

# TEST REPORT



**Dt&C Co., Ltd.**

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1. Report No : DRTFCC2407-0077(1)

2. Customer

• Name (FCC) : BLUEBIRD INC.

• Address (FCC) : 3F, 115, Irwon-ro, Gangnam-gu, Seoul South Korea

3. Use of Report : FCC Certification

4. Product Name / Model Name : Enterprise Full Touch Handheld Computer / S50  
FCC ID : SS4S50F1

5. FCC Regulation(s): Part 22, 24, 27, 90

Test Method Used : KDB971168 D01v03, ANSI/TIA-603-E-2016, ANSI C63.26-2015

6. Date of Test : 2024.05.16 ~ 2024.07.04

7. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

8. Testing Environment : See appended test report.

9. Test Result : Refer to the attached Test Result

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test report is not related to KOLAS accreditation.

|             |                                                                                                         |                                                                                                         |
|-------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Affirmation | Tested by                                                                                               | Technical Manager                                                                                       |
|             | Name : SeungMin Gil  | Name : JaeJin Lee  |

**2024 . 08 . 08 .**

**Dt&C Co., Ltd.**

If this report is required to confirmation of authenticity, please contact to [report@dtnc.net](mailto:report@dtnc.net)

## Test Report Version

| Test Report No.    | Date          | Description                             | Revised by   | Reviewed by |
|--------------------|---------------|-----------------------------------------|--------------|-------------|
| DRTFCC2407-0077    | Jul. 23, 2024 | Initial issue                           | SeungMin Gil | JaeJin Lee  |
| DRTFCC2407-0077(1) | Aug. 08, 2024 | Revised Frequency Stability<br>ppm unit | SeungMin Gil | JaeJin Lee  |
|                    |               |                                         |              |             |
|                    |               |                                         |              |             |
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## 1. GENERAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                              |                  |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Equipment Class</b>                              | PCS Licensed Transmitter held to ear(PCE)                                                                                                                                                                                                                                                                                                                                    |                  |
| <b>FCC ID</b>                                       | SS4S50F1                                                                                                                                                                                                                                                                                                                                                                     |                  |
| <b>Product Name</b>                                 | Enterprise Full Touch Handheld Computer                                                                                                                                                                                                                                                                                                                                      |                  |
| <b>Model Name(s)</b>                                | S50, S70                                                                                                                                                                                                                                                                                                                                                                     |                  |
| <b>PMN(Product Marketing Name)</b>                  | Enterprise Full Touch Handheld Computer                                                                                                                                                                                                                                                                                                                                      |                  |
| <b>FVIN(Firmware Version Identification Number)</b> | R1.00                                                                                                                                                                                                                                                                                                                                                                        |                  |
| <b>EUT Serial Number</b>                            | Conducted: S50A5LAWBA326 , Radiated: S50A5LAWBA321                                                                                                                                                                                                                                                                                                                           |                  |
| <b>Supplying power</b>                              | DC 3.85 V                                                                                                                                                                                                                                                                                                                                                                    |                  |
| <b>Waveform</b>                                     | CP-OFDM, DFT-S-OFDM                                                                                                                                                                                                                                                                                                                                                          |                  |
| <b>Modulation type</b>                              | $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM                                                                                                                                                                                                                                                                                                                                     |                  |
| <b>Channel Bandwidth(MHz)</b>                       | NR Band n71: 20, 15, 10, 5<br>NR Band n12: 15, 10, 5<br>NR Band n13: 10, 5<br>NR Band n14: 10, 5<br>NR Band n5: 20, 15, 10, 5<br>NR Band n66: 20, 15, 10, 5<br>NR Band n2: 20, 15, 10, 5<br>NR Band n7: 20, 15, 10, 5<br>NR Band n41: 100, 90, 80, 60, 50, 40, 20<br>NR Band n38: 20<br>NR Band n78: 100, 90, 80, 70, 60, 50, 40, 30, 20<br>NR Band n77: 100, 80, 60, 40, 20 |                  |
| <b>Antenna Type</b>                                 | LDS Antenna                                                                                                                                                                                                                                                                                                                                                                  |                  |
| <b>Antenna Gain</b>                                 | <b>NR Band</b>                                                                                                                                                                                                                                                                                                                                                               | <b>Gain(dBi)</b> |
|                                                     | n71                                                                                                                                                                                                                                                                                                                                                                          | Ant 0: -5.44     |
|                                                     | n12                                                                                                                                                                                                                                                                                                                                                                          | Ant 0: -5.44     |
|                                                     | n13                                                                                                                                                                                                                                                                                                                                                                          | Ant 0: -4.50     |
|                                                     | n14                                                                                                                                                                                                                                                                                                                                                                          | Ant 0: -3.84     |
|                                                     | n5                                                                                                                                                                                                                                                                                                                                                                           | Ant 0: -1.91     |
|                                                     | n66                                                                                                                                                                                                                                                                                                                                                                          | Ant 0: 0.30      |
|                                                     | n2                                                                                                                                                                                                                                                                                                                                                                           | Ant 0: 0.77      |
|                                                     | n7                                                                                                                                                                                                                                                                                                                                                                           | Ant 0: -2.11     |
|                                                     | n41                                                                                                                                                                                                                                                                                                                                                                          | Ant 0: 2.21      |
|                                                     | n38                                                                                                                                                                                                                                                                                                                                                                          | Ant 0: 2.21      |
|                                                     | n78, n77(3 450~3 550 MHz)                                                                                                                                                                                                                                                                                                                                                    | Ant 4: 0.43      |
|                                                     | n78(3 700 ~ 3 800 MHz)                                                                                                                                                                                                                                                                                                                                                       | Ant 4: 2.73      |
|                                                     | n77(3 700 ~ 3 980 MHz)                                                                                                                                                                                                                                                                                                                                                       | Ant 4: 2.73      |

| NR<br>Frequency<br>Band | Channel<br>Bandwidth<br>(MHz) | Modulation   | TX Frequency<br>(MHz) | Emission<br>Designator | Conducted Output<br>Power |                     | ERP                   |                     |
|-------------------------|-------------------------------|--------------|-----------------------|------------------------|---------------------------|---------------------|-----------------------|---------------------|
|                         |                               |              |                       |                        | Max<br>power<br>(dBm)     | Max<br>power<br>(W) | Max<br>power<br>(dBm) | Max<br>power<br>(W) |
| n71                     | 20                            | $\pi/2$ BPSK | 673 ~ 688             | 17M8G7D                | 22.68                     | 0.185               | 15.09                 | 0.032               |
| n71                     | 20                            | QPSK         | 673 ~ 688             | 17M8G7D                | 22.78                     | 0.190               | 15.19                 | 0.033               |
| n71                     | 20                            | 16QAM        | 673 ~ 688             | 17M8W7D                | 21.86                     | 0.153               | 14.27                 | 0.027               |
| n71                     | 20                            | 64QAM        | 673 ~ 688             | 17M8W7D                | 20.36                     | 0.109               | 12.77                 | 0.019               |
| n71                     | 20                            | 256QAM       | 673 ~ 688             | 17M8W7D                | 18.35                     | 0.068               | 10.76                 | 0.012               |
| n71                     | 15                            | $\pi/2$ BPSK | 670.5 ~ 690.5         | 13M4G7D                | 22.46                     | 0.176               | 14.87                 | 0.031               |
| n71                     | 15                            | QPSK         | 670.5 ~ 690.5         | 13M4G7D                | 22.59                     | 0.182               | 15.00                 | 0.032               |
| n71                     | 15                            | 16QAM        | 670.5 ~ 690.5         | 13M4W7D                | 21.64                     | 0.146               | 14.05                 | 0.025               |
| n71                     | 15                            | 64QAM        | 670.5 ~ 690.5         | 13M4W7D                | 20.25                     | 0.106               | 12.66                 | 0.018               |
| n71                     | 15                            | 256QAM       | 670.5 ~ 690.5         | 13M4W7D                | 18.17                     | 0.066               | 10.58                 | 0.011               |
| n71                     | 10                            | $\pi/2$ BPSK | 668 ~ 693             | 8M93G7D                | 22.60                     | 0.182               | 15.01                 | 0.032               |
| n71                     | 10                            | QPSK         | 668 ~ 693             | 8M91G7D                | 22.64                     | 0.184               | 15.05                 | 0.032               |
| n71                     | 10                            | 16QAM        | 668 ~ 693             | 8M94W7D                | 21.68                     | 0.147               | 14.09                 | 0.026               |
| n71                     | 10                            | 64QAM        | 668 ~ 693             | 8M95W7D                | 20.22                     | 0.105               | 12.63                 | 0.018               |
| n71                     | 10                            | 256QAM       | 668 ~ 693             | 8M94W7D                | 18.22                     | 0.066               | 10.63                 | 0.012               |
| n71                     | 5                             | $\pi/2$ BPSK | 665.5 ~ 695.5         | 4M50G7D                | 22.64                     | 0.184               | 15.05                 | 0.032               |
| n71                     | 5                             | QPSK         | 665.5 ~ 695.5         | 4M49G7D                | 22.67                     | 0.185               | 15.08                 | 0.032               |
| n71                     | 5                             | 16QAM        | 665.5 ~ 695.5         | 4M51W7D                | 21.71                     | 0.148               | 14.12                 | 0.026               |
| n71                     | 5                             | 64QAM        | 665.5 ~ 695.5         | 4M51W7D                | 20.25                     | 0.106               | 12.66                 | 0.018               |
| n71                     | 5                             | 256QAM       | 665.5 ~ 695.5         | 4M51W7D                | 18.21                     | 0.066               | 10.62                 | 0.012               |
| n12                     | 15                            | $\pi/2$ BPSK | 706.5 ~ 708.5         | 13M4G7D                | 22.32                     | 0.171               | 14.73                 | 0.030               |
| n12                     | 15                            | QPSK         | 706.5 ~ 708.5         | 13M4G7D                | 22.40                     | 0.174               | 14.81                 | 0.030               |
| n12                     | 15                            | 16QAM        | 706.5 ~ 708.5         | 13M4W7D                | 21.45                     | 0.140               | 13.86                 | 0.024               |
| n12                     | 15                            | 64QAM        | 706.5 ~ 708.5         | 13M4W7D                | 19.96                     | 0.099               | 12.37                 | 0.017               |
| n12                     | 15                            | 256QAM       | 706.5 ~ 708.5         | 13M4W7D                | 17.98                     | 0.063               | 10.39                 | 0.011               |
| n12                     | 10                            | $\pi/2$ BPSK | 704 ~ 711             | 8M93G7D                | 22.34                     | 0.171               | 14.75                 | 0.030               |
| n12                     | 10                            | QPSK         | 704 ~ 711             | 8M96G7D                | 22.36                     | 0.172               | 14.77                 | 0.030               |
| n12                     | 10                            | 16QAM        | 704 ~ 711             | 8M94W7D                | 21.39                     | 0.138               | 13.80                 | 0.024               |
| n12                     | 10                            | 64QAM        | 704 ~ 711             | 8M91W7D                | 19.88                     | 0.097               | 12.29                 | 0.017               |
| n12                     | 10                            | 256QAM       | 704 ~ 711             | 8M94W7D                | 17.87                     | 0.061               | 10.28                 | 0.011               |
| n12                     | 5                             | $\pi/2$ BPSK | 701.5 ~ 713.5         | 4M52G7D                | 22.32                     | 0.171               | 14.73                 | 0.030               |
| n12                     | 5                             | QPSK         | 701.5 ~ 713.5         | 4M51G7D                | 22.35                     | 0.172               | 14.76                 | 0.030               |
| n12                     | 5                             | 16QAM        | 701.5 ~ 713.5         | 4M52W7D                | 21.39                     | 0.138               | 13.80                 | 0.024               |
| n12                     | 5                             | 64QAM        | 701.5 ~ 713.5         | 4M54W7D                | 19.92                     | 0.098               | 12.33                 | 0.017               |
| n12                     | 5                             | 256QAM       | 701.5 ~ 713.5         | 4M51W7D                | 17.90                     | 0.062               | 10.31                 | 0.011               |

| NR<br>Frequency<br>Band | Channel<br>Bandwidth<br>(MHz) | Modulation   | TX Frequency<br>(MHz) | Emission<br>Designator | Conducted Output<br>Power |                     | ERP                   |                     |
|-------------------------|-------------------------------|--------------|-----------------------|------------------------|---------------------------|---------------------|-----------------------|---------------------|
|                         |                               |              |                       |                        | Max<br>power<br>(dBm)     | Max<br>power<br>(W) | Max<br>power<br>(dBm) | Max<br>power<br>(W) |
| n13                     | 10                            | $\pi/2$ BPSK | 782 ~ 782             | 8M90G7D                | 22.54                     | 0.179               | 15.89                 | 0.039               |
| n13                     | 10                            | QPSK         | 782 ~ 782             | 8M88G7D                | 22.62                     | 0.183               | 15.97                 | 0.040               |
| n13                     | 10                            | 16QAM        | 782 ~ 782             | 8M89W7D                | 21.63                     | 0.146               | 14.98                 | 0.031               |
| n13                     | 10                            | 64QAM        | 782 ~ 782             | 8M88W7D                | 20.19                     | 0.104               | 13.54                 | 0.023               |
| n13                     | 10                            | 256QAM       | 782 ~ 782             | 8M92W7D                | 18.20                     | 0.066               | 11.55                 | 0.014               |
| n13                     | 5                             | $\pi/2$ BPSK | 779.5 ~ 784.5         | 4M50G7D                | 22.58                     | 0.181               | 15.93                 | 0.039               |
| n13                     | 5                             | QPSK         | 779.5 ~ 784.5         | 4M52G7D                | 22.61                     | 0.182               | 15.96                 | 0.039               |
| n13                     | 5                             | 16QAM        | 779.5 ~ 784.5         | 4M50W7D                | 21.64                     | 0.146               | 14.99                 | 0.032               |
| n13                     | 5                             | 64QAM        | 779.5 ~ 784.5         | 4M51W7D                | 20.14                     | 0.103               | 13.49                 | 0.022               |
| n13                     | 5                             | 256QAM       | 779.5 ~ 784.5         | 4M50W7D                | 18.19                     | 0.066               | 11.54                 | 0.014               |
| n14                     | 10                            | $\pi/2$ BPSK | 793 ~ 793             | 8M91G7D                | 22.27                     | 0.169               | 16.28                 | 0.042               |
| n14                     | 10                            | QPSK         | 793 ~ 793             | 8M90G7D                | 22.55                     | 0.180               | 16.56                 | 0.045               |
| n14                     | 10                            | 16QAM        | 793 ~ 793             | 8M91W7D                | 21.57                     | 0.144               | 15.58                 | 0.036               |
| n14                     | 10                            | 64QAM        | 793 ~ 793             | 8M90W7D                | 20.11                     | 0.103               | 14.12                 | 0.026               |
| n14                     | 10                            | 256QAM       | 793 ~ 793             | 8M93W7D                | 18.09                     | 0.064               | 12.10                 | 0.016               |
| n14                     | 5                             | $\pi/2$ BPSK | 790.5 ~ 795.5         | 4M52G7D                | 22.36                     | 0.172               | 16.37                 | 0.043               |
| n14                     | 5                             | QPSK         | 790.5 ~ 795.5         | 4M51G7D                | 22.54                     | 0.179               | 16.55                 | 0.045               |
| n14                     | 5                             | 16QAM        | 790.5 ~ 795.5         | 4M52W7D                | 21.58                     | 0.144               | 15.59                 | 0.036               |
| n14                     | 5                             | 64QAM        | 790.5 ~ 795.5         | 4M53W7D                | 20.07                     | 0.102               | 14.08                 | 0.026               |
| n14                     | 5                             | 256QAM       | 790.5 ~ 795.5         | 4M49W7D                | 18.09                     | 0.064               | 12.10                 | 0.016               |
| n5                      | 20                            | $\pi/2$ BPSK | 834 ~ 839             | 17M8G7D                | 22.80                     | 0.191               | 18.74                 | 0.075               |
| n5                      | 20                            | QPSK         | 834 ~ 839             | 17M8G7D                | 22.88                     | 0.194               | 18.82                 | 0.076               |
| n5                      | 20                            | 16QAM        | 834 ~ 839             | 17M8W7D                | 21.98                     | 0.158               | 17.92                 | 0.062               |
| n5                      | 20                            | 64QAM        | 834 ~ 839             | 17M8W7D                | 20.49                     | 0.112               | 16.43                 | 0.044               |
| n5                      | 20                            | 256QAM       | 834 ~ 839             | 17M8W7D                | 18.47                     | 0.070               | 14.41                 | 0.028               |
| n5                      | 15                            | $\pi/2$ BPSK | 831.5 ~ 841.5         | 13M4G7D                | 22.77                     | 0.189               | 18.71                 | 0.074               |
| n5                      | 15                            | QPSK         | 831.5 ~ 841.5         | 13M4G7D                | 22.82                     | 0.191               | 18.76                 | 0.075               |
| n5                      | 15                            | 16QAM        | 831.5 ~ 841.5         | 13M4W7D                | 22.00                     | 0.158               | 17.94                 | 0.062               |
| n5                      | 15                            | 64QAM        | 831.5 ~ 841.5         | 13M4W7D                | 20.42                     | 0.110               | 16.36                 | 0.043               |
| n5                      | 15                            | 256QAM       | 831.5 ~ 841.5         | 13M4W7D                | 18.39                     | 0.069               | 14.33                 | 0.027               |
| n5                      | 10                            | $\pi/2$ BPSK | 829 ~ 844             | 8M91G7D                | 22.51                     | 0.178               | 18.45                 | 0.070               |
| n5                      | 10                            | QPSK         | 829 ~ 844             | 8M92G7D                | 22.55                     | 0.180               | 18.49                 | 0.071               |
| n5                      | 10                            | 16QAM        | 829 ~ 844             | 8M92W7D                | 21.66                     | 0.147               | 17.60                 | 0.058               |
| n5                      | 10                            | 64QAM        | 829 ~ 844             | 8M91W7D                | 20.13                     | 0.103               | 16.07                 | 0.040               |
| n5                      | 10                            | 256QAM       | 829 ~ 844             | 8M93W7D                | 18.13                     | 0.065               | 14.07                 | 0.026               |
| n5                      | 5                             | $\pi/2$ BPSK | 826.5 ~ 846.5         | 4M51G7D                | 22.67                     | 0.185               | 18.61                 | 0.073               |
| n5                      | 5                             | QPSK         | 826.5 ~ 846.5         | 4M49G7D                | 22.77                     | 0.189               | 18.71                 | 0.074               |
| n5                      | 5                             | 16QAM        | 826.5 ~ 846.5         | 4M49W7D                | 21.83                     | 0.152               | 17.77                 | 0.060               |
| n5                      | 5                             | 64QAM        | 826.5 ~ 846.5         | 4M51W7D                | 20.32                     | 0.108               | 16.26                 | 0.042               |
| n5                      | 5                             | 256QAM       | 826.5 ~ 846.5         | 4M51W7D                | 18.35                     | 0.068               | 14.29                 | 0.027               |

| NR Frequency Band | Channel Bandwidth (MHz) | Modulation   | TX Frequency (MHz) | Emission Designator | Conducted Output Power |               | EIRP            |               |
|-------------------|-------------------------|--------------|--------------------|---------------------|------------------------|---------------|-----------------|---------------|
|                   |                         |              |                    |                     | Max power (dBm)        | Max power (W) | Max power (dBm) | Max power (W) |
| n66               | 20                      | $\pi/2$ BPSK | 1720 ~ 1770        | 17M9G7D             | 22.32                  | 0.171         | 22.62           | 0.183         |
| n66               | 20                      | QPSK         | 1720 ~ 1770        | 17M9G7D             | 22.40                  | 0.174         | 22.70           | 0.186         |
| n66               | 20                      | 16QAM        | 1720 ~ 1770        | 17M9W7D             | 21.45                  | 0.140         | 21.75           | 0.150         |
| n66               | 20                      | 64QAM        | 1720 ~ 1770        | 17M9W7D             | 19.96                  | 0.099         | 20.26           | 0.106         |
| n66               | 20                      | 256QAM       | 1720 ~ 1770        | 17M9W7D             | 17.98                  | 0.063         | 18.28           | 0.067         |
| n66               | 15                      | $\pi/2$ BPSK | 1717.5 ~ 1772.5    | 13M4G7D             | 22.34                  | 0.171         | 22.64           | 0.184         |
| n66               | 15                      | QPSK         | 1717.5 ~ 1772.5    | 13M5G7D             | 22.36                  | 0.172         | 22.66           | 0.185         |
| n66               | 15                      | 16QAM        | 1717.5 ~ 1772.5    | 13M4W7D             | 21.39                  | 0.138         | 21.69           | 0.148         |
| n66               | 15                      | 64QAM        | 1717.5 ~ 1772.5    | 13M4W7D             | 19.88                  | 0.097         | 20.18           | 0.104         |
| n66               | 15                      | 256QAM       | 1717.5 ~ 1772.5    | 13M4W7D             | 17.87                  | 0.061         | 18.17           | 0.066         |
| n66               | 10                      | $\pi/2$ BPSK | 1715 ~ 1775        | 8M94G7D             | 22.32                  | 0.171         | 22.62           | 0.183         |
| n66               | 10                      | QPSK         | 1715 ~ 1775        | 8M93G7D             | 22.35                  | 0.172         | 22.65           | 0.184         |
| n66               | 10                      | 16QAM        | 1715 ~ 1775        | 8M94W7D             | 21.39                  | 0.138         | 21.69           | 0.148         |
| n66               | 10                      | 64QAM        | 1715 ~ 1775        | 8M96W7D             | 19.92                  | 0.098         | 20.22           | 0.105         |
| n66               | 10                      | 256QAM       | 1715 ~ 1775        | 8M94W7D             | 17.90                  | 0.062         | 18.20           | 0.066         |
| n66               | 5                       | $\pi/2$ BPSK | 1712.5 ~ 1777.5    | 4M51G7D             | 22.33                  | 0.171         | 22.63           | 0.183         |
| n66               | 5                       | QPSK         | 1712.5 ~ 1777.5    | 4M48G7D             | 22.37                  | 0.173         | 22.67           | 0.185         |
| n66               | 5                       | 16QAM        | 1712.5 ~ 1777.5    | 4M47W7D             | 21.45                  | 0.140         | 21.75           | 0.150         |
| n66               | 5                       | 64QAM        | 1712.5 ~ 1777.5    | 4M51W7D             | 19.92                  | 0.098         | 20.22           | 0.105         |
| n66               | 5                       | 256QAM       | 1712.5 ~ 1777.5    | 4M51W7D             | 17.95                  | 0.062         | 18.25           | 0.067         |
| n2                | 20                      | $\pi/2$ BPSK | 1860 ~ 1900        | 17M9G7D             | 21.60                  | 0.145         | 22.37           | 0.173         |
| n2                | 20                      | QPSK         | 1860 ~ 1900        | 17M8G7D             | 21.77                  | 0.150         | 22.54           | 0.179         |
| n2                | 20                      | 16QAM        | 1860 ~ 1900        | 17M8W7D             | 20.81                  | 0.121         | 21.58           | 0.144         |
| n2                | 20                      | 64QAM        | 1860 ~ 1900        | 17M8W7D             | 19.32                  | 0.086         | 20.09           | 0.102         |
| n2                | 20                      | 256QAM       | 1860 ~ 1900        | 17M9W7D             | 17.30                  | 0.054         | 18.07           | 0.064         |
| n2                | 15                      | $\pi/2$ BPSK | 1857.5 ~ 1902.5    | 13M4G7D             | 21.71                  | 0.148         | 22.48           | 0.177         |
| n2                | 15                      | QPSK         | 1857.5 ~ 1902.5    | 13M4G7D             | 21.76                  | 0.150         | 22.53           | 0.179         |
| n2                | 15                      | 16QAM        | 1857.5 ~ 1902.5    | 13M4W7D             | 20.83                  | 0.121         | 21.60           | 0.145         |
| n2                | 15                      | 64QAM        | 1857.5 ~ 1902.5    | 13M4W7D             | 19.34                  | 0.086         | 20.11           | 0.103         |
| n2                | 15                      | 256QAM       | 1857.5 ~ 1902.5    | 13M4W7D             | 17.35                  | 0.054         | 18.12           | 0.065         |
| n2                | 10                      | $\pi/2$ BPSK | 1855 ~ 1905        | 8M94G7D             | 21.55                  | 0.143         | 22.32           | 0.171         |
| n2                | 10                      | QPSK         | 1855 ~ 1905        | 8M97G7D             | 21.59                  | 0.144         | 22.36           | 0.172         |
| n2                | 10                      | 16QAM        | 1855 ~ 1905        | 8M97W7D             | 20.66                  | 0.116         | 21.43           | 0.139         |
| n2                | 10                      | 64QAM        | 1855 ~ 1905        | 8M93W7D             | 19.19                  | 0.083         | 19.96           | 0.099         |
| n2                | 10                      | 256QAM       | 1855 ~ 1905        | 8M93W7D             | 17.13                  | 0.052         | 17.90           | 0.062         |
| n2                | 5                       | $\pi/2$ BPSK | 1852.5 ~ 1907.5    | 4M51G7D             | 21.57                  | 0.144         | 22.34           | 0.171         |
| n2                | 5                       | QPSK         | 1852.5 ~ 1907.5    | 4M52G7D             | 21.60                  | 0.145         | 22.37           | 0.173         |
| n2                | 5                       | 16QAM        | 1852.5 ~ 1907.5    | 4M52W7D             | 20.72                  | 0.118         | 21.49           | 0.141         |
| n2                | 5                       | 64QAM        | 1852.5 ~ 1907.5    | 4M53W7D             | 19.24                  | 0.084         | 20.01           | 0.100         |
| n2                | 5                       | 256QAM       | 1852.5 ~ 1907.5    | 4M50W7D             | 17.25                  | 0.053         | 18.02           | 0.063         |

| NR<br>Frequency<br>Band | Channel<br>Bandwidth<br>(MHz) | Modulation   | TX Frequency<br>(MHz) | Emission<br>Designator | Conducted Output<br>Power |                     | EIRP                  |                     |
|-------------------------|-------------------------------|--------------|-----------------------|------------------------|---------------------------|---------------------|-----------------------|---------------------|
|                         |                               |              |                       |                        | Max<br>power<br>(dBm)     | Max<br>power<br>(W) | Max<br>power<br>(dBm) | Max<br>power<br>(W) |
| n7                      | 20                            | $\pi/2$ BPSK | 2510 ~ 2560           | 17M8G7D                | 23.22                     | 0.210               | 21.11                 | 0.129               |
| n7                      | 20                            | QPSK         | 2510 ~ 2560           | 17M9G7D                | 23.25                     | 0.211               | 21.14                 | 0.130               |
| n7                      | 20                            | 16QAM        | 2510 ~ 2560           | 17M9W7D                | 22.30                     | 0.170               | 20.19                 | 0.104               |
| n7                      | 20                            | 64QAM        | 2510 ~ 2560           | 17M8W7D                | 20.79                     | 0.120               | 18.68                 | 0.074               |
| n7                      | 20                            | 256QAM       | 2510 ~ 2560           | 17M9W7D                | 18.77                     | 0.075               | 16.66                 | 0.046               |
| n7                      | 15                            | $\pi/2$ BPSK | 2507.5 ~ 2562.5       | 13M4G7D                | 22.76                     | 0.189               | 20.65                 | 0.116               |
| n7                      | 15                            | QPSK         | 2507.5 ~ 2562.5       | 13M4G7D                | 22.78                     | 0.190               | 20.67                 | 0.117               |
| n7                      | 15                            | 16QAM        | 2507.5 ~ 2562.5       | 13M4W7D                | 21.90                     | 0.155               | 19.79                 | 0.095               |
| n7                      | 15                            | 64QAM        | 2507.5 ~ 2562.5       | 13M4W7D                | 20.75                     | 0.119               | 18.64                 | 0.073               |
| n7                      | 15                            | 256QAM       | 2507.5 ~ 2562.5       | 13M4W7D                | 18.34                     | 0.068               | 16.23                 | 0.042               |
| n7                      | 10                            | $\pi/2$ BPSK | 2505 ~ 2565           | 8M92G7D                | 23.16                     | 0.207               | 21.05                 | 0.127               |
| n7                      | 10                            | QPSK         | 2505 ~ 2565           | 8M95G7D                | 23.18                     | 0.208               | 21.07                 | 0.128               |
| n7                      | 10                            | 16QAM        | 2505 ~ 2565           | 8M92W7D                | 22.30                     | 0.170               | 20.19                 | 0.104               |
| n7                      | 10                            | 64QAM        | 2505 ~ 2565           | 8M92W7D                | 20.80                     | 0.120               | 18.69                 | 0.074               |
| n7                      | 10                            | 256QAM       | 2505 ~ 2565           | 8M94W7D                | 18.80                     | 0.076               | 16.69                 | 0.047               |
| n7                      | 5                             | $\pi/2$ BPSK | 2502.5 ~ 2567.5       | 4M53G7D                | 23.17                     | 0.207               | 21.06                 | 0.128               |
| n7                      | 5                             | QPSK         | 2502.5 ~ 2567.5       | 4M50G7D                | 23.24                     | 0.211               | 21.13                 | 0.130               |
| n7                      | 5                             | 16QAM        | 2502.5 ~ 2567.5       | 4M51W7D                | 22.30                     | 0.170               | 20.19                 | 0.104               |
| n7                      | 5                             | 64QAM        | 2502.5 ~ 2567.5       | 4M50W7D                | 20.79                     | 0.120               | 18.68                 | 0.074               |
| n7                      | 5                             | 256QAM       | 2502.5 ~ 2567.5       | 4M48W7D                | 18.80                     | 0.076               | 16.69                 | 0.047               |

| NR<br>Frequency<br>Band | Channel<br>Bandwidth<br>(MHz) | Modulation   | TX Frequency<br>(MHz) | Emission<br>Designator | Conducted Output<br>Power |                     | EIRP                  |                     |
|-------------------------|-------------------------------|--------------|-----------------------|------------------------|---------------------------|---------------------|-----------------------|---------------------|
|                         |                               |              |                       |                        | Max<br>power<br>(dBm)     | Max<br>power<br>(W) | Max<br>power<br>(dBm) | Max<br>power<br>(W) |
| n41                     | 100                           | $\pi/2$ BPSK | 2546.01 ~ 2640        | 96M4G7D                | 23.90                     | 0.245               | 26.11                 | 0.408               |
| n41                     | 100                           | QPSK         | 2546.01 ~ 2640        | 96M6G7D                | 23.93                     | 0.247               | 26.14                 | 0.411               |
| n41                     | 100                           | 16QAM        | 2546.01 ~ 2640        | 96M4W7D                | 22.97                     | 0.198               | 25.18                 | 0.330               |
| n41                     | 100                           | 64QAM        | 2546.01 ~ 2640        | 96M4W7D                | 21.43                     | 0.139               | 23.64                 | 0.231               |
| n41                     | 100                           | 256QAM       | 2546.01 ~ 2640        | 96M4W7D                | 19.45                     | 0.088               | 21.66                 | 0.147               |
| n41                     | 90                            | $\pi/2$ BPSK | 2541 ~ 2644.98        | 85M7G7D                | 23.62                     | 0.230               | 25.83                 | 0.383               |
| n41                     | 90                            | QPSK         | 2541 ~ 2644.98        | 85M6G7D                | 23.66                     | 0.232               | 25.87                 | 0.386               |
| n41                     | 90                            | 16QAM        | 2541 ~ 2644.98        | 85M7W7D                | 22.72                     | 0.187               | 24.93                 | 0.311               |
| n41                     | 90                            | 64QAM        | 2541 ~ 2644.98        | 85M7W7D                | 21.35                     | 0.136               | 23.56                 | 0.227               |
| n41                     | 90                            | 256QAM       | 2541 ~ 2644.98        | 85M8W7D                | 19.31                     | 0.085               | 21.52                 | 0.142               |
| n41                     | 80                            | $\pi/2$ BPSK | 2536.02 ~ 2649.99     | 77M1G7D                | 23.69                     | 0.234               | 25.90                 | 0.389               |
| n41                     | 80                            | QPSK         | 2536.02 ~ 2649.99     | 77M2G7D                | 23.73                     | 0.236               | 25.94                 | 0.393               |
| n41                     | 80                            | 16QAM        | 2536.02 ~ 2649.99     | 77M0W7D                | 22.74                     | 0.188               | 24.95                 | 0.313               |
| n41                     | 80                            | 64QAM        | 2536.02 ~ 2649.99     | 77M1W7D                | 21.26                     | 0.134               | 23.47                 | 0.222               |
| n41                     | 80                            | 256QAM       | 2536.02 ~ 2649.99     | 77M2W7D                | 19.29                     | 0.085               | 21.50                 | 0.141               |
| n41                     | 60                            | $\pi/2$ BPSK | 2526 ~ 2659.98        | 57M9G7D                | 23.75                     | 0.237               | 25.96                 | 0.394               |
| n41                     | 60                            | QPSK         | 2526 ~ 2659.98        | 57M8G7D                | 23.79                     | 0.239               | 26.00                 | 0.398               |
| n41                     | 60                            | 16QAM        | 2526 ~ 2659.98        | 57M9W7D                | 22.82                     | 0.191               | 25.03                 | 0.318               |
| n41                     | 60                            | 64QAM        | 2526 ~ 2659.98        | 57M9W7D                | 21.46                     | 0.140               | 23.67                 | 0.233               |
| n41                     | 60                            | 256QAM       | 2526 ~ 2659.98        | 57M9W7D                | 19.42                     | 0.087               | 21.63                 | 0.146               |
| n41                     | 50                            | $\pi/2$ BPSK | 2521.02 ~ 2664.99     | 45M7G7D                | 23.81                     | 0.240               | 26.02                 | 0.400               |
| n41                     | 50                            | QPSK         | 2521.02 ~ 2664.99     | 45M7G7D                | 23.85                     | 0.243               | 26.06                 | 0.404               |
| n41                     | 50                            | 16QAM        | 2521.02 ~ 2664.99     | 45M7W7D                | 22.99                     | 0.199               | 25.20                 | 0.331               |
| n41                     | 50                            | 64QAM        | 2521.02 ~ 2664.99     | 45M7W7D                | 21.48                     | 0.141               | 23.69                 | 0.234               |
| n41                     | 50                            | 256QAM       | 2521.02 ~ 2664.99     | 45M9W7D                | 19.48                     | 0.089               | 21.69                 | 0.148               |
| n41                     | 40                            | $\pi/2$ BPSK | 2516.01 ~ 2670        | 35M7G7D                | 23.85                     | 0.243               | 26.06                 | 0.404               |
| n41                     | 40                            | QPSK         | 2516.01 ~ 2670        | 35M7G7D                | 23.90                     | 0.245               | 26.11                 | 0.408               |
| n41                     | 40                            | 16QAM        | 2516.01 ~ 2670        | 35M7W7D                | 22.92                     | 0.196               | 25.13                 | 0.326               |
| n41                     | 40                            | 64QAM        | 2516.01 ~ 2670        | 35M7W7D                | 21.49                     | 0.141               | 23.70                 | 0.234               |
| n41                     | 40                            | 256QAM       | 2516.01 ~ 2670        | 35M7W7D                | 19.46                     | 0.088               | 21.67                 | 0.147               |
| n41                     | 20                            | $\pi/2$ BPSK | 2506.02 ~ 2679.99     | 17M9G7D                | 23.77                     | 0.238               | 25.98                 | 0.396               |
| n41                     | 20                            | QPSK         | 2506.02 ~ 2679.99     | 17M9G7D                | 23.81                     | 0.240               | 26.02                 | 0.400               |
| n41                     | 20                            | 16QAM        | 2506.02 ~ 2679.99     | 17M9W7D                | 22.87                     | 0.194               | 25.08                 | 0.322               |
| n41                     | 20                            | 64QAM        | 2506.02 ~ 2679.99     | 17M9W7D                | 21.46                     | 0.140               | 23.67                 | 0.233               |
| n41                     | 20                            | 256QAM       | 2506.02 ~ 2679.99     | 17M9W7D                | 19.34                     | 0.086               | 21.55                 | 0.143               |
| n38                     | 20                            | $\pi/2$ BPSK | 2580 ~ 2610           | 17M8G7D                | 22.66                     | 0.185               | 24.87                 | 0.307               |
| n38                     | 20                            | QPSK         | 2580 ~ 2610           | 17M9G7D                | 22.74                     | 0.188               | 24.95                 | 0.313               |
| n38                     | 20                            | 16QAM        | 2580 ~ 2610           | 17M9W7D                | 21.82                     | 0.152               | 24.03                 | 0.253               |
| n38                     | 20                            | 64QAM        | 2580 ~ 2610           | 17M9W7D                | 20.50                     | 0.112               | 22.71                 | 0.187               |
| n38                     | 20                            | 256QAM       | 2580 ~ 2610           | 17M9W7D                | 18.34                     | 0.068               | 20.55                 | 0.114               |

| NR<br>Frequency<br>Band | Channel<br>Bandwidth<br>(MHz) | Modulation   | TX Frequency<br>(MHz) | Emission<br>Designator | Conducted Output<br>Power |                     | EIRP                  |                     |
|-------------------------|-------------------------------|--------------|-----------------------|------------------------|---------------------------|---------------------|-----------------------|---------------------|
|                         |                               |              |                       |                        | Max<br>power<br>(dBm)     | Max<br>power<br>(W) | Max<br>power<br>(dBm) | Max<br>power<br>(W) |
| n78                     | 100                           | $\pi/2$ BPSK | 3500.01 ~ 3500.01     | 96M1G7D                | 22.30                     | 0.170               | 22.73                 | 0.187               |
| n78                     | 100                           | QPSK         | 3500.01 ~ 3500.01     | 96M3G7D                | 22.36                     | 0.172               | 22.79                 | 0.190               |
| n78                     | 100                           | 16QAM        | 3500.01 ~ 3500.01     | 96M1W7D                | 21.40                     | 0.138               | 21.83                 | 0.152               |
| n78                     | 100                           | 64QAM        | 3500.01 ~ 3500.01     | 96M2W7D                | 19.87                     | 0.097               | 20.30                 | 0.107               |
| n78                     | 100                           | 256QAM       | 3500.01 ~ 3500.01     | 96M2W7D                | 17.91                     | 0.062               | 18.34                 | 0.068               |
| n78                     | 90                            | $\pi/2$ BPSK | 3495 ~ 3504.99        | 85M6G7D                | 22.14                     | 0.164               | 22.57                 | 0.181               |
| n78                     | 90                            | QPSK         | 3495 ~ 3504.99        | 85M7G7D                | 22.23                     | 0.167               | 22.66                 | 0.185               |
| n78                     | 90                            | 16QAM        | 3495 ~ 3504.99        | 85M6W7D                | 21.28                     | 0.134               | 21.71                 | 0.148               |
| n78                     | 90                            | 64QAM        | 3495 ~ 3504.99        | 85M5W7D                | 20.00                     | 0.100               | 20.43                 | 0.110               |
| n78                     | 90                            | 256QAM       | 3495 ~ 3504.99        | 85M6W7D                | 17.90                     | 0.062               | 18.33                 | 0.068               |
| n78                     | 80                            | $\pi/2$ BPSK | 3490.02 ~ 3510        | 77M0G7D                | 22.10                     | 0.162               | 22.53                 | 0.179               |
| n78                     | 80                            | QPSK         | 3490.02 ~ 3510        | 77M0G7D                | 22.22                     | 0.167               | 22.65                 | 0.184               |
| n78                     | 80                            | 16QAM        | 3490.02 ~ 3510        | 77M1W7D                | 21.33                     | 0.136               | 21.76                 | 0.150               |
| n78                     | 80                            | 64QAM        | 3490.02 ~ 3510        | 77M1W7D                | 19.99                     | 0.100               | 20.42                 | 0.110               |
| n78                     | 80                            | 256QAM       | 3490.02 ~ 3510        | 77M1W7D                | 17.80                     | 0.060               | 18.23                 | 0.067               |
| n78                     | 70                            | $\pi/2$ BPSK | 3485.01 ~ 3515.01     | 64M3G7D                | 22.02                     | 0.159               | 22.45                 | 0.176               |
| n78                     | 70                            | QPSK         | 3485.01 ~ 3515.01     | 64M3G7D                | 22.29                     | 0.169               | 22.72                 | 0.187               |
| n78                     | 70                            | 16QAM        | 3485.01 ~ 3515.01     | 64M2W7D                | 21.34                     | 0.136               | 21.77                 | 0.150               |
| n78                     | 70                            | 64QAM        | 3485.01 ~ 3515.01     | 64M3W7D                | 19.91                     | 0.098               | 20.34                 | 0.108               |
| n78                     | 70                            | 256QAM       | 3485.01 ~ 3515.01     | 64M3W7D                | 17.90                     | 0.062               | 18.33                 | 0.068               |
| n78                     | 60                            | $\pi/2$ BPSK | 3480 ~ 3519.99        | 57M9G7D                | 22.14                     | 0.164               | 22.57                 | 0.181               |
| n78                     | 60                            | QPSK         | 3480 ~ 3519.99        | 57M8G7D                | 22.15                     | 0.164               | 22.58                 | 0.181               |
| n78                     | 60                            | 16QAM        | 3480 ~ 3519.99        | 57M8W7D                | 21.31                     | 0.135               | 21.74                 | 0.149               |
| n78                     | 60                            | 64QAM        | 3480 ~ 3519.99        | 57M8W7D                | 19.99                     | 0.100               | 20.42                 | 0.110               |
| n78                     | 60                            | 256QAM       | 3480 ~ 3519.99        | 57M8W7D                | 17.94                     | 0.062               | 18.37                 | 0.069               |
| n78                     | 50                            | $\pi/2$ BPSK | 3475.02 ~ 3525        | 45M8G7D                | 22.05                     | 0.160               | 22.48                 | 0.177               |
| n78                     | 50                            | QPSK         | 3475.02 ~ 3525        | 45M7G7D                | 22.06                     | 0.161               | 22.49                 | 0.177               |
| n78                     | 50                            | 16QAM        | 3475.02 ~ 3525        | 45M7W7D                | 21.22                     | 0.132               | 21.65                 | 0.146               |
| n78                     | 50                            | 64QAM        | 3475.02 ~ 3525        | 45M7W7D                | 19.91                     | 0.098               | 20.34                 | 0.108               |
| n78                     | 50                            | 256QAM       | 3475.02 ~ 3525        | 45M8W7D                | 17.69                     | 0.059               | 18.12                 | 0.065               |
| n78                     | 40                            | $\pi/2$ BPSK | 3470.01 ~ 3530.01     | 35M7G7D                | 22.22                     | 0.167               | 22.65                 | 0.184               |
| n78                     | 40                            | QPSK         | 3470.01 ~ 3530.01     | 35M7G7D                | 22.23                     | 0.167               | 22.66                 | 0.185               |
| n78                     | 40                            | 16QAM        | 3470.01 ~ 3530.01     | 35M7W7D                | 21.25                     | 0.133               | 21.68                 | 0.147               |
| n78                     | 40                            | 64QAM        | 3470.01 ~ 3530.01     | 35M7W7D                | 19.95                     | 0.099               | 20.38                 | 0.109               |
| n78                     | 40                            | 256QAM       | 3470.01 ~ 3530.01     | 35M8W7D                | 17.88                     | 0.061               | 18.31                 | 0.068               |
| n78                     | 30                            | $\pi/2$ BPSK | 3465 ~ 3534.99        | 26M8G7D                | 22.12                     | 0.163               | 22.55                 | 0.180               |
| n78                     | 30                            | QPSK         | 3465 ~ 3534.99        | 26M8G7D                | 22.16                     | 0.164               | 22.59                 | 0.182               |
| n78                     | 30                            | 16QAM        | 3465 ~ 3534.99        | 26M8W7D                | 21.19                     | 0.132               | 21.62                 | 0.145               |
| n78                     | 30                            | 64QAM        | 3465 ~ 3534.99        | 26M8W7D                | 19.95                     | 0.099               | 20.38                 | 0.109               |
| n78                     | 30                            | 256QAM       | 3465 ~ 3534.99        | 26M8W7D                | 17.97                     | 0.063               | 18.40                 | 0.069               |
| n78                     | 20                            | $\pi/2$ BPSK | 3460.02 ~ 3540        | 17M9G7D                | 22.06                     | 0.161               | 22.49                 | 0.177               |
| n78                     | 20                            | QPSK         | 3460.02 ~ 3540        | 17M9G7D                | 22.11                     | 0.163               | 22.54                 | 0.179               |
| n78                     | 20                            | 16QAM        | 3460.02 ~ 3540        | 17M9W7D                | 21.31                     | 0.135               | 21.74                 | 0.149               |
| n78                     | 20                            | 64QAM        | 3460.02 ~ 3540        | 17M9W7D                | 19.94                     | 0.099               | 20.37                 | 0.109               |
| n78                     | 20                            | 256QAM       | 3460.02 ~ 3540        | 17M9W7D                | 17.79                     | 0.060               | 18.22                 | 0.066               |

| NR<br>Frequency<br>Band | Channel<br>Bandwidth<br>(MHz) | Modulation   | TX Frequency<br>(MHz) | Emission<br>Designator | Conducted Output<br>Power |                     | EIRP                  |                     |
|-------------------------|-------------------------------|--------------|-----------------------|------------------------|---------------------------|---------------------|-----------------------|---------------------|
|                         |                               |              |                       |                        | Max<br>power<br>(dBm)     | Max<br>power<br>(W) | Max<br>power<br>(dBm) | Max<br>power<br>(W) |
| n78                     | 100                           | $\pi/2$ BPSK | 3750 ~ 3750           | 96M3G7D                | 22.31                     | 0.170               | 25.04                 | 0.319               |
| n78                     | 100                           | QPSK         | 3750 ~ 3750           | 96M5G7D                | 22.41                     | 0.174               | 25.14                 | 0.327               |
| n78                     | 100                           | 16QAM        | 3750 ~ 3750           | 96M2W7D                | 21.46                     | 0.140               | 24.19                 | 0.262               |
| n78                     | 100                           | 64QAM        | 3750 ~ 3750           | 96M4W7D                | 19.98                     | 0.100               | 22.71                 | 0.187               |
| n78                     | 100                           | 256QAM       | 3750 ~ 3750           | 96M2W7D                | 18.05                     | 0.064               | 20.78                 | 0.120               |
| n78                     | 90                            | $\pi/2$ BPSK | 3745.02 ~ 3754.98     | 85M7G7D                | 22.21                     | 0.166               | 24.94                 | 0.312               |
| n78                     | 90                            | QPSK         | 3745.02 ~ 3754.98     | 85M8G7D                | 22.25                     | 0.168               | 24.98                 | 0.315               |
| n78                     | 90                            | 16QAM        | 3745.02 ~ 3754.98     | 85M8W7D                | 21.32                     | 0.136               | 24.05                 | 0.254               |
| n78                     | 90                            | 64QAM        | 3745.02 ~ 3754.98     | 85M7W7D                | 19.93                     | 0.098               | 22.66                 | 0.185               |
| n78                     | 90                            | 256QAM       | 3745.02 ~ 3754.98     | 85M6W7D                | 17.87                     | 0.061               | 20.60                 | 0.115               |
| n78                     | 80                            | $\pi/2$ BPSK | 3740.01 ~ 3759.99     | 77M1G7D                | 22.26                     | 0.168               | 24.99                 | 0.316               |
| n78                     | 80                            | QPSK         | 3740.01 ~ 3759.99     | 77M1G7D                | 22.30                     | 0.170               | 25.03                 | 0.318               |
| n78                     | 80                            | 16QAM        | 3740.01 ~ 3759.99     | 77M2W7D                | 21.36                     | 0.137               | 24.09                 | 0.256               |
| n78                     | 80                            | 64QAM        | 3740.01 ~ 3759.99     | 77M2W7D                | 20.00                     | 0.100               | 22.73                 | 0.187               |
| n78                     | 80                            | 256QAM       | 3740.01 ~ 3759.99     | 77M2W7D                | 17.89                     | 0.062               | 20.62                 | 0.115               |
| n78                     | 70                            | $\pi/2$ BPSK | 3735 ~ 3765           | 64M3G7D                | 22.21                     | 0.166               | 24.94                 | 0.312               |
| n78                     | 70                            | QPSK         | 3735 ~ 3765           | 64M3G7D                | 22.25                     | 0.168               | 24.98                 | 0.315               |
| n78                     | 70                            | 16QAM        | 3735 ~ 3765           | 64M2W7D                | 21.36                     | 0.137               | 24.09                 | 0.256               |
| n78                     | 70                            | 64QAM        | 3735 ~ 3765           | 64M2W7D                | 20.00                     | 0.100               | 22.73                 | 0.187               |
| n78                     | 70                            | 256QAM       | 3735 ~ 3765           | 64M2W7D                | 17.90                     | 0.062               | 20.63                 | 0.116               |
| n78                     | 60                            | $\pi/2$ BPSK | 3730.02 ~ 3769.98     | 57M9G7D                | 22.10                     | 0.162               | 24.83                 | 0.304               |
| n78                     | 60                            | QPSK         | 3730.02 ~ 3769.98     | 57M8G7D                | 22.13                     | 0.163               | 24.86                 | 0.306               |
| n78                     | 60                            | 16QAM        | 3730.02 ~ 3769.98     | 57M9W7D                | 21.32                     | 0.136               | 24.05                 | 0.254               |
| n78                     | 60                            | 64QAM        | 3730.02 ~ 3769.98     | 57M8W7D                | 19.94                     | 0.099               | 22.67                 | 0.185               |
| n78                     | 60                            | 256QAM       | 3730.02 ~ 3769.98     | 57M9W7D                | 17.90                     | 0.062               | 20.63                 | 0.116               |
| n78                     | 50                            | $\pi/2$ BPSK | 3725.01 ~ 3774.99     | 45M7G7D                | 22.18                     | 0.165               | 24.91                 | 0.310               |
| n78                     | 50                            | QPSK         | 3725.01 ~ 3774.99     | 45M7G7D                | 22.25                     | 0.168               | 24.98                 | 0.315               |
| n78                     | 50                            | 16QAM        | 3725.01 ~ 3774.99     | 45M7W7D                | 21.26                     | 0.134               | 23.99                 | 0.251               |
| n78                     | 50                            | 64QAM        | 3725.01 ~ 3774.99     | 45M7W7D                | 19.93                     | 0.098               | 22.66                 | 0.185               |
| n78                     | 50                            | 256QAM       | 3725.01 ~ 3774.99     | 45M7W7D                | 17.89                     | 0.062               | 20.62                 | 0.115               |
| n78                     | 40                            | $\pi/2$ BPSK | 3720 ~ 3780           | 35M7G7D                | 22.12                     | 0.163               | 24.85                 | 0.305               |
| n78                     | 40                            | QPSK         | 3720 ~ 3780           | 35M7G7D                | 22.14                     | 0.164               | 24.87                 | 0.307               |
| n78                     | 40                            | 16QAM        | 3720 ~ 3780           | 35M8W7D                | 21.33                     | 0.136               | 24.06                 | 0.255               |
| n78                     | 40                            | 64QAM        | 3720 ~ 3780           | 35M8W7D                | 19.96                     | 0.099               | 22.69                 | 0.186               |
| n78                     | 40                            | 256QAM       | 3720 ~ 3780           | 35M8W7D                | 17.77                     | 0.060               | 20.50                 | 0.112               |
| n78                     | 30                            | $\pi/2$ BPSK | 3715.02 ~ 3785.01     | 26M9G7D                | 22.14                     | 0.164               | 24.87                 | 0.307               |
| n78                     | 30                            | QPSK         | 3715.02 ~ 3785.01     | 26M9G7D                | 22.18                     | 0.165               | 24.91                 | 0.310               |
| n78                     | 30                            | 16QAM        | 3715.02 ~ 3785.01     | 26M8W7D                | 21.29                     | 0.135               | 24.02                 | 0.252               |
| n78                     | 30                            | 64QAM        | 3715.02 ~ 3785.01     | 26M8W7D                | 19.98                     | 0.100               | 22.71                 | 0.187               |
| n78                     | 30                            | 256QAM       | 3715.02 ~ 3785.01     | 26M8W7D                | 17.73                     | 0.059               | 20.46                 | 0.111               |
| n78                     | 20                            | $\pi/2$ BPSK | 3710.01 ~ 3789.99     | 17M9G7D                | 22.11                     | 0.163               | 24.84                 | 0.305               |
| n78                     | 20                            | QPSK         | 3710.01 ~ 3789.99     | 17M9G7D                | 22.23                     | 0.167               | 24.96                 | 0.313               |
| n78                     | 20                            | 16QAM        | 3710.01 ~ 3789.99     | 17M9W7D                | 21.26                     | 0.134               | 23.99                 | 0.251               |
| n78                     | 20                            | 64QAM        | 3710.01 ~ 3789.99     | 17M9W7D                | 19.99                     | 0.100               | 22.72                 | 0.187               |
| n78                     | 20                            | 256QAM       | 3710.01 ~ 3789.99     | 17M9W7D                | 17.78                     | 0.060               | 20.51                 | 0.112               |

