

**ELEMENT WASHINGTON DC LLC**

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<http://www.element.com>**MEASUREMENT REPORT**
FCC Part 15.247 / ISD RSS-247 Bluetooth**Applicant Name:**
Microsoft Corporation
One Microsoft Way
Redmond, WA 98052
United States**Date of Testing:**
12/16/2025 - 02/02/2026
Test Report Issue Date:
3/25/2026
Test Site/Location:
Element lab., Columbia, MD, USA
Test Report Serial No.:
1M2511240098-05-R3.C3K**FCC ID:** C3K2076
IC: 3048A-2076
APPLICANT: Microsoft Corporation**Application Type:** Class II Permissive Change
Model/HVIN: 2076
EUT Type: Portable Computing Device
Max. RF Output Power: 97.432 mW (19.89 dBm) Peak Conducted
Frequency Range: 2402 – 2480MHz
Type of Modulation: GFSK, $\pi/4$ -DQPSK, 8DPSK
FCC Classification: FCC Part 15 Spread Spectrum Transmitter (DSS)
FCC Test Procedure(s): ANSI C63.10:2020 + Cor. 1:2023, KDB 558074 D01 v05r02
ISED Test Procedure(s): ANSI C63.10:2020 + Cor. 1:2023 + C63.10a:2024 + Errata to C63.10a:2024, KDB 558074 D01 v05r02
ISED Specification(s): RSS-247 Issue 4
Class II Permissive Change: Please see FCC change document
Original Grant Date: 04/02/2024

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. Test results reported herein relate only to the item(s) tested.

This revised Test Report (S/N: 1M2511240098-05-R3.C3K) supersedes and replaces the previously issued test report (S/N: 1M2511240098-05-R2.C3K) 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 of it 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

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TEST REPORT REVISION HISTORY

Rev. No.	Description	Issue Date	Revised By
-	Initial Release	3/12/2026	WKR0000005826
1	Addressed TCB reviewer comments	3/24/2026	WKR0000005874
2	Addressed TCB reviewer comments	3/24/2026	WKR0000005874
3	Addressed TCB reviewer comments	3/25/2026	WKR0000005874

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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 and the Innovation, Science and Economic Development Canada.

1.2 Element Test Location

These measurement tests were conducted at the Element laboratory located at 7185 Oakland Mills Road, Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014.

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 **Microsoft Corporation Portable Computing Device FCC ID: C3K2076; IC: 3048A-2076**. The test data contained in this report pertains only to the emissions due to the EUT's Bluetooth transmitter.

- This Bluetooth module has been tested by a Bluetooth Qualification Lab, and we confirm the following:
 - A) The hopping sequence is pseudorandom
 - B) All channels are used equally on average
 - C) The receiver input bandwidth equals the transmit bandwidth
 - D) The receiver hops in sequence with the transmit signal
- 15.247(g): In accordance with the Bluetooth Industry Standard, the system is designed to comply with all of the regulations in Section 15.247 when the transmitter is presented with a continuous data (or information) system.
- 15.247(h): In accordance with the Bluetooth Industry Standard, the system does not coordinate its channels selection/hopping sequence with other frequency hopping systems for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters.
- 15.247(h): The EUT employs Adaptive Frequency Hopping (AFH) which identifies sources of interference namely devices operating in 802.11 WLAN and excludes them from the list of available channels. The process of re-mapping reduces the number of test channels from 79 channels to a minimum number of 20 channels.

This report is being issued as a Class II Permissive Change due to new antenna design due to enclosure changes near the antenna and higher antenna gains. Full details are provided in the change description. The test data in this report demonstrates the continued compliance to FCC Part 15.407 and ISSED RSS-247

The authorization for this device utilize data referencing from FCC ID: C3K2085 as permitted per KDB 484596 D01 v03. Additionally, data referencing is being utilized from IC ID: 3048A-2085 as per the original authorization for this device per ISSED Inquiry confirmation April 2, 2024 (included in filing). Data referencing data test results are included in Appendix A of this report.

Test Device Serial No.: 343V2, 96T92, DM332, 96T82, DM392, 34342

2.2 Device Capabilities

This device contains the following capabilities:

802.11b/g/n/ac/ax/be WLAN, 802.11a/n/ac/ax/be UNII (5GHz and 6GHz), Bluetooth (1x, EDR, LE), NFC

Ch.	Frequency (MHz)
00	2402
:	:
39	2441
:	:
78	2480

Table 2-1. Frequency/ Channel Operations

Note: This device is capable of operating in hopping and non-hopping mode. The EUT can hop between 79 different channels in the 2400 – 2483.5MHz band.

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2.3 Antenna Description

The following antenna was used for the testing.

Frequency [GHz]	Antenna-1 Gain [dBi]	Antenna-2 Gain [dBi]	Directional Gain [dBi]
2.4	1.91	3.27	5.63

Table 2-2. Antenna Peak Gain

Note: This device is capable of operating in hopping and non-hopping mode. The EUT can hop between 79 different channels in the 2400 – 2483.5MHz band.

The manufacturer provided the antenna gains which can affect the validity of test results used for determination of compliance. The following antenna gains are used in this device per the "Unlicensed Band Antenna Gain" document provided by the client. This document is also included in the filing as a public exhibit.

2.4 Test Configuration

The EUT was tested per the guidance of ANSI C63.10-2020. ANSI C63.10-2020 was also 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, 7.5, 7.6, 7.7, and 7.8 for antenna port conducted emissions test setups. The worst case radiated emissions data is shown in this report.

The device has either an OLED or LCD display type. Testing was performed with both display types and only worst-case emissions are reported.

The emissions below 1GHz and above 18GHz were tested with the highest transmitting power channel and the worst-case configuration.

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 configuration were investigated and EUT powered by AC/DC was the worst case.

- EUT powered by AC/DC adaptor via USB cable with wire charger
- EUT powered by host PC via USB cable with wire charger

$\pi/4$ -DQPSK has been investigated and confirmed as not the worst case.

2.5 Software and Firmware

The test was conducted with software/firmware version 2025.1111.11121401 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 Evaluation Procedure

The measurement procedure described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2020) was 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 10'x16'x9' shielded enclosure. The shielded enclosure is manufactured by ETS Lindgren RF Enclosures. 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 65-5. 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 an ETS Lindgren Model LPRX-4X30 (100dB Attenuation, 14kHz-18GHz) and the two EMI/RFI filters are ETS Lindgren Model LRW-2030-S1 (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 groundplane. Power cables for support equipment were routed down to the second LISN while ensuring that the 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 7.12. The EMI Receiver mode of the Agilent MXE was used to perform AC line conducted emissions testing.

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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.

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.

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.

3.4 Environmental Conditions

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

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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.

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5.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2020. 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
Conducted Disturbance	3.09
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

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6.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurement 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
-	MD 1M 18-40	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	MD 1M 40
-	AP2-001	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	AP2-001
-	AP2-002	EMC Cable and Switch System	2/25/2025	Annual	2/25/2026	AP2-002
-	ETS-001	EMC Cable and Switch System	1/29/2026	Annual	1/29/2027	ETS-001
-	ETS-002	EMC Cable and Switch System	1/29/2026	Annual	1/29/2027	ETS-002
-	WL25-1	Conducted Cable Set (25GHz)	2/25/2025	Annual	2/25/2026	WL25-1
-	WL25-2	Conducted Cable Set (25GHz)	2/25/2025	Annual	2/25/2026	WL25-2
-	WL40-1	Conducted Cable Set (40GHz)	2/25/2025	Annual	2/25/2026	WL40-1
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	1/16/2026	Annual	1/16/2027	100348
Rohde & Schwarz	ESW44	EMI Test Receiver 2Hz to 44 GHz	3/25/2025	Annual	3/25/2026	101716
Agilent	N9038A	MXE EMI Receiver	11/10/2025	Annual	11/10/2026	MY51210133
Agilent	N9030A	3Hz-44GHz PXA Signal Analyzer	9/15/2025	Annual	9/15/2026	MY49430494
Rohde & Schwarz	ENV216	Two-Line V-Network	3/21/2025	Biennial	3/21/2027	101380
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	6/4/2025	Biennial	6/4/2027	125518
Rohde & Schwarz	TC-TA18	Cross Polarized Vivaldi Test Antenna	4/15/2024	Biennial	4/15/2026	101058
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	9/11/2024	Biennial	9/11/2026	A051107
Sunol	JB6	Bi-Log Antenna (30M - 6GHz)	3/24/2025	Biennial	3/24/2027	A082816
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	6/6/2025	Annual	6/6/2026	MY52350166
Keysight Technologies	N9020A	MXA Signal Analyzer	5/7/2025	Annual	5/7/2026	US46470561
Keysight Technologies	N9020A	MXA Signal Analyzer	6/4/2025	Annual	6/4/2026	MY54500644
EMCO	3116	Horn Antenna (18-40GHz)	7/5/2024	Biennial	7/5/2026	9203-2178

Table 6-1. Annual Test Equipment Calibration Schedule

Notes:

- 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.

Component	Serial Number
Pasternack Cable RG214/U	111815
MegaPhase (CAGE 1GVT4) Cable GR18-N5N5-24	14042714 001

Table 6-2. ETS-001 EMC Cable and Switch System Components

Component	Serial Number
MegaPhase (CAGE 1GVT4) Cable GR18-N5N5-24	14042714 001
MegaPhase (CAGE 1GVT4) Cable NC29-N1N1-324	20502201 001
Rohde & Schwarz SF Unit	102134
Minicircuits Cable CBL=0.5M-NMNM+	15440

Table 6-3. ETS-002 EMC Cable and Switch System Components

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Component	Serial Number
Flex Cable	P2A-0001
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-003
Chamber Passthrough	CP4/X12
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-003
Micro-Coax Utilflex Cable UFB142A-0-0629-5GU200 MFR 6463	232069-001
Rohde & Schwarz TS-PR8 Pre-Amplifier	102335
Rohde & Schwarz OSP130 Open Switch and Control Unit	101181

Table 6-4. AP2-001 EMC Cable and Switch System Components

Component	Serial Number
MiniCircuits Cable CBL-0.5M-SMNM+	47261
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-001
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-002
MegaPhase (CAGE 1GVT4) Cable NC29-N1N1-324	19046401 001
Megaphase (CAGE 1GVT4) Flex Cable 10511-1	15044701-006
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-002
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-004
Micro-Coax Utilflex Cable UFB142A-0-0629-5GU200 MFR 64639	232069-001
Rohde & Schwarz SF Unit	102138
Rohde & Schwarz OSP130 Open Switch and Control Unit	101181
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-003
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-003
Rohde & Schwarz TS-PR8 Pre-Amplifier	102335

Table 6-5. AP2-002 EMC Cable and Switch System Components

Component	Serial Number
MegaPhase Cable TM40-K1K1-30	20233002-004
UTIPLEX Cable, 64639	232063-001
Rohde & Schwarz Pre-amp TS-PR1840 18G-40G	9037.7670.02

Table 6-6. MD 1M 18-40 EMC Cable and Switch System Components

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7.0 TEST RESULTS

7.1 Summary

Company Name: Microsoft Corporation
 FCC ID: C3K2076
 IC: 3048A-2076
 Method/System: Frequency Hopping Spread Spectrum (FHSS)
 Number of Channels: 79

FCC Part Section(s)	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(a)(1)(iii)	RSS-247 [6.2.1(a)]	20dB Bandwidth	N/A	CONDUCTED	PASS	Section 7.2
15.247(b)(1)	RSS-247 [6.2.3.2(a)]	Peak Transmitter Output Power	< 1 Watt if ≥ 75 non-overlapping channels used		PASS	Section 7.3
15.247(a)(1)	RSS-247 [6.2.3.1(a)]	Channel Separation	> 2/3 of 20 dB BW for systems with Output Power < 125mW		PASS	Section 7.5
15.247(a)(1)(iii)	RSS-247 [6.2.3.1(b)]	Number of Channels	> 15 Channels		PASS	Section 7.7
15.247(a)(1)(iii)	RSS-247 [6.2.3.1(b)]	Time of Occupancy	< 0.4 sec in 31.6 sec period		PASS	Section 7.6
15.247(d)	RSS-247 [6.6]	Band Edge / Out-of-Band Emissions	Conducted > 20dBc		PASS	Section 7.4, Section 0
15.205 15.209	RSS-Gen [8.9]	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209 (RSS-247 limits)	RADIATED	PASS	Section 7.9, Section 7.10, Section 7.11
15.207	RSS-Gen [8.8]	AC Conducted Emissions 150kHz – 30MHz	< FCC 15.207 limits (RSS-Gen [8.8] limits)	LINE CONDUCTED	PASS	Section 7.12

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 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, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT 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, 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 ELEMENT "BT Auto," Version 3.5.
- 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 1.3.1.
- 6) Data was referenced from model C3K2085 for the certification of C3K2076. See Section 9.0 for spotcheck results.

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7.2 20dB Bandwidth Measurement

Test Overview and Limit

The bandwidth at 20dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the receive antenna while the EUT is operating in transmission mode at the appropriate frequencies.

Test Procedure Used

ANSI C63.10-2020 – Section 6.9.2

Test Settings

1. The signal analyzers' automatic bandwidth measurement capability of the spectrum analyzer was used to perform the 20dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 20$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% OBW
3. VBW $\geq 3 \times$ RBW
4. Reference level set to keep signal from exceeding maximum input mixer level for linear operation.
5. Detector = Peak
6. Trace mode = max hold
7. Sweep = auto couple
8. The trace was allowed to stabilize

Test Setup

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



Figure 7-1. Test Instrument & Measurement Setup

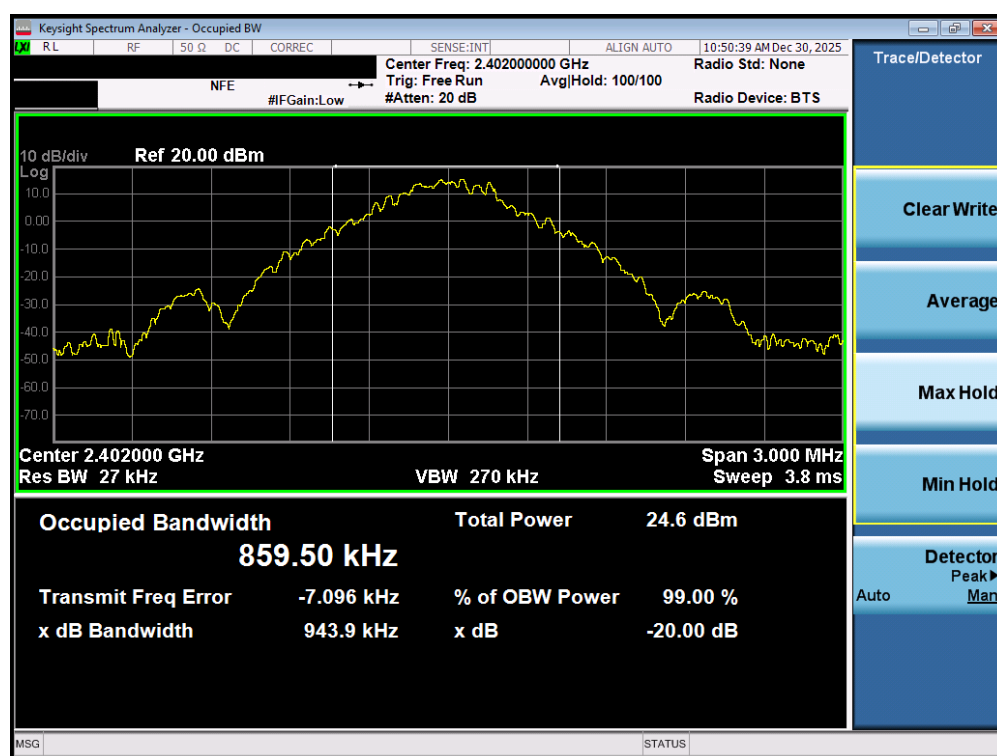
Test Notes

None

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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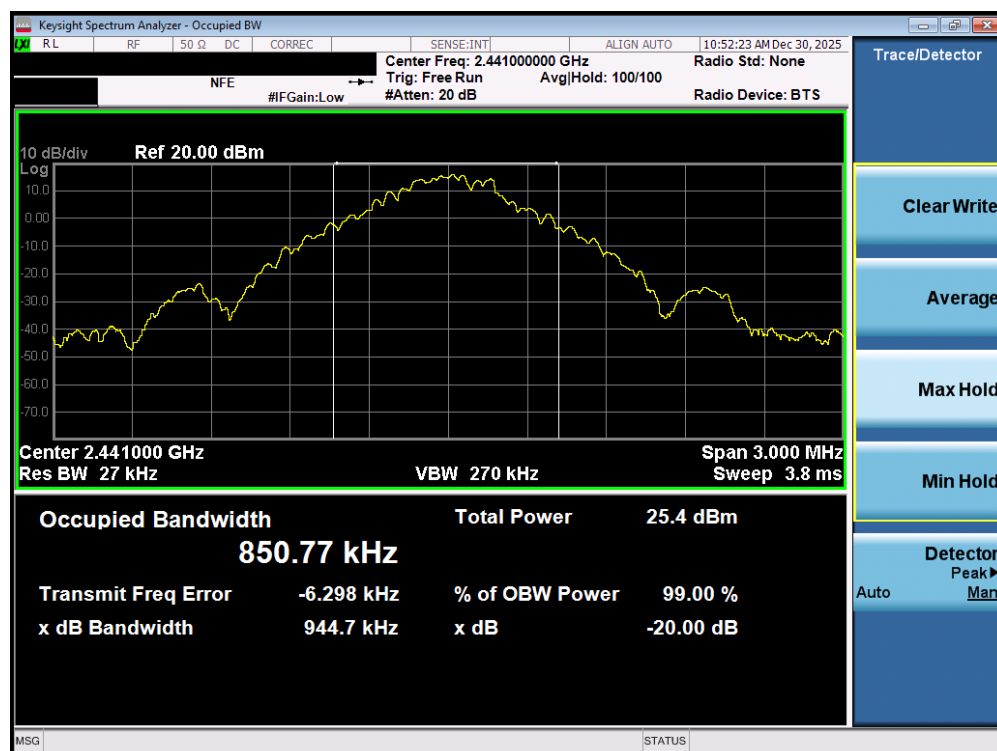
Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	20dB Bandwidth Test Results [kHz]
2402	1.0	GFSK	0	943.90
2441	1.0	GFSK	39	944.70
2480	1.0	GFSK	78	945.20
2402	2.0	$\pi/4$ -DQPSK	0	1343.00
2441	2.0	$\pi/4$ -DQPSK	39	1321.00
2480	2.0	$\pi/4$ -DQPSK	78	1320.00
2402	3.0	8DPSK	0	1297.00
2441	3.0	8DPSK	39	1291.00
2480	3.0	8DPSK	78	1317.00

Table 7-2. Conducted 20dB Bandwidth Measurements – SISO ANT1

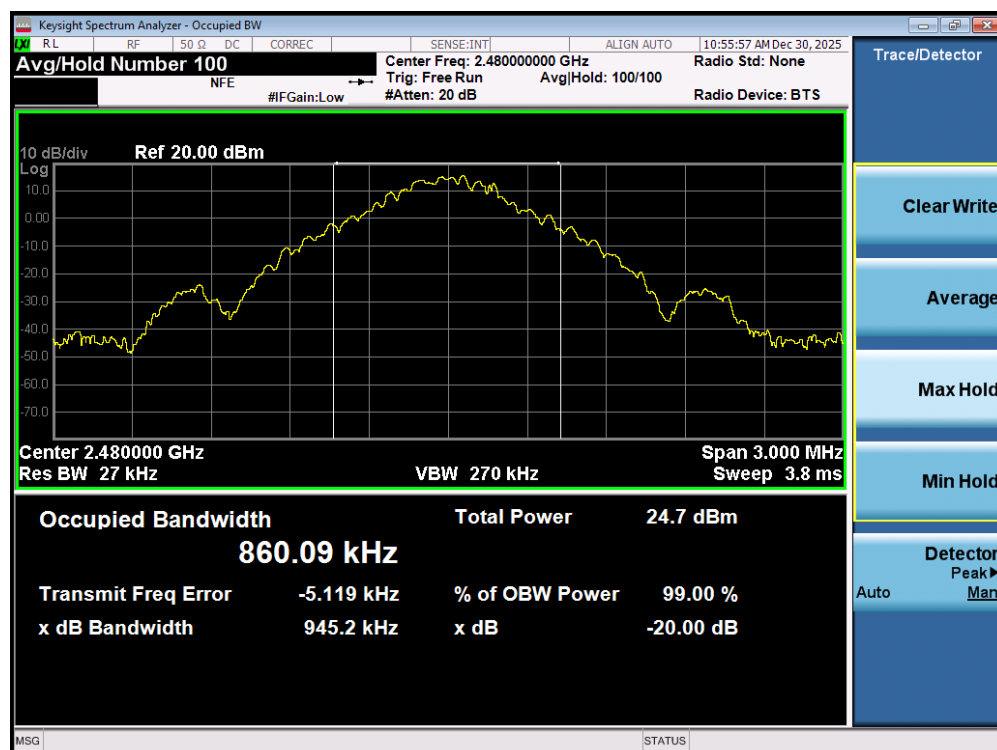


Plot 7-1. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 0) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 15 of 139

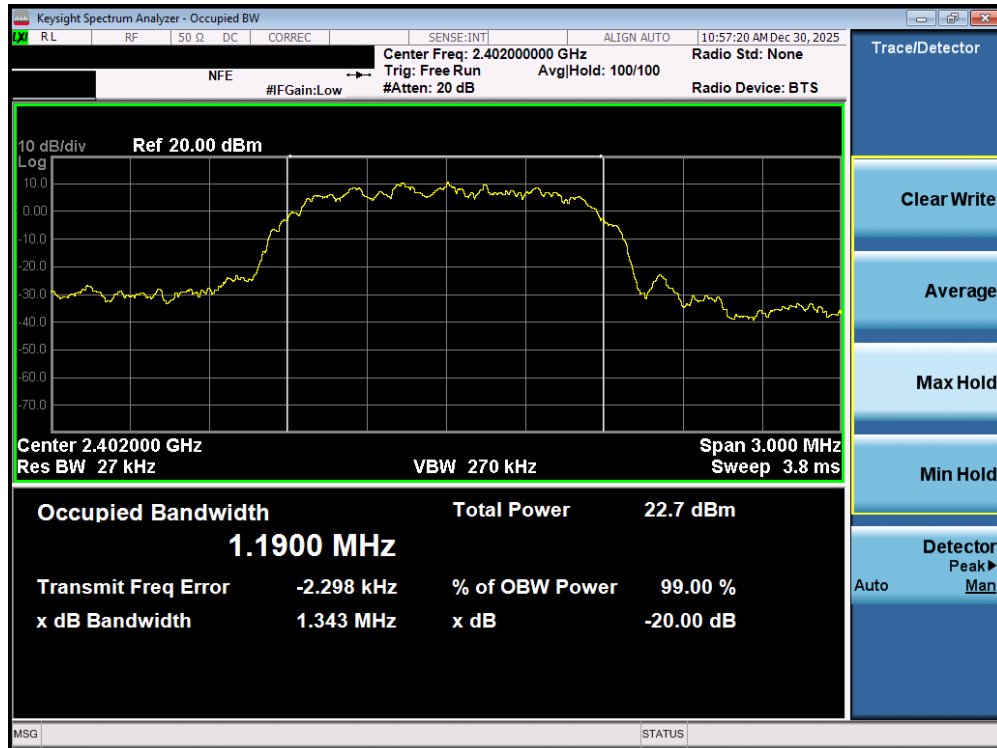


Plot 7-2. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 39) – SISO ANT1

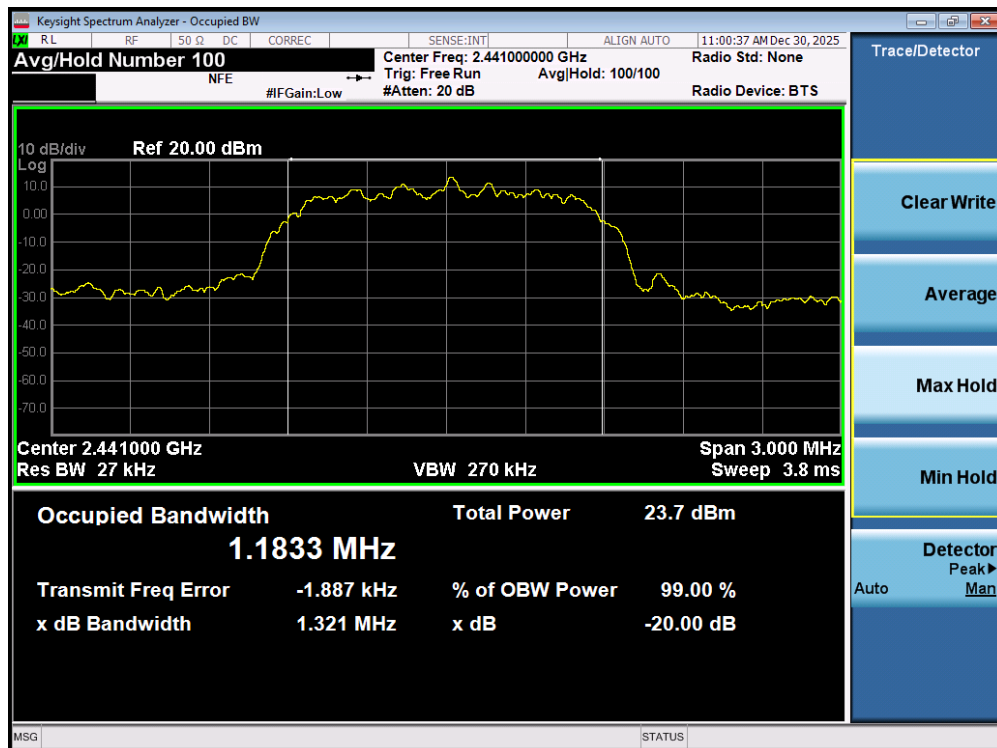


Plot 7-3. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 78) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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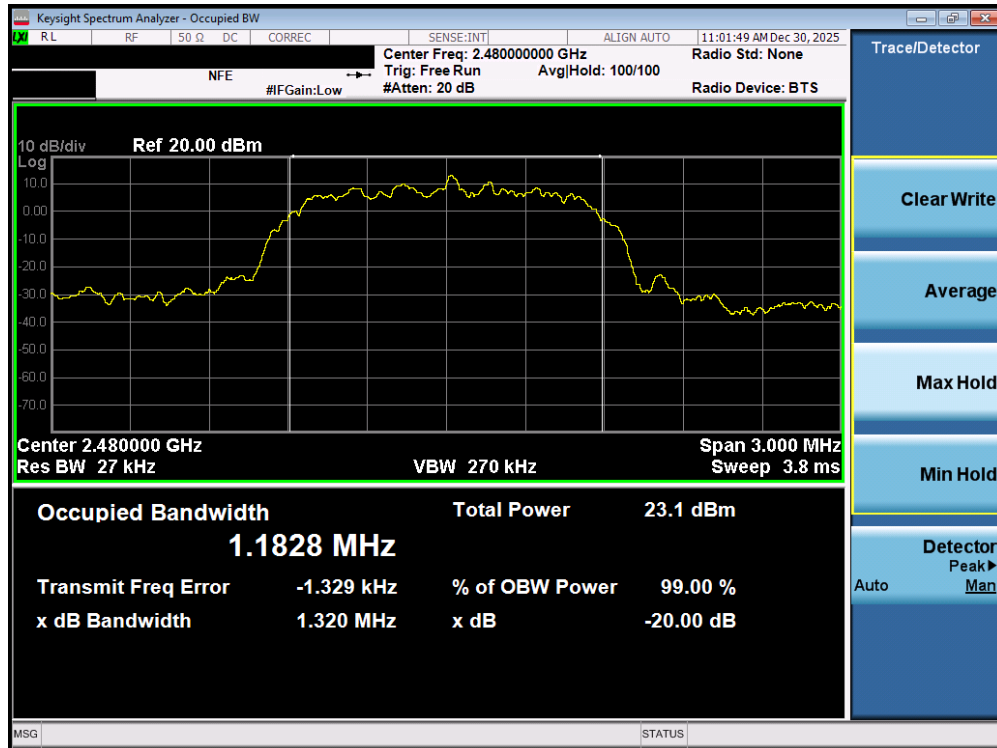


Plot 7-4. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 0) – SISO ANT1

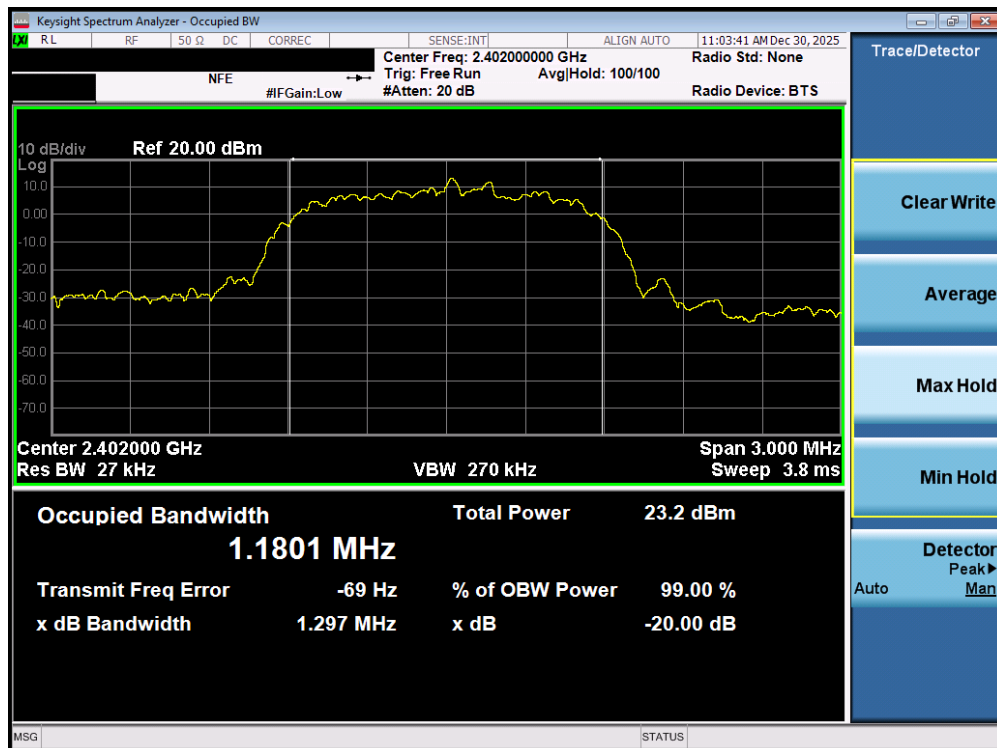


Plot 7-5. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 39) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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Plot 7-6. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 78) – SISO ANT1

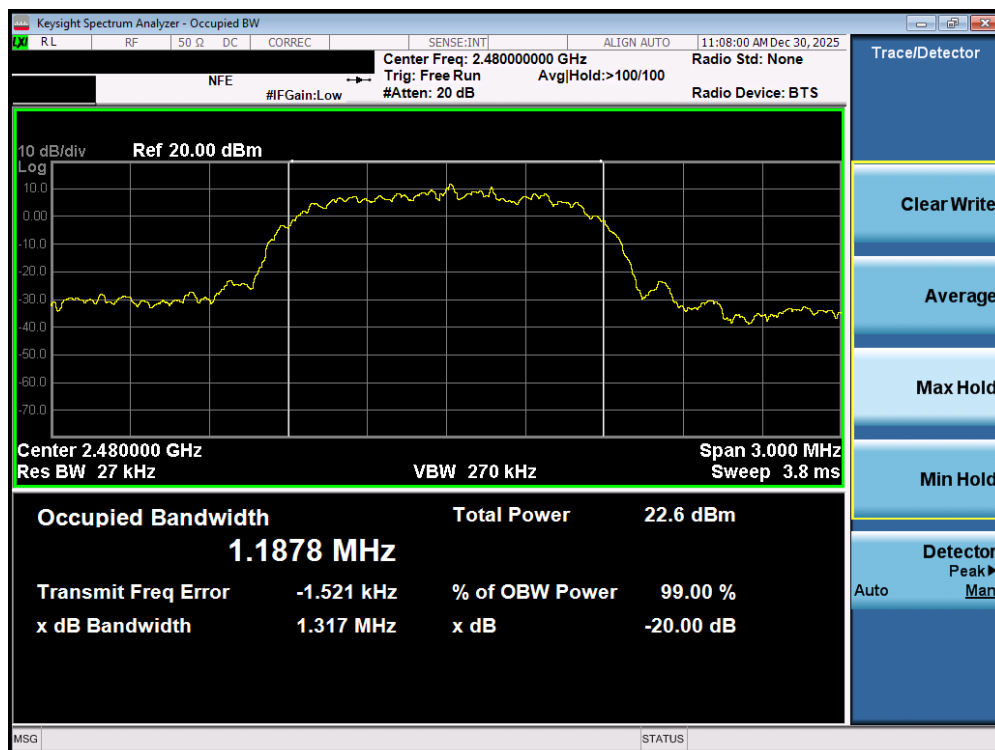


Plot 7-7. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 0) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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Plot 7-8. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 39) – SISO ANT1



