | 7      | 23.04        | 23.09 | 22.95 |
|                                         | 1    | 5      | 23.02        | 22.88 | 22.84 | 1                         | 14     | 23.05        | 22.94 | 22.94 |
|                                         | 3    | 0      | 22.98        | 23.02 | 22.93 | 8                         | 0      | 21.99        | 22.12 | 22.10 |
|                                         | 3    | 1      | 23.12        | 23.11 | 22.97 | 8                         | 3      | 22.08        | 22.12 | 22.11 |
|                                         | 3    | 3      | 23.08        | 23.10 | 23.18 | 8                         | 7      | 21.98        | 22.00 | 22.16 |
|                                         | 6    | 0      | 22.02        | 22.05 | 22.12 | 15                        | 0      | 22.07        | 22.10 | 22.15 |
| 16QAM                                   | 1    | 0      | 22.09        | 21.99 | 22.06 | 1                         | 0      | 22.12        | 22.03 | 22.06 |
|                                         | 1    | 2      | 22.30        | 22.32 | 22.26 | 1                         | 7      | 22.33        | 22.41 | 22.28 |
|                                         | 1    | 5      | 22.32        | 22.07 | 21.99 | 1                         | 14     | 22.24        | 22.18 | 22.17 |
|                                         | 3    | 0      | 21.89        | 22.01 | 22.07 | 8                         | 0      | 20.95        | 20.92 | 20.97 |
|                                         | 3    | 1      | 21.98        | 21.92 | 22.03 | 8                         | 3      | 21.05        | 20.92 | 21.04 |
|                                         | 3    | 3      | 21.94        | 22.13 | 22.06 | 8                         | 7      | 20.96        | 21.05 | 21.13 |
|                                         | 6    | 0      | 21.07        | 20.97 | 21.12 | 15                        | 0      | 21.08        | 20.96 | 20.98 |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 22.97        | 22.83 | 22.91 | 1                         | 0      | 23.03        | 22.99 | 22.95 |
|                                         | 1    | 12     | 23.07        | 23.10 | 23.04 | 1                         | 24     | 23.19        | 23.15 | 23.12 |
|                                         | 1    | 24     | 22.93        | 22.83 | 22.96 | 1                         | 49     | 23.10        | 23.03 | 22.99 |
|                                         | 12   | 0      | 22.09        | 22.08 | 21.95 | 25                        | 0      | 22.11        | 22.14 | 22.11 |
|                                         | 12   | 6      | 22.03        | 22.05 | 21.95 | 25                        | 12     | 22.17        | 22.16 | 22.13 |
|                                         | 12   | 13     | 21.92        | 22.15 | 22.04 | 25                        | 25     | 22.12        | 22.19 | 22.18 |
|                                         | 25   | 0      | 22.15        | 22.13 | 22.02 | 50                        | 0      | 22.16        | 22.17 | 22.15 |
| 16QAM                                   | 1    | 0      | 22.19        | 21.94 | 22.06 | 1                         | 0      | 22.26        | 22.06 | 22.15 |
|                                         | 1    | 12     | 22.33        | 22.33 | 22.28 | 1                         | 24     | 22.39        | 22.43 | 22.32 |
|                                         | 1    | 24     | 22.18        | 22.05 | 22.02 | 1                         | 49     | 22.32        | 22.21 | 22.18 |
|                                         | 12   | 0      | 20.94        | 20.99 | 20.95 | 25                        | 0      | 21.09        | 21.07 | 21.09 |
|                                         | 12   | 6      | 21.02        | 20.99 | 21.11 | 25                        | 12     | 21.11        | 21.06 | 21.12 |
|                                         | 12   | 13     | 20.95        | 20.95 | 21.10 | 25                        | 25     | 21.12        | 21.15 | 21.13 |
|                                         | 25   | 0      | 20.98        | 20.94 | 21.05 | 50                        | 0      | 21.10        | 21.12 | 21.14 |

#### 4.5.6 LTE Band 17

| LTE Band 17 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 24.20        | 24.33 | 24.28 | 1                         | 0      | 24.51        | 24.50 | 24.41 |
|                                         | 1    | 12     | 24.37        | 24.35 | 24.34 | 1                         | 24     | 24.42        | 24.41 | 24.45 |
|                                         | 1    | 24     | 24.22        | 24.40 | 24.43 | 1                         | 49     | 23.53        | 23.49 | 23.47 |
|                                         | 12   | 0      | 23.44        | 23.49 | 23.29 | 25                        | 0      | 23.47        | 23.45 | 23.48 |
|                                         | 12   | 6      | 23.32        | 23.40 | 23.38 | 25                        | 12     | 23.49        | 23.47 | 23.50 |
|                                         | 12   | 13     | 23.40        | 23.39 | 23.47 | 25                        | 25     | 23.52        | 23.50 | 23.47 |
| 16QAM                                   | 25   | 0      | 23.43        | 23.42 | 23.41 | 50                        | 0      | 23.49        | 23.52 | 23.44 |
|                                         | 1    | 0      | 23.40        | 23.51 | 23.30 | 1                         | 0      | 23.65        | 23.62 | 23.59 |
|                                         | 1    | 12     | 23.60        | 23.46 | 23.54 | 1                         | 24     | 23.56        | 23.58 | 23.50 |
|                                         | 1    | 24     | 23.47        | 23.40 | 23.50 | 1                         | 49     | 22.54        | 22.53 | 22.49 |
|                                         | 12   | 0      | 22.41        | 22.53 | 22.43 | 25                        | 0      | 22.52        | 22.48 | 22.50 |
|                                         | 12   | 6      | 22.48        | 22.46 | 22.33 | 25                        | 12     | 22.50        | 22.55 | 22.54 |
|                                         | 12   | 13     | 22.44        | 22.54 | 22.52 | 25                        | 25     | 22.55        | 22.52 | 22.49 |
|                                         | 25   | 0      | 22.45        | 22.45 | 22.45 | 50                        | 0      | 24.51        | 24.50 | 24.41 |

#### 4.5.7 LTE Band 25

| LTE Band 25 Maximum Average Power (dBm) |      |        |              |       |       |                          |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|--------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                       |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                     | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz              |      |        |              |       |       | Channel Bandwidth: 3 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 22.62        | 22.56 | 22.31 | 1                        | 0      | 22.61        | 22.55 | 22.35 |
|                                         | 1    | 2      | 23.05        | 22.86 | 22.75 | 1                        | 7      | 23.20        | 22.94 | 22.86 |
|                                         | 1    | 5      | 22.44        | 22.49 | 22.38 | 1                        | 14     | 22.61        | 22.48 | 22.49 |
|                                         | 3    | 0      | 22.92        | 22.70 | 22.75 | 8                        | 0      | 21.93        | 21.78 | 21.58 |
|                                         | 3    | 1      | 22.87        | 22.88 | 22.61 | 8                        | 3      | 21.86        | 21.82 | 21.66 |
|                                         | 3    | 3      | 22.96        | 22.67 | 22.58 | 8                        | 7      | 21.98        | 21.74 | 21.75 |
| 16QAM                                   | 6    | 0      | 22.03        | 21.70 | 21.66 | 15                       | 0      | 21.93        | 21.84 | 21.64 |
|                                         | 1    | 0      | 21.95        | 22.05 | 21.79 | 1                        | 0      | 21.86        | 21.94 | 21.79 |
|                                         | 1    | 2      | 22.46        | 22.57 | 22.25 | 1                        | 7      | 22.50        | 22.55 | 22.37 |
|                                         | 1    | 5      | 21.86        | 21.91 | 21.74 | 1                        | 14     | 21.80        | 21.90 | 21.75 |
|                                         | 3    | 0      | 21.95        | 21.88 | 21.80 | 8                        | 0      | 20.92        | 20.79 | 20.73 |
|                                         | 3    | 1      | 22.03        | 21.89 | 21.75 | 8                        | 3      | 20.96        | 20.90 | 20.80 |
|                                         | 3    | 3      | 21.91        | 21.75 | 21.66 | 8                        | 7      | 20.99        | 20.80 | 20.66 |
|                                         | 6    | 0      | 21.06        | 20.78 | 20.61 | 15                       | 0      | 21.02        | 20.80 | 20.70 |

| LTE Band 25 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 22.66        | 22.60 | 22.37 | 1                         | 0      | 22.71        | 22.59 | 22.28 |
|                                         | 1    | 12     | 23.21        | 22.87 | 22.78 | 1                         | 24     | 23.06        | 22.97 | 22.83 |
|                                         | 1    | 24     | 22.46        | 22.49 | 22.37 | 1                         | 49     | 22.51        | 22.44 | 22.35 |
|                                         | 12   | 0      | 21.98        | 21.78 | 21.68 | 25                        | 0      | 22.01        | 21.81 | 21.69 |
|                                         | 12   | 6      | 21.95        | 21.76 | 21.78 | 25                        | 12     | 21.98        | 21.76 | 21.70 |
|                                         | 12   | 13     | 21.82        | 21.80 | 21.74 | 25                        | 25     | 21.92        | 21.77 | 21.76 |
|                                         | 25   | 0      | 21.95        | 21.84 | 21.61 | 50                        | 0      | 21.93        | 21.73 | 21.59 |
| 16QAM                                   | 1    | 0      | 22.00        | 22.11 | 21.78 | 1                         | 0      | 22.01        | 21.99 | 21.78 |
|                                         | 1    | 12     | 22.50        | 22.64 | 22.39 | 1                         | 24     | 22.41        | 22.49 | 22.27 |
|                                         | 1    | 24     | 21.90        | 22.01 | 21.56 | 1                         | 49     | 21.93        | 21.88 | 21.66 |
|                                         | 12   | 0      | 20.93        | 20.70 | 20.85 | 25                        | 0      | 20.97        | 20.79 | 20.79 |
|                                         | 12   | 6      | 20.92        | 20.81 | 20.72 | 25                        | 12     | 21.02        | 20.90 | 20.80 |
|                                         | 12   | 13     | 20.96        | 20.68 | 20.68 | 25                        | 25     | 20.88        | 20.66 | 20.59 |
|                                         | 25   | 0      | 20.92        | 20.87 | 20.68 | 50                        | 0      | 21.00        | 20.82 | 20.60 |
| Channel Bandwidth: 15 MHz               |      |        |              |       |       | Channel Bandwidth: 20 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 22.61        | 22.48 | 22.30 | 1                         | 0      | 22.77        | 22.63 | 22.47 |
|                                         | 1    | 37     | 23.10        | 23.03 | 22.87 | 1                         | 50     | 23.21        | 23.06 | 22.92 |
|                                         | 1    | 74     | 22.54        | 22.39 | 22.36 | 1                         | 99     | 22.64        | 22.57 | 22.53 |
|                                         | 37   | 0      | 21.90        | 21.69 | 21.77 | 50                        | 0      | 22.02        | 21.86 | 21.77 |
|                                         | 37   | 19     | 21.90        | 21.79 | 21.78 | 50                        | 25     | 22.01        | 21.90 | 21.79 |
|                                         | 37   | 39     | 21.92        | 21.66 | 21.62 | 50                        | 50     | 21.99        | 21.81 | 21.78 |
|                                         | 75   | 0      | 22.07        | 21.76 | 21.64 | 100                       | 0      | 22.09        | 21.88 | 21.74 |
| 16QAM                                   | 1    | 0      | 21.88        | 22.03 | 21.81 | 1                         | 0      | 22.04        | 22.14 | 21.85 |
|                                         | 1    | 37     | 22.48        | 22.59 | 22.26 | 1                         | 50     | 22.58        | 22.64 | 22.41 |
|                                         | 1    | 74     | 21.91        | 21.95 | 21.72 | 1                         | 99     | 21.97        | 22.03 | 21.76 |
|                                         | 37   | 0      | 21.03        | 20.85 | 20.78 | 50                        | 0      | 21.08        | 20.90 | 20.87 |
|                                         | 37   | 19     | 20.97        | 20.87 | 20.75 | 50                        | 25     | 21.06        | 20.99 | 20.83 |
|                                         | 37   | 39     | 20.97        | 20.79 | 20.54 | 50                        | 50     | 21.03        | 20.83 | 20.73 |
|                                         | 75   | 0      | 21.04        | 20.79 | 20.65 | 100                       | 0      | 21.07        | 20.96 | 20.78 |



#### 4.5.8 LTE Band 26

| LTE Band 26 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz              |      |        |              |       |       | Channel Bandwidth: 3 MHz  |        |              |       |       |
| QPSK                                    | 1    | 0      | 23.95        | 23.81 | 23.91 | 1                         | 0      | 23.92        | 23.95 | 23.90 |
|                                         | 1    | 2      | 24.21        | 24.10 | 24.18 | 1                         | 7      | 24.15        | 24.23 | 24.11 |
|                                         | 1    | 5      | 23.90        | 23.94 | 23.81 | 1                         | 14     | 23.84        | 23.81 | 23.83 |
|                                         | 3    | 0      | 24.13        | 24.03 | 24.20 | 8                         | 0      | 23.07        | 23.09 | 23.08 |
|                                         | 3    | 1      | 24.02        | 24.07 | 24.10 | 8                         | 3      | 23.13        | 23.04 | 23.20 |
|                                         | 3    | 3      | 24.13        | 24.06 | 24.21 | 8                         | 7      | 23.18        | 23.11 | 23.05 |
|                                         | 6    | 0      | 23.14        | 23.08 | 23.22 | 15                        | 0      | 23.10        | 23.20 | 23.08 |
| 16QAM                                   | 1    | 0      | 23.13        | 23.08 | 23.18 | 1                         | 0      | 23.24        | 23.12 | 23.19 |
|                                         | 1    | 2      | 23.48        | 23.27 | 23.42 | 1                         | 7      | 23.50        | 23.37 | 23.36 |
|                                         | 1    | 5      | 23.21        | 23.19 | 23.03 | 1                         | 14     | 23.06        | 23.17 | 23.13 |
|                                         | 3    | 0      | 23.01        | 23.11 | 23.21 | 8                         | 0      | 22.04        | 21.97 | 22.13 |
|                                         | 3    | 1      | 23.15        | 23.19 | 23.05 | 8                         | 3      | 22.18        | 22.12 | 22.19 |
|                                         | 3    | 3      | 23.16        | 23.00 | 23.04 | 8                         | 7      | 22.03        | 22.03 | 22.05 |
|                                         | 6    | 0      | 22.00        | 22.10 | 22.06 | 15                        | 0      | 22.10        | 22.02 | 21.99 |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 23.86        | 23.98 | 23.82 | 1                         | 0      | 23.96        | 23.91 | 23.88 |
|                                         | 1    | 12     | 24.08        | 24.08 | 24.18 | 1                         | 24     | 24.22        | 24.06 | 24.07 |
|                                         | 1    | 24     | 23.99        | 23.82 | 23.92 | 1                         | 49     | 23.84        | 23.90 | 23.80 |
|                                         | 12   | 0      | 22.97        | 23.03 | 23.08 | 25                        | 0      | 23.01        | 23.10 | 23.13 |
|                                         | 12   | 6      | 23.15        | 23.20 | 23.03 | 25                        | 12     | 23.09        | 23.10 | 23.04 |
|                                         | 12   | 13     | 23.05        | 23.01 | 23.21 | 25                        | 25     | 23.14        | 23.17 | 23.21 |
|                                         | 25   | 0      | 23.21        | 23.22 | 23.20 | 50                        | 0      | 23.07        | 23.21 | 23.10 |
| 16QAM                                   | 1    | 0      | 23.26        | 23.08 | 23.25 | 1                         | 0      | 23.08        | 23.07 | 23.24 |
|                                         | 1    | 12     | 23.38        | 23.33 | 23.43 | 1                         | 24     | 23.32        | 23.28 | 23.37 |
|                                         | 1    | 24     | 23.09        | 23.24 | 23.21 | 1                         | 49     | 23.15        | 23.16 | 23.05 |
|                                         | 12   | 0      | 21.95        | 22.12 | 22.11 | 25                        | 0      | 22.04        | 21.97 | 22.10 |
|                                         | 12   | 6      | 22.13        | 22.04 | 22.12 | 25                        | 12     | 22.17        | 22.09 | 22.09 |
|                                         | 12   | 13     | 22.05        | 22.01 | 22.09 | 25                        | 25     | 22.08        | 22.15 | 22.06 |
|                                         | 25   | 0      | 22.06        | 22.05 | 22.07 | 50                        | 0      | 21.95        | 22.15 | 22.11 |

| LTE Band 26               |      |        |              |       |              |
|---------------------------|------|--------|--------------|-------|--------------|
| Modulation                | RB   |        | Test Channel |       |              |
|                           | Size | Offset | Low          | Mid   | High         |
| Channel Bandwidth: 15 MHz |      |        |              |       |              |
| QPSK                      | 1    | 0      | 24.05        | 24.00 | 24.02        |
|                           | 1    | 12     | 24.25        | 24.24 | <b>24.27</b> |
|                           | 1    | 24     | 24.01        | 23.99 | 24.00        |
|                           | 12   | 0      | 23.16        | 23.19 | 23.24        |
|                           | 12   | 6      | 23.22        | 23.23 | 23.21        |
|                           | 12   | 13     | 23.21        | 23.19 | 23.23        |
|                           | 25   | 0      | 23.22        | 23.24 | 23.28        |
| 16QAM                     | 1    | 0      | 23.27        | 23.20 | 23.26        |
|                           | 1    | 12     | 23.51        | 23.43 | 23.45        |
|                           | 1    | 24     | 23.23        | 23.25 | 23.21        |
|                           | 12   | 0      | 22.12        | 22.16 | 22.23        |
|                           | 12   | 6      | 22.18        | 22.21 | 22.19        |
|                           | 12   | 13     | 22.20        | 22.17 | 22.16        |
|                           | 25   | 0      | 22.15        | 22.18 | 22.17        |