| NR Frequency Band | Channel Bandwidth (MHz) | Modulation   | TX Frequency (MHz) | Emission Designator | Conducted Output Power |               | EIRP            |               |
|-------------------|-------------------------|--------------|--------------------|---------------------|------------------------|---------------|-----------------|---------------|
|                   |                         |              |                    |                     | Max power (dBm)        | Max power (W) | Max power (dBm) | Max power (W) |
| n77               | 100                     | $\pi/2$ BPSK | 3500.01 ~ 3500.01  | 96M2G7D             | 22.31                  | 0.170         | 22.74           | 0.188         |
| n77               | 100                     | QPSK         | 3500.01 ~ 3500.01  | 96M3G7D             | 22.38                  | 0.173         | 22.81           | 0.191         |
| n77               | 100                     | 16QAM        | 3500.01 ~ 3500.01  | 96M3W7D             | 21.41                  | 0.138         | 21.84           | 0.153         |
| n77               | 100                     | 64QAM        | 3500.01 ~ 3500.01  | 96M2W7D             | 19.89                  | 0.097         | 20.32           | 0.108         |
| n77               | 100                     | 256QAM       | 3500.01 ~ 3500.01  | 96M2W7D             | 17.97                  | 0.063         | 18.40           | 0.069         |
| n77               | 80                      | $\pi/2$ BPSK | 3490.02 ~ 3510     | 77M1G7D             | 22.28                  | 0.169         | 22.71           | 0.187         |
| n77               | 80                      | QPSK         | 3490.02 ~ 3510     | 77M2G7D             | 22.31                  | 0.170         | 22.74           | 0.188         |
| n77               | 80                      | 16QAM        | 3490.02 ~ 3510     | 77M2W7D             | 21.36                  | 0.137         | 21.79           | 0.151         |
| n77               | 80                      | 64QAM        | 3490.02 ~ 3510     | 77M0W7D             | 19.86                  | 0.097         | 20.29           | 0.107         |
| n77               | 80                      | 256QAM       | 3490.02 ~ 3510     | 77M1W7D             | 17.83                  | 0.061         | 18.26           | 0.067         |
| n77               | 60                      | $\pi/2$ BPSK | 3480 ~ 3519.99     | 57M8G7D             | 22.29                  | 0.169         | 22.72           | 0.187         |
| n77               | 60                      | QPSK         | 3480 ~ 3519.99     | 57M9G7D             | 22.32                  | 0.171         | 22.75           | 0.188         |
| n77               | 60                      | 16QAM        | 3480 ~ 3519.99     | 57M7W7D             | 21.37                  | 0.137         | 21.80           | 0.151         |
| n77               | 60                      | 64QAM        | 3480 ~ 3519.99     | 57M8W7D             | 19.92                  | 0.098         | 20.35           | 0.108         |
| n77               | 60                      | 256QAM       | 3480 ~ 3519.99     | 57M8W7D             | 17.86                  | 0.061         | 18.29           | 0.067         |
| n77               | 40                      | $\pi/2$ BPSK | 3470.01 ~ 3529.98  | 35M7G7D             | 22.33                  | 0.171         | 22.76           | 0.189         |
| n77               | 40                      | QPSK         | 3470.01 ~ 3529.98  | 35M7G7D             | 22.36                  | 0.172         | 22.79           | 0.190         |
| n77               | 40                      | 16QAM        | 3470.01 ~ 3529.98  | 35M8W7D             | 21.38                  | 0.137         | 21.81           | 0.152         |
| n77               | 40                      | 64QAM        | 3470.01 ~ 3529.98  | 35M7W7D             | 19.92                  | 0.098         | 20.35           | 0.108         |
| n77               | 40                      | 256QAM       | 3470.01 ~ 3529.98  | 35M7W7D             | 17.93                  | 0.062         | 18.36           | 0.069         |
| n77               | 20                      | $\pi/2$ BPSK | 3460.005 ~ 3540    | 17M9G7D             | 22.19                  | 0.166         | 22.62           | 0.183         |
| n77               | 20                      | QPSK         | 3460.005 ~ 3540    | 17M9G7D             | 22.22                  | 0.167         | 22.65           | 0.184         |
| n77               | 20                      | 16QAM        | 3460.005 ~ 3540    | 17M9W7D             | 21.23                  | 0.133         | 21.66           | 0.147         |
| n77               | 20                      | 64QAM        | 3460.005 ~ 3540    | 17M9W7D             | 19.78                  | 0.095         | 20.21           | 0.105         |
| n77               | 20                      | 256QAM       | 3460.005 ~ 3540    | 17M9W7D             | 17.78                  | 0.060         | 18.21           | 0.066         |
| n77               | 100                     | $\pi/2$ BPSK | 3750 ~ 3930        | 96M4G7D             | 22.35                  | 0.172         | 25.08           | 0.322         |
| n77               | 100                     | QPSK         | 3750 ~ 3930        | 96M5G7D             | 22.43                  | 0.175         | 25.16           | 0.328         |
| n77               | 100                     | 16QAM        | 3750 ~ 3930        | 96M5W7D             | 21.48                  | 0.141         | 24.21           | 0.264         |
| n77               | 100                     | 64QAM        | 3750 ~ 3930        | 96M3W7D             | 19.99                  | 0.100         | 22.72           | 0.187         |
| n77               | 100                     | 256QAM       | 3750 ~ 3930        | 96M3W7D             | 17.96                  | 0.063         | 20.69           | 0.117         |
| n77               | 80                      | $\pi/2$ BPSK | 3740.01 ~ 3939.99  | 77M1G7D             | 22.37                  | 0.173         | 25.10           | 0.324         |
| n77               | 80                      | QPSK         | 3740.01 ~ 3939.99  | 77M1G7D             | 22.41                  | 0.174         | 25.14           | 0.327         |
| n77               | 80                      | 16QAM        | 3740.01 ~ 3939.99  | 77M1W7D             | 21.49                  | 0.141         | 24.22           | 0.264         |
| n77               | 80                      | 64QAM        | 3740.01 ~ 3939.99  | 77M1W7D             | 19.96                  | 0.099         | 22.69           | 0.186         |
| n77               | 80                      | 256QAM       | 3740.01 ~ 3939.99  | 77M2W7D             | 17.98                  | 0.063         | 20.71           | 0.118         |
| n77               | 60                      | $\pi/2$ BPSK | 3730.02 ~ 3949.98  | 57M9G7D             | 22.39                  | 0.173         | 25.12           | 0.325         |
| n77               | 60                      | QPSK         | 3730.02 ~ 3949.98  | 57M8G7D             | 22.42                  | 0.175         | 25.15           | 0.327         |
| n77               | 60                      | 16QAM        | 3730.02 ~ 3949.98  | 57M8W7D             | 21.45                  | 0.140         | 24.18           | 0.262         |
| n77               | 60                      | 64QAM        | 3730.02 ~ 3949.98  | 57M8W7D             | 19.99                  | 0.100         | 22.72           | 0.187         |
| n77               | 60                      | 256QAM       | 3730.02 ~ 3949.98  | 58M0W7D             | 17.98                  | 0.063         | 20.71           | 0.118         |
| n77               | 40                      | $\pi/2$ BPSK | 3720 ~ 3960        | 35M7G7D             | 22.32                  | 0.171         | 25.05           | 0.320         |
| n77               | 40                      | QPSK         | 3720 ~ 3960        | 35M8G7D             | 22.36                  | 0.172         | 25.09           | 0.323         |
| n77               | 40                      | 16QAM        | 3720 ~ 3960        | 35M8W7D             | 21.49                  | 0.141         | 24.22           | 0.264         |
| n77               | 40                      | 64QAM        | 3720 ~ 3960        | 35M7W7D             | 19.91                  | 0.098         | 22.64           | 0.184         |
| n77               | 40                      | 256QAM       | 3720 ~ 3960        | 35M8W7D             | 17.96                  | 0.063         | 20.69           | 0.117         |
| n77               | 20                      | $\pi/2$ BPSK | 3710.01 ~ 3969.99  | 17M9G7D             | 22.38                  | 0.173         | 25.11           | 0.324         |
| n77               | 20                      | QPSK         | 3710.01 ~ 3969.99  | 17M9G7D             | 22.41                  | 0.174         | 25.14           | 0.327         |
| n77               | 20                      | 16QAM        | 3710.01 ~ 3969.99  | 17M9W7D             | 21.46                  | 0.140         | 24.19           | 0.262         |
| n77               | 20                      | 64QAM        | 3710.01 ~ 3969.99  | 17M9W7D             | 19.99                  | 0.100         | 22.72           | 0.187         |
| n77               | 20                      | 256QAM       | 3710.01 ~ 3969.99  | 17M9W7D             | 17.98                  | 0.063         | 20.71           | 0.118         |

## 2. INTRODUCTION

### 2.1. EUT DESCRIPTION

The Equipment Under Test (EUT) supports 850/1900 GSM, 850/1700/1900 WCDMA, Multi-band LTE/5G NR, 2.4/5/6GHz WLAN, Bluetooth(BDR, EDR, BLE) and NFC.

5G NR supports SCS 15 kHz for FDD Band and SCS 30 kHz for TDD Band.

EUT does not support uplink ENDC, Carrier Aggregation and MIMO.

### 2.2. TESTING ENVIRONMENT

| Ambient Condition   |                 |
|---------------------|-----------------|
| ▪ Temperature       | +23 °C ~ +24 °C |
| ▪ Relative Humidity | 45 % ~ 50 %     |

### 2.3. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

### 2.4. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C 63.4-2014. All measurement uncertainty values are shown with a coverage factor of  $k = 2$  to indicate a 95 % level of confidence.

| Parameter                                | Measurement uncertainty                               |
|------------------------------------------|-------------------------------------------------------|
| Radiated Disturbance<br>(Below 1 GHz)    | 5.0 dB (The confidence level is about 95 %, $k = 2$ ) |
| Radiated Disturbance<br>(1 GHz ~ 18 GHz) | 4.8 dB (The confidence level is about 95 %, $k = 2$ ) |
| Radiated Disturbance<br>(Above 18 GHz)   | 5.0 dB (The confidence level is about 95 %, $k = 2$ ) |

### 2.5. TEST FACILITY

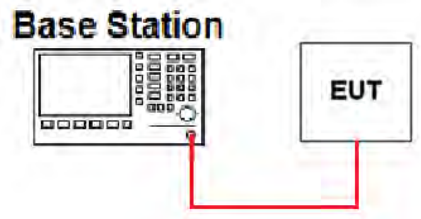
|                                                                                                                                                                                                                                                                                  |                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>Dt&amp;C Co., Ltd.</b>                                                                                                                                                                                                                                                        |                    |
| The 3 m test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042.<br>The test site complies with the requirements of Part 2.948 according to ANSI C63.4-2014. |                    |
| - FCC & IC MRA Designation No. : KR0034                                                                                                                                                                                                                                          |                    |
| - ISED#: 5740A                                                                                                                                                                                                                                                                   |                    |
| <a href="http://www.dtnet.net">www.dtnet.net</a>                                                                                                                                                                                                                                 |                    |
| Telephone                                                                                                                                                                                                                                                                        | : + 82-31-321-2664 |
| FAX                                                                                                                                                                                                                                                                              | : + 82-31-321-1664 |

### 3. DESCRIPTION OF TESTS

#### 3.1. MAXIMUM OUTPUT POWER

##### Conducted Output Power

##### Test Set-up



##### Test Procedure

- KDB971168 D01v03 - Section 5.2.4
- ANSI C63.26-2015 – Section 5.2.4.2

When an average power meter is used to perform RF output power measurements, the fundamental condition that measurements be performed only over durations of active transmissions at maximum output power level applies. Thus, an average power meter can always be used to perform the measurement when the EUT can be configured to transmit continuously.

If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle < 98%), then the following options can be implemented to facilitate measurement of the average power with an average power meter:

- a) A gated average power meter can be used to perform the measurement if the gating parameters can be adjusted such that the power is measured only during active transmission bursts at maximum output power levels.
- b) A conventional average power meter with no signal gating capability can also be used if the measured burst duty cycle is constant (i.e., duty cycle variations are less than or equal to  $\pm 2\%$ ) by performing the measurement over the on/off burst cycles and then correcting (increasing) the measured level by a factor equal to  $[10 \log (1/\text{duty cycle})]$ .

##### - ERP & EIRP (Effective Radiated Power & Equivalent Isotropic Radiated Power)

##### Test Procedure

- KDB971168 D01v03 - Section 5.6
- ANSI C63.26-2015 – Section 5.2.5.5

##### Determining ERP and EIRP from conducted RF output power measurement results

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

where:

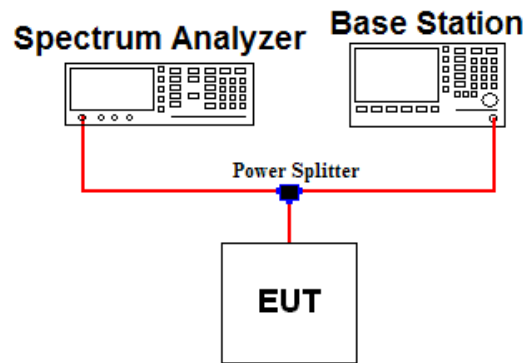
ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as  $P_{\text{Meas}}$ , typically dBW or dBm);

$P_{\text{Meas}}$  = measured transmitter output power or PSD, in dBm or dBW;

$G_T$  = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

## 3.2. PEAK TO AVERAGE RATIO

### Test set-up



### Test Procedure

- KDB971168 D01v03 - Section 5.7.2
- ANSI C63.26-2015 – Section 5.2.3.4

A peak to average ratio measurement is performed at the conducted port of the EUT.

The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The present of time the signal spends at or above the level defines the probability for that particular power level.

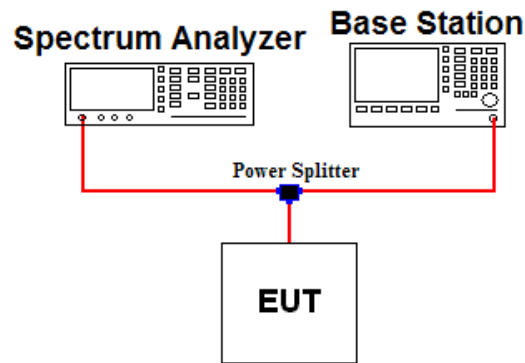
### Test setting

The spectrum Analyzer's CCDF measurement function is enabled.

1. Set resolution/measurement bandwidth  $\geq$  OBW or specified reference bandwidth.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Set the measurement interval as follows:
  - 1) For continuous transmissions, set to the greater of  $[10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$  or 1 ms.
  - 2) For burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize. Set the measurement interval to a time that is less than or equal to the burst duration.
  - 3) If there are several carriers in a single antenna port, the peak power shall be determined for each individual carrier (by disabling the other carriers while measuring the required carrier) and the total peak power calculated from the sum of the individual carrier peak powers.
4. Record the maximum PAPR level associated with a probability of 0.1 %.
5. The peak power level is calculated form the sum of the PAPR value from step d) to the measured average power.

### 3.3. OCCUPIED BANDWIDTH

#### Test set-up



#### Test Procedure

- KDB971168 D01v03 - Section 4.3
- ANSI C63.26-2015 – Section 5.4.4

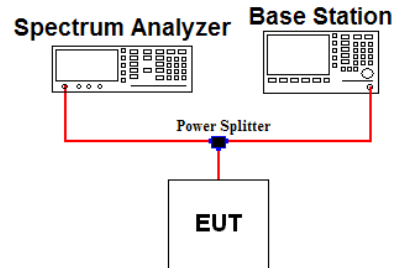
The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power of a given emission.

#### Test setting

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99 % occupied bandwidth and the 26 dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2.  $RBW = 1 \% \sim 5 \%$  of the expected OBW &  $VBW \geq 3 \times RBW$
3. Detector = Peak
4. Trance mode = Max hold
5. Sweep = Auto couple
6. The trace was allowed to stabilize
7. If necessary, step 2 ~ 6 were repeated after changing the RBW such that it would be within 1 % ~ 5 % of the 99 % occupied bandwidth observed in step 6.

### 3.4. BAND EDGE EMISSIONS AT ANTENNA TERMINAL

#### Test set-up



#### Test Procedure

- KDB971168 D01v03 - Section 6
- ANSI C63.26-2015 – Section 5.7

All out of band emissions are measured by means of a calibrated spectrum analyzer. The EUT was setup to maximum output power at its lowest and highest channel with all bandwidths, modulations and RB configurations.

#### Test setting

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW  $\geq 1\%$  of the emission bandwidth or Specified bandwidth
4. VBW  $\geq 3 \times$  RBW
5. Detector = RMS & Trace mode = Max hold or Average
6. Sweep time = Auto couple or 1 s for band edge
7. Number of sweep point  $\geq 2 \times$  span / RBW
8. The trace was allowed to stabilize

Note 1: For TDD signal, the trace mode was set to average and trigger was set to free run.

And added  $10 \log (1/\text{duty cycle})$  to the measured power level. (Path loss was applied to the spectrum correction factor, and  $10 \log (1/\text{duty cycle})$  was applied to the spectrum offset function during measurement.

#### EUT duty cycle (TDD Bands)

| NR Band         | $T_{on}(\text{ms})$ | $T_{on+off}(\text{ms})$ | Duty cycle = $T_{on} / (T_{on+off})$ | $10 \log (1/\text{duty cycle})$ |
|-----------------|---------------------|-------------------------|--------------------------------------|---------------------------------|
| n38, 41, 77, 78 | 1.786               | 2.503                   | 0.713                                | 1.47 dB                         |

Note 2: Per Part 22.917(b)(1) / 24.238(b) / 27.53(h) in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit.

Note 3: Per Part 27.53(g) for operations in the 600 MHz band and the 698-746 MHz band, compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Note 4: Per Part 27.53(c.4) for all frequencies between 763 MHz - 775 MHz and 793 MHz - 805 MHz, the FCC limit is  $65 + 10 \log_{10}(P[\text{Watts}]) = -35 \text{ dBm}$  in a 6.25 kHz bandwidth.

Note 5: For part 27.53(m)(4) the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2 490.5 MHz and 2 496 MHz and  $55 + 10 \log (P)$  dB at or below 2 490.5 MHz.

Note 6: Per Part 90.543(e) for operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

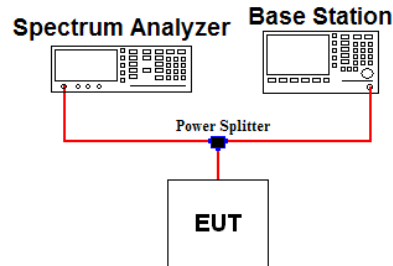
- (1) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than  $76 + 10 \log (P)$  dB in a 6.25 kHz band segment, for base and fixed stations.
- (2) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations.
- (3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least  $43 + 10 \log (P)$  dB.
- (4) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.
- (5) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

Note 7: Per Part 27.53(n) For mobile operations in the 3450–3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed  $-13$  dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Note 8: Per Part 27.53(l) For mobile operations in the 3700–3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed  $-13$  dBm/MHz. Compliance with this paragraph (l)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

### 3.5. SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL

#### Test set-up



#### Test Procedure

- KDB971168 D01v03 - Section 6
- ANSI C63.26-2015 – Section 5.7

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The EUT was setup to maximum output power at its low, middle, high channel with all bandwidths, modulations and RB configurations. The spectrum is scanned from 9 kHz up to a frequency including its 10<sup>th</sup> harmonic.

The power of any spurious emission shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB.

#### Test setting

1. RBW = 100 kHz(Below 1 GHz) or 1 MHz(Above 1 GHz) & VBW  $\geq 3 \times$  RBW ( Refer to Note 2)
2. Detector = RMS & Trace mode = Max hold or Average
3. Sweep time = Auto couple
4. Number of sweep point  $\geq 2 \times$  span / RBW
5. The trace was allowed to stabilize

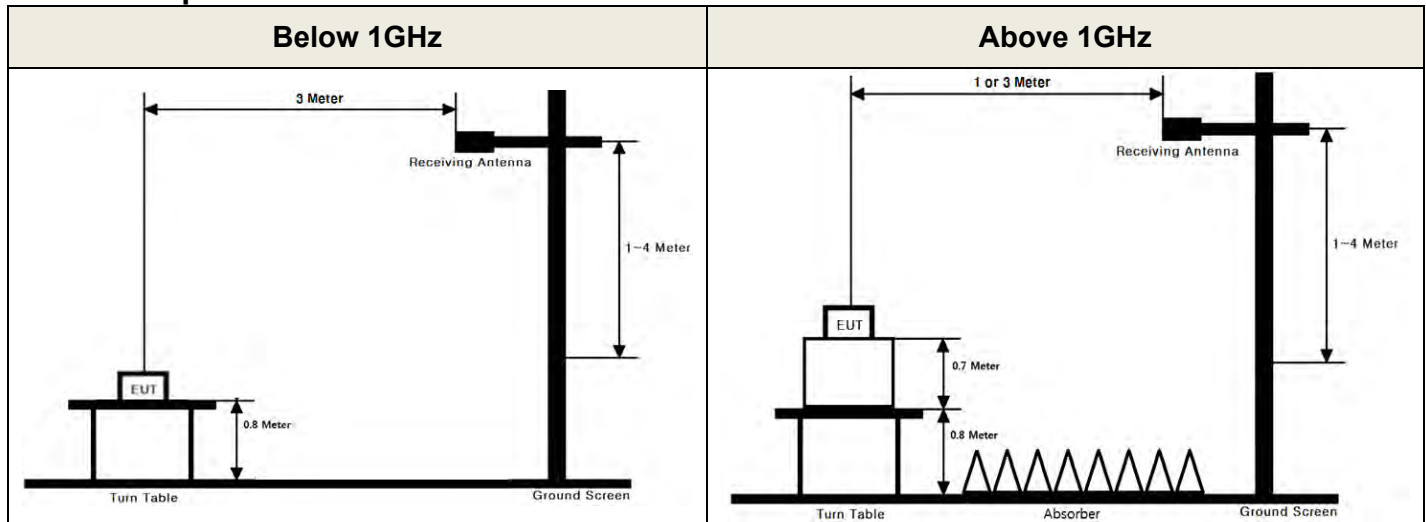
Note 1: For TDD signal, the trace mode was set to average and trigger was set to free run.

And added  $10 \log (1/\text{duty cycle})$  to the measured power level. (Path loss was applied to the spectrum correction factor, and  $10 \log (1/\text{duty cycle})$  was applied to the spectrum offset function during measurement. Please refer to the section 3.4 note 1 for duty cycle.

Note 2: Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1GHz.

### 3.6. UNDESIRABLE EMISSIONS

#### Test Set-up



These measurements were performed at 3 test site. The equipment under test is placed on a non-conductive table 0.8 or 1.5 meters above a turntable which is flush with the ground plane and 3 meters from the receive antenna. For measurements above 1 GHz absorbers are placed on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1 GHz, the absorbers are removed.

#### Test Procedure

- KDB971168 D01v03 - Section 6
- ANSI C63.26-2015 – Section 5.5
- ANSI/TIA-603-E-2016 - Section 2.2.12

#### Test setting

1. RBW = 100 kHz for below 1 GHz and 1 MHz for above 1 GHz / VBW  $\geq 3 \times$  RBW
2. Detector = RMS & Trace mode = power averaging (rms)
3. Sweep time = Auto couple
4. Number of sweep point  $\geq 2 \times$  span / RBW
5. The trace was allowed to stabilize

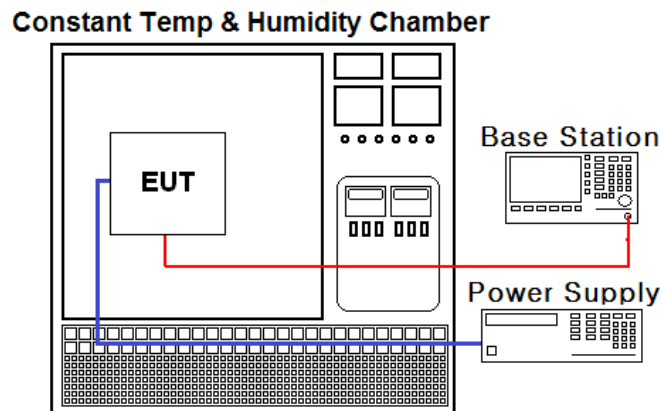
Note1: If duty cycle < 98%, add  $10 \log (1/\text{duty cycle})$  to the measured power level to compute the average power during continuous transmission. Please refer to the section 3.4 note 1 for duty cycle.

The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. For radiated power measurements below 1 GHz, a half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading.

For radiated power measurements above 1 GHz, a Horn antenna was substituted in place of the EUT. This Horn antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. The difference between the gain of the horn and an isotropic antenna are taken into consideration. This measurement was performed with the EUT oriented in 3 orthogonal axis.

### 3.7. FREQUENCY STABILITY

#### Test Set-up



#### Test Procedure

- KDB971168 D01v03 - Section 9
- ANSI/TIA-603-E-2016

The frequency stability of the transmitter is measured by:

a.) **Temperature:**

The temperature is varied from -30 °C to +50 °C using an environmental chamber.

b.) **Primary Supply Voltage:**

The primary supply voltage is varied from 85 % to 115 % of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

#### Specification:

Part 24.235, Part 27.54: The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Part 22.355: The frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5$  ppm) of the center frequency.

Part 90.539(e): The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 parts per million or better when AFC is locked to a base station, and 5 parts per million or better when AFC is not locked.

#### Time Period and Procedure:

1. The carrier frequency of the transmitter is measured at room temperature.  
(20 °C to provide a reference)
2. The equipment is turned on in a "standby" condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10 °C intervals ranging from -30 °C to +50 °C.  
A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

## 4. LIST OF TEST EQUIPMENT

| Type                         | Manufacturer         | Model                       | Cal.Date<br>(yy/mm/dd) | Next.Cal.<br>Date<br>(yy/mm/dd) | S/N         |
|------------------------------|----------------------|-----------------------------|------------------------|---------------------------------|-------------|
| Spectrum Analyzer            | Agilent Technologies | N9020A                      | 23/12/15               | 24/12/15                        | MY50410272  |
| Spectrum Analyzer            | Agilent Technologies | N9020A                      | 23/12/15               | 24/12/15                        | MY48010133  |
| Spectrum Analyzer            | KEYSIGHT             | N9030B                      | 23/12/15               | 24/12/15                        | MY55480168  |
| DC power supply              | Agilent Technologies | 66332A                      | 23/12/15               | 24/12/15                        | US37470950  |
| Multimeter                   | FLUKE                | 17B+                        | 23/12/15               | 24/12/15                        | 36390701WS  |
| Power Splitter               | Anritsu              | K241B                       | 23/12/15               | 24/12/15                        | 1301183     |
| Resistive Divider            | Clear Microwave      | D240                        | 24/06/10               | 25/06/10                        | 2           |
| Temp & Humi                  | SJ Science           | SJ-TH-S50                   | 23/12/14               | 24/12/14                        | U5542113    |
| Radio Communication Analyzer | KEYSIGHT             | E7515B                      | 24/06/05               | 25/06/05                        | MY60192461  |
| Radio Communication Analyzer | KEYSIGHT             | E7515B                      | 23/12/15               | 24/12/15                        | MY58300723  |
| Thermohygrometer             | BODYCOM              | BJ5478                      | 23/12/15               | 24/12/15                        | 120612-1    |
| Thermohygrometer             | BODYCOM              | BJ5478                      | 23/12/15               | 24/12/15                        | 120612-2    |
| Signal Generator             | Rohde Schwarz        | SMBV100A                    | 23/12/15               | 24/12/15                        | 255571      |
| Signal Generator             | ANRITSU              | MG3695C                     | 23/12/15               | 24/12/15                        | 173501      |
| Loop Antenna                 | ETS-Lindgren         | 6502                        | 23/11/09               | 24/11/09                        | 00060496    |
| Bilog Antenna                | Schwarzbeck          | VULB 9160                   | 23/12/15               | 24/12/15                        | 3362        |
| HORN ANT                     | ETS                  | 3117                        | 23/12/15               | 24/12/15                        | 00140394    |
| HORN ANT                     | A.H.Systems          | SAS-574                     | 24/06/11               | 25/06/11                        | 155         |
| PreAmplifier                 | H.P                  | 8447D                       | 23/12/15               | 24/12/15                        | 2944A07774  |
| PreAmplifier                 | Agilent              | 8449B                       | 23/12/15               | 24/12/15                        | 3008A02108  |
| PreAmplifier                 | tsj                  | MLA-1840-J02-45             | 24/06/03               | 25/06/03                        | 16966-10728 |
| High-pass filter             | Wainwright           | WHKX12-935-1000-15000-40SS  | 23/12/15               | 24/12/15                        | 7           |
| High-pass filter             | Wainwright           | WHKX10-2838-3300-18000-60SS | 23/12/15               | 24/12/15                        | 2           |
| High-pass filter             | Wainwright           | WHKX6-6320-8000-26500-40CC  | 23/12/15               | 24/12/15                        | 2           |
| High-pass filter             | Wainwright           | WHNX5.0/26.5G-6SS           | 24/06/04               | 25/06/04                        | 8           |
| Cable                        | HUBER+SUHNER         | SUCOFLEX100                 | 24/01/03               | 25/01/03                        | M-1         |
| Cable                        | HUBER+SUHNER         | SUCOFLEX100                 | 24/01/03               | 25/01/03                        | M-2         |
| Cable                        | Junkosah             | MWX241/B                    | 24/01/03               | 25/01/03                        | M-3         |
| Cable                        | Junkosah             | MWX221                      | 24/01/03               | 25/01/03                        | M-4         |
| Cable                        | Junkosah             | MWX221                      | 24/01/03               | 25/01/03                        | M-5         |
| Cable                        | JUNFLON              | J12J101757-00               | 24/01/03               | 25/01/03                        | M-7         |
| Cable                        | HUBER+SUHNER         | SUCOFLEX104                 | 24/01/03               | 25/01/03                        | M-8         |
| Cable                        | HUBER+SUHNER         | SUCOFLEX106                 | 24/01/03               | 25/01/03                        | M-9         |
| Cable                        | JUNKOSHA             | MWX315                      | 24/01/03               | 25/01/03                        | M-10        |
| Cable                        | HUBER+SUHNER         | SUCOFLEX100                 | 24/01/03               | 25/01/03                        | M-11        |
| Cable                        | JUNKOSHA             | MWX241                      | 24/01/03               | 25/01/03                        | mmW-1       |
| Cable                        | JUNKOSHA             | MWX241                      | 24/01/03               | 25/01/03                        | mmW-4       |

Note1: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017.

Note2: The cable is not a regular calibration item, so it has been calibrated by Dt&C itself.

## 5. SUMMARY OF TEST RESULTS

| FCC Part Section(s)                                                                                                                                                                                                                                                                                                             | Test Description                                             | Test Limit                                                                                                                                                                                                                                                             | Status<br>Note 1 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 2.1046                                                                                                                                                                                                                                                                                                                          | Conducted Output Power                                       | N/A                                                                                                                                                                                                                                                                    | C                |
| 2.1049                                                                                                                                                                                                                                                                                                                          | Occupied Bandwidth                                           | N/A                                                                                                                                                                                                                                                                    | C                |
| 22.913(d)<br>24.232(d)<br>27.50(d.5)                                                                                                                                                                                                                                                                                            | Peak to Average Ratio                                        | < 13 dB                                                                                                                                                                                                                                                                | C                |
| 2.1051<br>22.917(a)<br>24.238(a)<br>27.53(g)<br>27.53(h)<br>27.53(c)<br>27.53(n)<br>27.53(l)                                                                                                                                                                                                                                    | Band Edge /<br>Conducted Spurious Emissions                  | > 43 + 10log <sub>10</sub> (P) dB at Band edge and for all out-of-band emissions                                                                                                                                                                                       | C                |
| 27.53(c.4)                                                                                                                                                                                                                                                                                                                      | Undesirable emissions<br>in 763 ~ 775MHz & 793 ~<br>806MHz   | >65 + 10 log (P) dB in a 6.25 kHz band segment<br>frequencies between 763-775 MHz and 793-805 MHz                                                                                                                                                                      | C                |
| 27.53(m)                                                                                                                                                                                                                                                                                                                        | Band Edge /<br>Conducted Spurious Emissions                  | > 40 + 10log <sub>10</sub> (P) dB at channel edge and 5 MHz from<br>the channel edge<br>> 43 + 10log <sub>10</sub> (P) dB at 5 MHz and X MHz from the<br>channel edge<br>> 55 + 10log <sub>10</sub> (P) dB at all frequencies more than X<br>MHz from the channel edge | C                |
| 90.543(e)                                                                                                                                                                                                                                                                                                                       | Band Edge /<br>Conducted Spurious Emissions                  | >65 + 10 log (P) dB in a 6.25 kHz band segment<br>frequencies between 769-775MHz and 799-805MHz<br>>43 + 10 log (P) dB at frequency between 775-788 MHz,<br>above 805 MHz, and below 758 MHz                                                                           | C                |
| 2.1055<br>22.355<br>24.235<br>27.54<br>90.539(e)                                                                                                                                                                                                                                                                                | Frequency Stability                                          | Refer to section 3.7 of this report.                                                                                                                                                                                                                                   | C                |
| 27.50(b.10)<br>27.50(c.10)<br>90.542(a.7)                                                                                                                                                                                                                                                                                       | Radiated Output Power (n12, 13,<br>14, 71)                   | < 3 Watts max. ERP                                                                                                                                                                                                                                                     | C                |
| 22.913(a.5)                                                                                                                                                                                                                                                                                                                     | Radiated Output Power (n5)                                   | For mobile equipment:<br>< 7 Watts max. ERP                                                                                                                                                                                                                            | C                |
| 27.50(d)(4)<br>27.50(k)(3)<br>27.50(j)(3)                                                                                                                                                                                                                                                                                       | Radiated Output Power r (n66,<br>77, 78)                     | For mobile equipment:<br>< 1 Watts max. EIRP                                                                                                                                                                                                                           | C                |
| 24.232(c)<br>27.50(h.2)                                                                                                                                                                                                                                                                                                         | Radiated Output Power (n2, 7,<br>41, 38)                     | For mobile equipment:<br>< 2 Watts max. EIRP                                                                                                                                                                                                                           | C                |
| 2.1053<br>22.917(a)<br>24.238(a)<br>27.53(g)<br>27.53(h)<br>90.543(c)<br>27.53(n)<br>27.53(l)                                                                                                                                                                                                                                   | Undesirable Emissions<br>(n5, 2, 66, 12, 13, 14, 71, 77, 78) | > 43 + 10log <sub>10</sub> (P) dB for all out-of-band emissions                                                                                                                                                                                                        | C Note2          |
| 27.53(f)<br>90.543(f)                                                                                                                                                                                                                                                                                                           | Undesirable Emissions in 1559 ~<br>1610 MHz<br>(n13, 14)     | < -70 dBW/MHz (for wideband signals)<br>< -80 dBW (for discrete emissions of less than 700 Hz<br>bandwidth)                                                                                                                                                            | C Note2          |
| 27.53(m)(4)                                                                                                                                                                                                                                                                                                                     | Undesirable Emissions<br>(n7, 41, 38)                        | > 55 + 10 log (P) dB on all frequencies more than X<br>megahertz from the channel edge<br>where X is the greater of 6 megahertz or the actual<br>emission bandwidth                                                                                                    | C Note2          |
| <p>Note 1: C=Comply NC=Not Comply NT=Not Tested NA=Not Applicable</p> <p>Note 2: This test item was performed in three orthogonal EUT positions and the worst case data was reported.</p> <p>Note 3: The DFT-s-OFDM and CP-OFDM waveforms were investigated, and worst case(DFT-s-OFDM) configuration results are reported.</p> |                                                              |                                                                                                                                                                                                                                                                        |                  |

## 6. SAMPLE CALCULATION

### A. Emission Designator

#### NR Band n71( $\pi/2$ BPSK)

Emission Designator = **17M8G7D**

OBW = 17.798 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data Transmission

#### NR Band n71(16QAM)

Emission Designator = **17M8W7D**

OBW = 17.839 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data Transmission

#### NR Band n71(256QAM)

Emission Designator = **17M8W7D**

OBW = 17.808 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data Transmission

#### NR Band n71(QPSK)

Emission Designator = **17M8G7D**

OBW = 17.826 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data Transmission

#### NR Band n71(64QAM)

Emission Designator = **17M8W7D**

OBW = 17.796 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data Transmission

### B. For substitution method

#### **Unwanted emissions**

- 1) The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1 GHz respectively above ground.
- 2) The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
- 3) Vary the measurement antenna height through 1 m to 4 m and the rotate EUT through 360° in order to determine the maximum emission level.
- 4) Record the measured emission level and frequency using the available test method.  
If required by the test method, add  $10 \log(1/\text{duty cycle})$  to measured emission level.
- 5) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 6) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude. And adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the previously measured emission level.
- 7) The conducted power at the terminal of the substitute antenna is measured.
- 8) Record the level at substituted antenna terminal.
- 9) The result is calculated as below;

**Result: EIRP(dBm) = Level at Substitute antenna terminal + Substitute Antenna Gain (dBi)**

**Result: ERP(dBm) = Level at Substitute antenna terminal + Substitute Antenna Gain (dBd)**

**Where, TX Antenna Gain (dBd) = TX Antenna Gain (dBi) - 2.15 dB**

## 7. TEST DATA

### 7.1. OCCUPIED BANDWIDTH

- Plots of the EUT's Occupied Bandwidth are shown in Clause 8.1

### 7.2. PEAK TO AVERAGE RATIO

- Plots of the EUT's Peak- to- Average Ratio are shown in Clause 8.2

### 7.3. BAND EDGE EMISSIONS (Conducted)

- Plots of the EUT's Band Edge Emissions are shown in Clause 8.3

### 7.4. SPURIOUS AND HARMONICS EMISSIONS (Conducted)

- Plots of the EUT's Spurious Emissions are shown in Clause 8.4

## 7.5. MAXIMUM OUTPUT POWER

### - Test Notes

1) The EUT was tested under all bandwidths, modulations and RB configurations and the worst case data are reported in the below table.

2) EIRP = Conducted Output Power(dBm) + Antenna gain(dBi), ERP = EIRP – 2.15(dB)

### 7.5.1. NR Band n71

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) | ERP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|-----------|
| 20                      | 673             | $\pi/2$ BPSK | 1/inner left    | 22.68                        | -5.44             | 17.24      | 15.09     |
|                         |                 | QPSK         | 1/inner left    | 22.75                        | -5.44             | 17.31      | 15.16     |
|                         |                 | 16QAM        | 1/inner left    | 21.86                        | -5.44             | 16.42      | 14.27     |
|                         |                 | 64QAM        | 1/inner left    | 20.34                        | -5.44             | 14.90      | 12.75     |
|                         |                 | 256QAM       | 1/inner left    | 18.31                        | -5.44             | 12.87      | 10.72     |
|                         | 680.5           | $\pi/2$ BPSK | 1/inner left    | 22.67                        | -5.44             | 17.23      | 15.08     |
|                         |                 | QPSK         | 1/inner left    | 22.78                        | -5.44             | 17.34      | 15.19     |
|                         |                 | 16QAM        | 1/inner left    | 21.79                        | -5.44             | 16.35      | 14.20     |
|                         |                 | 64QAM        | 1/inner left    | 20.36                        | -5.44             | 14.92      | 12.77     |
|                         |                 | 256QAM       | 1/inner left    | 18.35                        | -5.44             | 12.91      | 10.76     |
|                         | 688             | $\pi/2$ BPSK | 1/inner left    | 22.48                        | -5.44             | 17.04      | 14.89     |
|                         |                 | QPSK         | 1/inner left    | 22.51                        | -5.44             | 17.07      | 14.92     |
|                         |                 | 16QAM        | 1/inner left    | 21.52                        | -5.44             | 16.08      | 13.93     |
|                         |                 | 64QAM        | 1/inner left    | 20.05                        | -5.44             | 14.61      | 12.46     |
|                         |                 | 256QAM       | 1/inner left    | 18.08                        | -5.44             | 12.64      | 10.49     |
| 15                      | 670.5           | $\pi/2$ BPSK | 1/inner left    | 22.46                        | -5.44             | 17.02      | 14.87     |
|                         |                 | QPSK         | 1/inner left    | 22.55                        | -5.44             | 17.11      | 14.96     |
|                         |                 | 16QAM        | 1/inner left    | 21.64                        | -5.44             | 16.20      | 14.05     |
|                         |                 | 64QAM        | 1/inner left    | 20.13                        | -5.44             | 14.69      | 12.54     |
|                         |                 | 256QAM       | 1/inner left    | 18.17                        | -5.44             | 12.73      | 10.58     |
|                         | 680.5           | $\pi/2$ BPSK | 1/inner left    | 22.44                        | -5.44             | 17.00      | 14.85     |
|                         |                 | QPSK         | 1/inner left    | 22.59                        | -5.44             | 17.15      | 15.00     |
|                         |                 | 16QAM        | 1/inner left    | 21.60                        | -5.44             | 16.16      | 14.01     |
|                         |                 | 64QAM        | 1/inner left    | 20.25                        | -5.44             | 14.81      | 12.66     |
|                         |                 | 256QAM       | 1/inner left    | 18.15                        | -5.44             | 12.71      | 10.56     |
|                         | 690.5           | $\pi/2$ BPSK | 1/inner left    | 22.39                        | -5.44             | 16.95      | 14.80     |
|                         |                 | QPSK         | 1/inner left    | 22.44                        | -5.44             | 17.00      | 14.85     |
|                         |                 | 16QAM        | 1/inner left    | 21.49                        | -5.44             | 16.05      | 13.90     |
|                         |                 | 64QAM        | 1/inner left    | 20.02                        | -5.44             | 14.58      | 12.43     |
|                         |                 | 256QAM       | 1/inner left    | 18.01                        | -5.44             | 12.57      | 10.42     |
| 10                      | 668             | $\pi/2$ BPSK | 1/inner left    | 22.60                        | -5.44             | 17.16      | 15.01     |
|                         |                 | QPSK         | 1/inner left    | 22.64                        | -5.44             | 17.20      | 15.05     |
|                         |                 | 16QAM        | 1/inner left    | 21.68                        | -5.44             | 16.24      | 14.09     |
|                         |                 | 64QAM        | 1/inner left    | 20.22                        | -5.44             | 14.78      | 12.63     |
|                         |                 | 256QAM       | 1/inner left    | 18.22                        | -5.44             | 12.78      | 10.63     |
|                         | 680.5           | $\pi/2$ BPSK | 1/inner left    | 22.37                        | -5.44             | 16.93      | 14.78     |
|                         |                 | QPSK         | 1/inner left    | 22.42                        | -5.44             | 16.98      | 14.83     |
|                         |                 | 16QAM        | 1/inner left    | 21.48                        | -5.44             | 16.04      | 13.89     |
|                         |                 | 64QAM        | 1/inner left    | 19.94                        | -5.44             | 14.50      | 12.35     |
|                         |                 | 256QAM       | 1/inner left    | 18.01                        | -5.44             | 12.57      | 10.42     |
|                         | 693             | $\pi/2$ BPSK | 1/inner left    | 22.44                        | -5.44             | 17.00      | 14.85     |
|                         |                 | QPSK         | 1/inner left    | 22.46                        | -5.44             | 17.02      | 14.87     |
|                         |                 | 16QAM        | 1/inner left    | 21.48                        | -5.44             | 16.04      | 13.89     |
|                         |                 | 64QAM        | 1/inner left    | 20.06                        | -5.44             | 14.62      | 12.47     |
|                         |                 | 256QAM       | 1/inner left    | 17.99                        | -5.44             | 12.55      | 10.40     |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) | ERP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|-----------|
| 5                       | 665.5           | $\pi/2$ BPSK | 1/inner left    | 22.64                        | -5.44             | 17.20      | 15.05     |
|                         |                 | QPSK         | 1/inner left    | 22.67                        | -5.44             | 17.23      | 15.08     |
|                         |                 | 16QAM        | 1/inner left    | 21.71                        | -5.44             | 16.27      | 14.12     |
|                         |                 | 64QAM        | 1/inner left    | 20.25                        | -5.44             | 14.81      | 12.66     |
|                         |                 | 256QAM       | 1/inner left    | 18.21                        | -5.44             | 12.77      | 10.62     |
|                         | 680.5           | $\pi/2$ BPSK | 1/inner left    | 22.40                        | -5.44             | 16.96      | 14.81     |
|                         |                 | QPSK         | 1/inner left    | 22.43                        | -5.44             | 16.99      | 14.84     |
|                         |                 | 16QAM        | 1/inner left    | 21.46                        | -5.44             | 16.02      | 13.87     |
|                         |                 | 64QAM        | 1/inner left    | 19.95                        | -5.44             | 14.51      | 12.36     |
|                         |                 | 256QAM       | 1/inner left    | 17.97                        | -5.44             | 12.53      | 10.38     |
|                         | 695.5           | $\pi/2$ BPSK | 1/inner left    | 22.43                        | -5.44             | 16.99      | 14.84     |
|                         |                 | QPSK         | 1/inner left    | 22.48                        | -5.44             | 17.04      | 14.89     |
|                         |                 | 16QAM        | 1/inner left    | 21.53                        | -5.44             | 16.09      | 13.94     |
|                         |                 | 64QAM        | 1/inner left    | 20.03                        | -5.44             | 14.59      | 12.44     |
|                         |                 | 256QAM       | 1/inner left    | 18.04                        | -5.44             | 12.60      | 10.45     |

## 7.5.2. NR Band n12

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) | ERP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|-----------|
| 15                      | 706.5           | $\pi/2$ BPSK | 1/Mid           | 22.22                        | -5.44             | 16.78      | 14.63     |
|                         |                 | QPSK         | 1/Mid           | 22.35                        | -5.44             | 16.91      | 14.76     |
|                         |                 | 16QAM        | 1/Mid           | 21.43                        | -5.44             | 15.99      | 13.84     |
|                         |                 | 64QAM        | 1/Mid           | 19.96                        | -5.44             | 14.52      | 12.37     |
|                         |                 | 256QAM       | 1/Mid           | 17.91                        | -5.44             | 12.47      | 10.32     |
|                         | 707.5           | $\pi/2$ BPSK | 1/Mid           | 22.32                        | -5.44             | 16.88      | 14.73     |
|                         |                 | QPSK         | 1/Mid           | 22.40                        | -5.44             | 16.96      | 14.81     |
|                         |                 | 16QAM        | 1/Mid           | 21.45                        | -5.44             | 16.01      | 13.86     |
|                         |                 | 64QAM        | 1/Mid           | 19.96                        | -5.44             | 14.52      | 12.37     |
|                         |                 | 256QAM       | 1/Mid           | 17.98                        | -5.44             | 12.54      | 10.39     |
|                         | 708.5           | $\pi/2$ BPSK | 1/Mid           | 21.94                        | -5.44             | 16.50      | 14.35     |
|                         |                 | QPSK         | 1/Mid           | 21.97                        | -5.44             | 16.53      | 14.38     |
|                         |                 | 16QAM        | 1/Mid           | 21.06                        | -5.44             | 15.62      | 13.47     |
|                         |                 | 64QAM        | 1/Mid           | 19.54                        | -5.44             | 14.10      | 11.95     |
|                         |                 | 256QAM       | 1/Mid           | 17.56                        | -5.44             | 12.12      | 9.97      |
| 10                      | 704             | $\pi/2$ BPSK | 1/Mid           | 22.13                        | -5.44             | 16.69      | 14.54     |
|                         |                 | QPSK         | 1/Mid           | 22.15                        | -5.44             | 16.71      | 14.56     |
|                         |                 | 16QAM        | 1/Mid           | 21.21                        | -5.44             | 15.77      | 13.62     |
|                         |                 | 64QAM        | 1/edge left     | 19.74                        | -5.44             | 14.30      | 12.15     |
|                         |                 | 256QAM       | 1/Mid           | 17.68                        | -5.44             | 12.24      | 10.09     |
|                         | 707.5           | $\pi/2$ BPSK | 1/Mid           | 22.34                        | -5.44             | 16.90      | 14.75     |
|                         |                 | QPSK         | 1/Mid           | 22.36                        | -5.44             | 16.92      | 14.77     |
|                         |                 | 16QAM        | 1/Mid           | 21.39                        | -5.44             | 15.95      | 13.80     |
|                         |                 | 64QAM        | 1/Mid           | 19.88                        | -5.44             | 14.44      | 12.29     |
|                         |                 | 256QAM       | 1/Mid           | 17.87                        | -5.44             | 12.43      | 10.28     |
|                         | 711             | $\pi/2$ BPSK | 1/Mid           | 21.89                        | -5.44             | 16.45      | 14.30     |
|                         |                 | QPSK         | 1/Mid           | 21.91                        | -5.44             | 16.47      | 14.32     |
|                         |                 | 16QAM        | 1/Mid           | 20.95                        | -5.44             | 15.51      | 13.36     |
|                         |                 | 64QAM        | 1/Mid           | 19.46                        | -5.44             | 14.02      | 11.87     |
|                         |                 | 256QAM       | 1/Mid           | 17.45                        | -5.44             | 12.01      | 9.86      |
| 5                       | 701.5           | $\pi/2$ BPSK | 1/Mid           | 22.32                        | -5.44             | 16.88      | 14.73     |
|                         |                 | QPSK         | 1/Mid           | 22.35                        | -5.44             | 16.91      | 14.76     |
|                         |                 | 16QAM        | 1/Mid           | 21.39                        | -5.44             | 15.95      | 13.80     |
|                         |                 | 64QAM        | 1/Mid           | 19.92                        | -5.44             | 14.48      | 12.33     |
|                         |                 | 256QAM       | 1/Mid           | 17.90                        | -5.44             | 12.46      | 10.31     |
|                         | 707.5           | $\pi/2$ BPSK | 1/Mid           | 22.26                        | -5.44             | 16.82      | 14.67     |
|                         |                 | QPSK         | 1/Mid           | 22.29                        | -5.44             | 16.85      | 14.70     |
|                         |                 | 16QAM        | 1/Mid           | 21.34                        | -5.44             | 15.90      | 13.75     |
|                         |                 | 64QAM        | 1/Mid           | 19.81                        | -5.44             | 14.37      | 12.22     |
|                         |                 | 256QAM       | 1/Mid           | 17.82                        | -5.44             | 12.38      | 10.23     |
|                         | 713.5           | $\pi/2$ BPSK | 1/Mid           | 22.04                        | -5.44             | 16.60      | 14.45     |
|                         |                 | QPSK         | 1/Mid           | 22.08                        | -5.44             | 16.64      | 14.49     |
|                         |                 | 16QAM        | 1/Mid           | 21.17                        | -5.44             | 15.73      | 13.58     |
|                         |                 | 64QAM        | 1/Mid           | 19.63                        | -5.44             | 14.19      | 12.04     |
|                         |                 | 256QAM       | 1/Mid           | 17.61                        | -5.44             | 12.17      | 10.02     |

### 7.5.3. NR Band n13

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) | ERP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|-----------|
| 10                      | 782             | $\pi/2$ BPSK | 1/inner left    | 22.54                        | -4.5              | 18.04      | 15.89     |
|                         |                 | QPSK         | 1/inner left    | 22.62                        | -4.5              | 18.12      | 15.97     |
|                         |                 | 16QAM        | 1/inner left    | 21.63                        | -4.5              | 17.13      | 14.98     |
|                         |                 | 64QAM        | 1/inner left    | 20.19                        | -4.5              | 15.69      | 13.54     |
|                         |                 | 256QAM       | 1/inner left    | 18.20                        | -4.5              | 13.70      | 11.55     |
| 5                       | 779.5           | $\pi/2$ BPSK | 1/inner left    | 22.52                        | -4.5              | 18.02      | 15.87     |
|                         |                 | QPSK         | 1/inner left    | 22.57                        | -4.5              | 18.07      | 15.92     |
|                         |                 | 16QAM        | 1/inner left    | 21.63                        | -4.5              | 17.13      | 14.98     |
|                         |                 | 64QAM        | 1/inner left    | 20.09                        | -4.5              | 15.59      | 13.44     |
|                         |                 | 256QAM       | 1/inner left    | 18.12                        | -4.5              | 13.62      | 11.47     |
|                         | 782             | $\pi/2$ BPSK | 1/inner left    | 22.58                        | -4.5              | 18.08      | 15.93     |
|                         |                 | QPSK         | 1/inner left    | 22.61                        | -4.5              | 18.11      | 15.96     |
|                         |                 | 16QAM        | 1/inner left    | 21.64                        | -4.5              | 17.14      | 14.99     |
|                         |                 | 64QAM        | 1/inner left    | 20.14                        | -4.5              | 15.64      | 13.49     |
|                         |                 | 256QAM       | 1/inner left    | 18.19                        | -4.5              | 13.69      | 11.54     |
|                         | 784.5           | $\pi/2$ BPSK | 1/inner left    | 22.51                        | -4.5              | 18.01      | 15.86     |
|                         |                 | QPSK         | 1/inner left    | 22.56                        | -4.5              | 18.06      | 15.91     |
|                         |                 | 16QAM        | 1/inner left    | 21.61                        | -4.5              | 17.11      | 14.96     |
|                         |                 | 64QAM        | 1/inner left    | 20.08                        | -4.5              | 15.58      | 13.43     |
|                         |                 | 256QAM       | 1/inner left    | 18.16                        | -4.5              | 13.66      | 11.51     |

