COMPLIANCE WORLDWIDE INC.
TEST REPORT 130-25R1

In Accordance with the Requirements of

FCC PART 15.407, SUBPART E
ISED Canada RSS-247, Issue 3

Issued to

Hill-Rom, Inc.
1069 State Route 46 East
Batesville, IN 47006

for the

Voalte Linq
Model: P0100HFW1A00

FCC ID: 2AOL2-P0100HF
IC: 657A-P0100HF

Report Issued on February 28, 2025
Revision R1 Issued on April 29, 2025

Tested by

Sean P. Defelice

Sean P. Defelice

Reviewed By

Larry K. Stillings

Larry K. Stillings

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1. Scope

This test report certifies that the Hill-Rom Voalte Linq Model P0100HFW1A00 as tested, meets the FCC Part 15, Subpart E and ISED Canada RSS-247, Issue 3 requirements. The scope of this test report is limited to the test sample provided by the client, only in as much as that sample represents other production units. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required. Measurement Uncertainty will not be applied to any of the measurement / testing results in this test report to determine pass/fail criteria per the Decision Rule as defined in ISO/IEC Guide 17025-2017 Clause 3.7. Revision R1 adds measurement data for the other types of modulation in sections 7.2, 7.3, 7.6 and 7.10 and corrects a calibration due date on the R&S ESR26.

2. Product Details

2.1. Manufacturer: Hill-Rom

2.2. Model Number: P0100HFW1A00

2.3 Serial Number: 10

2.4 Description of EUT: The Voalte Linq badge powered by Scotty assistant system integrates with existing facility information management systems to facilitate hands-free workflows and communication between patients and caregivers.

2.5 Power Source: Battery

2.6 Hardware Revision: 1B

2.7 Software Revision: N/A

2.8. Modulation Types: 802.11a, 802.11n HT20 & HT40, 802.11ac VHT20, VHT40 & VHT80

2.9. Operating Frequencies: 5150 to 5350 MHz, 5470 to 5725 MHz & 5725 to 5850 MHz

2.10. EMC Modifications: None

3. Product Configuration

3.1. EUT Hardware

Manufacturer	Model	Serial Number	Input Volts	Freq (Hz) Or DC	Description/Function
Qorvo	DWM3001C	22394047AE	3.3	DC	UWB / BLE Module
Murata	LBEE5QD1ZM	000389492	5	DC	Wi-Fi Module

3.2. Support Equipment

Device	Manufacturer	Model	Serial No.	Comment
Laptop	Lenovo	P50	PC0MHJ8Y	For setting up EUT

3.3. Cables

Cable Type	Length	Shield	From	To
None – Temporary for Programming	0.1m	No	EUT	Unterminated

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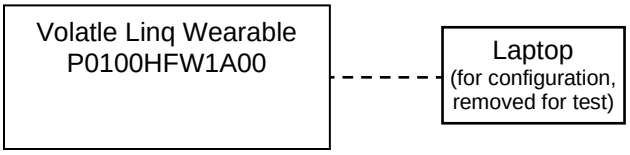
3. Product Configuration (continued)

3.4. Operational Characteristics & Software

Install the battery to the device under test

Special test firmware was loaded into the EUT so that channel and frequency could be selected and set via a temporary serial connection through a laptop. The device is configured using this firmware to generate 802.11a, 802.11n HT20 & HT40, 802.11ac VHT20, VHT40 & VHT80 modulation at test frequencies in each of the U-NII bands from 5150 to 5850 MHz.

3.5. Block Diagram



4. Measurements Parameters

4.1. Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due	Interval
EMI Test Receiver, 9kHz - 7GHz [1]	Rohde & Schwarz	ESR7	101156	10/16/2025	4 Years
EMI Test Receiver, 10 Hz - 7GHz [1]	Rohde & Schwarz	ESR7	101770	7/23/2025	1 Year
EMI Test Receiver, 9 kHz – 26.5 GHz[1]	Rohde & Schwarz	ESR26	101693	6/26/2025	2 Years
Spectrum Analyzer, 2 Hz to 26.5 GHz[2]	Rohde & Schwarz	FSW26	102057	7/19/2026	2 Years
Spectrum Analyzer, 9 kHz to 40 GHz[3]	Rohde & Schwarz	FSV40	100899	6/27/2025	1 Year
Spectrum Analyzer 10 Hz – 40 GHz[4]	Rohde & Schwarz	FSVR40	100909	9/18/2025	4 Years
Loop Antenna 9 kHz - 30 MHz	EMCO	6512	9309-1139	4/14/2025	3 Years
Biconilog Antenna, 30 MHz - 2 GHz	Sunol Sciences	JB1	A050913	7/1/2025	4 Years
Dbl Ridged Guide Antenna 1- 18 GHz	ETS-Lindgren	3117	00143292	5/11/2025	3 Years
Dbl Ridged Guide Antenna 1- 18 GHz	ETS-Lindgren	3117	00227631	4/21/2025	3 Years
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B	3008A01323	4/9/2025	1 Year
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B H02	3008A00329	4/9/2025	1 Year
Horn Antenna 18 to 40 GHz	Com Power	AH-840	101032	1/25/2025	3 Years
Preamplifier 18 to 40 GHz	Miteq	JSD42-21004200-40-5P	649199/649219	9/27/2025	2 Years
2.4 GHz Band Reject Filter	Micro-Tronics	BRM50702	150	2/27/2025	1 Year
Barometric Pressure/Humidity & Temp Datalogger	Extech Instruments	SD700	Q590483	4/4/2025	1 Year

[1] ESR7/26 Firmware revision: V3.48 SP3, Date installed: 09/30/2020 Previous V3.48 SP2, installed 07/23/2020.
[2] FSW26 Firmware revision: V4.71 SP1, Date installed: 11/16/2020 Previous V4.61, installed 08/11/2020.
[3] FSV40 Firmware revision: V2.30 SP4, Date installed: 05/04/2016 Previous V2.30 SP1, installed 10/22/2014.
[4] FSVR40 Firmware revision: V2.23 SP1, Date installed: 08/19/2016 Previous V2.23, installed 10/22/2014.

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4. Measurements Parameters

4.2. Measurement Software

Manufacturer	Software Description	Title or Model #	Rev.	Report Sections
Compliance Worldwide	Test Report Generation Software	Test Report Generator	1.0	7.11. Conducted Emissions

4.3. Measurement & Equipment Setup

Test Dates:	2/11/2025, 2/12/2025, 2/13/2025, 2/14/2025, 2/26/2025, 4/23/2025, 4/24/2025, 4/25/2025, 4/28/2025, 4/29/2025
Test Engineers:	Sean Defelice
Normal Site Temperature (15 - 35°C):	21.5
Relative Humidity (20 - 75% RH):	52
Frequency Range:	9 kHz to 40 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	200 Hz – 9 to 150 kHz 9 kHz – 150 kHz to 30 MHz 120 kHz - 30 MHz to 1 GHz 1 MHz - Above 1 GHz
EMI Receiver Average Bandwidth:	>= 3 * IF (BW) or RBW
Detector Function:	Peak, Quasi-Peak & Average

4.4. Measurement Procedures

Test measurements are made in accordance FCC Part 15 Subpart E: Unlicensed National Information Infrastructure Devices and ISED RSS-247, Issue 3, Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices.

The measurement procedures in this report are in accordance with ANSI C63.10-2013: *American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices* and FCC KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 Guidelines for Compliance Testing of Unlicensed national Information Infrastructure (U-NII) Devices, Part 15, Subpart E, dated December 14, 2017. All references to these publications refer to these versions and dates detailed in this paragraph.

All measurements include correction factors for antenna, cables, preamp and attenuators, if used.

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4. Measurements Parameters

4.5. Measurement Uncertainty

The following uncertainties are expressed for an expansion/coverage factor of K=2.

RF Frequency	± $1x10^{-8}$
Radiated Emission of Transmitter	± 4.55 dB
Radiated Emission of Receiver	± 4.55 dB
Temperature	± 0.91° C
Humidity	± 5%

5. Choice of Equipment for Test Suits

5.1 Choice of Model

This test report is based on the test samples supplied by the manufacturer and are reported by the manufacturer to be equivalent to the production units.

5.2 Presentation

This test sample was tested with all required ancillary equipment. Refer to Section 3 of this report for product equipment configuration.

5.3 Choice of Operating Frequencies

The device under test utilizes 7 channels in the U-NII 1 band between 5150 MHz and 5250 MHz, 7 channels in the U-NII 2 band between 5250 MHz and 5350 MHz, 23 channels in the U-NII 2 Ext. band between 5470 MHz and 5725 MHz and 9 channels in the U-NII 3 band between 5725 MHz and 5850 MHz. The Low, Middle and High frequencies in each of the bands were tested dependent on the channel bonding.

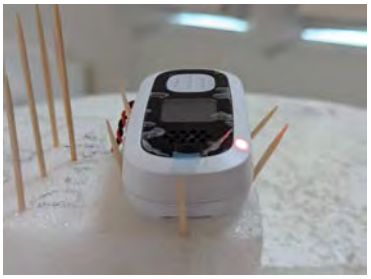
5.4 EUT Position for Emissions Measurements

During all radiated emissions measurement testing, the product was mounted on a polystyrene form to facilitate rotating the device through three orthogonal axes, as required by ANSI C63.10, section 5.10.1, for a handheld or body worn device.

X-Axis

Y-Axis

Z-Axis



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6. Measurement Summary

Test Requirement	FCC Rule Requirement	ISED Rule Requirement	Test Report Section	Result
Antenna Requirement	15.203	RSS-GEN 6.8	7.1	Compliant
Power Limits	15.407 (a) (1) (iv) 15.407 (a) (2) 15.407 (a) (3) (i)	RSS-247 6.2.1.1, 6.2.2.1 (a), 6.2.3.1, 6.2.4.2	7.2	Compliant
Emission Bandwidth 6 dB & 26 dB	15.407 (e)	RSS-247 6.2.4.2	7.3	Compliant
Operation with directional antenna gains greater than 6 dBi	15.407 (a) (3) (i)	RSS-247 6.2.4.2	7.4	Compliant
Undesirable / Unwanted Emissions in Restricted Bands	15.407 (b) (10)	RSS-247 6.2.1.2, 6.2.2, 6.2.3, 6.2.4.3	7.5	Compliant
Spurious Radiated Emissions (> GHz) - Harmonic Measurements	15.407 (b) (10)	RSS-GEN 6.13		Not Performed
Band Edge and Out of Band Measurements	15.407 (b) (2), (3), (4) (i) & (iii), 15.407 (b) (4)	RSS-247 6.2.1.2, 6.2.2.2, 6.2.3	7.6	Compliant
Maximum Power Spectral Density	15.407 (a) (3) (i) 15,407 (a) (13)	RSS-247 6.2.4.2	7.7	Not Performed
AC Power Line Conducted Emissions	15.207	RSS-GEN 7.2	7.8	N/A Battery Powered
Duty Cycle	---	---	7.9	Not Performed
99% (Occupied) Bandwidth	---	RSS-GEN 6.7	7.10	Compliant

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7. Measurement Data

7.1. Antenna Requirement (15.203, RSS-GEN 6.8)

Requirement: 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.

Results: The EUT utilizes a PCB etched antenna connected via a u.fl connector that is not user replaceable.

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7. Measurement Data (continued)

7.2.1 Power Limits (FCC 15.407 (a) (1) (iv), ISED RSS-247 6.2.1.1)

Requirement: FCC: For client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW (+23.98 dBm).
ISED: For other devices, the maximum e.i.r.p. shall not exceed 200 mW (+23.01 dBm) or 10 + 10 log10B, dBm, whichever power is less, where B is the 99% emission bandwidth in megahertz, see section 7.10.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number KDB 789033, Section E 2 using ANSI C63:2013 Subclause 11.9.2.2 for measuring average power.

Test Note: A spectrum analyzer resolution bandwidths of 20 MHz RBW / 50 MHz VBW, 40 MHz RBW / 80 MHz VBW or 80 MHz RBW / 80 MHz VBW were used dependent on the operating bandwidth of the device. The 3-meter field strength was converted to dBm by subtracting 95.2. The maximum antenna gain of 3.16 dBi at 5150 MHz additionally subtracted to determine the conducted output power.

Results: Compliant, the device under test meets the required maximum peak conducted output power level requirements for the FCC and ISED.

802.11a

Channel	Frequency	Maximum Average Field Strength	Maximum Antenna Gain	Maximum Average Conducted Output Power	FCC Limit	Margin	ISED Limit	Margin	Result
	(MHz)	(dBµV/m)	(dBi)	(dBm)	(dBm)	(dB)	(dBm)	dB	
Low	5180	105.04	3.16	6.68	23.98	-17.30	22.19	-15.51	Compliant

802.11n HT20

Low	5180	104.42	3.16	6.06	23.98	-17.92	22.47	-16.41	Compliant

802.11n HT40

Low	5190	104.96	3.16	6.60	23.98	-17.38	23.01	-16.41	Compliant

802.11ac VHT20

Low	5180	104.54	3.16	6.18	23.98	-17.80	22.47	-16.29	Compliant

802.11ac VHT40

Low	5190	103.41	3.16	5.05	23.98	-18.93	23.01	-17.96	Compliant

802.11ac VHT80

Middle	5210	101.43	3.16	3.07	23.98	-20.91	23.01	-19.94	Compliant

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7. Measurement Data

7.2.1 Power Limits (FCC 15.407 (a) (1) (iv), ISED RSS-247 6.2.1.1) (continued)

7.2.1.1. Low Channel – 5180 MHz 802.11a

7.2.1.2. Low Channel – 5180 MHz 802.11n HT20

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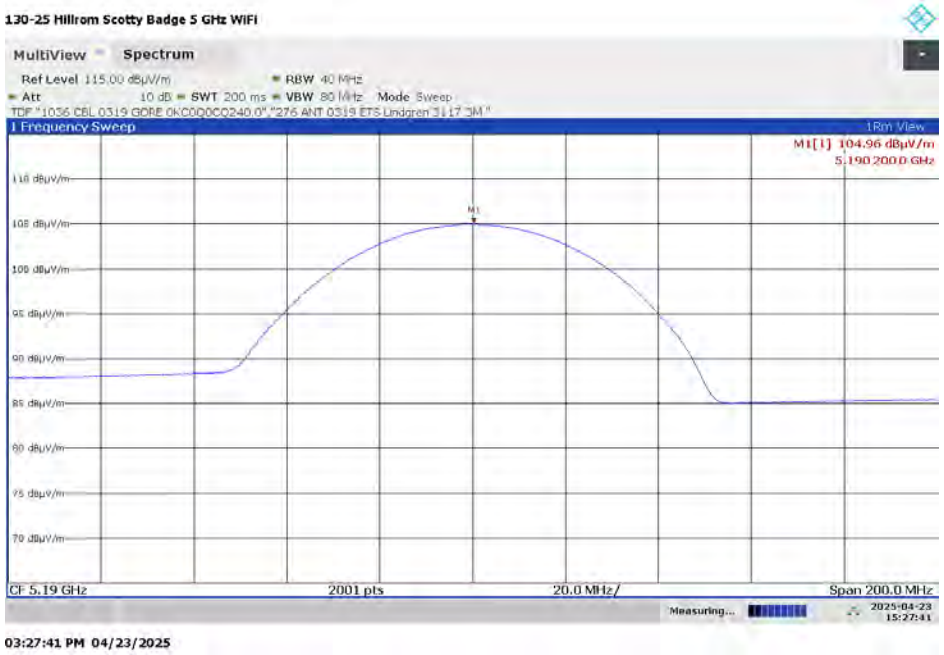
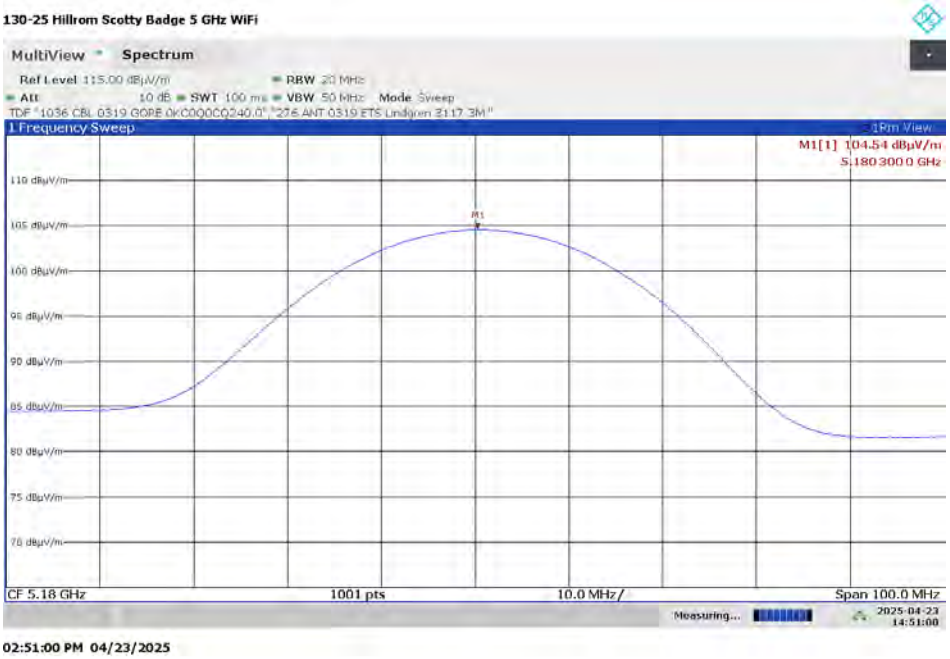
7. Measurement Data

7.2.1 Power Limits (FCC 15.407 (a) (1) (iv), ISED RSS-247 6.2.1.1) (continued)

7.2.1.3. Low Channel – 5190 MHz 802.11n HT40



7.2.1.4. Low Channel – 5180 MHz 802.11ac VHT20



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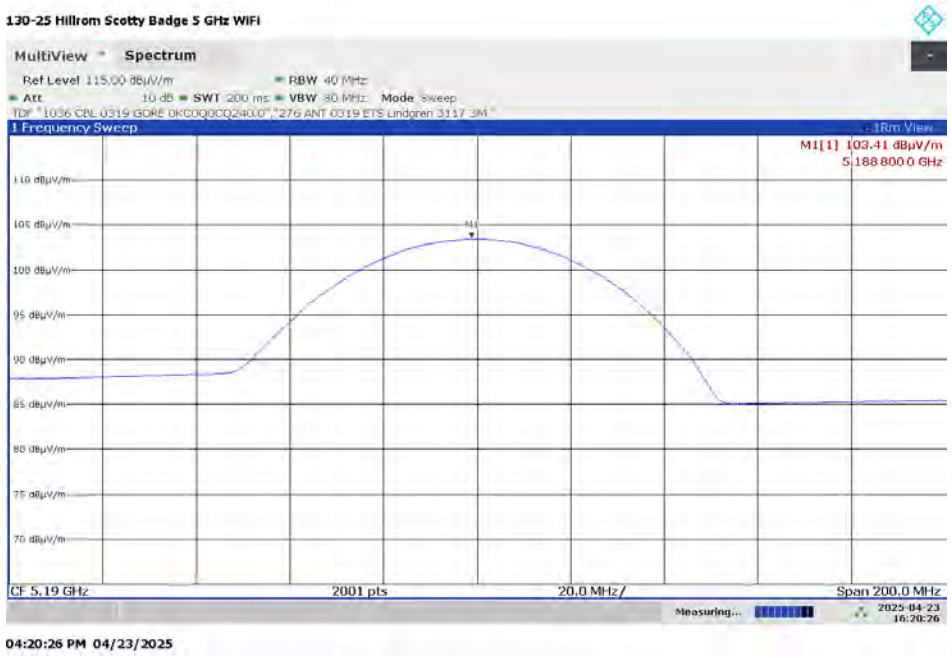
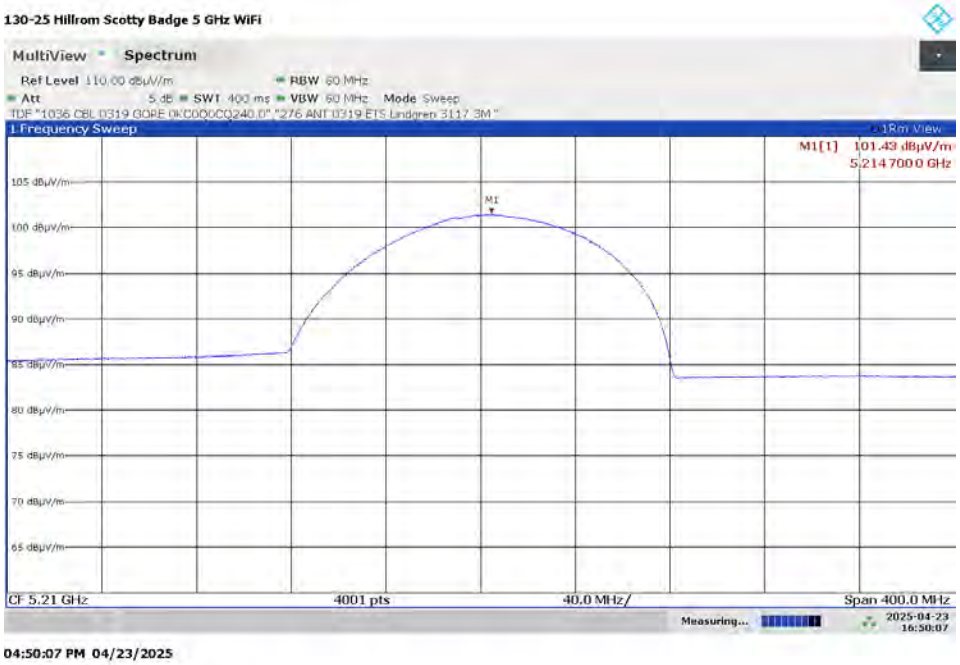
7. Measurement Data

7.2.1 Power Limits (FCC 15.407 (a) (1) (iv), ISED RSS-247 6.2.1.1) (continued)

7.2.1.5. Low Channel – 5190 MHz 802.11ac VHT40



7.2.1.6. Middle Channel – 5210 MHz 802.11ac VHT80



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7. Measurement Data (continued)

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1)

Requirement: FCC: For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (+23.98 dBm) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.
ISED: For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (+23.98 dBm) or 11 dBm + 10 log B, whichever is less, where B is the 99% emission bandwidth in megahertz.
For the 5470-5600 MHz and 5650-5725 MHz bands, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less, where B is the 99% emission bandwidth in megahertz.
Until further notice, devices subject to this section shall not be capable of transmitting in the 5600-5650 MHz band. This restriction is for the protection of Environment Canada's weather radars operating in this band.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number KDB 789033, Section E 2 using ANSI C63:2013 Subclause 11.9.2.2 for measuring average power.

Test Note: A spectrum analyzer resolution bandwidths of 20 MHz RBW / 50 MHz VBW, 40 MHz RBW / 80 MHz VBW or 80 MHz RBW / 80 MHz VBW were used dependent on the operating bandwidth of the device. The 3-meter field strength was converted to dBm by subtracting 95.2. The maximum antenna gain of 3.13 dBi at 5250 MHz and 2.48 dBi at 5600 MHz additionally subtracted to determine the conducted output power.

Results: Compliant, the device under test meets the required maximum peak conducted output power level requirements for FCC and ISED The device is a client device and therefore will not transmit on the 5600-5650 MHz band in Canada.

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7. Measurement Data (continued)

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) continued

802.11a

Channel	Frequency	Maximum Average Field Strength	Maximum Antenna Gain	Maximum Average Conducted Output Power	FCC Limit	Margin	ISED Limit	Margin	Result
	(MHz)	(dBµV/m)	(dBi)	(dBm)	(dBm)	(dB)	(dBm)	dB	
High	5320	108.33	3.13	10.00	23.93	-13.93	23.18	-13.18	Compliant

802.11n HT20

High	5320	106.99	3.13	8.66	23.98	-15.32	23.46	-14.80	Compliant

802.11n HT40

High	5310	105.09	3.13	6.76	23.98	-17.22	23.98	-17.22	Compliant

802.11ac VHT20

High	5320	107.33	3.13	9.00	23.98	-14.98	23.46	-14.46	Compliant

802.11ac VHT40

High	5310	105.54	3.13	7.21	23.98	-16.77	23.98	-16.77	Compliant

802.11ac VHT80

Middle	5290	103.38	3.13	5.05	23.98	-18.93	23.98	-18.93	Compliant

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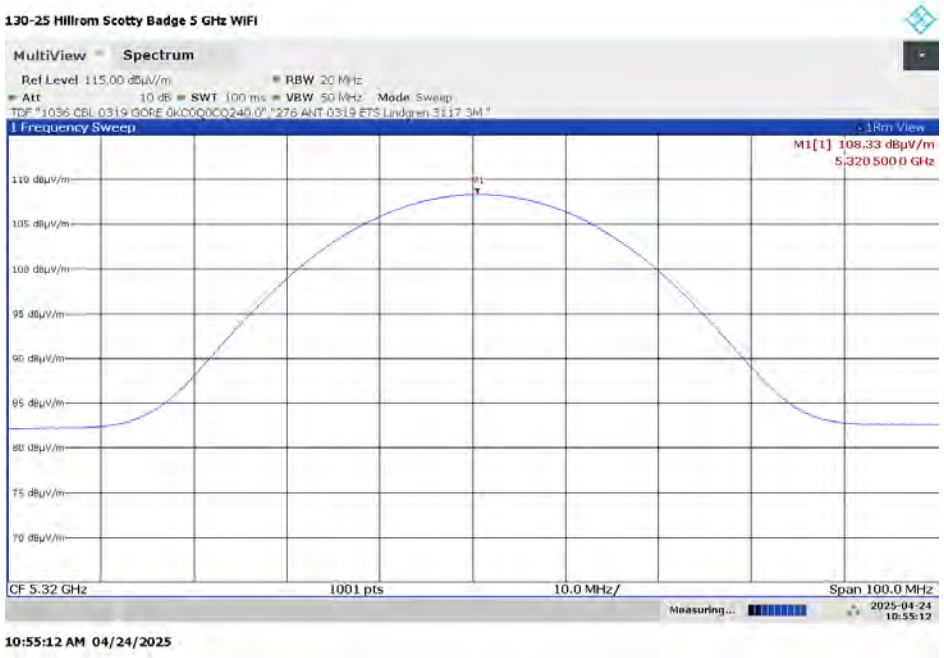
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.1. High Channel – 5320 MHz 802.11a



7.2.2.2. High Channel – 5320 MHz 802.11n HT20

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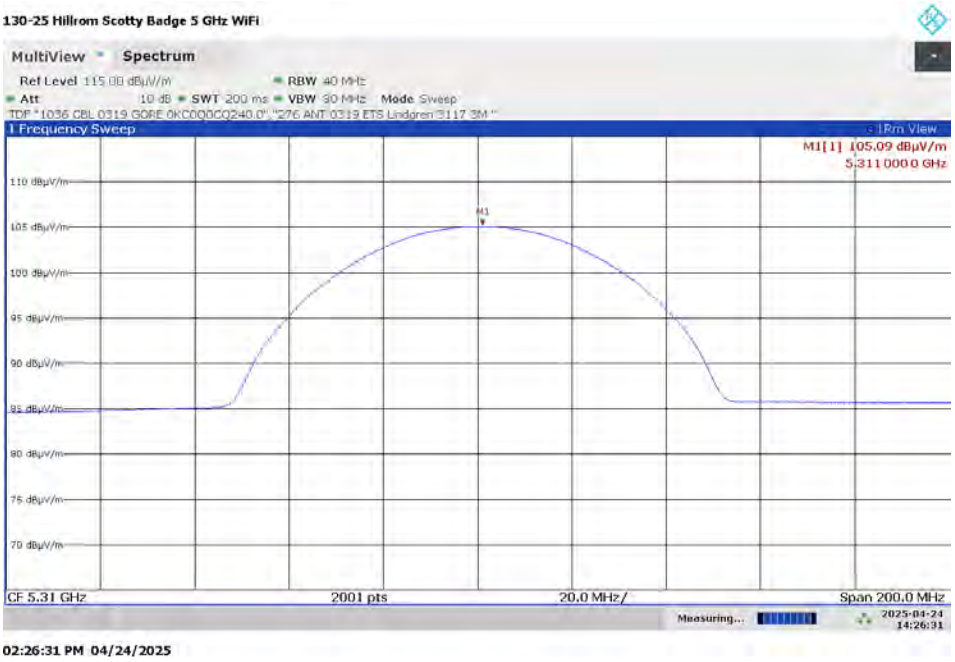
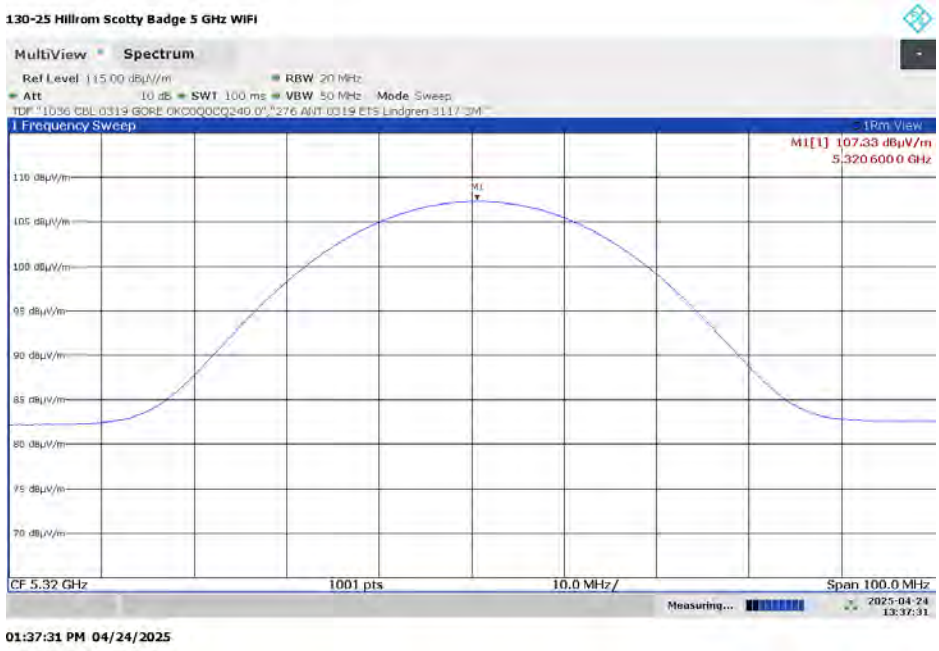
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.3. High Channel – 5310 MHz 802.11n HT40



7.2.2.4. High Channel – 5320 MHz 802.11ac VHT20



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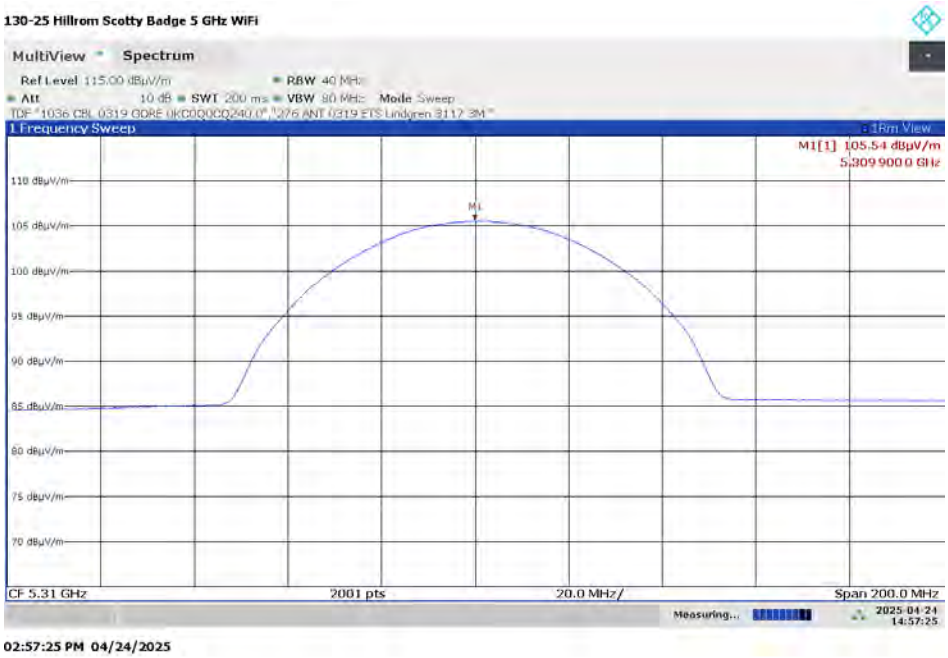
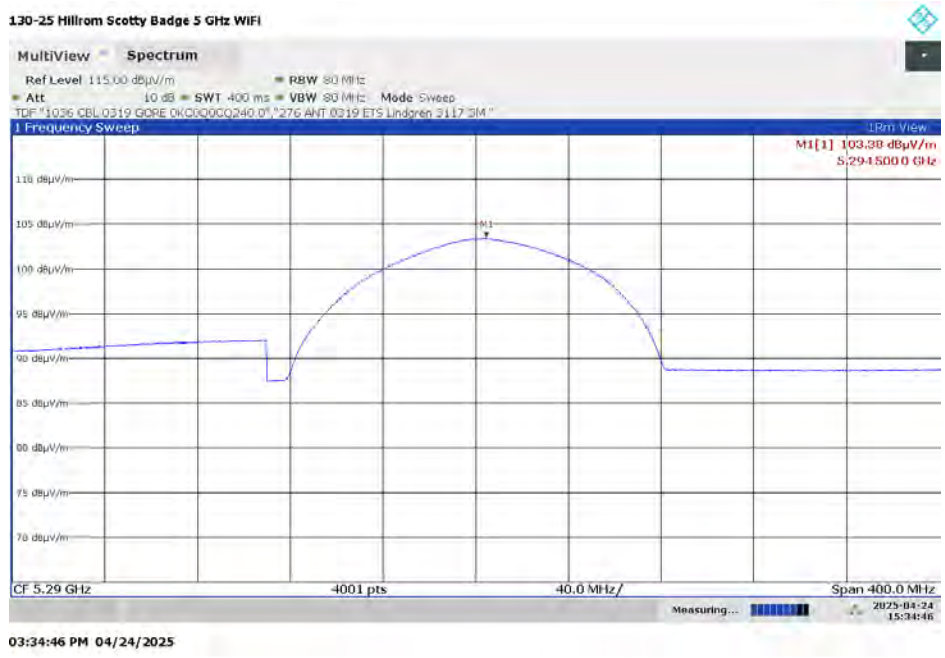
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.5. High Channel – 5310 MHz 802.11ac VHT40



7.2.2.6. Middle Channel – 5290 MHz 802.11ac VHT80



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7. Measurement Data (continued)

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) continued

802.11a

Channel	Frequency	Maximum Average Field Strength	Maximum Antenna Gain	Maximum Average Conducted Output Power	FCC Limit	Margin	ISED Limit	Margin	Result
	(MHz)	(dBµV/m)	(dBi)	(dBm)	(dBm)	(dB)	(dBm)	dB	
Low	5500	110.29	2.48	12.61	23.91	-11.30	23.19	-10.58	Compliant
High	5680	111.99	2.48	14.31	23.98	-9.67	23.20	-8.89	Compliant

802.11n HT20

Low	5500	109.44	2.48	11.76	23.98	-12.22	23.46	-11.70	Compliant
High	5680	111.54	2.48	13.86	23.98	-10.12	23.48	-9.62	Compliant

802.11n HT40

Low	5550	110.70	2.48	13.02	23.98	-10.96	23.98	-10.96	Compliant
High	5630	110.72	2.48	13.04	23.98	-10.94	23.98	-10.94	Compliant

802.11ac VHT20

Low	5500	109.75	2.48	12.07	23.98	-11.91	23.47	-11.40	Compliant
High	5680	111.28	2.48	13.60	23.98	-10.38	23.48	-9.88	Compliant

802.11ac VHT40

Low	5550	110.56	2.48	12.88	23.98	-11.10	23.98	-11.10	Compliant
High	5630	110.67	2.48	12.99	23.98	-10.99	23.98	-10.99	Compliant

802.11ac VHT80

Middle	5530	106.76	2.48	9.08	23.98	-14.90	23.98	-14.90	Compliant

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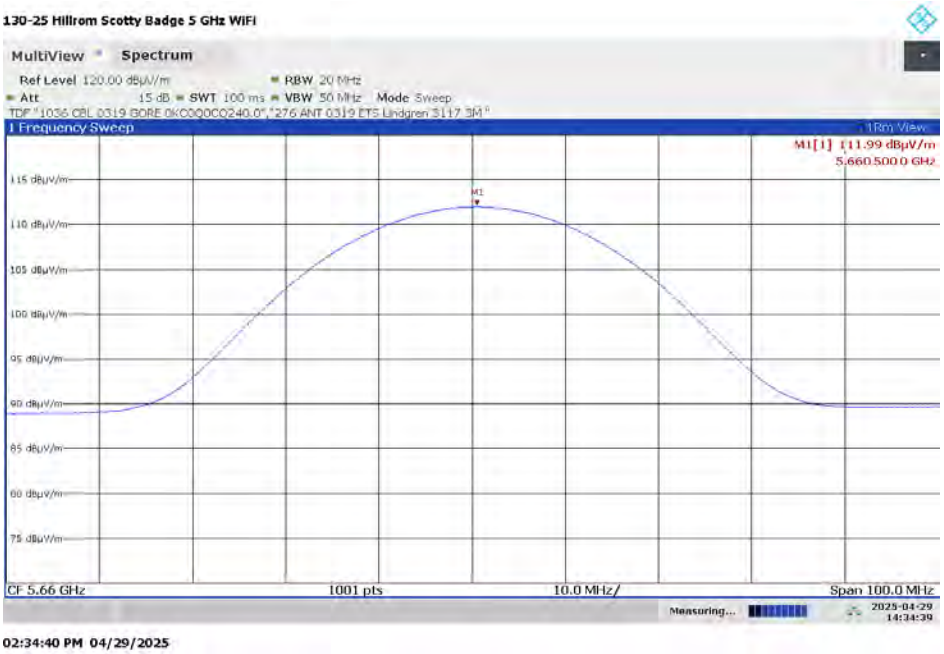
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.7. Low Channel – 5500 MHz 802.11a

7.2.2.8. High Channel – 5680 MHz 802.11a



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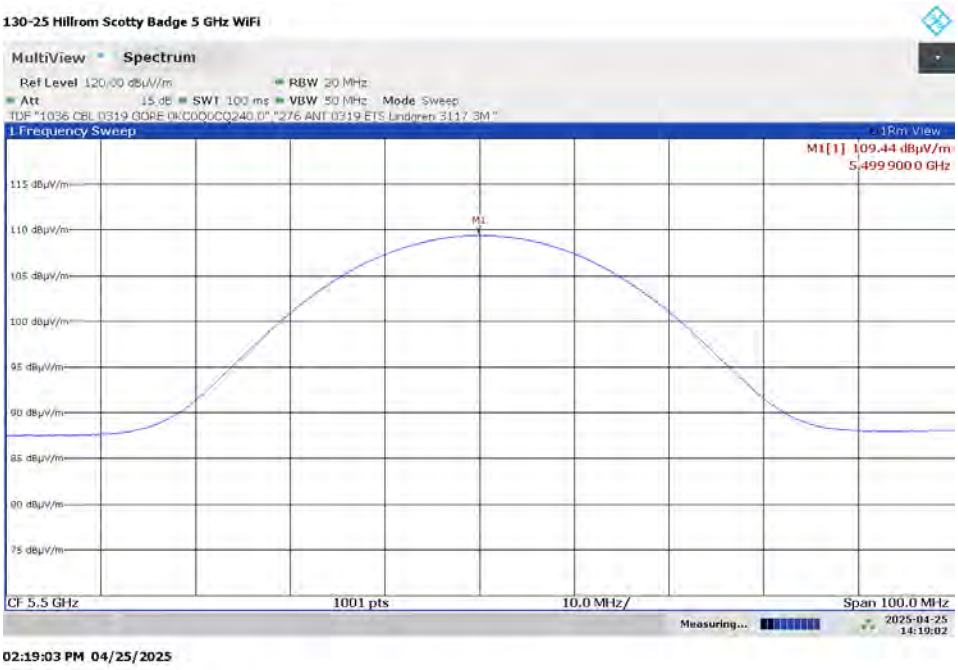
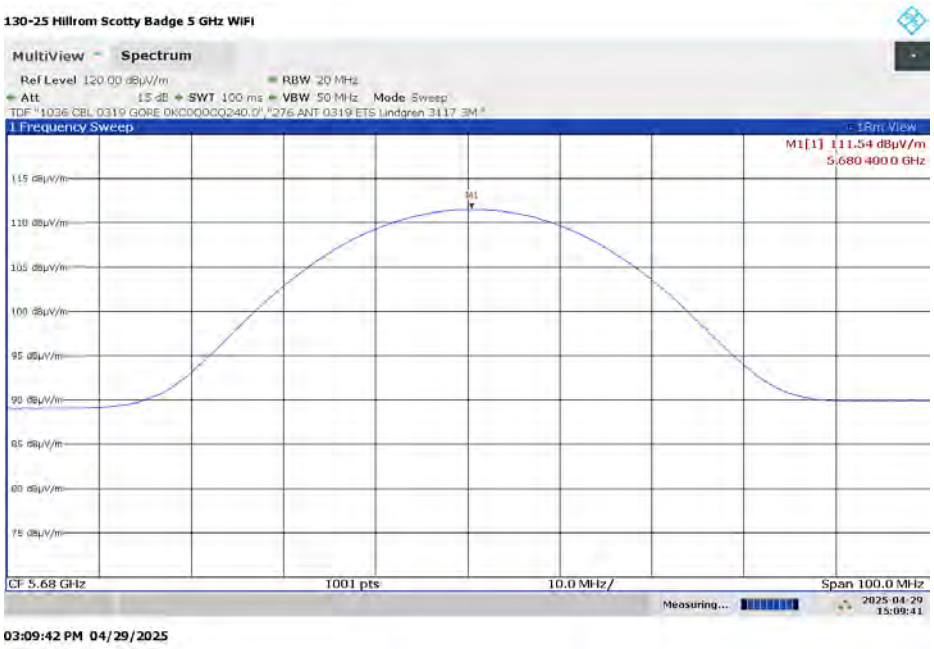
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.9. Low Channel – 5500 MHz 802.11n HT20



7.2.2.10. High Channel – 5680 MHz 802.11n HT20



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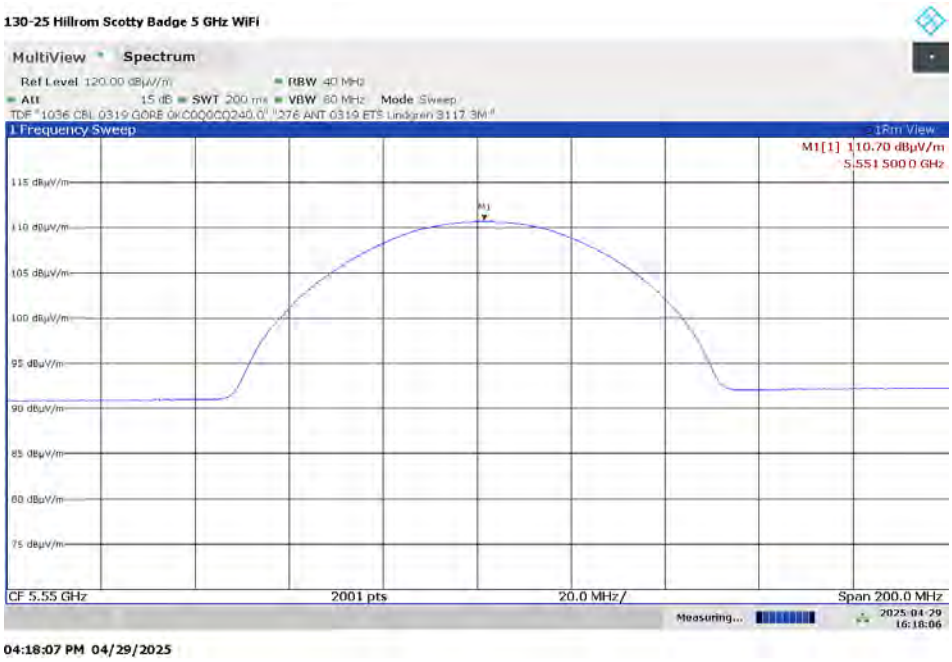
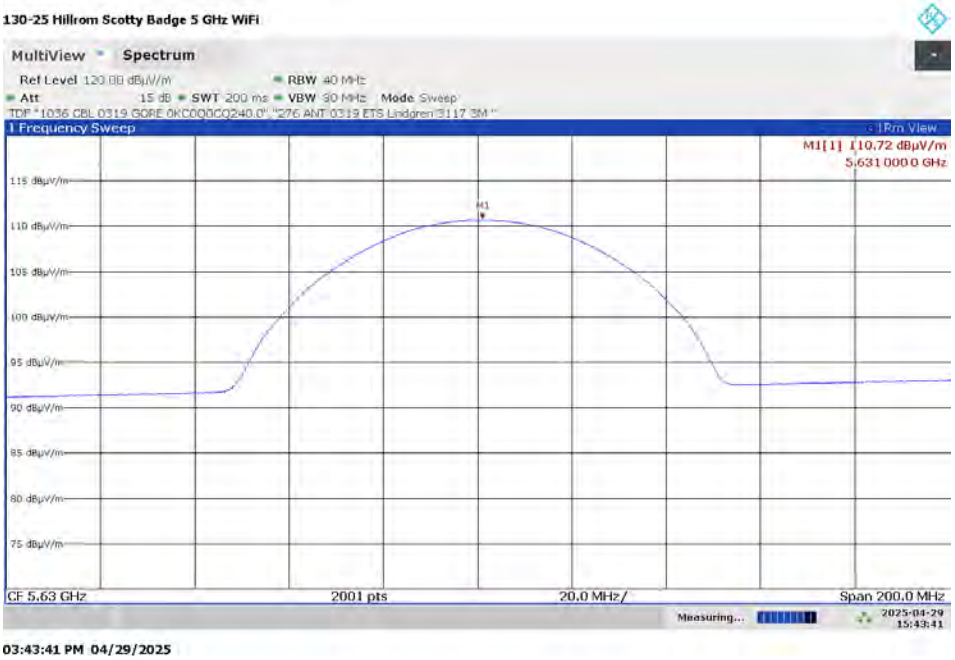
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.11. Low Channel – 5550 MHz 802.11n HT40



7.2.2.12. High Channel – 5630 MHz 802.11n HT40



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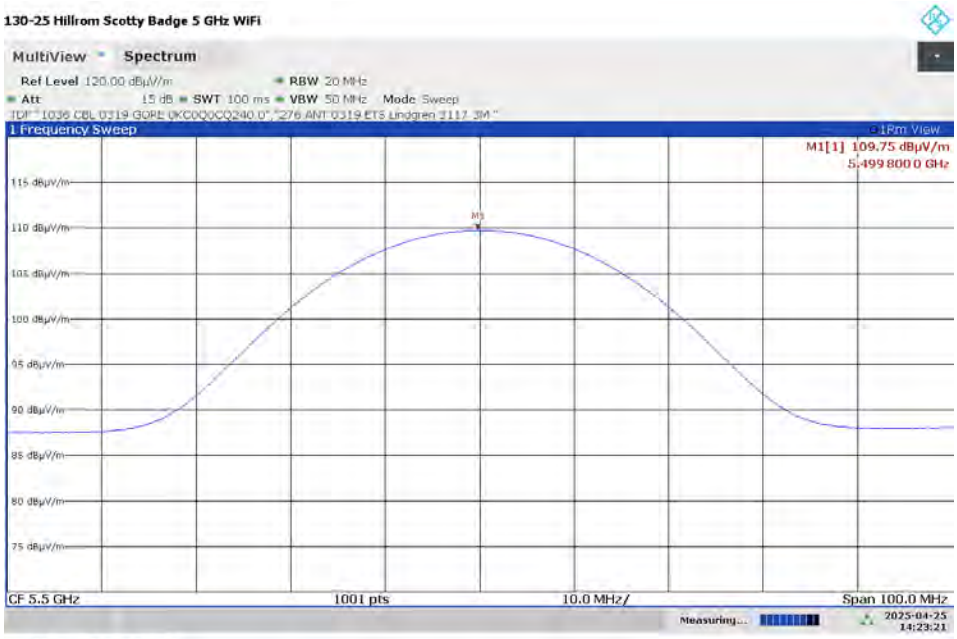
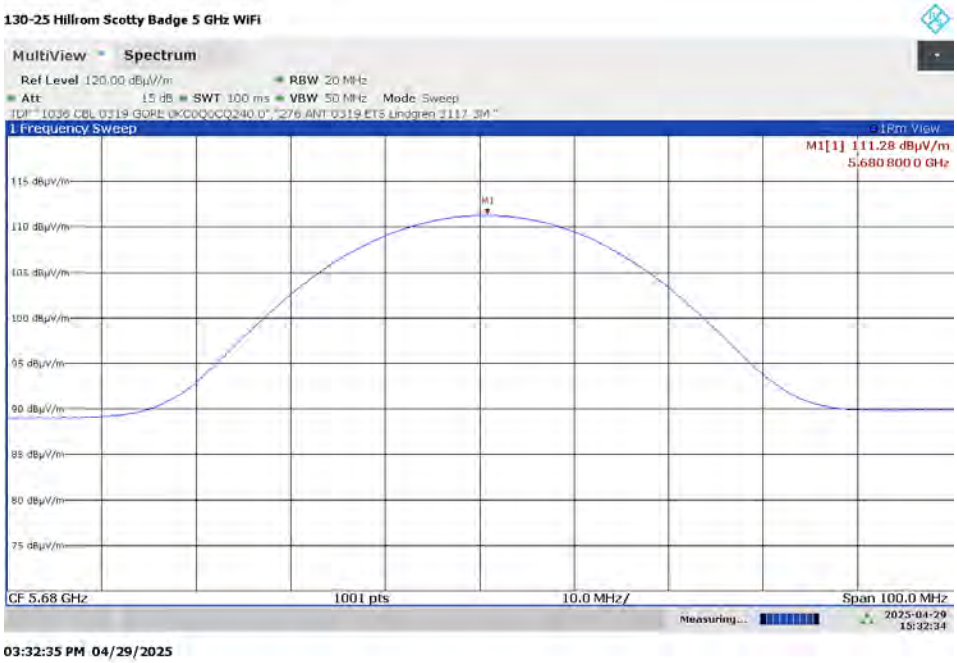
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.13. Low Channel – 5500 MHz 802.11ac VHT20



7.2.2.14. High Channel – 5680 MHz 802.11ac VHT20



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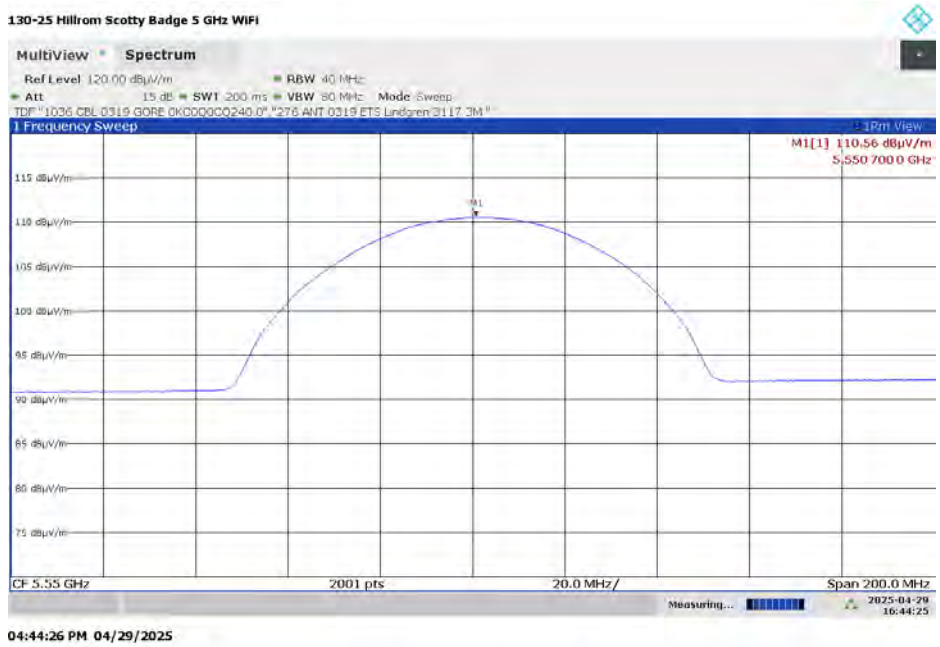
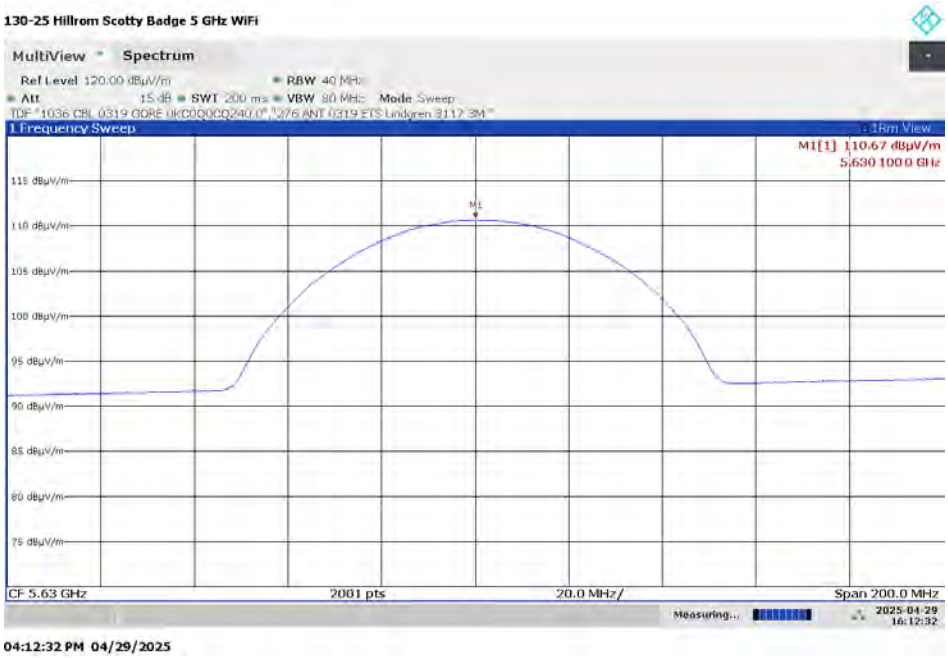
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.15. Low Channel – 5550 MHz 802.11ac VHT40



7.2.2.16. High Channel – 5630 MHz 802.11ac VHT40



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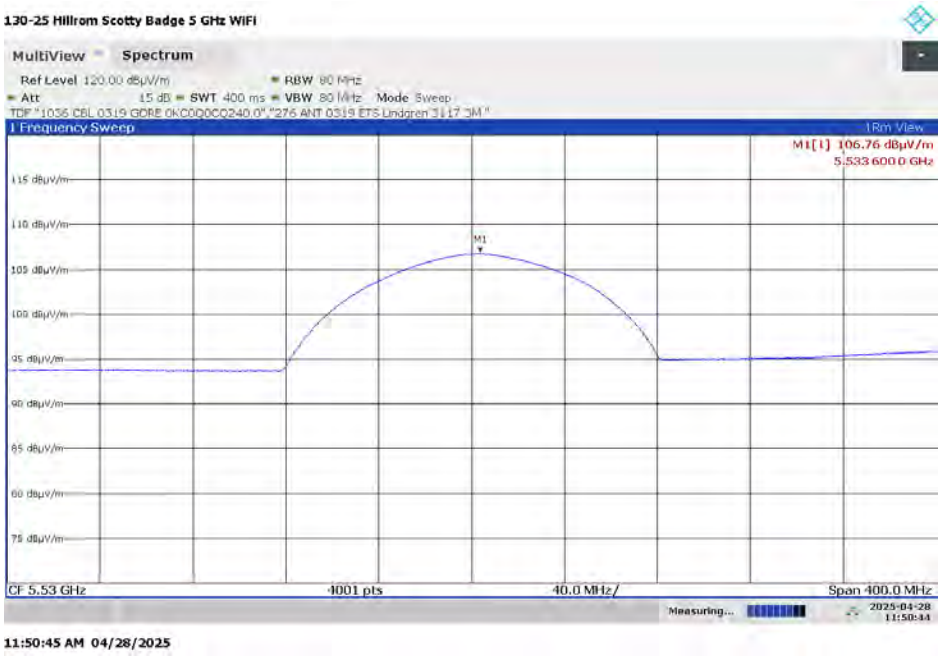
7. Measurement Data

7.2.2 Power Limits (FCC 15.407 (a) (2), ISED RSS-247 6.2.2.1 (a), 6.2.3.1) (continued)

7.2.2.17. Middle Channel – 5530 MHz 802.11ac VHT80



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7. Measurement Data (continued)

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c))

Requirement: For the band 5.725–5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W, (+30 dBm).

