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**Application  
For**

**Part 2, Subpart J, Paragraph 2.907 Equipment Authorization of Certification for an  
Intentional Radiator per Part 15, Subpart C, paragraphs 15.207, 15.209 and 15.247**

**And**

**Innovation, Science, and Economic Development Canada  
Certification Per  
IC RSS-Gen General Requirements for Radio Apparatus  
And  
RSS-247 Digital Transmission Systems (DTSs), Frequency Hopping Systems  
(FHSS) and License-Exempt Local Area Network (LE-LAN) Devices – Issue 3**

**For the**

**StreamLabs, Inc**

**Model Number: SLRM-3230**

**FCC ID: 2AHFE-3230**

**IC: 21143-3230**

**UST Project: 24-0190**

**Issue Date: August 4, 2025**

**Total Pages: 88**

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I certify that I am authorized to sign for the Test Agency and that all of the statements in this report and in the Exhibits attached hereto are true and correct to the best of my knowledge and belief:

US TECH (Agent Responsible For Test):

By: Alan Ghasiani

Name: Alan Ghasiani

Title: Compliance Engineer – President

Date: August 4, 2025



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## MEASUREMENT TECHNICAL REPORT

**COMPANY NAME:** StreamLabs, Inc  
**MODEL:** SLRM-3230  
**FCC ID:** 2AHFE-3230  
**IC:** 21143-3230  
**DATE:** August 4, 2025

This report concerns (check one): ☒Original grant ☐Class II change

Equipment type: 2.4 GHz Wi-Fi transmitter Device

Technical:  
IEEE Std. 802.11 b/g/n  
2412 MHz - 2462 MHz (Channels 1-11)  
Type of modulation:  
IEEE 802.11b- DSSSS/ IEEE 802.11g- OFDM/ IEEE 802.11n (20MHz)- OFDM  
Data/Bit Rate:  
802.11b= 1-11 Mbps, 802.11g= 6-54 Mbps, 802.11n= MCS0-7  
Antenna Gain: +0.97 dBi (Trace Antenna)  
Maximum Output Power: +13.92 dBm  
Software used to program EUT: CC31XX/CC32XX Radio Tool v1.0.3.19  
EUT firmware number: version: 4.12.0.1.3.1.0.1.3.1.0.26  
Power setting: 0 (Max level)

**Report prepared by:**  
US Tech  
3505 Franics Circle  
Alpharetta, GA 30004  
USA

Test Facility FCC Lab  
Designation #: US5301

Test Facility Canada Lab  
Code: 9900A-1  
CAB ID: US0031

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### **List of Attachments**

FCC Agency Agreement  
IC Agency Agreement  
FCC Application Forms  
IC Application Forms  
Letter of Confidentiality  
Equipment Label(s)  
Block Diagram(s)  
Schematic(s)

Test Configuration Photographs  
External Photographs  
Internal Photographs  
Theory of Operation  
RF Exposure  
User's Manual  
IC Cross Reference  
FCC Modular Approval Letter  
IC Modular Approval Letter

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## **1 General Information**

### **1.1 Purpose of this Report**

This report is prepared as a means of conveying test results and information concerning the suitability of this exact product for public distribution according to IC RSS-247 and FCC Rules and Regulations Part 15, Section 247.

### **1.2 Characterization of Test Sample**

The sample used for testing was received by US Tech on August 26, 2024 in good operating condition.

### **1.3 Product Description**

The Equipment under Test (EUT) is the StreamLabs, Inc Model SLRM-3230. The SLRM-3230 is a device designed to be used to monitor for water leakage, spillage and also records and sends temperature and humidity data to a cloud network. The end user can check on the status of the device via the cloud network. The EUT is battery operated. The EUT can be used in both residential and commercial environments.

The EUT incorporates Wi-Fi technology. This report is an assessment of the Wi-Fi transmitter compared to FCC Part 15 Subpart C limits.

The Wi-Fi radio details include:

Antenna Gain: +0.97 dBi (Trace Antenna)  
Bandwidth: 20 MHz bandwidth modulation  
Maximum Output Power: +13.92 dBm

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## **1.4 Configuration of Tested System**

The Test Sample was tested per *ANSI C63.10:2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices* for the intentional radiator aspect of the device and *ANSI C63.4:2014, Methods of Measurement of Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (2014)* for the unintentional radiator aspect of the device as well as FCC subpart B and C of Part 15 and per FCC KDB Publication number 558074 v05r02 for Digital Transmission Systems Operating Under section 15.247.

Digital RF conducted and radiated emissions data below 1 GHz were taken with the measuring receiver (or spectrum analyzer's) resolution bandwidth adjusted to 9 kHz and 120 kHz, respectively. All measurements performed above 1.0 GHz were made with a RBW of 1 MHz. All measurements are peak unless stated otherwise. The video filter associated with the spectrum analyzer was set to 3 times the RBW or as required per the standard throughout the evaluation process.

A list of EUT and Peripherals are found in Table 1. A block diagram of the tested system is shown in Figure 1. Test configuration photographs for spurious and fundamental emissions are provided in separate Appendices.

## **1.5 Test Facility**

Testing was performed at US Tech's measurement facility at 3505 Francis Circle, Alpharetta, GA 30004. This site has been fully described and registered with the FCC. Its designation number is US5301. Additionally, this site has also been fully described and submitted to Industry Canada (IC), and has been approved under file number 9900A-1.

## **1.6 Related Submittal(s)/Grant(s)**

The EUT is subject to the following FCC Equipment Authorizations:

- a) Certification of the transmitter incorporated within the EUT, see test data presented herein.

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**Table 1. EUT and Peripherals**

| PERIPHERAL<br>MANUFACTURER     | MODEL<br>NUMBER | SERIAL<br>NUMBER       | REMARKS                                                           | CABLES<br>P/D |
|--------------------------------|-----------------|------------------------|-------------------------------------------------------------------|---------------|
| EUT/<br>StreamLabs, Inc        | SLRM-3230       | Engineering<br>Smample | FCC ID:<br>2AHFE-3230 (Pending)<br>IC:<br>21143-3230<br>(Pending) | PU/DU         |
| AC Adaptor<br>Yingjiao         | YS6-<br>0331200 | None                   | None                                                              | PU            |
| Antenna<br>See antenna details | --              | --                     | --                                                                | --            |

S= Shielded, U= Unshielded, P= Power, D= Data

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## 2 Tests and Measurements

### 2.1 Test Equipment

The table below lists test equipment used to evaluate this product. Model numbers, serial numbers and their calibration status are included herein.

**Table 2. Test Instruments**

| TEST INSTRUMENT                  | MANUFACTURER           | MODEL NUMBER        | SERIAL NUMBER        | CALIBRATION DUE DATE |
|----------------------------------|------------------------|---------------------|----------------------|----------------------|
| Spectrum Analyzer                | Agilent                | E4440A              | MY45304803           | 7/21/2025<br>2 yr.   |
| Spectrum Analyzer                | Rigol                  | DSA815              | DSA8A180300138       | 2/22/2026<br>2 yr.   |
| Rf Preamp<br>100 Khz To 1.3 Ghz  | Hewlett-Packard        | 8447D               | 2944A07519           | 1/5/2025             |
| Preamp<br>1.0 Ghz To 26.0<br>Ghz | Hewlett-Packard        | 8449B               | 3008A00480           | 3/4/2025             |
| Loop<br>Antenna                  | ETS Lindgren           | 6502                | 9810-3246            | 12/7/2024<br>2 yr.   |
| Biconical<br>Antenna             | EMCO                   | 3110B               | 9307-1431            | 1/13/2025<br>2 yr.   |
| Log Periodic<br>Antenna          | EMCO                   | 3146                | 9305-3600            | 3/13/2026<br>2 yr.   |
| Horn<br>Antenna                  | EMCO                   | 3115                | 9107-3723            | 3/13/2025<br>2 yr.   |
| High Pass Filter                 | Microwave<br>Chircuits | H3R020G2            | 001DC9528            | 7/2/2025             |
| LISN X 2                         | Solar Electronics      | 9247-50-<br>TS-50-N | 955824 and<br>955825 | 4/28/2025            |

Note 1: The calibration interval of the above test instruments are 12 months unless stated otherwise and all calibrations are traceable to NIST/USA.

Note 2: All testing conducted before May 07, 2020.

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## 2.2 Modifications to EUT Hardware

No modifications were made by US Tech to bring the EUT into compliance with FCC Part 15.247 or IC RSS-210 requirements.

## 2.3 Number of Measurements for Intentional Radiators (15.31(m), RSS-Gen 6.8)

Measurements of intentional radiators or receivers shall be performed and reported for each band in which the device can be operated, with the device operating at the number of frequencies in each band specified in Table 3.

**Table 3. Number of Test Frequencies for Intentional Radiators**

| Frequency Range over which the device operates | Number of Frequencies | Location in the Range of operation           |
|------------------------------------------------|-----------------------|----------------------------------------------|
| 1 MHz or less                                  | 1                     | Middle                                       |
| 1 to 10 MHz                                    | 2                     | 1 near the top<br>1 near the bottom          |
| Greater than 10 MHz                            | 3                     | 1 near top<br>1 near middle<br>1 near bottom |

Because the EUT operates over 2.412 GHz to 2.462 GHz, 3 test frequencies will be used.

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## **2.4 Frequency Range of Radiated Measurements (Part 15.33, RSS-Gen 6.13)**

### **2.4.1 Intentional Radiator**

The spectrum shall be investigated for the intentional radiator from the lowest RF signal generated in the EUT, without going below 9 kHz to the 10<sup>th</sup> harmonic of the highest fundamental frequency generated or 40 GHz, whichever is the lowest.

### **2.4.2 Unintentional Radiator**

For the digital device, an unintentional radiator, the frequency range shall be 30 MHz to 1000 MHz, or to the range specified in 2.4.1 above, whichever is the higher range of investigation.

## **2.5 Measurement Detector Function and Bandwidth (CFR 15.35, RSS-Gen 6.9, 6.10)**

The radiated and conducted emissions limits shown herein are based on the following:

### **2.5.1 Detector Function and Associated Bandwidth**

On frequencies below 1000 MHz, the limits herein are based upon measurement equipment employing a CISPR Quasi-peak detector function and related measurement bandwidths (i.e. 9 kHz from 150 kHz to 30 MHz and 120 kHz from 30 MHz to 1000 MHz). Alternatively, measurements may be made with equipment employing a peak detector function as long as the same bandwidths specified for the Quasi-peak device are used.

### **2.5.2 Corresponding Peak and Average Requirements**

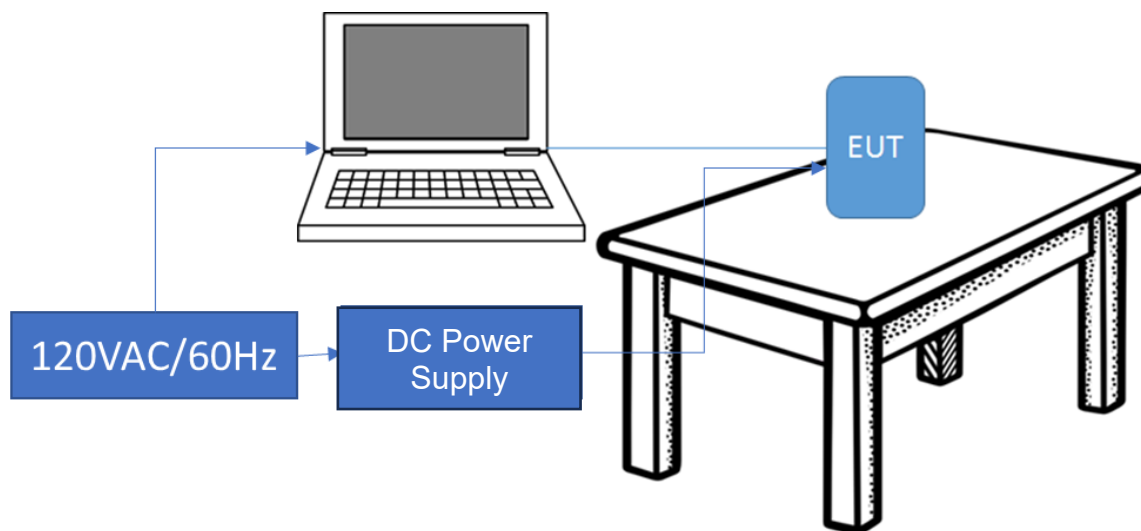
Above 1000 MHz, radiated limits are based on measuring instrumentation employing an average detector function. When average radiated emissions are specified there is also a corresponding Peak requirement, as measured using a peak detector, of 20 dB greater than the average limit. For all measurements above 1000 MHz the Resolution Bandwidth shall be at least 1 MHz.

## 2.6 EUT Antenna Requirements (CFR 15.203, RSS-Gen 6.8)

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. Only the antenna(s) listed in Table 4 will be used with this module.

**Table 4. Allowed Antenna(s)**

| REPORT REFERENCE | MANUFACTURER    | TYPE OF ANTENNA | MODEL           | GAIN dB <sub>i</sub> | TYPE OF CONNECTOR |
|------------------|-----------------|-----------------|-----------------|----------------------|-------------------|
| Antenna          | StreamLabs, Inc | PCB Trace       | Inverted F type | +0.97                | PCB Antenna       |



**Figure 1. Block Diagram of Test Configuration**

Note: PC used to program EUT for intentional spurious emissions

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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24-0190  
August 4, 2025  
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SLRM-3230

## **2.7 Restricted Bands of Operation (Part 15.205, RSS-Gen 8.10)**

Only spurious emissions can fall in the frequency bands of CFR 15.205. The field strength of these spurious cannot exceed the limits of 15.209. Radiated harmonics and other Spurious are examined for this requirement see section 2.10.

## **2.8 Transmitter Duty Cycle (Part 15.35 (c), RSS-Gen 6.10)**

The EUT employs pulse transmission however for testing purpose the EUT was programmed to transmit at a rate >98%. The pulse transmission requirements of this subpart were acknowledge and considered during testing.

When the radiated emissions limit is expressed as an average value, and the transmitter is pulsed, the measured field strength shall be determined by applying a Duty Cycle Correction Factor based upon dividing the total ON time during the first 100 ms period by 100 ms (or by the period if less than 100 ms). The duty cycle may also be expressed logarithmically in dB.

## **2.9 Antenna Conducted Intentional and Spurious Emissions (CFR 15.209, 15.247(d)) (IC RSS 247, 6.6))**

The EUT was put into a continuous-transmit mode of operation and tested per ANSI C63.10-2013 and KDB 558074 for conducted out of band emissions emanating from the antenna port over the frequency range of 30 MHz to ten times the highest clock frequency generate or used in this case, 25 GHz. A conducted scan was performed on the EUT to identify and record spurious signals that were related to the transmitter. Antenna Conducted Emissions of a significant magnitude that fell within restricted bands were then measured as radiated emissions in the EMC Chamber. The conducted emissions graphs are found in the figures below. The limit for antenna conducted power is 1 Watt (30 dBm) per 15.247 (b)(3).

For Conducted RF antenna tests, the RBW was set to 120 kHz, video bandwidth (VBW)  $\geq 3 \times$  RBW, scan up through the 10<sup>th</sup> harmonic of the fundamental frequency. All harmonics/spurs must be at least 20 dB down from the highest emission level within the authorized band.

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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21143-3230  
24-0190  
August 4, 2025  
StreamLabs, Inc  
SLRM-3230

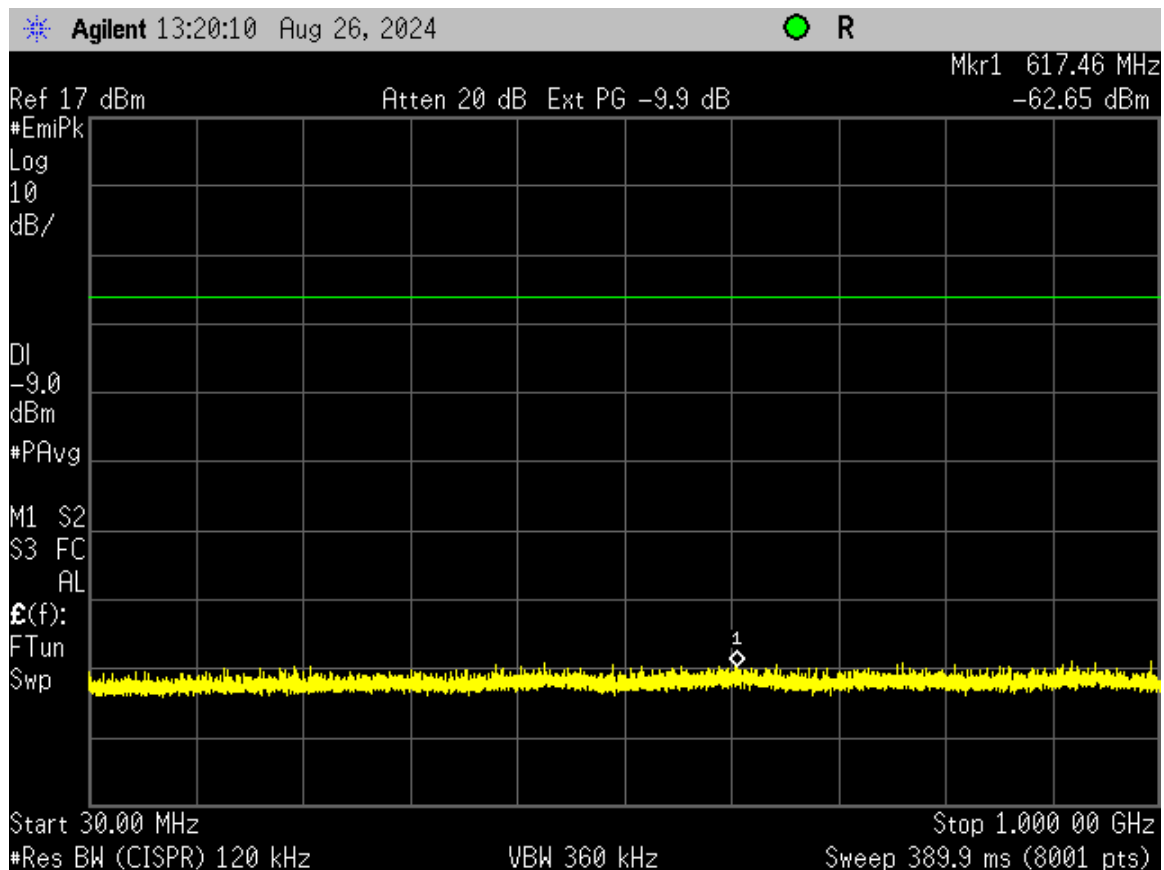


**Figure 2. Bench Test Setup**

Test Date: August 26, 2024

Tested By  
Signature:

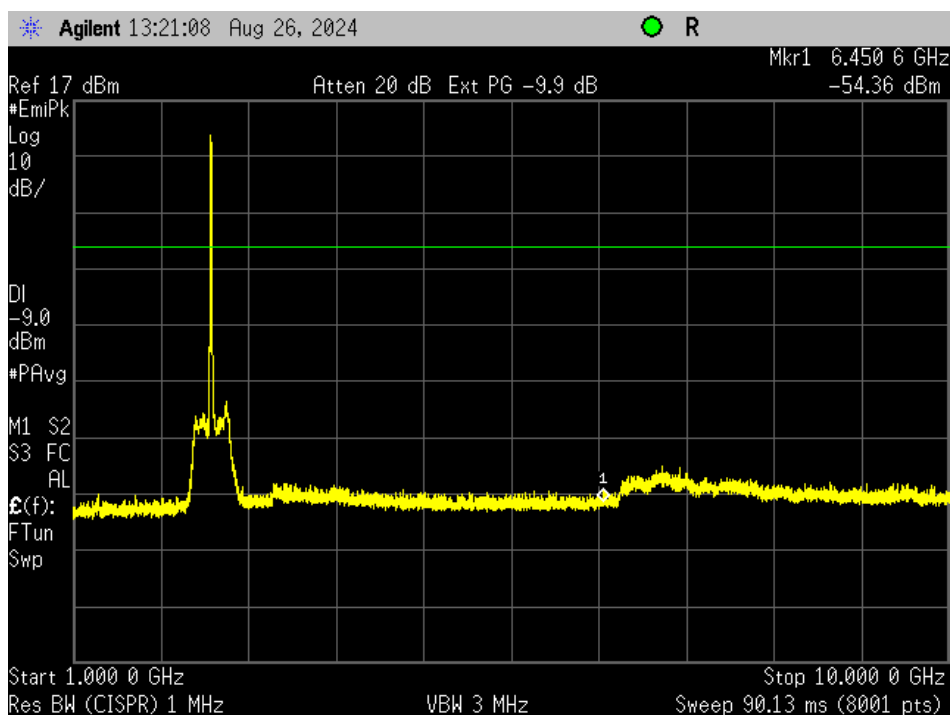
Name: Gabriel Medina



**Figure 3. 802.11b, Channel 1, 30-1000 MHz**

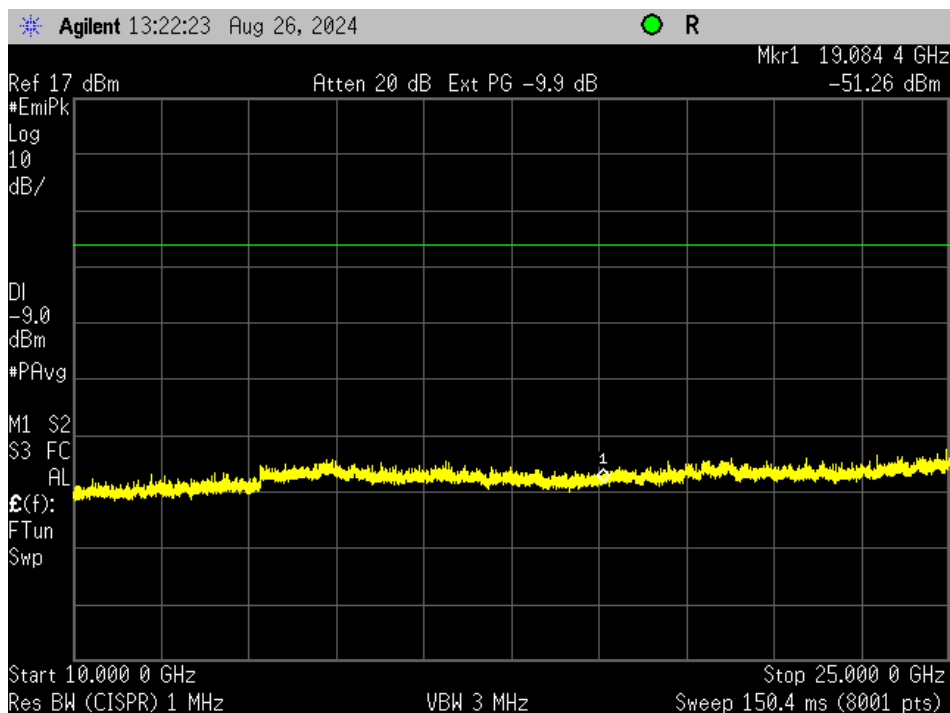
US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
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**Figure 4. 802.11b, Channel 1, 1 – 10 GHz**

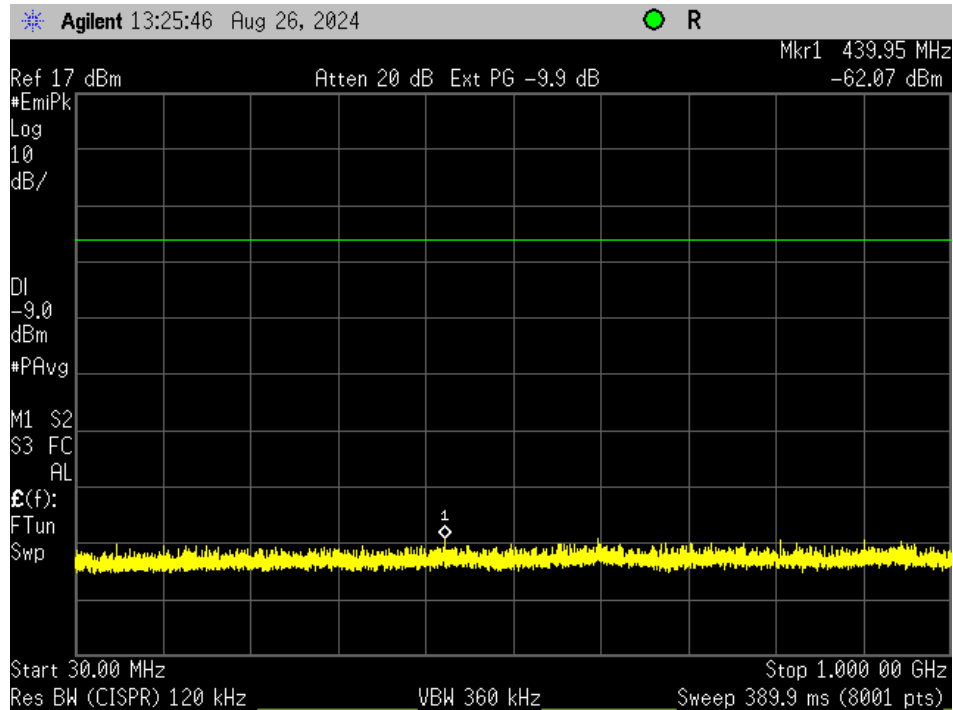
(Note: Intentional Emission seen for radio operating at 2412 MHz)



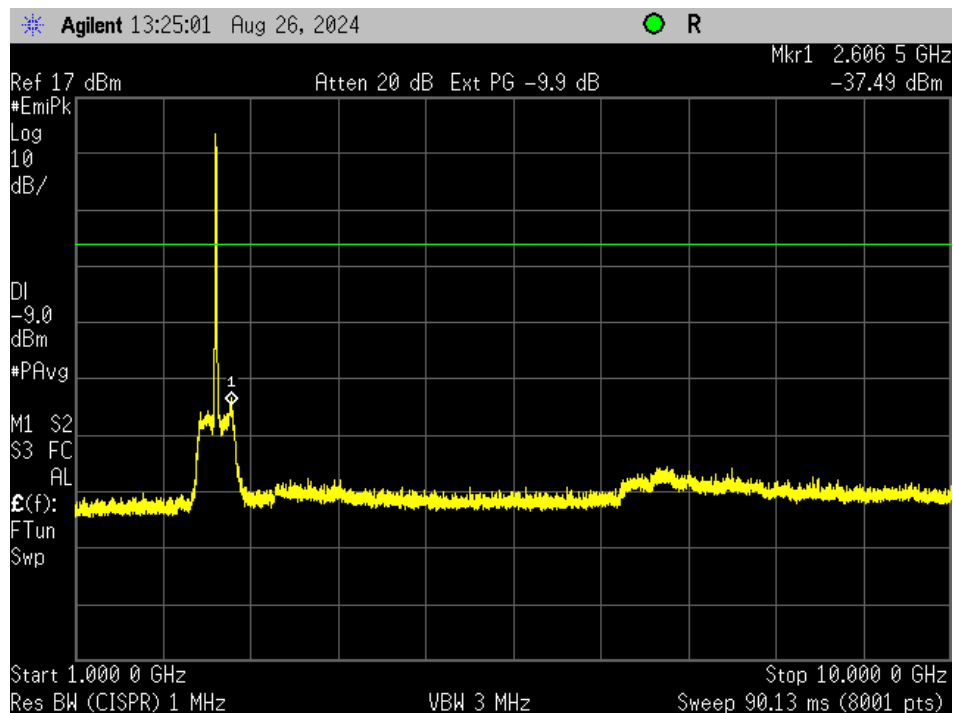
**Figure 5. 802.11b, Channel 1, 10 - 25 GHz**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
24-0190  
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**Figure 6. 802.11b, Channel 7, 30-1000 MHz**



**Figure 7. 802.11b, Channel 7, 1 – 10 GHz**

(Note: Intentional Emission seen for radio operating at 2442 MHz)

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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21143-3230  
24-0190  
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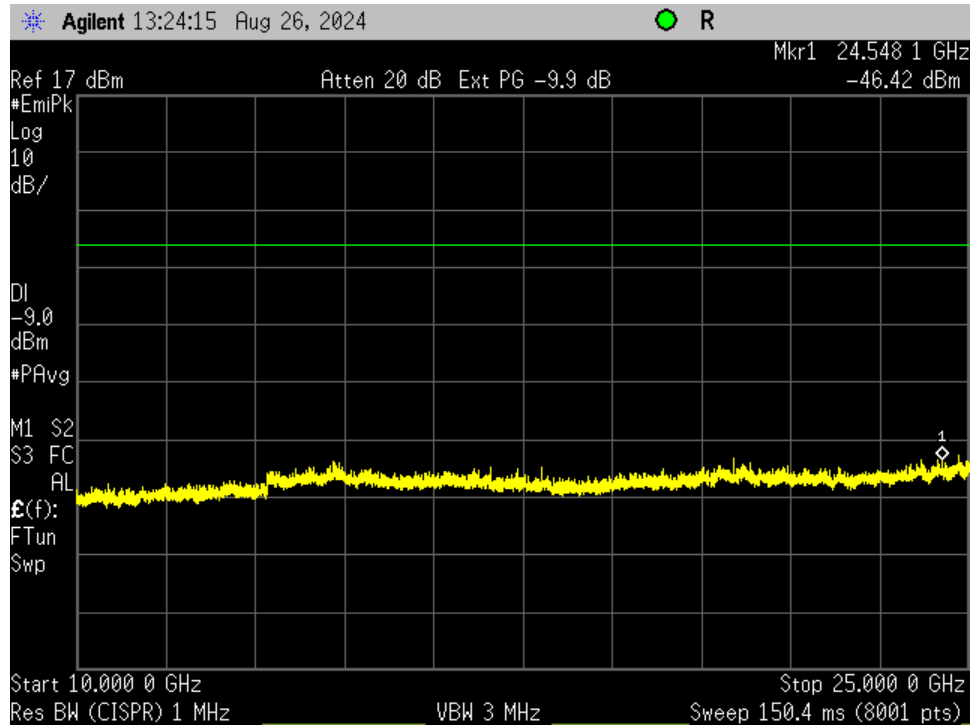


Figure 8. 802.11b, Channel 7, 10 - 25 GHz

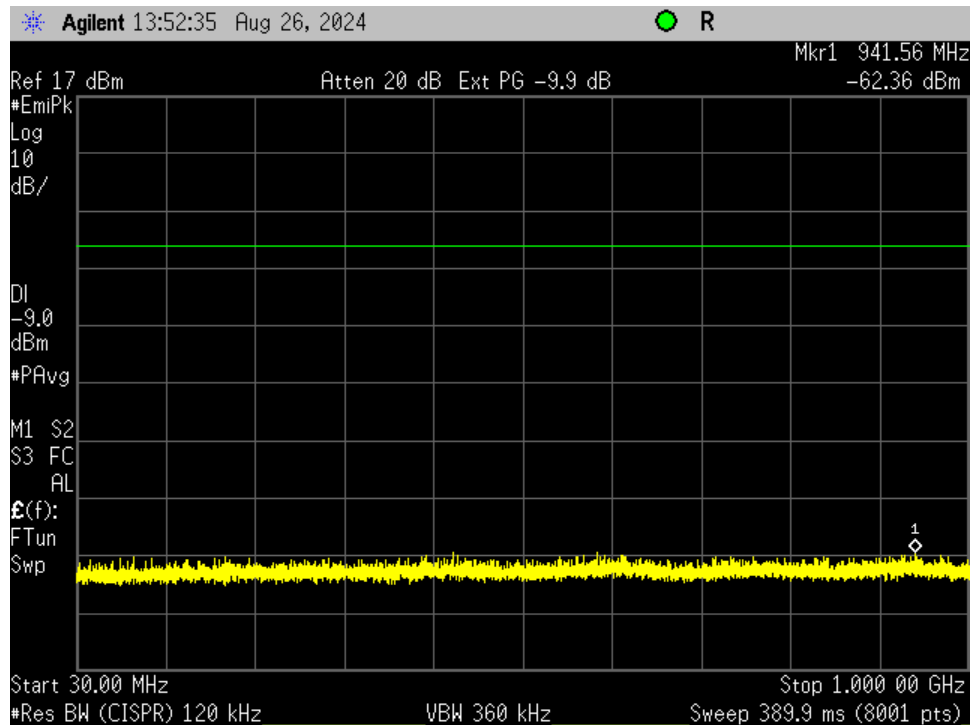
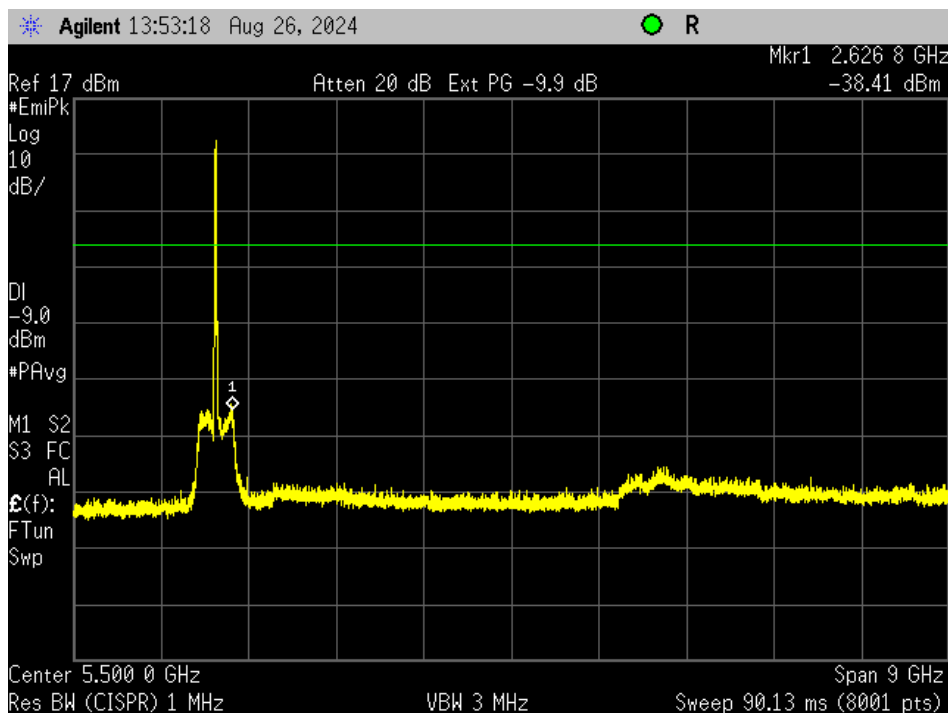


