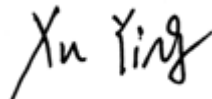


RF TEST REPORT

Applicant SIMCom Wireless Solutions Limited
FCC ID 2AJYU-8XN0003
Product SIMCom Module
Model SIM8262A-M2
Report No. R2302A0176-R1V1
Issue Date June 6, 2023

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2/ FCC CFR 47 Part 96**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.



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TABLE OF CONTENT

| | |
|--|----|
| 1. Test Laboratory | 5 |
| 1.1. Notes of the Test Report | 5 |
| 1.2. Test Facility | 5 |
| 1.3. Testing Location | 5 |
| 2. General Description of Equipment under Test..... | 6 |
| 2.1. Applicant and Manufacturer Information | 6 |
| 2.2. General Information..... | 6 |
| 3. Applied Standards..... | 8 |
| 4. Test Configuration..... | 9 |
| 5. Test Case..... | 10 |
| 5.1. RF Power Output and Effective Isotropic Radiated Power | 10 |
| 5.2. Maximum Effective Isotropic Radiated Power and Maximum Power Spectral Density | 11 |
| 5.3. Occupied Bandwidth | 12 |
| 5.4. Band Edge Compliance..... | 14 |
| 5.5. Peak-to-Average Power Ratio (PAPR) | 15 |
| 5.6. Frequency Stability..... | 16 |
| 5.7. Spurious Emissions at Antenna Terminals | 18 |
| 5.8. Radiated Spurious Emission | 20 |
| 6. Test Result..... | 22 |
| 6.1. RF Power Output and Effective Isotropic Radiated Power | 22 |
| 6.2. Maximum Effective Isotropic Radiated Power and Maximum Power Spectral Density | 31 |
| 6.3. Occupied Bandwidth | 35 |
| 6.4. Band Edge Compliance..... | 42 |
| 6.5. Peak-to-Average Power Ratio (PAPR) | 46 |
| 6.6. Frequency Stability..... | 47 |
| 6.7. Spurious Emissions at Antenna Terminals | 52 |
| 6.8. Radiated Spurious Emission | 55 |
| 7. Main Test Instruments | 57 |
| ANNEX A: The EUT Appearance..... | 58 |
| ANNEX B: Test Setup Photos | 59 |

| Version | Revision description | Issue Date |
|---|----------------------------|--------------|
| Rev.0 | Initial issue of report. | May 19, 2023 |
| Rev.1 | Update data on Page 22~30. | June 6, 2023 |
| Note: This revised report (Report No.: R2302A0176-R1V1) supersedes and replaces the previously issued report (Report No.: R2302A0176-R1). Please discard or destroy the previously issued report and dispose of it accordingly. | | |

Summary of Measurement Results

| No. | Test Type | Clause in FCC rules | Verdict |
|-----|---|---------------------|---------|
| 1 | RF power output and Effective Isotropic Radiated Power | 2.1046 | PASS |
| 2 | Maximum Effective Isotropic Radiated Power and Maximum Power Spectral Density | 96.41 | PASS |
| 3 | Occupied Bandwidth | 2.1049/ 96.41 | PASS |
| 4 | Band Edge Compliance | 2.1051/ 96.41 | PASS |
| 5 | Peak-to-Average Power Ratio | 96.41 | PASS |
| 6 | Frequency Stability | 2.1055 | PASS |
| 7 | Spurious Emissions at Antenna Terminals | 2.1051 / 96.41 | PASS |
| 8 | Radiated Spurious Emission | 2.1051 / 96.41 | PASS |

Date of Testing: February 25, 2023 ~ March 6, 2023

Date of Sample Received: February 24, 2023

Note: PASS: The EUT complies with the essential requirements in the standard.

FAIL: The EUT does not comply with the essential requirements in the standard.

All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

1. Test Laboratory

1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City: Shanghai
Post code: 201201
Country: P. R. China
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Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

| | |
|----------------------|--|
| Applicant | SIMCom Wireless Solutions Limited |
| Applicant address | SIMCom Headquarters Building, Building 3, No.289 Linhong Road, Changning District, Shanghai, China |
| Manufacturer | SIMCom Wireless Solutions Limited |
| Manufacturer address | SIMCom Headquarters Building, Building 3, No.289 Linhong Road, Changning District, Shanghai, China |

2.2. General Information

| EUT Description | | | |
|------------------------------|---|-------------------|-------------|
| Model | SIM8262A-M2 | | |
| IMEI | 866713060007227 | | |
| Hardware Version | V1.02 | | |
| Software Version | 2212B03V03X62M44A-M2 | | |
| Power Supply | AC Adapter | | |
| Antenna Type | External Antenna | | |
| Antenna Gain | 1.44 dBi | | |
| Test Mode(s) | NR n77/n78 | | |
| Test Modulation | CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM; DFT-s OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM | | |
| Maximum Output Power (dBm) | NR n77 | 22.28 dBm | |
| Maximum EIRP (dBm) | NR n77 | 23.72 dBm | |
| Maximum EIRP (dBm/10MHz) | NR n77 | 21.94 (dBm/10MHz) | |
| Rated Power Supply Voltage | 3.8V | | |
| Operating Voltage | Minimum: 3.135V Maximum: 4.4V | | |
| Operating Temperature | Lowest: -30°C Highest: +70°C | | |
| Testing Temperature | Lowest: -30°C Highest: +50°C | | |
| Operating Frequency Range(s) | Band | Tx (MHz) | Rx (MHz) |
| | NR n77 | 3550 ~ 3700 | 3550 ~ 3700 |
| | NR n78 | 3550 ~ 3700 | 3550 ~ 3700 |
| EUT Accessory | | | |
| Adapter | Manufacturer: Something High Electric (Xiamen) Company Inc. Model:P-050B-050200 EU | | |
| USB Cable | Manufacturer: Dongguan Guanlijie Precision Electronics Co., Ltd. | | |

| | |
|--|--|
| | Model: SR-R061-RS |
| Auxiliary Board | Manufacturer: / Model: S2-10B5L |
| Antenna | Manufacturer: SUNNYWAY Model: SW19073EB56 |
| <p>Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.</p> <p>2. NR n77 (Frequency range: 3550 ~ 3700MHz) coincides with NR n78 (Frequency range: 3550 ~ 3700MHz). The test only needs to be completed in NR n77.</p> | |

3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR 47 Part 96 (2022)

ANSI C63.26-2015

Reference standard:

FCC 47 CFR Part 2 (2022)

FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

FCC KDB 940660 D01 Part 96 CBRS Eqpt v03

4. Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (X axis, horizontal polarization) and the worst case was recorded.

All mode and data rates and positions were investigated. Subsequently, only the worst case emissions are reported.

The following testing in LTE is set based on the maximum RF Output Power.

Test modes are chosen to be reported as the worst case configuration below:

Test modes are chosen as the worst case configuration below for NR n77.

| Test items | Bandwidth (MHz) | | | | | | | | | | | Modulation | | | | | RB | | | Test Channel | | |
|---|-----------------|----|----|----|----|----|----|----|----|----|-----|------------|------|--------|--------|---------|----|-----|------|--------------|---|---|
| | 10 | 15 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | PI/2 BPSK | QPSK | 16 QAM | 64 QAM | 256 QAM | 1 | 50% | 100% | L | M | H |
| RF power output and Effective Isotropic Radiated Power | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum Effective Isotropic Radiated Power and Maximum Power Spectral Density | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | 0 | 0 |
| Occupied Bandwidth | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 |
| Band Edge Compliance | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | - | 0 |
| Peak-to-Average Power Ratio | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | 0 | 0 |
| Frequency Stability | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | 0 | - |
| Spurious Emissions at Antenna Terminals | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | 0 |
| Radiated Spurious Emission | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | 0 | - | - | - | 0 | - | - | - | 0 | - |

Note: 1. The mark "0" means that this configuration is chosen for testing.

2. The mark "-" means that this configuration is not testing.

3. Sub 6GHz operates using 15kHz Subcarrier Spacing with both CP-OFDM and DFT-s OFDM waveforms. The band supports PI/2 BPSK ,QPSK, 16QAM, 64QAM, and 256QAM modulation. The test data provided in this report represents the worst case configurations.

5. Test Case

5.1. RF Power Output and Effective Isotropic Radiated Power

Ambient Condition

| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

Methods of Measurement

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

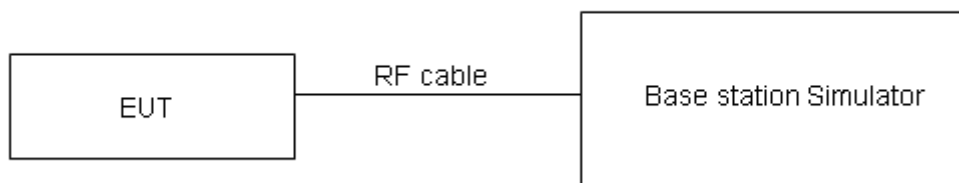
1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

ERP can then be calculated as follows:

$$\text{EIRP (dBm)} = \text{Output Power (dBm)} + \text{Antenna Gain (dBi)}$$

$$\text{EIRP (dBm)} = \text{ERP (dBm)} + 2.15 \text{ (dB.)}$$

Test Setup



A transmitter port of EUT is connected to the input of a signal analyzer. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4$ dB.

Test Results

Refer to the section 6.1 of this report for test data.

5.2. Maximum Effective Isotropic Radiated Power and Maximum Power Spectral Density

Ambient Condition

| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

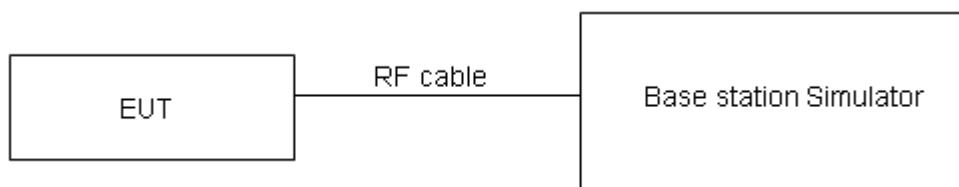
Methods of Measurement

The testing follows procedure in Section 5.2 of ANSI C63.26 and KDB 940660 D01 Section 3.2(b)(2). Determine the EIRP by adding the effective antenna gain to the measured average conducted power level.

The EIRP of mobile transmitters must not exceed 23 dBm /10 megahertz for Band 48.

The testing follows ANSI C63.26 Section 5.2.5.5

Test Setup



A transmitter port of EUT is connected to the input of a signal analyzer. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Limits

EIRP and PSD limits for CBRS equipment as below table:

| Device | Maximum EIRP (dBm/10MHz) | Maximum PSD (dBm/MHz) |
|------------------------------|--------------------------|-----------------------|
| End User Device | 23 | N/A |
| Category A CBSD | 30 | 20 |
| Category B CBSD ¹ | 47 | 37 |

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 1.19$ dB

Test Results

Refer to the section 6.2 of this report for test data.

5.3. Occupied Bandwidth

Ambient Condition

| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

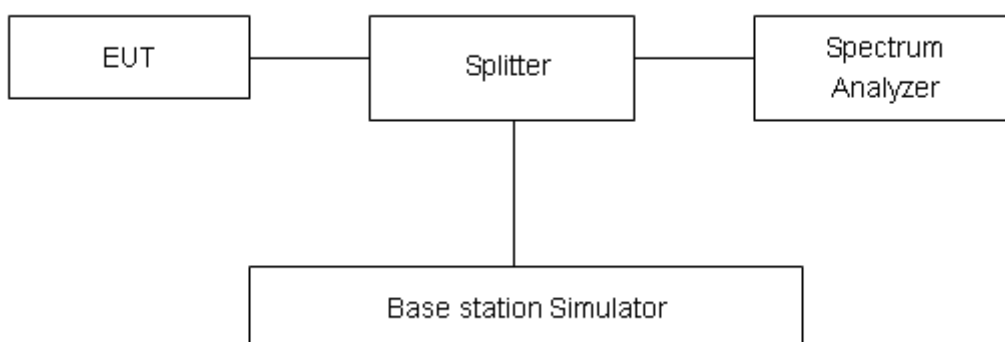
Method of Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The testing follows FCC KDB 971168 D01 v03r01 Section 4.2

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
3. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
4. Set the detection mode to peak, and the trace mode to max hold.
5. Determine the reference value: 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)
6. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
7. 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 down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

Test Setup



Limits

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 624\text{Hz}$.

Test Results

Refer to the section 6.3 of this report for test data.

5.4. Band Edge Compliance

Ambient Condition

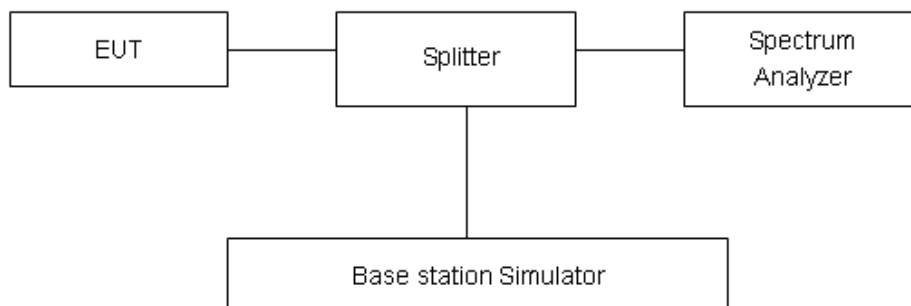
| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

Method of Measurement

The testing follows FCC KDB 971168 D01 v03r01 Section 6.0.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW \geq 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Beyond the 1 MHz band from the band edge, RBW=1MHz was used
5. Set spectrum analyzer with RMS detector.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

Test Setup



Limits

Rule Part 96.41(e) (1) (i) specifies that “Except as otherwise specified in paragraph (e)(2) of this section, for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any CBSD emission outside the fundamental emission bandwidth as specified in paragraph (e)(3) of this section (whether the emission is inside or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any CBSD emission shall not exceed -25 dBm/MHz. The upper and lower SAS assigned channel edges are the upper and lower limits of any channel assigned to a CBSD by an SAS, or in the case of multiple contiguous channels, the upper and lower limits of the combined contiguous channels.”

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U=0.684$ dB.

Test Results

Refer to the section 6.4 of this report for test data.

5.5. Peak-to-Average Power Ratio (PAPR)

Ambient Condition

| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

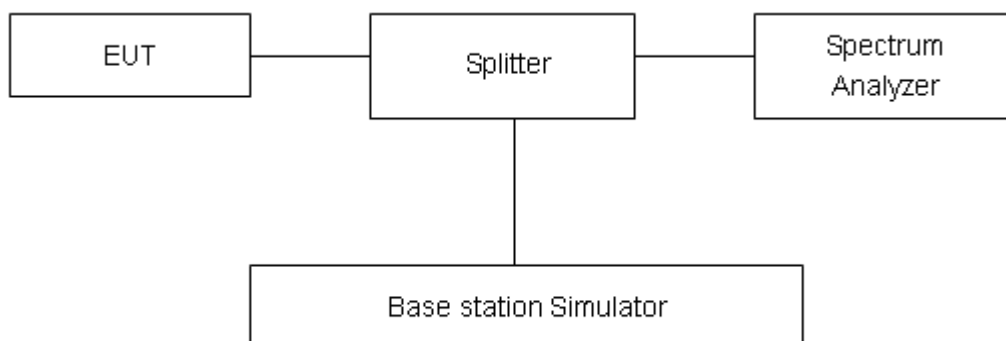
Methods of Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth.

The testing follows FCC KDB 971168 D01 v03r01 Section 5.7.1

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
3. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio

Test Setup



Limits

Rule Part 96.41(g), The peak-to-average power ratio (PAPR) of any CBSD transmitter output power must not exceed 13 dB.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4$ dB.

Test Results

Refer to the section 6.5 of this report for test data.

5.6. Frequency Stability

Ambient Condition

| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

Method of Measurement

Test Procedures for Temperature Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

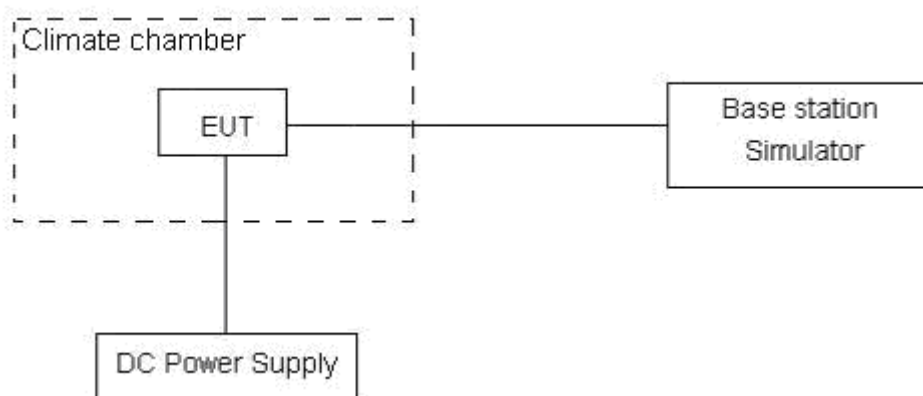
1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

Test Procedures for Voltage Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

Test Setup



Limits

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 3$, $U = 0.01\text{ppm}$.

Test Results

Refer to the section 6.6 of this report for test data.

5.7. Spurious Emissions at Antenna Terminals

Ambient Condition

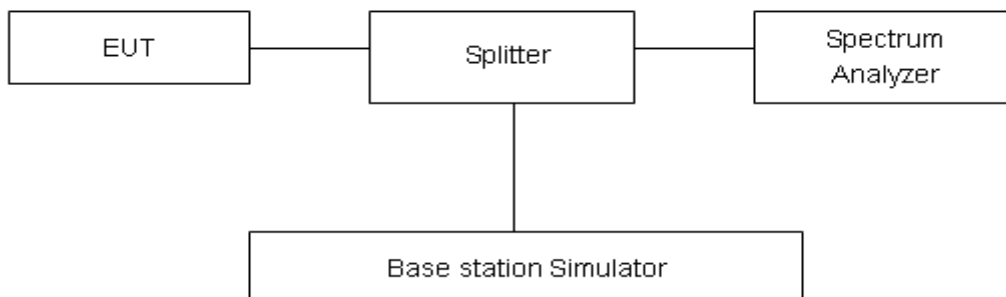
| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

Method of Measurement

The testing follows FCC KDB 971168 D01 v03r01 Section 6.0.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
6. Set spectrum analyzer with RMS detector.
7. Taking the record of maximum spurious emission.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. The limit line is -40dBm/MHz.

Test Setup



Limits

Rule Part 96.41(e) (2) Additional protection levels. Notwithstanding paragraph (e)(1) of this section, for CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

| Frequency | Uncertainty |
|-------------|-------------|
| 100kHz-2GHz | 0.684 dB |
| 2GHz-18GHz | 1.407 dB |
| 18GHz-40GHz | 1.515 dB |

Test Results

Refer to the section 6.7 of this report for test data.

