

**COMPLIANCE WORLDWIDE INC.
TEST REPORT 163-25**

**In Accordance with the Requirements of
FCC PART 15.247, SUBPART C
ISED Canada RSS-247, Issue 3**

Issued to

**BLP Technologies Inc
2A Research Parkway
Wallingford, CT 06492**

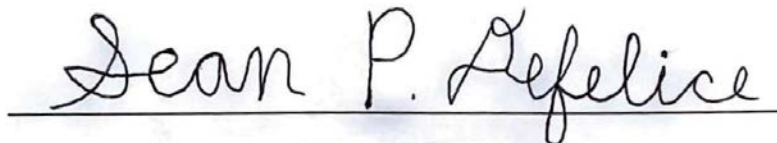
for the

**Sensorworx Advanced Wireless Lighting Load Controller
with 0-10V Dimming
Model: SWX-970-D2**

**FCC ID: 2AVRY-SWX00004
IC: 26012-SWX00004**

Report Issued on May 30, 2025

Tested by



Sean P. Defelice

Reviewed by



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1. Scope

This test report certifies that the BLP Technologies Sensorworx Advanced Lighting Load Controller, Model SWX-970-D2, as tested, meets the FCC Part 15, Subpart C and ISSED 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.

2. Product Details

- 2.1. Manufacturer:** BLP Technologies
- 2.2. Model Number:** SWX-970-D2
- 2.3 Serial Numbers:** Date Code 250312
- 2.4 Description of EUT:** Advanced Lighting Load Controller with 0-10V Dimming
- 2.5 Power Source:** 120 VAC, 60 Hz
- 2.6 Hardware Revision:** N/A
- 2.7 Software Revision:** N/A
- 2.8. Modulation Type:** Gaussian frequency shift keying (GFSK)
- 2.9. Operating Frequencies:** 2402 to 2480 MHz
- 2.10. EMC Modifications:** None

3. Product Configuration

3.1. EUT Hardware

| Manufacturer | Model/Part # / Options | Serial Number | Input Voltage | Freq (Hz) | Description/Function |
|------------------|------------------------|------------------|---------------|-----------|----------------------|
| BLP Technologies | SWX-970-D2 | Date Code 250312 | 120 | 60 | |

3.2. Support Equipment

| Device | Manufacturer | Model | Serial No. | Comment |
|--------|--------------|-------|------------|---------|
| None | | | | |

3.3. Cables

| Cable Type | Length | Shield | From | To |
|-------------|--------|--------|------|----------------|
| Power Cable | 2M | No | EUT | AC Mains Power |

3. Product Configuration (continued)

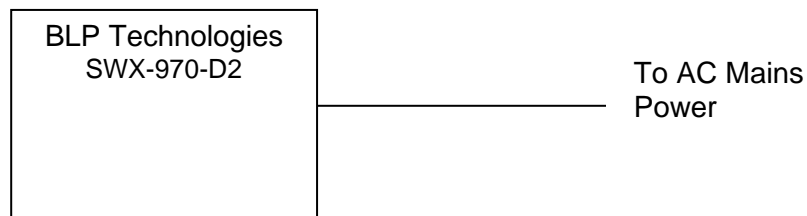
3.4. Operational Characteristics & Software

- Normal Operating Mode: the white led is indicating a 1 second 'on' then a 1 second 'off' heartbeat (continually). This is a visual indication that the processor is executing the test firmware successfully.
- Command Mode: the user can enter a command instruction from the 'Normal operating mode' only. Press and release the button sequentially to enter the desired command number, the blue led will illuminate feedback for each button press (the white led will remain off during this time). The processor allows a pause of 1 second between sequential button presses before interpreting the entered command. After entering a command, the processor will provide feedback for the command entered. (2) rapid white led flashes indicates the command was successfully executed, and (2) rapid blue flashes indicate the command failed.

Commands (button pressed):

1. Stop all radio transmitters
2. Transmit continuously on Bluetooth LE Channel 37, 2402MHz (lowest)
3. Transmit continuously on Bluetooth LE Channel 17, 2440MHz (middle)
4. Transmit continuously on Bluetooth LE Channel 39, 2480MHz (highest)
5. Transmit continuously on each Bluetooth LE Channel for 1 second, then repeat sequence continuously
6. Transmit continuously on Proprietary Channel 1, 903MHz (lowest)
7. Transmit continuously on Proprietary Channel 11, 915MHz (middle)
8. Transmit continuously on Proprietary Channel 21, 927MHz (highest)

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, 9 kHz - 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 ¹ | Rohde & Schwarz | FSVR40 | 100909 | 9/18/2025 | 54 Years |
| Loop Antenna 9 kHz - 30 MHz | EMCO | 6512 | 9309-1139 | 4/14/2026 | 4 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 | 5/11/2026 | 4 Years |
| Dbl Ridged Guide Antenna 1 - 18 GHz | ETS-Lindgren | 3117 | 00227631 | 4/21/2026 | 4 Years |
| Horn Antenna, 18 GHz to 40 GHz | Com-Power | AH-840 | 03075 | 4/4/2026 | 4 Years |
| Horn Antenna, 18 GHz to 40 GHz | Com-Power | AH-840 | 101032 | 1/25/2026 | 4 Years |
| Preamplifier, 1 GHz to 26.5 GHz | Hewlett Packard | 8449B | 3008A01323 | 3/5/2026 | 2 Years |
| Preamplifier, 1 GHz to 26.5 GHz | Hewlett Packard | 8449B H02 | 3008A00329 | 4/9/2026 | 2 Years |
| Band Reject Filter (Notch), 2.4 GHz | Micro-Tronics | BRM50702 | 150 | 2/27/2026 | 2 Years |
| Digital Barometer | Control Company | 4195 | ID236 | 3/15/2026 | 2 Years |
| Barometric Pressure/Humidity & Temp Datalogger | Extech Instruments | SD700 | Q590483 | 4/4/2026 | 2 Years |

¹ ESR7/26 Firmware revision: V3.48 SP3, Date installed: 09/30/2020

² FSW26 Firmware revision: V4.71 SP1, Date installed: 11/16/2020

³ FSV40 Firmware revision: V2.30 SP4, Date installed: 05/04/2016

⁴ FSVR40 Firmware revision: V2.23 SP1, Date installed: 08/19/2016

Previous V3.48 SP2, installed 07/23/2020.

Previous V4.61, installed 08/11/2020.

Previous V2.30 SP1, installed 10/22/2014.

Previous V2.23, installed 10/22/2014.

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 | 7.9. Conducted Emissions |

4.3. Measurement & Equipment Setup

Test Dates: 4/4/2025, 4/14/2025, 5/5/2025,
5/6/2025, 5/7/2025

Test Engineer: Sean Defelice

Normal Site Temperature (15 - 35°C): 17.5

Relative Humidity (20 - 75% RH): 48

Frequency Range: 30 kHz to 25 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: $\geq 3 * \text{IF (BW) or RBW}$

Detector Function: Peak, Quasi-Peak & Average

4.4. Measurement Procedures

Test measurements were made in accordance FCC Part 15.247: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5850 MHz, and 24.0 - 24.25 GHz.

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*. FCC OET Publication Number KDB 558074 D01 v05r02, *Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS), Frequency Hopping Spread Spectrum Systems, and Hybrid System Devices Operating Under §15.247*, dated April 2, 2019 and ISSED RSS-247, Issue 3, *Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices*, was also referenced for the test procedures used to generate the data in this report.

All references to these publications refer to these versions and dates detailed in this paragraph.

4. Measurements Parameters

4.5. Measurement Uncertainty

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

| | |
|----------------------------------|------------------------|
| RF Frequency | $\pm 1 \times 10^{-8}$ |
| Radiated Emission of Transmitter | ± 4.55 dB |
| Radiated Emission of Receiver | ± 4.55 dB |
| Temperature | $\pm 0.91^{\circ}$ C |
| Humidity | $\pm 5\%$ |

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 complete with all required ancillary equipment. Refer to Section 3 of this report for product equipment configuration.

5.3 Choice of Operating Frequencies

The EUT, as tested, operates on 40 channels, from channels 0 to 39 in the 2.4 GHz band.

In accordance with ANSI C63.10-2013, section 5.6, and FCC Part 15.31 (m), the choice of operating frequencies selected for the testing detailed in this report are outlined in the following table:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|
| 37 | 2402 | 9 | 2422 | 18 | 2442 | 28 | 2462 |
| 0 | 2404 | 10 | 2424 | 19 | 2444 | 29 | 2464 |
| 1 | 2406 | 38 | 2426 | 20 | 2446 | 30 | 2466 |
| 2 | 2408 | 11 | 2428 | 21 | 2448 | 31 | 2468 |
| 3 | 2410 | 12 | 2430 | 22 | 2450 | 32 | 2470 |
| 4 | 2412 | 13 | 2432 | 23 | 2452 | 33 | 2472 |
| 5 | 2414 | 14 | 2434 | 24 | 2454 | 34 | 2474 |
| 6 | 2416 | 15 | 2436 | 25 | 2456 | 35 | 2476 |
| 7 | 2418 | 16 | 2438 | 26 | 2458 | 36 | 2478 |
| 8 | 2420 | 17 | 2440 | 27 | 2460 | 39 | 2480 |

5.4 Mode of Operation

Modulation type : GFSK
Payload pattern : PRB29
Payload Length : 37 bytes

For band edge measurements (section 7.6), the DTS bandwidth measurements were taken into consideration for the worse case examples.

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 |
| Minimum DTS Bandwidth | 15.247 (a) (2) | RSS-247 5.2 (a) | 7.2 | Compliant |
| Maximum Peak Conducted Output Power | 15.247 (b) (1) | RSS-247 5.4 (d) | 7.3 | Compliant |
| Operation with directional antenna gains greater than 6 dBi | 15.247 (b) (4) | --- | 7.4 | Compliant |
| Spurious Radiated Emissions | 15.247 (d) | RSS-GEN 6.13 | 7.5 | Compliant |
| Spurious Radiated Emissions (> GHz) - Harmonic Measurements | 15.247 (d) | RSS-GEN 6.13 | | Compliant |
| Band Edge and Out of Band Measurements | 15.247 (d) | RSS-247 5.5 | 7.6 | Compliant |
| Emissions in Non-restricted Frequency Bands | 15.247(e) | RSS-247 5.5 | 7.7 | Compliant |
| Peak Power Spectral Density | 15.247(e) | RSS-247 5.2 (b) | 7.8 | Compliant |
| AC Power Line Conducted Emissions | 15.207 | RSS-GEN 7.2 | 7.9 | Compliant |
| Duty Cycle | 15.247 | N/A | 7.10 | Compliant |
| 99% (Occupied) Bandwidth | --- | RSS-GEN 6.7 | 7.11 | Compliant |

7. Measurement Data

7.1. Antenna Requirement (Part 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 Johanson 2450AT42B100 PCB chip antenna that is not user replaceable.

7. Measurement Data

7.2. Minimum DTS Bandwidth (15.247 (a) (2), ISED RSS-247 5.2 (a))

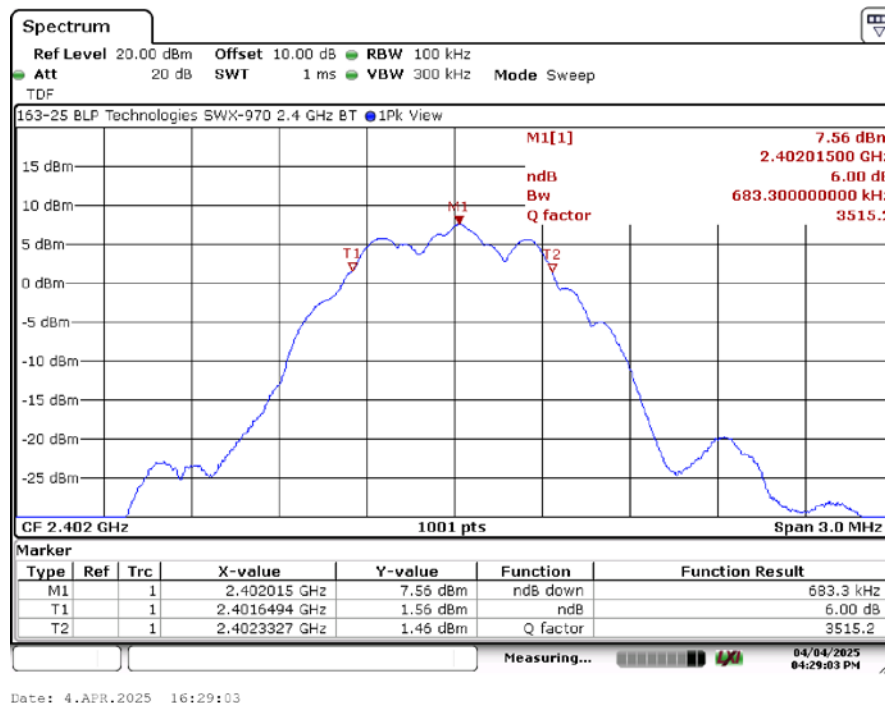
Requirement: Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Procedure: This test was performed in accordance with the procedure detailed in ANSI C63.10:2013 Clause 11.8.1 DTS Bandwidth Option 1.

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

| Channel | Frequency (MHz) | -6 dB Bandwidth (kHz) | Minimum -6 dB Bandwidth (kHz) | Result |
|---------|-----------------|-----------------------|-------------------------------|-----------|
| 37 | 2402 | 683.30 | >500 | Compliant |
| 17 | 2440 | 683.30 | >500 | Compliant |
| 39 | 2480 | 683.30 | >500 | Compliant |

7.2.1. Low Channel – 37, 2402 MHz



7. Measurement Data

7.2. Minimum DTS Bandwidth (15.247 (a) (2), ISED RSS-247 5.2 a) (continued)

7.2.2. Middle Channel – 17, 2440 MHz



7.2.3. High Channel – 39, 2480 MHz



7. Measurement Data (continued)

7.3. Maximum Peak Conducted Output Power (FCC 15.247 (b)(3), ISED RSS-247 5.4 (d))

Requirement: The maximum peak conducted output power of the intentional radiator shall not exceed the following: For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt (+30 dBm).

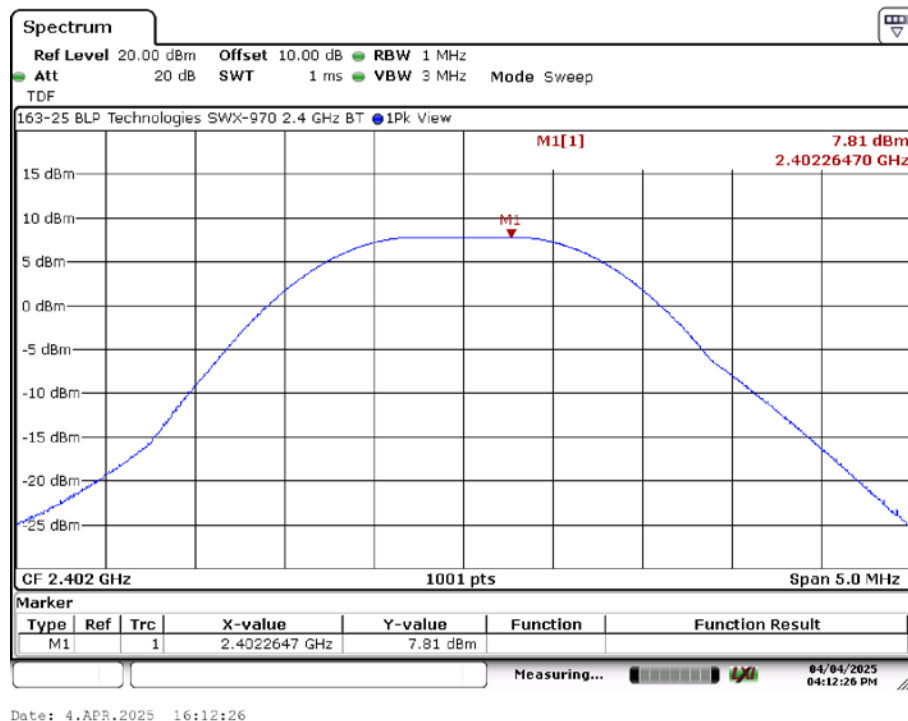
Procedure: This test was performed in accordance with the procedure detailed in ANSI C63.10:2013 Clause 11.9.1.1

Test Notes: A spectrum analyzer resolution bandwidth of 1 MHz and a video bandwidth of 3 MHz were used to meet the requirements ANSI C63.10:2013 Clause 11.9.1.1 RBW ≥ DTS bandwidth.

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

| BLE Channel | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) | Peak Limit (dBm) | Margin (dB) | Result |
|-------------|--------------------|--|---------------------|----------------|-----------|
| 37 | 2402 | 7.81 | 30.00 | -22.19 | Compliant |
| 17 | 2440 | 7.99 | 30.00 | -22.01 | Compliant |
| 39 | 2480 | 8.06 | 30.00 | -21.94 | Compliant |

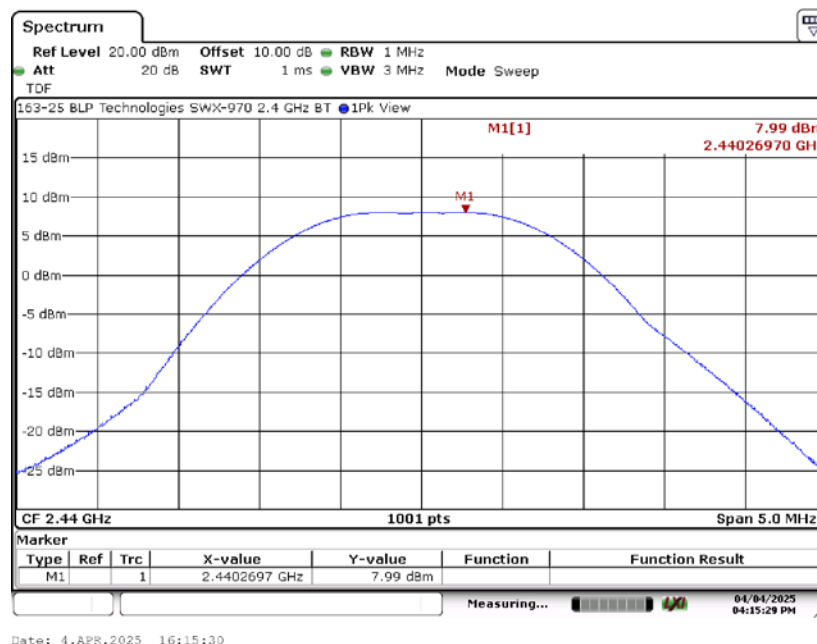
7.3.1. Low Channel – 37, 2402 MHz



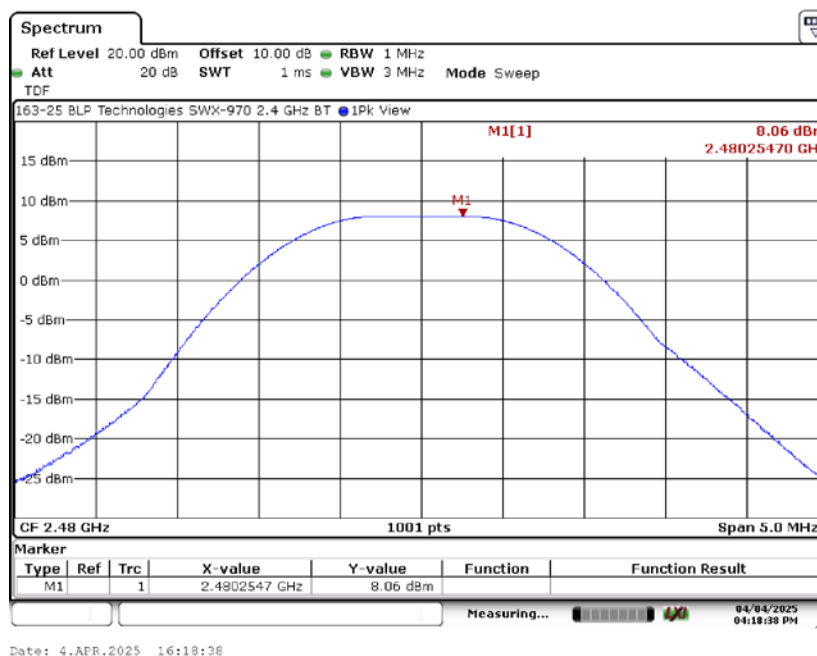
7. Measurement Data

7.3. Maximum Peak Conducted Output Power (continued)

7.3.2. Middle Channel – 17, 2440 MHz



7.3.3. High Channel – 39, 2480 MHz



7. Measurement Data

7.4. Operation with directional antenna gains greater than 6 dBi (15.247 (b)(4))

Requirement: If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of FCC Part 15.247, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Systems operating in the 2400 – 2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Systems operating in the 5725 – 5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter peak output power.

Procedure: Not applicable for the device under test.

DUT Status: The EUT utilizes a Johanson 2450AT42B100 antenna with a peak gain of 0.0 dBi and therefore is exempt from this requirement.

7. Measurement Data (continued)

7.5. Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz) (FCC 15.209, ISED RSS-GEN 6.13)

7.5.1 Transmitter Spurious Radiated Emissions

Requirement: 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 |

¹Measurements 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 558074, Section 8.6: DTS Emissions in restricted frequency 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, Section 11.12 American National Standard for Testing Unlicensed Wireless Devices.

Test Notes: Measurements were made from the lowest oscillator frequency as stated by the manufacturer (32.768 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).

Each of the test modes documented within the test report were evaluated and the worst case of each of the test modes is detailed in this section. A full set of measurement scans are presented in Appendix A of this test report.

