

TEST REPORT

FCC Sub6 n41 Test for SM-A276B/DS
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2604-FC050

DATE OF ISSUE
April 27, 2026

Tested by
Jae Ryang Do



Technical Manager
Kwon Jeong



HCT CO., LTD.
BongJai Huh
BongJai Huh / CEO



HCT CO.,LTD.

2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Tel. +82 31 645 6300 Fax. +82 31 645 6401

TEST REPORT

REPORT NO.

HCT-RF-2604-FC050

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Additional Model

SM-A276B

Applicant

SAMSUNG Electronics Co., Ltd.

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

Product Name

Mobile Phone

Model Name

SM-A276B/DS

Date of Test

March 18, 2026 ~ April 24, 2026

FCC ID

A3LSMA276B

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 Held to Ear (PCE)

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	April 27, 2026	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 Bs 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).

CONTENTS

1. GENERAL INFORMATION	5
1.1 MAXIMUM OUTPUT POWER.....	6
2. INTRODUCTION	8
2.1. DESCRIPTION OF EUT	8
2.2. MEASURING INSTRUMENT CALIBRATION	8
2.3. TEST FACILITY	8
2.4. EQUIPMENT.....	8
3. DESCRIPTION OF TESTS.....	9
3.1 TEST PROCEDURE.....	9
3.2 RADIATED POWER	10
3.3 RADIATED SPURIOUS EMISSIONS.....	11
3.4 PEAK- TO- AVERAGE RATIO	12
3.5 OCCUPIED BANDWIDTH.....	13
3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL	14
3.7 CHANNEL EDGE.....	15
3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	17
3.9 WORST CASE(RADIATED TEST)	18
3.10 WORST CASE(CONDUCTED TEST).....	19
4. LIST OF TEST EQUIPMENT.....	21
5. MEASUREMENT UNCERTAINTY	22
6. SUMMARY OF TEST RESULTS	23
7. SAMPLE CALCULATION.....	24
8. TEST DATA.....	26
8.1 EQUIVALENT ISOTROPIC RADIATED POWER.....	26
8.2 RADIATED SPURIOUS EMISSIONS.....	37
8.3 PEAK-TO-AVERAGE RATIO	48
8.4 OCCUPIED BANDWIDTH.....	50
8.5 CONDUCTED SPURIOUS EMISSIONS	52
8.6 CHANNEL EDGE.....	53
8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	55
9. TEST PLOTS.....	66
9.1 PEAK-TO-AVERAGE RATIO.....	67
9.2 OCCUPIED BANDWIDTH.....	122
9.3 CONDUCTED SPURIOUS EMISSIONS	177
9.4 CHANNEL EDGE.....	243
10. ANNEX A_ TEST SETUP PHOTO	320

MEASUREMENT REPORT

1. GENERAL INFORMATION

Model(s):	SM-A276B/DS
Additional Model(s)	SM-A276B
SCS(kHz):	30
Bandwidth(MHz):	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
Waveform:	CP-OFDM, DFT-S-OFDM
Modulation:	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
Tx Frequency:	2501.010 – 2685.000 : 10 MHz(Sub6 n41) 2503.500 – 2682.480 : 15 MHz(Sub6 n41) 2506.020 – 2679.990 : 20 MHz(Sub6 n41) 2511.000 – 2674.980 : 30 MHz(Sub6 n41) 2516.010 – 2670.000 : 40 MHz(Sub6 n41) 2521.020 – 2664.990 : 50 MHz(Sub6 n41) 2526.000 – 2659.980 : 60 MHz(Sub6 n41) 2531.010 – 2655.000 : 70 MHz(Sub6 n41) 2536.020 – 2649.990 : 80 MHz(Sub6 n41) 2541.000 – 2644.980 : 90 MHz(Sub6 n41) 2546.010 – 2640.000 : 100 MHz(Sub6 n41)
Serial number:	Radiated : R3GL30N6M6N Conducted : R37L300SGZE
Antenna Information	Please refer to the Antenna Specification document.

1.1 MAXIMUM OUTPUT POWER

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n41 (10)	2501.010 – 2685.000	8M59G7D	PI/2 BPSK	0.262	24.18
		8M61G7D	QPSK	0.259	24.14
		8M68W7D	16QAM	0.206	23.13
		8M65W7D	64QAM	0.146	21.65
		8M69W7D	256QAM	0.090	19.53
Sub6 n41 (15)	2503.500 – 2682.480	13M0G7D	PI/2 BPSK	0.270	24.31
		13M0G7D	QPSK	0.269	24.29
		13M0W7D	16QAM	0.212	23.27
		12M9W7D	64QAM	0.152	21.83
		13M0W7D	256QAM	0.092	19.66
Sub6 n41 (20)	2506.020 – 2679.990	18M0G7D	PI/2 BPSK	0.272	24.35
		18M0G7D	QPSK	0.272	24.34
		18M0W7D	16QAM	0.214	23.31
		18M0W7D	64QAM	0.152	21.83
		18M0W7D	256QAM	0.092	19.62
Sub6 n41 (30)	2511.000 – 2674.980	26M9G7D	PI/2 BPSK	0.293	24.67
		26M9G7D	QPSK	0.292	24.65
		27M0W7D	16QAM	0.233	23.67
		26M9W7D	64QAM	0.165	22.18
		27M0W7D	256QAM	0.100	19.98
Sub6 n41 (40)	2516.010 – 2670.000	35M9G7D	PI/2 BPSK	0.291	24.64
		35M9G7D	QPSK	0.289	24.61
		35M8W7D	16QAM	0.231	23.63
		35M9W7D	64QAM	0.162	22.10
		35M9W7D	256QAM	0.098	19.90
Sub6 n41 (50)	2521.020 – 2664.990	45M8G7D	PI/2 BPSK	0.275	24.40
		45M7G7D	QPSK	0.274	24.38
		45M7W7D	16QAM	0.217	23.36
		45M9W7D	64QAM	0.154	21.88
		45M6W7D	256QAM	0.093	19.67
Sub6 n41 (60)	2526.000 – 2659.980	58M0G7D	PI/2 BPSK	0.283	24.52
		57M8G7D	QPSK	0.280	24.47
		57M9W7D	16QAM	0.223	23.48
		57M9W7D	64QAM	0.158	21.99
		57M9W7D	256QAM	0.095	19.77

Sub6 n41 (70)	2531.010 – 2655.000	64M4G7D	PI/2 BPSK	0.264	24.21
		64M3G7D	QPSK	0.261	24.16
		64M4W7D	16QAM	0.206	23.13
		64M2W7D	64QAM	0.148	21.70
		64M4W7D	256QAM	0.089	19.48
Sub6 n41 (80)	2536.020 – 2649.990	77M5G7D	PI/2 BPSK	0.263	24.20
		77M2G7D	QPSK	0.262	24.18
		77M0W7D	16QAM	0.206	23.14
		77M3W7D	64QAM	0.147	21.68
		77M2W7D	256QAM	0.090	19.54
Sub6 n41 (90)	2541.000 – 2644.980	87M1G7D	PI/2 BPSK	0.264	24.22
		86M8G7D	QPSK	0.262	24.19
		86M6W7D	16QAM	0.206	23.14
		86M8W7D	64QAM	0.149	21.72
		87M1W7D	256QAM	0.090	19.53
Sub6 n41 (100)	2546.010 – 2640.000	96M6G7D	PI/2 BPSK	0.263	24.20
		96M8G7D	QPSK	0.261	24.17
		96M6W7D	16QAM	0.205	23.12
		96M6W7D	64QAM	0.146	21.65
		96M4W7D	256QAM	0.089	19.48

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

Please refer to the [2G3G] Test Report.

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

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

Detailed description of test facility was submitted to the Commission and accepted dated February 26, 2026 (Registration Number: KR0032).

2.4. EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to ANSI/USEMCSC C63.2-2023, "American National Standard for Specifications of Electromagnetic Interference and Field Strength Measuring Instrumentation in the Frequency Range 9 kHz to 40 GHz".

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
Channel 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	- KDB 971168 D01 v03r01 - Section 5.2.4 - ANSI C63.26-2015 - Section 5.2.1 & 5.2.4.2
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Radiated Power	- ANSI C63.26-2015 – Section 5.2.4.4 - KDB 971168 D01 v03r01 – Section 5.8
Radiated Spurious and Harmonic Emissions	- ANSI C63.26-2015 – Section 5.5.3 - KDB 971168 D01 v03r01 – Section 5.8

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

The power is calculated by the following formula;

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

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

3. The maximum value is calculated by adding the forward power to the calibrated source plus its appropriate gain value.

These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference between the gain of the horn and an isotropic antenna are taken into consideration

4. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
5. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

Test Settings

1. RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz
2. VBW $\geq 3 \times$ RBW
3. No. of sweep points $> 2 \times$ span / RBW
4. Detector = Peak
5. Trace mode = Max Hold
6. The trace was allowed to stabilize
7. Test channel : Low/ Middle/ High
8. 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;

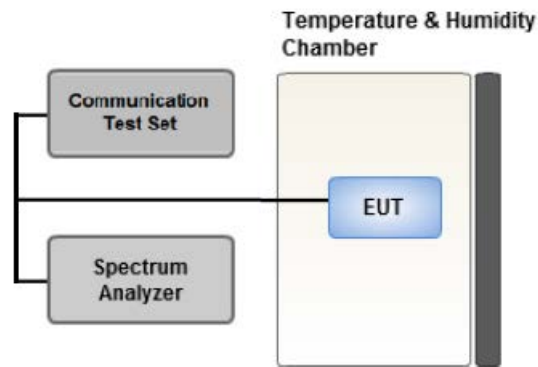
$$\text{Result}_{(\text{dBm})} = P_g_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

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

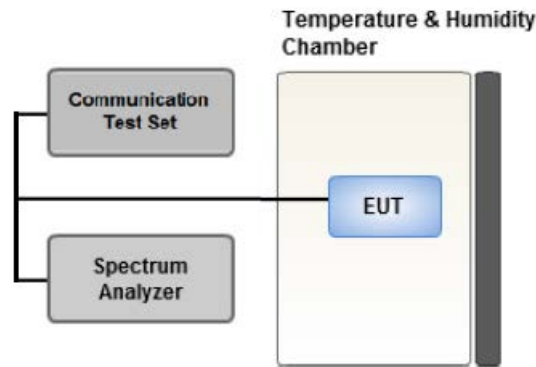


Test setup

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 %.

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.

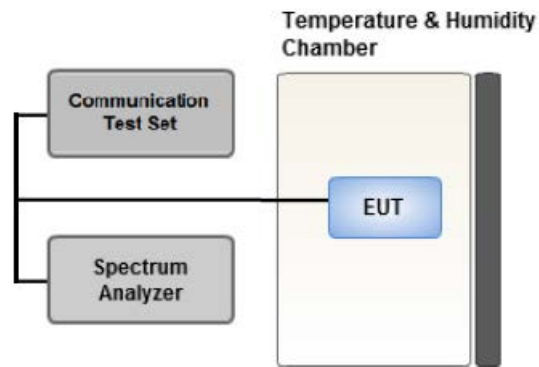
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

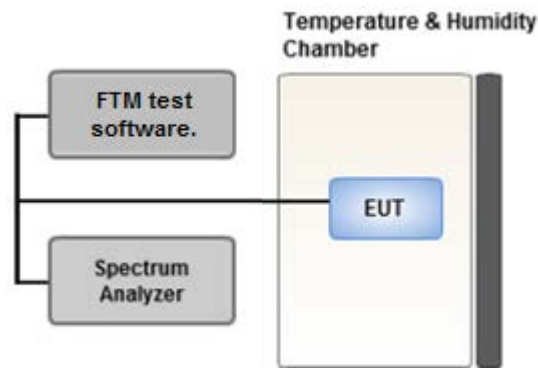
Test Overview

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 = 1001 pts

3.7 CHANNEL 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 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

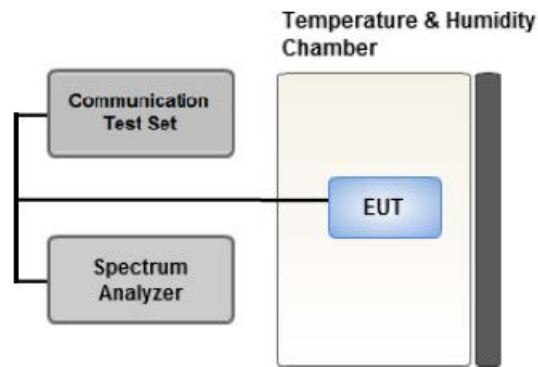
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1 MHz of the channel edge the RBW should be 2 % of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
7. Trace mode = trace average
8. Sweep time > (Number of Points) $\times$ (Symbol Period)
9. The trace was allowed to stabilize

Test Notes

1. The attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge,
2. $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge.
3. $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge.
4. The attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz.
5. $55 + 10 \log (P)$ dB at or below 2490.5 MHz.
6. X is the greater of 6MHz or the actual emission bandwidth
7. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer

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

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

- . - Unless otherwise specified, vary primary supply voltage from 85 % to 115 % of the nominal value for other than hand carried battery equipment.
- . - For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.

Test Settings

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

3.9 WORST CASE(RADIATED TEST)

- 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.
- 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 PC3.
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.
- 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.
- SM-A276B/DS & additional models were tested and the worst case results are reported.
(Worst case : SM-A276B/DS)

[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		Y

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)
- 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 PC3.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- SM-A276B/DS & additional models were tested and the worst case results are reported.
(Worst case : SM-A276B/DS)

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth, Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Channel 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
		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, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	10, 15, 20, 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
Dipole Antenna	UHAP	Schwarzbeck	01273	03/05/2028	Biennial
Dipole Antenna	UHAP	Schwarzbeck	01274	03/05/2028	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02289	02/10/2028	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-1299	04/17/2027	Biennial
Horn Antenna	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna	BBHA 9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Loop Antenna	FMZB1513	Schwarzbeck	1513-175	06/24/2027	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/05/2027	Biennial
Hybrid Antenna	VULB9168	Schwarzbeck	760	02/17/2027	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/08/2026	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/08/2026	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/08/2026	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/08/2026	Annual
Broadband LNA	CBL18265035	CERNEX	22966	10/21/2026	Annual
Broadband LNA	CBL26405040	CERNEX	25956	02/09/2027	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/11/2026	Annual
Power Splitter	11667B	Hewlett Packard	11275	01/26/2027	Annual
Chamber	SU-642	ESPEC	93008124	02/04/2027	Annual
Signal Analyzer	N9020A	Agilent	MY51110063	04/01/2027	Annual
20dB ATTENUATOR	8493C	Hewlett Packard	15233	12/10/2026	Annual
Signal Analyzer	FSV40	ROHDE & SCHWARZ	101436	01/29/2027	Annual
Signal & Spectrum Analyzer	FSW67	ROHDE & SCHWARZ	101736	05/27/2026	Annual
Wireless Communications Set	E5515C	Agilent	MY48360800	07/29/2026	Annual
Radio Communication Analyzer	MT8821C	Anritsu Corp.	6262287701	05/14/2026	Annual
Radio Communication Test Station	MT8000A	Anritsu Corp.	6262302511	05/08/2026	Annual
Signal Analyzer	N9030B	KEYSIGHT	MY55480167	05/14/2026	Annual
UXM 5G Wireless Test Platform	E7515B	KEYSIGHT	MY60101126	01/29/2027	Annual
Power Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/05/2026	Annual
SIGNAL GENERATOR	SMB100A	ROHDE & SCHWARZ	177633	07/22/2026	Annual
Automation Software	FCC 2G/3G/4G Conducted	HCT CO., LTD	-	-	-
Automation Software	FCC NR Conducted	HCT CO., LTD	-	-	-
Automation Software	FCC LTE Radiated	HCT CO., LTD	-	-	-
Automation Software	FCC NR Radiated	HCT CO., LTD	-	-	-

Note:

- Equipment whose calibration due date was updated during the test period was not used between the previous due date and the update. All reported measurements were performed using equipment within valid calibration.
- Especially, all antenna for measurement is calibrated in accordance with the requirements of ANSI C63.5-2017.

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	1.11 (Confidence level about 95 %, $k=2$)
Peak- to- Average Ratio	0.73 (Confidence level about 95 %, $k=2$)
Radiated Power	4.74 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.54 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.74 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.80 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.86 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (Above 40 GHz)	5.44 (Confidence level about 95 %, $k=2$)

6. SUMMARY OF TEST RESULTS

-. The decision rule applies 'simple acceptance'

6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 27.53(m)(4)	■ $< 40 + 10\log_{10} (P[\text{Watts}])$ at Channel edges ■ $< 43 + 10\log_{10} (P[\text{Watts}])$ between 5 and X MHz from Channel edges ■ $< 55 + 10\log_{10} (P[\text{Watts}])$ beyond X MHz beyond from Channel edges ■ $< 43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz	PASS
Conducted Output Power	§ 2.1046	N/A	PASS <u>Note1</u>
Frequency stability / variation of ambient temperature	§ 2.1055, § 27.54	Emission must remain in band	PASS

Note:

1. Refer to the 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(h)(2)	< 2 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1053, § 27.53(m)(4)	$< 55 + 10\log_{10} (P[\text{Watts}])$	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

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
2501.010	Sub6 n41 / 10 MHz [30 kHz]	PI/2 BPSK	-22.69	14.24	10.32	2.56	H	< 2.00	0.158	22.00	1	12
		QPSK	-22.70	14.23	10.32	2.56	H		0.158	21.99		
		16-QAM	-23.73	13.20	10.32	2.56	H		0.125	20.96		
		64-QAM	-25.15	11.78	10.32	2.56	H		0.090	19.54		
		256-QAM	-27.31	9.62	10.32	2.56	H		0.055	17.38		
2592.990		PI/2 BPSK	-21.00	16.53	10.25	2.60	H		0.262	24.18	1	22
		QPSK	-21.04	16.49	10.25	2.60	H		0.259	24.14		
		16-QAM	-22.05	15.48	10.25	2.60	H		0.206	23.13		
		64-QAM	-23.53	14.00	10.25	2.60	H		0.146	21.65		
		256-QAM	-25.65	11.88	10.25	2.60	H		0.090	19.53		
2685.000		PI/2 BPSK	-22.54	15.33	10.51	2.65	H		0.208	23.19	1	1
		QPSK	-22.57	15.30	10.51	2.65	H		0.207	23.16		
		16-QAM	-23.52	14.35	10.51	2.65	H		0.166	22.21		
		64-QAM	-24.95	12.92	10.51	2.65	H		0.120	20.78		
		256-QAM	-27.18	10.69	10.51	2.65	H		0.072	18.55		

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
2503.500	Sub6 n41 / 15 MHz [30 kHz]	PI/2 BPSK	-22.37	14.54	10.34	2.56	H	< 2.00	0.171	22.32	1	36
		QPSK	-22.43	14.48	10.34	2.56	H		0.168	22.26		
		16-QAM	-23.48	13.43	10.34	2.56	H		0.132	21.21		
		64-QAM	-24.90	12.01	10.34	2.56	H		0.095	19.79		
		256-QAM	-27.04	9.87	10.34	2.56	H		0.058	17.65		
2592.990		PI/2 BPSK	-20.87	16.66	10.25	2.60	H		0.270	24.31	1	36
		QPSK	-20.89	16.64	10.25	2.60	H		0.269	24.29		
		16-QAM	-21.91	15.62	10.25	2.60	H		0.212	23.27		
		64-QAM	-23.35	14.18	10.25	2.60	H		0.152	21.83		
		256-QAM	-25.52	12.01	10.25	2.60	H		0.092	19.66		
2682.480		PI/2 BPSK	-22.17	15.62	10.49	2.65	H		0.222	23.46	1	1
		QPSK	-22.23	15.56	10.49	2.65	H		0.219	23.40		
		16-QAM	-23.27	14.52	10.49	2.65	H		0.172	22.36		
		64-QAM	-24.67	13.12	10.49	2.65	H		0.125	20.96		
		256-QAM	-26.91	10.88	10.49	2.65	H		0.074	18.72		

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
2506.020	Sub6 n41 / 20 MHz [30 kHz]	PI/2 BPSK	-22.02	14.89	10.34	2.56	H	< 2.00	0.185	22.67	1	49
		QPSK	-22.04	14.87	10.34	2.56	H		0.184	22.65		
		16-QAM	-23.01	13.90	10.34	2.56	H		0.147	21.68		
		64-QAM	-24.51	12.40	10.34	2.56	H		0.104	20.18		
		256-QAM	-26.70	10.21	10.34	2.56	H		0.063	17.99		
2592.990		PI/2 BPSK	-20.83	16.70	10.25	2.60	H		0.272	24.35	1	49
		QPSK	-20.84	16.69	10.25	2.60	H		0.272	24.34		
		16-QAM	-21.87	15.66	10.25	2.60	H		0.214	23.31		
		64-QAM	-23.35	14.18	10.25	2.60	H		0.152	21.83		
		256-QAM	-25.56	11.97	10.25	2.60	H		0.092	19.62		
2679.990		PI/2 BPSK	-22.16	15.63	10.49	2.65	H		0.222	23.47	1	1
		QPSK	-22.17	15.62	10.49	2.65	H		0.222	23.46		
		16-QAM	-23.15	14.64	10.49	2.65	H		0.177	22.48		
		64-QAM	-24.59	13.20	10.49	2.65	H		0.127	21.04		
		256-QAM	-26.78	11.01	10.49	2.65	H		0.077	18.85		

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
2511.000	Sub6 n41 / 30 MHz [30 kHz]	PI/2 BPSK	-21.79	15.10	10.35	2.56	H	< 2.00	0.195	22.89	1	76
		QPSK	-21.81	15.08	10.35	2.56	H		0.194	22.87		
		16-QAM	-22.76	14.13	10.35	2.56	H		0.156	21.92		
		64-QAM	-24.29	12.60	10.35	2.56	H		0.109	20.39		
		256-QAM	-26.45	10.44	10.35	2.56	H		0.067	18.23		
2592.990		PI/2 BPSK	-20.51	17.02	10.25	2.60	H		0.293	24.67	1	76
		QPSK	-20.53	17.00	10.25	2.60	H		0.292	24.65		
		16-QAM	-21.51	16.02	10.25	2.60	H		0.233	23.67		
		64-QAM	-23.00	14.53	10.25	2.60	H		0.165	22.18		
		256-QAM	-25.20	12.33	10.25	2.60	H		0.100	19.98		
2674.980		PI/2 BPSK	-22.16	15.53	10.47	2.65	H		0.216	23.35	1	39
		QPSK	-22.19	15.50	10.47	2.65	H		0.215	23.32		
		16-QAM	-23.14	14.55	10.47	2.65	H		0.173	22.37		
		64-QAM	-24.66	13.03	10.47	2.65	H		0.122	20.85		
		256-QAM	-26.80	10.89	10.47	2.65	H		0.074	18.71		

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
2516.010	Sub6 n41 / 40 MHz [30 kHz]	PI/2 BPSK	-21.41	15.54	10.37	2.56	H	< 2.00	0.216	23.35	1	104
		QPSK	-21.44	15.51	10.37	2.56	H		0.215	23.32		
		16-QAM	-22.64	14.31	10.37	2.56	H		0.163	22.12		
		64-QAM	-23.93	13.02	10.37	2.56	H		0.121	20.83		
		256-QAM	-26.18	10.77	10.37	2.56	H		0.072	18.58		
2592.990		PI/2 BPSK	-20.54	16.99	10.25	2.60	H		0.291	24.64	1	104
		QPSK	-20.57	16.96	10.25	2.60	H		0.289	24.61		
		16-QAM	-21.55	15.98	10.25	2.60	H		0.231	23.63		
		64-QAM	-23.08	14.45	10.25	2.60	H		0.162	22.10		
		256-QAM	-25.28	12.25	10.25	2.60	H		0.098	19.90		
2670.000		PI/2 BPSK	-22.08	15.50	10.46	2.65	H		0.214	23.31	1	53
		QPSK	-22.10	15.48	10.46	2.65	H		0.213	23.29		
		16-QAM	-23.12	14.46	10.46	2.65	H		0.169	22.27		
		64-QAM	-24.56	13.02	10.46	2.65	H		0.121	20.83		
		256-QAM	-26.69	10.89	10.46	2.65	H		0.074	18.70		

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
2521.020	Sub6 n41 / 50 MHz [30 kHz]	PI/2 BPSK	-21.66	15.35	10.39	2.56	H	< 2.00	0.208	23.18	1	131
		QPSK	-21.68	15.33	10.39	2.56	H		0.207	23.16		
		16-QAM	-22.70	14.31	10.39	2.56	H		0.164	22.14		
		64-QAM	-24.20	12.81	10.39	2.56	H		0.116	20.64		
		256-QAM	-26.36	10.65	10.39	2.56	H		0.070	18.48		
2592.990		PI/2 BPSK	-20.78	16.75	10.25	2.60	H		0.275	24.40	1	131
		QPSK	-20.80	16.73	10.25	2.60	H		0.274	24.38		
		16-QAM	-21.82	15.71	10.25	2.60	H		0.217	23.36		
		64-QAM	-23.30	14.23	10.25	2.60	H		0.154	21.88		
		256-QAM	-25.51	12.02	10.25	2.60	H		0.093	19.67		
2664.990		PI/2 BPSK	-22.33	15.26	10.44	2.65	H		0.202	23.05	1	66
		QPSK	-22.34	15.25	10.44	2.65	H		0.201	23.04		
		16-QAM	-23.31	14.28	10.44	2.65	H		0.161	22.07		
		64-QAM	-24.74	12.85	10.44	2.65	H		0.116	20.64		
		256-QAM	-26.93	10.66	10.44	2.65	H		0.070	18.45		

