



ELEMENT WASHINGTON DC LLC

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Part 96 MEASUREMENT REPORT

Applicant Name:

Eridan Communications, Inc.
400 W California Ave.
Sunnyvale, CA
United States

Date of Testing:

8/4/2025 – 10/4/2025

Test Report Issue Date:

11/5/2025

Test Site/Location:

Element Lab., Columbia, MD, USA

Test Report Serial No.:

1M2508040072-01.2BR8Z

FCC ID:

2BR8Z-ER2035A

APPLICANT:

Eridan Communications, Inc.

Application Type:

Certification

Model:

ER2035

EUT Type:

Small Cell Radio Unit

FCC Classification:

Category A and B Citizens Broadband Radio Service
Devices (CBSD)

FCC Rule Part(s):

96

Test Procedure(s):

ANSI C63.26-2015, KDB 940660 D01 v03

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez
Executive Vice President



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Rev. No.	Report S/N	Description	Issue Date
-	1M2508040072-01.2BR8Z	Initial Release	11/5/2025

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Mode	Bandwidth	5G Wave Form	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
NR n48	40MHz	TM1.1	3570.0 - 3680.0	20.230	43.06	38M0G7D
		TM1.2	3570.0 - 3680.0	32.434	45.11	37M8W7D
		TM2a	3570.0 - 3680.0	0.435	26.38	39M5W7D
		TM3.1a	3570.0 - 3680.0	27.227	44.35	38M0W7D
	20MHz	TM1.1	3560.0 - 3690.0	19.634	42.93	18M4G7D
		TM1.2	3560.0 - 3690.0	13.583	41.33	18M2W7D
		TM2a	3560.0 - 3690.0	0.577	27.61	18M9W7D
		TM3.1a	3560.0 - 3690.0	20.797	43.18	18M3W7D

Category B Operation

Note: EIRP levels shown in the table above are measured over the full channel bandwidth. These values will appear on the Grant of Authorization.

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1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

1.2 Element Test Location

Measurements were conducted at the Element laboratory(ies) indicated in Section 1.3 below. All measurement facilities are compliant with the test site requirements specified in ANSI C63.4-2014 and KDB 414788 D01 v01r01.

1.3 Test Facility / Accreditations

Measurements were performed at Element lab located in Columbia, MD 21046, U.S.A.

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Washington DC LLC facility is a registered (2451B) test laboratory with the site description on file with ISED.
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreements (MRAs).

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Eridan Small Cell Radio Unit FCC ID: 2BR8Z-ER2035A**. The test data contained in this report pertains only to the emissions due to the EUT's 5G NR n48 operation in the CBRS band. Per FCC Part 96, this device is evaluated as a Category B Citizens Broadband Radio Service Device (CBSD).

Test Device Serial No.: ER003A-2529051071

2.2 Device Capabilities

This device contains the following capabilities:

5G NR Band n48 (20MHz, 40MHz BW)

2.3 Test Configuration

The EUT was tested per the guidance of ANSI C63.26-2015. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

2.4 Antenna Description

The EUT employs two cross polarized antennas with a maximum gain of 19.00 (CatB) in the CBRS band.

2.5 Software and Firmware

Testing was performed on device(s) using hardware version PCS01 and software version 25A installed on the EUT.

2.6 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

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3.0 DESCRIPTION OF TESTS

3.1 Measurement Procedure

The measurement procedures described in the “American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services” (ANSI C63.26-2015) were used in the measurement of the EUT.

Deviation from Measurement Procedure.....None

3.2 Radiated Power and Radiated Spurious Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable 3 meters from the receive antenna. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

For radiated power measurements, substitution method is used per the guidance of ANSI C63.26-2015. For emissions below 1GHz, a half-wave dipole is substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT. The power of the emission is calculated using the following formula:

$$P_d \text{ [dBm]} = P_g \text{ [dBm]} - \text{cable loss [dB]} + \text{antenna gain [dBd/dBi]};$$

where P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to $P_g \text{ [dBm]} - \text{cable loss [dB]}$.

For radiated spurious emissions measurements, the field strength conversion method is used per the formulas in Section 5.2.7 of ANSI C63.26-2015. Field Strength (EIRP) is calculated using the following formulas:

$$E_{\text{[dB}\mu\text{V/m]}} = \text{Measured amplitude level}_{\text{[dBm]}} + 107 + \text{Cable Loss}_{\text{[dB]}} + \text{Antenna Factor}_{\text{[dB/m]}}$$

And

$$\text{EIRP}_{\text{[dBm]}} = E_{\text{[dB}\mu\text{V/m]}} + 20\log D - 104.8; \text{ where } D \text{ is the measurement distance in meters.}$$

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4-2014. Additionally, radiated emissions below 30MHz are also validated on an Open Area Test Site to assert correlation with the chamber measurements per the requirements of KDB 414788 D01 v01r01.

Radiated power and radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI C63.26-2015.

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4.0 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 uncertainty shown below 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.

Contribution	Expanded Uncertainty ($\pm$ dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

Table 4-1. Measurement Uncertainty Budget

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5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
-	ETS-001	EMC Cable and Switch System	12/11/2024	Annual	12/11/2025	ETS-001
-	WL40-1	Licensed Transmitter Cable Set	2/25/2025	Annual	2/25/2026	WL40-1
Agilent	N9030A	50GHz PXA Signal Analyzer	8/22/2025	Annual	8/22/2026	US51350301
Emco	3115	Horn Antenna (1-18GHz)	6/7/2024	Biennial	6/7/2026	9704-5182
Emco	3116	Horn Antenna (18-40GHz)	7/5/2023	Triennial	7/5/2026	9203-2178
Keysight Technologies	N9020A	MXA Signal Analyzer	6/4/2025	Annual	6/4/2026	MY54500644
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	8/26/2024	Annual	8/26/2025	MY54490576
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	10/16/2024	Annual	10/16/2025	100342
Rohde & Schwarz	FSW67	Signal / Spectrum Analyzer	5/12/2025	Annual	5/12/2026	103200
Sunol	JB5	Bi-Log Antenna (30MHz - 5GHz)	9/11/2024	Biennial	9/11/2026	A051107
Sunol	DRH-118	Horn Antenna (1-18GHz)	2/13/2024	Biennial	2/13/2026	A042511

Table 5-1. Test Equipment Calibration Table

Notes:

1. For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.
2. Equipment with a calibration date of "N/A" shown in this list was not used to make direct calibrated measurements.

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6.0 SAMPLE EMISSION DESIGNATORS

Emission Designator

QPSK Modulation

Emission Designator = 8M62G7D

5G NR BW = 8.62 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

QAM Modulation

Emission Designator = 8M45W7D

5G NR BW = 8.45 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

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7.0 TEST RESULTS

7.1 Summary

Company Name: Eridan
 FCC ID: 2BR8Z-ER2035A
 FCC Classification: Category A and B Citizens Broadband Radio Service Devices (CBSD)
 Mode(s): Eridan

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
CONDUCTED	Conducted Power	2.1046(a), 2.1046(c)	N/A	PASS	Section 7.3
	Occupied Bandwidth	2.1049(h)	N/A	PASS	Section 7.2
	Conducted Band Edge / Spurious Emissions (CBSD)	2.1051, 96.41(e)(i)(1)	-13 dBm/MHz at frequencies within 0-10 MHz of above the upper SAS-assigned channel edge and within 0-10MHz below the lower SAS-assigned channel edge -25 dBm/MHz at frequencies greater than 10 MHz above and below channel edge -emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz	PASS	Sections 7.6, 7.7
	Peak-Average Ratio	96.41(g)	≤13dBm	PASS	Section 7.8
	Frequency Stability	2.1055	Fundamental emissions stay within authorized frequency block	PASS	Section 7.10
	Category B CBSD Additional Requirements (CBSD Protocol)	96.45	Category B CBSDs must be professionally installed. In the 3550-3650MHz band, Category B CBSDs must be authorized consistent with information received from an ESC, as described in 96.15. Category B CBSDs are limited to outdoor operations. When registering with an SAS, Category B CBSDs must transmit all information required under 96.39 plus the following additional information: antenna gain, beamwidth, azimuth, down tilt angle, and antenna height above ground level.	PASS	See SAS Protocol Report
RADIATED	Equivalent Isotropic Radiated Power (EIRP) (Category B CBSD)	96.41(b)	47 dBm/10MHz	PASS	Section 7.4
	Equivalent Isotropic Radiated Power (EIRP) (Category B CBSD)	96.41(b)	37 dBm/10MHz	PASS	Section 7.5
	Radiated Spurious Emissions	2.1053, 96.41(e)	-40 dBm/MHz	PASS	Section 7.9

Table 7-1. Summary of Test Results

Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to measure the output of the EUT.

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- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
- 4) For conducted spurious emissions, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is EMC Software Tool 2.3.0.

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7.2 Occupied Bandwidth

Test Overview

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Procedure Used

ANSI C63.26-2015 – Section 5.4.4

Test Settings

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

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-1. Test Instrument & Measurement Setup

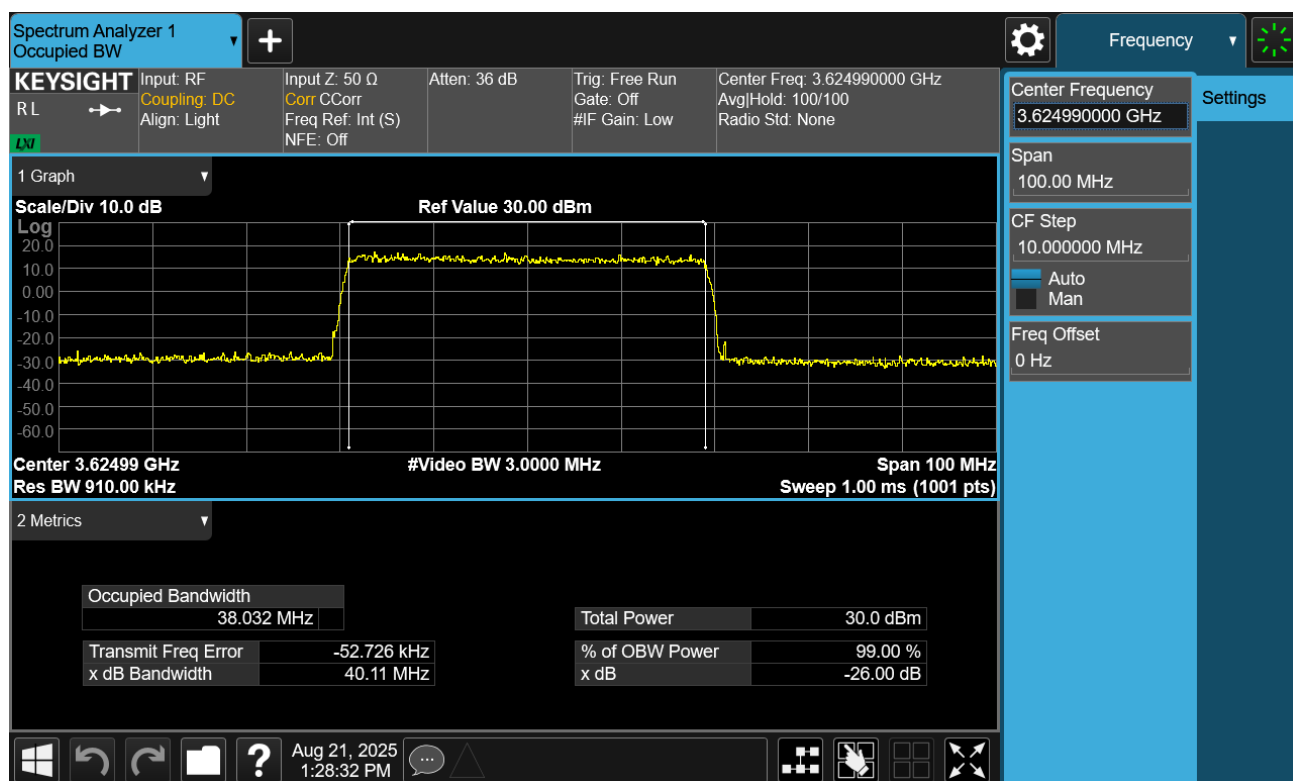
Test Notes

As both outputs are identical, only one set of OBW data has been included.

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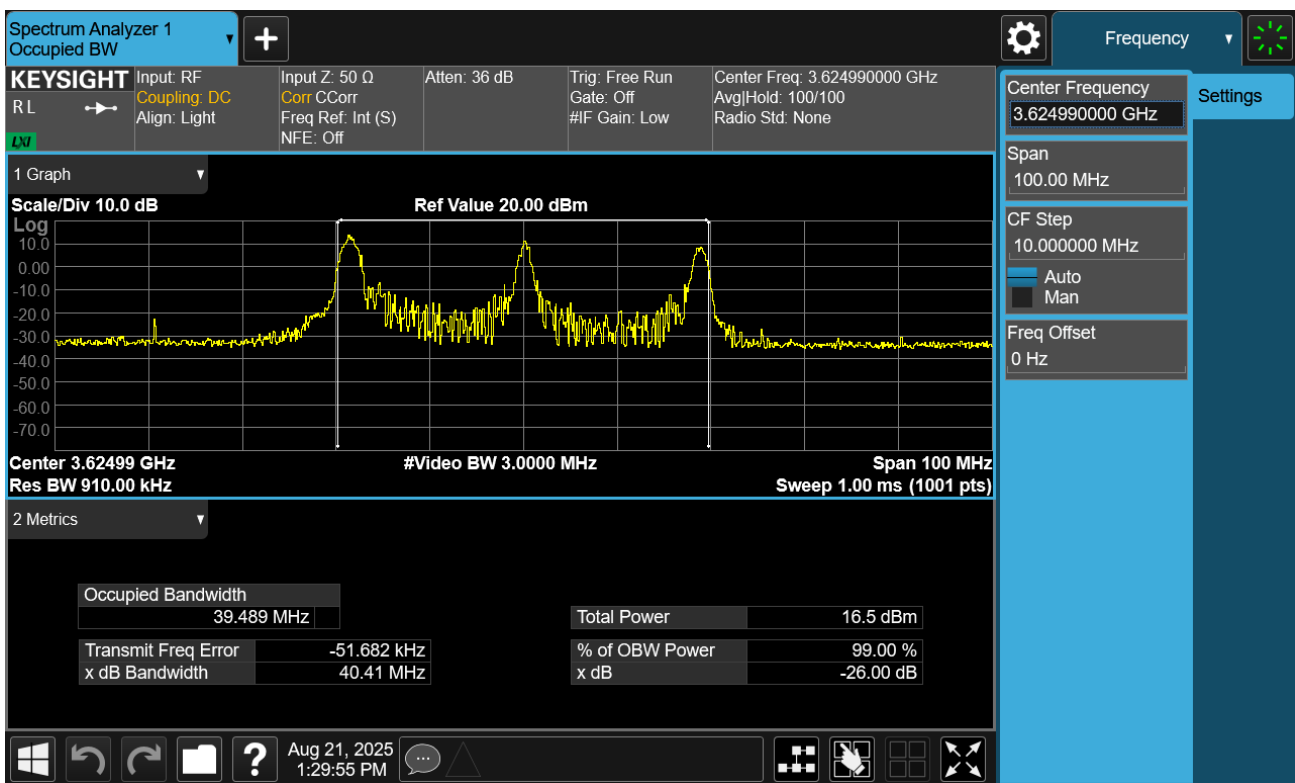
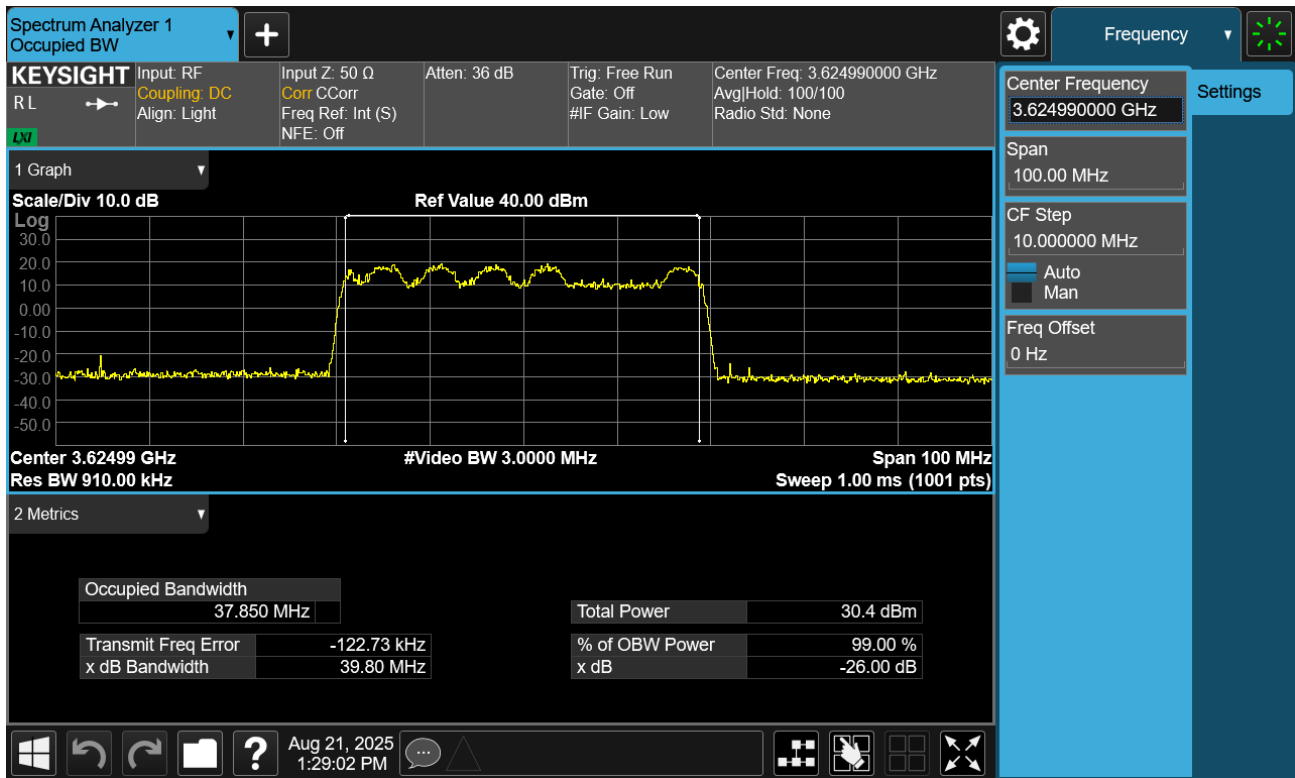
Mode	Bandwidth	Modulation	OBW [MHz]
NR n48	40MHz	TM1.1	38.03
		TM1.2	37.85
		TM2a	39.49
		TM3.1a	38.01
	20 MHz	TM1.1	18.38
		TM1.2	18.19
		TM2a	18.91
		TM3.1a	18.30

Table 7-2. Occupied Bandwidth Results

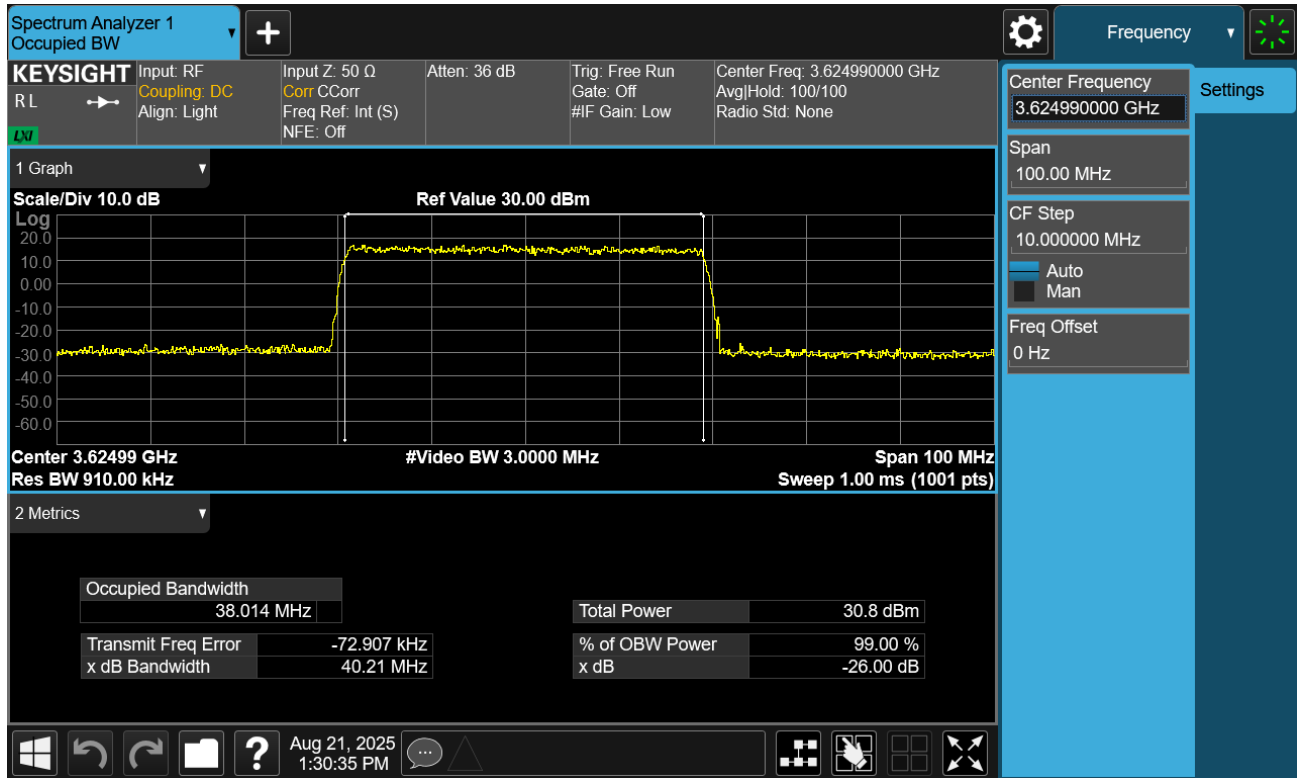


Plot 7.1. Occupied Bandwidth Plot (40MHz TM1.1)