Results: The Emissions from the EUT did not exceed the field strength levels specified in the above table.

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.

7. Measurement Data (continued)

7.5. Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz) (FCC 15.209, ISED RSS-GEN 6.13)

7.5.1 Transmitter Spurious Radiated Emissions (continued)

| Frequency Range | Worst-Case Measured Frequency | Field Strength | FCC Part 15.209 Limit | Margin | Reference | Receive Antenna Polarity |
|-----------------------|-------------------------------|----------------|-----------------------|--------|------------|--------------------------|
| | (MHz) | (dBμV/m) | (dBμV/m) | (dB) | Appendix A | (H/V) |
| 30 kHz - 150 kHz | 0.03045 | 70.75 | 117.92 | -47.17 | A1.2.2 | Perpendicular |
| 150 kHz - 30 MHz | 0.15000 | 62.55 | 84.05 | -21.50 | A2.3.2 | Perpendicular |
| 30 MHz - 1000 MHz | 825.60 | 33.09 | 46.00 | -12.91 | A3.3.1 | H |
| 1000 MHz - 10000 MHz | 4805.10 | 57.54 | 74.00 | -16.46 | A4.1.1 | H |
| 10000 MHz - 18000 MHz | 16851.60 | 49.26 | 54.00 | -4.74 | A5.1.2 | V |
| 18000 MHz - 25000 MHz | 23583.70 | 40.85 | 54.00 | -13.15 | A6.3.1 | H |

Note: Worst-case measured data from Appendix A

7.5.2. Transmitter Spurious Radiated Emissions (Harmonic Meas.) Test Results

Worst case measurements of Harmonics that fall into the restricted bands.

| Freq. (MHz) | Field Strength (dBμV/m) ¹ | | Limit (dBμV/m) | | Margin (dBμV/m) | | Antenna Polarity (H/V) | Result |
|-------------|--------------------------------------|---------|----------------|---------|-----------------|---------|------------------------|-----------|
| | Peak | Average | Peak | Average | Peak | Average | | |
| 4804 | 60.58 | 48.77 | 74.00 | 54.00 | -13.42 | -5.23 | H | Compliant |
| 4852 | 59.12 | 46.85 | 74.00 | 54.00 | -14.88 | -7.15 | H | Compliant |
| 4960 | 58.80 | 46.51 | 74.00 | 54.00 | -15.20 | -7.49 | H | Compliant |
| 7278 | 59.96 | 46.79 | 74.00 | 54.00 | -14.04 | -7.21 | H | Compliant |
| 7440 | 60.47 | 46.98 | 74.00 | 54.00 | -13.53 | -7.02 | H | Compliant |
| 12010 | 59.51 | 45.75 | 74.00 | 54.00 | -14.49 | -8.25 | V | Compliant |
| 12130 | 58.57 | 45.26 | 74.00 | 54.00 | -15.43 | -8.74 | V | Compliant |
| 12400 | 57.64 | 45.77 | 74.00 | 54.00 | -16.36 | -8.23 | V | Compliant |
| 19216 | 59.39 | 47.08 | 74.00 | 54.00 | -14.61 | -6.92 | V | Compliant |
| 19408 | 59.40 | 47.49 | 74.00 | 54.00 | -14.60 | -6.51 | H | Compliant |
| 19840 | 59.25 | 47.66 | 74.00 | 54.00 | -14.75 | -6.34 | V | Compliant |
| 22320 | 62.08 | 49.83 | 74.00 | 54.00 | -11.92 | -4.17 | H | Compliant |

¹ All correction factors are stored in the spectrum analyzer and applied to these column entries.

7. Measurement Data (continued)

7.6. Band Edge and Out of Band Measurements (FCC 15.209, ISSED RSS-GEN 6.13)

Requirement: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Procedure: For the lower band edge, this measurement was performed in accordance with the procedure detailed in FCC OET publication number 558074, Section 8.5: DTS Emissions in non-restricted frequency bands.

The test methods used to generate the data in this test report is in accordance with ANSI C63.10:2013, Section 11.11 American National Standard for Testing Unlicensed Wireless Devices.

For the upper band edge, this measurement was performed as a typical restricted band radiated emissions measurement above 1 GHz. Peak and CISPR average detectors and a 1 MHz resolution and 3 MHz video bandwidth were utilized.

Test Note: The radiated band edge and worst case out of band measurements in this report represent the measurements made with the worst case receive antenna polarity. In addition, the DTS bandwidth measurements were taken into consideration for the worst-case examples.

Results: The DUT met the 20 dB requirement at the lower band edge and the Part 15.209 requirements at the upper band edge.

7.6.1. Lower Band Edge

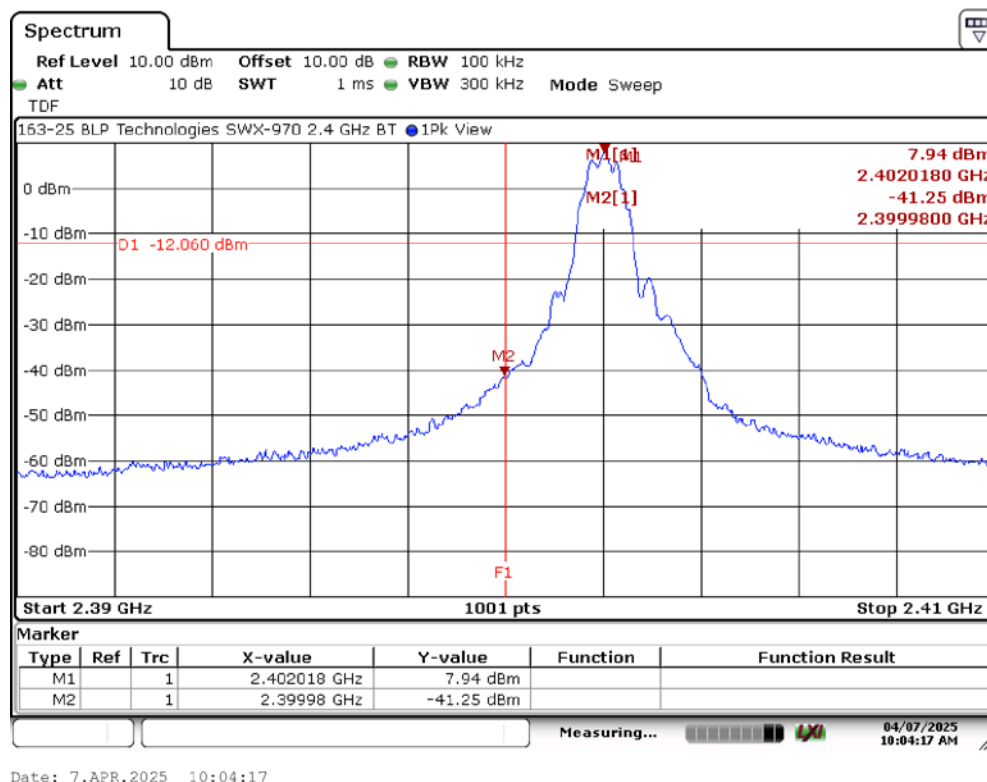
| Band Edge Frequency | Lowest Transmitter Frequency | Maximum PSD (100 kHz) | Band Edge Delta to Max PSD (100 kHz) | Measured Delta (100 kHz) | Minimum Required Delta | Result |
|---------------------|------------------------------|-----------------------|--------------------------------------|--------------------------|------------------------|-----------|
| (MHz) | (MHz) | (dBm) | (dBm) | (dB) | (dB) | |
| 2400 | 2402 | 7.94 | -41.25 | -49.19 | -20 | Compliant |

Note: Reference the plot in section 7.6.2 on the next page.

7. Measurement Data (continued)

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

7.6.2. Lower Band Edge



7.6.3. Upper Band Edge and Worst Case Out of Band

Upper Band Edge

| Band Edge Frequency | Field Strength (dBμV/m) | | Limit (dBμV/m) | | Margin (dB) | | Result |
|---------------------|-------------------------|-------|----------------|------|-------------|--------|-----------|
| | (MHz) | Peak | Average | Peak | Average | Peak | |
| 2483.5 | | 55.08 | 36.05 | 74 | 54 | -18.92 | Compliant |

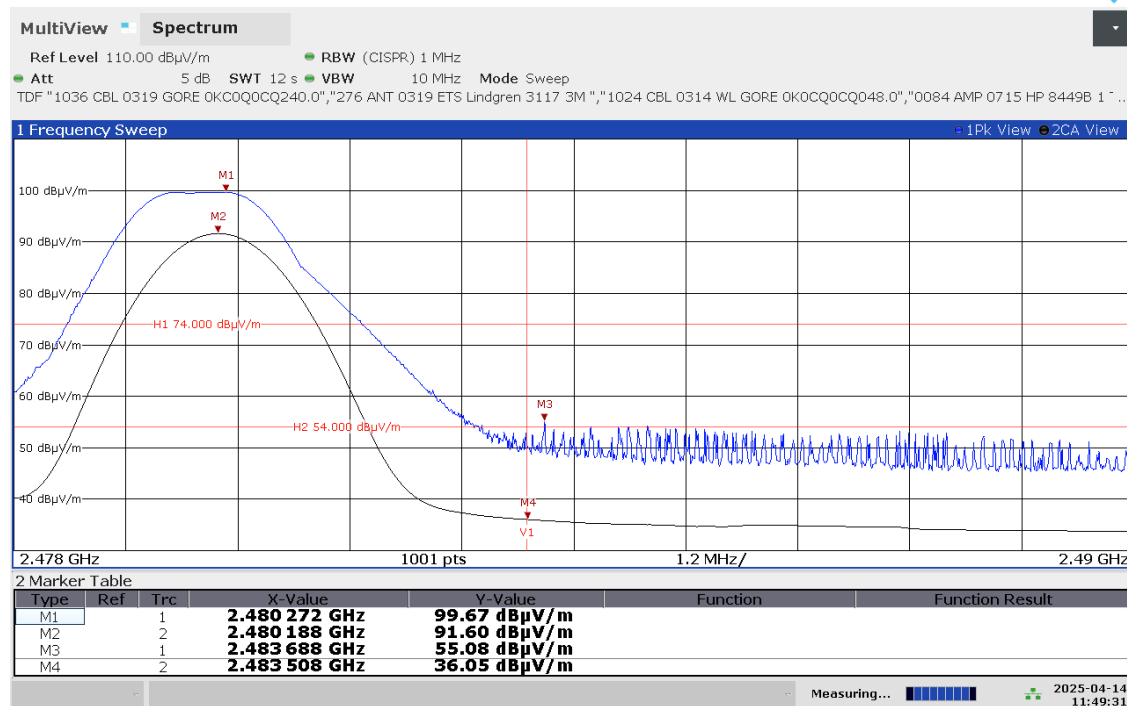
Note: Reference the plot in Section 7.6.4. on the following page.

7. Measurement Data (continued)

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

7.6.4. Upper Band Edge and Worst Case Out of Band

163-25 BLP Technologies SWX-970 2.4 GHz BT



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7.6.5. Lower Restricted Band, 2310 MHz to 2390 MHz

| Frequency (MHz) | Field Strength (dBμV/m) | | Limit (dBμV/m) | | Margin (dB) | | Result |
|-----------------|-------------------------|---------|----------------|---------|-------------|---------|-----------|
| | Peak | Average | Peak | Average | Peak | Average | |
| 2310-2390 | 50.57 | 39.55 | 74 | 54 | -23.43 | -14.45 | Compliant |

Reference the plot in section 7.6.7. on the following page.

7.6.6. Upper Restricted Band, 2483.5 MHz, to 2500 MHz

| Frequency (MHz) | Field Strength (dBμV/m) | | Limit (dBμV/m) | | Margin (dB) | | Result |
|-----------------|-------------------------|---------|----------------|---------|-------------|---------|-----------|
| | Peak | Average | Peak | Average | Peak | Average | |
| 2483.5-2500 | 54.63 | 35.56 | 74 | 54 | -19.37 | -18.44 | Compliant |

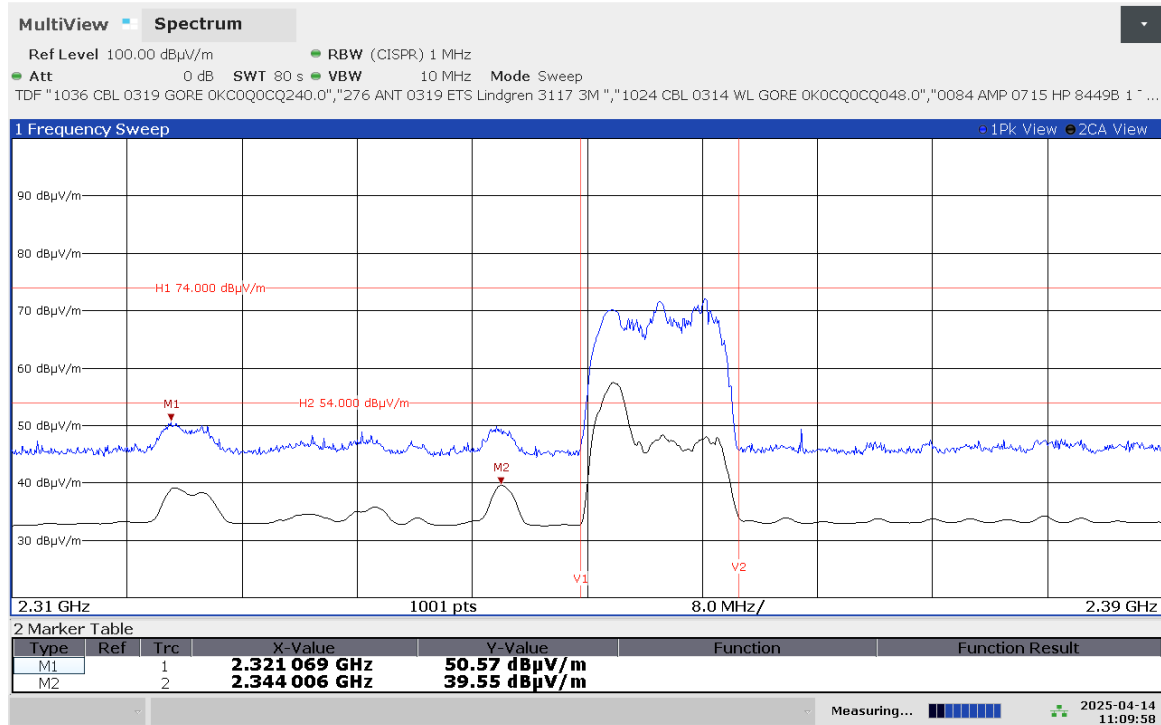
Reference the plot in section 7.6.8. on the following, following page.

7. Measurement Data (continued)

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

7.6.7. Lower Restricted Band, 2310 MHz, to 2390 MHz

163-25 BLP Technologies SWX-970 2.4 GHz BT



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Note about the non-EUT transmissions in this band:

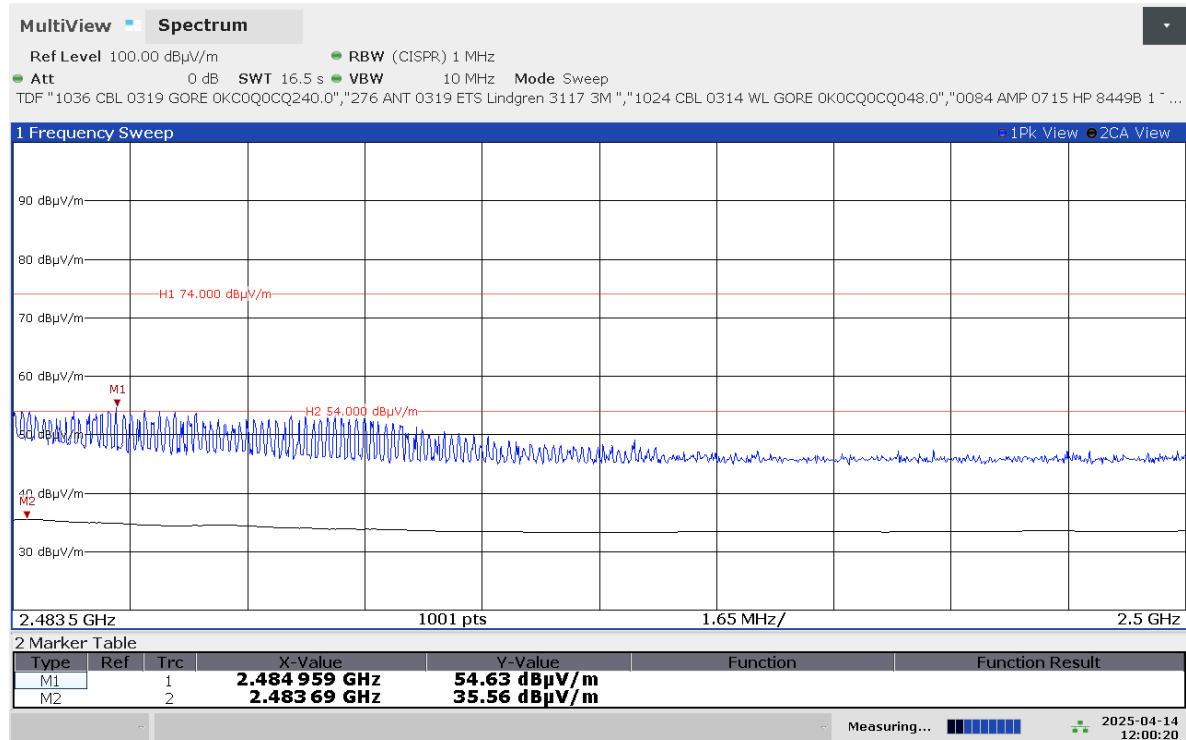
The emissions in enclosed in vertical markers were due to transmissions in the Wireless Communications Service (WCS) A and/or B Blocks (2310 MHz to 2315 MHz and/or 2350 MHz to 2360 MHz). A real-time observation of the Lower Restricted Band confirmed that there were no emissions contributed by the EUT in either of these WCS Blocks during the absence of the ambient signals. However, due to the time requirements of the CISPR average detector, this could not be realized on the spectrum analyzer display. Markers 1 and 2 represent the peak and CISPR average values of the worst-case emission contributed by the EUT.

7. Measurement Data (continued)

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

7.6.8. Upper Restricted Band, 2483.5 MHz, to 2500 MHz

163-25 BLP Technologies SWX-970 2.4 GHz BT



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7. Measurement Data (continued)

7.7. Emissions in Non-restricted Frequency Bands

Requirement: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

Test Notes: Peak in-band measurements were taken at the time the DTS (-6 dB) bandwidth measurements were made. These values were used as the reference levels for the following measurements. Refer to section 7.2 of this report for these values.

Reference Appendix B for the measurement data used for this test section.

Results: The DUT met the 20 dB requirement emission level delta requirement in the non restricted frequency bands.

7.7.1. Emissions in Non-restricted Frequency Bands

| Maximum PSD (100 kHz) In-Band¹ (dBm) | Worst Case Out-of-Band Frequency (MHz) | Maximum PSD (100 kHz) Out-of-Band (dBm) | Delta to Maximum PSD (dB) | Minimum Required Delta (dB) | Result |
|--|---|--|--|--|---------------|
| 7.86 | 4804.063 | -26.24 | -34.10 | -20 dB | Compliant |

¹Taken from Section 7.2 - DTS Bandwidth

7. Measurement Data (continued)

7.8. Peak Power Spectral Density (FCC 15.247(e), ISED RSS-247, 5.2 (b))

Requirement: For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of FCC Part 15.247. The same method of determining the conducted output power shall be used to determine the power spectral density.

Procedure: FCC OET publication number 558074, Section 8.5: DTS maximum power spectral density level in the fundamental emission using the method in ANSI C63.10:2013 Clause 11.10.2 PKPSD (peak PSD).

Results: The DUT met the required power spectral density limit at the tested frequencies.

