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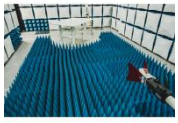

MEASUREMENT REPORT
FCC PART 15.407 Narrowband UNII-5

Applicant Name:
Apple Inc.
One Apple Park Way
Cupertino, CA 95014
United States

Date of Testing:
6/24/2024 - 8/14/2024
Test Report Issue Date:
8/21/2024
Test Site/Location:
Element Materials Technology Morgan Hill, CA, USA
Test Report Serial No.:
1C2407010043-01-R2.BCG

FCC ID:	**BCGA2117**
APPLICANT:	**Apple Inc.**

Application Type	Certification
Models:	A2117
EUT Type:	Head Mounted Device
Frequency Range:	6108 – 6420 MHz
Modulation Type:	GFSK, π/4 DQPSK
FCC Classification:	15E 6 GHZ Very Low Power Device (6VL)
FCC Rule Part(s):	Part 15 Subpart E (15.407)
Test Procedure(s):	ANSI C63.10-2020, KDB 789033 D02 v02r01, KDB 987594 D01 v02r02 KDB 987594 D02 v02r01 KDB 987594 D04 v02

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 ANSI C63.10-2020, KDB 789033 D02 v02r01 and KDB 987593 D0 v02r01. Test results reported herein relate only to the item(s) tested.

This revised Test Report (S/N: 1C2407010043-01-R1) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose accordingly.

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

Prepared by: WKR0000006164

Reviewed by: WKR0000005849

ACCREDITED
CERT #2041.02

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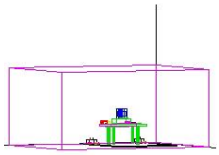
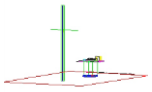


MEASUREMENT REPORT



UNII Band	Mode	Tx Frequency (MHz)	Max. e.i.r.p. [mW]	Max. e.i.r.p. [dBm]
5	NB UNII BDR	6108 - 6420	0.243	-6.14
5	NB UNII LE-1M	6108 - 6420	0.243	-6.15
5	NB UNII LE-2M	6108 - 6420	0.243	-6.14
5	NB UNII HDR4	6108 - 6420	0.389	-4.10
5	NB UNII HDR8	6108 - 6420	0.690	-1.61
5	NB UNII HDRp4	6108 - 6420	0.375	-4.26
5	NB UNII HDRp8	6108 - 6420	0.689	-1.62

FCC EUT Overview

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 and the Innovation, Science and Economic Development Canada.

1.2 Element Materials Technology Test Location

These measurement tests were conducted at the Element Materials Technology facility located at 18855 Adams Court, Morgan Hill, CA 95037. The measurement facility is 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 Materials Technology located in Morgan Hill, CA 95037, U.S.A.

- Element Materials Technology is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.02 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 Materials Technology facility is a registered (22831) 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 designed by NIST under the U.S. and Canada Mutual Recognition Agreements (MRAs)

2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Apple Head Mounted Device FCC ID: BCGA2117**. The test data contained in this report pertains only to the emissions due to the EUT's Narrowband UNII transmitter. The module supports Narrowband UNII on one conducted port and transmits to two antennas, NB_UNII_R and NB_UNII_L, via splitter.

- This Narrowband UNII module has been tested by manufacturer and the following were confirmed:
  - A) The hopping sequence is pseudorandom
  - B) The receiver input bandwidth equals the transmit bandwidth
  - C) The receiver hops in sequence with the transmit signal
  - D) Narrowband UNII can only hop within the same UNII band and cannot hop between bands

Test Device Serial No.: PYVWK6LLC6, WFGF7D9H60, LHPHFF73XV, KQ4P243T74

2.2 Device Capabilities

This device contains the following capabilities:

802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII, Bluetooth (1x, EDR, LE1M, LE2M, HDR4, HDR8), NB UNII (1x, BDR, LE1M, LE2M, HDR4, HDR8, HDRp4, HDRp8).

Channels below 6108 MHz in the UNII-5 band are disabled in the US and its territories.

This device supports BT Beamforming.

Band 5
Frequency (MHz)
6108
:
6264
:
6420

Table 2-1. NB UNII-5 Frequency / Channel Operations

Notes:

This device is capable of operating in hopping and non-hopping mode. The EUT can hop between different channels in the U-NII Band 5. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = peak per the guidance of Section B)2)b) of KDB 789033 D02 v02r01 and ANSI C63.10-2020. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Measured Duty Cycles		
Mode	**Frequency (MHz)**	**Duty Cycle [%]**
NB UNII BDR	6108-6420	100
NB UNII BLE-1M	6108-6420	81.6
NB UNII BLE-2M	6108-6420	54.4
NB UNII HDR4	6108-6420	100
NB UNII HDR8	6108-6420	100
NB UNII HDRp4	6108-6420	100
NB UNII HDRp8	6108-6420	100

Table 2-2. Measured Duty Cycles

This device supports simultaneous transmission operations. The table below shows all configurations possible.

Simultaneous Tx Config	Ant1			Ant2			NB UNII_L		NB UNII_R
	WLAN 2.4G 802.11 b/g/n/ax	BT 2.4G BDR, EDR, HDR4/8, LE1M/2M, HDRp4/p8	WIFI 5G 802.11 a/n/ac/ax	WLAN 2.4G 802.11 b/g/n/ax	BT 2.4G BDR, EDR, HDR4/8, LE1M/2M, HDRp4/p8	WIFI 5G 802.11 a/n/ac/ax	BT 2.4G BDR, HDR4/8, LE1M/2M, HDRp4/p8	NB_UNII 5G BDR, HDR4/8, LE1M/2M, HDRp4/p8	NB_UNII 5G BDR, HDR4/8, LE1M/2M, HDRp4/p8
Config 1	✓	×	✓	×	×	×	×	✓	✓
Config 2	×	×	×	✓	×	✓	×	✓	✓
Config 3	×	✓	✓	×	×	×	×	✓	✓
Config 4	×	✓	×	×	×	✓	×	✓	✓
Config 5	×	✓	✓	×	✓	×	×	×	×
Config 6	×	✓	×	×	✓	✓	×	×	×
Config 7	✓	×	✓	×	×	×	✓	✓	✓
Config 8	✓	×	×	×	×	✓	✓	✓	✓
Config 9	✓	×	✓	×	✓	×	×	×	×
Config 10	✓	×	×	×	✓	✓	×	×	×
Config 11	✓	×	✓	✓	×	✓	×	×	×
Config 12	×	✓	✓	×	×	✓	×	×	×
Config 13	✓	×	✓	×	×	✓	✓	×	×

Table 2-3. Simultaneous Transmission Configurations

✓ = Support; × = Not Support

Note:

All of the above simultaneous transmission configurations have been tested and the worst case configuration was found to be config 7 and reported in UNII 802.11 (OFDM), Bluetooth LE, NB UNII LE, and WLAN 802.11 (OFDM) test reports.

2.3 Antenna Description

The following antenna gains provided by the manufacturer were used for testing.

Frequency [MHz]	Highest Antenna Gains (dBi)		Lowest Antenna Gains (dBi)	
	NB_UNII_L	NB_UNII_R	NB_UNII_L	NB_UNII_R
6108 - 6420	2.4	2.4	0.1	0.1

Table 2-4. Highest Antenna Gain

2.4 Test Support Equipment

1	Apple Macbook Pro	Model:	A2289	S/N:	C02DV7VGMD6T
	w/ AD/DC Adapter	Model:	A2164	S/N:	N/A
2	Apple USB-C Cable	Model:	Spartan	S/N:	000MKTR02U
3	Right Temple	Model:	N/A	S/N:	HTFGR70005J000020R
	Left Temple	Model:	N/A	S/N:	HTFGR40004A00002GY
	Headband	Model:	N/A	S/N:	GKNGNC0001H0000215
4	Light Seal	Model:	N/A	S/N:	GKNGQF000RX00003KB
	Light Seal Padding	Model:	N/A	S/N:	GKNGQ8001RD00002XA
5	EUT Power Pack	Model:	N/A	S/N:	HTFGQW0009800001MV
6	Apple Airpod (Right)	Model:	A3047	S/N:	GFJKK0NJ26K0
	Apple Airpod (Left)	Model:	A3048	S/N:	GX1KJ4EG26JY
	Apple Airpod Charging Case	Model:	A2968	S/N:	DDX96KT9CH

Table 2-5. Test Support Equipment List

2.5 Test Configuration

The EUT was tested per the guidance of ANSI C63.10-2020 and KDB 789033 D02 v02r01. ANSI C63.10-2020 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing. See Sections 3.2 for AC line conducted emissions test setups, 3.3 for radiated emissions test setups, and 7.2, 7.3, 7.4 and 7.4 for antenna port conducted emissions test setups.

There are two vendors of the WiFi/Bluetooth radio modules, variant 1 and variant 2. Both radio modules have the same mechanical outline, same on-board antenna matching circuit, identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances. The worst case configuration was found between the two variants. The EUT was also investigated with and without charger.

For emissions from 1GHz – 18GHz, low, mid, and high channels were tested with highest power and worst case configuration. The emissions below 1GHz and above 18GHz were tested with the highest transmitting power and the worst case channel.

The EUT was manipulated through three orthogonal planes of X-orientation (flatbed), Y-orientation (landscape), and Z-orientation (portrait) during the testing. Only the worst case emissions were reported in this test report.

For AC line conducted and radiated test below 1GHz, following configurations were investigated and EUT powered by AC/DC adaptor was the worst case.

- EUT powered by AC/DC adaptor to USB-C Power Pack to Magnetic Charging Cable
- EUT powered by host PC via USB-C Power Pack to Magnetic Charging Cable

2.6 Software and Firmware

The test was conducted with firmware version 20.1.467.5718 installed on the EUT.

2.7 EMI Suppression Device(s)/Modifications

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

3.0 DESCRIPTION OF TESTS

3.1 Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2020) and the guidance provided in KDB 789033 D02 v02r01 were used in the measurement of the EUT**.**

Deviation from measurement procedure……..…….....None

3.2 AC Line Conducted Emissions

The line-conducted facility is located inside a 7m x 3.66m x 2.7m shielded enclosure. The shielded enclosure is manufactured by AP Americas. The shielding effectiveness of the shielded room is in accordance with MIL-Std-285 or NSA 65-6. A 1m x 1.5m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50µH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. The external power line filter is EPCOS 2X60A Power Line Filter (100dB Attenuation, 14kHz-18GHz) and the two EPCOs 2X48A filters (100dB Minimum Insertion Loss, 14kHz - 10GHz). These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the spectrum analyzer and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The spectrum was scanned from 150kHz to 30MHz with a spectrum analyzer. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 10kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions is used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

Line conducted emissions test results are shown in Section 7.10. Automated test software was used to perform the AC line conducted emissions testing. Automated measurement software utilized is Rohde & Schwarz EMC32, Version 10.50.40.

3.3 Radiated 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. An 80cm tall test table made of Styrodur is placed on top of the turn table. For measurements above 1GHz, an additional Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

Per KDB 414788 D01 v01r01, radiated emission test sites other than open-field test sites (e.g., shielded anechoic chambers), may be employed for emission measurements below 30MHz if characterized so that the measurements correspond to those obtained at an open-field test site. To determine test site equivalency, a reference sample transmitting at 149kHz was measured on an open field test site (asphalt with no ground plane) and then measured in the 3m semi-anechoic chamber. A calibrated 60cm loop antenna was used while the reference device was rotated through the X, Y and Z axis in order to capture the worst case level. A maximum deviation of 2.77dB at 149kHz was measured when comparing the 3 meter semi-anechoic chamber to the open field site.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33 depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions.

3.4 Environmental Conditions

The temperature is controlled within range of 15ºC to 35ºC. The relative humidity is controlled within range of 10% to 75%. The atmospheric pressure is monitored within the range 86-106kPa (860-1060mbar).

4.0 ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:
"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

- The antennas of the EUT are **permanently attached.**
- There are no provisions for connection to an external antenna.

Conclusion:

The EUT complies with the requirement of §15.203.

5.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.23-2012. 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 (±dB)
Conducted Bench Top Measurements	2.07
Line Conducted Disturbance	1.91
Radiated Disturbance (<30MHz)	4.12
Radiated Disturbance (30MHz - 1GHz)	4.85
Radiated Disturbance (1 - 18GHz)	5.08
Radiated Disturbance (>18GHz)	4.59

6.0 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 with the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent Technologies	N9030A	3Hz-44GHz PXA Signal Analyzer	10/18/2023	Annual	10/18/2024	MY55330128
Anritsu	ML2496A	Power Meter	6/24/2024	Annual	6/24/2025	1840005
Anritsu	MA2411B	Pulse Power Sensor	8/22/2023	Annual	8/22/2024	1726262
ETS-Lindgren	3117	Double Ridged Guide Antenna (1-18 GHz)	4/9/2024	Annual	4/9/2025	00218555
Keysight Technology	N9030A	PXA Signal Analyzer (3Hz-26.5GHz)	10/18/2023	Annual	10/18/2024	MY55330128
Rohde & Schwarz	FSVA3030	Signal Analyzer (10Hz-30GHz)	9/19/2023	Annual	9/19/2024	100823
Rohde & Schwarz	ESW44	EMI Test Receiver	4/11/2024	Annual	4/11/2025	101570
Rohde & Schwarz	TS-PR18	Pre-Amplifier (1GHz - 18GHz)	8/31/2023	Annual	8/31/2024	100052
Rohde & Schwarz	HFH2-Z2	Loop Antenna	4/30/2024	Annual	4/30/2025	100546
Rohde & Schwarz	TS-PR1840	Pre-Amplifier (18GHz - 40GHz)	8/31/2023	Annual	8/31/2024	100052
Rohde & Schwarz	ENV216	Two-Line V-Network	4/24/2024	Annual	4/24/2025	101364
Rohde & Schwarz	TS-PR8	Pre-Amplifier (30MHz - 8GHz)	11/7/2023	Annual	11/7/2024	102326
Schwarzbeck	VULB 9162	Bilog Antenna (30MHz - 6GHz)	4/29/2024	Annual	4/29/2025	00304
Rohde & Schwarz	SMW200A	Vector Signal Generator	9/19/2023	Annual	9/19/2024	110589

Table 6-1. Test Equipment List

Note:

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.

7.0 TEST RESULTS

7.1 Summary

Company Name: Apple Inc.

FCC ID: BCGA2117

FCC Classification: 15E 6 GHZ Very Low Power Device (6VL)

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049, 15.407	Occupied Bandwidth/ 26dB Bandwidth	99% of the occupied bandwidth of any channel must be contained within each of it respective U-NII sub bands < 320MHz (5.925 – 7.125GHz)	CONDUCTED	PASS	Section 7.2
15.407 (a.9)	Maximum Conducted Output Power	Maximum conducted powers and Max EIRP must meet the limits detailed in 15.407 (a.9)		PASS	Section 7.3
15.407 (a.9)	Maximum Power Spectral Density	Maximum power spectral density must meet the limits detailed in 15.407 (a.9)		PASS	Section 7.4
15.407(b.7)	In-Band Emissions	EUT must meet the limits detailed in 15.407(b)(7)		PASS	Section 7.5
15.407(d.6)	Contention Based Protocol	EUT must detect AWGN signal with 90% (or better) certainty		PASS	Section 7.6
15.407(d.10)	Transmit Power Control	EUT must employ a TPC mechanism to operate 6dB below the maximum EIRP PSD detailed in 15.407 (a.9)		PASS	Section 7.7
15.407(b.6)	Undesirable Emissions	Undesirable emissions must meet the limits detailed in 15.407(b)	RADIATED	PASS	Section 7.8
15.205, 15.407(b.6)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		PASS	Section 7.8, 7.9
15.207	AC Conducted Emissions 150kHz – 30MHz	< FCC 15.207 limits	AC LINE CONDUCTED	PASS	Section 7.10

Table 7-1. Summary of Test Results

Notes:

1. All channels, modes, and modulations/data rates were investigated. The test results shown in the following sections represent the worst case emissions.
2. The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
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 and attenuators.
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 Element "Conducted Automation Software," Version 1.1.0.
5. For radiated band edge, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is Element "Chamber Automation," Version 3.0.

7.2 26dB & 99% Bandwidth Measurement

§2.1049; §15.407

Test Overview and Limit

The bandwidth at 26dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2020 and KDB 789033 D02 v02r01, and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26dB bandwidth.

Test Procedure Used

ANSI C63.10-2020 – Subclause 12.5
KDB 789033 D02 v02r01 – Section C

Test Settings

1. The signal analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 26. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth
3. VBW $\geq$ 3 x RBW
4. Detector = Peak
5. Trace mode = max hold

Test Setup

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

Figure 7-1. Test Instrument & Measurement Setup

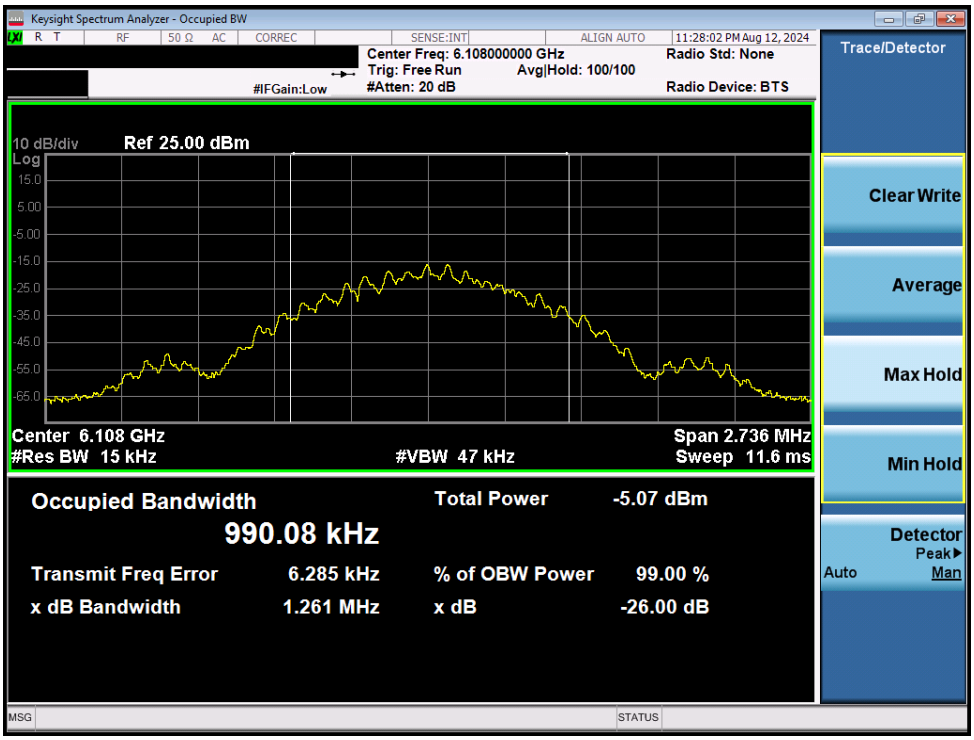
Test Notes

None.

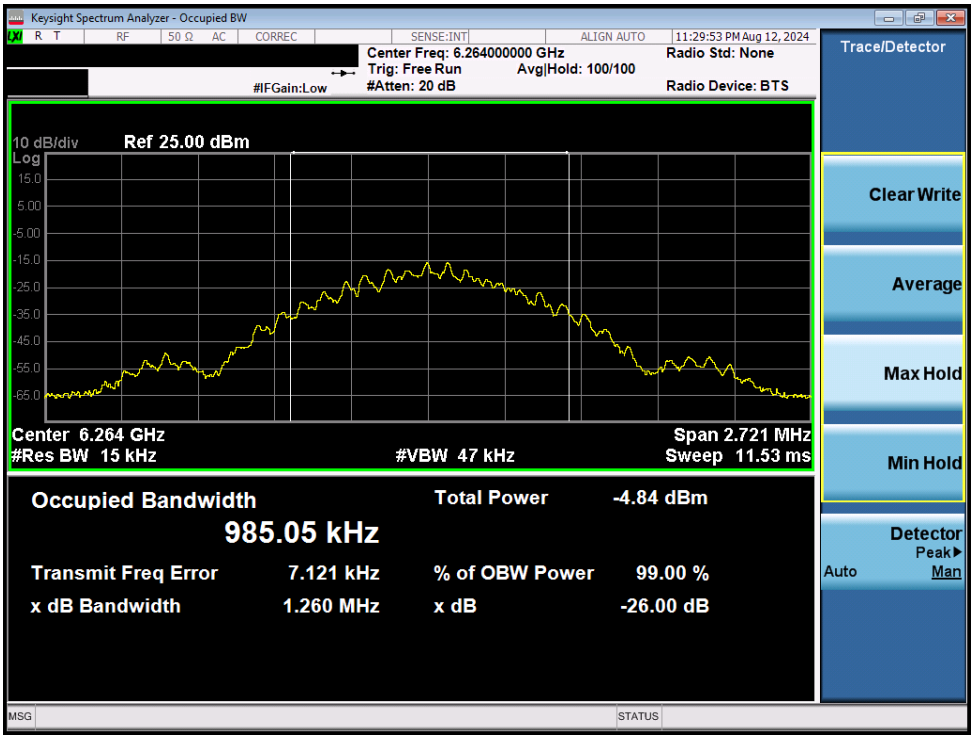
7.2.1 26dB & 99% Bandwidth Measurements

	Frequency [MHz]	Data Rate [Mbps]	Mode	Measured 99% Occupied Bandwidth [MHz]	Measured 26dB Bandwidth [MHz]	Maximum Bandwidth Limit [MHz]	Pass / Fail
Band 5	6108	1.0	NB UNII BDR	0.99	1.26	320.00	Pass
	6264	1.0	NB UNII BDR	0.99	1.26	320.00	Pass
	6420	1.0	NB UNII BDR	0.99	1.26	320.00	Pass
	6108	1.0	NB UNII LE-1M	1.06	1.34	320.00	Pass
	6264	1.0	NB UNII LE-1M	1.06	1.33	320.00	Pass
	6420	1.0	NB UNII LE-1M	1.06	1.32	320.00	Pass
	6108	2.0	NB UNII LE-2M	2.07	2.52	320.00	Pass
	6264	2.0	NB UNII LE-2M	2.08	2.53	320.00	Pass
	6420	2.0	NB UNII LE-2M	2.08	2.53	320.00	Pass
	6108	4.0	NB UNII HDR4	2.39	2.75	320.00	Pass
	6264	4.0	NB UNII HDR4	2.39	2.77	320.00	Pass
	6420	4.0	NB UNII HDR4	2.39	2.77	320.00	Pass
	6108	8.0	NB UNII HDR8	4.77	5.48	320.00	Pass
	6264	8.0	NB UNII HDR8	4.77	5.48	320.00	Pass
	6420	8.0	NB UNII HDR8	4.77	5.48	320.00	Pass
	6108	4.0	NB UNII HDRp4	2.42	2.85	320.00	Pass
	6264	4.0	NB UNII HDRp4	2.42	2.85	320.00	Pass
	6420	4.0	NB UNII HDRp4	2.42	2.85	320.00	Pass
	6108	8.0	NB UNII HDRp8	4.83	5.68	320.00	Pass
	6264	8.0	NB UNII HDRp8	4.84	5.69	320.00	Pass
	6420	8.0	NB UNII HDRp8	4.83	5.67	320.00	Pass

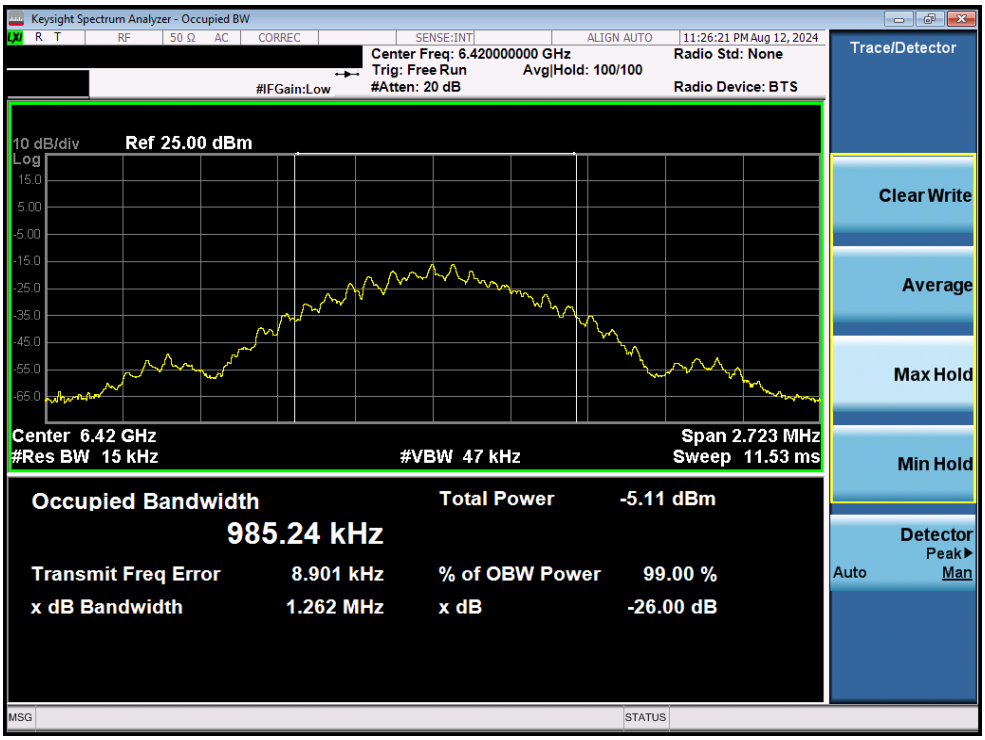
Table 7-2. Conducted BW Measurements NB UNII_R



Plot 7-1. 26dB BW & 99% OBW (NB UNII_R BDR – 6108MHz)

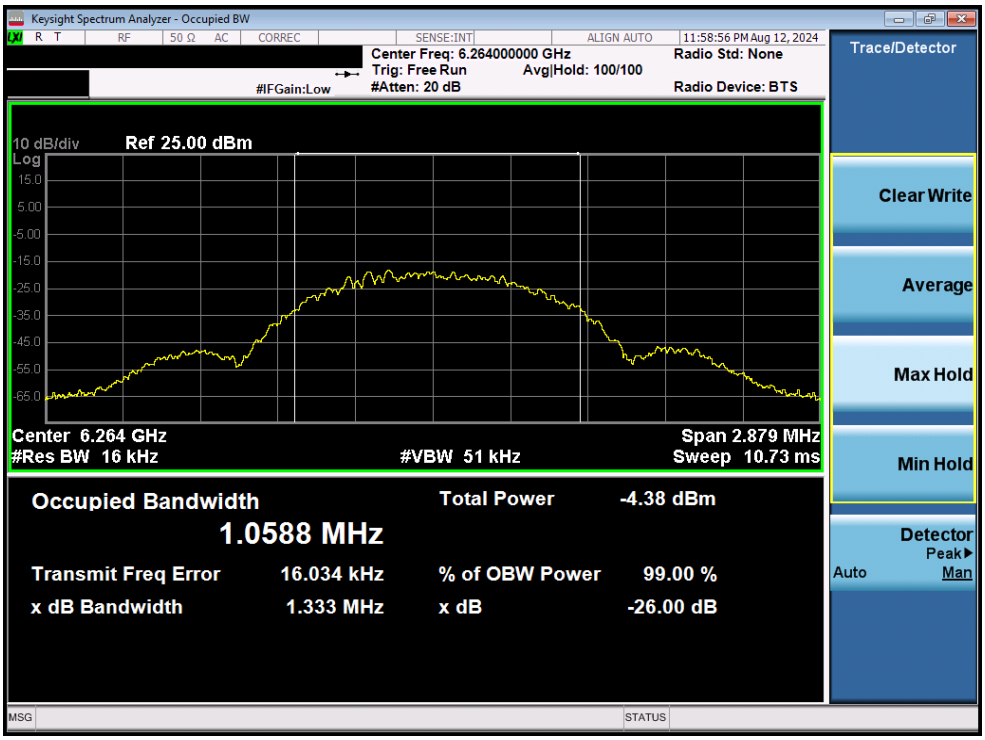


Plot 7-2. 26dB BW & 99% OBW (NB UNII_R BDR – 6264MHz)

