



# CERTIFICATION TEST REPORT

**Report Number.** : 4790406759-E2V2

**Applicant** : SAMSUNG ELECTRONICS CO., LTD.  
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,  
GYEONGGI-DO, 16677, KOREA

**Model** : SM-T636B, SM-T638B

**FCC ID** : A3LSMT636B

**EUT Description** : GSM/WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax  
and NFC.

**Test Standard(s)** : FCC CFR47 PART 22 SUBPART H  
FCC CFR47 PART 24 SUBPART E  
FCC CFR47 PART 27 SUBPART F,H,L,M  
FCC CFR47 PART 90 SUBPART S

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** SAMSUNG ELECTRONICS CO., LTD.

**EUT DESCRIPTION:** GSM/WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and NFC.

**MODEL NUMBER:** SM-T636B, SM-T638B

**SERIAL NUMBER:** R32T5002Y7Z, R32T5003VGA, R32T5003Y7W (CONDUCTED); R32T5002NXE, R32T5002P1T, R32T5003G0W, R32T50051NZ, R32T6004Z3N; (RADIATED);

**DATE TESTED:** 2022-06-16 ~ 2022-07-21;

| APPLICABLE STANDARDS                 |              |
|--------------------------------------|--------------|
| STANDARD                             | TEST RESULTS |
| FCC PART 22H, 24E, 27H,L,F,M and 90S | Pass         |

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For  
UL Korea, Ltd. By:



Seokhwan Hong  
Suwon Lab Engineer  
UL Korea, Ltd.

Tested By:



Yeonhee Lim  
Suwon Lab Engineer  
UL Korea, Ltd.

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 22.
3. FCC CFR 47 Part 24.
4. FCC CFR 47 Part 27.
5. FCC CFR 47 Part 90.
6. ANSI TIA-603-E, 2016
7. ANSI C63.26, 2015
8. KDB 971168 D01 Power Meas License Digital Systems v03r01

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

| 218 Maeyeong-ro                     |                                     |
|-------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> | Chamber 1(3m semi-anechoic chamber) |
| <input checked="" type="checkbox"/> | Chamber 2(3m semi-anechoic chamber) |
| <input type="checkbox"/>            | Chamber 3(3m semi-anechoic chamber) |
| <input checked="" type="checkbox"/> | Chamber 4(3m Full-anechoic chamber) |
| <input type="checkbox"/>            | Chamber 5(3m Full-anechoic chamber) |

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$EIRP = \text{PSA reading with EUT worst orientation (dBm)} + \text{Path loss (dB)} - \text{cable loss (between the SG and substitution antenna)} + \text{Substitution Antenna Factor (dBi)}$

$ERP = \text{PSA reading with EUT worst orientation (dBm)} + \text{Path loss (dB)} - \text{cable loss (between the SG and substitution antenna)}$

(Path loss = Signal generator output – PSA reading with substitution antenna)

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER                              | UNCERTAINTY |
|--|-------------|
| Conducted Disturbance, 0.15 to 30 MHz  | 3.02 dB     |
| Radiated Disturbance, 30 MHz to 1 GHz  | 4.05 dB     |
| Radiated Disturbance, 1 GHz to 18 GHz  | 5.78 dB     |
| Radiated Disturbance, 18 GHz to 40 GHz | 5.58 dB     |

Uncertainty figures are valid to a confidence level of 95%.

### 4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 2, Clause 4.4.3 in IEC Guide 115:2007.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and NFC. This test report addresses the WWAN operational mode.

SM-T638B model is same hardware thus, SM-T636B was set for final test.

### 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum average radiated ERP / EIRP output powers as follows:

#### GSM 850

| Mode         | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Maximum Average Power (dBm) |           |               |           |
|--------------|---------------|------------|--------|-------------|-----------------------------|-----------|---------------|-----------|
|              |               |            |        |             | Measured                    |           | Tune-up Limit |           |
|              |               |            |        |             | Burst Pwr                   | Frame Pwr | Burst Pwr     | Frame Pwr |
| GSM (Voice)  | CS1           | 1          | 128    | 824.2       | 32.72                       | 23.69     | 33.5          | 24.5      |
|              |               |            | 190    | 836.6       | 32.71                       | 23.68     |               |           |
|              |               |            | 251    | 848.8       | 32.42                       | 23.39     |               |           |
| GPRS (GMSK)  | CS1           | 1          | 128    | 824.2       | 32.69                       | 23.66     | 33.5          | 24.5      |
|              |               |            | 190    | 836.6       | 32.58                       | 23.55     |               |           |
|              |               |            | 251    | 848.8       | 32.28                       | 23.25     |               |           |
|              |               | 2          | 128    | 824.2       | 31.44                       | 25.42     | 32.0          | 26.0      |
|              |               |            | 190    | 836.6       | 31.45                       | 25.43     |               |           |
|              |               |            | 251    | 848.8       | 31.09                       | 25.07     |               |           |
|              |               | 3          | 128    | 824.2       | 29.62                       | 25.36     | 30.0          | 25.7      |
|              |               |            | 190    | 836.6       | 29.53                       | 25.27     |               |           |
|              |               |            | 251    | 848.8       | 29.09                       | 24.83     |               |           |
|              |               | 4          | 128    | 824.2       | 27.52                       | 24.51     | 29.0          | 26.0      |
|              |               |            | 190    | 836.6       | 27.74                       | 24.73     |               |           |
|              |               |            | 251    | 848.8       | 27.48                       | 24.47     |               |           |
| EGPRS (8PSK) | MCS5          | 1          | 128    | 824.2       | 26.90                       | 17.87     | 29.0          | 20.0      |
|              |               |            | 190    | 836.6       | 27.33                       | 18.30     |               |           |
|              |               |            | 251    | 848.8       | 26.90                       | 17.87     |               |           |
|              |               | 2          | 128    | 824.2       | 25.35                       | 19.33     | 27.0          | 21.0      |
|              |               |            | 190    | 836.6       | 25.24                       | 19.22     |               |           |
|              |               |            | 251    | 848.8       | 24.90                       | 18.88     |               |           |
|              |               | 3          | 128    | 824.2       | 23.43                       | 19.17     | 25.0          | 20.7      |
|              |               |            | 190    | 836.6       | 23.37                       | 19.11     |               |           |
|              |               |            | 251    | 848.8       | 22.83                       | 18.57     |               |           |
|              |               | 4          | 128    | 824.2       | 22.46                       | 19.45     | 23.0          | 20.0      |
|              |               |            | 190    | 836.6       | 22.64                       | 19.63     |               |           |
|              |               |            | 251    | 848.8       | 22.21                       | 19.20     |               |           |

**GSM 1900**

| Mode         | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Maximum Average Power (dBm) |           |               |           |
|--------------|---------------|------------|--------|-------------|-----------------------------|-----------|---------------|-----------|
|              |               |            |        |             | Measured                    |           | Tune-up Limit |           |
|              |               |            |        |             | Burst Pwr                   | Frame Pwr | Burst Pwr     | Frame Pwr |
| GSM (Voice)  | CS1           | 1          | 512    | 1850.2      | 27.8                        | 18.7      | 29.5          | 20.5      |
|              |               |            | 661    | 1880.0      | 28.0                        | 19.0      |               |           |
|              |               |            | 810    | 1909.8      | 27.7                        | 18.7      |               |           |
| GPRS (GMSK)  | CS1           | 1          | 512    | 1850.2      | 27.8                        | 18.7      | 29.5          | 20.5      |
|              |               |            | 661    | 1880.0      | 27.9                        | 18.9      |               |           |
|              |               |            | 810    | 1909.8      | 27.6                        | 18.6      |               |           |
|              |               | 2          | 512    | 1850.2      | 25.5                        | 19.5      | 26.5          | 20.5      |
|              |               |            | 661    | 1880.0      | 25.5                        | 19.5      |               |           |
|              |               |            | 810    | 1909.8      | 25.4                        | 19.3      |               |           |
|              |               | 3          | 512    | 1850.2      | 23.3                        | 19.0      | 24.0          | 19.7      |
|              |               |            | 661    | 1880.0      | 23.8                        | 19.5      |               |           |
|              |               |            | 810    | 1909.8      | 23.4                        | 19.2      |               |           |
|              |               | 4          | 512    | 1850.2      | 22.3                        | 19.3      | 23.0          | 20.0      |
|              |               |            | 661    | 1880.0      | 22.6                        | 19.6      |               |           |
|              |               |            | 810    | 1909.8      | 22.4                        | 19.4      |               |           |
| EGPRS (8PSK) | MCS5          | 1          | 512    | 1850.2      | 24.5                        | 15.5      | 27.0          | 18.0      |
|              |               |            | 661    | 1880.0      | 24.8                        | 15.7      |               |           |
|              |               |            | 810    | 1909.8      | 24.7                        | 15.7      |               |           |
|              |               | 2          | 512    | 1850.2      | 23.1                        | 17.1      | 25.0          | 19.0      |
|              |               |            | 661    | 1880.0      | 23.0                        | 17.0      |               |           |
|              |               |            | 810    | 1909.8      | 22.9                        | 16.9      |               |           |
|              |               | 3          | 512    | 1850.2      | 21.2                        | 16.9      | 23.0          | 18.7      |
|              |               |            | 661    | 1880.0      | 20.9                        | 16.6      |               |           |
|              |               |            | 810    | 1909.8      | 20.8                        | 16.6      |               |           |
|              |               | 4          | 512    | 1850.2      | 20.2                        | 17.1      | 21.0          | 18.0      |
|              |               |            | 661    | 1880.0      | 20.0                        | 17.0      |               |           |
|              |               |            | 810    | 1909.8      | 19.9                        | 16.9      |               |           |



**WCDMA B5**

| Mode       |                         | UL Ch No. | Freq. (MHz) | Maximum Average Power (dBm) |     |               |
|------------|-------------------------|-----------|-------------|-----------------------------|-----|---------------|
|            |                         |           |             | Measured Pwr                | MPR | Tune-up Limit |
| Release 99 | Rel 99 (RMC, 12.2 kbps) | 4132      | 826.4       | 24.19                       | N/A | 25.0          |
|            |                         | 4183      | 836.6       | 24.13                       |     |               |
|            |                         | 4233      | 846.6       | 23.91                       |     |               |
| HSDPA      | Subtest 1               | 4132      | 826.4       | 23.20                       | 0   | 24.0          |
|            |                         | 4183      | 836.6       | 23.13                       |     |               |
|            |                         | 4233      | 846.6       | 22.90                       |     |               |
|            | Subtest 2               | 4132      | 826.4       | 23.22                       | 0   | 24.0          |
|            |                         | 4183      | 836.6       | 23.12                       |     |               |
|            |                         | 4233      | 846.6       | 22.90                       |     |               |
|            | Subtest 3               | 4132      | 826.4       | 22.71                       | 0.5 | 23.5          |
|            |                         | 4183      | 836.6       | 22.62                       |     |               |
|            |                         | 4233      | 846.6       | 22.41                       |     |               |
|            | Subtest 4               | 4132      | 826.4       | 22.74                       | 0.5 | 23.5          |
|            |                         | 4183      | 836.6       | 22.64                       |     |               |
|            |                         | 4233      | 846.6       | 22.41                       |     |               |
| HSUPA      | Subtest 1               | 4132      | 826.4       | 23.19                       | 0   | 24.0          |
|            |                         | 4183      | 836.6       | 23.13                       |     |               |
|            |                         | 4233      | 846.6       | 22.92                       |     |               |
|            | Subtest 2               | 4132      | 826.4       | 21.25                       | 2   | 22.0          |
|            |                         | 4183      | 836.6       | 21.14                       |     |               |
|            |                         | 4233      | 846.6       | 20.93                       |     |               |
|            | Subtest 3               | 4132      | 826.4       | 22.23                       | 1   | 23.0          |
|            |                         | 4183      | 836.6       | 22.13                       |     |               |
|            |                         | 4233      | 846.6       | 21.91                       |     |               |
|            | Subtest 4               | 4132      | 826.4       | 21.21                       | 2   | 22.0          |
|            |                         | 4183      | 836.6       | 21.13                       |     |               |
|            |                         | 4233      | 846.6       | 20.92                       |     |               |
|            | Subtest 5               | 4132      | 826.4       | 22.76                       | 0   | 24.0          |
|            |                         | 4183      | 836.6       | 22.71                       |     |               |
|            |                         | 4233      | 846.6       | 22.50                       |     |               |
| DC-HSDPA   | Subtest 1               | 4132      | 826.4       | 23.21                       | 0   | 24.0          |
|            |                         | 4183      | 836.6       | 23.15                       |     |               |
|            |                         | 4233      | 846.6       | 22.94                       |     |               |
|            | Subtest 2               | 4132      | 826.4       | 23.21                       | 0   | 24.0          |
|            |                         | 4183      | 836.6       | 23.14                       |     |               |
|            |                         | 4233      | 846.6       | 22.93                       |     |               |
|            | Subtest 3               | 4132      | 826.4       | 22.73                       | 0.5 | 23.5          |
|            |                         | 4183      | 836.6       | 22.63                       |     |               |
|            |                         | 4233      | 846.6       | 22.42                       |     |               |
|            | Subtest 4               | 4132      | 826.4       | 22.75                       | 0.5 | 23.5          |
|            |                         | 4183      | 836.6       | 22.63                       |     |               |
|            |                         | 4233      | 846.6       | 22.43                       |     |               |

**WCDMA B4**

| Mode       |                         | UL Ch No. | Freq. (MHz) | Maximum Average Power (dBm) |     |               |
|------------|-------------------------|-----------|-------------|-----------------------------|-----|---------------|
|            |                         |           |             | Measured Pwr                | MPR | Tune-up Limit |
| Release 99 | Rel 99 (RMC, 12.2 kbps) | 1312      | 1712.4      | 22.40                       | N/A | 23.0          |
|            |                         | 1413      | 1732.6      | 22.37                       |     |               |
|            |                         | 1513      | 1752.6      | 22.66                       |     |               |
| HSDPA      | Subtest 1               | 1312      | 1712.4      | 21.99                       | 0   | 22.5          |
|            |                         | 1413      | 1732.6      | 21.86                       |     |               |
|            |                         | 1513      | 1752.6      | 22.22                       |     |               |
|            | Subtest 2               | 1312      | 1712.4      | 22.00                       | 0   | 22.5          |
|            |                         | 1413      | 1732.6      | 21.87                       |     |               |
|            |                         | 1513      | 1752.6      | 22.20                       |     |               |
|            | Subtest 3               | 1312      | 1712.4      | 21.02                       | 0.5 | 22.0          |
|            |                         | 1413      | 1732.6      | 20.90                       |     |               |
|            |                         | 1513      | 1752.6      | 21.18                       |     |               |
|            | Subtest 4               | 1312      | 1712.4      | 21.03                       | 0.5 | 22.0          |
|            |                         | 1413      | 1732.6      | 20.88                       |     |               |
|            |                         | 1513      | 1752.6      | 21.17                       |     |               |
| HSUPA      | Subtest 1               | 1312      | 1712.4      | 22.03                       | 0   | 22.5          |
|            |                         | 1413      | 1732.6      | 21.93                       |     |               |
|            |                         | 1513      | 1752.6      | 22.25                       |     |               |
|            | Subtest 2               | 1312      | 1712.4      | 19.54                       | 2   | 20.5          |
|            |                         | 1413      | 1732.6      | 19.41                       |     |               |
|            |                         | 1513      | 1752.6      | 19.74                       |     |               |
|            | Subtest 3               | 1312      | 1712.4      | 19.54                       | 1   | 21.5          |
|            |                         | 1413      | 1732.6      | 19.51                       |     |               |
|            |                         | 1513      | 1752.6      | 19.69                       |     |               |
|            | Subtest 4               | 1312      | 1712.4      | 19.55                       | 2   | 20.5          |
|            |                         | 1413      | 1732.6      | 19.42                       |     |               |
|            |                         | 1513      | 1752.6      | 19.70                       |     |               |
|            | Subtest 5               | 1312      | 1712.4      | 21.13                       | 0   | 22.5          |
|            |                         | 1413      | 1732.6      | 21.04                       |     |               |
|            |                         | 1513      | 1752.6      | 21.31                       |     |               |
| DC-HSDPA   | Subtest 1               | 1312      | 1712.4      | 22.02                       | 0   | 22.5          |
|            |                         | 1413      | 1732.6      | 21.91                       |     |               |
|            |                         | 1513      | 1752.6      | 22.24                       |     |               |
|            | Subtest 2               | 1312      | 1712.4      | 22.08                       | 0   | 22.5          |
|            |                         | 1413      | 1732.6      | 21.89                       |     |               |
|            |                         | 1513      | 1752.6      | 22.21                       |     |               |
|            | Subtest 3               | 1312      | 1712.4      | 21.00                       | 0.5 | 22.0          |
|            |                         | 1413      | 1732.6      | 20.92                       |     |               |
|            |                         | 1513      | 1752.6      | 21.20                       |     |               |
|            | Subtest 4               | 1312      | 1712.4      | 21.05                       | 0.5 | 22.0          |
|            |                         | 1413      | 1732.6      | 20.90                       |     |               |
|            |                         | 1513      | 1752.6      | 21.17                       |     |               |

**WCDMA B2**

| Mode       |                         | UL Ch No. | Freq. (MHz) | Maximum Average Power (dBm) |     |               |
|------------|-------------------------|-----------|-------------|-----------------------------|-----|---------------|
|            |                         |           |             | Measured Pwr                | MPR | Tune-up Limit |
| Release 99 | Rel 99 (RMC, 12.2 kbps) | 9262      | 1852.4      | 22.04                       | N/A | 22.5          |
|            |                         | 9400      | 1880.0      | 22.16                       |     |               |
|            |                         | 9538      | 1907.6      | 22.07                       |     |               |
| HSDPA      | Subtest 1               | 9262      | 1852.4      | 21.60                       | 0   | 22.0          |
|            |                         | 9400      | 1880.0      | 21.69                       |     |               |
|            |                         | 9538      | 1907.6      | 21.63                       |     |               |
|            | Subtest 2               | 9262      | 1852.4      | 21.60                       | 0   | 22.0          |
|            |                         | 9400      | 1880.0      | 21.69                       |     |               |
|            |                         | 9538      | 1907.6      | 21.59                       |     |               |
|            | Subtest 3               | 9262      | 1852.4      | 20.56                       | 0.5 | 21.5          |
|            |                         | 9400      | 1880.0      | 20.65                       |     |               |
|            |                         | 9538      | 1907.6      | 20.57                       |     |               |
|            | Subtest 4               | 9262      | 1852.4      | 20.58                       | 0.5 | 21.5          |
|            |                         | 9400      | 1880.0      | 20.63                       |     |               |
|            |                         | 9538      | 1907.6      | 20.55                       |     |               |
| HSUPA      | Subtest 1               | 9262      | 1852.4      | 21.62                       | 0   | 22.0          |
|            |                         | 9400      | 1880.0      | 21.71                       |     |               |
|            |                         | 9538      | 1907.6      | 21.65                       |     |               |
|            | Subtest 2               | 9262      | 1852.4      | 19.09                       | 2   | 20.0          |
|            |                         | 9400      | 1880.0      | 19.17                       |     |               |
|            |                         | 9538      | 1907.6      | 19.11                       |     |               |
|            | Subtest 3               | 9262      | 1852.4      | 19.11                       | 1   | 21.0          |
|            |                         | 9400      | 1880.0      | 19.20                       |     |               |
|            |                         | 9538      | 1907.6      | 19.16                       |     |               |
|            | Subtest 4               | 9262      | 1852.4      | 19.09                       | 2   | 20.0          |
|            |                         | 9400      | 1880.0      | 19.20                       |     |               |
|            |                         | 9538      | 1907.6      | 19.11                       |     |               |
|            | Subtest 5               | 9262      | 1852.4      | 20.69                       | 0   | 22.0          |
|            |                         | 9400      | 1880.0      | 20.84                       |     |               |
|            |                         | 9538      | 1907.6      | 20.75                       |     |               |
| DC-HSDPA   | Subtest 1               | 9262      | 1852.4      | 21.60                       | 0   | 22.0          |
|            |                         | 9400      | 1880.0      | 21.71                       |     |               |
|            |                         | 9538      | 1907.6      | 21.62                       |     |               |
|            | Subtest 2               | 9262      | 1852.4      | 21.57                       | 0   | 22.0          |
|            |                         | 9400      | 1880.0      | 21.67                       |     |               |
|            |                         | 9538      | 1907.6      | 21.59                       |     |               |
|            | Subtest 3               | 9262      | 1852.4      | 20.57                       | 0.5 | 21.5          |
|            |                         | 9400      | 1880.0      | 20.64                       |     |               |
|            |                         | 9538      | 1907.6      | 20.57                       |     |               |
|            | Subtest 4               | 9262      | 1852.4      | 20.57                       | 0.5 | 21.5          |
|            |                         | 9400      | 1880.0      | 20.65                       |     |               |
|            |                         | 9538      | 1907.6      | 20.61                       |     |               |

**LTE Band 2**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |          |          |      |               |
|----------|--------|---------------|-----------|-----------------------------|----------|----------|------|---------------|
|          |        |               |           | Measured Pwr (dBm)          |          |          | MPR  | Tune-up Limit |
|          |        |               |           | 18700                       | 18900    | 19100    |      |               |
|          |        |               |           | 1860 MHz                    | 1880 MHz | 1900 MHz |      |               |
| 20 MHz   | QPSK   | 1             | 0         | 21.94                       | 21.85    | 21.75    | 0.0  | 22.7          |
|          |        | 1             | 49        | 21.80                       | 21.91    | 21.71    | 0.0  | 22.7          |
|          |        | 1             | 99        | 21.84                       | 21.93    | 21.82    | 0.0  | 22.7          |
|          |        | 50            | 0         | 20.76                       | 20.79    | 20.76    | 1.0  | 21.7          |
|          |        | 50            | 24        | 20.95                       | 20.94    | 20.89    | 1.0  | 21.7          |
|          |        | 50            | 50        | 20.92                       | 20.93    | 20.90    | 1.0  | 21.7          |
|          | 16QAM  | 100           | 0         | 20.91                       | 20.86    | 20.82    | 1.0  | 21.7          |
|          |        | 1             | 0         | 21.31                       | 21.41    | 21.33    | 1.0  | 21.7          |
|          |        | 1             | 49        | 21.24                       | 21.49    | 21.28    | 1.0  | 21.7          |
|          |        | 1             | 99        | 21.23                       | 21.51    | 21.41    | 1.0  | 21.7          |
|          |        | 50            | 0         | 19.84                       | 19.84    | 19.77    | 2.0  | 20.7          |
|          |        | 50            | 24        | 19.97                       | 19.98    | 19.94    | 2.0  | 20.7          |
|          | 64QAM  | 50            | 50        | 19.92                       | 19.97    | 19.91    | 2.0  | 20.7          |
|          |        | 100           | 0         | 19.88                       | 19.89    | 19.84    | 2.0  | 20.7          |
|          |        | 1             | 0         | 20.26                       | 20.56    | 20.18    | 2.0  | 20.7          |
|          |        | 1             | 49        | 20.23                       | 20.67    | 20.18    | 2.0  | 20.7          |
|          |        | 1             | 99        | 20.27                       | 20.62    | 20.09    | 2.0  | 20.7          |
|          |        | 50            | 0         | 18.88                       | 18.87    | 18.89    | 3.0  | 19.7          |
|          | 256QAM | 50            | 24        | 18.98                       | 19.01    | 19.01    | 3.0  | 19.7          |
|          |        | 50            | 50        | 18.96                       | 18.99    | 18.99    | 3.0  | 19.7          |
|          |        | 100           | 0         | 18.88                       | 18.90    | 18.97    | 3.0  | 19.7          |
|          |        | 1             | 0         | 16.74                       | 16.71    | 16.63    | 5.0  | 17.7          |
|          |        | 1             | 49        | 17.06                       | 17.20    | 16.91    | 5.0  | 17.7          |
|          |        | 1             | 99        | 17.01                       | 17.01    | 16.71    | 5.0  | 17.7          |
| 15 MHz   | QPSK   | 50            | 0         | 16.79                       | 16.88    | 16.93    | 5.0  | 17.7          |
|          |        | 50            | 24        | 16.96                       | 17.01    | 17.06    | 5.0  | 17.7          |
|          |        | 50            | 50        | 16.93                       | 17.00    | 17.04    | 5.0  | 17.7          |
|          |        | 100           | 0         | 16.85                       | 16.90    | 16.98    | 5.0  | 17.7          |
|          |        | 1             | 0         | 21.63                       | 21.83    | 21.85    | 0.0  | 22.7          |
|          |        | 1             | 37        | 21.71                       | 21.83    | 21.80    | 0.0  | 22.7          |
|          | 16QAM  | 1             | 74        | 21.75                       | 21.82    | 21.82    | 0.0  | 22.7          |
|          |        | 36            | 0         | 20.76                       | 20.80    | 20.80    | 1.0  | 21.7          |
|          |        | 36            | 20        | 20.83                       | 20.90    | 20.87    | 1.0  | 21.7          |
|          |        | 36            | 39        | 20.86                       | 20.95    | 20.88    | 1.0  | 21.7          |
|          |        | 75            | 0         | 20.79                       | 20.84    | 20.83    | 1.0  | 21.7          |
|          |        | 1             | 0         | 20.98                       | 20.87    | 21.28    | 1.0  | 21.7          |
|          | 64QAM  | 1             | 37        | 21.21                       | 20.90    | 21.29    | 1.0  | 21.7          |
|          |        | 1             | 74        | 21.13                       | 20.89    | 21.25    | 1.0  | 21.7          |
|          |        | 36            | 0         | 19.86                       | 19.81    | 19.80    | 2.0  | 20.7          |
|          |        | 36            | 20        | 19.93                       | 19.91    | 19.87    | 2.0  | 20.7          |
|          |        | 36            | 39        | 19.96                       | 20.00    | 19.85    | 2.0  | 20.7          |
|          |        | 75            | 0         | 19.84                       | 19.87    | 19.84    | 2.0  | 20.7          |
|          | 256QAM | 1             | 0         | 20.31                       | 20.26    | 20.13    | 2.0  | 20.7          |
|          |        | 1             | 37        | 20.50                       | 20.32    | 20.07    | 2.0  | 20.7          |
|          |        | 1             | 74        | 20.47                       | 20.33    | 20.06    | 2.0  | 20.7          |
|          |        | 36            | 0         | 18.83                       | 18.90    | 18.96    | 3.0  | 19.7          |
|          |        | 36            | 20        | 18.92                       | 18.99    | 19.02    | 3.0  | 19.7          |
|          |        | 36            | 39        | 18.92                       | 19.08    | 19.02    | 3.0  | 19.7          |
| 256QAM   | 75     | 0             | 18.92     | 18.92                       | 18.94    | 3.0      | 19.7 |               |
|          | 1      | 0             | 16.99     | 17.15                       | 16.62    | 5.0      | 17.7 |               |
|          | 1      | 37            | 17.11     | 17.41                       | 16.78    | 5.0      | 17.7 |               |
|          | 1      | 74            | 17.14     | 17.37                       | 16.74    | 5.0      | 17.7 |               |
|          | 36     | 0             | 16.82     | 16.93                       | 16.94    | 5.0      | 17.7 |               |
|          | 36     | 20            | 16.92     | 17.02                       | 16.98    | 5.0      | 17.7 |               |
| 256QAM   | 36     | 39            | 16.95     | 17.08                       | 16.99    | 5.0      | 17.7 |               |
|          | 75     | 0             | 16.88     | 16.97                       | 16.96    | 5.0      | 17.7 |               |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|----------|------------|------|---------------|
|          |        |               |           | 18650              | 18900    | 19150      |      |               |
|          |        |               |           | 1855 MHz           | 1880 MHz | 1905 MHz   |      |               |
| 10 MHz   | QPSK   | 1             | 0         | 21.64              | 21.70    | 21.98      | 0.0  | 22.7          |
|          |        | 1             | 25        | 22.02              | 22.10    | 21.95      | 0.0  | 22.7          |
|          |        | 1             | 49        | 21.73              | 21.84    | 21.88      | 0.0  | 22.7          |
|          |        | 25            | 0         | 21.01              | 21.00    | 20.94      | 1.0  | 21.7          |
|          |        | 25            | 12        | 21.10              | 21.15    | 21.07      | 1.0  | 21.7          |
|          |        | 25            | 25        | 21.00              | 21.13    | 21.00      | 1.0  | 21.7          |
|          |        | 50            | 0         | 20.97              | 21.05    | 20.98      | 1.0  | 21.7          |
|          | 16QAM  | 1             | 0         | 21.04              | 20.68    | 21.09      | 1.0  | 21.7          |
|          |        | 1             | 25        | 21.40              | 21.10    | 21.04      | 1.0  | 21.7          |
|          |        | 1             | 49        | 21.14              | 20.79    | 20.98      | 1.0  | 21.7          |
|          |        | 25            | 0         | 20.03              | 20.07    | 20.09      | 2.0  | 20.7          |
|          |        | 25            | 12        | 20.13              | 20.19    | 20.18      | 2.0  | 20.7          |
|          |        | 25            | 25        | 20.06              | 20.17    | 20.06      | 2.0  | 20.7          |
|          |        | 50            | 0         | 20.00              | 20.02    | 20.03      | 2.0  | 20.7          |
|          | 64QAM  | 1             | 0         | 19.99              | 20.12    | 20.32      | 2.0  | 20.7          |
|          |        | 1             | 25        | 20.34              | 20.58    | 20.31      | 2.0  | 20.7          |
|          |        | 1             | 49        | 20.03              | 20.26    | 20.27      | 2.0  | 20.7          |
|          |        | 25            | 0         | 19.11              | 19.10    | 19.12      | 3.0  | 19.7          |
|          |        | 25            | 12        | 19.19              | 19.23    | 19.18      | 3.0  | 19.7          |
|          |        | 25            | 25        | 19.07              | 19.19    | 19.09      | 3.0  | 19.7          |
|          |        | 50            | 0         | 19.06              | 19.07    | 19.07      | 3.0  | 19.7          |
|          | 256QAM | 1             | 0         | 16.74              | 17.27    | 16.62      | 5.0  | 17.7          |
|          |        | 1             | 25        | 17.12              | 17.68    | 16.94      | 5.0  | 17.7          |
|          |        | 1             | 49        | 16.87              | 17.46    | 16.67      | 5.0  | 17.7          |
| 25       |        | 0             | 17.09     | 17.11              | 17.05    | 5.0        | 17.7 |               |
| 25       |        | 12            | 17.21     | 17.20              | 17.17    | 5.0        | 17.7 |               |
| 25       |        | 25            | 17.11     | 17.18              | 17.04    | 5.0        | 17.7 |               |
| 50       |        | 0             | 17.04     | 17.08              | 17.03    | 5.0        | 17.7 |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|          |        |               |           | 18625              | 18900    | 19175      |      |               |
|          |        |               |           | 1852.5 MHz         | 1880 MHz | 1907.5 MHz |      |               |
| 5 MHz    | QPSK   | 1             | 0         | 22.01              | 22.02    | 21.90      | 0.0  | 22.7          |
|          |        | 1             | 12        | 22.01              | 22.10    | 21.98      | 0.0  | 22.7          |
|          |        | 1             | 24        | 21.93              | 21.99    | 21.94      | 0.0  | 22.7          |
|          |        | 12            | 0         | 21.09              | 21.16    | 21.05      | 1.0  | 21.7          |
|          |        | 12            | 7         | 21.10              | 21.18    | 21.11      | 1.0  | 21.7          |
|          |        | 12            | 13        | 21.05              | 21.16    | 21.01      | 1.0  | 21.7          |
|          |        | 25            | 0         | 21.08              | 21.09    | 21.03      | 1.0  | 21.7          |
|          | 16QAM  | 1             | 0         | 21.11              | 21.11    | 21.43      | 1.0  | 21.7          |
|          |        | 1             | 12        | 21.12              | 21.19    | 21.51      | 1.0  | 21.7          |
|          |        | 1             | 24        | 21.07              | 21.18    | 21.38      | 1.0  | 21.7          |
|          |        | 12            | 0         | 20.16              | 20.17    | 20.19      | 2.0  | 20.7          |
|          |        | 12            | 7         | 20.25              | 20.20    | 20.27      | 2.0  | 20.7          |
|          |        | 12            | 13        | 20.16              | 20.24    | 20.17      | 2.0  | 20.7          |
|          |        | 25            | 0         | 20.13              | 20.07    | 20.12      | 2.0  | 20.7          |
|          | 64QAM  | 1             | 0         | 20.26              | 20.02    | 20.44      | 2.0  | 20.7          |
|          |        | 1             | 12        | 20.29              | 20.18    | 20.45      | 2.0  | 20.7          |
|          |        | 1             | 24        | 20.19              | 20.01    | 20.32      | 2.0  | 20.7          |
|          |        | 12            | 0         | 19.18              | 19.23    | 19.12      | 3.0  | 19.7          |
|          |        | 12            | 7         | 19.21              | 19.24    | 19.11      | 3.0  | 19.7          |
|          |        | 12            | 13        | 19.12              | 19.23    | 19.05      | 3.0  | 19.7          |
|          |        | 25            | 0         | 19.09              | 19.10    | 19.01      | 3.0  | 19.7          |
|          | 256QAM | 1             | 0         | 17.07              | 16.79    | 17.17      | 5.0  | 17.7          |
|          |        | 1             | 12        | 17.19              | 17.02    | 17.24      | 5.0  | 17.7          |
|          |        | 1             | 24        | 17.05              | 16.83    | 17.14      | 5.0  | 17.7          |
| 12       |        | 0             | 17.13     | 17.16              | 17.09    | 5.0        | 17.7 |               |
| 12       |        | 7             | 17.16     | 17.22              | 17.14    | 5.0        | 17.7 |               |
| 12       |        | 13            | 17.09     | 17.20              | 17.05    | 5.0        | 17.7 |               |
| 25       |        | 0             | 17.10     | 17.21              | 17.08    | 5.0        | 17.7 |               |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|----------|------------|------|---------------|
|          |        |               |           | 18615              | 18900    | 19185      |      |               |
|          |        |               |           | 1851.5 MHz         | 1880 MHz | 1908.5 MHz |      |               |
| 3 MHz    | QPSK   | 1             | 0         | 21.99              | 22.08    | 22.03      | 0.0  | 22.7          |
|          |        | 1             | 8         | 21.81              | 21.98    | 21.94      | 0.0  | 22.7          |
|          |        | 1             | 14        | 21.93              | 22.00    | 21.94      | 0.0  | 22.7          |
|          |        | 8             | 0         | 21.07              | 21.11    | 21.08      | 1.0  | 21.7          |
|          |        | 8             | 4         | 21.09              | 21.15    | 21.09      | 1.0  | 21.7          |
|          |        | 8             | 7         | 21.09              | 21.19    | 21.07      | 1.0  | 21.7          |
|          |        | 15            | 0         | 21.09              | 21.11    | 21.04      | 1.0  | 21.7          |
|          | 16QAM  | 1             | 0         | 20.98              | 21.16    | 21.45      | 1.0  | 21.7          |
|          |        | 1             | 8         | 20.94              | 21.10    | 21.37      | 1.0  | 21.7          |
|          |        | 1             | 14        | 20.88              | 21.09    | 21.37      | 1.0  | 21.7          |
|          |        | 8             | 0         | 20.18              | 20.18    | 20.10      | 2.0  | 20.7          |
|          |        | 8             | 4         | 20.21              | 20.22    | 20.18      | 2.0  | 20.7          |
|          |        | 8             | 7         | 20.21              | 20.30    | 20.18      | 2.0  | 20.7          |
|          |        | 15            | 0         | 20.10              | 20.10    | 20.10      | 2.0  | 20.7          |
|          | 64QAM  | 1             | 0         | 20.50              | 20.58    | 20.15      | 2.0  | 20.7          |
|          |        | 1             | 8         | 20.35              | 20.70    | 20.15      | 2.0  | 20.7          |
|          |        | 1             | 14        | 20.32              | 20.56    | 20.10      | 2.0  | 20.7          |
|          |        | 8             | 0         | 19.08              | 19.22    | 19.16      | 3.0  | 19.7          |
|          |        | 8             | 4         | 19.10              | 19.25    | 19.13      | 3.0  | 19.7          |
|          |        | 8             | 7         | 19.06              | 19.33    | 19.12      | 3.0  | 19.7          |
|          |        | 15            | 0         | 19.17              | 19.14    | 19.14      | 3.0  | 19.7          |
|          | 256QAM | 1             | 0         | 17.13              | 17.54    | 16.90      | 5.0  | 17.7          |
|          |        | 1             | 8         | 17.13              | 17.64    | 16.84      | 5.0  | 17.7          |
|          |        | 1             | 14        | 17.02              | 17.58    | 16.78      | 5.0  | 17.7          |
| 8        |        | 0             | 17.22     | 17.24              | 17.00    | 5.0        | 17.7 |               |
| 8        |        | 4             | 17.27     | 17.23              | 17.02    | 5.0        | 17.7 |               |
| 8        |        | 7             | 17.29     | 17.30              | 17.04    | 5.0        | 17.7 |               |
| 15       |        | 0             | 17.16     | 17.21              | 17.18    | 5.0        | 17.7 |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|          |        |               |           | 18607              | 18900    | 19193      |      |               |
|          |        |               |           | 1850.7 MHz         | 1880 MHz | 1909.3 MHz |      |               |
| 1.4 MHz  | QPSK   | 1             | 0         | 21.98              | 21.96    | 21.90      | 0.0  | 22.7          |
|          |        | 1             | 3         | 22.00              | 22.03    | 21.90      | 0.0  | 22.7          |
|          |        | 1             | 5         | 21.93              | 21.96    | 21.84      | 0.0  | 22.7          |
|          |        | 3             | 0         | 21.92              | 21.97    | 21.92      | 0.0  | 22.7          |
|          |        | 3             | 1         | 21.92              | 22.02    | 21.98      | 0.0  | 22.7          |
|          |        | 3             | 3         | 21.91              | 21.97    | 21.94      | 0.0  | 22.7          |
|          |        | 6             | 0         | 20.99              | 20.98    | 20.98      | 1.0  | 21.7          |
|          | 16QAM  | 1             | 0         | 21.10              | 21.04    | 21.41      | 1.0  | 21.7          |
|          |        | 1             | 3         | 21.17              | 21.12    | 21.44      | 1.0  | 21.7          |
|          |        | 1             | 5         | 21.09              | 21.06    | 21.34      | 1.0  | 21.7          |
|          |        | 3             | 0         | 20.99              | 21.23    | 21.16      | 1.0  | 21.7          |
|          |        | 3             | 1         | 21.03              | 21.25    | 21.20      | 1.0  | 21.7          |
|          |        | 3             | 3         | 21.04              | 21.33    | 21.11      | 1.0  | 21.7          |
|          |        | 6             | 0         | 20.17              | 20.22    | 19.89      | 2.0  | 20.7          |
|          | 64QAM  | 1             | 0         | 20.40              | 20.58    | 20.12      | 2.0  | 20.7          |
|          |        | 1             | 3         | 20.38              | 20.70    | 20.13      | 2.0  | 20.7          |
|          |        | 1             | 5         | 20.27              | 20.60    | 20.02      | 2.0  | 20.7          |
|          |        | 3             | 0         | 20.01              | 20.33    | 20.13      | 2.0  | 20.7          |
|          |        | 3             | 1         | 20.02              | 20.43    | 20.19      | 2.0  | 20.7          |
|          |        | 3             | 3         | 19.99              | 20.42    | 20.18      | 2.0  | 20.7          |
|          |        | 6             | 0         | 19.11              | 19.03    | 19.32      | 3.0  | 19.7          |
|          | 256QAM | 1             | 0         | 17.14              | 17.23    | 17.70      | 5.0  | 17.7          |
|          |        | 1             | 3         | 17.20              | 17.42    | 16.94      | 5.0  | 17.7          |
|          |        | 1             | 5         | 17.08              | 17.27    | 16.89      | 5.0  | 17.7          |
| 3        |        | 0             | 17.14     | 17.00              | 16.93    | 5.0        | 17.7 |               |
| 3        |        | 1             | 17.13     | 17.17              | 16.93    | 5.0        | 17.7 |               |
| 3        |        | 3             | 17.13     | 17.09              | 16.94    | 5.0        | 17.7 |               |
| 6        |        | 0             | 17.13     | 17.01              | 17.15    | 5.0        | 17.7 |               |