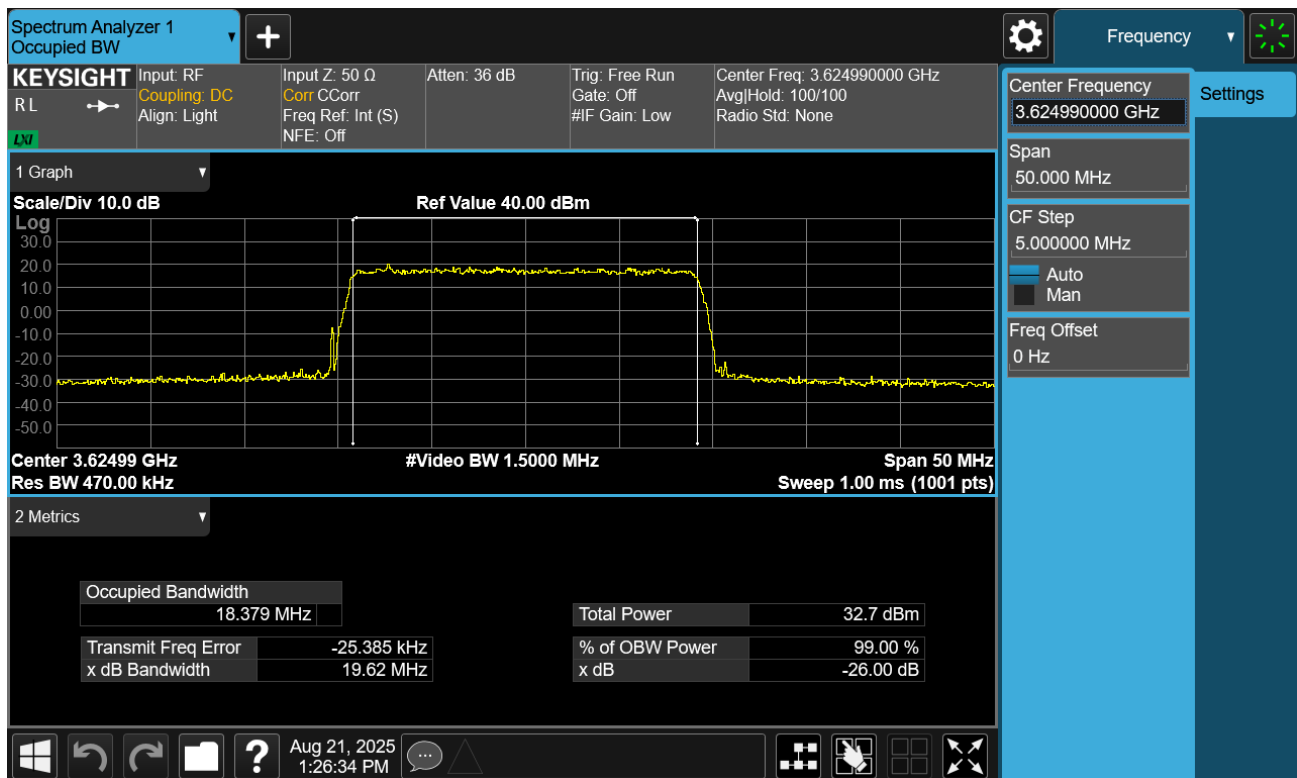
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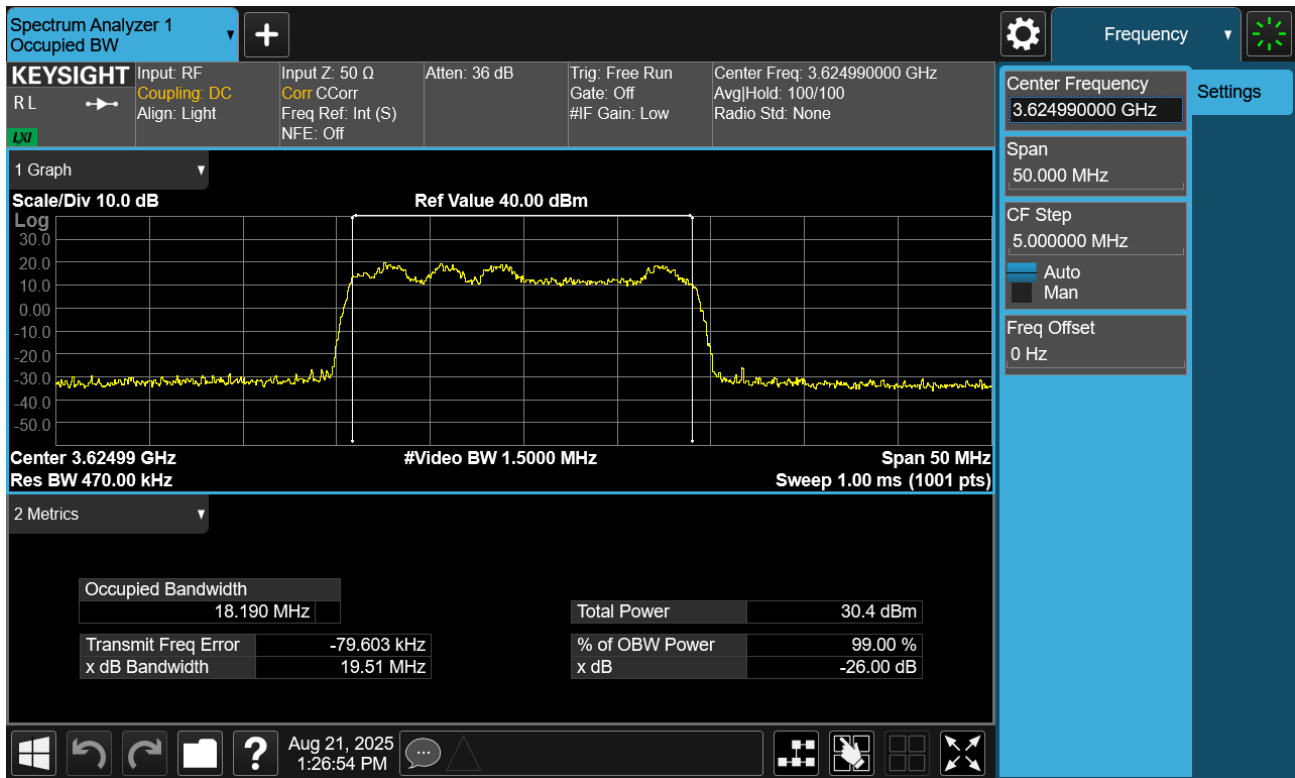


Plot 7.4. Occupied Bandwidth Plot (40MHz TM3.1a)

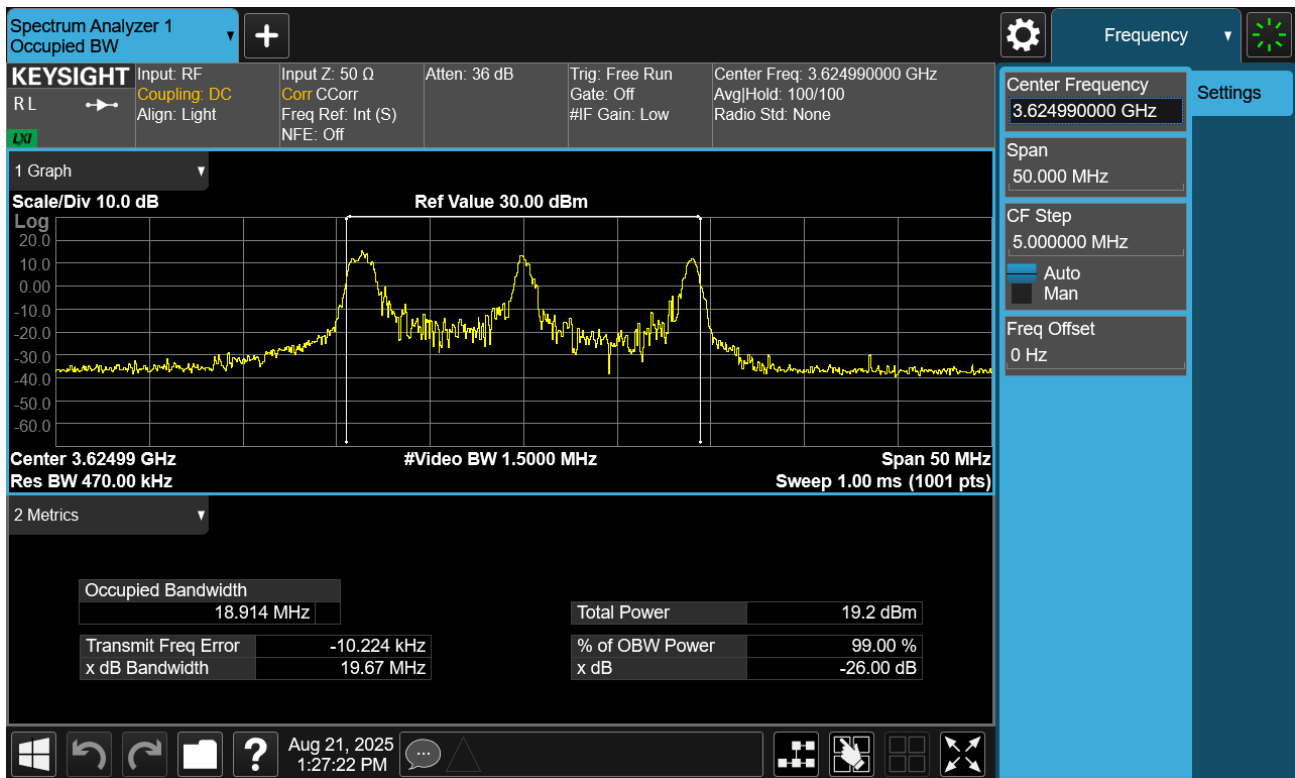


Plot 7.5. Occupied Bandwidth Plot (20MHz TM1.1)

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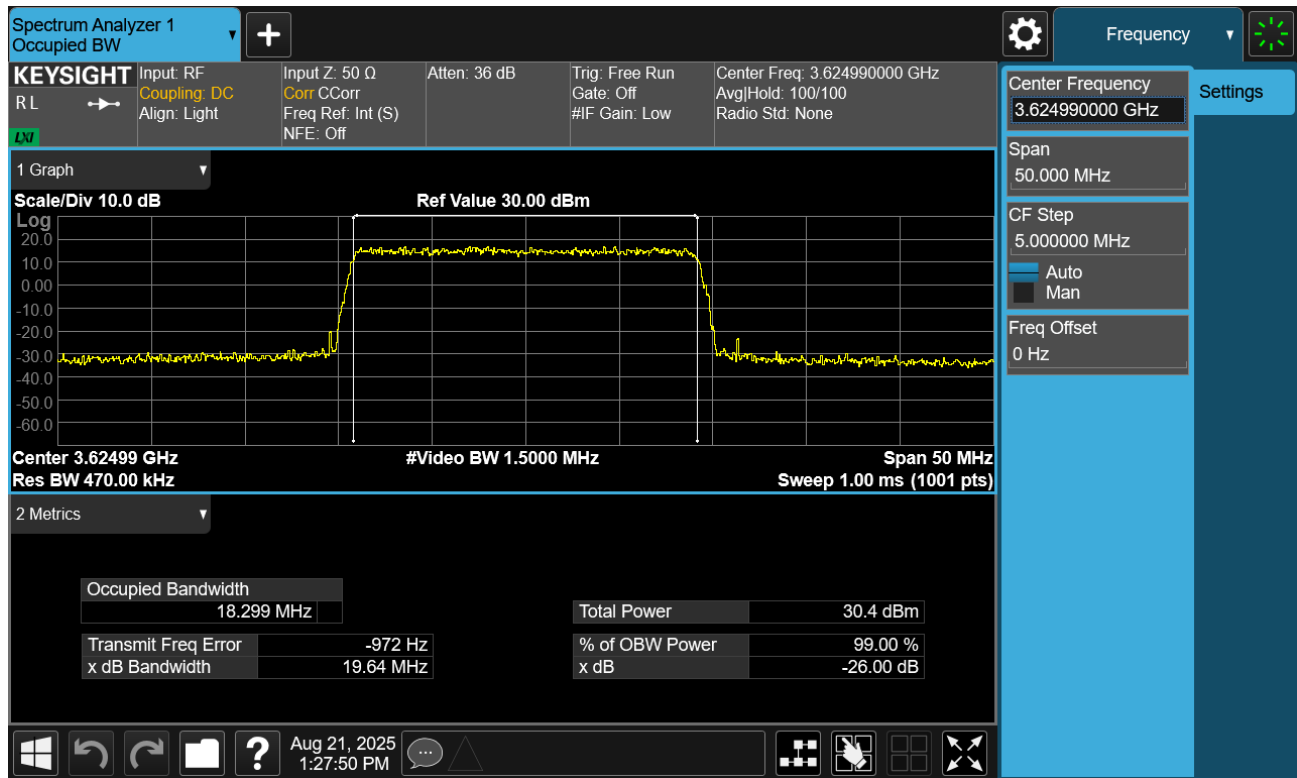


Plot 7.6. Occupied Bandwidth Plot (20MHz TM1.2)



Plot 7.7. Occupied Bandwidth Plot (20MHz TM2a)

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Plot 7.8. Occupied Bandwidth Plot (20MHz TM3.1a)

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7.3 Conducted Output Power/EIRP Data

Test Overview

The EUT is set up to transmit at maximum power for 5G NR. All power levels 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 Procedure Used

ANSI C63.26-2015 – Section 5.2

Test Settings

1. Span = 2 x OBW to 3 x OBW
2. RBW = 1% to 5% of the OBW
3. Number of measurement points in sweep $\geq 2 \times \text{span} / \text{RBW}$
4. Sweep = auto-couple (less than transmission burst duration)
5. Detector = RMS (power)
6. Trigger was set to enable power measurements only on full power bursts
7. Trace was allowed to stabilize
8. Spectrum analyzer's "Channel Power" function was used to compute the power by integrating the spectrum across the OBW of the signal

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-2. Test Instrument & Measurement Setup

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Test Notes

1. 256QAM operations does not employ A-MPR.
2. Conducted power measurements were evaluated using various combinations of modulation and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
3. It was determined that both outputs of the device behave identically. To obtain MIMO output power a correction of 3dB was added to SISO measurements.

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Bandwidth	Modulation	Channel	Frequency [MHz]	Conducted Power [dBm]	MIMO Conducted Power [dBm]	Directional Ant Gain [dBi]	EIRP [dBm]	EIRP [Watts]
40 MHz	TM1.1	638000	3570.0	22.00	25.01	19.00	44.01	25.177
		641666	3625.0	20.97	23.98	19.00	42.98	19.861
		645332	3680.0	21.05	24.06	19.00	43.06	20.230
	TM1.2	638000	3570.0	23.10	26.11	19.00	45.11	32.434
		641666	3625.0	22.45	25.46	19.00	44.46	27.925
		645332	3680.0	22.16	25.17	19.00	44.17	26.122
	TM2a	638000	3570.0	4.37	7.38	19.00	26.38	0.435
		641666	3625.0	3.40	6.41	19.00	25.41	0.348
		645332	3680.0	3.55	6.56	19.00	25.56	0.360
	TM3.1a	638000	3570.0	22.34	25.35	19.00	44.35	27.227
		641666	3625.0	20.86	23.87	19.00	42.87	19.364
		645332	3680.0	21.70	24.71	19.00	43.71	23.496
20MHz	QPSK	637666	3560.0	20.38	23.39	19.00	42.39	17.338
		641666	3625.0	20.91	23.92	19.00	42.92	19.588
		645666	3690.0	20.92	23.93	19.00	42.93	19.634
	16-QAM	637666	3560.0	18.55	21.56	19.00	40.56	11.376
		641666	3625.0	19.32	22.33	19.00	41.33	13.583
		645666	3690.0	19.13	22.14	19.00	41.14	13.002
	64-QAM	637666	3560.0	5.12	8.13	19.00	27.13	0.516
		641666	3625.0	5.60	8.61	19.00	27.61	0.577
		645666	3690.0	5.26	8.27	19.00	27.27	0.533
	256-QAM	637666	3560.0	20.69	23.70	19.00	42.70	18.621
		641666	3625.0	21.17	24.18	19.00	43.18	20.797
		645666	3690.0	21.13	24.14	19.00	43.14	20.606

Table 7-3. Conducted Power/EIRP Results – Full Channel Power – Cat B

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 21 of 61

7.4 Conducted Power / EIRP Per 10MHz

Test Overview

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum power control level, as defined in ANSI C63.26-2015, and at the appropriate frequencies. The spectrum analyzer was gated as to only measure during on periods.

The e.i.r.p./10MHz for a Category B CBSD must be less than 47dBm/10MHz.

The e.i.r.p./10MHz for a Category A CBSD must be less than 30dBm/10MHz

Test Procedure Used

ANSI C63.26-2015 – Section 5.2.4.4.1

ANSI C63.26-2015 – Section 5.2.4.5

ANSI C63.26-2015 – Section 6.4.3.2.3

Test Settings

1. Span = 2x to 3X the OBW
2. RBW = 10MHz
3. VBW $\geq 3 \times$ RBW
4. Set number of sweep points $\geq 2 \times$ span / RBW
5. Sweep Time = auto couple
6. Detector = RMS
7. Trace mode = average
8. Trigger = "IF Power" – measurement was gated to only measuring during transmission "on-time."

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-3. Test Instrument & Measurement Setup

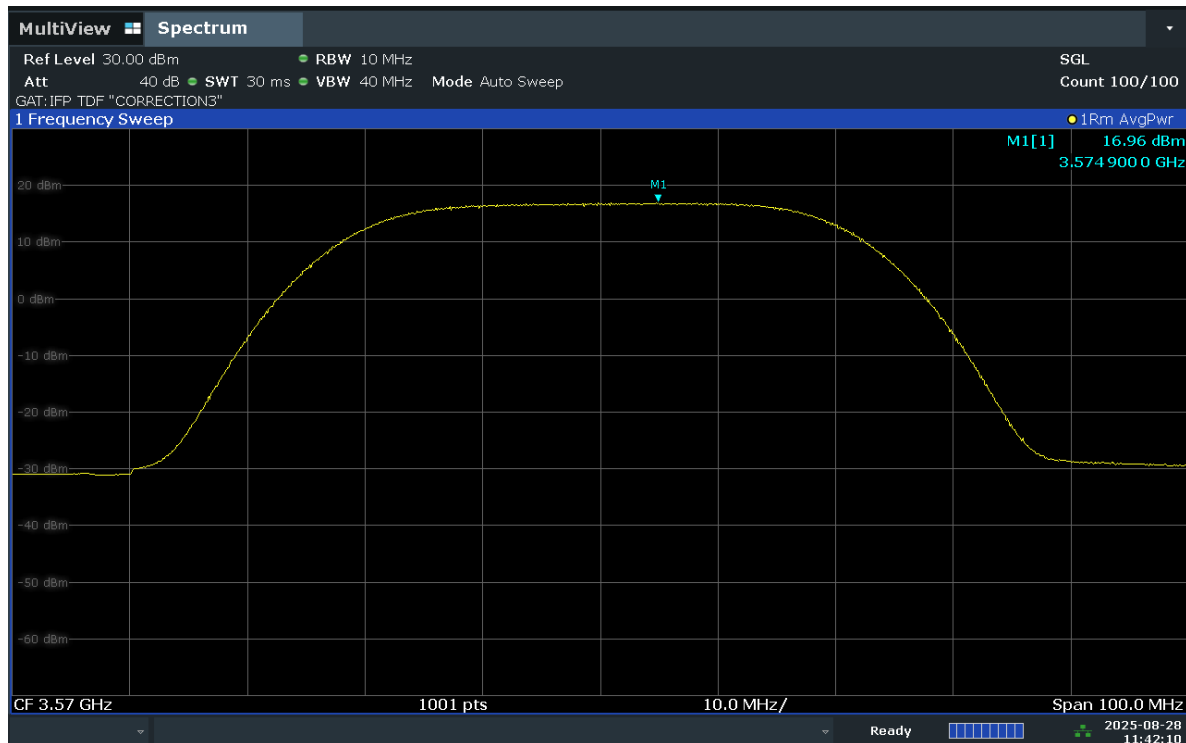
Test Notes

- 1) As both outputs of the device are identical, MIMO results are obtained by adding 3dB to SISO measurements.
- 2) Only a representative set of plots are included to demonstrate test settings.