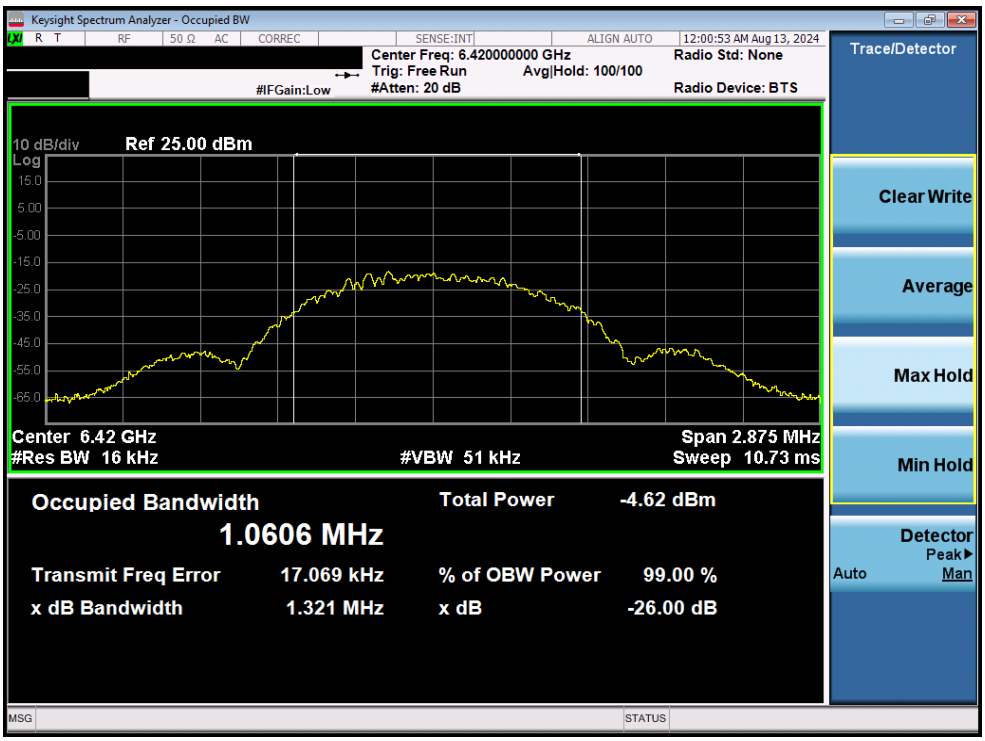


Plot 7-3. 26dB BW & 99% OBW (NB UNII_R BDR – 6420MHz)

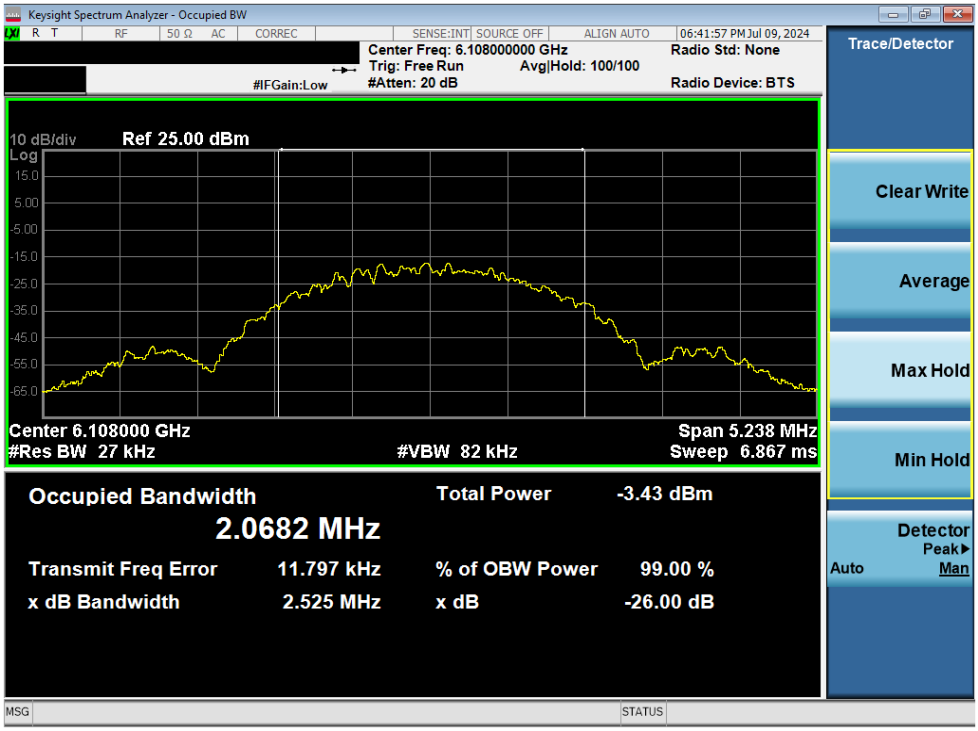
Plot 7-4. 26dB BW & 99% OBW (NB UNII_R LE, 1Mbps – 6108MHz)



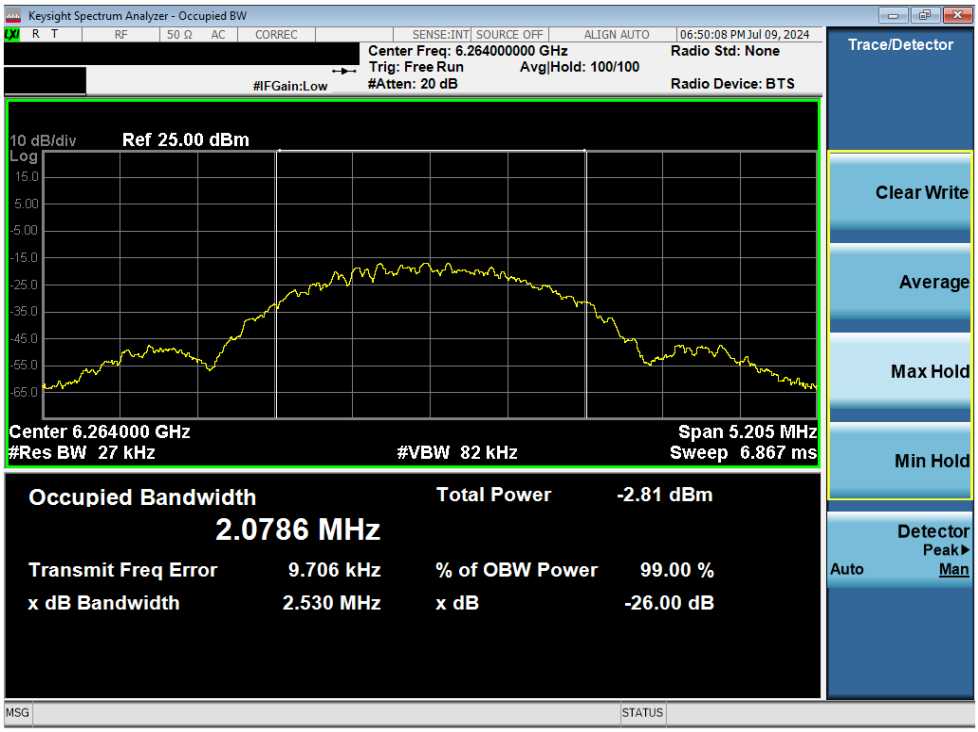
Plot 7-5. 26dB BW & 99% OBW (NB UNII_R LE, 1Mbps – 6264MHz)



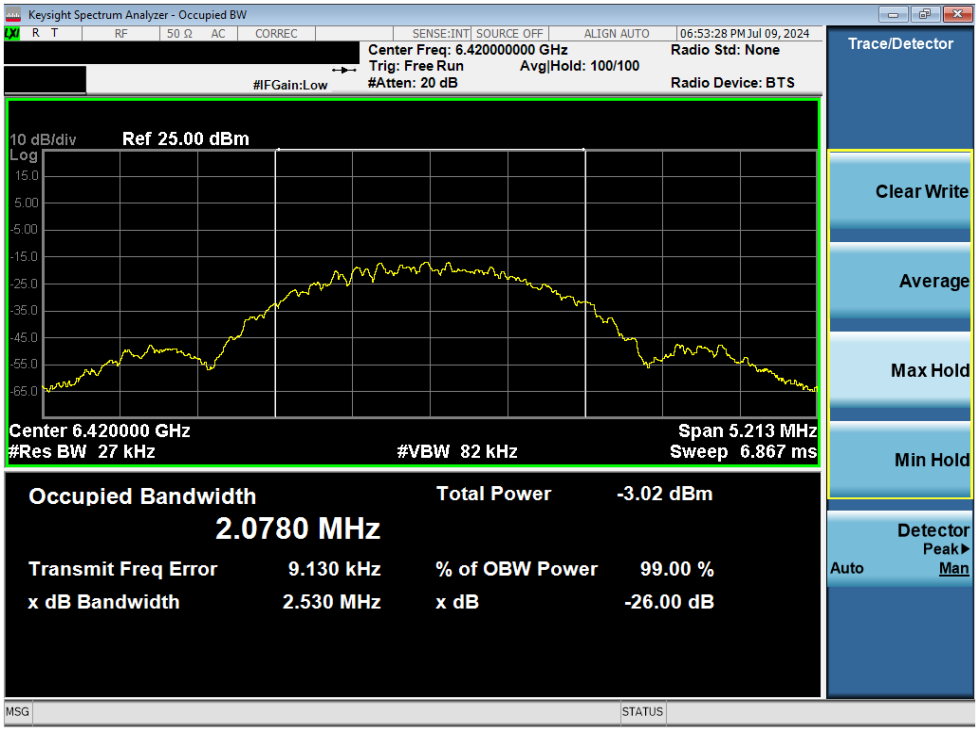
Plot 7-6. 26dB BW & 99% OBW (NB UNII_R LE, 1Mbps – 6420MHz)



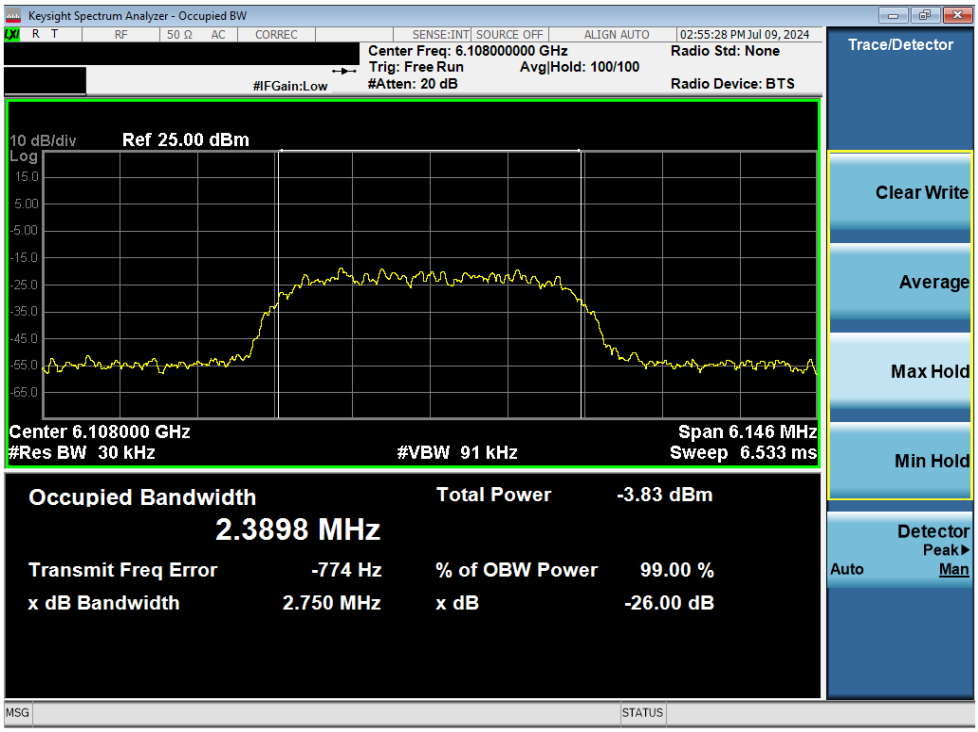
Plot 7-7. 26dB BW & 99% OBW (NB UNII_R LE, 2Mbps – 6108MHz)



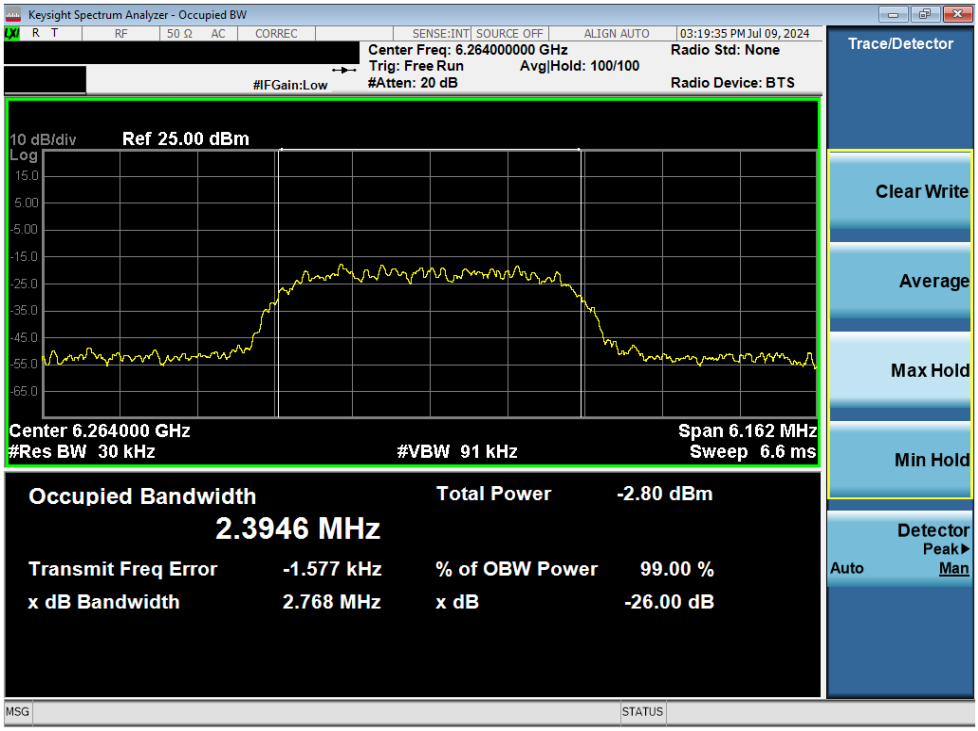
Plot 7-8. 26dB BW & 99% OBW (NB UNII_R LE, 2Mbps – 6264MHz)



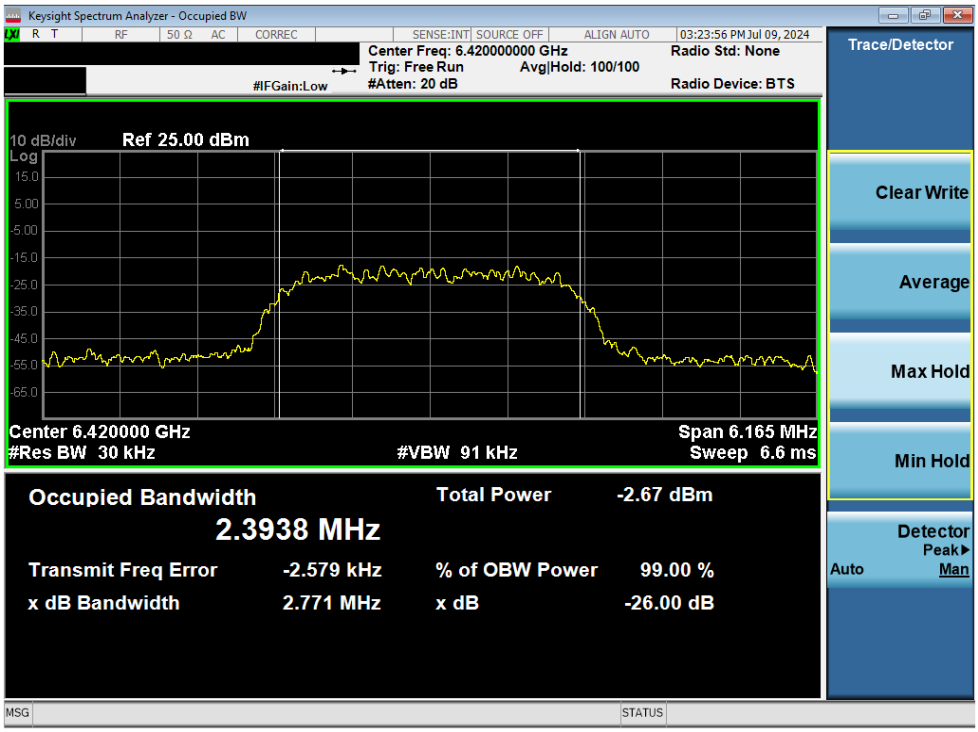
Plot 7-9. 26dB BW & 99% OBW (NB UNII_R LE, 2Mbps – 6420MHz)



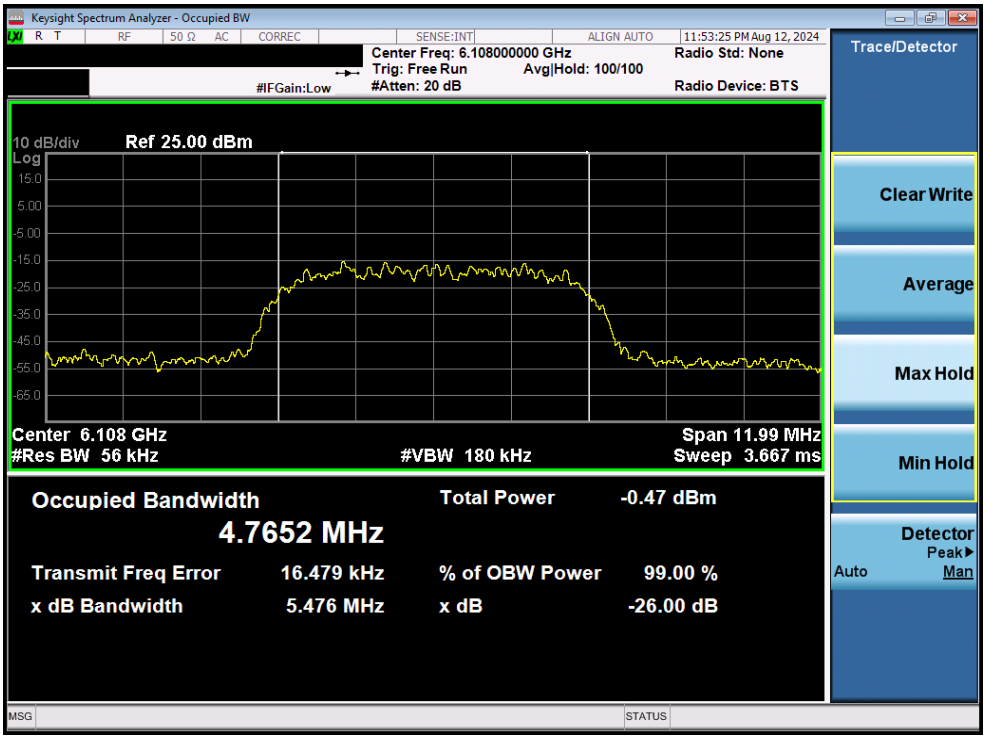
Plot 7-10. 26dB BW & 99% OBW (NB UNII_R HDR4 – 6108MHz)



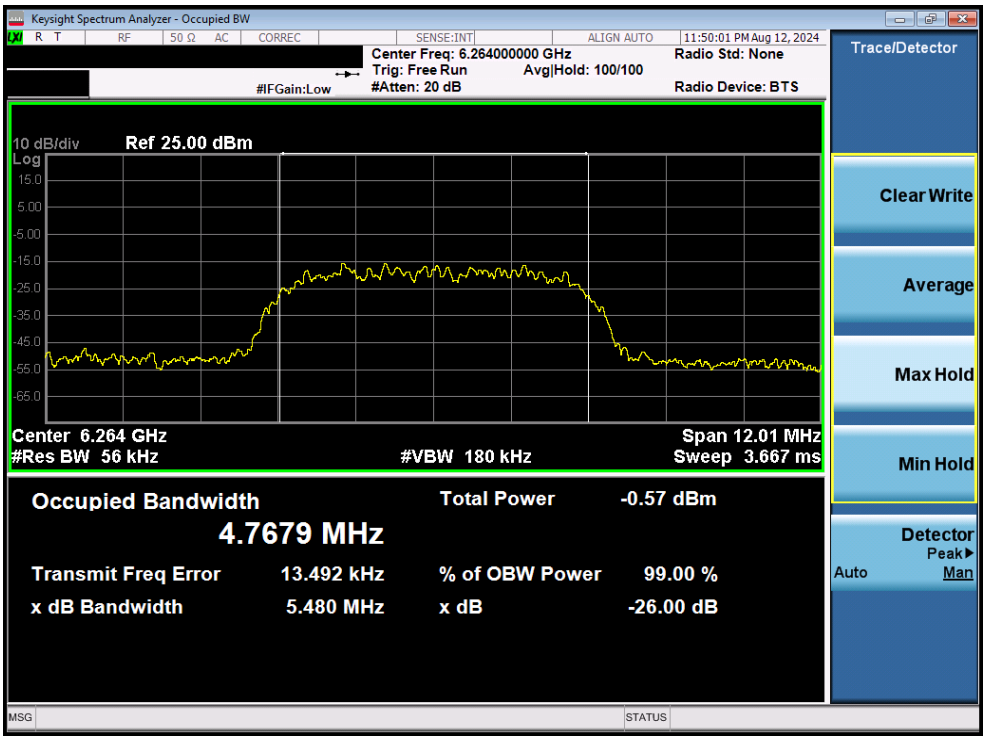
Plot 7-11. 26dB BW & 99% OBW (NB UNII_R HDR4 – 6264MHz)



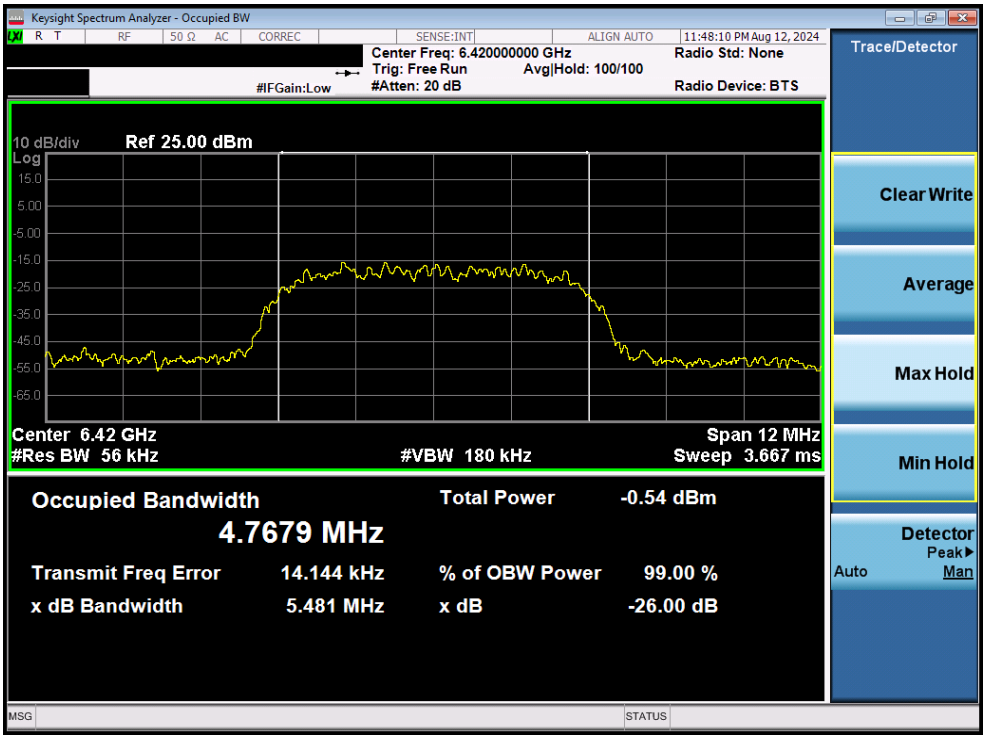
Plot 7-12. 26dB BW & 99% OBW (NB UNII_R HDR4 – 6420MHz)



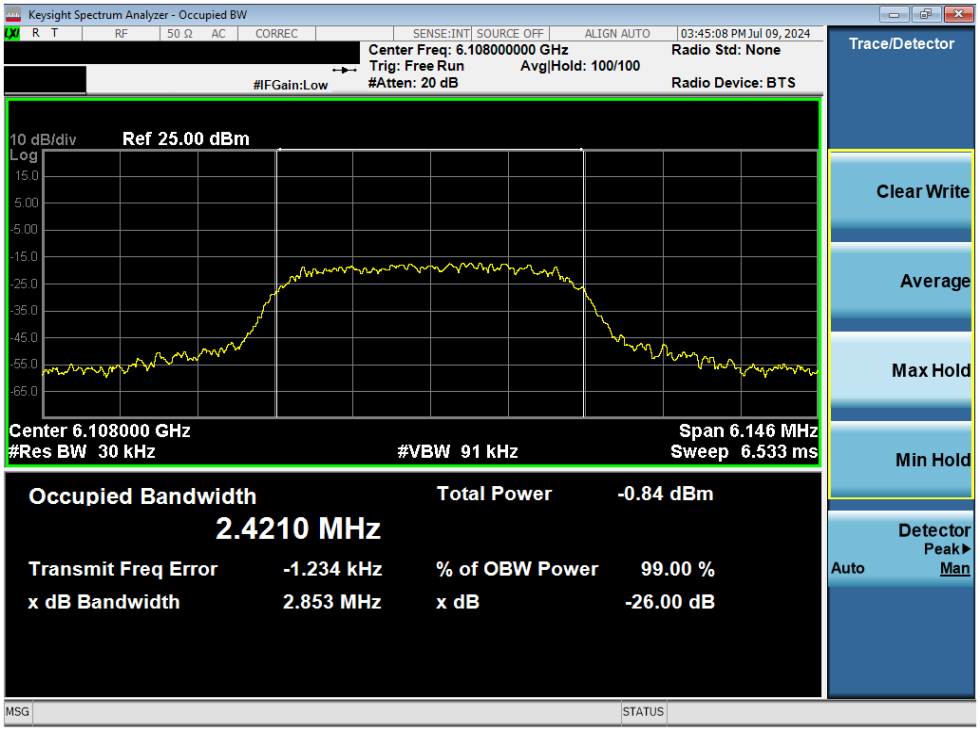
Plot 7-13. 26dB BW & 99% OBW (NB UNII_R HDR8 – 6108MHz)