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
2526.000	Sub6 n41/ 60 MHz [30 kHz]	PI/2 BPSK	-21.67	15.33	10.38	2.56	H	< 2.00	0.207	23.15	1	82
		QPSK	-21.68	15.32	10.38	2.56	H		0.206	23.14		
		16-QAM	-22.72	14.28	10.38	2.56	H		0.162	22.10		
		64-QAM	-24.19	12.81	10.38	2.56	H		0.116	20.63		
		256-QAM	-26.45	10.55	10.38	2.56	H		0.069	18.37		
2592.990		PI/2 BPSK	-20.66	16.87	10.25	2.60	H		0.283	24.52	1	160
		QPSK	-20.71	16.82	10.25	2.60	H		0.280	24.47		
		16-QAM	-21.70	15.83	10.25	2.60	H		0.223	23.48		
		64-QAM	-23.19	14.34	10.25	2.60	H		0.158	21.99		
		256-QAM	-25.41	12.12	10.25	2.60	H		0.095	19.77		
2659.980		PI/2 BPSK	-22.09	15.50	10.42	2.65	H		0.212	23.27	1	82
		QPSK	-22.12	15.47	10.42	2.65	H		0.211	23.24		
		16-QAM	-23.13	14.46	10.42	2.65	H		0.167	22.23		
		64-QAM	-24.57	13.02	10.42	2.65	H		0.120	20.79		
		256-QAM	-26.80	10.79	10.42	2.65	H		0.072	18.56		

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
2531.010	Sub6 n41/ 70 MHz [30 kHz]	PI/2 BPSK	-21.77	15.22	10.37	2.57	H	< 2.00	0.200	23.02	1	187
		QPSK	-21.80	15.19	10.37	2.57	H		0.199	22.99		
		16-QAM	-22.83	14.16	10.37	2.57	H		0.157	21.96		
		64-QAM	-24.31	12.68	10.37	2.57	H		0.112	20.48		
		256-QAM	-26.51	10.48	10.37	2.57	H		0.067	18.28		
2592.990		PI/2 BPSK	-20.97	16.56	10.25	2.60	H		0.264	24.21	1	94
		QPSK	-21.02	16.51	10.25	2.60	H		0.261	24.16		
		16-QAM	-22.05	15.48	10.25	2.60	H		0.206	23.13		
		64-QAM	-23.48	14.05	10.25	2.60	H		0.148	21.70		
		256-QAM	-25.70	11.83	10.25	2.60	H		0.089	19.48		
2655.000		PI/2 BPSK	-21.97	15.70	10.40	2.65	H		0.221	23.45	1	1
		QPSK	-21.99	15.68	10.40	2.65	H		0.220	23.43		
		16-QAM	-23.01	14.66	10.40	2.65	H		0.174	22.41		
		64-QAM	-24.47	13.20	10.40	2.65	H		0.124	20.95		
		256-QAM	-26.65	11.02	10.40	2.65	H		0.075	18.77		

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
2536.020	Sub6 n41/ 80 MHz [30 kHz]	PI/2 BPSK	-21.61	15.34	10.36	2.57	H	< 2.00	0.206	23.13	1	108
		QPSK	-21.63	15.32	10.36	2.57	H		0.205	23.11		
		16-QAM	-22.60	14.35	10.36	2.57	H		0.164	22.14		
		64-QAM	-24.15	12.80	10.36	2.57	H		0.115	20.59		
		256-QAM	-26.29	10.66	10.36	2.57	H		0.070	18.45		
2592.990		PI/2 BPSK	-20.98	16.55	10.25	2.60	H		0.263	24.20	1	108
		QPSK	-21.00	16.53	10.25	2.60	H		0.262	24.18		
		16-QAM	-22.04	15.49	10.25	2.60	H		0.206	23.14		
		64-QAM	-23.50	14.03	10.25	2.60	H		0.147	21.68		
		256-QAM	-25.64	11.89	10.25	2.60	H		0.090	19.54		
2649.990		PI/2 BPSK	-22.18	15.56	10.39	2.65	H		0.214	23.30	1	1
		QPSK	-22.19	15.55	10.39	2.65	H		0.213	23.29		
		16-QAM	-23.23	14.51	10.39	2.65	H		0.168	22.25		
		64-QAM	-24.70	13.04	10.39	2.65	H		0.120	20.78		
		256-QAM	-26.90	10.84	10.39	2.65	H		0.072	18.58		

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
2541.000	Sub6 n41/ 90 MHz [30 kHz]	PI/2 BPSK	-21.64	15.27	10.35	2.57	H	< 2.00	0.202	23.05	1	122
		QPSK	-21.65	15.26	10.35	2.57	H		0.201	23.04		
		16-QAM	-22.67	14.24	10.35	2.57	H		0.159	22.02		
		64-QAM	-24.16	12.75	10.35	2.57	H		0.113	20.53		
		256-QAM	-26.31	10.60	10.35	2.57	H		0.069	18.38		
2592.990		PI/2 BPSK	-20.96	16.57	10.25	2.60	H		0.264	24.22	1	122
		QPSK	-20.99	16.54	10.25	2.60	H		0.262	24.19		
		16-QAM	-22.04	15.49	10.25	2.60	H		0.206	23.14		
		64-QAM	-23.46	14.07	10.25	2.60	H		0.149	21.72		
		256-QAM	-25.65	11.88	10.25	2.60	H		0.090	19.53		
2644.980		PI/2 BPSK	-22.29	15.44	10.37	2.64	H		0.207	23.17	1	1
		QPSK	-22.30	15.43	10.37	2.64	H		0.207	23.16		
		16-QAM	-23.34	14.39	10.37	2.64	H		0.163	22.12		
		64-QAM	-24.73	13.00	10.37	2.64	H		0.118	20.73		
		256-QAM	-26.94	10.79	10.37	2.64	H		0.071	18.52		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2546.010	Sub6 n41/ 100 MHz [30 kHz]	PI/2 BPSK	-21.62	15.34	10.34	2.57	H	< 2.00	0.205	23.11	1	271
		QPSK	-21.64	15.32	10.34	2.57	H		0.204	23.09		
		16-QAM	-22.73	14.23	10.34	2.57	H		0.158	22.00		
		64-QAM	-24.14	12.82	10.34	2.57	H		0.115	20.59		
		256-QAM	-26.31	10.65	10.34	2.57	H		0.070	18.42		
2592.990		PI/2 BPSK	-20.98	16.55	10.25	2.60	H		0.263	24.20	1	136
		QPSK	-21.01	16.52	10.25	2.60	H		0.261	24.17		
		16-QAM	-22.06	15.47	10.25	2.60	H		0.205	23.12		
		64-QAM	-23.53	14.00	10.25	2.60	H		0.146	21.65		
		256-QAM	-25.70	11.83	10.25	2.60	H		0.089	19.48		
2640.000		PI/2 BPSK	-22.66	15.07	10.35	2.63	H		0.190	22.79	1	136
		QPSK	-22.67	15.06	10.35	2.63	H		0.190	22.78		
		16-QAM	-23.69	14.04	10.35	2.63	H		0.150	21.76		
		64-QAM	-25.14	12.59	10.35	2.63	H		0.107	20.31		
		256-QAM	-27.35	10.38	10.35	2.63	H		0.065	18.10		

8.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>NR n41</u>
Bandwidth:	<u>10 MHz</u>
Modulation:	<u>PI/2 BPSK</u>
Distance:	<u>1 meter</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
500202 (2501.010)	5 002.02	-60.21	12.91	-61.43	3.77	V	-52.29	-25.00	1	12
		-60.99		-62.21		H	-53.07	-25.00		
	7 503.03	-62.50	11.57	-55.20	4.73	V	-48.36	-25.00		
		-62.68		-55.38		H	-48.54	-25.00		
	10 004.04	-61.23	11.29	-52.03	5.48	V	-46.22	-25.00		
		-61.00		-51.80		H	-45.99	-25.00		
518598 (2592.990)	5 185.98	-61.51	13.18	-62.98	3.83	V	-53.63	-25.00	1	22
		-60.02		-61.49		H	-52.14	-25.00		
	7 778.97	-54.86	11.94	-47.55	4.81	V	-40.42	-25.00		
		-54.19		-46.88		H	-39.75	-25.00		
	10 371.96	-63.20	11.02	-52.10	5.61	V	-46.69	-25.00		
		-63.50		-52.40		H	-46.99	-25.00		
537000 (2685.000)	5 370.00	-61.09	13.60	-62.78	3.93	V	-53.11	-25.00	1	1
		-59.49		-61.18		H	-51.51	-25.00		
	8 055.00	-56.24	11.49	-49.19	4.88	V	-42.58	-25.00		
		-55.74		-48.69		H	-42.08	-25.00		
	10 740.00	-62.21	10.99	-50.41	5.70	V	-45.12	-25.00		
		-62.61		-50.81		H	-45.52	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 15 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500700 (2503.500)	5 007.00	-61.15	12.89	-62.27	3.76	V	-53.14	-25.00	1	36
		-61.16		-62.28		H	-53.15	-25.00		
	7 510.50	-63.15	11.58	-55.96	4.73	V	-49.11	-25.00		
		-62.69		-55.50		H	-48.65	-25.00		
	10 014.00	-62.09	11.31	-53.18	5.47	V	-47.34	-25.00		
		-61.62		-52.71		H	-46.87	-25.00		
518598 (2592.990)	5 185.98	-61.26	13.18	-62.73	3.83	V	-53.38	-25.00	1	36
		-60.98		-62.45		H	-53.10	-25.00		
	7 778.97	-54.36	11.94	-47.05	4.81	V	-39.92	-25.00		
		-54.11		-46.80		H	-39.67	-25.00		
	10 371.96	-63.87	11.02	-52.77	5.61	V	-47.36	-25.00		
		-63.42		-52.32		H	-46.91	-25.00		
536496 (2682.480)	5 364.96	-62.95	13.61	-64.69	3.92	V	-55.00	-25.00	1	1
		-61.41		-63.15		H	-53.46	-25.00		
	8 047.44	-52.63	11.48	-45.61	4.88	V	-39.01	-25.00		
		-55.52		-48.50		H	-41.90	-25.00		
	10 729.92	-61.92	11.01	-50.44	5.68	V	-45.11	-25.00		
		-61.92		-50.44		H	-45.11	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 20 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501204 (2506.020)	5 012.04	-61.82	12.88	-62.85	3.76	V	-53.73	-25.00	1	49
		-60.95		-61.98		H	-52.86	-25.00		
	7 518.06	-63.33	11.61	-56.16	4.73	V	-49.28	-25.00		
		-61.77		-54.60		H	-47.72	-25.00		
	10 024.08	-62.57	11.32	-53.73	5.47	V	-47.88	-25.00		
		-61.28		-52.44		H	-46.59	-25.00		
518598 (2592.990)	5 185.98	-62.15	13.18	-63.62	3.83	V	-54.27	-25.00	1	49
		-61.09		-62.56		H	-53.21	-25.00		
	7 778.97	-55.22	11.94	-47.91	4.81	V	-40.78	-25.00		
		-55.32		-48.01		H	-40.88	-25.00		
	10 371.96	-63.11	11.02	-52.01	5.61	V	-46.60	-25.00		
		-63.83		-52.73		H	-47.32	-25.00		
535998 (2679.990)	5 359.98	-61.08	13.62	-62.88	3.91	V	-53.17	-25.00	1	1
		-61.51		-63.31		H	-53.60	-25.00		
	8 039.97	-53.88	11.48	-46.84	4.88	V	-40.24	-25.00		
		-53.33		-46.29		H	-39.69	-25.00		
	10 719.96	-62.62	11.03	-51.27	5.68	V	-45.92	-25.00		
		-63.36		-52.01		H	-46.66	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 30 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502200 (2511.000)	5 022.00	-61.53	12.85	-62.53	3.75	V	-53.43	-25.00	1	76
		-60.85		-61.85		H	-52.75	-25.00		
	7 533.00	-63.04	11.65	-55.60	4.74	V	-48.69	-25.00		
		-58.15		-50.71		H	-43.80	-25.00		
	10 044.00	-62.38	11.35	-53.27	5.50	V	-47.42	-25.00		
		-61.90		-52.79		H	-46.94	-25.00		
518598 (2592.990)	5 185.98	-61.53	13.18	-63.00	3.83	V	-53.65	-25.00	1	76
		-60.96		-62.43		H	-53.08	-25.00		
	7 778.97	-54.33	11.94	-47.02	4.81	V	-39.89	-25.00		
		-54.09		-46.78		H	-39.65	-25.00		
	10 371.96	-62.84	11.02	-51.74	5.61	V	-46.33	-25.00		
		-62.94		-51.84		H	-46.43	-25.00		
534996 (2674.980)	5 349.96	-62.29	13.64	-64.08	3.90	V	-54.34	-25.00	1	39
		-61.60		-63.39		H	-53.65	-25.00		
	8 024.94	-54.12	11.49	-47.03	4.88	V	-40.42	-25.00		
		-55.32		-48.23		H	-41.62	-25.00		
	10 699.92	-63.58	11.08	-51.82	5.71	V	-46.45	-25.00		
		-62.39		-50.63		H	-45.26	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 40 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
503202 (2516.010)	5 032.02	-61.34	12.83	-62.49	3.74	V	-53.40	-25.00	1	104
		-60.58		-61.73		H	-52.64	-25.00		
	7 548.03	-59.45	11.70	-51.89	4.74	V	-44.93	-25.00		
		-56.78		-49.22		H	-42.26	-25.00		
	10 064.04	-62.34	11.37	-53.19	5.52	V	-47.34	-25.00		
		-60.98		-51.83		H	-45.98	-25.00		
518598 (2592.990)	5 185.98	-61.46	13.18	-62.93	3.83	V	-53.58	-25.00	1	104
		-61.39		-62.86		H	-53.51	-25.00		
	7 778.97	-55.85	11.94	-48.54	4.81	V	-41.41	-25.00		
		-56.85		-49.54		H	-42.41	-25.00		
	10 371.96	-62.19	11.02	-51.09	5.61	V	-45.68	-25.00		
		-62.31		-51.21		H	-45.80	-25.00		
534000 (2670.000)	5 340.00	-60.95	13.65	-62.92	3.88	V	-53.15	-25.00	1	53
		-60.74		-62.71		H	-52.94	-25.00		
	8 010.00	-52.17	11.49	-44.96	4.88	V	-38.35	-25.00		
		-54.08		-46.87		H	-40.26	-25.00		
	10 680.00	-63.34	11.06	-51.20	5.71	V	-45.85	-25.00		
		-63.37		-51.23		H	-45.88	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 50 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504204 (2521.020)	5 042.04	-61.79	12.80	-63.27	3.75	V	-54.22	-25.00	1	131
		-61.45		-62.93		H	-53.88	-25.00		
	7 563.06	-58.53	11.74	-51.24	4.74	V	-44.24	-25.00		
		-59.27		-51.98		H	-44.98	-25.00		
	10 084.08	-62.31	11.39	-53.41	5.54	V	-47.56	-25.00		
		-62.01		-53.11		H	-47.26	-25.00		
518598 (2592.990)	5 185.98	-61.12	13.18	-62.59	3.83	V	-53.24	-25.00	1	131
		-60.31		-61.78		H	-52.43	-25.00		
	7 778.97	-54.23	11.94	-46.92	4.81	V	-39.79	-25.00		
		-54.25		-46.94		H	-39.81	-25.00		
	10 371.96	-63.22	11.02	-52.12	5.61	V	-46.71	-25.00		
		-63.05		-51.95		H	-46.54	-25.00		
532998 (2664.990)	5 329.98	-62.43	13.65	-64.21	3.88	V	-54.44	-25.00	1	66
		-61.77		-63.55		H	-53.78	-25.00		
	7 994.97	-53.89	11.50	-46.66	4.88	V	-40.04	-25.00		
		-55.15		-47.92		H	-41.30	-25.00		
	10 659.96	-63.05	11.04	-51.07	5.66	V	-45.69	-25.00		
		-63.26		-51.28		H	-45.90	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 60 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
505200 (2526.000)	5 052.00	-61.68	12.77	-63.18	3.75	V	-54.16	-25.00	1	82
		-61.69		-63.19		H	-54.17	-25.00		
	7 578.00	-60.94	11.78	-54.04	4.76	V	-47.02	-25.00		
		-60.61		-53.71		H	-46.69	-25.00		
	10 104.00	-60.87	11.41	-51.51	5.53	V	-45.63	-25.00		
		-61.88		-52.52		H	-46.64	-25.00		
518598 (2592.990)	5 185.98	-61.05	13.18	-62.52	3.83	V	-53.17	-25.00	1	160
		-59.03		-60.50		H	-51.15	-25.00		
	7 778.97	-55.71	11.94	-48.40	4.81	V	-41.27	-25.00		
		-53.93		-46.62		H	-39.49	-25.00		
	10 371.96	-63.71	11.02	-52.61	5.61	V	-47.20	-25.00		
		-62.72		-51.62		H	-46.21	-25.00		
531996 (2659.980)	5 319.96	-60.94	13.66	-62.68	3.87	V	-52.89	-25.00	1	82
		-60.53		-62.27		H	-52.48	-25.00		
	7 979.94	-54.61	11.53	-47.47	4.86	V	-40.80	-25.00		
		-56.28		-49.14		H	-42.47	-25.00		
	10 639.92	-63.89	11.02	-51.59	5.66	V	-46.23	-25.00		
		-62.71		-50.41		H	-45.05	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 70 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
506202 (2531.010)	5 062.02	-61.41	12.75	-62.70	3.77	V	-53.72	-25.00	1	187
		-60.84		-62.13		H	-53.15	-25.00		
	7 593.03	-59.77	11.82	-52.93	4.77	V	-45.88	-25.00		
		-57.81		-50.97		H	-43.92	-25.00		
	10 124.04	-62.11	11.41	-52.44	5.49	V	-46.52	-25.00		
		-62.71		-53.04		H	-47.12	-25.00		
518598 (2592.990)	5 185.98	-60.94	13.18	-62.41	3.83	V	-53.06	-25.00	1	94
		-60.71		-62.18		H	-52.83	-25.00		
	7 778.97	-53.46	11.94	-46.15	4.81	V	-39.02	-25.00		
		-55.82		-48.51		H	-41.38	-25.00		
	10 371.96	-62.73	11.02	-51.63	5.61	V	-46.22	-25.00		
		-63.16		-52.06		H	-46.65	-25.00		
531000 (2655.000)	5 310.00	-60.36	13.67	-61.84	3.87	V	-52.04	-25.00	1	1
		-60.30		-61.78		H	-51.98	-25.00		
	7 965.00	-55.12	11.56	-47.75	4.86	V	-41.05	-25.00		
		-55.10		-47.73		H	-41.03	-25.00		
	10 620.00	-63.19	10.99	-51.45	5.65	V	-46.11	-25.00		
		-63.13		-51.39		H	-46.05	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 80 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
507204 (2536.020)	5 072.04	-62.46	12.72	-63.57	3.78	V	-54.63	-25.00	1	108
		-61.57		-62.68		H	-53.74	-25.00		
	7 608.06	-58.94	11.85	-52.15	4.76	V	-45.06	-25.00		
		-57.69		-50.90		H	-43.81	-25.00		
	10 144.08	-61.85	11.41	-52.31	5.51	V	-46.41	-25.00		
		-61.96		-52.42		H	-46.52	-25.00		
518598 (2592.990)	5 185.98	-61.80	13.18	-63.27	3.83	V	-53.92	-25.00	1	108
		-61.39		-62.86		H	-53.51	-25.00		
	7 778.97	-56.18	11.94	-48.87	4.81	V	-41.74	-25.00		
		-55.43		-48.12		H	-40.99	-25.00		
	10 371.96	-63.39	11.02	-52.29	5.61	V	-46.88	-25.00		
		-63.16		-52.06		H	-46.65	-25.00		
529998 (2649.990)	5 299.98	-60.91	13.67	-62.50	3.88	V	-52.71	-25.00	1	1
		-60.07		-61.66		H	-51.87	-25.00		
	7 949.97	-54.54	11.59	-47.07	4.87	V	-40.35	-25.00		
		-55.79		-48.32		H	-41.60	-25.00		
	10 599.96	-63.46	10.95	-52.42	5.65	V	-47.12	-25.00		
		-63.05		-52.01		H	-46.71	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 90 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
508200 (2541.000)	5 082.00	-62.14	12.69	-63.12	3.79	V	-54.22	-25.00	1	122
		-61.04		-62.02		H	-53.12	-25.00		
	7 623.00	-60.78	11.87	-54.10	4.76	V	-46.99	-25.00		
		-59.74		-53.06		H	-45.95	-25.00		
	10 164.00	-62.37	11.40	-52.69	5.55	V	-46.84	-25.00		
		-62.16		-52.48		H	-46.63	-25.00		
518598 (2592.990)	5 185.98	-62.22	13.18	-63.69	3.83	V	-54.34	-25.00	1	122
		-60.80		-62.27		H	-52.92	-25.00		
	7 778.97	-54.58	11.94	-47.27	4.81	V	-40.14	-25.00		
		-55.92		-48.61		H	-41.48	-25.00		
	10 371.96	-63.53	11.02	-52.43	5.61	V	-47.02	-25.00		
		-62.83		-51.73		H	-46.32	-25.00		
528996 (2644.980)	5 289.96	-62.00	13.65	-63.55	3.88	V	-53.78	-25.00	1	1
		-61.07		-62.62		H	-52.85	-25.00		
	7 934.94	-54.63	11.62	-47.42	4.87	V	-40.67	-25.00		
		-54.45		-47.24		H	-40.49	-25.00		
	10 579.92	-63.48	10.93	-52.57	5.68	V	-47.32	-25.00		
		-63.50		-52.59		H	-47.34	-25.00		

☐ NR Band: NR n41
☐ Bandwidth: 100 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
509202 (2546.010)	5 092.02	-61.53	12.67	-62.49	3.79	V	-53.61	-25.00	1	271
		-61.41		-62.37		H	-53.49	-25.00		
	7 638.03	-55.23	11.89	-48.37	4.76	V	-41.24	-25.00		
		-56.10		-49.24		H	-42.11	-25.00		
	10 184.04	-62.75	11.38	-52.95	5.56	V	-47.13	-25.00		
		-62.47		-52.67		H	-46.85	-25.00		
518598 (2592.990)	5 185.98	-62.10	13.18	-63.57	3.83	V	-54.22	-25.00	1	136
		-61.06		-62.53		H	-53.18	-25.00		
	7 778.97	-56.62	11.94	-49.31	4.81	V	-42.18	-25.00		
		-56.99		-49.68		H	-42.55	-25.00		
	10 371.96	-62.84	11.02	-51.74	5.61	V	-46.33	-25.00		
		-63.17		-52.07		H	-46.66	-25.00		
528000 (2640.000)	5 280.00	-61.89	13.63	-63.58	3.88	V	-53.83	-25.00	1	136
		-61.29		-62.98		H	-53.23	-25.00		
	7 920.00	-57.03	11.66	-50.12	4.85	V	-43.31	-25.00		
		-55.45		-48.54		H	-41.73	-25.00		
	10 560.00	-63.02	10.91	-52.62	5.68	V	-47.39	-25.00		
		-62.76		-52.36		H	-47.13	-25.00		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)	Limit (dB)
Sub6 n41	10 MHz	2592.990	PI/2 BPSK	24	0	4.49	13.00
			QPSK			5.88	
			16-QAM			6.65	
			64-QAM			6.48	
			256-QAM			6.62	
	15 MHz		PI/2 BPSK	36		4.50	
			QPSK			5.86	
			16-QAM			6.36	
			64-QAM			6.59	
			256-QAM			6.84	
	20 MHz		PI/2 BPSK	50		4.59	
			QPSK			5.88	
			16-QAM			6.41	
			64-QAM			6.83	
			256-QAM			6.74	
	30 MHz		PI/2 BPSK	75		4.63	
			QPSK			5.83	
			16-QAM			6.67	
			64-QAM			6.57	
			256-QAM			6.52	
	40 MHz		PI/2 BPSK	100		4.67	
			QPSK			6.06	
			16-QAM			6.57	
			64-QAM			6.74	
			256-QAM			6.60	
	50 MHz		PI/2 BPSK	128		4.58	
			QPSK			5.72	
			16-QAM			6.47	
			64-QAM			6.62	
			256-QAM			6.78	

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)	Limit (dB)
Sub6 n41	60 MHz	2592.990	PI/2 BPSK	162	0	4.61	13.00
			QPSK			5.65	
			16-QAM			6.47	
			64-QAM			6.66	
			256-QAM			6.61	
	70 MHz		PI/2 BPSK	180		4.80	
			QPSK			5.66	
			16-QAM			6.41	
			64-QAM			6.72	
			256-QAM			6.53	
	80 MHz		PI/2 BPSK	216		4.73	
			QPSK			5.60	
			16-QAM			6.36	
			64-QAM			6.71	
			256-QAM			6.59	
	90 MHz		PI/2 BPSK	243		4.68	
			QPSK			5.70	
			16-QAM			6.37	
			64-QAM			6.63	
			256-QAM			6.58	
	100 MHz		PI/2 BPSK	270		5.19	
			QPSK			5.56	
			16-QAM			6.39	
			64-QAM			6.59	
			256-QAM			6.60	

Note:

1. P.A.P.R is not required. These values are reported for information only.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	10 MHz	2592.990	PI/2 BPSK	24	0	8.5933
			QPSK			8.6116
			16-QAM			8.6834
			64-QAM			8.6536
			256-QAM			8.6878
	15 MHz		PI/2 BPSK	36		12.977
			QPSK			13.029
			16-QAM			13.012
			64-QAM			12.911
			256-QAM			12.999
	20 MHz		PI/2 BPSK	50		17.982
			QPSK			17.952
			16-QAM			17.949
			64-QAM			18.015
			256-QAM			18.029
	30 MHz		PI/2 BPSK	75		26.911
			QPSK			26.856
			16-QAM			27.008
			64-QAM			26.867
			256-QAM			27.000
	40 MHz		PI/2 BPSK	100		35.863
			QPSK			35.870
			16-QAM			35.784
			64-QAM			35.874
			256-QAM			35.912
	50 MHz		PI/2 BPSK	128		45.770
			QPSK			45.688
			16-QAM			45.744
			64-QAM			45.867
			256-QAM			45.626