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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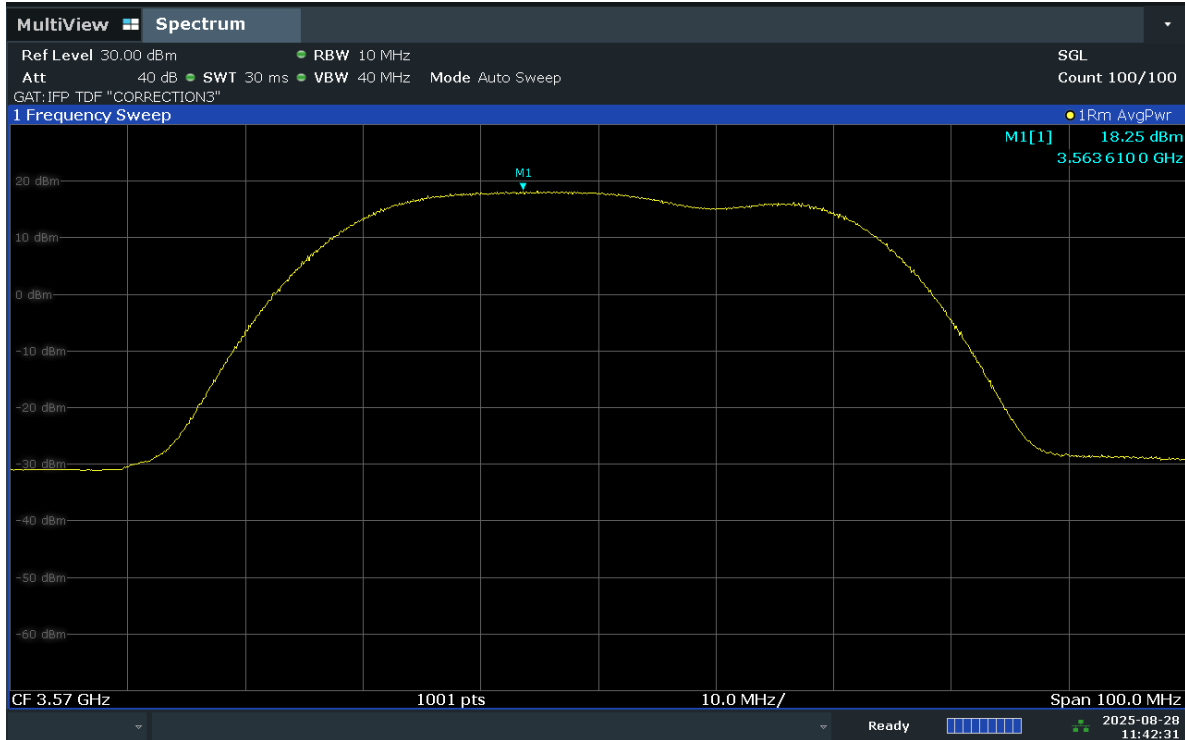
Bandwidth	Waveform	Channel	Frequency [MHz]	Conducted Power [dBm/10MHz]	MIMO Conducted Power [dBm/10MHz]	Directional Ant Gain [dBi]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
40 MHz	TM1.1	638000	3570.0	16.96	19.96	19.00	38.96	7.870	47.00	-8.04
		641666	3625.0	16.58	19.58	19.00	38.58	7.211	47.00	-8.42
		645332	3680.0	16.90	19.90	19.00	38.90	7.762	47.00	-8.10
	TM1.2	638000	3570.0	18.25	21.25	19.00	40.25	10.593	47.00	-6.75
		641666	3625.0	18.10	21.10	19.00	40.10	10.233	47.00	-6.90
		645332	3680.0	18.29	21.29	19.00	40.29	10.691	47.00	-6.71
	TM2a	638000	3570.0	0.25	3.25	19.00	22.25	0.168	47.00	-24.75
		641666	3625.0	0.08	3.08	19.00	22.08	0.161	47.00	-24.92
		645332	3680.0	0.01	3.01	19.00	22.01	0.159	47.00	-24.99
	TM3.1a	638000	3570.0	17.73	20.73	19.00	39.73	9.397	47.00	-7.27
		641666	3625.0	17.42	20.42	19.00	39.42	8.750	47.00	-7.58
		645332	3680.0	17.56	20.56	19.00	39.56	9.036	47.00	-7.44
20 MHz	TM1.1	637666	3560.0	18.23	21.23	19.00	40.23	10.544	47.00	-6.77
		641666	3625.0	18.61	21.61	19.00	40.61	11.508	47.00	-6.39
		645666	3690.0	18.62	21.62	19.00	40.62	11.535	47.00	-6.38
	TM1.2	637666	3560.0	16.32	19.32	19.00	38.32	6.792	47.00	-8.68
		641666	3625.0	17.01	20.01	19.00	39.01	7.962	47.00	-7.99
		645666	3690.0	16.85	19.85	19.00	38.85	7.674	47.00	-8.15
	TM2a	637666	3560.0	2.56	5.56	19.00	24.56	0.286	47.00	-22.44
		641666	3625.0	3.90	6.90	19.00	25.90	0.389	47.00	-21.10
		645666	3690.0	3.84	6.84	19.00	25.84	0.384	47.00	-21.16
	TM3.1a	637666	3560.0	18.19	21.19	19.00	40.19	10.447	47.00	-6.81
		641666	3625.0	18.63	21.63	19.00	40.63	11.561	47.00	-6.37
		645666	3690.0	16.61	19.61	19.00	38.61	7.261	47.00	-8.39

Table 7-4 E.I.R.P. / 10MHz Measurements - CatB

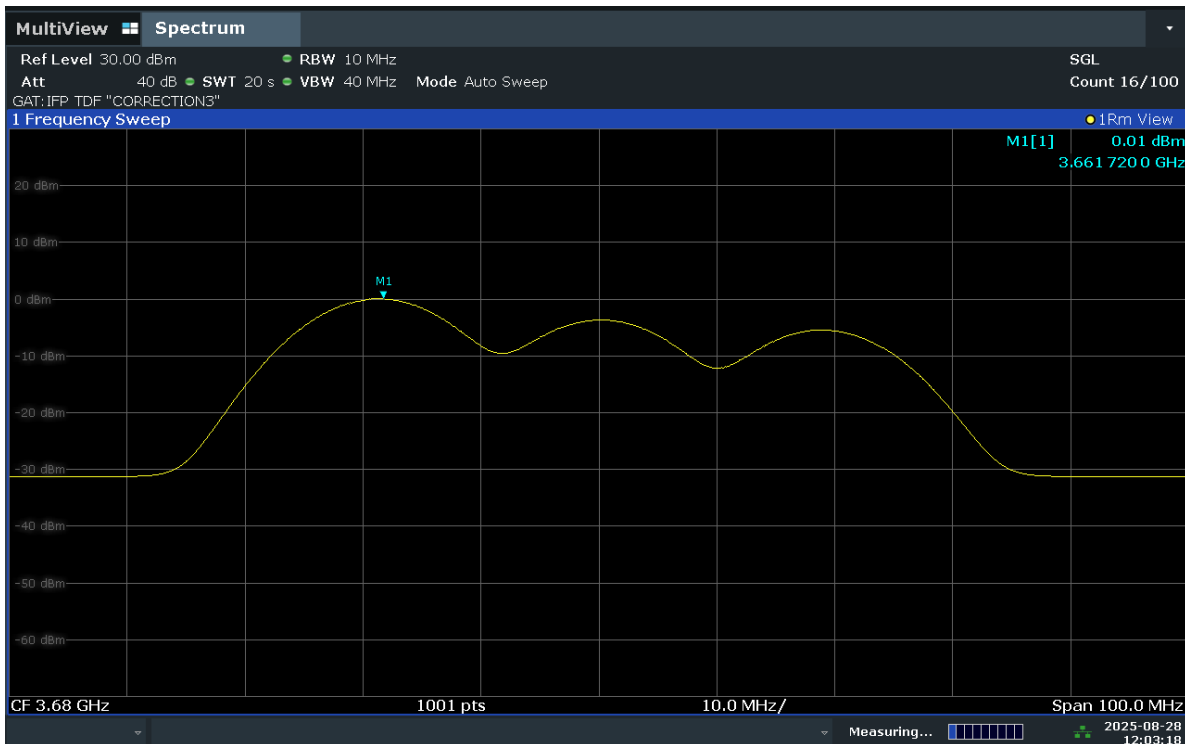


Plot 7.9. Power/10MHz Plot (40MHz TM1.1 – Low Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 23 of 61

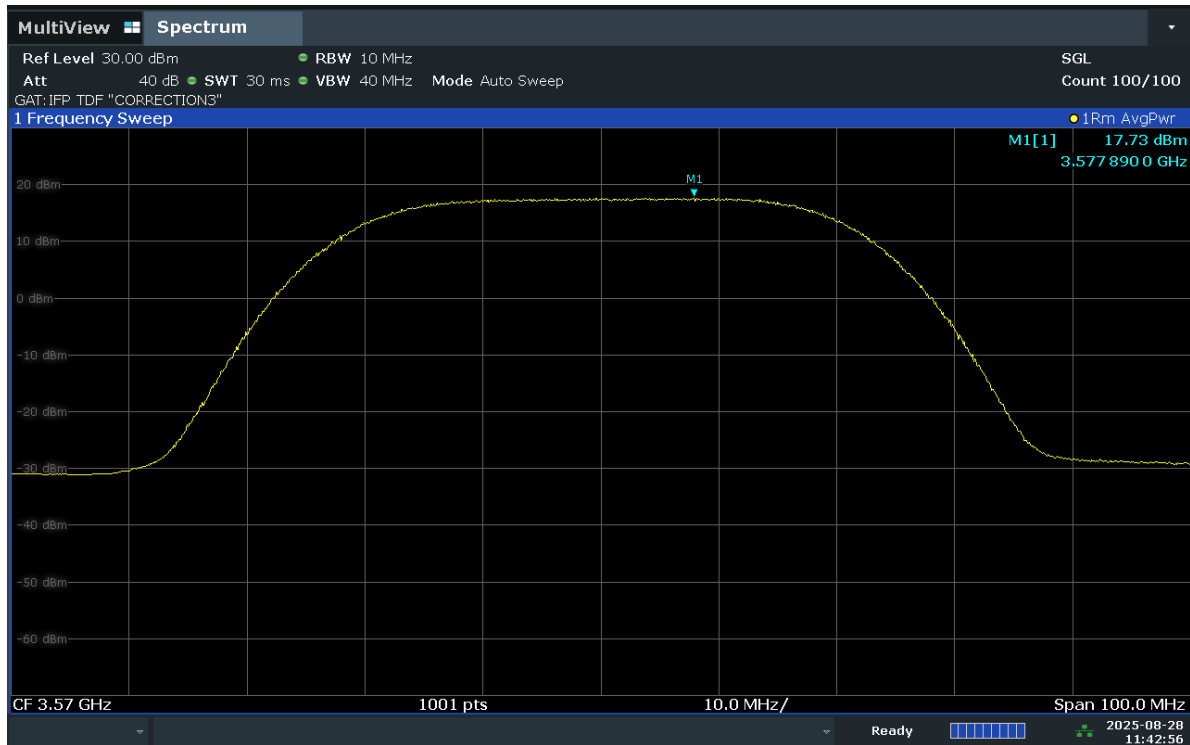


Plot 7.10. Power/10MHz Plot (40MHz TM1.2 – Low Channel)

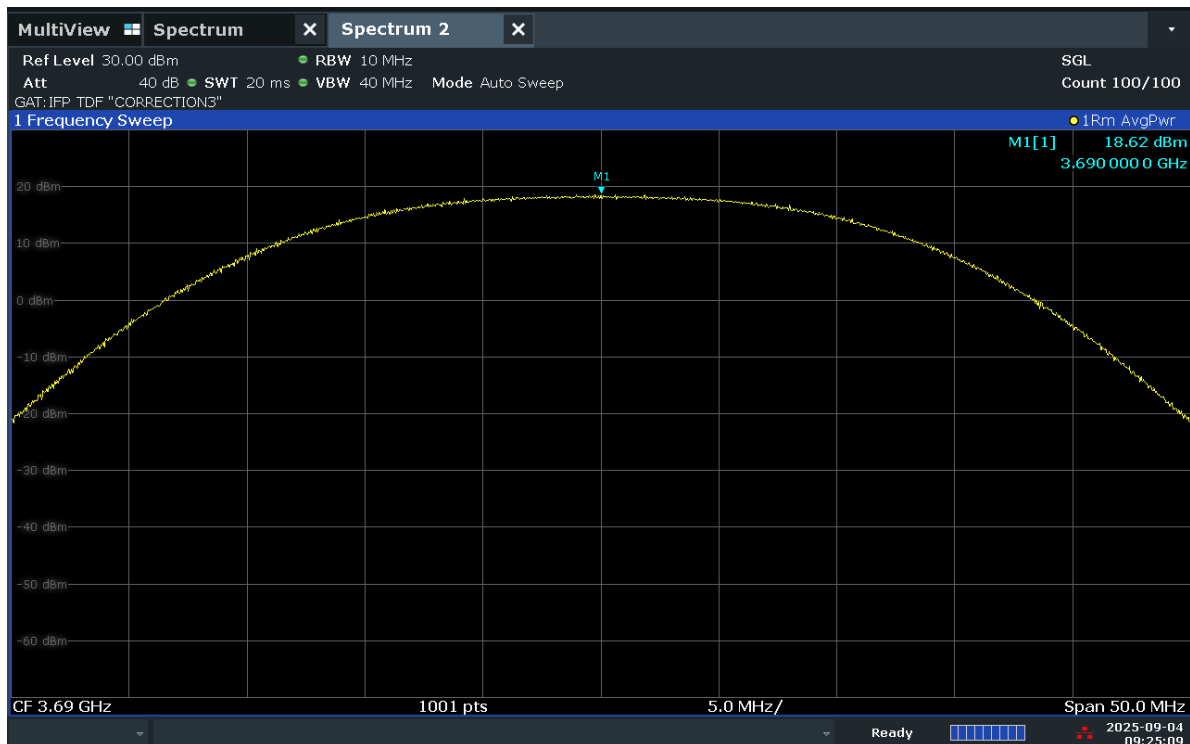


Plot 7.11. Power/10MHz Plot (40MHz TM2a – High Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 24 of 61

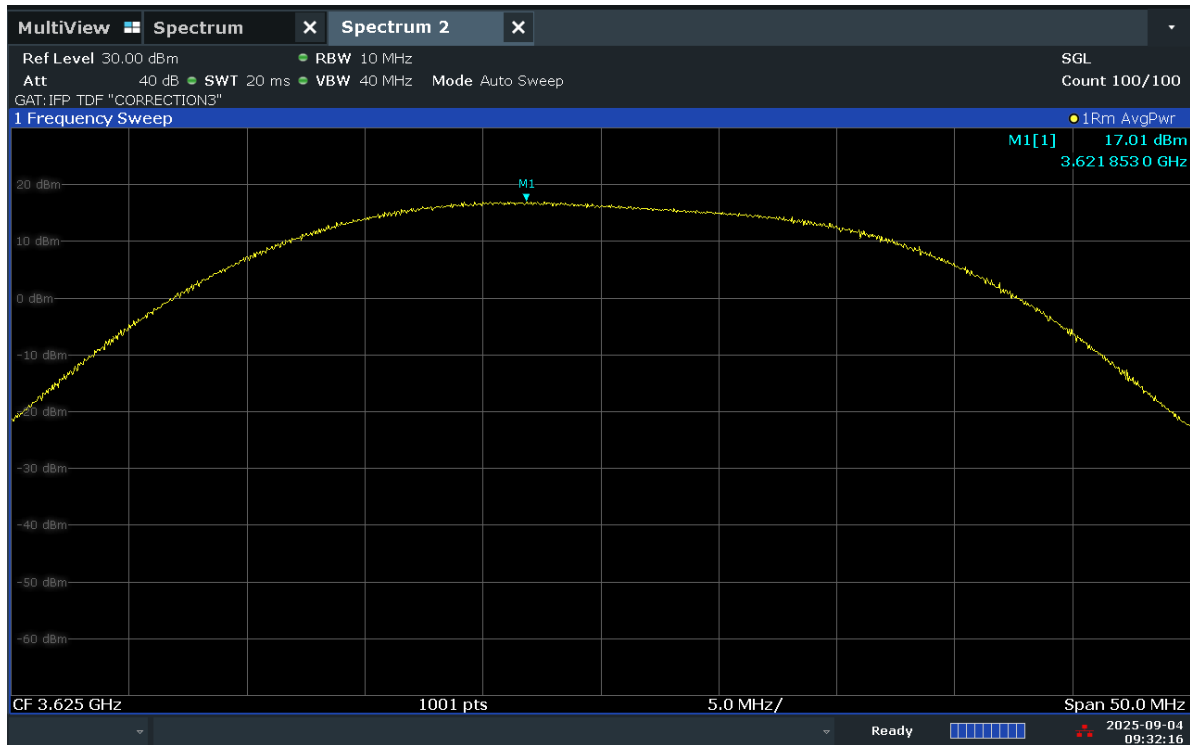


Plot 7.12. Power/10MHz Plot (40MHz TM3.1a – Low Channel)

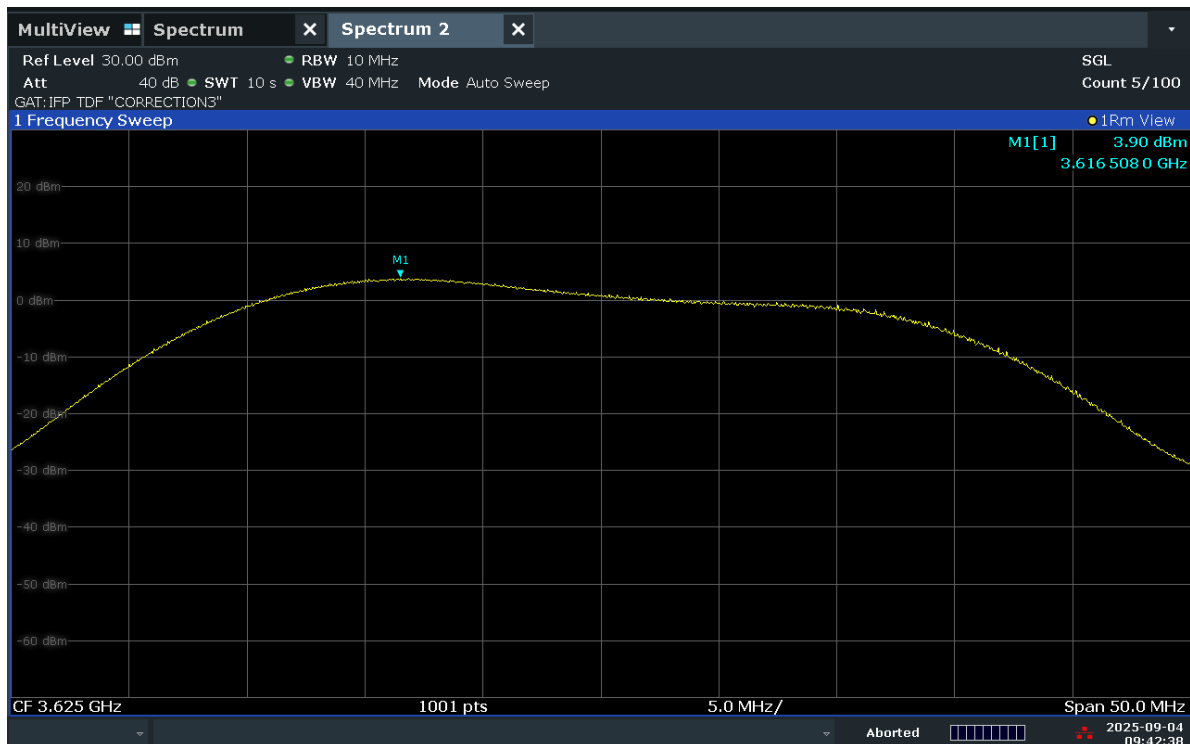


Plot 7.13. Power/10MHz Plot (20MHz TM1.1 – High Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 25 of 61

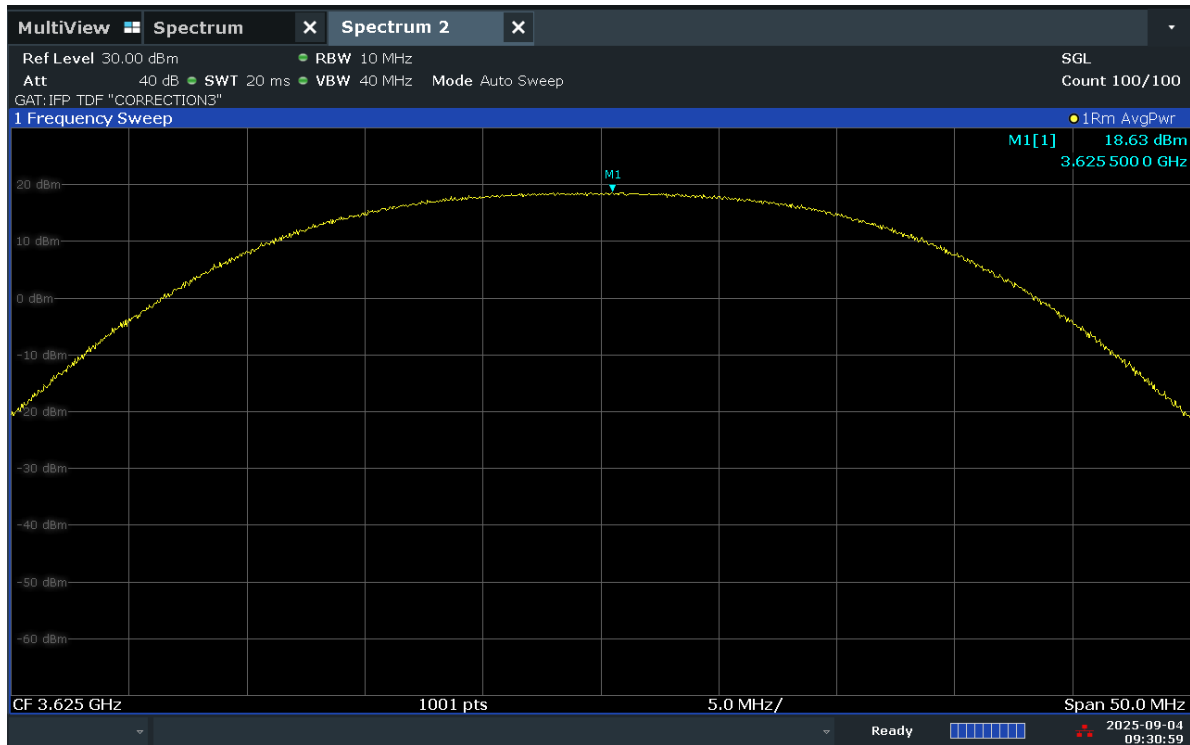


Plot 7.14. Power/10MHz Plot (20MHz TM1.2 – Mid Channel)



Plot 7.15. Power/10MHz Plot (20MHz TM2a – Mid Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 26 of 61



Plot 7.16. Power/10MHz Plot (20MHz TM3.1a – Mid Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 27 of 61

7.5 Power Spectral Density

Test Overview

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum power control level, as defined in ANSI C63.26-2015, and at the appropriate frequencies. The spectrum analyzer was gated to only measure during on periods.

The power spectral density for a Category B CBSD must be less than 37dBm/MHz.

The power spectral density for a Category A CBSD must be less than 20dBm/MHz

Test Procedure Used

ANSI C63.26-2015 – Section 5.2.4.4.1

ANSI C63.26-2015 – Section 5.2.4.5

ANSI C63.26-2015 – Section 6.4.3.2.3

Test Settings – 40MHz

9. Span = 2x to 3X the OBW
10. RBW = 10MHz
11. VBW $\geq 3 \times$ RBW
12. Set number of sweep points $\geq 2 \times$ span / RBW
13. Sweep Time = auto couple
14. Detector = RMS
15. Trace mode = average
16. Trigger = RF Burst

Test Settings – 20MHz

1. Span = 2x to 3X the OBW
2. RBW = 10MHz
3. VBW $\geq 3 \times$ RBW
4. Set number of sweep points $\geq 2 \times$ span / RBW
5. Sweep Time = auto couple
6. Detector = RMS
7. Trace mode = average
8. Trigger = "IF Power" – measurement was gated to only measuring during transmission "on-time."