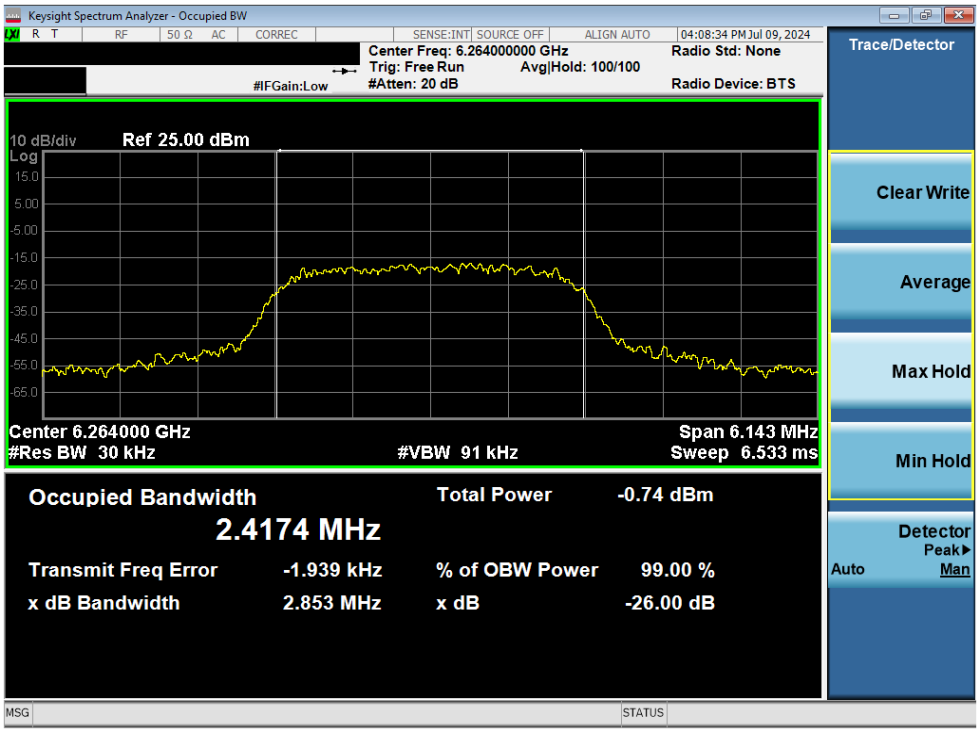
Plot 7-14. 26dB BW & 99% OBW (NB UNII_R HDR8 – 6264MHz)



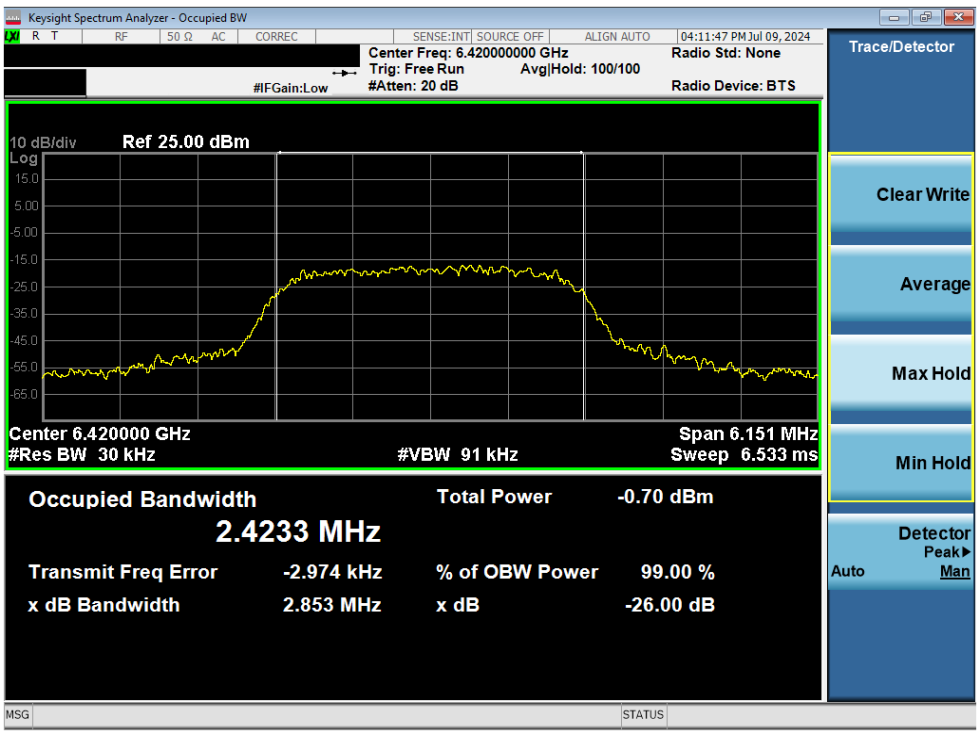
Plot 7-15. 26dB BW & 99% OBW (NB UNII_R HDR8 – 6420MHz)



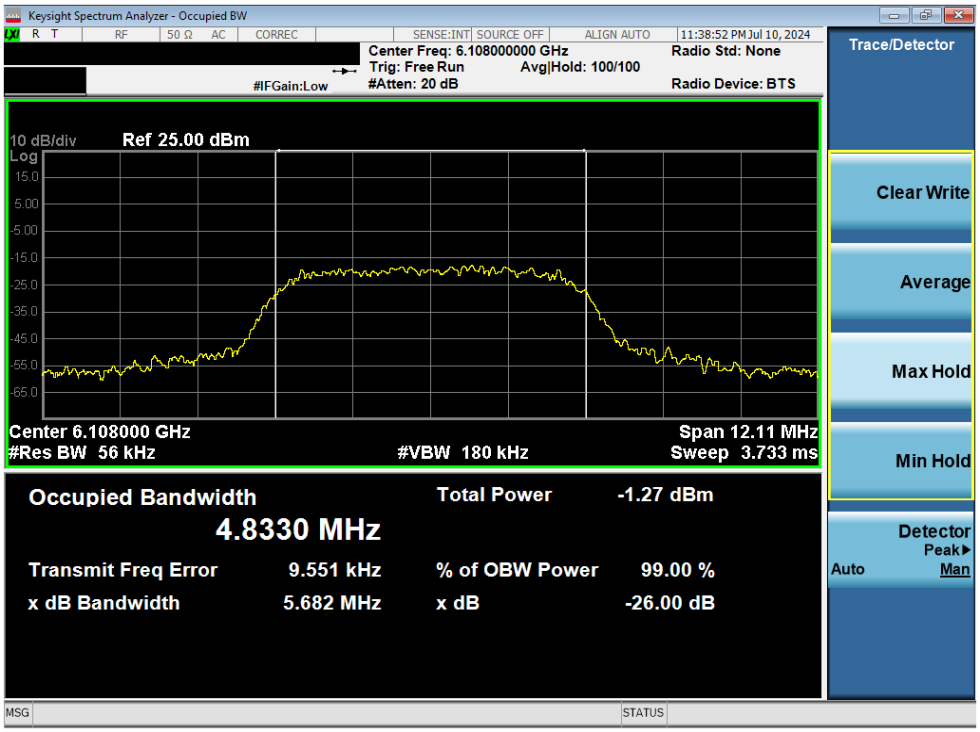
Plot 7-16. 26dB BW & 99% OBW (NB UNII_R HDRp4 – 6108MHz)



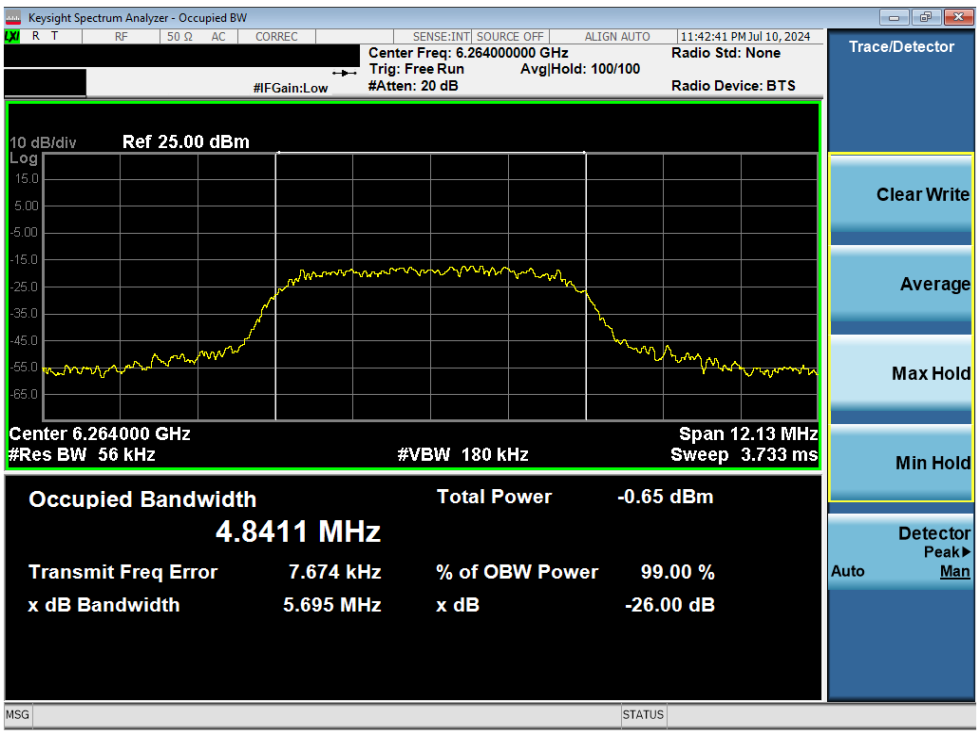
Plot 7-17. 26dB BW & 99% OBW (NB UNII_R HDRp4 – 6264MHz)



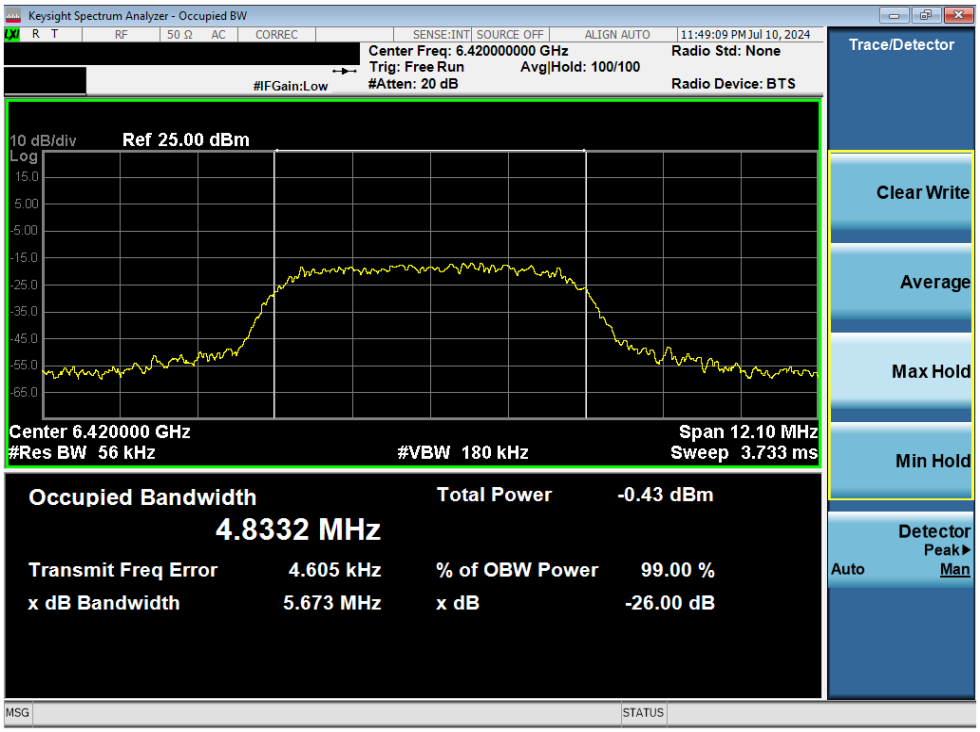
Plot 7-18. 26dB BW & 99% OBW (NB UNII_R HDRp4 – 6420MHz)



Plot 7-19. 26dB BW & 99% OBW (NB UNII_R HDRp8 – 6108MHz)



Plot 7-20. 26dB BW & 99% OBW (NB UNII_R HDRp8 – 6264MHz)

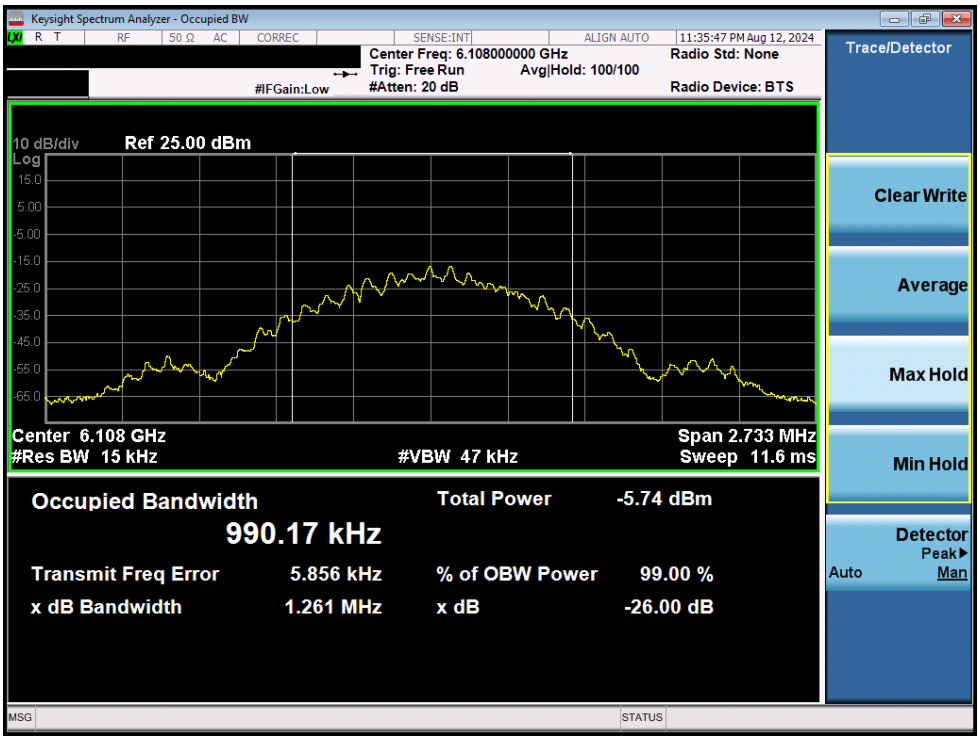


Plot 7-21. 26dB BW & 99% OBW (NB UNII_R HDRp8 – 6420MHz)

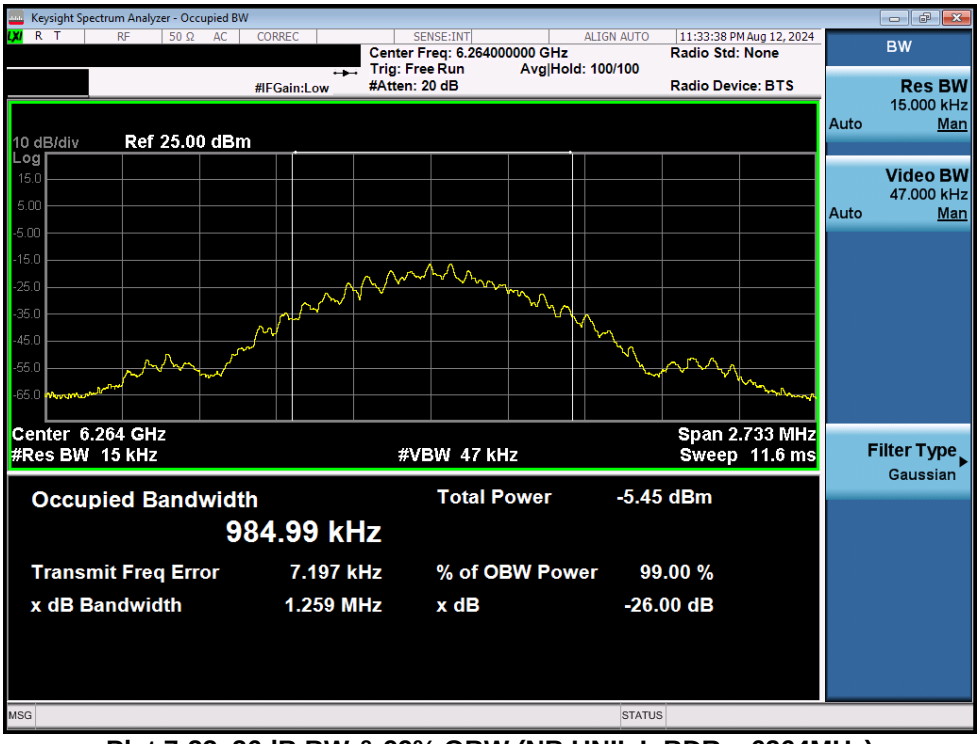
7.2.2 26dB & 99% Bandwidth Measurements

	Frequency [MHz]	Data Rate [Mbps]	Mode	Measured 99% Occupied Bandwidth [MHz]	Measured 26dB Bandwidth [MHz]	Maximum Bandwidth Limit [MHz]	Pass / Fail
Band 5	6108	1.0	NB UNII BDR	0.99	1.26	320.00	Pass
	6264	1.0	NB UNII BDR	0.99	1.26	320.00	Pass
	6420	1.0	NB UNII BDR	0.99	1.26	320.00	Pass
	6108	1.0	NB UNII LE-1M	1.06	1.34	320.00	Pass
	6264	1.0	NB UNII LE-1M	1.06	1.34	320.00	Pass
	6420	1.0	NB UNII LE-1M	1.06	1.32	320.00	Pass
	6108	2.0	NB UNII LE-2M	2.08	2.52	320.00	Pass
	6264	2.0	NB UNII LE-2M	2.09	2.52	320.00	Pass
	6420	2.0	NB UNII LE-2M	2.09	2.53	320.00	Pass
	6108	4.0	NB UNII HDR4	2.39	2.76	320.00	Pass
	6264	4.0	NB UNII HDR4	2.40	2.77	320.00	Pass
	6420	4.0	NB UNII HDR4	2.40	2.78	320.00	Pass
	6108	8.0	NB UNII HDR8	4.76	5.47	320.00	Pass
	6264	8.0	NB UNII HDR8	4.76	5.47	320.00	Pass
	6420	8.0	NB UNII HDR8	4.76	5.48	320.00	Pass
	6108	4.0	NB UNII HDRp4	2.42	2.90	320.00	Pass
	6264	4.0	NB UNII HDRp4	2.43	2.98	320.00	Pass
	6420	4.0	NB UNII HDRp4	2.43	2.99	320.00	Pass
	6108	8.0	NB UNII HDRp8	4.83	5.69	320.00	Pass
	6264	8.0	NB UNII HDRp8	4.83	5.71	320.00	Pass
	6420	8.0	NB UNII HDRp8	4.82	5.69	320.00	Pass

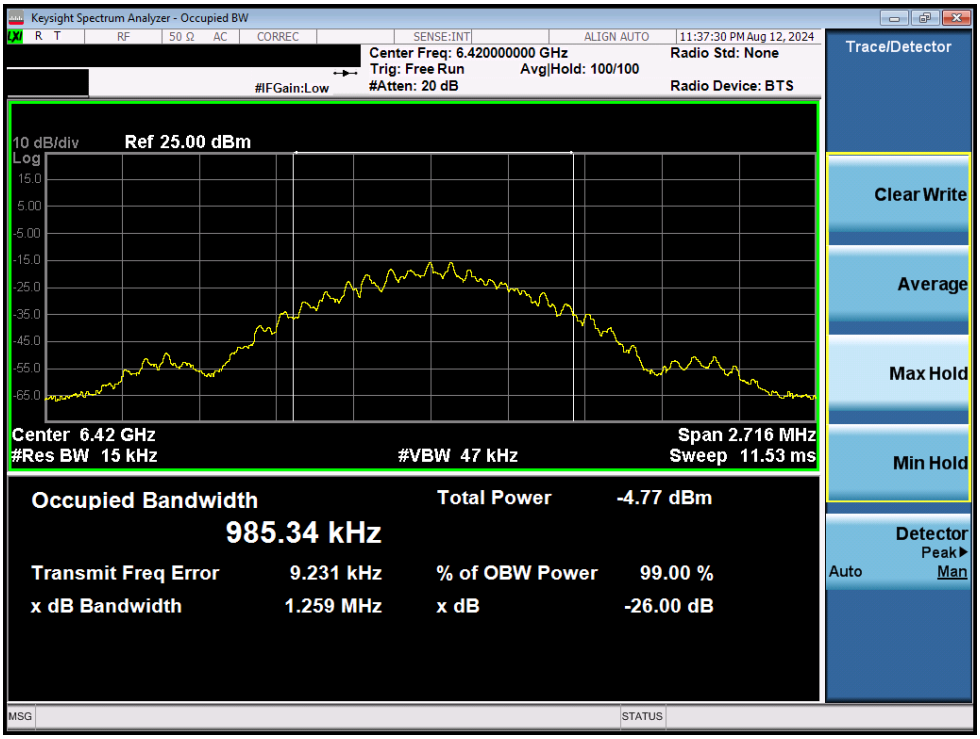
Table 7-3. Conducted BW Measurements NB UNII_L



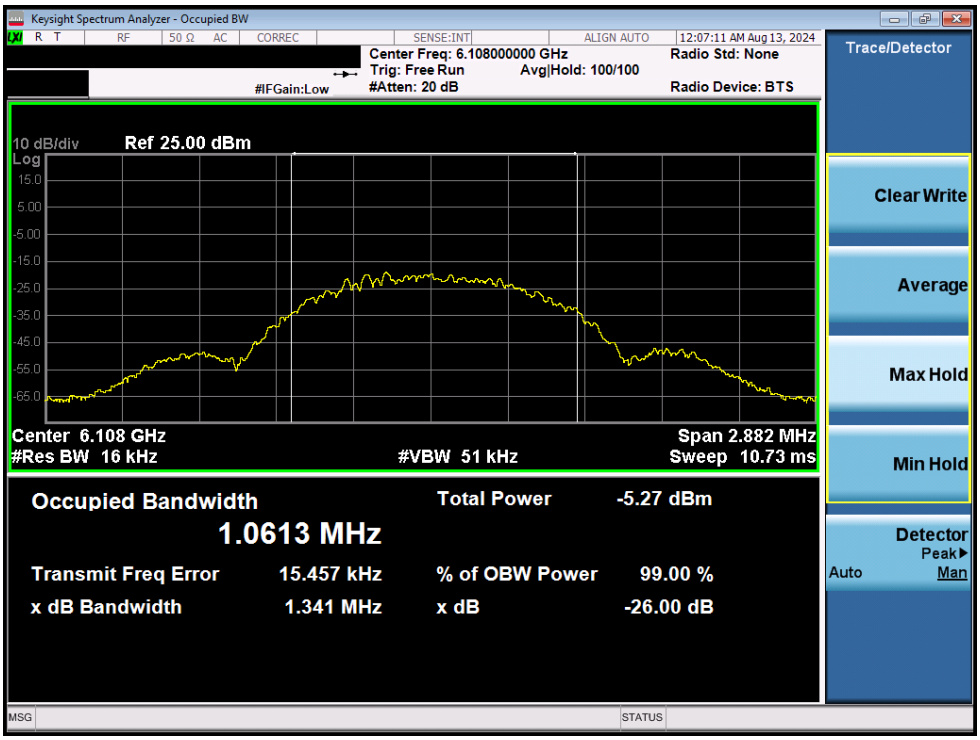
Plot 7-22. 26dB BW & 99% OBW (NB UNII_L BDR – 6108MHz)



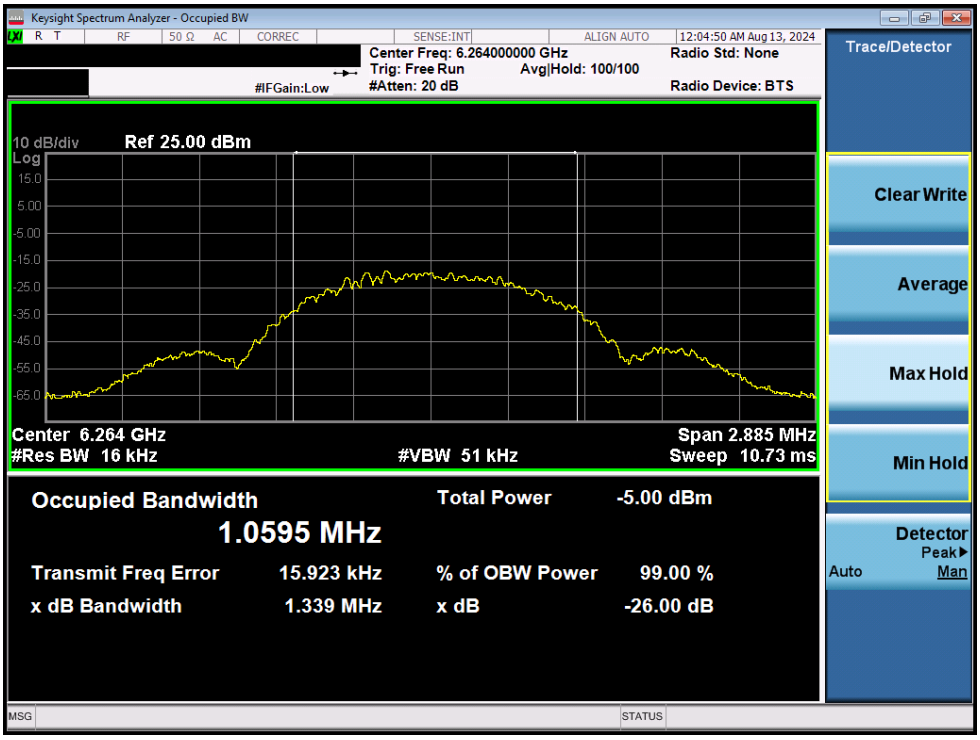
Plot 7-23. 26dB BW & 99% OBW (NB UNII_L BDR – 6264MHz)



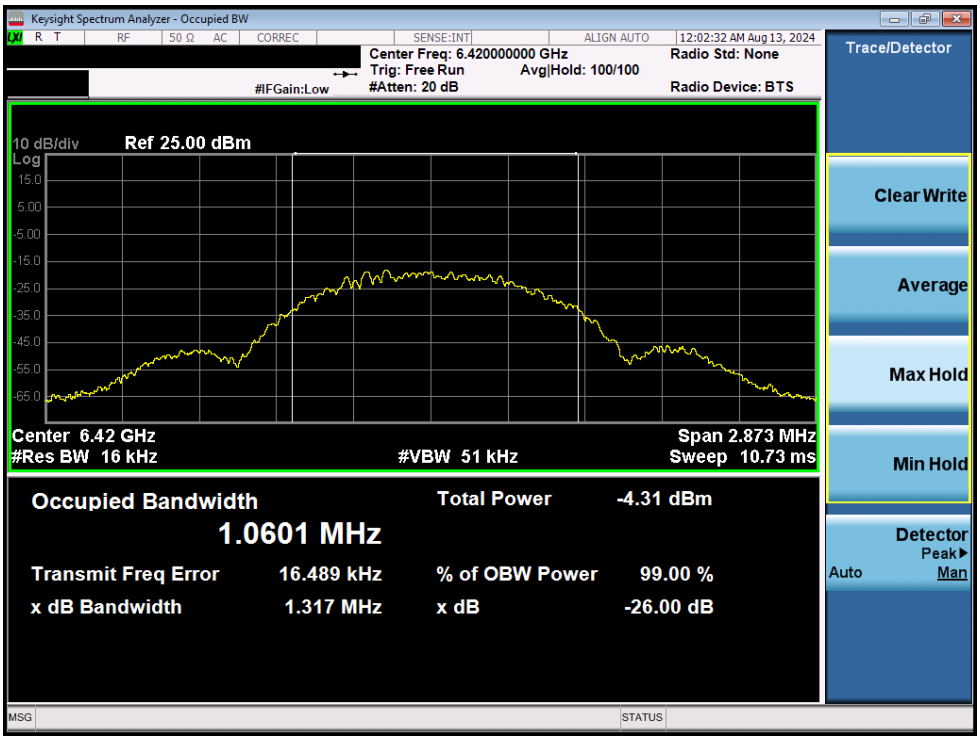
Plot 7-24. 26dB BW & 99% OBW (NB UNII_L BDR – 6420MHz)