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	60 MHz	2592.990	PI/2 BPSK	162	0	57.970
			QPSK			57.818
			16-QAM			57.851
			64-QAM			57.918
			256-QAM			57.903
	70 MHz		PI/2 BPSK	180		64.351
			QPSK			64.265
			16-QAM			64.369
			64-QAM			64.215
			256-QAM			64.348
	80 MHz		PI/2 BPSK	216		77.474
			QPSK			77.186
			16-QAM			76.981
			64-QAM			77.268
			256-QAM			77.157
	90 MHz		PI/2 BPSK	243		87.067
			QPSK			86.835
			16-QAM			86.608
			64-QAM			86.813
			256-QAM			87.046
	100 MHz		PI/2 BPSK	270		96.643
			QPSK			96.834
			16-QAM			96.555
			64-QAM			96.616
			256-QAM			96.423

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 n41	10	2501.010	8.0758	29.116	-63.496	-34.380	-25.00
		2592.990	3.2603	28.533	-63.400	-34.867	
		2685.000	3.8884	28.533	-63.060	-34.527	
	15	2503.500	4.0479	28.533	-62.717	-34.184	
		2592.990	8.8634	29.116	-63.312	-34.196	
		2682.480	3.7688	28.533	-62.500	-33.967	
	20	2506.020	3.8585	28.533	-61.931	-33.398	
		2592.990	4.0479	28.533	-62.686	-34.153	
		2679.990	3.9881	28.533	-62.301	-33.768	
	30	2511.000	9.9502	29.116	-62.768	-33.652	
		2592.990	3.8385	28.533	-63.478	-34.945	
		2674.980	8.5544	29.116	-62.827	-33.711	
	40	2516.010	4.9751	28.533	-63.262	-34.729	
		2592.990	3.7488	28.533	-62.465	-33.932	
		2670.000	9.0927	29.116	-63.032	-33.916	
	50	2521.020	7.8365	29.116	-63.005	-33.889	
		2592.990	4.0778	28.533	-62.484	-33.951	
		2664.990	8.3250	29.116	-63.202	-34.086	
	60	2526.000	3.8086	28.533	-63.211	-34.678	
		2592.990	9.6411	29.116	-62.945	-33.829	
		2659.980	9.4118	29.116	-63.446	-34.330	
	70	2531.010	9.1725	29.116	-62.425	-33.309	
		2592.990	4.9253	28.533	-63.502	-34.969	
		2655.000	8.8834	29.116	-63.444	-34.328	
	80	2536.020	6.0419	29.116	-63.086	-33.970	
		2592.990	3.9781	28.533	-62.655	-34.122	
		2649.990	4.9751	28.533	-62.588	-34.055	
	90	2541.000	4.9851	28.533	-63.197	-34.664	
		2592.990	4.0479	28.533	-63.645	-35.112	
		2644.980	8.0160	29.116	-62.932	-33.816	
	100	2546.010	6.0319	29.116	-63.160	-34.044	
		2592.990	9.9402	29.116	-63.814	-34.698	
		2640.000	4.7957	28.533	-63.189	-34.656	

Note:

1. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)

2. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.012
1 – 5	28.533
5 – 10	29.116
10 – 15	30.025
15 – 20	31.052
Above 20	31.613

8.6 CHANNEL EDGE

Band Width	Frequency (MHz)	Modulation	RB Size	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1MHz)	2 490.5 MHz ~ 2 495 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
10 MHz	2501.010	PI/2 BPSK	Full RB	-27.14	-25.68	-31.52	-30.94	-38.04	-34.67	-44.83
15 MHz	2503.500	PI/2 BPSK	Full RB	-25.16	-36.50	-31.96	-32.83	-36.95	-34.44	-45.81
20 MHz	2506.020	PI/2 BPSK	Full RB	-28.66	-31.39	-34.21	-34.74	-38.53	-35.80	-49.22
30 MHz	2511.000	PI/2 BPSK	Full RB	-29.40	-39.63	-36.65	-39.06	-41.78	-39.10	-50.64
40 MHz	2516.010	PI/2 BPSK	Full RB	-27.19	-40.20	-35.55	-38.77	-38.60	-37.07	-49.91
50 MHz	2521.020	PI/2 BPSK	Full RB	-30.13	-37.71	-37.11	-38.68	-38.59	-36.43	-51.44
60 MHz	2526.000	PI/2 BPSK	Full RB	-20.14	-21.30	-39.43	-37.06	-37.47	-37.83	-50.13
70 MHz	2531.010	PI/2 BPSK	Full RB	-26.69	-38.99	-41.97	-39.22	-45.24	-38.62	-49.47
80 MHz	2536.020	PI/2 BPSK	Full RB	-28.52	-32.80	-42.02	-39.70	-44.24	-40.15	-53.03
90 MHz	2541.000	PI/2 BPSK	Full RB	-26.46	-37.82	-42.09	-40.91	-42.80	-41.42	-54.16
100 MHz	2546.010	PI/2 BPSK	Full RB	-24.60	-40.88	-43.30	-40.31	-44.02	-40.17	-53.39
Limit (dBm)				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

Band Width	Frequency (MHz)	Modulation	RB Size	RB Offset	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	PI/2 BPSK	Full RB	0	-23.64	-24.70	-29.90	-30.48
	2685.000	PI/2 BPSK	Full RB	0	-25.18	-30.34	-31.40	-34.12
15 MHz	2592.990	PI/2 BPSK	Full RB	0	-25.82	-35.37	-31.45	-34.93
	2682.480	PI/2 BPSK	Full RB	0	-26.34	-38.59	-33.22	-36.85
20 MHz	2592.990	PI/2 BPSK	Full RB	0	-27.47	-34.36	-33.61	-34.27
	2679.990	PI/2 BPSK	Full RB	0	-24.89	-35.80	-34.39	-40.00
30 MHz	2592.990	PI/2 BPSK	Full RB	0	-27.64	-41.28	-36.39	-40.33
	2679.990	PI/2 BPSK	Full RB	0	-26.72	-41.94	-36.95	-40.07
40 MHz	2592.990	PI/2 BPSK	Full RB	0	-26.29	-38.90	-35.71	-38.04
	2670.000	PI/2 BPSK	Full RB	0	-27.87	-42.78	-36.98	-40.78
50 MHz	2592.990	PI/2 BPSK	Full RB	0	-26.80	-41.69	-36.52	-42.08
	2664.990	PI/2 BPSK	Full RB	0	-28.50	-40.00	-38.67	-37.91
60 MHz	2592.990	PI/2 BPSK	Full RB	0	-19.20	-22.35	-37.94	-40.26
	2659.980	PI/2 BPSK	Full RB	0	-21.75	-23.52	-37.39	-41.49
70 MHz	2592.990	PI/2 BPSK	Full RB	0	-25.87	-43.93	-39.52	-44.46
	2655.000	PI/2 BPSK	Full RB	0	-30.00	-45.04	-40.66	-44.83
80 MHz	2592.990	PI/2 BPSK	Full RB	0	-26.18	-36.89	-39.53	-41.98
	2649.990	PI/2 BPSK	Full RB	0	-28.34	-39.36	-39.60	-45.22
90 MHz	2592.990	PI/2 BPSK	Full RB	0	-26.23	-39.47	-41.29	-41.61
	2644.980	PI/2 BPSK	Full RB	0	-25.91	-42.16	-39.60	-44.92
100 MHz	2592.990	PI/2 BPSK	Full RB	0	-23.93	-38.21	-39.01	-39.18
	2640.000	PI/2 BPSK	Full RB	0	-23.62	-43.98	-40.28	-44.28
Limit (dBm)					-10.0		-10.0	

Band Width	Frequency (MHz)	Modulation	RB Size	RB Offset	(C.E $\pm$ 5 MHz) ~ (C.E $\pm$ X MHz)		Above (C.E $\pm$ X MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	PI/2 BPSK	Full RB	0	-38.41	-36.42	-40.97	-44.25
	2685.000	PI/2 BPSK	Full RB	0	-35.87	-35.84	-38.12	-39.17
15 MHz	2592.990	PI/2 BPSK	Full RB	0	-36.48	-35.89	-43.11	-45.61
	2682.480	PI/2 BPSK	Full RB	0	-33.13	-36.81	-39.92	-41.35
20 MHz	2592.990	PI/2 BPSK	Full RB	0	-36.80	-38.52	-42.81	-45.26
	2679.990	PI/2 BPSK	Full RB	0	-34.70	-37.77	-44.70	-45.56
30 MHz	2592.990	PI/2 BPSK	Full RB	0	-39.37	-39.47	-49.98	-50.95
	2679.990	PI/2 BPSK	Full RB	0	-36.32	-38.59	-45.12	-46.80
40 MHz	2592.990	PI/2 BPSK	Full RB	0	-37.71	-39.09	-47.23	-45.41
	2670.000	PI/2 BPSK	Full RB	0	-38.91	-37.41	-46.31	-48.89
50 MHz	2592.990	PI/2 BPSK	Full RB	0	-39.92	-40.44	-52.98	-53.90
	2664.990	PI/2 BPSK	Full RB	0	-38.47	-37.56	-43.04	-47.34
60 MHz	2592.990	PI/2 BPSK	Full RB	0	-41.57	-42.19	-53.67	-54.60
	2659.980	PI/2 BPSK	Full RB	0	-38.38	-39.11	-45.93	-55.14
70 MHz	2592.990	PI/2 BPSK	Full RB	0	-42.22	-38.75	-54.05	-52.27
	2655.000	PI/2 BPSK	Full RB	0	-40.45	-42.41	-53.99	-55.71
80 MHz	2592.990	PI/2 BPSK	Full RB	0	-41.47	-40.61	-55.13	-54.17
	2649.990	PI/2 BPSK	Full RB	0	-39.24	-42.39	-53.99	-55.74
90 MHz	2592.990	PI/2 BPSK	Full RB	0	-42.01	-37.33	-56.03	-43.72
	2644.980	PI/2 BPSK	Full RB	0	-39.75	-44.20	-54.32	-55.75
100 MHz	2592.990	PI/2 BPSK	Full RB	0	-41.13	-37.24	-55.92	-54.64
	2640.000	PI/2 BPSK	Full RB	0	-38.83	-42.72	-54.45	-55.62
Limit (dBm)					-13.0		-25.0	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
 - Duty Cycle Factor(dB) = 6.99

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

BandWidth:	10 MHz
Voltage(100 %):	3.880 VDC
Batt. Endpoint:	3.300 VDC
LIMIT:	Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2501.010	100 %	+20(Ref)	2501 010 005	0.0	0.000 000	0.000
	100 %	-30	2501 010 007	1.8	0.000 000	0.001
	100 %	-20	2501 009 998	-7.0	0.000 000	-0.003
	100 %	-10	2501 009 998	-6.7	0.000 000	-0.003
	100 %	0	2501 010 004	-1.2	0.000 000	0.000
	100 %	+10	2501 010 002	-3.3	0.000 000	-0.001
	100 %	+30	2501 010 002	-2.6	0.000 000	-0.001
	100 %	+40	2501 010 006	1.5	0.000 000	0.001
	100 %	+50	2501 009 999	-6.2	0.000 000	-0.002
	Batt. Endpoint	+20	2501 009 997	-7.8	0.000 000	-0.003
2685.000	100 %	+20(Ref)	2684 999 998	0.0	0.000 000	0.000
	100 %	-30	2684 999 992	-6.2	0.000 000	-0.002
	100 %	-20	2684 999 992	-6.3	0.000 000	-0.002
	100 %	-10	2685 000 001	2.4	0.000 000	0.001
	100 %	0	2684 999 993	-5.6	0.000 000	-0.002
	100 %	+10	2684 999 991	-7.0	0.000 000	-0.003
	100 %	+30	2684 999 995	-3.6	0.000 000	-0.001
	100 %	+40	2684 999 999	0.6	0.000 000	0.000
	100 %	+50	2684 999 993	-4.9	0.000 000	-0.002
	Batt. Endpoint	+20	2684 999 994	-4.1	0.000 000	-0.002

BandWidth:	<u>15 MHz</u>
Voltage(100 %):	<u>3.880 VDC</u>
Batt. Endpoint:	<u>3.300 VDC</u>
LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2503.500	100 %	+20(Ref)	2503 500 004	0.0	0.000 000	0.000
	100 %	-30	2503 500 008	3.7	0.000 000	0.001
	100 %	-20	2503 500 008	3.6	0.000 000	0.001
	100 %	-10	2503 500 002	-2.6	0.000 000	-0.001
	100 %	0	2503 500 008	3.9	0.000 000	0.002
	100 %	+10	2503 500 002	-2.6	0.000 000	-0.001
	100 %	+30	2503 499 999	-5.3	0.000 000	-0.002
	100 %	+40	2503 500 003	-0.9	0.000 000	0.000
	100 %	+50	2503 500 005	0.6	0.000 000	0.000
	Batt. Endpoint	+20	2503 499 997	-6.9	0.000 000	-0.003
2682.480	100 %	+20(Ref)	2682 480 000	0.0	0.000 000	0.000
	100 %	-30	2682 480 004	4.4	0.000 000	0.002
	100 %	-20	2682 479 996	-3.8	0.000 000	-0.001
	100 %	-10	2682 480 000	0.4	0.000 000	0.000
	100 %	0	2682 480 002	1.8	0.000 000	0.001
	100 %	+10	2682 480 001	0.6	0.000 000	0.000
	100 %	+30	2682 479 998	-1.6	0.000 000	-0.001
	100 %	+40	2682 480 003	2.6	0.000 000	0.001
	100 %	+50	2682 479 999	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	2682 480 002	1.7	0.000 000	0.001

☐ BandWidth: 20 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2506.020	100 %	+20(Ref)	2506 019 997	0.0	0.000 000	0.000
	100 %	-30	2506 019 994	-3.6	0.000 000	-0.001
	100 %	-20	2506 019 997	-0.4	0.000 000	0.000
	100 %	-10	2506 019 996	-1.5	0.000 000	-0.001
	100 %	0	2506 019 996	-1.4	0.000 000	-0.001
	100 %	+10	2506 019 995	-2.5	0.000 000	-0.001
	100 %	+30	2506 019 997	-0.1	0.000 000	0.000
	100 %	+40	2506 019 999	1.5	0.000 000	0.001
	100 %	+50	2506 019 996	-1.3	0.000 000	-0.001
	Batt. Endpoint	+20	2506 019 998	0.3	0.000 000	0.000
2679.990	100 %	+20(Ref)	2679 989 999	0.0	0.000 000	0.000
	100 %	-30	2679 989 994	-4.1	0.000 000	-0.002
	100 %	-20	2679 989 995	-3.3	0.000 000	-0.001
	100 %	-10	2679 989 999	0.7	0.000 000	0.000
	100 %	0	2679 989 998	-0.7	0.000 000	0.000
	100 %	+10	2679 990 000	1.2	0.000 000	0.000
	100 %	+30	2679 989 999	0.0	0.000 000	0.000
	100 %	+40	2679 989 993	-5.8	0.000 000	-0.002
	100 %	+50	2679 990 001	2.4	0.000 000	0.001
	Batt. Endpoint	+20	2679 990 001	2.2	0.000 000	0.001

☐ BandWidth: 30 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2511.000	100 %	+20(Ref)	2510 999 997	0.0	0.000 000	0.000
	100 %	-30	2510 999 995	-2.2	0.000 000	-0.001
	100 %	-20	2510 999 992	-4.5	0.000 000	-0.002
	100 %	-10	2510 999 996	-1.2	0.000 000	0.000
	100 %	0	2510 999 994	-2.8	0.000 000	-0.001
	100 %	+10	2510 999 995	-1.6	0.000 000	-0.001
	100 %	+30	2510 999 993	-4.2	0.000 000	-0.002
	100 %	+40	2510 999 993	-3.8	0.000 000	-0.002
	100 %	+50	2510 999 994	-3.3	0.000 000	-0.001
	Batt. Endpoint	+20	2510 999 993	-3.7	0.000 000	-0.001
2674.980	100 %	+20(Ref)	2674 979 996	0.0	0.000 000	0.000
	100 %	-30	2674 979 997	0.3	0.000 000	0.000
	100 %	-20	2674 979 999	3.1	0.000 000	0.001
	100 %	-10	2674 979 995	-1.7	0.000 000	-0.001
	100 %	0	2674 979 997	1.1	0.000 000	0.000
	100 %	+10	2674 979 996	-0.4	0.000 000	0.000
	100 %	+30	2674 979 996	-0.1	0.000 000	0.000
	100 %	+40	2674 979 993	-3.6	0.000 000	-0.001
	100 %	+50	2674 979 996	-0.3	0.000 000	0.000
	Batt. Endpoint	+20	2674 979 994	-2.2	0.000 000	-0.001

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2516.010	100 %	+20(Ref)	2516 009 997	0.0	0.000 000	0.000
	100 %	-30	2516 009 994	-2.6	0.000 000	-0.001
	100 %	-20	2516 009 994	-2.8	0.000 000	-0.001
	100 %	-10	2516 009 996	-0.8	0.000 000	0.000
	100 %	0	2516 009 993	-3.1	0.000 000	-0.001
	100 %	+10	2516 009 994	-2.5	0.000 000	-0.001
	100 %	+30	2516 009 996	-0.8	0.000 000	0.000
	100 %	+40	2516 009 995	-1.4	0.000 000	-0.001
	100 %	+50	2516 009 998	1.6	0.000 000	0.001
	Batt. Endpoint	+20	2516 009 995	-1.5	0.000 000	-0.001
2670.000	100 %	+20(Ref)	2669 999 995	0.0	0.000 000	0.000
	100 %	-30	2669 999 993	-1.4	0.000 000	-0.001
	100 %	-20	2669 999 991	-3.3	0.000 000	-0.001
	100 %	-10	2669 999 989	-5.7	0.000 000	-0.002
	100 %	0	2669 999 993	-1.8	0.000 000	-0.001
	100 %	+10	2669 999 993	-1.9	0.000 000	-0.001
	100 %	+30	2669 999 991	-4.1	0.000 000	-0.002
	100 %	+40	2669 999 990	-4.2	0.000 000	-0.002
	100 %	+50	2669 999 991	-3.4	0.000 000	-0.001
	Batt. Endpoint	+20	2669 999 995	0.3	0.000 000	0.000

- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2521.020	100 %	+20(Ref)	2521 019 998	0.0	0.000 000	0.000
	100 %	-30	2521 019 993	-4.8	0.000 000	-0.002
	100 %	-20	2521 019 992	-5.2	0.000 000	-0.002
	100 %	-10	2521 019 991	-7.1	0.000 000	-0.003
	100 %	0	2521 019 992	-5.9	0.000 000	-0.002
	100 %	+10	2521 019 997	-0.8	0.000 000	0.000
	100 %	+30	2521 019 996	-1.8	0.000 000	-0.001
	100 %	+40	2521 019 990	-7.5	0.000 000	-0.003
	100 %	+50	2521 019 993	-4.3	0.000 000	-0.002
	Batt. Endpoint	+20	2521 019 991	-6.1	0.000 000	-0.002
2664.990	100 %	+20(Ref)	2664 989 999	0.0	0.000 000	0.000
	100 %	-30	2664 989 995	-3.4	0.000 000	-0.001
	100 %	-20	2664 989 995	-3.7	0.000 000	-0.001
	100 %	-10	2664 989 995	-3.3	0.000 000	-0.001
	100 %	0	2664 989 996	-2.7	0.000 000	-0.001
	100 %	+10	2664 989 990	-8.6	0.000 000	-0.003
	100 %	+30	2664 989 999	0.0	0.000 000	0.000
	100 %	+40	2664 989 992	-6.5	0.000 000	-0.002
	100 %	+50	2664 989 995	-3.1	0.000 000	-0.001
	Batt. Endpoint	+20	2664 990 002	3.5	0.000 000	0.001

☐ BandWidth: 60 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2526.000	100 %	+20(Ref)	2525 999 999	0.0	0.000 000	0.000
	100 %	-30	2525 999 997	-2.4	0.000 000	-0.001
	100 %	-20	2526 000 001	1.4	0.000 000	0.001
	100 %	-10	2526 000 000	0.1	0.000 000	0.000
	100 %	0	2525 999 993	-6.4	0.000 000	-0.003
	100 %	+10	2525 999 995	-4.8	0.000 000	-0.002
	100 %	+30	2525 999 998	-1.2	0.000 000	0.000
	100 %	+40	2525 999 995	-3.9	0.000 000	-0.002
	100 %	+50	2525 999 996	-3.5	0.000 000	-0.001
	Batt. Endpoint	+20	2525 999 999	-0.8	0.000 000	0.000
2659.980	100 %	+20(Ref)	2659 979 997	0.0	0.000 000	0.000
	100 %	-30	2659 980 005	7.2	0.000 000	0.003
	100 %	-20	2659 979 999	1.5	0.000 000	0.001
	100 %	-10	2659 979 997	-0.5	0.000 000	0.000
	100 %	0	2659 979 995	-2.6	0.000 000	-0.001
	100 %	+10	2659 979 999	1.9	0.000 000	0.001
	100 %	+30	2659 980 003	5.7	0.000 000	0.002
	100 %	+40	2659 979 997	-0.5	0.000 000	0.000
	100 %	+50	2659 979 990	-7.3	0.000 000	-0.003
	Batt. Endpoint	+20	2659 979 993	-4.3	0.000 000	-0.002

☐ BandWidth: 70 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2531.010	100 %	+20(Ref)	2531 009 995	0.0	0.000 000	0.000
	100 %	-30	2531 009 993	-2.1	0.000 000	-0.001
	100 %	-20	2531 009 992	-3.2	0.000 000	-0.001
	100 %	-10	2531 009 993	-2.1	0.000 000	-0.001
	100 %	0	2531 009 991	-4.0	0.000 000	-0.002
	100 %	+10	2531 009 990	-5.6	0.000 000	-0.002
	100 %	+30	2531 009 991	-4.1	0.000 000	-0.002
	100 %	+40	2531 009 990	-4.8	0.000 000	-0.002
	100 %	+50	2531 009 987	-8.4	0.000 000	-0.003
	Batt. Endpoint	+20	2531 009 993	-2.2	0.000 000	-0.001
2655.000	100 %	+20(Ref)	2655 000 000	0.0	0.000 000	0.000
	100 %	-30	2655 000 005	4.5	0.000 000	0.002
	100 %	-20	2655 000 001	0.9	0.000 000	0.000
	100 %	-10	2655 000 001	0.7	0.000 000	0.000
	100 %	0	2654 999 995	-5.6	0.000 000	-0.002
	100 %	+10	2655 000 000	-0.2	0.000 000	0.000
	100 %	+30	2655 000 000	0.2	0.000 000	0.000
	100 %	+40	2654 999 999	-1.2	0.000 000	0.000
	100 %	+50	2654 999 999	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	2654 999 999	-0.9	0.000 000	0.000

☐ BandWidth: 80 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2536.020	100 %	+20(Ref)	2536 019 994	0.0	0.000 000	0.000
	100 %	-30	2536 019 993	-0.8	0.000 000	0.000
	100 %	-20	2536 019 985	-8.2	0.000 000	-0.003
	100 %	-10	2536 019 992	-2.0	0.000 000	-0.001
	100 %	0	2536 019 992	-1.4	0.000 000	-0.001
	100 %	+10	2536 019 990	-3.3	0.000 000	-0.001
	100 %	+30	2536 019 990	-3.5	0.000 000	-0.001
	100 %	+40	2536 019 995	0.9	0.000 000	0.000
	100 %	+50	2536 019 992	-1.8	0.000 000	-0.001
	Batt. Endpoint	+20	2536 019 992	-1.5	0.000 000	-0.001
2649.990	100 %	+20(Ref)	2649 989 994	0.0	0.000 000	0.000
	100 %	-30	2649 989 986	-8.0	0.000 000	-0.003
	100 %	-20	2649 989 990	-4.2	0.000 000	-0.002
	100 %	-10	2649 989 994	0.2	0.000 000	0.000
	100 %	0	2649 989 992	-2.0	0.000 000	-0.001
	100 %	+10	2649 989 989	-5.5	0.000 000	-0.002
	100 %	+30	2649 989 988	-5.7	0.000 000	-0.002
	100 %	+40	2649 989 993	-1.1	0.000 000	0.000
	100 %	+50	2649 989 986	-8.0	0.000 000	-0.003
	Batt. Endpoint	+20	2649 989 990	-3.8	0.000 000	-0.001

☐ BandWidth: 90 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2541.000	100 %	+20(Ref)	2540 999 995	0.0	0.000 000	0.000
	100 %	-30	2540 999 987	-7.4	0.000 000	-0.003
	100 %	-20	2540 999 995	-0.3	0.000 000	0.000
	100 %	-10	2540 999 990	-4.5	0.000 000	-0.002
	100 %	0	2540 999 991	-3.6	0.000 000	-0.001
	100 %	+10	2540 999 993	-1.9	0.000 000	-0.001
	100 %	+30	2540 999 989	-5.9	0.000 000	-0.002
	100 %	+40	2540 999 990	-5.2	0.000 000	-0.002
	100 %	+50	2540 999 990	-5.0	0.000 000	-0.002
	Batt. Endpoint	+20	2540 999 988	-6.7	0.000 000	-0.003
2644.980	100 %	+20(Ref)	2644 979 998	0.0	0.000 000	0.000
	100 %	-30	2644 979 998	-0.7	0.000 000	0.000
	100 %	-20	2644 979 997	-1.7	0.000 000	-0.001
	100 %	-10	2644 979 994	-4.8	0.000 000	-0.002
	100 %	0	2644 979 999	0.8	0.000 000	0.000
	100 %	+10	2644 980 000	2.0	0.000 000	0.001
	100 %	+30	2644 979 994	-4.4	0.000 000	-0.002
	100 %	+40	2644 979 997	-1.5	0.000 000	-0.001
	100 %	+50	2644 979 997	-1.5	0.000 000	-0.001
	Batt. Endpoint	+20	2644 979 996	-2.2	0.000 000	-0.001

