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August 18, 2026

Lutron Electronics
Alina Shirley
7200 Suter Rd
Coopersburg, PA 18036

Dear Alina Shirley,

Enclosed is the Electromagnetic Compatibility test report for compliance testing of the Lutron Electronics, Wireless Interface as tested to the requirements of Title 47 of the CFR, Ch. 1 (10-1-06 ed.), Part 15 Subpart C for Intentional Radiators and RSS-247 for DTS devices, Issue 4, July 2025 for Intentional Radiators.

Thank you for using the services of Eurofins Electrical and Electronic Testing NA, Inc. Please contact me if you have any questions regarding these results or if Eurofins E&E can be of further service to you.

Sincerely,

Donald Salguero

EMC Department
Eurofins Electrical and Electronic Testing NA, Inc.

Reference: (\Lutron Electronics\EMC141913R3-FCC_RSS 247)

ACCREDITED
TESTING CERT #0591.01

Electromagnetic Compatibility Criteria Test Report

for the

Lutron Electronics
Wireless Interface

Tested under
the FCC Certification Rules
contained in
15.247 Subpart C for Intentional Radiators

and

RSS-247 for DTS devices, Issue 4, July 2025 for Intentional Radiators

Report: EMC141913R3-FCC_RSS 247

August 18, 2026

Prepared For:

Lutron Electronics
7200 Suter Rd
Coopersburg, PA 18036

Prepared By:
Eurofins Electrical and Electronic Testing NA, Inc.
914 W. Patapsco Ave.
Baltimore, MD 21230

Electromagnetic Compatibility Criteria
Test Report

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Donald Salguero
EMC Laboratory Engineer

Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements.

Elmer Rodriguez
Manager, Electromagnetic Compatibility Lab

Report Status Sheet

Revision	Report Date	Reason for Revision
Ø	June 12, 2026	Initial Issue.
1	June 26, 2026	EUT List Table Updated, Equipment Details Table Updated, Test Dates Fixed.
2	July 22, 2026	Simultaneous Transmissions Table Results Added
3	August 18, 2026	Updated Radiated Emissions Data Tables, Updated PSD Results, Fixed ANSI C63.10 References, Fixed Measurement Uncertainty Tables.

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Executive Summary

A. Purpose of Test

An EMC evaluation was performed to determine compliance of the Lutron Electronics Wireless Interface, with the requirements of Part 15, §15.247 and RSS-247 for DTS devices, Issue 4, July 2025 for Intentional Radiators. All references are to the most current version of Title 47 of the Code of Federal Regulations in effect. In accordance with §2.1033, the following data is presented in support of the Certification of the Wireless Interface. Lutron Electronics should retain a copy of this document which should be kept on file for at least two years after the manufacturing of the Wireless Interface, has been **permanently** discontinued.

B. Executive Summary

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, §15.247 and RSS-247 for DTS devices, Issue 4, July 2025 for Intentional Radiators, in accordance with Lutron Electronics, purchase order number 4500052564. All tests were conducted using measurement procedure ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024.

FCC Reference 47 CFR Part 15.247	IC Reference RSS-247 Issue 4, 2025; RSS-GEN Issue 5, 2021	Description	Compliance
Title 47 of the CFR, Part 15 §15.203	RSS-GEN (6.8)	Antenna Requirement	Compliant
Title 47 of the CFR, Part 15 §15.207(a)	RSS-GEN (8.8)	Conducted Emission Limits	Compliant
Title 47 of the CFR, Part 15 §15.247(a)(2)	RSS-247 (6.31)	6dB Occupied Bandwidth	Compliant
-	RSS-GEN(6.7)	99% Occupied Bandwidth	Compliant
Title 47 of the CFR, Part 15 §15.247(b)(3)	RSS-247(6.3.2)	Peak Power Output	Compliant
Title 47 of the CFR, Part 15 §15.247(d)	RSS-247(6.6)	Spurious Emissions in Non-restricted Bands	Compliant
Title 47 of the CFR, Part 15 §15.247(d); §15.209; §15.205	RSS-GEN (6.13), (8.9), & (8.10)	Radiated Spurious Emissions Requirements	Compliant
Title 47 of the CFR, Part 15; §15.247(e)	RSS-247(6.3.1)	Peak Power Spectral Density	Compliant
ANSI C63.10; Section 11.6	ANSI C63.10; Section 11.6	Duty Cycle	Completed
Title 47 of the CFR, Part 15 §15.247(i)	-	RF Human Exposure, SAR Exclusion	Compliant
-	RSS-102(3.2)	RF Exposure Evaluation of Devices	Compliant

Table 1. Executive Summary

Equipment Configuration

A. Overview

Eurofins Electrical and Electronic Testing NA, Inc. was contracted by Lutron Electronics to perform testing on the Wireless Interface, under Lutron Electronics's purchase order number 4500052564,

This document describes the test setups, test methods, required test equipment, and the test limit criteria used to perform compliance testing of the Lutron Electronics, Wireless Interface.

The results obtained relate only to the item(s) tested.

Model(s) Tested:	RR-PROC3-APP	
Model(s) Covered:	RR-PROC3-APP, L-BDG3	
EUT Specifications:	Primary Power: 5VDC	
	FCC ID: JPZ0161 IC ID: 2851A- JPZ0161	
	Type of Modulations:	O-QPSK
	Equipment Code:	DTS
	Peak RF Output Power:	20.97 dBm; 125 mW
	EUT Frequency Ranges:	2405-2480 MHz
	Antenna Type:	Integral (Inverted F)
	Antenna Gain:	1.51 dBi
Analysis:	The results obtained relate only to the item(s) tested.	
Environmental Test Conditions:	Temperature: 15-35º C	
	Relative Humidity: 30-60%	
	Barometric Pressure: 860-1060 mbar	
Evaluated by:	Donald Salguero	
Report Date(s):	August 18, 2026	

Table 2. EUT Summary Table

References

CFR 47, Part 15, Subpart C	Federal Communication Commission, Code of Federal Regulations, Title 47, Part 15: General Rules and Regulations, Allocation, Assignment, and Use of Radio Frequencies
RSS-247, Issue 4, July 2025	Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands
RSS-GEN, Issue 5, February 2021	General Requirements for Compliance of Radio Apparatus
RSS-102, Issue 6, December 2023	Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)
ISO/IEC 17025:2017	General Requirements for the Competence of Testing and Calibration Laboratories
ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 v05r02	Guidance For Performing Compliance Measurements On Digital Transmission Systems (DTS) Operating Under Section 15.247

Table 3. References

B. Test Site

All testing was performed at Eurofins Electrical and Electronic Testing NA, Inc., 914 West Patapsco Avenue, Baltimore, MD 21230. All equipment used in making physical determinations is accurate and bears recent traceability to the National Institute of Standards and Technology. Eurofins Electrical and Electronic Testing NA, Inc. has been accredited by the American Association for Laboratory Accreditation (A2LA) (Certificate #: 0591.01) in accordance with ISO/IEC 17025:2017.

The CAB identifier is US0109.

C. Measurement Uncertainty

Test Method	Typical Expanded Uncertainty	K	Confidence Level
Radiated Emissions, (30 MHz – 1 GHz)	±4.58	2	95%
Radiated Emissions, (1 GHz – 18 GHz)	±4.99	2	95%
Conducted Emission Voltage	±3.33	2	95%
RF Frequencies	±4.52 Hz	2	95%
RF Power Conducted Emissions	±2.32 dB	2	95%
RF Power Conducted Spurious Emissions	±2.25 dB	2	95%
RF Power Radiated Emissions	±3.01 dB	2	95%

Table 4. Uncertainty Calculations Summary

Equipment Configuration

Name of EUT/Model:	Wireless Interface (L-BDG3, RR-PROC3-APP)
Description of EUT and Intended Use:	The EUT is an Ethernet hub that includes wireless control and is intended for lighting control applications. It is powered by a plug-in power supply. Both models are electrically identical with model number differences for marketing purposes.
Selected Operation Mode(s):	Rx State for unintentional conducted and radiated emissions of a digital device Transmitting maximum operational duty cycle for conducted emissions of an intentional transmitter and duty cycle Constant Transmission for spurious and intentional transmissions Normal Operation for SubGHz cease of transmission
Rational for the selection of the Operation Mode(s):	Real world applications with worst case transmission required per the standard for the specific test
Susceptibility Criteria:	No immunity testing
Monitoring Method(s):	No immunity testing
Emissions Class Declaration:	Class B
Configurations:	DUT plus power supply
Rated Power Input	
Input Voltage Range:	5VDC
AC or DC:	DC
Voltage Frequency:	N/A
Number of Phases:	N/A
Current:	500mA
Uses an external AC/DC Adapter:	True
Manufacturer:	Lutron
Model #:	T-5DC-USBC-WH
Part #:	N/A
Serial #:	V261800008A1
The EUT can be battery powered:	False
Power Input Under Test	
Input Voltage:	120V
Frequency:	60Hz
Physical Description	
EUT Arrangement:	Table Top

System with Multiple Chassis?	False
Size (HxWxD) inches:	1.2 in x 2.75 in x 2.75 in
Weight (lbs):	< 1lb
Highest Internal Frequency (MHz):	4.96 GHz – Internal VCO for 2.4GHz 5.24 GHz – Internal VCO for sub-GHz For unintentional: 38.4 MHz
Other Info	
EUT Software (Internal to EUT):	N/A
Support Software (used by support PC to exercise EUT):	Lutron radio certification GUI
Radio Power Setting:	Max Power
Firmware:	N/A
Transmitter Parameters	
Description of your unit:	Other
Modulation Type:	434 MHz - FSK 2.4 GHz - O-QPSK
Number of Channels:	434 MHz - 15 2.4 GHz - 16
Frequency Range (Mhz):	434 MHz: 431.5 – 436.6 MHz 2.4 GHz: 2.405 – 2.480 GHz
Antenna Type:	434 MHz - Helical 2.4 GHz – Inverted F
Antenna Gain (db):	434 MHz: -6.7 dBd 2.4 GHz: -0.64 dBd
PMN:	L-BDG3, RR-PROC3-APP
HVIN:	HRN-1
FVIN:	N/A
HMN:	N/A
Data Rates:	250 kbps (2.4GHz Transmitter) 62.5kbps (434 MHZ Transmitter)
Number of Antenna:	1 antenna (2.4GHz Transmitter) 1 antenna (434MHz Transmitter)
Number of Intentional Transmitters:	1 antenna (2.4GHz Transmitter) 1 antenna (434MHz Transmitter)
Number of Certified Intentional Transmitter Modules:	0
FCC ID:	JPZ0161
IC ID:	2851A-JPZ0161

Table 5. Equipment Details

Name/Description	Model Number	Part Number	Serial Number	Rev. #
FCC #1 / Radiated FCC Code	RR-PROC3-APP	-	0692C891	-
FCC #4 / Conducted with FCC Code	RR-PROC3-APP	-	06936481	-
FCC #3 / Back up Radiated FCC Code	RR-PROC3-APP	-	0692C89B	-
FCC #5 / Back up Conducted with FCC Code	RR-PROC3-APP	-	06936472	-
FCC #6 / Radiated Customer Code	RR-PROC3-APP	-	069329DA	-

Table 6. EUT List

Port Name on EUT	Cable Desc. or reason for none	3 Meters or Longer	Length as tested (m)	Max Length (m)	Shielded?	Termination Box ID & Port Name
USB-C	Power Supply		1.83	1.83	N	
RJ45	Ethernet cable		1.83	1.83	N	

Table 7. Ports and Cabling

Ref. ID	Name/Description	Manufacturer	Model Number	Customer Supplied Calibration Data
-	RF Dongle	NCD.io	-	-

Table 8. Support Equipment

Modifications

a) Modifications to EUT

No modifications were made to the EUT.

b) Modifications to Test Standard

No modifications were made to the test standard.

Disposition of EUT

The test sample including all support equipment submitted to the Electro-Magnetic Compatibility Lab for testing was returned to Lutron Electronics upon completion of testing.

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.203 Antenna Requirement

Test Requirement: **§ 15.203:** An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall 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 manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

The structure and application of the EUT were analyzed to determine compliance with Section 15.203 of the Rules. Section 15.203 states that the subject device must meet at least one of the following criteria:

a.) Antenna must be permanently attached to the unit.

b.) Antenna must use a unique type of connector to attach to the EUT.

c.) Unit must be professionally installed. Installer shall be responsible for verifying that the correct antenna is employed with the unit.

Test Results: The EUT was **compliant** with this requirement. EUT utilizes integral antenna with 1.51dBi gain.

Test Engineer: Donald Salguero

Test Date: June 11, 2026

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.207(a) Conducted Emissions Limits

Test Requirement(s): **§ 15.207 (a):** For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 Ω line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency range (MHz)	§ 15.207(a), Conducted Limit (dBµV)	
	Quasi-Peak	Average
0.15- 0.5	66 – 56 *	56 – 46 *
0.5 - 5	56	46
5 - 30	60	50

*Decreases with the logarithm of the frequency.

Table 9. Conducted Limits for Intentional Radiators from FCC Part 15 § 15.207(a)

Test Procedure: The EUT was placed on a 0.8 m-high wooden table inside a screen room. The EUT was situated such that the back of the EUT was 0.4 m from one wall of the vertical ground plane, and the remaining sides of the EUT were no closer than 0.8 m from any other conductive surface. The EUT was powered from a 50 Ω/50 µH Line Impedance Stabilization Network (LISN). The EMC receiver scanned the frequency range from 150 kHz to 30 MHz. Conducted Emissions measurements were made in accordance with *ANSI C63.10.* The measurements were performed over the frequency range of 0.15 MHz to 30 MHz using a 50 Ω/50 µH LISN as the input transducer to an EMC/field intensity meter. For the purpose of this testing, the transmitter was turned on.

RSS-GEN (8.8) AC Power-Line Conducted Emissions Limits

Test Requirement(s): **RSS-GEN (8.8):** Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in Table 10, as measured using a 50 µH / 50 Ω line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.

For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in Table 10 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

Frequency (MHz)	Conducted Limit (dBµV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56[1]	56 to 46[1]
0.5-5	56	46
5-30	60	50

Table 10. AC Power Line Conducted Emissions Limits

Note 1 - The level decreases linearly with the logarithm of the frequency.

Test Procedure: The EUT was placed on a non-metallic table inside a screen room. The EUT was situated such that the back of the EUT was 0.4 m from one wall of the vertical ground plane, and the remaining sides of the EUT were no closer than 0.8 m from any other conductive surface. The EUT was powered from a 50 Ω/50 µH Line Impedance Stabilization Network (LISN). The EMC receiver scanned the frequency range from 150 kHz to 30 MHz. Conducted Emissions measurements were made in accordance with *ANSI C63.10 "Procedures for Compliance Testing of Unlicensed Wireless Devices"*. Scans were performed with the transmitter on at full power.

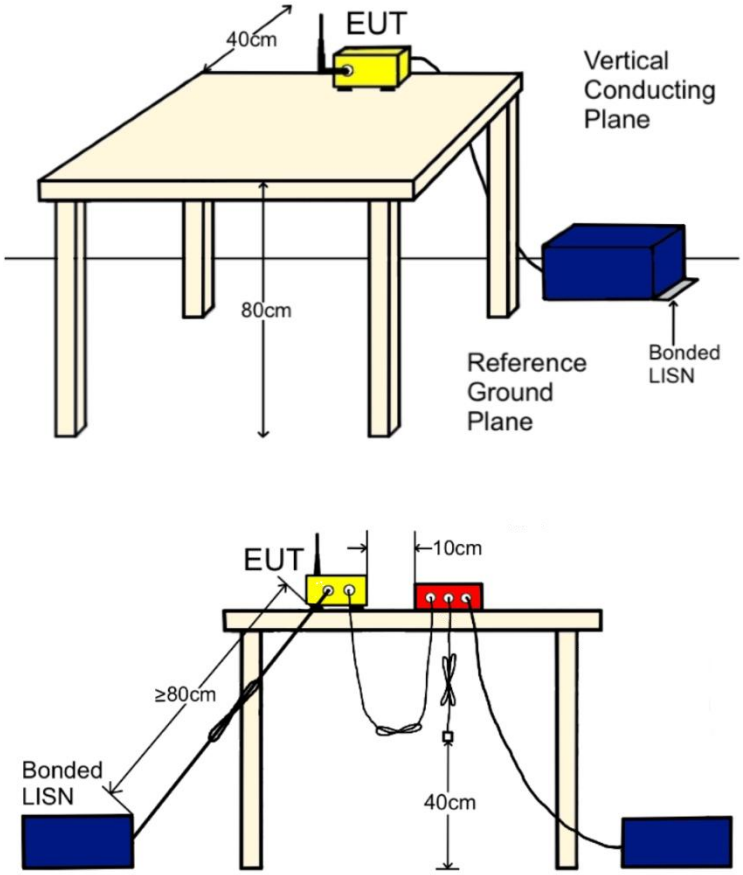

Figure 1. CEV Test Setup

Test Results: The EUT was **compliant** with this requirement.

Test Engineer: Donald Salguero

Test Date: June 10, 2026

Test Data

Conducted Emissions Datasheet			
Project Number	141913	Test Specification	FCC Part 15, Subpart C, Section 15.207; RSS-GEN Section 8.8
Customer	Lutron Electronics	Equipment Class	N/A
EUT Name	Wireless Interface	Engineer	Donald Salguero
Model/Part Number	RR-PROC3-APP	Test Date(s)	6/10/2026
Serial Number	0692C891	Temperature	20.9°C
Mode of Operation	Simultaneous TX	Relative Humidity	21%
Notes:			
Start Frequency	150 kHz	Stop Frequency	30 MHz
Line Under Test	Line		

Frequency	Quasi-Peak Measurement	Correction Factor	Corrected Measurement	Quasi-Peak Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.158	50.26	9.81	60.07	65.76	-5.69	PASS
0.183	47.89	9.78	57.68	65.05	-7.37	PASS
0.229	44.27	9.77	54.04	63.74	-9.7	PASS
0.25	42.59	9.77	52.35	63.14	-10.79	PASS
0.271	40.99	9.77	50.76	62.54	-11.79	PASS
0.296	38.98	9.77	48.75	61.83	-13.08	PASS
Frequency	**Average Measurement**	**Correction Factor**	**Corrected Measurement**	**Average Limit**	**Margin**	**Result**
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.15	29.28	9.82	39.1	56	-16.903	PASS
0.175	29.88	9.79	39.67	55.28	-15.619	PASS
0.213	26.66	9.77	36.42	54.21	-17.789	PASS
0.25	24.07	9.77	33.83	53.14	-19.305	PASS
0.283	20.82	9.77	30.58	52.19	-21.602	PASS
0.546	21.24	9.75	30.99	46	-15.009	PASS

Table 11. CE Data [120V60Hz, Line]

Conducted Emissions Datasheet			
Project Number	141913	Test Specification	FCC Part 15, Subpart C, Section 15.207; RSS-GEN Section 8.8
Customer	Lutron Electronics	Equipment Class	N/A
EUT Name	Wireless Interface	Engineer	Donald Salguero
Model/Part Number	RR-PROC3-APP	Test Date(s)	6/10/2026
Serial Number	0692C891	Temperature	20.9°C
Mode of Operation	Receiver Mode	Relative Humidity	21%
Notes:			
Start Frequency	150 kHz	Stop Frequency	30 MHz
Line Under Test	Neutral		

Frequency	Quasi-Peak Measurement	Correction Factor	Corrected Measurement	Quasi-Peak Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.158	52.02	9.83	61.85	65.76	-3.91	PASS
0.183	50.02	9.8	59.82	65.05	-5.222	PASS
0.208	47.25	9.78	57.03	64.33	-7.299	PASS
0.229	46.27	9.78	56.05	63.74	-7.684	PASS
0.25	44.14	9.77	53.91	63.14	-9.231	PASS
0.275	43.16	9.77	52.93	62.42	-9.496	PASS
Frequency	**Average Measurement**	**Correction Factor**	**Corrected Measurement**	**Average Limit**	**Margin**	**Result**
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.163	32.97	9.83	42.8	55.64	-12.84	PASS
0.192	30.71	9.79	40.5	54.81	-14.305	PASS
0.233	28.61	9.78	38.38	53.62	-15.235	PASS
0.271	25.65	9.77	35.43	52.54	-17.117	PASS
0.296	23.26	9.77	33.03	51.83	-18.795	PASS
0.546	27.98	9.75	37.73	46	-8.27	PASS

Table 12. CE Data [120V60Hz, Neutral]

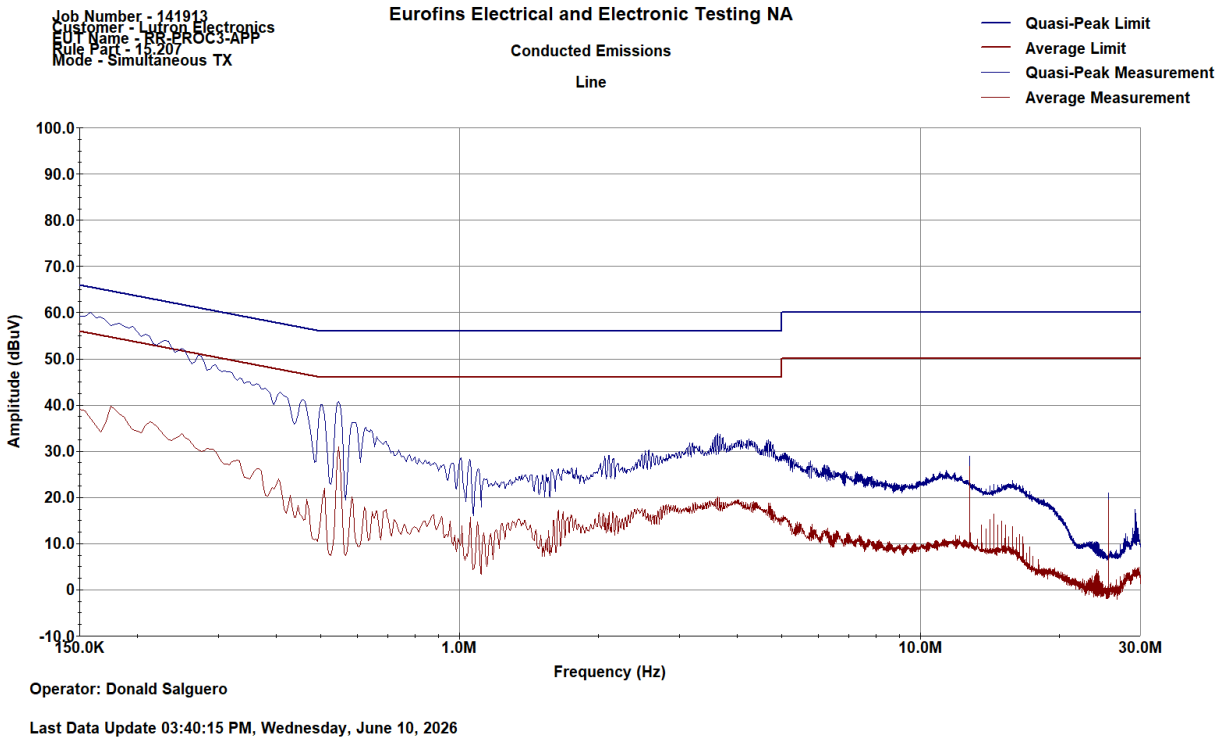

Figure 2. CE Prescan [120V60Hz, Line]

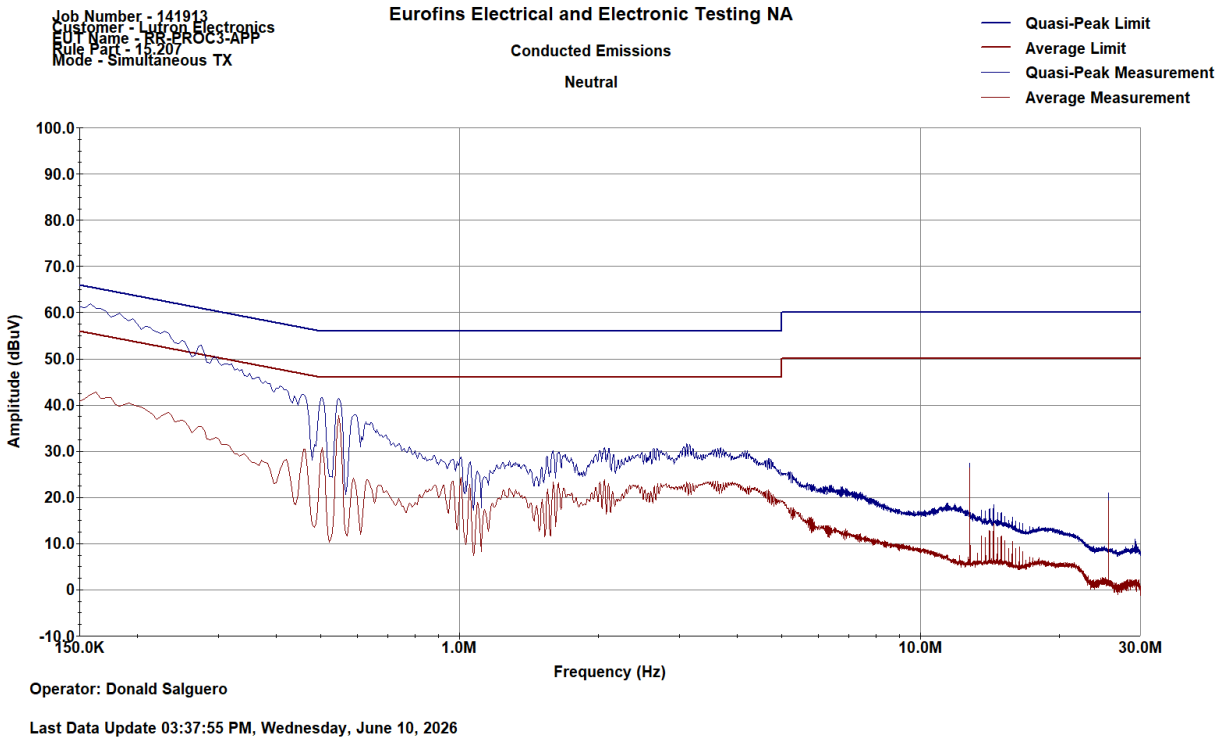

Figure 3. CE Prescan [120V60Hz, Neutral]

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.247(a)(2) 6 dB Bandwidth

Test Requirements: **§ 15.247(a)(2):** Operation under the provisions of this section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

For systems using digital modulation techniques, the EUT may operate in the 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz bands. The minimum 6dB bandwidth shall be at least 500 kHz.

Test Procedure: The transmitter was on and transmitting at the highest output power. The bandwidth of the fundamental frequency was measured with the spectrum analyzer using a RBW = 100kHz, VBW = 3*RBW. The 6 dB Bandwidth was measured and recorded. The measurements were performed on the low, mid and high channels.

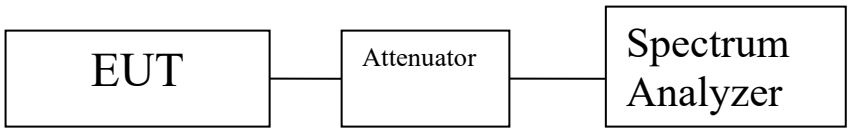

Figure 4. Block Diagram, Occupied Bandwidth Test Setup

RSS-GEN (6.7) 99% Occupied Bandwidth

Test Requirements:

RSS-GEN (6.7): The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.
The following conditions shall be observed for measuring the occupied bandwidth and x dB bandwidth:

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.
- The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

Test Procedure:

The transmitter was on and transmitting at the highest output power. The bandwidth of the fundamental frequency was measured with the spectrum analyzer using a RBW approximately 1% of the total emission bandwidth, VBW > RBW. The 99% Bandwidth was measured and recorded. The measurements were performed on the low, mid and high channels.

RSS-247 (5.2) 6dB Bandwidth

Test Requirements: **RSS-247 (6.3.1.a):** The minimum 6 dB bandwidth shall be 500 kHz.

Test Procedure: The EUT was connected to a spectrum analyzer through a cable and an attenuator. Measurements were taken with the EUT set to transmit continuously on its low, mid, and high channels for all its bandwidths. The 6dB bandwidth was measured according to measurement method 11.8.2 Option 2 of ANSI C63.10.

Test Procedure: The transmitter was on and transmitting at the highest output power. The bandwidth of the fundamental frequency was measured with the spectrum analyzer using a RBW = 100kHz, VBW = 3*RBW. The 6 dB Bandwidth was measured and recorded. The measurements were performed on the low, mid and high channels.

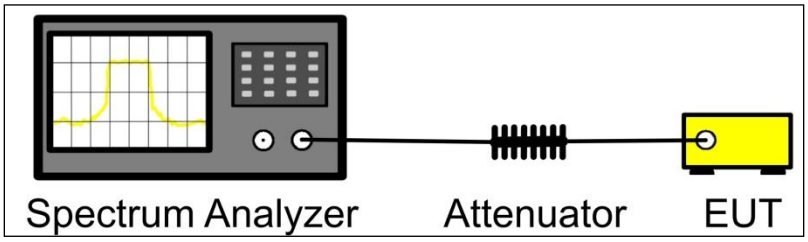

Figure 5. 6dB Bandwidth Test Setup

Test Results: The EUT was **compliant** with this requirement.

Test Engineer: Donald Salguero

Test Date: June 11, 2026

Test Data

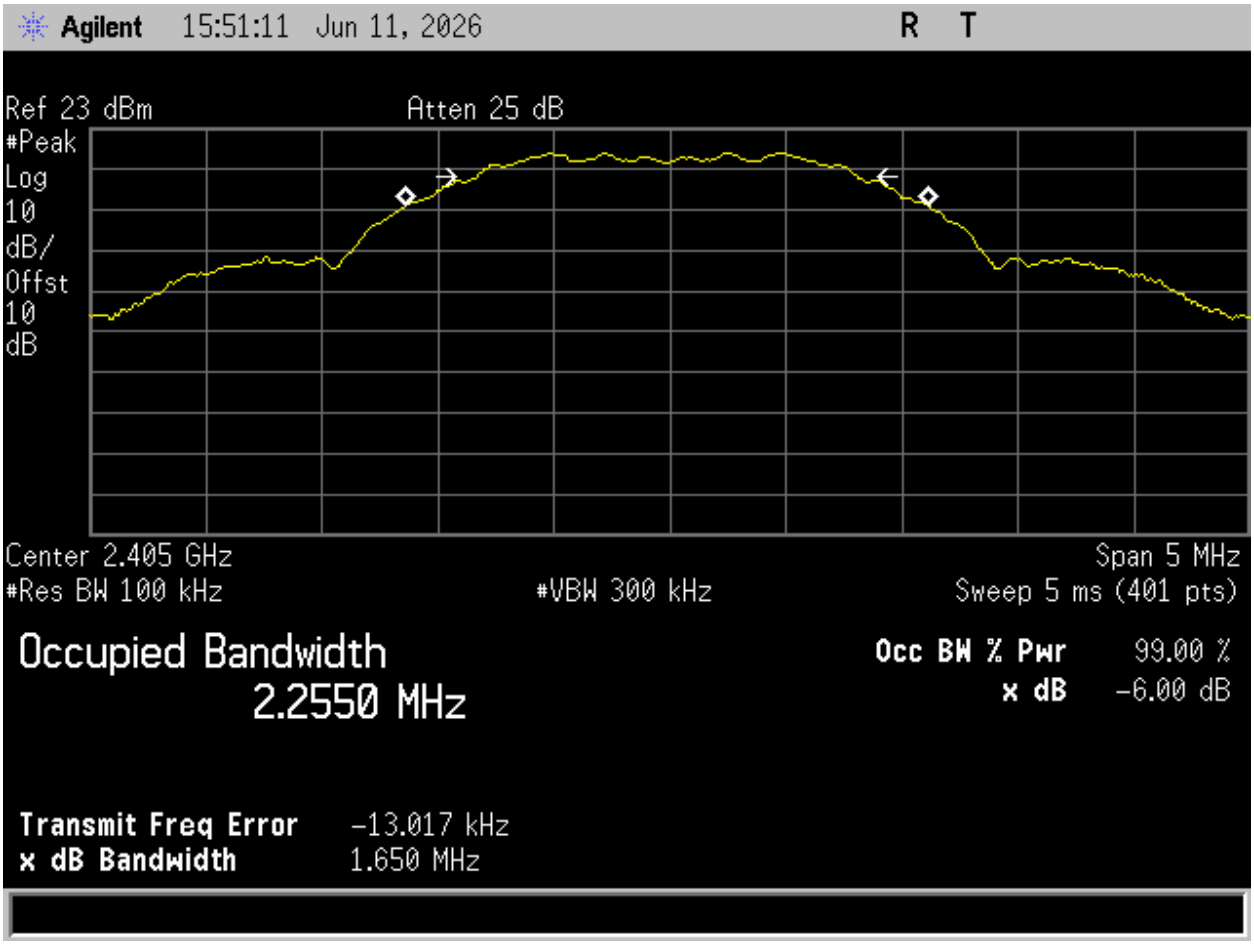

Figure 6. Low Ch_2405MHz_Occupied Bandwidth_-6dB.

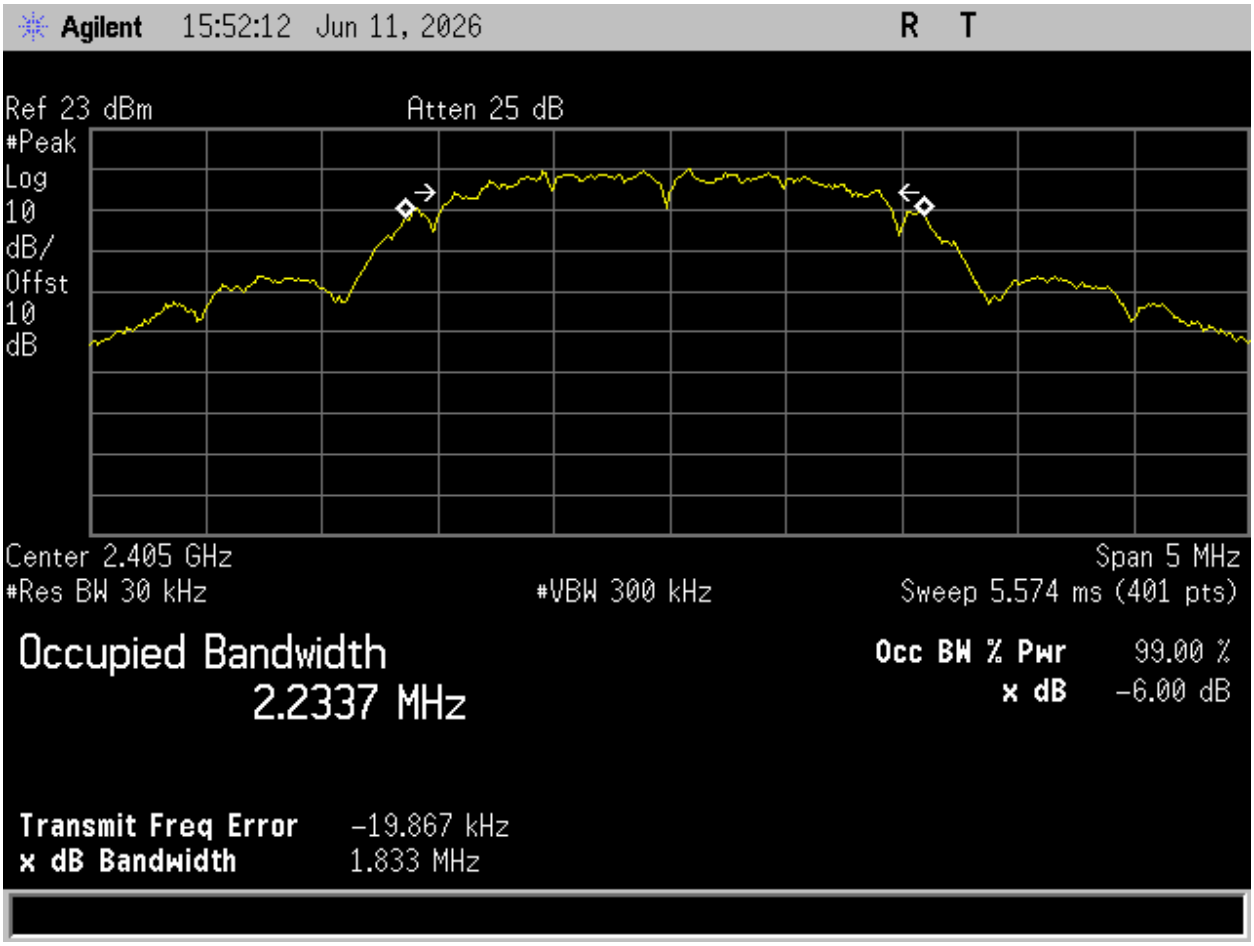

Figure 7. Low Ch_2405MHz_Occupied Bandwidth_99 percent.