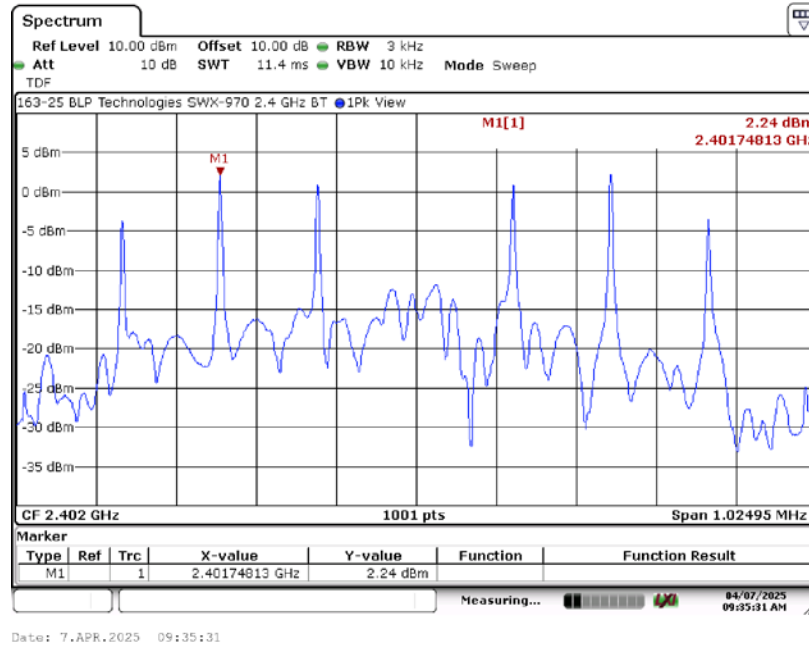
7.8.1. Measurement Results in 2400 MHz to 2483.5 MHz Band

| Channel | Frequency | Maximum PSD Frequency | Maximum Power Spectral Density | Limit | Margin | Result |
|---------|-----------|-----------------------------|---|-------|--------|-----------|
| | (MHz) | (MHz) | (dBm) | (dBm) | (dB) | |
| 37 | 2402 | 2401.74813 | 2.24 | 8 | -5.76 | Compliant |
| 17 | 2440 | 2439.74813 | 2.35 | 8 | -5.65 | Compliant |
| 39 | 2480 | 2479.74813 | 2.41 | 8 | -5.59 | Compliant |

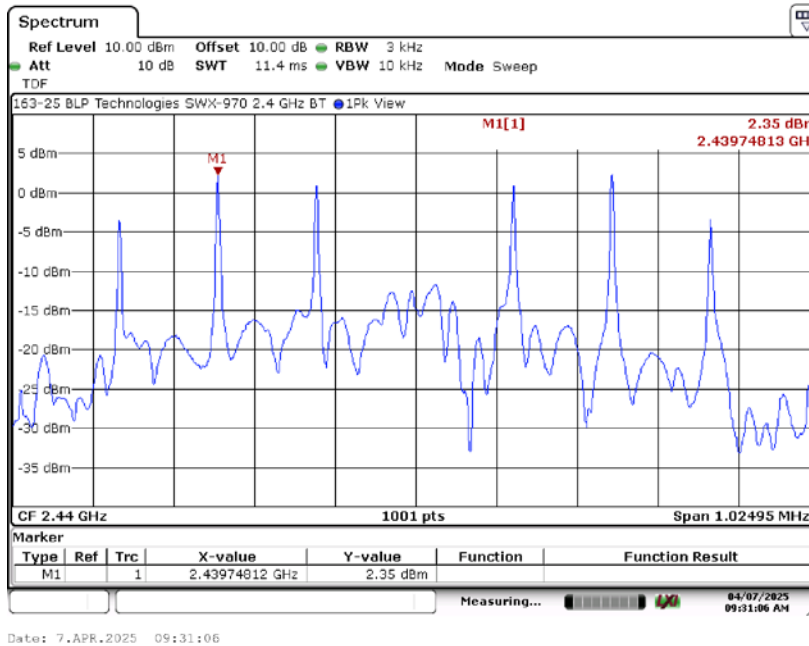
7. Measurement Data (continued)

7.8. Peak Power Spectral Density (15.247(e)), ISED RSS-247, 5.2 (b)) (continued)

7.8.2. Low Channel – 37, 2402 MHz



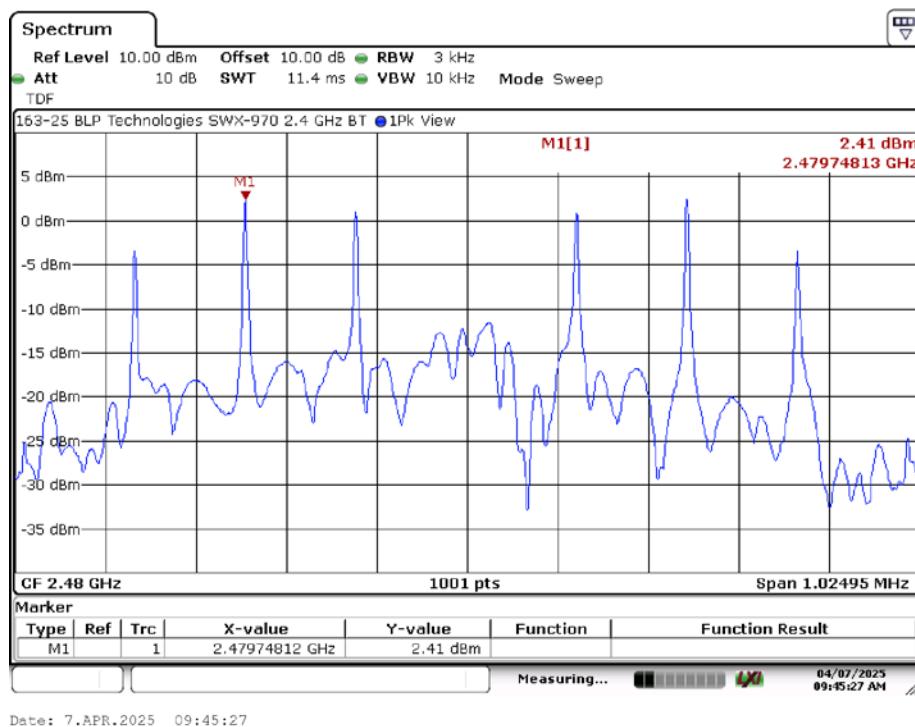
7.8.3. Middle Channel – 17, 2440 MHz



7. Measurement Data

7.8. Peak Power Spectral Density (15.247(e)), ISED RSS-247, 5.2 (b)) (continued)

7.8.4. High Channel – 39, 2480 MHz



7. Measurement Data (continued)

7.9. Conducted Emissions (FCC Part 15.207, ISED RSS-GEN 7.2)

Requirement: 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 μ H/50 ohms line impedance stabilization network (LISN).

| Frequency Range (MHz) | Limits (dB μ V) | |
|--|---------------------|-----------|
| | 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 power-line conducted emissions from unlicensed wireless devices.

Results: The device under test meets the FCC Part 15.207 & RSS-GEN 7.2 test requirements.

Measurement & Equipment Setup

Test Date: 5/16/2025
 Test Engineer: Sean Defelice
 Site Temperature ($^{\circ}$ C): 21.5
 Relative Humidity (%RH): 52
 Frequency Range: 0.15 MHz to 30 MHz
 EMI Receiver IF Bandwidth: 9 kHz
 EMI Receiver Avg Bandwidth: $\geq 3 \times$ IF BW (RBW)
 Detector Functions: Peak, Quasi-Peak & Average

Sample Calculation: Final Result (dB μ V) = Measurement Value (dB μ V) + 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.

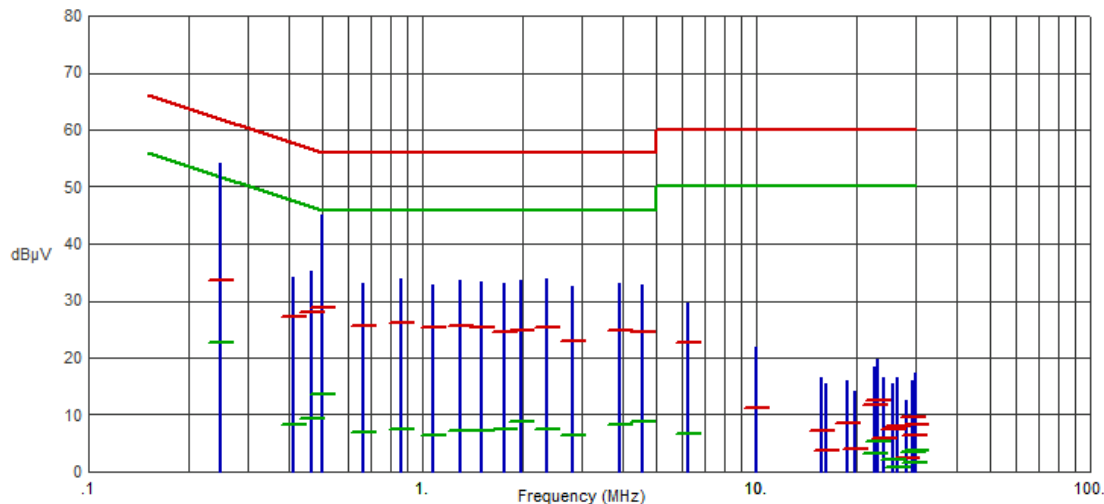
7. Conducted Emissions Test Results

7.10. Conducted Emissions (FCC Part 15.207, ISED RSS-GEN 7.2 continued)

7.10.1. 120 Volts, 60 Hz Phase

Test No.: 195-25, 120 Volts, 60 Hz Phase

FCC, Class B



| Frequency (MHz) | Pk Amp (dBμV) | QP Amp (dBμV) | QP Limit (dBμV) | QP Margin (dB) | Avg Amp (dBμV) | Avg Limit (dBμV) | Avg Margin (dB) | Comments |
|-----------------|---------------|---------------|-----------------|----------------|----------------|------------------|-----------------|----------|
| .2490 | 54.02 | 33.71 | 61.79 | -28.08 | 22.58 | 51.79 | -29.21 | |
| .4088 | 34.03 | 27.25 | 57.67 | -30.42 | 8.22 | 47.67 | -39.45 | |
| .4650 | 35.28 | 27.93 | 56.60 | -28.67 | 9.41 | 46.60 | -37.19 | |
| .4988 | 44.96 | 28.93 | 56.02 | -27.09 | 13.58 | 46.02 | -32.44 | |
| .6630 | 33.17 | 25.58 | 56.00 | -30.42 | 6.93 | 46.00 | -39.07 | |
| .8655 | 33.89 | 26.25 | 56.00 | -29.75 | 7.51 | 46.00 | -38.49 | |
| 1.0815 | 32.83 | 25.29 | 56.00 | -30.71 | 6.34 | 46.00 | -39.66 | |
| 1.3043 | 33.53 | 25.68 | 56.00 | -30.32 | 7.09 | 46.00 | -38.91 | |
| 1.5113 | 33.32 | 25.38 | 56.00 | -30.62 | 7.13 | 46.00 | -38.87 | |
| 1.7543 | 33.07 | 24.60 | 56.00 | -31.40 | 7.55 | 46.00 | -38.45 | |
| 1.9658 | 33.66 | 24.71 | 56.00 | -31.29 | 8.76 | 46.00 | -37.24 | |
| 2.3663 | 33.78 | 25.35 | 56.00 | -30.65 | 7.40 | 46.00 | -38.60 | |
| 2.8208 | 32.47 | 22.82 | 56.00 | -33.18 | 6.37 | 46.00 | -39.63 | |
| 3.9030 | 33.09 | 24.87 | 56.00 | -31.13 | 8.29 | 46.00 | -37.71 | |
| 4.5488 | 32.93 | 24.45 | 56.00 | -31.55 | 8.68 | 46.00 | -37.32 | |
| 6.2408 | 29.57 | 22.75 | 60.00 | -37.25 | 6.56 | 50.00 | -43.44 | |
| 9.9533 | 21.80 | 11.27 | 60.00 | -48.73 | -1.37 | 50.00 | -51.37 | |
| 15.7268 | 16.41 | 7.29 | 60.00 | -52.71 | -3.63 | 50.00 | -53.63 | |
| 16.2285 | 15.60 | 3.61 | 60.00 | -56.39 | -4.19 | 50.00 | -54.19 | |
| 18.8273 | 16.00 | 8.48 | 60.00 | -51.52 | -2.15 | 50.00 | -52.15 | |
| 19.7768 | 14.03 | 4.13 | 60.00 | -55.87 | -5.01 | 50.00 | -55.01 | |
| 22.5780 | 18.27 | 11.61 | 60.00 | -48.39 | 3.19 | 50.00 | -46.81 | |
| 23.1293 | 19.72 | 12.63 | 60.00 | -47.37 | 5.44 | 50.00 | -44.56 | |
| 24.1485 | 16.51 | 5.79 | 60.00 | -54.21 | -3.02 | 50.00 | -53.02 | |
| 25.6943 | 15.58 | 7.37 | 60.00 | -52.63 | 2.11 | 50.00 | -47.89 | |
| 26.5493 | 16.60 | 8.01 | 60.00 | -51.99 | .80 | 50.00 | -49.20 | |
| 28.2323 | 12.49 | 2.39 | 60.00 | -57.61 | -4.24 | 50.00 | -54.24 | |
| 29.2358 | 16.07 | 9.56 | 60.00 | -50.44 | 3.55 | 50.00 | -46.45 | |
| 29.8140 | 15.18 | 6.32 | 60.00 | -53.68 | 1.72 | 50.00 | -48.28 | |
| 29.9063 | 17.40 | 8.23 | 60.00 | -51.77 | 3.64 | 50.00 | -46.36 | |

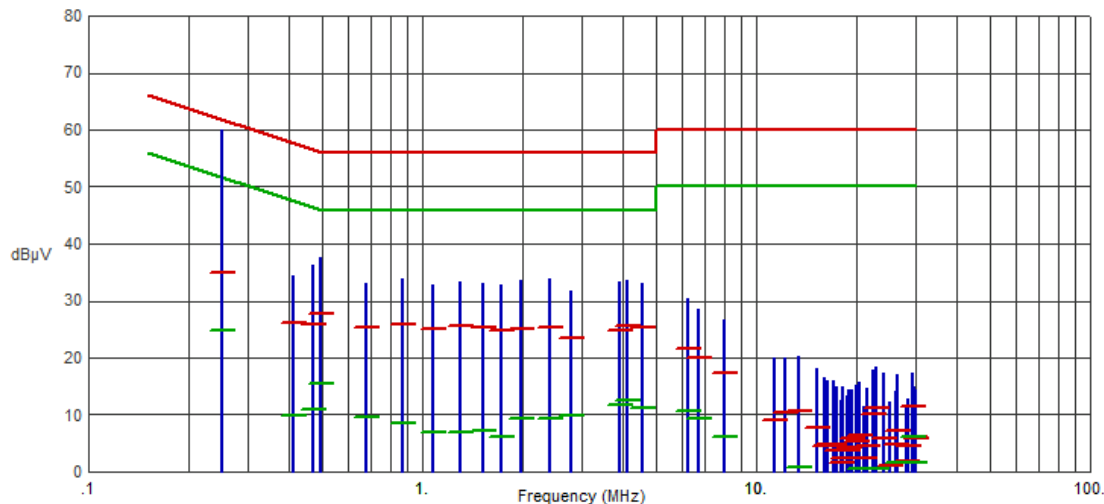
7. Conducted Emissions Test Results

7.10. Conducted Emissions (FCC Part 15.207, ISED RSS-GEN 7.2 continued)

7.10.2. 120 Volts, 60 Hz Neutral

Test No.: 195-25, 120 Volts, 60 Hz Neutral

FCC, Class B



| Frequency (MHz) | Pk Amp (dBμV) | QP Amp (dBμV) | QP Limit (dBμV) | QP Margin (dB) | Avg Amp (dBμV) | Avg Limit (dBμV) | Avg Margin (dB) | Comments |
|-----------------|---------------|---------------|-----------------|----------------|----------------|------------------|-----------------|----------|
| .2513 | 60.13 | 34.91 | 61.71 | -26.80 | 24.90 | 51.71 | -26.81 | |
| .4088 | 34.29 | 26.26 | 57.67 | -31.41 | 9.83 | 47.67 | -37.84 | |
| .4695 | 36.17 | 25.74 | 56.52 | -30.78 | 10.91 | 46.52 | -35.61 | |
| .4965 | 37.47 | 27.64 | 56.06 | -28.42 | 15.60 | 46.06 | -30.46 | |
| .6788 | 33.09 | 25.21 | 56.00 | -30.79 | 9.61 | 46.00 | -36.39 | |
| .8768 | 33.82 | 25.91 | 56.00 | -30.09 | 8.44 | 46.00 | -37.56 | |
| 1.0748 | 32.71 | 25.01 | 56.00 | -30.99 | 6.86 | 46.00 | -39.14 | |
| 1.2975 | 33.37 | 25.54 | 56.00 | -30.46 | 6.95 | 46.00 | -39.05 | |
| 1.5203 | 33.14 | 25.26 | 56.00 | -30.74 | 7.33 | 46.00 | -38.67 | |
| 1.7273 | 32.89 | 24.75 | 56.00 | -31.25 | 6.22 | 46.00 | -39.78 | |
| 1.9658 | 33.73 | 25.00 | 56.00 | -31.00 | 9.25 | 46.00 | -36.75 | |
| 2.4158 | 33.80 | 25.28 | 56.00 | -30.72 | 9.35 | 46.00 | -36.65 | |
| 2.7983 | 31.77 | 23.48 | 56.00 | -32.52 | 9.86 | 46.00 | -36.14 | |
| 3.8805 | 33.22 | 24.71 | 56.00 | -31.29 | 11.64 | 46.00 | -34.36 | |
| 4.0988 | 33.49 | 25.48 | 56.00 | -30.52 | 12.48 | 46.00 | -33.52 | |
| 4.5420 | 32.97 | 25.27 | 56.00 | -30.73 | 11.25 | 46.00 | -34.75 | |
| 6.2385 | 30.37 | 21.55 | 60.00 | -38.45 | 10.70 | 50.00 | -39.30 | |
| 6.6840 | 28.53 | 19.88 | 60.00 | -40.12 | 9.38 | 50.00 | -40.62 | |
| 8.0025 | 26.65 | 17.31 | 60.00 | -42.69 | 6.14 | 50.00 | -43.86 | |
| 11.3460 | 20.01 | 9.02 | 60.00 | -50.98 | -.16 | 50.00 | -50.16 | |
| 12.1920 | 20.10 | 10.51 | 60.00 | -49.49 | -.37 | 50.00 | -50.37 | |
| 13.3643 | 20.33 | 10.76 | 60.00 | -49.24 | .77 | 50.00 | -49.23 | |
| 15.1418 | 18.11 | 7.66 | 60.00 | -52.34 | -3.90 | 50.00 | -53.90 | |
| 15.9945 | 16.43 | 4.66 | 60.00 | -55.34 | -5.75 | 50.00 | -55.75 | |
| 16.3703 | 16.10 | 4.89 | 60.00 | -55.11 | -5.70 | 50.00 | -55.70 | |
| 16.9913 | 16.13 | 4.72 | 60.00 | -55.28 | -5.74 | 50.00 | -55.74 | |
| 17.4593 | 14.93 | 3.84 | 60.00 | -56.16 | -6.29 | 50.00 | -56.29 | |
| 17.9295 | 12.55 | 1.70 | 60.00 | -58.30 | -6.36 | 50.00 | -56.36 | |
| 18.1140 | 14.84 | 2.49 | 60.00 | -57.51 | -5.93 | 50.00 | -55.93 | |
| 18.7350 | 13.43 | 3.64 | 60.00 | -56.36 | -4.40 | 50.00 | -54.40 | |
| 18.9623 | 14.27 | 4.28 | 60.00 | -55.72 | -4.02 | 50.00 | -54.02 | |

7.10. Conducted Emissions Test Results (continued)

7.10.2. 120 Volts, 60 Hz Neutral (continued)

| Frequency (MHz) | Pk Amp (dBµV) | QP Amp (dBµV) | QP Limit (dBµV) | QP Margin (dB) | Avg Amp (dBµV) | Avg Limit (dBµV) | Avg Margin (dB) | Comments |
|-----------------|---------------|---------------|-----------------|----------------|----------------|------------------|-----------------|----------|
| 19.4258 | 14.48 | 5.92 | 60.00 | -54.08 | -3.38 | 50.00 | -53.38 | |
| 19.8803 | 15.33 | 5.38 | 60.00 | -54.62 | -4.06 | 50.00 | -54.06 | |
| 20.3798 | 15.86 | 6.27 | 60.00 | -53.73 | .50 | 50.00 | -49.50 | |
| 21.0615 | 11.59 | 2.30 | 60.00 | -57.70 | -4.72 | 50.00 | -54.72 | |
| 21.5430 | 14.74 | 4.43 | 60.00 | -55.57 | -3.22 | 50.00 | -53.22 | |
| 22.3440 | 17.92 | 10.05 | 60.00 | -49.95 | -.11 | 50.00 | -50.11 | |
| 22.8503 | 18.41 | 11.19 | 60.00 | -48.81 | .60 | 50.00 | -49.40 | |
| 24.0968 | 17.46 | 5.87 | 60.00 | -54.13 | -3.79 | 50.00 | -53.79 | |
| 25.2285 | 12.39 | 1.13 | 60.00 | -58.87 | -5.12 | 50.00 | -55.12 | |
| 26.1150 | 14.21 | 4.91 | 60.00 | -55.09 | -3.17 | 50.00 | -53.17 | |
| 26.4863 | 16.98 | 7.28 | 60.00 | -52.72 | 1.72 | 50.00 | -48.28 | |
| 28.1355 | 11.80 | 1.99 | 60.00 | -58.01 | -4.42 | 50.00 | -54.42 | |
| 28.6260 | 12.84 | 4.55 | 60.00 | -55.45 | -2.28 | 50.00 | -52.28 | |
| 29.2358 | 17.31 | 11.41 | 60.00 | -48.59 | 6.17 | 50.00 | -43.83 | |
| 29.7848 | 14.98 | 6.08 | 60.00 | -53.92 | 1.47 | 50.00 | -48.53 | |
| 29.9040 | 14.43 | 5.80 | 60.00 | -54.20 | -.59 | 50.00 | -50.59 | |

7. Measurement Data (continued)

7.11. Duty Cycle (FCC OET publication number 558074)

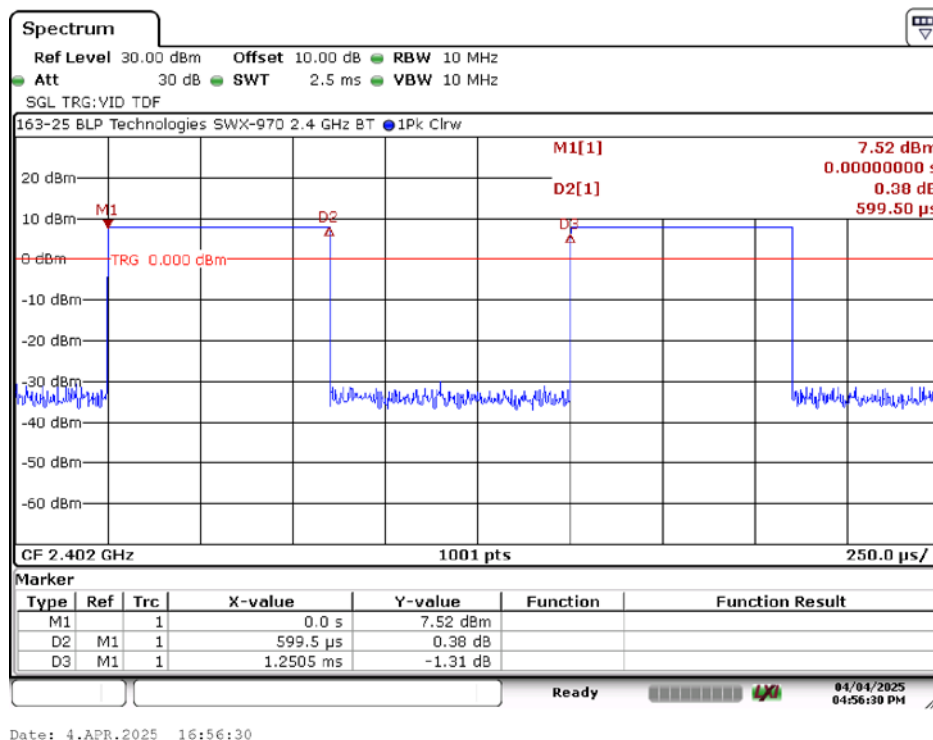
Requirement: Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%).