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-4. Test Instrument & Measurement Setup

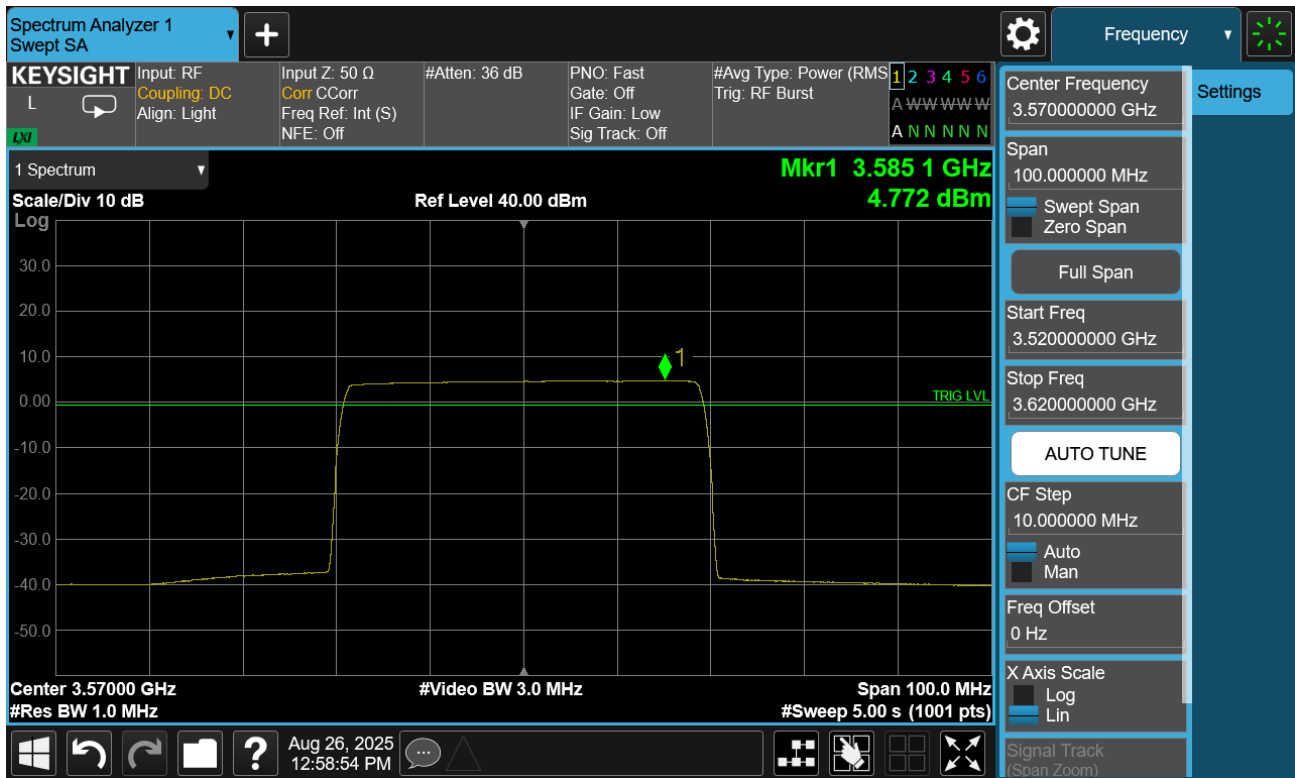
Test Notes

- As both outputs of the device are identical, MIMO results are obtained by adding 3dB to SISO measurements.

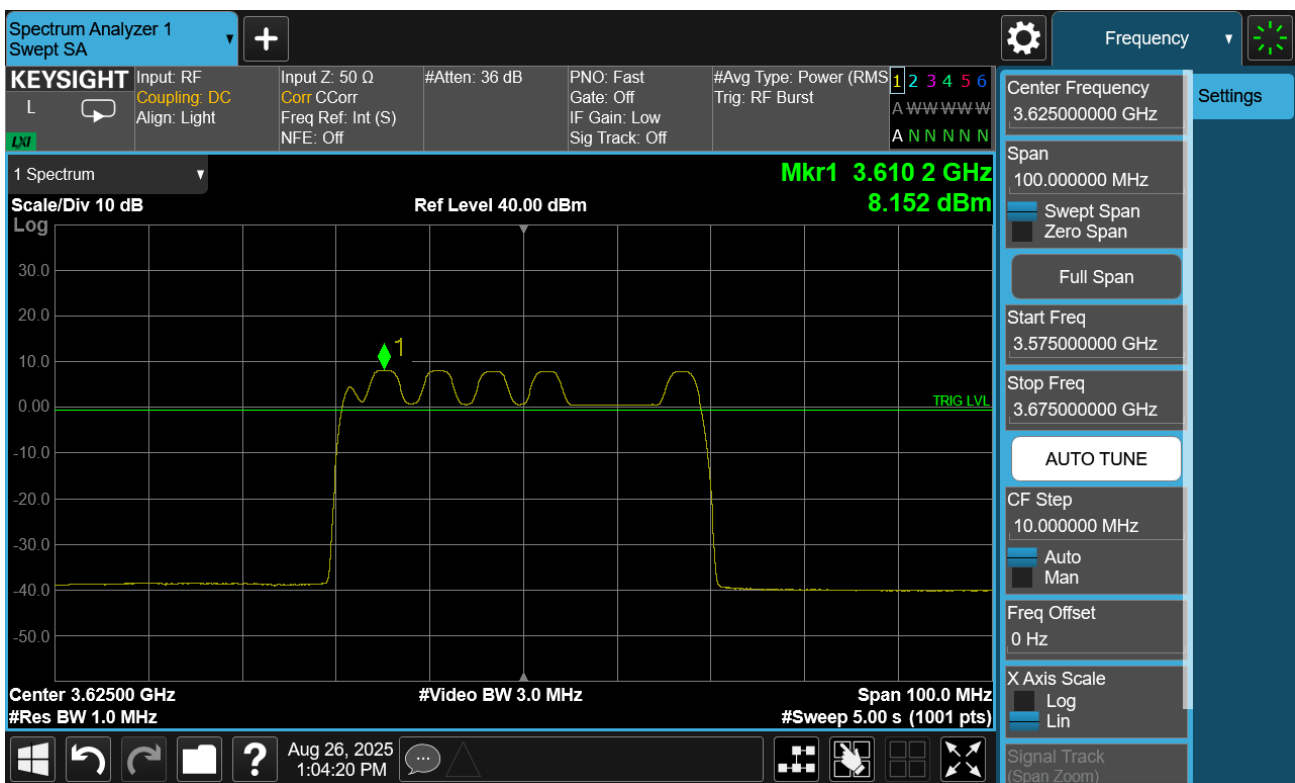
Bandwidth	Waveform	Channel	Frequency [MHz]	Conducted PSD [dBm/MHz]	MIMO Conducted PSD [dBm/MHz]	Directional Ant Gain [dBi]	EIRP PSD [dBm/MHz]	EIRP PSD [Watts/MHz]	EIRP PSD Limit [dBm/MHz]	Margin [dB]
40 MHz	TM1.1	638000	3570.0	4.77	7.77	19.00	26.77	0.476	37.00	-10.23
		641666	3625.0	4.51	7.51	19.00	26.51	0.448	37.00	-10.49
		645332	3680.0	4.63	7.63	19.00	26.63	0.460	37.00	-10.37
	TM1.2	638000	3570.0	8.36	11.36	19.00	30.36	1.086	37.00	-6.64
		641666	3625.0	8.15	11.15	19.00	30.15	1.036	37.00	-6.85
		645332	3680.0	8.29	11.29	19.00	30.29	1.068	37.00	-6.71
	TM2a	638000	3570.0	-1.53	1.48	19.00	20.48	0.112	37.00	-16.53
		641666	3625.0	-1.05	1.95	19.00	20.95	0.125	37.00	-16.05
		645332	3680.0	-1.59	1.41	19.00	20.41	0.110	37.00	-16.59
	TM3.1a	638000	3570.0	5.45	8.45	19.00	27.45	0.556	37.00	-9.55
		641666	3625.0	5.22	8.22	19.00	27.22	0.527	37.00	-9.78
		645332	3680.0	5.19	8.19	19.00	27.19	0.524	37.00	-9.81
20 MHz	TM1.1	637666	3560.0	8.69	11.69	19.00	30.69	1.172	37.00	-6.31
		641666	3625.0	8.82	11.82	19.00	30.82	1.208	37.00	-6.18
		645666	3690.0	7.77	10.77	19.00	29.77	0.948	37.00	-7.23
	TM1.2	637666	3560.0	8.04	11.04	19.00	30.04	1.009	37.00	-6.96
		641666	3625.0	8.57	11.57	19.00	30.57	1.140	37.00	-6.43
		645666	3690.0	8.83	11.83	19.00	30.83	1.211	37.00	-6.17
	TM2a	637666	3560.0	2.55	5.55	19.00	24.55	0.285	37.00	-12.45
		641666	3625.0	1.34	4.34	19.00	23.34	0.216	37.00	-13.66
		645666	3690.0	3.30	6.30	19.00	25.30	0.339	37.00	-11.70
	TM3.1a	637666	3560.0	7.98	10.98	19.00	29.98	0.995	37.00	-7.02
		641666	3625.0	8.90	11.90	19.00	30.90	1.230	37.00	-6.10
		645666	3690.0	8.54	11.54	19.00	30.54	1.132	37.00	-6.46

Table 7-5 Power Spectral Density Measurements – CatB

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 29 of 61

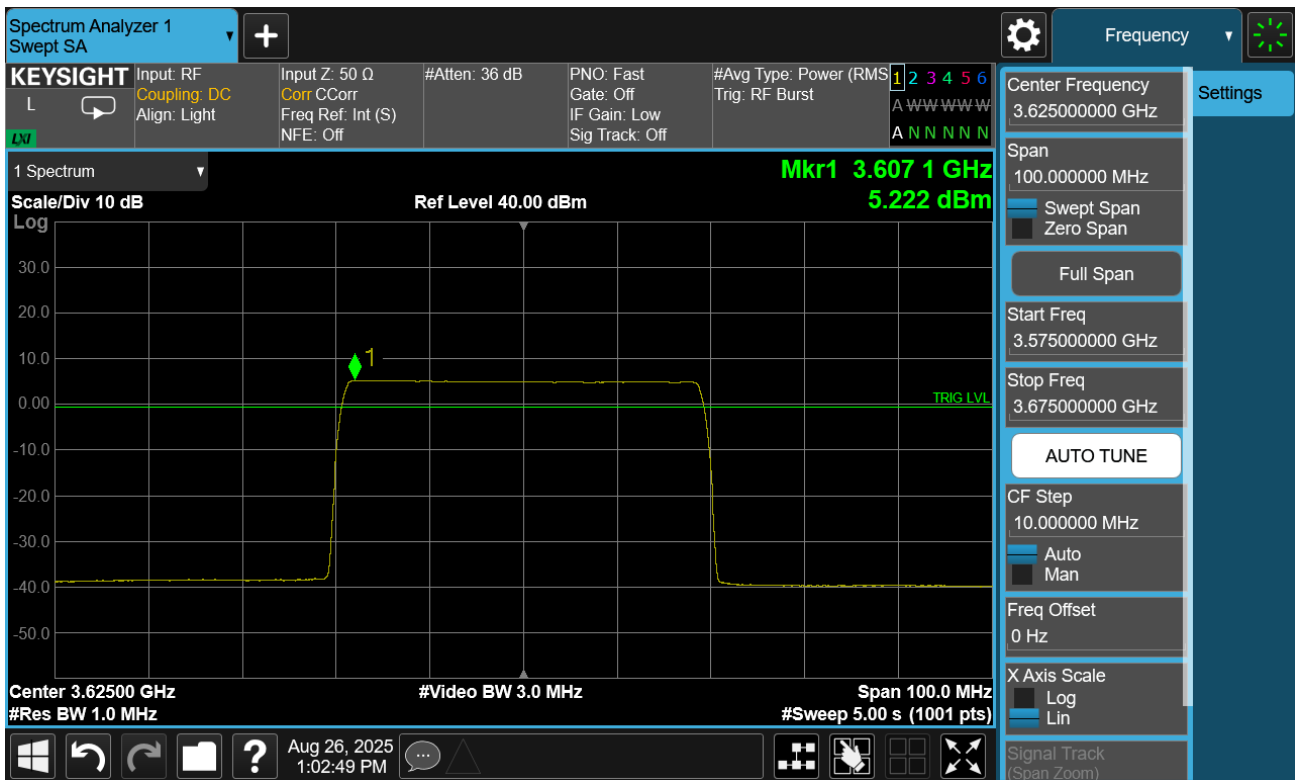
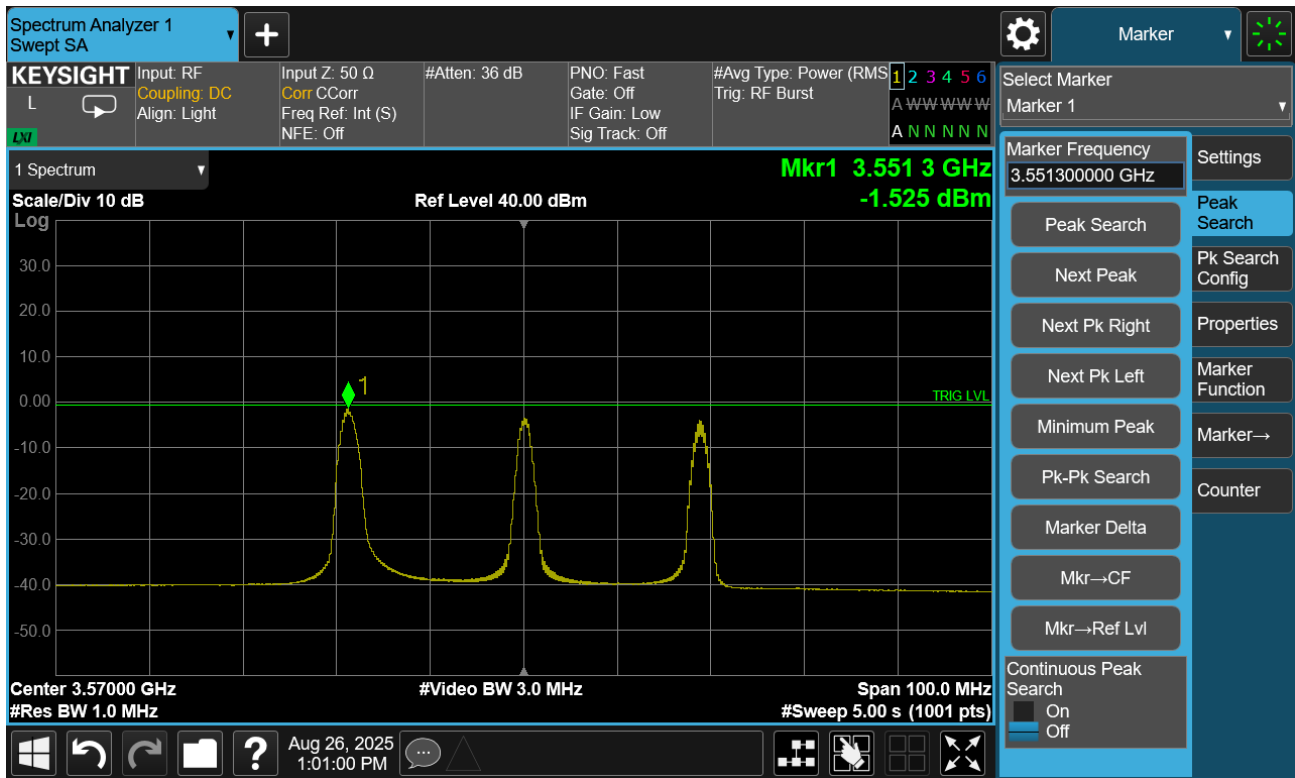


Plot 7.17. Power Spectral Density Plot (40MHz TM1.1 – Low Channel)

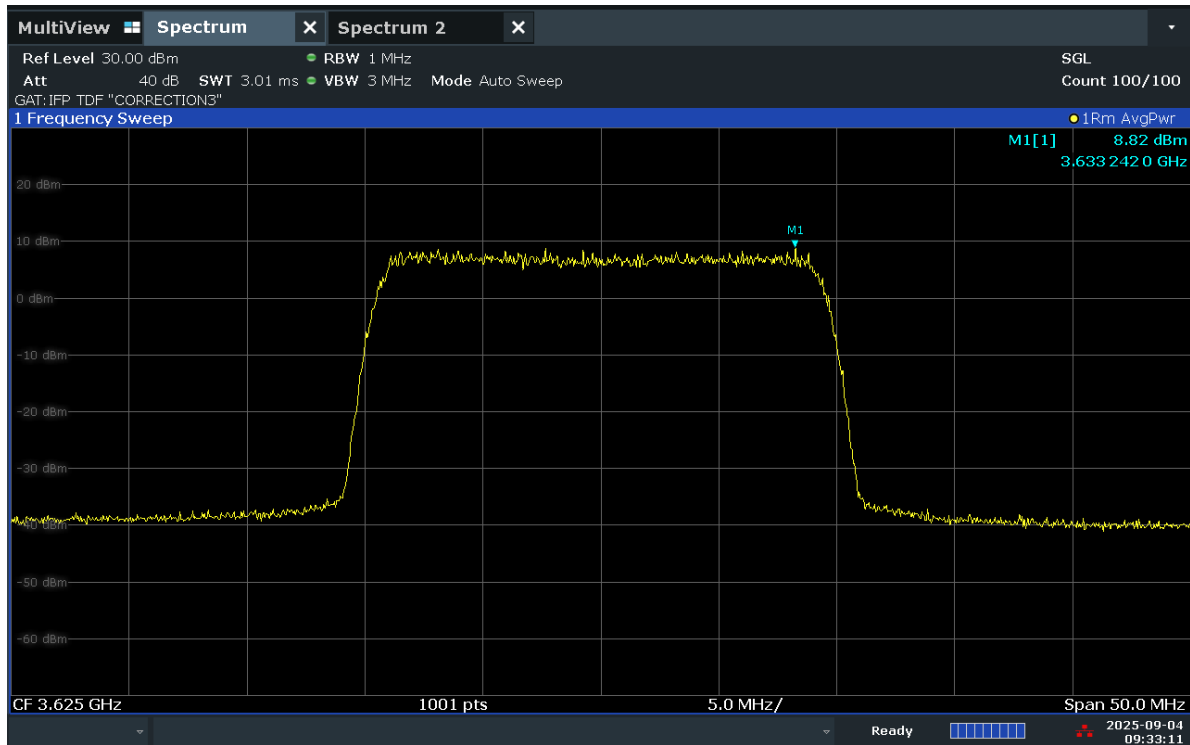


Plot 7.18. Power Spectral Density Plot (40MHz TM1.2 – Mid Channel)

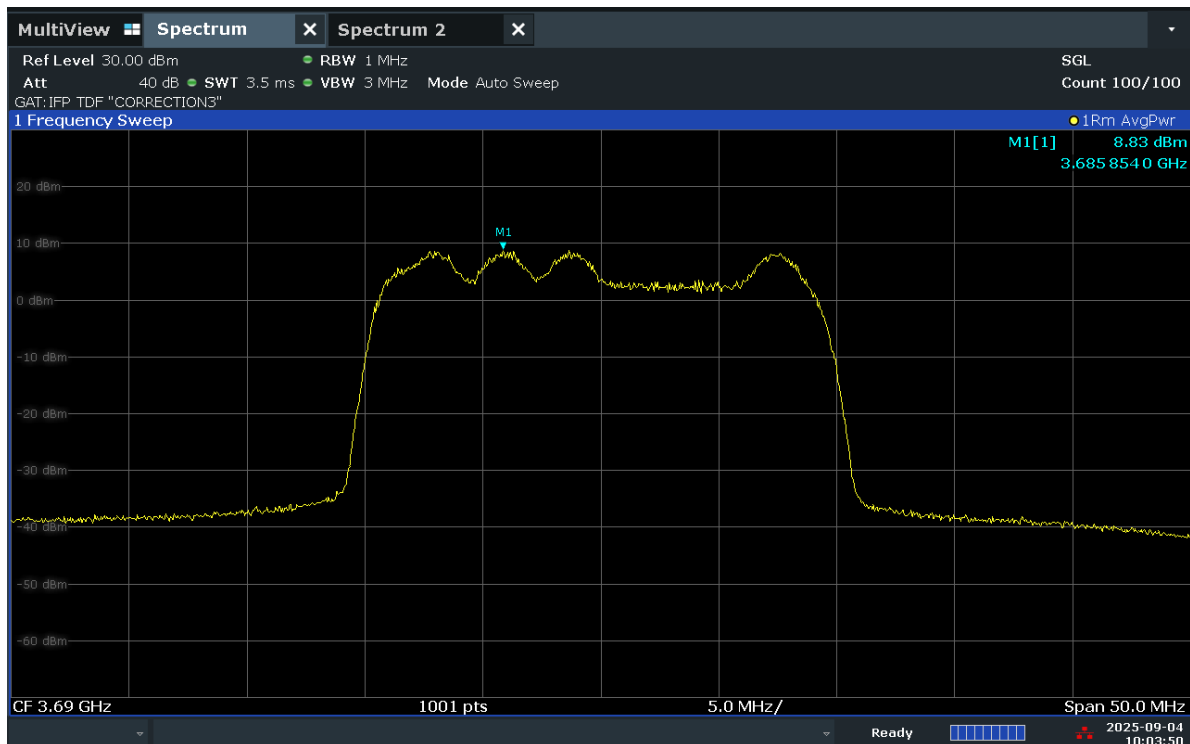
FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 30 of 61



FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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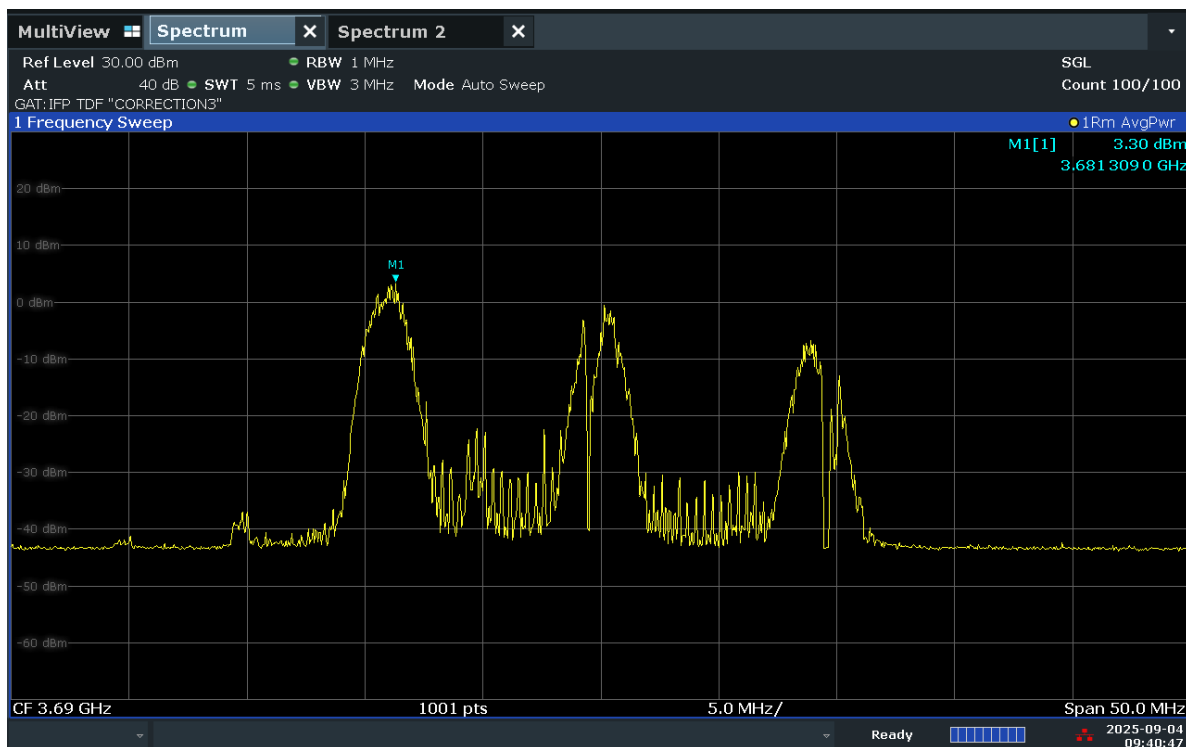