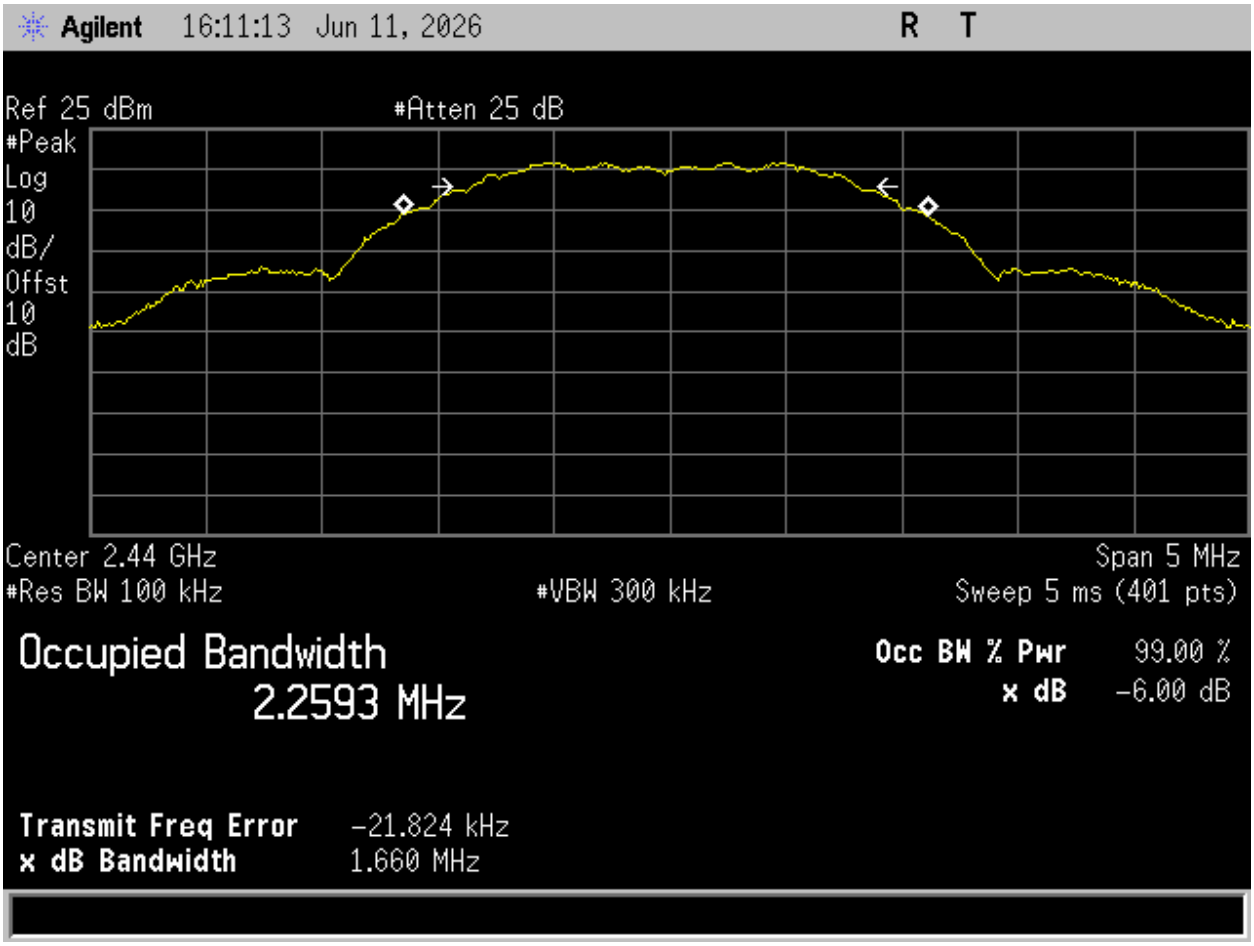

Figure 8. Mid Ch_2440MHz_Occupied Bandwidth_-6dB.

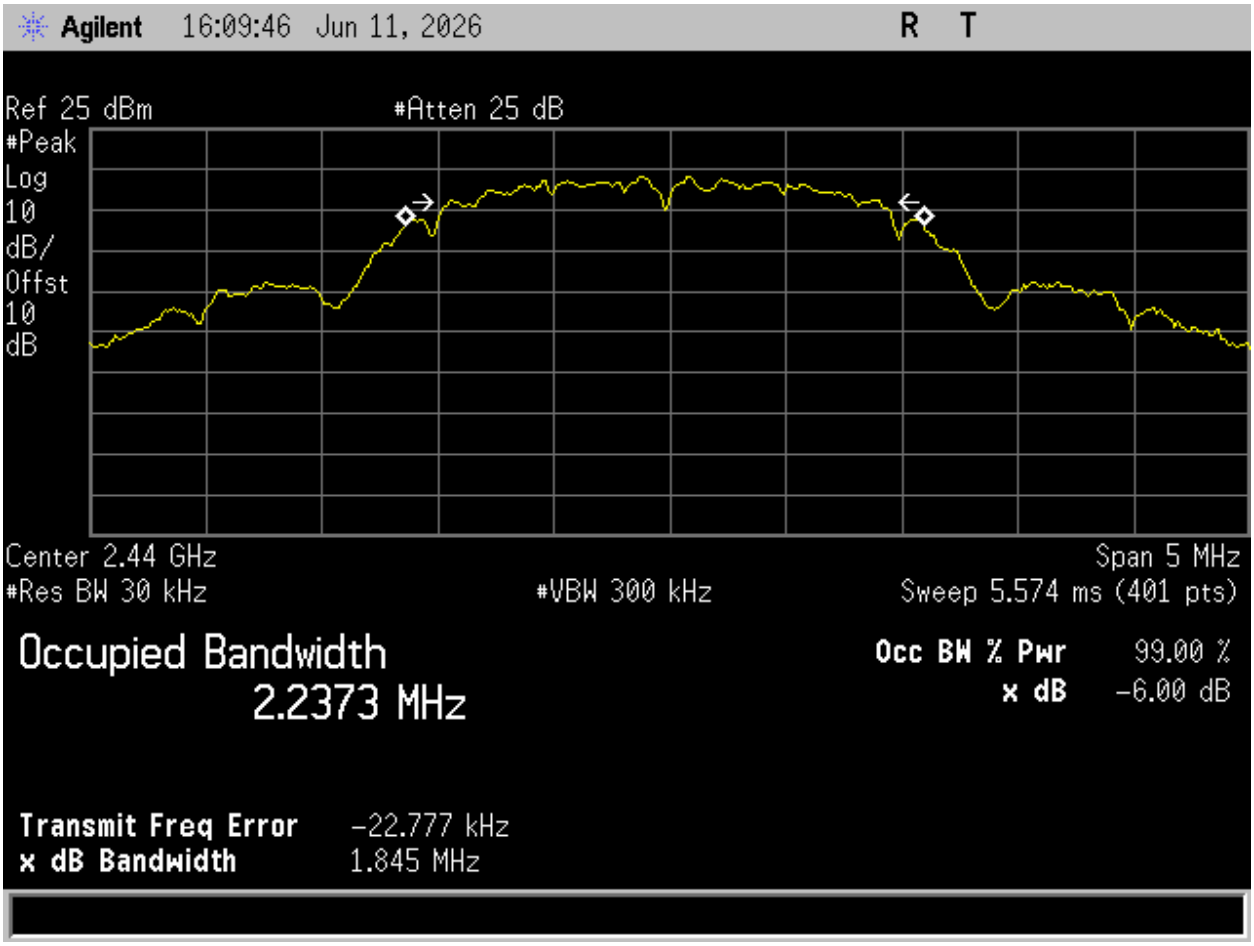

Figure 9. Mid Ch_2440MHz_Occupied Bandwidth_99 percent.

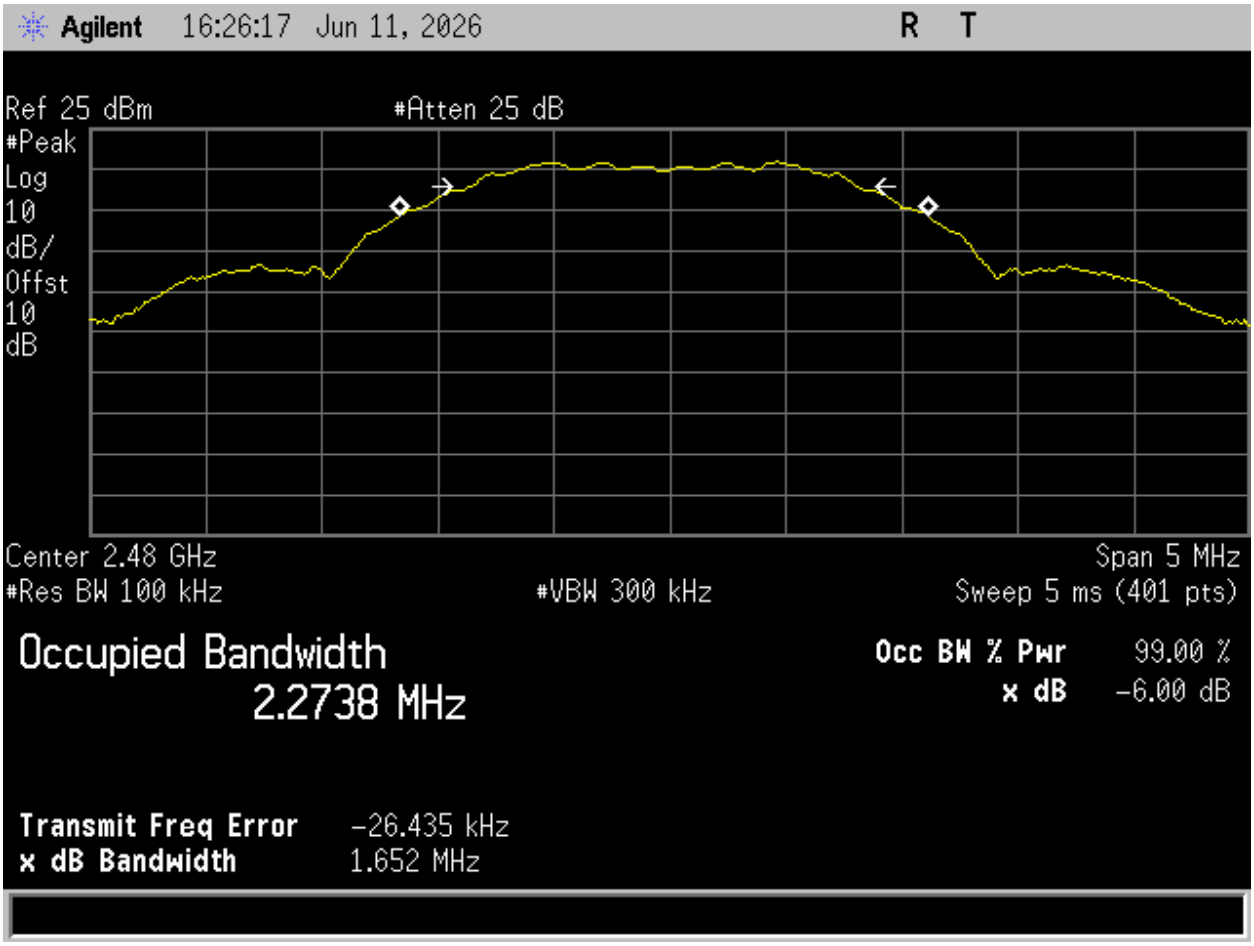

Figure 10. High Ch_2480MHz_Occupied Bandwidth_-6dB.

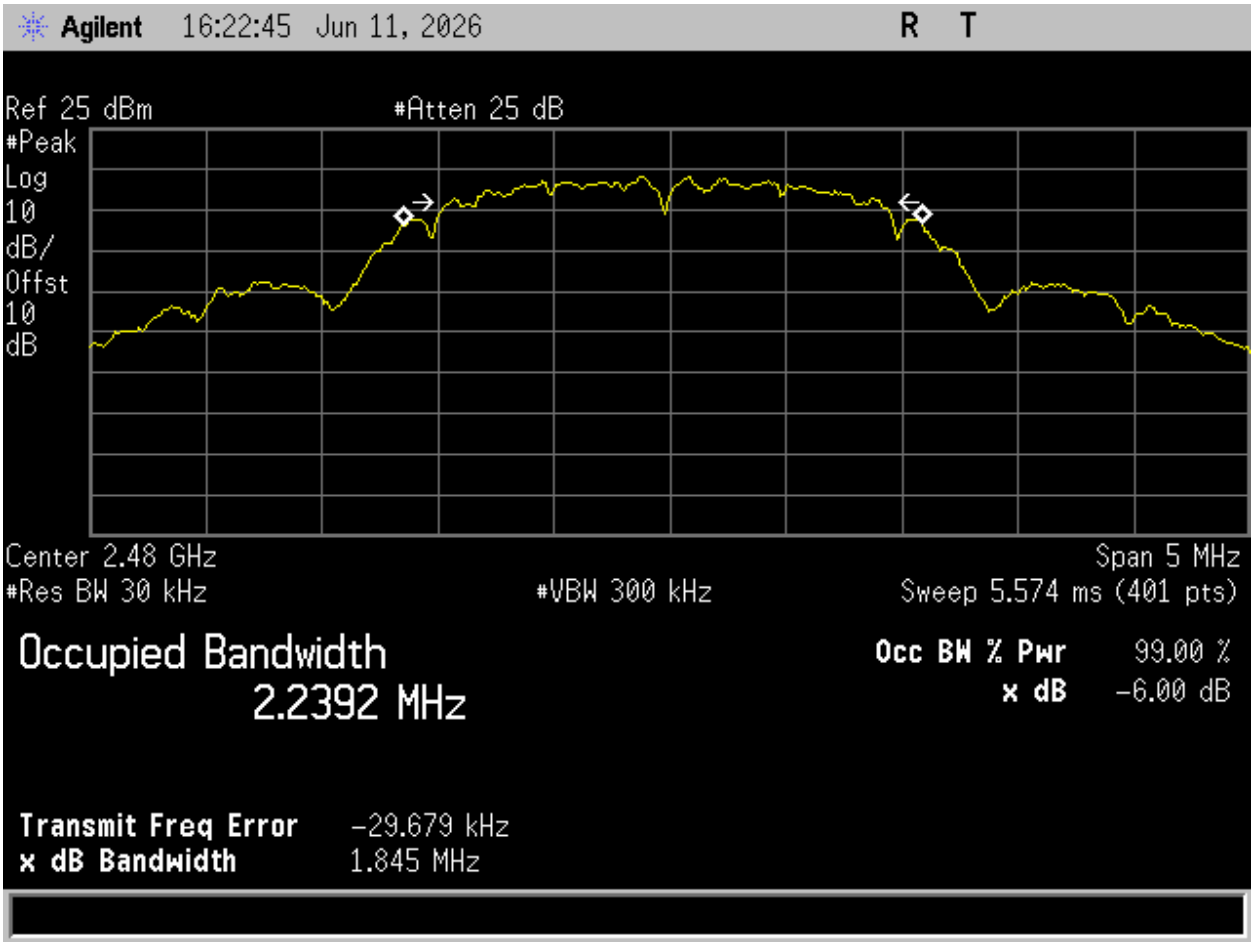

Figure 11. High Ch_2480MHz_Occupied Bandwidth_99 percent.

Frequency (MHz)	99% Bandwidth (MHz)	-6dB Bandwidth (kHz)	-6dB Bandwidth Limit (kHz)
2405	2.2337	1650	> 500
2440	2.2373	1660	> 500
2480	2.2392	1652	> 500

Table 13. Test Results, OBW

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.247(b) Output Power

Test Requirements: **§15.247(b):** The maximum conducted output power of the intentional radiator shall not exceed the following:

Digital Transmission Systems (MHz)	Output Limit (Watts)
2400–2483.5	1.000

Table 14. Output Power Requirements from §15.247(b)

§15.247(c): if transmitting antennas of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in the 9, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure: The EUT was connected to a spectrum analyzer through a cable and an attenuator. Measurements were taken with the EUT set to transmit continuously on its low, mid, and high channels for all its bandwidths at maximum power. Power was measured according to measurement method AVGSA-1, as described in ANSI C63.10. Attenuator an cable loss factors were programmed into the spectrum analyzer.

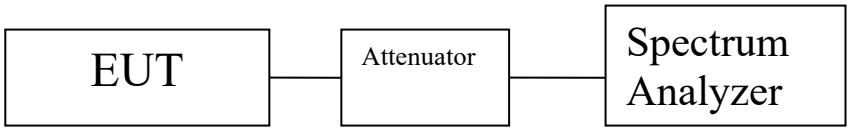

Figure 12. Block Diagram, Conducted Output Power Test Setup

RSS-247 (5.4) Transmitter Output Power

Test Requirements: **RSS-247 (6.3.2):** For DTS operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1W, and the e.i.r.p. shall not exceed 4 W.

For DTS operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W, and the e.i.r.p. shall not exceed 4 W, except as provided in section 6.5 a) and b).

As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power.

RSS-247 (6.5): The equipment must comply with the following requirements, where applicable:

a. FPTP systems in the bands 2400-2483.5 MHz and 5725-5850 MHz are permitted to have an e.i.r.p. higher than 4 W provided that the higher e.i.r.p. is achieved by employing higher gain directional antennas and not higher transmitter output powers.

b. PTMP, omnidirectional applications and multiple co-located transmitters, in the bands 2400-2483.5 MHz and 5725-5850 MHz, transmitting the same information are prohibited from exceeding an e.i.r.p. of 4 W. However, remote stations of PTMP systems shall be permitted to operate at an e.i.r.p. greater than 4 W under the same conditions as for FPTP systems under 6.5 a).

Test Procedure: The EUT was connected to a spectrum analyzer through a cable and an attenuator. Measurements were taken with the EUT set to transmit continuously on its low, mid, and high channels for all its bandwidths at maximum power. Power was measured according to measurement method AVGSA-1, as described in ANSI C63.10. Attenuator an cable loss factors were programmed into the spectrum analyzer.

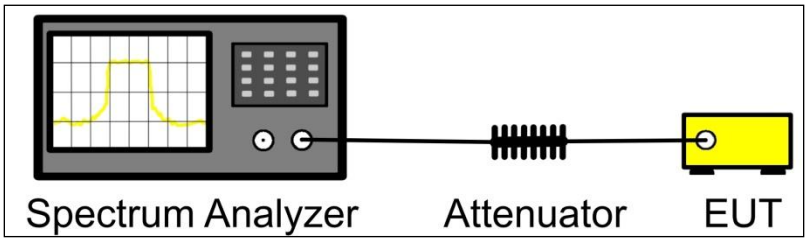

Figure 13. Power Output Test Setup

Test Results: The EUT was **compliant** with this requirement.

Test Engineer: Donald Salguero

Test Date: June 11, 2026

Test Data

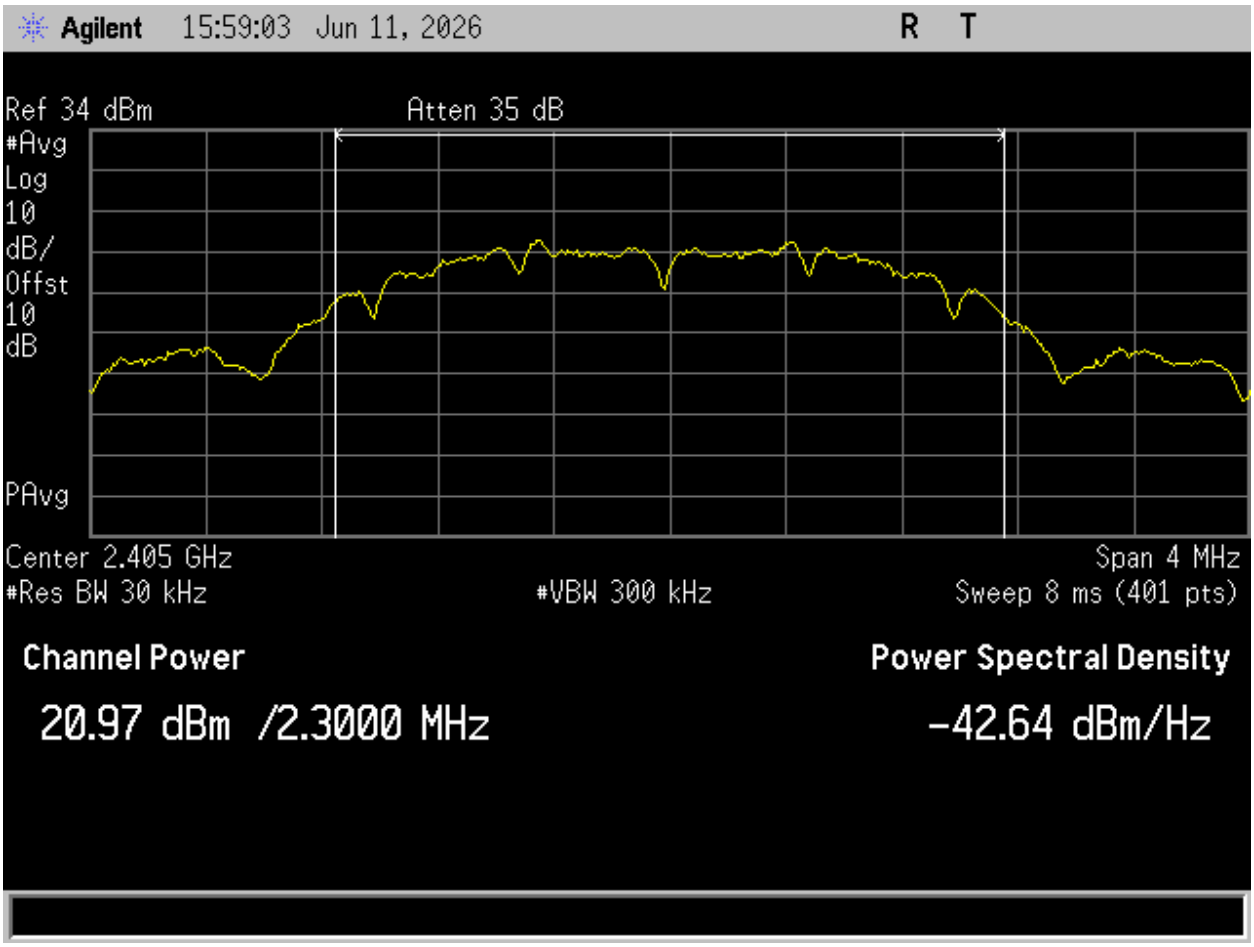

Figure 14. Low Ch_2405MHz_Output Power.

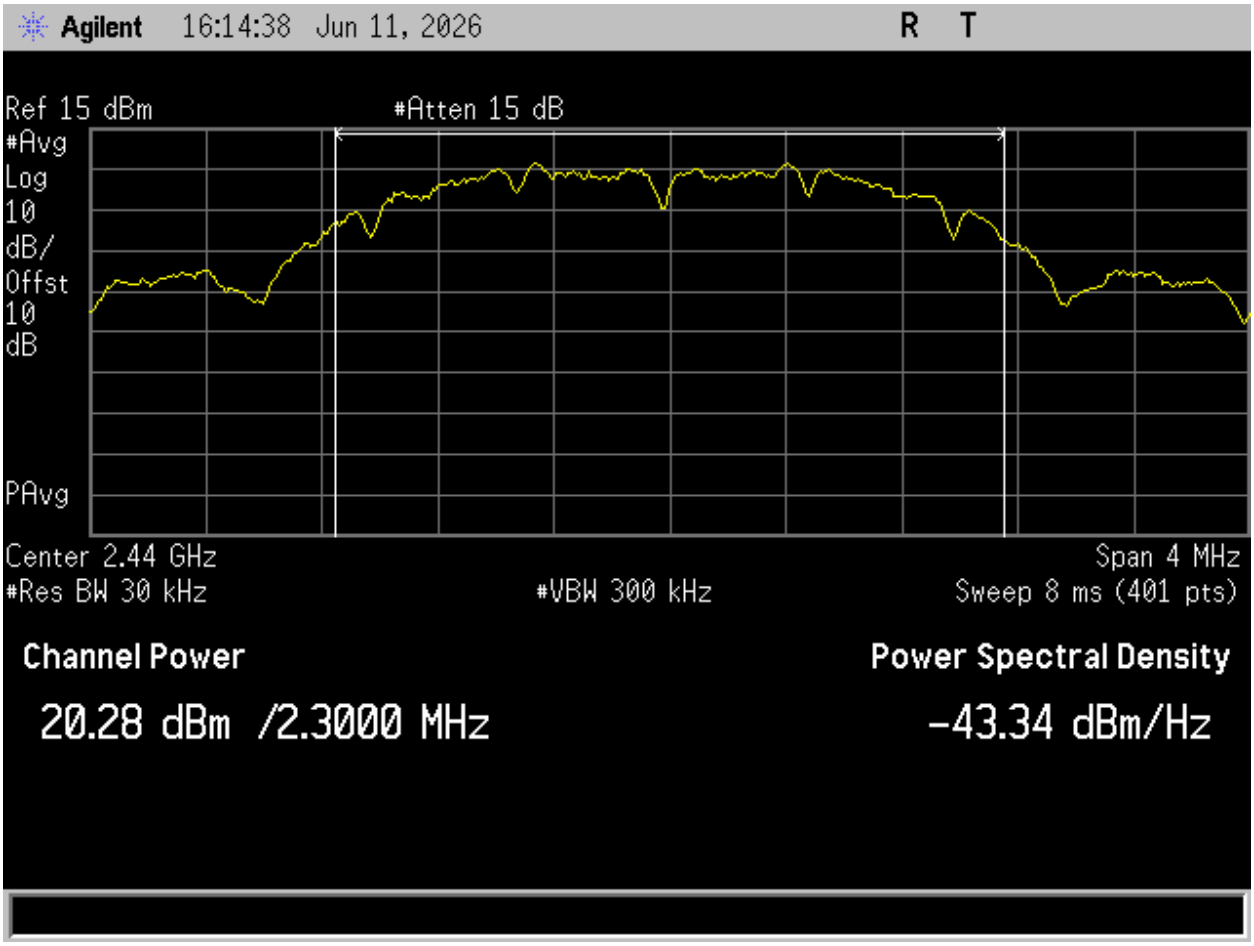

Figure 15. Mid Ch_2440MHz_Output Power.

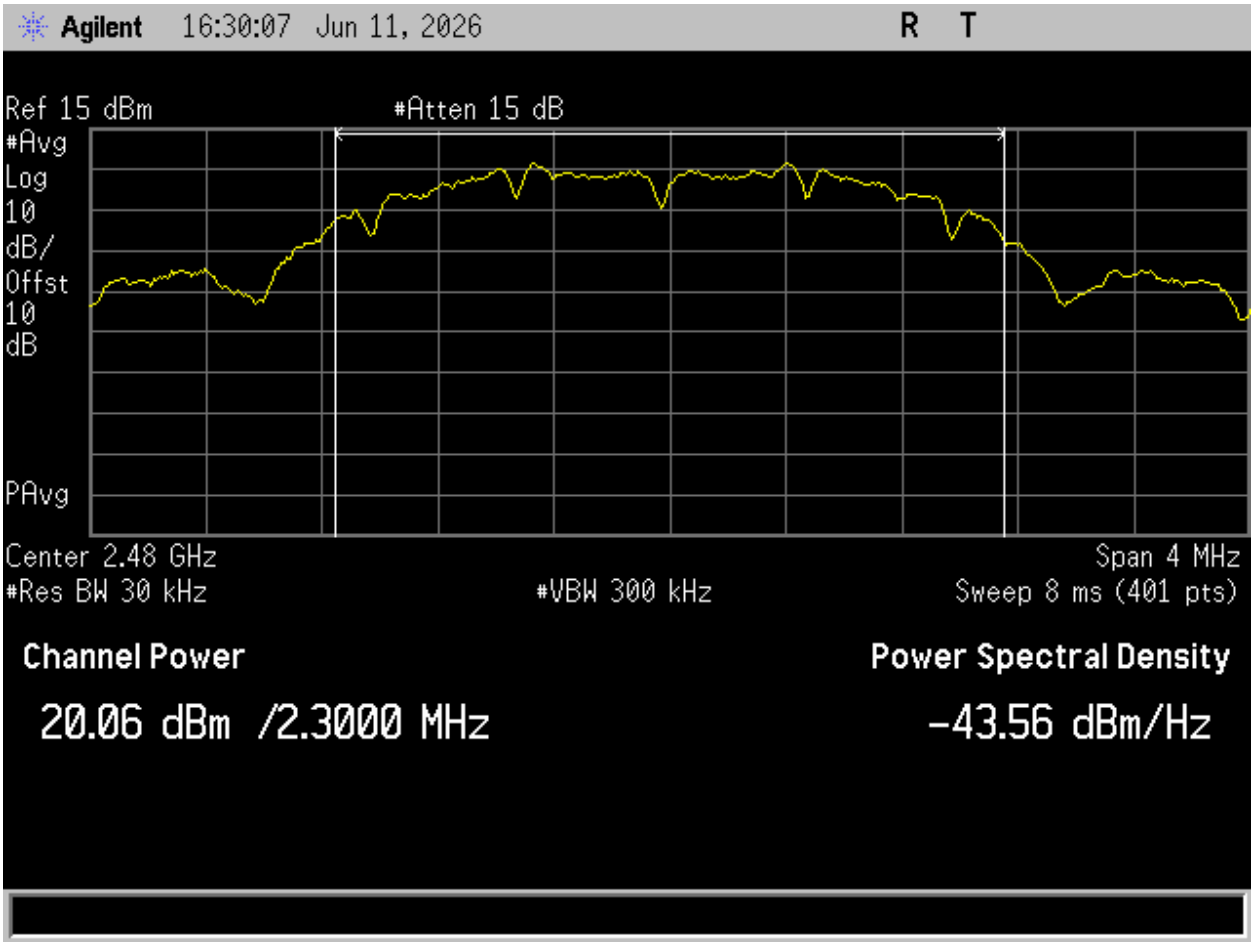

Figure 16. High Ch_2480MHz_Output Power.

Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
2405	20.97	30	-9.03	1.51	22.48	36	-13.52
2440	20.28	30	-9.72	1.51	21.79	36	-14.21
2480	20.06	30	-9.94	1.51	21.57	36	-14.43

Table 15. Test Results, Output Power

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.209 Radiated Spurious Emissions Requirements and Band Edge

Test Requirements: **§15.247(d); §15.205:** Emissions outside the frequency band.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a).

§15.205(a): Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1] 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

Table 16. Restricted Bands of Operation

[1] Until February 1, 1999, this restricted band shall be 0.490 – 0.510 MHz.
[2] Above 38.6

Test Requirement(s): **§ 15.209 (a):** Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in Table 18.

Frequency (MHz)	§ 15.209(a), Radiated Emission Limits (dBµV) @ 3m
30 - 88	40.00
88 - 216	43.50
216 - 960	46.00
Above 960	54.00

Table 17. Radiated Emissions Limits Calculated from FCC Part 15, § 15.209 (a)

Test Procedures: The transmitter was turned on. Measurements were performed of the low, mid and high Channels. The EUT was rotated orthogonally through all three axes. Plots shown are corrected for both antenna correction factor and distance and compared to a 3 m limit line.

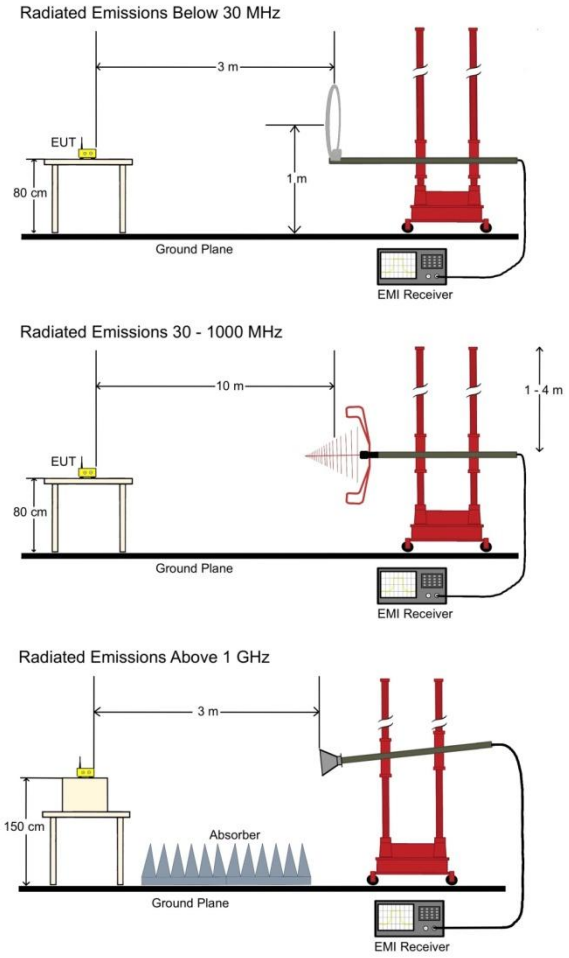

Figure 17. Radiated Emissions Test Setup

RSS-GEN (6.13), (8.9), & (8.10) Radiated Spurious Emissions and Restricted Band

Test Requirements:

RSS-GEN (6.13): Detector

When the unwanted emissions limits are defined in relative terms, the same parameter, peak power or average power, shall be used as the reference for both the transmitter's output power and the unwanted emissions measurements.

When the unwanted emissions limits are expressed in absolute terms, unless otherwise stated in the applicable RSS, the following conditions shall apply:

a. Below 1 GHz, compliance with the limits shall be demonstrated using a CISPR quasi-peak detector and the related measurement bandwidth (see section 6.10).

b. Above 1 GHz, compliance with the limits shall be demonstrated using a linear average detector (see section 6.10) with a minimum resolution bandwidth of 1 MHz.