Procedure: Duty cycle measurements were made according to the procedure detailed FCC OET publication number 558074, Section 11.6(b).

Results: Duty cycle measurements are listed in the following table.

| Channel | Frequency | Time High | Time per Period | Duty Cycle | |
|---------|-----------|-----------|-----------------|------------|-------|
| | (MHz) | (mS) | (mS) | (Numeric) | (%) |
| 37 | 2402 | 0.5995 | 1.2505 | 0.47941 | 47.94 |
| 17 | 2440 | 0.5995 | 1.2505 | 0.47941 | 47.94 |
| 39 | 2480 | 0.5995 | 1.2505 | 0.47941 | 47.94 |

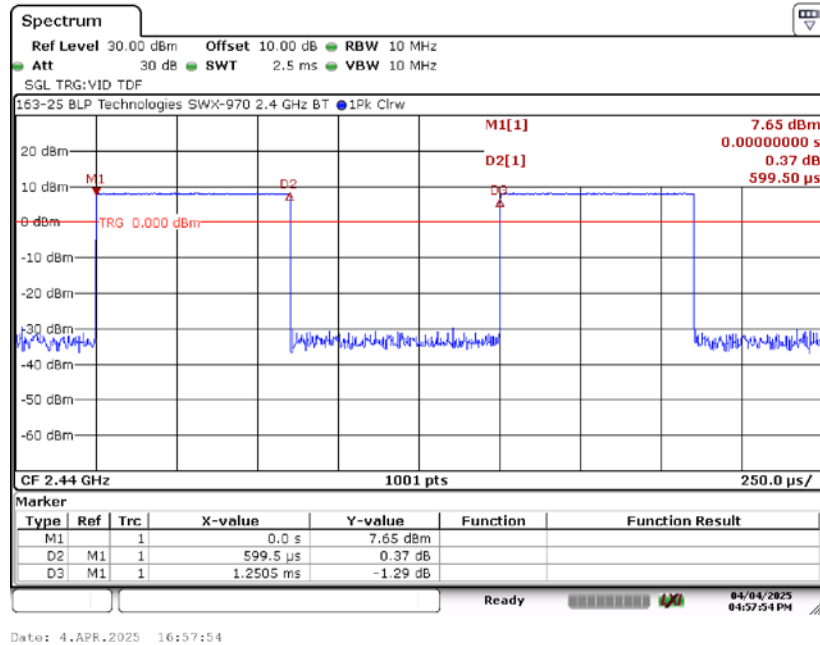
7.11.1. Low Channel – 37, 2402 MHz



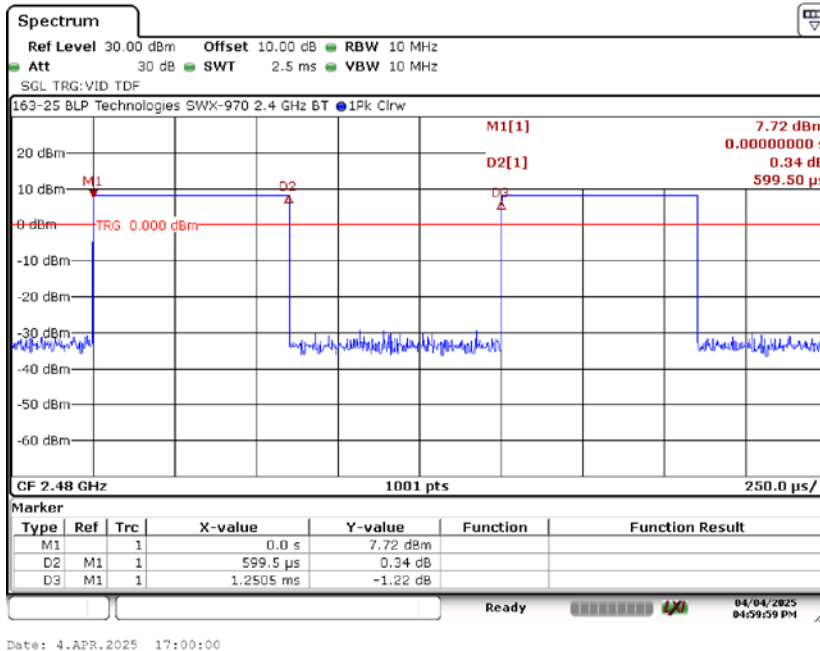
7. Measurement Data (continued)

7.11. Duty Cycle (continued)

7.11.2. Middle Channel – 17, 2440 MHz



7.11.3. High Channel – 39, 2480 MHz



7. Measurement Data (continued)

7.12. 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.

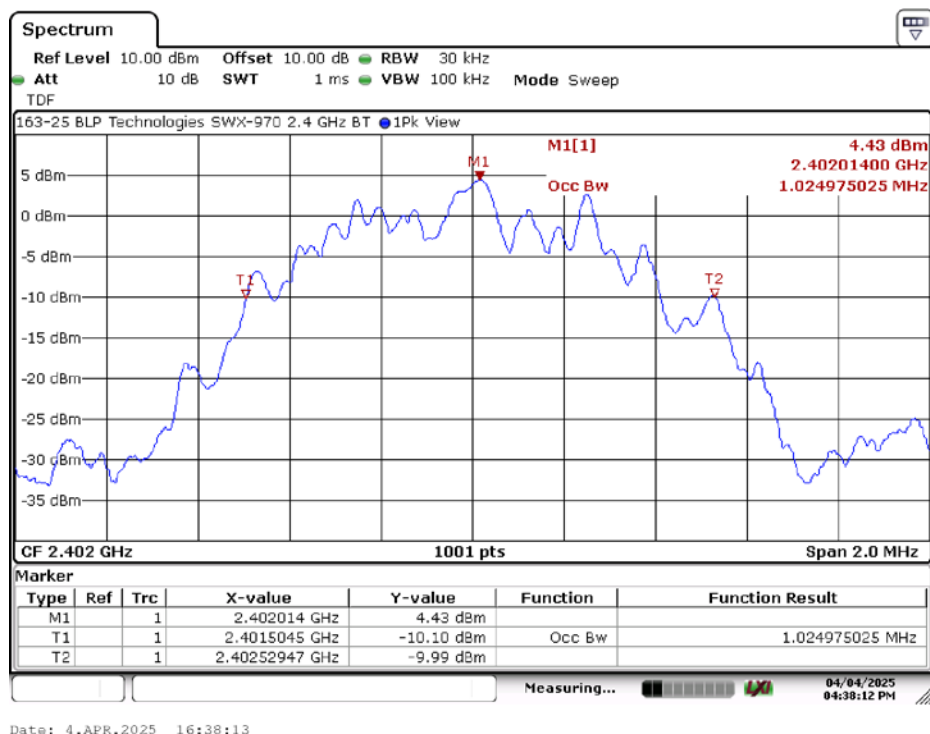
The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value.

The sample detector of the spectrum analyzer shall be used to make the measurement.

7.12.1. Measurement Results

| Channel | Channel Frequency (MHz) | 99% Power Bandwidth (kHz) |
|---------|-------------------------|---------------------------|
| Low | 2402 | 1024.975 |
| Middle | 2440 | 1026.973 |
| High | 2480 | 1028.971 |

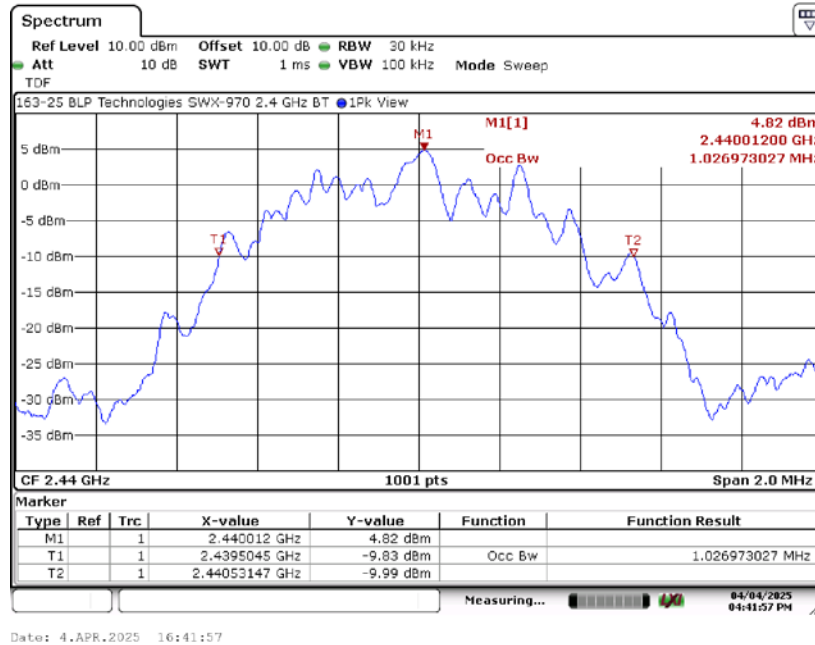
7.12.1.1. 99% Power Bandwidth – Low Frequency (2402 MHz)



7. Measurement Data (continued)

7.12. 99% (Occupied) Bandwidth (RSS-GEN 6.7)

7.12.1.2. 99% Power Bandwidth – Middle Frequency (2440 MHz)



7.12.1.3. 99% Power Bandwidth – High Frequency (2480 MHz)



8. Test Setup Photographs

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



8. Test Setup Photographs

8.2. Spurious Radiated Emissions, 30 kHz to 30 MHz – Rear



8. Test Setup Photographs

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



8. Test Setup Photographs

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



8. Test Setup Photographs

8.5. Radiated Emissions 1 to 18 GHz – Front



8. Test Setup Photographs

8.6. Radiated Emissions 1 to 18 GHz – Rear



8. Test Setup Photographs

8.7. Radiated Emissions Above 18 GHz – Front



8. Test Setup Photographs

8.8. Radiated Emissions Above 18 GHz – Rear



8. Test Setup Photographs

8.9. Conducted Emissions Measurements - Front



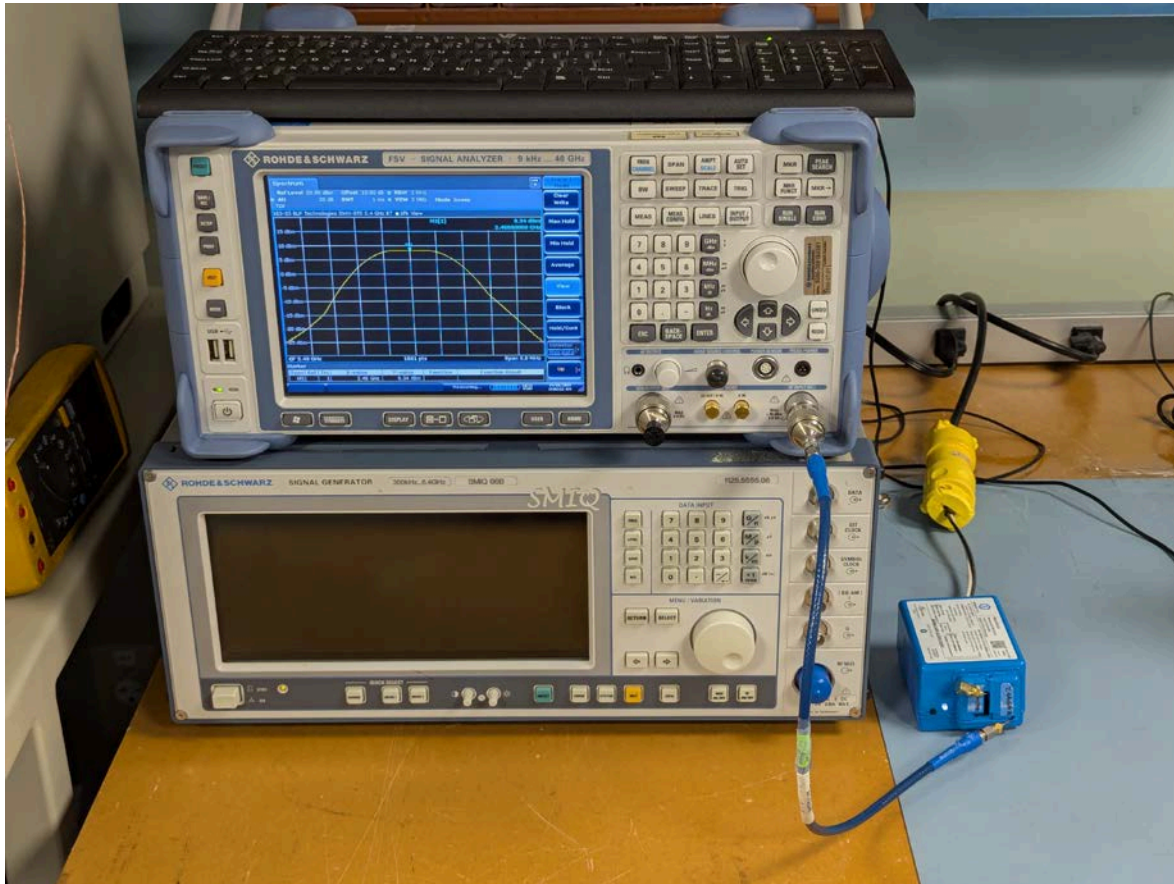
8. Test Setup Photographs

8.10. Conducted Emissions Measurements - Rear



8. Test Setup Photographs (continued)

8.11. Conducted Mode Measurements



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.

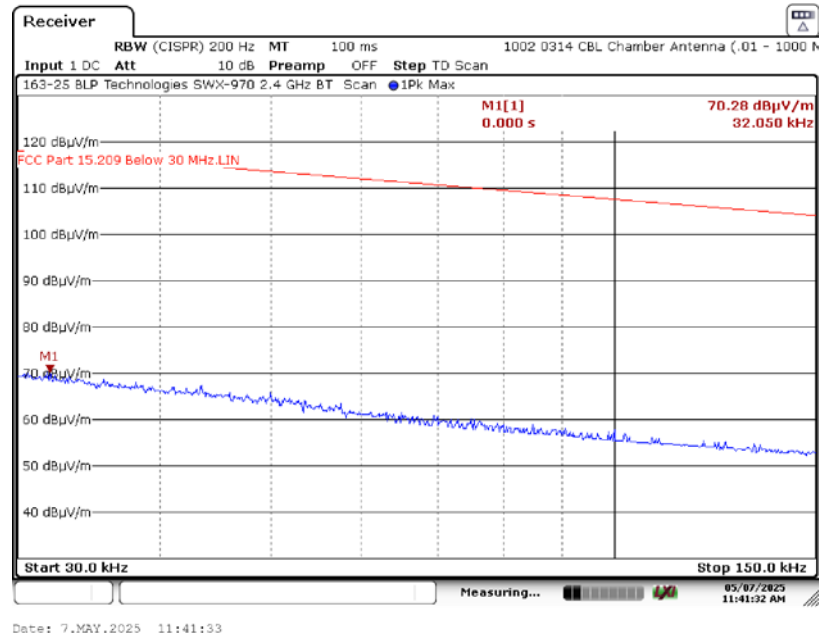
The sites are designed to test products or systems 1.5 meters W x 1.5 meters L x 2.0 meters H, floor standing or tabletop.

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

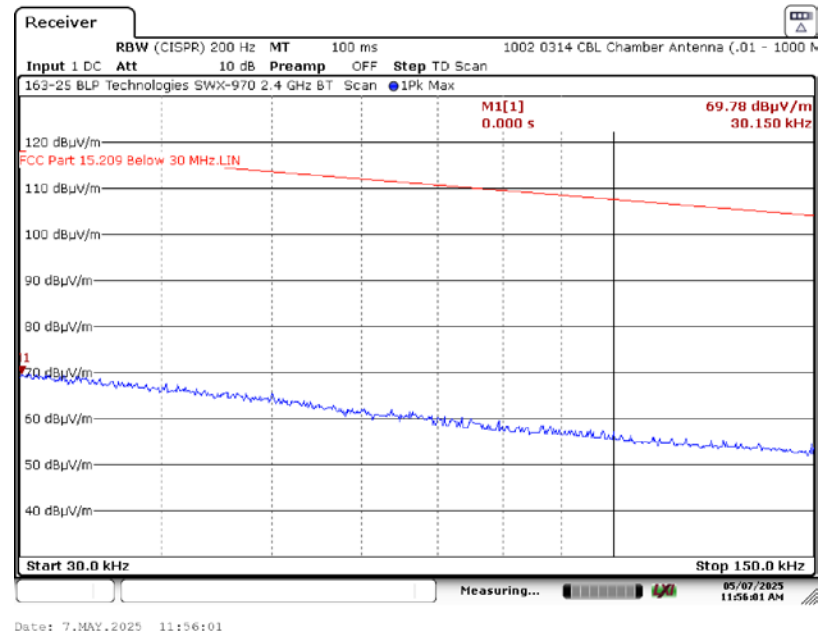
A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

