

# TEST REPORT

## CERTIFICATE OF CONFORMITY

**Standard:** 47 CFR FCC Part 90  
47 CFR FCC Part 2

**Report No.:** RFBEIH-WTW-P25090773

**FCC ID:** 2ASK5AIOOD5GSC03

**Product:** Nokia AIO SC Outdoor 5G

**Brand:** Nokia

**Model No.:** Nokia AIO SC Outdoor 5G n79

**Received Date:** 2025/9/24

**Test Date:** 2025/11/5 ~ 2025/12/29

**Issued Date:** 2026/2/26

**Applicant:** Nokia

**Address:** 3201 Olympus Blvd Dallas, TX 75019

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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**Test Location(2):** No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

**FCC Registration /** 788550 / TW0003 for Test Location(1)

**Designation Number:** 281270 / TW0032 for Test Location(2)

**Approved by:** Jeremy Lin, **Date:** 2026/2/26  
Jeremy Lin / Project Engineer

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Prepared by : Celine Chou / Senior Specialist



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## Release Control Record

| Issue No.            | Description       | Date Issued |
|----------------------|-------------------|-------------|
| RFBEIH-WTW-P25090773 | Original release. | 2026/2/26   |

## 1 Certificate

**Product:** Nokia AIOSC Outdoor 5G

**Brand:** Nokia

**Test Model:** Nokia AIOSC Outdoor 5G n79

**Sample Status:** Engineering sample

**Applicant:** Nokia

**Test Date:** 2025/11/5 ~ 2025/12/29

**Standard:** 47 CFR FCC Part 90  
47 CFR FCC Part 2

**Measurement procedure:** ANSI/TIA/EIA-603-E 2016  
ANSI C63.26-2015  
KDB 971168 D01 Power Meas License Digital Systems v03r01  
KDB 971168 D02 Misc Rev Approv License Devices v02r02  
KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

## 2 Summary of Test Results

| Standard / Clause           | Test Item                                                            | Result | Remark                                             |
|-----------------------------|----------------------------------------------------------------------|--------|----------------------------------------------------|
| Part 2.1046<br>Part 90.1215 | Effective Radiated Power and Equivalent Isotropically Radiated Power | Pass   | Meet the requirement of limit.                     |
| Part 90.1215                | Peak Power Spectral Density                                          | Pass   | Meet the requirement of limit.                     |
| Part 2.1047                 | Modulation Characteristics                                           | Pass   | Meet the requirement of limit.                     |
| Part 90.1215                | Peak to Average Ratio                                                | Pass   | Meet the requirement of limit.                     |
| Part 2.1049                 | Bandwidth                                                            | Pass   | Meet the requirement of limit.                     |
| Part 2.1051<br>Part 90.210  | Conducted Spurious Emissions                                         | Pass   | Meet the requirement of limit.                     |
| Part 2.1053<br>Part 90.210  | Radiated Spurious Emissions below 1GHz                               | Pass   | Minimum passing margin is -11.11 dB at 31.94 MHz   |
| Part 2.1053<br>Part 90.210  | Radiated Spurious Emissions above 1GHz                               | Pass   | Minimum passing margin is -13.04 dB at 9930.00 MHz |
| Part 2.1055                 | Frequency Stability                                                  | Pass   | Meet the requirement of limit.                     |

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| Parameter                                                            | Specification   | Uncertainty (±) |
|----------------------------------------------------------------------|-----------------|-----------------|
| Effective Radiated Power and Equivalent Isotropically Radiated Power | -               | 1.371 dB        |
| Peak to Average Ratio                                                | -               | 0.920 dB        |
| Bandwidth                                                            | -               | 960 Hz          |
| Conducted Spurious Emissions                                         | -               | 2.12 dB         |
| Radiated Spurious Emissions below 1GHz                               | 9 kHz ~ 30 MHz  | 3.00 dB         |
|                                                                      | 30 MHz ~ 1 GHz  | 2.93 dB         |
| Radiated Spurious Emissions above 1GHz                               | 1 GHz ~ 18 GHz  | 1.76 dB         |
|                                                                      | 18 GHz ~ 40 GHz | 1.77 dB         |
| Frequency Stability                                                  | -               | 0.176 ppm       |

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

### 2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

|                          |                                                      |
|--------------------------|------------------------------------------------------|
| Product                  | Nokia AIO SC Outdoor 5G                              |
| Brand                    | NOKIA                                                |
| Test Model               | Nokia AIO SC Outdoor 5G n79                          |
| Status of EUT            | Engineering sample                                   |
| Power Supply Rating      | 48 Vdc from adapter<br>40 ~ 57 Vdc from power supply |
| Modulation Type          | QPSK, 64QAM, 256QAM                                  |
| 5G NR support SISO bands | n79                                                  |
| 5G NR support MIMO bands | n79                                                  |

Note:

1. The EUT uses following accessories.

| Item                              | Brand                                    | Model                     | Specification                                                                                                                                             |
|-----------------------------------|------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC Adapter<br>(Build in EUT)      | MOSO POWER SUPPLY<br>TECHNOLOGY CO., LTD | T40-T9380R480-<br>450B0-N | AC Input: 100-240 Vac, 50/60 Hz, 8.0 A<br>DC Output: 48 Vdc, 9.38 A, 450.24 W                                                                             |
| DC Adapter<br>(Support unit only) | Mean Well                                | GST360A48-C6P             | AC Input: 100-240 Vac, 50/60 Hz, 3.8 A<br>DC Output: 48 Vdc, 6.38 A, 306 W max (100-200 Vac)<br>DC Output Cable: 6 pin, 1 m non-shielded with one<br>core |

2. Simultaneously transmission combination.

| Combination | Technology     |              |
|-------------|----------------|--------------|
| 1           | WLAN (2.4 GHz) | WWAN (5G NR) |

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

3. EUT Overview

**NR n79 SCS 30 kHz**

**1CC**

| Bandwidth | TX Frequency Range<br>(MHz) | Modulation | Max. EIRP<br>(W) | Max. EIRP<br>(dBm) | Emission<br>Designator |
|-----------|-----------------------------|------------|------------------|--------------------|------------------------|
| 10 MHz    | 4945.02 ~ 4984.98           | QPSK       | 55.719           | 47.46              | 8M05G7D                |
|           |                             | 64QAM      | 51.286           | 47.10              | 8M08D7W                |
|           |                             | 256QAM     | 47.534           | 46.77              | 8M04D7W                |
| 20 MHz    | 4950.00 ~ 4980.00           | QPSK       | 108.393          | 50.35              | 17M1G7D                |
|           |                             | 64QAM      | 98.628           | 49.94              | 17M1D7W                |
|           |                             | 256QAM     | 90.782           | 49.58              | 17M1D7W                |
| 30 MHz    | 4955.01 ~ 4974.99           | QPSK       | 176.604          | 52.47              | 26M1G7D                |
|           |                             | 64QAM      | 162.930          | 52.12              | 26M0D7W                |
|           |                             | 256QAM     | 149.968          | 51.76              | 26M1D7W                |
| 40 MHz    | 4960.02 ~ 4969.98           | QPSK       | 240.436          | 53.81              | 35M3G7D                |
|           |                             | 64QAM      | 219.280          | 53.41              | 35M3D7W                |
|           |                             | 256QAM     | 200.909          | 53.03              | 35M3D7W                |
| 50 MHz    | 4965.00                     | QPSK       | 293.089          | 54.67              | 44M1G7D                |
|           |                             | 64QAM      | 269.774          | 54.31              | 44M1D7W                |
|           |                             | 256QAM     | 246.037          | 53.91              | 44M1D7W                |

4. For detailed information about each WWAN bands frequency range, bandwidth mode of the product, please refer to section 3.3 of the report.

5. This device operates under high power, fixed point-to-multipoint installation.

6. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

### 3.2 Antenna Description of EUT

1. The antenna information is listed as below.

| Type           | Dipole               |                        |        |        |        |
|----------------|----------------------|------------------------|--------|--------|--------|
| Connector Type | 4.3-10 Female        |                        |        |        |        |
| Model          | 2Y45B-61             |                        |        |        |        |
| Band           | Freq. Range<br>(MHz) | Antenna Net Gain (dBi) |        |        |        |
|                |                      | Ant. 0                 | Ant. 1 | Ant. 2 | Ant. 3 |
| NR n79         | 4400 ~ 5000          | 18.9                   | 18.9   | 18.9   | 18.9   |

Nokia Kolibri Outdoor n79 is qualified to support antennas with max antenna gain of 18.9 dBi and 1 dB of cable loss.

Note:

- This device operates with multiple antennas using Multiple-input, Multiple-output (MIMO) Technology for transmission.
- This device has four antennas: Antennas 0 and 2 are +45° polarized, and Antennas 1 and 3 are -45° polarized. The two groups of same-polarization antennas are orthogonal to each other. The transmitter output signals are completely uncorrelated.
- According to the regulation KDB 662911 (If all transmit signals are completely uncorrelated with each other, Directional gain=  $G_{ANT}$ ), select the maximum value between them as directional gain, Directional gain 17.9 dBi.
- The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

### 3.3 Test Mode Applicability and Tested Channel Detail

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-Scan:   | 1. EUT can be used in the following ways: Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition.<br>2. There are two pre-test modes: EUT + AC Adapter and EUT + DC Adapter. Pre-scan these ways and find the worst case as a representative test condition.<br>3. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). |
| Worst Case: | 1. Y-axis/ Z-axis Worst Condition: Z-axis<br>2. EUT + AC Adapter and EUT + DC Adapter Worst Condition: EUT + AC Adapter                                                                                                                                                                                                                                                                                                                                                                                          |

#### 3.3.1 NR n79 SCS 30 kHz

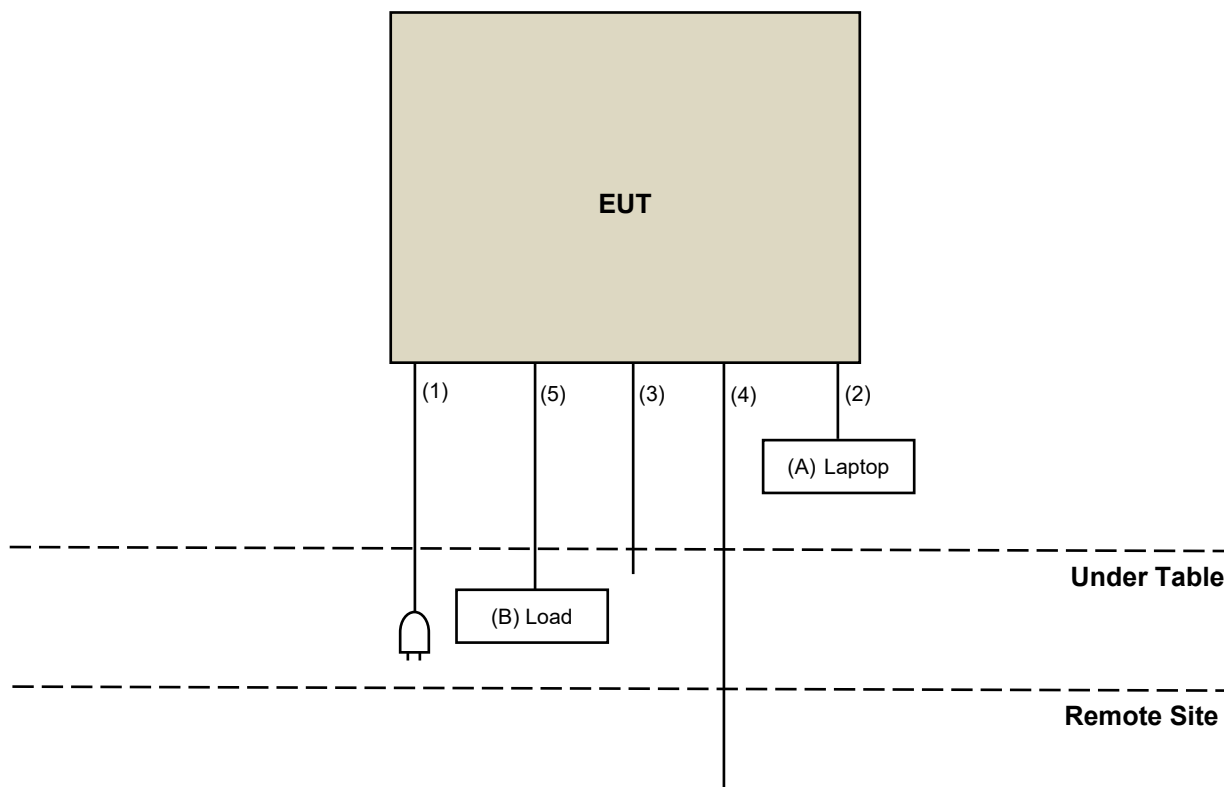
| Test Item                                                    | Tx/Rx Condition | Tested Channel                                                       | Channel Bandwidth | Modulation            |
|--------------------------------------------------------------|-----------------|----------------------------------------------------------------------|-------------------|-----------------------|
| Maximum Conducted Output Power / Peak Power Spectral Density | 1CC             | 729668 (4945.02 MHz)<br>731000 (4965.00 MHz)<br>732332 (4984.98 MHz) | 10 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 730000 (4950.00 MHz)<br>731000 (4965.00 MHz)<br>732000 (4980.00 MHz) | 20 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 730334 (4955.01 MHz)<br>731000 (4965.00 MHz)<br>731666 (4974.99 MHz) | 30 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 730668 (4960.02 MHz)<br>731000 (4965.00 MHz)<br>731332 (4969.98 MHz) | 40 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 731000 (4965.00 MHz)                                                 | 50 MHz            | QPSK / 64QAM / 256QAM |
| Modulation Characteristics                                   | 1CC             | 731000 (4965.00 MHz)                                                 | 50 MHz            | QPSK / 64QAM / 256QAM |
| Peak to Average Ratio / Bandwidth                            | 1CC             | 729668 (4945.02 MHz)<br>731000 (4965.00 MHz)<br>732332 (4984.98 MHz) | 10 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 730000 (4950.00 MHz)<br>731000 (4965.00 MHz)<br>732000 (4980.00 MHz) | 20 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 730334 (4955.01 MHz)<br>731000 (4965.00 MHz)<br>731666 (4974.99 MHz) | 30 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 730668 (4960.02 MHz)<br>731000 (4965.00 MHz)<br>731332 (4969.98 MHz) | 40 MHz            | QPSK / 64QAM / 256QAM |
|                                                              |                 | 731000 (4965.00 MHz)                                                 | 50 MHz            | QPSK / 64QAM / 256QAM |

