

TEST REPORT

FCC Sub6 n77(78) Test for TM15FNEUJL1
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2502-FC100-R1

DATE OF ISSUE
April 8, 2025

Tested by
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Technical Manager
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Accredited by KOLAS, Republic of KOREA

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Applicant

LG Electronics Inc.

128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea

Product Name

Telematics

Model Name

TM15FNEUJL1

Date of Test

December 9, 2024 ~ February 24, 2025

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

FCC ID

BEJTM15FNEUJL1

FCC Classification

PCS Licensed Transmitter (PCB)

Test Standard Used

FCC Rule Part(s) : § 27

Test Results

PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	February 24, 2025	Initial Release
1	April 08, 2025	Revised the Product Name.

Notice

Content

The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S.C. 853(a)

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

This test report provides test result(s) under the scope accredited by the Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.
(KOLAS (KS Q ISO/IEC 17025) Accreditation No. KT197)

CONTENTS

1. GENERAL INFORMATION	5
1.1. MAXIMUM OUTPUT POWER	6
2. INTRODUCTION	8
2.1. DESCRIPTION OF EUT	8
2.2. MEASURING INSTRUMENT CALIBRATION	8
2.3. TEST FACILITY	8
3. DESCRIPTION OF TESTS	9
3.1 TEST PROCEDURE	9
3.2 RADIATED POWER	10
3.3 RADIATED SPURIOUS EMISSIONS	11
3.4 PEAK- TO- AVERAGE RATIO	12
3.5 OCCUPIED BANDWIDTH	14
3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL	15
3.7 BAND EDGE	16
3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	18
3.9 WORST CASE(RADIATED TEST)	19
3.10 WORST CASE(CONDUCTED TEST)	21
4. LIST OF TEST EQUIPMENT	22
5. MEASUREMENT UNCERTAINTY	23
6. SUMMARY OF TEST RESULTS	24
7. SAMPLE CALCULATION	25
8. TEST DATA (3450 MHz - 3550 MHz)	27
8.1 EQUIVALENT ISOTROPIC RADIATED POWER	27
8.2 RADIATED SPURIOUS EMISSIONS	36
8.3 PEAK-TO-AVERAGE RATIO	37
8.4 OCCUPIED BANDWIDTH	39
8.5 CONDUCTED SPURIOUS EMISSIONS	41
8.6 BAND EDGE	42
8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	43
9. TEST DATA (3700 MHz - 3980 MHz)	52
9.1 EQUIVALENT ISOTROPIC RADIATED POWER	52
9.2 RADIATED SPURIOUS EMISSIONS	61
9.3 PEAK-TO-AVERAGE RATIO	62
9.4 OCCUPIED BANDWIDTH	64
9.5 CONDUCTED SPURIOUS EMISSIONS	66
9.6 BAND EDGE	67
9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	68
10. TEST PLOTS(3450 MHz - 3550 MHz)	77
11. TEST PLOTS(3700 MHz - 3980 MHz)	326
12. ANNEX A_ TEST SETUP PHOTO	579

MEASUREMENT REPORT

1.GENERAL INFORMATION

Applicant Name:	LG Electronics Inc.
Address:	128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea
FCC ID:	BEJTM15FNEUJL1
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§ 27
EUT Type:	Telematics
Model(s):	TM15FNEUJL1
SCS(kHz):	30
Bandwidth(MHz):	20, 30, 40, 50, 60, 70, 80, 90, 100
Waveform:	CP-OFDM, DFT-S-OFDM
Modulation:	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
[NR n77(78)] Tx Frequency: (3450 MHz - 3550 MHz)	3460.02 MHz – 3540.00 MHz (Sub6 n77(78)(20 MHz)) 3465.00 MHz – 3534.99 MHz (Sub6 n77(78)(30 MHz)) 3470.01 MHz – 3529.98 MHz (Sub6 n77(78)(40 MHz)) 3475.02 MHz – 3525.00 MHz (Sub6 n77(78)(50 MHz)) 3480.00 MHz – 3519.99 MHz (Sub6 n77(78)(60 MHz)) 3485.01 MHz – 3514.98 MHz (Sub6 n77(78)(70 MHz)) 3490.02 MHz – 3510.00 MHz (Sub6 n77(78)(80 MHz)) 3495.00 MHz – 3504.99 MHz (Sub6 n77(78)(90 MHz)) 3500.01 MHz (Sub6 n77(78)(100 MHz))
[NR n77(78)] Tx Frequency: (3700 MHz - 3980 MHz)	3710.01 MHz – 3969.99 MHz (Sub6 n77(78)(20 MHz)) 3715.02 MHz – 3964.98 MHz (Sub6 n77(78)(30 MHz)) 3720.00 MHz – 3960.00 MHz (Sub6 n77(78)(40 MHz)) 3725.10 MHz – 3954.99 MHz (Sub6 n77(78)(50 MHz)) 3730.02 MHz – 3949.98 MHz (Sub6 n77(78)(60 MHz)) 3735.00 MHz – 3945.00 MHz (Sub6 n77(78)(70 MHz)) 3740.01 MHz – 3939.99 MHz (Sub6 n77(78)(80 MHz)) 3745.02 MHz – 3934.98 MHz (Sub6 n77(78)(90 MHz)) 3750.00 MHz – 3930.00 MHz (Sub6 n77(78)(100 MHz))
Date(s) of Tests:	December 9, 2024 ~ February 24, 2025
Serial number:	Radiated : 501VIXV900165(NAD) Conducted : 410VIXV000305(NAD)
Antenna Information	Please refer to the Antenna Specification document.

1.1. MAXIMUM OUTPUT POWER

3450 MHz - 3550 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77(78) (20)	3460.02 – 3540.00	17M9G7D	PI/2 BPSK	0.256	24.08
		18M0G7D	QPSK	0.257	24.10
		18M0W7D	16QAM	0.207	23.15
		18M0W7D	64 QAM	0.146	21.64
		18M0W7D	256 QAM	0.093	19.70
Sub6 n77(78) (30)	3465.00 – 3534.99	26M9G7D	PI/2 BPSK	0.253	24.03
		26M9G7D	QPSK	0.255	24.07
		26M9W7D	16QAM	0.205	23.12
		26M9W7D	64 QAM	0.145	21.62
		26M9W7D	256 QAM	0.092	19.64
Sub6 n77(78) (40)	3470.01 – 3529.98	35M8G7D	PI/2 BPSK	0.258	24.12
		35M8G7D	QPSK	0.260	24.15
		35M8W7D	16QAM	0.204	23.09
		35M8W7D	64 QAM	0.143	21.56
		35M8W7D	256 QAM	0.092	19.64
Sub6 n77(78) (50)	3475.02 – 3525.00	45M9G7D	PI/2 BPSK	0.246	23.91
		45M8G7D	QPSK	0.248	23.94
		45M8W7D	16QAM	0.193	22.86
		45M8W7D	64 QAM	0.138	21.41
		45M8W7D	256 QAM	0.087	19.40
Sub6 n77(78) (60)	3480.00 – 3519.99	57M9G7D	PI/2 BPSK	0.250	23.98
		58M1G7D	QPSK	0.249	23.97
		58M0W7D	16QAM	0.199	22.99
		57M9W7D	64 QAM	0.141	21.50
		58M0W7D	256 QAM	0.089	19.50
Sub6 n77(78) (70)	3485.01 – 3514.98	64M5G7D	PI/2 BPSK	0.248	23.95
		64M5G7D	QPSK	0.249	23.96
		64M5W7D	16QAM	0.199	22.99
		64M5W7D	64 QAM	0.142	21.52
		64M6W7D	256 QAM	0.089	19.51
Sub6 n77(78) (80)	3490.02 – 3510.00	77M3G7D	PI/2 BPSK	0.250	23.98
		77M2G7D	QPSK	0.251	23.99
		77M2W7D	16QAM	0.200	23.00
		77M3W7D	64 QAM	0.142	21.52
		77M3W7D	256 QAM	0.090	19.56
Sub6 n77(78) (90)	3495.00 – 3504.99	86M9G7D	PI/2 BPSK	0.250	23.98
		86M9G7D	QPSK	0.252	24.01
		86M9W7D	16QAM	0.201	23.04
		87M0W7D	64 QAM	0.144	21.59
		87M0W7D	256 QAM	0.091	19.57
Sub6 n77(78) (100)	3500.01	96M6G7D	PI/2 BPSK	0.249	23.96
		96M5G7D	QPSK	0.249	23.97
		96M6W7D	16QAM	0.199	22.98
		96M6W7D	64 QAM	0.141	21.49
		96M6W7D	256 QAM	0.090	19.53

3700 MHz - 3980 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77(78) (20)	3710.01 – 3969.99	17M9G7D	PI/2 BPSK	0.244	23.88
		17M9G7D	QPSK	0.242	23.83
		18M0W7D	16QAM	0.195	22.90
		18M0W7D	64 QAM	0.138	21.41
		18M0W7D	256 QAM	0.086	19.37
Sub6 n77(78) (30)	3715.02 – 3964.98	26M9G7D	PI/2 BPSK	0.244	23.88
		26M9G7D	QPSK	0.243	23.86
		26M9W7D	16QAM	0.187	22.72
		26M9W7D	64 QAM	0.134	21.28
		26M9W7D	256 QAM	0.086	19.35
Sub6 n77(78) (40)	3720.00 – 3960.00	35M9G7D	PI/2 BPSK	0.250	23.98
		35M8G7D	QPSK	0.252	24.02
		35M8W7D	16QAM	0.196	22.93
		35M8W7D	64 QAM	0.142	21.52
		35M9W7D	256 QAM	0.091	19.59
Sub6 n77(78) (50)	3725.10 – 3954.99	45M9G7D	PI/2 BPSK	0.243	23.85
		45M9G7D	QPSK	0.247	23.93
		45M9W7D	16QAM	0.182	22.59
		46M0W7D	64 QAM	0.130	21.14
		45M9W7D	256 QAM	0.083	19.18
Sub6 n77(78) (60)	3730.02 – 3949.98	58M1G7D	PI/2 BPSK	0.245	23.90
		58M1G7D	QPSK	0.244	23.88
		58M0W7D	16QAM	0.193	22.86
		58M0W7D	64 QAM	0.136	21.35
		58M0W7D	256 QAM	0.086	19.34
Sub6 n77(78) (70)	3735.00 – 3945.00	64M7G7D	PI/2 BPSK	0.250	23.98
		64M9G7D	QPSK	0.252	24.01
		64M8W7D	16QAM	0.187	22.72
		64M8W7D	64 QAM	0.134	21.26
		64M7W7D	256 QAM	0.085	19.28
Sub6 n77(78) (80)	3740.01 – 3939.99	77M6G7D	PI/2 BPSK	0.247	23.93
		77M7G7D	QPSK	0.249	23.96
		77M8W7D	16QAM	0.194	22.88
		77M8W7D	64 QAM	0.140	21.46
		77M5W7D	256 QAM	0.087	19.41
Sub6 n77(78) (90)	3745.02 – 3934.98	86M9G7D	PI/2 BPSK	0.249	23.96
		87M0G7D	QPSK	0.253	24.03
		86M9W7D	16QAM	0.190	22.78
		86M9W7D	64 QAM	0.136	21.34
		87M0W7D	256 QAM	0.086	19.33
Sub6 n77(78) (100)	3750.00 – 3930.00	96M7G7D	PI/2 BPSK	0.245	23.89
		96M5G7D	QPSK	0.245	23.90
		96M6W7D	16QAM	0.194	22.87
		96M6W7D	64 QAM	0.137	21.37
		96M6W7D	256 QAM	0.089	19.49

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

Please refer to the [2G3G] Test Report.

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

The Fully-anechoic chamber and conducted measurement facility used to collect the radiated data are located at the **74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea**

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
Band Edge	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Spurious and Harmonic Emissions at Antenna Terminal	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Conducted Output Power	- N/A (See SAR Report)
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Radiated Power	- ANSI C63.26-2015 – Section 5.2.4.4 - KDB 971168 D01 v03r01 – Section 5.8
Radiated Spurious and Harmonic Emissions	- ANSI C63.26-2015 – Section 5.5.3 - KDB 971168 D01 v03r01 – Section 5.8

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

The equipment under test is placed on a non-conductive table 3-meters away from the receive antenna.

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5 % of the expected OBW, not to exceed 1 MHz
3. VBW $\geq$ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points > 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Note

1. The turntable is rotated through 360 degrees, and the receiving antenna scans in order to determine the level of the maximized emission.
2. A half wave dipole is then substituted in place of the EUT. For emissions above 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.

The power is calculated by the following formula;

$$P_d \text{ (dBm)} = P_g \text{ (dBm)} - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

Where: P_d is the dipole equivalent power and P_g is the generator output power into the substitution antenna.

3. The maximum value is calculated by adding the forward power to the calibrated source plus its appropriate gain value.
These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference between the gain of the horn and an isotropic antenna are taken into consideration
4. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
5. 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.

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

Test Settings

1. RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz
2. VBW $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $> 2 \times$ span / RBW
5. Detector = Peak
6. Trace mode = Max Hold
7. The trace was allowed to stabilize
8. Test channel : Low/ Middle/ High
9. Frequency range : We are performed all frequency to 10th harmonics from 9 kHz.

Test Note

1. Measurements value show only up to 3 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
2. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the test data
3. For spurious emissions above 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.

The spurious emissions is calculated by the following formula;

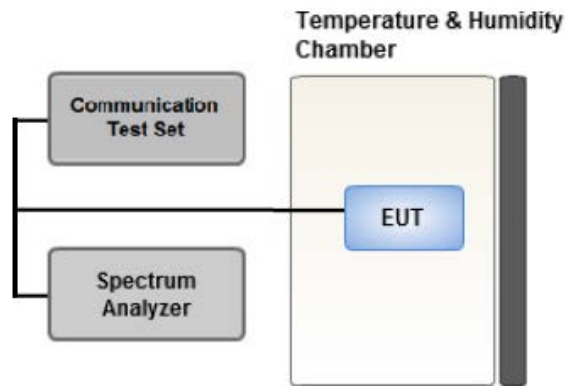
$$\text{Result}_{(\text{dBm})} = P_g_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

Where: P_g is the generator output power into the substitution antenna.

If the fundamental frequency is below 1 GHz, RF output power has been converted to EIRP.

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

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

1. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Set the measurement interval as follows:
 - for continuous transmissions, set to 1 ms,
 - or burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
4. Record the maximum PAPR level associated with a probability of 0.1 %.

② Alternate Procedure for PAPR

Use one of the procedures presented in 5.2(ANSI C63.26-2015) to measure the total peak power and record as P_{pk} .

Use one of the applicable procedures presented 5.2(ANSI C63.26-2015) to measure the total average power and record as P_{Avg} . Determine the P.A.R. from:

$$P.A.R. (dB) = P_{pk} (dBm) - P_{Avg} (dBm) \quad (P_{Avg} = \text{Average Power} + \text{Duty cycle Factor})$$

Test Settings(Peak Power)

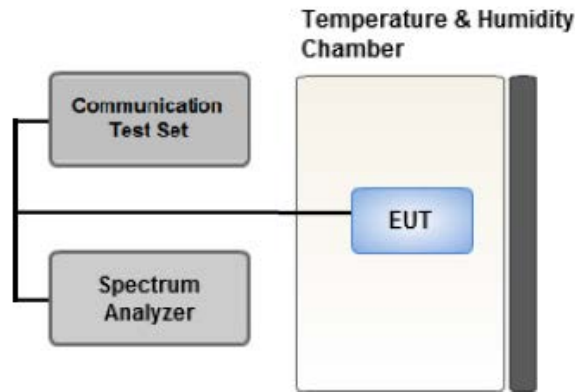
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

1. Set the RBW $\geq$ OBW.
2. Set VBW $\geq 3 \times$ RBW.
3. Set span $\geq 2 \times$ OBW.
4. Sweep time $\geq 10 \times$ (number of points in sweep) $\times$ (transmission symbol period).
5. Detector = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the peak amplitude level.

Test Settings(Average Power)

1. Set span to $2 \times$ to $3 \times$ the OBW.
2. Set RBW $\geq$ OBW.
3. Set VBW $\geq 3 \times$ RBW.
4. Set number of measurement points in sweep $\geq 2 \times$ span / RBW.
5. Sweep time:
Set $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission period})]$ for single sweep (automation-compatible) measurement. The transmission period is the (on + off) time.
6. Detector = power averaging (rms).
7. Set sweep trigger to "free run."
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. (To accurately determine the average power over the on and off period of the transmitter, it can be necessary to increase the number of traces to be averaged above 100 or, if using a manually configured sweep time, increase the sweep time.)
9. Use the peak marker function to determine the maximum amplitude level.
10. Add $[10 \log (1/\text{duty cycle})]$ to the measured maximum power level to compute the average power during continuous transmission. For example, add $[10 \log (1/0.25)] = 6 \text{ dB}$ if the duty cycle is a constant 25 %.

3.5 OCCUPIED BANDWIDTH.



Test setup

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 power of a given emission.

The EUT makes a call to the communication simulator.

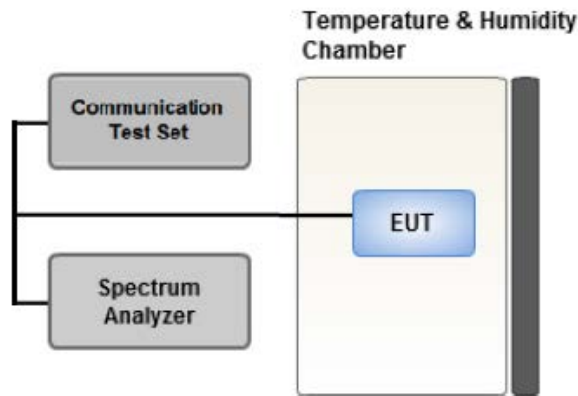
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth

Test Settings

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

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

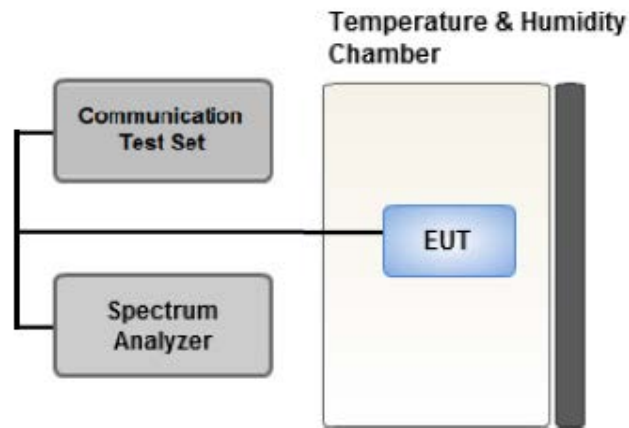
Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

1. RBW = 1 MHz
2. VBW $\geq$ 3 MHz
3. Detector = Peak
4. Trace Mode = Max Hold
5. Sweep time = auto
6. Number of points in sweep $\geq$ 2 x Span / RBW

3.7 BAND EDGE



Test setup

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. $RBW > 1\%$ of the emission bandwidth
4. $VBW > 3 \times RBW$
5. Detector = RMS
6. Number of sweep points $\geq 2 \times \text{Span}/RBW$
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.

Compliance with this paragraph is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.

However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz.

In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.

Measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.

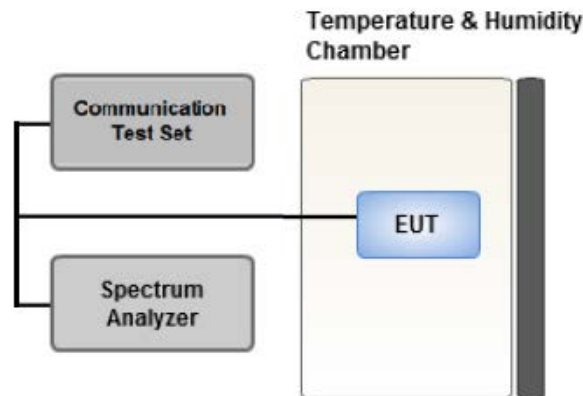
However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz.

In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. .

Where $\text{Margin} < 1$ dB the emission level is either corrected by $10 \log(1 \text{ MHz} / \text{RB})$ or the emission is integrated over a 1 MHz bandwidth to determine the final result. When using the integration method the integration window is either centered on the emission or, for emissions at the band edge, centered by an offset of 500 kHz from the block edge so that the integration window is the 1 MHz adjacent to the block edge.

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015.

The frequency stability of the transmitter is measured by:

1. Temperature:

The temperature is varied from -30 °C to +50 °C in 10 °C increments using an environmental chamber.

2. Primary Supply Voltage:

- Unless otherwise specified, vary primary supply voltage from 85 % to 115 % of the nominal value

for other than hand carried battery equipment.

- For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20 °C to provide a reference).

2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter.

Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

3. Frequency measurements are made at 10 °C intervals ranging from -30 °C to +50 °C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

3.9 WORST CASE(RADIATED TEST)

- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- All modes of operation were investigated and the worst case configuration results are reported.
Mode : SA, NSA
Worst case : SA
- JIG was used to test the EUT. (EUT + JIG)
- All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.
Therefore, only the worst case(stand-alone) results were reported.
- NR n77 (3450 – 3550 MHz / 3700 – 3980 MHz) overlaps the entire frequency range of NR n78 (3450 - 3550 MHz / 3700 – 3800 MHz) and they have the same Tune-up power.
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).
All EN-DC mode of operation (=anchor) were investigated and the test results were measured No Peak Found.
The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.
- The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- In the case of radiated spurious emissions, all bandwidth of operation were investigated and the worst case bandwidth results are reported. (Worst case : 100 MHz)

[3450 MHz - 3550 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 8.1		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		Y

[3700 MHz - 3980 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 9.1		Y, Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		Y, Z

3.10 WORST CASE(CONDUCTED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported. (Worst case: DFT-S-OFDM)
- Modulation : All Modulation of operation were investigated and the worst case configuration results are reported. (Worst case: PI/2 BPSK)
- NR n77 (3450 – 3550 MHz / 3700 – 3980 MHz) overlaps the entire frequency range of NR n78 (3450 - 3550 MHz / 3700 – 3800 MHz) and they have the same Tune-up power.
- All modes of operation were investigated and the worst case configuration results are reported.
Mode : SA, NSA
Worst case : SA
- JIG was used to test the EUT. (EUT + JIG)
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth,	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	20, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	20, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Band Edge	PI/2 BPSK	20	Low	1	0
			High	1	50
		30	Low	1	0
			High	1	77
		40	Low	1	0
			High	1	105
		50	Low	1	0
			High	1	132
		60	Low	1	0
			High	1	161
		70	Low	1	0
			High	1	188
		80	Low	1	0
			High	1	216
Band Edge	PI/2 BPSK	90	Low	1	0
			High	1	244
		100	Low	1	0
			High	1	272
		20, 30, 40, 50, 60, 70, 80, 90, 100	Low, High	Full RB	0
			Low, Mid, High	1	1
		20, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	1	1
			Low, Mid, High	1	1
		20, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	1	1
			Low, Mid, High	1	1
		20, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	1	1
			Low, Mid, High	1	1
		20, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	1	1
			Low, Mid, High	1	1

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
RF Switching System	Switch box(1 G HPF+LNA)	HCT CO., LTD.,	F2L2	12/12/2025	Annual
RF Switching System	Switch box(3 G HPF+LNA)	HCT CO., LTD.,	F2L3	12/12/2025	Annual
RF Switching System	Switch box(LNA)	HCT CO., LTD.,	F2L5	12/12/2025	Annual
RF Switching System	Switch box(6 G HPF+LNA)	HCT CO., LTD.,	F2L14	12/12/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/17/2025	Annual
DC Power Supply	E3632A	Agilent	MY40010147	08/06/2025	Annual
Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Dipole Antenna	UHAP	Schwarzbeck	01288	08/07/2026	Biennial
Chamber	SU-642	ESPEC	93022487	06/27/2025	Annual
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03197	11/28/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03201	11/28/2025	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Signal Analyzer(10 Hz ~ 26.5 GHz)	N9020A	Agilent	MY52090906	04/19/2025	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/17/2025	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	ROHDE & SCHWARZ	101733	09/19/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Loop Antenna(9 kHz ~ 30 MHz)	FMZB1513	Schwarzbeck	1513-333	03/07/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	08/28/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	08/19/2026	Biennial
Radio Communication Test Station	MT8000A	Anritsu Corp.	6272613402	08/28/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/23/2025	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

- Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
- Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

5. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014.

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty ($\pm$ kHz)
Occupied Bandwidth	95 (Confidence level about 95 %, $k=2$)
Frequency stability	28 (Confidence level about 95 %, $k=2$)

Parameter	Expanded Uncertainty ($\pm$ dB)
Block Edge	0.70 (Confidence level about 95 %, $k=2$)
Conducted Spurious Emissions	1.18 (Confidence level about 95 %, $k=2$)
Peak- to- Average Ratio	0.68 (Confidence level about 95 %, $k=2$)
Radiated Power	4.74 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.70 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.52 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.66 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, $k=2$)

6. SUMMARY OF TEST RESULTS

Note. The decision rule applies ‘simple acceptance’

6.1 Test Condition : Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 27.53(n)(2), § 27.53(l)(2)	< -13 dBm	PASS
Conducted Output Power	§ 2.1046	N/A	See Note1
Peak- to- Average Ratio	§ 27.50(k)(4), § 27.50(j)(4)	< 13 dB	PASS
Frequency stability / variation of ambient temperature	§ 2.1055, § 27.54	Emission must remain in band	PASS

Note:

1. See SAR Report
2. All conducted tests were tested using 5G Wireless Tester.

6.2 Test Condition : Radiated Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Equivalent Isotropic Radiated Power	§ 27.50(k)(3), § 27.50(j)(3)	< 1 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1051, § 27.53(n)(2), § 27.53(l)(2)	< -13 dBm	PASS

Note:

1. Radiated tests were tested using 5G Wireless Tester.

6.3. Data Referencing

Rule Part	Test item	Data Referencing	Comments
§ 2.1049	Occupied Bandwidth	Y	-
§ 2.1051, § 27.53(m)(4)	Block Edge / Spurious and Harmonic Emissions at Antenna Terminal..	Y	-
§ 2.1051, § 27.53(h)	Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	Y	-
§ 27.50(d)(5)	Peak- to- Average Ratio	Y	-
§ 2.1055, § 27.54	Frequency stability / variation of ambient temperature	Y	-
§ 27.50(h)(2)	Effective Radiated Power Equivalent Isotropic Radiated Power	Y	Spot-check
§ 2.1053, § 27.53(m)(4)	Radiated Spurious and Harmonic Emissions	Y	Spot-check
§ 2.1046	Conducted Output Power	Y	-

Spot-Check Result

1. Data was leveraged from model TM15FNEUJL0 for the certification of TM15FNEUJL1.
2. Please refer to the [FCC Evaluation] Report.

7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol.	ERP	
channel	Freq.(MHz)						W	dBm
128	824.20	-21.37	38.40	-10.61	0.95	H	0.483	26.84

$$\text{ERP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

- 1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
- 2) During the test, the turn table is rotated until the maximum signal is found.
- 3) Record the field strength meter's level.
- 4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
- 6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power.

7.2 EIRP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	EIRP	
channel	Freq.(MHz)						W	dBm
20175	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

$$\text{EIRP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

- 1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
- 2) During the test, the turn table is rotated until the maximum signal is found.
- 3) Record the field strength meter's level.
- 4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
- 6) The signal generator output level with Ant. Gain and cable loss are the rating of equivalent isotropic radiated power.