Figure 9. 802.11b, Channel 11, 30-1000 MHz

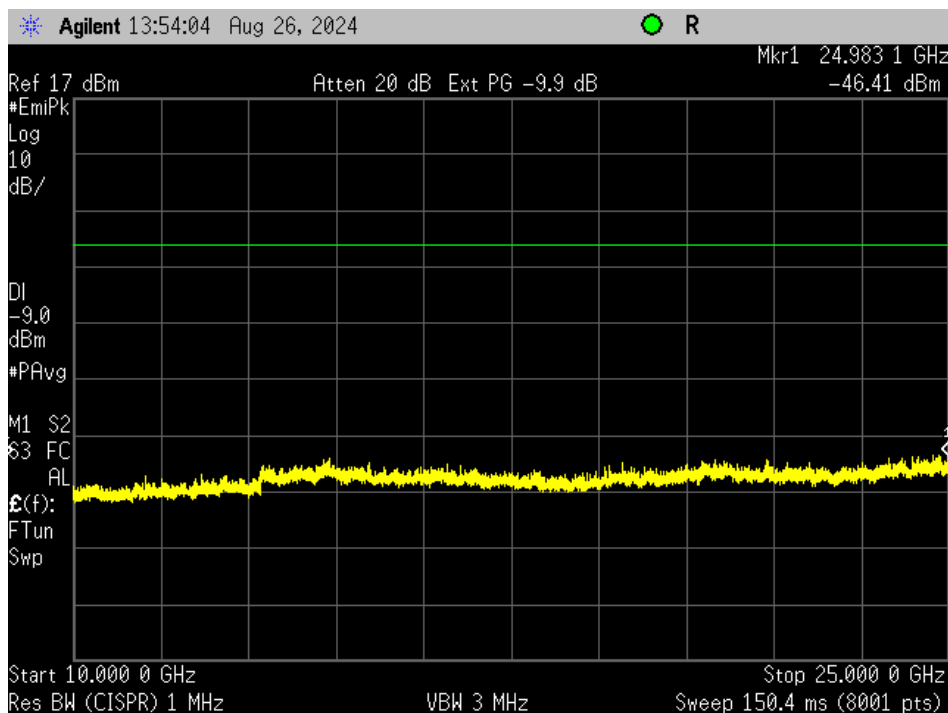
US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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2AHFE-3230  
21143-3230  
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**Figure 10. 802.11b, Channel 11, 1 – 10 GHz**

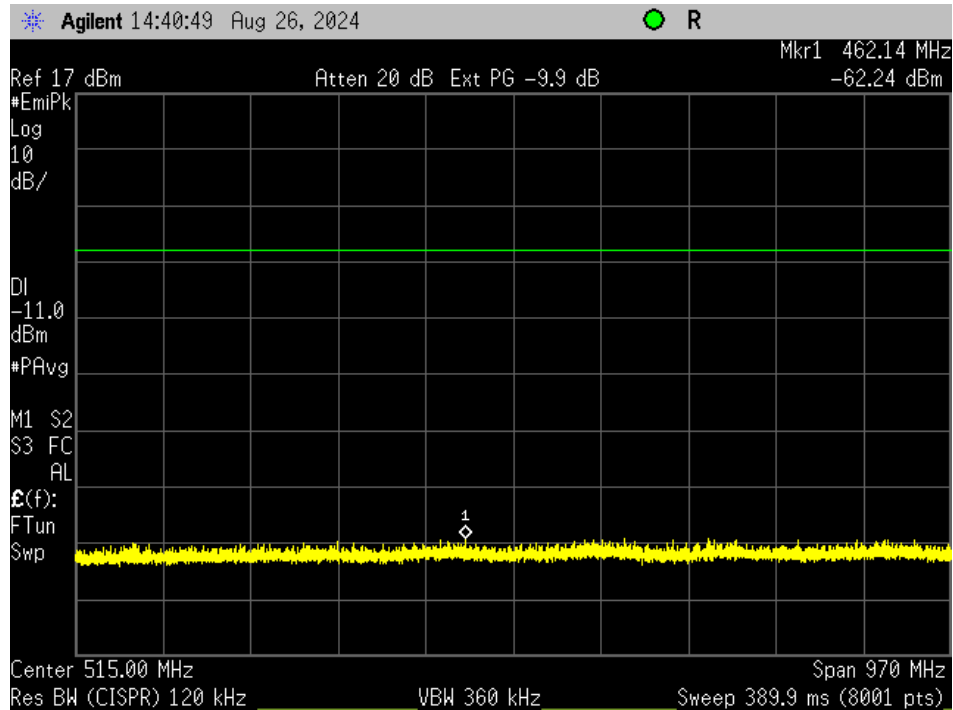
(Note: Intentional Emission seen for radio operating at 2462 MHz)



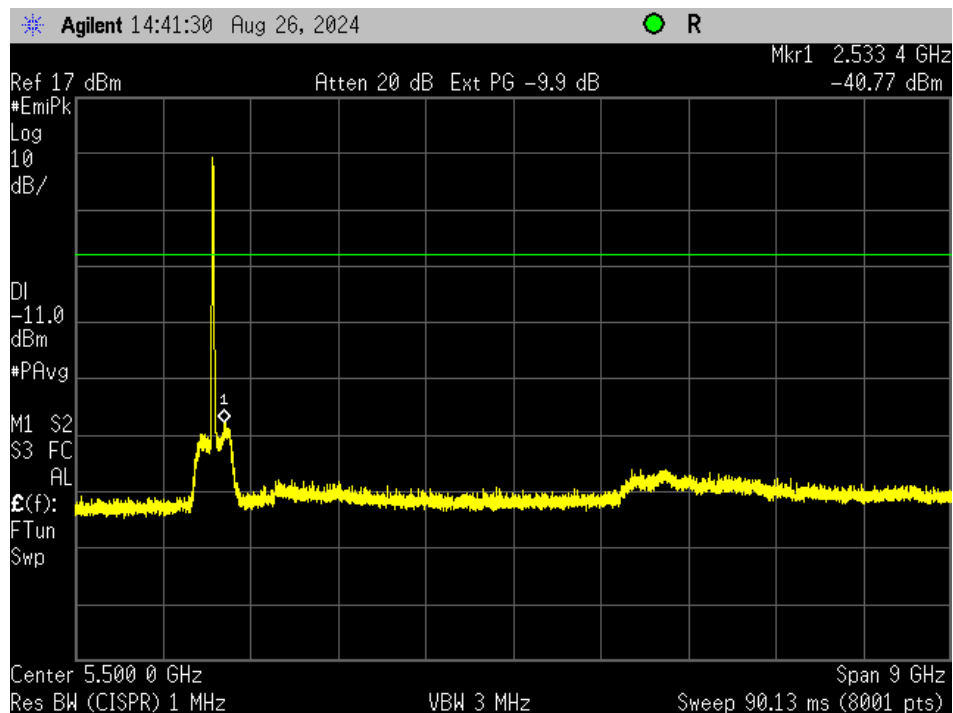
**Figure 11. 802.11b, Channel 11, 10 - 25 GHz**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Figure 12. 802.11g, Channel 1, 30-1000 MHz**



**Figure 13. 802.11g, Channel 1, 1 – 25 GHz**

(Note: Intentional Emission seen for radio operating at 2412 MHz)

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
24-0190  
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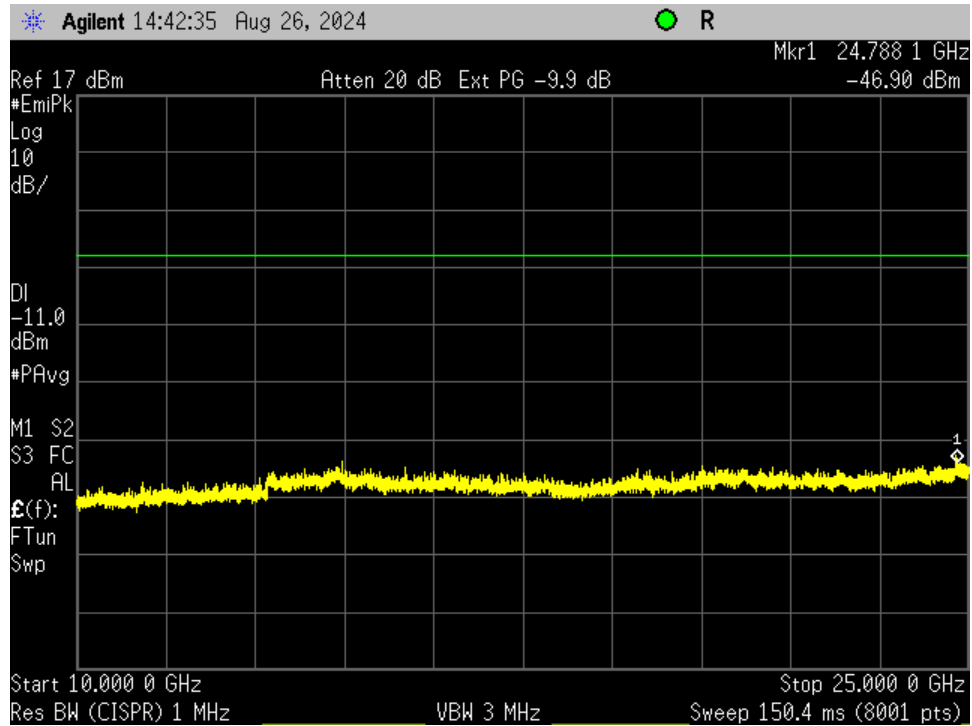


Figure 14. 802.11g, Channel 1, 10 – 25 GHz

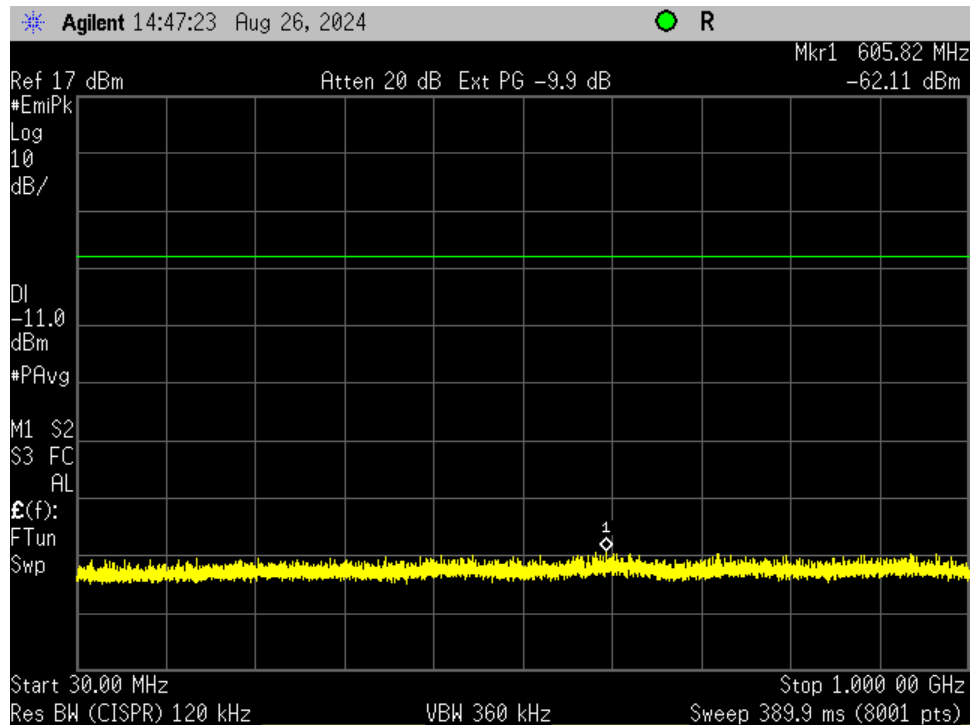
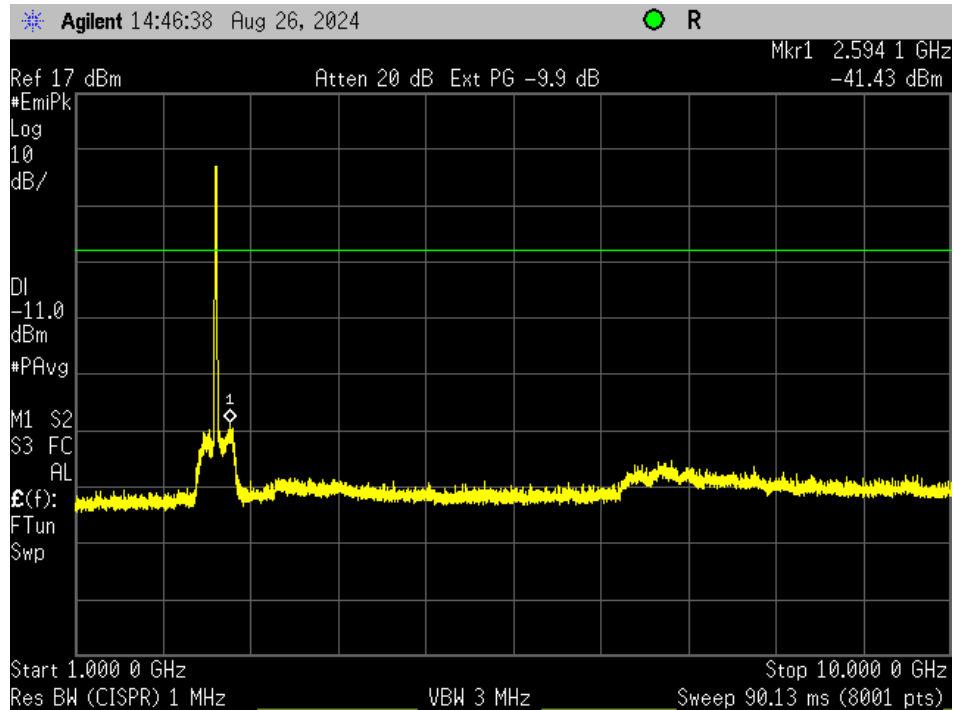


Figure 15. 802.11g, Channel 7, 30-1000 MHz

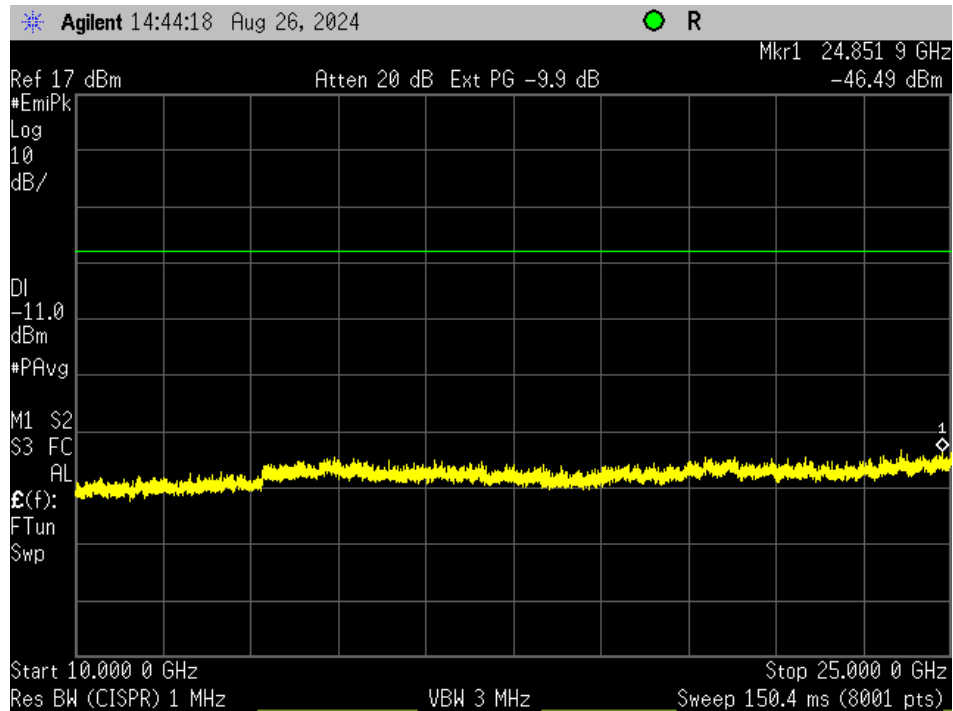
US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Figure 16. 802.11g, Channel 7, 1 - 10 GHz**

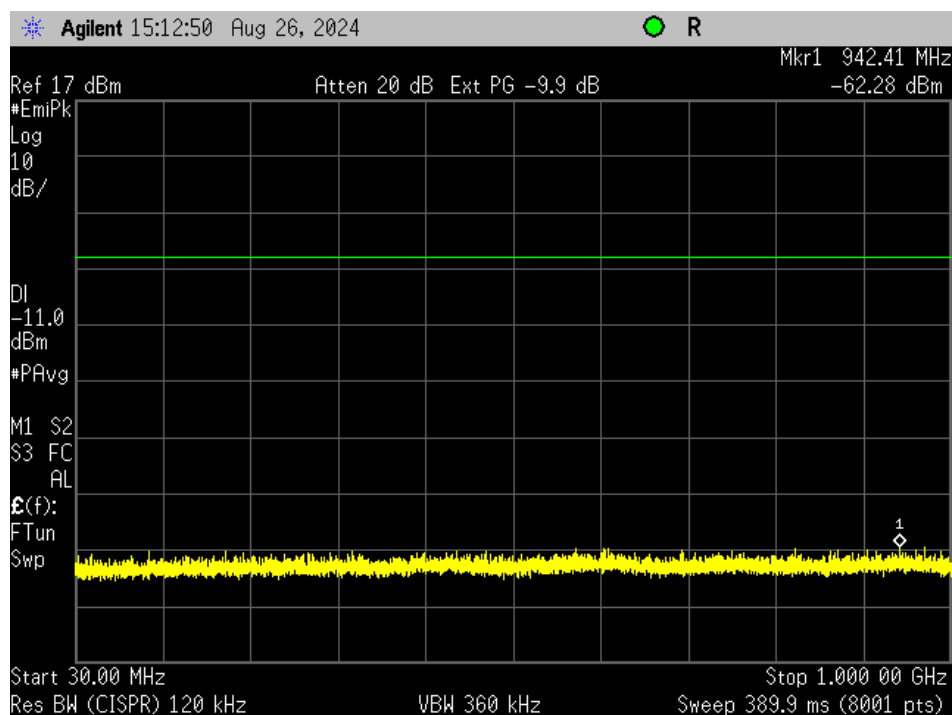
(Note: Intentional Emission seen for radio operating at 2442 MHz)



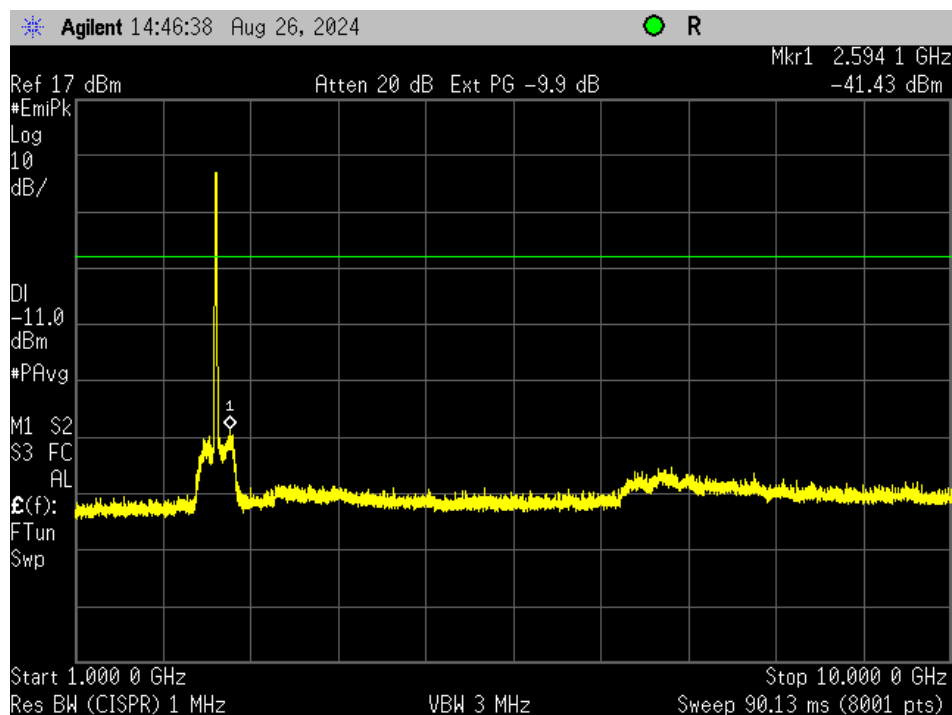
**Figure 17. 802.11g, Channel 7, 10 - 25 GHz**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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**Figure 18. 802.11g, Channel 11, 30-1000 MHz**



**Figure 19. 802.11g, Channel 11, 1 – 10 GHz**

(Note: Intentional Emission seen for radio operating at 2462 MHz)

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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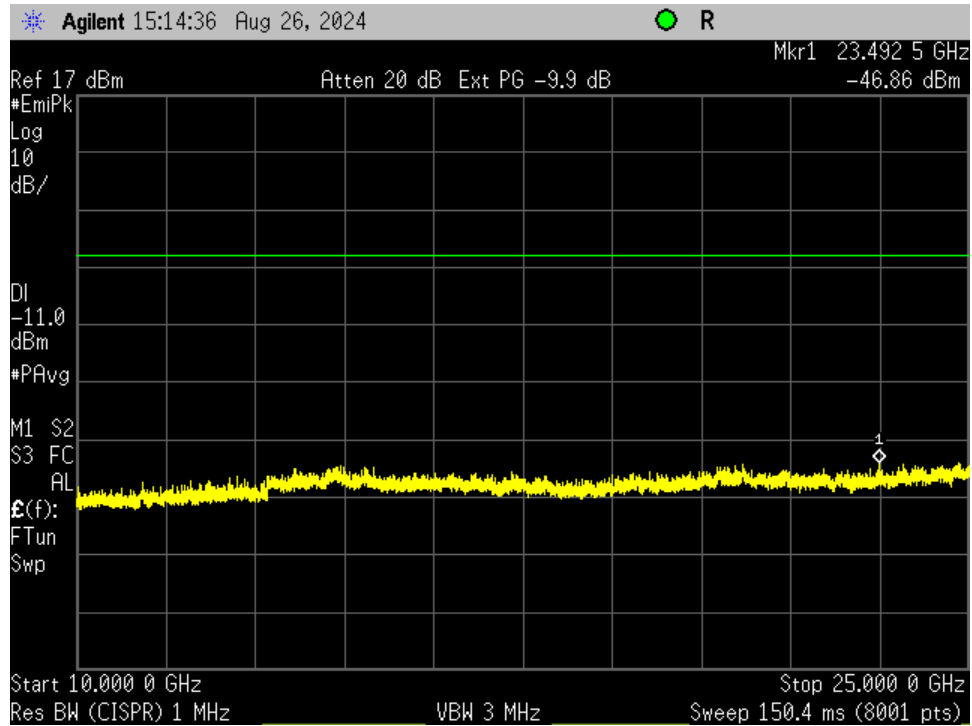


Figure 20. 802.11g, Channel 11, 10-25 GHz

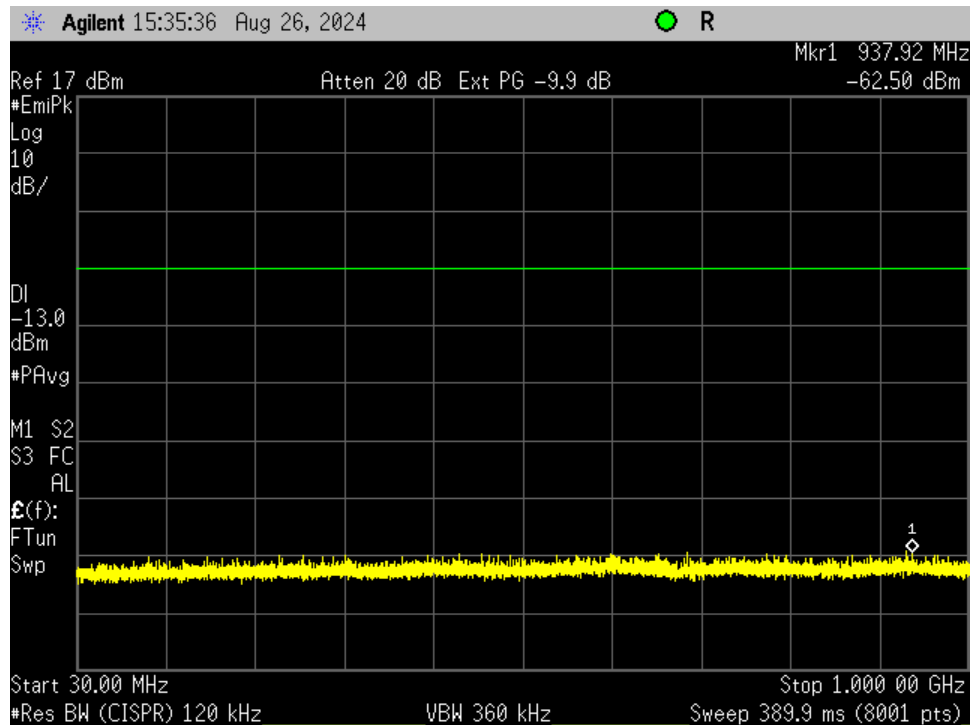
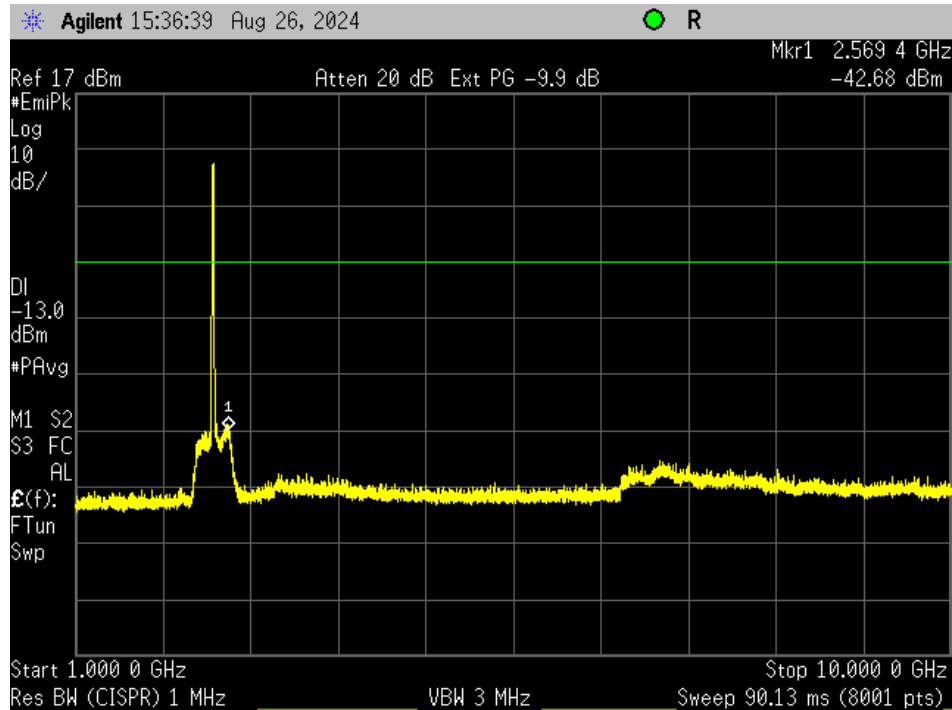


Figure 21. 802.11n, Channel 1, 30-1000 MHz

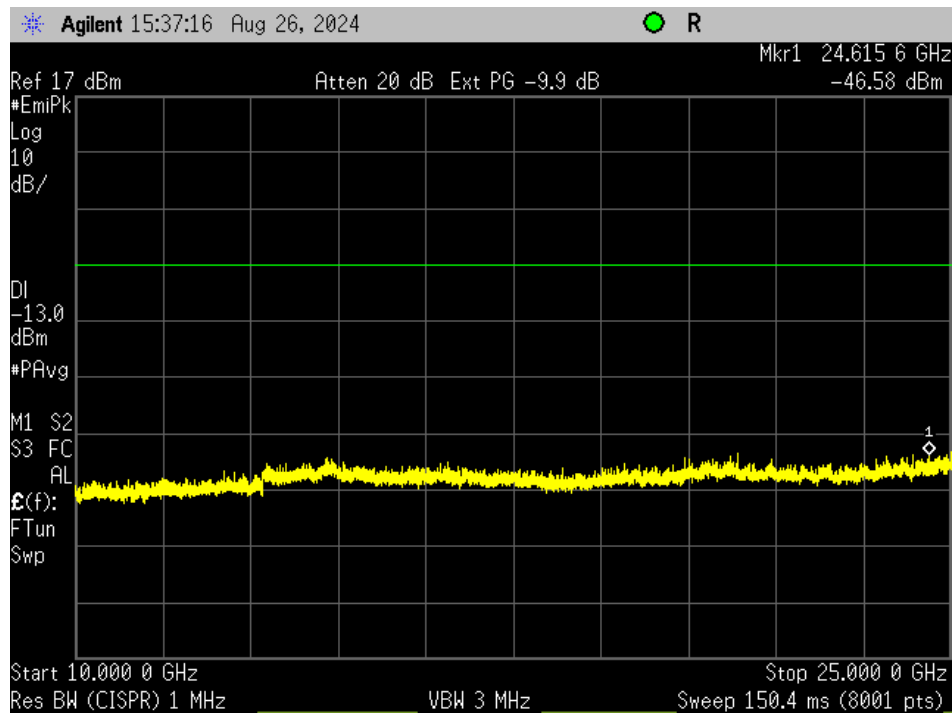
US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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21143-3230  
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**Figure 22. 802.11n, Channel 1, 1 - 10 GHz**