Plot 7-9. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 78) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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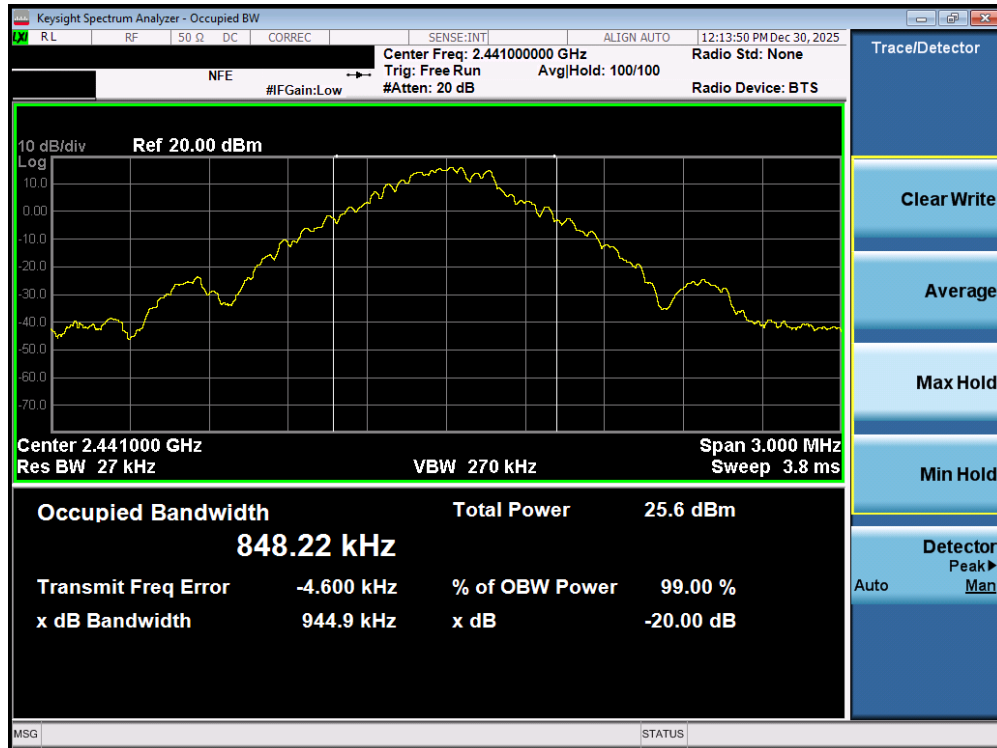
Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	20dB Bandwidth Test Results [kHz]
2402	1.0	GFSK	0	945.70
2441	1.0	GFSK	39	944.90
2480	1.0	GFSK	78	944.40
2402	2.0	$\pi/4$ -DQPSK	0	1320.00
2441	2.0	$\pi/4$ -DQPSK	39	1319.00
2480	2.0	$\pi/4$ -DQPSK	78	1318.00
2402	3.0	8DPSK	0	1303.00
2441	3.0	8DPSK	39	1324.00
2480	3.0	8DPSK	78	1298.00

Table 7-3. Conducted 20dB Bandwidth Measurements – SISO ANT2

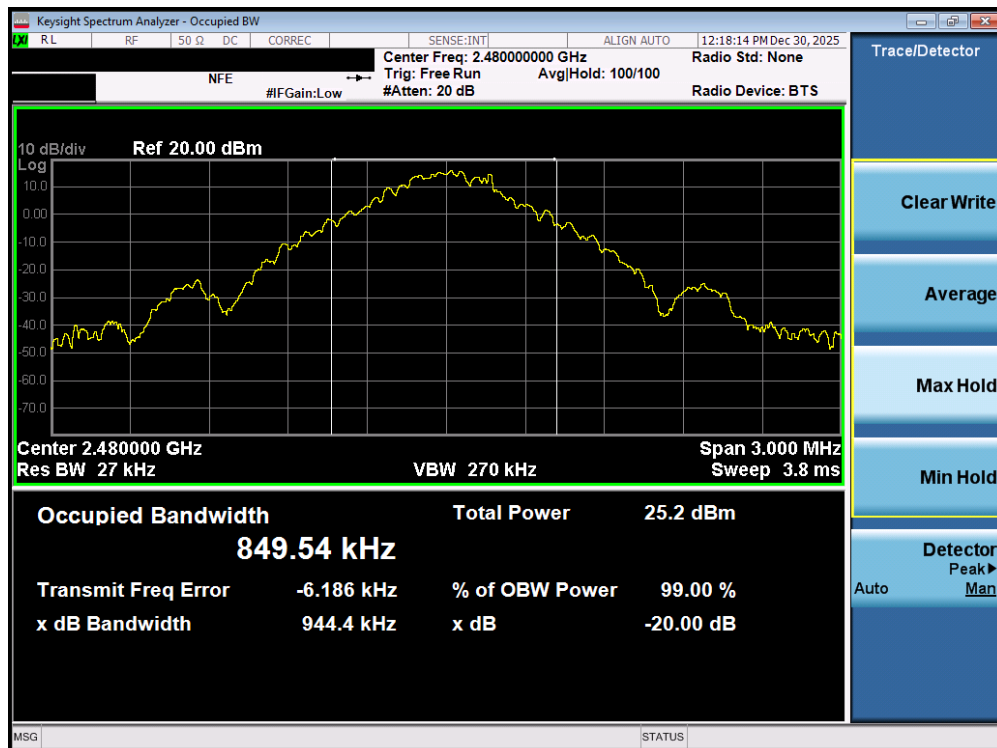


Plot 7-10. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 0) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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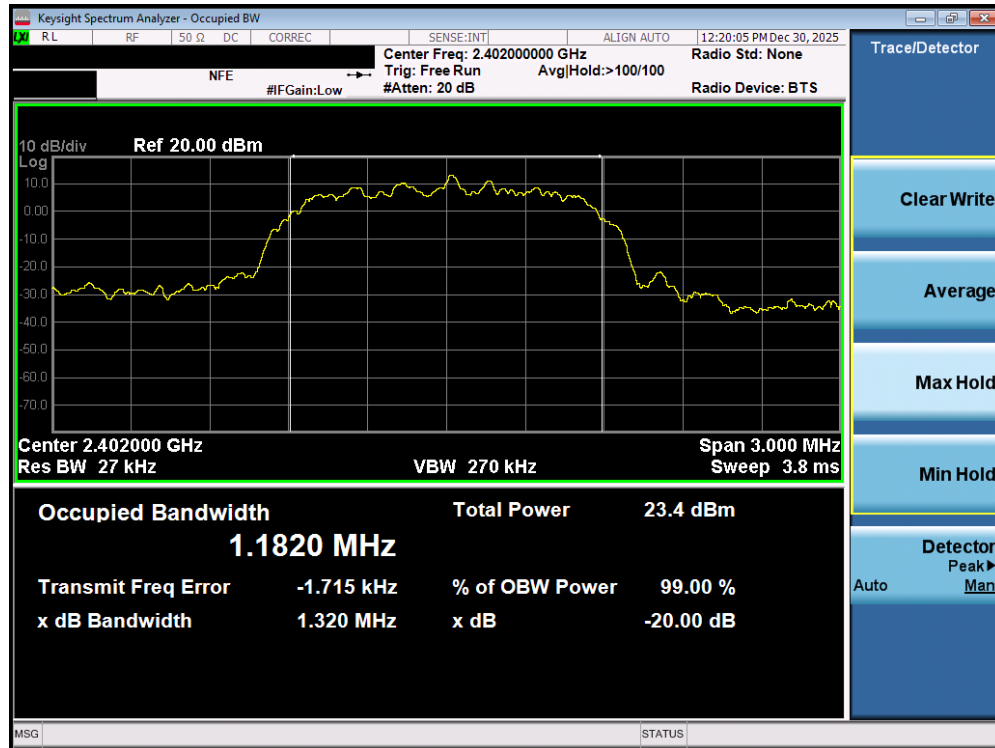


Plot 7-11. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 39) – SISO ANT2

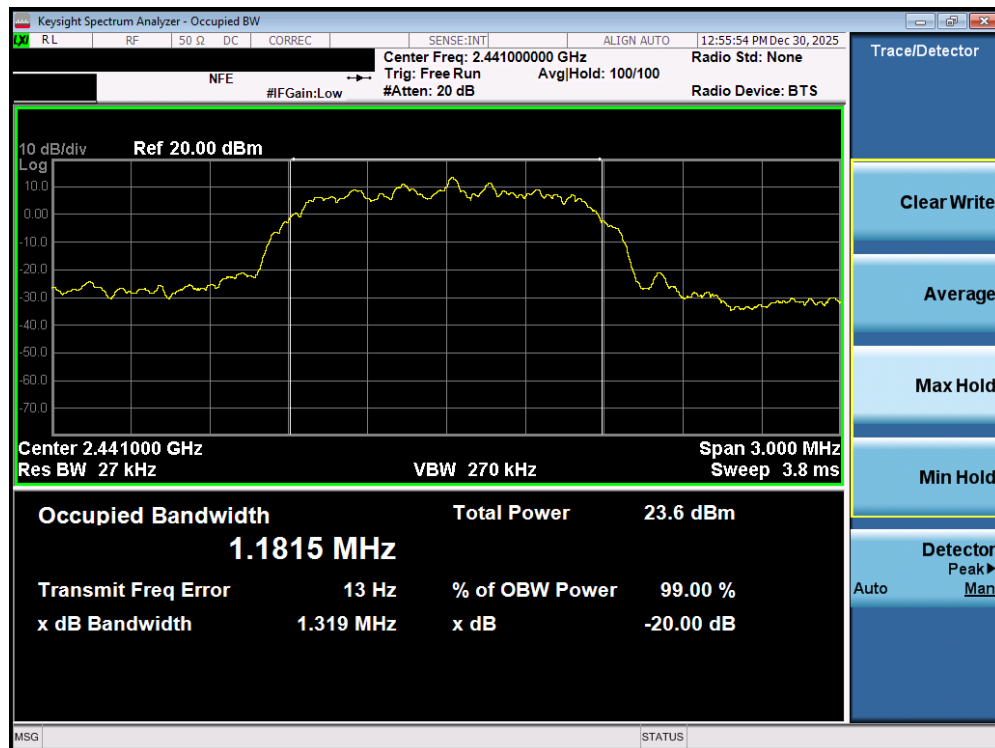


Plot 7-12. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 78) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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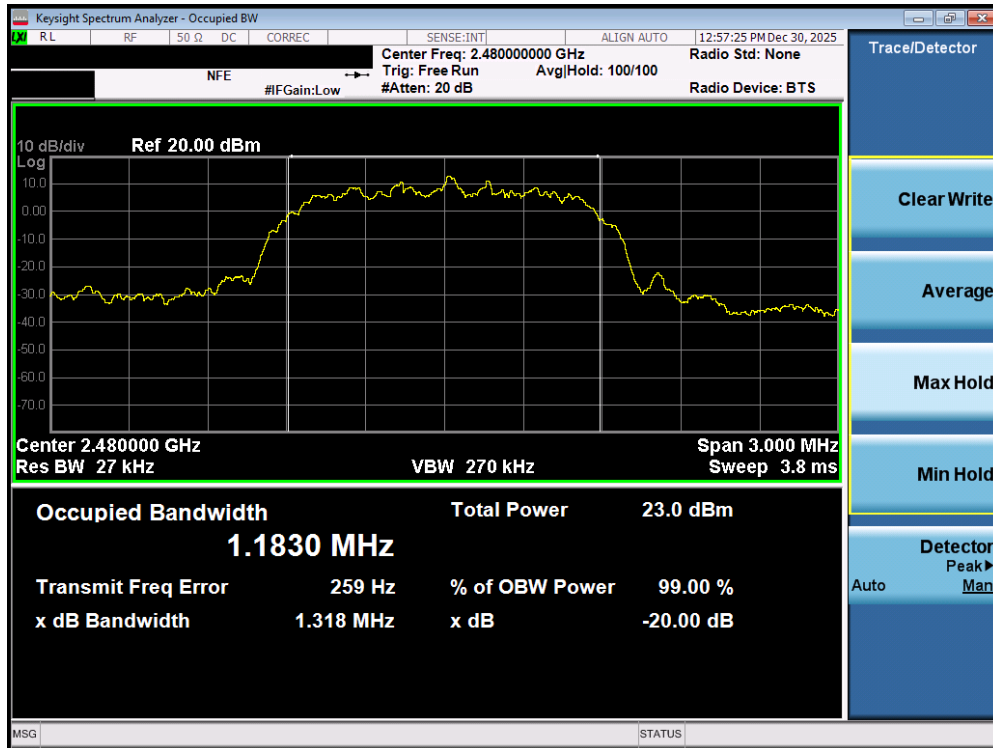


Plot 7-13. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 0) – SISO ANT2

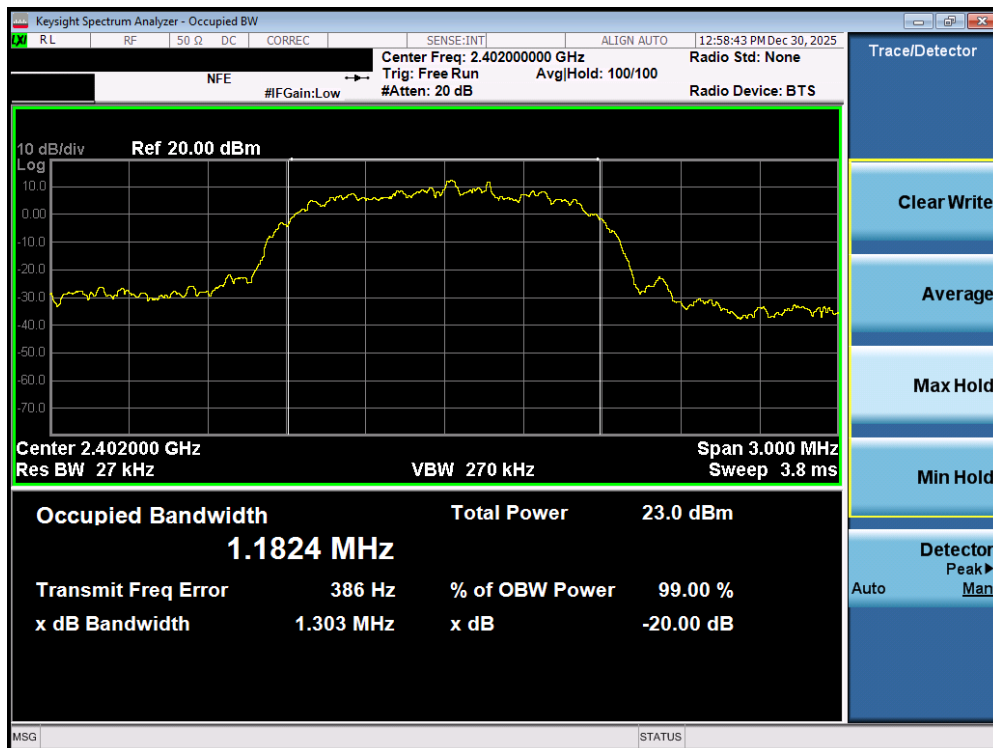


Plot 7-14. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 39) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 22 of 139

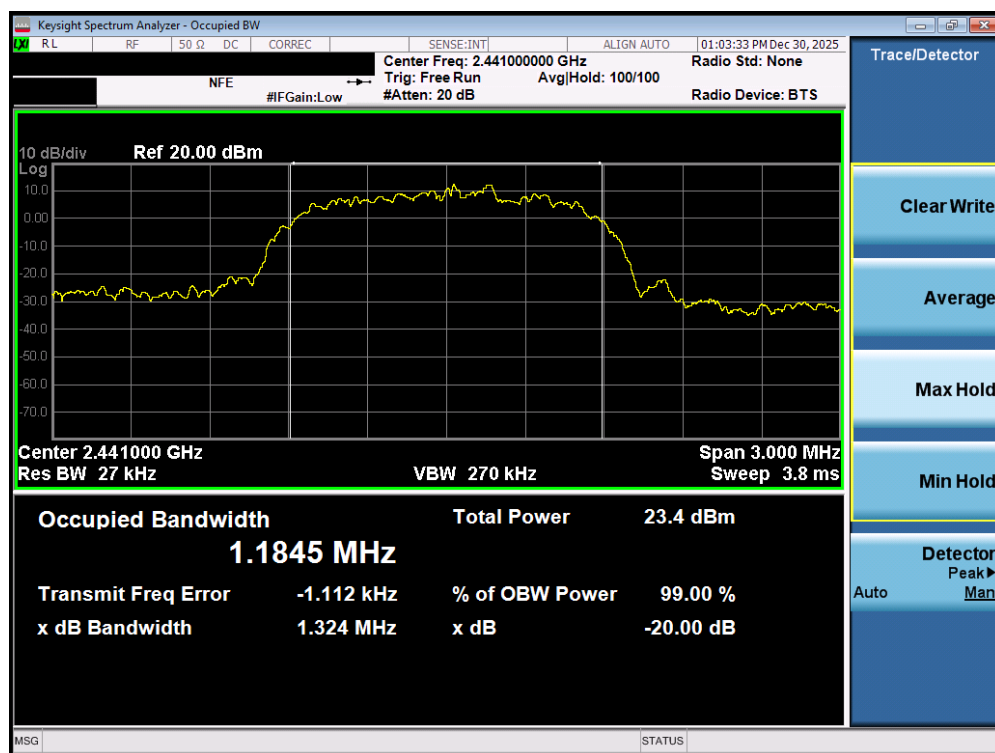


Plot 7-15. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 78) – SISO ANT2



Plot 7-16. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 0) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 23 of 139



Plot 7-17. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 39) – SISO ANT2

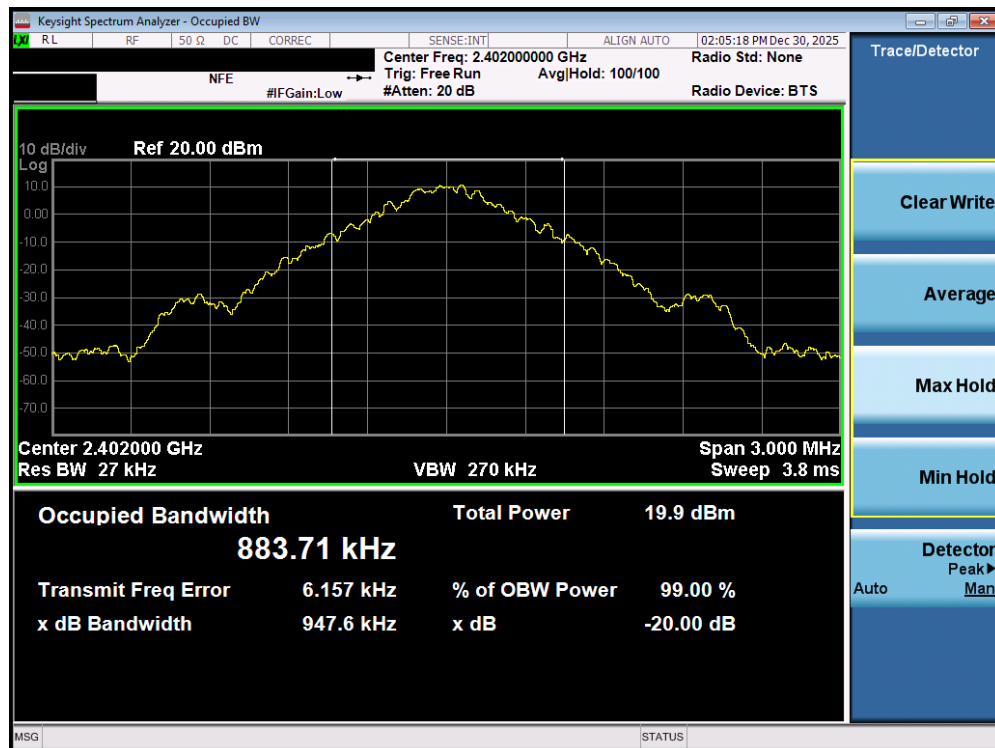


Plot 7-18. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 78) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 24 of 139

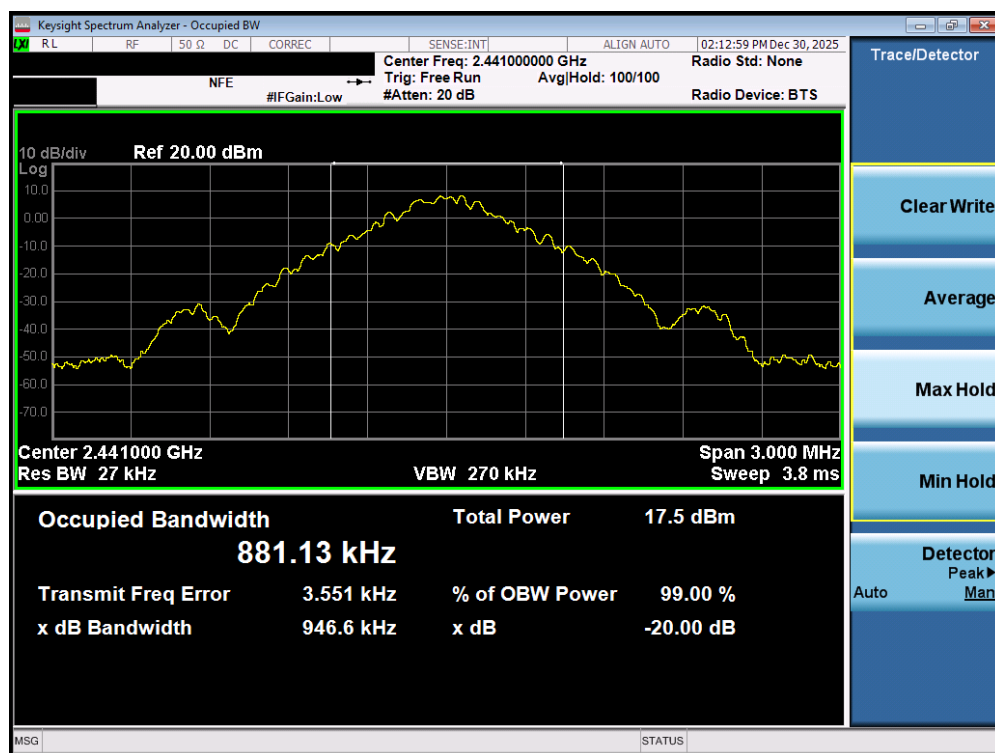
Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	20dB Bandwidth Test Results [kHz]
2402	1.0	GFSK	0	947.60
2441	1.0	GFSK	39	946.60
2480	1.0	GFSK	78	947.20
2402	2.0	$\pi/4$ -DQPSK	0	1358.00
2441	2.0	$\pi/4$ -DQPSK	39	1358.00
2480	2.0	$\pi/4$ -DQPSK	78	1353.00
2402	3.0	8DPSK	0	1359.00
2441	3.0	8DPSK	39	1358.00
2480	3.0	8DPSK	78	1357.00

Table 7-4. Conducted 20dB Bandwidth Measurements – DUAL ANT1

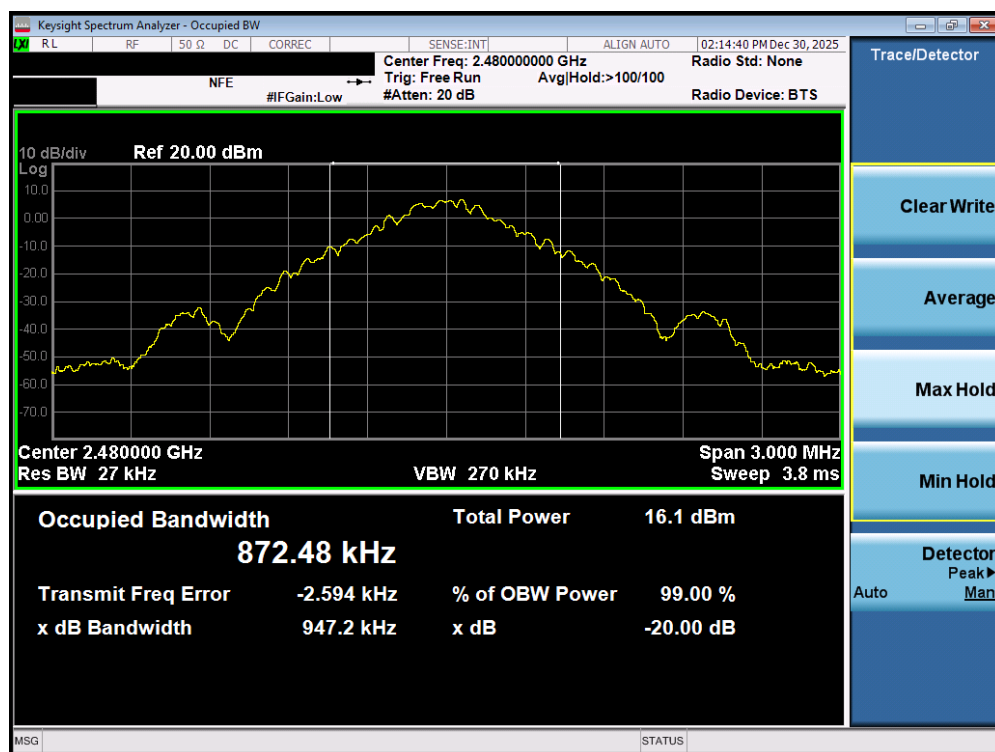


Plot 7-19. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 0) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 25 of 139

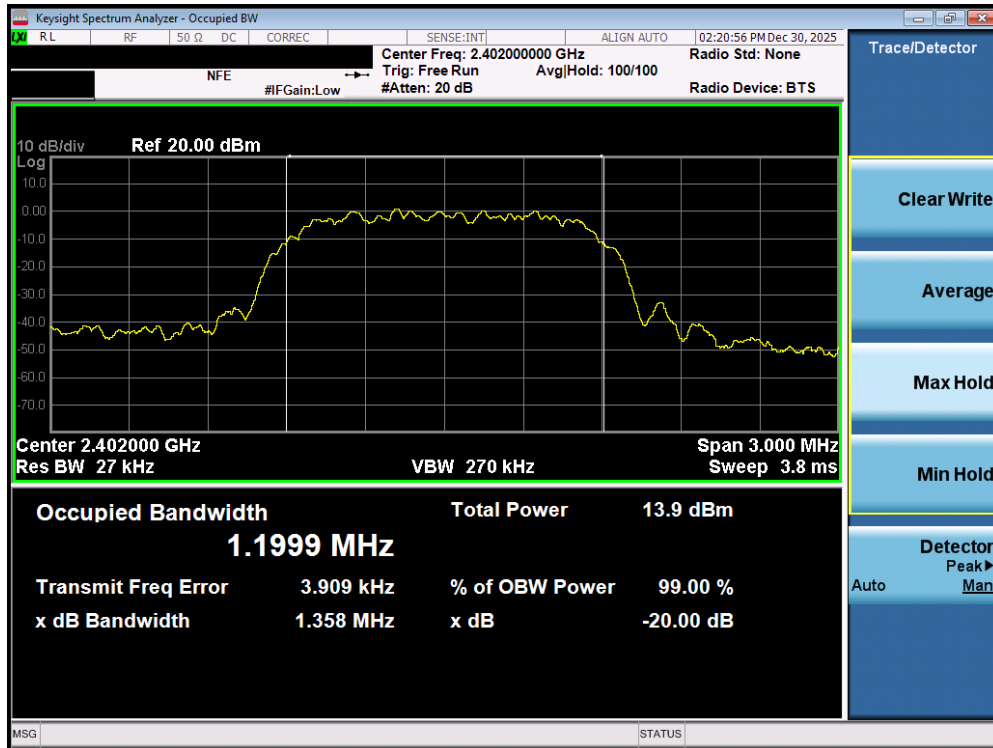


Plot 7-20. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 39) – DUAL ANT1

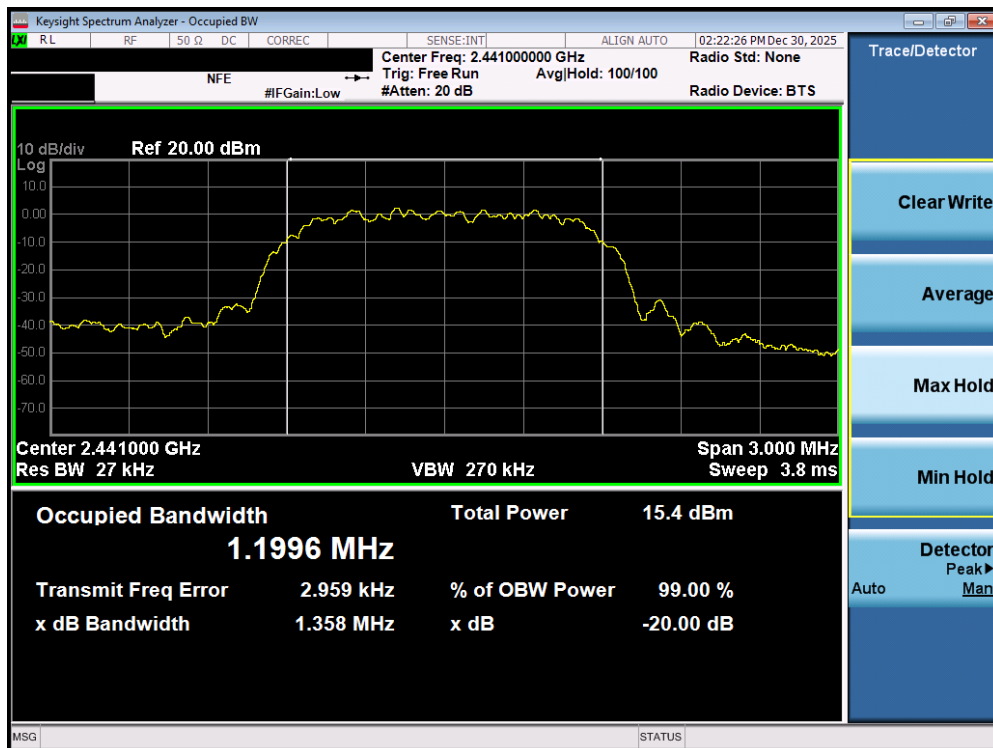


Plot 7-21. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 78) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 26 of 139