**LTE Band 4**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |            |            |     |               |
|----------|--------|---------------|-----------|-----------------------------|------------|------------|-----|---------------|
|          |        |               |           | Measured Pwr (dBm)          |            |            | MPR | Tune-up Limit |
|          |        |               |           | 20050                       | 20175      | 20300      |     |               |
|          |        |               |           | 1720 MHz                    | 1732.5 MHz | 1745 MHz   |     |               |
| 20 MHz   | QPSK   | 1             | 0         | 22.06                       | 22.03      | 22.10      | 0.0 | 23.0          |
|          |        | 1             | 49        | 22.33                       | 22.31      | 22.36      | 0.0 | 23.0          |
|          |        | 1             | 99        | 22.04                       | 22.13      | 22.28      | 0.0 | 23.0          |
|          |        | 50            | 0         | 21.33                       | 21.22      | 21.45      | 1.0 | 22.0          |
|          |        | 50            | 24        | 21.36                       | 21.42      | 21.59      | 1.0 | 22.0          |
|          |        | 50            | 50        | 21.28                       | 21.38      | 21.66      | 1.0 | 22.0          |
|          |        | 100           | 0         | 21.31                       | 21.36      | 21.52      | 1.0 | 22.0          |
|          | 16QAM  | 1             | 0         | 21.56                       | 21.58      | 21.49      | 1.0 | 22.0          |
|          |        | 1             | 49        | 21.80                       | 21.86      | 21.99      | 1.0 | 22.0          |
|          |        | 1             | 99        | 21.68                       | 21.67      | 21.91      | 1.0 | 22.0          |
|          |        | 50            | 0         | 20.37                       | 20.25      | 20.46      | 2.0 | 21.0          |
|          |        | 50            | 24        | 20.44                       | 20.44      | 20.58      | 2.0 | 21.0          |
|          |        | 50            | 50        | 20.35                       | 20.40      | 20.67      | 2.0 | 21.0          |
|          |        | 100           | 0         | 20.31                       | 20.37      | 20.52      | 2.0 | 21.0          |
|          | 64QAM  | 1             | 0         | 20.51                       | 20.32      | 20.48      | 2.0 | 21.0          |
|          |        | 1             | 49        | 20.69                       | 20.66      | 20.68      | 2.0 | 21.0          |
|          |        | 1             | 99        | 20.43                       | 20.60      | 20.92      | 2.0 | 21.0          |
|          |        | 50            | 0         | 19.41                       | 19.33      | 19.55      | 3.0 | 20.0          |
|          |        | 50            | 24        | 19.40                       | 19.52      | 19.68      | 3.0 | 20.0          |
|          |        | 50            | 50        | 19.38                       | 19.43      | 19.73      | 3.0 | 20.0          |
|          |        | 100           | 0         | 19.34                       | 19.41      | 19.57      | 3.0 | 20.0          |
|          | 256QAM | 1             | 0         | 17.31                       | 17.23      | 17.27      | 5.0 | 18.0          |
|          |        | 1             | 49        | 17.60                       | 17.56      | 17.84      | 5.0 | 18.0          |
|          |        | 1             | 99        | 17.27                       | 17.37      | 17.76      | 5.0 | 18.0          |
|          |        | 50            | 0         | 17.34                       | 17.27      | 17.40      | 5.0 | 18.0          |
|          |        | 50            | 24        | 17.39                       | 17.47      | 17.59      | 5.0 | 18.0          |
|          |        | 50            | 50        | 17.36                       | 17.40      | 17.66      | 5.0 | 18.0          |
|          |        | 100           | 0         | 17.29                       | 17.33      | 17.53      | 5.0 | 18.0          |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm)          |            |            | MPR | Tune-up Limit |
|          |        |               |           | 20025                       | 20175      | 20325      |     |               |
|          |        |               |           | 1717.5 MHz                  | 1732.5 MHz | 1747.5 MHz |     |               |
|          |        |               |           | 15 MHz                      | QPSK       | 1          | 0   | 22.13         |
| 1        | 37     | 22.25         | 22.23     |                             |            | 22.27      | 0.0 | 23.0          |
| 1        | 74     | 22.20         | 22.15     |                             |            | 22.24      | 0.0 | 23.0          |
| 36       | 0      | 21.27         | 21.23     |                             |            | 21.25      | 1.0 | 22.0          |
| 36       | 20     | 21.38         | 21.30     |                             |            | 21.42      | 1.0 | 22.0          |
| 36       | 39     | 21.35         | 21.35     |                             |            | 21.38      | 1.0 | 22.0          |
| 75       | 0      | 21.30         | 21.31     |                             |            | 21.34      | 1.0 | 22.0          |
| 16QAM    | 1      | 0             | 21.51     |                             | 21.07      | 21.51      | 1.0 | 22.0          |
|          | 1      | 37            | 21.77     |                             | 21.28      | 21.76      | 1.0 | 22.0          |
|          | 1      | 74            | 21.70     |                             | 21.20      | 21.62      | 1.0 | 22.0          |
|          | 36     | 0             | 20.26     |                             | 20.22      | 20.33      | 2.0 | 21.0          |
|          | 36     | 20            | 20.32     |                             | 20.31      | 20.45      | 2.0 | 21.0          |
|          | 36     | 39            | 20.30     |                             | 20.39      | 20.50      | 2.0 | 21.0          |
|          | 75     | 0             | 20.32     |                             | 20.35      | 20.39      | 2.0 | 21.0          |
| 64QAM    | 1      | 0             | 20.55     |                             | 20.33      | 20.14      | 2.0 | 21.0          |
|          | 1      | 37            | 20.70     |                             | 20.56      | 20.38      | 2.0 | 21.0          |
|          | 1      | 74            | 20.62     |                             | 20.50      | 20.32      | 2.0 | 21.0          |
|          | 36     | 0             | 19.31     |                             | 19.34      | 19.38      | 3.0 | 20.0          |
|          | 36     | 20            | 19.39     |                             | 19.38      | 19.54      | 3.0 | 20.0          |
|          | 36     | 39            | 19.37     |                             | 19.46      | 19.52      | 3.0 | 20.0          |
|          | 75     | 0             | 19.35     |                             | 19.40      | 19.41      | 3.0 | 20.0          |
| 256QAM   | 1      | 0             | 17.47     |                             | 17.52      | 17.00      | 5.0 | 18.0          |
|          | 1      | 37            | 17.57     |                             | 17.75      | 17.26      | 5.0 | 18.0          |
|          | 1      | 74            | 17.59     |                             | 17.71      | 17.21      | 5.0 | 18.0          |
|          | 36     | 0             | 17.31     |                             | 17.26      | 17.30      | 5.0 | 18.0          |
|          | 36     | 20            | 17.38     |                             | 17.38      | 17.43      | 5.0 | 18.0          |
|          | 36     | 39            | 17.36     |                             | 17.42      | 17.44      | 5.0 | 18.0          |
|          | 75     | 0             | 17.34     |                             | 17.40      | 17.40      | 5.0 | 18.0          |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |            |            | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|------------|------------|------|---------------|
|          |        |               |           | 20000              | 20175      | 20350      |      |               |
|          |        |               |           | 1715 MHz           | 1732.5 MHz | 1750 MHz   |      |               |
| 10 MHz   | QPSK   | 1             | 0         | 22.13              | 22.14      | 22.17      | 0.0  | 23.0          |
|          |        | 1             | 25        | 22.43              | 22.45      | 22.51      | 0.0  | 23.0          |
|          |        | 1             | 49        | 22.11              | 22.18      | 22.23      | 0.0  | 23.0          |
|          |        | 25            | 0         | 21.46              | 21.37      | 21.44      | 1.0  | 22.0          |
|          |        | 25            | 12        | 21.56              | 21.52      | 21.52      | 1.0  | 22.0          |
|          |        | 25            | 25        | 21.43              | 21.47      | 21.50      | 1.0  | 22.0          |
|          |        | 50            | 0         | 21.45              | 21.46      | 21.39      | 1.0  | 22.0          |
|          | 16QAM  | 1             | 0         | 21.26              | 21.13      | 21.63      | 1.0  | 22.0          |
|          |        | 1             | 25        | 21.55              | 21.45      | 21.95      | 1.0  | 22.0          |
|          |        | 1             | 49        | 21.25              | 21.14      | 21.66      | 1.0  | 22.0          |
|          |        | 25            | 0         | 20.56              | 20.44      | 20.48      | 2.0  | 21.0          |
|          |        | 25            | 12        | 20.61              | 20.57      | 20.63      | 2.0  | 21.0          |
|          |        | 25            | 25        | 20.55              | 20.49      | 20.59      | 2.0  | 21.0          |
|          |        | 50            | 0         | 20.46              | 20.49      | 20.43      | 2.0  | 21.0          |
|          | 64QAM  | 1             | 0         | 20.07              | 20.42      | 20.20      | 2.0  | 21.0          |
|          |        | 1             | 25        | 20.34              | 20.75      | 20.55      | 2.0  | 21.0          |
|          |        | 1             | 49        | 20.08              | 20.50      | 20.29      | 2.0  | 21.0          |
|          |        | 25            | 0         | 19.55              | 19.46      | 19.59      | 3.0  | 20.0          |
|          |        | 25            | 12        | 19.67              | 19.55      | 19.62      | 3.0  | 20.0          |
|          |        | 25            | 25        | 19.57              | 19.52      | 19.59      | 3.0  | 20.0          |
|          |        | 50            | 0         | 19.50              | 19.48      | 19.47      | 3.0  | 20.0          |
|          | 256QAM | 1             | 0         | 17.32              | 17.71      | 17.11      | 5.0  | 18.0          |
|          |        | 1             | 25        | 17.59              | 17.91      | 17.44      | 5.0  | 18.0          |
|          |        | 1             | 49        | 17.33              | 17.83      | 17.16      | 5.0  | 18.0          |
| 25       |        | 0             | 17.58     | 17.48              | 17.47      | 5.0        | 18.0 |               |
| 25       |        | 12            | 17.68     | 17.55              | 17.59      | 5.0        | 18.0 |               |
| 25       |        | 25            | 17.59     | 17.55              | 17.58      | 5.0        | 18.0 |               |
| 50       |        | 0             | 17.50     | 17.52              | 17.44      | 5.0        | 18.0 |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |            |            | MPR  | Tune-up Limit |
|          |        |               |           | 19975              | 20175      | 20375      |      |               |
|          |        |               |           | 1712.5 MHz         | 1732.5 MHz | 1752.5 MHz |      |               |
| 5 MHz    | QPSK   | 1             | 0         | 22.46              | 22.48      | 22.46      | 0.0  | 23.0          |
|          |        | 1             | 12        | 22.50              | 22.49      | 22.50      | 0.0  | 23.0          |
|          |        | 1             | 24        | 22.37              | 22.42      | 22.45      | 0.0  | 23.0          |
|          |        | 12            | 0         | 21.55              | 21.45      | 21.51      | 1.0  | 22.0          |
|          |        | 12            | 7         | 21.58              | 21.51      | 21.64      | 1.0  | 22.0          |
|          |        | 12            | 13        | 21.53              | 21.51      | 21.58      | 1.0  | 22.0          |
|          |        | 25            | 0         | 21.51              | 21.46      | 21.58      | 1.0  | 22.0          |
|          | 16QAM  | 1             | 0         | 21.60              | 21.59      | 21.88      | 1.0  | 22.0          |
|          |        | 1             | 12        | 21.61              | 21.59      | 21.89      | 1.0  | 22.0          |
|          |        | 1             | 24        | 21.52              | 21.54      | 21.91      | 1.0  | 22.0          |
|          |        | 12            | 0         | 20.57              | 20.52      | 20.68      | 2.0  | 21.0          |
|          |        | 12            | 7         | 20.62              | 20.61      | 20.79      | 2.0  | 21.0          |
|          |        | 12            | 13        | 20.56              | 20.58      | 20.72      | 2.0  | 21.0          |
|          |        | 25            | 0         | 20.49              | 20.50      | 20.66      | 2.0  | 21.0          |
|          | 64QAM  | 1             | 0         | 20.72              | 20.67      | 20.80      | 2.0  | 21.0          |
|          |        | 1             | 12        | 20.73              | 20.88      | 20.85      | 2.0  | 21.0          |
|          |        | 1             | 24        | 20.63              | 20.71      | 20.77      | 2.0  | 21.0          |
|          |        | 12            | 0         | 19.72              | 19.42      | 19.56      | 3.0  | 20.0          |
|          |        | 12            | 7         | 19.73              | 19.42      | 19.65      | 3.0  | 20.0          |
|          |        | 12            | 13        | 19.69              | 19.43      | 19.59      | 3.0  | 20.0          |
|          |        | 25            | 0         | 19.56              | 19.50      | 19.60      | 3.0  | 20.0          |
|          | 256QAM | 1             | 0         | 17.60              | 17.19      | 17.63      | 5.0  | 18.0          |
|          |        | 1             | 12        | 17.66              | 17.36      | 17.76      | 5.0  | 18.0          |
|          |        | 1             | 24        | 17.53              | 17.21      | 17.69      | 5.0  | 18.0          |
| 12       |        | 0             | 17.61     | 17.53              | 17.55      | 5.0        | 18.0 |               |
| 12       |        | 7             | 17.64     | 17.56              | 17.69      | 5.0        | 18.0 |               |
| 12       |        | 13            | 17.59     | 17.56              | 17.62      | 5.0        | 18.0 |               |
| 25       |        | 0             | 17.61     | 17.54              | 17.59      | 5.0        | 18.0 |               |



| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |            |            | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|------------|------------|------|---------------|
|          |        |               |           | 19965              | 20175      | 20385      |      |               |
|          |        |               |           | 1711.5 MHz         | 1732.5 MHz | 1753.5 MHz |      |               |
| 3 MHz    | QPSK   | 1             | 0         | 22.47              | 22.42      | 22.49      | 0.0  | 23.0          |
|          |        | 1             | 8         | 22.35              | 22.31      | 22.48      | 0.0  | 23.0          |
|          |        | 1             | 14        | 22.36              | 22.40      | 22.49      | 0.0  | 23.0          |
|          |        | 8             | 0         | 21.57              | 21.47      | 21.49      | 1.0  | 22.0          |
|          |        | 8             | 4         | 21.57              | 21.41      | 21.60      | 1.0  | 22.0          |
|          |        | 8             | 7         | 21.58              | 21.54      | 21.59      | 1.0  | 22.0          |
|          |        | 15            | 0         | 21.54              | 21.44      | 21.56      | 1.0  | 22.0          |
|          | 16QAM  | 1             | 0         | 21.53              | 21.39      | 21.94      | 1.0  | 22.0          |
|          |        | 1             | 8         | 21.51              | 21.42      | 21.87      | 1.0  | 22.0          |
|          |        | 1             | 14        | 21.49              | 21.34      | 21.89      | 1.0  | 22.0          |
|          |        | 8             | 0         | 20.58              | 20.56      | 20.57      | 2.0  | 21.0          |
|          |        | 8             | 4         | 20.64              | 20.59      | 20.69      | 2.0  | 21.0          |
|          |        | 8             | 7         | 20.62              | 20.69      | 20.70      | 2.0  | 21.0          |
|          |        | 15            | 0         | 20.55              | 20.51      | 20.62      | 2.0  | 21.0          |
|          | 64QAM  | 1             | 0         | 20.41              | 20.67      | 20.49      | 2.0  | 21.0          |
|          |        | 1             | 8         | 20.37              | 20.76      | 20.66      | 2.0  | 21.0          |
|          |        | 1             | 14        | 20.33              | 20.67      | 20.52      | 2.0  | 21.0          |
|          |        | 8             | 0         | 19.64              | 19.63      | 19.60      | 3.0  | 20.0          |
|          |        | 8             | 4         | 19.64              | 19.67      | 19.69      | 3.0  | 20.0          |
|          |        | 8             | 7         | 19.66              | 19.75      | 19.68      | 3.0  | 20.0          |
|          |        | 15            | 0         | 19.58              | 19.48      | 19.70      | 3.0  | 20.0          |
|          | 256QAM | 1             | 0         | 17.57              | 17.94      | 17.37      | 5.0  | 18.0          |
|          |        | 1             | 8         | 17.60              | 18.00      | 17.40      | 5.0  | 18.0          |
|          |        | 1             | 14        | 17.51              | 17.97      | 17.37      | 5.0  | 18.0          |
| 8        |        | 0             | 17.68     | 17.54              | 17.44      | 5.0        | 18.0 |               |
| 8        |        | 4             | 17.74     | 17.59              | 17.59      | 5.0        | 18.0 |               |
| 8        |        | 7             | 17.76     | 17.65              | 17.59      | 5.0        | 18.0 |               |
| 15       |        | 0             | 17.63     | 17.56              | 17.73      | 5.0        | 18.0 |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |            |            | MPR  | Tune-up Limit |
|          |        |               |           | 19957              | 20175      | 20393      |      |               |
|          |        |               |           | 1710.7 MHz         | 1732.5 MHz | 1754.3 MHz |      |               |
| 1.4 MHz  | QPSK   | 1             | 0         | 22.37              | 22.42      | 22.40      | 0.0  | 23.0          |
|          |        | 1             | 3         | 22.40              | 22.47      | 22.45      | 0.0  | 23.0          |
|          |        | 1             | 5         | 22.35              | 22.39      | 22.37      | 0.0  | 23.0          |
|          |        | 3             | 0         | 22.35              | 22.37      | 22.43      | 0.0  | 23.0          |
|          |        | 3             | 1         | 22.40              | 22.38      | 22.46      | 0.0  | 23.0          |
|          |        | 3             | 3         | 22.36              | 22.38      | 22.51      | 0.0  | 23.0          |
|          |        | 6             | 0         | 21.43              | 21.43      | 21.44      | 1.0  | 22.0          |
|          | 16QAM  | 1             | 0         | 21.45              | 21.57      | 21.99      | 1.0  | 22.0          |
|          |        | 1             | 3         | 21.51              | 21.65      | 21.92      | 1.0  | 22.0          |
|          |        | 1             | 5         | 21.45              | 21.56      | 21.90      | 1.0  | 22.0          |
|          |        | 3             | 0         | 21.64              | 21.48      | 21.69      | 1.0  | 22.0          |
|          |        | 3             | 1         | 21.67              | 21.50      | 21.65      | 1.0  | 22.0          |
|          |        | 3             | 3         | 21.69              | 21.56      | 21.67      | 1.0  | 22.0          |
|          |        | 6             | 0         | 20.65              | 20.64      | 20.31      | 2.0  | 21.0          |
|          | 64QAM  | 1             | 0         | 20.73              | 20.51      | 20.44      | 2.0  | 21.0          |
|          |        | 1             | 3         | 20.81              | 20.57      | 20.53      | 2.0  | 21.0          |
|          |        | 1             | 5         | 20.66              | 20.45      | 20.46      | 2.0  | 21.0          |
|          |        | 3             | 0         | 20.57              | 20.64      | 20.32      | 2.0  | 21.0          |
|          |        | 3             | 1         | 20.62              | 20.77      | 20.36      | 2.0  | 21.0          |
|          |        | 3             | 3         | 20.58              | 20.76      | 20.41      | 2.0  | 21.0          |
|          |        | 6             | 0         | 19.59              | 19.61      | 19.47      | 3.0  | 20.0          |
|          | 256QAM | 1             | 0         | 17.72              | 17.87      | 17.58      | 5.0  | 18.0          |
|          |        | 1             | 3         | 17.84              | 17.44      | 17.74      | 5.0  | 18.0          |
|          |        | 1             | 5         | 17.68              | 17.38      | 17.62      | 5.0  | 18.0          |
| 3        |        | 0             | 17.46     | 17.40              | 17.59      | 5.0        | 18.0 |               |
| 3        |        | 1             | 17.52     | 17.42              | 17.62      | 5.0        | 18.0 |               |
| 3        |        | 3             | 17.45     | 17.45              | 17.66      | 5.0        | 18.0 |               |
| 6        |        | 0             | 17.48     | 17.63              | 17.58      | 5.0        | 18.0 |               |

**LTE Band 5**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |                    |                  |      |               |
|----------|--------|---------------|-----------|-----------------------------|--------------------|------------------|------|---------------|
|          |        |               |           | Measured Pwr (dBm)          |                    |                  | MPR  | Tune-up Limit |
|          |        |               |           | 20450<br>829 MHz            | 20525<br>836.5 MHz | 20600<br>844 MHz |      |               |
| 10 MHz   | QPSK   | 1             | 0         | 24.01                       | 23.91              | 23.81            | 0.0  | 25.0          |
|          |        | 1             | 25        | 23.98                       | 23.86              | 23.71            | 0.0  | 25.0          |
|          |        | 1             | 49        | 23.90                       | 23.81              | 23.71            | 0.0  | 25.0          |
|          |        | 25            | 0         | 23.05                       | 22.86              | 22.74            | 1.0  | 24.0          |
|          |        | 25            | 12        | 23.03                       | 22.94              | 22.76            | 1.0  | 24.0          |
|          |        | 25            | 25        | 22.98                       | 22.87              | 22.76            | 1.0  | 24.0          |
|          | 16QAM  | 50            | 0         | 22.97                       | 22.76              | 22.69            | 1.0  | 24.0          |
|          |        | 1             | 0         | 22.99                       | 22.89              | 22.89            | 1.0  | 24.0          |
|          |        | 1             | 25        | 22.95                       | 22.80              | 22.81            | 1.0  | 24.0          |
|          |        | 1             | 49        | 22.90                       | 22.76              | 22.76            | 1.0  | 24.0          |
|          |        | 25            | 0         | 22.09                       | 21.91              | 21.88            | 2.0  | 23.0          |
|          |        | 25            | 12        | 22.06                       | 22.00              | 21.88            | 2.0  | 23.0          |
|          | 64QAM  | 25            | 25        | 22.00                       | 21.95              | 21.92            | 2.0  | 23.0          |
|          |        | 50            | 0         | 21.96                       | 21.77              | 21.76            | 2.0  | 23.0          |
|          |        | 1             | 0         | 22.42                       | 22.21              | 22.17            | 2.0  | 23.0          |
|          |        | 1             | 25        | 22.41                       | 22.26              | 22.19            | 2.0  | 23.0          |
|          |        | 1             | 49        | 22.37                       | 22.23              | 22.18            | 2.0  | 23.0          |
|          |        | 25            | 0         | 21.15                       | 20.95              | 20.84            | 3.0  | 22.0          |
|          | 256QAM | 25            | 12        | 21.08                       | 21.03              | 20.84            | 3.0  | 22.0          |
|          |        | 25            | 25        | 21.09                       | 20.96              | 20.83            | 3.0  | 22.0          |
|          |        | 50            | 0         | 21.02                       | 20.80              | 20.70            | 3.0  | 22.0          |
|          |        | 1             | 0         | 19.31                       | 18.84              | 19.01            | 5.0  | 20.0          |
|          |        | 1             | 25        | 19.55                       | 19.03              | 19.27            | 5.0  | 20.0          |
|          |        | 1             | 49        | 19.15                       | 18.83              | 19.02            | 5.0  | 20.0          |
| 5 MHz    | QPSK   | 25            | 0         | 19.06                       | 18.58              | 18.80            | 5.0  | 20.0          |
|          |        | 25            | 12        | 19.10                       | 18.63              | 18.86            | 5.0  | 20.0          |
|          |        | 25            | 25        | 19.02                       | 18.63              | 18.87            | 5.0  | 20.0          |
|          |        | 50            | 0         | 19.04                       | 18.52              | 18.74            | 5.0  | 20.0          |
|          |        | 1             | 0         | 23.93                       | 23.76              | 23.74            | 0.0  | 25.0          |
|          |        | 1             | 12        | 24.01                       | 23.88              | 23.67            | 0.0  | 25.0          |
|          | 16QAM  | 1             | 24        | 23.96                       | 23.84              | 23.70            | 0.0  | 25.0          |
|          |        | 12            | 0         | 22.84                       | 22.86              | 22.67            | 1.0  | 24.0          |
|          |        | 12            | 7         | 23.01                       | 22.97              | 22.70            | 1.0  | 24.0          |
|          |        | 12            | 13        | 22.96                       | 22.95              | 22.76            | 1.0  | 24.0          |
|          |        | 25            | 0         | 22.93                       | 22.91              | 22.68            | 1.0  | 24.0          |
|          |        | 1             | 0         | 23.31                       | 22.84              | 22.92            | 1.0  | 24.0          |
|          | 64QAM  | 1             | 12        | 23.37                       | 22.89              | 22.84            | 1.0  | 24.0          |
|          |        | 1             | 24        | 23.33                       | 22.92              | 22.88            | 1.0  | 24.0          |
|          |        | 12            | 0         | 22.01                       | 21.84              | 21.75            | 2.0  | 23.0          |
|          |        | 12            | 7         | 22.16                       | 22.00              | 21.80            | 2.0  | 23.0          |
|          |        | 12            | 13        | 22.12                       | 21.94              | 21.84            | 2.0  | 23.0          |
|          |        | 25            | 0         | 22.00                       | 21.89              | 21.71            | 2.0  | 23.0          |
|          | 256QAM | 1             | 0         | 22.04                       | 21.76              | 22.07            | 2.0  | 23.0          |
|          |        | 1             | 12        | 22.16                       | 21.94              | 22.16            | 2.0  | 23.0          |
|          |        | 1             | 24        | 22.11                       | 21.85              | 22.11            | 2.0  | 23.0          |
|          |        | 12            | 0         | 20.91                       | 20.93              | 20.74            | 3.0  | 22.0          |
|          |        | 12            | 7         | 21.04                       | 21.06              | 20.76            | 3.0  | 22.0          |
|          |        | 12            | 13        | 21.04                       | 20.99              | 20.71            | 3.0  | 22.0          |
| QPSK     | 25     | 0             | 20.95     | 20.90                       | 20.66              | 3.0              | 22.0 |               |
|          | 1      | 0             | 18.60     | 18.54                       | 18.57              | 5.0              | 20.0 |               |
|          | 1      | 12            | 18.77     | 18.70                       | 18.57              | 5.0              | 20.0 |               |
|          | 1      | 24            | 18.65     | 18.62                       | 18.54              | 5.0              | 20.0 |               |
|          | 12     | 0             | 18.61     | 18.56                       | 18.48              | 5.0              | 20.0 |               |
|          | 12     | 7             | 18.75     | 18.63                       | 18.54              | 5.0              | 20.0 |               |
| QPSK     | 12     | 13            | 18.70     | 18.56                       | 18.50              | 5.0              | 20.0 |               |
|          | 25     | 0             | 18.70     | 18.56                       | 18.46              | 5.0              | 20.0 |               |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |           |           | MPR   | Tune-up Limit |      |
|----------|--------|---------------|-----------|--------------------|-----------|-----------|-------|---------------|------|
|          |        |               |           | 20415              | 20525     | 20635     |       |               |      |
|          |        |               |           | 825.5 MHz          | 836.5 MHz | 847.5 MHz |       |               |      |
| 3 MHz    | QPSK   | 1             | 0         | 23.86              | 23.84     | 23.69     | 0.0   | 25.0          |      |
|          |        | 1             | 8         | 23.81              | 23.77     | 23.63     | 0.0   | 25.0          |      |
|          |        | 1             | 14        | 23.88              | 23.85     | 23.69     | 0.0   | 25.0          |      |
|          |        | 8             | 0         | 22.94              | 22.89     | 22.72     | 1.0   | 24.0          |      |
|          |        | 8             | 4         | 23.00              | 22.92     | 22.75     | 1.0   | 24.0          |      |
|          |        | 8             | 7         | 22.97              | 22.96     | 22.77     | 1.0   | 24.0          |      |
|          | 16QAM  | 15            | 0         | 22.95              | 22.91     | 22.73     | 1.0   | 24.0          |      |
|          |        | 1             | 0         | 22.90              | 22.79     | 23.06     | 1.0   | 24.0          |      |
|          |        | 1             | 8         | 22.86              | 22.75     | 22.94     | 1.0   | 24.0          |      |
|          |        | 1             | 14        | 22.91              | 22.81     | 23.04     | 1.0   | 24.0          |      |
|          |        | 8             | 0         | 22.00              | 21.99     | 21.75     | 2.0   | 23.0          |      |
|          |        | 8             | 4         | 22.06              | 22.01     | 21.84     | 2.0   | 23.0          |      |
|          | 64QAM  | 8             | 7         | 22.08              | 22.06     | 21.85     | 2.0   | 23.0          |      |
|          |        | 15            | 0         | 21.91              | 21.95     | 21.78     | 2.0   | 23.0          |      |
|          |        | 1             | 0         | 22.19              | 22.32     | 21.88     | 2.0   | 23.0          |      |
|          |        | 1             | 8         | 22.13              | 22.40     | 21.86     | 2.0   | 23.0          |      |
|          |        | 1             | 14        | 22.23              | 22.30     | 21.85     | 2.0   | 23.0          |      |
|          |        | 8             | 0         | 20.92              | 20.99     | 20.81     | 3.0   | 22.0          |      |
|          | 256QAM | 8             | 4         | 20.95              | 21.04     | 20.85     | 3.0   | 22.0          |      |
|          |        | 8             | 7         | 20.94              | 21.06     | 20.82     | 3.0   | 22.0          |      |
|          |        | 15            | 0         | 21.05              | 20.94     | 20.82     | 3.0   | 22.0          |      |
|          |        | 1             | 0         | 18.41              | 18.91     | 18.39     | 5.0   | 20.0          |      |
|          |        | 1             | 8         | 18.46              | 19.00     | 18.52     | 5.0   | 20.0          |      |
|          |        | 1             | 14        | 18.43              | 18.99     | 18.43     | 5.0   | 20.0          |      |
| 1.4 MHz  | QPSK   | 8             | 0         | 18.59              | 18.64     | 18.46     | 5.0   | 20.0          |      |
|          |        | 8             | 4         | 18.65              | 18.64     | 18.65     | 5.0   | 20.0          |      |
|          |        | 8             | 7         | 18.65              | 18.65     | 18.64     | 5.0   | 20.0          |      |
|          |        | 15            | 0         | 18.75              | 18.59     | 18.45     | 5.0   | 20.0          |      |
|          |        | 16QAM         | 1         | 0                  | 23.85     | 23.85     | 23.55 | 0.0           | 25.0 |
|          |        |               | 1         | 3                  | 23.94     | 23.77     | 23.61 | 0.0           | 25.0 |
|          | 1      |               | 5         | 23.86              | 23.74     | 23.56     | 0.0   | 25.0          |      |
|          | 3      |               | 0         | 23.84              | 23.78     | 23.54     | 0.0   | 25.0          |      |
|          | 3      |               | 1         | 23.86              | 23.88     | 23.58     | 0.0   | 25.0          |      |
|          | 3      |               | 3         | 23.85              | 23.88     | 23.59     | 0.0   | 25.0          |      |
|          | 6      |               | 0         | 22.85              | 22.86     | 22.62     | 1.0   | 24.0          |      |
|          | 64QAM  |               | 1         | 0                  | 22.95     | 23.26     | 22.63 | 1.0           | 24.0 |
|          |        |               | 1         | 3                  | 23.08     | 23.34     | 22.64 | 1.0           | 24.0 |
|          |        |               | 1         | 5                  | 23.04     | 23.29     | 22.59 | 1.0           | 24.0 |
|          |        |               | 3         | 0                  | 22.94     | 23.05     | 22.84 | 1.0           | 24.0 |
|          |        |               | 3         | 1                  | 22.96     | 23.05     | 22.81 | 1.0           | 24.0 |
|          |        | 3             | 3         | 22.90              | 23.12     | 22.82     | 1.0   | 24.0          |      |
|          | 256QAM | 6             | 0         | 22.04              | 21.77     | 21.82     | 2.0   | 23.0          |      |
|          |        | 1             | 0         | 22.18              | 21.96     | 21.86     | 2.0   | 23.0          |      |
|          |        | 1             | 3         | 22.33              | 22.02     | 21.89     | 2.0   | 23.0          |      |
|          |        | 1             | 5         | 22.24              | 21.96     | 21.89     | 2.0   | 23.0          |      |
|          |        | 3             | 0         | 22.16              | 21.98     | 21.64     | 2.0   | 23.0          |      |
|          |        | 3             | 1         | 22.17              | 22.04     | 21.69     | 2.0   | 23.0          |      |
|          | 16QAM  | 3             | 3         | 22.18              | 22.04     | 21.68     | 2.0   | 23.0          |      |
| 6        |        | 0             | 20.86     | 21.16              | 20.73     | 3.0       | 22.0  |               |      |
| 1        |        | 0             | 18.61     | 18.52              | 18.46     | 5.0       | 20.0  |               |      |
| 1        |        | 3             | 18.83     | 18.63              | 18.60     | 5.0       | 20.0  |               |      |
| 1        |        | 5             | 18.68     | 18.63              | 18.48     | 5.0       | 20.0  |               |      |
| 3        |        | 0             | 18.56     | 18.51              | 18.30     | 5.0       | 20.0  |               |      |
| 256QAM   |        | 3             | 1         | 18.61              | 18.49     | 18.37     | 5.0   | 20.0          |      |
|          |        | 3             | 3         | 18.57              | 18.55     | 18.28     | 5.0   | 20.0          |      |
|          |        | 6             | 0         | 18.54              | 18.54     | 18.31     | 5.0   | 20.0          |      |