Plot 7.21. Power Spectral Density Plot (20MHz TM1.1- Mid Channel)

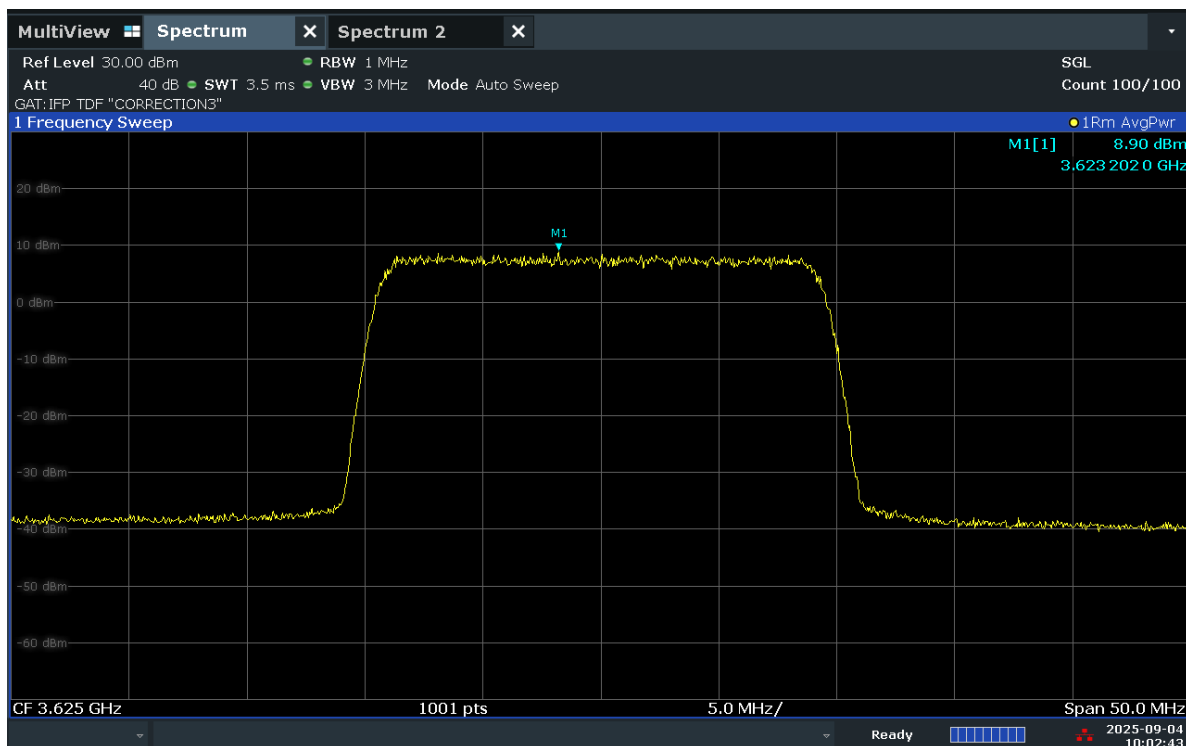


Plot 7.22. Power Spectral Density Plot (20MHz TM1.2 - High Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 32 of 61



Plot 7.23. Power Spectral Density Plot (20MHz TM2a – High Channel)



Plot 7.24. Power Spectral Density Plot (20MHz TM3.1a – Mid Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 33 of 61

7.6 Spurious and Harmonic Emissions at Antenna Terminal

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.

The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

Test Procedure Used

ANSI C63.26-2015 – Section 5.7.4

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = Average
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

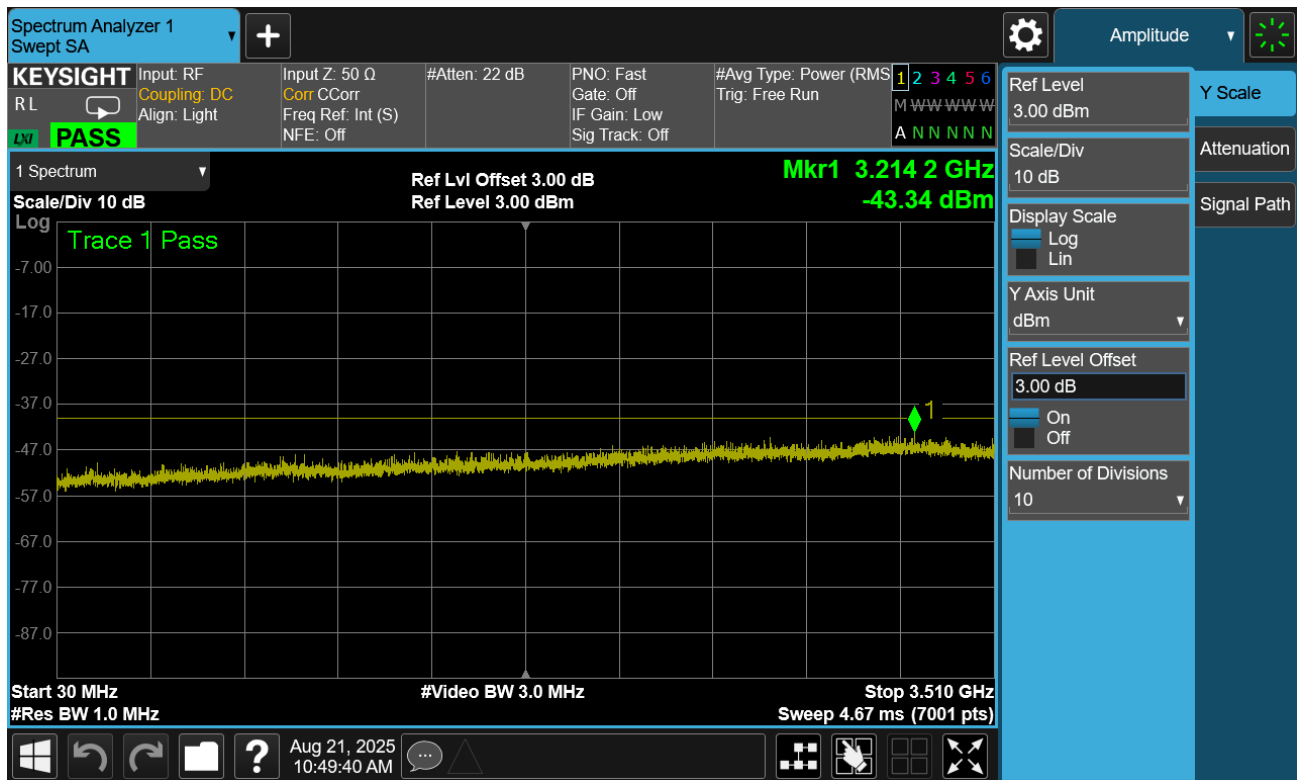


Figure 7-5. Test Instrument & Measurement Setup

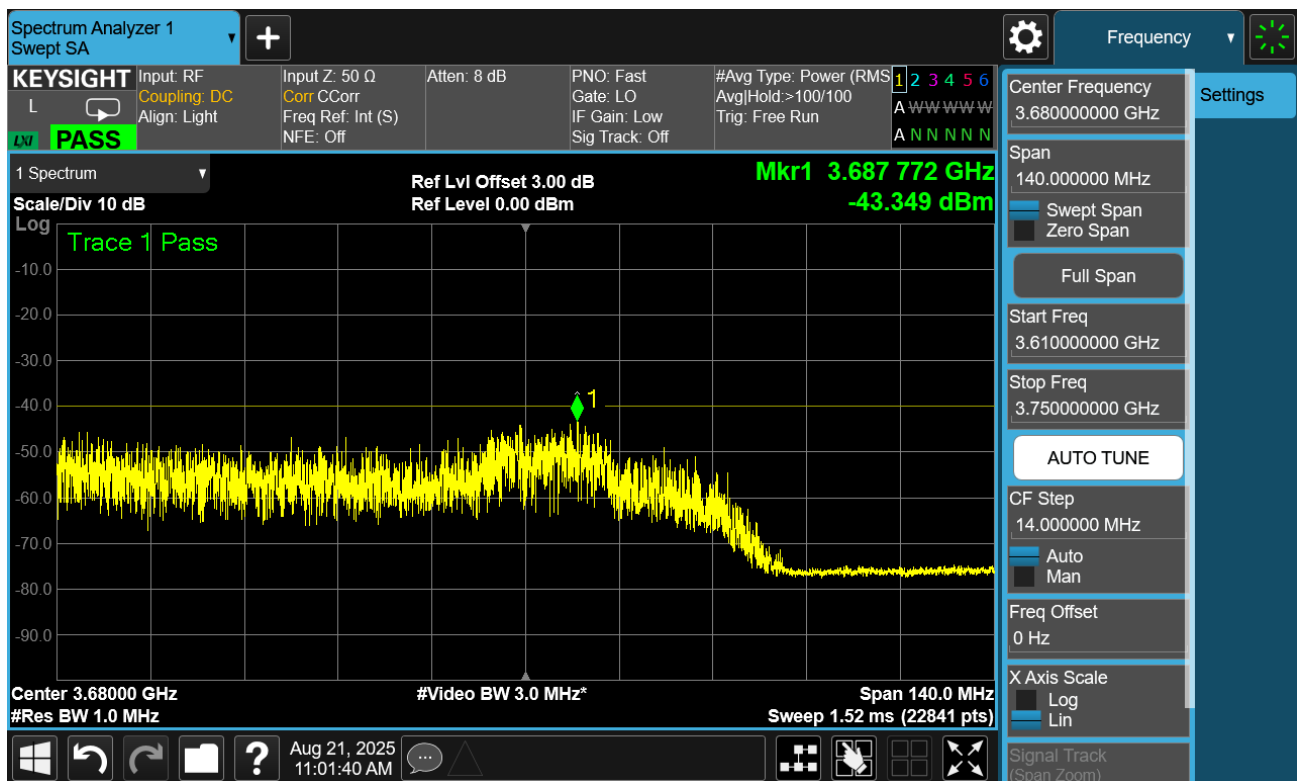
Test Notes

1. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz.
2. As both outputs of the device are identical, MIMO results are obtained by adding 3dB to SISO measurements.
3. For Spurious Emissions plots starting below 3530MHz or above 3720MHz, compliance in the omitted spectrum is verified by the Band Edge Emissions results in section 7.7.
4. In instances where broad spectrum max hold peak detector measurement exceeded the limit, a narrower sweep employing gating and averaging was used to verify compliance.

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 34 of 61

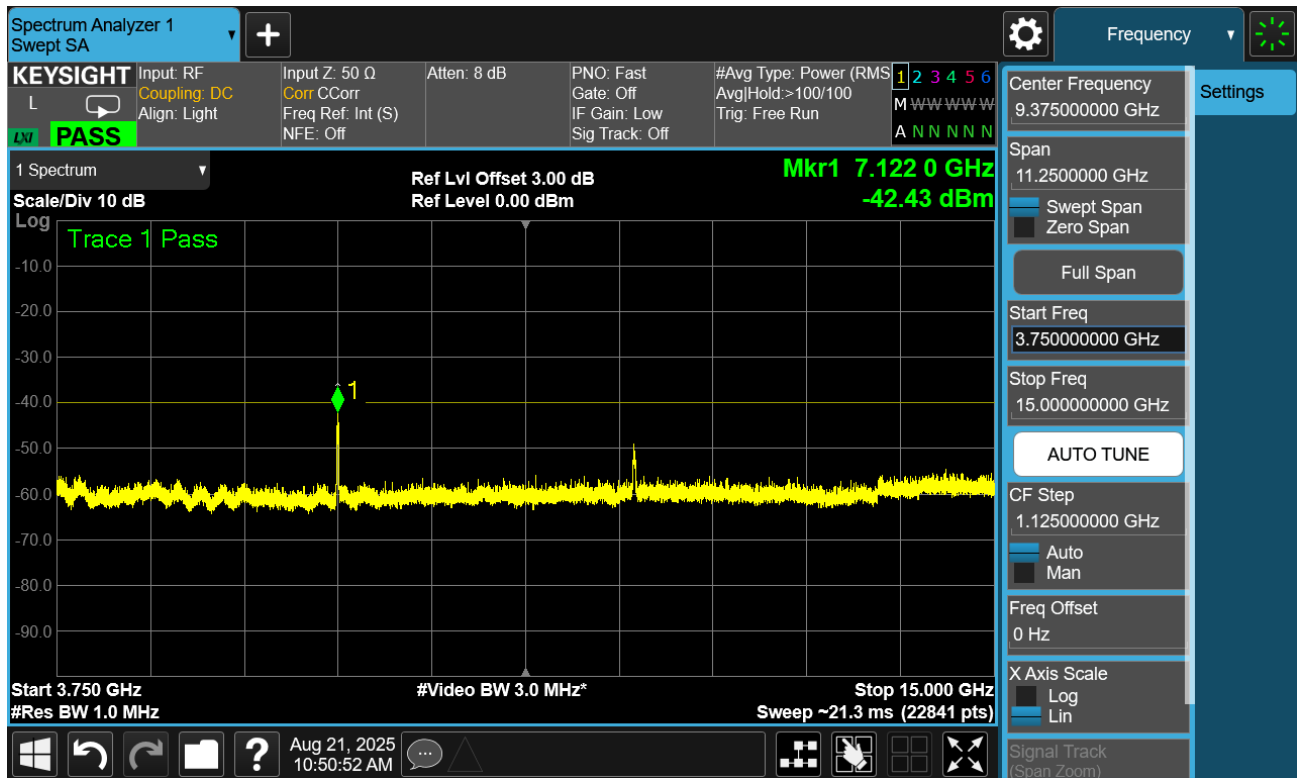


Plot 7.25. Conducted Spurious Plot (20MHz TM1.1, Low Channel)

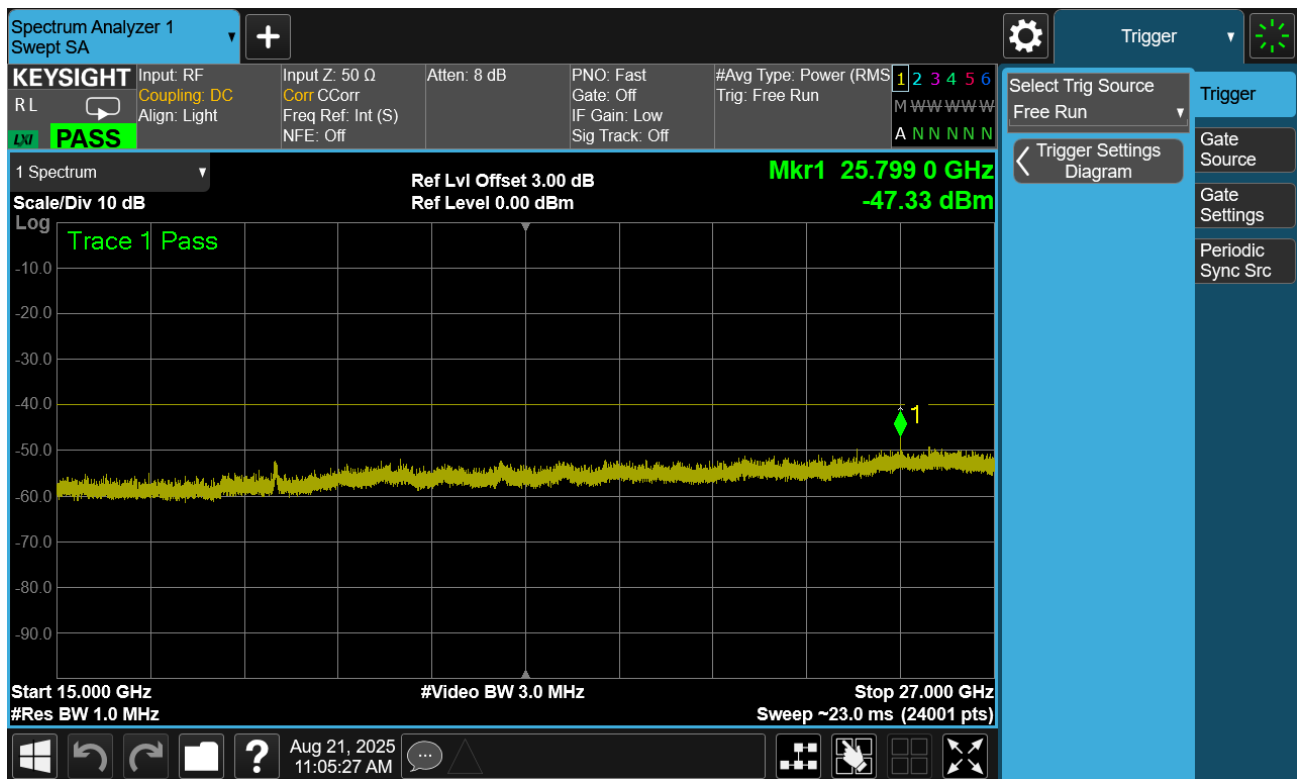


Plot 7.26. Conducted Spurious Plot (20MHz TM1.1, Low Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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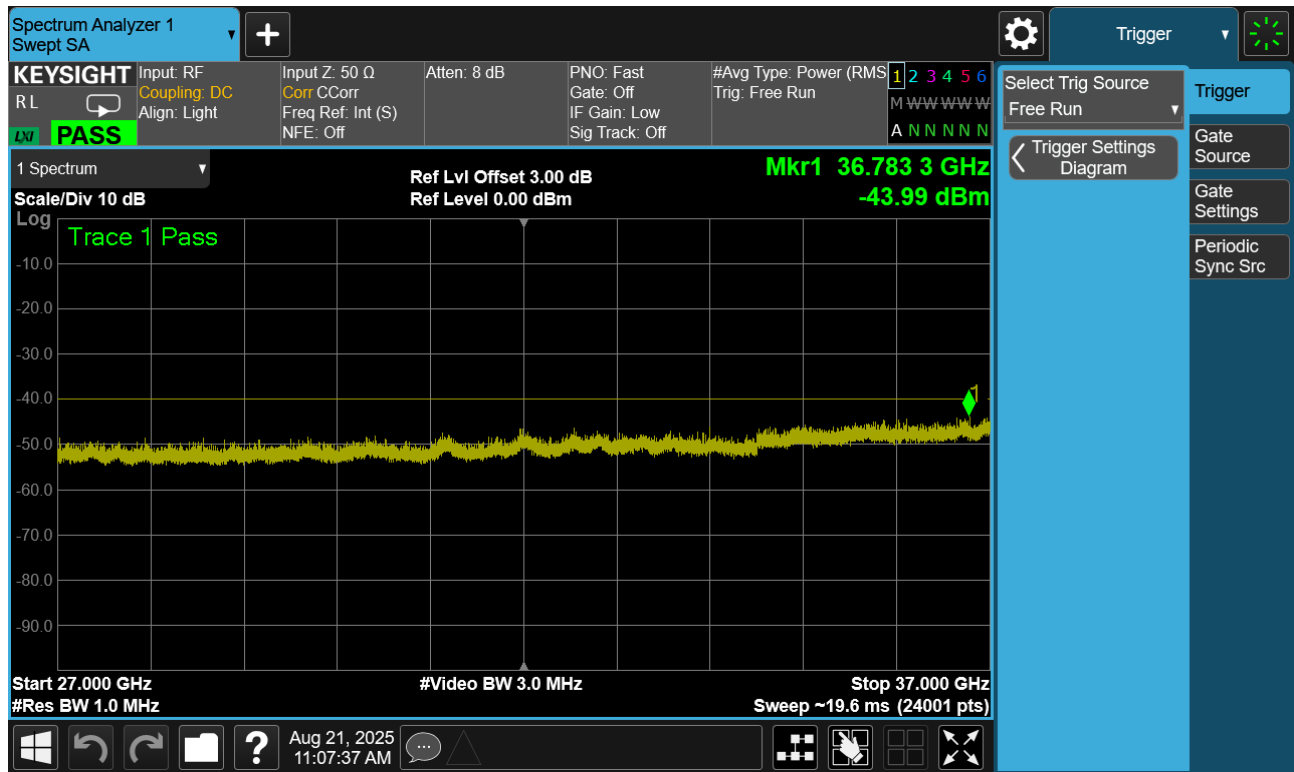


Plot 7.27. Conducted Spurious Plot (20MHz TM1.1, Low Channel)

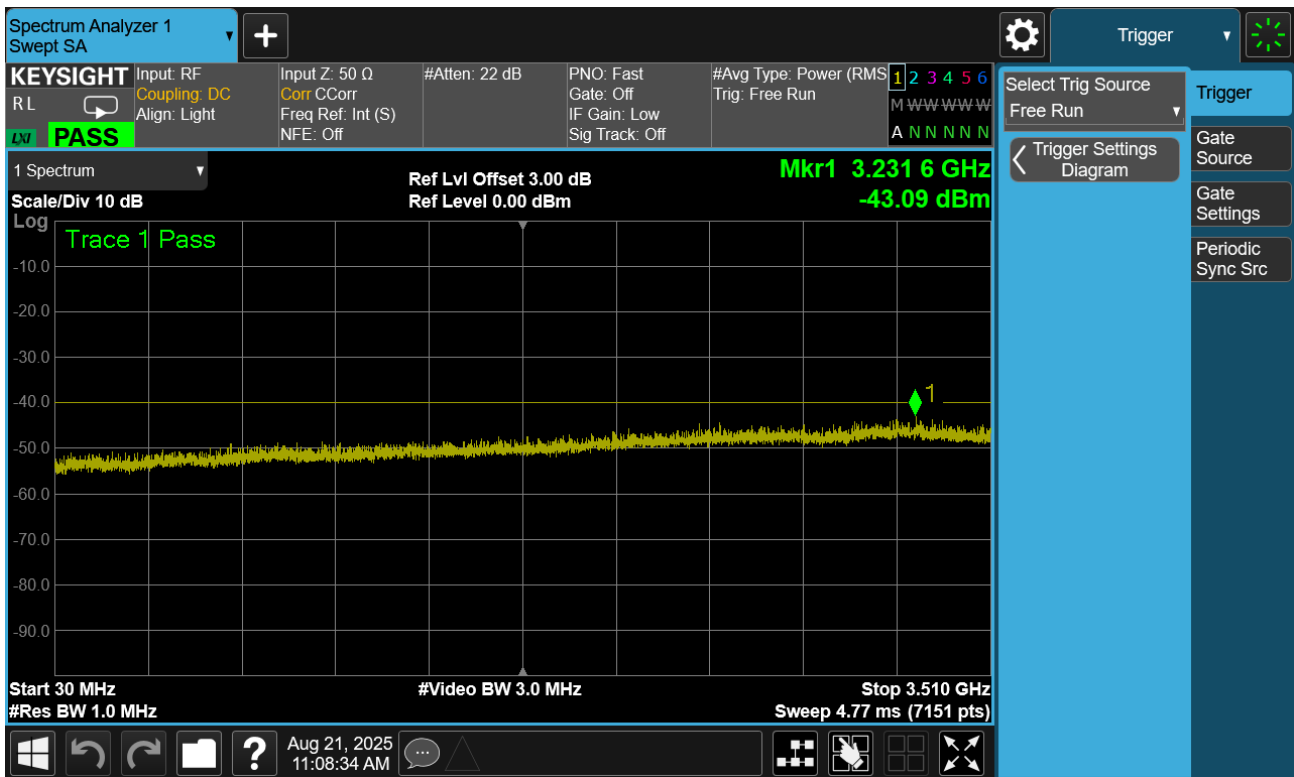


Plot 7.28. Conducted Spurious Plot (20MHz TM1.1, Low Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 36 of 61