### 7.5.4. NR Band n14

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) | ERP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|-----------|
| 10                      | 793             | $\pi/2$ BPSK | 1/inner left    | 22.27                        | -3.84             | 18.43      | 16.28     |
|                         |                 | QPSK         | 1/inner left    | 22.55                        | -3.84             | 18.71      | 16.56     |
|                         |                 | 16QAM        | 1/inner left    | 21.57                        | -3.84             | 17.73      | 15.58     |
|                         |                 | 64QAM        | 1/inner left    | 20.11                        | -3.84             | 16.27      | 14.12     |
|                         |                 | 256QAM       | 1/inner left    | 18.09                        | -3.84             | 14.25      | 12.10     |
| 5                       | 790.5           | $\pi/2$ BPSK | 1/inner left    | 22.29                        | -3.84             | 18.45      | 16.30     |
|                         |                 | QPSK         | 1/inner left    | 22.49                        | -3.84             | 18.65      | 16.50     |
|                         |                 | 16QAM        | 1/inner left    | 21.52                        | -3.84             | 17.68      | 15.53     |
|                         |                 | 64QAM        | 1/inner left    | 20.04                        | -3.84             | 16.20      | 14.05     |
|                         |                 | 256QAM       | 1/inner left    | 18.07                        | -3.84             | 14.23      | 12.08     |
|                         | 793             | $\pi/2$ BPSK | 1/inner left    | 22.31                        | -3.84             | 18.47      | 16.32     |
|                         |                 | QPSK         | 1/inner left    | 22.54                        | -3.84             | 18.70      | 16.55     |
|                         |                 | 16QAM        | 1/inner left    | 21.58                        | -3.84             | 17.74      | 15.59     |
|                         |                 | 64QAM        | 1/inner left    | 20.07                        | -3.84             | 16.23      | 14.08     |
|                         |                 | 256QAM       | 1/inner left    | 18.09                        | -3.84             | 14.25      | 12.10     |
|                         | 795.5           | $\pi/2$ BPSK | 1/inner left    | 22.36                        | -3.84             | 18.52      | 16.37     |
|                         |                 | QPSK         | 1/inner left    | 22.39                        | -3.84             | 18.55      | 16.40     |
|                         |                 | 16QAM        | 1/inner left    | 21.43                        | -3.84             | 17.59      | 15.44     |
|                         |                 | 64QAM        | 1/inner left    | 19.91                        | -3.84             | 16.07      | 13.92     |
|                         |                 | 256QAM       | 1/inner left    | 17.94                        | -3.84             | 14.10      | 11.95     |

### 7.5.5. NR Band n5

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) | ERP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|-----------|
| 20                      | 834             | $\pi/2$ BPSK | 1/inner left    | 22.67                        | -1.91             | 20.76      | 18.61     |
|                         |                 | QPSK         | 1/inner left    | 22.88                        | -1.91             | 20.97      | 18.82     |
|                         |                 | 16QAM        | 1/inner left    | 21.98                        | -1.91             | 20.07      | 17.92     |
|                         |                 | 64QAM        | 1/inner left    | 20.49                        | -1.91             | 18.58      | 16.43     |
|                         |                 | 256QAM       | 1/inner left    | 18.47                        | -1.91             | 16.56      | 14.41     |
|                         | 836.5           | $\pi/2$ BPSK | 1/inner left    | 22.80                        | -1.91             | 20.89      | 18.74     |
|                         |                 | QPSK         | 1/inner left    | 22.86                        | -1.91             | 20.95      | 18.80     |
|                         |                 | 16QAM        | 1/inner left    | 21.96                        | -1.91             | 20.05      | 17.90     |
|                         |                 | 64QAM        | 1/inner left    | 20.48                        | -1.91             | 18.57      | 16.42     |
|                         |                 | 256QAM       | 1/inner left    | 18.45                        | -1.91             | 16.54      | 14.39     |
|                         | 839             | $\pi/2$ BPSK | 1/inner left    | 22.42                        | -1.91             | 20.51      | 18.36     |
|                         |                 | QPSK         | 1/inner left    | 22.55                        | -1.91             | 20.64      | 18.49     |
|                         |                 | 16QAM        | 1/inner left    | 21.92                        | -1.91             | 20.01      | 17.86     |
|                         |                 | 64QAM        | 1/inner left    | 20.35                        | -1.91             | 18.44      | 16.29     |
|                         |                 | 256QAM       | 1/inner left    | 18.17                        | -1.91             | 16.26      | 14.11     |
| 15                      | 831.5           | $\pi/2$ BPSK | 1/inner left    | 22.60                        | -1.91             | 20.69      | 18.54     |
|                         |                 | QPSK         | 1/inner left    | 22.82                        | -1.91             | 20.91      | 18.76     |
|                         |                 | 16QAM        | 1/inner left    | 22.00                        | -1.91             | 20.09      | 17.94     |
|                         |                 | 64QAM        | 1/inner left    | 20.42                        | -1.91             | 18.51      | 16.36     |
|                         |                 | 256QAM       | 1/inner left    | 18.39                        | -1.91             | 16.48      | 14.33     |
|                         | 836.5           | $\pi/2$ BPSK | 1/inner left    | 22.77                        | -1.91             | 20.86      | 18.71     |
|                         |                 | QPSK         | 1/inner left    | 22.78                        | -1.91             | 20.87      | 18.72     |
|                         |                 | 16QAM        | 1/inner left    | 21.80                        | -1.91             | 19.89      | 17.74     |
|                         |                 | 64QAM        | 1/inner left    | 20.31                        | -1.91             | 18.40      | 16.25     |
|                         |                 | 256QAM       | 1/inner left    | 18.36                        | -1.91             | 16.45      | 14.30     |
|                         | 841.5           | $\pi/2$ BPSK | 1/inner left    | 22.67                        | -1.91             | 20.76      | 18.61     |
|                         |                 | QPSK         | 1/inner left    | 22.70                        | -1.91             | 20.79      | 18.64     |
|                         |                 | 16QAM        | 1/inner left    | 21.75                        | -1.91             | 19.84      | 17.69     |
|                         |                 | 64QAM        | 1/inner left    | 20.25                        | -1.91             | 18.34      | 16.19     |
|                         |                 | 256QAM       | 1/inner left    | 18.26                        | -1.91             | 16.35      | 14.20     |
| 10                      | 829             | $\pi/2$ BPSK | 1/inner left    | 22.51                        | -1.91             | 20.60      | 18.45     |
|                         |                 | QPSK         | 1/inner left    | 22.55                        | -1.91             | 20.64      | 18.49     |
|                         |                 | 16QAM        | 1/inner left    | 21.66                        | -1.91             | 19.75      | 17.60     |
|                         |                 | 64QAM        | 1/inner left    | 20.13                        | -1.91             | 18.22      | 16.07     |
|                         |                 | 256QAM       | 1/inner left    | 18.13                        | -1.91             | 16.22      | 14.07     |
|                         | 836.5           | $\pi/2$ BPSK | 1/inner left    | 22.36                        | -1.91             | 20.45      | 18.30     |
|                         |                 | QPSK         | 1/inner left    | 22.44                        | -1.91             | 20.53      | 18.38     |
|                         |                 | 16QAM        | 1/inner left    | 21.63                        | -1.91             | 19.72      | 17.57     |
|                         |                 | 64QAM        | 1/inner left    | 20.07                        | -1.91             | 18.16      | 16.01     |
|                         |                 | 256QAM       | 1/inner left    | 18.07                        | -1.91             | 16.16      | 14.01     |
|                         | 844             | $\pi/2$ BPSK | 1/inner left    | 22.36                        | -1.91             | 20.45      | 18.30     |
|                         |                 | QPSK         | 1/inner left    | 22.42                        | -1.91             | 20.51      | 18.36     |
|                         |                 | 16QAM        | 1/inner left    | 21.43                        | -1.91             | 19.52      | 17.37     |
|                         |                 | 64QAM        | 1/inner left    | 19.95                        | -1.91             | 18.04      | 15.89     |
|                         |                 | 256QAM       | 1/inner left    | 17.93                        | -1.91             | 16.02      | 13.87     |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) | ERP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|-----------|
| 5                       | 826             | $\pi/2$ BPSK | 1/inner left    | 22.67                        | -1.91             | 20.76      | 18.61     |
|                         |                 | QPSK         | 1/inner left    | 22.77                        | -1.91             | 20.86      | 18.71     |
|                         |                 | 16QAM        | 1/inner left    | 21.83                        | -1.91             | 19.92      | 17.77     |
|                         |                 | 64QAM        | 1/inner left    | 20.32                        | -1.91             | 18.41      | 16.26     |
|                         |                 | 256QAM       | 1/inner left    | 18.35                        | -1.91             | 16.44      | 14.29     |
|                         | 836.5           | $\pi/2$ BPSK | 1/inner left    | 22.66                        | -1.91             | 20.75      | 18.60     |
|                         |                 | QPSK         | 1/inner left    | 22.71                        | -1.91             | 20.80      | 18.65     |
|                         |                 | 16QAM        | 1/inner left    | 21.78                        | -1.91             | 19.87      | 17.72     |
|                         |                 | 64QAM        | 1/inner left    | 20.26                        | -1.91             | 18.35      | 16.20     |
|                         |                 | 256QAM       | 1/inner left    | 18.28                        | -1.91             | 16.37      | 14.22     |
|                         | 846.5           | $\pi/2$ BPSK | 1/inner left    | 22.42                        | -1.91             | 20.51      | 18.36     |
|                         |                 | QPSK         | 1/inner left    | 22.46                        | -1.91             | 20.55      | 18.40     |
|                         |                 | 16QAM        | 1/inner left    | 21.51                        | -1.91             | 19.60      | 17.45     |
|                         |                 | 64QAM        | 1/inner left    | 20.03                        | -1.91             | 18.12      | 15.97     |
|                         |                 | 256QAM       | 1/inner left    | 18.03                        | -1.91             | 16.12      | 13.97     |

### 7.5.6. NR Band n66

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 20                      | 1 720           | $\pi/2$ BPSK | 1/Mid           | 22.22                        | 0.3               | 22.52      |
|                         |                 | QPSK         | 1/Mid           | 22.35                        | 0.3               | 22.65      |
|                         |                 | 16QAM        | 1/Mid           | 21.43                        | 0.3               | 21.73      |
|                         |                 | 64QAM        | 1/Mid           | 19.96                        | 0.3               | 20.26      |
|                         |                 | 256QAM       | 1/Mid           | 17.91                        | 0.3               | 18.21      |
|                         | 1 745           | $\pi/2$ BPSK | 1/Mid           | 22.32                        | 0.3               | 22.62      |
|                         |                 | QPSK         | 1/Mid           | 22.40                        | 0.3               | 22.70      |
|                         |                 | 16QAM        | 1/Mid           | 21.45                        | 0.3               | 21.75      |
|                         |                 | 64QAM        | 1/Mid           | 19.96                        | 0.3               | 20.26      |
|                         |                 | 256QAM       | 1/Mid           | 17.98                        | 0.3               | 18.28      |
|                         | 1 770           | $\pi/2$ BPSK | 1/Mid           | 21.94                        | 0.3               | 22.24      |
|                         |                 | QPSK         | 1/Mid           | 21.97                        | 0.3               | 22.27      |
|                         |                 | 16QAM        | 1/Mid           | 21.06                        | 0.3               | 21.36      |
|                         |                 | 64QAM        | 1/Mid           | 19.54                        | 0.3               | 19.84      |
|                         |                 | 256QAM       | 1/Mid           | 17.56                        | 0.3               | 17.86      |
| 15                      | 1 717.5         | $\pi/2$ BPSK | 1/Mid           | 22.13                        | 0.3               | 22.43      |
|                         |                 | QPSK         | 1/Mid           | 22.15                        | 0.3               | 22.45      |
|                         |                 | 16QAM        | 1/Mid           | 21.21                        | 0.3               | 21.51      |
|                         |                 | 64QAM        | 1/Mid           | 19.68                        | 0.3               | 19.98      |
|                         |                 | 256QAM       | 1/Mid           | 17.68                        | 0.3               | 17.98      |
|                         | 1 745           | $\pi/2$ BPSK | 1/Mid           | 22.34                        | 0.3               | 22.64      |
|                         |                 | QPSK         | 1/Mid           | 22.36                        | 0.3               | 22.66      |
|                         |                 | 16QAM        | 1/Mid           | 21.39                        | 0.3               | 21.69      |
|                         |                 | 64QAM        | 1/Mid           | 19.88                        | 0.3               | 20.18      |
|                         |                 | 256QAM       | 1/Mid           | 17.87                        | 0.3               | 18.17      |
|                         | 1 772.5         | $\pi/2$ BPSK | 1/Mid           | 21.89                        | 0.3               | 22.19      |
|                         |                 | QPSK         | 1/Mid           | 21.91                        | 0.3               | 22.21      |
|                         |                 | 16QAM        | 1/Mid           | 20.95                        | 0.3               | 21.25      |
|                         |                 | 64QAM        | 1/Mid           | 19.46                        | 0.3               | 19.76      |
|                         |                 | 256QAM       | 1/Mid           | 17.45                        | 0.3               | 17.75      |
| 10                      | 1 715           | $\pi/2$ BPSK | 1/Mid           | 22.32                        | 0.3               | 22.62      |
|                         |                 | QPSK         | 1/Mid           | 22.35                        | 0.3               | 22.65      |
|                         |                 | 16QAM        | 1/Mid           | 21.39                        | 0.3               | 21.69      |
|                         |                 | 64QAM        | 1/Mid           | 19.92                        | 0.3               | 20.22      |
|                         |                 | 256QAM       | 1/Mid           | 17.90                        | 0.3               | 18.20      |
|                         | 1 745           | $\pi/2$ BPSK | 1/Mid           | 22.25                        | 0.3               | 22.55      |
|                         |                 | QPSK         | 1/Mid           | 22.27                        | 0.3               | 22.57      |
|                         |                 | 16QAM        | 1/Mid           | 21.34                        | 0.3               | 21.64      |
|                         |                 | 64QAM        | 1/Mid           | 19.81                        | 0.3               | 20.11      |
|                         |                 | 256QAM       | 1/Mid           | 17.82                        | 0.3               | 18.12      |
|                         | 1 775           | $\pi/2$ BPSK | 1/Mid           | 22.04                        | 0.3               | 22.34      |
|                         |                 | QPSK         | 1/Mid           | 22.08                        | 0.3               | 22.38      |
|                         |                 | 16QAM        | 1/Mid           | 21.17                        | 0.3               | 21.47      |
|                         |                 | 64QAM        | 1/Mid           | 19.63                        | 0.3               | 19.93      |
|                         |                 | 256QAM       | 1/Mid           | 17.61                        | 0.3               | 17.91      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 5                       | 1 712.5         | $\pi/2$ BPSK | 1/Mid           | 22.32                        | 0.3               | 22.62      |
|                         |                 | QPSK         | 1/Mid           | 22.37                        | 0.3               | 22.67      |
|                         |                 | 16QAM        | 1/Mid           | 21.44                        | 0.3               | 21.74      |
|                         |                 | 64QAM        | 1/Mid           | 19.92                        | 0.3               | 20.22      |
|                         |                 | 256QAM       | 1/Mid           | 17.95                        | 0.3               | 18.25      |
|                         | 1 745           | $\pi/2$ BPSK | 1/Mid           | 22.33                        | 0.3               | 22.63      |
|                         |                 | QPSK         | 1/Mid           | 22.37                        | 0.3               | 22.67      |
|                         |                 | 16QAM        | 1/Mid           | 21.45                        | 0.3               | 21.75      |
|                         |                 | 64QAM        | 1/Mid           | 19.91                        | 0.3               | 20.21      |
|                         |                 | 256QAM       | 1/Mid           | 17.93                        | 0.3               | 18.23      |
|                         | 1 777.5         | $\pi/2$ BPSK | 1/Mid           | 22.03                        | 0.3               | 22.33      |
|                         |                 | QPSK         | 1/Mid           | 22.09                        | 0.3               | 22.39      |
|                         |                 | 16QAM        | 1/Mid           | 21.18                        | 0.3               | 21.48      |
|                         |                 | 64QAM        | 1/Mid           | 19.64                        | 0.3               | 19.94      |
|                         |                 | 256QAM       | 1/Mid           | 17.63                        | 0.3               | 17.93      |

### 7.5.7. NR Band n2

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 20                      | 1 860           | $\pi/2$ BPSK | 1/Mid           | 21.40                        | 0.77              | 22.17      |
|                         |                 | QPSK         | 1/Mid           | 21.50                        | 0.77              | 22.27      |
|                         |                 | 16QAM        | 1/Mid           | 20.61                        | 0.77              | 21.38      |
|                         |                 | 64QAM        | 1/Mid           | 19.08                        | 0.77              | 19.85      |
|                         |                 | 256QAM       | 1/Mid           | 17.05                        | 0.77              | 17.82      |
|                         | 1 880           | $\pi/2$ BPSK | 1/Mid           | 21.60                        | 0.77              | 22.37      |
|                         |                 | QPSK         | 1/Mid           | 21.77                        | 0.77              | 22.54      |
|                         |                 | 16QAM        | 1/Mid           | 20.81                        | 0.77              | 21.58      |
|                         |                 | 64QAM        | 1/Mid           | 19.32                        | 0.77              | 20.09      |
|                         |                 | 256QAM       | 1/Mid           | 17.30                        | 0.77              | 18.07      |
|                         | 1 900           | $\pi/2$ BPSK | 1/Mid           | 21.40                        | 0.77              | 22.17      |
|                         |                 | QPSK         | 1/Mid           | 21.42                        | 0.77              | 22.19      |
|                         |                 | 16QAM        | 1/Mid           | 20.49                        | 0.77              | 21.26      |
|                         |                 | 64QAM        | 1/Mid           | 18.94                        | 0.77              | 19.71      |
|                         |                 | 256QAM       | 1/Mid           | 17.01                        | 0.77              | 17.78      |
| 15                      | 1 857.5         | $\pi/2$ BPSK | 1/Mid           | 21.35                        | 0.77              | 22.12      |
|                         |                 | QPSK         | 1/Mid           | 21.40                        | 0.77              | 22.17      |
|                         |                 | 16QAM        | 1/Mid           | 20.42                        | 0.77              | 21.19      |
|                         |                 | 64QAM        | 1/Mid           | 18.92                        | 0.77              | 19.72      |
|                         |                 | 256QAM       | 1/Mid           | 16.96                        | 0.77              | 17.73      |
|                         | 1 880           | $\pi/2$ BPSK | 1/Mid           | 21.71                        | 0.77              | 22.48      |
|                         |                 | QPSK         | 1/Mid           | 21.76                        | 0.77              | 22.53      |
|                         |                 | 16QAM        | 1/Mid           | 20.83                        | 0.77              | 21.60      |
|                         |                 | 64QAM        | 1/Mid           | 19.34                        | 0.77              | 20.11      |
|                         |                 | 256QAM       | 1/Mid           | 17.35                        | 0.77              | 18.12      |
|                         | 1 902.5         | $\pi/2$ BPSK | 1/Mid           | 21.66                        | 0.77              | 22.43      |
|                         |                 | QPSK         | 1/Mid           | 21.67                        | 0.77              | 22.44      |
|                         |                 | 16QAM        | 1/Mid           | 20.70                        | 0.77              | 21.47      |
|                         |                 | 64QAM        | 1/Mid           | 19.21                        | 0.77              | 19.98      |
|                         |                 | 256QAM       | 1/Mid           | 17.25                        | 0.77              | 18.02      |
| 10                      | 1 855           | $\pi/2$ BPSK | 1/Mid           | 21.23                        | 0.77              | 22.00      |
|                         |                 | QPSK         | 1/Mid           | 21.29                        | 0.77              | 22.06      |
|                         |                 | 16QAM        | 1/Mid           | 20.33                        | 0.77              | 21.10      |
|                         |                 | 64QAM        | 1/Mid           | 18.84                        | 0.77              | 19.61      |
|                         |                 | 256QAM       | 1/Mid           | 16.84                        | 0.77              | 17.61      |
|                         | 1 880           | $\pi/2$ BPSK | 1/inner left    | 21.55                        | 0.77              | 22.32      |
|                         |                 | QPSK         | 1/Mid           | 21.59                        | 0.77              | 22.36      |
|                         |                 | 16QAM        | 1/Mid           | 20.66                        | 0.77              | 21.43      |
|                         |                 | 64QAM        | 1/Mid           | 19.19                        | 0.77              | 19.96      |
|                         |                 | 256QAM       | 1/Mid           | 17.13                        | 0.77              | 17.90      |
|                         | 1 905           | $\pi/2$ BPSK | 1/Mid           | 21.40                        | 0.77              | 22.17      |
|                         |                 | QPSK         | 1/Mid           | 21.42                        | 0.77              | 22.19      |
|                         |                 | 16QAM        | 1/Mid           | 20.45                        | 0.77              | 21.22      |
|                         |                 | 64QAM        | 1/Mid           | 18.99                        | 0.77              | 19.76      |
|                         |                 | 256QAM       | 1/Mid           | 16.93                        | 0.77              | 17.70      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 5                       | 1 852.5         | $\pi/2$ BPSK | 1/Mid           | 21.48                        | 0.77              | 22.25      |
|                         |                 | QPSK         | 1/Mid           | 21.58                        | 0.77              | 22.35      |
|                         |                 | 16QAM        | 1/Mid           | 20.60                        | 0.77              | 21.37      |
|                         |                 | 64QAM        | 1/Mid           | 19.15                        | 0.77              | 19.92      |
|                         |                 | 256QAM       | 1/Mid           | 17.10                        | 0.77              | 17.87      |
|                         | 1 880           | $\pi/2$ BPSK | 1/Mid           | 21.57                        | 0.77              | 22.34      |
|                         |                 | QPSK         | 1/Mid           | 21.60                        | 0.77              | 22.37      |
|                         |                 | 16QAM        | 1/Mid           | 20.72                        | 0.77              | 21.49      |
|                         |                 | 64QAM        | 1/Mid           | 19.24                        | 0.77              | 20.01      |
|                         |                 | 256QAM       | 1/Mid           | 17.25                        | 0.77              | 18.02      |
|                         | 1 907.5         | $\pi/2$ BPSK | 1/Mid           | 21.55                        | 0.77              | 22.32      |
|                         |                 | QPSK         | 1/Mid           | 21.57                        | 0.77              | 22.34      |
|                         |                 | 16QAM        | 1/Mid           | 20.66                        | 0.77              | 21.43      |
|                         |                 | 64QAM        | 1/Mid           | 19.14                        | 0.77              | 19.91      |
|                         |                 | 256QAM       | 1/Mid           | 17.19                        | 0.77              | 17.96      |

### 7.5.8. NR Band n7

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 20                      | 2 510           | $\pi/2$ BPSK | 1/Inner right   | 22.82                        | -2.11             | 20.71      |
|                         |                 | QPSK         | 1/Inner right   | 22.84                        | -2.11             | 20.73      |
|                         |                 | 16QAM        | 1/Inner right   | 22.01                        | -2.11             | 19.90      |
|                         |                 | 64QAM        | 1/Inner right   | 20.79                        | -2.11             | 18.68      |
|                         |                 | 256QAM       | 1/Inner right   | 18.55                        | -2.11             | 16.44      |
|                         | 2 535           | $\pi/2$ BPSK | 1/Inner right   | 23.22                        | -2.11             | 21.11      |
|                         |                 | QPSK         | 1/Inner right   | 23.25                        | -2.11             | 21.14      |
|                         |                 | 16QAM        | 1/Inner right   | 22.30                        | -2.11             | 20.19      |
|                         |                 | 64QAM        | 1/Inner right   | 20.78                        | -2.11             | 18.67      |
|                         |                 | 256QAM       | 1/Inner right   | 18.77                        | -2.11             | 16.66      |
|                         | 2 560           | $\pi/2$ BPSK | 1/Inner right   | 22.80                        | -2.11             | 20.69      |
|                         |                 | QPSK         | 1/Inner right   | 22.82                        | -2.11             | 20.71      |
|                         |                 | 16QAM        | 1/Inner right   | 22.23                        | -2.11             | 20.12      |
|                         |                 | 64QAM        | 1/Inner right   | 20.45                        | -2.11             | 18.34      |
|                         |                 | 256QAM       | 1/Inner right   | 18.68                        | -2.11             | 16.57      |
| 15                      | 2 507.5         | $\pi/2$ BPSK | 1/Inner right   | 22.66                        | -2.11             | 20.55      |
|                         |                 | QPSK         | 1/Inner right   | 22.68                        | -2.11             | 20.57      |
|                         |                 | 16QAM        | 1/Inner right   | 21.90                        | -2.11             | 19.79      |
|                         |                 | 64QAM        | 1/Inner right   | 20.30                        | -2.11             | 18.19      |
|                         |                 | 256QAM       | 1/Inner right   | 18.34                        | -2.11             | 16.23      |
|                         | 2 535           | $\pi/2$ BPSK | 1/Inner right   | 22.76                        | -2.11             | 20.65      |
|                         |                 | QPSK         | 1/Inner right   | 22.78                        | -2.11             | 20.67      |
|                         |                 | 16QAM        | 1/Inner right   | 21.86                        | -2.11             | 19.75      |
|                         |                 | 64QAM        | 1/Inner right   | 20.75                        | -2.11             | 18.64      |
|                         |                 | 256QAM       | 1/Inner right   | 18.30                        | -2.11             | 16.19      |
|                         | 2 562.5         | $\pi/2$ BPSK | 1/Inner right   | 22.76                        | -2.11             | 20.65      |
|                         |                 | QPSK         | 1/Inner right   | 22.78                        | -2.11             | 20.67      |
|                         |                 | 16QAM        | 1/Inner right   | 21.86                        | -2.11             | 19.75      |
|                         |                 | 64QAM        | 1/Inner right   | 20.75                        | -2.11             | 18.64      |
|                         |                 | 256QAM       | 1/Inner right   | 18.30                        | -2.11             | 16.19      |
| 10                      | 2 505           | $\pi/2$ BPSK | 1/Inner right   | 22.70                        | -2.11             | 20.59      |
|                         |                 | QPSK         | 1/Inner right   | 22.74                        | -2.11             | 20.63      |
|                         |                 | 16QAM        | 1/Inner right   | 21.79                        | -2.11             | 19.68      |
|                         |                 | 64QAM        | 1/Inner right   | 20.29                        | -2.11             | 18.18      |
|                         |                 | 256QAM       | 1/Inner right   | 18.28                        | -2.11             | 16.17      |
|                         | 2 535           | $\pi/2$ BPSK | 1/Inner right   | 22.82                        | -2.11             | 20.71      |
|                         |                 | QPSK         | 1/Inner right   | 22.83                        | -2.11             | 20.72      |
|                         |                 | 16QAM        | 1/Inner right   | 21.92                        | -2.11             | 19.81      |
|                         |                 | 64QAM        | 1/Inner right   | 20.42                        | -2.11             | 18.31      |
|                         |                 | 256QAM       | 1/Inner right   | 18.40                        | -2.11             | 16.29      |
|                         | 2 565           | $\pi/2$ BPSK | 1/Inner right   | 23.16                        | -2.11             | 21.05      |
|                         |                 | QPSK         | 1/Inner right   | 23.18                        | -2.11             | 21.07      |
|                         |                 | 16QAM        | 1/Inner right   | 22.30                        | -2.11             | 20.19      |
|                         |                 | 64QAM        | 1/Inner right   | 20.80                        | -2.11             | 18.69      |
|                         |                 | 256QAM       | 1/Inner right   | 18.80                        | -2.11             | 16.69      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 5                       | 2 502.5         | $\pi/2$ BPSK | 1/Inner right   | 23.17                        | -2.11             | 21.06      |
|                         |                 | QPSK         | 1/Inner right   | 23.24                        | -2.11             | 21.13      |
|                         |                 | 16QAM        | 1/Inner right   | 22.30                        | -2.11             | 20.19      |
|                         |                 | 64QAM        | 1/Inner right   | 20.79                        | -2.11             | 18.68      |
|                         |                 | 256QAM       | 1/Inner right   | 18.80                        | -2.11             | 16.69      |
|                         | 2 535           | $\pi/2$ BPSK | 1/Inner right   | 22.73                        | -2.11             | 20.62      |
|                         |                 | QPSK         | 1/Inner right   | 22.81                        | -2.11             | 20.70      |
|                         |                 | 16QAM        | 1/Inner right   | 21.88                        | -2.11             | 19.77      |
|                         |                 | 64QAM        | 1/Inner right   | 20.39                        | -2.11             | 18.28      |
|                         |                 | 256QAM       | 1/Inner right   | 18.34                        | -2.11             | 16.23      |
|                         | 2 567.5         | $\pi/2$ BPSK | 1/Inner right   | 23.02                        | -2.11             | 20.91      |
|                         |                 | QPSK         | 1/Inner right   | 23.10                        | -2.11             | 20.99      |
|                         |                 | 16QAM        | 1/Inner right   | 22.16                        | -2.11             | 20.05      |
|                         |                 | 64QAM        | 1/Inner right   | 20.68                        | -2.11             | 18.57      |
|                         |                 | 256QAM       | 1/Inner right   | 18.67                        | -2.11             | 16.56      |

### 7.5.9. NR Band n41

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 100                     | 2 546.01        | $\pi/2$ BPSK | 1/Inner right   | 23.63                        | 2.21              | 25.84      |
|                         |                 | QPSK         | 1/Inner right   | 23.67                        | 2.21              | 25.88      |
|                         |                 | 16QAM        | 1/Inner right   | 22.70                        | 2.21              | 24.91      |
|                         |                 | 64QAM        | 1/Inner right   | 21.21                        | 2.21              | 23.42      |
|                         |                 | 256QAM       | 1/Inner right   | 19.20                        | 2.21              | 21.41      |
|                         | 2 592.99        | $\pi/2$ BPSK | 1/Inner right   | 23.90                        | 2.21              | 26.11      |
|                         |                 | QPSK         | 1/Inner right   | 23.93                        | 2.21              | 26.14      |
|                         |                 | 16QAM        | 1/Inner right   | 22.97                        | 2.21              | 25.18      |
|                         |                 | 64QAM        | 1/Inner right   | 21.43                        | 2.21              | 23.64      |
|                         |                 | 256QAM       | 1/Inner right   | 19.45                        | 2.21              | 21.66      |
|                         | 2 640           | $\pi/2$ BPSK | 1/Inner right   | 23.50                        | 2.21              | 25.71      |
|                         |                 | QPSK         | 1/Inner right   | 23.51                        | 2.21              | 25.72      |
|                         |                 | 16QAM        | 1/Inner right   | 22.54                        | 2.21              | 24.75      |
|                         |                 | 64QAM        | 1/Inner right   | 21.38                        | 2.21              | 23.59      |
|                         |                 | 256QAM       | 1/Inner right   | 19.06                        | 2.21              | 21.27      |
| 90                      | 2 541           | $\pi/2$ BPSK | 1/Inner right   | 23.45                        | 2.21              | 25.66      |
|                         |                 | QPSK         | 1/Inner right   | 23.48                        | 2.21              | 25.69      |
|                         |                 | 16QAM        | 1/Inner right   | 22.72                        | 2.21              | 24.93      |
|                         |                 | 64QAM        | 1/Inner right   | 21.04                        | 2.21              | 23.25      |
|                         |                 | 256QAM       | 1/Inner right   | 19.25                        | 2.21              | 21.46      |
|                         | 2 592.99        | $\pi/2$ BPSK | 1/Inner right   | 23.62                        | 2.21              | 25.83      |
|                         |                 | QPSK         | 1/Inner right   | 23.66                        | 2.21              | 25.87      |
|                         |                 | 16QAM        | 1/Inner right   | 22.71                        | 2.21              | 24.92      |
|                         |                 | 64QAM        | 1/Inner right   | 21.22                        | 2.21              | 23.43      |
|                         |                 | 256QAM       | 1/Inner right   | 19.23                        | 2.21              | 21.44      |
|                         | 2 644.98        | $\pi/2$ BPSK | 1/Inner right   | 23.54                        | 2.21              | 25.75      |
|                         |                 | QPSK         | 1/Inner right   | 23.57                        | 2.21              | 25.78      |
|                         |                 | 16QAM        | 1/Inner right   | 22.59                        | 2.21              | 24.80      |
|                         |                 | 64QAM        | 1/Inner right   | 21.35                        | 2.21              | 23.56      |
|                         |                 | 256QAM       | 1/Inner right   | 19.31                        | 2.21              | 21.52      |
| 80                      | 2 536.02        | $\pi/2$ BPSK | 1/Inner right   | 23.49                        | 2.21              | 25.70      |
|                         |                 | QPSK         | 1/Inner right   | 23.52                        | 2.21              | 25.73      |
|                         |                 | 16QAM        | 1/Inner right   | 22.63                        | 2.21              | 24.84      |
|                         |                 | 64QAM        | 1/Inner right   | 21.06                        | 2.21              | 23.27      |
|                         |                 | 256QAM       | 1/Inner right   | 19.07                        | 2.21              | 21.28      |
|                         | 2 592.99        | $\pi/2$ BPSK | 1/Inner right   | 23.69                        | 2.21              | 25.90      |
|                         |                 | QPSK         | 1/Inner right   | 23.73                        | 2.21              | 25.94      |
|                         |                 | 16QAM        | 1/Inner right   | 22.74                        | 2.21              | 24.95      |
|                         |                 | 64QAM        | 1/Inner right   | 21.26                        | 2.21              | 23.47      |
|                         |                 | 256QAM       | 1/Inner right   | 19.29                        | 2.21              | 21.50      |
|                         | 2 649.99        | $\pi/2$ BPSK | 1/Inner right   | 23.67                        | 2.21              | 25.88      |
|                         |                 | QPSK         | 1/Inner right   | 23.71                        | 2.21              | 25.92      |
|                         |                 | 16QAM        | 1/Inner right   | 22.73                        | 2.21              | 24.94      |
|                         |                 | 64QAM        | 1/Inner right   | 21.23                        | 2.21              | 23.44      |
|                         |                 | 256QAM       | 1/Inner right   | 19.28                        | 2.21              | 21.49      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 60                      | 2 526           | $\pi/2$ BPSK | 1/Inner right   | 23.75                        | 2.21              | 25.96      |
|                         |                 | QPSK         | 1/Inner right   | 23.79                        | 2.21              | 26.00      |
|                         |                 | 16QAM        | 1/Inner right   | 22.82                        | 2.21              | 25.03      |
|                         |                 | 64QAM        | 1/Inner right   | 21.30                        | 2.21              | 23.51      |
|                         |                 | 256QAM       | 1/Inner right   | 19.33                        | 2.21              | 21.54      |
|                         | 2 592.99        | $\pi/2$ BPSK | 1/Inner right   | 23.73                        | 2.21              | 25.94      |
|                         |                 | QPSK         | 1/Inner right   | 23.77                        | 2.21              | 25.98      |
|                         |                 | 16QAM        | 1/Inner right   | 22.81                        | 2.21              | 25.02      |
|                         |                 | 64QAM        | 1/Inner right   | 21.46                        | 2.21              | 23.67      |
|                         |                 | 256QAM       | 1/Inner right   | 19.34                        | 2.21              | 21.55      |
|                         | 2 659.98        | $\pi/2$ BPSK | 1/Inner right   | 23.67                        | 2.21              | 25.88      |
|                         |                 | QPSK         | 1/Inner right   | 23.71                        | 2.21              | 25.92      |
|                         |                 | 16QAM        | 1/Inner right   | 22.79                        | 2.21              | 25.00      |
|                         |                 | 64QAM        | 1/Inner right   | 21.25                        | 2.21              | 23.46      |
|                         |                 | 256QAM       | 1/Inner right   | 19.42                        | 2.21              | 21.63      |
| 50                      | 2 521.02        | $\pi/2$ BPSK | 1/Inner right   | 23.79                        | 2.21              | 26.00      |
|                         |                 | QPSK         | 1/Inner right   | 23.81                        | 2.21              | 26.02      |
|                         |                 | 16QAM        | 1/Inner right   | 22.85                        | 2.21              | 25.06      |
|                         |                 | 64QAM        | 1/Inner right   | 21.37                        | 2.21              | 23.58      |
|                         |                 | 256QAM       | 1/Inner right   | 19.34                        | 2.21              | 21.55      |
|                         | 2 592.99        | $\pi/2$ BPSK | 1/Inner right   | 23.81                        | 2.21              | 26.02      |
|                         |                 | QPSK         | 1/Inner right   | 23.85                        | 2.21              | 26.06      |
|                         |                 | 16QAM        | 1/Inner right   | 22.99                        | 2.21              | 25.20      |
|                         |                 | 64QAM        | 1/Inner right   | 21.48                        | 2.21              | 23.69      |
|                         |                 | 256QAM       | 1/Inner right   | 19.48                        | 2.21              | 21.69      |
|                         | 2 664.99        | $\pi/2$ BPSK | 1/Inner right   | 23.69                        | 2.21              | 25.90      |
|                         |                 | QPSK         | 1/Inner right   | 23.72                        | 2.21              | 25.93      |
|                         |                 | 16QAM        | 1/Inner right   | 22.82                        | 2.21              | 25.03      |
|                         |                 | 64QAM        | 1/Inner right   | 21.28                        | 2.21              | 23.49      |
|                         |                 | 256QAM       | 1/Inner right   | 19.25                        | 2.21              | 21.46      |
| 40                      | 2 516.01        | $\pi/2$ BPSK | 1/Inner right   | 23.84                        | 2.21              | 26.05      |
|                         |                 | QPSK         | 1/Inner right   | 23.90                        | 2.21              | 26.11      |
|                         |                 | 16QAM        | 1/Inner right   | 22.92                        | 2.21              | 25.13      |
|                         |                 | 64QAM        | 1/Inner right   | 21.49                        | 2.21              | 23.70      |
|                         |                 | 256QAM       | 1/Inner right   | 19.43                        | 2.21              | 21.64      |
|                         | 2 592.99        | $\pi/2$ BPSK | 1/Inner right   | 23.85                        | 2.21              | 26.06      |
|                         |                 | QPSK         | 1/Inner right   | 23.88                        | 2.21              | 26.09      |
|                         |                 | 16QAM        | 1/Inner right   | 22.91                        | 2.21              | 25.12      |
|                         |                 | 64QAM        | 1/Inner right   | 21.46                        | 2.21              | 23.67      |
|                         |                 | 256QAM       | 1/Inner right   | 19.41                        | 2.21              | 21.62      |
|                         | 2 670           | $\pi/2$ BPSK | 1/Inner right   | 23.76                        | 2.21              | 25.97      |
|                         |                 | QPSK         | 1/Inner right   | 23.79                        | 2.21              | 26.00      |
|                         |                 | 16QAM        | 1/Inner right   | 22.82                        | 2.21              | 25.03      |
|                         |                 | 64QAM        | 1/Inner right   | 21.34                        | 2.21              | 23.55      |
|                         |                 | 256QAM       | 1/Inner right   | 19.46                        | 2.21              | 21.67      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 20                      | 2 506.02        | $\pi/2$ BPSK | 1/Inner right   | 23.64                        | 2.21              | 25.85      |
|                         |                 | QPSK         | 1/Inner right   | 23.67                        | 2.21              | 25.88      |
|                         |                 | 16QAM        | 1/Inner right   | 22.69                        | 2.21              | 24.90      |
|                         |                 | 64QAM        | 1/Inner right   | 21.46                        | 2.21              | 23.67      |
|                         |                 | 256QAM       | 1/Inner right   | 19.24                        | 2.21              | 21.45      |
|                         | 2 592.99        | $\pi/2$ BPSK | 1/Inner right   | 23.62                        | 2.21              | 25.83      |
|                         |                 | QPSK         | 1/Inner right   | 23.68                        | 2.21              | 25.89      |
|                         |                 | 16QAM        | 1/Inner right   | 22.83                        | 2.21              | 25.04      |
|                         |                 | 64QAM        | 1/Inner right   | 21.25                        | 2.21              | 23.46      |
|                         |                 | 256QAM       | 1/Inner right   | 19.31                        | 2.21              | 21.52      |
|                         | 2 679.99        | $\pi/2$ BPSK | 1/Inner right   | 23.77                        | 2.21              | 25.98      |
|                         |                 | QPSK         | 1/Inner right   | 23.81                        | 2.21              | 26.02      |
|                         |                 | 16QAM        | 1/Inner right   | 22.87                        | 2.21              | 25.08      |
|                         |                 | 64QAM        | 1/Inner right   | 21.38                        | 2.21              | 23.59      |
|                         |                 | 256QAM       | 1/Inner right   | 19.34                        | 2.21              | 21.55      |

### 7.5.10. NR Band n38

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 20                      | 2 580           | $\pi/2$ BPSK | 1/Inner right   | 22.59                        | 2.21              | 24.80      |
|                         |                 | QPSK         | 1/Inner right   | 22.62                        | 2.21              | 24.83      |
|                         |                 | 16QAM        | 1/Inner right   | 21.82                        | 2.21              | 24.03      |
|                         |                 | 64QAM        | 1/Inner right   | 20.15                        | 2.21              | 22.36      |
|                         |                 | 256QAM       | 1/Inner right   | 18.34                        | 2.21              | 20.55      |
|                         | 2 595           | $\pi/2$ BPSK | 1/Inner right   | 22.64                        | 2.21              | 24.85      |
|                         |                 | QPSK         | 1/Inner right   | 22.72                        | 2.21              | 24.93      |
|                         |                 | 16QAM        | 1/Inner right   | 21.81                        | 2.21              | 24.02      |
|                         |                 | 64QAM        | 1/Inner right   | 20.29                        | 2.21              | 22.50      |
|                         |                 | 256QAM       | 1/Inner right   | 18.32                        | 2.21              | 20.53      |
|                         | 2 610           | $\pi/2$ BPSK | 1/Inner right   | 22.66                        | 2.21              | 24.87      |
|                         |                 | QPSK         | 1/Inner right   | 22.74                        | 2.21              | 24.95      |
|                         |                 | 16QAM        | 1/Inner right   | 21.77                        | 2.21              | 23.98      |
|                         |                 | 64QAM        | 1/Inner right   | 20.50                        | 2.21              | 22.71      |
|                         |                 | 256QAM       | 1/Inner right   | 18.28                        | 2.21              | 20.49      |

### 7.5.11. NR Band n78 (3 450~3 550 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 100                     | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.30                        | 0.43              | 22.73      |
|                         |                 | QPSK         | 1/Inner right   | 22.36                        | 0.43              | 22.79      |
|                         |                 | 16QAM        | 1/Inner right   | 21.40                        | 0.43              | 21.83      |
|                         |                 | 64QAM        | 1/Inner right   | 19.87                        | 0.43              | 20.30      |
|                         |                 | 256QAM       | 1/Inner right   | 17.91                        | 0.43              | 18.34      |
| 90                      | 3 495           | $\pi/2$ BPSK | 1/Inner right   | 22.14                        | 0.43              | 22.57      |
|                         |                 | QPSK         | 1/Inner right   | 22.16                        | 0.43              | 22.59      |
|                         |                 | 16QAM        | 1/Inner right   | 21.17                        | 0.43              | 21.60      |
|                         |                 | 64QAM        | 1/Inner right   | 19.97                        | 0.43              | 20.40      |
|                         |                 | 256QAM       | 1/Inner right   | 17.75                        | 0.43              | 18.18      |
|                         | 3 500.1         | $\pi/2$ BPSK | 1/Inner right   | 22.04                        | 0.43              | 22.47      |
|                         |                 | QPSK         | 1/Inner right   | 22.23                        | 0.43              | 22.66      |
|                         |                 | 16QAM        | 1/Inner right   | 21.28                        | 0.43              | 21.71      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 0.43              | 20.34      |
|                         |                 | 256QAM       | 1/Inner right   | 17.90                        | 0.43              | 18.33      |
|                         | 3 504.99        | $\pi/2$ BPSK | 1/Inner right   | 22.03                        | 0.43              | 22.46      |
|                         |                 | QPSK         | 1/Inner right   | 22.10                        | 0.43              | 22.53      |
|                         |                 | 16QAM        | 1/Inner right   | 21.13                        | 0.43              | 21.56      |
|                         |                 | 64QAM        | 1/Inner right   | 20.00                        | 0.43              | 20.43      |
|                         |                 | 256QAM       | 1/Inner right   | 17.71                        | 0.43              | 18.14      |
| 80                      | 3 490.02        | $\pi/2$ BPSK | 1/Inner right   | 21.98                        | 0.43              | 22.41      |
|                         |                 | QPSK         | 1/Inner right   | 22.22                        | 0.43              | 22.65      |
|                         |                 | 16QAM        | 1/Inner right   | 21.33                        | 0.43              | 21.76      |
|                         |                 | 64QAM        | 1/Inner right   | 19.73                        | 0.43              | 20.16      |
|                         |                 | 256QAM       | 1/Inner right   | 17.80                        | 0.43              | 18.23      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 0.43              | 22.53      |
|                         |                 | QPSK         | 1/Inner right   | 22.19                        | 0.43              | 22.62      |
|                         |                 | 16QAM        | 1/Inner right   | 21.19                        | 0.43              | 21.62      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 0.43              | 20.42      |
|                         |                 | 256QAM       | 1/Inner right   | 17.73                        | 0.43              | 18.16      |
|                         | 3 510           | $\pi/2$ BPSK | 1/Inner right   | 21.98                        | 0.43              | 22.41      |
|                         |                 | QPSK         | 1/Inner right   | 22.11                        | 0.43              | 22.54      |
|                         |                 | 16QAM        | 1/Inner right   | 21.24                        | 0.43              | 21.67      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 0.43              | 20.42      |
|                         |                 | 256QAM       | 1/Inner right   | 17.67                        | 0.43              | 18.10      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 70                      | 3 485.01        | $\pi/2$ BPSK | 1/Inner right   | 21.89                        | 0.43              | 22.32      |
|                         |                 | QPSK         | 1/Inner right   | 21.96                        | 0.43              | 22.39      |
|                         |                 | 16QAM        | 1/Inner right   | 21.20                        | 0.43              | 21.63      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 0.43              | 20.34      |
|                         |                 | 256QAM       | 1/Inner right   | 17.60                        | 0.43              | 18.03      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.02                        | 0.43              | 22.45      |
|                         |                 | QPSK         | 1/Inner right   | 22.29                        | 0.43              | 22.72      |
|                         |                 | 16QAM        | 1/Inner right   | 21.34                        | 0.43              | 21.77      |
|                         |                 | 64QAM        | 1/Inner right   | 19.89                        | 0.43              | 20.32      |
|                         |                 | 256QAM       | 1/Inner right   | 17.90                        | 0.43              | 18.33      |
|                         | 3 515.01        | $\pi/2$ BPSK | 1/Inner right   | 21.98                        | 0.43              | 22.41      |
|                         |                 | QPSK         | 1/Inner right   | 22.12                        | 0.43              | 22.55      |
|                         |                 | 16QAM        | 1/Inner right   | 21.16                        | 0.43              | 21.59      |
|                         |                 | 64QAM        | 1/Inner right   | 19.89                        | 0.43              | 20.32      |
|                         |                 | 256QAM       | 1/Inner right   | 17.66                        | 0.43              | 18.09      |
| 60                      | 3 480           | $\pi/2$ BPSK | 1/Inner right   | 22.00                        | 0.43              | 22.43      |
|                         |                 | QPSK         | 1/Inner right   | 22.02                        | 0.43              | 22.45      |
|                         |                 | 16QAM        | 1/Mid           | 21.02                        | 0.43              | 21.45      |
|                         |                 | 64QAM        | 1/Inner right   | 19.97                        | 0.43              | 20.40      |
|                         |                 | 256QAM       | 1/Inner right   | 17.74                        | 0.43              | 18.17      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 21.90                        | 0.43              | 22.33      |
|                         |                 | QPSK         | 1/Inner right   | 22.10                        | 0.43              | 22.53      |
|                         |                 | 16QAM        | 1/Inner right   | 21.15                        | 0.43              | 21.58      |
|                         |                 | 64QAM        | 1/Inner right   | 19.90                        | 0.43              | 20.33      |
|                         |                 | 256QAM       | 1/Inner right   | 17.66                        | 0.43              | 18.09      |
|                         | 3 519.99        | $\pi/2$ BPSK | 1/Inner right   | 22.14                        | 0.43              | 22.57      |
|                         |                 | QPSK         | 1/Inner right   | 22.15                        | 0.43              | 22.58      |
|                         |                 | 16QAM        | 1/Inner right   | 21.31                        | 0.43              | 21.74      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 0.43              | 20.42      |
|                         |                 | 256QAM       | 1/Inner right   | 17.94                        | 0.43              | 18.37      |
| 50                      | 3 475.02        | $\pi/2$ BPSK | 1/Inner right   | 21.95                        | 0.43              | 22.38      |
|                         |                 | QPSK         | 1/Inner right   | 21.98                        | 0.43              | 22.41      |
|                         |                 | 16QAM        | 1/Inner right   | 21.22                        | 0.43              | 21.65      |
|                         |                 | 64QAM        | 1/Inner right   | 19.77                        | 0.43              | 20.20      |
|                         |                 | 256QAM       | 1/Inner right   | 17.69                        | 0.43              | 18.12      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.05                        | 0.43              | 22.48      |
|                         |                 | QPSK         | 1/Inner right   | 22.06                        | 0.43              | 22.49      |
|                         |                 | 16QAM        | 1/Inner right   | 21.09                        | 0.43              | 21.52      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 0.43              | 20.34      |
|                         |                 | 256QAM       | 1/Inner right   | 17.63                        | 0.43              | 18.06      |
|                         | 3 525           | $\pi/2$ BPSK | 1/Inner right   | 21.93                        | 0.43              | 22.36      |
|                         |                 | QPSK         | 1/Inner right   | 21.98                        | 0.43              | 22.41      |
|                         |                 | 16QAM        | 1/Inner right   | 21.20                        | 0.43              | 21.63      |
|                         |                 | 64QAM        | 1/Inner right   | 19.87                        | 0.43              | 20.30      |
|                         |                 | 256QAM       | 1/edge right    | 17.68                        | 0.43              | 18.11      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 40                      | 3 470.01        | $\pi/2$ BPSK | 1/Inner right   | 22.06                        | 0.43              | 22.49      |
|                         |                 | QPSK         | 1/Inner right   | 22.14                        | 0.43              | 22.57      |
|                         |                 | 16QAM        | 1/Inner right   | 21.16                        | 0.43              | 21.59      |
|                         |                 | 64QAM        | 1/Inner right   | 19.92                        | 0.43              | 20.35      |
|                         |                 | 256QAM       | 1/Inner right   | 17.88                        | 0.43              | 18.31      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.22                        | 0.43              | 22.65      |
|                         |                 | QPSK         | 1/Inner right   | 22.23                        | 0.43              | 22.66      |
|                         |                 | 16QAM        | 1/Inner right   | 21.25                        | 0.43              | 21.68      |
|                         |                 | 64QAM        | 1/Inner right   | 19.88                        | 0.43              | 20.31      |
|                         |                 | 256QAM       | 1/Inner right   | 17.82                        | 0.43              | 18.25      |
|                         | 3 530.01        | $\pi/2$ BPSK | 1/Inner right   | 22.06                        | 0.43              | 22.49      |
|                         |                 | QPSK         | 1/Inner right   | 22.15                        | 0.43              | 22.58      |
|                         |                 | 16QAM        | 1/Inner right   | 21.21                        | 0.43              | 21.64      |
|                         |                 | 64QAM        | 1/Inner right   | 19.95                        | 0.43              | 20.38      |
|                         |                 | 256QAM       | 1/Inner right   | 17.75                        | 0.43              | 18.18      |
| 30                      | 3 465           | $\pi/2$ BPSK | 1/Inner right   | 22.12                        | 0.43              | 22.55      |
|                         |                 | QPSK         | 1/Inner right   | 22.13                        | 0.43              | 22.56      |
|                         |                 | 16QAM        | 1/Inner right   | 21.15                        | 0.43              | 21.58      |
|                         |                 | 64QAM        | 1/Inner right   | 19.95                        | 0.43              | 20.38      |
|                         |                 | 256QAM       | 1/Inner right   | 17.97                        | 0.43              | 18.40      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 0.43              | 22.53      |
|                         |                 | QPSK         | 1/Inner right   | 22.16                        | 0.43              | 22.59      |
|                         |                 | 16QAM        | 1/Inner right   | 21.17                        | 0.43              | 21.60      |
|                         |                 | 64QAM        | 1/Inner right   | 19.83                        | 0.43              | 20.26      |
|                         |                 | 256QAM       | 1/Inner right   | 17.68                        | 0.43              | 18.11      |
|                         | 3 534.99        | $\pi/2$ BPSK | 1/Inner right   | 22.05                        | 0.43              | 22.48      |
|                         |                 | QPSK         | 1/Inner right   | 22.13                        | 0.43              | 22.56      |
|                         |                 | 16QAM        | 1/Inner right   | 21.19                        | 0.43              | 21.62      |
|                         |                 | 64QAM        | 1/Inner right   | 19.86                        | 0.43              | 20.29      |
|                         |                 | 256QAM       | 1/Inner right   | 17.68                        | 0.43              | 18.11      |
| 20                      | 3 460.02        | $\pi/2$ BPSK | 1/Inner right   | 22.06                        | 0.43              | 22.49      |
|                         |                 | QPSK         | 1/Inner right   | 22.11                        | 0.43              | 22.54      |
|                         |                 | 16QAM        | 1/Inner right   | 21.28                        | 0.43              | 21.71      |
|                         |                 | 64QAM        | 1/Inner right   | 19.92                        | 0.43              | 20.35      |
|                         |                 | 256QAM       | 1/Inner right   | 17.79                        | 0.43              | 18.22      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.05                        | 0.43              | 22.48      |
|                         |                 | QPSK         | 1/Inner right   | 22.08                        | 0.43              | 22.51      |
|                         |                 | 16QAM        | 1/Inner right   | 21.31                        | 0.43              | 21.74      |
|                         |                 | 64QAM        | 1/Inner right   | 19.93                        | 0.43              | 20.36      |
|                         |                 | 256QAM       | 1/Inner right   | 17.62                        | 0.43              | 18.05      |
|                         | 3 540           | $\pi/2$ BPSK | 1/Inner right   | 21.90                        | 0.43              | 22.33      |
|                         |                 | QPSK         | 1/Inner right   | 21.93                        | 0.43              | 22.36      |
|                         |                 | 16QAM        | 1/Inner right   | 21.27                        | 0.43              | 21.70      |
|                         |                 | 64QAM        | 1/Inner right   | 19.94                        | 0.43              | 20.37      |
|                         |                 | 256QAM       | 1/Inner right   | 17.77                        | 0.43              | 18.20      |