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number KDB 789033, Section E 2 using ANSI C63:2013 Subclause 11.9.2.2 for measuring average power.

Test Note: A spectrum analyzer resolution bandwidths of 20 MHz RBW / 50 MHz VBW, 40 MHz RBW / 80 MHz VBW or 80 MHz RBW / 80 MHz VBW were used dependent on the operating bandwidth of the device. The 3-meter field strength was converted to dBm by subtracting 95.2. The maximum antenna gain of 2.52 dBi at 5785 MHz additionally subtracted to determine the conducted output power.

Results: Compliant, the device under test meets the required maximum peak conducted output power level of 1 Watt (30 dBm).

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Channel	Frequency	Maximum Average Field Strength	Maximum Antenna Gain	Maximum Average Conducted Output Power	Limit	Margin	Result
	(MHz)	(dBµV/m)	(dBi)	(dBm)	(dBm)	(dB)	
Low	5745	112.77	2.52	15.05	30	-14.95	Compliant
Middle	5785	112.27	2.52	14.55	30	-15.45	Compliant
High	5825	111.96	2.52	16.74	30	-13.26	Compliant

802.11n HT20

Low	5745	111.16	2.52	13.44	30	-16.56	Compliant
Middle	5785	111.05	2.52	13.33	30	-16.67	Compliant
High	5825	110.57	2.52	12.85	30	-17.15	Compliant

802.11n HT40

Low	5755	111.76	2.52	14.04	30	-15.96	Compliant
High	5795	110.87	2.52	13.15	30	-16.85	Compliant

802.11ac VHT20

Low	5745	112.05	2.52	14.33	30	-15.67	Compliant
Middle	5785	111.28	2.52	13.56	30	-16.44	Compliant
High	5825	111.55	2.52	13.83	30	-16.17	Compliant

802.11ac VHT40

Low	5755	110.76	2.52	13.04	30	-16.96	Compliant
High	5795	111.15	2.52	13.43	30	-16.57	Compliant

802.11ac VHT80

Middle	5775	110.85	2.52	13.13	30	-16.87	Compliant

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7. Measurement Data

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c)) (continued)

7.2.3.1. Low Channel – 5745 MHz 802.11a

7.2.3.2. Middle Channel – 5785 MHz 802.11a

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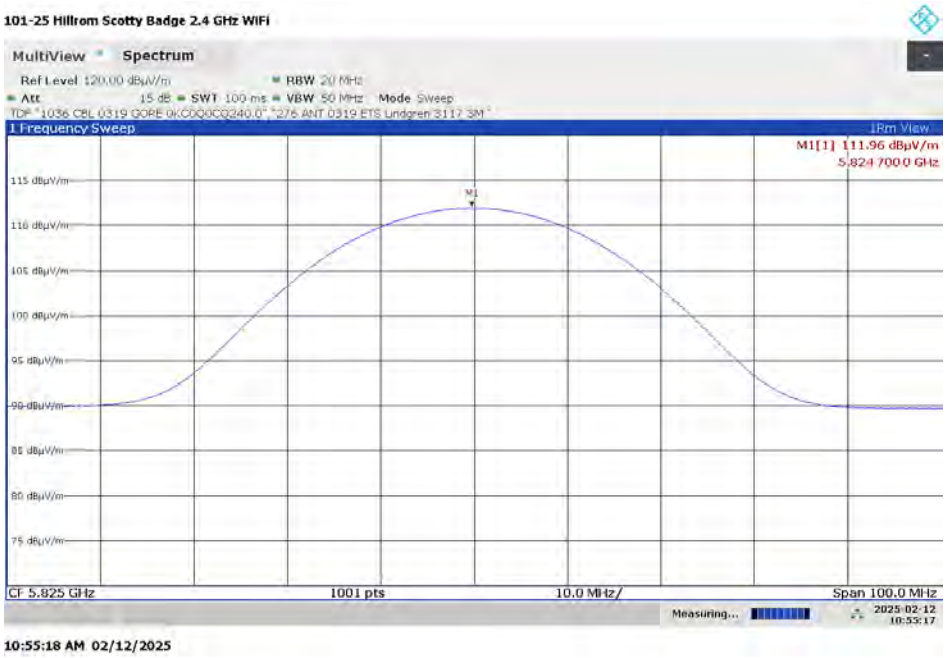
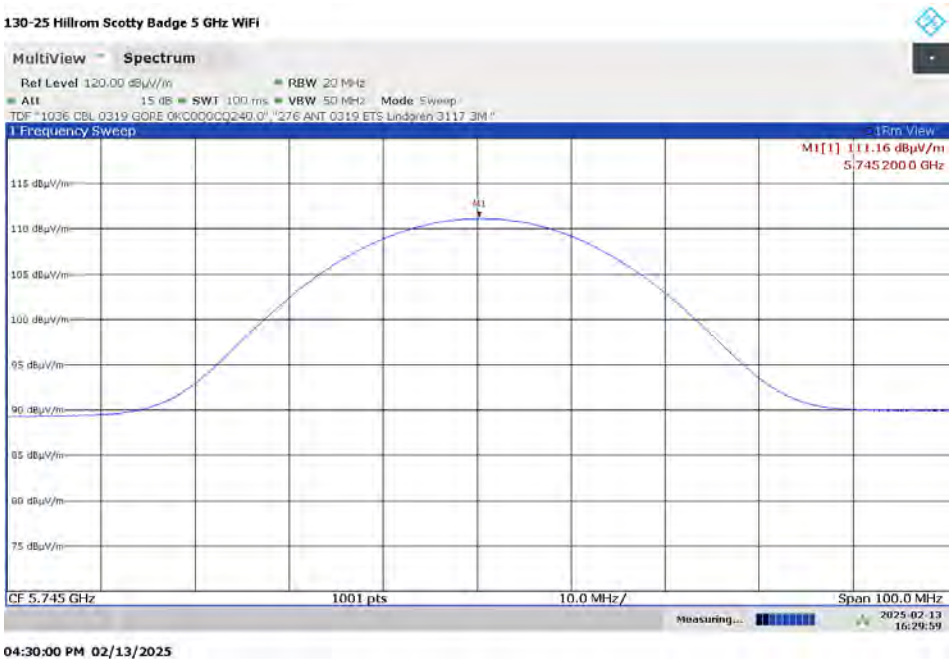
7. Measurement Data

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c)) (continued)

7.2.3.3. High Channel – 5825 MHz 802.11a



7.2.3.4. Low Channel – 5745 MHz 802.11n HT20



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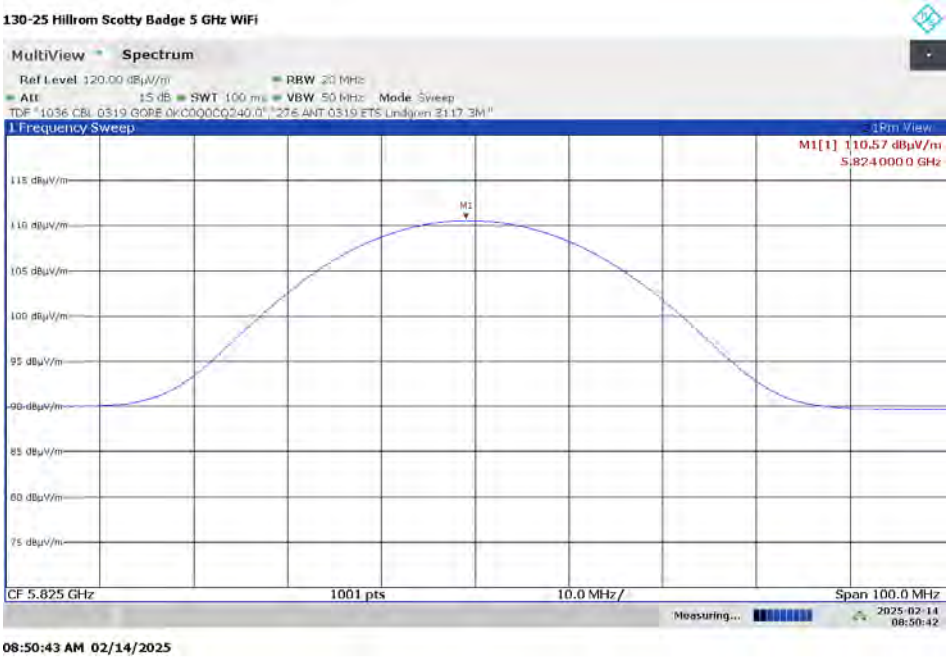
7. Measurement Data

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c)) (continued)

7.2.3.5. Middle Channel – 5785 MHz 802.11n HT20

7.2.3.6. High Channel – 5825 MHz 802.11n HT20



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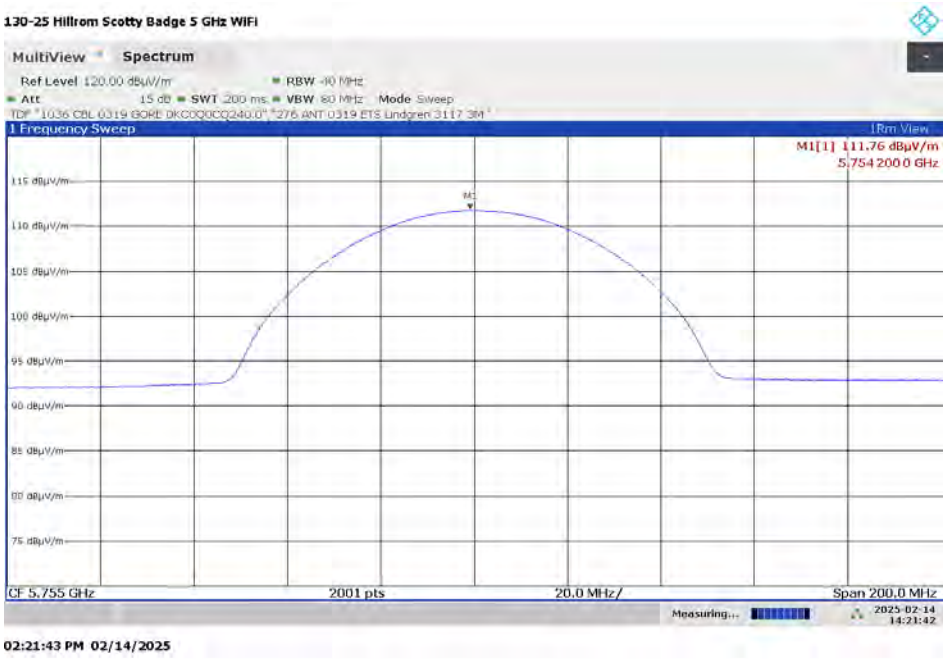
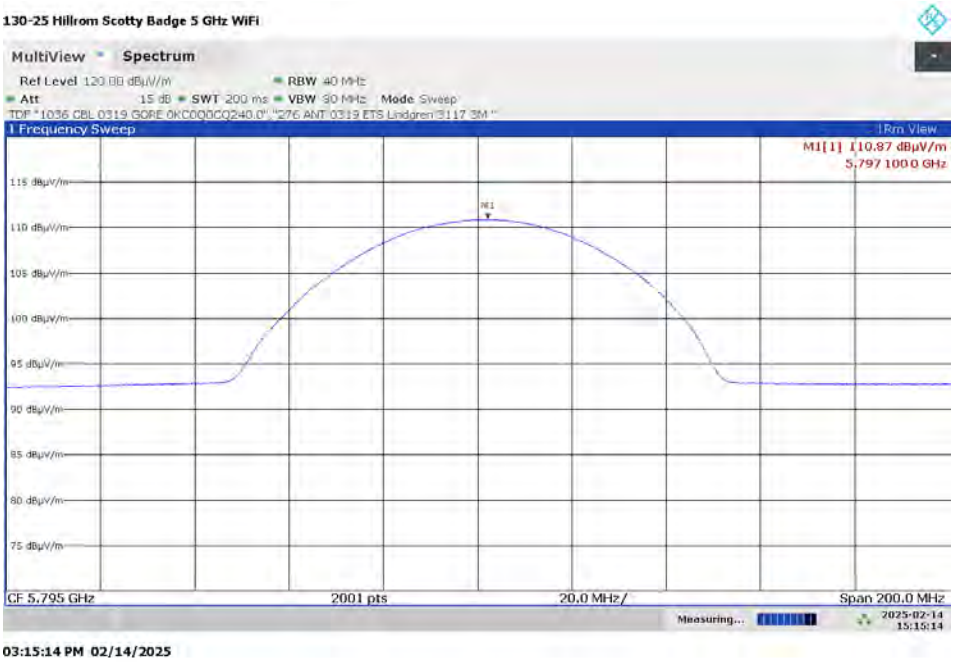
7. Measurement Data

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c)) (continued)

7.2.3.7. Low Channel – 5755 MHz 802.11n HT40



7.2.3.8. High Channel – 5795 MHz 802.11n HT40



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7. Measurement Data

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c)) (continued)

7.2.3.9. Low Channel – 5745 MHz 802.11ac VHT20

7.2.3.10. Middle Channel – 5785 MHz 802.11ac VHT20

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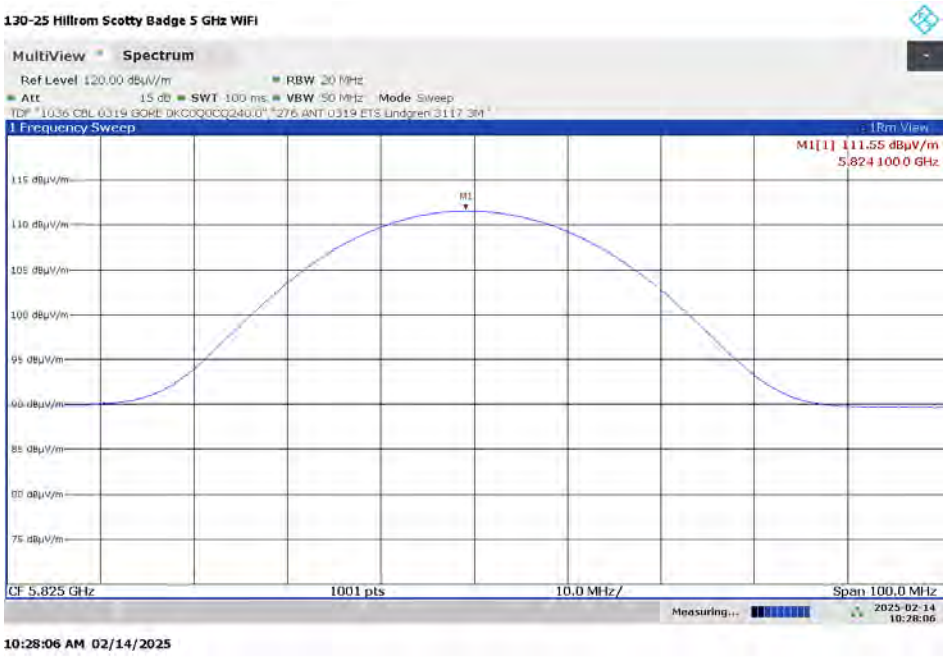
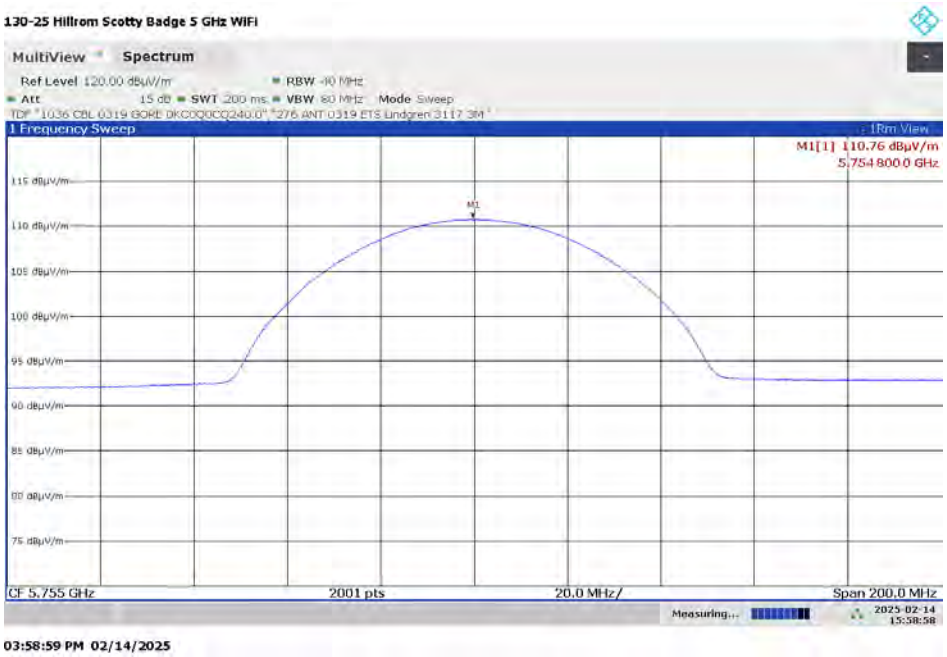
7. Measurement Data

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c)) (continued)

7.2.3.11. High Channel – 5825 MHz 802.11ac VHT20



7.2.3.12. Low Channel – 5755 MHz 802.11ac VHT40



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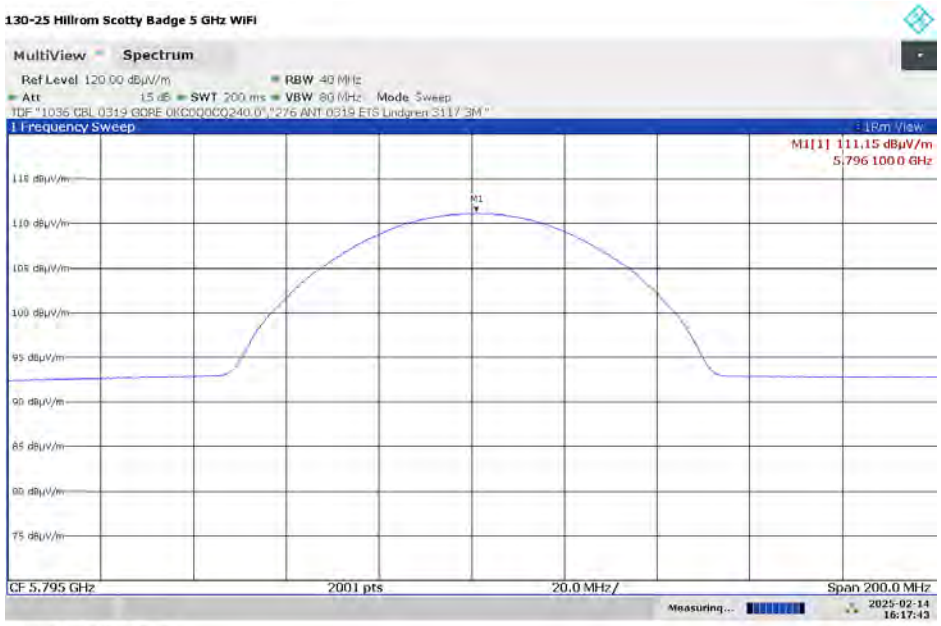
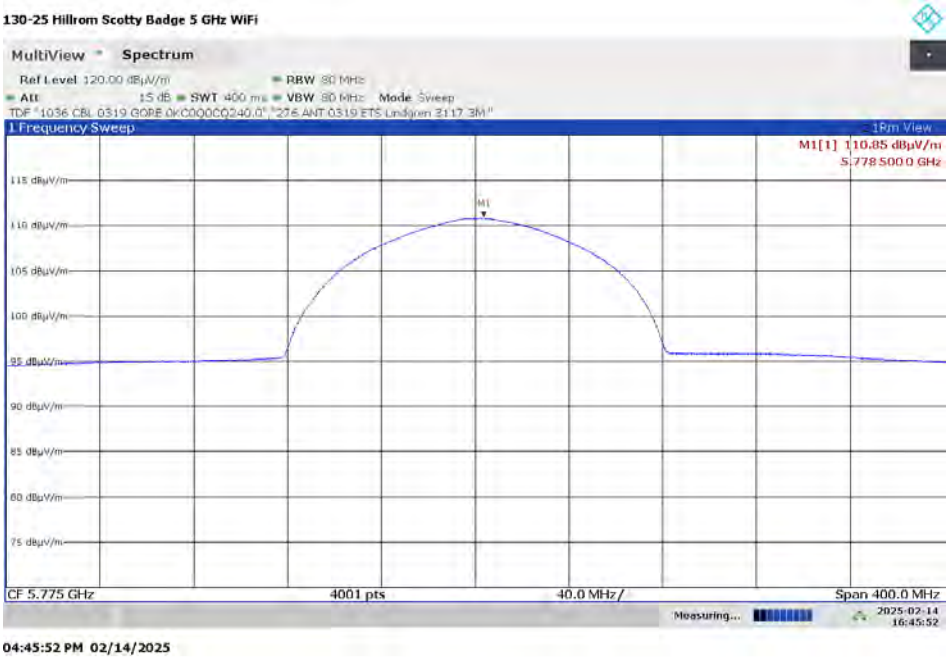
7. Measurement Data

7.2.3 Power Limits (FCC 15.407 (a) (3) (i), ISED RSS-247 5.4 (c)) (continued)

7.2.3.13. High Channel – 5795 MHz 802.11ac VHT40



7.2.3.14. Middle Channel – 5755 MHz 802.11ac VHT80



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7. Measurement Data

7.3. Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2)

Requirement: For purposes of this subpart the emission bandwidth is determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. The emission bandwidth is relevant for the allowed power levels in the 5.25–5.35 GHz and 5.47–5.725 GHz bands

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 789033, Section C 1 & 2.

Results: Compliant.

802.11a

Channel	Frequency (MHz)	802.11a -26 dB Bandwidth (MHz)	Power Level Limit based on BW (dBm)	Power Level Limit (dBm)	Lower of the two Power Levels
Low	5180	19.58	n/a	n/a	n/a
High	5320	19.63	23.93	23.98	23.93

802.11n HT20

Low	5180	20.18	n/a	n/a	n/a
High	5320	20.03	24.02	23.98	23.98

802.11n HT40

Low	5190	39.76	n/a	n/a	n/a
High	5310	40.06	27.03	23.98	23.98

802.11ac VHT20

Low	5180	20.08	n/a	n/a	n/a
High	5320	20.03	24.02	23.98	23.98

802.11ac VHT40

Low	5190	39.46	n/a	n/a	n/a
High	5310	40.06	27.03	23.98	23.98

802.11ac VHT80

Middle	5210	80.76	n/a	n/a	n/a
Middle	5290	80.46	30.06	23.98	23.98

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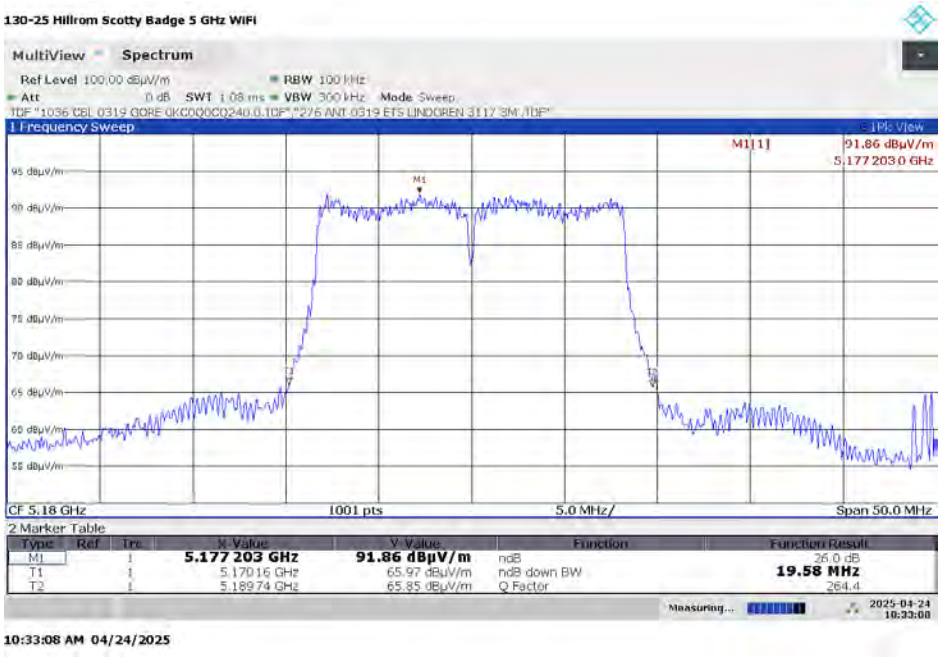
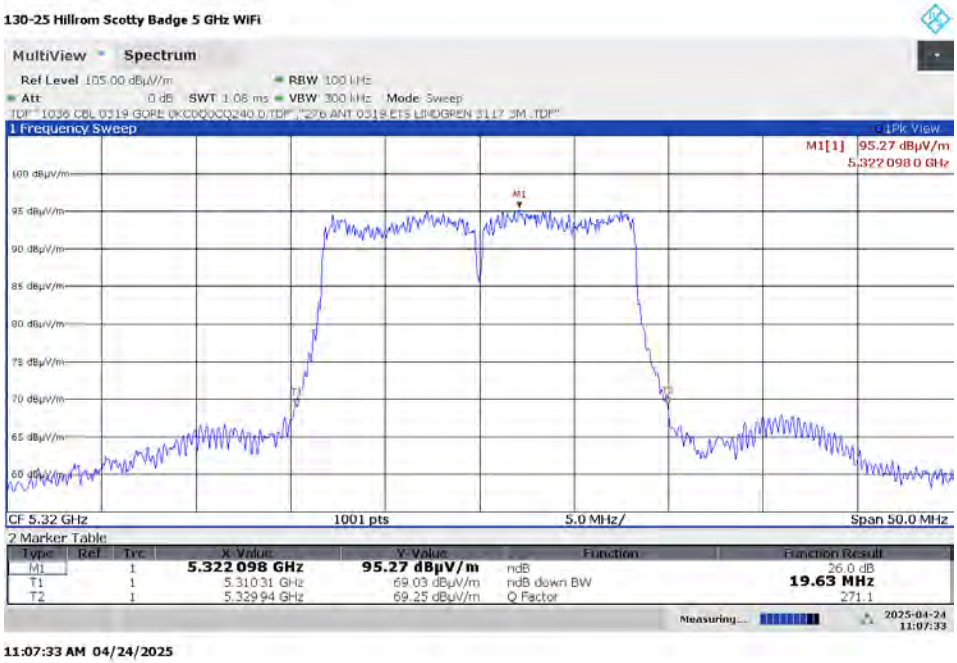
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.1. Low Channel 26 dB – 5180 MHz 802.11a



7.3.1.2. High Channel 26 dB – 5320 MHz 802.11a



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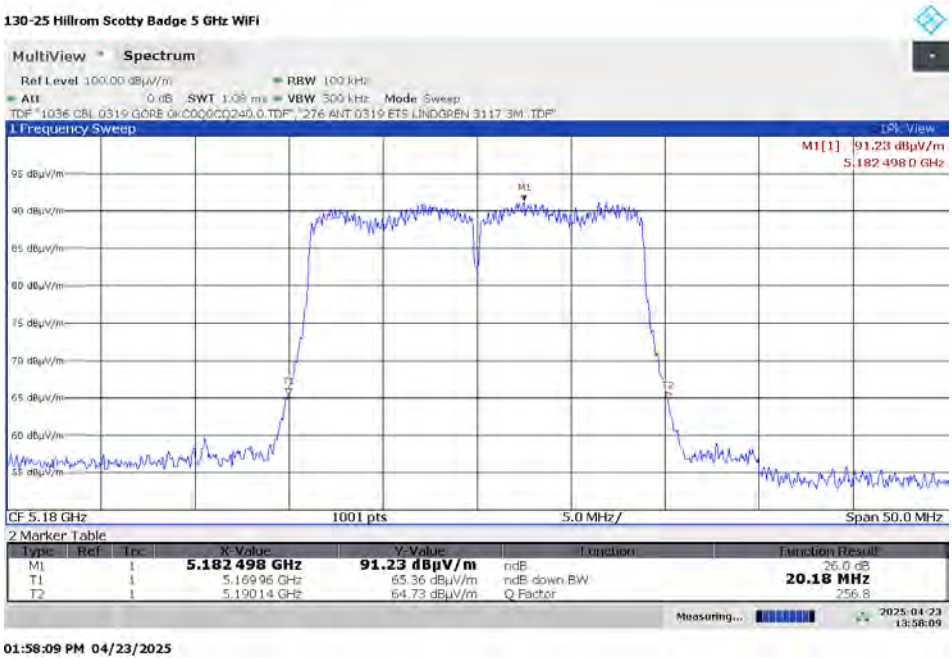
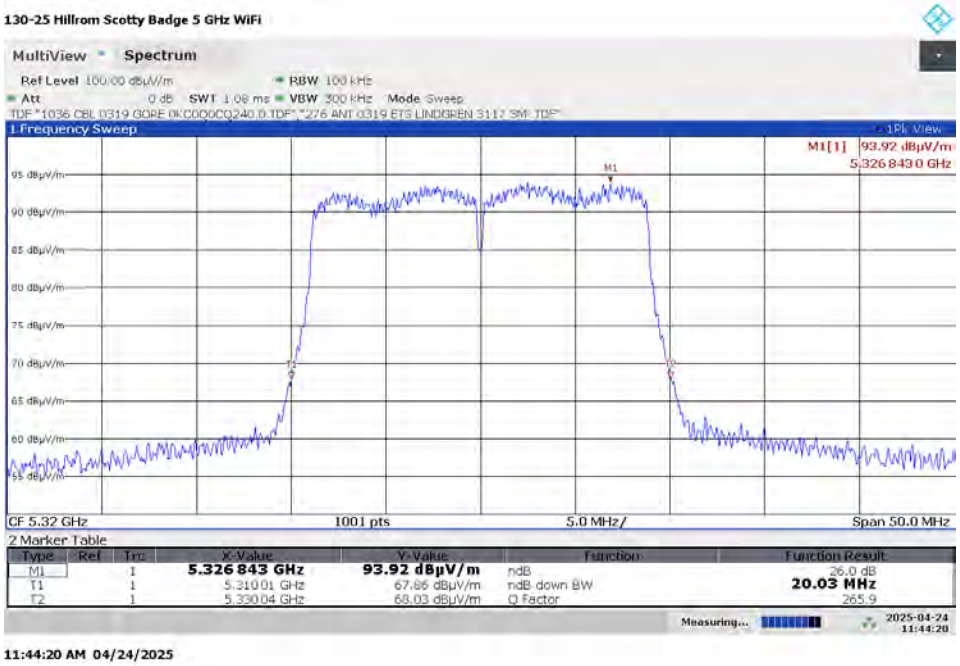
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.3. Low Channel 26 dB – 5180 MHz 802.11n HT20



7.3.1.4. High Channel 26 dB – 5320 MHz 802.11n HT20



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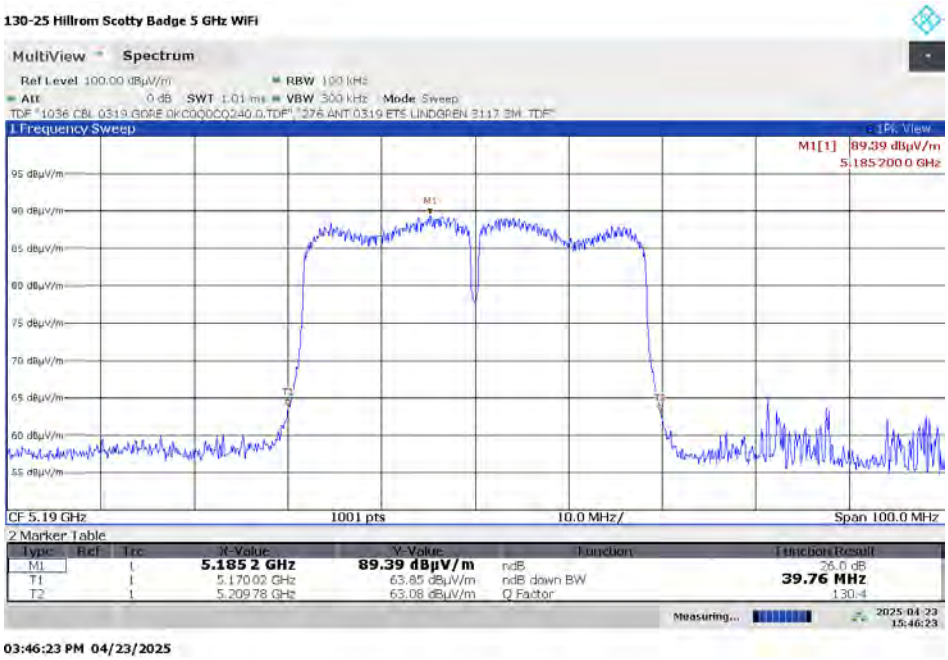
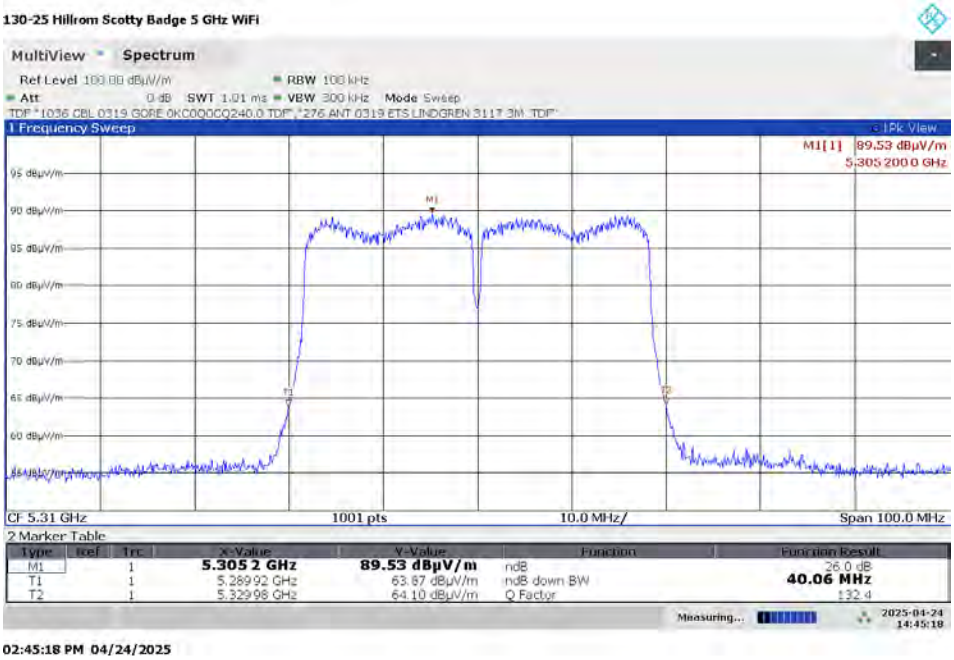
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.5. Low Channel 26 dB – 5190 MHz 802.11n HT40



7.3.1.6. High Channel 26 dB – 5310 MHz 802.11n HT40



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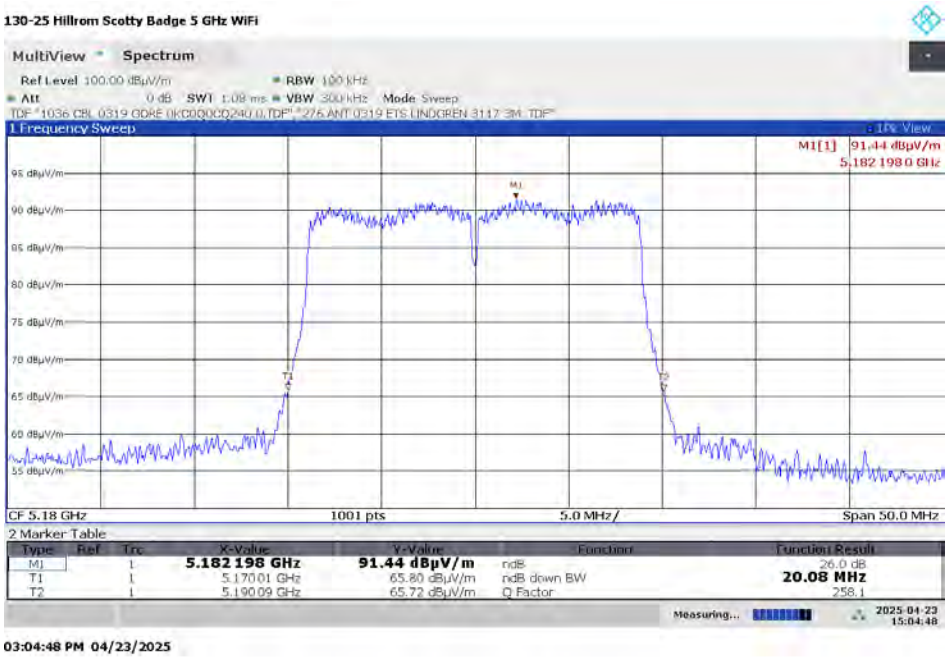
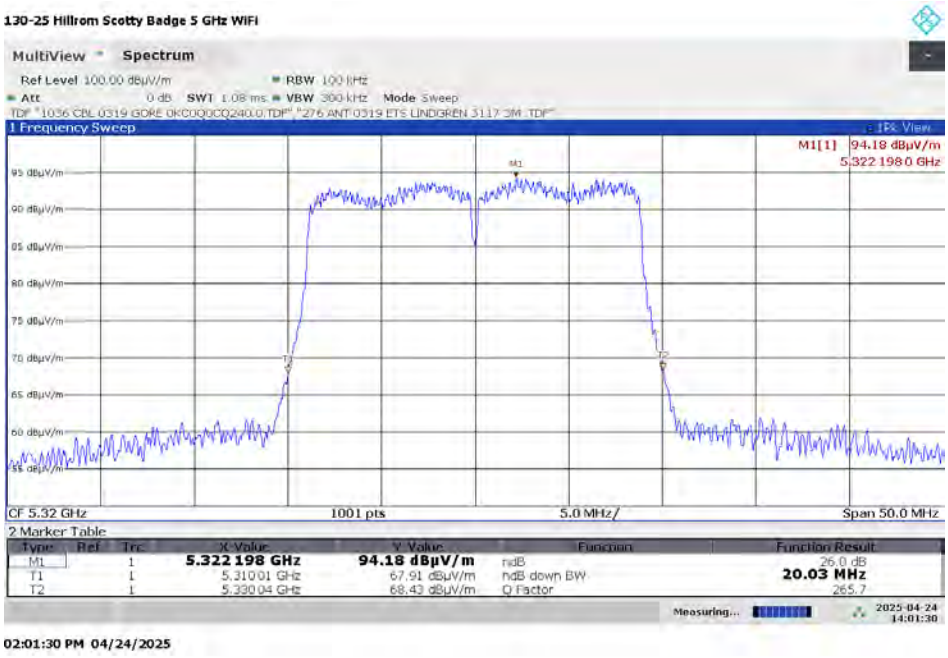
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.7. Low Channel 26 dB – 5180 MHz 802.11ac VHT20



7.3.1.8. High Channel 26 dB – 5320 MHz 802.11ac VHT20



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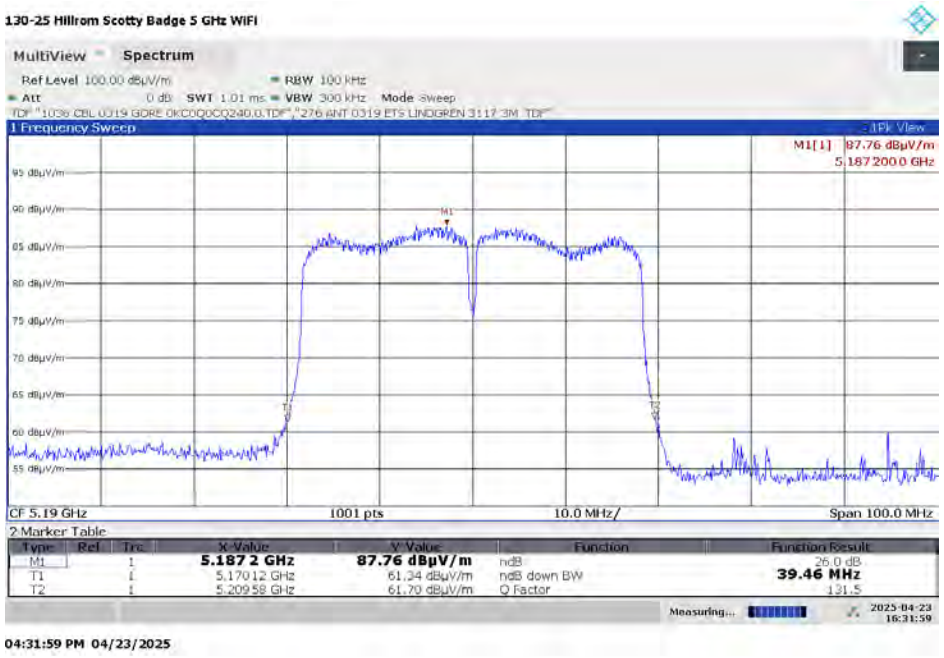
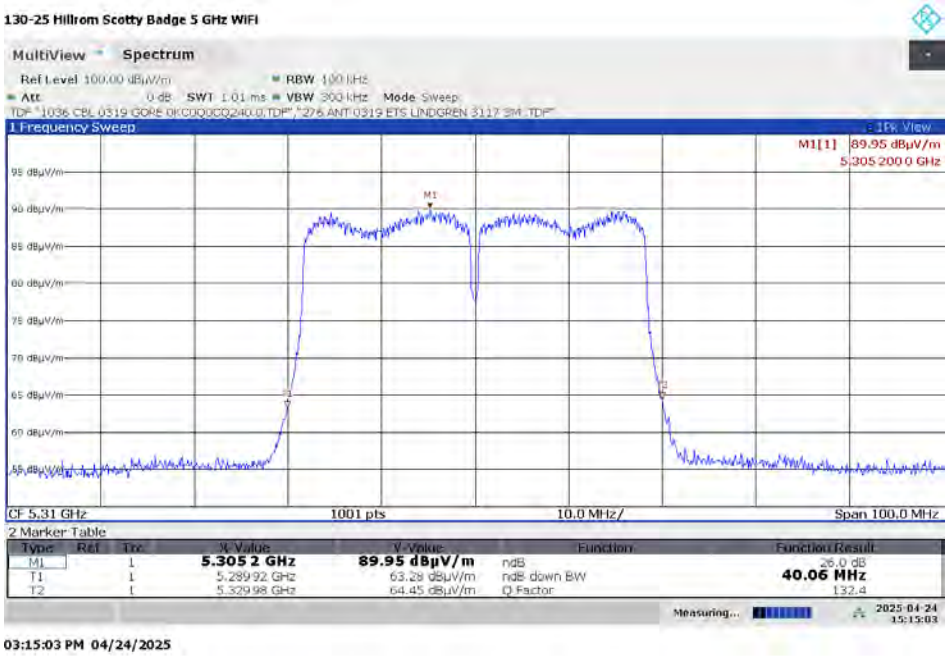
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.9. Low Channel 26 dB – 5190 MHz 802.11ac VHT40



7.3.1.10. High Channel 26 dB – 5310 MHz 802.11ac VHT40



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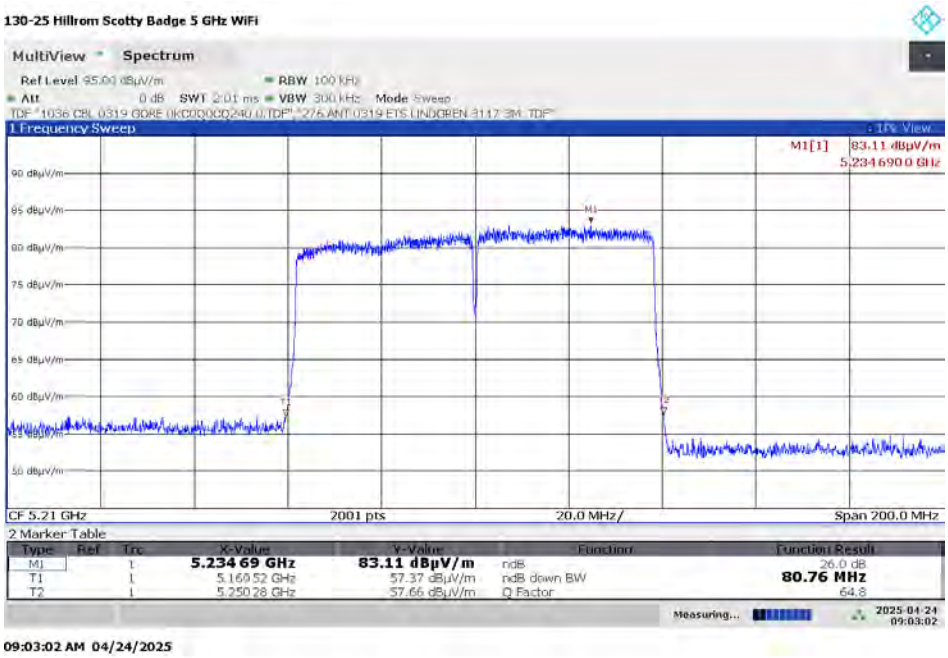
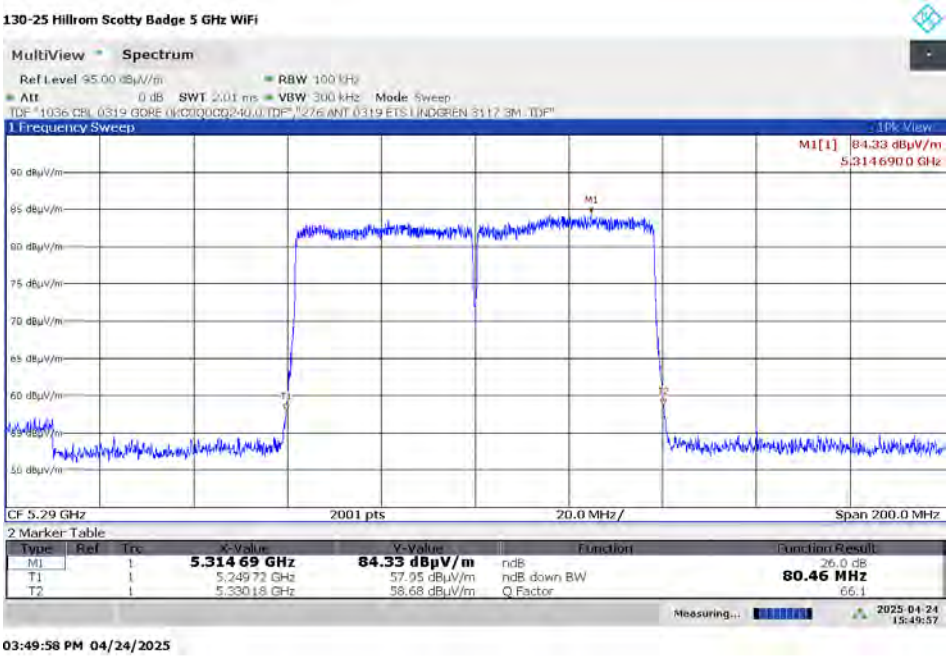
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.11. Mid Channel 26 dB – 5210 MHz 802.11ac VHT80



7.3.1.12. Mid Channel 26 dB – 5290 MHz 802.11ac VHT80



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7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

Requirement: For purposes of this subpart the emission bandwidth is determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. The emission bandwidth is relevant for the allowed power levels in the 5.25–5.35 GHz and 5.47–5.725 GHz bands

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 789033, Section C 1 & 2.