A1.1. Channel 37, 2402 MHz

A1.1.1. Measurement Results: Parallel Antenna



A1.1.2. Measurement Results: Perpendicular Antenna

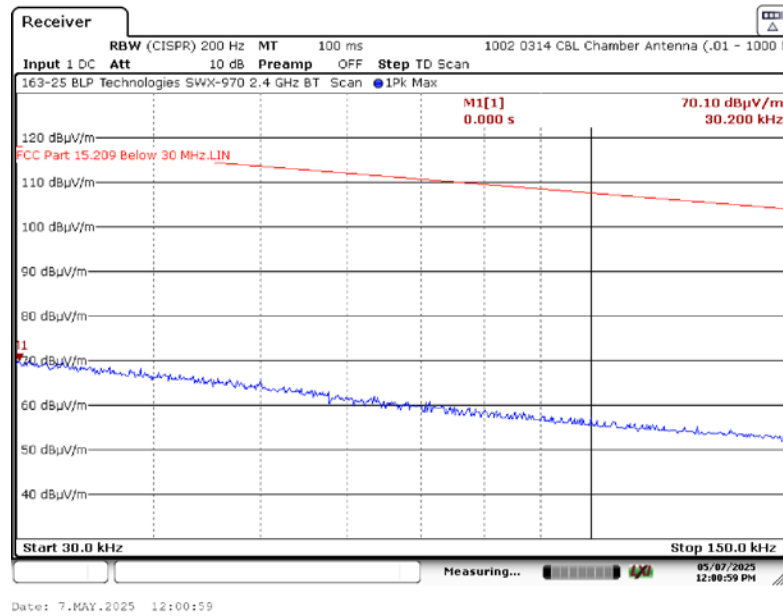


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

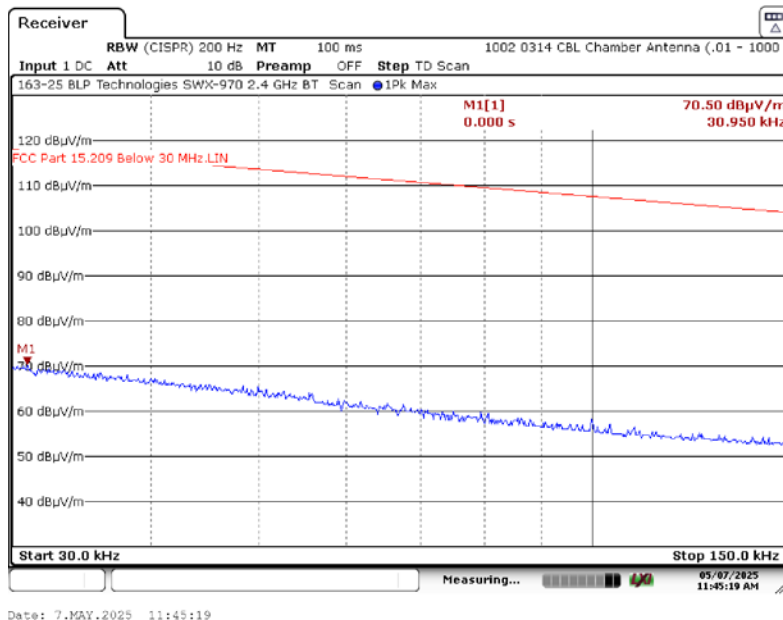
A1.1. Channel 37, 2402 MHz

A1.1.3. Measurement Results: Ground-Parallel Antenna



A1.2. Channel 17, 2440 MHz

A1.2.1. Measurement Results: Parallel Antenna

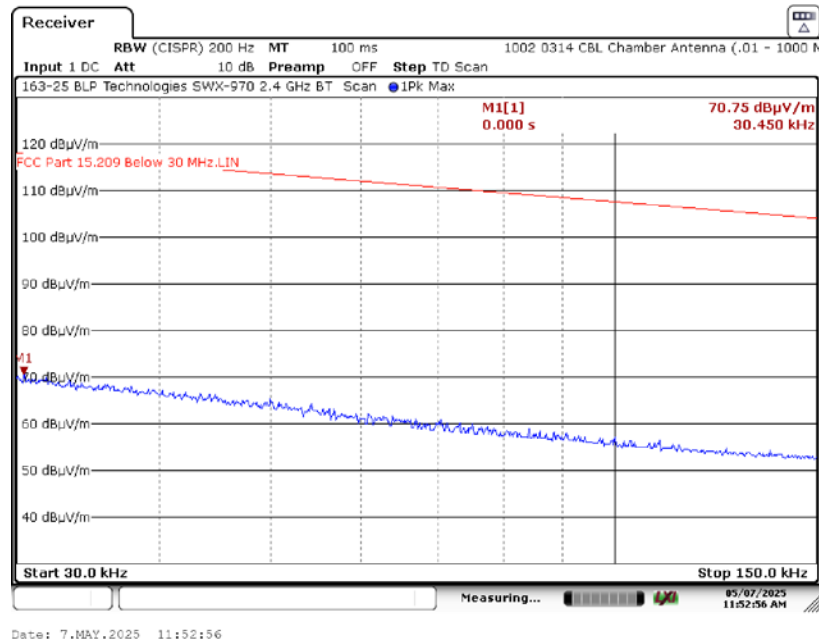


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

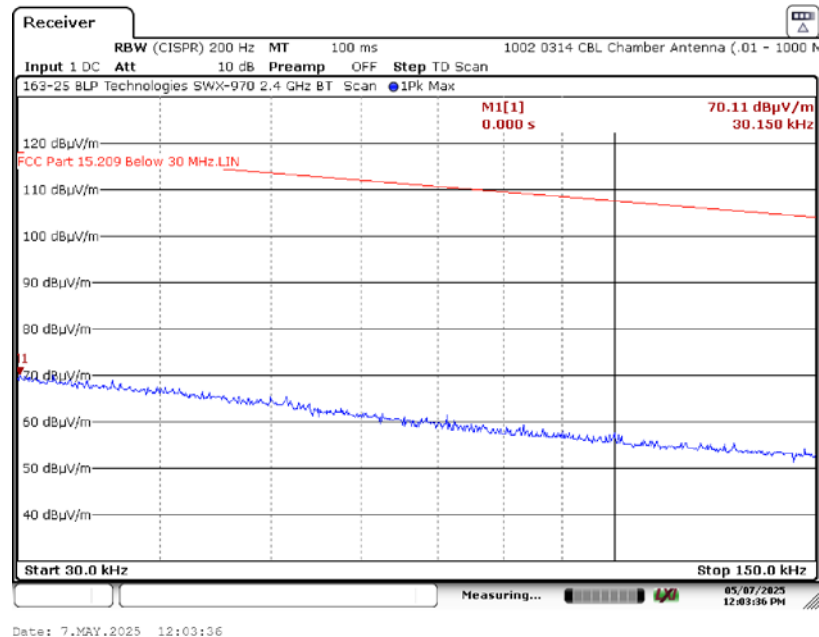
A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

A1.2. Channel 17, 2440 MHz

A1.2.2. Measurement Results: Perpendicular Antenna



A1.2.3. Measurement Results: Ground-Parallel Antenna

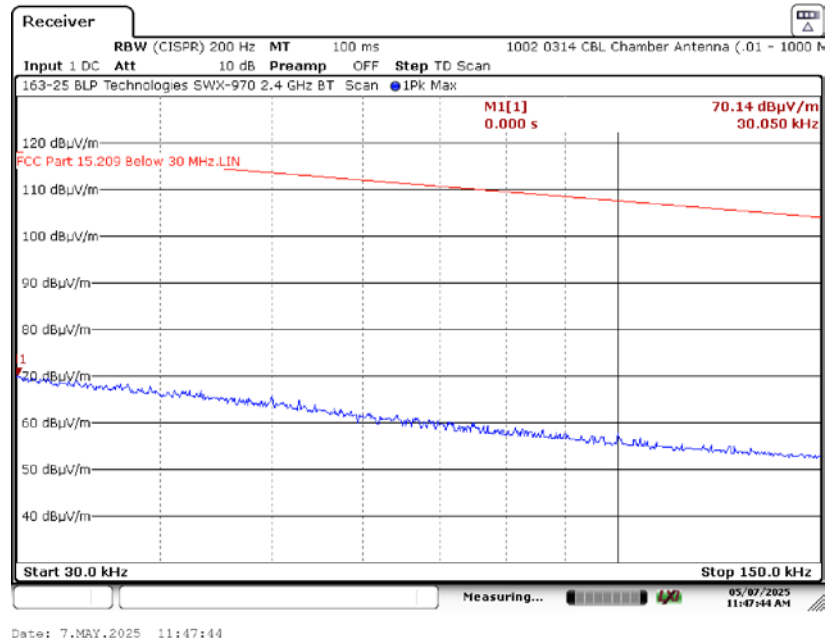


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

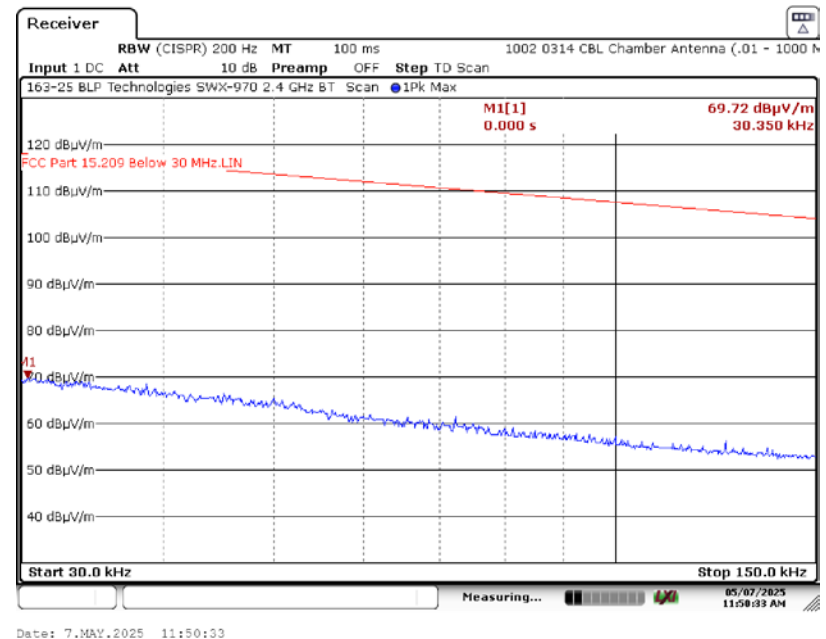
A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

A1.3. Channel 39, 2480 MHz

A1.3.1. Measurement Results: Parallel Antenna



A1.3.2. Measurement Results: Perpendicular Antenna

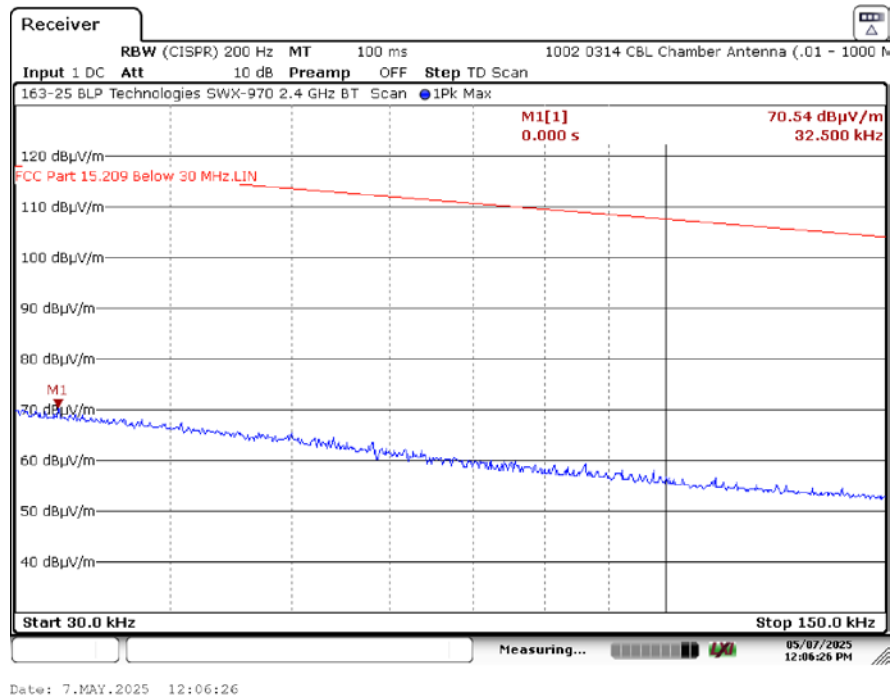


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

A1. Spurious Radiated Emissions (30 kHz – 150 kHz) Test Results

A1.3. Channel 39, 2480 MHz – Z Axis

A1.3.3. Measurement Results: Ground-Parallel Antenna

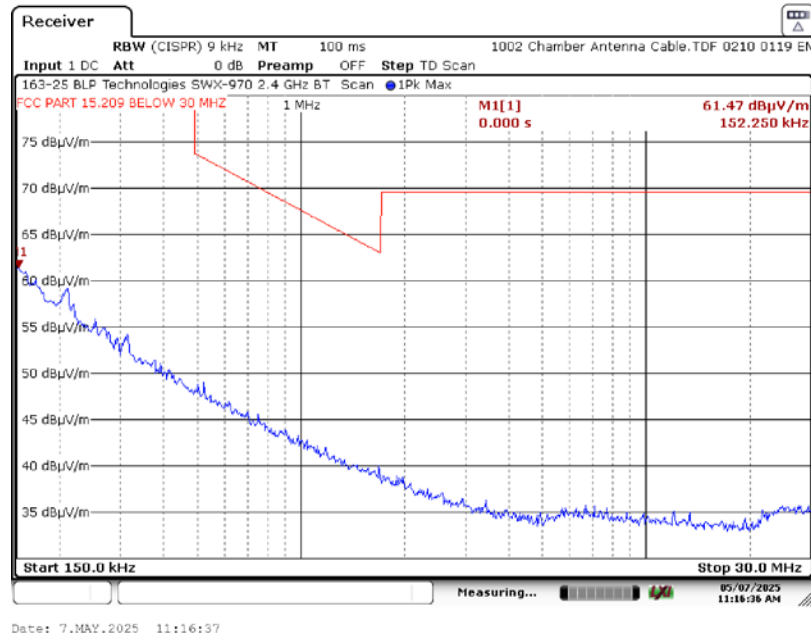


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

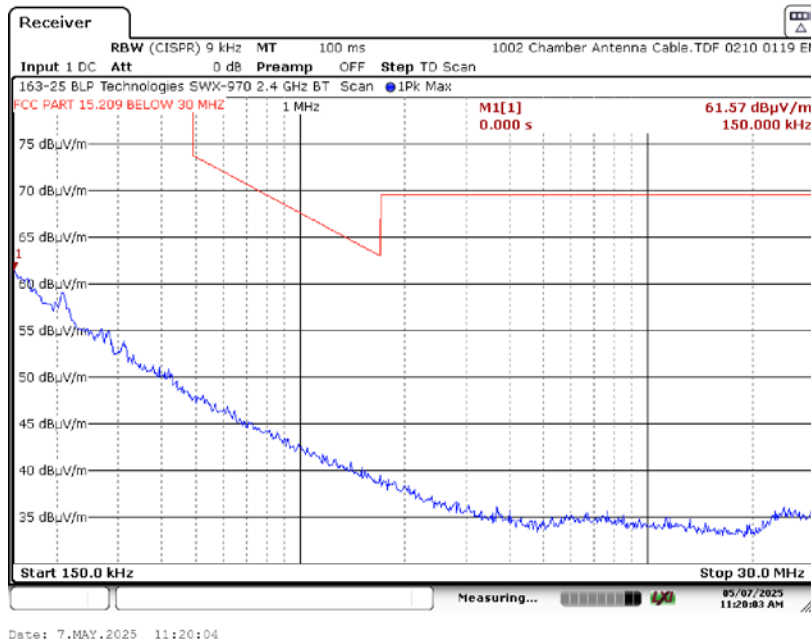
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.1. Channel 37, 2402 MHz

A2.1.1. Measurement Results: Parallel Antenna



A2.1.2. Measurement Results: Perpendicular Antenna

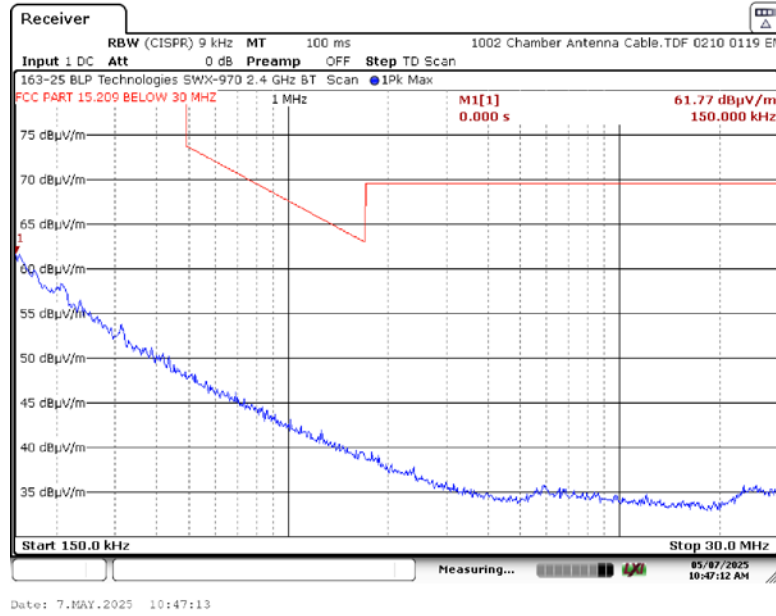


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

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

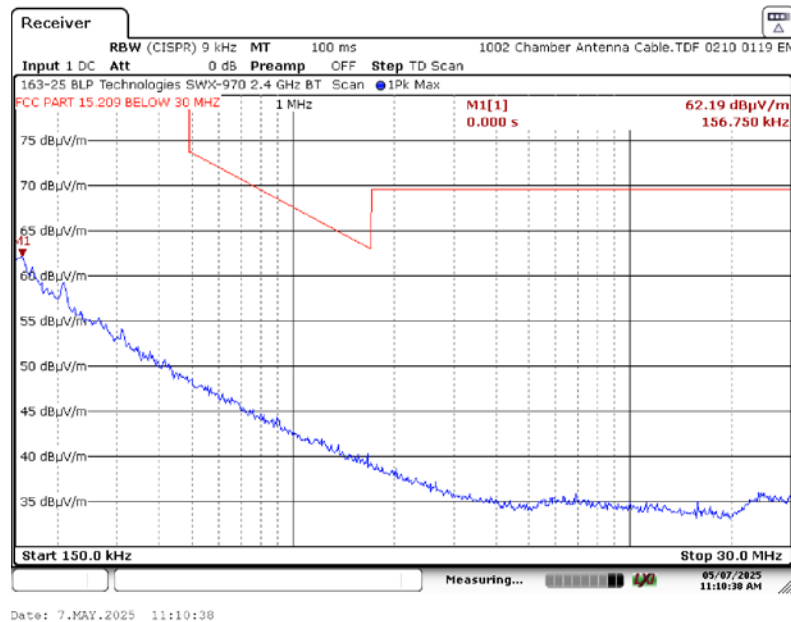
A2.1. Channel 37, 2402 MHz

A2.1.3. Measurement Results: Ground-Parallel Antenna



A2.2. Channel 17, 2440 MHz

A2.2.1. Measurement Results: Parallel Antenna

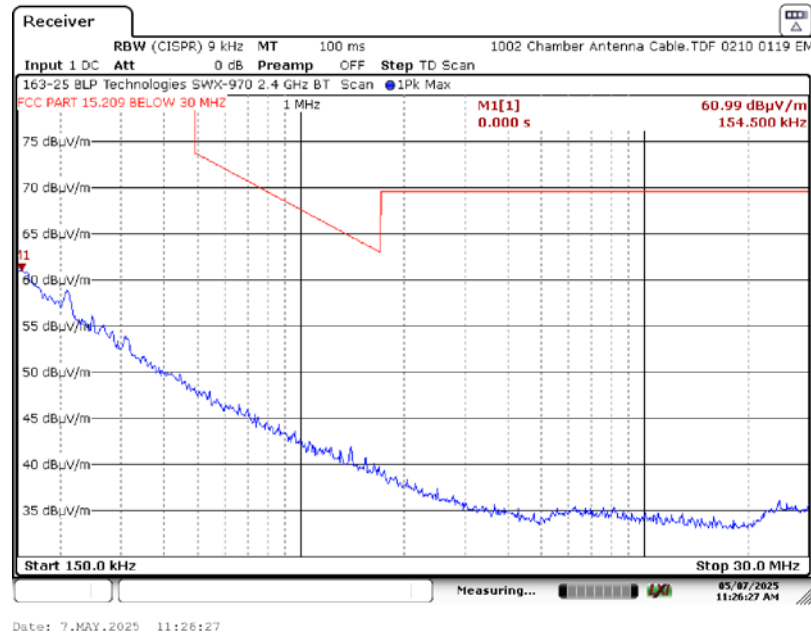


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

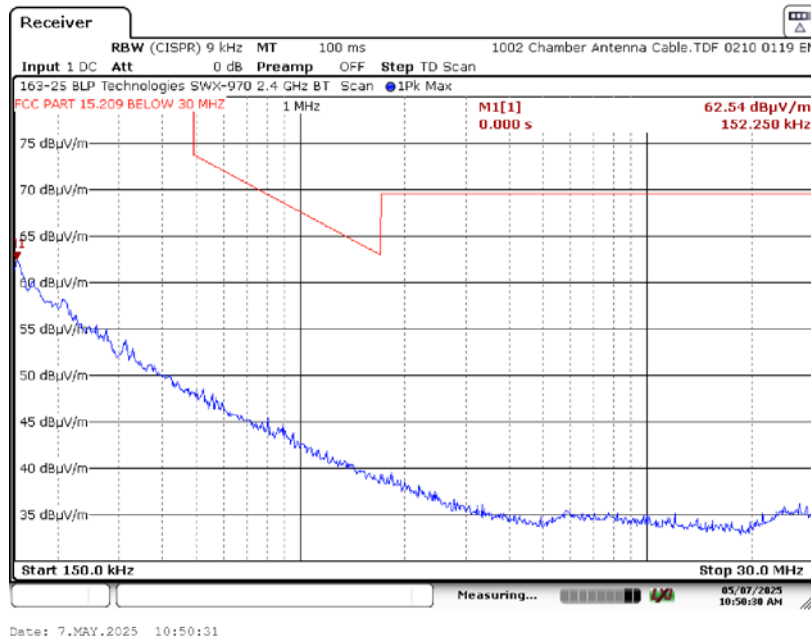
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.2. Channel 17, 2440 MHz

A2.2.2. Measurement Results: Perpendicular Antenna



A2.2.3. Measurement Results: Ground-Parallel Antenna

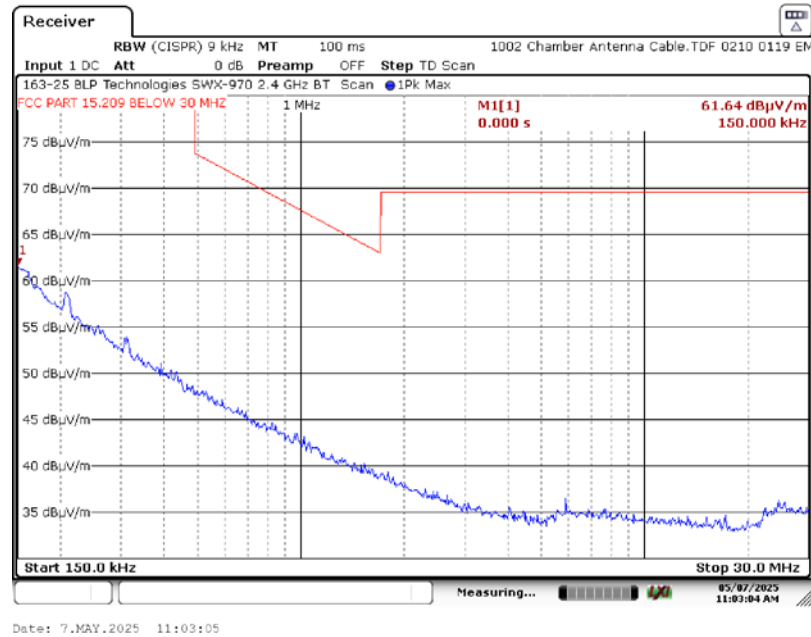


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

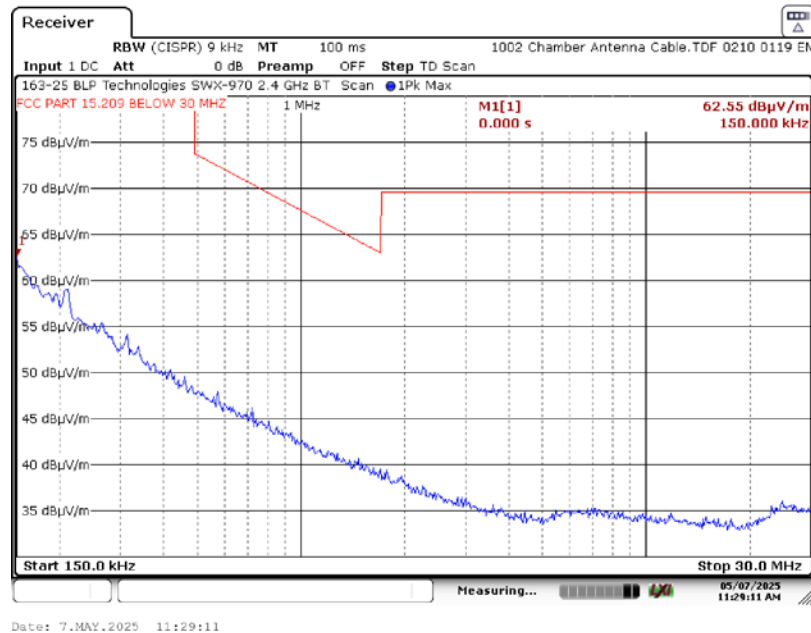
A2. Spurious Radiated Emissions (150 kHz – 30 MHz) Test Results

