

TEST REPORT

FCC Sub6 n77(78) Test for SM-X528U
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2502-FC023

DATE OF ISSUE
February 10, 2025

Tested by
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Applicant

SAMSUNG Electronics Co., Ltd.

129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Product Name

Tablet

Model Name

SM-X528U

Date of Test

December 23, 2024 ~ February 07, 2025

FCC ID

A3LSMX528U

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 Classification:

PCS Licensed Transmitter (PCB)

Test Standard Used

FCC Rule Part: § 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 10, 2025	Initial Release

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

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
FCC ID:	A3LSMX528U
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§ 27
EUT Type:	Tablet
Model(s):	SM-X528U
SCS(kHz):	30
Bandwidth(MHz):	10, 15, 20, 25, 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
Tx Frequency: (3450 MHz - 3550 MHz)	3455.01 MHz - 3544.99 MHz (Sub6 n77(78)(10 MHz)) 3457.50 MHz - 3542.50 MHz (Sub6 n77(78)(15 MHz)) 3460.02 MHz - 3540.00 MHz (Sub6 n77(78)(20 MHz)) 3462.50 MHz - 3537.50 MHz (Sub6 n77(78)(25 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))
Tx Frequency: (3700 MHz - 3980 MHz)	3705.00 MHz - 3975.00 MHz (Sub6 n77(78)(10 MHz)) 3707.51 MHz - 3972.48 MHz (Sub6 n77(78)(15 MHz)) 3710.01 MHz - 3969.99 MHz (Sub6 n77(78)(20 MHz)) 3712.50 MHz - 3967.50 MHz (Sub6 n77(78)(25 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)) 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 23, 2024 ~ February 07, 2025
Serial number:	Radiated : R32XC00A63Z Conducted : B32XC00A2XL (3450 MHz - 3550 MHz), B32XC00A2YJ (3700 MHz - 3980 MHz)

1.1 MAXIMUM OUTPUT POWER

1. 3450 MHz - 3550 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77(78) (10)	3455.01 – 3544.99	8M69G7D	PI/2 BPSK	0.506	27.04
		8M70G7D	QPSK	0.481	26.82
		8M67W7D	16QAM	0.391	25.92
		8M70W7D	64QAM	0.269	24.29
		8M69W7D	256QAM	0.169	22.27
Sub6 n77(78) (15)	3457.50 – 3542.50	13M0G7D	PI/2 BPSK	0.491	26.91
		13M0G7D	QPSK	0.484	26.85
		13M0W7D	16QAM	0.377	25.76
		13M0W7D	64QAM	0.257	24.10
		13M1W7D	256QAM	0.166	22.20
Sub6 n77(78) (20)	3460.02 – 3540.00	18M0G7D	PI/2 BPSK	0.483	26.84
		18M0G7D	QPSK	0.475	26.77
		18M0W7D	16QAM	0.375	25.74
		18M0W7D	64QAM	0.270	24.32
		18M0W7D	256QAM	0.167	22.23
Sub6 n77(78) (25)	3462.50 – 3537.50	23M1G7D	PI/2 BPSK	0.472	26.74
		23M0G7D	QPSK	0.470	26.72
		23M0W7D	16QAM	0.373	25.72
		23M1W7D	64QAM	0.270	24.32
		23M0W7D	256QAM	0.171	22.33
Sub6 n77(78) (30)	3465.00 – 3534.99	27M0G7D	PI/2 BPSK	0.495	26.95
		27M0G7D	QPSK	0.480	26.81
		27M0W7D	16QAM	0.399	26.01
		27M0W7D	64QAM	0.267	24.27
		27M0W7D	256QAM	0.170	22.31
Sub6 n77(78) (40)	3470.01 – 3529.98	35M9G7D	PI/2 BPSK	0.508	27.06
		35M9G7D	QPSK	0.498	26.97
		36M0W7D	16QAM	0.394	25.95
		36M0W7D	64QAM	0.278	24.44
		35M9W7D	256QAM	0.174	22.40
Sub6 n77(78) (50)	3475.02 – 3525.00	46M0G7D	PI/2 BPSK	0.508	27.06
		46M0G7D	QPSK	0.506	27.04
		46M1W7D	16QAM	0.402	26.04
		46M0W7D	64QAM	0.285	24.55
		46M0W7D	256QAM	0.185	22.67
Sub6 n77(78) (60)	3480.00 – 3519.99	58M3G7D	PI/2 BPSK	0.520	27.16
		58M2G7D	QPSK	0.515	27.12
		58M1W7D	16QAM	0.419	26.22
		58M3W7D	64QAM	0.305	24.85
		58M1W7D	256QAM	0.176	22.46
Sub6 n77(78) (70)	3485.01 – 3514.98	64M9G7D	PI/2 BPSK	0.537	27.30
		64M8G7D	QPSK	0.526	27.21
		64M8W7D	16QAM	0.410	26.13
		64M6W7D	64QAM	0.285	24.55
		64M9W7D	256QAM	0.183	22.63
Sub6 n77(78) (80)	3490.02 – 3510.00	77M7G7D	PI/2 BPSK	0.530	27.24
		77M5G7D	QPSK	0.526	27.21
		77M5W7D	16QAM	0.408	26.11
		77M4W7D	64QAM	0.296	24.71
		77M5W7D	256QAM	0.181	22.57
Sub6 n77(78) (90)	3495.00 – 3504.99	87M3G7D	PI/2 BPSK	0.522	27.18
		87M2G7D	QPSK	0.521	27.17
		87M2W7D	16QAM	0.419	26.22
		87M2W7D	64QAM	0.294	24.69
		87M3W7D	256QAM	0.185	22.68
Sub6 n77(78) (100)	3500.01	96M8G7D	PI/2 BPSK	0.535	27.28
		96M8G7D	QPSK	0.524	27.19
		97M0W7D	16QAM	0.423	26.26
		96M8W7D	64QAM	0.299	24.75
		96M7W7D	256QAM	0.187	22.71

2. 3700 MHz - 3980 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77(78) (10)	3705.00 – 3975.00	8M62G7D	PI/2 BPSK	0.577	27.61
		8M65G7D	QPSK	0.574	27.59
		8M64W7D	16QAM	0.472	26.74
		8M63W7D	64QAM	0.319	25.04
		8M67W7D	256QAM	0.196	22.93
Sub6 n77(78) (15)	3707.51 – 3972.48	13M0G7D	PI/2 BPSK	0.585	27.67
		12M9G7D	QPSK	0.569	27.55
		13M0W7D	16QAM	0.450	26.53
		13M0W7D	64QAM	0.313	24.95
		12M9W7D	256QAM	0.205	23.11
Sub6 n77(78) (20)	3710.01 – 3969.99	17M9G7D	PI/2 BPSK	0.582	27.65
		18M0G7D	QPSK	0.579	27.63
		18M0W7D	16QAM	0.460	26.63
		18M0W7D	64QAM	0.323	25.09
		18M0W7D	256QAM	0.204	23.10
Sub6 n77(78) (25)	3712.50 – 3967.50	23M1G7D	PI/2 BPSK	0.611	27.86
		23M1G7D	QPSK	0.593	27.73
		23M0W7D	16QAM	0.466	26.68
		22M9W7D	64QAM	0.339	25.30
		23M0W7D	256QAM	0.208	23.19
Sub6 n77(78) (30)	3715.02 – 3964.98	27M0G7D	PI/2 BPSK	0.630	27.99
		26M9G7D	QPSK	0.605	27.82
		27M0W7D	16QAM	0.475	26.77
		27M0W7D	64QAM	0.347	25.40
		26M9W7D	256QAM	0.206	23.14
Sub6 n77(78) (40)	3720.00 – 3960.00	36M0G7D	PI/2 BPSK	0.612	27.87
		36M0G7D	QPSK	0.605	27.82
		35M9W7D	16QAM	0.483	26.84
		36M0W7D	64QAM	0.352	25.47
		35M9W7D	256QAM	0.224	23.50
Sub6 n77(78) (50)	3725.10 – 3954.99	46M0G7D	PI/2 BPSK	0.643	28.08
		45M9G7D	QPSK	0.615	27.89
		45M8W7D	16QAM	0.490	26.90
		45M9W7D	64QAM	0.340	25.32
		45M8W7D	256QAM	0.201	23.04
Sub6 n77(78) (60)	3730.02 – 3949.98	58M1G7D	PI/2 BPSK	0.635	28.03
		58M1G7D	QPSK	0.615	27.89
		58M2W7D	16QAM	0.491	26.91
		58M0W7D	64QAM	0.345	25.38
		58M2W7D	256QAM	0.216	23.34
Sub6 n77(78) (70)	3735.00 – 3945.00	64M7G7D	PI/2 BPSK	0.637	28.04
		64M7G7D	QPSK	0.624	27.95
		64M6W7D	16QAM	0.525	27.20
		64M5W7D	64QAM	0.373	25.72
		64M7W7D	256QAM	0.218	23.38
Sub6 n77(78) (80)	3740.01 – 3939.99	77M4G7D	PI/2 BPSK	0.641	28.07
		77M3G7D	QPSK	0.638	28.05
		77M3W7D	16QAM	0.473	26.75
		77M4W7D	64QAM	0.366	25.64
		77M5W7D	256QAM	0.232	23.66
Sub6 n77(78) (90)	3745.02 – 3934.98	86M8G7D	PI/2 BPSK	0.668	28.25
		86M9G7D	QPSK	0.661	28.20
		87M0W7D	16QAM	0.513	27.10
		87M0W7D	64QAM	0.380	25.80
		86M9W7D	256QAM	0.230	23.61
Sub6 n77(78) (100)	3750.00 – 3930.00	96M1G7D	PI/2 BPSK	0.650	28.13
		96M5G7D	QPSK	0.638	28.05
		96M2W7D	16QAM	0.530	27.24
		96M2W7D	64QAM	0.375	25.74
		96M5W7D	256QAM	0.240	23.81

2. INTRODUCTION

2.1 DESCRIPTION OF EUT

Please refer to the [3G] 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 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points > 2 x 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;

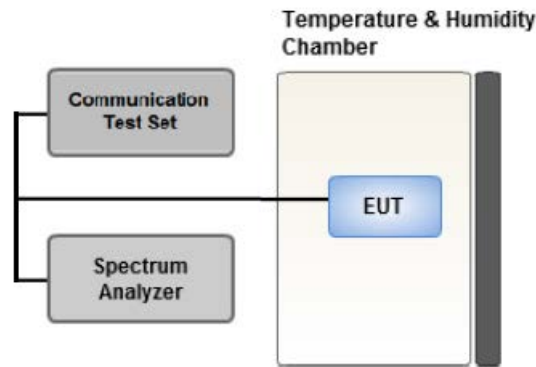
$$\text{Result}_{(\text{dBm})} = P_g_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

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)

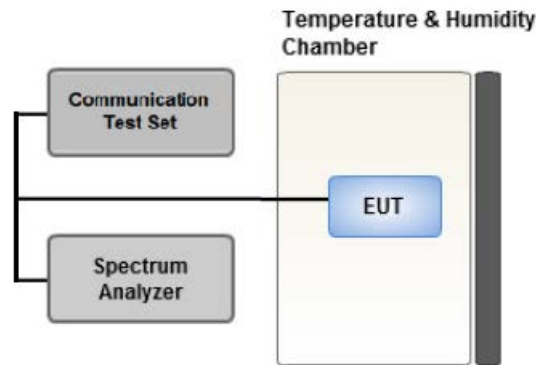
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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.

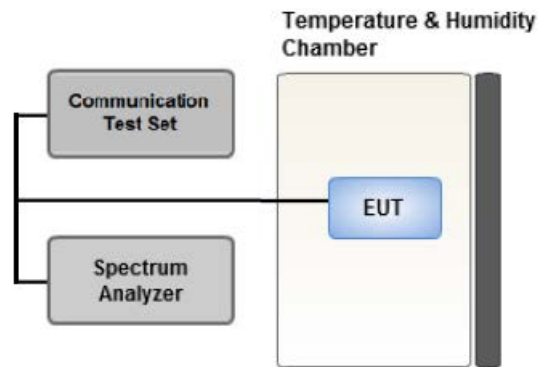
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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 x 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

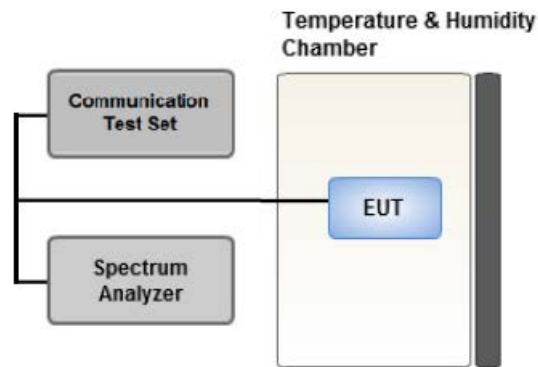
Test Overview

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 x 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.

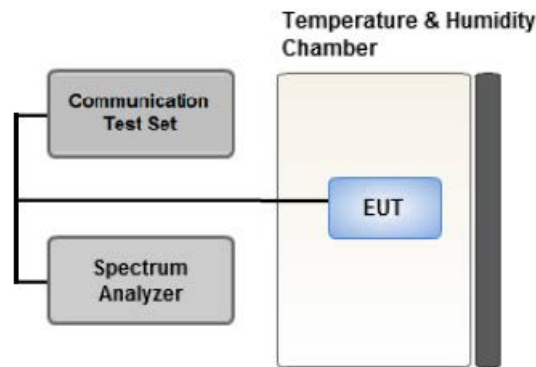
However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz.

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 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)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
(Worst case: DFT-S-OFDM)
- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- 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: NSA, SA, SRS
Worst case: SA
Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
Worst case : Stand alone
- 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.
- All power classes were tested, and the results were reported for the worst case PC2.
- 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.
- 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 : 70 MHz(3450 MHz – 3550 MHz), 90 MHz (3700 MHz – 3980 MHz))

[3450 MHz - 3550 MHz Worst case]

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

[3700 MHz - 3980 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	See Section 9.1		X
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		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: NSA, SA, SRS
Worst case: SA
- All power classes were tested, and the results were reported for the worst case PC2.
- 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, 64QAM, 256QAM	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Band Edge	PI/2 BPSK	10	Low	1	0
			High	1	23
		15	Low	1	0
			High	1	37
		20	Low	1	0
			High	1	50
		25	Low	1	0
			High	1	64
		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
		90	Low	1	0
			High	1	244
		100	Low	1	0
			High	1	272
		10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	1	1

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/10/2026	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	02/14/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/27/2025	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
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	01/06/2027	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	08/28/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	08/19/2026	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/14/2025	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/14/2025	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/14/2025	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/14/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/22/2025	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	02/04/2026	Annual
Chamber	SU-642	ESPEC	93008124	02/19/2025	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/04/2025	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/17/2025	Annual
Spectrum Analyzer (10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/04/2026	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/23/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/16/2025	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/14/2025	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/10/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	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

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	<u>See Note1</u>
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.

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
3455.01	Sub6 n77(78)/ 10 MHz [30 kHz]	PI/2 BPSK	-20.29	17.69	11.96	3.04	H	< 1.00	0.458	26.61	1	12
		QPSK	-20.36	17.62	11.96	3.04	H		0.451	26.54		
		16-QAM	-21.42	16.56	11.96	3.04	H		0.353	25.48		
		64-QAM	-22.90	15.08	11.96	3.04	H		0.251	24.00		
		256-QAM	-24.84	13.14	11.96	3.04	H		0.161	22.06		
3500.01		PI/2 BPSK	-21.70	16.62	12.04	3.04	H		0.365	25.62	1	12
		QPSK	-21.91	16.41	12.04	3.04	H		0.348	25.41		
		16-QAM	-22.70	15.62	12.04	3.04	H		0.290	24.62		
		64-QAM	-24.04	14.28	12.04	3.04	H		0.213	23.28		
		256-QAM	-26.42	11.90	12.04	3.04	H		0.123	20.90		
3544.99		PI/2 BPSK	-20.28	18.07	12.04	3.07	H		0.506	27.04	1	12
		QPSK	-20.50	17.85	12.04	3.07	H		0.481	26.82		
		16-QAM	-21.40	16.95	12.04	3.07	H		0.391	25.92		
		64-QAM	-23.03	15.32	12.04	3.07	H		0.269	24.29		
		256-QAM	-25.05	13.30	12.04	3.07	H		0.169	22.27		

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
3457.50	Sub6 n77(78)/ 15 MHz [30 kHz]	PI/2 BPSK	-20.29	17.72	12.00	3.04	H	< 1.00	0.466	26.68	1	19
		QPSK	-20.41	17.60	12.00	3.04	H		0.453	26.56		
		16-QAM	-21.31	16.70	12.00	3.04	H		0.368	25.66		
		64-QAM	-23.02	14.99	12.00	3.04	H		0.248	23.95		
		256-QAM	-24.85	13.16	12.00	3.04	H		0.163	22.12		
3500.01		PI/2 BPSK	-21.69	16.63	12.04	3.04	H		0.366	25.63	1	19
		QPSK	-21.70	16.62	12.04	3.04	H		0.365	25.62		
		16-QAM	-22.62	15.70	12.04	3.04	H		0.295	24.70		
		64-QAM	-23.91	14.41	12.04	3.04	H		0.219	23.41		
		256-QAM	-26.18	12.14	12.04	3.04	H		0.130	21.14		
3542.50		PI/2 BPSK	-20.41	17.94	12.04	3.07	H		0.491	26.91	1	19
		QPSK	-20.47	17.88	12.04	3.07	H		0.484	26.85		
		16-QAM	-21.56	16.79	12.04	3.07	H		0.377	25.76		
		64-QAM	-23.22	15.13	12.04	3.07	H		0.257	24.10		
		256-QAM	-25.12	13.23	12.04	3.07	H		0.166	22.20		

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	-20.21	17.80	12.00	3.04	H	< 1.00	0.474	26.76	1	1
		QPSK	-20.36	17.65	12.00	3.04	H		0.458	26.61		
		16-QAM	-21.23	16.78	12.00	3.04	H		0.375	25.74		
		64-QAM	-22.69	15.32	12.00	3.04	H		0.268	24.28		
		256-QAM	-24.75	13.26	12.00	3.04	H		0.167	22.22		
3500.01	Sub6 n77(78)/ 20 MHz [30 kHz]	PI/2 BPSK	-21.62	16.70	12.04	3.04	H	< 1.00	0.372	25.70	1	1
		QPSK	-21.66	16.66	12.04	3.04	H		0.368	25.66		
		16-QAM	-22.53	15.79	12.04	3.04	H		0.301	24.79		
		64-QAM	-23.97	14.35	12.04	3.04	H		0.216	23.35		
		256-QAM	-26.16	12.16	12.04	3.04	H		0.131	21.16		
3540.00		PI/2 BPSK	-20.42	17.86	12.04	3.06	H	< 1.00	0.483	26.84	1	49
		QPSK	-20.49	17.79	12.04	3.06	H		0.475	26.77		
		16-QAM	-21.63	16.65	12.04	3.06	H		0.366	25.63		
		64-QAM	-22.94	15.34	12.04	3.06	H		0.270	24.32		
		256-QAM	-25.03	13.25	12.04	3.06	H		0.167	22.23		

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
3462.50	Sub6 n77(78)/ 25 MHz [30 kHz]	PI/2 BPSK	-20.28	17.72	12.02	3.02	H	< 1.00	0.470	26.72	1	1
		QPSK	-20.33	17.67	12.02	3.02	H		0.465	26.67		
		16-QAM	-21.36	16.64	12.02	3.02	H		0.366	25.64		
		64-QAM	-22.68	15.32	12.02	3.02	H		0.270	24.32		
		256-QAM	-25.06	12.94	12.02	3.02	H		0.156	21.94		
3500.01		PI/2 BPSK	-21.59	16.73	12.04	3.04	H		0.374	25.73	1	1
		QPSK	-21.63	16.69	12.04	3.04	H		0.371	25.69		
		16-QAM	-22.80	15.52	12.04	3.04	H		0.283	24.52		
		64-QAM	-23.97	14.35	12.04	3.04	H		0.216	23.35		
		256-QAM	-26.09	12.23	12.04	3.04	H		0.133	21.23		
3537.50		PI/2 BPSK	-20.52	17.76	12.04	3.06	H		0.472	26.74	1	63
		QPSK	-20.54	17.74	12.04	3.06	H		0.470	26.72		
		16-QAM	-21.54	16.74	12.04	3.06	H		0.373	25.72		
		64-QAM	-23.00	15.28	12.04	3.06	H		0.267	24.26		
		256-QAM	-24.93	13.35	12.04	3.06	H		0.171	22.33		

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	-20.05	17.95	12.02	3.02	H	< 1.00	0.496	26.95	1	1
		QPSK	-20.22	17.78	12.02	3.02	H		0.476	26.78		
		16-QAM	-21.19	16.81	12.02	3.02	H		0.381	25.81		
		64-QAM	-22.75	15.25	12.02	3.02	H		0.266	24.25		
		256-QAM	-24.78	13.22	12.02	3.02	H		0.167	22.22		
3500.01	Sub6 n77(78)/ 30 MHz [30 kHz]	PI/2 BPSK	-21.38	16.94	12.04	3.04	H	< 1.00	0.393	25.94	1	1
		QPSK	-21.46	16.86	12.04	3.04	H		0.386	25.86		
		16-QAM	-22.49	15.83	12.04	3.04	H		0.304	24.83		
		64-QAM	-24.02	14.30	12.04	3.04	H		0.214	23.30		
		256-QAM	-26.09	12.23	12.04	3.04	H		0.133	21.23		
3534.99		PI/2 BPSK	-20.35	17.95	12.04	3.05	H	< 1.00	0.494	26.94	1	76
		QPSK	-20.48	17.82	12.04	3.05	H		0.480	26.81		
		16-QAM	-21.28	17.02	12.04	3.05	H		0.399	26.01		
		64-QAM	-23.02	15.28	12.04	3.05	H		0.267	24.27		
		256-QAM	-24.98	13.32	12.04	3.05	H		0.170	22.31		

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	-20.14	17.86	12.04	3.01	H	< 1.00	0.489	26.89	1	1
		QPSK	-20.15	17.85	12.04	3.01	H		0.488	26.88		
		16-QAM	-21.08	16.92	12.04	3.01	H		0.394	25.95		
		64-QAM	-22.78	15.22	12.04	3.01	H		0.266	24.25		
		256-QAM	-24.77	13.23	12.04	3.01	H		0.168	22.26		
3500.01	Sub6 n77(78)/ 40 MHz [30 kHz]	PI/2 BPSK	-21.32	17.00	12.04	3.04	H	< 1.00	0.398	26.00	1	1
		QPSK	-21.34	16.98	12.04	3.04	H		0.396	25.98		
		16-QAM	-22.36	15.96	12.04	3.04	H		0.313	24.96		
		64-QAM	-24.04	14.28	12.04	3.04	H		0.213	23.28		
		256-QAM	-25.96	12.36	12.04	3.04	H		0.137	21.36		
3529.98		PI/2 BPSK	-20.25	18.07	12.04	3.05	H	< 1.00	0.508	27.06	1	104
		QPSK	-20.34	17.98	12.04	3.05	H		0.498	26.97		
		16-QAM	-21.53	16.79	12.04	3.05	H		0.378	25.78		
		64-QAM	-22.87	15.45	12.04	3.05	H		0.278	24.44		
		256-QAM	-24.91	13.41	12.04	3.05	H		0.174	22.40		

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
3475.02		PI/2 BPSK	-20.13	17.89	12.04	3.02	H	< 1.00	0.491	26.91	1	1
		QPSK	-20.27	17.75	12.04	3.02	H		0.475	26.77		
		16-QAM	-21.15	16.87	12.04	3.02	H		0.388	25.89		
		64-QAM	-22.49	15.53	12.04	3.02	H		0.285	24.55		
		256-QAM	-24.95	13.07	12.04	3.02	H		0.162	22.09		
3500.01	Sub6 n77(78)/ 50 MHz [30 kHz]	PI/2 BPSK	-21.17	17.15	12.04	3.04	H	< 1.00	0.412	26.15	1	1
		QPSK	-21.38	16.94	12.04	3.04	H		0.393	25.94		
		16-QAM	-22.29	16.03	12.04	3.04	H		0.318	25.03		
		64-QAM	-23.74	14.58	12.04	3.04	H		0.228	23.58		
		256-QAM	-25.75	12.57	12.04	3.04	H		0.144	21.57		
3525.00		PI/2 BPSK	-20.34	18.06	12.04	3.04	H	< 1.00	0.508	27.06	1	131
		QPSK	-20.36	18.04	12.04	3.04	H		0.506	27.04		
		16-QAM	-21.36	17.04	12.04	3.04	H		0.402	26.04		
		64-QAM	-22.96	15.44	12.04	3.04	H		0.278	24.44		
		256-QAM	-24.73	13.67	12.04	3.04	H		0.185	22.67		