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW
GSM BW = 249 kHz
G = Phase Modulation
X = Cases not otherwise covered
W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W
GSM BW = 249 kHz
G = Phase Modulation
7 = Quantized/Digital Info
W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W
WCDMA BW = 4.17 MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D
LTE BW = 4.48 MHz
G = Phase Modulation
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D
LTE BW = 4.48 MHz
W = Amplitude/Angle Modulated
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

8. TEST DATA (3450 MHz - 3550 MHz)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3460.02		PI/2 BPSK	-28.08	12.85	11.48	3.04	H		0.135	21.29	1	25
		QPSK	-28.36	12.57	11.48	3.04	H		0.126	21.01		
		16-QAM	-28.47	12.46	11.48	3.04	H		0.123	20.90		
		64-QAM	-28.33	12.60	11.48	3.04	H		0.127	21.04		
		256-QAM	-28.42	12.51	11.48	3.04	H		0.125	20.95		
3500.01	Sub6 n77(78)/ 20 MHz [30 kHz]	PI/2 BPSK	-28.65	12.22	11.59	3.04	H		0.119	20.77	1	1
		QPSK	-28.68	12.19	11.59	3.04	H		0.119	20.74		
		16-QAM	-28.75	12.12	11.59	3.04	H	< 1.00	0.117	20.67		
		64-QAM	-28.72	12.15	11.59	3.04	H		0.118	20.70		
		256-QAM	-28.66	12.21	11.59	3.04	H		0.119	20.76		
3540.00		PI/2 BPSK	-28.41	12.38	11.64	3.06	H		0.125	20.96	1	25
		QPSK	-28.61	12.18	11.64	3.06	H		0.119	20.76		
		16-QAM	-28.48	12.31	11.64	3.06	H		0.123	20.89		
		64-QAM	-28.67	12.12	11.64	3.06	H		0.118	20.70		
		256-QAM	-28.45	12.34	11.64	3.06	H		0.124	20.92		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3465.00		PI/2 BPSK	-27.92	13.00	11.50	3.02	H		0.141	21.48	1	1
		QPSK	-28.10	12.82	11.50	3.02	H		0.135	21.30		
		16-QAM	-27.93	12.99	11.50	3.02	H		0.140	21.47		
		64-QAM	-28.08	12.84	11.50	3.02	H		0.136	21.32		
		256-QAM	-28.16	12.76	11.50	3.02	H		0.133	21.24		
3500.01	Sub6 n77(78)/ 30 MHz [30 kHz]	PI/2 BPSK	-28.48	12.39	11.59	3.04	H	< 1.00	0.124	20.94	1	39
		QPSK	-28.50	12.37	11.59	3.04	H		0.124	20.92		
		16-QAM	-28.70	12.17	11.59	3.04	H		0.118	20.72		
		64-QAM	-28.54	12.33	11.59	3.04	H		0.123	20.88		
		256-QAM	-28.70	12.17	11.59	3.04	H		0.118	20.72		
3534.99		PI/2 BPSK	-28.42	12.36	11.64	3.05	H		0.125	20.95	1	1
		QPSK	-28.60	12.18	11.64	3.05	H		0.119	20.77		
		16-QAM	-28.49	12.29	11.64	3.05	H		0.123	20.88		
		64-QAM	-28.60	12.18	11.64	3.05	H		0.119	20.77		
		256-QAM	-28.74	12.04	11.64	3.05	H		0.116	20.63		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3470.01		PI/2 BPSK	-27.80	13.13	11.51	3.01	H		0.146	21.63	1	1
		QPSK	-28.23	12.70	11.51	3.01	H		0.132	21.20		
		16-QAM	-27.85	13.08	11.51	3.01	H		0.144	21.58		
		64-QAM	-28.14	12.79	11.51	3.01	H		0.135	21.29		
		256-QAM	-27.86	13.07	11.51	3.01	H		0.144	21.57		
3500.01	Sub6 n77(78)/ 40 MHz [30 kHz]	PI/2 BPSK	-28.40	12.47	11.59	3.04	H	< 1.00	0.127	21.02	1	104
		QPSK	-28.62	12.25	11.59	3.04	H		0.120	20.80		
		16-QAM	-28.56	12.31	11.59	3.04	H		0.122	20.86		
		64-QAM	-28.47	12.40	11.59	3.04	H		0.125	20.95		
		256-QAM	-28.45	12.42	11.59	3.04	H		0.125	20.97		
3529.98		PI/2 BPSK	-28.23	12.57	11.63	3.05	H		0.130	21.15	1	1
		QPSK	-28.56	12.24	11.63	3.05	H		0.121	20.82		
		16-QAM	-28.56	12.24	11.63	3.05	H		0.121	20.82		
		64-QAM	-28.37	12.43	11.63	3.05	H		0.126	21.01		
		256-QAM	-28.59	12.21	11.63	3.05	H		0.120	20.79		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3475.02		PI/2 BPSK	-27.82	13.11	11.52	3.02	H		0.145	21.61	1	1
		QPSK	-28.07	12.86	11.52	3.02	H		0.137	21.36		
		16-QAM	-27.95	12.98	11.52	3.02	H		0.141	21.48		
		64-QAM	-27.98	12.95	11.52	3.02	H		0.140	21.45		
		256-QAM	-27.88	13.05	11.52	3.02	H		0.143	21.55		
3500.01	Sub6 n77(78)/ 50 MHz [30 kHz]	PI/2 BPSK	-28.47	12.40	11.59	3.04	H	< 1.00	0.125	20.95	1	131
		QPSK	-28.60	12.27	11.59	3.04	H		0.121	20.82		
		16-QAM	-28.87	12.00	11.59	3.04	H		0.114	20.55		
		64-QAM	-28.63	12.24	11.59	3.04	H		0.120	20.79		
		256-QAM	-28.55	12.32	11.59	3.04	H		0.122	20.87		
3525.00		PI/2 BPSK	-28.51	12.29	11.62	3.04	H	< 1.00	0.122	20.87	1	1
		QPSK	-28.73	12.07	11.62	3.04	H		0.116	20.65		
		16-QAM	-28.57	12.23	11.62	3.04	H		0.121	20.81		
		64-QAM	-28.55	12.25	11.62	3.04	H		0.121	20.83		
		256-QAM	-28.60	12.20	11.62	3.04	H		0.120	20.78		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3480.00		PI/2 BPSK	-28.22	12.70	11.54	3.02	H		0.132	21.22	1	1
		QPSK	-28.39	12.53	11.54	3.02	H		0.127	21.05		
		16-QAM	-28.24	12.68	11.54	3.02	H		0.132	21.20		
		64-QAM	-28.23	12.69	11.54	3.02	H		0.132	21.21		
		256-QAM	-28.35	12.57	11.54	3.02	H		0.129	21.09		
3500.01	Sub6 n77(78)/ 60 MHz [30 kHz]	PI/2 BPSK	-28.31	12.56	11.59	3.04	H	< 1.00	0.129	21.11	1	1
		QPSK	-28.54	12.33	11.59	3.04	H		0.123	20.88		
		16-QAM	-28.45	12.42	11.59	3.04	H		0.125	20.97		
		64-QAM	-28.69	12.18	11.59	3.04	H		0.118	20.73		
		256-QAM	-28.76	12.11	11.59	3.04	H		0.116	20.66		
3519.99		PI/2 BPSK	-28.83	11.97	11.62	3.04	H		0.114	20.55	1	1
		QPSK	-28.88	11.92	11.62	3.04	H		0.112	20.50		
		16-QAM	-28.91	11.89	11.62	3.04	H		0.111	20.47		
		64-QAM	-29.10	11.70	11.62	3.04	H		0.107	20.28		
		256-QAM	-28.90	11.90	11.62	3.04	H		0.112	20.48		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3485.01		PI/2 BPSK	-28.10	12.83	11.55	3.03	H		0.137	21.35	1	1
		QPSK	-28.17	12.76	11.55	3.03	H		0.134	21.28		
		16-QAM	-28.28	12.65	11.55	3.03	H		0.131	21.17		
		64-QAM	-28.29	12.64	11.55	3.03	H		0.131	21.16		
		256-QAM	-28.19	12.74	11.55	3.03	H		0.134	21.26		
3500.01	Sub6 n77(78)/ 70 MHz [30 kHz]	PI/2 BPSK	-28.22	12.65	11.59	3.04	H	< 1.00	0.132	21.20	1	1
		QPSK	-28.27	12.60	11.59	3.04	H		0.130	21.15		
		16-QAM	-28.37	12.50	11.59	3.04	H		0.127	21.05		
		64-QAM	-28.49	12.38	11.59	3.04	H		0.124	20.93		
		256-QAM	-28.48	12.39	11.59	3.04	H		0.124	20.94		
3514.98		PI/2 BPSK	-28.60	12.21	11.61	3.04	H		0.120	20.78	1	1
		QPSK	-28.66	12.15	11.61	3.04	H		0.118	20.72		
		16-QAM	-28.81	12.00	11.61	3.04	H		0.114	20.57		
		64-QAM	-28.69	12.12	11.61	3.04	H		0.117	20.69		
		256-QAM	-28.69	12.12	11.61	3.04	H		0.117	20.69		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3490.02		PI/2 BPSK	-27.76	13.17	11.56	3.04	H		0.148	21.69	1	1
		QPSK	-28.08	12.85	11.56	3.04	H		0.137	21.37		
		16-QAM	-27.94	12.99	11.56	3.04	H		0.142	21.51		
		64-QAM	-28.10	12.83	11.56	3.04	H		0.137	21.35		
		256-QAM	-28.19	12.74	11.56	3.04	H		0.134	21.26		
3500.01	Sub6 n77(78)/ 80 MHz [30 kHz]	PI/2 BPSK	-28.05	12.82	11.59	3.04	H	< 1.00	0.137	21.37	1	1
		QPSK	-28.25	12.62	11.59	3.04	H		0.131	21.17		
		16-QAM	-28.34	12.53	11.59	3.04	H		0.128	21.08		
		64-QAM	-28.06	12.81	11.59	3.04	H		0.137	21.36		
		256-QAM	-28.06	12.81	11.59	3.04	H		0.137	21.36		
3510.00		PI/2 BPSK	-28.27	12.55	11.60	3.05	H		0.129	21.10	1	1
		QPSK	-28.42	12.40	11.60	3.05	H		0.125	20.95		
		16-QAM	-28.36	12.46	11.60	3.05	H		0.126	21.01		
		64-QAM	-28.34	12.48	11.60	3.05	H		0.127	21.03		
		256-QAM	-28.35	12.47	11.60	3.05	H		0.127	21.02		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3495.00		PI/2 BPSK	-27.91	13.00	11.57	3.04	H		0.142	21.53	1	1
		QPSK	-28.07	12.84	11.57	3.04	H		0.137	21.37		
		16-QAM	-27.98	12.93	11.57	3.04	H		0.140	21.46		
		64-QAM	-28.23	12.68	11.57	3.04	H		0.132	21.21		
		256-QAM	-28.01	12.90	11.57	3.04	H		0.139	21.43		
3500.01	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	-27.98	12.89	11.59	3.04	H	< 1.00	0.139	21.44	1	1
		QPSK	-28.08	12.79	11.59	3.04	H		0.136	21.34		
		16-QAM	-28.03	12.84	11.59	3.04	H		0.138	21.39		
		64-QAM	-28.20	12.67	11.59	3.04	H		0.132	21.22		
		256-QAM	-28.14	12.73	11.59	3.04	H		0.134	21.28		
3504.99		PI/2 BPSK	-28.03	12.83	11.59	3.05	H		0.137	21.37	1	1
		QPSK	-28.17	12.69	11.59	3.05	H		0.133	21.23		
		16-QAM	-28.08	12.78	11.59	3.05	H		0.136	21.32		
		64-QAM	-28.23	12.63	11.59	3.05	H		0.131	21.17		
		256-QAM	-28.32	12.54	11.59	3.05	H		0.128	21.08		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3500.01	Sub6 n77(78)/ 100 MHz [30 kHz]	PI/2 BPSK	-27.70	13.17	11.59	3.04	H	< 1.00	0.149	21.72	1	1
		QPSK	-27.88	12.99	11.59	3.04	H		0.143	21.54		
		16-QAM	-27.97	12.90	11.59	3.04	H		0.140	21.45		
		64-QAM	-27.90	12.97	11.59	3.04	H		0.142	21.52		
		256-QAM	-27.91	12.96	11.59	3.04	H		0.142	21.51		

8.2 RADIATED SPURIOUS EMISSIONS

■ NR Band:	<u>N77(78)</u>
■ Bandwidth:	<u>100 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>30 kHz</u>

Ch.	Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
633334 (3500.01)	7 000.02	-56.19	11.14	-58.79	4.45	V	-52.10	-13.00	1	1
	10 500.03	-55.05	11.71	-55.46	5.64	V	-49.39	-13.00		
	14 000.04	-63.50	13.09	-51.58	6.55	H	-45.04	-13.00		
	17 500.05	-73.33	17.36	-48.28	7.42	V	-38.34	-13.00		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77(78)	20 MHz	3500.01	BPSK	Full RB	0	4.49
			QPSK			5.82
			16-QAM			6.58
			64-QAM			6.74
			256-QAM			6.71
	30 MHz		BPSK			4.42
			QPSK			5.80
			16-QAM			6.58
			64-QAM			6.72
			256-QAM			6.72
	40 MHz		BPSK			4.39
			QPSK			5.77
			16-QAM			6.54
			64-QAM			6.72
			256-QAM			6.67
	50 MHz		BPSK			4.39
			QPSK			5.74
			16-QAM			6.51
			64-QAM			6.67
			256-QAM			6.68
	60 MHz		BPSK			4.79
			QPSK			5.79
			16-QAM			6.55
			64-QAM			6.69
			256-QAM			6.68
	70 MHz		BPSK			5.24
			QPSK			5.78
			16-QAM			6.52
			64-QAM			6.68
			256-QAM			6.69

	80 MHz		BPSK			4.40
			QPSK			5.73
			16-QAM			6.51
			64-QAM			6.68
			256-QAM			6.68
	90 MHz		BPSK			5.72
			QPSK			6.10
			16-QAM			6.62
			64-QAM			6.71
			256-QAM			6.69
	100 MHz		BPSK			4.44
			QPSK			5.76
			16-QAM			6.52
			64-QAM			6.69
			256-QAM			6.68

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 78 ~ 122.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	20 MHz	3500.01	BPSK	Full RB	0	17.932
			QPSK			17.956
			16-QAM			17.948
			64-QAM			17.967
			256-QAM			17.975
	30 MHz		BPSK			26.858
			QPSK			26.884
			16-QAM			26.896
			64-QAM			26.858
			256-QAM			26.888
	40 MHz		BPSK			35.820
			QPSK			35.815
			16-QAM			35.814
			64-QAM			35.817
			256-QAM			35.823
	50 MHz		BPSK			45.851
			QPSK			45.843
			16-QAM			45.819
			64-QAM			45.837
			256-QAM			45.828
	60 MHz		BPSK			57.928
			QPSK			58.052
			16-QAM			57.974
			64-QAM			57.922
			256-QAM			57.973
	70 MHz		BPSK			64.455
			QPSK			64.488
			16-QAM			64.533
			64-QAM			64.476
			256-QAM			64.574

	80 MHz		BPSK			77.255
			QPSK			77.230
			16-QAM			77.224
			64-QAM			77.276
			256-QAM			77.246
	90 MHz		BPSK			86.937
			QPSK			86.935
			16-QAM			86.915
			64-QAM			87.020
			256-QAM			87.030
	100 MHz		BPSK			96.555
			QPSK			96.494
			16-QAM			96.578
			64-QAM			96.635
			256-QAM			96.630

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 123 ~ 167.

8.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77(78)	20	3460.020	4.9452	26.600	-61.780	-35.180	-13.00
		3500.010	4.9652	26.600	-61.841	-35.241	
		3540.000	9.1526	27.520	-61.201	-33.681	
	30	3465.000	7.2383	27.520	-61.708	-34.188	
		3500.010	7.1785	27.520	-62.390	-34.870	
		3534.990	4.9352	26.600	-62.317	-35.717	
	40	3470.010	7.5075	27.520	-61.402	-33.882	
		3500.010	7.5374	27.520	-61.970	-34.450	
		3529.980	4.9053	26.600	-60.309	-33.709	
	50	3475.020	4.9452	26.600	-61.660	-35.060	
		3500.010	9.8804	27.520	-60.148	-32.628	
		3525.000	9.8505	27.520	-62.320	-34.800	
	60	3480.000	4.9552	26.600	-61.682	-35.082	
		3500.010	4.9552	26.600	-61.361	-34.761	
		3519.990	4.9452	26.600	-61.186	-34.586	
	70	3485.010	4.7757	26.600	-61.602	-35.002	
		3500.010	4.9851	26.600	-61.449	-34.849	
		3514.980	8.8834	27.520	-61.625	-34.105	
	80	3490.020	5.2244	27.520	-61.659	-34.139	
		3500.010	7.2184	27.520	-61.547	-34.027	
		3510.000	7.1885	27.520	-60.840	-33.320	
	90	3495.000	5.2044	27.520	-62.108	-34.588	
		3500.010	4.7558	26.600	-61.875	-35.275	
		3504.990	4.9452	26.600	-61.826	-35.226	
	100	3500.010	8.2951	27.520	-62.014	-34.494	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 168 ~ 217.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	26.080
1 – 5	26.600
5 – 10	27.520
10 – 15	29.120
15 – 20	31.710
Above 20	32.350

8.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 218 ~ 325.
2. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
 - Duty Cycle Factor(dB) = 6.990

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ☐ BandWidth: 20 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3460.020	100 %	+20(Ref)	3460 019 965	0.0	0.000 000	0.000
	100 %	-30	3460 019 927	-38.2	-0.000 001	-0.011
	100 %	-20	3460 019 927	-38.1	-0.000 001	-0.011
	100 %	-10	3460 019 924	-41.3	-0.000 001	-0.012
	100 %	0	3460 019 925	-39.9	-0.000 001	-0.012
	100 %	+10	3460 019 944	-21.4	-0.000 001	-0.006
	100 %	+30	3460 019 920	-45.5	-0.000 001	-0.013
	100 %	+40	3460 019 938	-26.7	-0.000 001	-0.008
	100 %	+50	3460 019 940	-25.0	-0.000 001	-0.007
	85 %	+20	3460 019 927	-38.2	-0.000 001	-0.011
	115 %	+20	3460 019 923	-42.2	-0.000 001	-0.012
3540.000	100 %	+20(Ref)	3539 999 976	0.0	0.000 000	0.000
	100 %	-30	3539 999 950	-26.2	-0.000 001	-0.007
	100 %	-20	3539 999 949	-27.7	-0.000 001	-0.008
	100 %	-10	3539 999 947	-29.1	-0.000 001	-0.008
	100 %	0	3539 999 947	-29.8	-0.000 001	-0.008
	100 %	+10	3539 999 946	-30.8	-0.000 001	-0.009
	100 %	+30	3539 999 945	-31.5	-0.000 001	-0.009
	100 %	+40	3539 999 944	-32.8	-0.000 001	-0.009
	100 %	+50	3539 999 943	-33.6	-0.000 001	-0.009
	85 %	+20	3539 999 948	-28.9	-0.000 001	-0.008
	115 %	+20	3539 999 939	-37.2	-0.000 001	-0.011

- ☐ BandWidth: 30 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3465.000	100 %	+20(Ref)	3464 999 973	0.0	0.000 000	0.000
	100 %	-30	3464 999 946	-26.9	-0.000 001	-0.008
	100 %	-20	3464 999 943	-29.9	-0.000 001	-0.009
	100 %	-10	3464 999 942	-31.6	-0.000 001	-0.009
	100 %	0	3464 999 942	-31.0	-0.000 001	-0.009
	100 %	+10	3464 999 940	-33.0	-0.000 001	-0.010
	100 %	+30	3464 999 939	-34.0	-0.000 001	-0.010
	100 %	+40	3464 999 939	-34.4	-0.000 001	-0.010
	100 %	+50	3464 999 939	-34.0	-0.000 001	-0.010
	85 %	+20	3464 999 952	-20.9	-0.000 001	-0.006
	115 %	+20	3464 999 942	-31.6	-0.000 001	-0.009
3534.990	100 %	+20(Ref)	3534 989 972	0.0	0.000 000	0.000
	100 %	-30	3534 989 941	-30.9	-0.000 001	-0.009
	100 %	-20	3534 989 943	-29.0	-0.000 001	-0.008
	100 %	-10	3534 989 941	-30.8	-0.000 001	-0.009
	100 %	0	3534 989 940	-31.7	-0.000 001	-0.009
	100 %	+10	3534 989 960	-11.6	0.000 000	-0.003
	100 %	+30	3534 989 940	-32.0	-0.000 001	-0.009
	100 %	+40	3534 989 937	-34.5	-0.000 001	-0.010
	100 %	+50	3534 989 940	-32.1	-0.000 001	-0.009
	85 %	+20	3534 989 941	-30.8	-0.000 001	-0.009
	115 %	+20	3534 989 941	-31.2	-0.000 001	-0.009

- ☐ BandWidth: 40 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3470.010	100 %	+20(Ref)	3470 009 965	0.0	0.000 000	0.000
	100 %	-30	3470 009 931	-34.2	-0.000 001	-0.010
	100 %	-20	3470 009 930	-34.9	-0.000 001	-0.010
	100 %	-10	3470 009 931	-34.2	-0.000 001	-0.010
	100 %	0	3470 009 930	-34.8	-0.000 001	-0.010
	100 %	+10	3470 009 929	-35.8	-0.000 001	-0.010
	100 %	+30	3470 009 928	-36.8	-0.000 001	-0.011
	100 %	+40	3470 009 929	-36.3	-0.000 001	-0.010
	100 %	+50	3470 009 928	-37.5	-0.000 001	-0.011
	85 %	+20	3470 009 933	-32.5	-0.000 001	-0.009
	115 %	+20	3470 009 930	-35.4	-0.000 001	-0.010
3529.980	100 %	+20(Ref)	3529 979 979	0.0	0.000 000	0.000
	100 %	-30	3529 979 956	-23.4	-0.000 001	-0.007
	100 %	-20	3529 979 957	-22.5	-0.000 001	-0.006
	100 %	-10	3529 979 956	-23.0	-0.000 001	-0.007
	100 %	0	3529 979 960	-19.5	-0.000 001	-0.006
	100 %	+10	3529 979 957	-22.2	-0.000 001	-0.006
	100 %	+30	3529 979 976	-3.0	0.000 000	-0.001
	100 %	+40	3529 979 955	-23.8	-0.000 001	-0.007
	100 %	+50	3529 979 973	-6.4	0.000 000	-0.002
	85 %	+20	3529 979 971	-8.2	0.000 000	-0.002
	115 %	+20	3529 979 958	-21.2	-0.000 001	-0.006

- ☐ BandWidth: 50 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3475.020	100 %	+20(Ref)	3475 019 985	0.0	0.000 000	0.000
	100 %	-30	3475 019 966	-18.1	-0.000 001	-0.005
	100 %	-20	3475 019 967	-17.2	0.000 000	-0.005
	100 %	-10	3475 019 963	-21.4	-0.000 001	-0.006
	100 %	0	3475 019 965	-19.6	-0.000 001	-0.006
	100 %	+10	3475 019 965	-19.4	-0.000 001	-0.006
	100 %	+30	3475 019 964	-20.8	-0.000 001	-0.006
	100 %	+40	3475 019 963	-21.2	-0.000 001	-0.006
	100 %	+50	3475 019 966	-18.8	-0.000 001	-0.005
	85 %	+20	3475 019 964	-20.6	-0.000 001	-0.006
	115 %	+20	3475 019 963	-21.8	-0.000 001	-0.006
3525.000	100 %	+20(Ref)	3524 999 974	0.0	0.000 000	0.000
	100 %	-30	3524 999 947	-26.4	-0.000 001	-0.008
	100 %	-20	3524 999 948	-25.9	-0.000 001	-0.007
	100 %	-10	3524 999 946	-27.3	-0.000 001	-0.008
	100 %	0	3524 999 946	-27.3	-0.000 001	-0.008
	100 %	+10	3524 999 946	-28.0	-0.000 001	-0.008
	100 %	+30	3524 999 946	-27.2	-0.000 001	-0.008
	100 %	+40	3524 999 945	-28.2	-0.000 001	-0.008
	100 %	+50	3524 999 946	-27.4	-0.000 001	-0.008
	85 %	+20	3524 999 947	-26.9	-0.000 001	-0.008
	115 %	+20	3524 999 948	-25.5	-0.000 001	-0.007

- ☐ BandWidth: 60 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3480.000	100 %	+20(Ref)	3479 999 971	0.0	0.000 000	0.000
	100 %	-30	3479 999 938	-32.5	-0.000 001	-0.009
	100 %	-20	3479 999 940	-31.2	-0.000 001	-0.009
	100 %	-10	3479 999 939	-31.9	-0.000 001	-0.009
	100 %	0	3479 999 959	-11.4	0.000 000	-0.003
	100 %	+10	3479 999 939	-32.2	-0.000 001	-0.009
	100 %	+30	3479 999 938	-32.8	-0.000 001	-0.009
	100 %	+40	3479 999 936	-35.1	-0.000 001	-0.010
	100 %	+50	3479 999 936	-35.2	-0.000 001	-0.010
	85 %	+20	3479 999 936	-34.8	-0.000 001	-0.010
	115 %	+20	3479 999 939	-32.1	-0.000 001	-0.009
3519.990	100 %	+20(Ref)	3519 989 978	0.0	0.000 000	0.000
	100 %	-30	3519 989 956	-21.2	-0.000 001	-0.006
	100 %	-20	3519 989 953	-24.6	-0.000 001	-0.007
	100 %	-10	3519 989 955	-23.2	-0.000 001	-0.007
	100 %	0	3519 989 955	-23.1	-0.000 001	-0.007
	100 %	+10	3519 989 954	-23.9	-0.000 001	-0.007
	100 %	+30	3519 989 954	-23.5	-0.000 001	-0.007
	100 %	+40	3519 989 953	-24.3	-0.000 001	-0.007
	100 %	+50	3519 989 953	-24.5	-0.000 001	-0.007
	85 %	+20	3519 989 952	-25.9	-0.000 001	-0.007
	115 %	+20	3519 989 953	-24.2	-0.000 001	-0.007

- ☐ BandWidth: 70 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3485.010	100 %	+20(Ref)	3485 009 958	0.0	0.000 000	0.000
	100 %	-30	3485 009 915	-42.7	-0.000 001	-0.012
	100 %	-20	3485 009 936	-21.5	-0.000 001	-0.006
	100 %	-10	3485 009 936	-22.0	-0.000 001	-0.006
	100 %	0	3485 009 936	-22.0	-0.000 001	-0.006
	100 %	+10	3485 009 935	-22.5	-0.000 001	-0.006
	100 %	+30	3485 009 932	-25.7	-0.000 001	-0.007
	100 %	+40	3485 009 931	-26.2	-0.000 001	-0.008
	100 %	+50	3485 009 934	-23.4	-0.000 001	-0.007
	85 %	+20	3485 009 927	-30.6	-0.000 001	-0.009
	115 %	+20	3485 009 936	-21.3	-0.000 001	-0.006
3514.980	100 %	+20(Ref)	3514 979 989	0.0	0.000 000	0.000
	100 %	-30	3514 979 978	-11.5	0.000 000	-0.003
	100 %	-20	3514 979 978	-11.5	0.000 000	-0.003
	100 %	-10	3514 979 977	-11.6	0.000 000	-0.003
	100 %	0	3514 979 977	-12.1	0.000 000	-0.003
	100 %	+10	3514 979 977	-12.1	0.000 000	-0.003
	100 %	+30	3514 979 951	-38.2	-0.000 001	-0.011
	100 %	+40	3514 979 975	-13.7	0.000 000	-0.004
	100 %	+50	3514 979 975	-14.3	0.000 000	-0.004
	85 %	+20	3514 979 973	-15.9	0.000 000	-0.005
	115 %	+20	3514 979 970	-18.7	-0.000 001	-0.005

- ☐ BandWidth: 80 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3490.020	100 %	+20(Ref)	3490 019 974	0.0	0.000 000	0.000
	100 %	-30	3490 019 947	-26.6	-0.000 001	-0.008
	100 %	-20	3490 019 943	-30.5	-0.000 001	-0.009
	100 %	-10	3490 019 948	-26.0	-0.000 001	-0.007
	100 %	0	3490 019 946	-27.3	-0.000 001	-0.008
	100 %	+10	3490 019 946	-27.9	-0.000 001	-0.008
	100 %	+30	3490 019 944	-29.4	-0.000 001	-0.008
	100 %	+40	3490 019 944	-29.7	-0.000 001	-0.009
	100 %	+50	3490 019 944	-29.7	-0.000 001	-0.009
	85 %	+20	3490 019 943	-30.3	-0.000 001	-0.009
	115 %	+20	3490 019 944	-29.2	-0.000 001	-0.008
3510.000	100 %	+20(Ref)	3509 999 967	0.0	0.000 000	0.000
	100 %	-30	3509 999 935	-32.0	-0.000 001	-0.009
	100 %	-20	3509 999 934	-33.0	-0.000 001	-0.009
	100 %	-10	3509 999 932	-34.9	-0.000 001	-0.010
	100 %	0	3509 999 959	-8.5	0.000 000	-0.002
	100 %	+10	3509 999 933	-33.8	-0.000 001	-0.010
	100 %	+30	3509 999 932	-35.4	-0.000 001	-0.010
	100 %	+40	3509 999 932	-35.1	-0.000 001	-0.010
	100 %	+50	3509 999 932	-35.0	-0.000 001	-0.010
	85 %	+20	3509 999 936	-31.1	-0.000 001	-0.009
	115 %	+20	3509 999 932	-35.0	-0.000 001	-0.010

- ☐ BandWidth: 90 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3495.000	100 %	+20(Ref)	3494 999 991	0.0	0.000 000	0.000
	100 %	-30	3494 999 965	-26.2	-0.000 001	-0.008
	100 %	-20	3494 999 981	-10.7	0.000 000	-0.003
	100 %	-10	3494 999 981	-9.7	0.000 000	-0.003
	100 %	0	3494 999 981	-9.7	0.000 000	-0.003
	100 %	+10	3494 999 962	-28.9	-0.000 001	-0.008
	100 %	+30	3494 999 982	-9.7	0.000 000	-0.003
	100 %	+40	3494 999 977	-13.8	0.000 000	-0.004
	100 %	+50	3494 999 961	-30.0	-0.000 001	-0.009
	85 %	+20	3494 999 968	-23.2	-0.000 001	-0.007
	115 %	+20	3494 999 961	-30.6	-0.000 001	-0.009
3504.990	100 %	+20(Ref)	3504 989 982	0.0	0.000 000	0.000
	100 %	-30	3504 989 964	-17.8	-0.000 001	-0.005
	100 %	-20	3504 989 964	-17.6	-0.000 001	-0.005
	100 %	-10	3504 989 963	-19.3	-0.000 001	-0.006
	100 %	0	3504 989 963	-18.9	-0.000 001	-0.005
	100 %	+10	3504 989 963	-18.9	-0.000 001	-0.005
	100 %	+30	3504 989 962	-19.5	-0.000 001	-0.006
	100 %	+40	3504 989 963	-19.2	-0.000 001	-0.005
	100 %	+50	3504 989 961	-21.4	-0.000 001	-0.006
	85 %	+20	3504 989 965	-16.5	0.000 000	-0.005
	115 %	+20	3504 989 964	-18.4	-0.000 001	-0.005