Results: Compliant.

802.11a

Channel	Frequency (MHz)	802.11a -26 dB Bandwidth (MHz)	Power Level Limit based on BW (dBm)	Power Level Limit (dBm)	Lower of the two Power Levels
Low	5500	19.53	23.91	23.98	23.91
High	5680	19.88	23.98	23.98	23.98

802.11n HT20

Low	5500	20.03	24.02	23.98	23.98
High	5680	20.33	24.08	23.98	23.98

802.11n HT40

Low	5550	39.96	27.02	23.98	23.98
High	5630	40.16	27.04	23.98	23.98

802.11ac VHT20

Low	5500	20.03	24.02	23.98	23.98
High	5680	20.48	24.11	23.98	23.98

802.11ac VHT40

Low	5550	40.16	27.04	23.98	23.98
High	5630	40.16	27.04	23.98	23.98

802.11ac VHT80

Middle	5530	80.46	30.06	23.98	23.98

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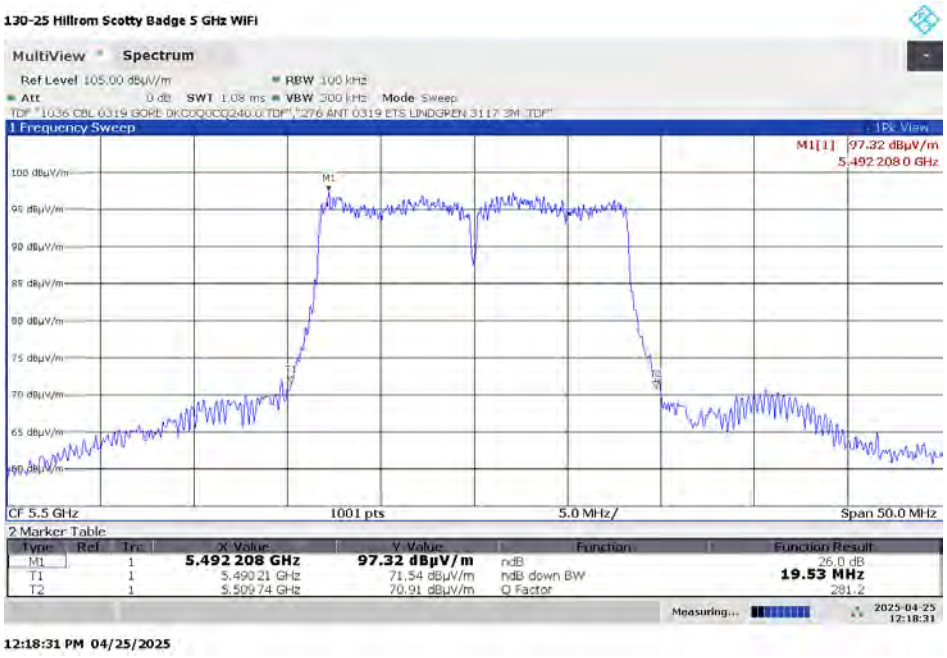
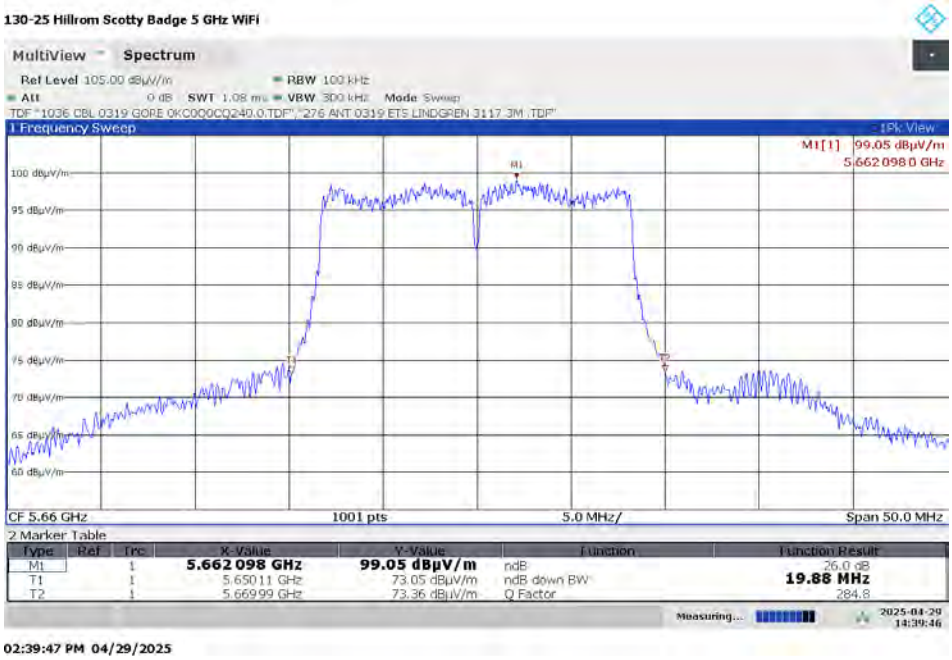
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.13. Low Channel 26 dB – 5500 MHz 802.11a



7.3.1.14. High Channel 26 dB – 5680 MHz 802.11a



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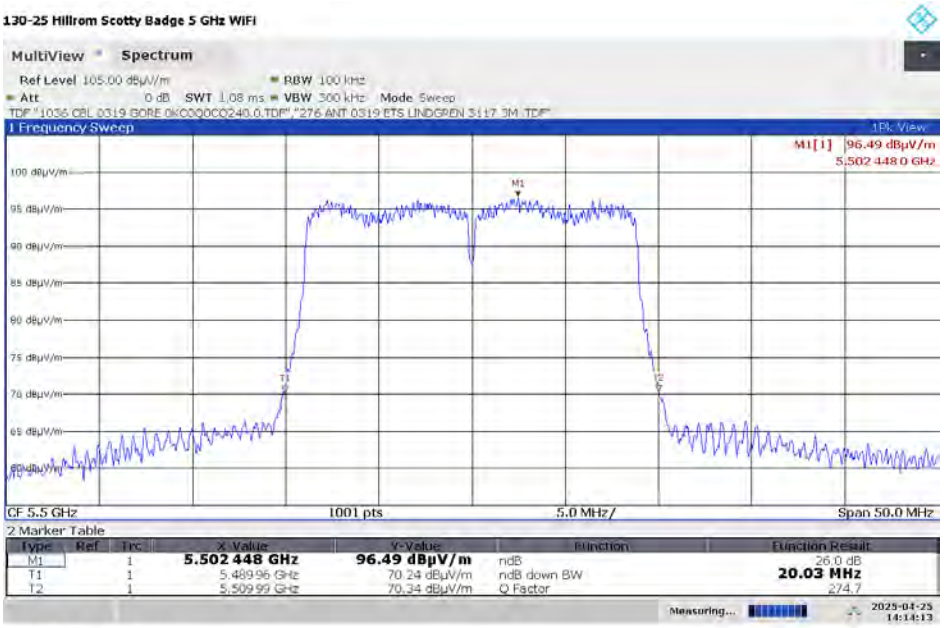
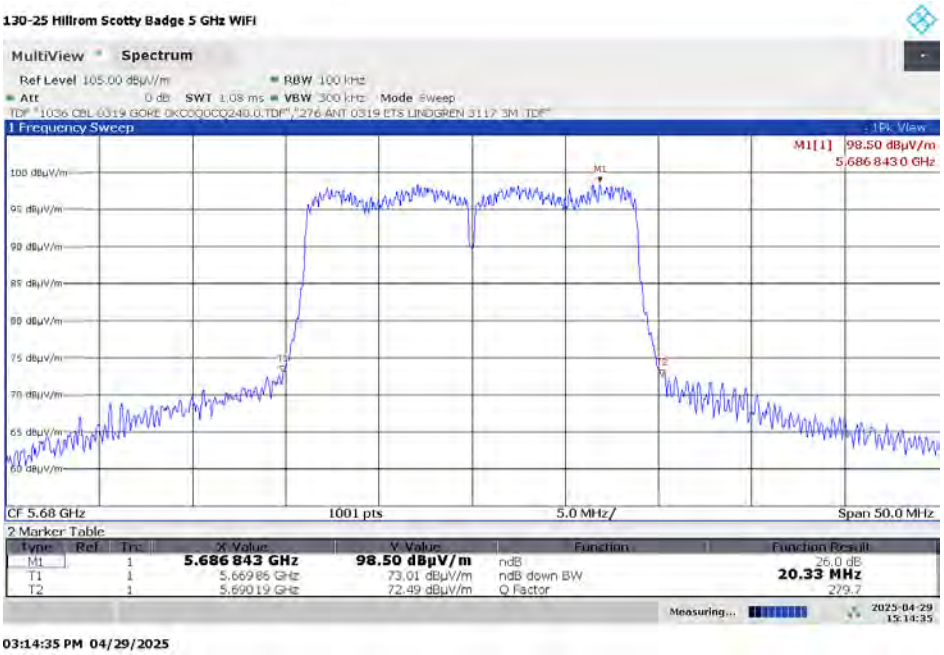
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.15. Low Channel 26 dB – 5500 MHz 802.11n HT20



7.3.1.16. High Channel 26 dB – 5680 MHz 802.11n HT20



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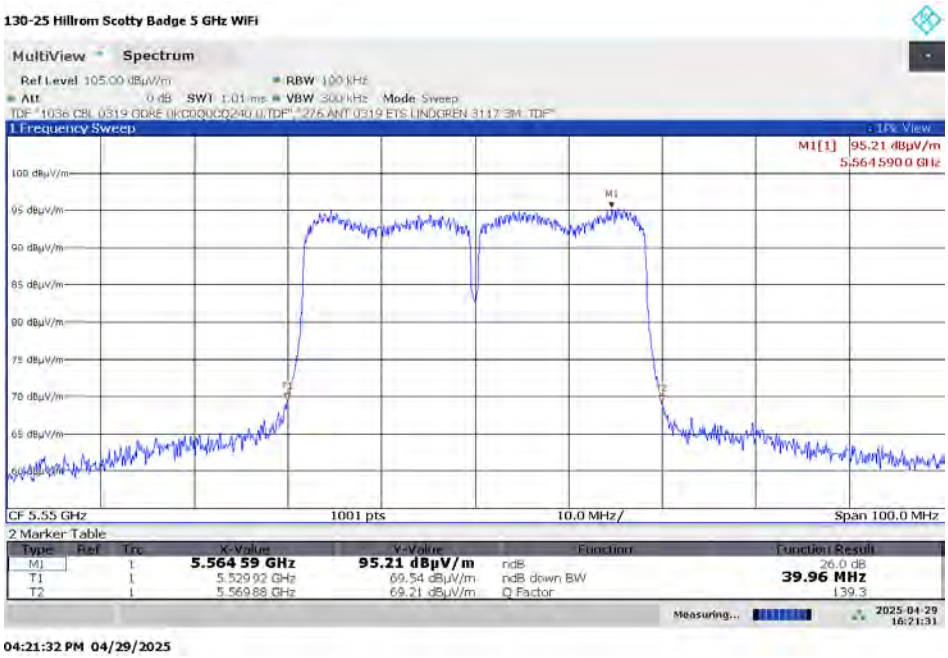
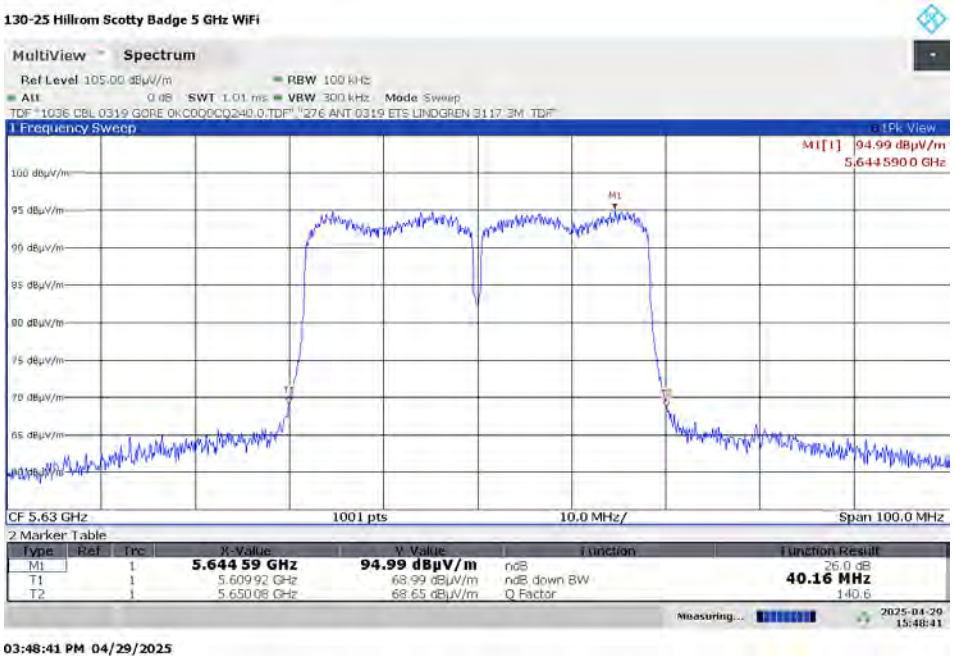
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.17. Low Channel 26 dB – 5550 MHz 802.11n HT40



7.3.1.18. High Channel 26 dB – 5630 MHz 802.11n HT40



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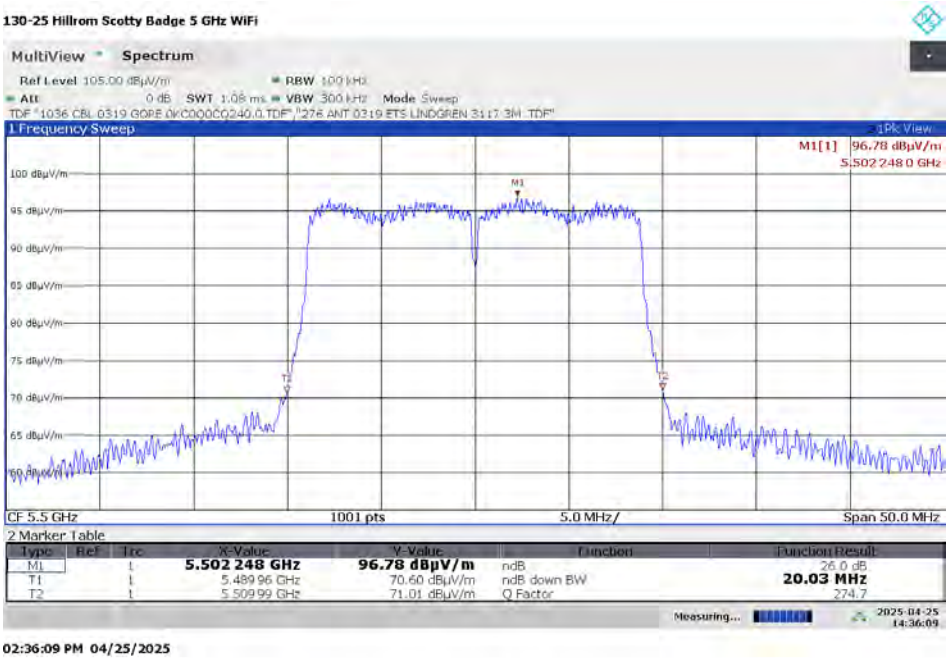
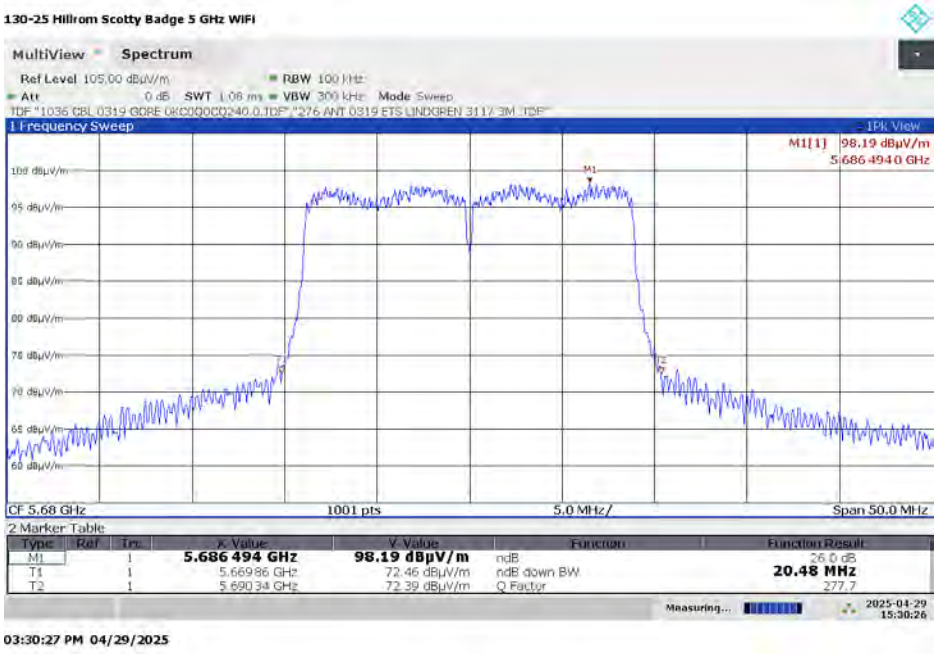
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.19. Low Channel 26 dB – 5500 MHz 802.11ac VHT20



7.3.1.20. High Channel 26 dB – 5680 MHz 802.11ac VHT20



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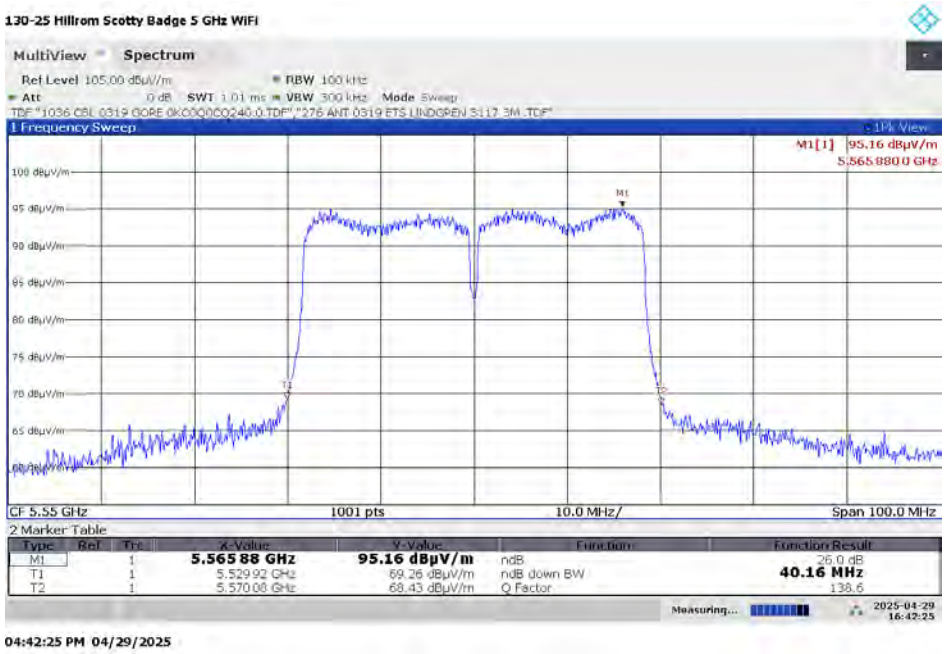
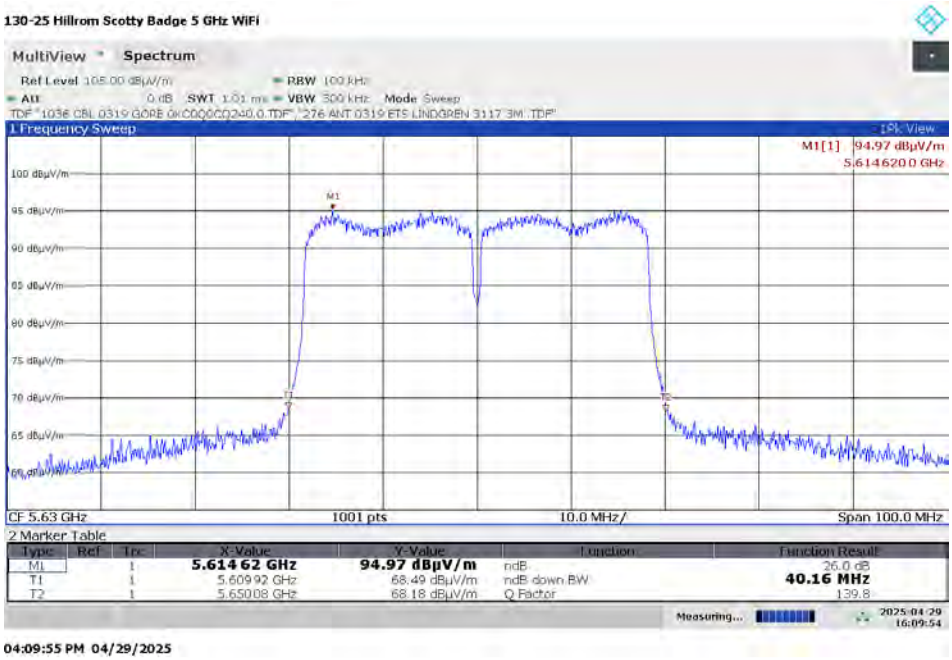
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.21. Low Channel 26 dB – 5550 MHz 802.11ac VHT40



7.3.1.22. High Channel 26 dB – 5630 MHz 802.11ac VHT40



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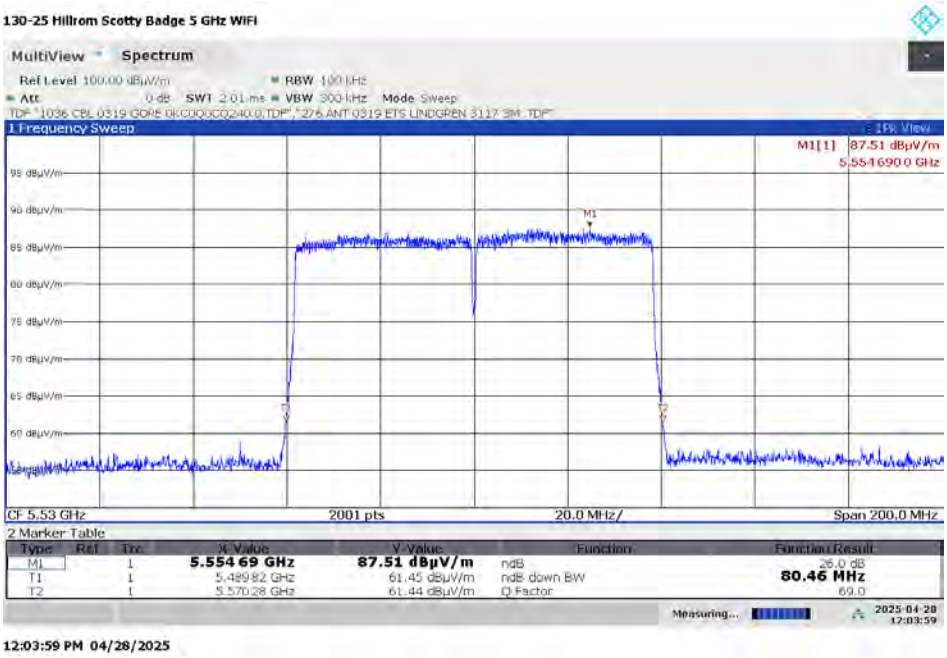
7. Measurement Data

7.3.1 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.1.23. Mid Channel 26 dB – 5530 MHz 802.11ac VHT80



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7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2)

Requirement: For purposes of this subpart the emission bandwidth is determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. In addition, for the 5725 to 5850 MHz band the minimum 6 dB bandwidth shall be at least 500 kHz.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 789033, Section C 1 & 2.

Results: The device under test meets the minimum 500 kHz (6 dB) bandwidth requirement.

802.11a

Channel	Frequency (MHz)	802.11a -26 dB Bandwidth (kHz)	802.11a -6 dB Bandwidth (kHz)	Minimum -6 dB Bandwidth (kHz)	Result
Low	5745	21,180	16,634	>500	Compliant
Middle	5785	20,680	16,634	>500	Compliant
High	5825	20,580	16,633	>500	Compliant

802.11n HT20

Low	5745	20,480	17,783	>500	Compliant
Middle	5785	20,630	17,833	>500	Compliant
High	5825	20,630	17,782	>500	Compliant

802.11n HT40

Low	5745	39,860	36,570	>500	Compliant
High	5825	40,360	36,470	>500	Compliant

802.11ac VHT20

Low	5745	20,580	17,782	>500	Compliant
Middle	5785	20,530	17,832	>500	Compliant
High	5825	21,080	17,782	>500	Compliant

802.11ac VHT40

Low	5745	40,160	36,570	>500	Compliant
High	5825	40,360	36,570	>500	Compliant

802.11ac VHT80

Middle	5775	76,640	81,360	>500	Compliant

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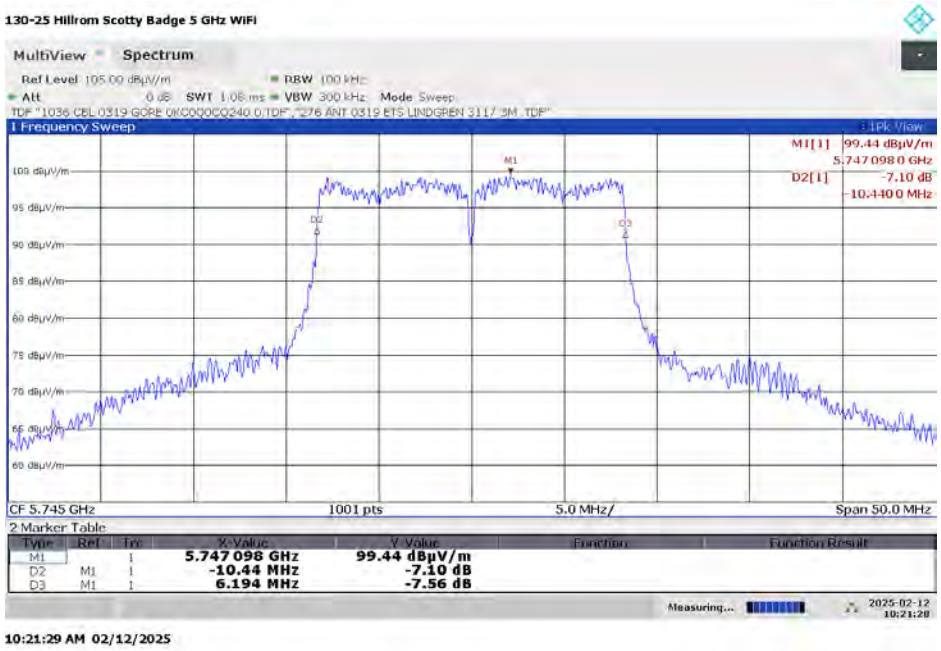
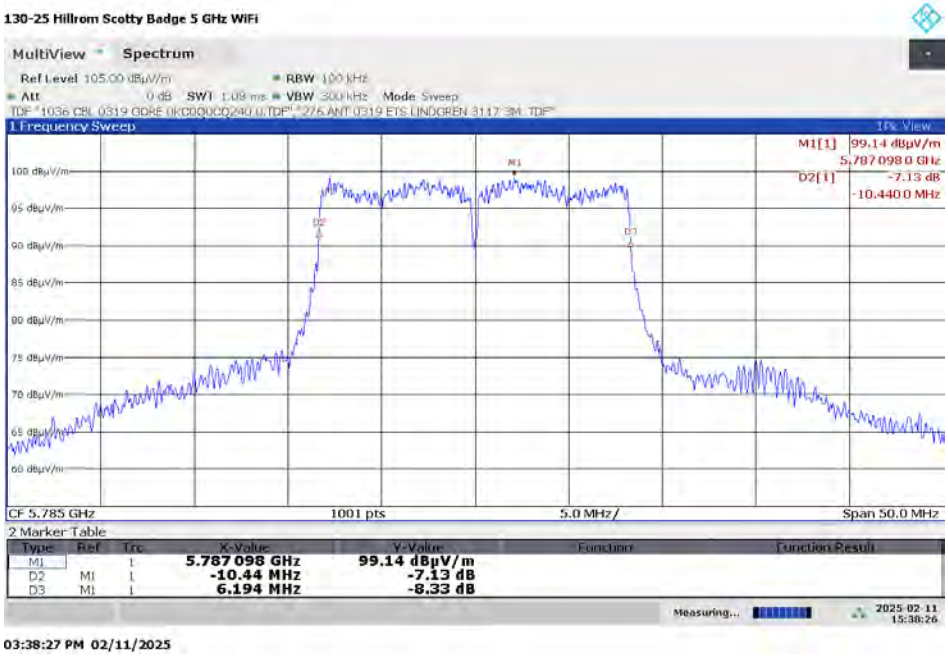
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.1. Low Channel 6 dB – 5745 MHz 802.11a



7.3.2.2. Middle Channel 6 dB – 5785 MHz 802.11a



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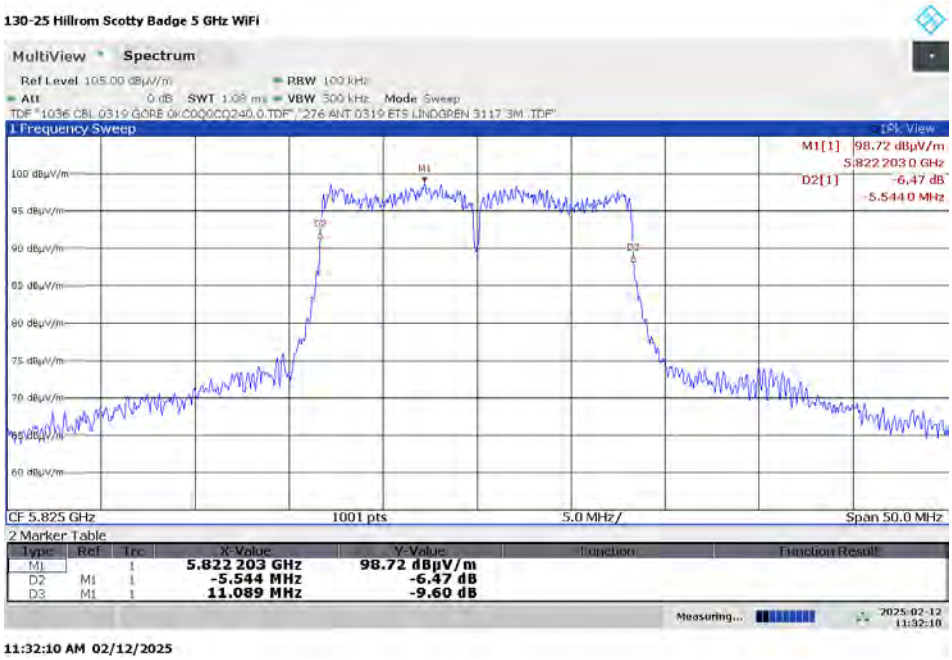
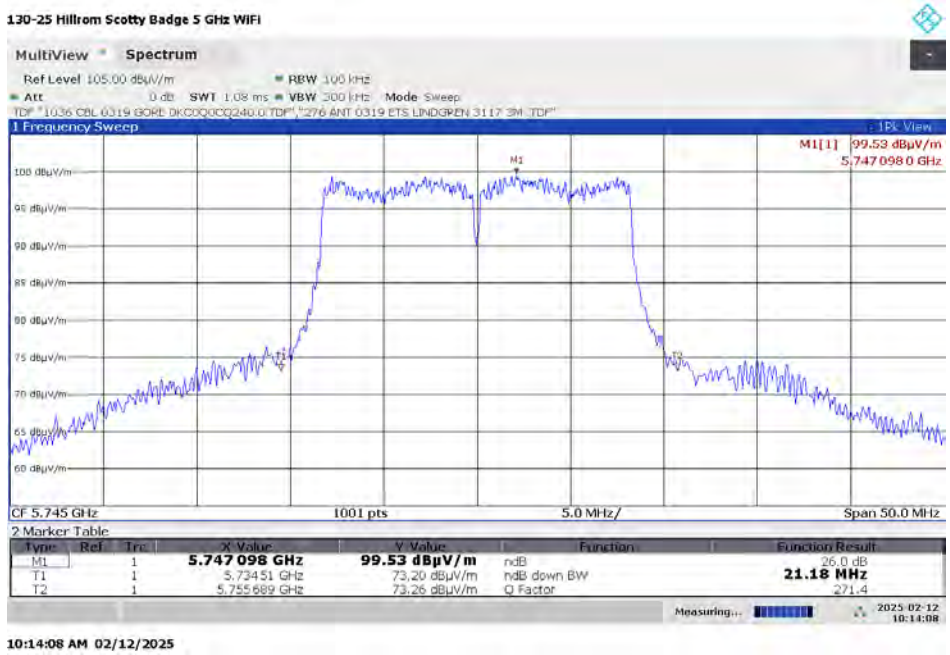
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.3. High Channel 6 dB – 5825 MHz 802.11a



7.3.2.4. Low Channel 26 dB – 5745 MHz 802.11a



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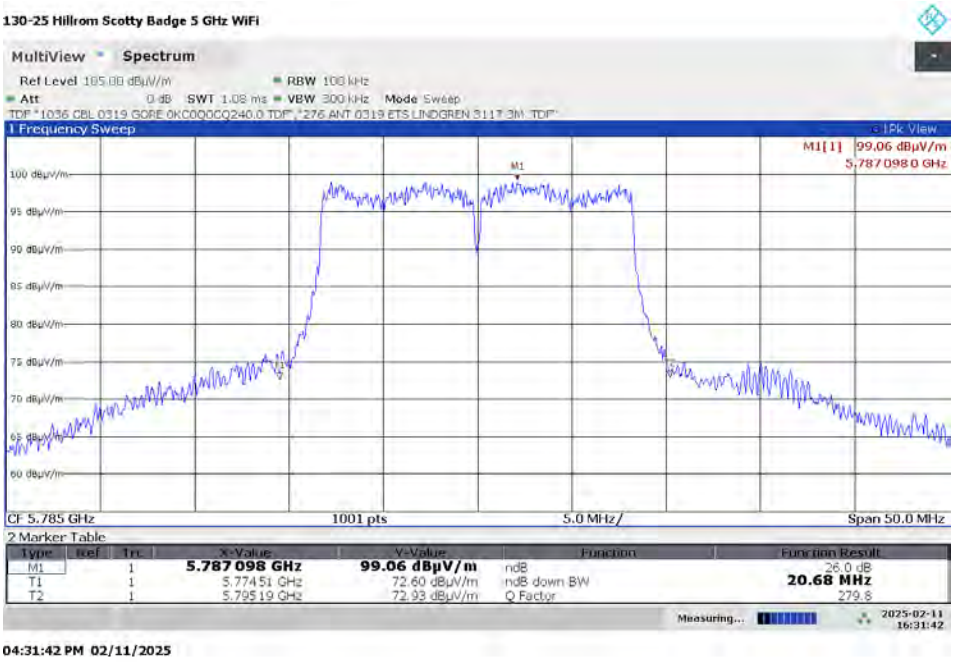
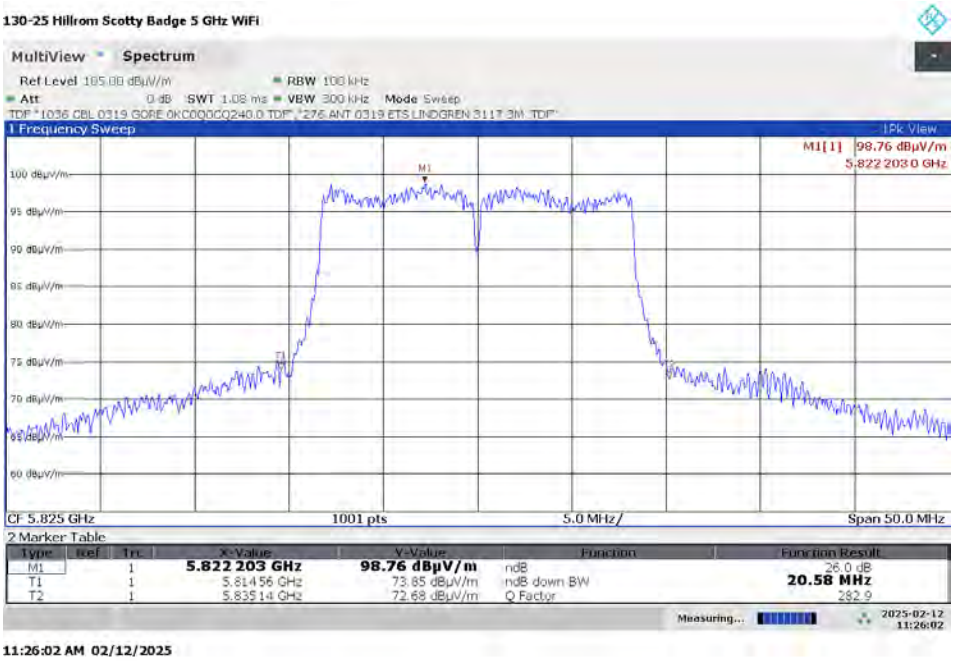
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.5. Mid Channel 26 dB – 5785 MHz 802.11a



7.3.2.6. High Channel 26 dB – 5825 MHz 802.11a



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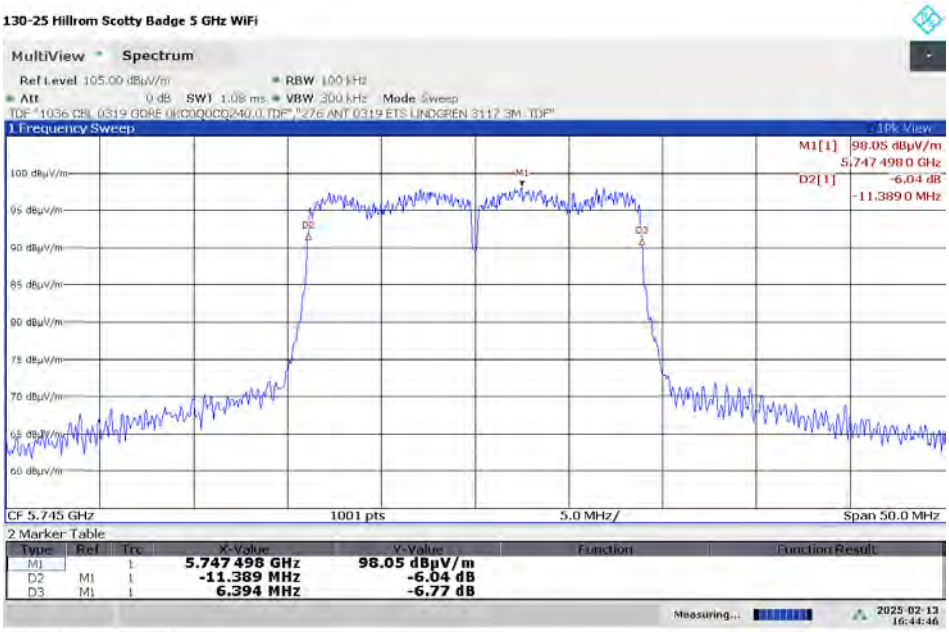
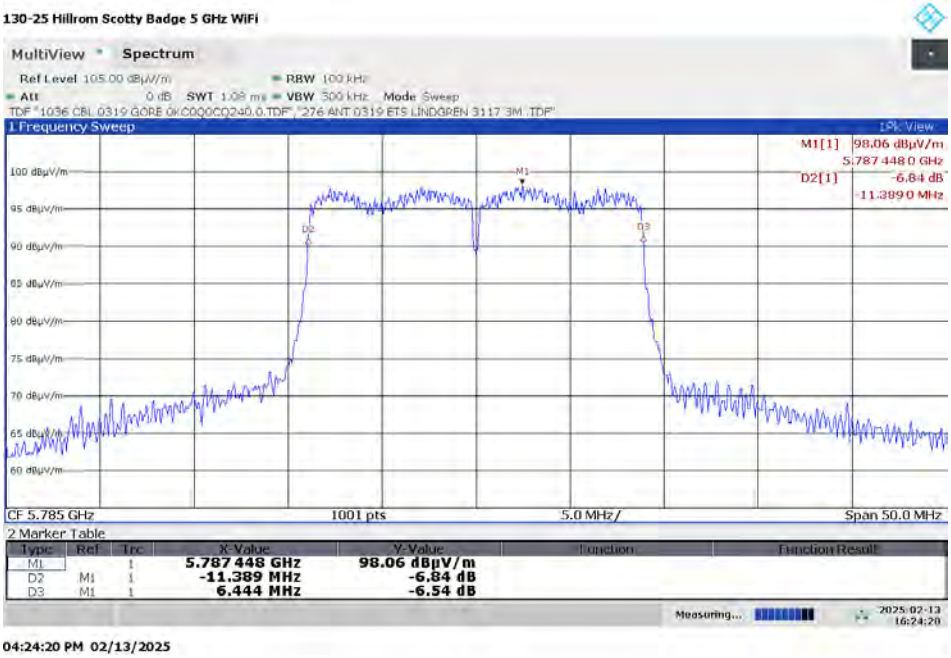
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.7. Low Channel 6 dB – 5745 MHz 802.11n HT20



7.3.2.8. Middle Channel 6 dB – 5785 MHz 802.11n HT20



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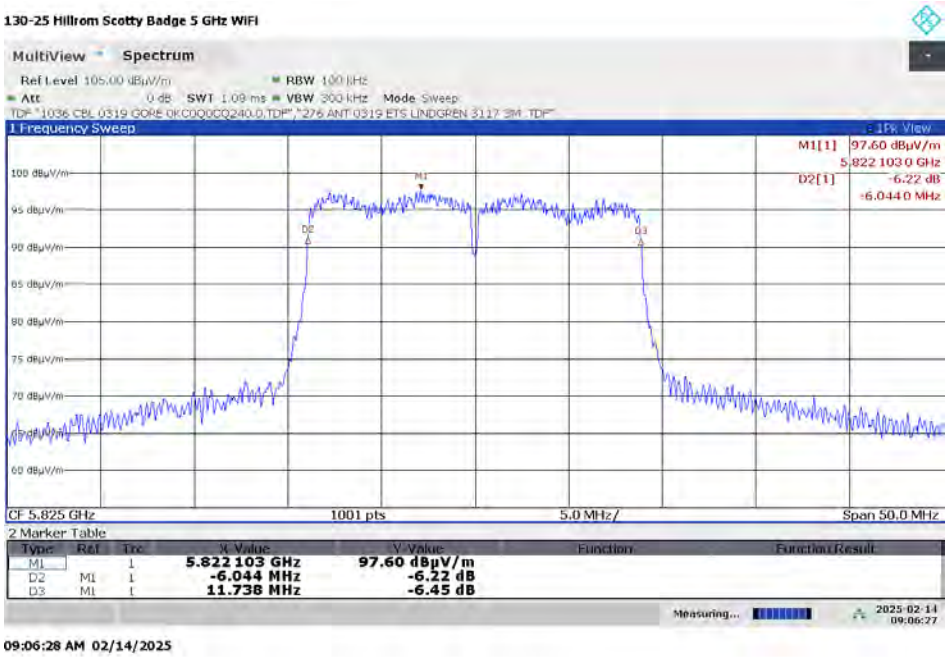
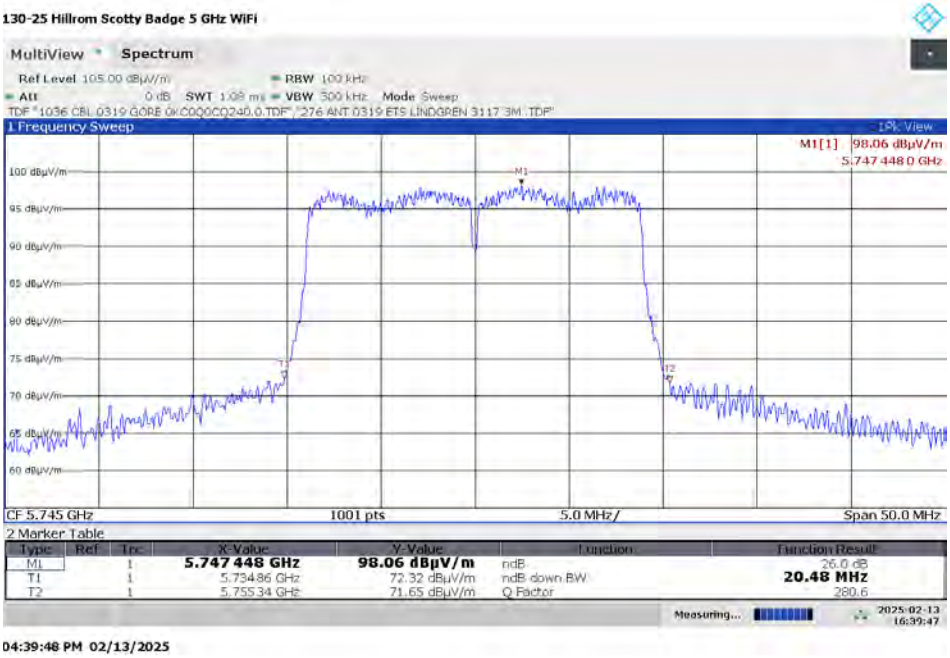
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.9. High Channel 6 dB – 5825 MHz 802.11n HT20



7.3.2.10. Low Channel 26 dB – 5745 MHz 802.11n HT20



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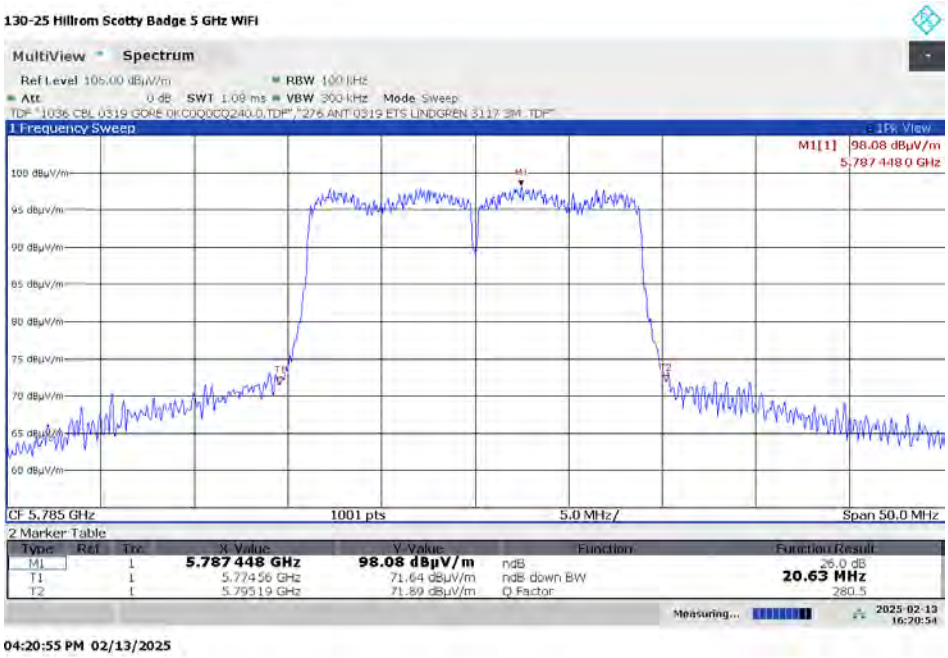
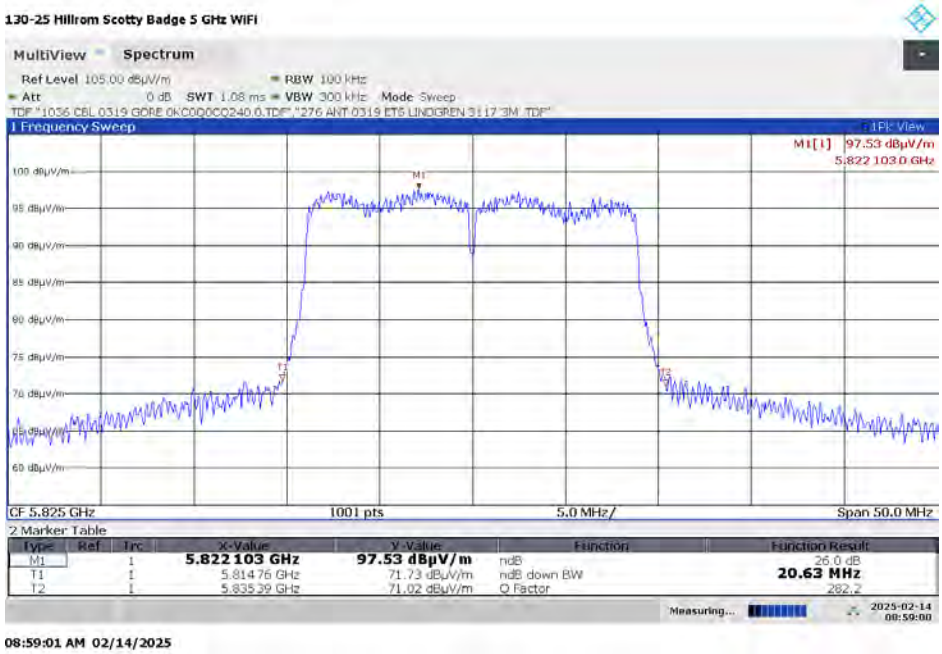
7. Measurement Data

7.3. Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.11. Mid Channel 26 dB – 5785 MHz 802.11n HT20