Frequency range for measuring unwanted emission

In measuring unwanted emissions, the spectrum shall be investigated from 30 MHz or the lowest radio frequency signal generated or used in the equipment, whichever is lower, without going below 9 kHz, up to at least the applicable frequency given below:

a. If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
b. If the equipment operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
c. If the equipment operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise in the applicable RSS.
d. If the equipment contains a digital device that is exclusively used for enabling the operation of the radio apparatus: the spectrum shall be investigated according to the conditions specified in paragraphs (a) through (c) of this section or the range applicable to the digital device, as shown in table 2 of RSS-GEN, whichever is the higher frequency range of investigation.

RSS-GEN (8.9): Except where otherwise indicated in the applicable RSS, radiated emissions shall comply with the field strength limits shown in table 5 and table 6 of RSS-GEN. Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

General Field Strength Limits for License-Exempt Transmitters at Frequencies Above 30 MHz	
Frequency (MHz)	**Field Strength (µV/m at 3 meters)**
30 – 88	100
88 – 216	150
216 – 960	200
Above 960	500

General Field Strength Limits for License-Exempt Transmitters at Frequencies Below 30 MHz		
Frequency	**Magnetic Field Strength (µA/m)**	**Measurement Distance (m)**
9 - 490 kHz[Note 1]	100	300
490 - 1705 kHz	150	30
1.705 - 30 MHz	200	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

RSS-GEN (8.10): Restricted bands are designated primarily for safety-of-life services (distress calling and certain aeronautical bands), certain satellite downlinks, radio astronomy and some government uses. Except where otherwise indicated, the following restrictions apply:

1. Fundamental components of modulation of license-exempt radio apparatus shall not fall within the restricted bands except for apparatus complying under RSS-287;
2. Unwanted emissions that fall into restricted bands shall comply with the limits specified in RSS-Gen; and
3. Unwanted emissions that do not fall within the restricted frequency bands shall comply either with the limits specified in the applicable RSS or with those specified in this RSS-Gen.

Test Procedures: The transmitter was turned on. Measurements were performed of the low, mid and high Channels. The EUT was rotated orthogonally through all three axes. Plots shown are corrected for both antenna correction factor and distance and compared to a 3 m limit line. Only noise floor was measured below 30 MHz and its emissions were measured to be 20dB below limit.

Radiated Band Edge Measurements

Test Procedures: The transmitter was turned on. Measurements were performed of the low and high Channels. The EUT was rotated orthogonally through all three axes.

Test Results: The EUT was **compliant** with this requirement.

Test Engineer: Donald Salguero

Test Date: June 8 – 10, 2026

Test Data

Frequency	Polarity	Antenna Height	Turtable Position	Measured	Correction Factor	Duty Cycle Factor	Corrected Reading	Limit	Margin
GHz	Horizontal/ Vertical	cm	Degrees	dBµV	dB	dB	dBµV/m	dBµV/m	dB
2.39	H	150	276.7	13.27	38.296	-9.9	41.666	54	-12.334
2.39	V	129	200.9	13.04	38.29	-9.9	41.43	54	-12.57
2.4835	H	145	271.1	23.1	38.437	-9.9	51.637	54	-2.363
2.4835	V	102	98.5	15.21	38.578	-9.9	43.888	54	-10.112

Table 18. Radiated Band Edge, Average Test Results

Frequency	Polarity	Antenna Height	Turtable Position	Measured	Correction Factor	Corrected Reading	Limit	Margin
GHz	Horizontal/ Vertical	cm	Degrees	dBµV	dB	dBµV/m	dBµV/m	dB
2.39	H	150	276.7	25.07	38.296	63.366	74	-10.634
2.39	V	129	200.9	23.39	38.29	61.68	74	-12.32
2.4835	H	145	271.1	35.32	38.437	73.757	74	-0.243
2.4835	V	102	98.5	28.05	38.578	66.628	74	-7.372

Table 19. Radiated Band Edge, Peak Test Results

Channel	Channel Frequency (MHz)	Receive Antenna Polarity	Measured Frequency (MHz)	Measured Field Strength (dBµV/m)	Duty Cycle (dB)	Limit (dBuV/m)	Margin (dB)
Low	2405	H	30.388	28.39	0	40	-11.61
		H	40.497	24.73	0	40	-15.27
		H	952.96	34.76	0	46	-11.24
		V	30	27.91	0	40	-12.09
		V	55.66	23.69	0	40	-16.31
		V	925.35	32.7	0	46	-13.3
		H	7215	55.426	-9.9	54	-8.474
		H	12024	50.46	-9.9	54	-13.44
		H	15212	52.86	0	54	-1.14
		V	7215	56.346	-9.9	54	-7.554
		V	12025	57.748	-9.9	54	-6.152
		V	15195	52.5	0	54	-1.5
		H	19891	43.08	0	54	-10.92
		H	21630	45	0	54	-9
		H	22040	44.62	0	54	-9.38
		V	19869	43.08	0	54	-10.92
		V	21652	46.54	0	54	-7.46
		V	22040	45	0	54	-9

Table 20. Radiated Emissions, Single Transmitter, Low Channel Test Results

Channel	Channel Frequency (MHz)	Receive Antenna Polarity	Measured Frequency (MHz)	Measured Field Strength (dBµV/m)	Duty Cycle (dB)	Limit (dBuV/m)	Margin (dB)
Mid	2440	H	30.389	28.11	0	40	-11.89
		H	39.719	26.23	0	40	-13.77
		H	955.29	33.49	0	46	-12.51
		V	30	28.06	0	40	-11.94
		V	35.054	26.56	0	40	-13.44
		V	957.23	33.08	0	46	-12.92
		H	7320	56.074	-9.9	54	-7.826
		H	12194.5	50.34	-9.9	54	-13.56
		H	15200	52.91	0	54	-1.09
		V	7320	55.946	-9.9	54	-7.954
		V	12200	58.135	-9.9	54	-5.765
		V	15195	53.11	0	54	-0.89
		H	21565	43.85	0	54	-10.15
		H	21956	45	0	54	-9
		H	22040	44.24	0	54	-9.76
		V	21565	44.24	0	54	-9.76
		V	21956	46.55	0	54	-7.45
		V	22040	44.24	0	54	-9.76

Table 21. Radiated Emissions, Single Transmitter, Mid Channel Test Results

Channel	Channel Frequency (MHz)	Receive Antenna Polarity	Measured Frequency (MHz)	Measured Field Strength (dBµV/m)	Duty Cycle (dB)	Limit (dBuV/m)	Margin (dB)
High	2480	H	30.778	27.64	0	40	-12.36
		H	33.11	27.33	0	40	-12.67
		H	941.295	33.1	0	46	-12.9
		V	30.778	28.16	0	40	-11.84
		V	54.882	26.4	0	40	-13.6
		V	928.076	32.62	0	46	-13.38
		H	7440	57.324	-9.9	54	-6.576
		H	12407	47.57	-9.9	54	-16.33
		H	15195	52.91	0	54	-1.09
		V	7440	56.561	-9.9	54	-7.339
		V	12400	53.795	-9.9	54	-10.105
		V	15195	52.88	0	54	-1.12
		H	21500	43.4	0	54	-10.6
		H	22040	43.85	0	54	-10.15
		H	22400	43	0	54	-11
		V	21608	43.8	0	54	-10.2
		V	22040	43.85	0	54	-10.15
		V	22304	44.62	0	54	-9.38

Table 22. Radiated Emissions, Single Transmitter, High Channel Test Results

Channel	Channel Frequency (MHz)	Receive Antenna Polarity	Measured Frequency (MHz)	Measured Field Strength (dBµV/m)	Duty Cycle (dB)	Limit (dBuV/m)	Margin (dB)
Worst Case	2480 & 433.6	H	30	28.05	0	40	-11.95
		H	44.385	24.89	0	40	-15.11
		H	951.014	33.16	0	46	-12.84
		V	30.778	27.71	0	40	-12.29
		V	54.49	23.98	0	40	-16.02
		V	954.9	32.86	0	46	-13.14
		H	2045.5	37.81	0	54	-16.19
		H	5641	43.464	0	54	-10.536
		H	7443	51.86	-9.9	54	-12.04
		V	5641	44.72	0	54	-9.28
		V	7443	54.43	-9.9	54	-9.47
		V	12407	50.26	-9.9	54	-13.64
		H	21565	43.85	0	54	-10.15
		H	22040	43.47	0	54	-10.53
		H	22304	43.08	0	54	-10.92
		V	21565	43.85	0	54	-10.15
		V	22040	43.85	0	54	-10.15
		V	22304	45.01	0	54	-8.99

Table 23. Radiated Emissions, Simultaneous Transmissions, Test Results

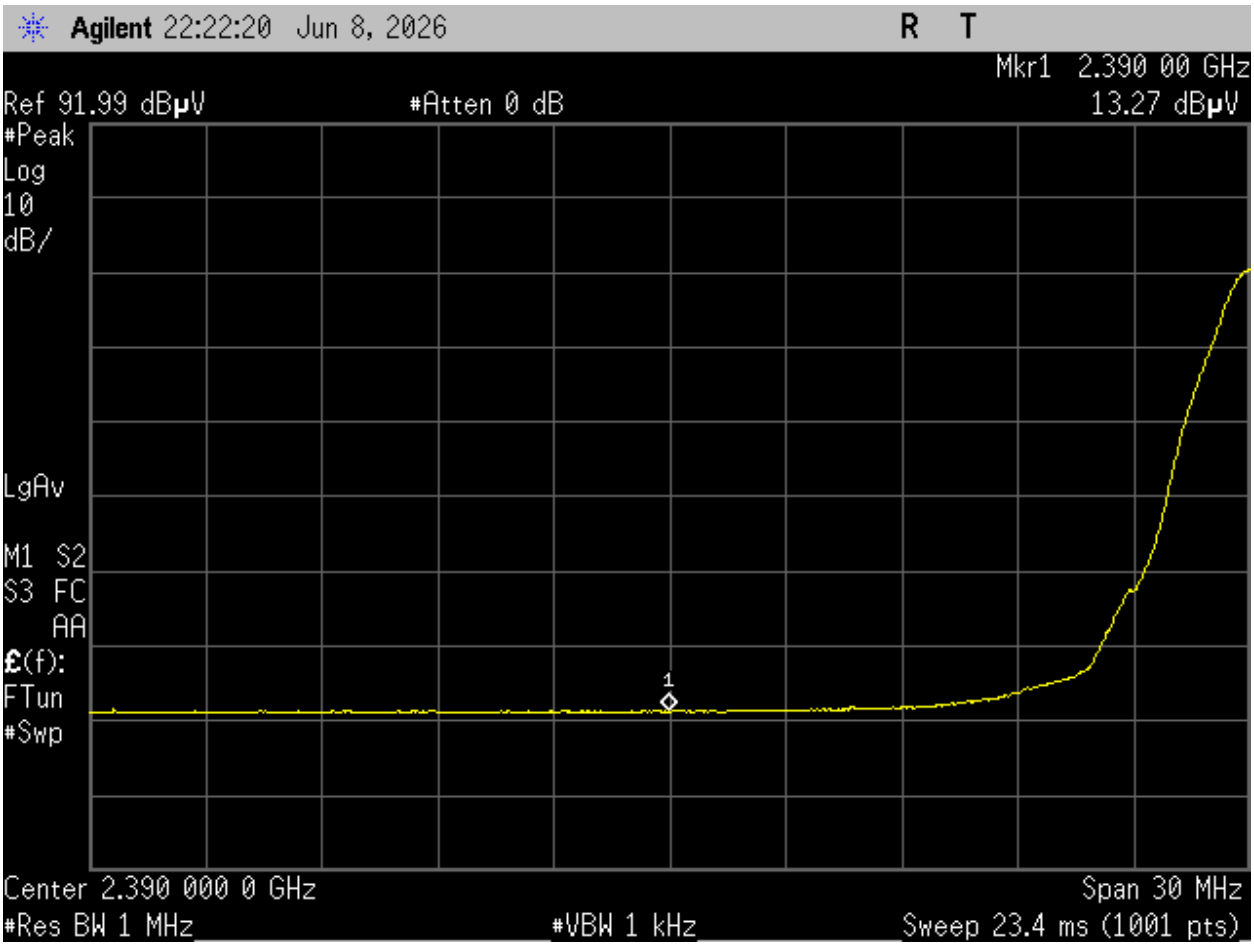

Figure 18. Low Channel (2405MHz)_Lower Band Edge_H_Average.

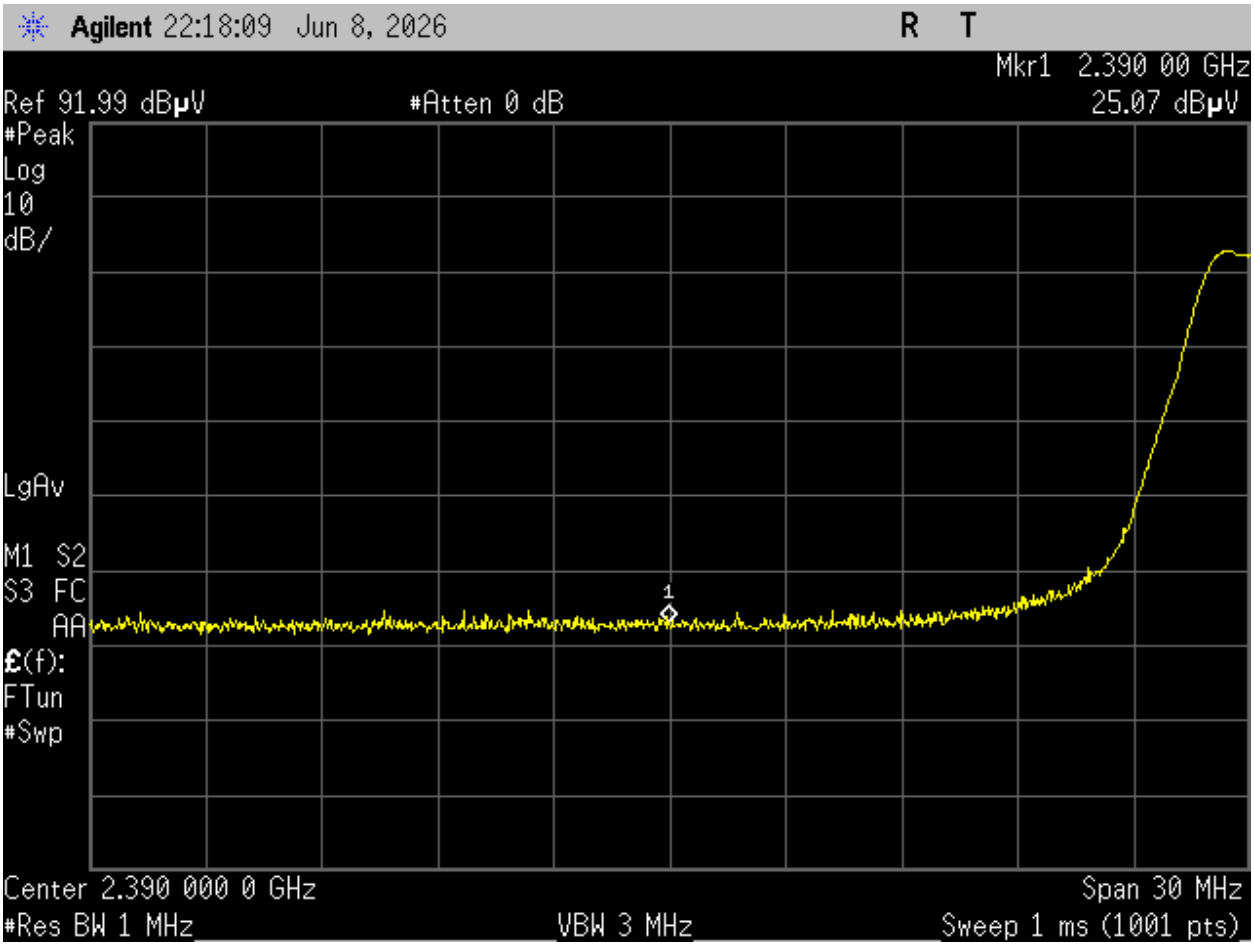

Figure 19. Low Channel (2405MHz)_Lower Band Edge_H_Peak.

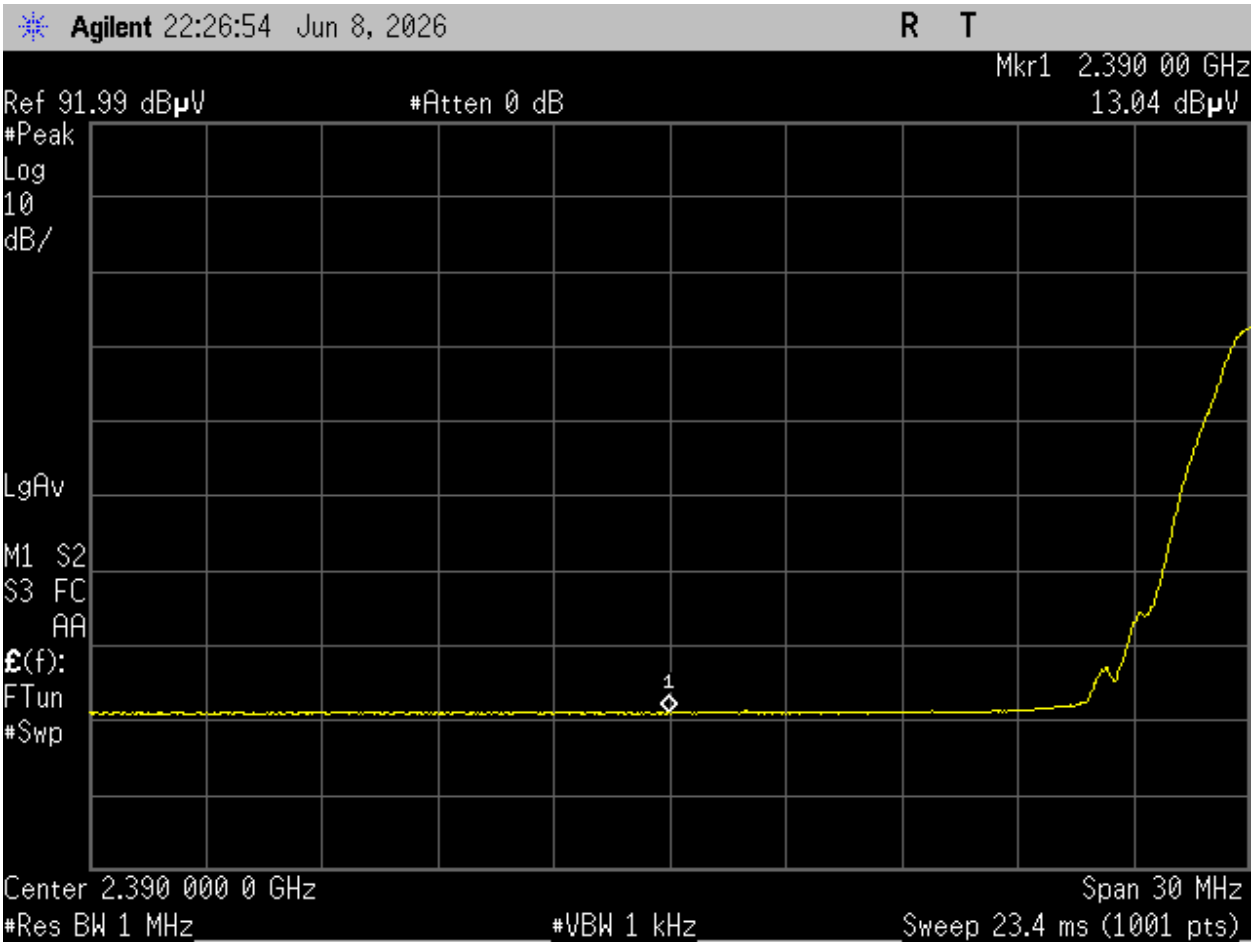

Figure 20. Low Channel (2405MHz)_Lower Band Edge_V_Average.

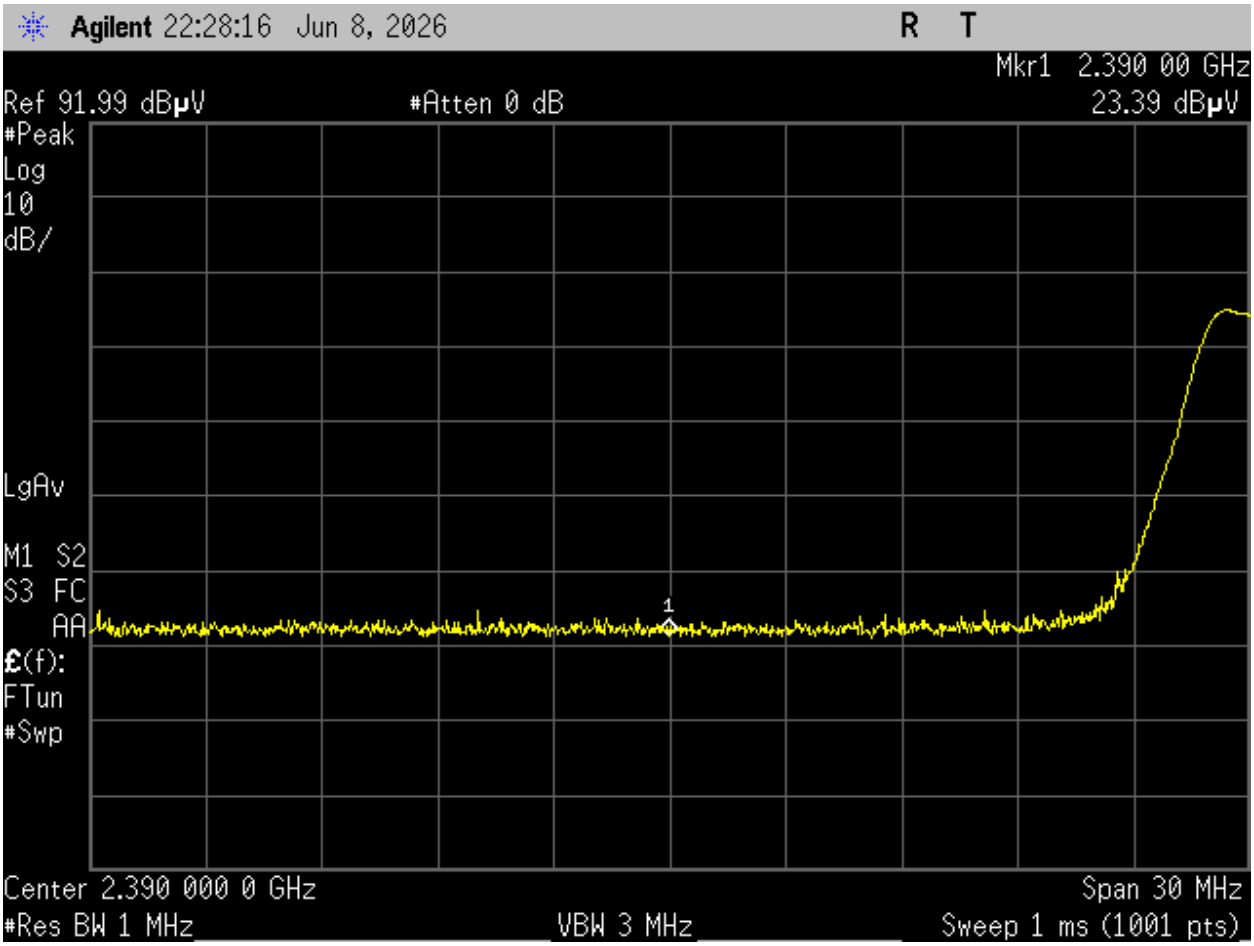

Figure 21. Low Channel (2405MHz)_Lower Band Edge_V_Peak.

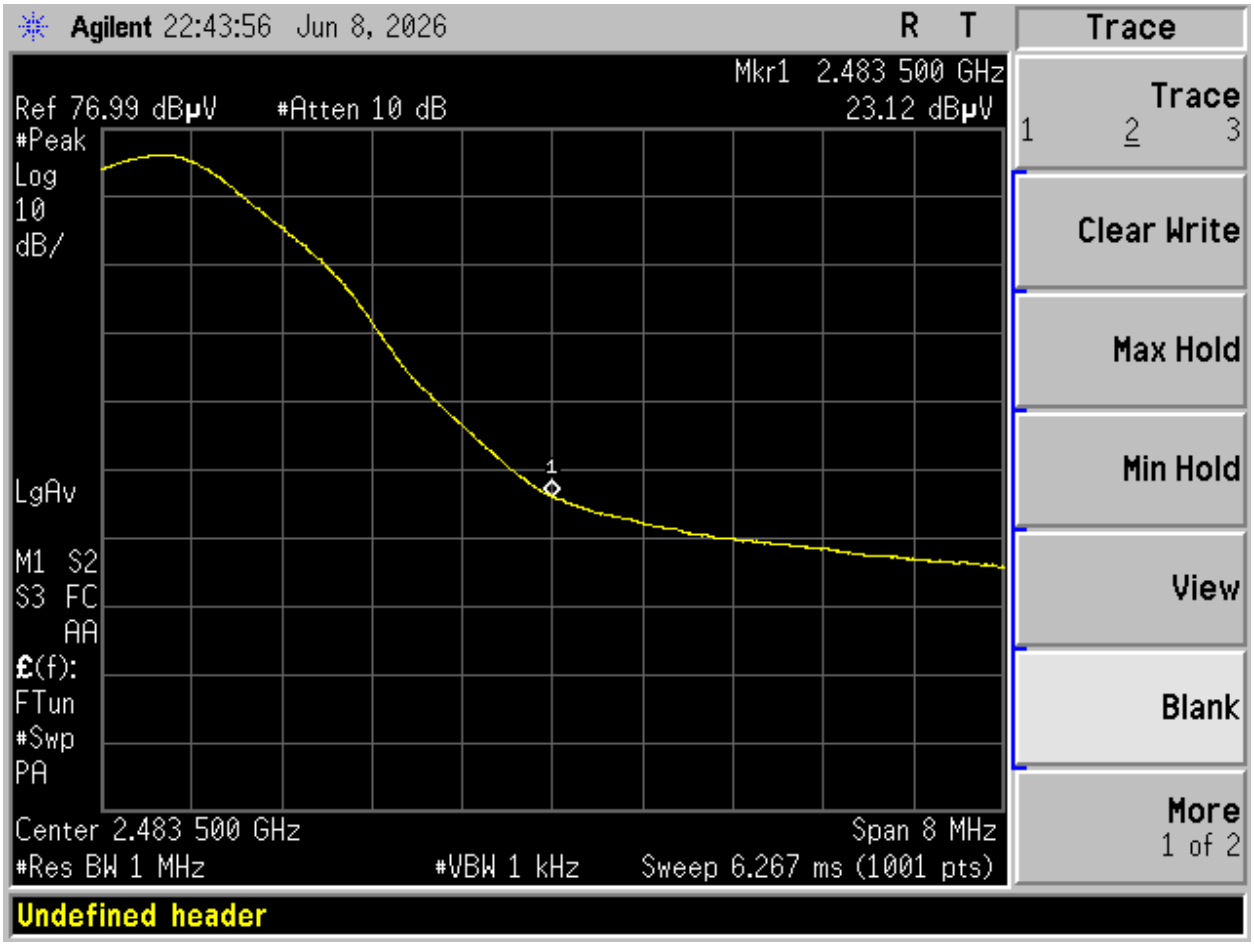

Figure 22. High Channel (2480MHz), Upper Band Edge_H_Average.

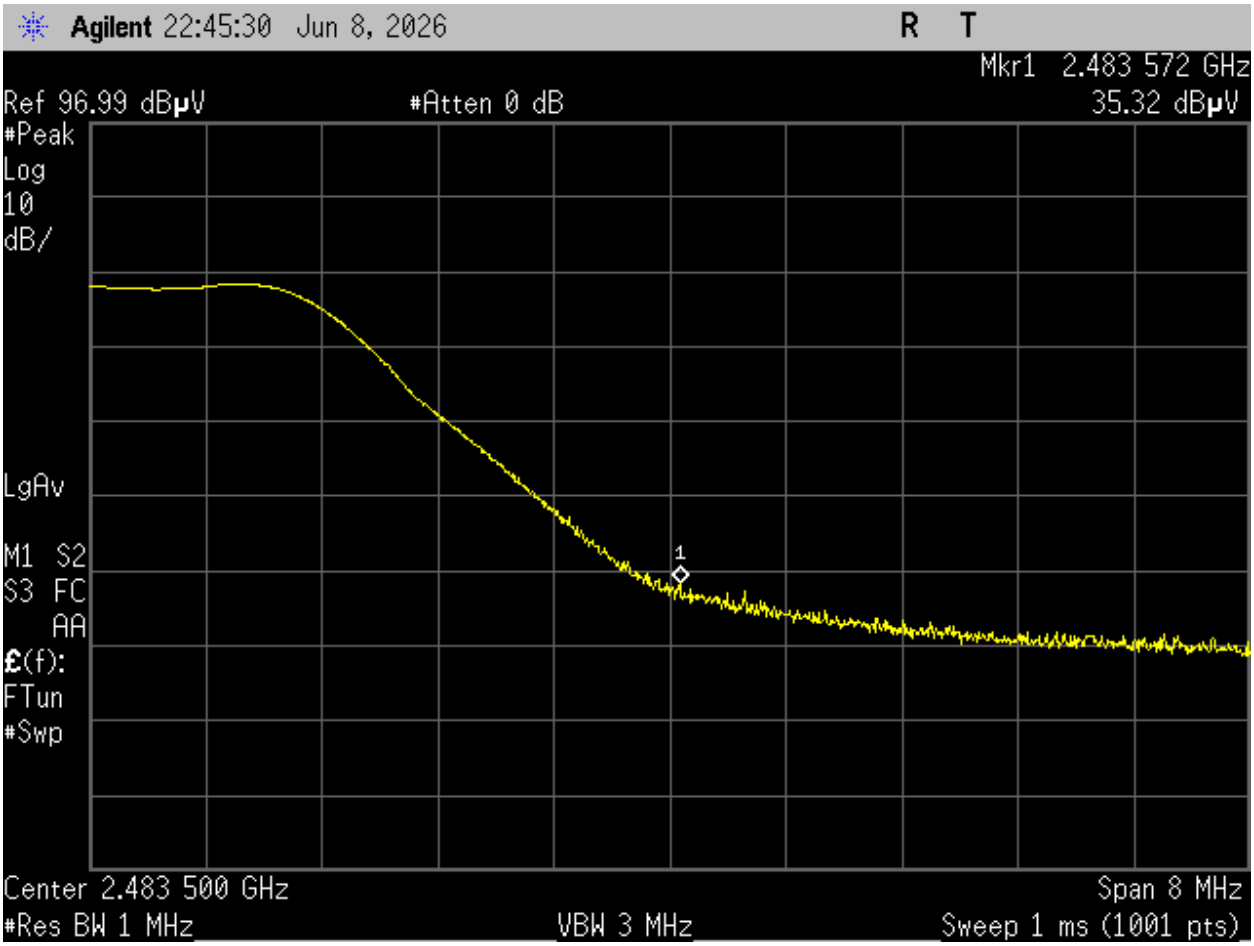

Figure 23. High Channel (2480MHz), Upper Band Edge_H_Peak.

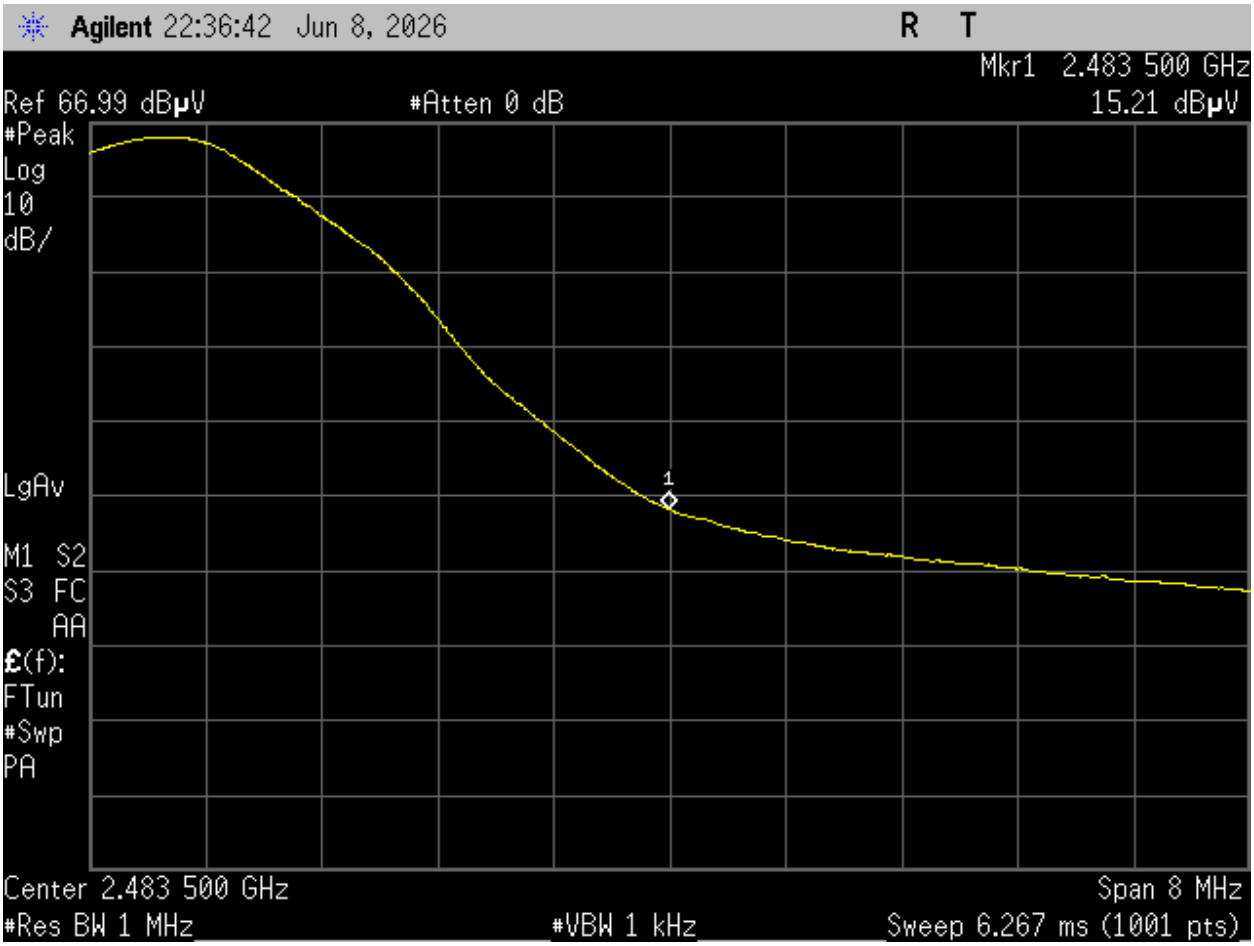

Figure 24. High Channel (2480MHz), Upper Band Edge_V_Average.