| Test Item                              | Tx/Rx Condition | Tested Channel                                                       | Channel Bandwidth | Modulation            |
|----------------------------------------|-----------------|----------------------------------------------------------------------|-------------------|-----------------------|
| Conducted Spurious Emissions           | 1CC             | 729668 (4945.02 MHz)<br>731000 (4965.00 MHz)<br>732332 (4984.98 MHz) | 10 MHz            | QPSK / 64QAM / 256QAM |
|                                        |                 | 730000 (4950.00 MHz)<br>731000 (4965.00 MHz)<br>732000 (4980.00 MHz) | 20 MHz            | QPSK / 64QAM / 256QAM |
|                                        |                 | 730334 (4955.01 MHz)<br>731000 (4965.00 MHz)<br>731666 (4974.99 MHz) | 30 MHz            | QPSK / 64QAM / 256QAM |
|                                        |                 | 730668 (4960.02 MHz)<br>731000 (4965.00 MHz)<br>731332 (4969.98 MHz) | 40 MHz            | QPSK / 64QAM / 256QAM |
|                                        |                 | 731000 (4965.00 MHz)                                                 | 50 MHz            | QPSK / 64QAM / 256QAM |
| Radiated Spurious Emissions below 1GHz | 1CC             | 731000 (4965.00 MHz)                                                 | 50 MHz            | QPSK                  |
| Radiated Spurious Emissions above 1GHz | 1CC             | 729668 (4945.02 MHz)<br>731000 (4965.00 MHz)<br>732332 (4984.98 MHz) | 10 MHz            | QPSK                  |
|                                        |                 | 730334 (4955.01 MHz)<br>731000 (4965.00 MHz)<br>731666 (4974.99 MHz) | 30 MHz            | QPSK                  |
|                                        |                 | 731000 (4965.00 MHz)                                                 | 50 MHz            | QPSK                  |
| Frequency Stability                    | 1CC             | 729668 (4945.02 MHz)<br>731000 (4965.00 MHz)<br>732332 (4984.98 MHz) | 10 MHz            | QPSK                  |
|                                        |                 | 730000 (4950.00 MHz)<br>731000 (4965.00 MHz)<br>732000 (4980.00 MHz) | 20 MHz            | QPSK                  |
|                                        |                 | 730334 (4955.01 MHz)<br>731000 (4965.00 MHz)<br>731666 (4974.99 MHz) | 30 MHz            | QPSK                  |
|                                        |                 | 730668 (4960.02 MHz)<br>731000 (4965.00 MHz)<br>731332 (4969.98 MHz) | 40 MHz            | QPSK                  |
|                                        |                 | 731000 (4965.00 MHz)                                                 | 50 MHz            | QPSK                  |

### 3.4 Test Program Used and Operation Descriptions

Controlling software QRCT v4.0.172. has been activated to set the EUT under transmission condition continuously at specific channel frequency.

### 3.5 Connection Diagram of EUT and Peripheral Devices



### 3.6 Configuration of Peripheral Devices and Cable Connections

| ID | Product | Brand | Model No. | Serial No. | FCC ID | Remarks               |
|----|---------|-------|-----------|------------|--------|-----------------------|
| A  | Laptop  | HP    | NA        | NA         | NA     | Supplied by applicant |
| B  | Load    | NA    | NA        | NA         | NA     | Supplied by applicant |

| ID | Cable Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks               |
|----|--------------------|------|------------|--------------------|--------------|-----------------------|
| 1  | AC Power Cable     | 1    | 1.5        | N                  | 0            | Supplied by applicant |
| 2  | USB Cable          | 1    | 1.5        | N                  | 0            | Supplied by applicant |
| 3  | Fiber optic cable  | 1    | 10         | N                  | 0            | Provided by Lab       |
| 4  | GND Cable          | 1    | 2          | N                  | 0            | Provided by Lab       |
| 5  | LAN Cable          | 1    | 1.5        | N                  | 0            | Provided by Lab       |

## 4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

### 4.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

| Description<br>Manufacturer               | Model No.                        | Serial No.        | Calibrated<br>Date | Calibrated<br>Until |
|-------------------------------------------|----------------------------------|-------------------|--------------------|---------------------|
| Fixed Attenuator<br>Woken                 | 00800A1K01A-10                   | 00800A1K01A-10-01 | 2025/5/23          | 2026/5/22           |
| PXA Signal Analyzer<br>Keysight           | N9030B                           | MY57140938        | 2025/3/24          | 2026/3/23           |
| Software<br>BV                            | ADT_RF Test Software<br>V7.6.5.4 | N/A               | N/A                | N/A                 |
| UXM 5G Wireless Test Platform<br>Keysight | E7515B                           | MY60102115        | 2025/5/26          | 2026/5/25           |

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2025/11/5 ~ 2025/12/29

### 4.2 Peak Power Spectral Density

Refer to section 4.1 to get the tested date and information of the instruments.

### 4.3 Modulation Characteristics

Refer to section 4.1 to get the tested date and information of the instruments.

### 4.4 Peak to Average Ratio

Refer to section 4.1 to get the tested date and information of the instruments.

### 4.5 Bandwidth

Refer to section 4.1 to get the tested date and information of the instruments.

### 4.6 Conducted Spurious Emissions

Refer to section 4.1 to get the tested date and information of the instruments.

#### 4.7 Radiated Spurious Emissions below 1GHz

| Description<br>Manufacturer       | Model No.                    | Serial No.       | Calibrated<br>Date | Calibrated<br>Until |
|-----------------------------------|------------------------------|------------------|--------------------|---------------------|
| Antenna Tower<br>Max-Full         | MFA-515BSN                   | N/A              | N/A                | N/A                 |
| Bi_Log Antenna<br>Schwarzbeck     | VULB 9168                    | 9168-1214        | 2025/9/18          | 2026/9/17           |
| EXA Signal Analyzer<br>Agilent    | N9010A                       | MY52220207       | 2024/12/30         | 2025/12/29          |
| Loop Antenna<br>TESEQ             | HLA 6121                     | 45745            | 2025/9/1           | 2026/8/31           |
| MXE EMI Receiver<br>Keysight      | N9038B                       | MY60180019       | 2025/1/15          | 2026/1/14           |
| Preamplifier<br>EMCI              | EMC330N                      | 980798           | 2025/1/14          | 2026/1/13           |
| RF Coaxial Cable<br>EMCI          | EMCCFD400-NM-NM-500          | 201248           | 2025/1/14          | 2026/1/13           |
|                                   | EMCCFD400-NM-NM-3000         | 201249           | 2025/1/14          | 2026/1/13           |
|                                   | EMCCFD400-NM-NM-9000         | 201251(with PAD) | 2025/1/14          | 2026/1/13           |
| Software<br>BV ADT                | ADT_Radiated_<br>V7.6.15.9.5 | N/A              | N/A                | N/A                 |
| Turn Table<br>Max-Full            | MFT-201SS                    | N/A              | N/A                | N/A                 |
| Turn Table Controller<br>Max-Full | MF-7802BS                    | MF780208676      | N/A                | N/A                 |

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2025/12/15

#### 4.8 Radiated Spurious Emissions above 1GHz

| Description<br>Manufacturer       | Model No.                    | Serial No.  | Calibrated<br>Date | Calibrated<br>Until |
|-----------------------------------|------------------------------|-------------|--------------------|---------------------|
| Antenna Tower<br>Max-Full         | MFA-515BSN                   | N/A         | N/A                | N/A                 |
| EXA Signal Analyzer<br>Agilent    | N9010A                       | MY52220207  | 2024/12/30         | 2025/12/29          |
| Horn Antenna<br>RFSPIN            | DRH18-E                      | 210104A18E  | 2025/11/9          | 2026/11/8           |
| Horn Antenna<br>Schwarzbeck       | BBHA 9170                    | 9170-1049   | 2025/11/9          | 2026/11/8           |
| MXE EMI Receiver<br>Keysight      | N9038B                       | MY60180019  | 2025/1/15          | 2026/1/14           |
| Preamplifier<br>Agilent           | 83017A                       | MY39501357  | 2025/6/11          | 2026/6/10           |
| Preamplifier<br>EMCI              | EMC184045SE                  | 980788      | 2025/1/14          | 2026/1/13           |
| RF Coaxial Cable<br>EMCI          | EMC101G-KM-KM-2000           | 201254      | 2025/1/14          | 2026/1/13           |
|                                   | EMC101G-KM-KM-3000           | 201258      | 2025/1/14          | 2026/1/13           |
|                                   | EMC101G-KM-KM-5000           | 201261      | 2025/1/14          | 2026/1/13           |
|                                   | EMC104-SM-SM-1000            | 210103      | 2025/1/14          | 2026/1/13           |
|                                   | EMC104-SM-SM-3000            | 201241      | 2025/1/14          | 2026/1/13           |
|                                   | EMC104-SM-SM-9000            | 201244      | 2025/1/14          | 2026/1/13           |
| Software<br>BV ADT                | ADT_Radiated_<br>V7.6.15.9.5 | N/A         | N/A                | N/A                 |
| Turn Table<br>Max-Full            | MFT-201SS                    | N/A         | N/A                | N/A                 |
| Turn Table Controller<br>Max-Full | MF-7802BS                    | MF780208676 | N/A                | N/A                 |

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2025/12/15

#### 4.9 Frequency Stability

| Description<br>Manufacturer               | Model No.                        | Serial No.        | Calibrated<br>Date | Calibrated<br>Until |
|-------------------------------------------|----------------------------------|-------------------|--------------------|---------------------|
| 3-channel DC power supply<br>OWON         | ODP3033                          | ODP30332128138    | N/A                | N/A                 |
| AC Power Supply<br>Extech Electronics Co. | 6905S                            | 1720444           | N/A                | N/A                 |
| Digital Multimeter<br>Fluke               | 8050A                            | 4660081           | 2025/6/6           | 2026/6/5            |
| Fixed Attenuator<br>Woken                 | 00800A1K01A-10                   | 00800A1K01A-10-01 | 2025/5/23          | 2026/5/22           |
| PXA Signal Analyzer<br>Keysight           | N9030B                           | MY57140938        | 2025/3/24          | 2026/3/23           |
| Software<br>BV                            | ADT_RF Test Software<br>V7.6.5.4 | N/A               | N/A                | N/A                 |
| Temperature & Humidity Chamber<br>Terchy  | MHU-225AU                        | 920842            | 2025/6/25          | 2026/6/24           |
| UXM 5G Wireless Test Platform<br>Keysight | E7515B                           | MY60102115        | 2025/5/26          | 2026/5/25           |

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2025/12/4

## 5 Limits of Test Items

### 5.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

For base, mobile, and temporary fixed operations, the maximum conducted output power must not exceed as follows:

| Channel bandwidth (MHz) | Low power maximum conducted output power (dBm)** | High power maximum conducted output power (dBm)* |
|-------------------------|--------------------------------------------------|--------------------------------------------------|
| 5                       | 14                                               | 27                                               |
| 10                      | 17                                               | 30                                               |
| 15                      | 18.8                                             | 31.8                                             |
| 20                      | 20                                               | 33                                               |
| 30                      | 21.8                                             | 34.8                                             |
| 40                      | 23                                               | 36                                               |
| 50                      | 24                                               | 37                                               |

\*: If transmitting antennas of directional gain greater than 9 dBi are used, both the maximum conducted output power and the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi. However, high power point-to-point and point-to-multipoint operations (both fixed and temporary-fixed rapid deployment) may employ transmitting antennas with directional gain up to 26 dBi without any corresponding reduction in the maximum conducted output power or spectral density. Corresponding reduction in the maximum conducted output power and peak power spectral density should be the amount in decibels that the directional gain of the antenna exceeds 26 dBi.

\*\* : If transmitting antennas of directional gain greater than 9 dBi are used, both the maximum conducted output power and the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi.

For the transmitting power of permanent fixed point-to-point and point-to-multipoint stations operating in the 4940-4990 MHz band must not exceed the maximum limits in this paragraph (f). Moreover, applicants should request no more power than necessary for a particular use.

- (1) The maximum equivalent isotropically radiated power (EIRP), as referenced to an isotropic radiator, must not exceed 55 dBW (85 dBm).
- (2) For path lengths shorter than 17 kilometers, the EIRP shall not exceed the value derived from the following equation:  
New EIRP limit = 55 dBW - 40\*log(17/B) dBW, where B = the actual path length in kilometers.

### 5.2 Peak Power Spectral Density

| Device              | Maximum PSD (dBm/MHz) |
|---------------------|-----------------------|
| High power devices* | 21                    |
| Low power devices** | 8                     |

\*: If transmitting antennas of directional gain greater than 9 dBi are used, both the maximum conducted output power and the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi. However, high power point-to-point and point-to-multipoint operations (both fixed and temporary-fixed rapid deployment) may employ transmitting antennas with directional gain up to 26 dBi without any corresponding reduction in the maximum conducted output power or spectral density. Corresponding reduction in the maximum conducted output power and peak power spectral density should be the amount in decibels that the directional gain of the antenna exceeds 26 dBi.

\*\* : If transmitting antennas of directional gain greater than 9 dBi are used, both the maximum conducted output power and the peak power spectral density should be reduced by the amount in decibels that the directional gain of the antenna exceeds 9 dBi.

### 5.3 Modulation Characteristics

A curve or equivalent data which shows that the equipment will meet the modulation requirements of the rules under which the equipment is to be licensed.

## 5.4 Peak to Average Ratio

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

## 5.5 Bandwidth

According to FCC 47 CFR part 2.1049, 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% of the total mean power radiated by a given emission.