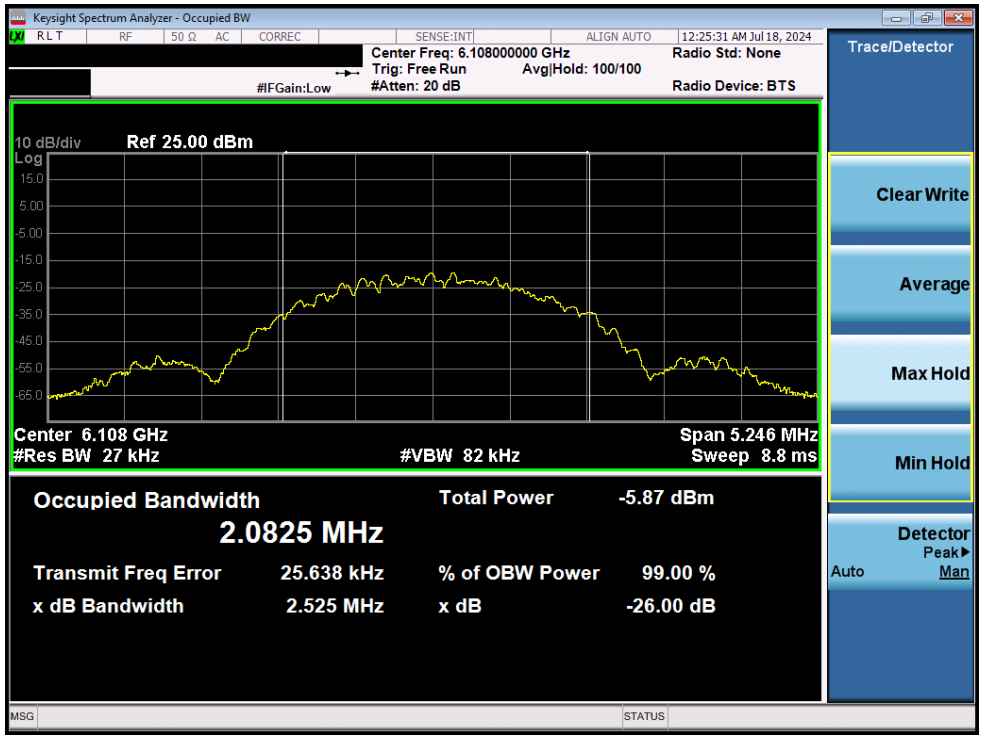
Plot 7-25. 26dB BW & 99% OBW (NB UNII_L LE, 1Mbps – 6108MHz)



Plot 7-26. 26dB BW & 99% OBW (NB UNII_L LE, 1Mbps – 6264MHz)

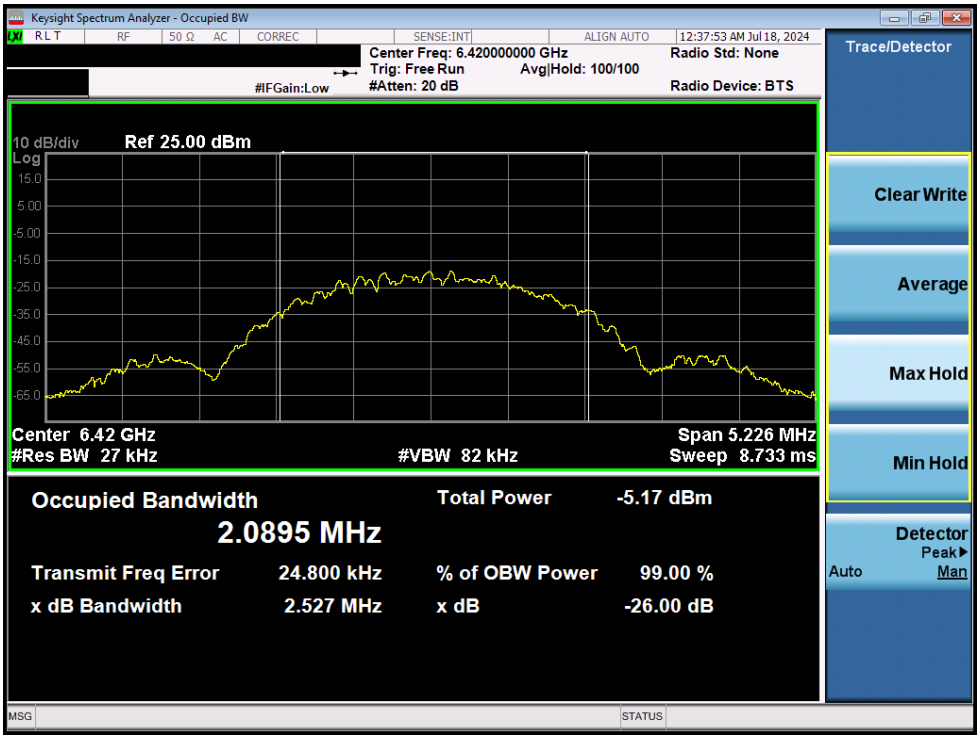


Plot 7-27. 26dB BW & 99% OBW (NB UNII_L LE, 1Mbps – 6420MHz)

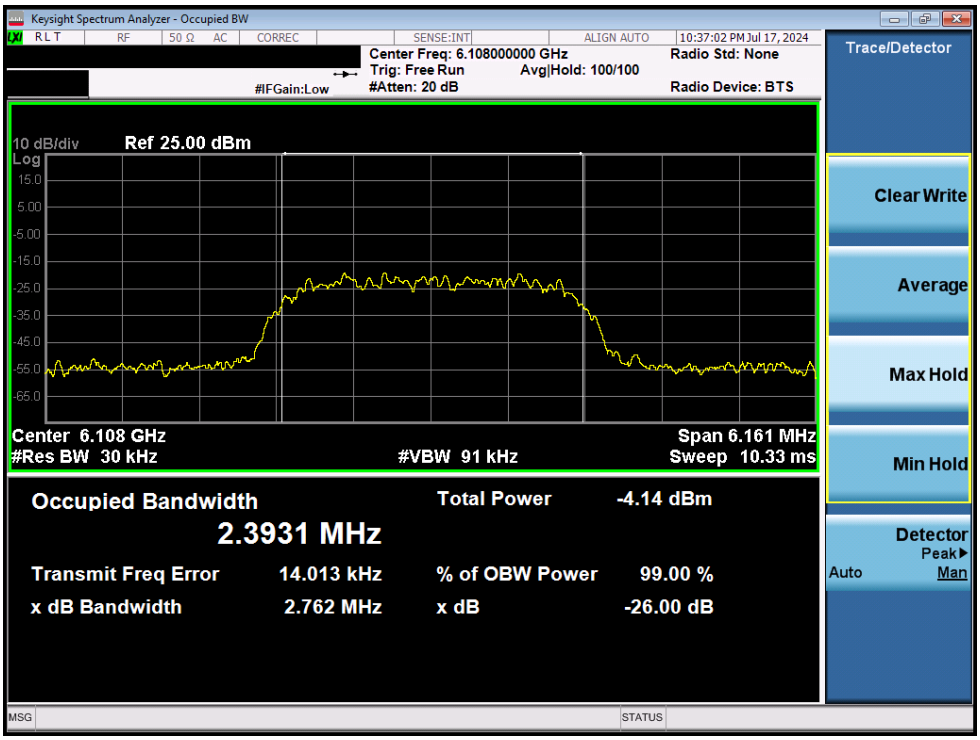


Plot 7-28. 26dB BW & 99% OBW (NB UNII_L LE, 2Mbps – 6108MHz)

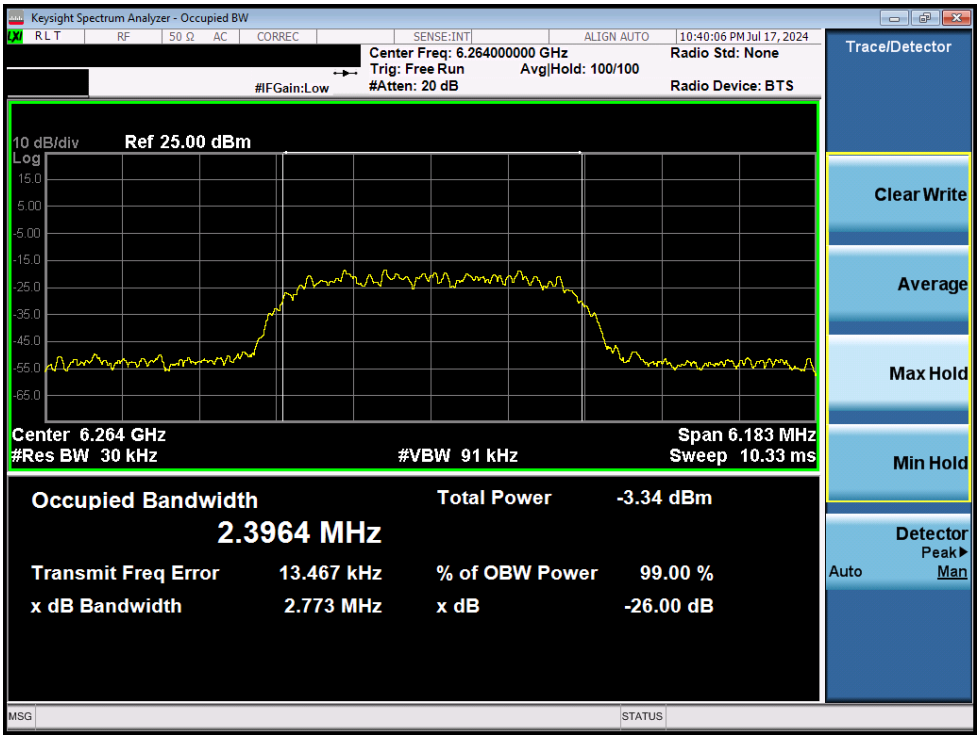
Plot 7-29. 26dB BW & 99% OBW (NB UNII_L LE, 2Mbps – 6264MHz)



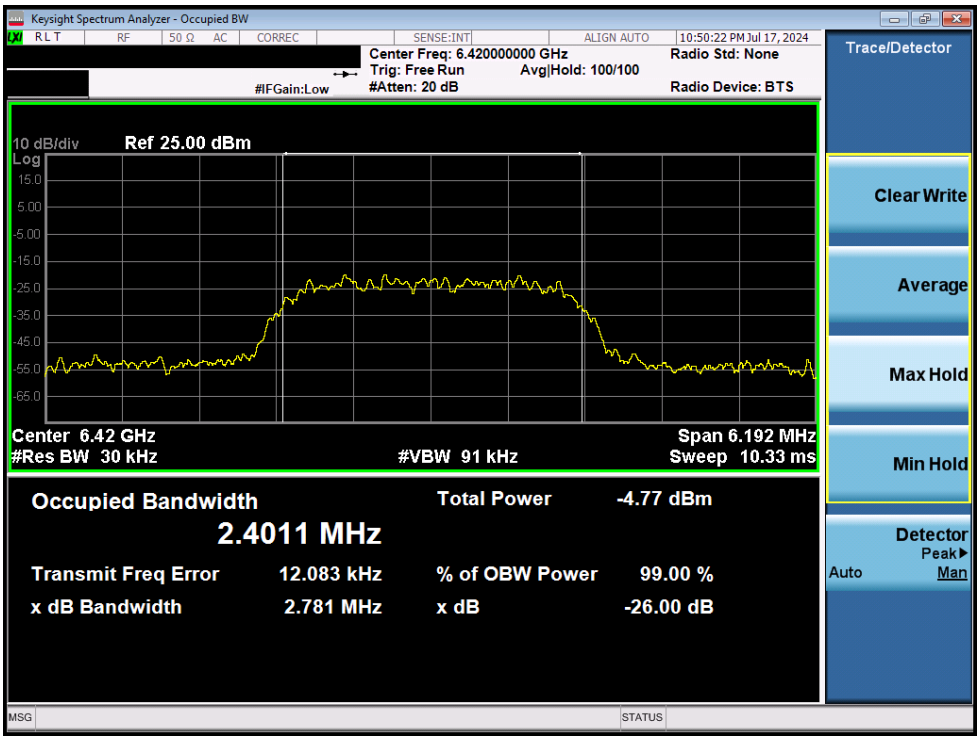
Plot 7-30. 26dB BW & 99% OBW (NB UNII_L LE, 2Mbps – 6420MHz)



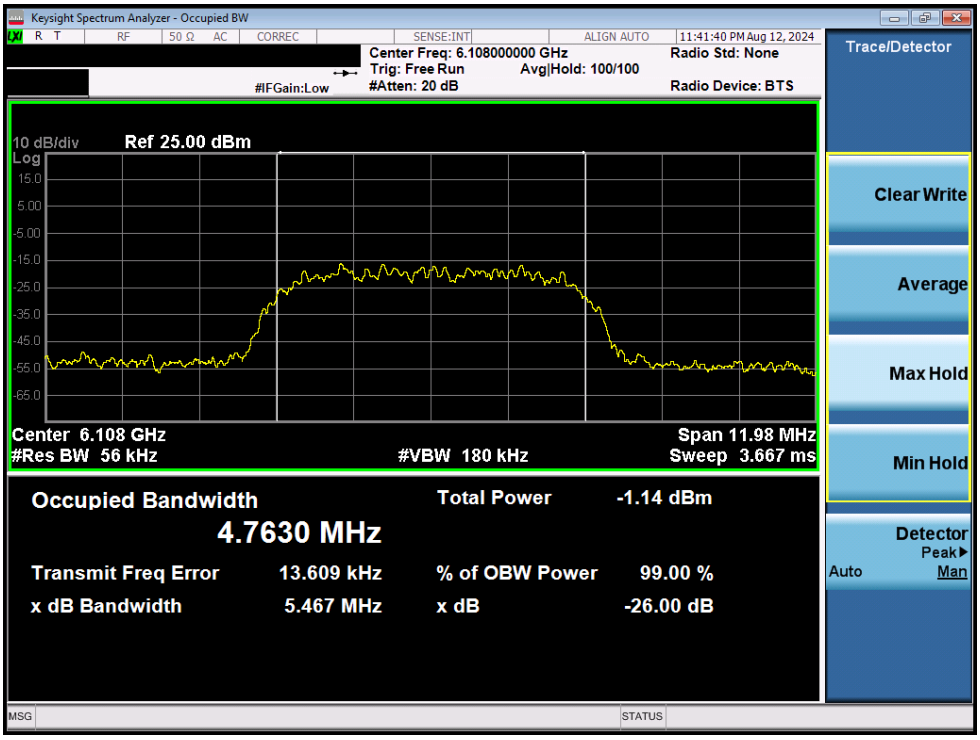
Plot 7-31. 26dB BW & 99% OBW (NB UNII_L HDR4 – 6108MHz)



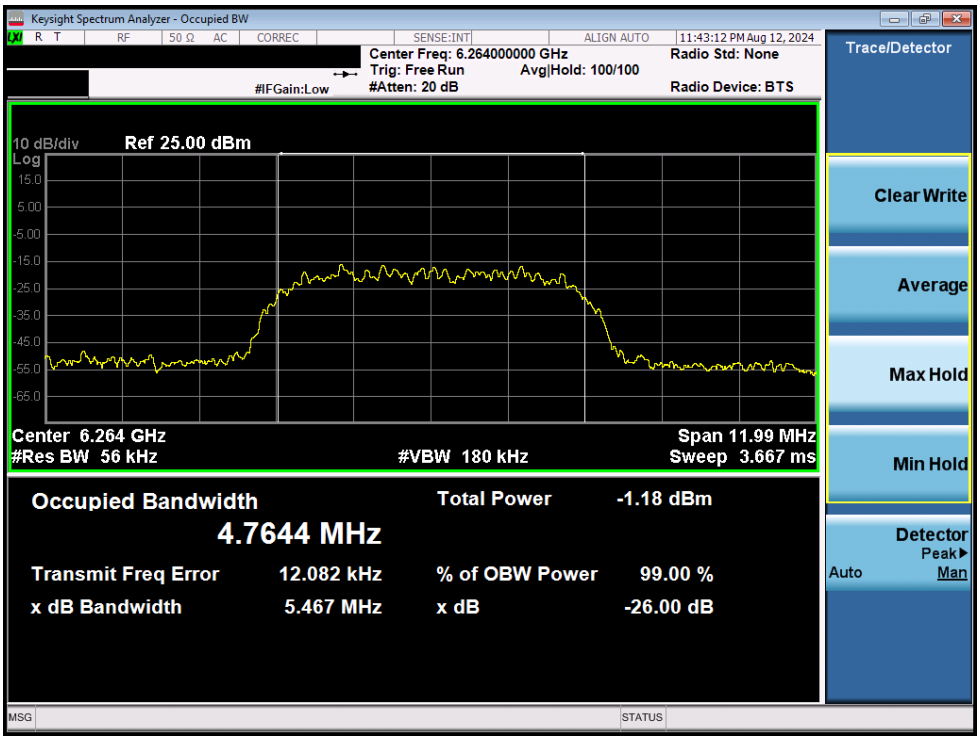
Plot 7-32. 26dB BW & 99% OBW (NB UNII_L HDR4 – 6264MHz)



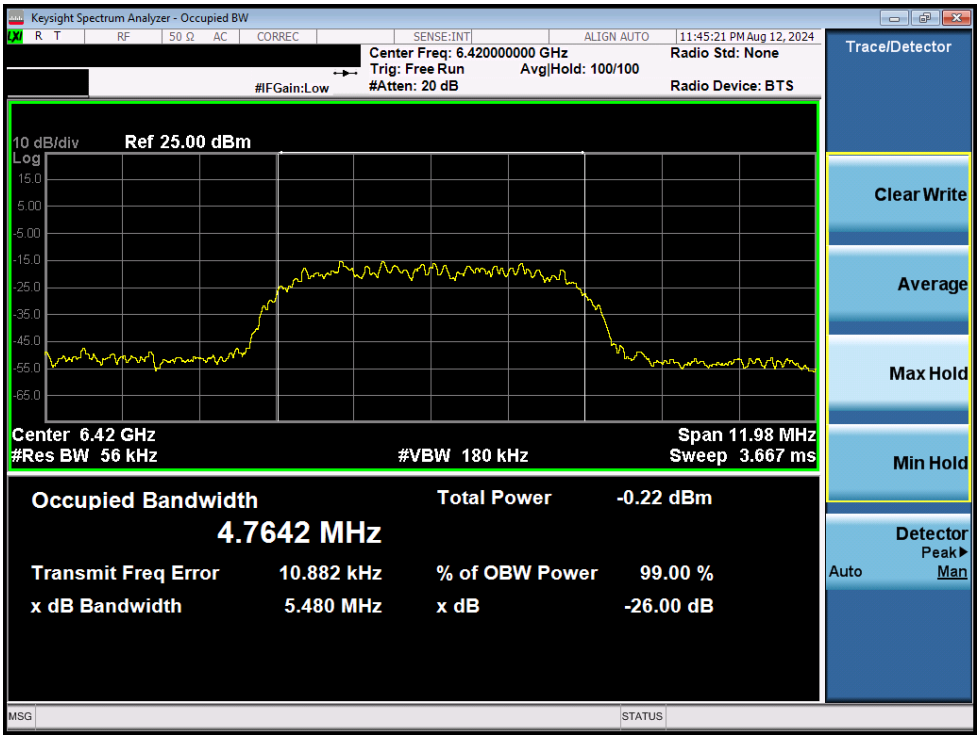
Plot 7-33. 26dB BW & 99% OBW (NB UNII_L HDR4 – 6420MHz)



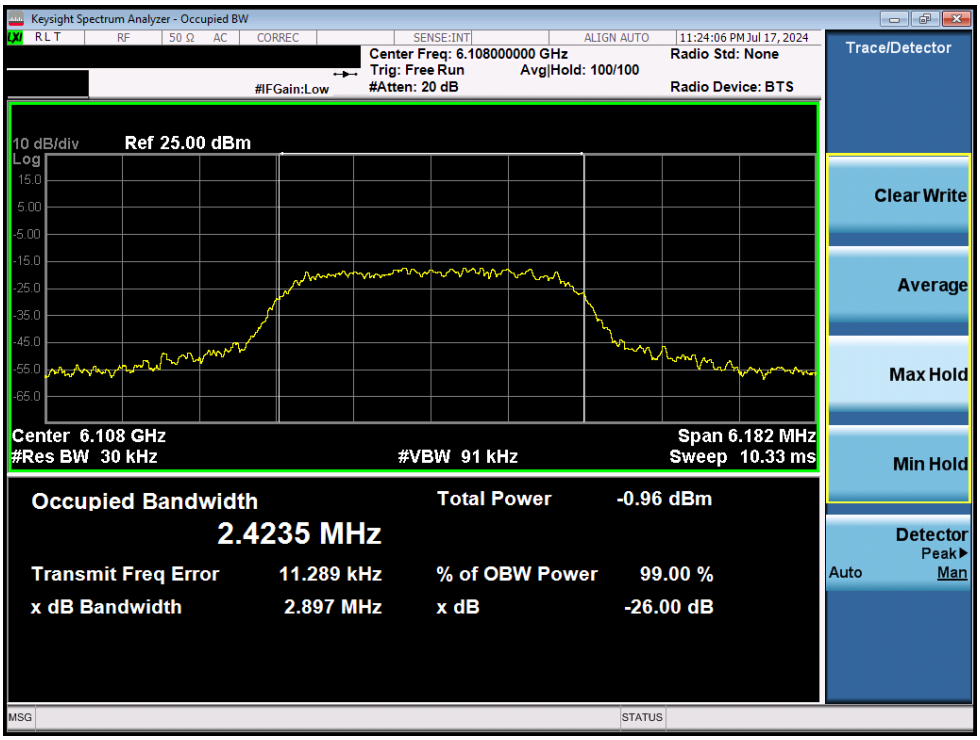
Plot 7-34. 26dB BW & 99% OBW (NB UNII_L HDR8 – 6108MHz)



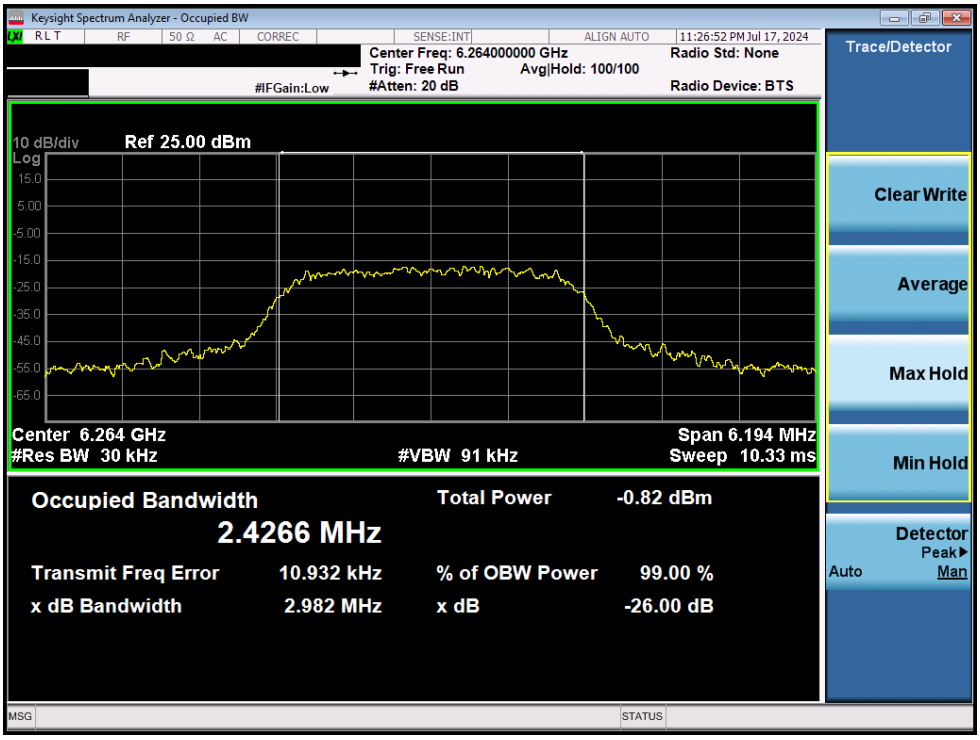
Plot 7-35. 26dB BW & 99% OBW (NB UNII_L HDR8 – 6264MHz)



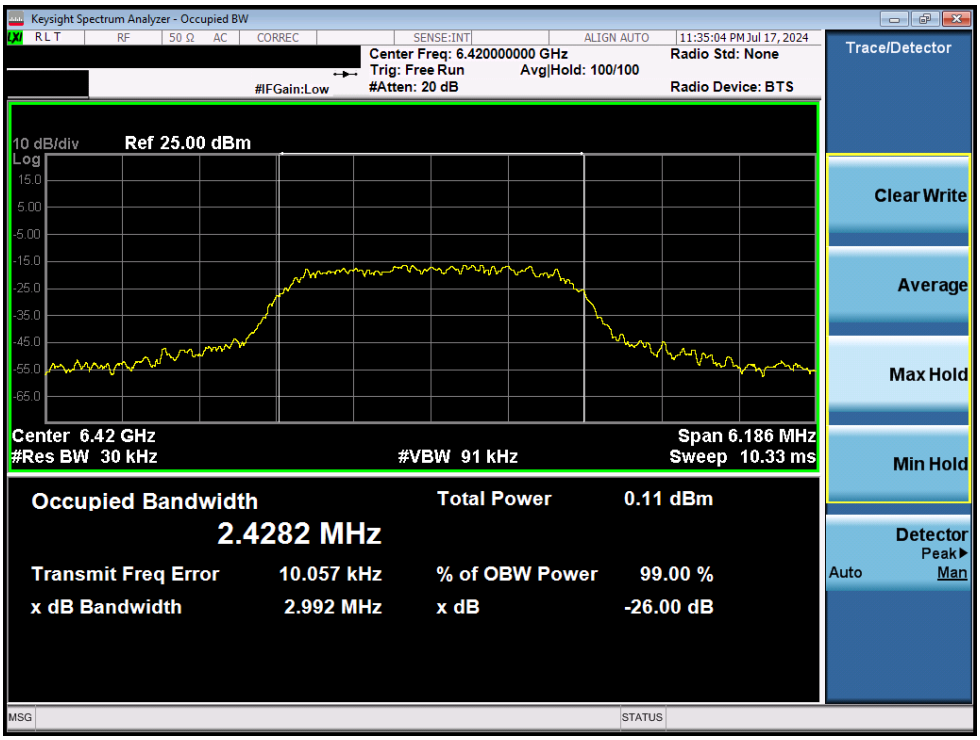
Plot 7-36. 26dB BW & 99% OBW (NB UNII_L HDR8 – 6420MHz)



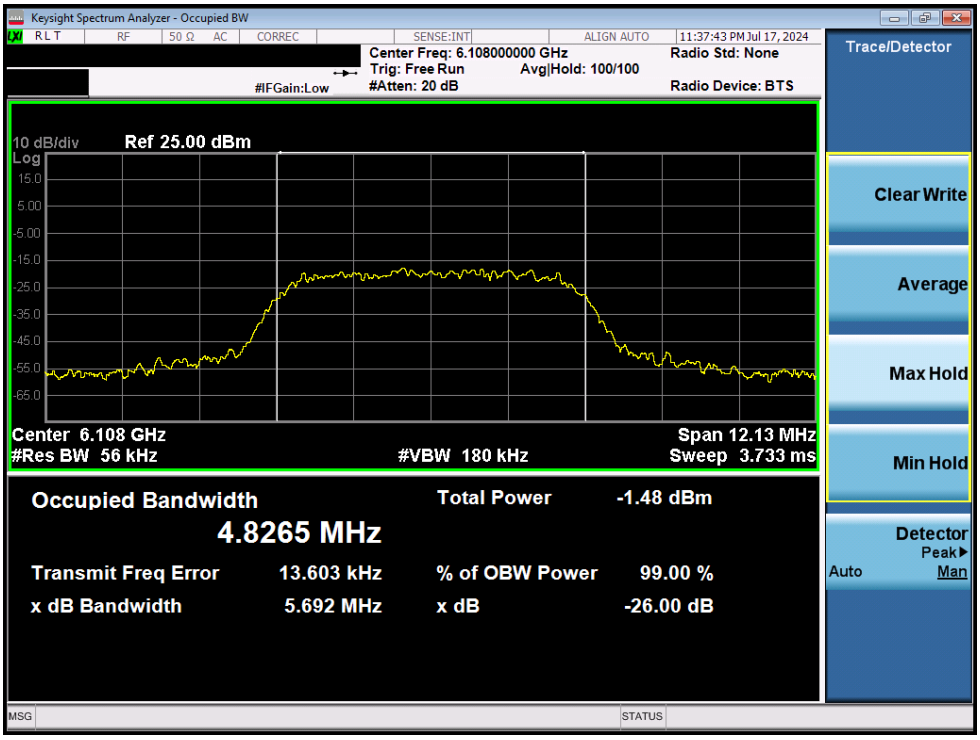
Plot 7-37. 26dB BW & 99% OBW (NB UNII_L HDRp4 – 6108MHz)