#### 4.5.9 LTE Band 26 (Part 90S)

| LTE Band 26 Maximum Average Power (dBm) |      |        |              |       |       |                          |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|--------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                       |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                     | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz              |      |        |              |       |       | Channel Bandwidth: 3 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 23.14        | 23.15 | 23.02 | 1                        | 0      | 22.98        | 23.07 | 22.97 |
|                                         | 1    | 2      | 23.43        | 23.35 | 23.36 | 1                        | 7      | 23.32        | 23.46 | 23.34 |
|                                         | 1    | 5      | 23.28        | 22.88 | 23.07 | 1                        | 14     | 23.19        | 22.93 | 22.97 |
|                                         | 3    | 0      | 23.26        | 23.07 | 23.11 | 8                        | 0      | 22.16        | 22.19 | 22.28 |
|                                         | 3    | 1      | 23.24        | 23.13 | 23.24 | 8                        | 3      | 22.09        | 22.31 | 22.18 |
|                                         | 3    | 3      | 23.39        | 23.08 | 23.01 | 8                        | 7      | 22.07        | 22.29 | 22.15 |
|                                         | 6    | 0      | 22.29        | 22.31 | 22.20 | 15                       | 0      | 22.38        | 22.24 | 22.08 |
| 16QAM                                   | 1    | 0      | 22.23        | 22.17 | 22.32 | 1                        | 0      | 22.17        | 22.15 | 22.13 |
|                                         | 1    | 2      | 22.65        | 22.54 | 22.42 | 1                        | 7      | 22.53        | 22.54 | 22.64 |
|                                         | 1    | 5      | 22.25        | 22.38 | 22.15 | 1                        | 14     | 22.12        | 22.27 | 22.39 |
|                                         | 3    | 0      | 22.17        | 22.15 | 22.17 | 8                        | 0      | 21.15        | 21.25 | 21.09 |
|                                         | 3    | 1      | 22.21        | 22.08 | 22.15 | 8                        | 3      | 21.13        | 21.23 | 21.17 |
|                                         | 3    | 3      | 22.23        | 22.14 | 22.12 | 8                        | 7      | 21.19        | 21.22 | 21.35 |
|                                         | 6    | 0      | 21.05        | 21.30 | 21.07 | 15                       | 0      | 21.14        | 21.13 | 21.17 |

| LTE Band 26 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |      |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |      |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |      |
| QPSK                                    | 1    | 0      | 23.06        | 23.09 | 22.93 | 1                         | 0      | /            | 23.39 | /    |
|                                         | 1    | 12     | 23.34        | 23.45 | 23.28 | 1                         | 24     | /            | 23.04 | /    |
|                                         | 1    | 24     | 23.09        | 22.95 | 22.79 | 1                         | 49     | /            | 23.23 | /    |
|                                         | 12   | 0      | 22.14        | 22.08 | 22.25 | 25                        | 0      | /            | 22.02 | /    |
|                                         | 12   | 6      | 22.24        | 22.27 | 22.18 | 25                        | 12     | /            | 22.26 | /    |
|                                         | 12   | 13     | 22.03        | 22.26 | 22.15 | 25                        | 25     | /            | 22.15 | /    |
|                                         | 25   | 0      | 22.08        | 22.16 | 22.24 | 50                        | 0      | /            | 22.24 | /    |
| 16QAM                                   | 1    | 0      | 22.23        | 22.16 | 22.17 | 1                         | 0      | /            | 22.14 | /    |
|                                         | 1    | 12     | 22.62        | 22.58 | 22.64 | 1                         | 24     | /            | 22.46 | /    |
|                                         | 1    | 24     | 22.26        | 22.30 | 22.46 | 1                         | 49     | /            | 22.11 | /    |
|                                         | 12   | 0      | 21.04        | 21.26 | 21.16 | 25                        | 0      | /            | 21.31 | /    |
|                                         | 12   | 6      | 21.15        | 21.24 | 21.09 | 25                        | 12     | /            | 21.34 | /    |
|                                         | 12   | 13     | 21.15        | 21.28 | 21.15 | 25                        | 25     | /            | 21.29 | /    |
|                                         | 25   | 0      | 21.21        | 21.08 | 21.17 | 50                        | 0      | /            | 21.16 | /    |

### Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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#### 4.5.10 LTE Band 30

| LTE Band 30 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |      |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |      |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |      |
| QPSK                                    | 1    | 0      | 21.16        | 21.23 | 21.18 | 1                         | 0      | /            | 21.38 | /    |
|                                         | 1    | 12     | 21.26        | 21.32 | 21.31 | 1                         | 24     | /            | 21.41 | /    |
|                                         | 1    | 24     | 21.17        | 21.20 | 21.11 | 1                         | 49     | /            | 21.22 | /    |
|                                         | 12   | 0      | 21.23        | 21.27 | 21.15 | 25                        | 0      | /            | 21.31 | /    |
|                                         | 12   | 6      | 21.26        | 21.27 | 21.16 | 25                        | 12     | /            | 21.39 | /    |
|                                         | 12   | 13     | 21.18        | 21.25 | 21.09 | 25                        | 25     | /            | 21.36 | /    |
|                                         | 25   | 0      | 21.22        | 21.23 | 21.18 | 50                        | 0      | /            | 21.37 | /    |
| 16QAM                                   | 1    | 0      | 21.11        | 21.14 | 21.08 | 1                         | 0      | /            | 21.29 | /    |
|                                         | 1    | 12     | 21.27        | 21.32 | 21.25 | 1                         | 24     | /            | 21.43 | /    |
|                                         | 1    | 24     | 21.16        | 21.18 | 21.07 | 1                         | 49     | /            | 21.27 | /    |
|                                         | 12   | 0      | 21.21        | 21.24 | 21.15 | 25                        | 0      | /            | 21.33 | /    |
|                                         | 12   | 6      | 21.09        | 21.29 | 21.14 | 25                        | 12     | /            | 21.35 | /    |
|                                         | 12   | 13     | 21.10        | 21.11 | 21.06 | 25                        | 25     | /            | 21.3  | /    |
|                                         | 25   | 0      | 21.22        | 21.30 | 21.21 | 50                        | 0      | /            | 21.31 | /    |

#### 4.5.11 LTE Band 41

| LTE Band 41 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 25.48        | 24.91 | 24.25 | 1                         | 0      | 25.50        | 25.06 | 24.34 |
|                                         | 1    | 12     | 25.69        | 25.30 | 24.44 | 1                         | 24     | 25.79        | 25.41 | 24.60 |
|                                         | 1    | 24     | 25.29        | 24.91 | 24.40 | 1                         | 49     | 25.35        | 25.10 | 24.47 |
|                                         | 12   | 0      | 24.56        | 24.40 | 24.10 | 25                        | 0      | 24.53        | 24.38 | 24.18 |
|                                         | 12   | 6      | 24.78        | 24.40 | 24.35 | 25                        | 12     | 24.76        | 24.33 | 24.28 |
|                                         | 12   | 13     | 24.62        | 24.32 | 24.30 | 25                        | 25     | 24.58        | 24.19 | 24.15 |
|                                         | 25   | 0      | 24.73        | 24.33 | 24.24 | 50                        | 0      | 24.57        | 24.26 | 24.21 |
| 16QAM                                   | 1    | 0      | 24.41        | 24.15 | 23.59 | 1                         | 0      | 24.46        | 24.10 | 23.57 |
|                                         | 1    | 12     | 24.79        | 24.44 | 23.56 | 1                         | 24     | 24.63        | 24.30 | 23.50 |
|                                         | 1    | 24     | 24.48        | 23.95 | 23.88 | 1                         | 49     | 24.45        | 23.99 | 23.70 |
|                                         | 12   | 0      | 23.49        | 23.25 | 23.05 | 25                        | 0      | 23.56        | 23.22 | 23.13 |
|                                         | 12   | 6      | 23.73        | 23.22 | 23.06 | 25                        | 12     | 23.73        | 23.18 | 23.21 |
|                                         | 12   | 13     | 23.71        | 23.05 | 23.19 | 25                        | 25     | 23.62        | 23.08 | 23.24 |
|                                         | 25   | 0      | 23.68        | 23.13 | 23.15 | 50                        | 0      | 23.63        | 23.11 | 23.14 |
| Channel Bandwidth: 15 MHz               |      |        |              |       |       | Channel Bandwidth: 20 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 25.40        | 25.06 | 24.35 | 1                         | 0      | 25.56        | 25.11 | 24.43 |
|                                         | 1    | 37     | 25.76        | 25.26 | 24.53 | 1                         | 50     | <b>25.87</b> | 25.44 | 24.63 |
|                                         | 1    | 74     | 25.30        | 24.94 | 24.51 | 1                         | 99     | 25.43        | 25.10 | 24.57 |
|                                         | 37   | 0      | 24.54        | 24.28 | 24.20 | 50                        | 0      | 24.65        | 24.44 | 24.29 |
|                                         | 37   | 19     | 24.70        | 24.38 | 24.27 | 50                        | 25     | 24.83        | 24.42 | 24.36 |
|                                         | 37   | 39     | 24.67        | 24.26 | 24.29 | 50                        | 50     | 24.76        | 24.35 | 24.33 |
|                                         | 75   | 0      | 24.67        | 24.34 | 24.18 | 100                       | 0      | 24.77        | 24.40 | 24.32 |
| 16QAM                                   | 1    | 0      | 24.52        | 24.11 | 23.61 | 1                         | 0      | 24.61        | 24.15 | 23.64 |
|                                         | 1    | 37     | 24.68        | 24.30 | 23.54 | 1                         | 50     | 24.82        | 24.47 | 23.63 |
|                                         | 1    | 74     | 24.48        | 24.02 | 23.86 | 1                         | 99     | 24.55        | 24.11 | 23.88 |
|                                         | 37   | 0      | 23.56        | 23.17 | 23.13 | 50                        | 0      | 23.65        | 23.29 | 23.22 |
|                                         | 37   | 19     | 23.78        | 23.22 | 23.26 | 50                        | 25     | 23.81        | 23.30 | 23.26 |
|                                         | 37   | 39     | 23.53        | 23.20 | 23.22 | 50                        | 50     | 23.72        | 23.23 | 23.24 |
|                                         | 75   | 0      | 23.59        | 23.19 | 23.06 | 100                       | 0      | 23.68        | 23.29 | 23.25 |

#### 4.5.12 LTE Band 66

| LTE Band 66 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 1.4 MHz              |      |        |              |       |       | Channel Bandwidth: 3 MHz  |        |              |       |       |
| QPSK                                    | 1    | 0      | 22.23        | 22.36 | 22.33 | 1                         | 0      | 22.09        | 22.26 | 22.25 |
|                                         | 1    | 2      | 22.61        | 22.83 | 22.85 | 1                         | 7      | 22.55        | 22.76 | 22.80 |
|                                         | 1    | 5      | 22.38        | 22.24 | 22.30 | 1                         | 14     | 22.22        | 22.25 | 22.17 |
|                                         | 3    | 0      | 22.59        | 22.66 | 22.64 | 8                         | 0      | 21.49        | 21.65 | 21.74 |
|                                         | 3    | 1      | 22.60        | 22.63 | 22.76 | 8                         | 3      | 21.56        | 21.78 | 21.70 |
|                                         | 3    | 3      | 22.60        | 22.63 | 22.57 | 8                         | 7      | 21.48        | 21.73 | 21.71 |
|                                         | 6    | 0      | 21.46        | 21.78 | 21.81 | 15                        | 0      | 21.45        | 21.64 | 21.76 |
| 16QAM                                   | 1    | 0      | 21.78        | 21.73 | 21.94 | 1                         | 0      | 21.79        | 21.73 | 21.78 |
|                                         | 1    | 2      | 22.27        | 22.16 | 22.20 | 1                         | 7      | 22.19        | 22.22 | 22.18 |
|                                         | 1    | 5      | 21.83        | 21.89 | 21.76 | 1                         | 14     | 21.74        | 21.91 | 21.87 |
|                                         | 3    | 0      | 21.50        | 21.52 | 21.65 | 8                         | 0      | 20.39        | 20.63 | 20.64 |
|                                         | 3    | 1      | 21.59        | 21.67 | 21.73 | 8                         | 3      | 20.55        | 20.74 | 20.70 |
|                                         | 3    | 3      | 21.60        | 21.63 | 21.69 | 8                         | 7      | 20.66        | 20.65 | 20.69 |
|                                         | 6    | 0      | 20.53        | 20.69 | 20.60 | 15                        | 0      | 20.66        | 20.52 | 20.70 |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 22.24        | 22.28 | 22.32 | 1                         | 0      | 22.18        | 22.30 | 22.37 |
|                                         | 1    | 12     | 22.66        | 22.66 | 22.85 | 1                         | 24     | 22.71        | 22.69 | 22.81 |
|                                         | 1    | 24     | 22.33        | 22.24 | 22.26 | 1                         | 49     | 22.29        | 22.40 | 22.24 |
|                                         | 12   | 0      | 21.42        | 21.61 | 21.75 | 25                        | 0      | 21.57        | 21.58 | 21.67 |
|                                         | 12   | 6      | 21.63        | 21.71 | 21.66 | 25                        | 12     | 21.57        | 21.71 | 21.69 |
|                                         | 12   | 13     | 21.65        | 21.67 | 21.60 | 25                        | 25     | 21.54        | 21.64 | 21.65 |
|                                         | 25   | 0      | 21.55        | 21.68 | 21.75 | 50                        | 0      | 21.50        | 21.77 | 21.81 |
| 16QAM                                   | 1    | 0      | 21.72        | 21.66 | 21.79 | 1                         | 0      | 21.67        | 21.75 | 21.96 |
|                                         | 1    | 12     | 22.09        | 22.26 | 22.26 | 1                         | 24     | 22.10        | 22.11 | 22.29 |
|                                         | 1    | 24     | 21.76        | 21.75 | 21.90 | 1                         | 49     | 21.74        | 21.74 | 21.87 |
|                                         | 12   | 0      | 20.49        | 20.67 | 20.55 | 25                        | 0      | 20.37        | 20.68 | 20.71 |
|                                         | 12   | 6      | 20.47        | 20.72 | 20.82 | 25                        | 12     | 20.56        | 20.76 | 20.66 |
|                                         | 12   | 13     | 20.69        | 20.54 | 20.69 | 25                        | 25     | 20.62        | 20.67 | 20.58 |
|                                         | 25   | 0      | 20.63        | 20.57 | 20.72 | 50                        | 0      | 20.49        | 20.59 | 20.72 |



| LTE Band 66 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |              |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|--------------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |              |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High         |
| Channel Bandwidth: 15 MHz               |      |        |              |       |       | Channel Bandwidth: 20 MHz |        |              |       |              |
| QPSK                                    | 1    | 0      | 22.17        | 22.35 | 22.32 | 1                         | 0      | 22.25        | 22.41 | 22.44        |
|                                         | 1    | 37     | 22.53        | 22.80 | 22.80 | 1                         | 50     | 22.73        | 22.84 | <b>22.91</b> |
|                                         | 1    | 74     | 22.40        | 22.40 | 22.23 | 1                         | 99     | 22.41        | 22.42 | 22.36        |
|                                         | 37   | 0      | 21.54        | 21.73 | 21.64 | 50                        | 0      | 21.62        | 21.77 | 21.80        |
|                                         | 37   | 19     | 21.55        | 21.73 | 21.76 | 50                        | 25     | 21.66        | 21.80 | 21.81        |
|                                         | 37   | 39     | 21.53        | 21.72 | 21.62 | 50                        | 50     | 21.68        | 21.79 | 21.74        |
|                                         | 75   | 0      | 21.42        | 21.76 | 21.70 | 100                       | 0      | 21.61        | 21.80 | 21.82        |
| 16QAM                                   | 1    | 0      | 21.65        | 21.74 | 21.91 | 1                         | 0      | 21.80        | 21.85 | 21.96        |
|                                         | 1    | 37     | 22.26        | 22.18 | 22.29 | 1                         | 50     | 22.28        | 22.29 | 22.33        |
|                                         | 1    | 74     | 21.88        | 21.79 | 21.82 | 1                         | 99     | 21.93        | 21.92 | 21.94        |
|                                         | 37   | 0      | 20.45        | 20.65 | 20.69 | 50                        | 0      | 20.55        | 20.72 | 20.75        |
|                                         | 37   | 19     | 20.43        | 20.74 | 20.70 | 50                        | 25     | 20.62        | 20.80 | 20.83        |
|                                         | 37   | 39     | 20.68        | 20.71 | 20.67 | 50                        | 50     | 20.71        | 20.74 | 20.73        |
|                                         | 75   | 0      | 20.48        | 20.51 | 20.70 | 100                       | 0      | 20.68        | 20.70 | 20.77        |