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	-20.16	17.87	12.04	3.02	H	< 1.00	0.489	26.89	1	1
		QPSK	-20.30	17.73	12.04	3.02	H		0.473	26.75		
		16-QAM	-21.34	16.69	12.04	3.02	H		0.372	25.71		
		64-QAM	-22.77	15.26	12.04	3.02	H		0.268	24.28		
		256-QAM	-24.91	13.12	12.04	3.02	H		0.164	22.14		
3500.01	Sub6 n77(78)/ 60 MHz [30 kHz]	PI/2 BPSK	-21.07	17.25	12.04	3.04	H	< 1.00	0.422	26.25	1	1
		QPSK	-21.12	17.20	12.04	3.04	H		0.417	26.20		
		16-QAM	-22.02	16.30	12.04	3.04	H		0.339	25.30		
		64-QAM	-23.34	14.98	12.04	3.04	H		0.250	23.98		
		256-QAM	-25.71	12.61	12.04	3.04	H		0.145	21.61		
3519.99		PI/2 BPSK	-20.33	18.16	12.04	3.04	H	< 1.00	0.520	27.16	1	160
		QPSK	-20.37	18.12	12.04	3.04	H		0.515	27.12		
		16-QAM	-21.27	17.22	12.04	3.04	H		0.419	26.22		
		64-QAM	-22.64	15.85	12.04	3.04	H		0.306	24.85		
		256-QAM	-25.03	13.46	12.04	3.04	H		0.176	22.46		

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	Sub6 n77(78)/ 70 MHz [30 kHz]	PI/2 BPSK	-20.12	17.98	12.04	3.03	H	< 1.00	0.500	26.99	1	1
		QPSK	-20.24	17.86	12.04	3.03	H		0.486	26.87		
		16-QAM	-21.24	16.86	12.04	3.03	H		0.386	25.87		
		64-QAM	-22.69	15.41	12.04	3.03	H		0.277	24.42		
		256-QAM	-24.86	13.24	12.04	3.03	H		0.168	22.25		
3500.01		PI/2 BPSK	-20.66	17.66	12.04	3.04	H		0.463	26.66	1	187
		QPSK	-20.75	17.57	12.04	3.04	H		0.454	26.57		
		16-QAM	-21.69	16.63	12.04	3.04	H		0.366	25.63		
		64-QAM	-23.12	15.20	12.04	3.04	H		0.263	24.20		
		256-QAM	-25.33	12.99	12.04	3.04	H		0.158	21.99		
3514.98		PI/2 BPSK	-20.22	18.30	12.04	3.04	H		0.537	27.30	1	187
		QPSK	-20.31	18.21	12.04	3.04	H		0.526	27.21		
		16-QAM	-21.39	17.13	12.04	3.04	H		0.410	26.13		
		64-QAM	-22.97	15.55	12.04	3.04	H		0.285	24.55		
		256-QAM	-24.89	13.63	12.04	3.04	H		0.183	22.63		

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
3490.02		PI/2 BPSK	-20.26	17.91	12.04	3.04	H	< 1.00	0.491	26.91	1	1
		QPSK	-20.27	17.90	12.04	3.04	H		0.490	26.90		
		16-QAM	-21.52	16.65	12.04	3.04	H		0.367	25.65		
		64-QAM	-22.74	15.43	12.04	3.04	H		0.277	24.43		
		256-QAM	-24.64	13.53	12.04	3.04	H		0.179	22.53		
3500.01	Sub6 n77(78)/ 80 MHz [30 kHz]	PI/2 BPSK	-20.38	17.94	12.04	3.04	H	< 1.00	0.494	26.94	1	1
		QPSK	-20.59	17.73	12.04	3.04	H		0.471	26.73		
		16-QAM	-21.46	16.86	12.04	3.04	H		0.386	25.86		
		64-QAM	-22.61	15.71	12.04	3.04	H		0.296	24.71		
		256-QAM	-24.96	13.36	12.04	3.04	H		0.172	22.36		
3510.00		PI/2 BPSK	-20.32	18.25	12.04	3.05	H	< 1.00	0.530	27.24	1	215
		QPSK	-20.35	18.22	12.04	3.05	H		0.526	27.21		
		16-QAM	-21.45	17.12	12.04	3.05	H		0.408	26.11		
		64-QAM	-22.99	15.58	12.04	3.05	H		0.286	24.57		
		256-QAM	-24.99	13.58	12.04	3.05	H		0.181	22.57		

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	-20.07	18.18	12.04	3.04	H	< 1.00	0.522	27.18	1	1
		QPSK	-20.08	18.17	12.04	3.04	H		0.521	27.17		
		16-QAM	-21.20	17.05	12.04	3.04	H		0.403	26.05		
		64-QAM	-22.68	15.57	12.04	3.04	H		0.286	24.57		
		256-QAM	-24.57	13.68	12.04	3.04	H		0.185	22.68		
3500.01	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	-20.16	18.16	12.04	3.04	H	< 1.00	0.520	27.16	1	1
		QPSK	-20.20	18.12	12.04	3.04	H		0.515	27.12		
		16-QAM	-21.10	17.22	12.04	3.04	H		0.419	26.22		
		64-QAM	-22.65	15.67	12.04	3.04	H		0.293	24.67		
		256-QAM	-24.94	13.38	12.04	3.04	H		0.173	22.38		
3504.99		PI/2 BPSK	-20.27	18.18	12.04	3.05	H	< 1.00	0.521	27.17	1	243
		QPSK	-20.35	18.10	12.04	3.05	H		0.512	27.09		
		16-QAM	-21.28	17.17	12.04	3.05	H		0.413	26.16		
		64-QAM	-22.75	15.70	12.04	3.05	H		0.294	24.69		
		256-QAM	-24.88	13.57	12.04	3.05	H		0.180	22.56		

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	-20.04	18.28	12.04	3.04	H	< 1.00	0.535	27.28	1	1
		QPSK	-20.13	18.19	12.04	3.04	H		0.524	27.19		
		16-QAM	-21.06	17.26	12.04	3.04	H		0.423	26.26		
		64-QAM	-22.57	15.75	12.04	3.04	H		0.299	24.75		
		256-QAM	-24.61	13.71	12.04	3.04	H		0.187	22.71		

8.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N77(78)</u>
Bandwidth:	<u>70 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
632334 (3485.01)	6 970.02	-58.94	11.16	-53.34	4.46	V	-46.64	-13.00	1	1
	10 455.03	-63.73	11.73	-53.40	5.57	V	-47.24	-13.00		
	13 940.04	-61.04	12.84	-50.60	6.51	V	-44.27	-13.00		
633334 (3500.01)	7 000.02	-59.37	11.13	-52.72	4.45	V	-46.04	-13.00	1	187
	10 500.03	-64.57	11.71	-53.32	5.64	V	-47.25	-13.00		
	14 000.04	-60.19	12.76	-50.61	6.55	V	-44.40	-13.00		
634332 (3510.00)	7 029.96	-58.53	11.04	-51.88	4.42	V	-45.26	-13.00	1	187
	10 544.94	-63.35	11.67	-52.40	5.63	V	-46.36	-13.00		
	14 059.92	-61.45	12.73	-52.28	6.48	V	-46.03	-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)	10 MHz	3500.01	BPSK	Full RB	0	4.35
			QPSK			5.57
			16-QAM			6.34
			64-QAM			6.57
			256-QAM			6.61
	15 MHz		BPSK			4.37
			QPSK			5.57
			16-QAM			6.37
			64-QAM			6.56
			256-QAM			6.67
	20 MHz		BPSK			4.74
			QPSK			5.68
			16-QAM			6.36
			64-QAM			6.56
			256-QAM			6.65
	25 MHz		BPSK			4.67
			QPSK			5.80
			16-QAM			6.53
			64-QAM			6.76
			256-QAM			6.72
	30 MHz		BPSK			4.51
			QPSK			5.67
			16-QAM			6.39
			64-QAM			6.65
			256-QAM			6.73
	40 MHz		BPSK			4.57
			QPSK			5.67
			16-QAM			6.43
			64-QAM			6.58
			256-QAM			6.78
	50 MHz		BPSK			4.44
			QPSK			5.70
			16-QAM			6.35
			64-QAM			6.60
			256-QAM			6.63
	60 MHz		BPSK			4.48
			QPSK			5.68
			16-QAM			6.41
			64-QAM			6.56
			256-QAM			6.64
	70 MHz		BPSK			4.58
			QPSK			5.65
			16-QAM			6.41
			64-QAM			6.53
			256-QAM			6.68

	80 MHz		BPSK			4.45
			QPSK			5.66
			16-QAM			6.43
			64-QAM			6.61
			256-QAM			6.62
	90 MHz		BPSK			5.61
			QPSK			5.87
			16-QAM			6.36
			64-QAM			6.52
			256-QAM			6.67
	100 MHz		BPSK			4.80
			QPSK			5.68
			16-QAM			6.40
			64-QAM			6.53
			256-QAM			6.73

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 91 ~ 150.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	10 MHz	3500.01	BPSK	Full RB	0	8.6920
			QPSK			8.6971
			16-QAM			8.6735
			64-QAM			8.6996
			256-QAM			8.6606
	15 MHz		BPSK			12.988
			QPSK			13.000
			16-QAM			12.958
			64-QAM			12.966
			256-QAM			13.092
	20 MHz		BPSK			17.984
			QPSK			17.982
			16-QAM			17.954
			64-QAM			18.018
			256-QAM			17.946
	25 MHz		BPSK			23.084
			QPSK			23.019
			16-QAM			23.016
			64-QAM			23.135
			256-QAM			22.988
	30 MHz		BPSK			26.984
			QPSK			26.947
			16-QAM			26.954
			64-QAM			26.960
			256-QAM			27.016
	40 MHz		BPSK			35.917
			QPSK			35.926
			16-QAM			35.990
			64-QAM			36.015
			256-QAM			35.893
	50 MHz		BPSK			45.967
			QPSK			46.009
			16-QAM			46.051
			64-QAM			45.975
			256-QAM			45.950
	60 MHz		BPSK			58.307
			QPSK			58.167
			16-QAM			58.102
			64-QAM			58.295
			256-QAM			58.068
	70 MHz		BPSK			64.902
			QPSK			64.755
			16-QAM			64.831
			64-QAM			64.561
			256-QAM			64.940

	80 MHz		BPSK			77.686
			QPSK			77.498
			16-QAM			77.453
			64-QAM			77.386
			256-QAM			77.452
	90 MHz		BPSK			87.280
			QPSK			87.172
			16-QAM			87.170
			64-QAM			87.230
			256-QAM			87.260
	100 MHz		BPSK			96.801
			QPSK			96.759
			16-QAM			96.951
			64-QAM			96.750
			256-QAM			96.693

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 151 ~ 210.

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)	10	3455.010	4.9352	30.200	-62.226	-32.026	-13.00
		3500.010	8.5843	30.815	-61.869	-31.054	
		3544.980	4.9352	30.200	-61.062	-30.862	
	15	3457.500	6.8993	30.815	-61.247	-30.432	
		3500.010	6.0020	30.815	-61.668	-30.853	
		3542.490	9.9003	30.815	-62.304	-31.489	
	20	3460.020	4.7259	30.200	-61.939	-31.739	
		3500.010	5.1845	30.815	-61.390	-30.575	
		3540.000	5.0050	30.815	-62.152	-31.337	
	25	3462.510	4.9352	30.200	-61.834	-31.634	
		3500.010	4.9253	30.200	-60.728	-30.528	
		3537.480	4.9452	30.200	-60.844	-30.644	
	30	3465.000	4.9153	30.200	-62.040	-31.840	
		3500.010	5.2643	30.815	-62.311	-31.496	
		3534.990	9.8704	30.815	-60.968	-30.153	
	40	3470.010	4.9153	30.200	-62.091	-31.891	
		3500.010	5.2044	30.815	-61.343	-30.528	
		3529.980	5.0050	30.815	-61.573	-30.758	
	50	3475.020	6.4208	30.815	-62.053	-31.238	
		3500.010	7.1885	30.815	-61.363	-30.548	
		3525.000	9.8505	30.815	-61.464	-30.649	
	60	3480.000	4.6960	30.200	-61.960	-31.760	
		3500.010	9.2223	30.815	-61.282	-30.467	
		3519.990	4.8954	30.200	-60.354	-30.154	
	70	3485.010	5.4238	30.815	-60.971	-30.156	
		3500.010	9.3420	30.815	-61.832	-31.017	
		3514.980	5.9821	30.815	-61.605	-30.790	
	80	3490.020	4.9153	30.200	-61.528	-31.328	
		3500.010	5.2443	30.815	-61.041	-30.226	
		3510.000	4.9851	30.200	-62.084	-31.884	
	90	3495.000	6.0619	30.815	-61.255	-30.440	
		3500.010	4.9253	30.200	-61.418	-31.218	
		3504.990	4.9253	30.200	-61.515	-31.315	
	100	3500.010	5.4637	30.815	-61.230	-30.415	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 211 ~ 278.
2. Factor(dB)
 - Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.494
1 – 5	30.200
5 – 10	30.815
10 – 15	31.340
15 – 20	31.713
Above 20	32.355

8.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 279 ~ 422.

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3455.010	100 %	+20(Ref)	3455 009 988	0.0	0.000 000	0.000
	100 %	-30	3455 009 981	-7.5	0.000 000	-0.002
	100 %	-20	3455 009 990	1.1	0.000 000	0.000
	100 %	-10	3455 009 984	-4.7	0.000 000	-0.001
	100 %	0	3455 009 983	-5.7	0.000 000	-0.002
	100 %	+10	3455 009 986	-2.9	0.000 000	-0.001
	100 %	+30	3455 009 983	-5.7	0.000 000	-0.002
	100 %	+40	3455 009 985	-3.1	0.000 000	-0.001
	100 %	+50	3455 009 983	-5.1	0.000 000	-0.001
	Batt. Endpoint	+20	3455 009 984	-4.2	0.000 000	-0.001
3544.980	100 %	+20(Ref)	3544 979 995	0.0	0.000 000	0.000
	100 %	-30	3544 979 992	-2.9	0.000 000	-0.001
	100 %	-20	3544 979 985	-10.5	0.000 000	-0.003
	100 %	-10	3544 979 991	-4.8	0.000 000	-0.001
	100 %	0	3544 979 986	-9.0	0.000 000	-0.003
	100 %	+10	3544 979 990	-4.9	0.000 000	-0.001
	100 %	+30	3544 979 982	-13.2	0.000 000	-0.004
	100 %	+40	3544 979 991	-3.9	0.000 000	-0.001
	100 %	+50	3544 979 990	-5.5	0.000 000	-0.002
	Batt. Endpoint	+20	3544 979 987	-8.0	0.000 000	-0.002

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3457.500	100 %	+20(Ref)	3457 499 995	0.0	0.000 000	0.000
	100 %	-30	3457 499 990	-4.5	0.000 000	-0.001
	100 %	-20	3457 499 997	2.5	0.000 000	0.001
	100 %	-10	3457 499 990	-4.6	0.000 000	-0.001
	100 %	0	3457 499 991	-3.3	0.000 000	-0.001
	100 %	+10	3457 499 992	-2.9	0.000 000	-0.001
	100 %	+30	3457 499 993	-2.0	0.000 000	-0.001
	100 %	+40	3457 499 988	-6.4	0.000 000	-0.002
	100 %	+50	3457 499 987	-7.1	0.000 000	-0.002
	Batt. Endpoint	+20	3457 499 988	-6.5	0.000 000	-0.002
3542.490	100 %	+20(Ref)	3542 489 994	0.0	0.000 000	0.000
	100 %	-30	3542 489 992	-1.3	0.000 000	0.000
	100 %	-20	3542 489 995	1.3	0.000 000	0.000
	100 %	-10	3542 489 996	2.4	0.000 000	0.001
	100 %	0	3542 489 990	-3.8	0.000 000	-0.001
	100 %	+10	3542 489 988	-5.6	0.000 000	-0.002
	100 %	+30	3542 489 994	-0.1	0.000 000	0.000
	100 %	+40	3542 489 997	2.8	0.000 000	0.001
	100 %	+50	3542 489 986	-7.9	0.000 000	-0.002
	Batt. Endpoint	+20	3542 489 990	-3.5	0.000 000	-0.001

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 019 997	0.0	0.000 000	0.000
	100 %	-30	3460 019 993	-3.9	0.000 000	-0.001
	100 %	-20	3460 019 987	-9.5	0.000 000	-0.003
	100 %	-10	3460 019 987	-9.6	0.000 000	-0.003
	100 %	0	3460 019 992	-5.3	0.000 000	-0.002
	100 %	+10	3460 019 985	-11.6	0.000 000	-0.003
	100 %	+30	3460 019 988	-8.9	0.000 000	-0.003
	100 %	+40	3460 019 992	-4.9	0.000 000	-0.001
	100 %	+50	3460 019 991	-5.7	0.000 000	-0.002
	Batt. Endpoint	+20	3460 019 991	-6.0	0.000 000	-0.002
3540.000	100 %	+20(Ref)	3539 999 995	0.0	0.000 000	0.000
	100 %	-30	3539 999 994	-0.9	0.000 000	0.000
	100 %	-20	3539 999 992	-3.0	0.000 000	-0.001
	100 %	-10	3539 999 992	-2.5	0.000 000	-0.001
	100 %	0	3539 999 987	-7.2	0.000 000	-0.002
	100 %	+10	3539 999 991	-3.8	0.000 000	-0.001
	100 %	+30	3539 999 995	0.5	0.000 000	0.000
	100 %	+40	3539 999 991	-3.2	0.000 000	-0.001
	100 %	+50	3539 999 991	-3.3	0.000 000	-0.001
	Batt. Endpoint	+20	3539 999 995	0.5	0.000 000	0.000

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3462.510	100 %	+20(Ref)	3462 509 996	0.0	0.000 000	0.000
	100 %	-30	3462 509 990	-5.7	0.000 000	-0.002
	100 %	-20	3462 509 993	-2.7	0.000 000	-0.001
	100 %	-10	3462 509 988	-8.4	0.000 000	-0.002
	100 %	0	3462 509 989	-7.0	0.000 000	-0.002
	100 %	+10	3462 509 991	-5.4	0.000 000	-0.002
	100 %	+30	3462 509 987	-9.0	0.000 000	-0.003
	100 %	+40	3462 509 992	-4.1	0.000 000	-0.001
	100 %	+50	3462 509 995	-1.4	0.000 000	0.000
	Batt. Endpoint	+20	3462 509 990	-6.3	0.000 000	-0.002
3537.480	100 %	+20(Ref)	3537 479 996	0.0	0.000 000	0.000
	100 %	-30	3537 479 988	-8.0	0.000 000	-0.002
	100 %	-20	3537 479 990	-6.2	0.000 000	-0.002
	100 %	-10	3537 479 994	-1.6	0.000 000	0.000
	100 %	0	3537 479 997	1.1	0.000 000	0.000
	100 %	+10	3537 479 989	-7.2	0.000 000	-0.002
	100 %	+30	3537 479 991	-4.9	0.000 000	-0.001
	100 %	+40	3537 479 988	-7.6	0.000 000	-0.002
	100 %	+50	3537 479 999	3.1	0.000 000	0.001
	Batt. Endpoint	+20	3537 479 997	0.9	0.000 000	0.000

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 999 996	0.0	0.000 000	0.000
	100 %	-30	3464 999 990	-6.4	0.000 000	-0.002
	100 %	-20	3464 999 990	-6.7	0.000 000	-0.002
	100 %	-10	3464 999 993	-3.0	0.000 000	-0.001
	100 %	0	3464 999 992	-4.4	0.000 000	-0.001
	100 %	+10	3464 999 995	-1.1	0.000 000	0.000
	100 %	+30	3464 999 996	-0.7	0.000 000	0.000
	100 %	+40	3464 999 988	-8.5	0.000 000	-0.002
	100 %	+50	3464 999 997	0.3	0.000 000	0.000
	Batt. Endpoint	+20	3464 999 990	-6.7	0.000 000	-0.002
3534.990	100 %	+20(Ref)	3534 989 993	0.0	0.000 000	0.000
	100 %	-30	3534 989 989	-4.7	0.000 000	-0.001
	100 %	-20	3534 989 991	-1.9	0.000 000	-0.001
	100 %	-10	3534 989 991	-2.1	0.000 000	-0.001
	100 %	0	3534 989 987	-6.0	0.000 000	-0.002
	100 %	+10	3534 989 990	-2.9	0.000 000	-0.001
	100 %	+30	3534 989 986	-7.1	0.000 000	-0.002
	100 %	+40	3534 989 985	-8.0	0.000 000	-0.002
	100 %	+50	3534 989 993	-0.3	0.000 000	0.000
	Batt. Endpoint	+20	3534 989 988	-5.2	0.000 000	-0.001

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 009 993	0.0	0.000 000	0.000
	100 %	-30	3470 009 992	-0.5	0.000 000	0.000
	100 %	-20	3470 009 991	-2.1	0.000 000	-0.001
	100 %	-10	3470 009 987	-6.1	0.000 000	-0.002
	100 %	0	3470 009 986	-6.9	0.000 000	-0.002
	100 %	+10	3470 009 989	-4.1	0.000 000	-0.001
	100 %	+30	3470 009 993	0.3	0.000 000	0.000
	100 %	+40	3470 009 993	0.7	0.000 000	0.000
	100 %	+50	3470 009 989	-3.8	0.000 000	-0.001
	Batt. Endpoint	+20	3470 009 995	2.0	0.000 000	0.001
3529.980	100 %	+20(Ref)	3529 979 991	0.0	0.000 000	0.000
	100 %	-30	3529 979 986	-5.6	0.000 000	-0.002
	100 %	-20	3529 979 987	-4.8	0.000 000	-0.001
	100 %	-10	3529 979 985	-6.0	0.000 000	-0.002
	100 %	0	3529 979 980	-11.6	0.000 000	-0.003
	100 %	+10	3529 979 989	-2.7	0.000 000	-0.001
	100 %	+30	3529 979 987	-4.2	0.000 000	-0.001
	100 %	+40	3529 979 988	-3.2	0.000 000	-0.001
	100 %	+50	3529 979 983	-8.5	0.000 000	-0.002
	Batt. Endpoint	+20	3529 979 984	-6.8	0.000 000	-0.002

- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 019 999	0.0	0.000 000	0.000
	100 %	-30	3475 019 995	-3.7	0.000 000	-0.001
	100 %	-20	3475 019 998	-0.8	0.000 000	0.000
	100 %	-10	3475 019 994	-5.4	0.000 000	-0.002
	100 %	0	3475 019 994	-4.9	0.000 000	-0.001
	100 %	+10	3475 020 003	3.4	0.000 000	0.001
	100 %	+30	3475 019 996	-3.2	0.000 000	-0.001
	100 %	+40	3475 019 996	-2.6	0.000 000	-0.001
	100 %	+50	3475 019 992	-6.7	0.000 000	-0.002
	Batt. Endpoint	+20	3475 019 992	-6.8	0.000 000	-0.002
3525.000	100 %	+20(Ref)	3524 999 990	0.0	0.000 000	0.000
	100 %	-30	3524 999 986	-3.7	0.000 000	-0.001
	100 %	-20	3524 999 987	-3.2	0.000 000	-0.001
	100 %	-10	3524 999 982	-7.7	0.000 000	-0.002
	100 %	0	3524 999 983	-6.5	0.000 000	-0.002
	100 %	+10	3524 999 985	-4.8	0.000 000	-0.001
	100 %	+30	3524 999 982	-7.2	0.000 000	-0.002
	100 %	+40	3524 999 981	-8.4	0.000 000	-0.002
	100 %	+50	3524 999 987	-3.2	0.000 000	-0.001
	Batt. Endpoint	+20	3524 999 985	-5.0	0.000 000	-0.001

- ▣ BandWidth: 60 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 999 992	0.0	0.000 000	0.000
	100 %	-30	3479 999 988	-3.6	0.000 000	-0.001
	100 %	-20	3479 999 987	-5.4	0.000 000	-0.002
	100 %	-10	3479 999 987	-5.2	0.000 000	-0.001
	100 %	0	3479 999 987	-4.9	0.000 000	-0.001
	100 %	+10	3479 999 987	-4.7	0.000 000	-0.001
	100 %	+30	3479 999 989	-2.8	0.000 000	-0.001
	100 %	+40	3479 999 988	-4.1	0.000 000	-0.001
	100 %	+50	3479 999 988	-3.5	0.000 000	-0.001
	Batt. Endpoint	+20	3479 999 991	-1.4	0.000 000	0.000
3519.990	100 %	+20(Ref)	3519 989 993	0.0	0.000 000	0.000
	100 %	-30	3519 989 987	-6.5	0.000 000	-0.002
	100 %	-20	3519 989 988	-4.8	0.000 000	-0.001
	100 %	-10	3519 989 986	-6.8	0.000 000	-0.002
	100 %	0	3519 989 987	-6.4	0.000 000	-0.002
	100 %	+10	3519 989 985	-7.6	0.000 000	-0.002
	100 %	+30	3519 989 986	-6.8	0.000 000	-0.002
	100 %	+40	3519 989 988	-5.4	0.000 000	-0.002
	100 %	+50	3519 989 991	-2.1	0.000 000	-0.001
	Batt. Endpoint	+20	3519 989 992	-1.3	0.000 000	0.000