5.8. Radiated Spurious Emission

Ambient Condition

| Temperature | Relative humidity |
|-------------|-------------------|
| 20°C ~25°C | 45%~50% |

Method of Measurement

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26.
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=1MHz, VBW=3MHz, and the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:

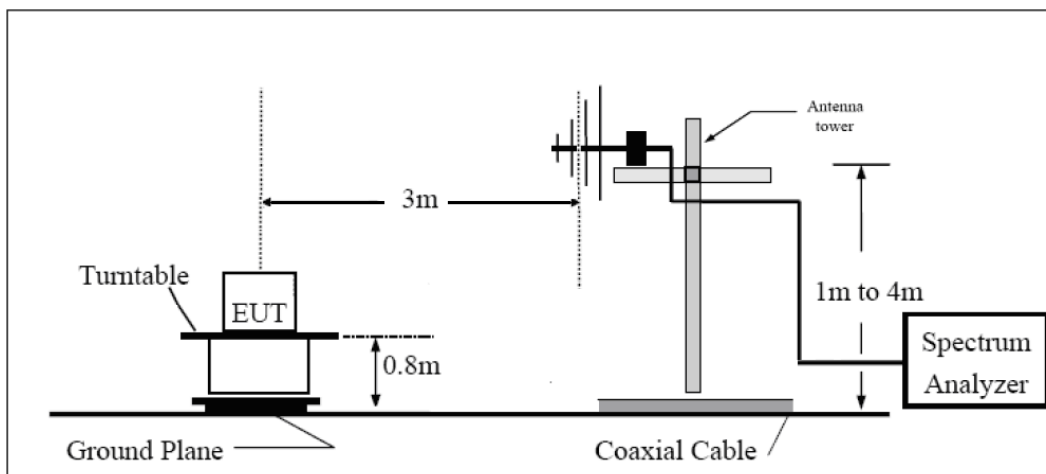
$$\text{Power(EIRP)} = \text{PMea} - \text{PAg} - \text{Pcl} + \text{Ga}$$
 The measurement results are amend as described below:

$$\text{Power(EIRP)} = \text{PMea} - \text{Pcl} + \text{Ga}$$
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, $\text{ERP} = \text{EIRP} - 2.15\text{dBi}$.

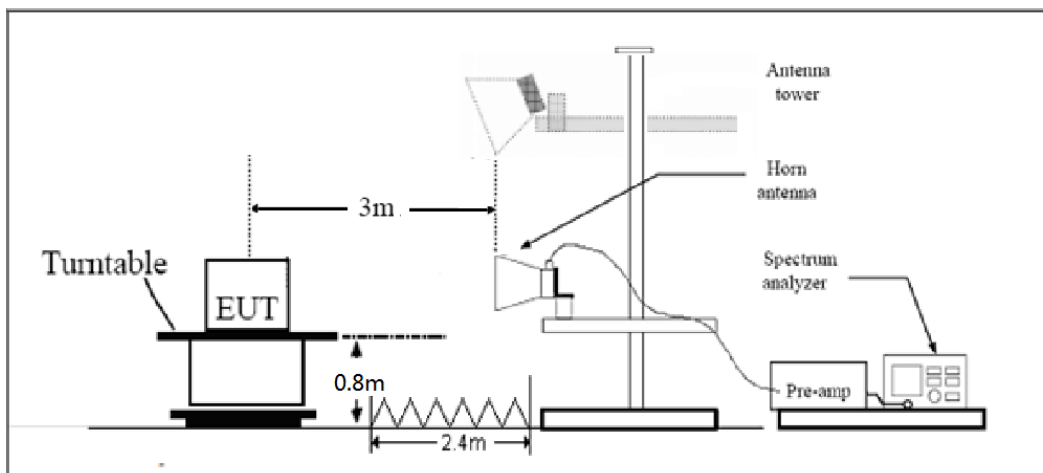
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test Setup

30MHz~~~ 1GHz



Above 1GHz



Note: Area side: 2.4mX3.6m

Limits

Rule Part 96.41(e) (2) specifies that “*Additional protection levels.* Notwithstanding paragraph (e)(1) of this section, for CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.”

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 3.55$ dB.

Test Results

Refer to the section 6.8 of this report for test data.

6. Test Result

6.1. RF Power Output and Effective Isotropic Radiated Power

| NR n77 | | | | | | | | | |
|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | 637000 | 641666 | 646334 | 637000 | 641666 | 646334 |
| | | | | 3555 | 3625 | 3695 | 3555 | 3625 | 3695 |
| 10 | BPSK | 1 | 0 | 20.83 | 20.73 | 20.57 | 22.27 | 22.17 | 22.01 |
| | | 1 | 1 | 21.94 | 21.97 | 21.85 | 23.38 | 23.41 | 23.29 |
| | | 1 | 24 | 21.66 | 21.92 | 22.18 | 23.10 | 23.36 | 23.62 |
| | | 24 | 12 | 20.62 | 20.92 | 21.07 | 22.06 | 22.36 | 22.51 |
| | | 24 | 0 | 21.90 | 21.98 | 21.86 | 23.34 | 23.42 | 23.30 |
| | QPSK | 1 | 0 | 21.95 | 21.84 | 21.85 | 23.39 | 23.28 | 23.29 |
| | | 1 | 1 | 20.74 | 20.71 | 20.44 | 22.18 | 22.15 | 21.88 |
| | | 1 | 24 | 22.15 | 22.10 | 21.80 | 23.59 | 23.54 | 23.24 |
| | | 24 | 12 | 21.71 | 21.87 | 22.11 | 23.15 | 23.31 | 23.55 |
| | | 24 | 0 | 20.61 | 20.95 | 21.18 | 22.05 | 22.39 | 22.62 |
| | 16QAM | 1 | 0 | 21.88 | 21.86 | 21.71 | 23.32 | 23.30 | 23.15 |
| | | 1 | 1 | 21.93 | 21.86 | 21.82 | 23.37 | 23.30 | 23.26 |
| | | 1 | 24 | 20.99 | 20.79 | 20.45 | 22.43 | 22.23 | 21.89 |
| | | 24 | 12 | 22.06 | 22.20 | 21.88 | 23.50 | 23.64 | 23.32 |
| | | 24 | 0 | 21.80 | 22.09 | 22.28 | 23.24 | 23.53 | 23.72 |
| | 64QAM | 1 | 0 | 20.72 | 21.02 | 21.10 | 22.16 | 22.46 | 22.54 |
| | | 1 | 1 | 21.83 | 21.94 | 21.82 | 23.27 | 23.38 | 23.26 |
| | | 1 | 24 | 21.81 | 21.84 | 21.84 | 23.25 | 23.28 | 23.28 |
| | | 24 | 12 | 20.47 | 20.37 | 20.19 | 21.91 | 21.81 | 21.63 |
| | | 24 | 0 | 21.83 | 21.73 | 21.61 | 23.27 | 23.17 | 23.05 |
| | 256QAM | 1 | 0 | 21.47 | 21.76 | 22.00 | 22.91 | 23.20 | 23.44 |
| | | 1 | 1 | 20.38 | 20.57 | 20.95 | 21.82 | 22.01 | 22.39 |
| | | 1 | 24 | 21.73 | 21.88 | 21.75 | 23.17 | 23.32 | 23.19 |
| | | 24 | 12 | 21.83 | 21.90 | 21.83 | 23.27 | 23.34 | 23.27 |
| | | 24 | 0 | 19.52 | 19.45 | 19.25 | 20.96 | 20.89 | 20.69 |
| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | 637166 | 641666 | 646166 | 637166 | 641666 | 646166 |
| | | | | 3557.5 | 3625 | 3692.5 | 3557.5 | 3625 | 3692.5 |
| 15 | BPSK | 1 | 0 | 20.80 | 20.71 | 20.53 | 22.24 | 22.15 | 21.97 |
| | | 1 | 1 | 21.92 | 21.93 | 21.82 | 23.36 | 23.37 | 23.26 |

| | | 1 | 38 | 21.63 | 21.87 | 22.14 | 23.07 | 23.31 | 23.58 | |
|------|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| | | 38 | 19 | 20.59 | 20.87 | 21.03 | 22.03 | 22.31 | 22.47 | |
| | | 38 | 0 | 21.88 | 21.94 | 21.81 | 23.32 | 23.38 | 23.25 | |
| | QPSK | 1 | 0 | 21.93 | 21.82 | 21.81 | 23.37 | 23.26 | 23.25 | |
| | | 1 | 1 | 20.72 | 20.70 | 20.42 | 22.16 | 22.14 | 21.86 | |
| | | 1 | 38 | 22.12 | 22.06 | 21.77 | 23.56 | 23.50 | 23.21 | |
| | | 38 | 19 | 21.68 | 21.85 | 22.08 | 23.12 | 23.29 | 23.52 | |
| | | 38 | 0 | 20.58 | 20.93 | 21.14 | 22.02 | 22.37 | 22.58 | |
| | 16QAM | 1 | 0 | 21.86 | 21.82 | 21.68 | 23.30 | 23.26 | 23.12 | |
| | | 1 | 1 | 21.90 | 21.81 | 21.78 | 23.34 | 23.25 | 23.22 | |
| | | 1 | 38 | 20.96 | 20.74 | 20.41 | 22.40 | 22.18 | 21.85 | |
| | | 38 | 19 | 22.04 | 22.16 | 21.83 | 23.48 | 23.60 | 23.27 | |
| | | 38 | 0 | 21.77 | 22.05 | 22.25 | 23.21 | 23.49 | 23.69 | |
| | 64QAM | 1 | 0 | 20.69 | 21.00 | 21.07 | 22.13 | 22.44 | 22.51 | |
| | | 1 | 1 | 21.80 | 21.92 | 21.78 | 23.24 | 23.36 | 23.22 | |
| | | 1 | 38 | 21.79 | 21.80 | 21.81 | 23.23 | 23.24 | 23.25 | |
| | | 38 | 19 | 20.44 | 20.32 | 20.15 | 21.88 | 21.76 | 21.59 | |
| | | 38 | 0 | 21.80 | 21.68 | 21.57 | 23.24 | 23.12 | 23.01 | |
| | 256QAM | 1 | 0 | 21.45 | 21.72 | 21.95 | 22.89 | 23.16 | 23.39 | |
| | | 1 | 1 | 20.40 | 20.61 | 20.98 | 21.84 | 22.05 | 22.42 | |
| | | 1 | 38 | 21.76 | 21.93 | 21.79 | 23.20 | 23.37 | 23.23 | |
| | | 38 | 19 | 21.86 | 21.95 | 21.87 | 23.30 | 23.39 | 23.31 | |
| | | 38 | 0 | 19.60 | 19.55 | 19.36 | 21.04 | 20.99 | 20.80 | |
| | Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | | 637334 | 641666 | 646000 | 637334 | 641666 | 646000 |
| 3560 | | | | | 3625 | 3690 | 3560 | 3625 | 3690 | |
| 20 | BPSK | 1 | 0 | 20.82 | 20.72 | 20.56 | 22.26 | 22.16 | 22.00 | |
| | | 1 | 1 | 21.95 | 21.98 | 21.86 | 23.39 | 23.42 | 23.30 | |
| | | 1 | 50 | 21.65 | 21.91 | 22.17 | 23.09 | 23.35 | 23.61 | |
| | | 25 | 12 | 20.62 | 20.92 | 21.07 | 22.06 | 22.36 | 22.51 | |
| | | 50 | 0 | 21.91 | 21.99 | 21.85 | 23.35 | 23.43 | 23.29 | |
| | QPSK | 1 | 0 | 21.95 | 21.86 | 21.86 | 23.39 | 23.30 | 23.30 | |
| | | 1 | 1 | 20.80 | 20.72 | 20.46 | 22.24 | 22.16 | 21.90 | |
| | | 1 | 50 | 22.14 | 22.09 | 21.79 | 23.58 | 23.53 | 23.23 | |
| | | 25 | 12 | 21.71 | 21.89 | 22.11 | 23.15 | 23.33 | 23.55 | |
| | | 50 | 0 | 20.61 | 20.95 | 21.17 | 22.05 | 22.39 | 22.61 | |
| | 16QAM | 1 | 0 | 21.89 | 21.87 | 21.72 | 23.33 | 23.31 | 23.16 | |
| | | 1 | 1 | 21.92 | 21.85 | 21.81 | 23.36 | 23.29 | 23.25 | |
| | | 1 | 50 | 20.99 | 20.79 | 20.45 | 22.43 | 22.23 | 21.89 | |
| | | 25 | 12 | 22.07 | 22.21 | 21.87 | 23.51 | 23.65 | 23.31 | |

| | 64QAM | 50 | 0 | 21.79 | 22.08 | 22.27 | 23.23 | 23.52 | 23.71 |
|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| | | 1 | 0 | 20.72 | 21.04 | 21.10 | 22.16 | 22.48 | 22.54 |
| | | 1 | 1 | 21.83 | 21.94 | 21.81 | 23.27 | 23.38 | 23.25 |
| | | 1 | 50 | 21.82 | 21.85 | 21.85 | 23.26 | 23.29 | 23.29 |
| | | 25 | 12 | 20.46 | 20.36 | 20.18 | 21.90 | 21.80 | 21.62 |
| | | 50 | 0 | 21.83 | 21.73 | 21.61 | 23.27 | 23.17 | 23.05 |
| | 256QAM | 1 | 0 | 21.48 | 21.77 | 21.99 | 22.92 | 23.21 | 23.43 |
| | | 1 | 1 | 20.37 | 20.59 | 20.94 | 21.81 | 22.03 | 22.38 |
| | | 1 | 50 | 21.74 | 21.89 | 21.76 | 23.18 | 23.33 | 23.20 |
| | | 25 | 12 | 21.83 | 21.90 | 21.83 | 23.27 | 23.34 | 23.27 |
| 50 | | 0 | 19.57 | 19.50 | 19.32 | 21.01 | 20.94 | 20.76 | |
| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | 637666 | 641666 | 645666 | 637666 | 641666 | 645666 |
| | | | | 3565 | 3625 | 3685 | 3565 | 3625 | 3685 |
| 30 | BPSK | 1 | 0 | 20.81 | 20.68 | 20.54 | 22.25 | 22.12 | 21.98 |
| | | 1 | 1 | 21.93 | 21.97 | 21.83 | 23.37 | 23.41 | 23.27 |
| | | 1 | 76 | 21.62 | 21.86 | 22.13 | 23.06 | 23.30 | 23.57 |
| | | 1 | 77 | 20.60 | 20.88 | 21.04 | 22.04 | 22.32 | 22.48 |
| | | 36 | 18 | 21.88 | 21.94 | 21.81 | 23.32 | 23.38 | 23.25 |
| | | 75 | 0 | 21.92 | 21.83 | 21.82 | 23.36 | 23.27 | 23.26 |
| | QPSK | 1 | 0 | 20.78 | 20.68 | 20.41 | 22.22 | 22.12 | 21.85 |
| | | 1 | 1 | 22.09 | 22.07 | 21.77 | 23.53 | 23.51 | 23.21 |
| | | 1 | 76 | 21.69 | 21.86 | 22.09 | 23.13 | 23.30 | 23.53 |
| | | 1 | 77 | 20.58 | 20.91 | 21.14 | 22.02 | 22.35 | 22.58 |
| | | 36 | 18 | 21.86 | 21.85 | 21.69 | 23.30 | 23.29 | 23.13 |
| | | 75 | 0 | 21.89 | 21.80 | 21.77 | 23.33 | 23.24 | 23.21 |
| | 16QAM | 1 | 0 | 20.97 | 20.75 | 20.42 | 22.41 | 22.19 | 21.86 |
| | | 1 | 1 | 22.04 | 22.16 | 21.83 | 23.48 | 23.60 | 23.27 |
| | | 1 | 76 | 21.74 | 22.06 | 22.25 | 23.18 | 23.50 | 23.69 |
| | | 1 | 77 | 20.70 | 21.01 | 21.08 | 22.14 | 22.45 | 22.52 |
| | | 36 | 18 | 21.80 | 21.90 | 21.78 | 23.24 | 23.34 | 23.22 |
| | | 75 | 0 | 21.79 | 21.83 | 21.82 | 23.23 | 23.27 | 23.26 |
| | 64QAM | 1 | 0 | 20.43 | 20.31 | 20.14 | 21.87 | 21.75 | 21.58 |
| | | 1 | 1 | 21.81 | 21.69 | 21.58 | 23.25 | 23.13 | 23.02 |
| | | 1 | 76 | 21.45 | 21.720 | 21.95 | 22.89 | 23.16 | 23.39 |
| | | 1 | 77 | 20.39 | 20.60 | 20.97 | 21.83 | 22.04 | 22.41 |
| | | 36 | 18 | 21.77 | 21.94 | 21.80 | 23.21 | 23.38 | 23.24 |
| | | 75 | 0 | 21.85 | 21.94 | 21.86 | 23.29 | 23.38 | 23.30 |
| | 256QAM | 1 | 0 | 19.60 | 19.55 | 19.36 | 21.04 | 20.99 | 20.80 |
| | | 1 | 1 | 19.88 | 19.90 | 19.70 | 21.32 | 21.34 | 21.14 |

| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| | | | | 63800 | 641666 | 645334 | 63800 | 641666 | 645334 |
| | | | | 3570 | 3625 | 3680 | 3570 | 3625 | 3680 |
| | | | | | | | | | |
| 40 | | 1 | 76 | 19.53 | 19.70 | 20.11 | 20.97 | 21.14 | 21.55 |
| | | 1 | 77 | 19.51 | 19.82 | 20.05 | 20.95 | 21.26 | 21.49 |
| | | 36 | 18 | 19.93 | 19.98 | 19.82 | 21.37 | 21.42 | 21.26 |
| | | 75 | 0 | 19.93 | 19.98 | 19.92 | 21.37 | 21.42 | 21.36 |
| | BPSK | 1 | 0 | 20.80 | 20.71 | 20.53 | 22.24 | 22.15 | 21.97 |
| | | 1 | 1 | 21.92 | 21.93 | 21.82 | 23.36 | 23.37 | 23.26 |
| | | 1 | 104 | 21.63 | 21.87 | 22.14 | 23.07 | 23.31 | 23.58 |
| | | 1 | 105 | 20.59 | 20.87 | 21.03 | 22.03 | 22.31 | 22.47 |
| | | 50 | 25 | 21.88 | 21.94 | 21.81 | 23.32 | 23.38 | 23.25 |
| | | 100 | 0 | 21.93 | 21.82 | 21.81 | 23.37 | 23.26 | 23.25 |
| | QPSK | 1 | 0 | 20.72 | 20.70 | 20.42 | 22.16 | 22.14 | 21.86 |
| | | 1 | 1 | 22.12 | 22.06 | 21.77 | 23.56 | 23.50 | 23.21 |
| | | 1 | 104 | 21.68 | 21.85 | 22.08 | 23.12 | 23.29 | 23.52 |
| | | 1 | 105 | 20.58 | 20.93 | 21.14 | 22.02 | 22.37 | 22.58 |
| | | 50 | 25 | 21.86 | 21.82 | 21.68 | 23.30 | 23.26 | 23.12 |
| | | 100 | 0 | 21.90 | 21.81 | 21.78 | 23.34 | 23.25 | 23.22 |
| | 16QAM | 1 | 0 | 20.96 | 20.74 | 20.41 | 22.40 | 22.18 | 21.85 |
| | | 1 | 1 | 22.04 | 22.16 | 21.83 | 23.48 | 23.60 | 23.27 |
| | | 1 | 104 | 21.77 | 22.05 | 22.25 | 23.21 | 23.49 | 23.69 |
| | | 1 | 105 | 20.69 | 21.00 | 21.07 | 22.13 | 22.44 | 22.51 |
| | | 50 | 25 | 21.80 | 21.92 | 21.78 | 23.24 | 23.36 | 23.22 |
| | | 100 | 0 | 21.79 | 21.80 | 21.81 | 23.23 | 23.24 | 23.25 |
| | 64QAM | 1 | 0 | 20.44 | 20.32 | 20.15 | 21.88 | 21.76 | 21.59 |
| | | 1 | 1 | 21.80 | 21.68 | 21.57 | 23.24 | 23.12 | 23.01 |
| | | 1 | 104 | 21.45 | 21.72 | 21.95 | 22.89 | 23.16 | 23.39 |
| | | 1 | 105 | 20.38 | 20.56 | 20.95 | 21.82 | 22.00 | 22.39 |
| | | 50 | 25 | 21.75 | 21.93 | 21.77 | 23.19 | 23.37 | 23.21 |
| | | 100 | 0 | 21.82 | 21.89 | 21.82 | 23.26 | 23.33 | 23.26 |
| 256QAM | 1 | 0 | 19.58 | 19.51 | 19.33 | 21.02 | 20.95 | 20.77 | |
| | 1 | 1 | 19.85 | 19.85 | 19.66 | 21.29 | 21.29 | 21.10 | |
| | 1 | 104 | 19.50 | 19.67 | 20.07 | 20.94 | 21.11 | 21.51 | |
| | 1 | 105 | 19.49 | 19.78 | 20.00 | 20.93 | 21.22 | 21.44 | |
| | 50 | 25 | 19.88 | 19.96 | 19.80 | 21.32 | 21.40 | 21.24 | |
| | 100 | 0 | 19.91 | 19.95 | 19.90 | 21.35 | 21.39 | 21.34 | |

| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| | | | | 638334 | 641666 | 645002 | 638334 | 641666 | 645002 |
| | | | | 3575 | 3625 | 3675 | 3575 | 3625 | 3675 |
| 50 | BPSK | 1 | 0 | 20.78 | 20.64 | 20.51 | 22.22 | 22.08 | 21.95 |
| | | 1 | 1 | 21.92 | 21.93 | 21.81 | 23.36 | 23.37 | 23.25 |
| | | 1 | 131 | 21.60 | 21.85 | 22.10 | 23.04 | 23.29 | 23.54 |
| | | 1 | 132 | 20.57 | 20.83 | 21.00 | 22.01 | 22.27 | 22.44 |
| | | 64 | 32 | 21.86 | 21.90 | 21.78 | 23.30 | 23.34 | 23.22 |
| | | 128 | 0 | 21.89 | 21.78 | 21.78 | 23.33 | 23.22 | 23.22 |
| | QPSK | 1 | 0 | 20.75 | 20.63 | 20.37 | 22.19 | 22.07 | 21.81 |
| | | 1 | 1 | 22.07 | 22.03 | 21.72 | 23.51 | 23.47 | 23.16 |
| | | 1 | 131 | 21.65 | 21.84 | 22.05 | 23.09 | 23.28 | 23.49 |
| | | 1 | 132 | 20.56 | 20.88 | 21.12 | 22.00 | 22.32 | 22.56 |
| | | 64 | 32 | 21.83 | 21.81 | 21.66 | 23.27 | 23.25 | 23.10 |
| | | 128 | 0 | 21.86 | 21.78 | 21.74 | 23.30 | 23.22 | 23.18 |
| | 16QAM | 1 | 0 | 20.94 | 20.70 | 20.38 | 22.38 | 22.14 | 21.82 |
| | | 1 | 1 | 22.02 | 22.12 | 21.80 | 23.46 | 23.56 | 23.24 |
| | | 1 | 131 | 21.72 | 22.02 | 22.2 | 23.16 | 23.46 | 23.64 |
| | | 1 | 132 | 20.66 | 20.99 | 21.04 | 22.10 | 22.43 | 22.48 |
| | | 64 | 32 | 21.78 | 21.87 | 21.76 | 23.22 | 23.31 | 23.20 |
| | | 128 | 0 | 21.76 | 21.79 | 21.79 | 23.20 | 23.23 | 23.23 |
| | 64QAM | 1 | 0 | 20.40 | 20.29 | 20.11 | 21.84 | 21.73 | 21.55 |
| | | 1 | 1 | 21.78 | 21.64 | 21.54 | 23.22 | 23.08 | 22.98 |
| | | 1 | 131 | 21.43 | 21.68 | 21.92 | 22.87 | 23.12 | 23.36 |
| | | 1 | 132 | 20.35 | 20.52 | 20.92 | 21.79 | 21.96 | 22.36 |
| | | 64 | 32 | 21.74 | 21.89 | 21.75 | 23.18 | 23.33 | 23.19 |
| | | 128 | 0 | 21.80 | 21.88 | 21.79 | 23.24 | 23.32 | 23.23 |
| 256QAM | 1 | 0 | 19.55 | 19.46 | 19.29 | 20.99 | 20.90 | 20.73 | |
| | 1 | 1 | 19.83 | 19.81 | 19.63 | 21.27 | 21.25 | 21.07 | |
| | 1 | 131 | 19.47 | 19.62 | 20.03 | 20.91 | 21.06 | 21.47 | |
| | 1 | 132 | 19.46 | 19.73 | 19.96 | 20.90 | 21.17 | 21.40 | |
| | 64 | 32 | 19.86 | 19.92 | 19.75 | 21.30 | 21.36 | 21.19 | |
| | 128 | 0 | 19.87 | 19.93 | 19.86 | 21.31 | 21.37 | 21.30 | |
| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | 638666 | 641666 | 644668 | 638666 | 641666 | 644668 |
| | | | | 3580 | 3625 | 3670 | 3580 | 3625 | 3670 |
| 60 | BPSK | 1 | 0 | 20.79 | 20.67 | 20.53 | 22.23 | 22.11 | 21.97 |
| | | 1 | 1 | 21.96 | 21.99 | 21.86 | 23.40 | 23.43 | 23.30 |

| | | | | | | | | | |
|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| | | 1 | 160 | 21.62 | 21.89 | 22.13 | 23.06 | 23.33 | 23.57 |
| | | 1 | 161 | 20.65 | 20.93 | 21.11 | 22.09 | 22.37 | 22.55 |
| | | 81 | 40 | 21.97 | 21.99 | 21.87 | 23.41 | 23.43 | 23.31 |
| | | 162 | 0 | 21.97 | 21.89 | 21.87 | 23.41 | 23.33 | 23.31 |
| | QPSK | 1 | 0 | 20.84 | 20.68 | 20.42 | 22.28 | 22.12 | 21.86 |
| | | 1 | 1 | 22.09 | 22.04 | 21.74 | 23.53 | 23.48 | 23.18 |
| | | 1 | 160 | 21.68 | 21.91 | 22.09 | 23.12 | 23.35 | 23.53 |
| | | 1 | 161 | 20.58 | 20.92 | 21.14 | 22.02 | 22.36 | 22.58 |
| | | 81 | 40 | 21.93 | 21.93 | 21.77 | 23.37 | 23.37 | 23.21 |
| | | 162 | 0 | 21.94 | 21.88 | 21.83 | 23.38 | 23.32 | 23.27 |
| | 16QAM | 1 | 0 | 21.02 | 20.80 | 20.49 | 22.46 | 22.24 | 21.93 |
| | | 1 | 1 | 22.06 | 22.17 | 21.82 | 23.50 | 23.61 | 23.26 |
| | | 1 | 160 | 21.74 | 22.03 | 22.22 | 23.18 | 23.47 | 23.66 |
| | | 1 | 161 | 20.69 | 21.06 | 21.08 | 22.13 | 22.50 | 22.52 |
| | | 81 | 40 | 21.80 | 21.91 | 21.78 | 23.24 | 23.35 | 23.22 |
| | | 162 | 0 | 21.86 | 21.91 | 21.90 | 23.30 | 23.35 | 23.34 |
| | 64QAM | 1 | 0 | 20.48 | 20.39 | 20.20 | 21.92 | 21.83 | 21.64 |
| | | 1 | 1 | 21.86 | 21.74 | 21.65 | 23.30 | 23.18 | 23.09 |
| | | 1 | 160 | 21.47 | 21.73 | 21.94 | 22.91 | 23.17 | 23.38 |
| | | 1 | 161 | 20.36 | 20.55 | 20.94 | 21.80 | 21.99 | 22.38 |
| | | 81 | 40 | 21.78 | 21.95 | 21.80 | 23.22 | 23.39 | 23.24 |
| | | 162 | 0 | 21.82 | 21.92 | 21.82 | 23.26 | 23.36 | 23.26 |
| | 256QAM | 1 | 0 | 19.63 | 19.56 | 19.40 | 21.07 | 21.00 | 20.84 |
| | | 1 | 1 | 19.94 | 19.90 | 19.72 | 21.38 | 21.34 | 21.16 |
| 1 | | 160 | 19.55 | 19.73 | 20.12 | 20.99 | 21.17 | 21.56 | |
| 1 | | 161 | 19.55 | 19.78 | 20.01 | 20.99 | 21.22 | 21.45 | |
| 81 | | 40 | 19.88 | 19.93 | 19.77 | 21.32 | 21.37 | 21.21 | |
| 162 | | 0 | 19.90 | 20.00 | 19.90 | 21.34 | 21.44 | 21.34 | |
| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | 639334 | 641666 | 644000 | 639334 | 641666 | 644000 |
| | | | | 3590 | 3625 | 3660 | 3590 | 3625 | 3660 |
| 80 | BPSK | 1 | 0 | 20.78 | 20.63 | 20.51 | 22.22 | 22.07 | 21.95 |
| | | 1 | 1 | 21.94 | 21.98 | 21.83 | 23.38 | 23.42 | 23.27 |
| | | 1 | 215 | 21.59 | 21.84 | 22.09 | 23.03 | 23.28 | 23.53 |
| | | 1 | 216 | 20.63 | 20.89 | 21.08 | 22.07 | 22.33 | 22.52 |
| | | 108 | 54 | 21.94 | 21.94 | 21.83 | 23.38 | 23.38 | 23.27 |
| | | 216 | 0 | 21.94 | 21.86 | 21.83 | 23.38 | 23.30 | 23.27 |
| | QPSK | 1 | 0 | 20.82 | 20.64 | 20.37 | 22.26 | 22.08 | 21.81 |
| | | 1 | 1 | 22.04 | 22.02 | 21.72 | 23.48 | 23.46 | 23.16 |
| | | 1 | 215 | 21.66 | 21.88 | 22.07 | 23.10 | 23.32 | 23.51 |

| | | 1 | 216 | 20.55 | 20.88 | 21.11 | 21.99 | 22.32 | 22.55 | |
|------|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| | | 108 | 54 | 21.90 | 21.91 | 21.74 | 23.34 | 23.35 | 23.18 | |
| | | 216 | 0 | 21.91 | 21.83 | 21.79 | 23.35 | 23.27 | 23.23 | |
| | 16QAM | 1 | 0 | 21.00 | 20.76 | 20.46 | 22.44 | 22.20 | 21.90 | |
| | | 1 | 1 | 22.03 | 22.12 | 21.78 | 23.47 | 23.56 | 23.22 | |
| | | 1 | 215 | 21.69 | 22.01 | 22.20 | 23.13 | 23.45 | 23.64 | |
| | | 1 | 216 | 20.67 | 21.03 | 21.06 | 22.11 | 22.47 | 22.50 | |
| | | 108 | 54 | 21.77 | 21.87 | 21.75 | 23.21 | 23.31 | 23.19 | |
| | | 216 | 0 | 21.83 | 21.89 | 21.87 | 23.27 | 23.33 | 23.31 | |
| | | 216 | 0 | 21.83 | 21.89 | 21.87 | 23.27 | 23.33 | 23.31 | |
| | 64QAM | 1 | 0 | 20.45 | 20.34 | 20.16 | 21.89 | 21.78 | 21.60 | |
| | | 1 | 1 | 21.84 | 21.70 | 21.62 | 23.28 | 23.14 | 23.06 | |
| | | 1 | 215 | 21.44 | 21.68 | 21.90 | 22.88 | 23.12 | 23.34 | |
| | | 1 | 216 | 20.35 | 20.51 | 20.92 | 21.79 | 21.95 | 22.36 | |
| | | 108 | 54 | 21.76 | 21.94 | 21.77 | 23.20 | 23.38 | 23.21 | |
| | | 216 | 0 | 21.79 | 21.87 | 21.78 | 23.23 | 23.31 | 23.22 | |
| | 256QAM | 1 | 0 | 19.61 | 19.52 | 19.37 | 21.05 | 20.96 | 20.81 | |
| | | 1 | 1 | 19.91 | 19.85 | 19.68 | 21.35 | 21.29 | 21.12 | |
| | | 1 | 215 | 19.52 | 19.70 | 20.08 | 20.96 | 21.14 | 21.52 | |
| | | 1 | 216 | 19.53 | 19.74 | 19.96 | 20.97 | 21.18 | 21.40 | |
| | | 108 | 54 | 19.83 | 19.91 | 19.75 | 21.27 | 21.35 | 21.19 | |
| | | 216 | 0 | 19.88 | 19.97 | 19.88 | 21.32 | 21.41 | 21.32 | |
| | Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | | 639666 | 641666 | 643666 | 639666 | 641666 | 643666 |
| 3595 | | | | | 3625 | 3655 | 3595 | 3625 | 3655 | |
| 90 | BPSK | 1 | 0 | 20.77 | 20.66 | 20.50 | 22.21 | 22.10 | 21.94 | |
| | | 1 | 1 | 21.93 | 21.94 | 21.82 | 23.37 | 23.38 | 23.26 | |
| | | 1 | 243 | 21.60 | 21.85 | 22.10 | 23.04 | 23.29 | 23.54 | |
| | | 1 | 244 | 20.62 | 20.88 | 21.07 | 22.06 | 22.32 | 22.51 | |
| | | 120 | 60 | 21.94 | 21.94 | 21.83 | 23.38 | 23.38 | 23.27 | |
| | | 243 | 0 | 21.95 | 21.85 | 21.82 | 23.39 | 23.29 | 23.26 | |
| | QPSK | 1 | 0 | 20.76 | 20.66 | 20.38 | 22.20 | 22.10 | 21.82 | |
| | | 1 | 1 | 22.07 | 22.01 | 21.72 | 23.51 | 23.45 | 23.16 | |
| | | 1 | 243 | 21.65 | 21.87 | 22.06 | 23.09 | 23.31 | 23.50 | |
| | | 1 | 244 | 20.55 | 20.90 | 21.11 | 21.99 | 22.34 | 22.55 | |
| | | 120 | 60 | 21.90 | 21.88 | 21.73 | 23.34 | 23.32 | 23.17 | |
| | | 243 | 0 | 21.92 | 21.84 | 21.80 | 23.36 | 23.28 | 23.24 | |
| | 16QAM | 1 | 0 | 20.99 | 20.75 | 20.45 | 22.43 | 22.19 | 21.89 | |
| | | 1 | 1 | 22.03 | 22.12 | 21.78 | 23.47 | 23.56 | 23.22 | |
| | | 1 | 243 | 21.72 | 22.00 | 22.20 | 23.16 | 23.44 | 23.64 | |
| | | 1 | 244 | 20.66 | 21.02 | 21.05 | 22.10 | 22.46 | 22.49 | |