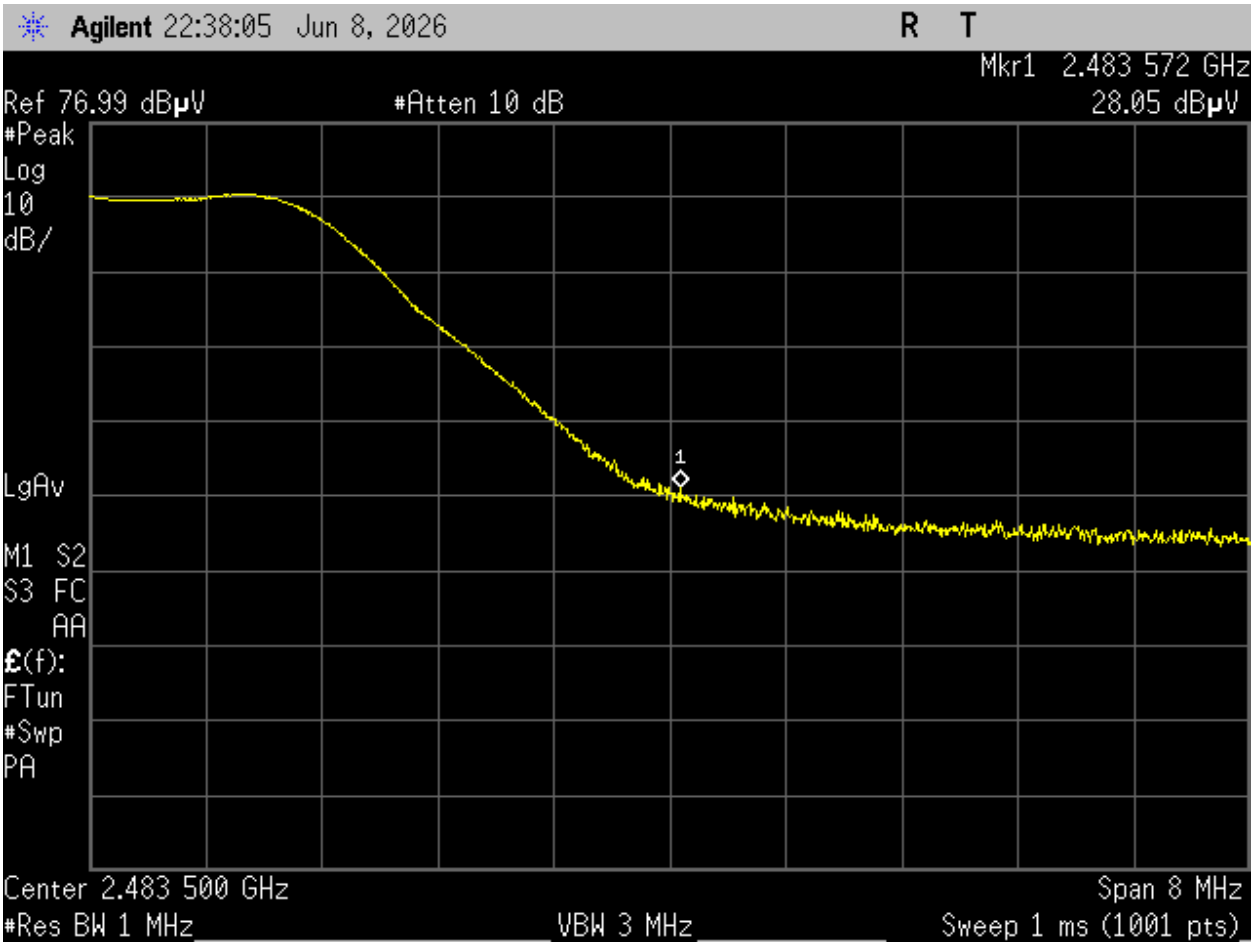

Figure 25. High Channel (2480MHz), Upper Band Edge_V_Peak.