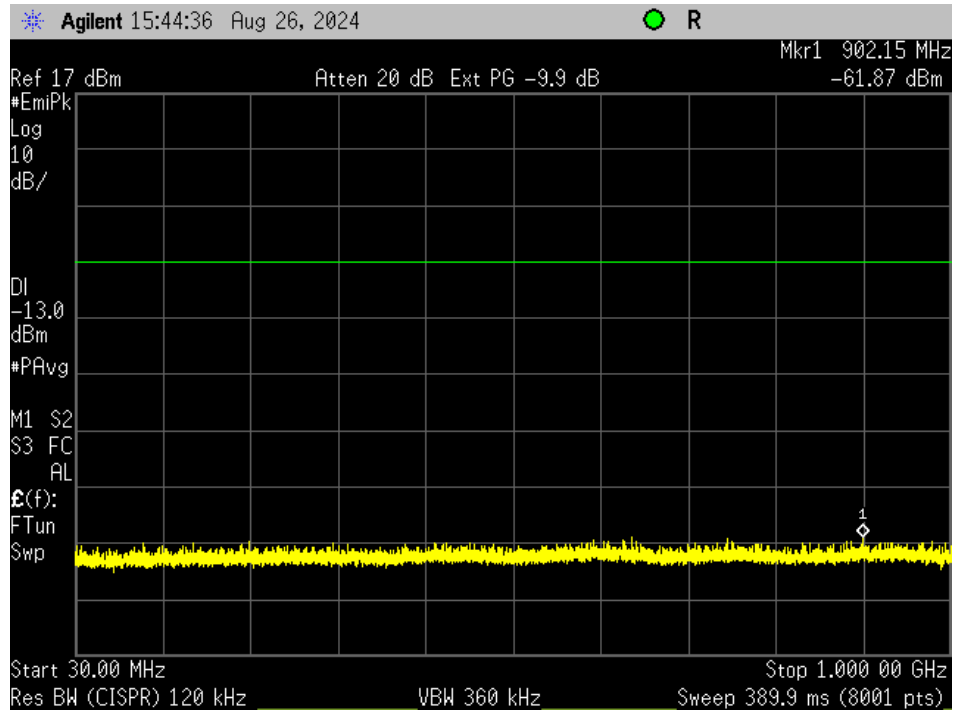
(Note: Intentional Emission seen for radio operating at 2412 MHz)



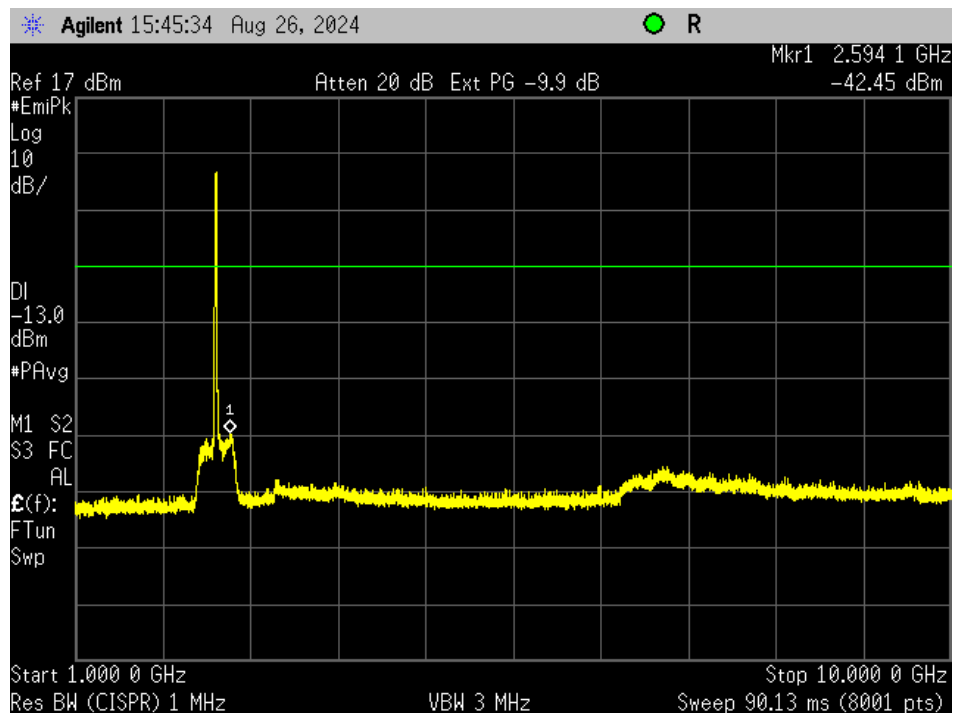
**Figure 23. 802.11n, Channel 1, 10 - 25 GHz**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
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**Figure 24. 802.11n, Channel 7, 30-1000 MHz**



**Figure 25. 802.11n, Channel 7, 1 - 10 GHz**

(Note: Intentional Emission seen for radio operating at 2442 MHz)

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
24-0190  
August 4, 2025  
StreamLabs, Inc  
SLRM-3230

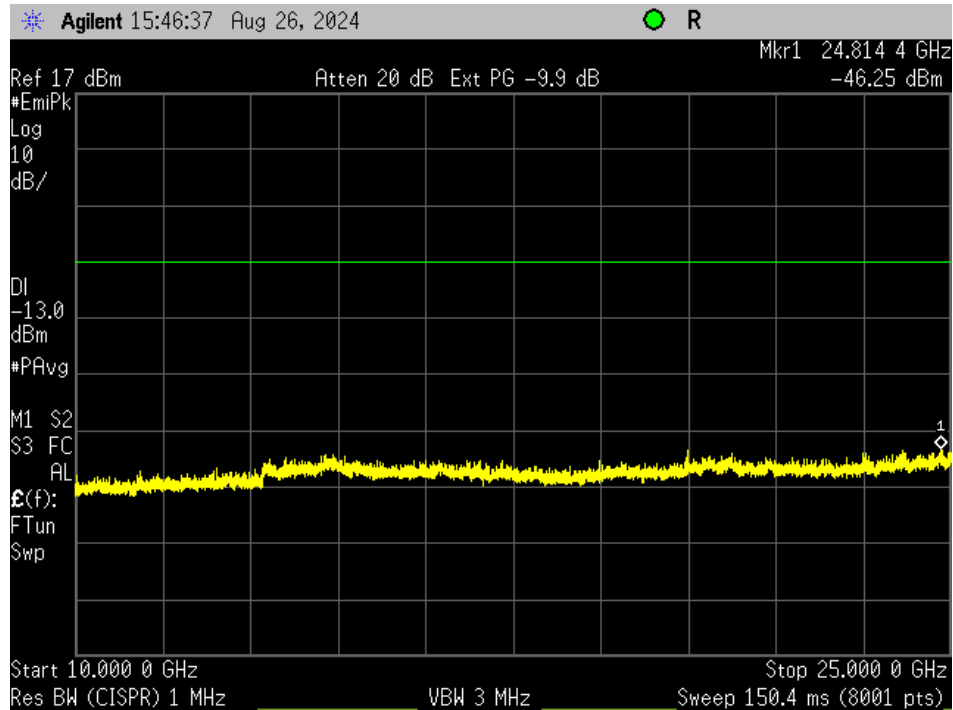


Figure 26. 802.11n, Channel 7, 10 - 25 GHz

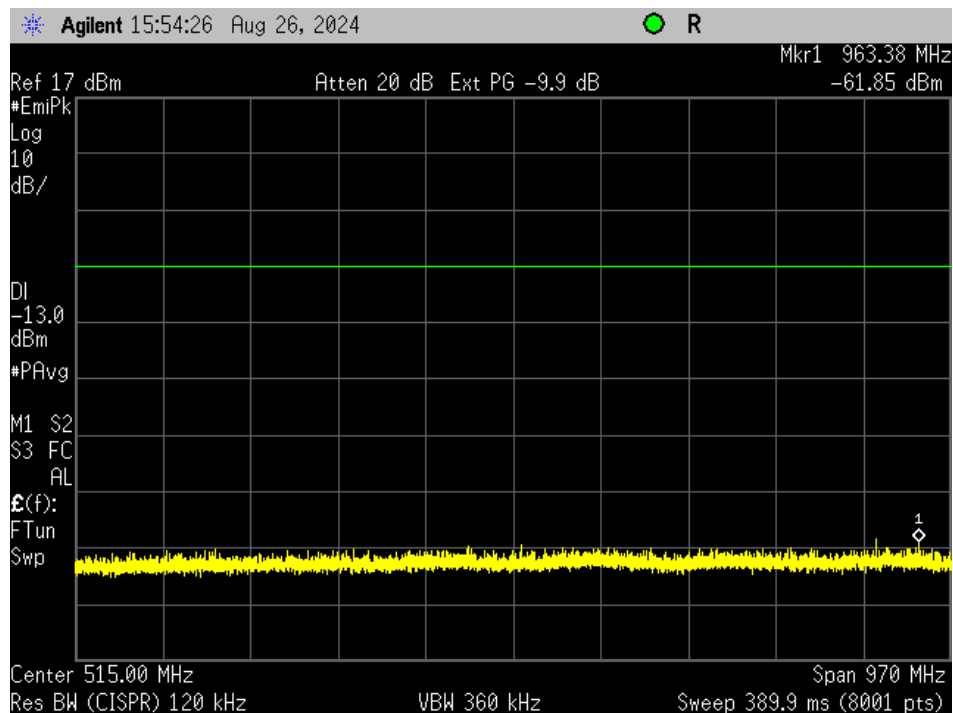
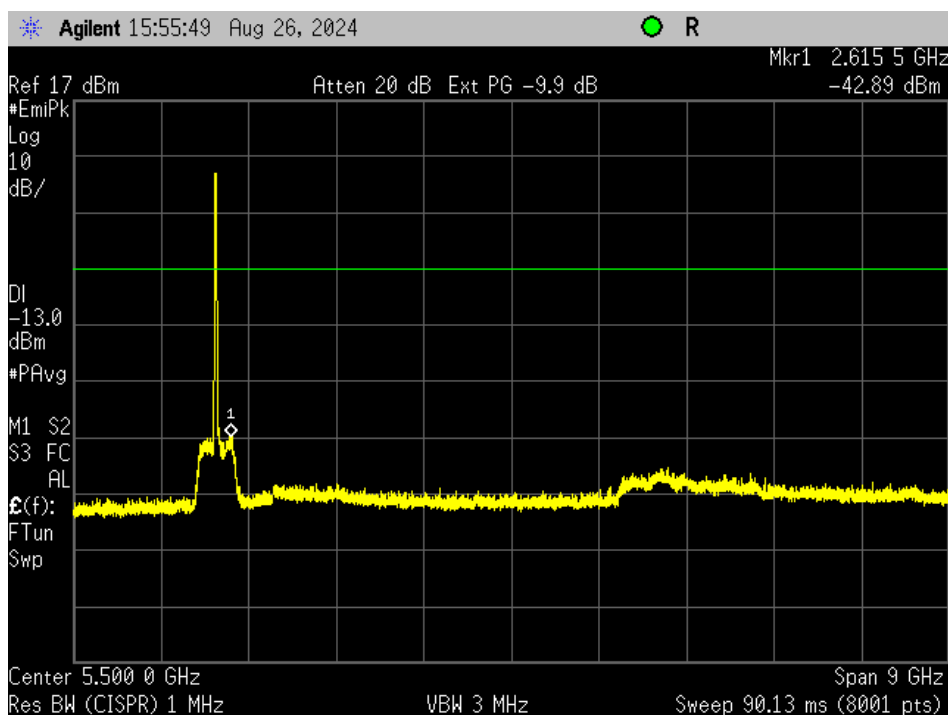


Figure 27. 802.11n, Channel 11, 30-1000 MHz

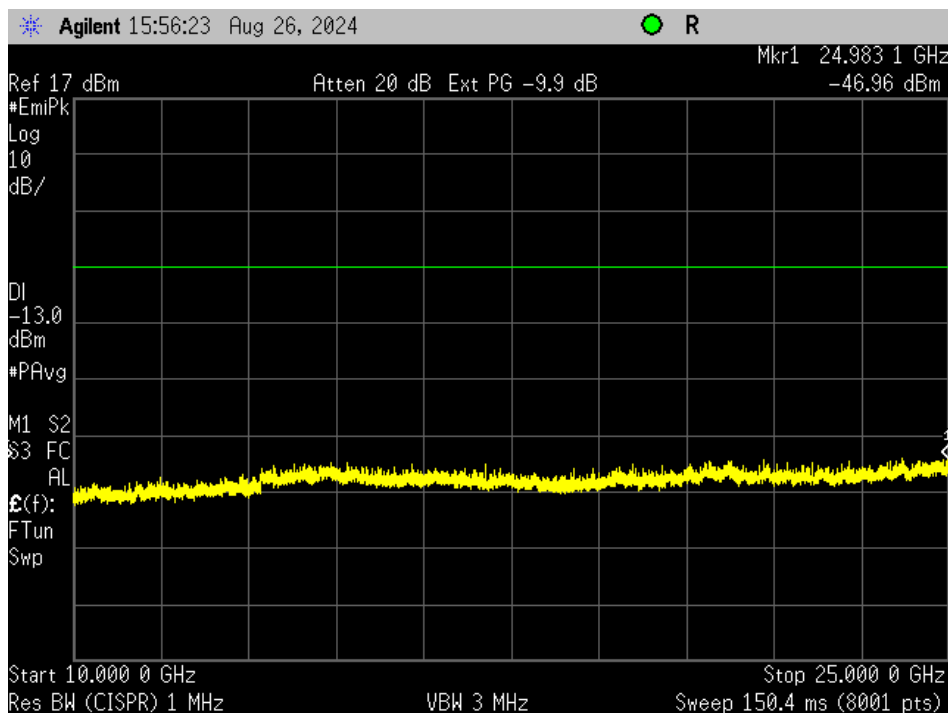
US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
24-0190  
August 4, 2025  
StreamLabs, Inc  
SLRM-3230



**Figure 28. 802.11n, Channel 11, 1 – 10 GHz**

(Note: Intentional Emission seen for radio operating at 2462 MHz)



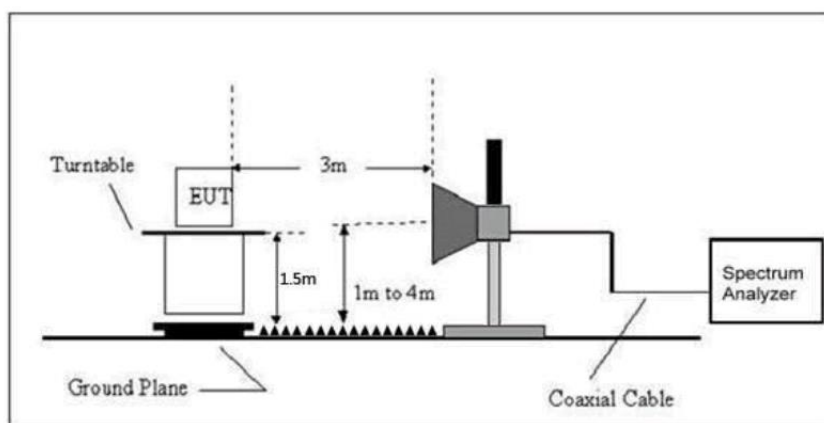
**Figure 29. 802.11n, Channel 11, 10 – 25 GHz**

## 2.10 Intentional Radiator, Radiated Emissions (CFR 15.209, 15.247(d), RSS-247, 6.6)

On the test site, the EUT was placed on top of a non-conductive table, 80 cm above the floor for measurements below 1 GHz and 150 cm above the floor for measurements > 1 GHz. The EUT was also evaluated in three orthogonal positions to determine the worst case position. The front of the EUT faced the measurement antenna located 3 meters away. Each signal measured was maximized by raising and lowering the receive antenna between 1 and 4 meters in height while monitoring the ever changing spectrum analyzer display (with channel A in the Clear-Write mode and channel B in the Max-Hold mode) for the largest signal visible. That exact antenna height where the signal was maximized was recorded for reproducibility purposes. Also, the EUT was rotated about its Y-axis while monitoring the Spectrum Analyzer display for maximum. The EUT azimuth was recorded for reproducibility purposes. The EUT was measured when both maxima were simultaneously satisfied.

For radiated measurements, the EUT was set into a continuous transmission mode. Below 1 GHz, the RBW of the measuring instrument was set equal to 120 kHz. Peak measurements above 1 GHz were measured using a RBW = 1 MHz, with a VBW  $\geq 3 \times$  RBW. The results of peak radiated spurious emissions falling within restricted bands are given in Table 5 below.

For Average measurements above 1 GHz, the emissions were measured using RBW = 1 MHz and VBW = 690 mHz or the duty cycle correction factor was applied to the Peak recorded value.



**Figure 30. Radiated Emissions Setup  
(Fundamental and Harmonics)**

**Table 5. 802.11b-Peak Radiated Fundamental & Harmonic Emissions**

US Tech Test Report:  
 FCC ID:  
 IC:  
 Test Report Number:  
 Issue Date:  
 Customer:  
 Model:

FCC Part 15C/ RSS Certification  
 2AHFE-3230  
 21143-3230  
 24-0190  
 August 4, 2025  
 StreamLabs, Inc  
 SLRM-3230

| Test: FCC Part 15,247(d)  |                  |                   |                 |                            |                 |                         |             |           |
|---------------------------|------------------|-------------------|-----------------|----------------------------|-----------------|-------------------------|-------------|-----------|
| Frequency (MHz)           | Test Data (dBuV) | Additional Factor | AF+CL-PA (dB/m) | Corrected Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector  |
| <b>Low Channel - PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2412.00                   | 75.49            | 0.00              | 31.34           | 106.83                     | --              | 3.0m./HORZ              | --          | <b>PK</b> |
| 4823.00                   | 41.19            | 0.00              | 2.42            | 43.61                      | 74.0            | 3.0m./VERT              | 30.4        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |
| <b>Mid Channel – PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2442.00                   | 78.49            | 0.00              | 31.39           | 109.88                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4844.00                   | 40.82            | 0.00              | 2.66            | 43.48                      | 74.0            | 3.0m./VERT              | 30.5        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |
| <b>High Channel– PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2462.00                   | 77.52            | 0.00              | 31.39           | 108.91                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4823.00                   | 41.25            | 0.00              | 2.19            | 43.44                      | 74.0            | 3.0m./VERT              | 30.6        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |

1. (\*) Falls within the restricted bands of CFR 15.205. Limits based on CFR15.209& 15.247.
2. No other signals detected within 20 dB of specification limit. Harmonics investigated up to the 10<sup>th</sup> harmonic
3. The EUT was placed in three orthogonal positions, tested while broadcasting from each antenna, and the transmitter was in constant broadcast mode, with a duty cycle of greater than 98%. The emissions were measured with the receive antenna in vertical and horizontal polarizations. The data listed in the above table was worst case.
4. Measurement at 1 meters corrected using inverse extrapolation factor of -9.5 dB to correct the value for 3 meter.

Sample Calculation at 2412.00 MHz:

|                                              |        |        |
|----------------------------------------------|--------|--------|
| Magnitude of Measured Frequency              | 75.49  | dBuV   |
| +Additional Factor                           | 0.00   | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain | 31.34  | dB/m   |
| Corrected Result                             | 106.83 | dBuV/m |

Test Date: August 27 – 28, 2024

Tested By  
 Signature: 

Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
24-0190  
August 4, 2025  
StreamLabs, Inc  
SLRM-3230

**Table 6. 802.11b-Average Radiated Fundamental & Harmonic Emissions**

| Test: FCC Part 15,247(d)     |                  |                   |                 |                            |                 |                         |             |           |
|------------------------------|------------------|-------------------|-----------------|----------------------------|-----------------|-------------------------|-------------|-----------|
| Frequency (MHz)              | Test Data (dBuV) | Additional Factor | AF+CL-PA (dB/m) | Corrected Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector  |
| <b>Low Channel - Average</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2412.00                      | 75.49            | 0.00              | 31.34           | 106.83                     | --              | 3.0m./HORZ              | --          | <b>PK</b> |
| 4823.00                      | 41.19            | 0.00              | 2.42            | 43.61                      | 54.0            | 3.0m./VERT              | 10.4        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |
| <b>Mid Channel-Average</b>   |                  |                   |                 |                            |                 |                         |             |           |
| 2442.00                      | 78.49            | 0.00              | 31.39           | 109.88                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4844.00                      | 40.82            | 0.00              | 2.66            | 43.48                      | 54.0            | 3.0m./VERT              | 10.5        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |
| <b>High Channel-Average</b>  |                  |                   |                 |                            |                 |                         |             |           |
| 2462.00                      | 77.52            | 0.00              | 31.39           | 108.91                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4823.00                      | 41.25            | 0.00              | 2.19            | 43.44                      | 54.0            | 3.0m./VERT              | 10.6        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |

- (\*) Falls within the restricted bands of CFR 15.205. Limits based on CFR15.209 CFR 15.35.
- No other signals detected within 20 dB of specification limit. Harmonics investigated up to the 10<sup>th</sup> harmonic
- The EUT was placed in three orthogonal positions, tested while broadcasting from each antenna, and the transmitter was in constant broadcast mode, with a duty cycle of greater than 98%. The emissions were measured with the receive antenna in vertical and horizontal polarizations. The data listed in the above table was worst case.
- Measurement at 1 meters corrected using inverse extrapolation factor of -9.5 dB to correct the value for 3 meter.

Sample Calculation at 2412.00MHz:

|                                                           |        |        |
|-----------------------------------------------------------|--------|--------|
| Magnitude of Measured Frequency                           | 75.49  | dBuV   |
| +Additional Factor (filter + duty cycle)                  | 0.00   | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain – Duty Cycle | 31.34  | dB/m   |
| Corrected Result                                          | 106.83 | dBuV/m |

Test Date: August 27 – 28, 2024

Tested By  
Signature: 

Name: Gabriel Medina

US Tech Test Report:  
 FCC ID:  
 IC:  
 Test Report Number:  
 Issue Date:  
 Customer:  
 Model:

FCC Part 15C/ RSS Certification  
 2AHFE-3230  
 21143-3230  
 24-0190  
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**Table 7. 802.11g-Peak Radiated Fundamental & Harmonic Emissions**

| Test: FCC Part 15,247(d)  |                  |                   |                 |                            |                 |                         |             |           |
|---------------------------|------------------|-------------------|-----------------|----------------------------|-----------------|-------------------------|-------------|-----------|
| Frequency (MHz)           | Test Data (dBuV) | Additional Factor | AF+CL-PA (dB/m) | Corrected Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector  |
| <b>Low Channel - PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2412                      | 71.00            | 0.00              | 31.36           | 102.36                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4835                      | 36.54            | 0.00              | 2.09            | 38.63                      | 74.0            | 3.0m./VERT              | 35.4        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |
| <b>Mid Channel – PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2442                      | 70.98            | 0.00              | 31.39           | 102.37                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4900                      | 37.69            | 0.00              | 2.70            | 40.39                      | 74.0            | 3.0m./VERT              | 33.6        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |
| <b>High Channel– PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2462                      | 72.22            | 0.00              | 31.39           | 103.61                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4922                      | 37.88            | 0.00              | 2.19            | 40.07                      | 74.0            | 3.0m./VERT              | 33.9        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |

- (\*) Falls within the restricted bands of CFR 15.205. Limits based on CFR15.209& 15.247.
- No other signals detected within 20 dB of specification limit. Harmonics investigated up to the 10<sup>th</sup> harmonic
- The EUT was placed in three orthogonal positions, tested while broadcasting from each antenna, and the transmitter was in constant broadcast mode, with a duty cycle of greater than 98%. The emissions were measured with the receive antenna in vertical and horizontal polarizations. The data listed in the above table was worst case.
- Measurement at 1 meters corrected using inverse extrapolation factor of -9.5 dB to correct the value for 3 meter.

Sample Calculation at 2417.00 MHz:

|                                              |        |        |
|----------------------------------------------|--------|--------|
| Magnitude of Measured Frequency              | 71.00  | dBuV   |
| +Additional Factor                           | 0.00   | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain | 31.36  | dB/m   |
| Corrected Result                             | 102.36 | dBuV/m |

Test Date: August 27 – 28, 2024

Tested By  
 Signature: 

Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Table 8. 802.11g-Average Radiated Fundamental & Harmonic Emissions**

| Test: FCC Part 15,247(d)     |                  |                   |                 |                            |                 |                         |             |           |
|------------------------------|------------------|-------------------|-----------------|----------------------------|-----------------|-------------------------|-------------|-----------|
| Frequency (MHz)              | Test Data (dBuV) | Additional Factor | AF+CL-PA (dB/m) | Corrected Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector  |
| <b>Low Channel – Average</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2412                         | 71.00            | 0.00              | 31.36           | 102.36                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4835                         | 36.54            | 0.00              | 2.09            | 38.63                      | 54.0            | 3.0m./VERT              | 15.4        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |
| <b>Mid Channel – Average</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2442                         | 70.98            | 0.00              | 31.39           | 102.37                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4900                         | 37.69            | 0.00              | 2.70            | 40.39                      | 54.0            | 3.0m./VERT              | 13.6        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |
| <b>High Channel– Average</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2462                         | 72.22            | 0.00              | 31.39           | 103.61                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4922                         | 37.88            | 0.00              | 2.19            | 40.07                      | 54.0            | 3.0m./VERT              | 13.9        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |

1. (\*) Falls within the restricted bands of CFR 15.205. Limits based on CFR15.209 CFR 15.35.
2. No other signals detected within 20 dB of specification limit. Harmonics investigated up to the 10<sup>th</sup> harmonic
3. The EUT was placed in three orthogonal positions, tested while broadcasting from each antenna, and the transmitter was in constant broadcast mode, with a duty cycle of greater than 98%. The emissions were measured with the receive antenna in vertical and horizontal polarizations. The data listed in the above table was worst case.
4. Measurement at 1 meters corrected using inverse extrapolation factor of -9.5 dB to correct the value for 3 meter.

Sample Calculation at 2412.00 MHz:

|                                              |        |        |
|----------------------------------------------|--------|--------|
| Magnitude of Measured Frequency              | 71.00  | dBuV   |
| +Additional Factor                           | 0.00   | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain | 31.36  | dB/m   |
| Corrected Result                             | 102.36 | dBuV/m |

Test Date: August 27 – 28, 2024

Tested By  
Signature:



Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Table 9. 802.11n-Peak Radiated Fundamental & Harmonic Emissions**

| Test: FCC Part 15,247(d)  |                  |                   |                 |                            |                 |                         |             |           |
|---------------------------|------------------|-------------------|-----------------|----------------------------|-----------------|-------------------------|-------------|-----------|
| Frequency (MHz)           | Test Data (dBuV) | Additional Factor | AF+CL-PA (dB/m) | Corrected Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector  |
| <b>Low Channel - PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2408.00                   | 67.87            | 0.00              | 31.32           | 99.19                      | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4832.00                   | 37.19            | 0.00              | 2.34            | 39.53                      | 74.0            | 3.0m./VERT              | 34.5        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |
| <b>Mid Channel – PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2438.00                   | 68.76            | 0.00              | 31.37           | 100.13                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4890.00                   | 37.50            | 0.00              | 2.66            | 40.16                      | 74.0            | 3.0m./VERT              | 33.8        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |
| <b>High Channel– PEAK</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2459.00                   | 68.22            | 0.00              | 31.41           | 99.63                      | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4918.00                   | 37.94            | 0.00              | 0.67            | 38.61                      | 74.0            | 3.0m./VERT              | 35.4        | <b>PK</b> |
| <b>Note 2</b>             |                  |                   |                 |                            |                 |                         |             |           |

1. (\*) Falls within the restricted bands of CFR 15.205. Limits based on CFR15.209& 15.247.
2. No other signals detected within 20 dB of specification limit. Harmonics investigated up to the 10<sup>th</sup> harmonic
3. The EUT was placed in three orthogonal positions, tested while broadcasting from each antenna, and the transmitter was in constant broadcast mode, with a duty cycle of greater than 98%. The emissions were measured with the receive antenna in vertical and horizontal polarizations. The data listed in the above table was worst case.
4. Measurement at 1 meters corrected using inverse extrapolation factor of -9.5 dB to correct the value for 3 meter.

Sample Calculation at 2416.00 MHz:

|                                              |       |        |
|----------------------------------------------|-------|--------|
| Magnitude of Measured Frequency              | 67.87 | dBuV   |
| +Additional Factor                           | 0.00  | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain | 31.32 | dB/m   |
| Corrected Result                             | 99.19 | dBuV/m |

Test Date: August 27 – 28, 2024

Tested By  
Signature: 

Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Table 10. 802.11n-Average Radiated Fundamental & Harmonic Emissions**

| Test: FCC Part 15,247(d)     |                  |                   |                 |                            |                 |                         |             |           |
|------------------------------|------------------|-------------------|-----------------|----------------------------|-----------------|-------------------------|-------------|-----------|
| Frequency (MHz)              | Test Data (dBuV) | Additional Factor | AF+CL-PA (dB/m) | Corrected Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector  |
| <b>Low Channel – Average</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2408.00                      | 67.87            | 0.00              | 31.32           | 99.19                      | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4832.00                      | 37.19            | 0.00              | 2.34            | 39.53                      | 54.0            | 3.0m./VERT              | 14.5        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |
| <b>Mid Channel – Average</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2438.00                      | 68.76            | 0.00              | 31.37           | 100.13                     | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4890.00                      | 37.50            | 0.00              | 2.66            | 40.16                      | 54.0            | 3.0m./VERT              | 13.8        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |
| <b>High Channel– Average</b> |                  |                   |                 |                            |                 |                         |             |           |
| 2459.00                      | 68.22            | 0.00              | 31.41           | 99.63                      | --              | 3.0m./VERT              | --          | <b>PK</b> |
| 4918.00                      | 37.94            | 0.00              | 0.67            | 38.61                      | 54.0            | 3.0m./VERT              | 15.4        | <b>PK</b> |
| <b>Note 2</b>                |                  |                   |                 |                            |                 |                         |             |           |

1. (\*) Falls within the restricted bands of CFR 15.205. Limits based on CFR15.209 CFR 15.35.
2. No other signals detected within 20 dB of specification limit. Harmonics investigated up to the 10<sup>th</sup> harmonic
3. The EUT was placed in three orthogonal positions, tested while broadcasting from each antenna, and the transmitter was in constant broadcast mode, with a duty cycle of greater than 98%. The emissions were measured with the receive antenna in vertical and horizontal polarizations. The data listed in the above table was worst case.
4. Measurement at 1 meters corrected using inverse extrapolation factor of -9.5 dB to correct the value for 3 meter.

Sample Calculation at 2416.00 MHz:

|                                              |       |        |
|----------------------------------------------|-------|--------|
| Magnitude of Measured Frequency              | 67.87 | dBuV   |
| +Additional Factor                           | 0.00  | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain | 31.32 | dB/m   |
| Corrected Result                             | 99.19 | dBuV/m |

Test Date: August 27 – 28, 2024

Tested By  
Signature:



Name: Gabriel Medina

## 2.11 Band Edge Measurements (CFR 15.247(d), RSS-247, 6.6)

Band Edge measurements are made following the guidelines in ANSI C63.10-2013 Clause 6.10 with the EUT initially operating on the Lowest Channel and then operating on the Highest Channel within its band of operation. Restricted band test were performed as radiated emissions and band edge test is performed as conducted measurements. The test instrument used for testing has both Peak and Average detection. In consideration of Clause 5.8 of ANSI C63.10-2013. The EUT was set to its highest rated output power level during testing. The results are collected and presented below.