A2.3. Channel 39, 2480 MHz

A2.3.1. Measurement Results: Parallel Antenna



A2.3.2. Measurement Results: Perpendicular Antenna

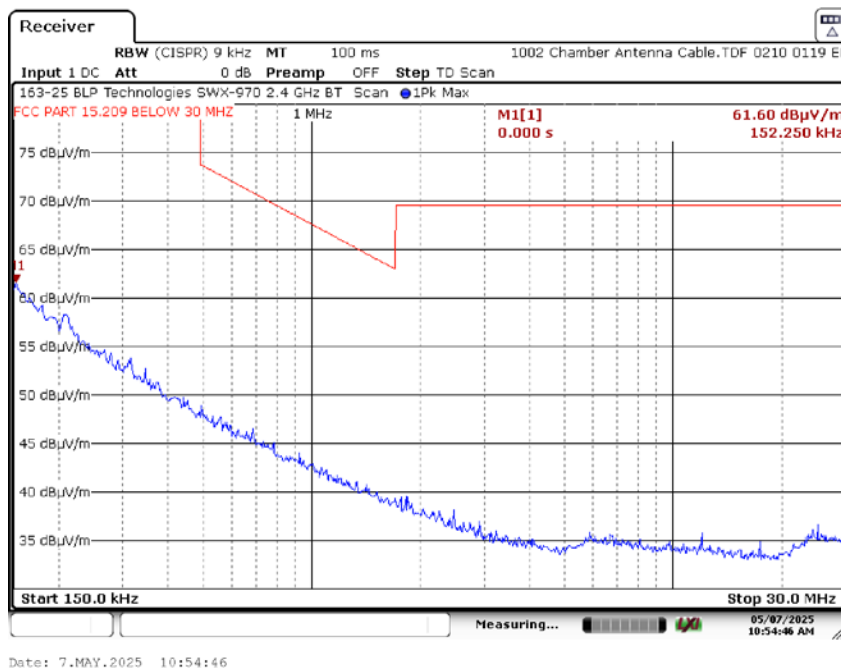


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

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

A2.3. Channel 39, 2480 MHz

A2.3.3. Measurement Results: Ground-Parallel Antenna

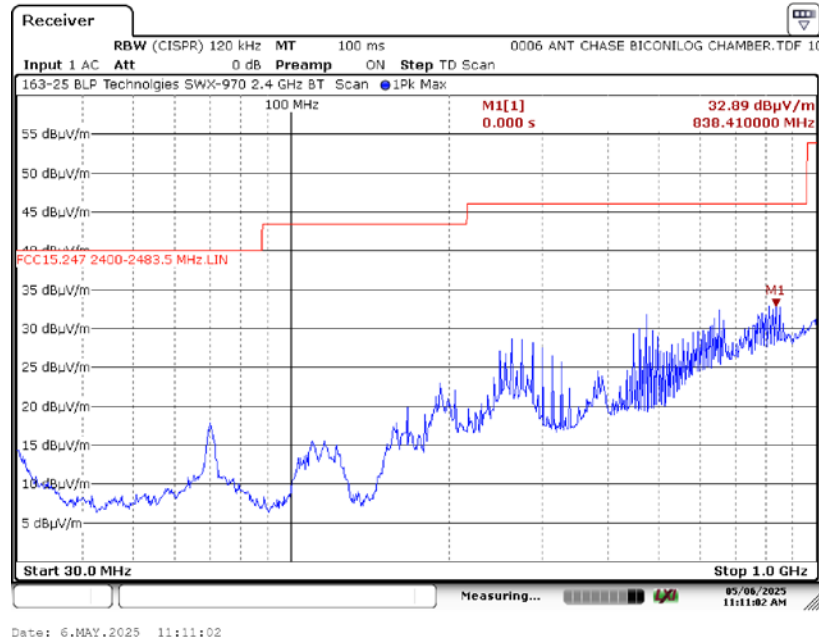


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

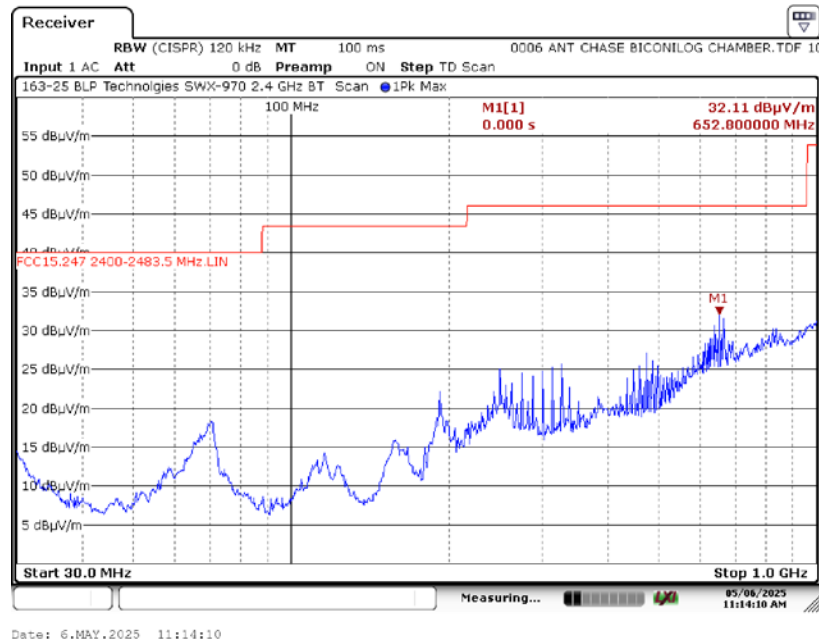
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.1. Channel 37, 2402 MHz

A3.1.1. Measurement Results: Horizontal Antenna



A3.1.2. Measurement Results: Vertical Antenna

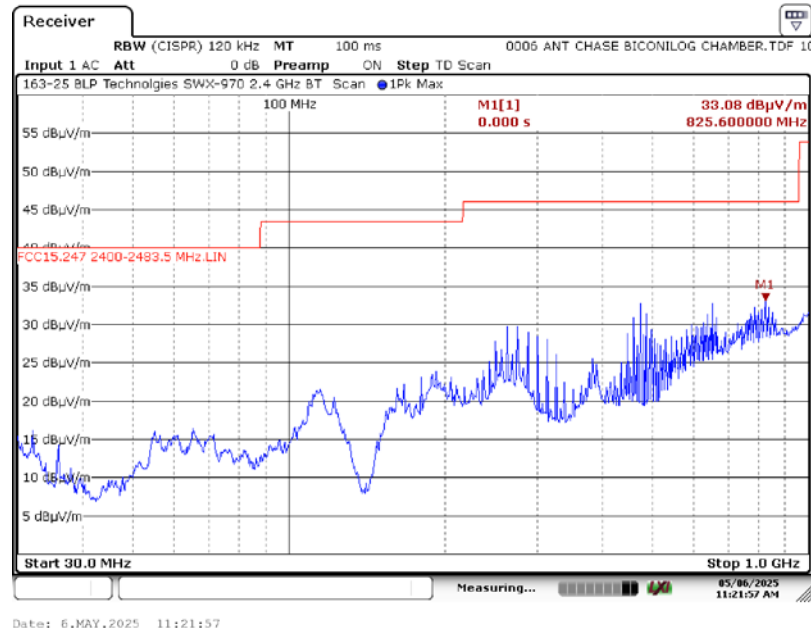


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

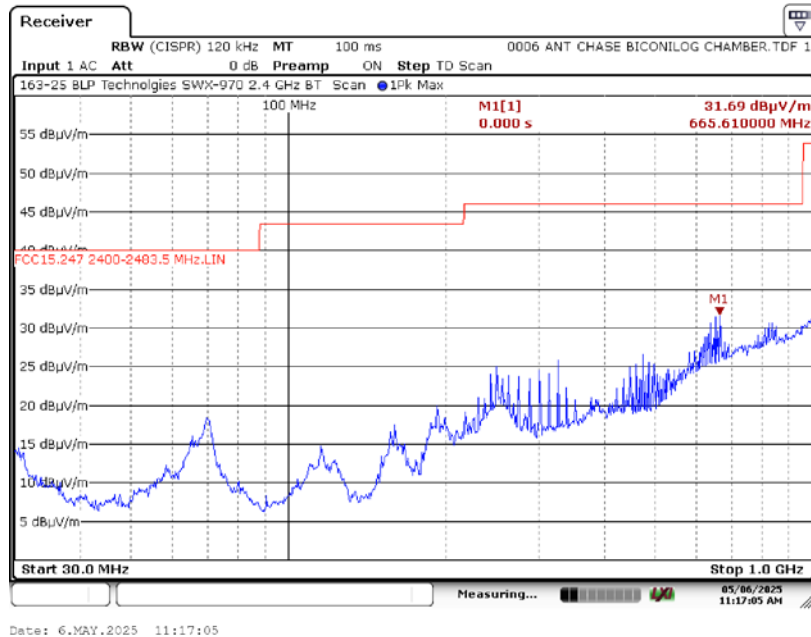
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.2. Channel 17, 2440 MHz

A3.2.1. Measurement Results: Horizontal Antenna



A3.2.2. Measurement Results: Vertical Antenna

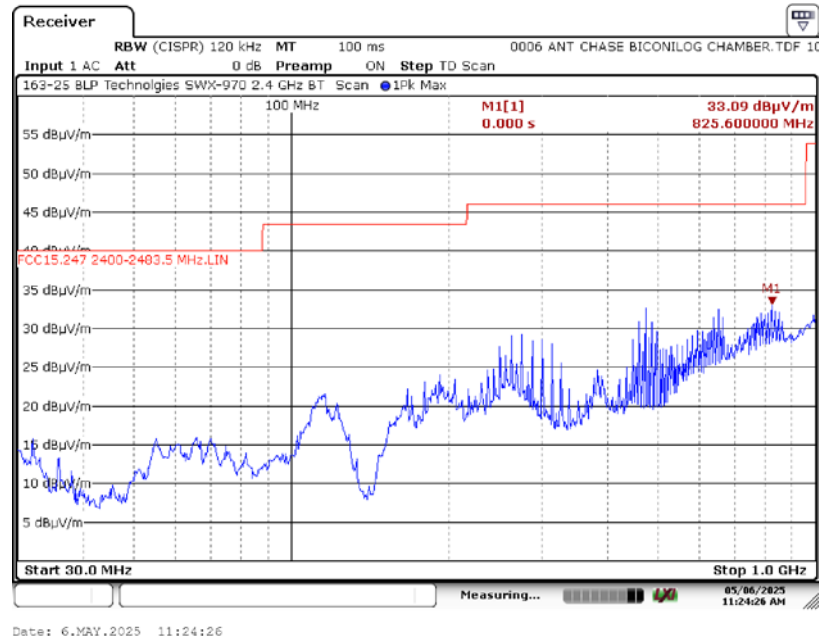


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

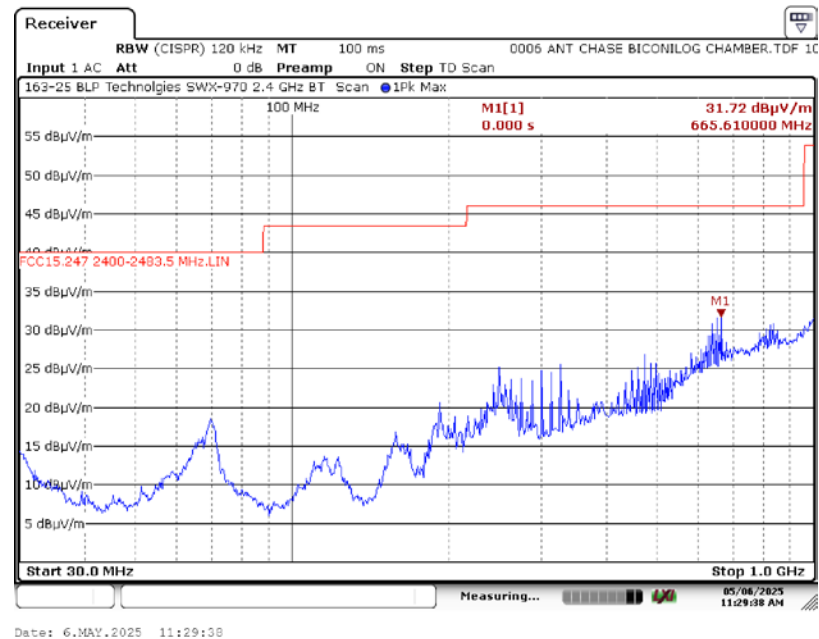
A3. Spurious Radiated Emissions (30 MHz – 1 GHz) Test Results

A3.3. Channel 39, 2480 MHz

A3.3.1. Measurement Results: Horizontal Antenna



A3.3.2. Measurement Results: Vertical Antenna

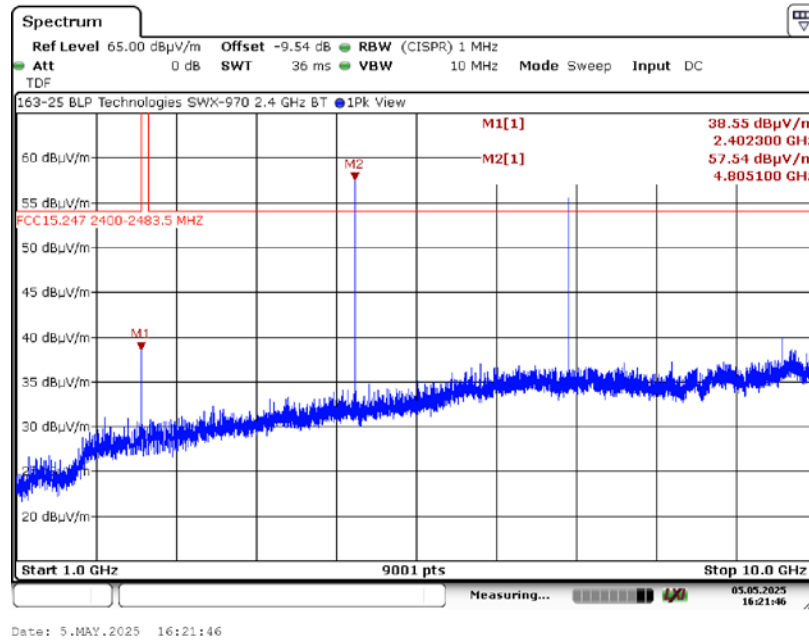


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

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

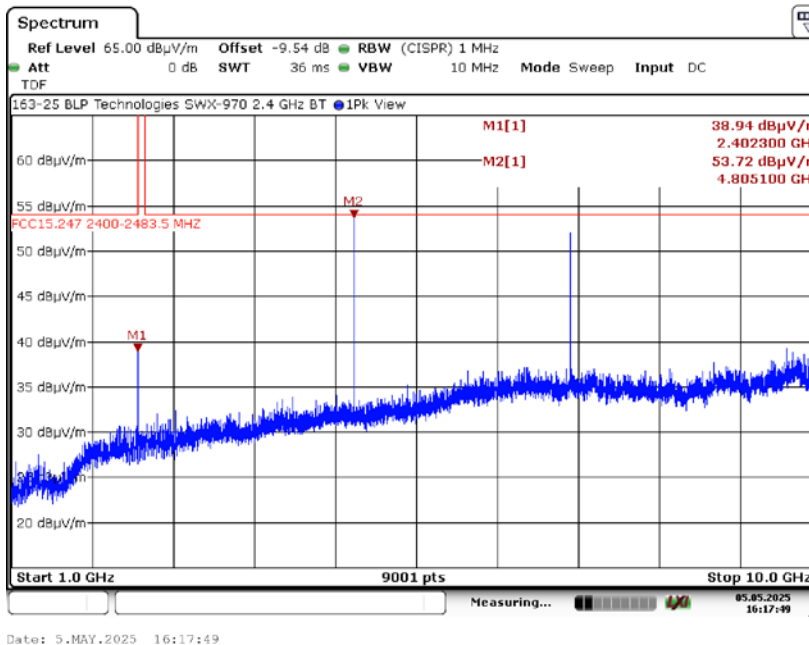
A4.1. Channel 37, 2402 MHz

A4.1.1. Measurement Results: Horizontal Antenna



Note: This a peak detector against the average limit, see Section 7.5.2

A4.1.2. Measurement Results: Vertical Antenna



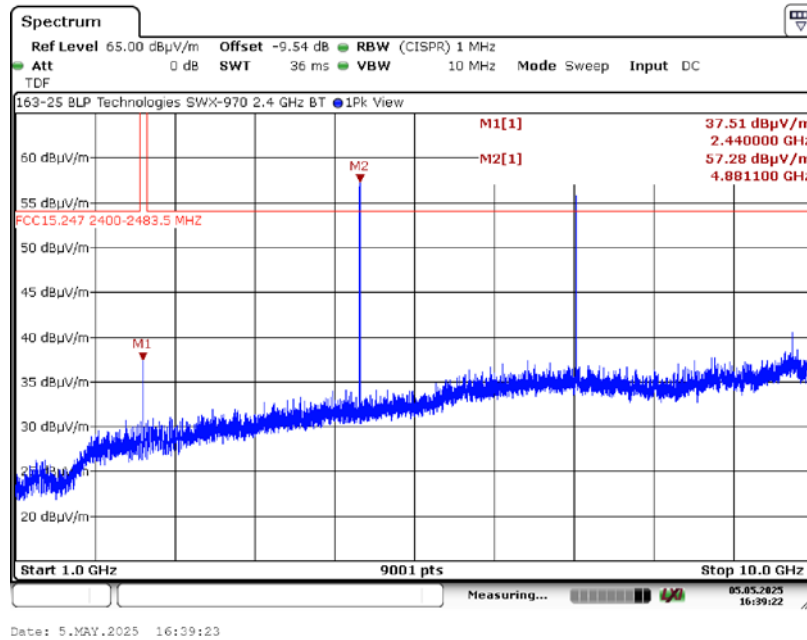
Note: This a peak detector against the average limit, see Section 7.5.2

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

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

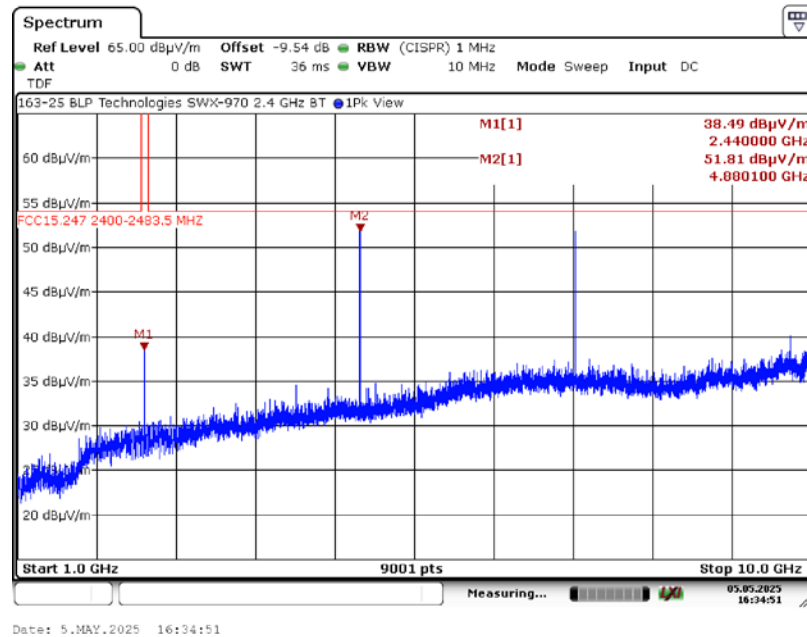
A4.2. Channel 17, 2440 MHz

A4.2.1. Measurement Results: Horizontal Antenna



Note: This a peak detector against the average limit, see Section 7.5.2

A4.2.2. Measurement Results: Vertical Antenna



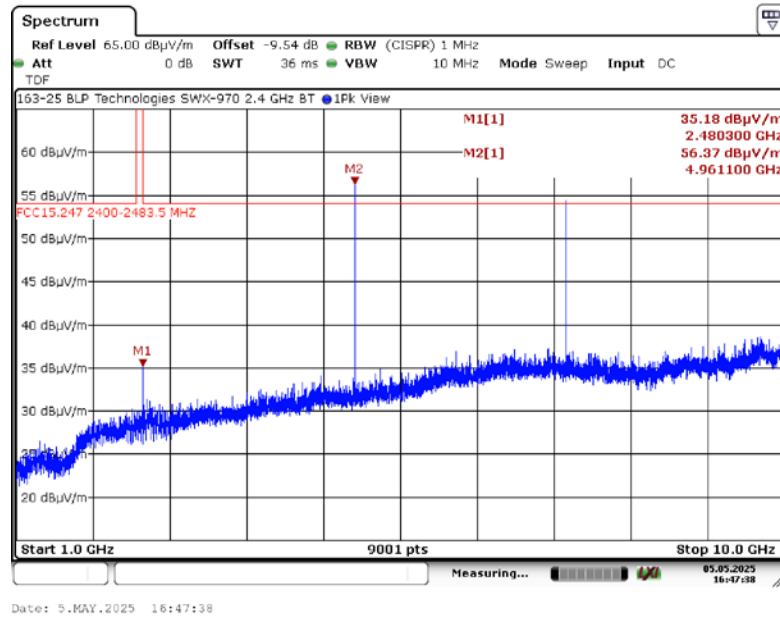
Note: This a peak detector against the average limit, see Section 7.5.2