7.3.2.12. High Channel 26 dB – 5825 MHz 802.11n HT20



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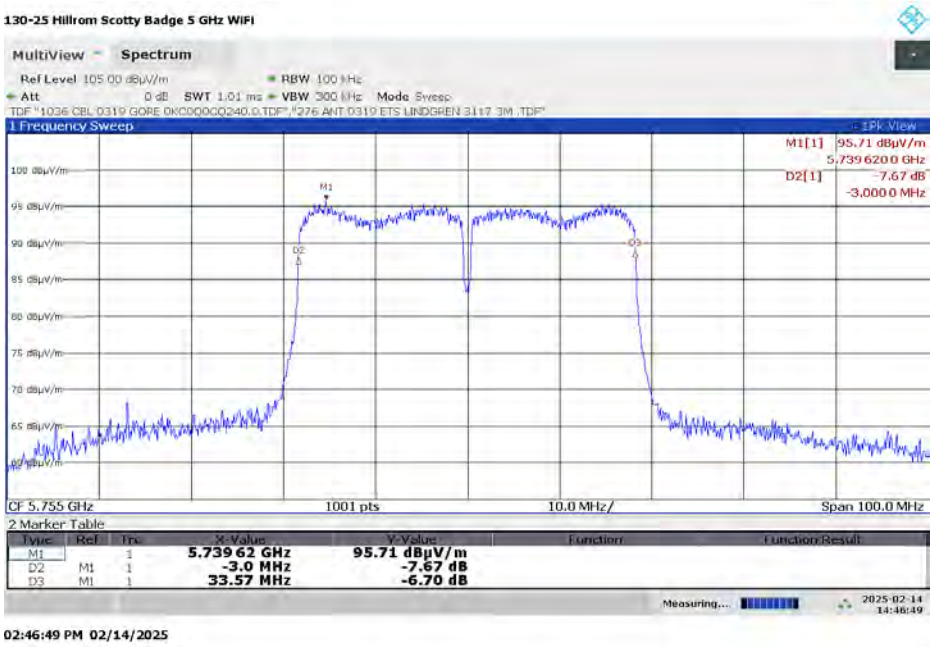
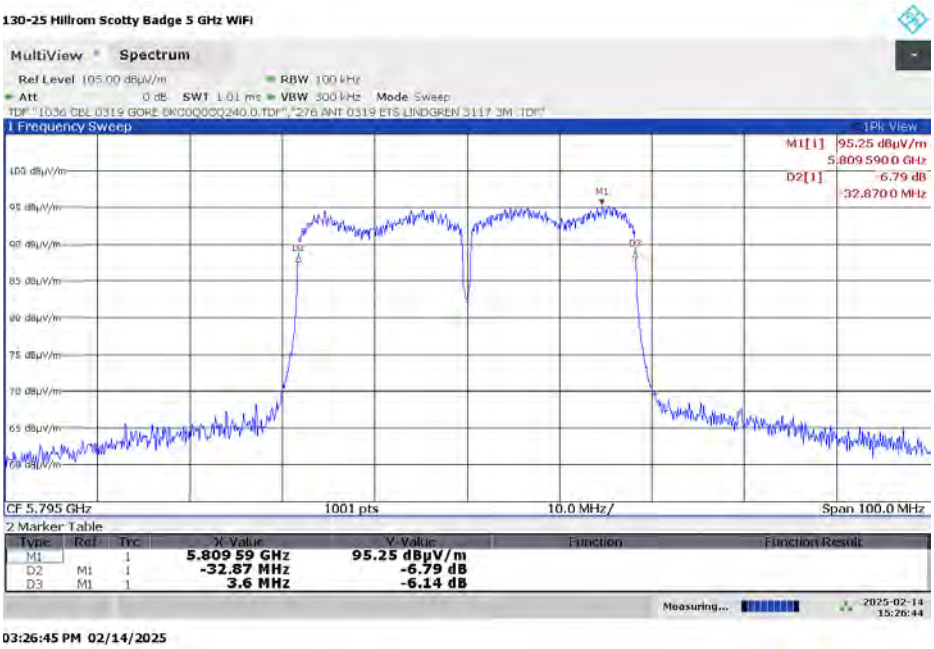
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.13. Low Channel 6 dB – 5755 MHz 802.11n HT40



7.3.2.14. High Channel 6 dB – 5795 MHz 802.11n HT40



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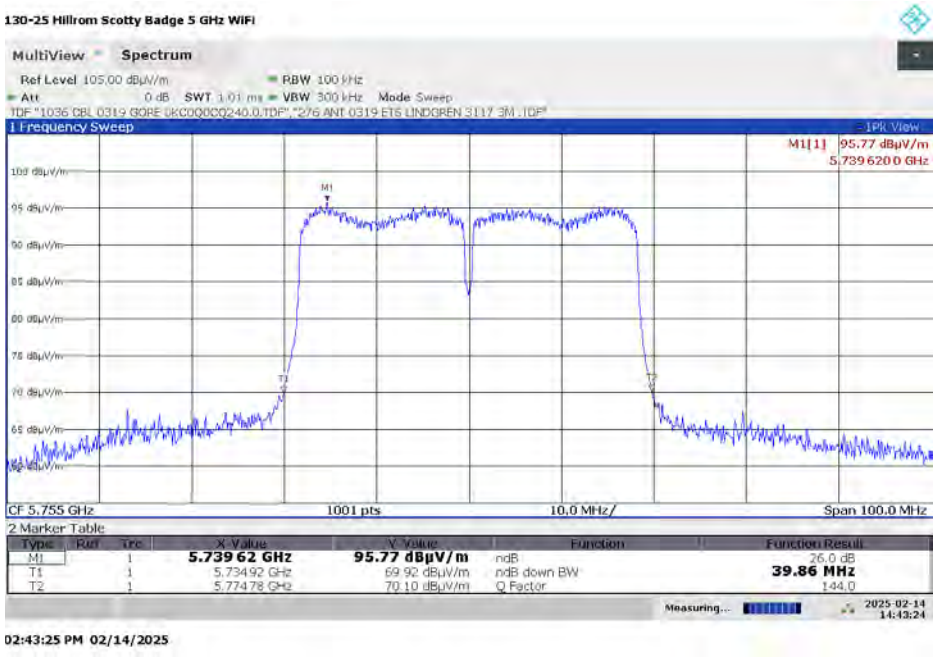
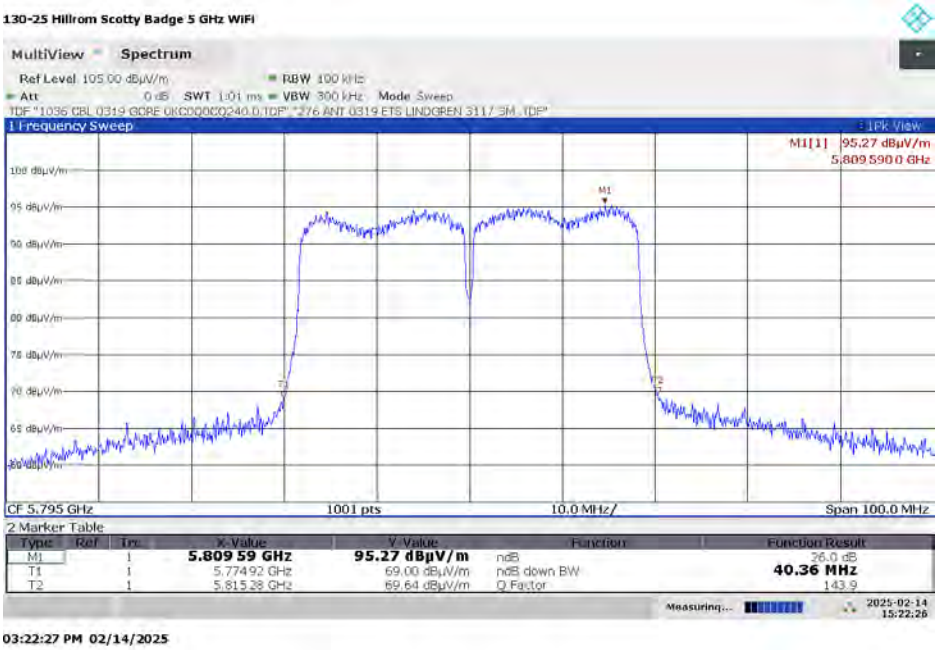
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.15. Low Channel 26 dB – 5755 MHz 802.11n HT40



7.3.2.16. High Channel 26 dB – 5795 MHz 802.11n HT40



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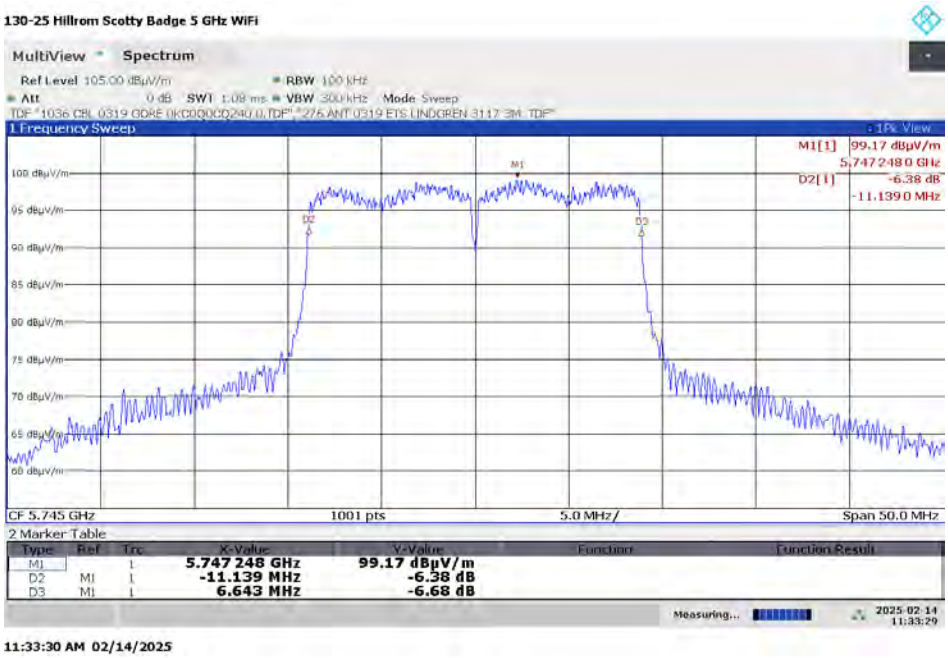
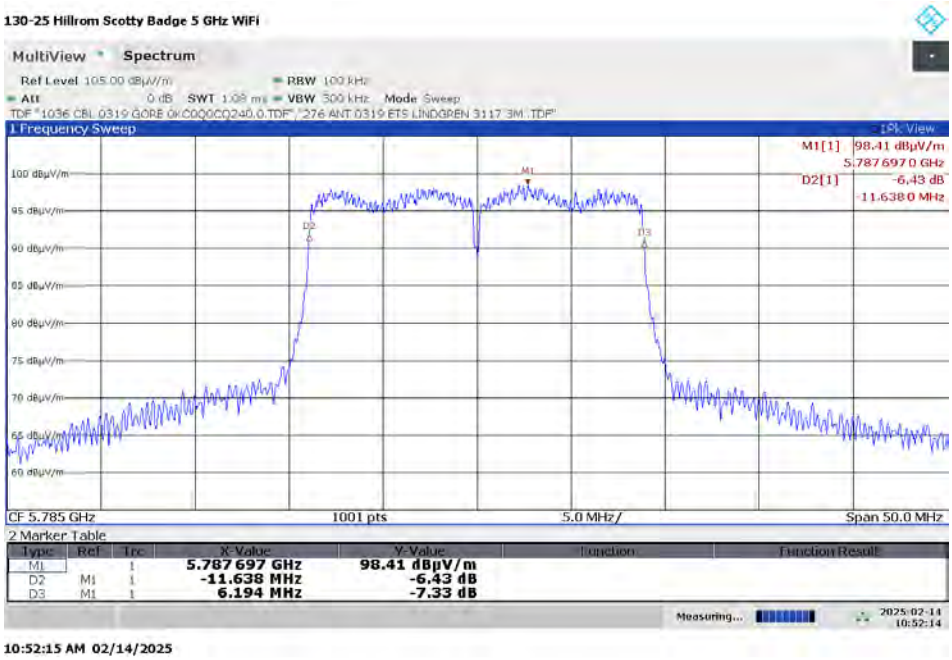
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.17. Low Channel 6 dB – 5745 MHz 802.11ac VHT20



7.3.2.18. Middle Channel 6 dB – 5785 MHz 802.11ac VHT20



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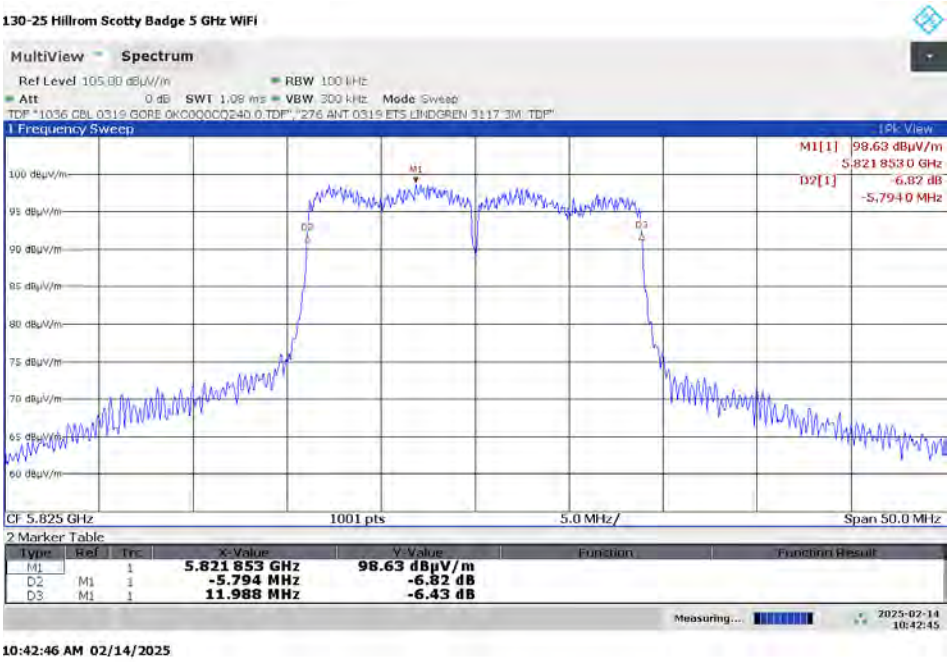
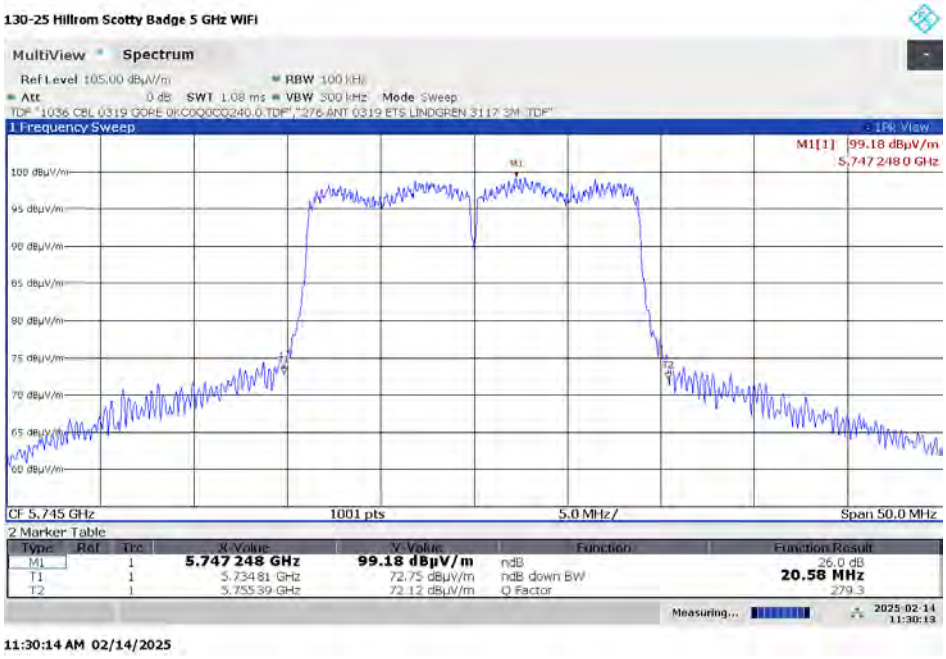
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.19. High Channel 6 dB – 5825 MHz 802.11ac VHT20



7.3.2.20. Low Channel 26 dB – 5745 MHz 802.11ac VHT20



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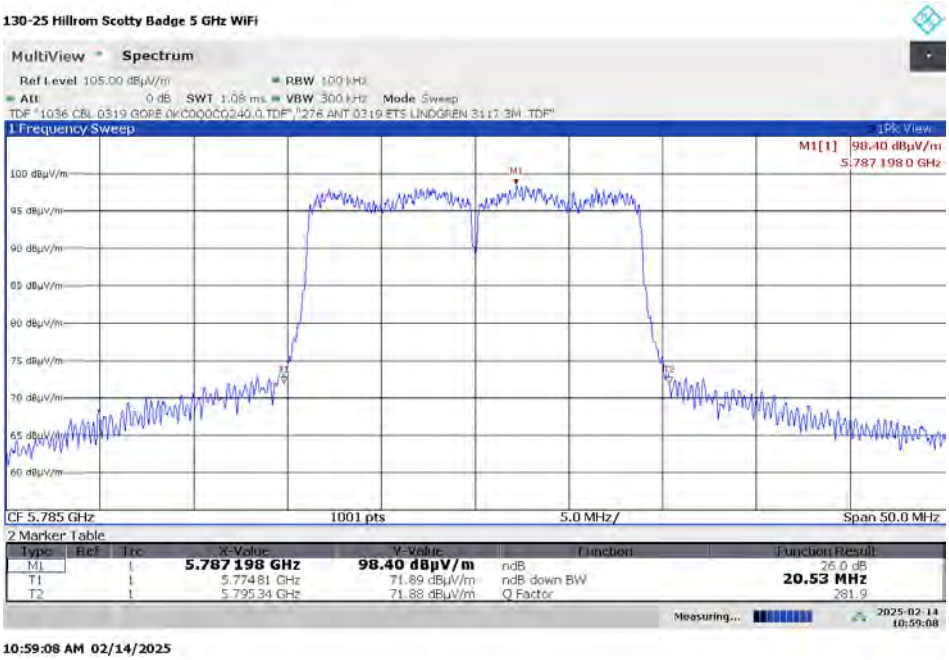
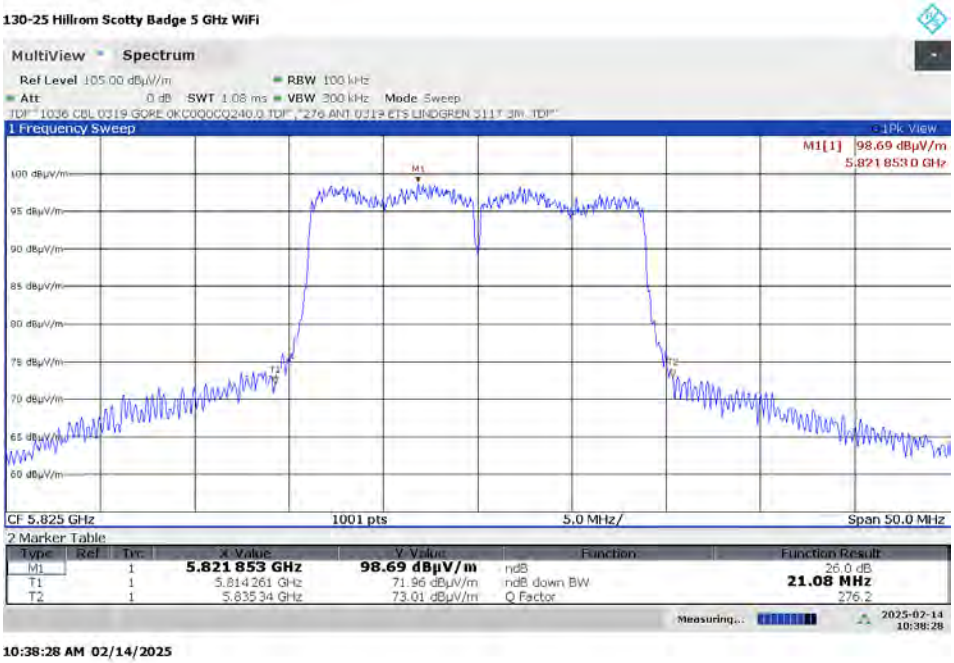
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.21. Mid Channel 26 dB – 5785 MHz 802.11ac VHT20



7.3.2.22. High Channel 26 dB – 5825 MHz 802.11ac VHT20



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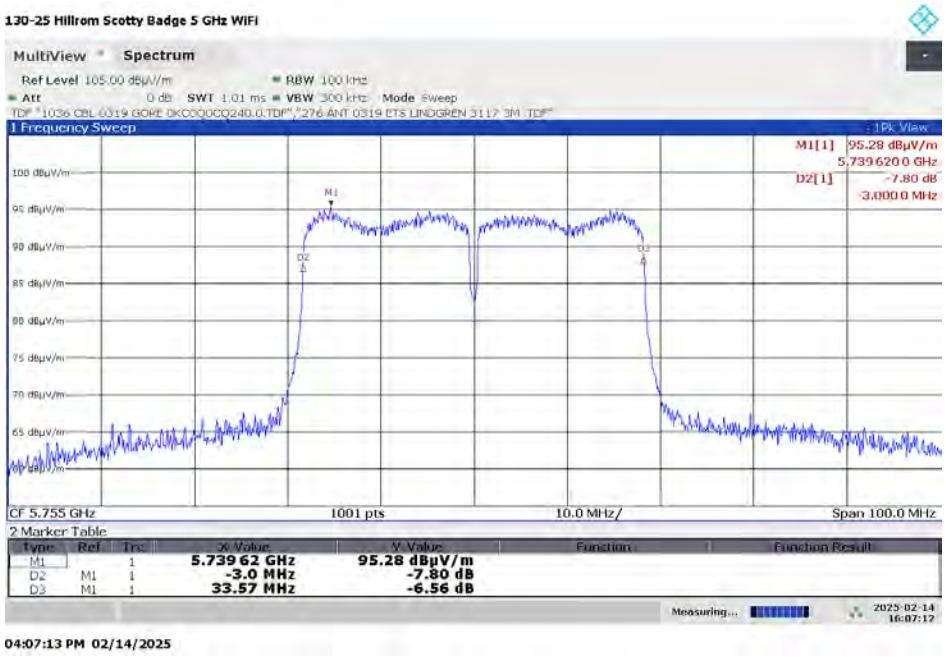
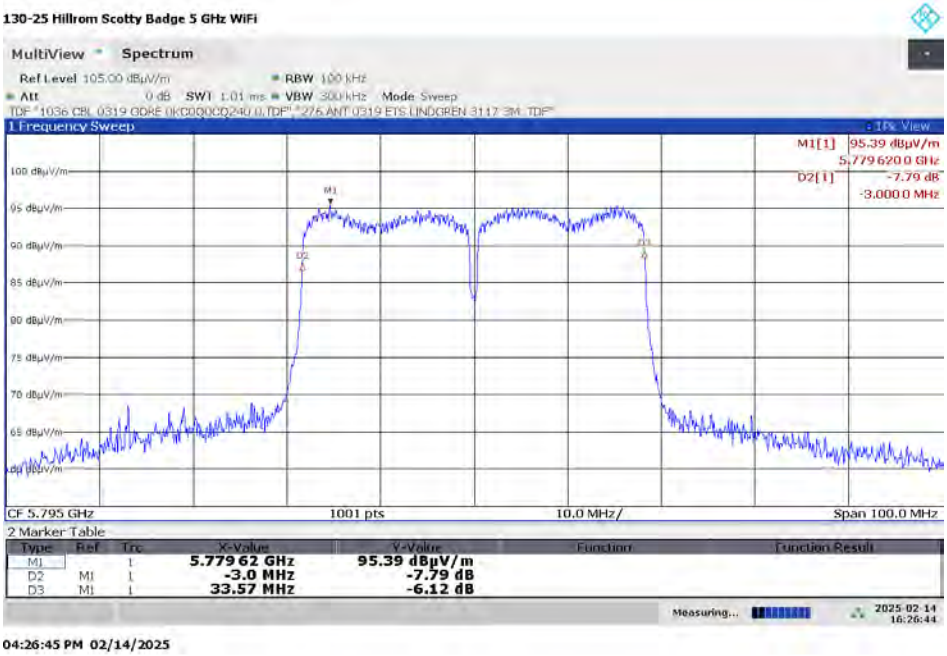
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.23. Low Channel 6 dB – 5755 MHz 802.11ac VHT40



7.3.2.24. High Channel 6 dB – 5795 MHz 802.11ac VHT40



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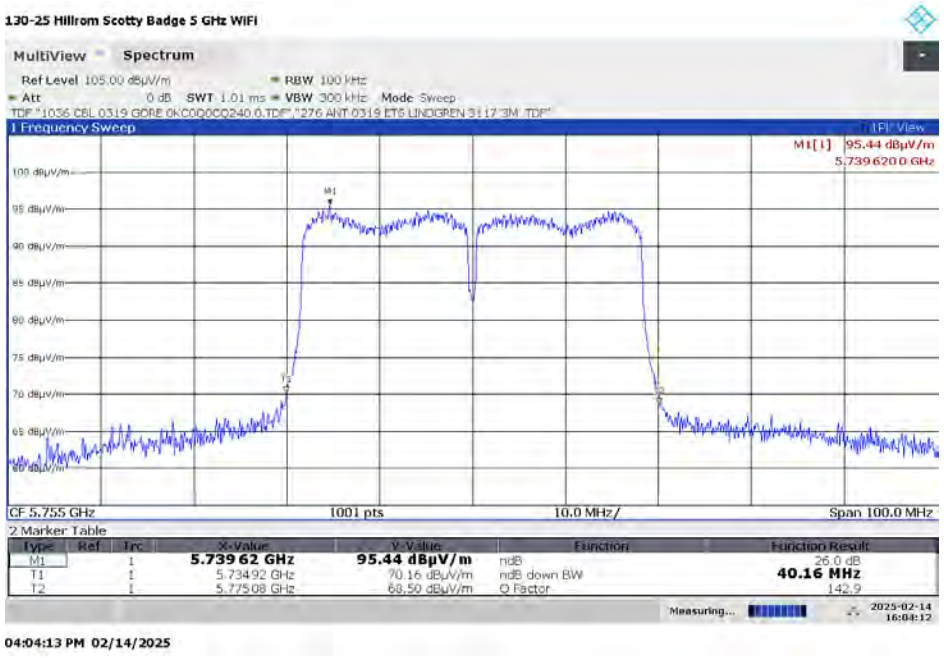
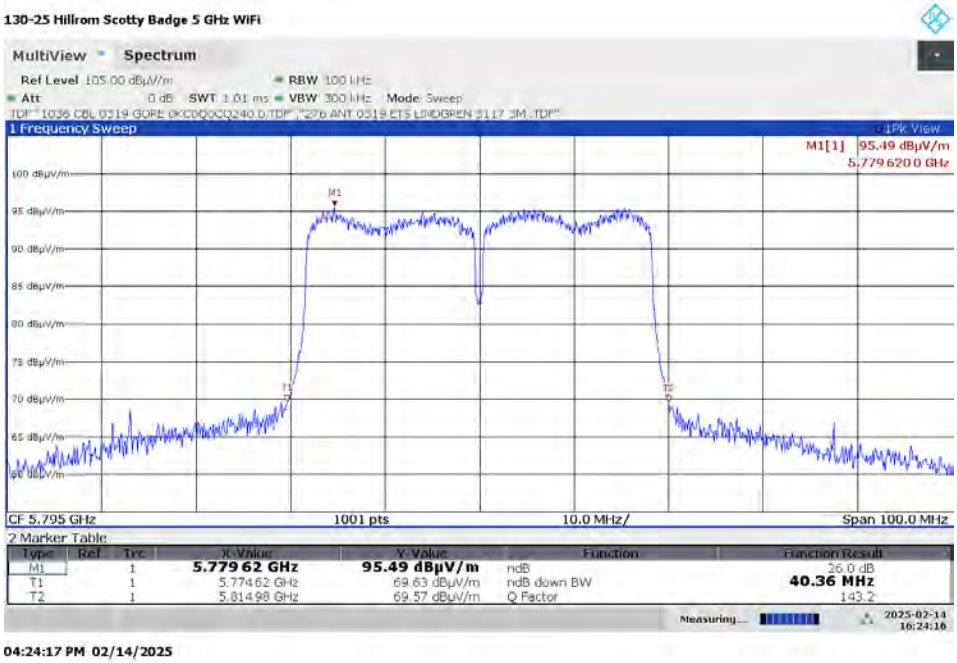
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.25. Low Channel 26 dB – 5755 MHz 802.11ac VHT40



7.3.2.26. High Channel 26 dB – 5795 MHz 802.11ac VHT40



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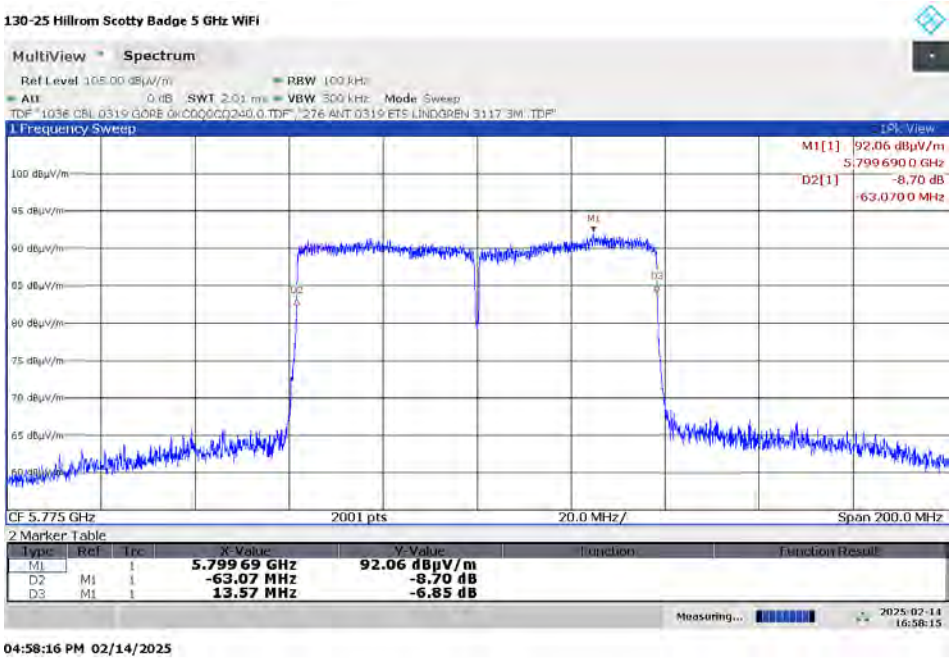
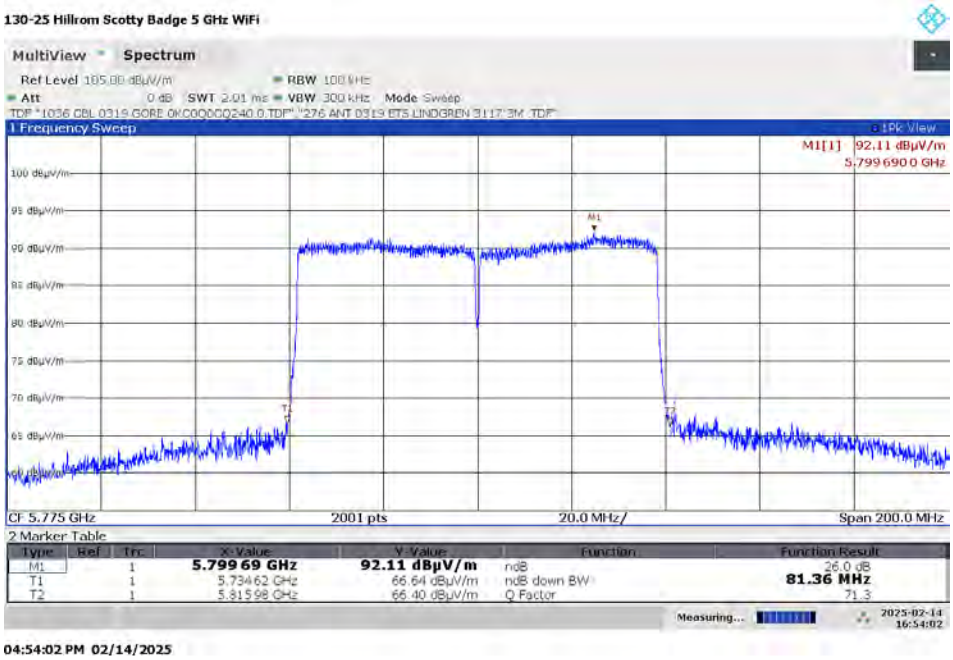
7. Measurement Data

7.3.2 Emission Bandwidth (15.407 (e), ISED RSS-247 6.2.4.2) (continued)

7.3.2.27. Mid Channel 6 dB – 5775 MHz 802.11ac VHT80



7.3.2.28. Mid Channel 26 dB – 5775 MHz 802.11ac VHT80



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7. Measurement Data

7.4. Operation with directional antenna gains greater than 6 dBi (15.407 (a) (3) (i), ISED RSS-247 6.2.4.2)

Requirement: If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

However, fixed point-to-point U–NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

Procedure: Not applicable for the device under test.

EUT Status: The EUT utilizes an antenna with a peak gain of 3.16 dBi at 5150 MHz and therefore is exempt from this requirement.

Frequency (MHz)	Peak Gain (dBi)
5150	3.16
5250	3.13
5350	1.70
5470	2.02
5600	2.48
5725	2.45
5785	2.52
5850	2.26

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7. Measurement Data (continued)

7.5. Unwanted Emissions in Restricted bands (9 kHz to 40 GHz) (FCC 15.407 (b) (10), ISED RSS-247 6.2.4.3)

7.5.1 Transmitter Spurious Radiated Emissions

Requirement: (15.209) The Emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency Range (MHz)	Distance (Meters)	Limit (dBµV/m)[1]
0.009 to 0.490	3	128.5 to 93.8
0.490 to 1.705	3	73.8 to 63.0
1.705 to 30	3	69.5
30 to 88	3	40.0
88 to 216	3	43.5
216 to 960	3	46.0
>960	3	54.0

[1]Measurements in the 9 to 90 kHz, 110 to 490 kHz and above 1000 MHz ranges employ an average detector. Otherwise, a quasi-peak detector is used.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 789033, Section G 1: Unwanted Emissions in Restricted Bands and FCC 47CFR Part 15.209: Radiated Emission Limits; General Requirements.

The test methods used to generate the data in this test report is in accordance with ANSI C63.10:2013, American National Standard for Testing Unlicensed Wireless Devices.

Test Notes: Measurements were made from 9 kHz to the 10th harmonic of the highest transmitter frequency or 40 GHz, whichever is lower.

Reference FCC Part 15.33(a) and FCC Part 15.33(a)(1).

A full set of measurement scans are presented in Appendix A of this test report. The scans are in peak, max held and are below the peak limit which is 20 dB higher than the average limit. 802.11a Mode, Channel 149 (5745 MHz) represents the worst-case emissions for all channels.

Results: Compliant.

Sample Calculation: Final Result (dBµV/m) = Measurement Value (dBµV) + Antenna Factor (dB/m) + Cable Loss (dB) – Pre-amplifier Gain (dB) Internal or External.

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.

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7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (FCC 15.407 (b) (2), (3), (4) (i) & (iii), ISED RSS-247 6.2.1.2, 6.2.2.2, 6.2.3)

Requirement: FCC: For transmitters operating in the 5.15–5.25 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

ISED: For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz.

For transmitters operating in the 5.25–5.35 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47–5.725 GHz band: All emissions outside of the 5.47–5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating solely in the 5.725–5.850 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

Procedure: For the lower band edge, this measurement was performed in accordance with the procedure detailed in FCC OET publication number 789033, Section G 2: Unwanted Emissions that fall outside of the Restricted Bands

Section 15.407 (b) (4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407 (b) (4) (i). The emission limits are based on the use of a peak detector.

Test Note: The radiated measurements in this report represent the measurements made with the worst case receive antenna polarity and product orthogonal position.

Result: Compliant, The DUT met the Part 15.407 limit mask on its lower and upper operating channels.

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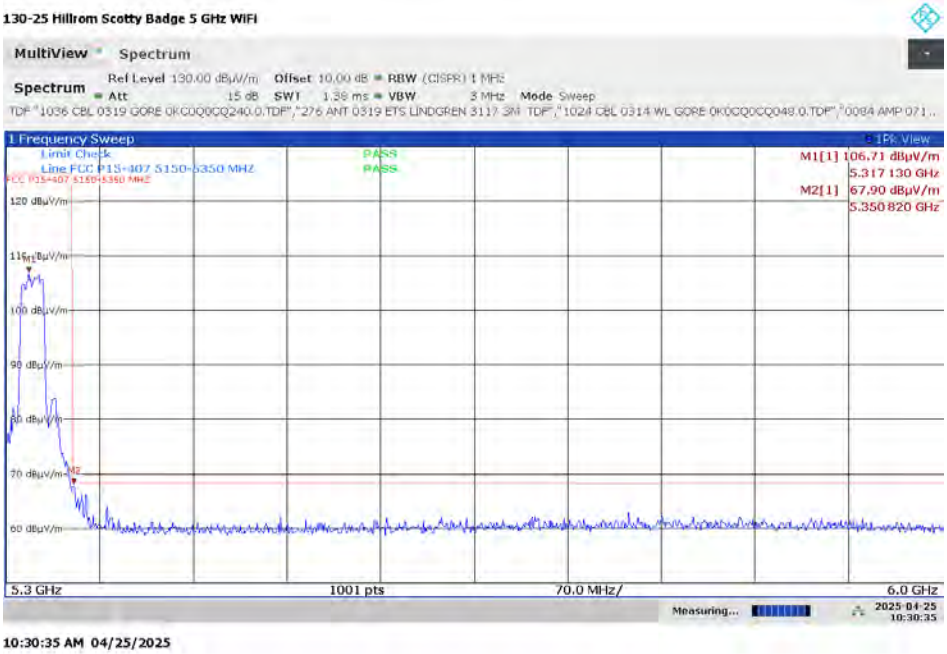
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.1. Lower Band Plot 5150 to 5725 MHz 802.11a

7.6.2. Upper Band Plot 5300 to 6000 MHz 802.11a



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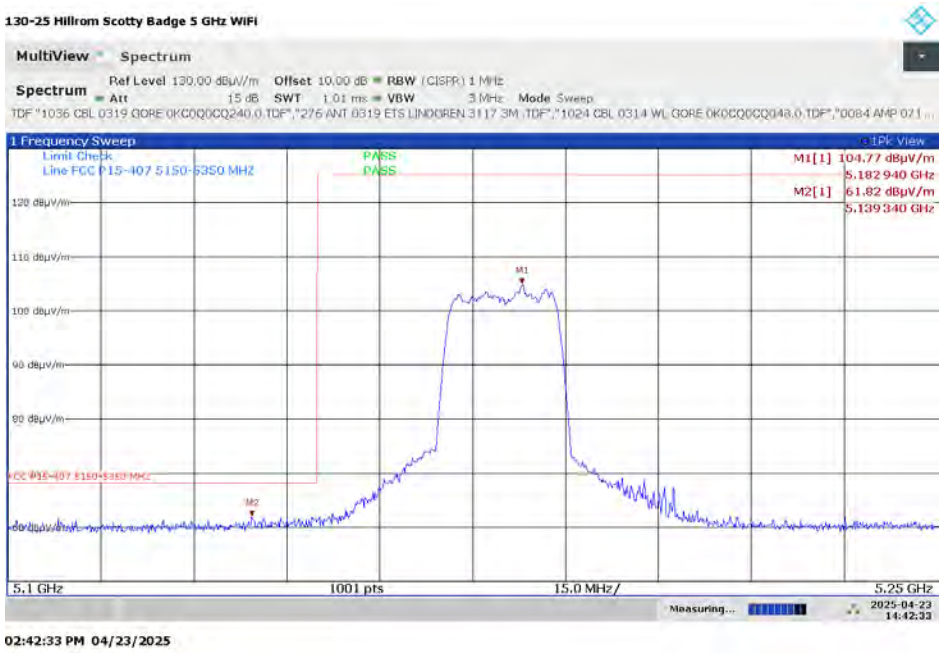
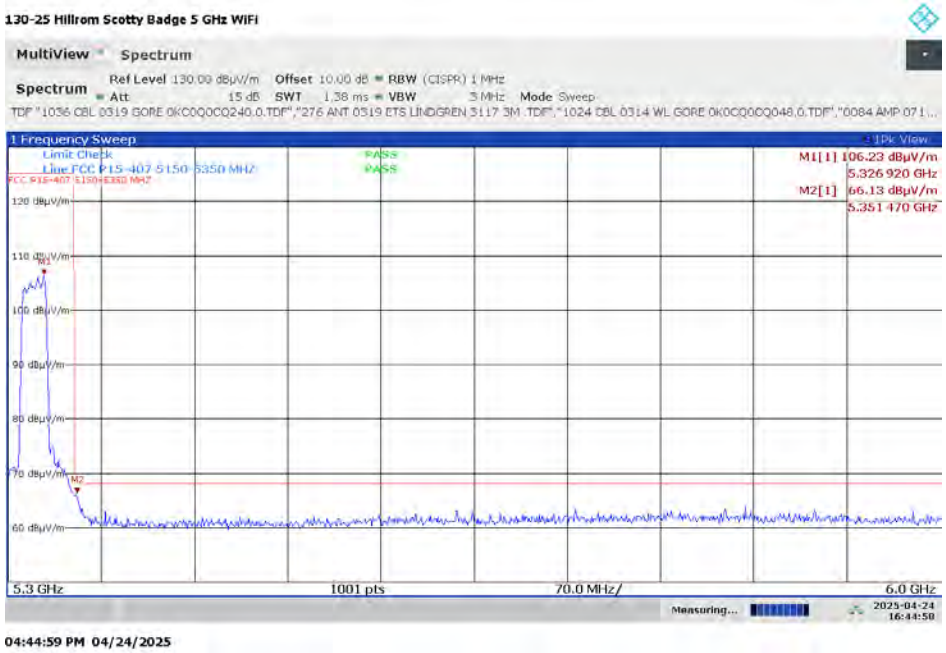
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.3. Lower Band Plot 5100 to 5250 MHz 802.11n HT20



7.6.4. Upper Band Plot 5300 to 6000 MHz 802.11n HT20



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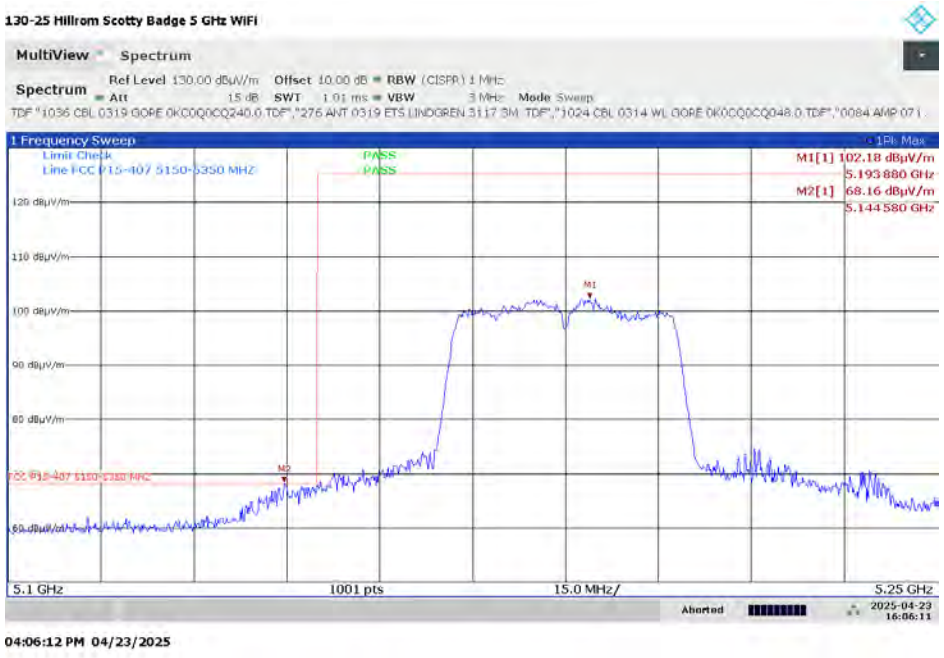
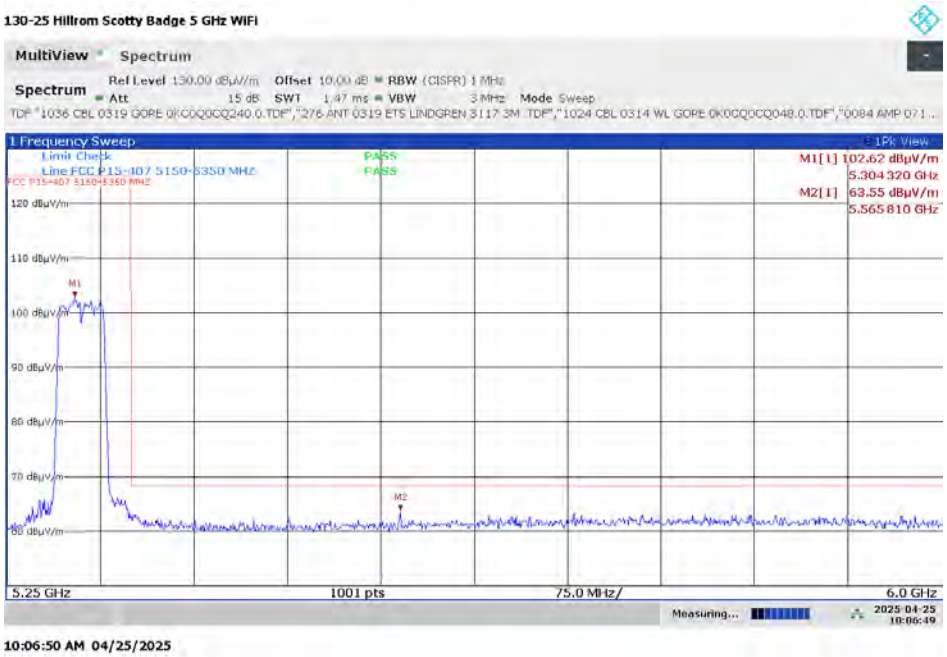
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.5. Lower Band Plot 5100 to 5250 MHz 802.11n HT40



7.6.6. Upper Band Plot 5250 to 6000 MHz 802.11n HT40



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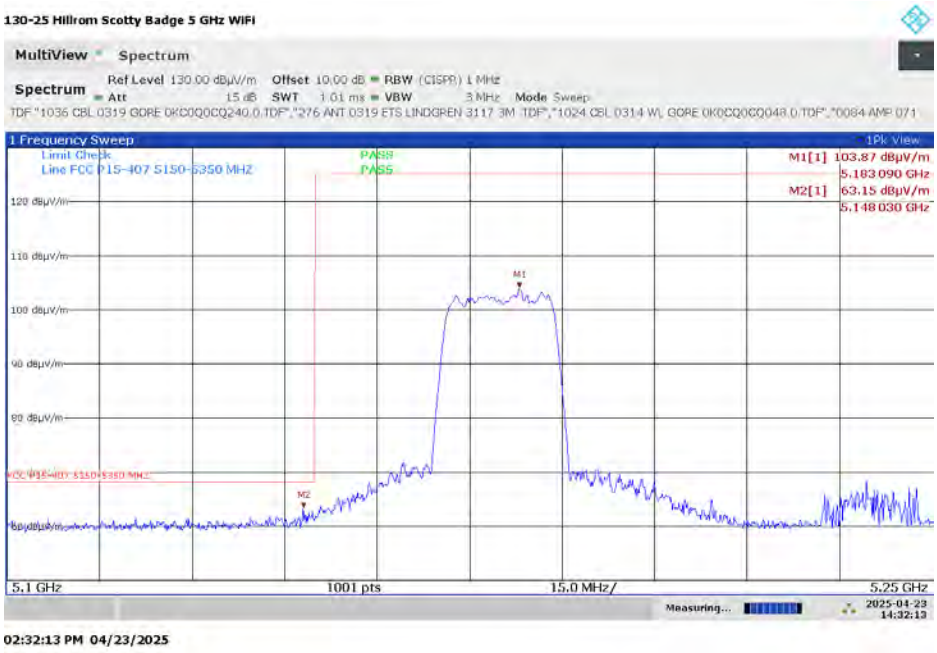
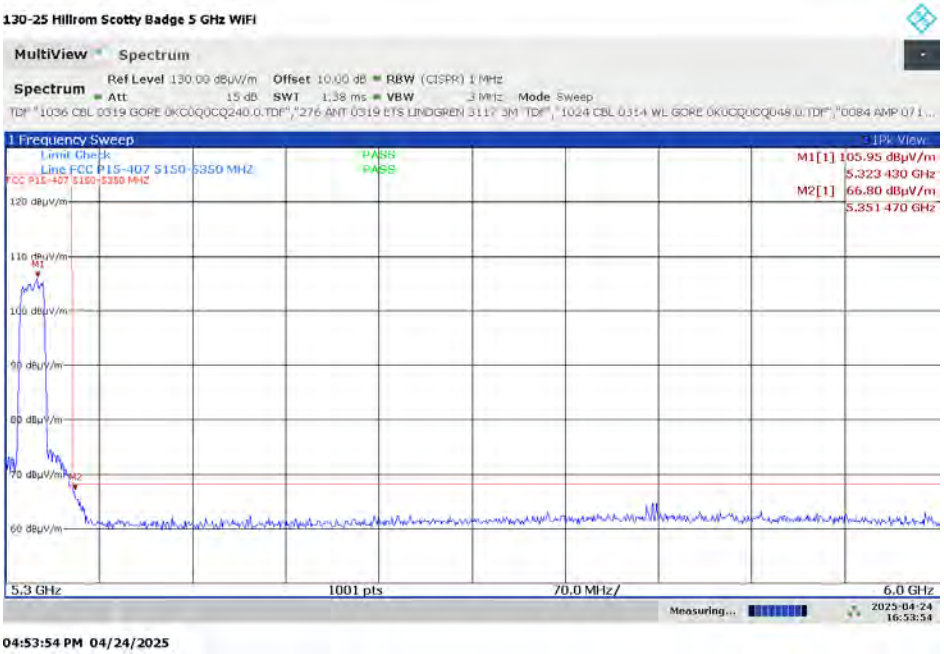
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.7. Lower Band Plot 5100 to 5250 MHz 802.11ac VHT20