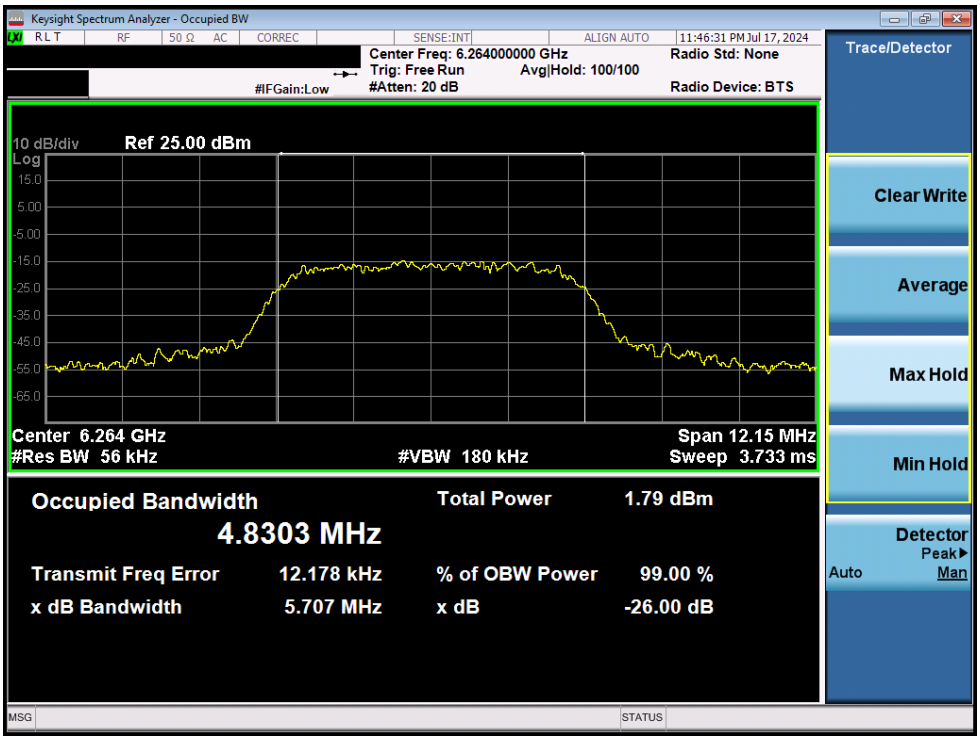
Plot 7-38. 26dB BW & 99% OBW (NB UNII_L HDRp4 – 6264MHz)



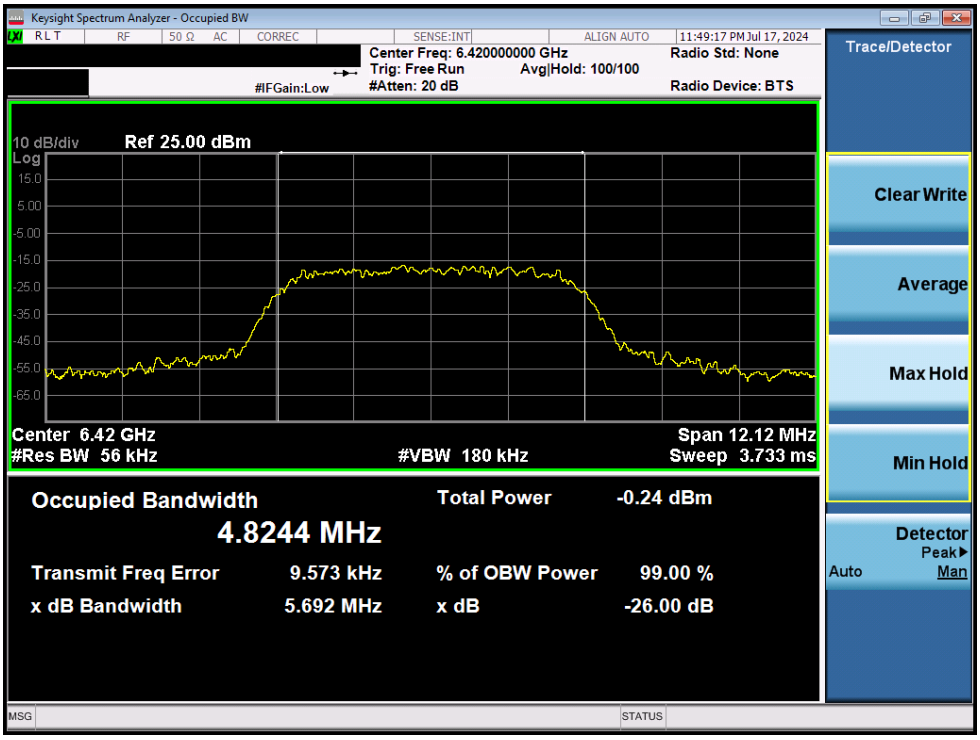
Plot 7-39. 26dB BW & 99% OBW (NB UNII_L HDRp4 – 6420MHz)



Plot 7-40. 26dB BW & 99% OBW (NB UNII_L HDRp8 – 6108MHz)



Plot 7-41. 26dB BW & 99% OBW (NB UNII_L HDRp8 – 6264MHz)



Plot 7-42. 26dB BW & 99% OBW (NB UNII_L HDRp8 – 6420MHz)

7.3 Conducted Output Power and Max EIRP Measurement

§15.407(a.9)

Test Overview and Limits

A transmitter antenna terminal of the EUT is connected to the input of an RF pulse power sensor. Measurement is made using a broadband average power meter while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2020 and KDB 789033 D02 v02r01, and at the appropriate frequencies.

In the 5.925 – 7.125GHz band, the maximum e.i.r.p. over the frequency band of operation must not exceed 14dBm for very low power devices.

Test Procedure Used

ANSI C63.10-2020 – Subclause 12.4.3.2 Method PM-G
KDB 789033 D02 v02r01 – Section E)3)b) Method PM-G

Test Settings

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

Test Setup

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

Figure 7-2. Test Instrument & Measurement Setup

Test Notes

None

7.3.1 Conducted Output Power Measurements

Frequency [MHz]	Detector	Mode	Conducted Powers [dBm]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
6108	AVG	NB UNII BDR	-8.75	2.40	-6.35	14.00	-20.35
6264	AVG	NB UNII BDR	-8.54	2.40	-6.14	14.00	-20.14
6420	AVG	NB UNII BDR	-8.86	2.40	-6.46	14.00	-20.46
6108	AVG	NB UNII LE-1M	-8.78	2.40	-6.38	14.00	-20.38
6264	AVG	NB UNII LE-1M	-8.55	2.40	-6.15	14.00	-20.15
6420	AVG	NB UNII LE-1M	-8.86	2.40	-6.46	14.00	-20.46
6108	AVG	NB UNII LE-2M	-8.76	2.40	-6.36	14.00	-20.36
6264	AVG	NB UNII LE-2M	-8.54	2.40	-6.14	14.00	-20.14
6420	AVG	NB UNII LE-2M	-8.83	2.40	-6.43	14.00	-20.43
6108	AVG	NB UNII HDR4	-6.50	2.40	-4.10	14.00	-18.10
6264	AVG	NB UNII HDR4	-6.77	2.40	-4.37	14.00	-18.37
6420	AVG	NB UNII HDR4	-6.82	2.40	-4.42	14.00	-18.42
6108	AVG	NB UNII HDR8	-4.01	2.40	-1.61	14.00	-15.61
6264	AVG	NB UNII HDR8	-4.29	2.40	-1.89	14.00	-15.89
6420	AVG	NB UNII HDR8	-4.24	2.40	-1.84	14.00	-15.84
6108	AVG	NB UNII HDRp4	-6.82	2.40	-4.42	14.00	-18.42
6264	AVG	NB UNII HDRp4	-6.66	2.40	-4.26	14.00	-18.26
6420	AVG	NB UNII HDRp4	-6.71	2.40	-4.31	14.00	-18.31
6108	AVG	NB UNII HDRp8	-4.34	2.40	-1.94	14.00	-15.94
6264	AVG	NB UNII HDRp8	-4.17	2.40	-1.77	14.00	-15.77
6420	AVG	NB UNII HDRp8	-4.02	2.40	-1.62	14.00	-15.62

Table 7-4. FCC Maximum E.I.R.P. NB UNII_R

Frequency [MHz]	Detector	Mode	Conducted Powers [dBm]	Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
6108	AVG	NB UNII BDR	-9.80	2.40	-7.40	14.00	-21.40
6264	AVG	NB UNII BDR	-9.38	2.40	-6.98	14.00	-20.98
6420	AVG	NB UNII BDR	-8.92	2.40	-6.52	14.00	-20.52
6108	AVG	NB UNII LE-1M	-9.91	2.40	-7.51	14.00	-21.51
6264	AVG	NB UNII LE-1M	-9.40	2.40	-7.00	14.00	-21.00
6420	AVG	NB UNII LE-1M	-8.94	2.40	-6.54	14.00	-20.54
6108	AVG	NB UNII LE-2M	-9.83	2.40	-7.43	14.00	-21.43
6264	AVG	NB UNII LE-2M	-9.42	2.40	-7.02	14.00	-21.02
6420	AVG	NB UNII LE-2M	-9.05	2.40	-6.65	14.00	-20.65
6108	AVG	NB UNII HDR4	-7.96	2.40	-5.56	14.00	-19.56
6264	AVG	NB UNII HDR4	-7.57	2.40	-5.17	14.00	-19.17
6420	AVG	NB UNII HDR4	-6.81	2.40	-4.41	14.00	-18.41
6108	AVG	NB UNII HDR8	-5.51	2.40	-3.11	14.00	-17.11
6264	AVG	NB UNII HDR8	-5.04	2.40	-2.64	14.00	-16.64
6420	AVG	NB UNII HDR8	-4.20	2.40	-1.80	14.00	-15.80
6108	AVG	NB UNII HDRp4	-7.79	2.40	-5.39	14.00	-19.39
6264	AVG	NB UNII HDRp4	-7.44	2.40	-5.04	14.00	-19.04
6420	AVG	NB UNII HDRp4	-6.69	2.40	-4.29	14.00	-18.29
6108	AVG	NB UNII HDRp8	-5.30	2.40	-2.90	14.00	-16.90
6264	AVG	NB UNII HDRp8	-4.92	2.40	-2.52	14.00	-16.52
6420	AVG	NB UNII HDRp8	-4.04	2.40	-1.64	14.00	-15.64

Table 7-5. FCC Maximum E.I.R.P. NB UNII_L

Sample e.i.r.p. Calculation:

At 6108 MHz for NB UNII BDR, the average conducted output power was measured to be -8.75 dBm with a gain of 2.4 dBi.

e.i.r.p. (dBm) = Conducted Power (dBm) + Ant gain (dBi)

-8.75 dBm + 2.4 dBi = -6.35 dBm

7.4 Maximum Power Spectral Density

§15.407(a.9)

Test Overview and Limit

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2020 and KDB 789033 D02 v02r01, and at the appropriate frequencies. Method SA-1, as defined in ANSI C63.10-2020 and KDB 789033 D02 v02r01, was used to measure the power spectral density.

In the 5.925 – 7.125GHz band, the maximum permissible power spectral density must not exceed -5 dBm e.i.r.p in any 1-megahertz band for Very Low Power (VLP) devices.

Test Procedure Used

ANSI C63.10-2020 – Section 12.4.2.2
KDB 789033 D02 v02r01 – Section F

Test Settings

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire emission bandwidth of the signal
3. RBW = 1MHz
4. VBW $\geq$ 3MHz
5. Number of sweep points $\geq$ 2 x (span/RBW)
6. Sweep time = auto
7. Detector = power averaging (RMS)
8. Trigger was set to free run for all modes
9. Trace was averaged over 100 sweeps
10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

Test Setup

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

Figure 7-3. Test Instrument & Measurement Setup

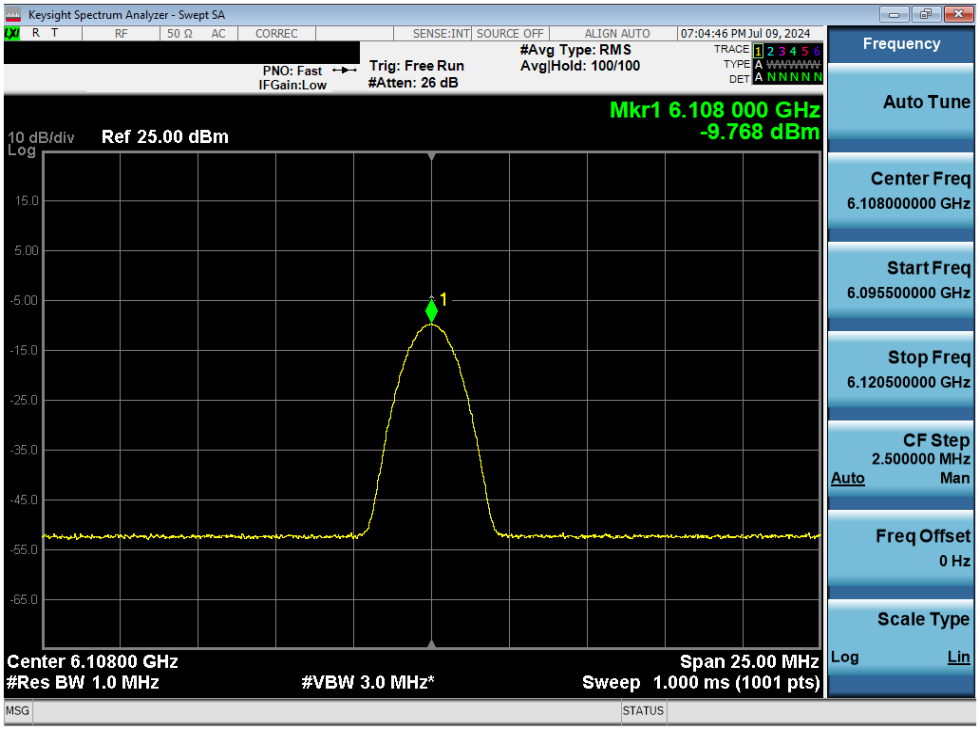
Test Notes

None.

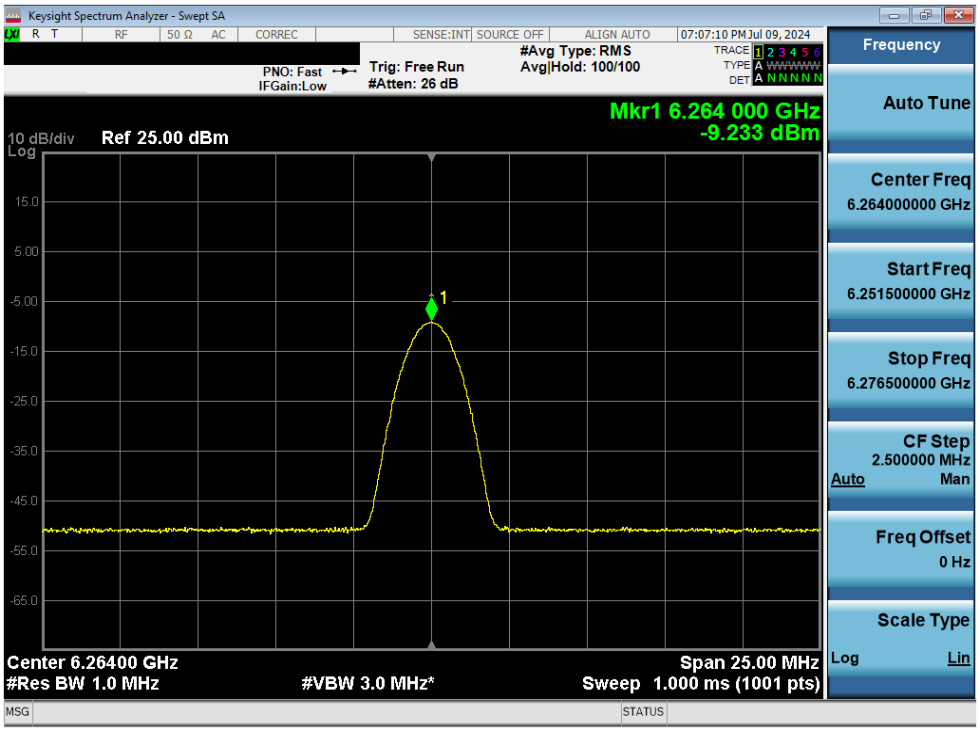
7.4.1 Power Spectral Density Measurements

	Frequency [MHz]	Data Rate [Mbps]	Mode	Measured Power Density [dBm/MHz]	Antenna Gain [dBi]	e.i.r.p. Density [dBm/MHz]	Max Permissible Power Density [dBm/MHz]	Margin [dB]
Band 5	6108	1.0	NB UNII BDR	-9.77	2.40	-7.37	-5.00	-2.37
	6264	1.0	NB UNII BDR	-9.23	2.40	-6.83	-5.00	-1.83
	6420	1.0	NB UNII BDR	-9.37	2.40	-6.97	-5.00	-1.97
	6108	1.0	NB UNII LE-1M	-9.61	2.40	-7.21	-5.00	-2.21
	6264	1.0	NB UNII LE-1M	-9.42	2.40	-7.02	-5.00	-2.02
	6420	1.0	NB UNII LE-1M	-9.19	2.40	-6.79	-5.00	-1.79
	6108	2.0	NB UNII LE-2M	-10.77	2.40	-8.37	-5.00	-3.37
	6264	2.0	NB UNII LE-2M	-10.51	2.40	-8.11	-5.00	-3.11
	6420	2.0	NB UNII LE-2M	-9.98	2.40	-7.58	-5.00	-2.58
	6108	4.0	NB UNII HDR4	-9.89	2.40	-7.49	-5.00	-2.49
	6264	4.0	NB UNII HDR4	-9.80	2.40	-7.40	-5.00	-2.40
	6420	4.0	NB UNII HDR4	-9.74	2.40	-7.34	-5.00	-2.34
	6108	8.0	NB UNII HDR8	-10.22	2.40	-7.82	-5.00	-2.82
	6264	8.0	NB UNII HDR8	-10.06	2.40	-7.66	-5.00	-2.66
	6420	8.0	NB UNII HDR8	-9.91	2.40	-7.51	-5.00	-2.51
	6108	4.0	NB UNII HDRp4	-10.24	2.40	-7.84	-5.00	-2.84
	6264	4.0	NB UNII HDRp4	-9.78	2.40	-7.38	-5.00	-2.38
	6420	4.0	NB UNII HDRp4	-9.57	2.40	-7.17	-5.00	-2.17
	6108	8.0	NB UNII HDRp8	-10.50	2.40	-8.10	-5.00	-3.10
	6264	8.0	NB UNII HDRp8	-9.84	2.40	-7.44	-5.00	-2.44
	6420	8.0	NB UNII HDRp8	-9.71	2.40	-7.31	-5.00	-2.31

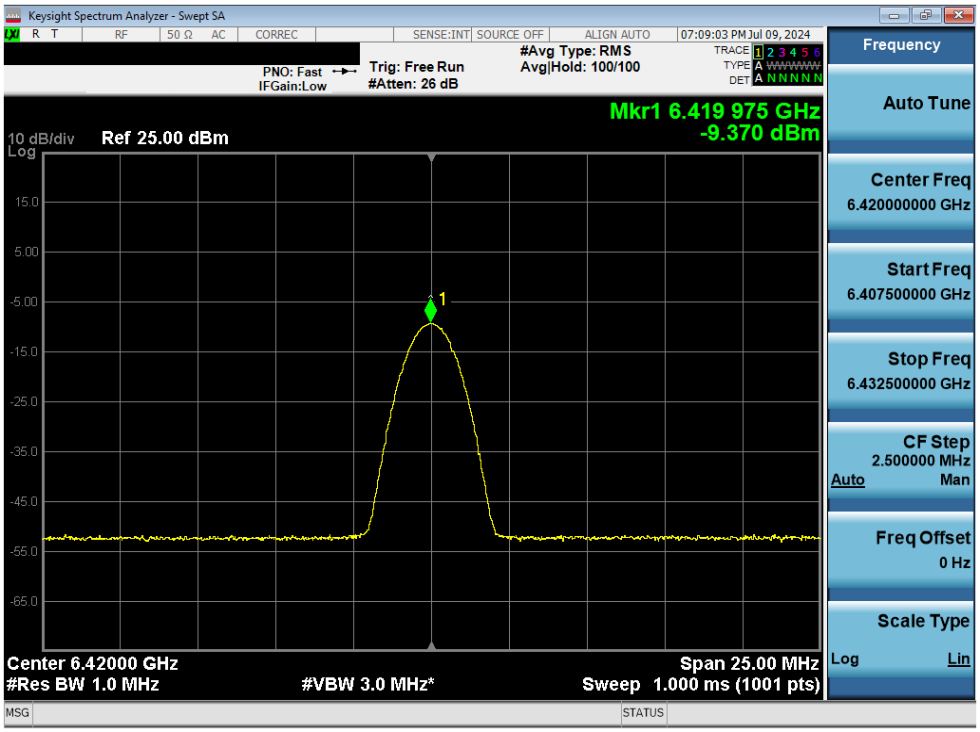
Table 7-6. Power Spectral Density Measurements NB UNII_R



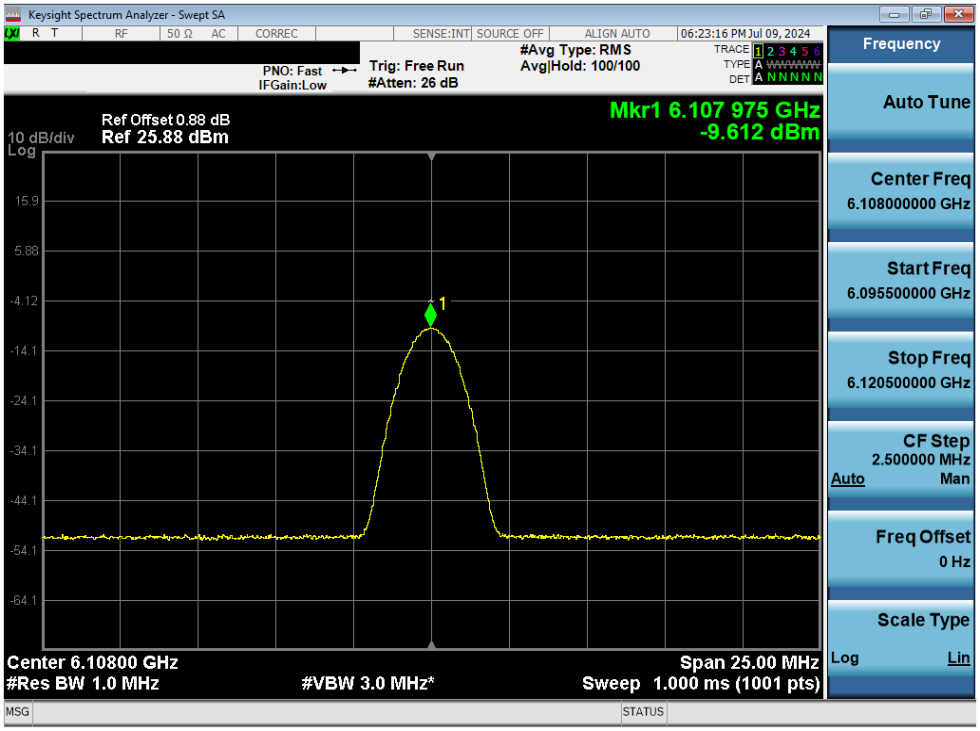
Plot 7-43. PSD (NB UNII_R BDR – 6108MHz)



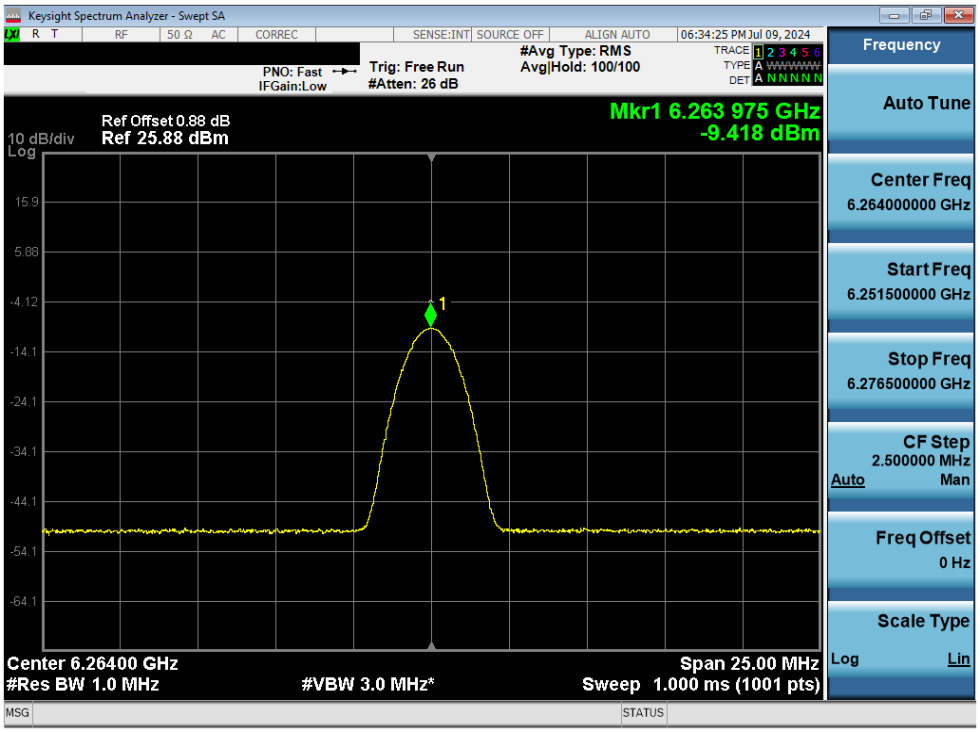
Plot 7-44. PSD (NB UNII_R BDR – 6264MHz)



