July 25, 2025

Bloodhound Tracking Device
Marco Maldonado
309 Henrietta St
Webster, TX 77598

Dear Marco Maldonado,

Enclosed is the Electromagnetic Compatibility for the Bloodhound Tracking Device, Communication Unit, tested to the requirements of:

- FCC Part 15.247 (per ANSI C63.10: 2020)
- Innovation, Science, and Economic Development (ISED) Canada RSS-247 Issue 3

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

Sincerely,

Rheine Nguyen

Documentation Department
Eurofins E&E Testing NA, LLC.

Reference: WIRS135492-FCC 15.247 Rev. 1

ACCREDITED
TESTINGCERT #0591.02

Report Status Sheet

Revision	Report Date	Reason for Revision
Ø	July 16, 2025	Initial Issue.
1	July 25, 2025	Configuration Form Updated

Table of Contents

1.0 Testing Summary 6
2.0 Overview 7
2.1 Test Site 7
2.2 Equipment Overview and Test Configuration 7
2.3 Modifications to the EUT 9
2.4 Modifications to the Standard 9
2.5 Disposition of EUT 9
3.0 Electromagnetic Compatibility Criteria for Intentional Radiators 10
3.1 Antenna-Port Conducted Measurements 10
3.1.1 Duty Cycle 11
3.1.2 6dB DTS Bandwidth 12
3.1.3 99% Occupied Bandwidth 14
3.1.4 Maximum Peak Conducted Output Power 16
3.1.5 Maximum Peak Power Spectral Density Test Results 18
3.1.6 Conducted Spurious Emissions 20
3.1.7 Band Edge 24
3.2 Radiated Spurious Emissions 27

List of Tables

Table 1. Antenna-Port Conducted Measurements, Duty Cycle Test Results 11
Table 2. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth Test Results 12
Table 3. Antenna-Port Conducted Measurements, 99% Occupied Bandwidth Test Results 14
Table 4. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power Test Results 16
Table 5. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density Test Results 18
Table 6. Antenna-Port Conducted Measurements, Conducted Spurious Emissions Test Results 20
Table 7. Antenna-Port Conducted Measurements, Band Edge Test Results 24
Table 8. Antenna-Port Conducted Measurements, Test Equipment 26
Table 9. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (30 MHz – 1 GHz) Test Results 31
Table 10. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (1 – 10 GHz) Test Results 32
Table 11. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (30 MHz – 1 GHz) Test Results 33
Table 12. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (1 – 10 GHz) Test Results 34
Table 13. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (30 MHz – 1 GHz) Test Results 35
Table 14. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (1 – 10 GHz) Test Results 36
Table 15. Radiated Spurious Emissions, Test Equipment 37

List of Figures

Figure 1. Antenna-Port Conducted Measurements, Duty Cycle: Low Channel, 902.5 MHz Plot 11
Figure 2. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth: Low Channel, 902.5 MHz Plot 12
Figure 3. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth: Mid Channel, 908.7 MHz Plot 13
Figure 4. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth: High Channel, 914.9 MHz Plot 13
Figure 5. Antenna-Port Conducted Measurements, 99% OBW: Low Channel, 902.5 MHz Plot 14
Figure 6. Antenna-Port Conducted Measurements, 99% OBW: Mid Channel, 908.7 MHz Plot 15
Figure 7. Antenna-Port Conducted Measurements, 99% OBW: High Channel, 914.9 MHz Plot 15
Figure 8. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power: Low Channel, 902.5 MHz Plot 16
Figure 9. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power: Mid Channel, 908.7 MHz Plot 17
Figure 10. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power: High Channel, 914.9 MHz Plot 17
Figure 11. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density: Low Channel, 902.5 MHz Plot 18
Figure 12. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density: Mid Channel, 908.7 MHz Plot 19
Figure 13. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density: High Channel, 914.9 MHz Plot 19
Figure 14. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Low Channel, 902.5 MHz Plot .. 20
Figure 15. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Low Channel, 902.5 MHz Plot .. 21
Figure 16. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Mid Channel, 908.7 MHz Plot .. 21
Figure 17. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Mid Channel, 908.7 MHz Plot .. 22
Figure 18. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: High Channel, 914.9 MHz Plot . 22
Figure 19. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: High Channel, 914.9 MHz Plot . 23
Figure 20. Antenna-Port Conducted Measurements, Lower Band Edge: Low Channel, 902.5 MHz Plot 24
Figure 21. Antenna-Port Conducted Measurements, Upper Band Edge: High Channel, 914.9 MHz Plot 25
Figure 22. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (30 MHz – 1 GHz) Plot 31
Figure 23. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (1 – 10 GHz) Plot 32
Figure 24. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (30 MHz – 1 GHz) Plot 33
Figure 25. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (1 – 10 GHz) Plot 34
Figure 26. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (30 MHz – 1 GHz) Plot 35
Figure 27. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (1 – 10 GHz) Plot 36