- ▣ BandWidth: 70 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 009 994	0.0	0.000 000	0.000
	100 %	-30	3485 009 994	-0.4	0.000 000	0.000
	100 %	-20	3485 009 990	-4.6	0.000 000	-0.001
	100 %	-10	3485 009 990	-4.2	0.000 000	-0.001
	100 %	0	3485 009 990	-4.2	0.000 000	-0.001
	100 %	+10	3485 009 995	1.0	0.000 000	0.000
	100 %	+30	3485 009 993	-1.5	0.000 000	0.000
	100 %	+40	3485 009 993	-1.5	0.000 000	0.000
	100 %	+50	3485 009 989	-5.6	0.000 000	-0.002
	Batt. Endpoint	+20	3485 009 988	-6.0	0.000 000	-0.002
3514.980	100 %	+20(Ref)	3514 979 994	0.0	0.000 000	0.000
	100 %	-30	3514 979 989	-5.3	0.000 000	-0.001
	100 %	-20	3514 979 995	0.8	0.000 000	0.000
	100 %	-10	3514 979 995	0.8	0.000 000	0.000
	100 %	0	3514 979 991	-3.2	0.000 000	-0.001
	100 %	+10	3514 979 993	-0.9	0.000 000	0.000
	100 %	+30	3514 979 993	-1.2	0.000 000	0.000
	100 %	+40	3514 979 988	-5.6	0.000 000	-0.002
	100 %	+50	3514 979 987	-6.3	0.000 000	-0.002
	Batt. Endpoint	+20	3514 979 993	-1.0	0.000 000	0.000

- ▣ BandWidth: 80 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 019 994	0.0	0.000 000	0.000
	100 %	-30	3490 019 989	-4.4	0.000 000	-0.001
	100 %	-20	3490 019 996	2.4	0.000 000	0.001
	100 %	-10	3490 019 986	-7.9	0.000 000	-0.002
	100 %	0	3490 019 986	-7.3	0.000 000	-0.002
	100 %	+10	3490 019 986	-7.9	0.000 000	-0.002
	100 %	+30	3490 019 992	-1.2	0.000 000	0.000
	100 %	+40	3490 019 992	-1.3	0.000 000	0.000
	100 %	+50	3490 019 991	-2.4	0.000 000	-0.001
	Batt. Endpoint	+20	3490 019 990	-3.5	0.000 000	-0.001
3510.000	100 %	+20(Ref)	3509 999 991	0.0	0.000 000	0.000
	100 %	-30	3509 999 985	-6.1	0.000 000	-0.002
	100 %	-20	3509 999 987	-4.8	0.000 000	-0.001
	100 %	-10	3509 999 990	-1.4	0.000 000	0.000
	100 %	0	3509 999 979	-12.1	0.000 000	-0.003
	100 %	+10	3509 999 990	-1.8	0.000 000	-0.001
	100 %	+30	3509 999 985	-6.4	0.000 000	-0.002
	100 %	+40	3509 999 987	-4.1	0.000 000	-0.001
	100 %	+50	3509 999 985	-5.9	0.000 000	-0.002
	Batt. Endpoint	+20	3509 999 985	-5.9	0.000 000	-0.002

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 999 987	0.0	0.000 000	0.000
	100 %	-30	3494 999 982	-5.3	0.000 000	-0.002
	100 %	-20	3494 999 981	-6.8	0.000 000	-0.002
	100 %	-10	3494 999 986	-1.3	0.000 000	0.000
	100 %	0	3494 999 986	-1.4	0.000 000	0.000
	100 %	+10	3494 999 980	-7.4	0.000 000	-0.002
	100 %	+30	3494 999 981	-6.3	0.000 000	-0.002
	100 %	+40	3494 999 981	-6.7	0.000 000	-0.002
	100 %	+50	3494 999 987	0.0	0.000 000	0.000
	Batt. Endpoint	+20	3494 999 987	0.0	0.000 000	0.000
3504.990	100 %	+20(Ref)	3504 989 996	0.0	0.000 000	0.000
	100 %	-30	3504 989 988	-7.6	0.000 000	-0.002
	100 %	-20	3504 989 993	-2.6	0.000 000	-0.001
	100 %	-10	3504 989 995	-1.4	0.000 000	0.000
	100 %	0	3504 989 995	-1.4	0.000 000	0.000
	100 %	+10	3504 989 994	-2.3	0.000 000	-0.001
	100 %	+30	3504 989 989	-6.7	0.000 000	-0.002
	100 %	+40	3504 989 991	-5.4	0.000 000	-0.002
	100 %	+50	3504 989 992	-3.9	0.000 000	-0.001
	Batt. Endpoint	+20	3504 989 991	-4.9	0.000 000	-0.001

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 009 991	0.0	0.000 000	0.000
	100 %	-30	3500 009 982	-8.9	0.000 000	-0.003
	100 %	-20	3500 009 985	-6.1	0.000 000	-0.002
	100 %	-10	3500 009 984	-7.5	0.000 000	-0.002
	100 %	0	3500 009 986	-5.2	0.000 000	-0.001
	100 %	+10	3500 009 985	-5.6	0.000 000	-0.002
	100 %	+30	3500 009 989	-2.2	0.000 000	-0.001
	100 %	+40	3500 009 988	-3.0	0.000 000	-0.001
	100 %	+50	3500 009 981	-10.6	0.000 000	-0.003
	Batt. Endpoint	+20	3500 009 987	-4.3	0.000 000	-0.001

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
3705.00	Sub6 n77(78)/ 10 MHz [30 kHz]	PI/2 BPSK	-19.98	18.61	12.08	3.08	H	< 1.00	0.577	27.61	1	1
		QPSK	-20.00	18.59	12.08	3.08	H		0.574	27.59		
		16-QAM	-20.85	17.74	12.08	3.08	H		0.472	26.74		
		64-QAM	-22.55	16.04	12.08	3.08	H		0.319	25.04		
		256-QAM	-24.66	13.93	12.08	3.08	H		0.196	22.93		
3840.00		PI/2 BPSK	-22.32	17.63	11.58	3.20	H		0.399	26.01	1	12
		QPSK	-22.62	17.33	11.58	3.20	H		0.372	25.71		
		16-QAM	-23.44	16.51	11.58	3.20	H		0.308	24.89		
		64-QAM	-24.80	15.15	11.58	3.20	H		0.225	23.53		
		256-QAM	-26.85	13.10	11.58	3.20	H		0.141	21.48		
3975.00		PI/2 BPSK	-23.57	16.34	11.70	3.25	H		0.301	24.79	1	12
		QPSK	-23.58	16.33	11.70	3.25	H		0.301	24.78		
		16-QAM	-24.54	15.37	11.70	3.25	H		0.241	23.82		
		64-QAM	-26.22	13.69	11.70	3.25	H		0.164	22.14		
		256-QAM	-28.08	11.83	11.70	3.25	H		0.107	20.28		

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
3707.51	Sub6 n77(78)/ 15 MHz [30 kHz]	PI/2 BPSK	-19.83	18.67	12.08	3.08	H	< 1.00	0.585	27.67	1	19
		QPSK	-19.95	18.55	12.08	3.08	H		0.569	27.55		
		16-QAM	-20.97	17.53	12.08	3.08	H		0.450	26.53		
		64-QAM	-22.55	15.95	12.08	3.08	H		0.313	24.95		
		256-QAM	-24.39	14.11	12.08	3.08	H		0.205	23.11		
3840.00		PI/2 BPSK	-22.27	17.68	11.58	3.20	H		0.404	26.06	1	36
		QPSK	-22.40	17.55	11.58	3.20	H		0.392	25.93		
		16-QAM	-23.37	16.58	11.58	3.20	H		0.313	24.96		
		64-QAM	-24.73	15.22	11.58	3.20	H		0.229	23.60		
		256-QAM	-27.14	12.81	11.58	3.20	H		0.132	21.19		
3972.48		PI/2 BPSK	-23.59	16.27	11.69	3.25	H		0.296	24.71	1	36
		QPSK	-23.75	16.11	11.69	3.25	H		0.285	24.55		
		16-QAM	-24.63	15.23	11.69	3.25	H		0.233	23.67		
		64-QAM	-26.42	13.44	11.69	3.25	H		0.154	21.88		
		256-QAM	-28.26	11.60	11.69	3.25	H		0.101	20.04		

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	-19.85	18.65	12.08	3.08	H	< 1.00	0.582	27.65	1	49
		QPSK	-19.87	18.63	12.08	3.08	H		0.579	27.63		
		16-QAM	-20.87	17.63	12.08	3.08	H		0.460	26.63		
		64-QAM	-22.41	16.09	12.08	3.08	H		0.323	25.09		
		256-QAM	-24.40	14.10	12.08	3.08	H		0.204	23.10		
3840.00	Sub6 n77(78)/ 20 MHz [30 kHz]	PI/2 BPSK	-22.02	17.93	11.58	3.20	H	< 1.00	0.428	26.31	1	1
		QPSK	-22.16	17.79	11.58	3.20	H		0.414	26.17		
		16-QAM	-23.17	16.78	11.58	3.20	H		0.328	25.16		
		64-QAM	-24.77	15.18	11.58	3.20	H		0.227	23.56		
		256-QAM	-26.52	13.43	11.58	3.20	H		0.152	21.81		
3969.99		PI/2 BPSK	-23.73	16.13	11.69	3.25	H	< 1.00	0.286	24.57	1	25
		QPSK	-23.87	15.99	11.69	3.25	H		0.277	24.43		
		16-QAM	-24.90	14.96	11.69	3.25	H		0.219	23.40		
		64-QAM	-26.39	13.47	11.69	3.25	H		0.155	21.91		
		256-QAM	-28.22	11.64	11.69	3.25	H		0.102	20.08		

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
3712.50	Sub6 n77(78)/ 25 MHz [30 kHz]	PI/2 BPSK	-19.68	18.89	12.08	3.11	H	< 1.00	0.611	27.86	1	32
		QPSK	-19.81	18.76	12.08	3.11	H		0.593	27.73		
		16-QAM	-20.86	17.71	12.08	3.11	H		0.466	26.68		
		64-QAM	-22.24	16.33	12.08	3.11	H		0.339	25.30		
		256-QAM	-24.35	14.22	12.08	3.11	H		0.208	23.19		
3840.00		PI/2 BPSK	-21.99	17.96	11.58	3.20	H		0.431	26.34	1	1
		QPSK	-22.09	17.86	11.58	3.20	H		0.421	26.24		
		16-QAM	-23.12	16.83	11.58	3.20	H		0.332	25.21		
		64-QAM	-24.51	15.44	11.58	3.20	H		0.241	23.82		
		256-QAM	-26.45	13.50	11.58	3.20	H		0.154	21.88		
3967.50		PI/2 BPSK	-23.65	16.21	11.69	3.25	H		0.292	24.65	1	63
		QPSK	-23.75	16.11	11.69	3.25	H		0.285	24.55		
		16-QAM	-24.65	15.21	11.69	3.25	H		0.232	23.65		
		64-QAM	-26.17	13.69	11.69	3.25	H		0.163	22.13		
		256-QAM	-28.34	11.52	11.69	3.25	H		0.099	19.96		

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	-19.55	19.02	12.08	3.11	H	< 1.00	0.630	27.99	1	39
		QPSK	-19.72	18.85	12.08	3.11	H		0.605	27.82		
		16-QAM	-20.77	17.80	12.08	3.11	H		0.475	26.77		
		64-QAM	-22.14	16.43	12.08	3.11	H		0.347	25.40		
		256-QAM	-24.40	14.17	12.08	3.11	H		0.206	23.14		
3840.00	Sub6 n77(78)/ 30 MHz [30 kHz]	PI/2 BPSK	-21.88	18.07	11.58	3.20	H	< 1.00	0.442	26.45	1	1
		QPSK	-22.04	17.91	11.58	3.20	H		0.426	26.29		
		16-QAM	-23.14	16.81	11.58	3.20	H		0.330	25.19		
		64-QAM	-24.38	15.57	11.58	3.20	H		0.248	23.95		
		256-QAM	-26.43	13.52	11.58	3.20	H		0.155	21.90		
3964.98		PI/2 BPSK	-23.59	16.34	11.67	3.24	H	< 1.00	0.300	24.77	1	76
		QPSK	-23.69	16.24	11.67	3.24	H		0.293	24.67		
		16-QAM	-24.76	15.17	11.67	3.24	H		0.229	23.60		
		64-QAM	-26.13	13.80	11.67	3.24	H		0.167	22.23		
		256-QAM	-28.10	11.83	11.67	3.24	H		0.106	20.26		

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	-19.70	18.93	12.07	3.13	H	< 1.00	0.612	27.87	1	53
		QPSK	-19.75	18.88	12.07	3.13	H		0.605	27.82		
		16-QAM	-20.73	17.90	12.07	3.13	H		0.483	26.84		
		64-QAM	-22.10	16.53	12.07	3.13	H		0.352	25.47		
		256-QAM	-24.07	14.56	12.07	3.13	H		0.224	23.50		
3840.00	Sub6 n77(78)/ 40 MHz [30 kHz]	PI/2 BPSK	-21.76	18.19	11.58	3.20	H	< 1.00	0.454	26.57	1	1
		QPSK	-21.86	18.09	11.58	3.20	H		0.444	26.47		
		16-QAM	-22.95	17.00	11.58	3.20	H		0.345	25.38		
		64-QAM	-24.72	15.23	11.58	3.20	H		0.230	23.61		
		256-QAM	-26.28	13.67	11.58	3.20	H		0.160	22.05		
3960.00		PI/2 BPSK	-23.61	16.39	11.65	3.24	H	< 1.00	0.302	24.80	1	104
		QPSK	-23.67	16.33	11.65	3.24	H		0.298	24.74		
		16-QAM	-24.45	15.55	11.65	3.24	H		0.249	23.96		
		64-QAM	-26.04	13.96	11.65	3.24	H		0.173	22.37		
		256-QAM	-28.15	11.85	11.65	3.24	H		0.106	20.26		

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	-19.59	19.17	12.06	3.15	H	< 1.00	0.643	28.08	1	66
		QPSK	-19.78	18.98	12.06	3.15	H		0.615	27.89		
		16-QAM	-20.77	17.99	12.06	3.15	H		0.490	26.90		
		64-QAM	-22.35	16.41	12.06	3.15	H		0.340	25.32		
		256-QAM	-24.63	14.13	12.06	3.15	H		0.201	23.04		
3840.00	Sub6 n77(78)/ 50 MHz [30 kHz]	PI/2 BPSK	-21.65	18.30	11.58	3.20	H	< 1.00	0.466	26.68	1	1
		QPSK	-21.83	18.12	11.58	3.20	H		0.447	26.50		
		16-QAM	-22.83	17.12	11.58	3.20	H		0.355	25.50		
		64-QAM	-24.31	15.64	11.58	3.20	H		0.252	24.02		
		256-QAM	-26.31	13.64	11.58	3.20	H		0.159	22.02		
3954.99		PI/2 BPSK	-23.48	16.55	11.63	3.23	H	< 1.00	0.313	24.95	1	131
		QPSK	-23.66	16.37	11.63	3.23	H		0.300	24.77		
		16-QAM	-24.66	15.37	11.63	3.23	H		0.238	23.77		
		64-QAM	-26.19	13.84	11.63	3.23	H		0.168	22.24		
		256-QAM	-28.06	11.97	11.63	3.23	H		0.109	20.37		

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	-19.74	19.16	12.04	3.17	H	< 1.00	0.635	28.03	1	1
		QPSK	-19.88	19.02	12.04	3.17	H		0.615	27.89		
		16-QAM	-20.86	18.04	12.04	3.17	H		0.491	26.91		
		64-QAM	-22.39	16.51	12.04	3.17	H		0.345	25.38		
		256-QAM	-24.43	14.47	12.04	3.17	H		0.216	23.34		
3840.00	Sub6 n77(78)/ 60 MHz [30 kHz]	PI/2 BPSK	-21.49	18.46	11.58	3.20	H	< 1.00	0.483	26.84	1	1
		QPSK	-21.71	18.24	11.58	3.20	H		0.459	26.62		
		16-QAM	-22.96	16.99	11.58	3.20	H		0.344	25.37		
		64-QAM	-24.04	15.91	11.58	3.20	H		0.269	24.29		
		256-QAM	-26.06	13.89	11.58	3.20	H		0.169	22.27		
3949.98		PI/2 BPSK	-23.19	16.86	11.61	3.22	H	< 1.00	0.335	25.25	1	1
		QPSK	-23.23	16.82	11.61	3.22	H		0.332	25.21		
		16-QAM	-24.12	15.93	11.61	3.22	H		0.270	24.32		
		64-QAM	-25.82	14.23	11.61	3.22	H		0.183	22.62		
		256-QAM	-27.73	12.32	11.61	3.22	H		0.118	20.71		

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	Sub6 n77(78)/ 70 MHz [30 kHz]	PI/2 BPSK	-19.82	19.20	12.02	3.18	H		0.637	28.04	1	1
		QPSK	-19.91	19.11	12.02	3.18	H		0.624	27.95		
		16-QAM	-20.66	18.36	12.02	3.18	H		0.525	27.20		
		64-QAM	-22.14	16.88	12.02	3.18	H		0.373	25.72		
		256-QAM	-24.48	14.54	12.02	3.18	H		0.218	23.38		
3840.00		PI/2 BPSK	-21.32	18.63	11.58	3.20	H	< 1.00	0.502	27.01	1	1
		QPSK	-21.39	18.56	11.58	3.20	H		0.494	26.94		
		16-QAM	-22.60	17.35	11.58	3.20	H		0.374	25.73		
		64-QAM	-23.99	15.96	11.58	3.20	H		0.272	24.34		
		256-QAM	-26.04	13.91	11.58	3.20	H		0.169	22.29		
3945.00		PI/2 BPSK	-22.88	17.15	11.60	3.23	H		0.357	25.52	1	1
		QPSK	-22.94	17.09	11.60	3.23	H		0.352	25.46		
		16-QAM	-23.89	16.14	11.60	3.23	H		0.283	24.51		
		64-QAM	-25.55	14.48	11.60	3.23	H		0.193	22.85		
		256-QAM	-27.55	12.48	11.60	3.23	H		0.122	20.85		

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	-19.89	19.26	12.00	3.19	H	< 1.00	0.641	28.07	1	1
		QPSK	-19.91	19.24	12.00	3.19	H		0.638	28.05		
		16-QAM	-21.21	17.94	12.00	3.19	H		0.473	26.75		
		64-QAM	-22.32	16.83	12.00	3.19	H		0.366	25.64		
		256-QAM	-24.30	14.85	12.00	3.19	H		0.232	23.66		
3840.00	Sub6 n77(78)/ 80 MHz [30 kHz]	PI/2 BPSK	-21.18	18.77	11.58	3.20	H	< 1.00	0.519	27.15	1	1
		QPSK	-21.23	18.72	11.58	3.20	H		0.513	27.10		
		16-QAM	-22.37	17.58	11.58	3.20	H		0.395	25.96		
		64-QAM	-23.96	15.99	11.58	3.20	H		0.274	24.37		
		256-QAM	-25.80	14.15	11.58	3.20	H		0.179	22.53		
3939.99		PI/2 BPSK	-22.38	17.62	11.58	3.23	H	< 1.00	0.395	25.97	1	1
		QPSK	-22.47	17.53	11.58	3.23	H		0.387	25.88		
		16-QAM	-23.57	16.43	11.58	3.23	H		0.301	24.78		
		64-QAM	-24.78	15.22	11.58	3.23	H		0.228	23.57		
		256-QAM	-26.89	13.11	11.58	3.23	H		0.140	21.46		

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	-19.71	19.46	11.97	3.18	H	< 1.00	0.668	28.25	1	1
		QPSK	-19.76	19.41	11.97	3.18	H		0.661	28.20		
		16-QAM	-20.86	18.31	11.97	3.18	H		0.513	27.10		
		64-QAM	-22.16	17.01	11.97	3.18	H		0.380	25.80		
		256-QAM	-24.35	14.82	11.97	3.18	H		0.230	23.61		
3840.00	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	-21.18	18.77	11.58	3.20	H	< 1.00	0.519	27.15	1	1
		QPSK	-21.21	18.74	11.58	3.20	H		0.515	27.12		
		16-QAM	-22.23	17.72	11.58	3.20	H		0.407	26.10		
		64-QAM	-23.68	16.27	11.58	3.20	H		0.292	24.65		
		256-QAM	-25.77	14.18	11.58	3.20	H		0.180	22.56		
3934.98		PI/2 BPSK	-21.95	18.00	11.56	3.24	H	< 1.00	0.429	26.32	1	1
		QPSK	-22.19	17.76	11.56	3.24	H		0.406	26.08		
		16-QAM	-22.97	16.98	11.56	3.24	H		0.339	25.30		
		64-QAM	-24.80	15.15	11.56	3.24	H		0.222	23.47		
		256-QAM	-26.72	13.23	11.56	3.24	H		0.143	21.55		

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	-19.84	19.35	11.95	3.17	H	< 1.00	0.650	28.13	1	1
		QPSK	-19.92	19.27	11.95	3.17	H		0.638	28.05		
		16-QAM	-20.73	18.46	11.95	3.17	H		0.530	27.24		
		64-QAM	-22.23	16.96	11.95	3.17	H		0.375	25.74		
		256-QAM	-24.16	15.03	11.95	3.17	H		0.240	23.81		
3840.00	Sub6 n77(78)/ 100 MHz [30 kHz]	PI/2 BPSK	-21.20	18.75	11.58	3.20	H	< 1.00	0.516	27.13	1	1
		QPSK	-21.30	18.65	11.58	3.20	H		0.505	27.03		
		16-QAM	-22.37	17.58	11.58	3.20	H		0.395	25.96		
		64-QAM	-23.61	16.34	11.58	3.20	H		0.297	24.72		
		256-QAM	-25.62	14.33	11.58	3.20	H		0.187	22.71		
3930.00		PI/2 BPSK	-22.17	17.73	11.54	3.26	H	< 1.00	0.399	26.01	1	1
		QPSK	-22.13	17.77	11.54	3.26	H		0.403	26.05		
		16-QAM	-23.14	16.76	11.54	3.26	H		0.319	25.04		
		64-QAM	-24.71	15.19	11.54	3.26	H		0.222	23.47		
		256-QAM	-26.56	13.34	11.54	3.26	H		0.145	21.62		

9.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N77(78)</u>
Bandwidth:	<u>90 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
649668 (3745.02)	7 490.04	-58.99	11.48	-51.52	4.61	V	-44.65	-13.00	1	1
	11 235.06	-64.54	12.06	-53.73	5.82	V	-47.49	-13.00		
	14 980.08	-58.43	14.24	-52.03	6.79	V	-44.58	-13.00		
656000 (3840.00)	7 680.00	-60.06	11.47	-52.75	4.70	H	-45.98	-13.00	1	1
	11 520.00	-65.66	12.34	-54.35	5.87	V	-47.88	-13.00		
	15 360.00	-59.89	15.37	-53.31	6.88	V	-44.82	-13.00		
662332 (3934.98)	7 869.96	-59.82	11.06	-52.00	4.75	V	-45.69	-13.00	1	1
	11 804.94	-64.51	12.66	-54.58	5.97	V	-47.89	-13.00		
	15 739.92	-63.13	16.08	-56.02	6.93	V	-46.87	-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)	10 MHz	3840.00	BPSK	Full RB	0	4.41
			QPSK			5.73
			16-QAM			6.45
			64-QAM			6.65
			256-QAM			6.75
	15 MHz		BPSK			4.61
			QPSK			5.76
			16-QAM			6.39
			64-QAM			6.57
			256-QAM			6.64
	20 MHz		BPSK			4.53
			QPSK			5.75
			16-QAM			6.40
			64-QAM			6.68
			256-QAM			6.65
	25 MHz		BPSK			4.72
			QPSK			5.83
			16-QAM			6.51
			64-QAM			6.69
			256-QAM			6.59
	30 MHz		BPSK			4.51
			QPSK			5.74
			16-QAM			6.45
			64-QAM			6.67
			256-QAM			6.74
	40 MHz		BPSK			4.48
			QPSK			5.77
			16-QAM			6.42
			64-QAM			6.58
			256-QAM			6.57
	50 MHz		BPSK			4.73
			QPSK			5.71
			16-QAM			6.36
			64-QAM			6.49
			256-QAM			6.58
	60 MHz		BPSK			4.64
			QPSK			5.68
			16-QAM			6.37
			64-QAM			6.53
			256-QAM			6.58
	70 MHz		BPSK			5.95
			QPSK			6.13
			16-QAM			6.45
			64-QAM			6.64
			256-QAM			6.54

	80 MHz		BPSK			4.42
			QPSK			5.64
			16-QAM			6.38
			64-QAM			6.48
			256-QAM			6.58
	90 MHz		BPSK			4.42
			QPSK			5.62
			16-QAM			6.39
			64-QAM			6.53
			256-QAM			6.60
	100 MHz		BPSK			4.16
			QPSK			5.54
			16-QAM			6.43
			64-QAM			6.53
			256-QAM			6.55

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 424 ~ 483.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	10 MHz	3840.00	BPSK	Full RB	0	8.6242
			QPSK			8.6505
			16-QAM			8.6391
			64-QAM			8.6305
			256-QAM			8.6679
	15 MHz		BPSK			12.947
			QPSK			12.934
			16-QAM			13.036
			64-QAM			12.978
			256-QAM			12.929
	20 MHz		BPSK			17.913
			QPSK			18.001
			16-QAM			17.966
			64-QAM			18.044
			256-QAM			17.976
	25 MHz		BPSK			23.057
			QPSK			23.089
			16-QAM			22.975
			64-QAM			22.934
			256-QAM			22.946
	30 MHz		BPSK			26.968
			QPSK			26.939
			16-QAM			26.974
			64-QAM			27.015
			256-QAM			26.932
	40 MHz		BPSK			35.986
			QPSK			36.014
			16-QAM			35.879
			64-QAM			35.974
			256-QAM			35.905
	50 MHz		BPSK			45.989
			QPSK			45.909
			16-QAM			45.812
			64-QAM			45.902
			256-QAM			45.798
	60 MHz		BPSK			58.130
			QPSK			58.107
			16-QAM			58.211
			64-QAM			58.042
			256-QAM			58.217
	70 MHz		BPSK			64.670
			QPSK			64.662
			16-QAM			64.594
			64-QAM			64.497
			256-QAM			64.678

	80 MHz		BPSK			77.351
			QPSK			77.253
			16-QAM			77.259
			64-QAM			77.353
			256-QAM			77.469
	90 MHz		BPSK			86.772
			QPSK			86.883
			16-QAM			87.005
			64-QAM			86.995
			256-QAM			86.906
	100 MHz		BPSK			96.127
			QPSK			96.476
			16-QAM			96.200
			64-QAM			96.197
			256-QAM			96.445

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 484 ~ 543.