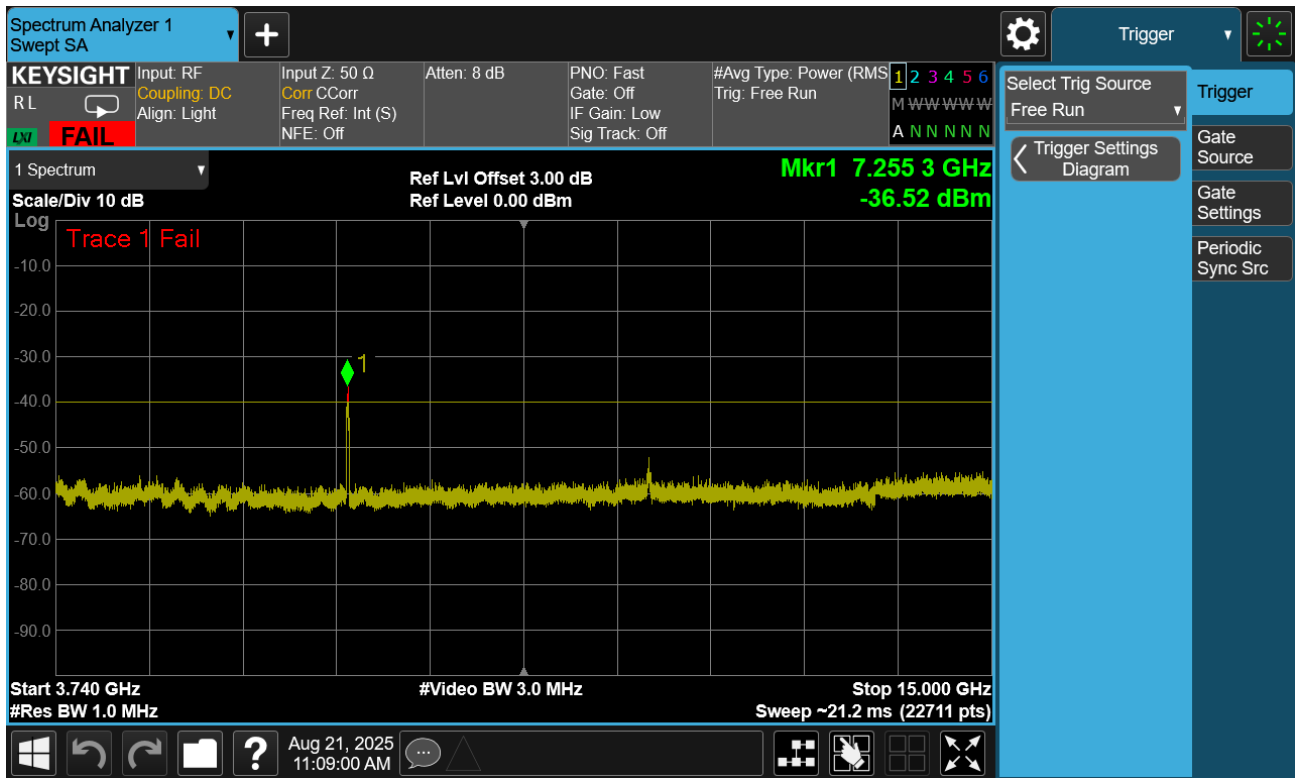


Plot 7.29. Conducted Spurious Plot (20MHz TM1.1, Low Channel)

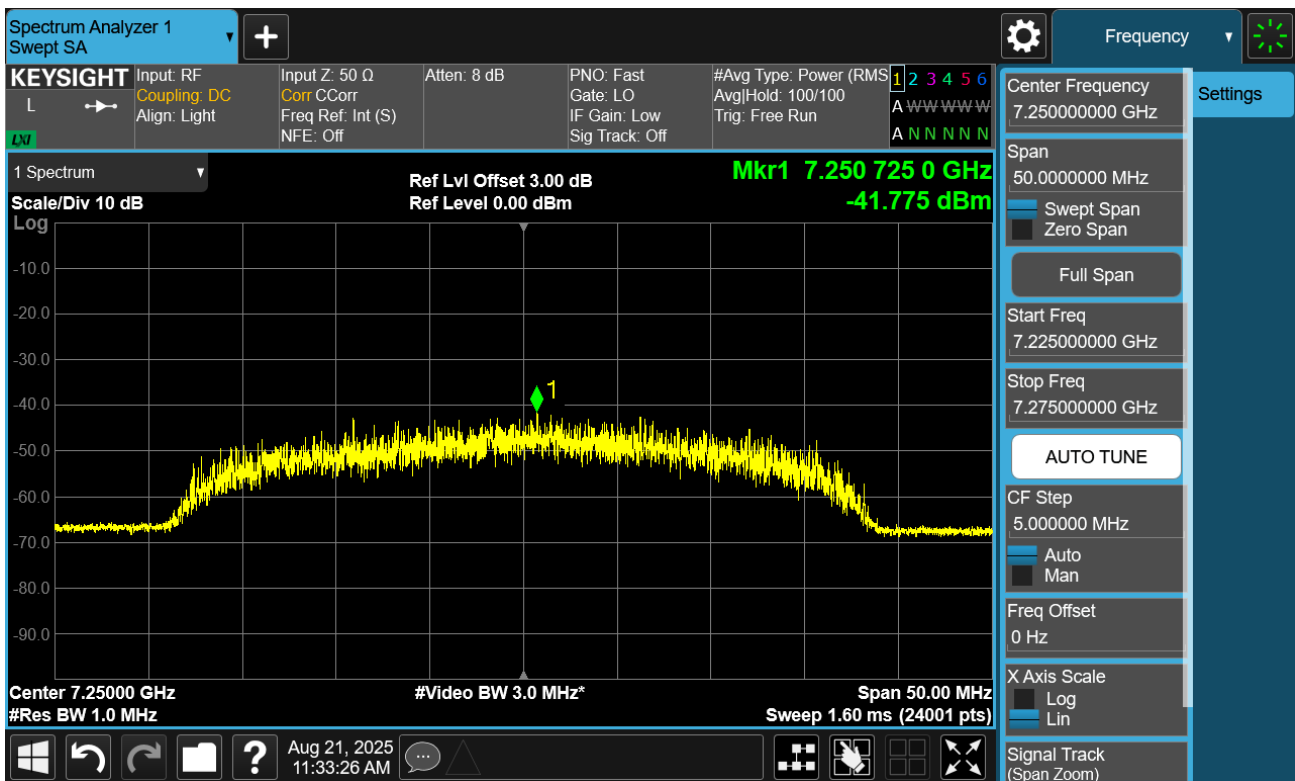


Plot 7.30. Conducted Spurious Plot (20MHz TM1.1, Mid Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 37 of 61

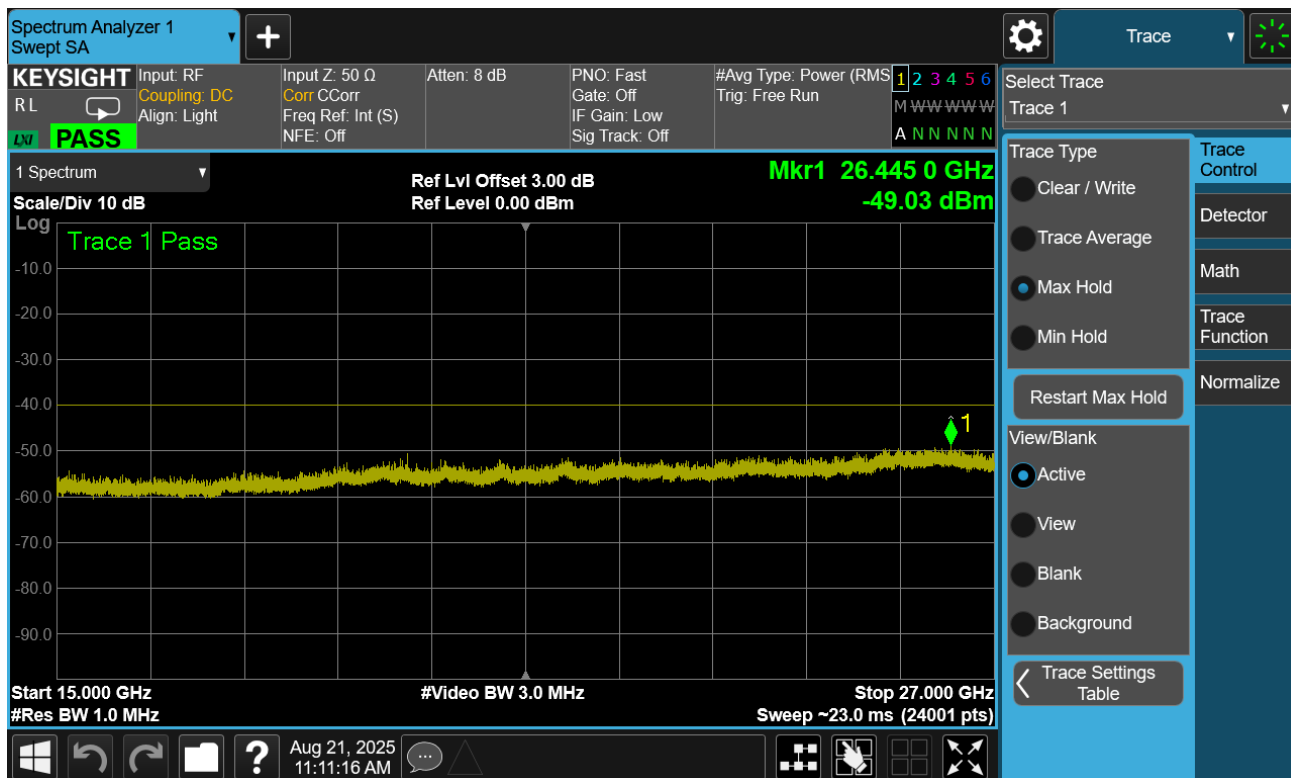


Plot 7.31. Conducted Spurious Plot (20MHz TM1.1, Mid Channel)

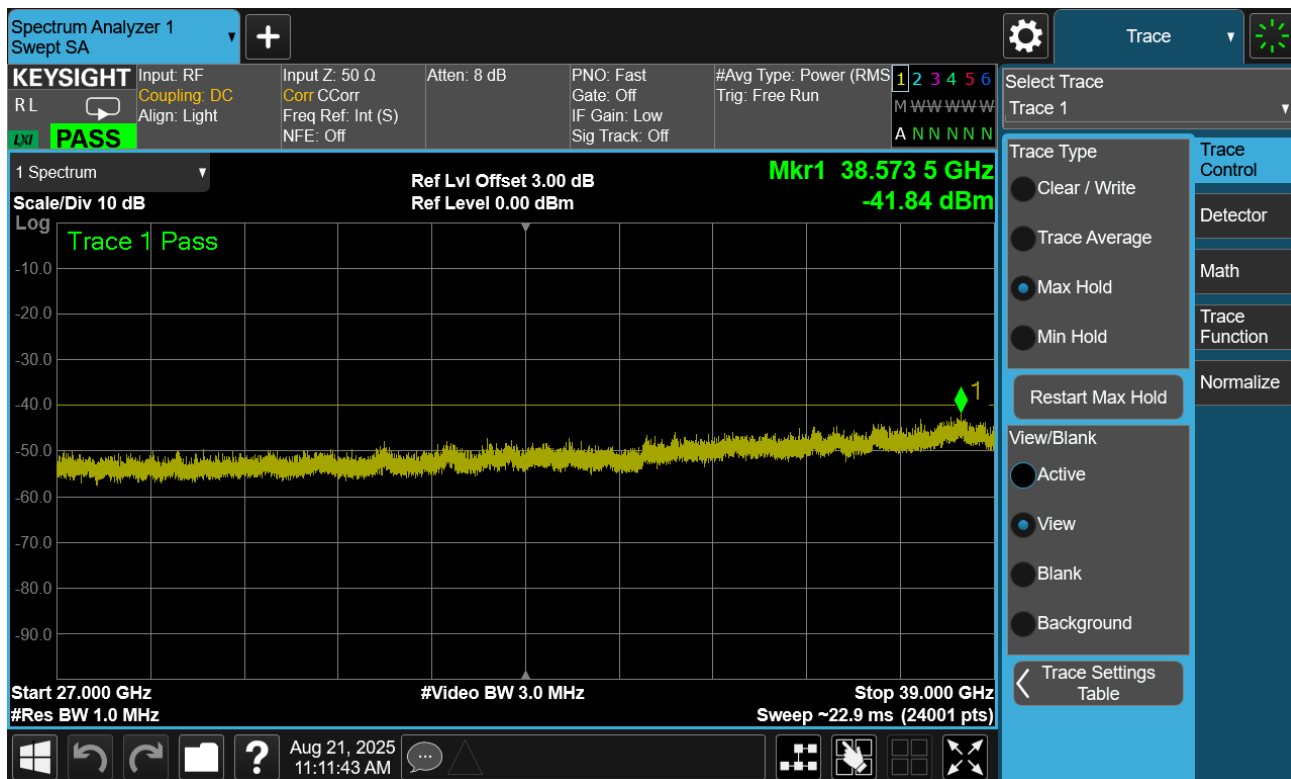


Plot 7.32. Conducted Spurious Plot (20MHz TM1.1, Mid Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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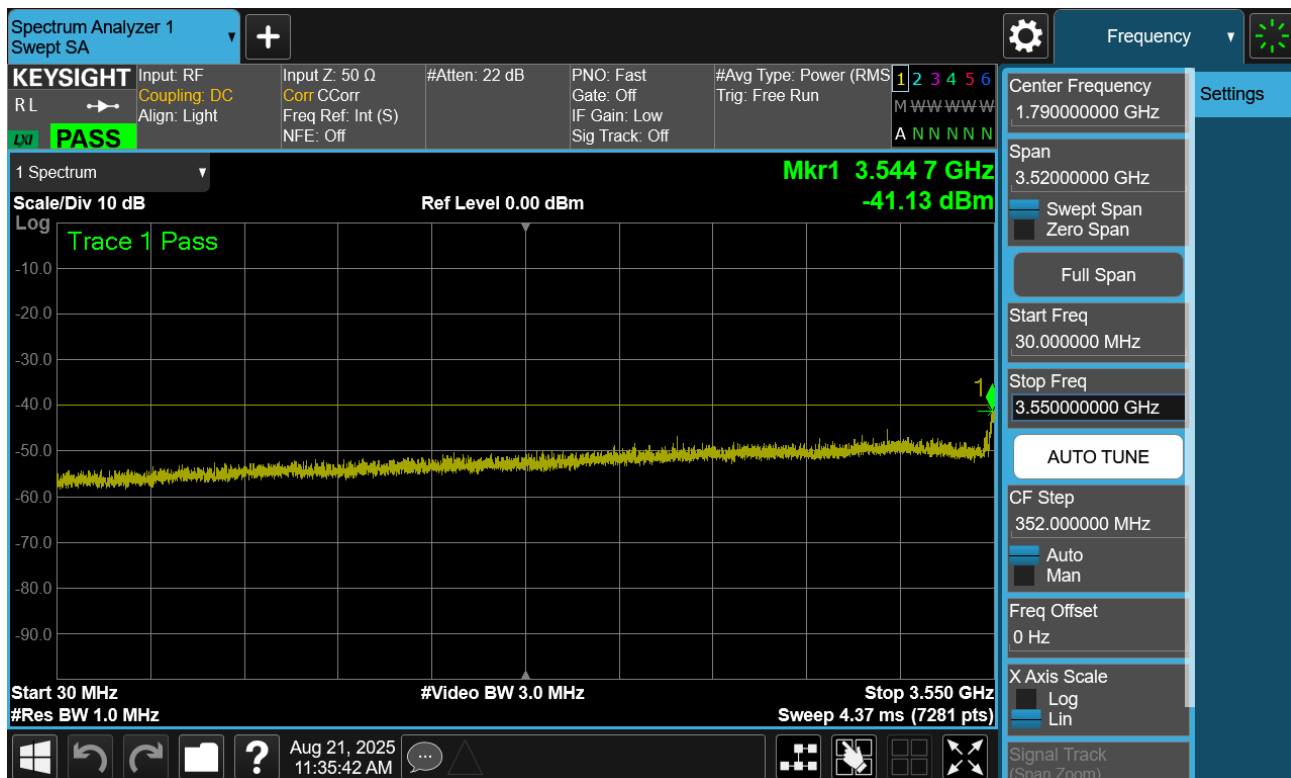


Plot 7.33. Conducted Spurious Plot (20MHz TM1.1, Mid Channel)

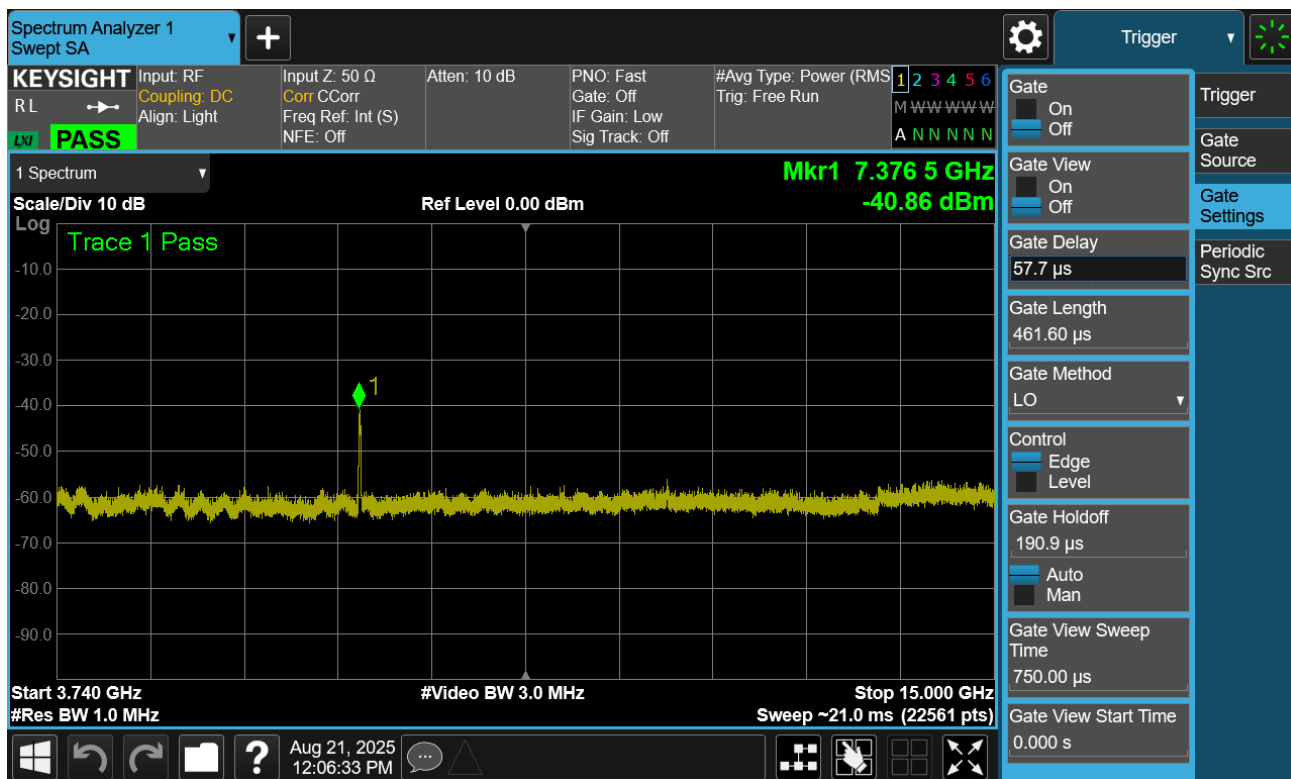


Plot 7.34. Conducted Spurious Plot (20MHz TM1.1, Mid Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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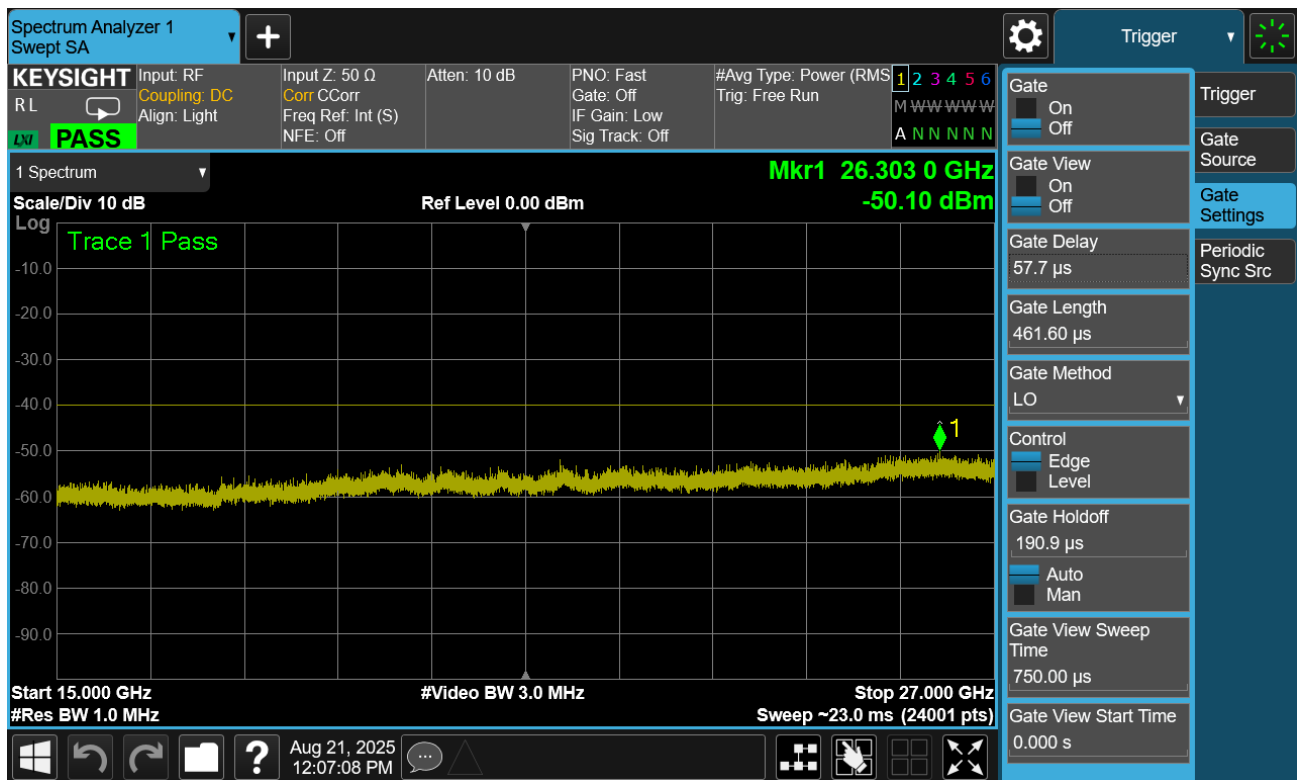