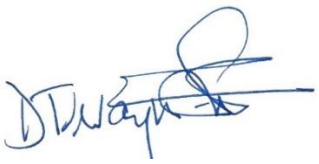
1.0 Testing Summary

The Bloodhound Tracking Device, Communication Unit was found to be compliant to the following specification(s).

- FCC Part 15.247 (per ANSI C63.10: 2020)
- RSS-247 Issue 3

Chin Ming Lui
Senior Wireless Test Engineer

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



David Trevayne-Smith
Commercial Director-Wireless, California

2.0 Overview

Eurofins E&E Testing NA, LLC. was contracted by Bloodhound Tracking Device to perform testing on the Communication Unit, under purchase order number 0018.

This document describes the test setups, test methods, required test equipment, and the test limit criteria used to perform compliance testing of Bloodhound Tracking Device, Communication Unit.

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

Model(s) Tested:	Communication Unit

FCC ID and IC:

FCC ID: 2BP2A-BTDCUP
IC: 34083-BTDCUP

2.1 Test Site

All testing was performed at Eurofins E&E Testing NA, LLC., 3162 Belick St. Santa Clara, CA 95054. All equipment used in making physical determinations is accurate and bears recent traceability to the National Institute of Standards and Technology. Eurofins E&E Testing NA, LLC. has been accredited by the American Association for Laboratory Accreditation (A2LA) (Certificate #: 0591.02) in accordance with ISO/IEC 17025:2017.

2.2 Equipment Overview and Test Configuration

Name of EUT/Model:	Communication Unit
Additional Models Covered, but not tested:	N/A
Description of EUT and Intended Use:	Container Asset Tracking
Mode(s) of Operation:	Idle
Included radio(s):	LoRa, LTE CAT-M1, Iridium
Monitoring Method(s):	LED indicator
Configuration(s):	Normal
EUT Power Requirement	
Voltage:	3.2 – 4.2 V
AC or DC	DC
Voltage Frequency:	N/A
Number of Phases:	N/A
Amperage:	N/A
Uses an external AC/DC Adapter:	No
Battery Return Configuration (DC-C, DC-I, or either):	DC-C
Physical Description	
EUT Arrangement:	Mounted

System with Multiple Chassis:	N/A
Size (HxWxD) mm:	281 x 72.6 x 36mm
Weight:	787 grams
Emissions Class Declaration:	B
Other Info:	
Highest frequency used in device:	MCU CLK 160MHz
EUT Software (internal to EUT):	Custom firmware by Bloodhound Tracking Device
Support Software (used by support PC to exercise EUT):	Tera Term

Note: EUT information was provided by Bloodhound Tracking Device

Antenna Information

Radio	Antenna Type	Manufacturer	Part No	Frequency Range	Peak Gain
LoRa	Embedded - PCB Mount	PT. HESHENG INDUSTRY ELECTRONIC	BTEE000300	902 – 928 MHz	-1.7 dBi
LTE	Embedded - PCB Mount	PT. HESHENG INDUSTRY ELECTRONIC	BTEE000200	0.617 - 0.96GHz 1.71 - 2.2GHz	0.81dBi 5.48dB
Iridium	Patch antenna	Unictron Technologies Corporation	H2P93APAZ10100	1616 - 1627 MHz	3.4dBi

Note: Antenna information was provided by Bloodhound Tracking Device. Eurofins E&E Testing NA, LLC did not test or verify the accuracy of the antenna information.

Test Configuration

The LoRa radio was configured to a fixed channel continuous transmission mode for testing.

Channel	Frequency (MHz)	Power Setting
Low	902.5	22
Mid	908.7	22
High	914.9	22

2.3 Modifications to the EUT

No modifications were made to the EUT.

2.4 Modifications to the Standard

No modifications were made to the Test Standard.