## 5.6 Conducted Spurious Emissions

According to FCC 47 CFR part 90.210 shall be tested the Emission masks as specified below::

- (a) Emission Mask L. For low power transmitters (20 dBm or less) operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:
  - (1) On any frequency removed from the assigned frequency between 0-45% of the authorized bandwidth (BW): 0 dB.
  - (2) On any frequency removed from the assigned frequency between 45-50% of the authorized bandwidth:  $219 \log (\% \text{ of (BW)/45})$  dB.
  - (3) On any frequency removed from the assigned frequency between 50-55% of the authorized bandwidth:  $10 + 242 \log (\% \text{ of (BW)/50})$  dB.
  - (4) On any frequency removed from the assigned frequency between 55-100% of the authorized bandwidth:  $20 + 31 \log (\% \text{ of (BW)/55})$  dB attenuation.
  - (5) On any frequency removed from the assigned frequency between 100-150% of the authorized bandwidth:  $28 + 68 \log (\% \text{ of (BW)/100})$  dB attenuation.
  - (6) On any frequency removed from the assigned frequency above 150% of the authorized bandwidth: 40 dB.
  - (7) The zero dB reference is measured relative to the highest average power of the fundamental emission measured across the designated channel bandwidth using a resolution bandwidth of at least one percent of the occupied bandwidth of the fundamental emission and a video bandwidth of 30 kHz. The power spectral density is the power measured within the resolution bandwidth of the measurement device divided by the resolution bandwidth of the measurement device. Emission levels are also based on the use of measurement instrumentation employing a resolution bandwidth of at least one percent of the occupied bandwidth.
- (b) Emission Mask M. For high power transmitters (greater than 20 dBm) operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:
  - (1) On any frequency removed from the assigned frequency between 0-45% of the authorized bandwidth (BW): 0 dB.
  - (2) On any frequency removed from the assigned frequency between 45-50% of the authorized bandwidth:  $568 \log (\% \text{ of (BW)/45})$  dB.
  - (3) On any frequency removed from the assigned frequency between 50-55% of the authorized bandwidth:  $26 + 145 \log (\% \text{ of (BW)/50})$  dB.
  - (4) On any frequency removed from the assigned frequency between 55-100% of the authorized bandwidth:  $32 + 31 \log (\% \text{ of (BW)/55})$  dB.
  - (5) On any frequency removed from the assigned frequency between 100-150% of the authorized bandwidth:  $40 + 57 \log (\% \text{ of (BW)/100})$  dB.
  - (6) On any frequency removed from the assigned frequency between above 150% of the authorized bandwidth: 50 dB or  $55 + 10 \log (P)$  dB, whichever is the lesser attenuation.
  - (7) The zero dB reference is measured relative to the highest average power of the fundamental emission measured across the designated channel bandwidth using a resolution bandwidth of at least one percent of the occupied bandwidth of the fundamental emission and a video bandwidth of 30 kHz. The power spectral density is the power measured within the resolution bandwidth of the measurement device divided by the resolution bandwidth of the measurement device. Emission levels are also based on the use of measurement instrumentation employing a resolution bandwidth of at least one percent of the occupied bandwidth.

Note: This device can be implement MIMO function, so the limit of emission mask / conducted emissions needs to be reduced by  $10 \cdot \log(\text{NumbersAnt})$  according to FCC KDB 662911 D01 guidance.

## 5.7 Radiated Spurious Emissions below 1GHz

According to FCC 47 CFR part 90.210 shall be tested the Emission masks as specified below:

- (a) Emission Mask L. For low power transmitters (20 dBm or less) operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:  
On any frequency removed from the assigned frequency above 150% of the authorized bandwidth: 40 dB.
- (b) Emission Mask M. For high power transmitters (greater than 20 dBm) operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:  
On any frequency removed from the assigned frequency between above 150% of the authorized bandwidth: 50 dB or  $55 + 10 \log (P)$  dB, whichever is the lesser attenuation.

## 5.8 Radiated Spurious Emissions above 1GHz

According to FCC 47 CFR part 90.210 shall be tested the Emission masks as specified below:

- (a) Emission Mask L. For low power transmitters (20 dBm or less) operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:  
On any frequency removed from the assigned frequency above 150% of the authorized bandwidth: 40 dB.
- (b) Emission Mask M. For high power transmitters (greater than 20 dBm) operating in the 4940-4990 MHz frequency band, the power spectral density of the emissions must be attenuated below the output power of the transmitter as follows:  
On any frequency removed from the assigned frequency between above 150% of the authorized bandwidth: 50 dB or  $55 + 10 \log (P)$  dB, whichever is the lesser attenuation.

## 5.9 Frequency Stability

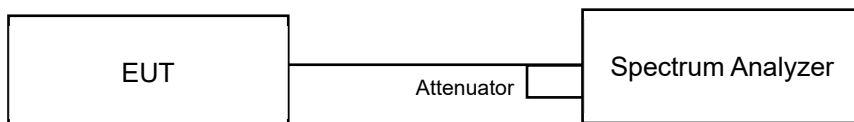
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation (authorized frequency block).

## 6 Test Arrangements

### 6.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

#### 6.1.1 Test Setup

##### Conducted Power Measurement:



#### 6.1.2 Test Procedure

##### Conducted Power Measurement:

##### For measuring output power using spectrum

The EUT is configured by test software or key-in commands to set data modulation and maximum power using WWAN technology and link to spectrum analyzer measurements. Set the EUT to transmit under low, middle and high channel and record the power level shown on spectrum analyzer. Power measurements use detector average (rms).

##### For measuring output power using spectrum

Measurement method refers to ANSI C63.26 section 5.2.4.4.

- Set span to 2 × to 3 × the OBW.
- Set RBW = 1% to 5% of the OBW.
- Set VBW ≥ 3 × RBW.
- Set number of measurement points in sweep ≥ 2 × span / RBW.
- Set Sweep time = auto-couple.
- Detector = power averaging (rms).
- Use the Spectrum Analyzer trigger function to capture 100% of the EUT signal.
- Set sweep trigger to “free run.”
- Trace average at least 100 traces in power averaging (rms) mode.
- Compute power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function with band/channel limits set equal to the OBW band edges.

##### Maximum EIRP / ERP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

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

$$\text{ERP} = P_{\text{Meas}} + G_T - 2.15$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as  $P_{\text{Meas}}$ , e.g., dBm or dBW)

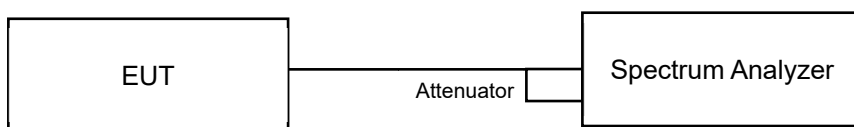
$P_{\text{Meas}}$  measured transmitter output power or PSD, in dBm or dBW

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

## 6.2 Peak Power Spectral Density

### 6.2.1 Test Setup

#### Conducted Power Measurement:



### 6.2.2 Test Procedure

#### Conducted Power Measurement:

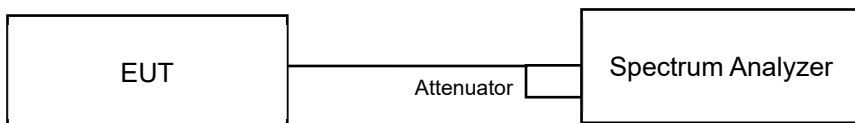
The EUT is configured by test software or key-in commands to set data modulation and maximum power using WWAN technology and link to spectrum analyzer measurements. Set the EUT to transmit under low, middle and high channel and record the power level shown on spectrum analyzer.

Measurement method refers to ANSI C63.26 section 5.2.4.4.

- a. Connect the DUT transmitter output to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- b. Set span to  $2 \times \text{OBW}$ .
- c. Set RBW = 1% to 5% of the OBW.
- d. Set VBW  $\geq 3 \times \text{RBW}$ .
- e. Set number of measurement points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ .
- f. Set sweep time = auto-couple
- g. Detector = power averaging (rms).
- h. If the EUT can be configured to transmit continuously, then set the trigger to free run.
- i. Use the Spectrum Analyzer trigger function to capture 100% of the EUT signal.
- j. Perform measurement over an interval of time when the transmission is continuous and at its maximum power level.
- k. Utilize trace averaging over 100 traces in the power averaging mode.
- l. Use the Band/Channel Power function to determine the integrated power per 1 MHz bandwidth
- m. Record the band power level.

## 6.3 Modulation Characteristics

### 6.3.1 Test Setup

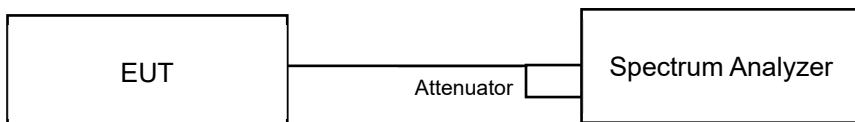


### 6.3.2 Test Procedure

Connect the EUT to Communication Simulator via the antenna connector, the frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

## 6.4 Peak to Average Ratio

### 6.4.1 Test Setup

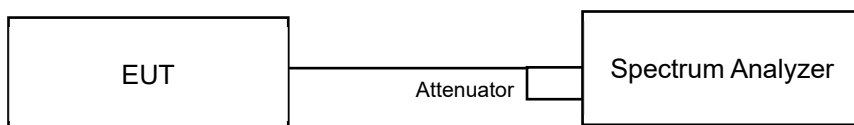


### 6.4.2 Test Procedure

- Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1%.

## 6.5 Bandwidth

### 6.5.1 Test Setup



### 6.5.2 Test Procedure

For the 26 dBc bandwidth measurement method, please refer to section 5.4.3 of ANSI C63.26.

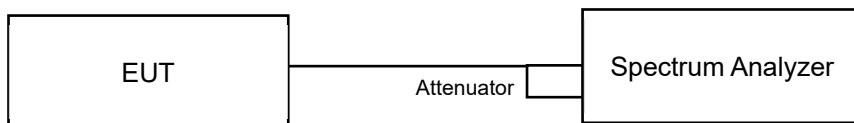
- The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set  $\geq 3 \times$  RBW.
- Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- Determine the following reference values: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
- Determine the “-X dB amplitude” as equal to (Reference Value - X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.
- Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB amplitude” determined in step f). If a marker is below this “-X dB amplitude” value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers.
- The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

For the occupied bandwidth measurement method, please refer to section 5.4.4 of ANSI C63.26.

- The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set  $\geq 3 \times$  RBW.
- Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5% of the total is reached and record that frequency as the upper OBW frequency. The 99% power OBW can be determined by computing the difference these two frequencies.
- The OBW shall be reported by providing plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

## 6.6 Conducted Spurious Emissions

### 6.6.1 Test Setup



### 6.6.2 Test Procedure

- Measurement refer to ANSI C63.26 section 5.7.
- All measurements were done at 3 channels: low, middle and high operational frequency range.
- Measuring frequency range is from 9 kHz up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. 10 dB attenuation pad is connected with spectrum.
- The fundamental frequency above 1 GHz, the spectrum set RBW = 1 MHz, VBW = 3 MHz, Detector = Average.
- The device has MIMO function, so the limit of conducted spurious emissions need to be measurement add  $10\log(\text{NumbersANT})$  according to FCC KDB 662911 D01 guidance. Therefore, the  $10\log(\text{NumbersANT})$  value is added to the spectrum Ref. level offset during testing. For example, the band edge and conducted spurious emission plots for the MIMO (4TX) WWAN bands show that a reference level offset of 17.02 dB is used (11 dB includes attenuation and cable loss +  $10\log(4)$  to account for MIMO WWAN bands reference level =  $11 + 6.02 = 17.02$  dB).
- Record the maximum power value test plot.

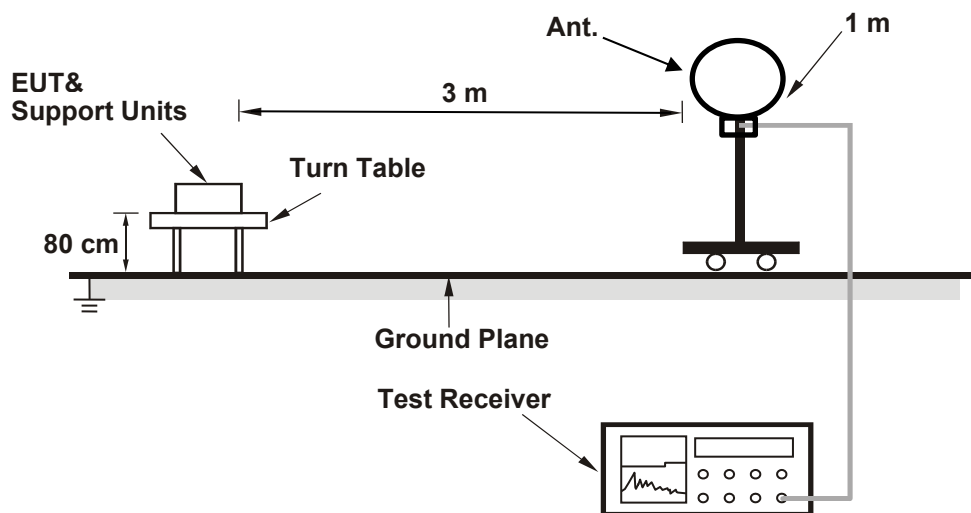
For Emission Mask M:

- All measurements were done at 3 channels: low, middle and high operational frequency range.
- According to FCC 47 CFR part 90.210(m)(7), The zero dB reference is measured relative to the highest average power of the fundamental emission measured across the designated channel bandwidth using a resolution bandwidth of at least one percent of the occupied bandwidth of the fundamental emission and a video bandwidth of 30 kHz. The power spectral density is the power measured within the resolution bandwidth of the measurement device divided by the resolution bandwidth of the measurement device. Emission levels are also based on the use of measurement instrumentation employing a resolution bandwidth of at least one percent of the occupied bandwidth.
- Detector = Average.
- Use the Spectrum Analyzer trigger function to capture 100% of the EUT signal.
- Record the maximum power value test plot.

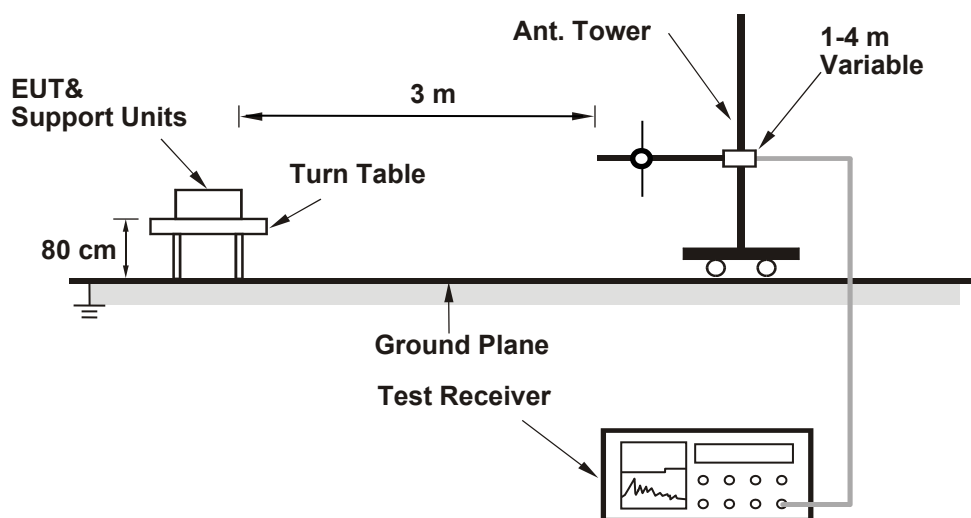
## 6.7 Radiated Spurious Emissions below 1GHz

### 6.7.1 Test Setup

#### For Radiated emission below 30 MHz



#### For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 6.7.2 Test Procedure

The EUT is configured to set data modulation and maximum power using WWAN technology.