- ☐ BandWidth: 100 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3500.010	100 %	+20(Ref)	3500 009 978	0.0	0.000 000	0.000
	100 %	-30	3500 009 957	-20.8	-0.000 001	-0.006
	100 %	-20	3500 009 938	-39.7	-0.000 001	-0.011
	100 %	-10	3500 009 956	-22.2	-0.000 001	-0.006
	100 %	0	3500 009 956	-22.2	-0.000 001	-0.006
	100 %	+10	3500 009 956	-22.1	-0.000 001	-0.006
	100 %	+30	3500 009 956	-21.7	-0.000 001	-0.006
	100 %	+40	3500 009 937	-41.0	-0.000 001	-0.012
	100 %	+50	3500 009 937	-40.6	-0.000 001	-0.012
	85 %	+20	3500 009 947	-30.9	-0.000 001	-0.009
	115 %	+20	3500 009 939	-38.6	-0.000 001	-0.011

9. TEST DATA (3700 MHz - 3980 MHz)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3710.01		PI/2 BPSK	-28.82	12.57	11.80	3.08	H		0.135	21.29	1	49
		QPSK	-28.99	12.40	11.80	3.08	H		0.129	21.12		
		16-QAM	-28.95	12.44	11.80	3.08	H		0.131	21.16		
		64-QAM	-28.89	12.50	11.80	3.08	H		0.132	21.22		
		256-QAM	-28.87	12.52	11.80	3.08	H		0.133	21.24		
3840.00	Sub6 n77(78)/ 20 MHz [30 kHz]	PI/2 BPSK	-30.16	12.84	11.25	3.20	H		0.123	20.89	1	1
		QPSK	-30.29	12.71	11.25	3.20	H		0.119	20.76		
		16-QAM	-30.34	12.66	11.25	3.20	H	< 1.00	0.118	20.71		
		64-QAM	-30.27	12.73	11.25	3.20	H		0.120	20.78		
		256-QAM	-30.32	12.68	11.25	3.20	H		0.118	20.73		
3969.99		PI/2 BPSK	-30.70	12.55	11.28	3.25	H		0.114	20.58	1	49
		QPSK	-31.13	12.12	11.28	3.25	H		0.104	20.15		
		16-QAM	-30.95	12.30	11.28	3.25	H		0.108	20.33		
		64-QAM	-30.88	12.37	11.28	3.25	H		0.110	20.40		
		256-QAM	-30.99	12.26	11.28	3.25	H		0.107	20.29		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3715.02		PI/2 BPSK	-28.47	12.93	11.78	3.11	H		0.145	21.60	1	76
		QPSK	-28.48	12.92	11.78	3.11	H		0.144	21.59		
		16-QAM	-28.63	12.77	11.78	3.11	H		0.139	21.44		
		64-QAM	-28.59	12.81	11.78	3.11	H		0.141	21.48		
		256-QAM	-28.69	12.71	11.78	3.11	H		0.137	21.38		
3840.00	Sub6 n77(78)/ 30 MHz [30 kHz]	PI/2 BPSK	-29.81	13.19	11.25	3.20	H	< 1.00	0.133	21.24	1	1
		QPSK	-29.99	13.01	11.25	3.20	H		0.128	21.06		
		16-QAM	-29.91	13.09	11.25	3.20	H		0.130	21.14		
		64-QAM	-30.10	12.90	11.25	3.20	H		0.125	20.95		
		256-QAM	-30.05	12.95	11.25	3.20	H		0.126	21.00		
3964.98		PI/2 BPSK	-31.01	12.25	11.27	3.24	H		0.107	20.28	1	76
		QPSK	-31.33	11.93	11.27	3.24	H		0.099	19.96		
		16-QAM	-31.15	12.11	11.27	3.24	H		0.103	20.14		
		64-QAM	-31.04	12.22	11.27	3.24	H		0.106	20.25		
		256-QAM	-31.10	12.16	11.27	3.24	H		0.105	20.19		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3720.00		PI/2 BPSK	-28.45	12.95	11.77	3.13	H		0.144	21.59	1	104
		QPSK	-28.78	12.62	11.77	3.13	H		0.134	21.26		
		16-QAM	-28.56	12.84	11.77	3.13	H		0.141	21.48		
		64-QAM	-28.77	12.63	11.77	3.13	H		0.134	21.27		
		256-QAM	-28.66	12.74	11.77	3.13	H		0.137	21.38		
3840.00	Sub6 n77(78)/ 40 MHz [30 kHz]	PI/2 BPSK	-29.89	13.11	11.25	3.20	H	< 1.00	0.131	21.16	1	1
		QPSK	-30.37	12.63	11.25	3.20	H		0.117	20.68		
		16-QAM	-30.02	12.98	11.25	3.20	H		0.127	21.03		
		64-QAM	-30.30	12.70	11.25	3.20	H		0.119	20.75		
		256-QAM	-30.02	12.98	11.25	3.20	H		0.127	21.03		
3960.00		PI/2 BPSK	-31.04	12.26	11.25	3.24	H		0.106	20.27	1	104
		QPSK	-31.45	11.85	11.25	3.24	H		0.097	19.86		
		16-QAM	-31.27	12.03	11.25	3.24	H		0.101	20.04		
		64-QAM	-31.13	12.17	11.25	3.24	H		0.104	20.18		
		256-QAM	-31.15	12.15	11.25	3.24	H		0.104	20.16		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3725.10		PI/2 BPSK	-28.93	12.52	11.75	3.15	H		0.129	21.12	1	131
		QPSK	-29.00	12.45	11.75	3.15	H		0.127	21.05		
		16-QAM	-28.98	12.47	11.75	3.15	H		0.128	21.07		
		64-QAM	-28.98	12.47	11.75	3.15	H		0.128	21.07		
		256-QAM	-28.98	12.47	11.75	3.15	H		0.128	21.07		
3840.00	Sub6 n77(78)/ 50 MHz [30 kHz]	PI/2 BPSK	-30.31	12.69	11.25	3.20	H	< 1.00	0.119	20.74	1	1
		QPSK	-30.41	12.59	11.25	3.20	H		0.116	20.64		
		16-QAM	-30.43	12.57	11.25	3.20	H		0.115	20.62		
		64-QAM	-30.38	12.62	11.25	3.20	H		0.117	20.67		
		256-QAM	-30.54	12.46	11.25	3.20	H		0.113	20.51		
3954.99		PI/2 BPSK	-30.59	12.71	11.24	3.23	H		0.118	20.72	1	131
		QPSK	-31.04	12.26	11.24	3.23	H		0.106	20.27		
		16-QAM	-31.29	12.01	11.24	3.23	H		0.101	20.02		
		64-QAM	-31.05	12.25	11.24	3.23	H		0.106	20.26		
		256-QAM	-30.91	12.39	11.24	3.23	H		0.110	20.40		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3730.02		PI/2 BPSK	-28.70	12.80	11.73	3.17	H		0.137	21.36	1	82
		QPSK	-28.91	12.59	11.73	3.17	H		0.130	21.15		
		16-QAM	-29.02	12.48	11.73	3.17	H		0.127	21.04		
		64-QAM	-28.85	12.65	11.73	3.17	H		0.132	21.21		
		256-QAM	-29.10	12.40	11.73	3.17	H		0.125	20.96		
3840.00	Sub6 n77(78)/ 60 MHz [30 kHz]	PI/2 BPSK	-30.06	12.94	11.25	3.20	H	< 1.00	0.126	20.99	1	1
		QPSK	-30.39	12.61	11.25	3.20	H		0.116	20.66		
		16-QAM	-30.42	12.58	11.25	3.20	H		0.116	20.63		
		64-QAM	-30.34	12.66	11.25	3.20	H		0.118	20.71		
		256-QAM	-30.48	12.52	11.25	3.20	H		0.114	20.57		
3949.98		PI/2 BPSK	-30.94	12.36	11.23	3.22	H		0.109	20.37	1	82
		QPSK	-31.04	12.26	11.23	3.22	H		0.106	20.27		
		16-QAM	-31.00	12.30	11.23	3.22	H		0.107	20.31		
		64-QAM	-31.03	12.27	11.23	3.22	H		0.107	20.28		
		256-QAM	-31.14	12.16	11.23	3.22	H		0.104	20.17		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3735.00		PI/2 BPSK	-28.92	12.63	11.72	3.18	H		0.131	21.17	1	94
		QPSK	-29.18	12.37	11.72	3.18	H		0.123	20.91		
		16-QAM	-29.06	12.49	11.72	3.18	H		0.127	21.03		
		64-QAM	-29.05	12.50	11.72	3.18	H		0.127	21.04		
		256-QAM	-29.05	12.50	11.72	3.18	H		0.127	21.04		
3840.00	Sub6 n77(78)/ 70 MHz [30 kHz]	PI/2 BPSK	-30.06	12.94	11.25	3.20	H	< 1.00	0.126	20.99	1	1
		QPSK	-30.08	12.92	11.25	3.20	H		0.125	20.97		
		16-QAM	-30.18	12.82	11.25	3.20	H		0.122	20.87		
		64-QAM	-30.18	12.82	11.25	3.20	H		0.122	20.87		
		256-QAM	-30.09	12.91	11.25	3.20	H		0.125	20.96		
3945.00		PI/2 BPSK	-30.80	12.54	11.21	3.23	H		0.113	20.52	1	187
		QPSK	-30.88	12.46	11.21	3.23	H		0.111	20.44		
		16-QAM	-30.88	12.46	11.21	3.23	H		0.111	20.44		
		64-QAM	-30.85	12.49	11.21	3.23	H		0.111	20.47		
		256-QAM	-31.02	12.32	11.21	3.23	H		0.107	20.30		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3740.01		PI/2 BPSK	-28.88	12.72	11.70	3.19	H		0.133	21.23	1	108
		QPSK	-29.25	12.35	11.70	3.19	H		0.122	20.86		
		16-QAM	-28.96	12.64	11.70	3.19	H		0.130	21.15		
		64-QAM	-29.17	12.43	11.70	3.19	H		0.124	20.94		
		256-QAM	-29.06	12.54	11.70	3.19	H		0.127	21.05		
3840.00	Sub6 n77(78)/ 80 MHz [30 kHz]	PI/2 BPSK	-29.93	13.07	11.25	3.20	H	< 1.00	0.129	21.12	1	1
		QPSK	-30.11	12.89	11.25	3.20	H		0.124	20.94		
		16-QAM	-30.03	12.97	11.25	3.20	H		0.127	21.02		
		64-QAM	-30.13	12.87	11.25	3.20	H		0.124	20.92		
		256-QAM	-30.03	12.97	11.25	3.20	H		0.127	21.02		
3939.99		PI/2 BPSK	-30.63	12.73	11.20	3.23	H		0.118	20.70	1	215
		QPSK	-30.77	12.59	11.20	3.23	H		0.114	20.56		
		16-QAM	-30.64	12.72	11.20	3.23	H		0.117	20.69		
		64-QAM	-30.77	12.59	11.20	3.23	H		0.114	20.56		
		256-QAM	-30.74	12.62	11.20	3.23	H		0.115	20.59		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3745.02		PI/2 BPSK	-29.09	12.54	11.69	3.18	H		0.127	21.05	1	122
		QPSK	-29.12	12.51	11.69	3.18	H		0.127	21.02		
		16-QAM	-29.22	12.41	11.69	3.18	H		0.124	20.92		
		64-QAM	-29.26	12.37	11.69	3.18	H		0.123	20.88		
		256-QAM	-29.39	12.24	11.69	3.18	H		0.119	20.75		
3840.00	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	-29.71	13.29	11.25	3.20	H	< 1.00	0.136	21.34	1	1
		QPSK	-29.76	13.24	11.25	3.20	H		0.135	21.29		
		16-QAM	-29.72	13.28	11.25	3.20	H		0.136	21.33		
		64-QAM	-30.06	12.94	11.25	3.20	H		0.126	20.99		
		256-QAM	-29.72	13.28	11.25	3.20	H		0.136	21.33		
3934.98		PI/2 BPSK	-30.40	12.98	11.18	3.24	H		0.124	20.92	1	243
		QPSK	-30.66	12.72	11.18	3.24	H		0.116	20.66		
		16-QAM	-30.78	12.60	11.18	3.24	H		0.113	20.54		
		64-QAM	-30.47	12.91	11.18	3.24	H		0.122	20.85		
		256-QAM	-30.80	12.58	11.18	3.24	H		0.113	20.52		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3750.00		PI/2 BPSK	-28.49	13.18	11.67	3.17	H		0.147	21.68	1	136
		QPSK	-28.66	13.01	11.67	3.17	H		0.142	21.51		
		16-QAM	-28.63	13.04	11.67	3.17	H		0.143	21.54		
		64-QAM	-28.52	13.15	11.67	3.17	H		0.146	21.65		
		256-QAM	-28.74	12.93	11.67	3.17	H		0.139	21.43		
3840.00	Sub6 n77(78)/ 100 MHz [30 kHz]	PI/2 BPSK	-29.05	13.95	11.25	3.20	H	< 1.00	0.159	22.00	1	1
		QPSK	-29.14	13.86	11.25	3.20	H		0.155	21.91		
		16-QAM	-29.26	13.74	11.25	3.20	H		0.151	21.79		
		64-QAM	-29.06	13.94	11.25	3.20	H		0.158	21.99		
		256-QAM	-29.06	13.94	11.25	3.20	H		0.158	21.99		
3930.00		PI/2 BPSK	-30.40	13.01	11.17	3.26	H		0.124	20.92	1	271
		QPSK	-30.66	12.75	11.17	3.26	H		0.116	20.66		
		16-QAM	-30.53	12.88	11.17	3.26	H		0.120	20.79		
		64-QAM	-30.49	12.92	11.17	3.26	H		0.121	20.83		
		256-QAM	-30.61	12.80	11.17	3.26	H		0.118	20.71		

9.2 RADIATED SPURIOUS EMISSIONS

■ NR Band:	<u>N77(78)</u>
■ Bandwidth:	<u>100 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>30 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
650000 (3750.00)	7 500.00	-53.18	11.58	-55.94	4.60	H	-48.96	-13.00	1	136
	11 250.00	-56.02	12.26	-56.14	5.89	V	-49.77	-13.00		
	15 000.00	-69.23	14.25	-51.77	6.78	H	-44.30	-13.00		
656000 (3840.00)	7 680.00	-55.27	11.60	-57.73	4.70	V	-50.83	-13.00	1	1
	11 520.00	-56.52	12.51	-56.14	5.87	H	-49.50	-13.00		
	15 360.00	-69.47	15.21	-49.85	6.88	H	-41.52	-13.00		
662000 (3930.00)	7 860.00	-56.61	11.20	-57.48	4.75	H	-51.03	-13.00	1	271
	11 790.00	-56.01	13.03	-55.78	6.02	H	-48.77	-13.00		
	15 720.00	-69.33	16.02	-51.45	6.95	H	-42.38	-13.00		

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77(78)	20 MHz	3840.00	BPSK	Full RB	0	4.60
			QPSK			5.67
			16-QAM			6.43
			64-QAM			6.59
			256-QAM			6.65
	30 MHz		BPSK			4.77
			QPSK			5.70
			16-QAM			6.32
			64-QAM			6.48
			256-QAM			6.55
	40 MHz		BPSK			6.09
			QPSK			6.14
			16-QAM			6.45
			64-QAM			6.54
			256-QAM			6.56
	50 MHz		BPSK			4.36
			QPSK			5.57
			16-QAM			6.24
			64-QAM			6.37
			256-QAM			6.44
	60 MHz		BPSK			4.50
			QPSK			5.55
			16-QAM			6.23
			64-QAM			6.35
			256-QAM			6.45
	70 MHz		BPSK			4.40
			QPSK			5.47
			16-QAM			6.21
			64-QAM			6.35
			256-QAM			6.42

	80 MHz		BPSK			4.59
			QPSK			5.44
			16-QAM			6.17
			64-QAM			6.32
			256-QAM			6.38
	90 MHz		BPSK			4.39
			QPSK			5.66
			16-QAM			6.30
			64-QAM			6.44
			256-QAM			6.55
	100 MHz		BPSK			4.86
			QPSK			5.67
			16-QAM			6.28
			64-QAM			6.46
			256-QAM			6.53

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 327 ~ 371.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	20 MHz	3840.00	BPSK	Full RB	0	17.932
			QPSK			17.895
			16-QAM			17.957
			64-QAM			17.952
			256-QAM			17.955
	30 MHz		BPSK			26.889
			QPSK			26.908
			16-QAM			26.905
			64-QAM			26.889
			256-QAM			26.848
	40 MHz		BPSK			35.860
			QPSK			35.802
			16-QAM			35.842
			64-QAM			35.841
			256-QAM			35.864
	50 MHz		BPSK			45.903
			QPSK			45.940
			16-QAM			45.927
			64-QAM			45.972
			256-QAM			45.892
	60 MHz		BPSK			58.090
			QPSK			58.084
			16-QAM			58.013
			64-QAM			57.983
			256-QAM			58.033
	70 MHz		BPSK			64.731
			QPSK			64.885
			16-QAM			64.813
			64-QAM			64.825
			256-QAM			64.696

	80 MHz		BPSK			77.621
			QPSK			77.716
			16-QAM			77.799
			64-QAM			77.770
			256-QAM			77.480
	90 MHz		BPSK			86.911
			QPSK			86.966
			16-QAM			86.860
			64-QAM			86.922
			256-QAM			86.972
	100 MHz		BPSK			96.660
			QPSK			96.511
			16-QAM			96.591
			64-QAM			96.621
			256-QAM			96.607

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 372 ~ 146.

9.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77(78)	20	3710.010	7.1486	27.520	-62.450	-34.930	-13.00
		3840.000	5.0050	27.520	-62.690	-35.170	
		3969.990	9.1326	27.520	-63.890	-36.370	
	30	3715.020	5.2244	27.520	-62.133	-34.613	
		3840.000	9.8903	27.520	-61.794	-34.274	
		3964.980	4.9652	26.600	-61.495	-34.895	
	40	3720.000	7.1685	27.520	-60.661	-33.141	
		3840.000	7.2283	27.520	-62.258	-34.738	
		3960.000	5.1945	27.520	-60.737	-33.217	
	50	3725.010	4.9951	26.600	-61.550	-34.950	
		3840.000	4.9153	26.600	-62.013	-35.413	
		3954.990	4.9452	26.600	-61.757	-35.157	
	60	3730.020	4.9452	26.600	-60.455	-33.855	
		3840.000	4.8954	26.600	-61.607	-35.007	
		3949.980	4.9253	26.600	-62.344	-35.744	
	70	3735.000	5.1646	27.520	-61.313	-33.793	
		3840.000	7.9960	27.520	-60.861	-33.341	
		3945.000	5.9721	27.520	-62.351	-34.831	
	80	3740.010	5.1945	27.520	-62.064	-34.544	
		3840.000	4.9552	26.600	-61.490	-34.890	
		3939.990	5.9921	27.520	-62.246	-34.726	
	90	3745.020	4.9751	26.600	-61.469	-34.869	
		3840.000	6.0419	27.520	-62.094	-34.574	
		3934.980	9.8405	27.520	-61.820	-34.300	
	100	3750.000	4.9652	26.600	-61.039	-34.439	
		3840.000	5.2643	27.520	-61.228	-33.708	
		3930.000	9.6909	27.520	-61.524	-34.004	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 417 ~ 470.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	26.080
1 – 5	26.600
5 – 10	27.520
10 – 15	29.120
15 – 20	31.710
Above 20	32.350

9.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 471 ~ 578.
2. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
 - Duty Cycle Factor(dB) = 6.990

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ☐ BandWidth: 20 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3710.010	100 %	+20(Ref)	3710 009 972	0.0	0.000 000	0.000
	100 %	-30	3710 009 955	-17.7	0.000 000	-0.005
	100 %	-20	3710 009 947	-25.5	-0.000 001	-0.007
	100 %	-10	3710 009 939	-33.6	-0.000 001	-0.009
	100 %	0	3710 009 946	-25.9	-0.000 001	-0.007
	100 %	+10	3710 009 944	-28.7	-0.000 001	-0.008
	100 %	+30	3710 009 937	-35.5	-0.000 001	-0.010
	100 %	+40	3710 009 929	-43.2	-0.000 001	-0.012
	100 %	+50	3710 009 956	-16.2	0.000 000	-0.004
	85 %	+20	3710 009 952	-20.6	-0.000 001	-0.006
	115 %	+20	3710 009 950	-21.9	-0.000 001	-0.006
3969.990	100 %	+20(Ref)	3969 989 987	0.0	0.000 000	0.000
	100 %	-30	3969 989 969	-18.2	0.000 000	-0.005
	100 %	-20	3969 989 966	-21.4	-0.000 001	-0.005
	100 %	-10	3969 989 962	-24.9	-0.000 001	-0.006
	100 %	0	3969 989 959	-27.7	-0.000 001	-0.007
	100 %	+10	3969 989 954	-33.2	-0.000 001	-0.008
	100 %	+30	3969 989 950	-37.4	-0.000 001	-0.009
	100 %	+40	3969 989 963	-24.3	-0.000 001	-0.006
	100 %	+50	3969 989 964	-22.8	-0.000 001	-0.006
	85 %	+20	3969 989 968	-18.9	0.000 000	-0.005
	115 %	+20	3969 989 955	-32.2	-0.000 001	-0.008

- ☐ BandWidth: 30 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3715.020	100 %	+20(Ref)	3715 019 958	0.0	0.000 000	0.000
	100 %	-30	3715 019 930	-28.4	-0.000 001	-0.008
	100 %	-20	3715 019 927	-31.1	-0.000 001	-0.008
	100 %	-10	3715 019 923	-35.2	-0.000 001	-0.009
	100 %	0	3715 019 939	-19.4	-0.000 001	-0.005
	100 %	+10	3715 019 916	-42.3	-0.000 001	-0.011
	100 %	+30	3715 019 930	-28.0	-0.000 001	-0.008
	100 %	+40	3715 019 927	-30.9	-0.000 001	-0.008
	100 %	+50	3715 019 924	-33.9	-0.000 001	-0.009
	85 %	+20	3715 019 938	-20.2	-0.000 001	-0.005
	115 %	+20	3715 019 938	-19.9	-0.000 001	-0.005
3964.980	100 %	+20(Ref)	3964 979 983	0.0	0.000 000	0.000
	100 %	-30	3964 979 964	-19.5	0.000 000	-0.005
	100 %	-20	3964 979 964	-19.9	-0.000 001	-0.005
	100 %	-10	3964 979 960	-23.8	-0.000 001	-0.006
	100 %	0	3964 979 978	-4.9	0.000 000	-0.001
	100 %	+10	3964 979 955	-28.8	-0.000 001	-0.007
	100 %	+30	3964 979 972	-11.5	0.000 000	-0.003
	100 %	+40	3964 979 949	-34.4	-0.000 001	-0.009
	100 %	+50	3964 979 966	-17.5	0.000 000	-0.004
	85 %	+20	3964 979 964	-18.9	0.000 000	-0.005
	115 %	+20	3964 979 964	-19.6	0.000 000	-0.005

- ☐ BandWidth: 40 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3720.000	100 %	+20(Ref)	3719 999 974	0.0	0.000 000	0.000
	100 %	-30	3719 999 946	-27.4	-0.000 001	-0.007
	100 %	-20	3719 999 944	-29.6	-0.000 001	-0.008
	100 %	-10	3719 999 940	-33.4	-0.000 001	-0.009
	100 %	0	3719 999 940	-33.9	-0.000 001	-0.009
	100 %	+10	3719 999 938	-35.8	-0.000 001	-0.010
	100 %	+30	3719 999 956	-18.0	0.000 000	-0.005
	100 %	+40	3719 999 956	-18.0	0.000 000	-0.005
	100 %	+50	3719 999 951	-22.4	-0.000 001	-0.006
	85 %	+20	3719 999 954	-19.6	-0.000 001	-0.005
	115 %	+20	3719 999 953	-20.8	-0.000 001	-0.006
3960.000	100 %	+20(Ref)	3959 999 967	0.0	0.000 000	0.000
	100 %	-30	3959 999 932	-35.0	-0.000 001	-0.009
	100 %	-20	3959 999 951	-16.3	0.000 000	-0.004
	100 %	-10	3959 999 950	-16.9	0.000 000	-0.004
	100 %	0	3959 999 928	-39.1	-0.000 001	-0.010
	100 %	+10	3959 999 947	-20.6	-0.000 001	-0.005
	100 %	+30	3959 999 947	-20.1	-0.000 001	-0.005
	100 %	+40	3959 999 943	-24.0	-0.000 001	-0.006
	100 %	+50	3959 999 941	-25.8	-0.000 001	-0.007
	85 %	+20	3959 999 947	-20.2	-0.000 001	-0.005
	115 %	+20	3959 999 946	-21.6	-0.000 001	-0.005

- ☐ BandWidth: 50 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3725.010	100 %	+20(Ref)	3725 009 979	0.0	0.000 000	0.000
	100 %	-30	3725 009 957	-21.7	-0.000 001	-0.006
	100 %	-20	3725 009 954	-24.9	-0.000 001	-0.007
	100 %	-10	3725 009 950	-28.5	-0.000 001	-0.008
	100 %	0	3725 009 949	-29.8	-0.000 001	-0.008
	100 %	+10	3725 009 949	-29.5	-0.000 001	-0.008
	100 %	+30	3725 009 947	-31.5	-0.000 001	-0.008
	100 %	+40	3725 009 948	-31.4	-0.000 001	-0.008
	100 %	+50	3725 009 943	-35.6	-0.000 001	-0.010
	85 %	+20	3725 009 947	-32.1	-0.000 001	-0.009
	115 %	+20	3725 009 948	-30.5	-0.000 001	-0.008
3954.990	100 %	+20(Ref)	3954 989 977	0.0	0.000 000	0.000
	100 %	-30	3954 989 950	-26.6	-0.000 001	-0.007
	100 %	-20	3954 989 951	-25.8	-0.000 001	-0.007
	100 %	-10	3954 989 949	-28.0	-0.000 001	-0.007
	100 %	0	3954 989 948	-29.1	-0.000 001	-0.007
	100 %	+10	3954 989 946	-30.9	-0.000 001	-0.008
	100 %	+30	3954 989 946	-30.4	-0.000 001	-0.008
	100 %	+40	3954 989 944	-32.8	-0.000 001	-0.008
	100 %	+50	3954 989 942	-34.9	-0.000 001	-0.009
	85 %	+20	3954 989 944	-32.9	-0.000 001	-0.008
	115 %	+20	3954 989 944	-33.3	-0.000 001	-0.008

- ☐ BandWidth: 60 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3730.020	100 %	+20(Ref)	3730 019 978	0.0	0.000 000	0.000
	100 %	-30	3730 019 954	-24.1	-0.000 001	-0.006
	100 %	-20	3730 019 951	-27.3	-0.000 001	-0.007
	100 %	-10	3730 019 952	-26.5	-0.000 001	-0.007
	100 %	0	3730 019 948	-30.1	-0.000 001	-0.008
	100 %	+10	3730 019 949	-28.9	-0.000 001	-0.008
	100 %	+30	3730 019 948	-30.4	-0.000 001	-0.008
	100 %	+40	3730 019 945	-32.8	-0.000 001	-0.009
	100 %	+50	3730 019 944	-33.8	-0.000 001	-0.009
	85 %	+20	3730 019 947	-31.1	-0.000 001	-0.008
	115 %	+20	3730 019 941	-36.5	-0.000 001	-0.010
3949.980	100 %	+20(Ref)	3949 979 987	0.0	0.000 000	0.000
	100 %	-30	3949 979 973	-13.3	0.000 000	-0.003
	100 %	-20	3949 979 972	-14.8	0.000 000	-0.004
	100 %	-10	3949 979 952	-34.3	-0.000 001	-0.009
	100 %	0	3949 979 972	-15.3	0.000 000	-0.004
	100 %	+10	3949 979 973	-13.9	0.000 000	-0.004
	100 %	+30	3949 979 971	-16.1	0.000 000	-0.004
	100 %	+40	3949 979 972	-15.2	0.000 000	-0.004
	100 %	+50	3949 979 967	-19.5	0.000 000	-0.005
	85 %	+20	3949 979 969	-17.9	0.000 000	-0.005
	115 %	+20	3949 979 969	-18.0	0.000 000	-0.005

- ☐ BandWidth: 70 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3735.000	100 %	+20(Ref)	3734 999 967	0.0	0.000 000	0.000
	100 %	-30	3734 999 935	-32.6	-0.000 001	-0.009
	100 %	-20	3734 999 959	-8.6	0.000 000	-0.002
	100 %	-10	3734 999 955	-12.6	0.000 000	-0.003
	100 %	0	3734 999 953	-14.2	0.000 000	-0.004
	100 %	+10	3734 999 953	-14.2	0.000 000	-0.004
	100 %	+30	3734 999 953	-14.8	0.000 000	-0.004
	100 %	+40	3734 999 952	-15.6	0.000 000	-0.004
	100 %	+50	3734 999 948	-19.1	-0.000 001	-0.005
	85 %	+20	3734 999 948	-19.2	-0.000 001	-0.005
	115 %	+20	3734 999 947	-19.9	-0.000 001	-0.005
3945.000	100 %	+20(Ref)	3944 999 987	0.0	0.000 000	0.000
	100 %	-30	3944 999 952	-35.2	-0.000 001	-0.009
	100 %	-20	3944 999 954	-33.5	-0.000 001	-0.008
	100 %	-10	3944 999 953	-34.0	-0.000 001	-0.009
	100 %	0	3944 999 974	-12.9	0.000 000	-0.003
	100 %	+10	3944 999 977	-10.3	0.000 000	-0.003
	100 %	+30	3944 999 977	-10.3	0.000 000	-0.003
	100 %	+40	3944 999 953	-33.9	-0.000 001	-0.009
	100 %	+50	3944 999 956	-31.5	-0.000 001	-0.008
	85 %	+20	3944 999 967	-19.8	-0.000 001	-0.005
	115 %	+20	3944 999 958	-29.5	-0.000 001	-0.007