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)	10	3705.000	7.3978	30.815	-60.124	-29.309	-13.00
		3840.000	4.9053	30.200	-61.037	-30.837	
		3975.000	7.9462	30.815	-60.717	-29.902	
	15	3707.520	5.1845	30.815	-59.025	-28.210	
		3840.000	4.9153	30.200	-61.332	-31.132	
		3972.480	7.9362	30.815	-61.226	-30.411	
	20	3710.010	7.4078	30.815	-59.853	-29.038	
		3840.000	7.6670	30.815	-59.562	-28.747	
		3969.990	7.9262	30.815	-60.746	-29.931	
	25	3712.500	6.0419	30.815	-60.976	-30.161	
		3840.000	7.2383	30.815	-61.973	-31.158	
		3967.500	7.9163	30.815	-60.169	-29.354	
	30	3715.020	7.4078	30.815	-59.121	-28.306	
		3840.000	4.9552	30.200	-60.625	-30.425	
		3964.980	7.9063	30.815	-60.624	-29.809	
	40	3720.000	7.3978	30.815	-59.317	-28.502	
		3840.000	7.6471	30.815	-60.112	-29.297	
		3960.000	7.8864	30.815	-59.588	-28.773	
	50	3725.010	7.4078	30.815	-59.260	-28.445	
		3840.000	7.6371	30.815	-60.100	-29.285	
		3954.990	7.8664	30.815	-59.241	-28.426	
	60	3730.020	7.3978	30.815	-61.250	-30.435	
		3840.000	7.6271	30.815	-59.931	-29.116	
		3949.980	7.8465	30.815	-61.075	-30.260	
	70	3735.000	7.4078	30.815	-60.193	-29.378	
		3840.000	7.6172	30.815	-60.933	-30.118	
		3945.000	7.8265	30.815	-59.819	-29.004	
	80	3740.010	7.4078	30.815	-60.780	-29.965	
		3840.000	7.6072	30.815	-58.830	-28.015	
		3939.990	7.8066	30.815	-60.641	-29.826	
	90	3745.020	5.2244	30.815	-61.670	-30.855	
		3840.000	4.9253	30.200	-60.711	-30.511	
		3934.980	5.1945	30.815	-61.839	-31.024	
	100	3750.000	7.4078	30.815	-59.120	-28.305	
		3840.000	7.5873	30.815	-60.050	-29.235	
		3930.000	7.7667	30.815	-61.620	-30.805	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 544 ~ 615.
2. Factor(dB)
 - Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.494
1 – 5	30.200
5 – 10	30.815
10 – 15	31.340
15 – 20	31.713
Above 20	32.355

9.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 616 ~ 759.

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3705.000	100 %	+20(Ref)	3704 999 996	0.0	0.000 000	0.000
	100 %	-30	3704 999 991	-4.0	0.000 000	-0.001
	100 %	-20	3704 999 991	-4.8	0.000 000	-0.001
	100 %	-10	3704 999 993	-2.0	0.000 000	-0.001
	100 %	0	3704 999 989	-6.5	0.000 000	-0.002
	100 %	+10	3704 999 990	-5.4	0.000 000	-0.001
	100 %	+30	3704 999 987	-8.9	0.000 000	-0.002
	100 %	+40	3704 999 991	-4.3	0.000 000	-0.001
	100 %	+50	3704 999 998	2.8	0.000 000	0.001
	Batt. Endpoint	+20	3704 999 993	-2.4	0.000 000	-0.001
3975.000	100 %	+20(Ref)	3975 000 001	0.0	0.000 000	0.000
	100 %	-30	3974 999 995	-6.0	0.000 000	-0.002
	100 %	-20	3975 000 003	2.5	0.000 000	0.001
	100 %	-10	3975 000 001	0.2	0.000 000	0.000
	100 %	0	3975 000 001	-0.3	0.000 000	0.000
	100 %	+10	3975 000 001	-0.4	0.000 000	0.000
	100 %	+30	3974 999 998	-3.2	0.000 000	-0.001
	100 %	+40	3975 000 002	0.6	0.000 000	0.000
	100 %	+50	3974 999 995	-6.3	0.000 000	-0.002
	Batt. Endpoint	+20	3974 999 998	-3.4	0.000 000	-0.001

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3707.520	100 %	+20(Ref)	3707 519 995	0.0	0.000 000	0.000
	100 %	-30	3707 519 997	1.2	0.000 000	0.000
	100 %	-20	3707 519 992	-3.4	0.000 000	-0.001
	100 %	-10	3707 519 995	-0.2	0.000 000	0.000
	100 %	0	3707 519 989	-6.7	0.000 000	-0.002
	100 %	+10	3707 519 996	0.5	0.000 000	0.000
	100 %	+30	3707 519 990	-5.7	0.000 000	-0.002
	100 %	+40	3707 519 990	-5.5	0.000 000	-0.001
	100 %	+50	3707 519 998	2.1	0.000 000	0.001
	Batt. Endpoint	+20	3707 519 991	-4.9	0.000 000	-0.001
3972.480	100 %	+20(Ref)	3972 479 999	0.0	0.000 000	0.000
	100 %	-30	3972 479 997	-2.6	0.000 000	-0.001
	100 %	-20	3972 479 999	-0.5	0.000 000	0.000
	100 %	-10	3972 479 996	-2.8	0.000 000	-0.001
	100 %	0	3972 479 997	-2.4	0.000 000	-0.001
	100 %	+10	3972 479 993	-6.8	0.000 000	-0.002
	100 %	+30	3972 479 998	-1.5	0.000 000	0.000
	100 %	+40	3972 479 995	-3.8	0.000 000	-0.001
	100 %	+50	3972 480 000	0.6	0.000 000	0.000
	Batt. Endpoint	+20	3972 479 997	-2.6	0.000 000	-0.001

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 009 998	0.0	0.000 000	0.000
	100 %	-30	3710 009 994	-3.8	0.000 000	-0.001
	100 %	-20	3710 009 990	-7.9	0.000 000	-0.002
	100 %	-10	3710 010 000	2.5	0.000 000	0.001
	100 %	0	3710 009 997	-1.2	0.000 000	0.000
	100 %	+10	3710 009 992	-5.9	0.000 000	-0.002
	100 %	+30	3710 009 995	-2.9	0.000 000	-0.001
	100 %	+40	3710 009 995	-3.0	0.000 000	-0.001
	100 %	+50	3710 009 992	-5.9	0.000 000	-0.002
	Batt. Endpoint	+20	3710 009 994	-3.4	0.000 000	-0.001
3969.990	100 %	+20(Ref)	3969 989 997	0.0	0.000 000	0.000
	100 %	-30	3969 989 989	-8.3	0.000 000	-0.002
	100 %	-20	3969 989 991	-6.6	0.000 000	-0.002
	100 %	-10	3969 989 994	-3.6	0.000 000	-0.001
	100 %	0	3969 989 994	-2.8	0.000 000	-0.001
	100 %	+10	3969 989 994	-3.3	0.000 000	-0.001
	100 %	+30	3969 989 996	-0.8	0.000 000	0.000
	100 %	+40	3969 989 989	-8.2	0.000 000	-0.002
	100 %	+50	3969 989 992	-4.7	0.000 000	-0.001
	Batt. Endpoint	+20	3969 989 999	1.7	0.000 000	0.000

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3712.500	100 %	+20(Ref)	3712 499 994	0.0	0.000 000	0.000
	100 %	-30	3712 499 991	-2.9	0.000 000	-0.001
	100 %	-20	3712 499 989	-4.5	0.000 000	-0.001
	100 %	-10	3712 499 992	-2.2	0.000 000	-0.001
	100 %	0	3712 499 995	1.6	0.000 000	0.000
	100 %	+10	3712 499 996	1.8	0.000 000	0.000
	100 %	+30	3712 499 989	-4.3	0.000 000	-0.001
	100 %	+40	3712 499 988	-5.7	0.000 000	-0.002
	100 %	+50	3712 499 992	-1.7	0.000 000	0.000
	Batt. Endpoint	+20	3712 499 991	-2.9	0.000 000	-0.001
3967.500	100 %	+20(Ref)	3967 499 999	0.0	0.000 000	0.000
	100 %	-30	3967 499 998	-1.0	0.000 000	0.000
	100 %	-20	3967 499 990	-8.8	0.000 000	-0.002
	100 %	-10	3967 499 997	-1.6	0.000 000	0.000
	100 %	0	3967 499 997	-2.0	0.000 000	-0.001
	100 %	+10	3967 499 991	-7.4	0.000 000	-0.002
	100 %	+30	3967 499 999	0.3	0.000 000	0.000
	100 %	+40	3967 499 997	-1.7	0.000 000	0.000
	100 %	+50	3967 499 995	-3.9	0.000 000	-0.001
	Batt. Endpoint	+20	3967 499 993	-5.6	0.000 000	-0.001

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 019 994	0.0	0.000 000	0.000
	100 %	-30	3715 019 986	-8.1	0.000 000	-0.002
	100 %	-20	3715 019 991	-3.1	0.000 000	-0.001
	100 %	-10	3715 019 986	-7.9	0.000 000	-0.002
	100 %	0	3715 019 992	-2.2	0.000 000	-0.001
	100 %	+10	3715 019 987	-7.1	0.000 000	-0.002
	100 %	+30	3715 019 987	-6.9	0.000 000	-0.002
	100 %	+40	3715 019 986	-7.5	0.000 000	-0.002
	100 %	+50	3715 019 989	-5.3	0.000 000	-0.001
	Batt. Endpoint	+20	3715 019 985	-9.3	0.000 000	-0.002
3964.980	100 %	+20(Ref)	3964 979 990	0.0	0.000 000	0.000
	100 %	-30	3964 979 991	1.3	0.000 000	0.000
	100 %	-20	3964 979 989	-0.6	0.000 000	0.000
	100 %	-10	3964 979 986	-3.7	0.000 000	-0.001
	100 %	0	3964 979 987	-2.8	0.000 000	-0.001
	100 %	+10	3964 979 989	-0.4	0.000 000	0.000
	100 %	+30	3964 979 986	-4.2	0.000 000	-0.001
	100 %	+40	3964 979 984	-5.7	0.000 000	-0.001
	100 %	+50	3964 979 989	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	3964 979 986	-4.3	0.000 000	-0.001

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 999 994	0.0	0.000 000	0.000
	100 %	-30	3719 999 994	-0.1	0.000 000	0.000
	100 %	-20	3719 999 991	-3.1	0.000 000	-0.001
	100 %	-10	3719 999 987	-7.8	0.000 000	-0.002
	100 %	0	3719 999 988	-6.2	0.000 000	-0.002
	100 %	+10	3719 999 998	3.2	0.000 000	0.001
	100 %	+30	3719 999 992	-2.9	0.000 000	-0.001
	100 %	+40	3719 999 989	-5.5	0.000 000	-0.001
	100 %	+50	3719 999 989	-5.6	0.000 000	-0.002
	Batt. Endpoint	+20	3719 999 991	-3.3	0.000 000	-0.001
3960.000	100 %	+20(Ref)	3959 999 998	0.0	0.000 000	0.000
	100 %	-30	3959 999 999	0.5	0.000 000	0.000
	100 %	-20	3959 999 998	-0.1	0.000 000	0.000
	100 %	-10	3959 999 995	-3.4	0.000 000	-0.001
	100 %	0	3959 999 990	-8.6	0.000 000	-0.002
	100 %	+10	3959 999 996	-2.3	0.000 000	-0.001
	100 %	+30	3959 999 991	-7.7	0.000 000	-0.002
	100 %	+40	3959 999 999	1.0	0.000 000	0.000
	100 %	+50	3960 000 000	1.8	0.000 000	0.000
	Batt. Endpoint	+20	3959 999 991	-7.0	0.000 000	-0.002

- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 009 996	0.0	0.000 000	0.000
	100 %	-30	3725 009 990	-5.6	0.000 000	-0.002
	100 %	-20	3725 009 992	-3.7	0.000 000	-0.001
	100 %	-10	3725 009 993	-3.0	0.000 000	-0.001
	100 %	0	3725 009 990	-5.3	0.000 000	-0.001
	100 %	+10	3725 009 986	-9.5	0.000 000	-0.003
	100 %	+30	3725 009 991	-4.8	0.000 000	-0.001
	100 %	+40	3725 009 991	-4.7	0.000 000	-0.001
	100 %	+50	3725 009 987	-8.4	0.000 000	-0.002
	Batt. Endpoint	+20	3725 009 996	0.4	0.000 000	0.000
3954.990	100 %	+20(Ref)	3954 989 991	0.0	0.000 000	0.000
	100 %	-30	3954 989 986	-4.5	0.000 000	-0.001
	100 %	-20	3954 989 985	-5.8	0.000 000	-0.001
	100 %	-10	3954 989 985	-6.2	0.000 000	-0.002
	100 %	0	3954 989 991	0.3	0.000 000	0.000
	100 %	+10	3954 989 989	-2.2	0.000 000	-0.001
	100 %	+30	3954 989 992	1.5	0.000 000	0.000
	100 %	+40	3954 989 985	-6.1	0.000 000	-0.002
	100 %	+50	3954 989 987	-4.2	0.000 000	-0.001
	Batt. Endpoint	+20	3954 989 986	-4.7	0.000 000	-0.001

- ▣ BandWidth: 60 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 019 999	0.0	0.000 000	0.000
	100 %	-30	3730 019 994	-5.0	0.000 000	-0.001
	100 %	-20	3730 019 995	-4.1	0.000 000	-0.001
	100 %	-10	3730 019 998	-0.7	0.000 000	0.000
	100 %	0	3730 019 995	-4.2	0.000 000	-0.001
	100 %	+10	3730 019 997	-1.5	0.000 000	0.000
	100 %	+30	3730 019 995	-4.0	0.000 000	-0.001
	100 %	+40	3730 019 994	-4.4	0.000 000	-0.001
	100 %	+50	3730 019 996	-2.7	0.000 000	-0.001
	Batt. Endpoint	+20	3730 019 996	-3.0	0.000 000	-0.001
3949.980	100 %	+20(Ref)	3949 979 993	0.0	0.000 000	0.000
	100 %	-30	3949 979 991	-1.7	0.000 000	0.000
	100 %	-20	3949 979 985	-7.8	0.000 000	-0.002
	100 %	-10	3949 979 987	-5.7	0.000 000	-0.001
	100 %	0	3949 979 994	1.4	0.000 000	0.000
	100 %	+10	3949 979 986	-6.3	0.000 000	-0.002
	100 %	+30	3949 979 986	-6.9	0.000 000	-0.002
	100 %	+40	3949 979 989	-4.2	0.000 000	-0.001
	100 %	+50	3949 979 984	-9.2	0.000 000	-0.002
	Batt. Endpoint	+20	3949 979 989	-4.0	0.000 000	-0.001

- ▣ BandWidth: 70 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 999 997	0.0	0.000 000	0.000
	100 %	-30	3734 999 992	-5.5	0.000 000	-0.001
	100 %	-20	3734 999 990	-7.2	0.000 000	-0.002
	100 %	-10	3734 999 992	-5.5	0.000 000	-0.001
	100 %	0	3734 999 994	-3.1	0.000 000	-0.001
	100 %	+10	3734 999 993	-4.4	0.000 000	-0.001
	100 %	+30	3734 999 990	-7.3	0.000 000	-0.002
	100 %	+40	3734 999 993	-4.5	0.000 000	-0.001
	100 %	+50	3734 999 989	-8.2	0.000 000	-0.002
	Batt. Endpoint	+20	3734 999 987	-10.1	0.000 000	-0.003
3945.000	100 %	+20(Ref)	3944 999 995	0.0	0.000 000	0.000
	100 %	-30	3944 999 992	-2.7	0.000 000	-0.001
	100 %	-20	3944 999 992	-2.7	0.000 000	-0.001
	100 %	-10	3944 999 990	-4.4	0.000 000	-0.001
	100 %	0	3944 999 989	-5.6	0.000 000	-0.001
	100 %	+10	3944 999 989	-5.8	0.000 000	-0.001
	100 %	+30	3944 999 989	-5.9	0.000 000	-0.002
	100 %	+40	3944 999 994	-0.3	0.000 000	0.000
	100 %	+50	3944 999 986	-8.3	0.000 000	-0.002
	Batt. Endpoint	+20	3944 999 992	-2.5	0.000 000	-0.001

- ▣ BandWidth: 80 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 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 010 001	0.0	0.000 000	0.000
	100 %	-30	3740 009 999	-2.5	0.000 000	-0.001
	100 %	-20	3740 009 992	-8.9	0.000 000	-0.002
	100 %	-10	3740 010 000	-1.0	0.000 000	0.000
	100 %	0	3740 009 995	-5.6	0.000 000	-0.002
	100 %	+10	3740 010 000	-0.7	0.000 000	0.000
	100 %	+30	3740 009 996	-5.0	0.000 000	-0.001
	100 %	+40	3740 009 994	-6.9	0.000 000	-0.002
	100 %	+50	3740 009 994	-6.9	0.000 000	-0.002
	Batt. Endpoint	+20	3740 009 997	-4.2	0.000 000	-0.001
3939.990	100 %	+20(Ref)	3939 990 001	0.0	0.000 000	0.000
	100 %	-30	3939 989 996	-5.1	0.000 000	-0.001
	100 %	-20	3939 990 006	5.3	0.000 000	0.001
	100 %	-10	3939 989 999	-1.8	0.000 000	0.000
	100 %	0	3939 990 004	2.9	0.000 000	0.001
	100 %	+10	3939 989 997	-3.7	0.000 000	-0.001
	100 %	+30	3939 990 000	-1.3	0.000 000	0.000
	100 %	+40	3939 990 001	0.2	0.000 000	0.000
	100 %	+50	3939 990 001	0.4	0.000 000	0.000
	Batt. Endpoint	+20	3939 989 996	-4.9	0.000 000	-0.001

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

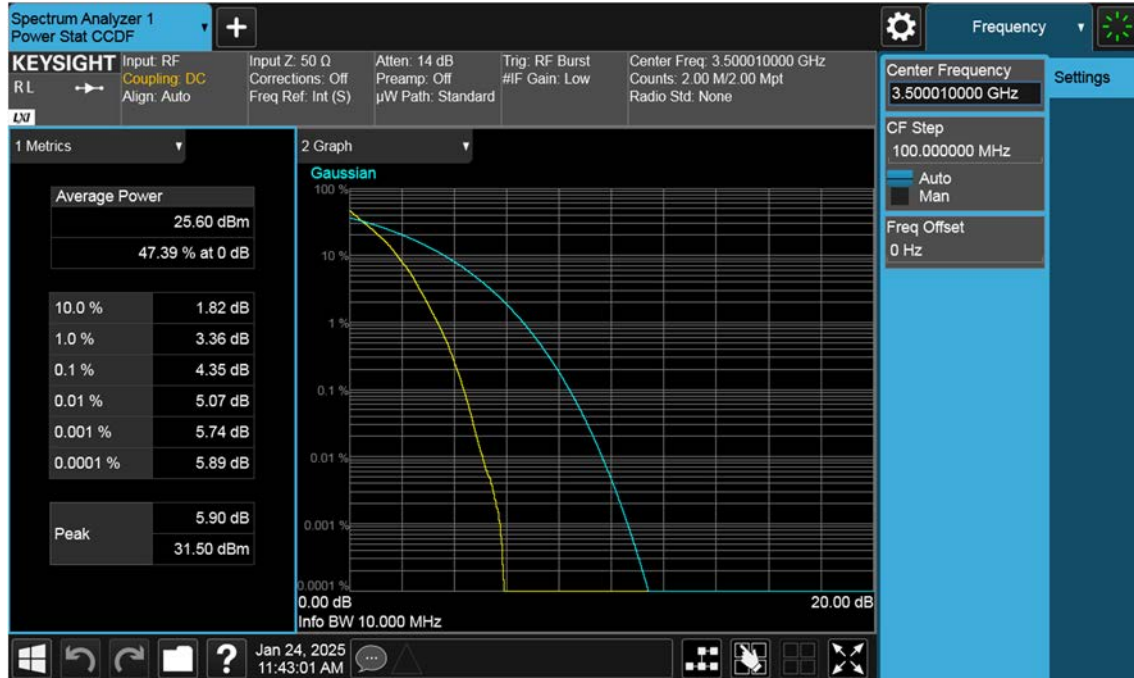
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3745.020	100 %	+20(Ref)	3745 019 991	0.0	0.000 000	0.000
	100 %	-30	3745 019 986	-5.0	0.000 000	-0.001
	100 %	-20	3745 019 986	-4.9	0.000 000	-0.001
	100 %	-10	3745 019 991	-0.3	0.000 000	0.000
	100 %	0	3745 019 990	-1.2	0.000 000	0.000
	100 %	+10	3745 019 986	-5.2	0.000 000	-0.001
	100 %	+30	3745 019 984	-7.4	0.000 000	-0.002
	100 %	+40	3745 019 989	-2.5	0.000 000	-0.001
	100 %	+50	3745 019 989	-2.5	0.000 000	-0.001
	Batt. Endpoint	+20	3745 019 986	-5.1	0.000 000	-0.001
3934.980	100 %	+20(Ref)	3934 979 999	0.0	0.000 000	0.000
	100 %	-30	3934 979 991	-8.5	0.000 000	-0.002
	100 %	-20	3934 979 991	-8.3	0.000 000	-0.002
	100 %	-10	3934 979 997	-2.6	0.000 000	-0.001
	100 %	0	3934 979 998	-1.6	0.000 000	0.000
	100 %	+10	3934 979 998	-1.4	0.000 000	0.000
	100 %	+30	3934 979 998	-1.4	0.000 000	0.000
	100 %	+40	3934 979 999	0.0	0.000 000	0.000
	100 %	+50	3934 979 997	-2.1	0.000 000	-0.001
	Batt. Endpoint	+20	3934 979 993	-6.1	0.000 000	-0.002

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 3.860 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