- a. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) height of turn table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- d. Following ANSI C63.26 section 5.5 and 5.2.7
- e.  $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$ ; where D is the measurement distance (in the far field region) in m.
- f.  $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$ ; where D is the measurement distance (in the far field region) in m.

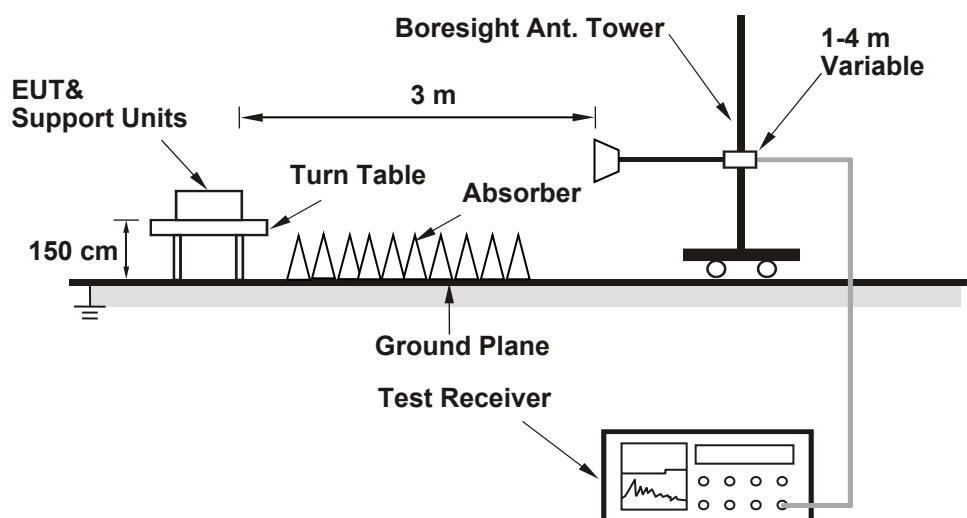
Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz. Set detector = average.
2. The amplitude of spurious emissions in the range 9 kHz to 30 MHz which are attenuated more than 20 dB below the permissible value need not be reported.

## 6.8 Radiated Spurious Emissions above 1GHz

### 6.8.1 Test Setup

For radiated emission above 1 GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 6.8.2 Test Procedure

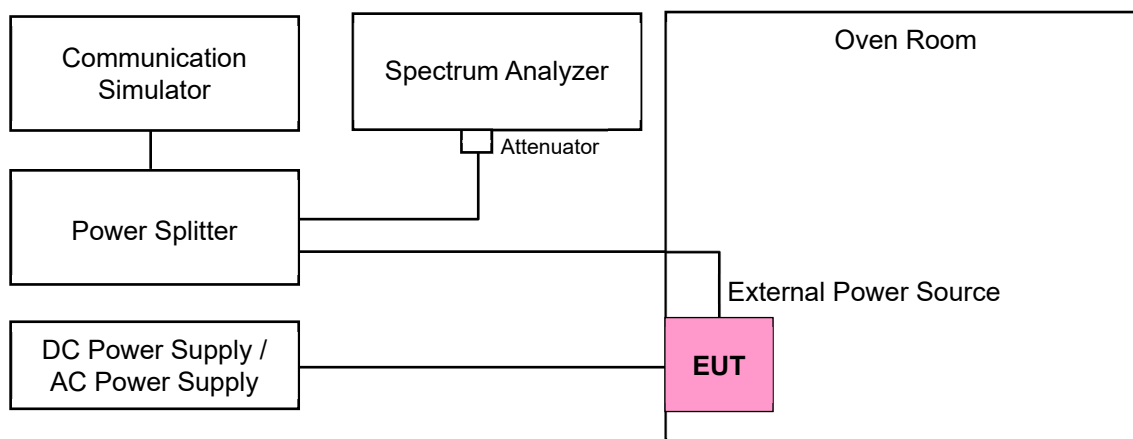
The EUT is configured to set data modulation and maximum power using WWAN technology.

- In the semi-anechoic chamber, EUT placed on the 1.5 m height of turn table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- Following ANSI C63.26 section 5.5 and 5.2.7
- $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$ ; where D is the measurement distance (in the far field region) in m.
- $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$ ; where D is the measurement distance (in the far field region) in m.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz. Set detector = average.

## 6.9 Frequency Stability

### 6.9.1 Test Setup



### 6.9.2 Test Procedure

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology.

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the AC/DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the  $\pm 0.5^{\circ}\text{C}$  during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

Note: The frequency error was recorded frequency error from the communication simulator.

## 7 Test Results of Test Item

### 7.1 Effective Radiated Power and Equivalent Isotropically Radiated Power

|              |                |                           |              |            |            |
|--------------|----------------|---------------------------|--------------|------------|------------|
| Input Power: | 120 Vac, 60 Hz | Environmental Conditions: | 22°C, 73% RH | Tested By: | Noah Chang |
|--------------|----------------|---------------------------|--------------|------------|------------|

#### 7.1.1 NR n79 SCS 30 kHz

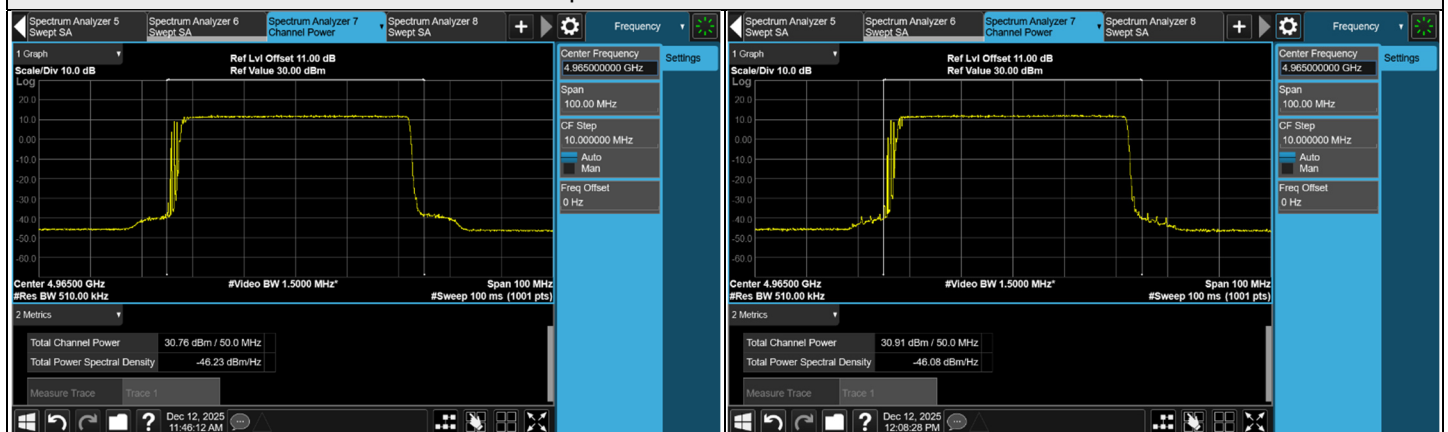
##### 1CC

| BW     | Channel | Frequency (MHz) | Setting | Modulation | Conducted Output Power (dBm) |         |         |         |       |       | EIRP (dBm) |       |
|--------|---------|-----------------|---------|------------|------------------------------|---------|---------|---------|-------|-------|------------|-------|
|        |         |                 |         |            | Chain 0                      | Chain 1 | Chain 2 | Chain 3 | Total | Limit | Total      | Limit |
| 10 MHz | 729668  | 4945.02         | 25      | QPSK       | 23.22                        | 23.38   | 23.23   | 23.16   | 29.27 | 30.00 | 47.17      | 85.00 |
|        |         |                 |         | 64QAM      | 22.98                        | 23.13   | 22.96   | 22.74   | 28.98 | 30.00 | 46.88      | 85.00 |
|        |         |                 |         | 256QAM     | 22.49                        | 22.80   | 22.67   | 22.32   | 28.59 | 30.00 | 46.49      | 85.00 |
|        | 731000  | 4965.00         | 25      | QPSK       | 23.32                        | 23.36   | 23.27   | 22.61   | 29.17 | 30.00 | 47.07      | 85.00 |
|        |         |                 |         | 64QAM      | 22.84                        | 23.16   | 22.82   | 22.17   | 28.78 | 30.00 | 46.68      | 85.00 |
|        |         |                 |         | 256QAM     | 22.46                        | 22.82   | 22.52   | 21.74   | 28.42 | 30.00 | 46.32      | 85.00 |
|        | 732332  | 4984.98         | 25      | QPSK       | 23.46                        | 23.72   | 23.37   | 23.58   | 29.56 | 30.00 | 47.46      | 85.00 |
|        |         |                 |         | 64QAM      | 23.21                        | 23.40   | 22.88   | 23.22   | 29.20 | 30.00 | 47.10      | 85.00 |
|        |         |                 |         | 256QAM     | 22.93                        | 22.91   | 22.53   | 23.00   | 28.87 | 30.00 | 46.77      | 85.00 |
| 20 MHz | 730000  | 4950.00         | 28      | QPSK       | 26.43                        | 26.45   | 26.39   | 26.45   | 32.45 | 33.00 | 50.35      | 85.00 |
|        |         |                 |         | 64QAM      | 26.19                        | 26.03   | 25.90   | 25.97   | 32.04 | 33.00 | 49.94      | 85.00 |
|        |         |                 |         | 256QAM     | 25.78                        | 25.70   | 25.63   | 25.53   | 31.68 | 33.00 | 49.58      | 85.00 |
|        | 731000  | 4965.00         | 28      | QPSK       | 26.33                        | 26.43   | 26.35   | 26.35   | 32.39 | 33.00 | 50.29      | 85.00 |
|        |         |                 |         | 64QAM      | 26.03                        | 26.02   | 25.91   | 25.90   | 31.99 | 33.00 | 49.89      | 85.00 |
|        |         |                 |         | 256QAM     | 25.73                        | 25.80   | 25.57   | 25.41   | 31.65 | 33.00 | 49.55      | 85.00 |
|        | 732000  | 4980.00         | 28      | QPSK       | 26.44                        | 26.43   | 26.37   | 26.11   | 32.36 | 33.00 | 50.26      | 85.00 |
|        |         |                 |         | 64QAM      | 25.96                        | 26.11   | 25.87   | 25.78   | 31.95 | 33.00 | 49.85      | 85.00 |
|        |         |                 |         | 256QAM     | 25.74                        | 25.67   | 25.61   | 25.41   | 31.63 | 33.00 | 49.53      | 85.00 |
| 30 MHz | 730334  | 4955.01         | 30      | QPSK       | 28.45                        | 28.55   | 28.58   | 28.35   | 34.50 | 34.80 | 52.40      | 85.00 |
|        |         |                 |         | 64QAM      | 28.10                        | 28.31   | 28.19   | 27.94   | 34.16 | 34.80 | 52.06      | 85.00 |
|        |         |                 |         | 256QAM     | 27.74                        | 27.96   | 27.78   | 27.69   | 33.81 | 34.80 | 51.71      | 85.00 |
|        | 731000  | 4965.00         | 30      | QPSK       | 28.42                        | 28.47   | 28.42   | 28.40   | 34.45 | 34.80 | 52.35      | 85.00 |
|        |         |                 |         | 64QAM      | 28.14                        | 28.18   | 28.11   | 28.02   | 34.13 | 34.80 | 52.03      | 85.00 |
|        |         |                 |         | 256QAM     | 27.74                        | 27.81   | 27.91   | 27.80   | 33.84 | 34.80 | 51.74      | 85.00 |
|        | 731666  | 4974.99         | 30      | QPSK       | 28.41                        | 28.61   | 28.65   | 28.53   | 34.57 | 34.80 | 52.47      | 85.00 |
|        |         |                 |         | 64QAM      | 28.04                        | 28.29   | 28.30   | 28.17   | 34.22 | 34.80 | 52.12      | 85.00 |
|        |         |                 |         | 256QAM     | 27.67                        | 27.99   | 28.00   | 27.67   | 33.86 | 34.80 | 51.76      | 85.00 |

| BW     | Channel | Frequency (MHz) | Setting | Modulation | Conducted Output Power (dBm) |         |         |         |       |       | EIRP (dBm) |       |
|--------|---------|-----------------|---------|------------|------------------------------|---------|---------|---------|-------|-------|------------|-------|
|        |         |                 |         |            | Chain 0                      | Chain 1 | Chain 2 | Chain 3 | Total | Limit | Total      | Limit |
| 40 MHz | 730668  | 4960.02         | 31      | QPSK       | 29.90                        | 29.99   | 29.88   | 29.63   | 35.87 | 36.00 | 53.77      | 85.00 |
|        |         |                 |         | 64QAM      | 29.41                        | 29.54   | 29.44   | 29.32   | 35.45 | 36.00 | 53.35      | 85.00 |
|        |         |                 |         | 256QAM     | 29.04                        | 29.09   | 29.22   | 28.84   | 35.07 | 36.00 | 52.97      | 85.00 |
|        | 731000  | 4965.00         | 31      | QPSK       | 29.86                        | 29.96   | 29.90   | 29.85   | 35.91 | 36.00 | 53.81      | 85.00 |
|        |         |                 |         | 64QAM      | 29.40                        | 29.54   | 29.40   | 29.63   | 35.51 | 36.00 | 53.41      | 85.00 |
|        |         |                 |         | 256QAM     | 29.02                        | 29.07   | 28.93   | 29.39   | 35.13 | 36.00 | 53.03      | 85.00 |
|        | 731332  | 4969.98         | 31      | QPSK       | 29.79                        | 29.86   | 29.67   | 29.54   | 35.74 | 36.00 | 53.64      | 85.00 |
|        |         |                 |         | 64QAM      | 29.47                        | 29.64   | 29.41   | 29.14   | 35.44 | 36.00 | 53.34      | 85.00 |
|        |         |                 |         | 256QAM     | 29.11                        | 29.31   | 29.09   | 28.92   | 35.13 | 36.00 | 53.03      | 85.00 |
| 50 MHz | 731000  | 4965.00         | 32      | QPSK       | 30.76                        | 30.91   | 30.86   | 30.46   | 36.77 | 37.00 | 54.67      | 85.00 |
|        |         |                 |         | 64QAM      | 30.47                        | 30.64   | 30.36   | 30.05   | 36.41 | 37.00 | 54.31      | 85.00 |
|        |         |                 |         | 256QAM     | 29.98                        | 30.34   | 30.01   | 29.61   | 36.01 | 37.00 | 53.91      | 85.00 |