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

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

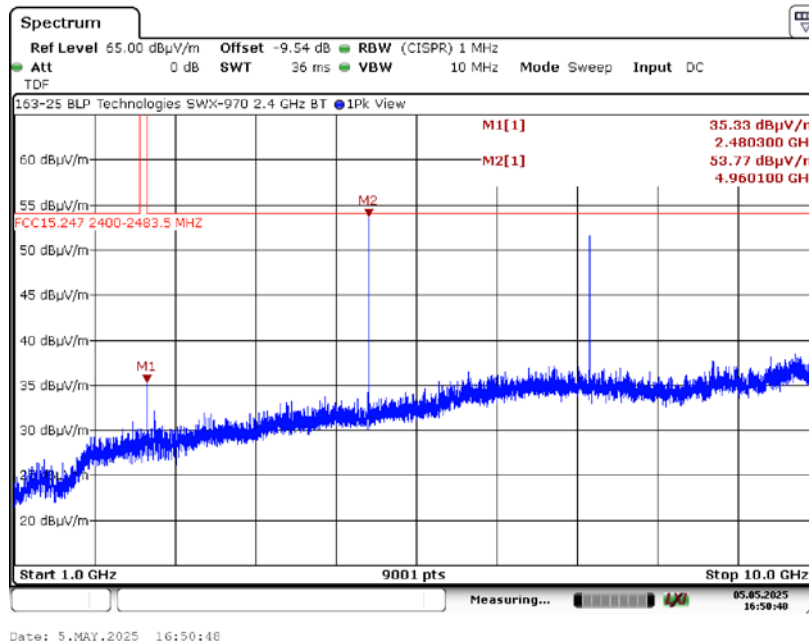
A4.3. Channel 39, 2480 MHz

A4.3.1. Measurement Results: Horizontal Antenna



Note: This a peak detector against the average limit, see Section 7.5.2

A4.3.2. Measurement Results: Vertical Antenna



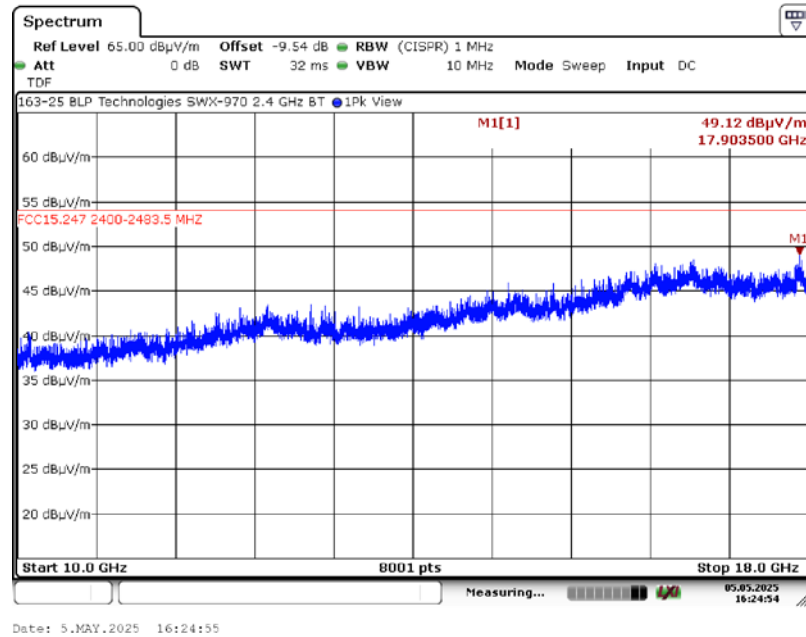
Note: This a peak detector against the average limit, see Section 7.5.2

Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

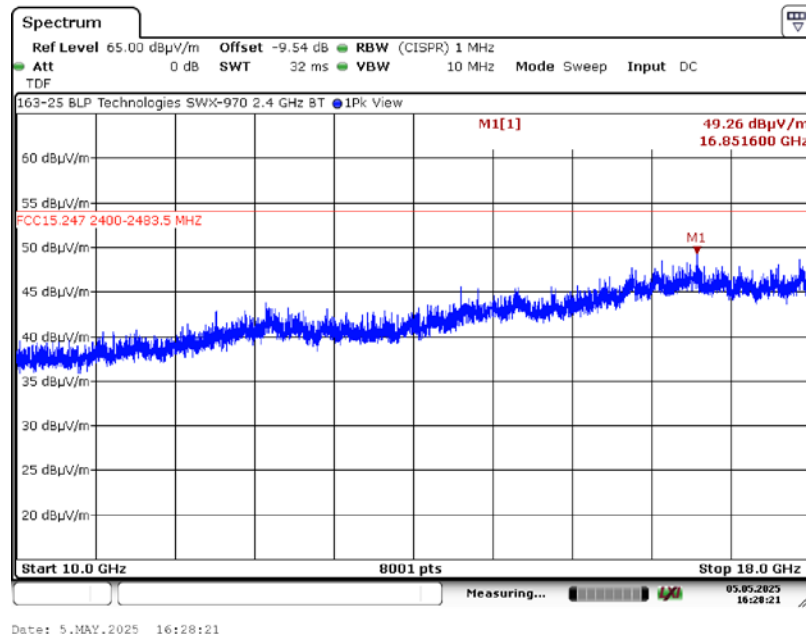
A5. Spurious Radiated Emissions (10 – 18 GHz) Test Results

A5.1. Channel 37, 2402 MHz

A5.1.1. Measurement Results: Horizontal Antenna



A5.1.2. Measurement Results: Vertical Antenna

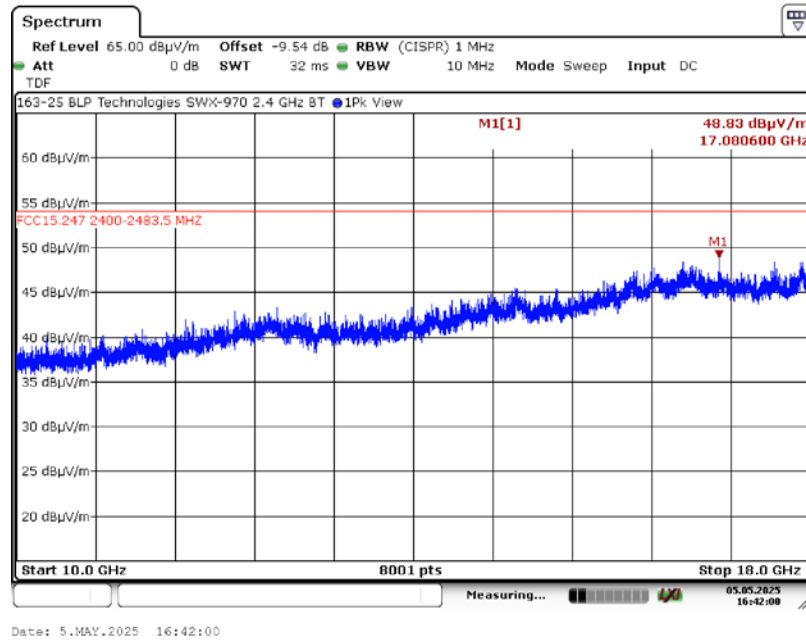


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

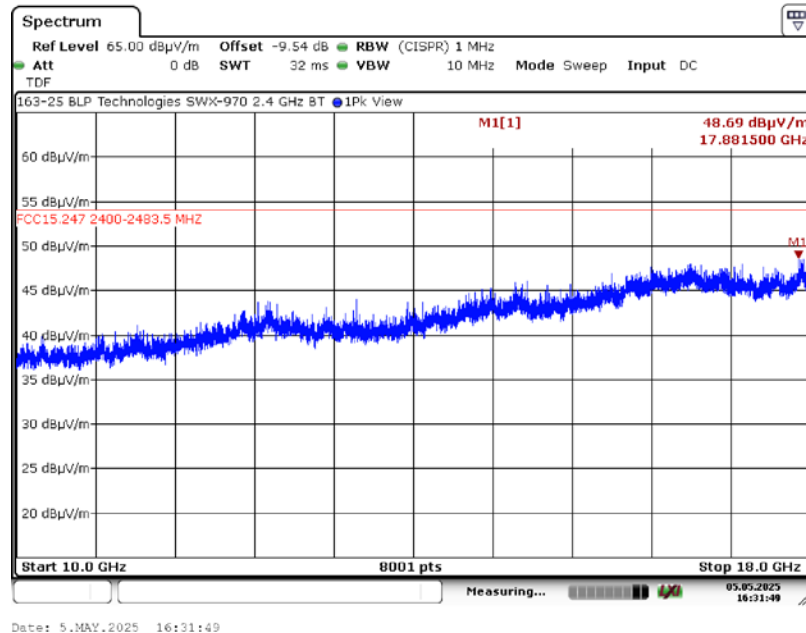
A5. Spurious Radiated Emissions (10 – 18 GHz) Test Results

A5.2. Channel 17, 2440 MHz

A5.2.1. Measurement Results: Horizontal Antenna



A5.2.2. Measurement Results: Vertical Antenna

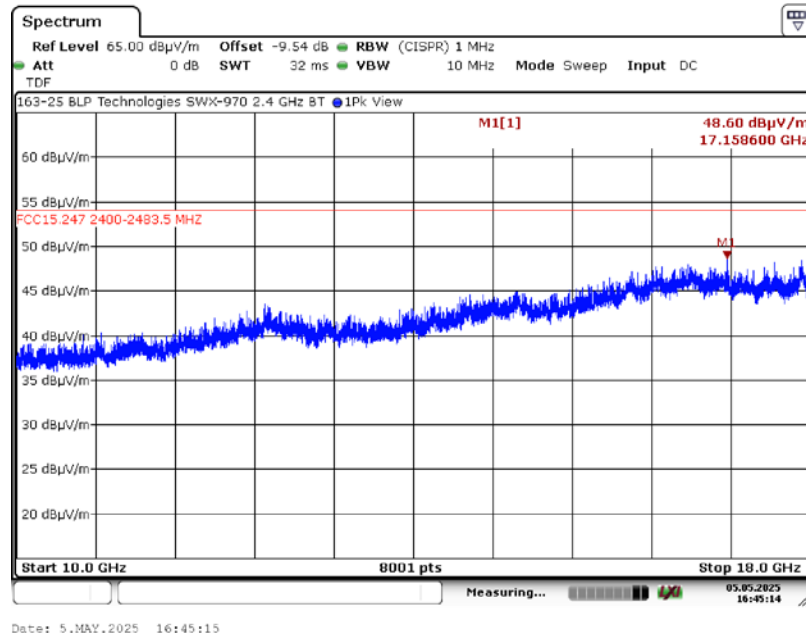


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

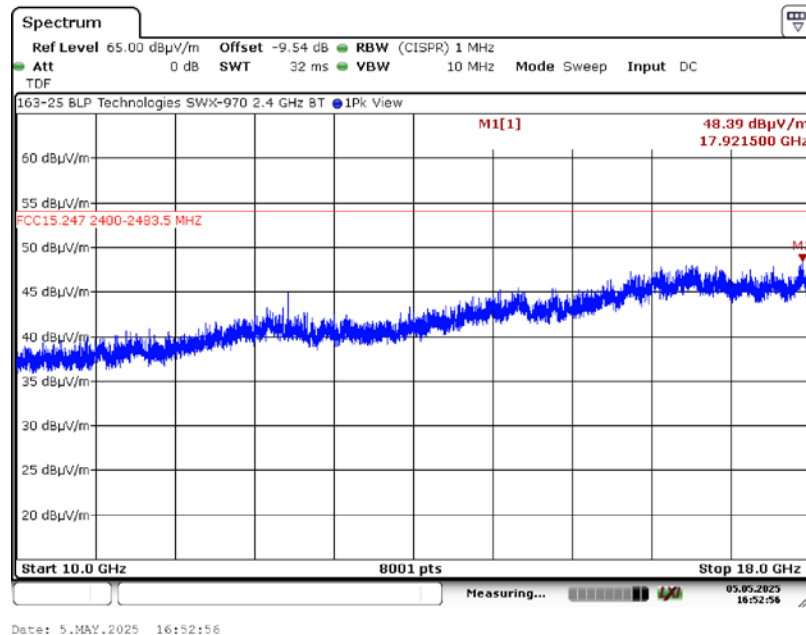
A5. Spurious Radiated Emissions (10 – 18 GHz) Test Results

A5.3. Channel 39, 2480 MHz

A5.3.1. Measurement Results: Horizontal Antenna



A5.3.2. Measurement Results: Vertical Antenna

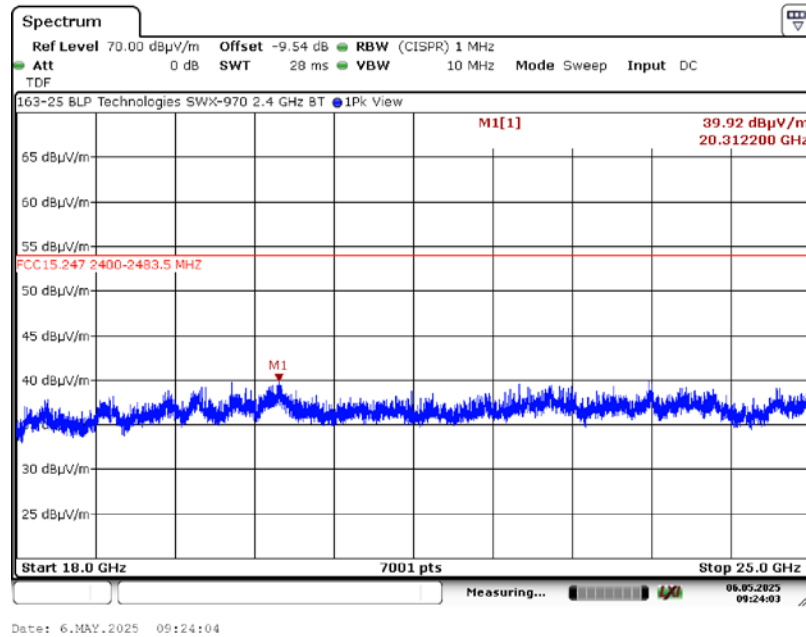


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

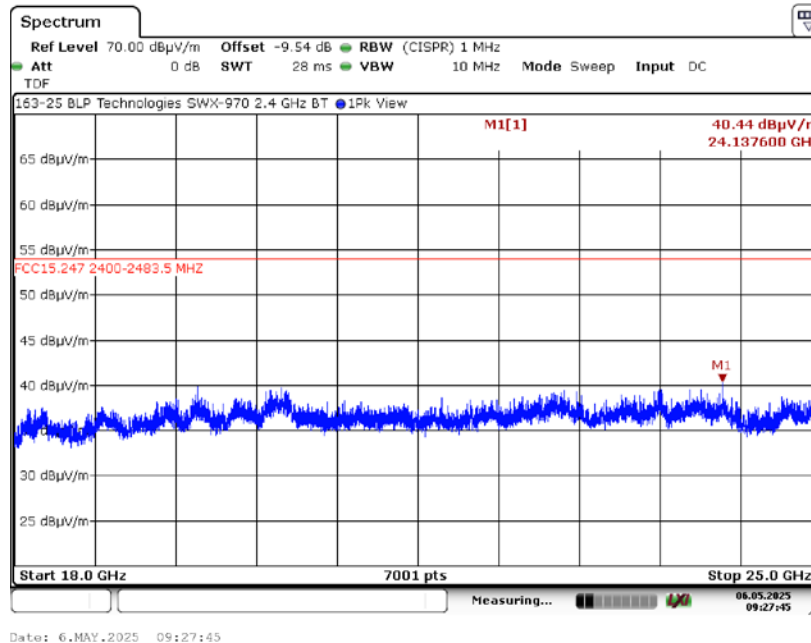
A6. Spurious Radiated Emissions (18 – 25 GHz) Test Results

A6.1. Channel 37, 2402 MHz

A6.1.1. Measurement Results: Horizontal Antenna



A6.1.2. Measurement Results: Vertical Antenna

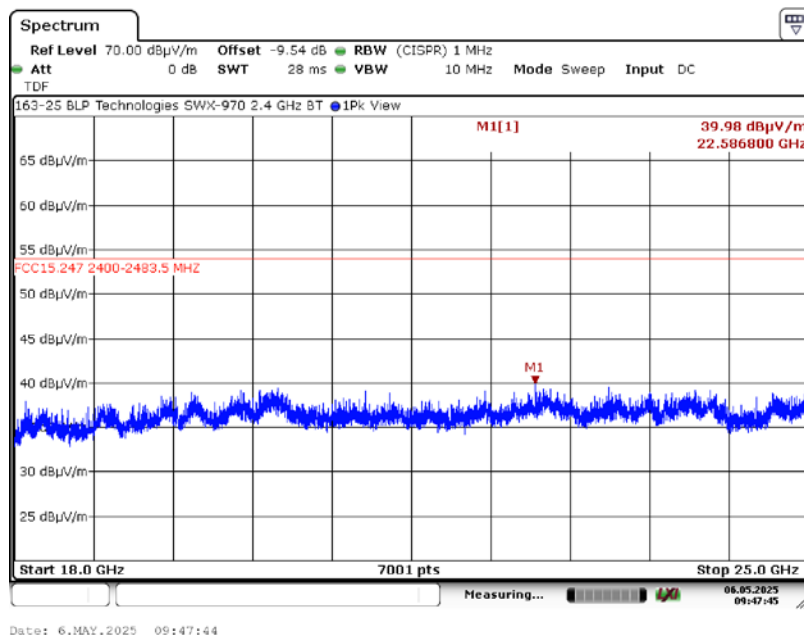


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

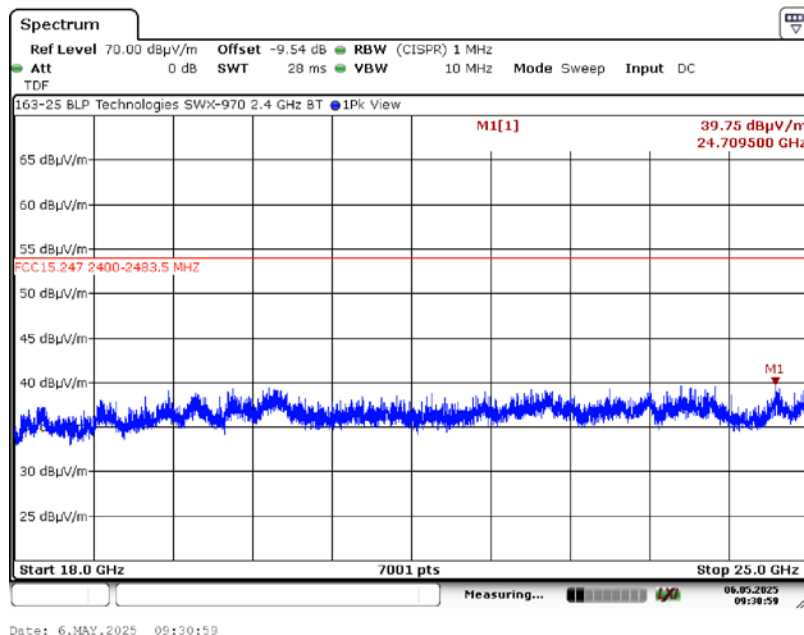
A6. Spurious Radiated Emissions (18 – 25 GHz) Test Results

A6.2. Channel 17, 2440 MHz

A6.2.1. Measurement Results: Horizontal Antenna



A6.2.2. Measurement Results: Vertical Antenna

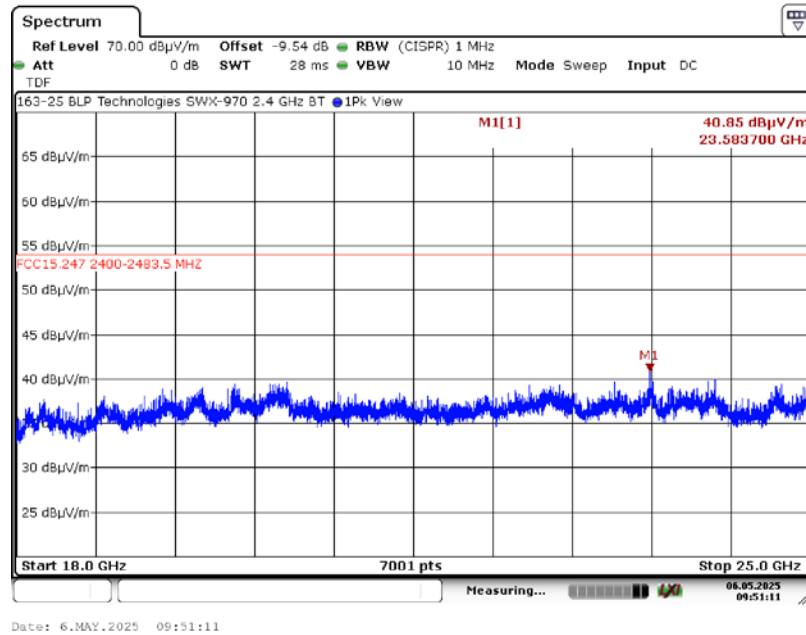


Appendix A - Transmitter Spurious Radiated Emissions (30 kHz to 25 GHz)