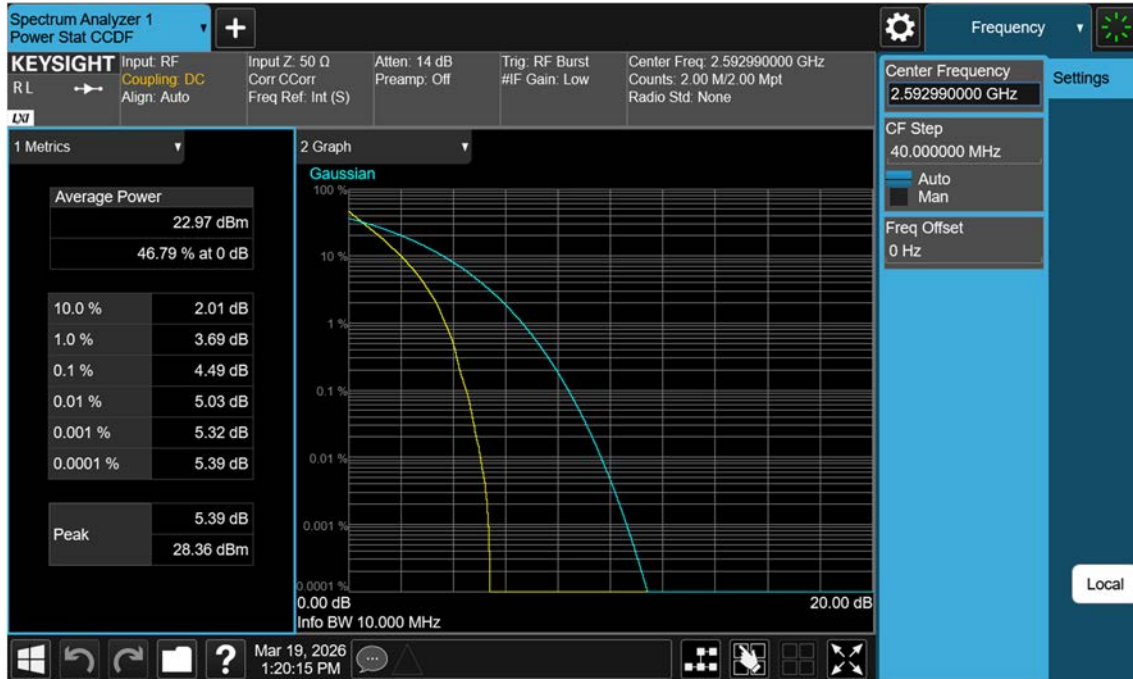
☐ BandWidth: 100 MHz
☐ Voltage(100 %): 3.880 VDC
☐ Batt. Endpoint: 3.300 VDC
☐ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2546.010	100 %	+20(Ref)	2546 009 997	0.0	0.000 000	0.000
	100 %	-30	2546 009 993	-3.4	0.000 000	-0.001
	100 %	-20	2546 009 995	-1.3	0.000 000	0.000
	100 %	-10	2546 009 998	1.4	0.000 000	0.001
	100 %	0	2546 009 993	-3.9	0.000 000	-0.002
	100 %	+10	2546 009 991	-5.4	0.000 000	-0.002
	100 %	+30	2546 009 991	-5.6	0.000 000	-0.002
	100 %	+40	2546 009 992	-4.0	0.000 000	-0.002
	100 %	+50	2546 009 998	1.4	0.000 000	0.001
	Batt. Endpoint	+20	2546 009 992	-4.5	0.000 000	-0.002
2640.000	100 %	+20(Ref)	2639 999 998	0.0	0.000 000	0.000
	100 %	-30	2639 999 992	-6.0	0.000 000	-0.002
	100 %	-20	2639 999 997	-1.1	0.000 000	0.000
	100 %	-10	2639 999 996	-2.5	0.000 000	-0.001
	100 %	0	2639 999 998	-0.3	0.000 000	0.000
	100 %	+10	2639 999 999	0.6	0.000 000	0.000
	100 %	+30	2639 999 998	-0.7	0.000 000	0.000
	100 %	+40	2639 999 991	-7.5	0.000 000	-0.003
	100 %	+50	2639 999 997	-1.0	0.000 000	0.000
	Batt. Endpoint	+20	2640 000 003	4.1	0.000 000	0.002