**LTE Band 12**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |           |           |     |               |
|----------|--------|---------------|-----------|-----------------------------|-----------|-----------|-----|---------------|
|          |        |               |           | Measured Pwr (dBm)          |           |           | MPR | Tune-up Limit |
|          |        |               |           | 23060                       | 23095     | 23130     |     |               |
|          |        |               |           | 704 MHz                     | 707.5 MHz | 711 MHz   |     |               |
| 10 MHz   | QPSK   | 1             | 0         | 23.82                       | 23.18     | 23.85     | 0.0 | 25.0          |
|          |        | 1             | 25        | 23.71                       | 23.19     | 23.88     | 0.0 | 25.0          |
|          |        | 1             | 49        | 23.82                       | 23.22     | 23.88     | 0.0 | 25.0          |
|          |        | 25            | 0         | 22.77                       | 22.28     | 22.83     | 1.0 | 24.0          |
|          |        | 25            | 12        | 22.94                       | 22.34     | 22.98     | 1.0 | 24.0          |
|          |        | 25            | 25        | 22.89                       | 22.26     | 22.91     | 1.0 | 24.0          |
|          |        | 50            | 0         | 22.86                       | 22.26     | 22.98     | 1.0 | 24.0          |
|          | 16QAM  | 1             | 0         | 22.82                       | 22.26     | 23.17     | 1.0 | 24.0          |
|          |        | 1             | 25        | 22.87                       | 22.17     | 23.35     | 1.0 | 24.0          |
|          |        | 1             | 49        | 22.85                       | 22.19     | 23.21     | 1.0 | 24.0          |
|          |        | 25            | 0         | 21.81                       | 21.30     | 21.86     | 2.0 | 23.0          |
|          |        | 25            | 12        | 22.00                       | 21.39     | 21.98     | 2.0 | 23.0          |
|          |        | 25            | 25        | 21.93                       | 21.30     | 22.06     | 2.0 | 23.0          |
|          |        | 50            | 0         | 21.77                       | 21.27     | 21.95     | 2.0 | 23.0          |
|          | 64QAM  | 1             | 0         | 22.10                       | 21.74     | 22.21     | 2.0 | 23.0          |
|          |        | 1             | 25        | 22.24                       | 21.64     | 22.37     | 2.0 | 23.0          |
|          |        | 1             | 49        | 22.30                       | 21.73     | 22.36     | 2.0 | 23.0          |
|          |        | 25            | 0         | 20.82                       | 20.34     | 20.90     | 3.0 | 22.0          |
|          |        | 25            | 12        | 21.02                       | 20.39     | 20.97     | 3.0 | 22.0          |
|          |        | 25            | 25        | 20.90                       | 20.33     | 21.01     | 3.0 | 22.0          |
|          |        | 50            | 0         | 20.88                       | 20.33     | 20.99     | 3.0 | 22.0          |
|          | 256QAM | 1             | 0         | 19.02                       | 18.66     | 19.05     | 5.0 | 20.0          |
|          |        | 1             | 25        | 19.29                       | 18.80     | 19.40     | 5.0 | 20.0          |
|          |        | 1             | 49        | 19.27                       | 18.77     | 19.41     | 5.0 | 20.0          |
|          |        | 25            | 0         | 18.86                       | 18.41     | 18.91     | 5.0 | 20.0          |
|          |        | 25            | 12        | 18.99                       | 18.51     | 19.02     | 5.0 | 20.0          |
|          |        | 25            | 25        | 18.97                       | 18.48     | 18.97     | 5.0 | 20.0          |
|          |        | 50            | 0         | 18.88                       | 18.41     | 18.95     | 5.0 | 20.0          |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm)          |           |           | MPR | Tune-up Limit |
|          |        |               |           | 23035                       | 23095     | 23155     |     |               |
|          |        |               |           | 701.5 MHz                   | 707.5 MHz | 713.5 MHz |     |               |
|          |        |               |           | 5 MHz                       | QPSK      | 1         | 0   | 23.39         |
| 1        | 12     | 23.30         | 23.24     |                             |           | 23.33     | 0.0 | 25.0          |
| 1        | 24     | 23.24         | 23.17     |                             |           | 23.28     | 0.0 | 25.0          |
| 12       | 0      | 22.41         | 22.33     |                             |           | 22.29     | 1.0 | 24.0          |
| 12       | 7      | 22.46         | 22.36     |                             |           | 22.40     | 1.0 | 24.0          |
| 12       | 13     | 22.37         | 22.31     |                             |           | 22.35     | 1.0 | 24.0          |
| 25       | 0      | 22.40         | 22.34     |                             |           | 22.40     | 1.0 | 24.0          |
| 16QAM    | 1      | 0             | 22.84     |                             | 22.30     | 22.49     | 1.0 | 24.0          |
|          | 1      | 12            | 22.85     |                             | 22.24     | 22.43     | 1.0 | 24.0          |
|          | 1      | 24            | 22.78     |                             | 22.32     | 22.45     | 1.0 | 24.0          |
|          | 12     | 0             | 21.61     |                             | 21.36     | 21.37     | 2.0 | 23.0          |
|          | 12     | 7             | 21.59     |                             | 21.37     | 21.48     | 2.0 | 23.0          |
|          | 12     | 13            | 21.56     |                             | 21.31     | 21.43     | 2.0 | 23.0          |
|          | 25     | 0             | 21.48     |                             | 21.25     | 21.39     | 2.0 | 23.0          |
| 64QAM    | 1      | 0             | 21.70     |                             | 21.27     | 21.74     | 2.0 | 23.0          |
|          | 1      | 12            | 21.60     |                             | 21.29     | 21.79     | 2.0 | 23.0          |
|          | 1      | 24            | 21.50     |                             | 21.19     | 21.68     | 2.0 | 23.0          |
|          | 12     | 0             | 20.56     |                             | 20.42     | 20.34     | 3.0 | 22.0          |
|          | 12     | 7             | 20.55     |                             | 20.40     | 20.44     | 3.0 | 22.0          |
|          | 12     | 13            | 20.48     |                             | 20.41     | 20.41     | 3.0 | 22.0          |
|          | 25     | 0             | 20.50     |                             | 20.31     | 20.39     | 3.0 | 22.0          |
| 256QAM   | 1      | 0             | 18.56     |                             | 18.49     | 18.48     | 5.0 | 20.0          |
|          | 1      | 12            | 18.66     |                             | 18.42     | 18.54     | 5.0 | 20.0          |
|          | 1      | 24            | 18.34     |                             | 18.44     | 18.53     | 5.0 | 20.0          |
|          | 12     | 0             | 18.49     |                             | 18.41     | 18.38     | 5.0 | 20.0          |
|          | 12     | 7             | 18.51     |                             | 18.41     | 18.40     | 5.0 | 20.0          |
|          | 12     | 13            | 18.45     |                             | 18.36     | 18.43     | 5.0 | 20.0          |
|          | 25     | 0             | 18.42     |                             | 18.35     | 18.45     | 5.0 | 20.0          |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |           |           | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|-----------|-----------|------|---------------|
|          |        |               |           | 23025              | 23095     | 23165     |      |               |
|          |        |               |           | 700.5 MHz          | 707.5 MHz | 714.5 MHz |      |               |
| 3 MHz    | QPSK   | 1             | 0         | 23.29              | 23.17     | 23.32     | 0.0  | 25.0          |
|          |        | 1             | 8         | 23.15              | 23.04     | 23.24     | 0.0  | 25.0          |
|          |        | 1             | 14        | 23.21              | 23.14     | 23.29     | 0.0  | 25.0          |
|          |        | 8             | 0         | 22.36              | 22.25     | 22.27     | 1.0  | 24.0          |
|          |        | 8             | 4         | 22.35              | 22.24     | 22.28     | 1.0  | 24.0          |
|          |        | 8             | 7         | 22.31              | 22.31     | 22.37     | 1.0  | 24.0          |
|          | 16QAM  | 15            | 0         | 22.27              | 22.26     | 22.28     | 1.0  | 24.0          |
|          |        | 1             | 0         | 22.43              | 22.15     | 22.72     | 1.0  | 24.0          |
|          |        | 1             | 8         | 22.34              | 22.05     | 22.64     | 1.0  | 24.0          |
|          |        | 1             | 14        | 22.27              | 22.10     | 22.64     | 1.0  | 24.0          |
|          |        | 8             | 0         | 21.38              | 21.37     | 21.30     | 2.0  | 23.0          |
|          |        | 8             | 4         | 21.33              | 21.40     | 21.36     | 2.0  | 23.0          |
|          | 64QAM  | 8             | 7         | 21.37              | 21.40     | 21.47     | 2.0  | 23.0          |
|          |        | 15            | 0         | 21.26              | 21.32     | 21.32     | 2.0  | 23.0          |
|          |        | 1             | 0         | 21.87              | 21.75     | 21.38     | 2.0  | 23.0          |
|          |        | 1             | 8         | 21.65              | 21.82     | 21.45     | 2.0  | 23.0          |
|          |        | 1             | 14        | 21.62              | 21.73     | 21.50     | 2.0  | 23.0          |
|          |        | 8             | 0         | 20.44              | 20.40     | 20.40     | 3.0  | 22.0          |
|          | 256QAM | 8             | 4         | 20.35              | 20.42     | 20.41     | 3.0  | 22.0          |
|          |        | 8             | 7         | 20.36              | 20.42     | 20.47     | 3.0  | 22.0          |
|          |        | 15            | 0         | 20.47              | 20.33     | 20.37     | 3.0  | 22.0          |
|          |        | 1             | 0         | 18.53              | 18.76     | 18.43     | 5.0  | 20.0          |
|          |        | 1             | 8         | 18.55              | 18.68     | 18.52     | 5.0  | 20.0          |
|          |        | 1             | 14        | 18.45              | 18.67     | 18.45     | 5.0  | 20.0          |
| 1.4 MHz  | QPSK   | 8             | 0         | 18.58              | 18.47     | 18.50     | 5.0  | 20.0          |
|          |        | 8             | 4         | 18.64              | 18.46     | 18.56     | 5.0  | 20.0          |
|          |        | 8             | 7         | 18.66              | 18.45     | 18.64     | 5.0  | 20.0          |
|          |        | 15            | 0         | 18.52              | 18.44     | 18.41     | 5.0  | 20.0          |
|          |        | 1             | 0         | 23.24              | 23.07     | 23.10     | 0.0  | 25.0          |
|          |        | 1             | 3         | 23.30              | 23.06     | 23.14     | 0.0  | 25.0          |
|          | 16QAM  | 1             | 5         | 23.22              | 23.03     | 23.14     | 0.0  | 25.0          |
|          |        | 3             | 0         | 23.16              | 23.07     | 23.10     | 0.0  | 25.0          |
|          |        | 3             | 1         | 23.24              | 23.10     | 23.16     | 0.0  | 25.0          |
|          |        | 3             | 3         | 23.22              | 23.06     | 23.14     | 0.0  | 25.0          |
|          |        | 6             | 0         | 22.30              | 22.17     | 22.26     | 1.0  | 24.0          |
|          |        | 1             | 0         | 22.37              | 22.54     | 22.12     | 1.0  | 24.0          |
|          | 64QAM  | 1             | 3         | 22.49              | 22.57     | 22.24     | 1.0  | 24.0          |
|          |        | 1             | 5         | 22.34              | 22.53     | 22.17     | 1.0  | 24.0          |
|          |        | 3             | 0         | 22.26              | 22.34     | 22.37     | 1.0  | 24.0          |
|          |        | 3             | 1         | 22.26              | 22.38     | 22.40     | 1.0  | 24.0          |
|          |        | 3             | 3         | 22.30              | 22.32     | 22.42     | 1.0  | 24.0          |
|          |        | 6             | 0         | 21.45              | 21.09     | 21.47     | 2.0  | 23.0          |
|          | 256QAM | 1             | 0         | 21.89              | 21.27     | 21.42     | 2.0  | 23.0          |
|          |        | 1             | 3         | 21.99              | 21.34     | 21.60     | 2.0  | 23.0          |
|          |        | 1             | 5         | 21.87              | 21.21     | 21.51     | 2.0  | 23.0          |
|          |        | 3             | 0         | 21.65              | 21.31     | 21.20     | 2.0  | 23.0          |
|          |        | 3             | 1         | 21.73              | 21.37     | 21.21     | 2.0  | 23.0          |
|          |        | 3             | 3         | 21.68              | 21.38     | 21.28     | 2.0  | 23.0          |
| 256QAM   | 6      | 0             | 20.37     | 20.54              | 20.41     | 3.0       | 22.0 |               |
|          | 1      | 0             | 18.57     | 18.39              | 18.44     | 5.0       | 20.0 |               |
|          | 1      | 3             | 18.68     | 18.50              | 18.52     | 5.0       | 20.0 |               |
|          | 1      | 5             | 18.51     | 18.33              | 18.50     | 5.0       | 20.0 |               |
|          | 3      | 0             | 18.38     | 18.18              | 18.27     | 5.0       | 20.0 |               |
|          | 3      | 1             | 18.40     | 18.28              | 18.31     | 5.0       | 20.0 |               |
| 256QAM   | 3      | 3             | 18.29     | 18.24              | 18.32     | 5.0       | 20.0 |               |
|          | 6      | 0             | 18.39     | 18.22              | 18.27     | 5.0       | 20.0 |               |

**LTE Band 13**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |         |       |       |               |      |
|----------|--------|---------------|-----------|-----------------------------|---------|-------|-------|---------------|------|
|          |        |               |           | Measured Pwr (dBm)          |         |       | MPR   | Tune-up Limit |      |
|          |        |               |           | 23230                       | 782 MHz | 23255 |       |               |      |
| 10 MHz   | QPSK   | 1             | 0         |                             | 23.56   |       | 0.0   | 25.0          |      |
|          |        | 1             | 25        |                             | 23.61   |       | 0.0   | 25.0          |      |
|          |        | 1             | 49        |                             | 23.51   |       | 0.0   | 25.0          |      |
|          |        | 25            | 0         |                             | 22.65   |       | 1.0   | 24.0          |      |
|          |        | 25            | 12        |                             | 22.65   |       | 1.0   | 24.0          |      |
|          |        | 25            | 25        |                             | 22.69   |       | 1.0   | 24.0          |      |
|          | 16QAM  | 50            | 0         |                             | 22.54   |       | 1.0   | 24.0          |      |
|          |        | 1             | 0         |                             | 22.69   |       | 1.0   | 24.0          |      |
|          |        | 1             | 25        |                             | 22.65   |       | 1.0   | 24.0          |      |
|          |        | 1             | 49        |                             | 22.59   |       | 1.0   | 24.0          |      |
|          |        | 25            | 0         |                             | 21.74   |       | 2.0   | 23.0          |      |
|          |        | 25            | 12        |                             | 21.71   |       | 2.0   | 23.0          |      |
|          | 64QAM  | 25            | 25        |                             | 21.80   |       | 2.0   | 23.0          |      |
|          |        | 50            | 0         |                             | 21.60   |       | 2.0   | 23.0          |      |
|          |        | 1             | 0         |                             | 21.98   |       | 2.0   | 23.0          |      |
|          |        | 1             | 25        |                             | 22.00   |       | 2.0   | 23.0          |      |
|          |        | 1             | 49        |                             | 21.93   |       | 2.0   | 23.0          |      |
|          |        | 25            | 0         |                             | 20.72   |       | 3.0   | 22.0          |      |
|          | 256QAM | 25            | 12        |                             | 20.74   |       | 3.0   | 22.0          |      |
|          |        | 25            | 25        |                             | 20.80   |       | 3.0   | 22.0          |      |
|          |        | 50            | 0         |                             | 20.67   |       | 3.0   | 22.0          |      |
|          |        | 1             | 0         |                             | 18.36   |       | 5.0   | 20.0          |      |
|          |        | 1             | 25        |                             | 18.62   |       | 5.0   | 20.0          |      |
|          |        | 1             | 49        |                             | 18.29   |       | 5.0   | 20.0          |      |
| 5 MHz    | QPSK   | 25            | 0         |                             | 18.71   |       | 5.0   | 20.0          |      |
|          |        | 25            | 12        |                             | 18.84   |       | 5.0   | 20.0          |      |
|          |        | 25            | 25        |                             | 18.74   |       | 5.0   | 20.0          |      |
|          |        | 50            | 0         |                             | 18.74   |       | 5.0   | 20.0          |      |
|          |        | 1             | 0         |                             | 23.68   | 23.60 | 23.70 | 0.0           | 25.0 |
|          |        | 1             | 12        |                             | 23.66   | 23.64 | 23.64 | 0.0           | 25.0 |
|          | 16QAM  | 1             | 24        |                             | 23.69   | 23.62 | 23.63 | 0.0           | 25.0 |
|          |        | 12            | 0         |                             | 22.65   | 22.58 | 22.67 | 1.0           | 24.0 |
|          |        | 12            | 7         |                             | 22.73   | 22.67 | 22.71 | 1.0           | 24.0 |
|          |        | 12            | 13        |                             | 22.71   | 22.66 | 22.69 | 1.0           | 24.0 |
|          |        | 25            | 0         |                             | 22.73   | 22.63 | 22.64 | 1.0           | 24.0 |
|          |        | 1             | 0         |                             | 22.80   | 23.18 | 22.82 | 1.0           | 24.0 |
|          | 64QAM  | 1             | 12        |                             | 22.77   | 23.21 | 22.67 | 1.0           | 24.0 |
|          |        | 1             | 24        |                             | 22.81   | 23.14 | 22.72 | 1.0           | 24.0 |
|          |        | 12            | 0         |                             | 21.77   | 21.70 | 21.71 | 2.0           | 23.0 |
|          |        | 12            | 7         |                             | 21.79   | 21.80 | 21.77 | 2.0           | 23.0 |
|          |        | 12            | 13        |                             | 21.76   | 21.83 | 21.70 | 2.0           | 23.0 |
|          |        | 25            | 0         |                             | 21.72   | 21.68 | 21.62 | 2.0           | 23.0 |
|          | 256QAM | 1             | 0         |                             | 21.57   | 22.04 | 21.96 | 2.0           | 23.0 |
|          |        | 1             | 12        |                             | 21.70   | 22.10 | 21.95 | 2.0           | 23.0 |
|          |        | 1             | 24        |                             | 21.69   | 22.06 | 21.91 | 2.0           | 23.0 |
|          |        | 12            | 0         |                             | 20.72   | 20.64 | 20.76 | 3.0           | 22.0 |
|          |        | 12            | 7         |                             | 20.80   | 20.68 | 20.79 | 3.0           | 22.0 |
|          |        | 12            | 13        |                             | 20.79   | 20.76 | 20.75 | 3.0           | 22.0 |
| QPSK     | 25     | 0             |           | 20.66                       | 20.61   | 20.72 | 3.0   | 22.0          |      |
|          | 1      | 0             |           | 18.70                       | 18.47   | 19.26 | 5.0   | 20.0          |      |
|          | 1      | 12            |           | 19.08                       | 18.62   | 19.36 | 5.0   | 20.0          |      |
|          | 1      | 24            |           | 18.97                       | 18.43   | 19.19 | 5.0   | 20.0          |      |
|          | 12     | 0             |           | 19.11                       | 18.80   | 19.27 | 5.0   | 20.0          |      |
|          | 12     | 7             |           | 19.29                       | 18.79   | 19.30 | 5.0   | 20.0          |      |
| QPSK     | 12     | 13            |           | 19.28                       | 18.76   | 19.23 | 5.0   | 20.0          |      |
|          | 25     | 0             |           | 19.42                       | 18.82   | 19.28 | 5.0   | 20.0          |      |

**LTE Band 17**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |         |         |      |               |
|----------|--------|---------------|-----------|-----------------------------|---------|---------|------|---------------|
|          |        |               |           | Measured Pwr (dBm)          |         |         | MPR  | Tune-up Limit |
|          |        |               |           | 23780                       | 23790   | 23800   |      |               |
|          |        |               |           | 709 MHz                     | 710 MHz | 711 MHz |      |               |
| 10 MHz   | QPSK   | 1             | 0         | 23.59                       | 23.27   | 23.66   | 0.0  | 25.0          |
|          |        | 1             | 25        | 23.62                       | 23.24   | 23.67   | 0.0  | 25.0          |
|          |        | 1             | 49        | 23.69                       | 23.32   | 23.64   | 0.0  | 25.0          |
|          |        | 25            | 0         | 22.65                       | 22.29   | 22.71   | 1.0  | 24.0          |
|          |        | 25            | 12        | 22.73                       | 22.35   | 22.73   | 1.0  | 24.0          |
|          |        | 25            | 25        | 22.71                       | 22.33   | 22.78   | 1.0  | 24.0          |
|          | 16QAM  | 50            | 0         | 22.75                       | 22.37   | 22.72   | 1.0  | 24.0          |
|          |        | 1             | 0         | 22.72                       | 22.27   | 22.67   | 1.0  | 24.0          |
|          |        | 1             | 25        | 22.65                       | 22.23   | 22.68   | 1.0  | 24.0          |
|          |        | 1             | 49        | 22.66                       | 22.26   | 22.73   | 1.0  | 24.0          |
|          |        | 25            | 0         | 21.67                       | 21.29   | 21.70   | 2.0  | 23.0          |
|          |        | 25            | 12        | 21.77                       | 21.40   | 21.73   | 2.0  | 23.0          |
|          | 64QAM  | 25            | 25        | 21.74                       | 21.35   | 21.76   | 2.0  | 23.0          |
|          |        | 50            | 0         | 21.80                       | 21.33   | 21.70   | 2.0  | 23.0          |
|          |        | 1             | 0         | 22.05                       | 21.77   | 21.99   | 2.0  | 23.0          |
|          |        | 1             | 25        | 22.12                       | 21.79   | 22.13   | 2.0  | 23.0          |
|          |        | 1             | 49        | 22.17                       | 21.84   | 22.13   | 2.0  | 23.0          |
|          |        | 25            | 0         | 20.73                       | 20.40   | 20.73   | 3.0  | 22.0          |
|          | 256QAM | 25            | 12        | 20.78                       | 20.46   | 20.76   | 3.0  | 22.0          |
|          |        | 25            | 25        | 20.78                       | 20.42   | 20.84   | 3.0  | 22.0          |
|          |        | 50            | 0         | 20.77                       | 20.42   | 20.65   | 3.0  | 22.0          |
|          |        | 1             | 0         | 19.23                       | 18.18   | 19.15   | 5.0  | 20.0          |
|          |        | 1             | 25        | 19.19                       | 18.23   | 19.16   | 5.0  | 20.0          |
|          |        | 1             | 49        | 19.29                       | 18.33   | 19.28   | 5.0  | 20.0          |
| 5 MHz    | QPSK   | 25            | 0         | 18.79                       | 18.46   | 18.78   | 5.0  | 20.0          |
|          |        | 25            | 12        | 18.82                       | 18.56   | 18.76   | 5.0  | 20.0          |
|          |        | 25            | 25        | 18.83                       | 18.50   | 18.81   | 5.0  | 20.0          |
|          |        | 50            | 0         | 18.81                       | 18.55   | 18.77   | 5.0  | 20.0          |
|          |        | 1             | 0         | 23.24                       | 23.24   | 23.34   | 0.0  | 25.0          |
|          |        | 1             | 12        | 23.28                       | 23.24   | 23.39   | 0.0  | 25.0          |
|          | 16QAM  | 1             | 24        | 23.34                       | 23.23   | 23.29   | 0.0  | 25.0          |
|          |        | 12            | 0         | 22.23                       | 22.28   | 22.32   | 1.0  | 24.0          |
|          |        | 12            | 7         | 22.35                       | 22.39   | 22.44   | 1.0  | 24.0          |
|          |        | 12            | 13        | 22.31                       | 22.32   | 22.44   | 1.0  | 24.0          |
|          |        | 25            | 0         | 22.34                       | 22.34   | 22.30   | 1.0  | 24.0          |
|          |        | 1             | 0         | 22.44                       | 22.79   | 22.54   | 1.0  | 24.0          |
|          | 64QAM  | 1             | 12        | 22.42                       | 22.85   | 22.46   | 1.0  | 24.0          |
|          |        | 1             | 24        | 22.41                       | 22.83   | 22.39   | 1.0  | 24.0          |
|          |        | 12            | 0         | 21.31                       | 21.45   | 21.35   | 2.0  | 23.0          |
|          |        | 12            | 7         | 21.46                       | 21.49   | 21.46   | 2.0  | 23.0          |
|          |        | 12            | 13        | 21.37                       | 21.49   | 21.45   | 2.0  | 23.0          |
|          |        | 25            | 0         | 21.37                       | 21.37   | 21.26   | 2.0  | 23.0          |
|          | 256QAM | 1             | 0         | 21.23                       | 21.68   | 21.53   | 2.0  | 23.0          |
|          |        | 1             | 12        | 21.37                       | 21.83   | 21.65   | 2.0  | 23.0          |
|          |        | 1             | 24        | 21.30                       | 21.79   | 21.60   | 2.0  | 23.0          |
|          |        | 12            | 0         | 20.35                       | 20.33   | 20.43   | 3.0  | 22.0          |
|          |        | 12            | 7         | 20.44                       | 20.42   | 20.48   | 3.0  | 22.0          |
|          |        | 12            | 13        | 20.42                       | 20.42   | 20.50   | 3.0  | 22.0          |
| QPSK     | 25     | 0             | 20.35     | 20.32                       | 20.38   | 3.0     | 22.0 |               |
|          | 1      | 0             | 18.32     | 18.09                       | 18.80   | 5.0     | 20.0 |               |
|          | 1      | 12            | 18.56     | 18.26                       | 18.94   | 5.0     | 20.0 |               |
|          | 1      | 24            | 18.48     | 18.17                       | 18.85   | 5.0     | 20.0 |               |
|          | 12     | 0             | 18.66     | 18.39                       | 18.77   | 5.0     | 20.0 |               |
|          | 12     | 7             | 18.75     | 18.52                       | 18.77   | 5.0     | 20.0 |               |
| 16QAM    | 12     | 13            | 18.74     | 18.48                       | 18.83   | 5.0     | 20.0 |               |
|          | 25     | 0             | 18.79     | 18.51                       | 18.78   | 5.0     | 20.0 |               |
|          | 25     | 0             | 18.79     | 18.51                       | 18.78   | 5.0     | 20.0 |               |

**LTE Band 25**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |            |          |      |               |
|----------|--------|---------------|-----------|-----------------------------|------------|----------|------|---------------|
|          |        |               |           | Measured Pwr (dBm)          |            |          | MPR  | Tune-up Limit |
|          |        |               |           | 26140                       | 26365      | 26590    |      |               |
|          |        |               |           | 1860 MHz                    | 1882.5 MHz | 1905 MHz |      |               |
| 20 MHz   | QPSK   | 1             | 0         | 22.02                       | 22.00      | 21.98    | 0.0  | 22.7          |
|          |        | 1             | 49        | 21.91                       | 22.01      | 21.90    | 0.0  | 22.7          |
|          |        | 1             | 99        | 21.97                       | 22.00      | 21.87    | 0.0  | 22.7          |
|          |        | 50            | 0         | 20.92                       | 21.02      | 21.01    | 1.0  | 21.7          |
|          |        | 50            | 24        | 21.06                       | 21.05      | 21.02    | 1.0  | 21.7          |
|          |        | 50            | 50        | 20.99                       | 21.00      | 20.98    | 1.0  | 21.7          |
|          | 16QAM  | 100           | 0         | 20.92                       | 20.92      | 20.93    | 1.0  | 21.7          |
|          |        | 1             | 0         | 21.33                       | 21.54      | 21.44    | 1.0  | 21.7          |
|          |        | 1             | 49        | 21.33                       | 21.57      | 21.38    | 1.0  | 21.7          |
|          |        | 1             | 99        | 21.37                       | 21.56      | 21.45    | 1.0  | 21.7          |
|          |        | 50            | 0         | 19.88                       | 20.07      | 20.02    | 2.0  | 20.7          |
|          |        | 50            | 24        | 19.98                       | 20.07      | 20.03    | 2.0  | 20.7          |
|          | 64QAM  | 50            | 50        | 19.97                       | 20.05      | 19.99    | 2.0  | 20.7          |
|          |        | 100           | 0         | 19.93                       | 19.99      | 19.92    | 2.0  | 20.7          |
|          |        | 1             | 0         | 20.52                       | 20.39      | 20.45    | 2.0  | 20.7          |
|          |        | 1             | 49        | 20.58                       | 20.45      | 20.41    | 2.0  | 20.7          |
|          |        | 1             | 99        | 20.69                       | 20.25      | 20.30    | 2.0  | 20.7          |
|          |        | 50            | 0         | 18.96                       | 19.07      | 19.12    | 3.0  | 19.7          |
|          | 256QAM | 50            | 24        | 19.04                       | 19.07      | 19.10    | 3.0  | 19.7          |
|          |        | 50            | 50        | 19.03                       | 19.05      | 19.06    | 3.0  | 19.7          |
|          |        | 100           | 0         | 18.90                       | 18.99      | 18.95    | 3.0  | 19.7          |
|          |        | 1             | 0         | 16.65                       | 16.57      | 16.85    | 5.0  | 17.7          |
|          |        | 1             | 49        | 17.17                       | 17.07      | 17.21    | 5.0  | 17.7          |
|          |        | 1             | 99        | 16.95                       | 16.72      | 16.88    | 5.0  | 17.7          |
| 15 MHz   | QPSK   | 50            | 0         | 16.80                       | 16.95      | 16.88    | 5.0  | 17.7          |
|          |        | 50            | 24        | 17.06                       | 17.11      | 17.04    | 5.0  | 17.7          |
|          |        | 50            | 50        | 17.02                       | 17.07      | 17.01    | 5.0  | 17.7          |
|          |        | 100           | 0         | 16.95                       | 17.02      | 16.96    | 5.0  | 17.7          |
|          |        | 1             | 0         | 21.62                       | 22.03      | 22.01    | 0.0  | 22.7          |
|          |        | 1             | 37        | 21.92                       | 22.00      | 21.88    | 0.0  | 22.7          |
|          | 16QAM  | 1             | 74        | 21.84                       | 21.97      | 21.86    | 0.0  | 22.7          |
|          |        | 36            | 0         | 20.82                       | 20.93      | 20.88    | 1.0  | 21.7          |
|          |        | 36            | 20        | 20.98                       | 21.05      | 21.00    | 1.0  | 21.7          |
|          |        | 36            | 39        | 20.97                       | 21.03      | 20.95    | 1.0  | 21.7          |
|          |        | 75            | 0         | 20.89                       | 20.97      | 20.91    | 1.0  | 21.7          |
|          |        | 1             | 0         | 21.17                       | 21.02      | 21.38    | 1.0  | 21.7          |
|          | 64QAM  | 1             | 37        | 21.49                       | 21.04      | 21.38    | 1.0  | 21.7          |
|          |        | 1             | 74        | 21.40                       | 21.00      | 21.26    | 1.0  | 21.7          |
|          |        | 36            | 0         | 19.77                       | 19.93      | 19.91    | 2.0  | 20.7          |
|          |        | 36            | 20        | 19.96                       | 20.03      | 20.03    | 2.0  | 20.7          |
|          |        | 36            | 39        | 19.97                       | 20.01      | 20.03    | 2.0  | 20.7          |
|          |        | 75            | 0         | 19.93                       | 19.97      | 19.93    | 2.0  | 20.7          |
|          | 256QAM | 1             | 0         | 20.24                       | 20.38      | 20.16    | 2.0  | 20.7          |
|          |        | 1             | 37        | 20.64                       | 20.42      | 20.13    | 2.0  | 20.7          |
|          |        | 1             | 74        | 20.54                       | 20.36      | 20.03    | 2.0  | 20.7          |
|          |        | 36            | 0         | 18.86                       | 18.96      | 18.98    | 3.0  | 19.7          |
|          |        | 36            | 20        | 19.04                       | 19.09      | 19.07    | 3.0  | 19.7          |
|          |        | 36            | 39        | 19.04                       | 19.08      | 19.06    | 3.0  | 19.7          |
| QPSK     | 75     | 0             | 19.01     | 19.00                       | 18.98      | 3.0      | 19.7 |               |
|          | 1      | 0             | 16.97     | 17.17                       | 16.62      | 5.0      | 17.7 |               |
|          | 1      | 37            | 17.30     | 17.50                       | 16.87      | 5.0      | 17.7 |               |
|          | 1      | 74            | 17.26     | 17.33                       | 16.68      | 5.0      | 17.7 |               |
|          | 36     | 0             | 16.84     | 17.02                       | 16.95      | 5.0      | 17.7 |               |
|          | 36     | 20            | 17.03     | 17.12                       | 17.02      | 5.0      | 17.7 |               |
| 16QAM    | 36     | 39            | 17.06     | 17.11                       | 17.03      | 5.0      | 17.7 |               |
|          | 75     | 0             | 17.00     | 17.05                       | 16.97      | 5.0      | 17.7 |               |



| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |            |            | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|------------|------------|------|---------------|
|          |        |               |           | 26090              | 26365      | 26640      |      |               |
|          |        |               |           | 1855 MHz           | 1882.5 MHz | 1910 MHz   |      |               |
| 10 MHz   | QPSK   | 1             | 0         | 21.71              | 21.76      | 21.94      | 0.0  | 22.7          |
|          |        | 1             | 25        | 21.95              | 22.07      | 21.91      | 0.0  | 22.7          |
|          |        | 1             | 49        | 21.78              | 21.84      | 21.93      | 0.0  | 22.7          |
|          |        | 25            | 0         | 20.91              | 21.04      | 20.98      | 1.0  | 21.7          |
|          |        | 25            | 12        | 21.10              | 21.15      | 21.08      | 1.0  | 21.7          |
|          |        | 25            | 25        | 21.04              | 21.16      | 21.01      | 1.0  | 21.7          |
|          | 50     | 0             | 21.02     | 21.08              | 21.00      | 1.0        | 21.7 |               |
|          | 16QAM  | 1             | 0         | 21.18              | 20.94      | 20.95      | 1.0  | 21.7          |
|          |        | 1             | 25        | 21.43              | 21.21      | 20.91      | 1.0  | 21.7          |
|          |        | 1             | 49        | 21.27              | 20.96      | 20.90      | 1.0  | 21.7          |
|          |        | 25            | 0         | 19.96              | 20.12      | 20.01      | 2.0  | 20.7          |
|          |        | 25            | 12        | 20.13              | 20.23      | 20.12      | 2.0  | 20.7          |
|          |        | 25            | 25        | 20.13              | 20.25      | 20.06      | 2.0  | 20.7          |
|          | 50     | 0             | 20.04     | 20.13              | 20.01      | 2.0        | 20.7 |               |
|          | 64QAM  | 1             | 0         | 20.11              | 19.88      | 20.28      | 2.0  | 20.7          |
|          |        | 1             | 25        | 20.43              | 20.20      | 20.27      | 2.0  | 20.7          |
|          |        | 1             | 49        | 20.22              | 20.17      | 20.26      | 2.0  | 20.7          |
|          |        | 25            | 0         | 18.98              | 19.16      | 19.04      | 3.0  | 19.7          |
|          |        | 25            | 12        | 19.18              | 19.24      | 19.16      | 3.0  | 19.7          |
|          |        | 25            | 25        | 19.12              | 19.25      | 19.10      | 3.0  | 19.7          |
|          | 50     | 0             | 19.06     | 19.10              | 19.01      | 3.0        | 19.7 |               |
|          | 256QAM | 1             | 0         | 17.27              | 16.73      | 16.88      | 5.0  | 17.7          |
|          |        | 1             | 25        | 17.62              | 17.05      | 17.08      | 5.0  | 17.7          |
|          |        | 1             | 49        | 17.36              | 16.82      | 16.87      | 5.0  | 17.7          |
| 25       |        | 0             | 16.99     | 17.10              | 17.04      | 5.0        | 17.7 |               |
| 25       |        | 12            | 17.16     | 17.24              | 17.18      | 5.0        | 17.7 |               |
| 25       |        | 25            | 17.10     | 17.24              | 17.12      | 5.0        | 17.7 |               |
| 50       | 0      | 17.06         | 17.08     | 17.04              | 5.0        | 17.7       |      |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |            |            | MPR  | Tune-up Limit |
|          |        |               |           | 26065              | 26365      | 26665      |      |               |
|          |        |               |           | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |      |               |
| 5 MHz    | QPSK   | 1             | 0         | 21.91              | 22.15      | 21.94      | 0.0  | 22.7          |
|          |        | 1             | 12        | 21.99              | 22.22      | 21.91      | 0.0  | 22.7          |
|          |        | 1             | 24        | 22.01              | 22.23      | 21.97      | 0.0  | 22.7          |
|          |        | 12            | 0         | 21.05              | 21.06      | 21.03      | 1.0  | 21.7          |
|          |        | 12            | 7         | 21.11              | 21.14      | 21.11      | 1.0  | 21.7          |
|          |        | 12            | 13        | 21.10              | 21.22      | 21.08      | 1.0  | 21.7          |
|          | 25     | 0             | 21.06     | 21.14              | 21.04      | 1.0        | 21.7 |               |
|          | 16QAM  | 1             | 0         | 21.13              | 21.25      | 21.51      | 1.0  | 21.7          |
|          |        | 1             | 12        | 21.16              | 21.27      | 21.53      | 1.0  | 21.7          |
|          |        | 1             | 24        | 21.24              | 21.33      | 21.49      | 1.0  | 21.7          |
|          |        | 12            | 0         | 20.08              | 20.16      | 20.16      | 2.0  | 20.7          |
|          |        | 12            | 7         | 20.14              | 20.24      | 20.21      | 2.0  | 20.7          |
|          |        | 12            | 13        | 20.15              | 20.30      | 20.21      | 2.0  | 20.7          |
|          | 25     | 0             | 20.03     | 20.16              | 20.09      | 2.0        | 20.7 |               |
|          | 64QAM  | 1             | 0         | 20.14              | 19.99      | 20.50      | 2.0  | 20.7          |
|          |        | 1             | 12        | 20.28              | 20.19      | 20.48      | 2.0  | 20.7          |
|          |        | 1             | 24        | 20.32              | 20.17      | 20.42      | 2.0  | 20.7          |
|          |        | 12            | 0         | 19.14              | 19.17      | 19.05      | 3.0  | 19.7          |
|          |        | 12            | 7         | 19.14              | 19.26      | 19.07      | 3.0  | 19.7          |
|          |        | 12            | 13        | 19.17              | 19.31      | 19.11      | 3.0  | 19.7          |
|          | 25     | 0             | 19.12     | 19.13              | 19.00      | 3.0        | 19.7 |               |
|          | 256QAM | 1             | 0         | 16.96              | 16.85      | 17.14      | 5.0  | 17.7          |
|          |        | 1             | 12        | 17.15              | 17.02      | 17.14      | 5.0  | 17.7          |
|          |        | 1             | 24        | 17.18              | 16.97      | 17.22      | 5.0  | 17.7          |
| 12       |        | 0             | 17.08     | 17.11              | 17.04      | 5.0        | 17.7 |               |
| 12       |        | 7             | 17.12     | 17.19              | 17.10      | 5.0        | 17.7 |               |
| 12       |        | 13            | 17.13     | 17.23              | 17.09      | 5.0        | 17.7 |               |
| 25       | 0      | 17.14         | 17.20     | 17.05              | 5.0        | 17.7       |      |               |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |            |            | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|------------|------------|------|---------------|
|          |        |               |           | 26055              | 26365      | 26675      |      |               |
|          |        |               |           | 1851.5 MHz         | 1882.5 MHz | 1913.5 MHz |      |               |
| 3 MHz    | QPSK   | 1             | 0         | 21.88              | 22.01      | 21.97      | 0.0  | 22.7          |
|          |        | 1             | 8         | 21.79              | 22.03      | 21.94      | 0.0  | 22.7          |
|          |        | 1             | 14        | 21.92              | 22.14      | 22.02      | 0.0  | 22.7          |
|          |        | 8             | 0         | 21.00              | 21.08      | 20.99      | 1.0  | 21.7          |
|          |        | 8             | 4         | 21.06              | 21.12      | 21.03      | 1.0  | 21.7          |
|          |        | 8             | 7         | 21.10              | 21.21      | 21.07      | 1.0  | 21.7          |
|          |        | 15            | 0         | 21.03              | 21.11      | 21.03      | 1.0  | 21.7          |
|          | 16QAM  | 1             | 0         | 21.05              | 20.98      | 21.38      | 1.0  | 21.7          |
|          |        | 1             | 8         | 21.04              | 21.07      | 21.33      | 1.0  | 21.7          |
|          |        | 1             | 14        | 21.11              | 21.05      | 21.45      | 1.0  | 21.7          |
|          |        | 8             | 0         | 20.01              | 20.20      | 20.05      | 2.0  | 20.7          |
|          |        | 8             | 4         | 20.12              | 20.21      | 20.13      | 2.0  | 20.7          |
|          |        | 8             | 7         | 20.16              | 20.33      | 20.15      | 2.0  | 20.7          |
|          | 64QAM  | 15            | 0         | 20.00              | 20.12      | 20.10      | 2.0  | 20.7          |
|          |        | 1             | 0         | 20.43              | 20.56      | 20.07      | 2.0  | 20.7          |
|          |        | 1             | 8         | 20.34              | 20.56      | 20.14      | 2.0  | 20.7          |
|          |        | 1             | 14        | 20.47              | 20.55      | 20.17      | 2.0  | 20.7          |
|          |        | 8             | 0         | 19.03              | 19.21      | 19.09      | 3.0  | 19.7          |
|          |        | 8             | 4         | 19.05              | 19.27      | 19.11      | 3.0  | 19.7          |
|          | 256QAM | 8             | 7         | 19.05              | 19.34      | 19.11      | 3.0  | 19.7          |
|          |        | 15            | 0         | 19.12              | 19.15      | 19.10      | 3.0  | 19.7          |
| 1        |        | 0             | 17.01     | 17.56              | 16.84      | 5.0        | 17.7 |               |
| 1        |        | 8             | 17.15     | 17.66              | 16.86      | 5.0        | 17.7 |               |
| 1        |        | 14            | 17.10     | 17.70              | 16.89      | 5.0        | 17.7 |               |
| 8        |        | 0             | 17.14     | 17.17              | 16.95      | 5.0        | 17.7 |               |
| 1.4 MHz  | QPSK   | 8             | 4         | 17.23              | 17.21      | 17.04      | 5.0  | 17.7          |
|          |        | 8             | 7         | 17.25              | 17.29      | 17.04      | 5.0  | 17.7          |
|          |        | 15            | 0         | 17.14              | 17.22      | 17.17      | 5.0  | 17.7          |
|          |        | 1             | 0         | 21.81              | 22.05      | 21.78      | 0.0  | 22.7          |
|          |        | 1             | 3         | 21.88              | 22.09      | 21.82      | 0.0  | 22.7          |
|          |        | 1             | 5         | 21.86              | 22.07      | 21.81      | 0.0  | 22.7          |
|          | 16QAM  | 3             | 0         | 21.78              | 21.96      | 21.85      | 0.0  | 22.7          |
|          |        | 3             | 1         | 21.86              | 22.03      | 21.90      | 0.0  | 22.7          |
|          |        | 3             | 3         | 21.88              | 22.01      | 21.91      | 0.0  | 22.7          |
|          |        | 6             | 0         | 20.92              | 21.09      | 20.96      | 1.0  | 21.7          |
|          |        | 1             | 0         | 20.88              | 21.19      | 21.34      | 1.0  | 21.7          |
|          |        | 1             | 3         | 21.05              | 21.24      | 21.35      | 1.0  | 21.7          |
|          |        | 1             | 5         | 20.97              | 21.21      | 21.35      | 1.0  | 21.7          |
|          |        | 3             | 0         | 21.11              | 21.06      | 21.12      | 1.0  | 21.7          |
|          |        | 3             | 1         | 21.13              | 21.20      | 21.10      | 1.0  | 21.7          |
|          | 64QAM  | 3             | 3         | 21.18              | 21.22      | 21.13      | 1.0  | 21.7          |
|          |        | 6             | 0         | 20.16              | 20.24      | 19.83      | 2.0  | 20.7          |
|          |        | 1             | 0         | 20.59              | 20.14      | 20.03      | 2.0  | 20.7          |
|          |        | 1             | 3         | 20.70              | 20.17      | 20.09      | 2.0  | 20.7          |
|          |        | 1             | 5         | 20.60              | 20.11      | 20.05      | 2.0  | 20.7          |
|          |        | 3             | 0         | 20.25              | 20.20      | 20.06      | 2.0  | 20.7          |
| 256QAM   | 3      | 1             | 20.31     | 20.24              | 20.14      | 2.0        | 20.7 |               |
|          | 3      | 3             | 20.32     | 20.25              | 20.14      | 2.0        | 20.7 |               |
|          | 6      | 0             | 18.97     | 19.41              | 19.31      | 3.0        | 19.7 |               |
|          | 1      | 0             | 17.17     | 17.30              | 17.50      | 5.0        | 17.7 |               |
|          | 1      | 3             | 17.28     | 17.43              | 16.81      | 5.0        | 17.7 |               |
|          | 1      | 5             | 17.17     | 17.34              | 16.87      | 5.0        | 17.7 |               |
|          | 3      | 0             | 16.92     | 17.07              | 16.86      | 5.0        | 17.7 |               |
|          | 3      | 1             | 17.01     | 17.14              | 16.86      | 5.0        | 17.7 |               |
|          | 3      | 3             | 16.93     | 17.10              | 16.92      | 5.0        | 17.7 |               |
| 6        | 0      | 16.94         | 17.09     | 17.11              | 5.0        | 17.7       |      |               |