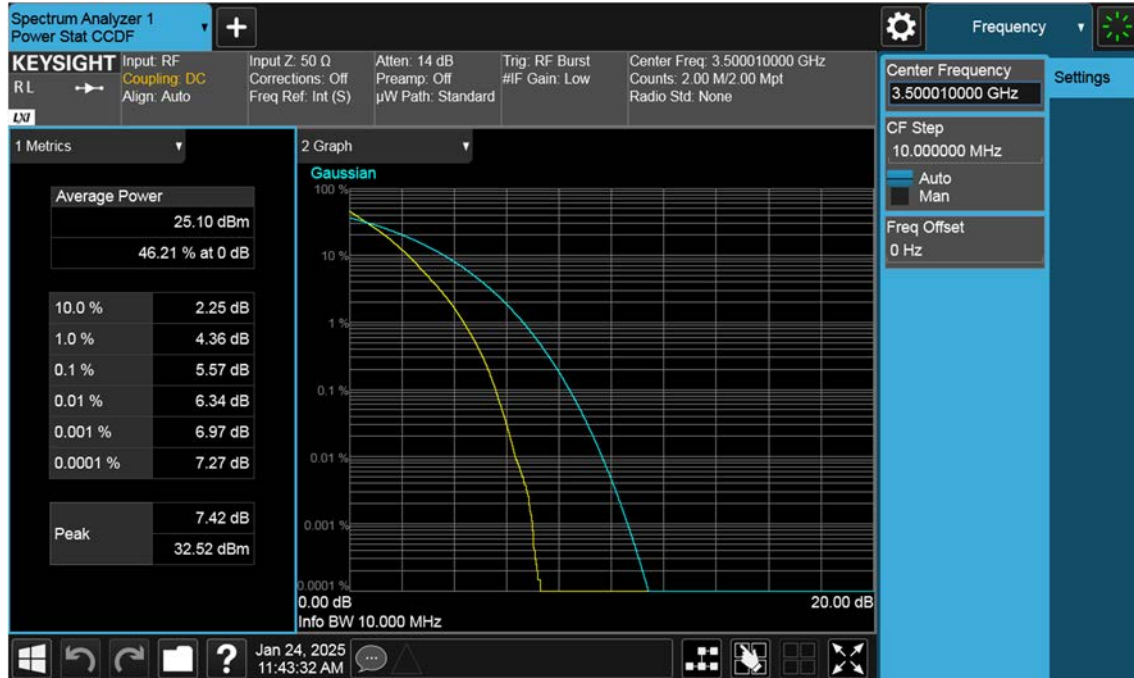
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3750.000	100 %	+20(Ref)	3750 000 001	0.0	0.000 000	0.000
	100 %	-30	3749 999 997	-3.5	0.000 000	-0.001
	100 %	-20	3749 999 997	-3.5	0.000 000	-0.001
	100 %	-10	3749 999 999	-2.1	0.000 000	-0.001
	100 %	0	3750 000 001	0.2	0.000 000	0.000
	100 %	+10	3749 999 999	-1.9	0.000 000	-0.001
	100 %	+30	3749 999 999	-1.7	0.000 000	0.000
	100 %	+40	3749 999 997	-3.5	0.000 000	-0.001
	100 %	+50	3749 999 998	-3.0	0.000 000	-0.001
	Batt. Endpoint	+20	3750 000 003	2.2	0.000 000	0.001
3930.000	100 %	+20(Ref)	3929 999 998	0.0	0.000 000	0.000
	100 %	-30	3929 999 998	-0.3	0.000 000	0.000
	100 %	-20	3929 999 994	-4.8	0.000 000	-0.001
	100 %	-10	3929 999 998	-0.5	0.000 000	0.000
	100 %	0	3929 999 994	-3.9	0.000 000	-0.001
	100 %	+10	3929 999 992	-6.3	0.000 000	-0.002
	100 %	+30	3929 999 996	-2.2	0.000 000	-0.001
	100 %	+40	3929 999 993	-5.5	0.000 000	-0.001
	100 %	+50	3929 999 990	-8.4	0.000 000	-0.002
	Batt. Endpoint	+20	3929 999 991	-7.1	0.000 000	-0.002

10. TEST PLOTS(3450 MHz - 3550 MHz)

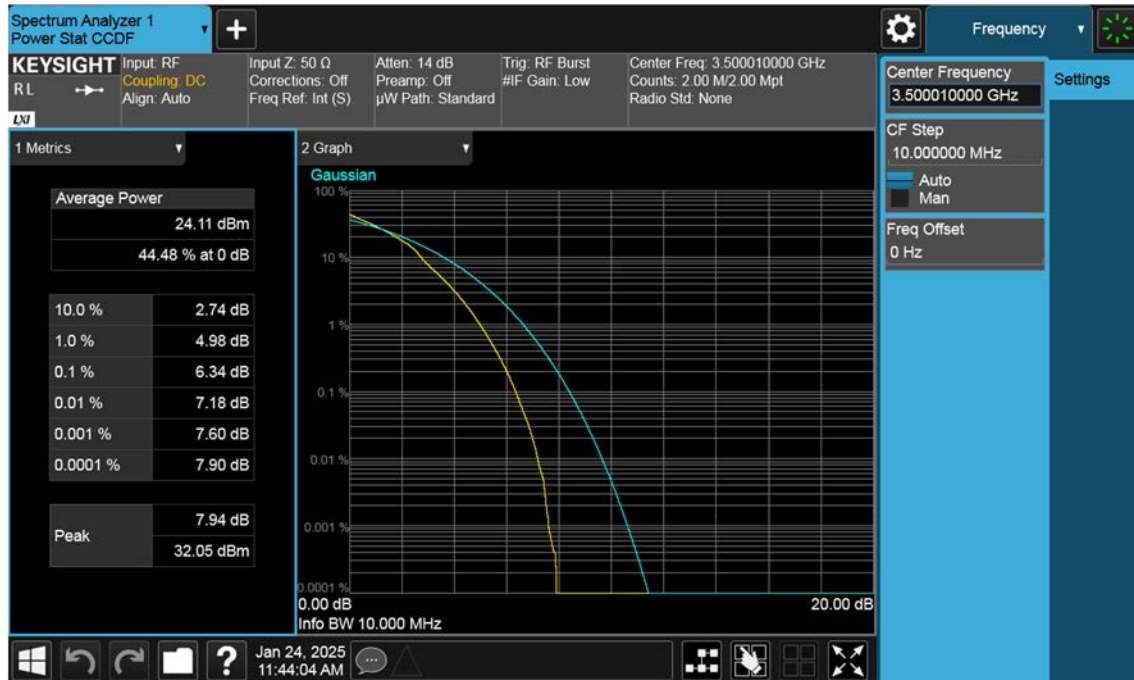
n77(3450~3550 MHz)_10 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_10 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_10 M_PAR_Mid_16QAM_FullRB



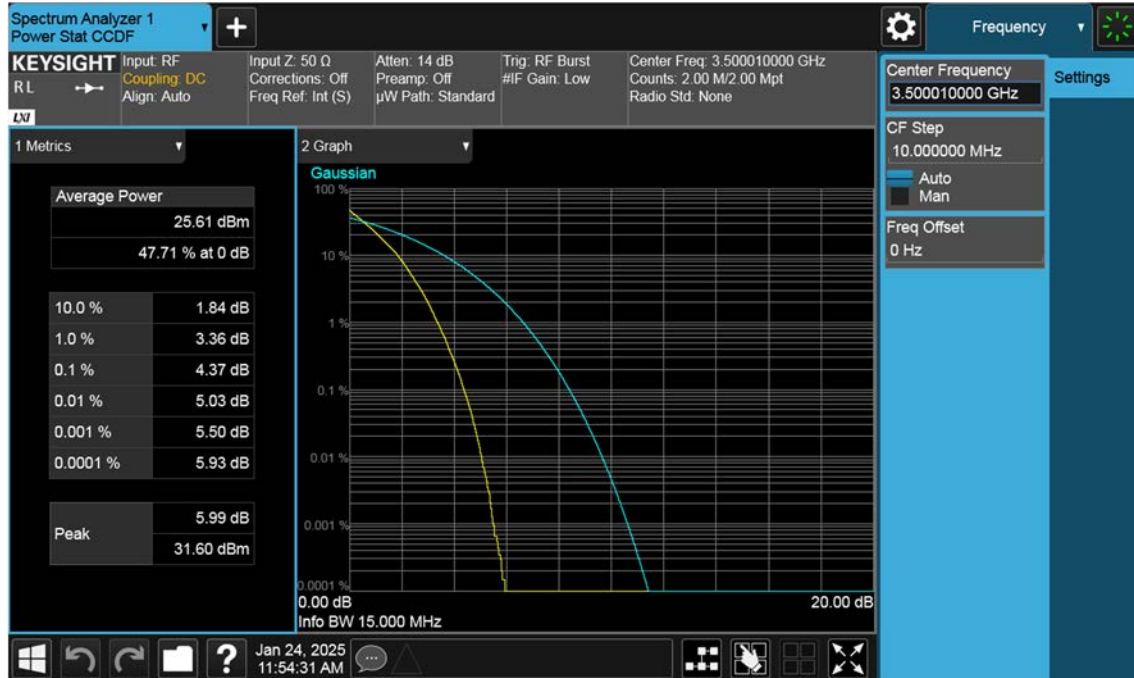
n77(3450~3550 MHz)_10 M_PAR_Mid_64QAM_FullRB



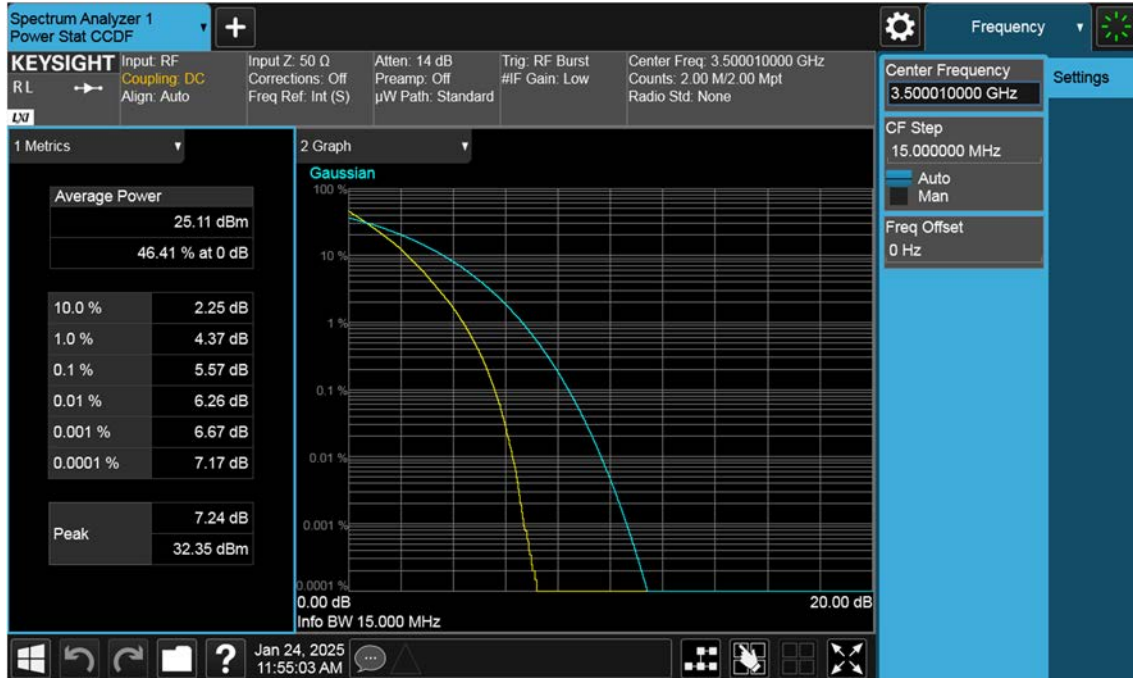
n77(3450~3550 MHz)_10 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_15 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_15 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_15 M_PAR_Mid_16QAM_FullRB



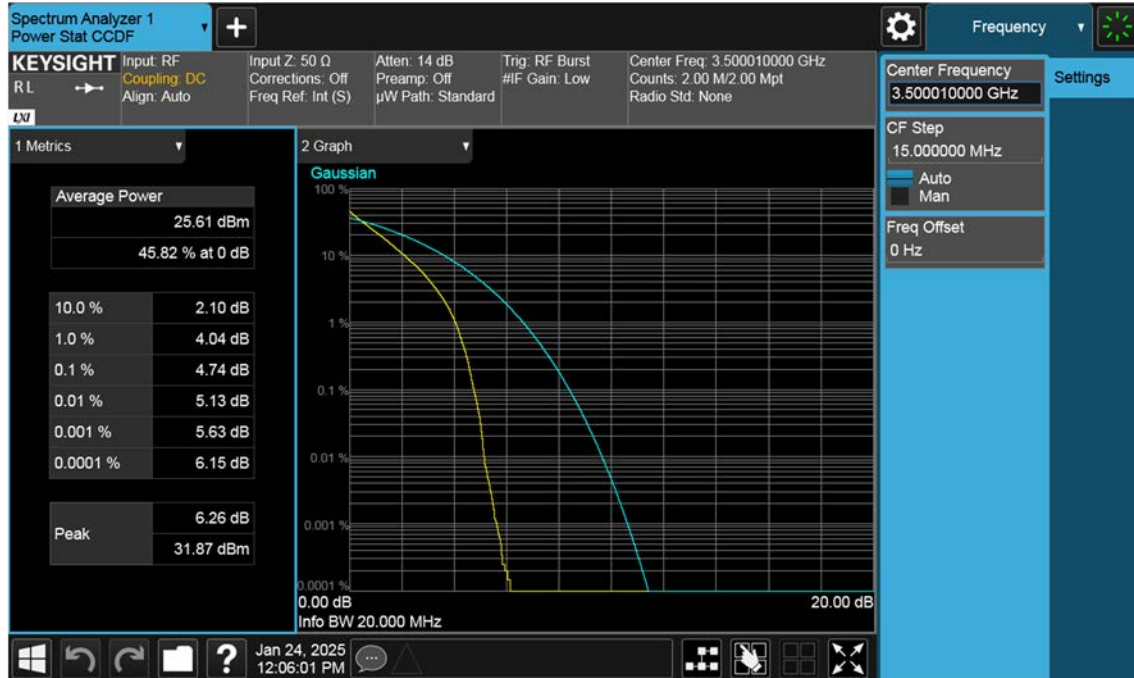
n77(3450~3550 MHz)_15 M_PAR_Mid_64QAM_FullRB



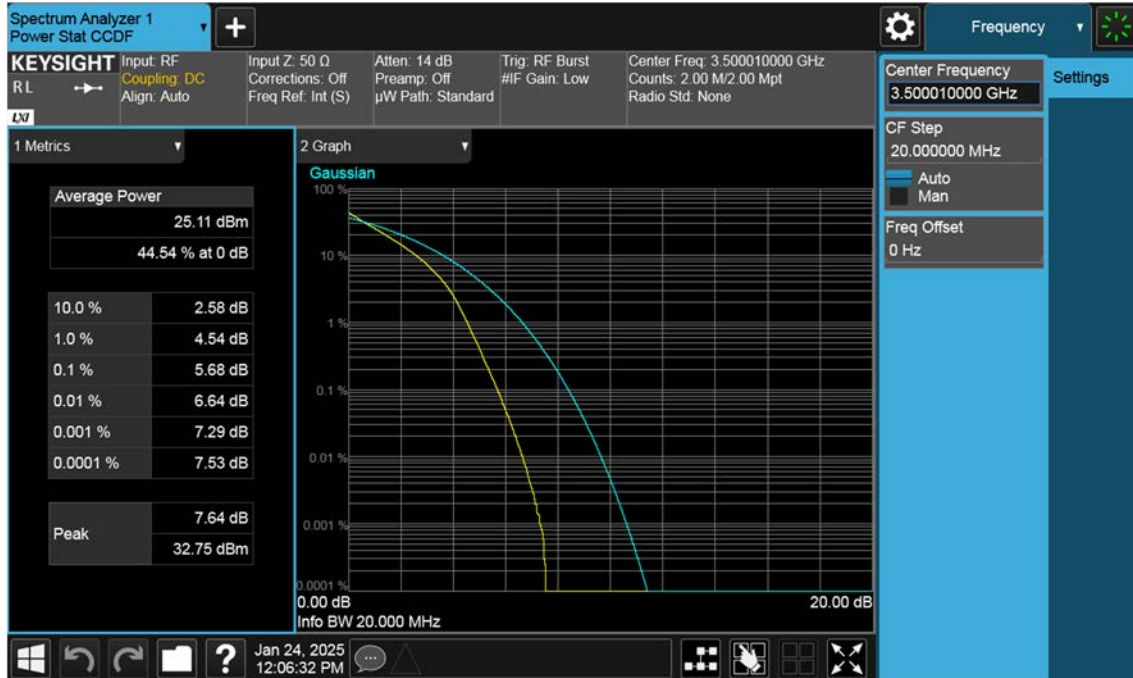
n77(3450~3550 MHz)_15 M_PAR_Mid_256QAM_FullRB



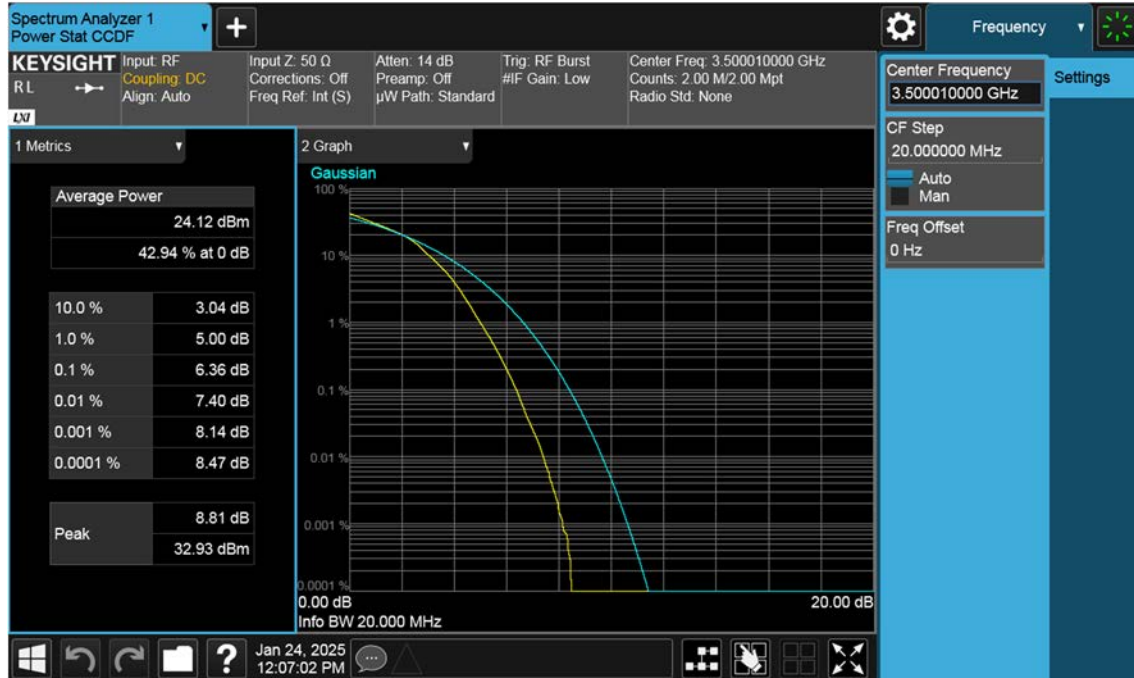
n77(3450~3550 MHz)_20 M_PAR_Mid_BPSK_FullRB



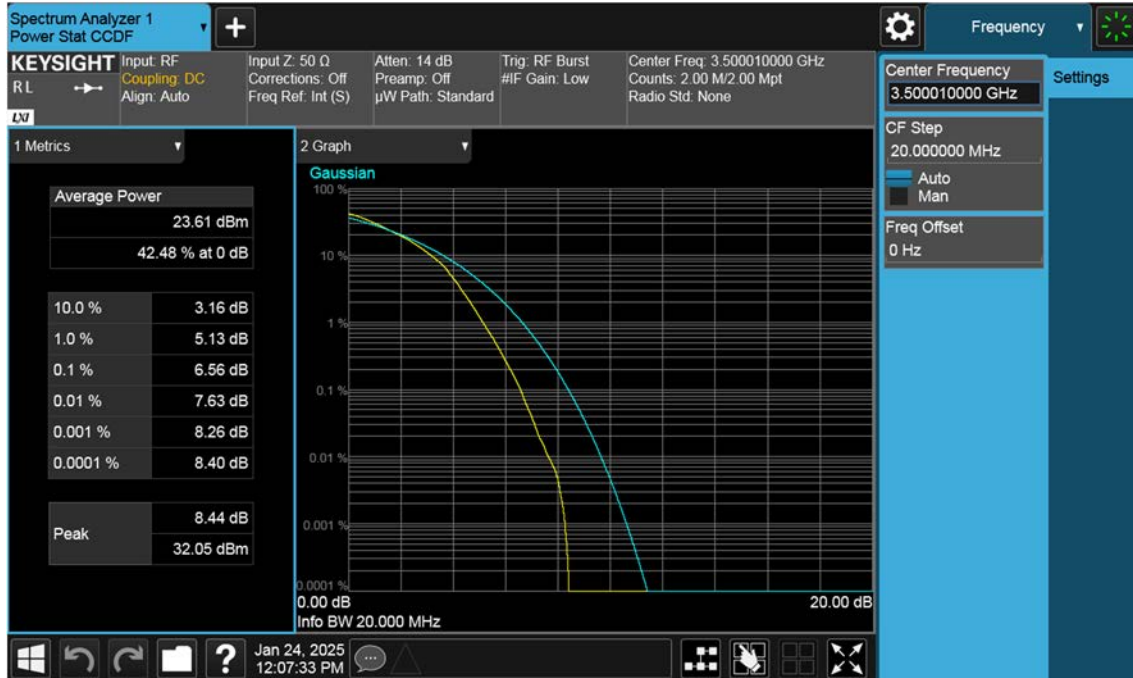
n77(3450~3550 MHz)_20 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_20 M_PAR_Mid_16QAM_FullRB



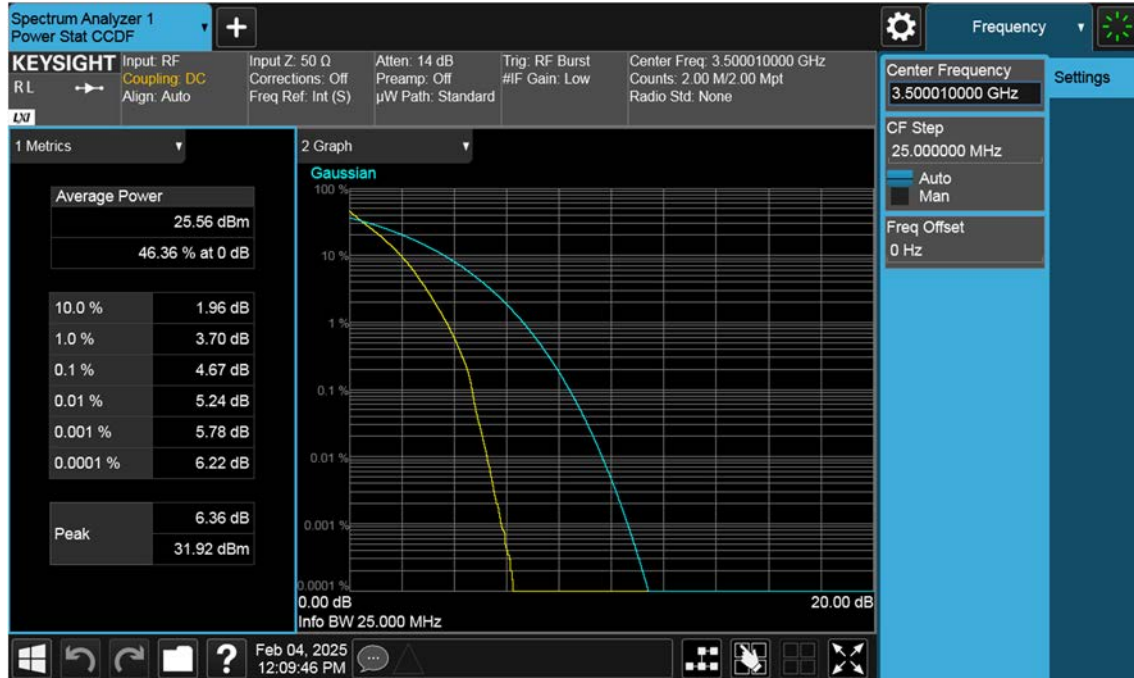
n77(3450~3550 MHz)_20 M_PAR_Mid_64QAM_FullRB