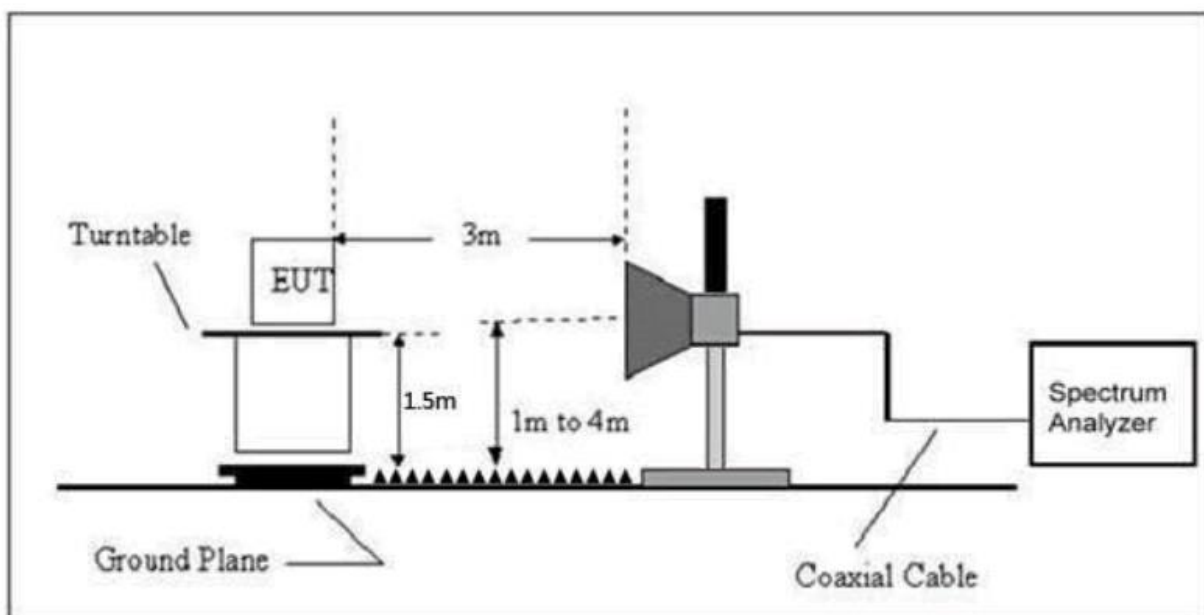


Figure 31. Radiated Emissions Setup



Figure 32. Conducted Emissions Test Setup

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
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Customer:  
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**Figure 33. Band Edge Compliance – B mode Low Channel Delta - Peak**

Lower band edge must be 20 dB below the fundamental. This requirement is met.

|                  |       |    |
|------------------|-------|----|
| Measured Result  | 44.27 | dB |
| Band Edge Limit  | 20.00 | dB |
| Band Edge Margin | 24.27 | dB |

US Tech Test Report:  
FCC ID:  
IC:  
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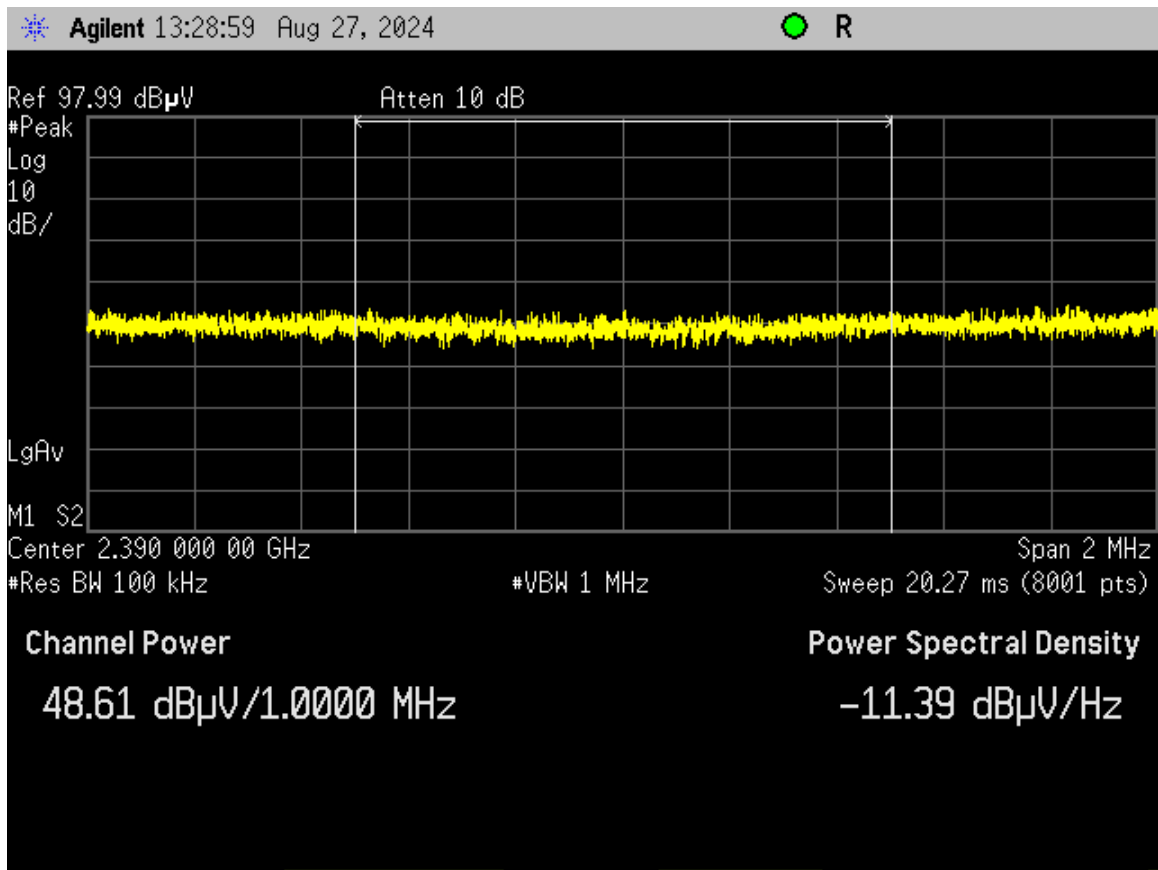


Figure 34. B mode Low Channel Restricted Band - Peak

| Frequenc<br>y<br>(MHz) | Test<br>Data<br>(dBuV) | AF+CA-<br>AMP+DC<br>(dB/m) | Results<br>(dBuV/m<br>) | Limits<br>(dBuV/m<br>) | Distance /<br>Polarization | Margi<br>n<br>(dB) | Detector<br>PK/QP/AV<br>G |
|------------------------|------------------------|----------------------------|-------------------------|------------------------|----------------------------|--------------------|---------------------------|
| 2390.00                | 48.61                  | -6.64                      | 41.97                   | 54.0                   | 3.0m./VER<br>T             | 12.0               | PK                        |

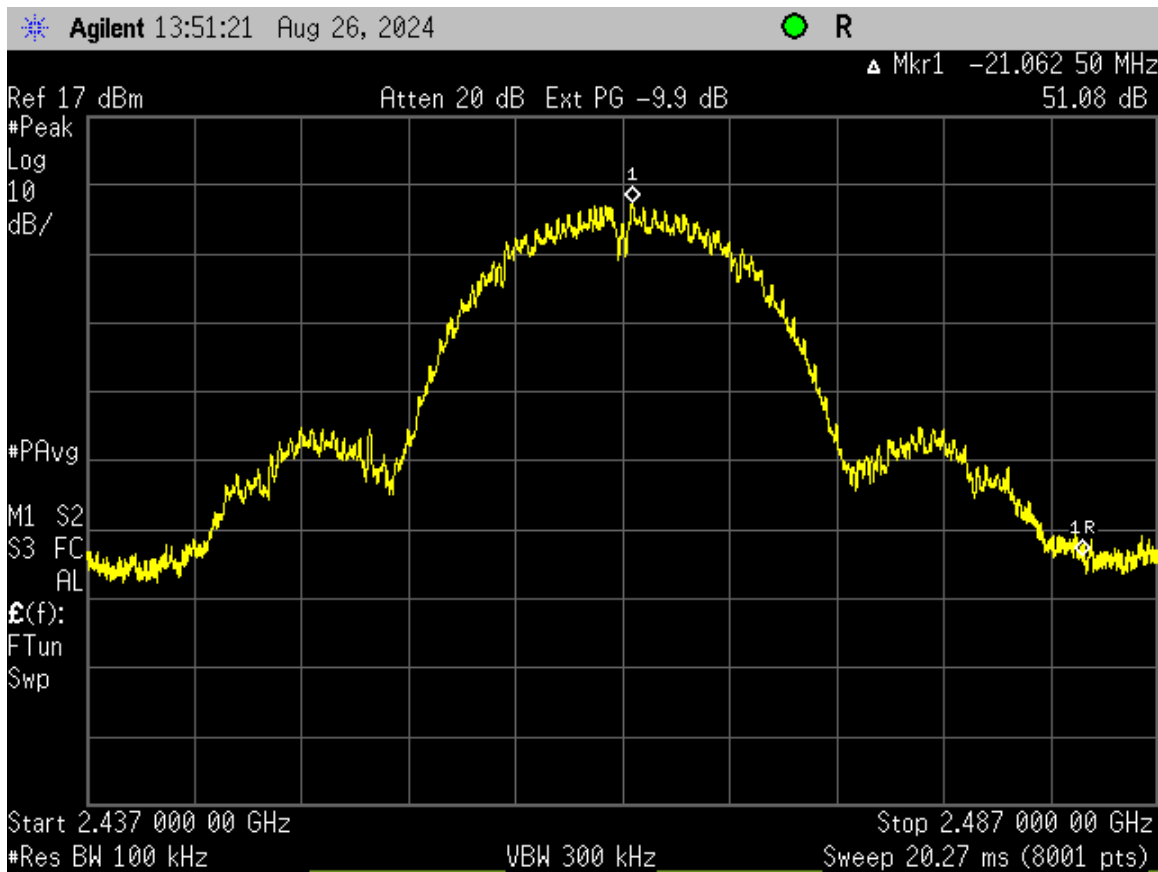


Figure 35. Band Edge Compliance – B mode High Channel Delta - Peak

Higher band edge must be 20 dB below the fundamental. This requirement is met.

|                  |       |    |
|------------------|-------|----|
| Measured Result  | 51.08 | dB |
| Band Edge Limit  | 20.00 | dB |
| Band Edge Margin | 31.08 | dB |

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FCC ID:  
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Customer:  
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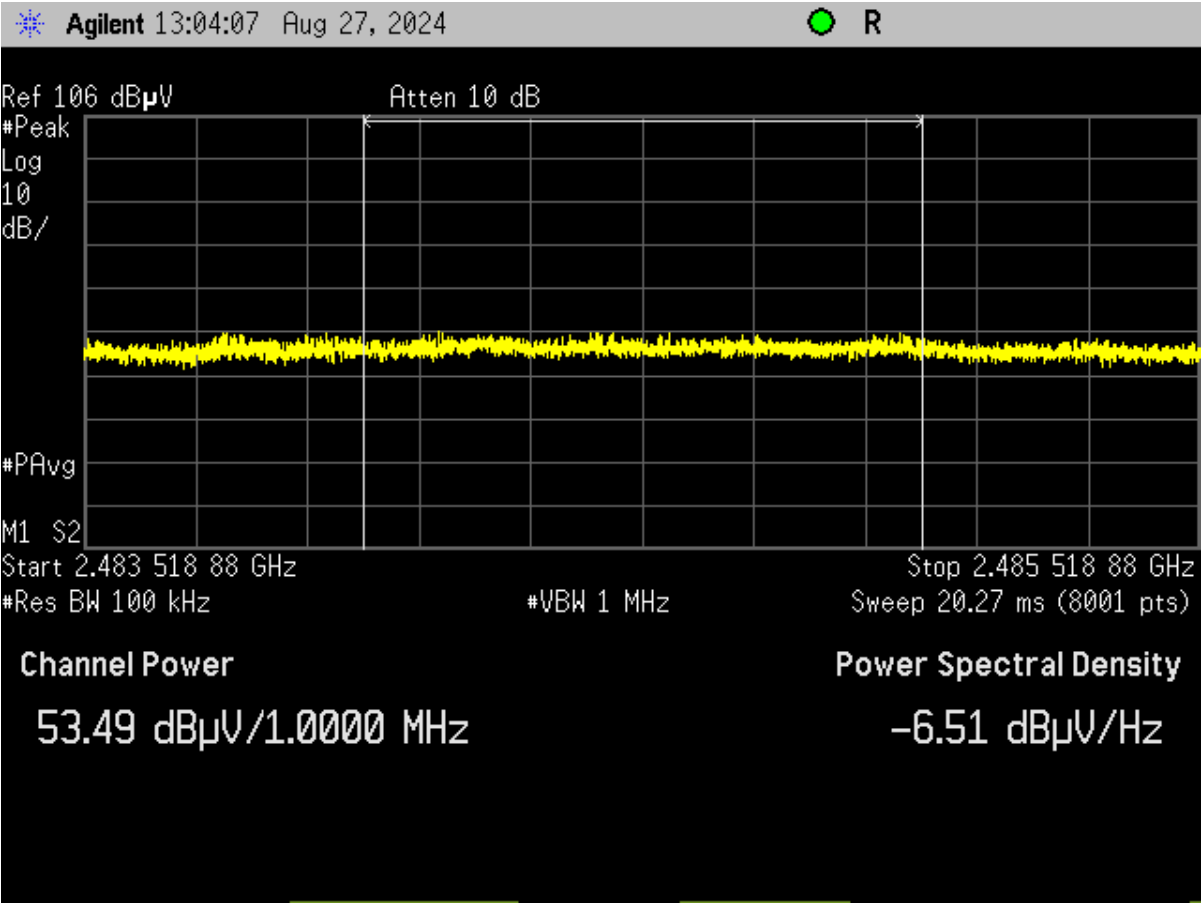
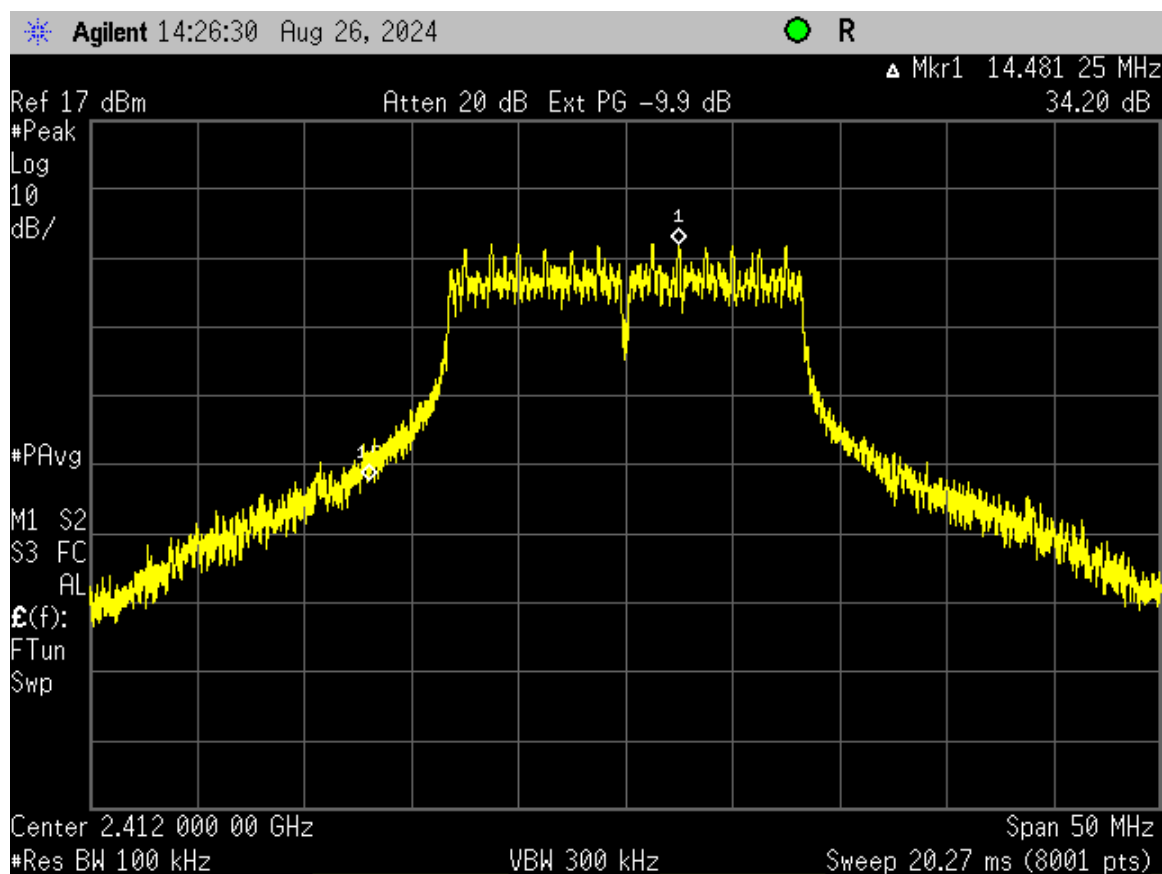


Figure 36. B mode High Channel Restricted Band – Peak

| Frequency (MHz) | Test Data (dBuV) | AF+CA-AMP+DC (dB/m) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector PK/QP/AVG |
|-----------------|------------------|---------------------|------------------|-----------------|-------------------------|-------------|--------------------|
| 2483.52         | 53.49            | -6.62               | 46.87            | 54.0            | 3.0m./VERT              | 7.1         | PK                 |

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**Figure 37. Band Edge Compliance – G mode Low Channel Delta – Peak**

Lower band edge must be 20 dB below the fundamental. This requirement is met.

|                  |       |    |
|------------------|-------|----|
| Measured Result  | 34.20 | dB |
| Band Edge Limit  | 20.00 | dB |
| Band Edge Margin | 14.20 | dB |

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FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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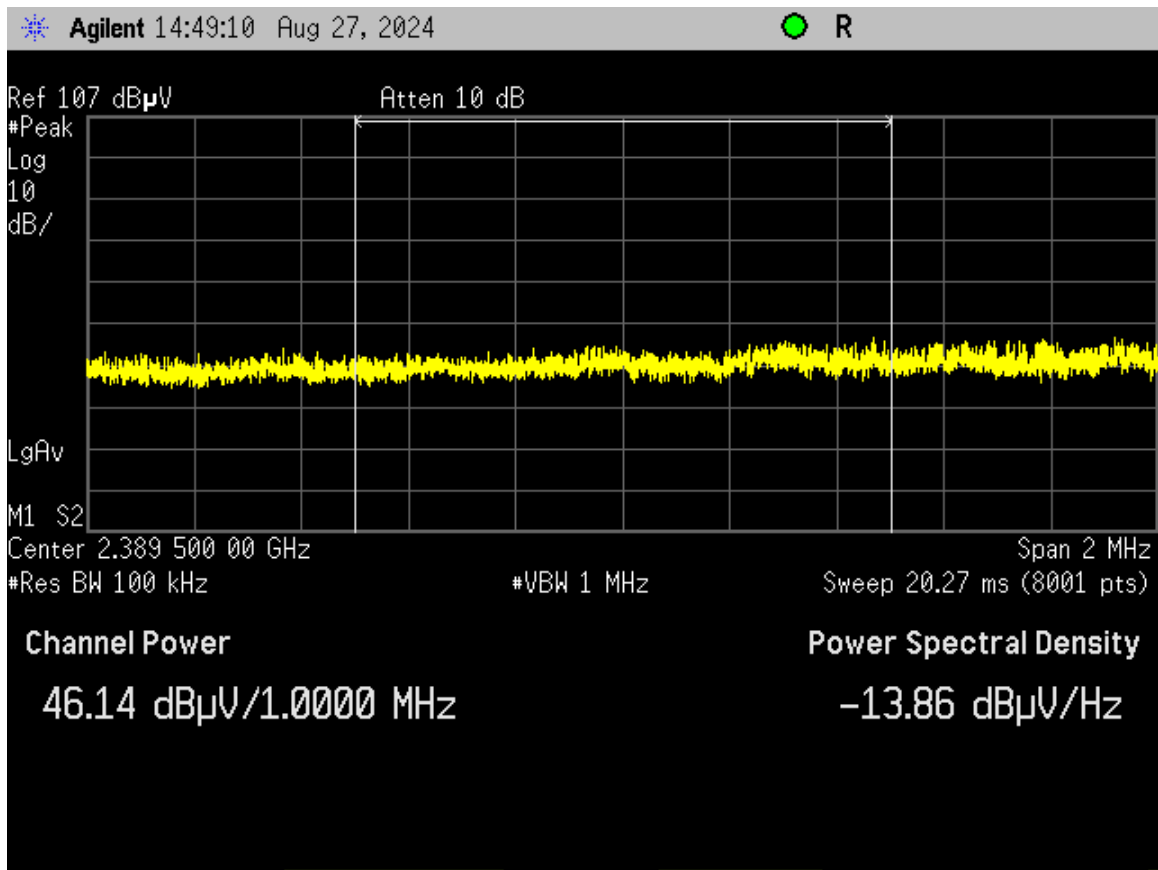


Figure 38. G mode Low Channel Restricted Band – Peak

| Frequency (MHz) | Test Data (dBuV) | AF+CA-AMP+DC (dB/m) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector PK/QP/AVG |
|-----------------|------------------|---------------------|------------------|-----------------|-------------------------|-------------|--------------------|
| 2389.50         | 46.14            | -6.64               | 39.50            | 54.0            | 3.0m./HORZ              | 14.5        | PK                 |

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FCC ID:  
IC:  
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Issue Date:  
Customer:  
Model:

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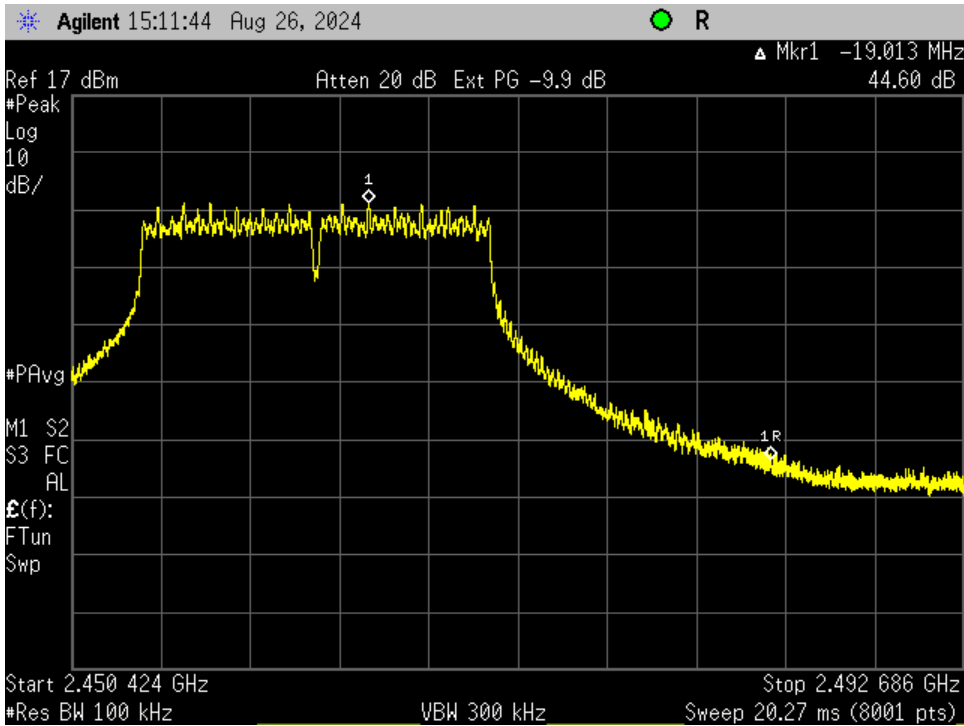


Figure 39. Band Edge Compliance – G mode High Channel Delta – Peak

Higher band edge must be 20 dB below the fundamental. This requirement is met.

|                  |       |    |
|------------------|-------|----|
| Measured Result  | 44.60 | dB |
| Band Edge Limit  | 20.00 | dB |
| Band Edge Margin | 24.60 | dB |

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FCC ID:  
IC:  
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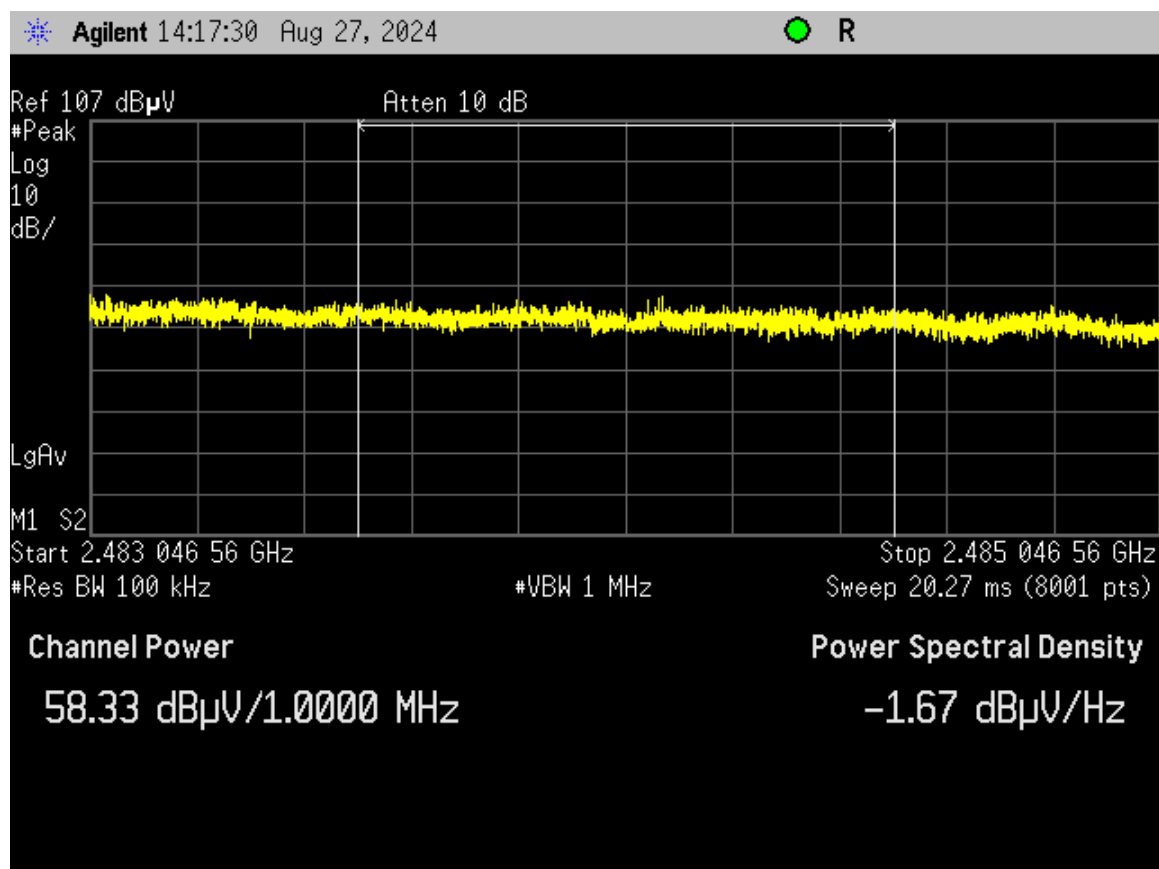


Figure 40. G mode High Channel Restricted Band – Peak

| Frequency (MHz) | Test Data (dBuV) | AF+CA-AMP+DC (dB/m) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector PK/QP/AVG |
|-----------------|------------------|---------------------|------------------|-----------------|-------------------------|-------------|--------------------|
| 2483.04         | 58.33            | -6.51               | 51.82            | 54.0            | 3.0m./HORZ              | 2.2         | PK                 |

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 FCC ID:  
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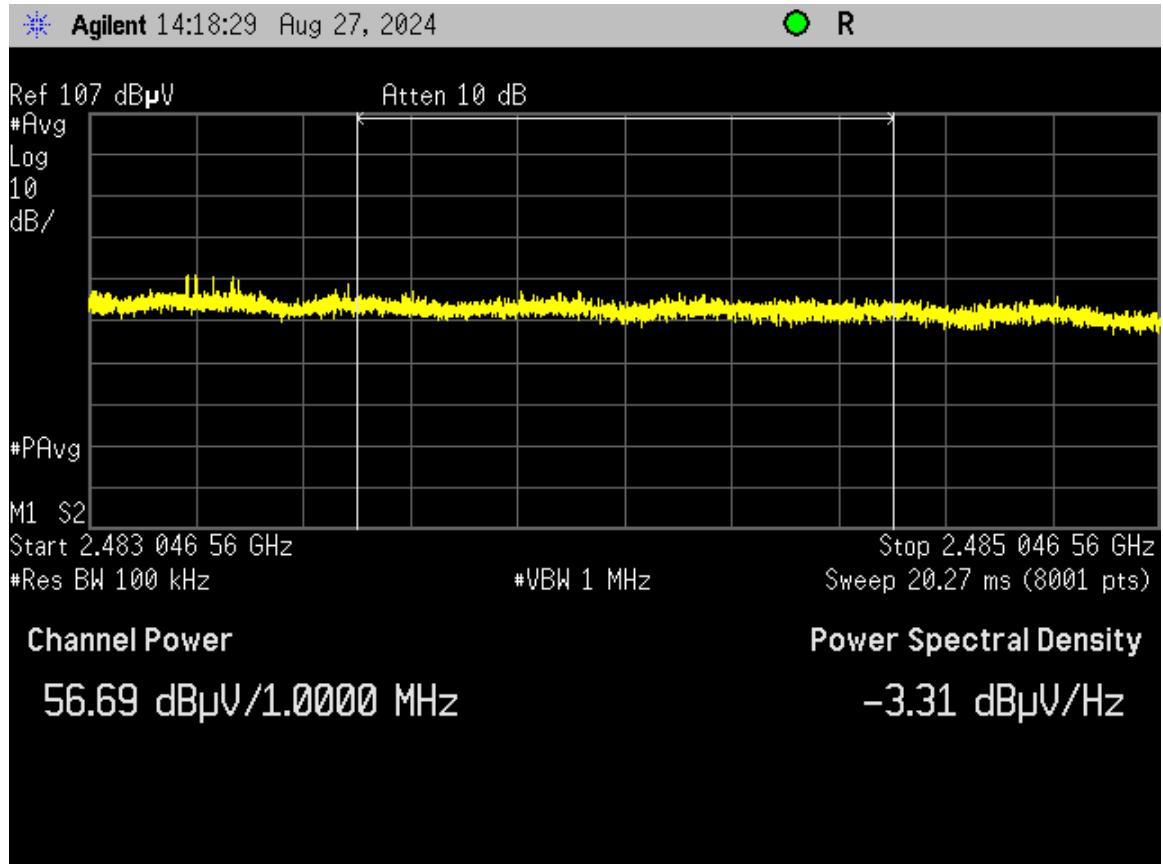
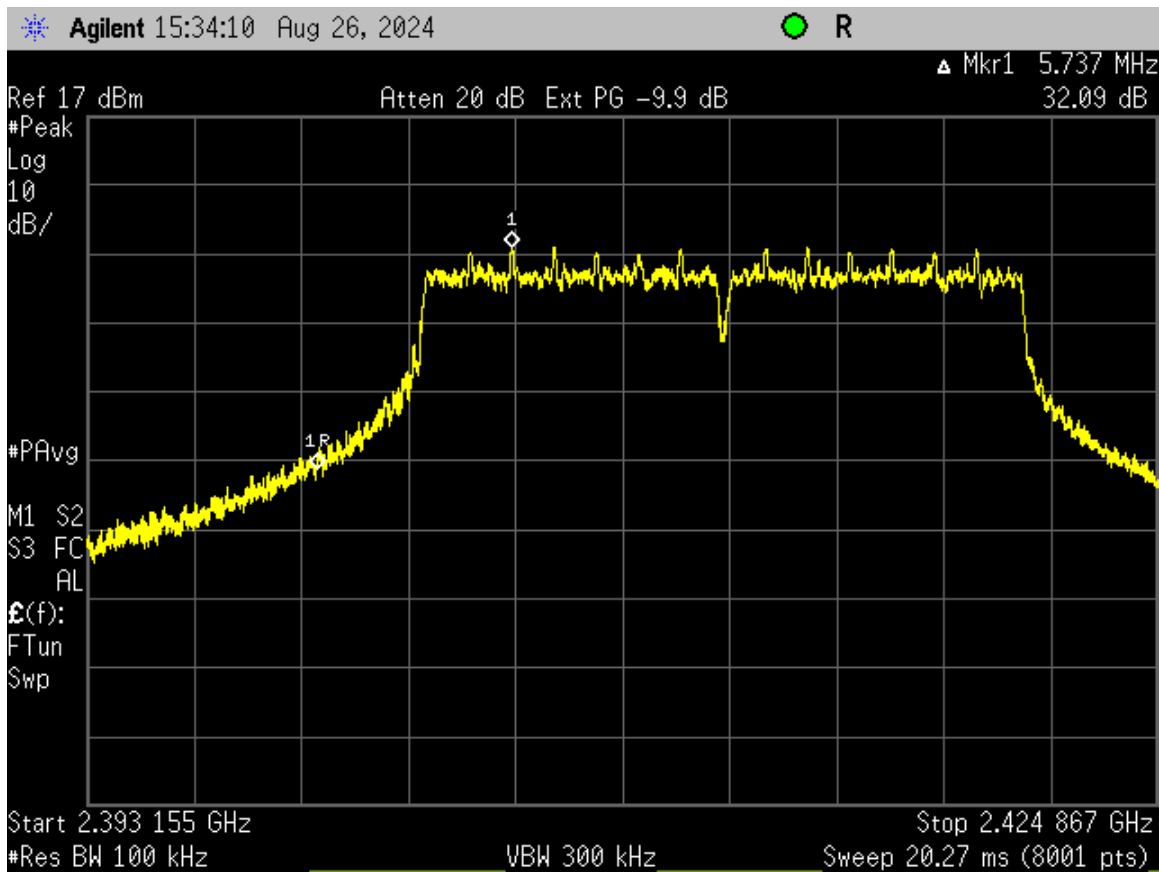