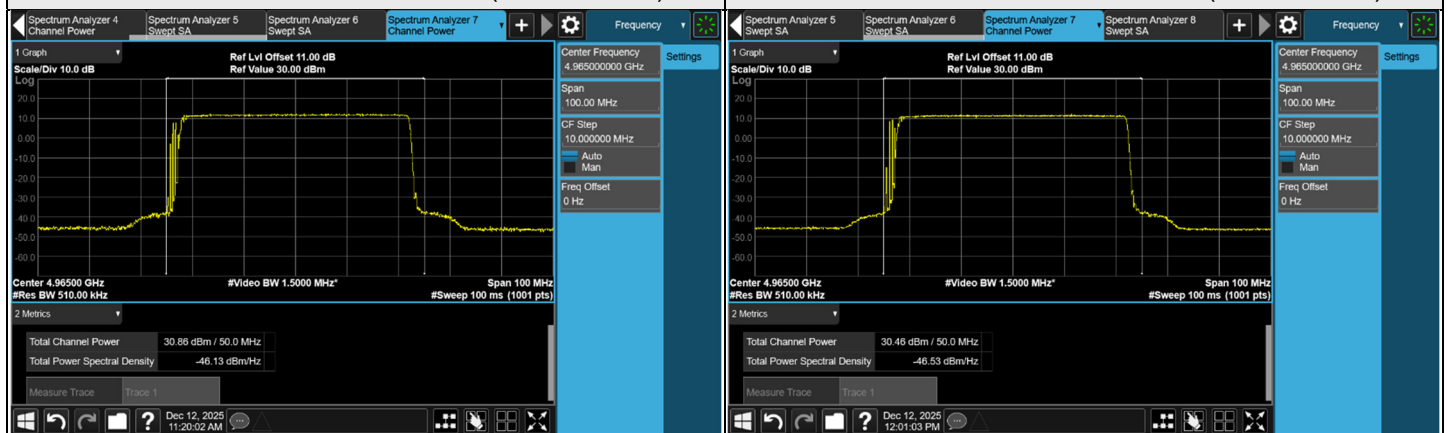
Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

### Spectrum Plot of Worst Value



50 MHz Chain 0 QPSK CH 731000 (4965.00 MHz)

50 MHz Chain 1 QPSK CH 731000 (4965.00 MHz)



50 MHz Chain 2 QPSK CH 731000 (4965.00 MHz)

50 MHz Chain 3 QPSK CH 731000 (4965.00 MHz)

## 7.2 Peak Power Spectral Density

|              |                |                           |              |            |            |
|--------------|----------------|---------------------------|--------------|------------|------------|
| Input Power: | 120 Vac, 60 Hz | Environmental Conditions: | 22°C, 73% RH | Tested By: | Noah Chang |
|--------------|----------------|---------------------------|--------------|------------|------------|

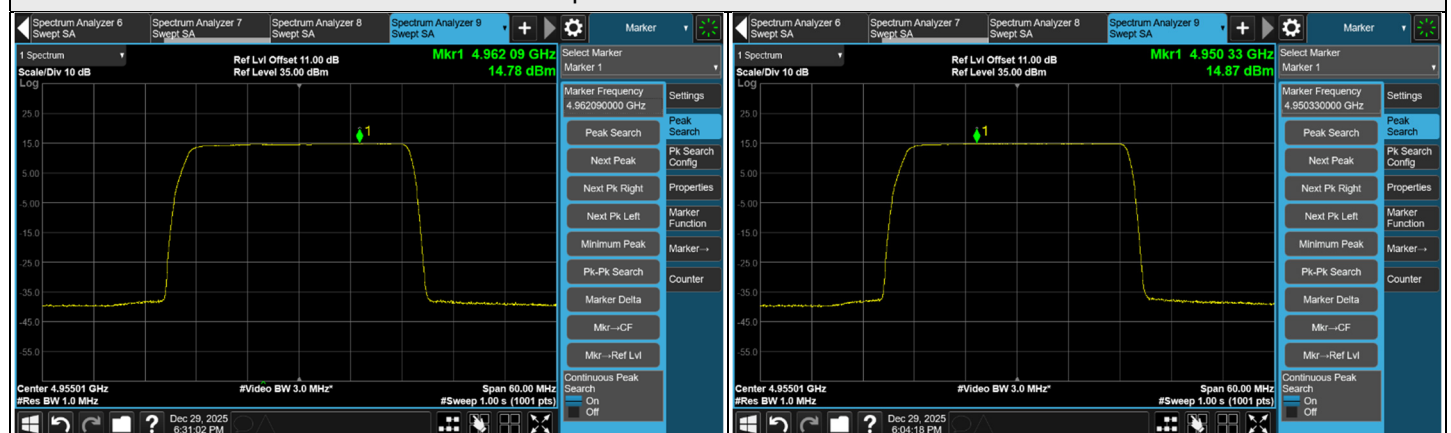
### 7.2.1 NR n79 SCS 30 kHz

#### 1CC

| BW     | Channel | Frequency (MHz) | Setting | Modulation | Peak Power Spectral Density (dBm/MHz) |         |         |         |       | Limit (dBm) |
|--------|---------|-----------------|---------|------------|---------------------------------------|---------|---------|---------|-------|-------------|
|        |         |                 |         |            | Chain 0                               | Chain 1 | Chain 2 | Chain 3 | Total |             |
| 10 MHz | 729668  | 4945.02         | 25      | QPSK       | 14.87                                 | 14.85   | 14.61   | 14.58   | 20.75 | 21.00       |
|        |         |                 |         | 64QAM      | 14.49                                 | 14.40   | 14.41   | 14.15   | 20.38 | 21.00       |
|        |         |                 |         | 256QAM     | 14.24                                 | 14.06   | 14.17   | 13.92   | 20.12 | 21.00       |
|        | 731000  | 4965.00         | 25      | QPSK       | 14.56                                 | 14.82   | 14.67   | 13.85   | 20.51 | 21.00       |
|        |         |                 |         | 64QAM      | 14.09                                 | 14.37   | 14.33   | 13.36   | 20.08 | 21.00       |
|        |         |                 |         | 256QAM     | 13.85                                 | 13.89   | 14.10   | 12.90   | 19.73 | 21.00       |
|        | 732332  | 4984.98         | 25      | QPSK       | 14.97                                 | 15.16   | 14.84   | 14.58   | 20.91 | 21.00       |
|        |         |                 |         | 64QAM      | 14.61                                 | 14.91   | 14.58   | 14.11   | 20.58 | 21.00       |
|        |         |                 |         | 256QAM     | 14.19                                 | 14.69   | 14.33   | 13.70   | 20.26 | 21.00       |
| 20 MHz | 730000  | 4950.00         | 28      | QPSK       | 14.66                                 | 14.68   | 14.55   | 14.30   | 20.57 | 21.00       |
|        |         |                 |         | 64QAM      | 14.16                                 | 14.48   | 14.16   | 14.04   | 20.23 | 21.00       |
|        |         |                 |         | 256QAM     | 13.78                                 | 14.12   | 13.77   | 13.59   | 19.84 | 21.00       |
|        | 731000  | 4965.00         | 28      | QPSK       | 14.42                                 | 14.49   | 14.35   | 14.17   | 20.38 | 21.00       |
|        |         |                 |         | 64QAM      | 13.94                                 | 14.25   | 13.94   | 13.97   | 20.05 | 21.00       |
|        |         |                 |         | 256QAM     | 13.72                                 | 13.86   | 13.62   | 13.53   | 19.70 | 21.00       |
|        | 732000  | 4980.00         | 28      | QPSK       | 14.56                                 | 14.65   | 14.50   | 14.30   | 20.52 | 21.00       |
|        |         |                 |         | 64QAM      | 14.19                                 | 14.27   | 14.11   | 13.95   | 20.15 | 21.00       |
|        |         |                 |         | 256QAM     | 13.80                                 | 13.80   | 13.91   | 13.59   | 19.80 | 21.00       |
| 30 MHz | 730334  | 4955.01         | 30      | QPSK       | 14.78                                 | 14.87   | 14.88   | 15.23   | 20.96 | 21.00       |
|        |         |                 |         | 64QAM      | 14.31                                 | 14.48   | 14.43   | 14.82   | 20.53 | 21.00       |
|        |         |                 |         | 256QAM     | 14.02                                 | 14.02   | 14.05   | 14.38   | 20.14 | 21.00       |
|        | 731000  | 4965.00         | 30      | QPSK       | 14.69                                 | 14.74   | 14.96   | 14.76   | 20.81 | 21.00       |
|        |         |                 |         | 64QAM      | 14.20                                 | 14.49   | 14.63   | 14.33   | 20.44 | 21.00       |
|        |         |                 |         | 256QAM     | 13.85                                 | 14.28   | 14.25   | 13.88   | 20.09 | 21.00       |
|        | 731666  | 4974.99         | 30      | QPSK       | 14.71                                 | 14.94   | 14.93   | 14.76   | 20.86 | 21.00       |
|        |         |                 |         | 64QAM      | 14.45                                 | 14.55   | 14.49   | 14.32   | 20.47 | 21.00       |
|        |         |                 |         | 256QAM     | 14.14                                 | 14.17   | 14.22   | 13.87   | 20.12 | 21.00       |

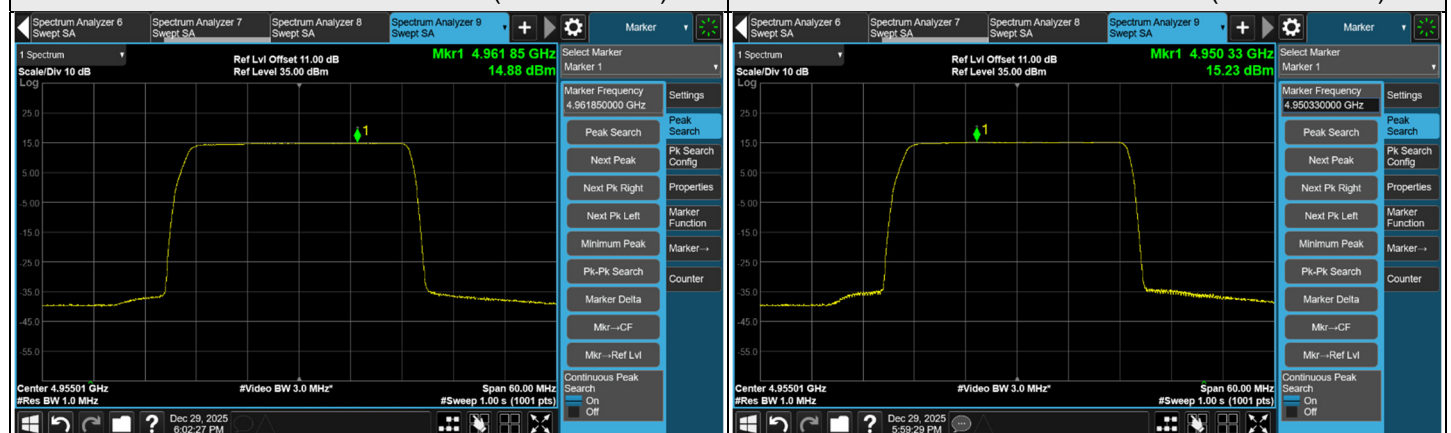
| BW     | Channel | Frequency (MHz) | Setting | Modulation | Peak Power Spectral Density (dBm/MHz) |         |         |         |       | Limit (dBm) |
|--------|---------|-----------------|---------|------------|---------------------------------------|---------|---------|---------|-------|-------------|
|        |         |                 |         |            | Chain 0                               | Chain 1 | Chain 2 | Chain 3 | Total |             |
| 40 MHz | 730668  | 4960.02         | 31      | QPSK       | 14.95                                 | 15.02   | 14.85   | 14.57   | 20.87 | 21.00       |
|        |         |                 |         | 64QAM      | 14.61                                 | 14.52   | 14.40   | 14.10   | 20.43 | 21.00       |
|        |         |                 |         | 256QAM     | 14.27                                 | 14.11   | 14.08   | 13.70   | 20.07 | 21.00       |
|        | 731000  | 4965.00         | 31      | QPSK       | 14.88                                 | 14.95   | 14.83   | 14.85   | 20.90 | 21.00       |
|        |         |                 |         | 64QAM      | 14.53                                 | 14.62   | 14.35   | 14.47   | 20.51 | 21.00       |
|        |         |                 |         | 256QAM     | 14.13                                 | 14.26   | 14.15   | 13.98   | 20.15 | 21.00       |
|        | 731332  | 4969.98         | 31      | QPSK       | 14.75                                 | 14.82   | 14.61   | 14.51   | 20.69 | 21.00       |
|        |         |                 |         | 64QAM      | 14.36                                 | 14.51   | 14.19   | 14.20   | 20.34 | 21.00       |
|        |         |                 |         | 256QAM     | 14.16                                 | 14.06   | 13.93   | 13.98   | 20.05 | 21.00       |
| 50 MHz | 731000  | 4965.00         | 32      | QPSK       | 14.85                                 | 14.97   | 14.94   | 14.70   | 20.89 | 21.00       |
|        |         |                 |         | 64QAM      | 14.65                                 | 14.63   | 14.47   | 14.42   | 20.56 | 21.00       |
|        |         |                 |         | 256QAM     | 14.21                                 | 14.25   | 13.97   | 14.07   | 20.15 | 21.00       |