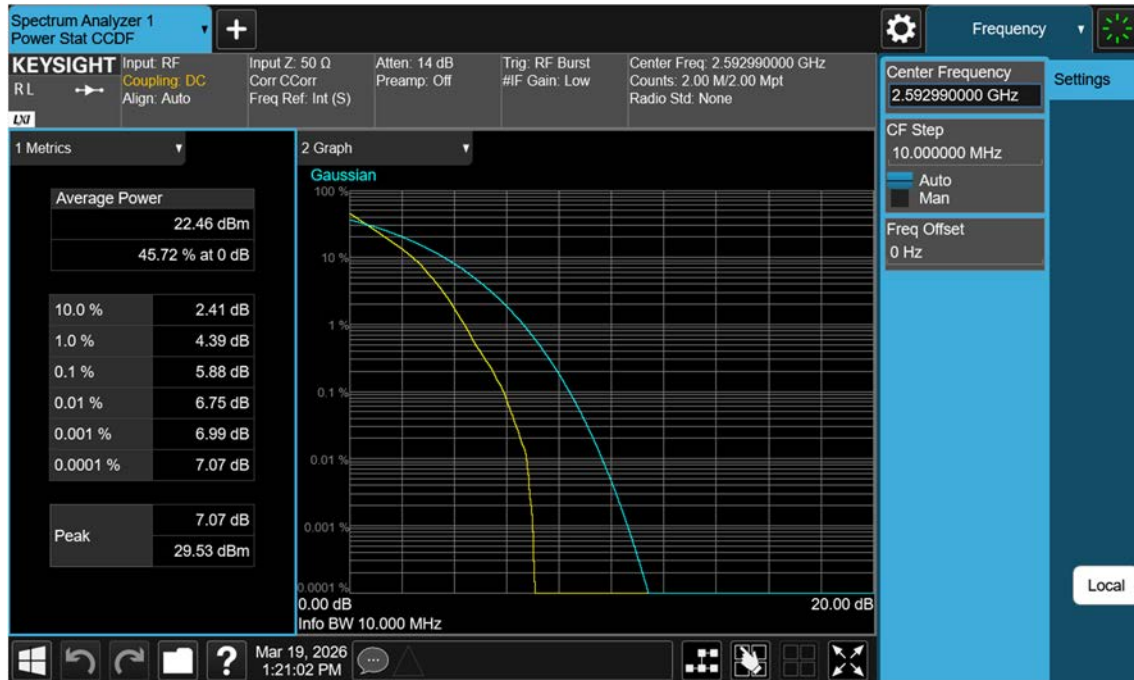
9. TEST PLOTS

9.1 PEAK-TO-AVERAGE RATIO

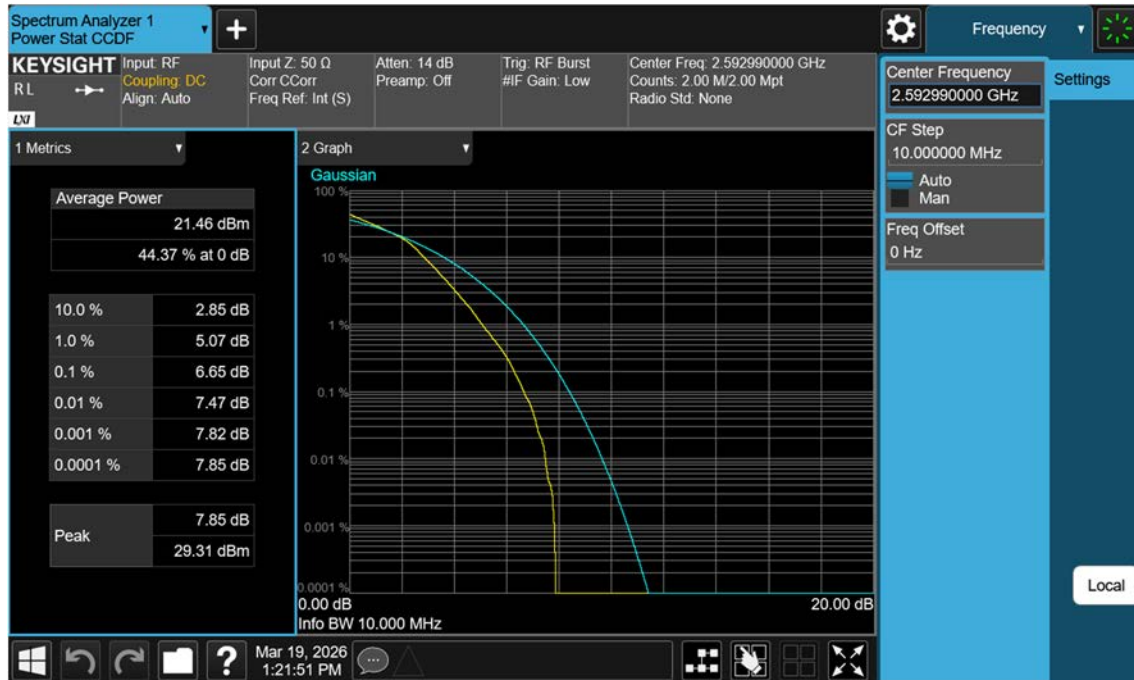
NR n41_10 M_PAR_Mid_PI/2 BPSK_FullRB



NR n41_10 M_PAR_Mid_QPSK_FullRB



NR n41_10 M_PAR_Mid_16QAM_FullRB



NR n41_10 M_PAR_Mid_64QAM_FullRB



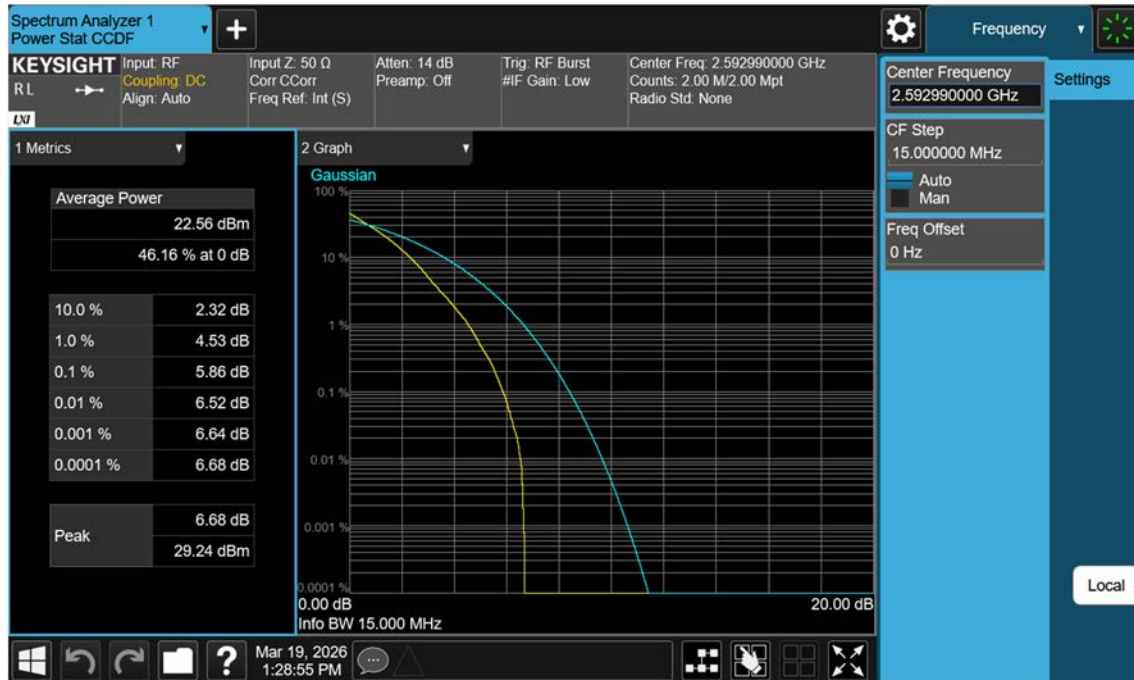
NR n41_10 M_PAR_Mid_256QAM_FullRB



NR n41_15 M_PAR_Mid_PI/2 BPSK_FullRB



NR n41_15 M_PAR_Mid_QPSK_FullRB



NR n41_15 M_PAR_Mid_16QAM_FullRB



NR n41_15 M_PAR_Mid_64QAM_FullRB



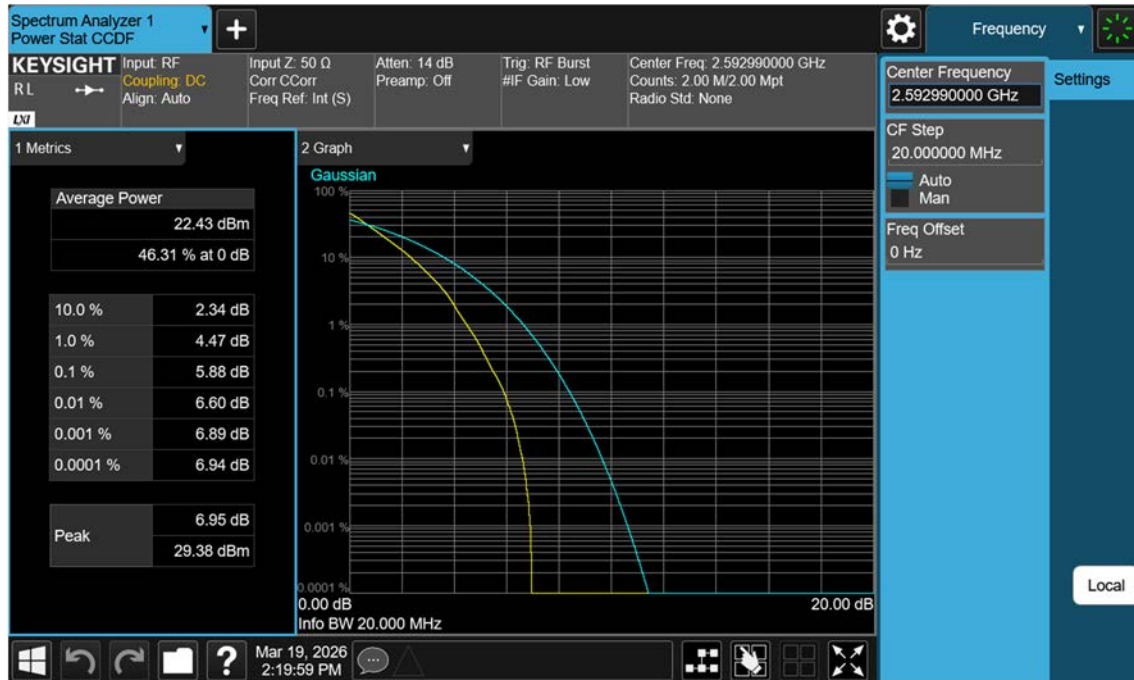
NR n41_15 M_PAR_Mid_256QAM_FullRB



NR n41_20 M_PAR_Mid_PI/2 BPSK_FullRB



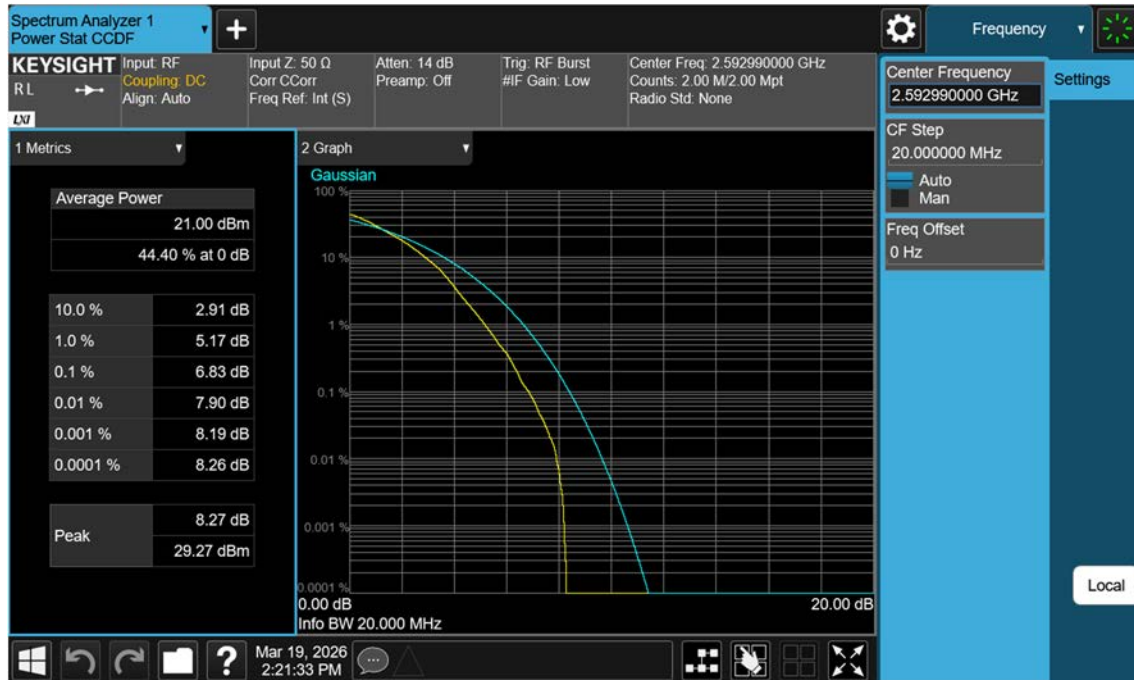
NR n41_20 M_PAR_Mid_QPSK_FullRB



NR n41_20 M_PAR_Mid_16QAM_FullRB



NR n41_20 M_PAR_Mid_64QAM_FullRB



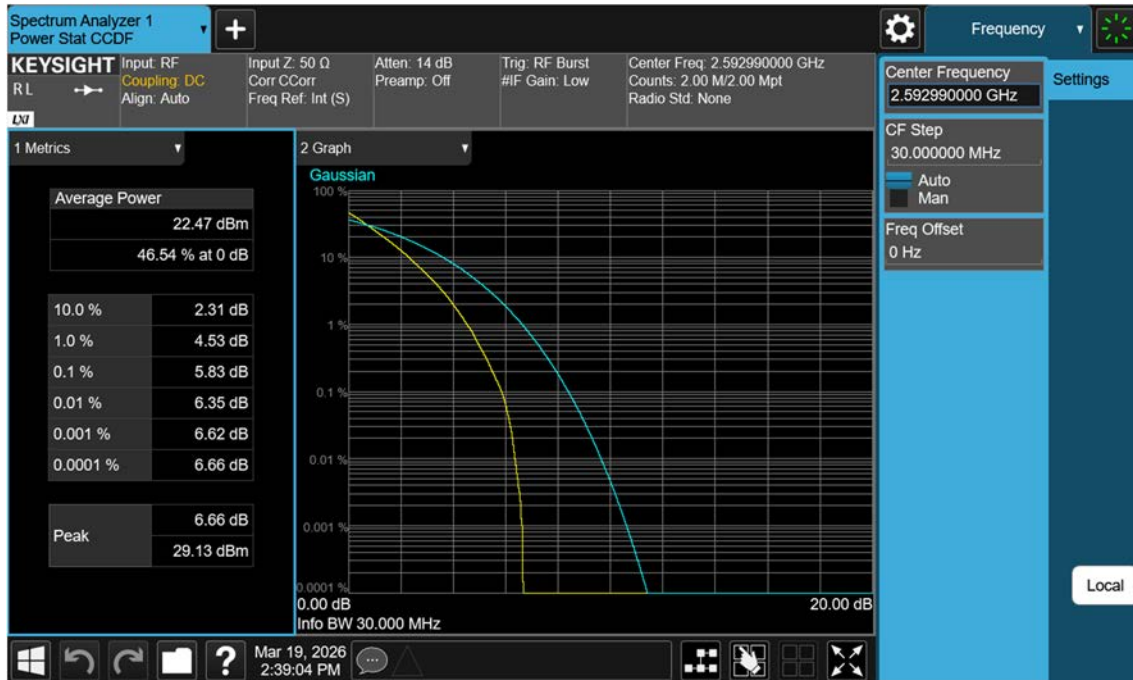
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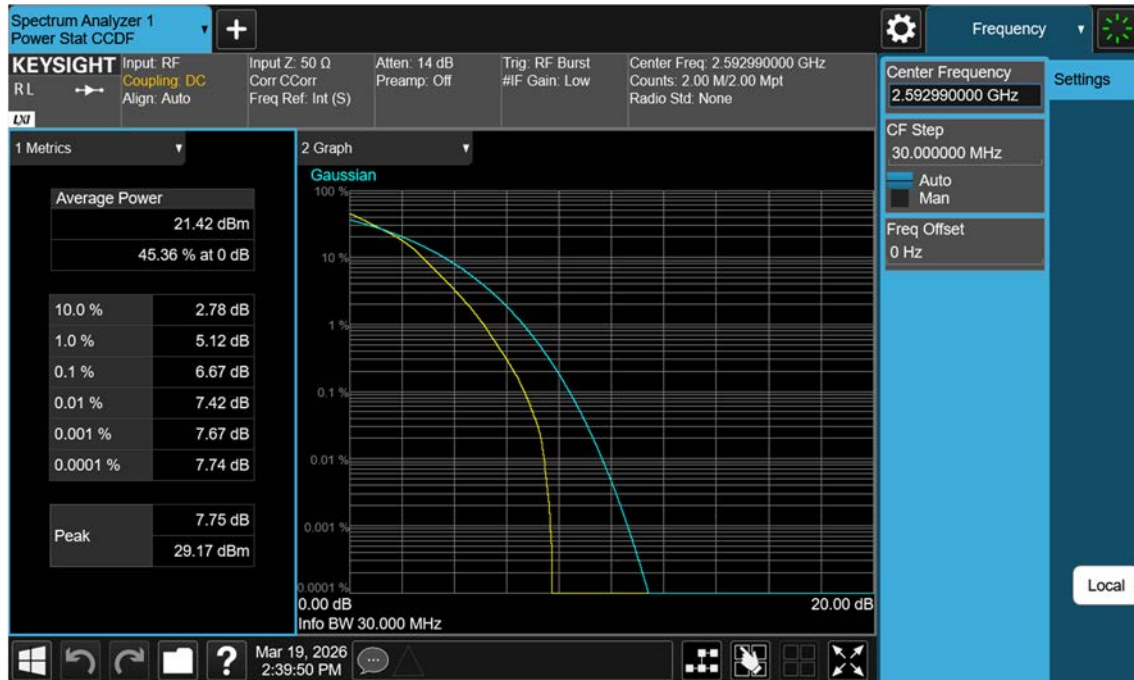
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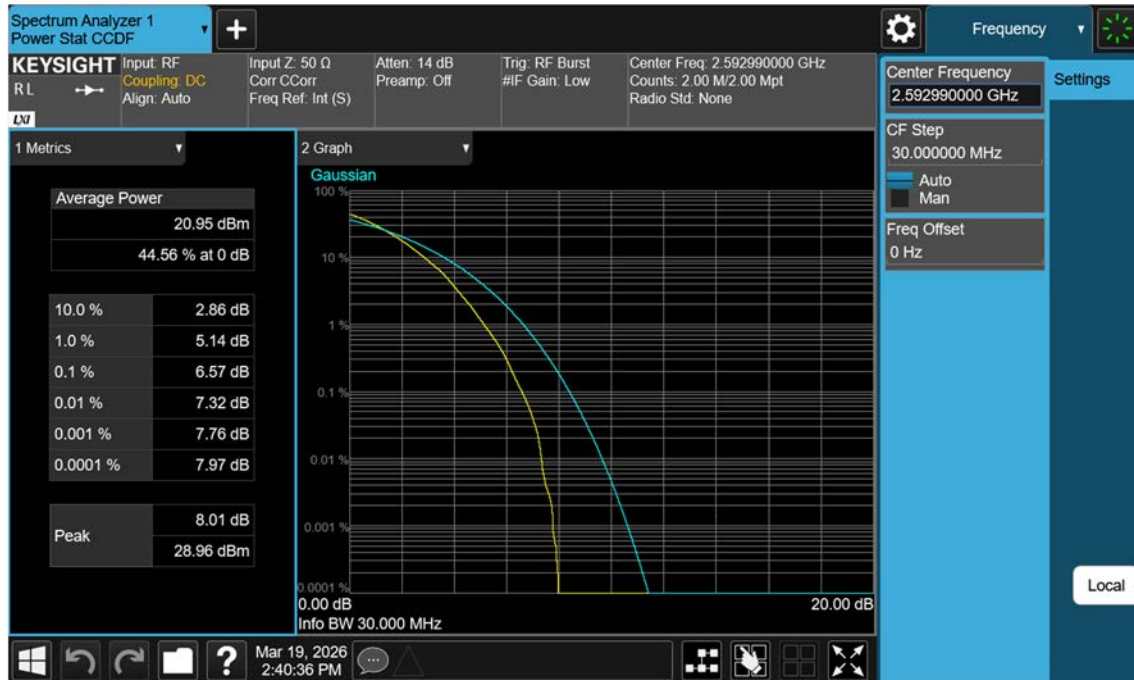
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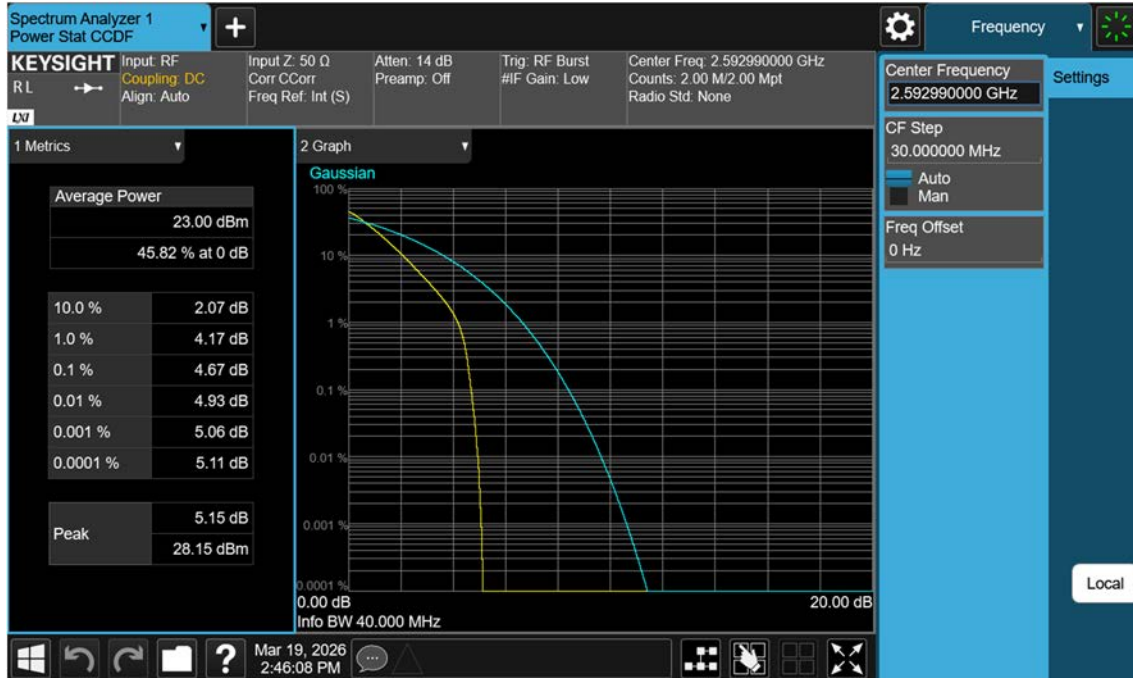
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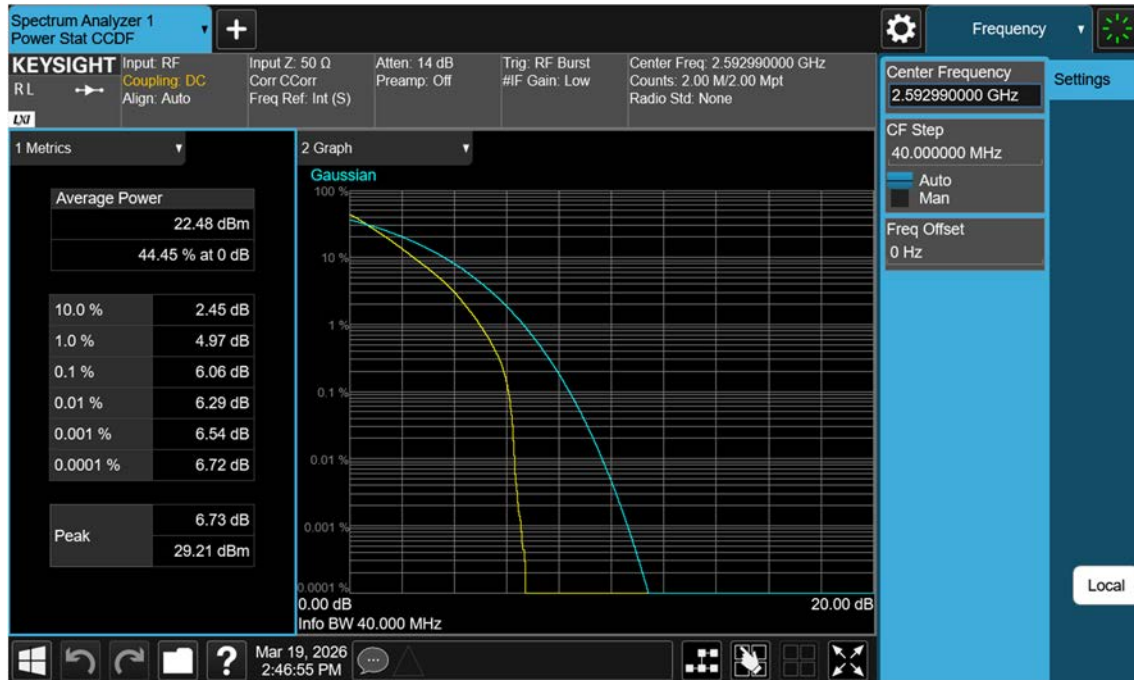
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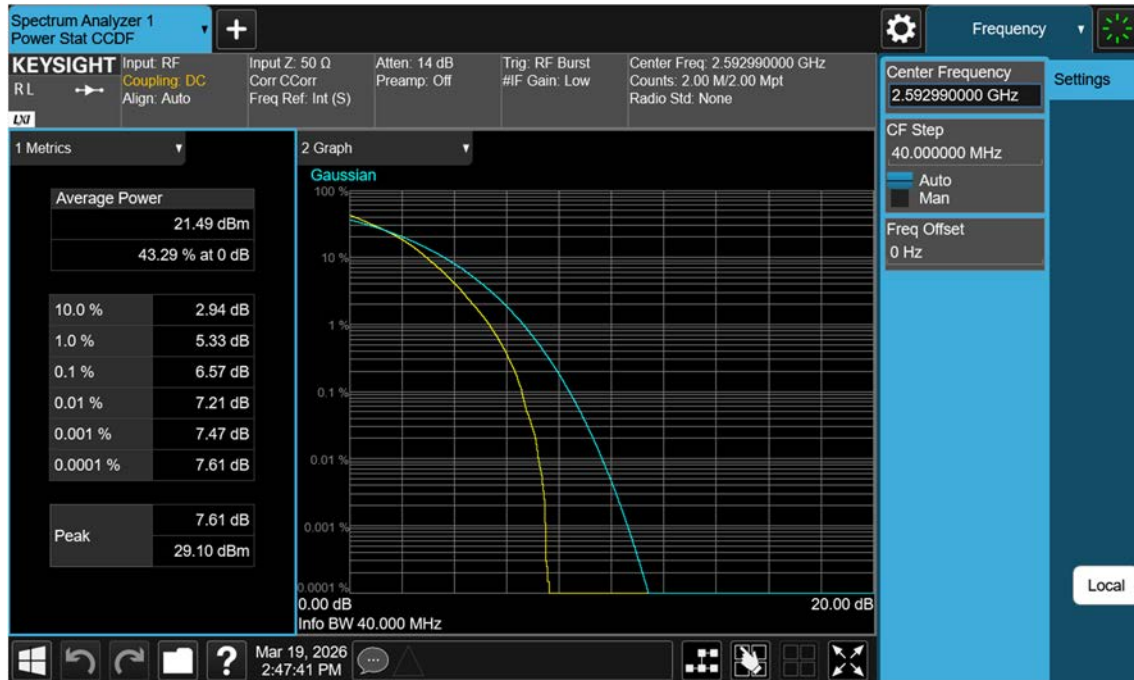
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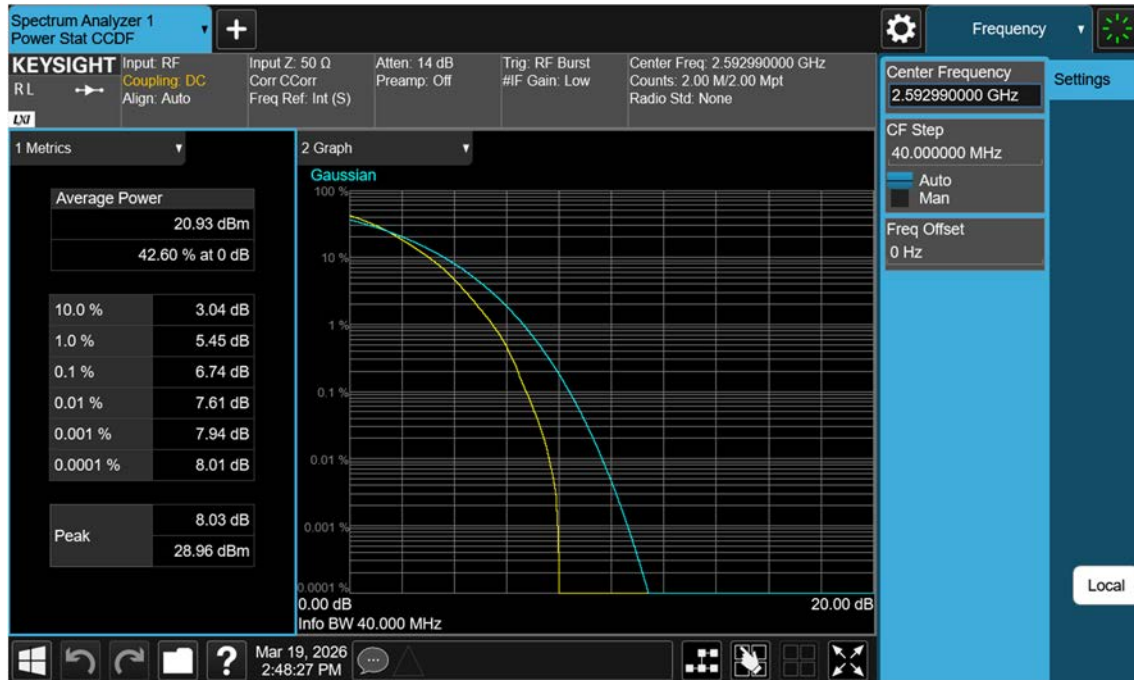
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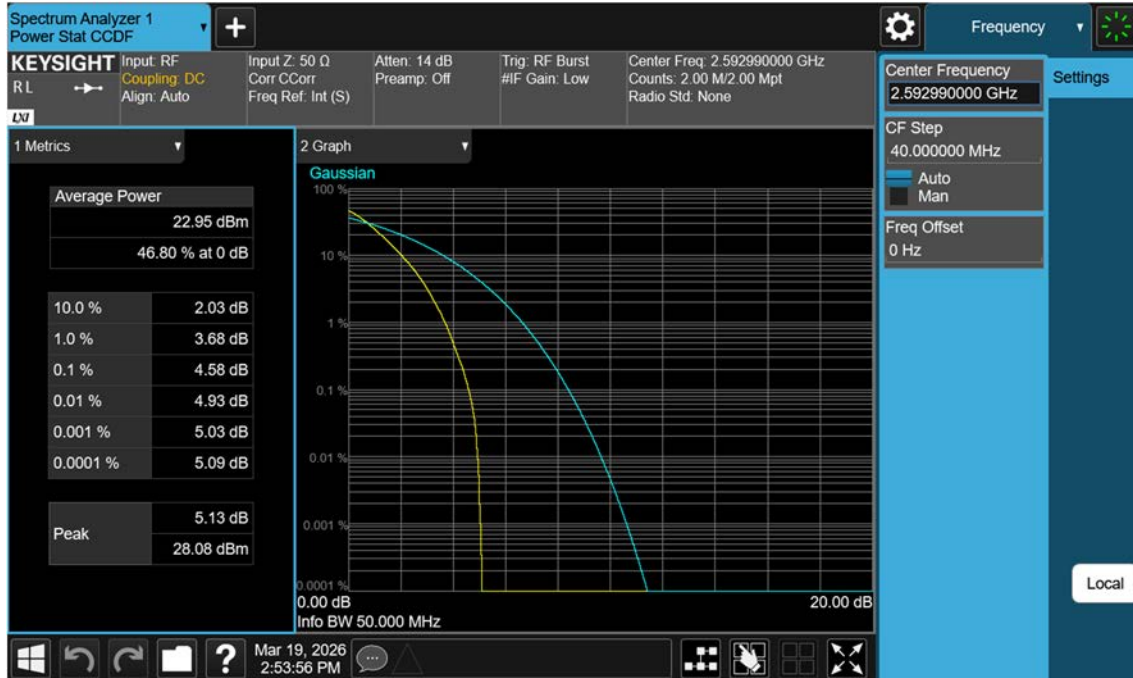
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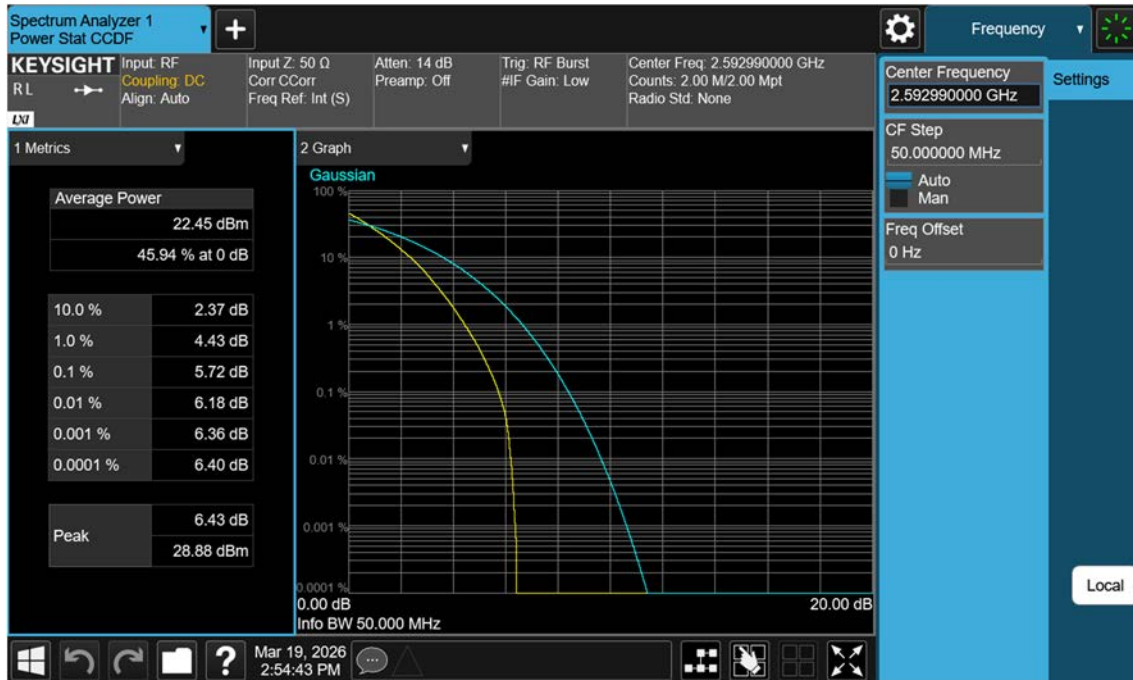
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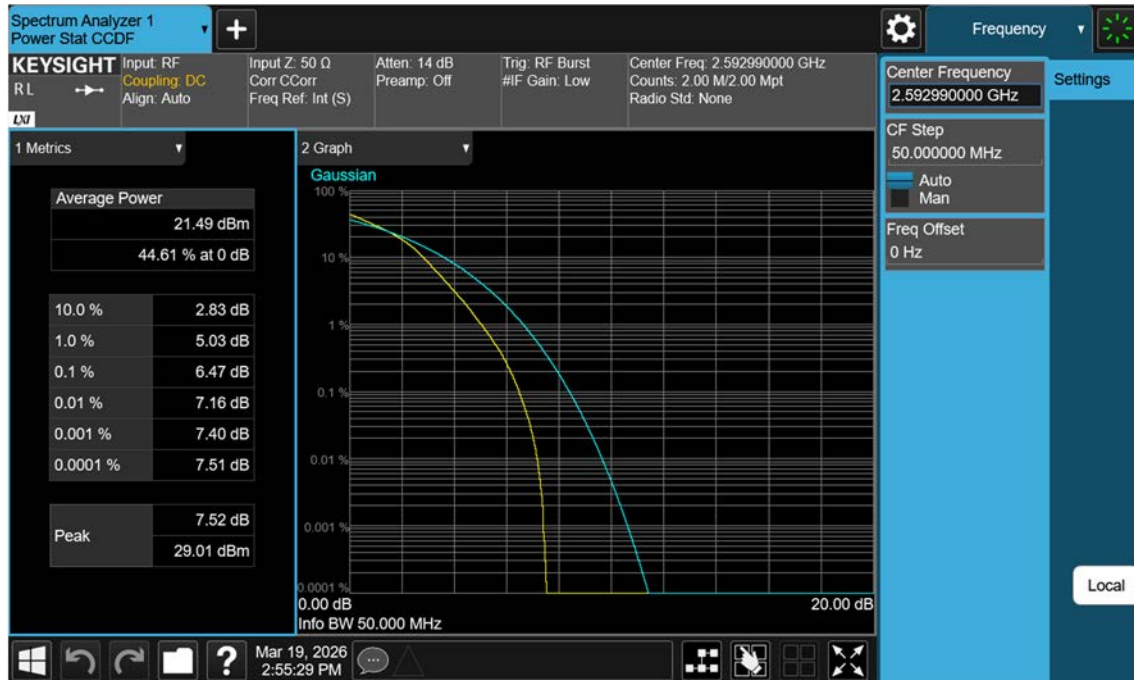
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NR n41_50 M_PAR_Mid_QPSK_FullRB