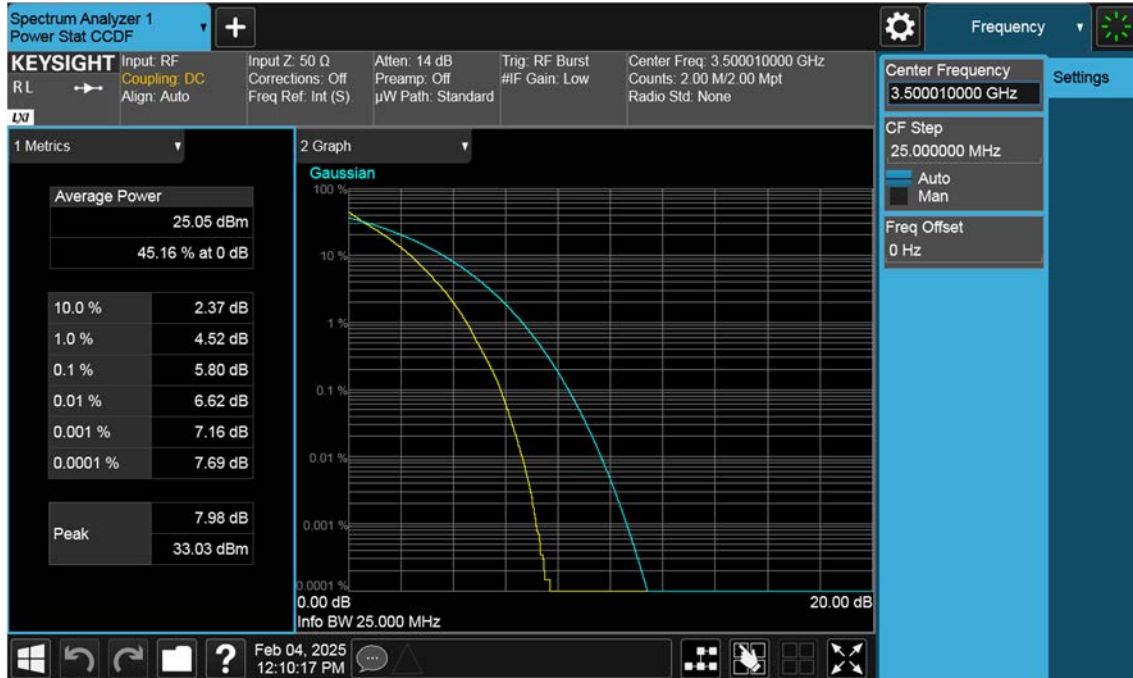
n77(3450~3550 MHz)_20 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_25 M_PAR_Mid_BPSK_FullRB



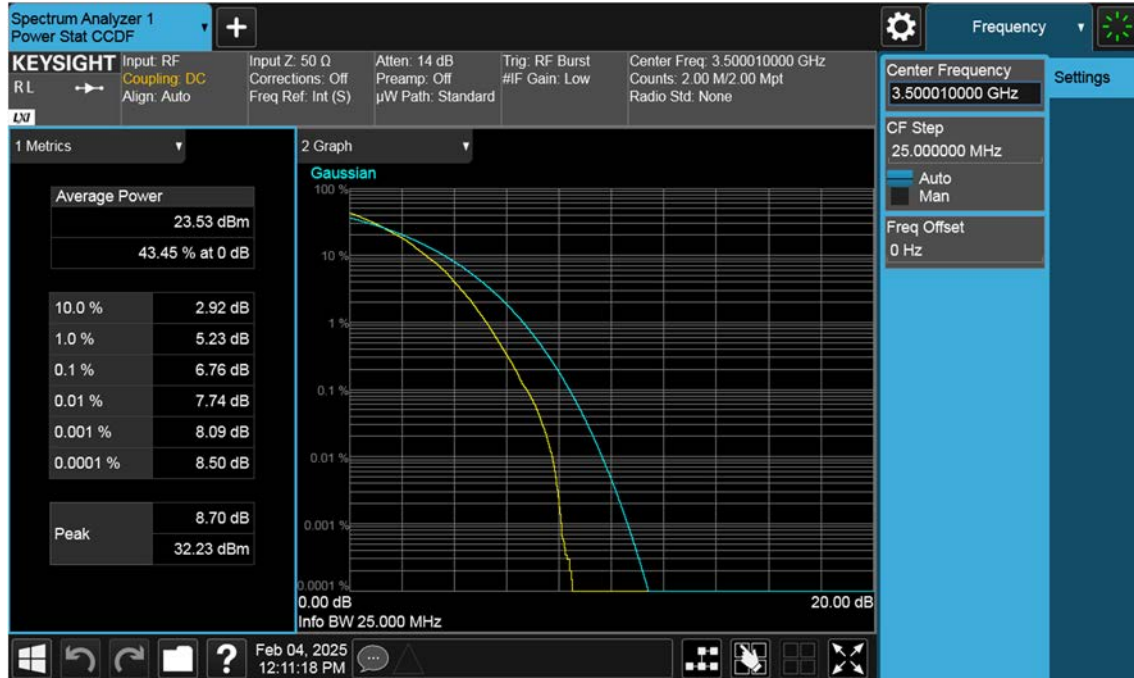
n77(3450~3550 MHz)_25 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_25 M_PAR_Mid_16QAM_FullRB



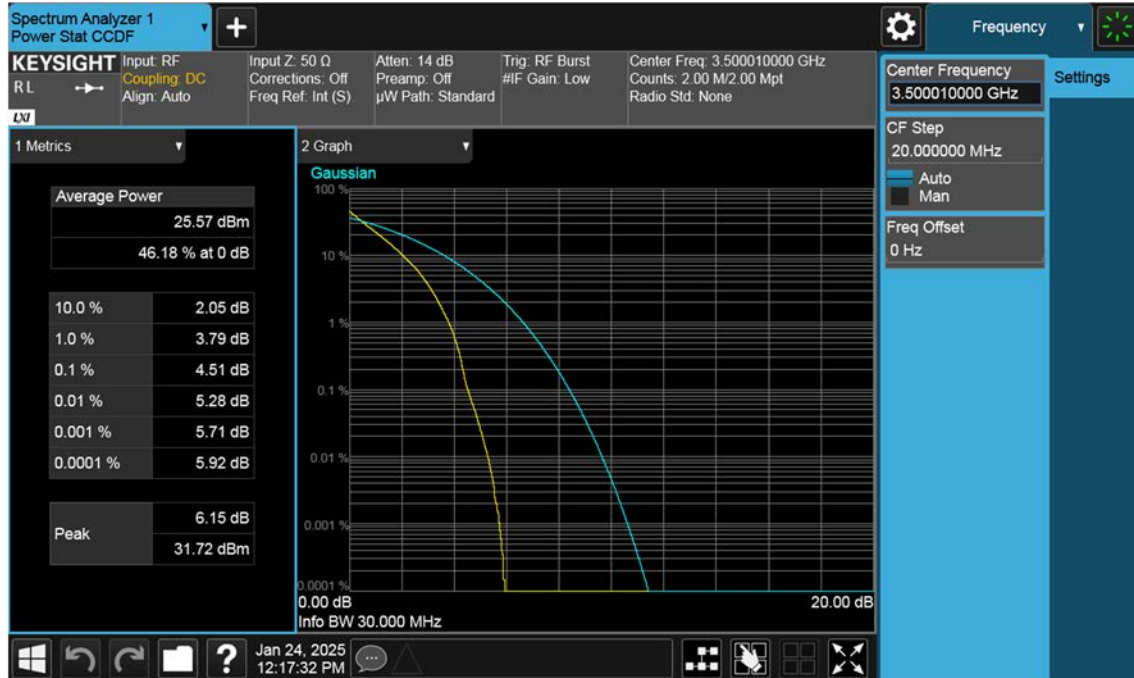
n77(3450~3550 MHz)_25 M_PAR_Mid_64QAM_FullRB



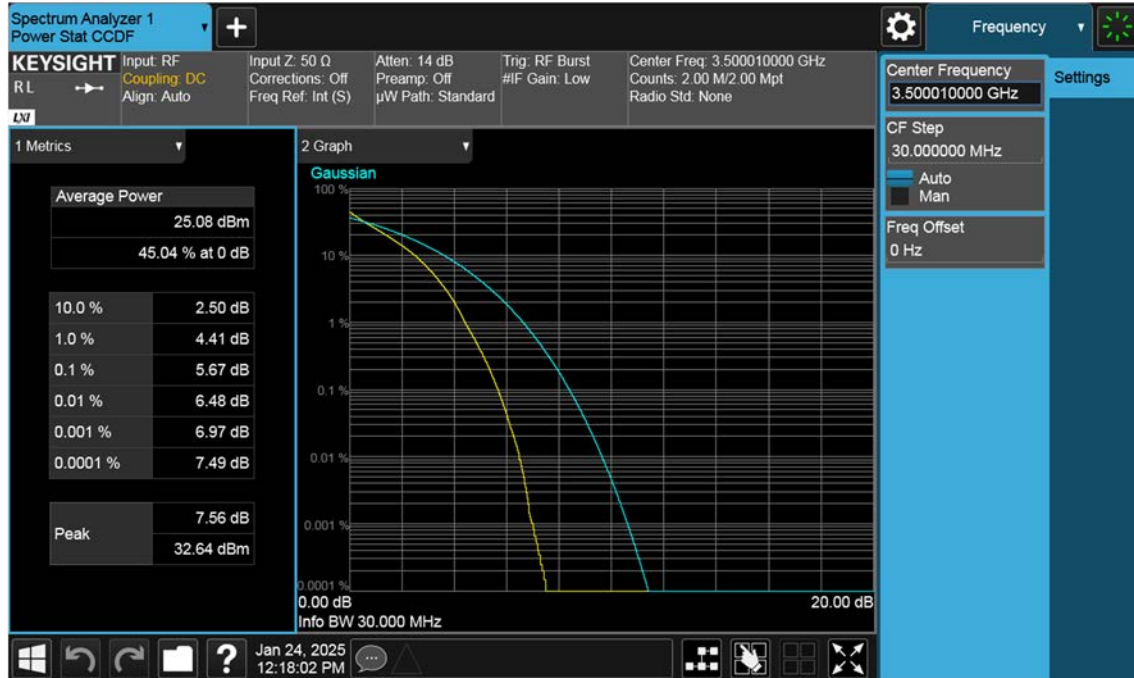
n77(3450~3550 MHz)_25 M_PAR_Mid_256QAM_FullRB



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



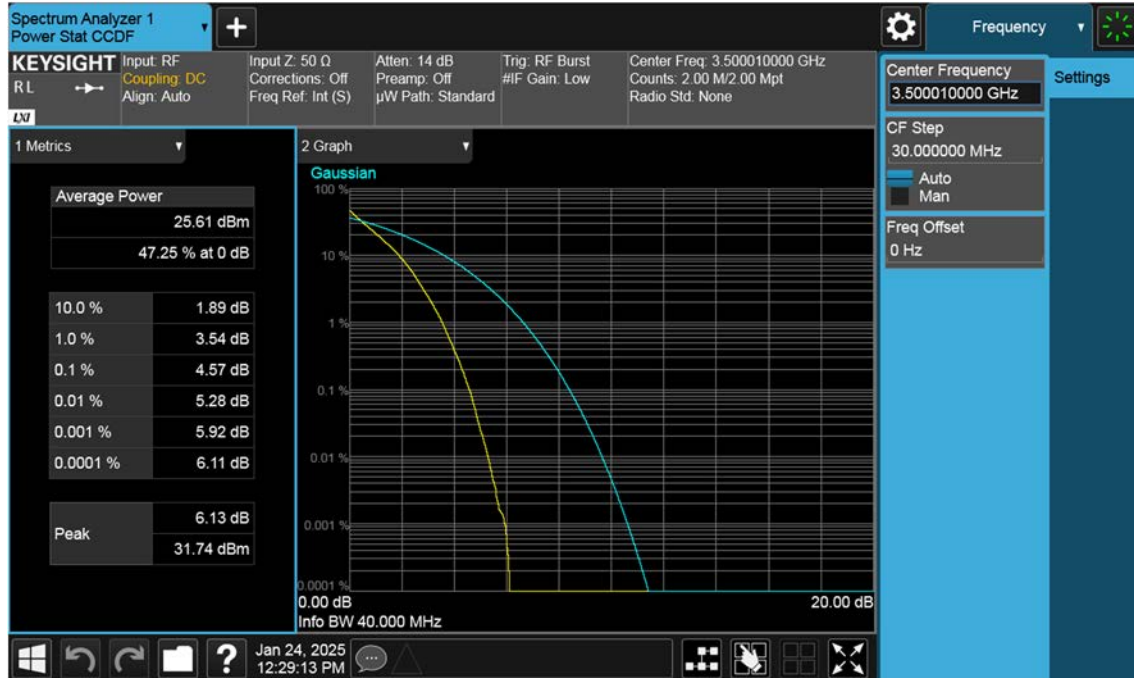
n77(3450~3550 MHz)_30 M_PAR_Mid_64QAM_FullRB



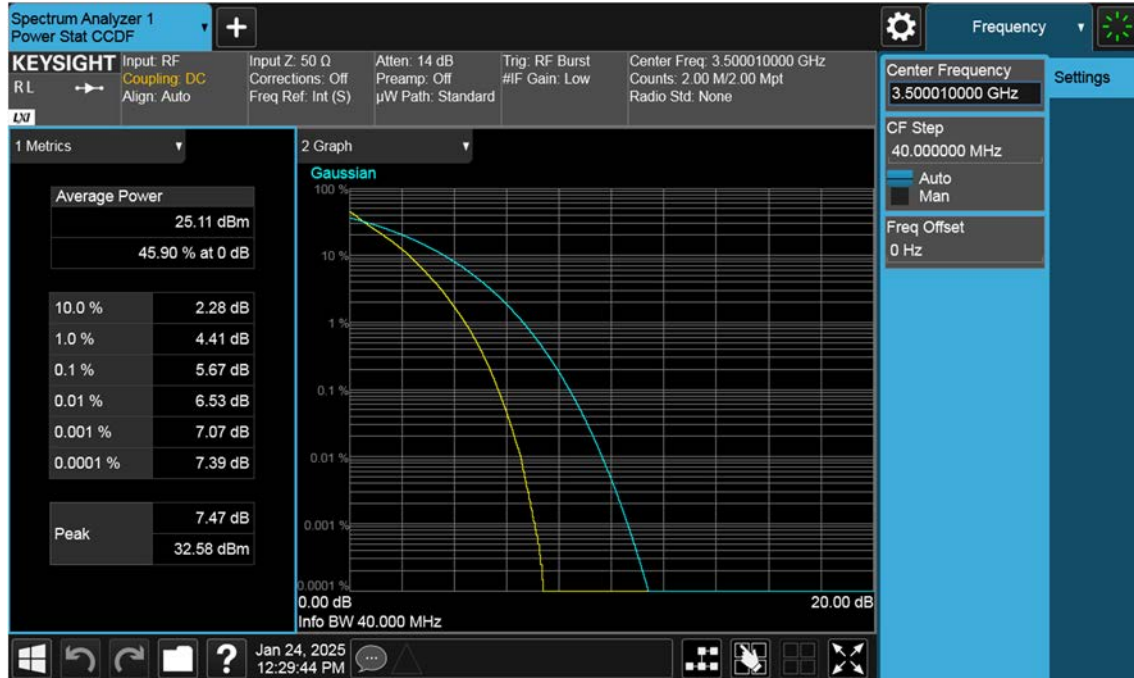
n77(3450~3550 MHz)_30 M_PAR_Mid_256QAM_FullRB



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



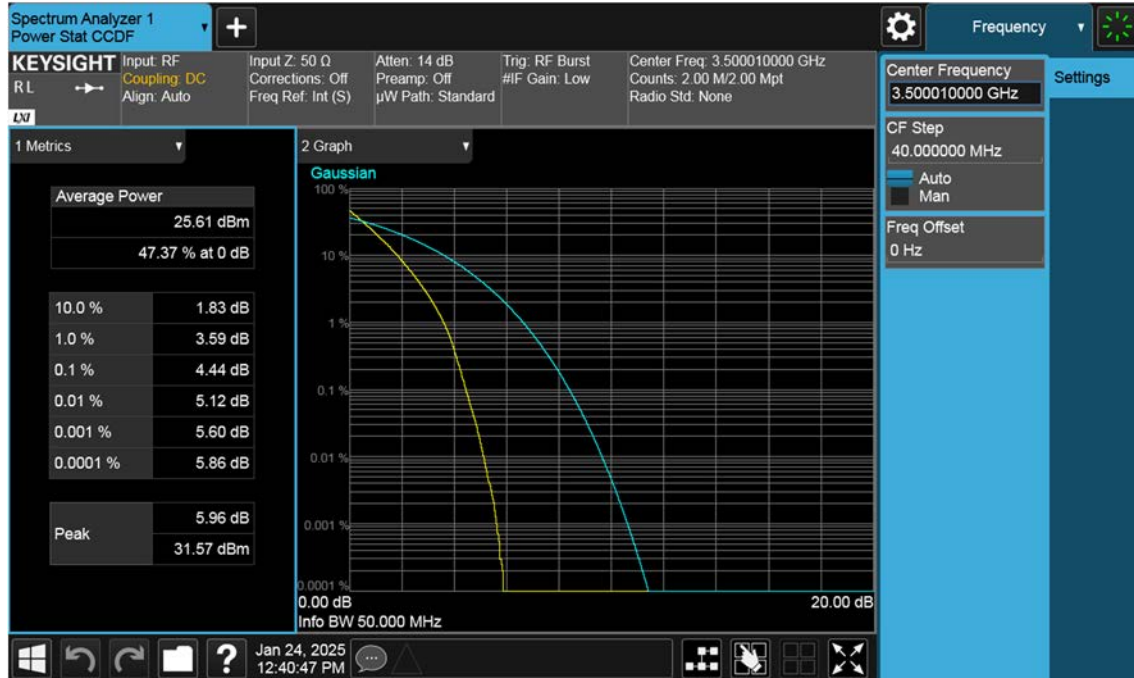
n77(3450~3550 MHz)_40 M_PAR_Mid_64QAM_FullRB



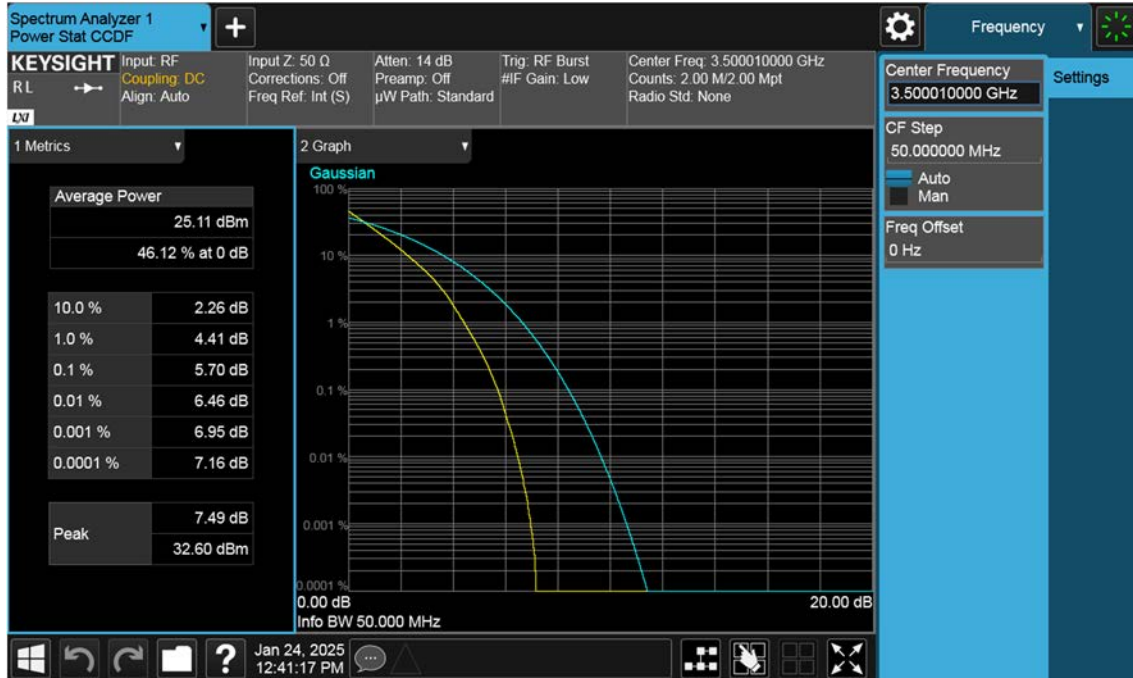
n77(3450~3550 MHz)_40 M_PAR_Mid_256QAM_FullRB



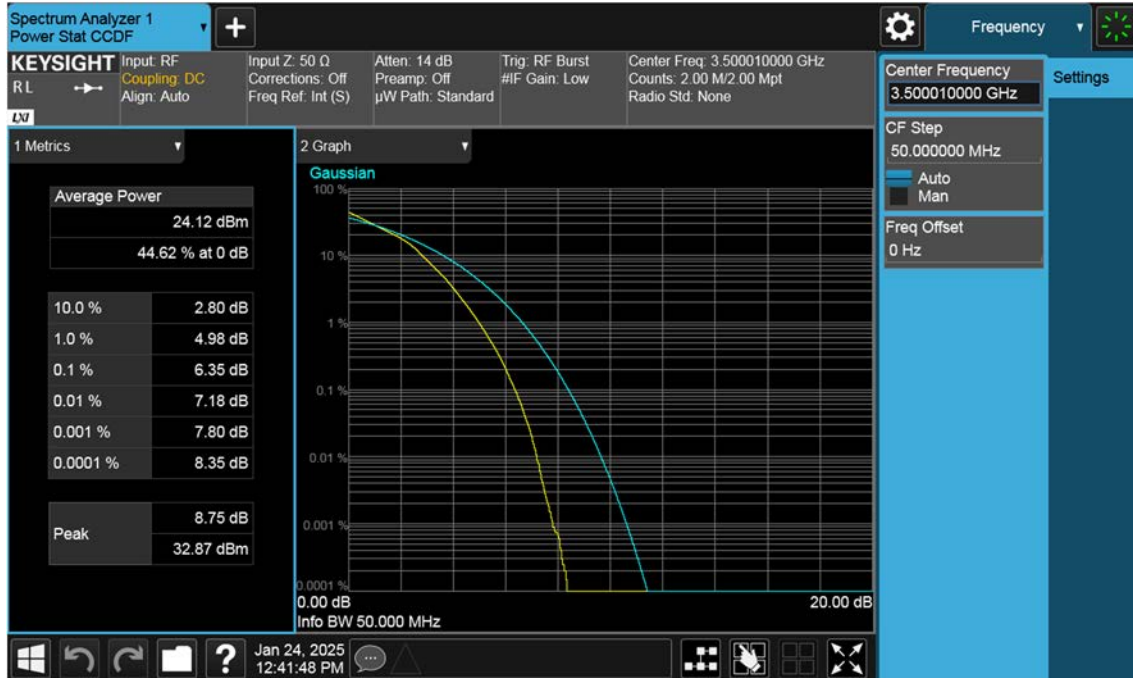
n77(3450~3550 MHz)_50 M_PAR_Mid_BPSK_FullRB



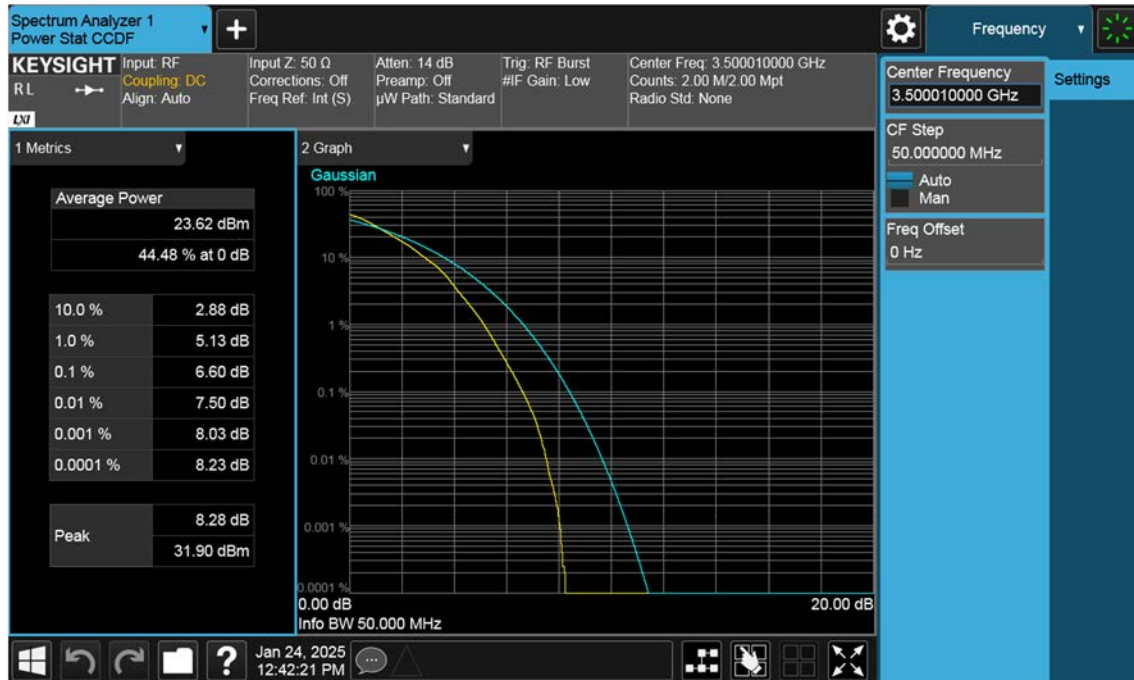
n77(3450~3550 MHz)_50 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_50 M_PAR_Mid_16QAM_FullRB