### 7.5.12. NR Band n78 (3 700~3 800 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 100                     | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.31                        | 2.73              | 25.04      |
|                         |                 | QPSK         | 1/Inner right   | 22.41                        | 2.73              | 25.14      |
|                         |                 | 16QAM        | 1/Inner right   | 21.46                        | 2.73              | 24.19      |
|                         |                 | 64QAM        | 1/Inner right   | 19.98                        | 2.73              | 22.71      |
|                         |                 | 256QAM       | 1/edge left     | 18.05                        | 2.73              | 20.78      |
| 90                      | 3 745.02        | $\pi/2$ BPSK | 1/Inner right   | 22.19                        | 2.73              | 24.92      |
|                         |                 | QPSK         | 1/Inner right   | 22.24                        | 2.73              | 24.97      |
|                         |                 | 16QAM        | 1/Inner right   | 21.32                        | 2.73              | 24.05      |
|                         |                 | 64QAM        | 1/Inner right   | 19.90                        | 2.73              | 22.63      |
|                         |                 | 256QAM       | 1/Inner right   | 17.76                        | 2.73              | 20.49      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.11                        | 2.73              | 24.84      |
|                         |                 | QPSK         | 1/Inner right   | 22.25                        | 2.73              | 24.98      |
|                         |                 | 16QAM        | 1/Inner right   | 21.29                        | 2.73              | 24.02      |
|                         |                 | 64QAM        | 1/Inner right   | 19.90                        | 2.73              | 22.63      |
|                         |                 | 256QAM       | 1/Inner right   | 17.87                        | 2.73              | 20.60      |
|                         | 3 754.98        | $\pi/2$ BPSK | 1/Inner right   | 22.21                        | 2.73              | 24.94      |
|                         |                 | QPSK         | 1/Inner right   | 22.24                        | 2.73              | 24.97      |
|                         |                 | 16QAM        | 1/Inner right   | 21.24                        | 2.73              | 23.97      |
|                         |                 | 64QAM        | 1/Inner right   | 19.93                        | 2.73              | 22.66      |
|                         |                 | 256QAM       | 1/Inner right   | 17.77                        | 2.73              | 20.50      |
| 80                      | 3 740.01        | $\pi/2$ BPSK | 1/Inner right   | 22.14                        | 2.73              | 24.87      |
|                         |                 | QPSK         | 1/Inner right   | 22.20                        | 2.73              | 24.93      |
|                         |                 | 16QAM        | 1/Inner right   | 21.23                        | 2.73              | 23.96      |
|                         |                 | 64QAM        | 1/Inner right   | 19.92                        | 2.73              | 22.65      |
|                         |                 | 256QAM       | 1/Inner right   | 17.74                        | 2.73              | 20.47      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.26                        | 2.73              | 24.99      |
|                         |                 | QPSK         | 1/Inner right   | 22.30                        | 2.73              | 25.03      |
|                         |                 | 16QAM        | 1/Inner right   | 21.36                        | 2.73              | 24.09      |
|                         |                 | 64QAM        | 1/Inner right   | 20.00                        | 2.73              | 22.73      |
|                         |                 | 256QAM       | 1/Inner right   | 17.89                        | 2.73              | 20.62      |
|                         | 3 759.99        | $\pi/2$ BPSK | 1/Inner right   | 22.05                        | 2.73              | 24.78      |
|                         |                 | QPSK         | 1/Inner right   | 22.12                        | 2.73              | 24.85      |
|                         |                 | 16QAM        | 1/Inner right   | 21.34                        | 2.73              | 24.07      |
|                         |                 | 64QAM        | 1/Inner right   | 20.00                        | 2.73              | 22.73      |
|                         |                 | 256QAM       | 1/Inner right   | 17.73                        | 2.73              | 20.46      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 70                      | 3 735           | $\pi/2$ BPSK | 1/Inner right   | 22.18                        | 2.73              | 24.91      |
|                         |                 | QPSK         | 1/Inner right   | 22.21                        | 2.73              | 24.94      |
|                         |                 | 16QAM        | 1/Inner right   | 21.24                        | 2.73              | 23.97      |
|                         |                 | 64QAM        | 1/Inner right   | 19.95                        | 2.73              | 22.68      |
|                         |                 | 256QAM       | 1/Inner right   | 17.90                        | 2.73              | 20.63      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.16                        | 2.73              | 24.89      |
|                         |                 | QPSK         | 1/Inner right   | 22.19                        | 2.73              | 24.92      |
|                         |                 | 16QAM        | 1/Inner right   | 21.35                        | 2.73              | 24.08      |
|                         |                 | 64QAM        | 1/Inner right   | 20.00                        | 2.73              | 22.73      |
|                         |                 | 256QAM       | 1/Inner right   | 17.78                        | 2.73              | 20.51      |
|                         | 3 765           | $\pi/2$ BPSK | 1/Inner right   | 22.21                        | 2.73              | 24.94      |
|                         |                 | QPSK         | 1/Inner right   | 22.25                        | 2.73              | 24.98      |
|                         |                 | 16QAM        | 1/Inner right   | 21.36                        | 2.73              | 24.09      |
|                         |                 | 64QAM        | 1/Inner right   | 19.98                        | 2.73              | 22.71      |
|                         |                 | 256QAM       | 1/Inner right   | 17.78                        | 2.73              | 20.51      |
| 60                      | 3 730.02        | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 2.73              | 24.83      |
|                         |                 | QPSK         | 1/Inner right   | 22.13                        | 2.73              | 24.86      |
|                         |                 | 16QAM        | 1/Inner right   | 21.29                        | 2.73              | 24.02      |
|                         |                 | 64QAM        | 1/Inner right   | 19.94                        | 2.73              | 22.67      |
|                         |                 | 256QAM       | 1/Inner right   | 17.90                        | 2.73              | 20.63      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 21.95                        | 2.73              | 24.68      |
|                         |                 | QPSK         | 1/Inner right   | 21.99                        | 2.73              | 24.72      |
|                         |                 | 16QAM        | 1/Inner right   | 21.32                        | 2.73              | 24.05      |
|                         |                 | 64QAM        | 1/Inner right   | 19.93                        | 2.73              | 22.66      |
|                         |                 | 256QAM       | 1/Inner right   | 17.80                        | 2.73              | 20.53      |
|                         | 3 769.98        | $\pi/2$ BPSK | 1/Inner right   | 21.93                        | 2.73              | 24.66      |
|                         |                 | QPSK         | 1/Inner right   | 21.99                        | 2.73              | 24.72      |
|                         |                 | 16QAM        | 1/Inner right   | 21.21                        | 2.73              | 23.94      |
|                         |                 | 64QAM        | 1/Inner right   | 19.85                        | 2.73              | 22.58      |
|                         |                 | 256QAM       | 1/Inner right   | 17.72                        | 2.73              | 20.45      |
| 50                      | 3 725.01        | $\pi/2$ BPSK | 1/Inner right   | 22.09                        | 2.73              | 24.82      |
|                         |                 | QPSK         | 1/Inner right   | 22.11                        | 2.73              | 24.84      |
|                         |                 | 16QAM        | 1/Inner right   | 21.18                        | 2.73              | 23.91      |
|                         |                 | 64QAM        | 1/Inner right   | 19.93                        | 2.73              | 22.66      |
|                         |                 | 256QAM       | 1/Inner right   | 17.74                        | 2.73              | 20.47      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 2.73              | 24.83      |
|                         |                 | QPSK         | 1/Inner right   | 22.16                        | 2.73              | 24.89      |
|                         |                 | 16QAM        | 1/Inner right   | 21.20                        | 2.73              | 23.93      |
|                         |                 | 64QAM        | 1/Inner right   | 19.84                        | 2.73              | 22.57      |
|                         |                 | 256QAM       | 1/Inner right   | 17.89                        | 2.73              | 20.62      |
|                         | 3 774.99        | $\pi/2$ BPSK | 1/Inner right   | 22.18                        | 2.73              | 24.91      |
|                         |                 | QPSK         | 1/Inner right   | 22.25                        | 2.73              | 24.98      |
|                         |                 | 16QAM        | 1/Inner right   | 21.26                        | 2.73              | 23.99      |
|                         |                 | 64QAM        | 1/Inner right   | 19.93                        | 2.73              | 22.66      |
|                         |                 | 256QAM       | 1/Inner right   | 17.80                        | 2.73              | 20.53      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 40                      | 3 720           | $\pi/2$ BPSK | 1/Inner right   | 22.09                        | 2.73              | 24.82      |
|                         |                 | QPSK         | 1/Inner right   | 22.11                        | 2.73              | 24.84      |
|                         |                 | 16QAM        | 1/Inner right   | 21.33                        | 2.73              | 24.06      |
|                         |                 | 64QAM        | 1/Inner right   | 19.96                        | 2.73              | 22.69      |
|                         |                 | 256QAM       | 1/Inner right   | 17.72                        | 2.73              | 20.45      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.12                        | 2.73              | 24.85      |
|                         |                 | QPSK         | 1/Inner right   | 22.14                        | 2.73              | 24.87      |
|                         |                 | 16QAM        | 1/Inner right   | 21.26                        | 2.73              | 23.99      |
|                         |                 | 64QAM        | 1/Inner right   | 19.87                        | 2.73              | 22.60      |
|                         |                 | 256QAM       | 1/Inner right   | 17.75                        | 2.73              | 20.48      |
|                         | 3 780           | $\pi/2$ BPSK | 1/Inner right   | 21.96                        | 2.73              | 24.69      |
|                         |                 | QPSK         | 1/Inner right   | 22.02                        | 2.73              | 24.75      |
|                         |                 | 16QAM        | 1/Inner right   | 21.22                        | 2.73              | 23.95      |
|                         |                 | 64QAM        | 1/Inner right   | 19.93                        | 2.73              | 22.66      |
|                         |                 | 256QAM       | 1/Inner right   | 17.77                        | 2.73              | 20.50      |
| 30                      | 3 715.02        | $\pi/2$ BPSK | 1/Inner right   | 22.11                        | 2.73              | 24.84      |
|                         |                 | QPSK         | 1/Inner right   | 22.16                        | 2.73              | 24.89      |
|                         |                 | 16QAM        | 1/Inner right   | 21.29                        | 2.73              | 24.02      |
|                         |                 | 64QAM        | 1/Inner right   | 19.98                        | 2.73              | 22.71      |
|                         |                 | 256QAM       | 1/Inner right   | 17.68                        | 2.73              | 20.41      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.14                        | 2.73              | 24.87      |
|                         |                 | QPSK         | 1/Inner right   | 22.16                        | 2.73              | 24.89      |
|                         |                 | 16QAM        | 1/Inner right   | 21.19                        | 2.73              | 23.92      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 2.73              | 22.64      |
|                         |                 | 256QAM       | 1/Inner right   | 17.73                        | 2.73              | 20.46      |
|                         | 3 785.01        | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 2.73              | 24.83      |
|                         |                 | QPSK         | 1/Inner right   | 22.18                        | 2.73              | 24.91      |
|                         |                 | 16QAM        | 1/Inner right   | 21.20                        | 2.73              | 23.93      |
|                         |                 | 64QAM        | 1/Inner right   | 19.97                        | 2.73              | 22.70      |
|                         |                 | 256QAM       | 1/Inner right   | 17.72                        | 2.73              | 20.45      |
| 20                      | 3 710.01        | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 2.73              | 24.83      |
|                         |                 | QPSK         | 1/Inner right   | 22.13                        | 2.73              | 24.86      |
|                         |                 | 16QAM        | 1/Inner right   | 21.23                        | 2.73              | 23.96      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 2.73              | 22.64      |
|                         |                 | 256QAM       | 1/Inner right   | 17.69                        | 2.73              | 20.42      |
|                         | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 2.73              | 24.83      |
|                         |                 | QPSK         | 1/Inner right   | 22.12                        | 2.73              | 24.85      |
|                         |                 | 16QAM        | 1/Inner right   | 21.25                        | 2.73              | 23.98      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 2.73              | 22.72      |
|                         |                 | 256QAM       | 1/Inner right   | 17.78                        | 2.73              | 20.51      |
|                         | 3 789.99        | $\pi/2$ BPSK | 1/Inner right   | 22.11                        | 2.73              | 24.84      |
|                         |                 | QPSK         | 1/Inner right   | 22.23                        | 2.73              | 24.96      |
|                         |                 | 16QAM        | 1/Inner right   | 21.26                        | 2.73              | 23.99      |
|                         |                 | 64QAM        | 1/Inner right   | 19.85                        | 2.73              | 22.58      |
|                         |                 | 256QAM       | 1/Inner right   | 17.75                        | 2.73              | 20.48      |

### 7.5.13 NR Band n77 (3 450~3 550 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 100                     | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.31                        | 0.43              | 22.74      |
|                         |                 | QPSK         | 1/Inner right   | 22.38                        | 0.43              | 22.81      |
|                         |                 | 16QAM        | 1/Inner right   | 21.41                        | 0.43              | 21.84      |
|                         |                 | 64QAM        | 1/Inner right   | 19.89                        | 0.43              | 20.32      |
|                         |                 | 256QAM       | 1/Inner right   | 17.97                        | 0.43              | 18.40      |
| 80                      | 3 490.02        | $\pi/2$ BPSK | 1/Inner right   | 22.20                        | 0.43              | 22.63      |
|                         |                 | QPSK         | 1/Inner right   | 22.24                        | 0.43              | 22.67      |
|                         |                 | 16QAM        | 1/Inner right   | 21.27                        | 0.43              | 21.70      |
|                         |                 | 64QAM        | 1/Inner right   | 19.76                        | 0.43              | 20.19      |
|                         |                 | 256QAM       | 1/Inner right   | 17.79                        | 0.43              | 18.22      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.27                        | 0.43              | 22.70      |
|                         |                 | QPSK         | 1/Inner right   | 22.30                        | 0.43              | 22.73      |
|                         |                 | 16QAM        | 1/Inner right   | 21.32                        | 0.43              | 21.75      |
|                         |                 | 64QAM        | 1/Inner right   | 19.84                        | 0.43              | 20.27      |
|                         |                 | 256QAM       | 1/Inner right   | 17.83                        | 0.43              | 18.26      |
|                         | 3 510           | $\pi/2$ BPSK | 1/Inner right   | 22.28                        | 0.43              | 22.71      |
|                         |                 | QPSK         | 1/Inner right   | 22.31                        | 0.43              | 22.74      |
|                         |                 | 16QAM        | 1/Inner right   | 21.36                        | 0.43              | 21.79      |
|                         |                 | 64QAM        | 1/Inner right   | 19.86                        | 0.43              | 20.29      |
|                         |                 | 256QAM       | 1/Inner right   | 17.83                        | 0.43              | 18.26      |
| 60                      | 3 480           | $\pi/2$ BPSK | 1/Inner right   | 22.17                        | 0.43              | 22.60      |
|                         |                 | QPSK         | 1/Inner right   | 22.22                        | 0.43              | 22.65      |
|                         |                 | 16QAM        | 1/Inner right   | 21.29                        | 0.43              | 21.72      |
|                         |                 | 64QAM        | 1/Inner right   | 19.76                        | 0.43              | 20.19      |
|                         |                 | 256QAM       | 1/Inner right   | 17.73                        | 0.43              | 18.16      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.21                        | 0.43              | 22.64      |
|                         |                 | QPSK         | 1/Inner right   | 22.23                        | 0.43              | 22.66      |
|                         |                 | 16QAM        | 1/Inner right   | 21.32                        | 0.43              | 21.75      |
|                         |                 | 64QAM        | 1/Inner right   | 19.76                        | 0.43              | 20.19      |
|                         |                 | 256QAM       | 1/Inner right   | 17.77                        | 0.43              | 18.20      |
|                         | 3 519.99        | $\pi/2$ BPSK | 1/Inner right   | 22.29                        | 0.43              | 22.72      |
|                         |                 | QPSK         | 1/Inner right   | 22.32                        | 0.43              | 22.75      |
|                         |                 | 16QAM        | 1/Inner right   | 21.37                        | 0.43              | 21.80      |
|                         |                 | 64QAM        | 1/Inner right   | 19.92                        | 0.43              | 20.35      |
|                         |                 | 256QAM       | 1/Inner right   | 17.86                        | 0.43              | 18.29      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 40                      | 3 470.01        | $\pi/2$ BPSK | 1/Inner right   | 22.16                        | 0.43              | 22.59      |
|                         |                 | QPSK         | 1/Inner right   | 22.20                        | 0.43              | 22.63      |
|                         |                 | 16QAM        | 1/Inner right   | 21.26                        | 0.43              | 21.69      |
|                         |                 | 64QAM        | 1/Inner right   | 19.73                        | 0.43              | 20.16      |
|                         |                 | 256QAM       | 1/Inner right   | 17.75                        | 0.43              | 18.18      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.33                        | 0.43              | 22.76      |
|                         |                 | QPSK         | 1/Inner right   | 22.36                        | 0.43              | 22.79      |
|                         |                 | 16QAM        | 1/Inner right   | 21.38                        | 0.43              | 21.81      |
|                         |                 | 64QAM        | 1/Inner right   | 19.92                        | 0.43              | 20.35      |
|                         |                 | 256QAM       | 1/Inner right   | 17.90                        | 0.43              | 18.33      |
|                         | 3 529.98        | $\pi/2$ BPSK | 1/Inner right   | 22.13                        | 0.43              | 22.56      |
|                         |                 | QPSK         | 1/Inner right   | 22.16                        | 0.43              | 22.59      |
|                         |                 | 16QAM        | 1/Inner right   | 21.17                        | 0.43              | 21.60      |
|                         |                 | 64QAM        | 1/Inner right   | 19.72                        | 0.43              | 20.15      |
|                         |                 | 256QAM       | 1/Inner right   | 17.93                        | 0.43              | 18.36      |
| 20                      | 3 460.01        | $\pi/2$ BPSK | 1/Inner right   | 22.12                        | 0.43              | 22.55      |
|                         |                 | QPSK         | 1/Inner right   | 22.15                        | 0.43              | 22.58      |
|                         |                 | 16QAM        | 1/Inner right   | 21.17                        | 0.43              | 21.60      |
|                         |                 | 64QAM        | 1/Inner right   | 19.66                        | 0.43              | 20.09      |
|                         |                 | 256QAM       | 1/Inner right   | 17.67                        | 0.43              | 18.10      |
|                         | 3 500.01        | $\pi/2$ BPSK | 1/Inner right   | 22.15                        | 0.43              | 22.58      |
|                         |                 | QPSK         | 1/Inner right   | 22.19                        | 0.43              | 22.62      |
|                         |                 | 16QAM        | 1/Inner right   | 21.22                        | 0.43              | 21.65      |
|                         |                 | 64QAM        | 1/Inner right   | 19.77                        | 0.43              | 20.20      |
|                         |                 | 256QAM       | 1/Inner right   | 17.69                        | 0.43              | 18.12      |
|                         | 3 540           | $\pi/2$ BPSK | 1/Inner right   | 22.19                        | 0.43              | 22.62      |
|                         |                 | QPSK         | 1/Inner right   | 22.22                        | 0.43              | 22.65      |
|                         |                 | 16QAM        | 1/Inner right   | 21.23                        | 0.43              | 21.66      |
|                         |                 | 64QAM        | 1/Inner right   | 19.78                        | 0.43              | 20.21      |
|                         |                 | 256QAM       | 1/Inner right   | 17.78                        | 0.43              | 18.21      |

### 7.5.14 NR Band n77 (3 700~3 980 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 100                     | 3 750           | $\pi/2$ BPSK | 1/Inner right   | 22.35                        | 2.73              | 25.08      |
|                         |                 | QPSK         | 1/Inner right   | 22.43                        | 2.73              | 25.16      |
|                         |                 | 16QAM        | 1/Inner right   | 21.48                        | 2.73              | 24.21      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 2.73              | 22.72      |
|                         |                 | 256QAM       | 1/Inner right   | 17.96                        | 2.73              | 20.69      |
|                         | 3 840           | $\pi/2$ BPSK | 1/Inner right   | 22.30                        | 2.73              | 25.03      |
|                         |                 | QPSK         | 1/Inner right   | 22.34                        | 2.73              | 25.07      |
|                         |                 | 16QAM        | 1/Inner right   | 21.28                        | 2.73              | 24.01      |
|                         |                 | 64QAM        | 1/Inner right   | 19.84                        | 2.73              | 22.57      |
|                         |                 | 256QAM       | 1/Inner right   | 17.89                        | 2.73              | 20.62      |
|                         | 3 930           | $\pi/2$ BPSK | 1/Inner right   | 22.33                        | 2.73              | 25.06      |
|                         |                 | QPSK         | 1/Inner right   | 22.36                        | 2.73              | 25.09      |
|                         |                 | 16QAM        | 1/Inner right   | 21.40                        | 2.73              | 24.13      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 2.73              | 22.64      |
|                         |                 | 256QAM       | 1/Inner right   | 17.88                        | 2.73              | 20.61      |
| 80                      | 3 740.01        | $\pi/2$ BPSK | 1/Inner right   | 22.37                        | 2.73              | 25.10      |
|                         |                 | QPSK         | 1/Inner right   | 22.40                        | 2.73              | 25.13      |
|                         |                 | 16QAM        | 1/Inner right   | 21.49                        | 2.73              | 24.22      |
|                         |                 | 64QAM        | 1/Inner right   | 19.95                        | 2.73              | 22.68      |
|                         |                 | 256QAM       | 1/Inner right   | 17.97                        | 2.73              | 20.70      |
|                         | 3 840           | $\pi/2$ BPSK | 1/Inner right   | 22.37                        | 2.73              | 25.10      |
|                         |                 | QPSK         | 1/Inner right   | 22.41                        | 2.73              | 25.14      |
|                         |                 | 16QAM        | 1/Inner right   | 21.46                        | 2.73              | 24.19      |
|                         |                 | 64QAM        | 1/Inner right   | 19.96                        | 2.73              | 22.69      |
|                         |                 | 256QAM       | 1/Inner right   | 17.98                        | 2.73              | 20.71      |
|                         | 3 939.99        | $\pi/2$ BPSK | 1/Inner right   | 22.10                        | 2.73              | 24.83      |
|                         |                 | QPSK         | 1/Inner right   | 22.12                        | 2.73              | 24.85      |
|                         |                 | 16QAM        | 1/Inner right   | 21.16                        | 2.73              | 23.89      |
|                         |                 | 64QAM        | 1/Inner right   | 19.67                        | 2.73              | 22.40      |
|                         |                 | 256QAM       | 1/Inner right   | 17.69                        | 2.73              | 20.42      |
| 60                      | 3 730.02        | $\pi/2$ BPSK | 1/Inner right   | 22.11                        | 2.73              | 24.84      |
|                         |                 | QPSK         | 1/Inner right   | 22.14                        | 2.73              | 24.87      |
|                         |                 | 16QAM        | 1/Inner right   | 21.17                        | 2.73              | 23.90      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 2.73              | 22.72      |
|                         |                 | 256QAM       | 1/Inner right   | 17.69                        | 2.73              | 20.42      |
|                         | 3 840           | $\pi/2$ BPSK | 1/Inner right   | 22.39                        | 2.73              | 25.12      |
|                         |                 | QPSK         | 1/Inner right   | 22.40                        | 2.73              | 25.13      |
|                         |                 | 16QAM        | 1/Inner right   | 21.43                        | 2.73              | 24.16      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 2.73              | 22.64      |
|                         |                 | 256QAM       | 1/Inner right   | 17.93                        | 2.73              | 20.66      |
|                         | 3 949.98        | $\pi/2$ BPSK | 1/Inner right   | 22.36                        | 2.73              | 25.09      |
|                         |                 | QPSK         | 1/Inner right   | 22.42                        | 2.73              | 25.15      |
|                         |                 | 16QAM        | 1/Inner right   | 21.45                        | 2.73              | 24.18      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 2.73              | 22.72      |
|                         |                 | 256QAM       | 1/Inner right   | 17.98                        | 2.73              | 20.71      |

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation   | RB Size/ Offset | Conducted Output Power (dBm) | Antenna Gain(dBi) | EIRP (dBm) |
|-------------------------|-----------------|--------------|-----------------|------------------------------|-------------------|------------|
| 40                      | 3 720           | $\pi/2$ BPSK | 1/Inner right   | 22.32                        | 2.73              | 25.05      |
|                         |                 | QPSK         | 1/Inner right   | 22.36                        | 2.73              | 25.09      |
|                         |                 | 16QAM        | 1/Inner right   | 21.49                        | 2.73              | 24.22      |
|                         |                 | 64QAM        | 1/Inner right   | 19.91                        | 2.73              | 22.64      |
|                         |                 | 256QAM       | 1/Inner right   | 17.91                        | 2.73              | 20.64      |
|                         | 3 840           | $\pi/2$ BPSK | 1/Inner right   | 22.24                        | 2.73              | 24.97      |
|                         |                 | QPSK         | 1/Inner right   | 22.27                        | 2.73              | 25.00      |
|                         |                 | 16QAM        | 1/Inner right   | 21.32                        | 2.73              | 24.05      |
|                         |                 | 64QAM        | 1/Inner right   | 19.79                        | 2.73              | 22.52      |
|                         |                 | 256QAM       | 1/Inner right   | 17.85                        | 2.73              | 20.58      |
|                         | 3 960           | $\pi/2$ BPSK | 1/Inner right   | 22.30                        | 2.73              | 25.03      |
|                         |                 | QPSK         | 1/Inner right   | 22.34                        | 2.73              | 25.07      |
|                         |                 | 16QAM        | 1/Inner right   | 21.37                        | 2.73              | 24.10      |
|                         |                 | 64QAM        | 1/Inner right   | 19.88                        | 2.73              | 22.61      |
|                         |                 | 256QAM       | 1/Inner right   | 17.96                        | 2.73              | 20.69      |
| 20                      | 3 710.01        | $\pi/2$ BPSK | 1/Inner right   | 22.38                        | 2.73              | 25.11      |
|                         |                 | QPSK         | 1/Inner right   | 22.41                        | 2.73              | 25.14      |
|                         |                 | 16QAM        | 1/Inner right   | 21.46                        | 2.73              | 24.19      |
|                         |                 | 64QAM        | 1/Inner right   | 19.99                        | 2.73              | 22.72      |
|                         |                 | 256QAM       | 1/Inner right   | 17.98                        | 2.73              | 20.71      |
|                         | 3 840           | $\pi/2$ BPSK | 1/Inner right   | 22.19                        | 2.73              | 24.92      |
|                         |                 | QPSK         | 1/Inner right   | 22.24                        | 2.73              | 24.97      |
|                         |                 | 16QAM        | 1/Inner right   | 21.26                        | 2.73              | 23.99      |
|                         |                 | 64QAM        | 1/Inner right   | 19.76                        | 2.73              | 22.49      |
|                         |                 | 256QAM       | 1/Inner right   | 17.78                        | 2.73              | 20.51      |
|                         | 3 969.99        | $\pi/2$ BPSK | 1/Inner right   | 22.21                        | 2.73              | 24.94      |
|                         |                 | QPSK         | 1/Inner right   | 22.25                        | 2.73              | 24.98      |
|                         |                 | 16QAM        | 1/Inner right   | 21.31                        | 2.73              | 24.04      |
|                         |                 | 64QAM        | 1/Inner right   | 19.77                        | 2.73              | 22.50      |
|                         |                 | 256QAM       | 1/Inner right   | 17.79                        | 2.73              | 20.52      |

## 7.6. UNDESIRABLE EMISSIONS (Radiated)

### - Test Notes

- 1) The frequency spectrum is examined from 9 kHz to the 10 th harmonic of the fundamental frequency of the transmitter. No other spurious and harmonic emissions were reported greater than listed emissions.
- 2) For Band below 1GHz:  
 $\text{Result(dBm)} = \text{Level at Substitute antenna terminal(dBm)} + \text{Substitute Antenna Gain (dBd)}$   
For Band above 1GHz:  
 $\text{Result(dBm)} = \text{Level at Substitute antenna terminal(dBm)} + \text{Substitute Antenna Gain (dBi)}$
- 3) Limit  
Band n2/5/12/13/14/66/71/77/78 = -13dBm  
Band n7/38/41 = -25dBm  
Limit for 1 559 MHz ~ 1 610 MHz in Band n13/14 = -40dBm/MHz (equivalent isotropically radiated power for wideband signals)

### 7.6.1. NR Band n71

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Antenna Terminal(dBm) | Substitute Antenna Gain(dBd) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|--------------------------------|------------------------------|--------------|-------------|-------------|
| 20                      | 673             | QPSK       | 1/1            | 1 329.00   | V             | -68.20                         | 2.09                         | -66.11       | -13.00      | 53.11       |
|                         |                 |            |                | 1 991.25   | V             | -64.89                         | 2.84                         | -62.05       | -13.00      | 49.05       |
|                         |                 |            |                | 2 657.48   | V             | -66.72                         | 4.04                         | -62.68       | -13.00      | 49.68       |
|                         |                 |            |                | 3 321.23   | V             | -67.06                         | 5.71                         | -61.35       | -13.00      | 48.35       |
|                         | 680.5           | QPSK       | 1/1            | 1 343.21   | V             | -68.24                         | 2.29                         | -65.95       | -13.00      | 52.95       |
|                         |                 |            |                | 2 013.68   | V             | -66.14                         | 2.93                         | -63.21       | -13.00      | 50.21       |
|                         |                 |            |                | 2 685.38   | V             | -66.34                         | 4.17                         | -62.17       | -13.00      | 49.17       |
|                         |                 |            |                | 3 356.77   | V             | -67.46                         | 5.84                         | -61.62       | -13.00      | 48.62       |
|                         | 688             | QPSK       | 1/1            | 1 356.94   | V             | -67.99                         | 2.48                         | -65.51       | -13.00      | 52.51       |
|                         |                 |            |                | 2 035.86   | V             | -66.36                         | 3.04                         | -63.32       | -13.00      | 50.32       |
|                         |                 |            |                | 2 715.27   | V             | -66.17                         | 4.27                         | -61.90       | -13.00      | 48.90       |
|                         |                 |            |                | 3 396.43   | V             | -67.43                         | 5.93                         | -61.50       | -13.00      | 48.50       |

### 7.6.2. NR Band n12

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Antenna Terminal(dBm) | Substitute Antenna Gain(dBd) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|--------------------------------|------------------------------|--------------|-------------|-------------|
| 15                      | 706.5           | QPSK       | 1/1            | 1 399.28   | H             | -67.73                         | 3.05                         | -64.68       | -13.00      | 51.68       |
|                         |                 |            |                | 2 100.42   | H             | -67.02                         | 3.25                         | -63.77       | -13.00      | 50.77       |
|                         |                 |            |                | 2 798.94   | H             | -67.00                         | 4.53                         | -62.47       | -13.00      | 49.47       |
|                         |                 |            |                | 3 499.78   | H             | -67.25                         | 6.33                         | -60.92       | -13.00      | 47.92       |
|                         | 707.5           | QPSK       | 1/1            | 1 401.23   | H             | -66.37                         | 3.07                         | -63.30       | -13.00      | 50.30       |
|                         |                 |            |                | 2 101.79   | H             | -66.98                         | 3.25                         | -63.73       | -13.00      | 50.73       |
|                         |                 |            |                | 2 803.36   | H             | -67.23                         | 4.54                         | -62.69       | -13.00      | 49.69       |
|                         |                 |            |                | 3 504.15   | H             | -67.14                         | 6.33                         | -60.81       | -13.00      | 47.81       |
|                         | 708.5           | QPSK       | 1/1            | 1 403.41   | H             | -65.79                         | 3.09                         | -62.70       | -13.00      | 49.70       |
|                         |                 |            |                | 2 105.38   | H             | -67.05                         | 3.24                         | -63.81       | -13.00      | 50.81       |
|                         |                 |            |                | 2 807.44   | H             | -67.26                         | 4.56                         | -62.70       | -13.00      | 49.70       |
|                         |                 |            |                | 3 508.94   | H             | -67.16                         | 6.32                         | -60.84       | -13.00      | 47.84       |

### 7.6.3. NR Band n13

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Antenna Terminal(dBm) | Substitute Antenna Gain(dBd) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|--------------------------------|------------------------------|------------------------------|--------------|-------------|-------------|
| 10                      | 782             | QPSK       | 1/1            | 1 555.23   | V             | -62.04                         | 3.74                         | -                            | -58.30       | -13.00      | 45.30       |
|                         |                 |            |                | 2 332.89   | H             | -65.27                         | 3.76                         | -                            | -61.51       | -13.00      | 48.51       |
|                         |                 |            |                | 3 109.15   | V             | -67.06                         | 5.21                         | -                            | -61.85       | -13.00      | 48.85       |
|                         |                 |            |                | 3 886.78   | V             | -67.23                         | 6.82                         | -                            | -60.41       | -13.00      | 47.41       |
| 5                       | 779.5           | QPSK       | 1/1            | 1 555.01   | V             | -64.52                         | 3.74                         | -                            | -60.78       | -13.00      | 47.78       |
|                         |                 |            |                | 2 332.49   | H             | -66.39                         | 3.76                         | -                            | -62.63       | -13.00      | 49.63       |
|                         |                 |            |                | 3 107.74   | V             | -67.00                         | 5.20                         | -                            | -61.80       | -13.00      | 48.80       |
|                         |                 |            |                | 3 886.05   | V             | -67.39                         | 6.82                         | -                            | -60.57       | -13.00      | 47.57       |
|                         | 782             | QPSK       | 1/1            | 1 559.97   | V             | -63.40                         | -                            | 5.92                         | -57.48       | -40.00      | 17.48       |
|                         |                 |            |                | 2 340.11   | H             | -66.55                         | 3.78                         | -                            | -62.77       | -13.00      | 49.77       |
|                         |                 |            |                | 3 118.98   | V             | -66.80                         | 5.24                         | -                            | -61.56       | -13.00      | 48.56       |
|                         |                 |            |                | 3 898.57   | V             | -67.31                         | 6.92                         | -                            | -60.39       | -13.00      | 47.39       |
|                         | 784.5           | QPSK       | 1/1            | 1 565.03   | V             | -64.31                         | -                            | 5.96                         | -58.35       | -40.00      | 18.35       |
|                         |                 |            |                | 2 347.55   | H             | -66.56                         | 3.80                         | -                            | -62.76       | -13.00      | 49.76       |
|                         |                 |            |                | 3 129.26   | V             | -67.41                         | 5.27                         | -                            | -62.14       | -13.00      | 49.14       |
|                         |                 |            |                | 3 910.09   | V             | -67.49                         | 6.93                         | -                            | -60.56       | -13.00      | 47.56       |

### 7.6.4. NR Band n14

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBd) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|------------------------------|--------------|-------------|-------------|
| 10                      | 793             | QPSK       | 1/1            | 1 577.20   | H             | -67.35                                    | —                            | 6.05                         | -61.30       | -40.00      | 21.30       |
|                         |                 |            |                | 2 365.87   | V             | -65.30                                    | 3.81                         | —                            | -61.49       | -13.00      | 48.49       |
|                         |                 |            |                | 3 154.71   | V             | -67.48                                    | 5.34                         | —                            | -62.14       | -13.00      | 49.14       |
|                         |                 |            |                | 3 942.08   | V             | -68.71                                    | 6.91                         | —                            | -61.80       | -13.00      | 48.80       |
| 5                       | 790.5           | QPSK       | 1/1            | 1 576.93   | H             | -67.27                                    | —                            | 6.04                         | -61.23       | -40.00      | 21.23       |
|                         |                 |            |                | 2 359.03   | V             | -66.44                                    | 3.81                         | —                            | -62.63       | -13.00      | 49.63       |
|                         |                 |            |                | 3 143.75   | V             | -67.53                                    | 5.32                         | —                            | -62.21       | -13.00      | 49.21       |
|                         |                 |            |                | 3 929.44   | V             | -68.02                                    | 6.92                         | —                            | -61.10       | -13.00      | 48.10       |
|                         | 793             | QPSK       | 1/1            | 1 582.01   | H             | -66.62                                    | —                            | 6.08                         | -60.54       | -40.00      | 20.54       |
|                         |                 |            |                | 2 364.70   | V             | -66.37                                    | 3.81                         | —                            | -62.56       | -13.00      | 49.56       |
|                         |                 |            |                | 3 153.68   | V             | -67.22                                    | 5.34                         | —                            | -61.88       | -13.00      | 48.88       |
|                         |                 |            |                | 3 941.86   | V             | -68.70                                    | 6.91                         | —                            | -61.79       | -13.00      | 48.79       |
|                         | 795.5           | QPSK       | 1/1            | 1 587.01   | H             | -67.24                                    | —                            | 6.12                         | -61.12       | -40.00      | 21.12       |
|                         |                 |            |                | 2 374.19   | V             | -66.32                                    | 3.81                         | —                            | -62.51       | -13.00      | 49.51       |
|                         |                 |            |                | 3 164.28   | V             | -67.05                                    | 5.34                         | —                            | -61.71       | -13.00      | 48.71       |
|                         |                 |            |                | 3 954.75   | V             | -68.53                                    | 6.91                         | —                            | -61.62       | -13.00      | 48.62       |

### 7.6.5. NR Band n5

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBd) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 20                      | 834             | QPSK       | 1/1            | 1 649.09   | V             | -66.78                                    | 4.09                         | -62.69       | -13.00      | 49.69       |
|                         |                 |            |                | 2 474.25   | V             | -65.43                                    | 3.73                         | -61.70       | -13.00      | 48.70       |
|                         |                 |            |                | 3 300.16   | V             | -66.69                                    | 5.62                         | -61.07       | -13.00      | 48.07       |
|                         |                 |            |                | 4 124.50   | V             | -68.69                                    | 7.12                         | -61.57       | -13.00      | 48.57       |
|                         | 836.5           | QPSK       | 1/1            | 1 654.54   | V             | -67.36                                    | 4.07                         | -63.29       | -13.00      | 50.29       |
|                         |                 |            |                | 2 482.02   | V             | -65.60                                    | 3.68                         | -61.92       | -13.00      | 48.92       |
|                         |                 |            |                | 3 309.49   | V             | -66.73                                    | 5.66                         | -61.07       | -13.00      | 48.07       |
|                         |                 |            |                | 4 137.22   | V             | -68.92                                    | 7.13                         | -61.79       | -13.00      | 48.79       |
|                         | 839             | QPSK       | 1/1            | 1 659.40   | V             | -68.12                                    | 4.06                         | -64.06       | -13.00      | 51.06       |
|                         |                 |            |                | 2 489.08   | V             | -64.96                                    | 3.63                         | -61.33       | -13.00      | 48.33       |
|                         |                 |            |                | 3 321.01   | V             | -66.81                                    | 5.71                         | -61.10       | -13.00      | 48.10       |
|                         |                 |            |                | 4 150.40   | V             | -68.90                                    | 7.15                         | -61.75       | -13.00      | 48.75       |

### 7.6.6. NR Band n66

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 20                      | 1 720           | QPSK       | 1/52           | 3 439.81   | H             | -66.03                                    | 8.23                         | -57.80       | -13.00      | 44.80       |
|                         |                 |            |                | 5 159.76   | V             | -62.25                                    | 10.15                        | -52.10       | -13.00      | 39.10       |
|                         |                 |            |                | 6 879.92   | V             | -67.44                                    | 11.41                        | -56.03       | -13.00      | 43.03       |
|                         |                 |            |                | 10 319.32  | H             | -60.35                                    | 12.87                        | -47.48       | -13.00      | 34.48       |
|                         | 1 745           | QPSK       | 1/52           | 3 489.77   | H             | -67.05                                    | 8.44                         | -58.61       | -13.00      | 45.61       |
|                         |                 |            |                | 5 234.66   | V             | -61.01                                    | 10.22                        | -50.79       | -13.00      | 37.79       |
|                         |                 |            |                | 6 979.85   | V             | -67.50                                    | 11.56                        | -55.94       | -13.00      | 42.94       |
|                         |                 |            |                | 10 469.20  | H             | -55.80                                    | 13.09                        | -42.71       | -13.00      | 29.71       |
|                         | 1 770           | QPSK       | 1/52           | 3 539.67   | H             | -66.77                                    | 8.46                         | -58.31       | -13.00      | 45.31       |
|                         |                 |            |                | 5 309.73   | V             | -58.74                                    | 10.22                        | -48.52       | -13.00      | 35.52       |
|                         |                 |            |                | 7 079.55   | V             | -68.09                                    | 11.69                        | -56.40       | -13.00      | 43.40       |
|                         |                 |            |                | 10 619.33  | H             | -52.27                                    | 13.02                        | -39.25       | -13.00      | 26.25       |

### 7.6.7. NR Band n2

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 20                      | 1 860           | QPSK       | 1/52           | 3 719.71   | V             | -67.88                                    | 8.32                         | -59.56       | -13.00      | 46.56       |
|                         |                 |            |                | 5 579.78   | H             | -56.99                                    | 10.35                        | -46.64       | -13.00      | 33.64       |
|                         |                 |            |                | 7 440.18   | V             | -66.91                                    | 12.08                        | -54.83       | -13.00      | 41.83       |
|                         |                 |            |                | 9 299.52   | V             | -61.27                                    | 13.01                        | -48.26       | -13.00      | 35.26       |
|                         | 1 880           | QPSK       | 1/52           | 3 758.80   | V             | -67.88                                    | 8.32                         | -59.56       | -13.00      | 46.56       |
|                         |                 |            |                | 5 639.64   | H             | -63.88                                    | 10.44                        | -53.44       | -13.00      | 40.44       |
|                         |                 |            |                | 7 519.74   | V             | -67.53                                    | 12.18                        | -55.35       | -13.00      | 42.35       |
|                         |                 |            |                | 9 399.56   | V             | -60.21                                    | 13.01                        | -47.20       | -13.00      | 34.20       |
|                         | 1 900           | QPSK       | 1/52           | 3 799.91   | V             | -67.25                                    | 8.48                         | -58.77       | -13.00      | 45.77       |
|                         |                 |            |                | 5 699.77   | H             | -63.92                                    | 10.53                        | -53.39       | -13.00      | 40.39       |
|                         |                 |            |                | 7 600.78   | V             | -67.41                                    | 12.17                        | -55.24       | -13.00      | 42.24       |
|                         |                 |            |                | 9 499.46   | V             | -58.12                                    | 12.93                        | -45.19       | -13.00      | 32.19       |

### 7.6.8. NR Band n7

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 20                      | 2 510           | QPSK       | 1/104          | 5 037.35   | V             | -67.93                                    | 10.00                        | -57.93       | -25.00      | 32.93       |
|                         |                 |            |                | 7 557.67   | V             | -64.16                                    | 12.20                        | -51.96       | -25.00      | 26.96       |
|                         |                 |            |                | 10 076.47  | V             | -60.87                                    | 12.89                        | -47.98       | -25.00      | 22.98       |
|                         |                 |            |                | 12 593.80  | V             | -62.72                                    | 13.29                        | -49.43       | -25.00      | 24.43       |
|                         | 2 535           | QPSK       | 1/104          | 5 088.47   | V             | -68.19                                    | 10.06                        | -58.13       | -25.00      | 33.13       |
|                         |                 |            |                | 7 632.74   | V             | -65.27                                    | 12.20                        | -53.07       | -25.00      | 28.07       |
|                         |                 |            |                | 10 176.28  | V             | -61.35                                    | 12.87                        | -48.48       | -25.00      | 23.48       |
|                         |                 |            |                | 12 719.88  | V             | -62.25                                    | 13.36                        | -48.89       | -25.00      | 23.89       |
|                         | 2 560           | QPSK       | 1/104          | 5 137.87   | V             | -68.53                                    | 10.12                        | -58.41       | -25.00      | 33.41       |
|                         |                 |            |                | 7 707.75   | V             | -64.39                                    | 12.22                        | -52.17       | -25.00      | 27.17       |
|                         |                 |            |                | 10 276.49  | V             | -62.53                                    | 12.87                        | -49.66       | -25.00      | 24.66       |
|                         |                 |            |                | 12 844.69  | V             | -61.37                                    | 13.49                        | -47.88       | -25.00      | 22.88       |

### 7.6.9. NR Band n41

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 100                     | 2 546.01        | QPSK       | 1/271          | 5 187.58   | V             | -67.66                                    | 10.19                        | -57.47       | -25.00      | 32.47       |
|                         |                 |            |                | 7 783.72   | V             | -62.16                                    | 12.31                        | -49.85       | -25.00      | 24.85       |
|                         |                 |            |                | 10 378.34  | V             | -50.33                                    | 12.99                        | -37.34       | -25.00      | 12.34       |
|                         |                 |            |                | 12 969.58  | V             | -60.65                                    | 13.56                        | -47.09       | -25.00      | 22.09       |
|                         | 2 592.99        | QPSK       | 1/271          | 5 281.04   | V             | -67.68                                    | 10.21                        | -57.47       | -25.00      | 32.47       |
|                         |                 |            |                | 7 924.73   | V             | -65.71                                    | 12.43                        | -53.28       | -25.00      | 28.28       |
|                         |                 |            |                | 10 566.22  | V             | -40.27                                    | 13.03                        | -27.24       | -25.00      | 2.24        |
|                         |                 |            |                | 13 205.18  | V             | -60.57                                    | 13.98                        | -46.59       | -25.00      | 21.59       |
|                         | 2 640           | QPSK       | 1/271          | 5 376.58   | V             | -66.95                                    | 10.30                        | -56.65       | -25.00      | 31.65       |
|                         |                 |            |                | 8 065.87   | V             | -65.36                                    | 12.58                        | -52.78       | -25.00      | 27.78       |
|                         |                 |            |                | 10 754.36  | V             | -41.77                                    | 13.01                        | -28.76       | -25.00      | 3.76        |
|                         |                 |            |                | 13 441.55  | V             | -60.33                                    | 14.11                        | -46.22       | -25.00      | 21.22       |

### 7.6.10. NR Band n38

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 20                      | 2 580           | QPSK       | 1/49           | 5 177.91   | V             | -67.42                                    | 10.17                        | -57.25       | -25.00      | 32.25       |
|                         |                 |            |                | 7 765.87   | V             | -66.09                                    | 12.28                        | -53.81       | -25.00      | 28.81       |
|                         |                 |            |                | 10 354.67  | V             | -51.57                                    | 12.91                        | -38.66       | -25.00      | 13.66       |
|                         |                 |            |                | 12 944.99  | V             | -61.00                                    | 13.51                        | -47.49       | -25.00      | 22.49       |
|                         | 2 595           | QPSK       | 1/49           | 5 207.72   | V             | -67.50                                    | 10.21                        | -57.29       | -25.00      | 32.29       |
|                         |                 |            |                | 7 811.03   | V             | -65.82                                    | 12.33                        | -53.49       | -25.00      | 28.49       |
|                         |                 |            |                | 10 414.56  | V             | -49.73                                    | 13.07                        | -36.66       | -25.00      | 11.66       |
|                         |                 |            |                | 13 019.61  | V             | -61.05                                    | 13.65                        | -47.40       | -25.00      | 22.40       |
|                         | 2 610           | QPSK       | 1/49           | 5 237.89   | V             | -67.52                                    | 10.22                        | -57.30       | -25.00      | 32.30       |
|                         |                 |            |                | 7 855.84   | V             | -65.85                                    | 12.35                        | -53.50       | -25.00      | 28.50       |
|                         |                 |            |                | 10 474.45  | V             | -47.51                                    | 13.09                        | -34.42       | -25.00      | 9.42        |
|                         |                 |            |                | 13 093.90  | V             | -61.06                                    | 13.82                        | -47.24       | -25.00      | 22.24       |

### 7.6.11. NR Band n78 (3 450 ~ 3 550 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/ offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|-----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 100                     | 3 500.01        | QPSK       | 1/271           | 7 097.14   | V             | -54.96                                    | 11.71                        | -43.25       | -13.00      | 30.25       |
|                         |                 |            |                 | 10 645.73  | V             | -58.87                                    | 13.03                        | -45.84       | -13.00      | 32.84       |
|                         |                 |            |                 | 14 193.27  | V             | -59.69                                    | 14.21                        | -45.48       | -13.00      | 32.48       |
|                         |                 |            |                 | 17 741.40  | V             | -64.98                                    | 14.02                        | -50.96       | -13.00      | 37.96       |
| 90                      | 3 450           | QPSK       | 1/243           | 7 077.04   | V             | -55.50                                    | 11.69                        | -43.81       | -13.00      | 30.81       |
|                         |                 |            |                 | 10 615.68  | V             | -57.48                                    | 13.02                        | -44.46       | -13.00      | 31.46       |
|                         |                 |            |                 | 14 151.46  | V             | -59.76                                    | 14.34                        | -45.42       | -13.00      | 32.42       |
|                         |                 |            |                 | 17 689.52  | V             | -65.30                                    | 14.08                        | -51.22       | -13.00      | 38.22       |
|                         | 3 500.01        | QPSK       | 1/243           | 7 087.04   | V             | -55.61                                    | 11.70                        | -43.91       | -13.00      | 30.91       |
|                         |                 |            |                 | 10 630.62  | V             | -58.31                                    | 13.03                        | -45.28       | -13.00      | 32.28       |
|                         |                 |            |                 | 14 170.48  | V             | -59.76                                    | 14.28                        | -45.48       | -13.00      | 32.48       |
|                         |                 |            |                 | 17 714.69  | V             | -65.17                                    | 14.04                        | -51.13       | -13.00      | 38.13       |
|                         | 3 504.99        | QPSK       | 1/243           | 7 096.99   | V             | -55.15                                    | 11.71                        | -43.44       | -13.00      | 30.44       |
|                         |                 |            |                 | 10 645.63  | V             | -58.64                                    | 13.03                        | -45.61       | -13.00      | 32.61       |
|                         |                 |            |                 | 14 191.37  | V             | -59.63                                    | 14.22                        | -45.41       | -13.00      | 32.41       |
|                         |                 |            |                 | 17 739.64  | V             | -64.95                                    | 14.02                        | -50.93       | -13.00      | 37.93       |