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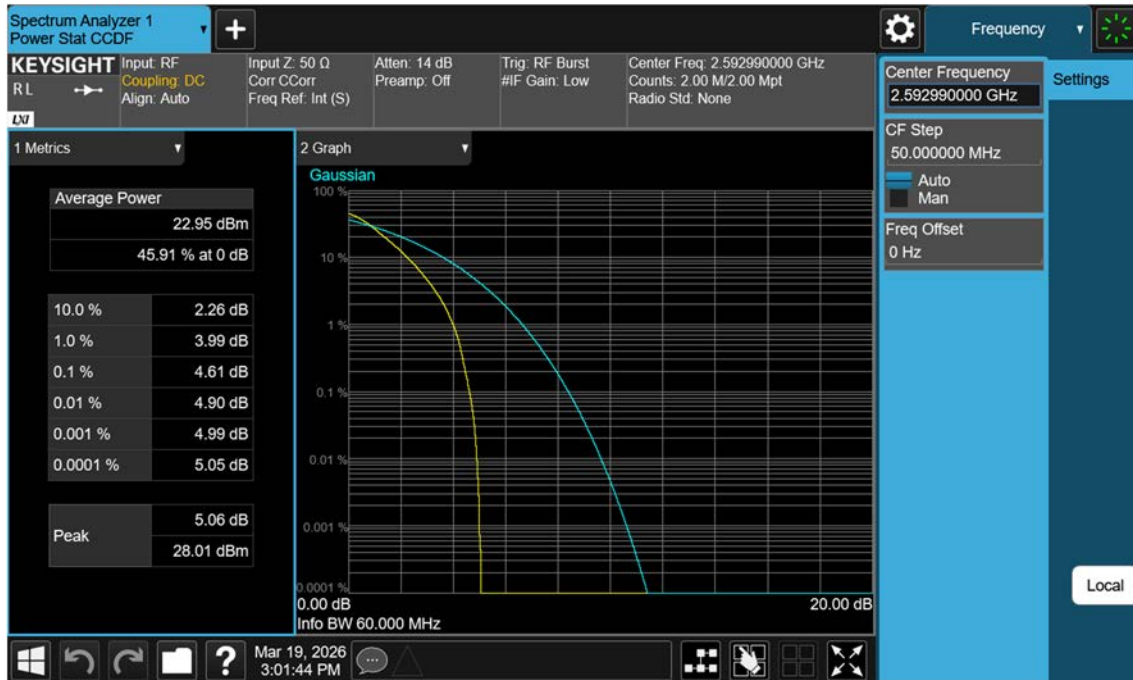
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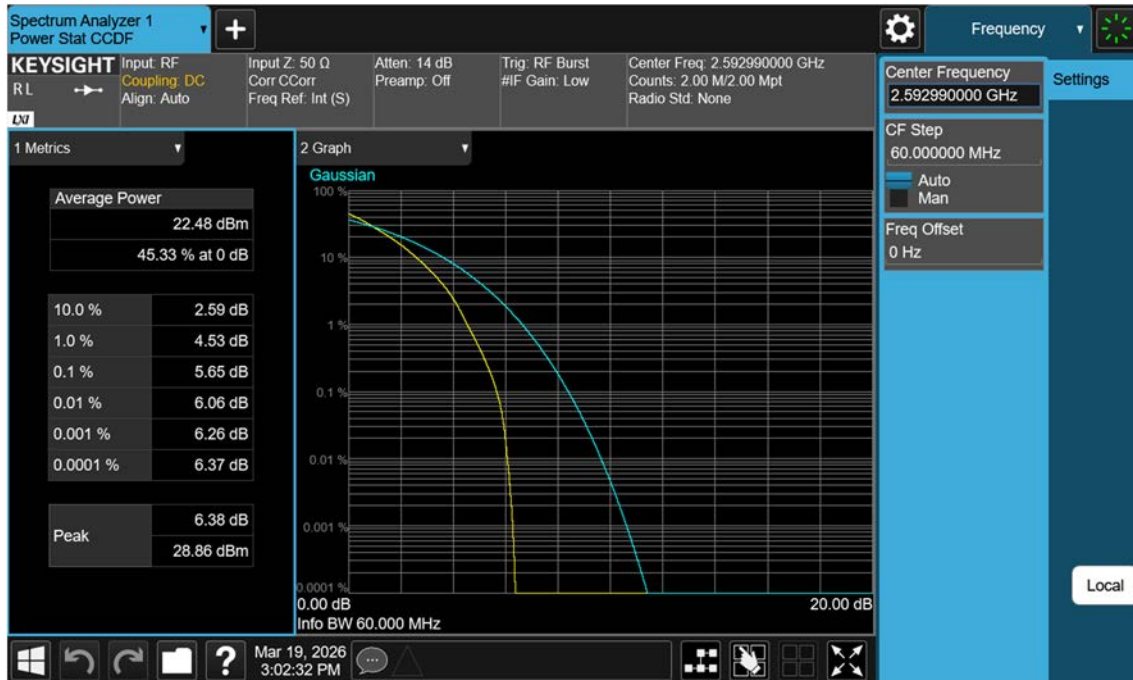
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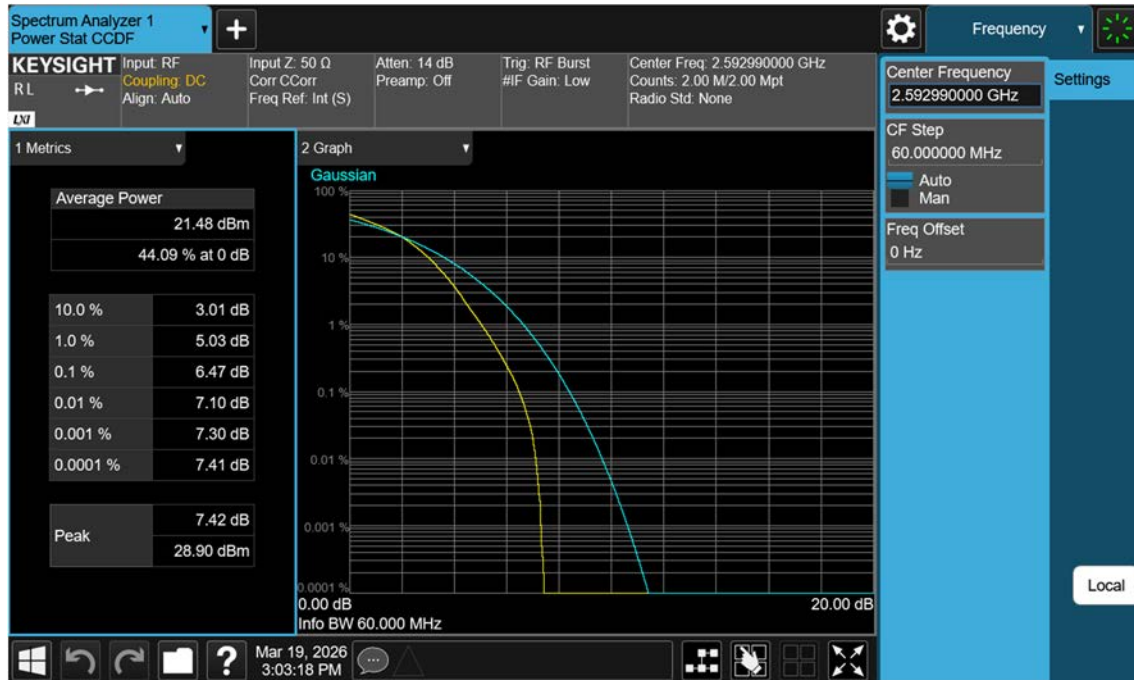
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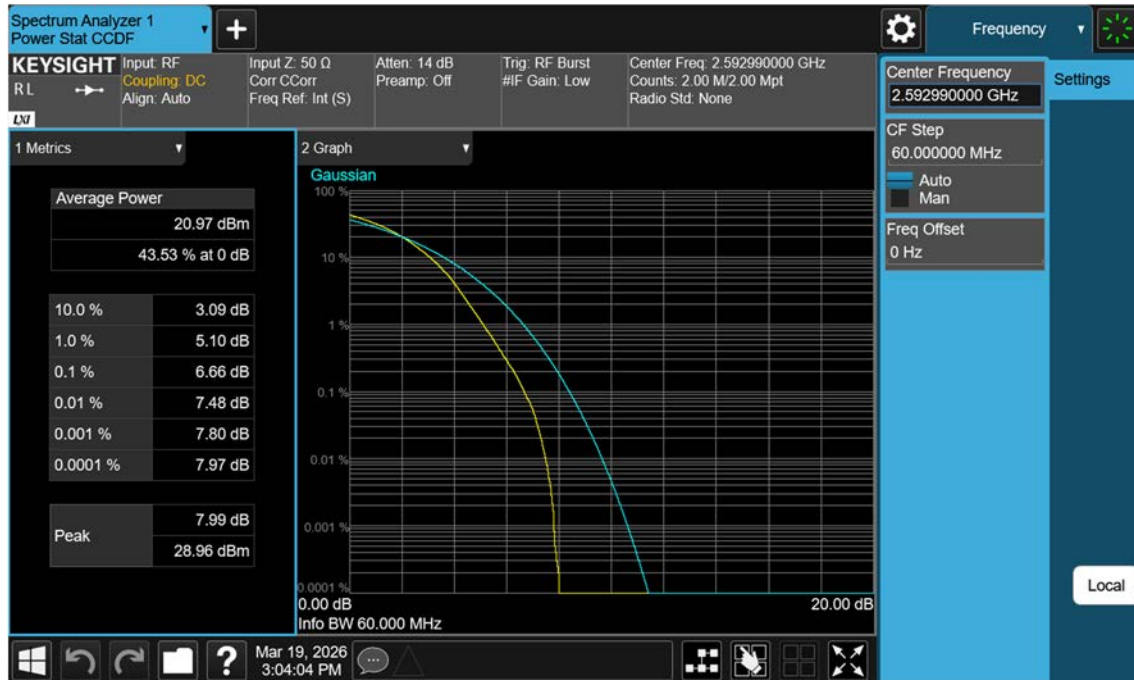
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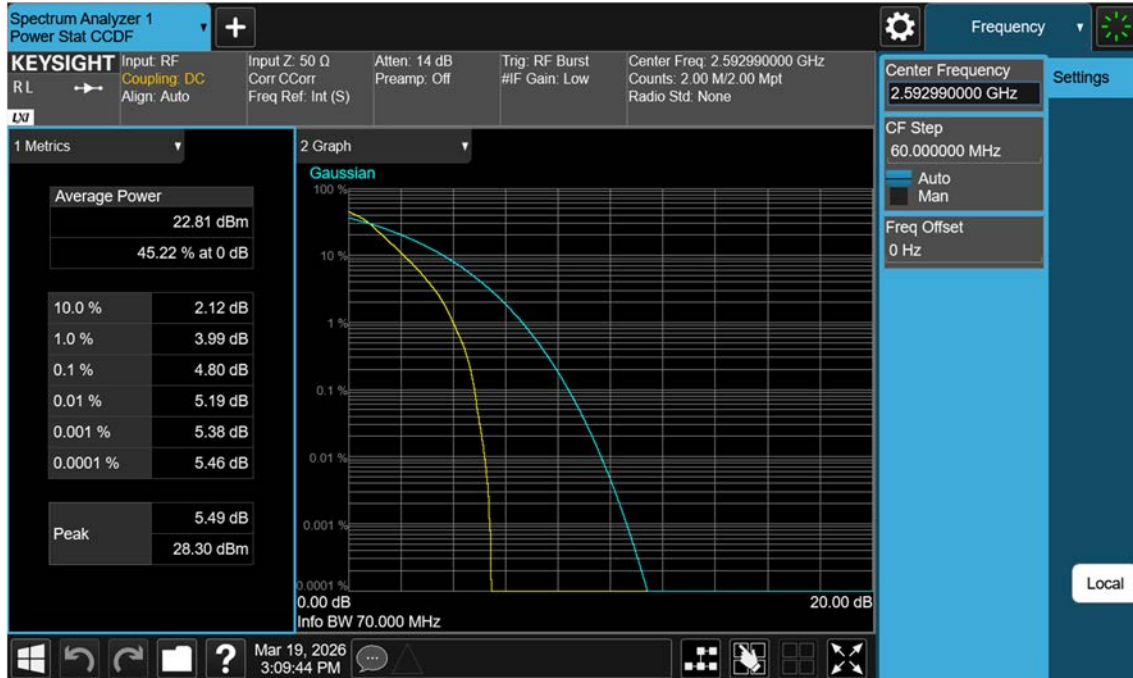
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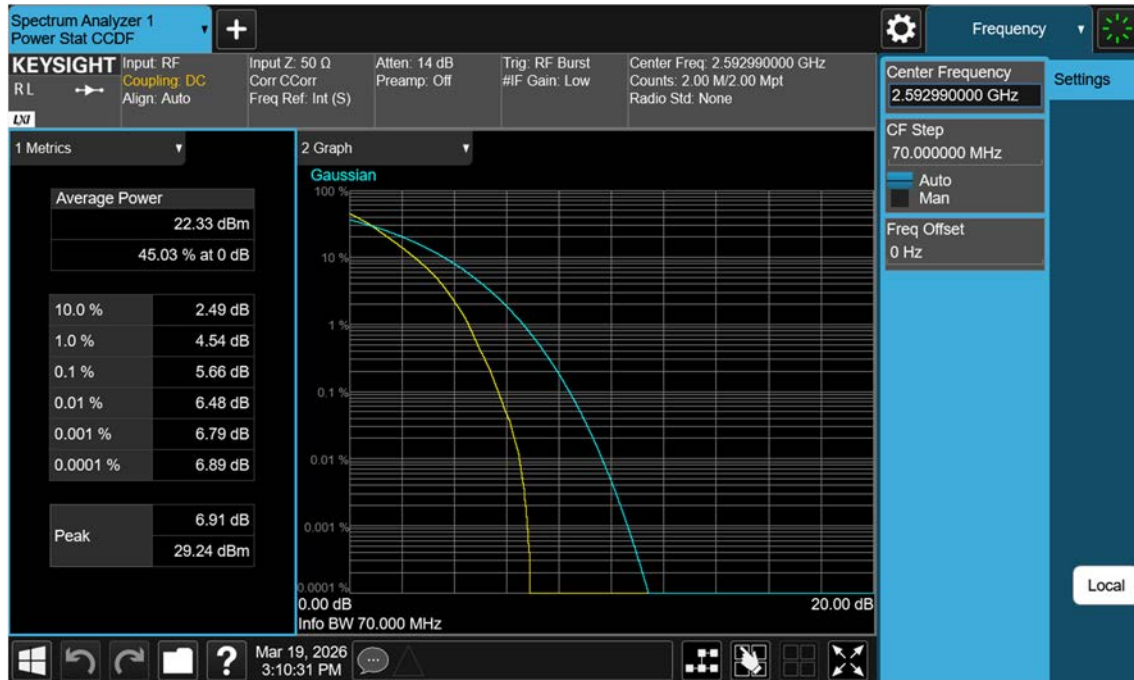
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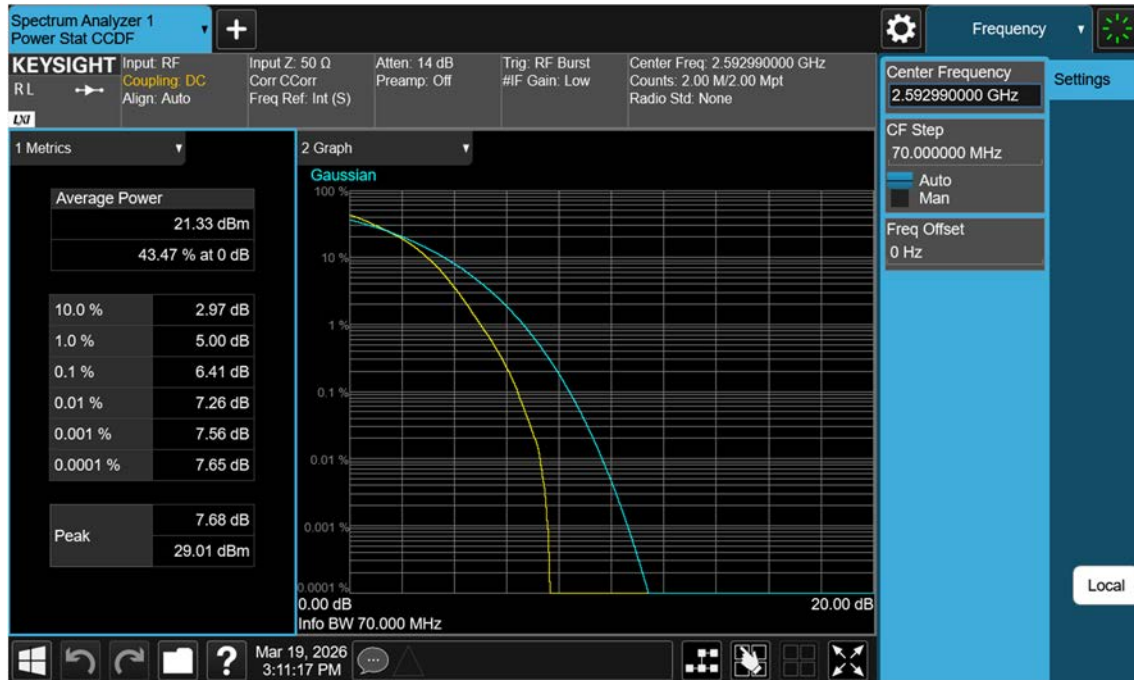
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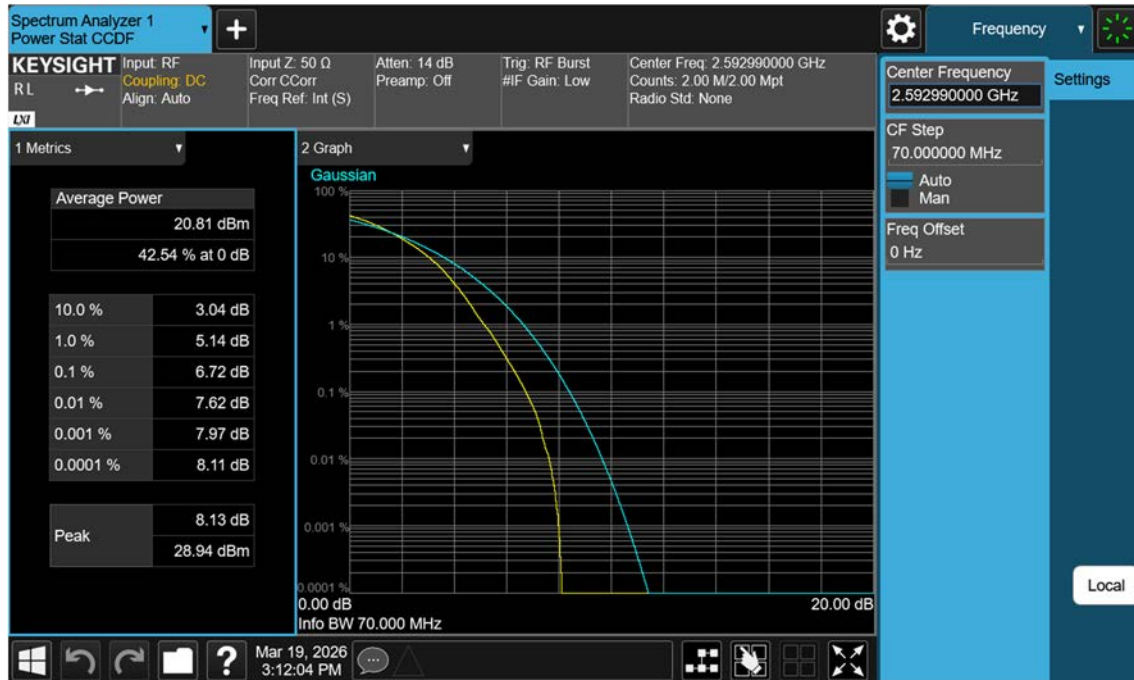
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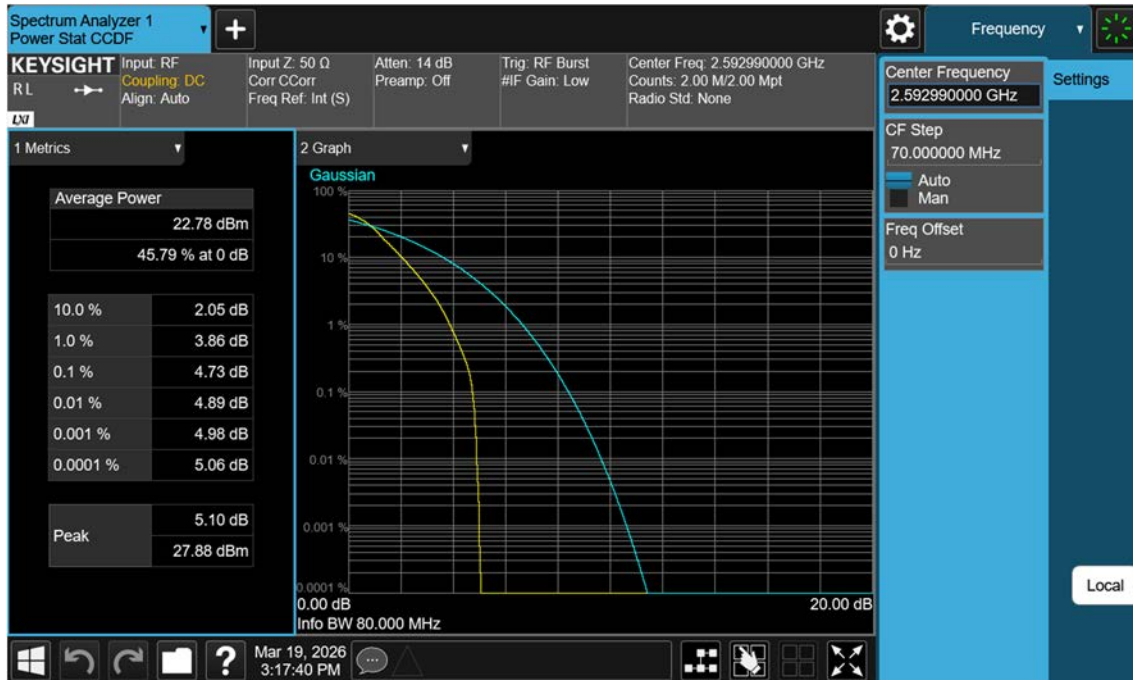
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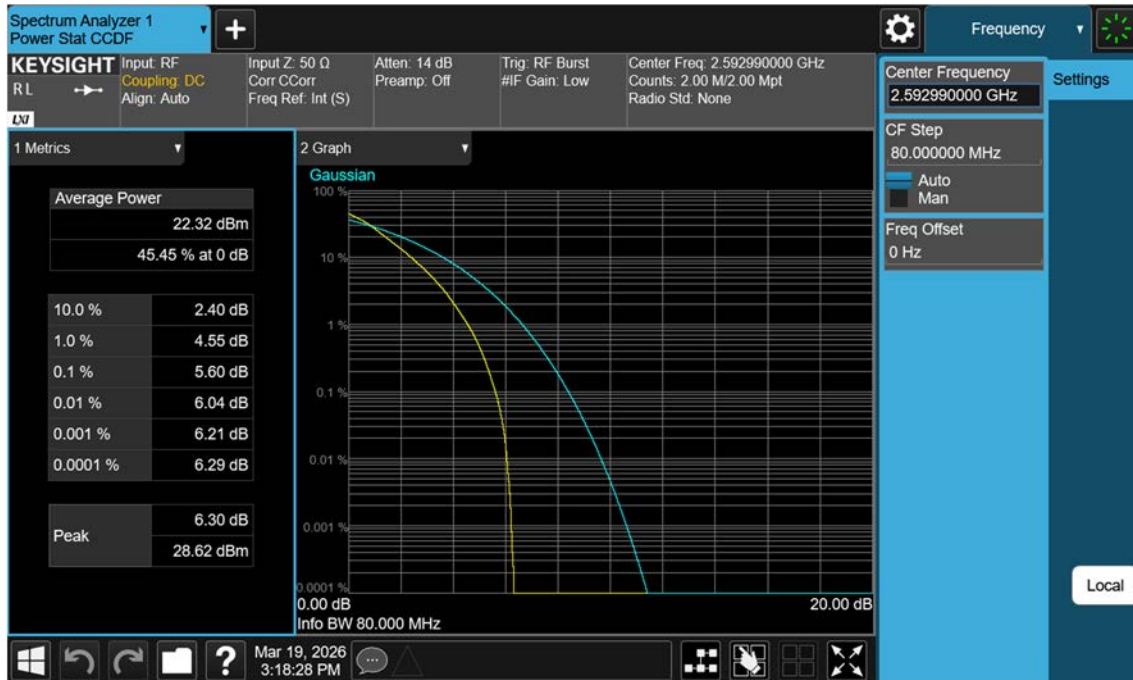
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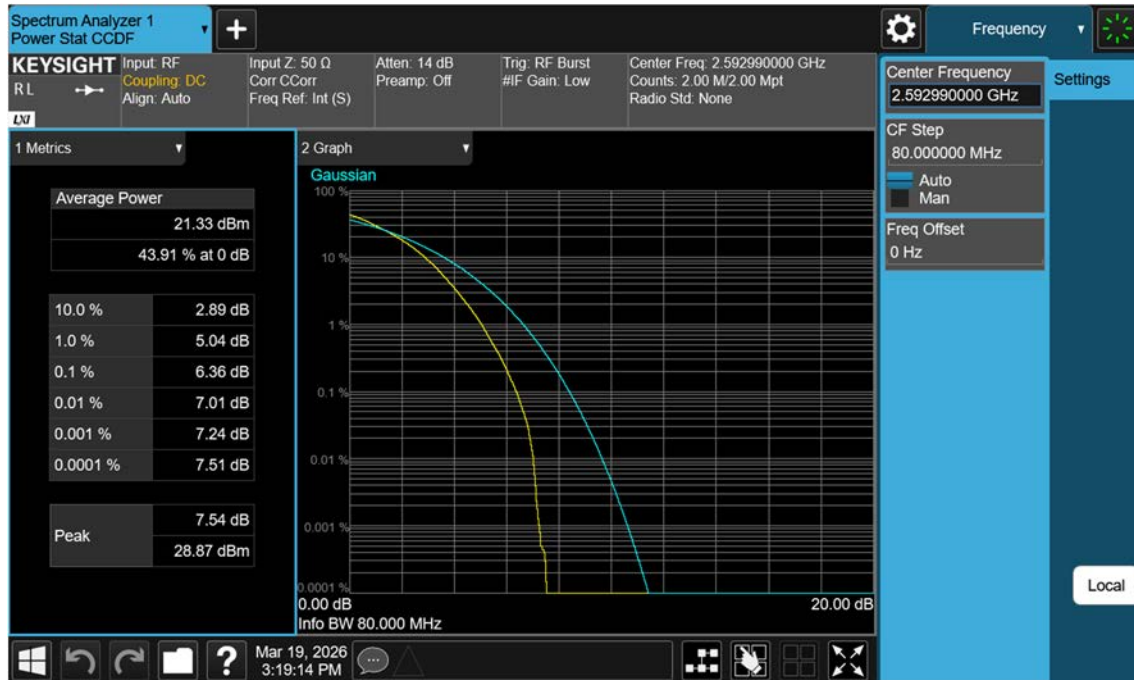
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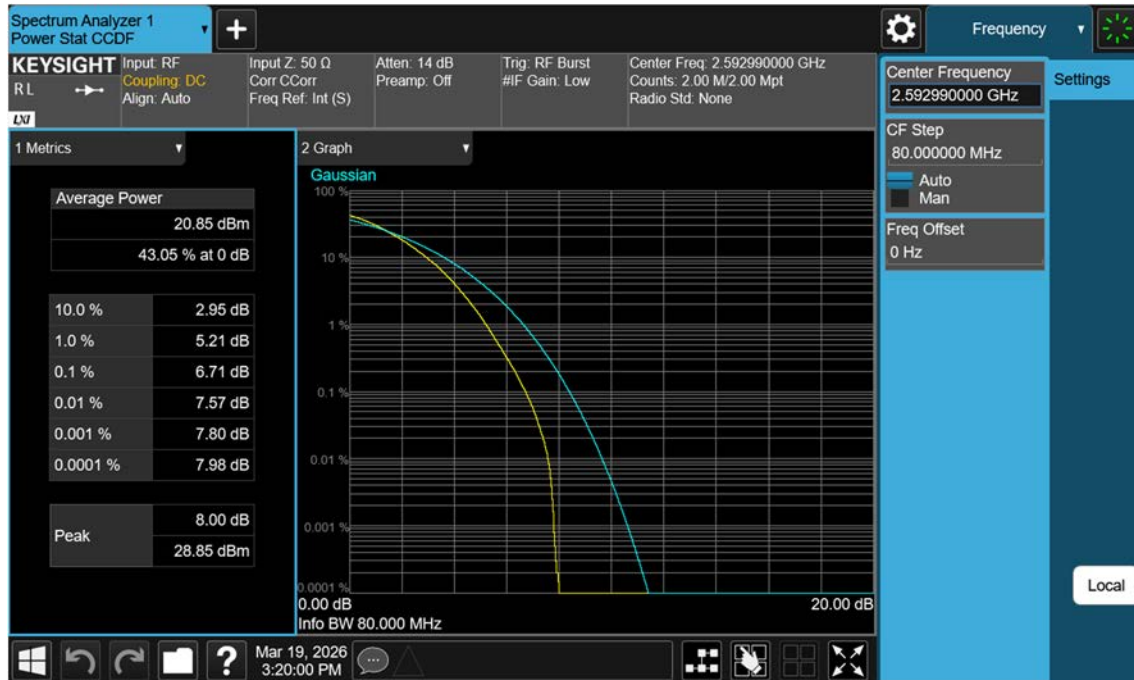
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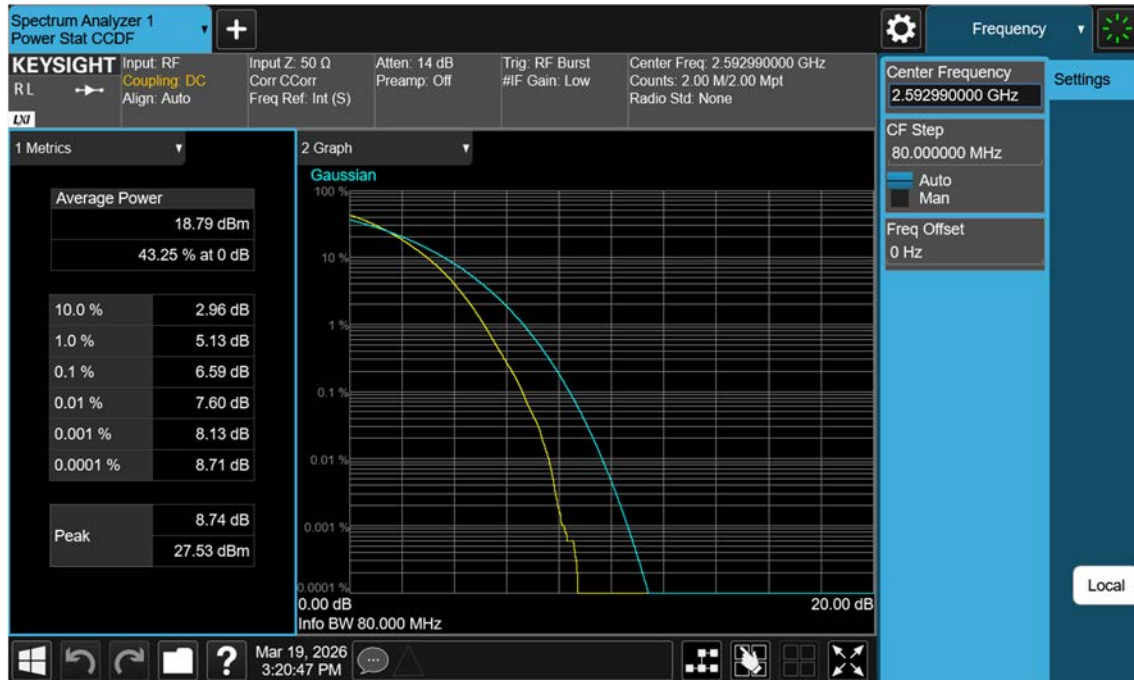
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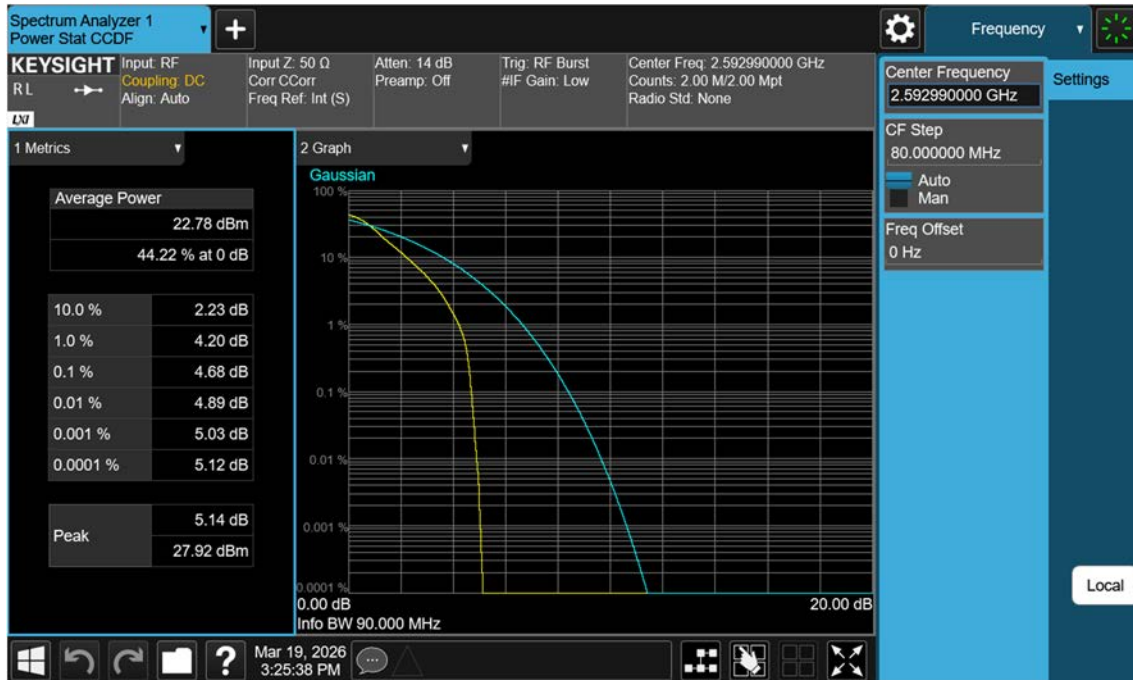
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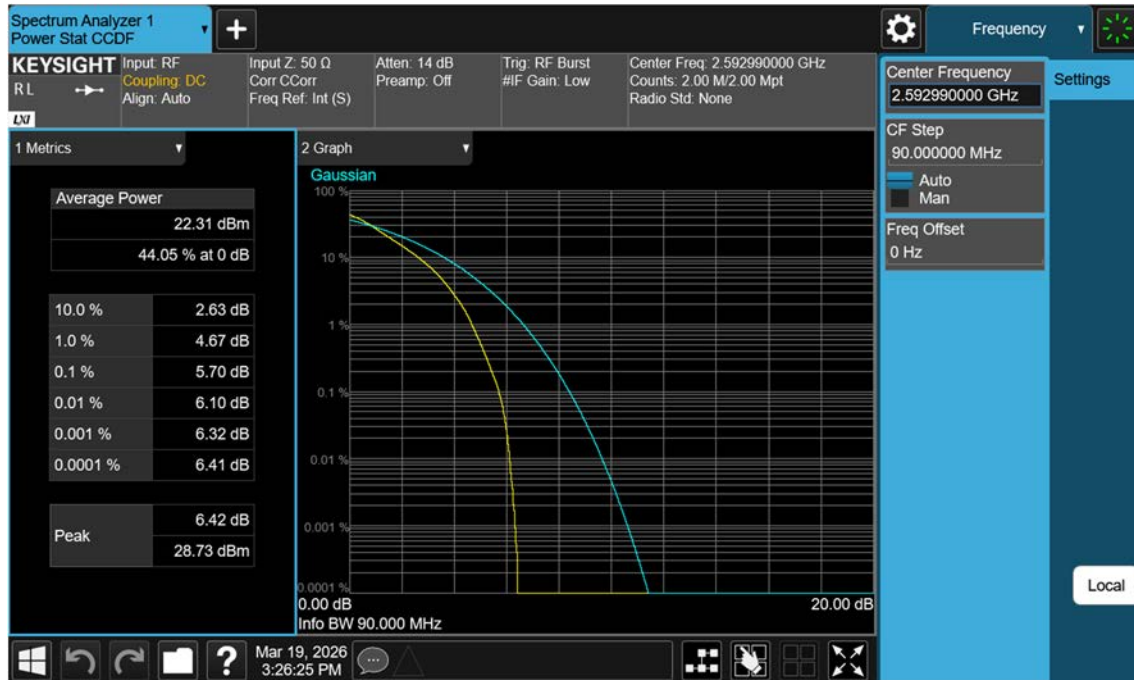
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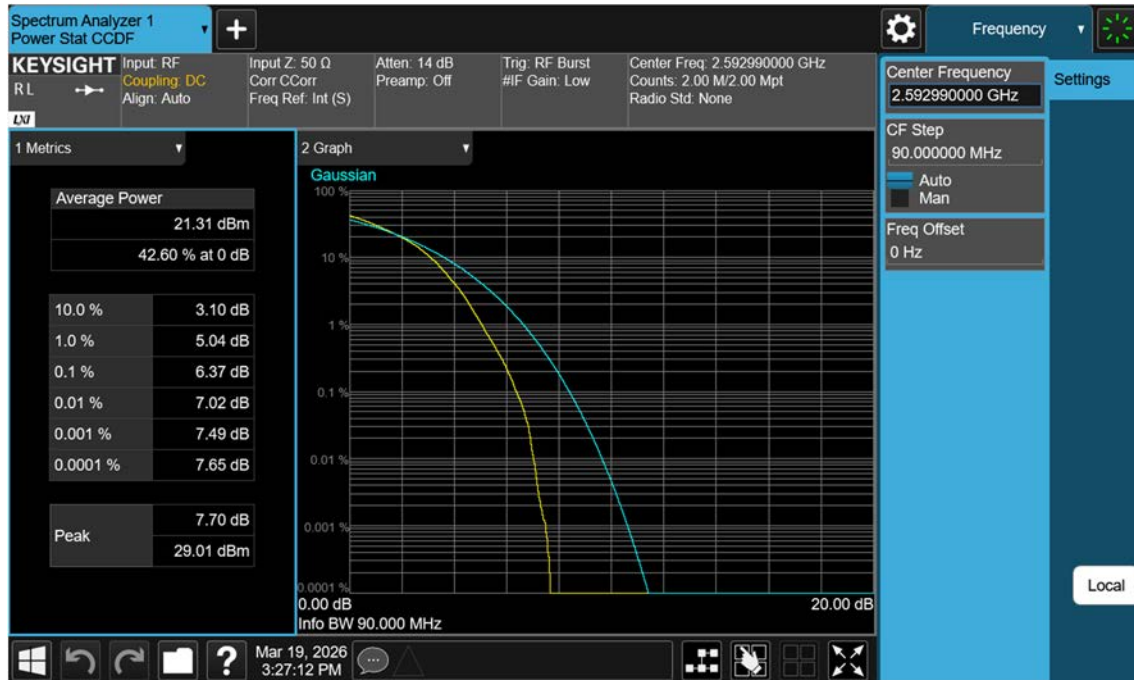
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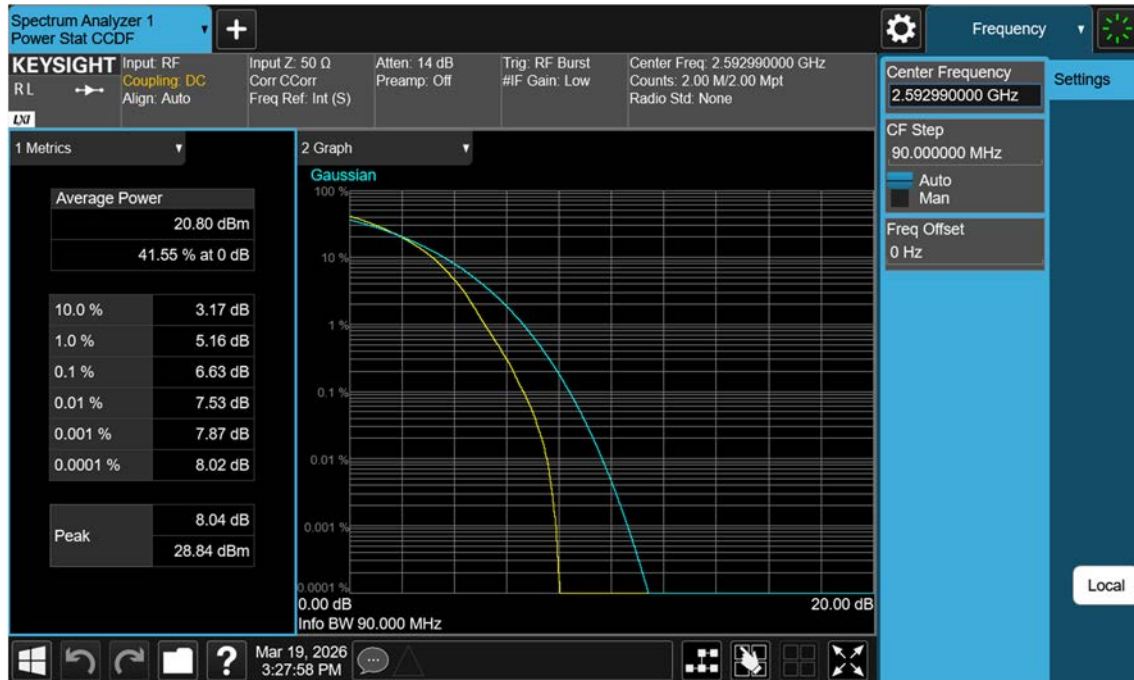
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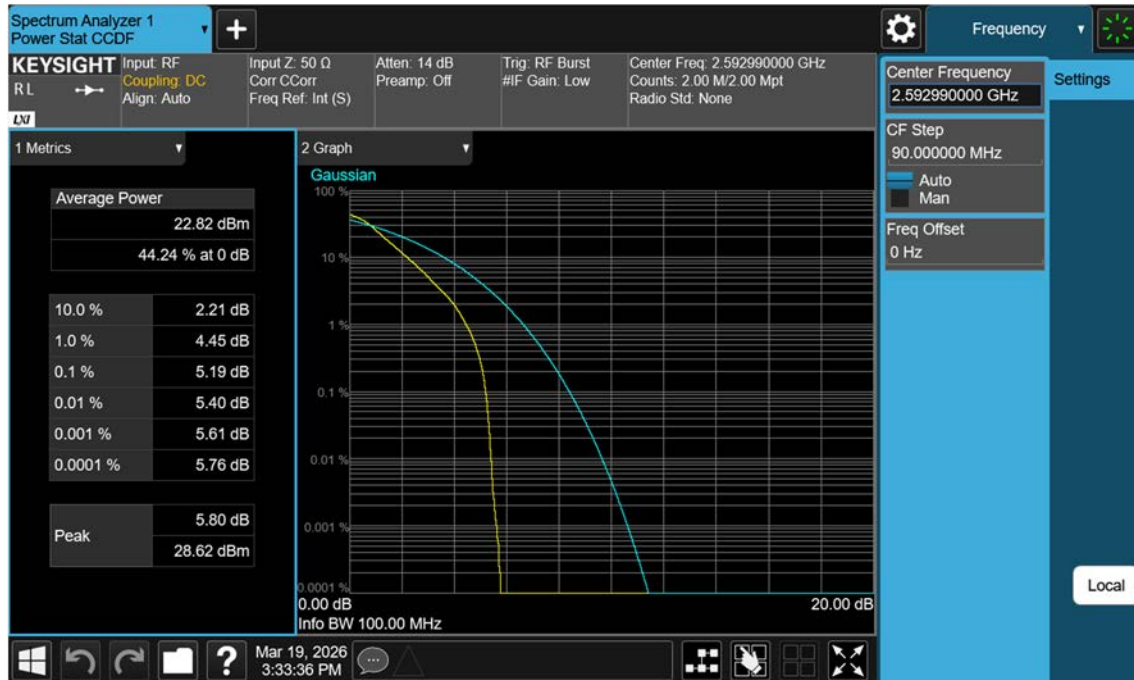
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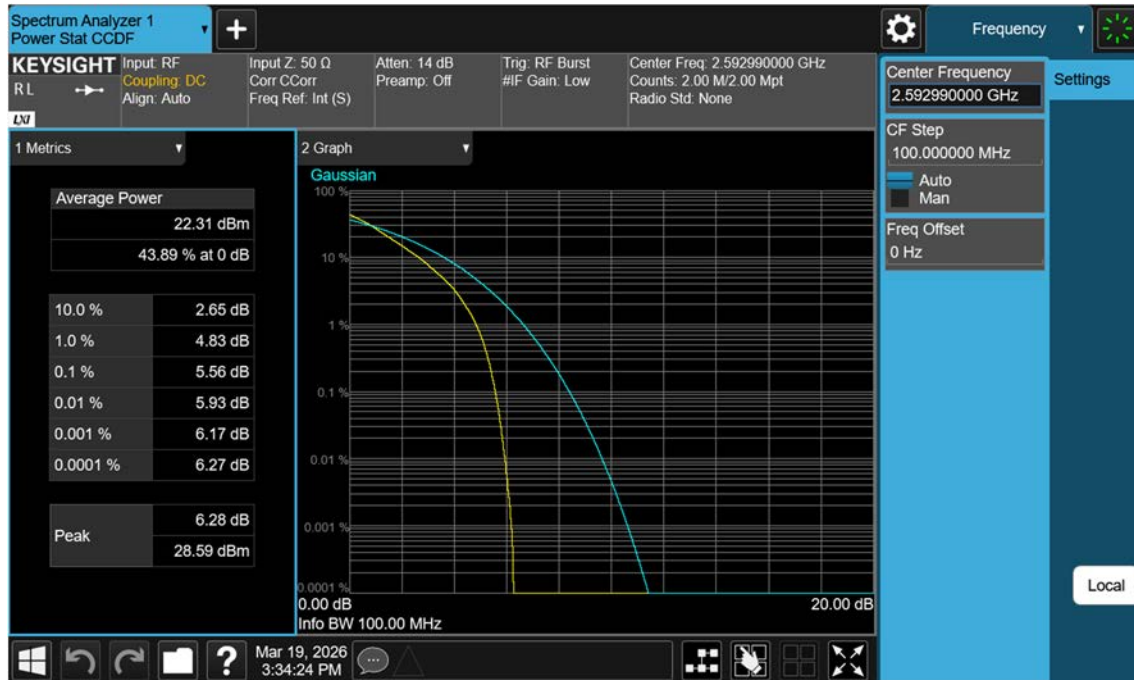
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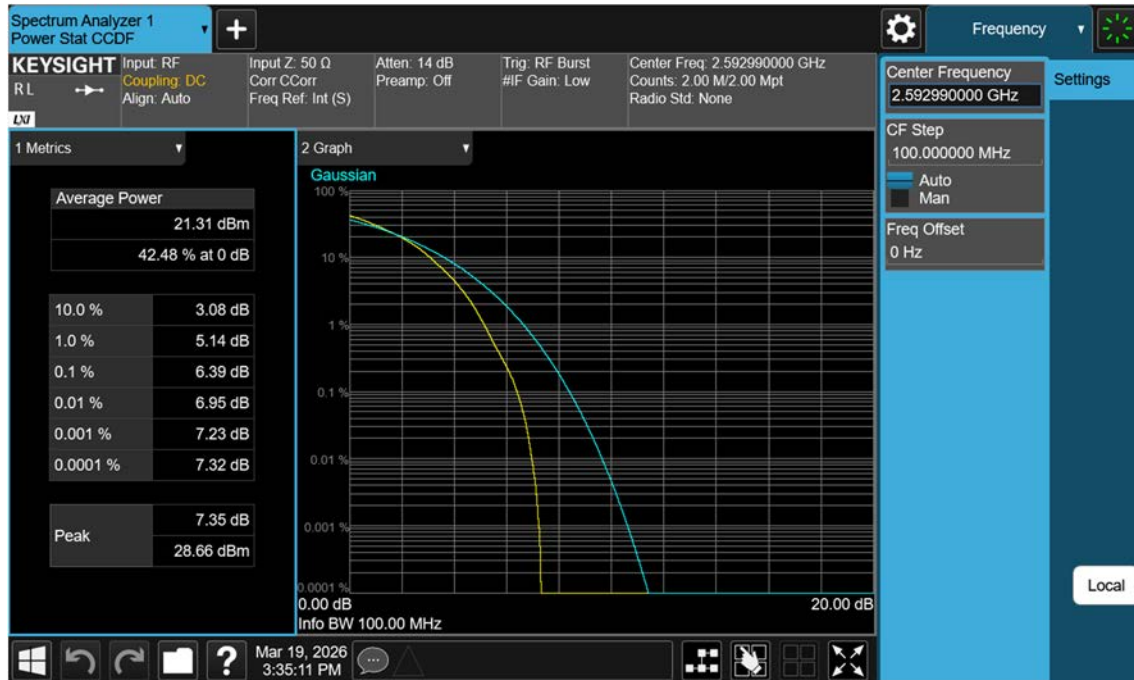
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NR n41_100 M_PAR_Mid_QPSK_FullRB