Figure 41. G mode High Channel Restricted Band – Average

| Frequency (MHz) | Test Data (dBuV) | AF+CA-AMP+DC (dB/m) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | Detector PK/QP/AVG |
|-----------------|------------------|---------------------|------------------|-----------------|-------------------------|-------------|--------------------|
| 2483.04         | 56.69            | -6.51               | 50.18            | 54.0            | 3.0m./HORZ              | 3.8         | <b>AVG</b>         |

US Tech Test Report:  
FCC ID:  
IC:  
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Issue Date:  
Customer:  
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**Figure 42. Band Edge Compliance – N mode Low Channel Delta – Peak**

Lower band edge must be 20 dB below the fundamental. This requirement is met.

|                  |       |    |
|------------------|-------|----|
| Measured Result  | 32.09 | dB |
| Band Edge Limit  | 20.00 | dB |
| Band Edge Margin | 12.09 | dB |

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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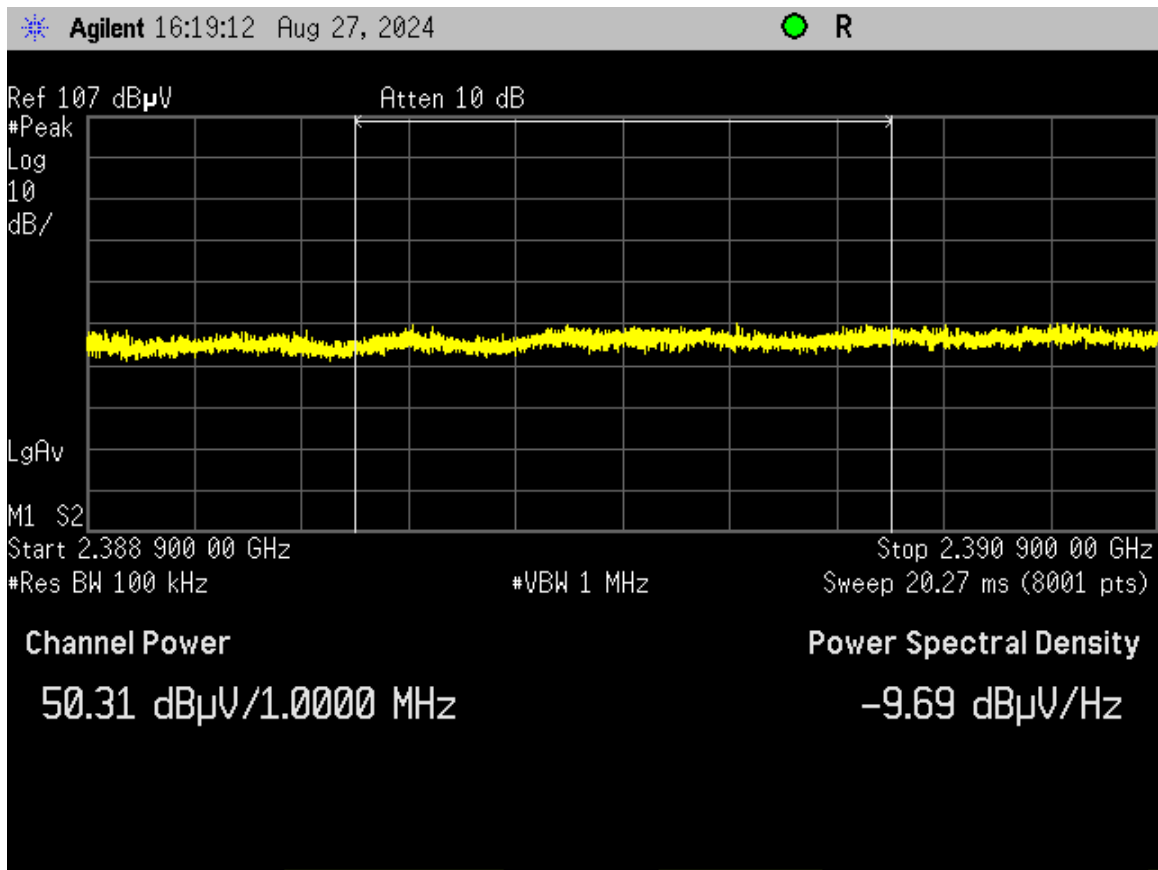
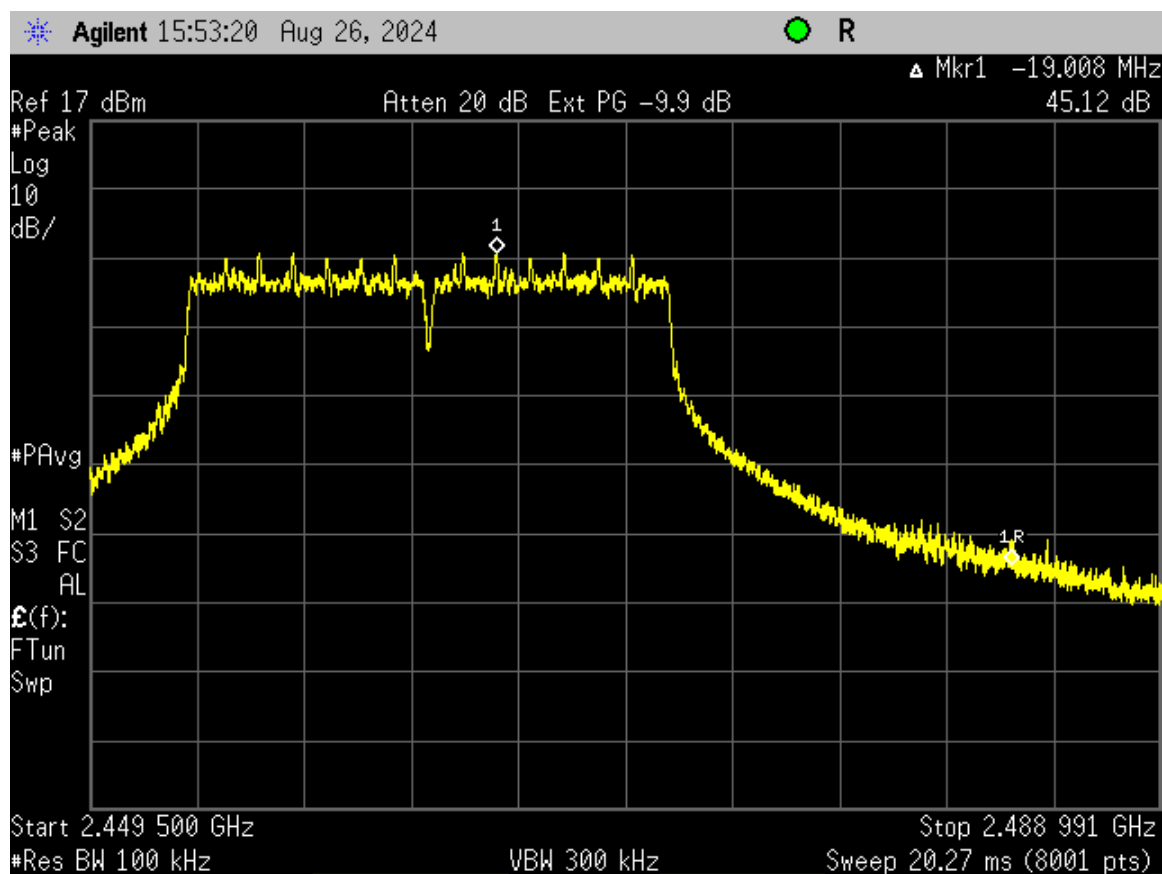


Figure 43. N mode Low Channel Restricted Band – Peak

| Frequency<br>(MHz) | Test Data<br>(dBuV) | AF+CA-AMP+DC<br>(dB/m) | Results<br>(dBuV/m) | Limits<br>(dBuV/m) | Distance /<br>Polarization | Margin<br>(dB) | Detector<br>PK/QP/AVG |
|--------------------|---------------------|------------------------|---------------------|--------------------|----------------------------|----------------|-----------------------|
| 2388.9             | 50.31               | -6.69                  | 43.62               | 54.0               | 3.0m./VERT                 | 10.4           | PK                    |

US Tech Test Report:  
FCC ID:  
IC:  
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Customer:  
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**Figure 44. Band Edge Compliance – N mode High Channel Delta – Peak**

Higher band edge must be 20 dB below the fundamental. This requirement is met.

|                  |       |    |
|------------------|-------|----|
| Measured Result  | 48.93 | dB |
| Band Edge Limit  | 20.00 | dB |
| Band Edge Margin | 28.93 | dB |

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IC:  
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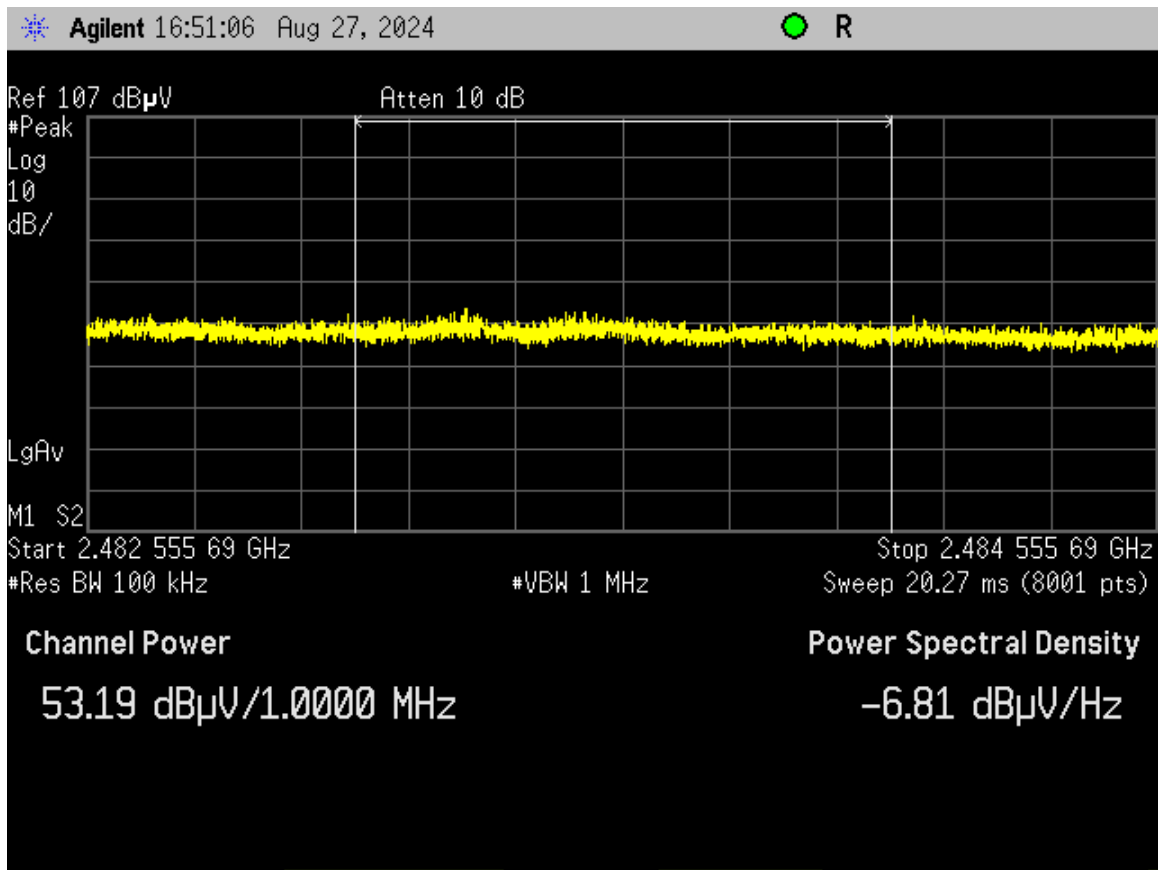


Figure 45. N mode High Channel Restricted Band – Peak

| Frequency<br>(MHz) | Test Data<br>(dBuV) | AF+CA-AMP+DC<br>(dB/m) | Results<br>(dBuV/m) | Limits<br>(dBuV/m) | Distance /<br>Polarization | Margin<br>(dB) | Detector<br>PK/QP/AVG |
|--------------------|---------------------|------------------------|---------------------|--------------------|----------------------------|----------------|-----------------------|
| 2482.55            | 53.19               | -6.51                  | 46.68               | 54.0               | 3.0m./HORZ                 | 7.3            | PK                    |

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
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## 2.12 Six (6) dB Bandwidth (CFR 15.247(a)(2), RSS-247, 6.3.1 (a))

The EUT antenna port was connected to a spectrum analyzer having a 50  $\Omega$  input impedance. Measurements were performed per ANSI C63.10-2013, clause 11.8. The RBW was set to 100 kHz and the VBW  $\geq 3 \times$  RBW. The results of this test are given in the table below and figures below.

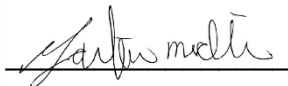


Figure 46. Bench Test Setup

Table 11. Six (6) dB Bandwidth

| Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum FCC and IC Bandwidth (MHz) | Mode (IEEE 802.11) |
|-----------------|----------------------|------------------------------------|--------------------|
| 2412            | 7.066                | 0.5                                | b                  |
| 2442            | 7.078                | 0.5                                | b                  |
| 2462            | 7.068                | 0.5                                | b                  |
| 2412            | 16.413               | 0.5                                | g                  |
| 2442            | 16.373               | 0.5                                | g                  |
| 2462            | 16.446               | 0.5                                | g                  |
| 2412            | 17.648               | 0.5                                | n                  |
| 2442            | 17.599               | 0.5                                | n                  |
| 2462            | 17.611               | 0.5                                | n                  |

Test Date: August 21, 2025

Tested By  
Signature: 

Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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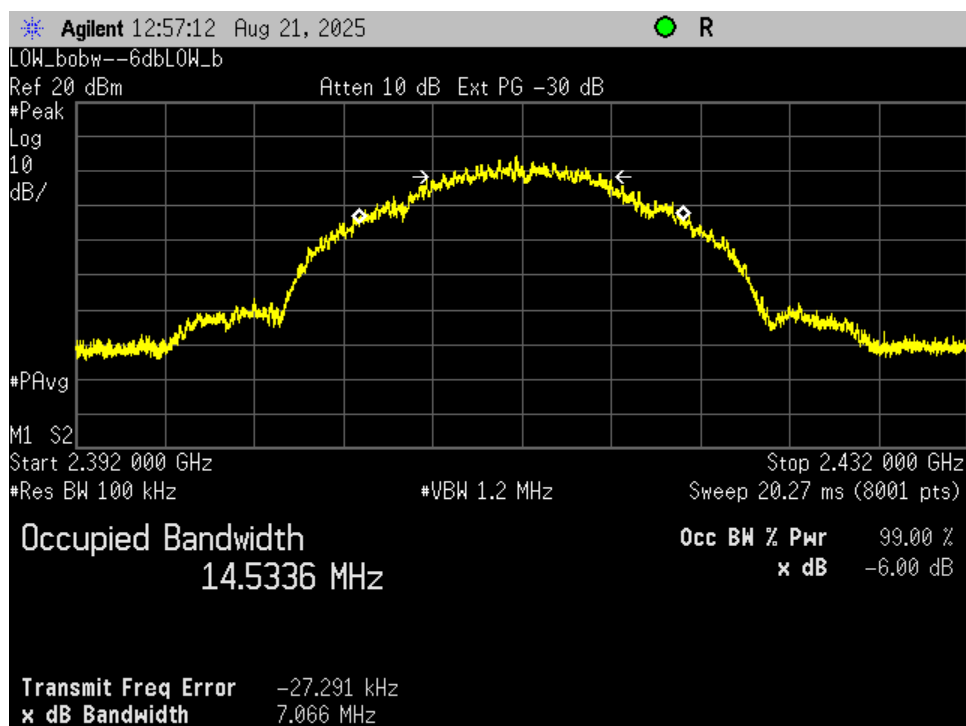


Figure 47. 6 dB Bandwidth b mode Low Channel

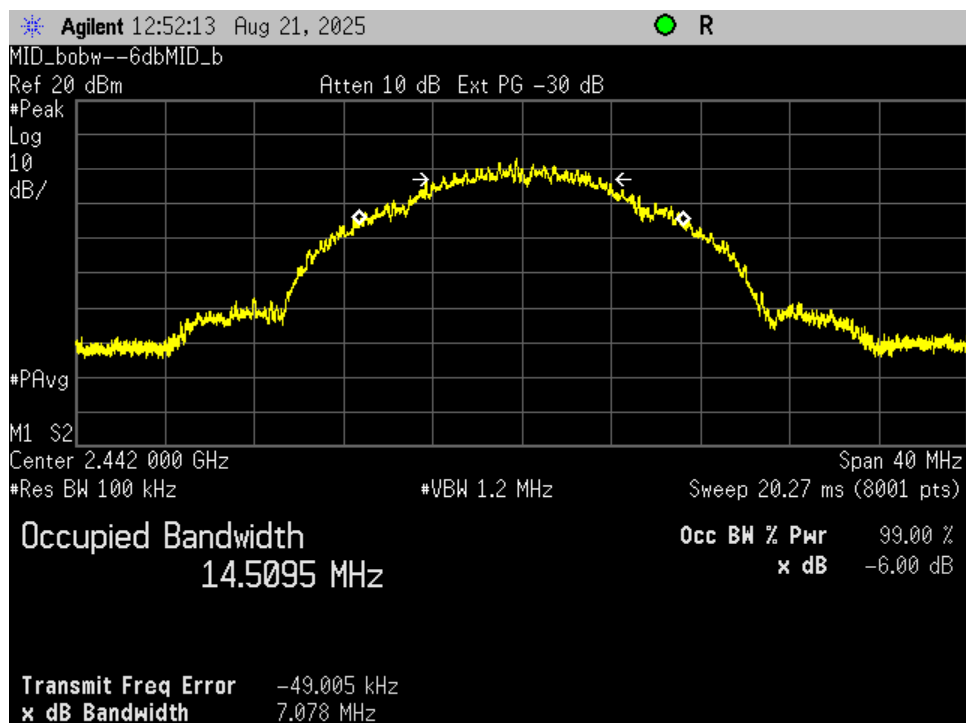


Figure 48. 6 dB Bandwidth b mode Mid Channel

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FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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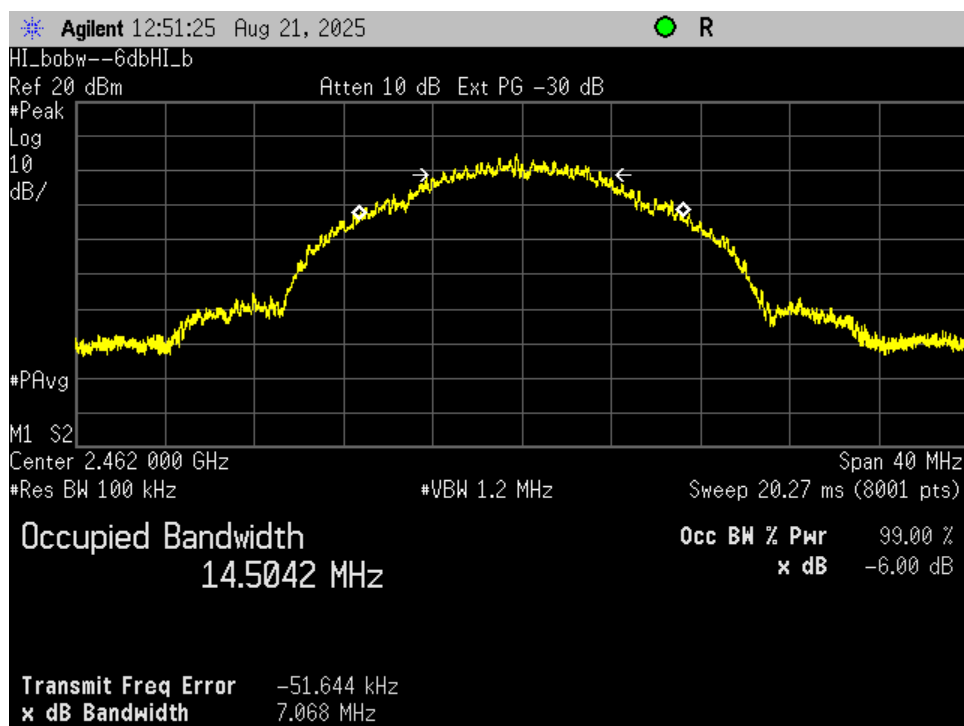


Figure 49. 6 dB Bandwidth b mode High Channel

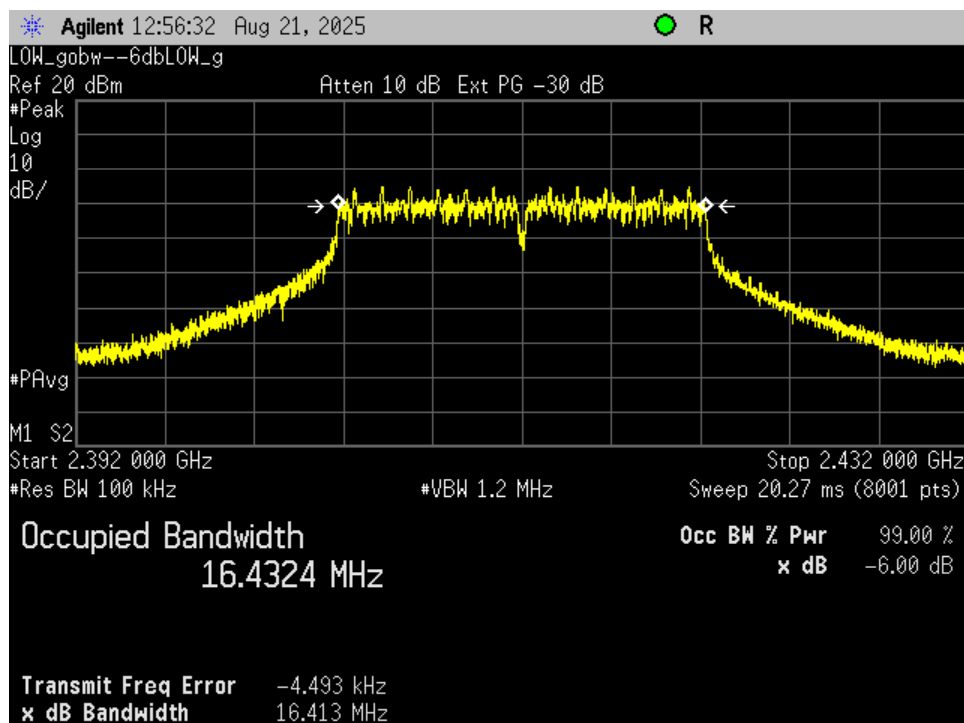


Figure 50. 6 dB Bandwidth g mode Low Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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21143-3230  
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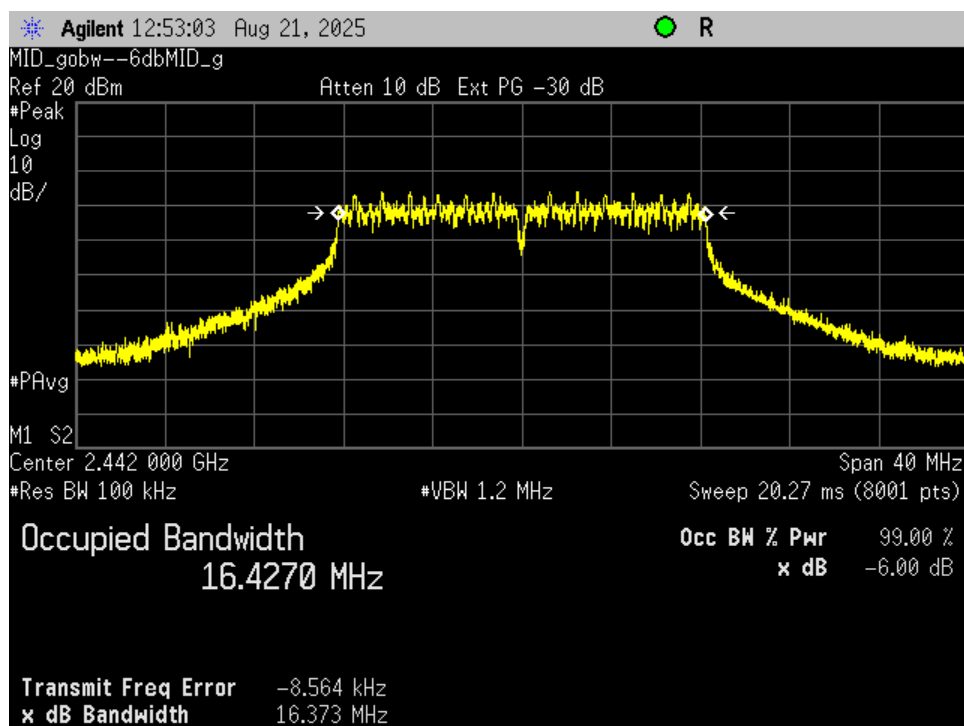


Figure 51. 6 dB Bandwidth g mode Mid Channel

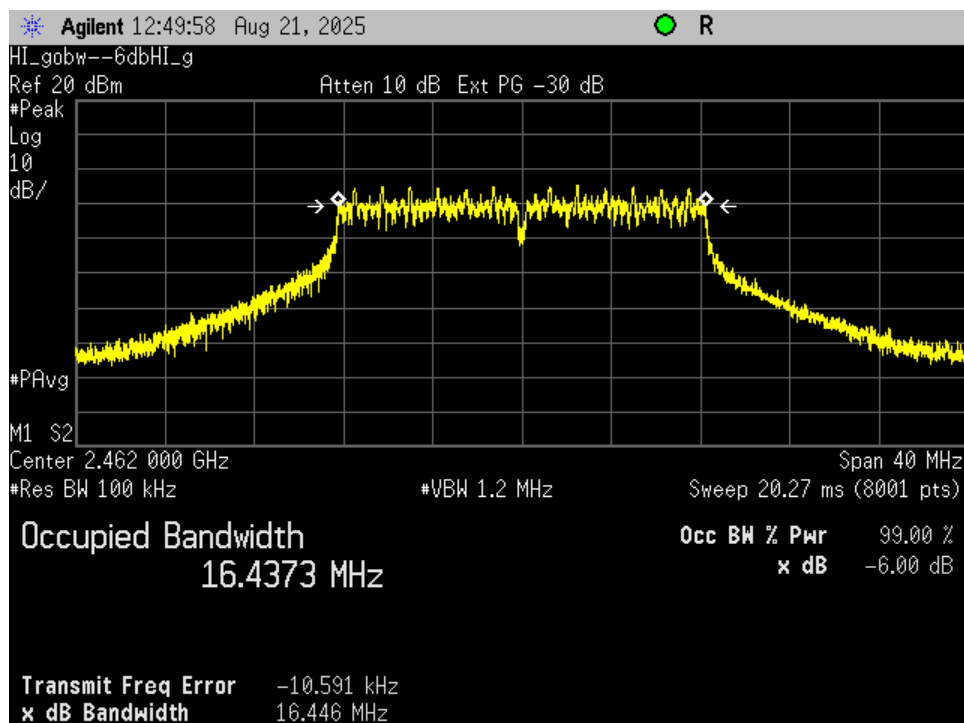


Figure 52. 6 dB Bandwidth g mode High Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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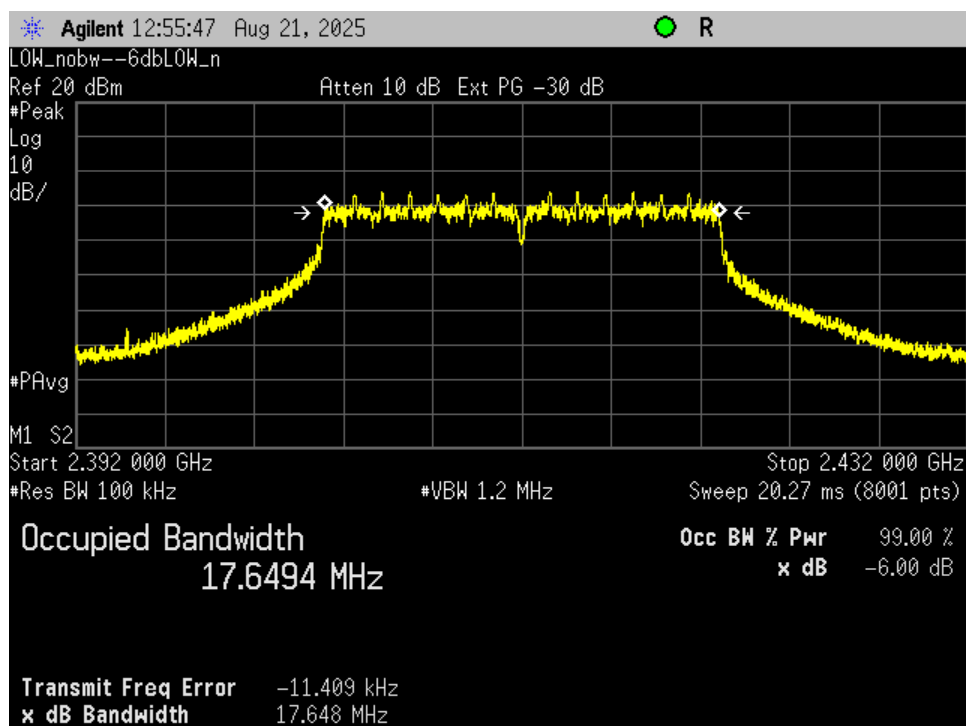


Figure 53. 6 dB Bandwidth n mode Low Channel

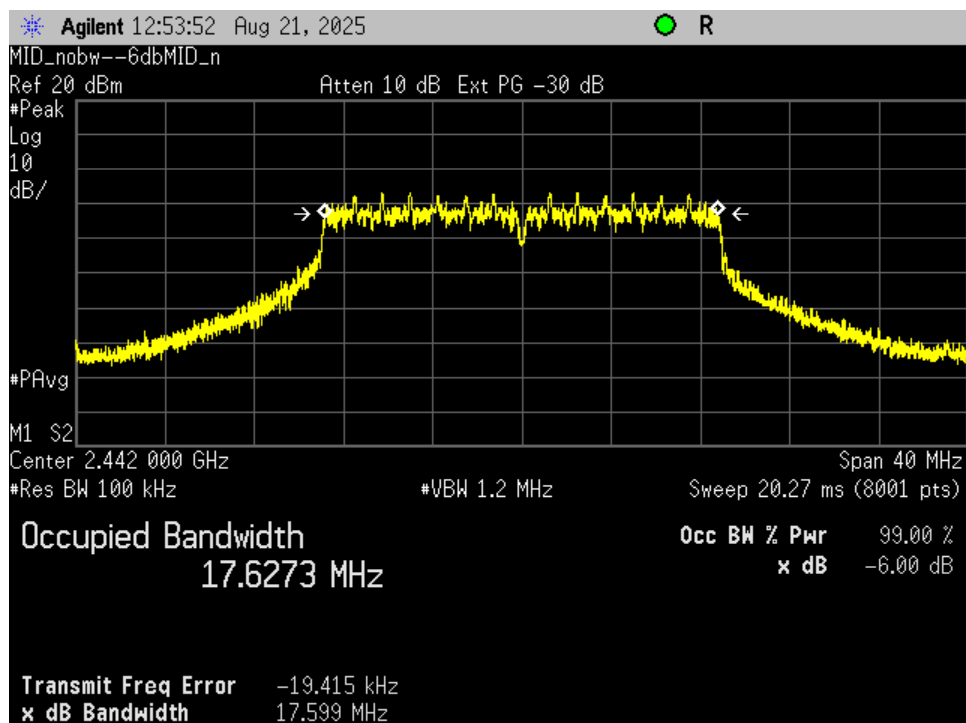


Figure 54. 6 dB Bandwidth n mode Mid Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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21143-3230  
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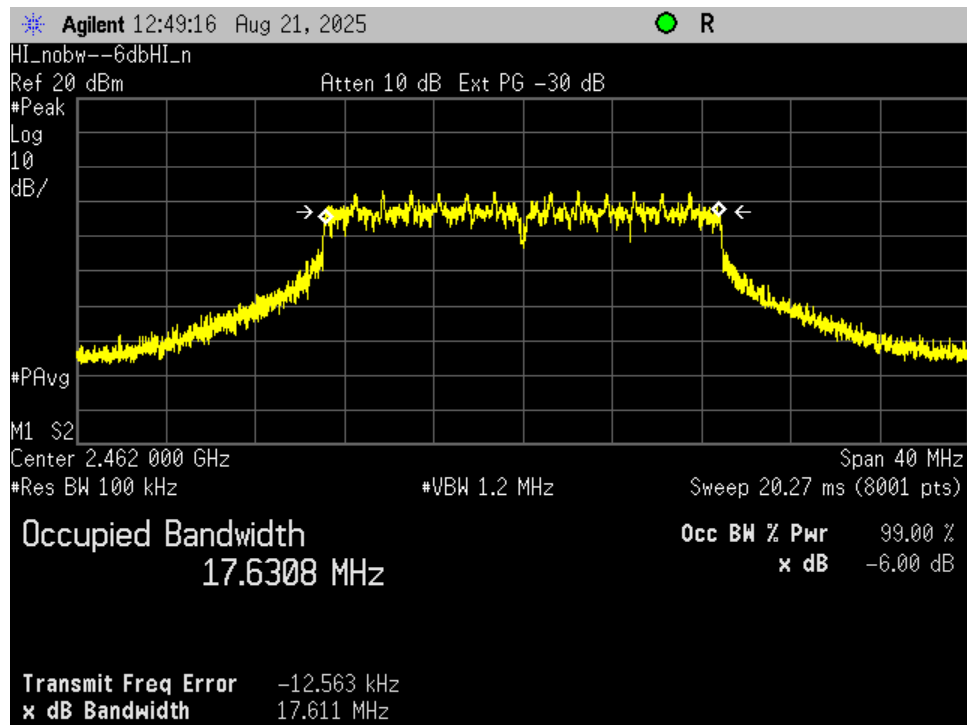


Figure 55. 6 dB Bandwidth n mode High Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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### 2.13 Occupied Bandwidth, (99% bandwidth)(RSS-GEN (6.7))

The EUT antenna port was connected to a spectrum analyzer having a 50Ω input impedance. Measurements were performed similar to the method of FCC, KDB Publication No. 558074 v05r02 for a bandwidth of 20 dB. The RBW was set to approximately 1/100 of the manufacturers claimed RBW and with the VBW  $\geq 3 \times$  RBW. The results of this test are given in Table 12 and presented in the figures in section 2.12 above.