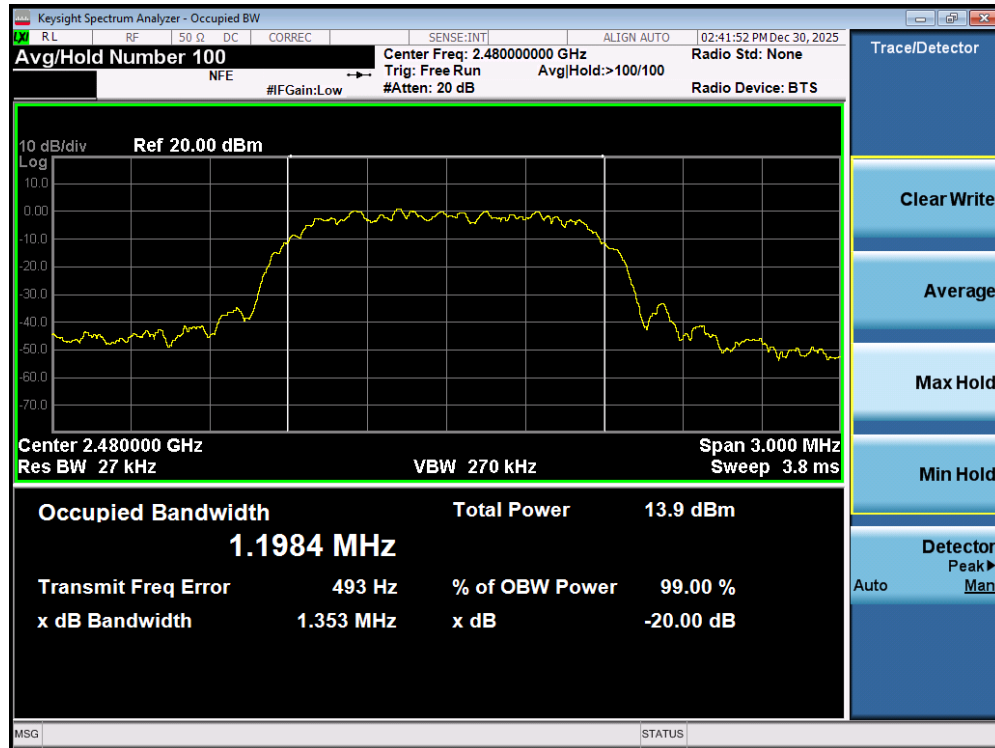


Plot 7-22. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 0) – DUAL ANT1

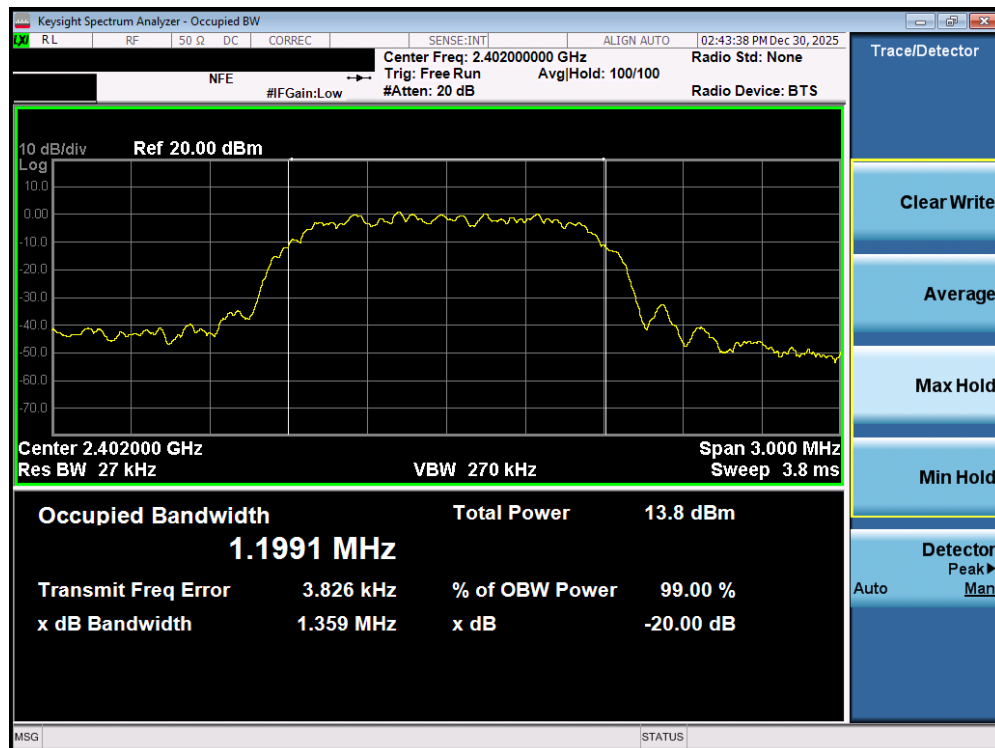


Plot 7-23. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 39) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 27 of 139

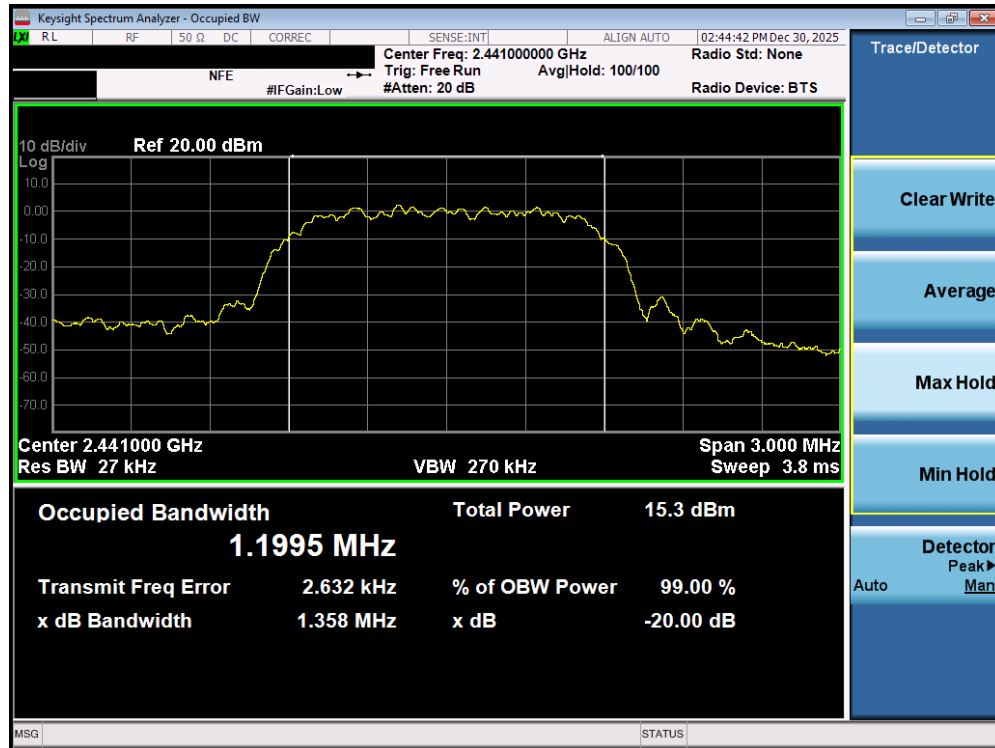


Plot 7-24. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 78) – DUAL ANT1

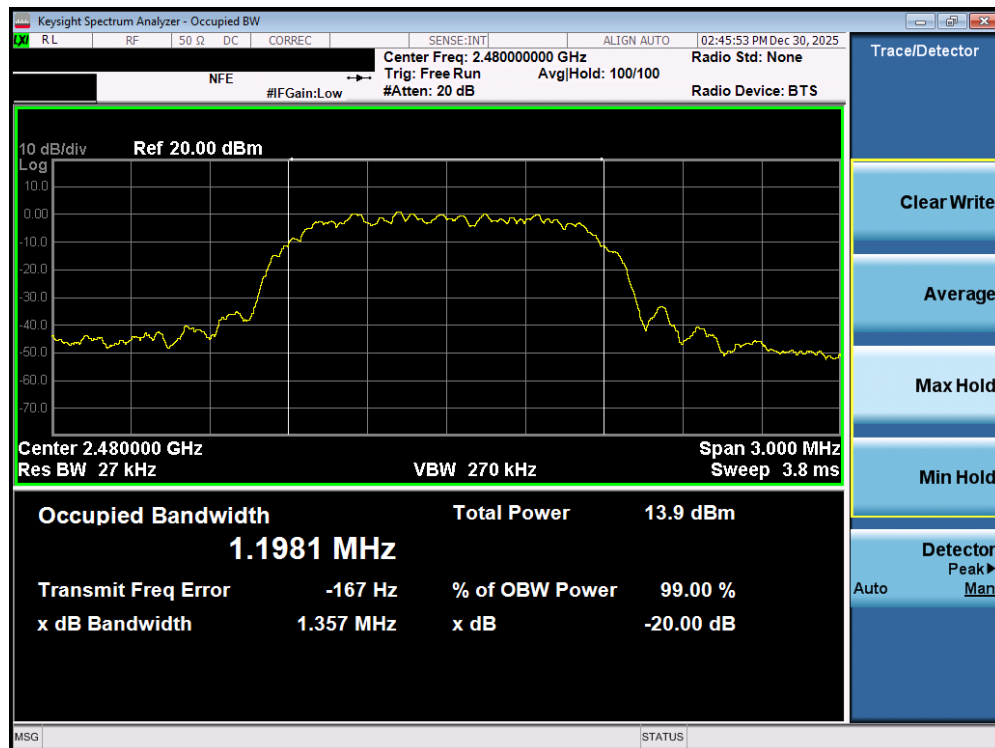


Plot 7-25. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 0) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 28 of 139



Plot 7-26. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 39) – DUAL ANT1

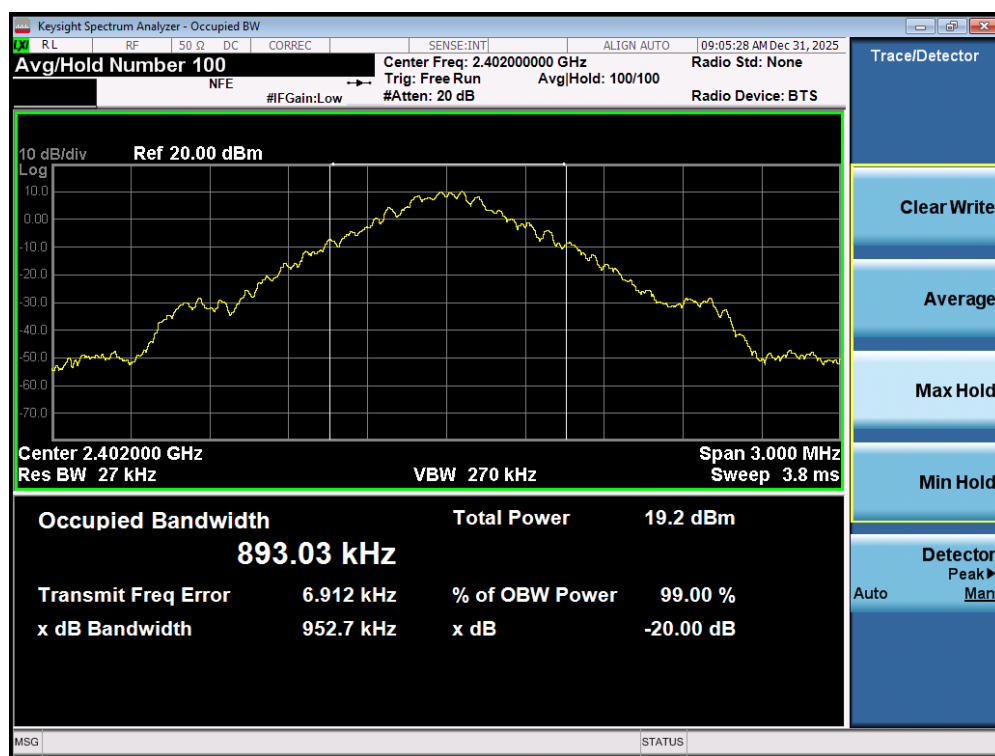


Plot 7-27. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 78) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 29 of 139

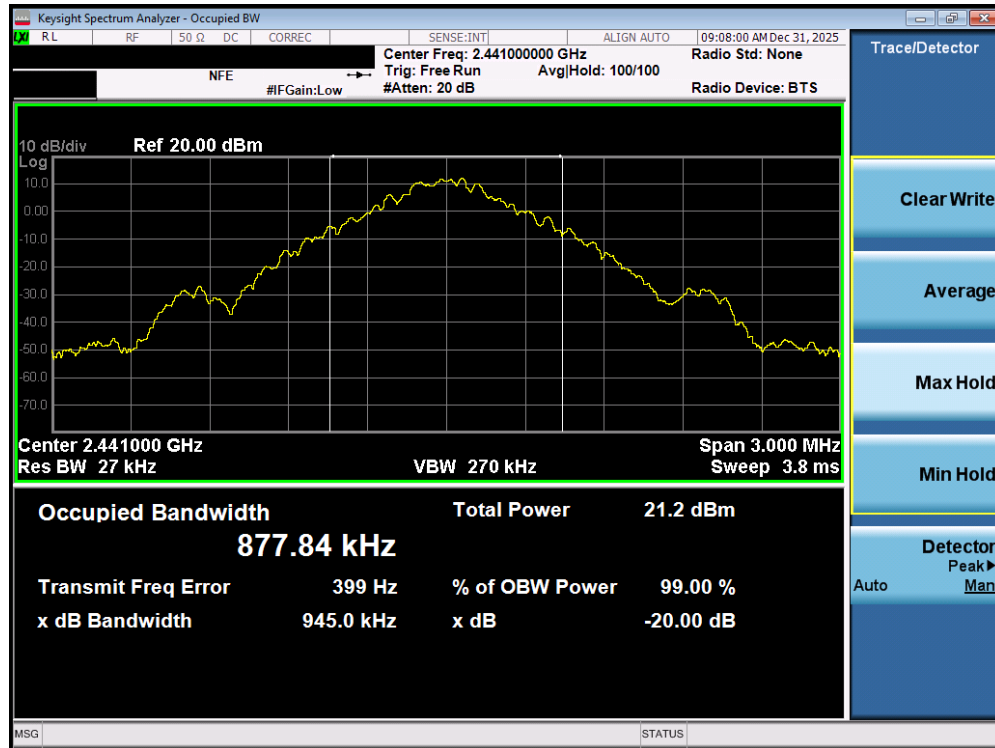
Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	20dB Bandwidth Test Results [kHz]
2402	1.0	GFSK	0	952.70
2441	1.0	GFSK	39	945.00
2480	1.0	GFSK	78	945.80
2402	2.0	$\pi/4$ -DQPSK	0	1361.00
2441	2.0	$\pi/4$ -DQPSK	39	1360.00
2480	2.0	$\pi/4$ -DQPSK	78	1361.00
2402	3.0	8DPSK	0	1355.00
2441	3.0	8DPSK	39	1359.00
2480	3.0	8DPSK	78	1361.00

Table 7-5. Conducted 20dB Bandwidth Measurements – DUAL ANT2

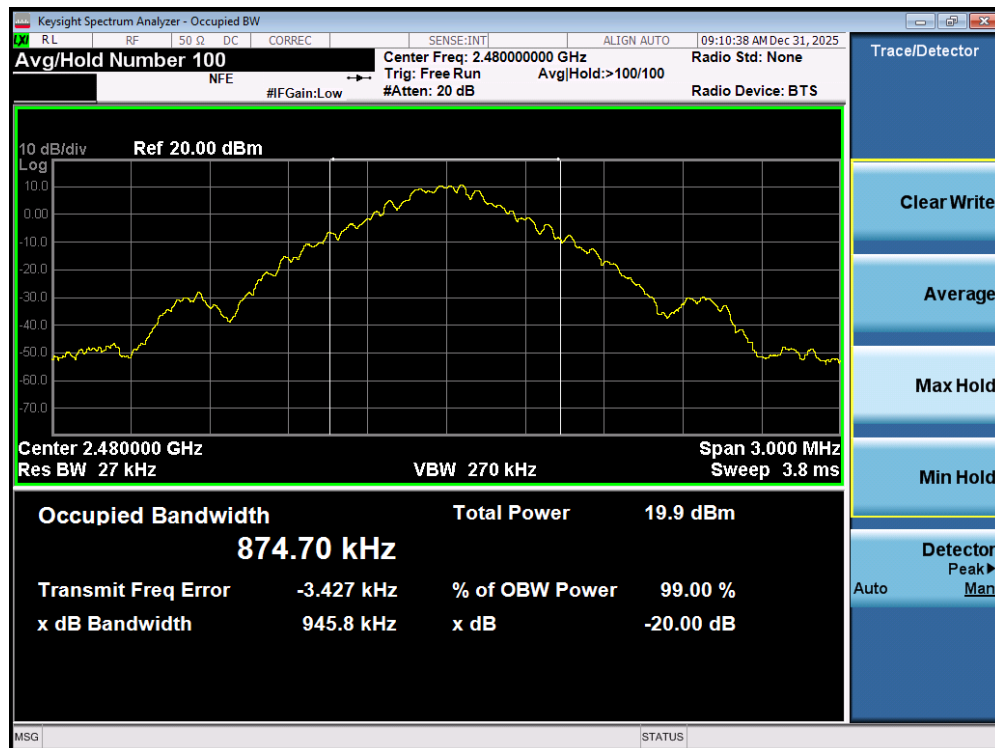


Plot 7-28. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 0) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 30 of 139

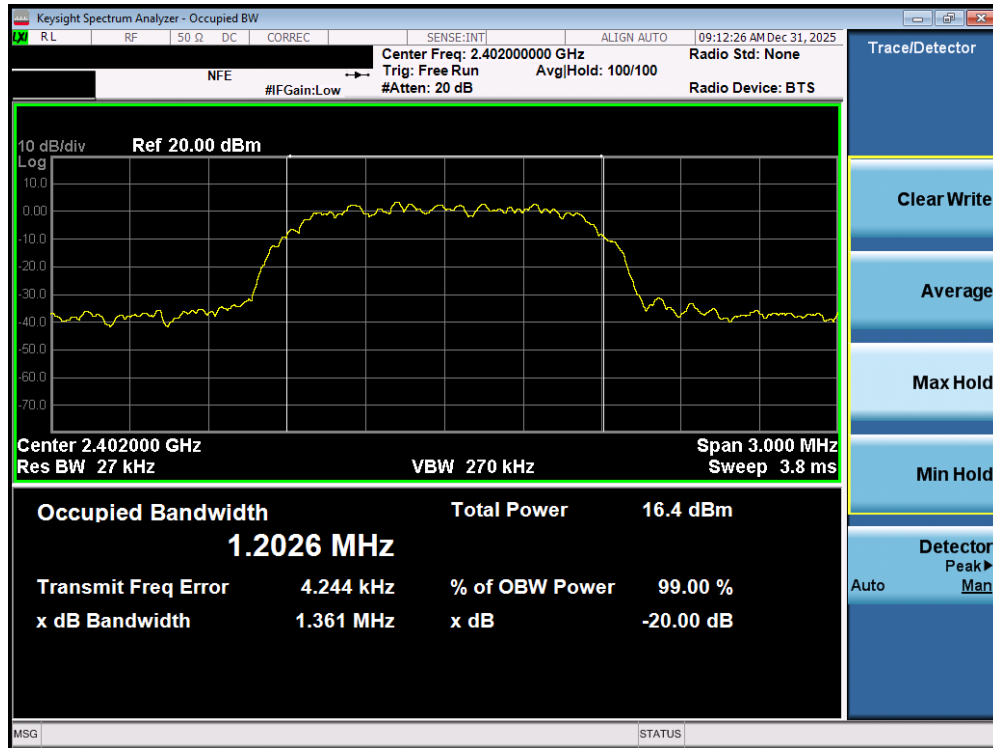


Plot 7-29. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 39) – DUAL ANT2

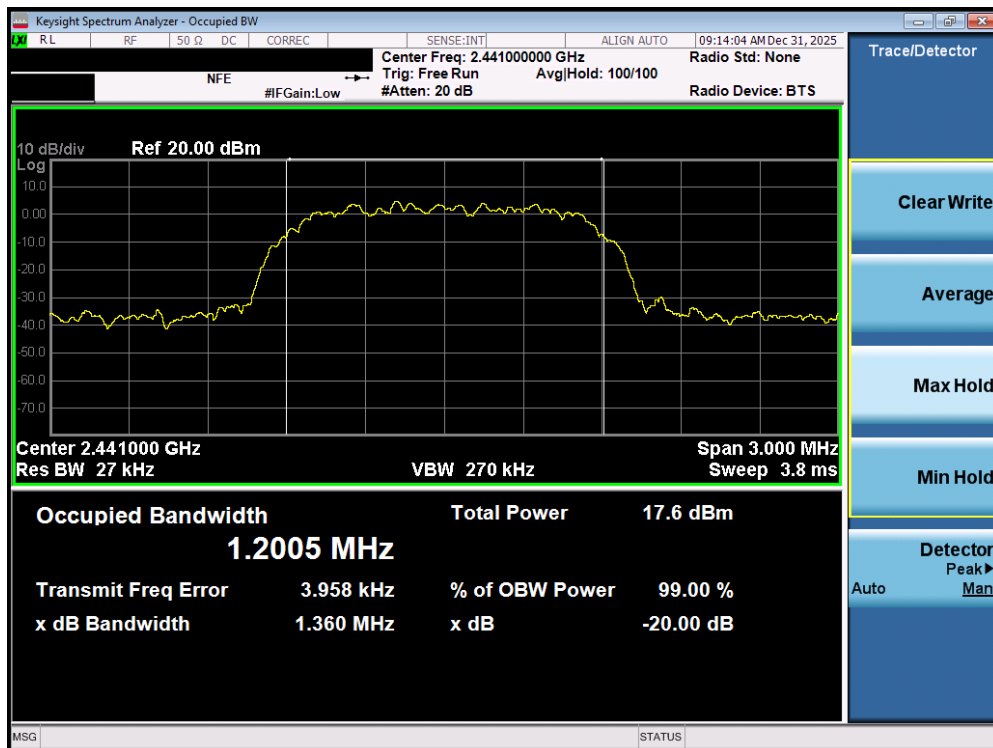


Plot 7-30. 20dB Bandwidth Plot (Bluetooth, 1Mbps – Ch. 78) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 31 of 139

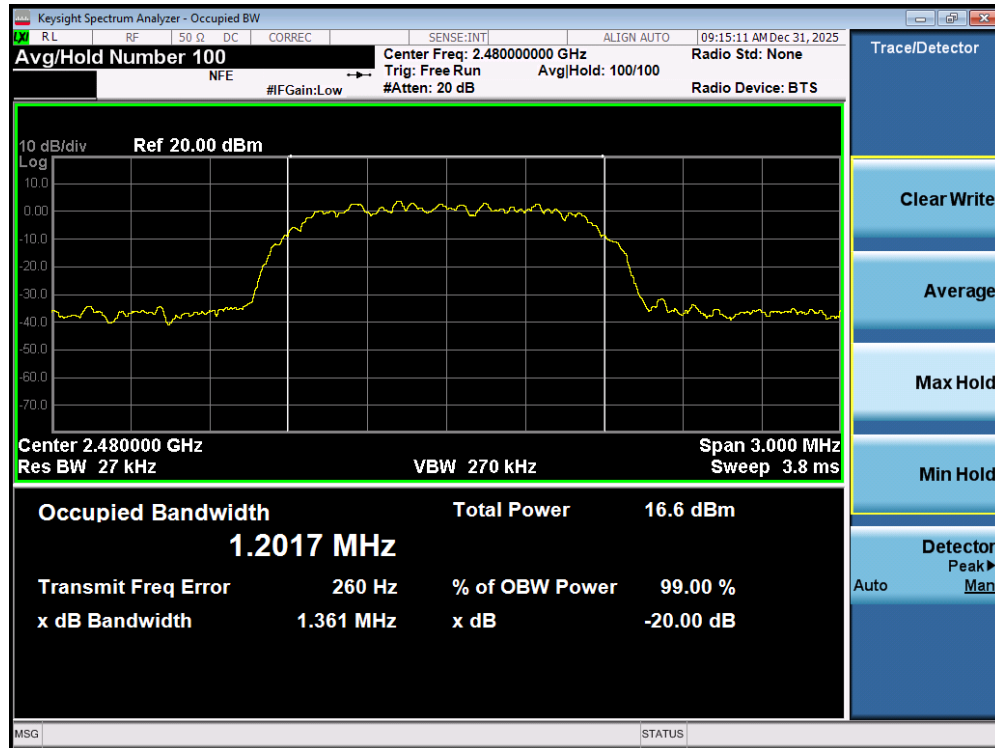


Plot 7-31. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 0) – DUAL ANT2



Plot 7-32. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 39) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 32 of 139

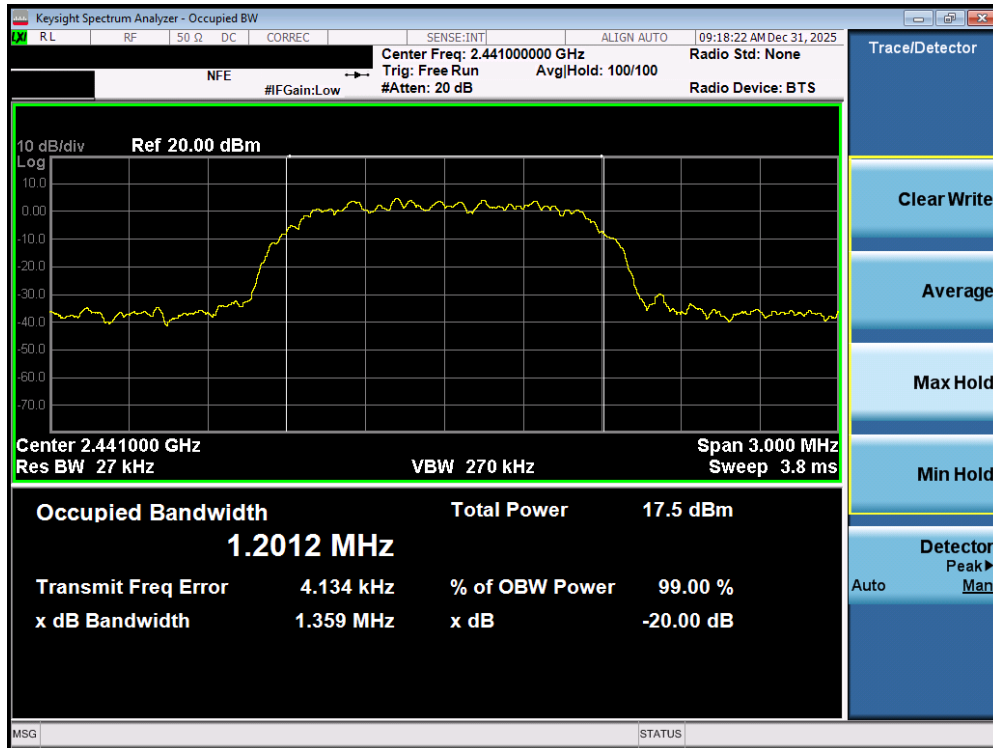


Plot 7-33. 20dB Bandwidth Plot (Bluetooth, 2Mbps – Ch. 78) – DUAL ANT2

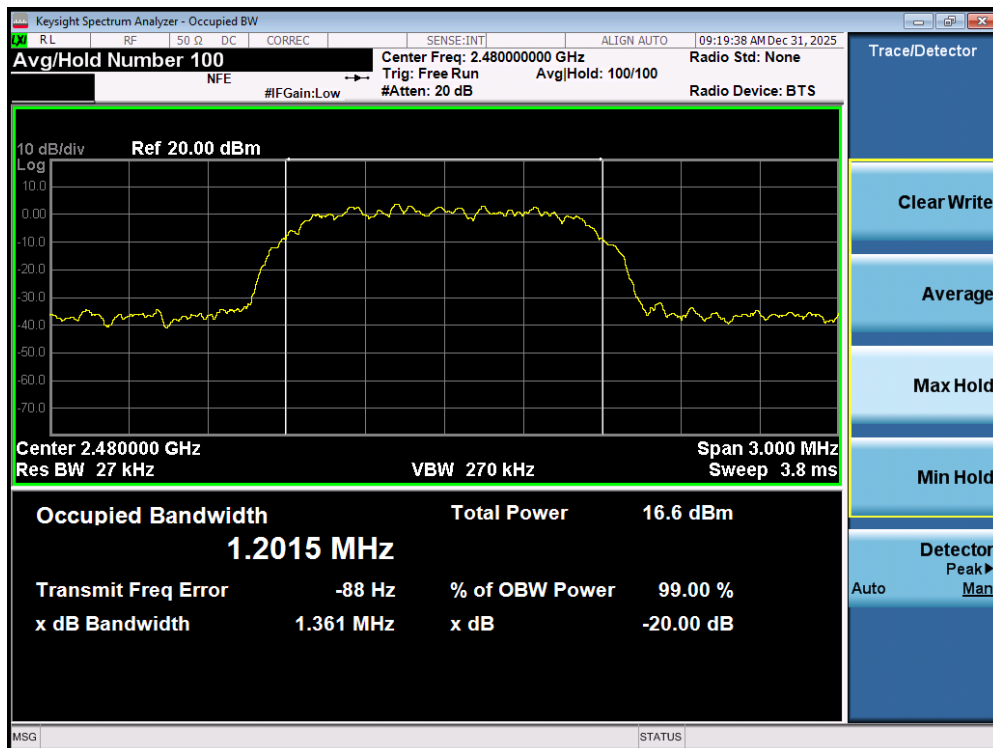


Plot 7-34. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 0) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 33 of 139



Plot 7-35. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 39) – DUAL ANT2



Plot 7-36. 20dB Bandwidth Plot (Bluetooth, 3Mbps – Ch. 78) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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7.3 Output Power Measurement

Test Overview and Limits

Measurement is made while the EUT is operating in non-hopping transmission mode. The powers shown below were measured using a spectrum analyzer with a Bluetooth signaling test set (Agilent Model: N4010A) used only to maintain a Bluetooth link with the EUT. Average power measurements are performed using the analyzer's "burst power" function with RBW = 3MHz. The burst power function triggers on a single set burst set to maximum power and measures the maximum average power on the on-time.

The maximum permissible output power is 1 Watt. The e.i.r.p. shall not exceed 4 W per RSS-247.