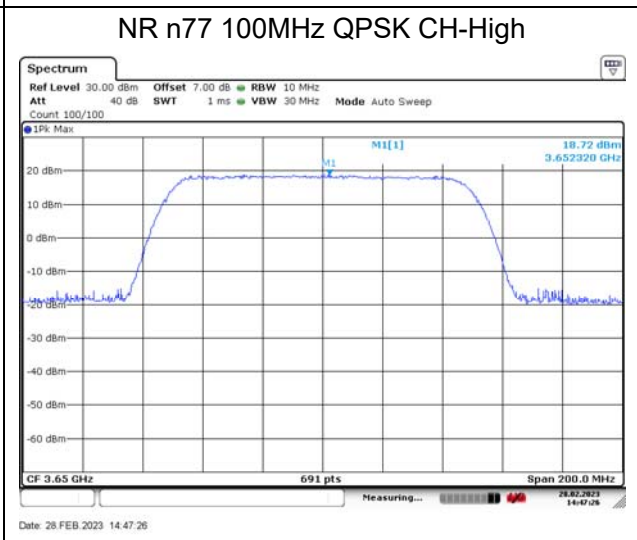
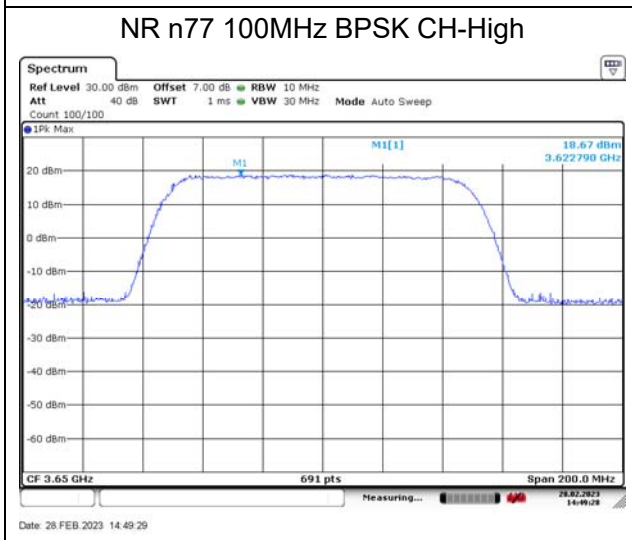
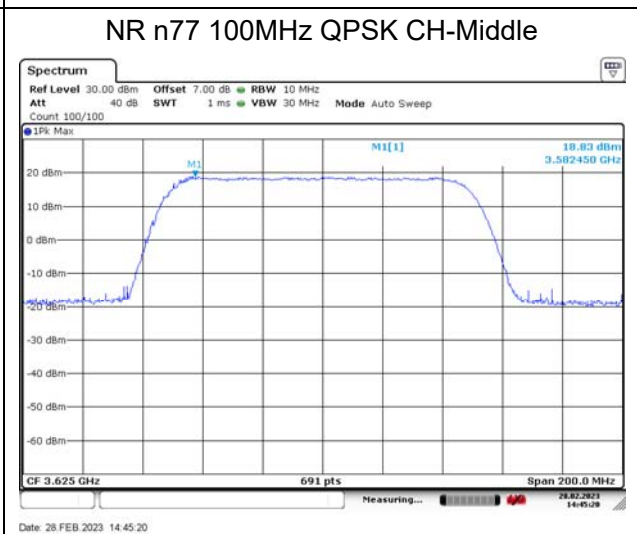
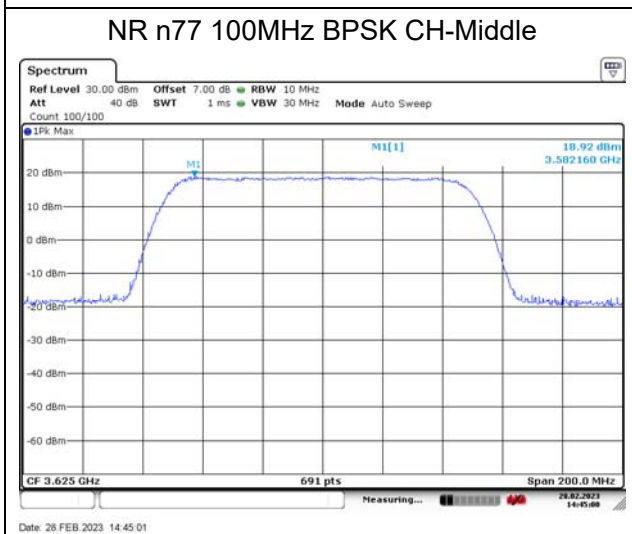
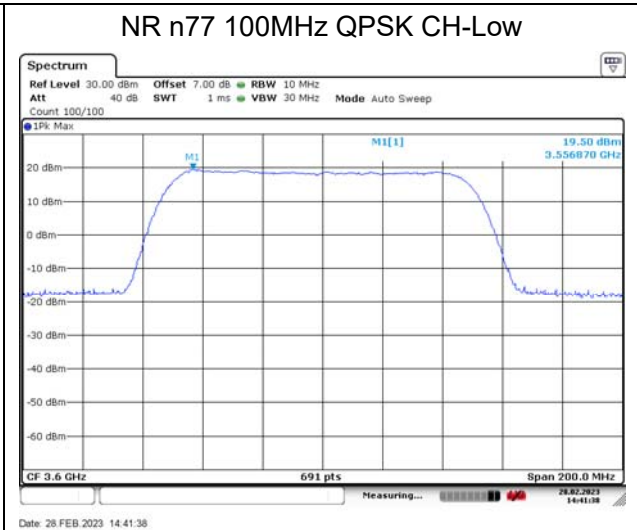
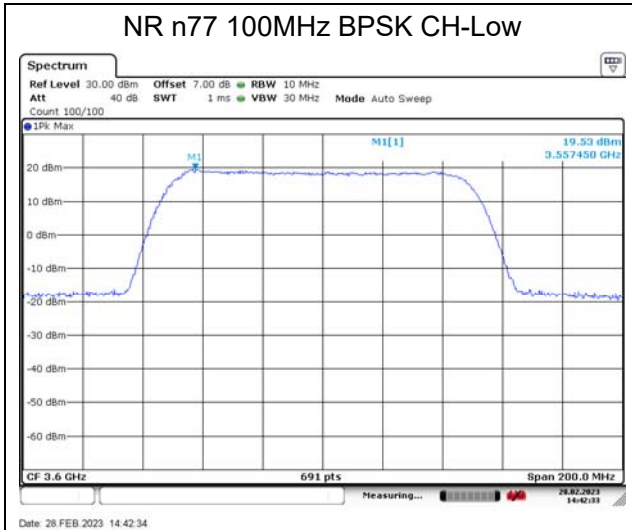
| | | 120 | 60 | 21.77 | 21.89 | 21.75 | 23.21 | 23.33 | 23.19 |
|----------------|------------|---------------|-----------|---------------------------|--------|--------|-----------|--------|--------|
| | | 243 | 0 | 21.83 | 21.86 | 21.86 | 23.27 | 23.30 | 23.30 |
| | 64QAM | 1 | 0 | 20.46 | 20.35 | 20.17 | 21.90 | 21.79 | 21.61 |
| | | 1 | 1 | 21.83 | 21.69 | 21.61 | 23.27 | 23.13 | 23.05 |
| | | 1 | 243 | 21.44 | 21.68 | 21.90 | 22.88 | 23.12 | 23.34 |
| | | 1 | 244 | 20.34 | 20.54 | 20.91 | 21.78 | 21.98 | 22.35 |
| | | 120 | 60 | 21.75 | 21.90 | 21.76 | 23.19 | 23.34 | 23.20 |
| | | 243 | 0 | 21.80 | 21.88 | 21.79 | 23.24 | 23.32 | 23.23 |
| | 256QAM | 1 | 0 | 19.60 | 19.51 | 19.36 | 21.04 | 20.95 | 20.80 |
| | | 1 | 1 | 19.91 | 19.85 | 19.68 | 21.35 | 21.29 | 21.12 |
| | | 1 | 243 | 19.53 | 19.69 | 20.07 | 20.97 | 21.13 | 21.51 |
| | | 1 | 244 | 19.47 | 19.76 | 19.97 | 20.91 | 21.20 | 21.41 |
| | | 120 | 60 | 19.86 | 19.90 | 19.75 | 21.30 | 21.34 | 21.19 |
| | | 243 | 0 | 19.87 | 19.96 | 19.87 | 21.31 | 21.40 | 21.31 |
| Bandwidth(MHz) | Modulation | RB Allocation | RB Offset | Maximum Output Power(dBm) | | | EIRP(dBm) | | |
| | | | | 640000 | 641666 | 643332 | 640000 | 641666 | 643332 |
| | | | | 3600 | 3625 | 3650 | 3600 | 3625 | 3650 |
| 100 | BPSK | 1 | 0 | 20.75 | 20.59 | 20.48 | 22.19 | 22.03 | 21.92 |
| | | 1 | 1 | 21.93 | 21.94 | 21.81 | 23.37 | 23.38 | 23.25 |
| | | 1 | 271 | 21.57 | 21.83 | 22.06 | 23.01 | 23.27 | 23.50 |
| | | 1 | 272 | 20.60 | 20.84 | 21.04 | 22.04 | 22.28 | 22.48 |
| | | 135 | 67 | 21.92 | 21.90 | 21.80 | 23.36 | 23.34 | 23.24 |
| | | 270 | 0 | 21.91 | 21.81 | 21.79 | 23.35 | 23.25 | 23.23 |
| | QPSK | 1 | 0 | 20.79 | 20.59 | 20.33 | 22.23 | 22.03 | 21.77 |
| | | 1 | 1 | 22.02 | 21.98 | 21.67 | 23.46 | 23.42 | 23.11 |
| | | 1 | 271 | 21.62 | 21.86 | 22.03 | 23.06 | 23.30 | 23.47 |
| | | 1 | 272 | 20.53 | 20.85 | 21.09 | 21.97 | 22.29 | 22.53 |
| | | 135 | 67 | 21.87 | 21.87 | 21.71 | 23.31 | 23.31 | 23.15 |
| | | 270 | 0 | 21.88 | 21.81 | 21.76 | 23.32 | 23.25 | 23.20 |
| | 16QAM | 1 | 0 | 20.97 | 20.71 | 20.42 | 22.41 | 22.15 | 21.86 |
| | | 1 | 1 | 22.01 | 22.08 | 21.75 | 23.45 | 23.52 | 23.19 |
| | | 1 | 271 | 21.67 | 21.97 | 22.15 | 23.11 | 23.41 | 23.59 |
| | | 1 | 272 | 20.63 | 21.01 | 21.02 | 22.07 | 22.45 | 22.46 |
| | | 135 | 67 | 21.75 | 21.84 | 21.73 | 23.19 | 23.28 | 23.17 |
| | | 270 | 0 | 21.80 | 21.85 | 21.84 | 23.24 | 23.29 | 23.28 |
| | 64QAM | 1 | 0 | 20.42 | 20.32 | 20.13 | 21.86 | 21.76 | 21.57 |
| | | 1 | 1 | 21.81 | 21.65 | 21.58 | 23.25 | 23.09 | 23.02 |
| | | 1 | 271 | 21.42 | 21.64 | 21.87 | 22.86 | 23.08 | 23.31 |
| | | 1 | 272 | 20.32 | 20.47 | 20.89 | 21.76 | 21.91 | 22.33 |
| | | 135 | 67 | 21.75 | 21.90 | 21.75 | 23.19 | 23.34 | 23.19 |

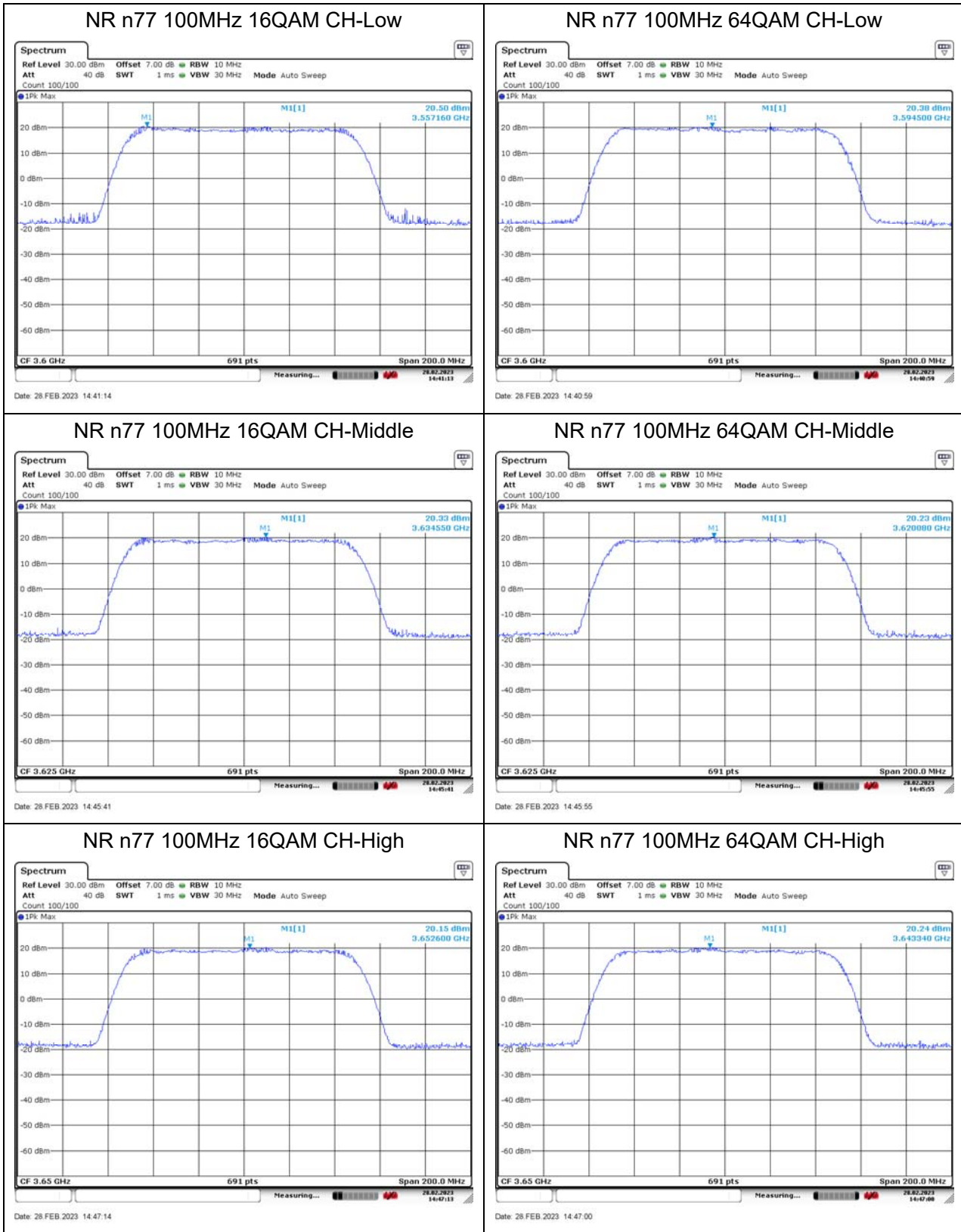
| | | | | | | | | | |
|--|--------|-----|-----|-------|-------|-------|-------|-------|-------|
| | | 270 | 0 | 21.77 | 21.86 | 21.75 | 23.21 | 23.30 | 23.19 |
| | 256QAM | 1 | 0 | 19.58 | 19.47 | 19.33 | 21.02 | 20.91 | 20.77 |
| | | 1 | 1 | 19.89 | 19.81 | 19.65 | 21.33 | 21.25 | 21.09 |
| | | 1 | 271 | 19.49 | 19.65 | 20.04 | 20.93 | 21.09 | 21.48 |
| | | 1 | 272 | 19.50 | 19.69 | 19.92 | 20.94 | 21.13 | 21.36 |
| | | 135 | 67 | 19.81 | 19.87 | 19.70 | 21.25 | 21.31 | 21.14 |
| | | 270 | 0 | 19.84 | 19.95 | 19.84 | 21.28 | 21.39 | 21.28 |

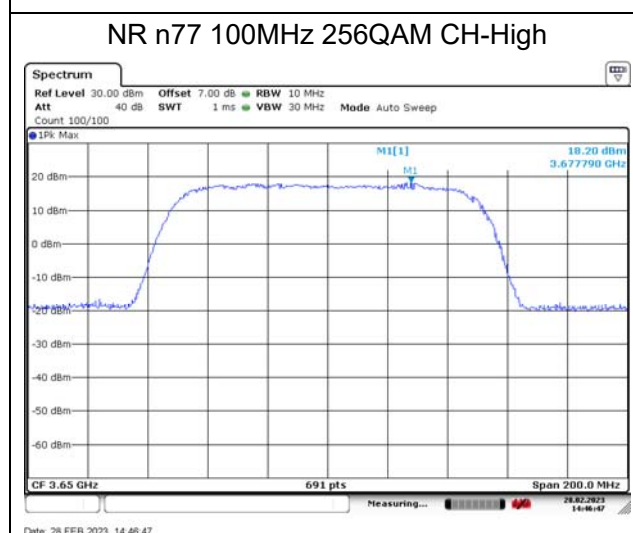
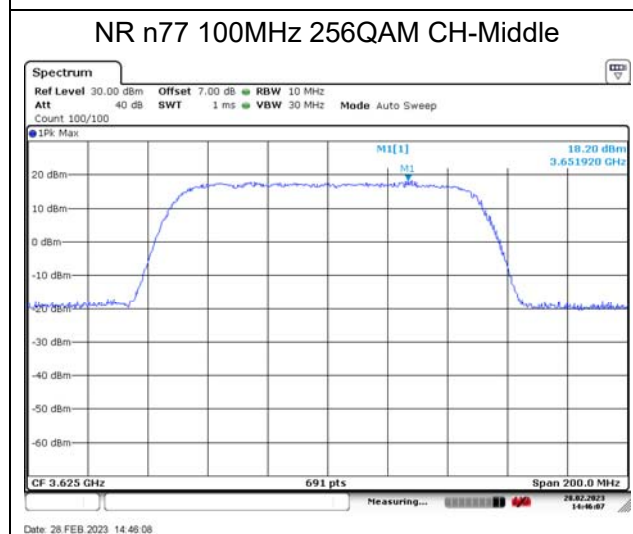
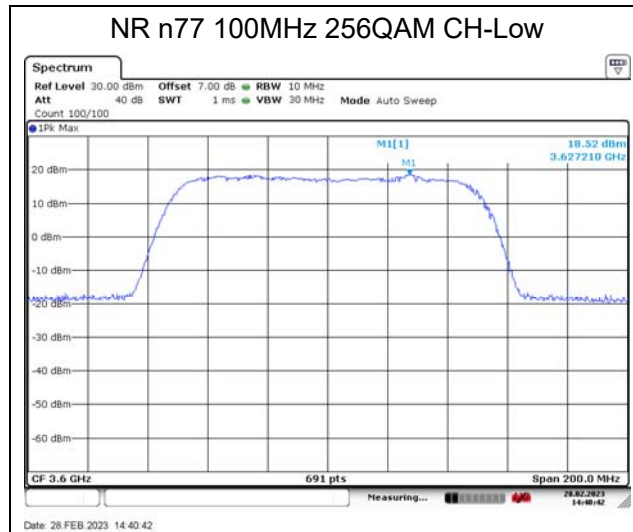
6.2. Maximum Effective Isotropic Radiated Power and Maximum Power Spectral Density

The measurement is performed for both of horizontal and vertical antenna Polarization, and only the data of worst mode is recorded in this report.

| NR n77 | | | | | |
|--------|------------|-----------------|---------|-------------|------------------|
| RB | Modulation | Bandwidth (MHz) | Channel | Power (dBm) | EIRP (dBm/10MHz) |
| 100% | BPSK | 100M | L | 19.53 | 20.97 |
| | | | M | 18.92 | 20.36 |
| | | | H | 18.67 | 20.11 |
| | QPSK | 100M | L | 19.50 | 20.94 |
| | | | M | 18.83 | 20.27 |
| | | | H | 18.72 | 20.16 |
| | 16QAM | 100M | L | 20.50 | 21.94 |
| | | | M | 20.33 | 21.77 |
| | | | H | 20.15 | 21.59 |
| | 64QAM | 100M | L | 20.38 | 21.82 |
| | | | M | 20.23 | 21.67 |
| | | | H | 20.24 | 21.68 |
| 256QAM | 100M | L | 18.52 | 19.96 | |
| | | M | 18.20 | 19.64 | |
| | | H | 18.20 | 19.64 | |





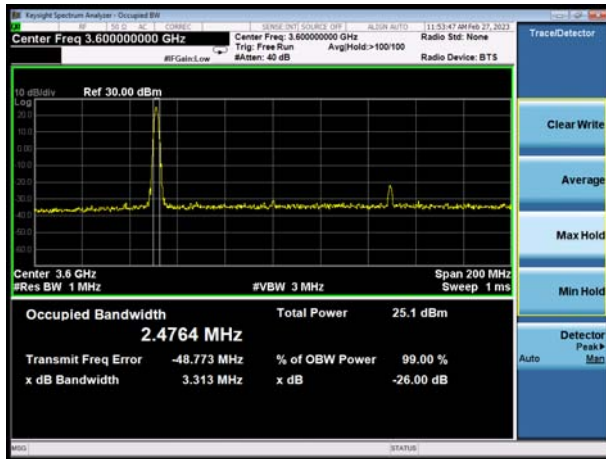


6.3. Occupied Bandwidth

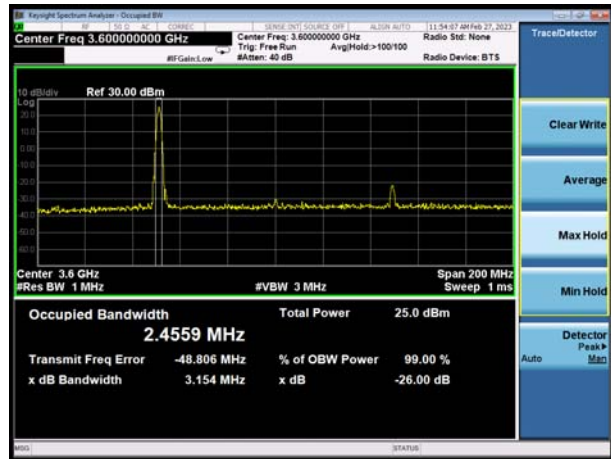
| NR n77 | | | | | | |
|--------|------------|-----------------|---------|-----------------|---------------------------|-----------------------|
| RB | Modulation | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Power Bandwidth (MHz) | -26dB Bandwidth (MHz) |
| 1RB | BPSK | 100 | 636598 | 3600 | 2.476 | 3.31 |
| | | | 636848 | 3625 | 2.385 | 3.28 |
| | | | 637098 | 3650 | 2.378 | 3.14 |
| | QPSK | 100 | 636598 | 3600 | 2.456 | 3.15 |
| | | | 636848 | 3625 | 2.441 | 3.30 |
| | | | 637098 | 3650 | 2.477 | 3.44 |
| | 16QAM | 100 | 636598 | 3600 | 2.404 | 3.15 |
| | | | 636848 | 3625 | 2.441 | 3.28 |
| | | | 637098 | 3650 | 2.434 | 3.26 |
| | 64QAM | 100 | 636598 | 3600 | 2.393 | 3.24 |
| | | | 636848 | 3625 | 2.340 | 3.26 |
| | | | 637098 | 3650 | 2.499 | 3.21 |
| 256QAM | 100 | 636598 | 3600 | 2.485 | 3.31 | |
| | | 636848 | 3625 | 2.366 | 3.11 | |
| | | 637098 | 3650 | 2.403 | 3.26 | |
| 100% | BPSK | 100 | 636598 | 3600 | 96.103 | 99.58 |
| | | | 636848 | 3625 | 96.186 | 99.56 |
| | | | 637098 | 3650 | 96.338 | 99.61 |
| | QPSK | 100 | 636598 | 3600 | 96.233 | 99.65 |
| | | | 636848 | 3625 | 96.351 | 99.47 |
| | | | 637098 | 3650 | 96.236 | 99.26 |
| | 16QAM | 100 | 636598 | 3600 | 96.190 | 99.42 |
| | | | 636848 | 3625 | 96.306 | 99.60 |
| | | | 637098 | 3650 | 96.080 | 99.34 |
| | 64QAM | 100 | 636598 | 3600 | 96.341 | 99.44 |
| | | | 636848 | 3625 | 96.469 | 99.60 |
| | | | 637098 | 3650 | 96.082 | 99.53 |
| 256QAM | 100 | 636598 | 3600 | 96.208 | 99.51 | |
| | | 636848 | 3625 | 96.344 | 99.58 | |
| | | 637098 | 3650 | 96.297 | 99.61 | |