Figure 56. Bench Test Setup

Table 12. 99% Occupied Bandwidth

| Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Modulation |
|-----------------|------------------------------|------------|
| 2412            | 14.554                       | b          |
| 2442            | 14.565                       | b          |
| 2462            | 14.550                       | b          |
| 2412            | 17.141                       | g          |
| 2442            | 17.130                       | g          |
| 2462            | 17.098                       | g          |
| 2412            | 18.120                       | n          |
| 2442            | 18.023                       | n          |
| 2462            | 18.074                       | n          |

Test Date: August 21, 2025

Tested By  
Signature: 

Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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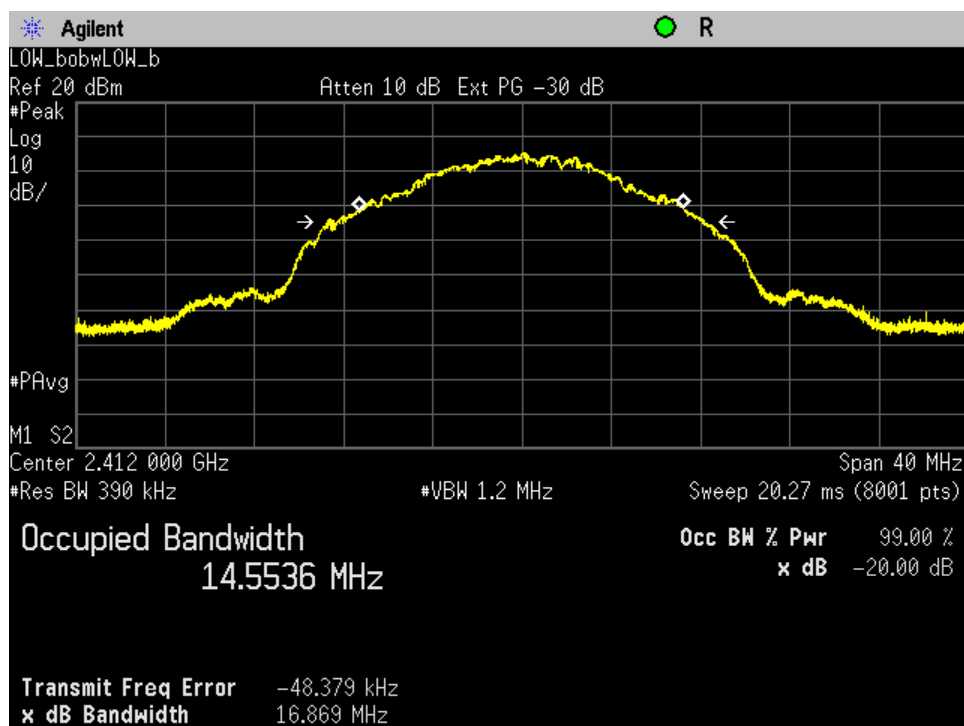


Figure 57. 99% Occupied Bandwidth b mode Low Channel

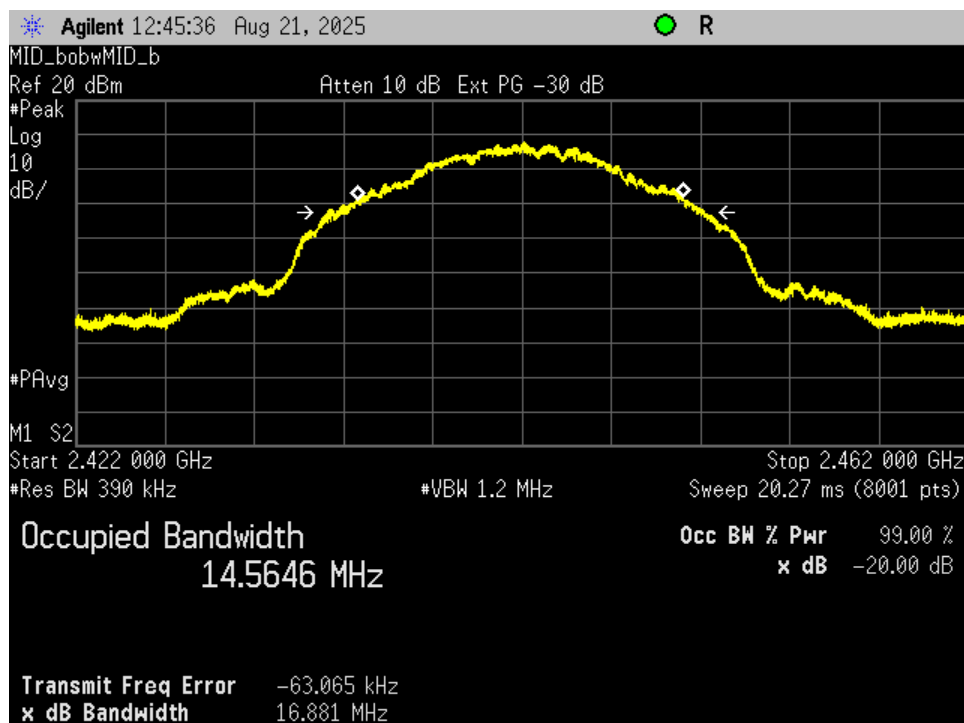


Figure 58. 99% Occupied Bandwidth b mode Mid Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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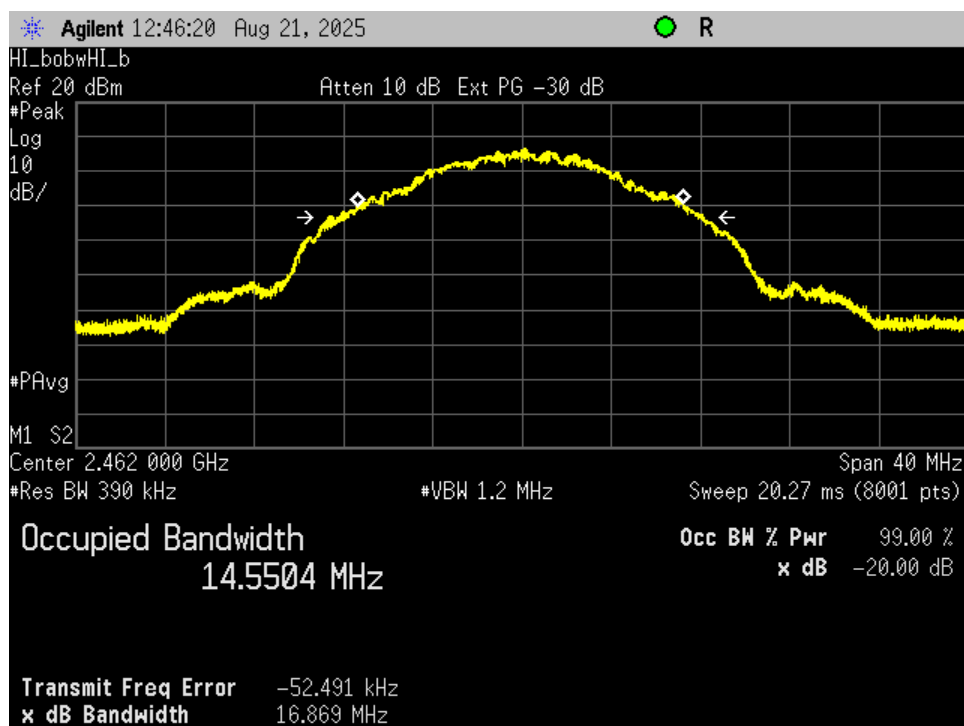


Figure 59. 99% Occupied Bandwidth b mode High Channel

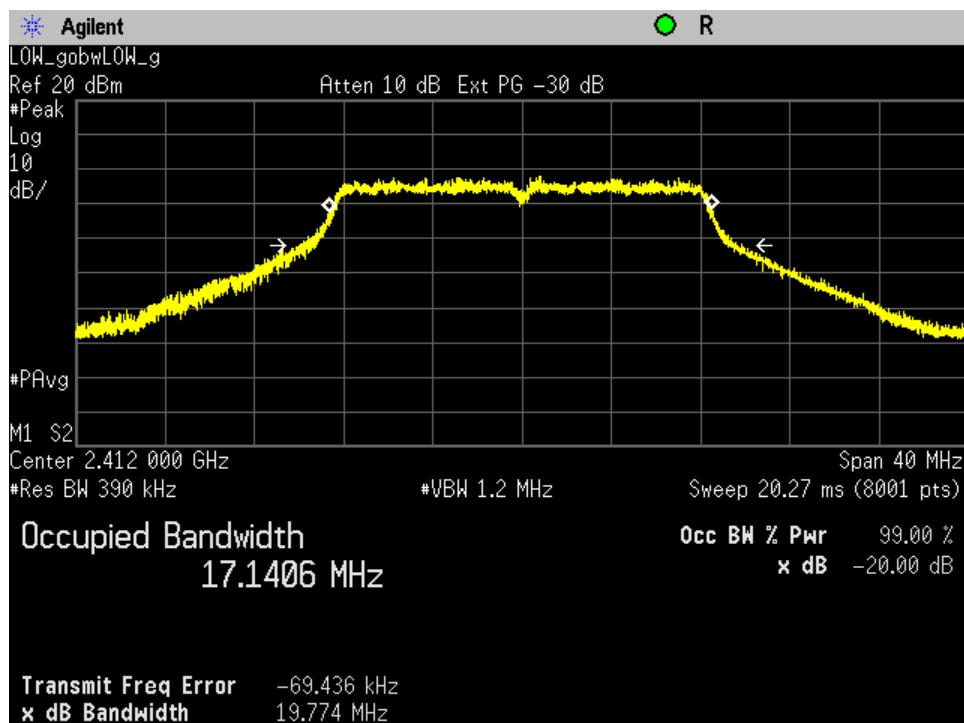


Figure 60. 99% Occupied Bandwidth g mode Low Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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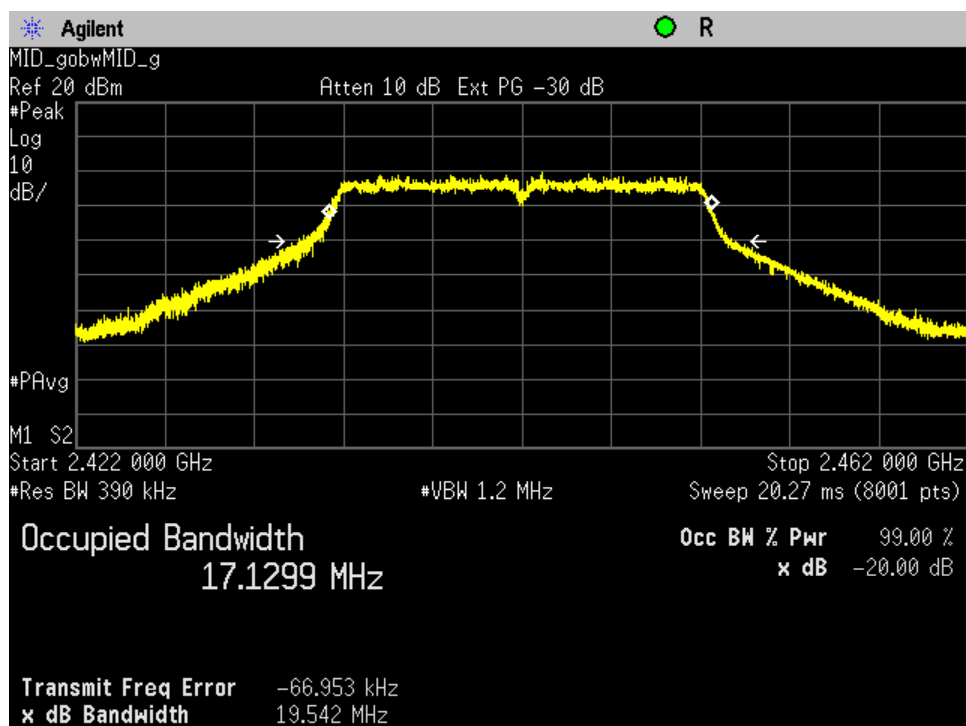


Figure 61. 99% Occupied Bandwidth g mode Mid Channel

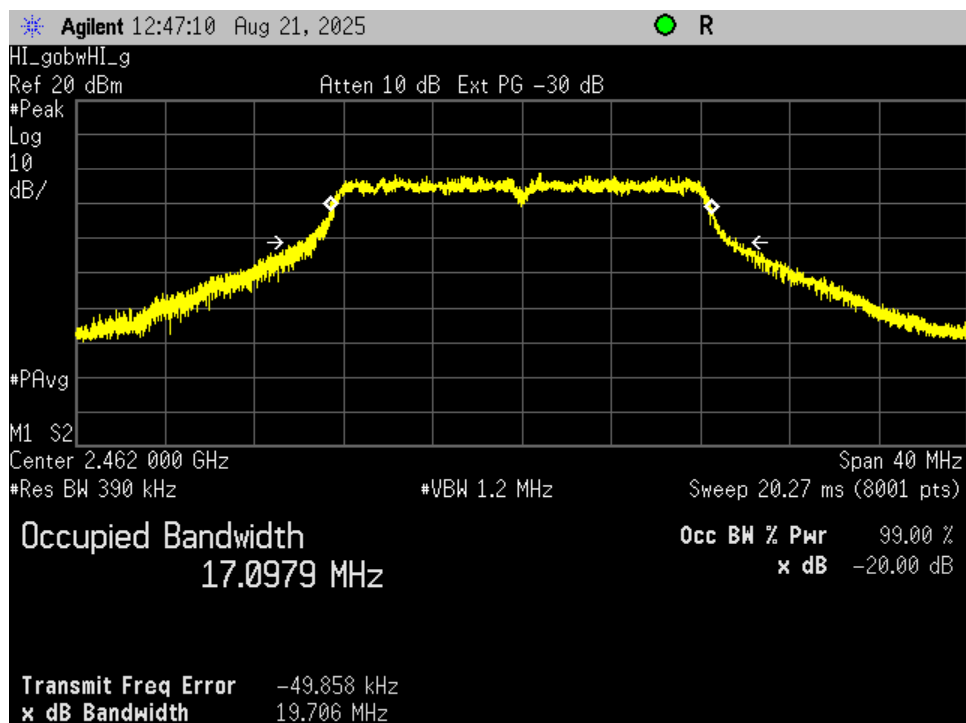


Figure 62. 99% Occupied Bandwidth g mode High Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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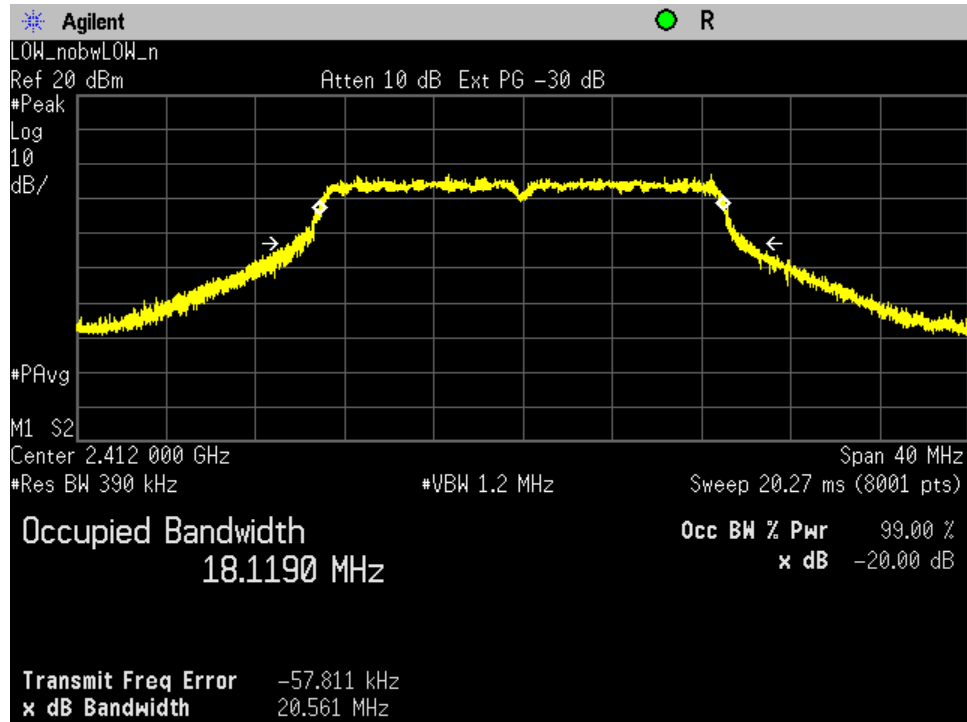


Figure 63. 99% Occupied Bandwidth n mode Low Channel

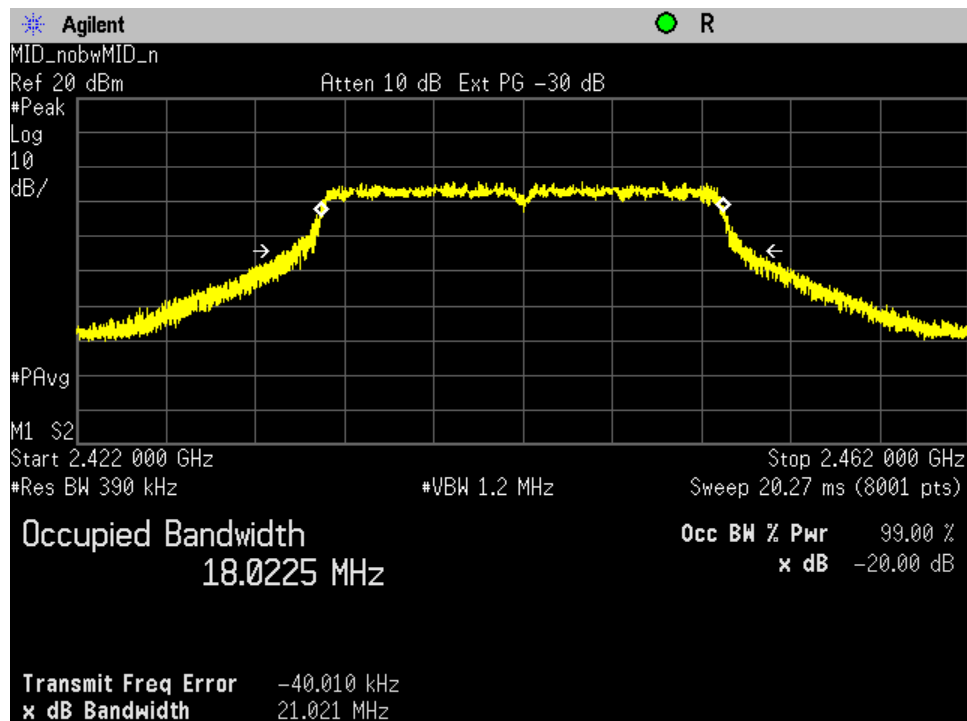


Figure 64. 99% Occupied Bandwidth n mode Mid Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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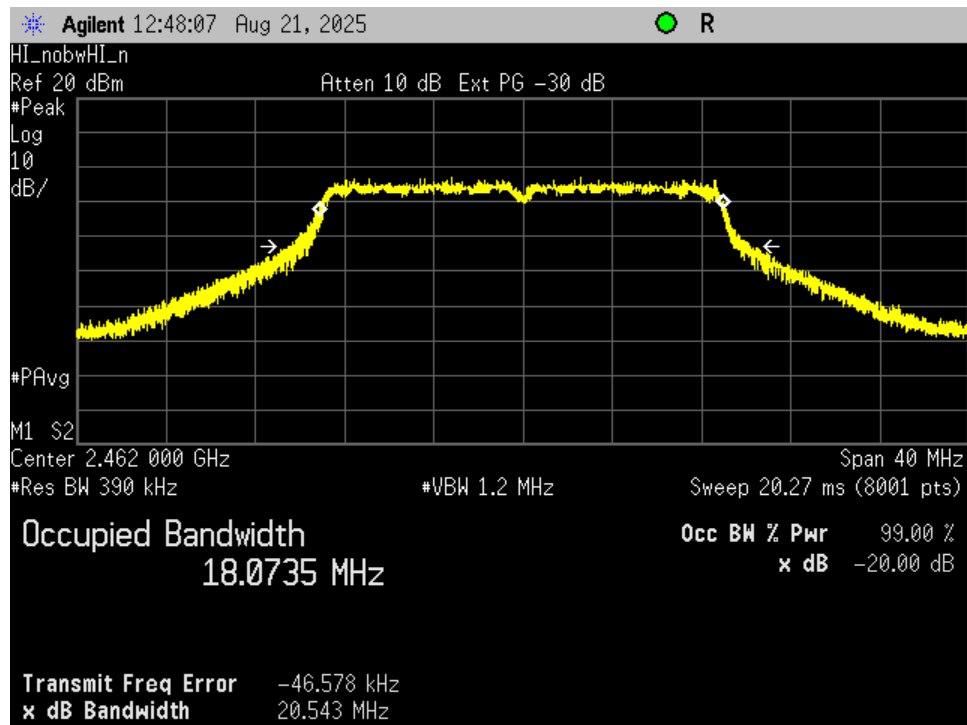


Figure 65. 99% Occupied Bandwidth n mode High Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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## **2.14 Maximum Peak Conducted Output Power (CFR 15.247 (b) (3), IC RSS-247 6.3.2)**

The transmitter was programmed to operate at a maximum output power across the bandwidth. For this test the output power of the radio was set to the maximum data rate, with 11Mbps for mode b, 54 Mbps for made g, and MSC-7 for mode n, in order to meet all test requirements.

Peak power within the band 2400 MHz to 2483.5 MHz was measured per ANSI C63.10-2013 as an Antenna Conducted test with a spectrum analyzer by connecting the spectrum analyzer directly, via a short RF cable, and attenuators to the antenna output terminals on the EUT. The spectrum analyzer was set to a RBW of 1 MHz, and the VBW  $\geq 3 \times$  RBW. The integration method was used. Peak antenna conducted output power is tabulated in the table below.



**Figure 66. Bench Test Setup**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Table 13. Peak Antenna Conducted Output Power per Part 15.247 (b)(3)**

| Frequency of Fundamental (MHz) | Raw Test Data dBm | Converted Data (mW) | FCC and IC Limit (mW Maximum) | Mode |
|--------------------------------|-------------------|---------------------|-------------------------------|------|
| 2412                           | 13.92             | 24.66               | 1000                          | b    |
| 2442                           | 13.73             | 23.61               | 1000                          | b    |
| 2462                           | 13.50             | 22.39               | 1000                          | b    |
| 2412                           | 8.6               | 7.24                | 1000                          | g    |
| 2442                           | 9.86              | 9.68                | 1000                          | g    |
| 2462                           | 8.22              | 6.64                | 1000                          | g    |
| 2412                           | 7.34              | 5.42                | 1000                          | n    |
| 2442                           | 7.73              | 5.93                | 1000                          | n    |
| 2462                           | 7.06              | 5.08                | 1000                          | n    |

Test Date: August 26, 2024

Tested By  
Signature:



Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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2AHFE-3230  
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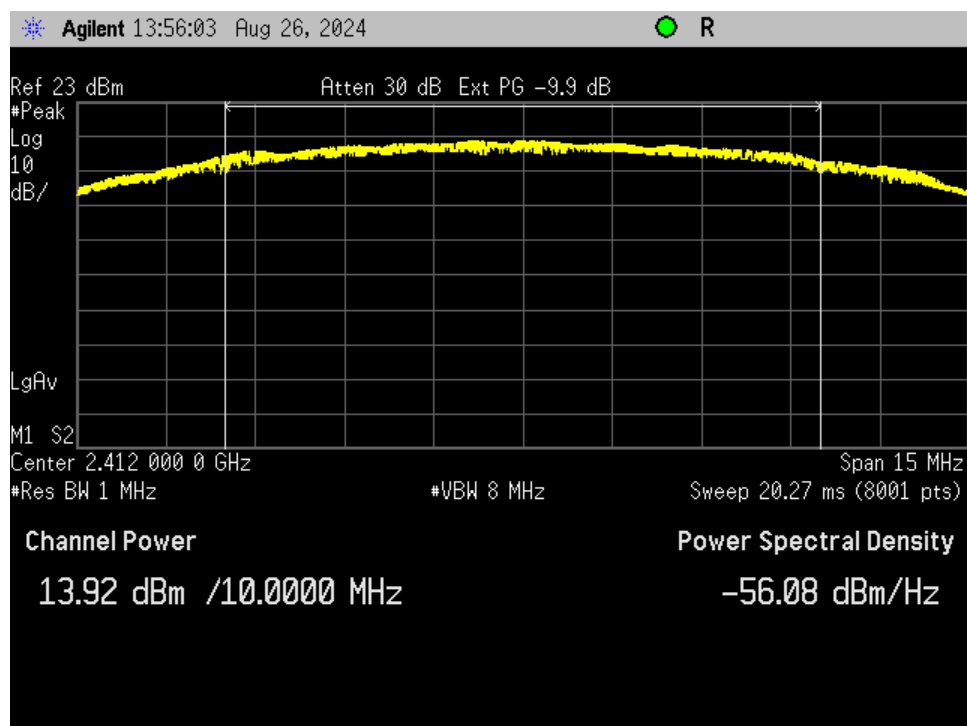


Figure 67. Peak Antenna Conducted Output Power, b mode Low Channel

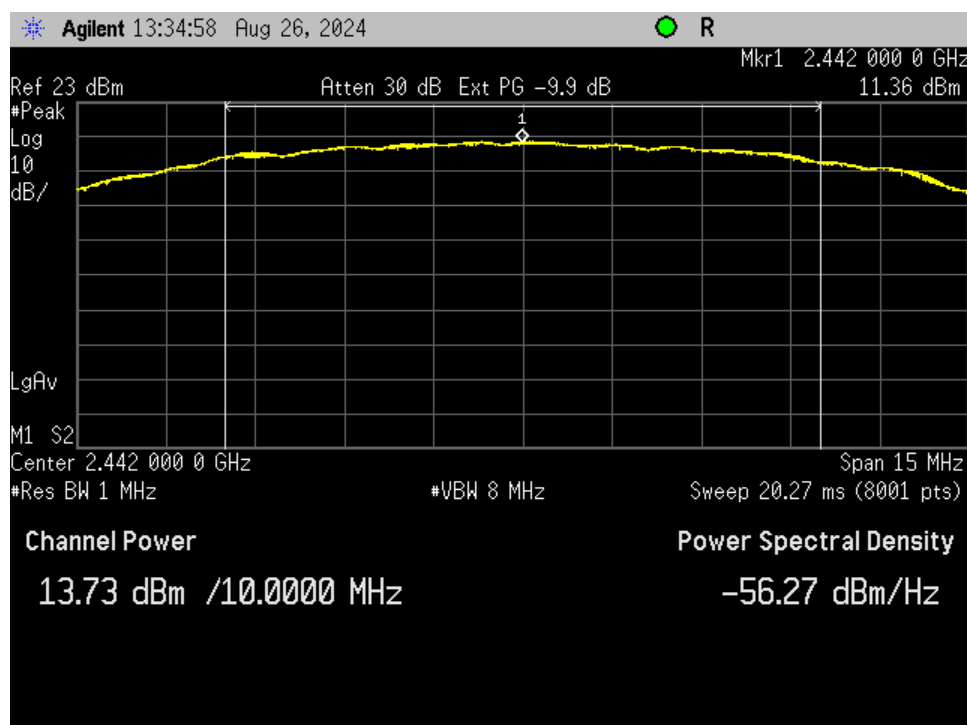


Figure 68. Peak Antenna Conducted Output Power, b mode Mid Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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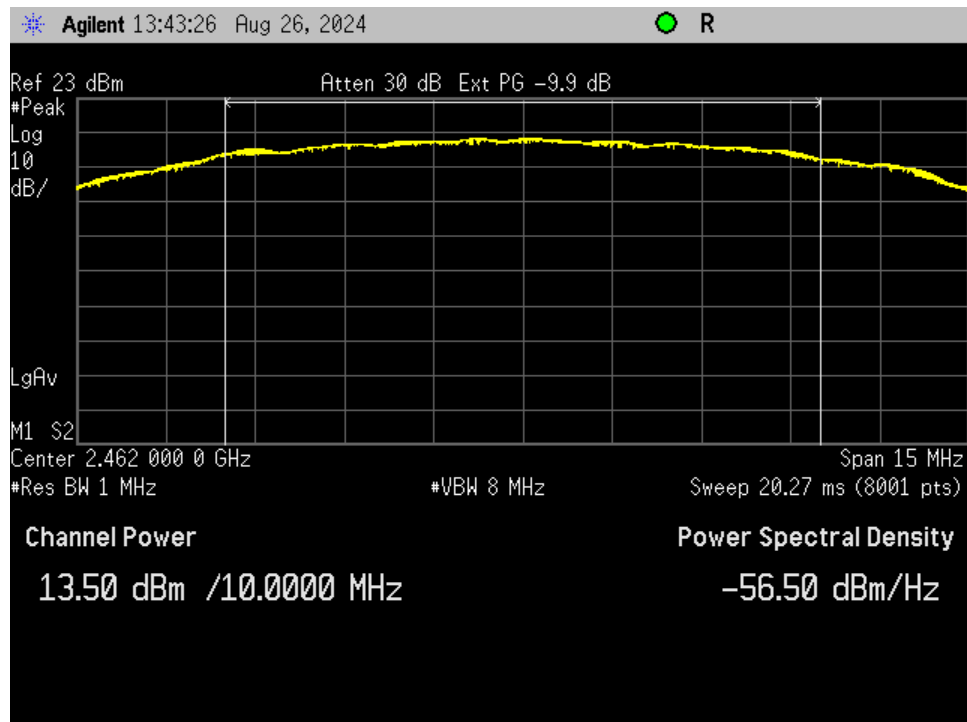