### 7.6.12. NR Band n78 (3 700 ~ 3 800 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/ offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|-----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 100                     | 3 750           | QPSK       | 1/271           | 7 597.15   | V             | -56.89                                    | 12.17                        | -44.72       | -13.00      | 31.72       |
|                         |                 |            |                 | 11 395.76  | V             | -60.81                                    | 13.14                        | -47.67       | -13.00      | 34.67       |
|                         |                 |            |                 | 15 192.57  | V             | -65.70                                    | 14.05                        | -51.65       | -13.00      | 38.65       |
| 90                      | 3 745.02        | QPSK       | 1 /243          | 7 577.07   | V             | -56.46                                    | 12.18                        | -44.28       | -13.00      | 31.28       |
|                         |                 |            |                 | 11 365.67  | V             | -61.00                                    | 13.15                        | -47.85       | -13.00      | 34.85       |
|                         |                 |            |                 | 15 151.23  | V             | -65.89                                    | 14.00                        | -51.89       | -13.00      | 38.89       |
|                         | 3 750           | QPSK       | 1 /243          | 7 586.98   | V             | -60.00                                    | 12.18                        | -47.82       | -13.00      | 34.82       |
|                         |                 |            |                 | 11 380.47  | V             | -59.90                                    | 13.14                        | -46.76       | -13.00      | 33.76       |
|                         |                 |            |                 | 15 171.23  | V             | -65.60                                    | 14.03                        | -51.57       | -13.00      | 38.57       |
|                         | 3 754.98        | QPSK       | 1 /243          | 7 597.04   | V             | -60.10                                    | 12.17                        | -47.93       | -13.00      | 34.93       |
|                         |                 |            |                 | 11 395.69  | V             | -60.40                                    | 13.14                        | -47.26       | -13.00      | 34.26       |
|                         |                 |            |                 | 15 190.82  | V             | -65.67                                    | 14.05                        | -51.62       | -13.00      | 38.62       |

### 7.6.13. NR Band n77 (3 450 ~ 3 550 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 100                     | 3 500.01        | QPSK       | 1/271          | 7 097.17   | V             | -54.02                                    | 11.71                        | -42.31       | -13.00      | 29.31       |
|                         |                 |            |                | 10 645.78  | V             | -55.51                                    | 13.03                        | -42.48       | -13.00      | 29.48       |
|                         |                 |            |                | 14 192.34  | V             | -59.83                                    | 14.21                        | -45.62       | -13.00      | 32.62       |
|                         |                 |            |                | 17 741.02  | V             | -65.22                                    | 14.02                        | -51.20       | -13.00      | 38.20       |
| 80                      | 3 490.02        | QPSK       | 1/215          | 7 057.13   | V             | -54.10                                    | 11.67                        | -42.43       | -13.00      | 29.43       |
|                         |                 |            |                | 10 585.46  | V             | -55.38                                    | 13.02                        | -42.36       | -13.00      | 29.36       |
|                         |                 |            |                | 14 112.80  | V             | -59.84                                    | 14.26                        | -45.58       | -13.00      | 32.58       |
|                         |                 |            |                | 17 642.72  | V             | -65.13                                    | 14.21                        | -50.92       | -13.00      | 37.92       |
|                         | 3 500.01        | QPSK       | 1/215          | 7 076.98   | V             | -52.63                                    | 11.69                        | -40.94       | -13.00      | 27.94       |
|                         |                 |            |                | 10 615.46  | V             | -58.06                                    | 13.02                        | -45.04       | -13.00      | 32.04       |
|                         |                 |            |                | 14 154.79  | V             | -59.88                                    | 14.33                        | -45.55       | -13.00      | 32.55       |
|                         |                 |            |                | 17 691.57  | V             | -65.22                                    | 14.08                        | -51.14       | -13.00      | 38.14       |
|                         | 3 510           | QPSK       | 1/215          | 7 096.94   | V             | -53.99                                    | 11.71                        | -42.28       | -13.00      | 29.28       |
|                         |                 |            |                | 10 645.40  | V             | -59.40                                    | 13.03                        | -46.37       | -13.00      | 33.37       |
|                         |                 |            |                | 14 194.59  | V             | -59.65                                    | 14.21                        | -45.44       | -13.00      | 32.44       |
|                         |                 |            |                | 17 741.35  | V             | -64.85                                    | 14.02                        | -50.83       | -13.00      | 37.83       |

### 7.6.14. NR Band n77 (3 700 ~ 3 980 MHz)

| Channel Bandwidth (MHz) | Frequency (MHz) | Modulation | RB size/offset | Freq.(MHz) | Ant Pol (H/V) | Level at Substitute Antenna Terminal(dBm) | Substitute Antenna Gain(dBi) | Result (dBm) | Limit (dBm) | Margin (dB) |
|-------------------------|-----------------|------------|----------------|------------|---------------|-------------------------------------------|------------------------------|--------------|-------------|-------------|
| 100                     | 3 750           | QPSK       | 1/271          | 7 597.05   | V             | -57.42                                    | 12.17                        | -45.25       | -13.00      | 32.25       |
|                         |                 |            |                | 11 395.79  | V             | -58.04                                    | 13.14                        | -44.90       | -13.00      | 31.90       |
|                         |                 |            |                | 15 192.35  | V             | -65.69                                    | 14.05                        | -51.64       | -13.00      | 38.64       |
|                         | 3 840           | QPSK       | 1/271          | 7 777.21   | V             | -55.05                                    | 12.30                        | -42.75       | -13.00      | 29.75       |
|                         |                 |            |                | 11 665.69  | V             | -59.83                                    | 13.23                        | -46.60       | -13.00      | 33.60       |
|                         |                 |            |                | 15 551.63  | V             | -64.34                                    | 13.82                        | -50.52       | -13.00      | 37.52       |
|                         | 3 930           | QPSK       | 1/271          | 7 957.03   | V             | -54.72                                    | 12.47                        | -42.25       | -13.00      | 29.25       |
|                         |                 |            |                | 11 935.84  | V             | -59.07                                    | 13.19                        | -45.88       | -13.00      | 32.88       |
|                         |                 |            |                | 15 911.26  | V             | -64.48                                    | 13.29                        | -51.19       | -13.00      | 38.19       |

## 7.7. FREQUENCY STABILITY

### - Test Notes

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

### 7.7.1. NR Band n71

OPERATING FREQUENCY : 680.5 MHz

REFERENCE VOLTAGE : 3.85 V DC

LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE<br>(%) | POWER<br>(V DC) | TEMP<br>(°C) | FREQ<br>(Hz) | Deviation    |        |
|----------------|-----------------|--------------|--------------|--------------|--------|
|                |                 |              |              | (%)          | (ppm)  |
| 100 %          | 3.85            | +20(Ref)     | 680,499,997  | -0.000000441 | -0.004 |
| 100 %          |                 | -30          | 680,499,998  | -0.000000294 | -0.003 |
| 100 %          |                 | -20          | 680,499,998  | -0.000000294 | -0.003 |
| 100 %          |                 | -10          | 680,500,001  | 0.000000147  | 0.001  |
| 100 %          |                 | 0            | 680,499,998  | -0.000000294 | -0.003 |
| 100 %          |                 | +10          | 680,499,999  | -0.000000147 | -0.001 |
| 100 %          |                 | +20          | 680,499,997  | -0.000000441 | -0.004 |
| 100 %          |                 | +30          | 680,499,999  | -0.000000147 | -0.001 |
| 100 %          |                 | +40          | 680,499,999  | -0.000000147 | -0.001 |
| 100 %          |                 | +50          | 680,499,998  | -0.000000294 | -0.003 |
| 115 %          | 4.43            | +20          | 680,499,999  | -0.000000147 | -0.001 |
| BATT.ENDPOINT  | 3.15            | +20          | 680,499,997  | -0.000000441 | -0.004 |

### 7.7.2. NR Band n12

OPERATING FREQUENCY : 707.5 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)   | Deviation    |        |
|---------------|--------------|-----------|-------------|--------------|--------|
|               |              |           |             | (%)          | (ppm)  |
| 100 %         | 3.85         | +20(Ref)  | 707,500,002 | 0.000000283  | 0.003  |
| 100 %         |              | -30       | 707,499,998 | -0.000000283 | -0.003 |
| 100 %         |              | -20       | 707,499,996 | -0.000000565 | -0.006 |
| 100 %         |              | -10       | 707,500,000 | 0.000000000  | 0.000  |
| 100 %         |              | 0         | 707,500,004 | 0.000000565  | 0.006  |
| 100 %         |              | +10       | 707,500,002 | 0.000000283  | 0.003  |
| 100 %         |              | +20       | 707,500,002 | 0.000000283  | 0.003  |
| 100 %         |              | +30       | 707,499,996 | -0.000000565 | -0.006 |
| 100 %         |              | +40       | 707,499,997 | -0.000000424 | -0.004 |
| 100 %         |              | +50       | 707,499,998 | -0.000000283 | -0.003 |
| 115 %         | 4.43         | +20       | 707,500,000 | 0.000000000  | 0.000  |
| BATT.ENDPOINT | 3.15         | +20       | 707,499,999 | -0.000000141 | -0.001 |

### 7.7.3. NR Band n13

OPERATING FREQUENCY : 782 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)   | Deviation    |        |
|---------------|--------------|-----------|-------------|--------------|--------|
|               |              |           |             | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 782,000,001 | 0.000000128  | 0.001  |
| 100%          |              | -30       | 781,999,999 | -0.000000128 | -0.001 |
| 100%          |              | -20       | 782,000,001 | 0.000000128  | 0.001  |
| 100%          |              | -10       | 781,999,999 | -0.000000128 | -0.001 |
| 100%          |              | 0         | 781,999,997 | -0.000000384 | -0.004 |
| 100%          |              | +10       | 781,999,998 | -0.000000256 | -0.003 |
| 100%          |              | +20       | 782,000,001 | 0.000000128  | 0.001  |
| 100%          |              | +30       | 782,000,002 | 0.000000256  | 0.003  |
| 100%          |              | +40       | 781,999,998 | -0.000000256 | -0.003 |
| 100%          |              | +50       | 781,999,999 | -0.000000128 | -0.001 |
| 115%          | 4.43         | +20       | 782,000,001 | 0.000000128  | 0.001  |
| BATT.ENDPOINT | 3.15         | +20       | 782,000,002 | 0.000000256  | 0.003  |

#### 7.7.4. NR Band n14

OPERATING FREQUENCY : 793 MHz  
REFERENCE VOLTAGE : 3.85 V DC  
LIMIT(FCC) :  $\pm 0.000\ 125\ %$  or  $1.25\ \text{ppm}$

| VOLTAGE<br>(%) | POWER<br>(V DC) | TEMP<br>(°C) | FREQ<br>(Hz) | Deviation    |        |
|----------------|-----------------|--------------|--------------|--------------|--------|
|                |                 |              |              | (%)          | (ppm)  |
| 100%           | 3.85            | +20(Ref)     | 792,999,999  | -0.000000126 | -0.001 |
| 100%           |                 | -30          | 793,000,005  | 0.000000631  | 0.006  |
| 100%           |                 | -20          | 792,999,996  | -0.000000504 | -0.005 |
| 100%           |                 | -10          | 793,000,004  | 0.000000504  | 0.005  |
| 100%           |                 | 0            | 792,999,999  | -0.000000126 | -0.001 |
| 100%           |                 | +10          | 793,000,004  | 0.000000504  | 0.005  |
| 100%           |                 | +20          | 792,999,999  | -0.000000126 | -0.001 |
| 100%           |                 | +30          | 793,000,003  | 0.000000378  | 0.004  |
| 100%           |                 | +40          | 793,000,004  | 0.000000504  | 0.005  |
| 100%           |                 | +50          | 792,999,999  | -0.000000126 | -0.001 |
| 115%           | 4.43            | +20          | 793,000,003  | 0.000000378  | 0.004  |
| BATT.ENDPOINT  | 3.15            | +20          | 792,999,997  | -0.000000378 | -0.004 |

#### 7.7.5. NR Band n5

OPERATING FREQUENCY : 836.5 MHz  
REFERENCE VOLTAGE : 3.85 V DC  
LIMIT(FCC) :  $\pm 0.000\ 25\ %$  or  $2.5\ \text{ppm}$

| VOLTAGE<br>(%) | POWER<br>(V DC) | TEMP<br>(°C) | FREQ<br>(Hz) | Deviation    |        |
|----------------|-----------------|--------------|--------------|--------------|--------|
|                |                 |              |              | (%)          | (ppm)  |
| 100%           | 3.85            | +20(Ref)     | 836,499,997  | -0.000000359 | -0.004 |
| 100%           |                 | -30          | 836,500,000  | 0.000000000  | 0.000  |
| 100%           |                 | -20          | 836,500,001  | 0.000000120  | 0.001  |
| 100%           |                 | -10          | 836,500,004  | 0.000000478  | 0.005  |
| 100%           |                 | 0            | 836,500,001  | 0.000000120  | 0.001  |
| 100%           |                 | +10          | 836,500,003  | 0.000000359  | 0.004  |
| 100%           |                 | +20          | 836,499,997  | -0.000000359 | -0.004 |
| 100%           |                 | +30          | 836,499,999  | -0.000000120 | -0.001 |
| 100%           |                 | +40          | 836,500,000  | 0.000000000  | 0.000  |
| 100%           |                 | +50          | 836,500,004  | 0.000000478  | 0.005  |
| 115%           | 4.43            | +20          | 836,500,001  | 0.000000120  | 0.001  |
| BATT.ENDPOINT  | 3.15            | +20          | 836,500,001  | 0.000000120  | 0.001  |

## 7.7.6. NR Band n66

OPERATING FREQUENCY : 1 745 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 1,744,999,998 | -0.000000115 | -0.001 |
| 100%          |              | -30       | 1,744,999,998 | -0.000000115 | -0.001 |
| 100%          |              | -20       | 1,744,999,999 | -0.000000057 | -0.001 |
| 100%          |              | -10       | 1,745,000,000 | 0.000000000  | 0.000  |
| 100%          |              | 0         | 1,744,999,999 | -0.000000057 | -0.001 |
| 100%          |              | +10       | 1,744,999,999 | -0.000000057 | -0.001 |
| 100%          |              | +20       | 1,744,999,998 | -0.000000115 | -0.001 |
| 100%          |              | +30       | 1,744,999,999 | -0.000000057 | -0.001 |
| 100%          |              | +40       | 1,745,000,003 | 0.000000172  | 0.002  |
| 100%          |              | +50       | 1,745,000,001 | 0.000000057  | 0.001  |
| 115%          | 4.43         | +20       | 1,745,000,001 | 0.000000057  | 0.001  |
| BATT.ENDPOINT | 3.15         | +20       | 1,745,000,000 | 0.000000000  | 0.000  |

## 7.7.7. NR Band n2

OPERATING FREQUENCY : 1 880 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 1,880,000,001 | 0.000000053  | 0.001  |
| 100%          |              | -30       | 1,880,000,000 | 0.000000000  | 0.000  |
| 100%          |              | -20       | 1,880,000,001 | 0.000000053  | 0.001  |
| 100%          |              | -10       | 1,879,999,999 | -0.000000053 | -0.001 |
| 100%          |              | 0         | 1,879,999,999 | -0.000000053 | -0.001 |
| 100%          |              | +10       | 1,880,000,000 | 0.000000000  | 0.000  |
| 100%          |              | +20       | 1,880,000,001 | 0.000000053  | 0.001  |
| 100%          |              | +30       | 1,880,000,000 | 0.000000000  | 0.000  |
| 100%          |              | +40       | 1,879,999,999 | -0.000000053 | -0.001 |
| 100%          |              | +50       | 1,879,999,998 | -0.000000106 | -0.001 |
| 115%          | 4.43         | +20       | 1,880,000,002 | 0.000000106  | 0.001  |
| BATT.ENDPOINT | 3.15         | +20       | 1,880,000,001 | 0.000000053  | 0.001  |

### 7.7.8. NR Band n7

OPERATING FREQUENCY : 2 535 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 2,534,999,998 | -0.000000079 | -0.001 |
| 100%          |              | -30       | 2,535,000,001 | 0.000000039  | 0.000  |
| 100%          |              | -20       | 2,535,000,004 | 0.000000158  | 0.002  |
| 100%          |              | -10       | 2,535,000,004 | 0.000000158  | 0.002  |
| 100%          |              | 0         | 2,534,999,999 | -0.000000039 | 0.000  |
| 100%          |              | +10       | 2,534,999,998 | -0.000000079 | -0.001 |
| 100%          |              | +20       | 2,534,999,998 | -0.000000079 | -0.001 |
| 100%          |              | +30       | 2,535,000,004 | 0.000000158  | 0.002  |
| 100%          |              | +40       | 2,534,999,999 | -0.000000039 | 0.000  |
| 100%          |              | +50       | 2,534,999,998 | -0.000000079 | -0.001 |
| 115%          | 4.43         | +20       | 2,534,999,999 | -0.000000039 | 0.000  |
| BATT.ENDPOINT | 3.15         | +20       | 2,535,000,003 | 0.000000118  | 0.001  |

### 7.7.9. NR Band n41

OPERATING FREQUENCY : 2 592.99 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 2,592,990,001 | 0.000000039  | 0.000  |
| 100%          |              | -30       | 2,592,989,997 | -0.000000116 | -0.001 |
| 100%          |              | -20       | 2,592,990,006 | 0.000000231  | 0.002  |
| 100%          |              | -10       | 2,592,989,997 | -0.000000116 | -0.001 |
| 100%          |              | 0         | 2,592,990,006 | 0.000000231  | 0.002  |
| 100%          |              | +10       | 2,592,990,000 | 0.000000000  | 0.000  |
| 100%          |              | +20       | 2,592,990,001 | 0.000000039  | 0.000  |
| 100%          |              | +30       | 2,592,990,005 | 0.000000193  | 0.002  |
| 100%          |              | +40       | 2,592,990,000 | 0.000000000  | 0.000  |
| 100%          |              | +50       | 2,592,989,998 | -0.000000077 | -0.001 |
| 115%          | 4.43         | +20       | 2,592,990,001 | 0.000000039  | 0.000  |
| BATT.ENDPOINT | 3.15         | +20       | 2,592,990,006 | 0.000000231  | 0.002  |

### 7.7.10. NR Band n38

OPERATING FREQUENCY : 2 595 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 2,594,999,990 | -0.000000385 | -0.004 |
| 100%          |              | -30       | 2,594,999,994 | -0.000000231 | -0.002 |
| 100%          |              | -20       | 2,594,999,992 | -0.000000308 | -0.003 |
| 100%          |              | -10       | 2,594,999,987 | -0.000000501 | -0.005 |
| 100%          |              | 0         | 2,594,999,992 | -0.000000308 | -0.003 |
| 100%          |              | +10       | 2,594,999,995 | -0.000000193 | -0.002 |
| 100%          |              | +20       | 2,594,999,990 | -0.000000385 | -0.004 |
| 100%          |              | +30       | 2,594,999,994 | -0.000000231 | -0.002 |
| 100%          |              | +40       | 2,594,999,993 | -0.000000270 | -0.003 |
| 100%          |              | +50       | 2,594,999,993 | -0.000000270 | -0.003 |
| 115%          | 4.43         | +20       | 2,594,999,987 | -0.000000501 | -0.005 |
| BATT.ENDPOINT | 3.15         | +20       | 2,594,999,992 | -0.000000308 | -0.003 |

### 7.7.11. NR Band n78 (3 450 ~ 3 550 MHz)

OPERATING FREQUENCY : 3 501.01 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 3,500,009,988 | -0.000000343 | -0.003 |
| 100%          |              | -30       | 3,500,009,989 | -0.000000314 | -0.003 |
| 100%          |              | -20       | 3,500,009,990 | -0.000000286 | -0.003 |
| 100%          |              | -10       | 3,500,009,994 | -0.000000171 | -0.002 |
| 100%          |              | 0         | 3,500,009,990 | -0.000000286 | -0.003 |
| 100%          |              | +10       | 3,500,009,994 | -0.000000171 | -0.002 |
| 100%          |              | +20       | 3,500,009,988 | -0.000000343 | -0.003 |
| 100%          |              | +30       | 3,500,009,991 | -0.000000257 | -0.003 |
| 100%          |              | +40       | 3,500,009,995 | -0.000000143 | -0.001 |
| 100%          |              | +50       | 3,500,009,990 | -0.000000286 | -0.003 |
| 115%          | 4.43         | +20       | 3,500,009,989 | -0.000000314 | -0.003 |
| BATT.ENDPOINT | 3.15         | +20       | 3,500,009,991 | -0.000000257 | -0.003 |

### 7.7.12. NR Band n78 (3 700 ~ 3 800 MHz)

OPERATING FREQUENCY : 3 750 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 3,749,999,996 | -0.000000107 | -0.001 |
| 100%          |              | -30       | 3,749,999,997 | -0.000000080 | -0.001 |
| 100%          |              | -20       | 3,749,999,998 | -0.000000053 | -0.001 |
| 100%          |              | -10       | 3,749,999,996 | -0.000000107 | -0.001 |
| 100%          |              | 0         | 3,749,999,993 | -0.000000187 | -0.002 |
| 100%          |              | +10       | 3,749,999,999 | -0.000000027 | 0.000  |
| 100%          |              | +20       | 3,749,999,996 | -0.000000107 | -0.001 |
| 100%          |              | +30       | 3,749,999,998 | -0.000000053 | -0.001 |
| 100%          |              | +40       | 3,750,000,000 | 0.000000000  | 0.000  |
| 100%          |              | +50       | 3,749,999,993 | -0.000000187 | -0.002 |
| 115%          | 4.43         | +20       | 3,750,000,000 | 0.000000000  | 0.000  |
| BATT.ENDPOINT | 3.15         | +20       | 3,749,999,999 | -0.000000027 | 0.000  |

### 7.7.13. NR Band n77 (3 450 ~ 3 550 MHz)

OPERATING FREQUENCY : 3 500.01 MHz  
 REFERENCE VOLTAGE : 3.85 V DC  
 LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE (%)   | POWER (V DC) | TEMP (°C) | FREQ (Hz)     | Deviation    |        |
|---------------|--------------|-----------|---------------|--------------|--------|
|               |              |           |               | (%)          | (ppm)  |
| 100%          | 3.85         | +20(Ref)  | 3,500,009,994 | -0.000000171 | -0.002 |
| 100%          |              | -30       | 3,500,009,992 | -0.000000229 | -0.002 |
| 100%          |              | -20       | 3,500,009,998 | -0.000000057 | -0.001 |
| 100%          |              | -10       | 3,500,009,997 | -0.000000086 | -0.001 |
| 100%          |              | 0         | 3,500,009,992 | -0.000000229 | -0.002 |
| 100%          |              | +10       | 3,500,009,995 | -0.000000143 | -0.001 |
| 100%          |              | +20       | 3,500,009,994 | -0.000000171 | -0.002 |
| 100%          |              | +30       | 3,500,009,996 | -0.000000114 | -0.001 |
| 100%          |              | +40       | 3,500,009,996 | -0.000000114 | -0.001 |
| 100%          |              | +50       | 3,500,009,998 | -0.000000057 | -0.001 |
| 115%          | 4.43         | +20       | 3,500,009,998 | -0.000000057 | -0.001 |
| BATT.ENDPOINT | 3.15         | +20       | 3,500,009,996 | -0.000000114 | -0.001 |

#### 7.7.14. NR Band n77 (3 700 ~ 3 980 MHz)

OPERATING FREQUENCY : 3 840 MHz

REFERENCE VOLTAGE : 3.85 V DC

LIMIT(FCC) : The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| VOLTAGE<br>(%) | POWER<br>(V DC) | TEMP<br>(°C) | FREQ<br>(Hz)  | Deviation    |        |
|----------------|-----------------|--------------|---------------|--------------|--------|
|                |                 |              |               | (%)          | (ppm)  |
| 100%           | 3.85            | +20(Ref)     | 3,839,999,985 | -0.000000391 | -0.004 |
| 100%           |                 | -30          | 3,839,999,994 | -0.000000156 | -0.002 |
| 100%           |                 | -20          | 3,839,999,987 | -0.000000339 | -0.003 |
| 100%           |                 | -10          | 3,839,999,989 | -0.000000286 | -0.003 |
| 100%           |                 | 0            | 3,839,999,984 | -0.000000417 | -0.004 |
| 100%           |                 | +10          | 3,839,999,994 | -0.000000156 | -0.002 |
| 100%           |                 | +20          | 3,839,999,985 | -0.000000391 | -0.004 |
| 100%           |                 | +30          | 3,839,999,994 | -0.000000156 | -0.002 |
| 100%           |                 | +40          | 3,839,999,995 | -0.000000130 | -0.001 |
| 100%           |                 | +50          | 3,839,999,994 | -0.000000156 | -0.002 |
| 115%           | 4.43            | +20          | 3,839,999,991 | -0.000000234 | -0.002 |
| BATT.ENDPOINT  | 3.15            | +20          | 3,839,999,993 | -0.000000182 | -0.002 |

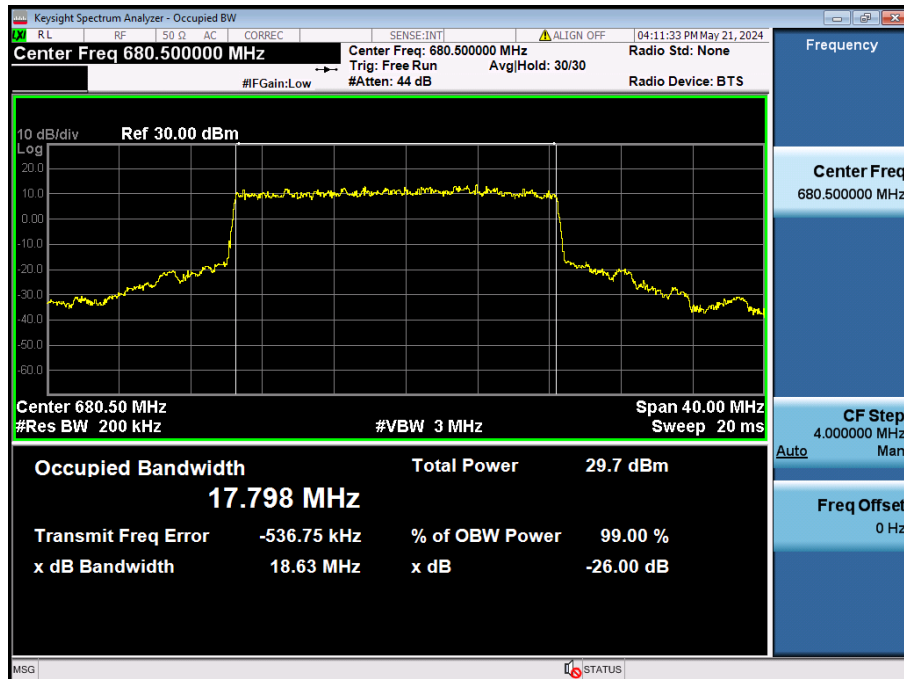
## 8. TEST PLOTS

### - Test Notes:

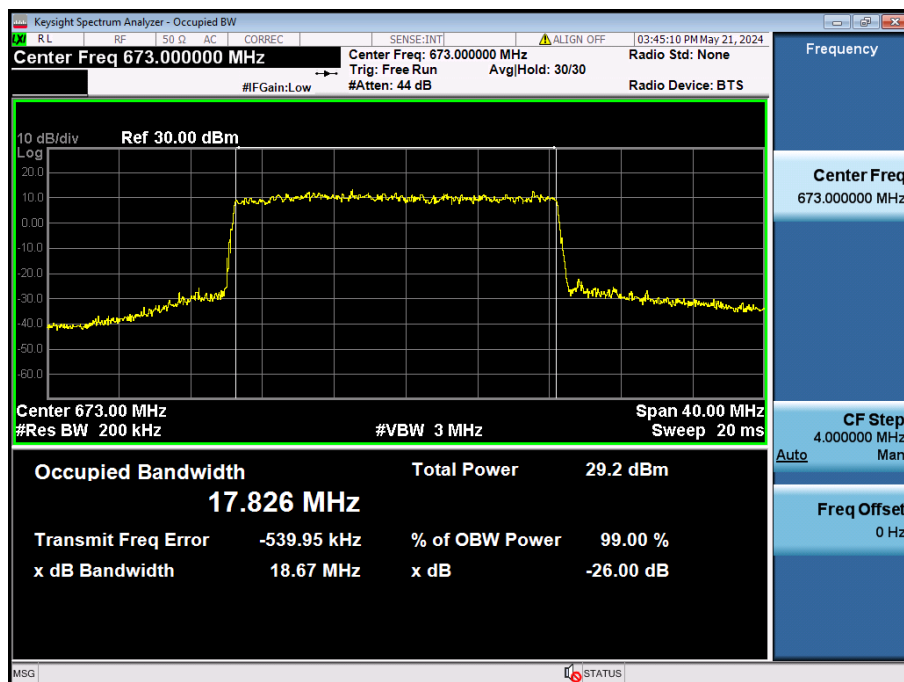
All bandwidths, RB configurations, and modulations were investigated.  
The worst case test results are reported.

### 8.1. OCCUPIED BANDWIDTH

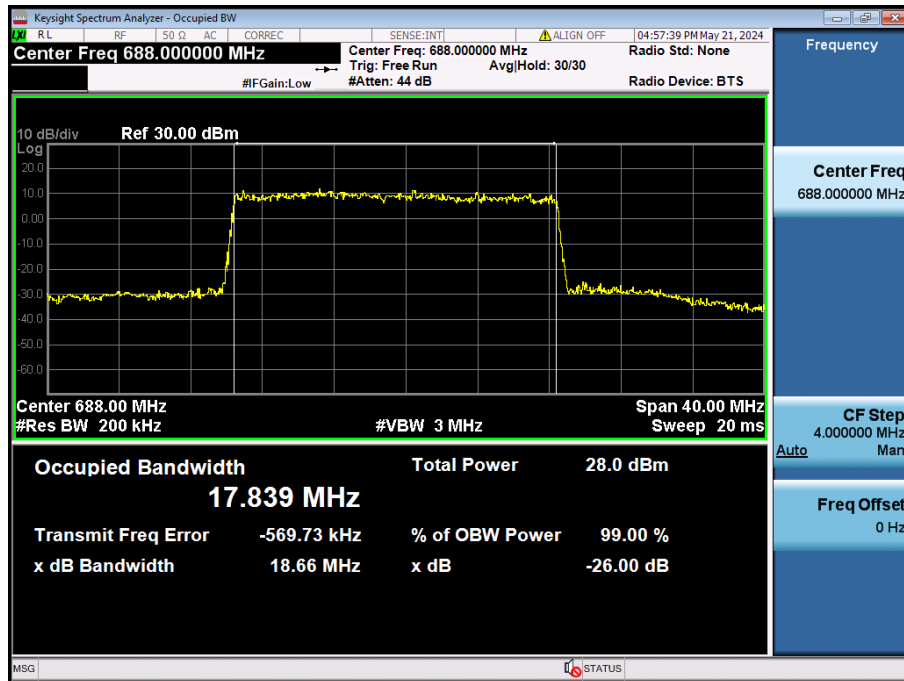
#### 8.1.1. NR Band n71



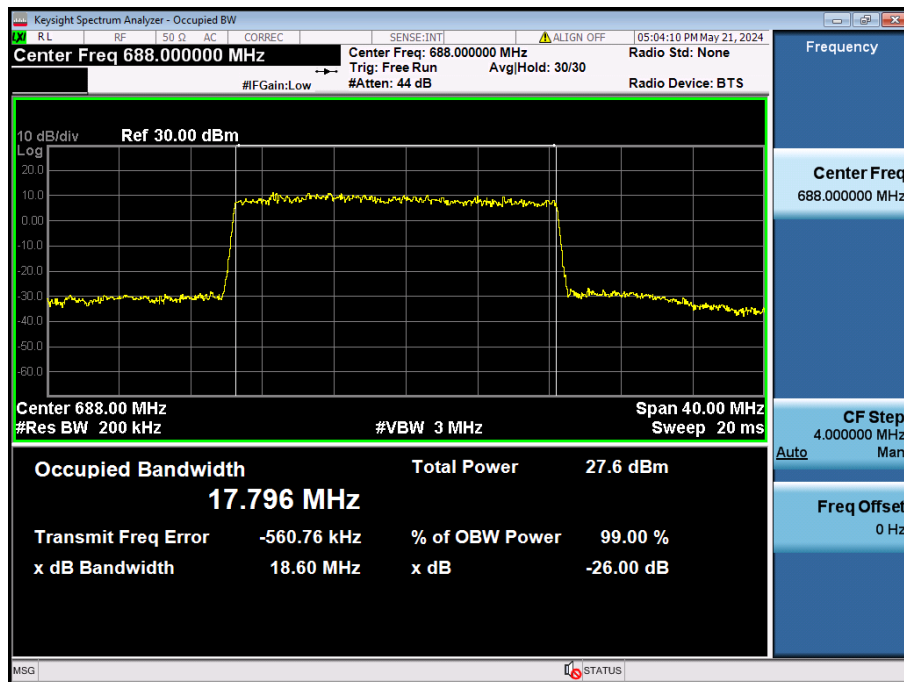
20 MHz /  $\pi/2$  BPSK / FULL RB Size



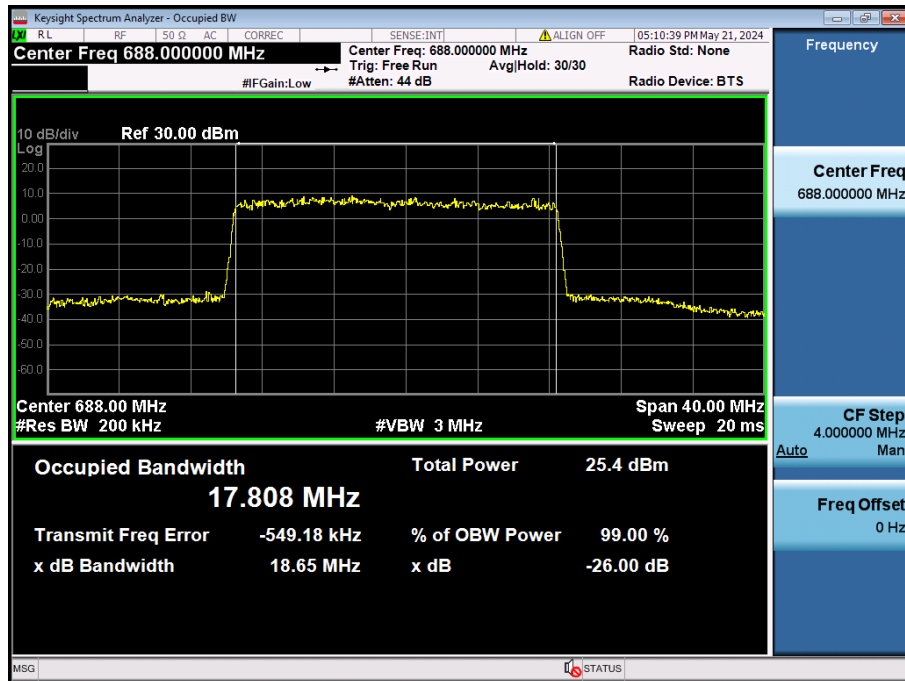
20 MHz / QPSK / FULL RB Size



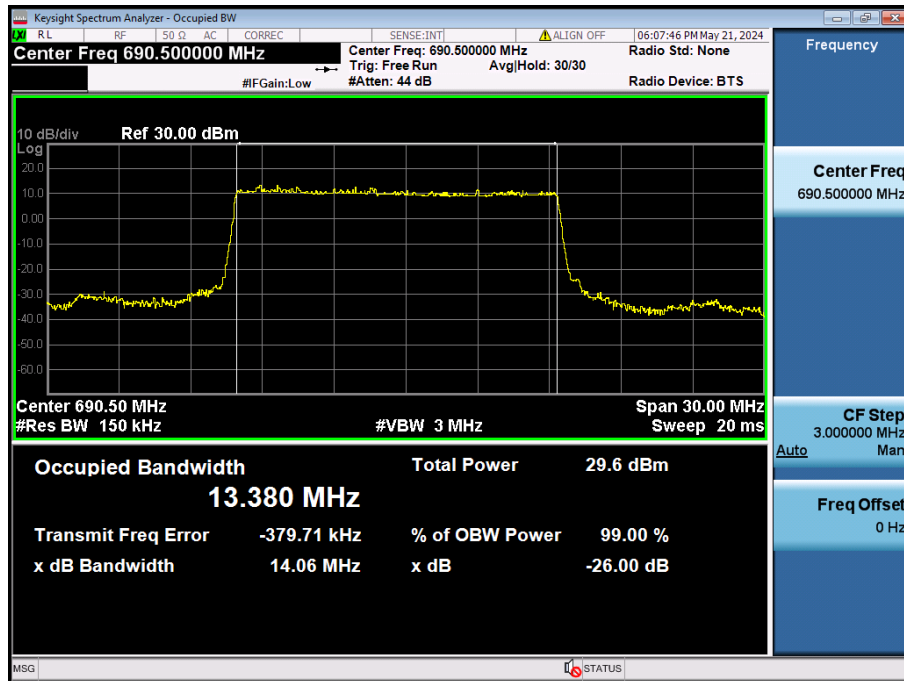
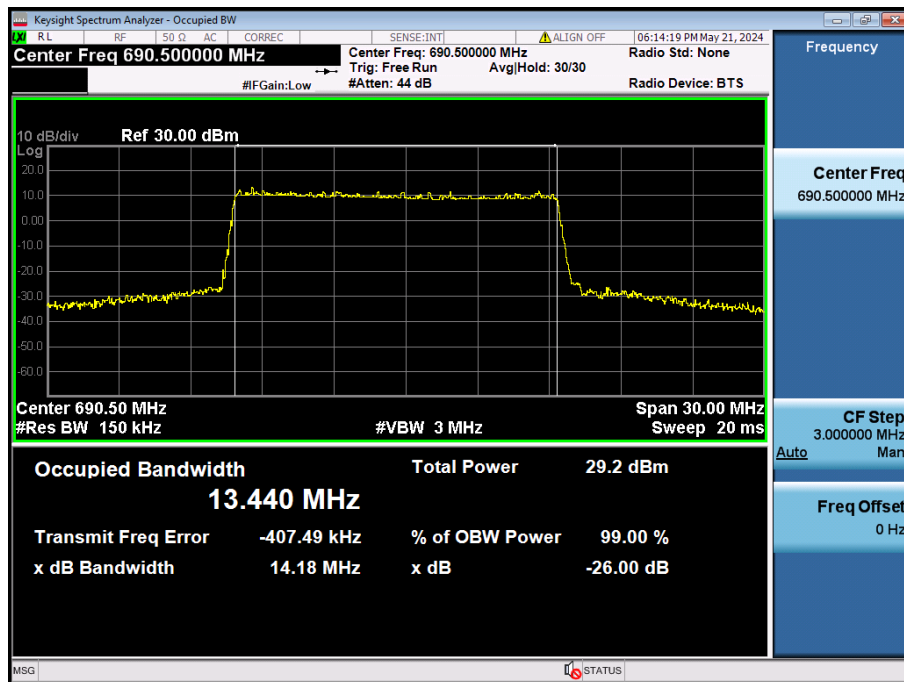
20 MHz / 16QAM / FULL RB Size