- ☐ BandWidth: 80 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3740.010	100 %	+20(Ref)	3740 009 965	0.0	0.000 000	0.000
	100 %	-30	3740 009 928	-36.3	-0.000 001	-0.010
	100 %	-20	3740 009 926	-38.3	-0.000 001	-0.010
	100 %	-10	3740 009 924	-40.4	-0.000 001	-0.011
	100 %	0	3740 009 923	-41.4	-0.000 001	-0.011
	100 %	+10	3740 009 945	-19.6	-0.000 001	-0.005
	100 %	+30	3740 009 921	-43.6	-0.000 001	-0.012
	100 %	+40	3740 009 941	-23.2	-0.000 001	-0.006
	100 %	+50	3740 009 938	-26.7	-0.000 001	-0.007
	85 %	+20	3740 009 935	-30.1	-0.000 001	-0.008
	115 %	+20	3740 009 933	-32.0	-0.000 001	-0.009
3939.990	100 %	+20(Ref)	3939 989 970	0.0	0.000 000	0.000
	100 %	-30	3939 989 936	-33.4	-0.000 001	-0.008
	100 %	-20	3939 989 936	-33.9	-0.000 001	-0.009
	100 %	-10	3939 989 934	-35.8	-0.000 001	-0.009
	100 %	0	3939 989 957	-12.4	0.000 000	-0.003
	100 %	+10	3939 989 931	-38.1	-0.000 001	-0.010
	100 %	+30	3939 989 955	-14.8	0.000 000	-0.004
	100 %	+40	3939 989 953	-17.0	0.000 000	-0.004
	100 %	+50	3939 989 953	-16.1	0.000 000	-0.004
	85 %	+20	3939 989 949	-20.9	-0.000 001	-0.005
	115 %	+20	3939 989 947	-22.5	-0.000 001	-0.006

- ☐ BandWidth: 90 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

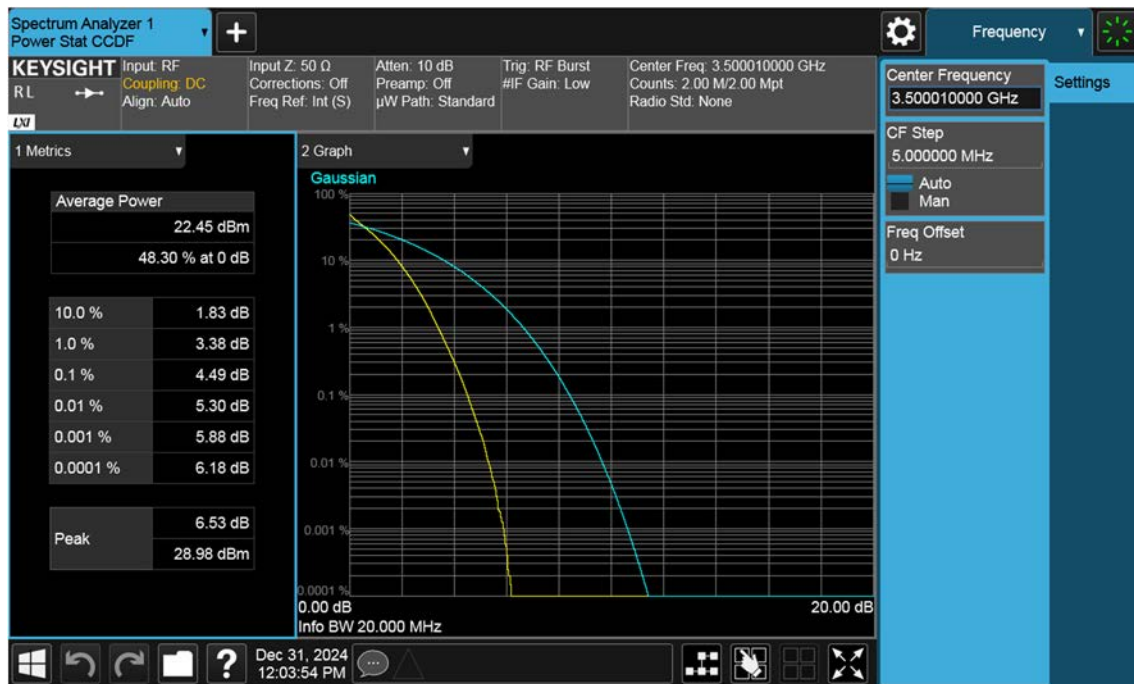
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3745.020	100 %	+20(Ref)	3745 019 974	0.0	0.000 000	0.000
	100 %	-30	3745 019 942	-31.5	-0.000 001	-0.008
	100 %	-20	3745 019 942	-31.1	-0.000 001	-0.008
	100 %	-10	3745 019 941	-32.5	-0.000 001	-0.009
	100 %	0	3745 019 940	-33.6	-0.000 001	-0.009
	100 %	+10	3745 019 960	-13.8	0.000 000	-0.004
	100 %	+30	3745 019 934	-39.4	-0.000 001	-0.011
	100 %	+40	3745 019 933	-40.4	-0.000 001	-0.011
	100 %	+50	3745 019 933	-40.9	-0.000 001	-0.011
	85 %	+20	3745 019 943	-30.2	-0.000 001	-0.008
	115 %	+20	3745 019 947	-26.1	-0.000 001	-0.007
3934.980	100 %	+20(Ref)	3934 979 971	0.0	0.000 000	0.000
	100 %	-30	3934 979 942	-28.7	-0.000 001	-0.007
	100 %	-20	3934 979 942	-28.7	-0.000 001	-0.007
	100 %	-10	3934 979 965	-5.9	0.000 000	-0.002
	100 %	0	3934 979 940	-31.2	-0.000 001	-0.008
	100 %	+10	3934 979 938	-33.4	-0.000 001	-0.008
	100 %	+30	3934 979 963	-8.3	0.000 000	-0.002
	100 %	+40	3934 979 937	-33.7	-0.000 001	-0.009
	100 %	+50	3934 979 960	-10.5	0.000 000	-0.003
	85 %	+20	3934 979 960	-10.9	0.000 000	-0.003
	115 %	+20	3934 979 946	-24.8	-0.000 001	-0.006

- ☐ BandWidth: 100 MHz
☐ Voltage(100 %): 12.000 VDC
☐ LIMIT: Emission must remain in band

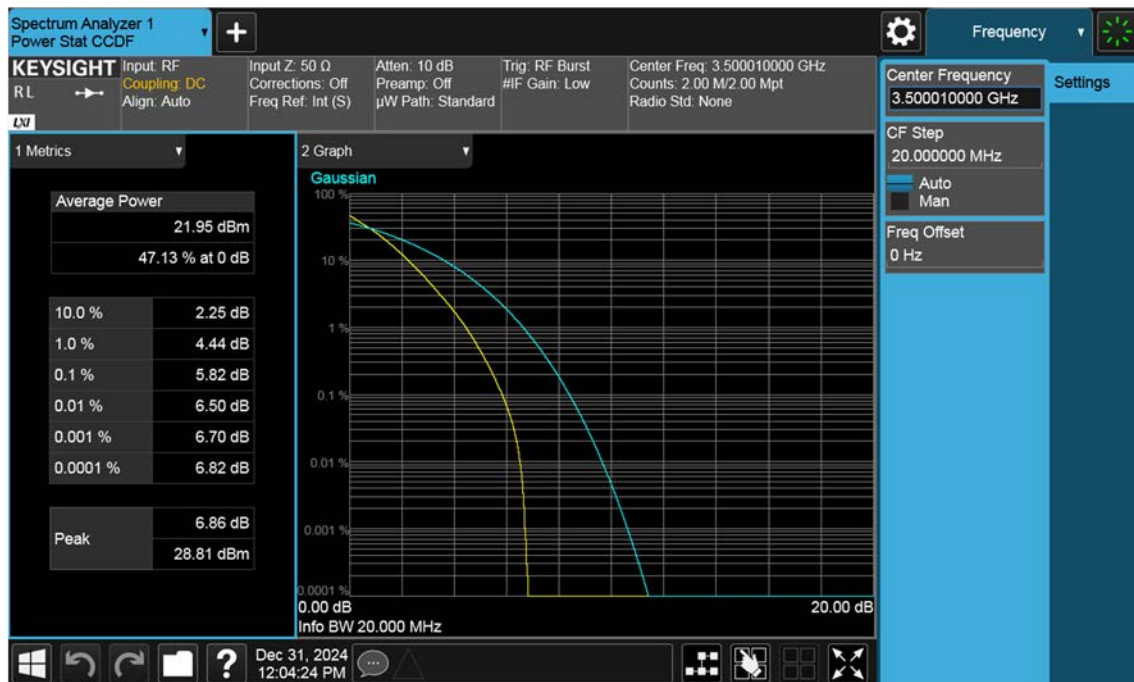
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3750.000	100 %	+20(Ref)	3749 999 984	0.0	0.000 000	0.000
	100 %	-30	3749 999 948	-35.9	-0.000 001	-0.010
	100 %	-20	3749 999 965	-18.5	0.000 000	-0.005
	100 %	-10	3749 999 966	-17.8	0.000 000	-0.005
	100 %	0	3749 999 968	-16.1	0.000 000	-0.004
	100 %	+10	3749 999 947	-36.5	-0.000 001	-0.010
	100 %	+30	3749 999 966	-18.2	0.000 000	-0.005
	100 %	+40	3749 999 965	-19.3	-0.000 001	-0.005
	100 %	+50	3749 999 965	-19.0	-0.000 001	-0.005
	85 %	+20	3749 999 966	-17.6	0.000 000	-0.005
	115 %	+20	3749 999 963	-20.5	-0.000 001	-0.005
3930.000	100 %	+20(Ref)	3929 999 972	0.0	0.000 000	0.000
	100 %	-30	3929 999 940	-32.1	-0.000 001	-0.008
	100 %	-20	3929 999 940	-32.3	-0.000 001	-0.008
	100 %	-10	3929 999 940	-32.1	-0.000 001	-0.008
	100 %	0	3929 999 940	-32.1	-0.000 001	-0.008
	100 %	+10	3929 999 940	-31.9	-0.000 001	-0.008
	100 %	+30	3929 999 938	-34.0	-0.000 001	-0.009
	100 %	+40	3929 999 939	-33.0	-0.000 001	-0.008
	100 %	+50	3929 999 939	-33.1	-0.000 001	-0.008
	85 %	+20	3929 999 943	-29.8	-0.000 001	-0.008
	115 %	+20	3929 999 941	-31.0	-0.000 001	-0.008

10. TEST PLOTS(3450 MHz - 3550 MHz)

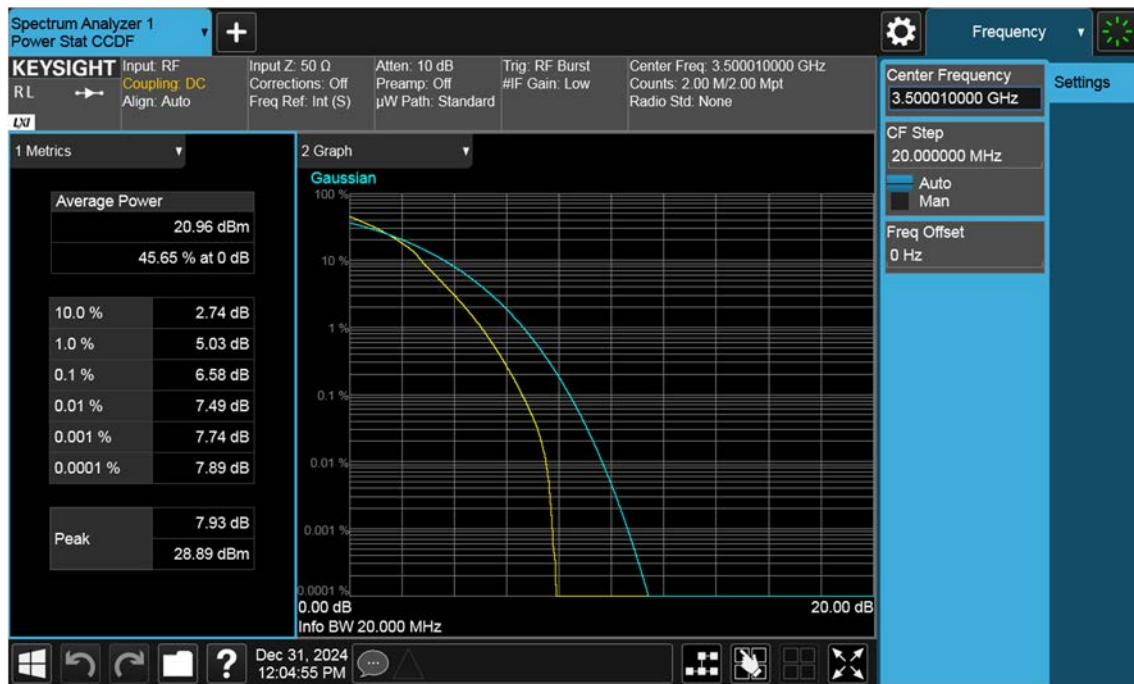
n77(3450~3550 MHz)_20 M_PAR_Mid_BPSK_FullRB



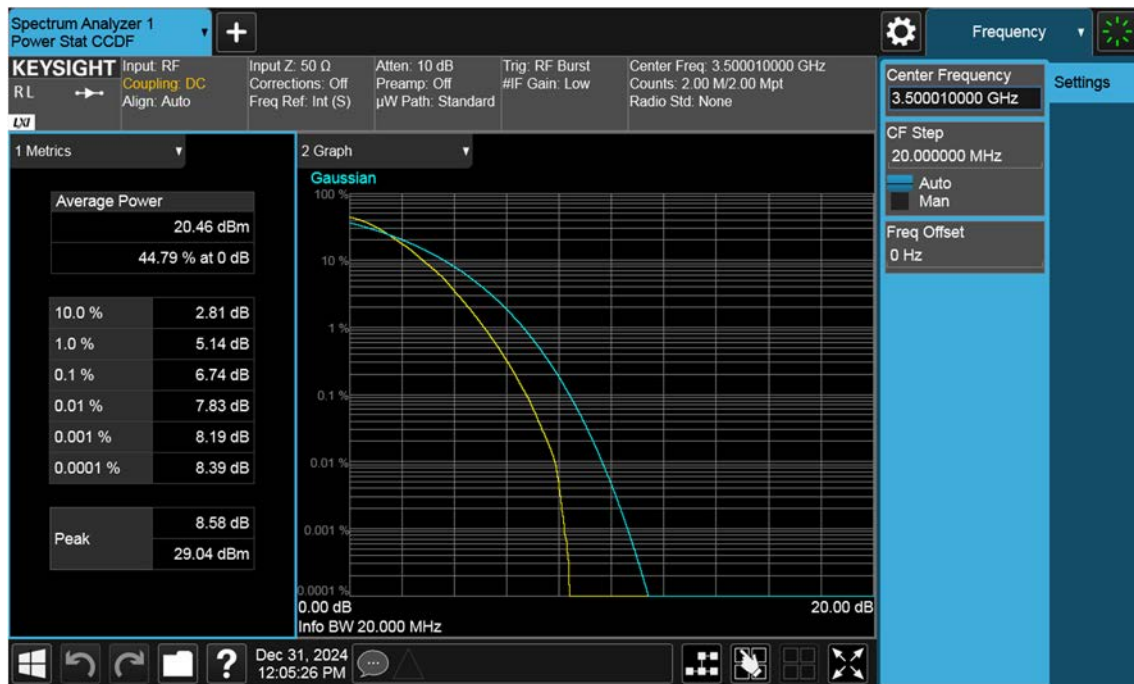
n77(3450~3550 MHz)_20 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_20 M_PAR_Mid_16QAM_FullRB



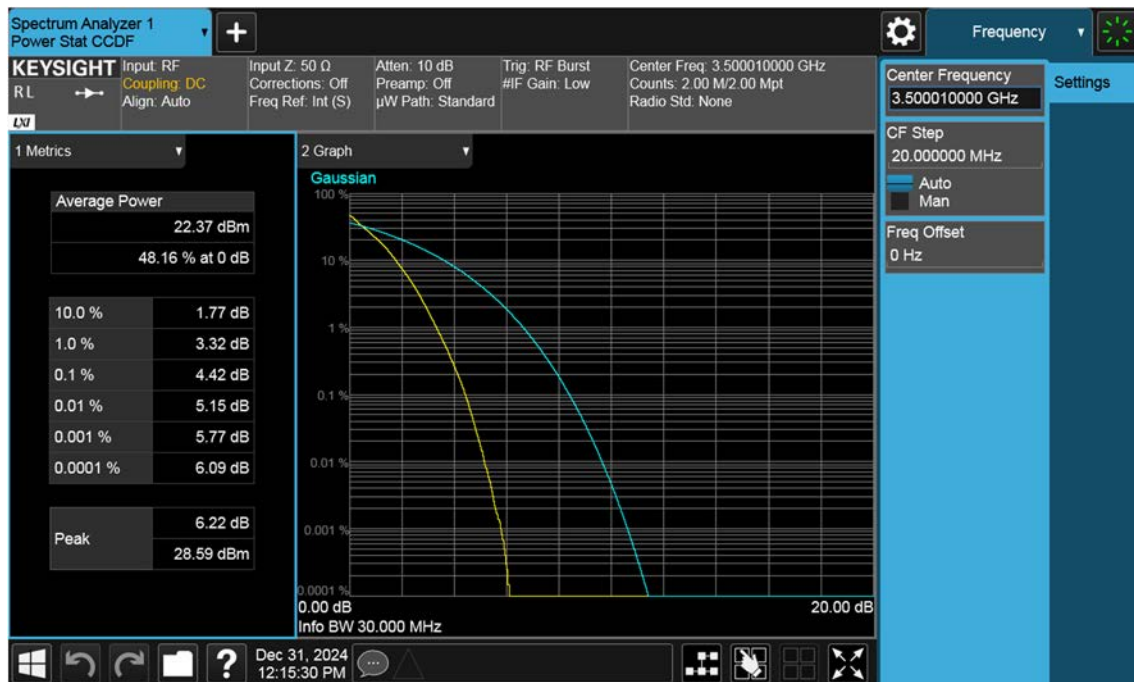
n77(3450~3550 MHz)_20 M_PAR_Mid_64QAM_FullRB



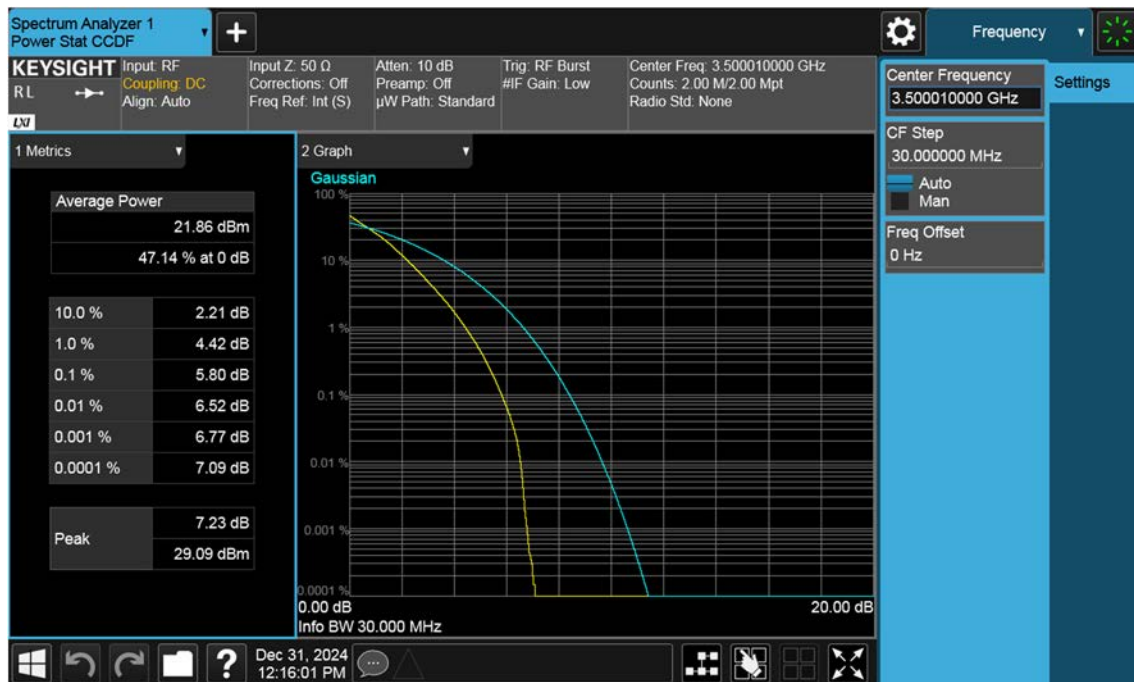
n77(3450~3550 MHz)_20 M_PAR_Mid_256QAM_FullRB



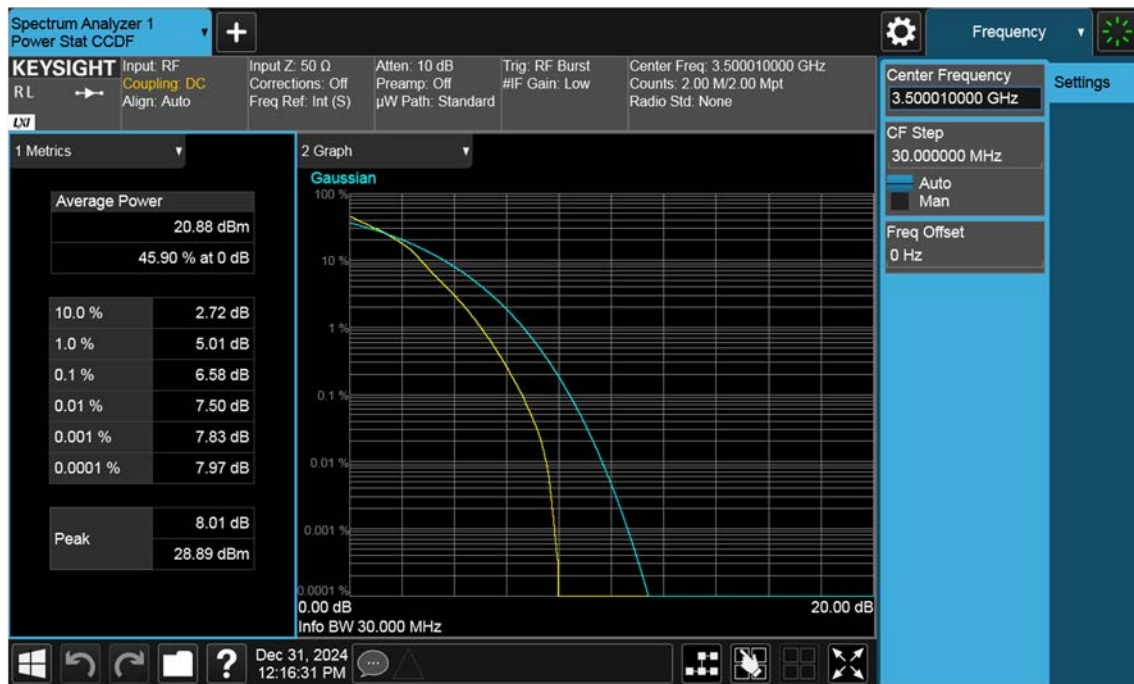
n77(3450~3550 MHz)_30 M_PAR_Mid_BPSK_FullRB



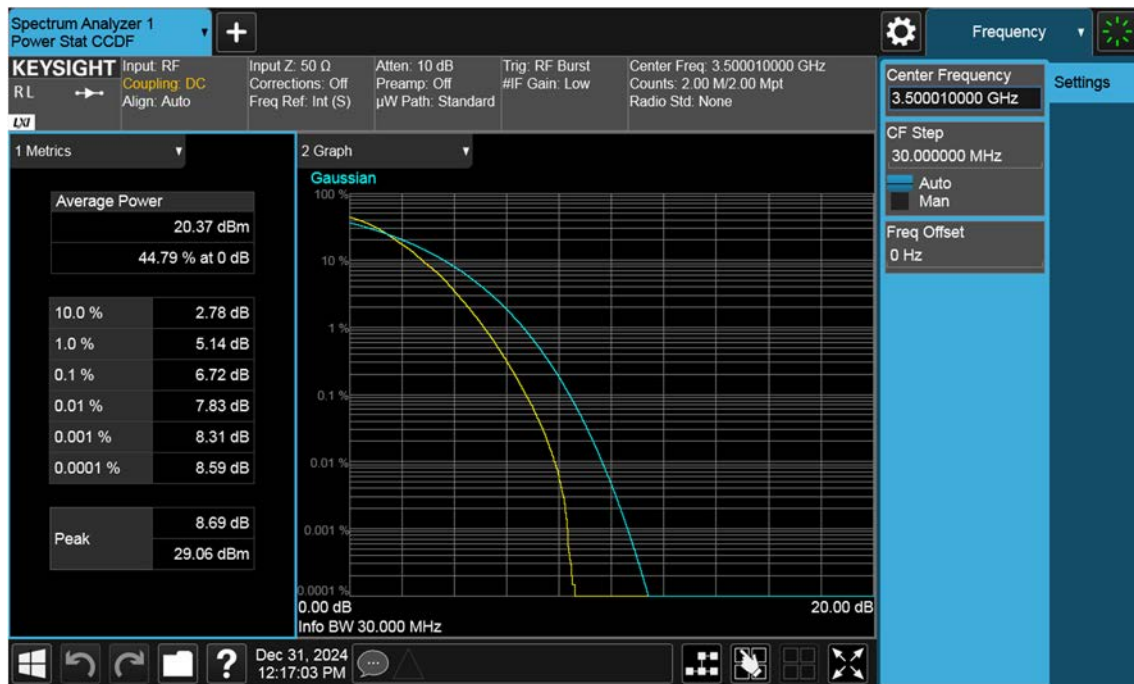
n77(3450~3550 MHz)_30 M_PAR_Mid_QPSK_FullRB



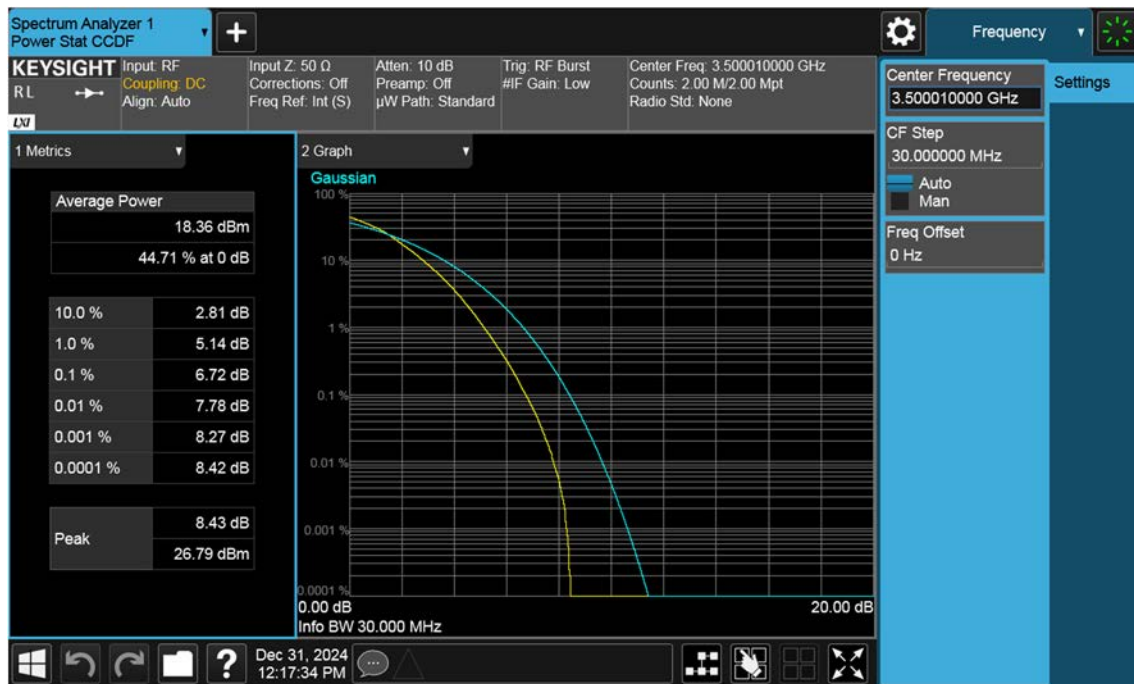
n77(3450~3550 MHz)_30 M_PAR_Mid_16QAM_FullRB