1RB

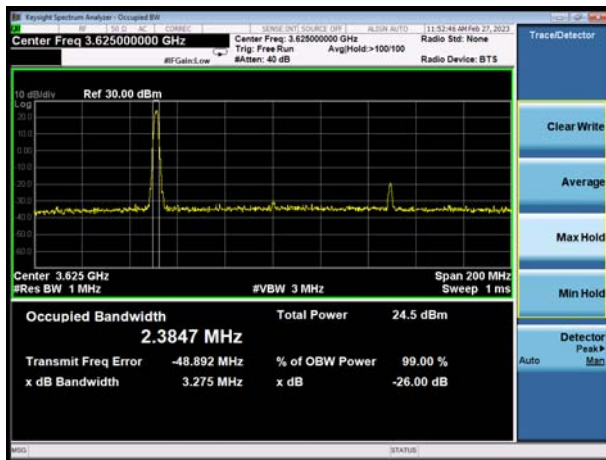
NR n77 100MHz BPSK CH-Low



NR n77 100MHz QPSK CH-Low



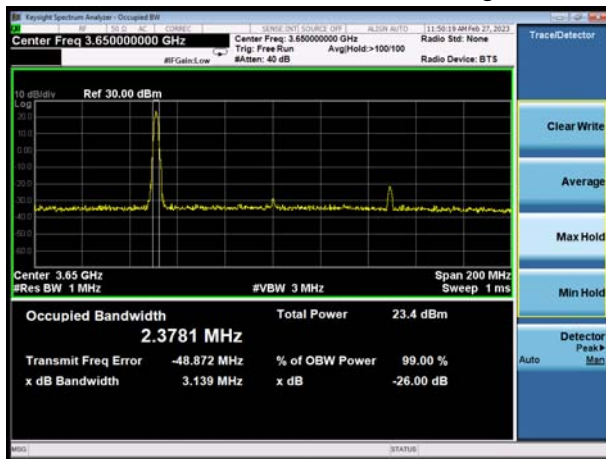
NR n77 100MHz BPSK CH-Middle



NR n77 100MHz QPSK CH-Middle

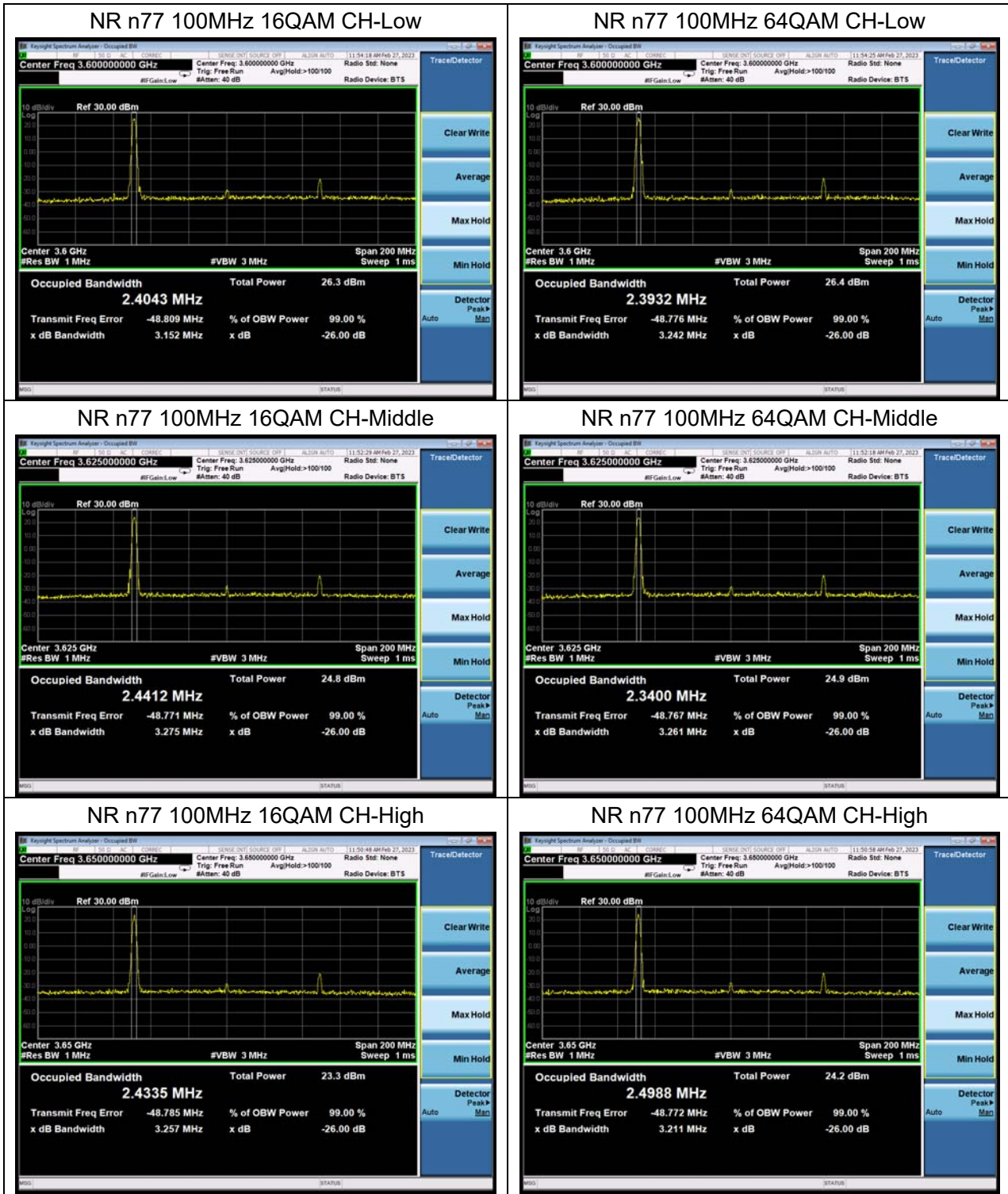


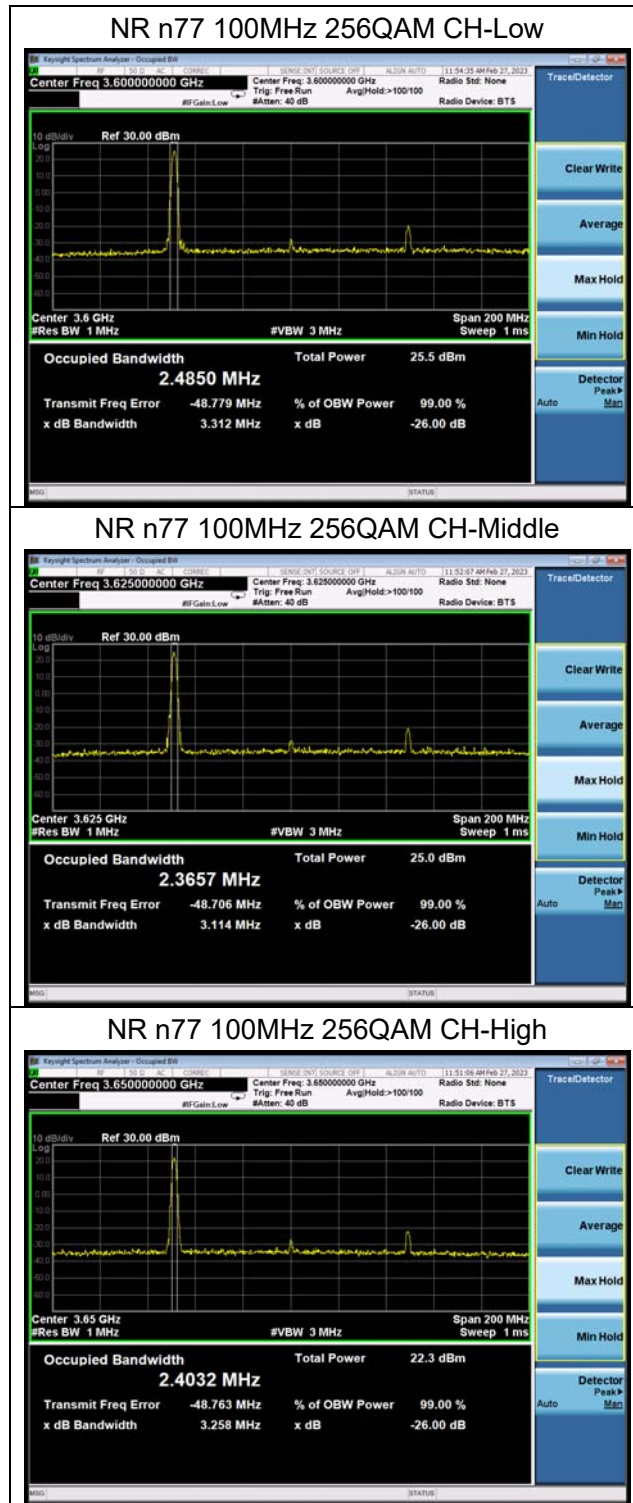
NR n77 100MHz BPSK CH-High



NR n77 100MHz QPSK CH-High







100%RB

NR n77 100MHz BPSK CH-Low



NR n77 100MHz QPSK CH-Low



NR n77 100MHz BPSK CH-Middle



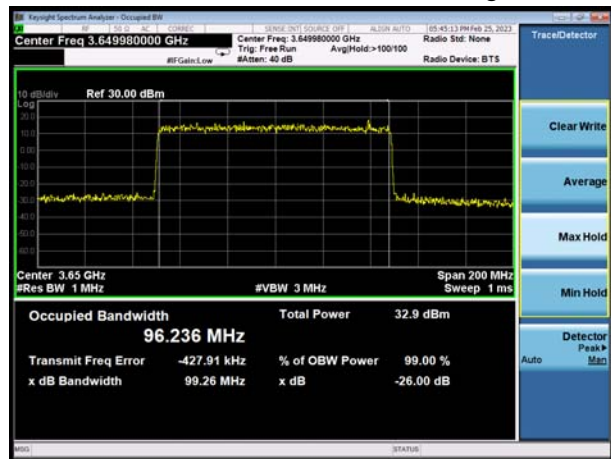
NR n77 100MHz QPSK CH-Middle

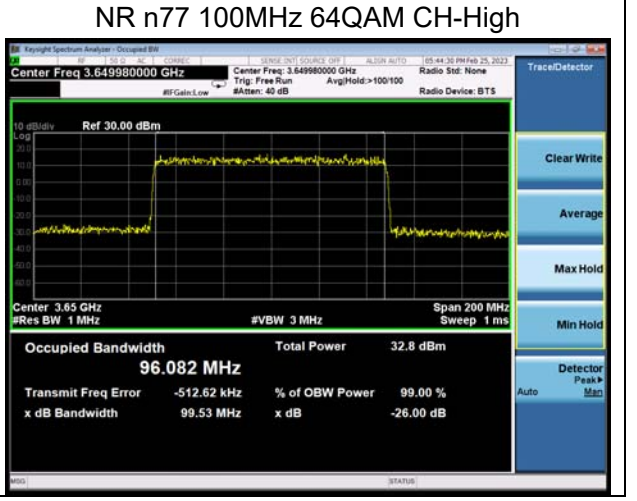
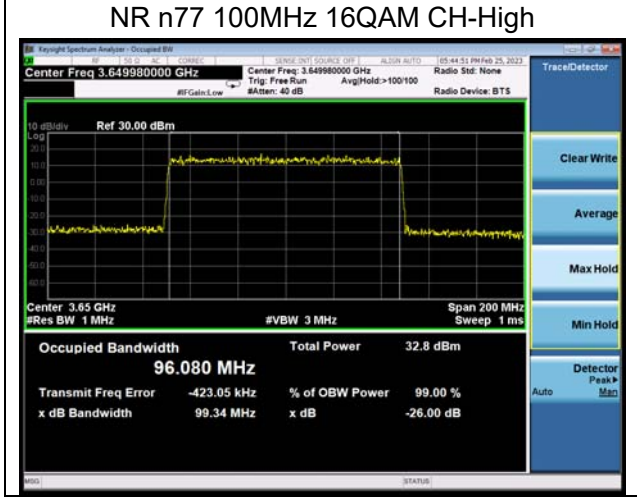
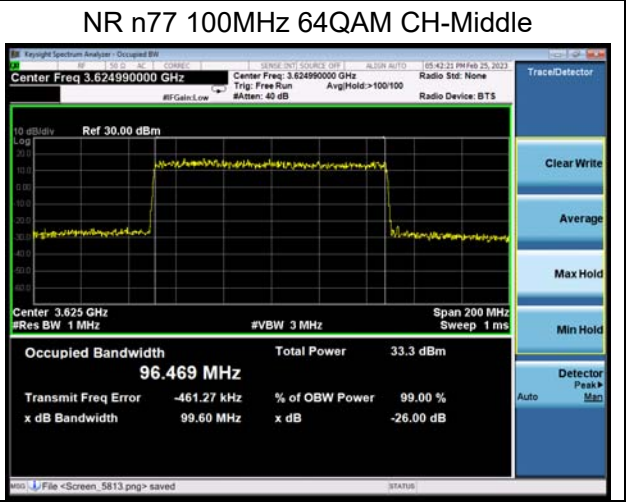
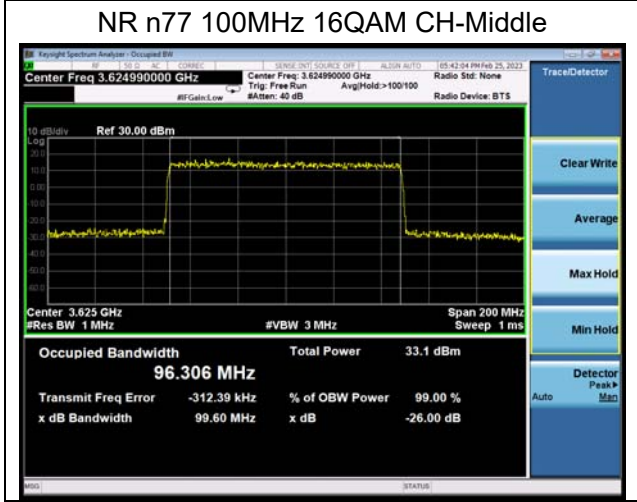
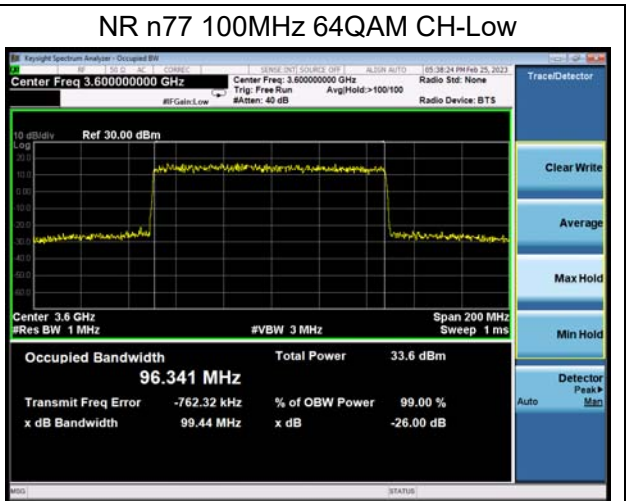
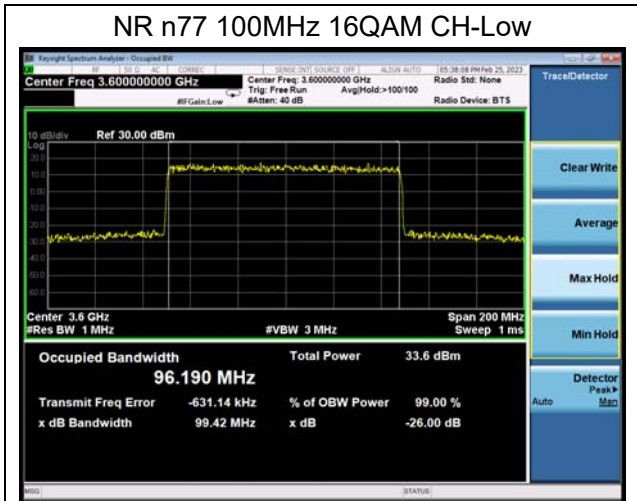