#### 4.5.13 LTE Band 71

| LTE Band 71 Maximum Average Power (dBm) |      |        |              |       |       |                           |        |              |       |       |
|-----------------------------------------|------|--------|--------------|-------|-------|---------------------------|--------|--------------|-------|-------|
| Modulation                              | RB   |        | Test Channel |       |       | RB                        |        | Test Channel |       |       |
|                                         | Size | Offset | Low          | Mid   | High  | Size                      | Offset | Low          | Mid   | High  |
| Channel Bandwidth: 5 MHz                |      |        |              |       |       | Channel Bandwidth: 10 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 24.40        | 24.29 | 24.24 | 1                         | 0      | 24.34        | 24.31 | 24.29 |
|                                         | 1    | 12     | 24.81        | 24.65 | 24.66 | 1                         | 24     | 24.86        | 24.68 | 24.62 |
|                                         | 1    | 24     | 24.38        | 24.12 | 24.26 | 1                         | 49     | 24.34        | 24.28 | 24.24 |
|                                         | 12   | 0      | 23.35        | 23.56 | 23.58 | 25                        | 0      | 23.50        | 23.53 | 23.50 |
|                                         | 12   | 6      | 23.65        | 23.62 | 23.47 | 25                        | 12     | 23.59        | 23.62 | 23.50 |
|                                         | 12   | 13     | 23.63        | 23.51 | 23.45 | 25                        | 25     | 23.52        | 23.48 | 23.50 |
| 16QAM                                   | 25   | 0      | 23.54        | 23.53 | 23.50 | 50                        | 0      | 23.49        | 23.62 | 23.56 |
|                                         | 1    | 0      | 23.63        | 23.74 | 23.60 | 1                         | 0      | 23.58        | 23.83 | 23.77 |
|                                         | 1    | 12     | 24.09        | 24.33 | 24.00 | 1                         | 24     | 24.10        | 24.18 | 24.03 |
|                                         | 1    | 24     | 23.69        | 23.68 | 23.84 | 1                         | 49     | 23.67        | 23.67 | 23.81 |
|                                         | 12   | 0      | 22.60        | 22.77 | 22.47 | 25                        | 0      | 22.48        | 22.78 | 22.63 |
|                                         | 12   | 6      | 22.56        | 22.76 | 22.69 | 25                        | 12     | 22.65        | 22.80 | 22.53 |
| QPSK                                    | 12   | 13     | 22.64        | 22.53 | 22.61 | 25                        | 25     | 22.57        | 22.66 | 22.50 |
|                                         | 25   | 0      | 22.66        | 22.63 | 22.59 | 50                        | 0      | 22.52        | 22.65 | 22.59 |
| Channel Bandwidth: 15 MHz               |      |        |              |       |       | Channel Bandwidth: 20 MHz |        |              |       |       |
| QPSK                                    | 1    | 0      | 24.33        | 24.36 | 24.24 | 1                         | 0      | 24.41        | 24.42 | 24.36 |
|                                         | 1    | 37     | 24.68        | 24.79 | 24.61 | 1                         | 50     | 24.88        | 24.83 | 24.72 |
|                                         | 1    | 74     | 24.45        | 24.28 | 24.23 | 1                         | 99     | 24.46        | 24.30 | 24.36 |
|                                         | 37   | 0      | 23.47        | 23.68 | 23.47 | 50                        | 0      | 23.55        | 23.72 | 23.63 |
|                                         | 37   | 19     | 23.57        | 23.64 | 23.57 | 50                        | 25     | 23.68        | 23.71 | 23.62 |
|                                         | 37   | 39     | 23.51        | 23.56 | 23.47 | 50                        | 50     | 23.66        | 23.63 | 23.59 |
| 16QAM                                   | 75   | 0      | 23.41        | 23.61 | 23.45 | 100                       | 0      | 23.60        | 23.65 | 23.57 |
|                                         | 1    | 0      | 23.56        | 23.82 | 23.72 | 1                         | 0      | 23.71        | 23.93 | 23.77 |
|                                         | 1    | 37     | 24.26        | 24.25 | 24.03 | 1                         | 50     | 24.28        | 24.36 | 24.07 |
|                                         | 1    | 74     | 23.81        | 23.72 | 23.76 | 1                         | 99     | 23.86        | 23.85 | 23.88 |
|                                         | 37   | 0      | 22.56        | 22.75 | 22.61 | 50                        | 0      | 22.66        | 22.82 | 22.67 |
|                                         | 37   | 19     | 22.52        | 22.78 | 22.57 | 50                        | 25     | 22.71        | 22.84 | 22.70 |
| 16QAM                                   | 37   | 39     | 22.63        | 22.70 | 22.59 | 50                        | 50     | 22.66        | 22.73 | 22.65 |
|                                         | 75   | 0      | 22.51        | 22.57 | 22.57 | 100                       | 0      | 22.71        | 22.76 | 22.64 |

Pre-scan all bandwidth and RB, find worse case mode are chosen to the report, the LTE worse case mode applicability and tested channel detail as below:

| Item                   | Band | Bandwidth(MHz) |   |   |    |    |    | Modulation |       |       | RB |      |      | Test Channel |   |   |
|------------------------|------|----------------|---|---|----|----|----|------------|-------|-------|----|------|------|--------------|---|---|
|                        |      | 1.4            | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 64QAM | 1  | Half | Full | L            | M | H |
| ERP/EIRP               | 2    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 4    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 5    | ☒              | ☒ | ☒ | ☒  | -- | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 7    | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 12   | ☒              | ☒ | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 17   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 25   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 26   | ☒              | ☒ | ☒ | ☒  | ☒  | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 30   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 41   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 66   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                        | 71   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
| Conducted output power | 2    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 4    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 5    | ☒              | ☒ | ☒ | ☒  | -- | -- | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 7    | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 12   | ☒              | ☒ | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 17   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 25   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 26   | ☒              | ☒ | ☒ | ☒  | ☒  | -- | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 30   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 41   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 66   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |
|                        | 71   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☒    | ☒    | ☒            | ☒ | ☒ |

| Item                         | Band | Bandwidth(MHz) |   |   |    |    |    | Modulation |       |       | RB |      |      | Test Channel |   |   |
|------------------------------|------|----------------|---|---|----|----|----|------------|-------|-------|----|------|------|--------------|---|---|
|                              |      | 1.4            | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 64QAM | 1  | Half | Full | L            | M | H |
| 99%&26dB<br>Bandwidth        | 2    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 4    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 5    | ☒              | ☒ | ☒ | ☒  | -- | -- | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 7    | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 12   | ☒              | ☒ | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 17   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 25   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 26   | ☒              | ☒ | ☒ | ☒  | ☒  | -- | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 30   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 41   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 66   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
| peak-to-av<br>erage<br>ratio | 71   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☐  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 2    | ☐              | ☐ | ☐ | ☐  | ☐  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 4    | ☐              | ☐ | ☐ | ☐  | ☐  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 5    | ☐              | ☐ | ☐ | ☒  | -- | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 7    | -              | - | ☐ | ☐  | ☐  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 12   | ☐              | ☐ | ☐ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 17   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☒ | ☒ |
|                              | 25   | ☐              | ☐ | ☐ | ☐  | ☐  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 26   | ☐              | ☐ | ☐ | ☐  | ☒  | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 30   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 41   | -              | - | ☐ | ☐  | ☐  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 66   | ☐              | ☐ | ☐ | ☐  | ☐  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                              | 71   | -              | - | ☐ | ☐  | ☐  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |

| Item                                    | Band | Bandwidth(MHz) |   |   |    |    |    | Modulation |       |       | RB |      |      | Test Channel |   |   |
|-----------------------------------------|------|----------------|---|---|----|----|----|------------|-------|-------|----|------|------|--------------|---|---|
|                                         |      | 1.4            | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 64QAM | 1  | Half | Full | L            | M | H |
| Band Edge at antenna terminals          | 2    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 4    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 5    | ☒              | ☒ | ☒ | ☒  | -- | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 7    | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 12   | ☒              | ☒ | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 17   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 25   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 26   | ☒              | ☒ | ☒ | ☒  | ☒  | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 30   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 41   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 66   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
| Spurious emissions at antenna terminals | 71   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☒    | ☒            | ☐ | ☒ |
|                                         | 2    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 4    | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 5    | ☒              | ☒ | ☒ | ☒  | -- | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 7    | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 12   | ☒              | ☒ | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 17   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 25   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 26   | ☒              | ☒ | ☒ | ☒  | ☒  | -- | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 30   | -              | - | ☒ | ☒  | -  | -  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 41   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 66   | ☒              | ☒ | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |
|                                         | 71   | -              | - | ☒ | ☒  | ☒  | ☒  | ☒          | ☒     | ☐     | ☒  | ☐    | ☐    | ☒            | ☒ | ☒ |

| Item                                                                                                                                                | Band | Bandwidth(MHz)           |                          |                                     |                                     |                                     |                                     | Modulation                          |                          |                          | RB                                  |                          |                                     | Test Channel                        |                                     |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
|                                                                                                                                                     |      | 1.4                      | 3                        | 5                                   | 10                                  | 15                                  | 20                                  | QPSK                                | 16QAM                    | 64QAM                    | 1                                   | Half                     | Full                                | L                                   | M                                   | H                                   |
| Field strength of spurious radiation                                                                                                                | 2    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 4    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 5    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | --                                  | --                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 7    | -                        | -                        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 12   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | -                                   | -                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 17   | -                        | -                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | -                                   | -                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 25   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 26   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | --                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 30   | -                        | -                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | -                                   | -                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 41   | -                        | -                        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 66   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                                                                                                                                     | 71   | -                        | -                        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Frequency stability                                                                                                                                 | 2    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 4    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 5    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | --                                  | --                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 7    | -                        | -                        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 12   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | -                                   | -                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 17   | -                        | -                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | -                                   | -                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 25   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 26   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | --                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 30   | -                        | -                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | -                                   | -                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 41   | -                        | -                        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 66   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|                                                                                                                                                     | 71   | -                        | -                        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Remark:<br>The mark "☒" means is chosen for testing; The mark "☐" means is not chosen for testing;<br>The mark "-" means is not supported bandwidth |      |                          |                          |                                     |                                     |                                     |                                     |                                     |                          |                          |                                     |                          |                                     |                                     |                                     |                                     |

## 5. RADIO TECHNICAL REQUIREMENTS SPECIFICATION

### 5.1 REFERENCE DOCUMENTS FOR TESTING

| No. | Identity           | Document Title                                                                                    |
|-----|--------------------|---------------------------------------------------------------------------------------------------|
| 1   | FCC 47 CFR Part 2  | Frequency allocations and radio treaty matters; general rules and regulations                     |
| 2   | FCC 47 CFR Part 22 | Public Mobile Services                                                                            |
| 3   | FCC 47 CFR Part 27 | Miscellaneous Wireless Communications Services                                                    |
| 4   | FCC 47 CFR Part 24 | Personal Communications Services                                                                  |
| 5   | FCC 47 CFR Part 90 | Private Land Mobile Radio Services                                                                |
| 6   | ANSI C63.26-2015   | American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services |
| 7   | KDB 971168 D01     | KDB 971168 D01 Power Meas License Digital Systems v03r01                                          |

### 5.2 ERP OR EIRP

**Test Requirement:** FCC 47 CFR Part 2.1046(a)  
**LTE Band 2 & LTE Band 25:** FCC 47 CFR Part 24.232(c)  
**LTE Band 4 & LTE Band 66:** FCC 47 CFR Part 27.50(d)(4)  
**LTE Band 5 & LTE Band 26:** FCC 47 CFR Part 22.913(a)  
**LTE Band 7 & Band 41:** FCC 47 CFR Part 27.50(h)(2)  
**LTE Band 12 & Band 17 Band 71:** FCC 47 CFR Part 27.50(c)(10)  
**LTE Band 30:** FCC 47 CFR Part 27.50(a)(3)  
**LTE Band 26:** FCC 47 CFR Part 90.635

**Test Method:** KDB 971168 D01v03r01 Section 5.6 & ANSI C63.26-2015

**Limit:**

**FCC 47 CFR Part 22.913(a):**

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

**FCC 47 CFR Part 24.232(c):**

Mobile and portable stations are limited to 2 watts EIRP.

**FCC 47 CFR Part 27.50(d)(4):**

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

**FCC 47 CFR Part 27.50(c)(10):**

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

**FCC 47 CFR Part 27.50(h)(2):**

Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

**FCC 47 CFR Part 27.50(a)(3):** For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.



**FCC 47 CFR Part 90.635:**

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

Table—Equivalent Power and Antenna Heights for Base Stations in the 851–869 MHz and 935–940 MHz Bands Which Have a Requirement for a 32 km (20 mi) Service Area Radius

| Antenna height (ATT) meters (feet)   | Effective radiated power (watts) <sup>1 2 4</sup> |
|--------------------------------------|---------------------------------------------------|
| Above 1,372 (4,500)                  | 65                                                |
| Above 1,220 (4,000) to 1,372 (4,500) | 70                                                |
| Above 1,067 (3,500) to 1,220 (4,000) | 75                                                |
| Above 915 (3,000) to 1,067 (3,500)   | 100                                               |
| Above 763 (2,500) to 915 (3,000)     | 140                                               |
| Above 610 (2,000) to 763 (2,500)     | 200                                               |
| Above 458 (1,500) to 610 (2,000)     | 350                                               |
| Above 305 (1,000) to 458 (1,500)     | 600                                               |
| Up to 305 (1,000)                    | <sup>3</sup> 1,000                                |

- Power is given in terms of effective radiated power (ERP).
- Applicants in the Los Angeles, CA, area who demonstrate a need to serve both the downtown and fringe areas will be permitted to utilize an ERP of 1 kw at the following mountaintop sites: Santiago Park, Sierra Peak, Mount Lukens, and Mount Wilson.
- Stations with antennas below 305 m (1,000 ft) (AAT) will be restricted to a maximum power of 1 kw (ERP).
- Licensees in San Diego, CA, will be permitted to utilize an ERP of 500 watts at the following mountaintop sites: Palomar, Otay, Woodson and Miguel.