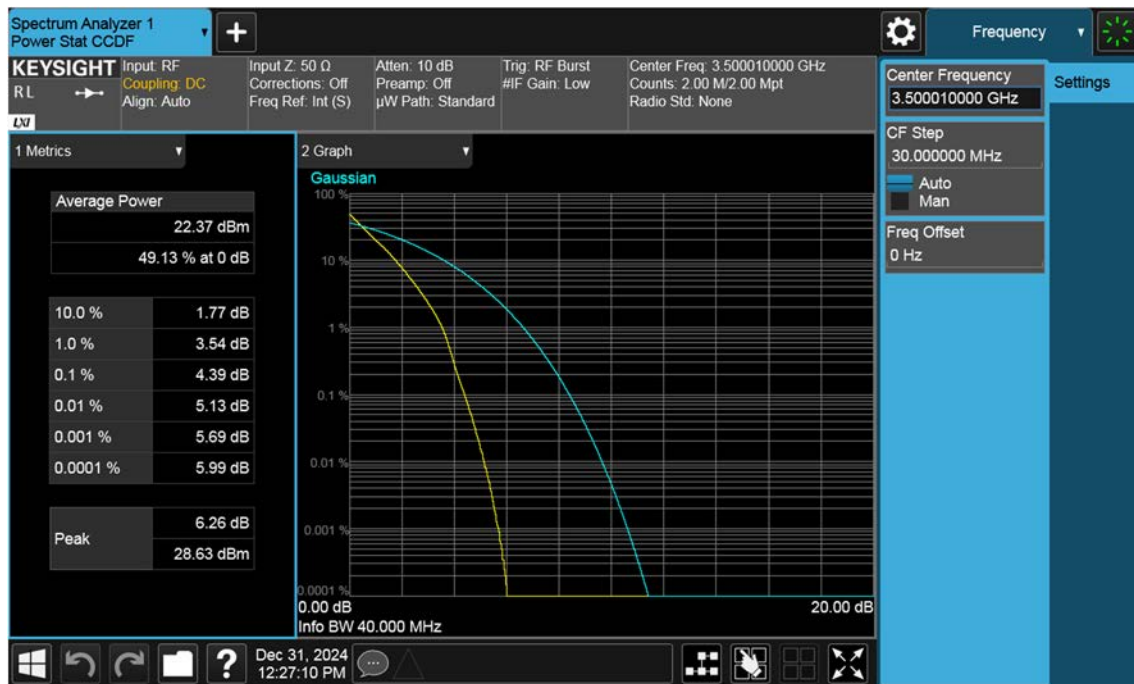
n77(3450~3550 MHz)_30 M_PAR_Mid_64QAM_FullRB



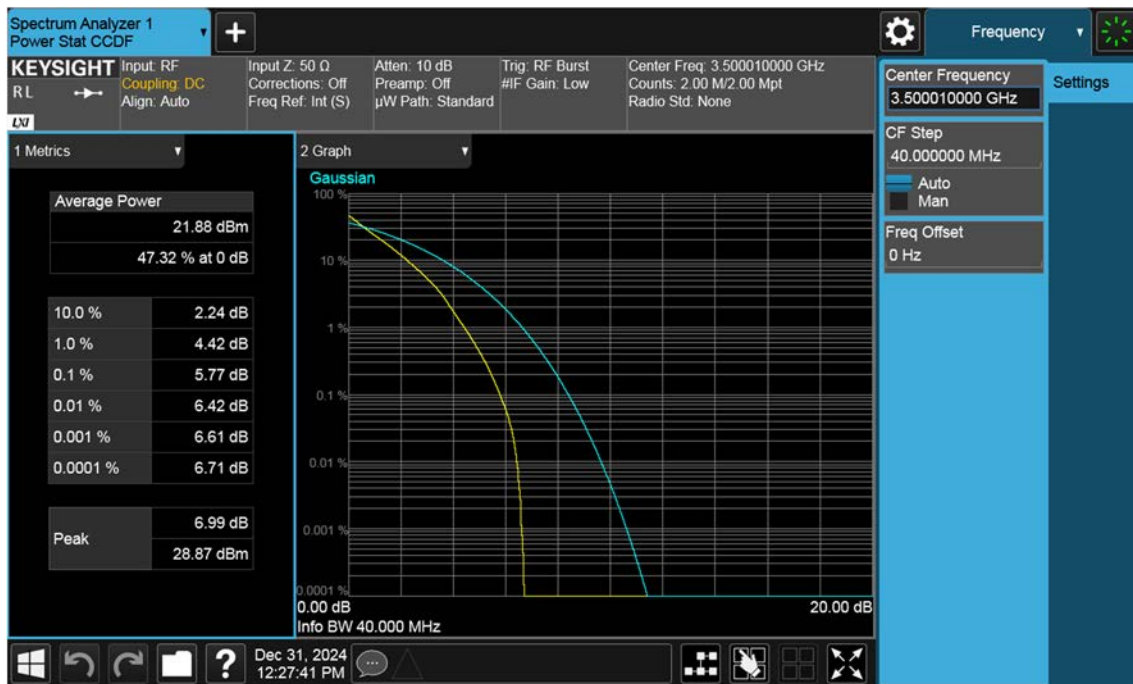
n77(3450~3550 MHz)_30 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_40 M_PAR_Mid_BPSK_FullRB



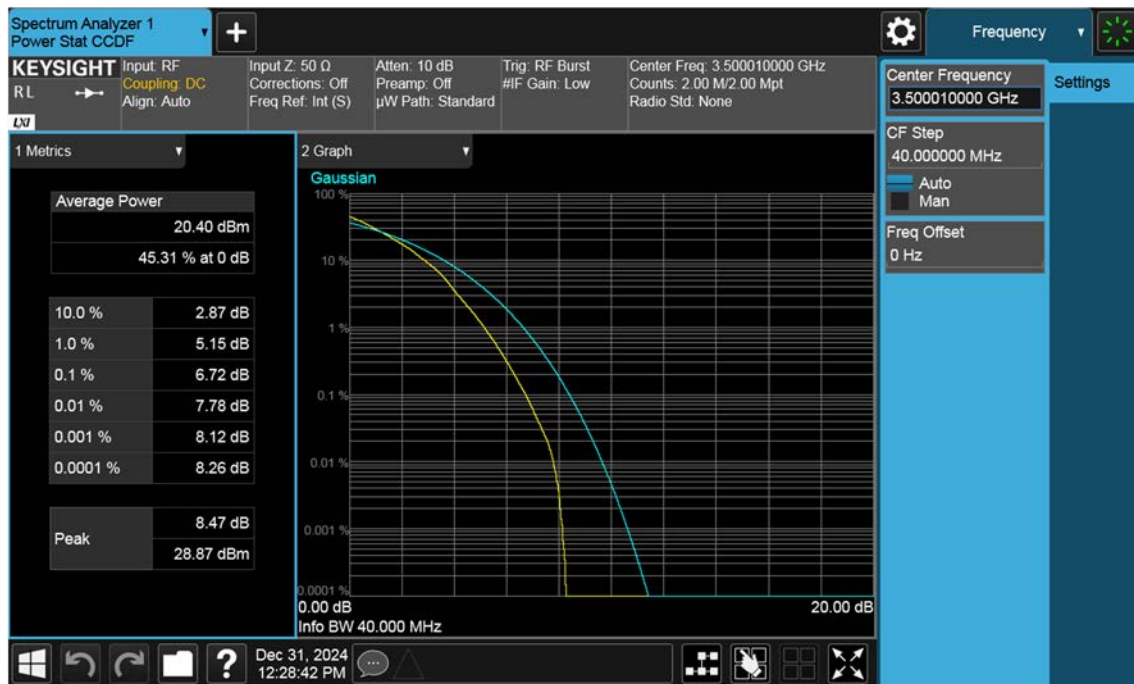
n77(3450~3550 MHz)_40 M_PAR_Mid_QPSK_FullRB



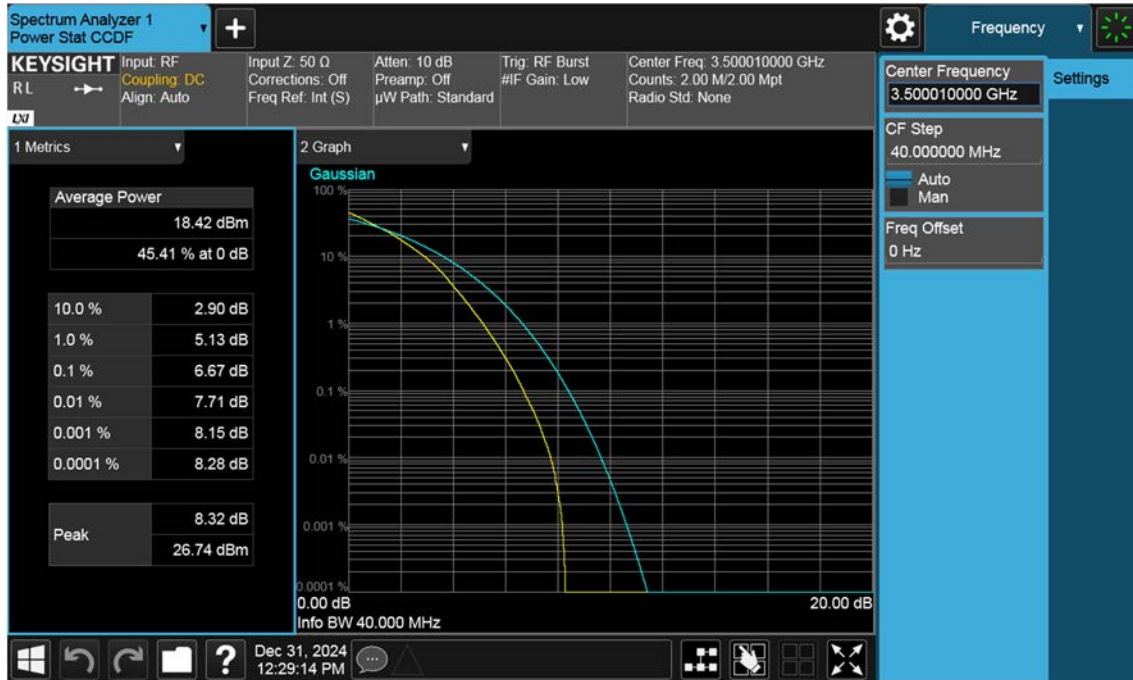
n77(3450~3550 MHz)_40 M_PAR_Mid_16QAM_FullRB



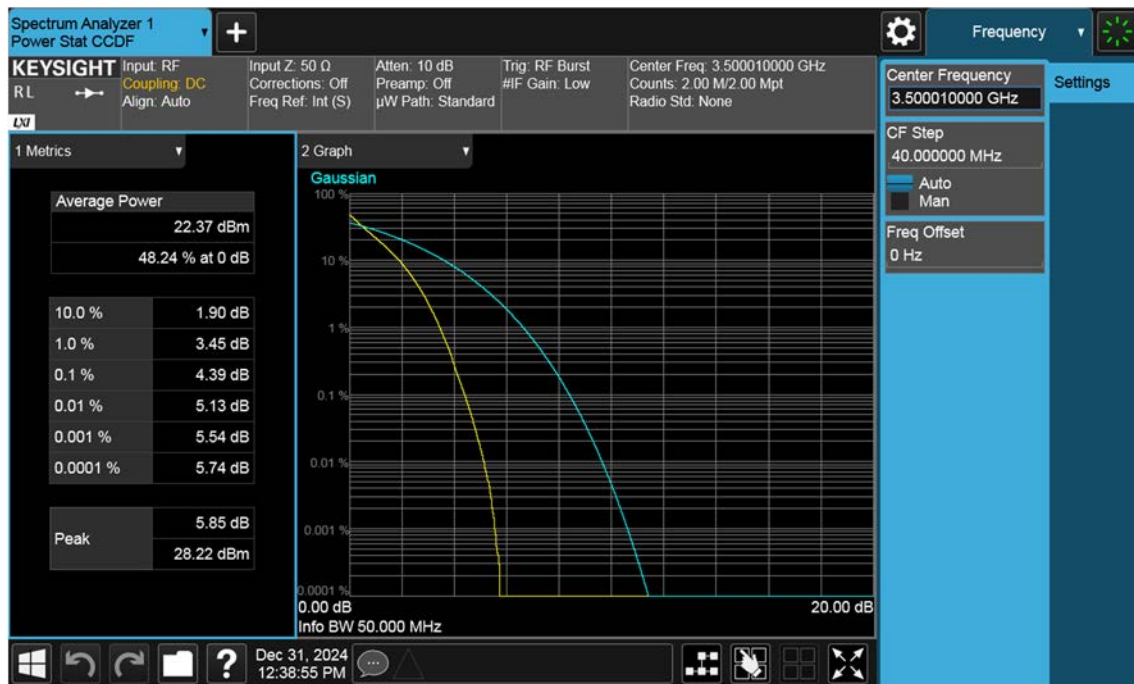
n77(3450~3550 MHz)_40 M_PAR_Mid_64QAM_FullRB



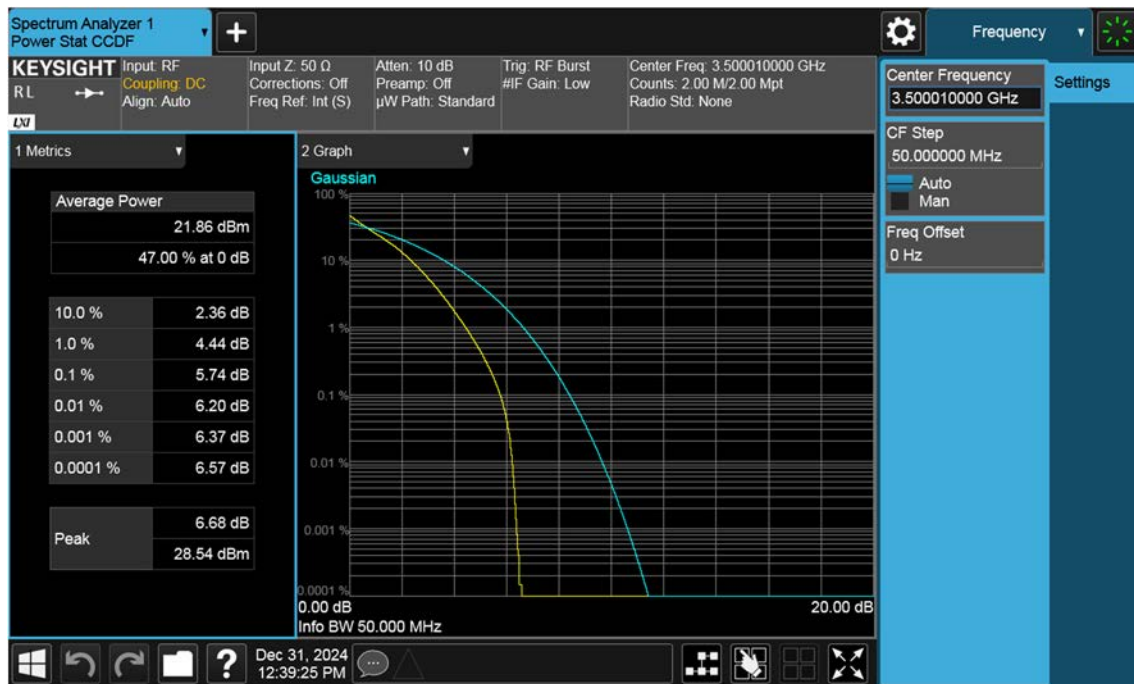
n77(3450~3550 MHz)_40 M_PAR_Mid_256QAM_FullRB



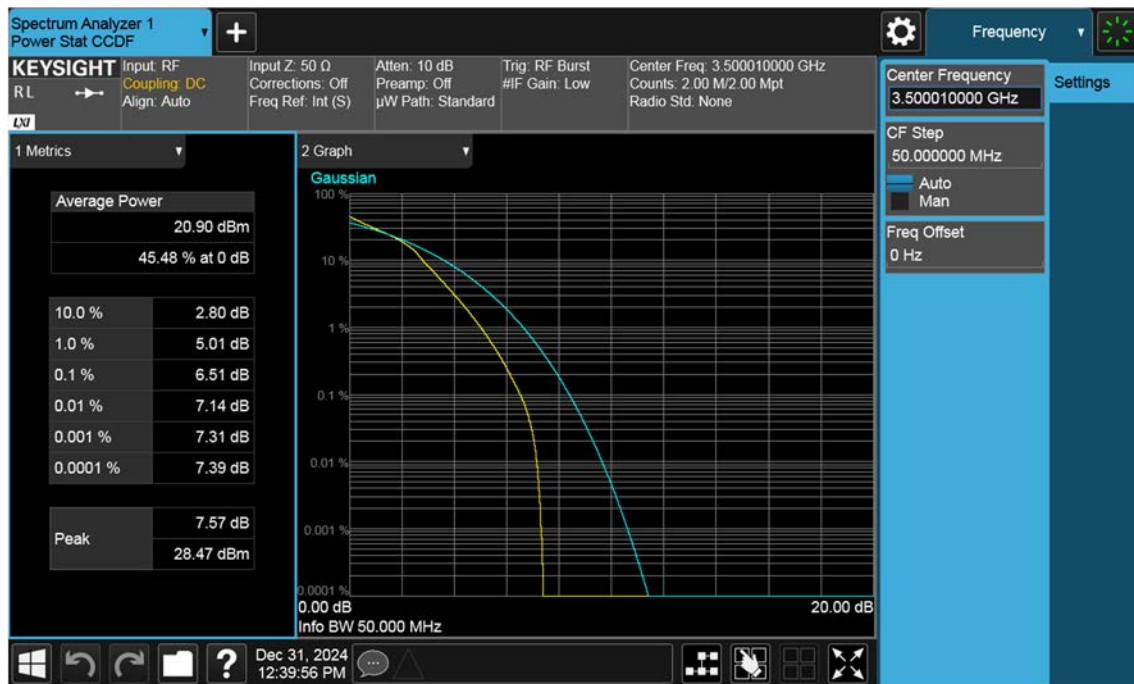
n77(3450~3550 MHz)_50 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_50 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_50 M_PAR_Mid_16QAM_FullRB



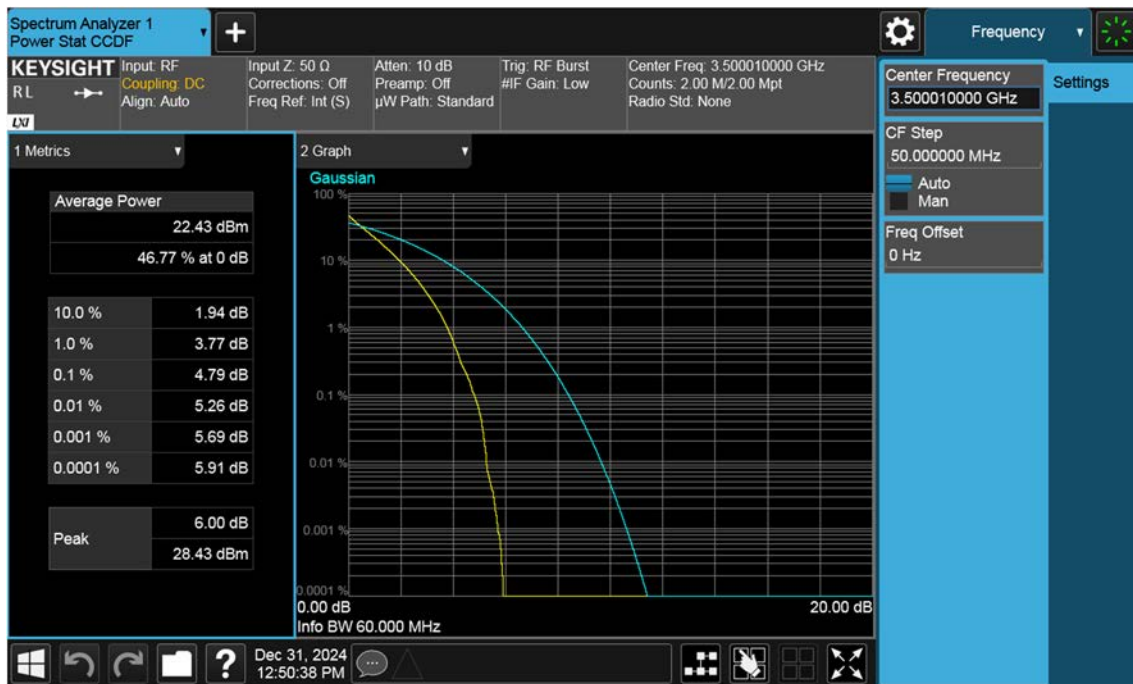
n77(3450~3550 MHz)_50 M_PAR_Mid_64QAM_FullRB



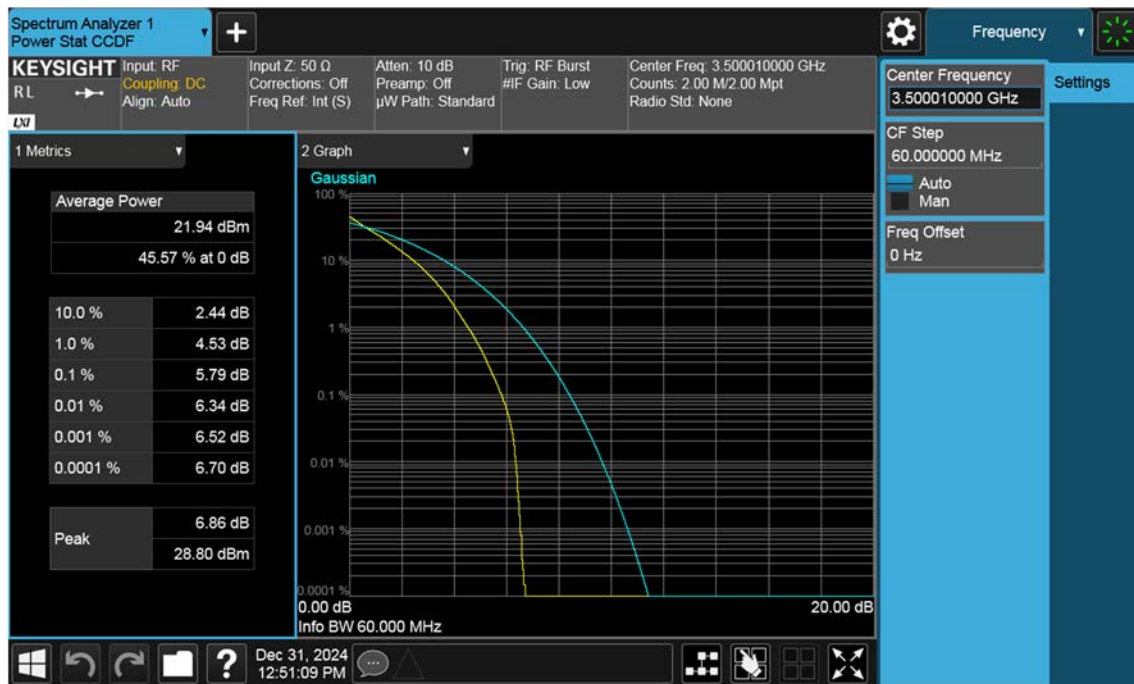
n77(3450~3550 MHz)_50 M_PAR_Mid_256QAM_FullRB



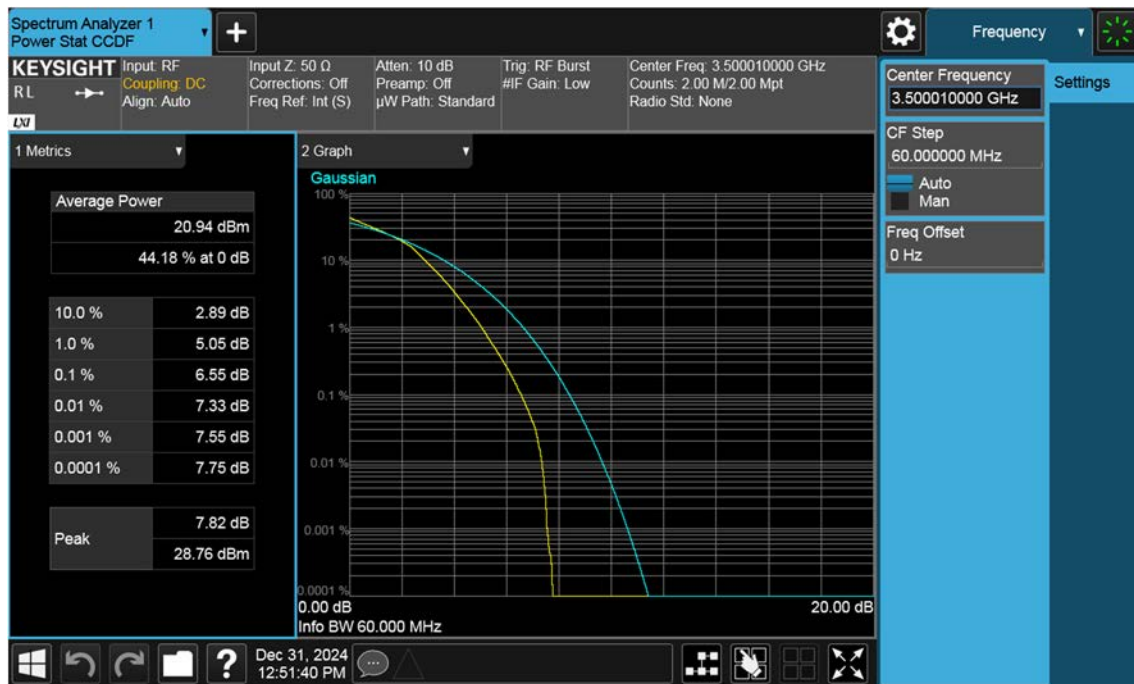
n77(3450~3550 MHz)_60 M_PAR_Mid_BPSK_FullRB



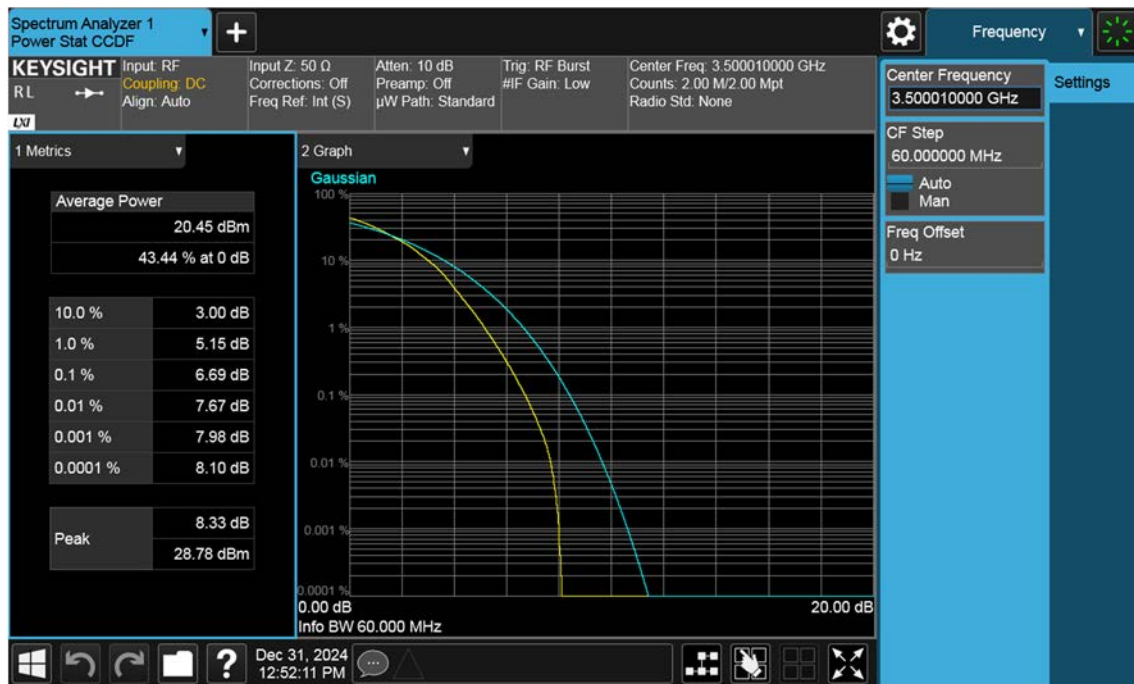
n77(3450~3550 MHz)_60 M_PAR_Mid_QPSK_FullRB



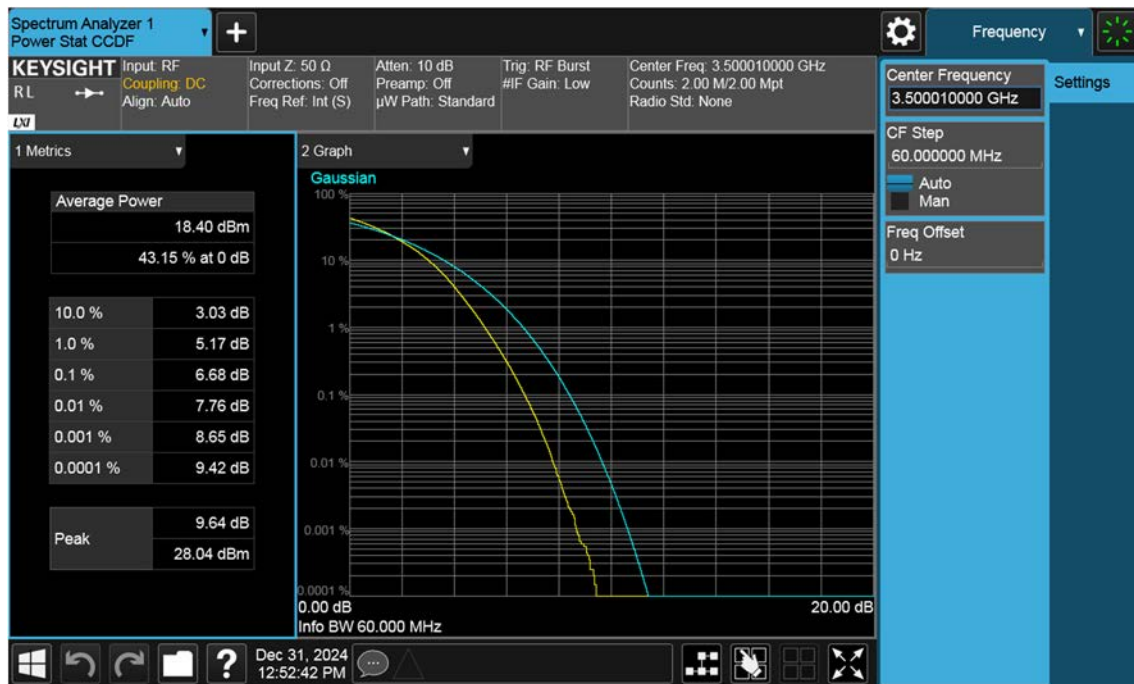
n77(3450~3550 MHz)_60 M_PAR_Mid_16QAM_FullRB