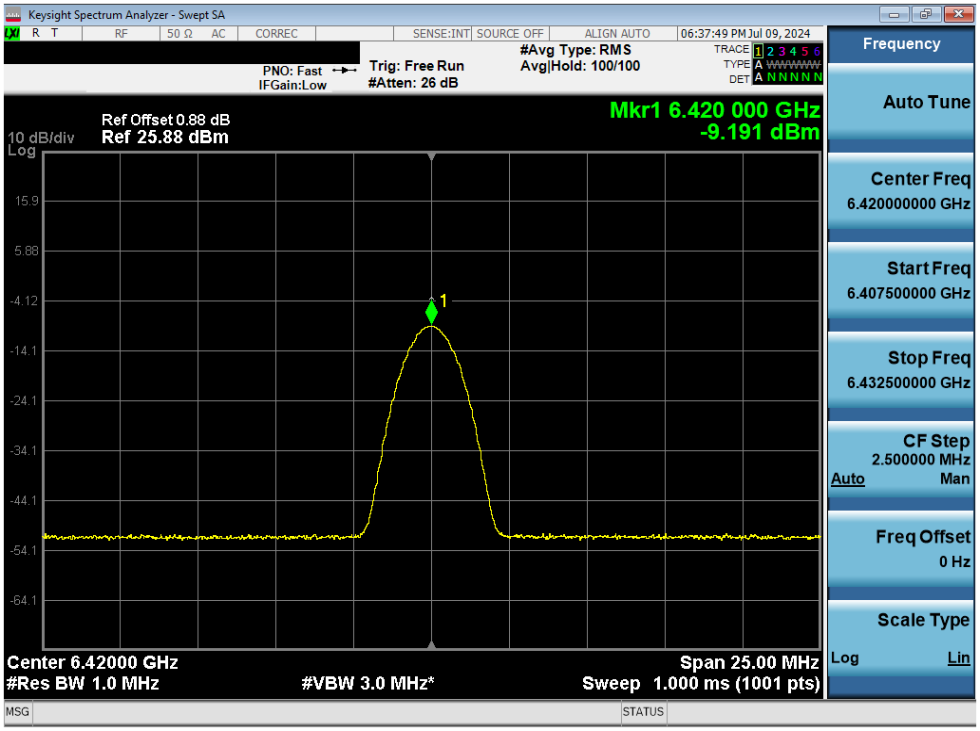
Plot 7-45. PSD (NB UNII_R BDR – 6420MHz)



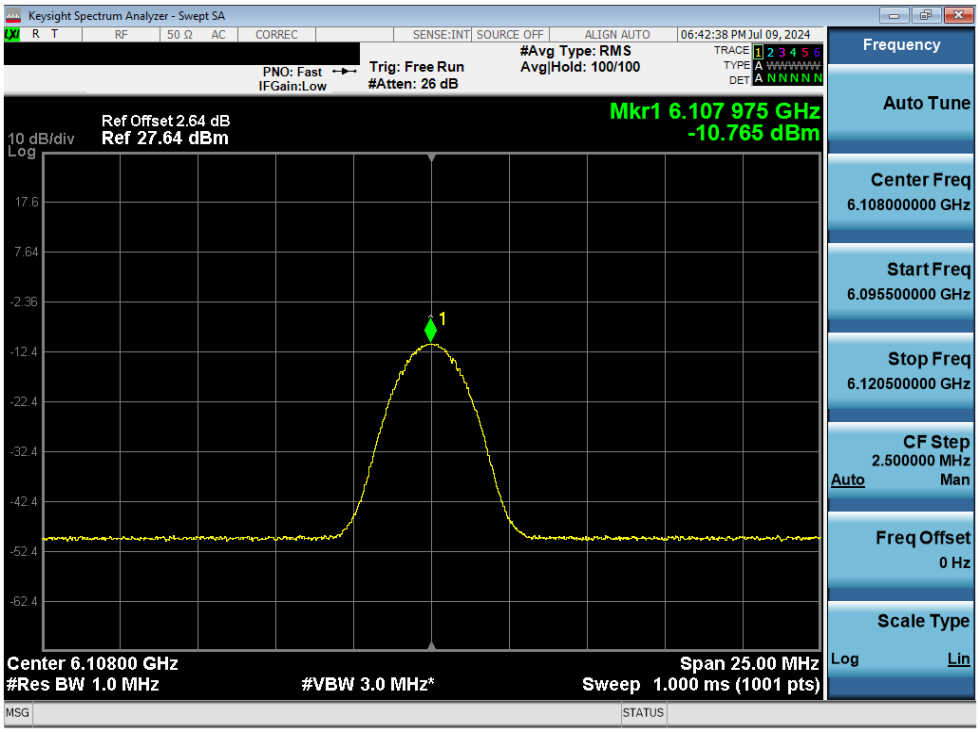
Plot 7-46. PSD (NB UNII_R LE, 1Mbps – 6108MHz)



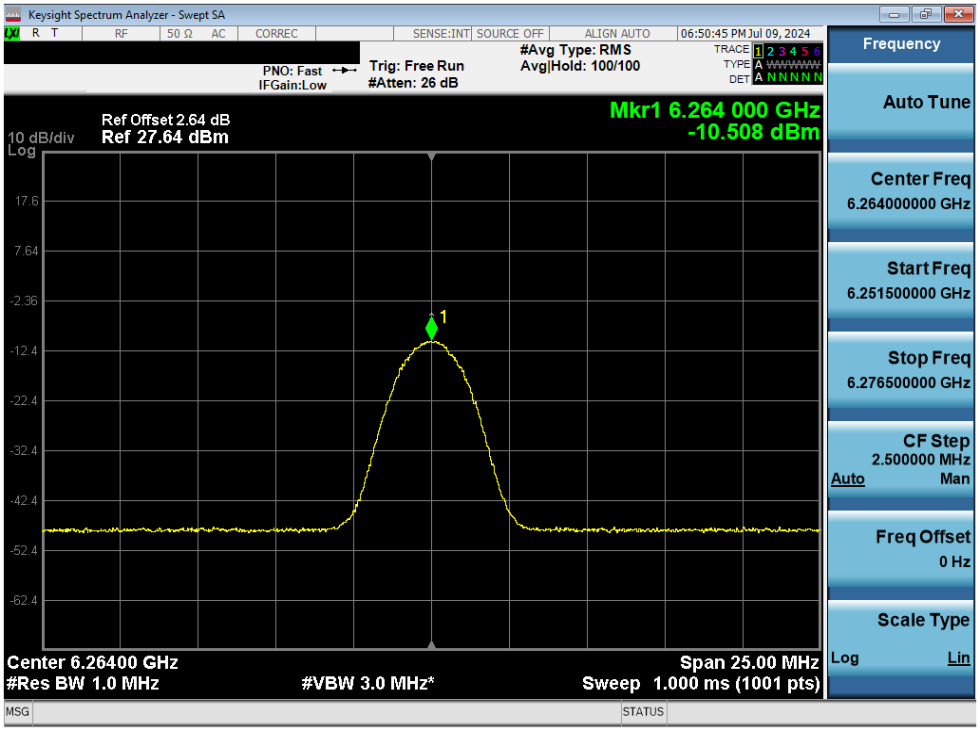
Plot 7-47. PSD (NB UNII_R LE, 1Mbps – 6264MHz)



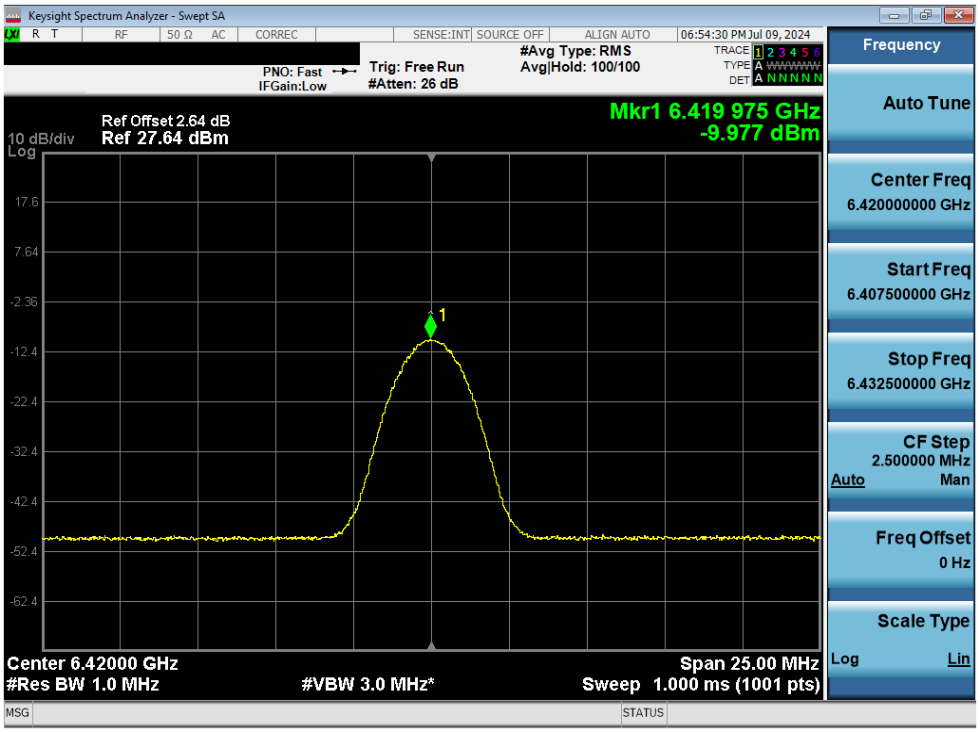
Plot 7-48. PSD (NB UNII_R LE, 1Mbps – 6420MHz)



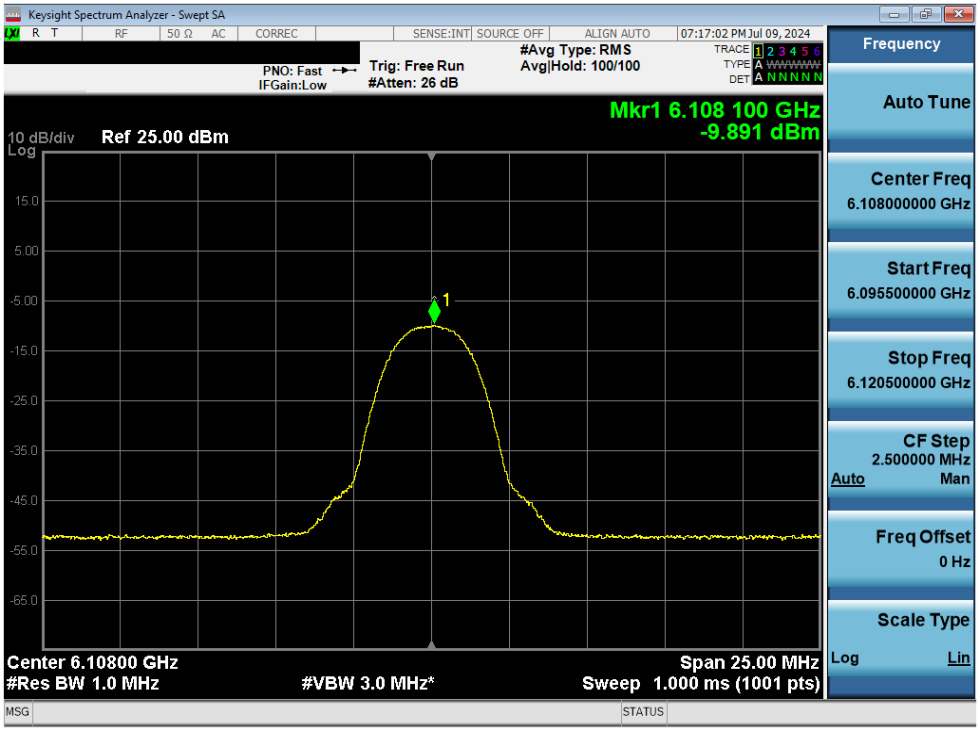
Plot 7-49. PSD (NB UNII_R LE, 2Mbps – 6108MHz)



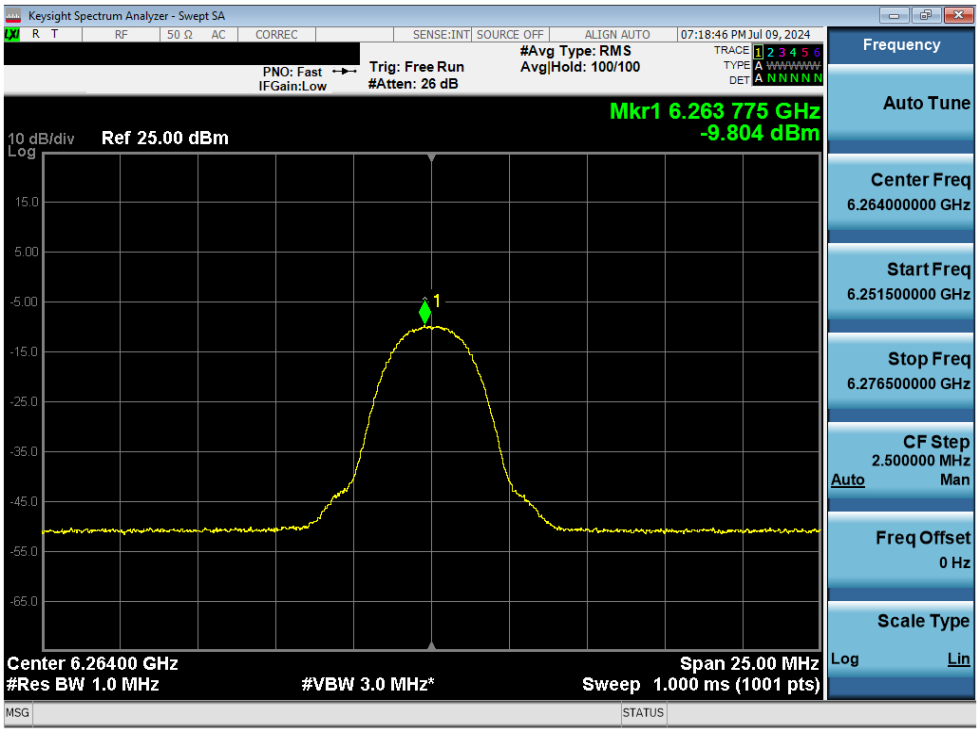
Plot 7-50. PSD (NB UNII_R LE, 2Mbps – 6264MHz)



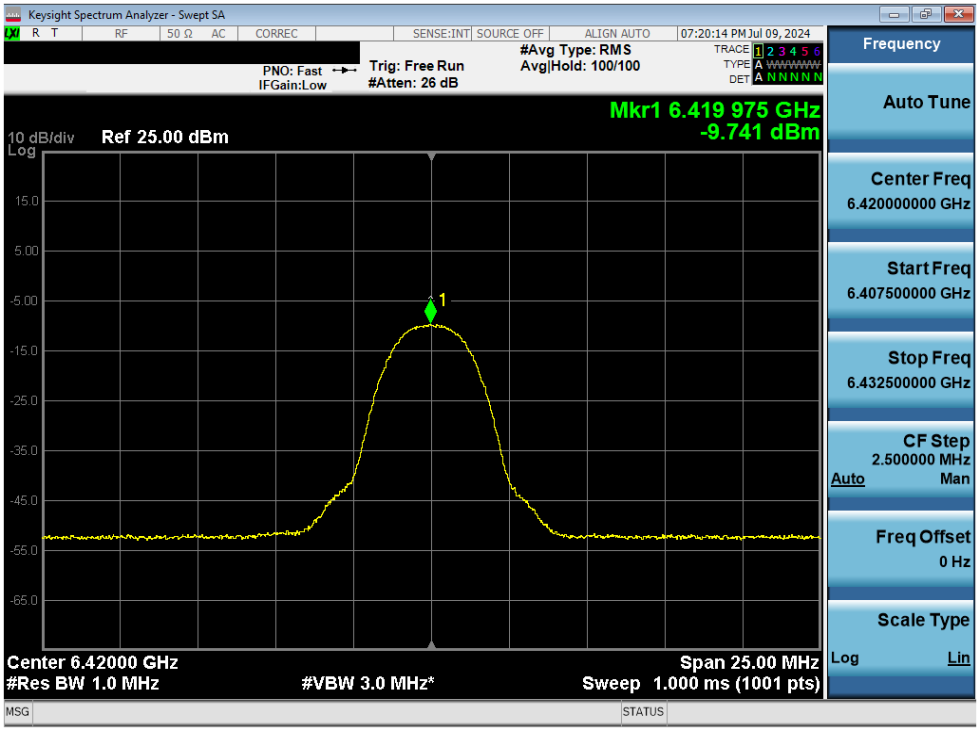
Plot 7-51. PSD (NB UNII_R LE, 2Mbps – 6420MHz)



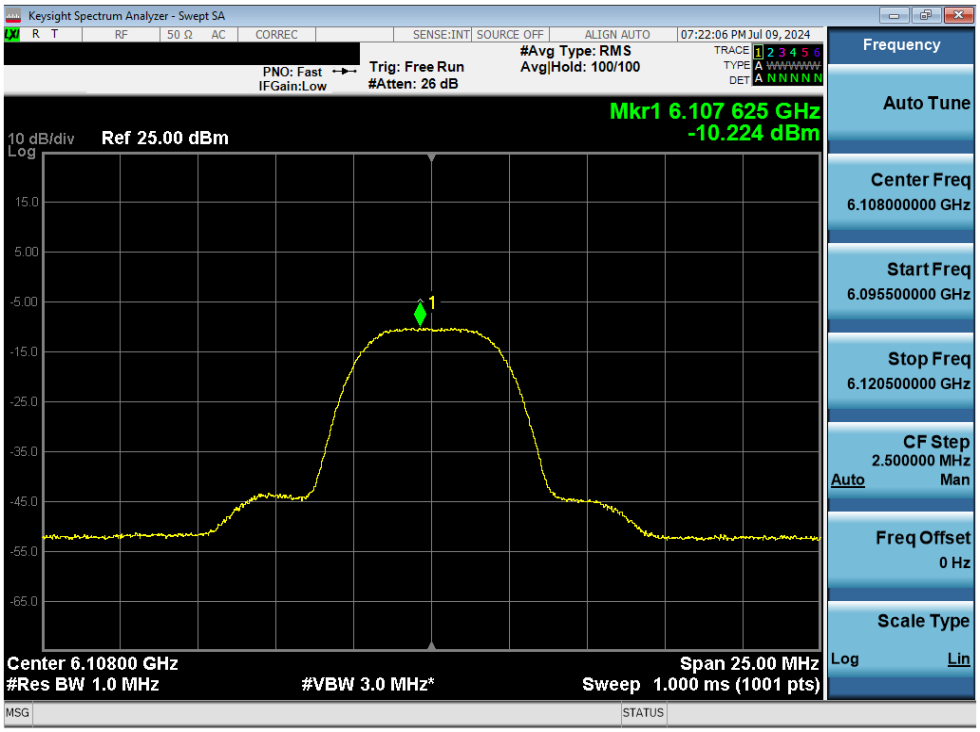
Plot 7-52. PSD (NB UNII_R HDR4 – 6108MHz)



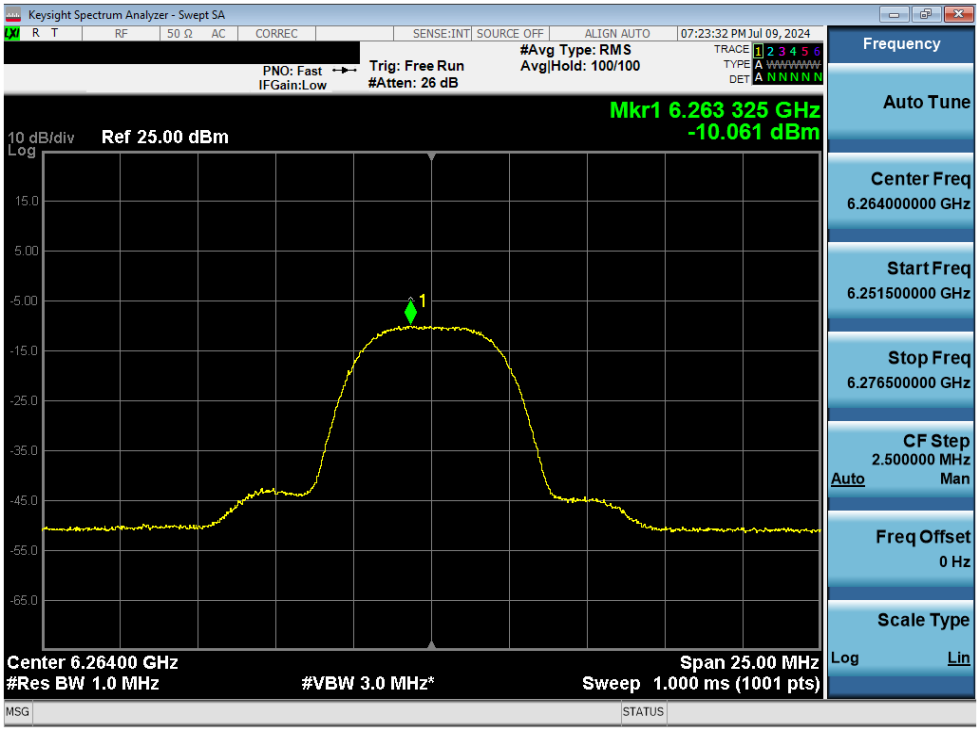
Plot 7-53. PSD (NB UNII_R HDR4 – 6264MHz)



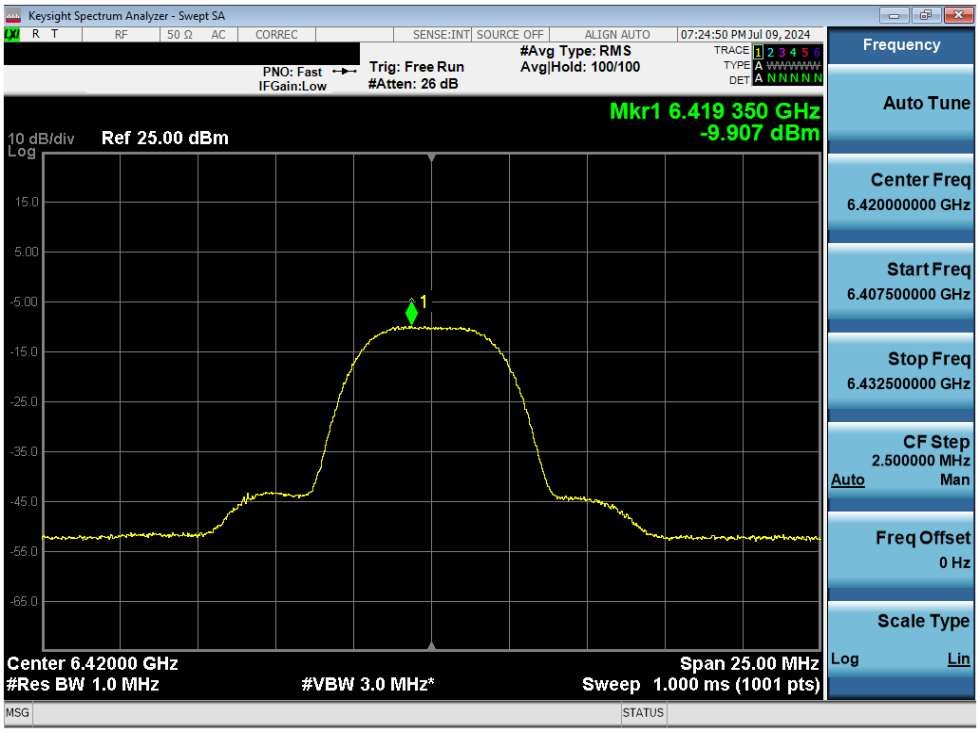
Plot 7-54. PSD (NB UNII_R HDR4 – 6420MHz)



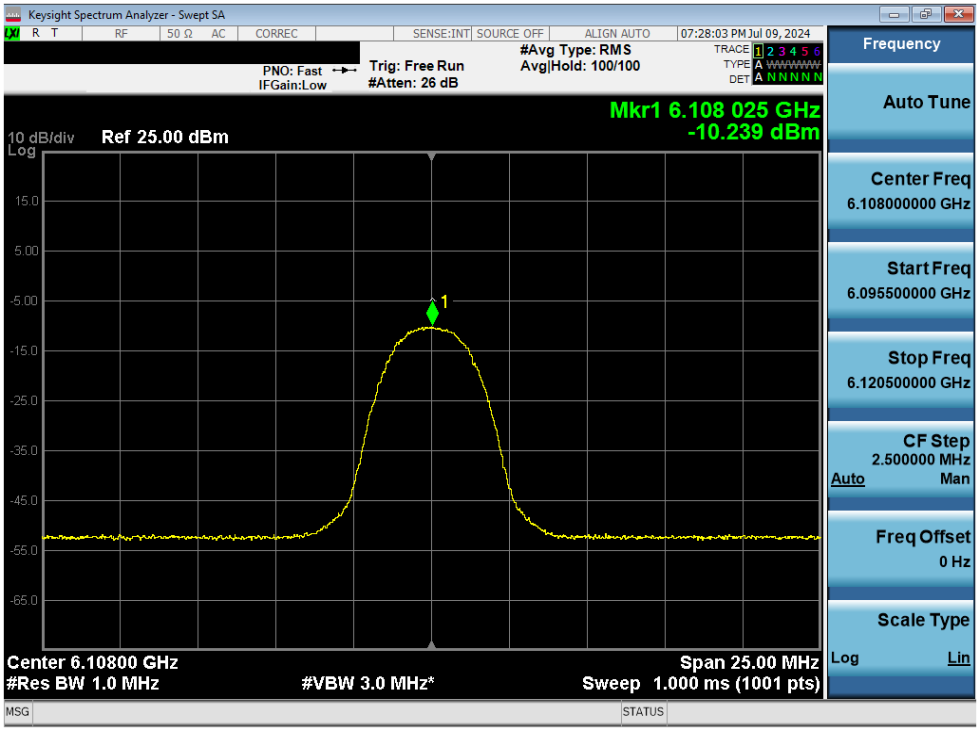
Plot 7-55. PSD (NB UNII_R HDR8 – 6108MHz)



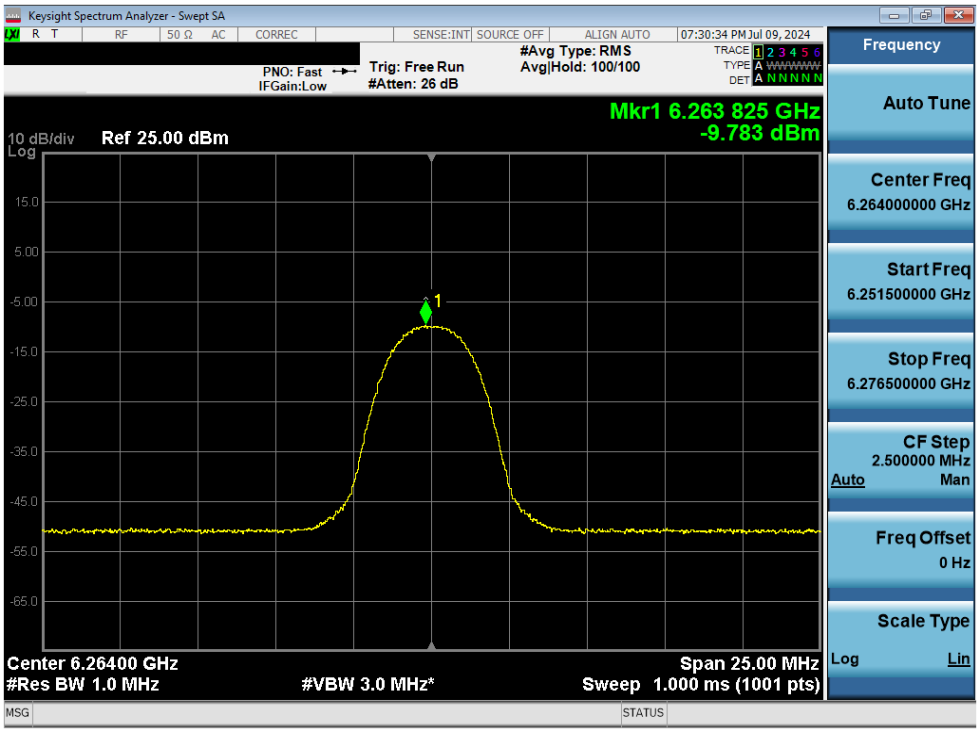
Plot 7-56. PSD (NB UNII_R HDR8 – 6264MHz)