NR n41_100 M_PAR_Mid_16QAM_FullIRB



NR n41_100 M_PAR_Mid_64QAM_FullRB

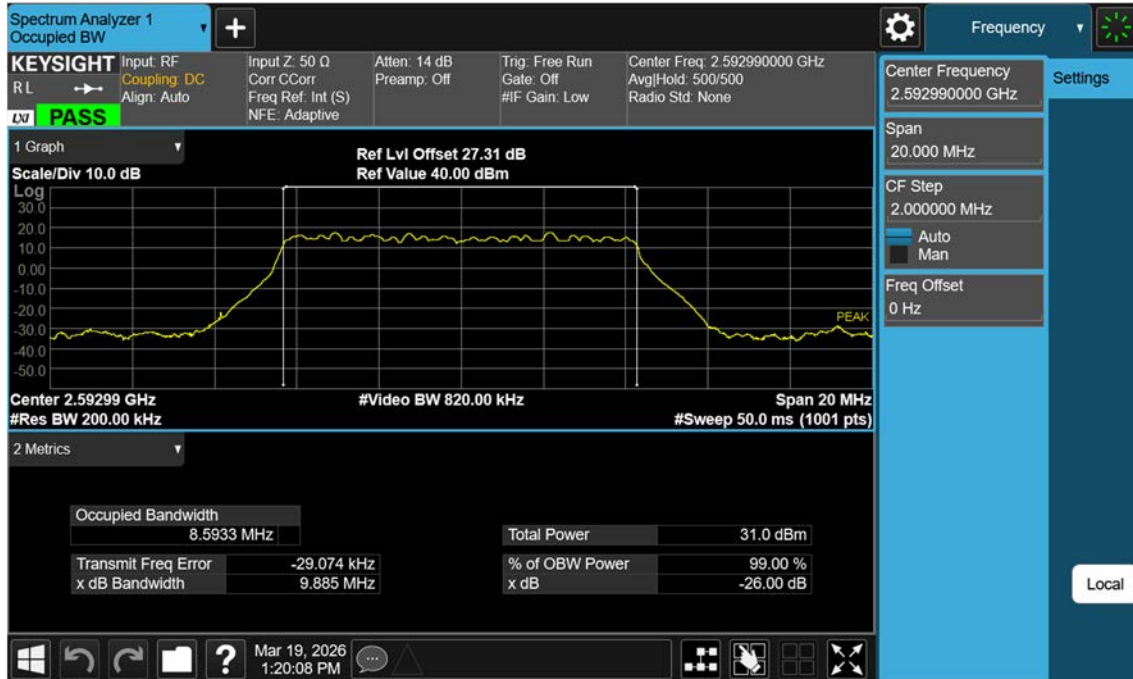


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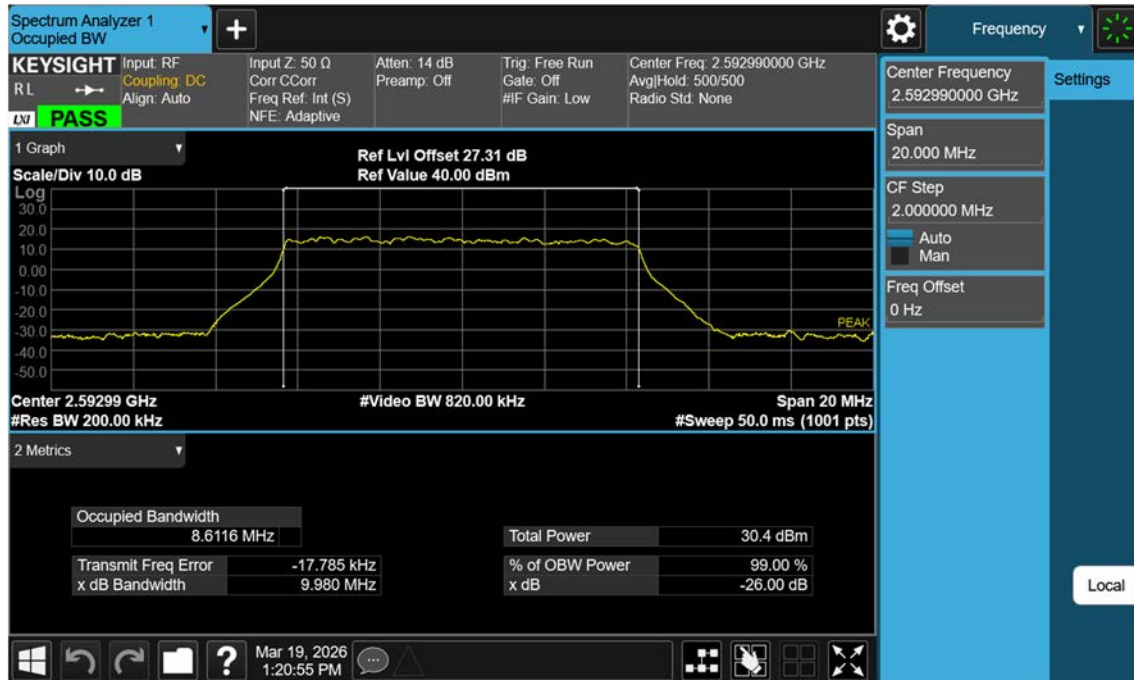