7.6.8. Upper Band Plot 5300 to 6000 MHz 802.11ac VHT20



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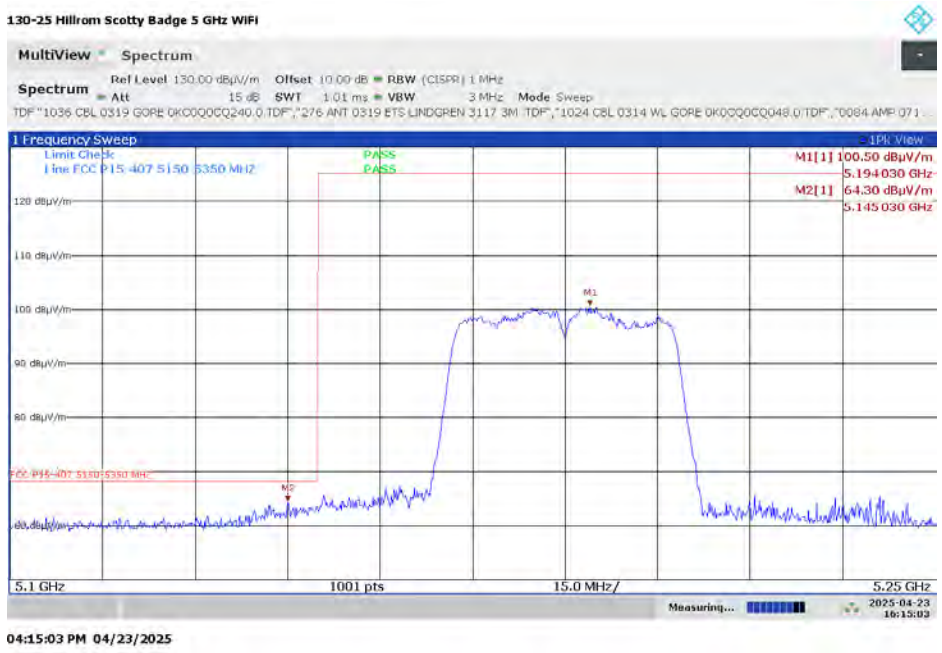
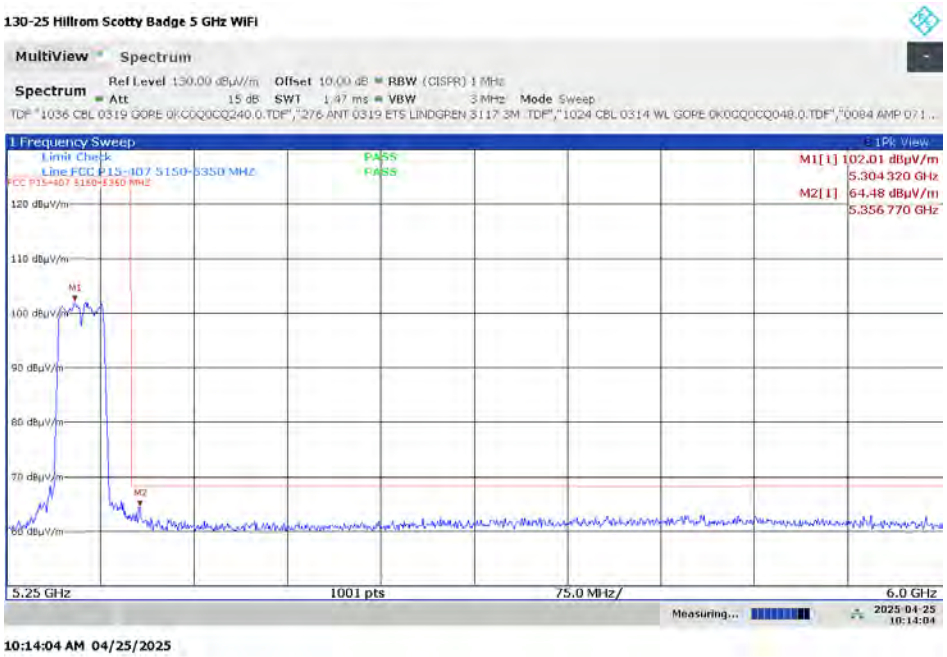
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.9. Lower Band Plot 5100 to 5250 MHz 802.11ac VHT40



7.6.10. Upper Band Plot 5250 to 6000 MHz 802.11ac VHT40



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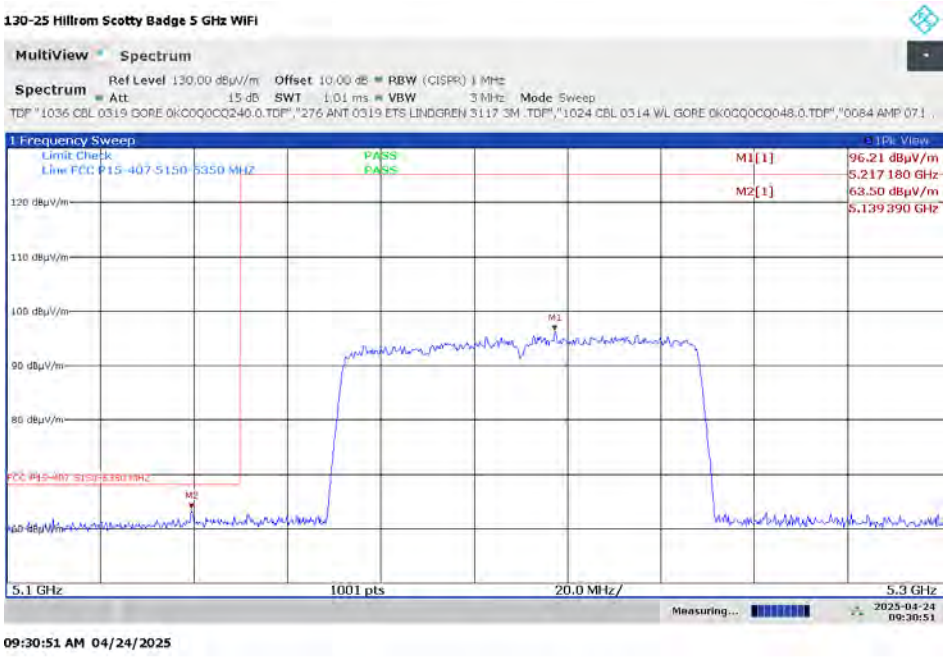
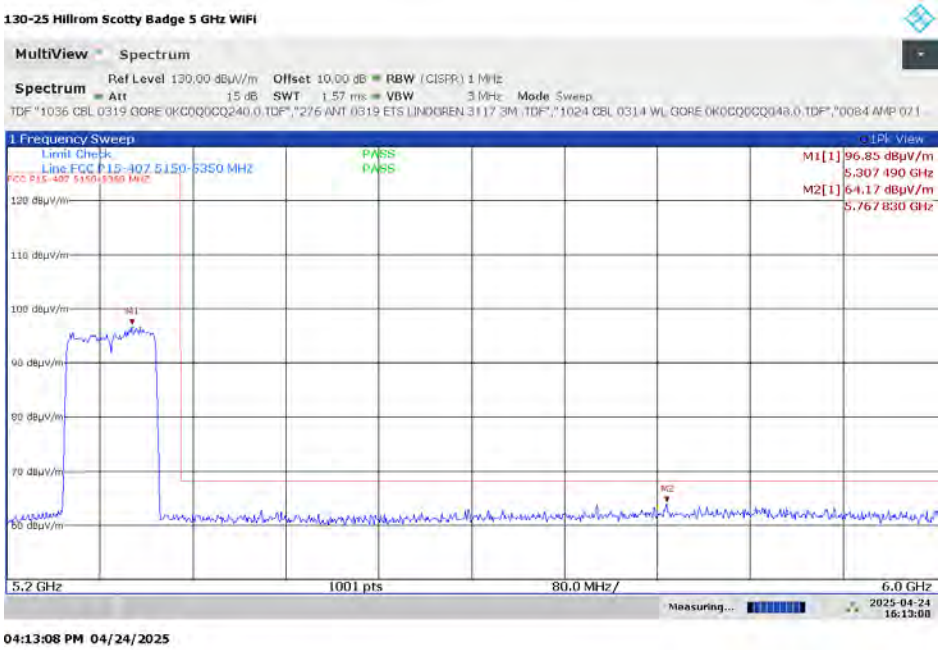
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.11. Lower Band Plot 5100 to 5300 MHz 802.11ac VHT80



7.6.12. Upper Band Plot 5200 to 6000 MHz 802.11ac VHT80



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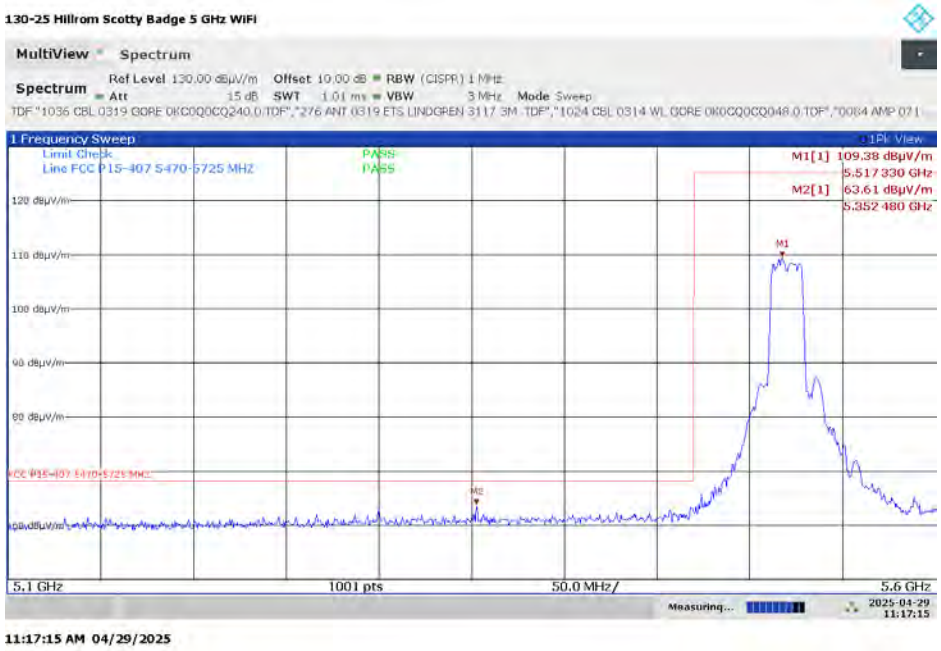
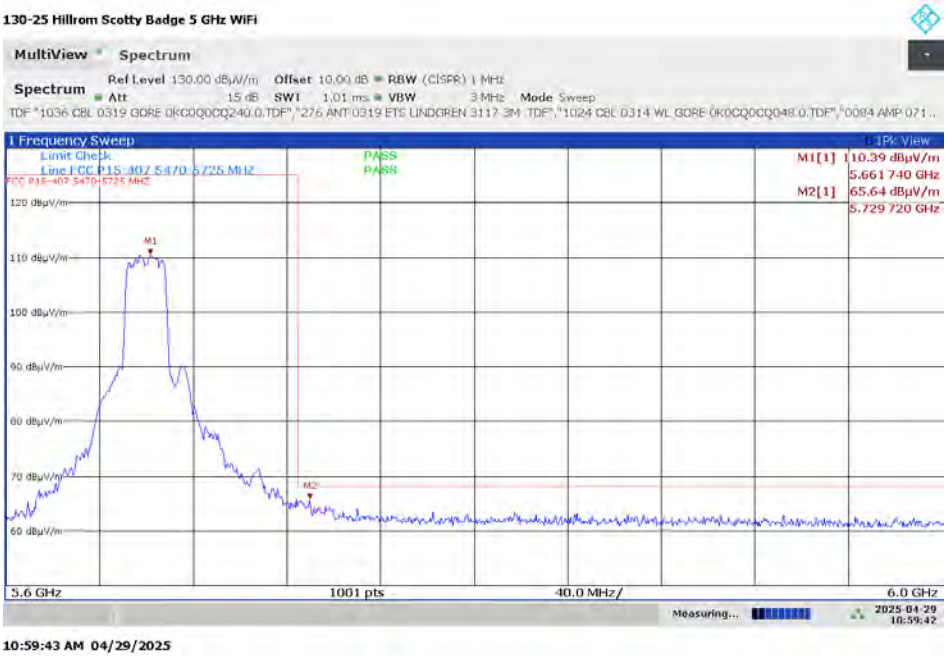
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.13. Lower Band Plot 5100 to 5600 MHz 802.11a



7.6.14. Upper Band Plot 5600 to 6000 MHz 802.11a



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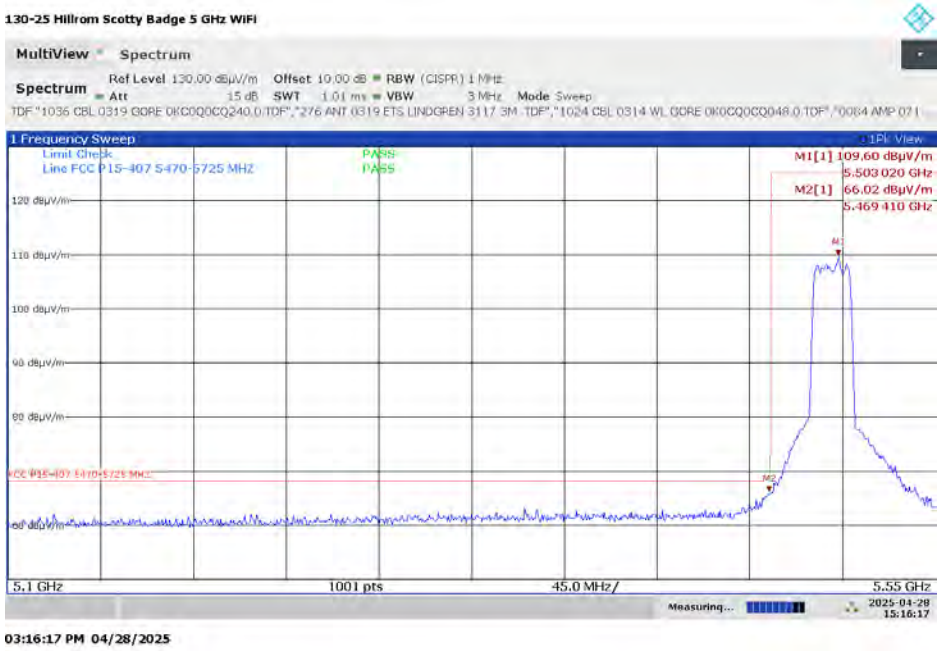
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.15. Lower Band Plot 5100 to 5550 MHz 802.11n HT20



7.6.16. Upper Band Plot 5650 to 6000 MHz 802.11n HT20

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7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.17. Lower Band Plot 5100 to 5550 MHz 802.11n HT40

7.6.18. Upper Band Plot 5600 to 6000 MHz 802.11n HT40

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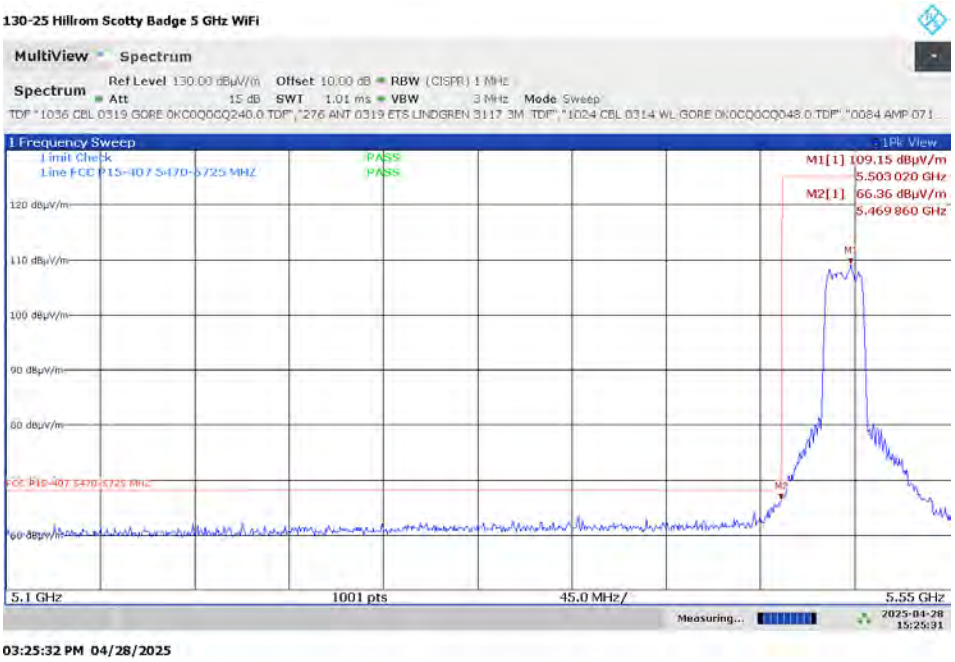
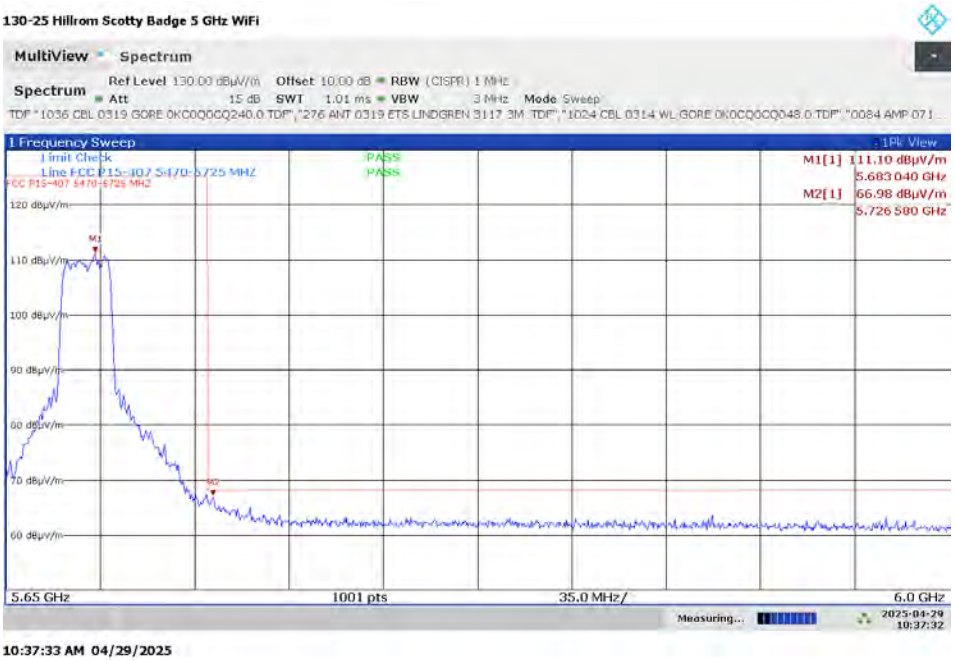
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.19. Lower Band Plot 5100 to 5550 MHz 802.11ac VHT20



7.6.20. Upper Band Plot 5650 to 6000 MHz 802.11ac VHT20



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7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.21. Lower Band Plot 5100 to 5600 MHz 802.11ac VHT40

7.6.22. Upper Band Plot 5600 to 6000 MHz 802.11ac VHT40

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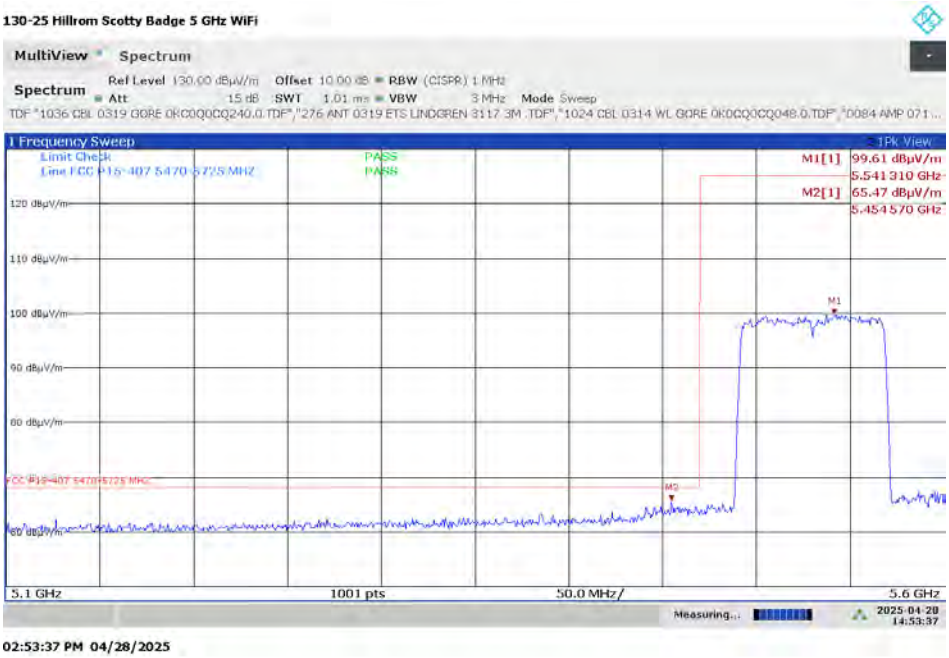
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.23. Lower Band Plot 5100 to 5600 MHz 802.11ac VHT80



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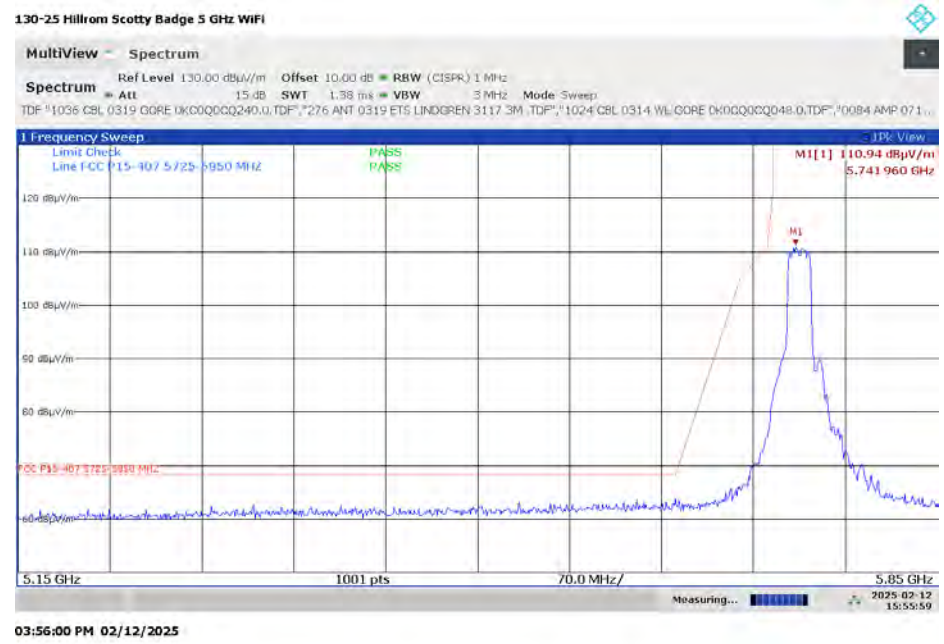
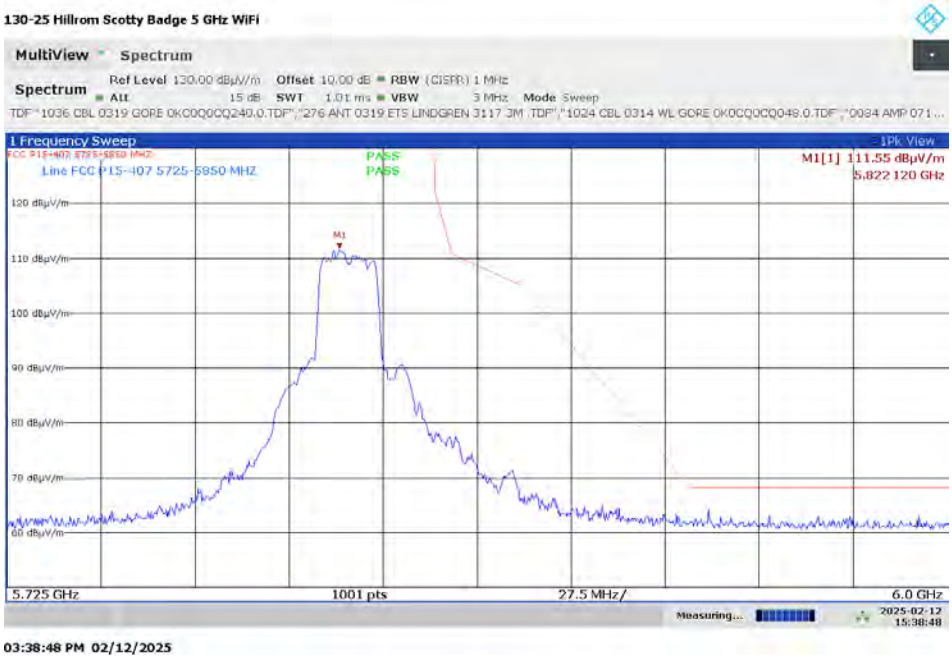
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.24. Lower Band Plot 5150 to 5725 MHz 802.11a



7.6.25. Upper Band Plot 5725 to 6000 MHz 802.11a



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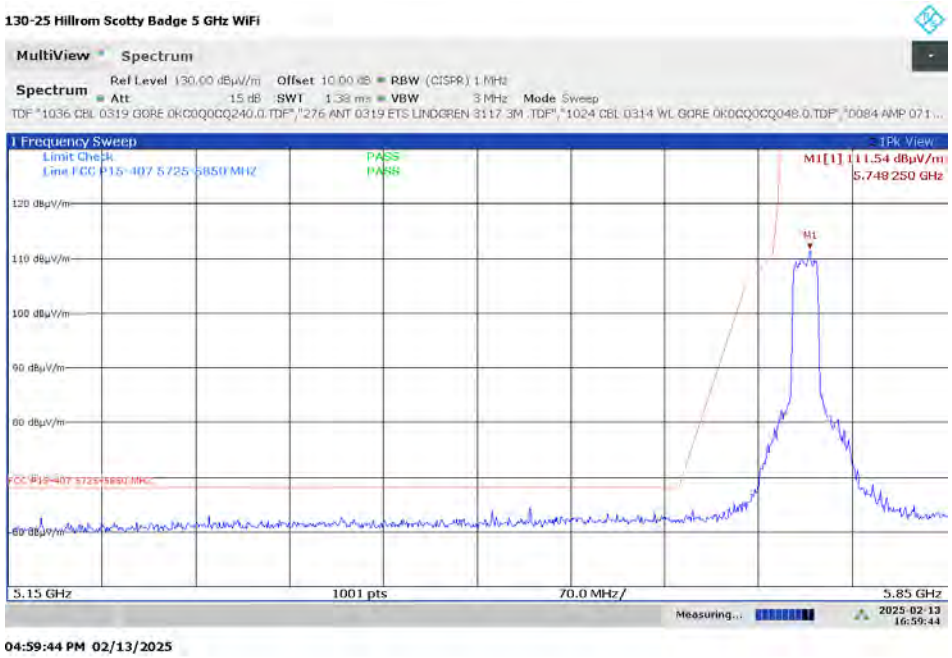
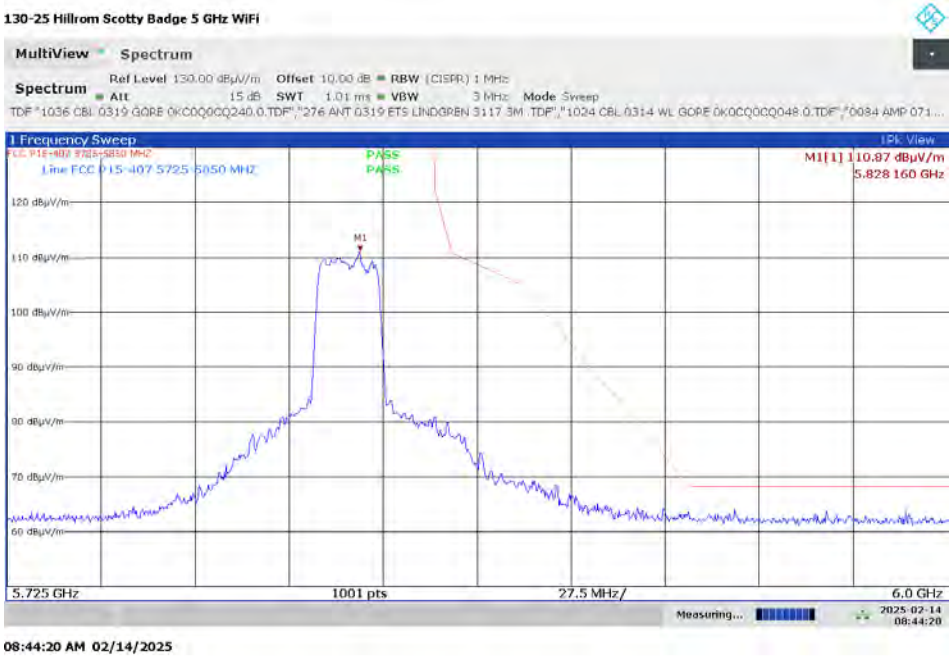
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.26. Lower Band Plot 5150 to 5725 MHz 802.11n HT20



7.6.27. Upper Band Plot 5725 to 6000 MHz 802.11n HT20



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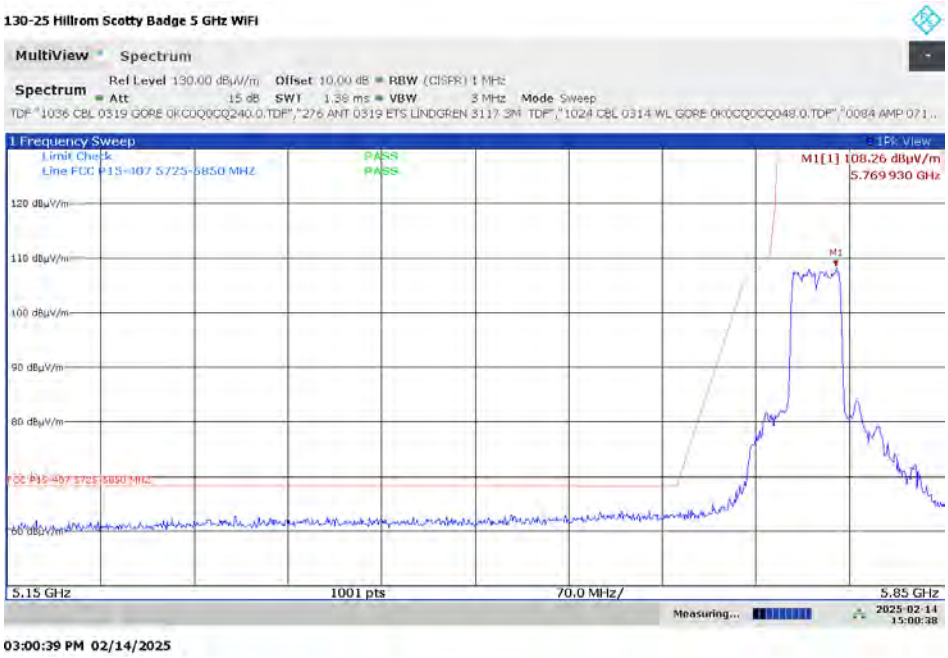
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.28. Lower Band Plot 5150 to 5725 MHz 802.11n HT40



7.6.29. Upper Band Plot 5725 to 6000 MHz 802.11n HT40

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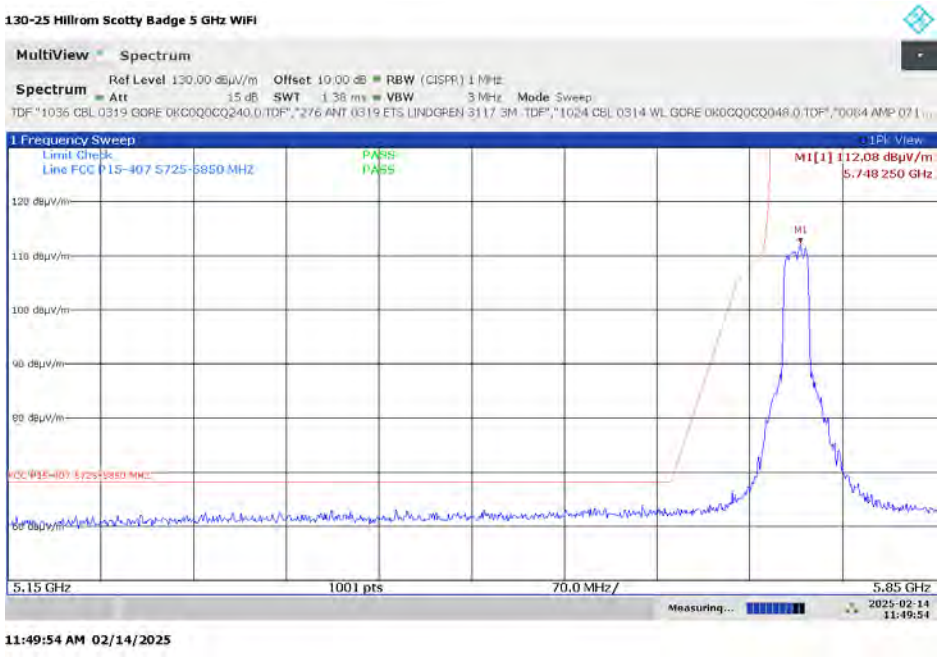
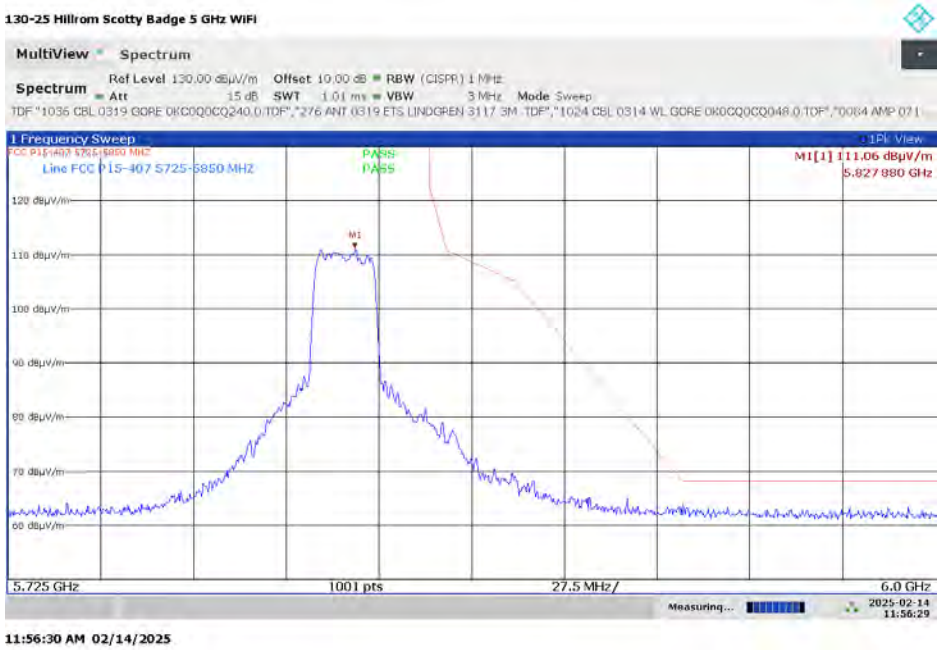
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.30. Lower Band Plot 5150 to 5725 MHz 802.11ac VHT20



7.6.31. Upper Band Plot 5725 to 6000 MHz 802.11ac VHT20



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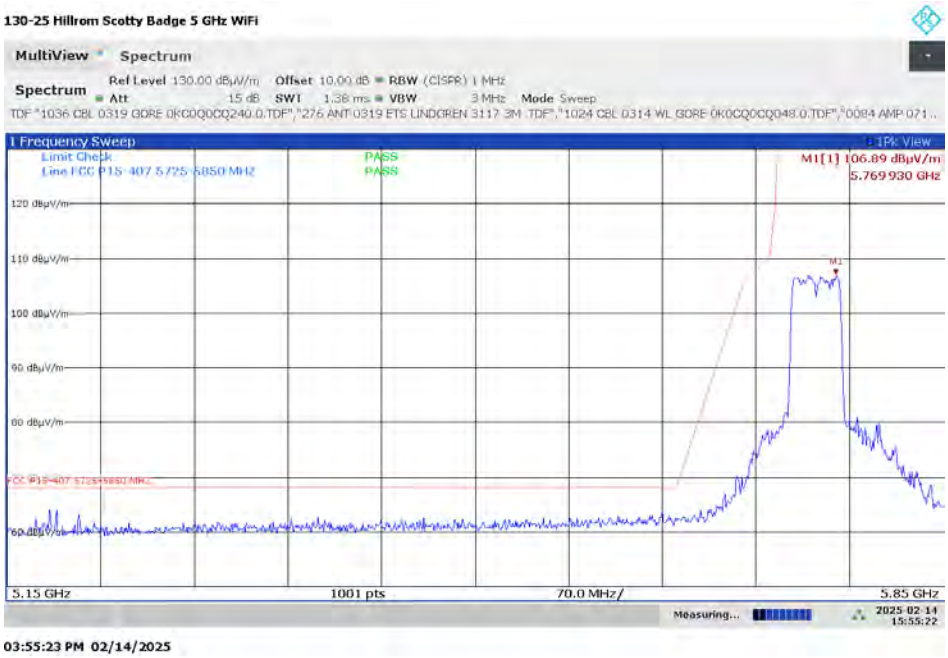
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.32. Lower Band Plot 5150 to 5725 MHz 802.11ac VHT40



7.6.33. Upper Band Plot 5725 to 6000 MHz 802.11ac VHT40

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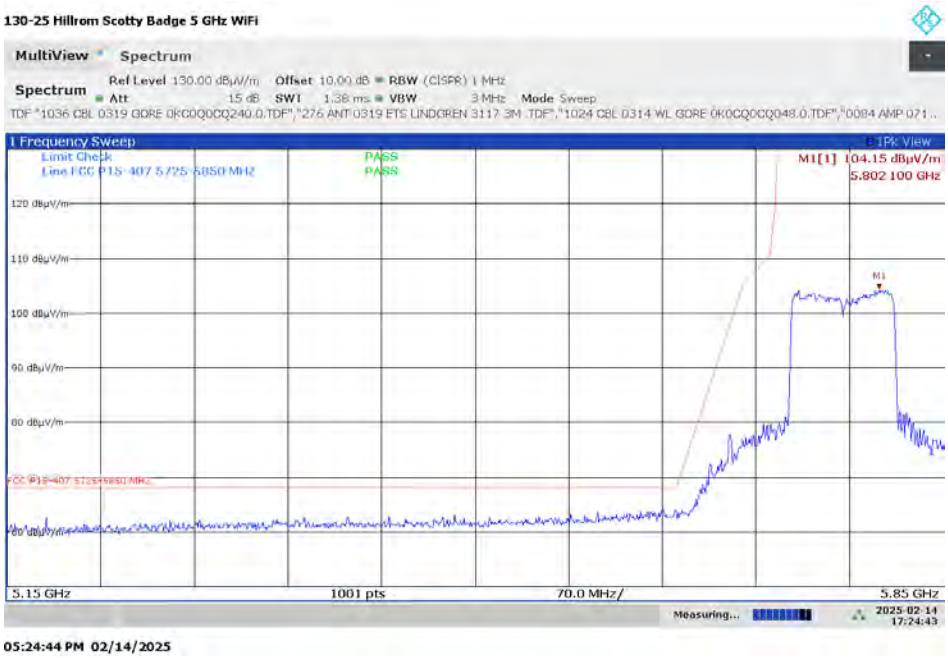
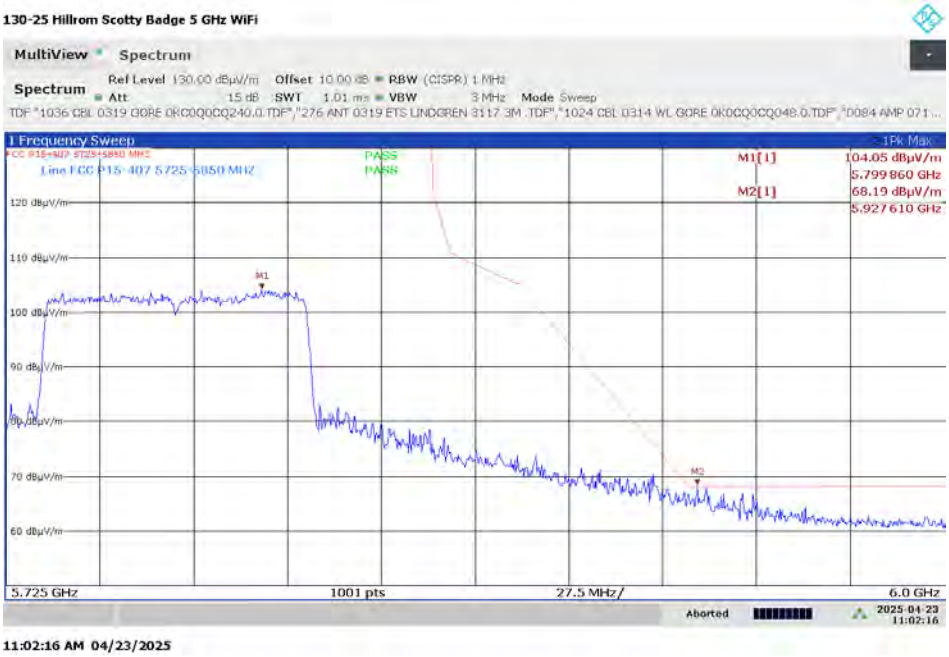
7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (continued)

7.6.34. Lower Band Plot 5150 to 5725 MHz 802.11ac VHT80



7.6.35. Upper Band Plot 5725 to 6000 MHz 802.11ac VHT80



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7. Measurement Data (continued)

7.7. Maximum Power Spectral Density (FCC 15.407(a)(3)(i) (13), ISED RSS-247, 6.2.4.2)

Requirement: For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

Power spectral density measurement: The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.895 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in all other bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

Procedure: FCC OET publication number 558074, Section 8.4 referencing ANSI C63.10:2013 Subclause 11.10, specifically 11.10.5 Method AVGPSD-2.

Results: Not Performed

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7. Measurement Data (continued)

7.8. Conducted Emissions

Requirement: 15.207 With certain exceptions, 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 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dBµV)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5.0	56	46
5.0 to 30.0	60	50
* Decreases with the logarithm of the frequency.		

Procedure: This test was performed in accordance with the procedure detailed in ANSI C63.10-2013, Section 6.2: Standard test method for ac powerline conducted emissions from unlicensed wireless devices.

Test Notes: The device is powered via batteries that are remotely charged.

Results: Not Performed

Measurement & Equipment Setup

Test Date:	N/A
Test Engineer:	N/A
Site Temperature (°C):	N/A
Relative Humidity (%RH):	N/A
Frequency Range:	0.15 MHz to 30 MHz
EMI Receiver IF Bandwidth:	9 kHz
EMI Receiver Avg Bandwidth:	>= 3 * IF BW (RBW)
Detector Functions:	Peak, Quasi-Peak & Average

Sample Calculation: Final Result (dBµV) = Measurement Value (dBµV) + LISN Insertion Loss (dB) + Cable Loss (dB).

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.

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7. Measurement Data (continued)

7.9. Duty Cycle

Requirement: (FCC OET publication number 558074)
Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%).

Procedure: Duty cycle measurements were made according to the procedure detailed ANSI C63.10-2013, Section 11.6(b).

Results: Not Performed

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7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7)

Requirement: The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

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.

7.10.1. Measurement Results

Channel	Channel Frequency (MHz)	802.11a 99% Power Bandwidth (kHz)	802.11n HT20 99% Power Bandwidth (kHz)	802.11n HT40 99% Power Bandwidth (kHz)	802.11ac VHT20 99% Power Bandwidth (kHz)	802.11ac VHT40 99% Power Bandwidth (kHz)	802.11ac VHT80 99% Power Bandwidth (kHz)
Low	5180 / 5190	16,546	17,645	36,091	17,658	36,201	-
Middle	5210	-	-	-	-	-	75,977
Middle	5290	-	-	-	-	-	75,895
High	5310 / 5320	16,525	17,626	36,163	17,621	36,162	-

Channel	Channel Frequency (MHz)	802.11a 99% Power Bandwidth (kHz)	802.11n HT20 99% Power Bandwidth (kHz)	802.11n HT40 99% Power Bandwidth (kHz)	802.11ac VHT20 99% Power Bandwidth (kHz)	802.11ac VHT40 99% Power Bandwidth (kHz)	802.11ac VHT80 99% Power Bandwidth (kHz)
Low	5500 / 5550	16,544	17,633	36,209	17,652	36,214	-
Middle	5530	-	-	-	-	-	75,808
High	5630 / 5680	16,612	17,692	36,186	17,694	36,175	-

Channel	Channel Frequency (MHz)	802.11a 99% Power Bandwidth (kHz)	802.11n HT20 99% Power Bandwidth (kHz)	802.11n HT40 99% Power Bandwidth (kHz)	802.11ac VHT20 99% Power Bandwidth (kHz)	802.11ac VHT40 99% Power Bandwidth (kHz)	802.11ac VHT80 99% Power Bandwidth (kHz)
Low	5745 / 5755	16,690	17,700	36,221	17,701	36,242	-
Middle	5755 / 5785	16,675	17,709	-	17,701	-	76,099
High	5795 / 5825	16,692	17,748	36,213	17,713	36,245	-

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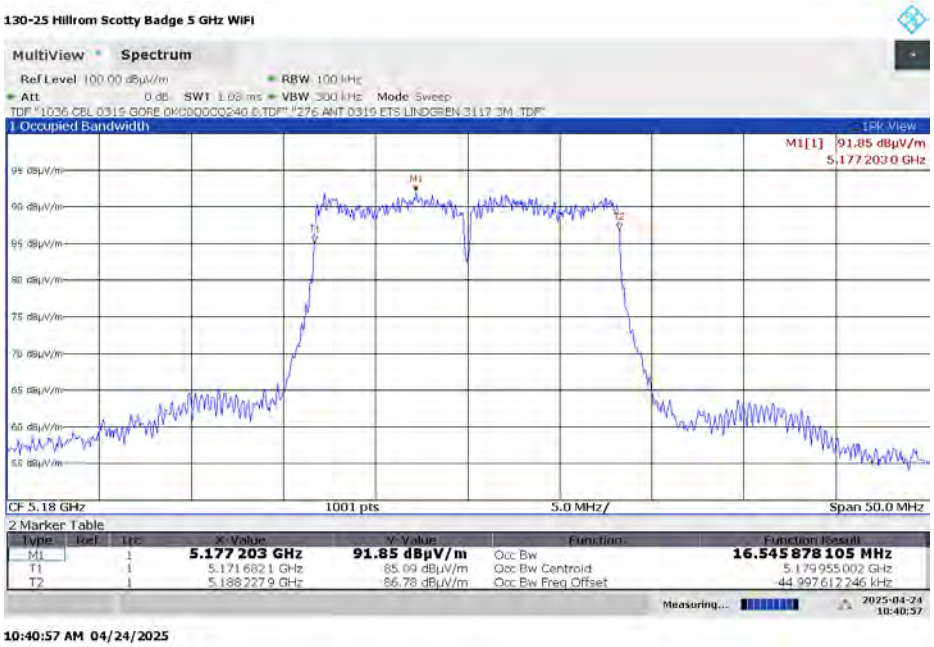
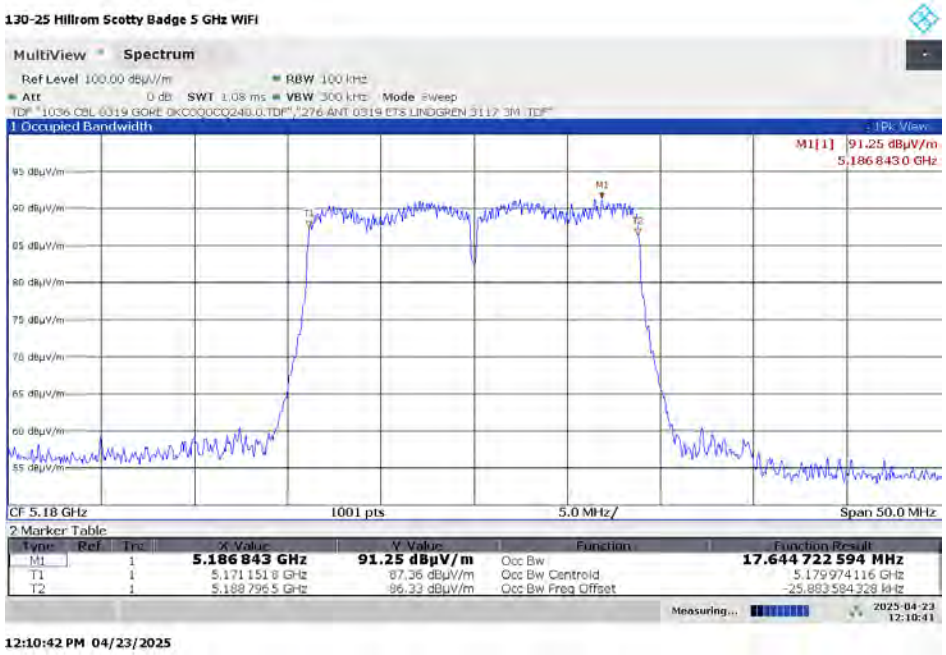
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.1. 99% Power Bandwidth – Low Frequency (5180 MHz) 802.11a



7.10.1.2. 99% Power Bandwidth – Low Frequency (5180 MHz) 802.11n HT20



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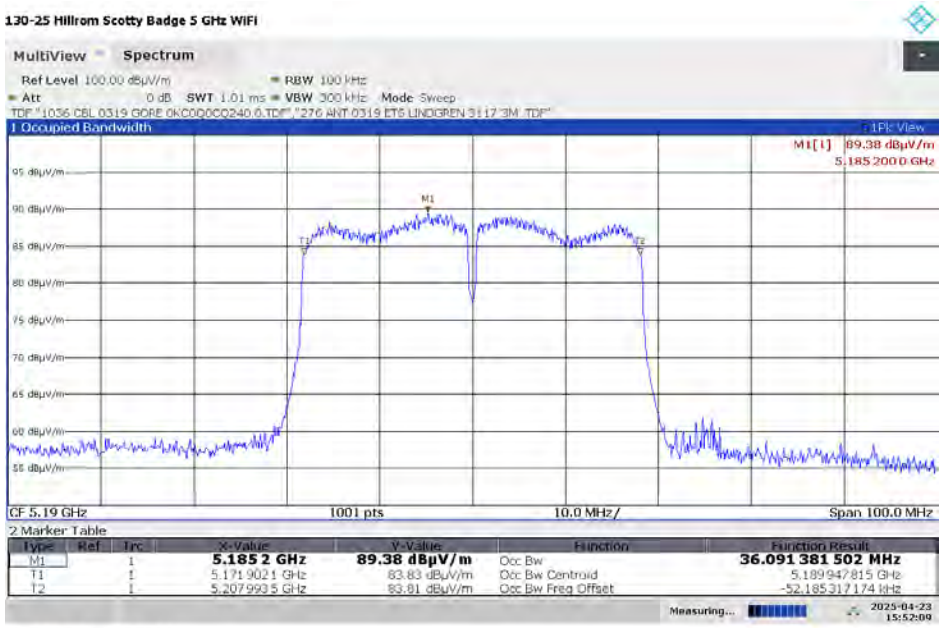
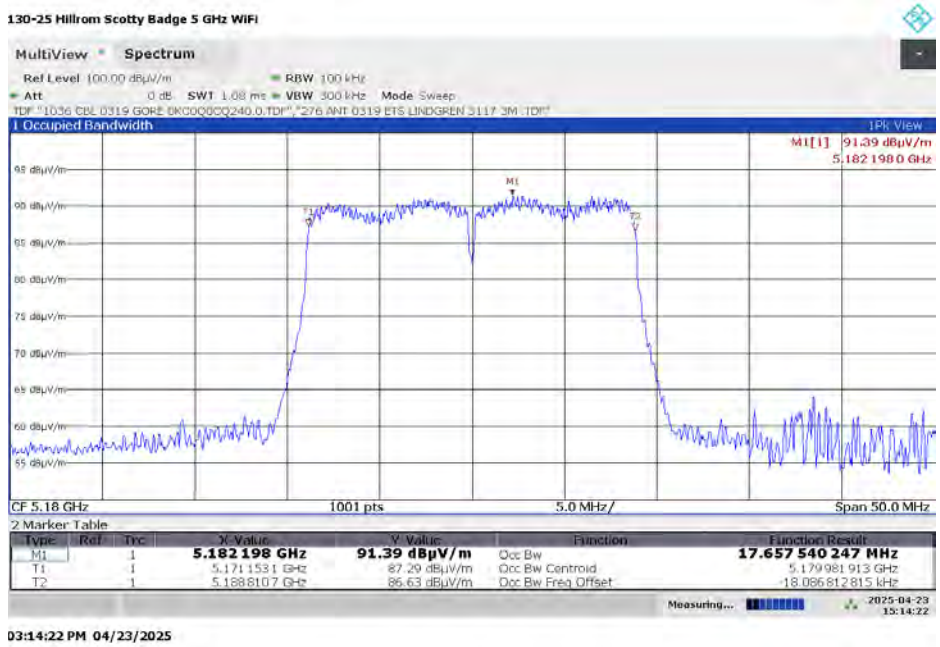
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.3. 99% Power Bandwidth – Low Frequency (5190 MHz) 802.11n HT40