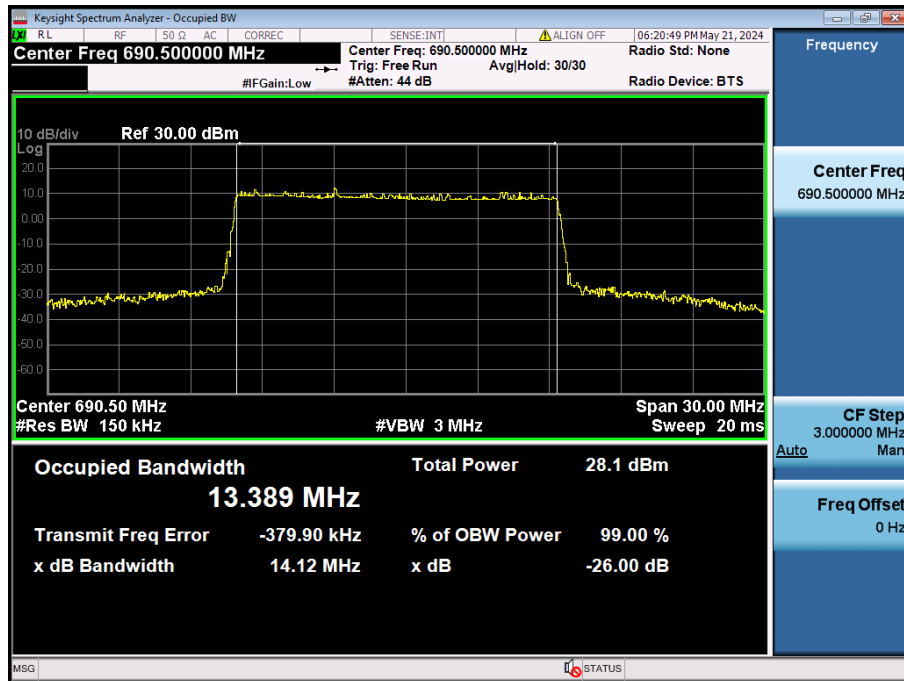
20 MHz / 64QAM / FULL RB Size



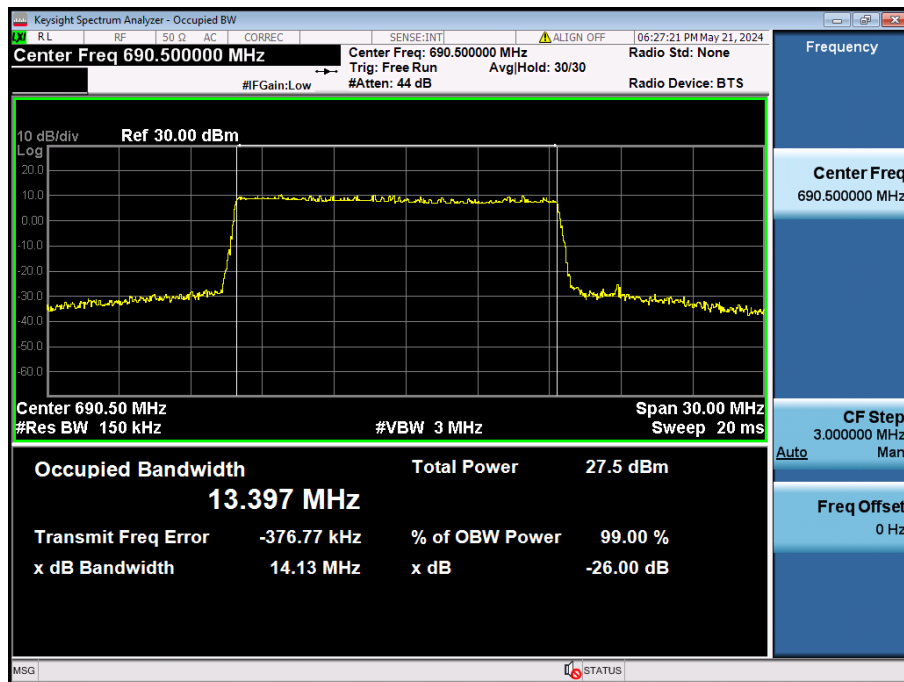
20 MHz / 256QAM / FULL RB Size

15 MHz /  $\pi/2$  BPSK / FULL RB Size

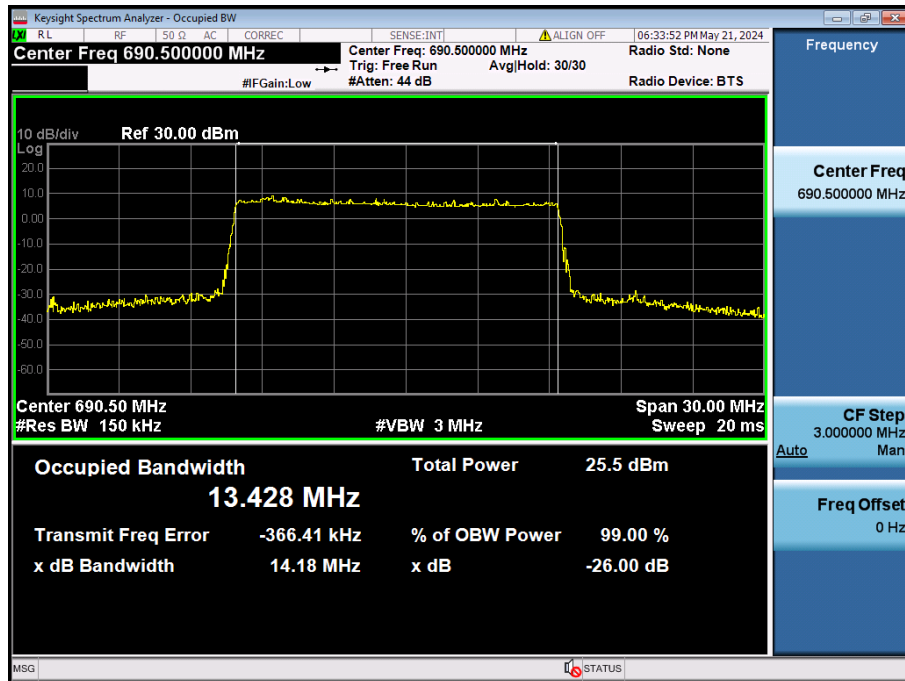
15 MHz / QPSK / FULL RB Size



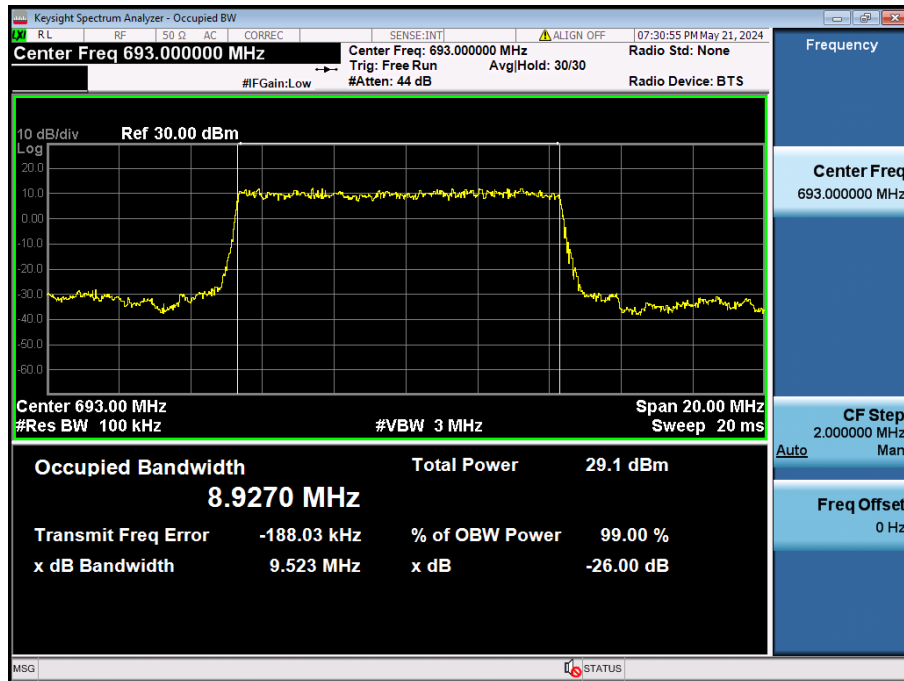
15 MHz / 16QAM / FULL RB Size



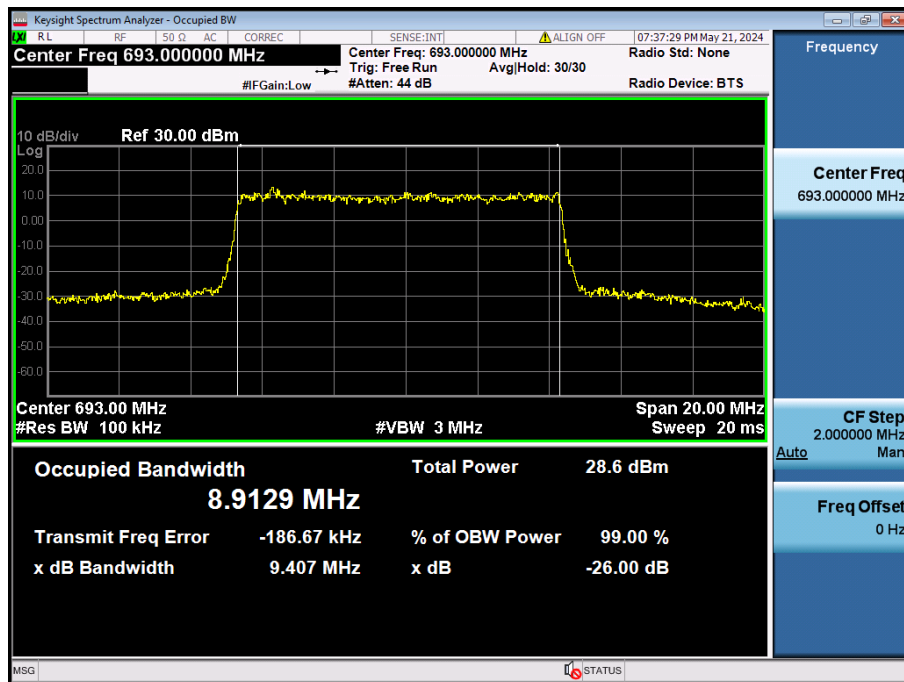
15 MHz / 64QAM / FULL RB Size



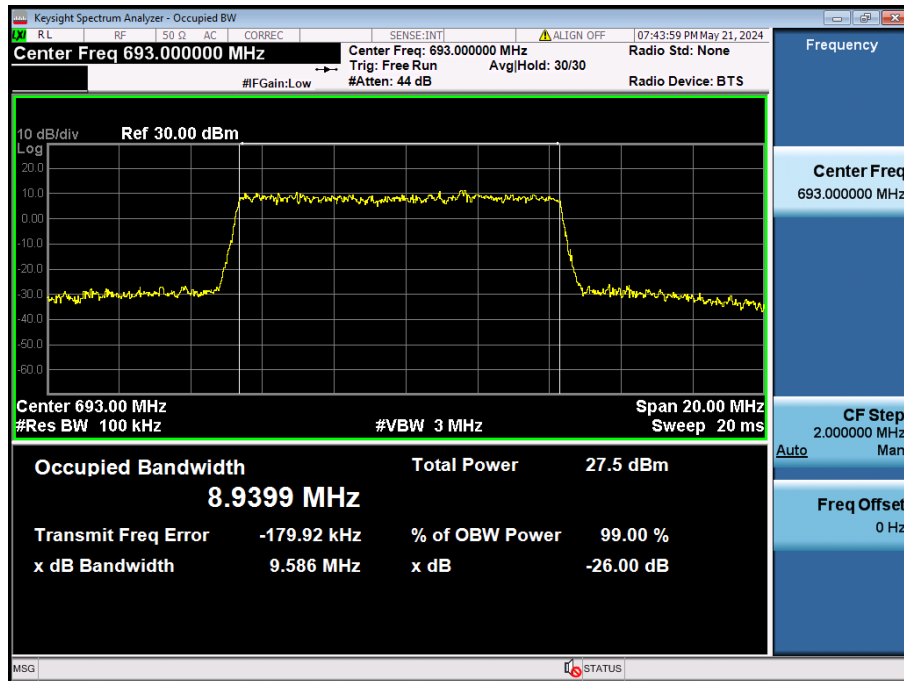
15 MHz / 256QAM / FULL RB Size



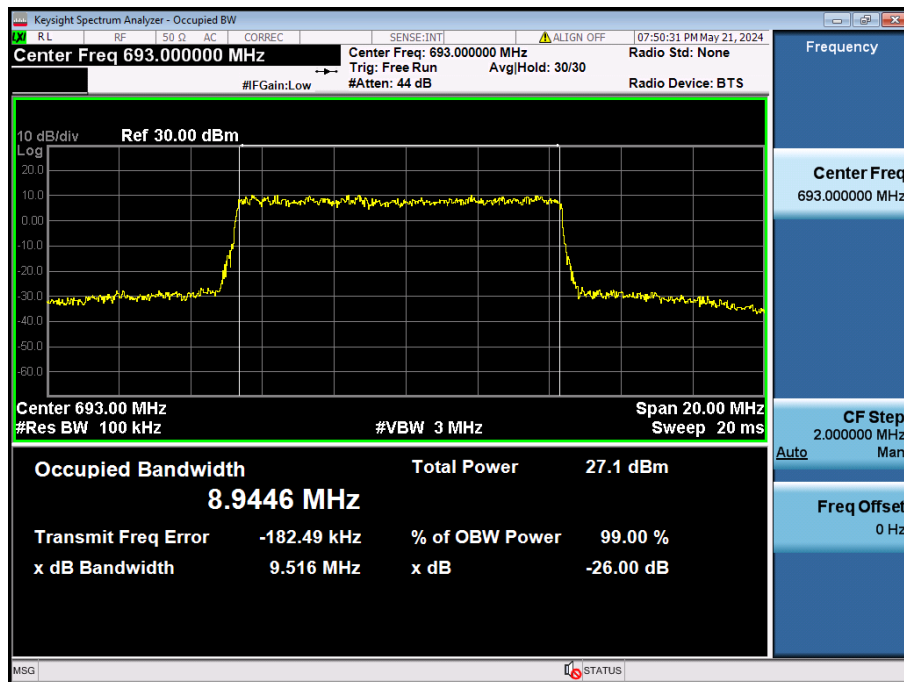
10 MHz /  $\pi/2$  BPSK / FULL RB Size



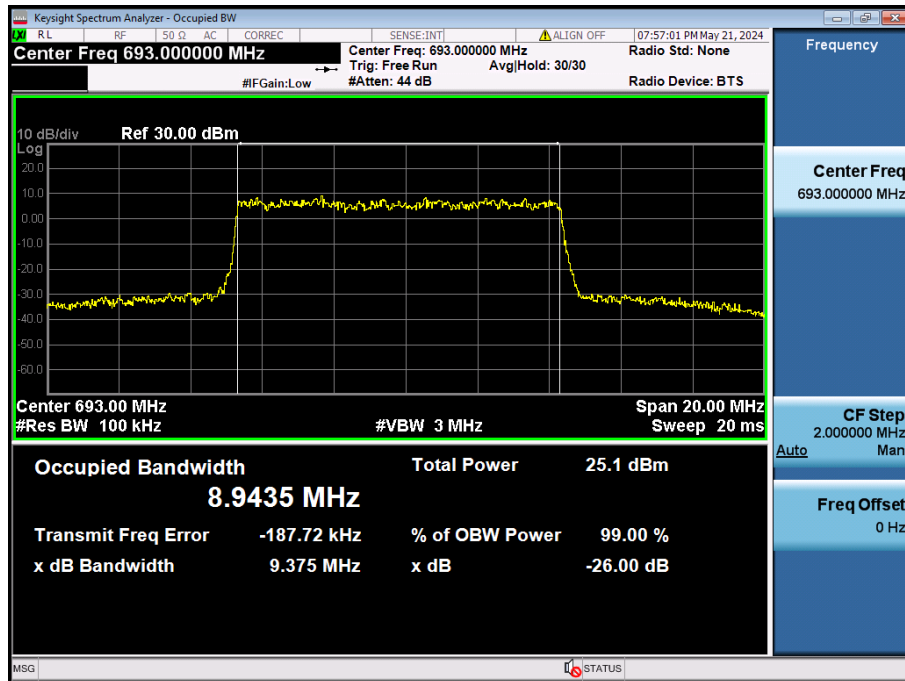
10 MHz / QPSK / FULL RB Size



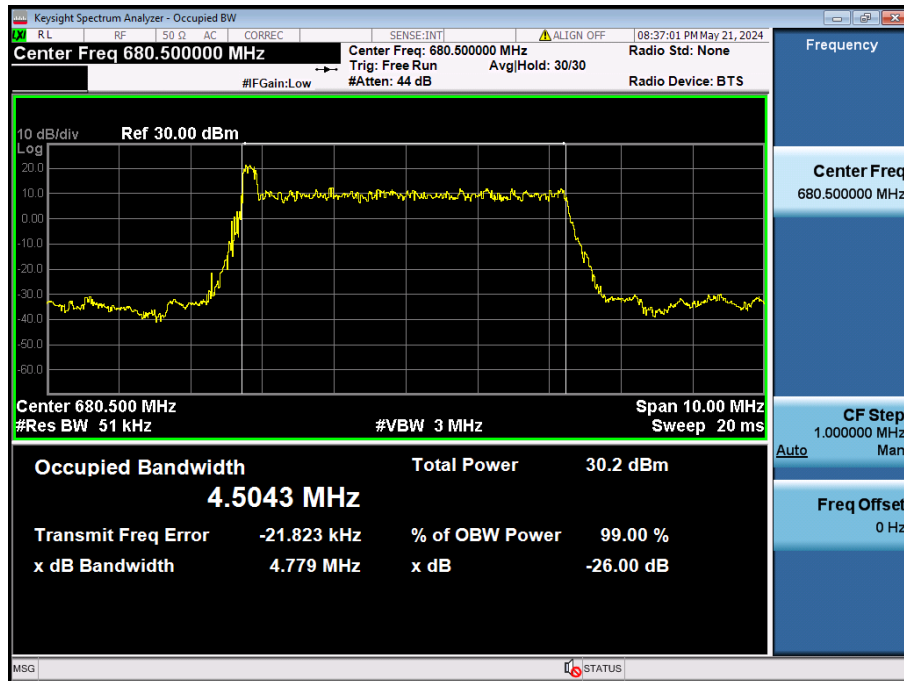
10 MHz / 16QAM / FULL RB Size



10 MHz / 64QAM / FULL RB Size



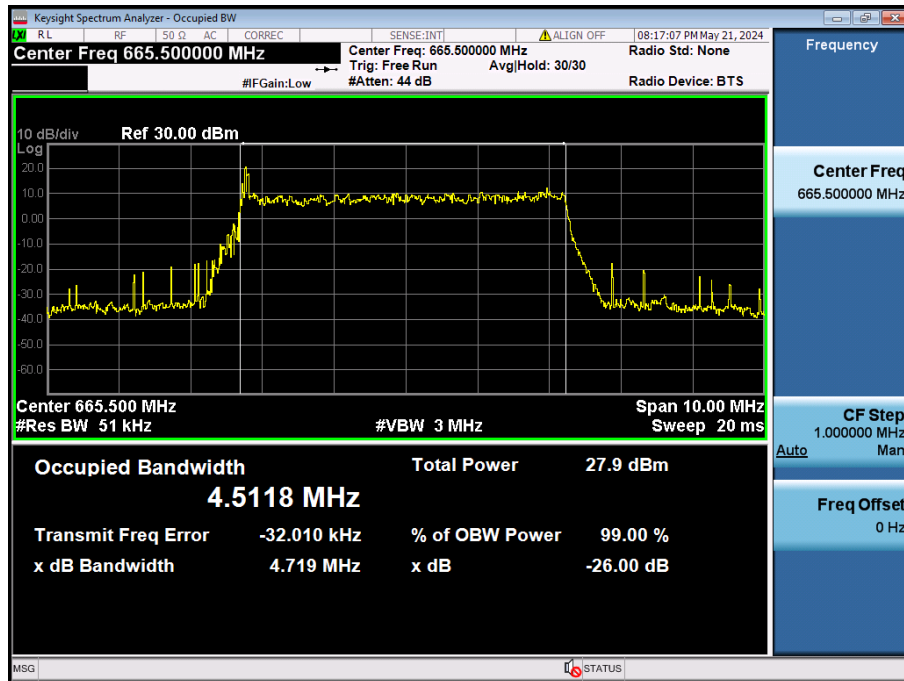
10 MHz / 256QAM / FULL RB Size



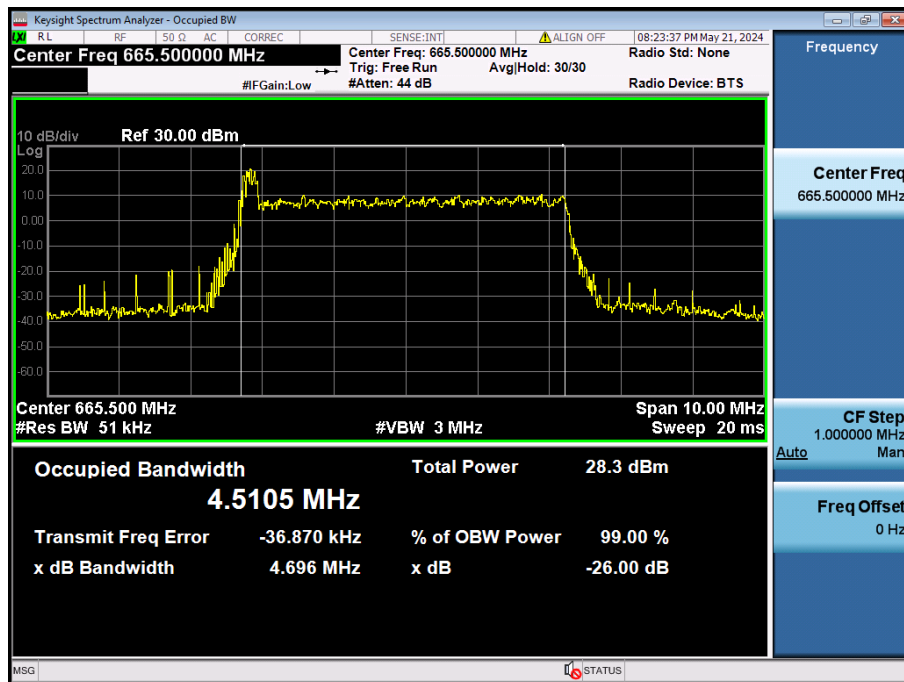
5 MHz /  $\pi/2$  BPSK / FULL RB Size



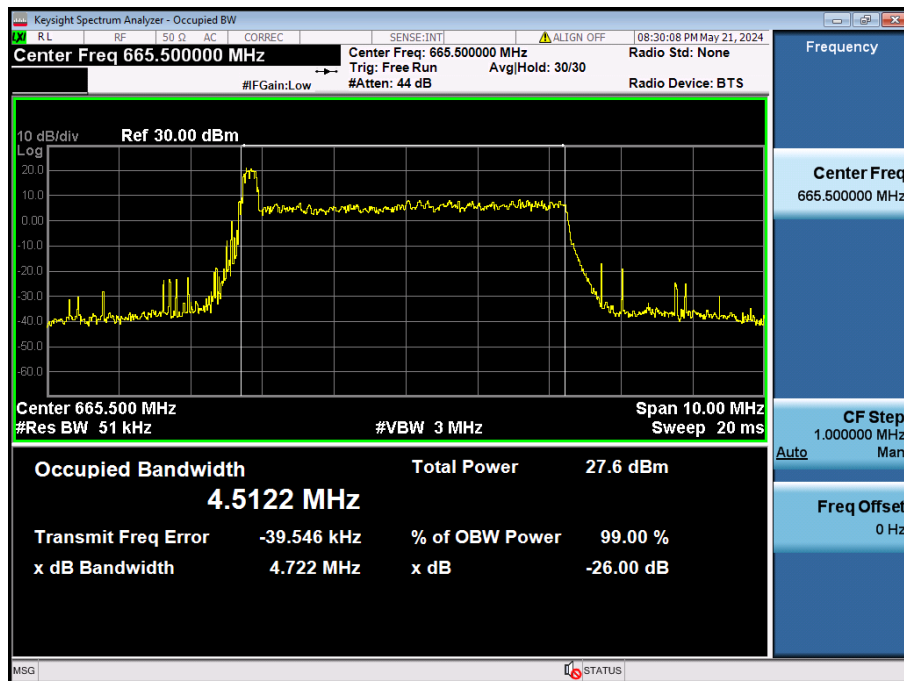
5 MHz / QPSK / FULL RB Size



5 MHz / 16QAM / FULL RB Size

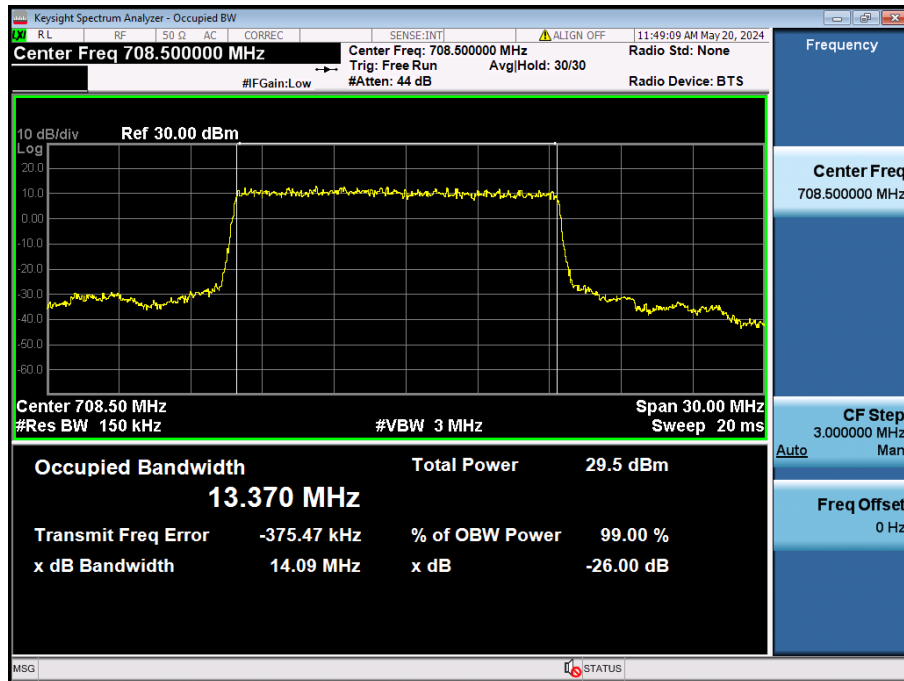
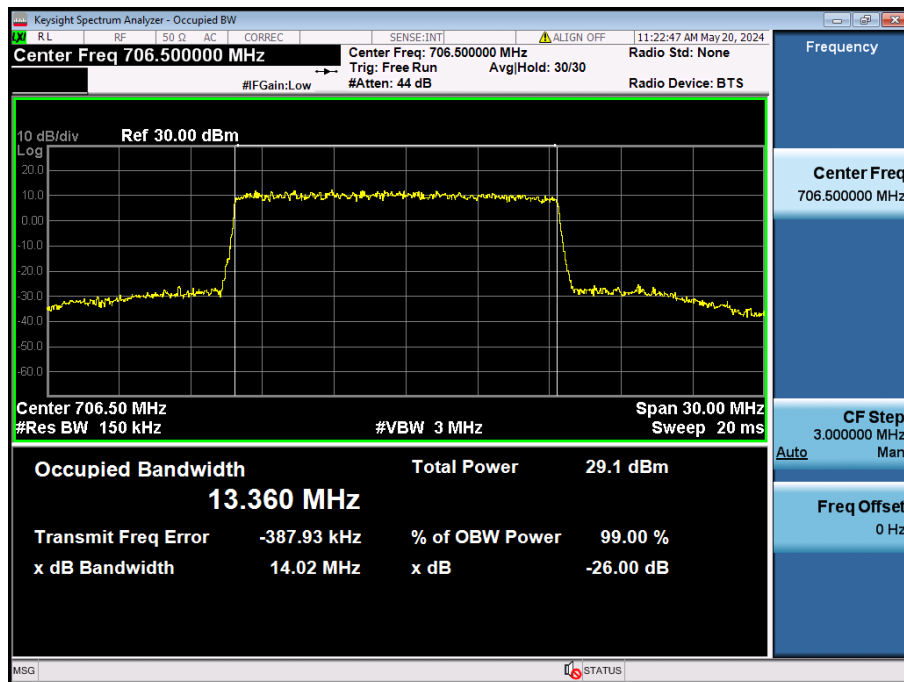


5 MHz / 64QAM / FULL RB Size

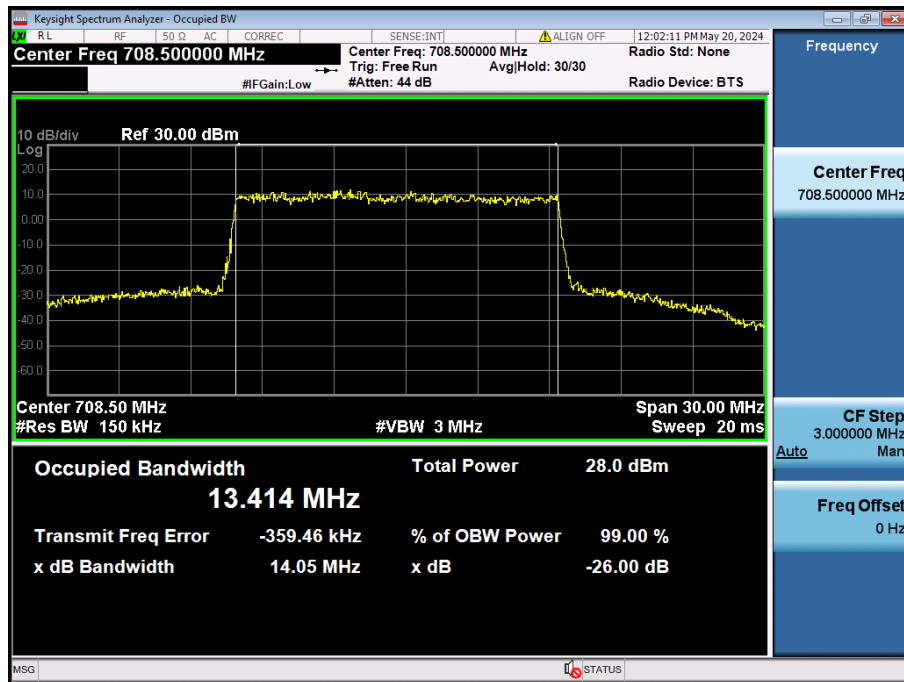


5 MHz / 256QAM / FULL RB Size

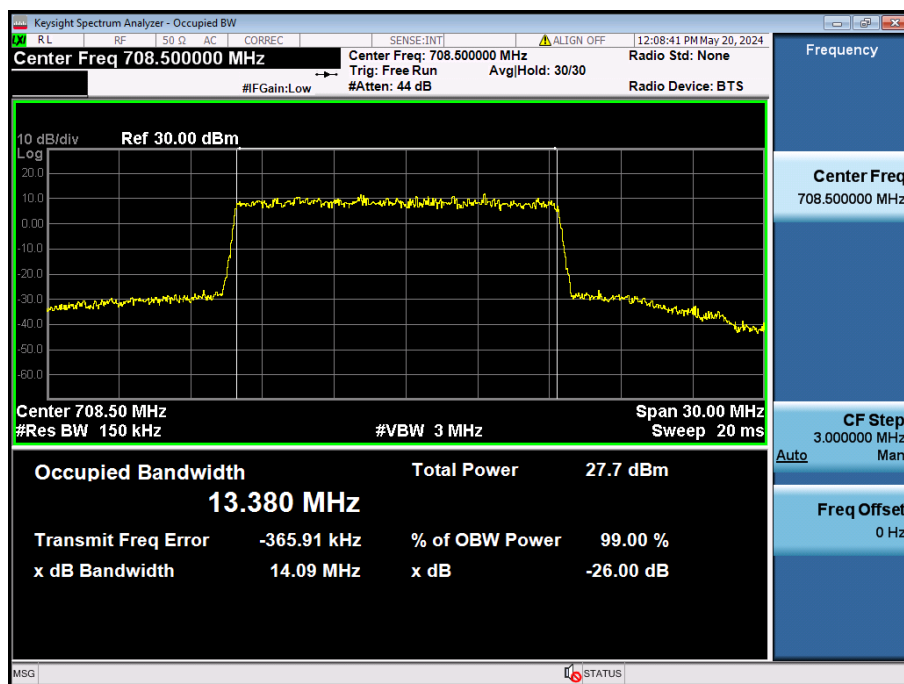
## 8.1.2. NR Band n12

15 MHz /  $\pi/2$  BPSK / FULL RB Size

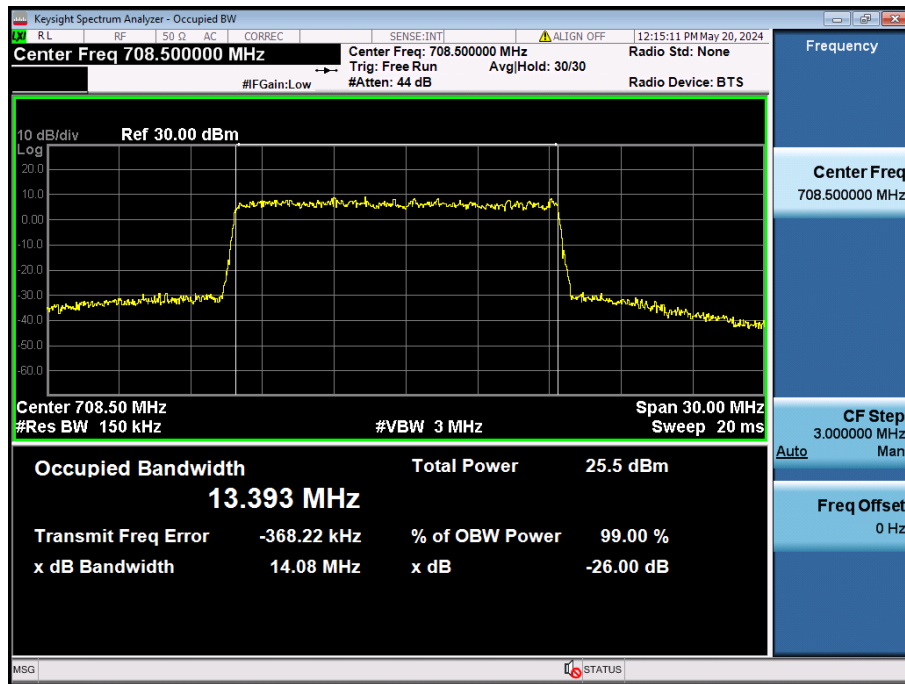
15 MHz / QPSK / FULL RB Size



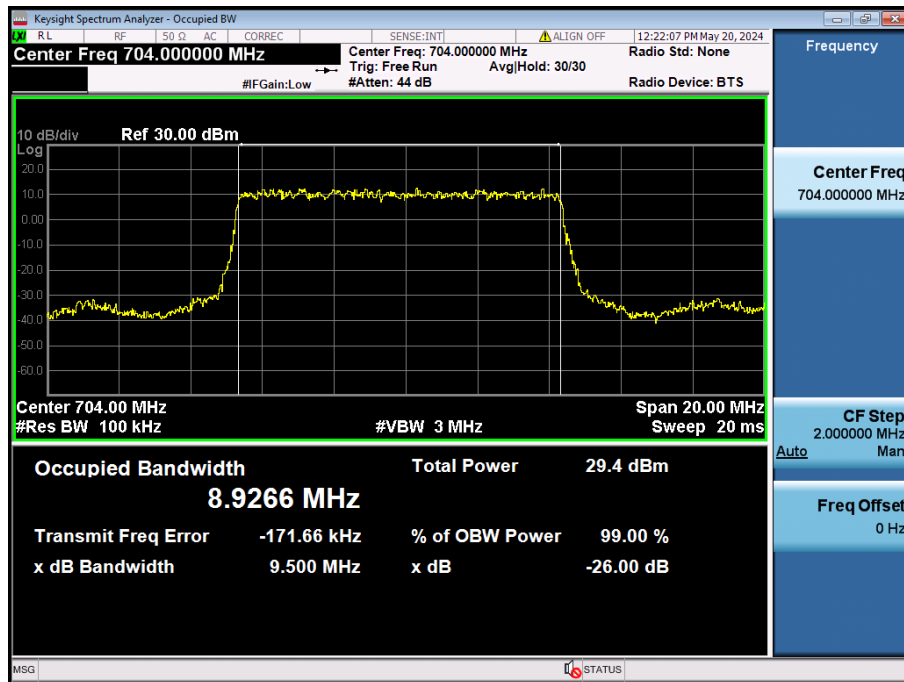
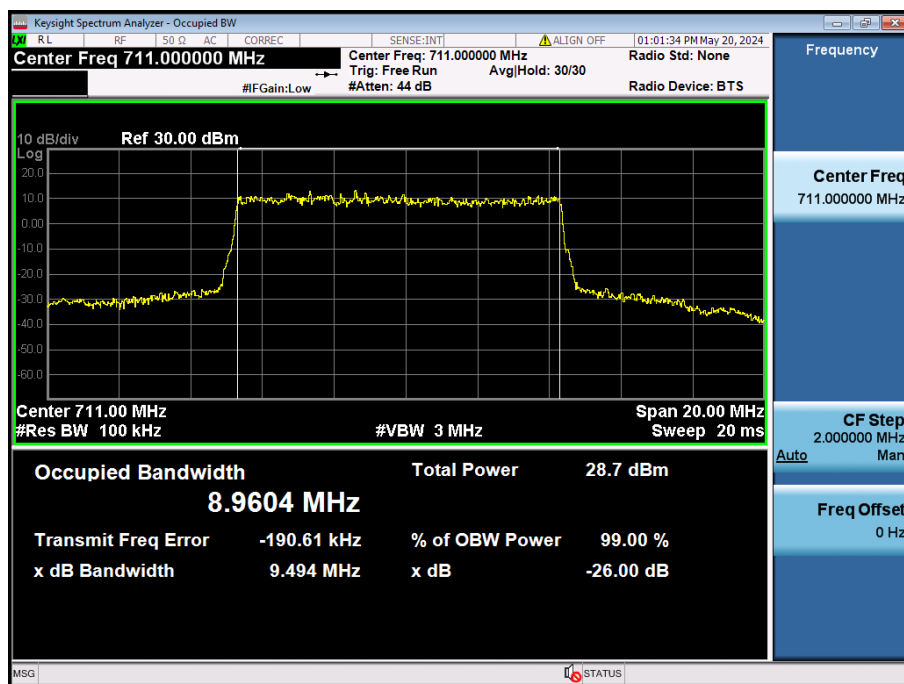
15 MHz / 16QAM / FULL RB Size



15 MHz / 64QAM / FULL RB Size



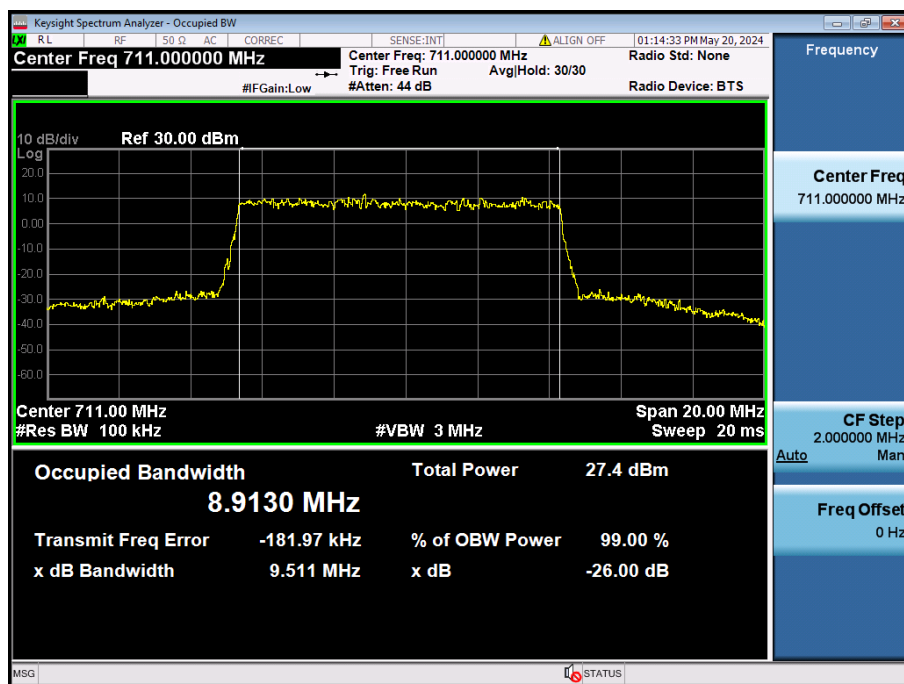
15 MHz / 256QAM / FULL RB Size

10 MHz /  $\pi/2$  BPSK / FULL RB Size

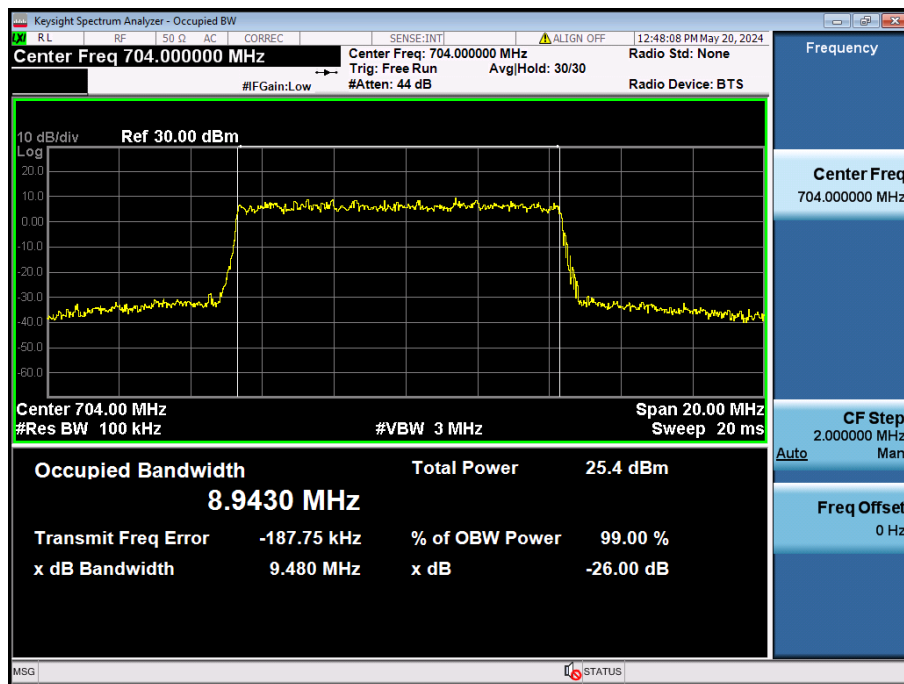
10 MHz / QPSK / FULL RB Size



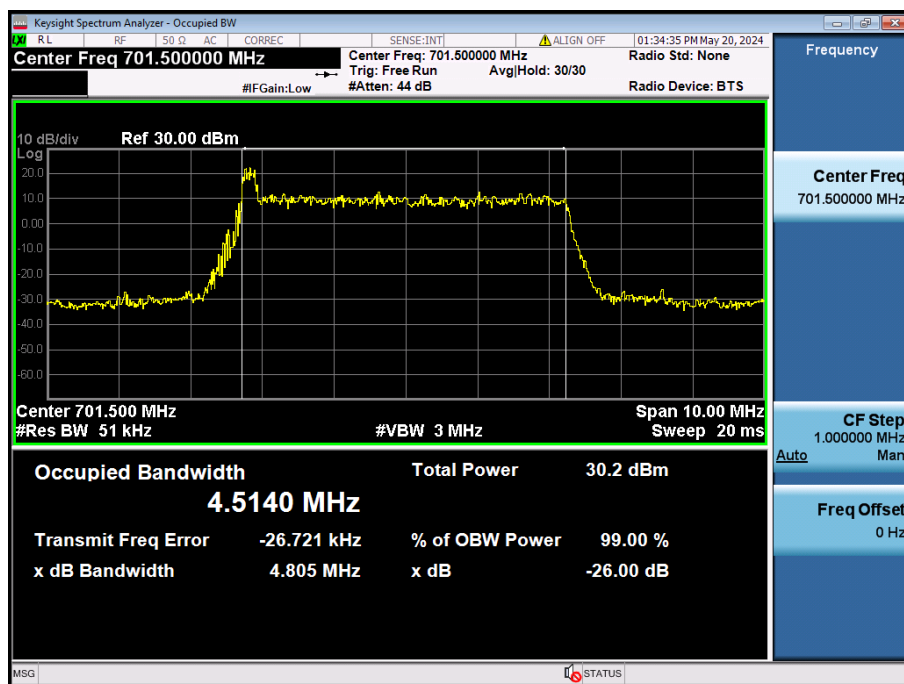
10 MHz / 16QAM / FULL RB Size



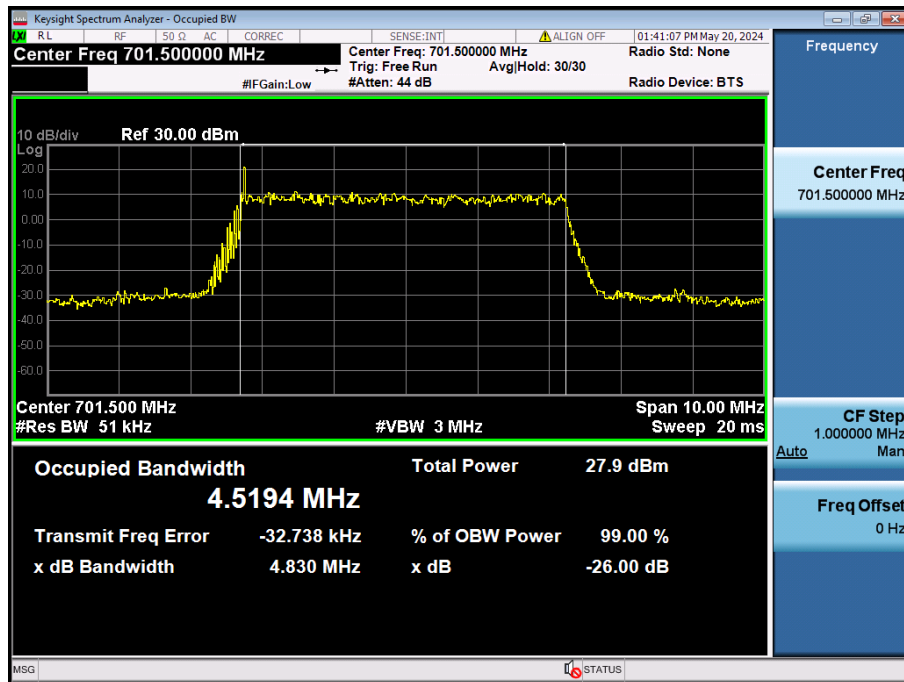
10 MHz / 64QAM / FULL RB Size



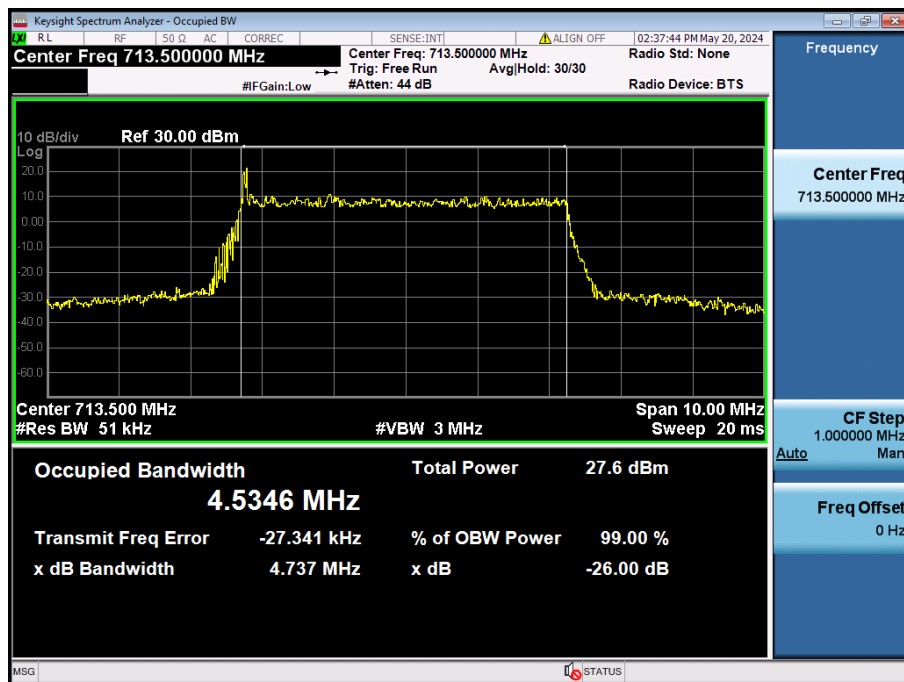
10 MHz / 256QAM / FULL RB Size

5 MHz /  $\pi/2$  BPSK / FULL RB Size

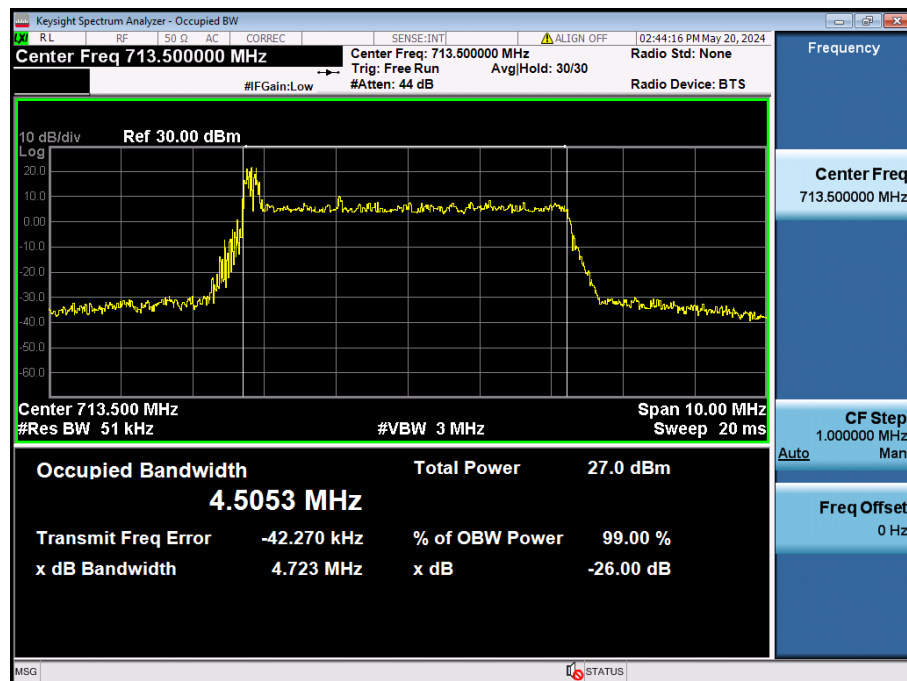
5 MHz / QPSK / FULL RB Size



5 MHz / 16QAM / FULL RB Size



5 MHz / 64QAM / FULL RB Size

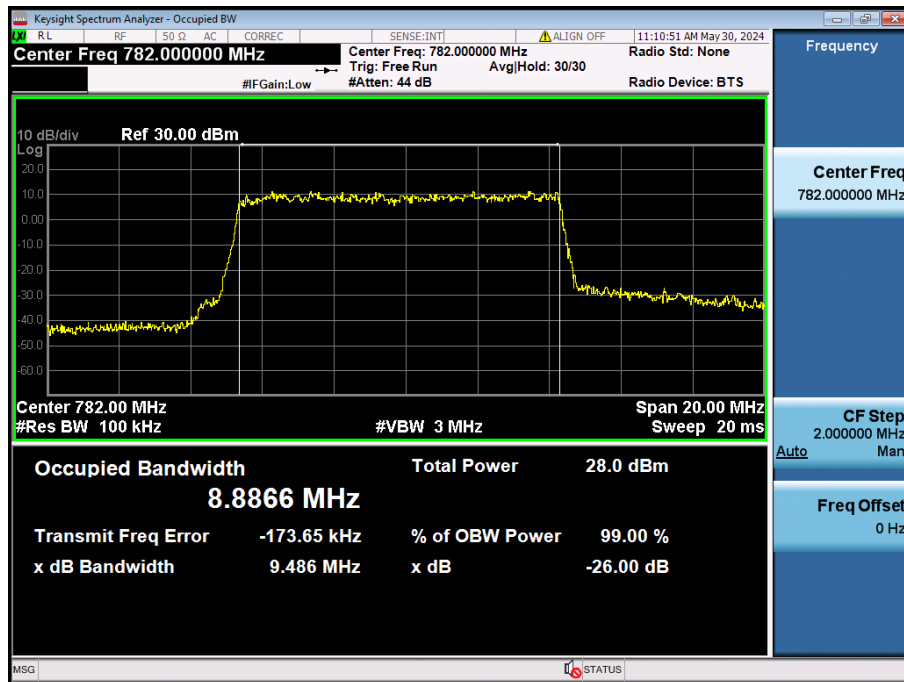


5 MHz / 256QAM / FULL RB Size

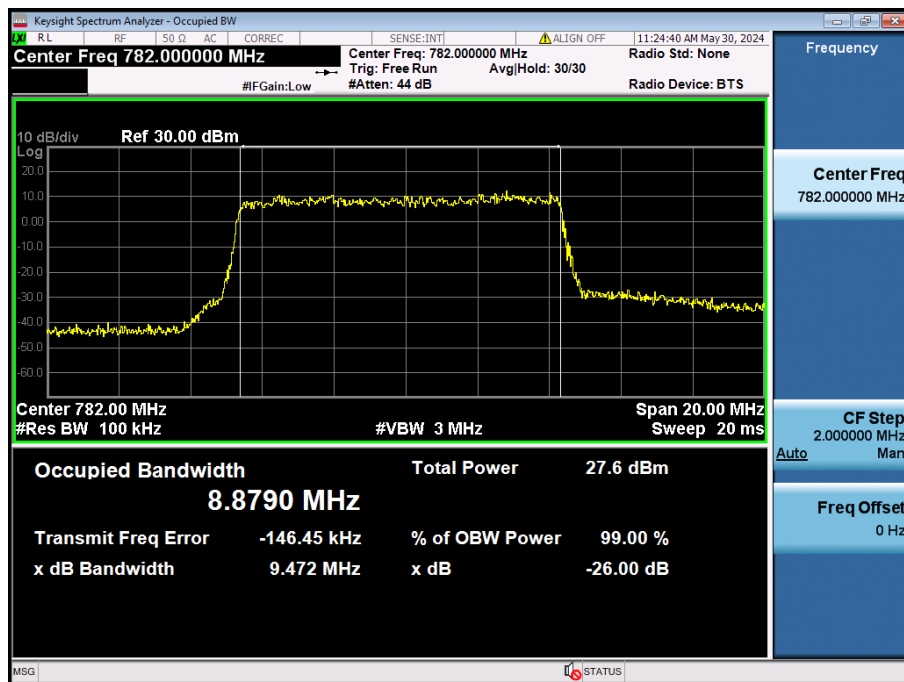
## 8.1.3. NR Band n13

10 MHz /  $\pi/2$  BPSK / FULL RB Size

10 MHz / QPSK / FULL RB Size



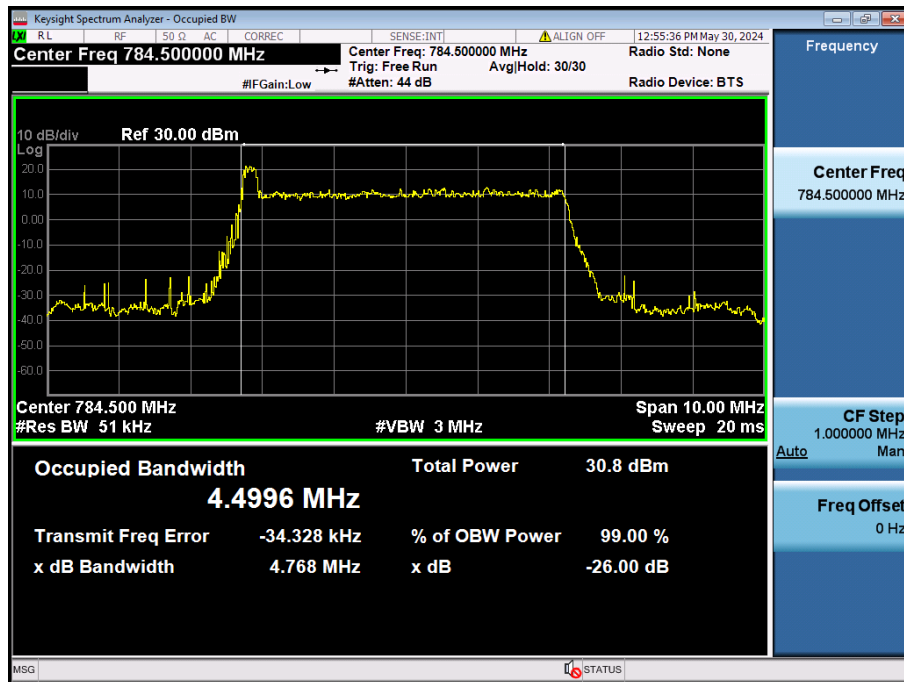
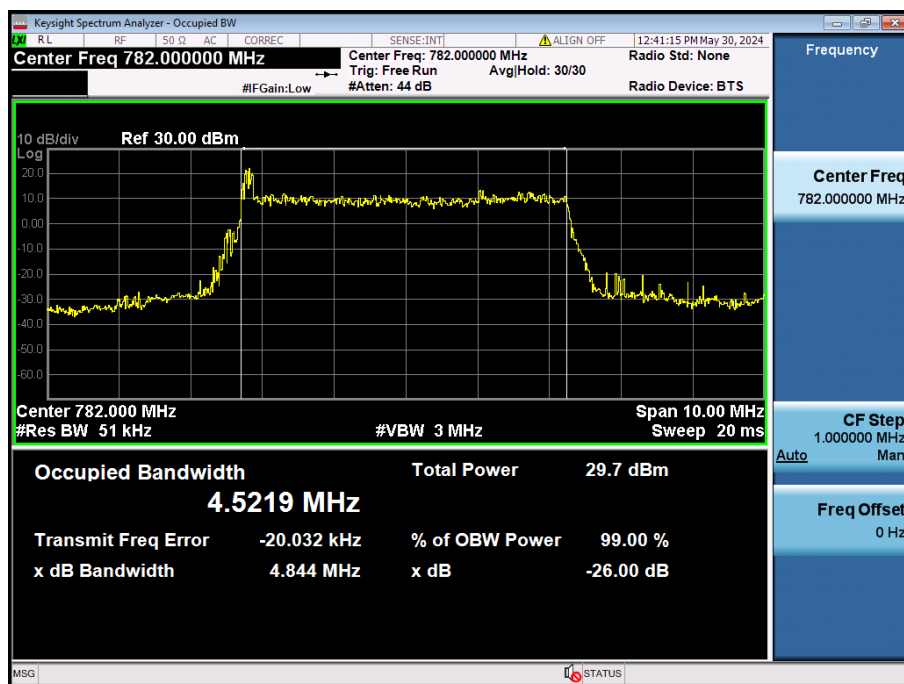
10 MHz / 16QAM / FULL RB Size