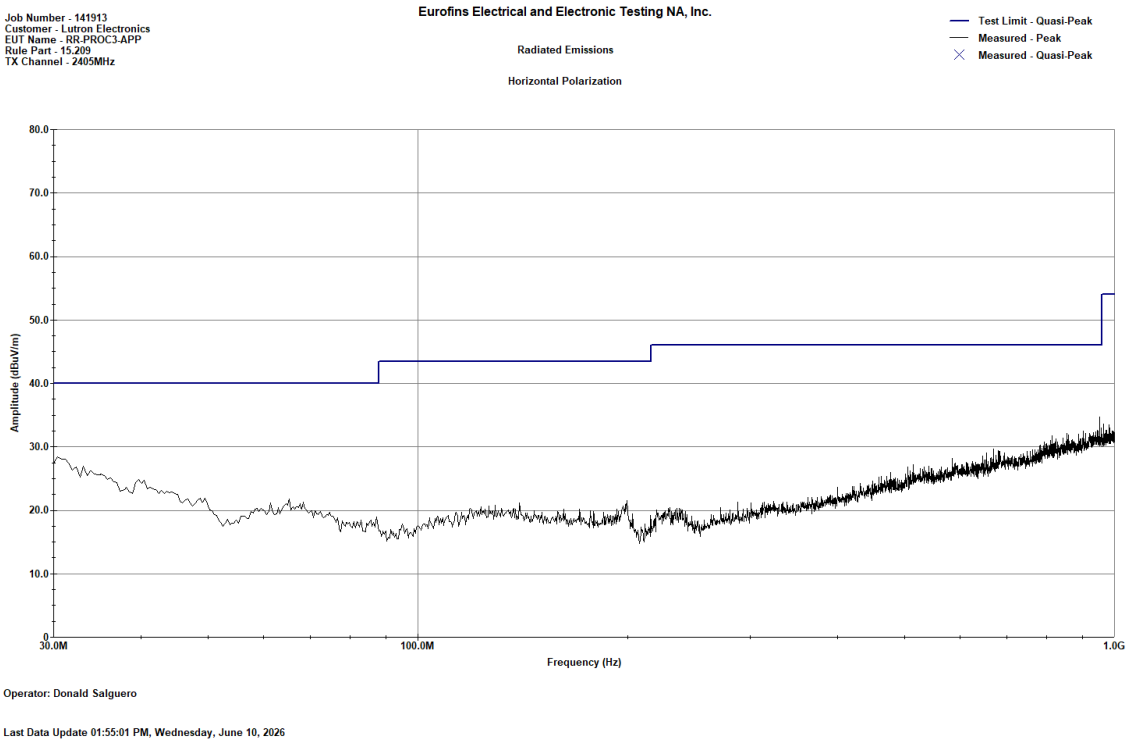

Figure 26. Low Channel_2405MHz_Radiated Emissions, 30 MHz to 1 GHz_H

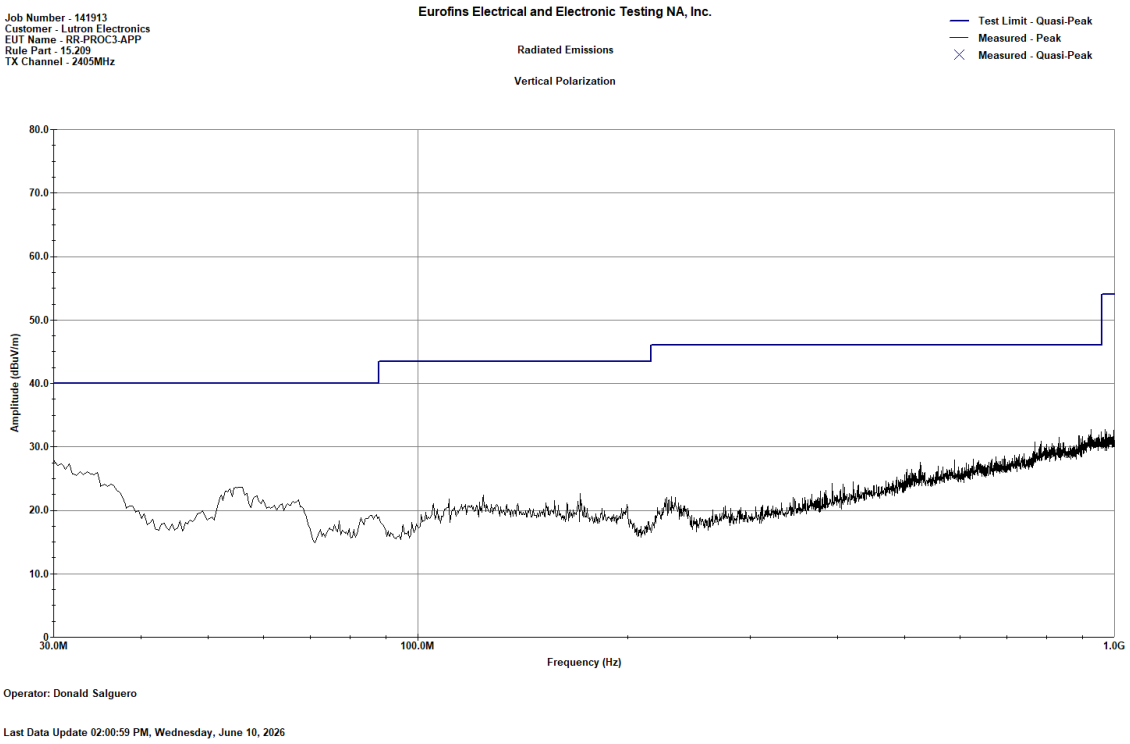

Figure 27. Low Channel_2405MHz_Radiated Emissions, 30 MHz to 1 GHz_V

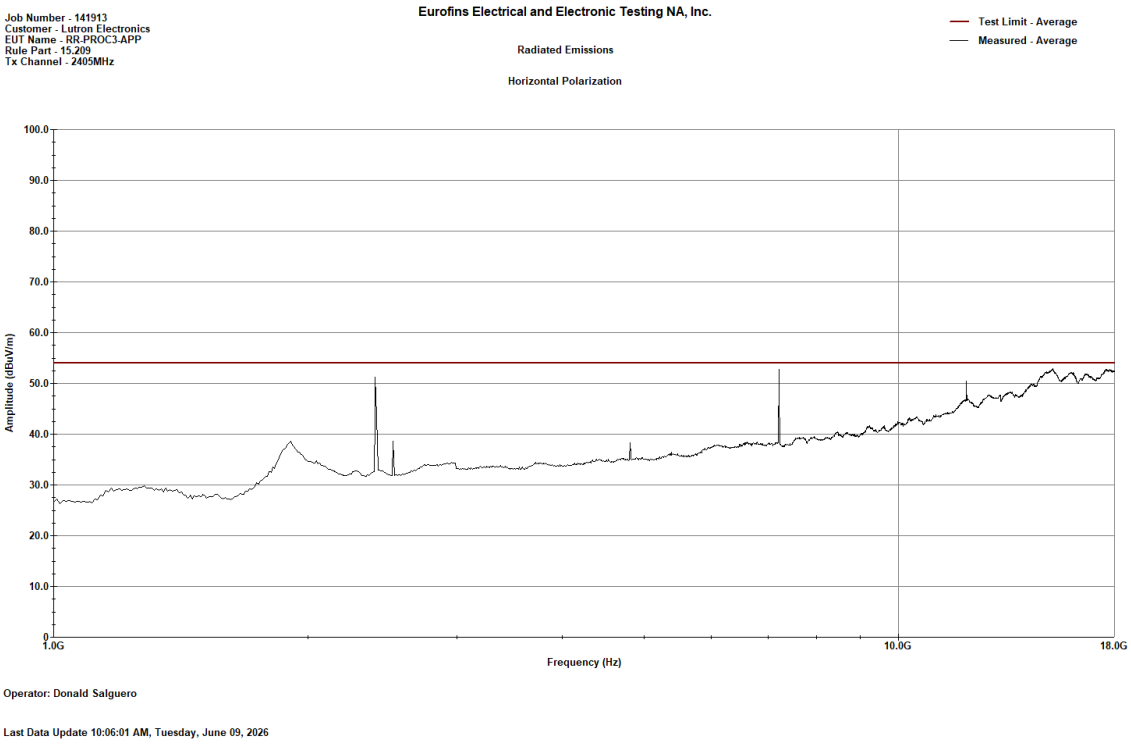

Figure 28. Low Channel_2405MHz_Radiated Emissions, Average, 1 - 18 GHz_H

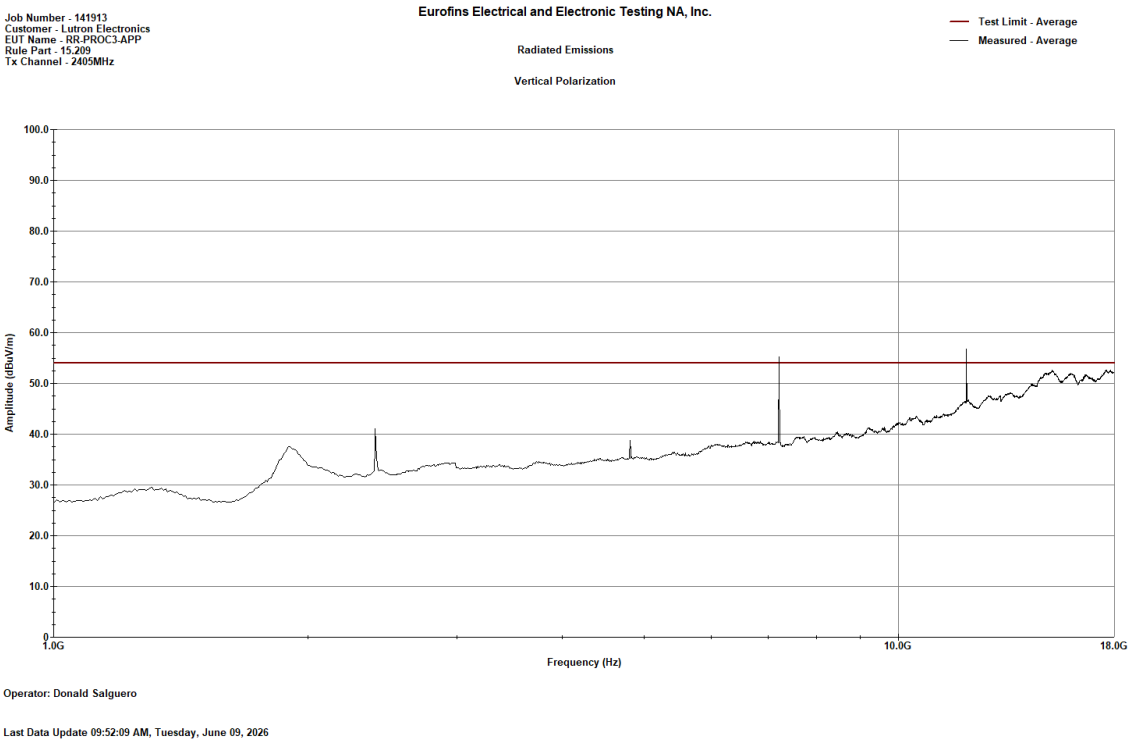

Figure 29. Low Channel_2405MHz_Radiated Emissions, Average, 1 - 18 GHz_V

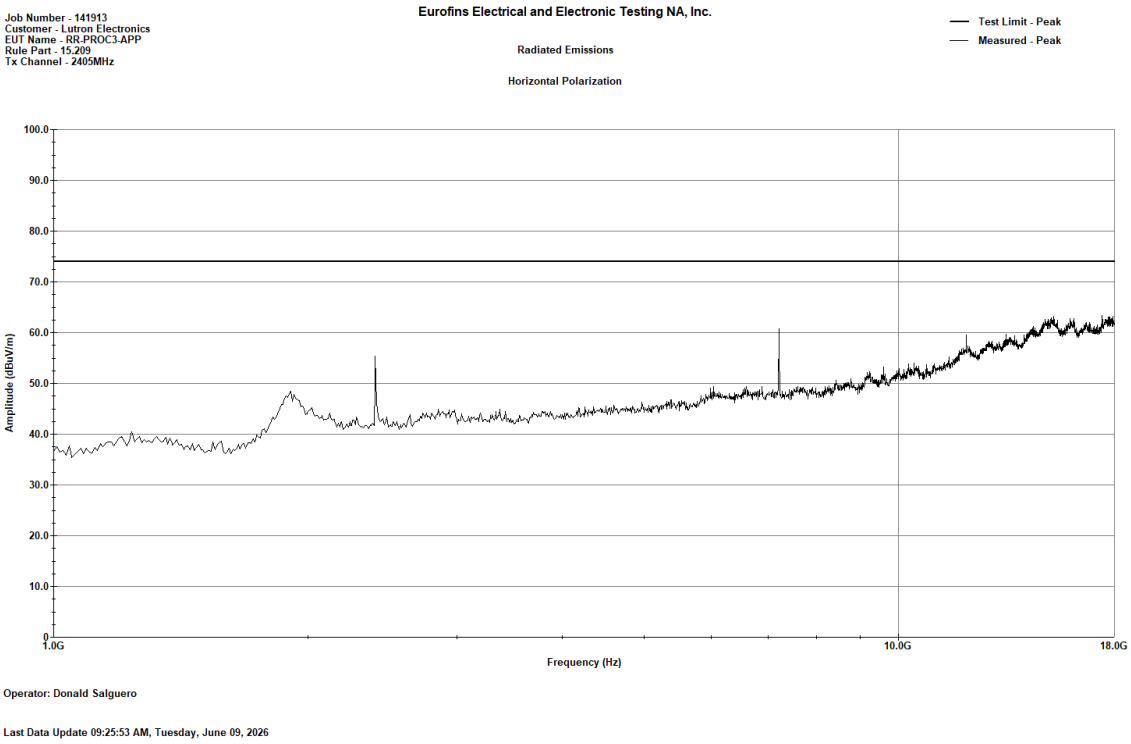

Figure 30. Low Channel_2405MHz_Radiated Emissions, Peak, 1 - 18 GHz_H

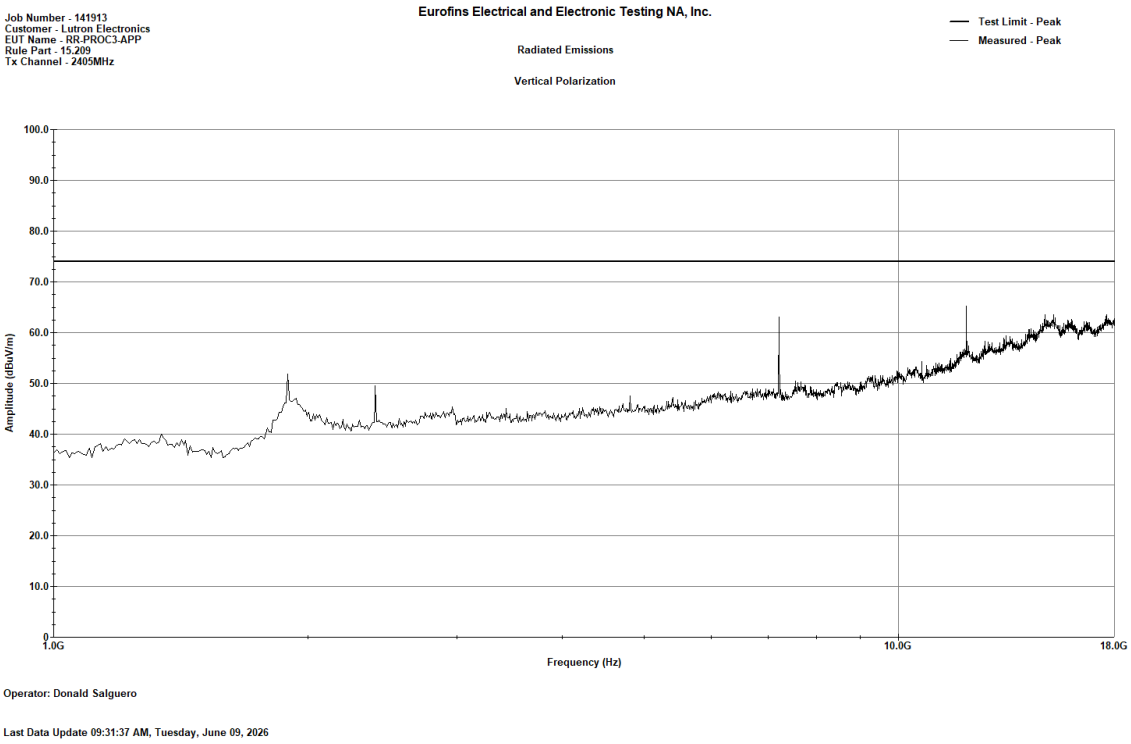

Figure 31. Low Channel_2405MHz_Radiated Emissions, Peak, 1 - 18 GHz_V

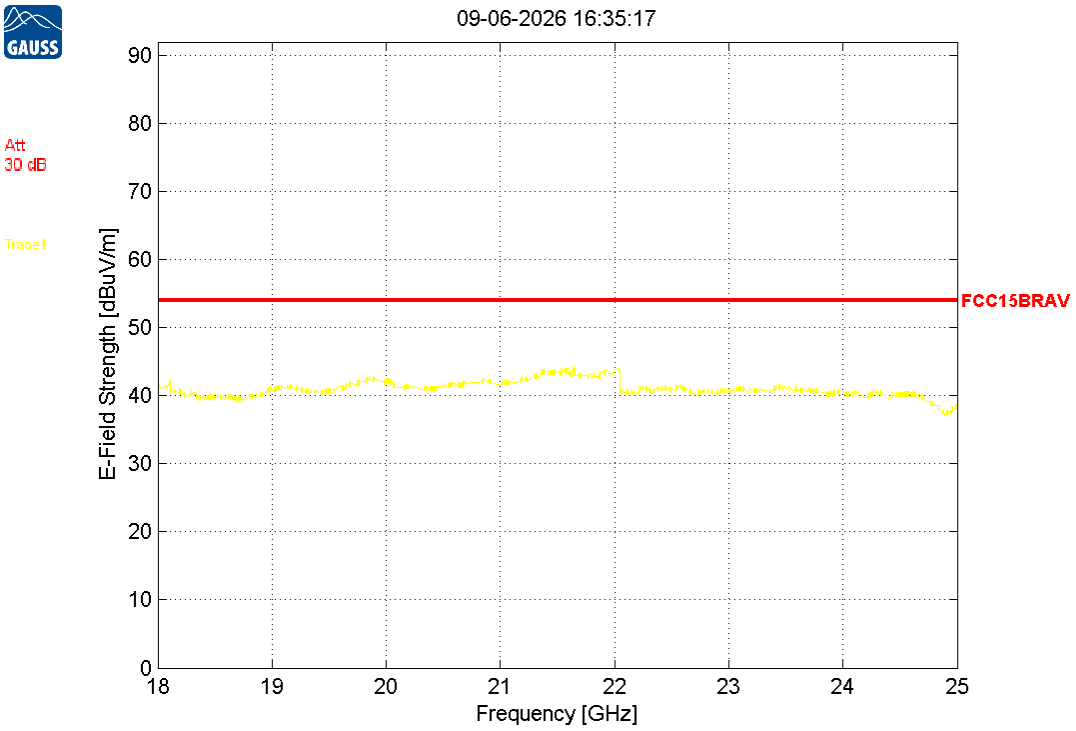

Figure 32. Low Channel_2405MHz_Radiated Emissions, Average, 18 - 25 GHz_H

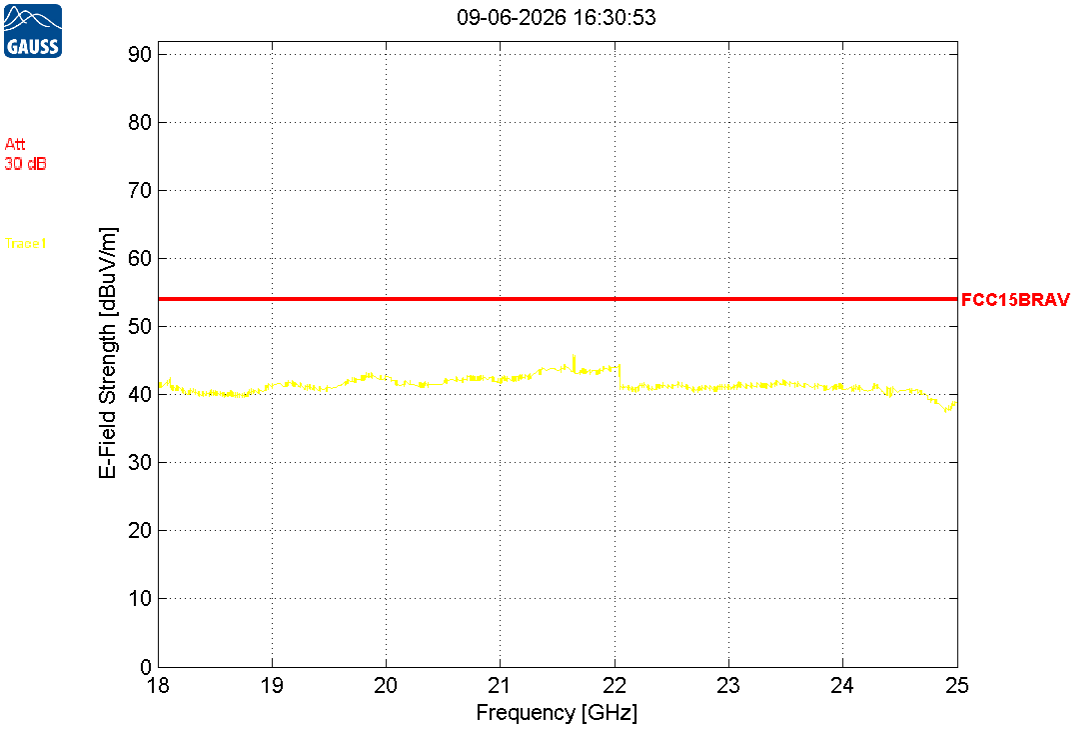

Figure 33. Low Channel_2405MHz_Radiated Emissions, Average, 18 - 25 GHz_V

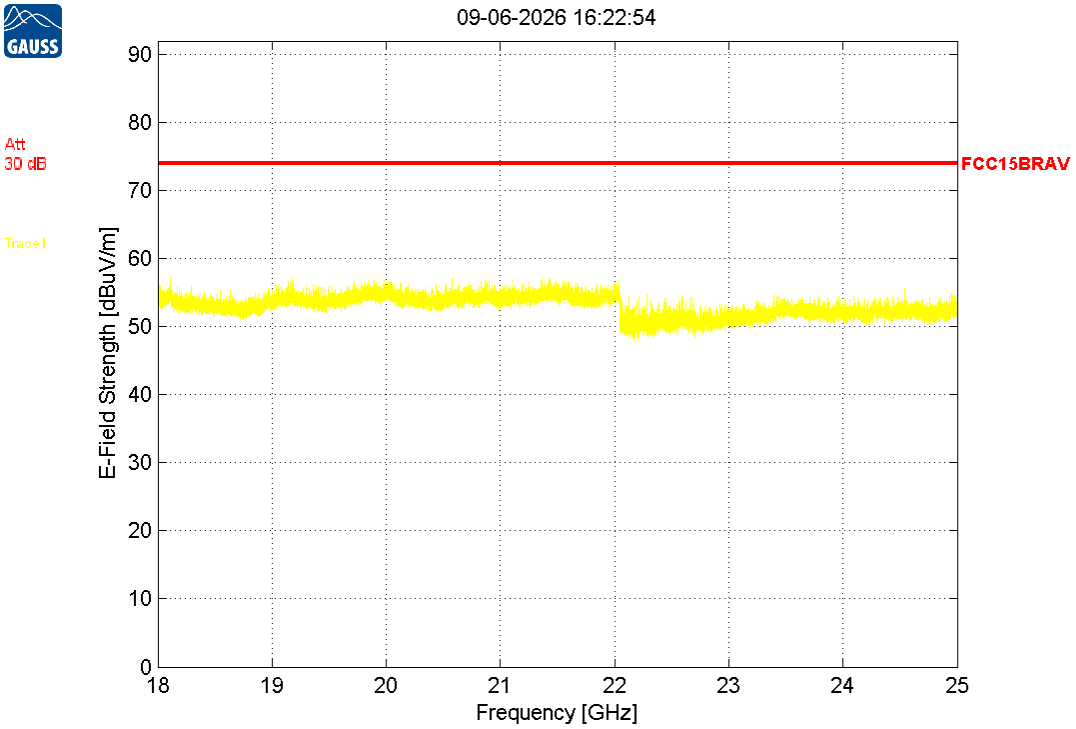

Figure 34. Low Channel_2405MHz_Radiated Emissions, Peak, 18 - 25 GHz_H

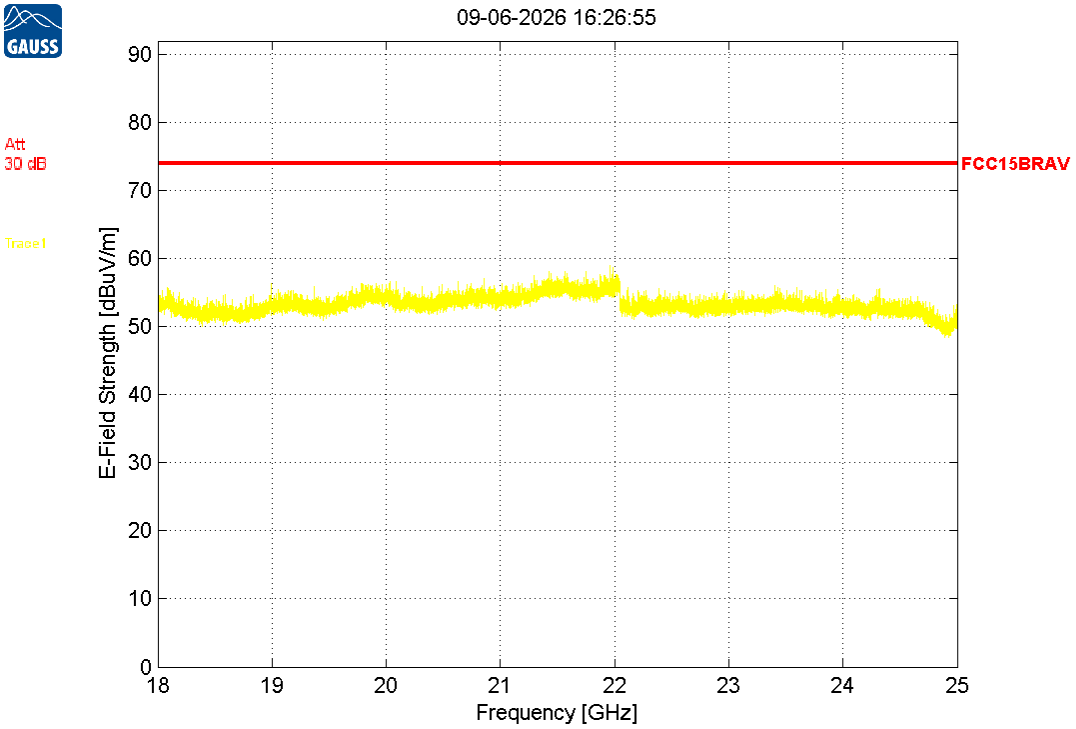

Figure 35. Low Channel_2405MHz_Radiated Emissions, Peak, 18 - 25 GHz_V

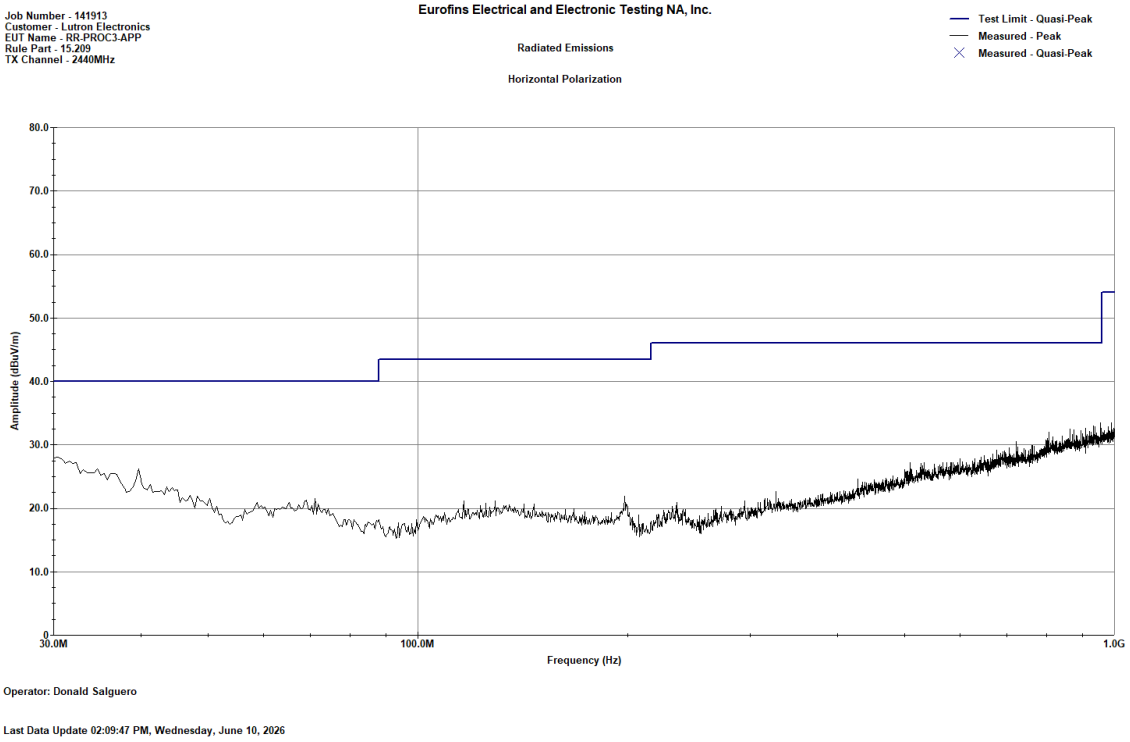

Figure 36. Mid Channel_2440MHz_Radiated Emissions, 30 MHz to 1 GHz_H

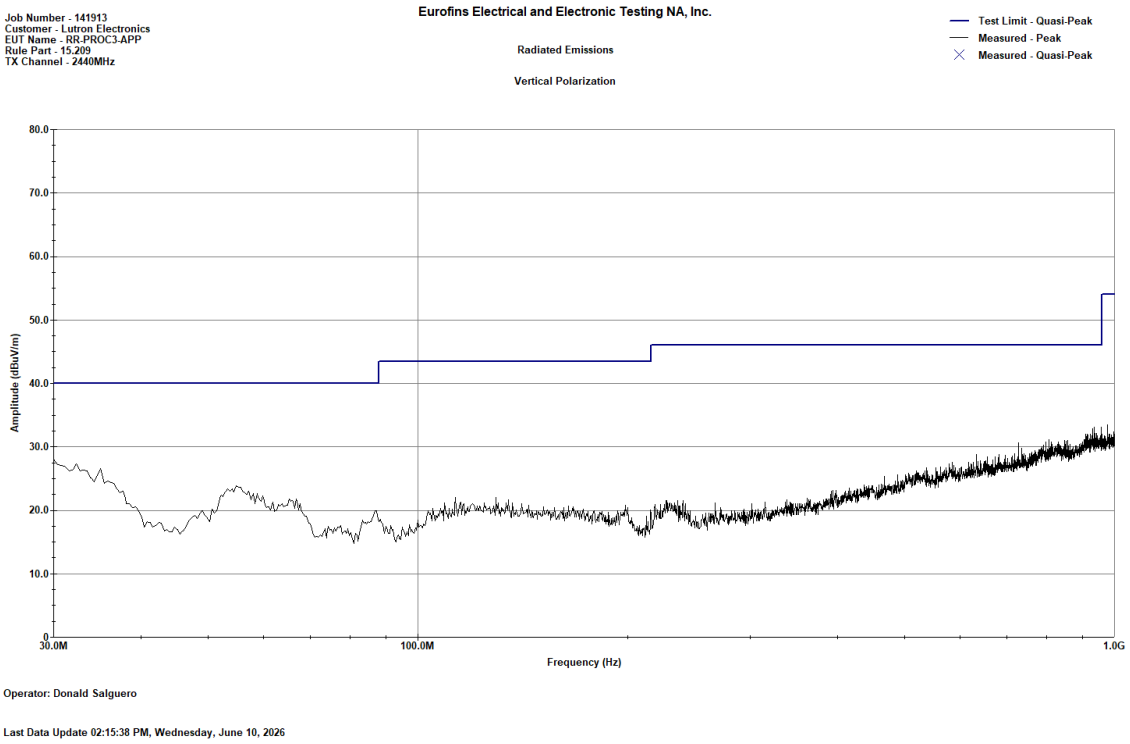

Figure 37. Mid Channel_2440MHz_Radiated Emissions, 30 MHz to 1 GHz_V

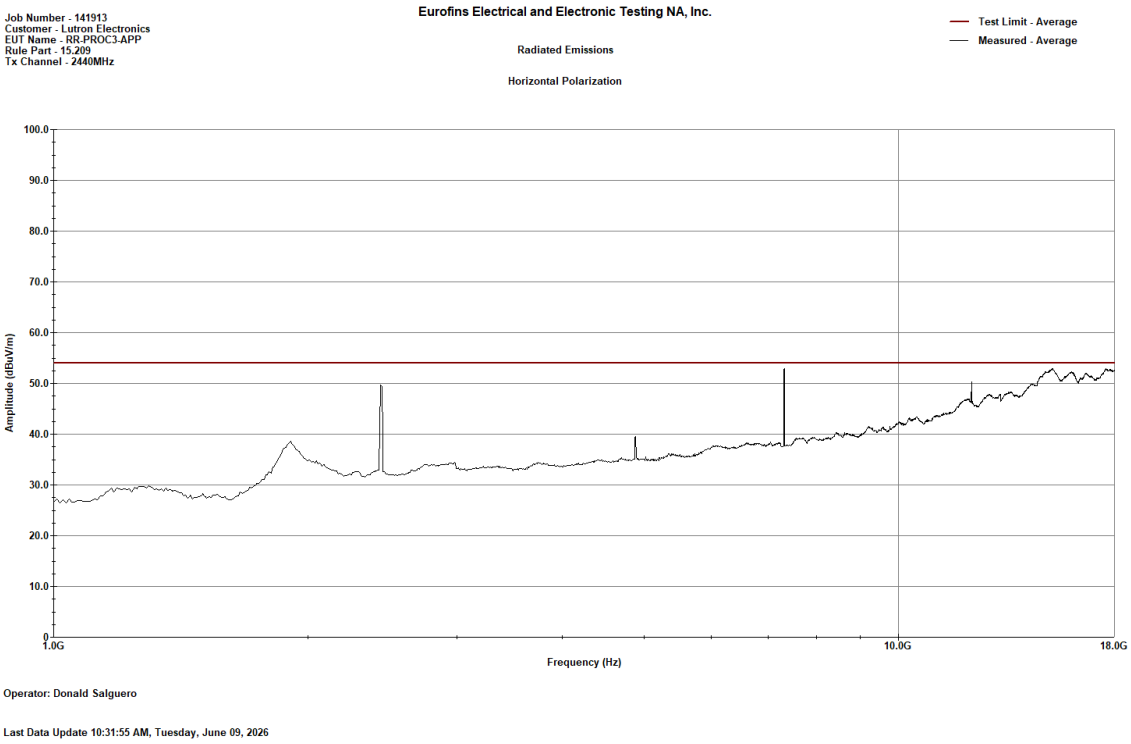

Figure 38. Mid Channel_2440MHz_Radiated Emissions, Average, 1 - 18 GHz_H

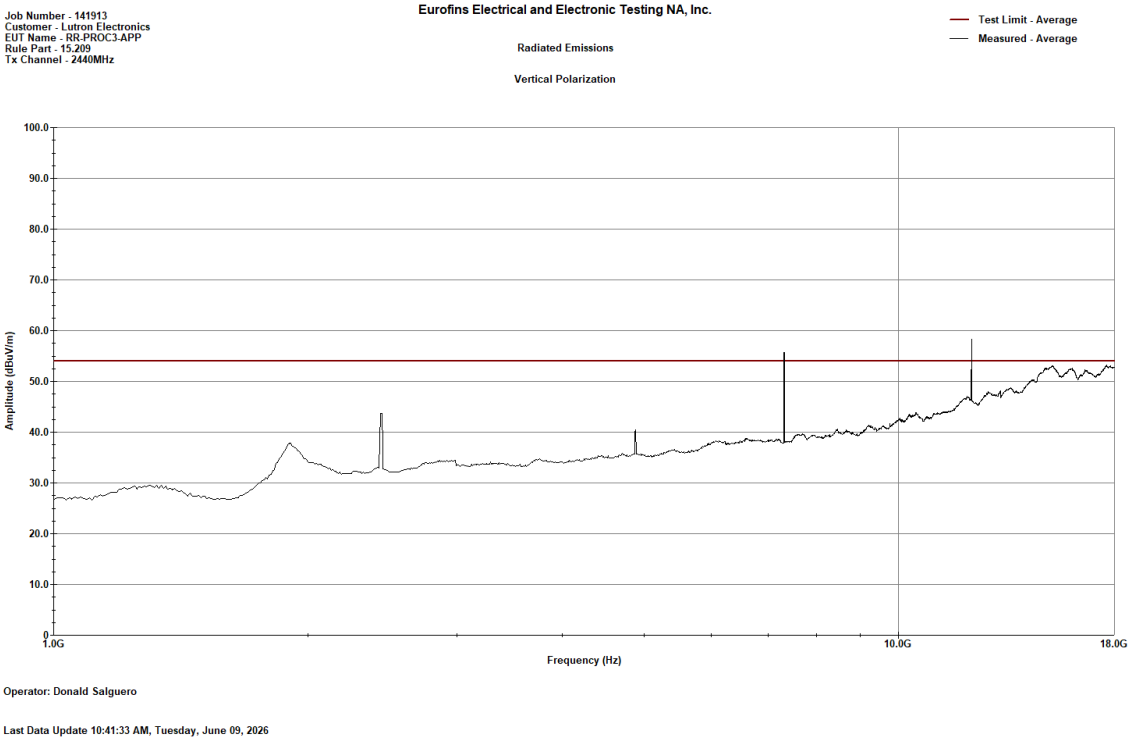

Figure 39. Mid Channel_2440MHz_Radiated Emissions, Average, 1 - 18 GHz_V

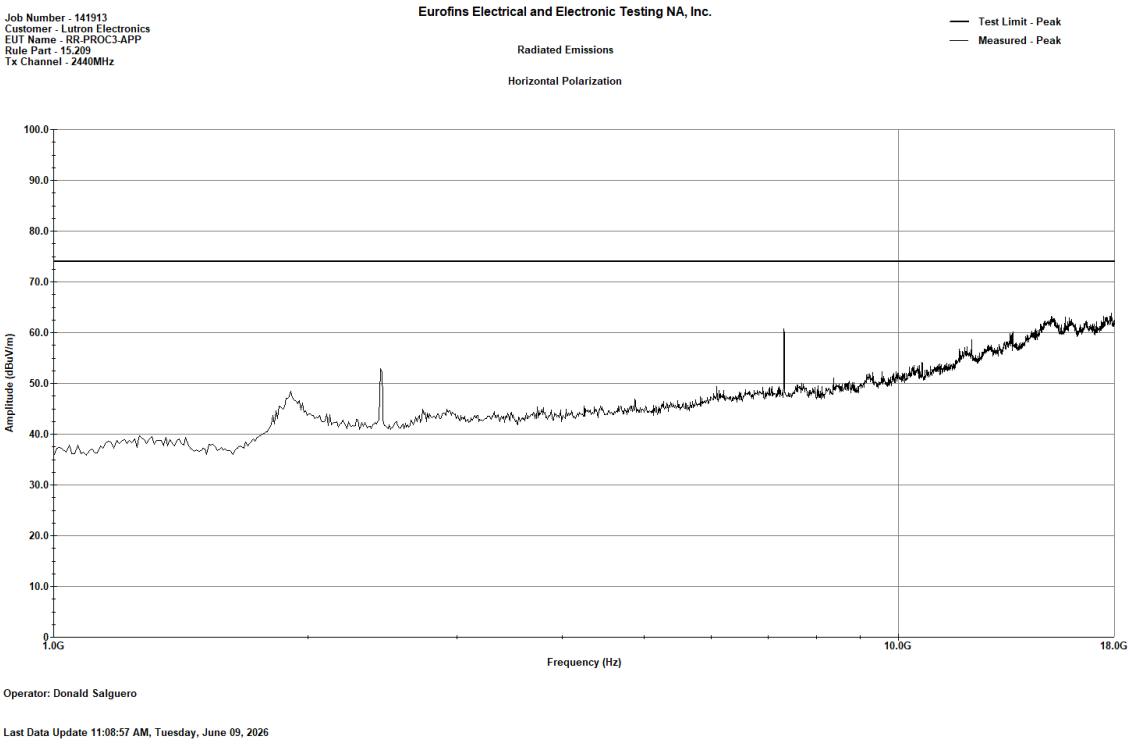

Figure 40. Mid Channel_2440MHz_Radiated Emissions, Peak, 1 - 18 GHz_H

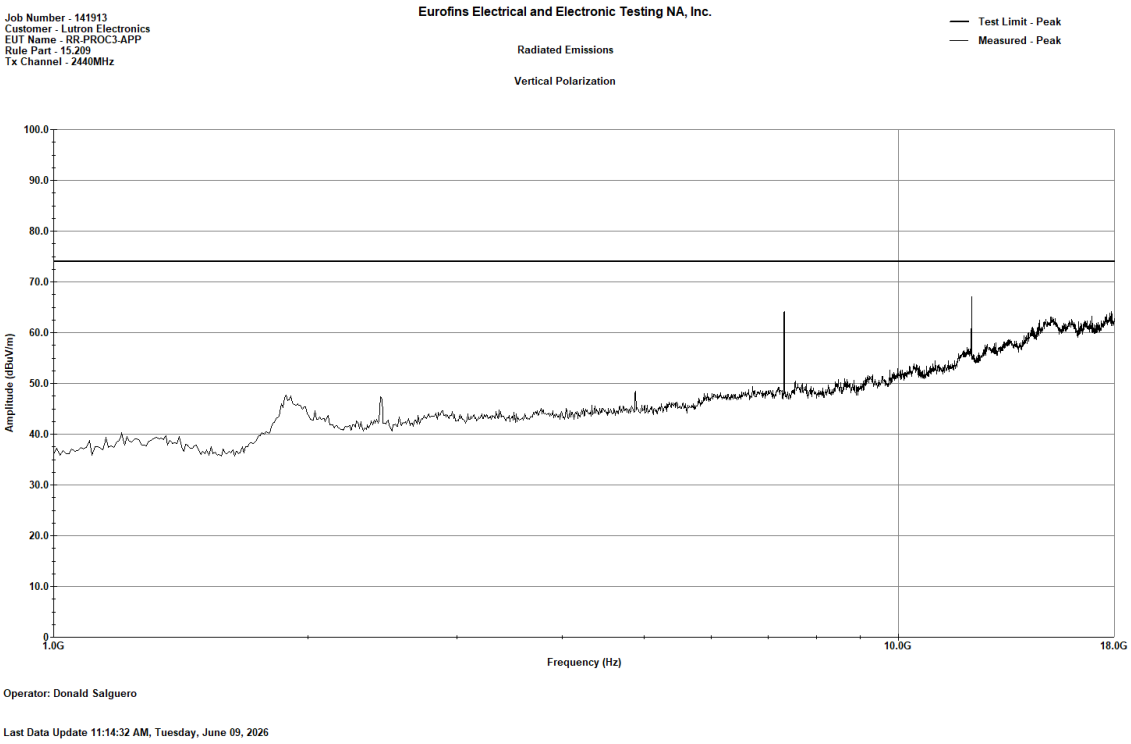

Figure 41. Mid Channel_2440MHz_Radiated Emissions, Peak, 1 - 18 GHz_V

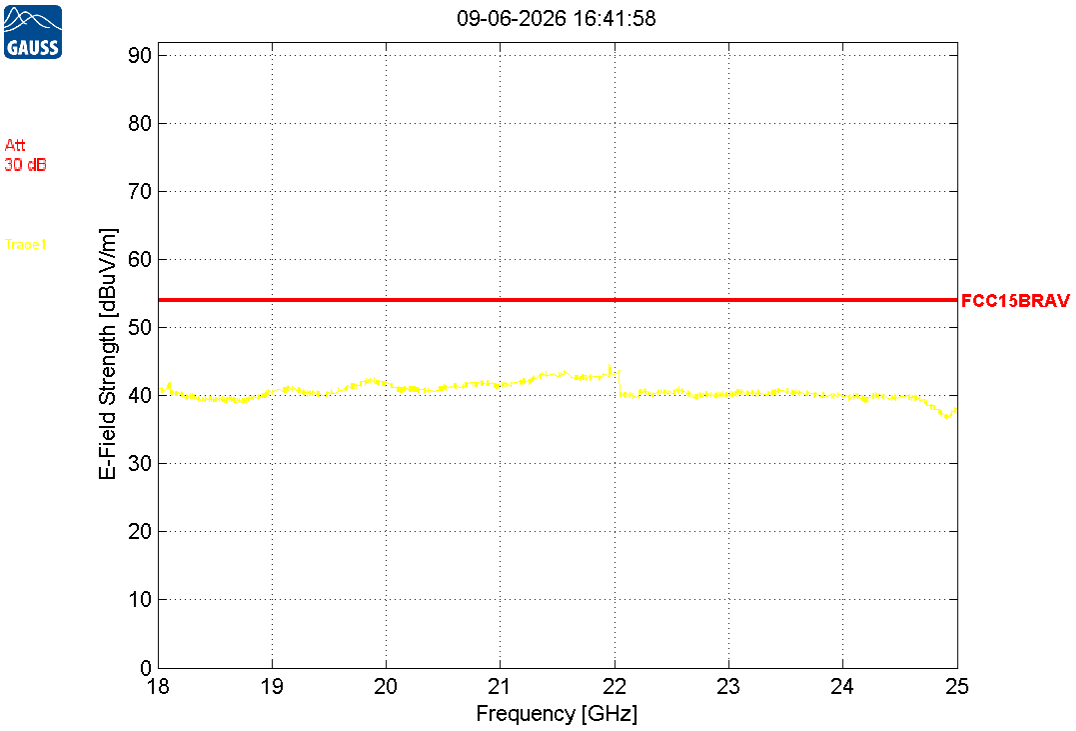

Figure 42. Mid Channel_2440MHz_Radiated Emissions, Average, 18 - 25 GHz_H

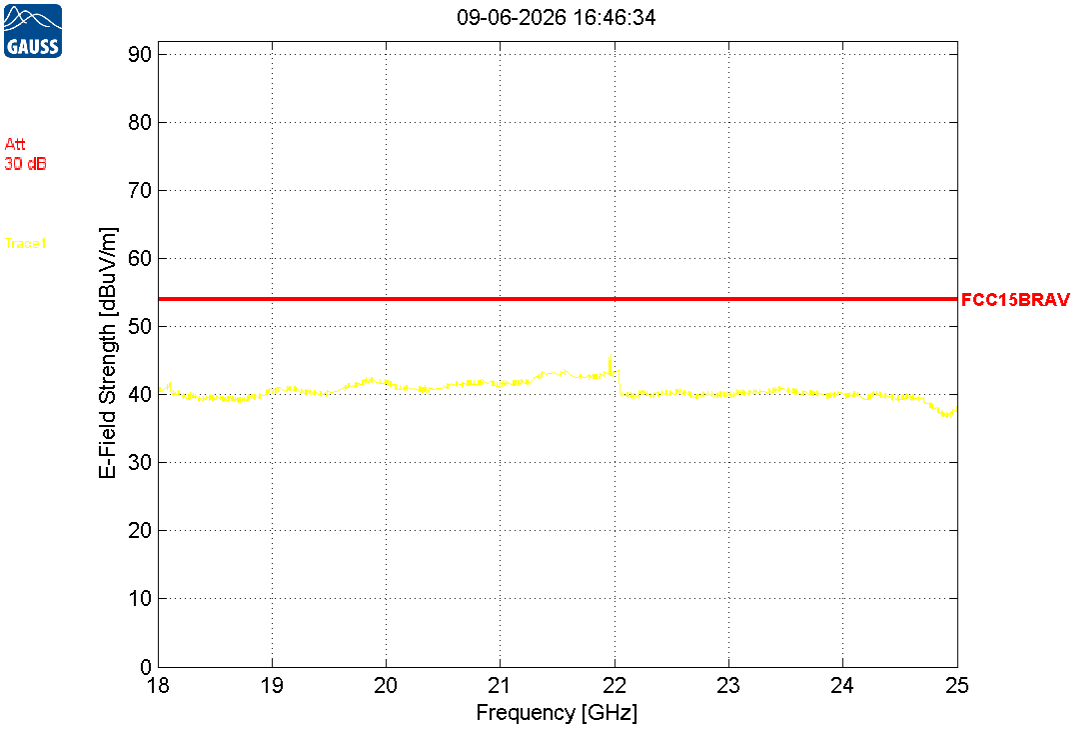

Figure 43. Mid Channel_2440MHz_Radiated Emissions, Average, 18 - 25 GHz_V

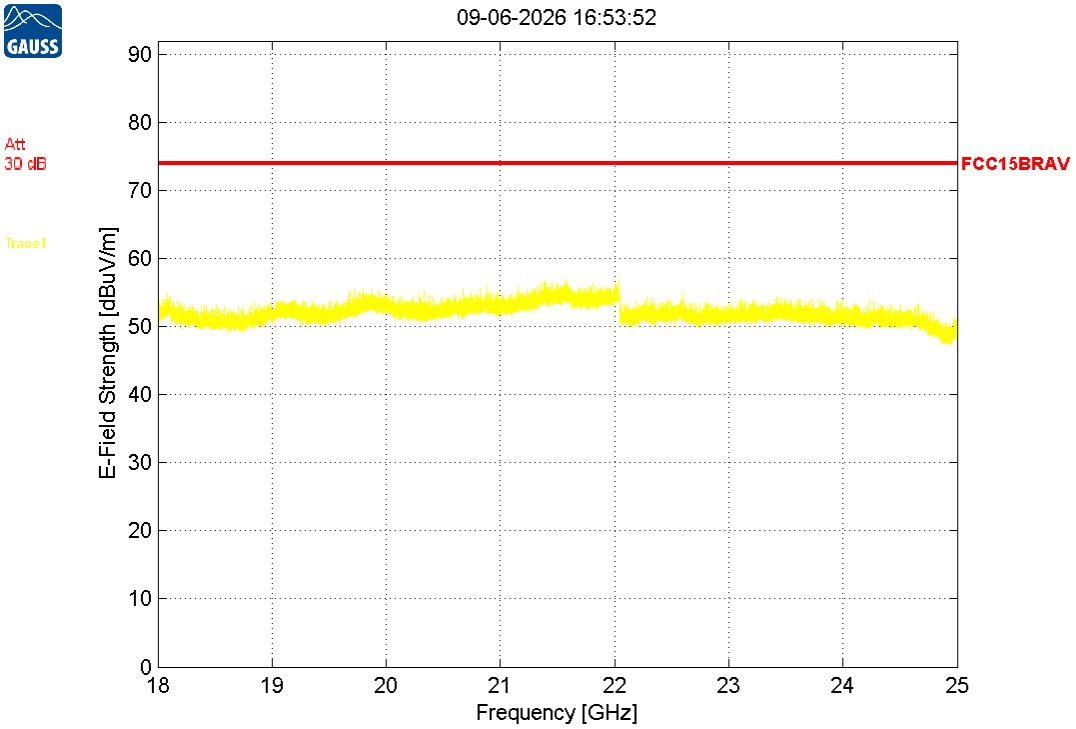

Figure 44. Mid Channel_2440MHz_Radiated Emissions, Peak, 18 - 25 GHz_H