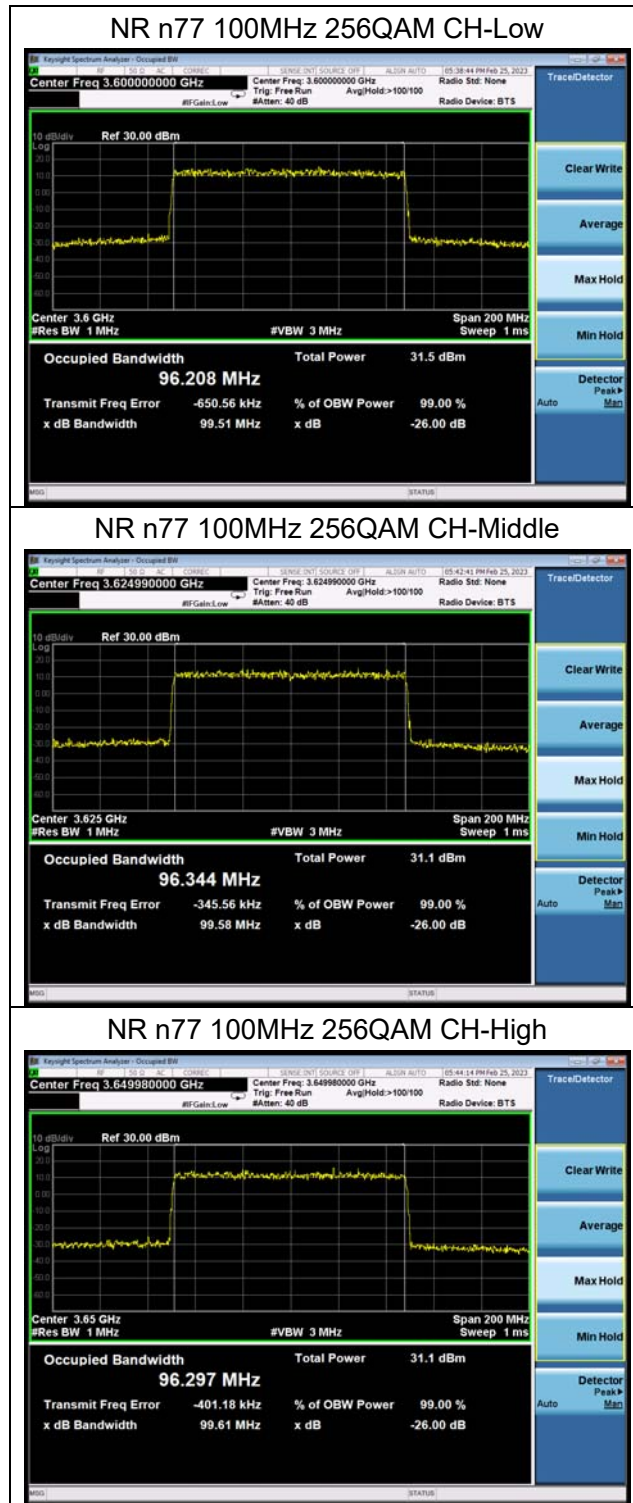
NR n77 100MHz BPSK CH-High



NR n77 100MHz QPSK CH-High

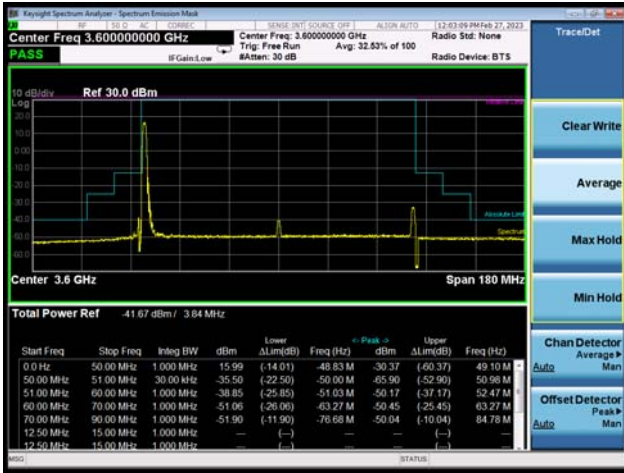




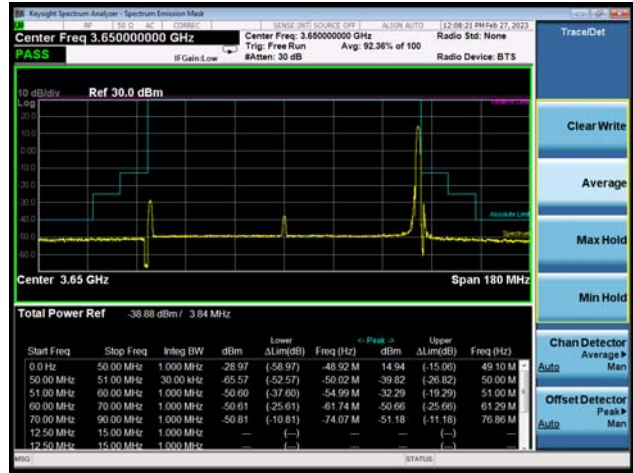


6.4. Band Edge Compliance

NR n77 100MHz BPSK CH-Low, 1 RB



NR n77 100MHz BPSK CH-High, 1 RB



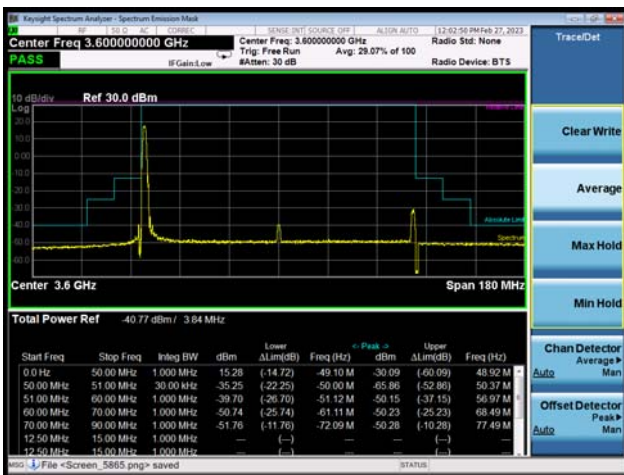
NR n77 100MHz BPSK CH-Low, 100%RB



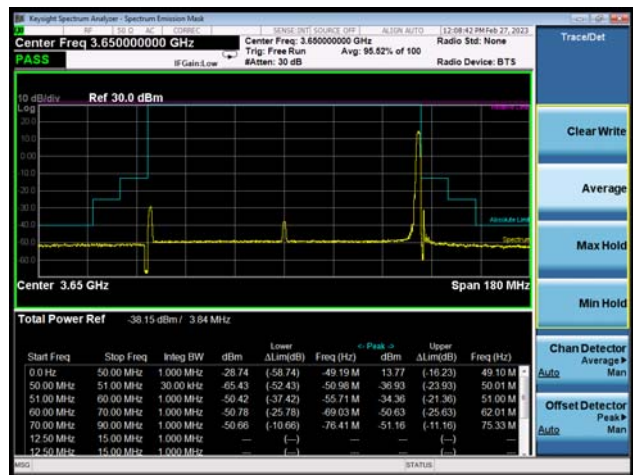
NR n77 100MHz BPSK CH-High, 100%RB



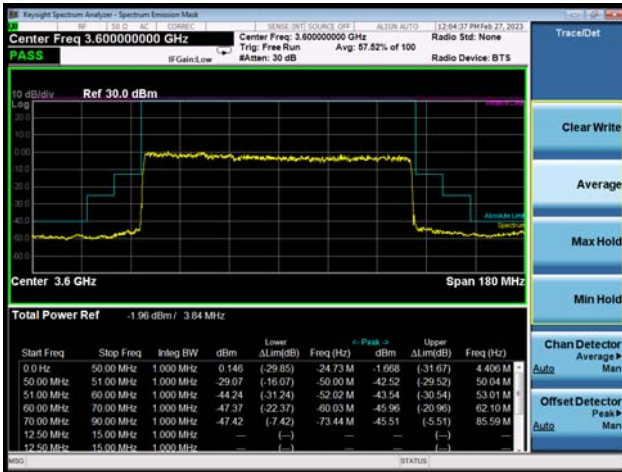
NR n77 100MHz QPSK CH-Low, 1 RB



NR n77 100MHz QPSK CH-High, 1 RB



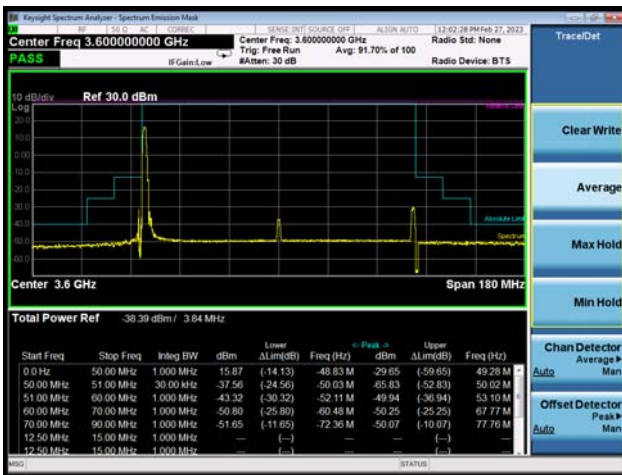
NR n77 100MHz QPSK CH-Low, 100%RB



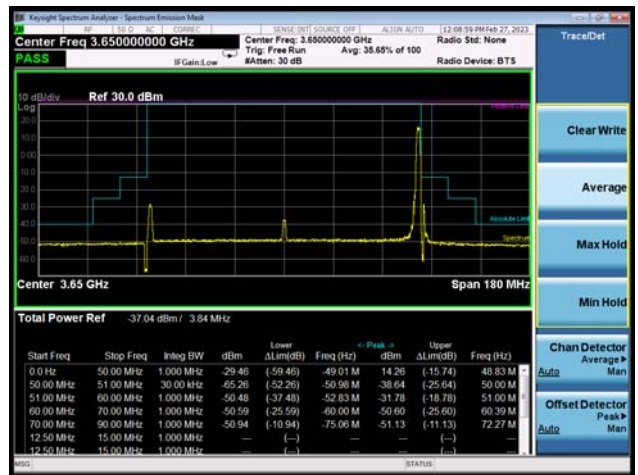
NR n77 100MHz QPSK CH-High, 100%RB



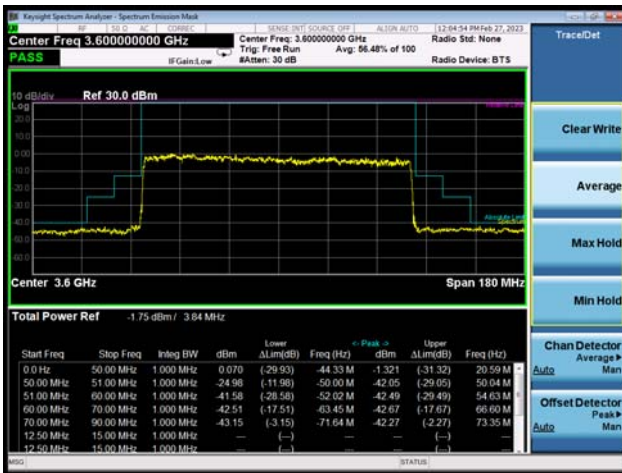
NR n77 100MHz 16QAM CH-Low, 1 RB



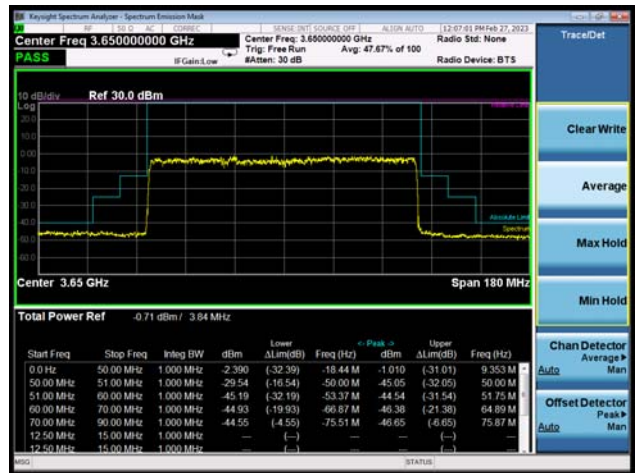
NR n77 100MHz 16QAM CH-High, 1 RB



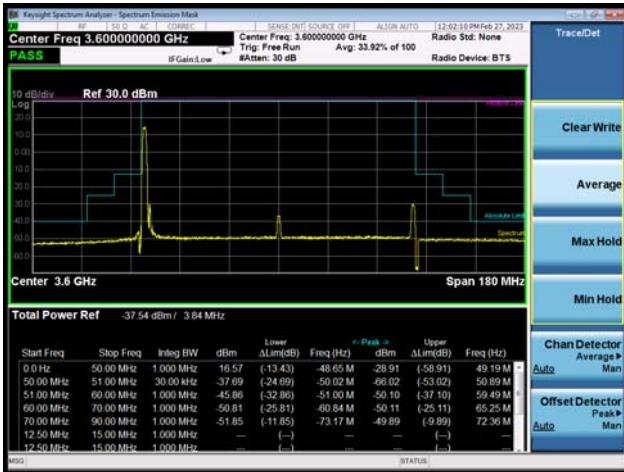
NR n77 100MHz 16QAM CH-Low, 100%RB



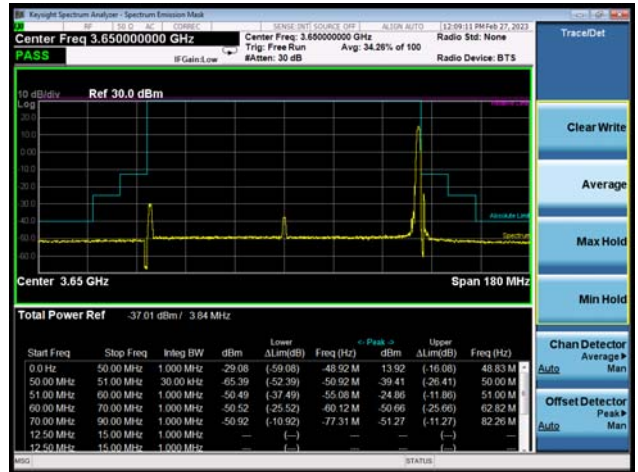
NR n77 100MHz 16QAM CH-High, 100%RB



NR n77 100MHz 64QAM CH-Low, 1 RB



NR n77 100MHz 64QAM CH-High, 1 RB



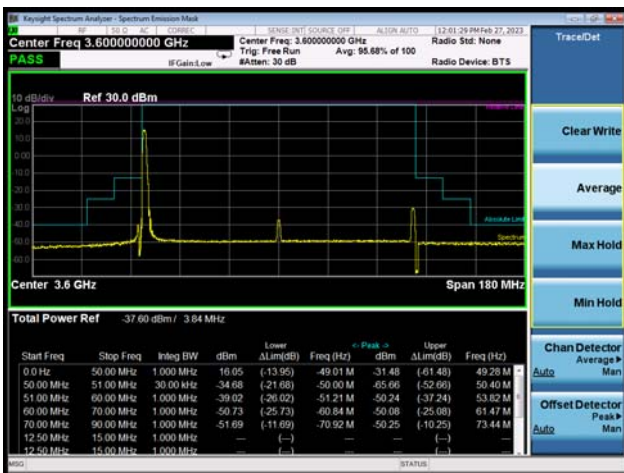
NR n77 100MHz 64QAM CH-Low, 100%RB



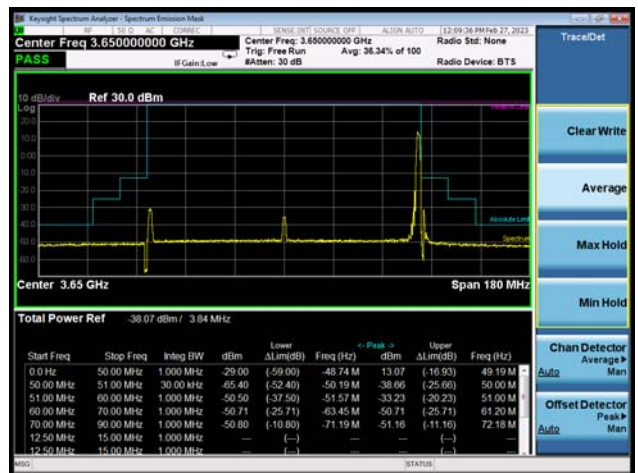
NR n77 100MHz 64QAM CH-High, 100%RB



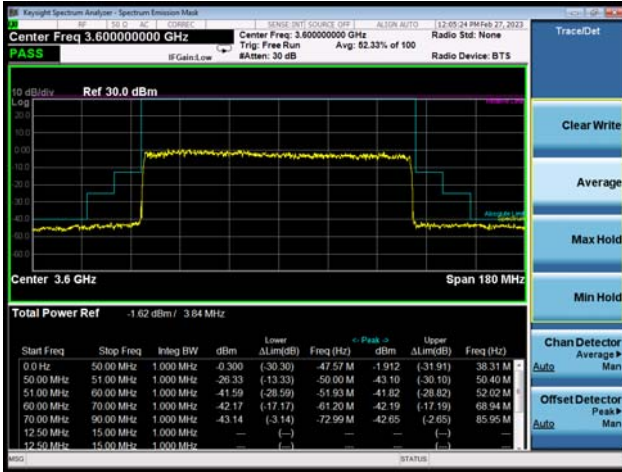
NR n77 100MHz 256QAM CH-Low, 1 RB



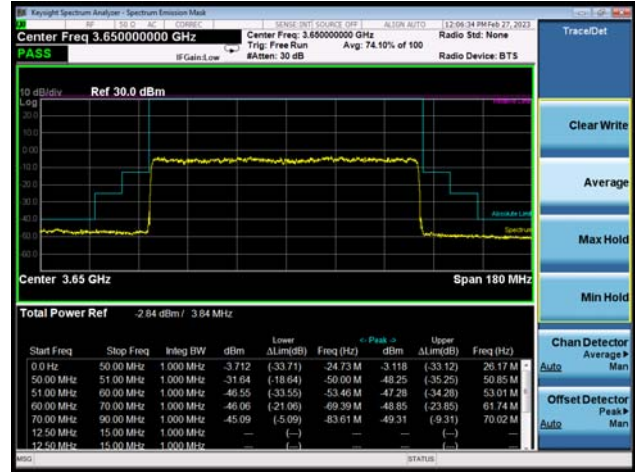
NR n77 100MHz 256QAM CH-High, 1 RB



NR n77 100MHz 256QAM CH-Low, 100%RB



NR n77 100MHz 256QAM CH-High, 100%RB



6.5. Peak-to-Average Power Ratio (PAPR)

| NR n77 | | | | | | |
|--------|------------|-----------------|---------|-------|-------|------|
| RB | Modulation | Bandwidth (MHz) | Channel | Peak | Avg | PAPR |
| 100% | BPSK | 100M | L | 25.73 | 21.17 | 4.56 |
| | | | M | 26.81 | 21.24 | 5.57 |
| | | | H | 25.63 | 20.87 | 4.76 |
| | QPSK | 100M | L | 26.69 | 21.15 | 5.54 |
| | | | M | 26.83 | 21.20 | 5.63 |
| | | | H | 25.58 | 20.82 | 4.76 |
| | 16QAM | 100M | L | 27.57 | 21.18 | 6.39 |
| | | | M | 27.65 | 21.26 | 6.39 |
| | | | H | 26.81 | 21.20 | 5.61 |
| | 64QAM | 100M | L | 27.84 | 21.20 | 6.64 |
| | | | M | 27.92 | 21.23 | 6.69 |
| | | | H | 27.60 | 21.20 | 6.40 |
| | 256QAM | 100M | L | 27.84 | 21.19 | 6.65 |
| | | | M | 25.94 | 19.11 | 6.83 |
| | | | H | 27.76 | 21.18 | 6.58 |

6.6. Frequency Stability

| NR n77 | | | | | | | | | | | | |
|-----------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------|
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 10MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 10.03 | 4.27 | 9.61 | 16.70 | 3.03 | 0.00277 | 0.00118 | 0.00265 | 0.00461 | 0.00083 | PASS |
| Extreme (50°C) | | 1.27 | 8.29 | 17.34 | 14.79 | 7.49 | 0.00035 | 0.00229 | 0.00478 | 0.00408 | 0.00207 | PASS |
| Extreme (40°C) | | 9.65 | 9.50 | 4.68 | 9.33 | 10.45 | 0.00266 | 0.00262 | 0.00129 | 0.00257 | 0.00288 | PASS |
| Extreme (30°C) | | 10.58 | 15.90 | 3.20 | 10.81 | 11.46 | 0.00292 | 0.00439 | 0.00088 | 0.00298 | 0.00316 | PASS |
| Extreme (20°C) | | 17.32 | 15.18 | 15.58 | 5.84 | 12.97 | 0.00478 | 0.00419 | 0.00430 | 0.00161 | 0.00358 | PASS |
| Extreme (10°C) | | 15.62 | 14.22 | 14.40 | 16.20 | 17.45 | 0.00431 | 0.00392 | 0.00397 | 0.00447 | 0.00481 | PASS |
| Extreme (0°C) | | 1.63 | 9.59 | 4.41 | 17.21 | 14.27 | 0.00045 | 0.00265 | 0.00122 | 0.00475 | 0.00394 | PASS |
| Extreme (-10°C) | | 2.25 | 4.81 | 3.69 | 8.49 | 3.23 | 0.00062 | 0.00133 | 0.00102 | 0.00234 | 0.00089 | PASS |
| Extreme (-20°C) | | 6.24 | 16.60 | 1.69 | 3.79 | 14.31 | 0.00172 | 0.00458 | 0.00047 | 0.00105 | 0.00395 | PASS |
| Extreme (-30°C) | | 15.77 | 4.92 | 11.31 | 6.36 | 11.68 | 0.00435 | 0.00136 | 0.00312 | 0.00175 | 0.00322 | PASS |
| 25°C | LV | 3.86 | 10.78 | 1.50 | 12.38 | 6.80 | 0.00106 | 0.00297 | 0.00041 | 0.00342 | 0.00187 | PASS |
| | HV | 8.06 | 11.52 | 3.41 | 5.20 | 7.70 | 0.00222 | 0.00318 | 0.00094 | 0.00143 | 0.00212 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 15MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 4.04 | 10.69 | 12.06 | 11.53 | 2.00 | 0.00111 | 0.00295 | 0.00333 | 0.00318 | 0.00055 | PASS |
| Extreme (50°C) | | 3.32 | 5.95 | 11.51 | 13.66 | 6.12 | 0.00092 | 0.00164 | 0.00318 | 0.00377 | 0.00169 | PASS |
| Extreme (40°C) | | 16.07 | 9.47 | 10.98 | 15.62 | 10.93 | 0.00443 | 0.00261 | 0.00303 | 0.00431 | 0.00302 | PASS |
| Extreme (30°C) | | 15.82 | 3.69 | 5.22 | 17.96 | 13.65 | 0.00437 | 0.00102 | 0.00144 | 0.00495 | 0.00377 | PASS |
| Extreme (20°C) | | 1.31 | 5.42 | 5.87 | 17.29 | 2.86 | 0.00036 | 0.00149 | 0.00162 | 0.00477 | 0.00079 | PASS |
| Extreme (10°C) | | 8.39 | 9.83 | 4.78 | 17.84 | 2.25 | 0.00231 | 0.00271 | 0.00132 | 0.00492 | 0.00062 | PASS |
| Extreme (0°C) | | 10.08 | 6.16 | 1.89 | 14.82 | 10.38 | 0.00278 | 0.00170 | 0.00052 | 0.00409 | 0.00286 | PASS |
| Extreme (-10°C) | | 15.45 | 7.83 | 7.64 | 16.04 | 13.66 | 0.00426 | 0.00216 | 0.00211 | 0.00443 | 0.00377 | PASS |
| Extreme (-20°C) | | 12.58 | 3.73 | 8.41 | 11.66 | 5.85 | 0.00347 | 0.00103 | 0.00232 | 0.00322 | 0.00161 | PASS |
| Extreme (-30°C) | | 5.70 | 13.32 | 15.87 | 9.76 | 8.88 | 0.00157 | 0.00368 | 0.00438 | 0.00269 | 0.00245 | PASS |
| 25°C | LV | 9.64 | 12.37 | 12.03 | 17.67 | 2.21 | 0.00266 | 0.00341 | 0.00332 | 0.00488 | 0.00061 | PASS |
| | HV | 10.12 | 17.28 | 16.95 | 7.52 | 7.06 | 0.00279 | 0.00477 | 0.00468 | 0.00208 | 0.00195 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 20MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 14.56 | 4.24 | 10.64 | 14.23 | 9.15 | 0.00402 | 0.00117 | 0.00293 | 0.00393 | 0.00252 | PASS |
| Extreme (50°C) | | 9.12 | 10.05 | 15.91 | 1.02 | 14.32 | 0.00252 | 0.00277 | 0.00439 | 0.00028 | 0.00395 | PASS |
| Extreme (40°C) | | 14.07 | 10.57 | 14.01 | 7.68 | 11.75 | 0.00388 | 0.00291 | 0.00387 | 0.00212 | 0.00324 | PASS |
| Extreme (30°C) | | 7.62 | 14.58 | 6.44 | 4.07 | 4.29 | 0.00210 | 0.00402 | 0.00178 | 0.00112 | 0.00118 | PASS |