Spectrum Plot of Worst Value



30 MHz Chain 0 QPSK CH 730334 (4955.01 MHz)

30 MHz Chain 1 QPSK CH 730334 (4955.01 MHz)



30 MHz Chain 2 QPSK CH 730334 (4955.01 MHz)

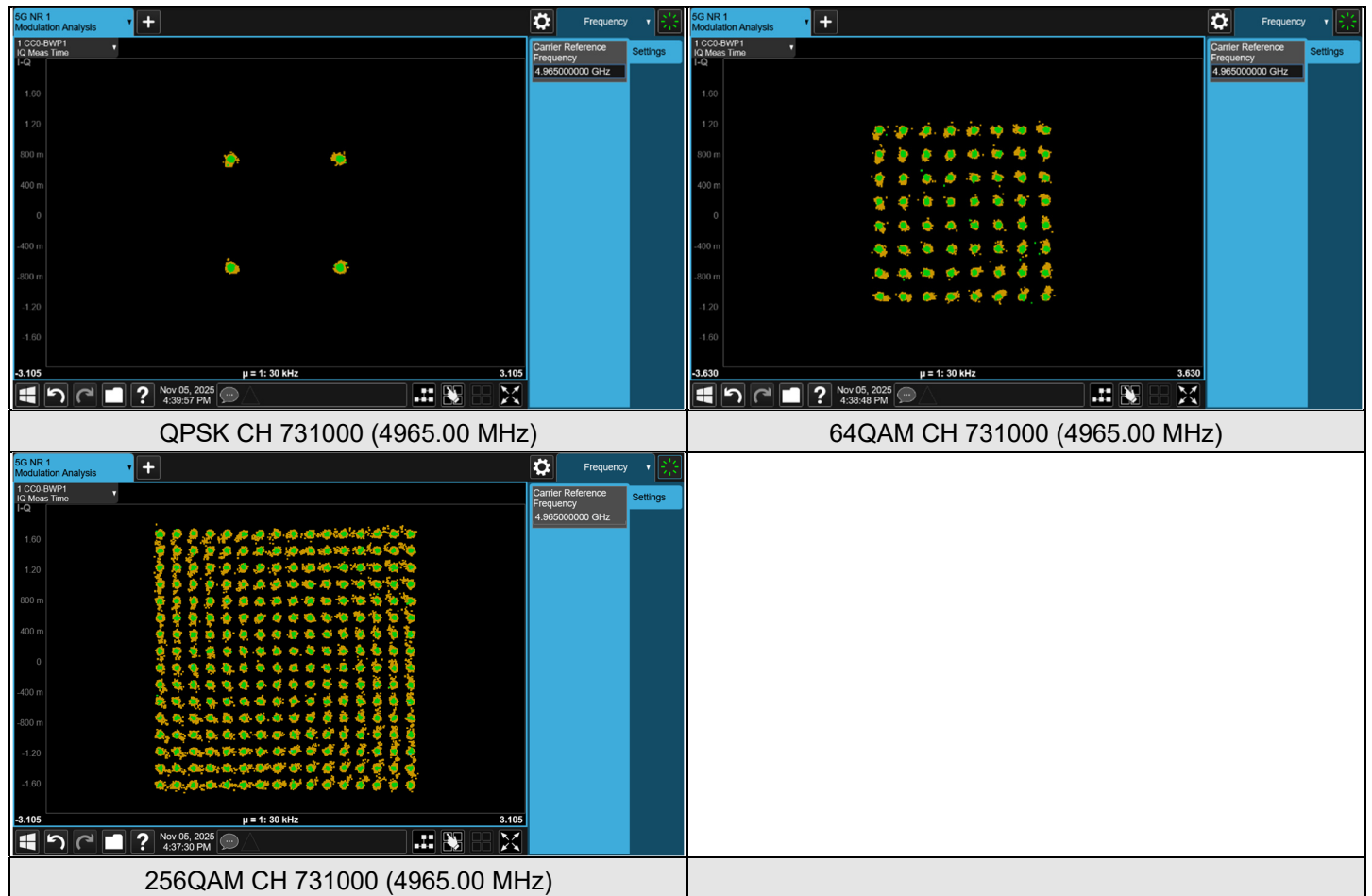
30 MHz Chain 3 QPSK CH 730334 (4955.01 MHz)

### 7.3 Modulation Characteristics

|              |                |                           |              |            |            |
|--------------|----------------|---------------------------|--------------|------------|------------|
| Input Power: | 120 Vac, 60 Hz | Environmental Conditions: | 22°C, 73% RH | Tested By: | Noah Chang |
|--------------|----------------|---------------------------|--------------|------------|------------|

#### 7.3.1 NR n79 SCS 30 kHz

##### 1CC, Channel Bandwidth: 50 MHz



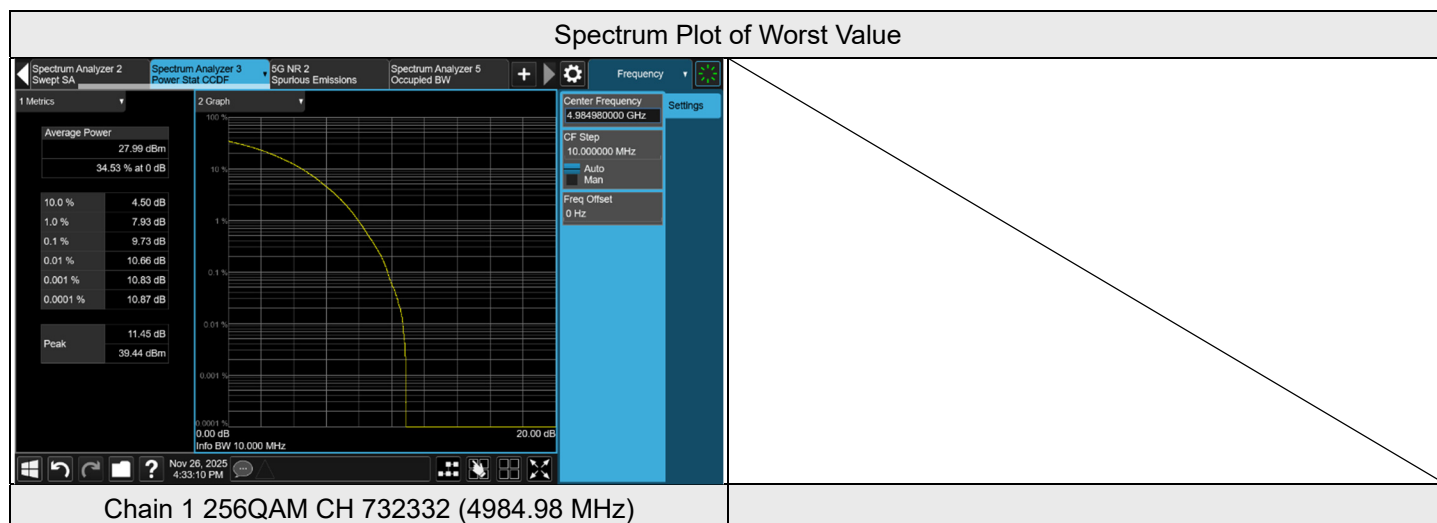
## 7.4 Peak to Average Ratio

|              |                |                           |              |            |            |
|--------------|----------------|---------------------------|--------------|------------|------------|
| Input Power: | 120 Vac, 60 Hz | Environmental Conditions: | 22°C, 73% RH | Tested By: | Noah Chang |
|--------------|----------------|---------------------------|--------------|------------|------------|

### 7.4.1 NR n79 SCS 30 kHz

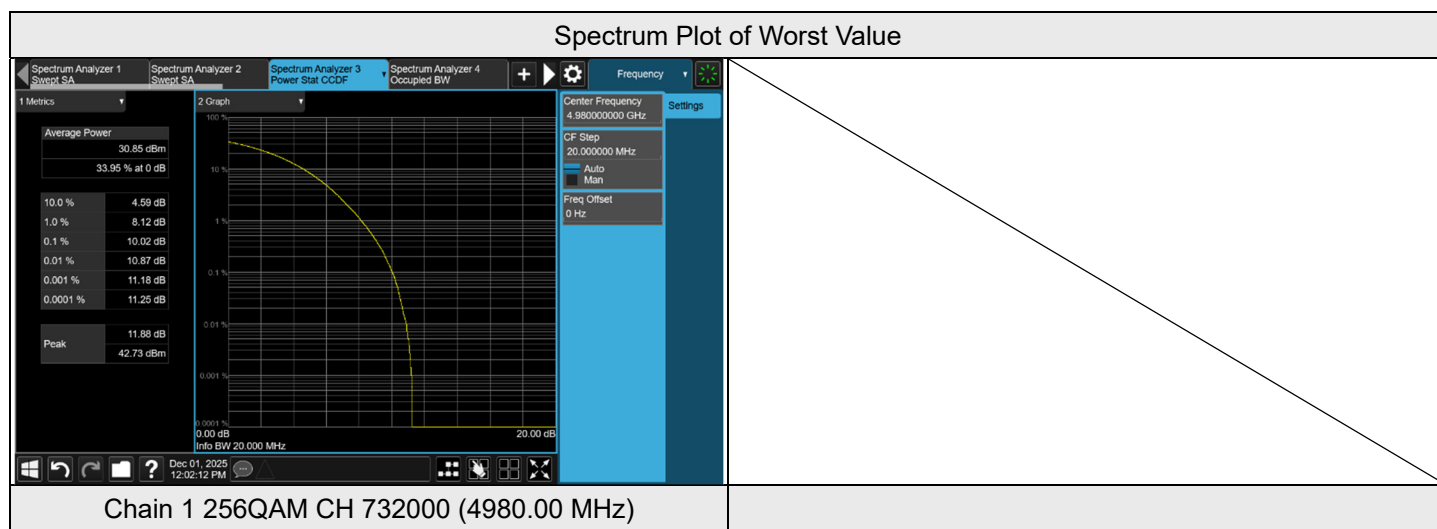
#### 1CC, Channel Bandwidth: 10 MHz

| Chain | Channel | Frequency (MHz) | Peak to Average Ratio (dB) |       |        | Limit (dB) | Result |
|-------|---------|-----------------|----------------------------|-------|--------|------------|--------|
|       |         |                 | QPSK                       | 64QAM | 256QAM |            |        |
| 0     | 729668  | 4945.02         | 9.11                       | 9.08  | 9.49   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.19                       | 9.34  | 9.26   | 13.00      | Pass   |
|       | 732332  | 4984.98         | 9.02                       | 9.18  | 9.50   | 13.00      | Pass   |
| 1     | 729668  | 4945.02         | 8.70                       | 9.28  | 9.54   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.05                       | 9.15  | 9.51   | 13.00      | Pass   |
|       | 732332  | 4984.98         | 9.41                       | 9.46  | 9.73   | 13.00      | Pass   |
| 2     | 729668  | 4945.02         | 9.15                       | 9.20  | 9.45   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.10                       | 9.29  | 9.61   | 13.00      | Pass   |
|       | 732332  | 4984.98         | 9.27                       | 9.60  | 9.65   | 13.00      | Pass   |
| 3     | 729668  | 4945.02         | 9.12                       | 9.22  | 9.50   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.25                       | 9.12  | 9.24   | 13.00      | Pass   |
|       | 732332  | 4984.98         | 9.19                       | 9.25  | 9.64   | 13.00      | Pass   |



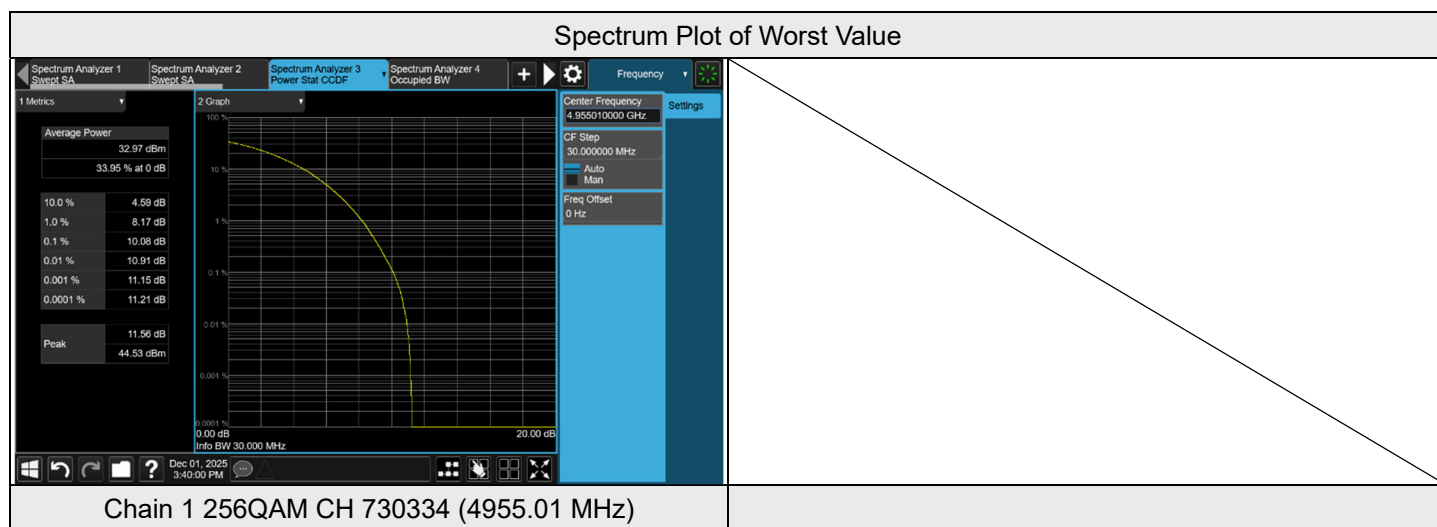
# 1CC, Channel Bandwidth: 20 MHz

| Chain | Channel | Frequency (MHz) | Peak to Average Ratio (dB) |       |        | Limit (dB) | Result |
|-------|---------|-----------------|----------------------------|-------|--------|------------|--------|
|       |         |                 | QPSK                       | 64QAM | 256QAM |            |        |
| 0     | 730000  | 4950.00         | 9.28                       | 9.28  | 9.85   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.47                       | 9.48  | 9.57   | 13.00      | Pass   |
|       | 732000  | 4980.00         | 9.27                       | 9.42  | 9.86   | 13.00      | Pass   |
| 1     | 730000  | 4950.00         | 9.06                       | 9.32  | 9.58   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.60                       | 9.47  | 9.64   | 13.00      | Pass   |
|       | 732000  | 4980.00         | 8.90                       | 9.29  | 10.02  | 13.00      | Pass   |
| 2     | 730000  | 4950.00         | 9.45                       | 9.49  | 9.98   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.18                       | 9.35  | 9.86   | 13.00      | Pass   |
|       | 732000  | 4980.00         | 9.29                       | 9.48  | 9.96   | 13.00      | Pass   |
| 3     | 730000  | 4950.00         | 9.20                       | 9.49  | 9.90   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.07                       | 9.46  | 9.95   | 13.00      | Pass   |
|       | 732000  | 4980.00         | 9.18                       | 9.30  | 9.84   | 13.00      | Pass   |