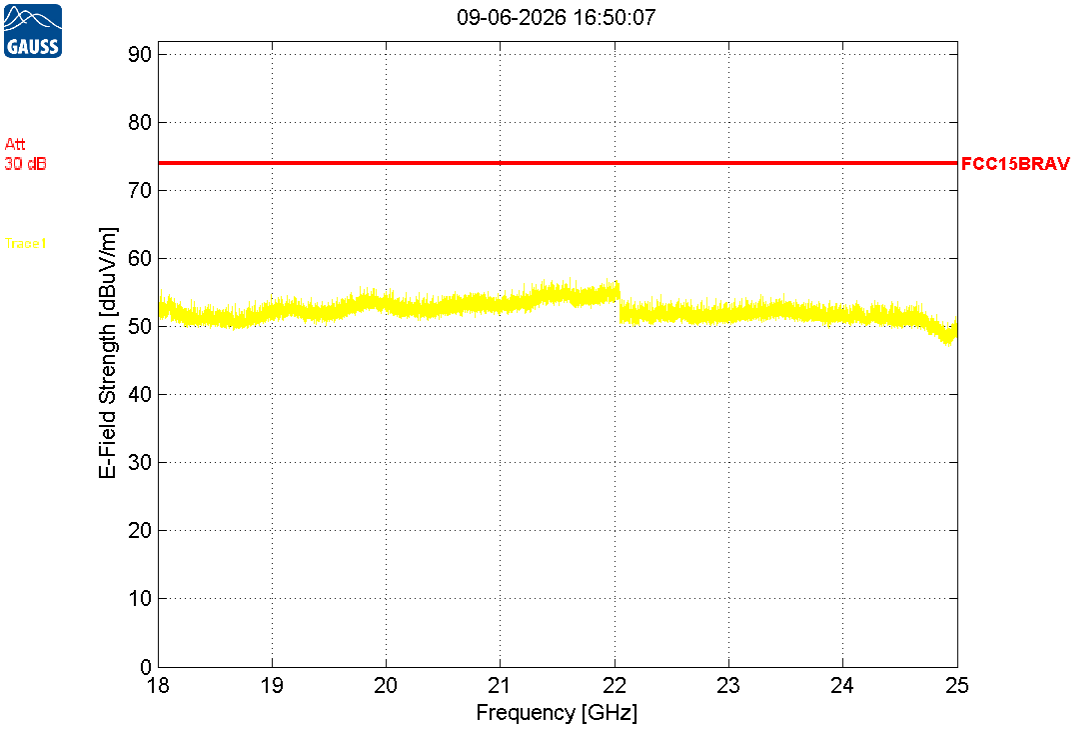

Figure 45. Mid Channel_2440MHz_Radiated Emissions, Peak, 18 - 25 GHz_V

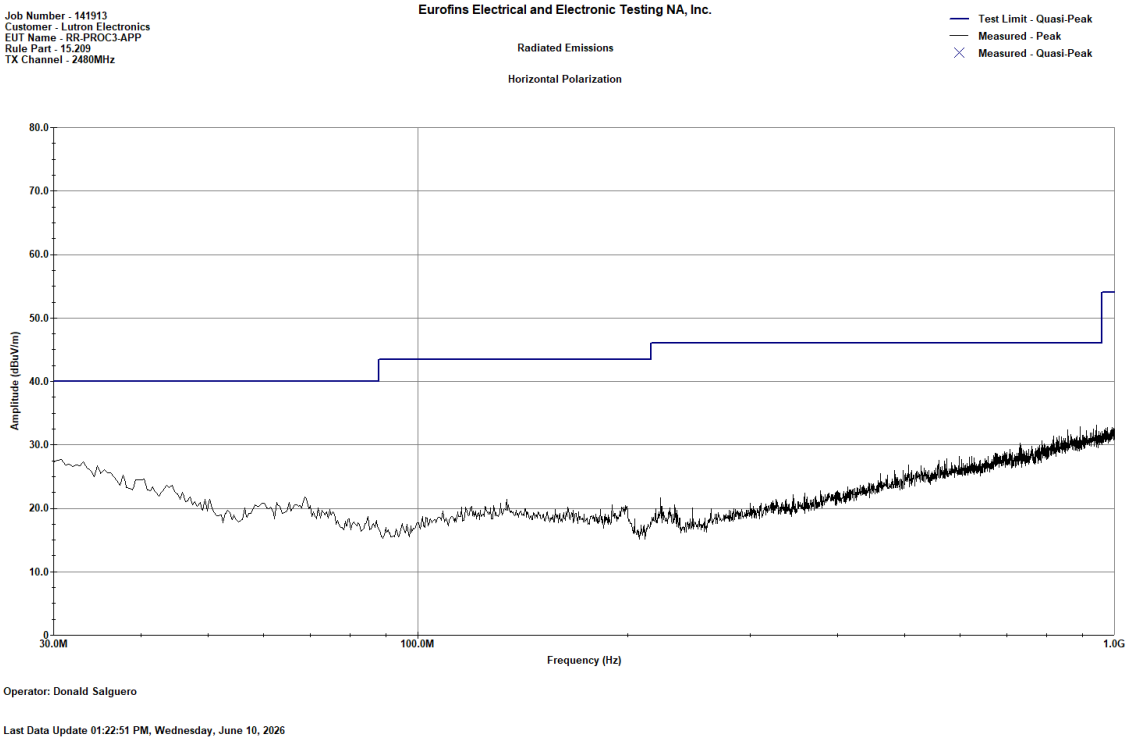

Figure 46. High Channel_2480MHz_Radiated Emissions, 30 MHz to 1 GHz_H

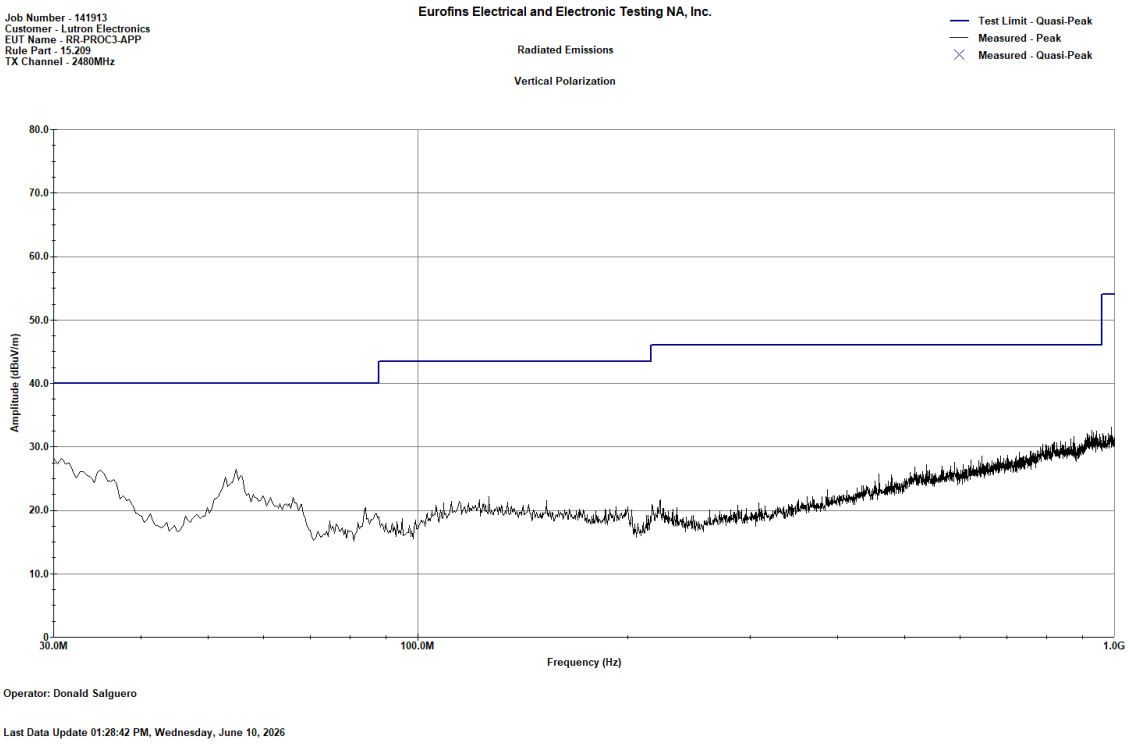

Figure 47. High Channel_2480MHz_Radiated Emissions, 30 MHz to 1 GHz_V

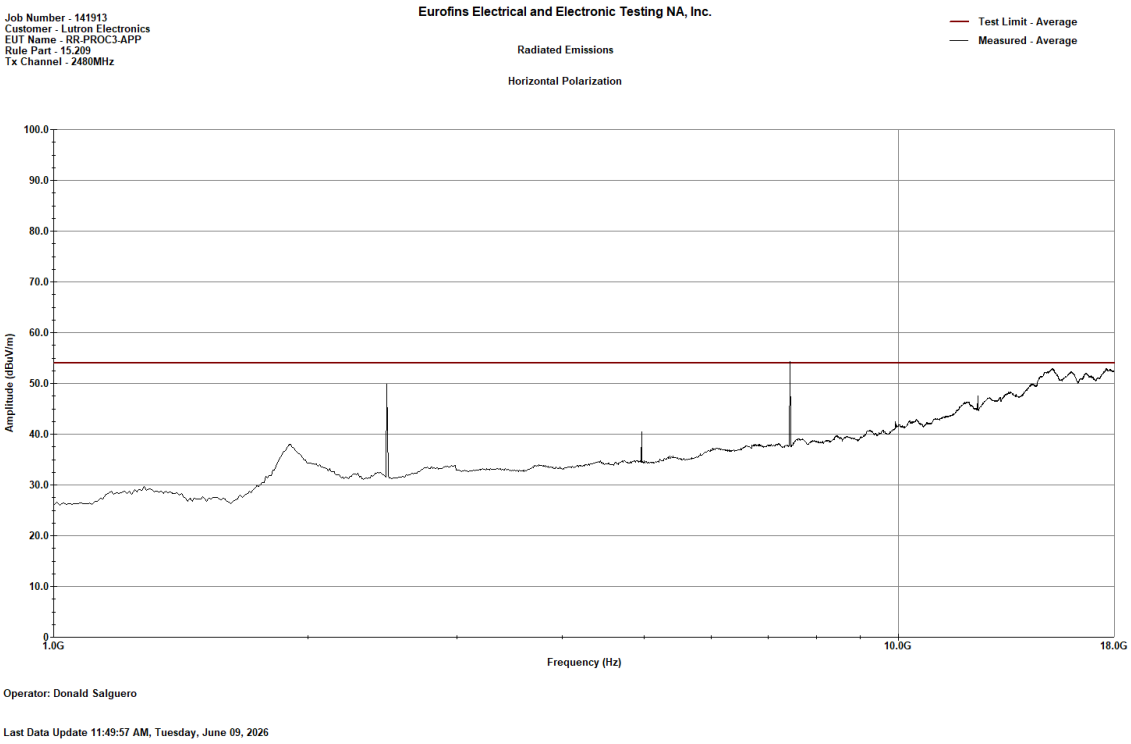

Figure 48. High Channel_2480MHz_Radiated Emissions, Average, 1 - 18 GHz_H

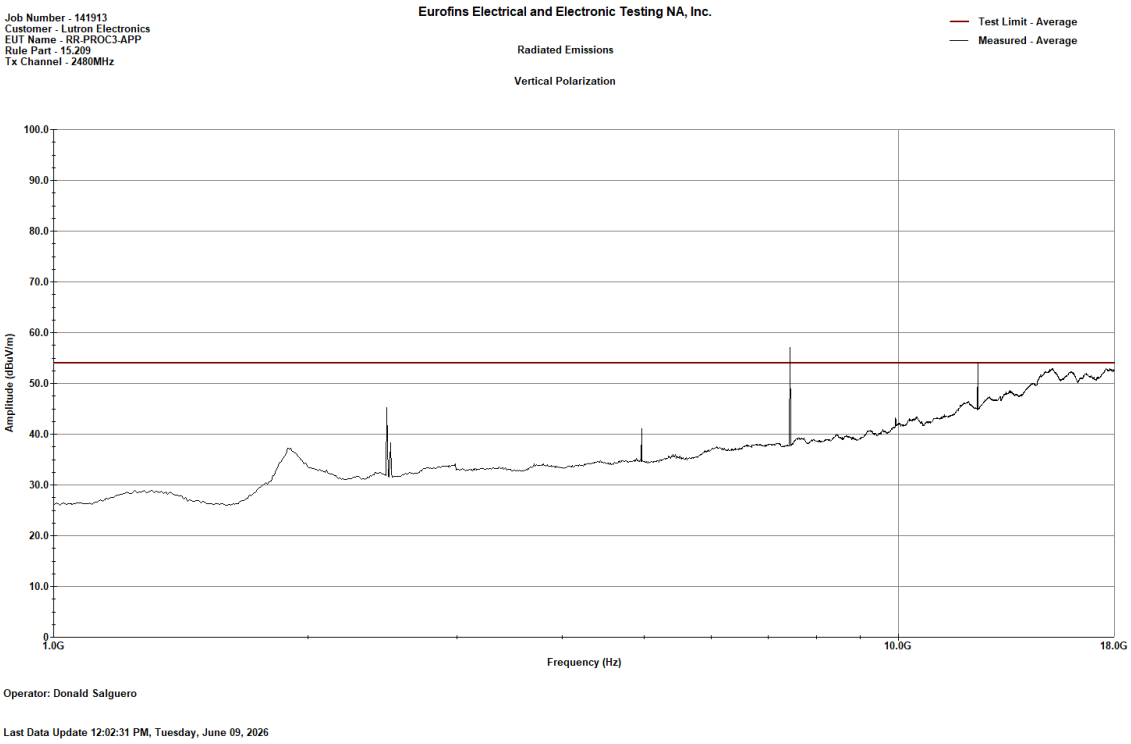

Figure 49. High Channel_2480MHz_Radiated Emissions, Average, 1 - 18 GHz_V

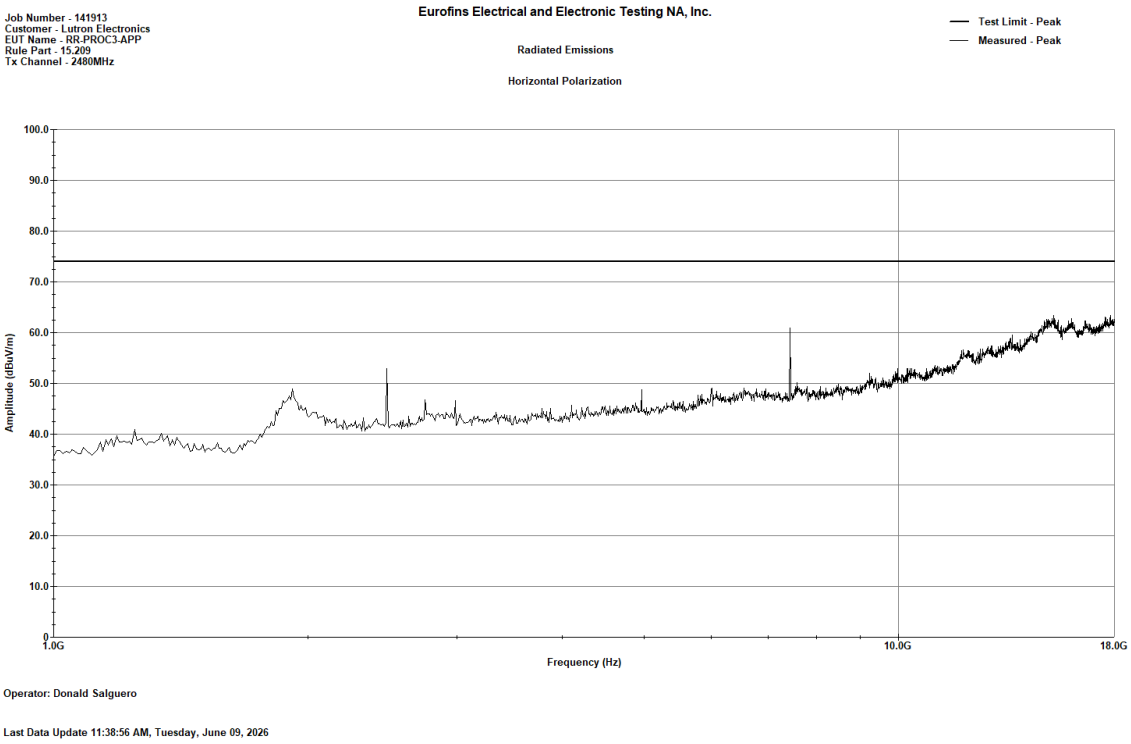

Figure 50. High Channel_2480MHz_Radiated Emissions, Peak, 1 - 18 GHz_H

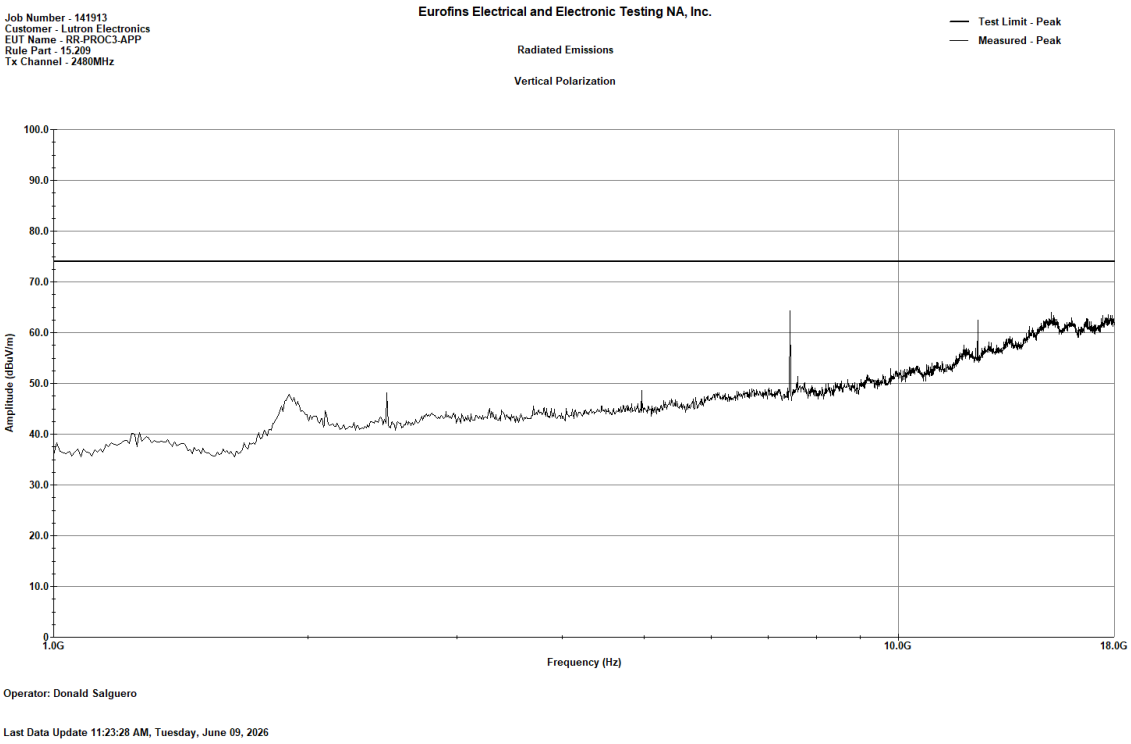

Figure 51. High Channel_2480MHz_Radiated Emissions, Peak, 1 - 18 GHz_V

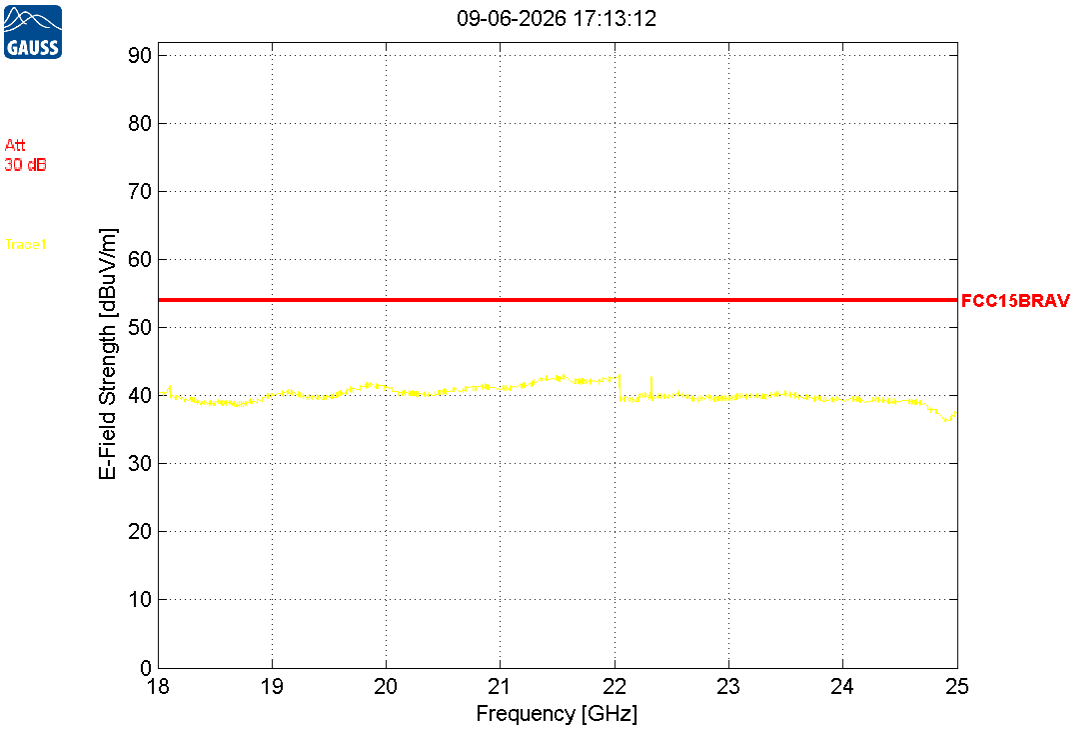

Figure 52. High Channel_2480MHz_Radiated Emissions, Average, 18 - 25 GHz_H

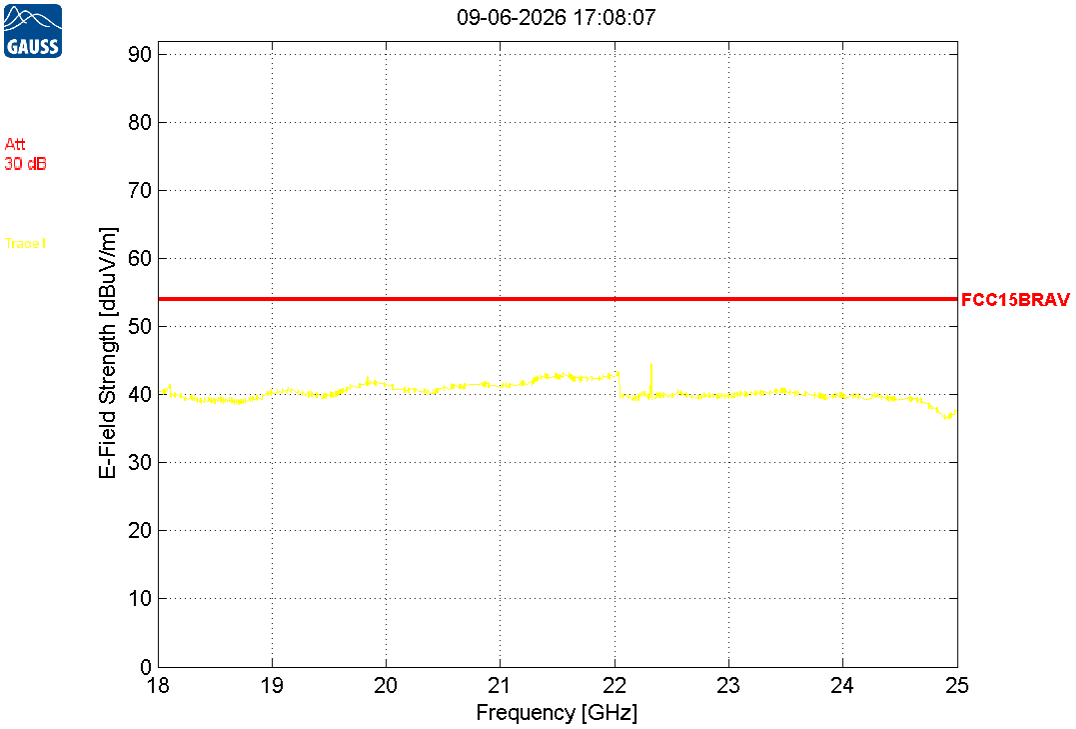

Figure 53. High Channel_2480MHz_Radiated Emissions, Average, 18 - 25 GHz_V

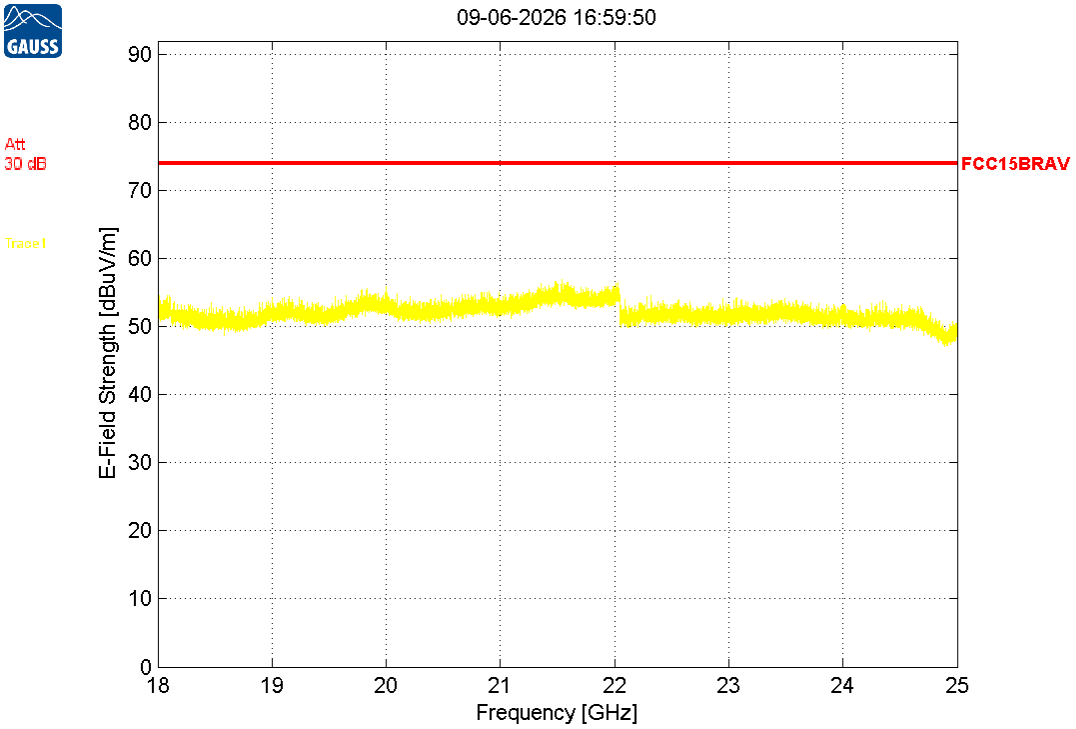

Figure 54. High Channel_2480MHz_Radiated Emissions, Peak, 18 - 25 GHz_H

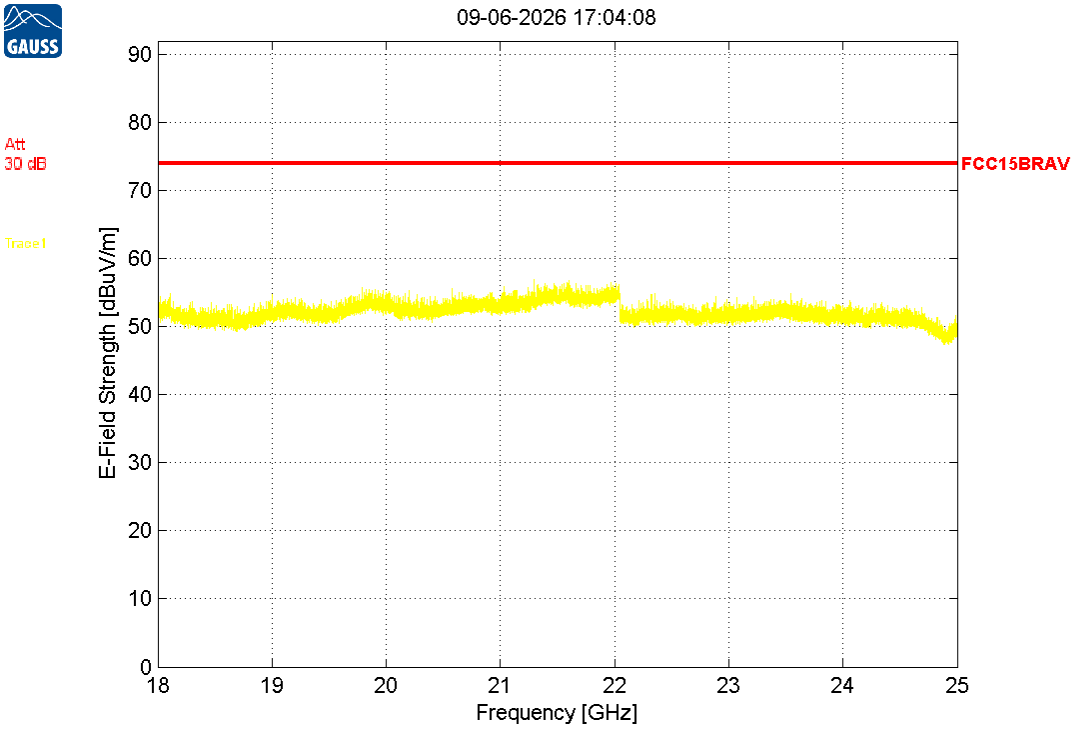

Figure 55. High Channel_2480MHz_Radiated Emissions, Peak, 18 - 25 GHz_V

Worst Case Simultaneous Transmission (2.4GHz Tx and 434MHz Tx)

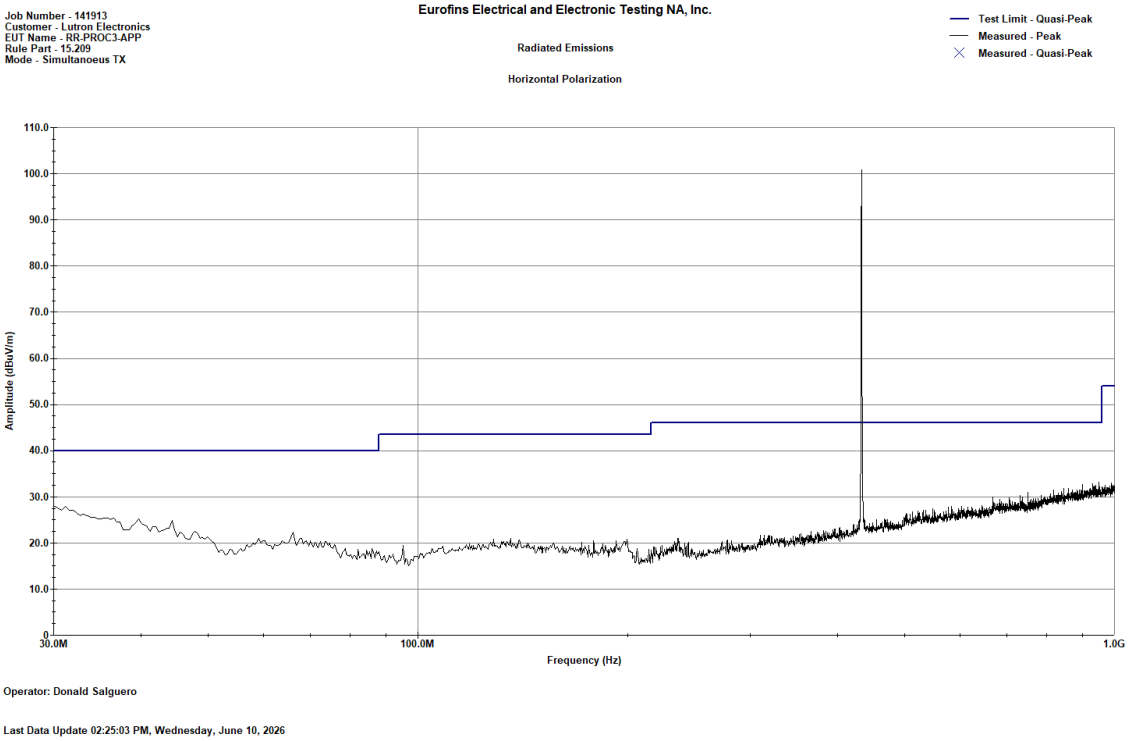

Figure 56. Worst Case Simultaneous TX_Radiated Emissions, 30 MHz to 1 GHz_H

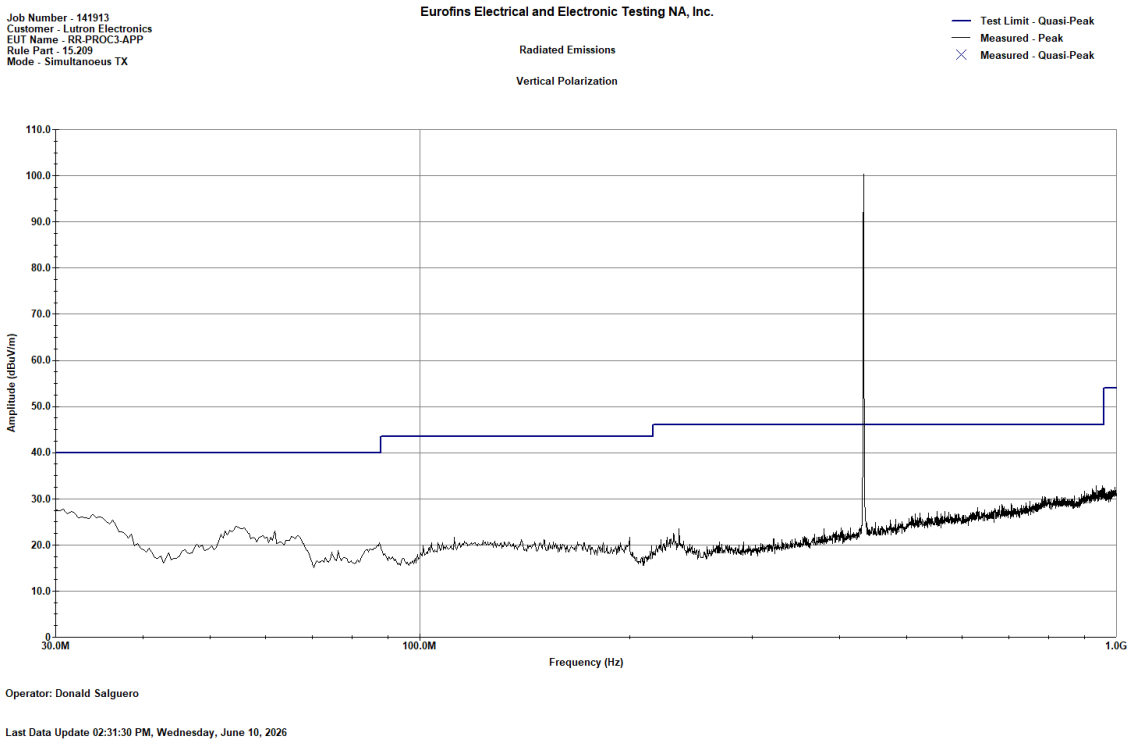

Figure 57. Worst Case Simultaneous TX_Radiated Emissions, 30 MHz to 1 GHz_V

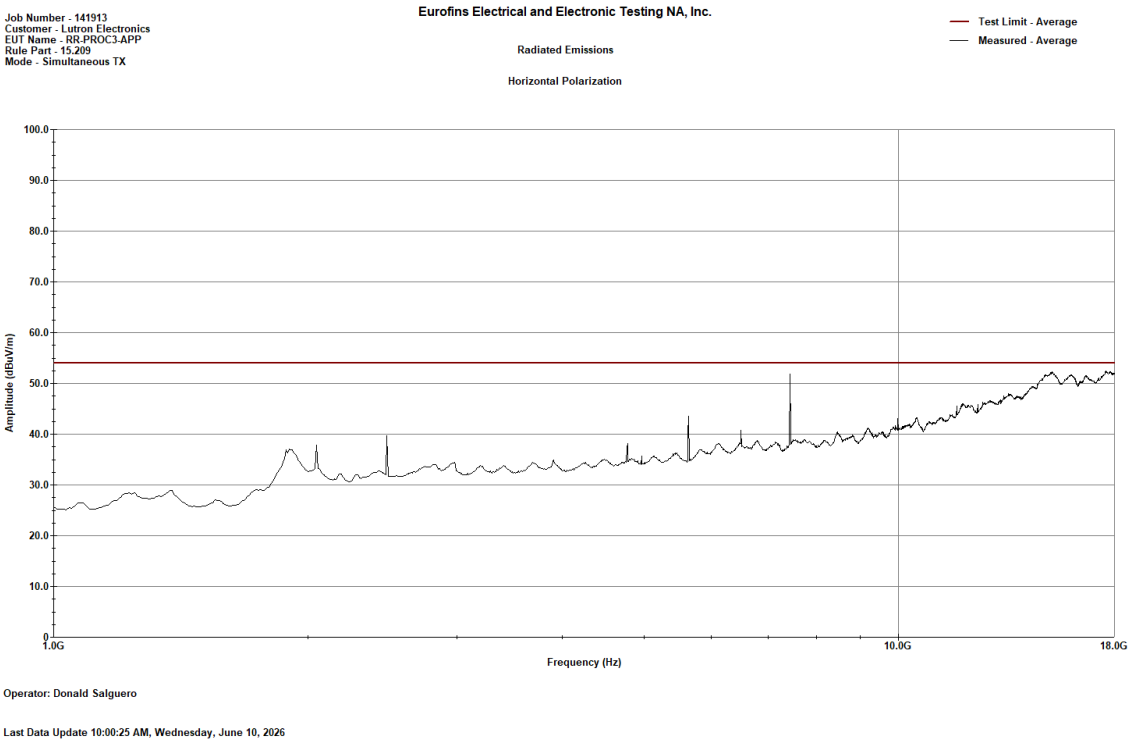

Figure 58. Worst Case Simultaneous TX _Radiated Emissions, Average, 1 - 18 GHz_H

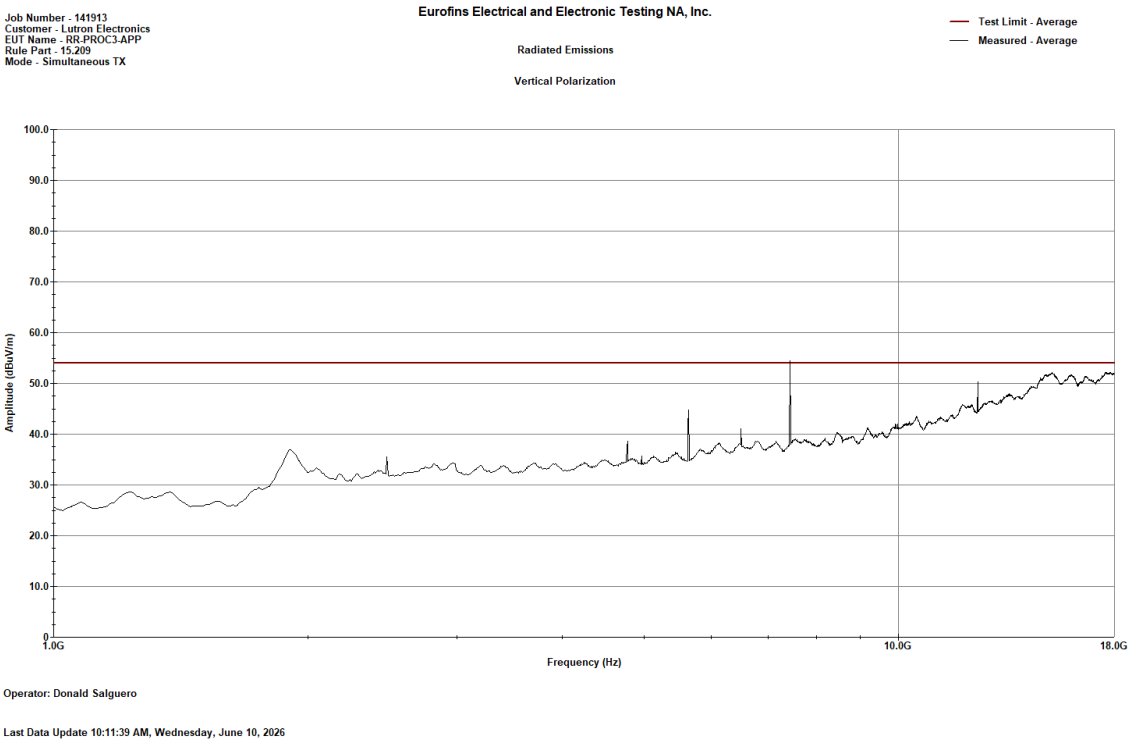

Figure 59. Worst Case Simultaneous TX _Radiated Emissions, Average, 1 - 18 GHz_V

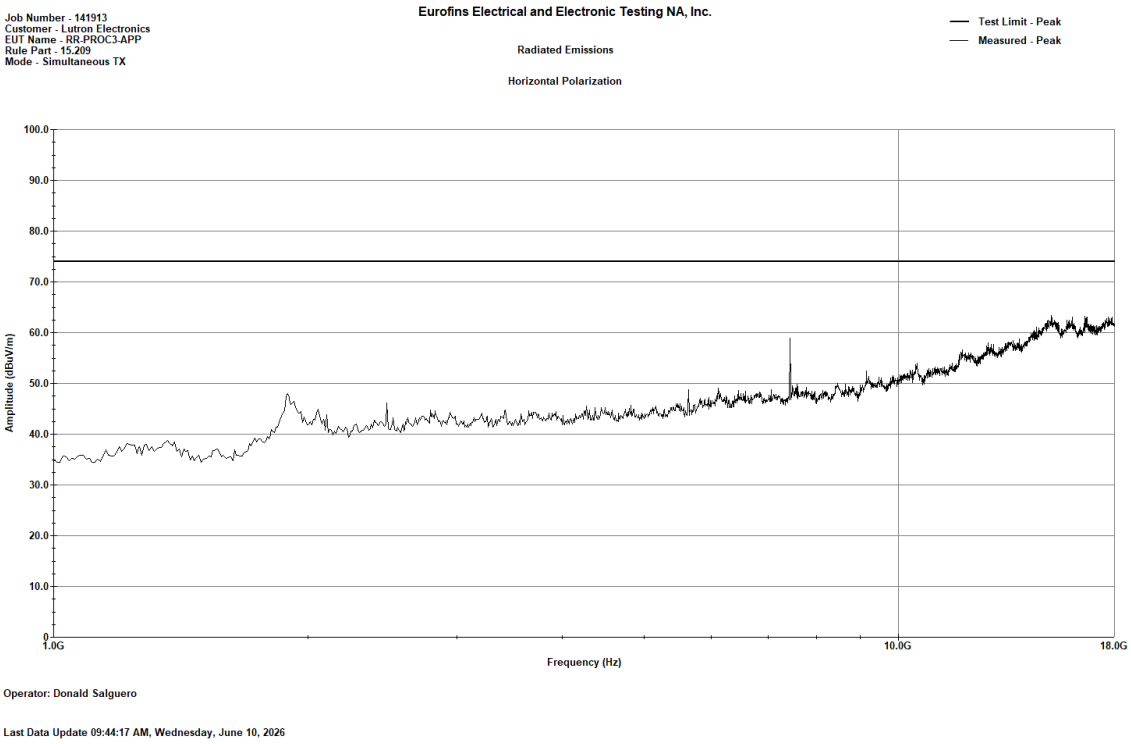

Figure 60. Worst Case Simultaneous TX _Radiated Emissions, Peak, 1 - 18 GHz_H

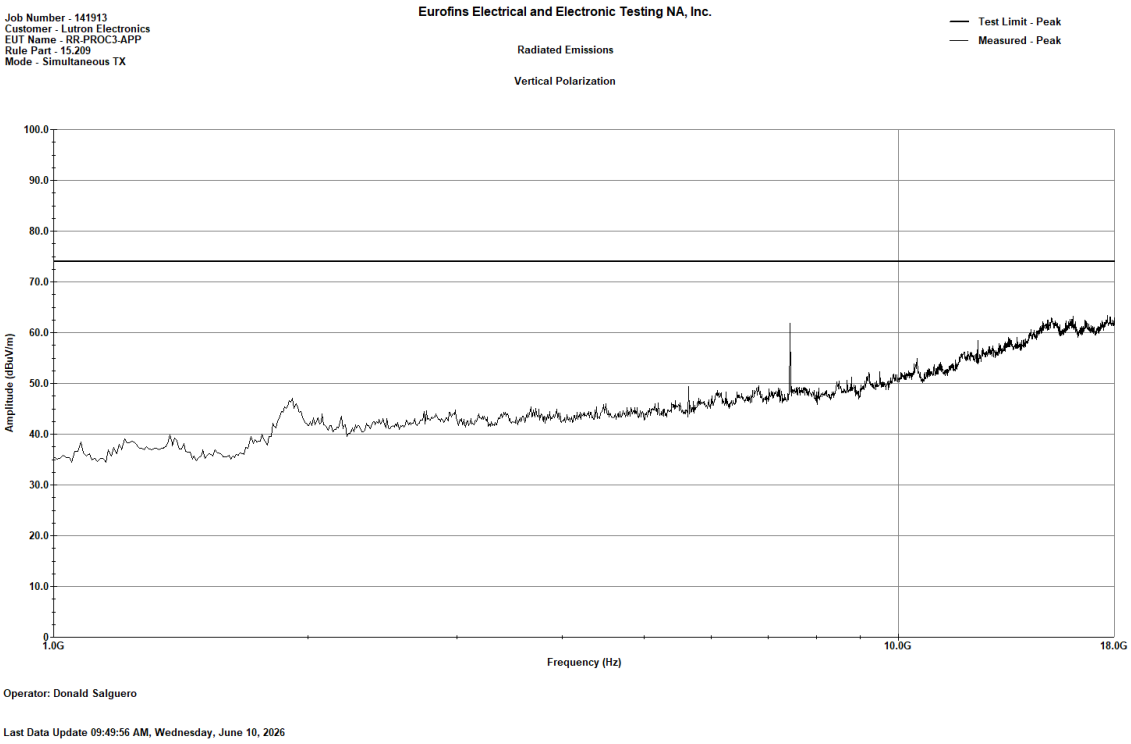

Figure 61. Worst Case Simultaneous TX _Radiated Emissions, Peak, 1 - 18 GHz_V

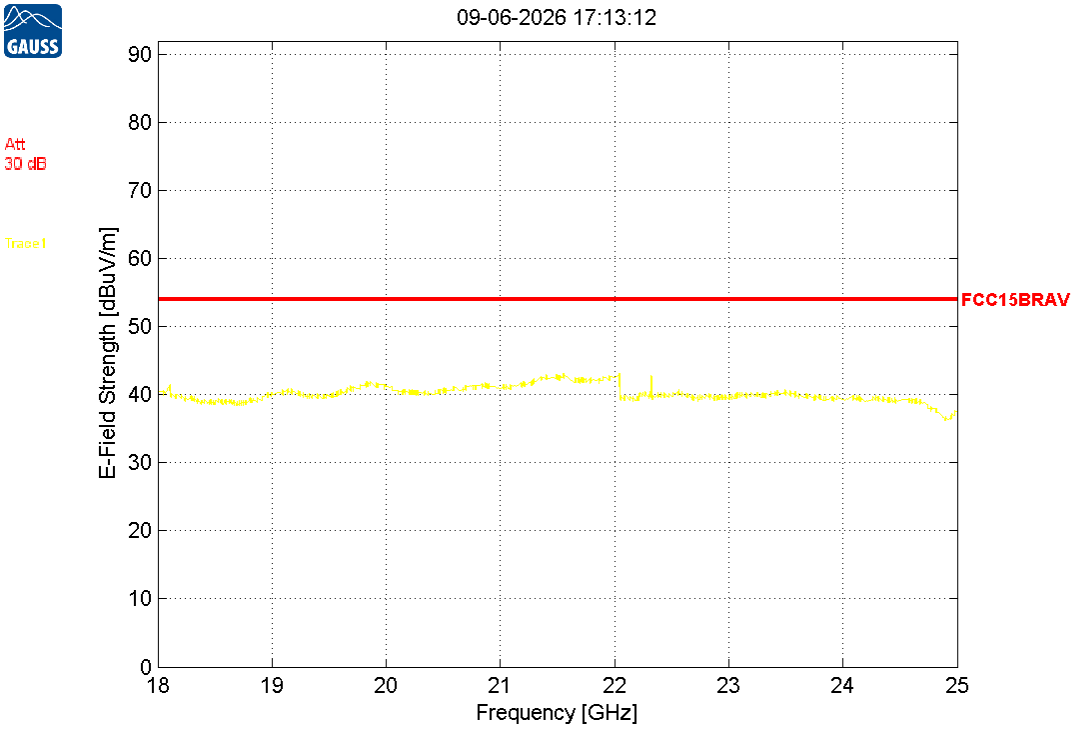

Figure 62. Worst Case Simultaneous TX _Radiated Emissions, Average, 18 - 25 GHz_H