Test Procedure Used

ANSI C63.10-2020 – Section 7.8.5

ANSI C63.10-2020 – Section 11.9.2.3.2 method AVGPM-G

Test Settings

Peak Power Measurement

1. Span = approximately 5x 20dB bandwidth, centered on hopping channel
2. RBW > 20dB bandwidth of emission being measured
3. VBW $\geq$ RBW
4. Sweep = auto
5. Detector = peak
6. Trace mode = max hold
7. The trace was allowed to stabilize

Test Setup

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



Figure 7-2. Test Instrument & Measurement Setup for Peak Power Measurement

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
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Note

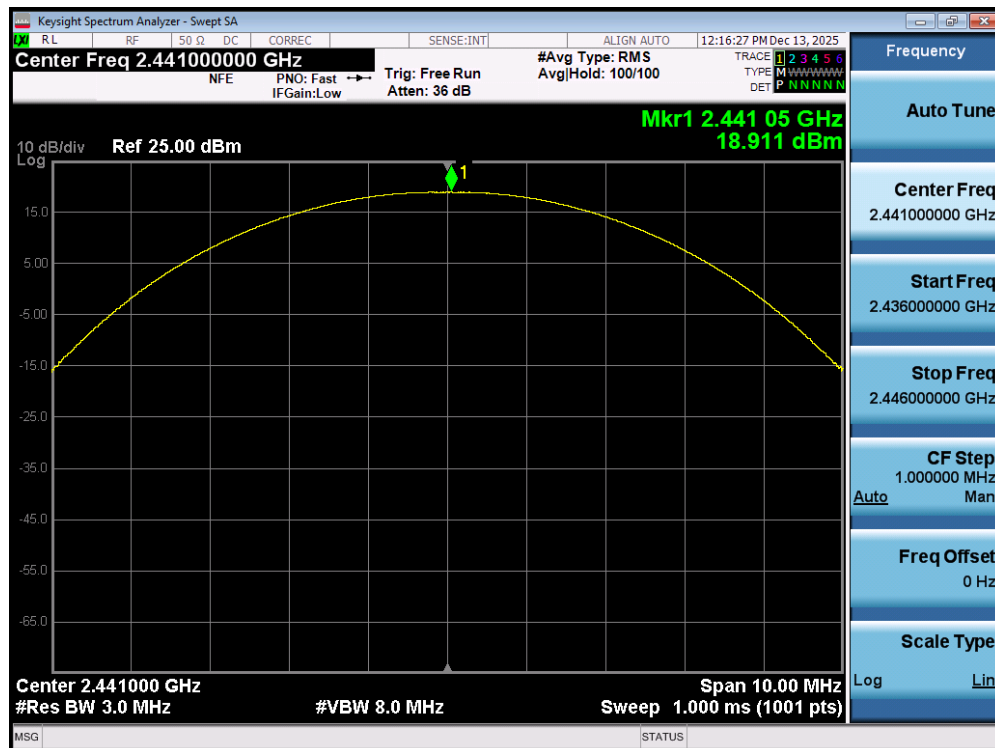
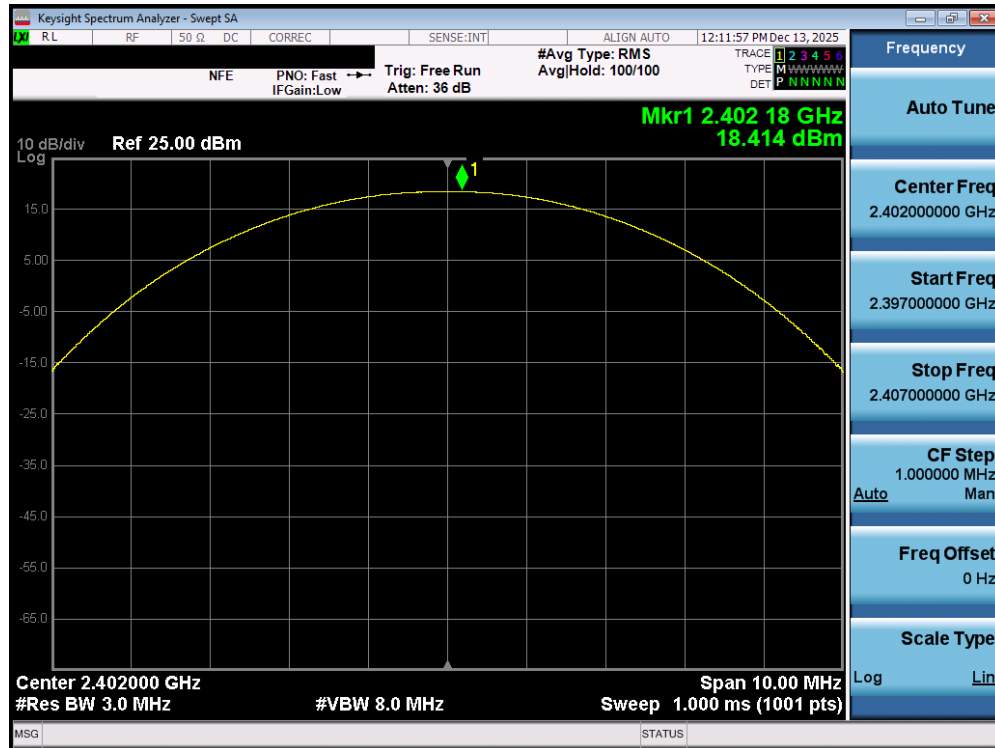
This unit was tested with all possible data rates and the highest peak power is reported with the unit transmitting at 1Mbps. The EUT was tested for the average power with a broadband power meter for reporting purposes only. Final results were obtained using calibrated couplers, attenuators and cables. The following formula was used:

$$\text{Output Power (dBm)} = \text{Raw Analyzer Level (dBm)} + \text{Cable Loss (dB)} + \text{Loss in Directional Coupler/Insertion Loss (dB)}$$

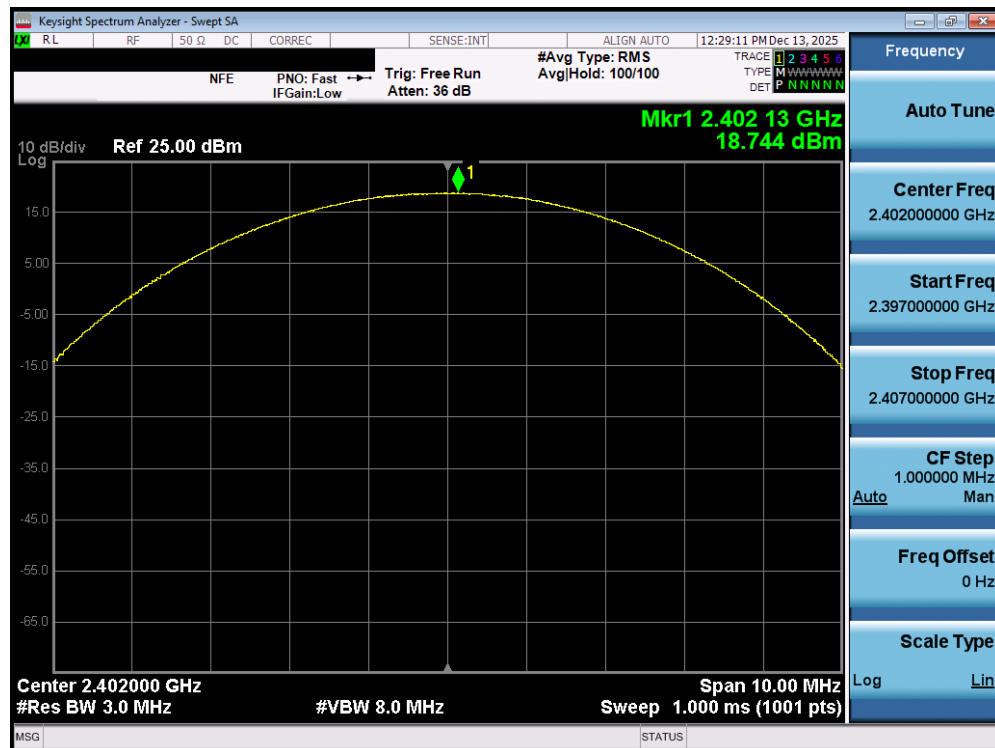
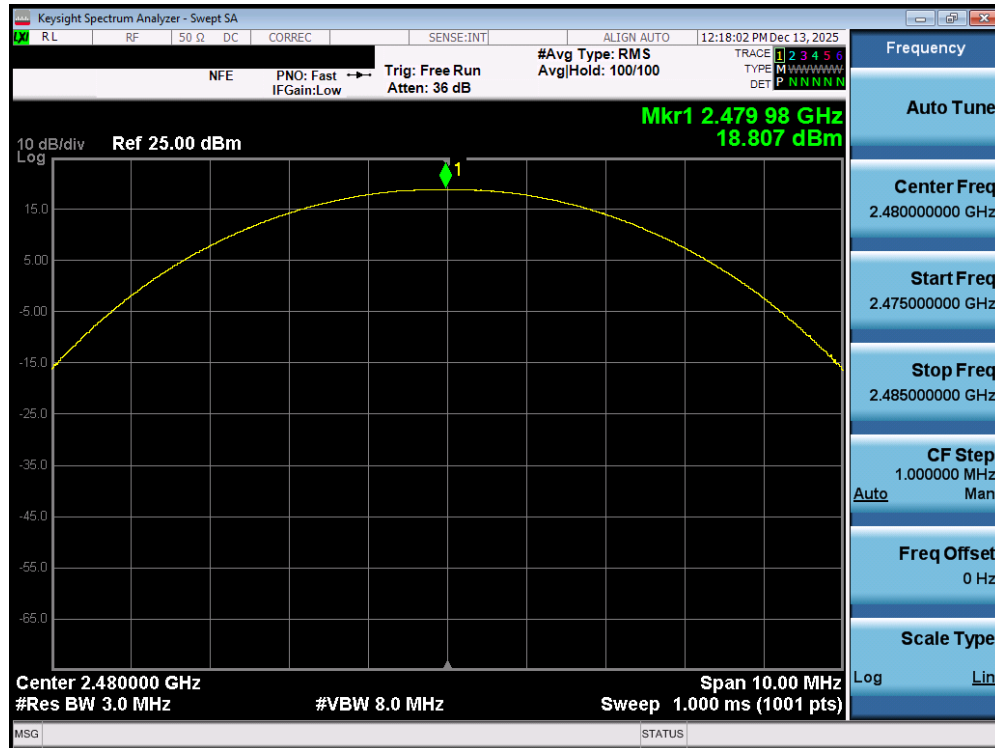
Frequency [MHz]	Data Rate [Mbps]	Channel No.	Peak Conducted Power		Avg Conducted Power		Ant. Gain [dBi]	EIRP [dBm]	Limit [dBm]	Margin [dB]
			[dBm]	[mW]	[dBm]	[mW]				
2402	1.0	0	18.41	69.406	18.02	63.436	1.91	20.32	36.02	-15.70
2441	1.0	39	18.91	77.822	18.44	69.745	1.91	20.82	36.02	-15.20
2480	1.0	78	18.81	75.980	18.26	66.984	1.91	20.72	36.02	-15.30
2402	2.0	0	18.74	74.886	15.59	36.210	1.91	20.65	36.02	-15.37
2441	2.0	39	19.18	82.737	16.02	40.023	1.91	21.09	36.02	-14.93
2480	2.0	78	18.84	76.577	15.67	36.924	1.91	20.75	36.02	-15.27
2402	3.0	0	19.37	86.417	15.65	36.708	1.91	21.28	36.02	-14.74
2441	3.0	39	19.80	95.521	16.14	41.121	1.91	21.71	36.02	-14.31
2480	3.0	78	19.43	87.619	15.76	37.662	1.91	21.34	36.02	-14.68

Table 7-6. Conducted Output Power Measurements – SISO ANT1

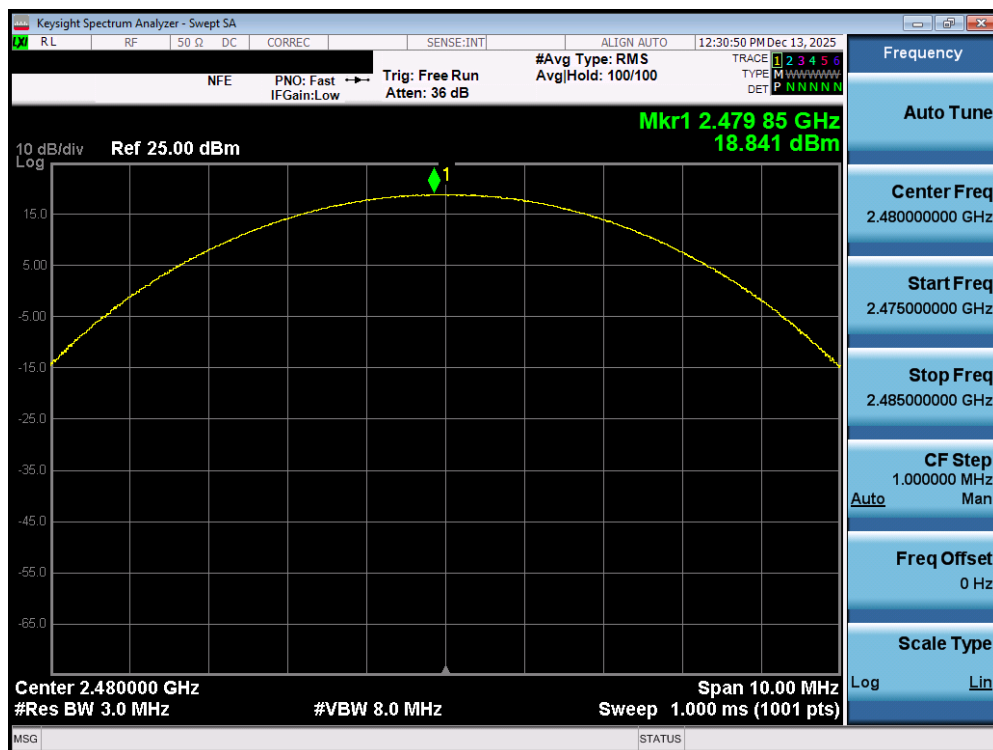
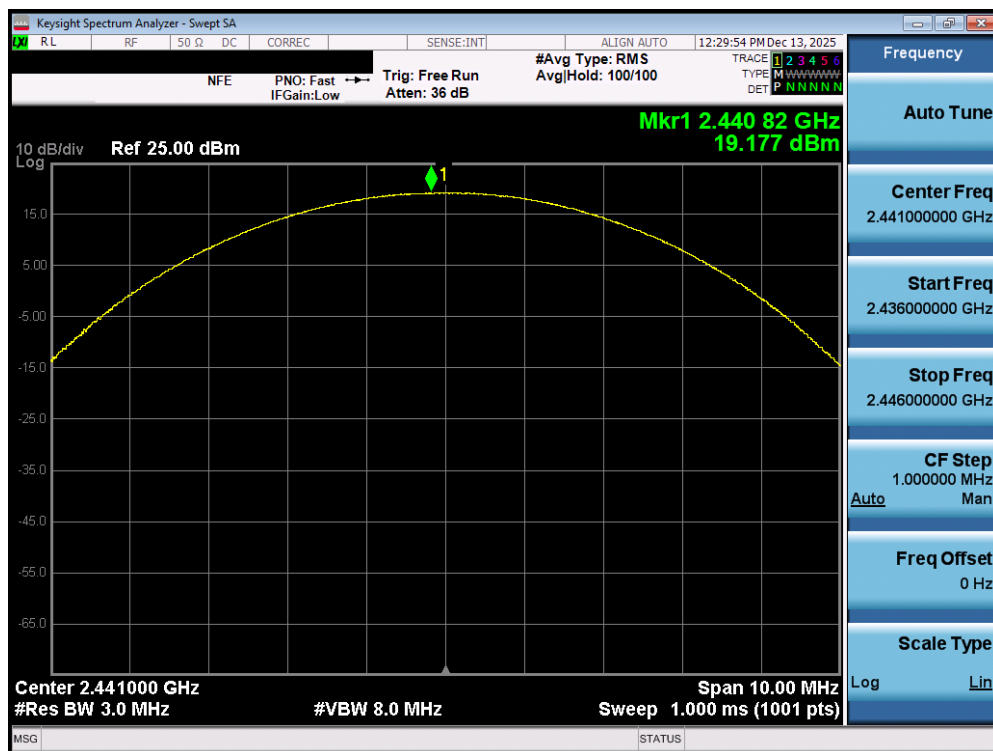
FCC ID: C3K2076 IC: 3048A-2076		MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device		Page 36 of 139



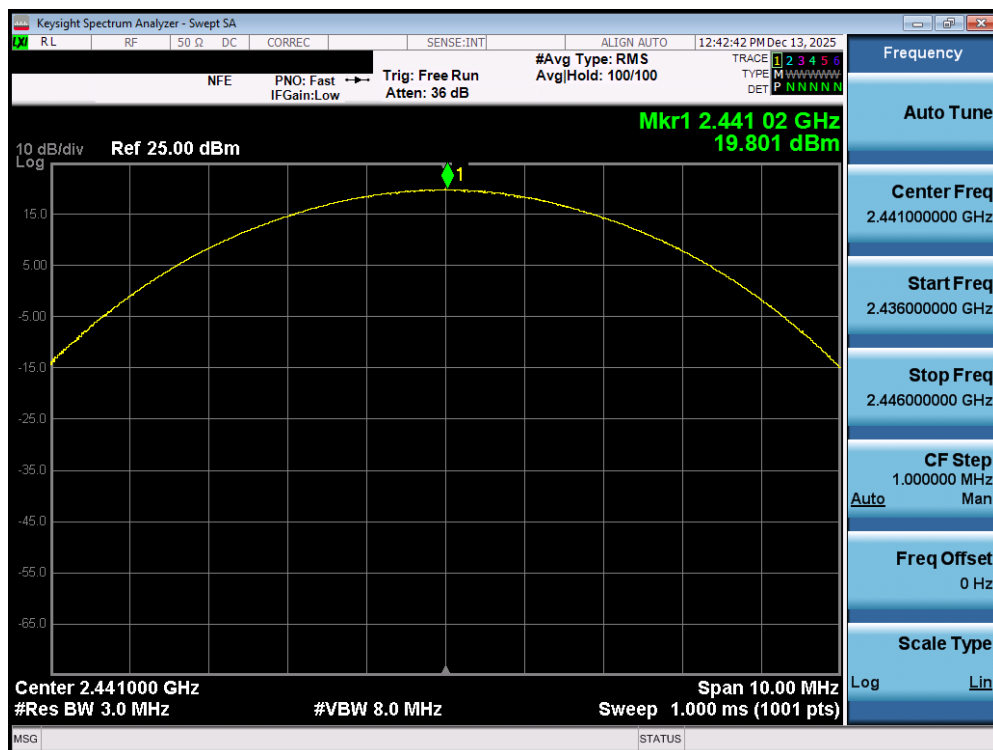
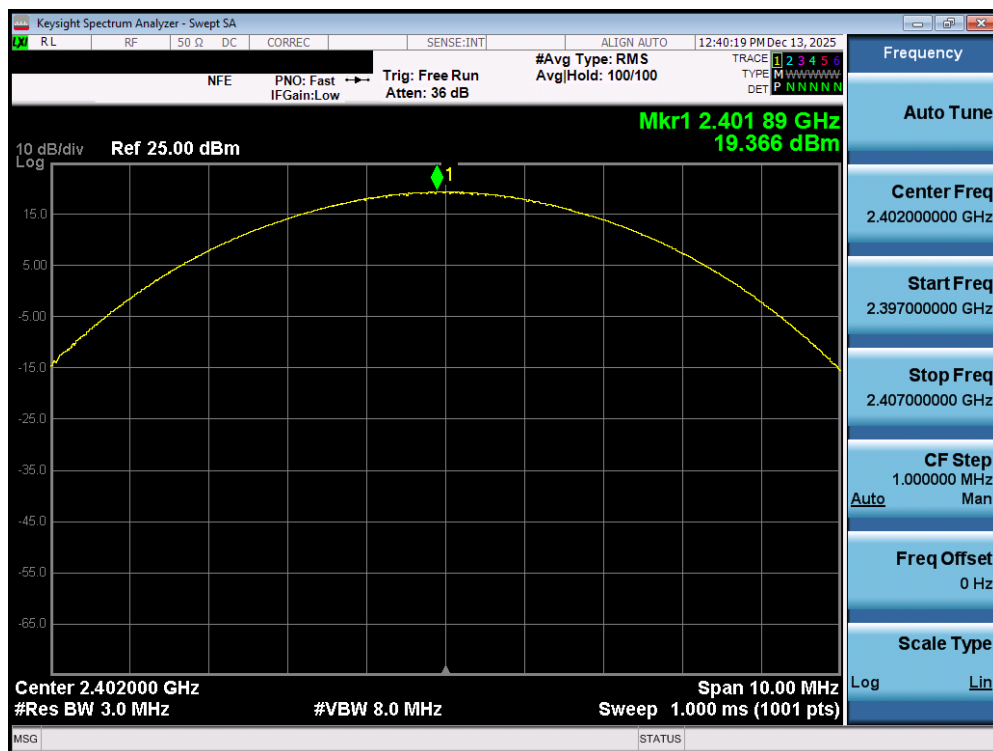
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 37 of 139



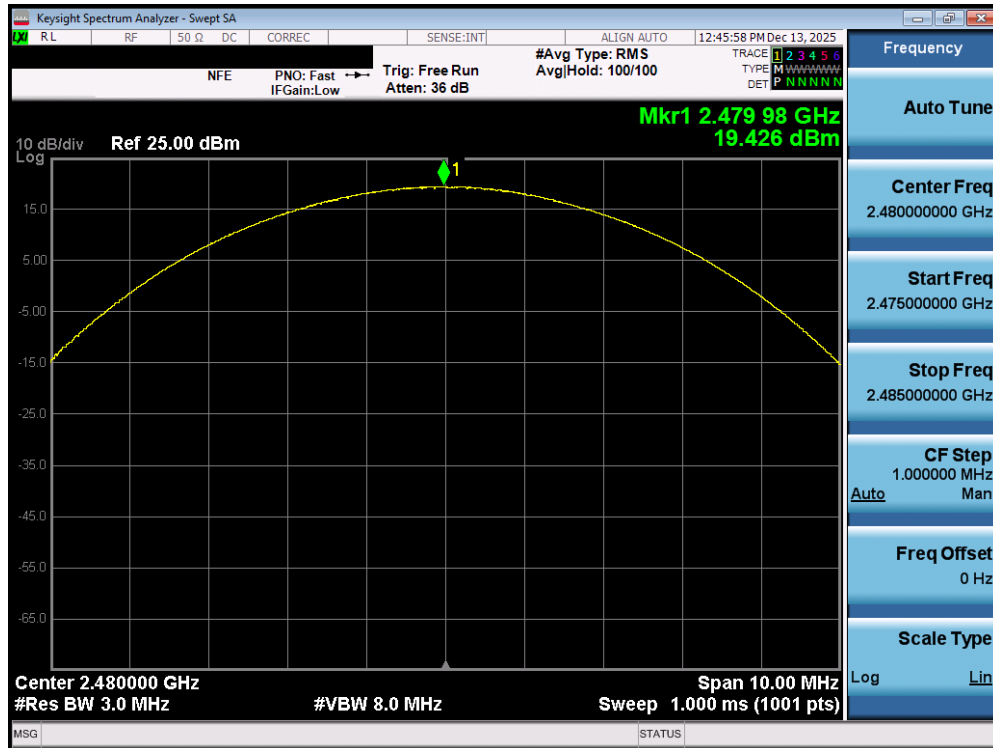
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 38 of 139



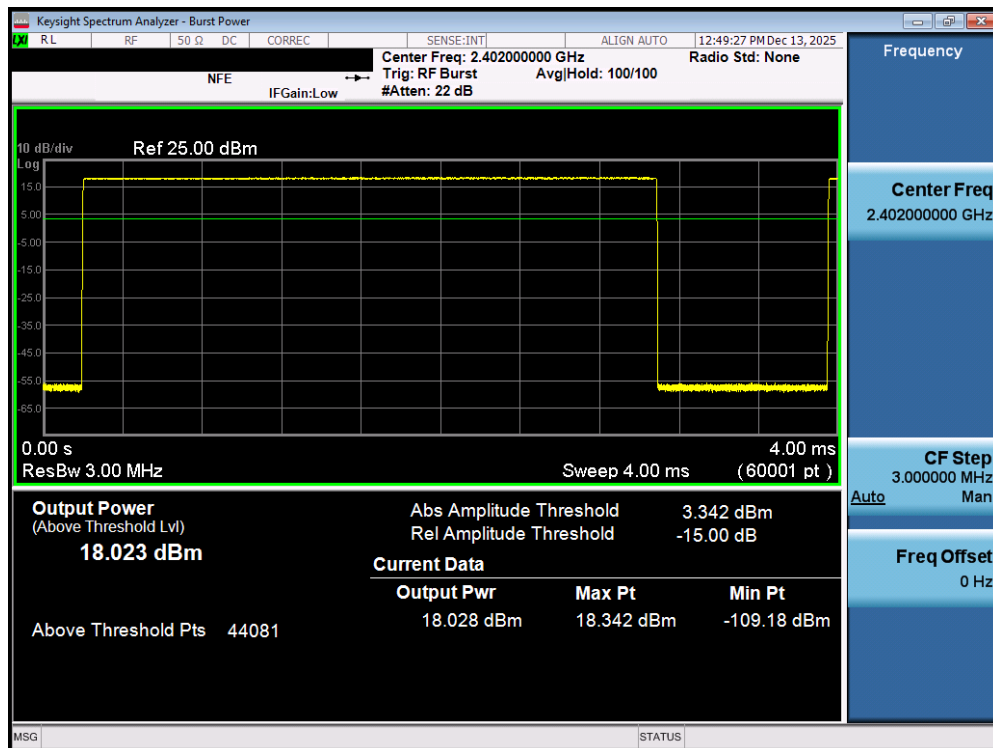
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 39 of 139



FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 40 of 139

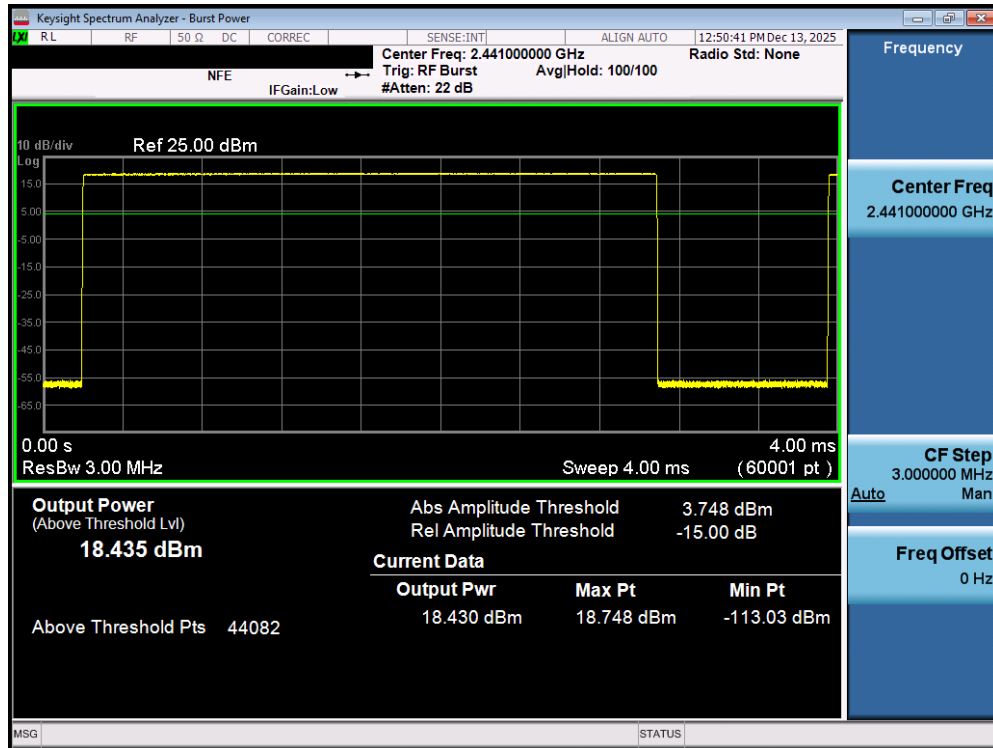


Plot 7-45. Peak Conducted Power (3Mbps - Ch. 78) - SISO ANT1

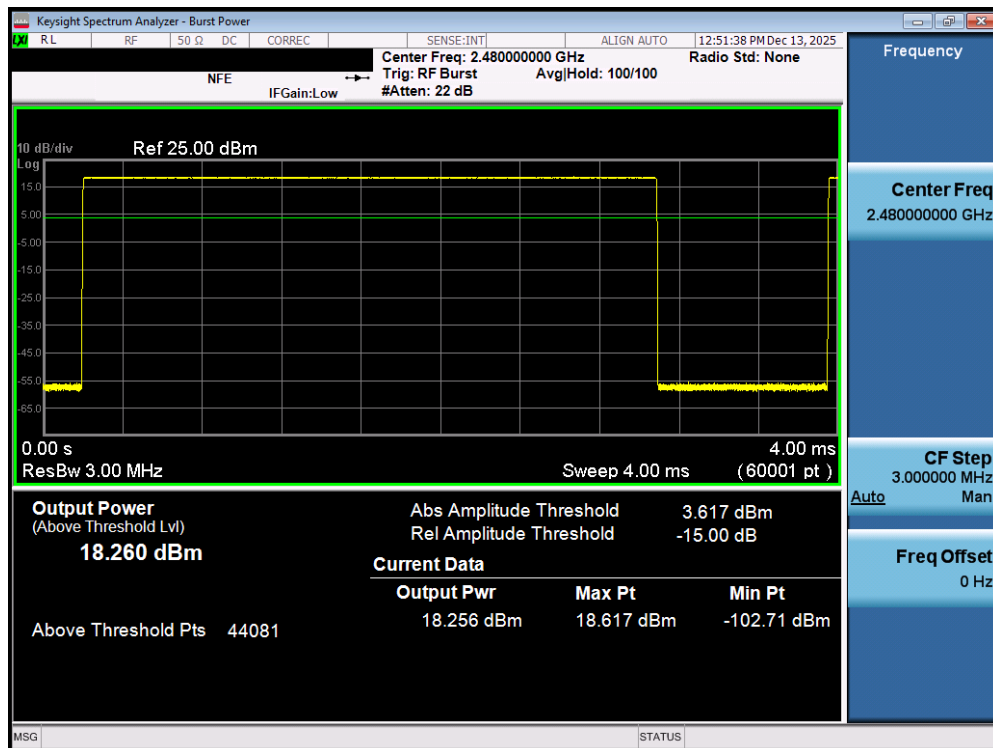


Plot 7-46. Average Conducted Power (1Mbps - Ch. 0) - SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 41 of 139

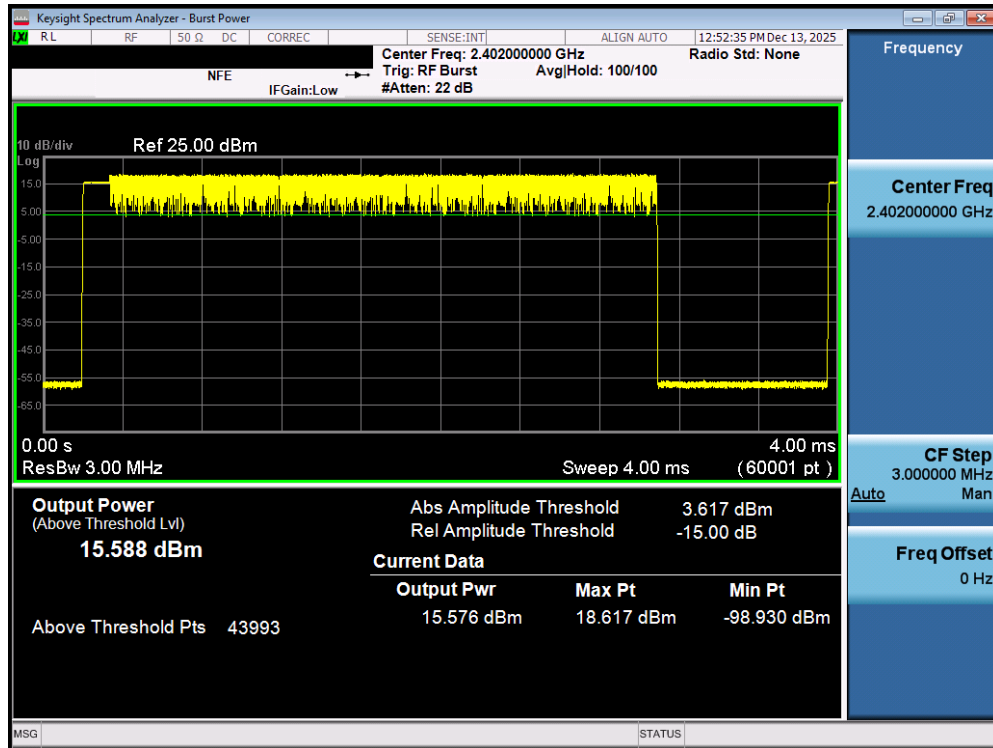


Plot 7-47. Average Conducted Power (1Mbps – Ch. 39) – SISO ANT1

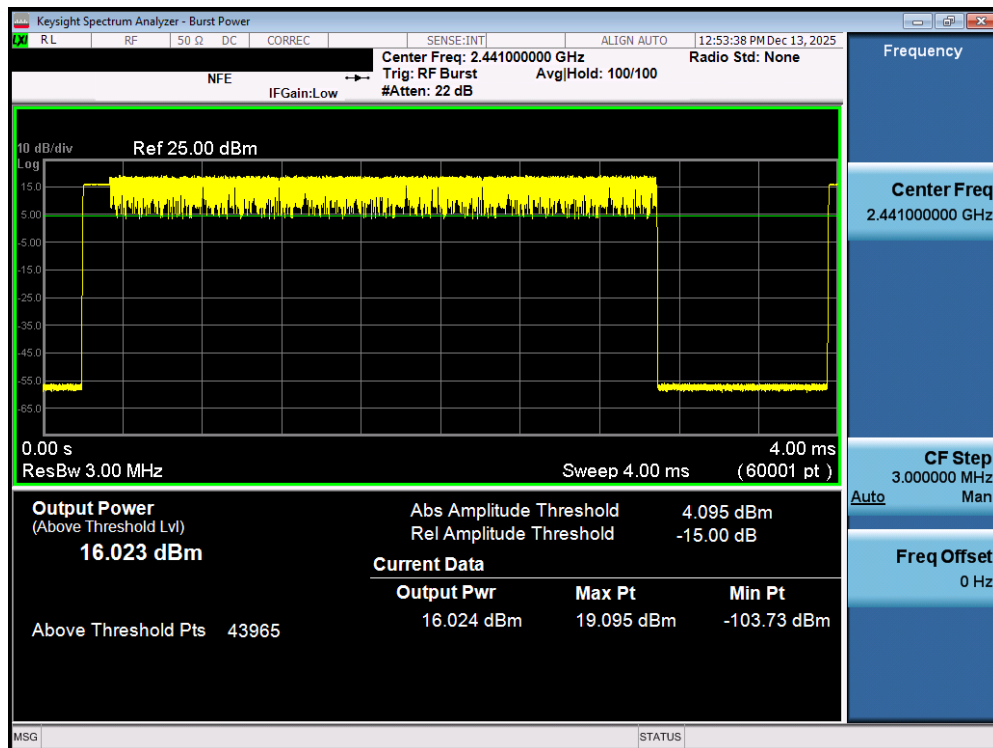


Plot 7-48. Average Conducted Power (1Mbps – Ch. 78) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 42 of 139