7.10.1.4. 99% Power Bandwidth – Low Frequency (5180 MHz) 802.11ac VHT20



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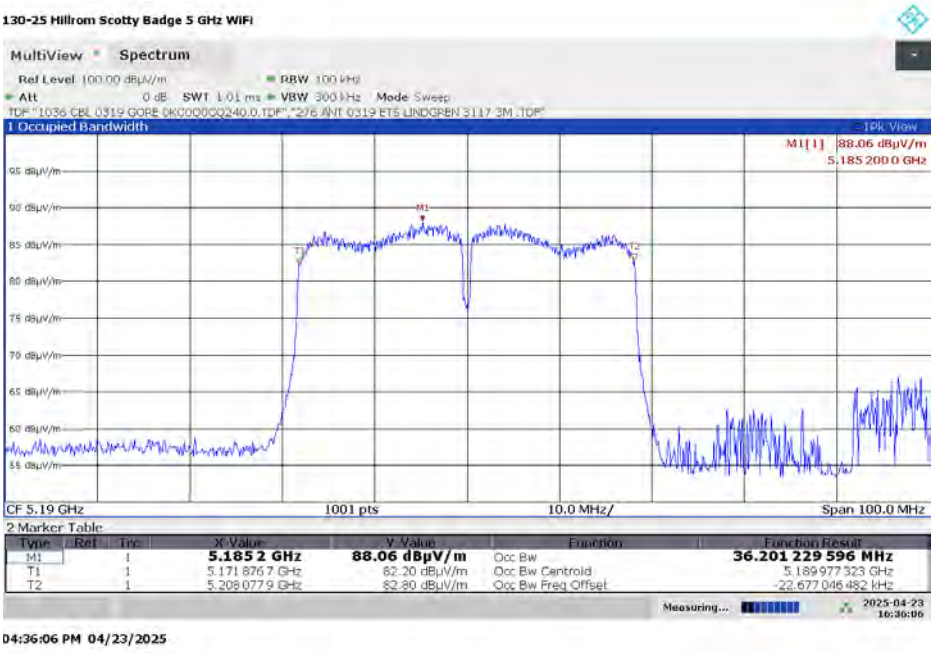
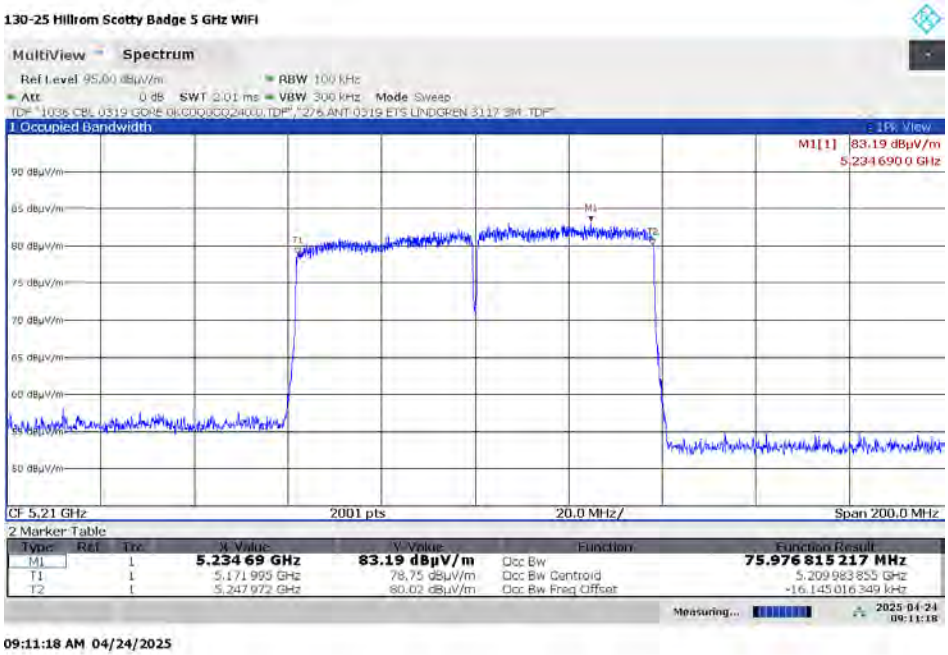
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.5. 99% Power Bandwidth – Low Frequency (5190 MHz) 802.11ac VHT40



7.10.1.6. 99% Power Bandwidth – Middle Frequency (5210 MHz) 802.11ac VHT80



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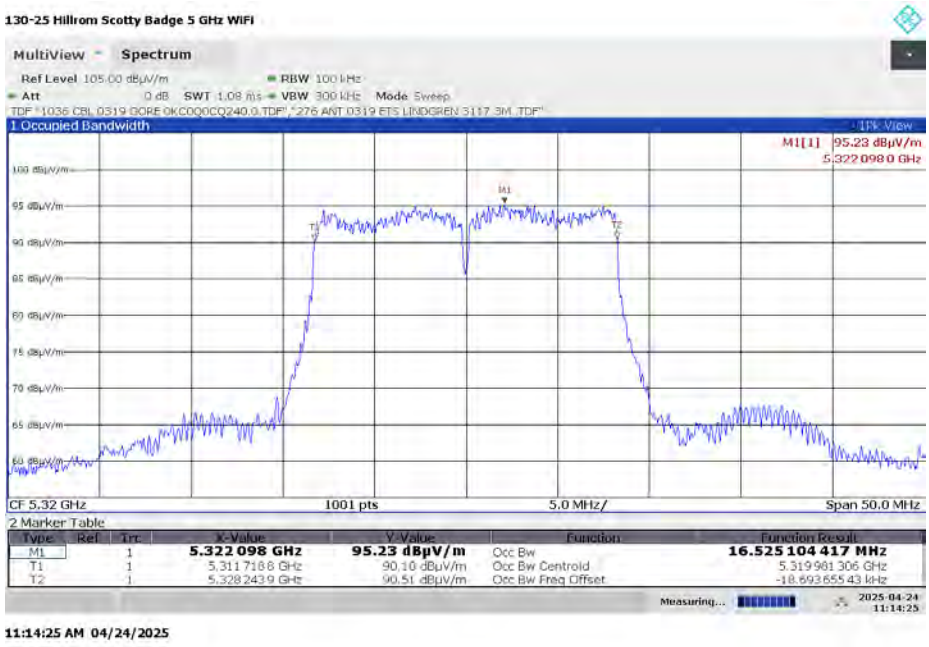
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.7. 99% Power Bandwidth – High Frequency (5320 MHz) 802.11a



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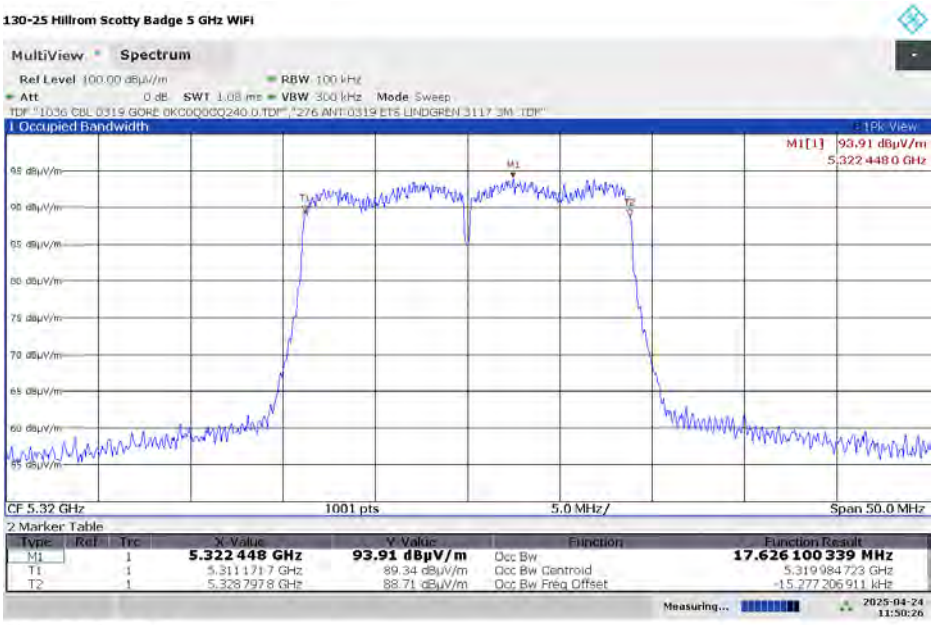
7.10.1.8. 99% Power Bandwidth – High Frequency (5320 MHz) 802.11n HT20



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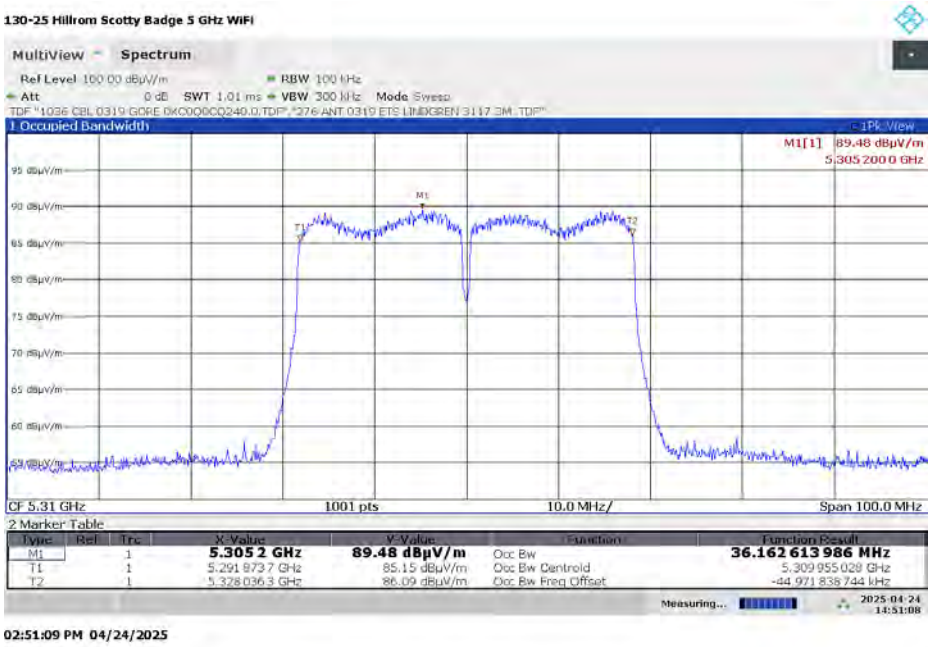
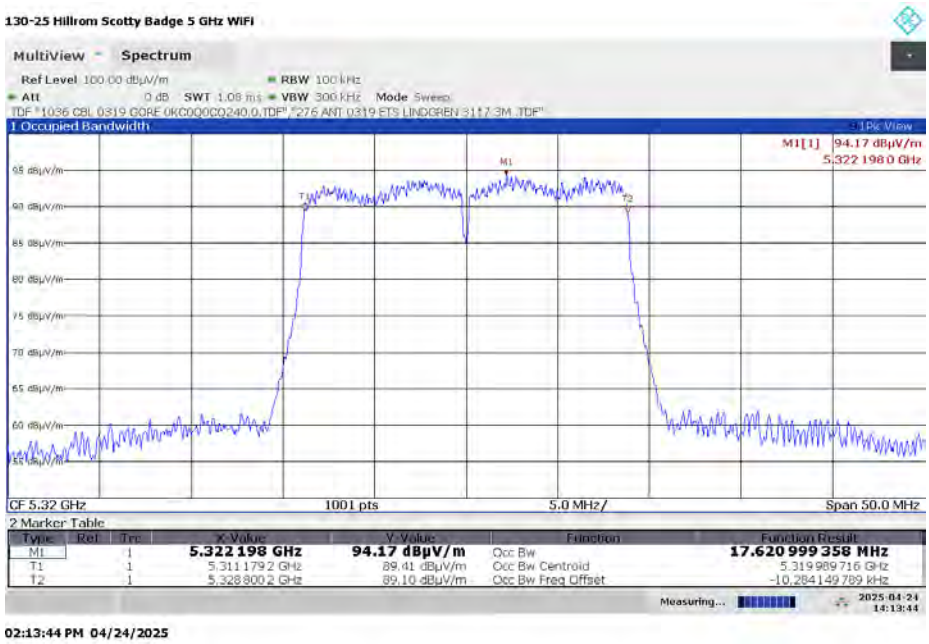
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.9. 99% Power Bandwidth – High Frequency (5310 MHz) 802.11n HT40



7.10.1.10. 99% Power Bandwidth – High Frequency (5320 MHz) 802.11ac VHT20



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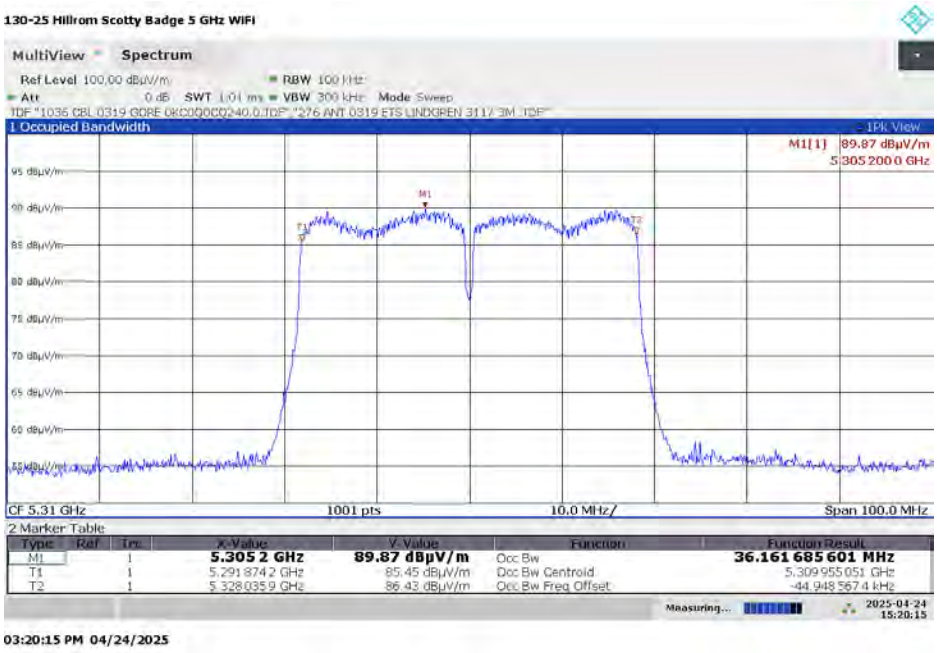
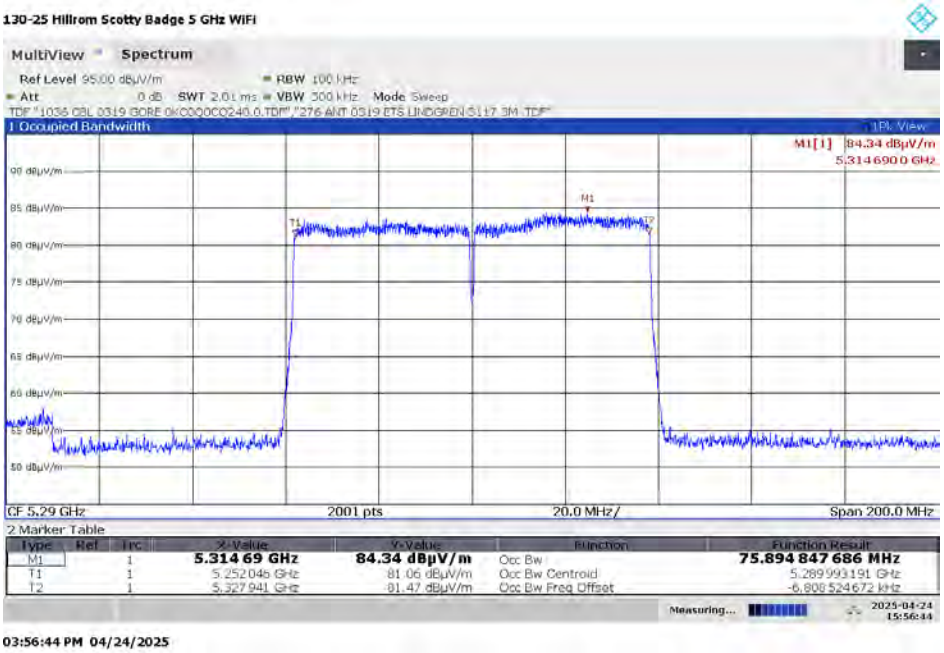
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.11. 99% Power Bandwidth – High Frequency (5310 MHz) 802.11ac VHT40



7.10.1.12. 99% Power Bandwidth – High Frequency (5290 MHz) 802.11ac VHT80



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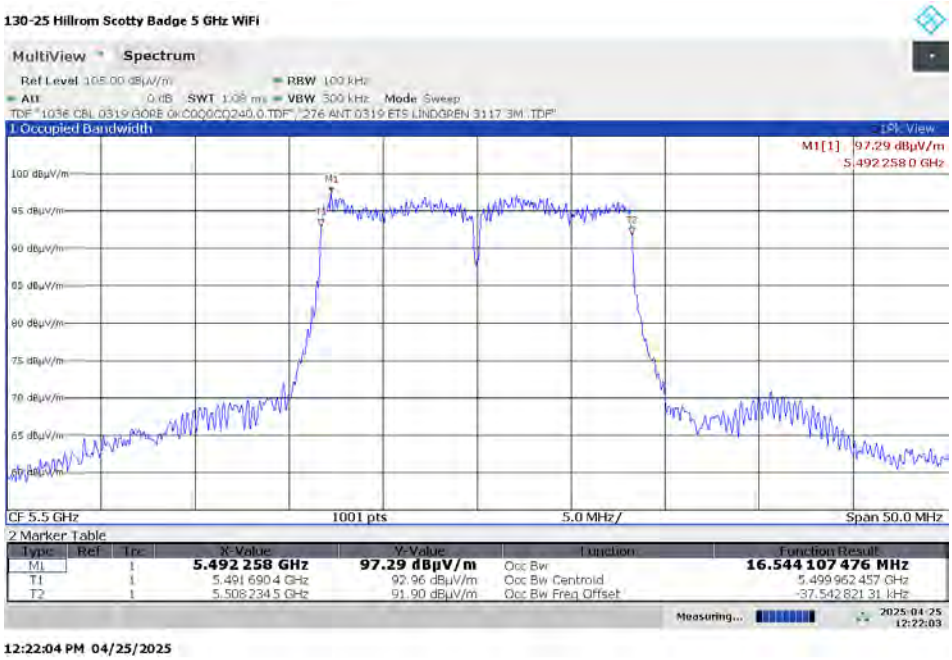
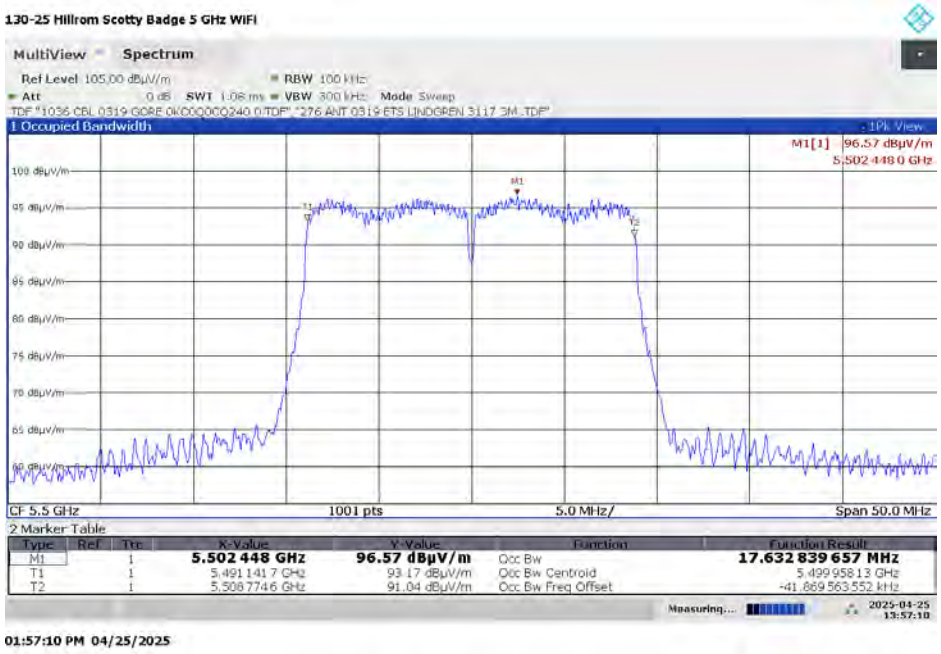
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.13. 99% Power Bandwidth – Low Frequency (5500 MHz) 802.11a



7.10.1.14. 99% Power Bandwidth – Low Frequency (5500 MHz) 802.11n HT20



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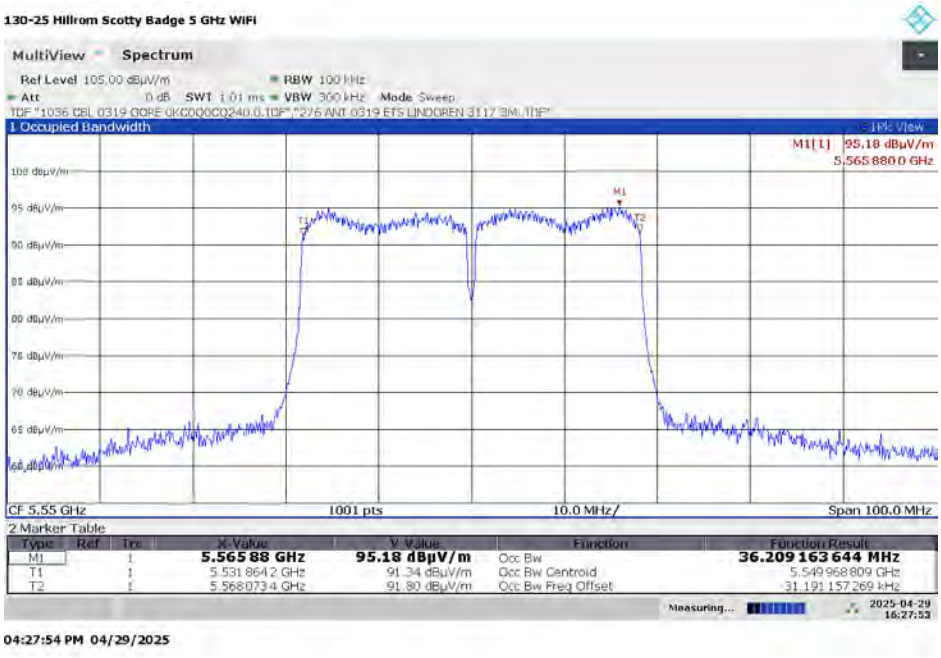
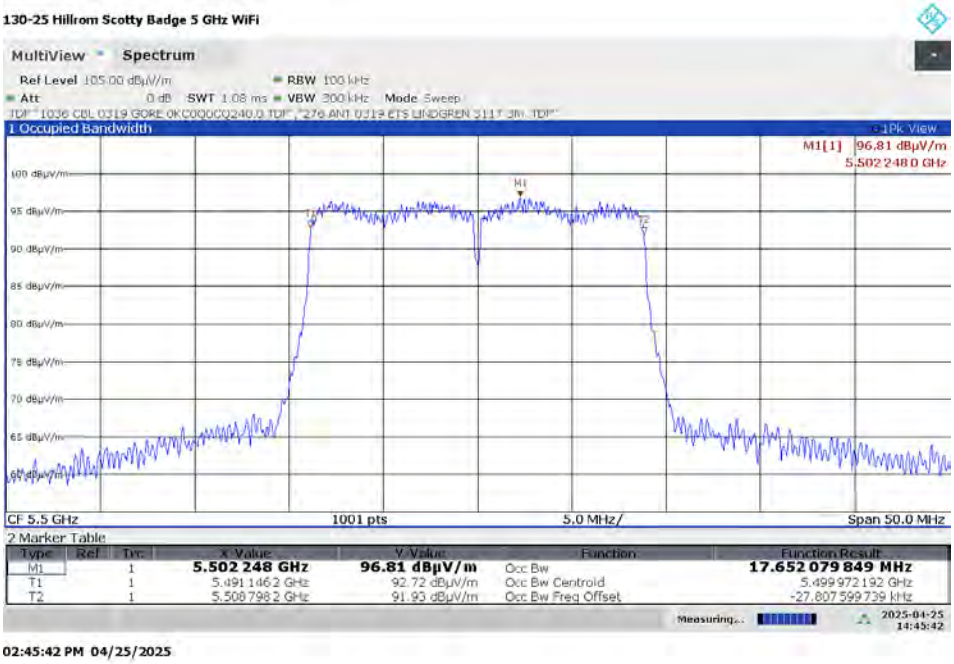
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.15. 99% Power Bandwidth – Low Frequency (5550 MHz) 802.11n HT40



7.10.1.16. 99% Power Bandwidth – Low Frequency (5500 MHz) 802.11ac VHT20



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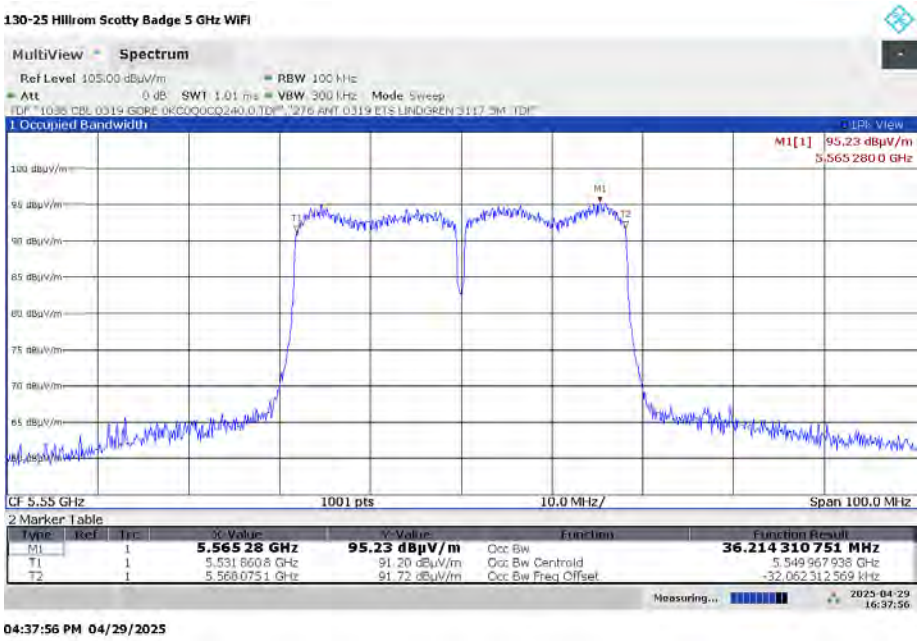
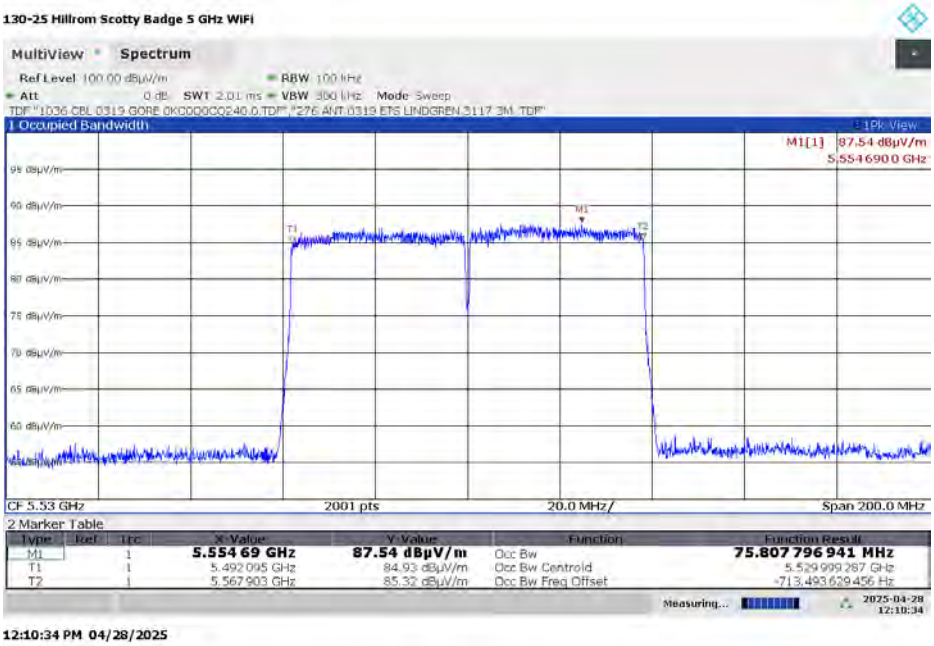
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.17. 99% Power Bandwidth – Low Frequency (5550 MHz) 802.11ac VHT40



7.10.1.18. 99% Power Bandwidth – Middle Frequency (5530 MHz) 802.11ac VHT80



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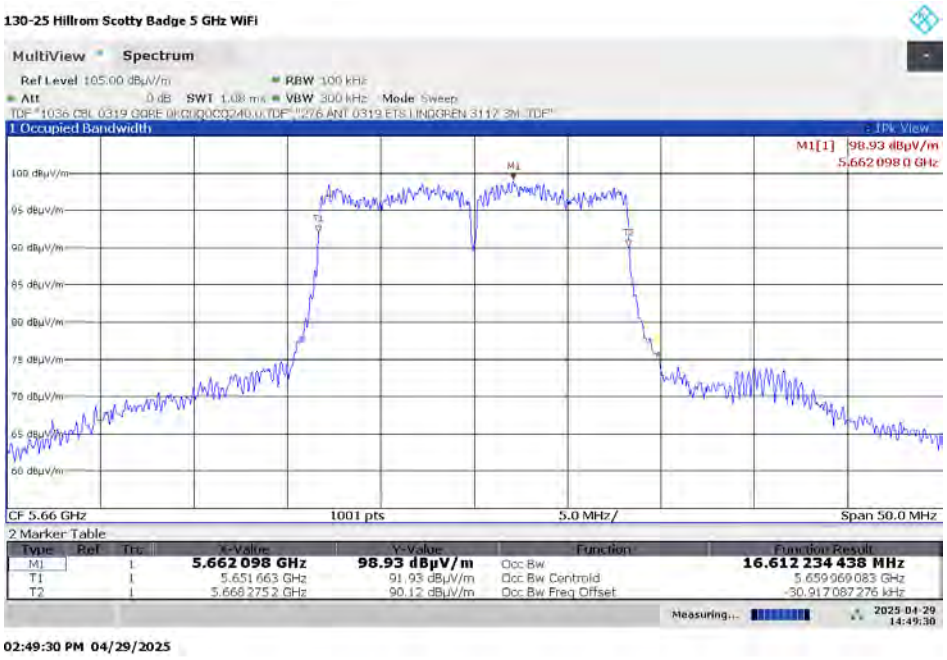
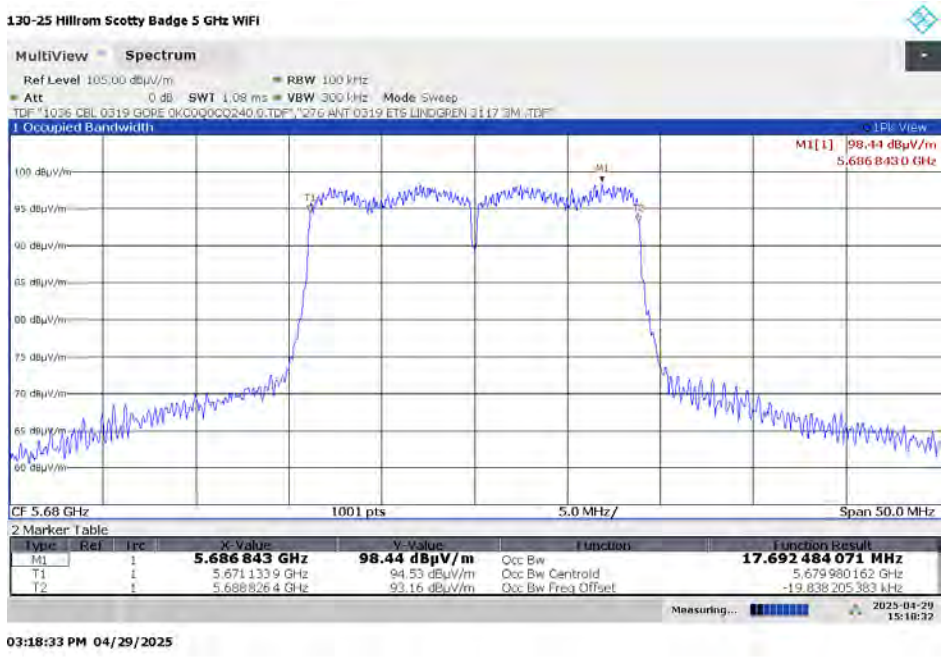
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.19. 99% Power Bandwidth – High Frequency (5680 MHz) 802.11a



7.10.1.20. 99% Power Bandwidth – High Frequency (5680 MHz) 802.11n HT20



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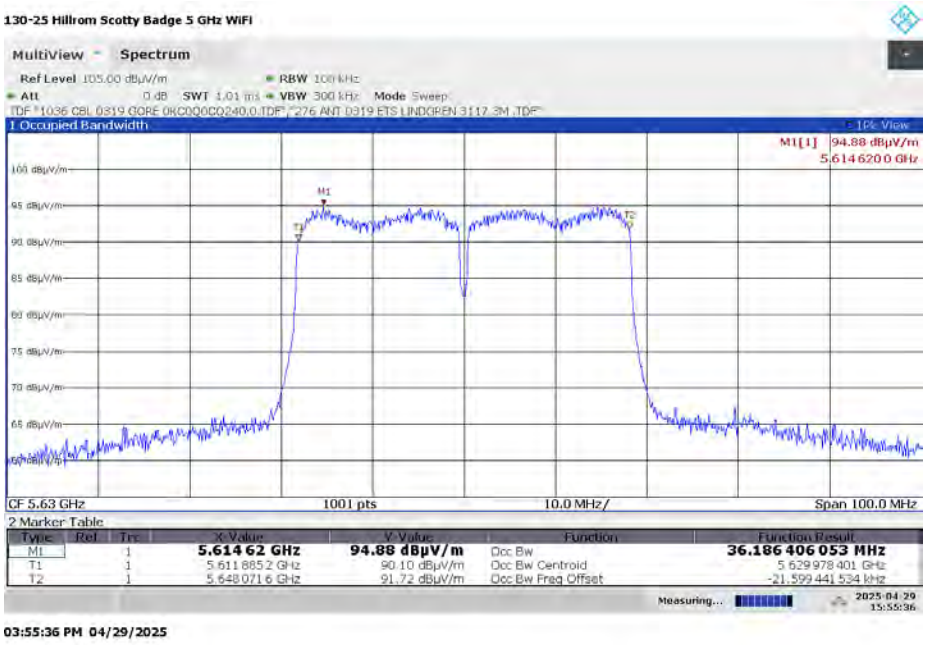
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.21. 99% Power Bandwidth – High Frequency (5630 MHz) 802.11n HT40



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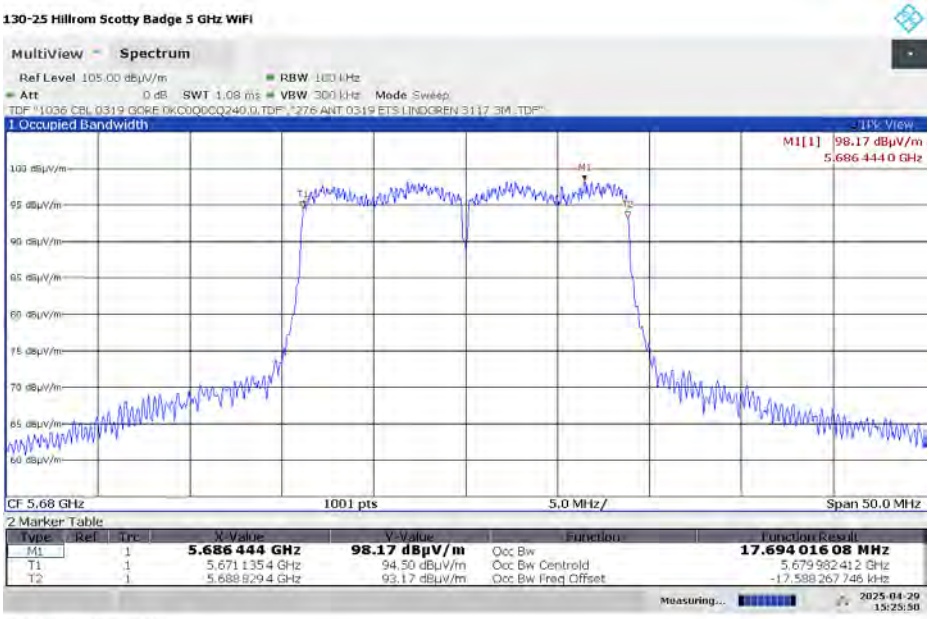
7.10.1.22. 99% Power Bandwidth – High Frequency (5680 MHz) 802.11ac VHT20



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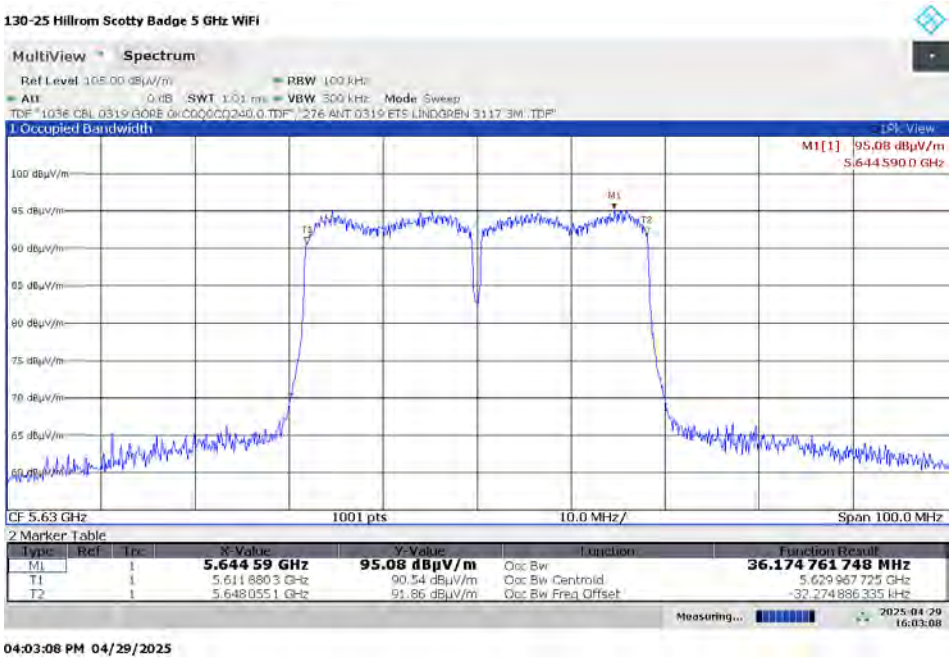
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.23. 99% Power Bandwidth – High Frequency (5630 MHz) 802.11ac VHT40



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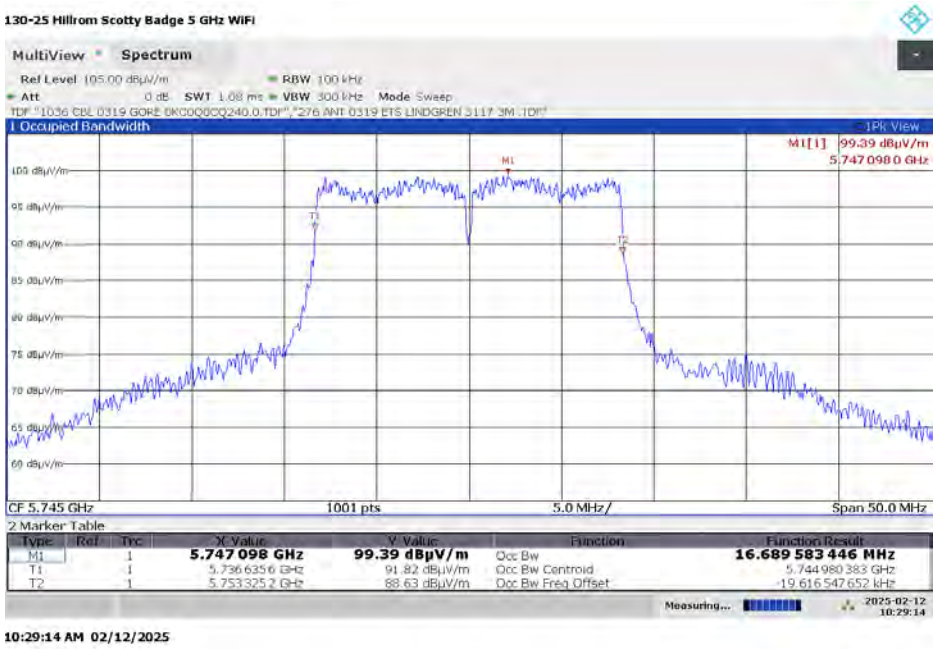
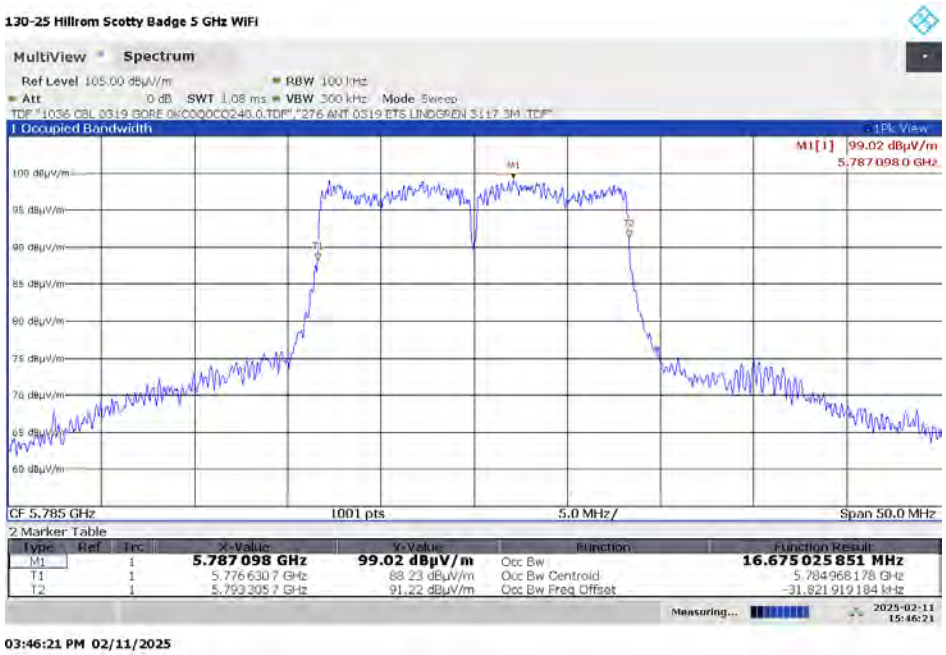
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.24. 99% Power Bandwidth – Low Frequency (5745 MHz) 802.11a



7.10.1.25. 99% Power Bandwidth – Middle Frequency (5785 MHz) 802.11a



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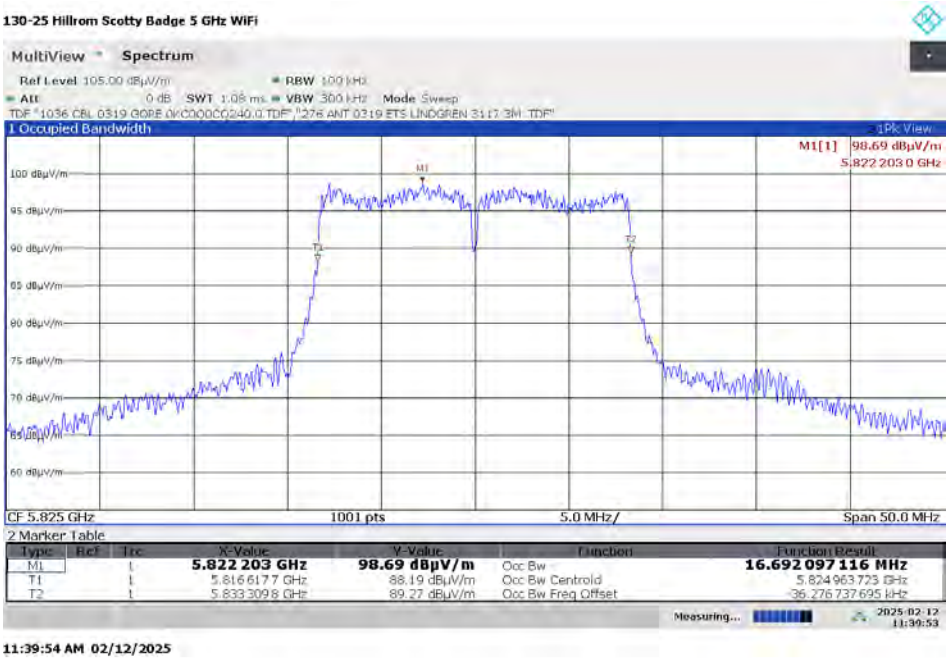
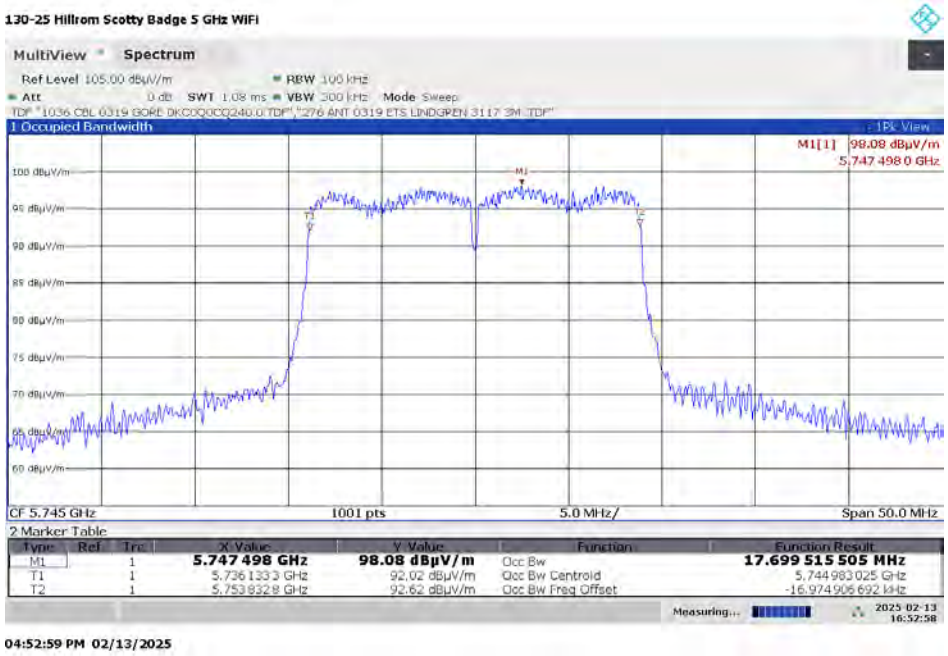
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.26. 99% Power Bandwidth – High Frequency (5825 MHz) 802.11a



7.10.1.27. 99% Power Bandwidth – Low Frequency (5745 MHz) 802.11n HT20



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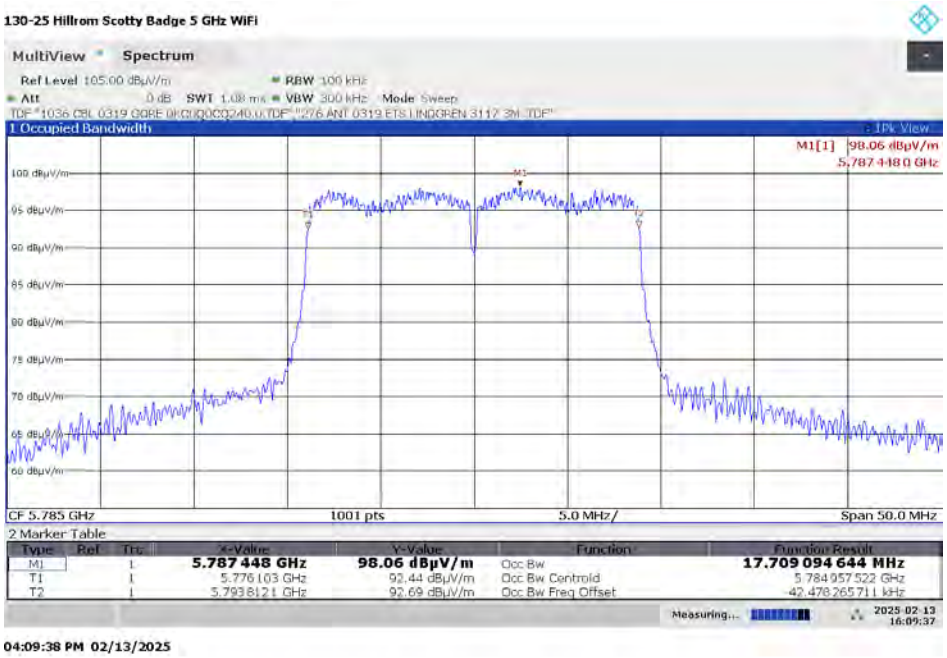
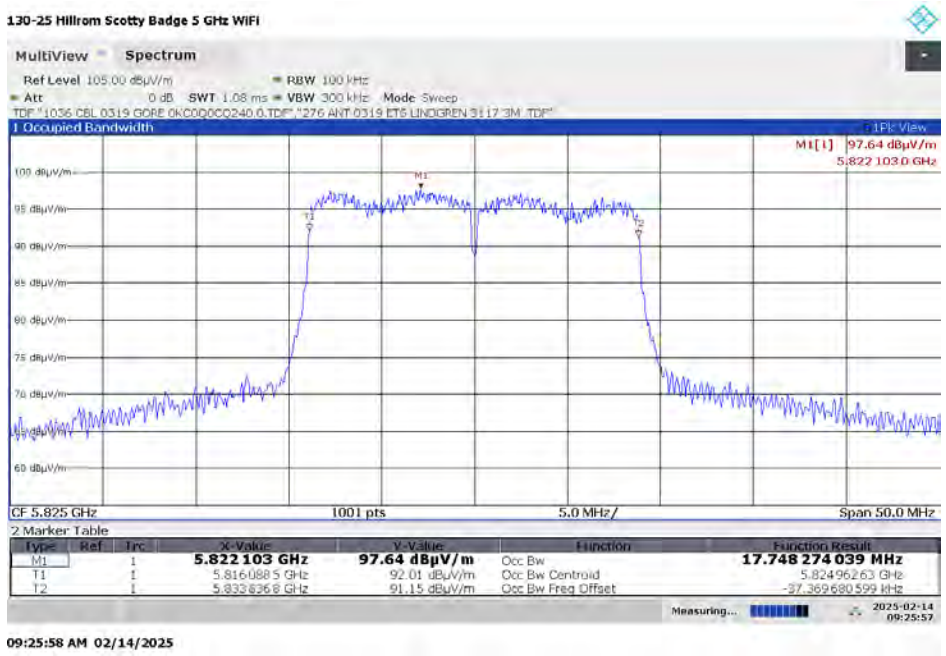
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.28. 99% Power Bandwidth – Middle Frequency (5785 MHz) 802.11n HT20