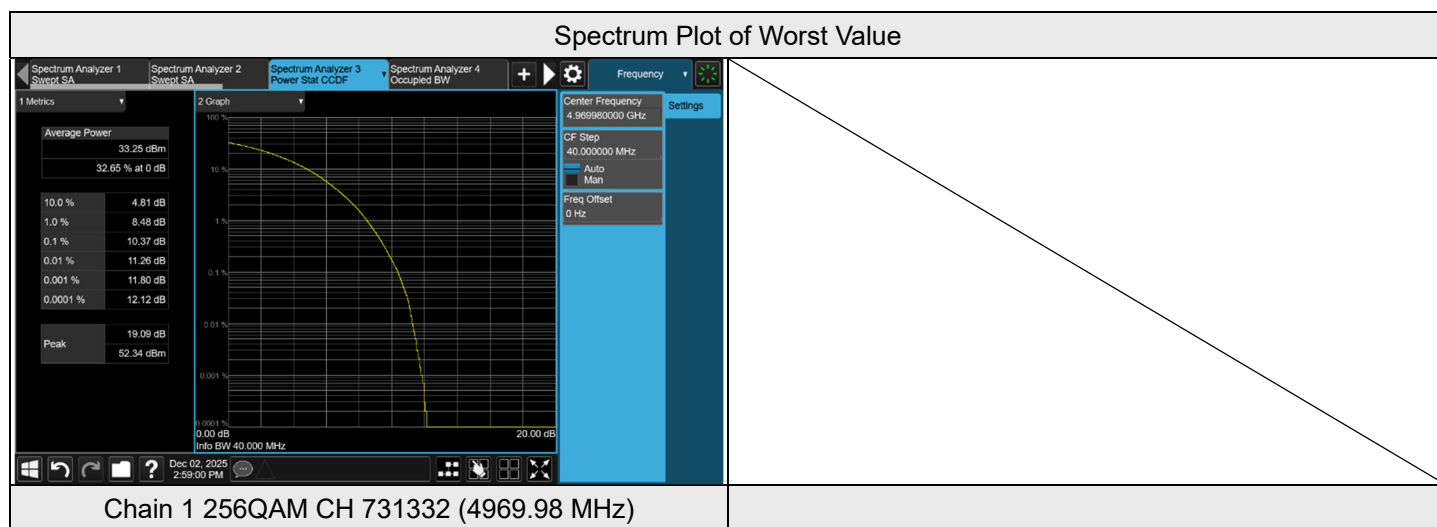
# 1CC, Channel Bandwidth: 30 MHz

| Chain | Channel | Frequency (MHz) | Peak to Average Ratio (dB) |       |        | Limit (dB) | Result |
|-------|---------|-----------------|----------------------------|-------|--------|------------|--------|
|       |         |                 | QPSK                       | 64QAM | 256QAM |            |        |
| 0     | 730334  | 4955.01         | 9.03                       | 9.49  | 10.07  | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.26                       | 9.75  | 9.85   | 13.00      | Pass   |
|       | 731666  | 4974.99         | 9.20                       | 9.53  | 9.99   | 13.00      | Pass   |
| 1     | 730334  | 4955.01         | 9.32                       | 9.51  | 10.08  | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.16                       | 9.54  | 9.77   | 13.00      | Pass   |
|       | 731666  | 4974.99         | 9.36                       | 9.70  | 9.95   | 13.00      | Pass   |
| 2     | 730334  | 4955.01         | 9.31                       | 9.65  | 9.87   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.27                       | 9.78  | 10.04  | 13.00      | Pass   |
|       | 731666  | 4974.99         | 9.11                       | 9.50  | 9.73   | 13.00      | Pass   |
| 3     | 730334  | 4955.01         | 9.33                       | 9.76  | 10.02  | 13.00      | Pass   |
|       | 731000  | 4965.00         | 8.95                       | 9.52  | 9.70   | 13.00      | Pass   |
|       | 731666  | 4974.99         | 9.09                       | 9.44  | 9.67   | 13.00      | Pass   |



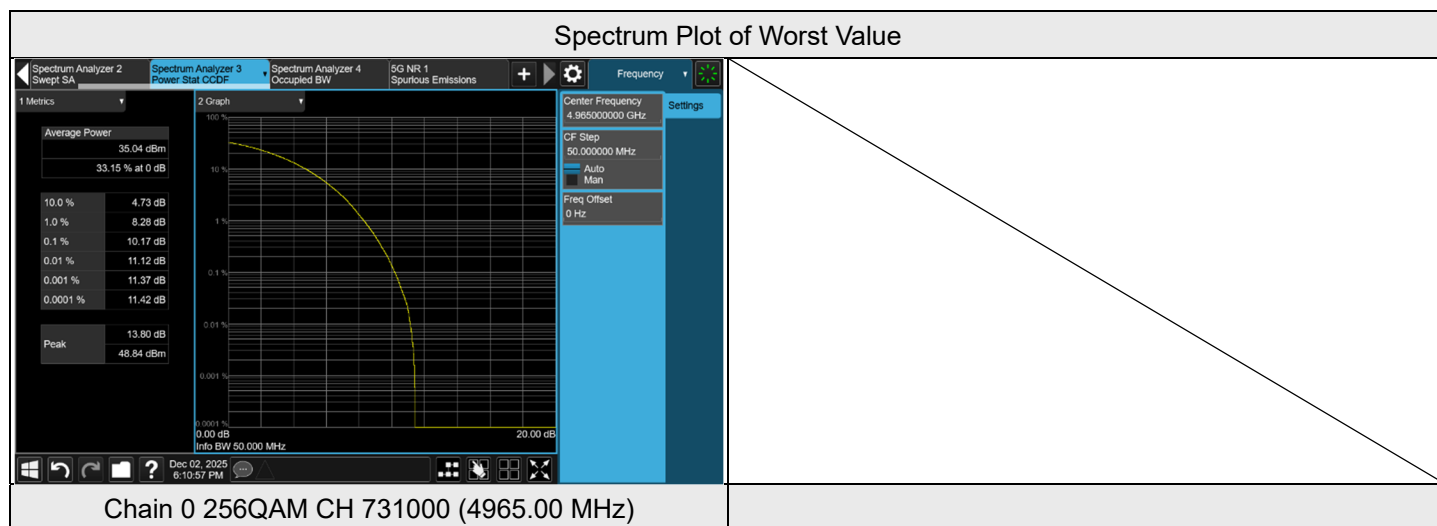
# 1CC, Channel Bandwidth: 40 MHz

| Chain | Channel | Frequency (MHz) | Peak to Average Ratio (dB) |       |        | Limit (dB) | Result |
|-------|---------|-----------------|----------------------------|-------|--------|------------|--------|
|       |         |                 | QPSK                       | 64QAM | 256QAM |            |        |
| 0     | 730668  | 4960.02         | 8.81                       | 9.45  | 9.85   | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.49                       | 9.77  | 10.34  | 13.00      | Pass   |
|       | 731332  | 4969.98         | 8.79                       | 9.58  | 10.33  | 13.00      | Pass   |
| 1     | 730668  | 4960.02         | 9.20                       | 9.64  | 10.11  | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.01                       | 9.76  | 9.90   | 13.00      | Pass   |
|       | 731332  | 4969.98         | 9.02                       | 9.76  | 10.37  | 13.00      | Pass   |
| 2     | 730668  | 4960.02         | 9.19                       | 9.74  | 10.01  | 13.00      | Pass   |
|       | 731000  | 4965.00         | 8.93                       | 9.79  | 10.31  | 13.00      | Pass   |
|       | 731332  | 4969.98         | 8.93                       | 9.26  | 9.78   | 13.00      | Pass   |
| 3     | 730668  | 4960.02         | 9.21                       | 9.57  | 10.32  | 13.00      | Pass   |
|       | 731000  | 4965.00         | 9.02                       | 10.15 | 10.13  | 13.00      | Pass   |
|       | 731332  | 4969.98         | 9.65                       | 9.85  | 10.17  | 13.00      | Pass   |



# 1CC, Channel Bandwidth: 50 MHz

| Chain | Channel | Frequency (MHz) | Peak to Average Ratio (dB) |       |        | Limit (dB) | Result |
|-------|---------|-----------------|----------------------------|-------|--------|------------|--------|
|       |         |                 | QPSK                       | 64QAM | 256QAM |            |        |
| 0     | 731000  | 4965.00         | 9.03                       | 9.41  | 10.17  | 13.00      | Pass   |
| 1     | 731000  | 4965.00         | 9.00                       | 9.59  | 9.86   | 13.00      | Pass   |
| 2     | 731000  | 4965.00         | 8.94                       | 9.31  | 9.86   | 13.00      | Pass   |
| 3     | 731000  | 4965.00         | 9.12                       | 9.52  | 9.79   | 13.00      | Pass   |



## 7.5 Bandwidth

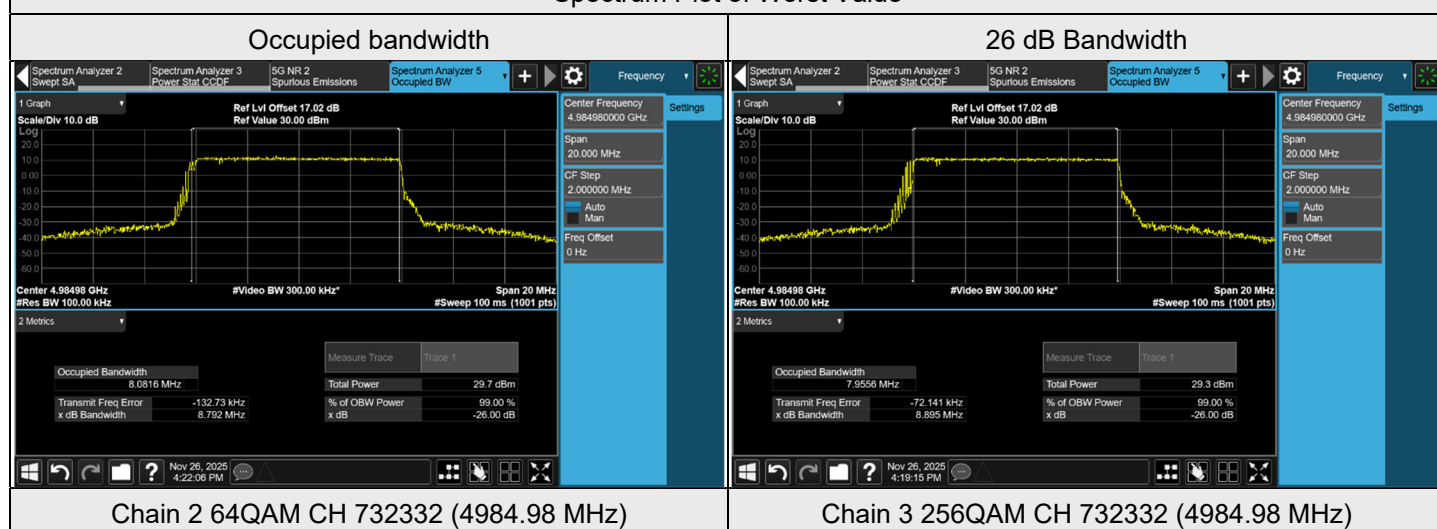
|              |                |                           |              |            |            |
|--------------|----------------|---------------------------|--------------|------------|------------|
| Input Power: | 120 Vac, 60 Hz | Environmental Conditions: | 22°C, 73% RH | Tested By: | Noah Chang |
|--------------|----------------|---------------------------|--------------|------------|------------|

### 7.5.1 NR n79 SCS 30 kHz

#### 1CC, Channel Bandwidth: 10 MHz

| Chain | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |       |        | 26 dB Bandwidth (MHz) |       |        |
|-------|---------|-----------------|--------------------------|-------|--------|-----------------------|-------|--------|
|       |         |                 | QPSK                     | 64QAM | 256QAM | QPSK                  | 64QAM | 256QAM |
| 0     | 729668  | 4945.02         | 7.98                     | 7.95  | 7.99   | 8.77                  | 8.64  | 8.70   |
|       | 731000  | 4965.00         | 8.00                     | 8.00  | 8.00   | 8.79                  | 8.82  | 8.76   |
|       | 732332  | 4984.98         | 8.03                     | 8.04  | 8.04   | 8.81                  | 8.88  | 8.80   |
| 1     | 729668  | 4945.02         | 8.00                     | 7.96  | 7.98   | 8.72                  | 8.69  | 8.64   |
|       | 731000  | 4965.00         | 8.01                     | 7.99  | 7.99   | 8.80                  | 8.82  | 8.83   |
|       | 732332  | 4984.98         | 8.05                     | 7.96  | 8.04   | 8.83                  | 8.81  | 8.88   |
| 2     | 729668  | 4945.02         | 7.99                     | 7.98  | 7.96   | 8.78                  | 8.69  | 8.68   |
|       | 731000  | 4965.00         | 8.02                     | 8.00  | 7.94   | 8.86                  | 8.82  | 8.82   |
|       | 732332  | 4984.98         | 7.94                     | 8.08  | 7.95   | 8.82                  | 8.79  | 8.82   |
| 3     | 729668  | 4945.02         | 7.98                     | 7.96  | 7.96   | 8.80                  | 8.87  | 8.87   |
|       | 731000  | 4965.00         | 8.00                     | 7.96  | 7.99   | 8.77                  | 8.85  | 8.76   |
|       | 732332  | 4984.98         | 8.00                     | 7.97  | 7.96   | 8.81                  | 8.84  | 8.90   |