**Test Procedure:**

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_C$$

where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P<sub>Meas</sub>, typically dBW or dBm);

P<sub>Meas</sub> = measured transmitter output power or PSD, in dBm or dBW;

G<sub>T</sub> = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

- L<sub>C</sub> = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

**Test Setup:** Refer to section 4.2.1 for details.

**Instruments Used:** Refer to section 3 for details

**Test Mode:** Link mode

**Test Results:** Pass

**Test Data:** See table below

### 5.2.1 LTE Band 2

| LTE Band 2 Maximum EIRP (dBm) |            |             |             |             |        |
|-------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                       | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz     |            |             |             |             |        |
| Lowest                        | 25.28      | 24.47       | /           | 33.01       | Pass   |
| Middle                        | 25.11      | 24.36       | /           | 33.01       | Pass   |
| Highest                       | 24.93      | 24.20       | /           | 33.01       | Pass   |
| Channel Bandwidth: 3MHz       |            |             |             |             |        |
| Lowest                        | 25.15      | 24.36       | /           | 33.01       | Pass   |
| Middle                        | 24.85      | 24.26       | /           | 33.01       | Pass   |
| Highest                       | 24.80      | 24.11       | /           | 33.01       | Pass   |
| Channel Bandwidth: 5MHz       |            |             |             |             |        |
| Lowest                        | 25.00      | 24.52       | /           | 33.01       | Pass   |
| Middle                        | 24.91      | 24.43       | /           | 33.01       | Pass   |
| Highest                       | 24.81      | 24.13       | /           | 33.01       | Pass   |
| Channel Bandwidth: 10MHz      |            |             |             |             |        |
| Lowest                        | 25.11      | 24.43       | /           | 33.01       | Pass   |
| Middle                        | 25.02      | 24.24       | /           | 33.01       | Pass   |
| Highest                       | 24.89      | 24.08       | /           | 33.01       | Pass   |
| Channel Bandwidth: 15MHz      |            |             |             |             |        |
| Lowest                        | 24.97      | 24.51       | /           | 33.01       | Pass   |
| Middle                        | 24.98      | 24.43       | /           | 33.01       | Pass   |
| Highest                       | 24.72      | 24.14       | /           | 33.01       | Pass   |
| Channel Bandwidth: 20MHz      |            |             |             |             |        |
| Lowest                        | 25.17      | 24.52       | /           | 33.01       | Pass   |
| Middle                        | 25.03      | 24.44       | /           | 33.01       | Pass   |
| Highest                       | 24.91      | 24.26       | /           | 33.01       | Pass   |

### 5.2.2 LTE Band 4

| LTE Band 4 Maximum EIRP (dBm) |            |             |             |             |        |
|-------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                       | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz     |            |             |             |             |        |
| Lowest                        | 24.84      | 24.21       | /           | 30.00       | Pass   |
| Middle                        | 24.98      | 24.62       | /           | 30.00       | Pass   |
| Highest                       | 25.05      | 24.25       | /           | 30.00       | Pass   |
| Channel Bandwidth: 3MHz       |            |             |             |             |        |
| Lowest                        | 24.96      | 24.33       | /           | 30.00       | Pass   |
| Middle                        | 24.92      | 24.49       | /           | 30.00       | Pass   |
| Highest                       | 25.06      | 24.32       | /           | 30.00       | Pass   |
| Channel Bandwidth: 5MHz       |            |             |             |             |        |
| Lowest                        | 24.94      | 24.17       | /           | 30.00       | Pass   |
| Middle                        | 24.92      | 24.67       | /           | 30.00       | Pass   |
| Highest                       | 25.03      | 24.26       | /           | 30.00       | Pass   |
| Channel Bandwidth: 10MHz      |            |             |             |             |        |
| Lowest                        | 24.85      | 24.20       | /           | 30.00       | Pass   |
| Middle                        | 24.96      | 24.52       | /           | 30.00       | Pass   |
| Highest                       | 25.05      | 24.38       | /           | 30.00       | Pass   |
| Channel Bandwidth: 15MHz      |            |             |             |             |        |
| Lowest                        | 24.79      | 24.35       | /           | 30.00       | Pass   |
| Middle                        | 25.03      | 24.52       | /           | 30.00       | Pass   |
| Highest                       | 25.12      | 24.31       | /           | 30.00       | Pass   |
| Channel Bandwidth: 20MHz      |            |             |             |             |        |
| Lowest                        | 24.96      | 24.35       | /           | 30.00       | Pass   |
| Middle                        | 25.08      | 24.67       | /           | 30.00       | Pass   |
| Highest                       | 25.16      | 24.43       | /           | 30.00       | Pass   |

### 5.2.3 LTE Band 5

| LTE Band 5 Maximum ERP (dBm) |            |             |             |             |        |
|------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                      | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz    |            |             |             |             |        |
| Lowest                       | 22.74      | 21.66       | /           | 38.45       | Pass   |
| Middle                       | 22.50      | 21.78       | /           | 38.45       | Pass   |
| Highest                      | 22.60      | 21.59       | /           | 38.45       | Pass   |
| Channel Bandwidth: 3MHz      |            |             |             |             |        |
| Lowest                       | 22.47      | 21.77       | /           | 38.45       | Pass   |
| Middle                       | 22.62      | 21.70       | /           | 38.45       | Pass   |
| Highest                      | 22.53      | 21.51       | /           | 38.45       | Pass   |
| Channel Bandwidth: 5MHz      |            |             |             |             |        |
| Lowest                       | 22.46      | 21.59       | /           | 38.45       | Pass   |
| Middle                       | 22.66      | 21.64       | /           | 38.45       | Pass   |
| Highest                      | 22.61      | 21.58       | /           | 38.45       | Pass   |
| Channel Bandwidth: 10MHz     |            |             |             |             |        |
| Lowest                       | 22.65      | 21.77       | /           | 38.45       | Pass   |
| Middle                       | 22.67      | 21.79       | /           | 38.45       | Pass   |
| Highest                      | 22.64      | 21.63       | /           | 38.45       | Pass   |

### 5.2.4 LTE Band 7

| LTE Band 7 Maximum EIRP (dBm) |            |             |             |             |        |
|-------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                       | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 5MHz       |            |             |             |             |        |
| Lowest                        | 23.28      | 22.82       | /           | 33.01       | Pass   |
| Middle                        | 23.09      | 22.69       | /           | 33.01       | Pass   |
| Highest                       | 22.82      | 22.35       | /           | 33.01       | Pass   |
| Channel Bandwidth: 10MHz      |            |             |             |             |        |
| Lowest                        | 23.27      | 22.79       | /           | 33.01       | Pass   |
| Middle                        | 22.97      | 22.66       | /           | 33.01       | Pass   |
| Highest                       | 22.89      | 22.31       | /           | 33.01       | Pass   |
| Channel Bandwidth: 15MHz      |            |             |             |             |        |
| Lowest                        | 23.14      | 22.81       | /           | 33.01       | Pass   |
| Middle                        | 23.14      | 22.55       | /           | 33.01       | Pass   |
| Highest                       | 22.87      | 22.45       | /           | 33.01       | Pass   |
| Channel Bandwidth: 20MHz      |            |             |             |             |        |
| Lowest                        | 23.32      | 22.92       | /           | 33.01       | Pass   |
| Middle                        | 23.15      | 22.73       | /           | 33.01       | Pass   |
| Highest                       | 22.98      | 22.48       | /           | 33.01       | Pass   |

### 5.2.5 LTE Band 12

| LTE Band 12 Maximum ERP (dBm) |            |             |             |             |        |
|-------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                       | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz     |            |             |             |             |        |
| Lowest                        | 25.13      | 24.35       | /           | 34.77       | Pass   |
| Middle                        | 25.15      | 24.37       | /           | 34.77       | Pass   |
| Highest                       | 25.23      | 24.31       | /           | 34.77       | Pass   |
| Channel Bandwidth: 3MHz       |            |             |             |             |        |
| Lowest                        | 25.09      | 24.38       | /           | 34.77       | Pass   |
| Middle                        | 25.14      | 24.46       | /           | 34.77       | Pass   |
| Highest                       | 25.00      | 24.33       | /           | 34.77       | Pass   |
| Channel Bandwidth: 5MHz       |            |             |             |             |        |
| Lowest                        | 25.12      | 24.38       | /           | 34.77       | Pass   |
| Middle                        | 25.15      | 24.38       | /           | 34.77       | Pass   |
| Highest                       | 25.09      | 24.33       | /           | 34.77       | Pass   |
| Channel Bandwidth: 10MHz      |            |             |             |             |        |
| Lowest                        | 25.24      | 24.44       | /           | 34.77       | Pass   |
| Middle                        | 25.20      | 24.48       | /           | 34.77       | Pass   |
| Highest                       | 25.17      | 24.37       | /           | 34.77       | Pass   |

### 5.2.6 LTE Band 17

| Maximum ERP (dBm)        |            |             |             |             |        |
|--------------------------|------------|-------------|-------------|-------------|--------|
| Channel                  | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 5MHz  |            |             |             |             |        |
| Lowest                   | 26.27      | 25.65       | /           | 34.77       | Pass   |
| Middle                   | 26.45      | 25.51       | /           | 34.77       | Pass   |
| Highest                  | 26.48      | 25.59       | /           | 34.77       | Pass   |
| Channel Bandwidth: 10MHz |            |             |             |             |        |
| Lowest                   | 26.56      | 25.70       | /           | 34.77       | Pass   |
| Middle                   | 26.55      | 25.67       | /           | 34.77       | Pass   |
| Highest                  | 26.46      | 25.64       | /           | 34.77       | Pass   |

### 5.2.7 LTE Band 25

| LTE Band 25 Maximum EIRP (dBm) |            |             |             |             |        |
|--------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                        | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz      |            |             |             |             |        |
| Lowest                         | 25.25      | 24.66       | /           | 33.01       | Pass   |
| Middle                         | 25.06      | 24.77       | /           | 33.01       | Pass   |
| Highest                        | 24.95      | 24.45       | /           | 33.01       | Pass   |
| Channel Bandwidth: 3MHz        |            |             |             |             |        |
| Lowest                         | 25.40      | 24.70       | /           | 33.01       | Pass   |
| Middle                         | 25.14      | 24.75       | /           | 33.01       | Pass   |
| Highest                        | 25.06      | 24.57       | /           | 33.01       | Pass   |
| Channel Bandwidth: 5MHz        |            |             |             |             |        |
| Lowest                         | 25.41      | 24.70       | /           | 33.01       | Pass   |
| Middle                         | 25.07      | 24.84       | /           | 33.01       | Pass   |
| Highest                        | 24.98      | 24.59       | /           | 33.01       | Pass   |
| Channel Bandwidth: 10MHz       |            |             |             |             |        |
| Lowest                         | 25.26      | 24.61       | /           | 33.01       | Pass   |
| Middle                         | 25.17      | 24.69       | /           | 33.01       | Pass   |
| Highest                        | 25.03      | 24.47       | /           | 33.01       | Pass   |
| Channel Bandwidth: 15MHz       |            |             |             |             |        |
| Lowest                         | 25.30      | 24.68       | /           | 33.01       | Pass   |
| Middle                         | 25.23      | 24.79       | /           | 33.01       | Pass   |
| Highest                        | 25.07      | 24.46       | /           | 33.01       | Pass   |
| Channel Bandwidth: 20MHz       |            |             |             |             |        |
| Lowest                         | 25.41      | 24.78       | /           | 33.01       | Pass   |
| Middle                         | 25.26      | 24.84       | /           | 33.01       | Pass   |
| Highest                        | 25.12      | 24.61       | /           | 33.01       | Pass   |

### 5.2.8 LTE Band 26

| LTE Band 26 Maximum ERP (dBm) |            |             |             |             |        |
|-------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                       | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz     |            |             |             |             |        |
| Lowest                        | 22.36      | 21.63       | /           | 38.45       | Pass   |
| Middle                        | 22.25      | 21.42       | /           | 38.45       | Pass   |
| Highest                       | 22.33      | 21.57       | /           | 38.45       | Pass   |
| Channel Bandwidth: 3MHz       |            |             |             |             |        |
| Lowest                        | 22.30      | 21.65       | /           | 38.45       | Pass   |
| Middle                        | 22.38      | 21.52       | /           | 38.45       | Pass   |
| Highest                       | 22.26      | 21.51       | /           | 38.45       | Pass   |
| Channel Bandwidth: 5MHz       |            |             |             |             |        |
| Lowest                        | 22.23      | 21.53       | /           | 38.45       | Pass   |
| Middle                        | 22.23      | 21.48       | /           | 38.45       | Pass   |
| Highest                       | 22.33      | 21.58       | /           | 38.45       | Pass   |
| Channel Bandwidth: 10MHz      |            |             |             |             |        |
| Lowest                        | 22.37      | 21.47       | /           | 38.45       | Pass   |
| Middle                        | 22.21      | 21.43       | /           | 38.45       | Pass   |
| Highest                       | 22.22      | 21.52       | /           | 38.45       | Pass   |
| Channel Bandwidth: 15MHz      |            |             |             |             |        |
| Lowest                        | 22.40      | 21.66       | /           | 38.45       | Pass   |
| Middle                        | 22.39      | 21.58       | /           | 38.45       | Pass   |
| Highest                       | 22.42      | 21.60       | /           | 38.45       | Pass   |

### 5.2.9 LTE Band 26 (Part 90S)

| LTE Band 26 Maximum ERP (dBm) |            |             |             |             |        |
|-------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                       | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz     |            |             |             |             |        |
| Lowest                        | 21.48      | 20.70       | /           | 50          | Pass   |
| Middle                        | 21.40      | 20.59       | /           | 50          | Pass   |
| Highest                       | 21.41      | 20.47       | /           | 50          | Pass   |
| Channel Bandwidth: 3MHz       |            |             |             |             |        |
| Lowest                        | 21.37      | 20.58       | /           | 50          | Pass   |
| Middle                        | 21.51      | 20.59       | /           | 50          | Pass   |
| Highest                       | 21.39      | 20.69       | /           | 50          | Pass   |
| Channel Bandwidth: 5MHz       |            |             |             |             |        |
| Lowest                        | 21.39      | 20.67       | /           | 50          | Pass   |
| Middle                        | 21.50      | 20.63       | /           | 50          | Pass   |
| Highest                       | 21.33      | 20.69       | /           | 50          | Pass   |
| Channel Bandwidth: 10MHz      |            |             |             |             |        |
| Middle                        | 21.44      | 20.51       | /           | 50          | Pass   |



### 5.2.10 LTE Band 30

| Maximum EIRP (dBm)       |            |             |             |             |        |
|--------------------------|------------|-------------|-------------|-------------|--------|
| Channel                  | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 5MHz  |            |             |             |             |        |
| Lowest                   | 23.76      | 23.77       | /           | 23.98       | Pass   |
| Middle                   | 23.82      | 23.82       | /           | 23.98       | Pass   |
| Highest                  | 23.81      | 23.75       | /           | 23.98       | Pass   |
| Channel Bandwidth: 10MHz |            |             |             |             |        |
| Middle                   | 23.91      | 23.93       | /           | 23.98       | Pass   |

### 5.2.11 LTE Band 41

| LTE Band 41 Maximum EIRP (dBm) |            |             |             |             |        |
|--------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                        | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 5MHz        |            |             |             |             |        |
| Lowest                         | 28.89      | 27.99       | /           | 33.01       | Pass   |
| Middle                         | 28.50      | 27.64       | /           | 33.01       | Pass   |
| Highest                        | 27.64      | 26.76       | /           | 33.01       | Pass   |
| Channel Bandwidth: 10MHz       |            |             |             |             |        |
| Lowest                         | 28.99      | 27.83       | /           | 33.01       | Pass   |
| Middle                         | 28.61      | 27.50       | /           | 33.01       | Pass   |
| Highest                        | 27.80      | 26.70       | /           | 33.01       | Pass   |
| Channel Bandwidth: 15MHz       |            |             |             |             |        |
| Lowest                         | 28.96      | 27.88       | /           | 33.01       | Pass   |
| Middle                         | 28.46      | 27.50       | /           | 33.01       | Pass   |
| Highest                        | 27.73      | 26.74       | /           | 33.01       | Pass   |
| Channel Bandwidth: 20MHz       |            |             |             |             |        |
| Lowest                         | 29.07      | 28.02       | /           | 33.01       | Pass   |
| Middle                         | 28.64      | 27.67       | /           | 33.01       | Pass   |
| Highest                        | 27.83      | 26.83       | /           | 33.01       | Pass   |