Plot 7.35. Conducted Spurious Plot (20MHz TM1.1, High Channel)

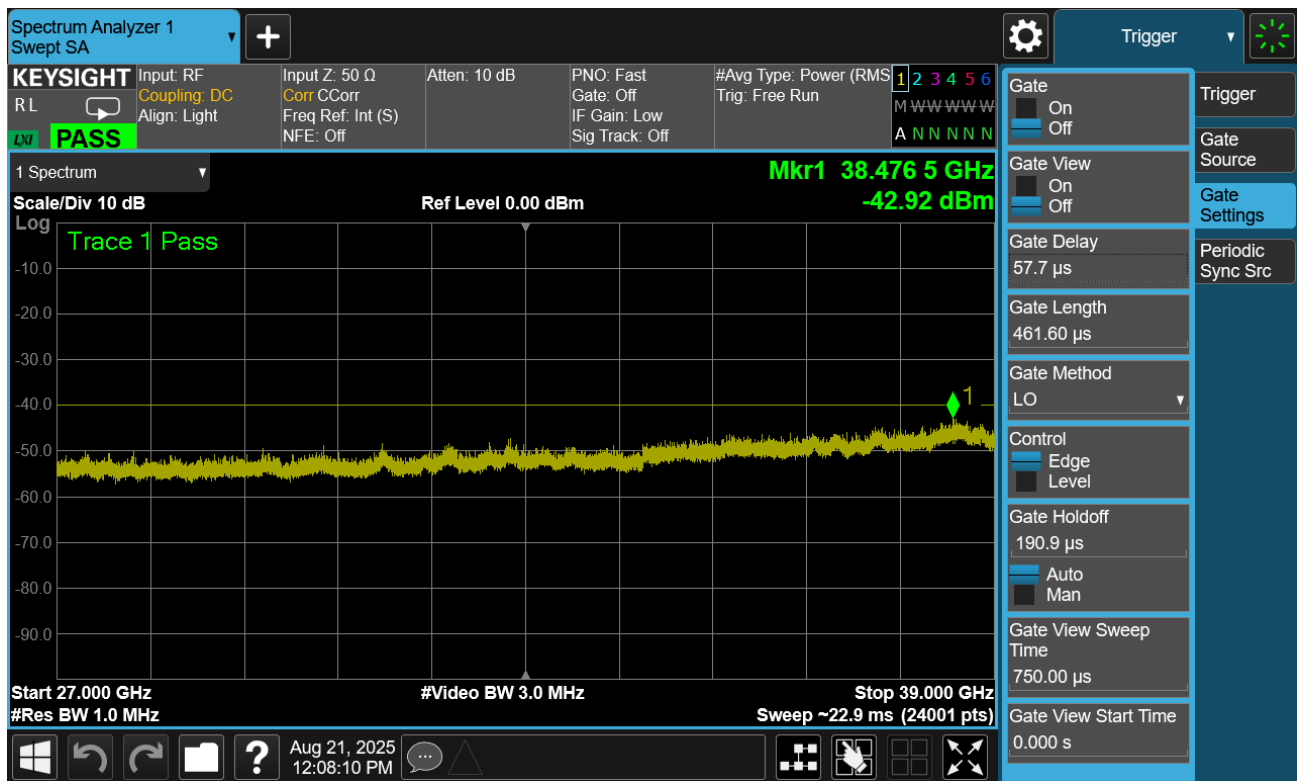


Plot 7.36. Conducted Spurious Plot (20MHz TM1.1, High Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7.37. Conducted Spurious Plot (20MHz TM1.1, High Channel)



Plot 7.38. Conducted Spurious Plot (20MHz TM1.1, High Channel)

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7.7 Band Edge Emissions at Antenna Terminal

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.

For an End User Device, the conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0 to B MHz (where B is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B MHz below the lower CBSD-assigned channel edge. At all frequencies greater than B MHz above the upper CBSD assigned channel edge and less than B MHz below the lower CBSD-assigned channel edge, the conducted power of any end user device emission shall not exceed -25 dBm/MHz. The conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

Test Procedure Used

ANSI C63.26-2015 – Section 5.7.3

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 $\geq 1\%$ of the emission bandwidth
4. VBW $\geq 3 \times$ RBW
5. Detector = RMS
6. Number of sweep points $\geq 2 \times$ Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



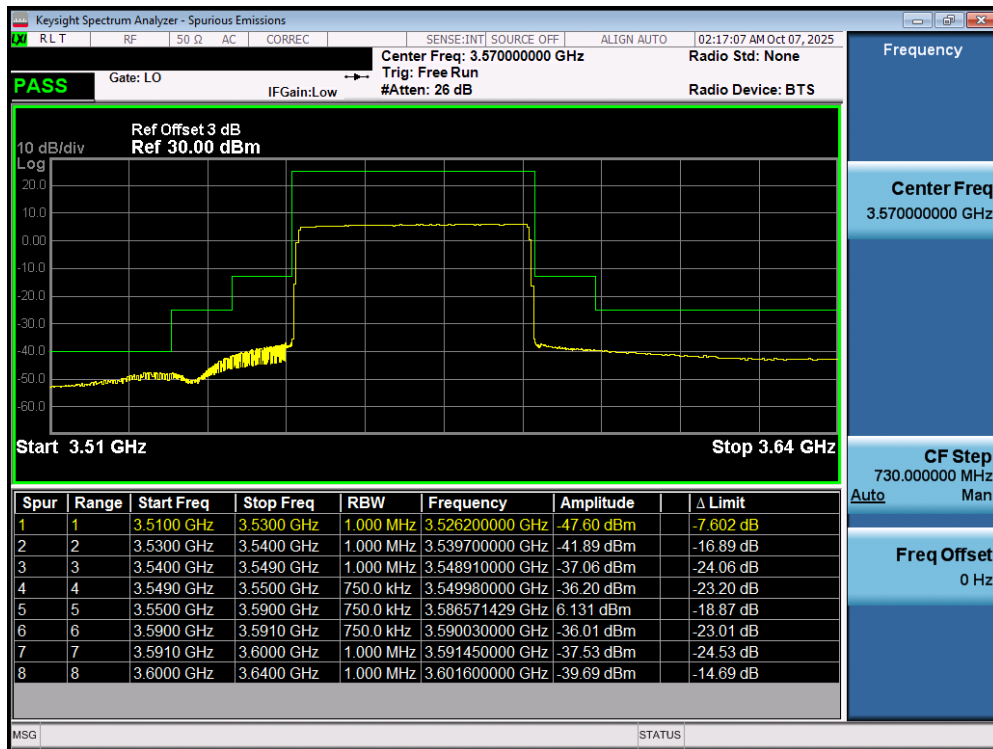
Figure 7-6. Test Instrument & Measurement Setup

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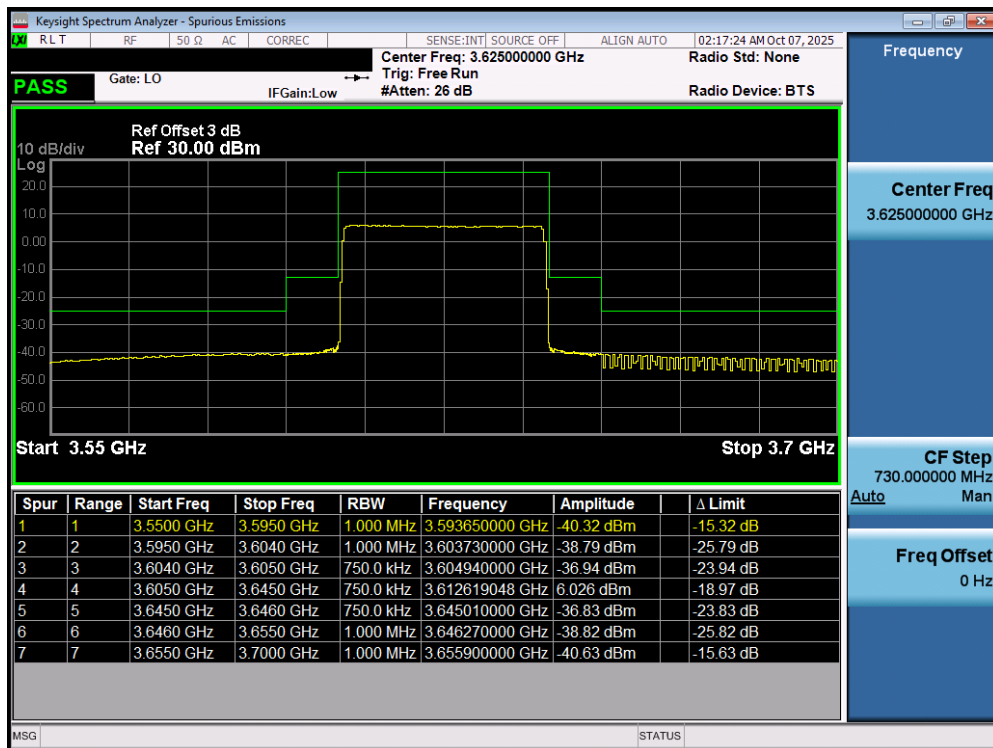
Test Notes

1. Per 96.41(e)(i)(1), compliance with this provision 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 authorized frequency channel, a resolution bandwidth of no less than one percent of the fundamental emission bandwidth may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full reference bandwidth (i.e., 1 MHz or 1 percent of emission bandwidth, as specified). The fundamental 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.
2. Only plots for the worst case channel are included in this report.
3. As both outputs of the device are identical, MIMO results are obtained by adding 3dB to SISO measurements.

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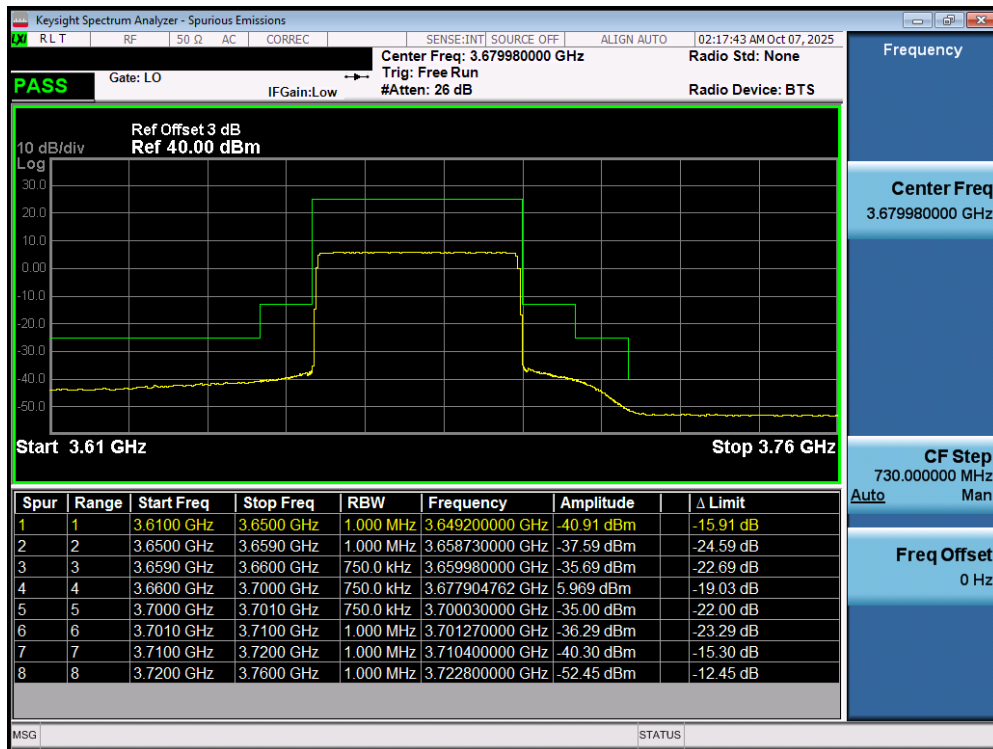


Plot 7.39. Conducted Band Edge Plot (40MHz, TM1.1, Low Channel)

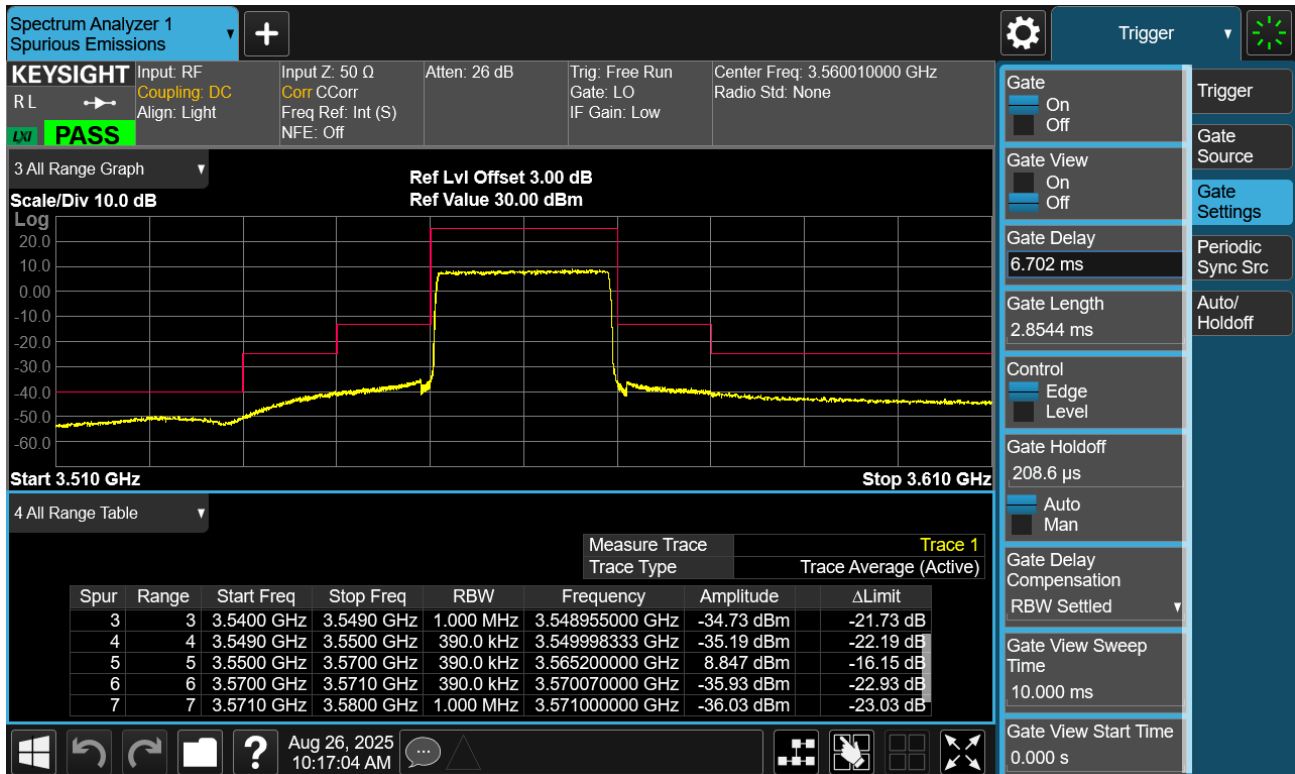


Plot 7.40. Conducted Band Edge Plot (40MHz, TM1.1, Mid Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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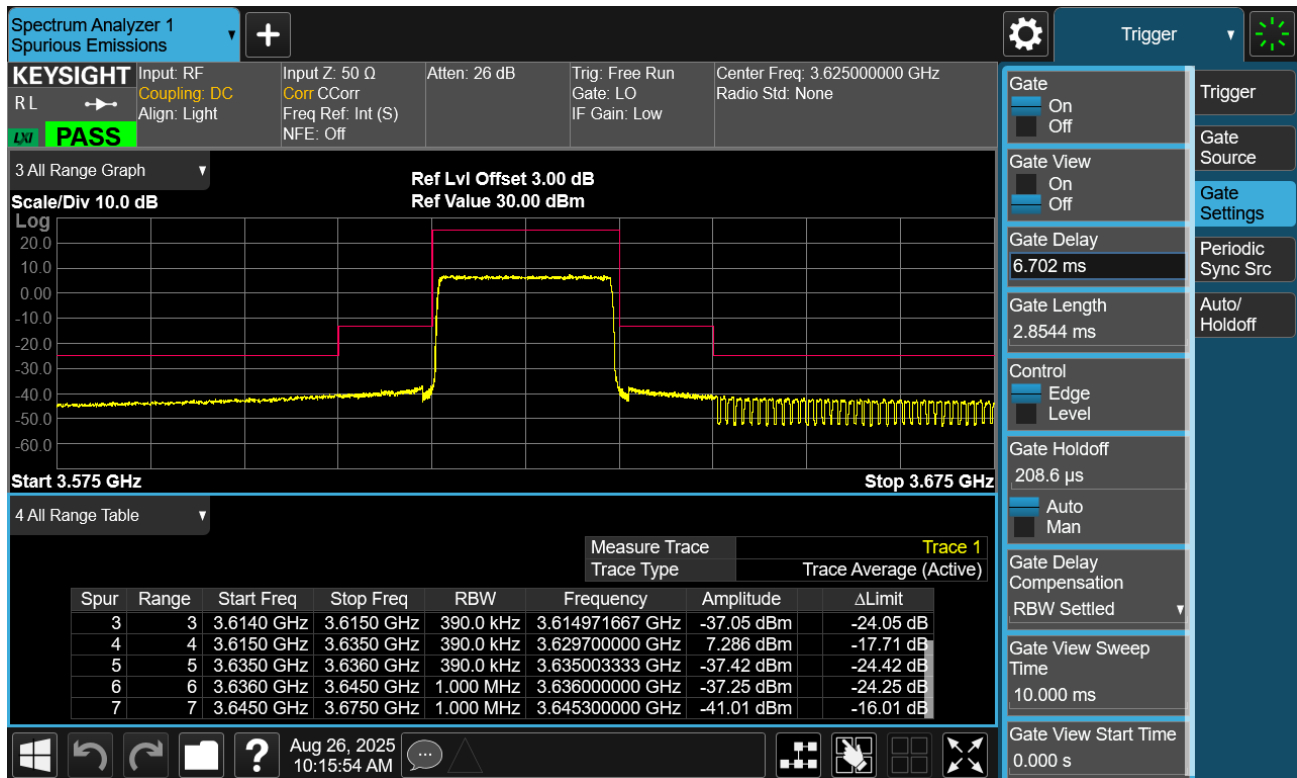


Plot 7.41. Conducted Band Edge Plot (40MHz, TM1.1, High Channel)

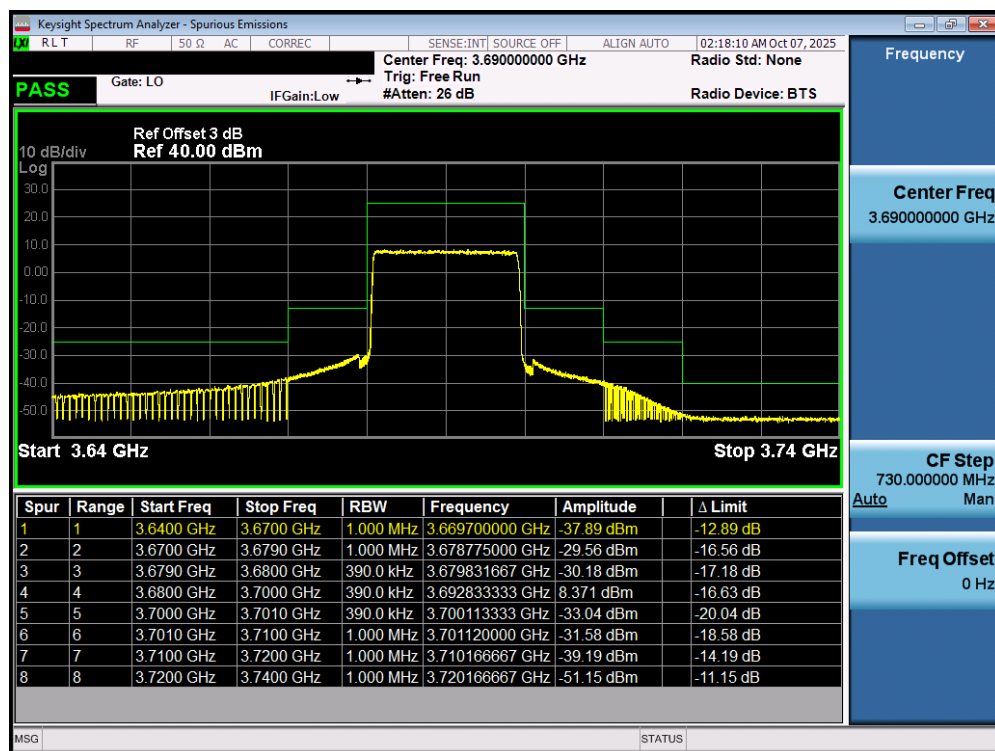


Plot 7.42. Conducted Band Edge Plot (20MHz, TM1.1, Low Channel)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7.43. Conducted Band Edge Plot (20MHz, TM1.1, Mid Channel)



Plot 7.44. Conducted Band Edge Plot (20MHz, TM1.1, High Channel)

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7.8 Peak-Average Ratio

Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

Test Procedure Used

ANSI C63.26-2015 – Section 5.2.3.4

Test Settings

1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW $\geq$ OBW or specified reference bandwidth
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-7. Test Instrument & Measurement Setup

Test Notes

None.