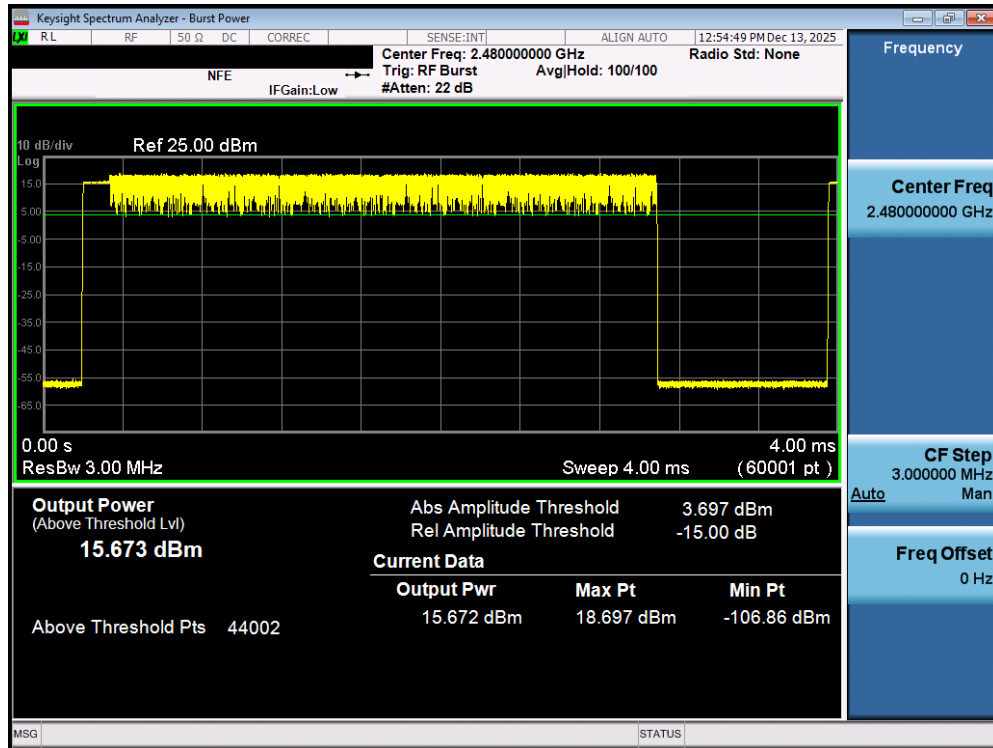


Plot 7-49. Average Conducted Power (2Mbps – Ch. 0) – SISO ANT1

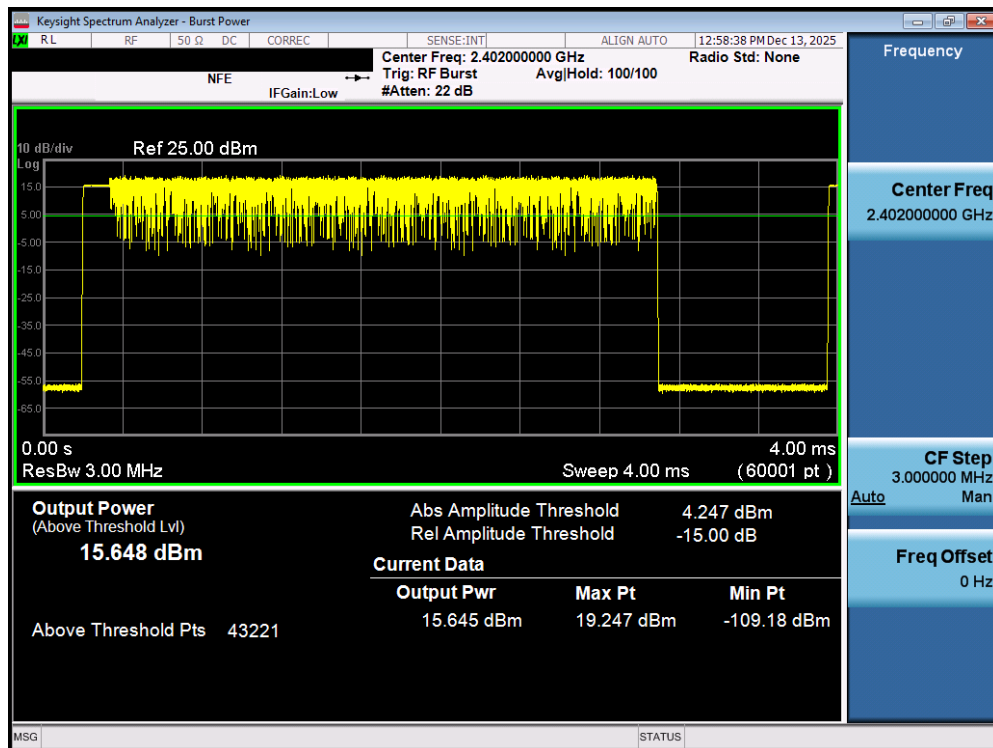


Plot 7-50. Average Conducted Power (2Mbps – Ch. 39) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 43 of 139

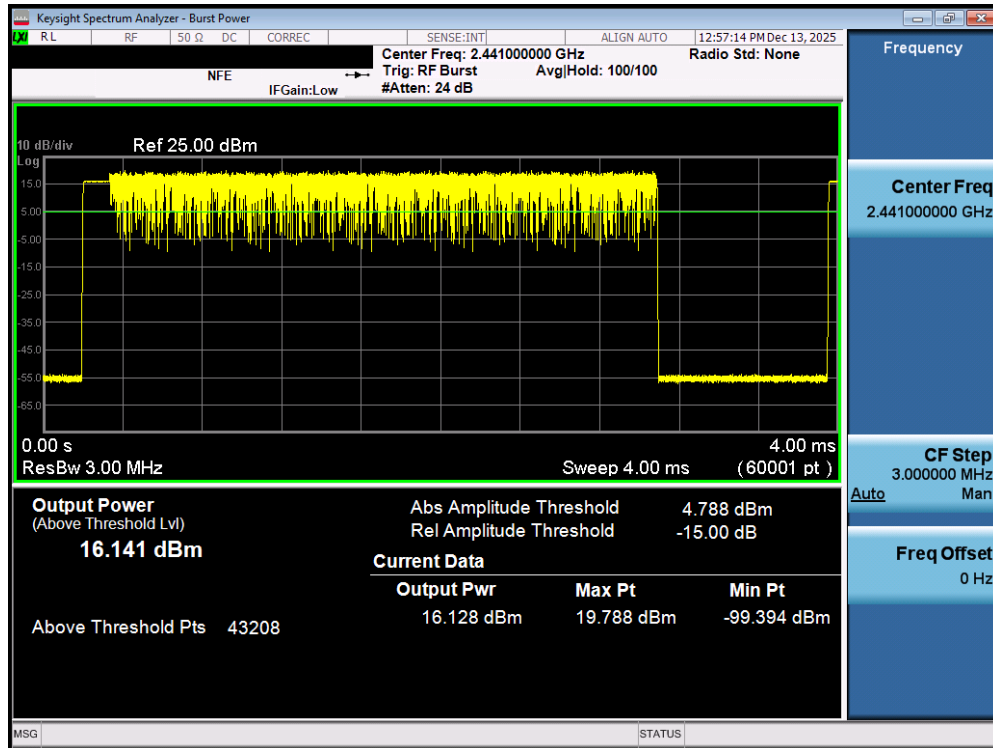


Plot 7-51. Average Conducted Power (2Mbps – Ch. 78) – SISO ANT1

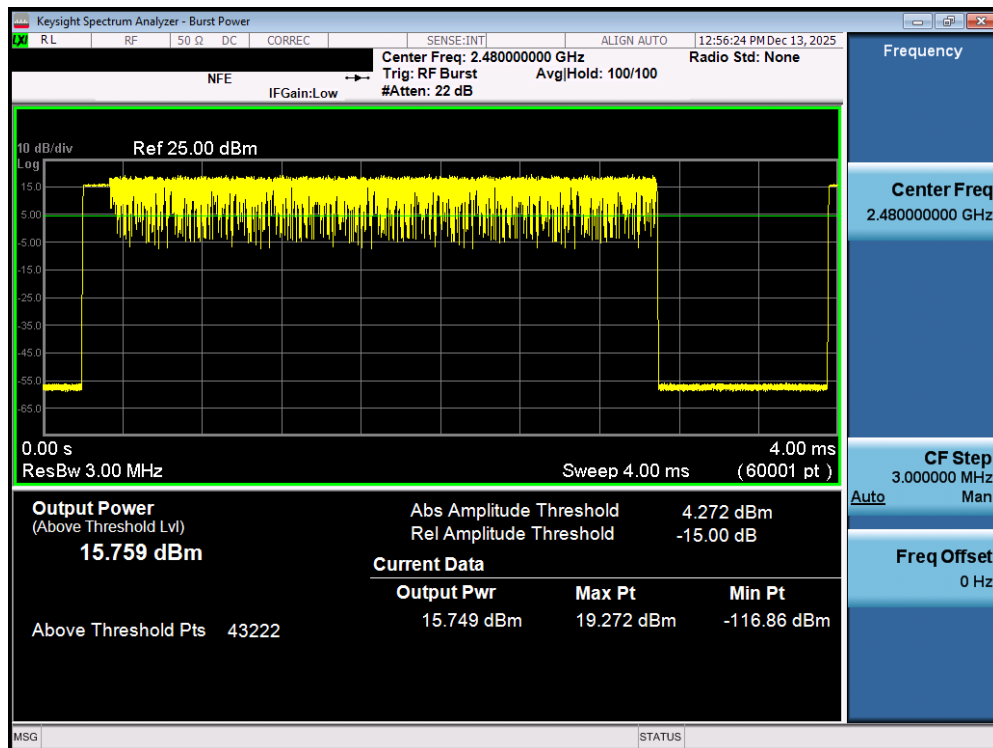


Plot 7-52. Average Conducted Power (3Mbps – Ch. 0) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 44 of 139



Plot 7-53. Average Conducted Power (3Mbps – Ch. 39) – SISO ANT1

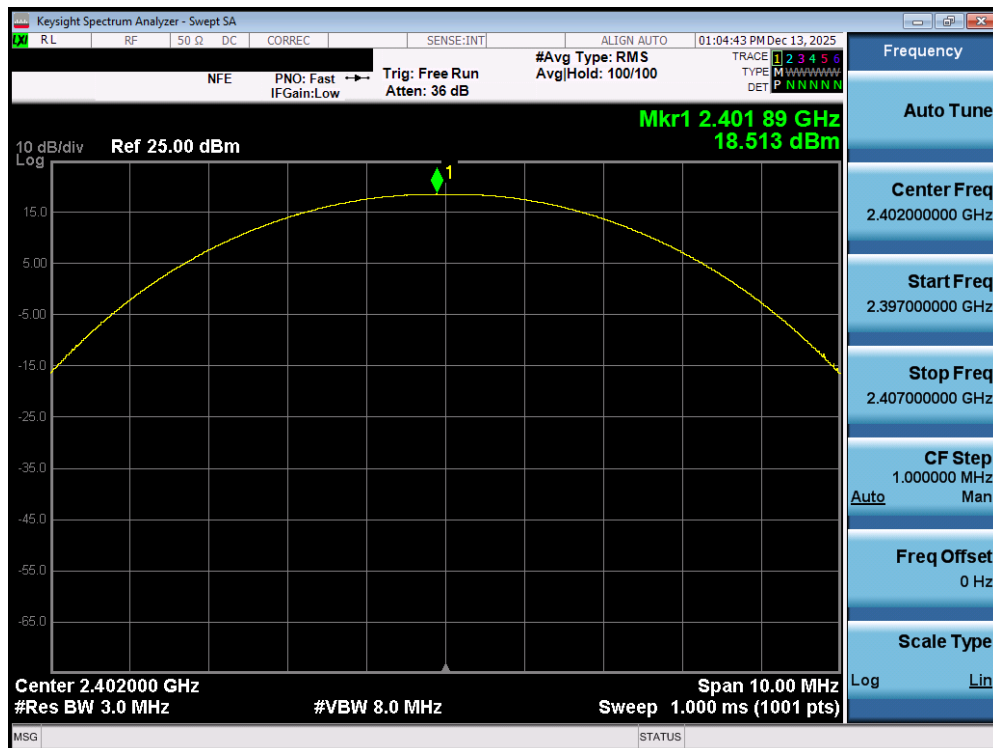


Plot 7-54. Average Conducted Power (3Mbps – Ch. 78) – SISO ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 45 of 139

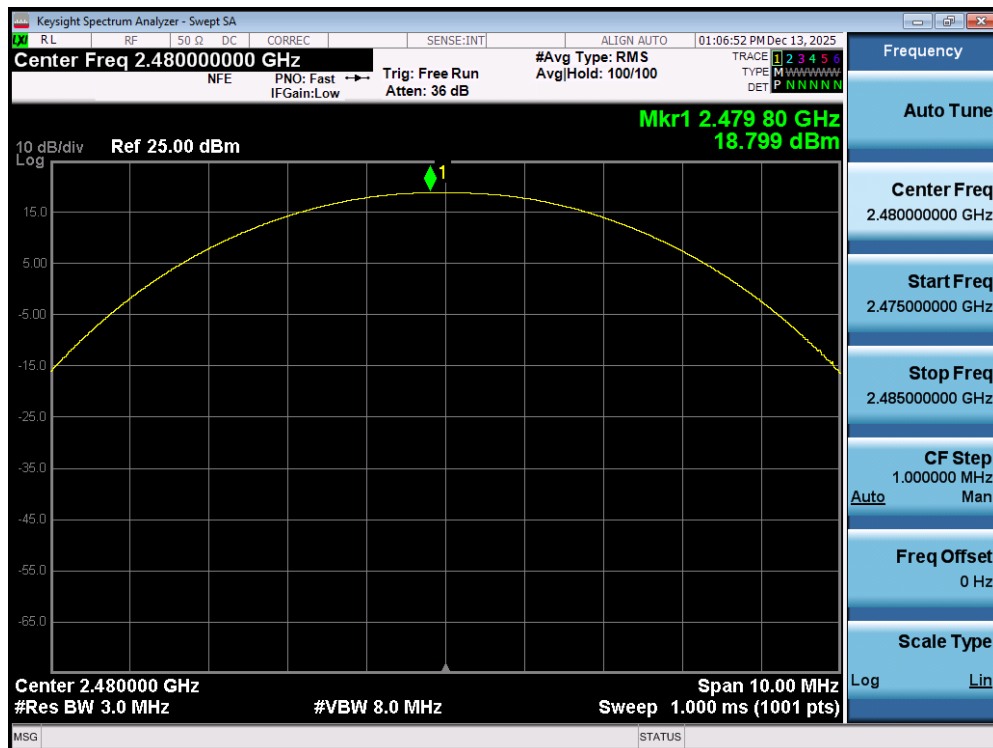
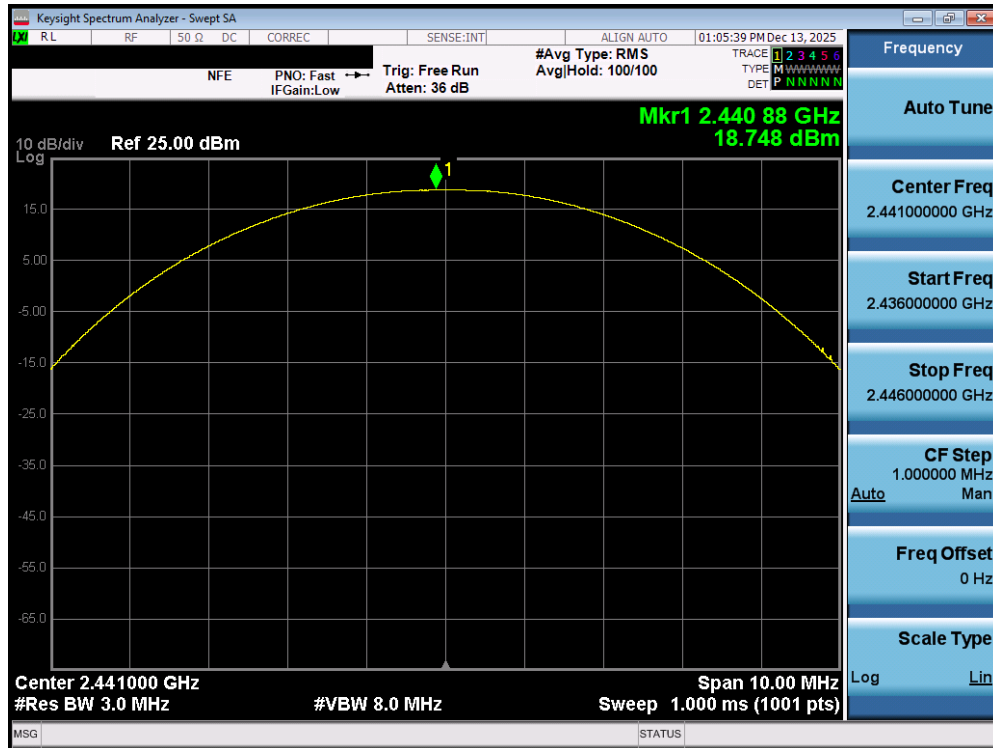
Frequency [MHz]	Data Rate [Mbps]	Channel No.	Peak Conducted Power		Avg Conducted Power		Ant. Gain [dBi]	EIRP [dBm]	Limit [dBm]	Margin [dB]
			[dBm]	[mW]	[dBm]	[mW]				
2402	1.0	0	18.51	71.007	18.12	64.829	3.27	21.78	36.02	-14.24
2441	1.0	39	18.75	74.955	18.43	69.676	3.27	22.02	36.02	-14.00
2480	1.0	78	18.80	75.840	18.43	69.623	3.27	22.07	36.02	-13.95
2402	2.0	0	18.76	75.110	15.60	36.283	3.27	22.03	36.02	-13.99
2441	2.0	39	19.27	84.567	16.11	40.848	3.27	22.54	36.02	-13.48
2480	2.0	78	19.11	81.489	15.94	39.241	3.27	22.38	36.02	-13.64
2402	3.0	0	19.40	87.177	15.66	36.776	3.27	22.67	36.02	-13.35
2441	3.0	39	19.89	97.432	16.23	41.987	3.27	23.16	36.02	-12.86
2480	3.0	78	19.58	90.866	16.01	39.904	3.27	22.85	36.02	-13.17

Table 7-7. Conducted Output Power Measurements – SISO ANT2

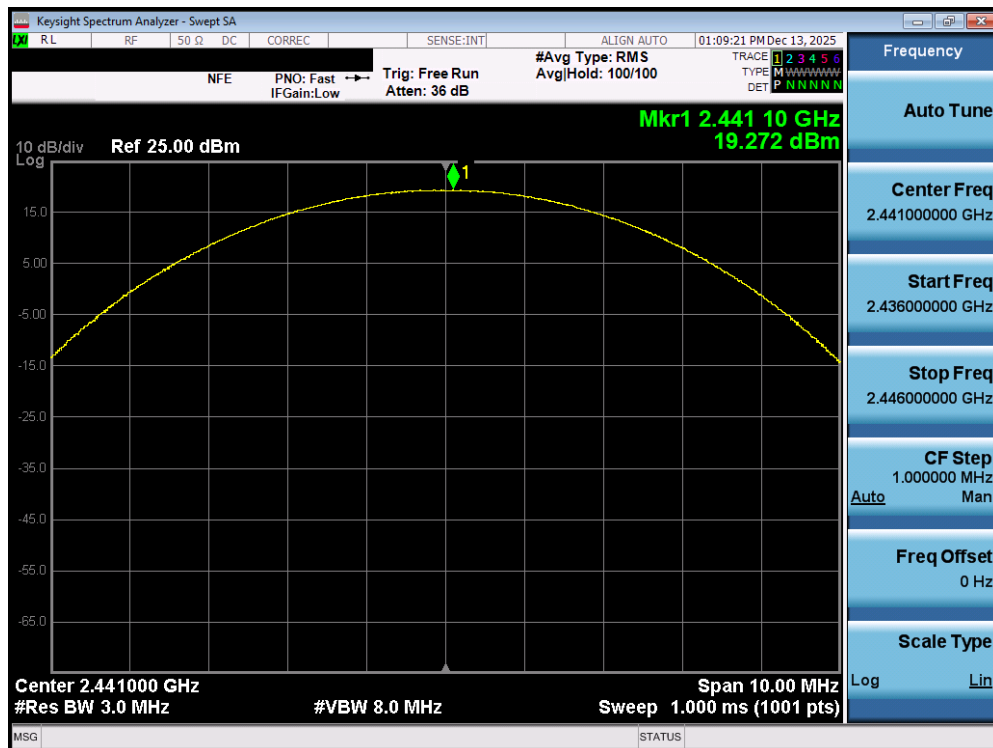
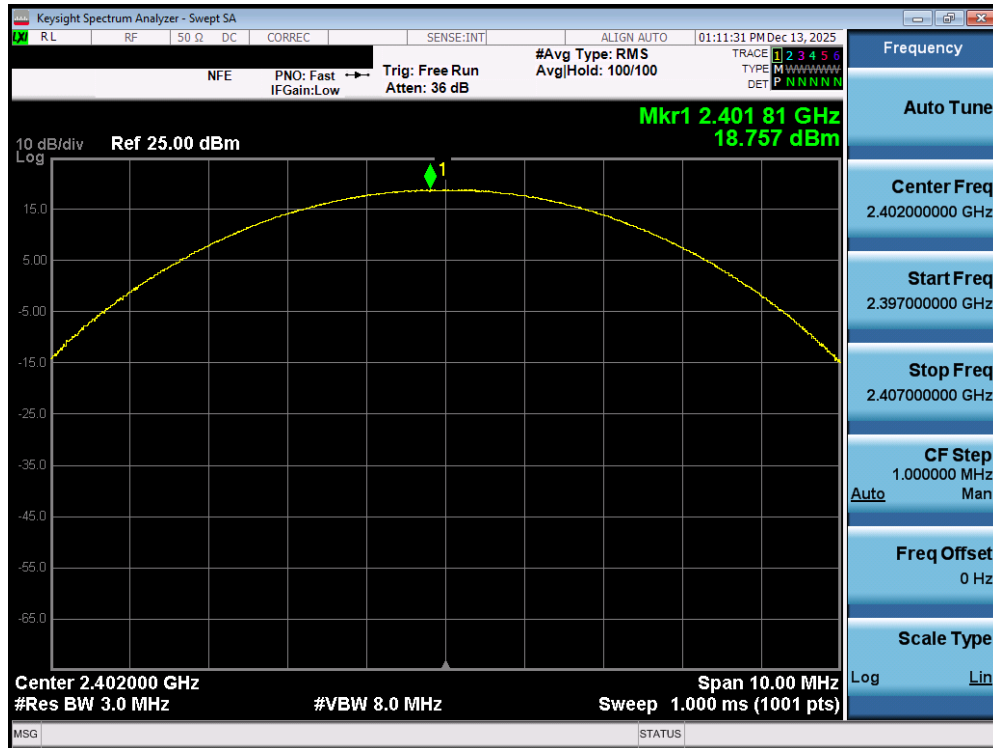


Plot 7-55. Peak Conducted Power (1Mbps – Ch. 0) – SISO ANT2

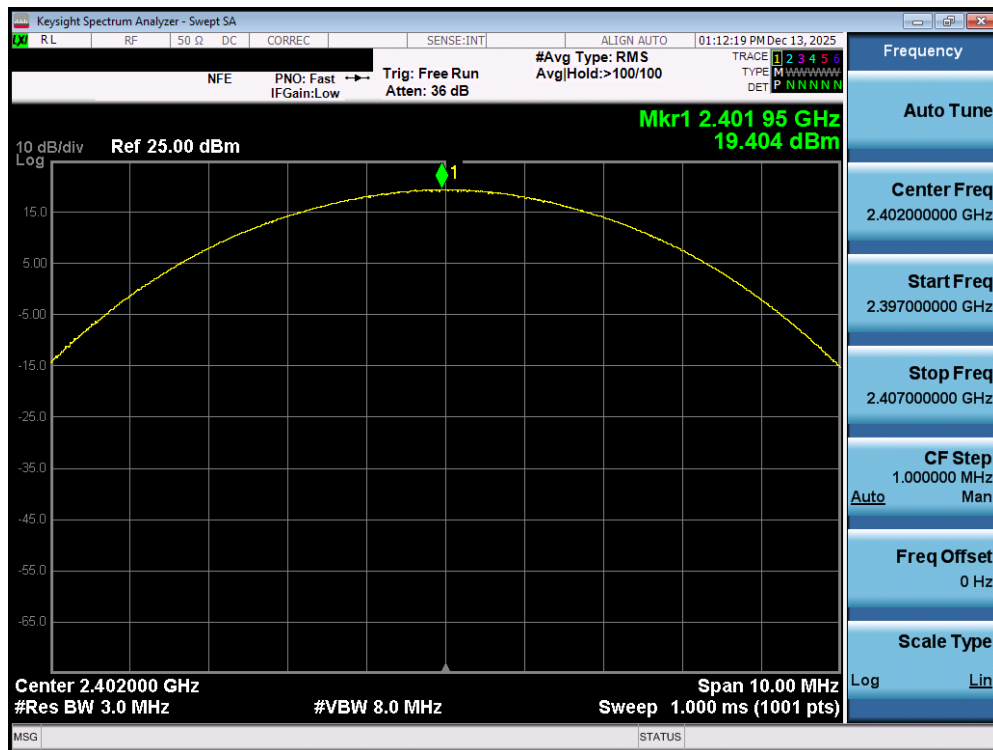
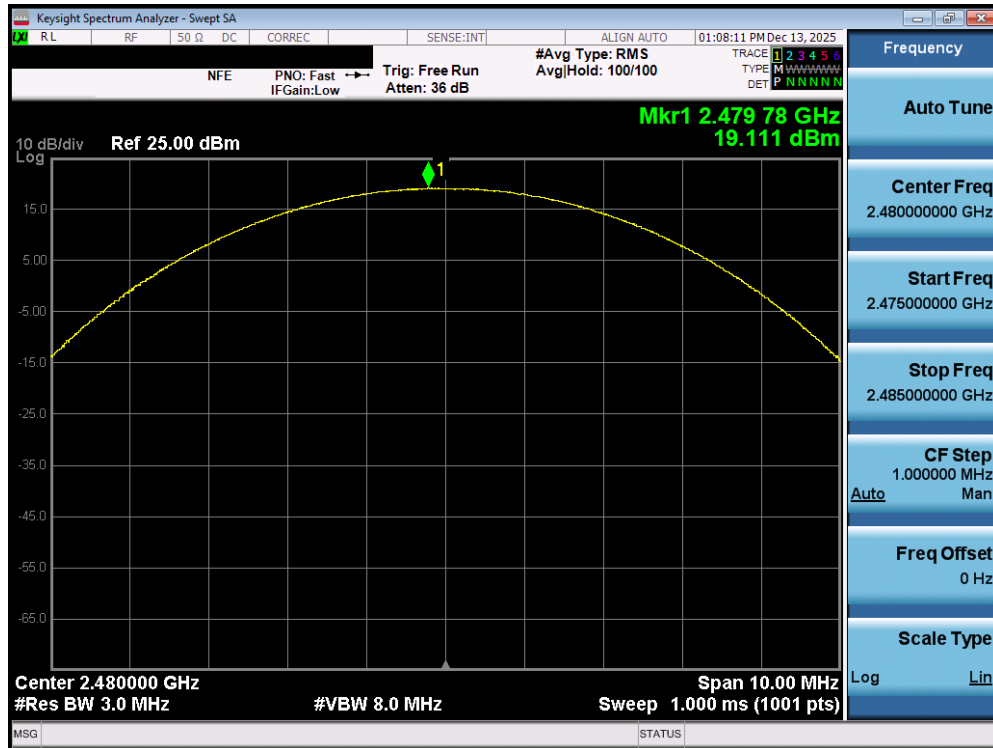
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 46 of 139



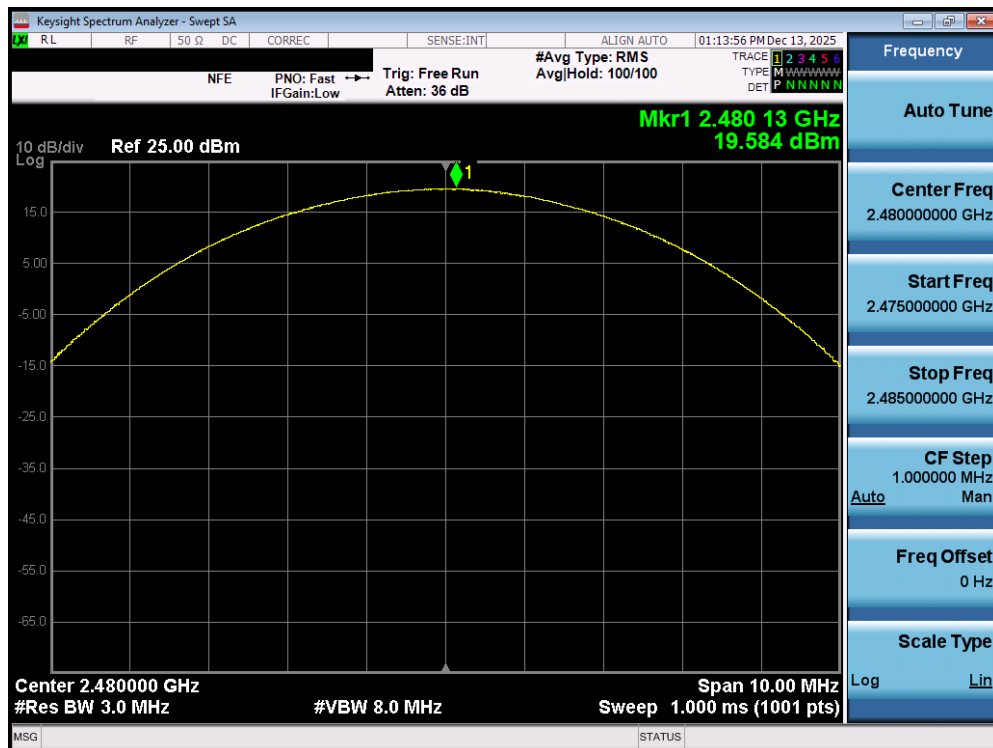
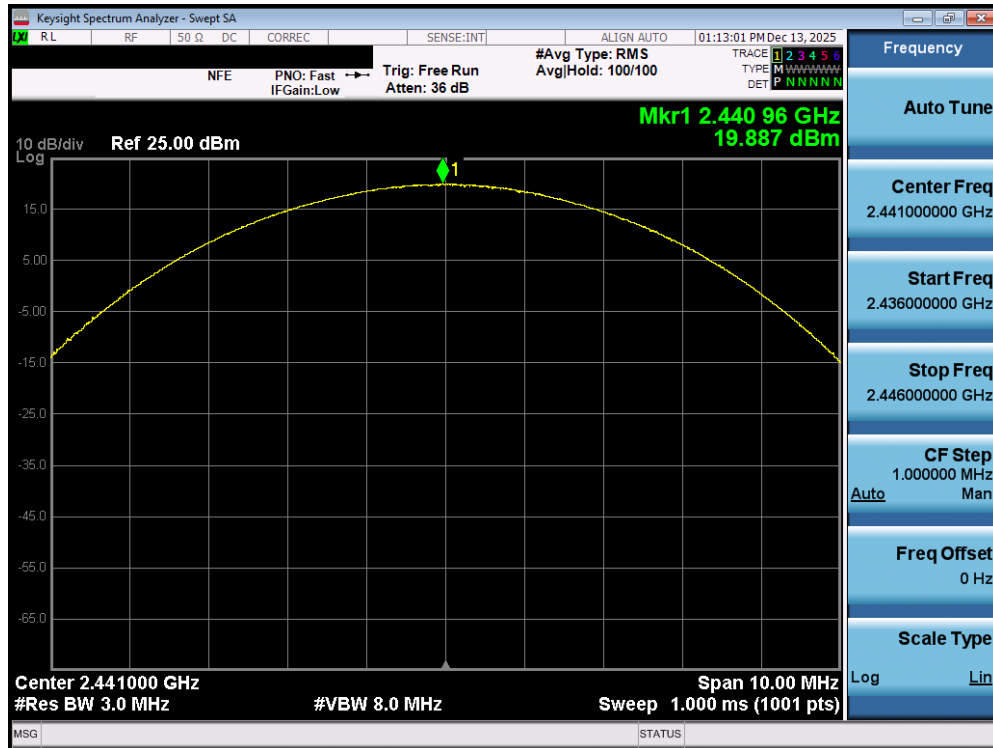
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 47 of 139



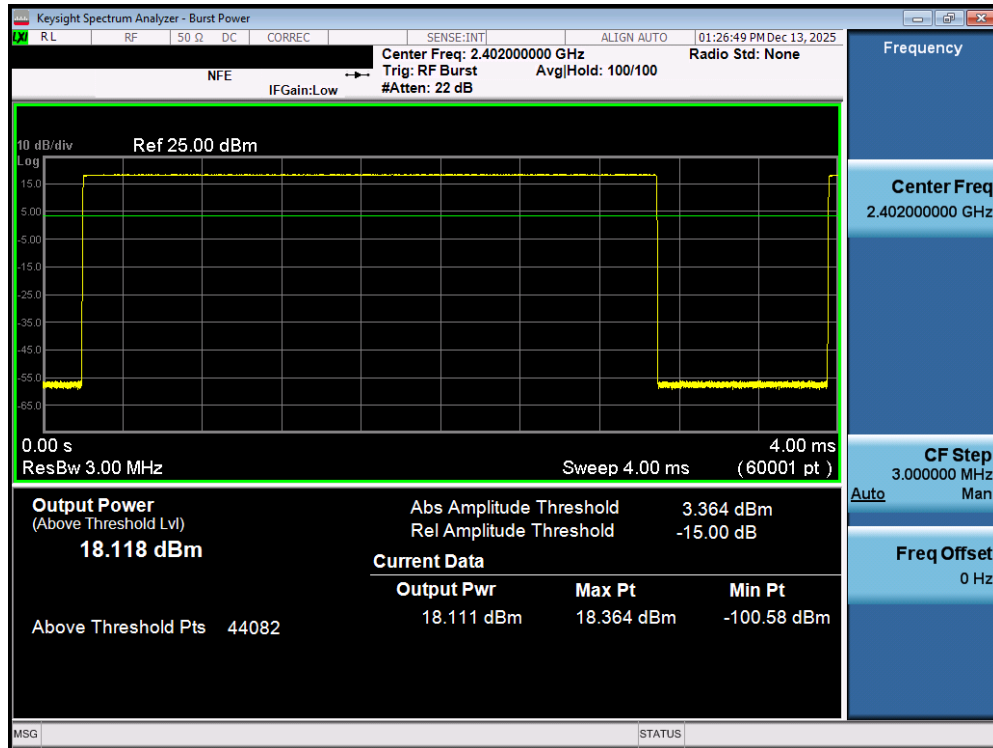
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 48 of 139