9.2 OCCUPIED BANDWIDTH

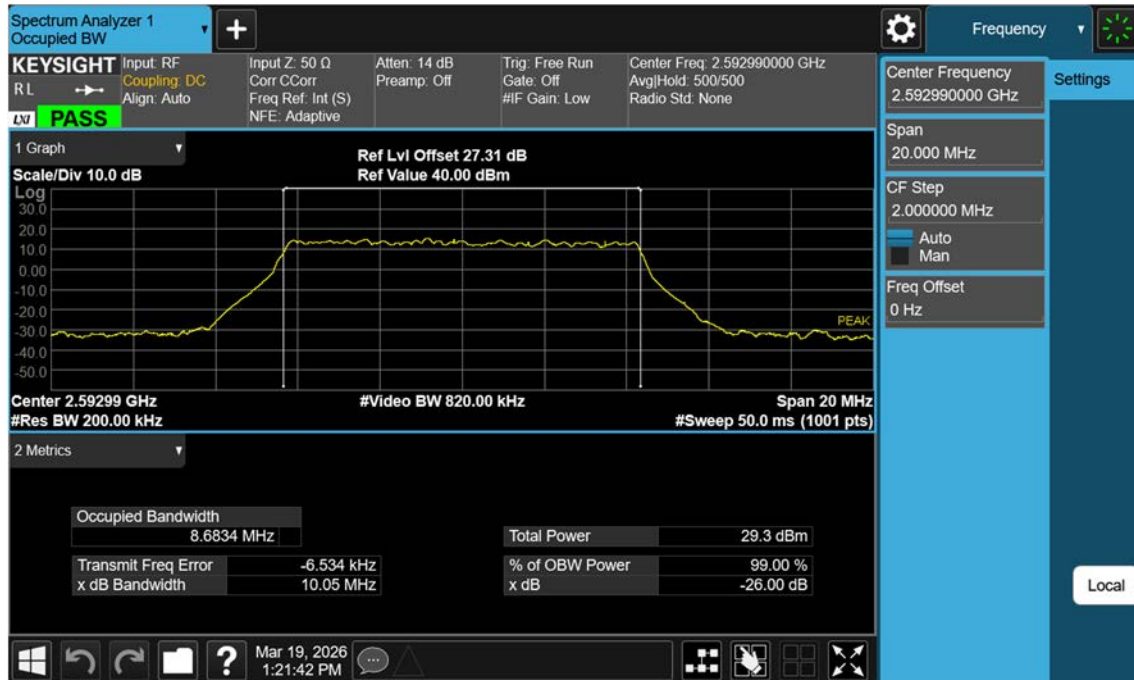
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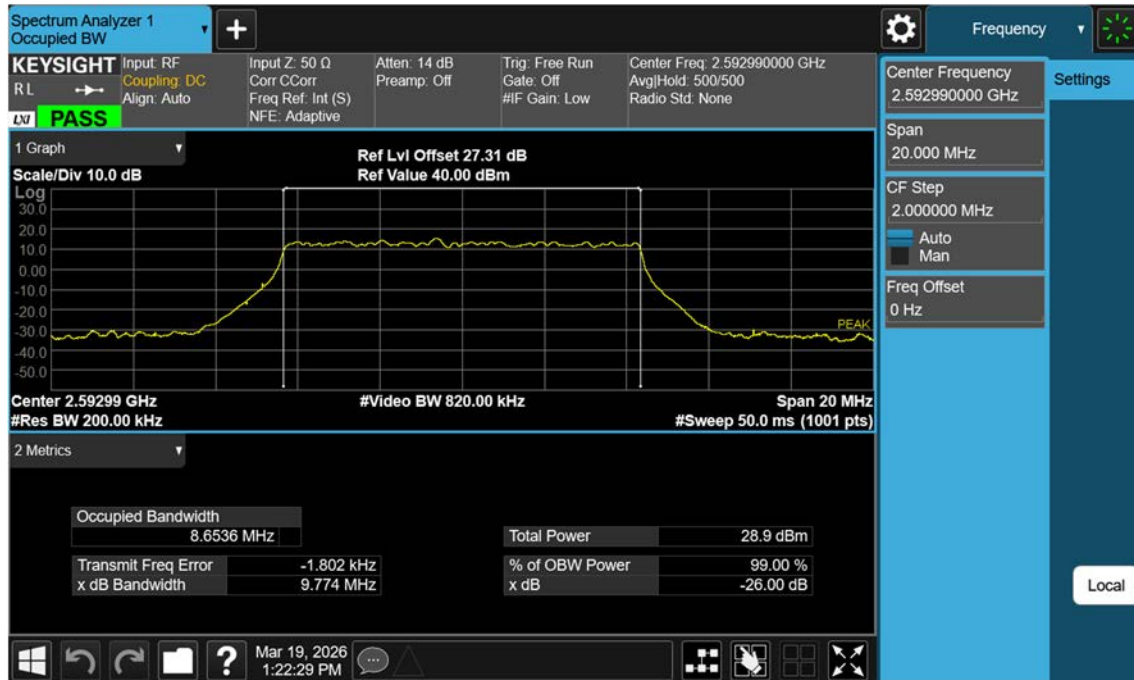
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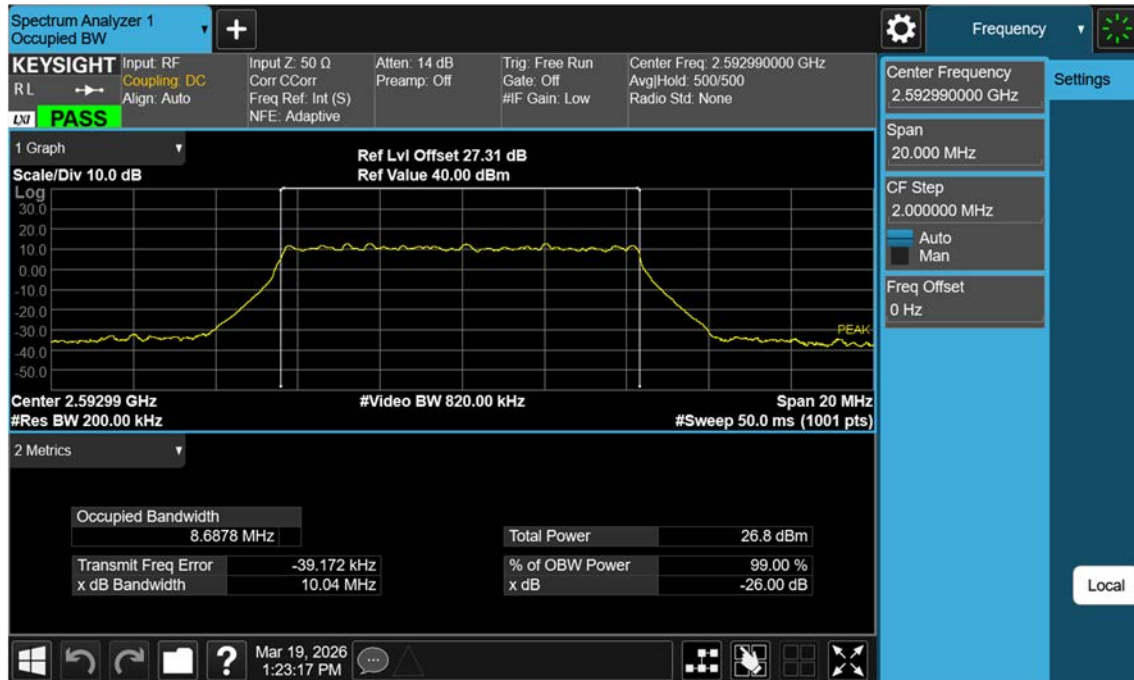
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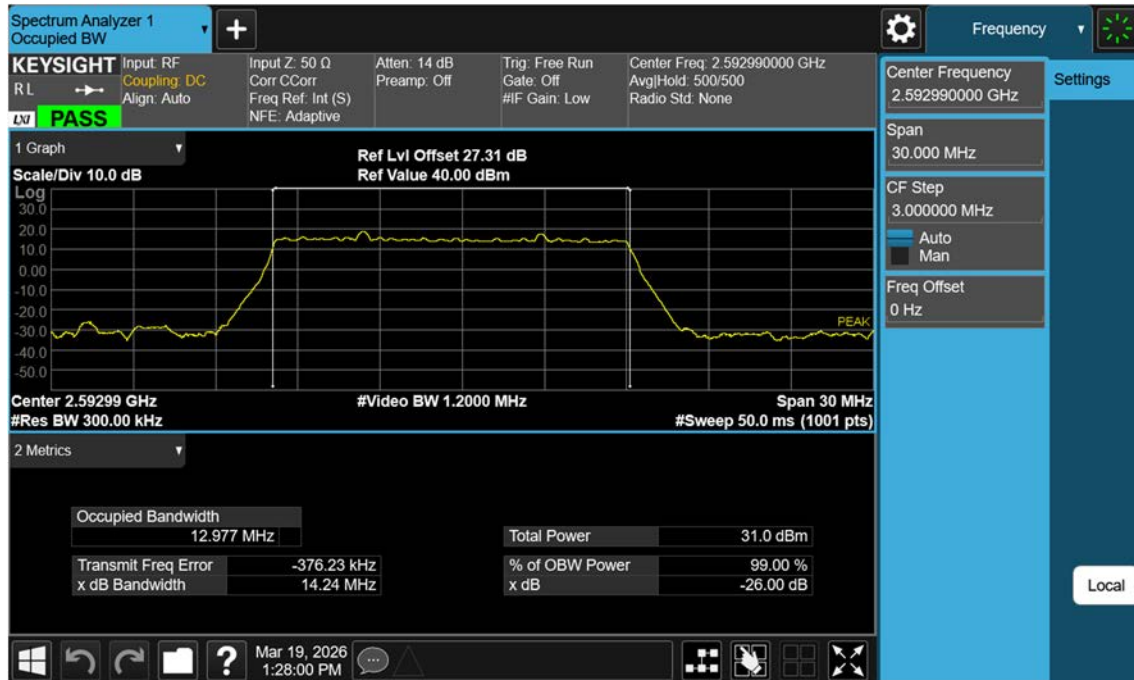
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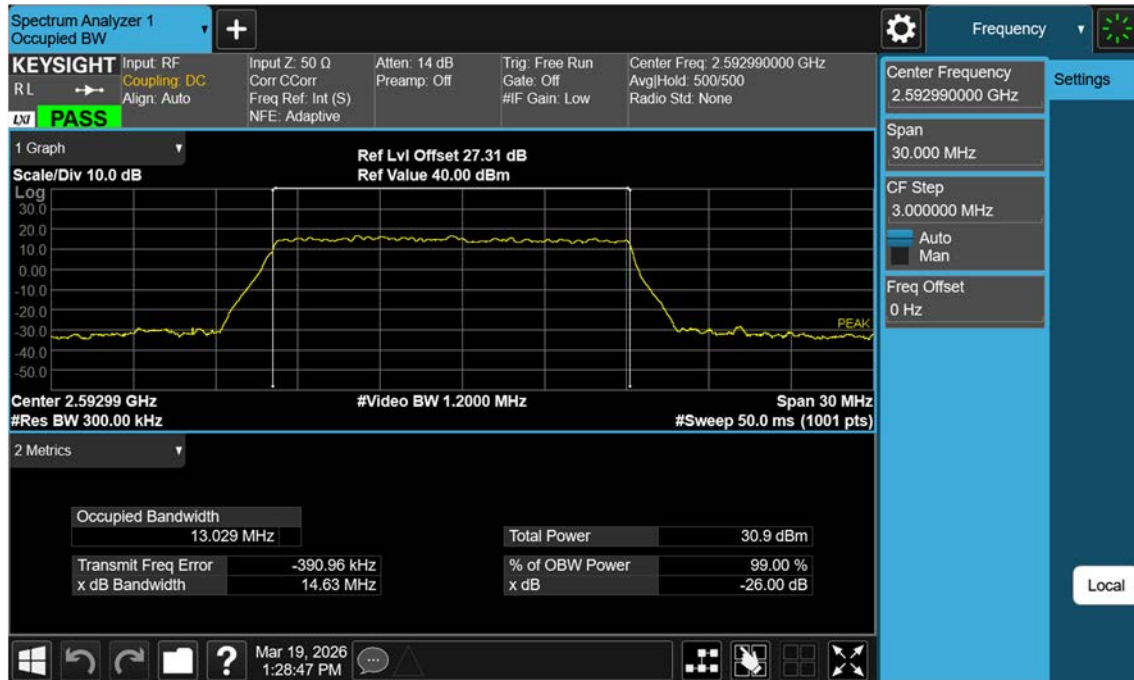
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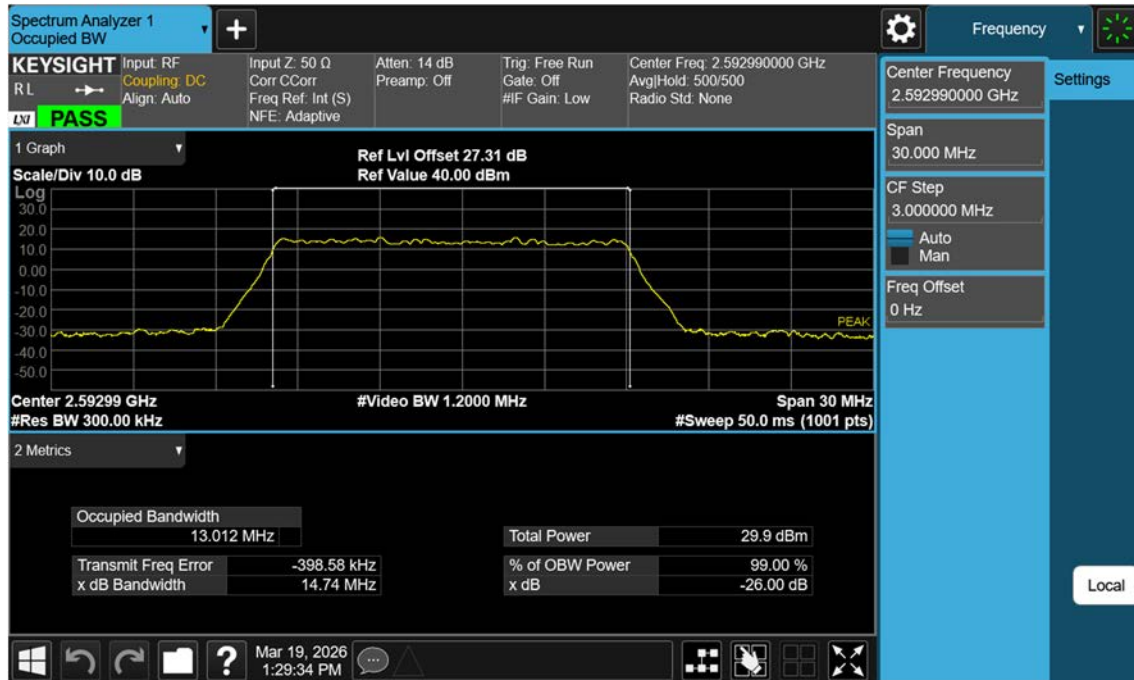
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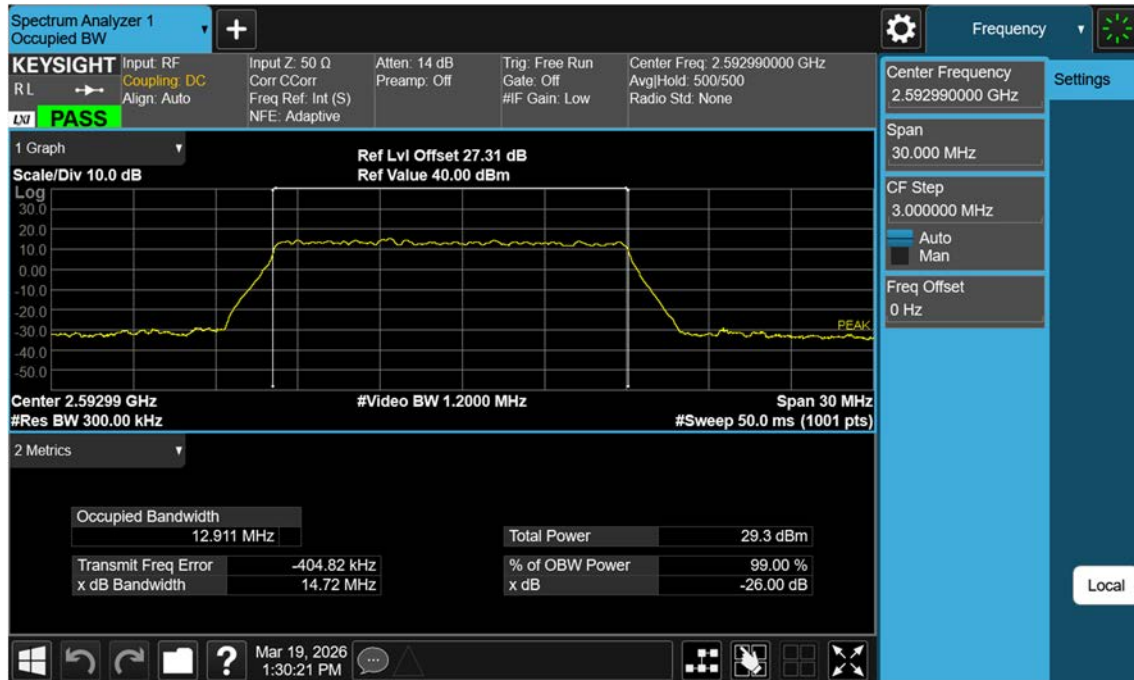
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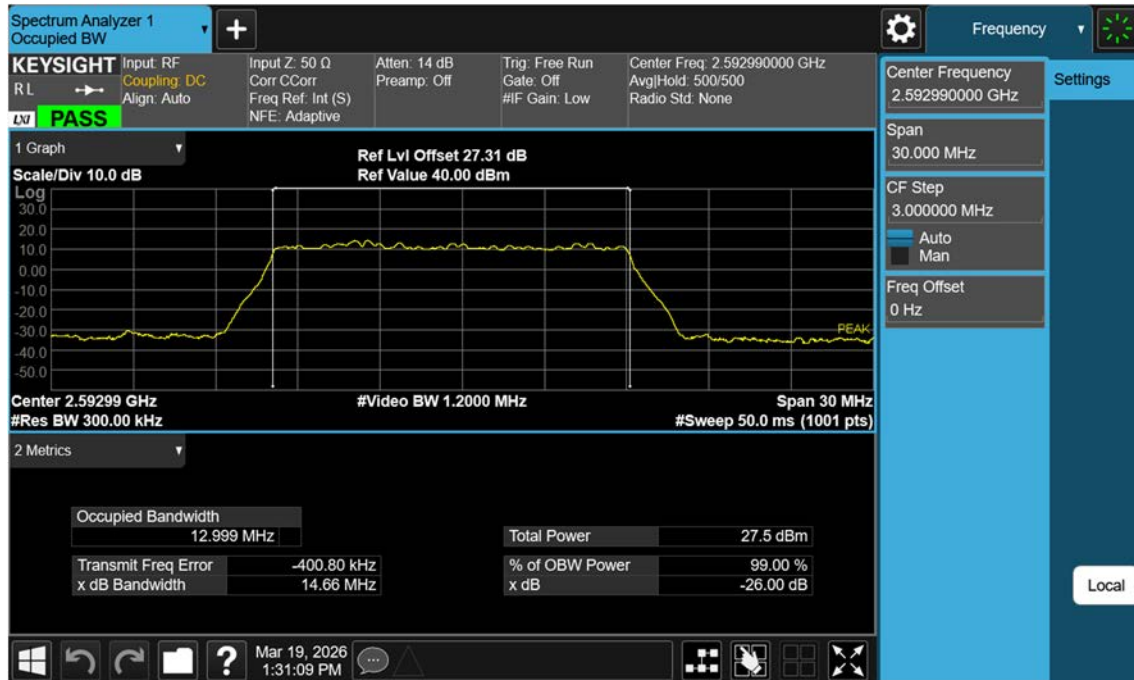
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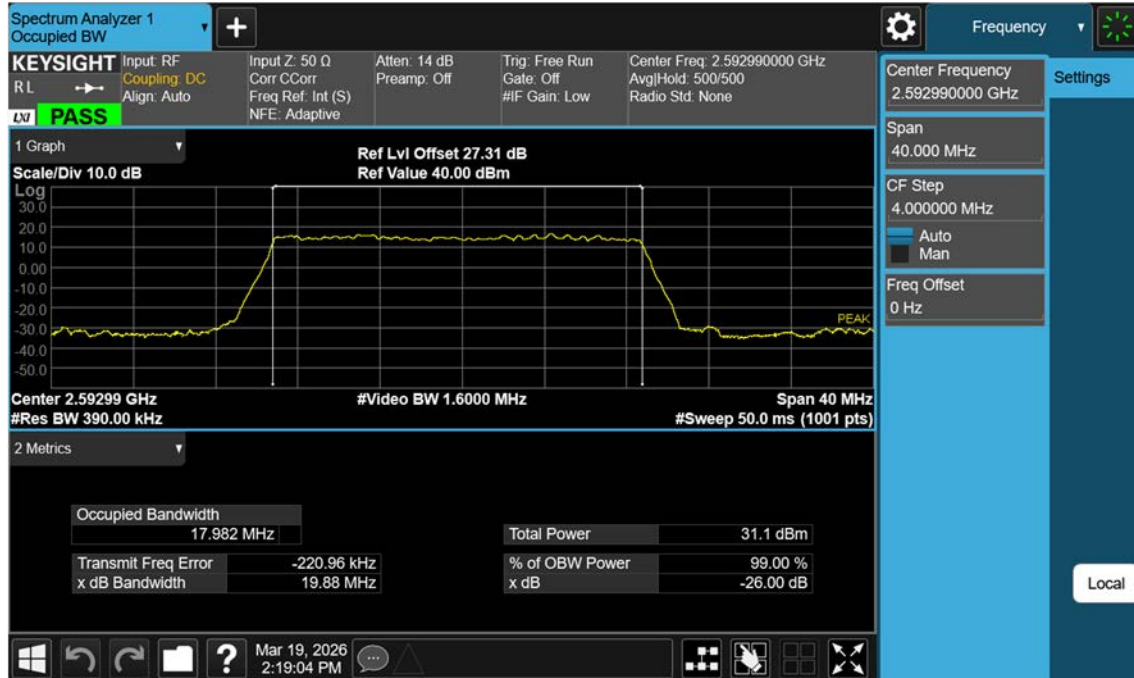
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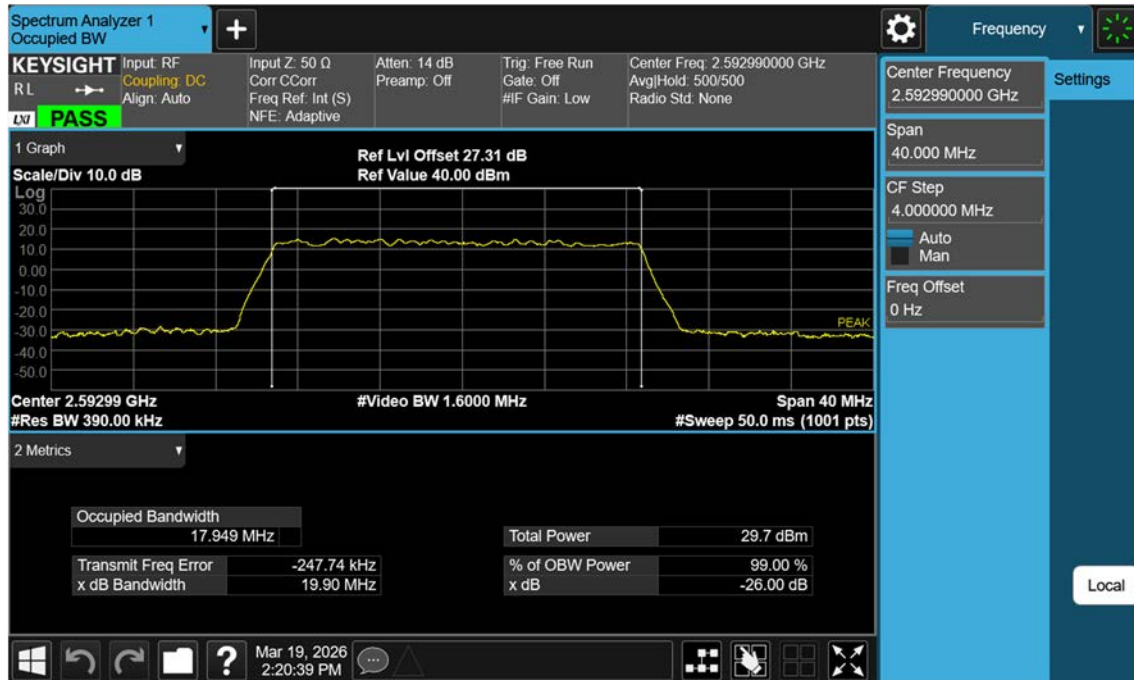
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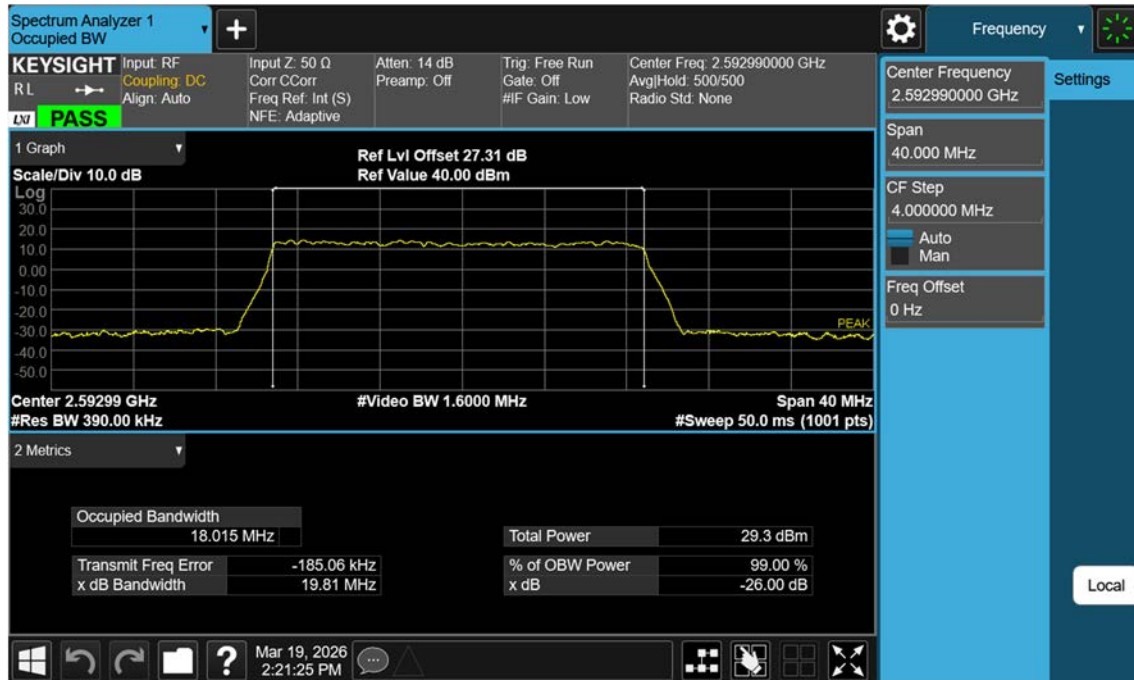
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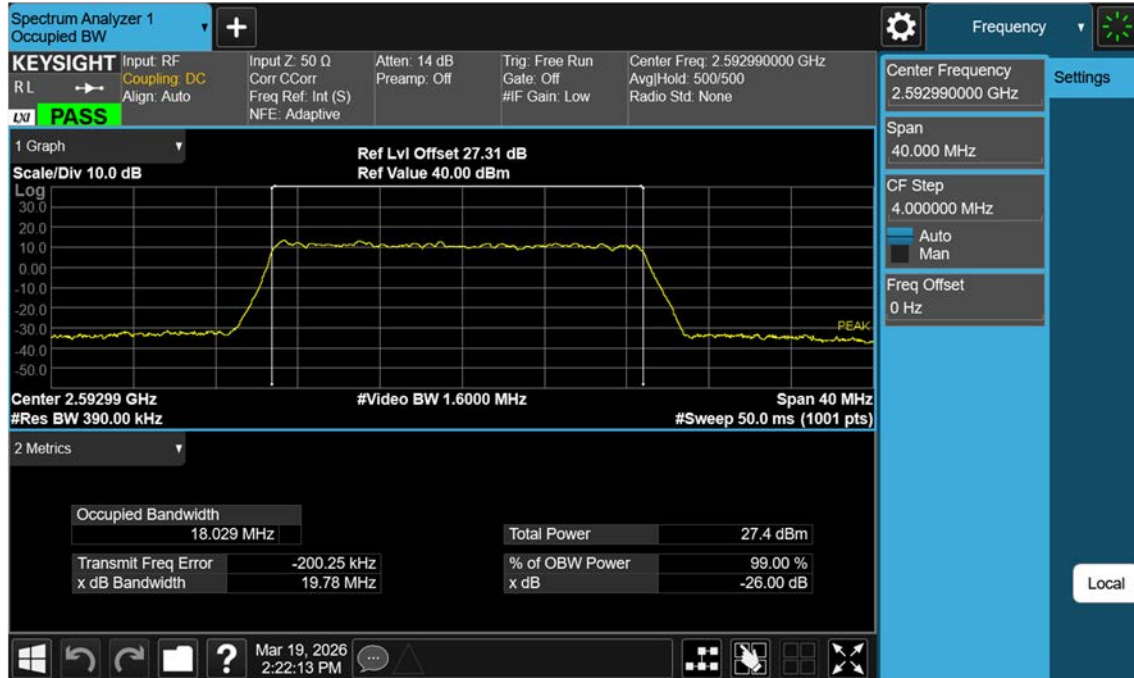
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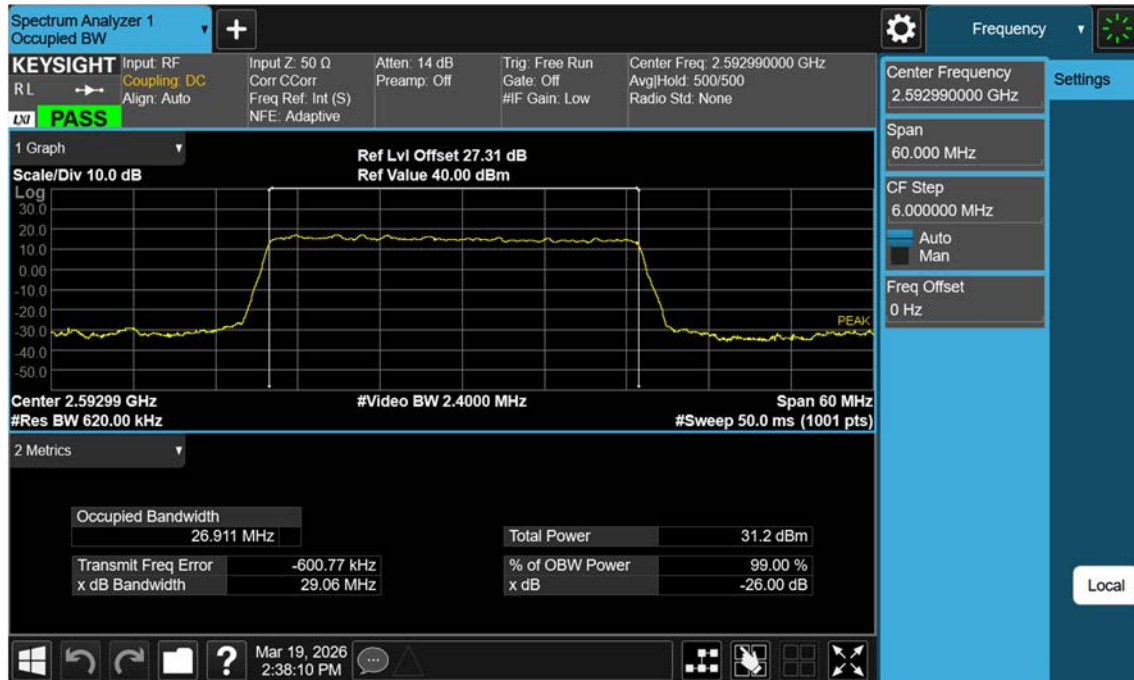
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