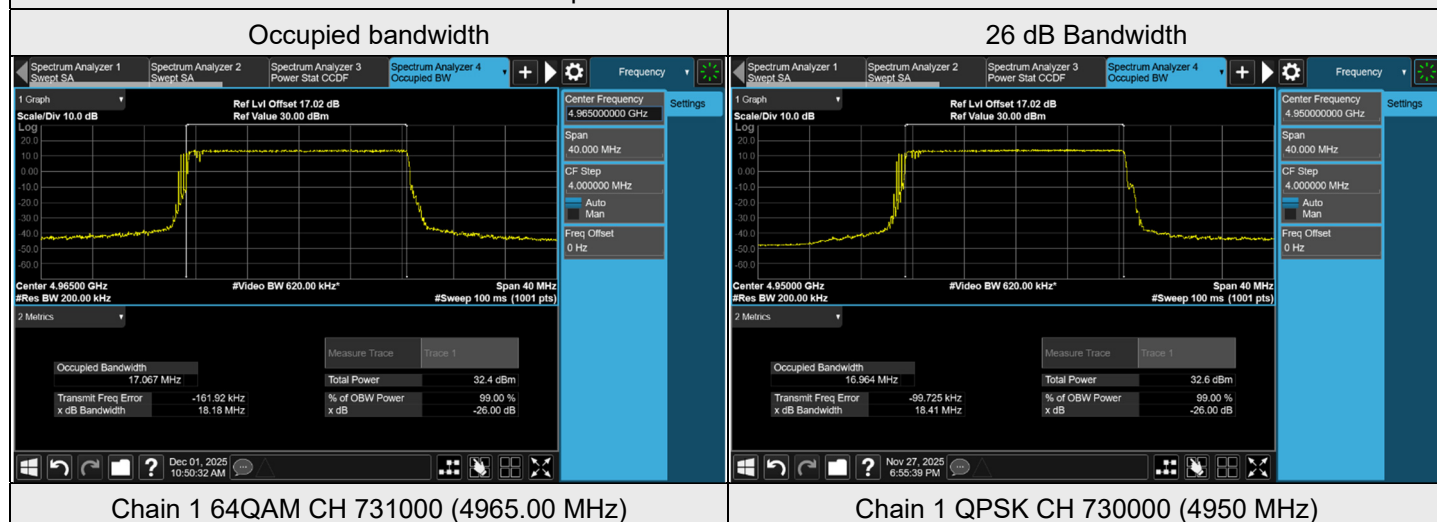
Spectrum Plot of Worst Value



# 1CC, Channel Bandwidth: 20 MHz

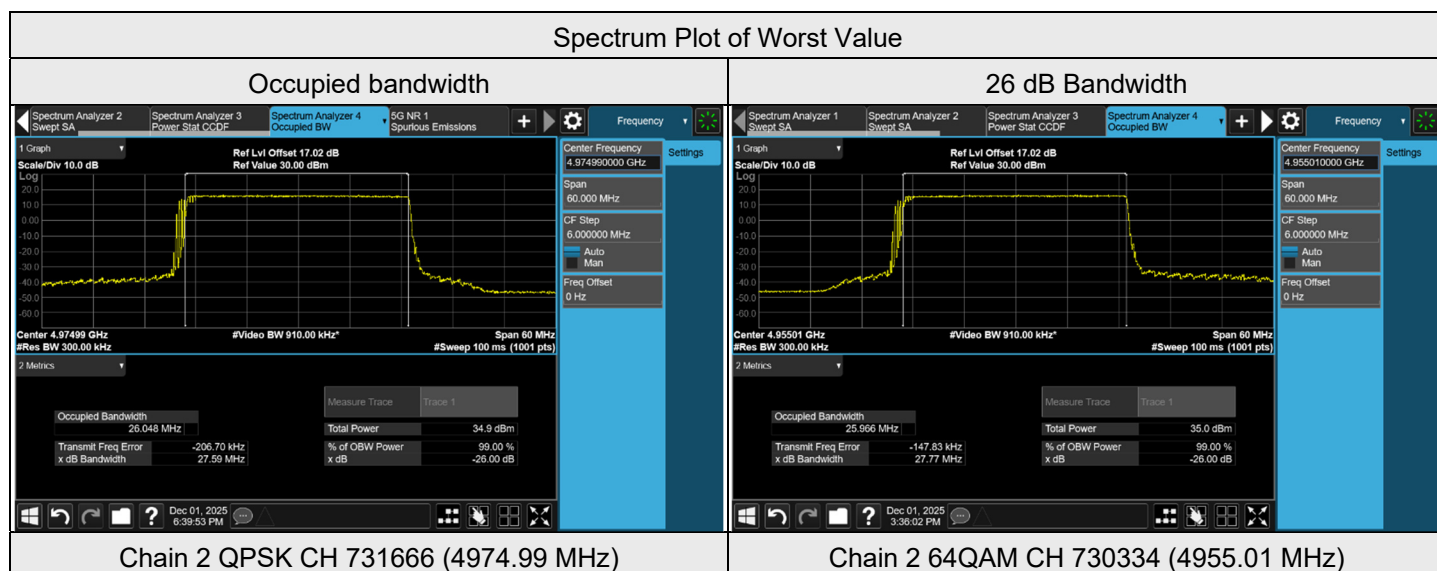
| Chain | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |       |        | 26 dB Bandwidth (MHz) |       |        |
|-------|---------|-----------------|--------------------------|-------|--------|-----------------------|-------|--------|
|       |         |                 | QPSK                     | 64QAM | 256QAM | QPSK                  | 64QAM | 256QAM |
| 0     | 730000  | 4950.00         | 17.05                    | 16.93 | 16.96  | 18.18                 | 18.21 | 18.18  |
|       | 731000  | 4965.00         | 16.97                    | 17.00 | 17.00  | 18.06                 | 18.04 | 18.12  |
|       | 732000  | 4980.00         | 16.95                    | 16.93 | 16.93  | 18.21                 | 18.22 | 18.23  |
| 1     | 730000  | 4950.00         | 16.96                    | 16.96 | 16.96  | 18.41                 | 18.13 | 18.08  |
|       | 731000  | 4965.00         | 17.06                    | 17.07 | 16.97  | 18.24                 | 18.03 | 18.03  |
|       | 732000  | 4980.00         | 16.98                    | 17.03 | 17.02  | 18.25                 | 18.24 | 18.24  |
| 2     | 730000  | 4950.00         | 16.93                    | 17.02 | 17.00  | 18.15                 | 18.18 | 18.18  |
|       | 731000  | 4965.00         | 16.94                    | 16.96 | 16.98  | 18.21                 | 18.21 | 18.21  |
|       | 732000  | 4980.00         | 16.94                    | 16.93 | 16.92  | 18.23                 | 18.26 | 18.26  |
| 3     | 730000  | 4950.00         | 17.00                    | 17.06 | 17.06  | 18.17                 | 18.19 | 18.18  |
|       | 731000  | 4965.00         | 16.94                    | 16.99 | 17.01  | 18.21                 | 18.24 | 18.21  |
|       | 732000  | 4980.00         | 16.94                    | 17.00 | 17.00  | 18.25                 | 18.24 | 18.26  |

## Spectrum Plot of Worst Value



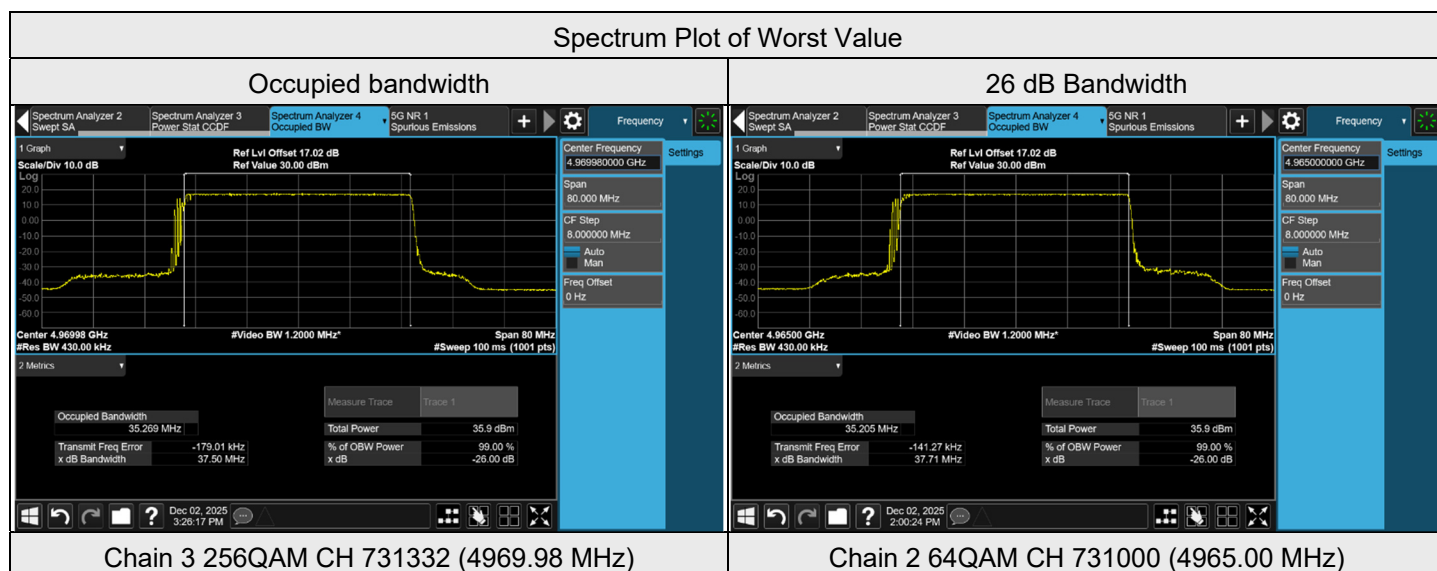
# 1CC, Channel Bandwidth: 30 MHz

| Chain | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |       |        | 26 dB Bandwidth (MHz) |       |        |
|-------|---------|-----------------|--------------------------|-------|--------|-----------------------|-------|--------|
|       |         |                 | QPSK                     | 64QAM | 256QAM | QPSK                  | 64QAM | 256QAM |
| 0     | 730334  | 4955.01         | 26.01                    | 25.95 | 25.95  | 27.70                 | 27.53 | 27.56  |
|       | 731000  | 4965.00         | 25.99                    | 25.96 | 26.05  | 27.64                 | 27.62 | 27.65  |
|       | 731666  | 4974.99         | 26.05                    | 25.68 | 25.97  | 27.59                 | 27.65 | 27.67  |
| 1     | 730334  | 4955.01         | 25.92                    | 25.93 | 25.94  | 27.65                 | 27.65 | 27.59  |
|       | 731000  | 4965.00         | 25.98                    | 26.00 | 26.02  | 27.77                 | 27.60 | 27.76  |
|       | 731666  | 4974.99         | 25.97                    | 26.01 | 26.02  | 27.69                 | 27.49 | 27.54  |
| 2     | 730334  | 4955.01         | 26.01                    | 25.97 | 25.91  | 27.52                 | 27.77 | 27.66  |
|       | 731000  | 4965.00         | 26.02                    | 25.98 | 25.98  | 27.77                 | 27.69 | 27.69  |
|       | 731666  | 4974.99         | 26.05                    | 26.02 | 26.02  | 27.59                 | 27.53 | 27.54  |
| 3     | 730334  | 4955.01         | 26.01                    | 25.96 | 25.98  | 27.55                 | 27.57 | 27.58  |
|       | 731000  | 4965.00         | 26.04                    | 25.93 | 25.98  | 27.55                 | 27.68 | 27.72  |
|       | 731666  | 4974.99         | 26.05                    | 26.02 | 26.01  | 27.58                 | 27.52 | 27.49  |



# 1CC, Channel Bandwidth: 40 MHz

| Chain | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |       |        | 26 dB Bandwidth (MHz) |       |        |
|-------|---------|-----------------|--------------------------|-------|--------|-----------------------|-------|--------|
|       |         |                 | QPSK                     | 64QAM | 256QAM | QPSK                  | 64QAM | 256QAM |
| 0     | 730668  | 4960.02         | 35.06                    | 35.16 | 35.17  | 37.71                 | 37.65 | 37.51  |
|       | 731000  | 4965.00         | 35.22                    | 35.23 | 35.22  | 37.43                 | 37.35 | 37.35  |
|       | 731332  | 4969.98         | 35.25                    | 35.24 | 35.25  | 37.50                 | 37.36 | 37.66  |
| 1     | 730668  | 4960.02         | 35.20                    | 35.20 | 35.21  | 37.46                 | 37.46 | 37.50  |
|       | 731000  | 4965.00         | 35.24                    | 35.24 | 35.22  | 37.41                 | 37.49 | 37.66  |
|       | 731332  | 4969.98         | 35.26                    | 35.25 | 35.25  | 37.50                 | 37.66 | 37.44  |
| 2     | 730668  | 4960.02         | 35.20                    | 35.20 | 35.18  | 37.46                 | 37.42 | 37.65  |
|       | 731000  | 4965.00         | 35.20                    | 35.21 | 35.23  | 37.70                 | 37.71 | 37.42  |
|       | 731332  | 4969.98         | 35.24                    | 35.24 | 35.24  | 37.36                 | 37.36 | 37.70  |
| 3     | 730668  | 4960.02         | 35.18                    | 35.17 | 35.18  | 37.58                 | 37.65 | 37.71  |
|       | 731000  | 4965.00         | 35.22                    | 35.22 | 35.24  | 37.35                 | 37.66 | 37.42  |
|       | 731332  | 4969.98         | 35.26                    | 35.27 | 35.27  | 37.45                 | 37.50 | 37.50  |



# 1CC, Channel Bandwidth: 50 MHz

| Chain | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |       |        | 26 dB Bandwidth (MHz) |       |        |
|-------|---------|-----------------|--------------------------|-------|--------|-----------------------|-------|--------|
|       |         |                 | QPSK                     | 64QAM | 256QAM | QPSK                  | 64QAM | 256QAM |
| 0     | 731000  | 4965.00         | 44.03                    | 44.03 | 44.01  | 46.84                 | 46.84 | 47.22  |
| 1     | 731000  | 4965.00         | 44.03                    | 44.05 | 44.04  | 47.17                 | 46.72 | 46.93  |
| 2     | 731000  | 4965.00         | 44.00                    | 44.06 | 44.05  | 47.14                 | 46.84 | 46.84  |
| 3     | 731000  | 4965.00         | 44.05                    | 44.05 | 44.06  | 46.81                 | 46.91 | 46.96  |