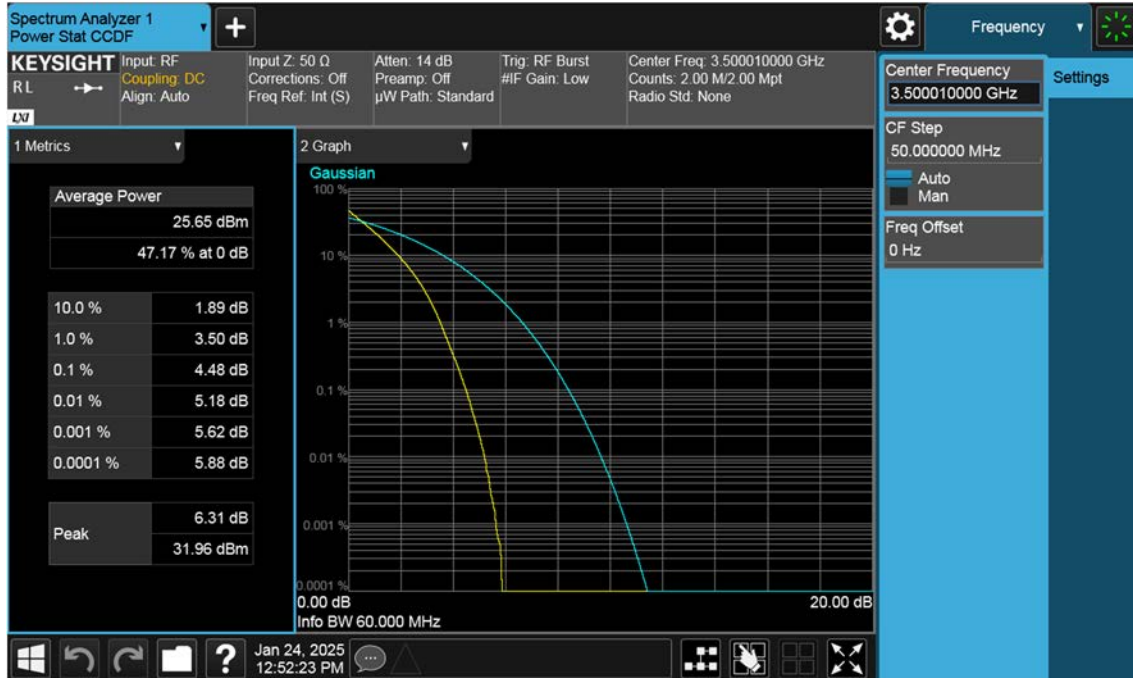
n77(3450~3550 MHz)_50 M_PAR_Mid_64QAM_FullRB



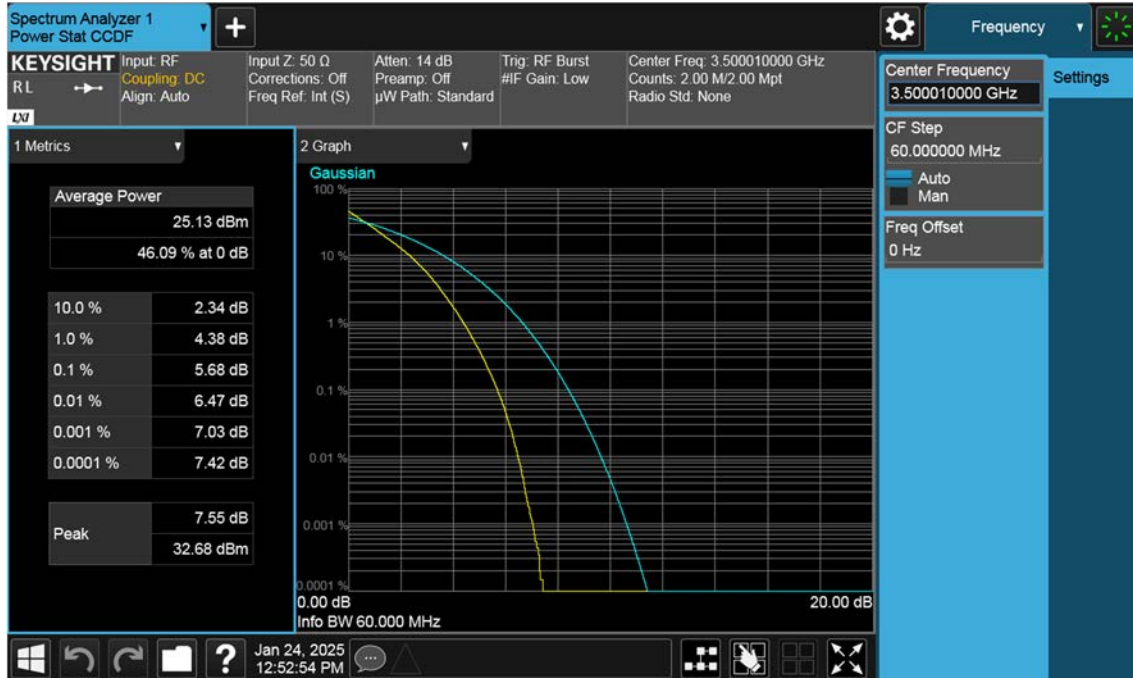
n77(3450~3550 MHz)_50 M_PAR_Mid_256QAM_FullRB



n77(3450~3550 MHz)_60 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_60 M_PAR_Mid_QPSK_FullRB



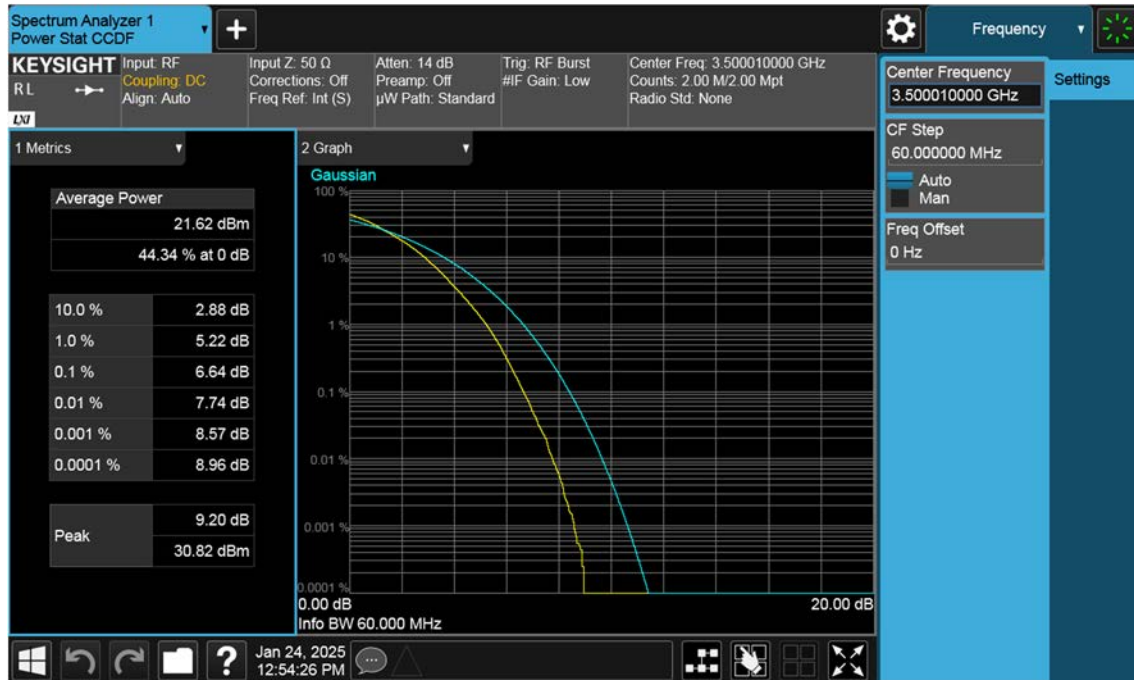
n77(3450~3550 MHz)_60 M_PAR_Mid_16QAM_FullRB



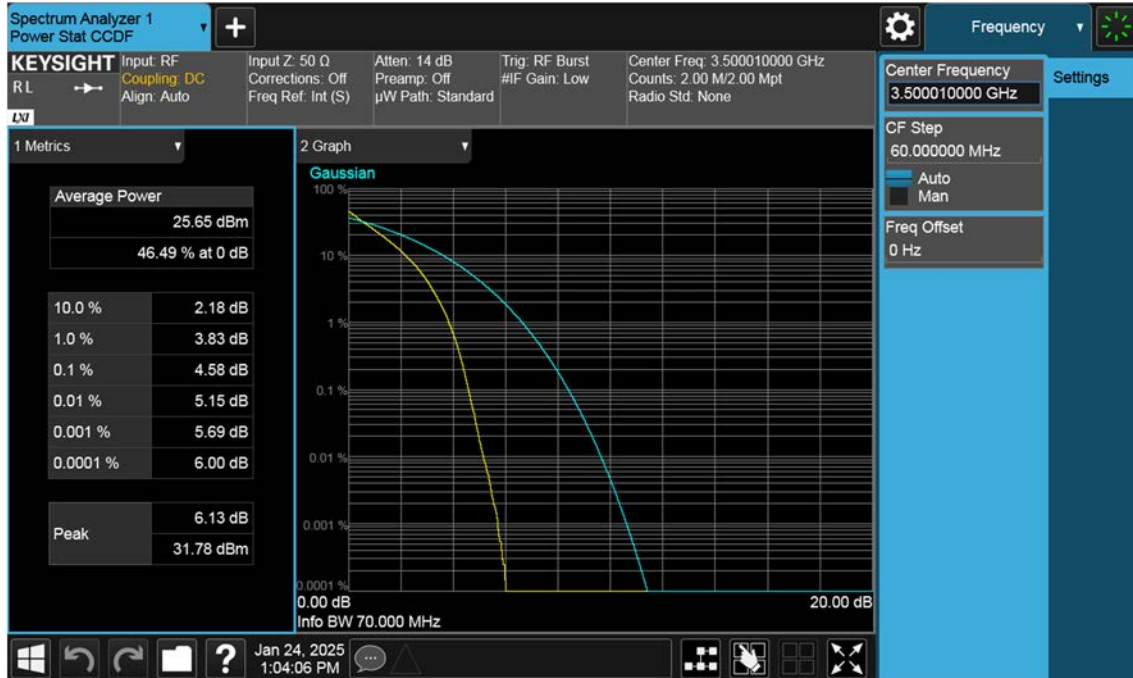
n77(3450~3550 MHz)_60 M_PAR_Mid_64QAM_FullRB



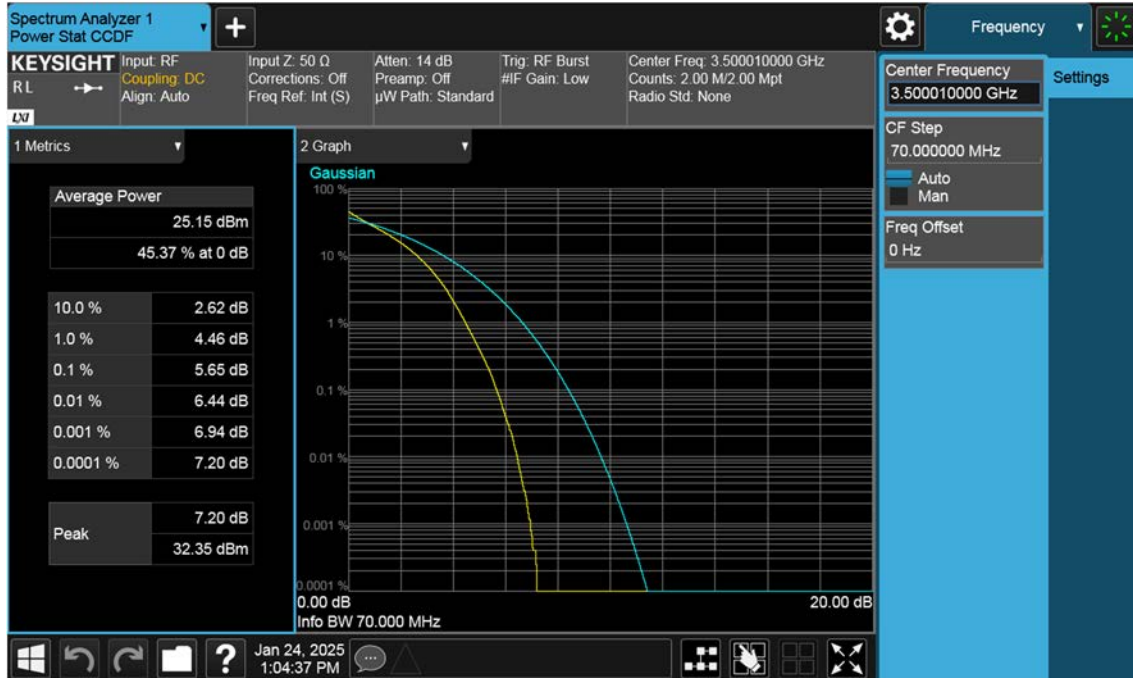
n77(3450~3550 MHz)_60 M_PAR_Mid_256QAM_FullRB



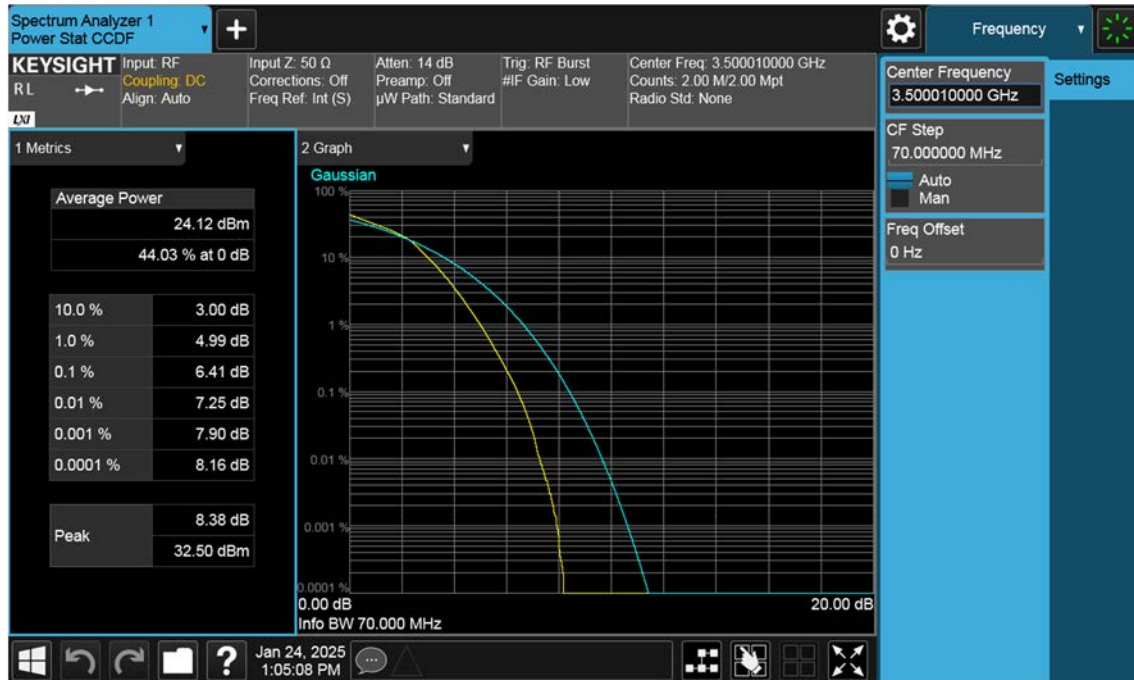
n77(3450~3550 MHz)_70 M_PAR_Mid_BPSK_FullRB



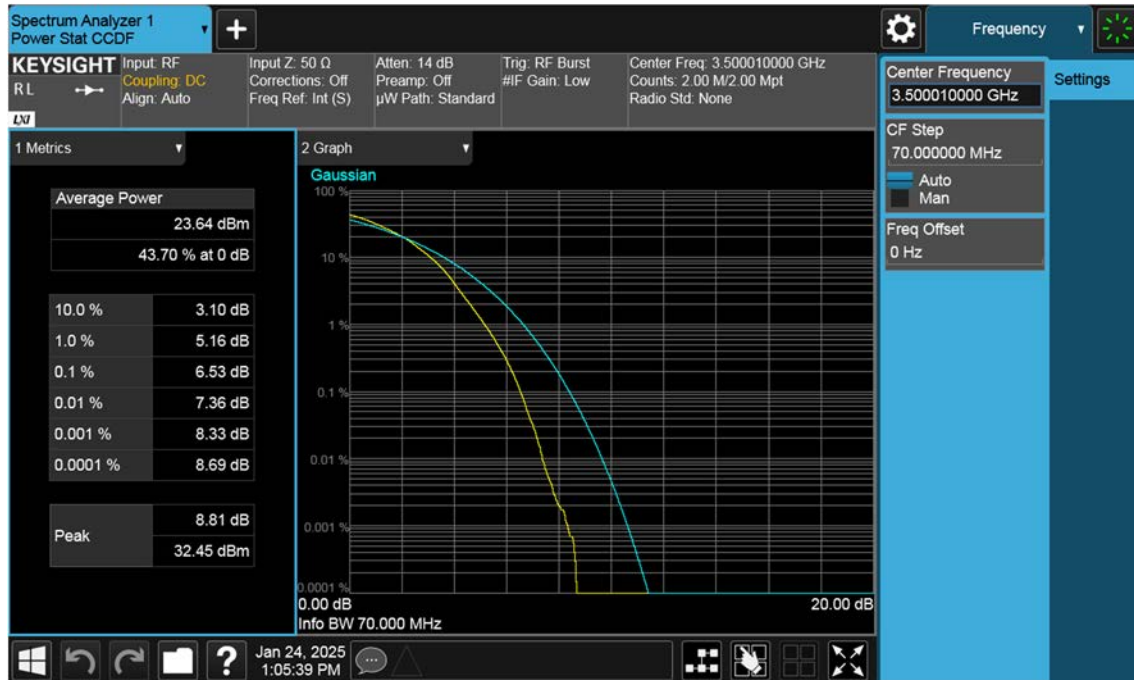
n77(3450~3550 MHz)_70 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_16QAM_FullRB



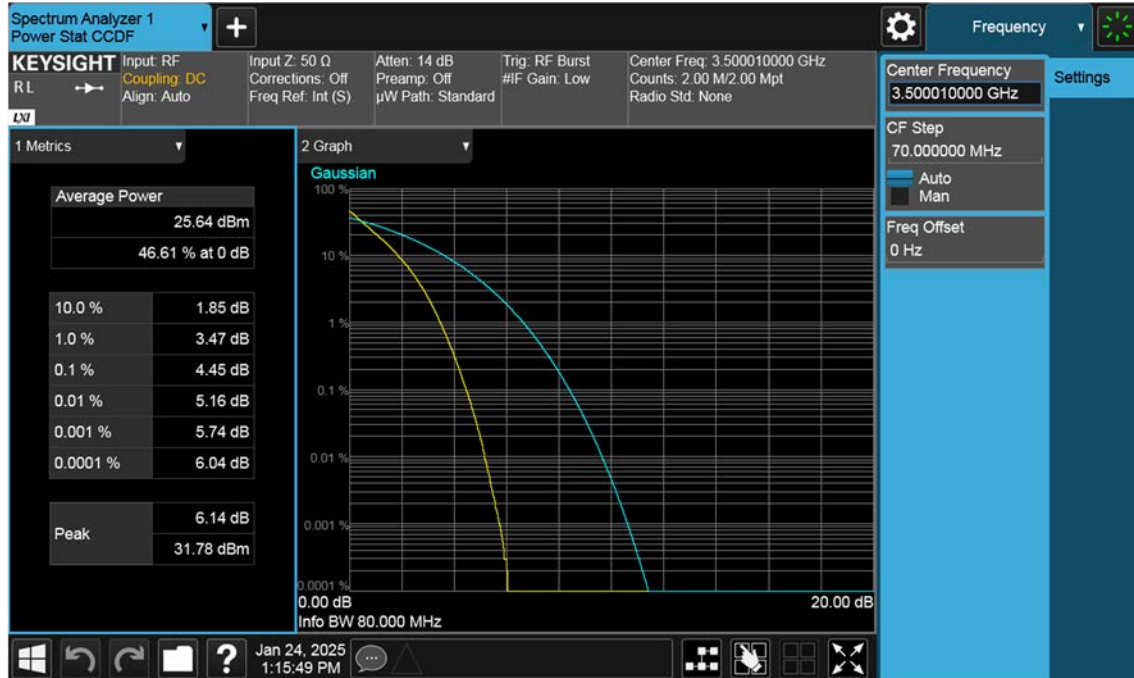
n77(3450~3550 MHz)_70 M_PAR_Mid_64QAM_FullRB



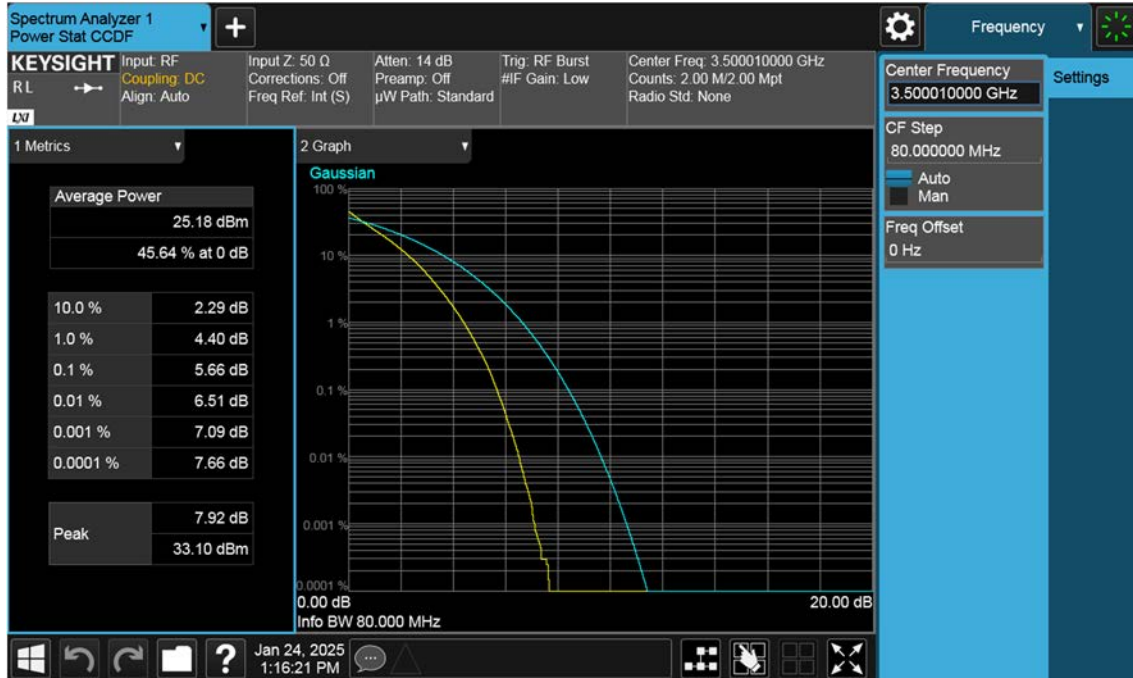
n77(3450~3550 MHz)_70 M_PAR_Mid_256QAM_FullRB



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



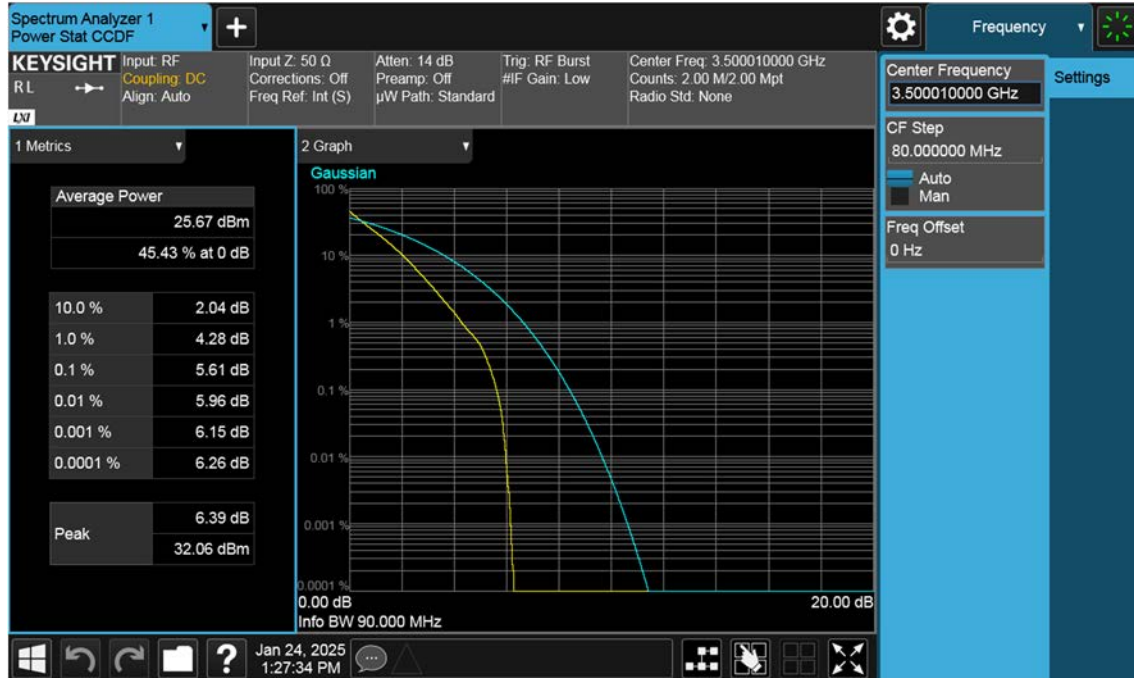
n77(3450~3550 MHz)_80 M_PAR_Mid_64QAM_FullRB