### 5.2.12 LTE Band 66

| LTE Band 66 Maximum EIRP (dBm) |            |             |             |             |        |
|--------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                        | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 1.4MHz      |            |             |             |             |        |
| Lowest                         | 24.45      | 24.11       | /           | 30.00       | Pass   |
| Middle                         | 24.67      | 24.00       | /           | 30.00       | Pass   |
| Highest                        | 24.69      | 24.04       | /           | 30.00       | Pass   |
| Channel Bandwidth: 3MHz        |            |             |             |             |        |
| Lowest                         | 24.39      | 24.03       | /           | 30.00       | Pass   |
| Middle                         | 24.60      | 24.06       | /           | 30.00       | Pass   |
| Highest                        | 24.64      | 24.02       | /           | 30.00       | Pass   |
| Channel Bandwidth: 5MHz        |            |             |             |             |        |
| Lowest                         | 24.50      | 23.93       | /           | 30.00       | Pass   |
| Middle                         | 24.50      | 24.10       | /           | 30.00       | Pass   |
| Highest                        | 24.69      | 24.10       | /           | 30.00       | Pass   |
| Channel Bandwidth: 10MHz       |            |             |             |             |        |
| Lowest                         | 24.55      | 23.94       | /           | 30.00       | Pass   |
| Middle                         | 24.53      | 23.95       | /           | 30.00       | Pass   |
| Highest                        | 24.65      | 24.13       | /           | 30.00       | Pass   |
| Channel Bandwidth: 15MHz       |            |             |             |             |        |
| Lowest                         | 24.37      | 24.10       | /           | 30.00       | Pass   |
| Middle                         | 24.64      | 24.02       | /           | 30.00       | Pass   |
| Highest                        | 24.64      | 24.13       | /           | 30.00       | Pass   |
| Channel Bandwidth: 20MHz       |            |             |             |             |        |
| Lowest                         | 24.57      | 24.12       | /           | 30.00       | Pass   |
| Middle                         | 24.68      | 24.13       | /           | 30.00       | Pass   |
| Highest                        | 24.75      | 24.17       | /           | 30.00       | Pass   |

### 5.2.13 LTE 71

| LTE Band 71 Maximum ERP (dBm) |            |             |             |             |        |
|-------------------------------|------------|-------------|-------------|-------------|--------|
| Channel                       | QPSK; RB:1 | 16QAM; RB:1 | 64QAM; RB:1 | Limit (dBm) | Result |
| Channel Bandwidth: 5MHz       |            |             |             |             |        |
| Lowest                        | 28.25      | 27.53       | /           | 33.01       | Pass   |
| Middle                        | 28.09      | 27.77       | /           | 33.01       | Pass   |
| Highest                       | 28.10      | 27.44       | /           | 33.01       | Pass   |
| Channel Bandwidth: 10MHz      |            |             |             |             |        |
| Lowest                        | 28.30      | 27.54       | /           | 33.01       | Pass   |
| Middle                        | 28.12      | 27.62       | /           | 33.01       | Pass   |
| Highest                       | 28.06      | 27.47       | /           | 33.01       | Pass   |
| Channel Bandwidth: 15MHz      |            |             |             |             |        |
| Lowest                        | 28.12      | 27.70       | /           | 33.01       | Pass   |
| Middle                        | 28.23      | 27.69       | /           | 33.01       | Pass   |
| Highest                       | 28.05      | 27.47       | /           | 33.01       | Pass   |
| Channel Bandwidth: 20MHz      |            |             |             |             |        |
| Lowest                        | 28.32      | 27.72       | /           | 33.01       | Pass   |
| Middle                        | 28.27      | 27.80       | /           | 33.01       | Pass   |
| Highest                       | 28.16      | 27.51       | /           | 33.01       | Pass   |

### 5.3 CONDUCTED OUTPUT POWER

**Test Requirement:** FCC 47 CFR Part 2.1046(a)  
**LTE Band 2 & LTE Band 25:** FCC 47 CFR Part 24.232(c)  
**LTE Band 4 & LTE Band 66:** FCC 47 CFR Part 27.50(d)(4)  
**LTE Band 5 & LTE Band 26:** FCC 47 CFR Part 22.913(a)  
**LTE Band 7 & Band 41:** FCC 47 CFR Part 27.50(h)(2)  
**LTE Band 12 & Band 17 & Band 71:** FCC 47 CFR Part 27.50(c)(10)  
**LTE Band 30:** FCC 47 CFR Part 27.50(a)(3)  
**LTE Band 26:** FCC 47 CFR Part 90.635

**Test Method:** KDB 971168 D01v03r01 & ANSI C63.26-2015

**Limit:**

**FCC 47 CFR Part 22.913(a):**

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

**FCC 47 CFR Part 24.232(c):**

Mobile and portable stations are limited to 2 watts EIRP.

**FCC 47 CFR Part 27.50(d)(4):**

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

**FCC 47 CFR Part 27.50(c)(10):**

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

**FCC 47 CFR Part 27.50(h)(2):**

Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

**FCC 47 CFR Part 27.50(a)(3):** For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

**FCC 47 CFR Part 90.635:**

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

Table—Equivalent Power and Antenna Heights for Base Stations in the 851–869 MHz and 935–940 MHz Bands Which Have a Requirement for a 32 km (20 mi) Service Area Radius

| Antenna height (ATT) meters (feet)   | Effective radiated power (watts) <sup>1 2 4</sup> |
|--------------------------------------|---------------------------------------------------|
| Above 1,372 (4,500)                  | 65                                                |
| Above 1,220 (4,000) to 1,372 (4,500) | 70                                                |
| Above 1,067 (3,500) to 1,220 (4,000) | 75                                                |
| Above 915 (3,000) to 1,067 (3,500)   | 100                                               |
| Above 763 (2,500) to 915 (3,000)     | 140                                               |

|                                  |                    |
|----------------------------------|--------------------|
| Above 610 (2,000) to 763 (2,500) | 200                |
| Above 458 (1,500) to 610 (2,000) | 350                |
| Above 305 (1,000) to 458 (1,500) | 600                |
| Up to 305 (1,000)                | <sup>3</sup> 1,000 |

1. Power is given in terms of effective radiated power (ERP).
2. Applicants in the Los Angeles, CA, area who demonstrate a need to serve both the downtown and fringe areas will be permitted to utilize an ERP of 1 kw at the following mountaintop sites: Santiago Park, Sierra Peak, Mount Lukens, and Mount Wilson.
3. Stations with antennas below 305 m (1,000 ft) (AAT) will be restricted to a maximum power of 1 kw (ERP).
4. Licensees in San Diego, CA, will be permitted to utilize an ERP of 500 watts at the following mountaintop sites: Palomar, Otay, Woodson and Miguel.

**Test Procedure:**

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

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

**Test Setup:** Refer to section 4.2.2 for details.

**Instruments Used:** Refer to section 3 for details

**Test Mode:** Link mode

**Test Results:** Pass

**Test Data:** [The full result refer to section 4.5 for details.](#)

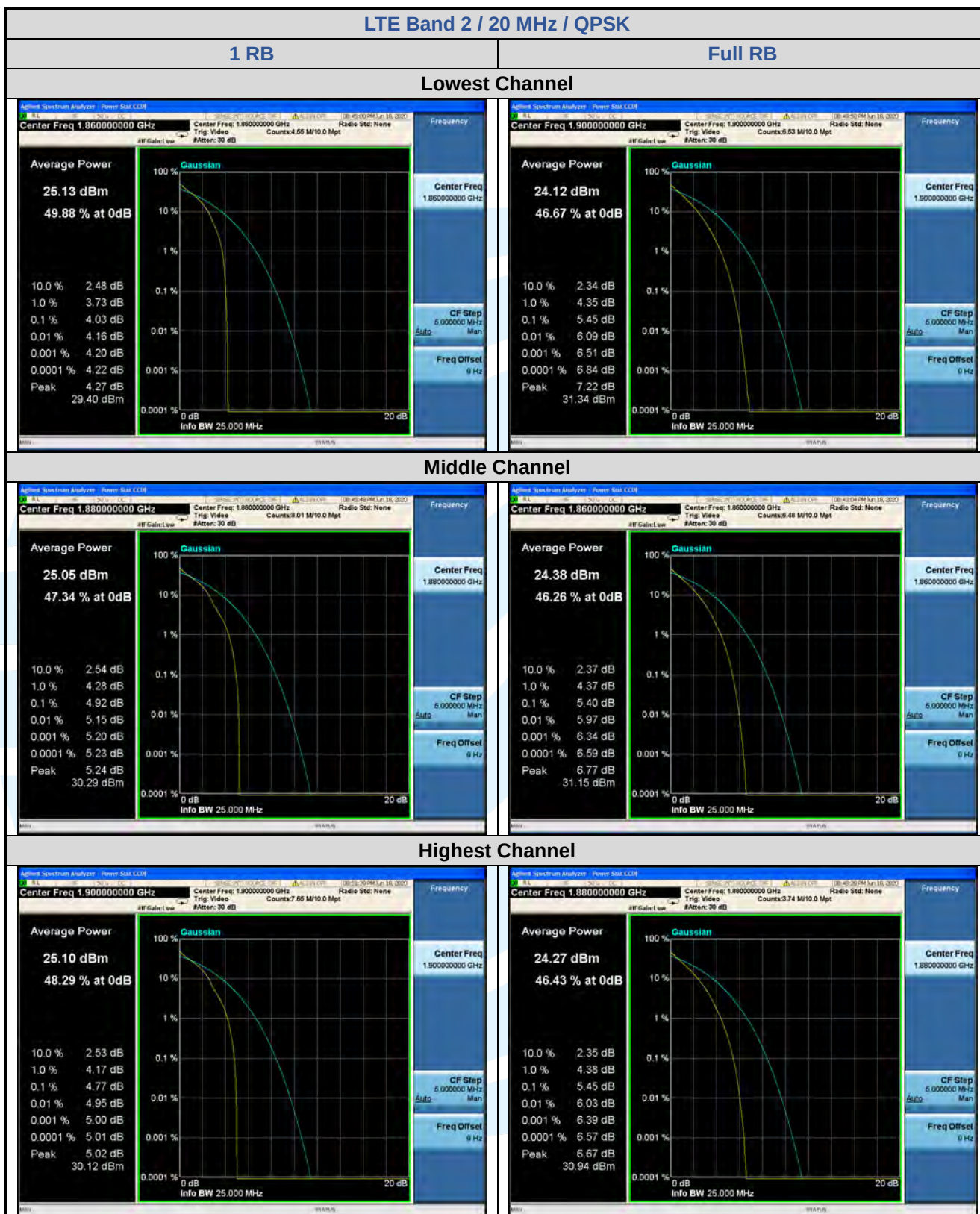
## 5.4 PEAK-TO-AVERAGE RATIO

|                                                                                                                                              |                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Requirement:</b>                                                                                                                     | LTE Band 2 & LTE Band 25: FCC 47 CFR Part 24.232(d)                                                                                                |
|                                                                                                                                              | LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.50(d)(5)                                                                                              |
|                                                                                                                                              | LTE Band 5 & LTE Band 26: FCC 47 CFR Part 22.913(a)                                                                                                |
|                                                                                                                                              | LTE Band 7 & Band 41: FCC 47 CFR Part 27.50(d)(5)                                                                                                  |
|                                                                                                                                              | LTE Band 12 & Band 17: FCC 47 CFR Part 27.50(d)(5)                                                                                                 |
| <b>Test Method:</b>                                                                                                                          | LTE Band 30: FCC 47 CFR Part 27.50(a)(3)                                                                                                           |
|                                                                                                                                              | KDB 971168 D01v03r01 Section 5.7                                                                                                                   |
| <b>Limit:</b>                                                                                                                                | In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB |
| <b>Test Procedure:</b>                                                                                                                       |                                                                                                                                                    |
| The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. |                                                                                                                                                    |
| a) Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth                                                                   |                                                                                                                                                    |
| b) Set the number of counts to a value that stabilizes the measured CCDF curve                                                               |                                                                                                                                                    |
| c) Record the maximum PAPR level associated with a probability of 0.1 %                                                                      |                                                                                                                                                    |
| Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.                                             |                                                                                                                                                    |
| <b>Test Setup:</b>                                                                                                                           | Refer to section 4.2.2 for details.                                                                                                                |
| <b>Instruments Used:</b>                                                                                                                     | Refer to section 3 for details                                                                                                                     |
| <b>Test Mode:</b>                                                                                                                            | Link mode                                                                                                                                          |
| <b>Test Results:</b>                                                                                                                         | Pass                                                                                                                                               |
| <b>Test Data:</b>                                                                                                                            | See table below                                                                                                                                    |

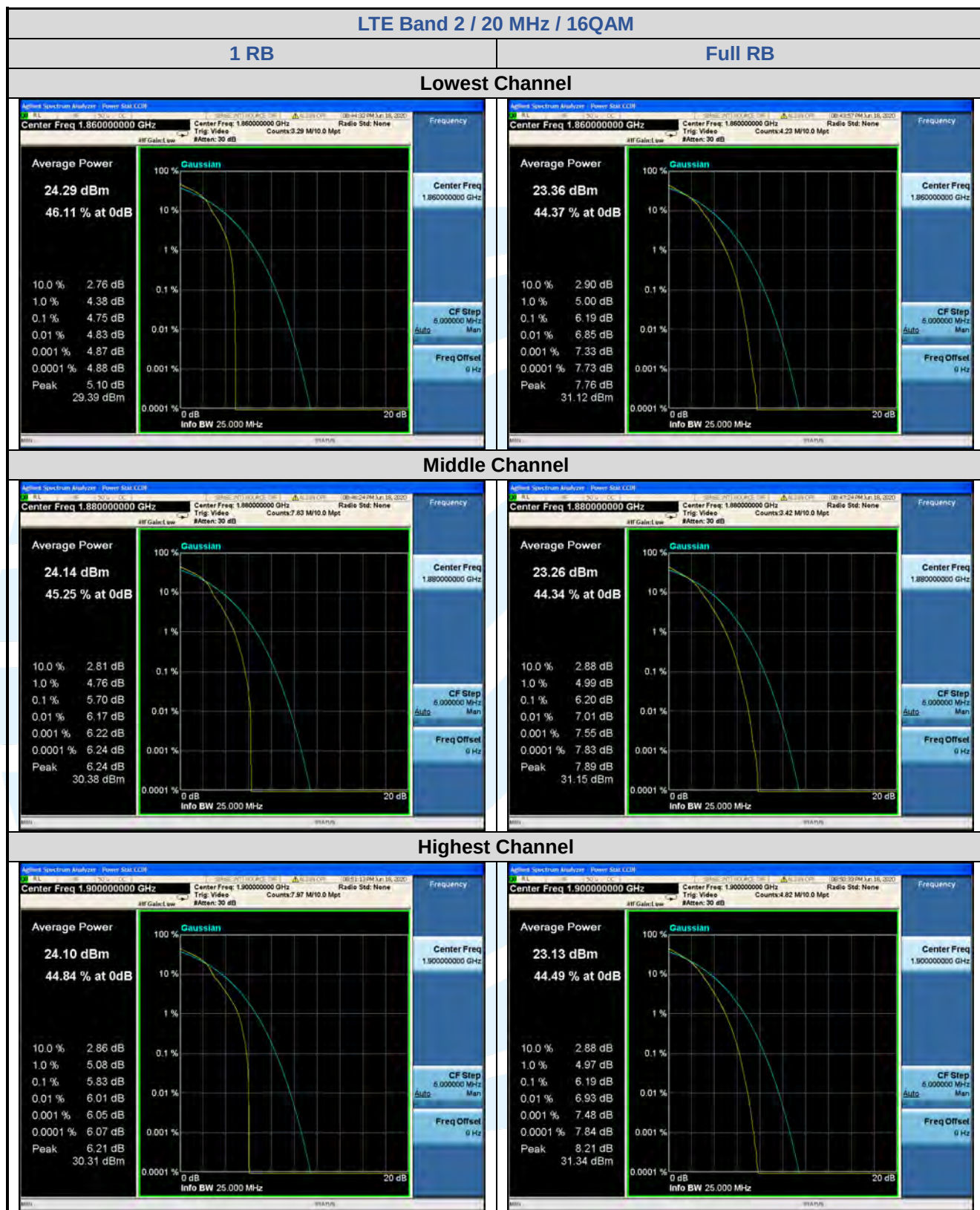
### 5.4.1 LTE Band 2

| LTE Band 2 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|---------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                               | RB Configuration | Channel Bandwidth: 20 MHz |       |       | Limit (dB) | Result |
|                                       |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                | 1 RB             | 4.03                      | 4.75  | /     | 13         | Pass   |
|                                       | Full RB          | 5.45                      | 6.19  | /     | 13         | Pass   |
| Middle                                | 1 RB             | 4.03                      | 5.70  | /     | 13         | Pass   |
|                                       | Full RB          | 5.40                      | 6.20  | /     | 13         | Pass   |
| Highest                               | 1 RB             | 4.77                      | 5.83  | /     | 13         | Pass   |
|                                       | Full RB          | 5.45                      | 6.19  | /     | 13         | Pass   |