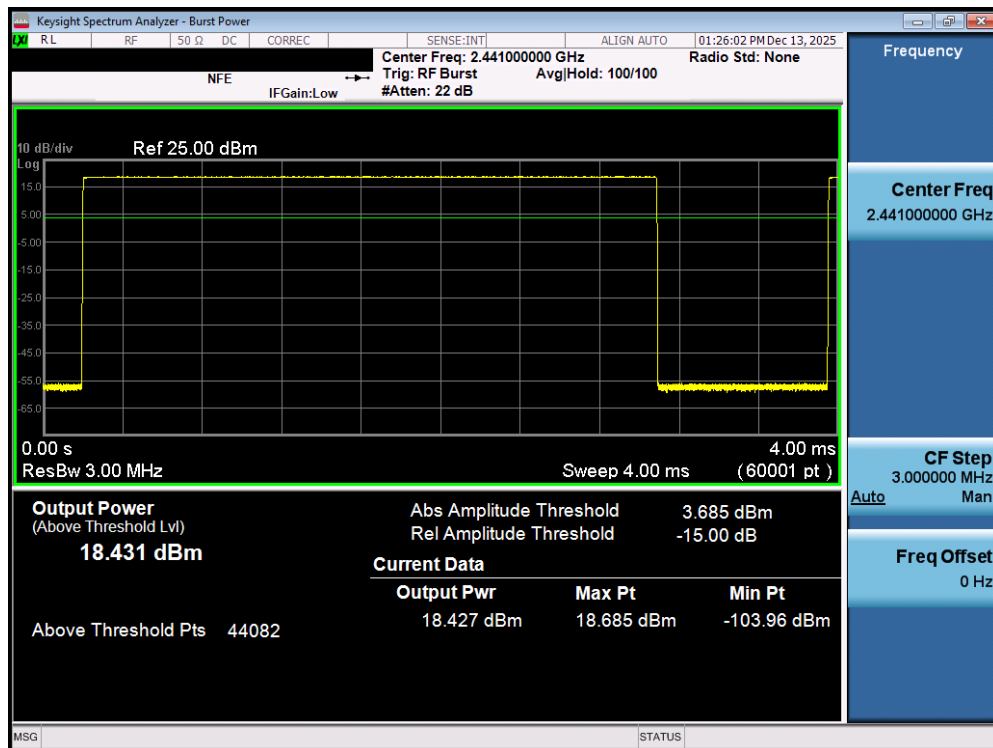
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 49 of 139



FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 50 of 139

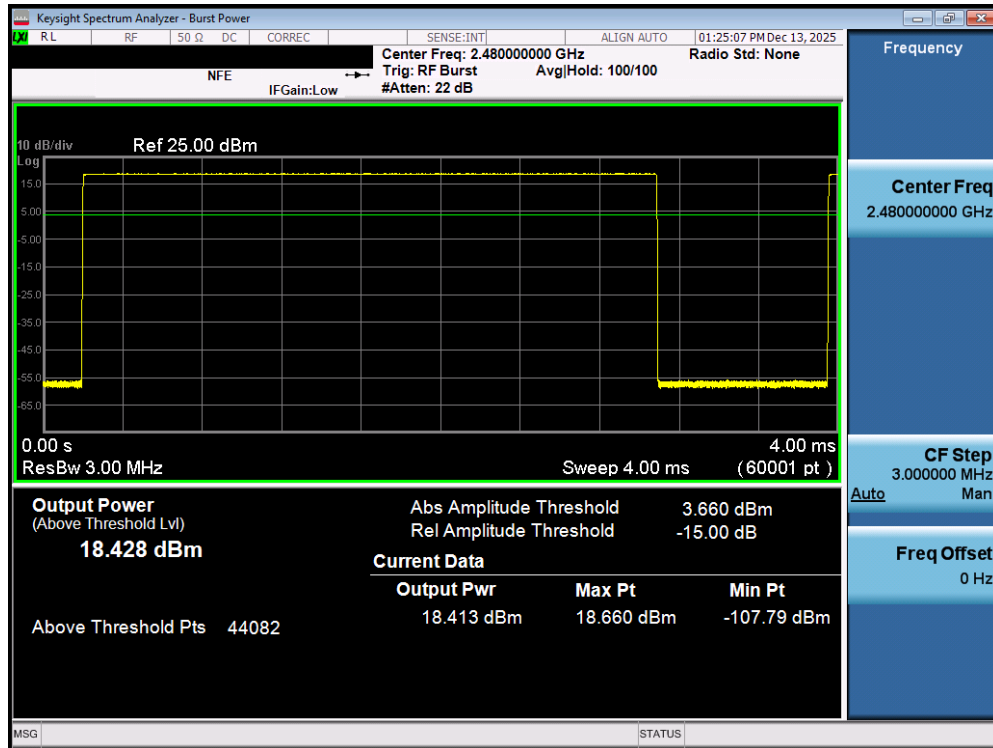


Plot 7-64. Average Conducted Power (1Mbps – Ch. 0) – SISO ANT2

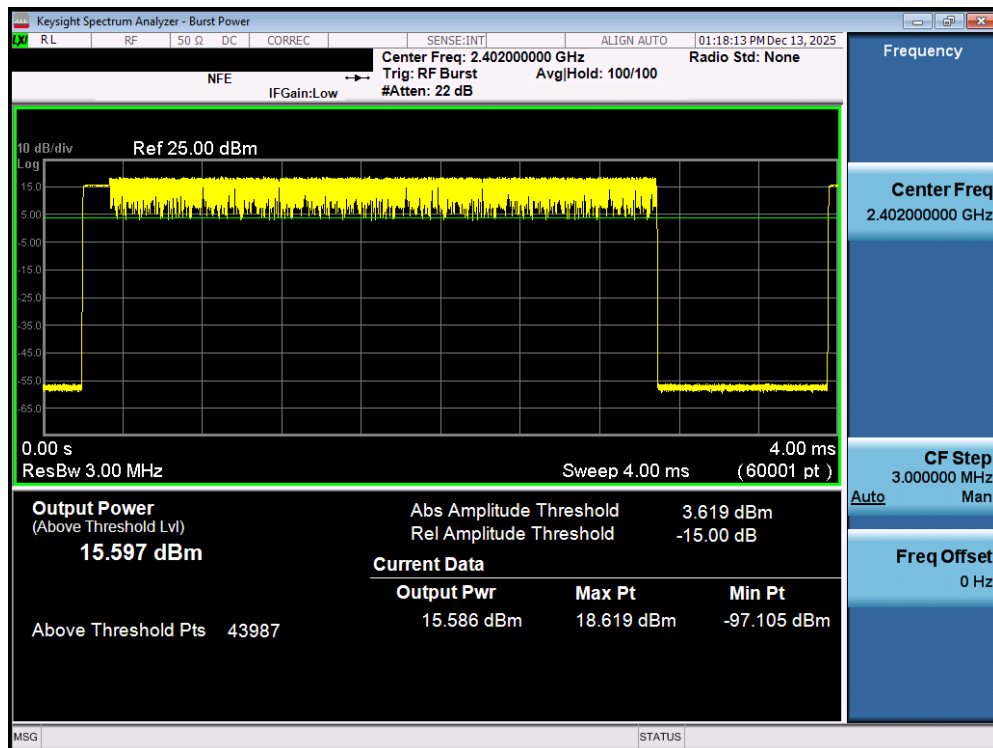


Plot 7-65. Average Conducted Power (1Mbps – Ch. 39) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 51 of 139

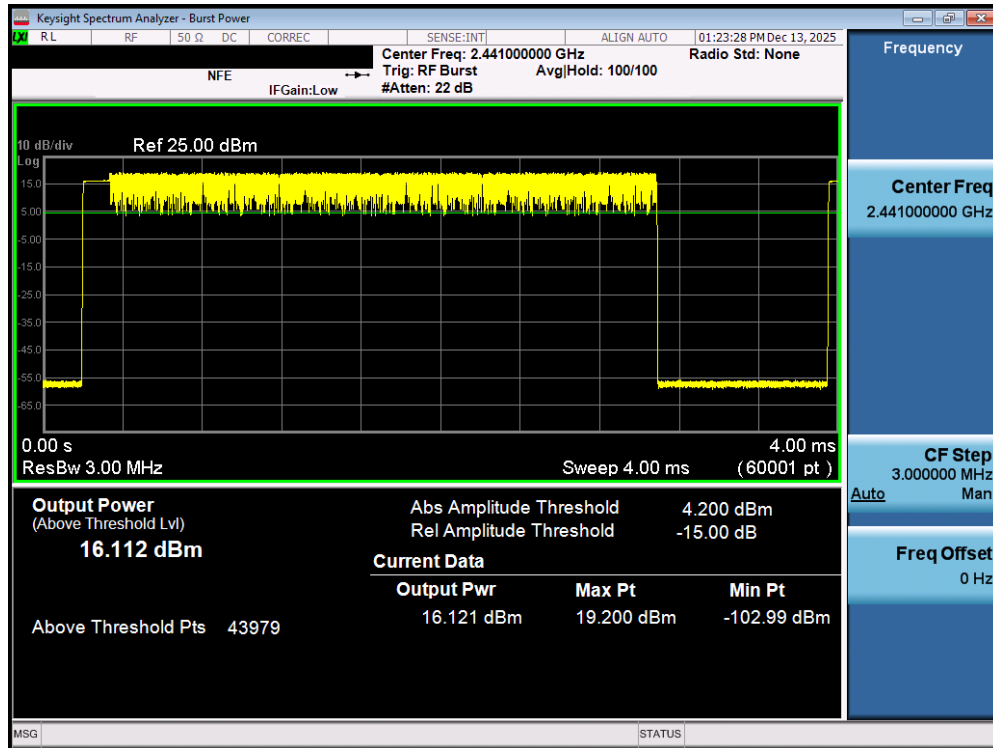


Plot 7-66. Average Conducted Power (1Mbps - Ch. 78) - SISO ANT2

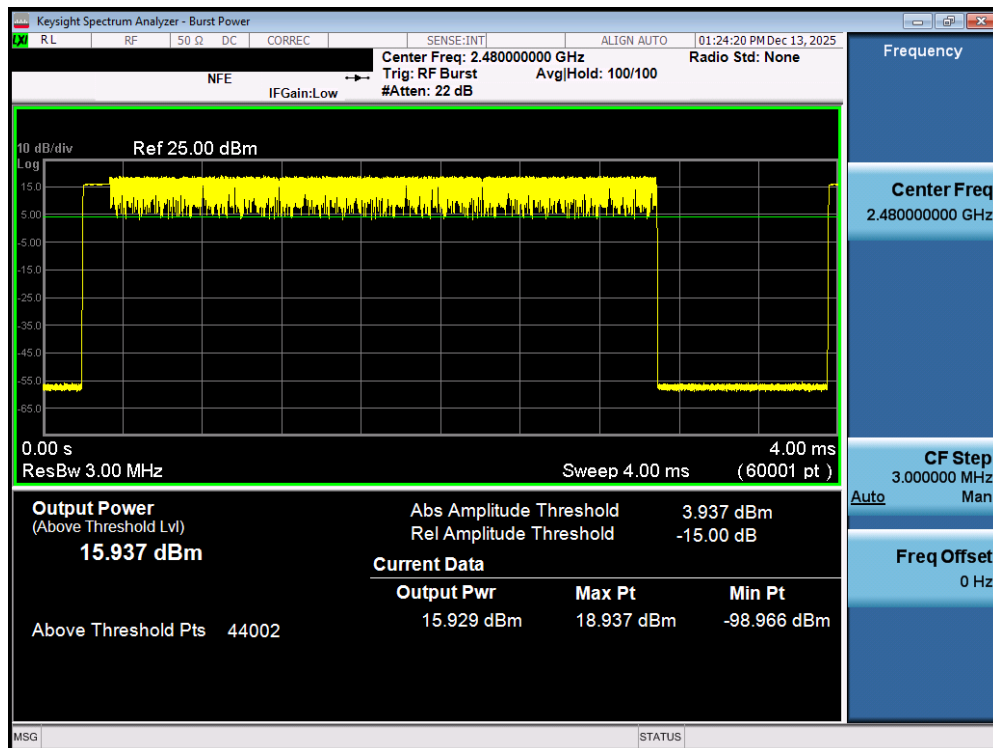


Plot 7-67. Average Conducted Power (2Mbps - Ch. 0) - SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 52 of 139

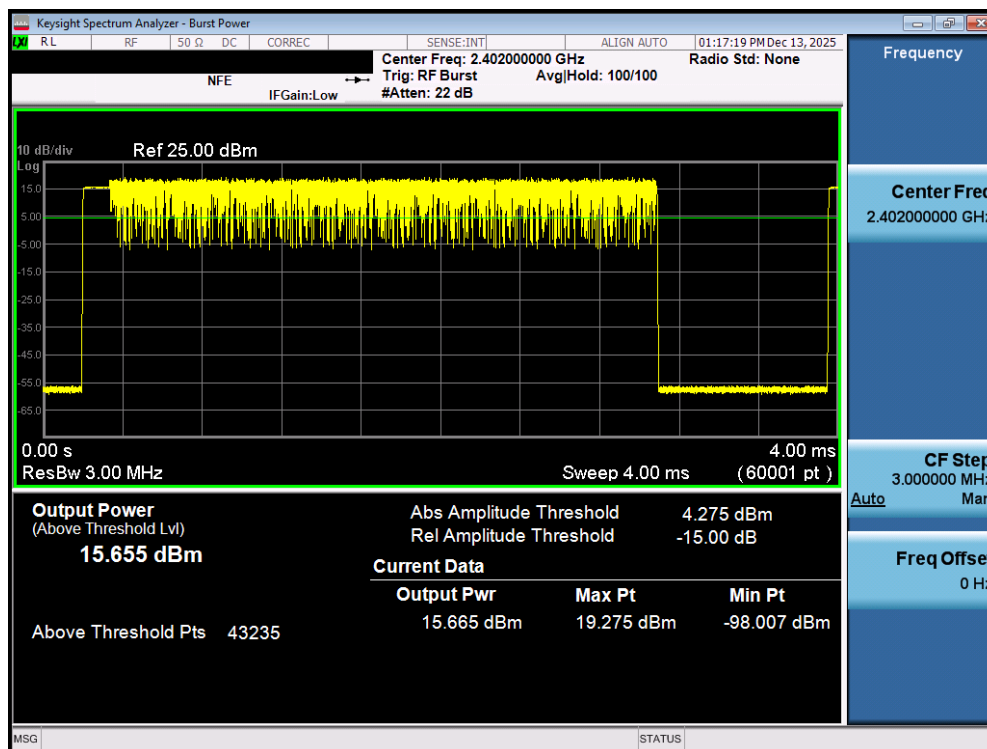


Plot 7-68. Average Conducted Power (2Mbps – Ch. 39) – SISO ANT2

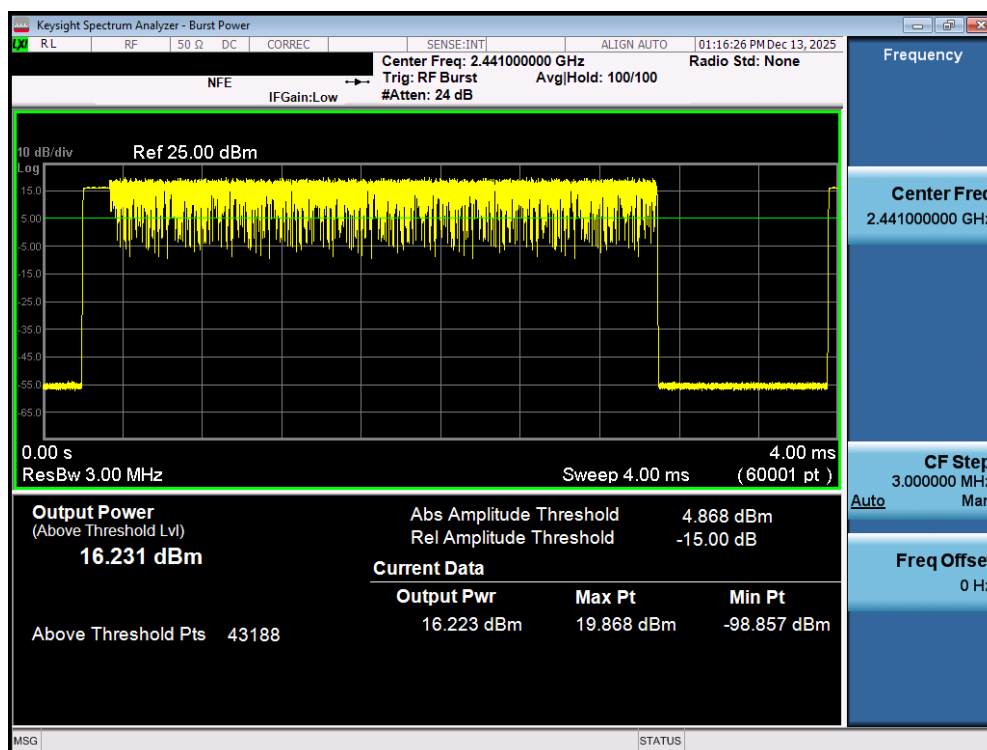


Plot 7-69. Average Conducted Power (2Mbps – Ch. 78) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 53 of 139

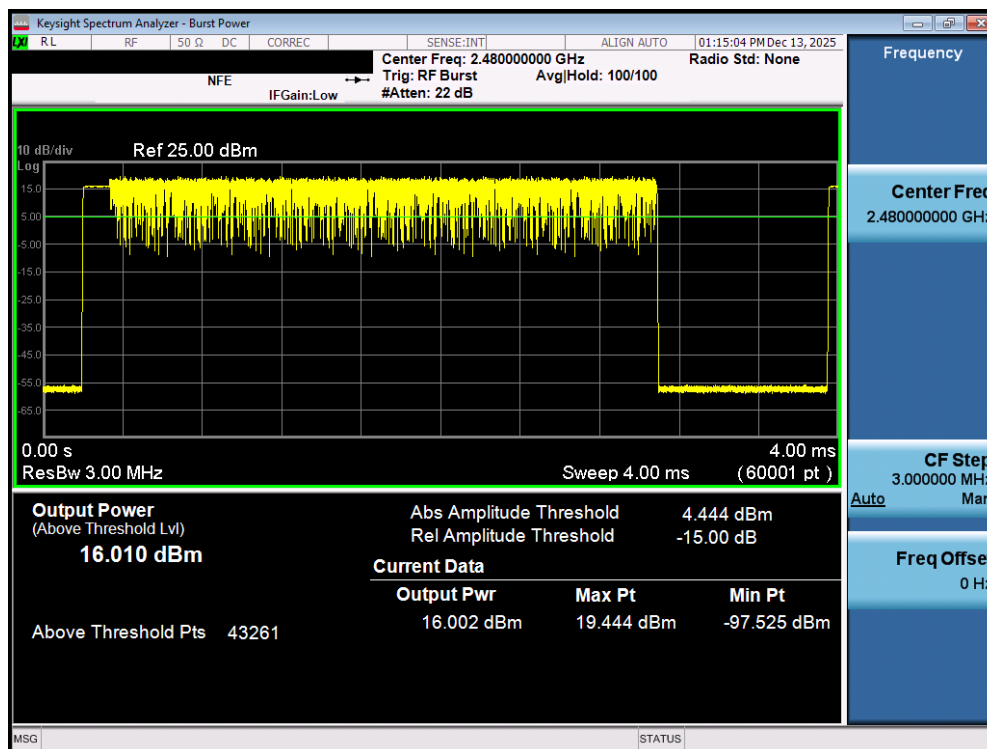


Plot 7-70. Average Conducted Power (3Mbps – Ch. 0) – SISO ANT2



Plot 7-71. Average Conducted Power (3Mbps – Ch. 39) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 54 of 139



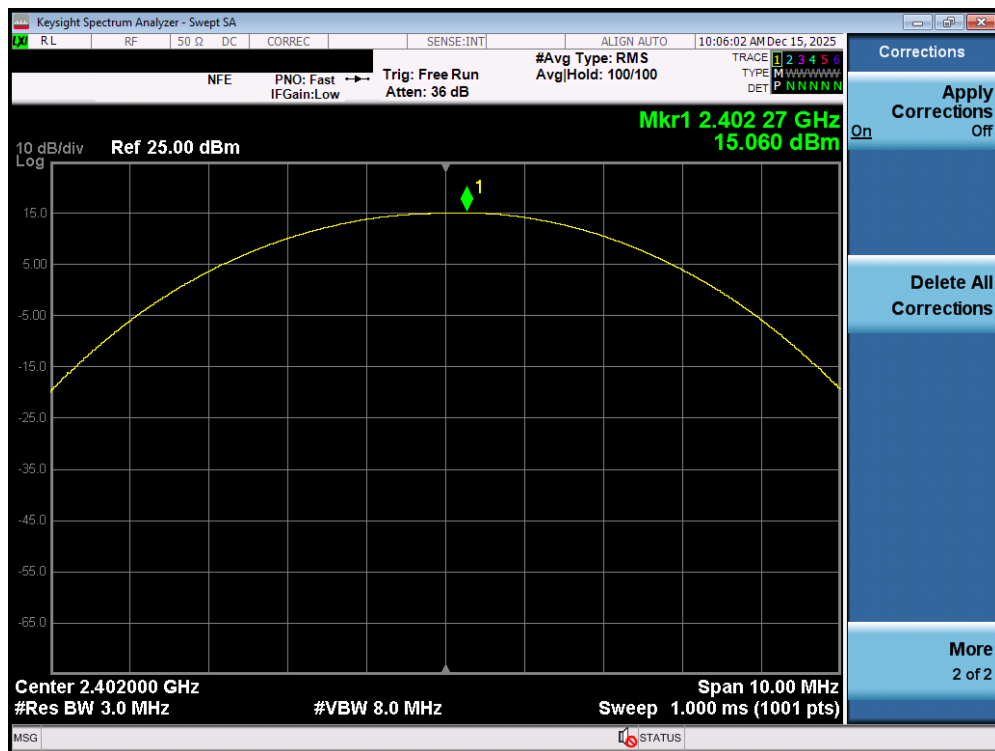
Plot 7-72. Average Conducted Power (3Mbps – Ch. 78) – SISO ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 55 of 139

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Peak Conducted Power -Chain 0		Peak Conducted Power -Chain 1		Peak Conducted Power - Dual		Avg Conducted Power -Chain 0		Avg Conducted Power -Chain 1		Avg Conducted Power - Dual		Ant. Gain [dBi]	EIRP [dBm]	Limit [dBm]	Margin [dB]
			[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]				
2402	1.0	0	15.06	32.063	14.18	26.164	17.65	58.226	14.75	29.862	13.89	24.487	17.35	54.350	5.63	23.28	36.02	-12.74
2441	1.0	39	15.96	39.464	15.76	37.653	18.87	77.117	15.73	37.426	15.52	35.652	18.64	73.078	5.63	24.50	36.02	-11.52
2480	1.0	78	14.50	28.158	14.47	27.958	17.49	56.115	14.22	26.422	14.17	26.131	17.21	52.553	5.63	23.12	36.02	-12.90
2402	2.0	0	15.09	32.263	12.60	18.214	17.03	50.476	10.74	11.858	10.05	10.113	13.42	21.971	5.63	22.66	36.02	-13.36
2441	2.0	39	15.97	39.564	13.80	24.010	18.03	63.574	11.81	15.154	11.22	13.250	14.53	28.404	5.63	23.66	36.02	-12.36
2480	2.0	78	14.53	28.399	12.84	19.240	16.78	47.639	10.67	11.663	10.31	10.737	13.50	22.400	5.63	22.41	36.02	-13.61
2402	3.0	0	15.09	32.248	13.13	20.554	17.23	52.802	10.79	11.988	10.09	10.212	13.46	22.200	5.63	22.85	36.02	-13.17
2441	3.0	39	15.96	39.446	14.30	26.884	18.22	66.330	11.87	15.385	11.30	13.483	14.60	28.868	5.63	23.84	36.02	-12.18
2480	3.0	78	14.50	28.190	13.18	20.797	16.90	48.987	10.72	11.814	10.38	10.908	13.56	22.722	5.63	22.53	36.02	-13.49

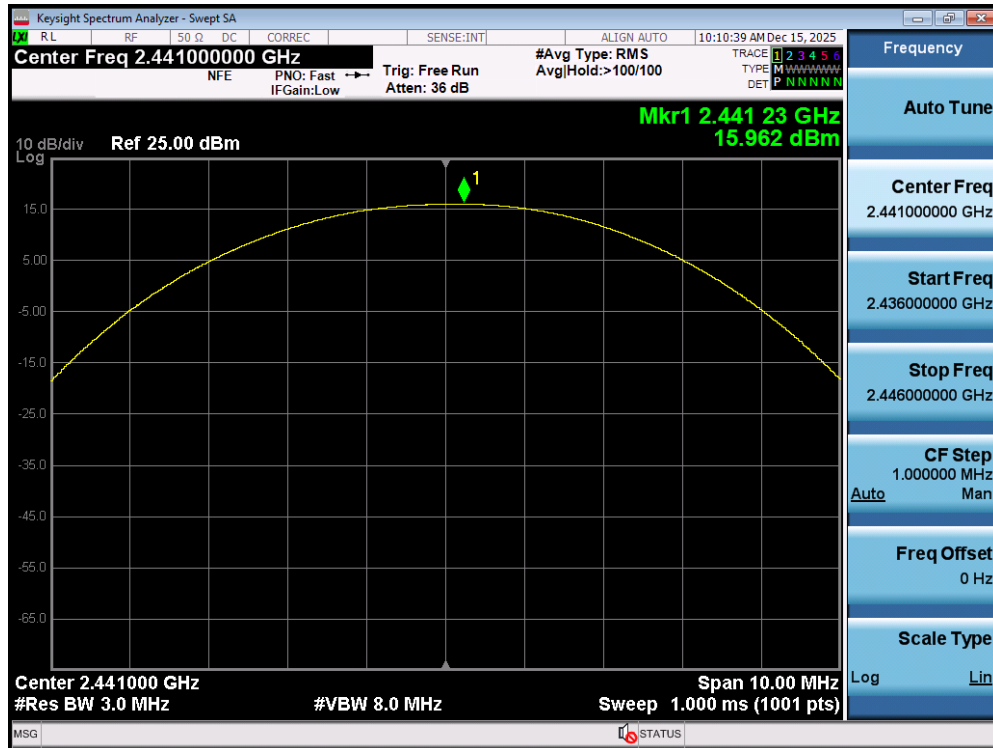
Table 7-8. Conducted Output Power Measurements – DUAL

DUAL ANT1

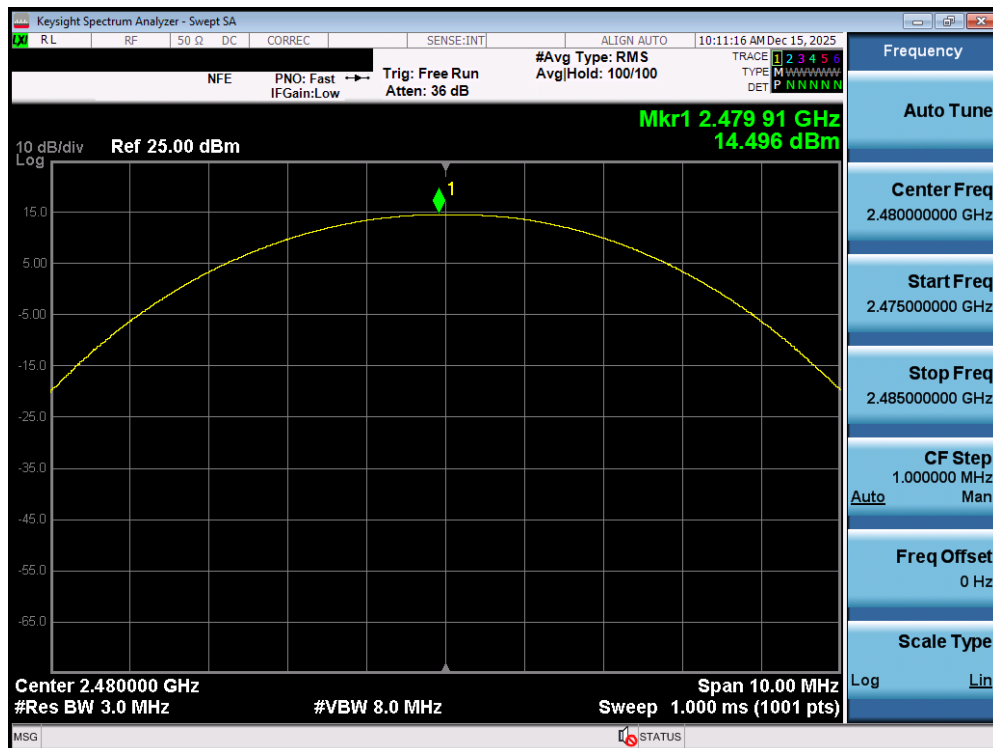


Plot 7-73. Peak Conducted Power (1Mbps – Ch. 0) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 56 of 139

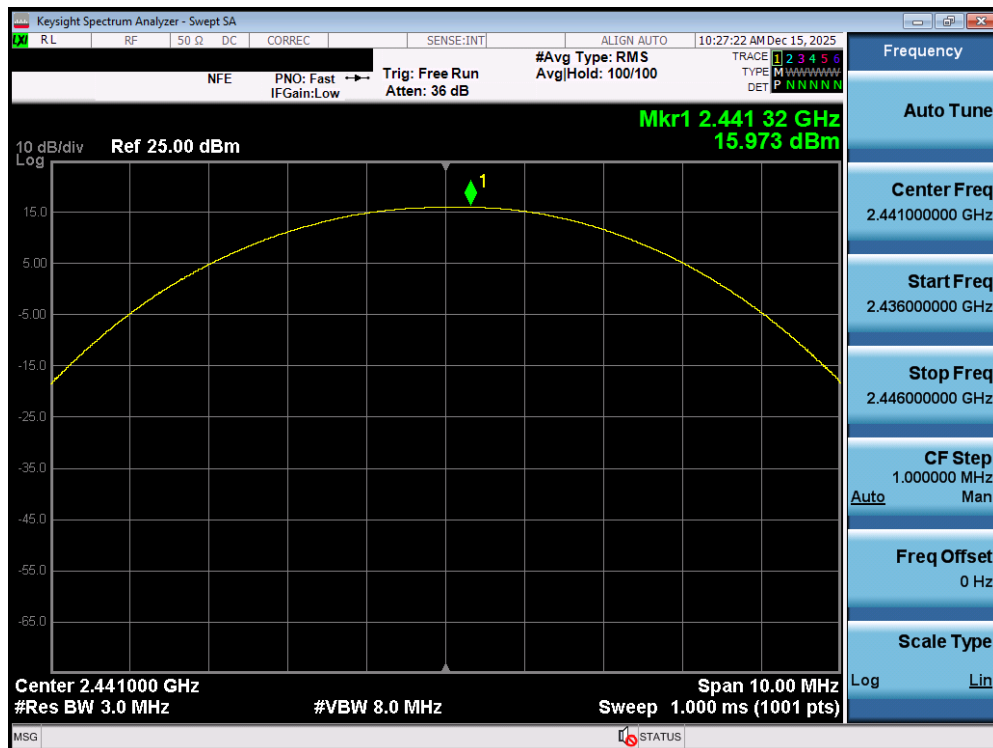
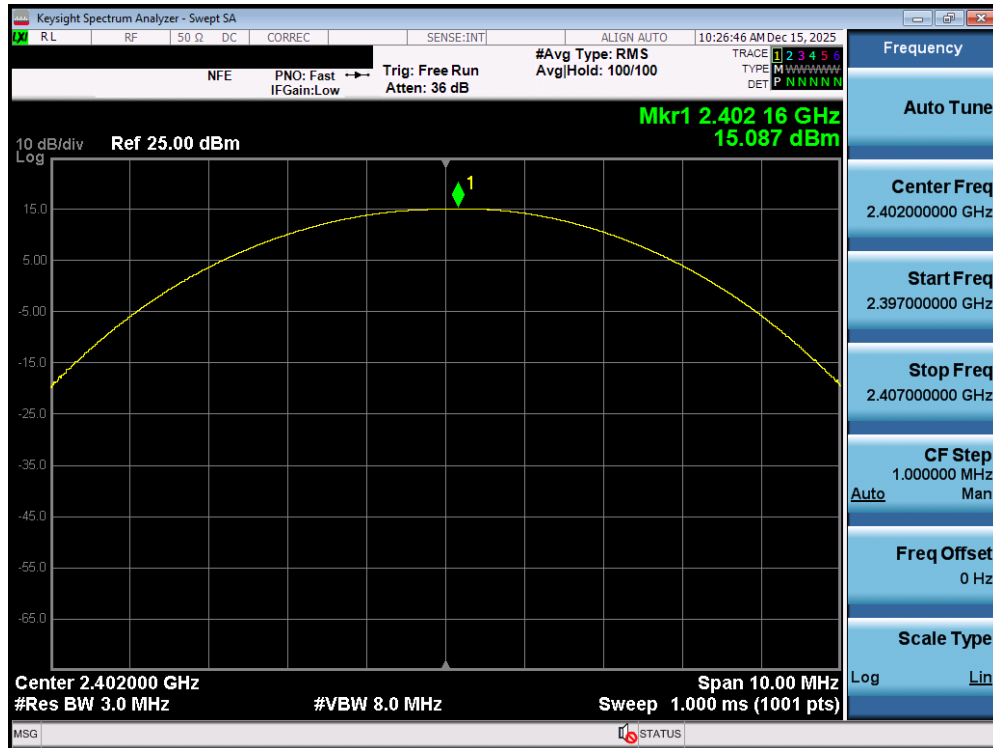