2.5 Disposition of EUT

The test sample including all support equipment (if any), submitted to the Electromagnetic Compatibility Lab for testing was returned to Bloodhound Tracking Device upon completion of testing.

3.0 Electromagnetic Compatibility Criteria for Intentional Radiators

3.1 Antenna-Port Conducted Measurements

Test Method: ANSI C63.10: 2020; FCC KDB 558074 D01 15.247 Meas Guidance v05r02

Test Requirements: The following standards are covered under this test:

- FCC Part 15 Subpart C §15.247
- ISED RSS-247 Issue 3 §5.2, §5.4, §5.5

Test Procedure: The EUT was configured to operate in continuous transmission mode on LoRa channels using its lowest, middle, and highest frequencies (902.5 MHz, 908.7 MHz, and 914.9 MHz).

- Conducted measurements were performed at the antenna port of the EUT using a spectrum analyzer. Procedures for testing DTS devices operating in the 902 MHz to 928 MHz band per Section 11 of ANSI C63.10: 2020 were followed.
- The reference level was set based on the peak power of the fundamental channel.
- Emissions outside the 902-928 MHz band were measured and compared to the 20 dB attenuation requirement per FCC §15.247(d) and RSS-247 Section 5.5, using a resolution bandwidth (RBW) of 100 kHz and video bandwidth (VBW) of 300 kHz.
- Measurement traces were recorded for each tested channel.

Test Results:

Test Standard:	FCC Part 15 Subpart C §15.247 (Per FCC KDB 558074 D01 15.247 Meas Guidance v05r02; ANSI C63.10-2020), ISED RSS-247 Issue 3 §5.2, §5.4, §5.5
Test Name	Antenna-Port Conducted Measurements
Test Dates:	06/19/2025
Laboratory	Eurofins E&E Testing NA, LLC.
Test Engineer:	Chin Ming Lui
Test Results:	Compliant

Test Data (FCC 15.247 & RSS-247 Antenna-Port Conducted Measurements)