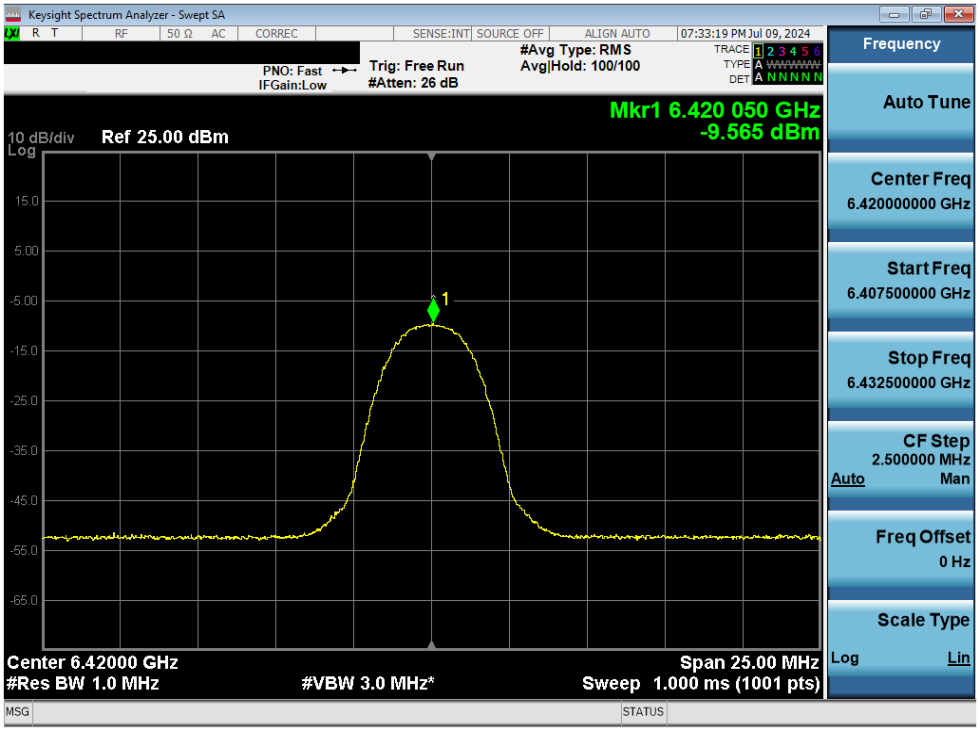
Plot 7-57. PSD (NB UNII_R HDR8 – 6420MHz)



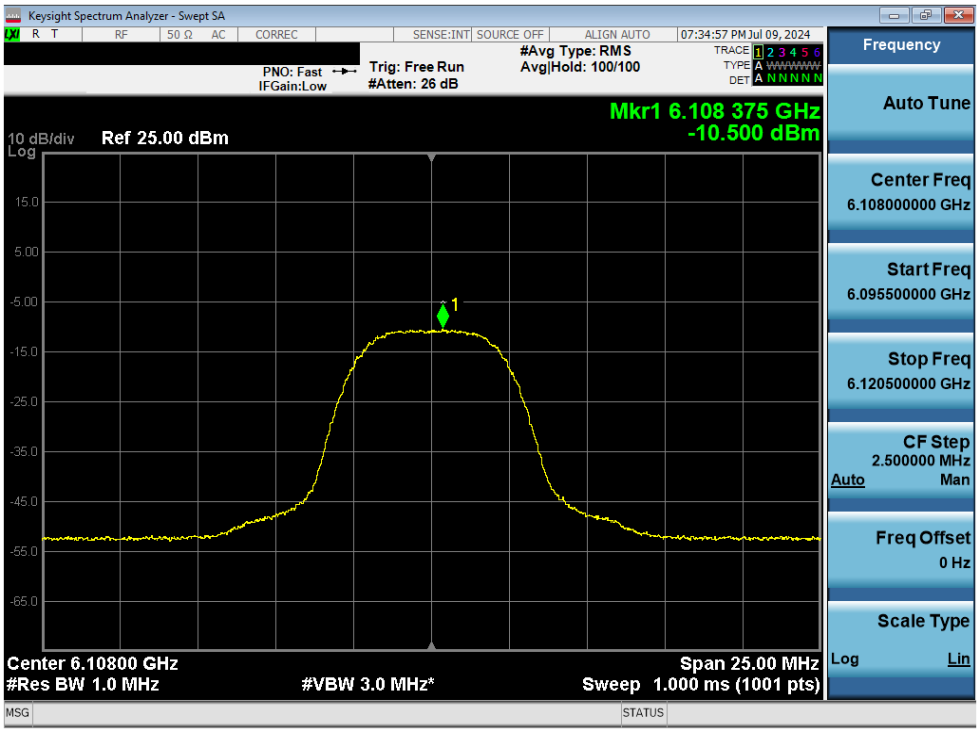
Plot 7-58. PSD (NB UNII_R HDRp4 – 6108MHz)



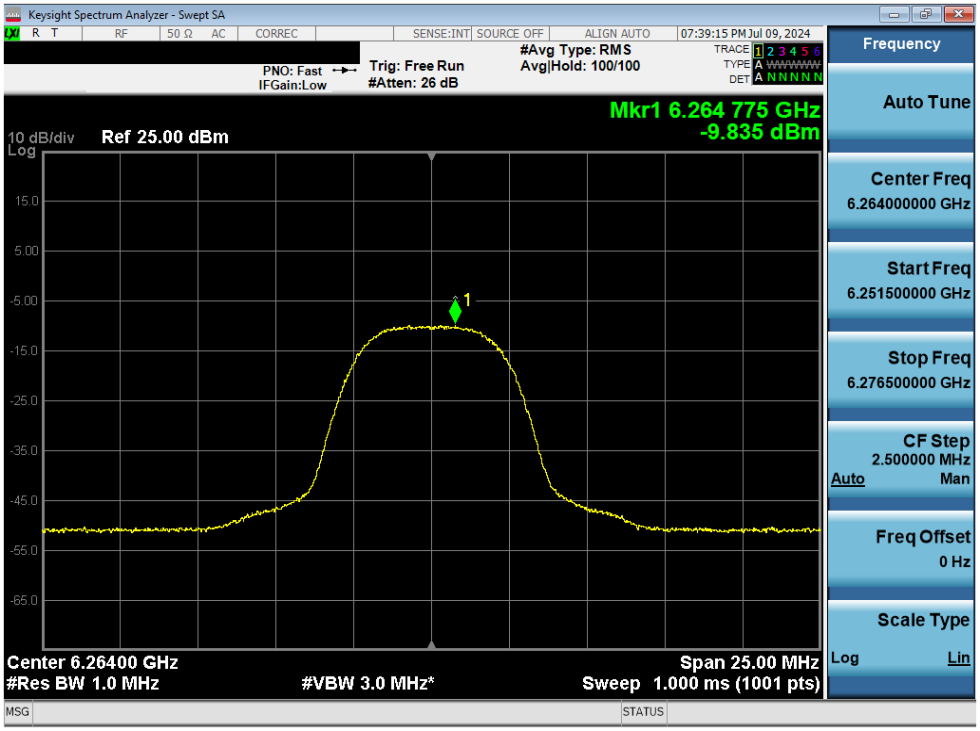
Plot 7-59. PSD (NB UNII_R HDRp4 – 6264MHz)



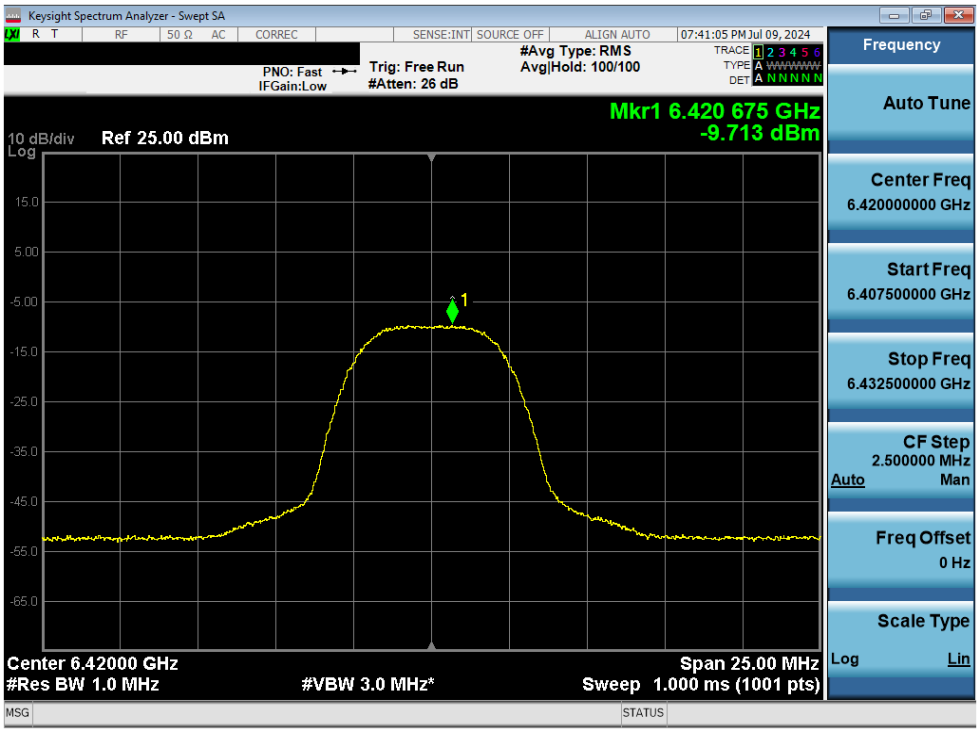
Plot 7-60. PSD (NB UNII_R HDRp4 – 6420MHz)



Plot 7-61. PSD (NB UNII_R HDRp8 – 6108MHz)



Plot 7-62. PSD (NB UNII_R HDRp8 – 6264MHz)

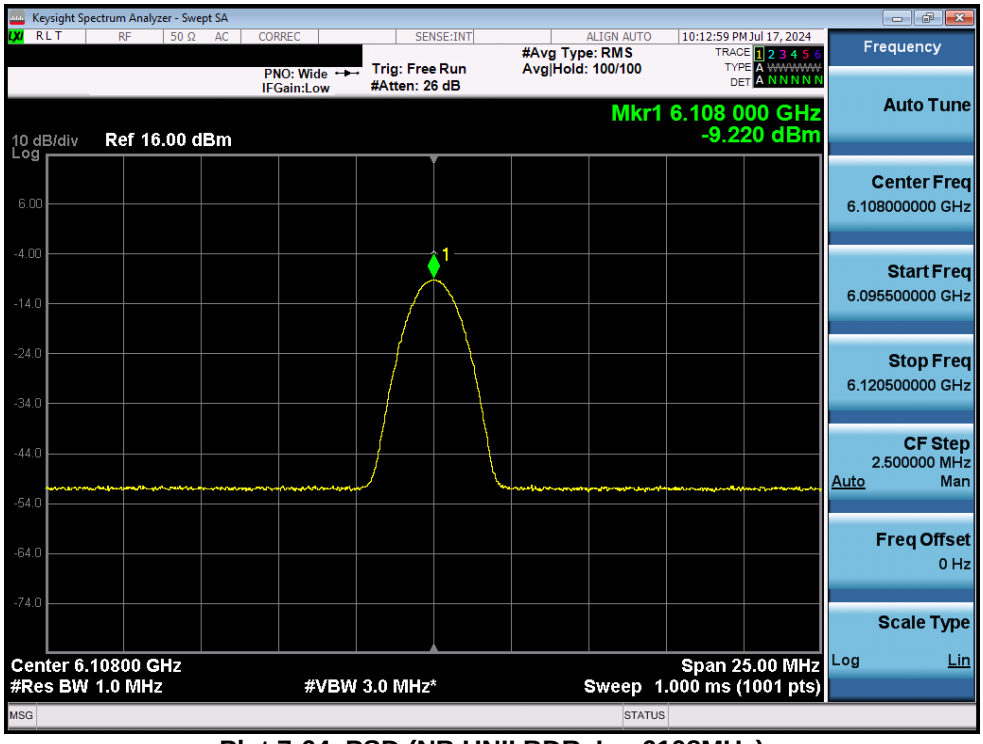


Plot 7-63. PSD (NB UNII_R HDRp8 – 6420MHz)

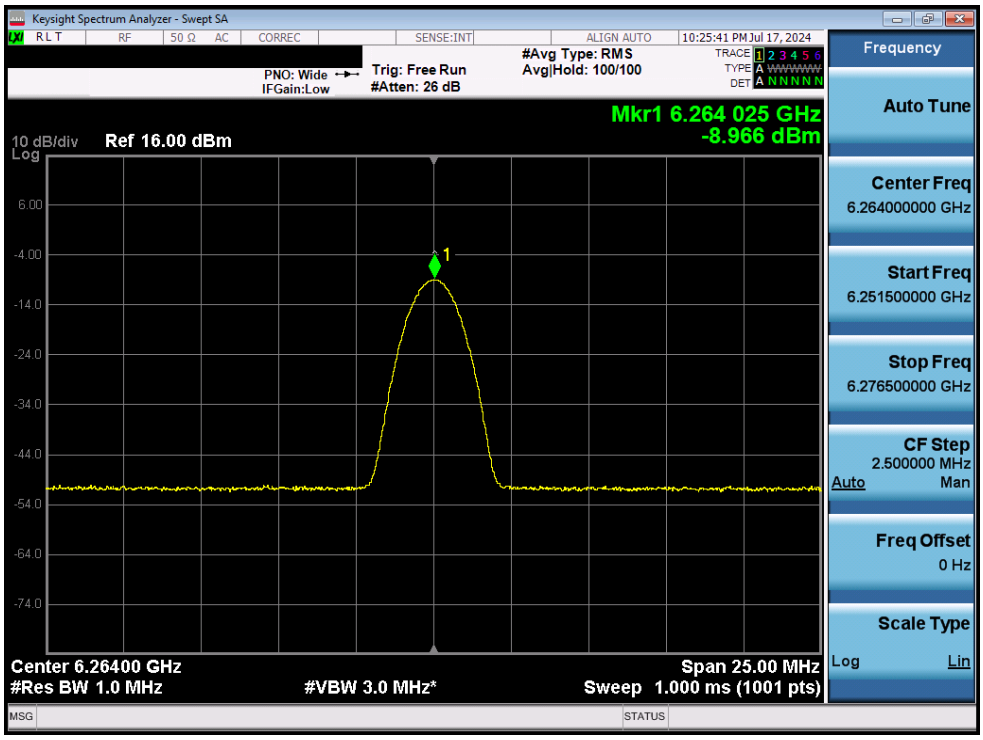
7.4.2 Power Spectral Density Measurements

	Frequency [MHz]	Data Rate [Mbps]	Mode	Measured Power Density [dBm/MHz]	Antenna Gain [dBi]	e.i.r.p. Density [dBm/MHz]	Max Permissible Power Density [dBm/MHz]	Margin [dB]
Band 5	6108	1.0	NB UNII BDR	-9.22	2.40	-6.82	-5.00	-1.82
	6264	1.0	NB UNII BDR	-8.99	2.40	-6.59	-5.00	-1.59
	6420	1.0	NB UNII BDR	-8.41	2.40	-6.01	-5.00	-1.01
	6108	1.0	NB UNII LE-1M	-9.58	2.40	-7.18	-5.00	-2.18
	6264	1.0	NB UNII LE-1M	-9.04	2.40	-6.64	-5.00	-1.64
	6420	1.0	NB UNII LE-1M	-8.94	2.40	-6.54	-5.00	-1.54
	6108	2.0	NB UNII LE-2M	-10.23	2.40	-7.83	-5.00	-2.83
	6264	2.0	NB UNII LE-2M	-10.16	2.40	-7.76	-5.00	-2.76
	6420	2.0	NB UNII LE-2M	-9.86	2.40	-7.46	-5.00	-2.46
	6108	4.0	NB UNII HDR4	-9.89	2.40	-7.49	-5.00	-2.49
	6264	4.0	NB UNII HDR4	-9.59	2.40	-7.19	-5.00	-2.19
	6420	4.0	NB UNII HDR4	-10.27	2.40	-7.87	-5.00	-2.87
	6108	8.0	NB UNII HDR8	-10.24	2.40	-7.84	-5.00	-2.84
	6264	8.0	NB UNII HDR8	-9.88	2.40	-7.48	-5.00	-2.48
	6420	8.0	NB UNII HDR8	-8.89	2.40	-6.49	-5.00	-1.49
	6108	4.0	NB UNII HDRp4	-9.75	2.40	-7.35	-5.00	-2.35
	6264	4.0	NB UNII HDRp4	-9.36	2.40	-6.96	-5.00	-1.96
	6420	4.0	NB UNII HDRp4	-8.65	2.40	-6.25	-5.00	-1.25
	6108	8.0	NB UNII HDRp8	-9.89	2.40	-7.49	-5.00	-2.49
	6264	8.0	NB UNII HDRp8	-9.67	2.40	-7.27	-5.00	-2.27
	6420	8.0	NB UNII HDRp8	-8.59	2.40	-6.19	-5.00	-1.19

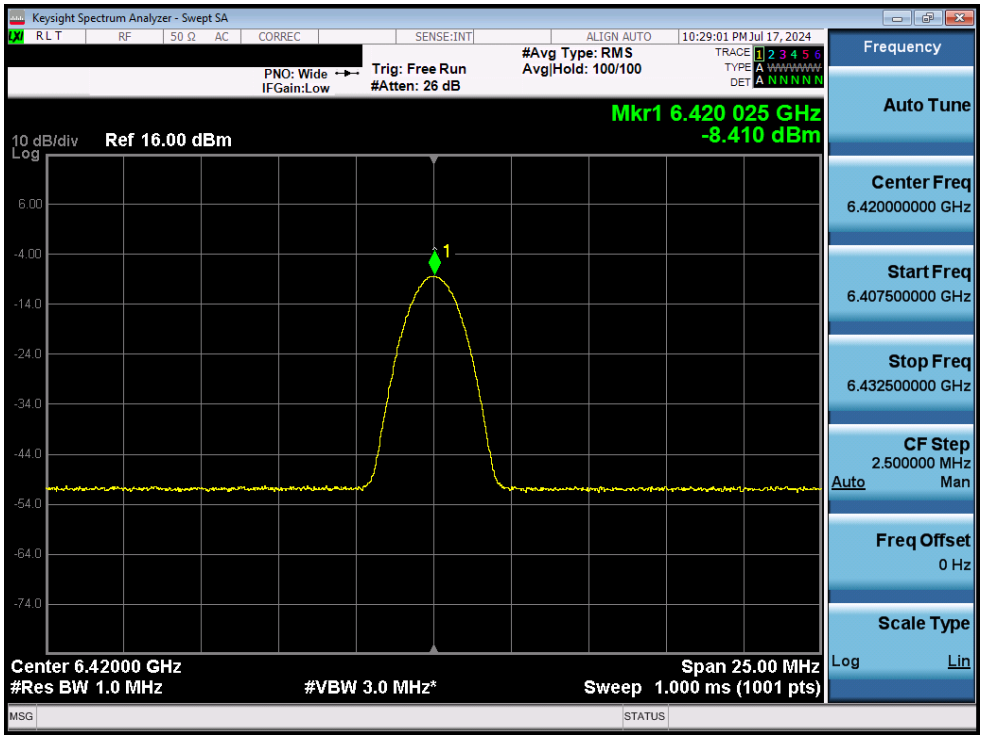
Table 7-7. Power Spectral Density Measurements NB UNII_L



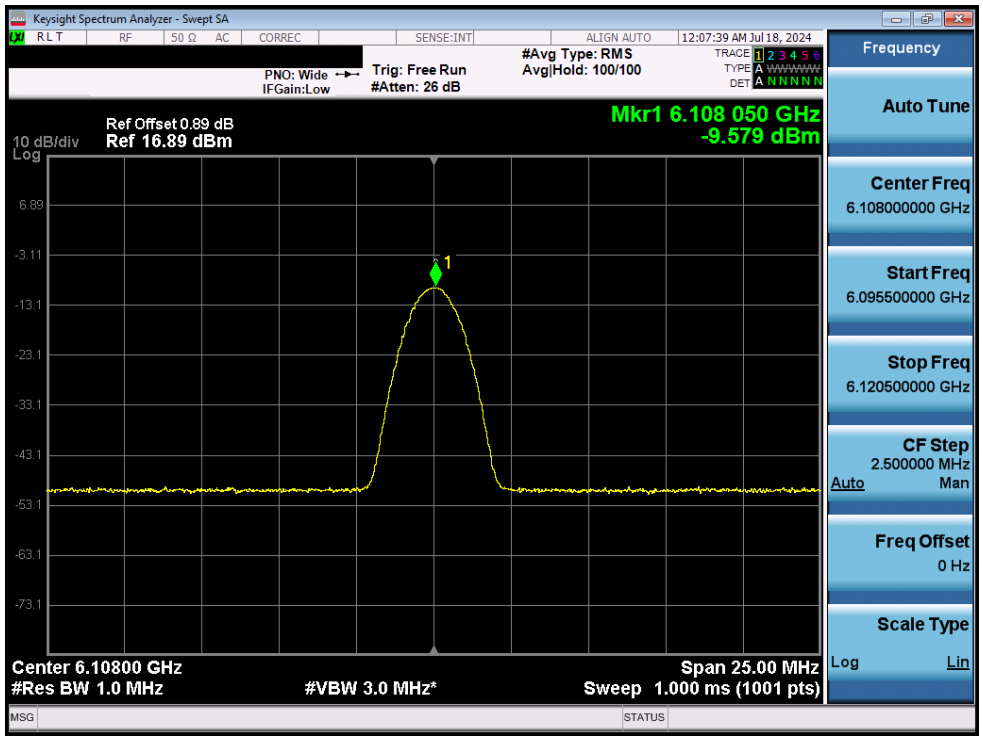
Plot 7-64. PSD (NB UNII BDR_L – 6108MHz)



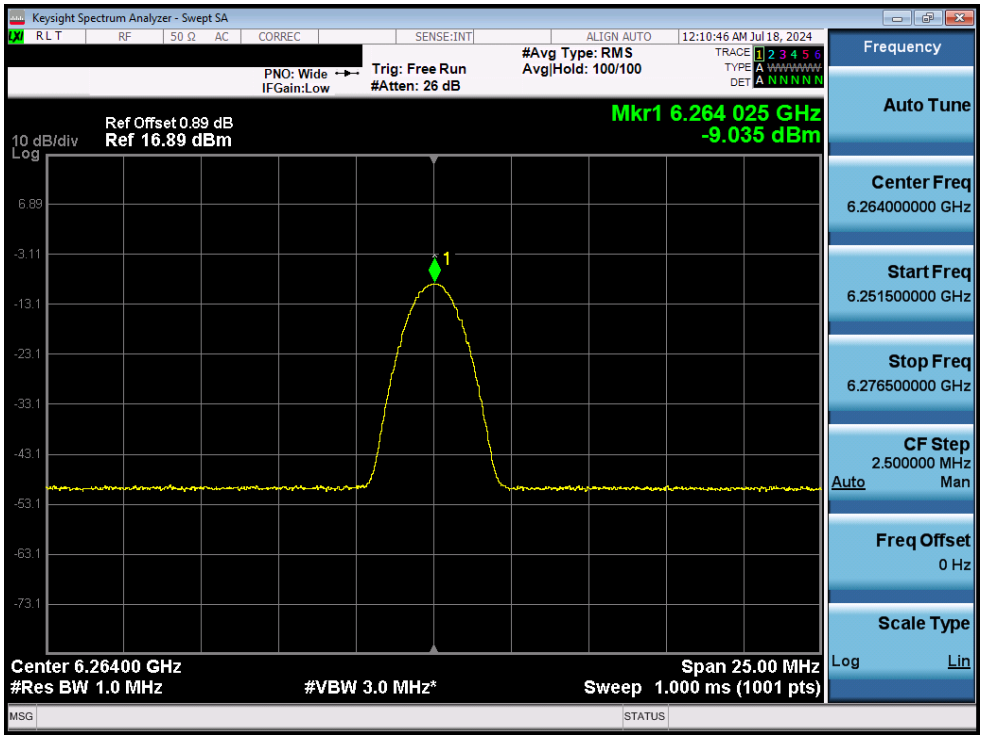
Plot 7-65. PSD (NB UNII_L BDR – 6264MHz)



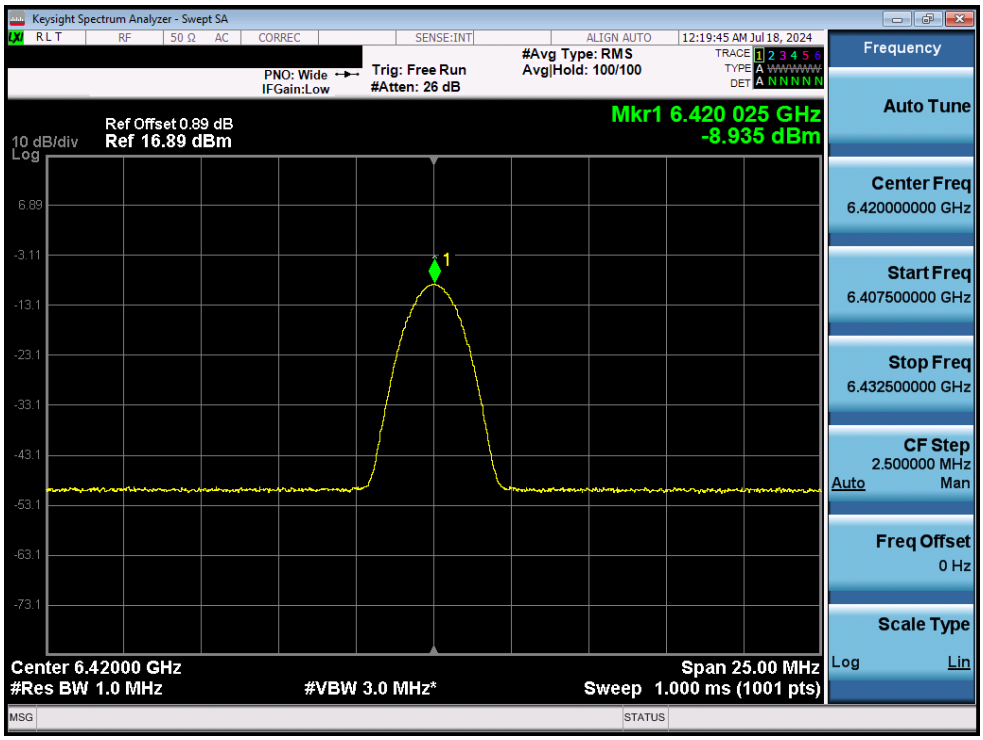
Plot 7-66. PSD (NB UNII_L BDR – 6420MHz)



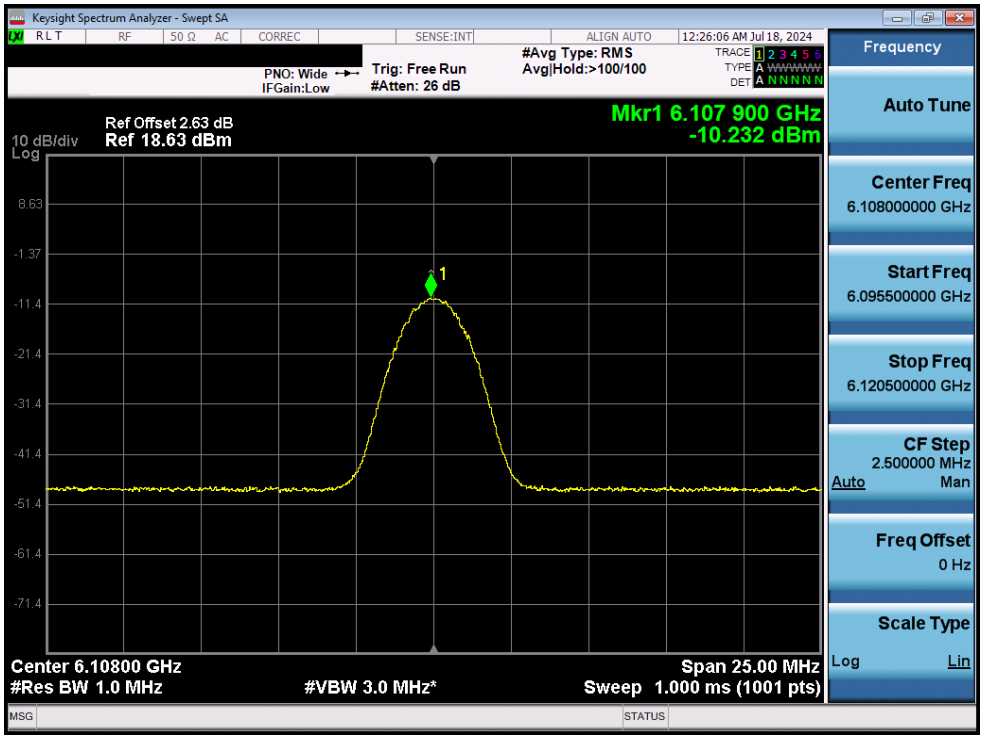
Plot 7-67. PSD (NB UNII_L LE, 1Mbps – 6108MHz)