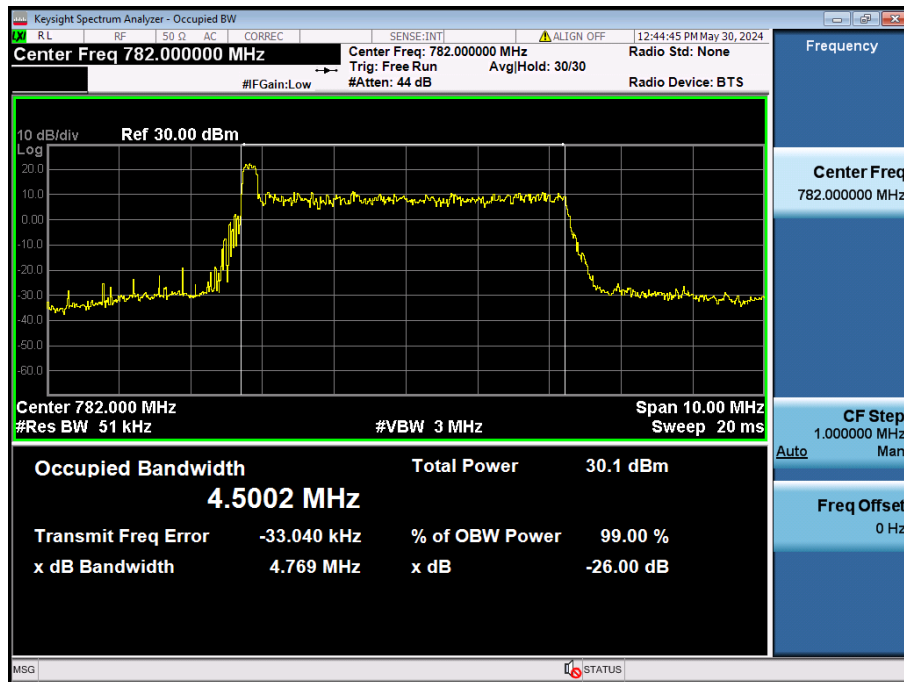
10 MHz / 64QAM / FULL RB Size



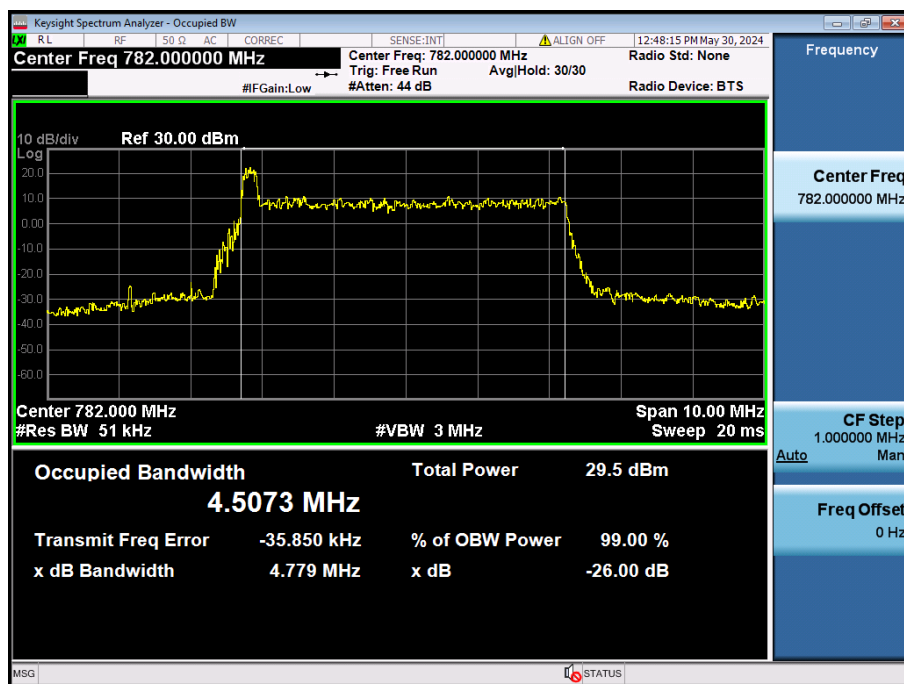
10 MHz / 256QAM / FULL RB Size

5 MHz /  $\pi/2$  BPSK / FULL RB Size

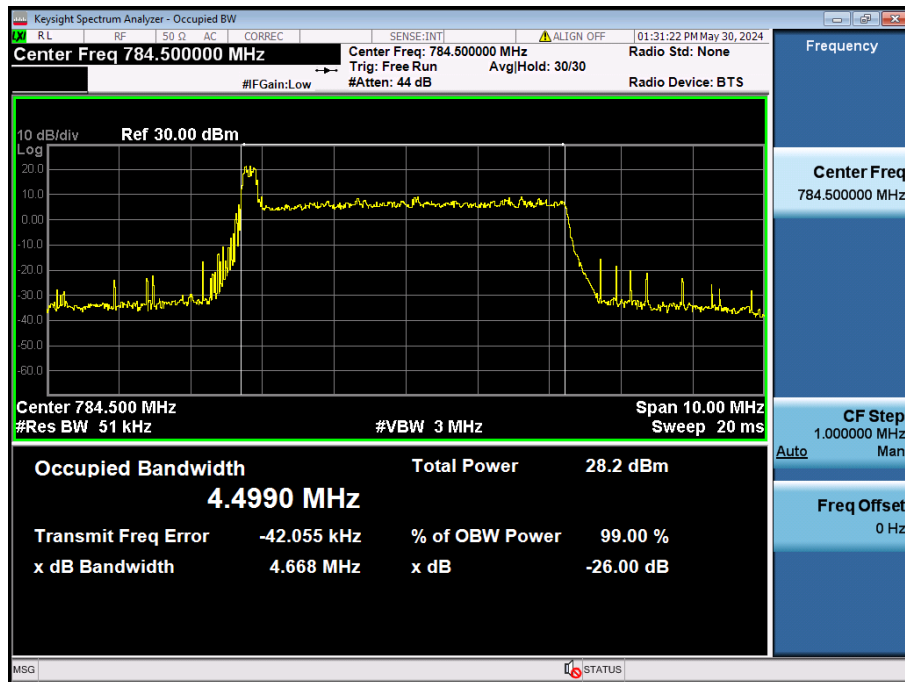
5 MHz / QPSK / FULL RB Size



5 MHz / 16QAM / FULL RB Size

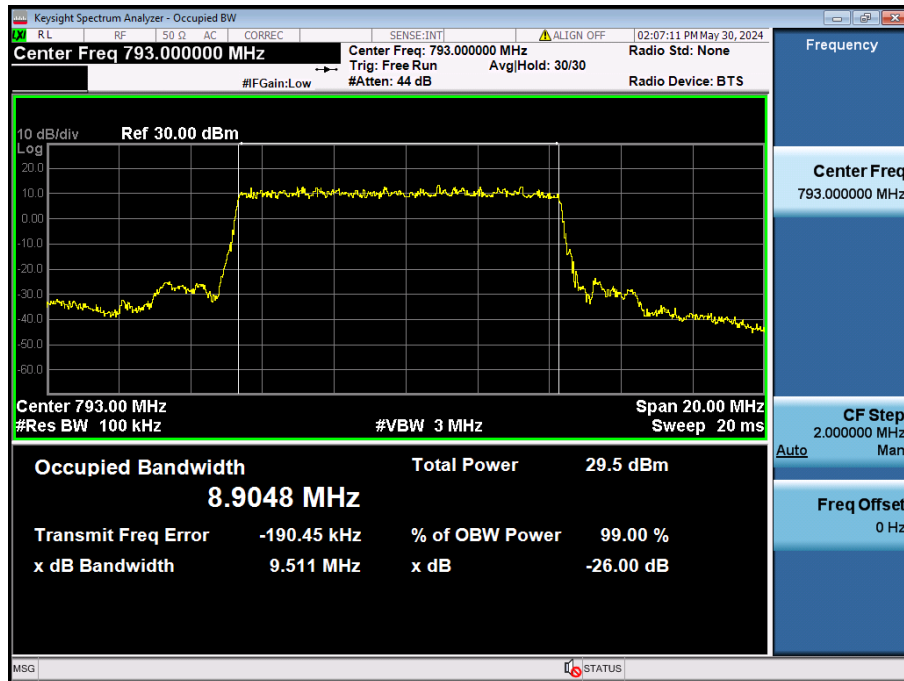


5 MHz / 64QAM / FULL RB Size



5 MHz / 256QAM / FULL RB Size

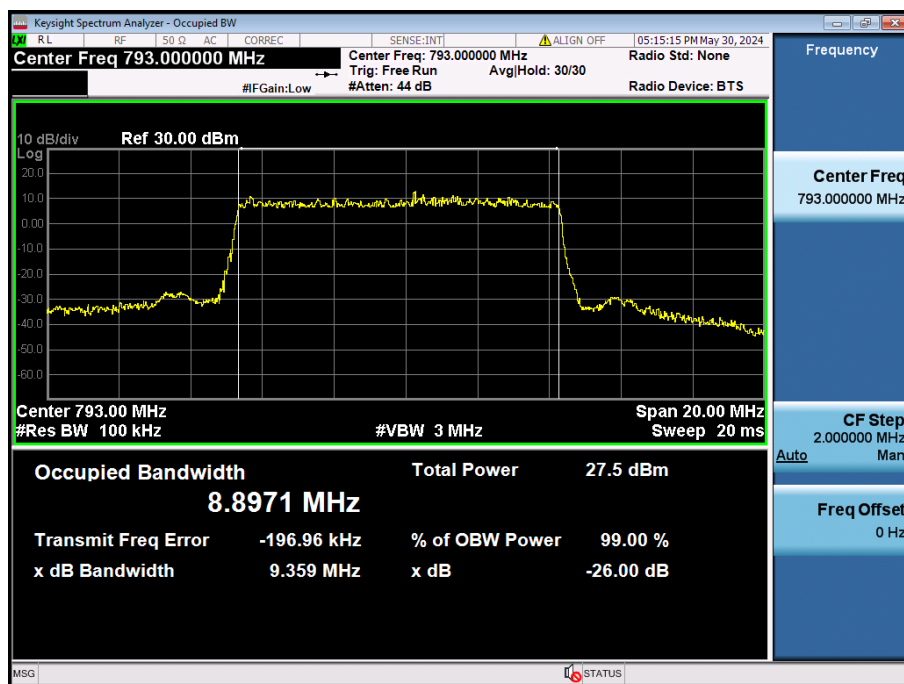
## 8.1.4. NR Band n14

10 MHz /  $\pi/2$  BPSK / FULL RB Size

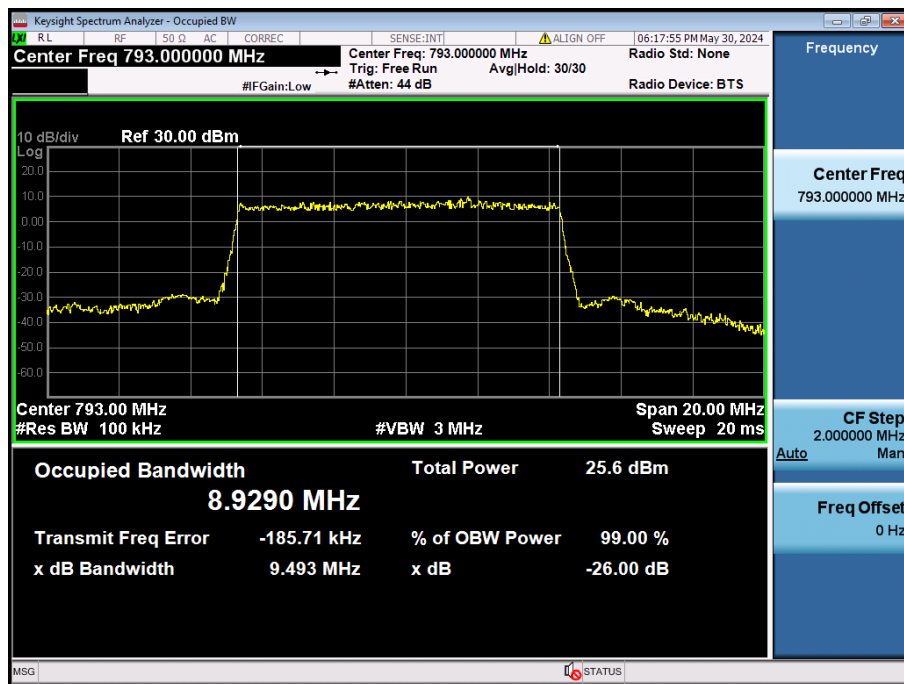
10 MHz / QPSK / FULL RB Size



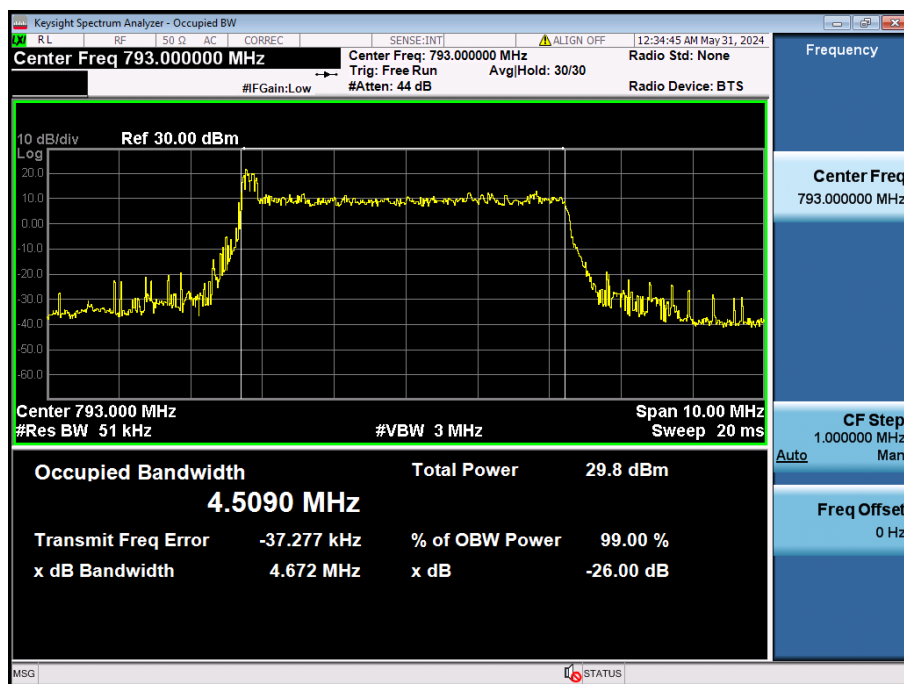
10 MHz / 16QAM / FULL RB Size



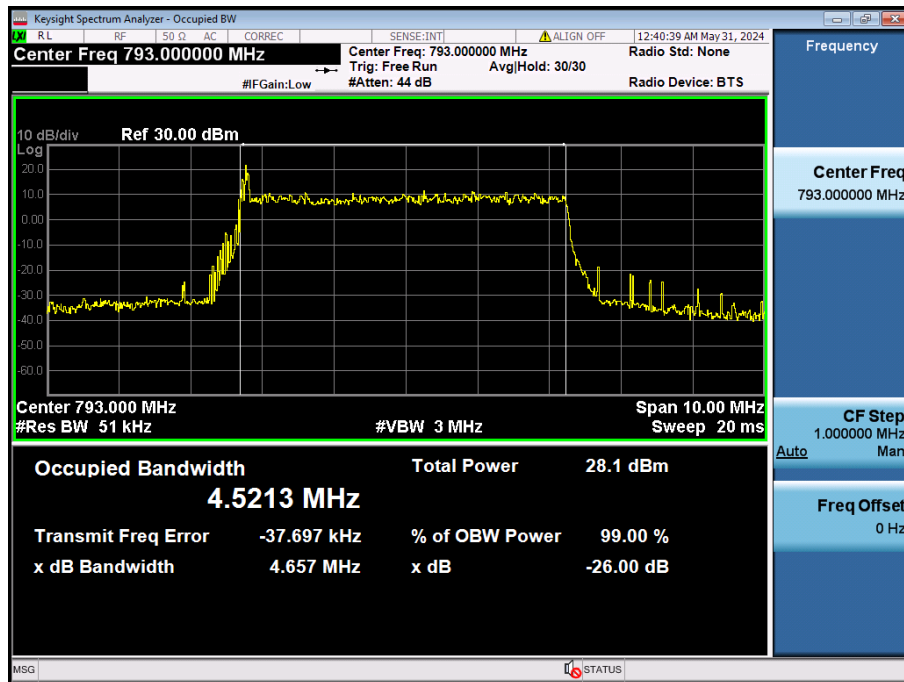
10 MHz / 64QAM / FULL RB Size



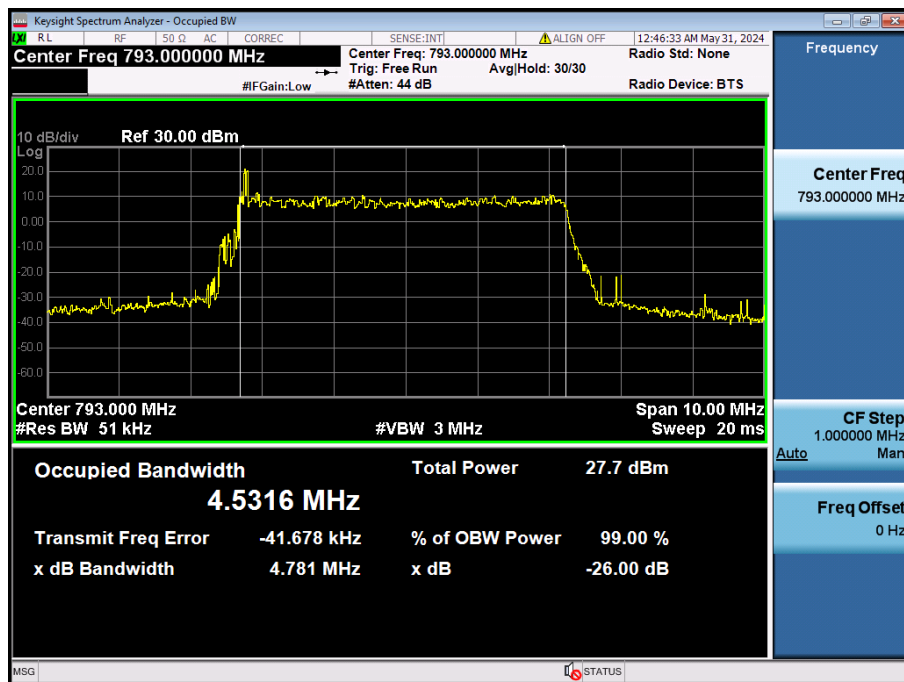
10 MHz / 256QAM / FULL RB Size

5 MHz /  $\pi/2$  BPSK / FULL RB Size

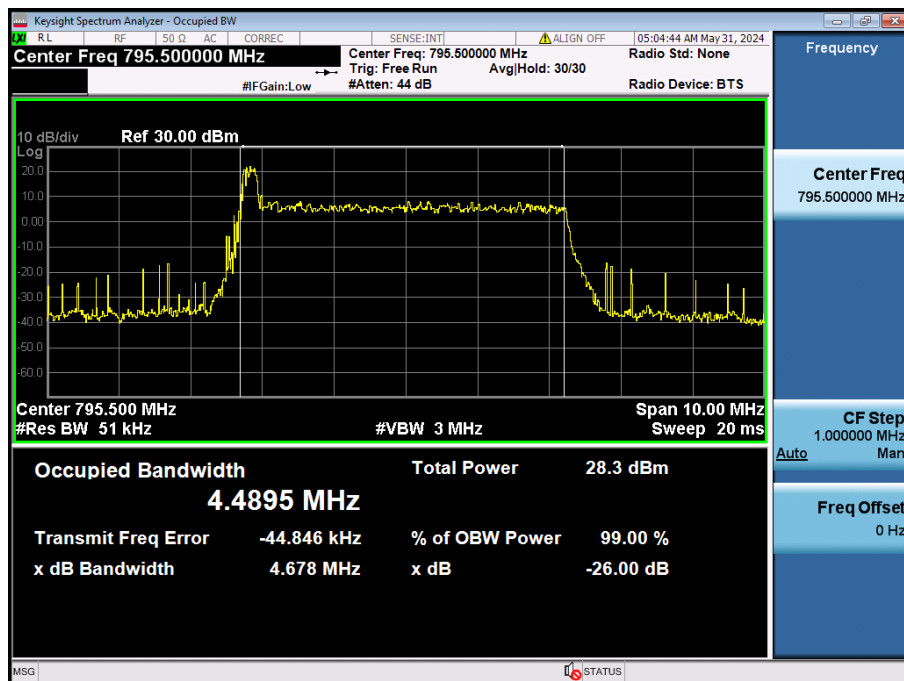
5 MHz / QPSK / FULL RB Size



5 MHz / 16QAM / FULL RB Size

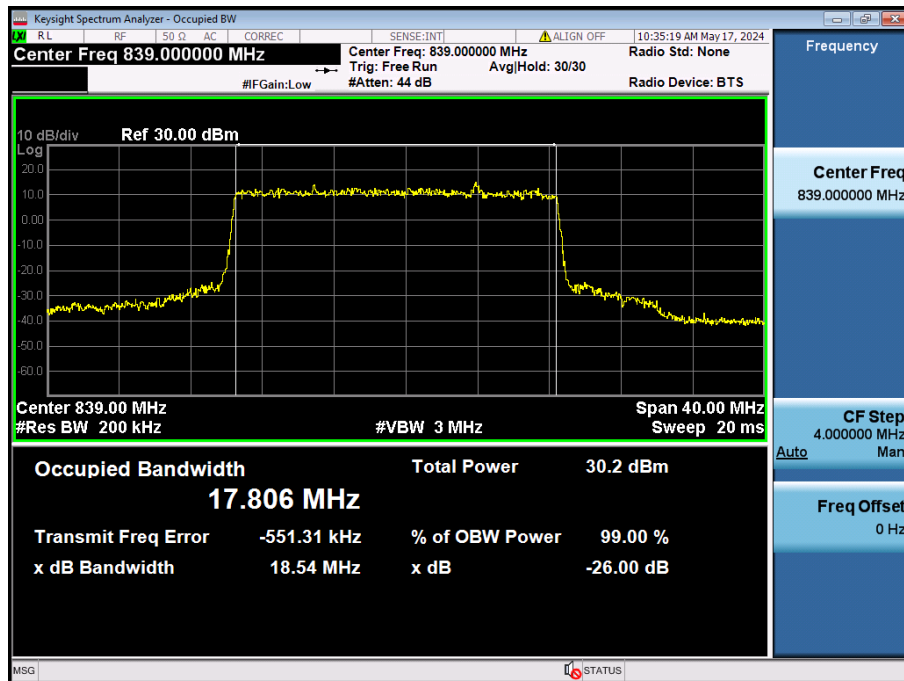
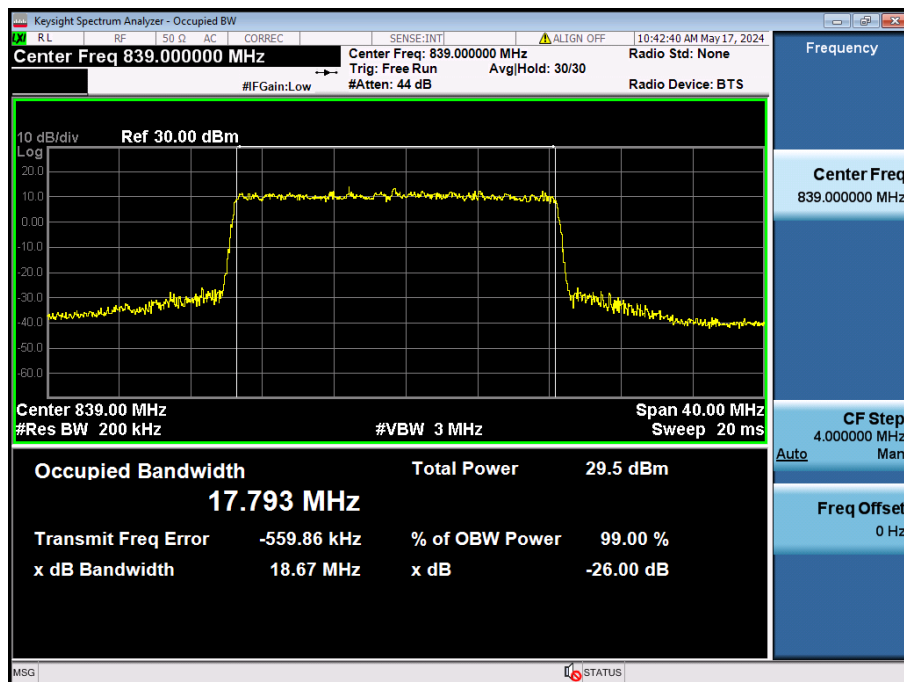


5 MHz / 64QAM / FULL RB Size

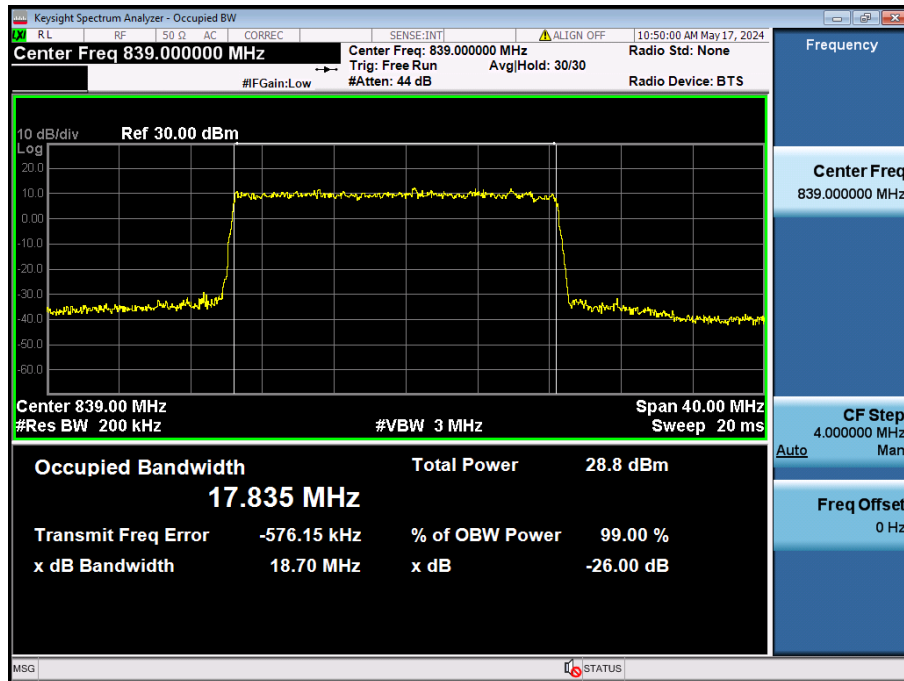


5 MHz / 256QAM / FULL RB Size

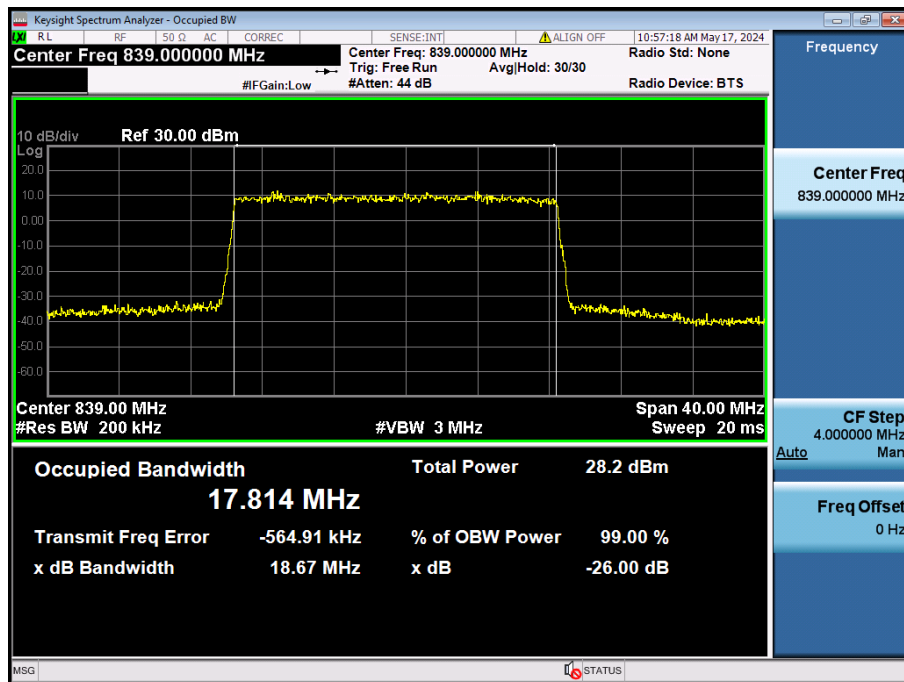
## 8.1.5. NR Band n5

20 MHz /  $\pi/2$  BPSK / FULL RB Size

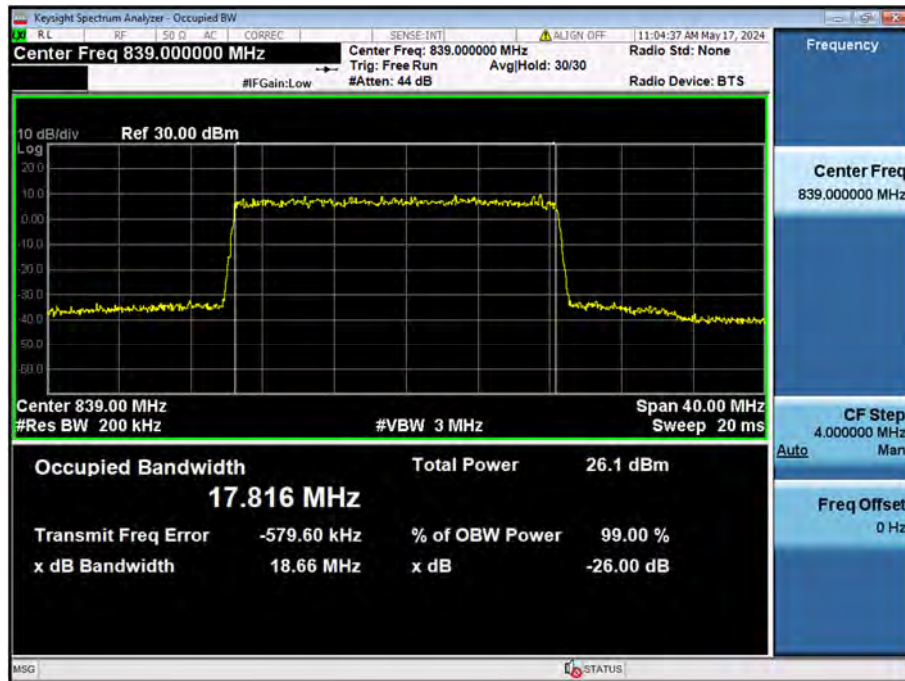
20 MHz / QPSK / FULL RB Size



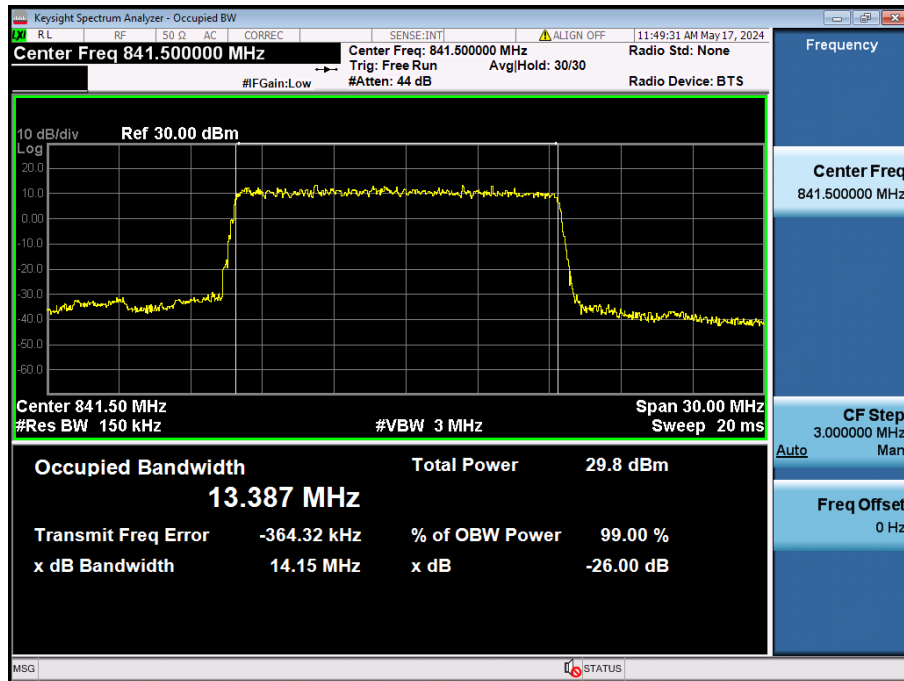
20 MHz / 16QAM / FULL RB Size



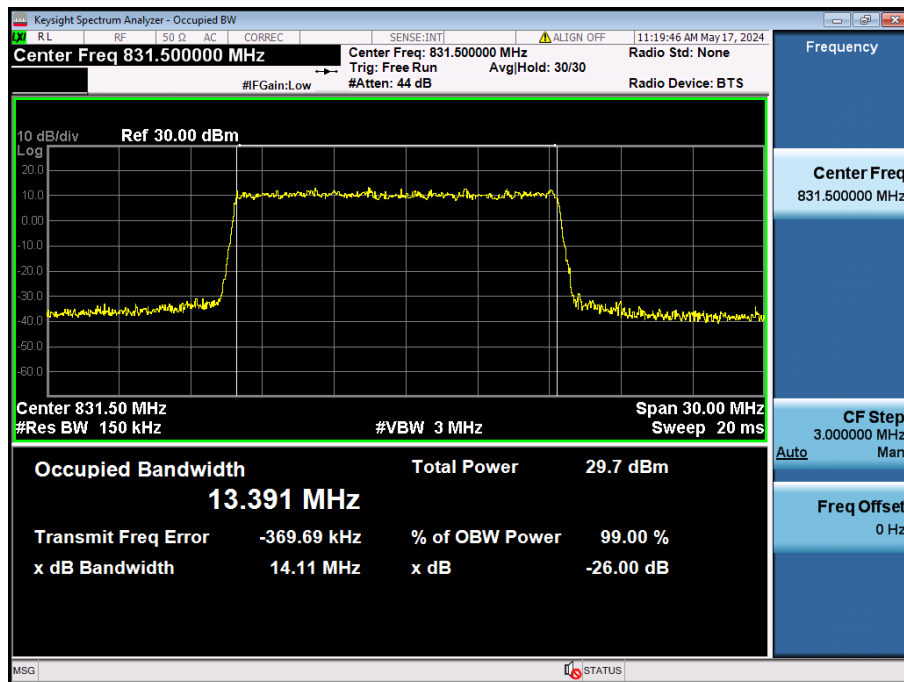
20 MHz / 64QAM / FULL RB Size



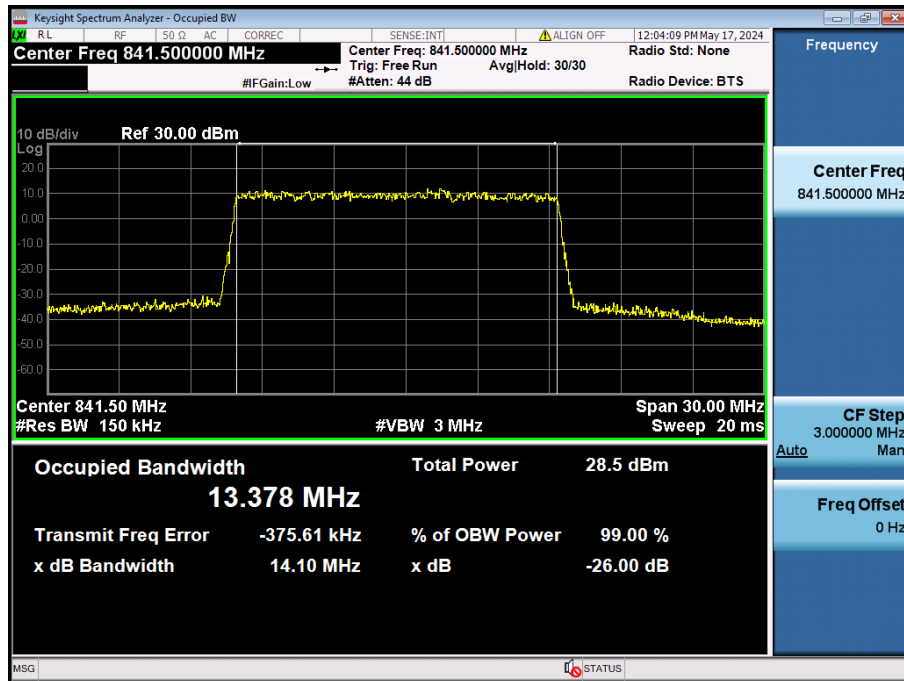
20 MHz / 256QAM / FULL RB Size



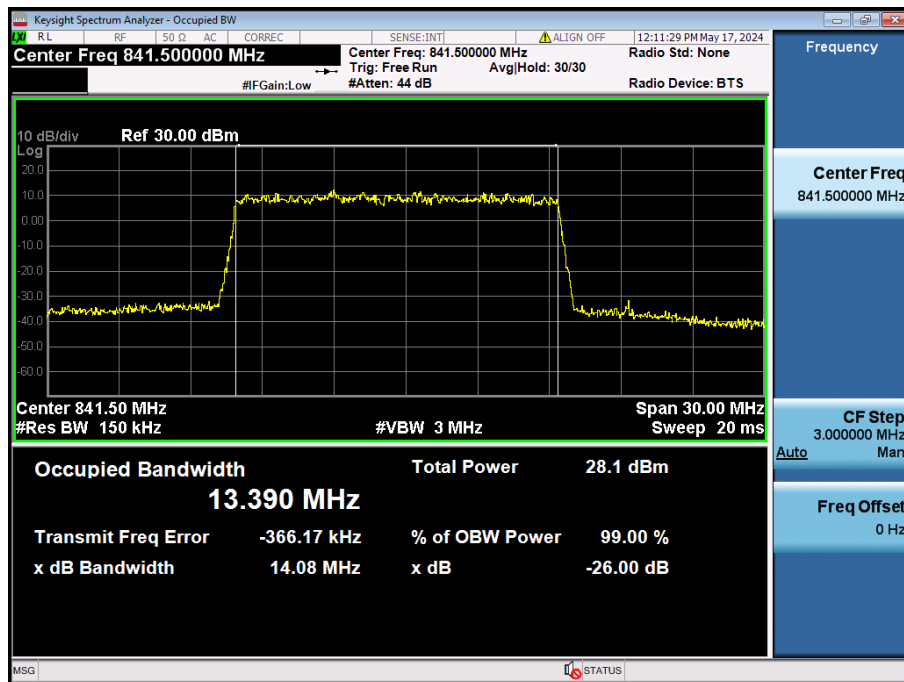
15 MHz /  $\pi/2$  BPSK / FULL RB Size



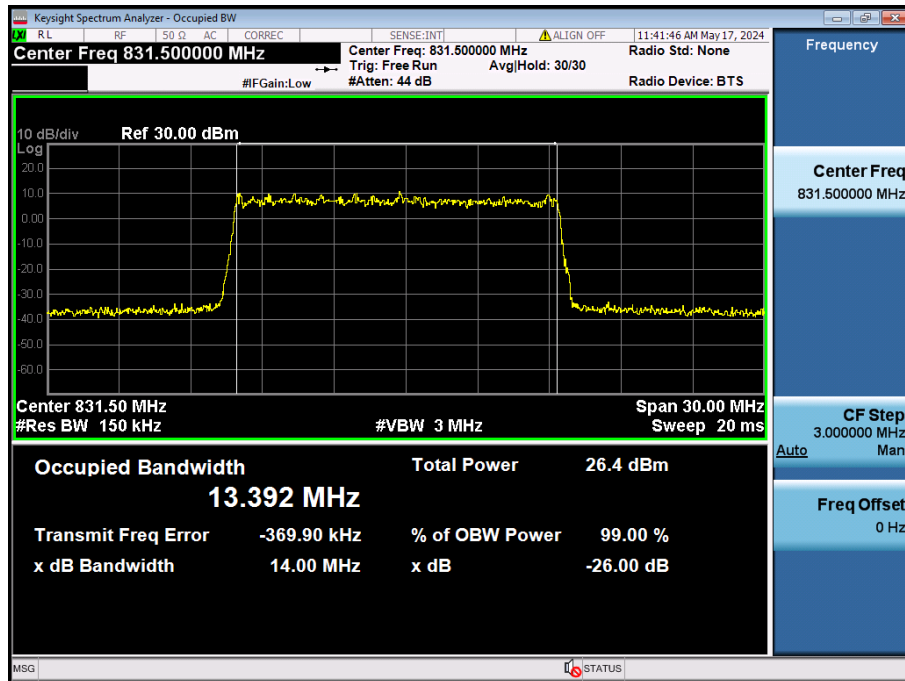
15 MHz / QPSK / FULL RB Size



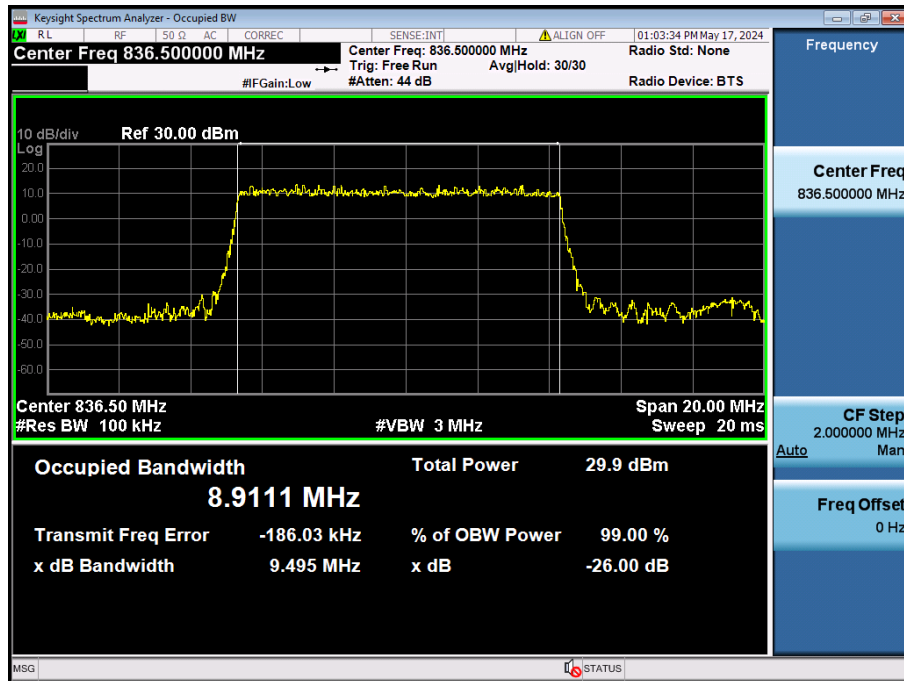
15 MHz / 16QAM / FULL RB Size



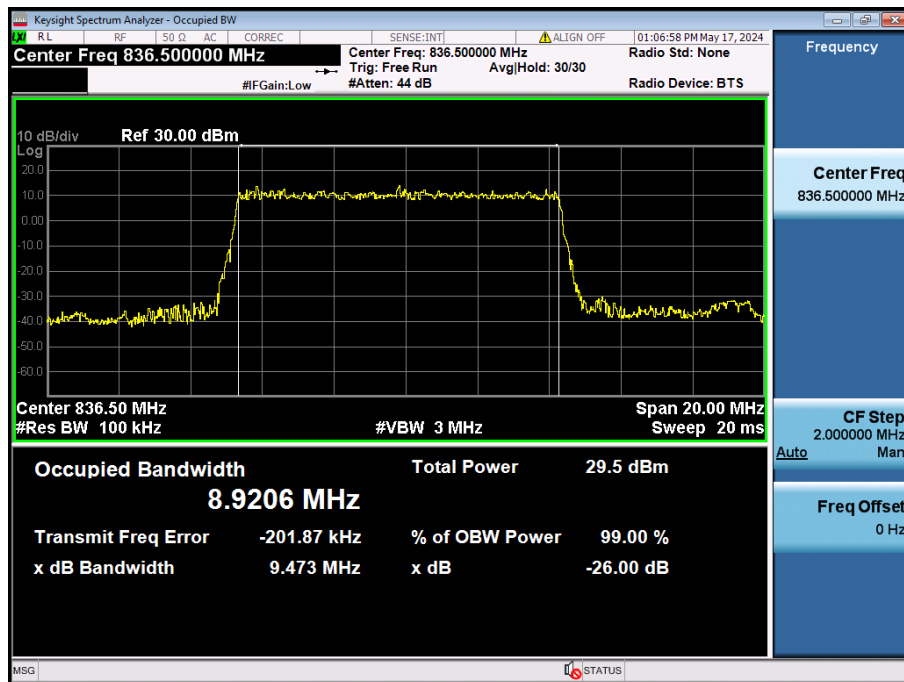
15 MHz / 64QAM / FULL RB Size



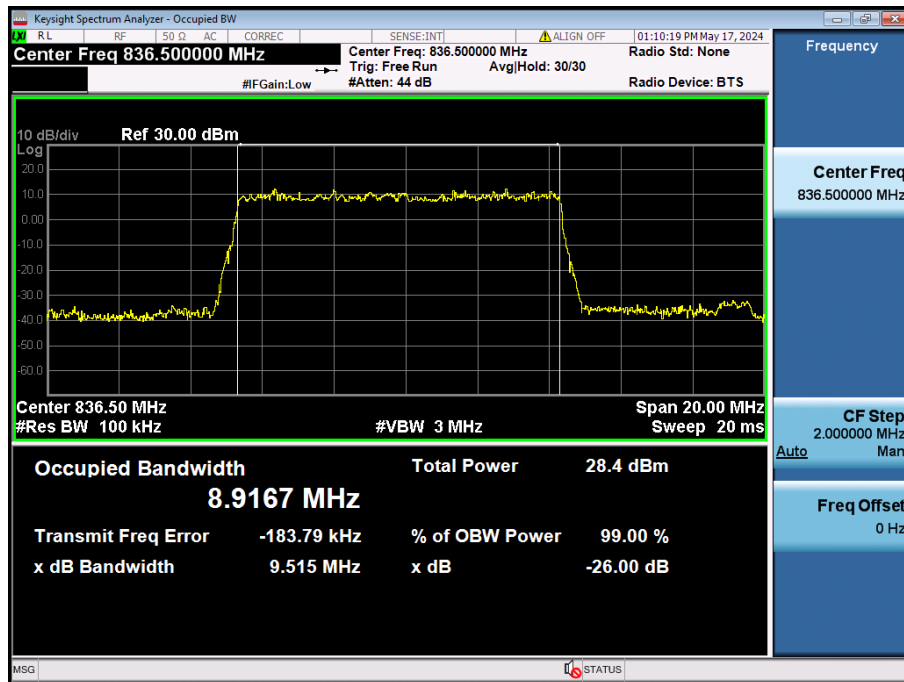
15 MHz / 256QAM / FULL RB Size



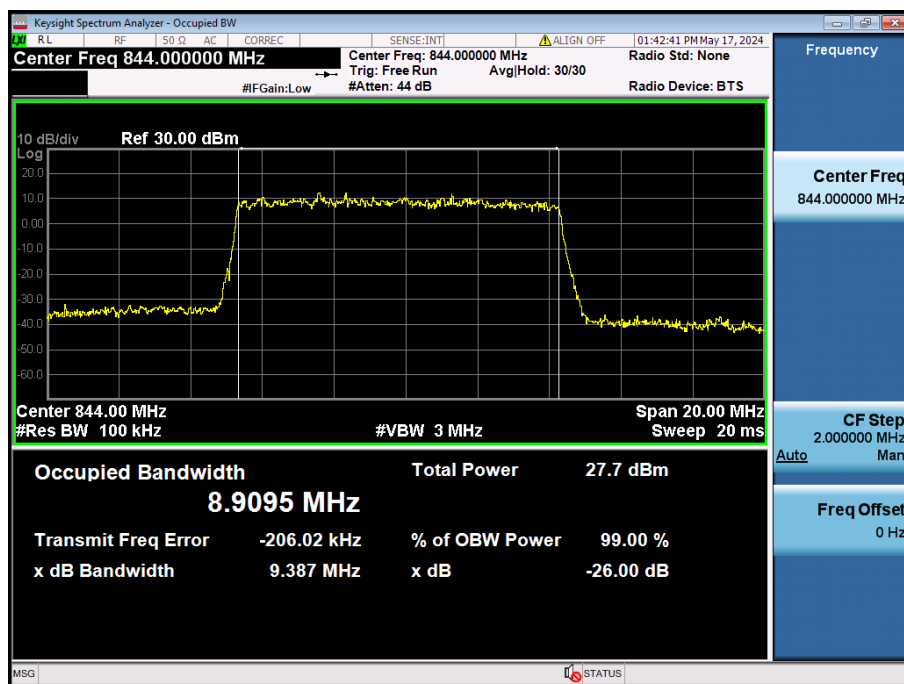
10 MHz /  $\pi/2$  BPSK / FULL RB Size



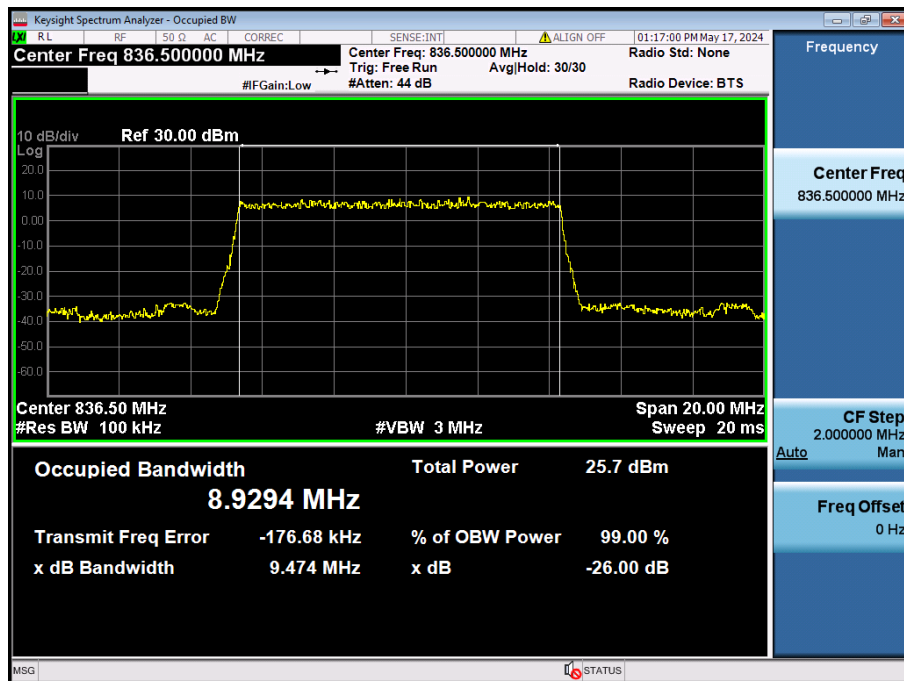
10 MHz / QPSK / FULL RB Size



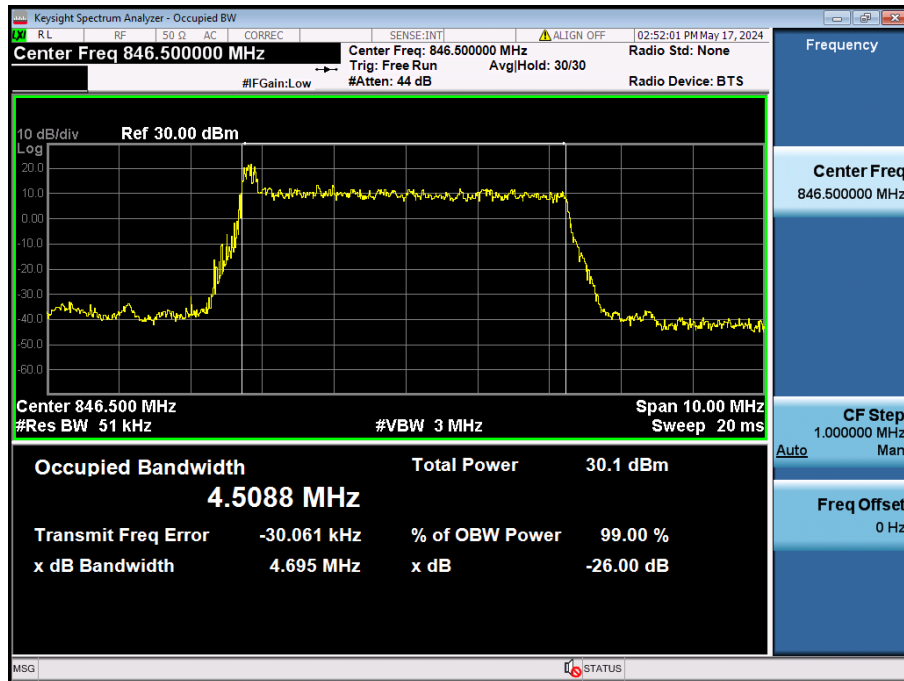
10 MHz / 16QAM / FULL RB Size



10 MHz / 64QAM / FULL RB Size



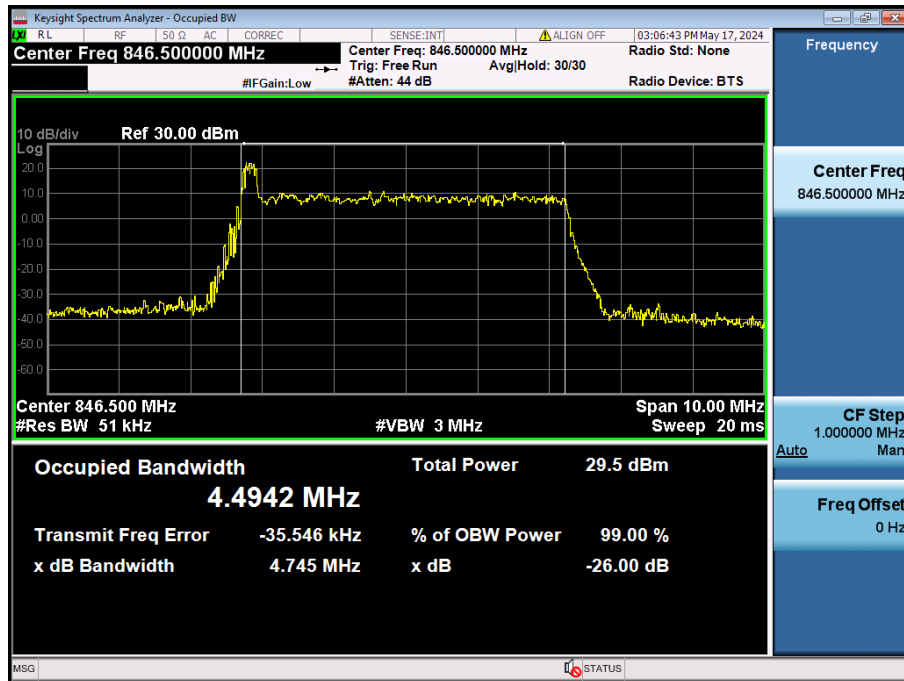
10 MHz / 256QAM / FULL RB Size



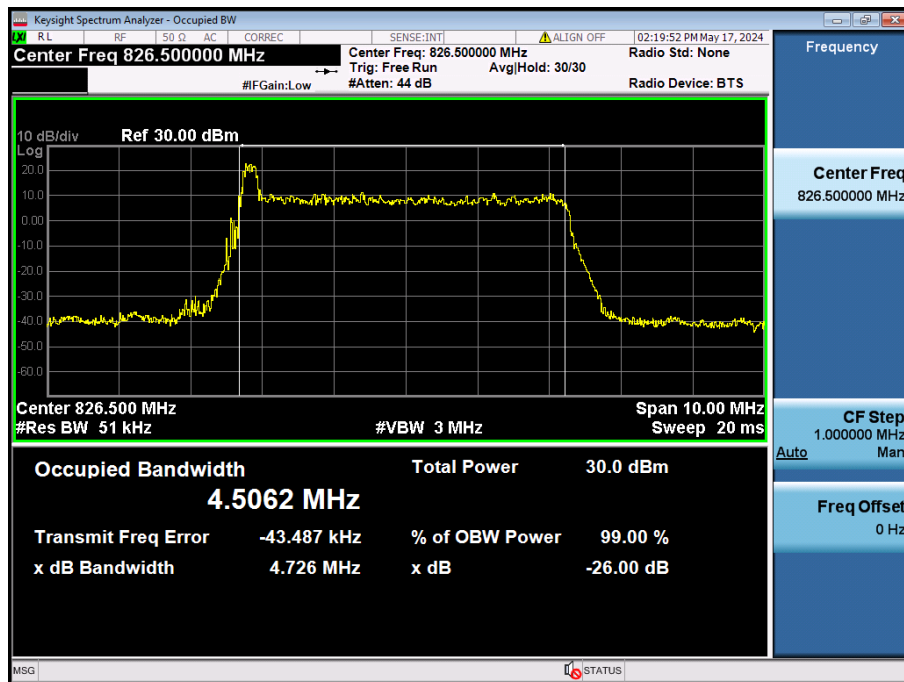
5 MHz /  $\pi/2$  BPSK / FULL RB Size



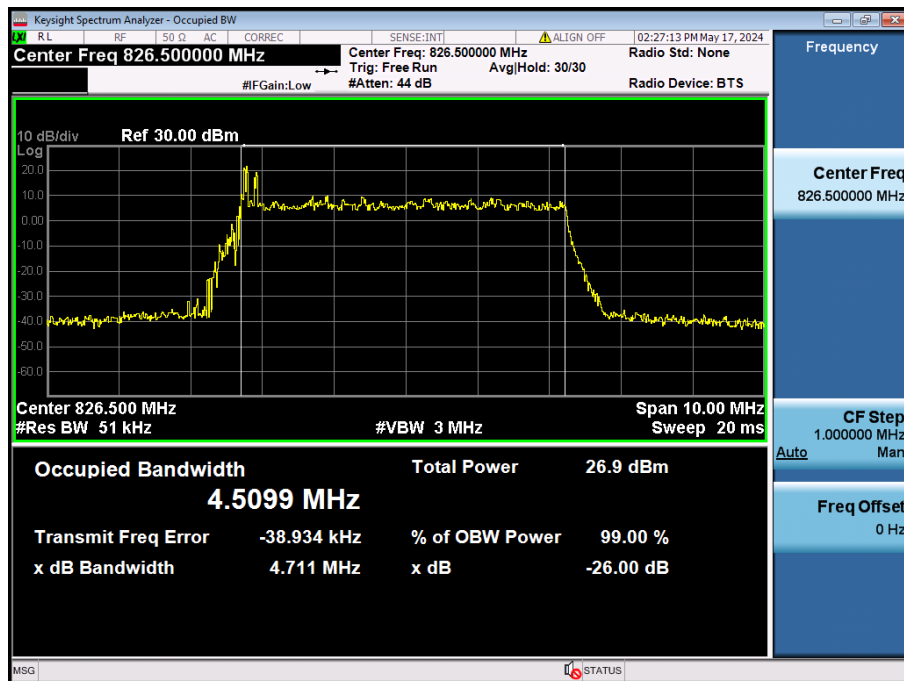
5 MHz / QPSK / FULL RB Size



5 MHz / 16QAM / FULL RB Size

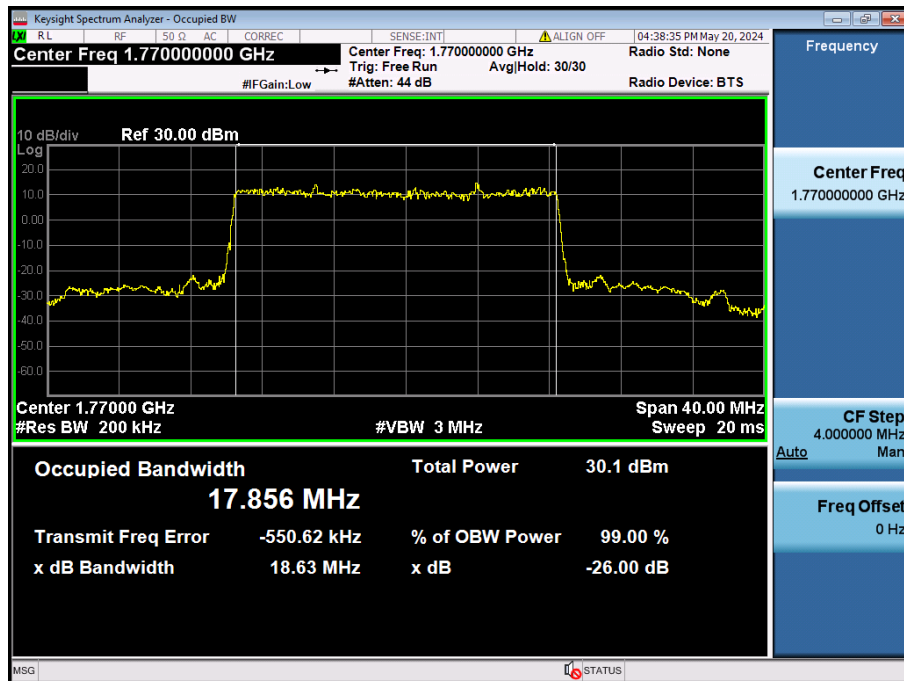
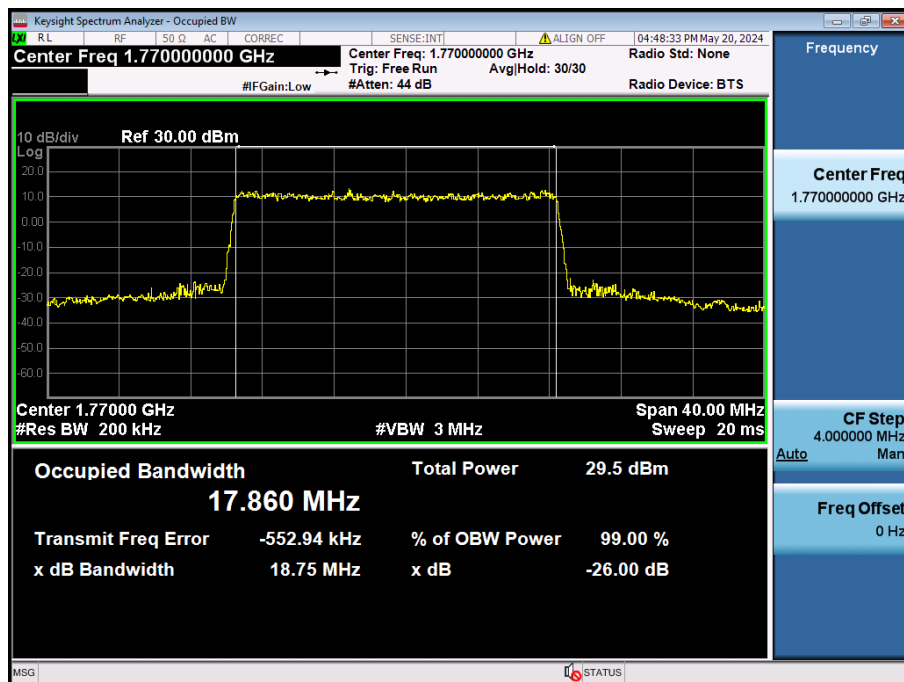