Figure 69. Peak Antenna Conducted Output Power, b mode High Channel

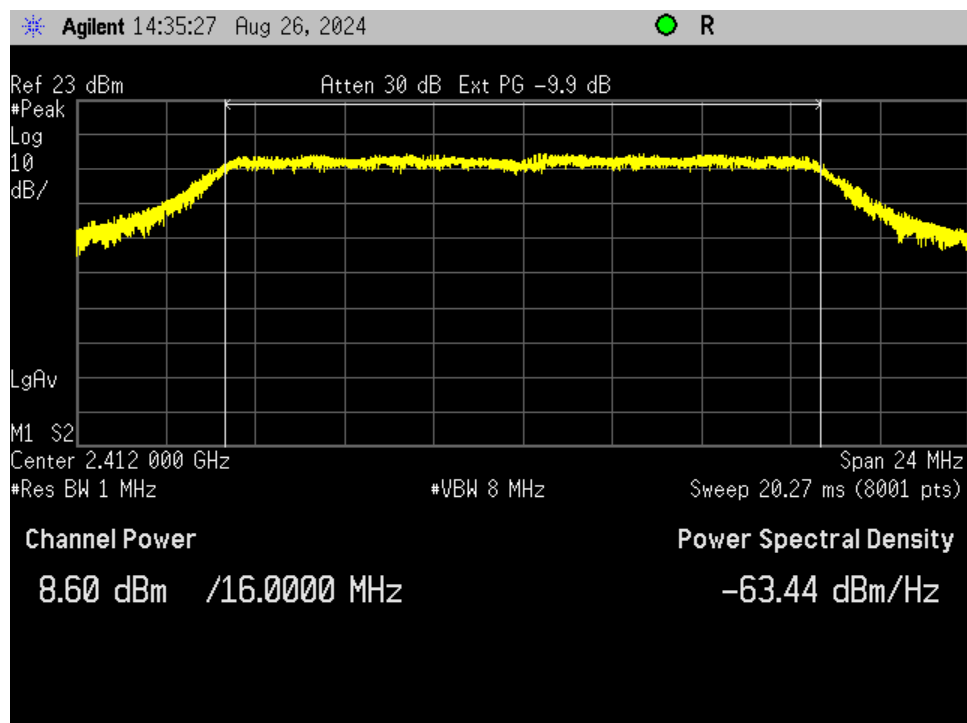


Figure 70. Peak Antenna Conducted Output Power, g mode Low Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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2AHFE-3230  
21143-3230  
24-0190  
August 4, 2025  
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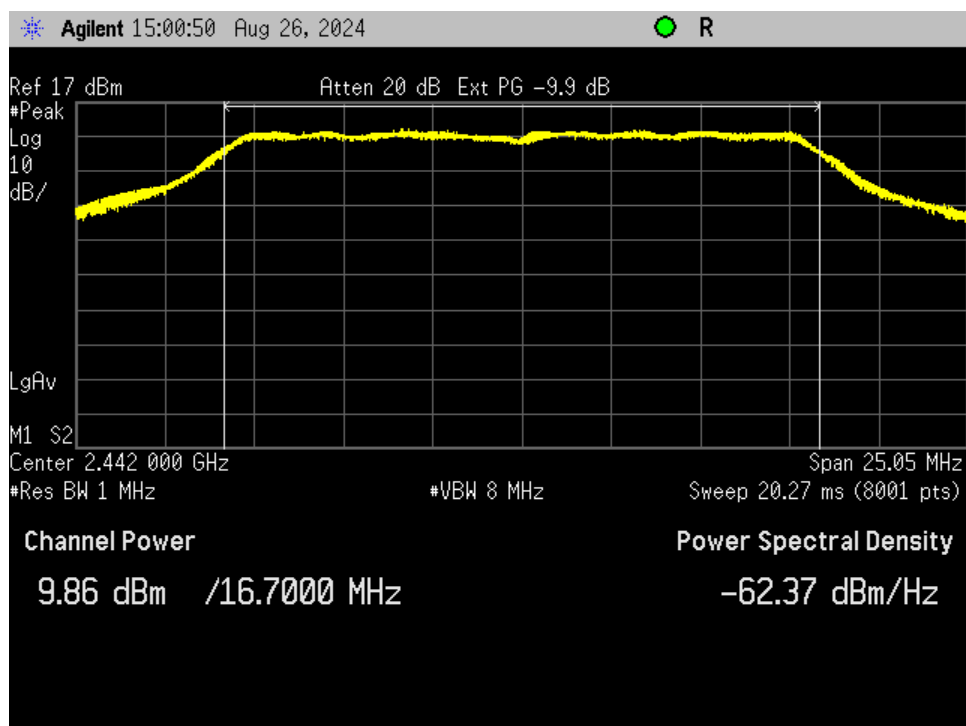


Figure 71. Peak Antenna Conducted Output Power, g mode Mid Channel

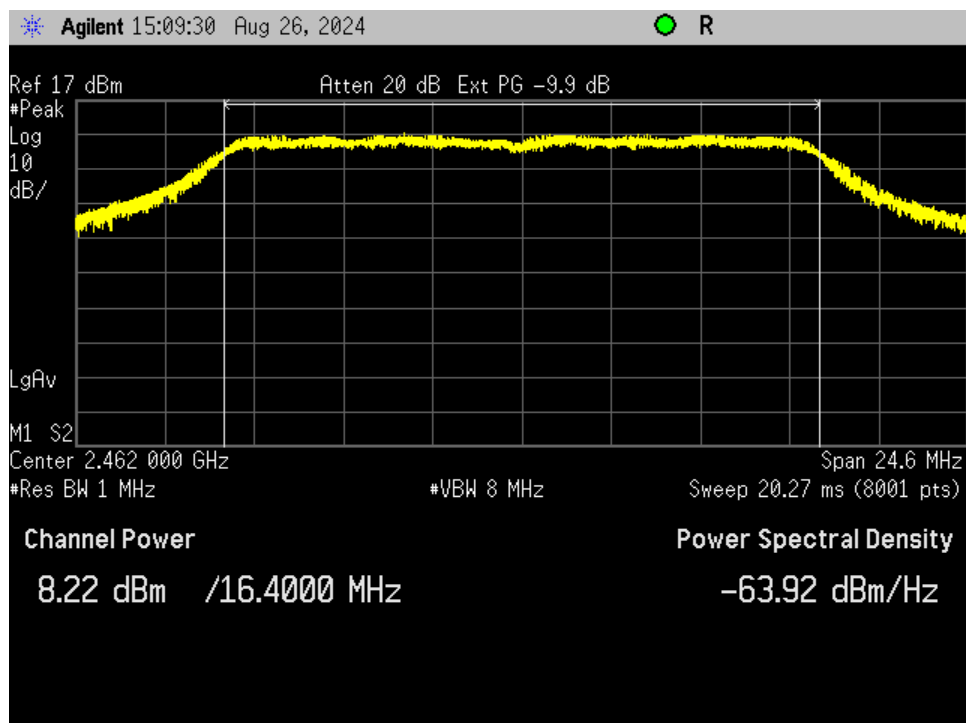


Figure 72. Peak Antenna Conducted Output Power, g mode High Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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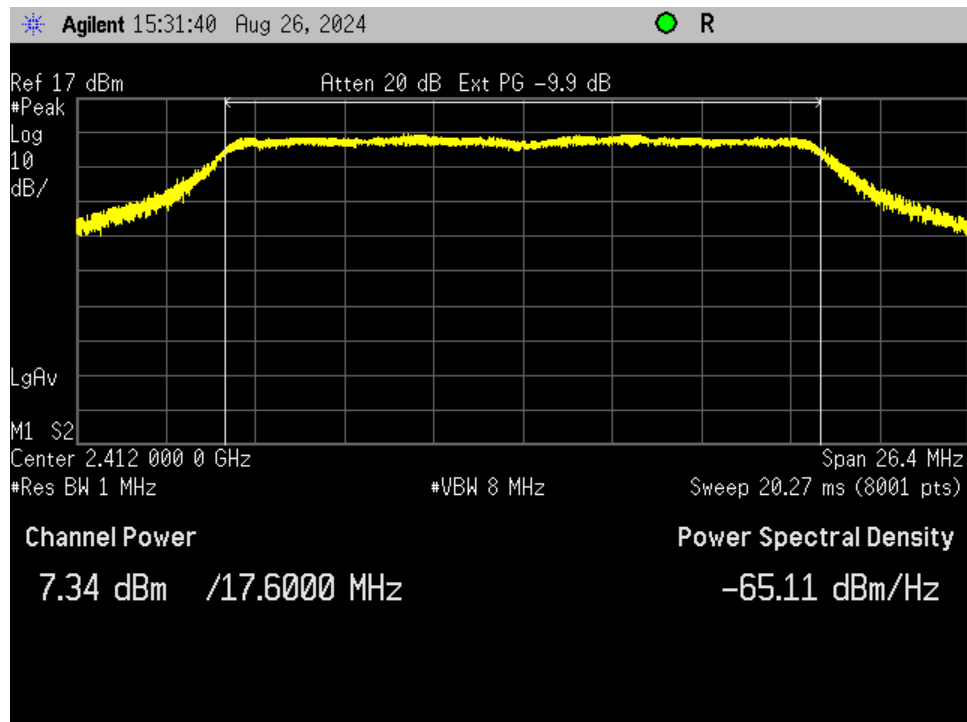


Figure 73. Peak Antenna Conducted Output Power, n mode Low Channel

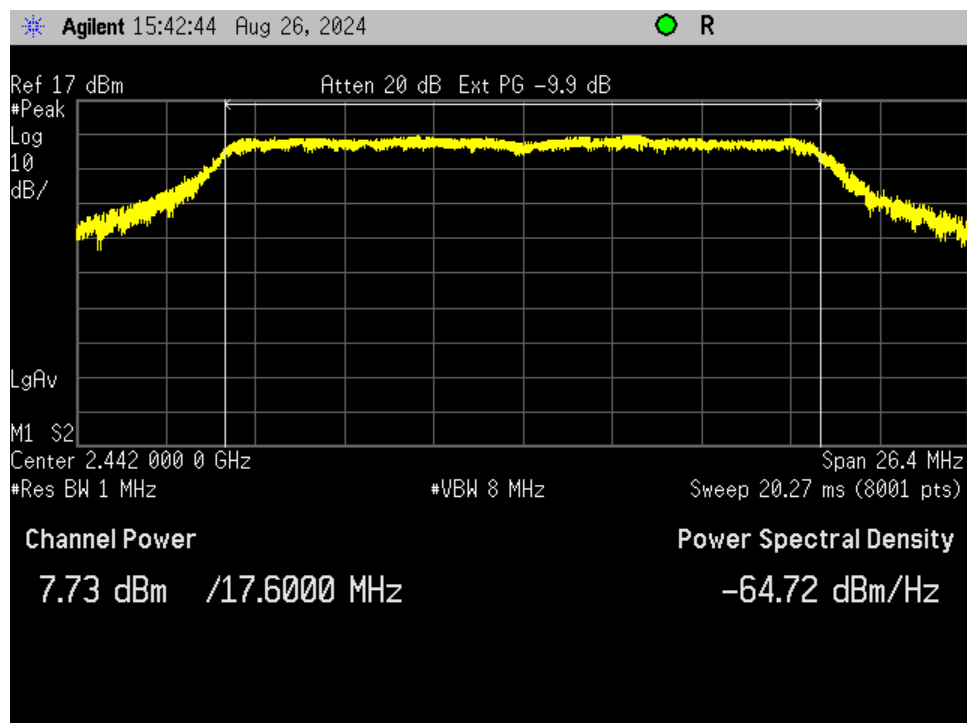


Figure 74. Peak Antenna Conducted Output Power, n mode Mid Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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21143-3230  
24-0190  
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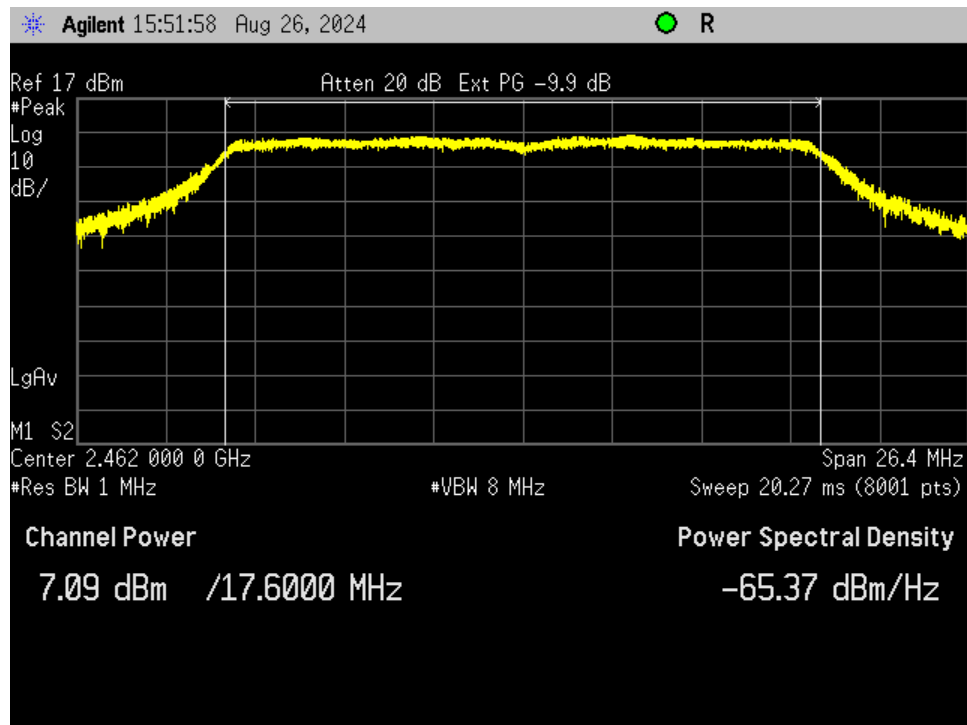


Figure 75. Peak Antenna Conducted Output Power, n mode High Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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## 2.15 Power Spectral Density (CFR 15.247(e), RSS-247, 6.3.1(b))

The transmitter was placed into a continuous mode of operation at all applicable frequencies. The measurements were performed per the procedures of ANSI C63.10-2013. The RBW was set to 3 kHz and the Video Bandwidth was set to  $\geq 3 \times \text{RBW}$ .

In accordance with 15.247 (e) and RSS-247, 6.3.1(b), the power spectral density shall be no greater than +8 dBm per any 3 kHz band.

Results are shown in the table below and figures below. All are less than +8 dBm per 3 kHz band. See table and figures below.



**Figure 76. Bench Test Setup**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Table 14. Power Spectral Density for Low, Mid and High Bands**

| Frequency (MHz) | Measured Result (dBm/30 kHz) | Measured Result (dBm/3 kHz) | FCC Limit (dBm/3 kHz) | Mode |
|-----------------|------------------------------|-----------------------------|-----------------------|------|
| 2412            | -1.79                        | -11.79                      | +8.0                  | b    |
| 2442            | -2.15                        | -12.15                      | +8.0                  | b    |
| 2462            | -2.35                        | -12.35                      | +8.0                  | b    |
| 2412            | -6.01                        | -16.01                      | +8.0                  | g    |
| 2442            | -4.77                        | -14.77                      | +8.0                  | g    |
| 2462            | -6.67                        | -16.67                      | +8.0                  | g    |
| 2412            | -6.66                        | -16.66                      | +8.0                  | n    |
| 2442            | -6.39                        | -16.39                      | +8.0                  | n    |
| 2462            | -7.18                        | -17.18                      | +8.0                  | n    |

Note: dBm/Hz correct to dBm/kHz using the following formula,  $10 \log ((\text{RBW ref})/\text{RBW})$  measured.

Test Date: August 26, 2024

Tested By  
Signature:



Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
24-0190  
August 4, 2025  
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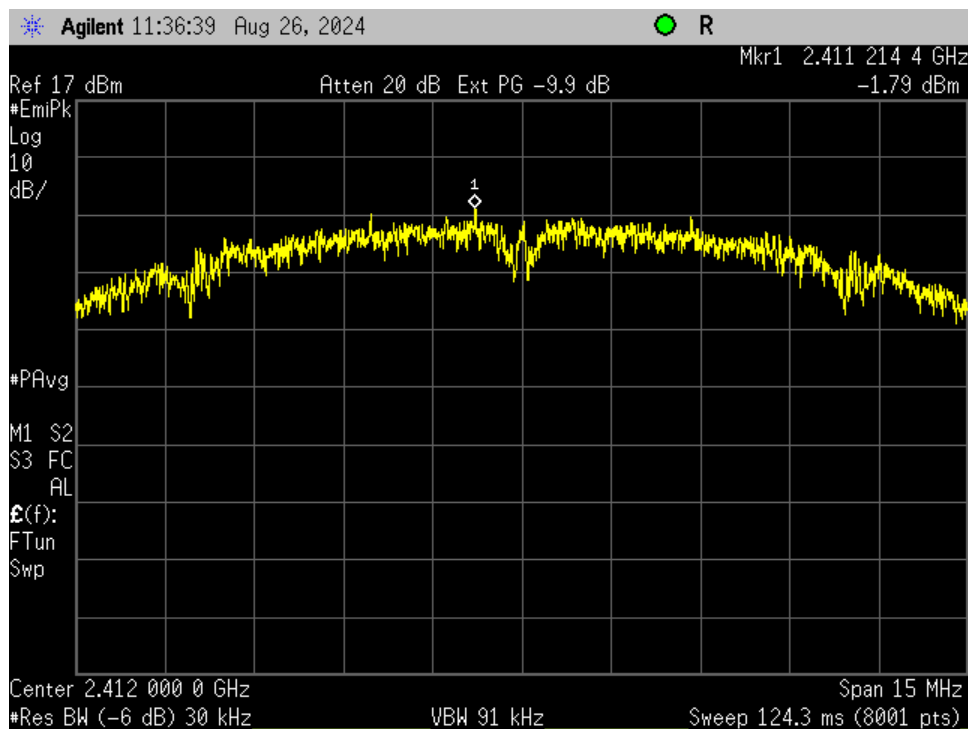


Figure 77. Power Spectral Density, b mode Low Channel

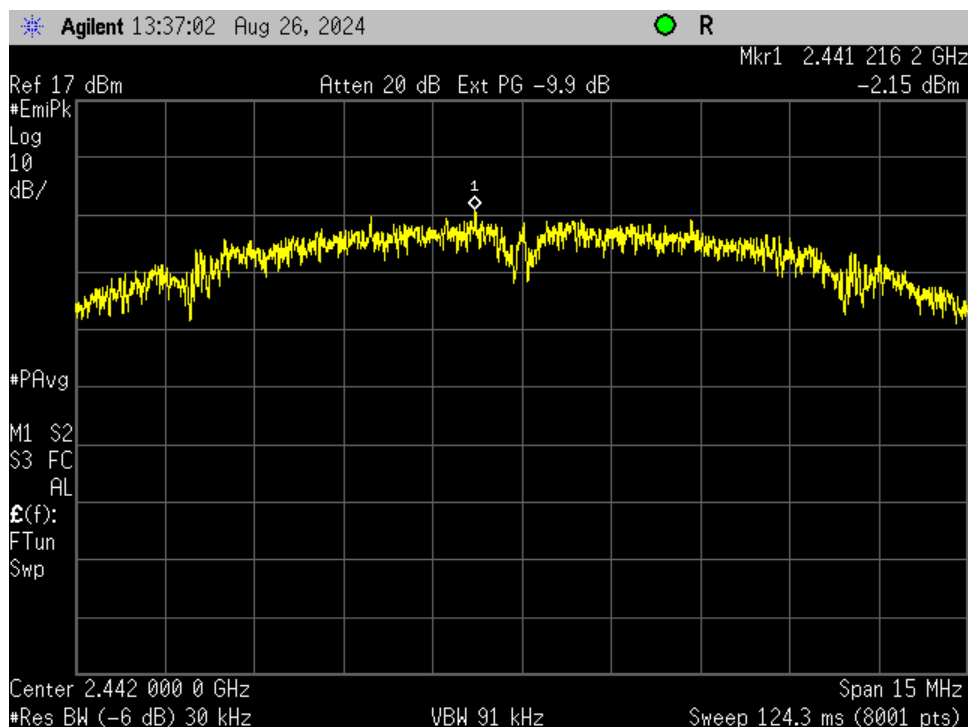


Figure 78. Power Spectral Density, b mode Mid Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
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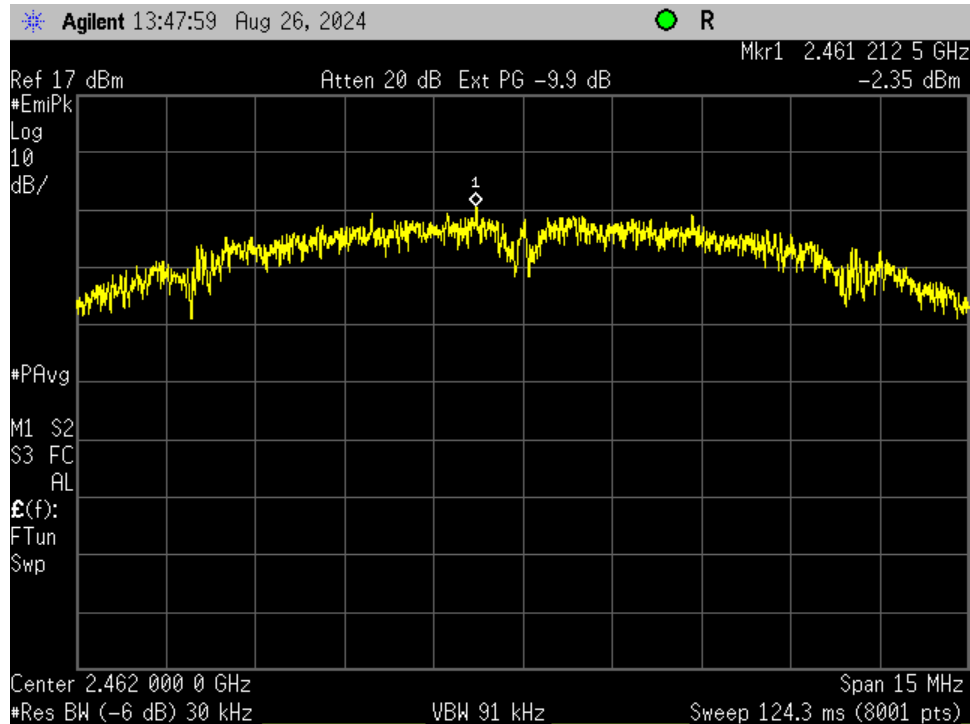


Figure 79. Power Spectral Density, b mode High Channel

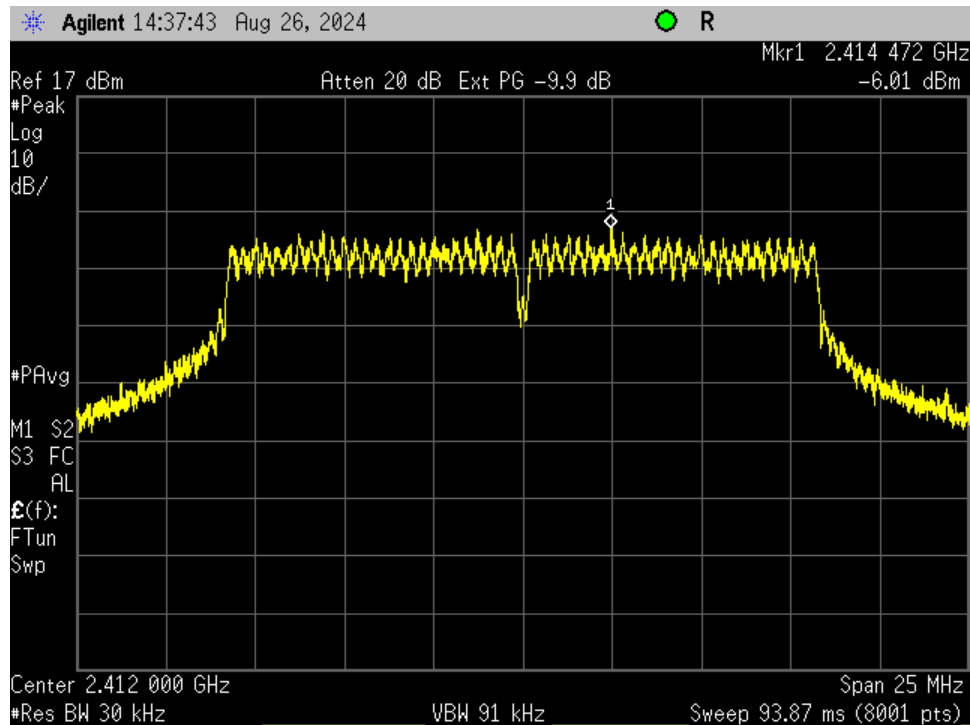


Figure 80. Power Spectral Density, g mode Low Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
2AHFE-3230  
21143-3230  
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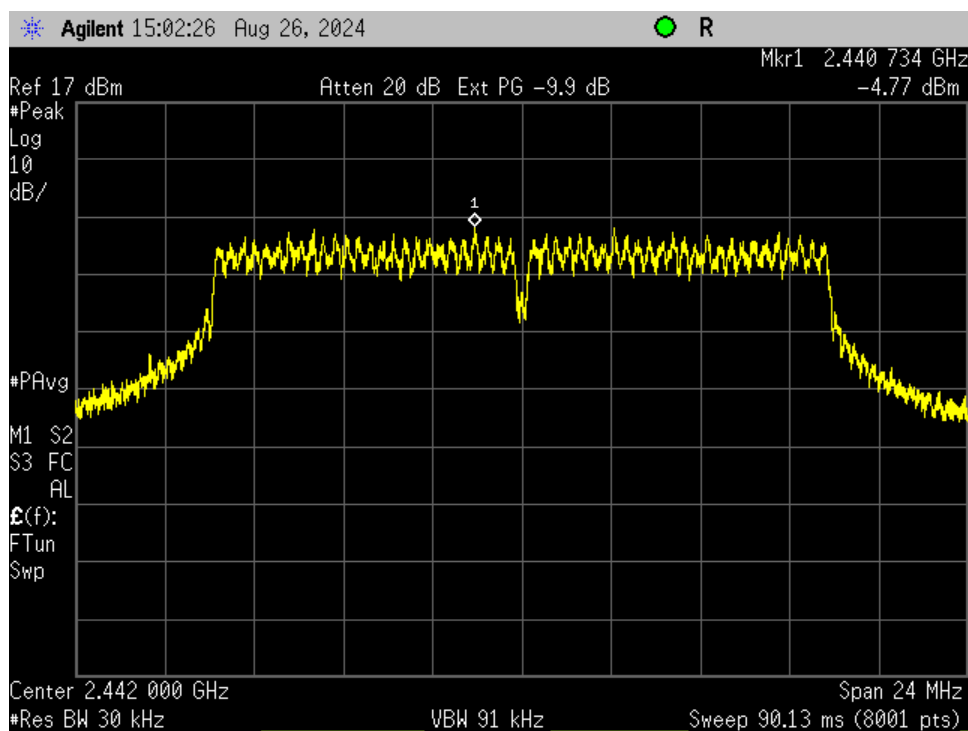


Figure 81. Power Spectral Density, g mode Mid Channel

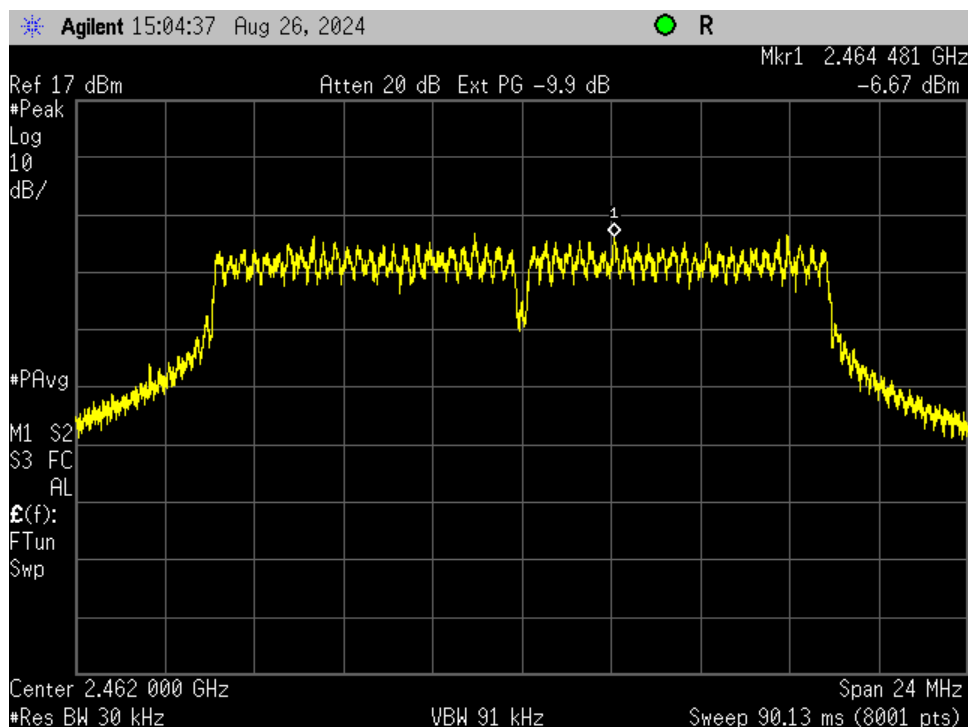


Figure 82. Power Spectral Density, g mode High Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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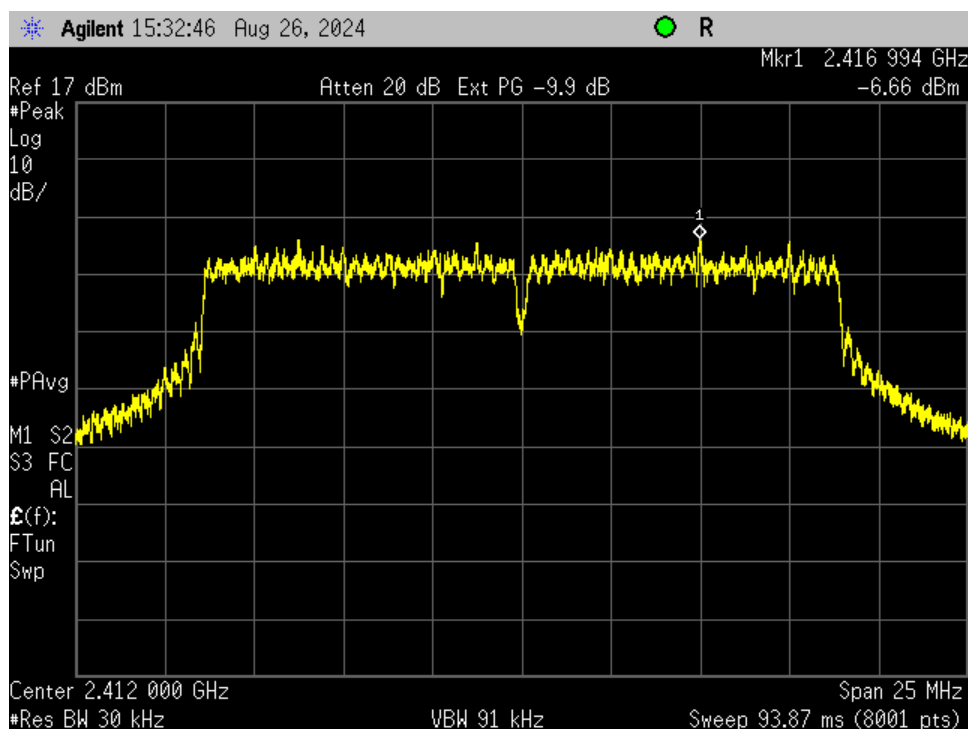


Figure 83. Power Spectral Density, n mode Low Channel

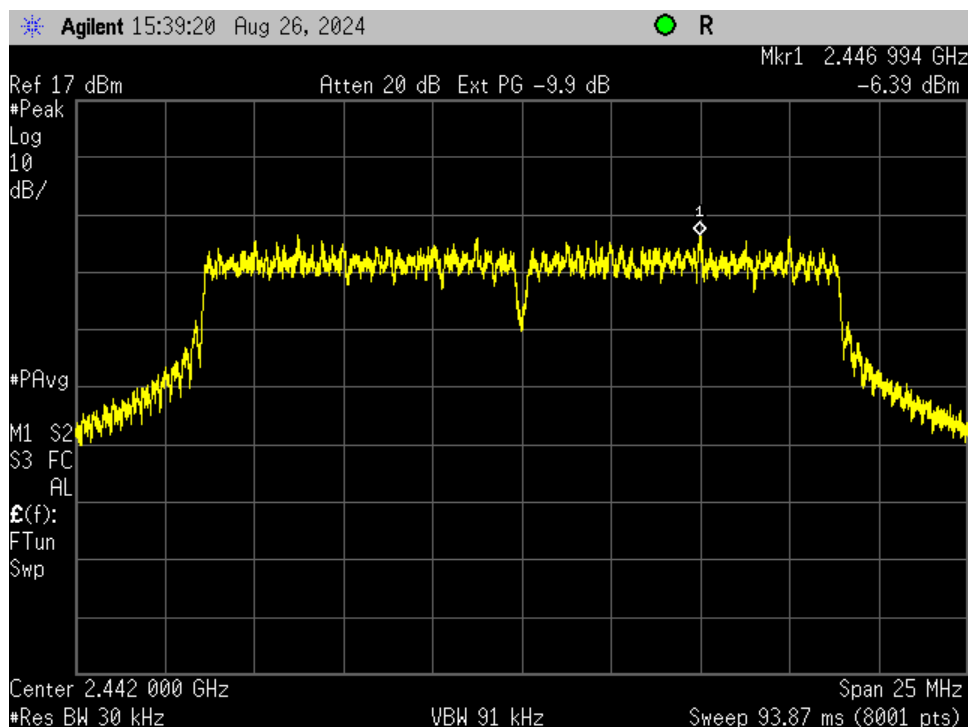
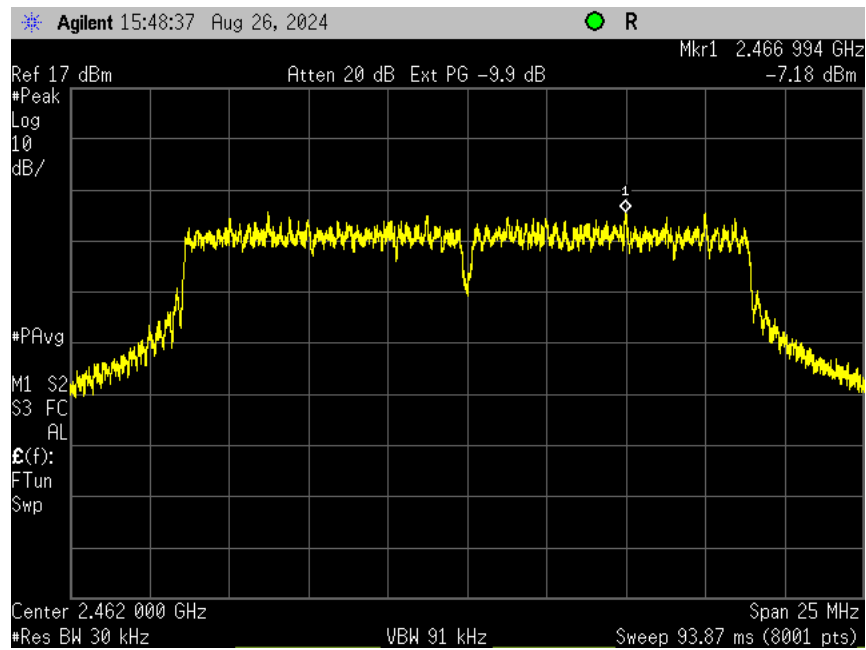


Figure 84. Power Spectral Density, n mode Mid Channel

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Figure 85. Power Spectral Density, n mode High Channel**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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## **2.16 Intentional Radiator Power Lines Conducted Emissions (CFR 15.207, RSS-Gen 8.8)**

The power line conducted voltage emission measurements have been carried out in accordance with CFR 15.207, per ANSI C63.10:2013, Clause 6.2, with a spectrum analyzer connected to an LISN and the EUT placed into a continuous mode of transmission.