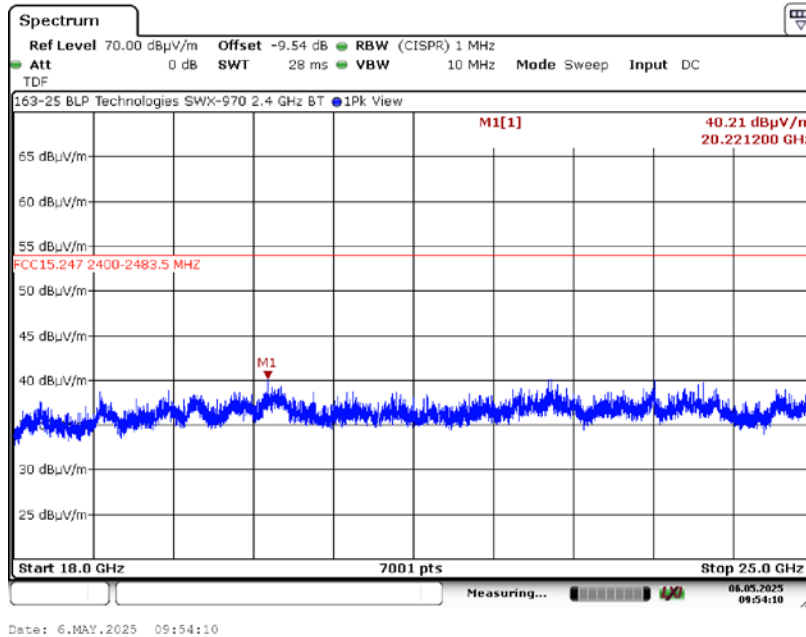
A6. Spurious Radiated Emissions (18 – 25 GHz) Test Results

A6.3. Channel 39, 2480 MHz

A6.3.1. Measurement Results: Horizontal Antenna



A6.3.2. Measurement Results: Vertical Antenna

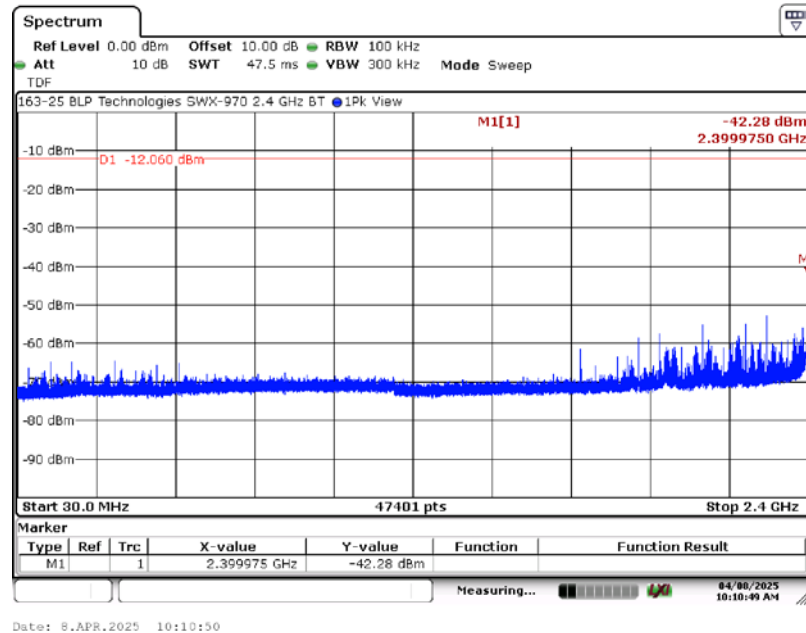


Appendix B

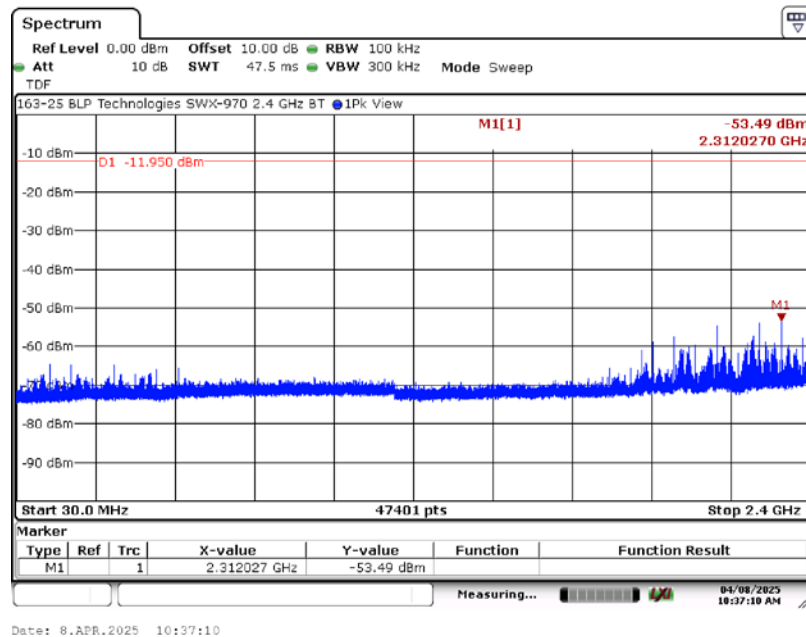
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)

B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results

B1.1.1. Measurement Results, 2402 MHz, 30 MHz – 2.4 GHz



B1.1.2. Measurement Results, 2440 MHz, 30 MHz – 2.4 GHz

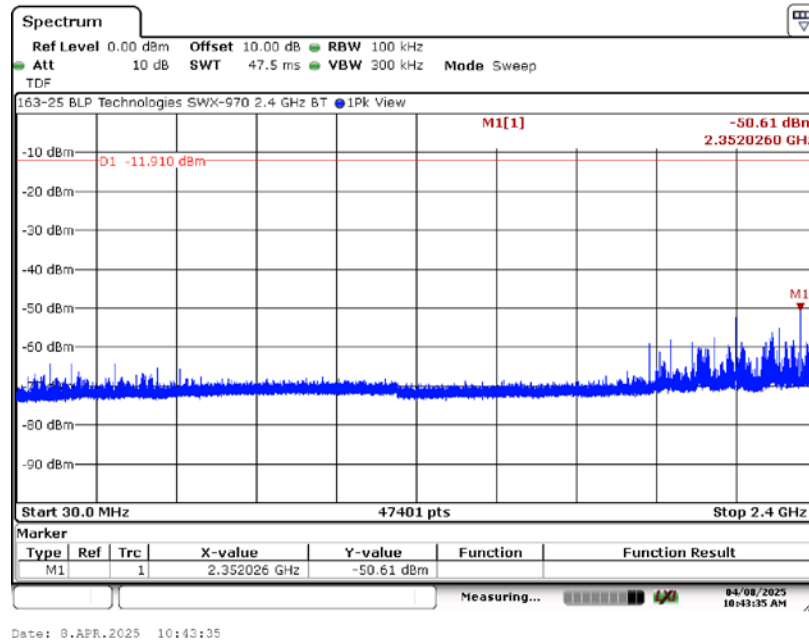


Appendix B

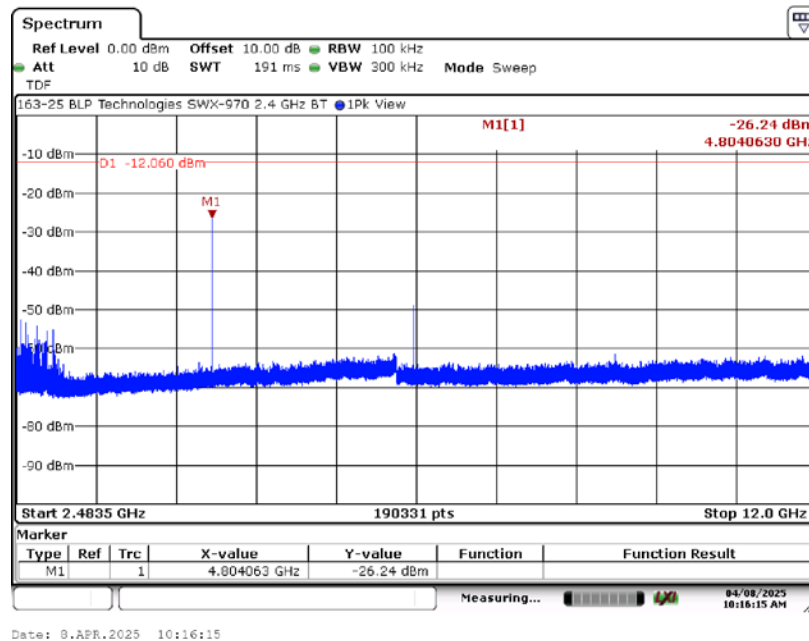
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)

B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results

B1.1.3. Measurement Results, 2480 MHz, 30 MHz – 2.4 GHz



B1.1.4. Measurement Results, 2402 MHz, 2.4835 – 12 GHz

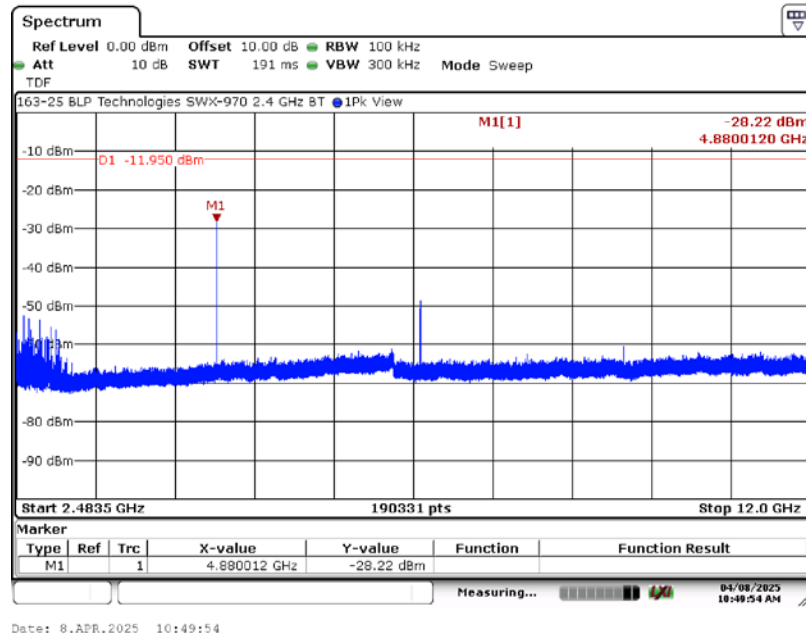


Appendix B

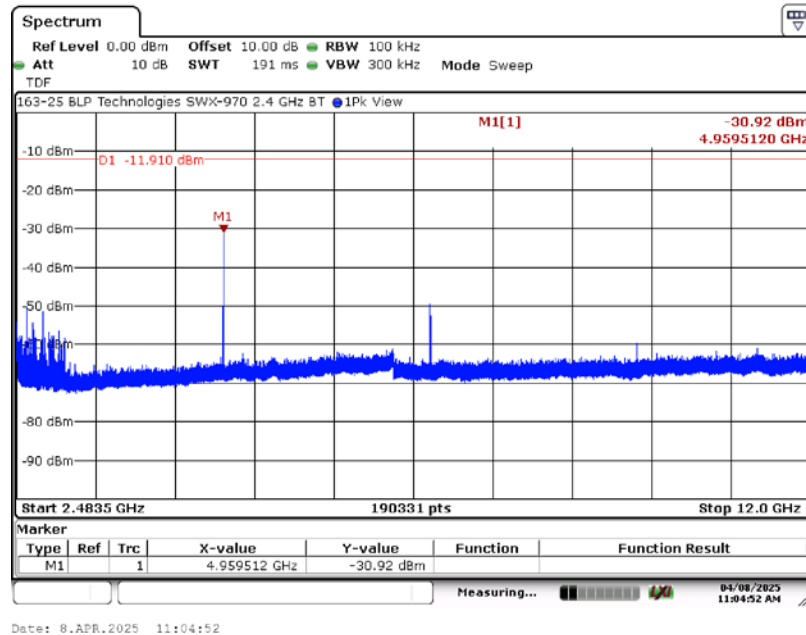
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)

B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results

B1.1.5. Measurement Results, 2440 MHz, 2.4835 – 12 GHz



B1.1.6. Measurement Results, 2480 MHz, 2.4835 – 12 GHz

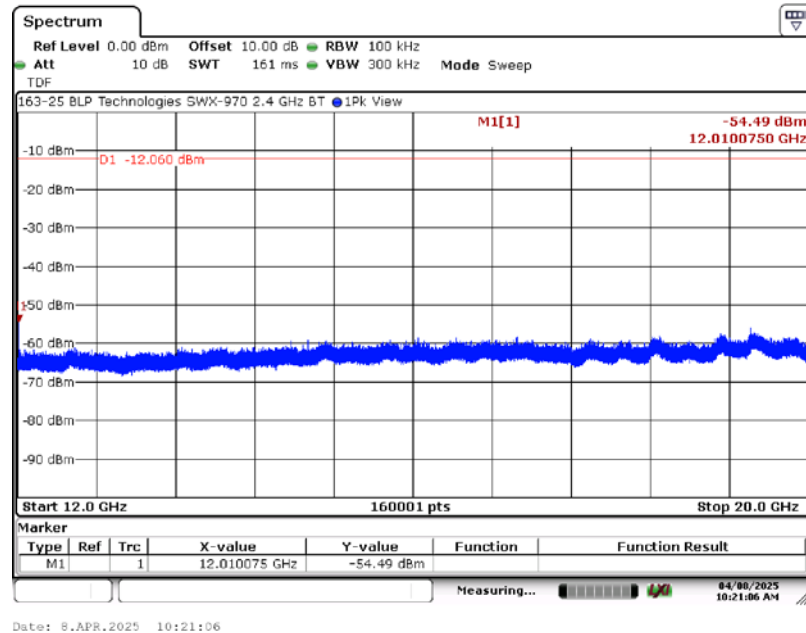


Appendix B

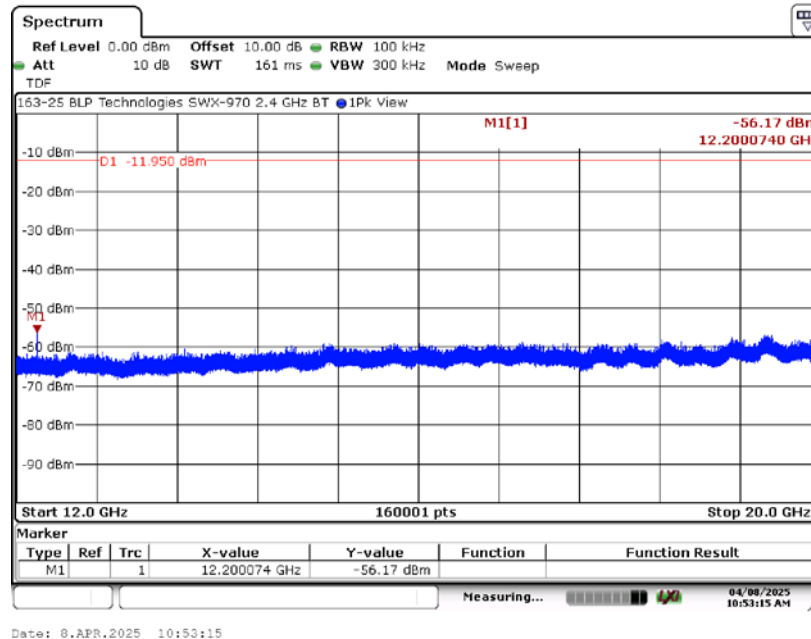
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)

B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results

B1.1.7. Measurement Results, 2402 MHz, 12 – 20 GHz



B1.1.8. Measurement Results, 2440 MHz, 12 – 20 GHz

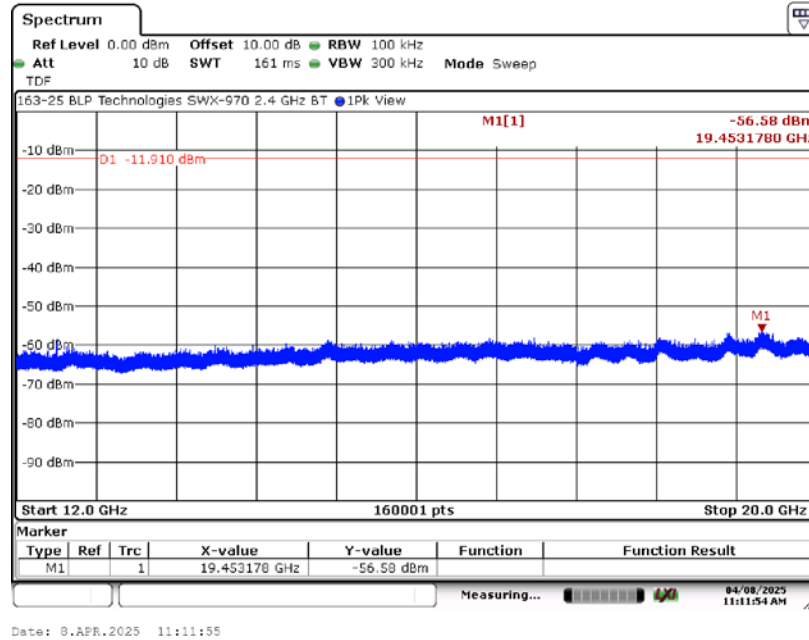


Appendix B

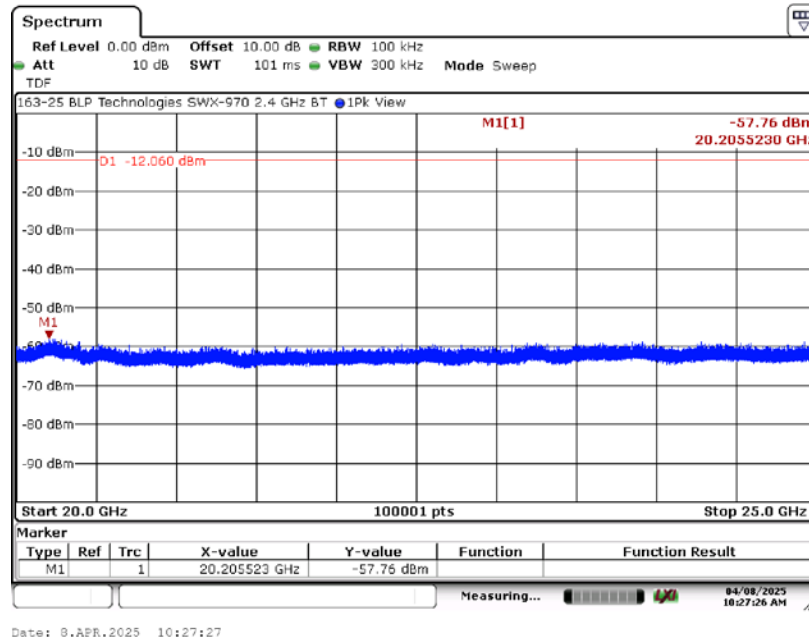
B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)

B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results

B1.1.9. Measurement Results, 2480 MHz, 12 – 20 GHz



B1.1.10. Measurement Results, 2402 MHz, 20 – 25 GHz

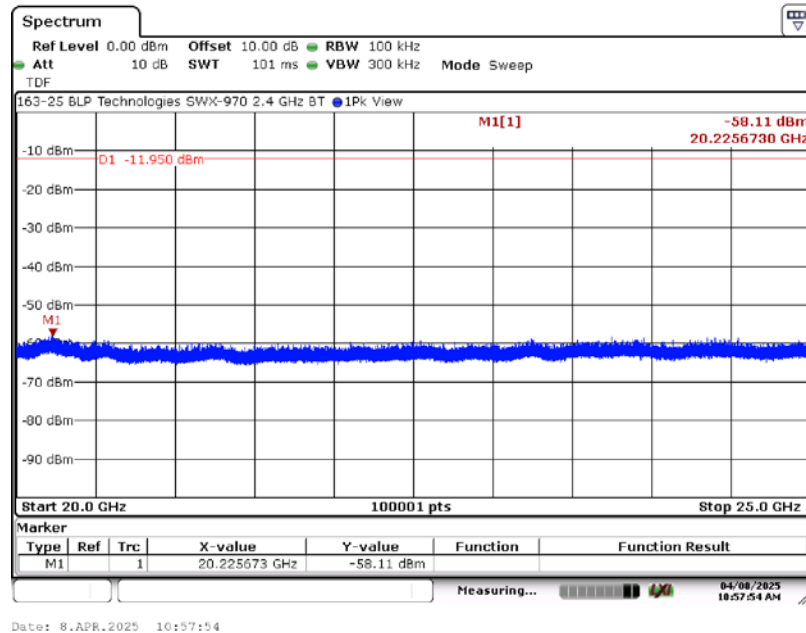


Appendix B

B1. Emissions in Non-restricted Frequency Bands (30 MHz to 25 GHz)

B1.1. Emissions in Non-restricted Frequency Bands (30 MHz – 25 GHz) Test Results

B1.1.11. Measurement Results, 2440 MHz, 20 – 25 GHz



B1.1.12. Measurement Results, 2480 MHz, 20 – 25 GHz