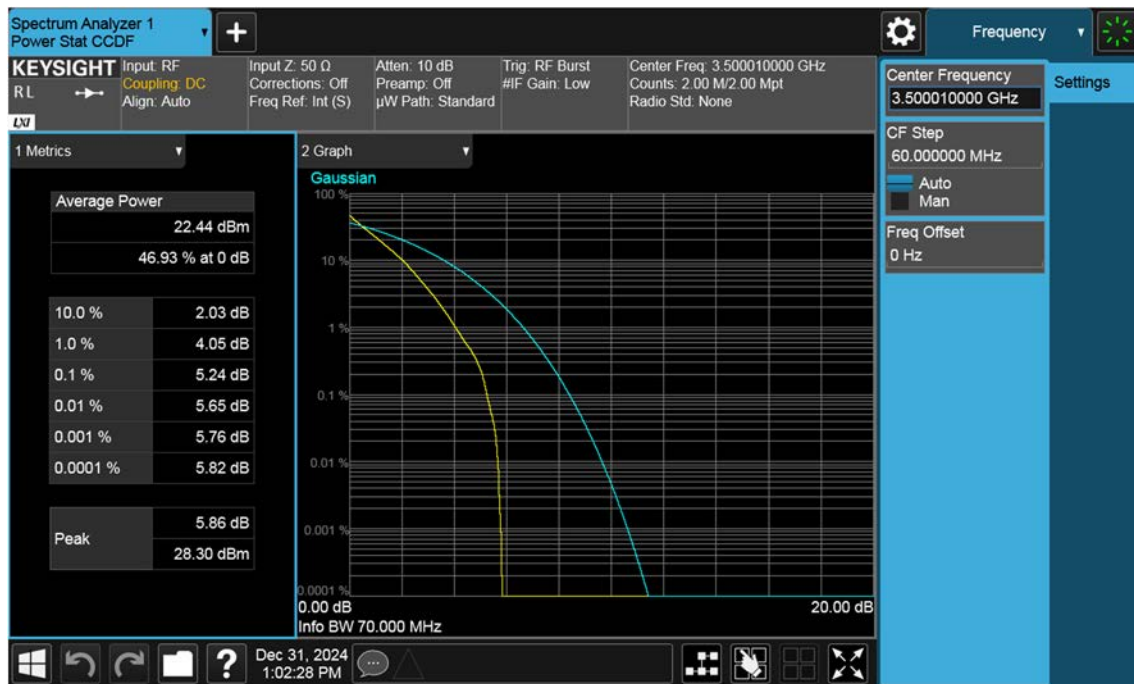
n77(3450~3550 MHz)_60 M_PAR_Mid_64QAM_FullRB



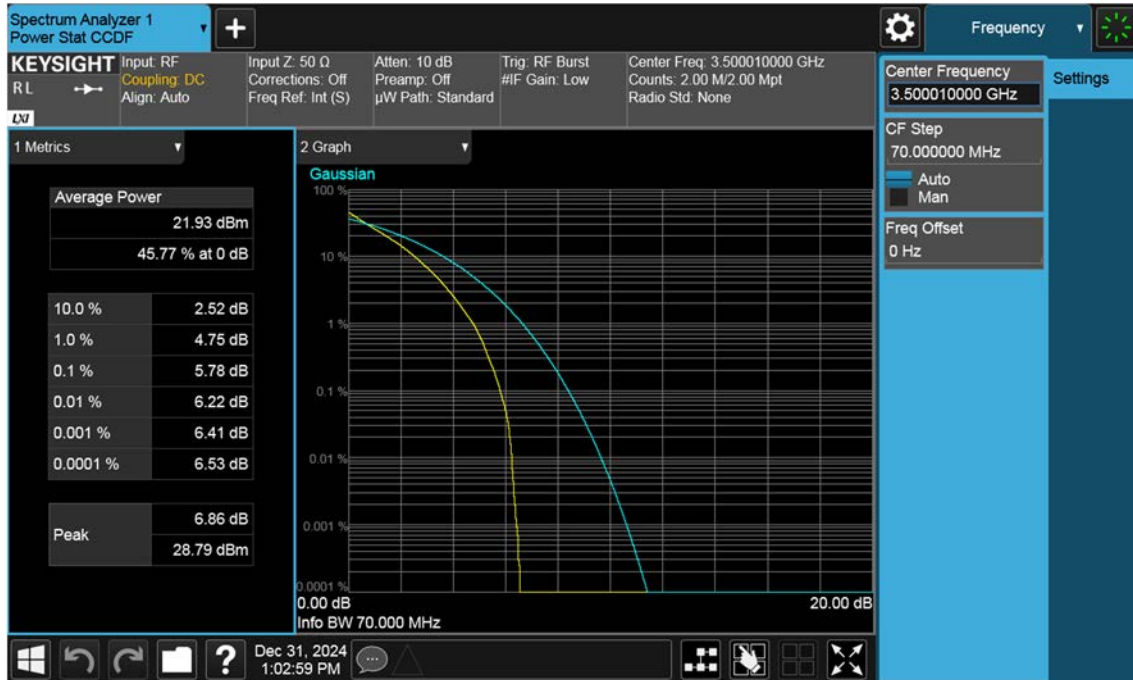
n77(3450~3550 MHz)_60 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_16QAM_FullRB



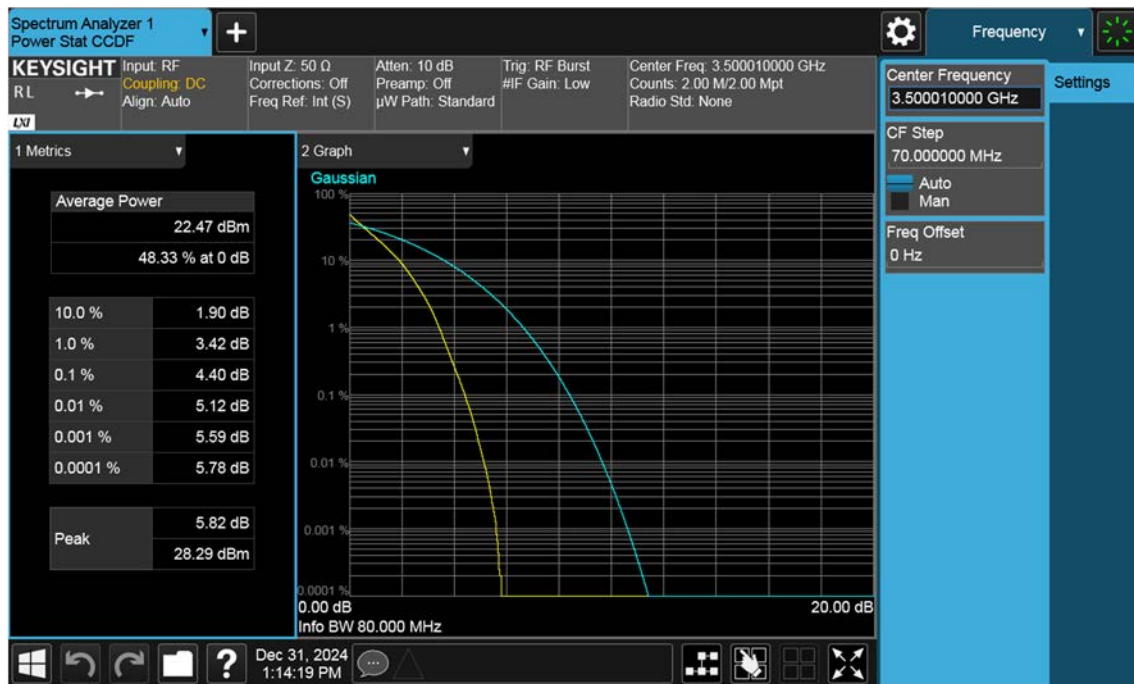
n77(3450~3550 MHz)_70 M_PAR_Mid_64QAM_FullRB



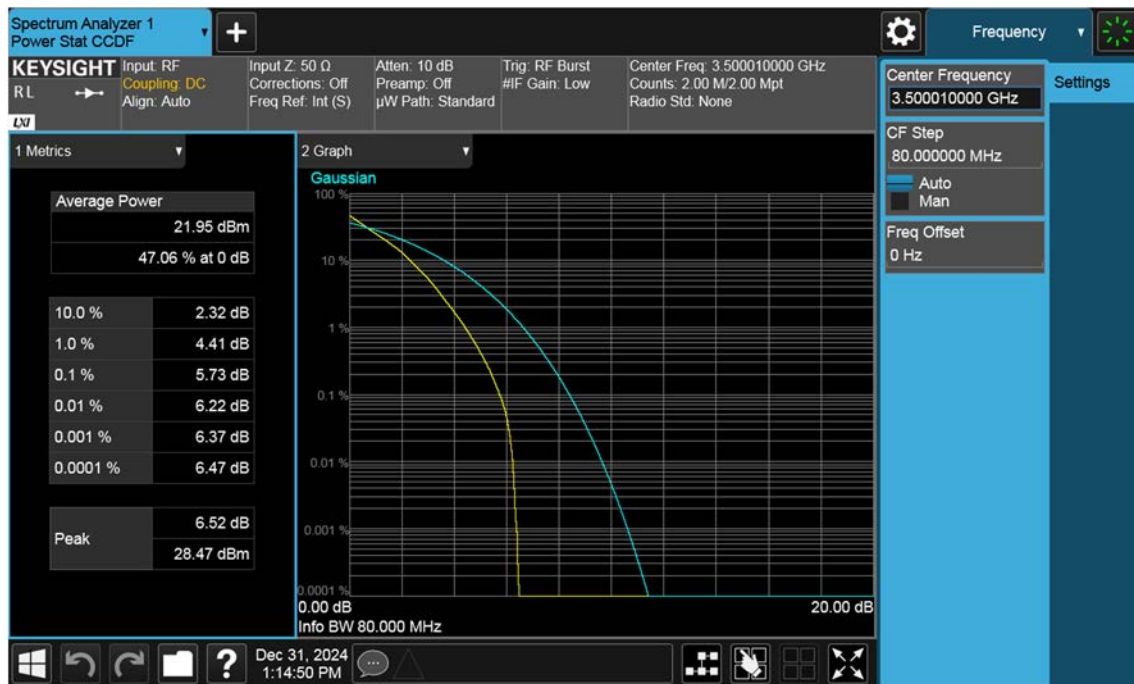
n77(3450~3550 MHz)_70 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_80 M_PAR_Mid_BPSK_FullRB



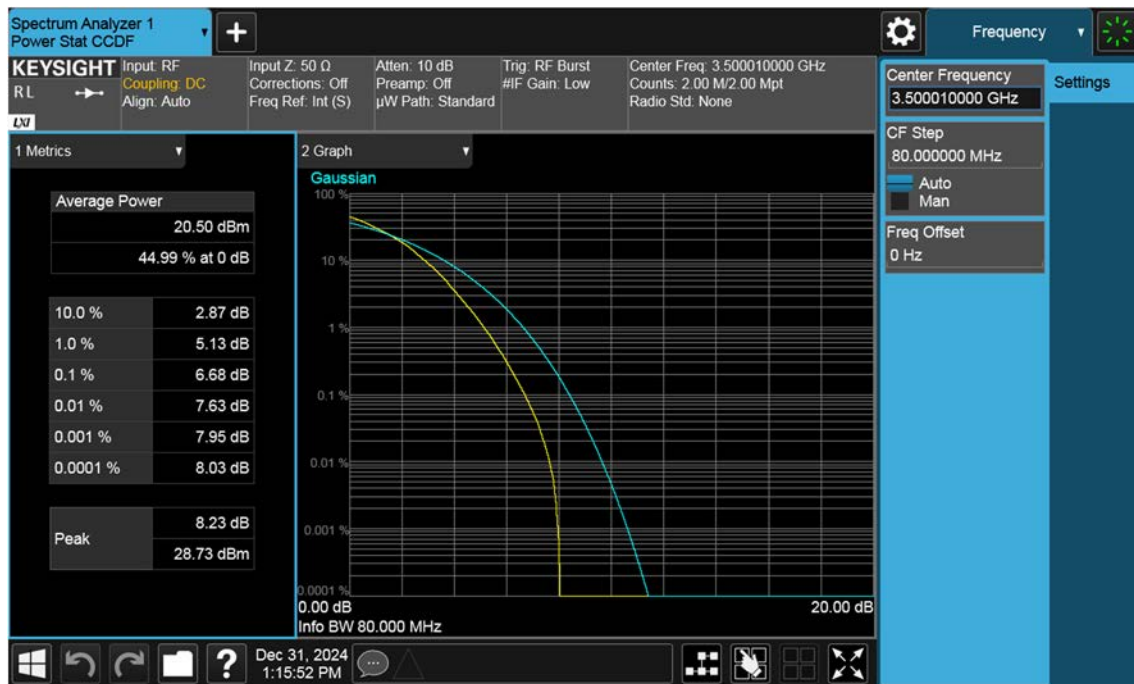
n77(3450~3550 MHz)_80 M_PAR_Mid_QPSK_FullRB



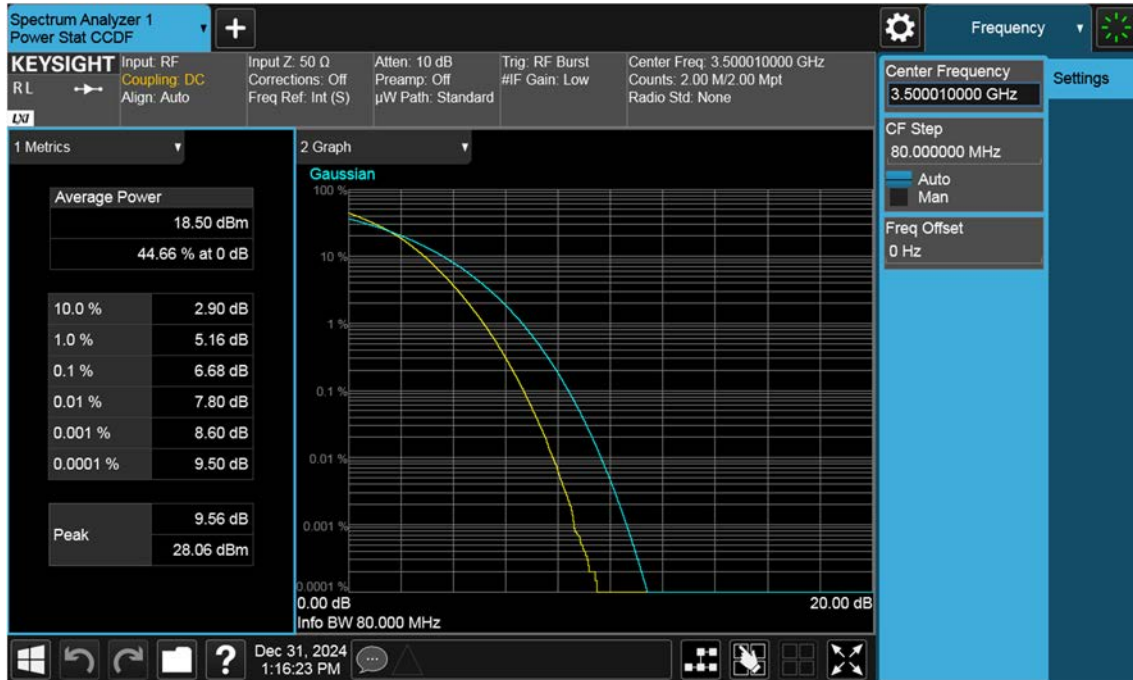
n77(3450~3550 MHz)_80 M_PAR_Mid_16QAM_FullRB



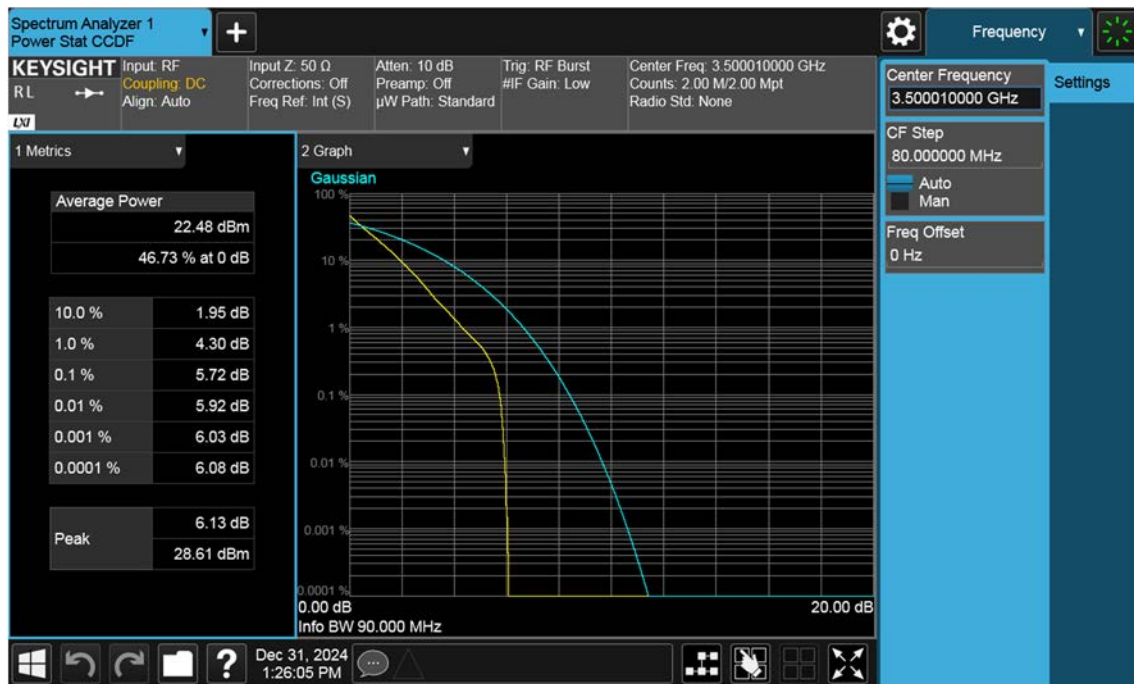
n77(3450~3550 MHz)_80 M_PAR_Mid_64QAM_FullRB



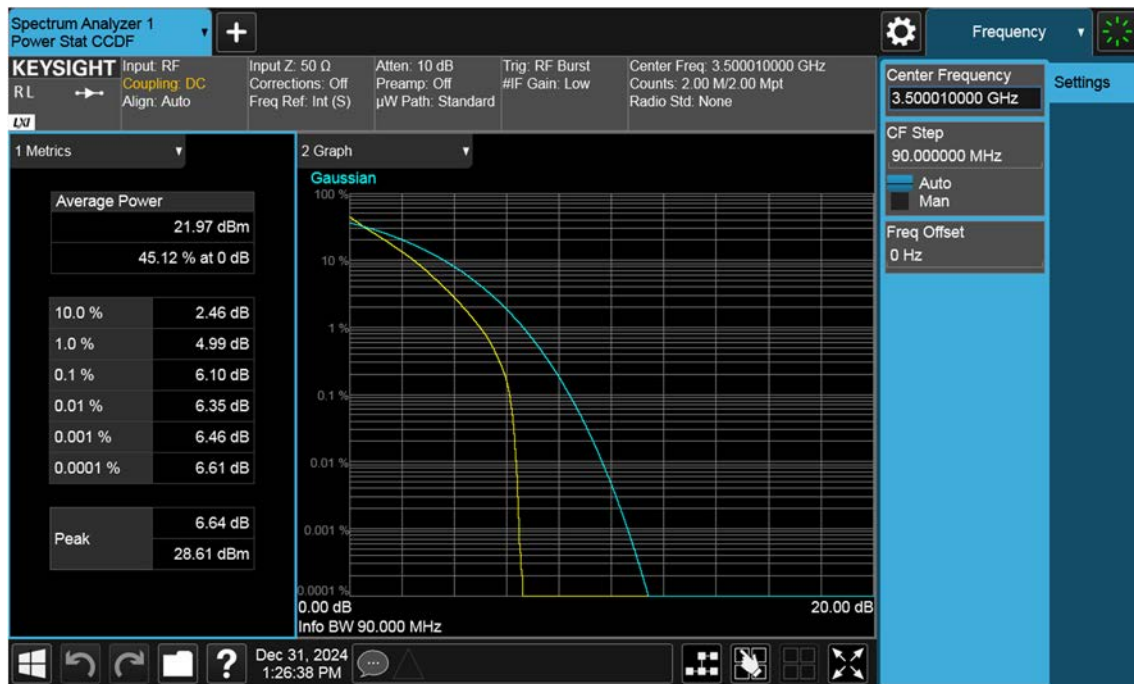
n77(3450~3550 MHz)_80 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_90 M_PAR_Mid_BPSK_FullRB



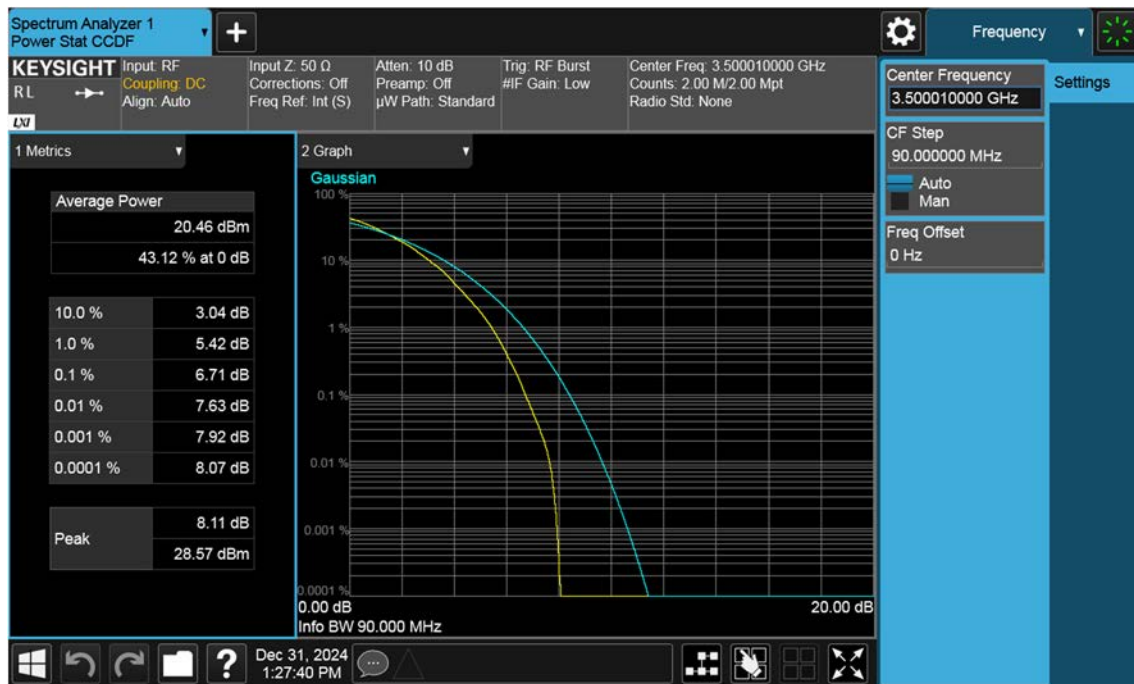
n77(3450~3550 MHz)_90 M_PAR_Mid_QPSK_FullRB



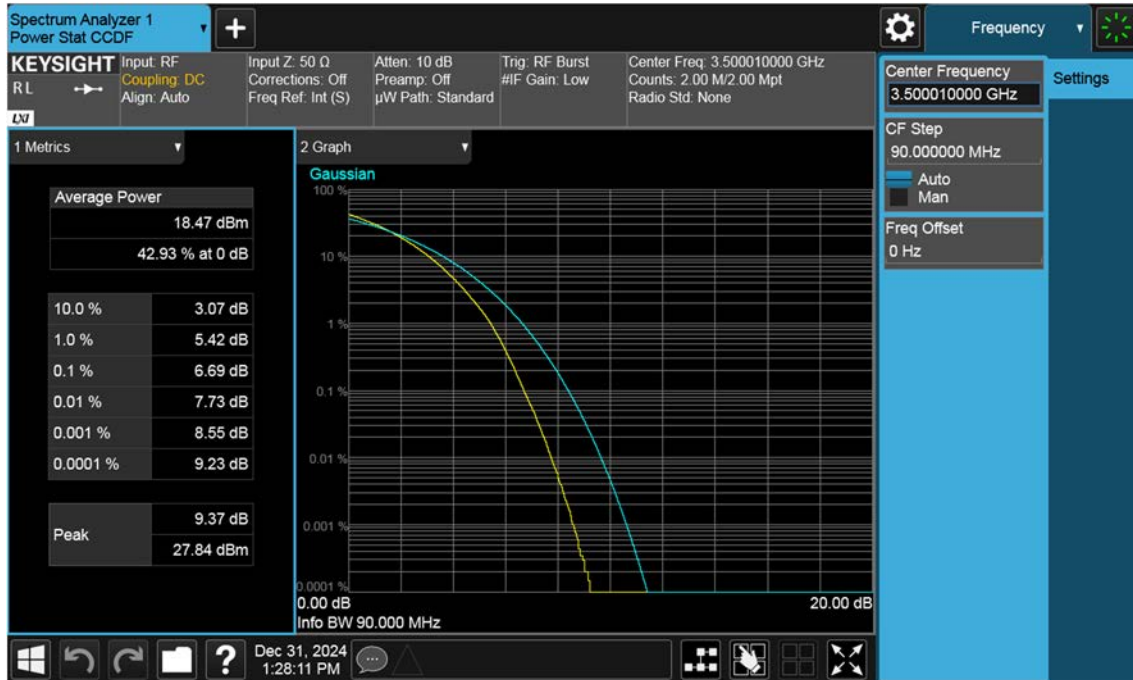
n77(3450~3550 MHz)_90 M_PAR_Mid_16QAM_FullRB



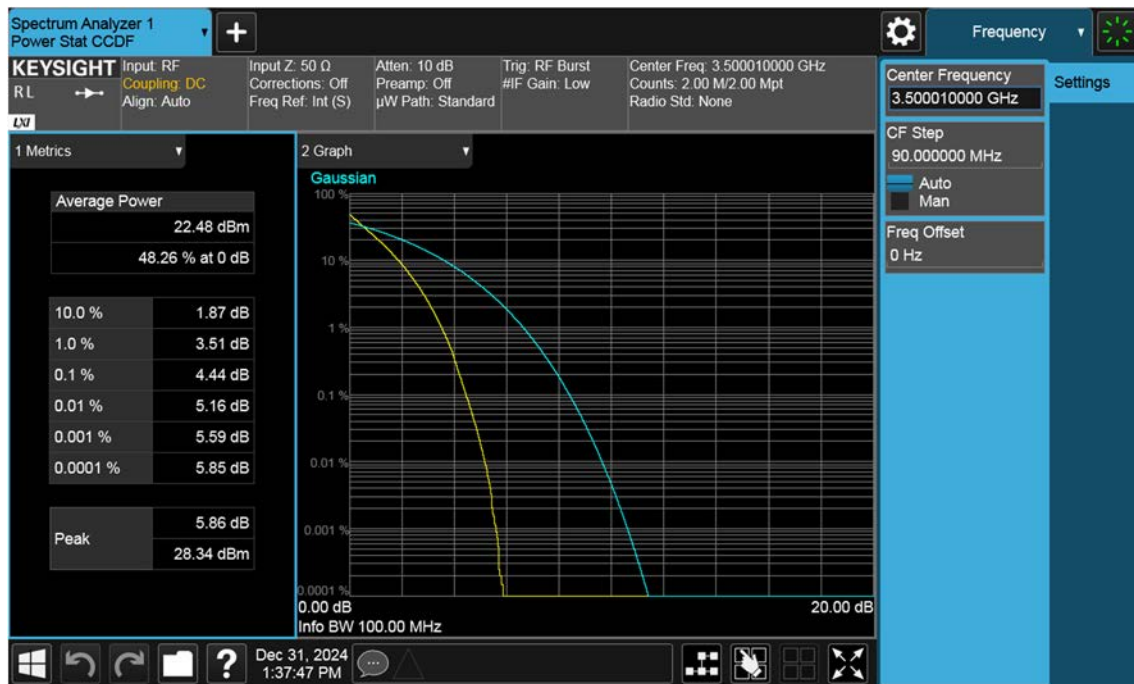
n77(3450~3550 MHz)_90 M_PAR_Mid_64QAM_FullRB