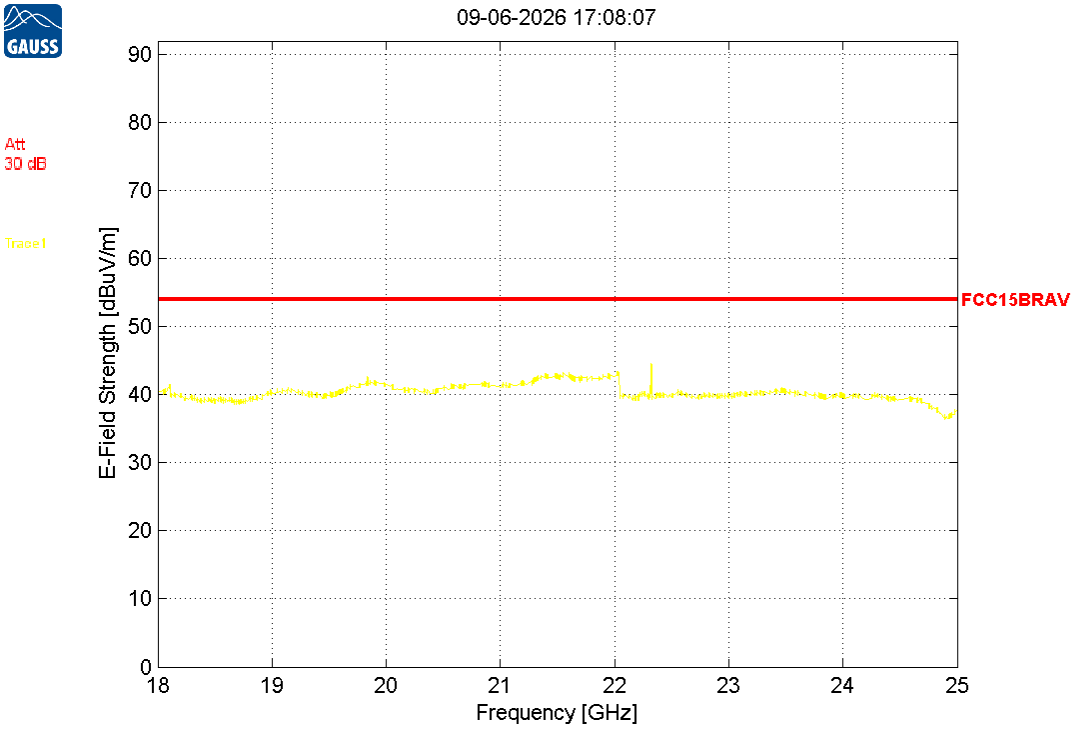

Figure 63. Worst Case Simultaneous TX _Radiated Emissions, Average, 18 - 25 GHz_V

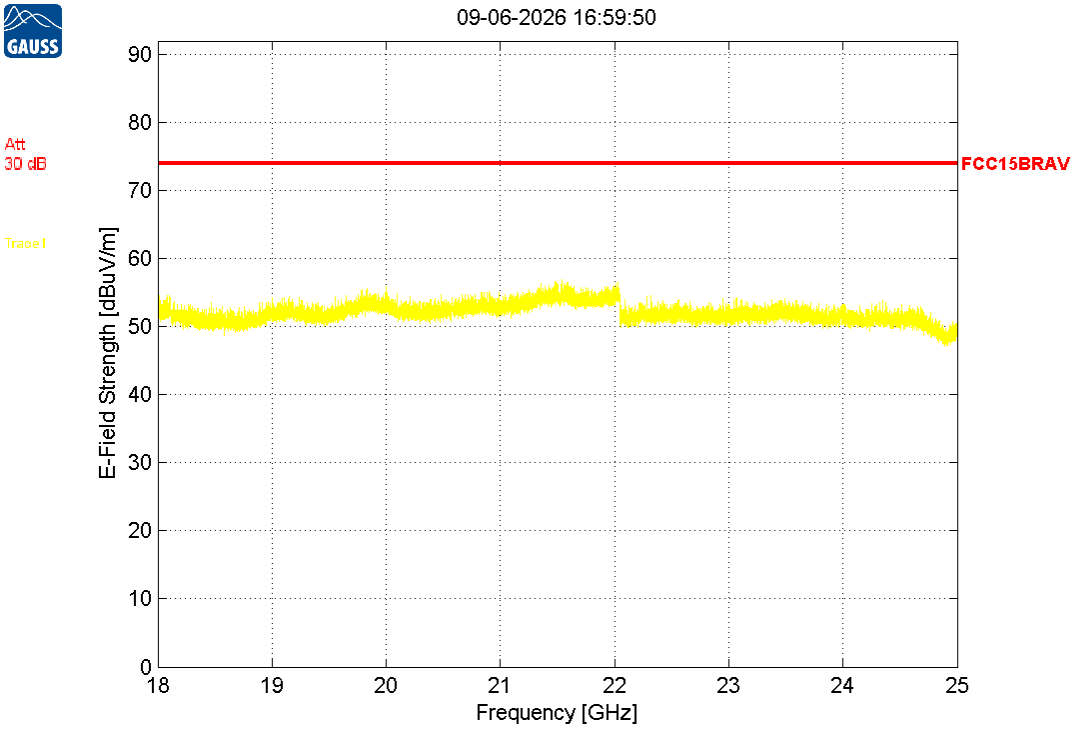

Figure 64. Worst Case Simultaneous TX _Radiated Emissions, Peak, 18 - 25 GHz_H

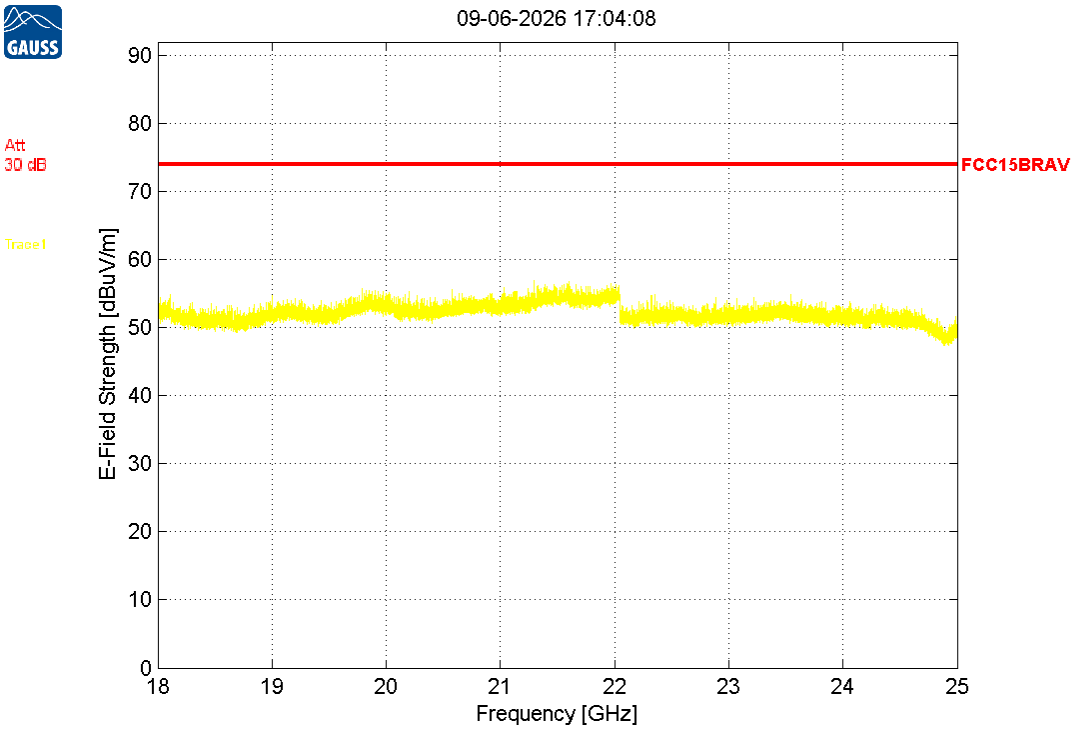

Figure 65. Worst Case Simultaneous TX _Radiated Emissions, Peak, 18 - 25 GHz_V

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.247(d) Spurious Emissions in Non-restricted Bands

Test Requirement: **15.247(d)** In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Test Procedure: For intentional radiators with a digital device portion which operates below 10 GHz, the spectrum was investigated as per §15.33(a)(1) and §15.33(a)(4); i.e., the lowest RF signal generated or used in the device up to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

Conducted measurements were performed. The plots were corrected for cable loss.

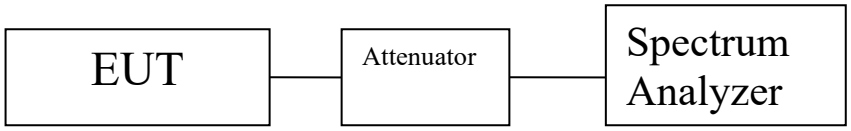

Figure 66. Block Diagram, Conducted Spurious Emissions Test Setup

RSS-247 (5.5) RF Conducted Spurious Emissions

Test Requirements: **RSS-247 (6.6):** Out-of-Band Emissions

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4 (4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

Test Procedure: For intentional radiators with a digital device portion which operates below 10 GHz, the spectrum was investigated as per section 5.5 of ANSI C63.10; i.e., the lowest RF signal generated or used in the device up to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

The EUT was connected to a spectrum analyzer through a cable and an attenuator. Measurements were taken with the EUT set to transmit continuously on its low, mid, and high channels for all its bandwidths at maximum power. Conducted spurious emissions were measured according to sections 11.11.2 and 11.11.3 of ANSI C63.10.

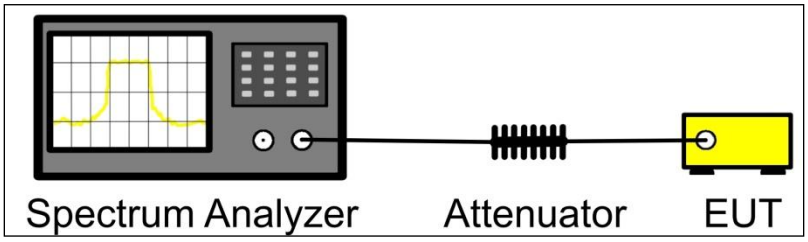

Figure 67. Block Diagram, Conducted Spurious Emissions Test Setup

Test Results: The EUT was **compliant** with this requirement.

Test Engineer: Donald Salguero

Test Date: June 11, 2026

Test Data

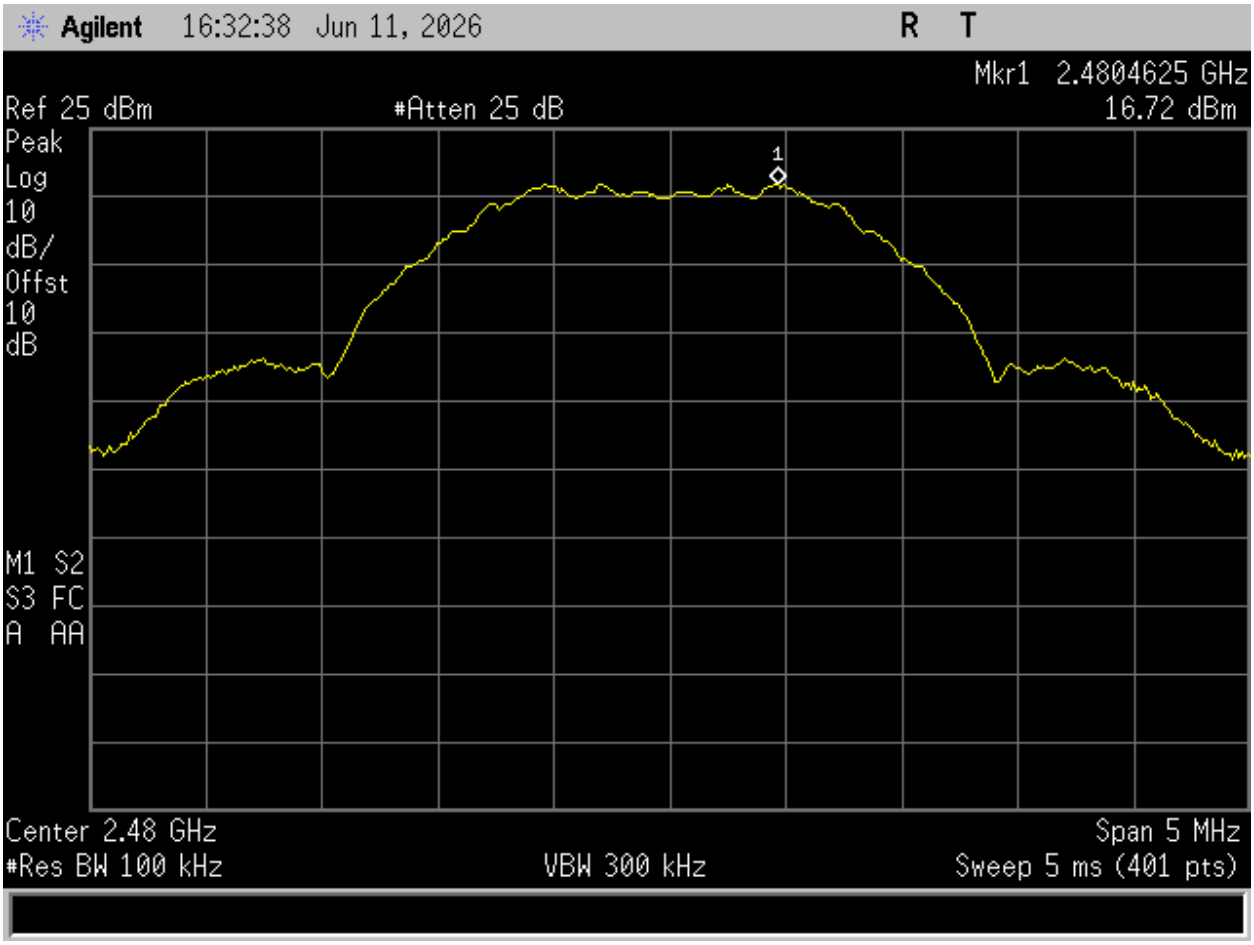

Figure 68. High Ch_2480MHz_-30dBc_Reference.

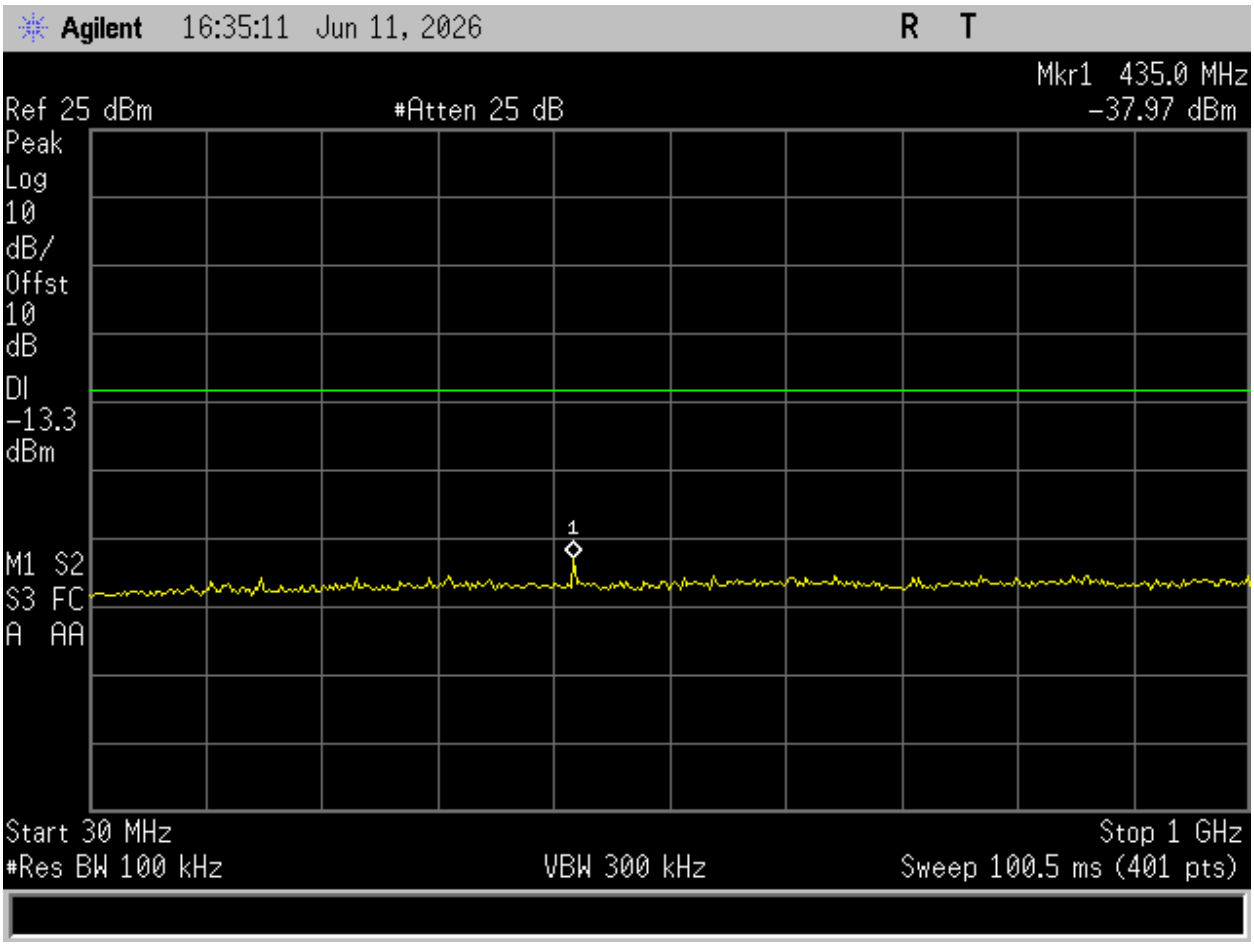

Figure 69. High Ch_2480MHz_-30dBc_30MHz - 1GHz.

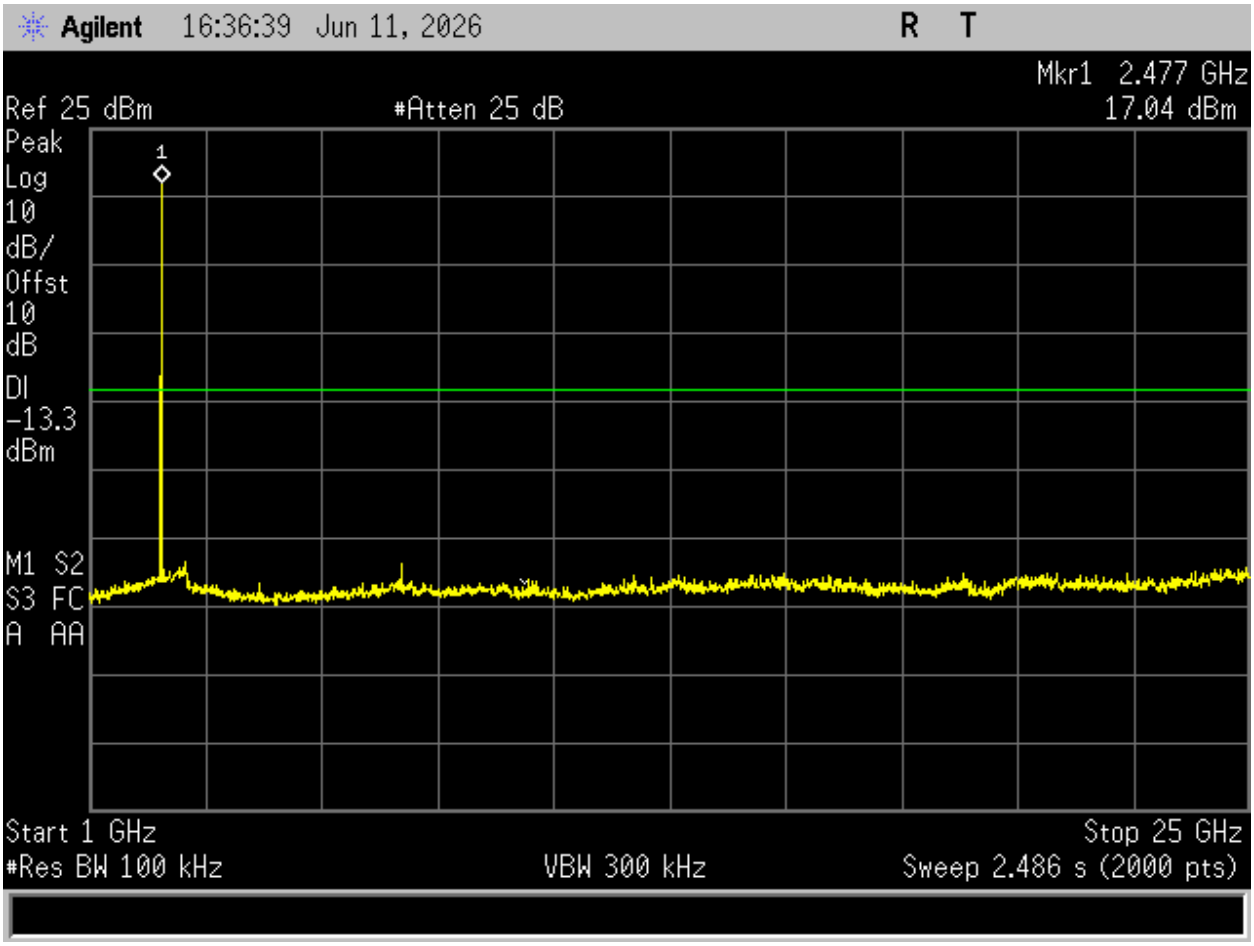

Figure 70. High Ch_2480MHz_-30dBc_1GHz - 25GHz.

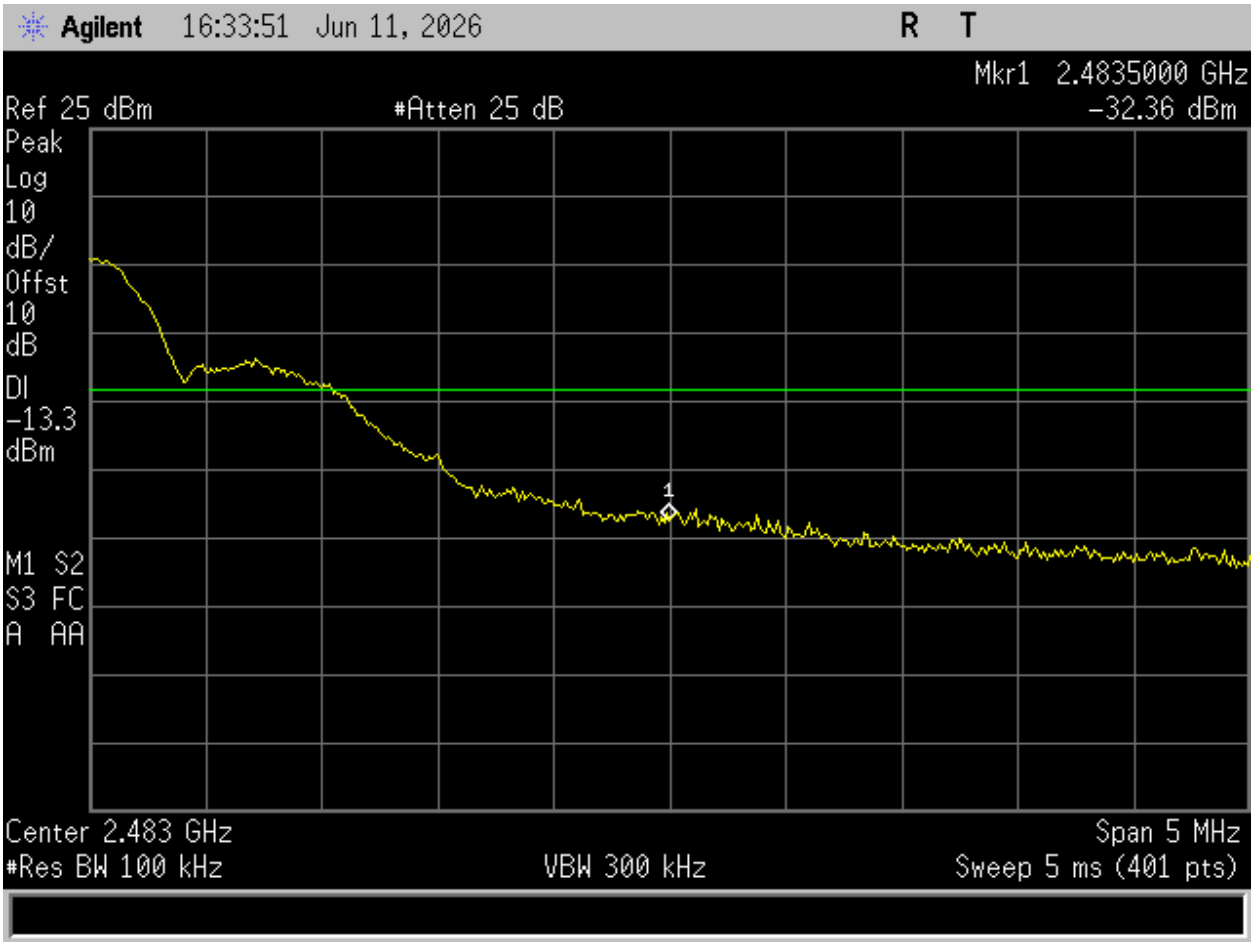

Figure 71. High Ch_2480MHz_-30dBc_Upper Band Edge.

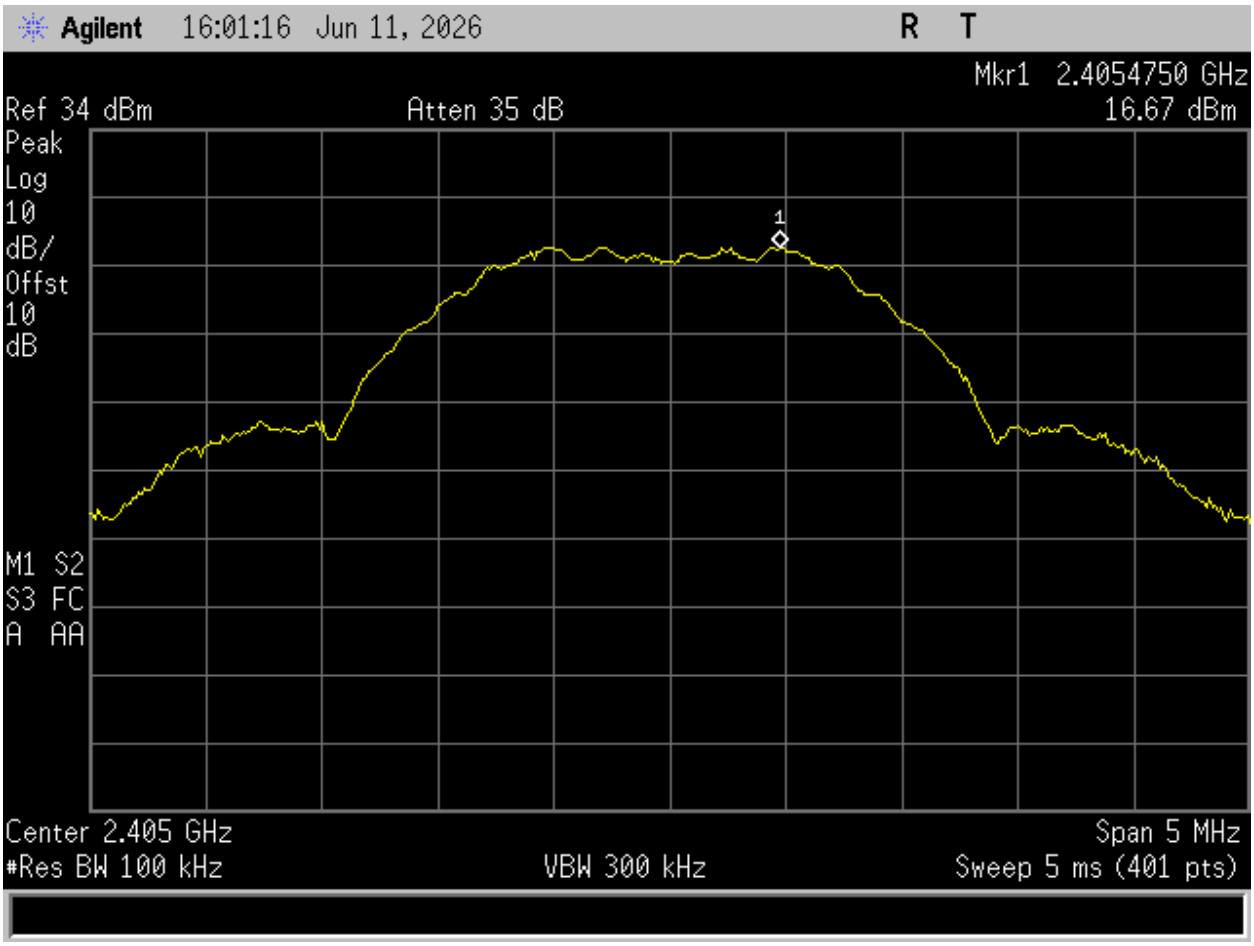

Figure 72. Low Ch_2405MHz_-30dBc_Reference.

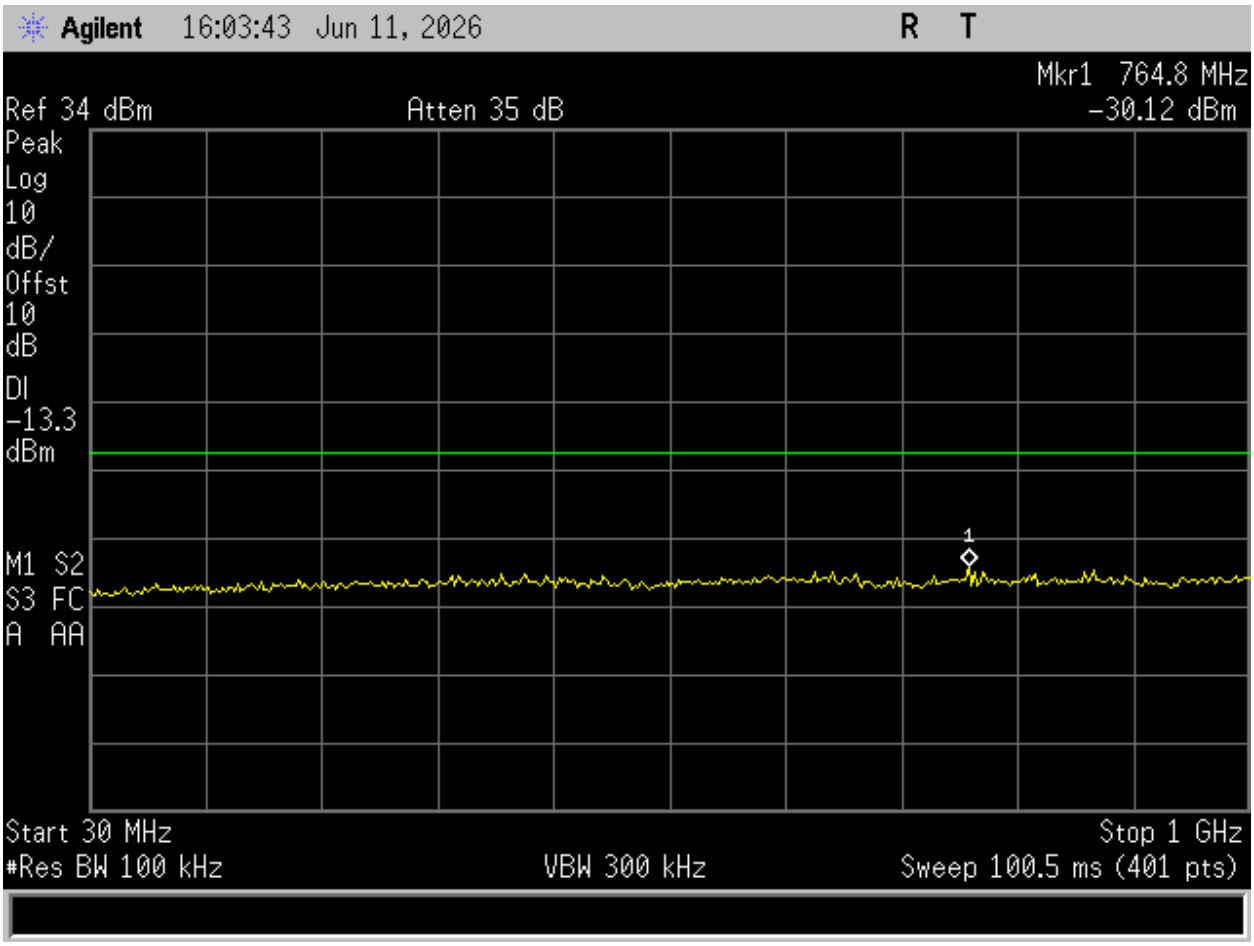

Figure 73. Low Ch_2405MHz_-30dBc_30MHz - 1GHz.

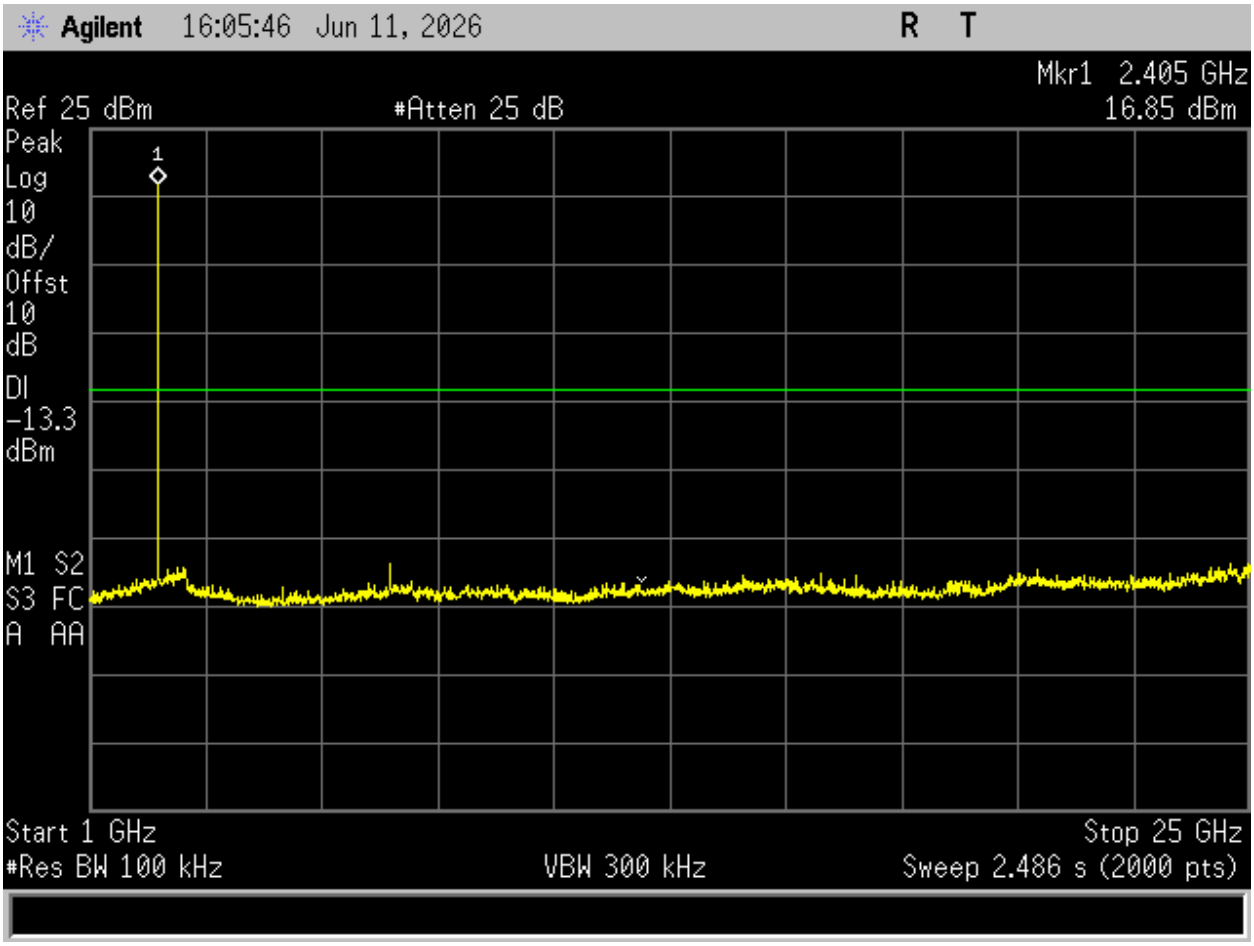

Figure 74. Low Ch_2405MHz_-30dBc_1GHz - 25GHz.