3.1.1 Duty Cycle

Frequency (MHz)	Channel	Duty Cycle	Duty Cycle Correction Factor
902.5	Low	100%	0

Table 1. Antenna-Port Conducted Measurements, Duty Cycle Test Results

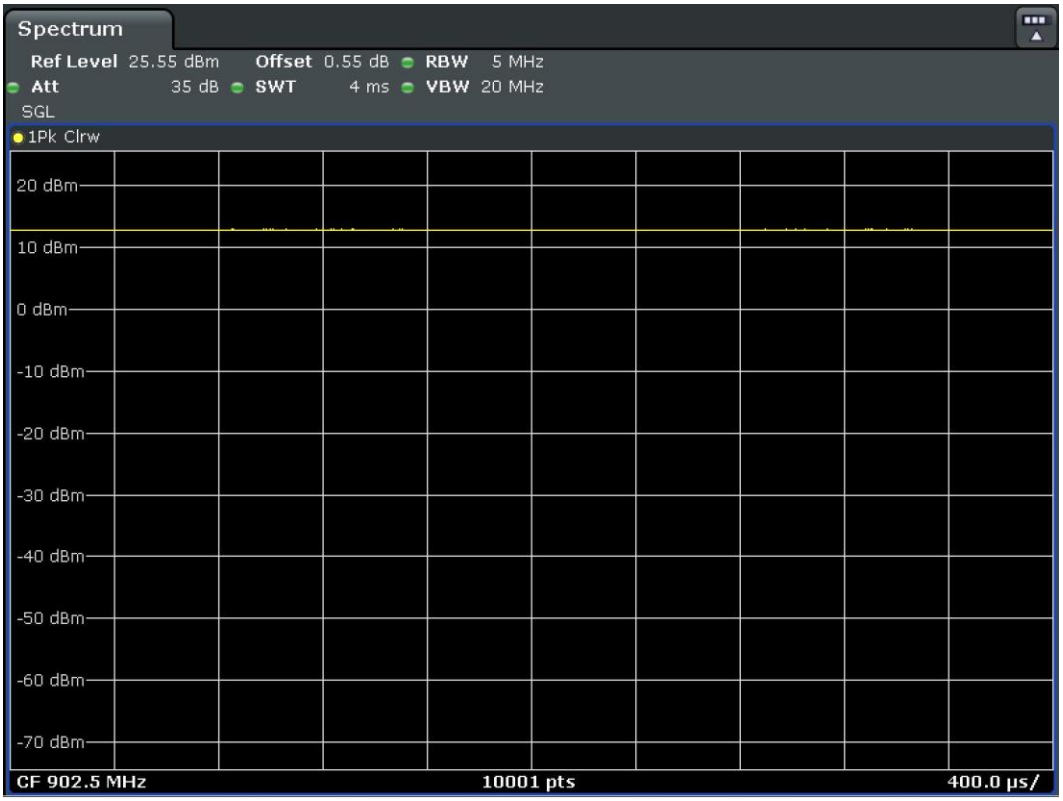


Figure 1. Antenna-Port Conducted Measurements, Duty Cycle: Low Channel, 902.5 MHz Plot

3.1.2 6dB DTS Bandwidth

Frequency (MHz)	Channel	Measured 6dB BW (kHz)	Minimum 6dB BW (kHz)
902.5	Low	637.44	≥ 500
908.7	Mid	637.44	≥ 500
914.9	High	641.44	≥ 500

Table 2. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth Test Results

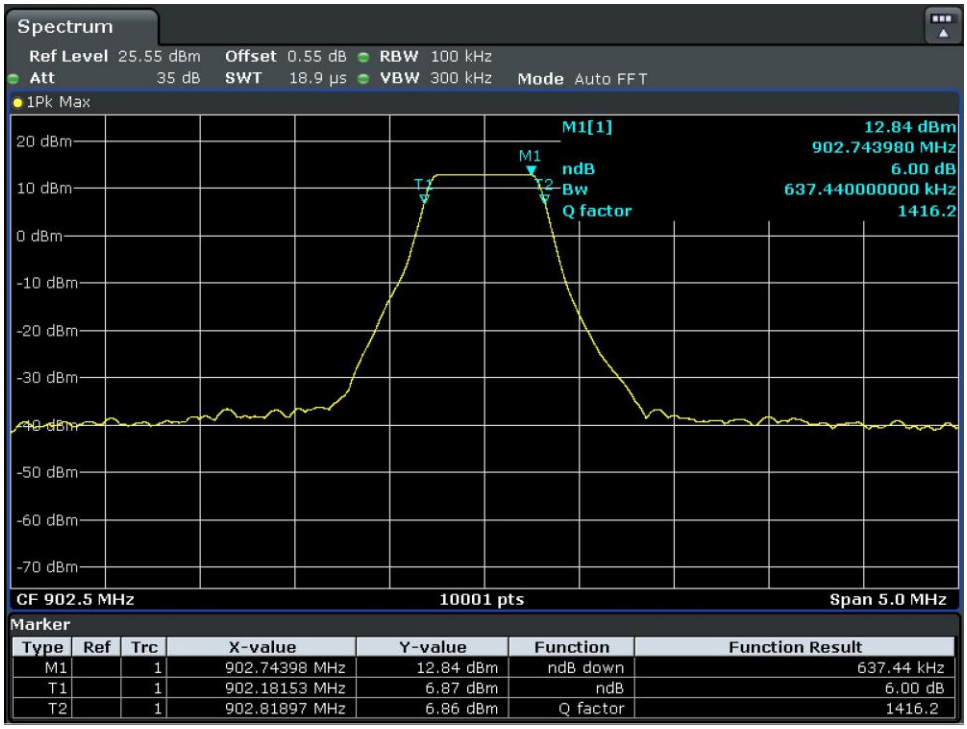


Figure 2. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth: Low Channel, 902.5 MHz Plot