Plot 7-74. Peak Conducted Power (1Mbps - Ch. 39) – DUAL ANT1

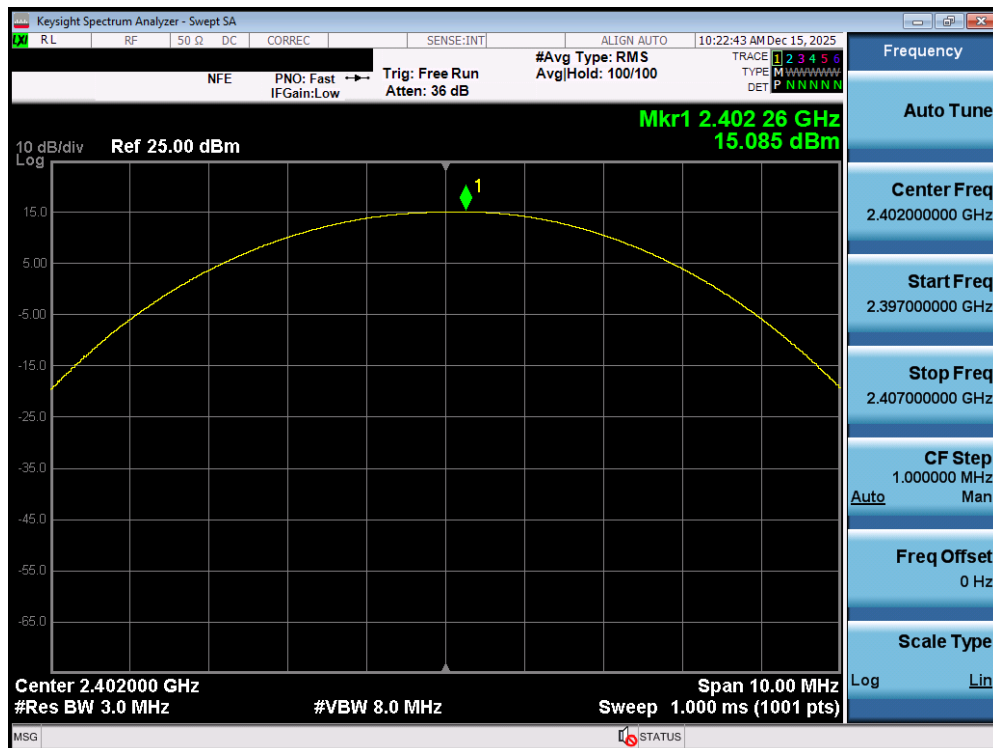
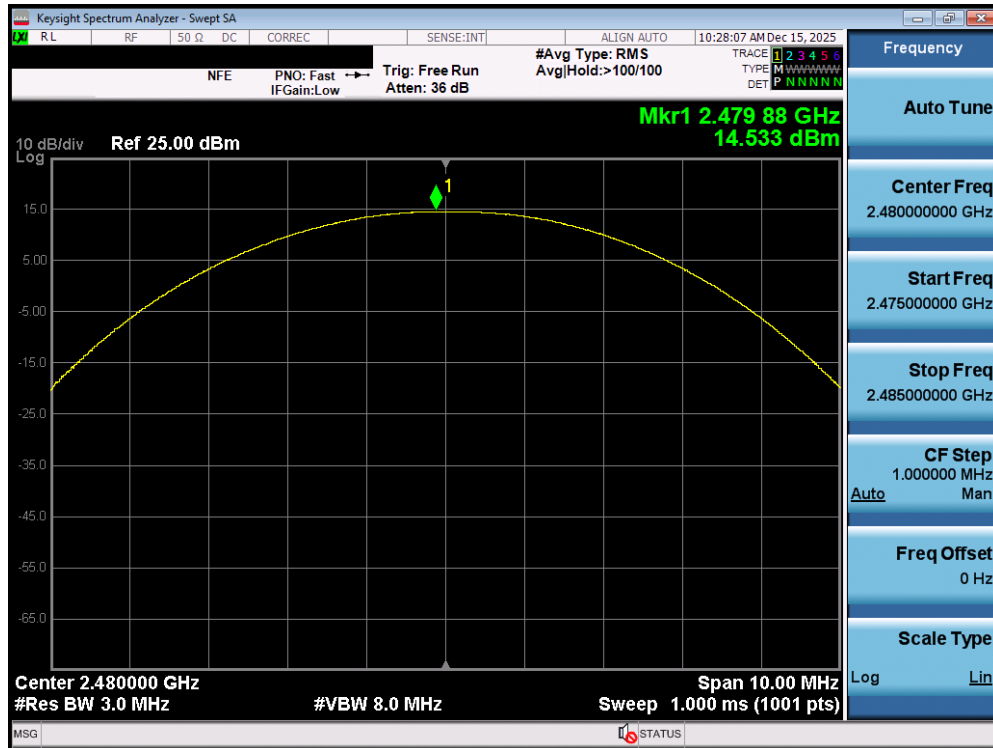


Plot 7-75. Peak Conducted Power (1Mbps - Ch. 78) – DUAL ANT1

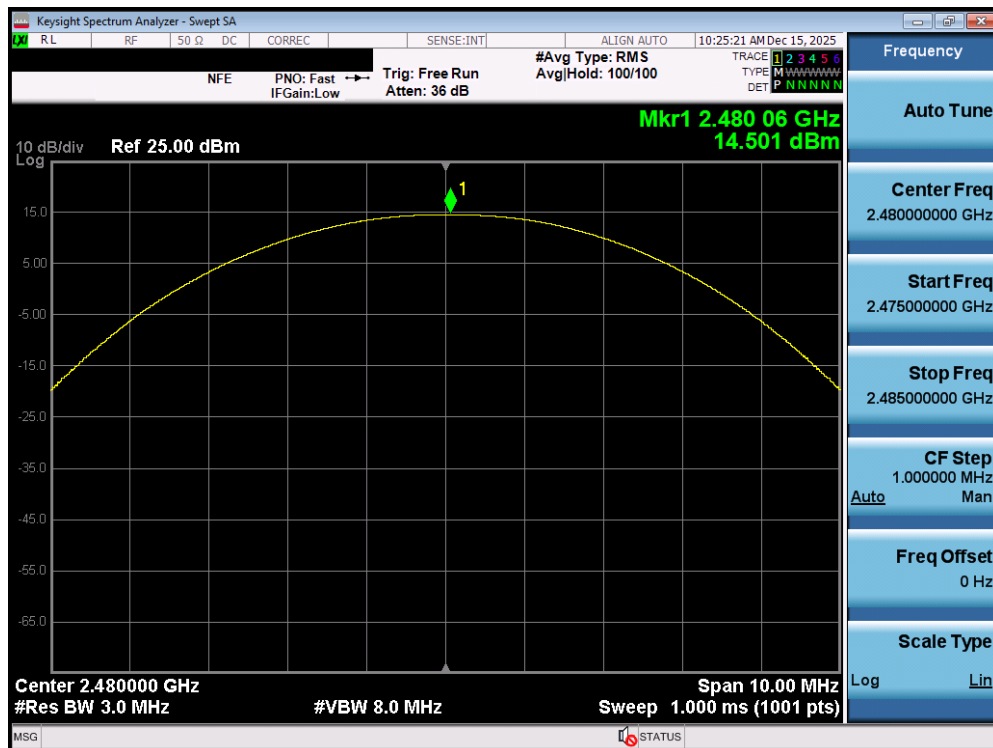
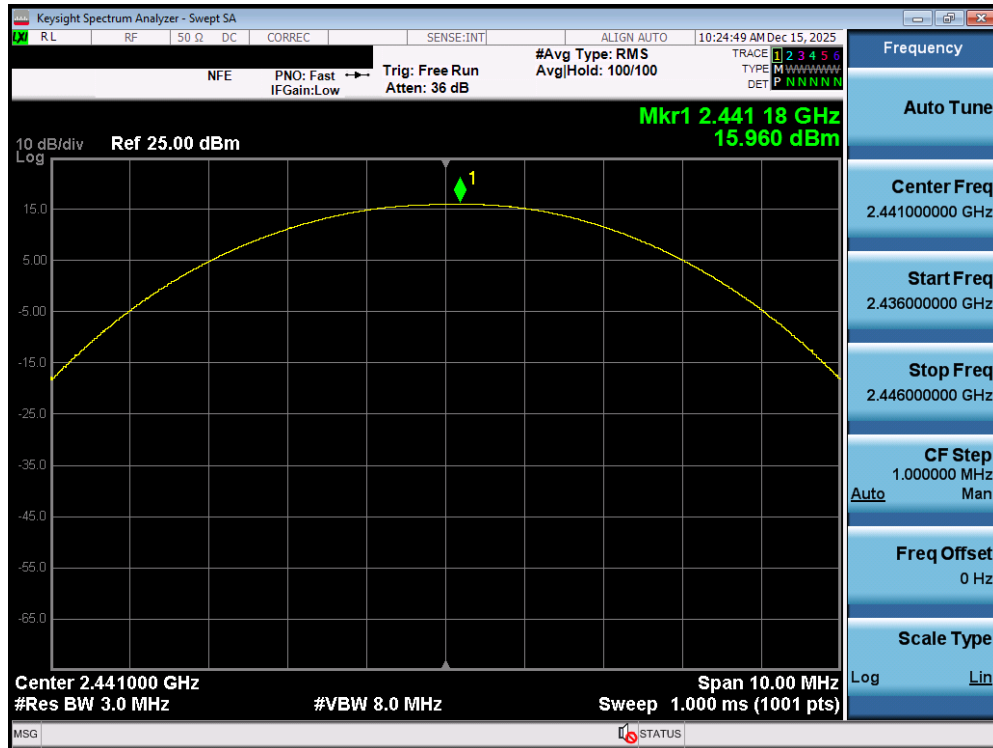
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 57 of 139



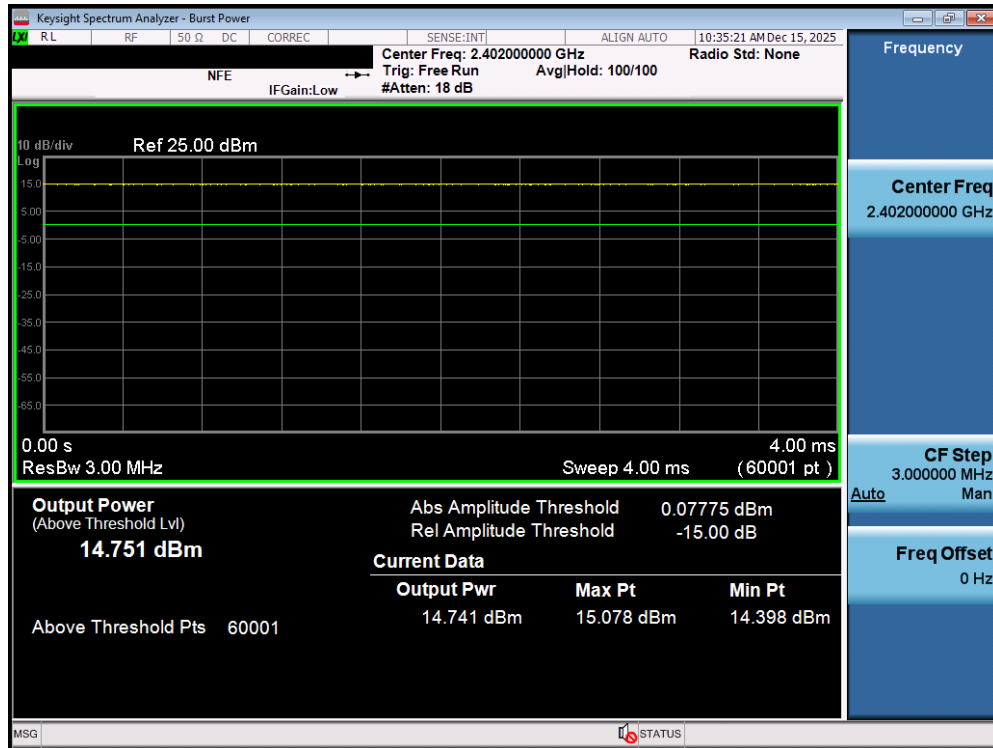
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 58 of 139



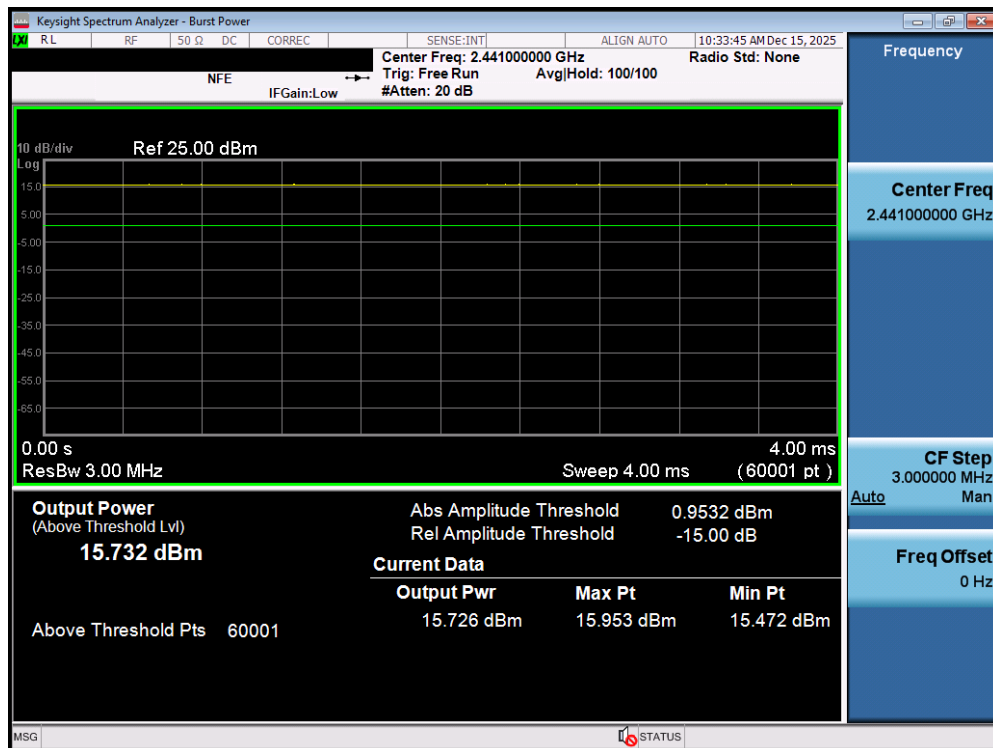
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 59 of 139



FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 60 of 139

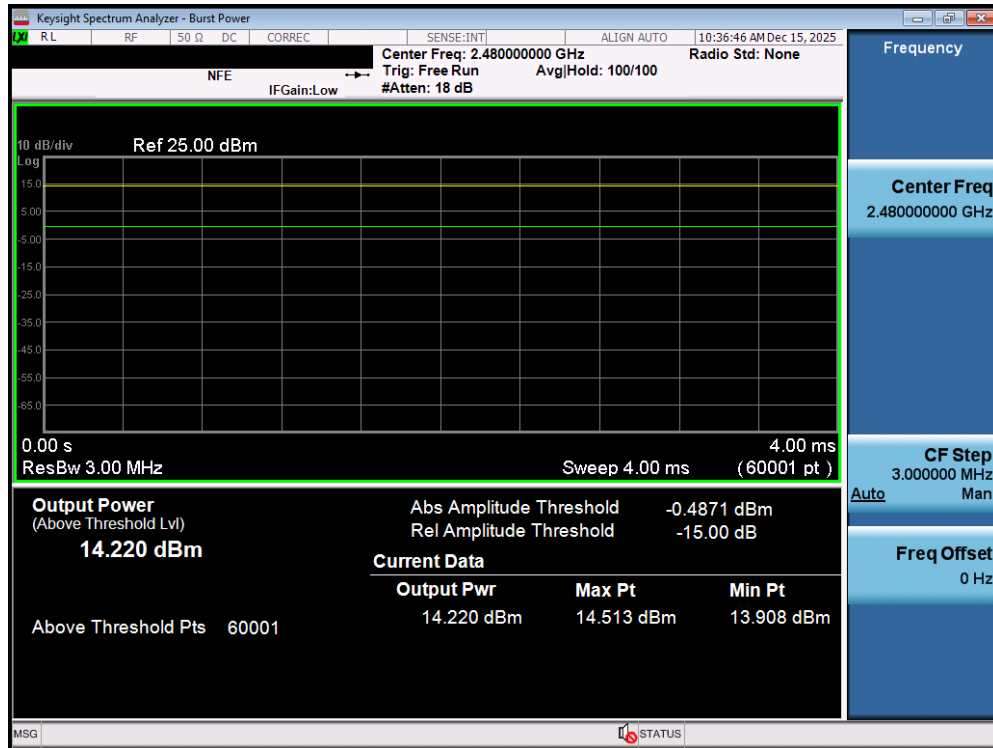


Plot 7-82. Average Conducted Power (1Mbps – Ch. 0) – DUAL ANT1

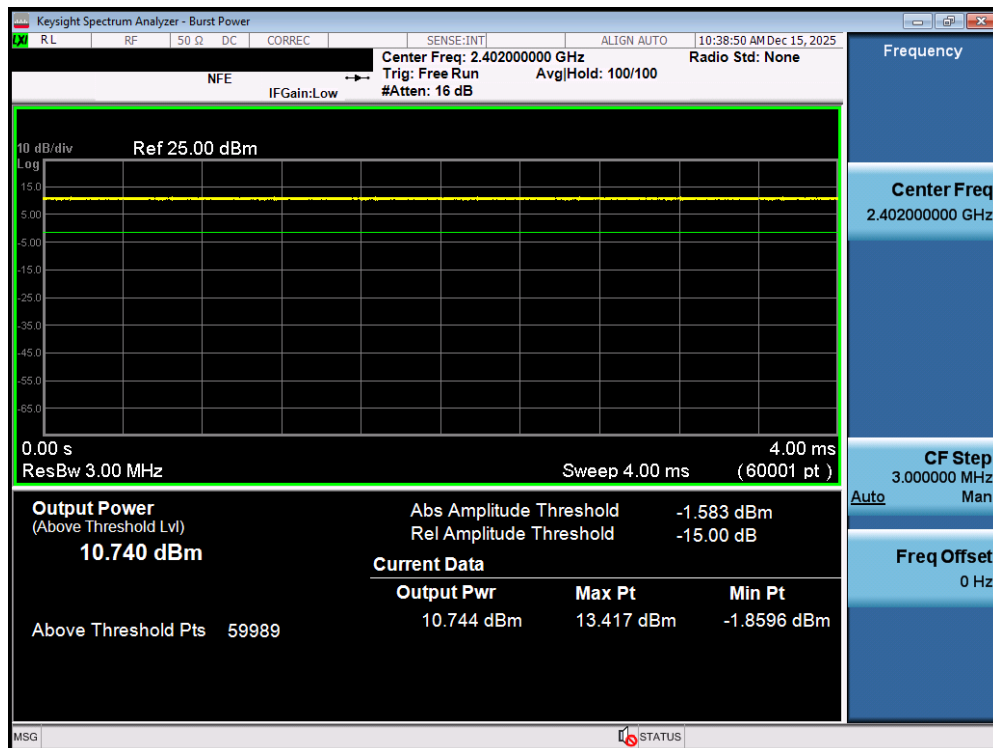


Plot 7-83. Average Conducted Power (1Mbps – Ch. 39) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 61 of 139

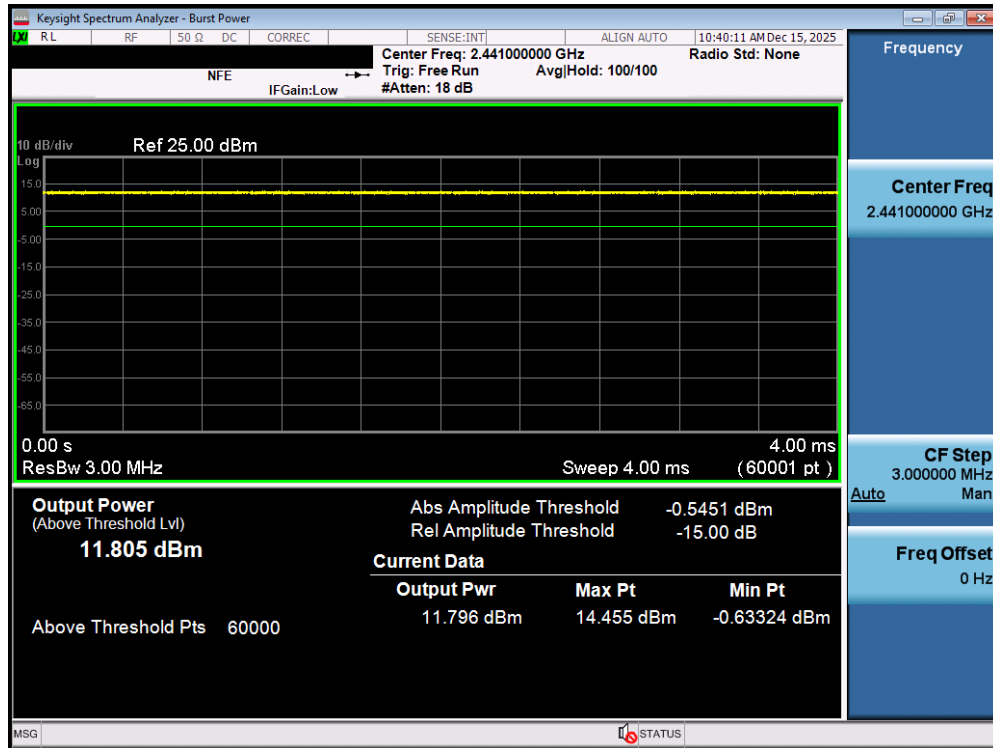


Plot 7-84. Average Conducted Power (1Mbps – Ch. 78) – DUAL ANT1

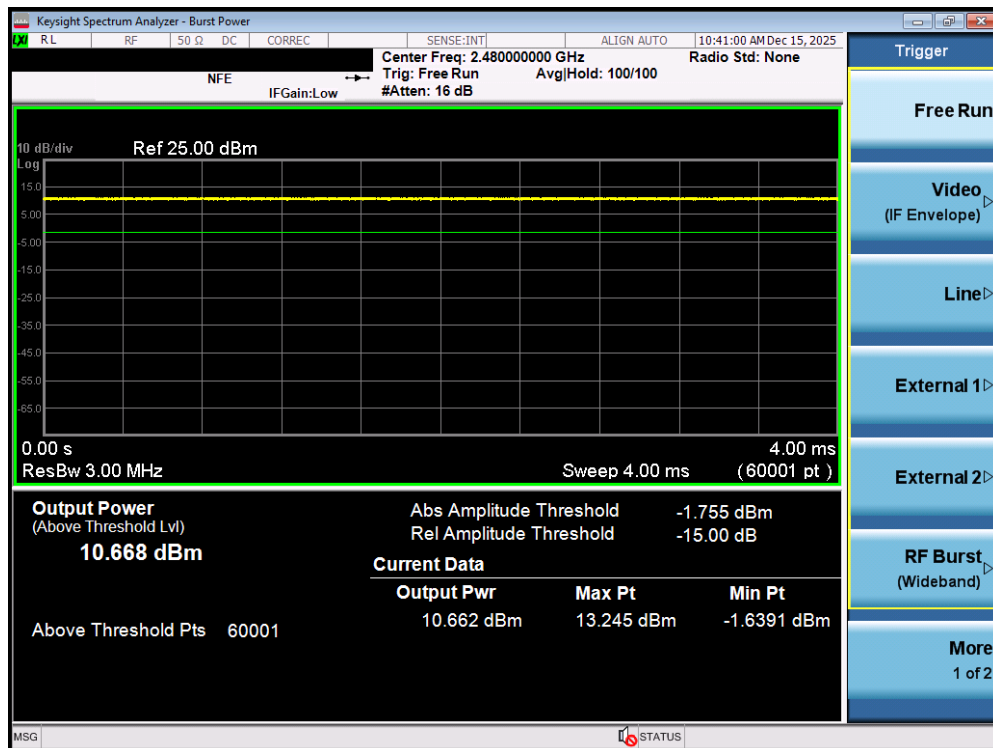


Plot 7-85. Average Conducted Power (2Mbps – Ch. 0) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 62 of 139

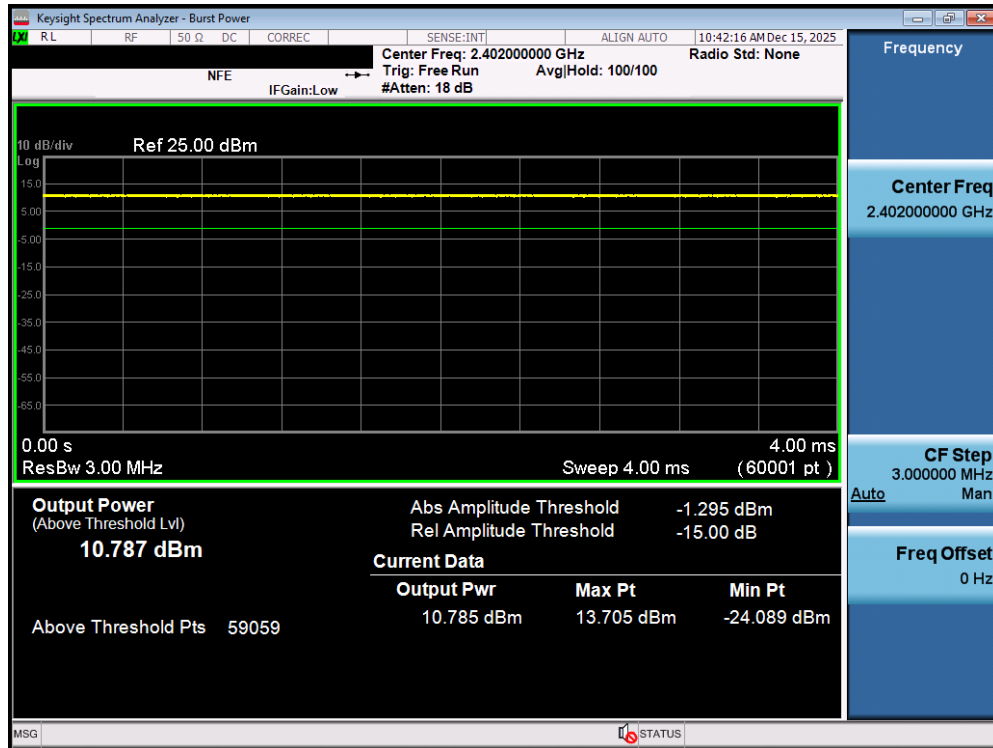


Plot 7-86. Average Conducted Power (2Mbps – Ch. 39) – DUAL ANT1

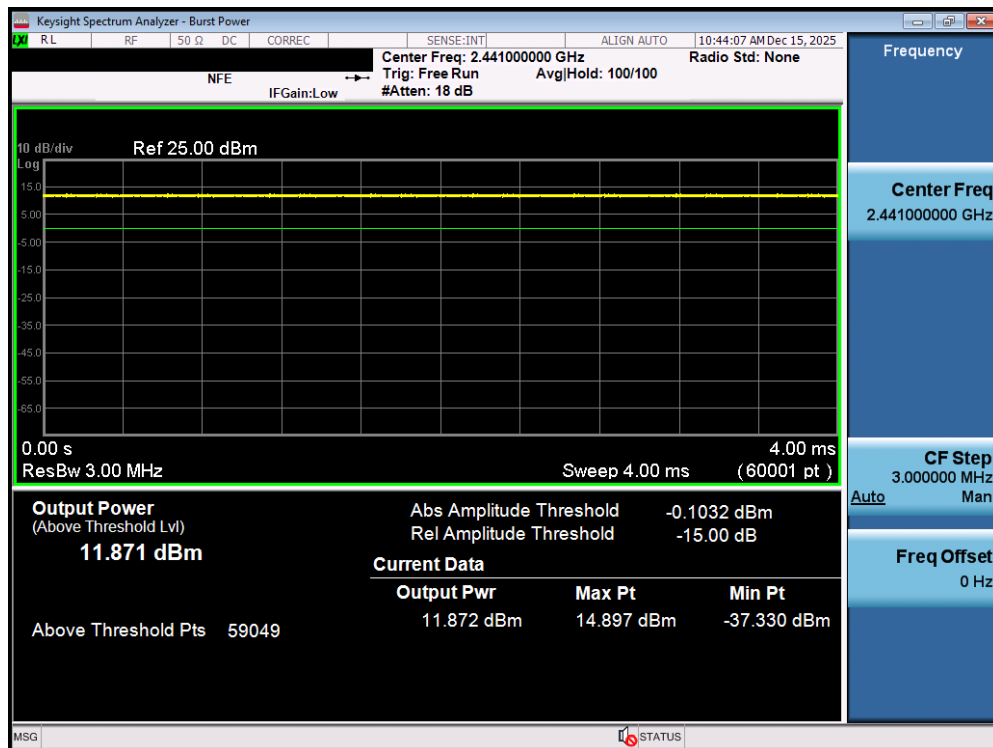


Plot 7-87. Average Conducted Power (2Mbps – Ch. 78) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 63 of 139