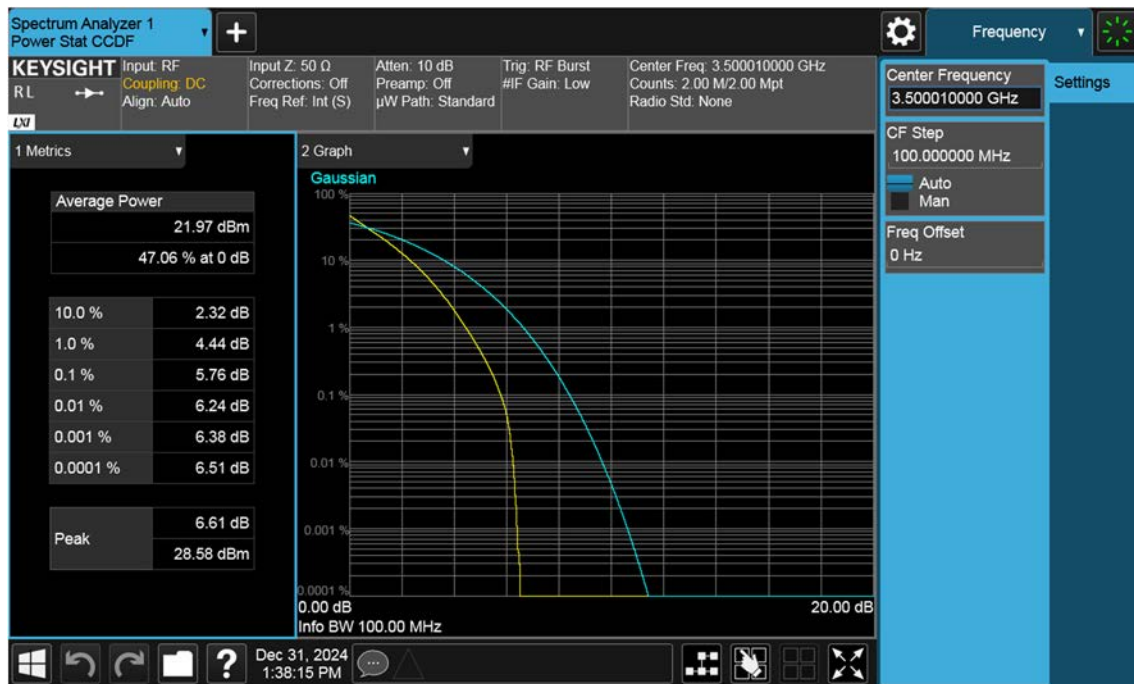
n77(3450~3550 MHz)_90 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_100 M_PAR_Mid_BPSK_FullRB



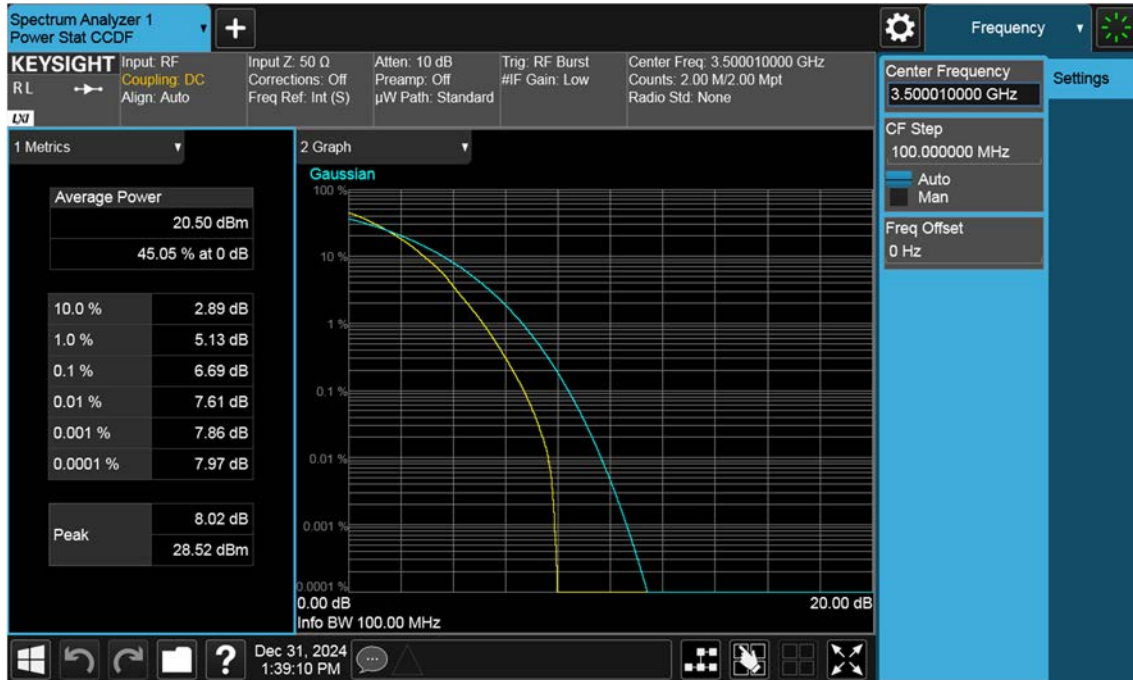
n77(3450~3550 MHz)_100 M_PAR_Mid_QPSK_FullRB



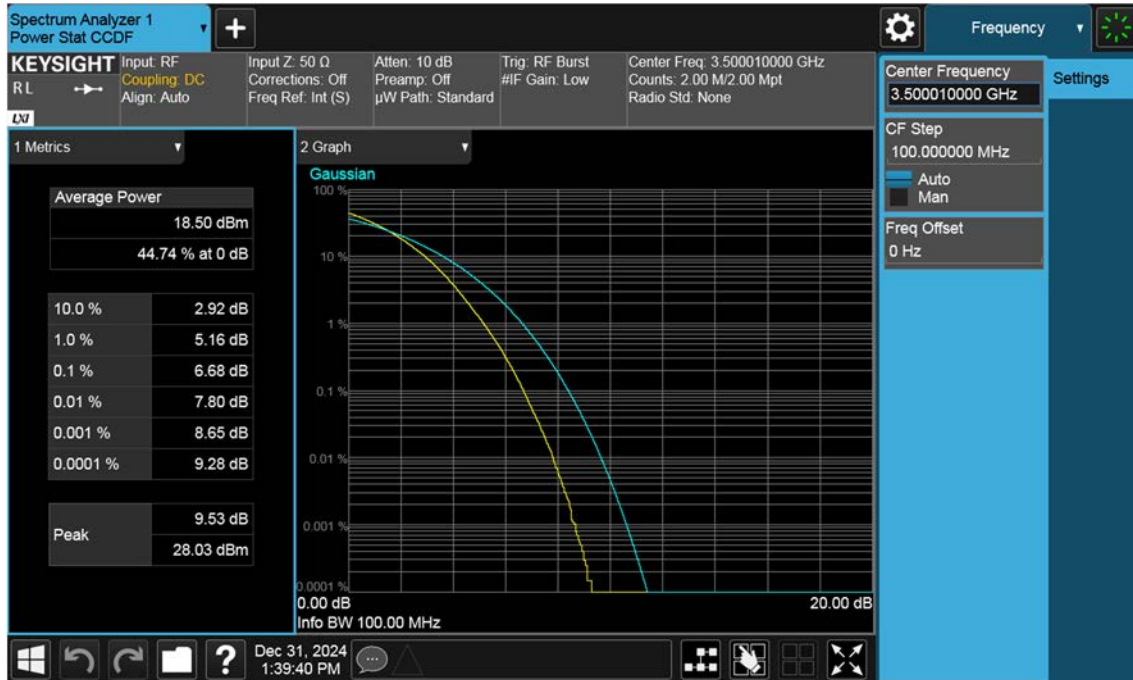
n77(3450~3550 MHz)_100 M_PAR_Mid_16QAM_FullRB



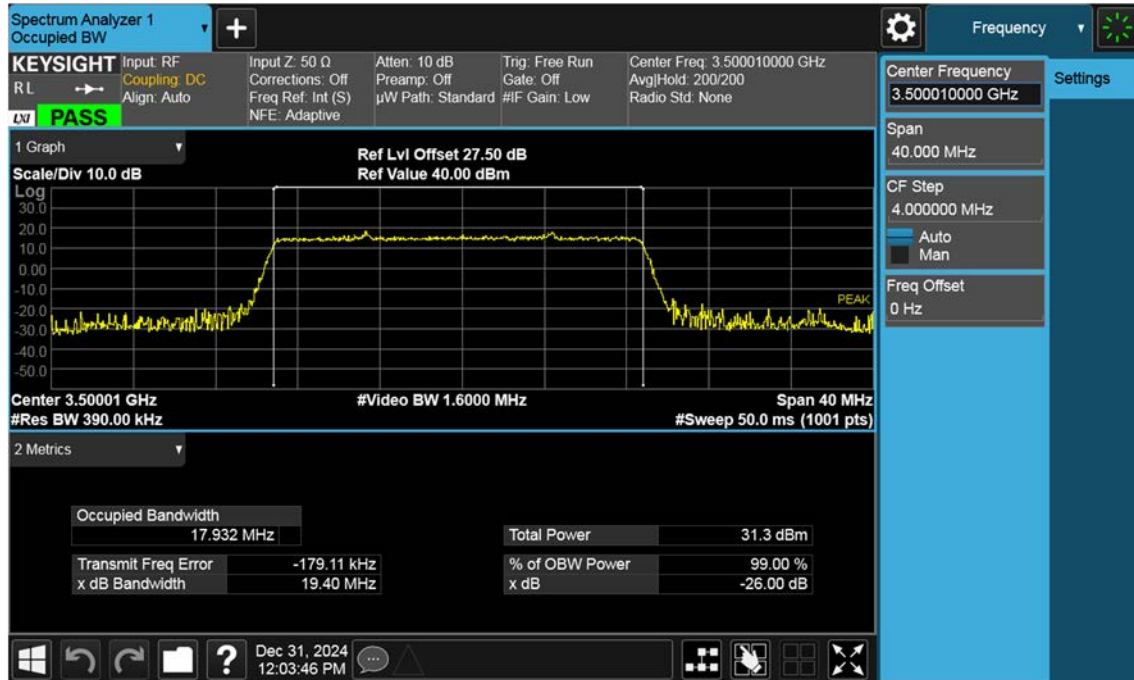
n77(3450~3550 MHz)_100 M_PAR_Mid_64QAM_FullRB



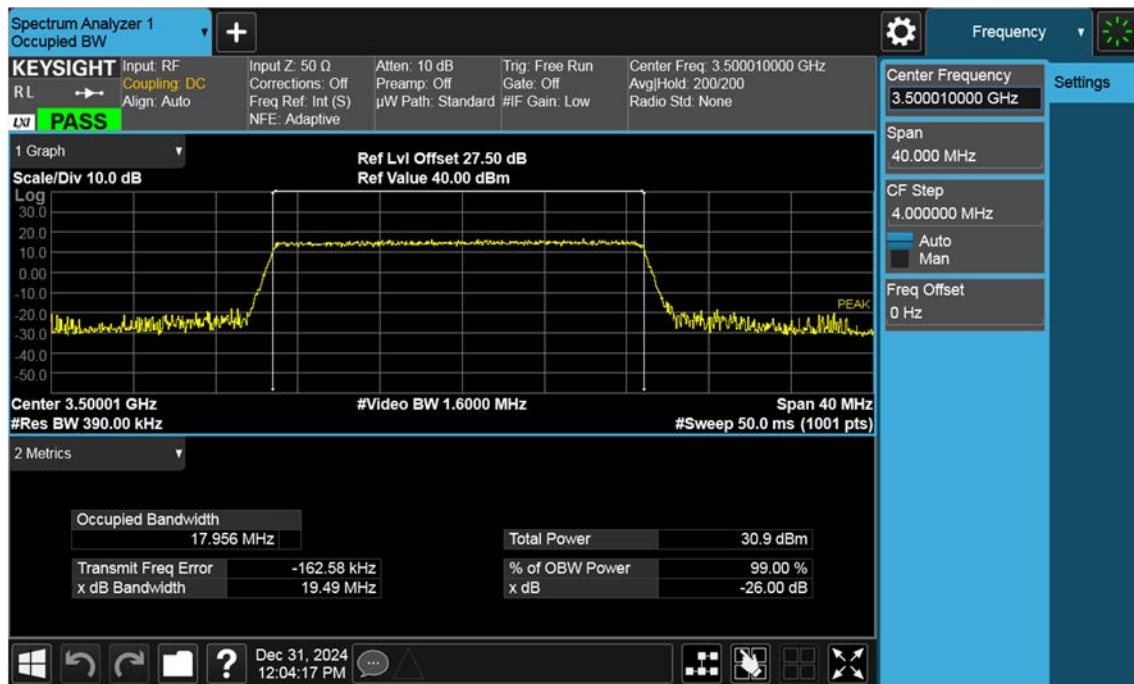
n77(3450~3550 MHz)_100 M_PAR_Mid_256QAM_FullRB



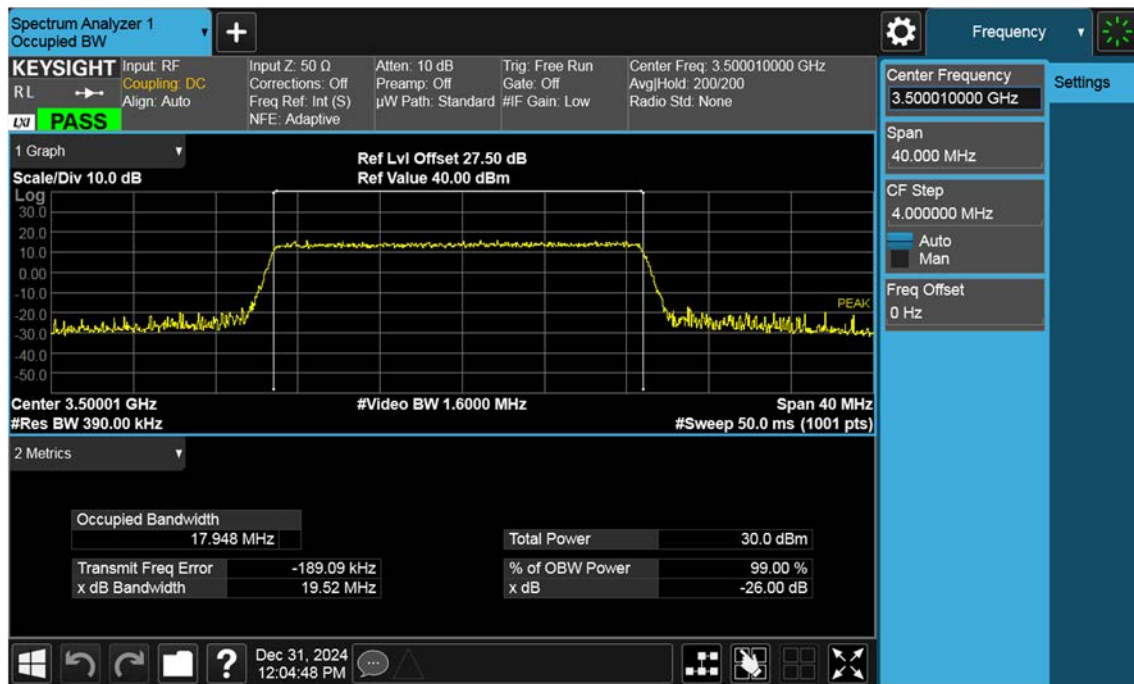
n77(3450~3550 MHz)_20 M_OBW_Mid_BPSK_FullRB



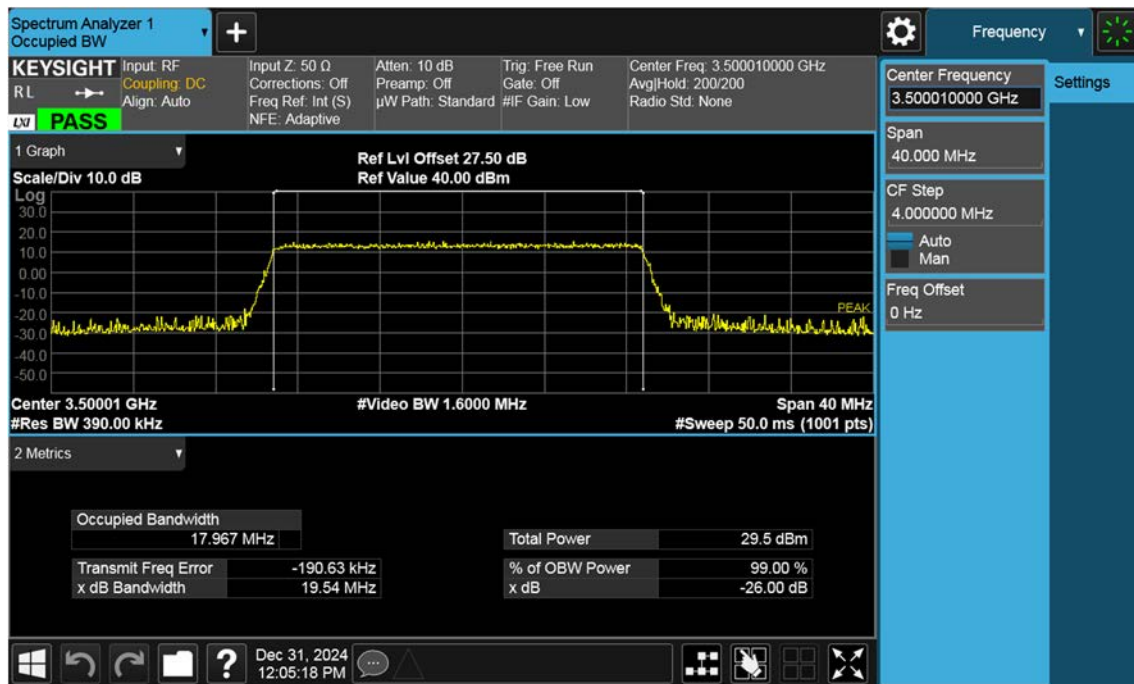
n77(3450~3550 MHz)_20 M_OBW_Mid_QPSK_FullRB



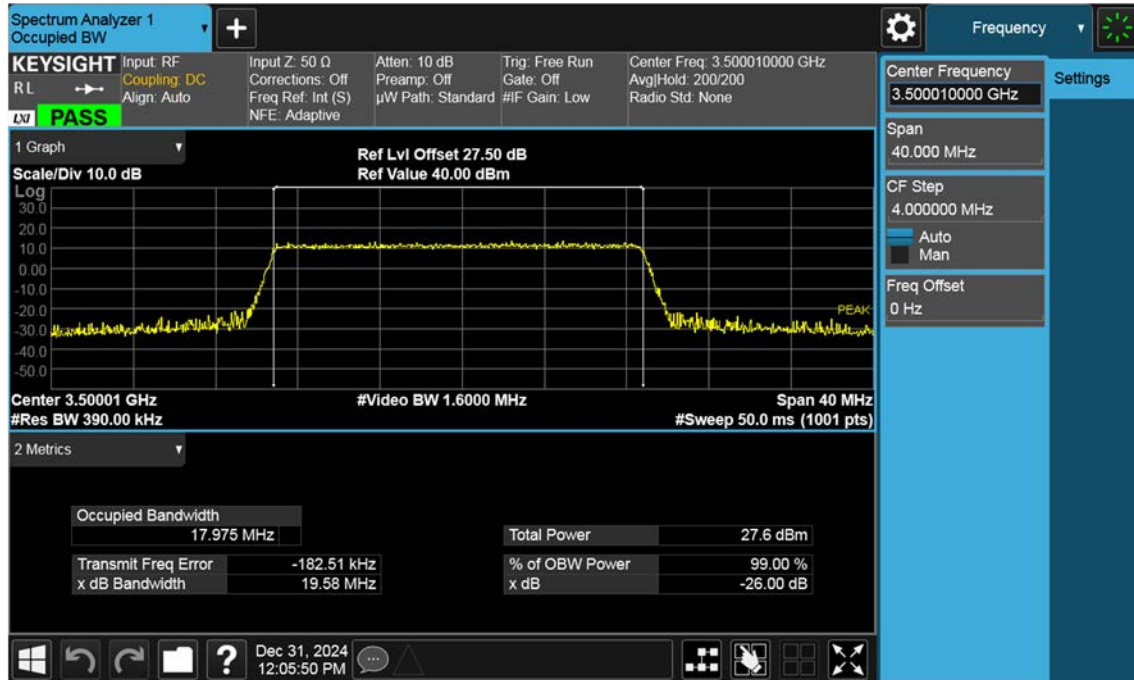
n77(3450~3550 MHz)_20 M_OBW_Mid_16QAM_FullRB



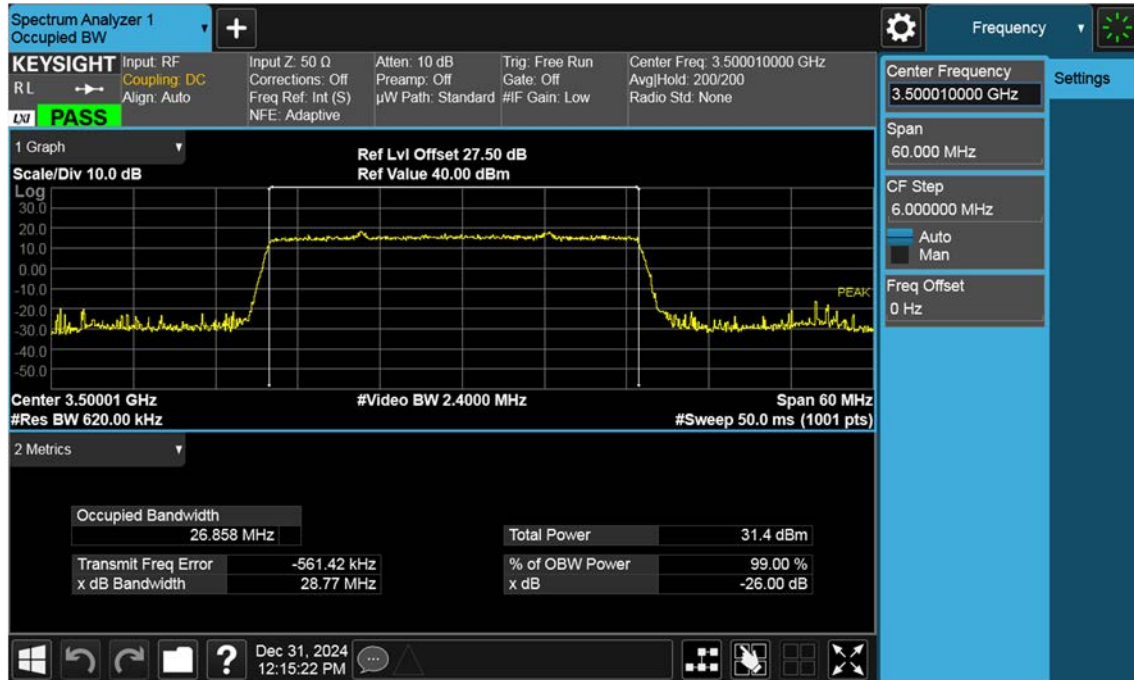
n77(3450~3550 MHz)_20 M_OBW_Mid_64QAM_FullRB



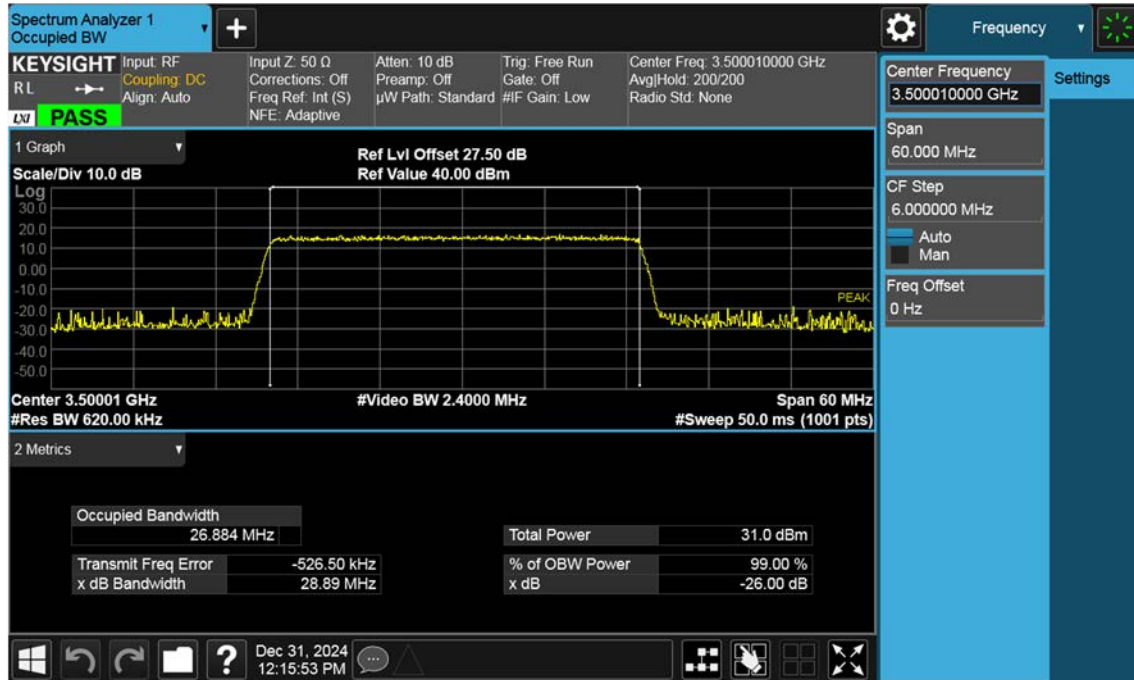
n77(3450~3550 MHz)_20 M_OBW_Mid_256QAM_FullRB



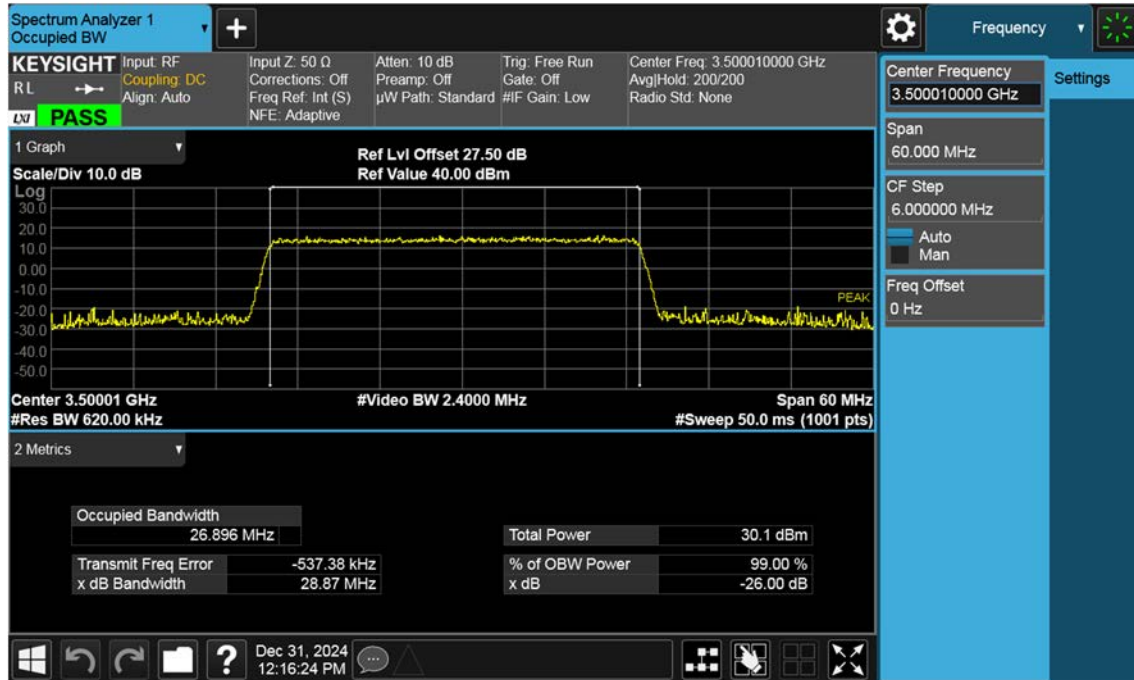
n77(3450~3550 MHz)_30 M_OBW_Mid_BPSK_FullRB



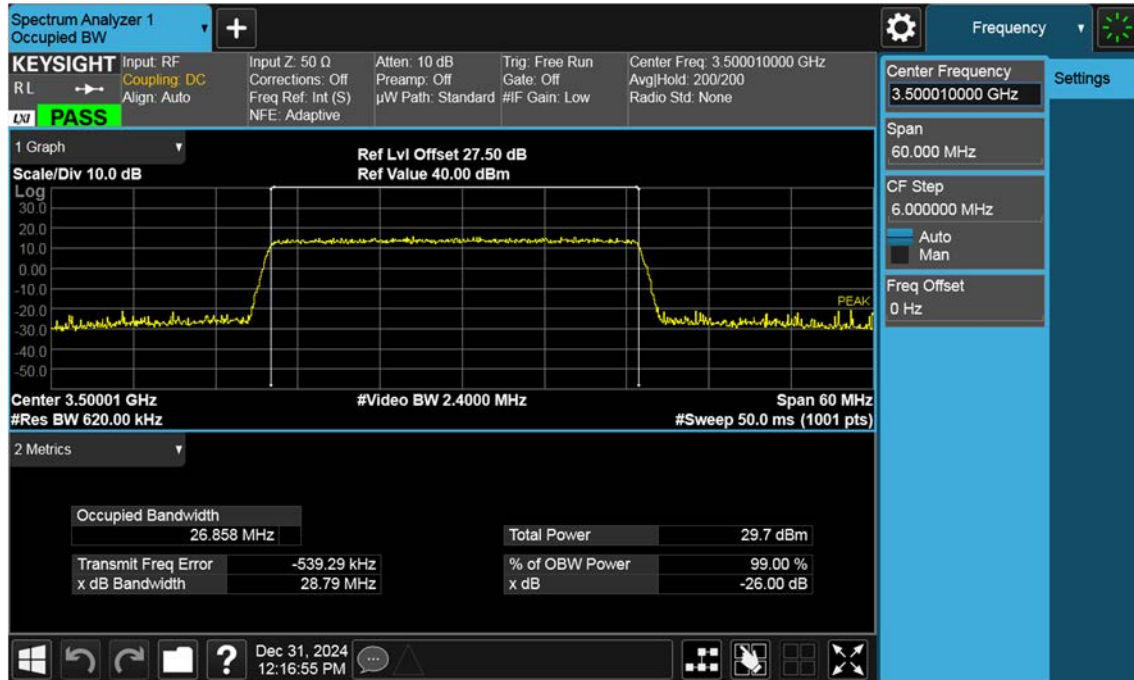
n77(3450~3550 MHz)_30 M_OBW_Mid_QPSK_FullRB