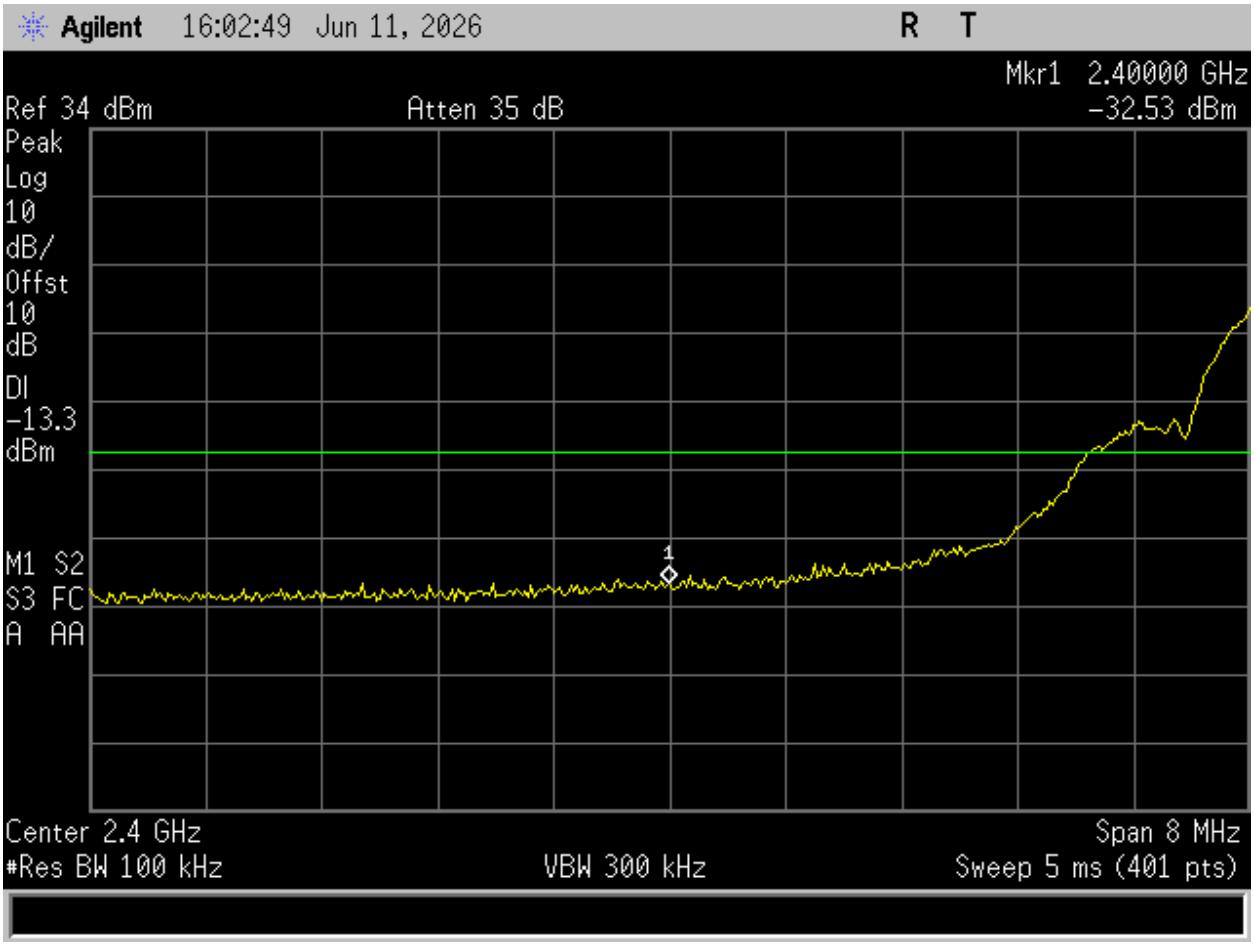

Figure 75. Low Ch_2405MHz_-30dBc_Lower Band Edge.

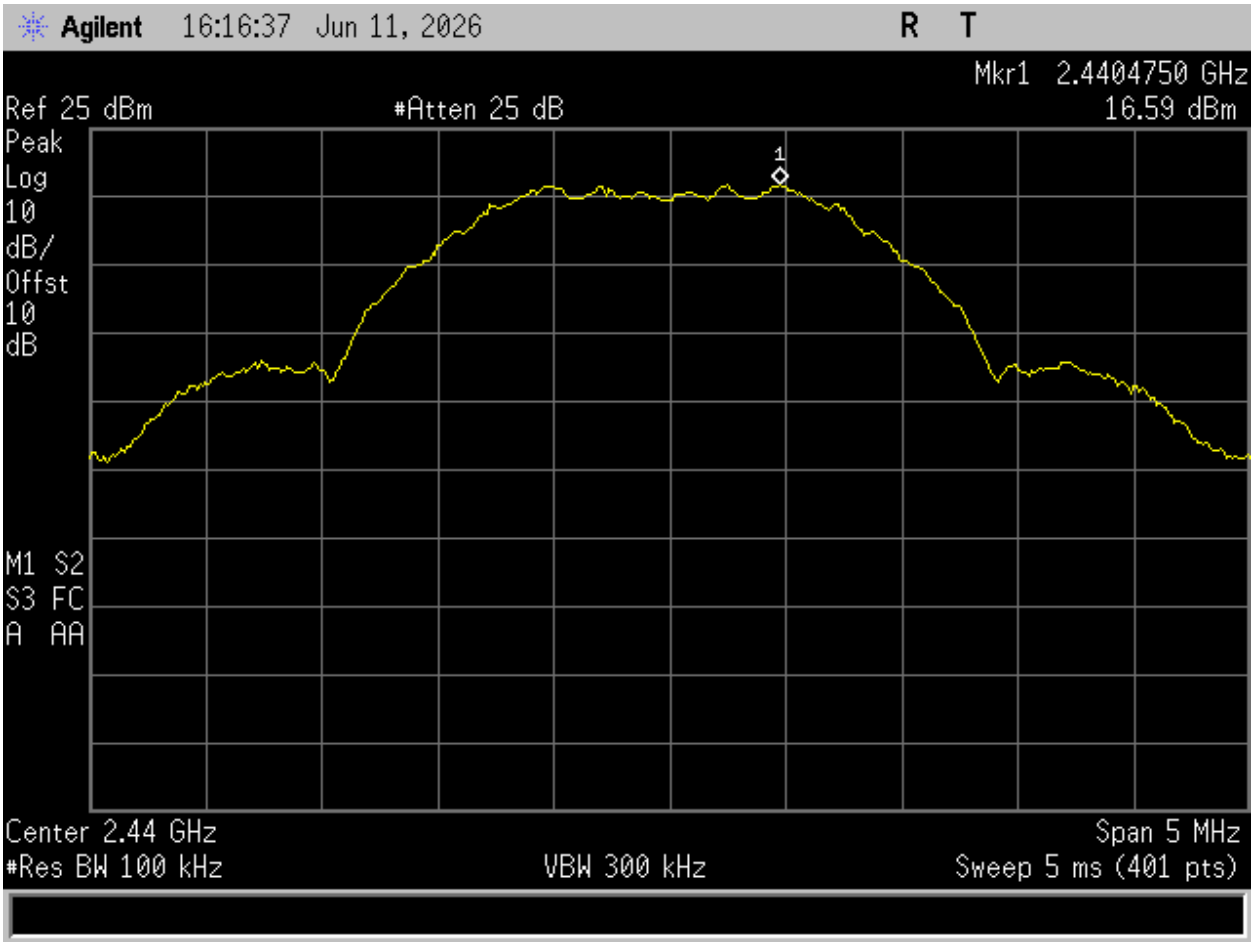

Figure 76. Mid Ch_2440MHz_-30dBc_Reference.

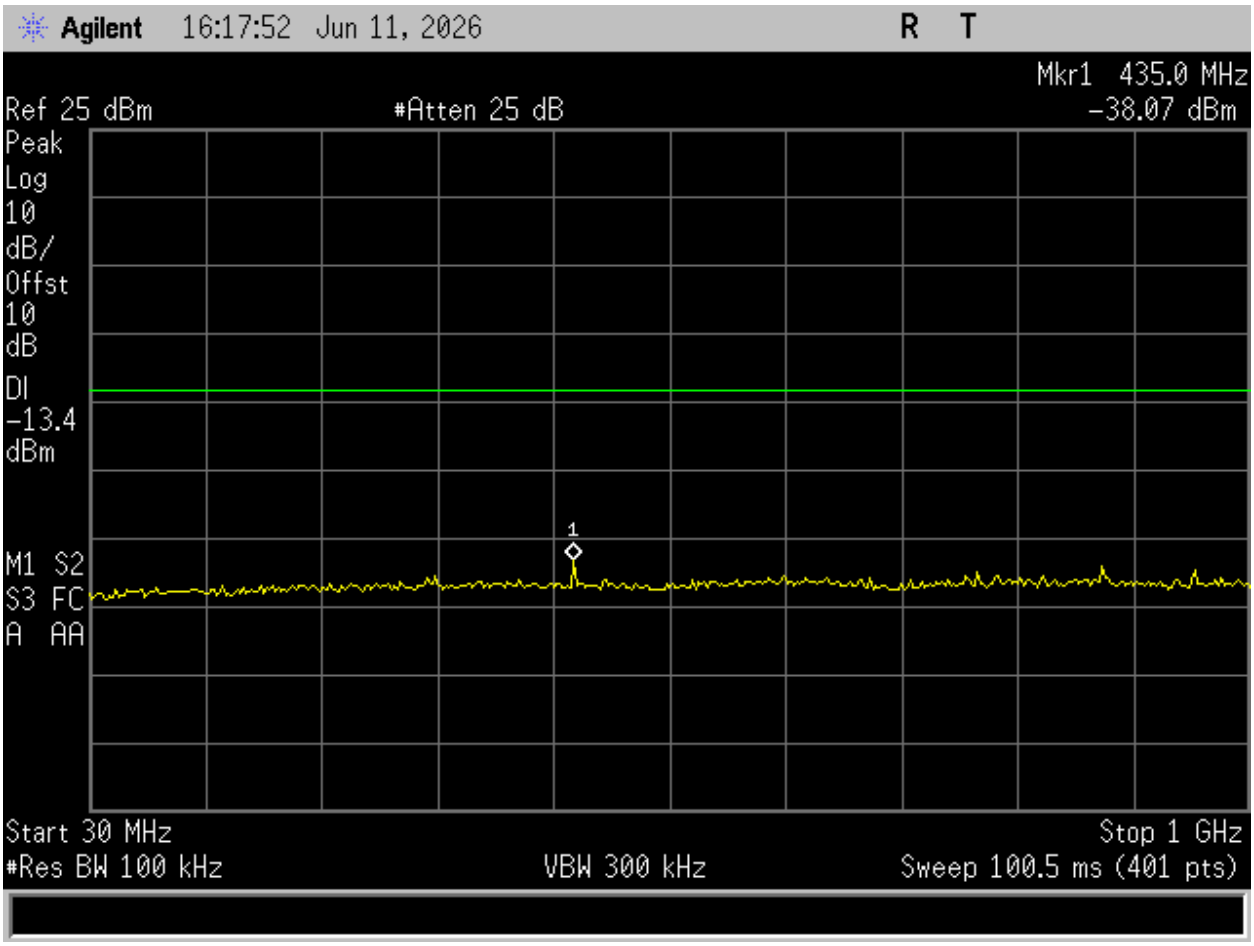

Figure 77. Mid Ch_2440MHz_-30dBc_30MHz - 1GHz.

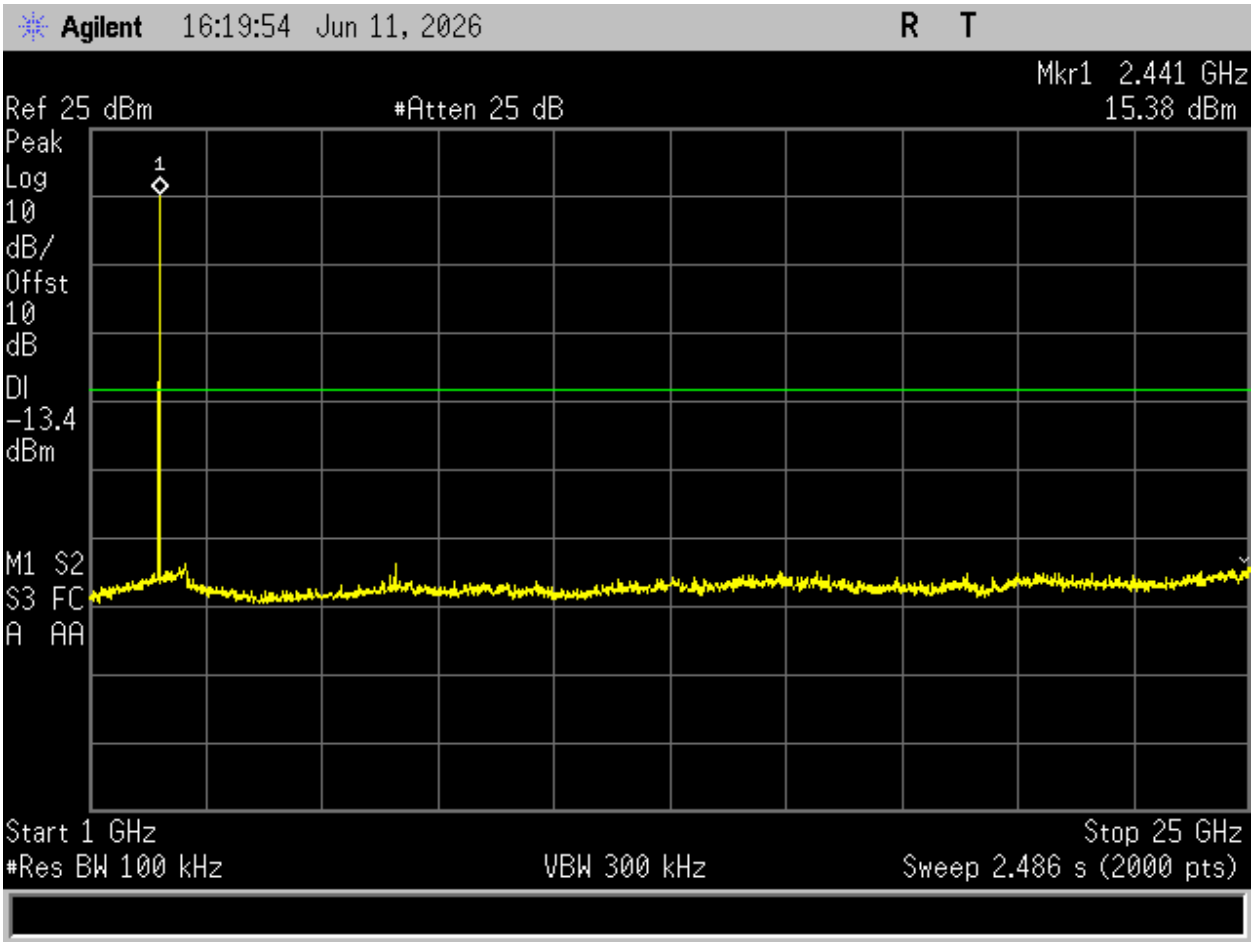

Figure 78. Mid Ch_2440MHz_-30dBc_1GHz - 25GHz.

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.247(e) Power Spectral Density

Test Requirements: **§15.247(e):** For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

Test Procedure: The EUT was connected to a spectrum analyzer through a cable and an attenuator. Measurements were taken with the EUT set to transmit continuously on its low, mid, and high channels for all its bandwidths at maximum power. Power spectral density was measured according to measurement method AVGPSD-1, as described in ANSI C63.10, section 11.10.3. Attenuator and cable loss factors were programmed into the spectrum analyzer.

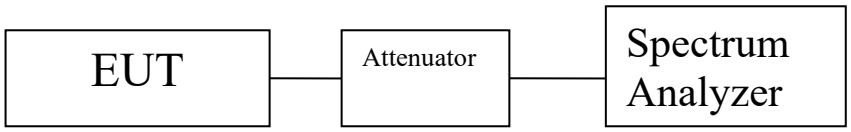

Figure 79. Block Diagram, Power Spectral Density Test Setup

RSS-247 (6.3.1) Power Spectral Density

Test Requirements: **RSS-247 (6.3.1):** The transmitter power spectral density conducted from the transmitter to the antenna(s) shall not be greater than 8 dBm/3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 6.3.2 The power spectral density shall be determined using the same method as is used to determine the maximum conducted output power.

Test Procedure: The EUT was connected to a spectrum analyzer through a cable and an attenuator. Measurements were taken with the EUT set to transmit continuously on its low, mid, and high channels for all its bandwidths at maximum power. Power spectral density was measured according to measurement method AVGPSD-1, as described in ANSI C63.10, section 11.10.3. Attenuator and cable loss factors were programmed into the spectrum analyzer.

Test Results: The EUT was **compliant** with this requirement.

Test Engineer: Donald Salguero

Test Date: August 18, 2026

Test Data

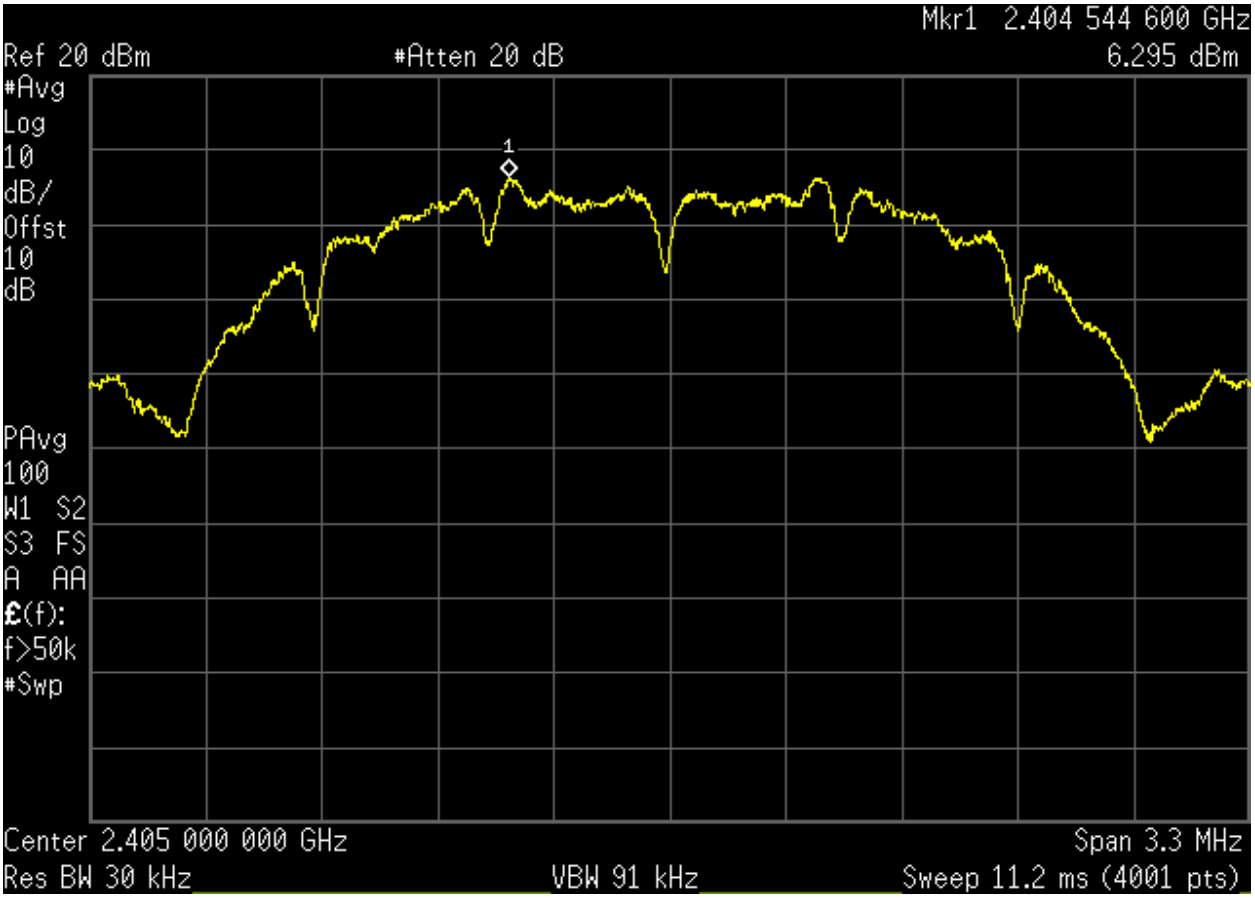

Figure 80. Low Ch_2405MHz_Spectral Density.

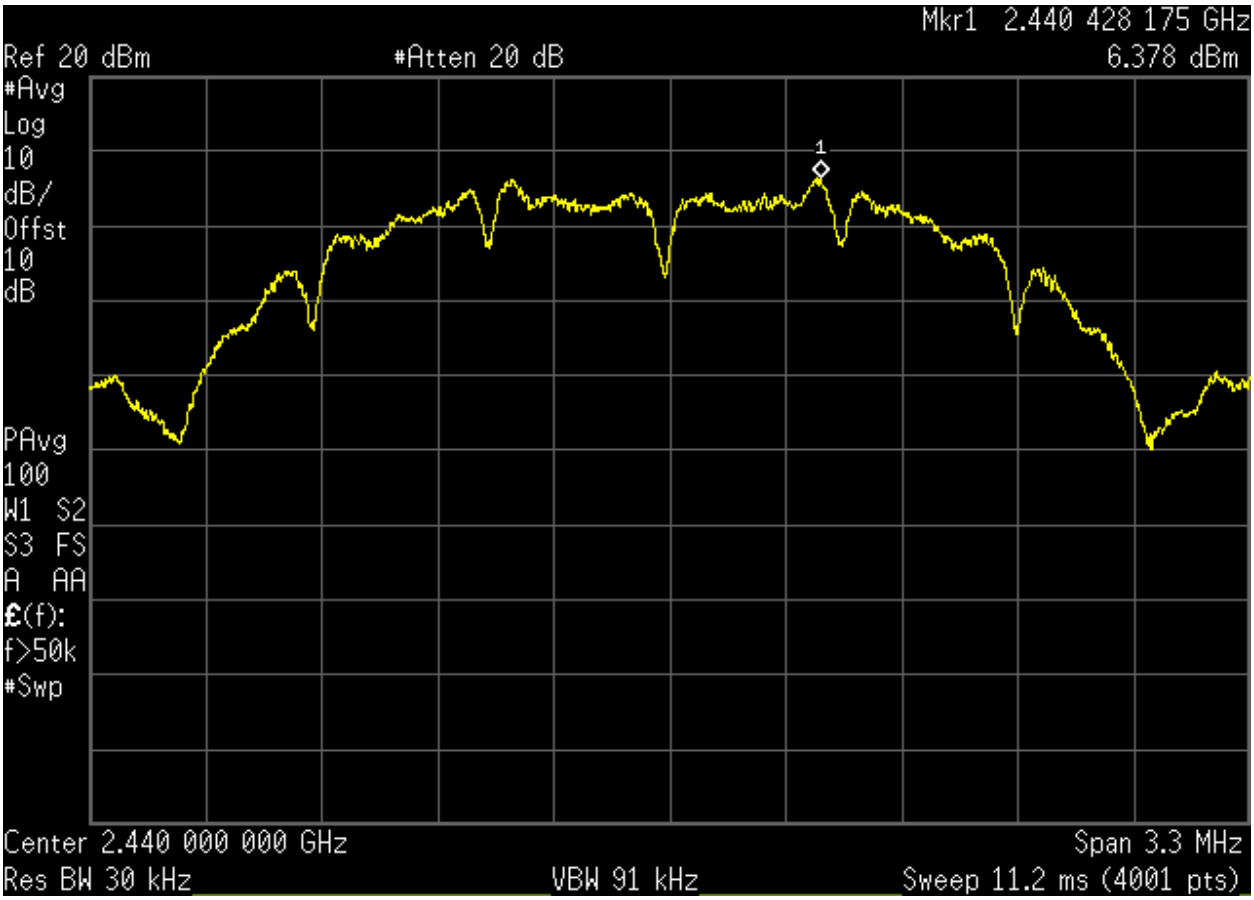

Figure 81. Mid Ch_2440MHz_Spectral Density.

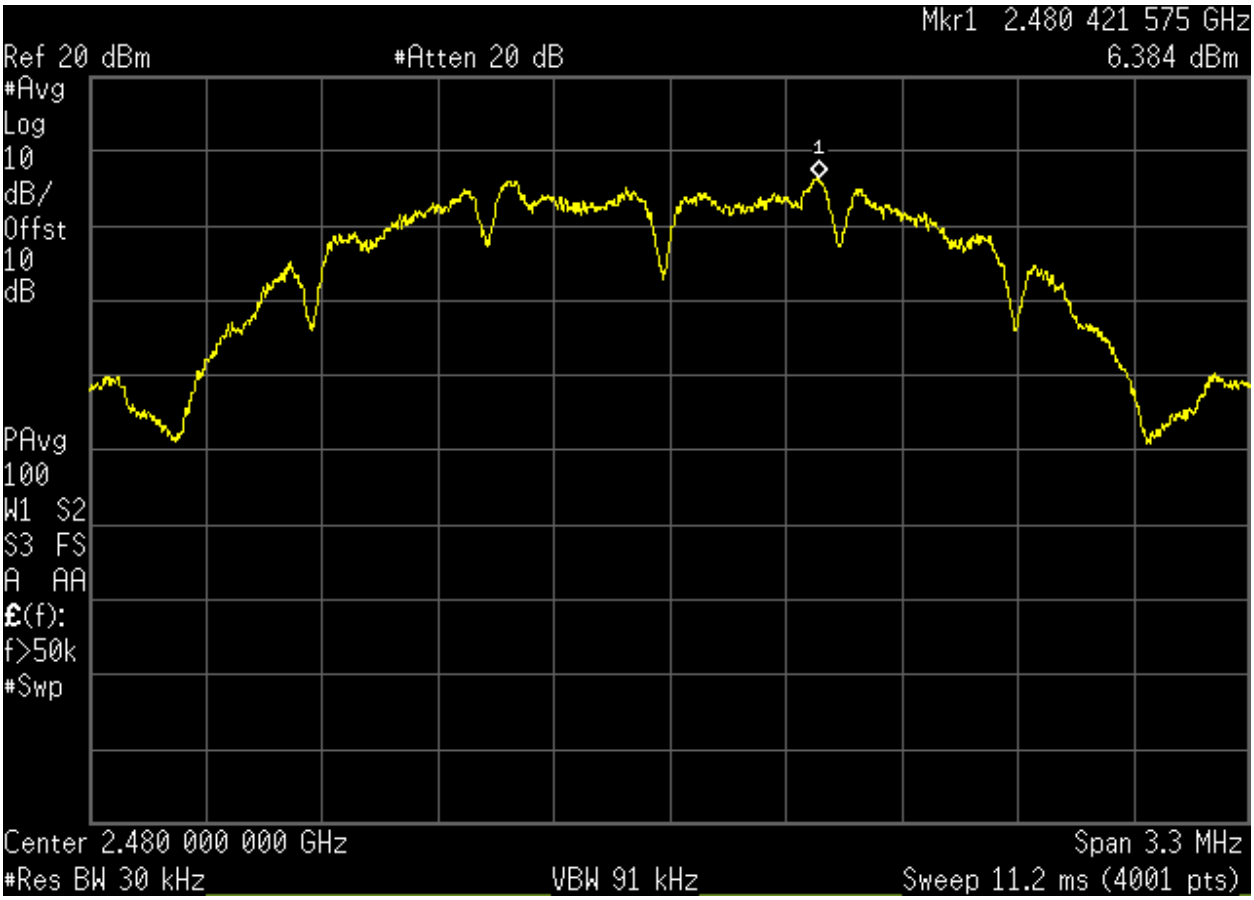

Figure 82. High Ch_2480MHz_Spectral Density.

Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
2405	6.295	8	-1.705
2440	6.378	8	-1.622
2480	6.384	8	-1.616

Table 24. Test Results, PSD

Electromagnetic Compatibility Criteria for Intentional Radiators

Duty Cycle

Test Procedure: The EUT was connected to a spectrum analyzer and was ran at the maximum achievable duty cycle for all modes. The duty cycle was measured in accordance with section 11.6 of ANSI C63.10.

Test Results: The EUT was **compliant** with this requirement. EUT's test mode has a 100% duty cycle.

Operational duty cycle = 32%*
*Per Lutron Electronics declaration

Test Engineer: Donald Salguero

Test Date: June 11, 2026

Test Data

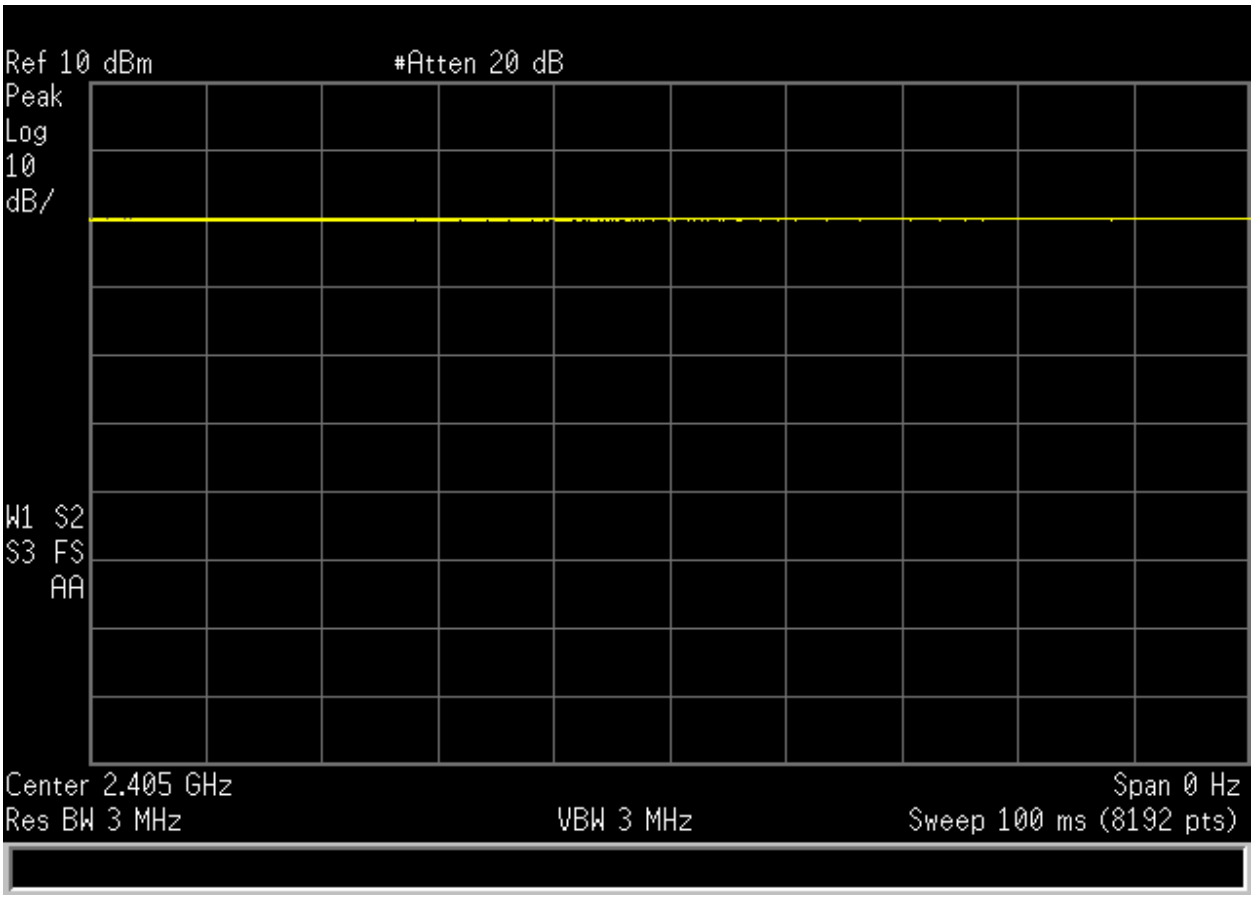

Figure 83. Duty Cycle, 100%, Test Mode

Test Equipment

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2017.

Test: 15.247-Part15C (DTS Transmitter Operation) , Test End Date: 06/11/2026

Asset #	Equipment	Manufacturer	Model	Last Cal	Cal Due
1T10007	Thermometer/Hygrometer/Barometer	Control Company	38RJ43	08/27/2025	08/27/2027
1T4414	Microwave Pre-Amplifier	A.H. Systems, Inc.	PAM-0118	05/28/2026	11/28/2027
1T4752	Pre-Amplifier	Miteq	JS44-18004000-35-8P	*04/01/2026	04/01/2027
1T8744	Spectrum Analyzer (PSA)	Agilent Technologies	E4440A	11/24/2025	05/24/2027
1T8266	Spectrum Analyzer	Keysight Technologies, Inc	E4407B	01/06/2026	07/06/2027
1T4409	EMI Receiver	Rohde & Schwarz	ESIB7	01/05/2026	01/05/2027
1T4744	Antenna, Horn	ETS-Lindgren	3116	02/06/2026	08/06/2027
1T4483	Antenna; Horn	ETS-Lindgren	3117	02/10/2025	08/31/2026
1T4751	Antenna - Bilog	Sunol Sciences	JB6	06/09/2025	12/09/2026
1T4300B	Semi-Anechoic 3m Chamber sVSWR	EMC TEST SYSTEMS	NONE	02/20/2026	02/20/2028
1T4300	SEMI-ANECHOIC CHAMBER (NSA)	EMC TEST SYSTEMS	NONE	10/03/2025	10/03/2027

*Date of internal characterization.

Table 25. Equipment List

Test: 15.207- Conducted Emissions, Test End Date: 06/10/2026

Asset #	Equipment	Manufacturer	Model	Last Cal	Cal Due
1T10007	Thermometer/Hygrometer/Barometer	Control Company	38RJ43	08/27/2025	08/27/2027
1T10004	10 Watt 10 dB Attenuator	Inmet, Inc.	18N10W-10dB	Func Verify	Func Verify
1T4390	Isolation Transformer	TOPAZ	91005-31	Func Verify	Func Verify
1T8374	Power Supply	Ametek Programmable Power	CSW5550-160-208-704	Func Verify	Func Verify
1T4794	LISN	Com-Power	LI-150A	11/21/2025	05/21/2027
1T4878	LISN	Com-Power	LI-150A	11/21/2025	05/21/2027
1T9572	EMI Receiver	Gauss Instruments	TDEMI X40	11/30/2025	11/30/2027

Table 26. CE Equipment List

Note: Functionally verified test equipment is verified using calibrated instrumentation at time of testing.

END OF REPORT