**LTE Band 26**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |         |         |           |         |      |               | MPR | Tune-up Limit |
|----------|--------|---------------|-----------|-----------------------------|---------|---------|-----------|---------|------|---------------|-----|---------------|
|          |        |               |           | Measured Pwr (dBm)          |         |         |           |         | MPR  | Tune-up Limit |     |               |
|          |        |               |           | 26765                       | 26790   | 26865   | 26965     |         |      |               |     |               |
| 15 MHz   | QPSK   | 1             | 0         | 23.58                       | 24.10   | 23.60   | 23.59     | 0.0     | 25.0 |               |     |               |
|          |        | 1             | 37        | 23.54                       | 24.06   | 23.70   | 23.46     | 0.0     | 25.0 |               |     |               |
|          |        | 1             | 74        | 23.68                       | 24.07   | 23.62   | 23.36     | 0.0     | 25.0 |               |     |               |
|          |        | 36            | 0         | 22.51                       | 23.01   | 22.62   | 22.56     | 0.0     | 25.0 |               |     |               |
|          |        | 36            | 20        | 22.65                       | 23.18   | 22.71   | 22.62     | 1.0     | 24.0 |               |     |               |
|          |        | 36            | 39        | 22.63                       | 23.12   | 22.67   | 22.55     | 1.0     | 24.0 |               |     |               |
|          |        | 75            | 0         | 22.58                       | 23.10   | 22.63   | 22.57     | 1.0     | 24.0 |               |     |               |
|          | 16QAM  | 1             | 0         | 22.98                       | 23.49   | 22.97   | 22.68     | 1.0     | 24.0 |               |     |               |
|          |        | 1             | 37        | 22.99                       | 23.27   | 23.00   | 22.54     | 1.0     | 24.0 |               |     |               |
|          |        | 1             | 74        | 23.02                       | 23.46   | 23.01   | 22.45     | 1.0     | 24.0 |               |     |               |
|          |        | 36            | 0         | 21.60                       | 22.03   | 21.59   | 21.57     | 2.0     | 23.0 |               |     |               |
|          |        | 36            | 20        | 21.72                       | 22.18   | 21.70   | 21.63     | 2.0     | 23.0 |               |     |               |
|          |        | 36            | 39        | 21.72                       | 22.14   | 21.63   | 21.57     | 2.0     | 23.0 |               |     |               |
|          |        | 75            | 0         | 21.66                       | 22.10   | 21.62   | 21.59     | 2.0     | 23.0 |               |     |               |
|          | 64QAM  | 1             | 0         | 22.31                       | 22.43   | 22.06   | 21.92     | 2.0     | 23.0 |               |     |               |
|          |        | 1             | 37        | 22.27                       | 22.37   | 22.12   | 21.79     | 2.0     | 23.0 |               |     |               |
|          |        | 1             | 74        | 22.37                       | 22.41   | 21.99   | 21.71     | 2.0     | 23.0 |               |     |               |
|          |        | 36            | 0         | 20.61                       | 21.04   | 20.71   | 20.76     | 3.0     | 22.0 |               |     |               |
|          |        | 36            | 20        | 20.72                       | 21.24   | 20.82   | 20.78     | 3.0     | 22.0 |               |     |               |
|          |        | 36            | 39        | 20.67                       | 21.22   | 20.76   | 20.70     | 3.0     | 22.0 |               |     |               |
|          |        | 75            | 0         | 20.72                       | 21.15   | 20.72   | 20.68     | 3.0     | 22.0 |               |     |               |
|          | 256QAM | 1             | 0         | 19.07                       | 19.26   | 18.63   | 18.32     | 5.0     | 20.0 |               |     |               |
|          |        | 1             | 37        | 19.23                       | 19.53   | 18.99   | 18.45     | 5.0     | 20.0 |               |     |               |
|          |        | 1             | 74        | 19.11                       | 19.46   | 18.76   | 18.34     | 5.0     | 20.0 |               |     |               |
|          |        | 36            | 0         | 18.80                       | 19.05   | 18.61   | 18.62     | 5.0     | 20.0 |               |     |               |
|          |        | 36            | 20        | 18.94                       | 19.20   | 18.72   | 18.65     | 5.0     | 20.0 |               |     |               |
|          |        | 36            | 39        | 18.87                       | 19.16   | 18.66   | 18.66     | 5.0     | 20.0 |               |     |               |
|          |        | 75            | 0         | 18.89                       | 19.15   | 18.63   | 18.59     | 5.0     | 20.0 |               |     |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm)          |         |         |           |         | MPR  | Tune-up Limit |     |               |
|          |        |               |           | 26740                       | 26790   | 26840   | 26865     | 26990   |      |               |     |               |
|          |        |               |           | 819 MHz                     | 824 MHz | 829 MHz | 831.5 MHz | 844 MHz |      |               |     |               |
| 10 MHz   | QPSK   | 1             | 0         | 23.82                       | 24.27   | 23.80   | 23.85     | 23.80   | 0.0  | 25.0          |     |               |
|          |        | 1             | 25        | 23.90                       | 24.16   | 23.71   | 23.87     | 23.69   | 0.0  | 25.0          |     |               |
|          |        | 1             | 49        | 23.81                       | 24.20   | 23.75   | 23.78     | 23.65   | 0.0  | 25.0          |     |               |
|          |        | 25            | 0         | 23.74                       | 23.14   | 22.90   | 22.79     | 22.67   | 1.0  | 24.0          |     |               |
|          |        | 25            | 12        | 22.86                       | 23.35   | 23.05   | 22.91     | 22.78   | 1.0  | 24.0          |     |               |
|          |        | 25            | 25        | 22.79                       | 23.29   | 23.00   | 22.83     | 22.69   | 1.0  | 24.0          |     |               |
|          |        | 50            | 0         | 22.80                       | 23.24   | 22.99   | 22.81     | 22.69   | 1.0  | 24.0          |     |               |
|          | 16QAM  | 1             | 0         | 23.21                       | 23.30   | 22.88   | 22.82     | 22.79   | 1.0  | 24.0          |     |               |
|          |        | 1             | 25        | 23.17                       | 23.19   | 22.75   | 22.89     | 22.72   | 1.0  | 24.0          |     |               |
|          |        | 1             | 49        | 23.22                       | 23.22   | 22.69   | 22.84     | 22.60   | 1.0  | 24.0          |     |               |
|          |        | 25            | 0         | 21.85                       | 22.33   | 21.93   | 21.93     | 21.72   | 2.0  | 23.0          |     |               |
|          |        | 25            | 12        | 21.95                       | 22.46   | 22.13   | 22.04     | 21.85   | 2.0  | 23.0          |     |               |
|          |        | 25            | 25        | 21.89                       | 22.42   | 22.03   | 21.97     | 21.75   | 2.0  | 23.0          |     |               |
|          |        | 50            | 0         | 21.81                       | 22.33   | 22.02   | 21.86     | 21.70   | 2.0  | 23.0          |     |               |
|          | 64QAM  | 1             | 0         | 22.30                       | 22.59   | 22.41   | 22.35     | 22.11   | 2.0  | 23.0          |     |               |
|          |        | 1             | 25        | 22.07                       | 22.53   | 22.34   | 22.34     | 22.05   | 2.0  | 23.0          |     |               |
|          |        | 1             | 49        | 22.09                       | 22.55   | 22.35   | 22.25     | 22.04   | 2.0  | 23.0          |     |               |
|          |        | 25            | 0         | 20.84                       | 21.20   | 20.87   | 20.89     | 20.84   | 3.0  | 22.0          |     |               |
|          |        | 25            | 12        | 20.93                       | 21.40   | 21.10   | 21.05     | 20.91   | 3.0  | 22.0          |     |               |
|          |        | 25            | 25        | 20.88                       | 21.34   | 20.99   | 20.94     | 20.85   | 3.0  | 22.0          |     |               |
|          |        | 50            | 0         | 20.81                       | 21.23   | 20.91   | 20.90     | 20.80   | 3.0  | 22.0          |     |               |
|          | 256QAM | 1             | 0         | 18.59                       | 19.38   | 19.15   | 18.31     | 18.93   | 5.0  | 20.0          |     |               |
|          |        | 1             | 25        | 18.86                       | 19.81   | 19.47   | 18.78     | 19.17   | 5.0  | 20.0          |     |               |
|          |        | 1             | 49        | 18.61                       | 19.56   | 19.25   | 18.45     | 18.99   | 5.0  | 20.0          |     |               |
|          |        | 25            | 0         | 18.85                       | 19.17   | 18.96   | 18.82     | 18.73   | 5.0  | 20.0          |     |               |
|          |        | 25            | 12        | 18.96                       | 19.37   | 19.10   | 18.95     | 18.82   | 5.0  | 20.0          |     |               |
|          |        | 25            | 25        | 18.86                       | 19.36   | 19.03   | 18.85     | 18.73   | 5.0  | 20.0          |     |               |
|          |        | 50            | 0         | 18.82                       | 19.28   | 19.03   | 18.82     | 18.69   | 5.0  | 20.0          |     |               |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |           |         |           |           |           | MPR   | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|-----------|---------|-----------|-----------|-----------|-------|---------------|
|          |        |               |           | 26715              | 26765     | 26790   | 26815     | 26865     | 27015     |       |               |
|          |        |               |           | 816.5 MHz          | 821.5 MHz | 824 MHz | 826.5 MHz | 831.5 MHz | 846.5 MHz |       |               |
| 5 MHz    | QPSK   | 1             | 0         | 23.82              | 23.77     | 24.29   | 23.68     | 23.88     | 23.73     | 0.0   | 25.0          |
|          |        | 1             | 12        | 23.85              | 23.69     | 24.27   | 23.84     | 23.91     | 23.64     | 0.0   | 25.0          |
|          |        | 1             | 24        | 23.79              | 23.75     | 24.30   | 23.88     | 23.88     | 23.69     | 0.0   | 25.0          |
|          |        | 12            | 0         | 22.87              | 22.96     | 23.25   | 22.97     | 22.91     | 22.68     | 1.0   | 24.0          |
|          |        | 12            | 7         | 22.94              | 23.11     | 23.39   | 23.10     | 22.99     | 22.75     | 1.0   | 24.0          |
|          |        | 12            | 13        | 22.89              | 23.04     | 23.40   | 23.06     | 22.94     | 22.72     | 1.0   | 24.0          |
|          | 16QAM  | 25            | 0         | 22.86              | 23.08     | 23.37   | 23.05     | 22.88     | 22.73     | 1.0   | 24.0          |
|          |        | 1             | 0         | 23.20              | 23.13     | 23.38   | 22.61     | 22.93     | 22.89     | 1.0   | 24.0          |
|          |        | 1             | 12        | 23.32              | 23.12     | 23.15   | 22.66     | 22.93     | 22.80     | 1.0   | 24.0          |
|          |        | 1             | 24        | 23.24              | 23.03     | 23.22   | 22.41     | 22.97     | 22.83     | 1.0   | 24.0          |
|          |        | 12            | 0         | 22.01              | 22.07     | 22.33   | 22.02     | 21.90     | 21.78     | 2.0   | 23.0          |
|          |        | 12            | 7         | 22.08              | 22.26     | 22.48   | 22.10     | 21.99     | 21.84     | 2.0   | 23.0          |
|          | 64QAM  | 12            | 13        | 22.02              | 22.18     | 22.39   | 22.09     | 21.93     | 21.78     | 2.0   | 23.0          |
|          |        | 25            | 0         | 21.93              | 22.14     | 22.31   | 21.94     | 21.85     | 21.76     | 2.0   | 23.0          |
|          |        | 1             | 0         | 22.08              | 21.99     | 22.28   | 21.93     | 21.88     | 22.10     | 2.0   | 23.0          |
|          |        | 1             | 12        | 22.13              | 22.05     | 22.33   | 21.95     | 21.97     | 22.07     | 2.0   | 23.0          |
|          |        | 1             | 24        | 22.05              | 21.92     | 22.32   | 22.01     | 21.92     | 22.05     | 2.0   | 23.0          |
|          |        | 12            | 0         | 20.95              | 20.99     | 21.29   | 20.95     | 20.97     | 20.73     | 3.0   | 22.0          |
|          | 256QAM | 12            | 7         | 20.96              | 21.16     | 21.49   | 21.15     | 21.01     | 20.74     | 3.0   | 22.0          |
|          |        | 12            | 13        | 20.94              | 21.07     | 21.39   | 21.06     | 20.96     | 20.72     | 3.0   | 22.0          |
|          |        | 25            | 0         | 20.89              | 21.05     | 21.30   | 21.01     | 20.90     | 20.68     | 3.0   | 22.0          |
|          |        | 1             | 0         | 18.88              | 18.75     | 18.90   | 18.67     | 18.51     | 18.74     | 5.0   | 20.0          |
|          |        | 1             | 12        | 19.00              | 18.90     | 19.11   | 18.83     | 18.75     | 18.78     | 5.0   | 20.0          |
|          |        | 1             | 24        | 18.88              | 18.80     | 19.04   | 18.75     | 18.54     | 18.75     | 5.0   | 20.0          |
|          | 3 MHz  | QPSK          | 1         | 0                  | 18.89     | 19.03   | 19.27     | 18.97     | 18.85     | 18.66 | 5.0           |
| 12       |        |               | 7         | 18.95              | 19.19     | 19.43   | 19.09     | 18.93     | 18.75     | 5.0   | 20.0          |
| 12       |        |               | 13        | 18.89              | 19.11     | 19.39   | 19.07     | 18.88     | 18.69     | 5.0   | 20.0          |
| 25       |        |               | 0         | 18.87              | 19.21     | 19.37   | 19.13     | 18.90     | 18.65     | 5.0   | 20.0          |
| 1        |        |               | 0         | 23.78              | 23.76     | 24.31   | 23.91     | 23.91     | 23.70     | 0.0   | 25.0          |
| 1        | 8      |               | 23.70     | 23.70              | 24.24     | 23.86   | 23.89     | 23.62     | 0.0       | 25.0  |               |
| 16QAM    | 1      | 14            | 23.75     | 23.68              | 24.33     | 23.70   | 23.97     | 23.67     | 0.0       | 25.0  |               |
|          | 8      | 0             | 22.87     | 23.04              | 23.30     | 23.01   | 22.89     | 22.68     | 1.0       | 24.0  |               |
|          | 8      | 4             | 22.87     | 23.10              | 23.39     | 23.02   | 22.93     | 22.74     | 1.0       | 24.0  |               |
|          | 8      | 7             | 22.89     | 23.09              | 23.34     | 23.07   | 22.95     | 22.73     | 1.0       | 24.0  |               |
|          | 15     | 0             | 22.86     | 23.06              | 23.32     | 23.05   | 22.91     | 22.72     | 1.0       | 24.0  |               |
|          | 1      | 0             | 22.81     | 23.16              | 23.30     | 23.05   | 22.90     | 23.06     | 1.0       | 24.0  |               |
|          | 1      | 8             | 22.77     | 23.16              | 23.16     | 22.76   | 22.77     | 22.94     | 1.0       | 24.0  |               |
|          | 1      | 14            | 22.82     | 23.20              | 23.26     | 22.93   | 22.88     | 23.06     | 1.0       | 24.0  |               |
|          | 8      | 0             | 21.95     | 22.07              | 22.38     | 22.09   | 21.96     | 21.74     | 2.0       | 23.0  |               |
|          | 8      | 4             | 21.97     | 22.17              | 22.47     | 22.11   | 22.03     | 21.81     | 2.0       | 23.0  |               |
| 64QAM    | 8      | 7             | 22.00     | 22.18              | 22.45     | 22.13   | 22.02     | 21.82     | 2.0       | 23.0  |               |
|          | 15     | 0             | 21.84     | 22.02              | 22.30     | 21.99   | 21.95     | 21.74     | 2.0       | 23.0  |               |
|          | 1      | 0             | 22.20     | 22.40              | 22.66     | 22.39   | 22.28     | 21.86     | 2.0       | 23.0  |               |
|          | 1      | 8             | 22.10     | 22.52              | 22.73     | 22.43   | 22.43     | 21.78     | 2.0       | 23.0  |               |
|          | 1      | 14            | 22.16     | 22.42              | 22.62     | 22.39   | 22.37     | 21.80     | 2.0       | 23.0  |               |
|          | 8      | 0             | 20.87     | 21.15              | 21.37     | 21.10   | 20.98     | 20.76     | 3.0       | 22.0  |               |
| 256QAM   | 8      | 4             | 20.89     | 21.18              | 21.47     | 21.15   | 21.04     | 20.76     | 3.0       | 22.0  |               |
|          | 8      | 7             | 20.87     | 21.14              | 21.48     | 21.17   | 21.03     | 20.79     | 3.0       | 22.0  |               |
|          | 15     | 0             | 20.92     | 21.08              | 21.39     | 21.02   | 20.92     | 20.76     | 3.0       | 22.0  |               |
|          | 1      | 0             | 18.87     | 19.27              | 19.55     | 19.32   | 19.22     | 18.67     | 5.0       | 20.0  |               |
|          | 1      | 8             | 18.94     | 19.38              | 19.71     | 19.45   | 19.35     | 18.72     | 5.0       | 20.0  |               |
|          | 1      | 14            | 18.87     | 19.41              | 19.76     | 19.39   | 19.30     | 18.65     | 5.0       | 20.0  |               |
| 3 MHz    | 256QAM | 8             | 0         | 19.03              | 19.17     | 19.42   | 19.14     | 18.97     | 18.78     | 5.0   | 20.0          |
|          |        | 8             | 4         | 19.08              | 19.17     | 19.48   | 19.19     | 18.99     | 18.84     | 5.0   | 20.0          |
|          |        | 8             | 7         | 19.09              | 19.18     | 19.52   | 19.24     | 19.01     | 18.87     | 5.0   | 20.0          |
|          |        | 15            | 0         | 18.95              | 19.12     | 19.37   | 19.13     | 18.92     | 18.74     | 5.0   | 20.0          |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |           |         |           |           |           | MPR | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|-----------|---------|-----------|-----------|-----------|-----|---------------|
|          |        |               |           | 26697              | 26783     | 26790   | 26797     | 26865     | 27033     |     |               |
|          |        |               |           | 814.7 MHz          | 823.3 MHz | 824 MHz | 824.7 MHz | 831.5 MHz | 848.3 MHz |     |               |
| 1.4 MHz  | QPSK   | 1             | 0         | 23.81              | 23.88     | 24.28   | 23.80     | 23.78     | 23.49     | 0.0 | 25.0          |
|          |        | 1             | 3         | 23.90              | 23.85     | 24.30   | 23.75     | 23.84     | 23.58     | 0.0 | 25.0          |
|          |        | 1             | 5         | 23.82              | 23.87     | 24.20   | 23.78     | 23.82     | 23.51     | 0.0 | 25.0          |
|          |        | 3             | 0         | 23.81              | 23.76     | 24.27   | 23.81     | 23.84     | 23.51     | 0.0 | 25.0          |
|          |        | 3             | 1         | 23.86              | 23.97     | 24.28   | 23.92     | 23.92     | 23.57     | 0.0 | 25.0          |
|          |        | 3             | 3         | 23.87              | 23.91     | 24.26   | 23.94     | 23.92     | 23.53     | 0.0 | 25.0          |
|          |        | 6             | 0         | 22.80              | 23.00     | 23.23   | 22.91     | 22.83     | 22.58     | 1.0 | 24.0          |
|          | 16QAM  | 1             | 0         | 22.92              | 23.23     | 23.45   | 23.43     | 23.31     | 22.50     | 1.0 | 24.0          |
|          |        | 1             | 3         | 23.02              | 23.11     | 23.53   | 23.28     | 23.44     | 22.58     | 1.0 | 24.0          |
|          |        | 1             | 5         | 22.96              | 23.14     | 23.47   | 23.36     | 23.36     | 22.54     | 1.0 | 24.0          |
|          |        | 3             | 0         | 22.74              | 23.13     | 23.18   | 23.15     | 23.04     | 22.80     | 1.0 | 24.0          |
|          |        | 3             | 1         | 22.76              | 23.22     | 23.18   | 23.22     | 23.04     | 22.89     | 1.0 | 24.0          |
|          |        | 3             | 3         | 22.80              | 23.21     | 23.23   | 23.26     | 23.08     | 22.78     | 1.0 | 24.0          |
|          |        | 6             | 0         | 21.98              | 22.14     | 22.39   | 22.11     | 21.73     | 21.77     | 2.0 | 23.0          |
|          | 64QAM  | 1             | 0         | 22.17              | 22.29     | 22.47   | 22.30     | 21.98     | 21.78     | 2.0 | 23.0          |
|          |        | 1             | 3         | 22.31              | 22.38     | 22.66   | 22.40     | 22.15     | 21.87     | 2.0 | 23.0          |
|          |        | 1             | 5         | 22.25              | 22.39     | 22.55   | 22.30     | 22.04     | 21.83     | 2.0 | 23.0          |
|          |        | 3             | 0         | 22.12              | 22.22     | 22.54   | 22.24     | 22.01     | 21.62     | 2.0 | 23.0          |
|          |        | 3             | 1         | 22.16              | 22.28     | 22.59   | 22.31     | 22.05     | 21.69     | 2.0 | 23.0          |
|          |        | 3             | 3         | 22.15              | 22.26     | 22.54   | 22.22     | 22.11     | 21.64     | 2.0 | 23.0          |
|          |        | 6             | 0         | 20.83              | 21.00     | 21.30   | 20.96     | 21.14     | 20.71     | 3.0 | 22.0          |
|          | 256QAM | 1             | 0         | 18.97              | 19.09     | 19.33   | 18.99     | 18.89     | 18.60     | 5.0 | 20.0          |
|          |        | 1             | 3         | 19.06              | 19.11     | 19.48   | 19.10     | 19.08     | 18.73     | 5.0 | 20.0          |
|          |        | 1             | 5         | 18.95              | 19.09     | 19.32   | 19.00     | 18.96     | 18.62     | 5.0 | 20.0          |
|          |        | 3             | 0         | 18.81              | 18.84     | 19.24   | 18.98     | 18.74     | 18.62     | 5.0 | 20.0          |
|          |        | 3             | 1         | 18.86              | 18.99     | 19.30   | 19.04     | 18.81     | 18.69     | 5.0 | 20.0          |
|          |        | 3             | 3         | 18.80              | 18.94     | 19.23   | 19.07     | 18.85     | 18.64     | 5.0 | 20.0          |
|          |        | 6             | 0         | 18.81              | 18.92     | 19.25   | 19.07     | 18.75     | 18.65     | 5.0 | 20.0          |

**LTE Band 41**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |          |            |      |               |
|----------|--------|---------------|-----------|-----------------------------|----------|------------|------|---------------|
|          |        |               |           | Measured Pwr (dBm)          |          |            | MPR  | Tune-up Limit |
|          |        |               |           | 39750                       | 40620    | 41490      |      |               |
|          |        |               |           | 2506 MHz                    | 2593 MHz | 2680 MHz   |      |               |
| 20 MHz   | QPSK   | 1             | 0         | 22.60                       | 22.32    | 22.15      | 0.0  | 24.5          |
|          |        | 1             | 49        | 22.58                       | 22.53    | 22.36      | 0.0  | 24.5          |
|          |        | 1             | 99        | 22.93                       | 22.13    | 22.30      | 0.0  | 24.5          |
|          |        | 50            | 0         | 21.55                       | 21.52    | 21.25      | 1.0  | 23.5          |
|          |        | 50            | 24        | 21.64                       | 21.60    | 21.43      | 1.0  | 23.5          |
|          |        | 50            | 50        | 21.92                       | 21.46    | 21.46      | 1.0  | 23.5          |
|          | 100    | 0             | 21.56     | 21.50                       | 21.34    | 1.0        | 23.5 |               |
|          | 16QAM  | 1             | 0         | 21.69                       | 21.48    | 21.06      | 1.0  | 23.5          |
|          |        | 1             | 49        | 21.71                       | 21.68    | 21.52      | 1.0  | 23.5          |
|          |        | 1             | 99        | 21.79                       | 21.30    | 21.44      | 1.0  | 23.5          |
|          |        | 50            | 0         | 20.61                       | 20.62    | 20.34      | 2.0  | 22.5          |
|          |        | 50            | 24        | 20.70                       | 20.69    | 20.50      | 2.0  | 22.5          |
|          |        | 50            | 50        | 20.69                       | 20.49    | 20.50      | 2.0  | 22.5          |
|          | 100    | 0             | 20.59     | 20.54                       | 20.38    | 2.0        | 22.5 |               |
|          | 64QAM  | 1             | 0         | 20.54                       | 20.74    | 20.33      | 2.0  | 22.5          |
|          |        | 1             | 49        | 20.59                       | 20.95    | 20.77      | 2.0  | 22.5          |
|          |        | 1             | 99        | 20.67                       | 20.59    | 20.74      | 2.0  | 22.5          |
|          |        | 50            | 0         | 19.60                       | 19.56    | 19.31      | 3.0  | 21.5          |
|          |        | 50            | 24        | 19.69                       | 19.67    | 19.49      | 3.0  | 21.5          |
|          |        | 50            | 50        | 19.70                       | 19.50    | 19.50      | 3.0  | 21.5          |
|          | 100    | 0             | 19.59     | 19.52                       | 19.37    | 3.0        | 21.5 |               |
|          | 256QAM | 1             | 0         | 17.23                       | 17.41    | 17.03      | 5.0  | 19.5          |
|          |        | 1             | 49        | 17.72                       | 17.64    | 17.46      | 5.0  | 19.5          |
|          |        | 1             | 99        | 17.57                       | 17.21    | 17.39      | 5.0  | 19.5          |
| 50       |        | 0             | 17.45     | 17.51                       | 17.25    | 5.0        | 19.5 |               |
| 50       |        | 24            | 17.73     | 17.63                       | 17.46    | 5.0        | 19.5 |               |
| 50       |        | 50            | 17.69     | 17.47                       | 17.46    | 5.0        | 19.5 |               |
| 100      | 0      | 17.64         | 17.54     | 17.40                       | 5.0      | 19.5       |      |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm)          |          |            | MPR  | Tune-up Limit |
|          |        |               |           | 39725                       | 40620    | 41515      |      |               |
|          |        |               |           | 2503.5 MHz                  | 2593 MHz | 2682.5 MHz |      |               |
|          |        |               |           |                             |          |            |      |               |
| 15 MHz   | QPSK   | 1             | 0         | 23.84                       | 22.44    | 23.62      | 0.0  | 24.5          |
|          |        | 1             | 37        | 23.81                       | 22.53    | 23.86      | 0.0  | 24.5          |
|          |        | 1             | 74        | 23.81                       | 22.32    | 23.91      | 0.0  | 24.5          |
|          |        | 36            | 0         | 22.93                       | 21.62    | 22.87      | 1.0  | 23.5          |
|          |        | 36            | 20        | 22.90                       | 21.65    | 22.99      | 1.0  | 23.5          |
|          |        | 36            | 39        | 22.87                       | 21.53    | 23.01      | 1.0  | 23.5          |
|          | 75     | 0             | 22.80     | 21.59                       | 22.97    | 1.0        | 23.5 |               |
|          | 16QAM  | 1             | 0         | 22.84                       | 21.43    | 22.67      | 1.0  | 23.5          |
|          |        | 1             | 37        | 22.83                       | 21.53    | 22.93      | 1.0  | 23.5          |
|          |        | 1             | 74        | 22.82                       | 21.36    | 22.95      | 1.0  | 23.5          |
|          |        | 36            | 0         | 21.91                       | 20.61    | 21.93      | 2.0  | 22.5          |
|          |        | 36            | 20        | 21.87                       | 20.65    | 22.04      | 2.0  | 22.5          |
|          |        | 36            | 39        | 21.87                       | 20.54    | 22.07      | 2.0  | 22.5          |
|          | 75     | 0             | 21.80     | 20.60                       | 21.98    | 2.0        | 22.5 |               |
|          | 64QAM  | 1             | 0         | 21.76                       | 20.36    | 21.27      | 2.0  | 22.5          |
|          |        | 1             | 37        | 21.72                       | 20.57    | 21.55      | 2.0  | 22.5          |
|          |        | 1             | 74        | 21.70                       | 20.33    | 21.59      | 2.0  | 22.5          |
|          |        | 36            | 0         | 20.91                       | 19.67    | 20.98      | 3.0  | 21.5          |
|          |        | 36            | 20        | 20.83                       | 19.74    | 21.12      | 3.0  | 21.5          |
|          |        | 36            | 39        | 20.82                       | 19.64    | 21.09      | 3.0  | 21.5          |
|          | 75     | 0             | 20.89     | 19.61                       | 20.99    | 3.0        | 21.5 |               |
|          | 256QAM | 1             | 0         | 18.82                       | 17.62    | 18.77      | 5.0  | 19.5          |
|          |        | 1             | 37        | 19.03                       | 17.71    | 19.05      | 5.0  | 19.5          |
|          |        | 1             | 74        | 18.90                       | 17.46    | 19.10      | 5.0  | 19.5          |
| 36       |        | 0             | 18.82     | 17.66                       | 18.90    | 5.0        | 19.5 |               |
| 36       |        | 20            | 18.88     | 17.70                       | 19.04    | 5.0        | 19.5 |               |
| 36       |        | 39            | 18.87     | 17.60                       | 19.04    | 5.0        | 19.5 |               |
| 75       | 0      | 18.87         | 17.66     | 18.99                       | 5.0      | 19.5       |      |               |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|----------|------------|------|---------------|
|          |        |               |           | 39700              | 40620    | 41540      |      |               |
|          |        |               |           | 2501 MHz           | 2593 MHz | 2685 MHz   |      |               |
| 10 MHz   | QPSK   | 1             | 0         | 23.96              | 22.51    | 23.71      | 0.0  | 24.5          |
|          |        | 1             | 25        | 23.93              | 22.65    | 23.97      | 0.0  | 24.5          |
|          |        | 1             | 49        | 23.95              | 22.37    | 23.68      | 0.0  | 24.5          |
|          |        | 25            | 0         | 23.03              | 21.72    | 22.99      | 1.0  | 23.5          |
|          |        | 25            | 12        | 23.05              | 21.80    | 23.05      | 1.0  | 23.5          |
|          |        | 25            | 25        | 22.97              | 21.66    | 22.96      | 1.0  | 23.5          |
|          | 50     | 0             | 22.85     | 21.73              | 22.98    | 1.0        | 23.5 |               |
|          | 16QAM  | 1             | 0         | 22.90              | 21.49    | 22.85      | 1.0  | 23.5          |
|          |        | 1             | 25        | 22.92              | 21.69    | 23.06      | 1.0  | 23.5          |
|          |        | 1             | 49        | 22.92              | 21.49    | 22.86      | 1.0  | 23.5          |
|          |        | 25            | 0         | 22.06              | 20.78    | 22.02      | 2.0  | 22.5          |
|          |        | 25            | 12        | 22.09              | 20.84    | 22.13      | 2.0  | 22.5          |
|          |        | 25            | 25        | 21.95              | 20.66    | 22.02      | 2.0  | 22.5          |
|          | 50     | 0             | 21.91     | 20.79              | 22.06    | 2.0        | 22.5 |               |
|          | 64QAM  | 1             | 0         | 22.34              | 20.52    | 21.36      | 2.0  | 22.5          |
|          |        | 1             | 25        | 22.25              | 20.68    | 21.66      | 2.0  | 22.5          |
|          |        | 1             | 49        | 22.24              | 20.28    | 21.42      | 2.0  | 22.5          |
|          |        | 25            | 0         | 21.04              | 19.82    | 21.03      | 3.0  | 21.5          |
|          |        | 25            | 12        | 21.03              | 19.85    | 21.13      | 3.0  | 21.5          |
|          |        | 25            | 25        | 20.94              | 19.70    | 21.06      | 3.0  | 21.5          |
|          | 50     | 0             | 20.89     | 19.78              | 21.00    | 3.0        | 21.5 |               |
|          | 256QAM | 1             | 0         | 18.49              | 17.79    | 18.94      | 5.0  | 19.5          |
|          |        | 1             | 25        | 18.72              | 17.96    | 19.23      | 5.0  | 19.5          |
|          |        | 1             | 49        | 18.44              | 17.67    | 18.97      | 5.0  | 19.5          |
|          |        | 25            | 0         | 19.01              | 17.75    | 19.00      | 5.0  | 19.5          |
|          |        | 25            | 12        | 19.11              | 17.87    | 19.09      | 5.0  | 19.5          |
|          |        | 25            | 25        | 18.95              | 17.65    | 18.99      | 5.0  | 19.5          |
|          | 50     | 0             | 18.89     | 17.80              | 19.01    | 5.0        | 19.5 |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|          |        |               |           | 39675              | 40620    | 41565      |      |               |
|          |        |               |           | 2498.5 MHz         | 2593 MHz | 2687.5 MHz |      |               |
| 5 MHz    | QPSK   | 1             | 0         | 23.89              | 22.69    | 23.85      | 0.0  | 24.5          |
|          |        | 1             | 12        | 23.89              | 22.65    | 23.74      | 0.0  | 24.5          |
|          |        | 1             | 24        | 23.85              | 22.55    | 23.83      | 0.0  | 24.5          |
|          |        | 12            | 0         | 23.03              | 21.82    | 23.03      | 1.0  | 23.5          |
|          |        | 12            | 7         | 23.07              | 21.83    | 23.05      | 1.0  | 23.5          |
|          |        | 12            | 13        | 23.02              | 21.80    | 23.08      | 1.0  | 23.5          |
|          |        | 25            | 0         | 23.04              | 21.79    | 23.01      | 1.0  | 23.5          |
|          | 16QAM  | 1             | 0         | 22.86              | 21.66    | 22.93      | 1.0  | 23.5          |
|          |        | 1             | 12        | 22.82              | 21.60    | 22.80      | 1.0  | 23.5          |
|          |        | 1             | 24        | 22.90              | 21.55    | 22.91      | 1.0  | 23.5          |
|          |        | 12            | 0         | 22.12              | 20.82    | 22.11      | 2.0  | 22.5          |
|          |        | 12            | 7         | 22.08              | 20.85    | 22.08      | 2.0  | 22.5          |
|          |        | 12            | 13        | 22.05              | 20.80    | 22.07      | 2.0  | 22.5          |
|          |        | 25            | 0         | 22.04              | 20.80    | 22.05      | 2.0  | 22.5          |
|          | 64QAM  | 1             | 0         | 22.25              | 21.33    | 21.67      | 2.0  | 22.5          |
|          |        | 1             | 12        | 22.17              | 21.27    | 21.74      | 2.0  | 22.5          |
|          |        | 1             | 24        | 22.20              | 21.18    | 21.66      | 2.0  | 22.5          |
|          |        | 12            | 0         | 20.96              | 19.85    | 21.06      | 3.0  | 21.5          |
|          |        | 12            | 7         | 20.99              | 19.90    | 21.11      | 3.0  | 21.5          |
|          |        | 12            | 13        | 21.01              | 19.83    | 21.05      | 3.0  | 21.5          |
|          |        | 25            | 0         | 20.94              | 19.77    | 21.05      | 3.0  | 21.5          |
|          | 256QAM | 1             | 0         | 19.08              | 17.91    | 19.21      | 5.0  | 19.5          |
|          |        | 1             | 12        | 19.15              | 17.96    | 19.37      | 5.0  | 19.5          |
|          |        | 1             | 24        | 19.11              | 17.81    | 19.26      | 5.0  | 19.5          |
|          |        | 12            | 0         | 19.04              | 17.84    | 19.00      | 5.0  | 19.5          |
|          |        | 12            | 7         | 19.07              | 17.85    | 19.01      | 5.0  | 19.5          |
|          |        | 12            | 13        | 19.05              | 17.81    | 19.02      | 5.0  | 19.5          |
|          |        | 25            | 0         | 18.97              | 17.75    | 18.99      | 5.0  | 19.5          |