The EUT was installed in a representative host devices during testing.

The worst-case results for conducted emissions were determined to be produced when the EUT was operating under simulated continuous transmission. The worst-case measurement was 5.9 dB from the applicable limit at 2.47 MHz on the Neutral line. All other emissions were at least 7.1 dB from the limit. Those results are given in the table following.

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Table 15. Power Line Conducted Emissions**

| 150 kHz to 30 MHz with Part 15.207 |                  |                 |                |                   |             |                         |
|------------------------------------|------------------|-----------------|----------------|-------------------|-------------|-------------------------|
| Frequency (MHz)                    | Test Data (dBuV) | LISN+CL-PA (dB) | Results (dBuV) | AVG Limits (dBuV) | Margin (dB) | Detector PK, QP, or AVG |
| 120 VAC, 60 Hz Phase               |                  |                 |                |                   |             |                         |
| 0.4940                             | 47.59            | 0.47            | 48.06          | 56.1              | 8.0         | QP                      |
| 0.4940                             | 36.00            | 0.47            | 36.47          | 46.1              | 9.6         | AVG                     |
| 0.5070                             | 45.16            | 0.45            | 45.61          | 56.0              | 10.4        | QP                      |
| 0.5070                             | 35.91            | 0.45            | 36.36          | 46.0              | 9.6         | AVG                     |
| 3.4100                             | 38.44            | 0.45            | 38.89          | 46.0              | 7.1         | PK                      |
| 5.8900                             | 27.98            | 0.53            | 28.51          | 50.0              | 21.5        | PK                      |
| 13.8700                            | 25.96            | 0.42            | 26.38          | 50.0              | 23.6        | PK                      |
| 20.8300                            | 24.84            | 0.54            | 25.38          | 50.0              | 24.6        | PK                      |
| 120 VAC, 60 Hz Neutral             |                  |                 |                |                   |             |                         |
| 0.4950                             | 47.35            | 0.66            | 48.01          | 56.1              | 8.1         | QP                      |
| 0.4950                             | 37.00            | 0.66            | 37.66          | 46.1              | 8.4         | AVG                     |
| 0.5050                             | 48.27            | 0.64            | 48.91          | 56.0              | 7.1         | QP                      |
| 0.5050                             | 36.78            | 0.64            | 37.42          | 46.0              | 8.6         | AVG                     |
| 2.4700                             | 39.49            | 0.60            | 40.09          | 46.0              | 5.9         | PK                      |
| 6.4300                             | 39.77            | 0.72            | 40.49          | 50.0              | 9.5         | PK                      |
| 13.6500                            | 32.67            | 0.38            | 33.05          | 50.0              | 16.9        | PK                      |
| 22.2300                            | 28.09            | 0.27            | 28.36          | 50.0              | 21.6        | PK                      |

Sample Calculation at 0.4940 MHz:

|                                 |            |
|---------------------------------|------------|
| Magnitude of Measured Frequency | 47.59 dBuV |
| +Correction Factors             | 0.47 dB    |
| Corrected Result                | 48.06 dBuV |

Test Date: June 20, 2024

Tested by

Signature: 

Name: Ian Charboneau

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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## 2.17 Intentional Radiator, Radiated Emissions (CFR 15.209, RSS-Gen, 8.9)

The test data provided herein is to support the verification requirement for radiated emissions coming for the EUT in a transmitting state per 15.209 and were investigated from 9kHz or the lowest operating clock frequency to 25 GHz and tested as detailed in ANSI C63.10:2013, Clause 6.4-6.6.

Radiated emissions within the band of 9 kHz to 30 MHz were investigated using a calibrated Loop Antenna and per the requirements of ANSI C63.10:2013.

Measurements were made with the analyzer's resolution bandwidth set to 120 kHz for measurements made below 1 GHz and 1 MHz for measurements made above 1 GHz. The video bandwidth was set to three times the resolution bandwidth; 1 MHz RBW and 3 MHz VBW. The test data were maximized for magnitude by rotating the turn-table through 360 degrees and raising and lowering the receiving antenna between 1 to 4 meters in height as a part of the measurement procedure.

The worst-case radiated emission was greater than 20.0 dB below the specification limit. The results are shown in the table following. These results are meant to show that this EUT has met the intentional transmitter requirements of CFR Part 15.209.

**Table 16. Spurious Radiated Emissions (150 kHz-30MHz)**

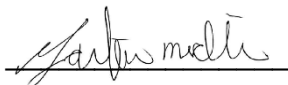
| Test: FCC Part 15.209                                          |                  |               |                  |                 |                         |             |                      |
|----------------------------------------------------------------|------------------|---------------|------------------|-----------------|-------------------------|-------------|----------------------|
| Frequency (MHz)                                                | Test Data (dBuV) | AF+CL-PA (dB) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | DETECTOR PK / QP/AVG |
| All emissions were more than 20 dB below the applicable limit. |                  |               |                  |                 |                         |             |                      |

AF = antenna factor.  
CL = cable loss.  
PA = preamplifier gain.

Sample Calculation: N/A

Test Date: August 29, 2024

Tested By

Signature: 

Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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24-0190  
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**Table 17. Spurious Radiated Emissions – Receive B Mode (30 MHz – 1 GHz)**

| Test: FCC Part 15.109/15.209 |                  |               |                  |                 |                         |             |                      |
|------------------------------|------------------|---------------|------------------|-----------------|-------------------------|-------------|----------------------|
| Frequency (MHz)              | Test Data (dBuV) | AF+CL-PA (dB) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | DETECTOR PK / QP/AVG |
| 91.95                        | 41.09            | -14.58        | 26.51            | 43.5            | 3m./HORZ                | 17.0        | PK                   |
| 455.36                       | 31.54            | -5.35         | 26.19            | 46.0            | 3m./HORZ                | 19.8        | PK                   |
| 621.89                       | 31.56            | -1.94         | 29.62            | 46.0            | 3m./HORZ                | 16.4        | PK                   |
| 63.45                        | 46.06            | -14.73        | 31.33            | 40.0            | 3m./VERT                | 8.7         | PK                   |
| 485.00                       | 33.25            | -4.59         | 28.66            | 46.0            | 3m./VERT                | 17.3        | PK                   |
| 735.87                       | 34.07            | 0.05          | 34.12            | 46.0            | 3m./VERT                | 11.9        | PK                   |

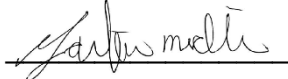
AF is antenna factor. CL is cable loss. PA is preamplifier gain.

Sample Calculation At: 91.95 MHz

|                                              |        |        |
|----------------------------------------------|--------|--------|
| Magnitude of Measured Frequency              | 41.09  | dBuV   |
| +Antenna Factor + Cable Loss+ Amplifier Gain | -14.58 | dB     |
| Corrected Result                             | 26.51  | dBuV/m |

Test Date: August 28, 2024

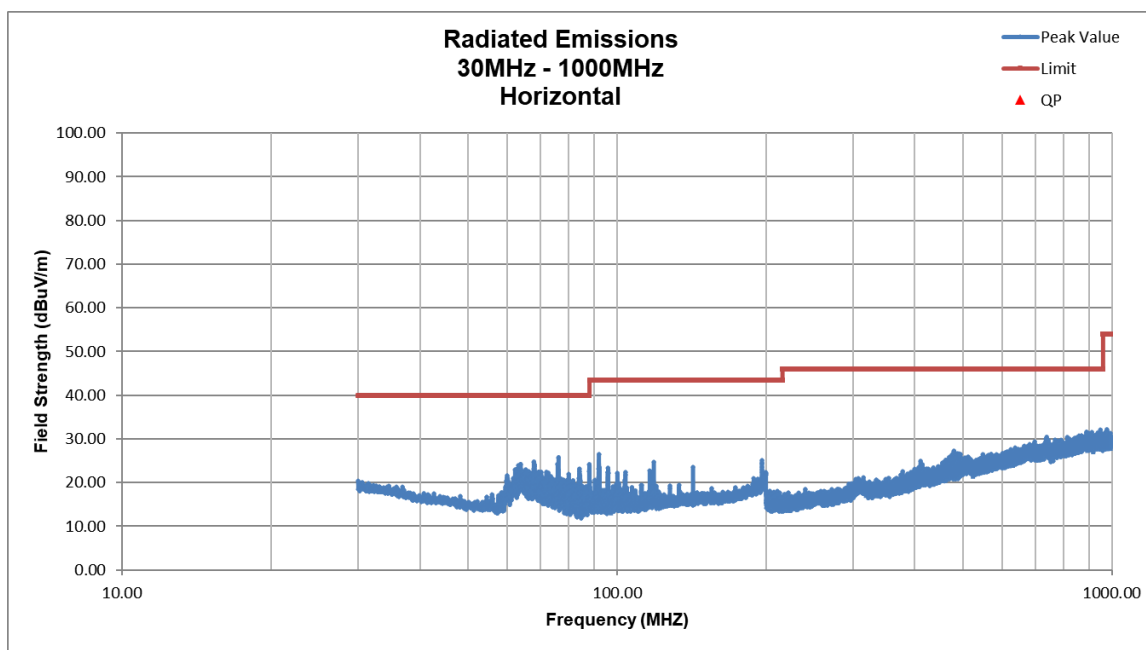
Tested By

Signature: 

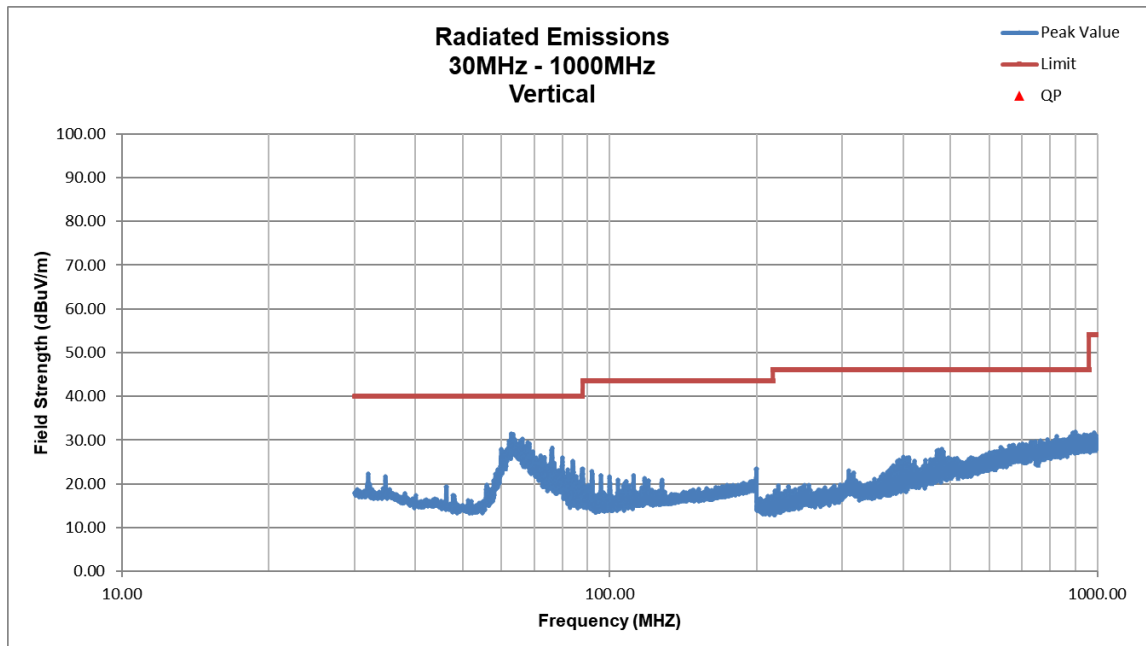
Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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24-0190  
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**Figure 86. Radiated Emissions RX, 30 MHz - 1000 MHz – Horizontal**



**Figure 87. Radiated Emissions RX, 30 MHz - 1000 MHz - Vertical**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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**Table 18. Spurious Radiated Emissions – Receive B Mode (Above 1 GHz)**

| Test: FCC Part 15.109/15.209                                   |                        |                       |                      |                     |                    |                            |                |                            |
|----------------------------------------------------------------|------------------------|-----------------------|----------------------|---------------------|--------------------|----------------------------|----------------|----------------------------|
| Frequency<br>(MHz)                                             | Test<br>Data<br>(dBuV) | Additional<br>Factors | AF+CL-<br>PA<br>(dB) | Results<br>(dBuV/m) | Limits<br>(dBuV/m) | Distance /<br>Polarization | Margin<br>(dB) | DETECTOR<br>PK /<br>QP/AVG |
| All emissions were more than 20 dB below the applicable limit. |                        |                       |                      |                     |                    |                            |                |                            |

AF = antenna factor.  
CL = cable loss.  
PA = preamplifier gain.

Sample Calculation: N/A

Test Date: August 28, 2024

Tested By

Signature: 

Name: Gabriel Medina

US Tech Test Report:  
 FCC ID:  
 IC:  
 Test Report Number:  
 Issue Date:  
 Customer:  
 Model:

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**Table 19. Spurious Radiated Emissions – Transmit B Mode (30 MHz – 1 GHz)**

| Test: FCC Part 15.109/15.209 |                  |               |                  |                 |                         |             |                      |
|------------------------------|------------------|---------------|------------------|-----------------|-------------------------|-------------|----------------------|
| Frequency (MHz)              | Test Data (dBuV) | AF+CL-PA (dB) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | DETECTOR PK / QP/AVG |
| 76.00                        | 40.85            | -14.79        | 26.06            | 40.0            | 3m./HORZ                | 13.9        | <b>PK</b>            |
| 98.20                        | 41.43            | -14.25        | 27.18            | 43.5            | 3m./HORZ                | 16.3        | <b>PK</b>            |
| 479.88                       | 32.74            | -4.79         | 27.95            | 46.0            | 3m./HORZ                | 18.1        | <b>PK</b>            |
| 633.77                       | 30.06            | -1.66         | 28.40            | 46.0            | 3m./HORZ                | 17.6        | <b>PK</b>            |
| 76.00                        | 50.41            | -15.19        | 35.22            | 40.0            | 3m./VERT                | 4.8         | <b>PK</b>            |
| 68.00                        | 49.06            | -14.99        | 34.07            | 40.0            | 3m./VERT                | 5.9         | <b>PK</b>            |
| 479.88                       | 32.07            | -5.19         | 26.88            | 46.0            | 3m./VERT                | 19.1        | <b>PK</b>            |
| 738.56                       | 30.99            | -0.65         | 30.34            | 46.0            | 3m./VERT                | 15.7        | <b>PK</b>            |

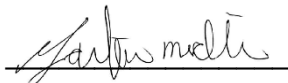
AF is antenna factor. CL is cable loss. PA is preamplifier gain.

Sample Calculation At: 72.11 MHz

|                                              |        |        |
|----------------------------------------------|--------|--------|
| Magnitude of Measured Frequency              | 51.57  | dBuV   |
| Additional Factor                            | 0.00   | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain | -17.46 | dB     |
| Corrected Result                             | 34.10  | dBuV/m |

Test Date: August 28, 2024

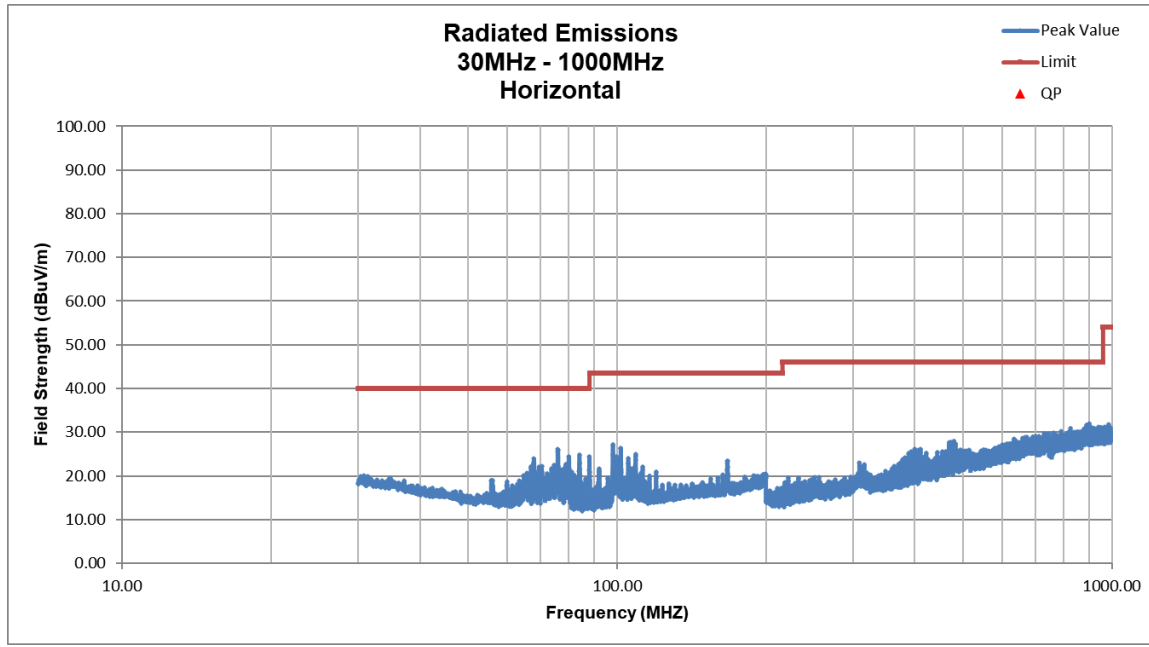
Tested By

Signature: 

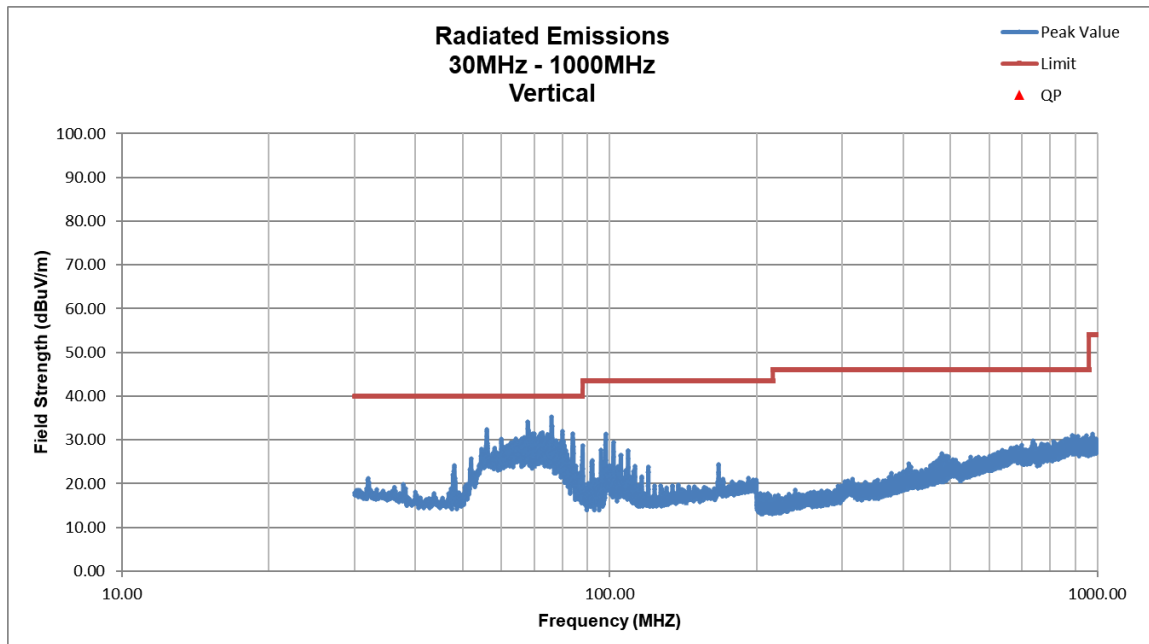
Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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**Figure 88. Radiated Emissions TX, 30 MHz - 1000 MHz – Horizontal**



**Figure 89. Radiated Emissions TX, 30 MHz - 1000 MHz - Vertical**

US Tech Test Report:  
 FCC ID:  
 IC:  
 Test Report Number:  
 Issue Date:  
 Customer:  
 Model:

FCC Part 15C/ RSS Certification  
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**Table 20. Spurious Radiated Emissions – Transmit B Mode (1 GHz – 25 GHz)**

| Test: FCC Part 15.209                                                                               |                  |               |                  |                 |                         |             |                      |
|-----------------------------------------------------------------------------------------------------|------------------|---------------|------------------|-----------------|-------------------------|-------------|----------------------|
| Frequency (MHz)                                                                                     | Test Data (dBuV) | AF+CL-PA (dB) | Results (dBuV/m) | Limits (dBuV/m) | Distance / Polarization | Margin (dB) | DETECTOR PK / QP/AVG |
| 2576.00                                                                                             | 53.19            | -6.34         | 46.85            | 54.0            | 3.0m./HORZ              | 7.2         | AVG                  |
| 2285.00                                                                                             | 46.14            | -7.19         | 38.95            | 54.0            | 3.0m./HORZ              | 15.1        | AVG                  |
| 4069.50                                                                                             | 44.31            | -0.23         | 44.09            | 54.0            | 3.0m./HORZ              | 9.9         | PK                   |
| 2390.00*                                                                                            | 48.61            | -6.64         | 41.97            | 54.0            | 3.0m./VERT              | 12.0        | PK                   |
| 2603.00                                                                                             | 53.49            | -5.64         | 47.85            | 54.0            | 3.0m./VERT              | 6.1         | AVG                  |
| 2326.00*                                                                                            | 50.31            | -6.85         | 43.46            | 54.0            | 3.0m./VERT              | 10.5        | PK                   |
| 4071.38                                                                                             | 45.82            | -0.23         | 45.59            | 54.0            | 3.0m./VERT              | 8.4         | PK                   |
| <b>EUT was investigated up to 25 GHz and all emissions were greater than 20 dB below the limit.</b> |                  |               |                  |                 |                         |             |                      |

(\*) Denotes these frequencies are in the restricted band and integration method was used to determine compliance.

AF is antenna factor. CL is cable loss. PA is preamplifier gain.

Sample Calculation At: 2576.00 MHz

|                                              |       |        |
|----------------------------------------------|-------|--------|
| Magnitude of Measured Frequency              | 53.19 | dBuV   |
| Additional Factor                            | 0.00  | dB     |
| +Antenna Factor + Cable Loss+ Amplifier Gain | -6.34 | dB     |
| Corrected Result                             | 46.85 | dBuV/m |

Test Date: August 28, 2024

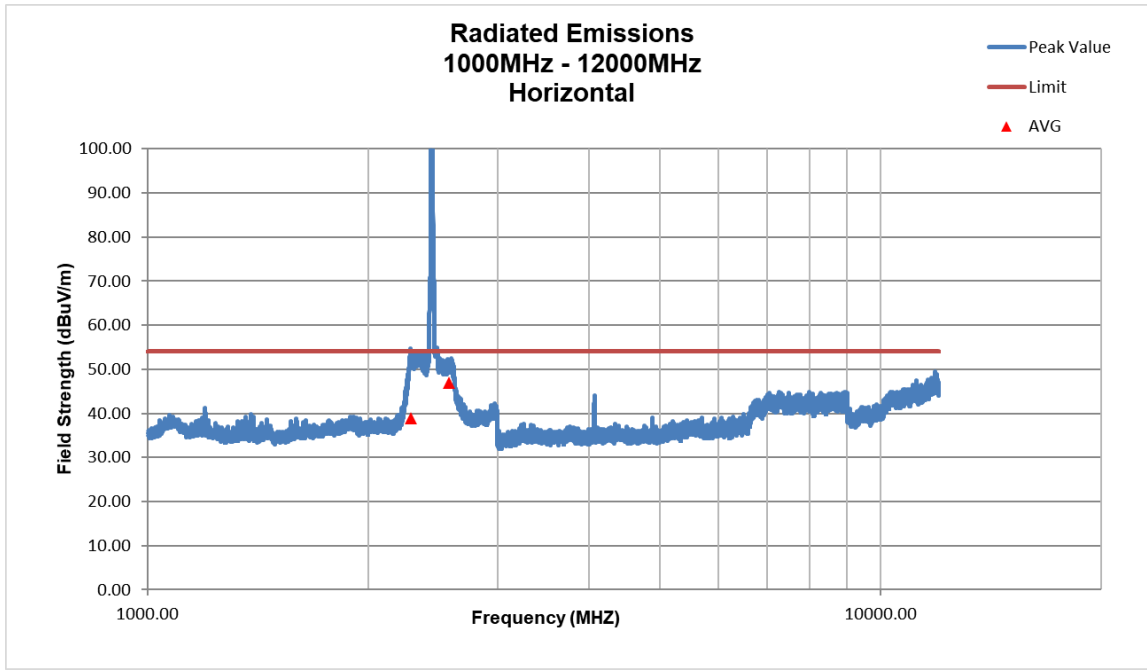
Tested By

Signature: 

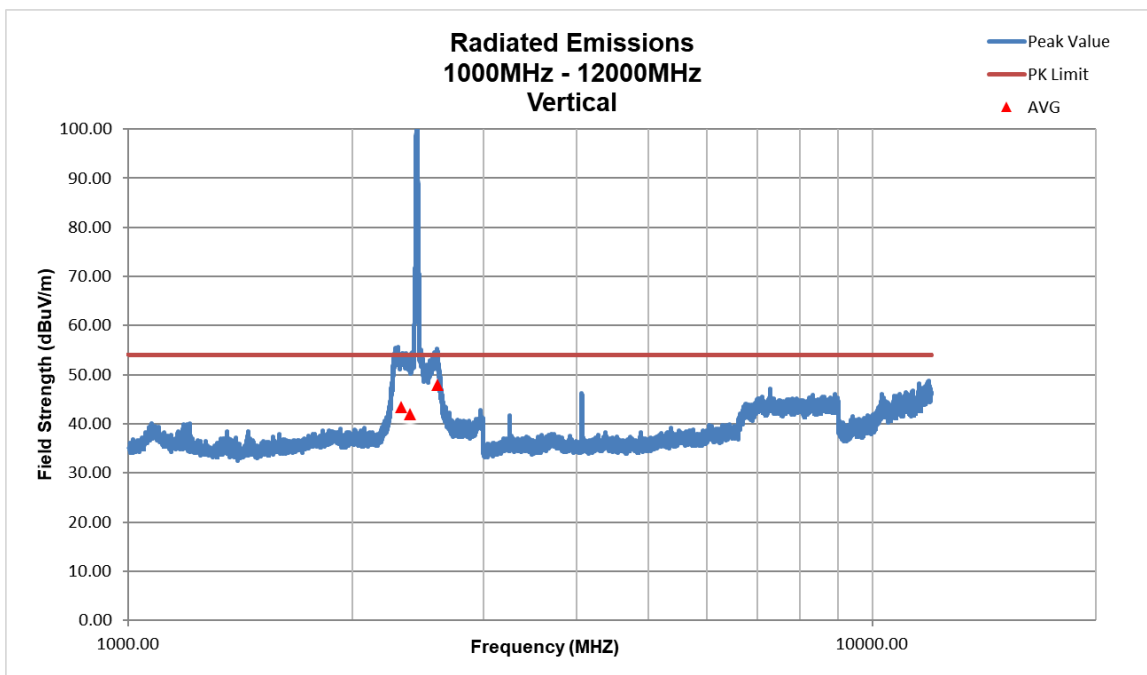
Name: Gabriel Medina

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15C/ RSS Certification  
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**Figure 90. Radiated Emissions TX, 1000 MHz - 12000 MHz – Horizontal**



**Figure 91. Radiated Emissions TX, 1000 MHz - 12000 MHz - Vertical**

US Tech Test Report:  
FCC ID:  
IC:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

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August 4, 2025  
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## **2.18 Measurement Uncertainty**

The measurement uncertainties given were calculated using the method detailed in CISPR 16-4-2:2011. A coverage factor of  $k=2$  was used to give a level of confidence of approximately 95%.

### **2.18.1 Conducted Emissions Measurement Uncertainty**

Measurement Uncertainty (within a 95% confidence level) for this test is  $\pm 2.85$  dB.

### **2.18.2 Radiated Emissions Measurement Uncertainty**

For a measurement distance of 3 m the measurement uncertainty (with a 95% confidence level) for this test using a Biconical Antenna (30 MHz to 200 MHz) is  $\pm 5.2$  dB. This value includes all elements of measurement.

The measurement uncertainty (with a 95% confidence level) for this test using a Log Periodic Antenna (200 MHz to 1000 MHz) is  $\pm 5.2$  dB.

The measurement uncertainty (with a 95% confidence level) for this test using a Horn Antenna is  $\pm 5.2$  dB.

## **3 Conclusions**

The EUT is deemed to have met the requirements of the standards cited within the test report when tested as detailed in the present test report.