7.10.1.29. 99% Power Bandwidth – High Frequency (5825 MHz) 802.11n HT20



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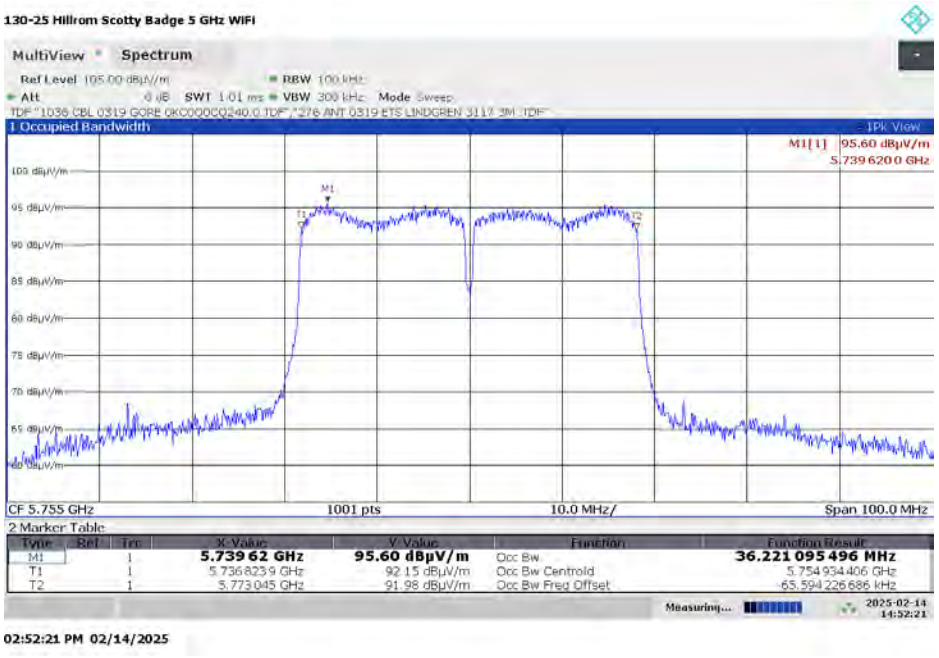
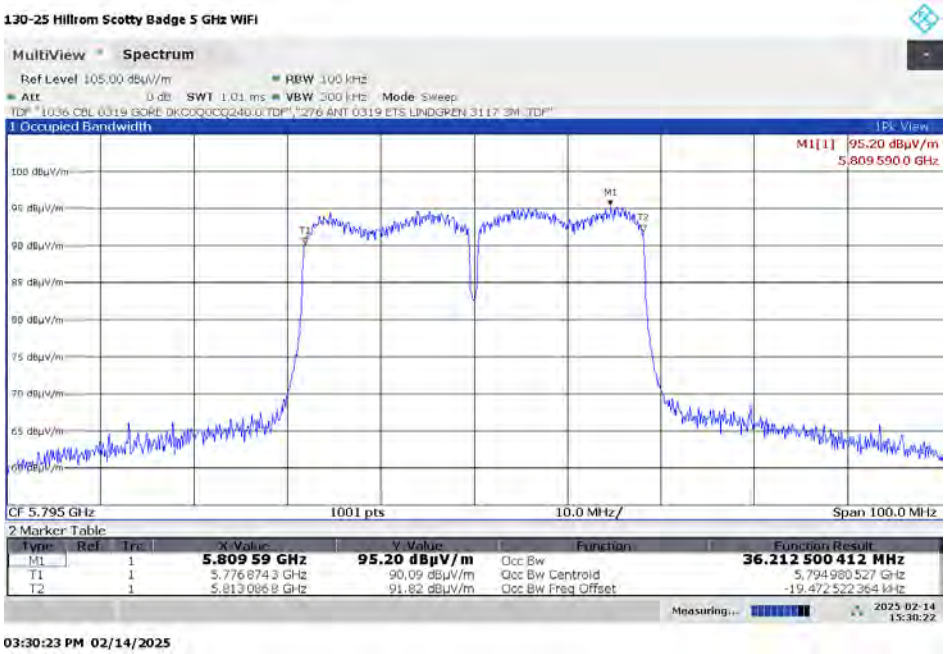
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.30. 99% Power Bandwidth – Low Frequency (5755 MHz) 802.11n HT40



7.10.1.31. 99% Power Bandwidth – High Frequency (5795 MHz) 802.11n HT40



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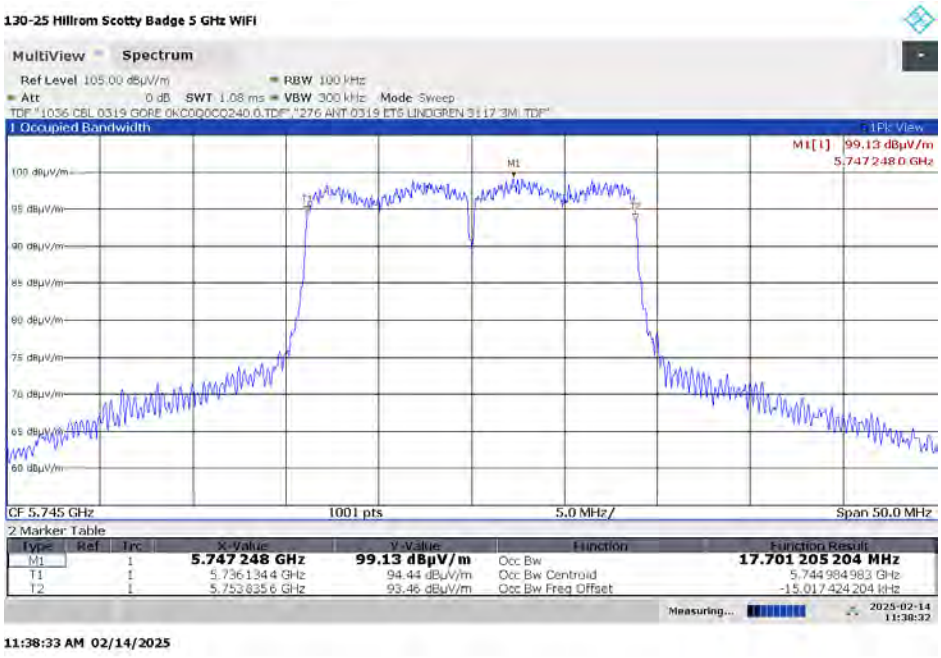
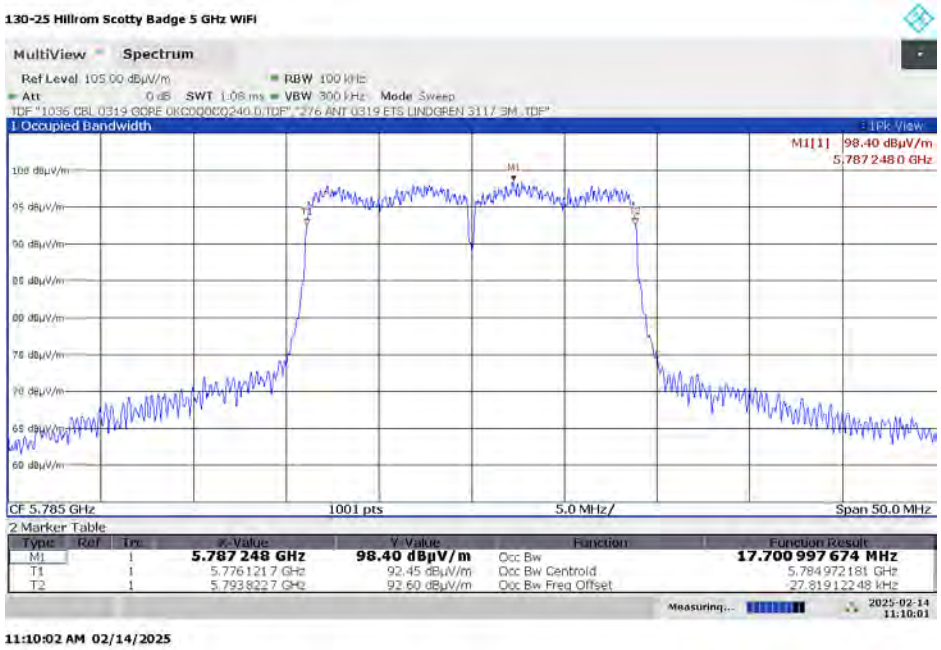
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.32. 99% Power Bandwidth – Low Frequency (5745 MHz) 802.11ac VHT20



7.10.1.33. 99% Power Bandwidth – Middle Frequency (5785 MHz) 802.11ac VHT20



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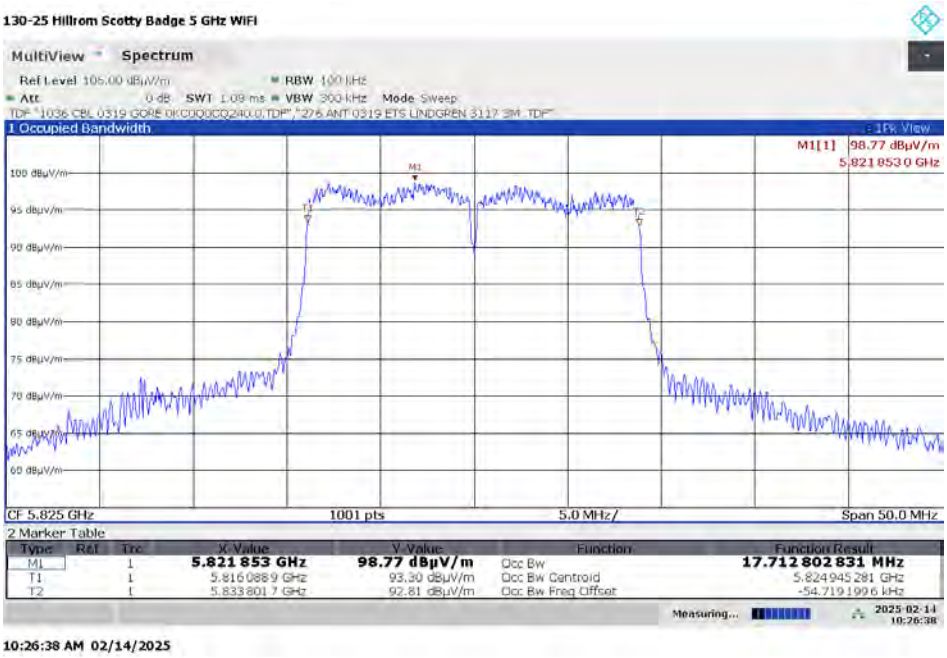
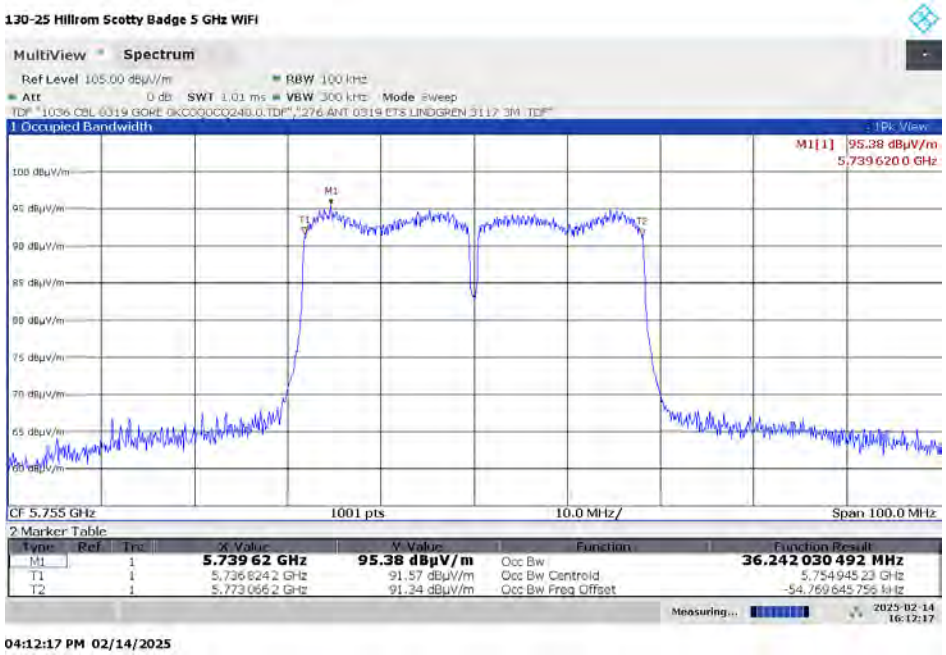
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.34. 99% Power Bandwidth – High Frequency (5825 MHz) 802.11ac VHT20



7.10.1.35. 99% Power Bandwidth – Low Frequency (5755 MHz) 802.11ac VHT40



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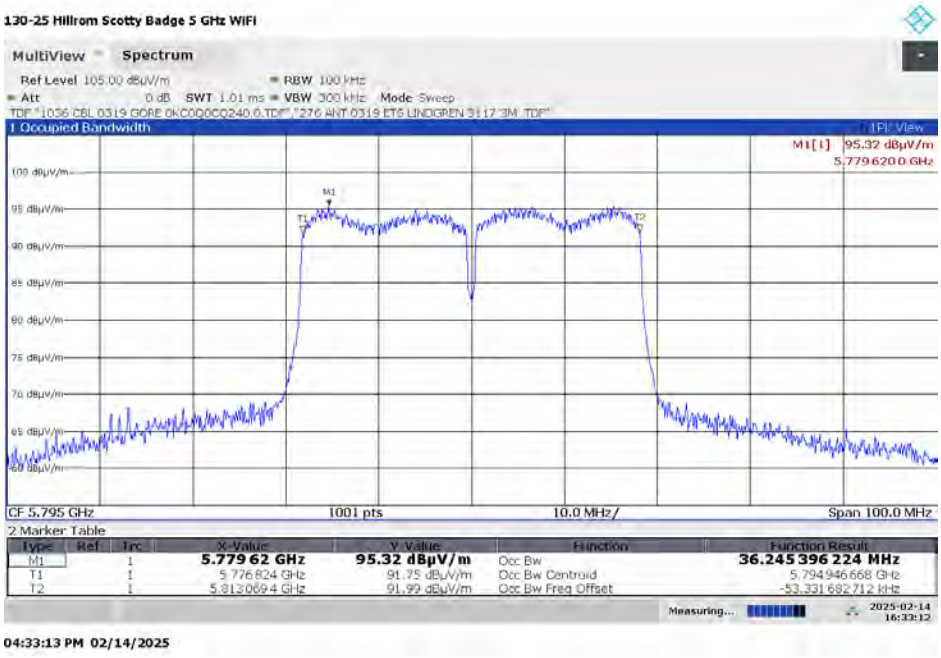
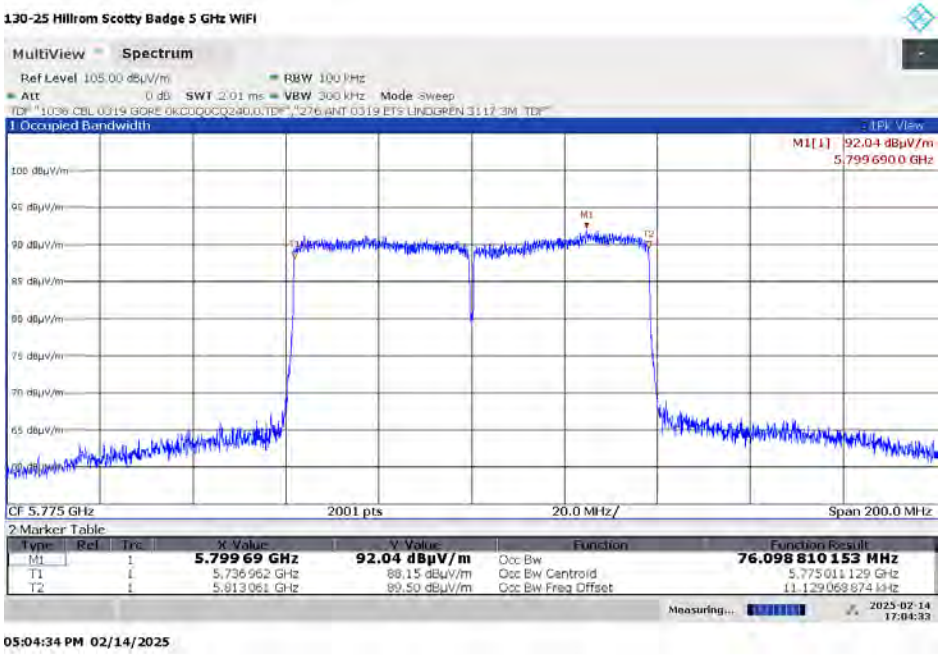
7. Measurement Data (continued)

7.10. 99% (Occupied) Bandwidth (RSS-GEN 6.7) continued

7.10.1.36. 99% Power Bandwidth – High Frequency (5795 MHz) 802.11ac VHT40



7.10.1.37. 99% Power Bandwidth – Middle Frequency (5775 MHz) 802.11ac VHT80



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8. Test Setup Photographs

8.1. Spurious Radiated Emissions, 9 kHz to 30 MHz – Front

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8. Test Setup Photographs

8.2. Spurious Radiated Emissions, < 30 MHz – Rear

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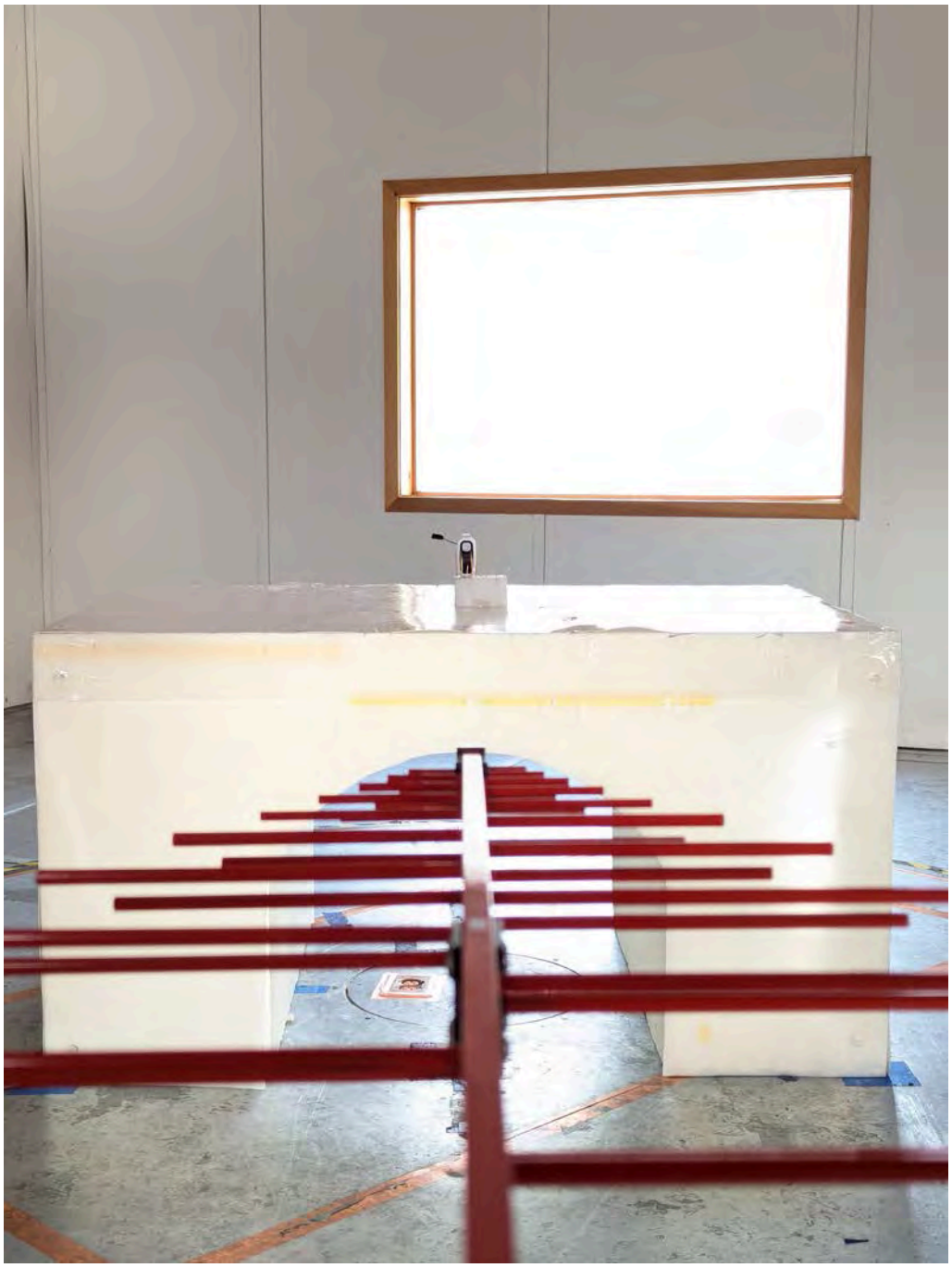
8. Test Setup Photographs

8.3. Spurious Radiated Emissions, 30 MHz to 1 GHz – Rear View



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8. Test Setup Photographs

8.4. Radiated Emissions Above 1 to 18 GHz – Front

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8. Test Setup Photographs

8.5. Radiated Emissions 1 to 18 GHz – Rear

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8. Test Images (continued)

8.6. Radiated Emissions Above 18 to 40 GHz – Front

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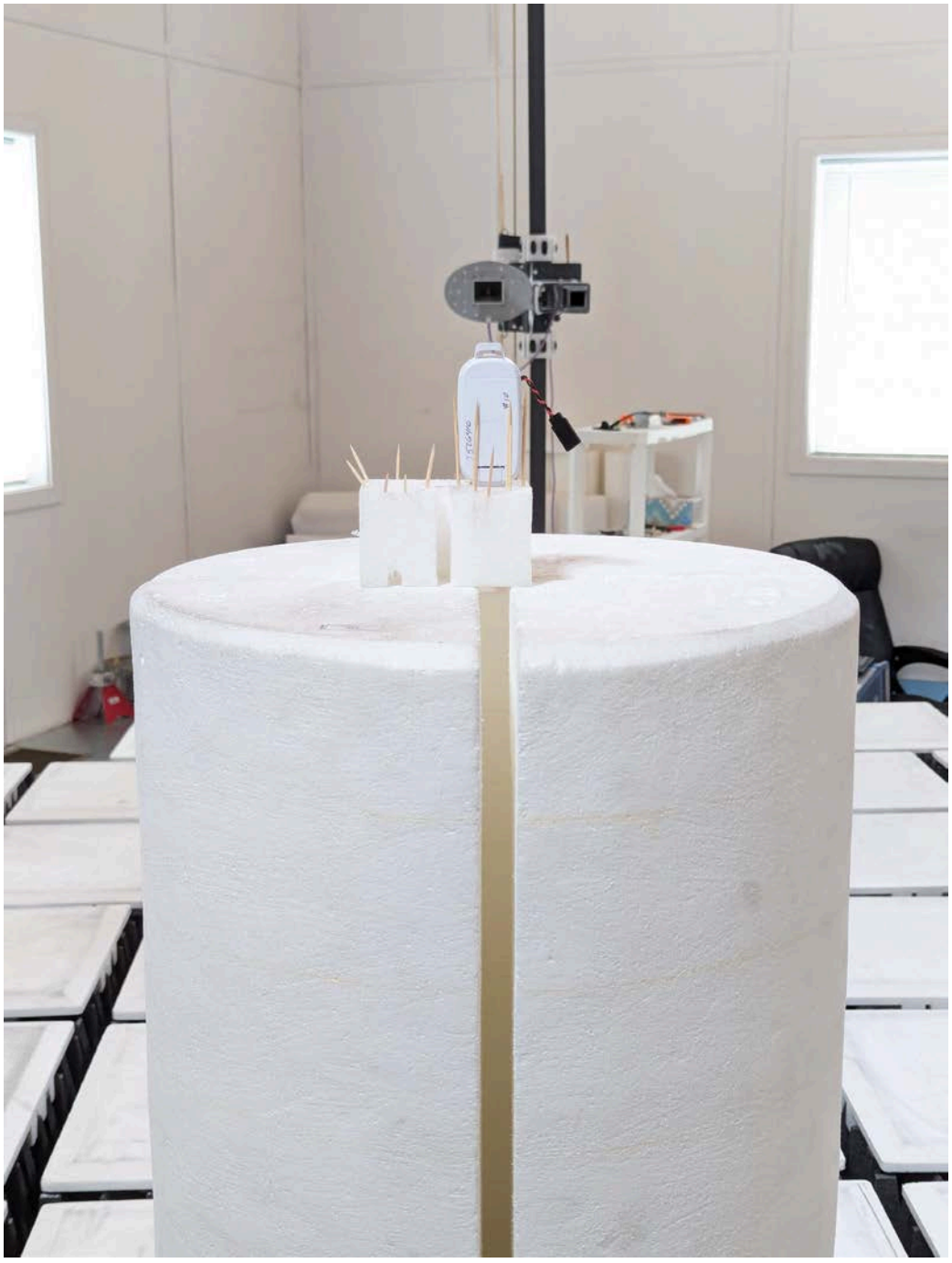
8. Test Images (continued)

8.7. Radiated Emissions 18 to 40 GHz – Rear



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9. Test Site Description

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with the Federal Communications Commission (FCC) and Innovation Science and Economic Development Canada (ISED) standards. Through our American Association for Laboratory Accreditation (A2LA) ISO Guide 17025 Accreditation our test sites are designated with the FCC (designation number **US1091**) and Industry Canada (file number **IC 3023A-1)**.

Compliance Worldwide is also designated as a Phase 1 CAB under APEC-MRA (US0132) for Australia/New Zealand AS/NZS CISPR 11, AS/NZS CISPR 14-1, AS/NZS CISPR 15, AS/NZS CISPR 32, Chinese-Taipei (Taiwan) BSMI CNS 15936 and Korea (RRA) KS C 9811, KS C 9814-1, KS C 9815, KS C 9832, KS C 9610-6-3 & KS C 9610-6-4.

The radiated emissions test site is a 3- and 10-meter enclosed open area test site (OATS). Personnel, support equipment and test equipment are located in the basement beneath the OATS ground plane.

The conducted emissions site is part of a 16' x 20' x 12' ferrite tile chamber and uses one of the walls for the vertical ground plane required by EN 55022. A second conducted emissions site is also located in the basement of the OATS site with a 2.3 x 2.5-meter ground plane and a 2.4 x 2.4-meter vertical wall.

The radiated emissions test site for measurements above 1GHz is a 3 Meter open area test site (OATS) with a 3.6 by 3.6-meter anechoic absorber floor patch to achieve a quasi-free space measurement environment per ANSI C63.4/C63.10 and CISPR 16-1-4 standards.

The sites are designed to test products or systems 1.5 meters W x 1.5 meters L x 2.0 meters H, floor standing or tabletop.

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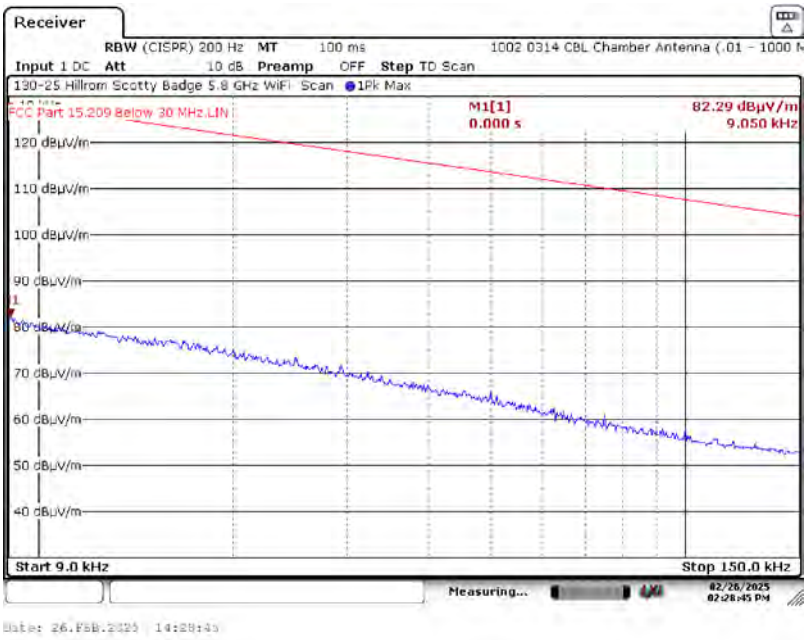
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

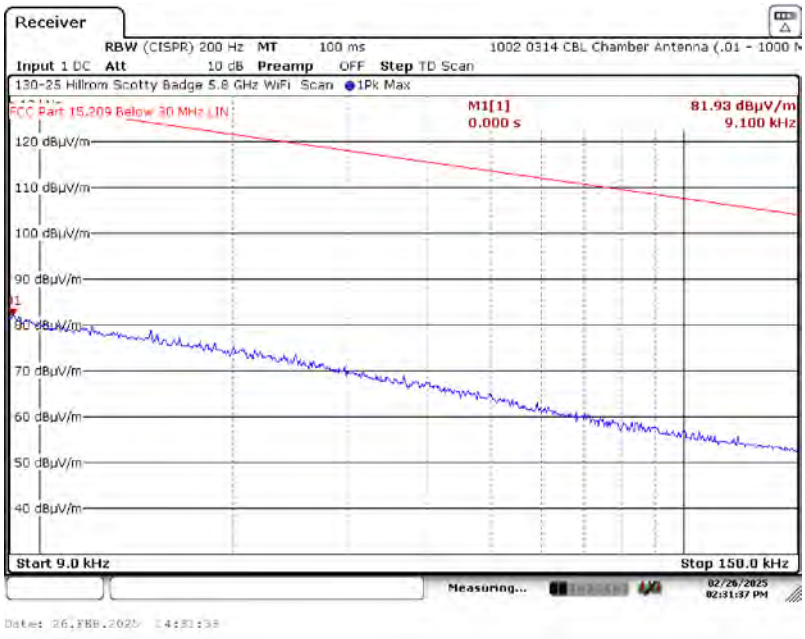
A1. Spurious Radiated Emissions (9 kHz – 150 kHz) Test Results

A1.1. Low Channel 5745 MHz – X Axis

A1.1.1. Measurement Results: Parallel Antenna



A1.1.2. Measurement Results: Perpendicular Antenna



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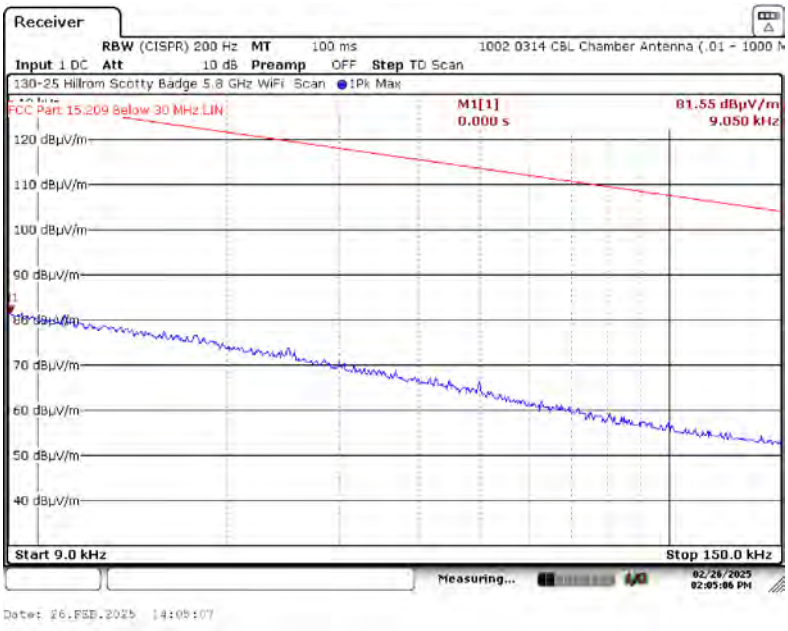
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A1. Spurious Radiated Emissions (9 kHz – 150 kHz) Test Results

A1.1. Low Channel, 5745 MHz – X Axis

A1.1.3. Measurement Results: Ground-Parallel Antenna



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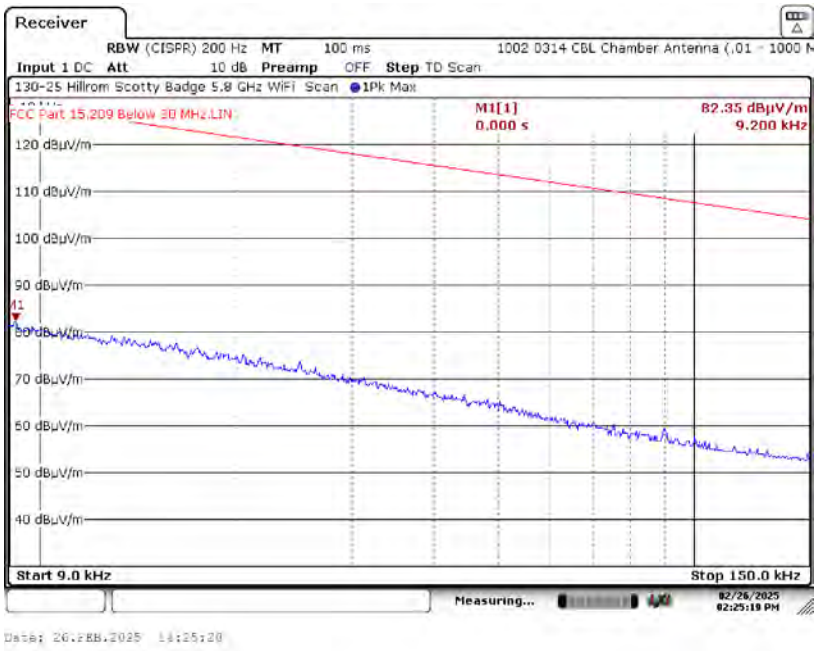
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

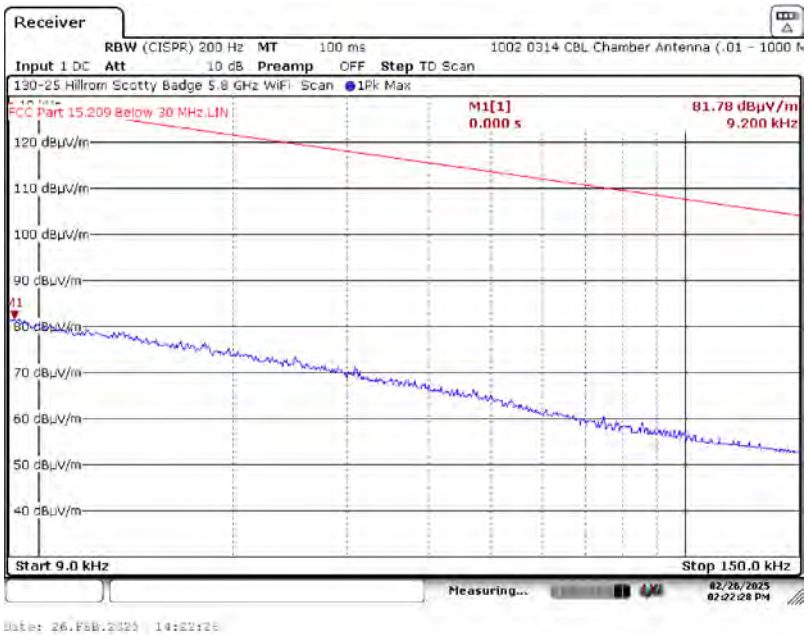
A1. Spurious Radiated Emissions (9 kHz – 150 kHz) Test Results

A1.2. High Channel 5745 MHz – Y Axis

A1.2.1. Measurement Results: Parallel Antenna



A1.2.2. Measurement Results: Perpendicular Antenna



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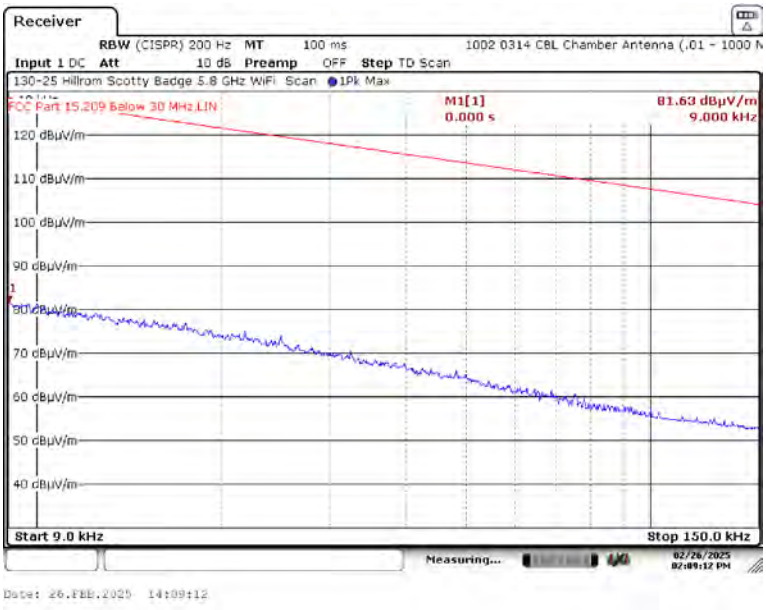
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A1. Spurious Radiated Emissions (9 kHz – 150 kHz) Test Results

A1.2. Low Channel, 5745 MHz – Y Axis

A1.2.3. Measurement Results: Ground-Parallel Antenna



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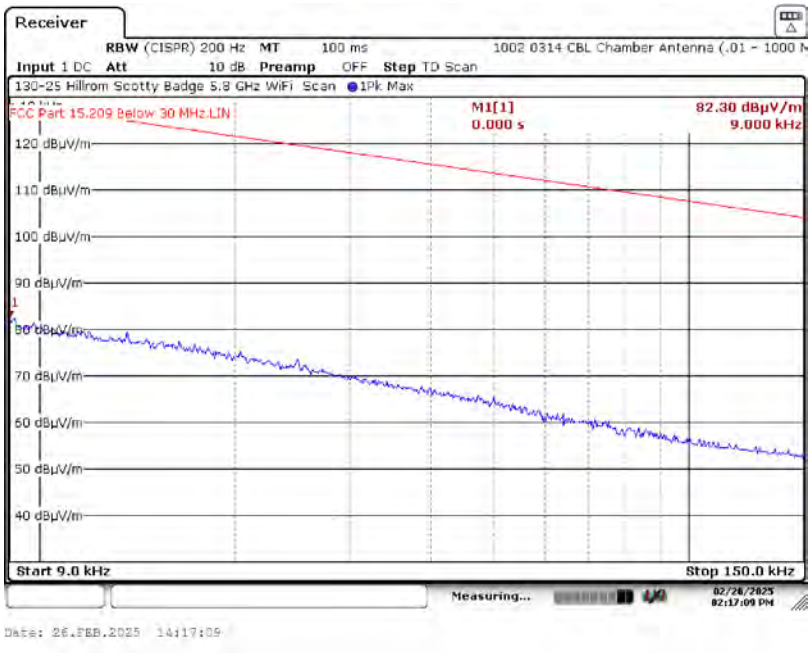
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

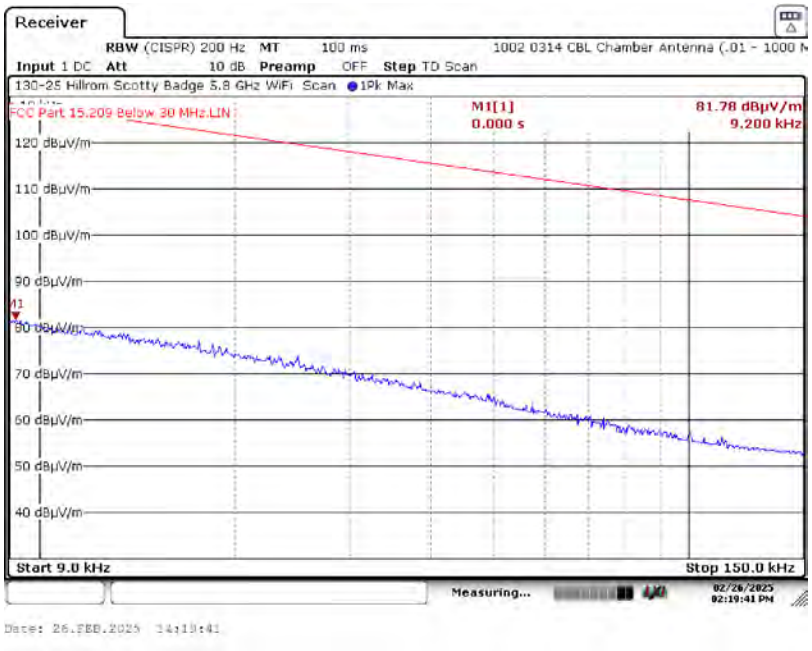
A1. Spurious Radiated Emissions (9 kHz – 150 kHz) Test Results

A1.3. Low Channel 5745 MHz – Z Axis

A1.3.1. Measurement Results: Parallel Antenna



A1.3.2. Measurement Results: Perpendicular Antenna



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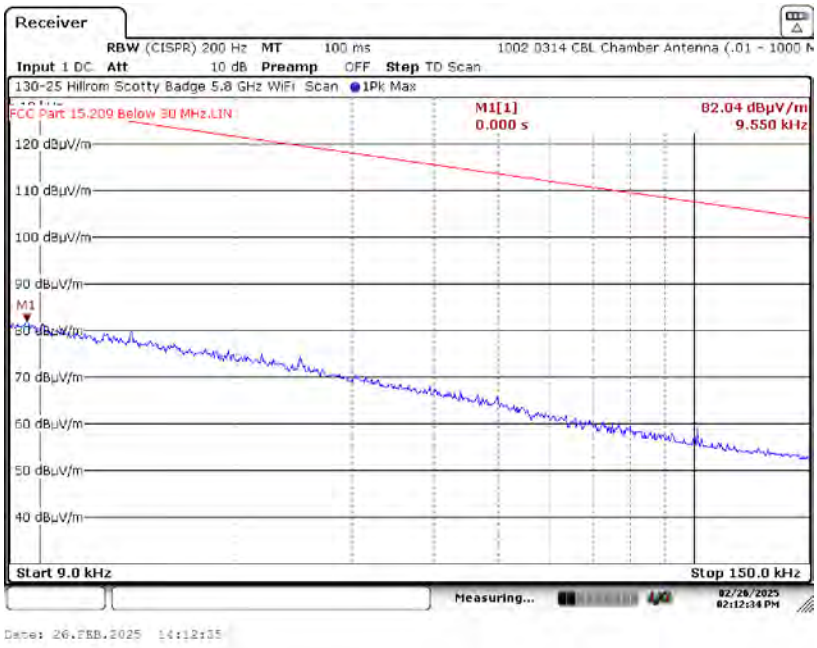
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A1. Spurious Radiated Emissions (9 kHz – 150 kHz) Test Results

A1.3. Low Channel, 5745 MHz – Z Axis

A1.3.3. Measurement Results: Ground-Parallel Antenna



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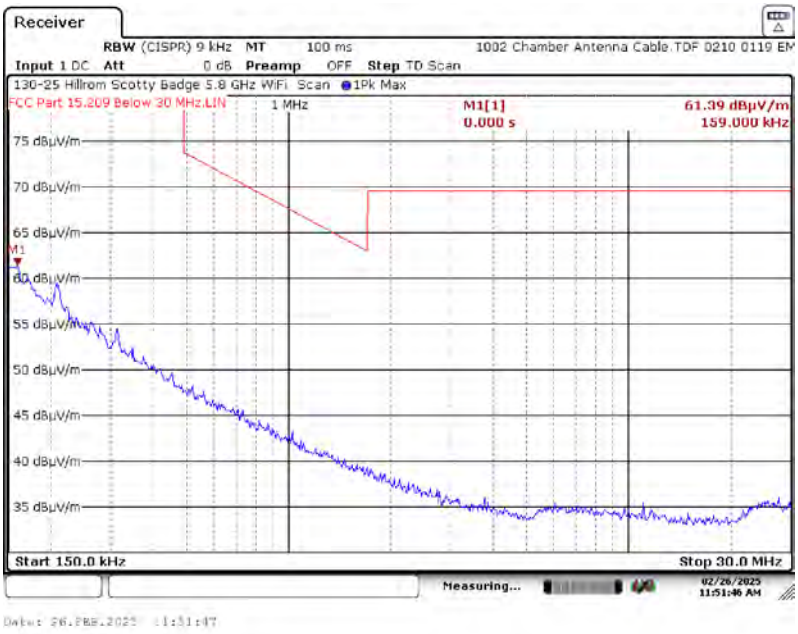
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

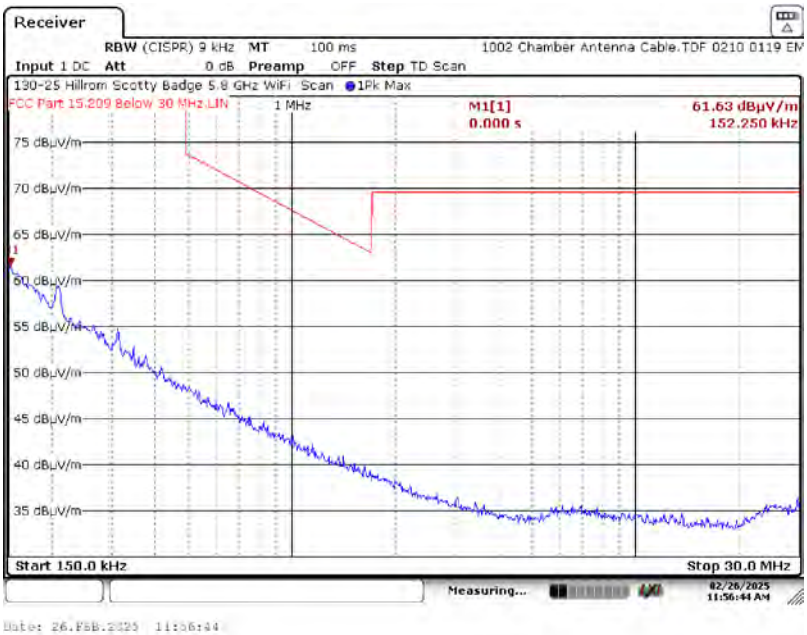
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.1. Low Channel, 5745 MHz – X Axis

A2.1.1. Measurement Results: Parallel Antenna



A2.1.2. Measurement Results: Perpendicular Antenna



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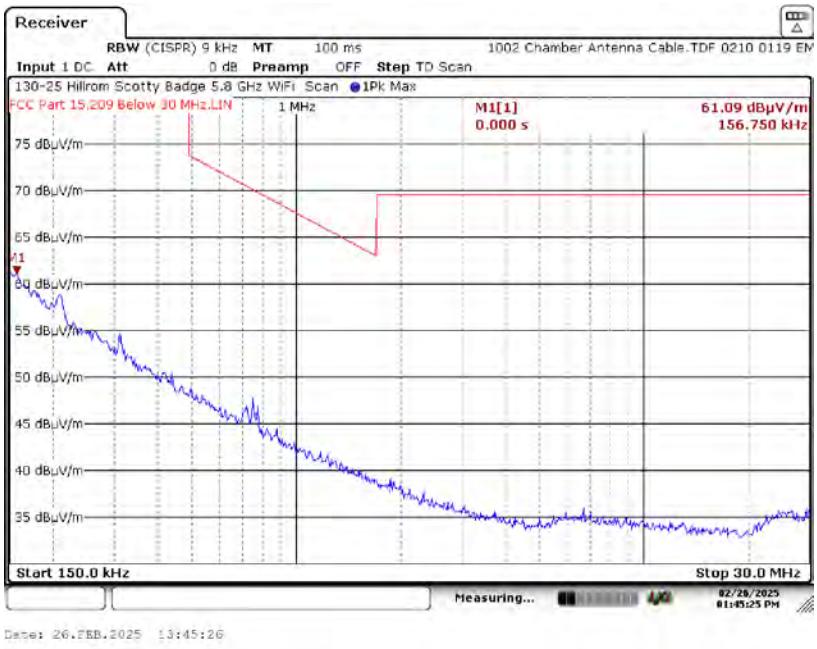
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.1. Low Channel, 5745 MHz – X Axis

A2.1.3. Measurement Results: Ground-Parallel Antenna



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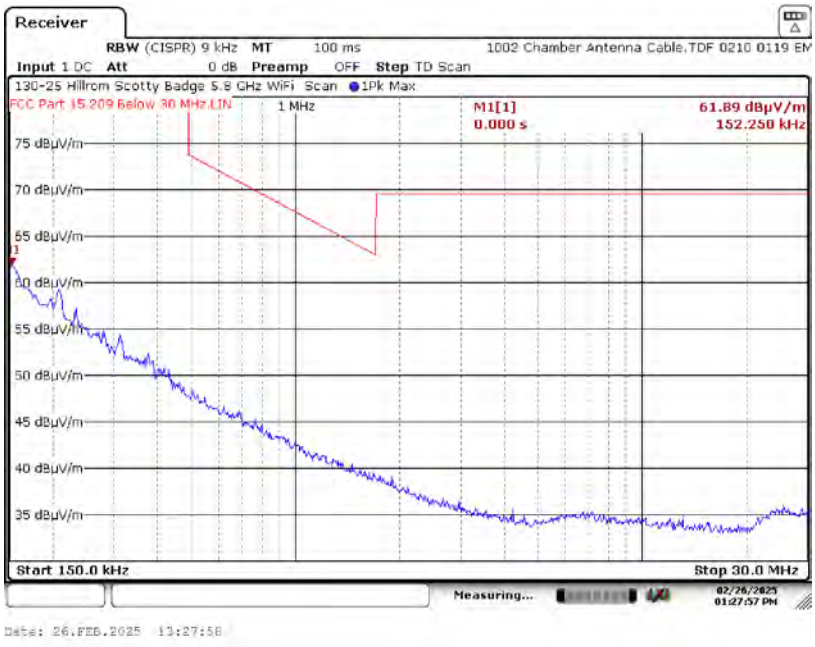
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