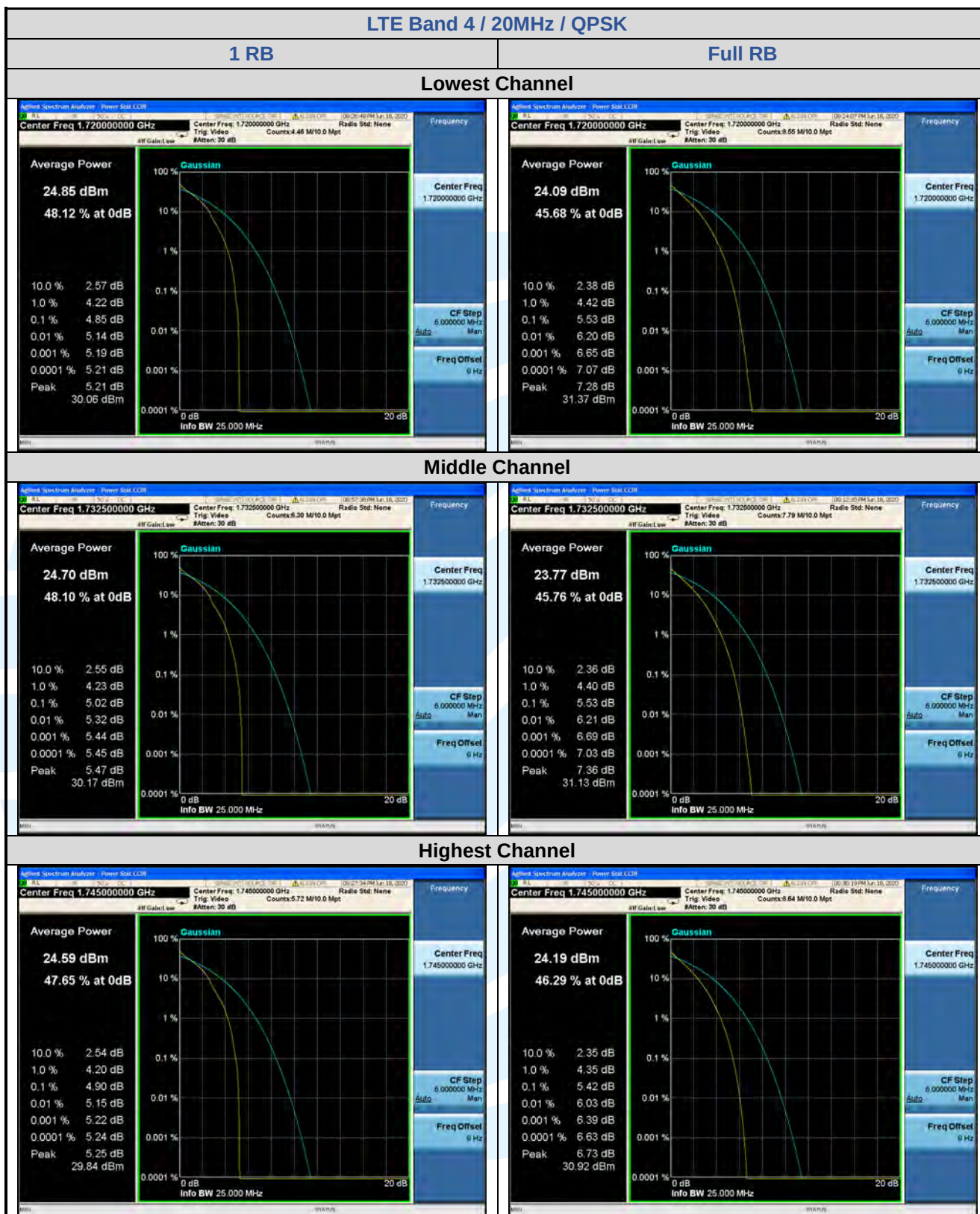




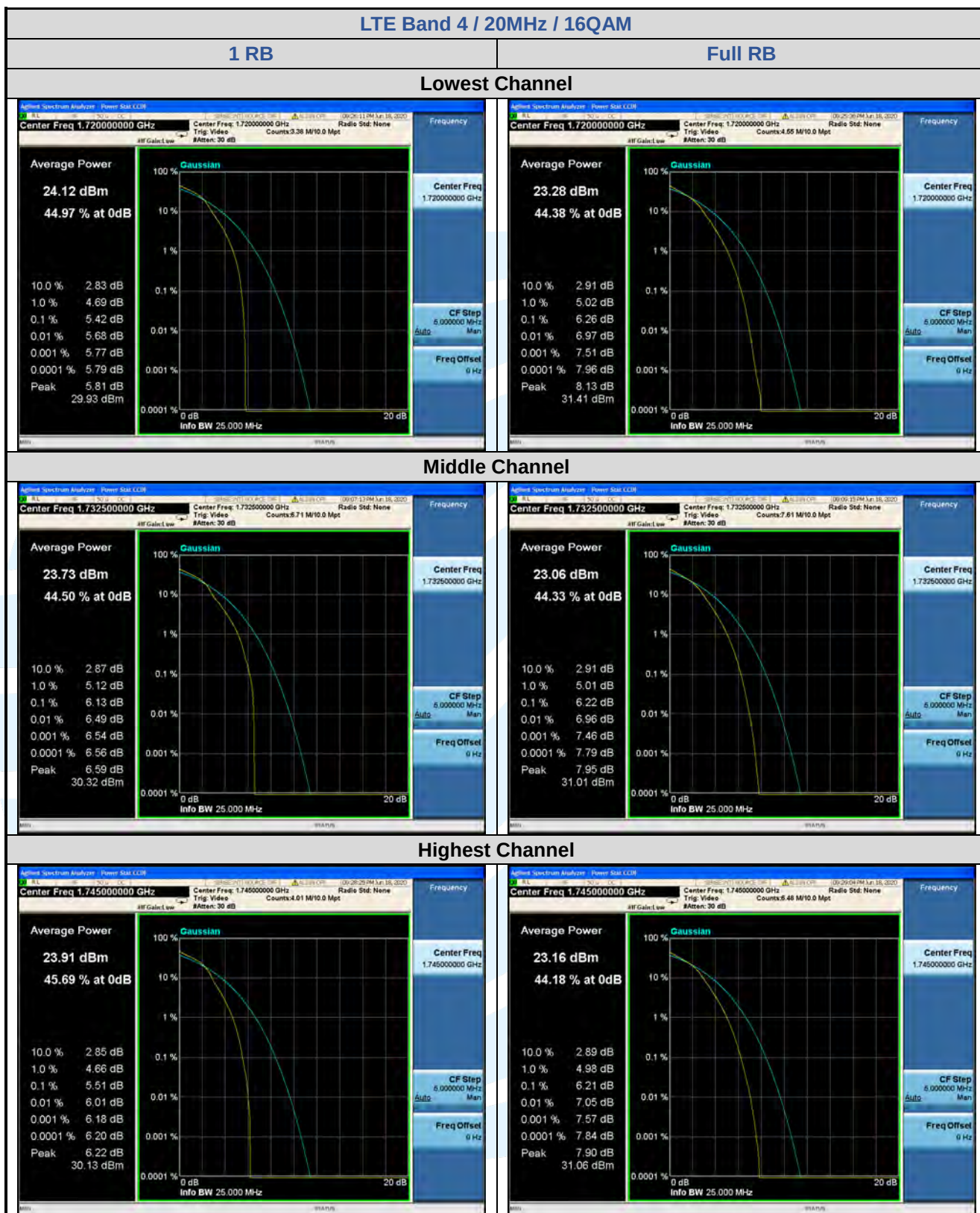


#### 5.4.2 LTE Band 4

| LTE Band 4 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|---------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                               | RB Configuration | Channel Bandwidth: 20 MHz |       |       | Limit (dB) | Result |
|                                       |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                | 1 RB             | 4.85                      | 5.42  | /     | 13         | Pass   |
|                                       | Full RB          | 5.53                      | 6.26  | /     | 13         | Pass   |
| Middle                                | 1 RB             | 5.02                      | 6.13  | /     | 13         | Pass   |
|                                       | Full RB          | 5.53                      | 6.22  | /     | 13         | Pass   |
| Highest                               | 1 RB             | 4.90                      | 5.51  | /     | 13         | Pass   |
|                                       | Full RB          | 5.42                      | 6.21  | /     | 13         | Pass   |

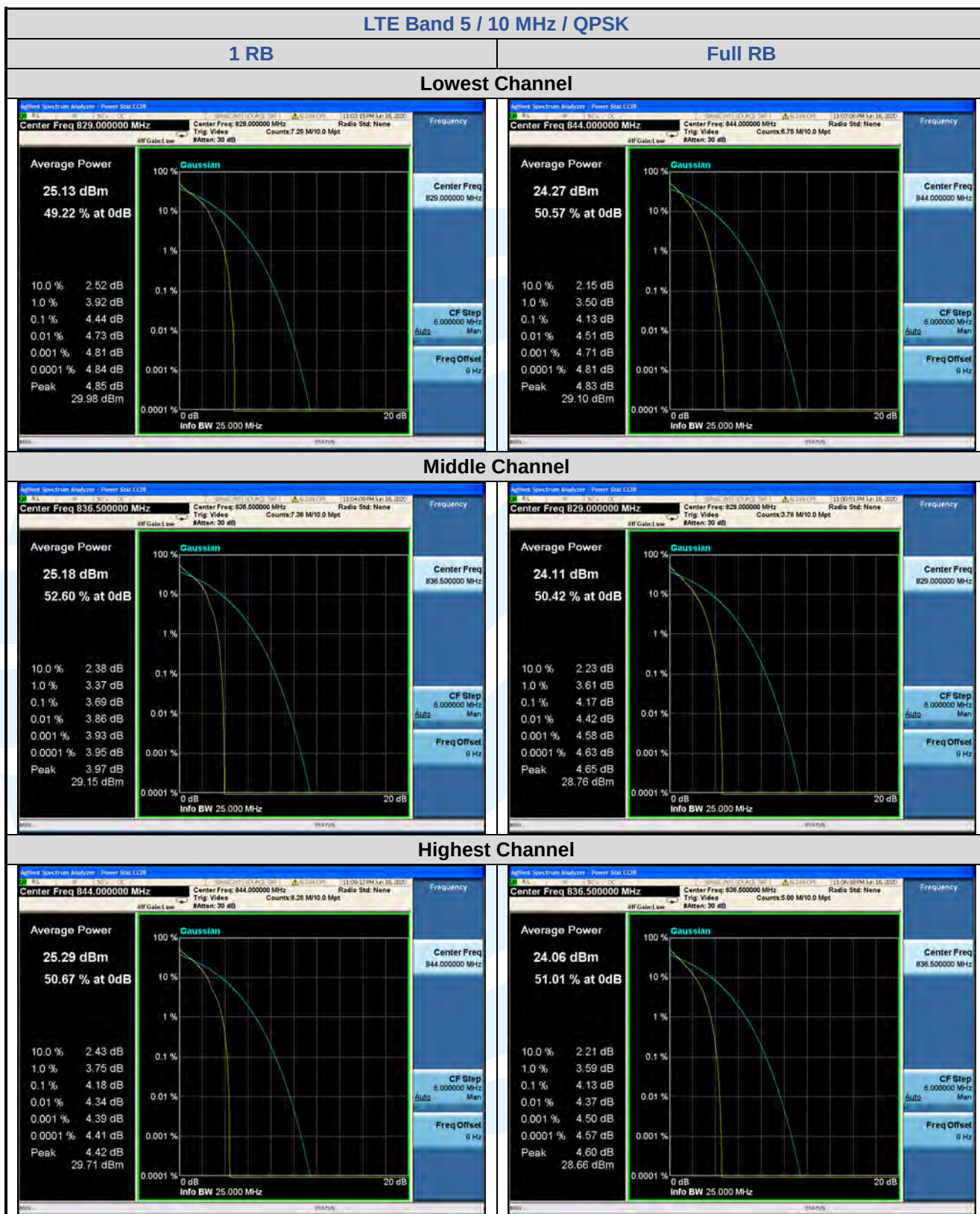




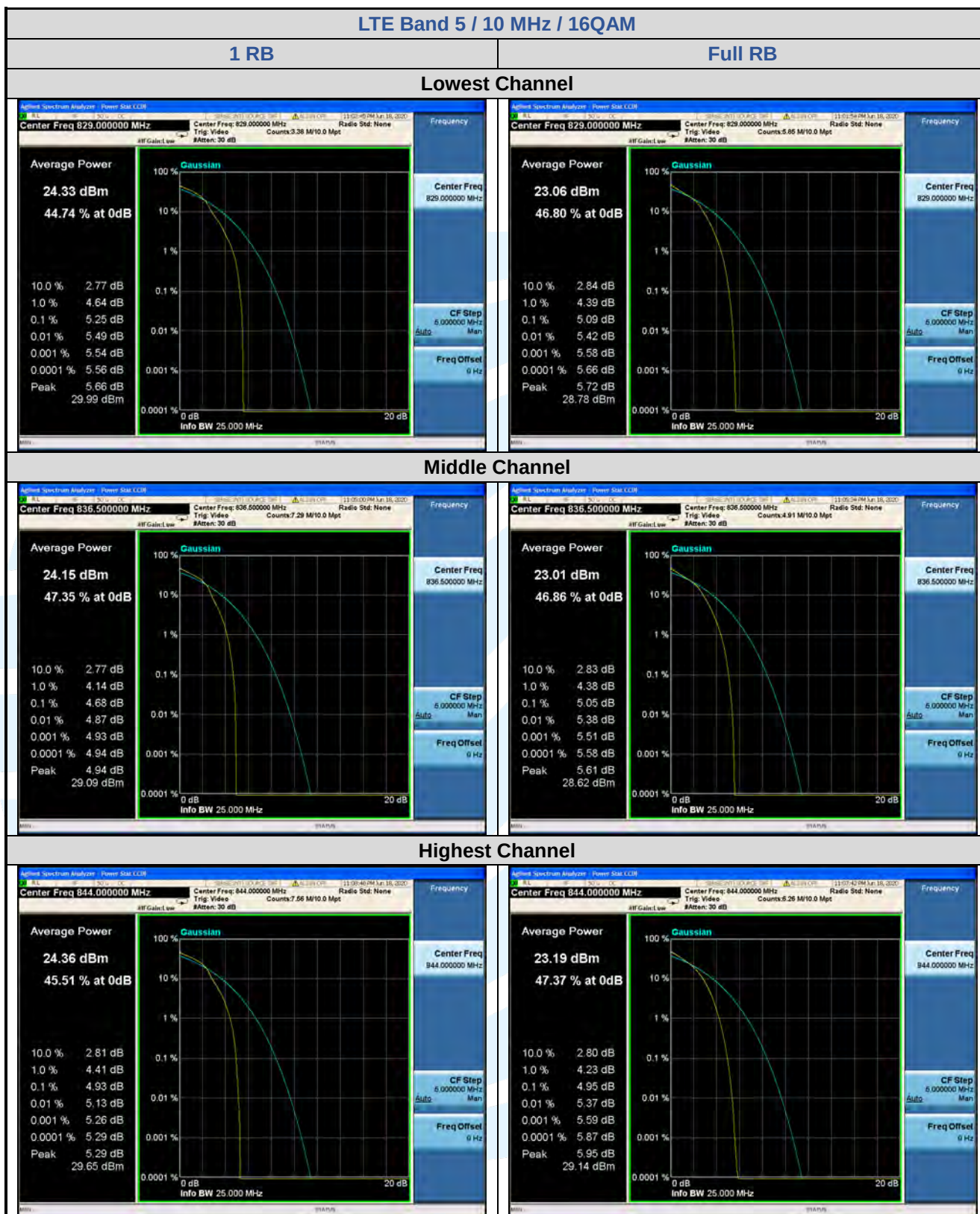


### 5.4.3 LTE Band 5

| LTE Band 5 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|---------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                               | RB Configuration | Channel Bandwidth: 10 MHz |       |       | Limit (dB) | Result |
|                                       |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                | 1 RB             | 4.44                      | 5.25  | /     | 13         | Pass   |
|                                       | Full RB          | 4.13                      | 5.09  | /     | 13         | Pass   |
| Middle                                | 1 RB             | 3.69                      | 4.68  | /     | 13         | Pass   |
|                                       | Full RB          | 3.61                      | 5.05  | /     | 13         | Pass   |
| Highest                               | 1 RB             | 4.18                      | 4.93  | /     | 13         | Pass   |
|                                       | Full RB          | 4.13                      | 4.95  | /     | 13         | Pass   |