**LTE Band 66**

| BW (MHz) | Mode   | RB Allocation | RB offset | Maximum Average Power (dBm) |          |            |     |               |
|----------|--------|---------------|-----------|-----------------------------|----------|------------|-----|---------------|
|          |        |               |           | Measured Pwr (dBm)          |          |            | MPR | Tune-up Limit |
|          |        |               |           | 132072                      | 132322   | 132572     |     |               |
|          |        |               |           | 1720 MHz                    | 1745 MHz | 1770 MHz   |     |               |
| 20 MHz   | QPSK   | 1             | 0         | 22.04                       | 22.19    | 22.33      | 0.0 | 23            |
|          |        | 1             | 49        | 22.49                       | 22.48    | 22.16      | 0.0 | 23            |
|          |        | 1             | 99        | 22.13                       | 22.21    | 22.05      | 0.0 | 23            |
|          |        | 50            | 0         | 21.37                       | 21.47    | 21.26      | 1.0 | 22            |
|          |        | 50            | 24        | 21.52                       | 21.51    | 21.30      | 1.0 | 22            |
|          |        | 50            | 50        | 21.45                       | 21.39    | 21.12      | 1.0 | 22            |
|          | 100    | 0             | 21.43     | 21.42                       | 21.20    | 1.0        | 22  |               |
|          | 16QAM  | 1             | 0         | 21.57                       | 21.61    | 21.65      | 1.0 | 22            |
|          |        | 1             | 49        | 21.85                       | 21.88    | 21.56      | 1.0 | 22            |
|          |        | 1             | 99        | 21.68                       | 21.60    | 21.50      | 1.0 | 22            |
|          |        | 50            | 0         | 20.38                       | 20.46    | 20.25      | 2.0 | 21            |
|          |        | 50            | 24        | 20.54                       | 20.50    | 20.29      | 2.0 | 21            |
|          |        | 50            | 50        | 20.47                       | 20.39    | 20.07      | 2.0 | 21            |
|          | 100    | 0             | 20.43     | 20.44                       | 20.21    | 2.0        | 21  |               |
|          | 64QAM  | 1             | 0         | 20.51                       | 20.54    | 20.75      | 2.0 | 21            |
|          |        | 1             | 49        | 20.84                       | 20.96    | 20.63      | 2.0 | 21            |
|          |        | 1             | 99        | 20.66                       | 20.60    | 20.38      | 2.0 | 21            |
|          |        | 50            | 0         | 19.46                       | 19.55    | 19.41      | 3.0 | 20            |
|          |        | 50            | 24        | 19.61                       | 19.61    | 19.39      | 3.0 | 20            |
|          |        | 50            | 50        | 19.54                       | 19.50    | 19.18      | 3.0 | 20            |
|          | 100    | 0             | 19.49     | 19.49                       | 19.25    | 3.0        | 20  |               |
|          | 256QAM | 1             | 0         | 17.3                        | 17.4     | 17.2       | 5.0 | 18            |
|          |        | 1             | 49        | 17.7                        | 17.8     | 17.4       | 5.0 | 18            |
|          |        | 1             | 99        | 17.5                        | 17.4     | 17.1       | 5.0 | 18            |
| 50       |        | 0             | 17.4      | 17.5                        | 17.3     | 5.0        | 18  |               |
| 50       |        | 24            | 17.6      | 17.6                        | 17.3     | 5.0        | 18  |               |
| 50       |        | 50            | 17.5      | 17.5                        | 17.1     | 5.0        | 18  |               |
| 100      | 0      | 17.5          | 17.4      | 17.2                        | 5.0      | 18         |     |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm)          |          |            | MPR | Tune-up Limit |
|          |        |               |           | 132047                      | 132322   | 132597     |     |               |
|          |        |               |           | 1717.5 MHz                  | 1745 MHz | 1772.5 MHz |     |               |
|          |        |               |           | 15 MHz                      | QPSK     | 1          | 0   | 22.18         |
| 1        | 37     | 22.29         | 22.44     |                             |          | 22.06      | 0.0 | 23            |
| 1        | 74     | 22.19         | 22.21     |                             |          | 21.96      | 0.0 | 23            |
| 36       | 0      | 21.32         | 21.44     |                             |          | 21.24      | 1.0 | 22            |
| 36       | 20     | 21.43         | 21.43     |                             |          | 21.24      | 1.0 | 22            |
| 36       | 39     | 21.36         | 21.37     |                             |          | 21.07      | 1.0 | 22            |
| 75       | 0      | 21.37         | 21.39     |                             | 21.18    | 1.0        | 22  |               |
| 16QAM    | 1      | 0             | 21.63     |                             | 21.27    | 21.17      | 1.0 | 22            |
|          | 1      | 37            | 21.78     |                             | 21.38    | 21.07      | 1.0 | 22            |
|          | 1      | 74            | 21.68     |                             | 21.18    | 21.00      | 1.0 | 22            |
|          | 36     | 0             | 20.32     |                             | 20.42    | 20.23      | 2.0 | 21            |
|          | 36     | 20            | 20.38     |                             | 20.43    | 20.24      | 2.0 | 21            |
|          | 36     | 39            | 20.36     |                             | 20.39    | 20.08      | 2.0 | 21            |
| 75       | 0      | 20.36         | 20.41     |                             | 20.19    | 2.0        | 21  |               |
| 64QAM    | 1      | 0             | 20.50     |                             | 20.69    | 20.53      | 2.0 | 21            |
|          | 1      | 37            | 20.73     |                             | 20.84    | 20.41      | 2.0 | 21            |
|          | 1      | 74            | 20.62     |                             | 20.63    | 20.27      | 2.0 | 21            |
|          | 36     | 0             | 19.34     |                             | 19.44    | 19.35      | 3.0 | 20            |
|          | 36     | 20            | 19.40     |                             | 19.46    | 19.31      | 3.0 | 20            |
|          | 36     | 39            | 19.38     |                             | 19.39    | 19.16      | 3.0 | 20            |
| 75       | 0      | 19.38         | 19.44     |                             | 19.24    | 3.0        | 20  |               |
| 256QAM   | 1      | 0             | 17.47     |                             | 17.55    | 17.55      | 5.0 | 18            |
|          | 1      | 37            | 17.64     |                             | 17.70    | 17.58      | 5.0 | 18            |
|          | 1      | 74            | 17.57     |                             | 17.53    | 17.38      | 5.0 | 18            |
|          | 36     | 0             | 17.32     | 17.44                       | 17.28    | 5.0        | 18  |               |
|          | 36     | 20            | 17.43     | 17.45                       | 17.29    | 5.0        | 18  |               |
|          | 36     | 39            | 17.41     | 17.39                       | 17.16    | 5.0        | 18  |               |
| 75       | 0      | 17.41         | 17.42     | 17.25                       | 5.0      | 18         |     |               |



| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|----------|------------|-----|---------------|
|          |        |               |           | 132022             | 132322   | 132622     |     |               |
|          |        |               |           | 1715 MHz           | 1745 MHz | 1775 MHz   |     |               |
| 10 MHz   | QPSK   | 1             | 0         | 22.16              | 22.27    | 22.08      | 0.0 | 23            |
|          |        | 1             | 25        | 22.40              | 22.51    | 22.29      | 0.0 | 23            |
|          |        | 1             | 49        | 22.29              | 22.26    | 22.04      | 0.0 | 23            |
|          |        | 25            | 0         | 21.39              | 21.45    | 21.30      | 1.0 | 22            |
|          |        | 25            | 12        | 21.56              | 21.54    | 21.35      | 1.0 | 22            |
|          |        | 25            | 25        | 21.47              | 21.45    | 21.19      | 1.0 | 22            |
|          |        | 50            | 0         | 21.47              | 21.44    | 21.29      | 1.0 | 22            |
|          | 16QAM  | 1             | 0         | 21.13              | 21.22    | 21.00      | 1.0 | 22            |
|          |        | 1             | 25        | 21.43              | 21.53    | 21.21      | 1.0 | 22            |
|          |        | 1             | 49        | 21.20              | 21.21    | 20.93      | 1.0 | 22            |
|          |        | 25            | 0         | 20.43              | 20.53    | 20.32      | 2.0 | 21            |
|          |        | 25            | 12        | 20.60              | 20.60    | 20.43      | 2.0 | 21            |
|          |        | 25            | 25        | 20.48              | 20.47    | 20.22      | 2.0 | 21            |
|          |        | 50            | 0         | 20.47              | 20.46    | 20.27      | 2.0 | 21            |
|          | 64QAM  | 1             | 0         | 20.02              | 20.16    | 19.97      | 2.0 | 21            |
|          |        | 1             | 25        | 20.35              | 20.43    | 20.15      | 2.0 | 21            |
|          |        | 1             | 49        | 20.15              | 20.15    | 19.83      | 2.0 | 21            |
|          |        | 25            | 0         | 19.46              | 19.59    | 19.40      | 3.0 | 20            |
|          |        | 25            | 12        | 19.64              | 19.65    | 19.45      | 3.0 | 20            |
|          |        | 25            | 25        | 19.55              | 19.56    | 19.30      | 3.0 | 20            |
|          |        | 50            | 0         | 19.47              | 19.50    | 19.30      | 3.0 | 20            |
|          | 256QAM | 1             | 0         | 17.22              | 17.33    | 17.14      | 5.0 | 18            |
|          |        | 1             | 25        | 17.60              | 17.69    | 17.38      | 5.0 | 18            |
|          |        | 1             | 49        | 17.37              | 17.37    | 17.06      | 5.0 | 18            |
| 25       |        | 0             | 17.50     | 17.59              | 17.40    | 5.0        | 18  |               |
| 25       |        | 12            | 17.68     | 17.71              | 17.50    | 5.0        | 18  |               |
| 25       |        | 25            | 17.58     | 17.60              | 17.29    | 5.0        | 18  |               |
| 50       |        | 0             | 17.52     | 17.56              | 17.34    | 5.0        | 18  |               |
| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR | Tune-up Limit |
|          |        |               |           | 131997             | 132322   | 132647     |     |               |
|          |        |               |           | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |               |
| 5 MHz    | QPSK   | 1             | 0         | 22.47              | 22.62    | 22.37      | 0.0 | 23            |
|          |        | 1             | 12        | 22.51              | 22.59    | 22.29      | 0.0 | 23            |
|          |        | 1             | 24        | 22.43              | 22.50    | 22.16      | 0.0 | 23            |
|          |        | 12            | 0         | 21.55              | 21.53    | 21.31      | 1.0 | 22            |
|          |        | 12            | 7         | 21.56              | 21.57    | 21.30      | 1.0 | 22            |
|          |        | 12            | 13        | 21.52              | 21.49    | 21.25      | 1.0 | 22            |
|          |        | 25            | 0         | 21.51              | 21.57    | 21.29      | 1.0 | 22            |
|          | 16QAM  | 1             | 0         | 21.58              | 21.73    | 21.42      | 1.0 | 22            |
|          |        | 1             | 12        | 21.57              | 21.71    | 21.34      | 1.0 | 22            |
|          |        | 1             | 24        | 21.56              | 21.62    | 21.29      | 1.0 | 22            |
|          |        | 12            | 0         | 20.60              | 20.63    | 20.39      | 2.0 | 21            |
|          |        | 12            | 7         | 20.62              | 20.68    | 20.42      | 2.0 | 21            |
|          |        | 12            | 13        | 20.53              | 20.60    | 20.31      | 2.0 | 21            |
|          |        | 25            | 0         | 20.46              | 20.58    | 20.30      | 2.0 | 21            |
|          | 64QAM  | 1             | 0         | 20.67              | 20.82    | 20.48      | 2.0 | 21            |
|          |        | 1             | 12        | 20.75              | 20.95    | 20.61      | 2.0 | 21            |
|          |        | 1             | 24        | 20.69              | 20.74    | 20.38      | 2.0 | 21            |
|          |        | 12            | 0         | 19.71              | 19.73    | 19.48      | 3.0 | 20            |
|          |        | 12            | 7         | 19.69              | 19.73    | 19.49      | 3.0 | 20            |
|          |        | 12            | 13        | 19.65              | 19.69    | 19.43      | 3.0 | 20            |
|          |        | 25            | 0         | 19.53              | 19.58    | 19.32      | 3.0 | 20            |
|          | 256QAM | 1             | 0         | 17.50              | 17.64    | 17.38      | 5.0 | 18            |
|          |        | 1             | 12        | 17.63              | 17.77    | 17.43      | 5.0 | 18            |
|          |        | 1             | 24        | 17.52              | 17.54    | 17.22      | 5.0 | 18            |
| 12       |        | 0             | 17.63     | 17.63              | 17.38    | 5.0        | 18  |               |
| 12       |        | 7             | 17.62     | 17.66              | 17.40    | 5.0        | 18  |               |
| 12       |        | 13            | 17.55     | 17.58              | 17.31    | 5.0        | 18  |               |
| 25       |        | 0             | 17.59     | 17.60              | 17.39    | 5.0        | 18  |               |

| BW (MHz) | Mode   | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR | Tune-up Limit |
|----------|--------|---------------|-----------|--------------------|----------|------------|-----|---------------|
|          |        |               |           | 131987             | 132322   | 132657     |     |               |
|          |        |               |           | 1711.5 MHz         | 1745 MHz | 1778.5 MHz |     |               |
| 3 MHz    | QPSK   | 1             | 0         | 22.45              | 22.60    | 22.31      | 0.0 | 23            |
|          |        | 1             | 8         | 22.43              | 22.47    | 22.15      | 0.0 | 23            |
|          |        | 1             | 14        | 22.42              | 22.51    | 22.18      | 0.0 | 23            |
|          |        | 8             | 0         | 21.55              | 21.57    | 21.29      | 1.0 | 22            |
|          |        | 8             | 4         | 21.52              | 21.66    | 21.29      | 1.0 | 22            |
|          |        | 8             | 7         | 21.54              | 21.57    | 21.30      | 1.0 | 22            |
|          |        | 15            | 0         | 21.53              | 21.56    | 21.29      | 1.0 | 22            |
|          | 16QAM  | 1             | 0         | 21.48              | 21.56    | 21.24      | 1.0 | 22            |
|          |        | 1             | 8         | 21.41              | 21.51    | 21.15      | 1.0 | 22            |
|          |        | 1             | 14        | 21.41              | 21.41    | 21.07      | 1.0 | 22            |
|          |        | 8             | 0         | 20.63              | 20.66    | 20.37      | 2.0 | 21            |
|          |        | 8             | 4         | 20.67              | 20.75    | 20.42      | 2.0 | 21            |
|          |        | 8             | 7         | 20.66              | 20.70    | 20.41      | 2.0 | 21            |
|          | 64QAM  | 15            | 0         | 20.56              | 20.57    | 20.31      | 2.0 | 21            |
|          |        | 1             | 0         | 20.43              | 20.49    | 20.27      | 2.0 | 21            |
|          |        | 1             | 8         | 20.41              | 20.48    | 20.12      | 2.0 | 21            |
|          |        | 1             | 14        | 20.36              | 20.37    | 20.01      | 2.0 | 21            |
|          |        | 8             | 0         | 19.63              | 19.68    | 19.40      | 3.0 | 20            |
|          |        | 8             | 4         | 19.66              | 19.72    | 19.41      | 3.0 | 20            |
|          | 256QAM | 8             | 7         | 19.63              | 19.65    | 19.38      | 3.0 | 20            |
|          |        | 15            | 0         | 19.55              | 19.57    | 19.33      | 3.0 | 20            |
|          |        | 1             | 0         | 17.50              | 17.61    | 17.34      | 5.0 | 18            |
|          |        | 1             | 8         | 17.62              | 17.72    | 17.32      | 5.0 | 18            |
|          |        | 1             | 14        | 17.51              | 17.52    | 17.15      | 5.0 | 18            |
| 8        |        | 0             | 17.71     | 17.70              | 17.46    | 5.0        | 18  |               |
| 1.4 MHz  | QPSK   | 8             | 4         | 17.75              | 17.85    | 17.51      | 5.0 | 18            |
|          |        | 8             | 7         | 17.75              | 17.74    | 17.50      | 5.0 | 18            |
|          |        | 15            | 0         | 17.63              | 17.66    | 17.38      | 5.0 | 18            |
|          |        | 1             | 0         | 22.49              | 22.51    | 22.18      | 0.0 | 23            |
|          |        | 1             | 3         | 22.52              | 22.54    | 22.20      | 0.0 | 23            |
|          |        | 1             | 5         | 22.41              | 22.46    | 22.12      | 0.0 | 23            |
|          |        | 3             | 0         | 22.37              | 22.49    | 22.14      | 0.0 | 23            |
|          | 16QAM  | 3             | 1         | 22.42              | 22.51    | 22.18      | 0.0 | 23            |
|          |        | 3             | 3         | 22.40              | 22.49    | 22.13      | 0.0 | 23            |
|          |        | 6             | 0         | 21.47              | 21.54    | 21.22      | 1.0 | 22            |
|          |        | 1             | 0         | 21.61              | 21.53    | 21.18      | 1.0 | 22            |
|          |        | 1             | 3         | 21.66              | 21.62    | 21.23      | 1.0 | 22            |
|          |        | 1             | 5         | 21.57              | 21.54    | 21.10      | 1.0 | 22            |
|          |        | 3             | 0         | 21.51              | 21.75    | 21.41      | 1.0 | 22            |
|          | 64QAM  | 3             | 1         | 21.53              | 21.73    | 21.48      | 1.0 | 22            |
|          |        | 3             | 3         | 21.57              | 21.74    | 21.48      | 1.0 | 22            |
|          |        | 6             | 0         | 20.65              | 20.73    | 20.39      | 2.0 | 21            |
|          |        | 1             | 0         | 20.33              | 20.87    | 20.33      | 2.0 | 21            |
|          |        | 1             | 3         | 20.48              | 20.86    | 20.34      | 2.0 | 21            |
|          |        | 1             | 5         | 20.38              | 20.72    | 20.20      | 2.0 | 21            |
|          |        | 3             | 0         | 20.36              | 20.66    | 20.43      | 2.0 | 21            |
|          | 256QAM | 3             | 1         | 20.34              | 20.63    | 20.54      | 2.0 | 21            |
|          |        | 3             | 3         | 20.41              | 20.67    | 20.53      | 2.0 | 21            |
|          |        | 6             | 0         | 19.44              | 19.64    | 19.36      | 3.0 | 20            |
| 1        |        | 0             | 17.46     | 17.76              | 17.06    | 5.0        | 18  |               |
| 1        |        | 3             | 17.64     | 17.88              | 17.19    | 5.0        | 18  |               |
| 1        |        | 5             | 17.52     | 17.75              | 17.15    | 5.0        | 18  |               |
| 3        |        | 0             | 17.59     | 17.56              | 17.18    | 5.0        | 18  |               |
| 1.4 MHz  | 256QAM | 3             | 1         | 17.59              | 17.61    | 17.14      | 5.0 | 18            |
|          |        | 3             | 3         | 17.59              | 17.56    | 17.16      | 5.0 | 18            |
|          |        | 6             | 0         | 17.58              | 17.56    | 17.39      | 5.0 | 18            |

**NR Band n5**

| BW (MHz) | Modulation | Mode     | RB Allocation | RB offset | Maximum Average Power (dBm) |            |           |       |               |       |
|----------|------------|----------|---------------|-----------|-----------------------------|------------|-----------|-------|---------------|-------|
|          |            |          |               |           | Measured Pwr (dBm)          |            |           | MPR   | Tune-up Limit |       |
|          |            |          |               |           | 166800                      | 167300     | 167800    |       |               |       |
|          |            |          |               |           | 834 MHz                     | 836.5 MHz  | 839 MHz   |       |               |       |
| 20 MHz   | DFT-s-OFDM | π/2 BPSK | 1             | 1         | 23.92                       | 23.97      | 23.79     | 0.0   | 25.0          |       |
|          |            |          | 1             | 53        | 23.77                       | 23.68      | 23.62     | 0.0   | 25.0          |       |
|          |            |          | 1             | 104       | 23.57                       | 23.49      | 23.52     | 0.0   | 25.0          |       |
|          |            |          | 50            | 0         | 23.37                       | 23.29      | 23.27     | 0.5   | 24.5          |       |
|          |            |          | 50            | 28        | 23.79                       | 23.71      | 23.66     | 0.0   | 25.0          |       |
|          |            |          | 50            | 56        | 23.15                       | 23.15      | 23.09     | 0.5   | 24.5          |       |
|          |            |          | 100           | 0         | 23.26                       | 23.28      | 23.20     | 0.5   | 24.5          |       |
|          |            | QPSK     | 1             | 1         | 24.05                       | 24.10      | 23.75     | 0.0   | 25.0          |       |
|          |            |          | 1             | 53        | 23.81                       | 23.66      | 23.56     | 0.0   | 25.0          |       |
|          |            |          | 1             | 104       | 23.56                       | 23.58      | 23.46     | 0.0   | 25.0          |       |
|          |            |          | 50            | 0         | 22.86                       | 22.75      | 22.75     | 1.0   | 24.0          |       |
|          |            |          | 50            | 28        | 23.73                       | 23.74      | 23.70     | 0.0   | 25.0          |       |
|          |            |          | 50            | 56        | 22.67                       | 22.65      | 23.06     | 1.0   | 24.0          |       |
|          |            |          | 100           | 0         | 22.74                       | 22.76      | 22.69     | 1.0   | 24.0          |       |
|          |            | 16QAM    | 1             | 1         | 23.22                       | 23.19      | 23.19     | 1.0   | 24.0          |       |
|          |            |          | 1             | 53        | 23.24                       | 23.12      | 23.16     | 1.0   | 24.0          |       |
|          |            |          | 1             | 104       | 23.27                       | 23.20      | 23.11     | 1.0   | 24.0          |       |
|          |            | 64QAM    | 1             | 1         | 21.56                       | 21.47      | 21.45     | 2.5   | 22.5          |       |
|          |            | 256QAM   | 1             | 1         | 19.46                       | 19.39      | 19.37     | 4.5   | 20.5          |       |
|          |            | CP-OFDM  | QPSK          | 1         | 1                           | 22.22      | 22.56     | 22.30 | 1.5           | 23.5  |
| BW (MHz) | Modulation | Mode     | RB Allocation | RB offset | Measured Pwr (dBm)          |            |           | MPR   | Tune-up Limit |       |
|          |            |          |               |           | 166300                      | 167300     | 168300    |       |               |       |
|          |            |          |               |           | 831.5 MHz                   | 836.5 MHz  | 841.5 MHz |       |               |       |
|          |            |          |               |           | 15 MHz                      | DFT-s-OFDM | π/2 BPSK  | 1     | 1             | 24.03 |
| 1        | 40         | 23.82    | 23.81         | 23.61     |                             |            |           | 0.0   | 25.0          |       |
| 1        | 77         | 23.70    | 23.54         | 23.50     |                             |            |           | 0.0   | 25.0          |       |
| 36       | 0          | 23.40    | 23.34         | 23.23     |                             |            |           | 0.5   | 24.5          |       |
| 36       | 22         | 23.83    | 23.77         | 23.63     |                             |            |           | 0.0   | 25.0          |       |
| 36       | 43         | 23.27    | 23.16         | 23.06     |                             |            |           | 0.5   | 24.5          |       |
| 75       | 0          | 23.35    | 23.26         | 23.17     |                             |            |           | 0.5   | 24.5          |       |
| QPSK     | 1          | 1        | 23.86         | 23.69     |                             |            | 23.74     | 0.0   | 25.0          |       |
|          | 1          | 40       | 23.70         | 23.68     |                             |            | 23.54     | 0.0   | 25.0          |       |
|          | 1          | 77       | 23.73         | 23.46     |                             |            | 23.49     | 0.0   | 25.0          |       |
|          | 36         | 0        | 22.97         | 22.80     |                             |            | 22.66     | 1.0   | 24.0          |       |
|          | 36         | 22       | 23.88         | 23.80     |                             |            | 23.67     | 0.0   | 25.0          |       |
|          | 36         | 43       | 22.81         | 22.68     |                             |            | 22.57     | 1.0   | 24.0          |       |
|          | 75         | 0        | 22.81         | 22.78     |                             |            | 22.63     | 1.0   | 24.0          |       |
| 16QAM    | 1          | 1        | 22.89         | 23.16     |                             |            | 22.92     | 1.0   | 24.0          |       |
| 64QAM    | 1          | 1        | 21.63         | 21.49     |                             |            | 21.33     | 2.5   | 22.5          |       |
| 256QAM   | 1          | 1        | 19.47         | 19.44     |                             |            | 19.23     | 4.5   | 20.5          |       |
| CP-OFDM  | QPSK       | 1        | 1             | 22.29     |                             |            | 22.51     | 22.42 | 1.5           | 23.5  |

| BW (MHz) | Modulation | Mode     | RB Allocation | RB offset | Measured Pwr (dBm) |           |         | MPR  | Tune-up Limit |
|----------|------------|----------|---------------|-----------|--------------------|-----------|---------|------|---------------|
|          |            |          |               |           | 165800             | 167300    | 168800  |      |               |
|          |            |          |               |           | 829 MHz            | 836.5 MHz | 844 MHz |      |               |
| 10 MHz   | DFT-s-OFDM | π/2 BPSK | 1             | 1         | 23.95              | 23.77     | 23.81   | 0.0  | 25.0          |
|          |            |          | 1             | 26        | 23.81              | 23.78     | 23.77   | 0.0  | 25.0          |
|          |            |          | 1             | 50        | 23.82              | 23.69     | 23.66   | 0.0  | 25.0          |
|          |            |          | 25            | 0         | 23.47              | 23.32     | 23.20   | 0.5  | 24.5          |
|          |            |          | 25            | 14        | 23.96              | 23.83     | 23.64   | 0.0  | 25.0          |
|          |            |          | 25            | 27        | 23.40              | 23.27     | 23.11   | 0.5  | 24.5          |
|          |            | QPSK     | 50            | 0         | 23.47              | 23.35     | 23.26   | 0.5  | 24.5          |
|          |            |          | 1             | 1         | 24.01              | 23.95     | 23.71   | 0.0  | 25.0          |
|          |            |          | 1             | 26        | 23.73              | 23.83     | 23.63   | 0.0  | 25.0          |
|          |            |          | 1             | 50        | 23.74              | 23.67     | 23.59   | 0.0  | 25.0          |
|          |            |          | 25            | 0         | 23.72              | 22.85     | 22.69   | 1.0  | 24.0          |
|          |            |          | 25            | 14        | 23.91              | 23.85     | 23.66   | 0.0  | 25.0          |
|          |            | 16QAM    | 25            | 27        | 22.87              | 22.77     | 22.65   | 1.0  | 24.0          |
|          |            |          | 50            | 0         | 22.93              | 22.84     | 22.67   | 1.0  | 24.0          |
|          |            |          | 1             | 1         | 22.90              | 23.13     | 23.00   | 1.0  | 24.0          |
|          |            | 64QAM    | 1             | 1         | 21.58              | 21.49     | 21.47   | 2.5  | 22.5          |
| 1        | 1          |          | 19.47         | 19.35     | 19.32              | 4.5       | 20.5    |      |               |
| 256QAM   | 1          | 1        | 19.47         | 19.35     | 19.32              | 4.5       | 20.5    |      |               |
|          | 1          | 1        | 22.50         | 22.32     | 22.24              | 1.5       | 23.5    |      |               |
| 5 MHz    | DFT-s-OFDM | π/2 BPSK | 1             | 1         | 23.94              | 23.87     | 23.72   | 0.0  | 25.0          |
|          |            |          | 1             | 13        | 24.02              | 23.75     | 23.69   | 0.0  | 25.0          |
|          |            |          | 1             | 23        | 23.97              | 23.71     | 23.78   | 0.0  | 25.0          |
| QPSK     | 12         | 0        | 23.99         | 23.31     | 23.13              | 0.5       | 24.5    |      |               |
|          | 12         | 7        | 23.98         | 23.76     | 23.61              | 0.0       | 25.0    |      |               |
|          | 12         | 13       | 23.49         | 23.30     | 23.21              | 0.5       | 24.5    |      |               |
|          | 25         | 0        | 23.55         | 23.31     | 23.18              | 0.5       | 24.5    |      |               |
|          | 1          | 1        | 24.21         | 23.93     | 23.53              | 0.0       | 25.0    |      |               |
|          | 1          | 13       | 24.20         | 23.71     | 23.65              | 0.0       | 25.0    |      |               |
|          | 1          | 23       | 23.96         | 23.86     | 23.67              | 0.0       | 25.0    |      |               |
|          | 12         | 0        | 23.05         | 22.86     | 22.70              | 1.0       | 24.0    |      |               |
|          | 12         | 7        | 24.01         | 23.78     | 23.64              | 0.0       | 25.0    |      |               |
|          | 12         | 13       | 22.97         | 22.79     | 22.70              | 1.0       | 24.0    |      |               |
| 25       | 0          | 23.06    | 22.81         | 22.71     | 1.0                | 24.0      |         |      |               |
| 16QAM    | 1          | 1        | 23.04         | 23.18     | 22.71              | 1.0       | 24.0    |      |               |
|          | 1          | 1        | 21.59         | 21.55     | 21.37              | 2.5       | 22.5    |      |               |
|          | 1          | 1        | 19.60         | 19.34     | 19.34              | 4.5       | 20.5    |      |               |
| 256QAM   | 1          | 1        | 19.60         | 19.34     | 19.34              | 4.5       | 20.5    |      |               |
|          | 1          | 1        | 22.56         | 22.55     | 22.01              | 1.5       | 23.5    |      |               |
| CP-OFDM  | QPSK       | 1        | 1             | 22.56     | 22.55              | 22.01     | 1.5     | 23.5 |               |

**NR Band n66**

| BW (MHz) | Modulation | Mode     | RB Allocation | RB offset | Maximum Average Power (dBm) |          |            |      |               |
|----------|------------|----------|---------------|-----------|-----------------------------|----------|------------|------|---------------|
|          |            |          |               |           | Measured Pwr (dBm)          |          |            | MPR  | Tune-up Limit |
|          |            |          |               |           | 344000                      | 349000   | 354000     |      |               |
|          |            |          |               |           | 1720 MHz                    | 1745 MHz | 1770 MHz   |      |               |
| 20 MHz   | DFT-s-OFDM | π/2 BPSK | 1             | 1         | 22.33                       | 22.82    | 22.36      | 0.0  | 23.8          |
|          |            |          | 1             | 53        | 22.31                       | 22.79    | 22.34      | 0.0  | 23.8          |
|          |            |          | 1             | 104       | 22.43                       | 22.85    | 22.48      | 0.0  | 23.8          |
|          |            |          | 50            | 0         | 21.44                       | 21.95    | 21.48      | 0.5  | 23.3          |
|          |            |          | 50            | 28        | 22.48                       | 22.95    | 22.54      | 0.0  | 23.8          |
|          |            |          | 50            | 56        | 21.51                       | 21.95    | 21.51      | 0.5  | 23.3          |
|          |            | 100      | 0             | 21.52     | 21.98                       | 21.54    | 0.5        | 23.3 |               |
|          |            | QPSK     | 1             | 1         | 22.43                       | 22.90    | 22.52      | 0.0  | 23.8          |
|          |            |          | 1             | 53        | 22.44                       | 22.94    | 22.48      | 0.0  | 23.8          |
|          |            |          | 1             | 104       | 22.58                       | 22.93    | 22.55      | 0.0  | 23.8          |
|          |            |          | 50            | 0         | 21.47                       | 21.98    | 21.48      | 1.0  | 22.8          |
|          |            |          | 50            | 28        | 22.55                       | 22.99    | 22.51      | 0.0  | 23.8          |
|          |            |          | 50            | 56        | 21.52                       | 21.98    | 21.57      | 1.0  | 22.8          |
|          | 100        | 0        | 21.48         | 22.00     | 21.54                       | 1.0      | 22.8       |      |               |
| 16QAM    | 1          | 1        | 21.47         | 21.94     | 21.50                       | 1.0      | 22.8       |      |               |
| 64QAM    | 1          | 1        | 20.02         | 20.40     | 20.03                       | 2.5      | 21.3       |      |               |
| 256QAM   | 1          | 1        | 17.21         | 17.71     | 17.24                       | 4.5      | 19.3       |      |               |
| CP-OQDM  | QPSK       | 1        | 1             | 20.79     | 21.28                       | 20.80    | 1.5        | 22.3 |               |
| BW (MHz) | Modulation | Mode     | RB Allocation | RB offset | Measured Pwr (dBm)          |          |            | MPR  | Tune-up Limit |
|          |            |          |               |           | 343500                      | 349000   | 354500     |      |               |
|          |            |          |               |           | 1717.5 MHz                  | 1745 MHz | 1772.5 MHz |      |               |
| 15 MHz   | DFT-s-OFDM | π/2 BPSK | 1             | 1         | 22.46                       | 22.78    | 22.48      | 0.0  | 23.8          |
|          |            |          | 1             | 40        | 22.59                       | 22.69    | 22.61      | 0.0  | 23.8          |
|          |            |          | 1             | 77        | 22.68                       | 22.83    | 22.80      | 0.0  | 23.8          |
|          |            |          | 36            | 0         | 21.72                       | 21.95    | 21.75      | 0.5  | 23.3          |
|          |            |          | 36            | 22        | 22.72                       | 22.89    | 22.75      | 0.0  | 23.8          |
|          |            |          | 36            | 43        | 21.74                       | 21.96    | 21.78      | 0.5  | 23.3          |
|          |            |          | 75            | 0         | 21.72                       | 21.90    | 21.76      | 0.5  | 23.3          |
|          |            | QPSK     | 1             | 1         | 22.64                       | 22.88    | 22.60      | 0.0  | 23.8          |
|          |            |          | 1             | 40        | 22.67                       | 22.85    | 22.66      | 0.0  | 23.8          |
|          |            |          | 1             | 77        | 22.79                       | 22.92    | 22.77      | 0.0  | 23.8          |
|          |            |          | 36            | 0         | 21.77                       | 22.00    | 21.76      | 1.0  | 22.8          |
|          |            |          | 36            | 22        | 22.75                       | 22.94    | 22.75      | 0.0  | 23.8          |
|          |            |          | 36            | 43        | 21.75                       | 21.96    | 21.75      | 1.0  | 22.8          |
|          |            | 75       | 0             | 21.74     | 21.96                       | 21.77    | 1.0        | 22.8 |               |
|          |            | 16QAM    | 1             | 1         | 21.60                       | 21.93    | 21.61      | 1.0  | 22.8          |
|          |            | 64QAM    | 1             | 1         | 20.25                       | 20.50    | 20.25      | 2.5  | 21.3          |
|          | 256QAM     | 1        | 1             | 17.48     | 17.66                       | 17.46    | 4.5        | 19.3 |               |
| CP-OQDM  | QPSK       | 1        | 1             | 21.02     | 21.28                       | 21.05    | 1.5        | 22.3 |               |

| BW (MHz) | Modulation | Mode     | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|----------|------------|----------|---------------|-----------|--------------------|----------|------------|------|---------------|
|          |            |          |               |           | 343000             | 349000   | 355000     |      |               |
|          |            |          |               |           | 1715 MHz           | 1745 MHz | 1775 MHz   |      |               |
| 10 MHz   | DFT-s-OFDM | π/2 BPSK | 1             | 1         | 22.40              | 22.61    | 22.56      | 0.0  | 23.8          |
|          |            |          | 1             | 26        | 22.43              | 22.73    | 22.72      | 0.0  | 23.8          |
|          |            |          | 1             | 50        | 22.50              | 22.75    | 22.76      | 0.0  | 23.8          |
|          |            |          | 25            | 0         | 21.51              | 21.69    | 21.69      | 0.5  | 23.3          |
|          |            |          | 25            | 14        | 22.54              | 22.86    | 22.87      | 0.0  | 23.8          |
|          |            |          | 25            | 27        | 21.55              | 21.85    | 21.84      | 0.5  | 23.3          |
|          |            | 50       | 0             | 21.48     | 21.86              | 21.85    | 0.5        | 23.3 |               |
|          |            | QPSK     | 1             | 1         | 22.48              | 22.69    | 22.67      | 0.0  | 23.8          |
|          |            |          | 1             | 26        | 22.53              | 22.86    | 22.88      | 0.0  | 23.8          |
|          |            |          | 1             | 50        | 22.51              | 22.84    | 22.87      | 0.0  | 23.8          |
|          |            |          | 25            | 0         | 21.46              | 21.76    | 21.76      | 1.0  | 22.8          |
|          |            |          | 25            | 14        | 22.52              | 22.85    | 22.85      | 0.0  | 23.8          |
|          |            |          | 25            | 27        | 21.50              | 21.84    | 21.86      | 1.0  | 22.8          |
|          |            | 50       | 0             | 21.52     | 21.86              | 21.85    | 1.0        | 22.8 |               |
| 16QAM    | 1          | 1        | 21.49         | 21.73     | 21.72              | 1.0      | 22.8       |      |               |
| 64QAM    | 1          | 1        | 20.14         | 20.41     | 20.46              | 2.5      | 21.3       |      |               |
| 256QAM   | 1          | 1        | 17.39         | 17.61     | 17.63              | 4.5      | 19.3       |      |               |
| CP-OFDM  | QPSK       | 1        | 1             | 20.88     | 21.15              | 21.03    | 1.5        | 22.3 |               |
| BW (MHz) | Modulation | Mode     | RB Allocation | RB offset | Measured Pwr (dBm) |          |            | MPR  | Tune-up Limit |
|          |            |          |               |           | 342500             | 349000   | 355500     |      |               |
|          |            |          |               |           | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |      |               |
| 5 MHz    | DFT-s-OFDM | π/2 BPSK | 1             | 1         | 22.39              | 22.59    | 22.69      | 0.0  | 23.8          |
|          |            |          | 1             | 13        | 22.44              | 22.75    | 22.80      | 0.0  | 23.8          |
|          |            |          | 1             | 23        | 22.45              | 22.72    | 22.76      | 0.0  | 23.8          |
|          |            |          | 12            | 0         | 21.52              | 21.80    | 21.85      | 0.5  | 23.3          |
|          |            |          | 12            | 7         | 22.50              | 22.80    | 22.87      | 0.0  | 23.8          |
|          |            |          | 12            | 13        | 21.50              | 21.82    | 21.84      | 0.5  | 23.3          |
|          |            | 25       | 0             | 21.52     | 21.84              | 21.89    | 0.5        | 23.3 |               |
|          |            | QPSK     | 1             | 1         | 22.50              | 22.74    | 22.81      | 0.0  | 23.8          |
|          |            |          | 1             | 13        | 22.56              | 22.82    | 22.86      | 0.0  | 23.8          |
|          |            |          | 1             | 23        | 22.52              | 22.80    | 22.83      | 0.0  | 23.8          |
|          |            |          | 12            | 0         | 21.53              | 21.80    | 21.83      | 1.0  | 22.8          |
|          |            |          | 12            | 7         | 22.51              | 22.81    | 22.87      | 0.0  | 23.8          |
|          |            |          | 12            | 13        | 21.53              | 21.88    | 21.87      | 1.0  | 22.8          |
|          |            | 25       | 0             | 21.54     | 21.82              | 21.86    | 1.0        | 22.8 |               |
| 16QAM    | 1          | 1        | 21.53         | 21.76     | 21.88              | 1.0      | 22.8       |      |               |
| 64QAM    | 1          | 1        | 20.17         | 20.40     | 20.42              | 2.5      | 21.3       |      |               |
| 256QAM   | 1          | 1        | 17.43         | 17.66     | 17.58              | 4.5      | 19.3       |      |               |
| CP-OFDM  | QPSK       | 1        | 1             | 20.89     | 21.11              | 21.07    | 1.5        | 22.3 |               |