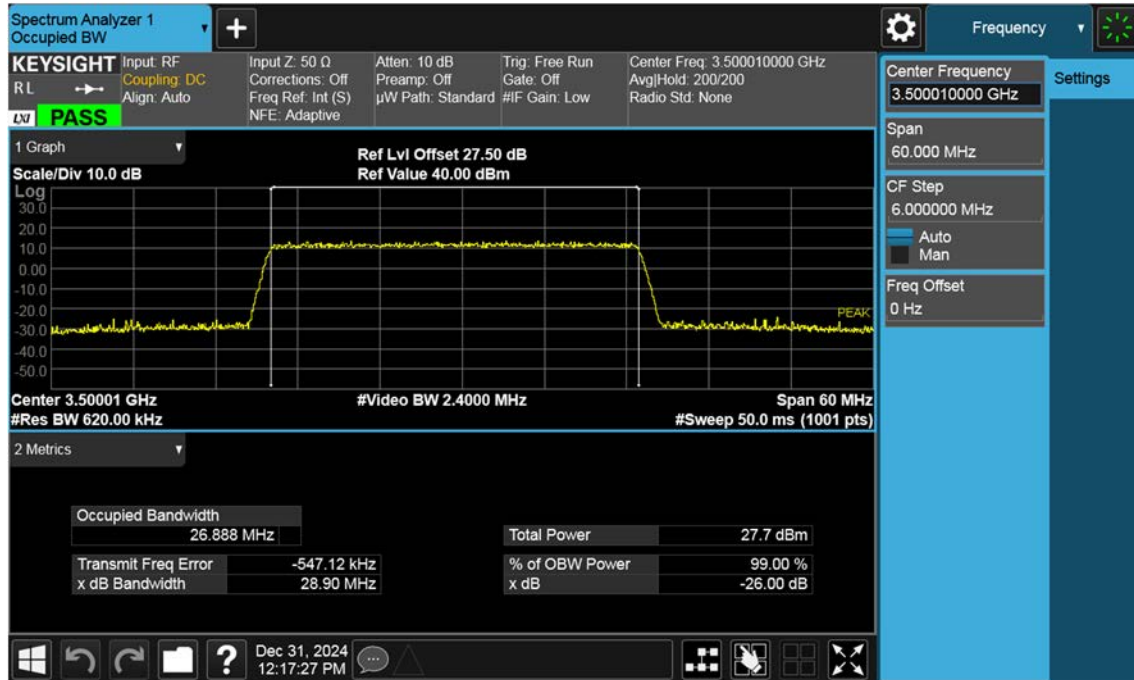
n77(3450~3550 MHz)_30 M_OBW_Mid_16QAM_FullRB



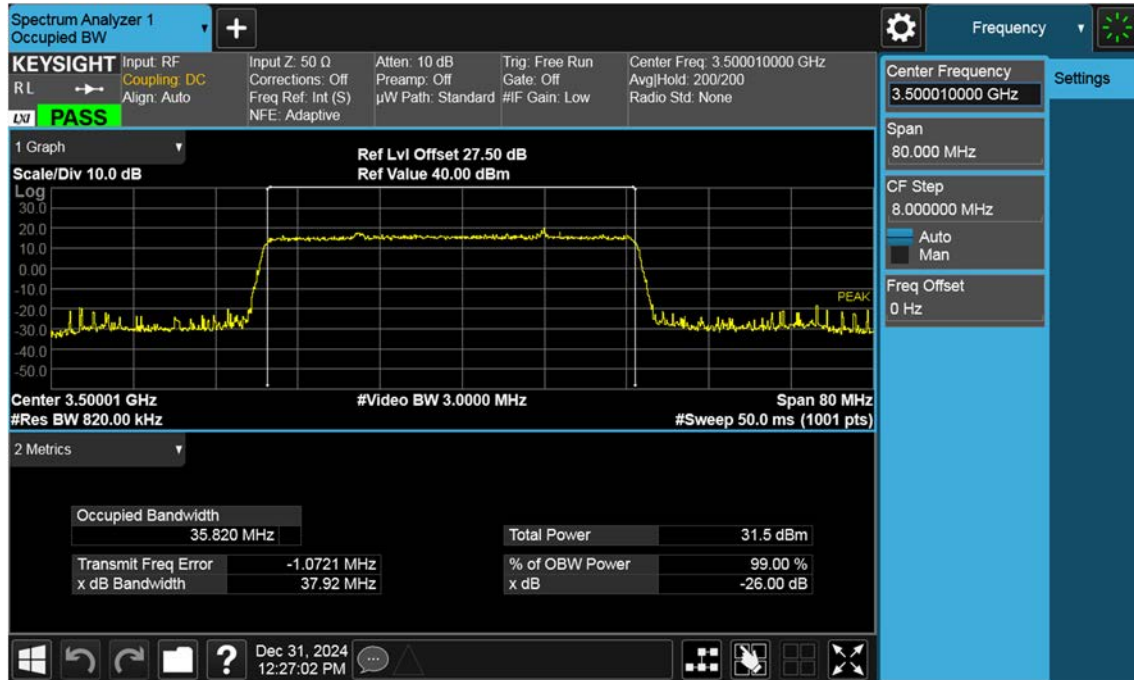
n77(3450~3550 MHz)_30 M_OBW_Mid_64QAM_FullRB



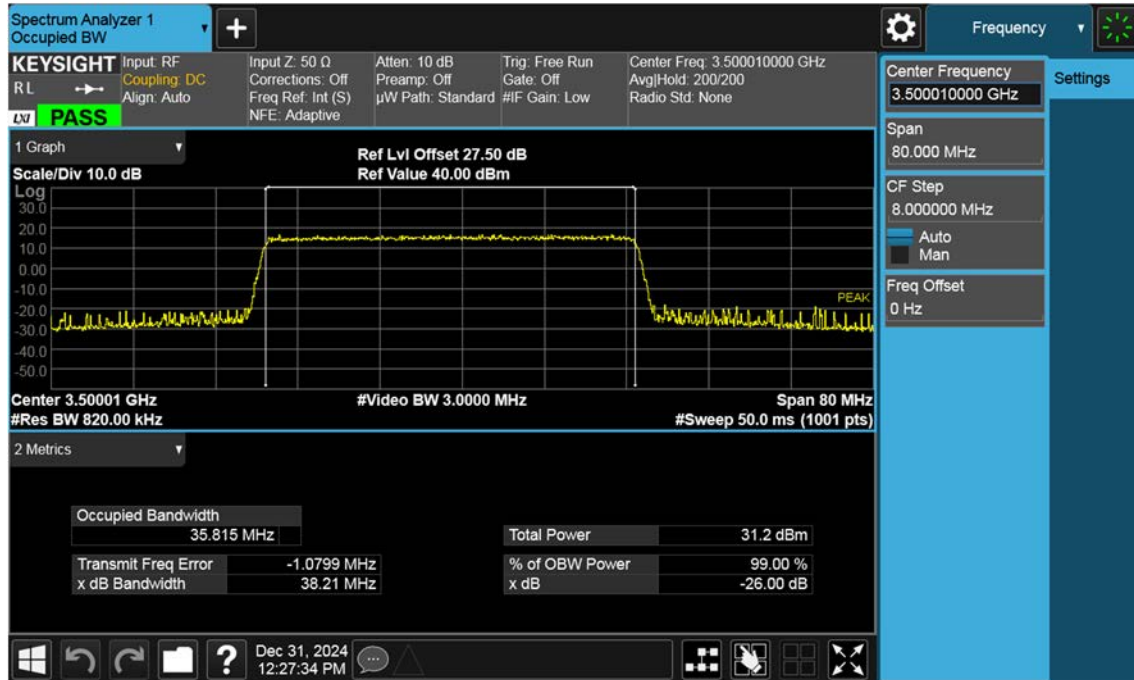
n77(3450~3550 MHz)_30 M_OBW_Mid_256QAM_FullRB



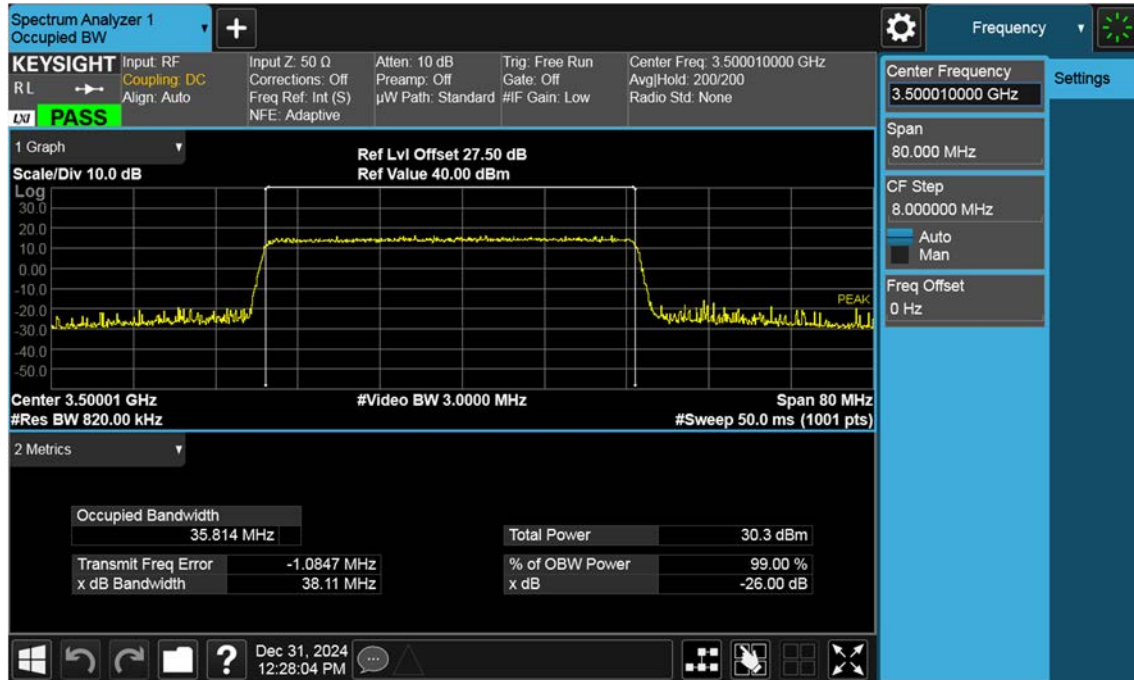
n77(3450~3550 MHz)_40 M_OBW_Mid_BPSK_FullRB



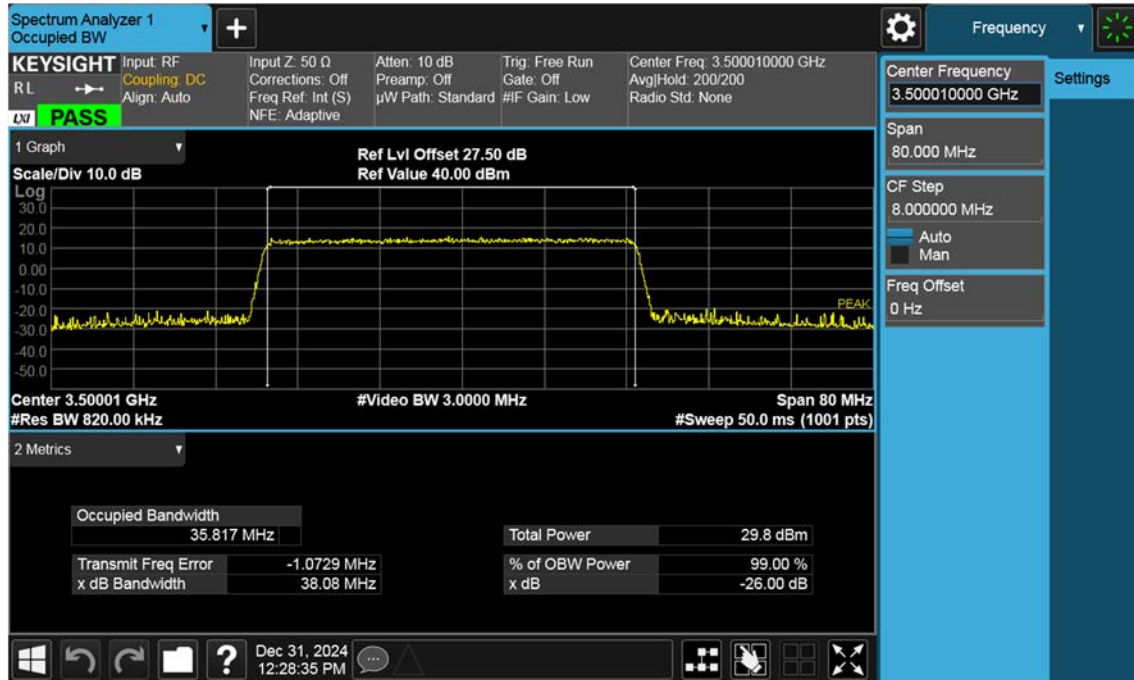
n77(3450~3550 MHz)_40 M_OBW_Mid_QPSK_FullRB



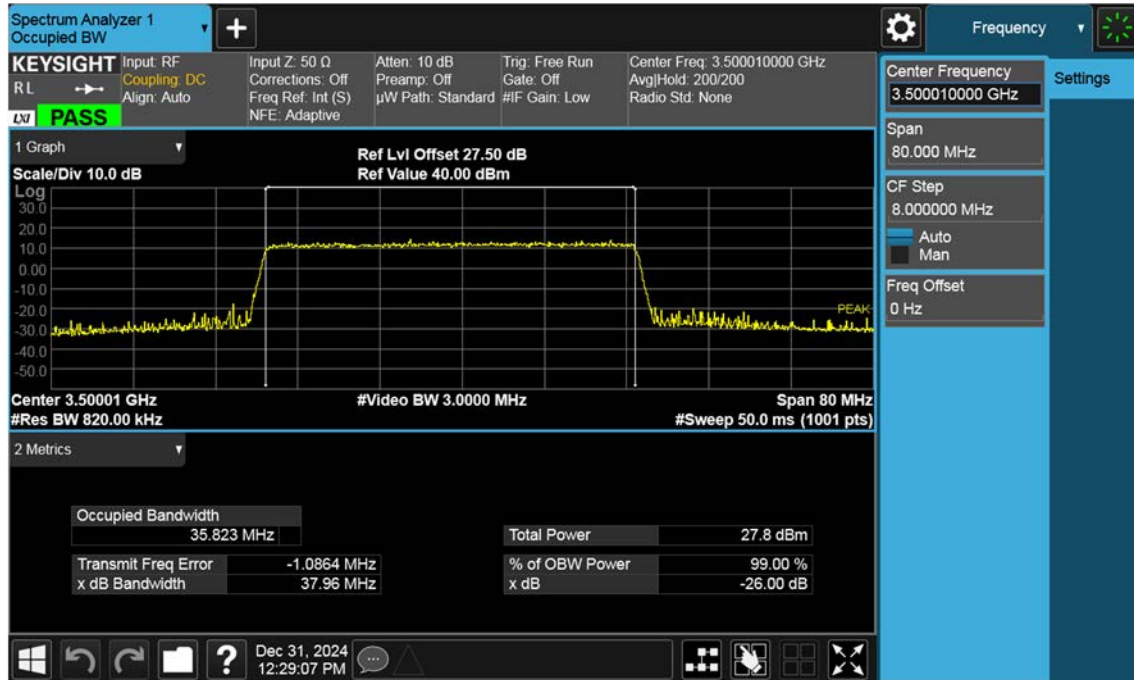
n77(3450~3550 MHz)_40 M_OBW_Mid_16QAM_FullRB



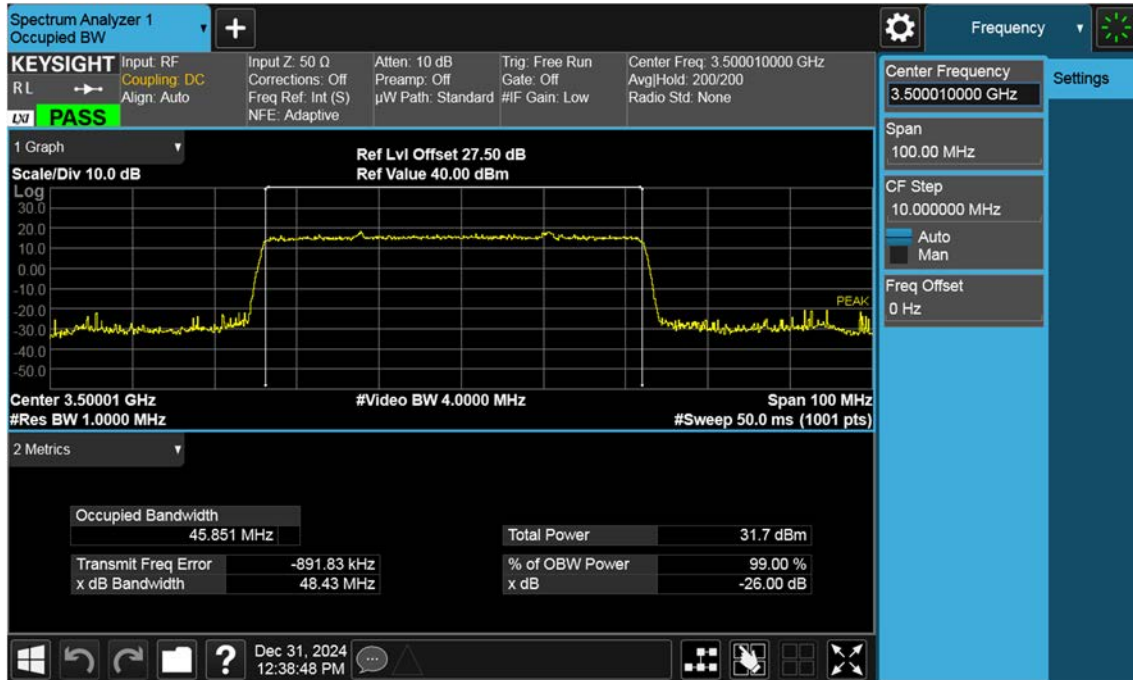
n77(3450~3550 MHz)_40 M_OBW_Mid_64QAM_FullRB



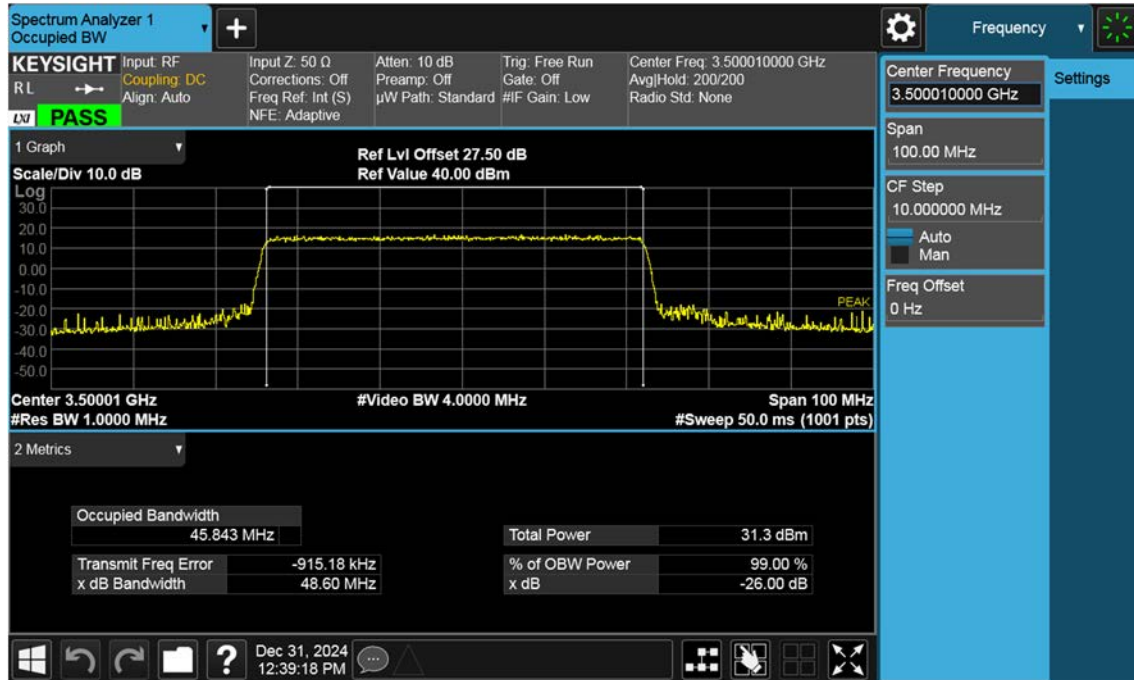
n77(3450~3550 MHz)_40 M_OBW_Mid_256QAM_FullRB



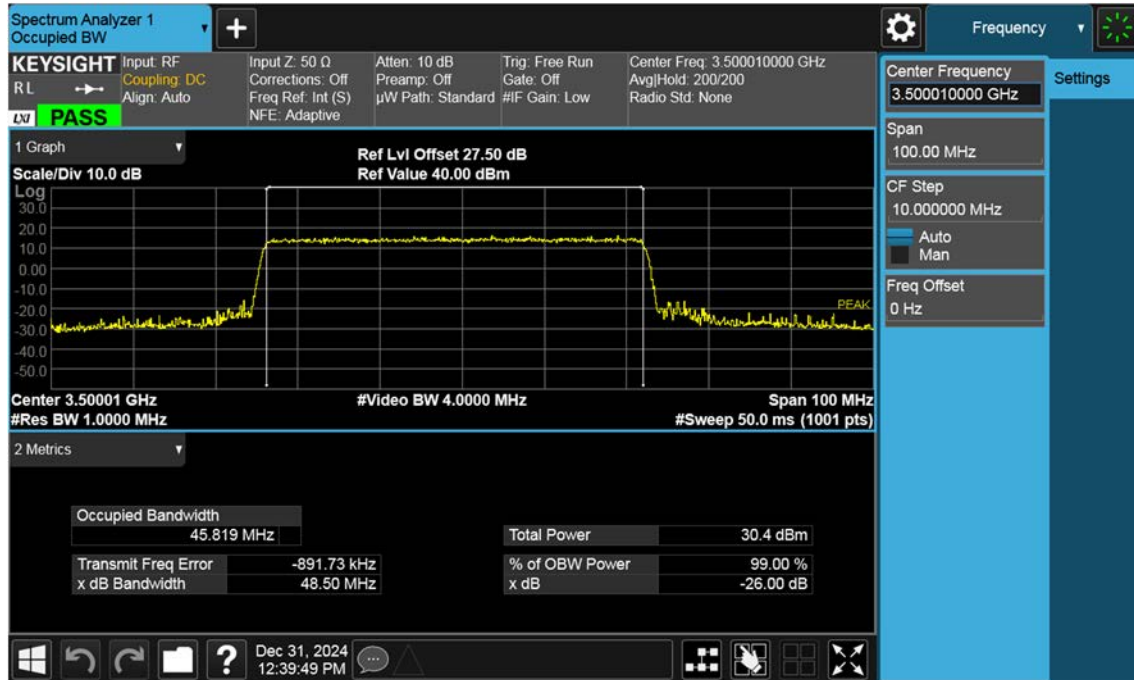
n77(3450~3550 MHz)_50 M_OBW_Mid_BPSK_FullRB



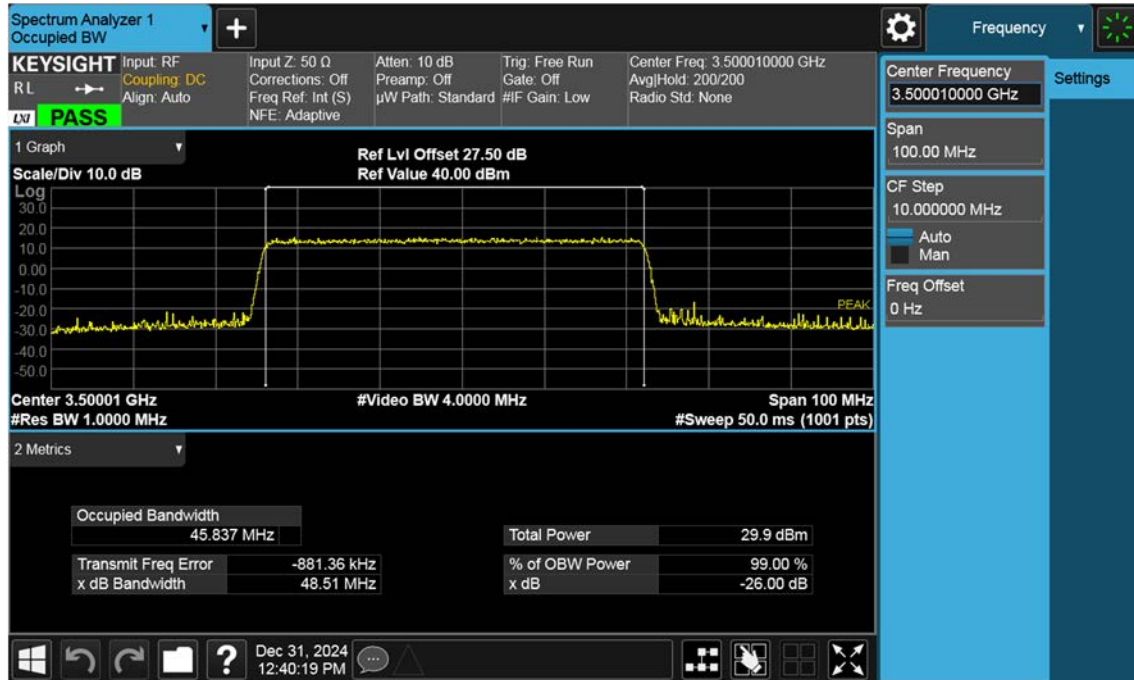
n77(3450~3550 MHz)_50 M_OBW_Mid_QPSK_FullRB



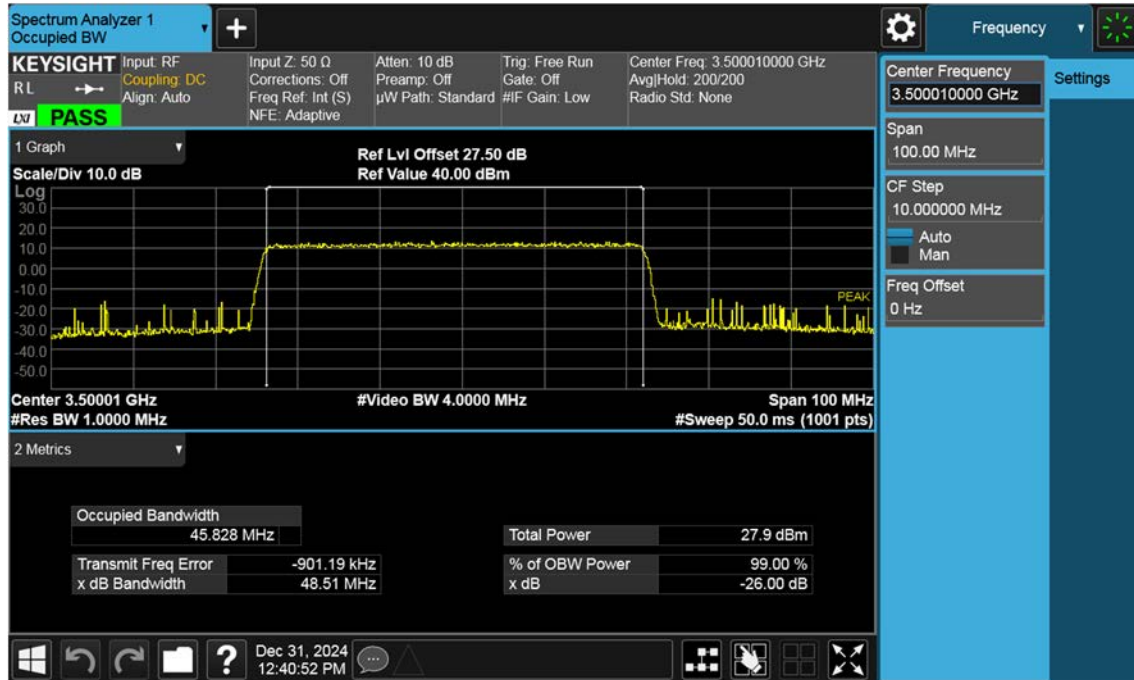
n77(3450~3550 MHz)_50 M_OBW_Mid_16QAM_FullRB



n77(3450~3550 MHz)_50 M_OBW_Mid_64QAM_FullRB



n77(3450~3550 MHz)_50 M_OBW_Mid_256QAM_FullRB



n77(3450~3550 MHz)_60 M_OBW_Mid_BPSK_FullRB