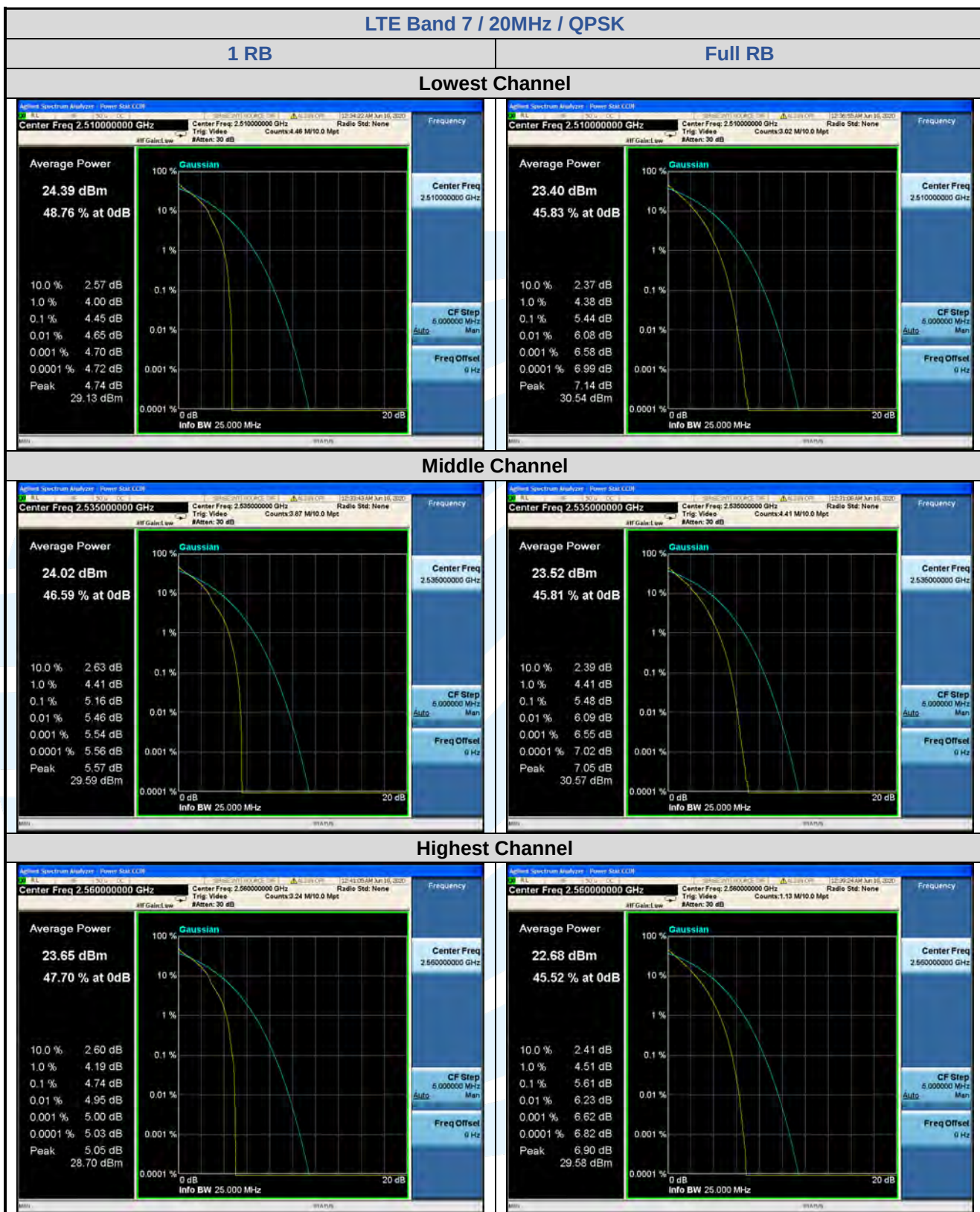






#### 5.4.4 LTE Band 7

| LTE Band 7 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|---------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                               | RB Configuration | Channel Bandwidth: 20 MHz |       |       | Limit (dB) | Result |
|                                       |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                | 1 RB             | 4.45                      | 5.18  | /     | 13         | Pass   |
|                                       | Full RB          | 5.44                      | 6.26  | /     | 13         | Pass   |
| Middle                                | 1 RB             | 5.16                      | 6.24  | /     | 13         | Pass   |
|                                       | Full RB          | 5.48                      | 6.32  | /     | 13         | Pass   |
| Highest                               | 1 RB             | 4.74                      | 5.57  | /     | 13         | Pass   |
|                                       | Full RB          | 5.61                      | 6.39  | /     | 13         | Pass   |

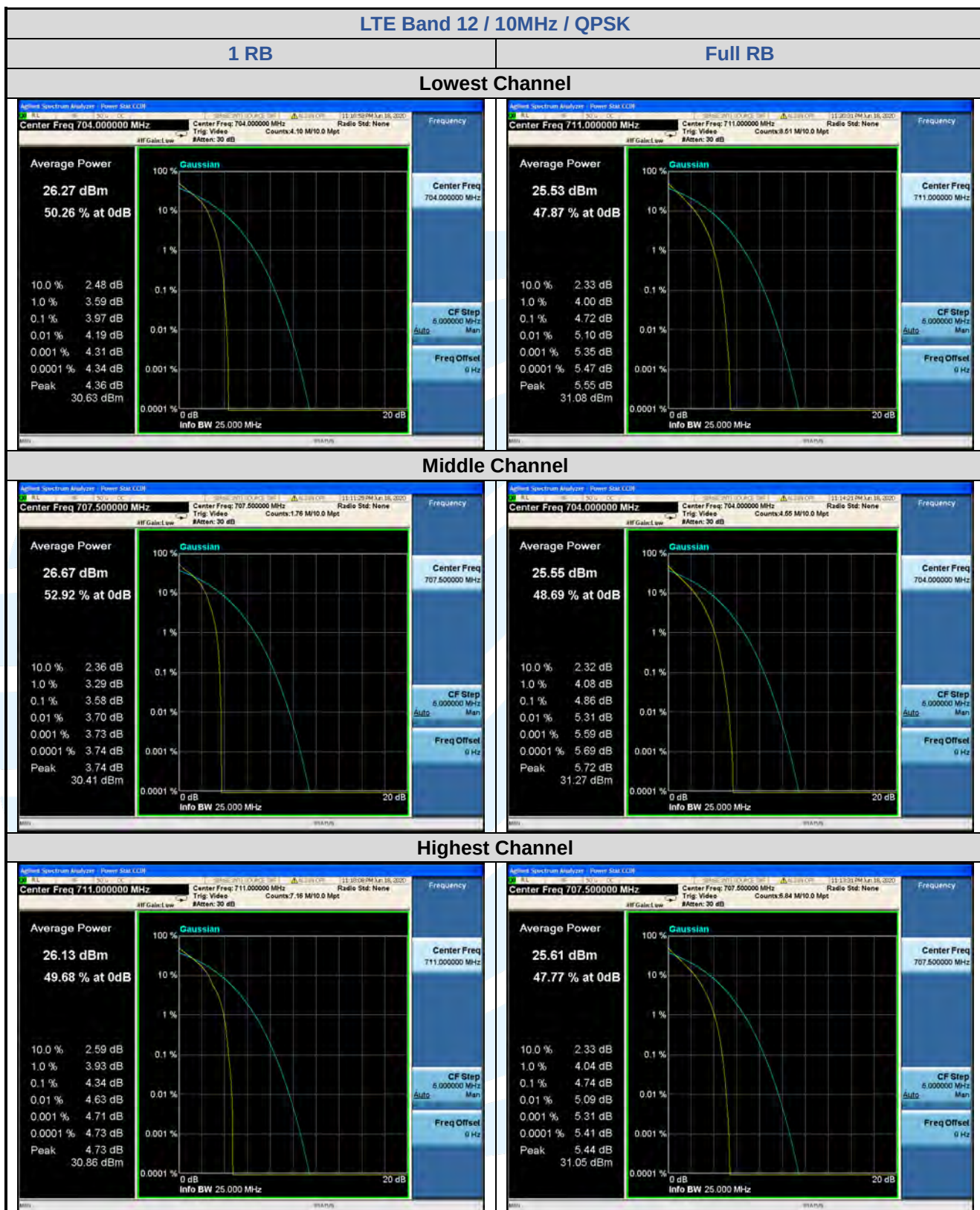




#### 5.4.5 LTE Band 12

| LTE Band 12 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 10 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                 | 1 RB             | 3.97                      | 4.61  | /     | 13         | Pass   |
|                                        | Full RB          | 4.72                      | 5.68  | /     | 13         | Pass   |
| Middle                                 | 1 RB             | 3.58                      | 4.38  | /     | 13         | Pass   |
|                                        | Full RB          | 4.86                      | 5.66  | /     | 13         | Pass   |
| Highest                                | 1 RB             | 4.34                      | 5.22  | /     | 13         | Pass   |
|                                        | Full RB          | 4.74                      | 5.54  | /     | 13         | Pass   |



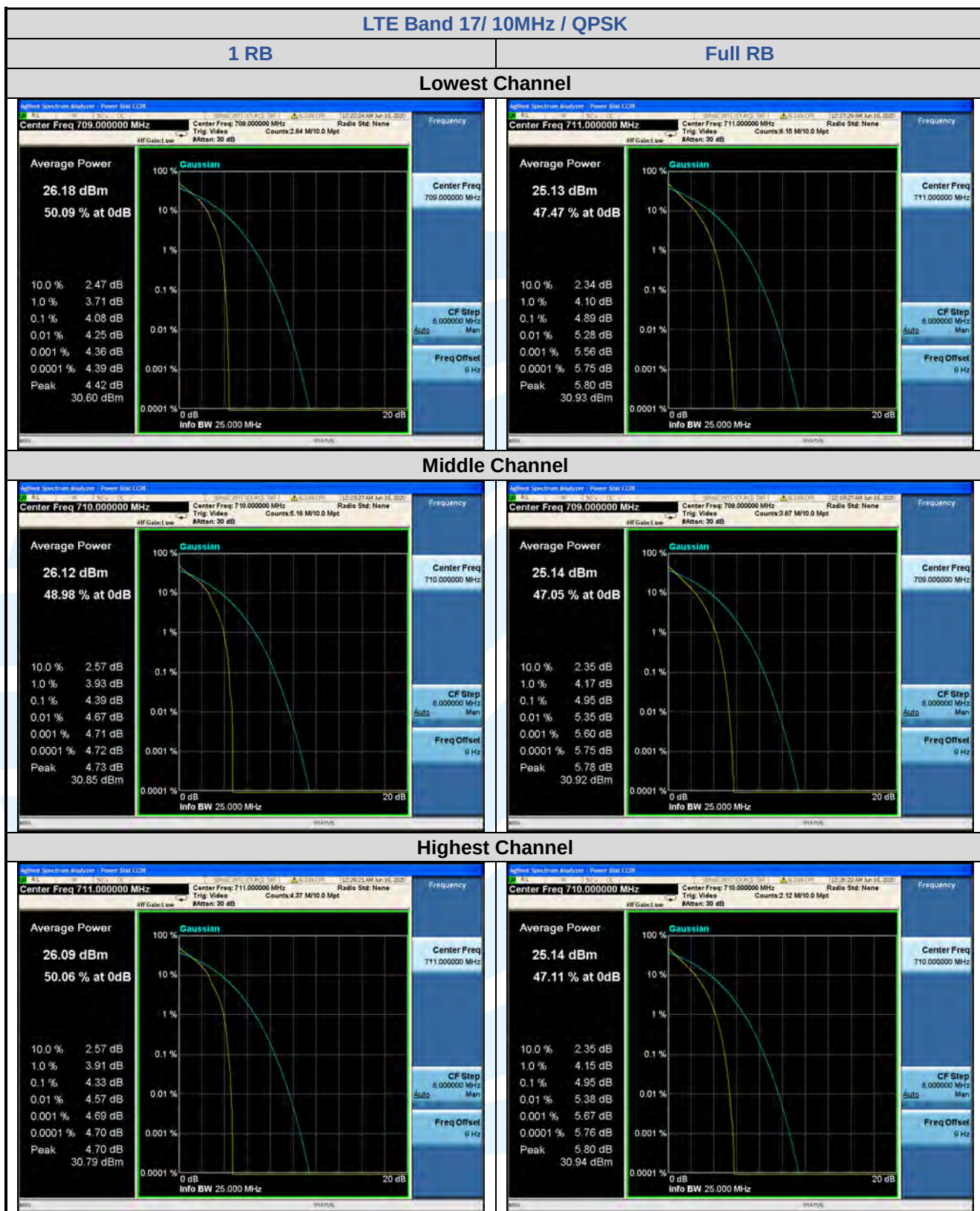


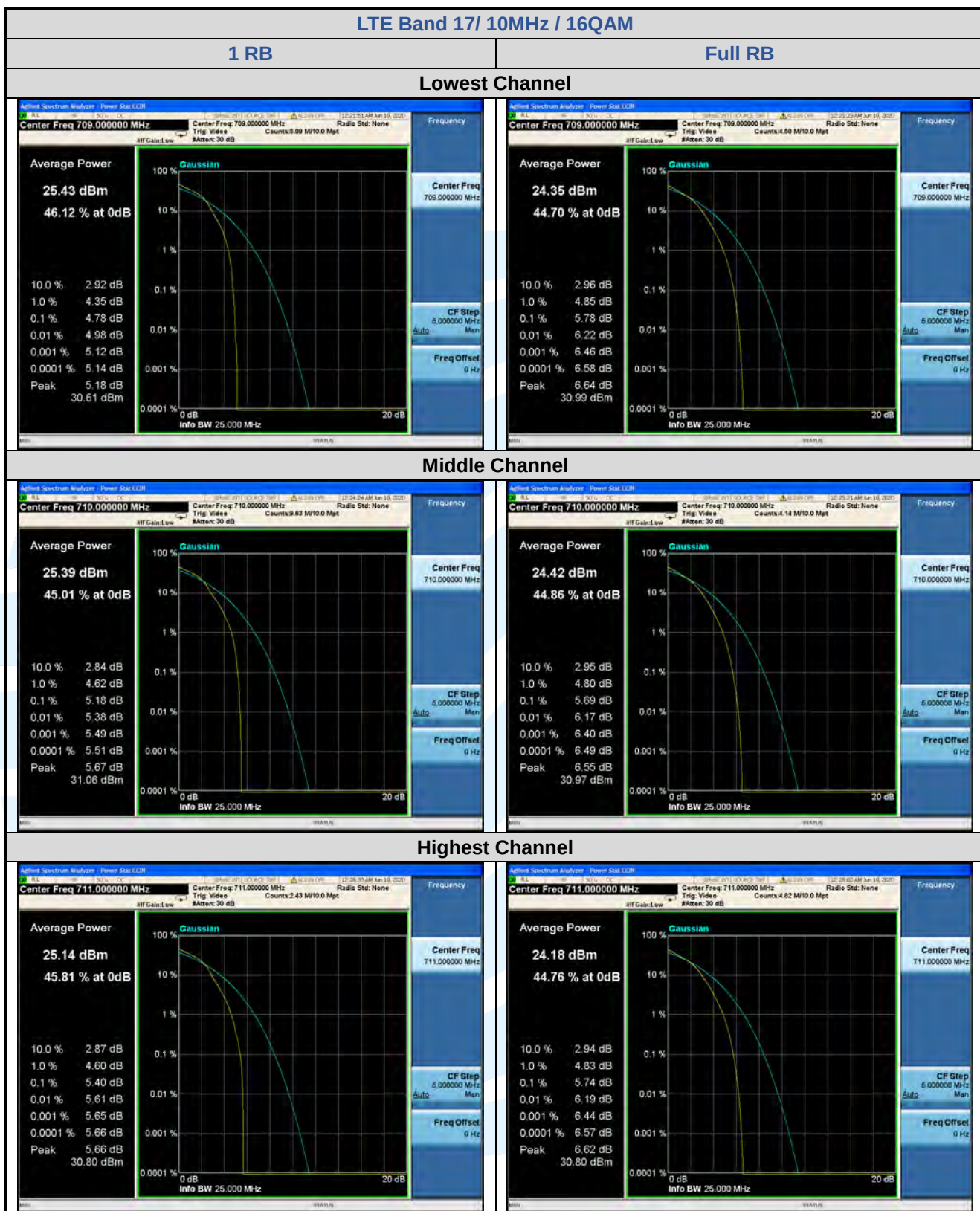




#### 5.4.6 LTE Band 17

| LTE Band 17 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 10 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                 | 1 RB             | 4.08                      | 4.78  | /     | 13         | Pass   |
|                                        | Full RB          | 4.89                      | 5.78  | /     | 13         | Pass   |
| Middle                                 | 1 RB             | 4.39                      | 5.18  | /     | 13         | Pass   |
|                                        | Full RB          | 4.95                      | 5.69  | /     | 13         | Pass   |
| Highest                                | 1 RB             | 4.33                      | 5.40  | /     | 13         | Pass   |
|                                        | Full RB          | 4.95                      | 5.74  | /     | 13         | Pass   |