| | | | | | | | | | | | | |
|-----------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------|
| Extreme (20°C) | | 8.92 | 3.97 | 4.25 | 15.37 | 5.68 | 0.00246 | 0.00110 | 0.00117 | 0.00424 | 0.00157 | PASS |
| Extreme (10°C) | | 16.37 | 10.39 | 5.03 | 9.66 | 13.58 | 0.00452 | 0.00287 | 0.00139 | 0.00266 | 0.00375 | PASS |
| Extreme (0°C) | | 2.62 | 2.94 | 12.33 | 17.40 | 8.00 | 0.00072 | 0.00081 | 0.00340 | 0.00480 | 0.00221 | PASS |
| Extreme (-10°C) | | 17.35 | 13.36 | 11.10 | 3.58 | 2.39 | 0.00479 | 0.00369 | 0.00306 | 0.00099 | 0.00066 | PASS |
| Extreme (-20°C) | | 2.94 | 2.71 | 7.35 | 6.78 | 13.26 | 0.00081 | 0.00075 | 0.00203 | 0.00187 | 0.00366 | PASS |
| Extreme (-30°C) | | 14.06 | 12.32 | 14.36 | 1.54 | 14.24 | 0.00388 | 0.00340 | 0.00396 | 0.00042 | 0.00393 | PASS |
| 25°C | LV | 9.55 | 12.98 | 11.46 | 1.03 | 17.24 | 0.00263 | 0.00358 | 0.00316 | 0.00028 | 0.00476 | PASS |
| | HV | 11.80 | 3.28 | 11.09 | 14.12 | 3.65 | 0.00325 | 0.00090 | 0.00306 | 0.00390 | 0.00101 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 30MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 12.08 | 15.55 | 4.93 | 4.40 | 17.25 | 0.00333 | 0.00429 | 0.00136 | 0.00121 | 0.00476 | PASS |
| Extreme (50°C) | | 1.02 | 3.71 | 13.10 | 6.86 | 17.61 | 0.00028 | 0.00102 | 0.00361 | 0.00189 | 0.00486 | PASS |
| Extreme (40°C) | | 3.08 | 9.15 | 12.14 | 11.27 | 1.10 | 0.00085 | 0.00252 | 0.00335 | 0.00311 | 0.00030 | PASS |
| Extreme (30°C) | | 12.36 | 7.45 | 2.50 | 1.56 | 4.95 | 0.00341 | 0.00206 | 0.00069 | 0.00043 | 0.00136 | PASS |
| Extreme (20°C) | | 12.22 | 8.39 | 14.15 | 12.76 | 12.30 | 0.00337 | 0.00232 | 0.00390 | 0.00352 | 0.00339 | PASS |
| Extreme (10°C) | | 2.49 | 13.85 | 16.86 | 2.06 | 9.99 | 0.00069 | 0.00382 | 0.00465 | 0.00057 | 0.00276 | PASS |
| Extreme (0°C) | | 12.55 | 16.07 | 11.46 | 9.45 | 13.57 | 0.00346 | 0.00443 | 0.00316 | 0.00261 | 0.00374 | PASS |
| Extreme (-10°C) | | 8.99 | 6.08 | 16.57 | 15.32 | 6.86 | 0.00248 | 0.00168 | 0.00457 | 0.00423 | 0.00189 | PASS |
| Extreme (-20°C) | | 4.49 | 12.78 | 13.05 | 17.13 | 3.44 | 0.00124 | 0.00353 | 0.00360 | 0.00473 | 0.00095 | PASS |
| Extreme (-30°C) | | 5.81 | 12.40 | 6.04 | 15.09 | 10.57 | 0.00160 | 0.00342 | 0.00167 | 0.00416 | 0.00292 | PASS |
| 25°C | LV | 16.55 | 16.71 | 15.80 | 12.99 | 14.19 | 0.00457 | 0.00461 | 0.00436 | 0.00358 | 0.00391 | PASS |
| | HV | 12.04 | 9.92 | 6.65 | 8.44 | 17.96 | 0.00332 | 0.00274 | 0.00183 | 0.00233 | 0.00495 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 40MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 1.80 | 8.65 | 6.59 | 5.44 | 15.84 | 0.00050 | 0.00239 | 0.00182 | 0.00150 | 0.00437 | PASS |
| Extreme (50°C) | | 2.45 | 13.24 | 9.38 | 8.69 | 12.07 | 0.00068 | 0.00365 | 0.00259 | 0.00240 | 0.00333 | PASS |
| Extreme (40°C) | | 16.85 | 2.85 | 10.92 | 12.08 | 6.64 | 0.00465 | 0.00079 | 0.00301 | 0.00333 | 0.00183 | PASS |
| Extreme (30°C) | | 17.69 | 16.41 | 4.30 | 1.60 | 8.82 | 0.00488 | 0.00453 | 0.00119 | 0.00044 | 0.00243 | PASS |
| Extreme (20°C) | | 11.43 | 2.92 | 9.09 | 8.48 | 14.09 | 0.00315 | 0.00081 | 0.00251 | 0.00234 | 0.00389 | PASS |
| Extreme (10°C) | | 9.76 | 9.72 | 16.42 | 5.64 | 12.78 | 0.00269 | 0.00268 | 0.00453 | 0.00156 | 0.00353 | PASS |
| Extreme (0°C) | | 5.41 | 3.11 | 4.22 | 1.94 | 14.34 | 0.00149 | 0.00086 | 0.00116 | 0.00053 | 0.00396 | PASS |
| Extreme (-10°C) | | 11.89 | 3.51 | 11.84 | 6.65 | 16.14 | 0.00328 | 0.00097 | 0.00327 | 0.00184 | 0.00445 | PASS |
| Extreme (-20°C) | | 14.05 | 5.40 | 12.27 | 15.72 | 9.85 | 0.00388 | 0.00149 | 0.00339 | 0.00434 | 0.00272 | PASS |
| Extreme (-30°C) | | 15.63 | 4.98 | 11.19 | 13.87 | 10.06 | 0.00431 | 0.00137 | 0.00309 | 0.00383 | 0.00278 | PASS |
| 25°C | LV | 6.02 | 4.76 | 10.72 | 11.33 | 13.24 | 0.00166 | 0.00131 | 0.00296 | 0.00313 | 0.00365 | PASS |
| | HV | 15.52 | 2.83 | 8.16 | 2.15 | 7.11 | 0.00428 | 0.00078 | 0.00225 | 0.00059 | 0.00196 | PASS |

| NR n77 | | | | | | | | | | | | |
|-----------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------|
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 50MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 3.78 | 6.17 | 13.01 | 17.03 | 1.37 | 0.00104 | 0.00170 | 0.00359 | 0.00470 | 0.00038 | PASS |
| Extreme (50°C) | | 8.16 | 4.63 | 6.65 | 8.77 | 1.34 | 0.00225 | 0.00128 | 0.00183 | 0.00242 | 0.00037 | PASS |
| Extreme (40°C) | | 16.15 | 12.92 | 2.01 | 16.41 | 14.63 | 0.00445 | 0.00356 | 0.00055 | 0.00453 | 0.00404 | PASS |
| Extreme (30°C) | | 10.35 | 13.27 | 2.48 | 5.28 | 7.60 | 0.00286 | 0.00366 | 0.00069 | 0.00146 | 0.00210 | PASS |
| Extreme (20°C) | | 6.89 | 4.67 | 9.61 | 15.07 | 4.30 | 0.00190 | 0.00129 | 0.00265 | 0.00416 | 0.00119 | PASS |
| Extreme (10°C) | | 16.16 | 16.70 | 6.65 | 11.34 | 8.32 | 0.00446 | 0.00461 | 0.00184 | 0.00313 | 0.00230 | PASS |
| Extreme (0°C) | | 11.75 | 3.20 | 8.15 | 7.32 | 15.78 | 0.00324 | 0.00088 | 0.00225 | 0.00202 | 0.00435 | PASS |
| Extreme (-10°C) | | 7.75 | 3.45 | 2.95 | 9.64 | 15.96 | 0.00214 | 0.00095 | 0.00081 | 0.00266 | 0.00440 | PASS |
| Extreme (-20°C) | | 9.14 | 14.51 | 14.46 | 3.10 | 11.04 | 0.00252 | 0.00400 | 0.00399 | 0.00086 | 0.00305 | PASS |
| Extreme (-30°C) | | 12.79 | 10.55 | 14.70 | 5.41 | 15.42 | 0.00353 | 0.00291 | 0.00405 | 0.00149 | 0.00425 | PASS |
| 25°C | | LV | 13.76 | 11.46 | 16.20 | 10.22 | 4.96 | 0.00379 | 0.00316 | 0.00447 | 0.00282 | 0.00137 |
| | HV | 12.92 | 16.39 | 12.22 | 8.66 | 10.42 | 0.00356 | 0.00452 | 0.00337 | 0.00239 | 0.00288 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 60MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 3.75 | 16.50 | 11.77 | 3.94 | 2.45 | 0.00104 | 0.00455 | 0.00325 | 0.00109 | 0.00068 | PASS |
| Extreme (50°C) | | 7.60 | 17.10 | 16.42 | 16.46 | 13.15 | 0.00210 | 0.00472 | 0.00453 | 0.00454 | 0.00363 | PASS |
| Extreme (40°C) | | 2.72 | 10.32 | 10.94 | 10.08 | 2.62 | 0.00075 | 0.00285 | 0.00302 | 0.00278 | 0.00072 | PASS |
| Extreme (30°C) | | 14.91 | 5.94 | 14.75 | 7.51 | 16.10 | 0.00411 | 0.00164 | 0.00407 | 0.00207 | 0.00444 | PASS |
| Extreme (20°C) | | 13.62 | 12.56 | 4.72 | 5.87 | 14.37 | 0.00376 | 0.00347 | 0.00130 | 0.00162 | 0.00396 | PASS |
| Extreme (10°C) | | 15.22 | 1.54 | 14.44 | 8.77 | 8.68 | 0.00420 | 0.00042 | 0.00398 | 0.00242 | 0.00240 | PASS |
| Extreme (0°C) | | 7.82 | 1.88 | 5.56 | 16.99 | 3.73 | 0.00216 | 0.00052 | 0.00153 | 0.00469 | 0.00103 | PASS |
| Extreme (-10°C) | | 4.85 | 1.90 | 2.86 | 12.05 | 14.91 | 0.00134 | 0.00052 | 0.00079 | 0.00332 | 0.00411 | PASS |
| Extreme (-20°C) | | 15.52 | 14.17 | 4.50 | 11.24 | 4.38 | 0.00428 | 0.00391 | 0.00124 | 0.00310 | 0.00121 | PASS |
| Extreme (-30°C) | | 9.05 | 16.16 | 6.47 | 1.69 | 4.53 | 0.00250 | 0.00446 | 0.00179 | 0.00046 | 0.00125 | PASS |
| 25°C | | LV | 6.75 | 10.86 | 10.49 | 2.27 | 1.12 | 0.00186 | 0.00299 | 0.00289 | 0.00063 | 0.00031 |
| | HV | 4.55 | 12.09 | 1.91 | 9.71 | 11.82 | 0.00126 | 0.00333 | 0.00053 | 0.00268 | 0.00326 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 70MHz | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | |
| Normal (25°C) | Normal | 16.61 | 15.81 | 7.65 | 14.33 | 6.55 | 0.00458 | 0.00436 | 0.00211 | 0.00395 | 0.00181 | PASS |
| Extreme (50°C) | | 12.49 | 13.04 | 7.24 | 9.65 | 13.88 | 0.00345 | 0.00360 | 0.00200 | 0.00266 | 0.00383 | PASS |
| Extreme (40°C) | | 7.34 | 3.80 | 12.07 | 2.08 | 10.14 | 0.00202 | 0.00105 | 0.00333 | 0.00057 | 0.00280 | PASS |
| Extreme (30°C) | | 12.36 | 6.74 | 17.64 | 5.29 | 9.87 | 0.00341 | 0.00186 | 0.00487 | 0.00146 | 0.00272 | PASS |
| Extreme (20°C) | | 14.50 | 13.97 | 12.50 | 1.72 | 4.40 | 0.00400 | 0.00385 | 0.00345 | 0.00047 | 0.00121 | PASS |
| Extreme (10°C) | | 2.52 | 4.51 | 1.39 | 8.90 | 10.98 | 0.00069 | 0.00125 | 0.00038 | 0.00246 | 0.00303 | PASS |

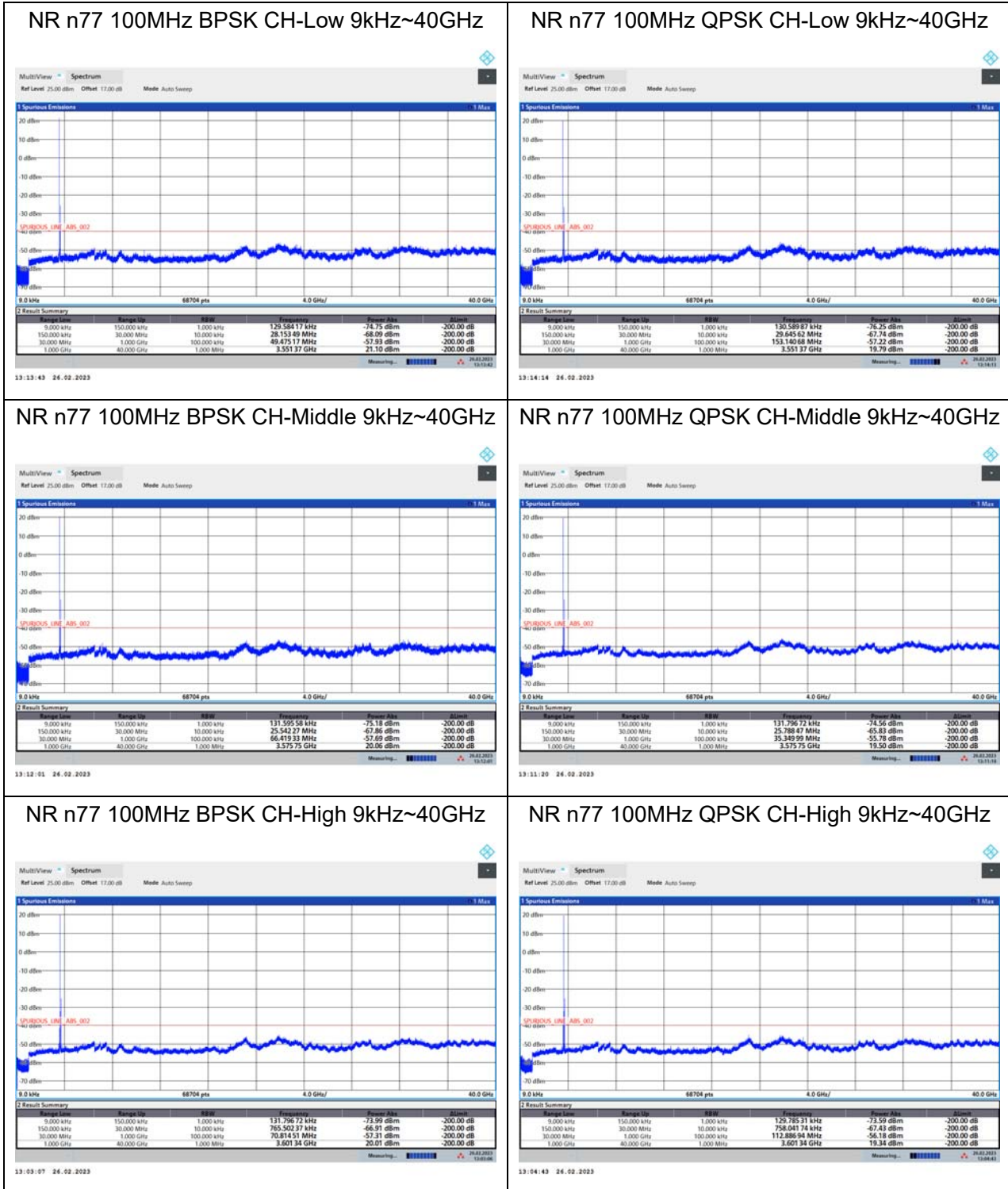
| | | | | | | | | | | | | | |
|-----------------|---------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------|------|
| Extreme (0°C) | | 10.03 | 1.50 | 8.80 | 6.13 | 15.57 | 0.00277 | 0.00041 | 0.00243 | 0.00169 | 0.00430 | PASS | |
| Extreme (-10°C) | | 1.85 | 6.22 | 17.69 | 9.69 | 11.96 | 0.00051 | 0.00171 | 0.00488 | 0.00267 | 0.00330 | PASS | |
| Extreme (-20°C) | | 5.26 | 4.03 | 12.94 | 10.94 | 7.84 | 0.00145 | 0.00111 | 0.00357 | 0.00302 | 0.00216 | PASS | |
| Extreme (-30°C) | | 1.87 | 4.19 | 11.94 | 2.40 | 10.77 | 0.00052 | 0.00116 | 0.00330 | 0.00066 | 0.00297 | PASS | |
| 25°C | LV | 13.12 | 11.45 | 4.04 | 6.77 | 4.88 | 0.00362 | 0.00316 | 0.00112 | 0.00187 | 0.00135 | PASS | |
| | HV | 4.18 | 11.89 | 16.34 | 9.27 | 3.06 | 0.00115 | 0.00328 | 0.00451 | 0.00256 | 0.00084 | PASS | |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict | |
| BANDWIDTH | 80MHz | | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | | |
| Normal (25°C) | Normal | 1.97 | 17.50 | 7.75 | 8.93 | 2.42 | 0.00054 | 0.00483 | 0.00214 | 0.00246 | 0.00067 | PASS | |
| Extreme (50°C) | | 16.75 | 16.78 | 13.02 | 9.06 | 4.70 | 0.00462 | 0.00463 | 0.00359 | 0.00250 | 0.00130 | PASS | |
| Extreme (40°C) | | 8.39 | 10.57 | 10.09 | 1.76 | 14.43 | 0.00231 | 0.00292 | 0.00278 | 0.00048 | 0.00398 | PASS | |
| Extreme (30°C) | | 6.54 | 4.89 | 8.57 | 9.69 | 16.83 | 0.00180 | 0.00135 | 0.00236 | 0.00267 | 0.00464 | PASS | |
| Extreme (20°C) | | 14.39 | 6.91 | 6.24 | 10.52 | 1.79 | 0.00397 | 0.00191 | 0.00172 | 0.00290 | 0.00049 | PASS | |
| Extreme (10°C) | | 10.07 | 6.64 | 10.66 | 4.09 | 1.16 | 0.00278 | 0.00183 | 0.00294 | 0.00113 | 0.00032 | PASS | |
| Extreme (0°C) | | 1.83 | 16.64 | 16.40 | 15.36 | 5.98 | 0.00050 | 0.00459 | 0.00452 | 0.00424 | 0.00165 | PASS | |
| Extreme (-10°C) | | 7.76 | 1.32 | 3.93 | 5.16 | 9.63 | 0.00214 | 0.00037 | 0.00108 | 0.00142 | 0.00266 | PASS | |
| Extreme (-20°C) | | 12.05 | 11.97 | 3.73 | 4.52 | 12.32 | 0.00332 | 0.00330 | 0.00103 | 0.00125 | 0.00340 | PASS | |
| Extreme (-30°C) | | 13.98 | 1.43 | 14.86 | 9.10 | 6.70 | 0.00386 | 0.00040 | 0.00410 | 0.00251 | 0.00185 | PASS | |
| 25°C | | LV | 3.26 | 6.85 | 5.05 | 11.28 | 1.08 | 0.00090 | 0.00189 | 0.00139 | 0.00311 | 0.00030 | PASS |
| | | HV | 10.08 | 13.53 | 4.82 | 3.65 | 8.68 | 0.00278 | 0.00373 | 0.00133 | 0.00101 | 0.00239 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict | |
| BANDWIDTH | 90MHz | | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | | |
| Normal (25°C) | Normal | 13.73 | 7.30 | 13.17 | 1.04 | 14.80 | 0.00379 | 0.00202 | 0.00363 | 0.00029 | 0.00408 | PASS | |
| Extreme (50°C) | | 2.31 | 5.89 | 1.22 | 4.56 | 7.20 | 0.00064 | 0.00163 | 0.00034 | 0.00126 | 0.00199 | PASS | |
| Extreme (40°C) | | 8.30 | 11.86 | 17.56 | 11.63 | 3.56 | 0.00229 | 0.00327 | 0.00484 | 0.00321 | 0.00098 | PASS | |
| Extreme (30°C) | | 11.56 | 14.05 | 2.99 | 8.27 | 9.93 | 0.00319 | 0.00388 | 0.00083 | 0.00228 | 0.00274 | PASS | |
| Extreme (20°C) | | 12.19 | 10.79 | 15.50 | 8.79 | 14.92 | 0.00336 | 0.00298 | 0.00428 | 0.00243 | 0.00412 | PASS | |
| Extreme (10°C) | | 14.06 | 6.20 | 17.36 | 17.76 | 13.29 | 0.00388 | 0.00171 | 0.00479 | 0.00490 | 0.00367 | PASS | |
| Extreme (0°C) | | 6.78 | 9.73 | 6.50 | 15.87 | 6.78 | 0.00187 | 0.00269 | 0.00179 | 0.00438 | 0.00187 | PASS | |
| Extreme (-10°C) | | 9.15 | 4.63 | 6.99 | 1.63 | 8.06 | 0.00252 | 0.00128 | 0.00193 | 0.00045 | 0.00222 | PASS | |
| Extreme (-20°C) | | 8.55 | 1.00 | 16.73 | 3.83 | 10.45 | 0.00236 | 0.00028 | 0.00462 | 0.00106 | 0.00288 | PASS | |
| Extreme (-30°C) | | 10.40 | 4.38 | 10.90 | 13.46 | 9.74 | 0.00287 | 0.00121 | 0.00301 | 0.00371 | 0.00269 | PASS | |
| 25°C | | LV | 7.59 | 15.91 | 4.07 | 1.00 | 17.22 | 0.00209 | 0.00439 | 0.00112 | 0.00028 | 0.00475 | PASS |
| | | HV | 4.44 | 9.40 | 13.92 | 9.00 | 5.39 | 0.00122 | 0.00259 | 0.00384 | 0.00248 | 0.00149 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict | |
| BANDWIDTH | 100MHz | | | | | | | | | | | | |
| Temperature | Voltage | 256QAM | BPSK | 64QAM | 16QAM | QPSK | 256QAM | BPSK | 64QAM | 16QAM | QPSK | | |
| Normal (25°C) | Normal | 6.76 | 7.95 | 3.23 | 6.88 | 5.89 | 0.00186 | 0.00219 | 0.00089 | 0.00190 | 0.00162 | PASS | |
| Extreme (50°C) | | 7.98 | 7.37 | 5.15 | 16.27 | 9.12 | 0.00220 | 0.00203 | 0.00142 | 0.00449 | 0.00252 | PASS | |