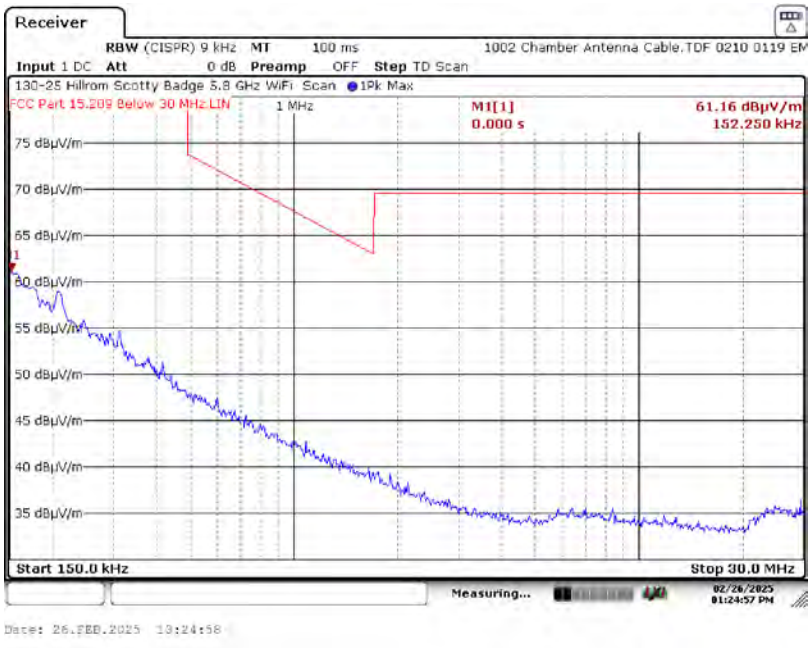
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.2. Low Channel, 5745 MHz – Y Axis

A2.2.1. Measurement Results: Parallel Antenna



A2.2.2. Measurement Results: Perpendicular Antenna



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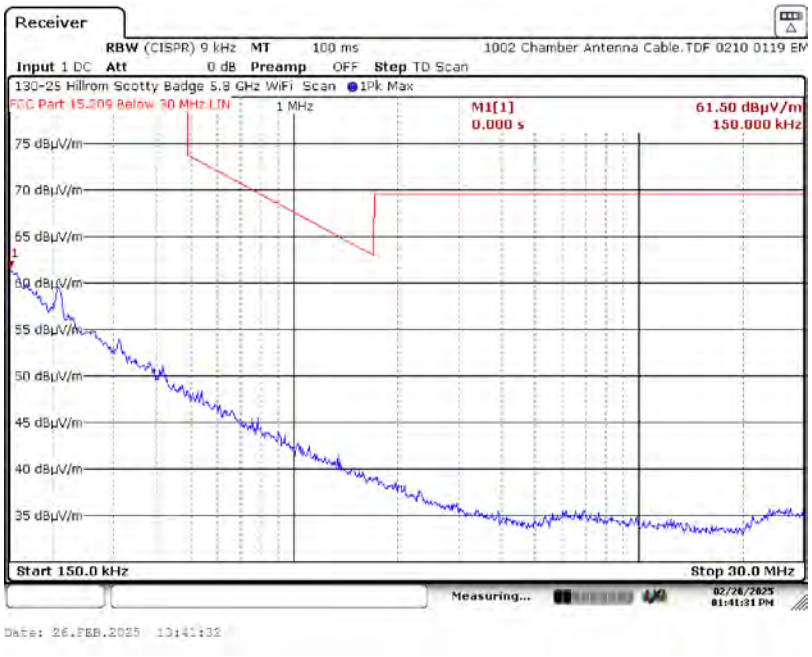
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.2. Low Channel, 5745 MHz – Y Axis

A2.2.3. Measurement Results: Ground-Parallel Antenna



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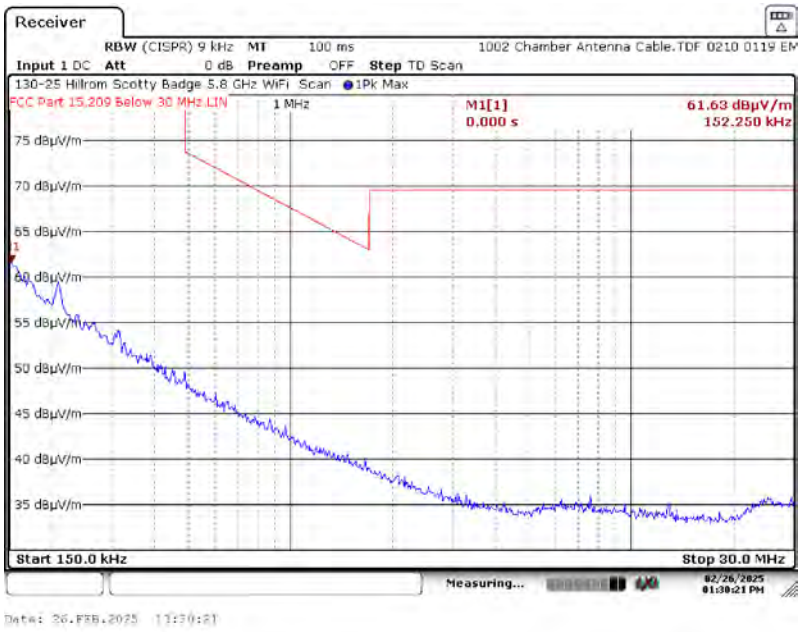
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.3. Low Channel, 5745 MHz – Z Axis

A2.3.1. Measurement Results: Parallel Antenna



A2.3.2. Measurement Results: Perpendicular Antenna

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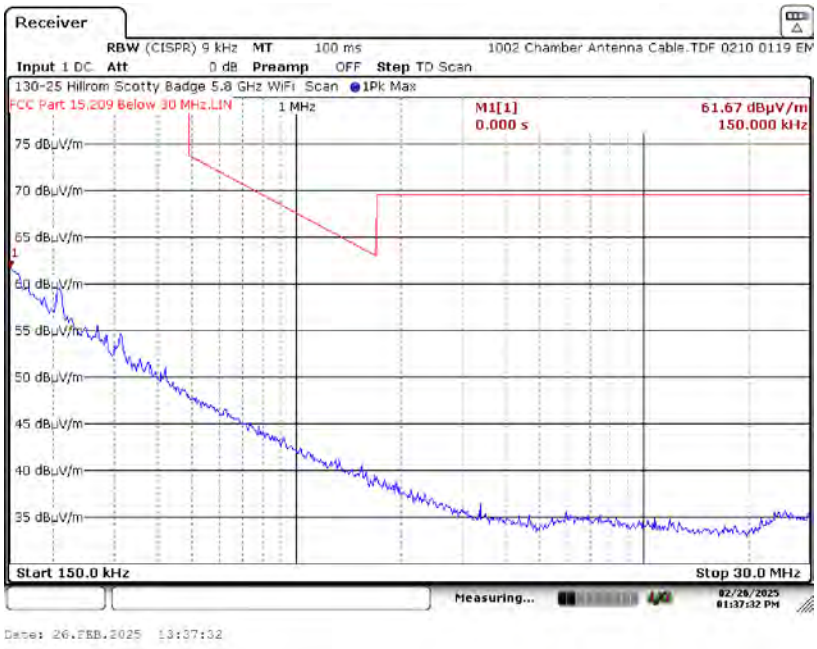
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.3. Low Channel, 5745 MHz – Z Axis

A2.3.3. Measurement Results: Ground-Parallel Antenna



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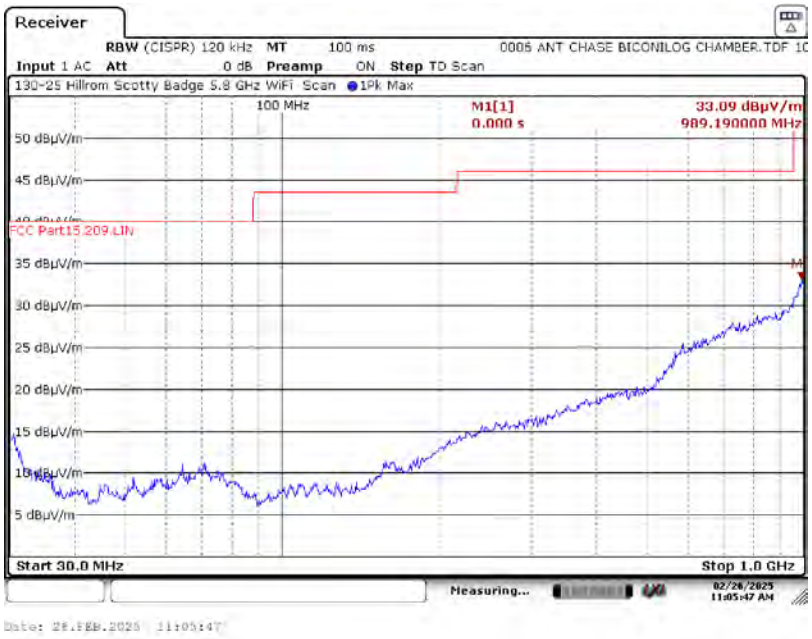
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

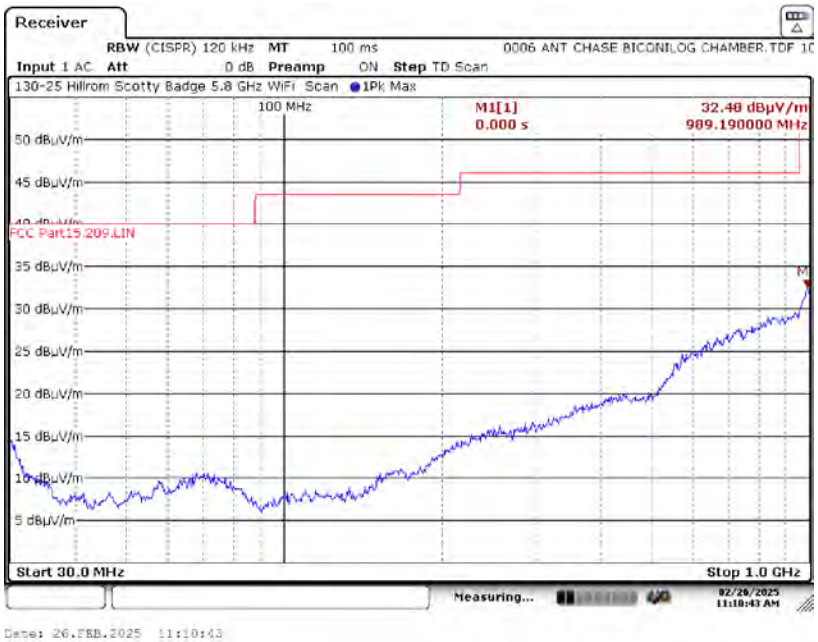
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.1. Low Channel, 5745 MHz – X Axis

A3.1.1. Measurement Results: Horizontal Antenna



A3.1.2. Measurement Results: Vertical Antenna



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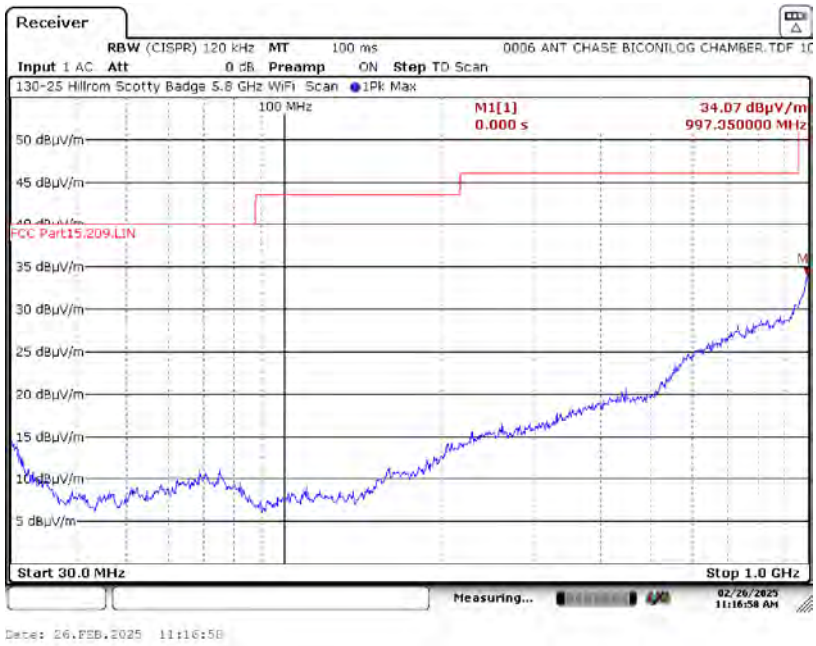
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

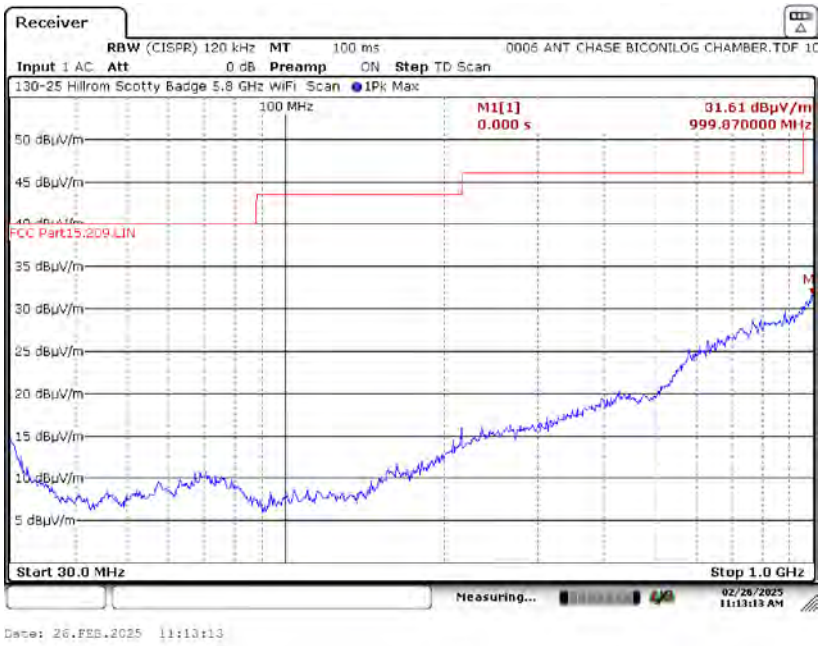
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.2. Low Channel, 5745 MHz – Y Axis

A3.2.1. Measurement Results: Horizontal Antenna



A3.2.2. Measurement Results: Vertical Antenna



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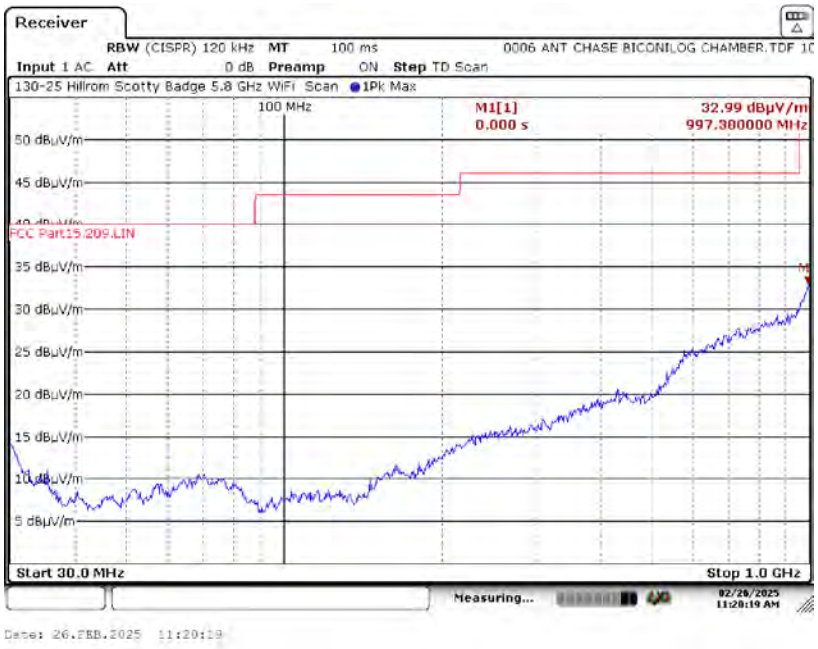
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

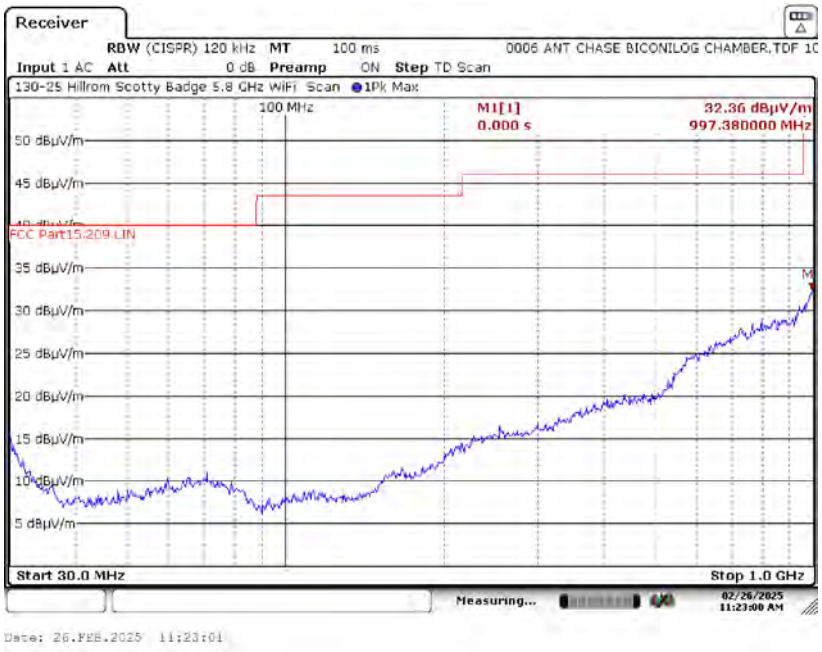
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.3. Low Channel, 5745 MHz – Z Axis

A3.3.1. Measurement Results: Horizontal Antenna



A3.3.2. Measurement Results: Vertical Antenna



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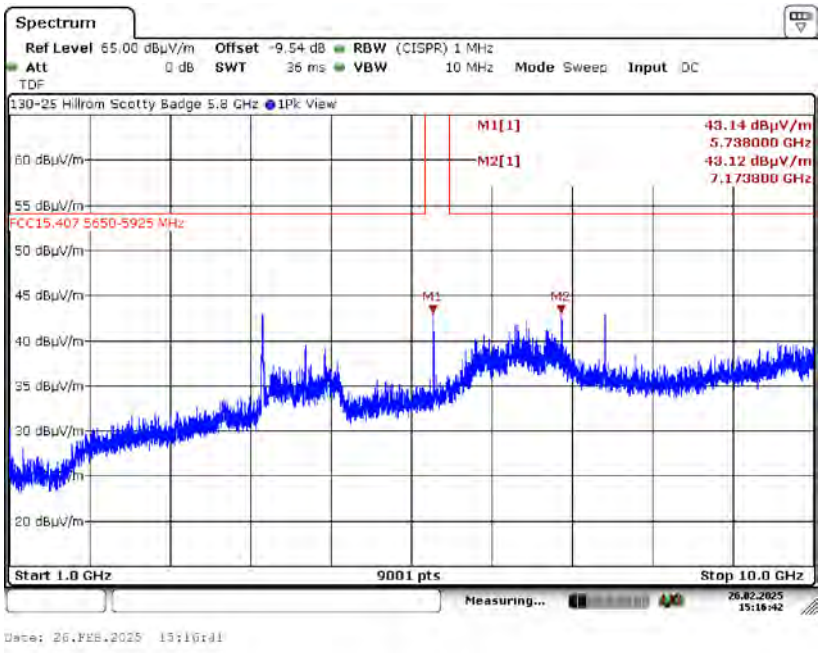
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

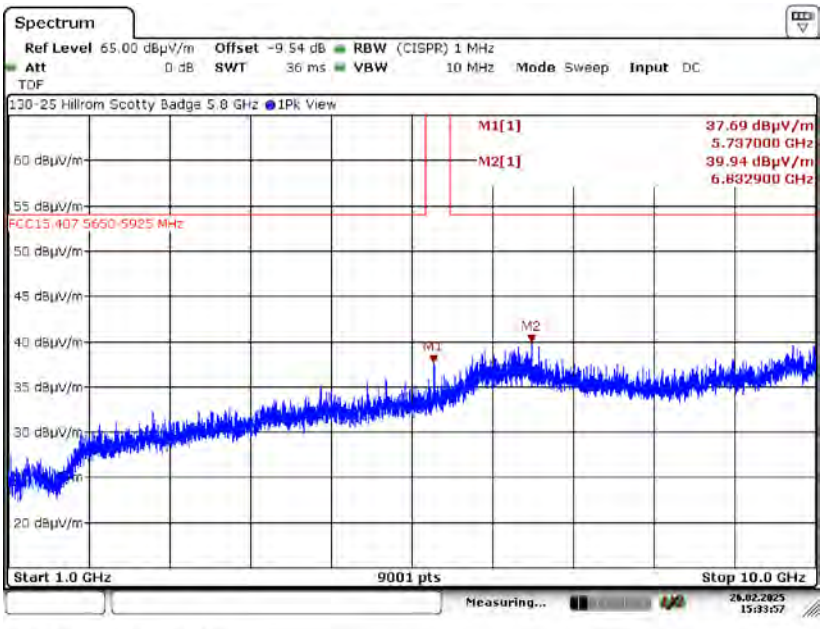
A4. Spurious Radiated Emissions (1 GHz – 10 GHz) Test Results

A4.1. Low Channel, 5745 MHz – X Axis

A4.1.1. Measurement Results: Horizontal Antenna



A4.1.2. Measurement Results: Vertical Antenna



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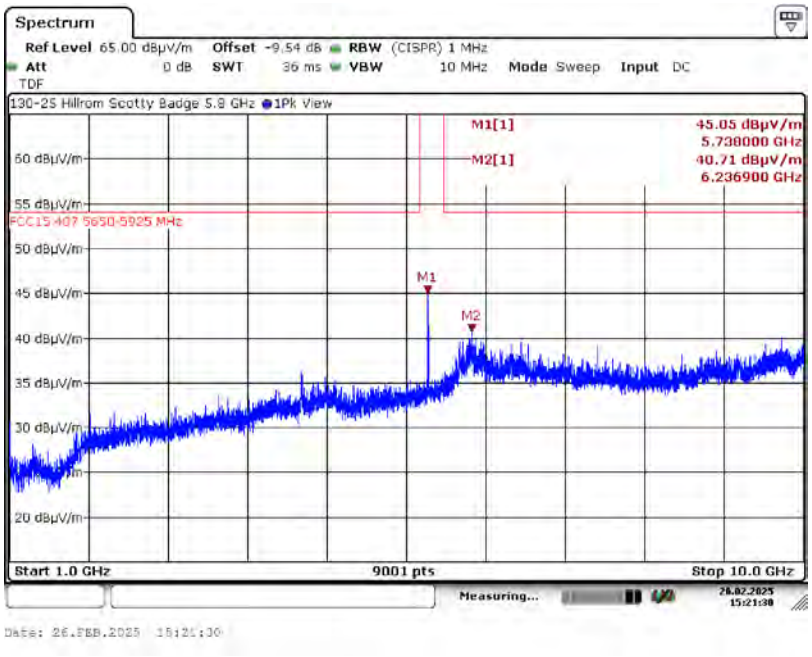
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

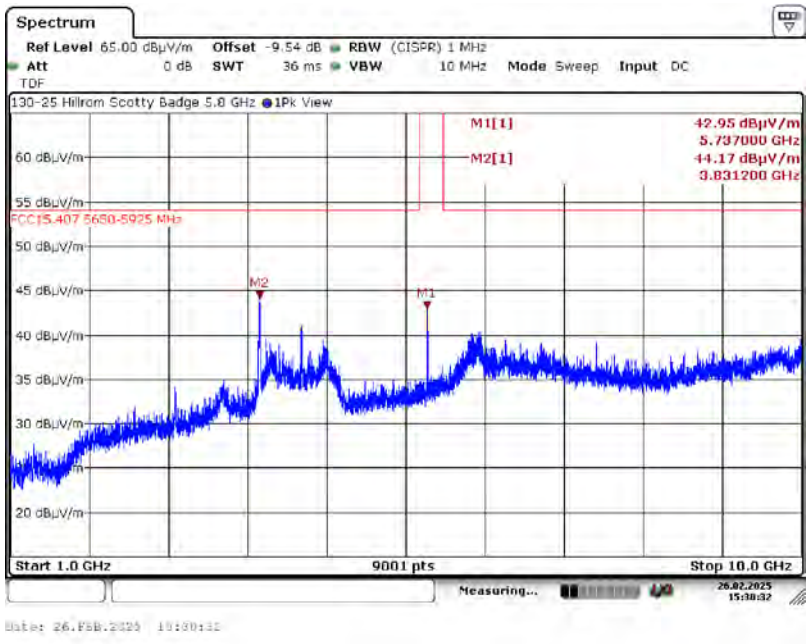
A4. Spurious Radiated Emissions 1 GHz – 10 GHz) Test Results

A4.2. Low Channel, 5745 MHz – Y Axis

A4.2.1. Measurement Results: Horizontal Antenna



A4.2.2. Measurement Results: Vertical Antenna



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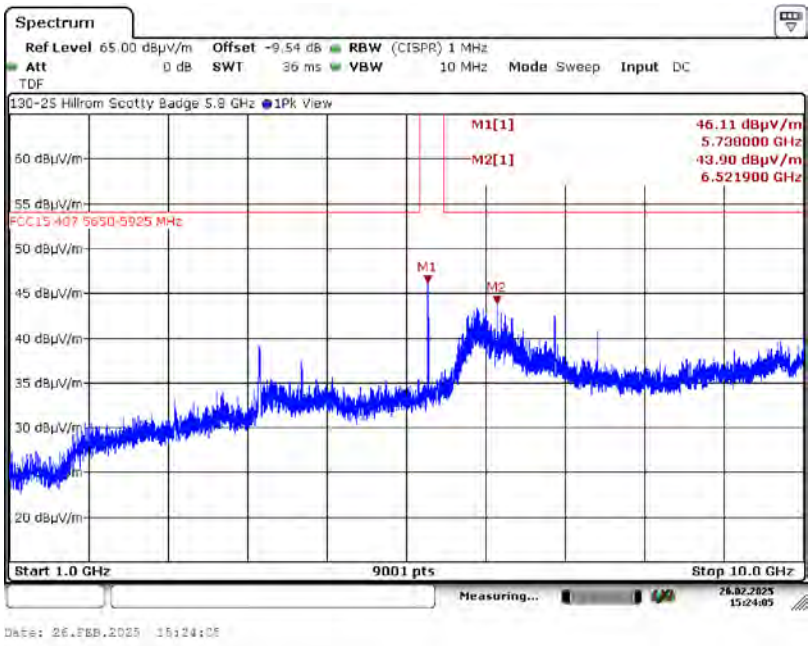
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

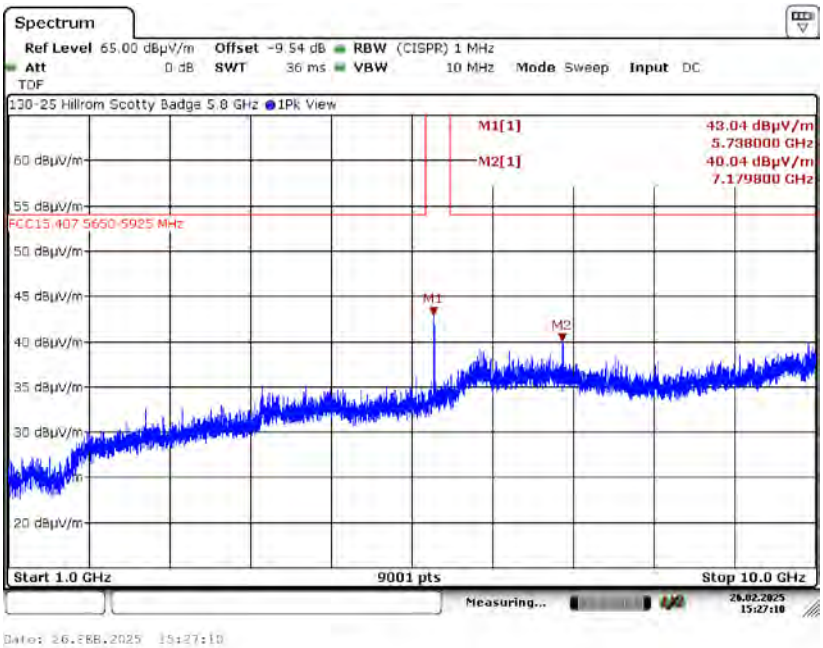
A4. Spurious Radiated Emissions (1 GHz – 10 GHz) Test Results

A4.3. Low Channel, 5745 MHz – Z Axis

A4.3.1. Measurement Results: Horizontal Antenna



A4.3.2. Measurement Results: Vertical Antenna



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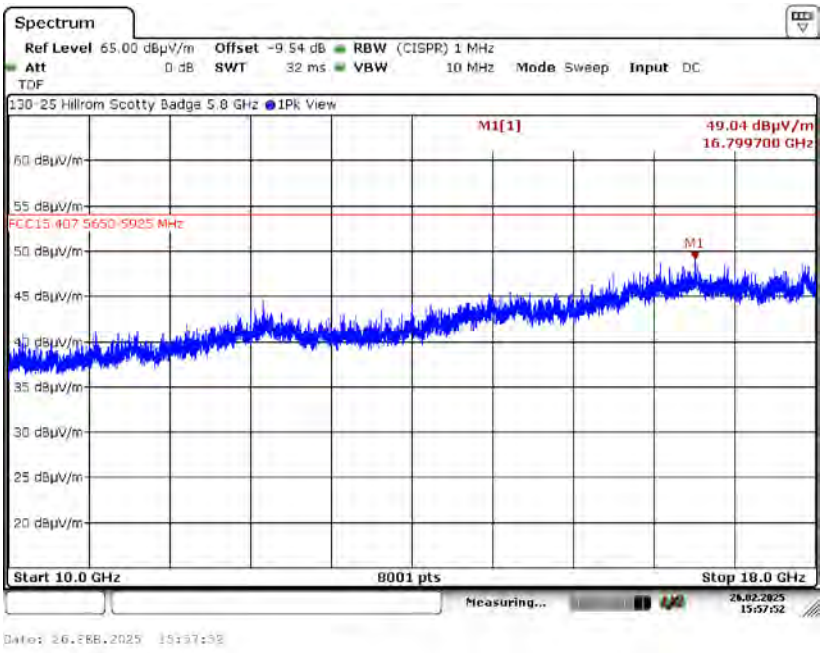
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

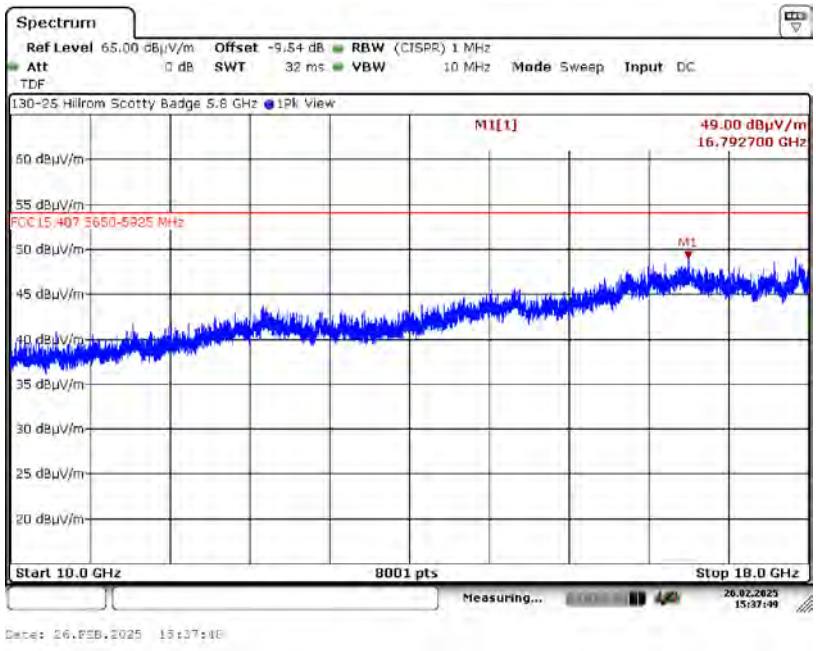
A5. Spurious Radiated Emissions 10 GHz – 18 GHz) Test Results

A5.1. Low Channel, 5745 MHz – X Axis

A5.1.1. Measurement Results: Horizontal Antenna



A5.1.2. Measurement Results: Vertical Antenna



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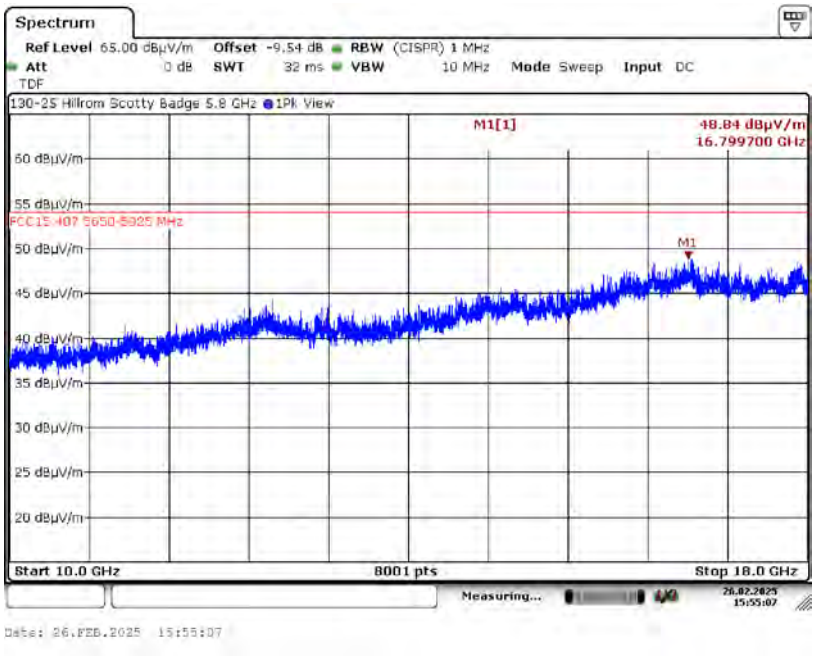
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

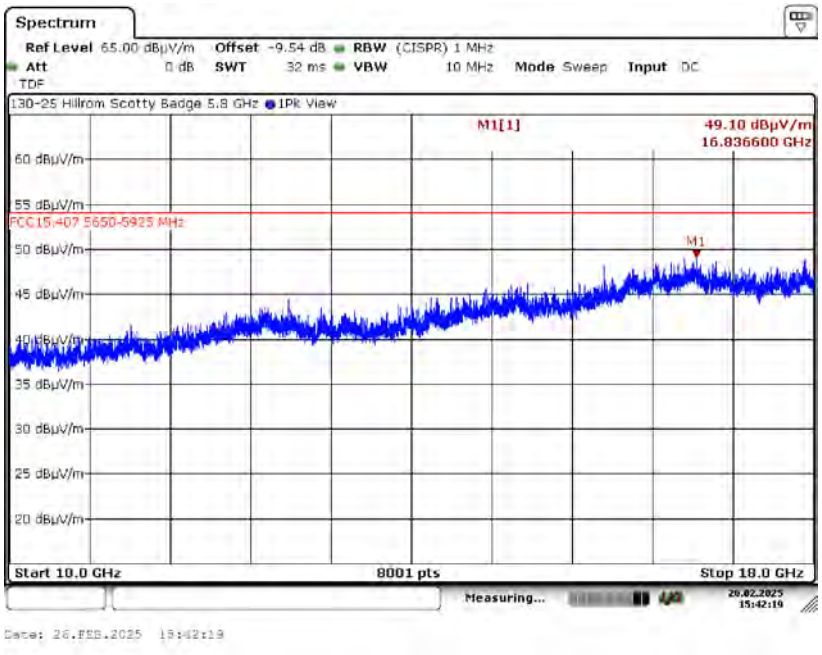
A5. Spurious Radiated Emissions (10 GHz – 18 GHz) Test Results

A5.2. Low Channel, 5745 MHz – Y Axis

A5.2.1. Measurement Results: Horizontal Antenna



A5.2.2. Measurement Results: Vertical Antenna



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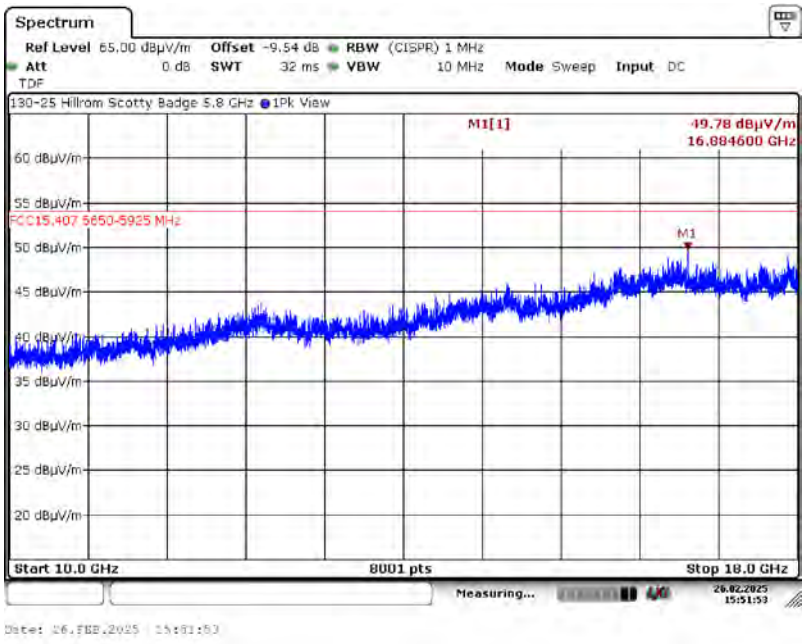
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

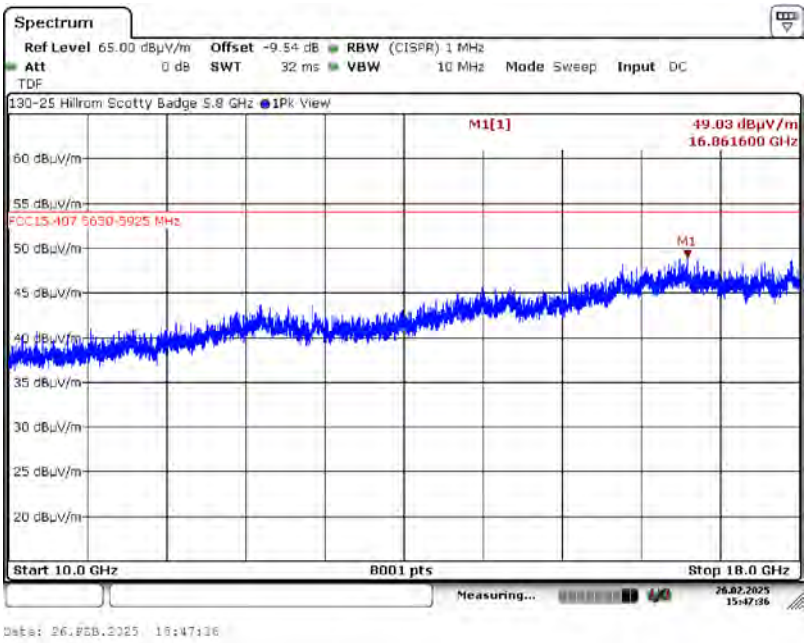
A5. Spurious Radiated Emissions 10 GHz – 18 GHz) Test Results

A5.3. Low Channel, 5745 MHz – Z Axis

A5.3.1. Measurement Results: Horizontal Antenna



A5.3.2. Measurement Results: Vertical Antenna



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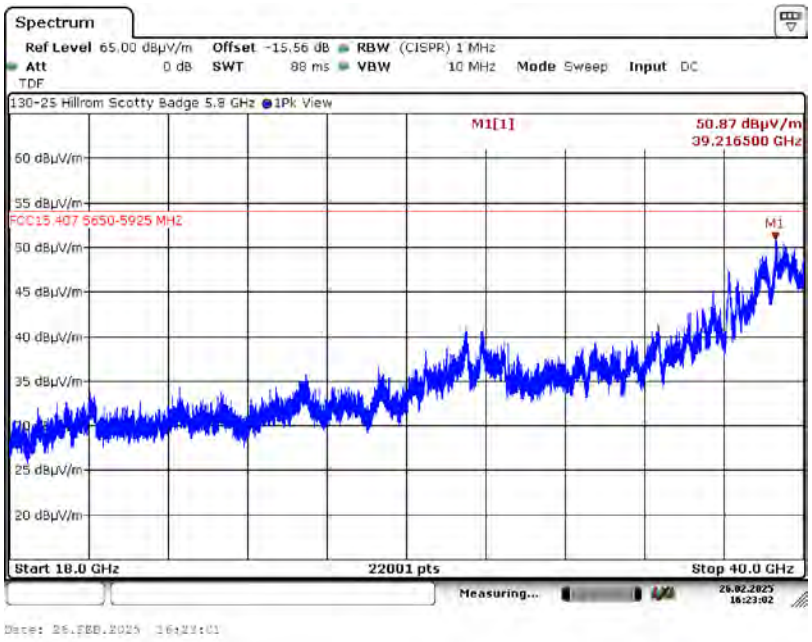
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

A6. Spurious Radiated Emissions 18 GHz – 40 GHz) Test Results

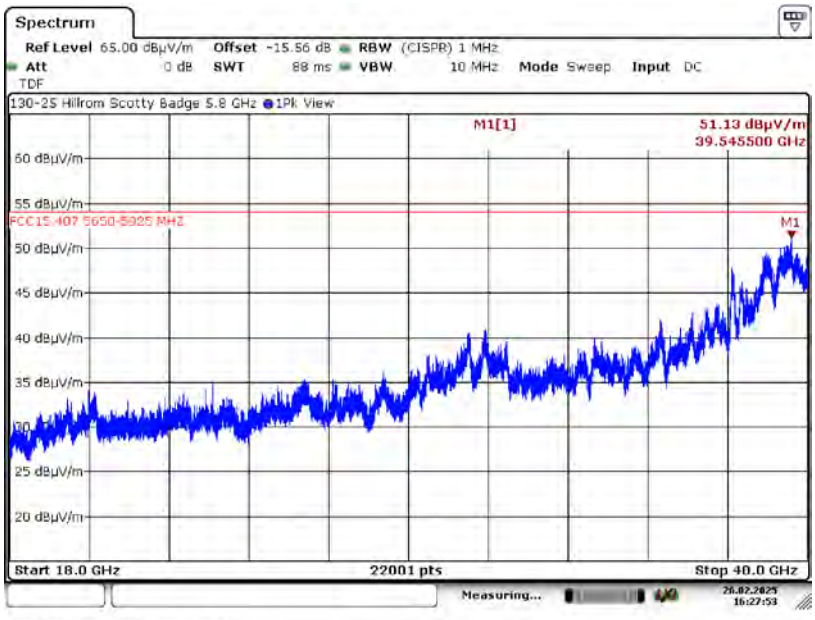
A6.1. Low Channel, 5745 MHz – X Axis

A6.1.1. Measurement Results: Horizontal Antenna



Date: 26.FEB.2025 16:23:01

A6.1.2. Measurement Results: Vertical Antenna



Date: 26.FEB.2025 16:27:54

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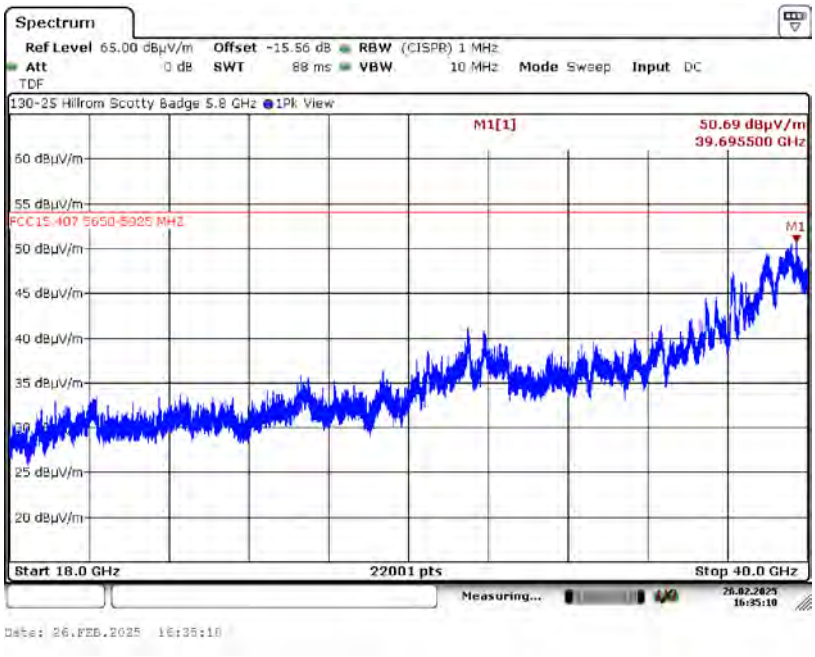
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

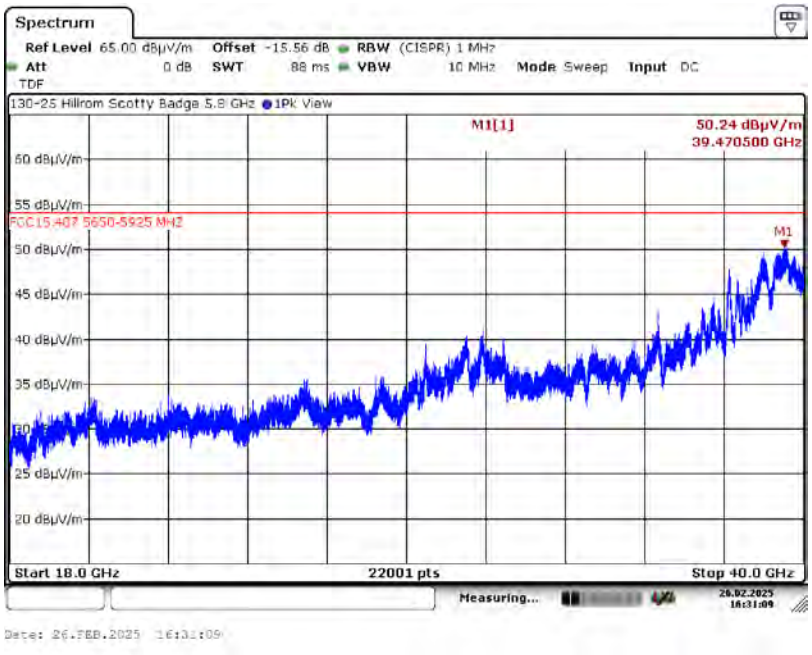
A6. Spurious Radiated Emissions (18 GHz – 40 GHz) Test Results

A6.2. Low Channel, 5745 MHz – Y Axis

A6.2.1. Measurement Results: Horizontal Antenna



A6.2.2. Measurement Results: Vertical Antenna



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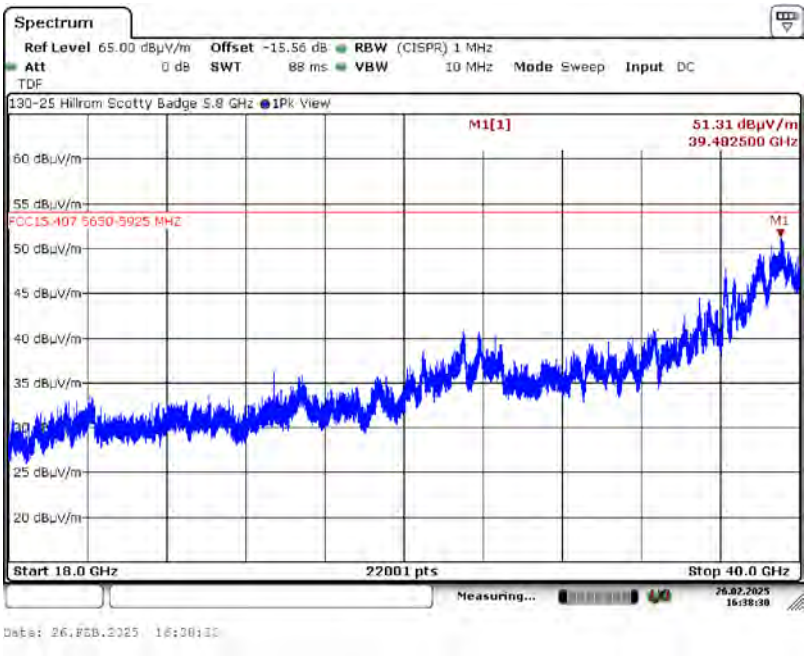
Appendix A - Transmitter Spurious Radiated Emissions (9 kHz to 40 GHz)

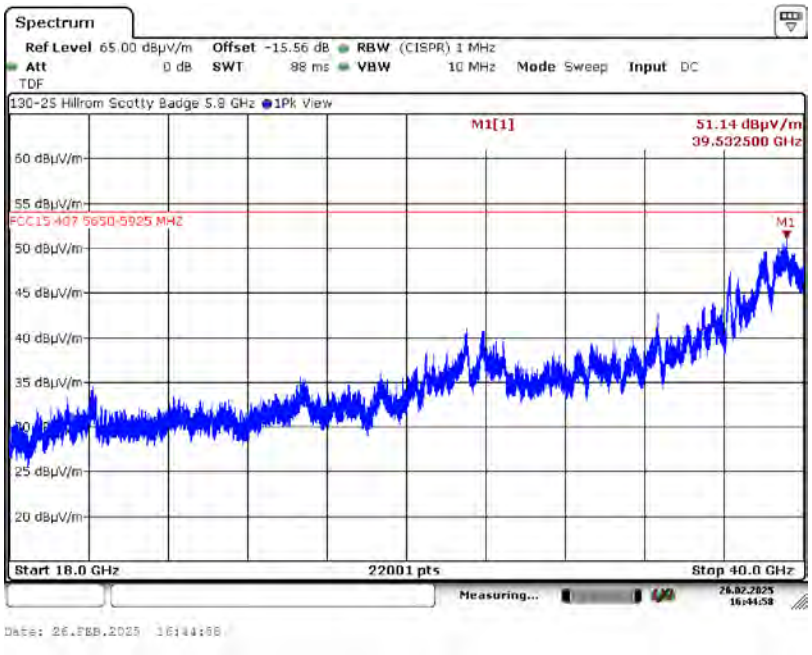
A6. Spurious Radiated Emissions 18 GHz – 40 GHz) Test Results

A6.3. Low Channel, 5745 MHz – Z Axis

A6.3.1. Measurement Results: Horizontal Antenna



A6.3.2. Measurement Results: Vertical Antenna



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