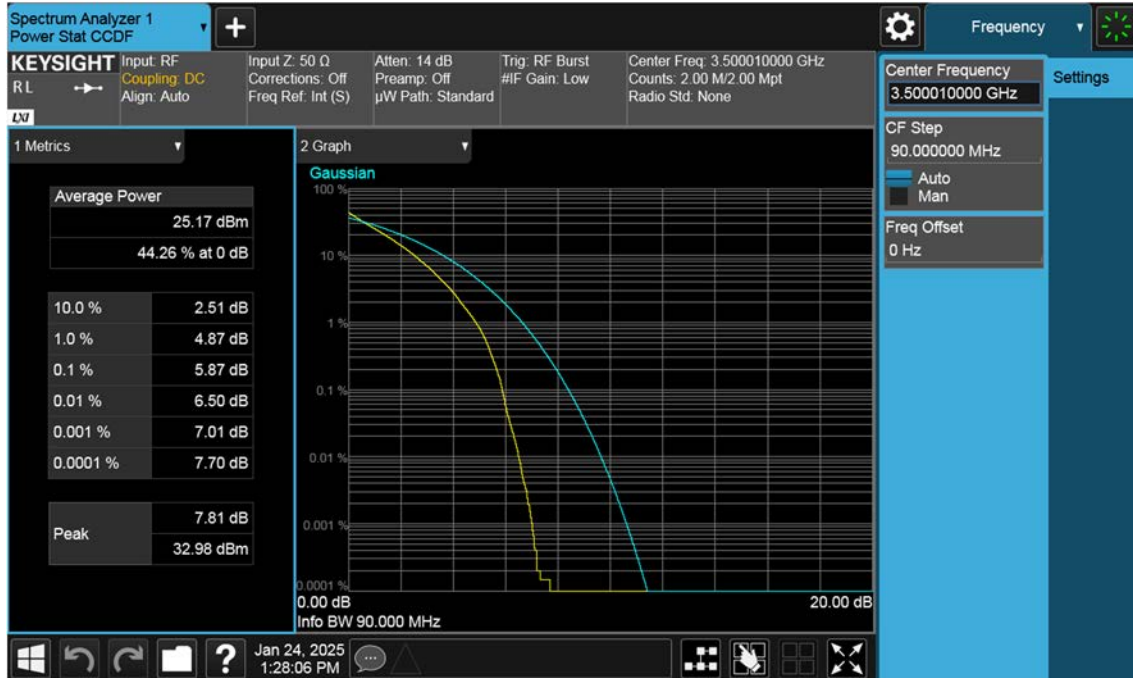
n77(3450~3550 MHz)_80 M_PAR_Mid_256QAM_FullRB



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



Spectrum Analyzer 1
Power Stat CCDF

KEYSIGHT R L **Coupling, DC** Align: Auto

Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) Atten: 14 dB Preamp: Off μ W Path: Standard Trig: RF Burst #IF Gain: Low Center Freq: 3.500010000 GHz Counts: 2.00 M/2.00 Mpt Radio Std: None

1 Metrics

Average Power

23.65 dBm
42.57 % at 0 dB

10.0 % 3.09 dB
1.0 % 5.39 dB
0.1 % 6.52 dB
0.01 % 7.46 dB
0.001 % 8.61 dB
0.0001 % 8.86 dB

Peak 8.92 dB
32.57 dBm

2 Graph

Gaussian

100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %

0.00 dB 20.00 dB

Info BW 90.000 MHz

Settings

Center Frequency
3.500010000 GHz

CF Step
90.000000 MHz

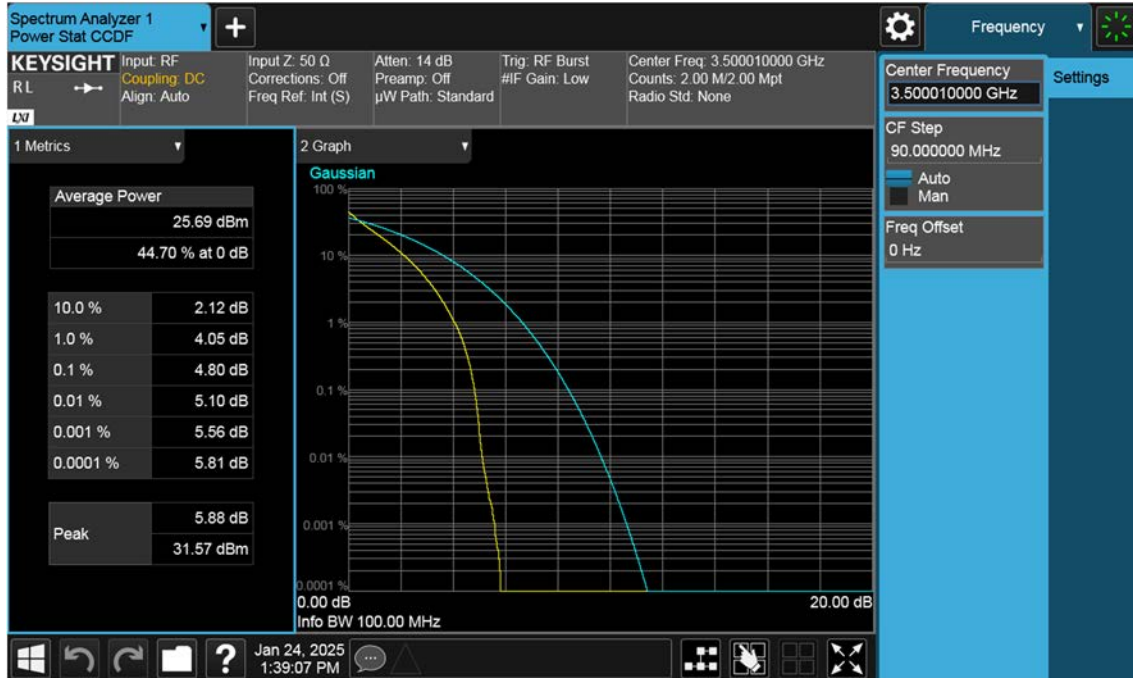
Auto
Man

Freq Offset
0 Hz

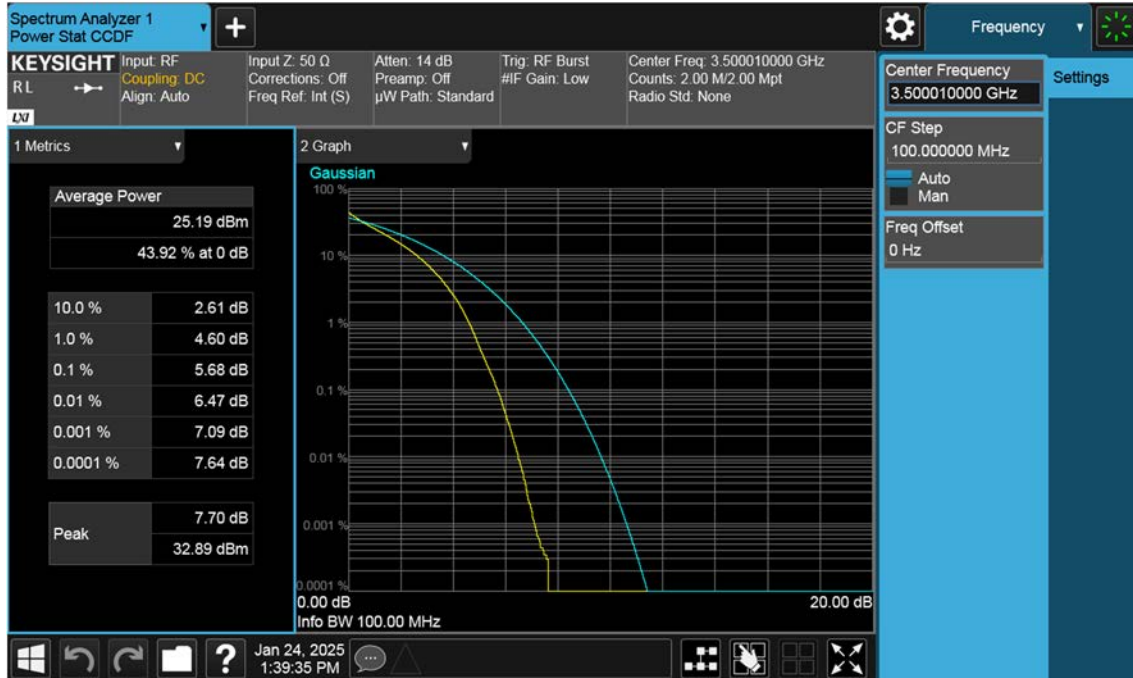
n77(3450~3550 MHz)_90 M_PAR_Mid_256QAM_FullRB



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



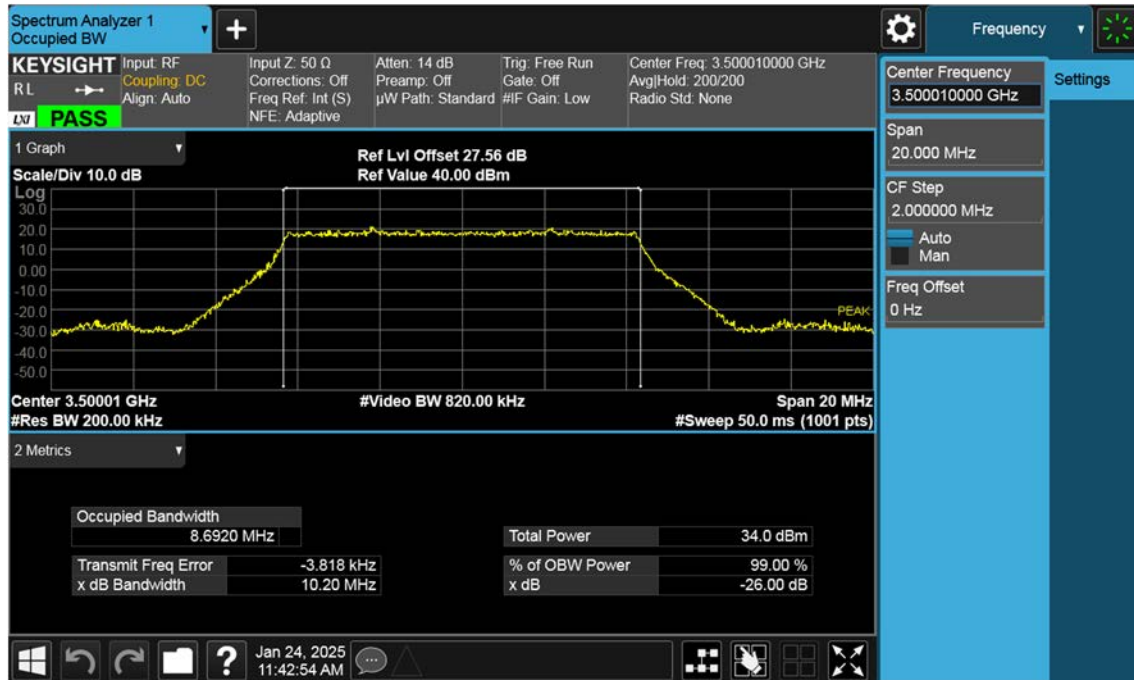
n77(3450~3550 MHz)_100 M_PAR_Mid_64QAM_FullRB



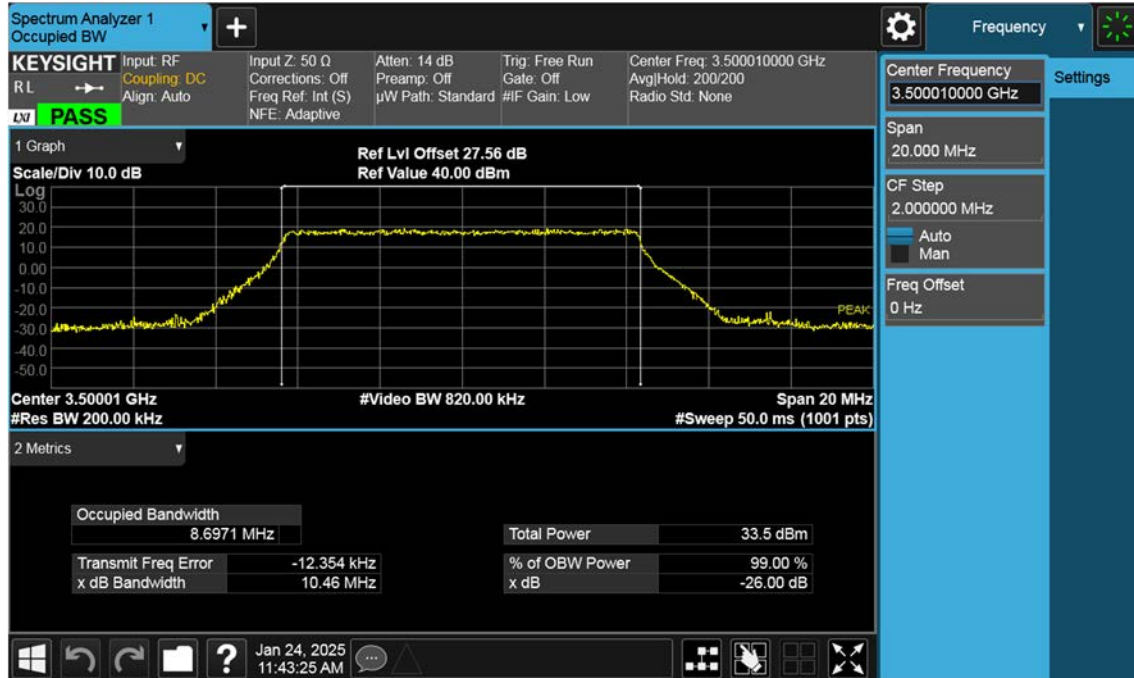
n77(3450~3550 MHz)_100 M_PAR_Mid_256QAM_FullRB



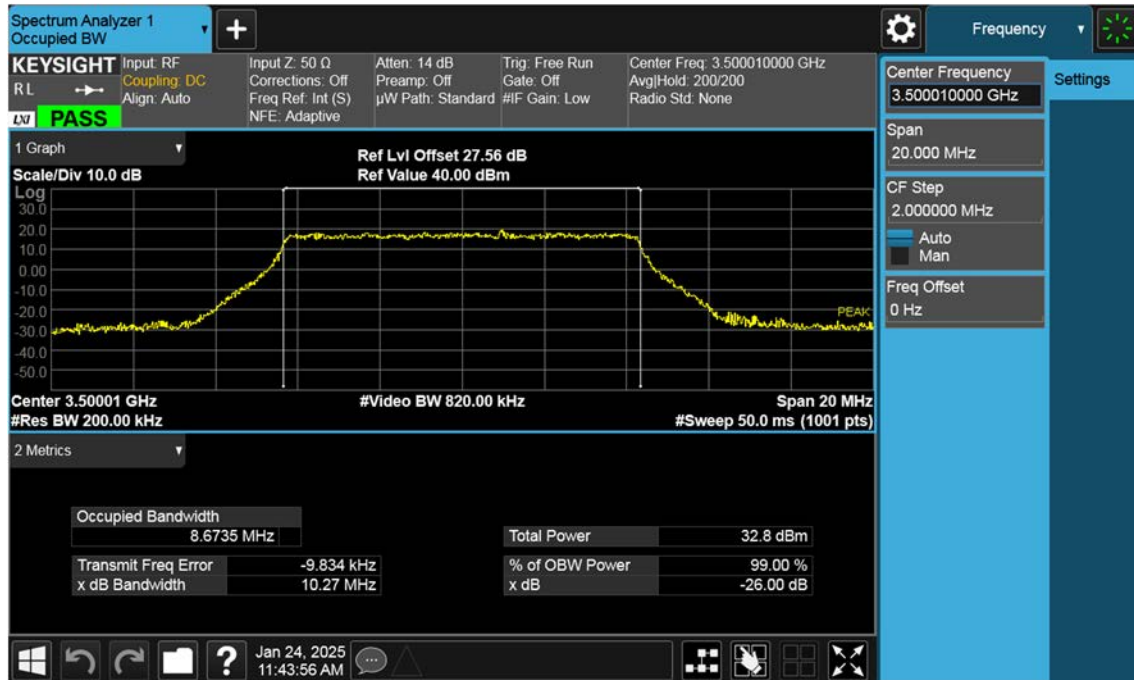
n77(3450~3550 MHz)_10 M_OBW_Mid_BPSK_FullRB



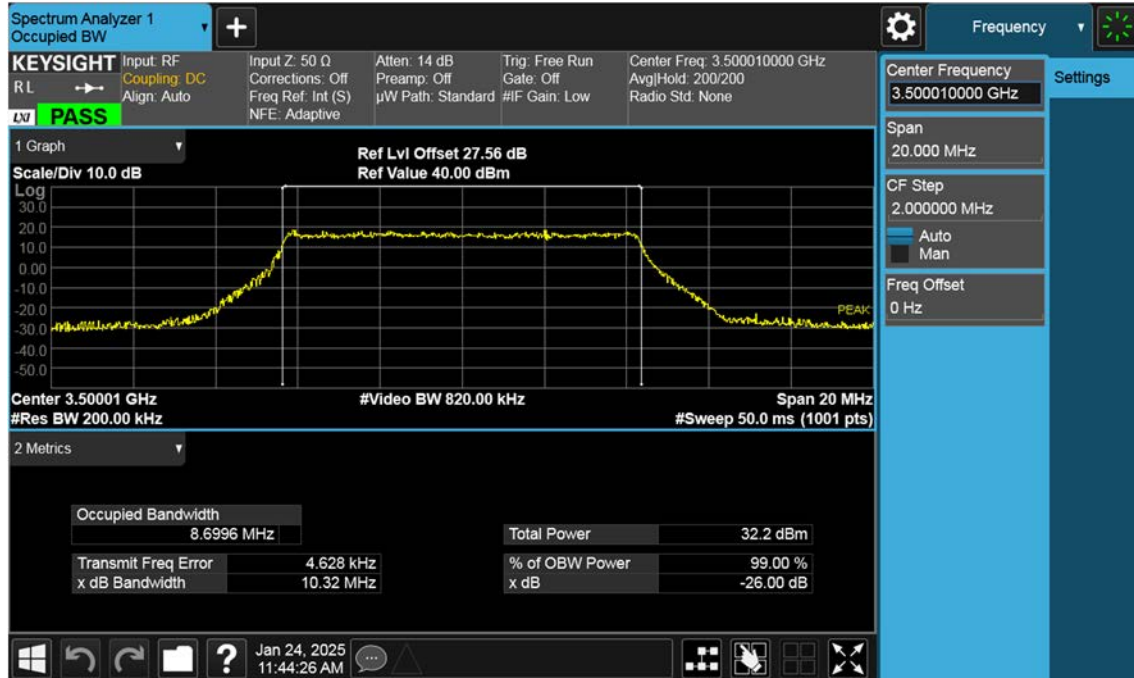
n77(3450~3550 MHz)_10 M_OBW_Mid_QPSK_FullRB



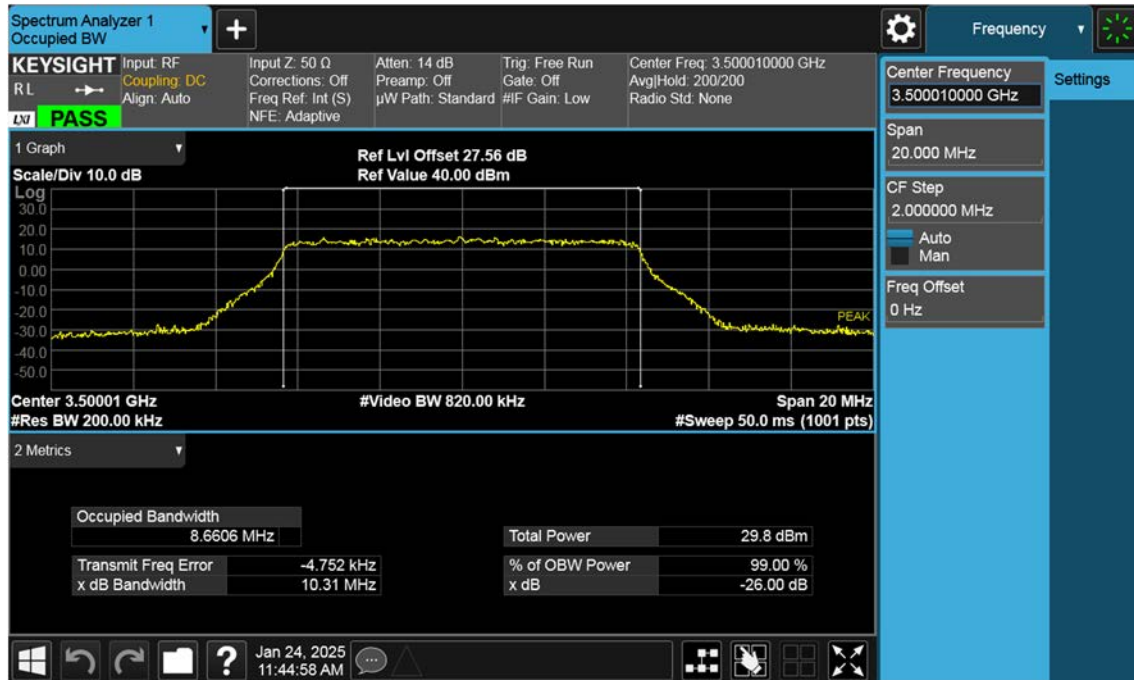
n77(3450~3550 MHz)_10 M_OBW_Mid_16QAM_FullRB



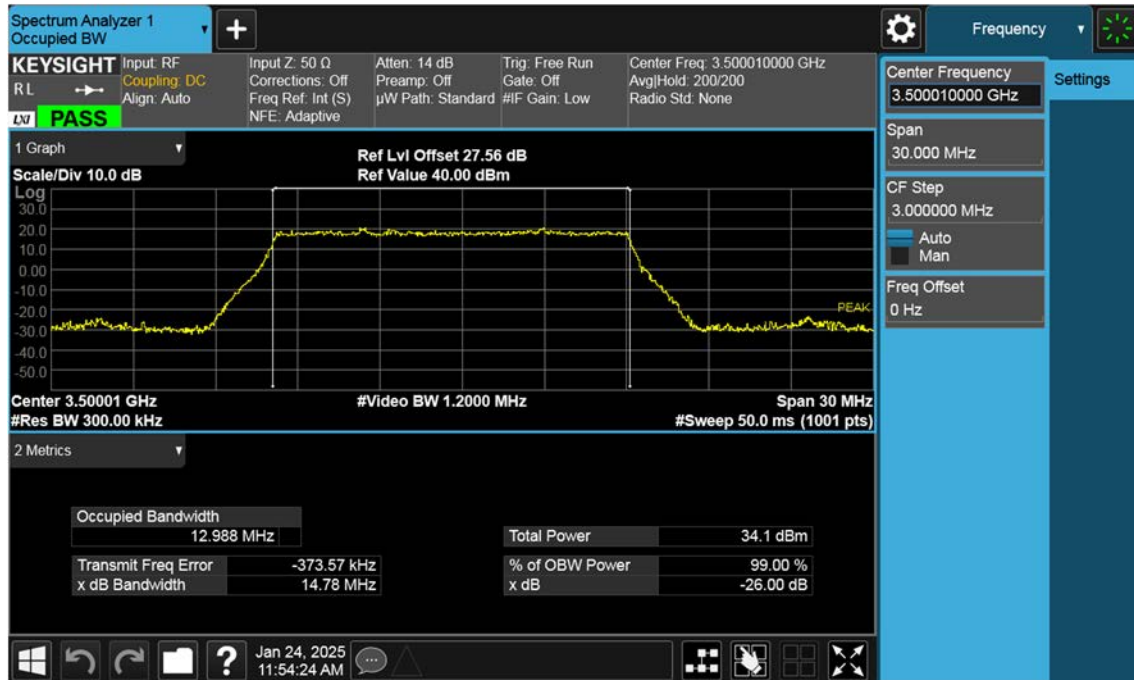
n77(3450~3550 MHz)_10 M_OBW_Mid_64QAM_FullRB



n77(3450~3550 MHz)_10 M_OBW_Mid_256QAM_FullRB



n77(3450~3550 MHz)_15 M_OBW_Mid_BPSK_FullRB



n77(3450~3550 MHz)_15 M_OBW_Mid_QPSK_FullRB