**GSM**

| FCC Part 22/24 |                       |            |              |                |              |                |
|----------------|-----------------------|------------|--------------|----------------|--------------|----------------|
| Band           | Frequency Range [MHz] | Modulation | Conducted    |                | Radiated     |                |
|                |                       |            | Avg [dBm]    | Avg [mW]       | Avg [dBm]    | Avg [mW]       |
| GSM850         | 824~849               | GPRS       | <b>32.69</b> | <b>1857.80</b> | <b>32.77</b> | <b>1892.34</b> |
|                |                       | EGPRS      | 27.33        | 540.75         | 27.29        | 535.80         |
| GSM1900        | 1850~1910             | GPRS       | <b>27.94</b> | <b>622.30</b>  | <b>31.34</b> | <b>1361.44</b> |
|                |                       | EGPRS      | 24.76        | 299.23         | 28.28        | 672.98         |

**WCDMA**

| FCC Part 22/24/27 |                       |            |              |               |              |               |
|-------------------|-----------------------|------------|--------------|---------------|--------------|---------------|
| Band              | Frequency Range [MHz] | Modulation | Conducted    |               | Radiated     |               |
|                   |                       |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |
| Band 5            | 824~849               | Rel. 99    | <b>24.19</b> | <b>262.42</b> | <b>24.70</b> | <b>295.12</b> |
|                   |                       | HSDPA      | 23.22        | 209.89        | 22.61        | 182.39        |
| Band 4            | 1710~1755             | Rel. 99    | <b>22.66</b> | <b>184.50</b> | <b>25.90</b> | <b>389.05</b> |
|                   |                       | HSDPA      | 22.22        | 166.72        | 25.41        | 347.54        |
| Band 2            | 1850~1910             | Rel. 99    | <b>22.16</b> | <b>164.44</b> | <b>25.73</b> | <b>374.11</b> |
|                   |                       | HSDPA      | 21.69        | 147.57        | 25.33        | 341.19        |

**LTE Band 12**

| FCC Part 27 |                       |                 |            |              |               |              |               |
|-------------|-----------------------|-----------------|------------|--------------|---------------|--------------|---------------|
| Band        | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated     |               |
|             |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |
| Band 12     | 704 - 711             | 10              | QPSK       | 23.88        | 244.34        | 19.50        | 89.13         |
|             |                       |                 | 16QAM      | 23.35        | 216.27        | 18.70        | 74.13         |
|             |                       |                 | 64QAM      | 22.37        | 172.58        |              |               |
|             |                       |                 | 256QAM     | 19.41        | 87.30         |              |               |
|             | 701.5 - 707.5         | 5               | QPSK       | <b>23.39</b> | <b>218.27</b> | <b>21.43</b> | <b>139.00</b> |
|             |                       |                 | 16QAM      | 22.85        | 192.75        | 18.75        | 74.99         |
|             |                       |                 | 64QAM      | 21.79        | 151.01        |              |               |
|             |                       |                 | 256QAM     | 18.66        | 73.45         |              |               |
|             | 700.5 - 714.5         | 3               | QPSK       | 23.32        | 214.78        | 20.04        | 100.93        |
|             |                       |                 | 16QAM      | 22.72        | 187.07        | 18.97        | 78.89         |
|             |                       |                 | 64QAM      | 21.87        | 153.82        |              |               |
|             |                       |                 | 256QAM     | 18.76        | 75.16         |              |               |
|             | 699.7 - 715.3         | 1.4             | QPSK       | 23.30        | 213.80        | 20.08        | 101.86        |
|             |                       |                 | 16QAM      | 22.57        | 180.72        | 18.92        | 77.98         |
|             |                       |                 | 64QAM      | 21.99        | 158.12        |              |               |
|             |                       |                 | 256QAM     | 18.68        | 73.79         |              |               |

**LTE Band 13**

| FCC Part 27 |                       |                 |            |              |               |              |               |
|-------------|-----------------------|-----------------|------------|--------------|---------------|--------------|---------------|
| Band        | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated     |               |
|             |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |
| Band 13     | 782                   | 10              | QPSK       | 23.61        | 229.61        | 21.94        | 156.31        |
|             |                       |                 | 16QAM      | 22.69        | 185.78        | 20.33        | 107.89        |
|             |                       |                 | 64QAM      | 22.00        | 158.49        |              |               |
|             |                       |                 | 256QAM     | 18.84        | 76.56         |              |               |
|             | 779.5 - 784.5         | 5               | QPSK       | <b>23.70</b> | <b>234.42</b> | <b>22.01</b> | <b>158.85</b> |
|             |                       |                 | 16QAM      | 23.21        | 209.41        | 21.04        | 127.06        |
|             |                       |                 | 64QAM      | 22.10        | 162.18        |              |               |
|             |                       |                 | 256QAM     | 19.42        | 87.50         |              |               |



**LTE Band 25**

| FCC Part 24     |                       |                 |            |              |               |               |          |
|-----------------|-----------------------|-----------------|------------|--------------|---------------|---------------|----------|
| Band            | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated      |          |
|                 |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]     | Avg [mW] |
| Band 25         | 1860.0 -1900.0        | 20              | QPSK       | 22.02        | 159.22        | 26.16         | 413.05   |
|                 |                       |                 | 16QAM      | 21.57        | 143.55        | 25.40         | 346.74   |
|                 |                       |                 | 64QAM      | 20.69        | 117.22        |               |          |
|                 |                       |                 | 256QAM     | 17.21        | 52.60         |               |          |
|                 | 1857.5 - 1902.5       | 15              | QPSK       | 22.03        | 159.59        | 25.71         | 372.39   |
|                 |                       |                 | 16QAM      | 21.49        | 140.93        | 25.01         | 316.96   |
|                 |                       |                 | 64QAM      | 20.64        | 115.88        |               |          |
|                 |                       |                 | 256QAM     | 17.50        | 56.23         |               |          |
|                 | 1855.0 - 1905.0       | 10              | QPSK       | 22.07        | 161.06        | 25.96         | 394.46   |
|                 |                       |                 | 16QAM      | 21.43        | 139.00        | 25.05         | 319.89   |
|                 |                       |                 | 64QAM      | 20.43        | 110.41        |               |          |
|                 |                       |                 | 256QAM     | 17.62        | 57.81         |               |          |
|                 | 1852.5 - 1907.5       | 5               | QPSK       | <b>22.23</b> | <b>167.11</b> | 25.96         | 394.46   |
|                 |                       |                 | 16QAM      | 21.53        | 142.23        | 25.19         | 330.37   |
|                 |                       |                 | 64QAM      | 20.50        | 112.20        |               |          |
|                 |                       |                 | 256QAM     | 17.23        | 52.84         |               |          |
|                 | 1851.5 - 1908.5       | 3               | QPSK       | 22.14        | 163.68        | 25.82         | 381.94   |
|                 |                       |                 | 16QAM      | 21.45        | 139.64        | 24.79         | 301.30   |
|                 |                       |                 | 64QAM      | 20.56        | 113.76        |               |          |
|                 |                       |                 | 256QAM     | 17.70        | 58.88         |               |          |
| 1850.7 - 1909.3 | 1.4                   | QPSK            | 22.09      | 161.81       | <b>26.31</b>  | <b>427.56</b> |          |
|                 |                       | 16QAM           | 21.35      | 136.46       | 25.49         | 354.00        |          |
|                 |                       | 64QAM           | 20.70      | 117.49       |               |               |          |
|                 |                       | 256QAM          | 17.50      | 56.23        |               |               |          |

**LTE Band 26 (Part 90)**

| FCC Part 90 |                       |                 |            |              |               |              |               |
|-------------|-----------------------|-----------------|------------|--------------|---------------|--------------|---------------|
| Band        | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated     |               |
|             |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |
| Band 26     | 821.5                 | 15              | QPSK       | 23.68        | 233.35        | 21.67        | 146.89        |
|             |                       |                 | 16QAM      | 23.02        | 200.45        | 20.79        | 119.95        |
|             |                       |                 | 64QAM      | 22.37        | 172.58        |              |               |
|             |                       |                 | 256QAM     | 19.23        | 83.75         |              |               |
|             | 819                   | 10              | QPSK       | <b>23.90</b> | <b>245.47</b> | 21.91        | 155.24        |
|             |                       |                 | 16QAM      | 23.22        | 209.89        | 21.16        | 130.62        |
|             |                       |                 | 64QAM      | 22.30        | 169.82        |              |               |
|             |                       |                 | 256QAM     | 18.96        | 78.70         |              |               |
|             | 816.5 - 821.5         | 5               | QPSK       | 23.85        | 242.66        | <b>21.93</b> | <b>155.96</b> |
|             |                       |                 | 16QAM      | 23.32        | 214.78        | 20.99        | 125.60        |
|             |                       |                 | 64QAM      | 22.13        | 163.31        |              |               |
|             |                       |                 | 256QAM     | 19.00        | 79.43         |              |               |
|             | 815.5 - 822.5         | 3               | QPSK       | 23.78        | 238.78        | <b>21.93</b> | <b>155.96</b> |
|             |                       |                 | 16QAM      | 22.82        | 191.43        | 20.75        | 118.85        |
|             |                       |                 | 64QAM      | 22.20        | 165.96        |              |               |
|             |                       |                 | 256QAM     | 19.09        | 81.10         |              |               |
|             | 814.7 - 823.3         | 1.4             | QPSK       | <b>23.90</b> | <b>245.47</b> | 21.86        | 153.46        |
|             |                       |                 | 16QAM      | 23.02        | 200.45        | 20.96        | 124.74        |
|             |                       |                 | 64QAM      | 22.31        | 170.22        |              |               |
|             |                       |                 | 256QAM     | 19.06        | 80.54         |              |               |

**LTE Band 26 (Part 22)**

| FCC Part 22   |                       |                 |            |              |               |              |               |
|---------------|-----------------------|-----------------|------------|--------------|---------------|--------------|---------------|
| Band          | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated     |               |
|               |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |
| Band 26       | 831.5 ~ 841.5         | 15              | QPSK       | 23.70        | 234.42        | 21.70        | 147.91        |
|               |                       |                 | 16QAM      | 23.01        | 199.99        | 20.73        | 118.30        |
|               |                       |                 | 64QAM      | 22.12        | 162.93        |              |               |
|               |                       |                 | 256QAM     | 18.99        | 79.25         |              |               |
|               | 829 ~ 844             | 10              | QPSK       | 23.87        | 243.78        | <b>22.13</b> | <b>163.31</b> |
|               |                       |                 | 16QAM      | 22.89        | 194.54        | 20.95        | 124.45        |
|               |                       |                 | 64QAM      | 22.41        | 174.18        |              |               |
|               |                       |                 | 256QAM     | 19.47        | 88.51         |              |               |
|               | 826.5 ~ 846.5         | 5               | QPSK       | 23.91        | 246.04        | 22.00        | 158.49        |
|               |                       |                 | 16QAM      | 22.97        | 198.15        | 21.20        | 131.83        |
|               |                       |                 | 64QAM      | 22.10        | 162.18        |              |               |
|               |                       |                 | 256QAM     | 19.13        | 81.85         |              |               |
|               | 825.5 ~ 847.5         | 3               | QPSK       | <b>23.97</b> | <b>249.46</b> | 22.10        | 162.18        |
|               |                       |                 | 16QAM      | 23.06        | 202.30        | 21.06        | 127.64        |
|               |                       |                 | 64QAM      | 22.43        | 174.98        |              |               |
|               |                       |                 | 256QAM     | 19.45        | 88.10         |              |               |
| 824.7 ~ 848.3 | 1.4                   | QPSK            | 23.94      | 247.74       | 21.69         | 147.57       |               |
|               |                       | 16QAM           | 23.44      | 220.80       | 20.85         | 121.62       |               |
|               |                       | 64QAM           | 22.40      | 173.78       |               |              |               |
|               |                       | 256QAM          | 19.10      | 81.28        |               |              |               |

**LTE Band 26 (Straddle)**

| Straddle |                       |                 |            |              |               |              |               |
|----------|-----------------------|-----------------|------------|--------------|---------------|--------------|---------------|
| Band     | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated     |               |
|          |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |
| Band 26  | 824                   | 15              | QPSK       | 24.10        | 257.04        | 21.85        | 153.11        |
|          |                       |                 | 16QAM      | 23.49        | 223.36        | 21.18        | 131.22        |
|          |                       |                 | 64QAM      | 22.43        | 174.98        |              |               |
|          |                       |                 | 256QAM     | 19.53        | 89.74         |              |               |
|          |                       | 10              | QPSK       | 24.27        | 267.30        | 22.19        | 165.58        |
|          |                       |                 | 16QAM      | 23.30        | 213.80        | 21.06        | 127.64        |
|          |                       |                 | 64QAM      | 22.59        | 181.55        |              |               |
|          |                       |                 | 256QAM     | 19.81        | 95.72         |              |               |
|          |                       | 5               | QPSK       | 24.30        | 269.15        | <b>22.30</b> | <b>169.82</b> |
|          |                       |                 | 16QAM      | 23.38        | 217.77        | 21.22        | 132.43        |
|          |                       |                 | 64QAM      | 22.33        | 171.00        |              |               |
|          |                       |                 | 256QAM     | 19.43        | 87.70         |              |               |
|          |                       | 3               | QPSK       | <b>24.33</b> | <b>271.02</b> | 22.19        | 165.58        |
|          |                       |                 | 16QAM      | 23.30        | 213.80        | 21.26        | 133.66        |
|          |                       |                 | 64QAM      | 22.73        | 187.50        |              |               |
|          |                       |                 | 256QAM     | 19.76        | 94.62         |              |               |
|          |                       | 1.4             | QPSK       | 24.30        | 269.15        | 22.04        | 159.96        |
|          |                       |                 | 16QAM      | 23.53        | 225.42        | 21.09        | 128.53        |
|          |                       |                 | 64QAM      | 22.66        | 184.50        |              |               |
|          |                       |                 | 256QAM     | 19.48        | 88.72         |              |               |

**LTE Band 41**

| FCC Part 27 |                       |                 |            |              |               |              |               |
|-------------|-----------------------|-----------------|------------|--------------|---------------|--------------|---------------|
| Band        | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated     |               |
|             |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |
| Band 41     | 2506 - 2680           | 20              | QPSK       | 22.93        | 196.34        | <b>24.42</b> | <b>276.69</b> |
|             |                       |                 | 16QAM      | 21.79        | 151.01        | 22.80        | 190.55        |
|             |                       |                 | 64QAM      | 20.95        | 124.45        |              |               |
|             |                       |                 | 256QAM     | 17.73        | 59.29         |              |               |
|             | 2503.5 - 2682.5       | 15              | QPSK       | 23.91        | 246.04        | 23.98        | 250.03        |
|             |                       |                 | 16QAM      | 22.95        | 197.24        | 23.31        | 214.29        |
|             |                       |                 | 64QAM      | 21.76        | 149.97        |              |               |
|             |                       |                 | 256QAM     | 19.10        | 81.28         |              |               |
|             | 2501 - 2685           | 10              | QPSK       | <b>23.97</b> | <b>249.46</b> | 23.90        | 245.47        |
|             |                       |                 | 16QAM      | 23.06        | 202.30        | 23.11        | 204.64        |
|             |                       |                 | 64QAM      | 22.34        | 171.40        |              |               |
|             |                       |                 | 256QAM     | 19.23        | 83.75         |              |               |
|             | 2498.5 - 2687.5       | 5               | QPSK       | 23.89        | 244.91        | 24.06        | 254.68        |
|             |                       |                 | 16QAM      | 22.93        | 196.34        | 23.49        | 223.36        |
|             |                       |                 | 64QAM      | 22.25        | 167.88        |              |               |
|             |                       |                 | 256QAM     | 19.37        | 86.50         |              |               |

**LTE Band 66**

| FCC Part 27     |                       |                 |            |              |               |               |          |
|-----------------|-----------------------|-----------------|------------|--------------|---------------|---------------|----------|
| Band            | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Conducted    |               | Radiated      |          |
|                 |                       |                 |            | Avg [dBm]    | Avg [mW]      | Avg [dBm]     | Avg [mW] |
| Band 66         | 1720 - 1770           | 20              | QPSK       | 22.49        | 177.42        | 25.30         | 338.84   |
|                 |                       |                 | 16QAM      | 21.88        | 154.17        | 24.47         | 279.90   |
|                 |                       |                 | 64QAM      | 20.96        | 124.74        |               |          |
|                 |                       |                 | 256QAM     | 17.77        | 59.84         |               |          |
|                 | 1717.5 - 1772.5       | 15              | QPSK       | 22.44        | 175.39        | 24.94         | 311.89   |
|                 |                       |                 | 16QAM      | 21.78        | 150.66        | 24.43         | 277.33   |
|                 |                       |                 | 64QAM      | 20.84        | 121.34        |               |          |
|                 |                       |                 | 256QAM     | 17.70        | 58.88         |               |          |
|                 | 1715 - 1775           | 10              | QPSK       | 22.51        | 178.24        | 25.05         | 319.89   |
|                 |                       |                 | 16QAM      | 21.53        | 142.23        | 24.63         | 290.40   |
|                 |                       |                 | 64QAM      | 20.43        | 110.41        |               |          |
|                 |                       |                 | 256QAM     | 17.71        | 59.02         |               |          |
|                 | 1712.5 - 1777.5       | 5               | QPSK       | <b>22.62</b> | <b>182.81</b> | 25.27         | 336.51   |
|                 |                       |                 | 16QAM      | 21.73        | 148.94        | 24.36         | 272.90   |
|                 |                       |                 | 64QAM      | 20.95        | 124.45        |               |          |
|                 |                       |                 | 256QAM     | 17.77        | 59.84         |               |          |
|                 | 1711.5 - 1778.5       | 3               | QPSK       | 22.60        | 181.97        | 25.26         | 335.74   |
|                 |                       |                 | 16QAM      | 21.56        | 143.22        | 24.67         | 293.09   |
|                 |                       |                 | 64QAM      | 20.49        | 111.94        |               |          |
|                 |                       |                 | 256QAM     | 17.85        | 60.95         |               |          |
| 1710.7 - 1779.3 | 1.4                   | QPSK            | 22.54      | 179.47       | <b>25.42</b>  | <b>348.34</b> |          |
|                 |                       | 16QAM           | 21.75      | 149.62       | 24.40         | 275.42        |          |
|                 |                       | 64QAM           | 20.87      | 122.18       |               |               |          |
|                 |                       | 256QAM          | 17.88      | 61.38        |               |               |          |

**NR Band n5**

| FCC Part 22 |                       |                 |            |              |              |               |              |               |  |
|-------------|-----------------------|-----------------|------------|--------------|--------------|---------------|--------------|---------------|--|
| Band        | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Mode         | Conducted    |               | Radiated     |               |  |
|             |                       |                 |            |              | Avg [dBm]    | Avg [mW]      | Avg [dBm]    | Avg [mW]      |  |
| n5          | 834 - 839             | 20              | DFT-s OFDM | $\pi/2$ BPSK | 23.97        | 249.46        |              |               |  |
|             |                       |                 |            | QPSK         | 24.10        | 257.04        | <b>24.34</b> | <b>271.64</b> |  |
|             |                       |                 |            | 16QAM        | 23.27        | 212.32        | 22.89        | 194.54        |  |
|             |                       |                 |            | 64QAM        | 21.56        | 143.22        |              |               |  |
|             |                       |                 |            | 256QAM       | 19.46        | 88.31         |              |               |  |
|             | 831.5 - 841.5         | 15              | DFT-s OFDM | $\pi/2$ BPSK | 24.03        | 252.93        |              |               |  |
|             |                       |                 |            | QPSK         | 23.88        | 244.34        | 24.21        | 263.63        |  |
|             |                       |                 |            | 16QAM        | 23.16        | 207.01        | 24.07        | 255.27        |  |
|             |                       |                 |            | 64QAM        | 21.63        | 145.55        |              |               |  |
|             |                       |                 |            | 256QAM       | 19.47        | 88.51         |              |               |  |
|             | 829 - 844             | 10              | DFT-s OFDM | CP-OFDM      | QPSK         | 22.56         | 180.30       |               |  |
|             |                       |                 |            | $\pi/2$ BPSK | 23.96        | 248.89        |              |               |  |
|             |                       |                 |            | QPSK         | 24.01        | 251.77        | 23.99        | 250.61        |  |
|             |                       |                 |            | 16QAM        | 23.13        | 205.59        | 23.79        | 239.33        |  |
|             |                       |                 |            | 64QAM        | 21.58        | 143.88        |              |               |  |
|             | 826.5 - 846.5         | 5               | DFT-s OFDM | 256QAM       | 19.47        | 88.51         |              |               |  |
|             |                       |                 |            | CP-OFDM      | QPSK         | 22.50         | 177.83       |               |  |
|             |                       |                 |            | $\pi/2$ BPSK | 24.02        | 252.35        |              |               |  |
|             |                       |                 |            | QPSK         | <b>24.21</b> | <b>263.63</b> | 24.18        | 261.82        |  |
|             |                       |                 |            | 16QAM        | 23.18        | 207.97        | 22.92        | 195.88        |  |
|             |                       |                 | DFT-s OFDM | 64QAM        | 21.59        | 144.21        |              |               |  |
|             |                       |                 |            | 256QAM       | 19.60        | 91.20         |              |               |  |
|             |                       |                 |            | CP-OFDM      | QPSK         | 22.56         | 180.30       |               |  |

**NR Band n66**

| FCC Part 27 |                       |                 |            |              |              |               |           |              |               |
|-------------|-----------------------|-----------------|------------|--------------|--------------|---------------|-----------|--------------|---------------|
| Band        | Frequency Range [MHz] | BandWidth [MHz] | Modulation | Mode         | Conducted    |               | Radiated  |              |               |
|             |                       |                 |            |              | Avg [dBm]    | Avg [mW]      | Avg [dBm] | Avg [mW]     |               |
| n66         | 1720.0 - 1770.0       | 20              | DFT-s OFDM | $\pi/2$ BPSK | 22.95        | 197.24        |           |              |               |
|             |                       |                 |            | QPSK         | <b>22.99</b> | <b>199.07</b> | 26.37     | 433.51       |               |
|             |                       |                 |            | 16QAM        | 21.94        | 156.31        | 25.37     | 344.35       |               |
|             |                       |                 |            | 64QAM        | 20.40        | 109.65        |           |              |               |
|             |                       |                 |            | 256QAM       | 17.71        | 59.02         |           |              |               |
|             | 1717.5 - 1772.5       | 15              | DFT-s OFDM | CP-OFDM      | QPSK         | 21.28         | 134.28    |              |               |
|             |                       |                 |            |              | $\pi/2$ BPSK | 22.89         | 194.54    |              |               |
|             |                       |                 |            |              | QPSK         | 22.94         | 196.79    | 26.95        | 495.45        |
|             |                       |                 |            |              | 16QAM        | 21.93         | 155.96    | 25.99        | 397.19        |
|             |                       |                 |            |              | 64QAM        | 20.50         | 112.20    |              |               |
|             | 1715.0 - 1775.0       | 10              | DFT-s OFDM | CP-OFDM      | 256QAM       | 17.66         | 58.34     |              |               |
|             |                       |                 |            |              | QPSK         | 21.28         | 134.28    |              |               |
|             |                       |                 |            |              | $\pi/2$ BPSK | 22.87         | 193.64    |              |               |
|             |                       |                 |            |              | QPSK         | 22.88         | 194.09    | <b>27.03</b> | <b>504.66</b> |
|             |                       |                 |            |              | 16QAM        | 21.73         | 148.94    | 25.97        | 395.37        |
|             | 1712.5 - 1777.5       | 5               | DFT-s OFDM | CP-OFDM      | 64QAM        | 20.46         | 111.17    |              |               |
|             |                       |                 |            |              | 256QAM       | 17.63         | 57.94     |              |               |
|             |                       |                 |            |              | QPSK         | 21.15         | 130.32    |              |               |
|             |                       |                 |            |              | $\pi/2$ BPSK | 22.87         | 193.64    |              |               |
|             |                       |                 |            |              | QPSK         | 22.87         | 193.64    | 26.75        | 473.15        |
|             |                       |                 | DFT-s OFDM | 16QAM        | 21.88        | 154.17        | 25.79     | 379.31       |               |
|             |                       |                 |            | 64QAM        | 20.42        | 110.15        |           |              |               |
|             |                       |                 |            | 256QAM       | 17.66        | 58.34         |           |              |               |
|             |                       |                 |            | QPSK         | 21.11        | 129.12        |           |              |               |



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### **5.3. WORST-CASE ORIENTATION**

Following modes should be considered as worst-case scenario for all other measurements.

- GSM GPRS/EGPRS
- UMTS REL 99/HSDPA

For all LTE Bands, the worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on QPSK, 16QAM, 64QAM and 256QAM modulations. However, the out of band emissions and spurious radiation were only performed on bandwidth and RB offset(with RB size 1) with the highest power in QPSK.

For all 5G NR Bands, the worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on  $\pi/2$  BPSK, QPSK, 16QAM, 64QAM and 256QAM modulations. It was found that QPSK and 16QAM results were worst case.

Both NSA and SA modes were tested and worst case is reported.

All testing was performed using QPSK and 16QAM modulations to represent the worst case. However, the out of band emissions and spurious radiation were only performed on bandwidth and RB offset(with RB size 1) with the highest conducted power in QPSK

#### **LTE Band 2**

LTE Band 2 (Frequency range: 1850-1910 MHz) is covered by LTE Band 25 (Frequency range: 1850-1915 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

#### **LTE Band 5**

LTE Band 5 (Frequency range: 824-849 MHz) is covered by LTE Band 26 (Frequency range: 814-849 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

#### **LTE Band 4**

LTE Band 4 (Frequency range: 1710-1755 MHz) is covered by LTE Band 66 (Frequency range: 1710-1780 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

#### **LTE Band 17**

LTE Band 17 (Frequency range: 704-716 MHz) is covered by LTE Band 12 (Frequency range: 699-716 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

| Highest power setting for each bands |                 |                 |         |           |
|--------------------------------------|-----------------|-----------------|---------|-----------|
| LTE Band                             | Frequency (MHz) | Bandwidth (MHz) | RB size | RB offset |
| 12                                   | 701.5           | 5               | 1       | 0         |
|                                      | 707.5           |                 | 1       | 12        |
|                                      | 713.5           |                 | 1       | 0         |
| 13                                   | 779.5           | 5               | 1       | 24        |
|                                      | 782.0           |                 | 1       | 12        |
|                                      | 784.5           |                 | 1       | 0         |
| 25                                   | 1850.7          | 1.4             | 1       | 3         |
|                                      | 1882.5          |                 | 1       | 3         |
|                                      | 1914.3          |                 | 1       | 3         |
| 26 (Part 90)                         | 815.5           | 3               | 1       | 0         |
|                                      | 822.5           |                 | 1       | 0         |
| 26 (Straddle)                        | 824.0           | 5               | 1       | 24        |
| 26 (Part 22)                         | 825.5           | 3               | 1       | 0         |
|                                      | 831.5           |                 | 1       | 14        |
|                                      | 847.5           |                 | 1       | 0         |
| 41                                   | 2506.0          | 20              | 1       | 99        |
|                                      | 2593.0          |                 | 1       | 49        |
|                                      | 2680.0          |                 | 1       | 49        |
| 66                                   | 1710.7          | 1.4             | 1       | 3         |
|                                      | 1745.0          |                 | 1       | 3         |
|                                      | 1779.3          |                 | 1       | 3         |

| Highest power setting for each bands |                 |                 |         |           |
|--------------------------------------|-----------------|-----------------|---------|-----------|
| NR Band                              | Frequency (MHz) | Bandwidth (MHz) | RB size | RB offset |
| 5                                    | 834.0           | 20              | 1       | 1         |
|                                      | 836.5           |                 | 1       | 1         |
|                                      | 839.0           |                 | 1       | 1         |
| 66                                   | 1715.0          | 10              | 1       | 1         |
|                                      | 1745.0          |                 | 1       | 26        |
|                                      | 1775.0          |                 | 1       | 26        |

For LTE anchor, the band with highest output power was chosen among the possible combinations with NR Bands.

| NR Band | LTE Band      |
|---------|---------------|
| 5       | <u>2</u> , 66 |
| 66      | <u>5</u> , 12 |

i. Worst Axis Condition

The fundamental and radiated spurious emission were investigated in three orthogonal orientations X, Y and Z, it was determined that below orientation was worst-case orientation for each band.

| Band     | ERP/EIRP |   |   | RSE |   |   |
|----------|----------|---|---|-----|---|---|
|          | X        | Y | Z | X   | Y | Z |
| GSM850   | -        | O | - | O   | - | - |
| GSM1900  | O        | - | - | O   | - | - |
| WCDMA B5 | -        | O | - | -   | - | O |
| WCDMA B4 | O        | - | - | O   |   |   |
| WCDMA B2 | -        | - | O | -   | O | - |
| LTE B12  | O        | - | - | O   | - | - |
| LTE B13  | O        | - | - | O   | - | - |
| LTE B25  | O        | - | - | -   | O | - |
| LTE B26  | -        | O | - | -   | O | - |
| LTE B41  | O        | - | - | O   | - | - |
| LTE B66  | O        | - | - | O   | - | - |
| NR n5    | -        | O | - | -   | O | - |
| NR n66   | O        | - | - | -   | O | - |

Note : For ERP/EIRP testing, the EUT didn't attached with travel adapter. But radiated spurious testing, the EUT attached with travel adapter for the worst case condition. The EUT is continuously communicated with the call box during the tests.

**5.4. DESCRIPTION OF TEST SETUP**

**SUPPORT EQUIPMENT**

| Support Equipment List |             |              |                |        |
|------------------------|-------------|--------------|----------------|--------|
| Description            | Manufacture | Model        | Serial Number  | FCC ID |
| Charger                | SAMSUNG     | EP-TA200     | R37N6K421B2SE3 | N/A    |
| Data Cable             | SAMSUNG     | EP-DT725BWE  | GH39-02020A    | N/A    |
| Earphone               | SAMSUNG     | EP-TA800     | R37N3MAH988DK3 | N/A    |
| Charger                | SAMSUNG     | EP-DN980     | GH39-02115A    | N/A    |
| Data Cable             | SAMSUNG     | EP--DT725BWE | GH39-02020A    | N/A    |

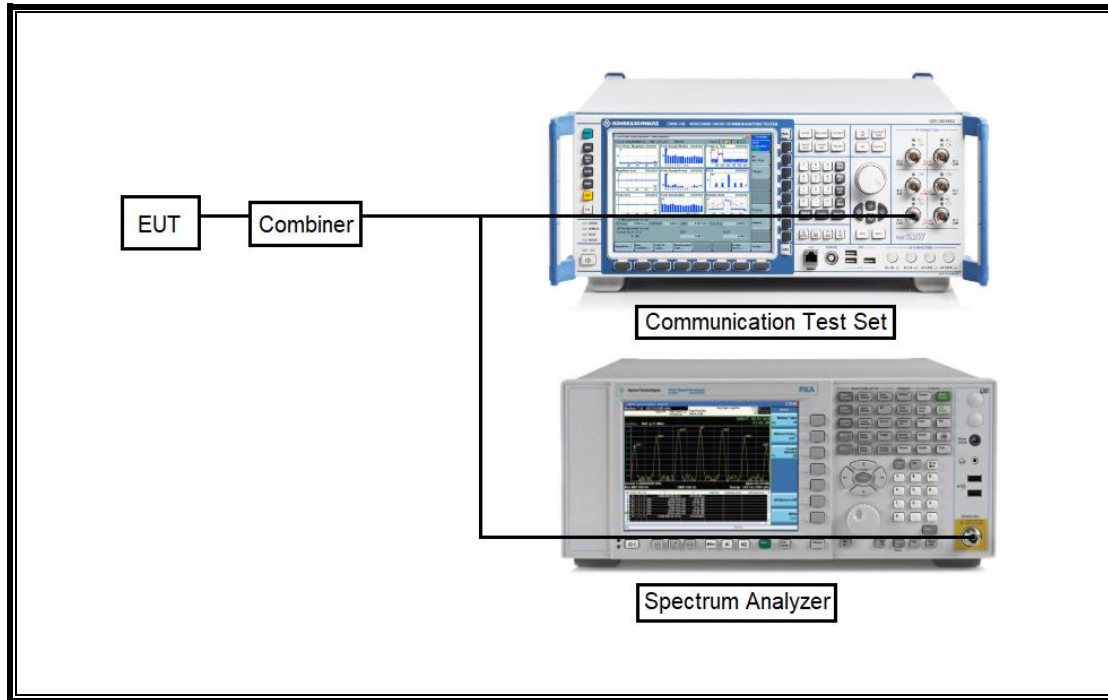
**I/O CABLE**

| I/O Cable List |          |                      |                |            |                  |         |
|----------------|----------|----------------------|----------------|------------|------------------|---------|
| Cable No.      | Port     | # of identical ports | Connector Type | Cable Type | Cable Length (m) | Remarks |
| 1              | DC Power | 1                    | C to C Typr    | Shielded   | 1.0 m            | N/A     |
| 2              | DC Power | 1                    | C to A Type    | Shielded   | 1.0 m            | N/A     |
| 3              | Audio    | 2                    | Mini-jack      | Unshielded | 0.7 m            | N/A     |

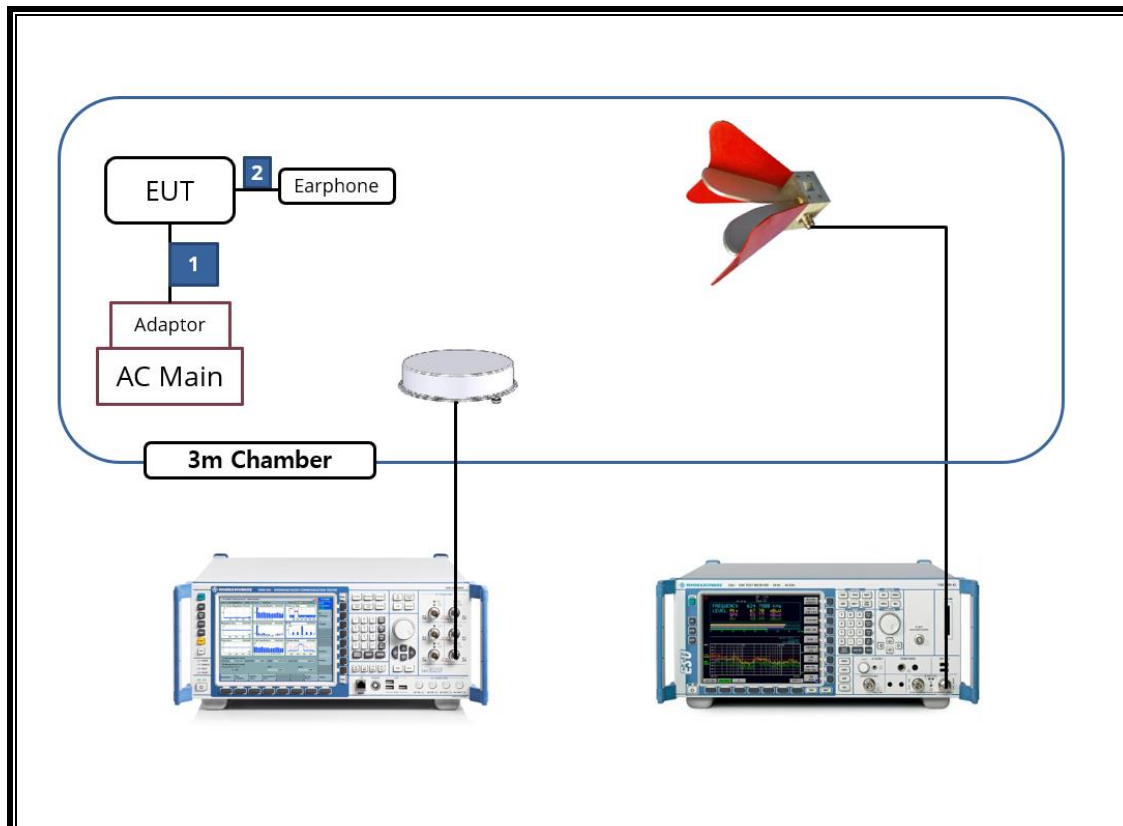
**TEST SETUP**

The EUT is continuously communicated with the call box during the tests.

**SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)**



**SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)**



## 5.5. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a internal antenna for the supported bands with a maximum peak gain as follow:

| Frequency (MHz)  | Peak Gain (dBi) |
|--|-----------------|
| GSM1900 / WCDMA Band 2 / LTE Band 2 / LTE Band 25<br>1850 ~ 1915 MHz           | 4.0             |
| WCDMA Band 4 / LTE Band 4 / LTE Band 66 / NR Band n66<br>1710 ~ 1780 MHz       | 2.8             |
| GSM850 / WCDMA Band 5 / LTE Band 5 / LTE Band 26 / NR Band n5<br>814 ~ 849 MHz | 0.7             |
| LTE Band 12 / LTE Band 17<br>699 ~ 716 MHz                                     | -2.8            |
| LTE Band 13<br>777 ~ 787 MHz   | -2.2            |
| LTE Band 41<br>2496 ~ 2690 MHz   | -0.5            |

## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| Test Equipment List                    |               |                        |             |            |
|--|---------------|------------------------|-------------|------------|
| Description                            | Manufacturer  | Model                  | S/N         | Cal Due    |
| Antenna, Tuned Dipole 400~1000 MHz     | ETS           | 3121D DB4              | 00164753    | 2023-02-08 |
| Directional Antenna                    | Cobham        | FPA3-0.8-6.0R/1329     | 110367-0003 | N/A        |
| Directional Antenna                    | Cobham        | FPA3-0.8-6.0R/1329     | 80108-0004  | N/A        |
| Antenna, Horn, 40 GHz                  | ETS           | 3116C                  | 00166155    | 2022-08-04 |
| Antenna, Horn, 40 GHz                  | ETS           | 3116C                  | 00168645    | 2023-10-13 |
| Preamplifier                           | ETS           | 3116C-PA               | 00168841    | 2022-08-04 |
| Antenna, Bilog, 30MHz-1GHz             | SCHWARZBECK   | VULB9163               | 750         | 2022-08-19 |
| Antenna, Bilog, 30MHz-1GHz             | SCHWARZBECK   | VULB9163               | 845         | 2022-08-13 |
| Antenna, Bilog, 30MHz-1GHz             | SCHWARZBECK   | VULB9163               | 749         | 2022-08-13 |
| Antenna, Horn, 18 GHz                  | ETS           | 3115                   | 00161451    | 2022-08-15 |
| Antenna, Horn, 18 GHz                  | ETS           | 3117                   | 00168717    | 2022-08-15 |
| Communications Test Set                | R&S           | CMW500                 | 169796      | 2023-01-07 |
| DC Power Supply                        | Agilent / HP  | E3640A                 | MY54226395  | 2022-08-02 |
| Preamplifier, 1000 MHz                 | Sonoma        | 310N                   | 341282      | 2022-08-02 |
| Preamplifier, 1000 MHz                 | Sonoma        | 310N                   | 370599      | 2022-08-02 |
| Preamplifier, 1000 MHz                 | Sonoma        | 310N                   | 351741      | 2022-08-02 |
| Preamplifier, 18 GHz                   | Miteq         | AFS42-00101800-25-S-42 | 1876511     | 2022-08-02 |
| Preamplifier, 18 GHz                   | Miteq         | AFS42-00101800-25-S-42 | 2029168     | 2022-08-02 |
| Preamplifier, 18 GHz                   | Miteq         | AFS42-00101800-25-S-42 | 1896138     | 2022-08-02 |
| Spectrum Analyzer, 44 GHz              | Agilent / HP  | N9030A                 | MY54170614  | 2022-08-04 |
| Spectrum Analyzer, 44 GHz              | Agilent / HP  | N9030A                 | MY54490312  | 2022-08-04 |
| EMI Test Receive, 40 GHz               | R&S           | ESU40                  | 100439      | 2022-08-02 |
| EMI Test Receive, 40 GHz               | R&S           | ESU40                  | 100457      | 2022-08-02 |
| High Pass Filter 1.2GHz                | Micro-Tronics | HPM50108-02            | G005        | 2022-08-03 |
| High Pass Filter 1.2GHz                | Micro-Tronics | HPM50108-02            | G006        | 2022-08-02 |
| High Pass Filter 2.8GHz                | Micro-Tronics | HPM50111-02            | 010         | 2022-08-03 |
| High Pass Filter 2.8GHz                | Micro-Tronics | HPM50111-02            | 011         | 2022-08-02 |
| High Pass Filter 4GHz                  | Micro-Tronics | HPM50118-02            | G001        | 2022-08-03 |
| High Pass Filter 4GHz                  | Micro-Tronics | HPM50118-02            | G002        | 2022-08-02 |
| Attenuator                             | PASTERNAK     | PE7087-10              | A009        | 2022-08-03 |
| Attenuator                             | PASTERNAK     | PE7087-10              | A001        | 2022-08-03 |
| Attenuator                             | PASTERNAK     | PE7087-10              | A008        | 2022-08-03 |
| Attenuator                             | PASTERNAK     | PE7004-10              | 2           | 2022-08-02 |
| Attenuator                             | PASTERNAK     | PE7395-10              | A011        | 2022-08-03 |
| Antenna, Loop, 9kHz-30MHz              | R&S           | HFH2-Z2                | 100418      | 2023-10-06 |
| Temperature Chamber                    | ESPEC         | SH-642                 | 93001109    | 2022-08-02 |
| Power Splitter                         | MINI-CIRCUITS | WA1534                 | UL003       | 2023-01-11 |
| Power Splitter                         | MINI-CIRCUITS | WA1534                 | UL004       | 2023-01-11 |
| UXM 5G Wireless Test Platform          | KEYSIGHT      | E7515B                 | MY58120110  | 2023-01-07 |
| UL Software                            |               |                        |             |            |
| Description                            | Manufacturer  | Model                  | Version     |            |
| Antenna port test software             | UL            | CLT                    | Ver 3.4     |            |
| Radiated software                      | UL            | UL EMC                 | Ver 9.5     |            |
| Antenna port test software (5G NR FR1) | UL            | UL iM                  | Ver 1.06    |            |

## 7. SUMMARY TABLE

| FCC Part Section                                  | Test Description                        | Test Limit    | Test Condition | Test Result |
|---|---|---------------|----------------|-------------|
| 2.1049  | Occupied Band width (99%)               | N/A           | Conducted      | Pass        |
| 22.917(a)<br>24.238(a)<br>27.53(g),(h),<br>90.691 | Band Edge / Conducted Spurious Emission | -13dBm        |                | Pass        |
| 27.53(m)  | Conducted Spurious Emission             | -25dBm        |                | Pass        |
| 27.53(m)<br>90.691                                | Emission mask                           | Section 9.2.2 |                | Pass        |
| 2.1046  | Conducted output power                  | N/A           |                | Pass        |
| 90.635(b)   |   | 50 dBm        |                | Pass        |
| 22.355<br>24.235<br>27.54<br>90.213               | Frequency Stability                     | 2.5PPM        |                | Pass        |
| 22.913(a)(5)                                      | Effective Radiated Power                | 38.5dBm       | Radiated       | Pass        |
| 27.50(c)(10)<br>27.50(b)(10)                      |   | 34.77dBm      |                | Pass        |
| 24.232(c)<br>27.50(h)(2)                          | Equivalent Isotropic Radiated Power     | 33dBm         |                | Pass        |
| 27.50(d)(4)                                       |   | 30dBm         |                | Pass        |
| 22.917(a)<br>24.238(a)<br>27.53 (g),(h)<br>90.691 | Radiated Spurious Emission              | -13dBm        |                | Pass        |
| 27.53(m)  |   | -25dBm        |                | Pass        |



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## 8. PEAK TO AVERAGE RATIO

### Test Procedure

Per KDB 971168 D01 Power Meas License Digital Systems v03r01;

The transmitter output was connected to both CMW500 Test Set and E7515B Test set configured to operate at maximum power. The PAR were measured on the Spectrum Analyzer.

### Test Spec

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

### NOTE

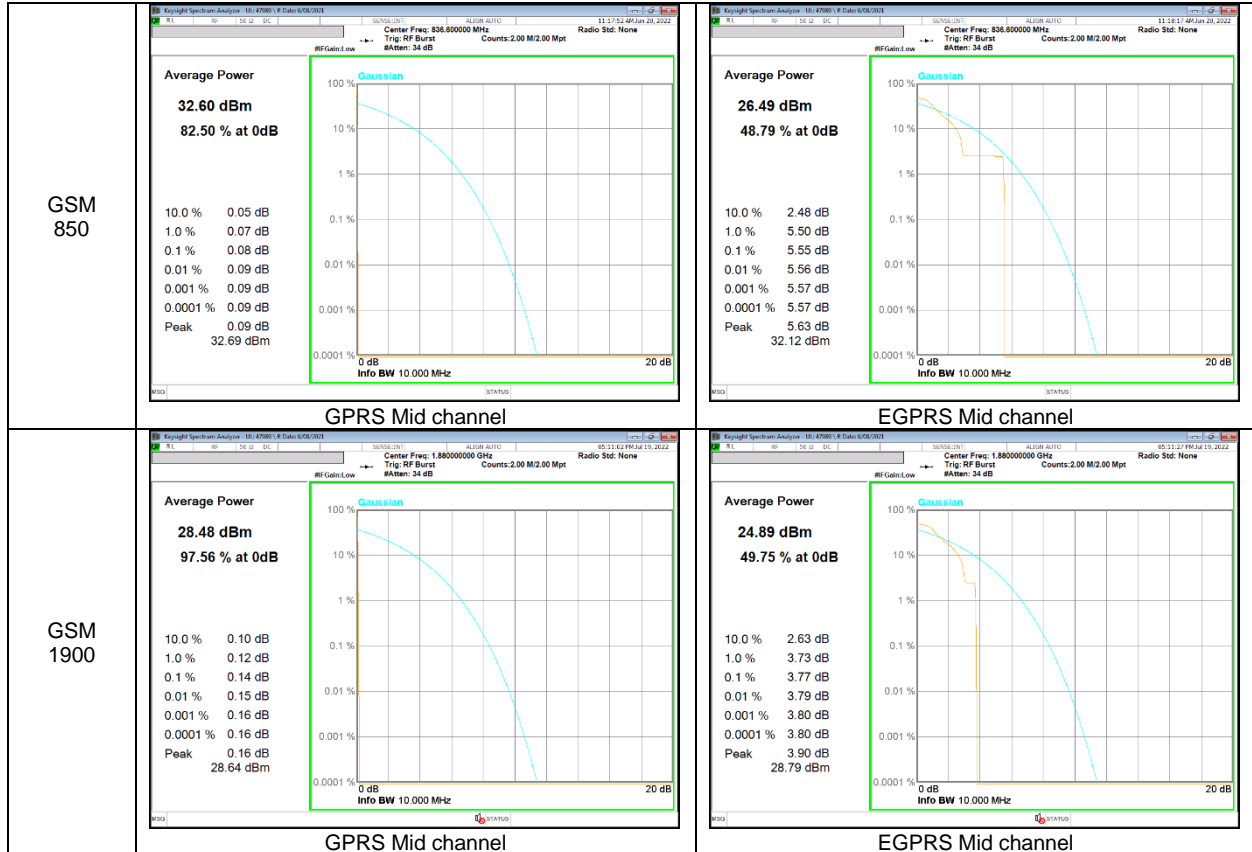
5G NR: All Waveforms (CP-OFDM vs DFT-s OFDM) and modulations ( $\pi/2$  BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

### RESULTS

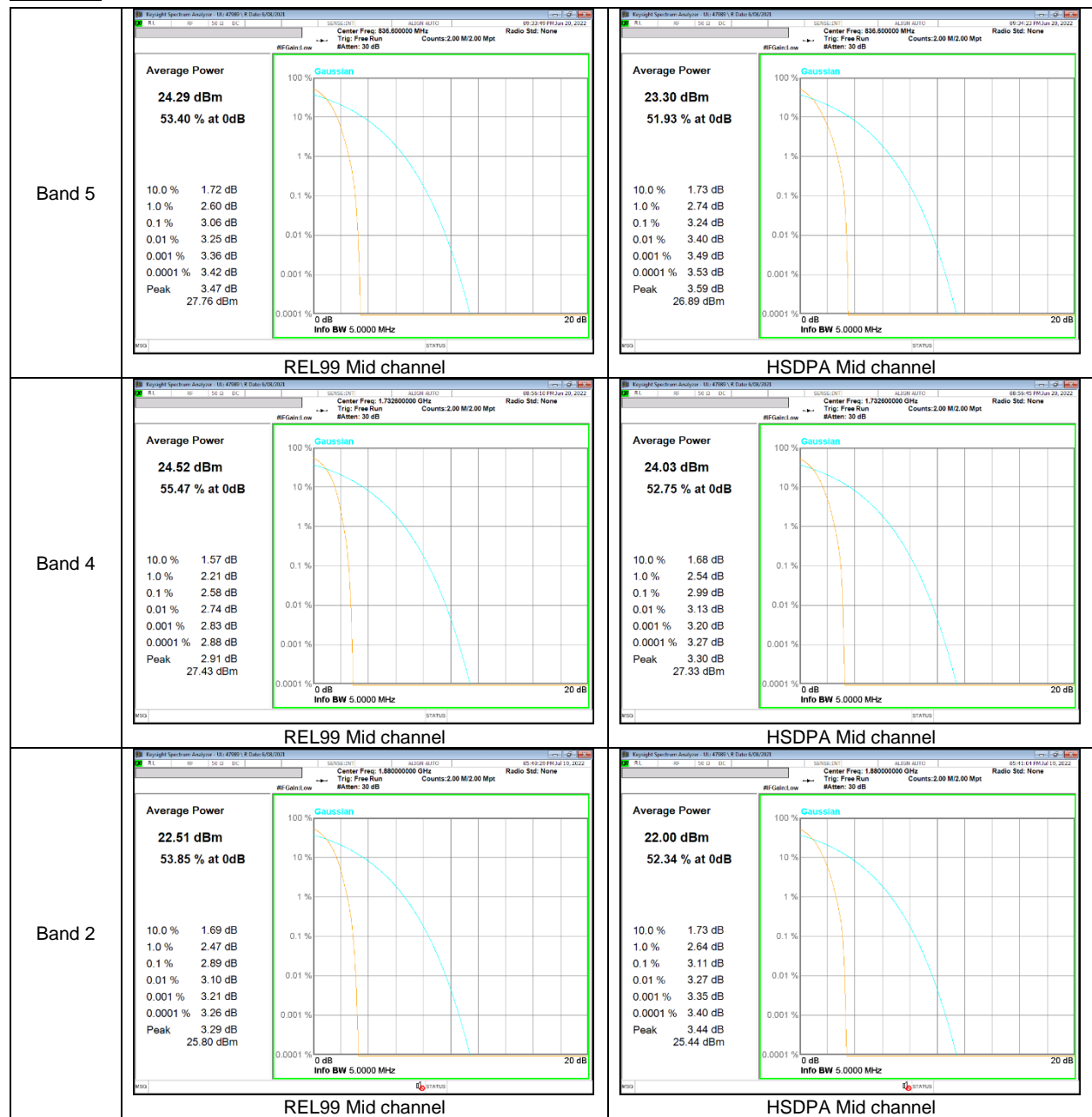
See the following pages.