5 MHz / 64QAM / FULL RB Size

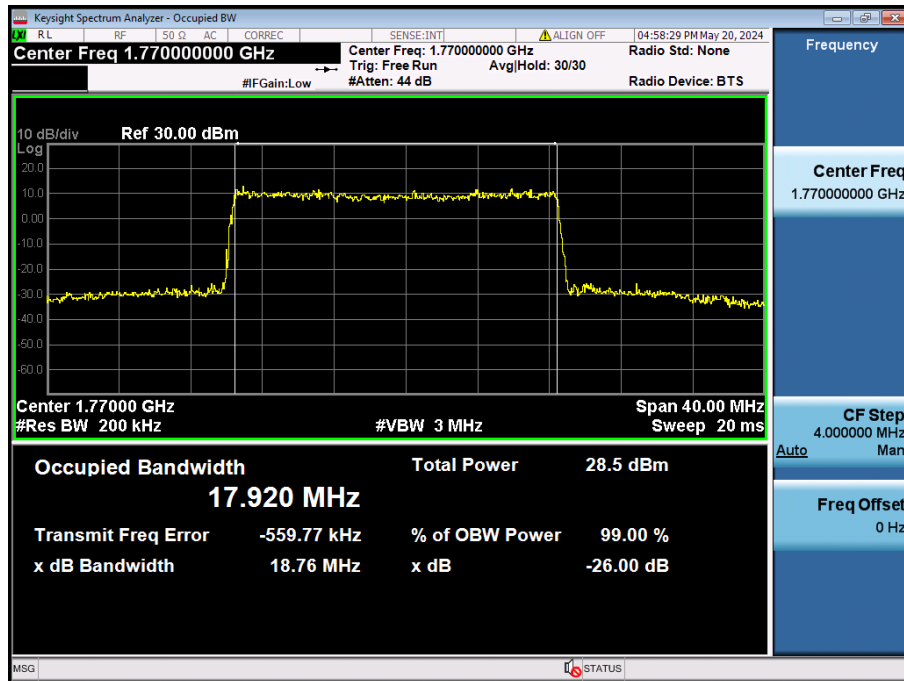


5 MHz / 256QAM / FULL RB Size

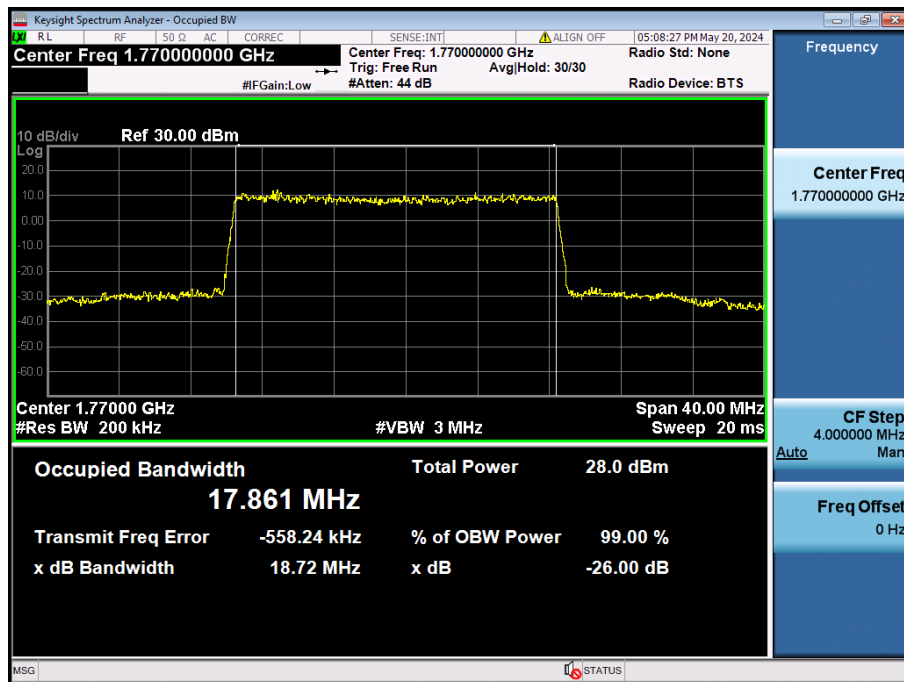
## 8.1.6. NR Band n66

20 MHz /  $\pi/2$  BPSK / FULL RB Size

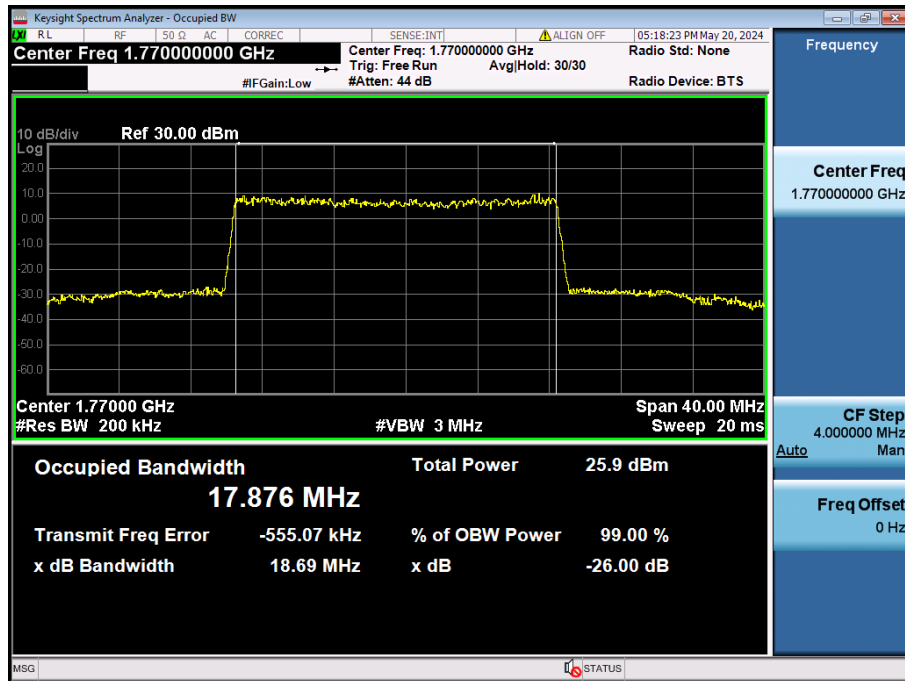
20 MHz / QPSK / FULL RB Size



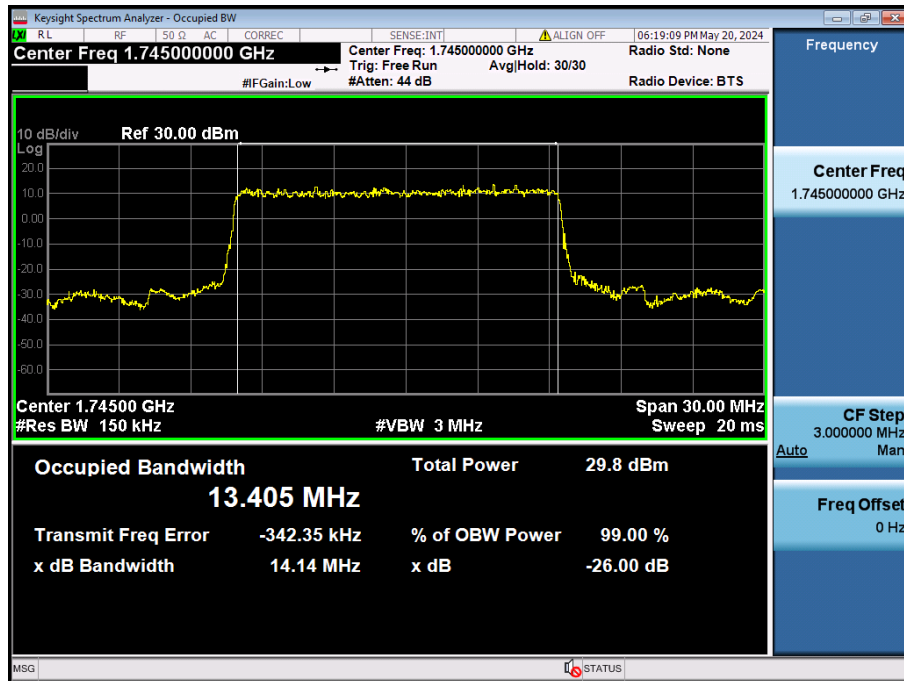
20 MHz / 16QAM / FULL RB Size



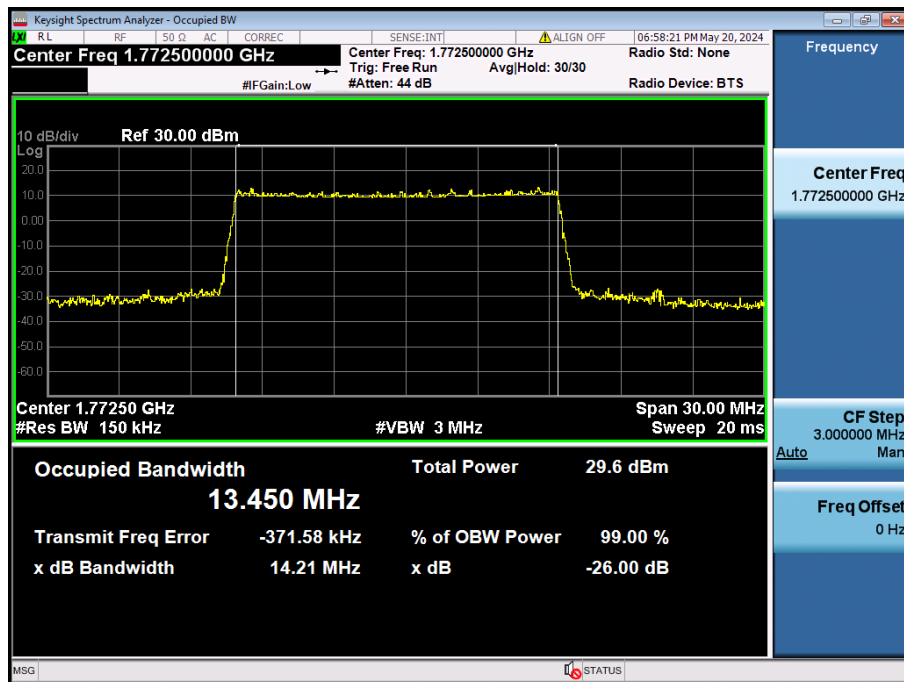
20 MHz / 64QAM / FULL RB Size



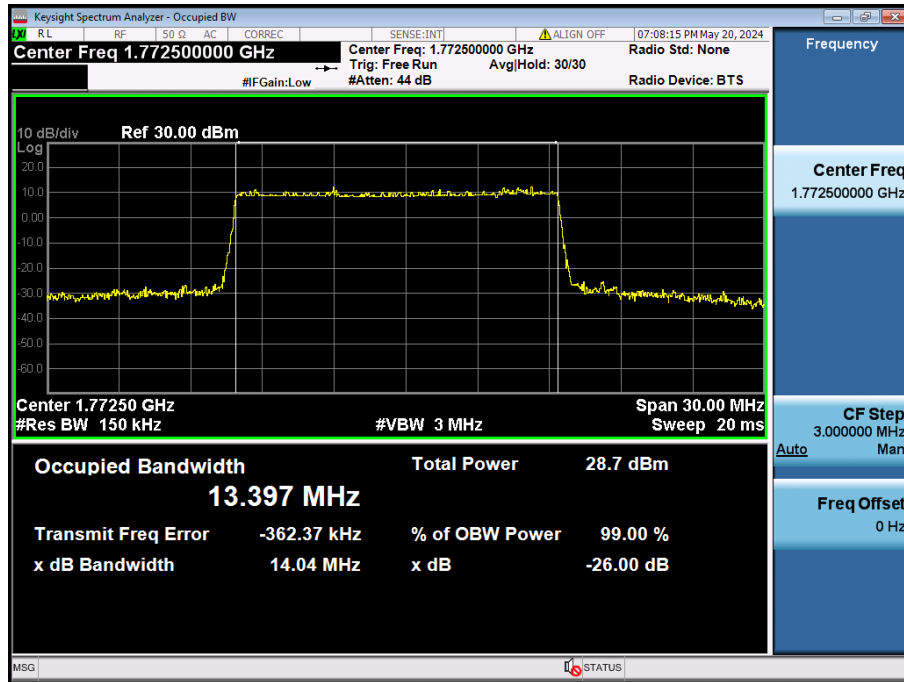
20 MHz / 256QAM / FULL RB Size



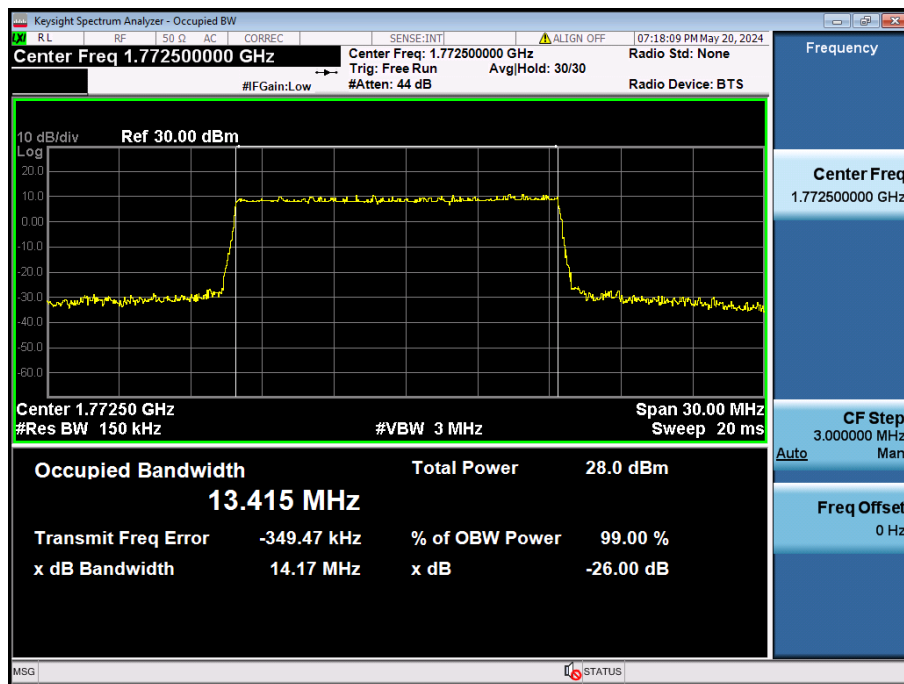
15 MHz /  $\pi/2$  BPSK / FULL RB Size



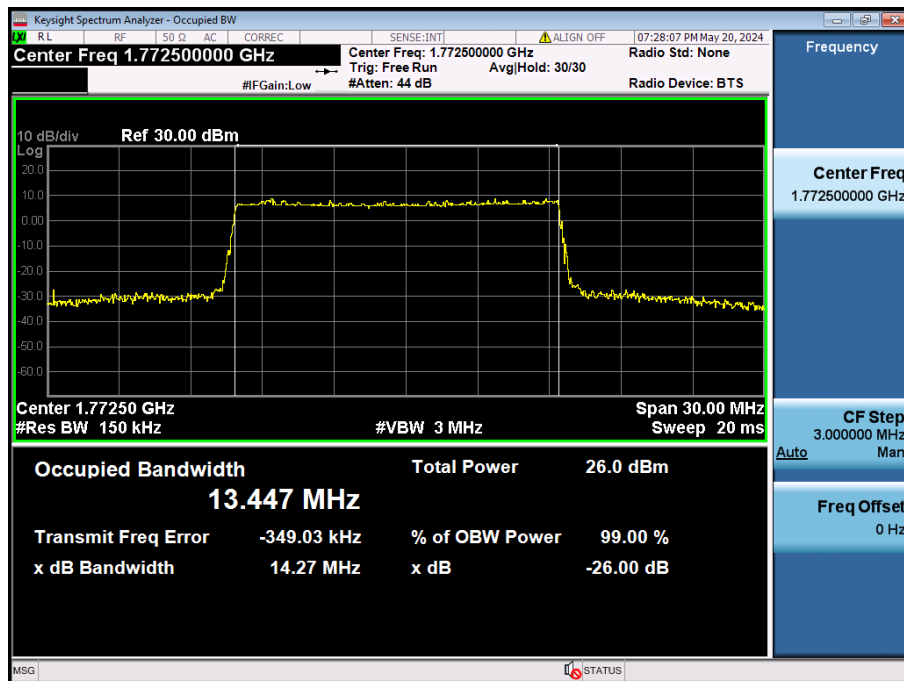
15 MHz / QPSK / FULL RB Size



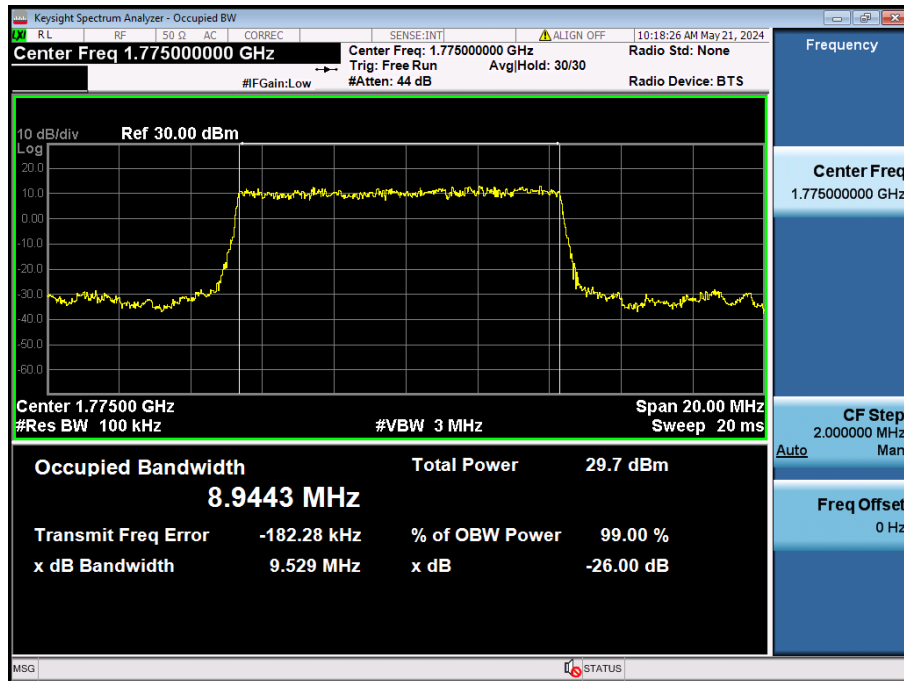
15 MHz / 16QAM / FULL RB Size



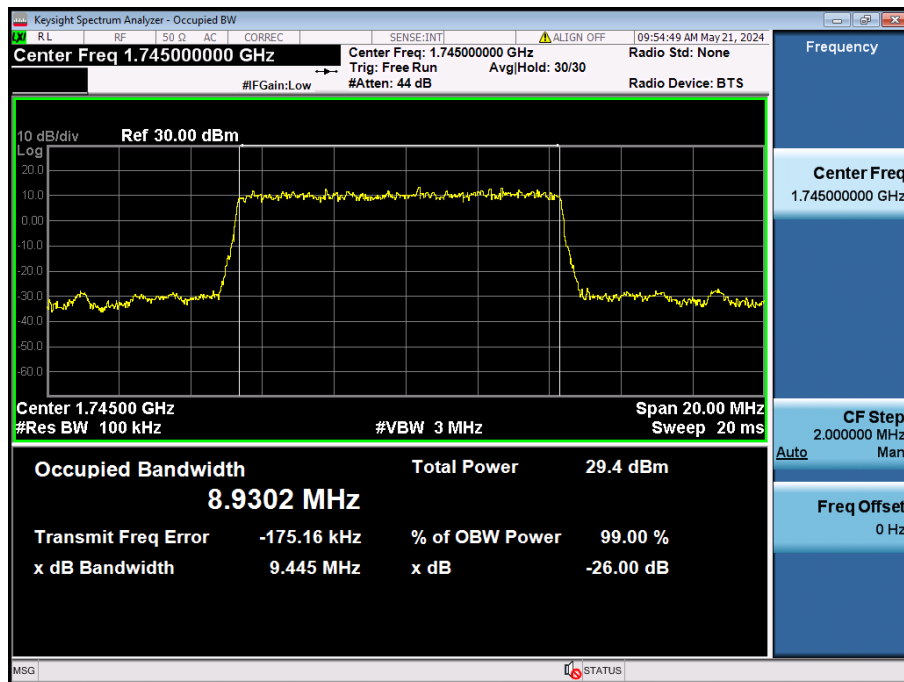
15 MHz / 64QAM / FULL RB Size



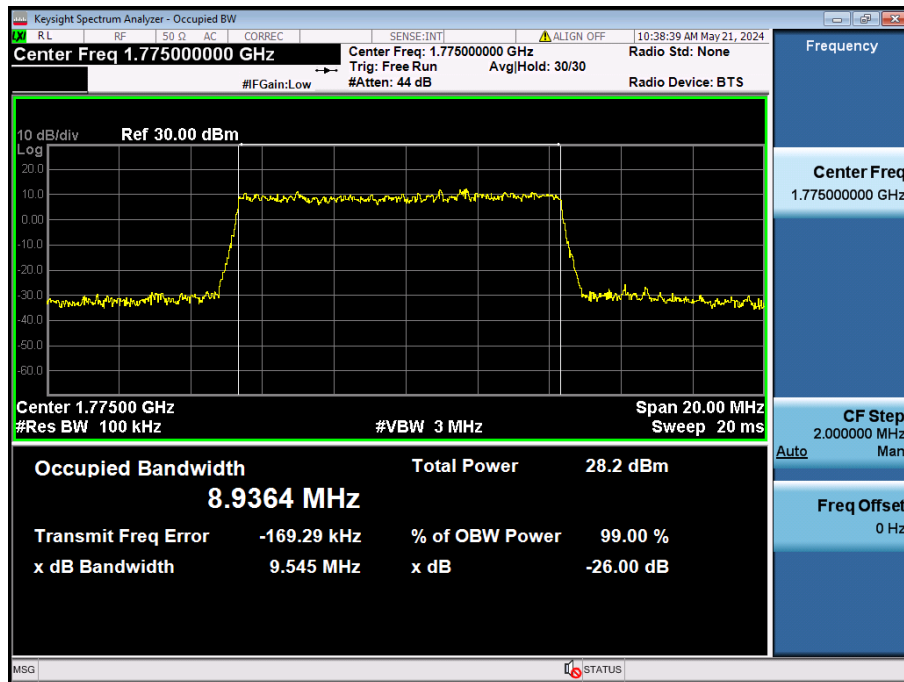
15 MHz / 256QAM / FULL RB Size



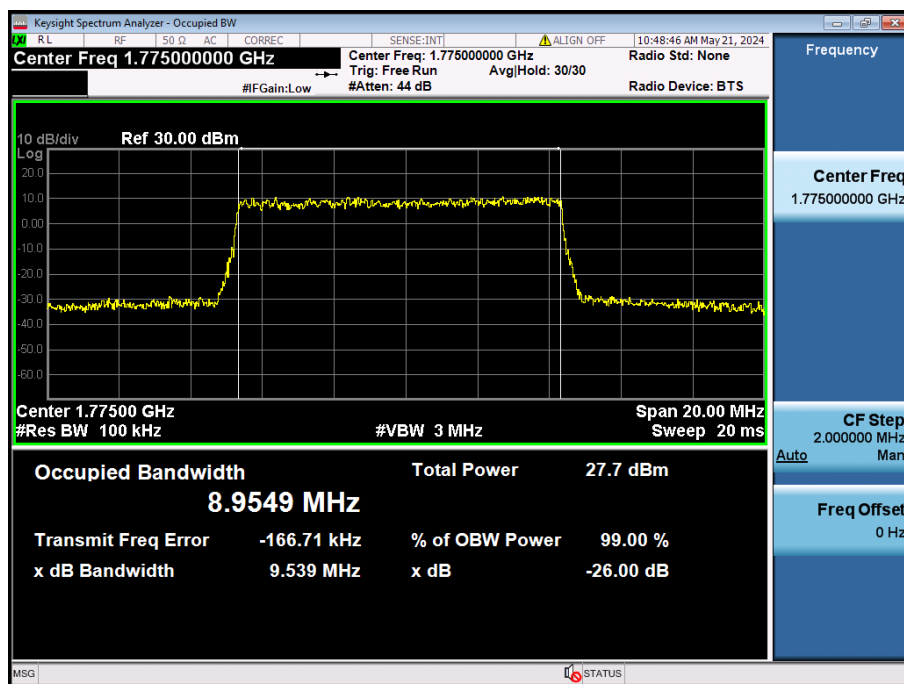
10 MHz /  $\pi/2$  BPSK / FULL RB Size



10 MHz / QPSK / FULL RB Size

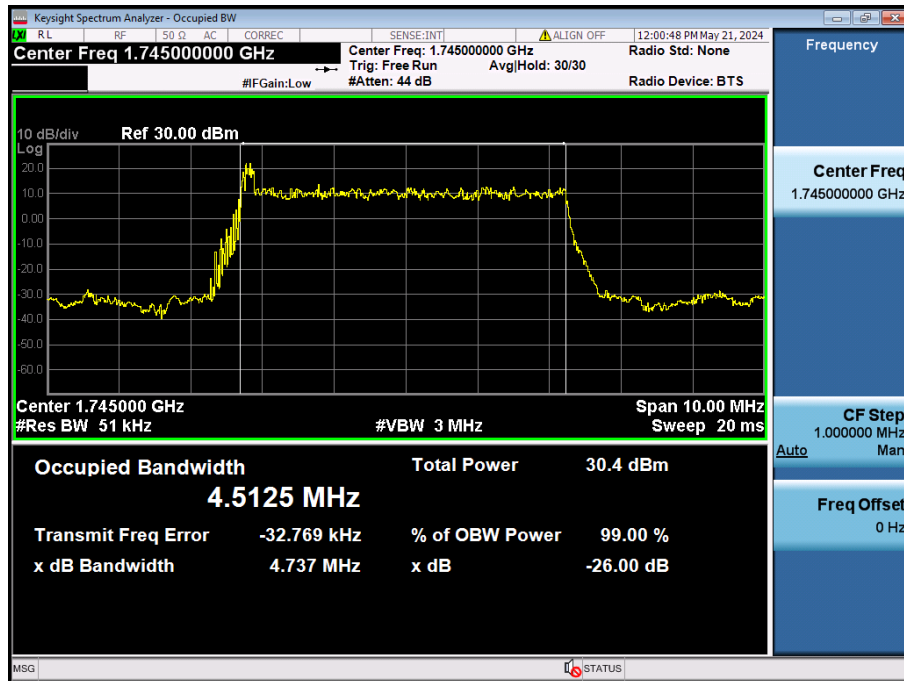
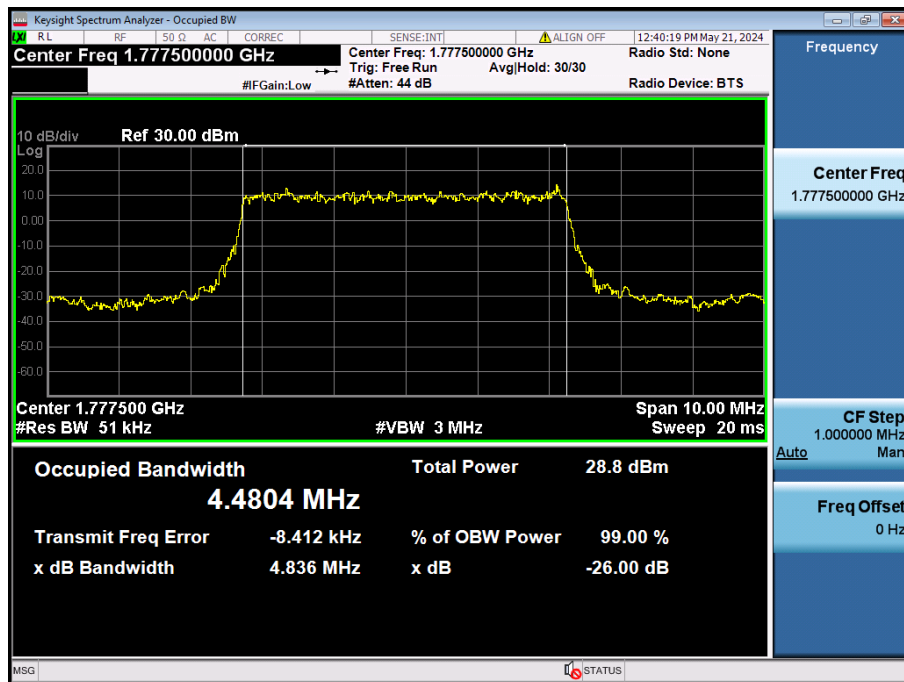


10 MHz / 16QAM / FULL RB Size

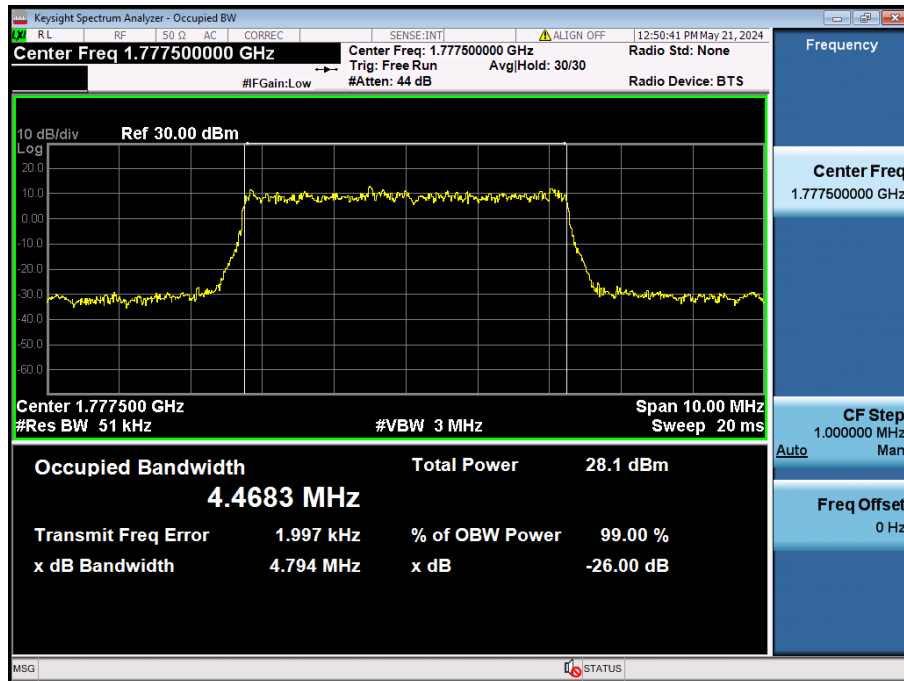


10 MHz / 64QAM / FULL RB Size

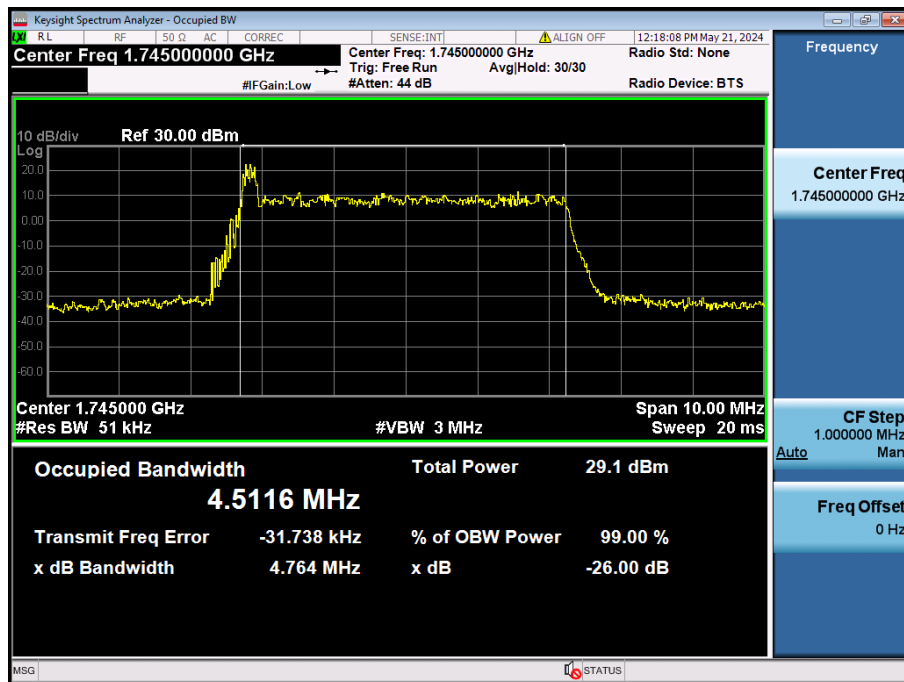


5 MHz /  $\pi/2$  BPSK / FULL RB Size

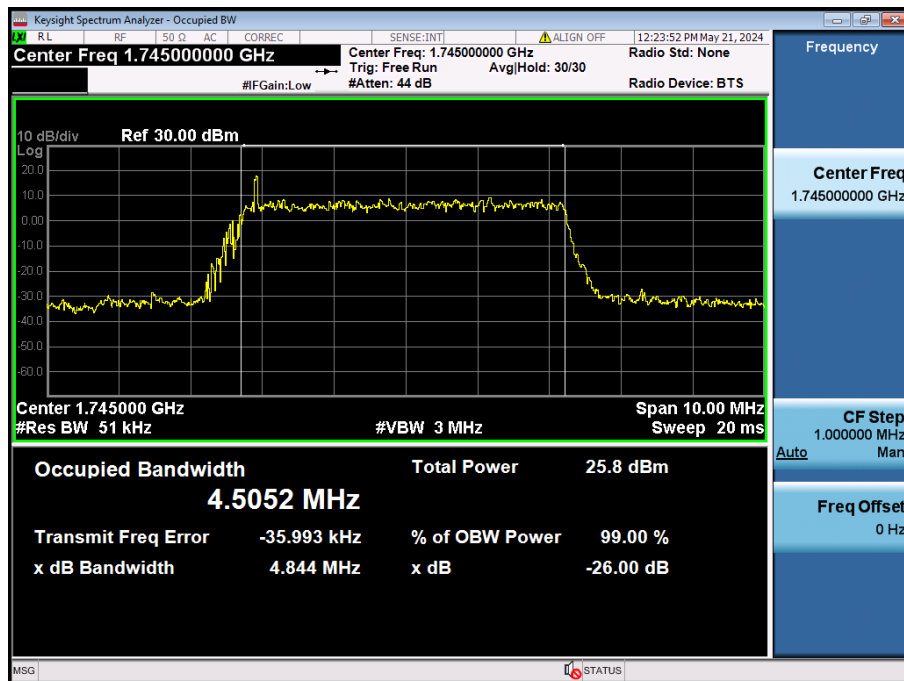
5 MHz / QPSK / FULL RB Size



5 MHz / 16QAM / FULL RB Size

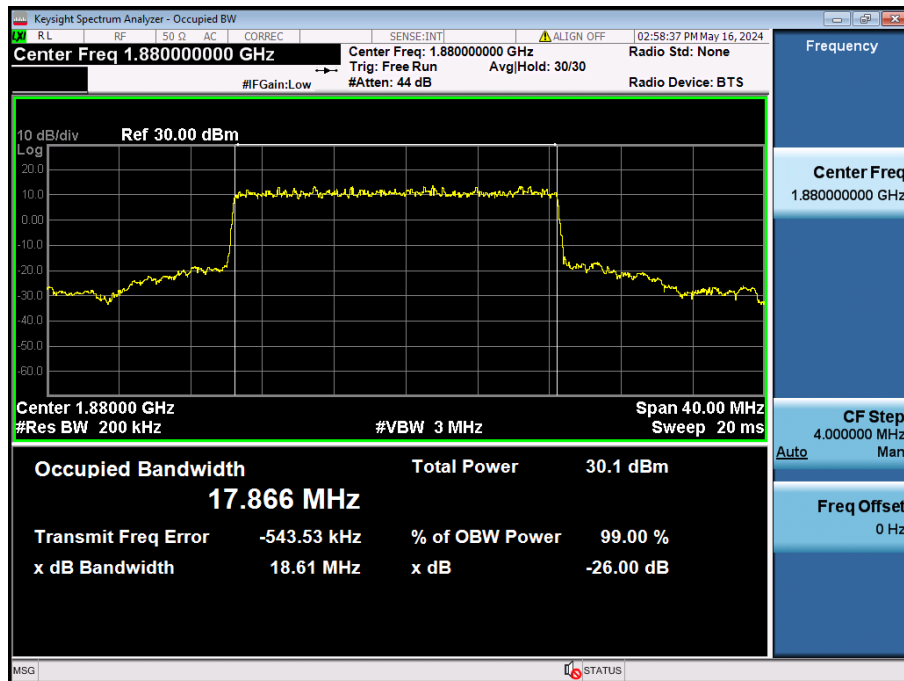
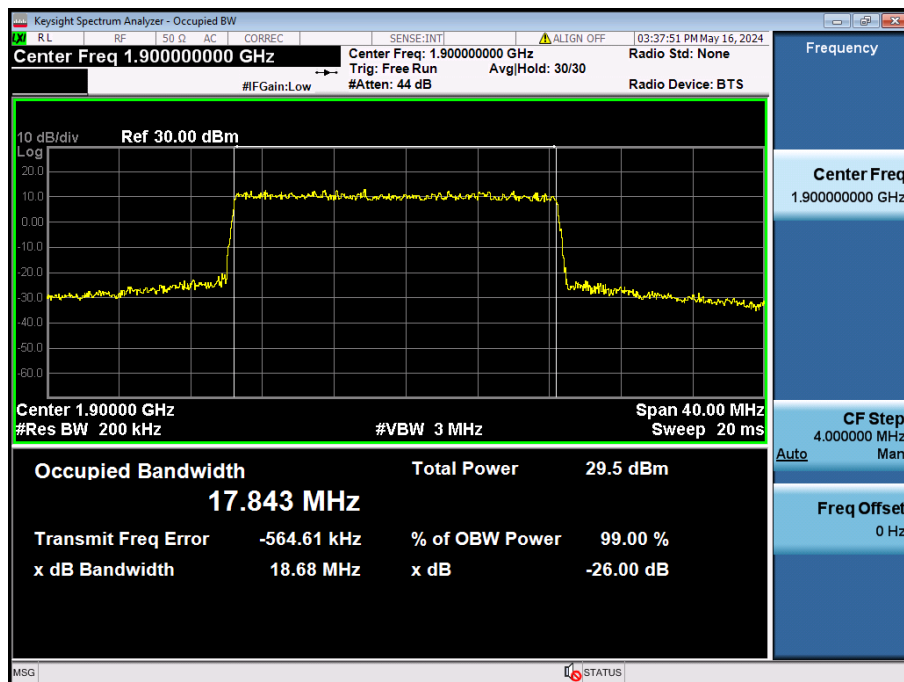


5 MHz / 64QAM / FULL RB Size

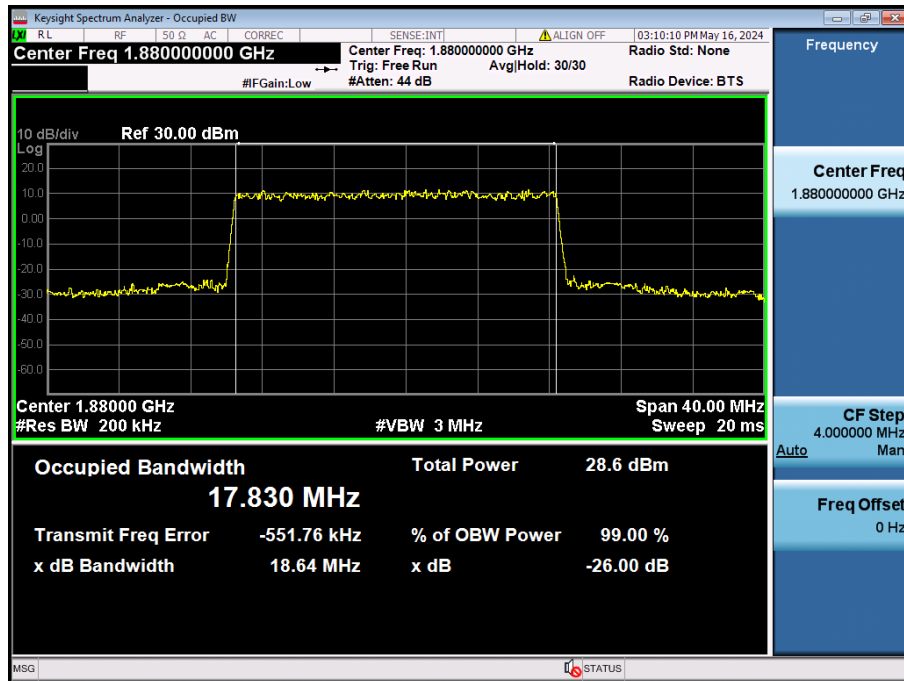


5 MHz / 256QAM / FULL RB Size

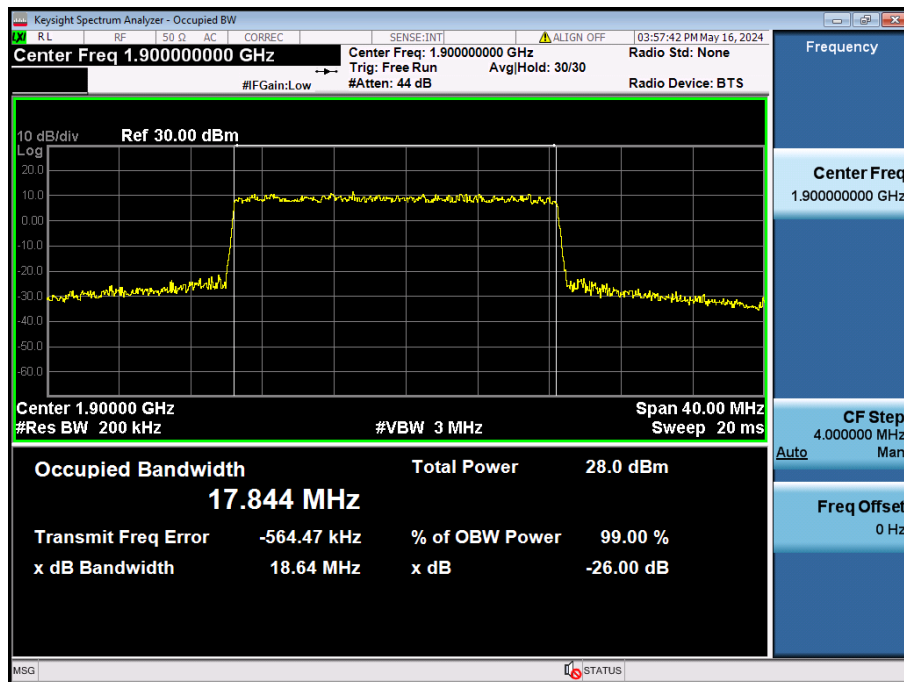
## 8.1.7. NR Band n2

20 MHz /  $\pi/2$  BPSK / FULL RB Size

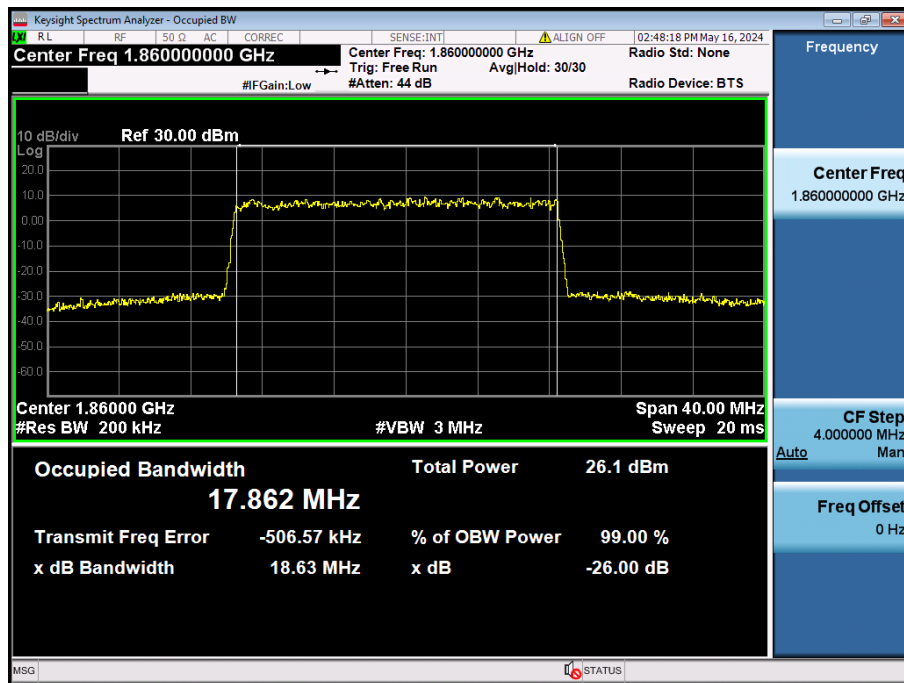
20 MHz / QPSK / FULL RB Size



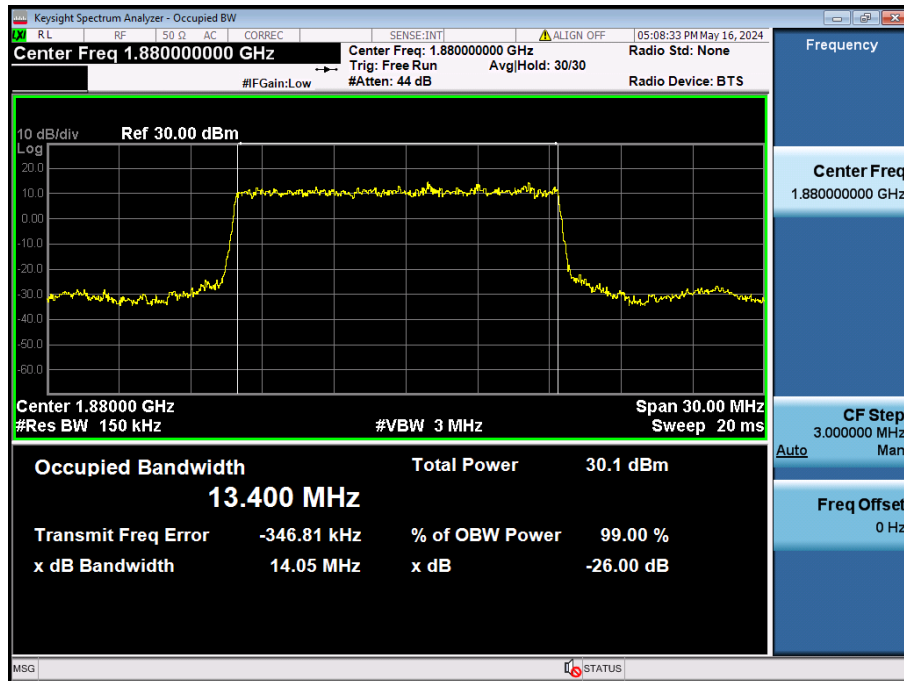
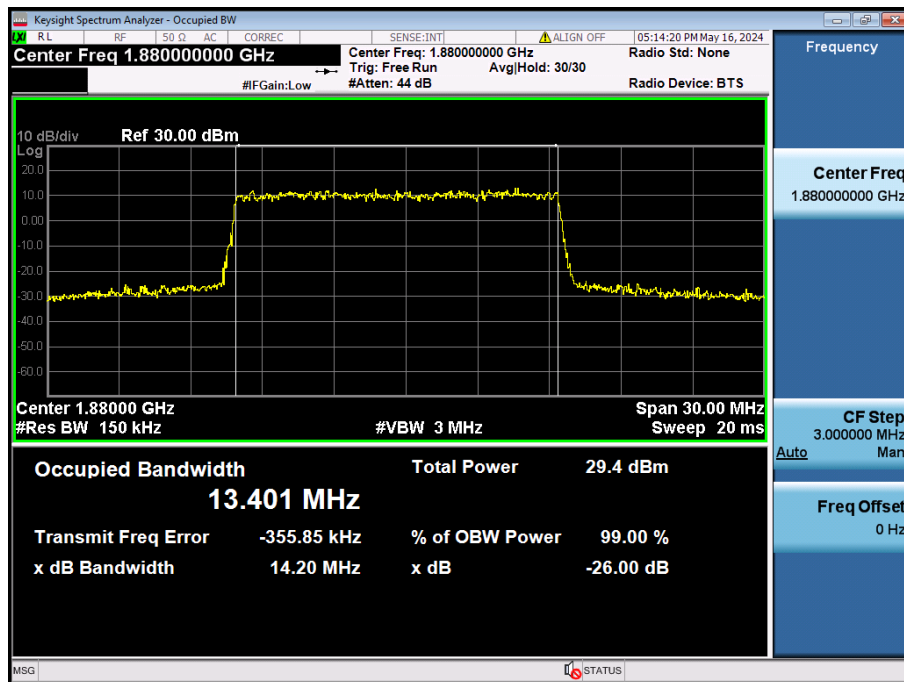
20 MHz / 16QAM / FULL RB Size



20 MHz / 64QAM / FULL RB Size



20 MHz / 256QAM / FULL RB Size

15 MHz /  $\pi/2$  BPSK / FULL RB Size

15 MHz / QPSK / FULL RB Size