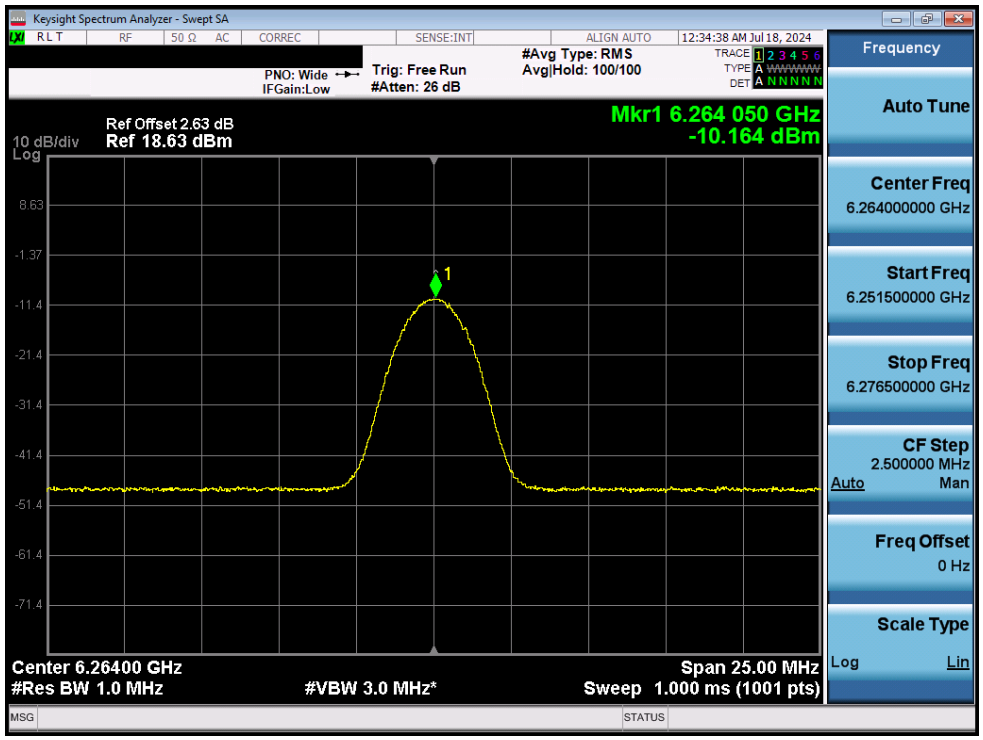
Plot 7-68. PSD (NB UNII_L LE, 1Mbps – 6264MHz)



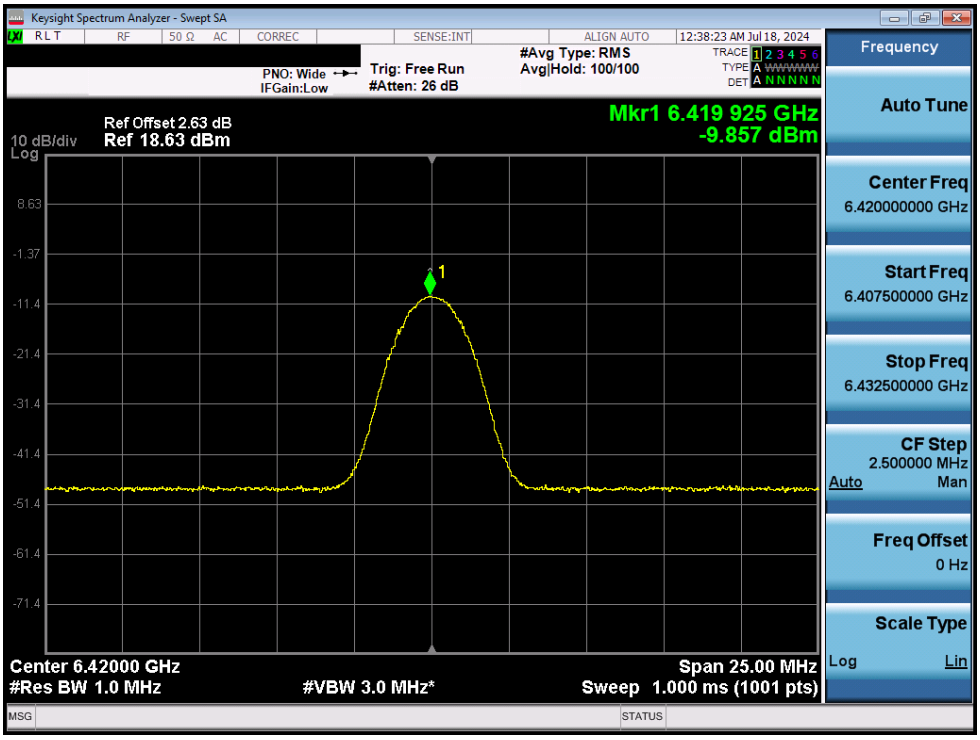
Plot 7-69. PSD (NB UNII_L LE, 1Mbps – 6420MHz)



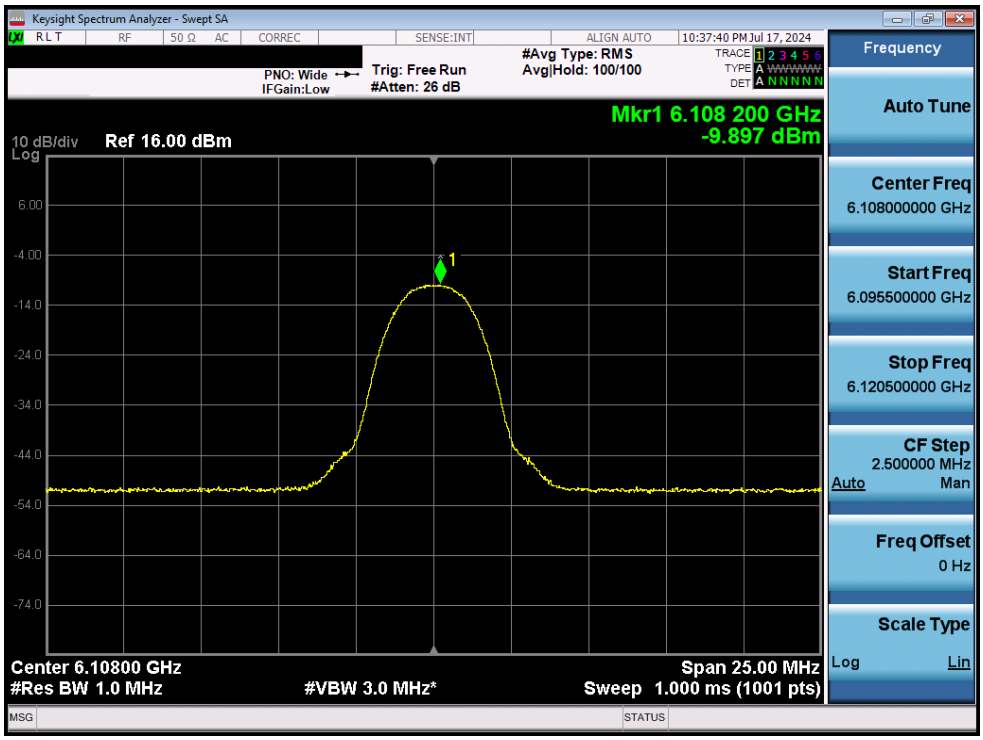
Plot 7-70. PSD (NB UNII_L LE, 2Mbps – 6108MHz)



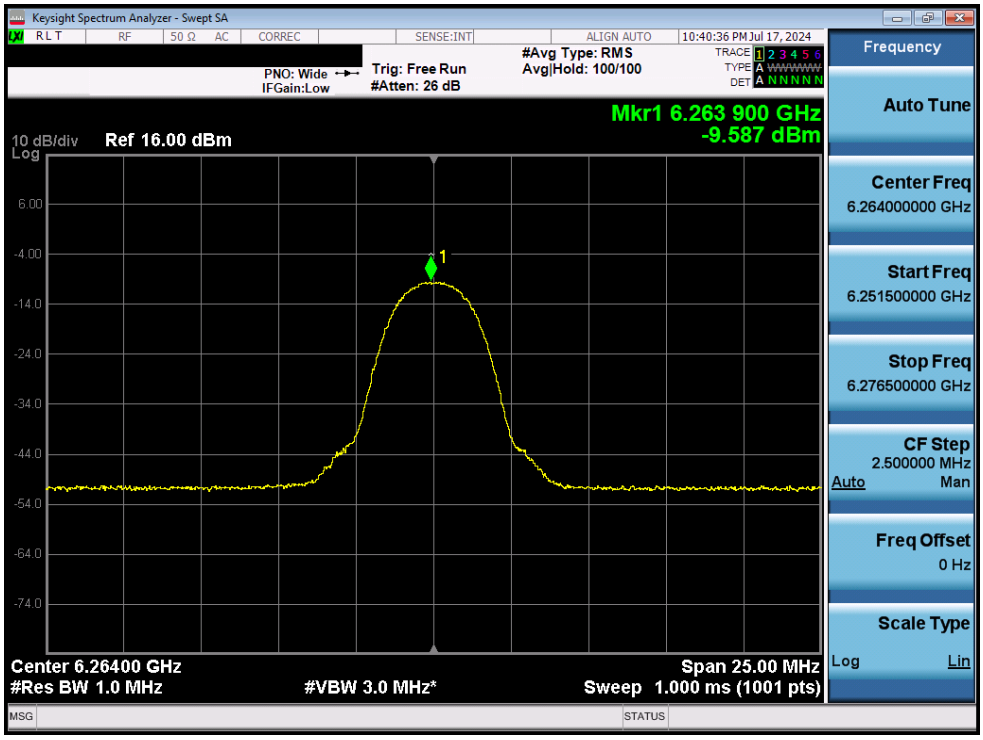
Plot 7-71. PSD (NB UNII_L LE, 2Mbps – 6264MHz)



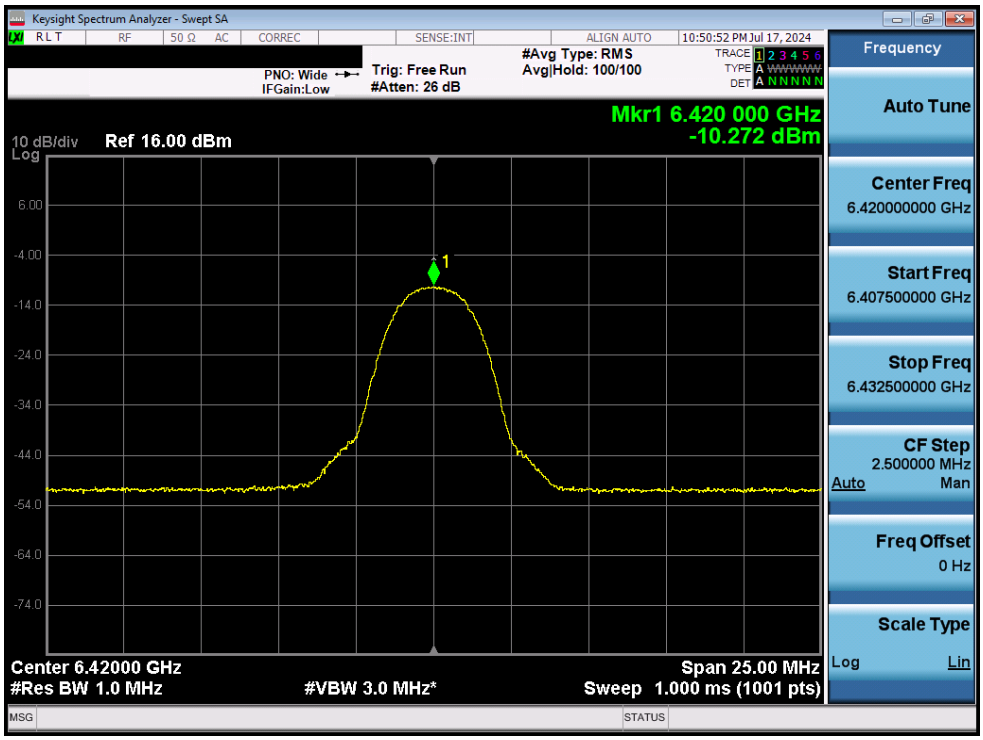
Plot 7-72. PSD (NB UNII_L LE, 2Mbps – 6420MHz)



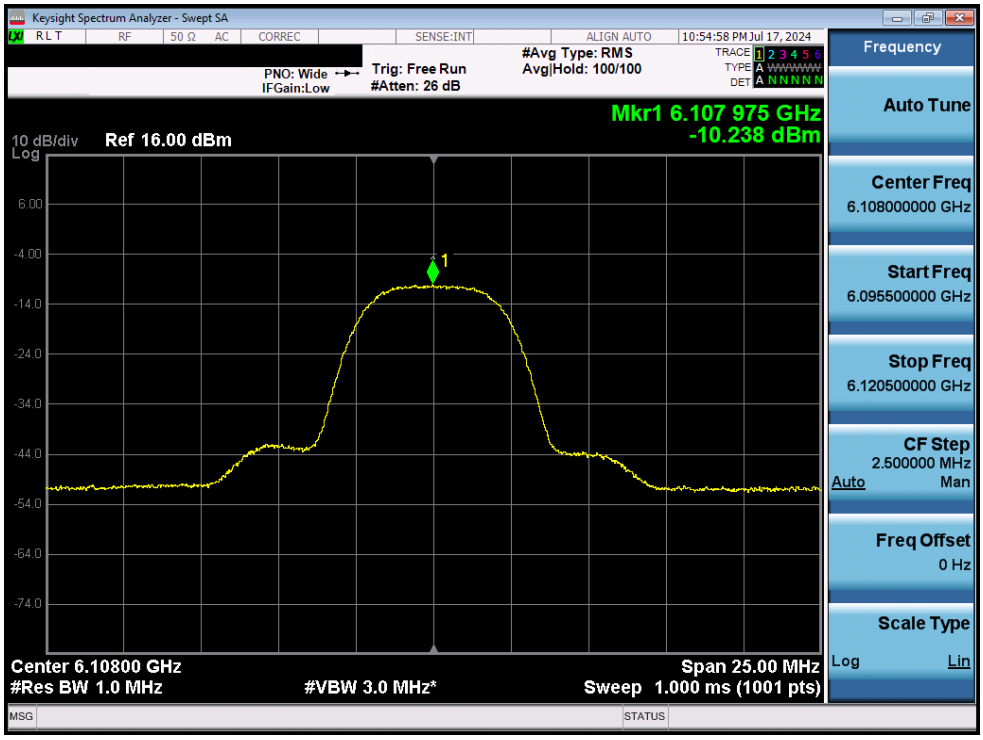
Plot 7-73. PSD (NB UNII_L HDR4 – 6108MHz)



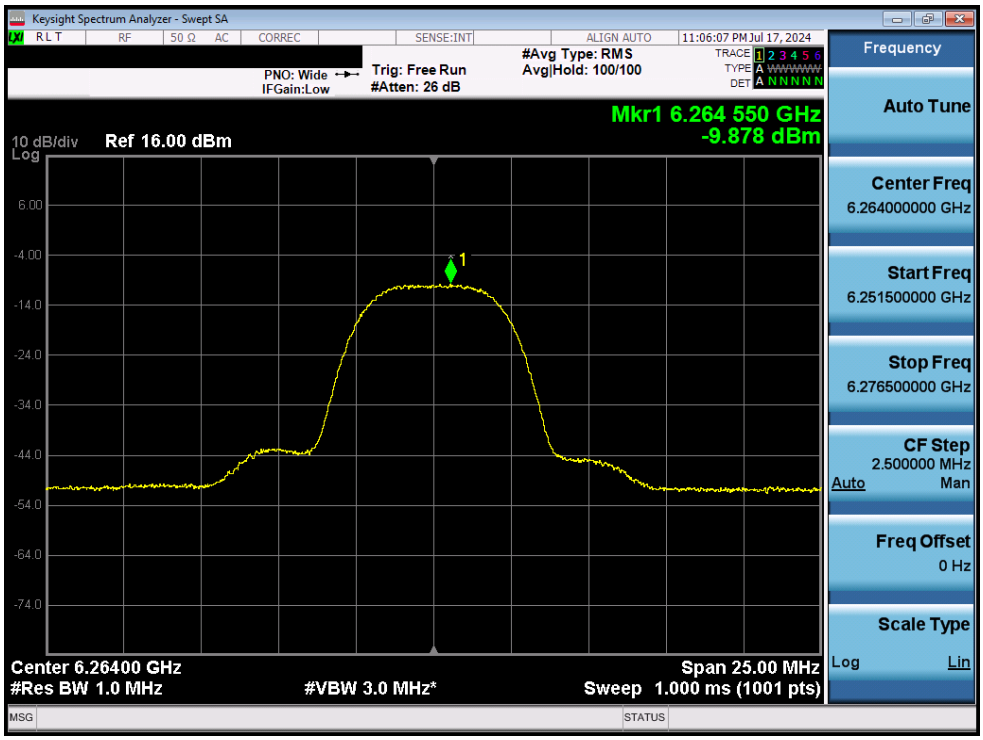
Plot 7-74. PSD (NB UNII_L HDR4 – 6264MHz)



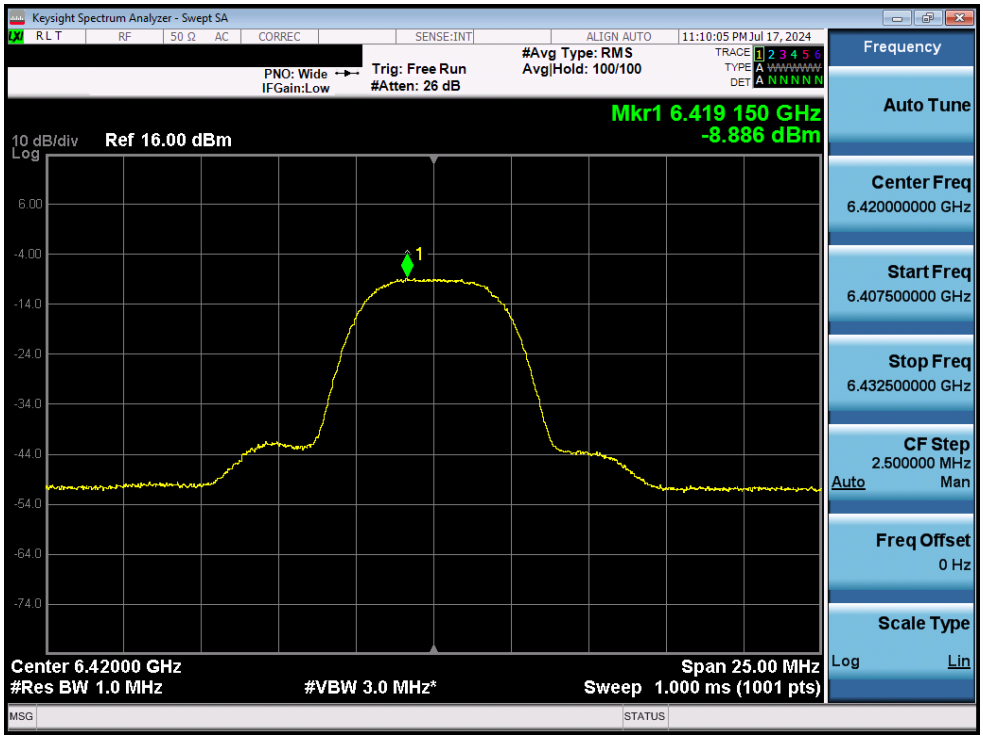
Plot 7-75. PSD (NB UNII_L HDR4 – 6420MHz)



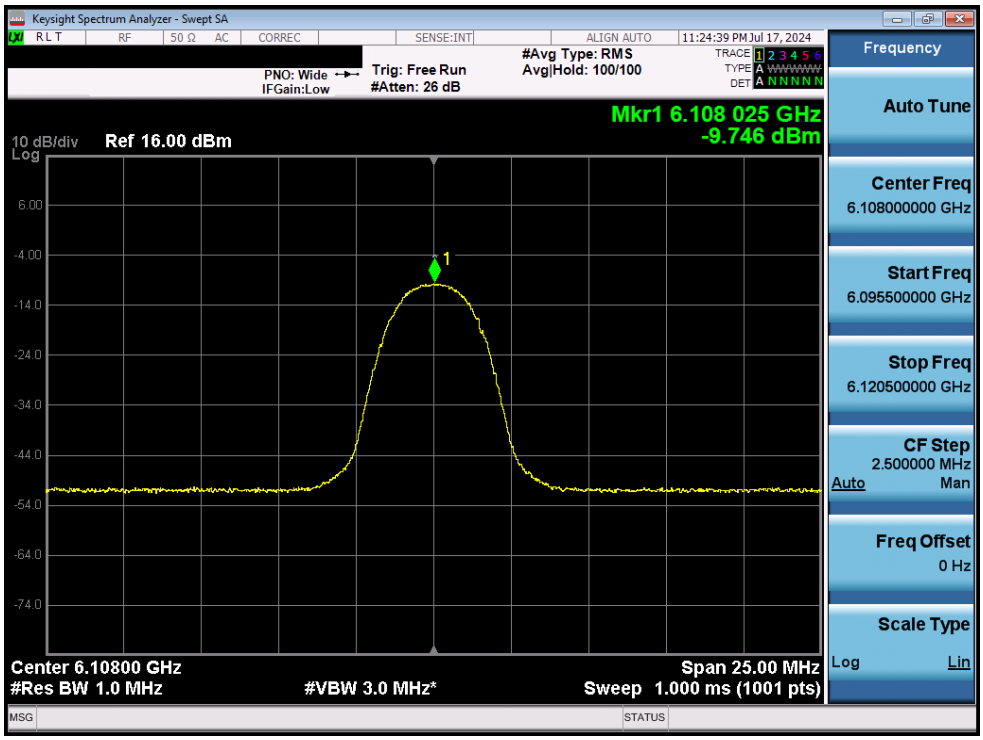
Plot 7-76. PSD (NB UNII_L HDR8 – 6108MHz)



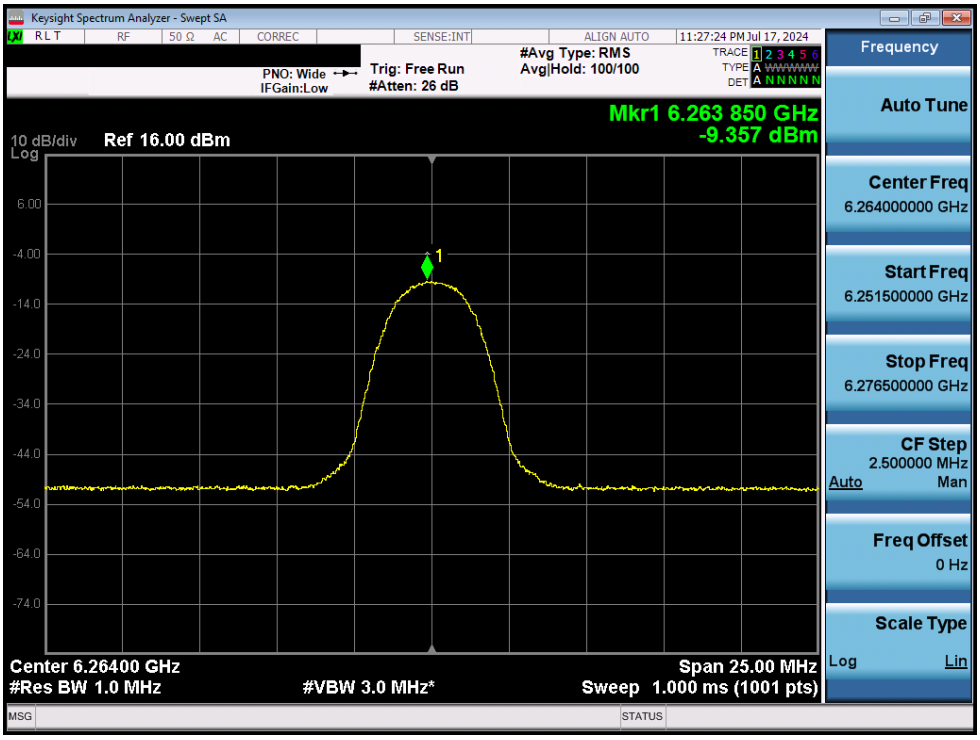
Plot 7-77. PSD (NB UNII_L HDR8 – 6264MHz)



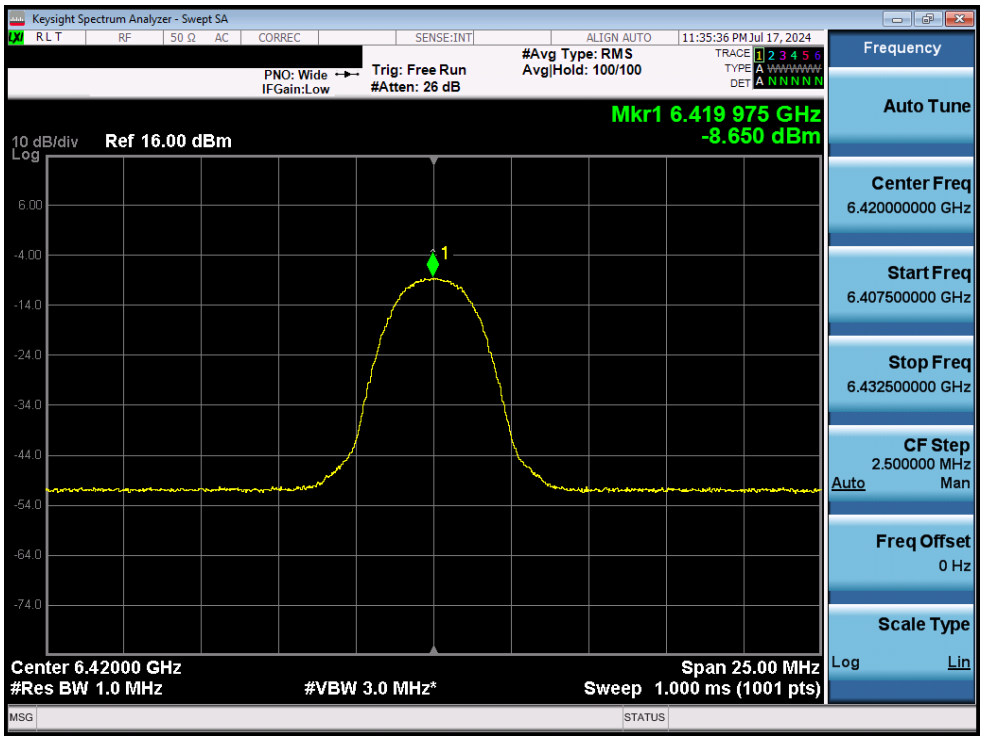
Plot 7-78. PSD (NB UNII_L HDR8 – 6420MHz)



Plot 7-79. PSD (NB UNII_L HDRp4 – 6108MHz)



Plot 7-80. PSD (NB UNII_L HDRp4 – 6264MHz)



Plot 7-81. PSD (NB UNII_L HDRp4 – 6420MHz)