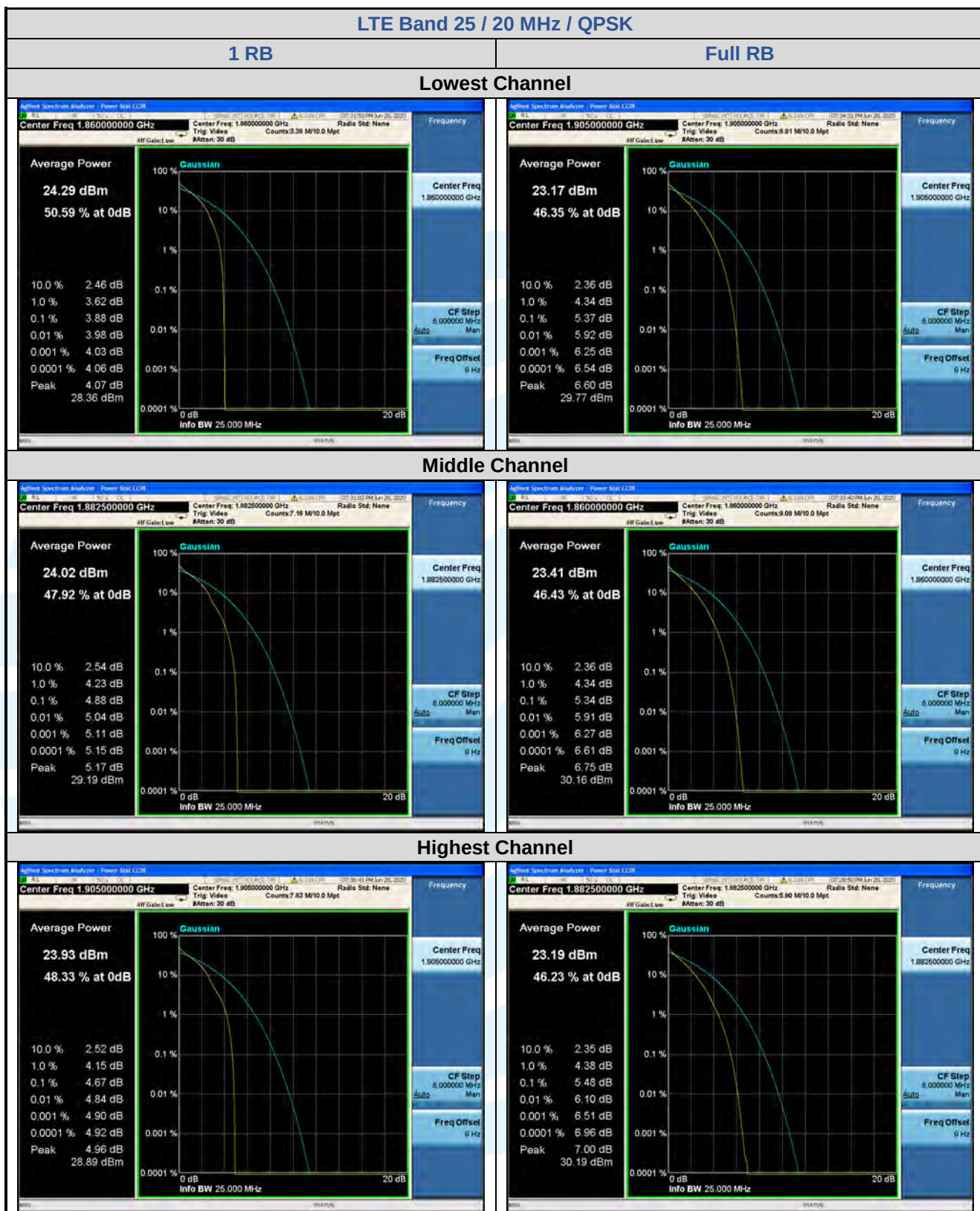




#### 5.4.7 LTE Band 25

| LTE Band 25 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 20 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                 | 1 RB             | 3.88                      | 4.59  | /     | 13         | Pass   |
|                                        | Full RB          | 5.37                      | 6.15  | /     | 13         | Pass   |
| Middle                                 | 1 RB             | 4.88                      | 5.93  | /     | 13         | Pass   |
|                                        | Full RB          | 5.34                      | 6.20  | /     | 13         | Pass   |
| Highest                                | 1 RB             | 4.67                      | 5.48  | /     | 13         | Pass   |
|                                        | Full RB          | 5.48                      | 6.19  | /     | 13         | Pass   |





## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

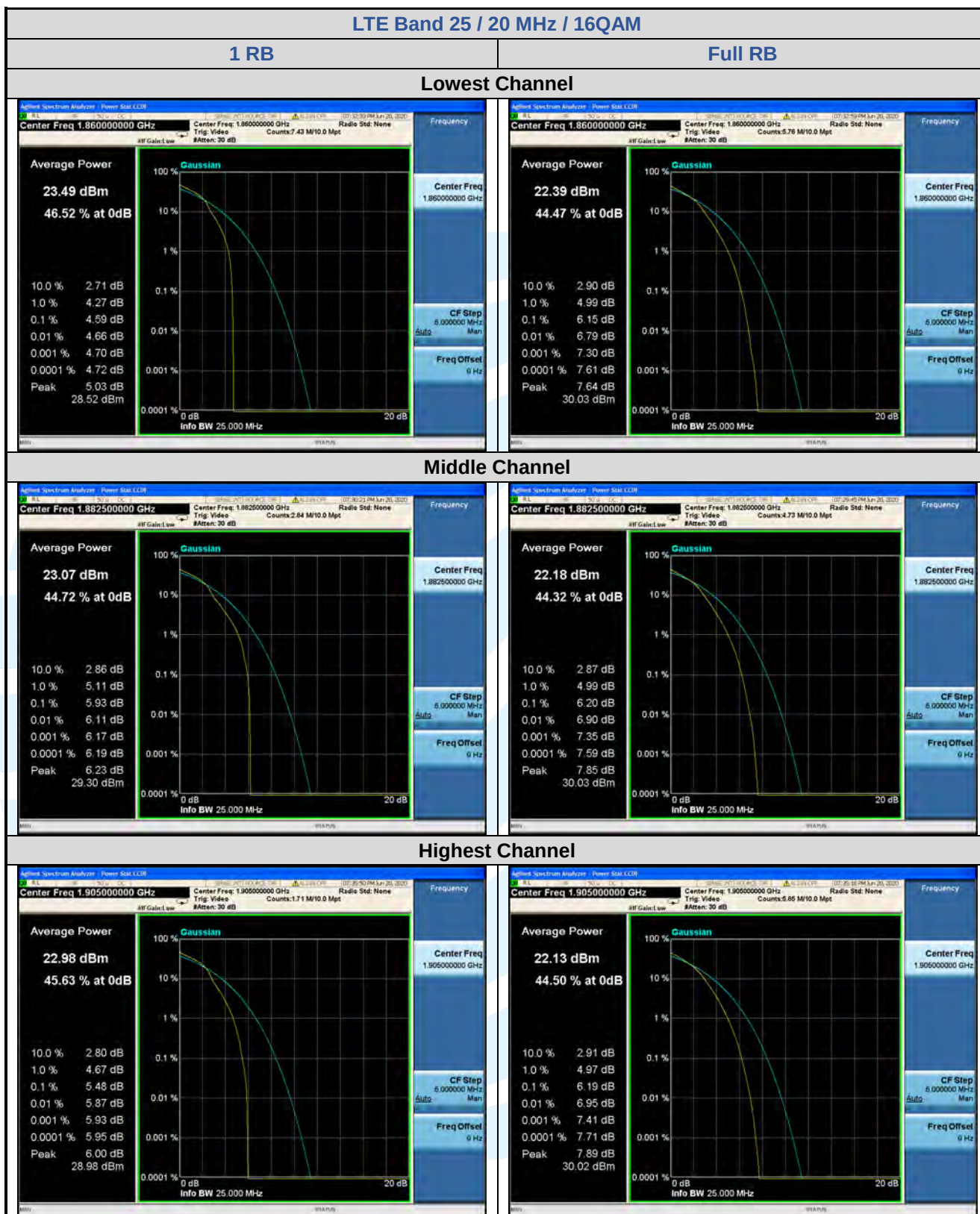
Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.0





## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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#### 5.4.8 LTE Band 26

| LTE Band 26 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 15 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Lowest                                 | 1 RB             | 4.38                      | 5.32  | /     | 13         | Pass   |
|                                        | Full RB          | 5.03                      | 5.96  | /     | 13         | Pass   |
| Middle                                 | 1 RB             | 4.10                      | 4.95  | /     | 13         | Pass   |
|                                        | Full RB          | 5.26                      | 5.83  | /     | 13         | Pass   |
| Highest                                | 1 RB             | 3.95                      | 4.89  | /     | 13         | Pass   |
|                                        | Full RB          | 5.10                      | 5.74  | /     | 13         | Pass   |

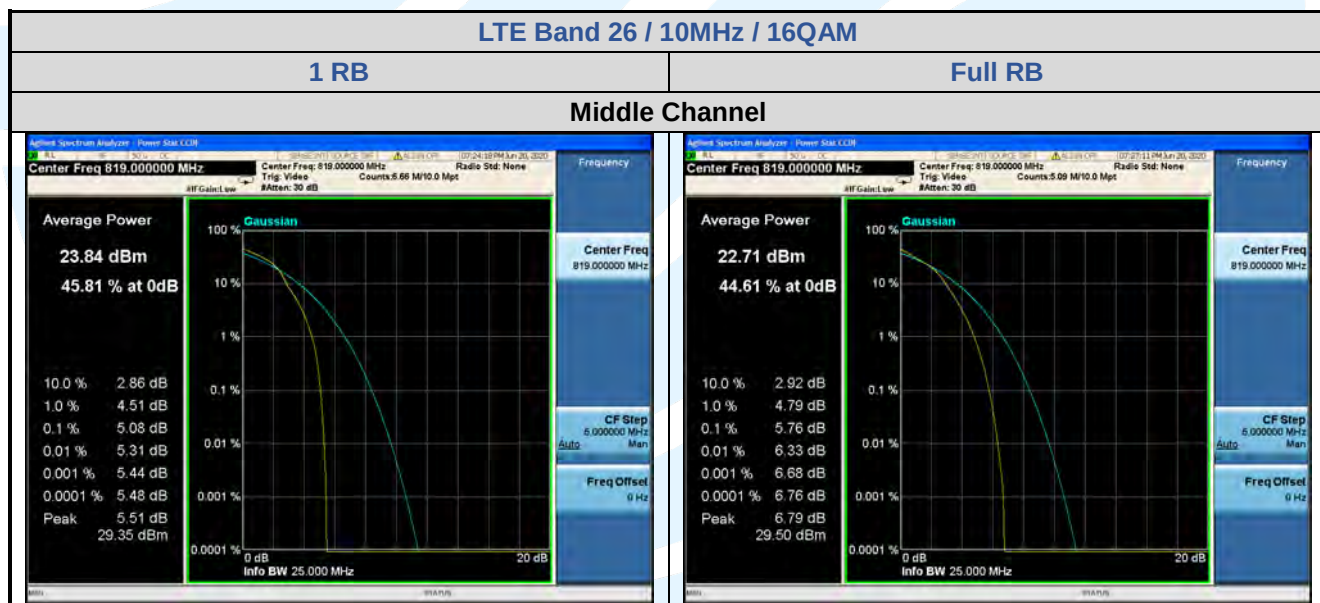
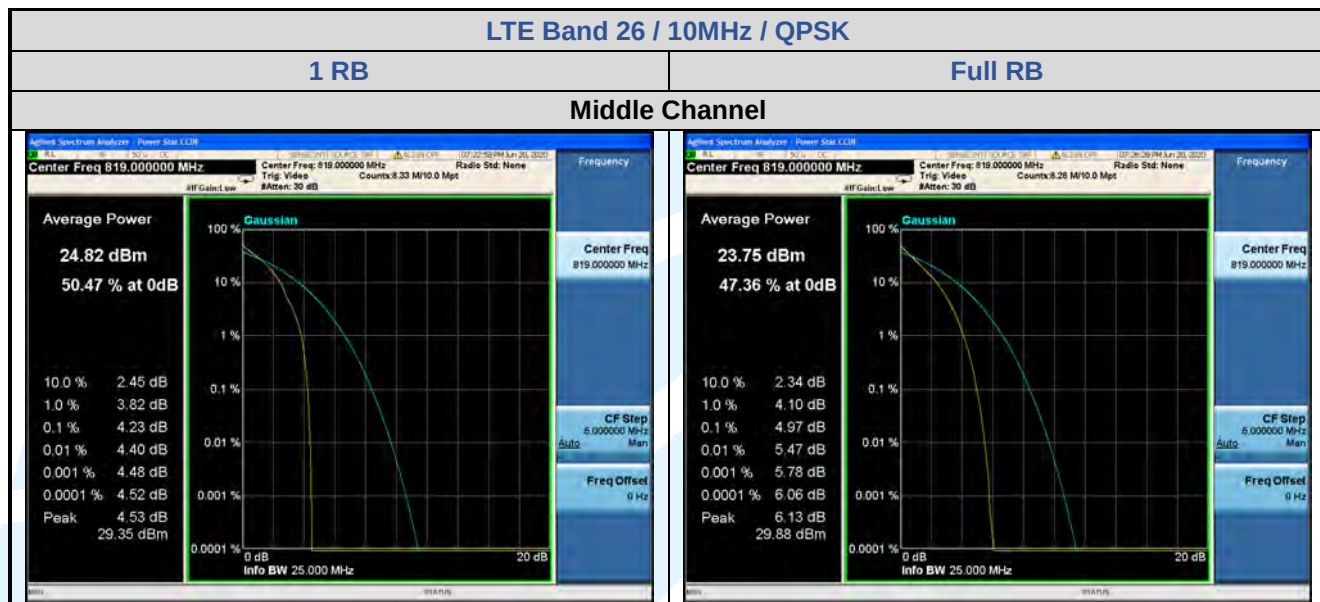






### 5.4.9 LTE Band 26 (Part 90S)

| LTE Band 26 Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|----------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                                | RB Configuration | Channel Bandwidth: 10 MHz |       |       | Limit (dB) | Result |
|                                        |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Middle                                 | 1 RB             | 4.23                      | 5.08  | /     | 13         | Pass   |
|                                        | Full RB          | 4.97                      | 5.76  | /     | 13         | Pass   |





#### 5.4.10 LTE Band 30

| LTE Band 30Peak-to-average ratio (dB) |                  |                           |       |       |            |        |
|---------------------------------------|------------------|---------------------------|-------|-------|------------|--------|
| Channel                               | RB Configuration | Channel Bandwidth: 10 MHz |       |       | Limit (dB) | Result |
|                                       |                  | QPSK                      | 16QAM | 64QAM |            |        |
| Middle                                | 1 RB             | 3.68                      | 4.57  | /     | 13         | Pass   |
|                                       | Full RB          | 4.69                      | 5.58  | /     | 13         | Pass   |