## 8.1. CONDUCTED PEAK TO AVERAGE RESULT

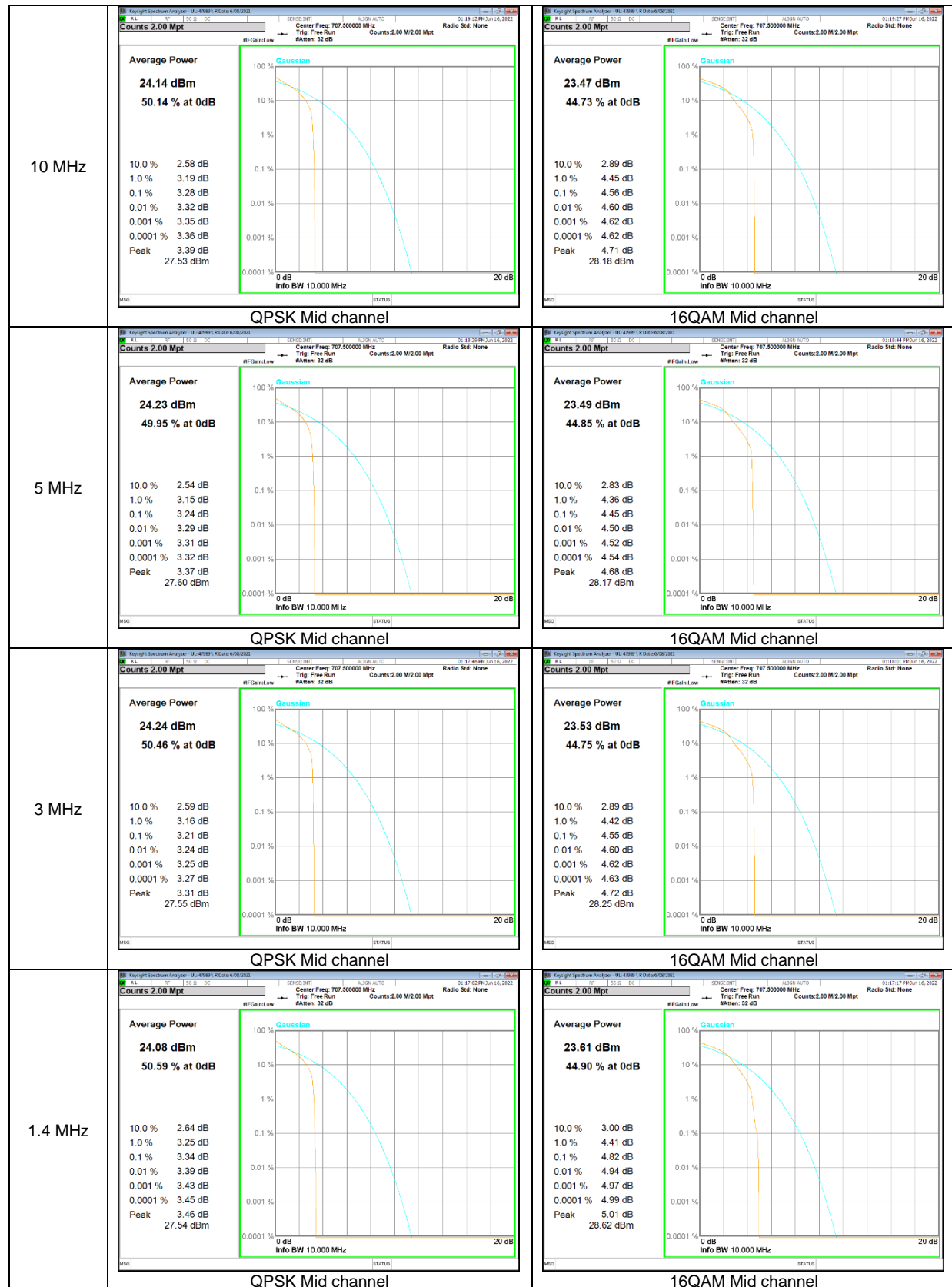
### GSM



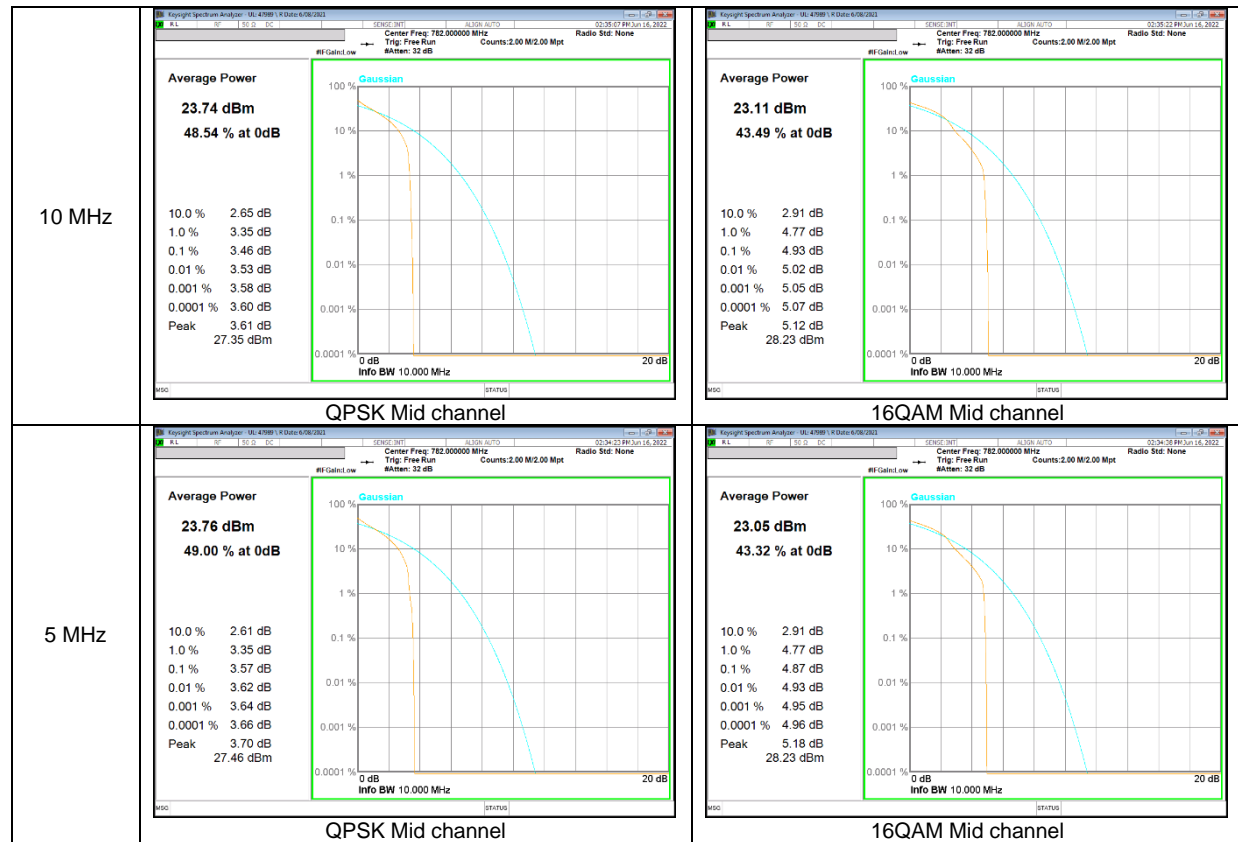
**WCDMA**



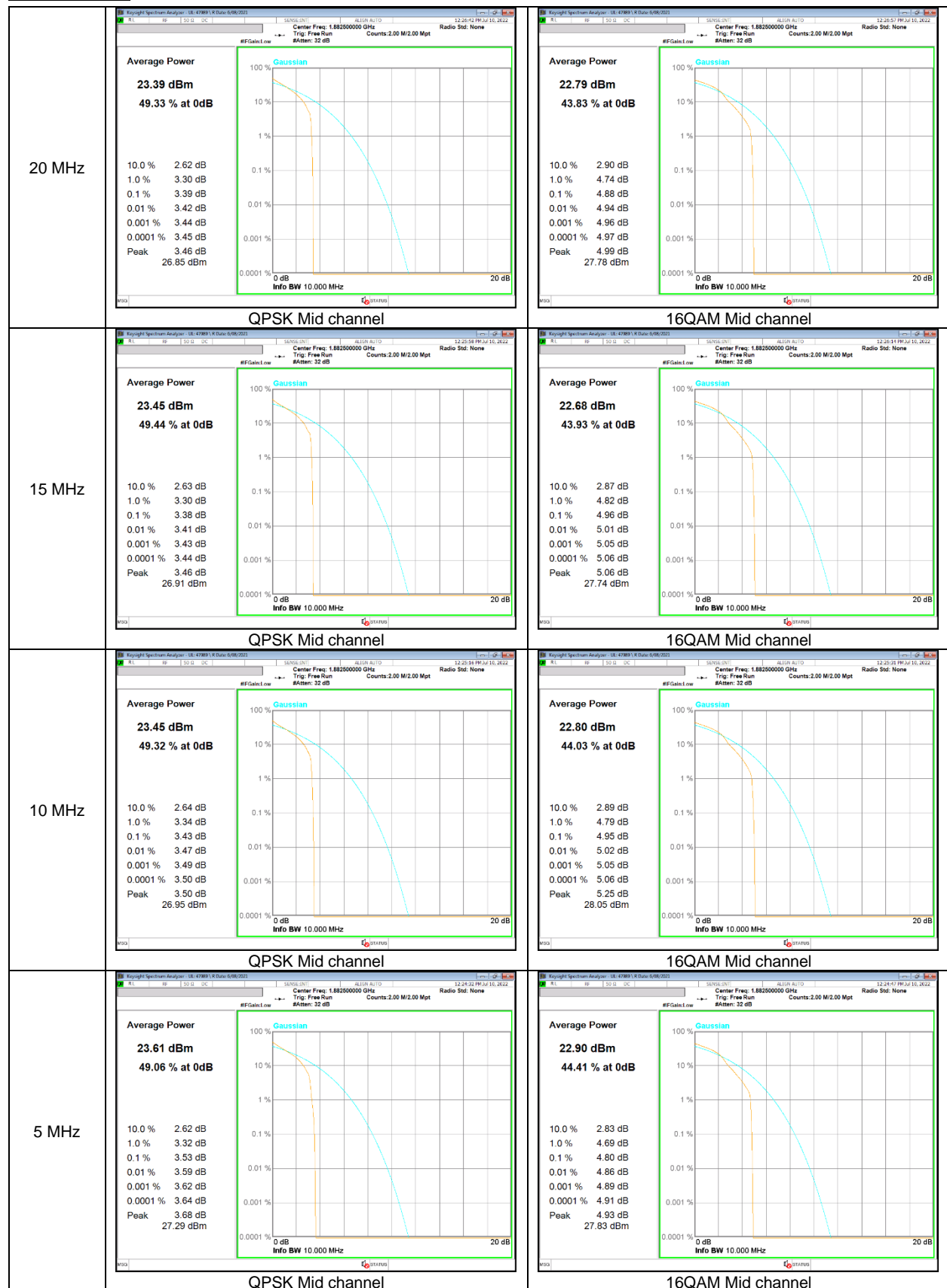
**LTE Band 12**

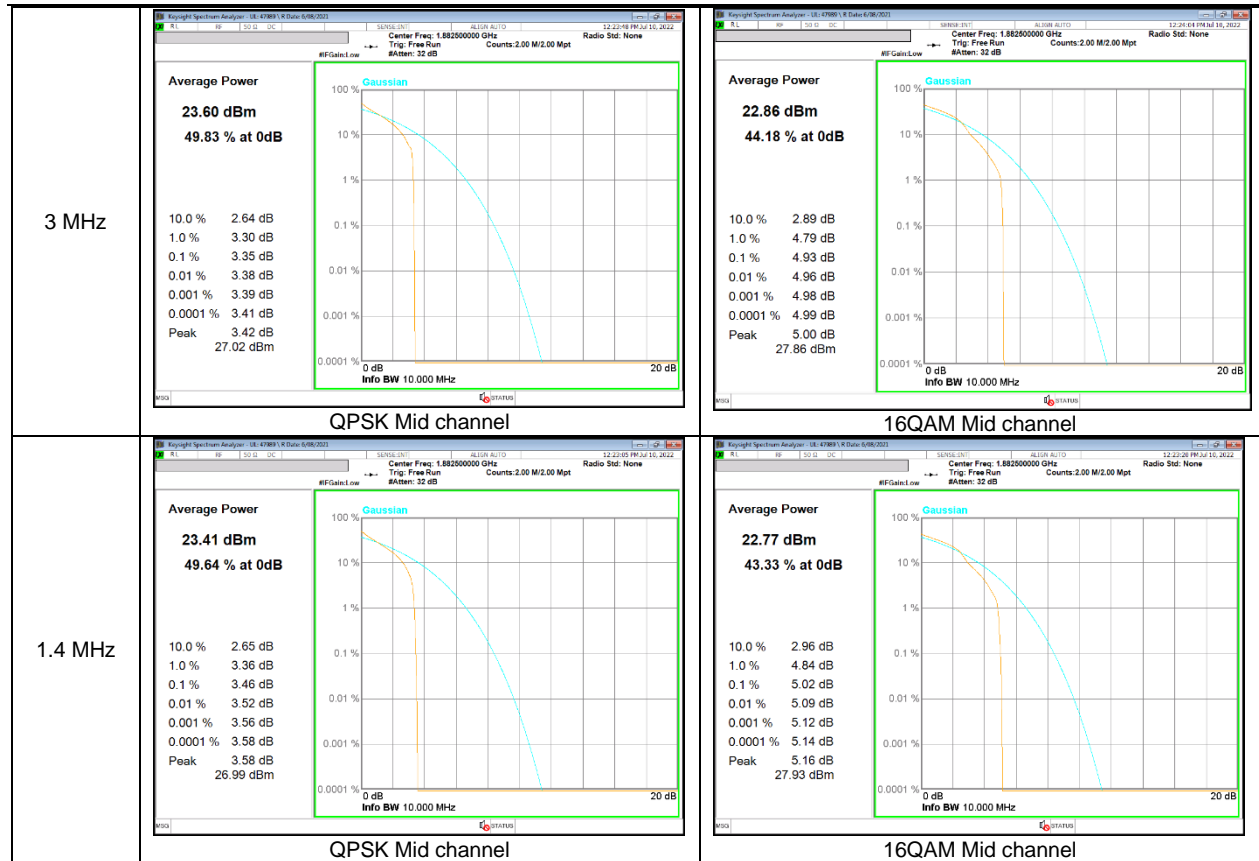


**LTE Band 13**

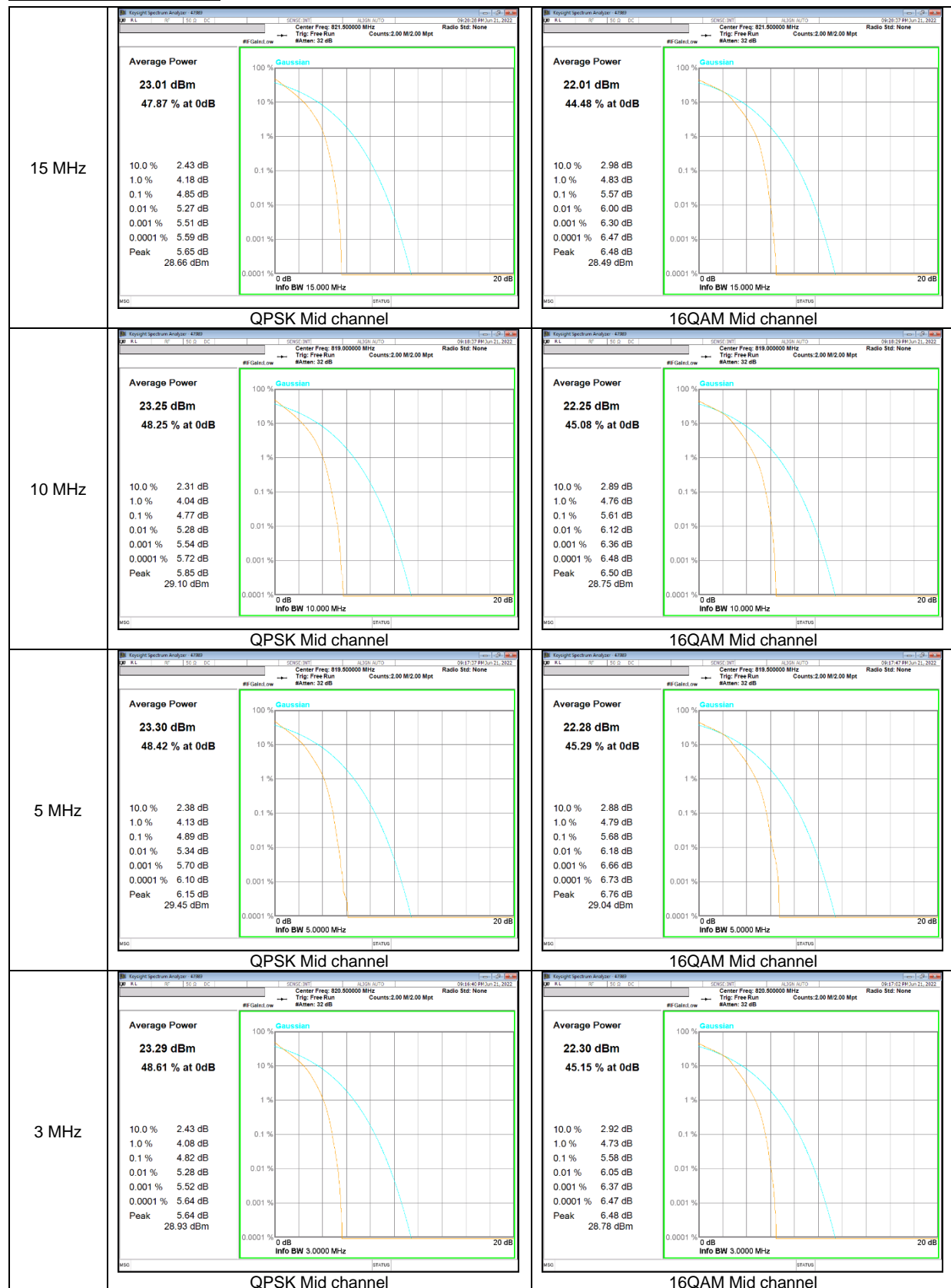


**LTE Band 25**

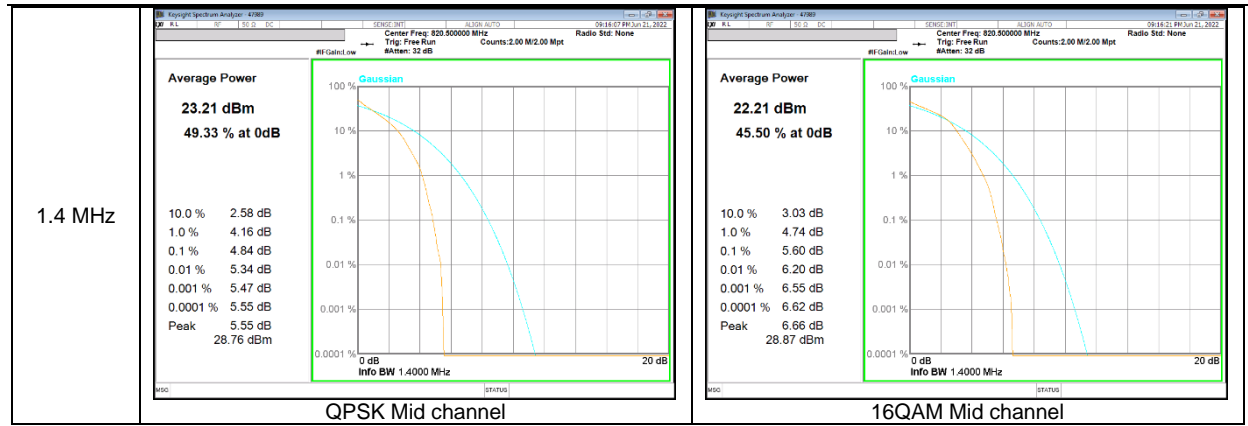




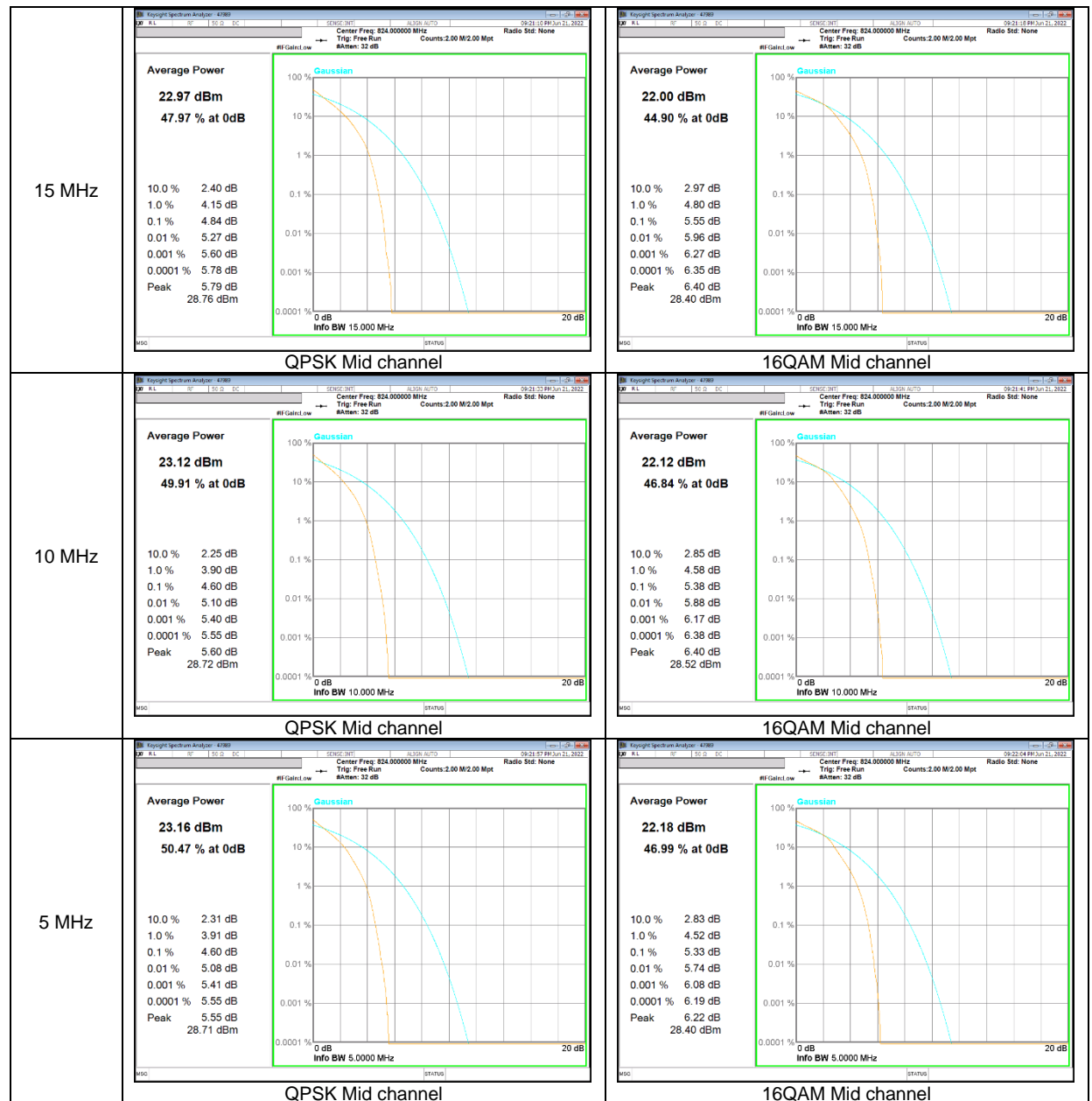
**LTE Band 26 (Part 90)**

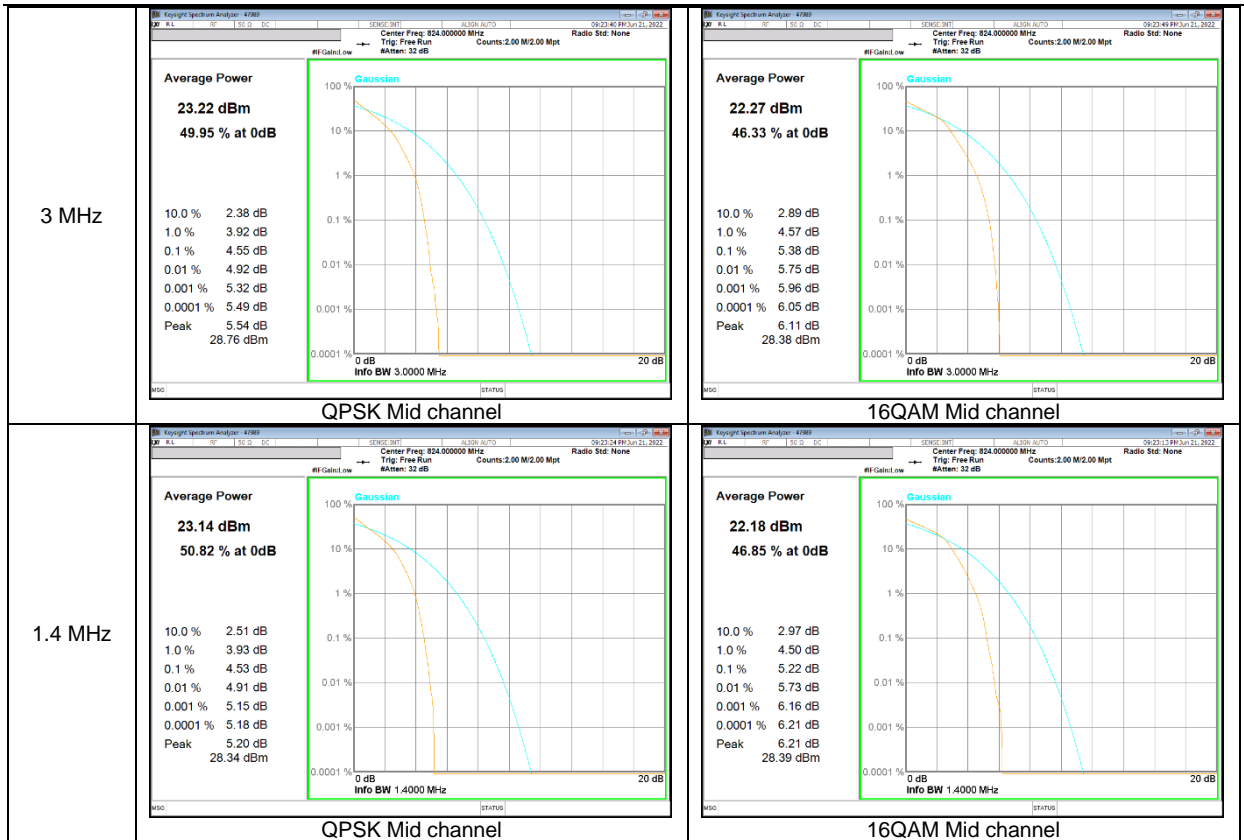




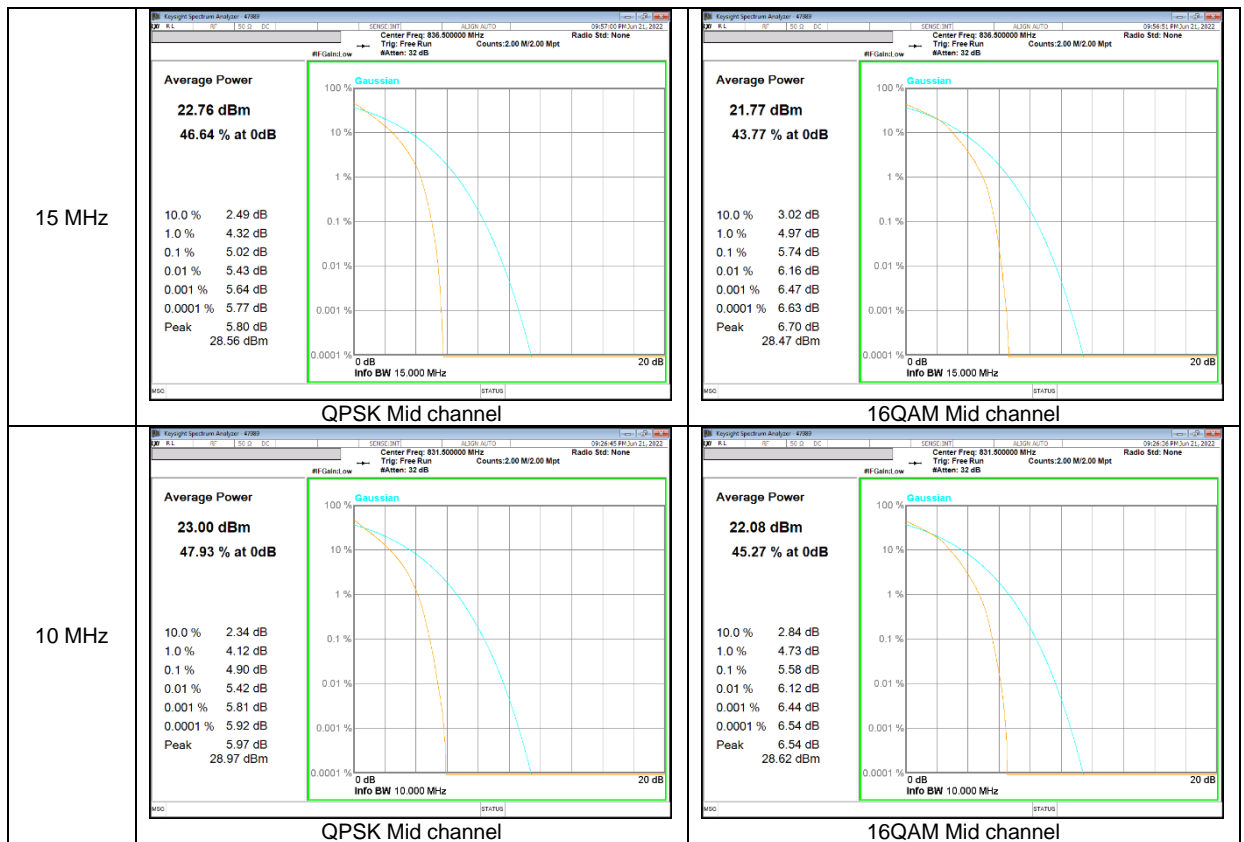


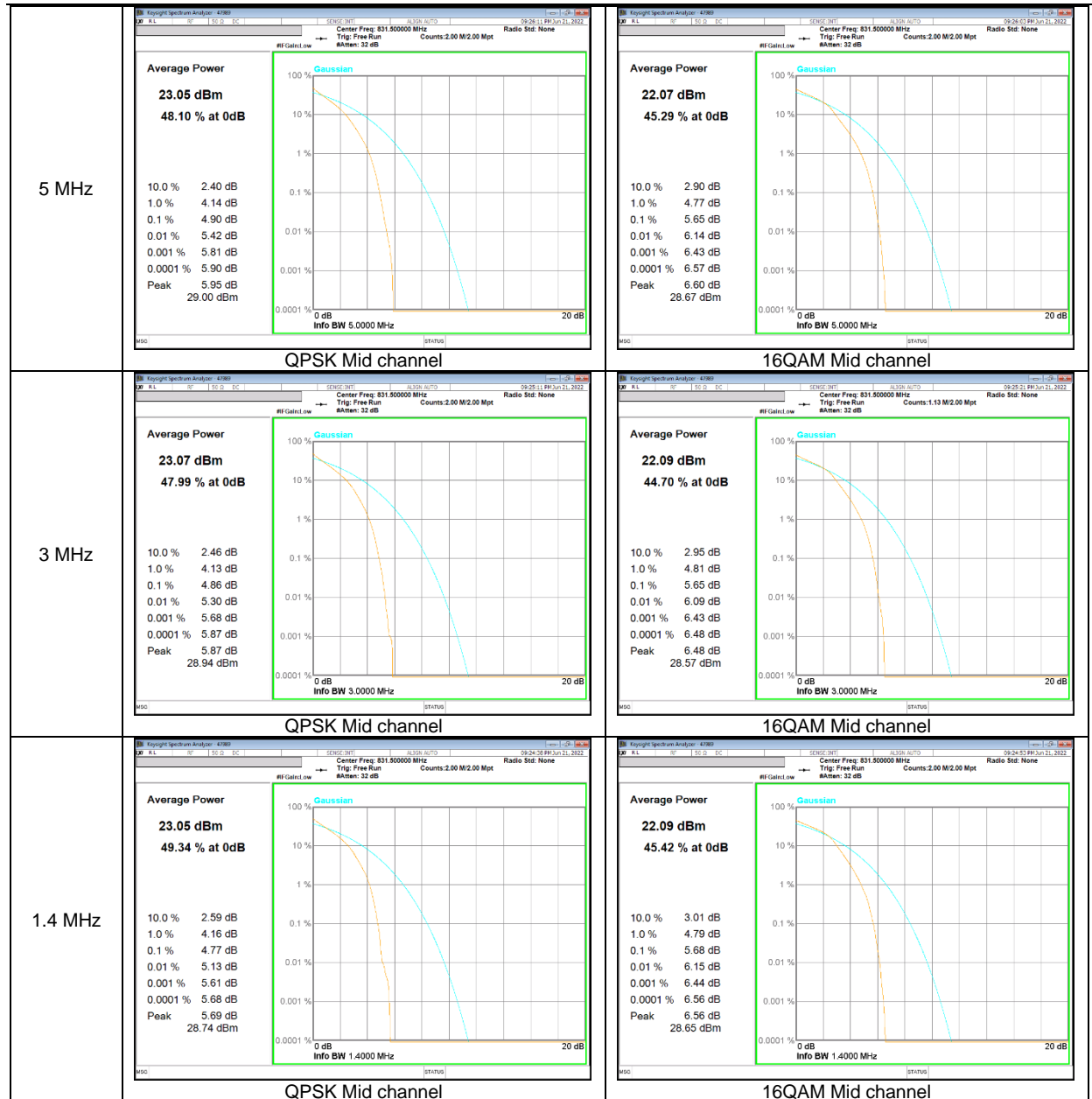
**LTE Band 26 (Straddle)**



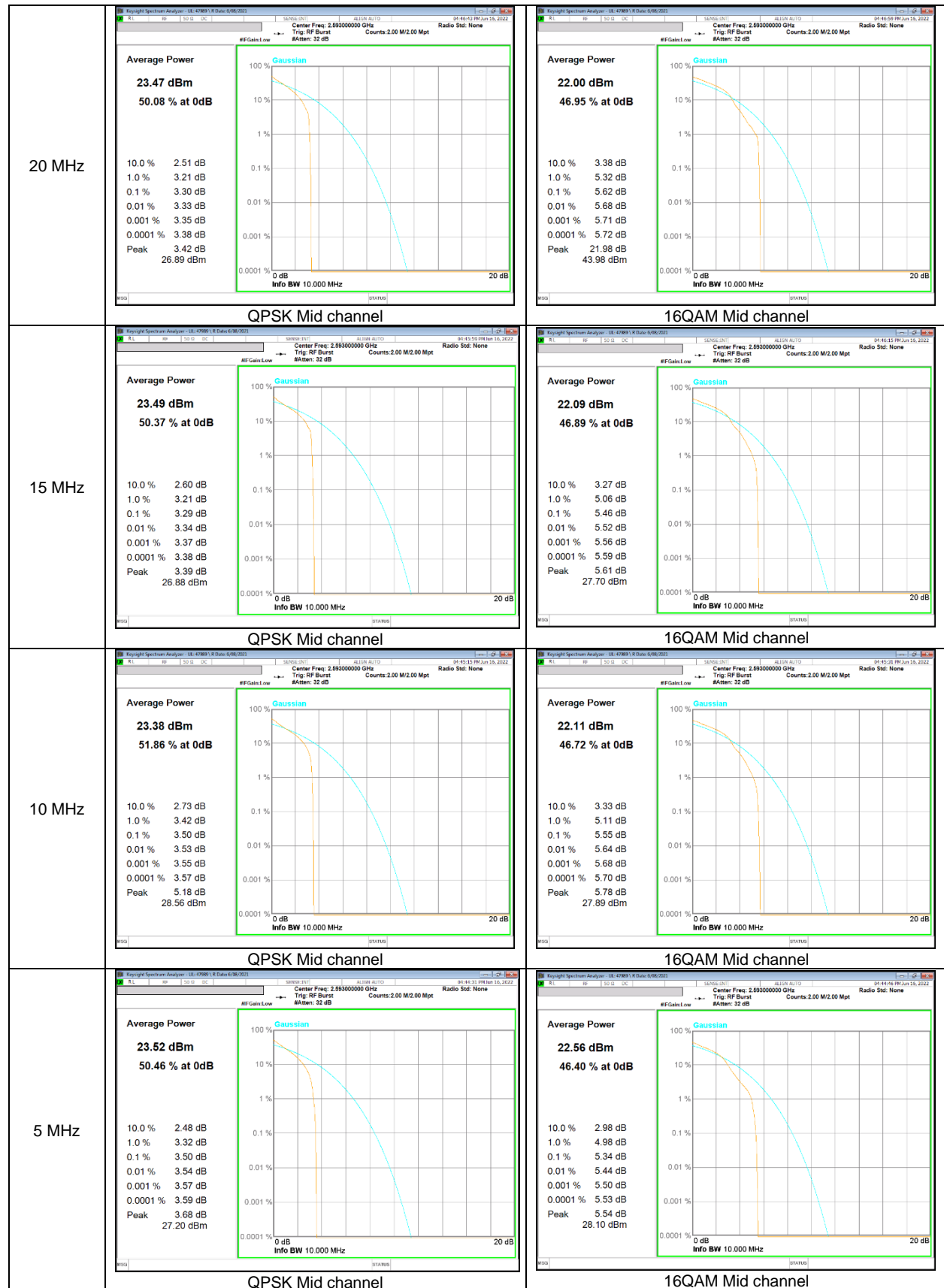


**LTE Band 26 (Part 22)**

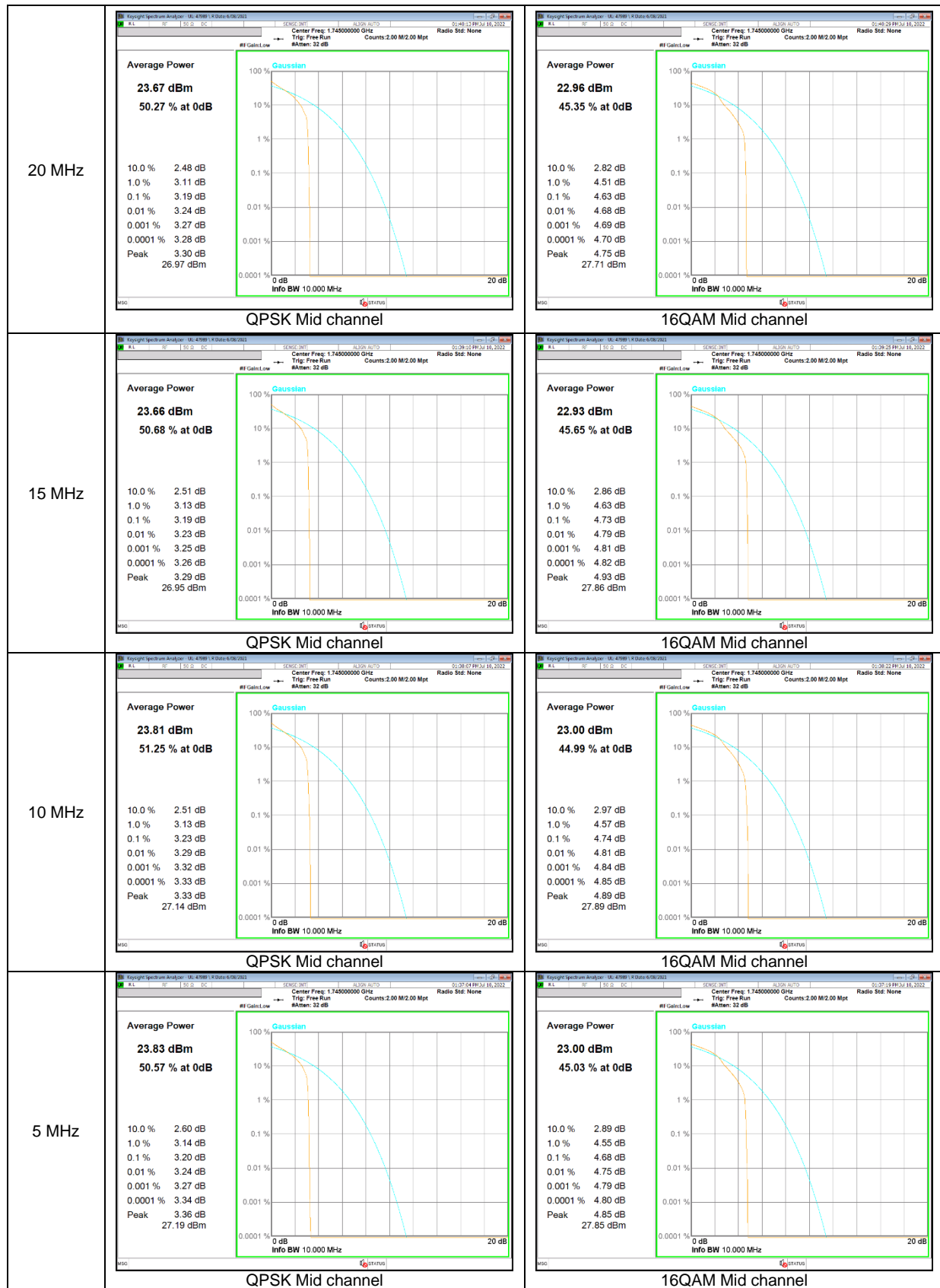


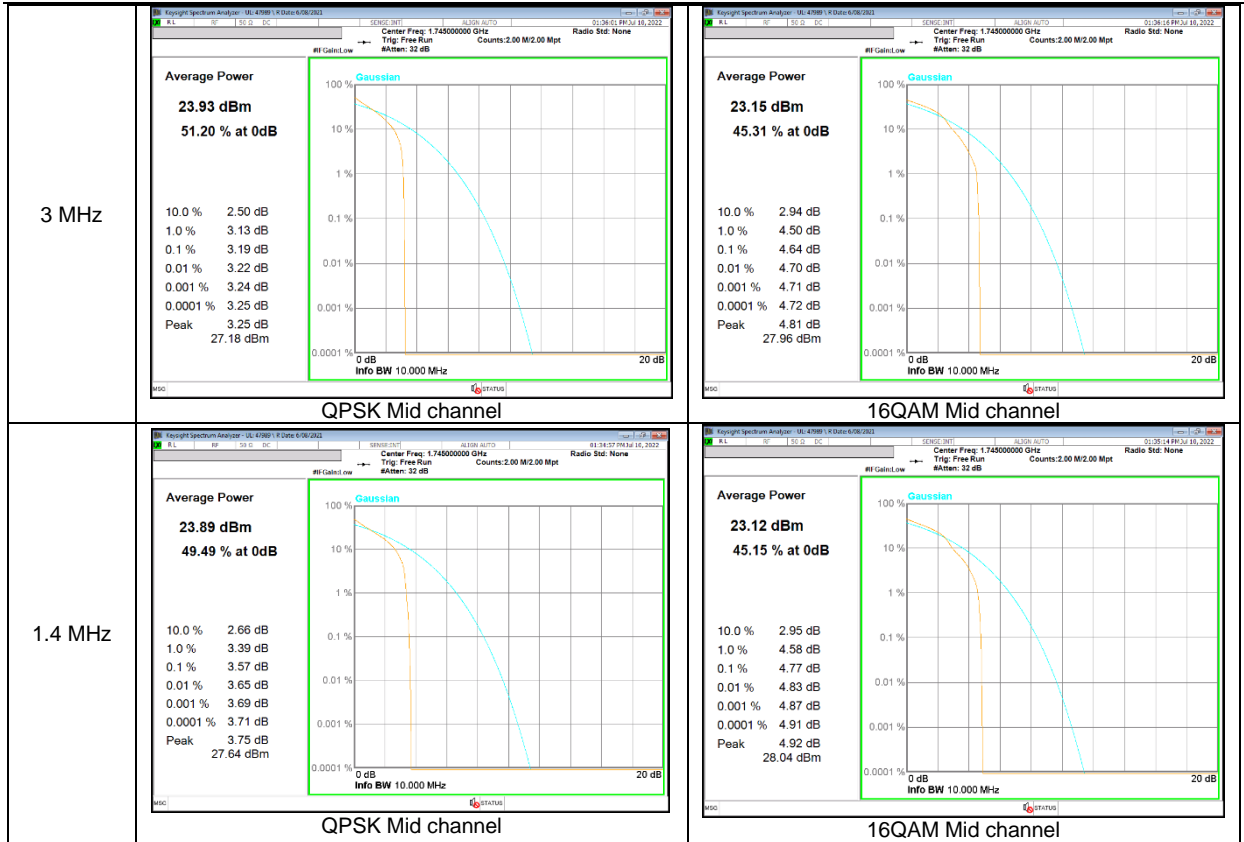


**LTE Band 41**

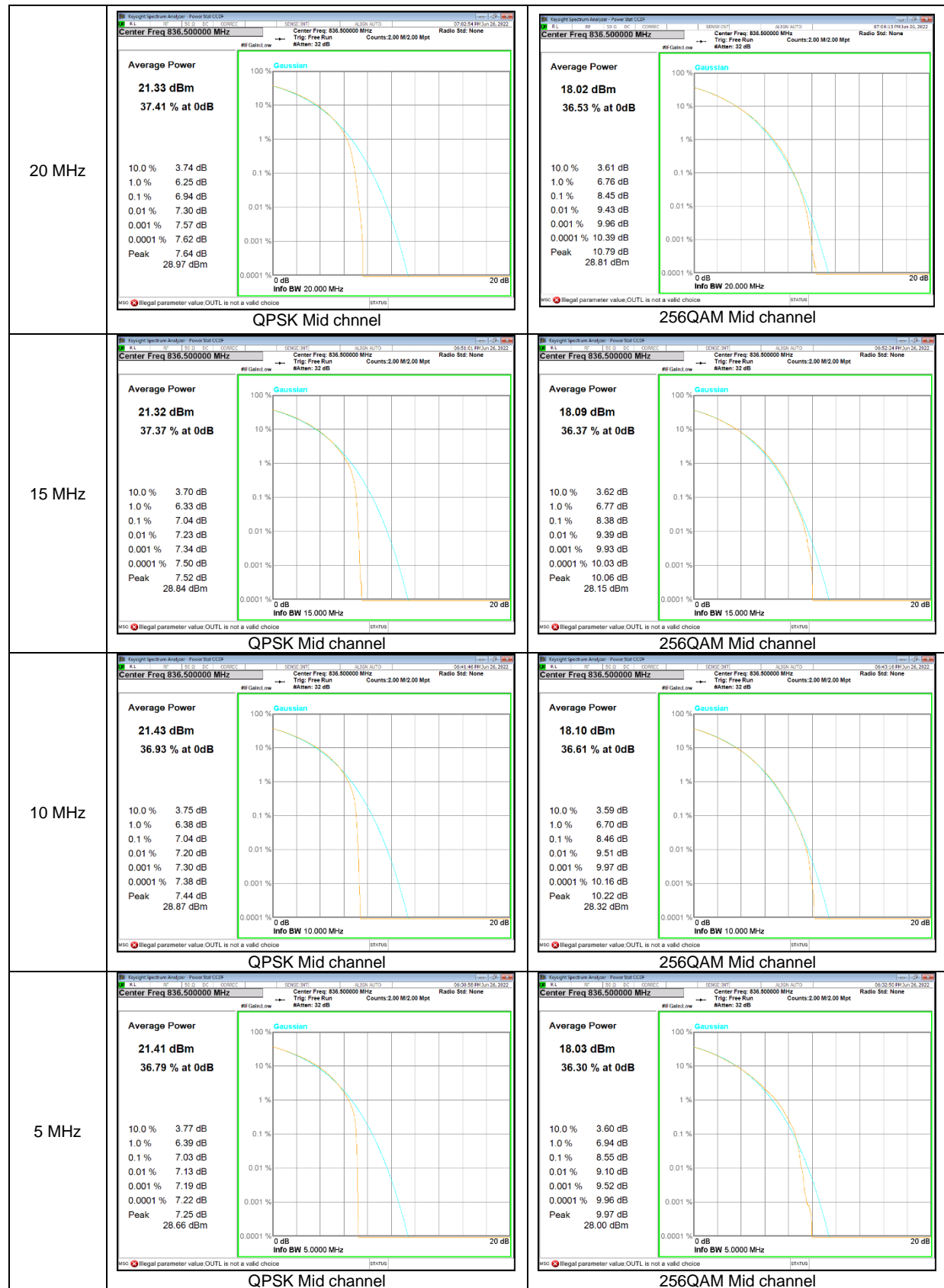


**LTE Band 66**

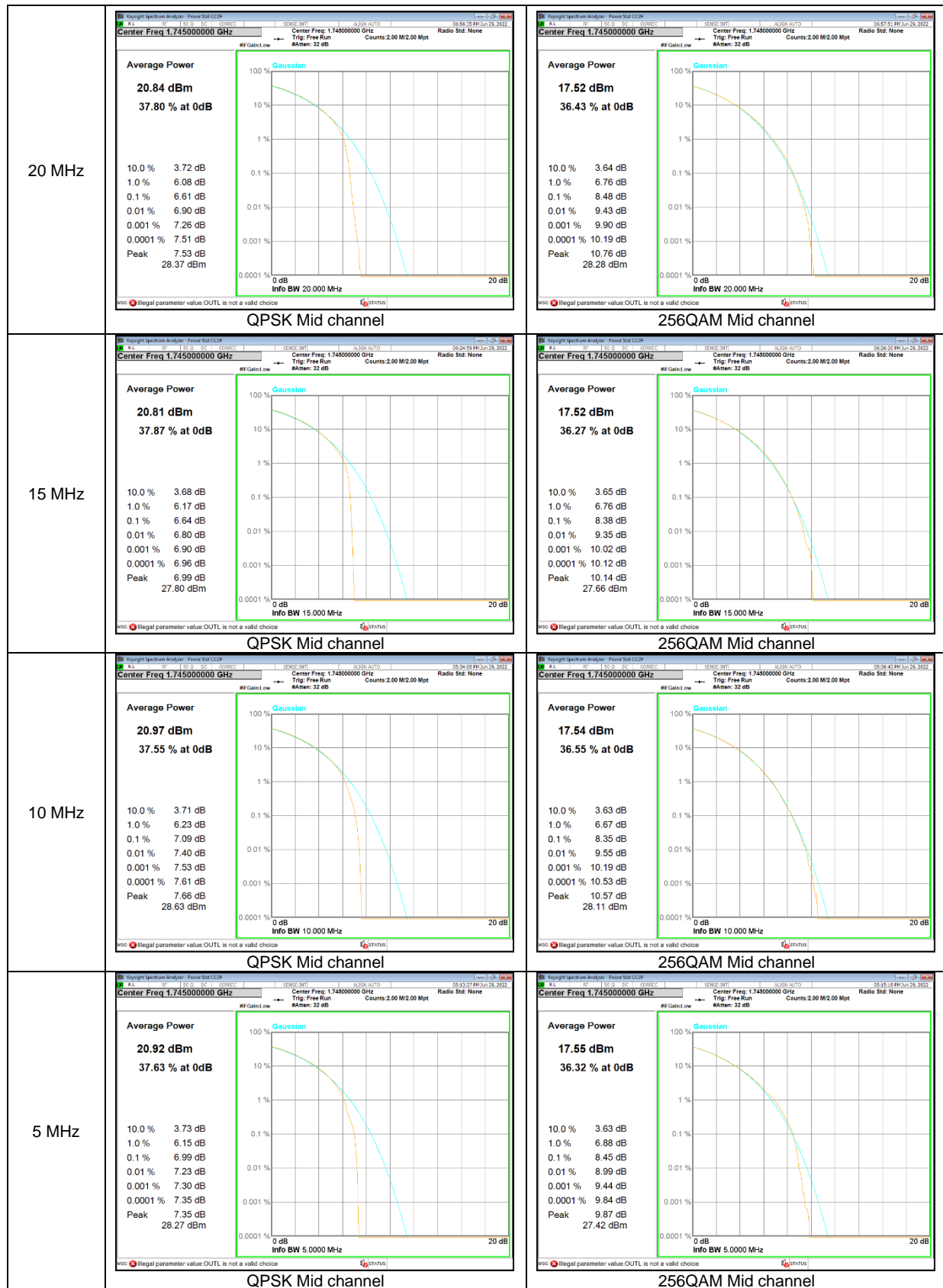




**NR Band n5 CP-OFDM**



**NR Band n66 CP-OFDM**





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## 9. LIMITS AND CONDUCTED RESULTS

### 9.1. OCCUPIED BANDWIDTH

#### RULE PART(S)

FCC: §2.1049

#### LIMITS

For reporting purposes only

#### TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at middle channel in each band. The -26dB bandwidth was also measured and recorded.

(KDB 971168 D01 Power Meas License Digital Systems v03r01)

#### RESULTS

See the following pages.

**- GSM**

| Band | Modulation | f [MHz] | 99% BW (kHz) | -26dB BW (kHz) |
|------|------------|---------|--------------|----------------|
| 850  | GPRS       | 836.6   | 243.59       | 320.3          |
|      | EGPRS      |         | 248.86       | 314.5          |
| 1900 | GPRS       | 1880.0  | 244.16       | 313.1          |
|      | EGPRS      |         | 242.62       | 300.5          |

**- WCDMA**

| Band | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|------|------------|---------|--------------|----------------|
| B5   | Rel.99     | 836.6   | 4.132        | 4.675          |
|      | HSDPA      |         | 4.140        | 4.666          |
| B4   | Rel.99     | 1732.6  | 4.146        | 4.713          |
|      | HSDPA      |         | 4.154        | 4.701          |
| B2   | Rel.99     | 1880.0  | 4.154        | 4.698          |
|      | HSDPA      |         | 4.156        | 4.701          |

**- LTE Band 12**

| Band    | BW   | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|------|------------|---------|--------------|----------------|
| LTE B12 | 10M  | QPSK       | 707.5   | 8.935        | 9.785          |
|         |      | 16QAM      |         | 8.947        | 9.731          |
|         | 5M   | QPSK       |         | 4.484        | 4.901          |
|         |      | 16QAM      |         | 4.487        | 4.928          |
|         | 3M   | QPSK       |         | 2.693        | 2.981          |
|         |      | 16QAM      |         | 2.691        | 2.999          |
|         | 1.4M | QPSK       |         | 1.080        | 1.220          |
|         |      | 16QAM      |         | 1.082        | 1.227          |

**- LTE Band 13**

| Band    | BW  | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-----|------------|---------|--------------|----------------|
| LTE B13 | 10M | QPSK       | 782.0   | 8.909        | 9.685          |
|         |     | 16QAM      |         | 8.940        | 9.659          |
|         | 5M  | QPSK       |         | 4.512        | 4.954          |
|         |     | 16QAM      |         | 4.495        | 4.900          |

**- LTE Band 25**

| Band    | BW   | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|------|------------|---------|--------------|----------------|
| LTE B25 | 20M  | QPSK       | 1882.5  | 17.893       | 19.230         |
|         |      | 16QAM      |         | 17.911       | 19.290         |
|         | 15M  | QPSK       |         | 13.413       | 14.520         |
|         |      | 16QAM      |         | 13.427       | 14.410         |
|         | 10M  | QPSK       |         | 8.960        | 9.706          |
|         |      | 16QAM      |         | 8.937        | 9.668          |
|         | 5M   | QPSK       |         | 4.487        | 4.911          |
|         |      | 16QAM      |         | 4.486        | 4.934          |
|         | 3M   | QPSK       |         | 2.694        | 2.969          |
|         |      | 16QAM      |         | 2.690        | 2.996          |
|         | 1.4M | QPSK       |         | 1.084        | 1.222          |
|         |      | 16QAM      |         | 1.091        | 1.235          |

**- LTE Band 26 (Part 90)**

| Band    | BW   | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|------|------------|---------|--------------|----------------|
| LTE B26 | 15M  | QPSK       | 821.5   | 13.377       | 14.200         |
|         |      | 16QAM      |         | 13.384       | 14.260         |
|         | 10M  | QPSK       | 819.0   | 8.976        | 9.612          |
|         |      | 16QAM      |         | 8.957        | 9.537          |
|         | 5M   | QPSK       | 819.5   | 4.475        | 4.909          |
|         |      | 16QAM      |         | 4.480        | 4.833          |
|         | 3M   | QPSK       | 820.5   | 2.687        | 2.933          |
|         |      | 16QAM      |         | 2.684        | 2.968          |
|         | 1.4M | QPSK       | 820.5   | 1.086        | 1.227          |
|         |      | 16QAM      |         | 1.081        | 1.221          |

**- LTE Band 26 (Straddle)**

| Band    | BW   | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|------|------------|---------|--------------|----------------|
| LTE B26 | 15M  | QPSK       | 824.0   | 13.423       | 14.380         |
|         |      | 16QAM      |         | 13.364       | 14.340         |
|         | 10M  | QPSK       |         | 8.924        | 9.680          |
|         |      | 16QAM      |         | 8.953        | 9.552          |
|         | 5M   | QPSK       |         | 4.489        | 4.938          |
|         |      | 16QAM      |         | 4.476        | 4.853          |
|         | 3M   | QPSK       |         | 2.682        | 2.982          |
|         |      | 16QAM      |         | 2.682        | 2.949          |
|         | 1.4M | QPSK       |         | 1.083        | 1.217          |
|         |      | 16QAM      |         | 1.085        | 1.208          |

**- LTE Band 26 (Part 22)**

| Band    | BW   | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|------|------------|---------|--------------|----------------|
| LTE B26 | 15M  | QPSK       | 836.5   | 13.419       | 14.330         |
|         |      | 16QAM      |         | 13.412       | 14.410         |
|         | 10M  | QPSK       |         | 8.963        | 9.774          |
|         |      | 16QAM      |         | 8.986        | 9.628          |
|         | 5M   | QPSK       |         | 4.483        | 4.884          |
|         |      | 16QAM      |         | 4.472        | 4.870          |
|         | 3M   | QPSK       |         | 2.692        | 2.962          |
|         |      | 16QAM      |         | 2.677        | 2.946          |
|         | 1.4M | QPSK       |         | 1.082        | 1.211          |
|         |      | 16QAM      |         | 1.083        | 1.222          |

**- LTE Band 41**

| Band    | BW  | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-----|------------|---------|--------------|----------------|
| LTE B41 | 20M | QPSK       | 2593.0  | 17.914       | 19.260         |
|         |     | 16QAM      |         | 17.918       | 20.620         |
|         | 15M | QPSK       |         | 13.442       | 14.680         |
|         |     | 16QAM      |         | 13.436       | 15.130         |
|         | 10M | QPSK       |         | 8.983        | 10.170         |
|         |     | 16QAM      |         | 8.989        | 10.080         |
|         | 5M  | QPSK       |         | 4.500        | 5.118          |
|         |     | 16QAM      |         | 4.494        | 4.963          |

**- LTE Band 66**

| Band    | BW   | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|---------|------|------------|---------|--------------|----------------|
| LTE B66 | 20M  | QPSK       | 1745.0  | 17.900       | 19.340         |
|         |      | 16QAM      |         | 17.909       | 19.330         |
|         | 15M  | QPSK       |         | 13.429       | 14.640         |
|         |      | 16QAM      |         | 13.430       | 14.540         |
|         | 10M  | QPSK       |         | 8.970        | 9.860          |
|         |      | 16QAM      |         | 8.969        | 9.749          |
|         | 5M   | QPSK       |         | 4.496        | 4.887          |
|         |      | 16QAM      |         | 4.480        | 4.908          |
|         | 3M   | QPSK       |         | 2.693        | 2.977          |
|         |      | 16QAM      |         | 2.687        | 2.997          |
|         | 1.4M | QPSK       |         | 1.093        | 1.234          |
|         |      | 16QAM      |         | 1.081        | 1.224          |

**- NR Band n5 CP-OFDM**

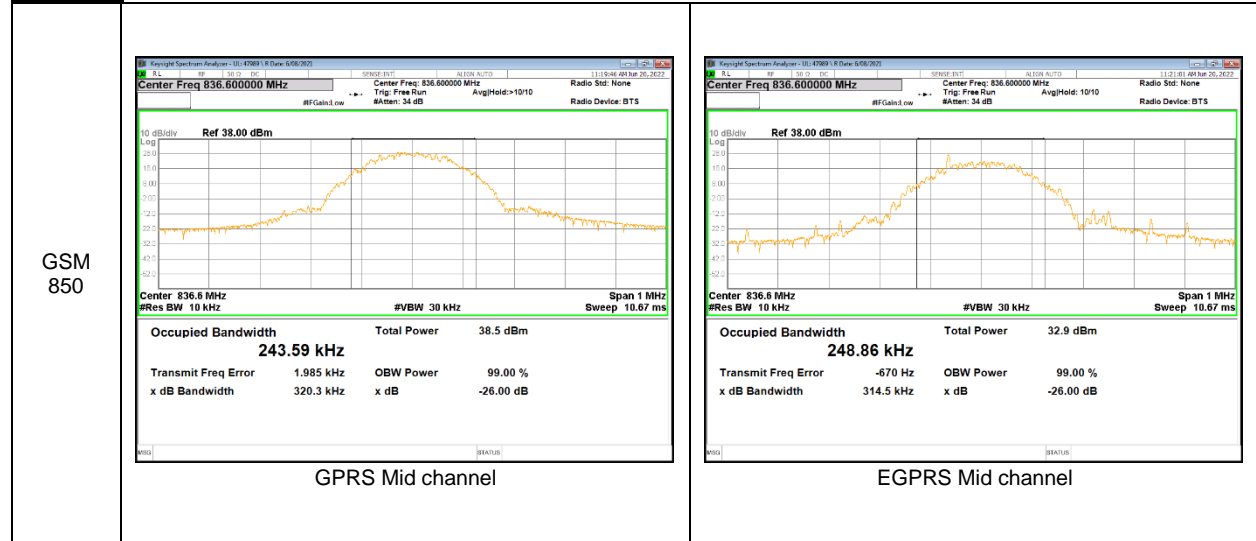
| Band  | BW  | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|-------|-----|------------|---------|--------------|----------------|
| NR n5 | 20M | QPSK       | 836.5   | 18.885       | 19.800         |
|       |     | 16QAM      |         | 18.890       | 19.790         |
|       | 15M | QPSK       |         | 14.087       | 14.820         |
|       |     | 16QAM      |         | 14.132       | 14.900         |
|       | 10M | QPSK       |         | 9.300        | 9.956          |
|       |     | 16QAM      |         | 9.279        | 9.800          |
|       | 5M  | QPSK       |         | 4.478        | 4.959          |
|       |     | 16QAM      |         | 4.477        | 4.915          |

**- NR Band n66 CP-OFDM**

| Band   | BW  | Modulation | f [MHz] | 99% BW (MHz) | -26dB BW (MHz) |
|--------|-----|------------|---------|--------------|----------------|
| NR n66 | 20M | QPSK       | 1745.0  | 18.941       | 19.820         |
|        |     | 16QAM      |         | 18.955       | 19.860         |
|        | 15M | QPSK       |         | 14.139       | 14.790         |
|        |     | 16QAM      |         | 14.131       | 14.880         |
|        | 10M | QPSK       |         | 9.277        | 9.883          |
|        |     | 16QAM      |         | 9.320        | 9.903          |
|        | 5M  | QPSK       |         | 4.479        | 4.857          |
|        |     | 16QAM      |         | 4.476        | 4.900          |

**9.1.1. OCCUPIED BANDWIDTH RESULTS**

**GSM 850**



**GSM 1900**