| | | | | | | | | | | | | |
|----------------|----|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|------|
| Extreme (40℃) | | 2.51 | 9.35 | 13.41 | 11.20 | 15.62 | 0.00069 | 0.00258 | 0.00370 | 0.00309 | 0.00431 | PASS |
| Extreme (30℃) | | 16.94 | 1.51 | 17.68 | 5.08 | 16.42 | 0.00467 | 0.00042 | 0.00488 | 0.00140 | 0.00453 | PASS |
| Extreme (20℃) | | 9.68 | 14.33 | 2.12 | 15.56 | 7.12 | 0.00267 | 0.00395 | 0.00059 | 0.00429 | 0.00196 | PASS |
| Extreme (10℃) | | 1.79 | 16.57 | 1.31 | 12.22 | 13.74 | 0.00049 | 0.00457 | 0.00036 | 0.00337 | 0.00379 | PASS |
| Extreme (0℃) | | 12.17 | 4.29 | 3.20 | 1.51 | 10.70 | 0.00336 | 0.00118 | 0.00088 | 0.00042 | 0.00295 | PASS |
| Extreme (-10℃) | | 15.05 | 6.31 | 17.12 | 7.77 | 12.54 | 0.00415 | 0.00174 | 0.00472 | 0.00214 | 0.00346 | PASS |
| Extreme (-20℃) | | 11.22 | 7.78 | 8.13 | 16.37 | 13.61 | 0.00310 | 0.00215 | 0.00224 | 0.00451 | 0.00375 | PASS |
| Extreme (-30℃) | | 11.91 | 4.29 | 17.11 | 9.71 | 15.66 | 0.00329 | 0.00118 | 0.00472 | 0.00268 | 0.00432 | PASS |
| 25℃ | LV | 3.24 | 16.42 | 1.72 | 11.72 | 6.98 | 0.00089 | 0.00453 | 0.00047 | 0.00323 | 0.00193 | PASS |
| | HV | 10.99 | 13.10 | 13.00 | 7.47 | 12.83 | 0.00303 | 0.00361 | 0.00359 | 0.00206 | 0.00354 | PASS |

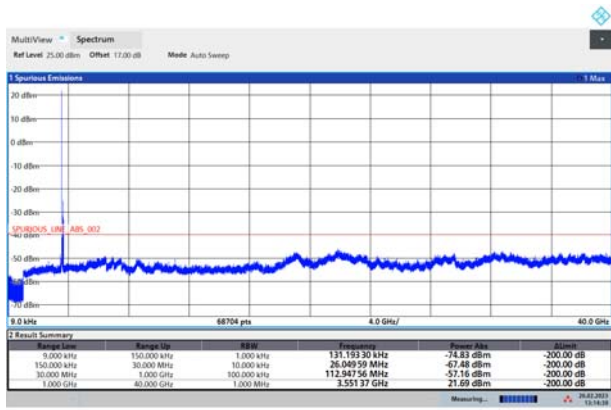
6.7. Spurious Emissions at Antenna Terminals

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier.

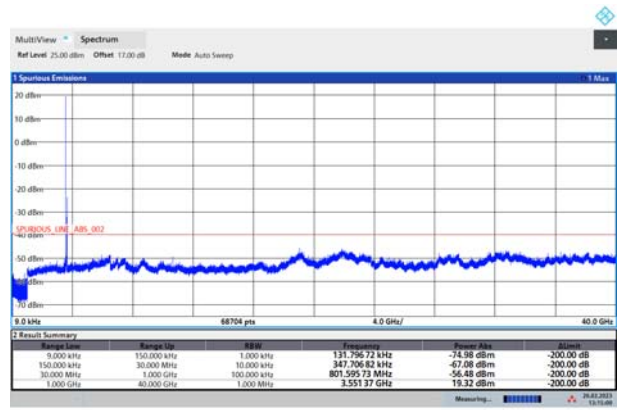


NR n77 100MHz 16QAM CH-Low 9kHz~40GHz



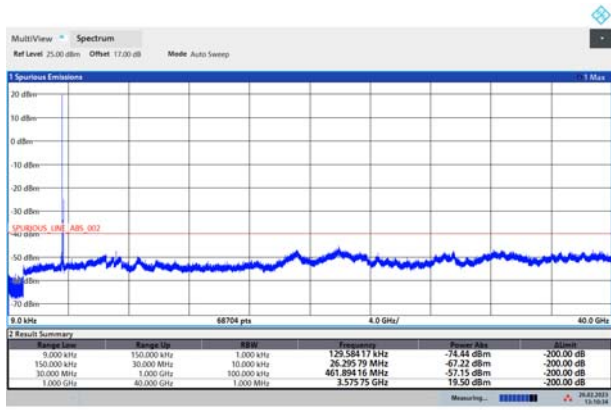
13:14:39 24.02.2023

NR n77 100MHz 64QAM CH-Low



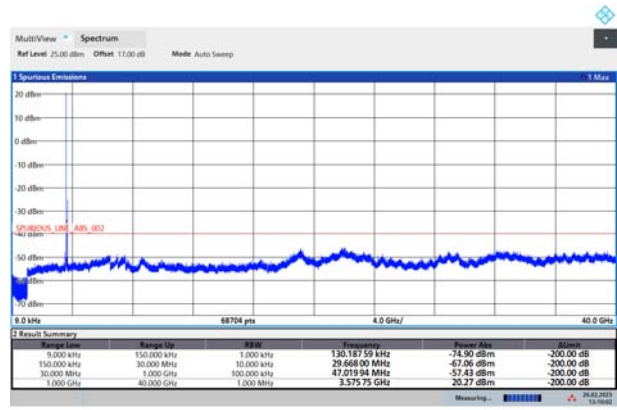
13:15:10 24.02.2023

NR n77 100MHz 16QAM CH-Middle
9kHz~40GHz



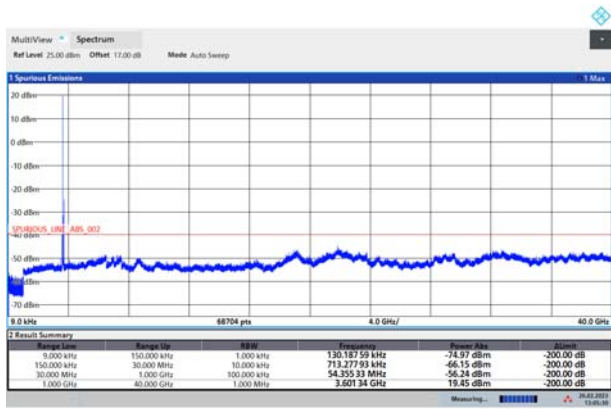
13:10:34 24.02.2023

NR n77 100MHz 64QAM CH-Middle
9kHz~40GHz



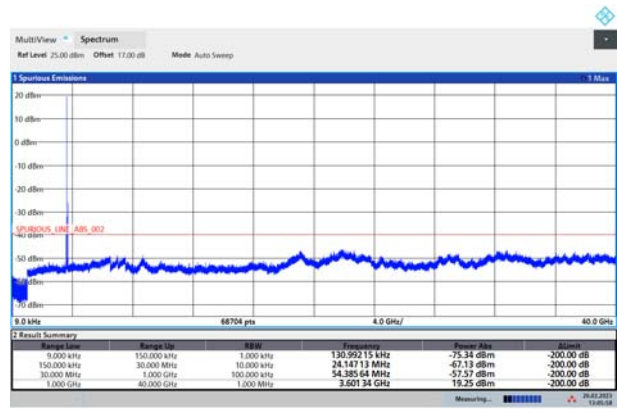
13:10:02 24.02.2023

NR n77 100MHz 16QAM CH-High 9kHz~40GHz



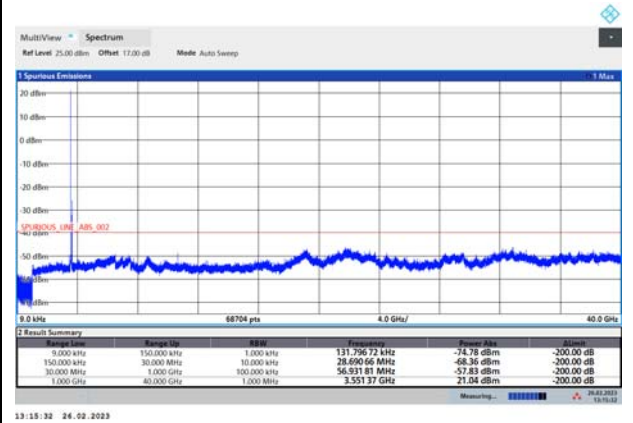
13:05:30 24.02.2023

NR n77 100MHz 64QAM CH-High



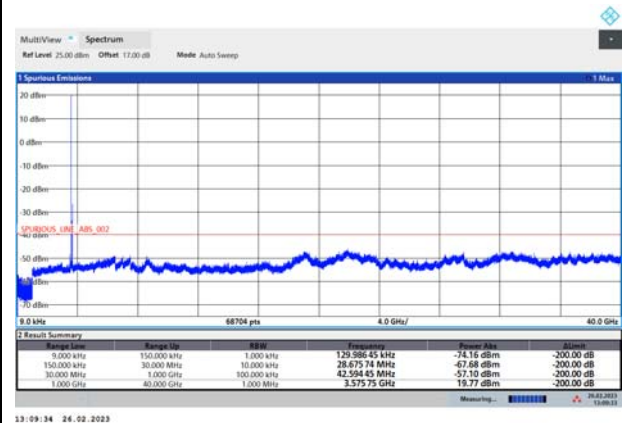
13:05:58 24.02.2023

NR n77 100MHz 256QAM CH-Low 9kHz~40GHz



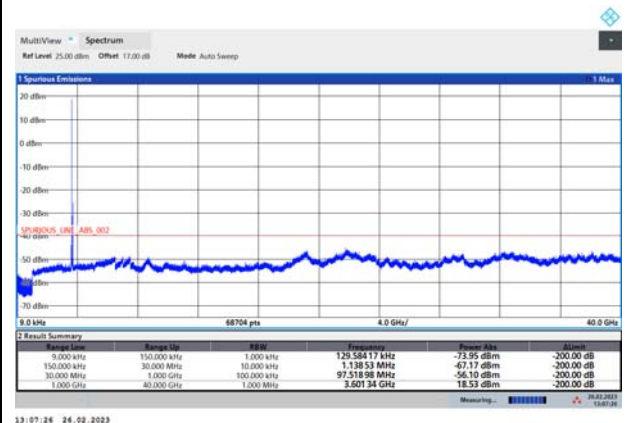
13:15:32 24.02.2023

NR n77 100MHz 256QAM CH-Middle 9kHz~40GHz



13:09:34 24.02.2023

NR n77 100MHz 256QAM CH-High 9kHz~40GHz



13:07:24 24.02.2023

6.8. Radiated Spurious Emission

NR n77 10MHz CH-Middle, RB 1

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | EIRP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|-----------------|----------|-----------------|------------|----------------------|------------------|-------------|-------------|---------------|
| 2 | 7240.00 | -59.93 | 4.2 | 11.80 | Horizontal | -52.33 | -13.00 | 39.33 | 90 |
| 3 | 10860.00 | -54.57 | 5.1 | 13.00 | Horizontal | -46.67 | -13.00 | 33.67 | 45 |
| 4 | 14480.00 | -49.51 | 5.8 | 12.80 | Horizontal | -42.51 | -13.00 | 29.51 | 135 |
| 5 | 18100.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 6 | 21720.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 7 | 25340.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 8 | 28960.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9 | 32580.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10 | 36200.00 | -- | -- | -- | -- | -- | -- | -- | -- |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

NR n77 50MHz CH-Middle, RB 1

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | EIRP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|-----------------|----------|-----------------|------------|----------------------|------------------|-------------|-------------|---------------|
| 2 | 7200.00 | -58.70 | 4.2 | 11.80 | Horizontal | -51.10 | -13.00 | 38.10 | 45 |
| 3 | 10800.00 | -54.31 | 5.1 | 13.00 | Horizontal | -46.41 | -13.00 | 33.41 | 135 |
| 4 | 14400.00 | -49.67 | 5.8 | 12.80 | Horizontal | -42.67 | -13.00 | 29.67 | 90 |
| 5 | 18000.00 | -47.30 | 6.0 | 10.10 | Horizontal | -43.20 | -13.00 | 30.20 | 0 |
| 6 | 21600.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 7 | 25200.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 8 | 28800.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9 | 32400.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10 | 36000.00 | -- | -- | -- | -- | -- | -- | -- | -- |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

NR n77 100MHz CH-Middle, RB 1

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | EIRP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|-----------------|----------|-----------------|------------|----------------------|------------------|-------------|-------------|---------------|
| 2 | 7150.00 | -54.55 | 4.2 | 11.80 | Horizontal | -46.95 | -13.00 | 33.95 | 135 |
| 3 | 10725.00 | -52.18 | 5.1 | 13.00 | Horizontal | -44.28 | -13.00 | 31.28 | 90 |
| 4 | 14300.00 | -49.16 | 5.8 | 12.80 | Horizontal | -42.16 | -13.00 | 29.16 | 135 |
| 5 | 17875.00 | -48.35 | 6.0 | 10.10 | Horizontal | -44.25 | -13.00 | 31.25 | 45 |
| 6 | 21450.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 7 | 25025.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 8 | 28600.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9 | 32175.00 | -- | -- | -- | -- | -- | -- | -- | -- |
| 10 | 35750.00 | -- | -- | -- | -- | -- | -- | -- | -- |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

7. Main Test Instruments

| Name | Manufacturer | Type | Serial Number | Calibration Date | Expiration Time |
|------------------------------------|--------------|--------------------|----------------|------------------|-----------------|
| Base Station Simulator | Anritsu | MT8000A | 6261844783 | 2022-05-14 | 2023-05-13 |
| Climate Chamber | WEISS | VT 4002 | 58226119450010 | 2022-05-14 | 2023-05-13 |
| Spectrum Analyzer | Keysight | N9020A | MY50510203 | 2022-05-14 | 2023-05-13 |
| Wireless Communication Tester | StarPoint | SP9500 | SP9500-20440 | 2022-05-14 | 2023-05-13 |
| DC Power Supply | UNI-T | UTP1310+ | C220795889 | 2022-08-25 | 2023-08-24 |
| Signal Analyzer | R&S | FSV3030 | 101411 | 2022-12-10 | 2023-12-09 |
| Radiated Spurious Emissions | | | | | |
| Signal Analyzer | R&S | FSV30 | 104028 | 2022-05-14 | 2023-05-13 |
| Trilogy Antenna | Schwarzbeck | VULB 9163 | 01439 | 2021-06-30 | 2024-06-29 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | 01799 | 2022-09-01 | 2025-08-31 |
| Horn Antenna | ETS-Lindgren | 3160-09 | 00102643 | 2021-10-10 | 2024-10-09 |
| Horn Antenna | STEATITE | QSH-SL-2 6-40-K-15 | 16779 | 2023-01-17 | 2026-01-16 |
| Software | R&S | EMC32 | 10.35.10 | / | / |

*****END OF REPORT *****

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.