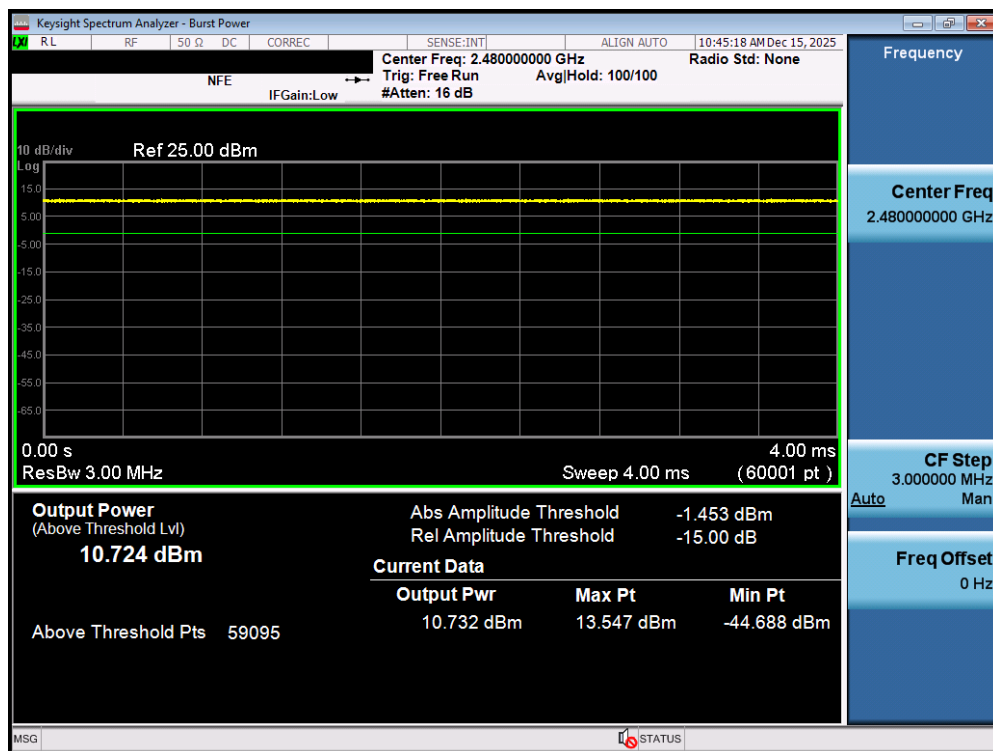


Plot 7-88. Average Conducted Power (3Mbps – Ch. 0) – DUAL ANT1



Plot 7-89. Average Conducted Power (3Mbps – Ch. 39) – DUAL ANT1

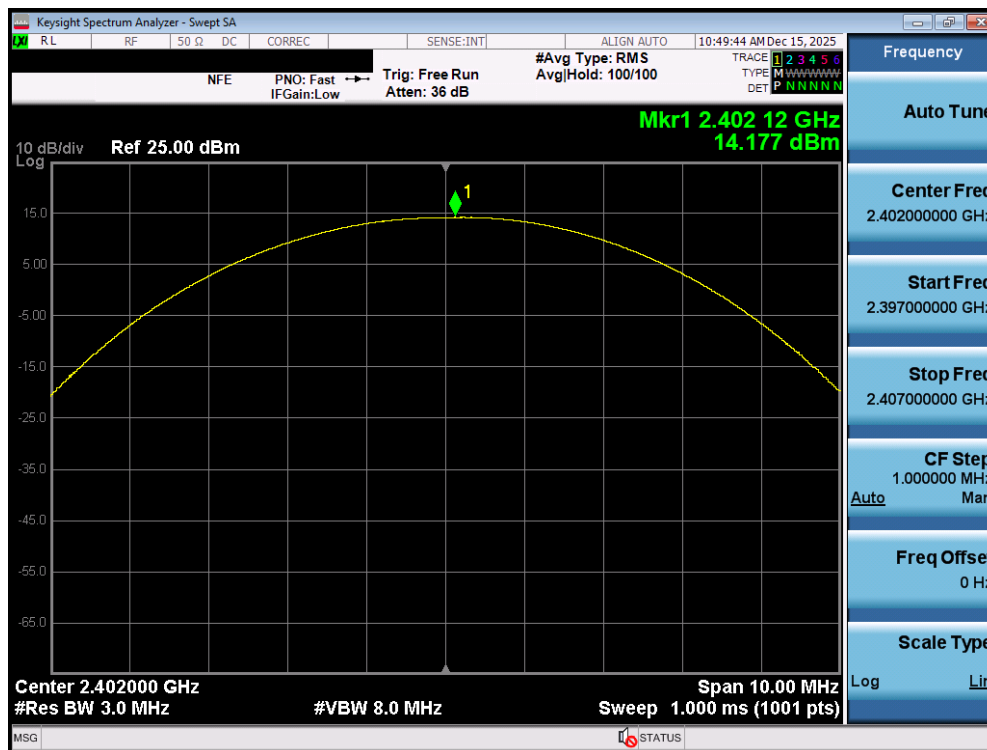
FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 64 of 139



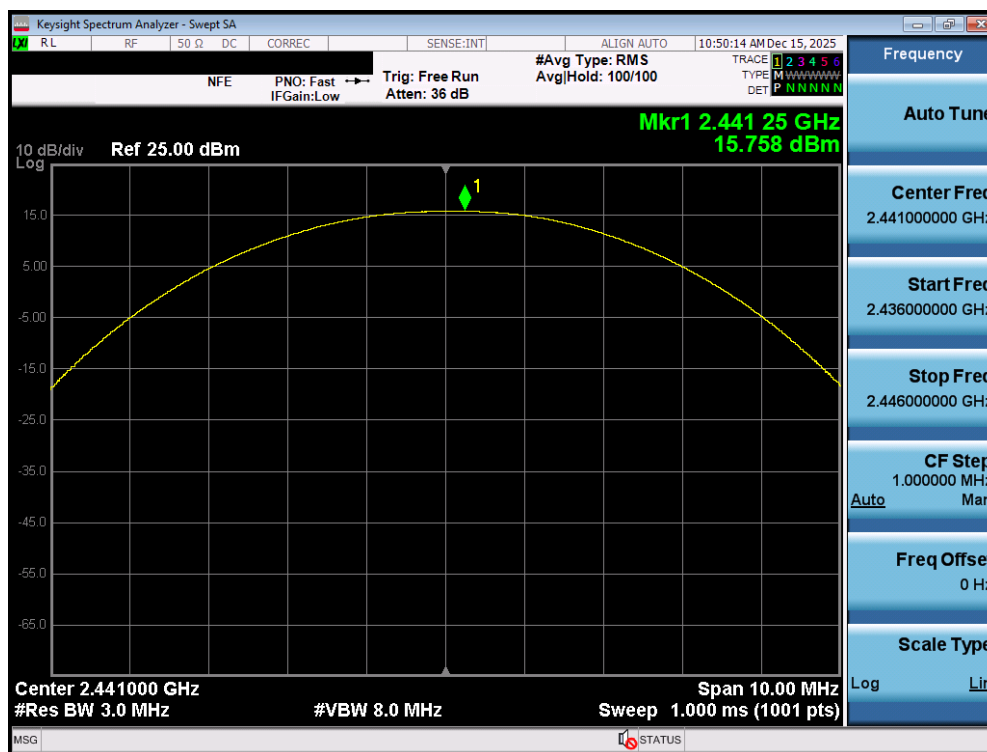
Plot 7-90. Average Conducted Power (3Mbps – Ch. 78) – DUAL ANT1

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 65 of 139

DUAL ANT2

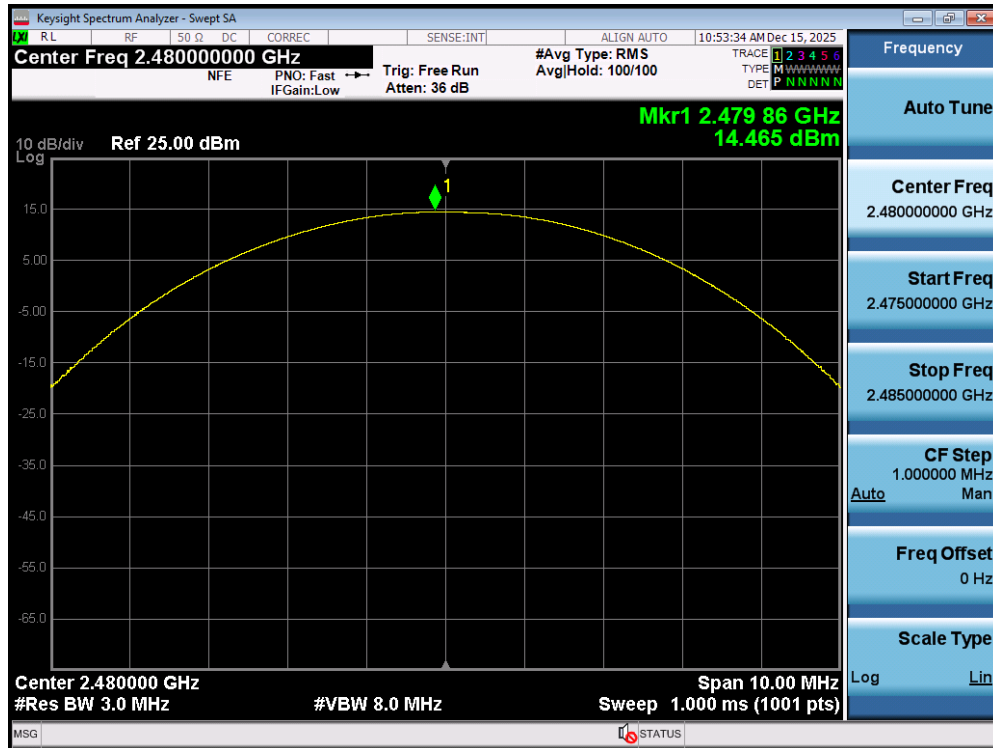


Plot 7-91. Peak Conducted Power (1Mbps - Ch. 0) - DUAL ANT2

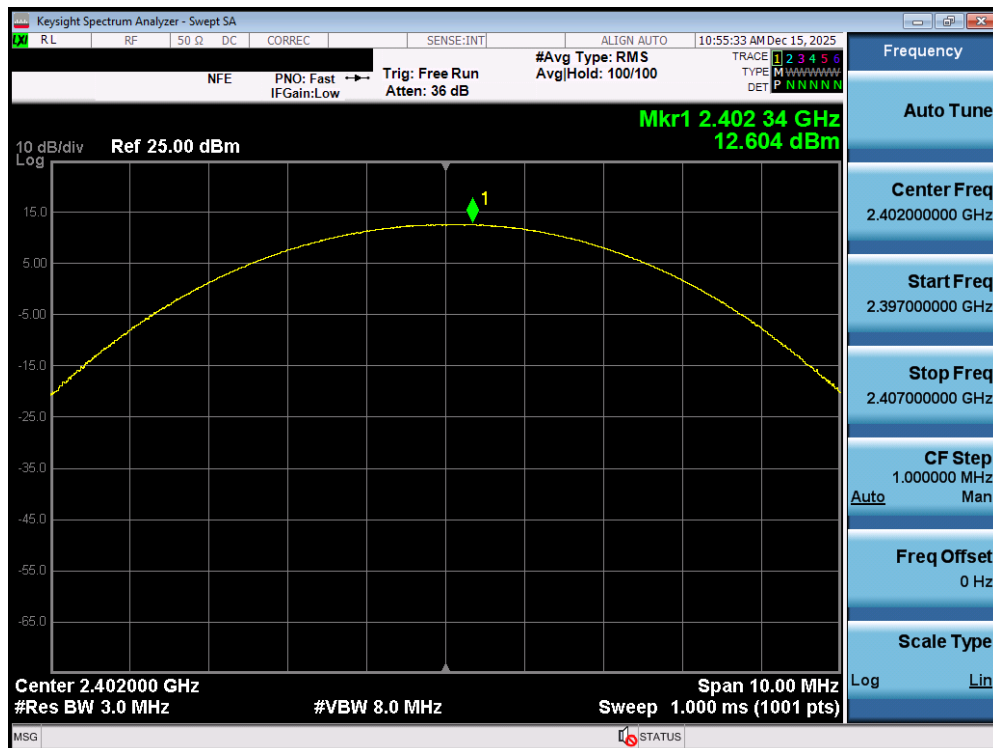


Plot 7-92. Peak Conducted Power (1Mbps - Ch. 39) - DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 66 of 139

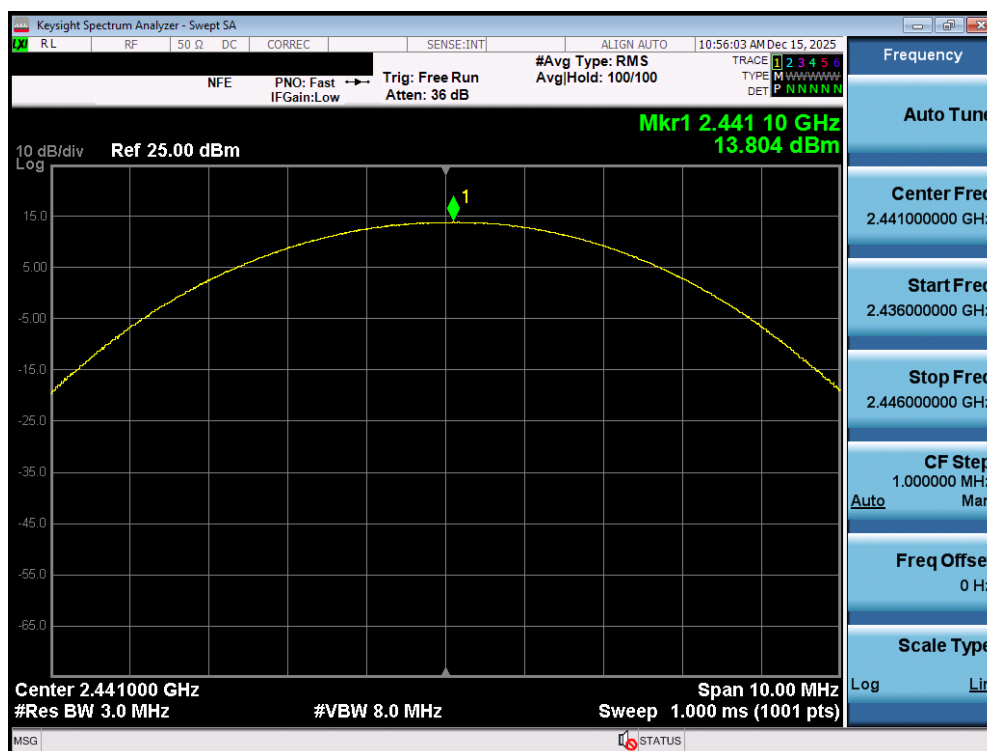


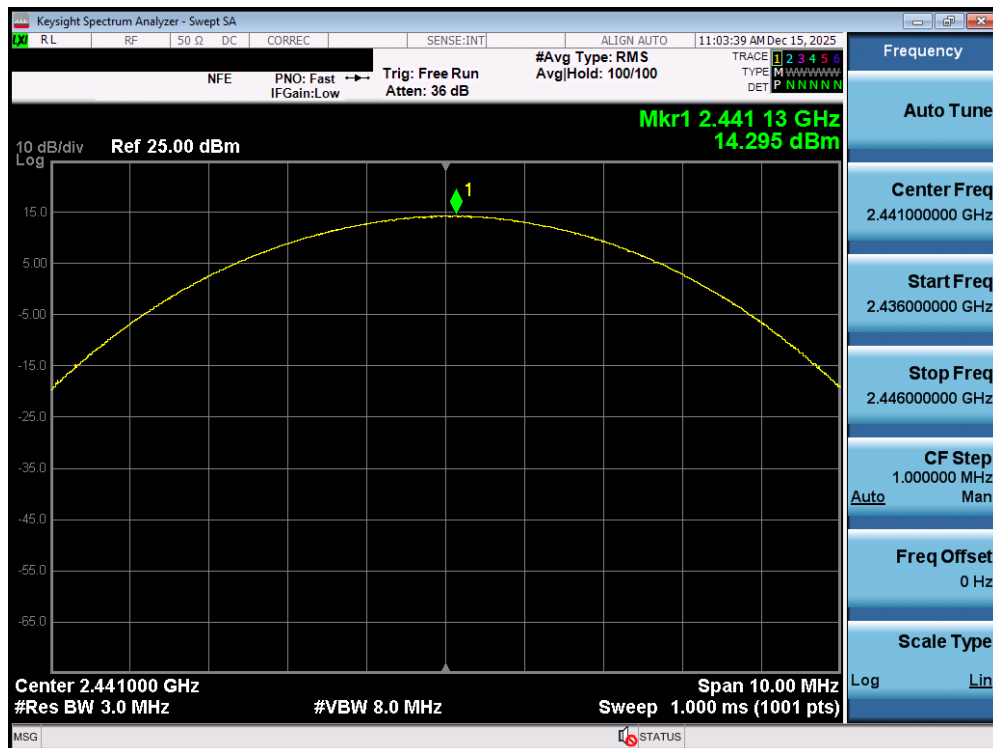
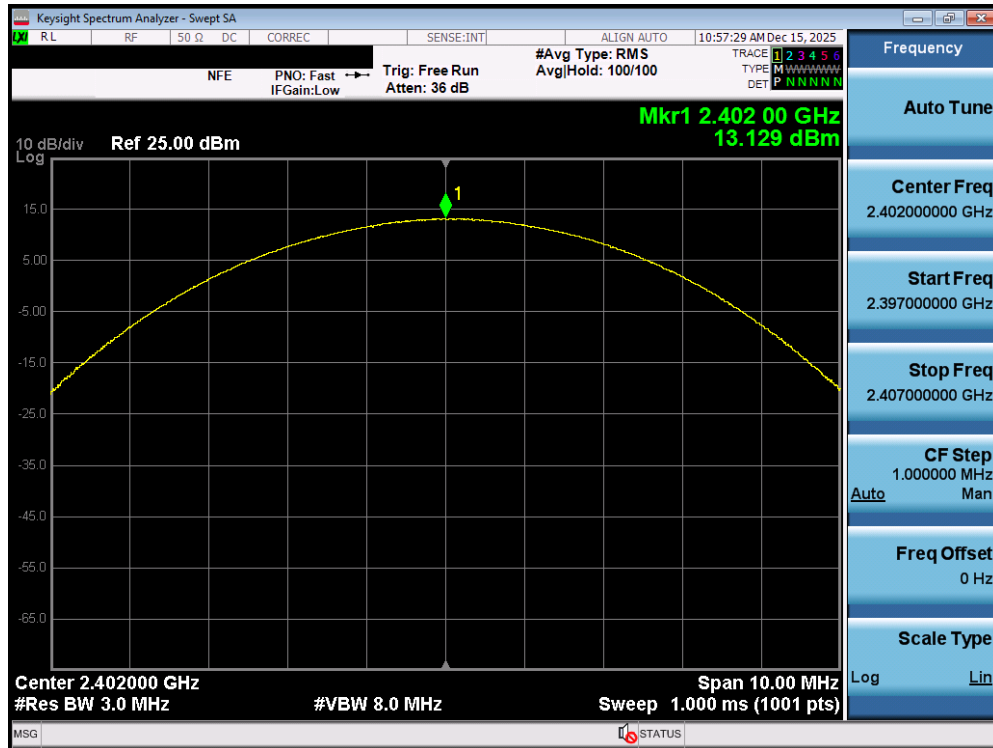
Plot 7-93. Peak Conducted Power (1Mbps - Ch. 78) – DUAL ANT2



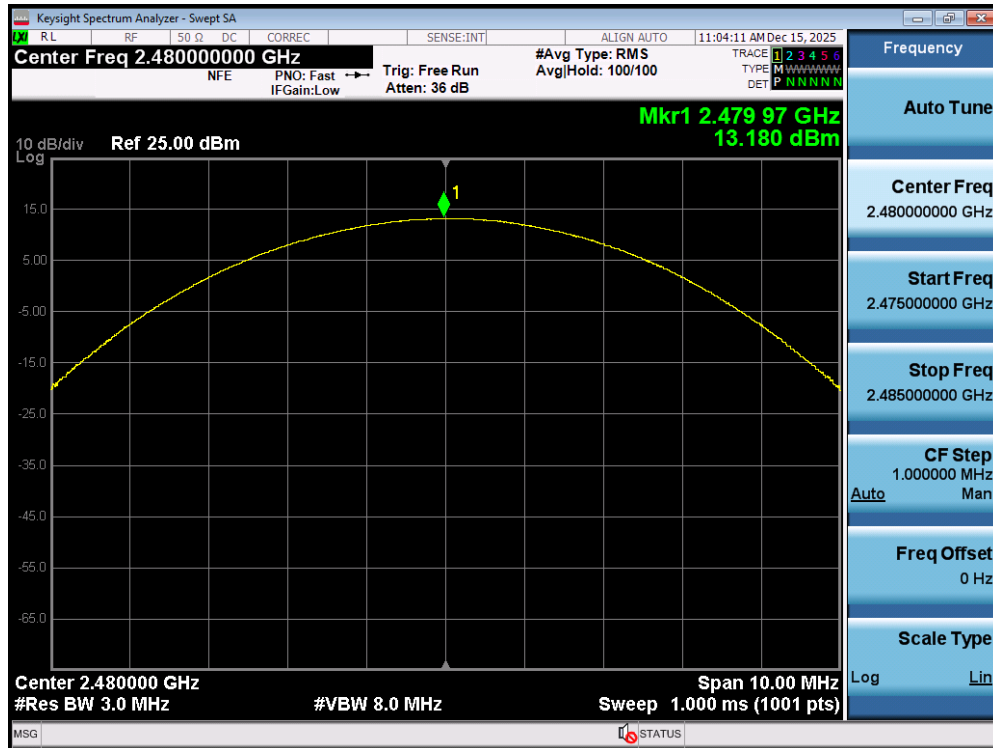
Plot 7-94. Peak Conducted Power (2Mbps - Ch. 0) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 67 of 139

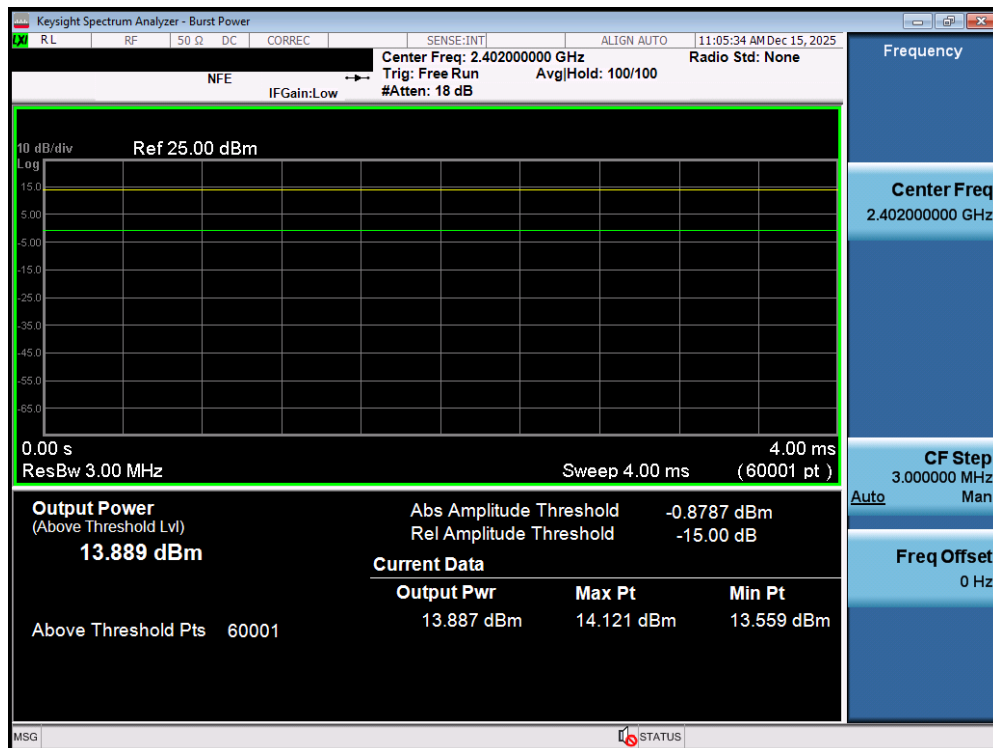




FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 69 of 139

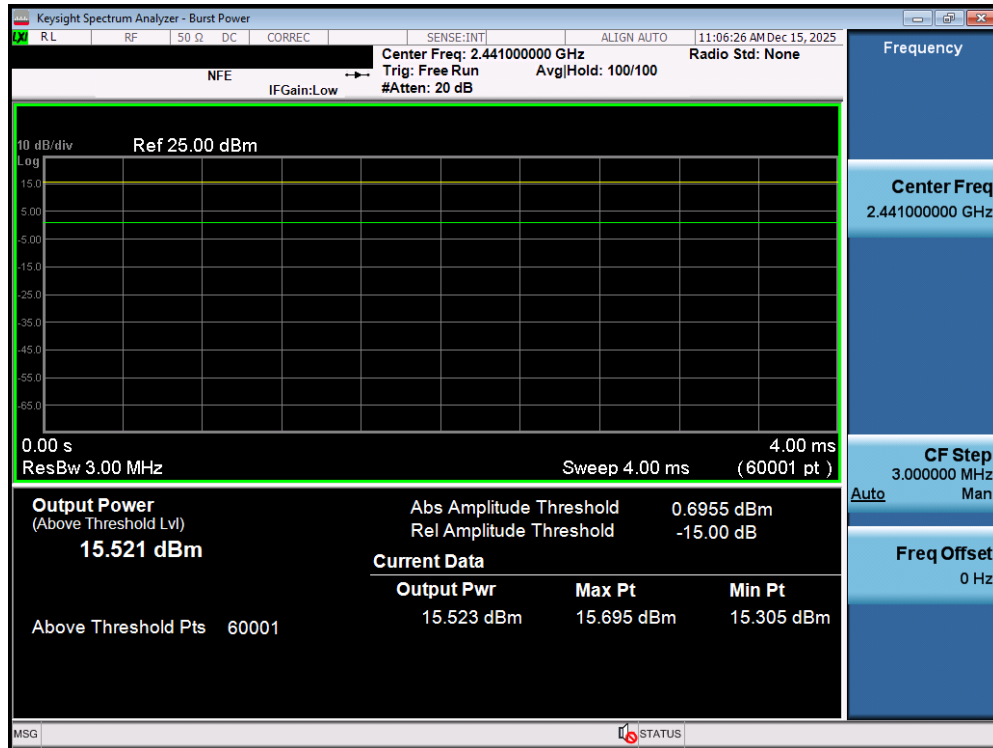


Plot 7-99. Peak Conducted Power (3Mbps - Ch. 78) - DUAL ANT2

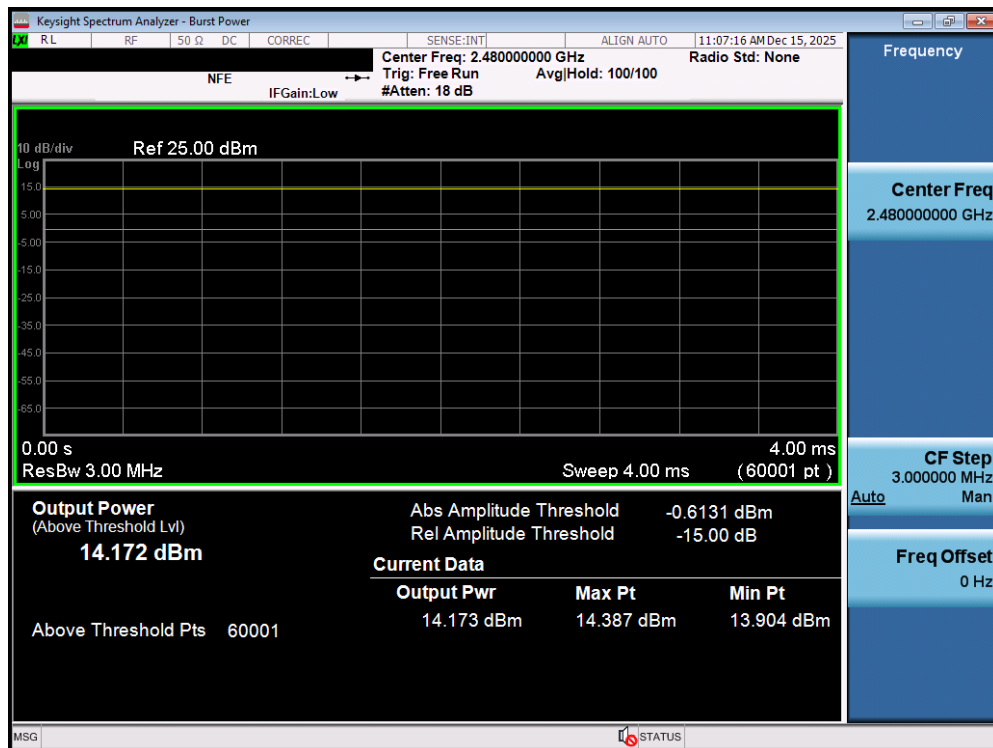


Plot 7-100. Average Conducted Power (1Mbps - Ch. 0) - DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 70 of 139

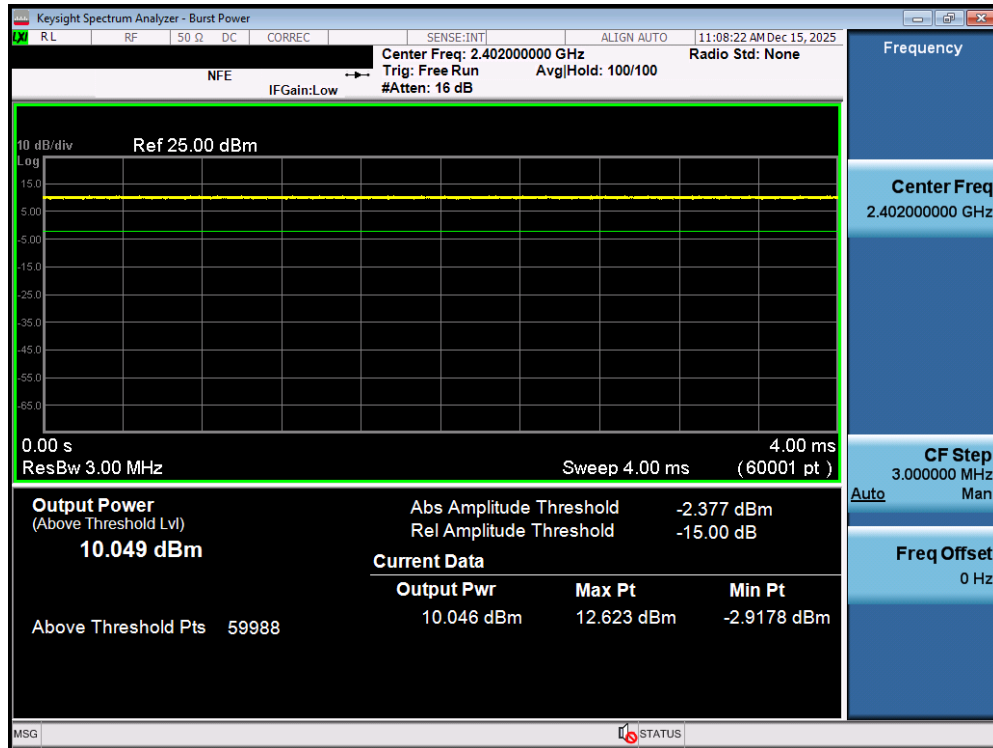


Plot 7-101. Average Conducted Power (1Mbps – Ch. 39) – DUAL ANT2

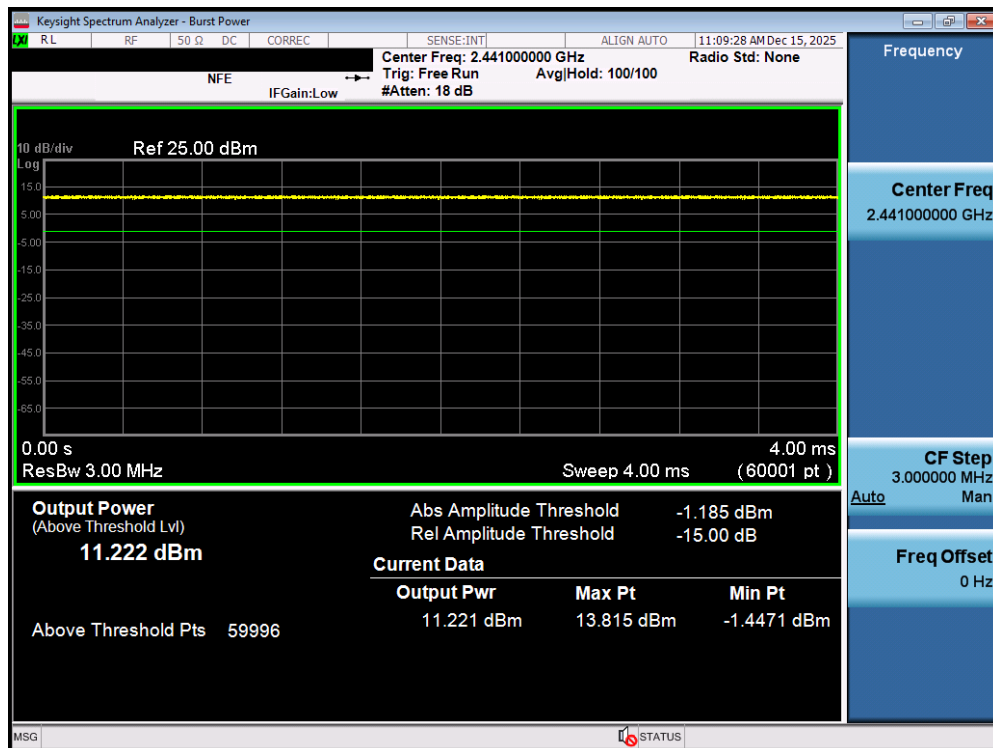


Plot 7-102. Average Conducted Power (1Mbps – Ch. 78) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 71 of 139



Plot 7-103. Average Conducted Power (2Mbps – Ch. 0) – DUAL ANT2



Plot 7-104. Average Conducted Power (2Mbps – Ch. 39) – DUAL ANT2

FCC ID: C3K2076 IC: 3048A-2076	MEASUREMENT REPORT (CLASS II PERMISSIVE CHANGE)		Approved by: Technical Manager
Test Report S/N: 1M2511240098-05-R3.C3K	Test Dates: 12/16/2025 - 02/02/2026	EUT Type: Portable Computing Device	Page 72 of 139