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Mode	Bandwidth	Modulation	PAR at 0.1% [dB]	PAR Limit [dB]	Margin [dB]
NR n48	40MHz	TM1.1	8.31	13.0	-4.69
		TM1.2	8.47	13.0	-4.53
		TM2a	11.15	13.0	-1.85
		TM3.1a	8.45	13.0	-4.55
	20 MHz	TM1.1	8.39	13.0	-4.61
		TM1.2	8.42	13.0	-4.58
		TM2a	11.97	13.0	-1.03
		TM3.1a	8.4	13.0	-4.6

Table 7-6 Peak to Average Power Ratio Measurements



Plot 7.45. Peak-Average Ratio Plot (20MHz TM1.1)

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Plot 7.46. Peak-Average Ratio Plot (20MHz TM1.2)



Plot 7.47. Peak-Average Ratio Plot (20MHz TM2a)

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Plot 7.48. Peak-Average Ratio Plot (20MHz TM3.1a)



Plot 7.49. Peak-Average Ratio Plot (40MHz TM1.1)

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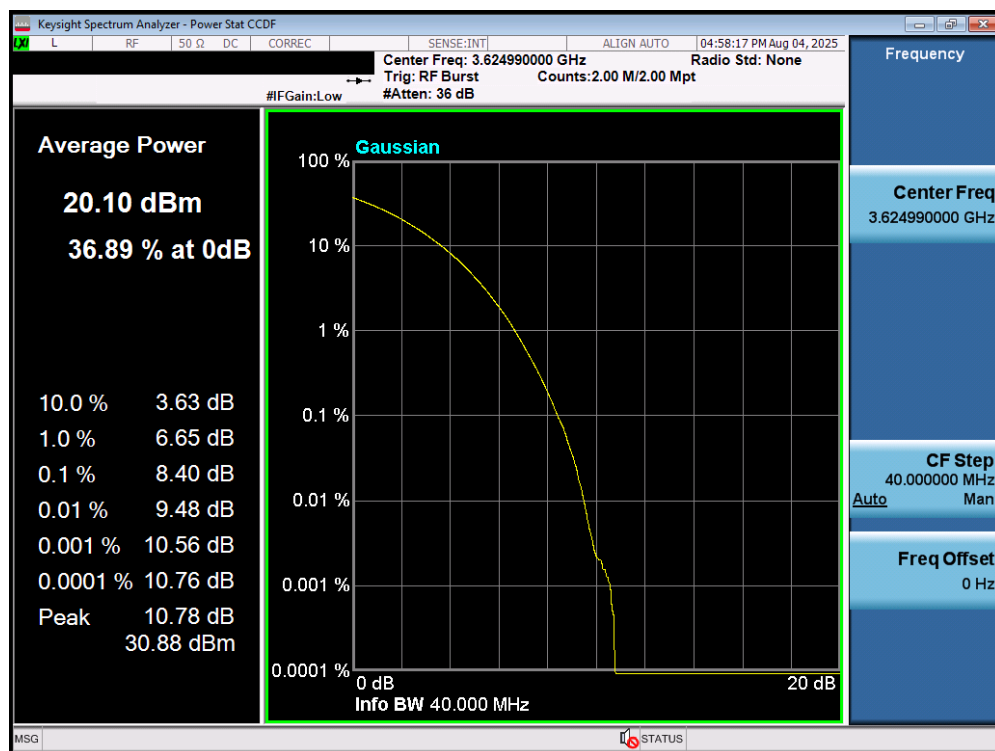


Plot 7.50. Peak-Average Ratio Plot (40MHz TM1.2)



Plot 7.51. Peak-Average Ratio Plot (40MHz TM2a)

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7.52. Peak-Average Ratio Plot (40MHz TM3.1a)

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7.9 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into a 50 ohm termination. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

Test Settings

1. RBW = 1MHz
2. VBW $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $\geq 2 \times$ span / RBW
5. Detector = RMS
6. Trace mode = Max Hold (In cases where the level is within 2dB of the limit, the final measurement is taken using triggering/gating and trace averaging.)
7. The trace was allowed to stabilize

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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

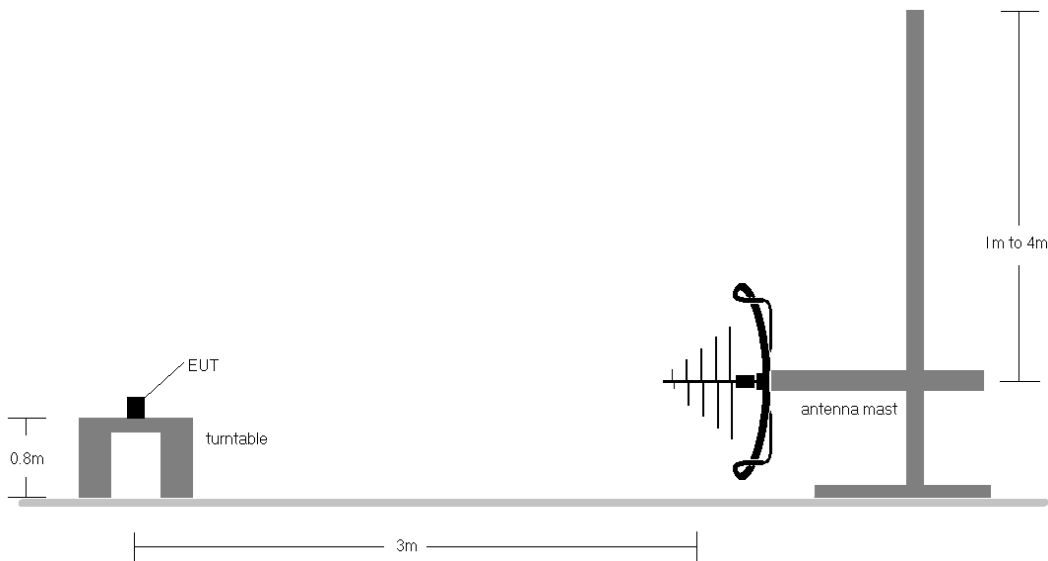


Figure 7-8. Test Instrument & Measurement Setup < 1GHz

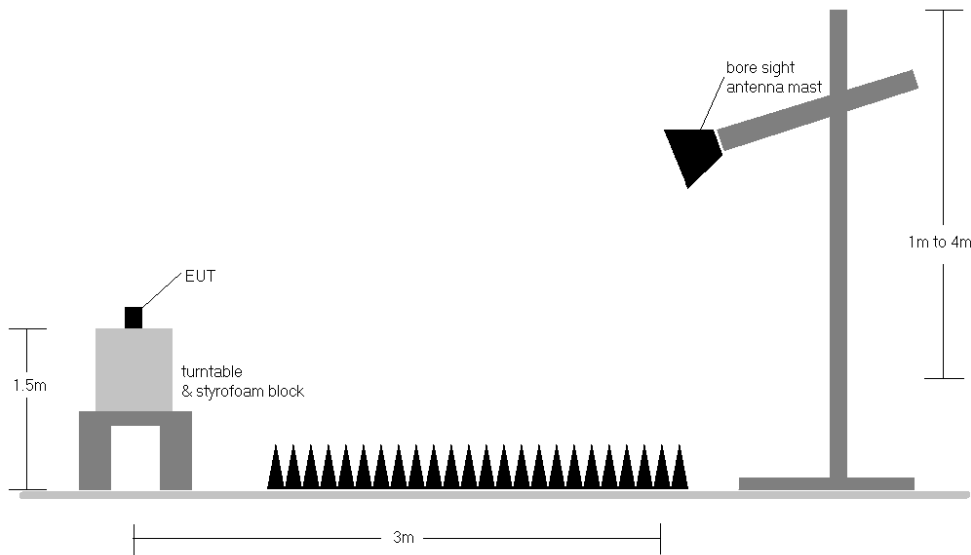


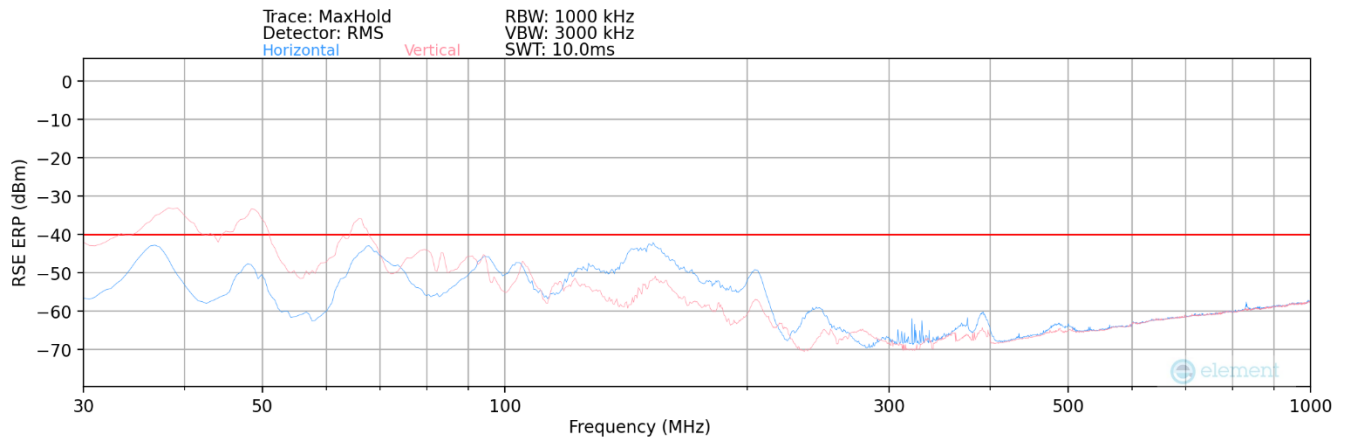
Figure 7-9. Test Instrument & Measurement Setup >1 GHz

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Test Notes

- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
 - a) $E(\text{dB}\mu\text{V/m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - b) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V/m}) + 20\log D - 104.8$; where D is the measurement distance in meters.
- 2) The EUT was tested in three orthogonal planes 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 tables below.
- 3) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 4) Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 5) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

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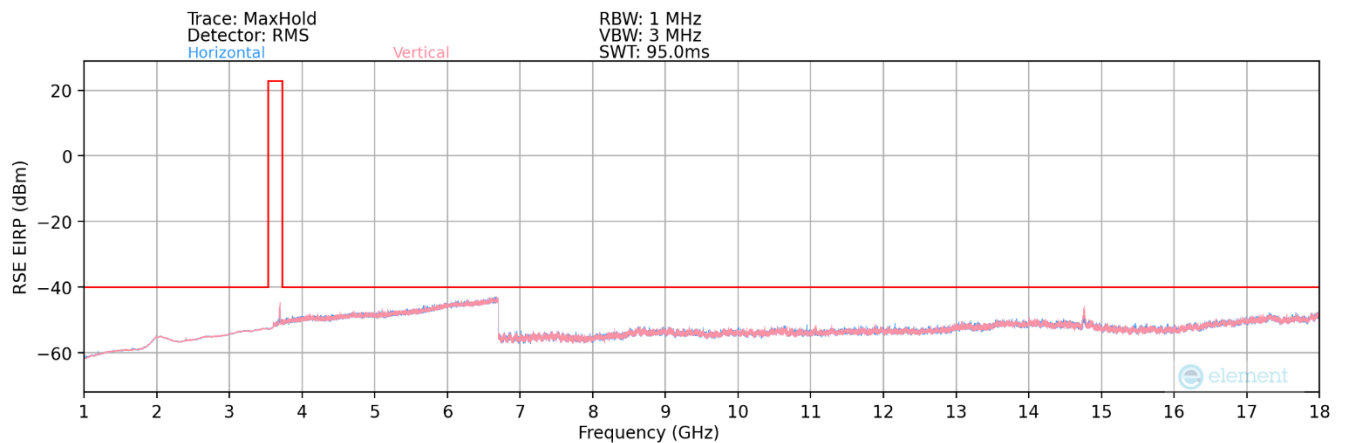


Plot 7.53. Radiated Spurious Plot 30MHz-1GHz – Mid Channel

Bandwidth (MHz):	20
Frequency (MHz):	3625.0
Modulation Signal:	WPSK
Detector / Trace Mode:	RMS / MaxHold
RBW / VBW:	1MHz / 3MHz

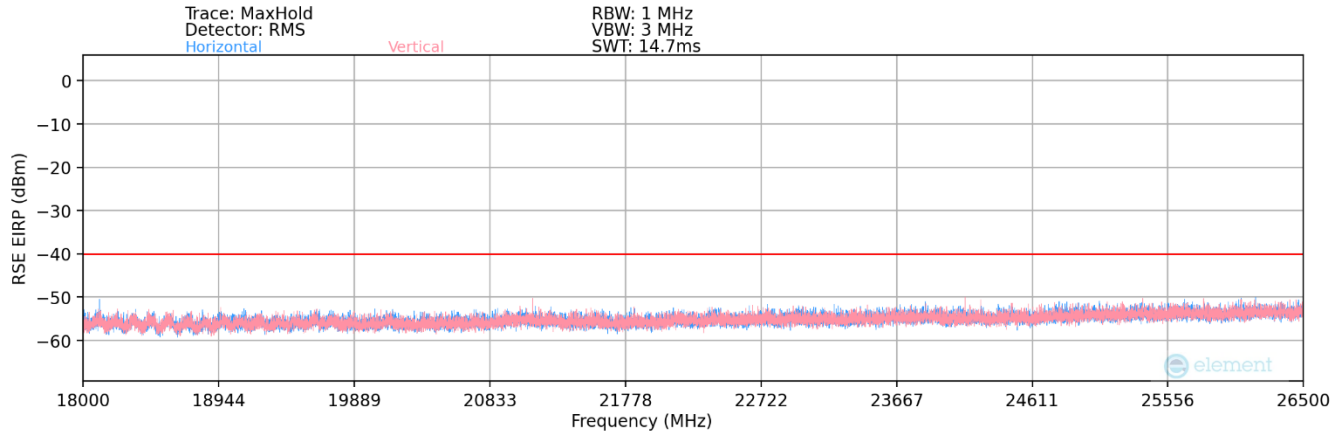
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
42.60	V	147	248	-76.24	18.34	49.10	-48.31	-40.00	-8.31
46.12	V	162	24	-87.87	16.27	35.40	-62.01	-40.00	-22.01
61.80	V	254	332	-75.00	14.40	46.40	-51.01	-40.00	-11.01
71.10	V	181	22	-85.19	14.77	36.58	-60.83	-40.00	-20.83
81.40	V	193	17	-67.85	14.47	53.62	-43.78	-40.00	-3.78
90.00	V	138	9	-72.03	14.76	49.73	-47.68	-40.00	-7.68
105.50	V	177	24	-70.93	18.73	54.80	-42.60	-40.00	-2.60
133.70	H	171	33	-73.09	20.16	54.07	-43.34	-40.00	-3.34
177.30	H	169	23	-79.29	18.73	46.44	-50.97	-40.00	-10.97
396.80	H	-	-	-85.99	23.38	44.39	-53.02	-40.00	-13.02

Table 7-7. Radiated Spurious Data 30MHz-1GHz – Mid Channel

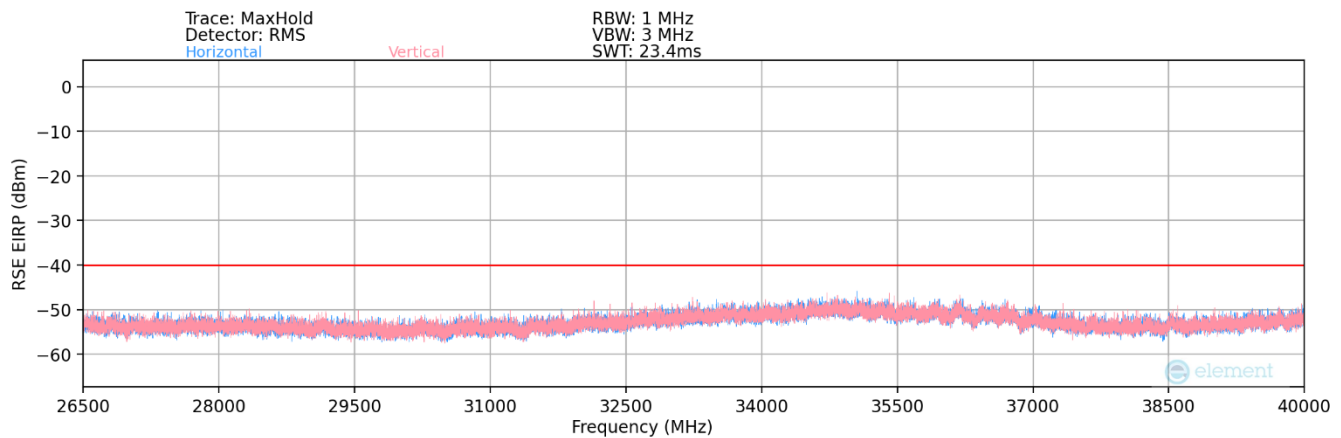


Plot 7.54. Radiated Spurious Plot 1-18GHz – Mid Channel

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7.55. Radiated Spurious Plot 18-26.5GHz – Mid Channel



Plot 7.56. Radiated Spurious Plot 26.5-40GHz – Mid Channel

Bandwidth (MHz):	20
Frequency (MHz):	3560.0
Modulation Signal:	QPSK
Detector / Trace Mode:	RMS / Max Hold
RBW / VBW:	1MHz / 3MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7120.00	V	147	160	-74.36	9.70	42.34	-52.92	-40.00	-12.92
10680.00	V	173	159	-65.97	13.08	54.11	-41.15	-40.00	-1.15
14240.00	V	349	165	-77.62	15.38	44.76	-50.50	-40.00	-10.50
17800.00	V	151	216	-78.48	17.11	45.63	-49.62	-40.00	-9.62
21360.00	V	-	-	-53.98	2.91	55.93	-48.87	-40.00	-8.87
24920.00	V	-	-	-53.90	4.45	57.54	-47.26	-40.00	-7.26
28480.00	V	-	-	-54.78	5.33	57.55	-47.25	-40.00	-7.25

Table 7-8. Radiated Spurious Data 1-40GHz - Low Channel

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Bandwidth (MHz):	20
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
Detector / Trace Mode:	RMS / Max Hold
RBW / VBW:	1MHz / 3MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7250.00	V	170	164	-71.67	9.31	44.64	-50.62	-40.00	-10.62
10875.00	V	271	198	-68.91	12.69	50.78	-44.48	-40.00	-4.48
14500.00	V	212	155	-73.01	15.58	49.57	-45.69	-40.00	-5.69
18125.00	V	-	-	-53.54	1.10	54.56	-50.24	-40.00	-10.24
21750.00	V	-	-	-54.01	2.78	55.77	-49.03	-40.00	-9.03
25375.00	V	-	-	-52.29	4.84	59.55	-45.25	-40.00	-5.25

Table 7-9. Radiated Spurious Data 1-40GHz - Mid Channel

Bandwidth (MHz):	20
Frequency (MHz):	3690.0
Modulation Signal:	QPSK
Detector / Trace Mode:	RMS / Max Hold
RBW / VBW:	1MHz / 3MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7380.00	V	-	-	-80.36	10.14	36.78	-58.48	-40.00	-18.48
11070.00	V	172	170	-73.29	12.63	46.34	-48.92	-40.00	-8.92
14760.00	V	203	156	-68.56	15.48	53.92	-41.34	-40.00	-1.34
18450.00	V	-	-	-52.95	1.15	55.21	-49.59	-40.00	-9.59
22140.00	V	-	-	-52.60	3.27	57.67	-47.13	-40.00	-7.13
25830.00	V	-	-	-53.90	4.77	57.87	-46.93	-40.00	-6.93

Table 7-10. Radiated Spurious Data 1-40GHz – High Channel

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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7.10 Frequency Stability / Temperature Variation

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 96, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI C63.26-2015 – Section 5.6

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.

Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

Test Notes

For conditions marked with “-“ the EUT had ceased operation.

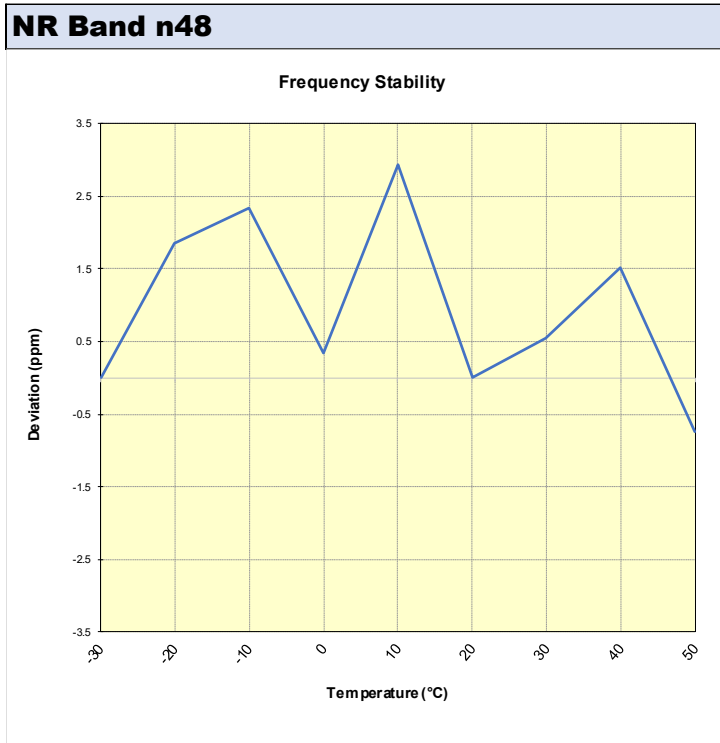
FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n48

Operating Frequency (Hz):	3,625,000,000
Ref. Voltage (VDC):	48.00

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100	48.00	- 30	-	-	-
		- 20	3,671,508,043	6,812	0.0001855
		- 10	3,671,509,823	8,592	0.0002340
		0	3,671,502,516	1,285	0.0000350
		+ 10	3,671,512,042	10,811	0.0002945
		+ 20 (Ref)	3,671,501,231	0	0.0000000
		+ 30	3,671,503,210	1,979	0.0000539
		+ 40	3,671,506,812	5,581	0.0001520
		+ 50	3,671,498,501	-2,730	-0.0000744
85	40.80	+ 20	3,671,501,222	-9	-0.0000002
115	48.00	+ 20	3,671,500,156	-1,075	-0.0000293

Table 7-11. Frequency Stability Data



Plot 7.57. Frequency Stability Chart

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Eridan Small Cell Radio Unit FCC ID: 2BR8Z-ER2035A** complies with all of the CBSD Category A and B requirements of Part 96 of the FCC Rules for 5G NR operation only.

- END OF TEST REPORT -

FCC ID: 2BR8Z-ER2035A	PART 96 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2508040072-01.2BR8Z	Test Dates: 8/4/2025-10/7/2025	EUT Type: Small Cell Radio Unit	Page 61 of 61