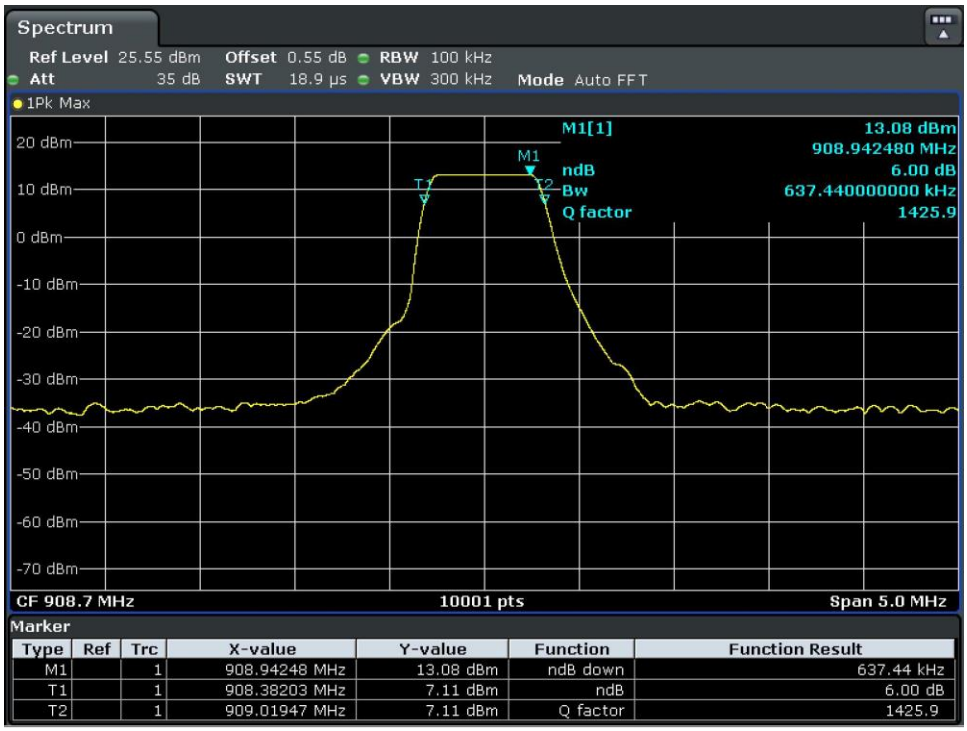


Figure 3. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth: Mid Channel, 908.7 MHz Plot

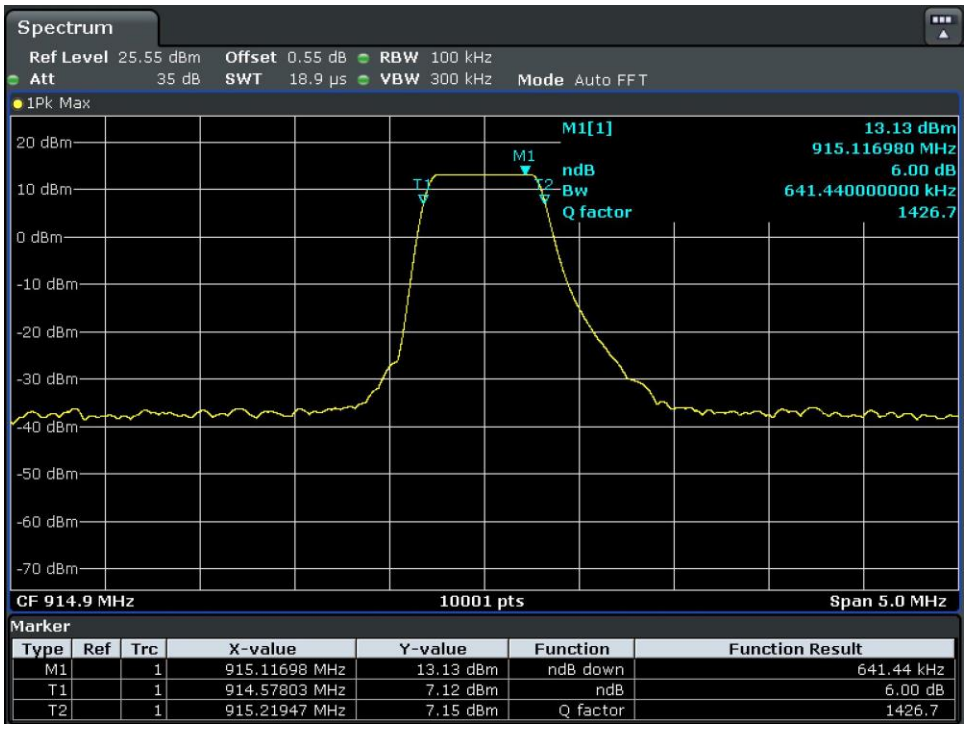


Figure 4. Antenna-Port Conducted Measurements, 6dB DTS Bandwidth: High Channel, 914.9 MHz Plot

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3.1.3 99% Occupied Bandwidth

Frequency (MHz)	Channel	99% OBW (MHz)
902.5	Low	518.95
908.7	Mid	516.95
914.9	High	517.45

Table 3. Antenna-Port Conducted Measurements, 99% Occupied Bandwidth Test Results

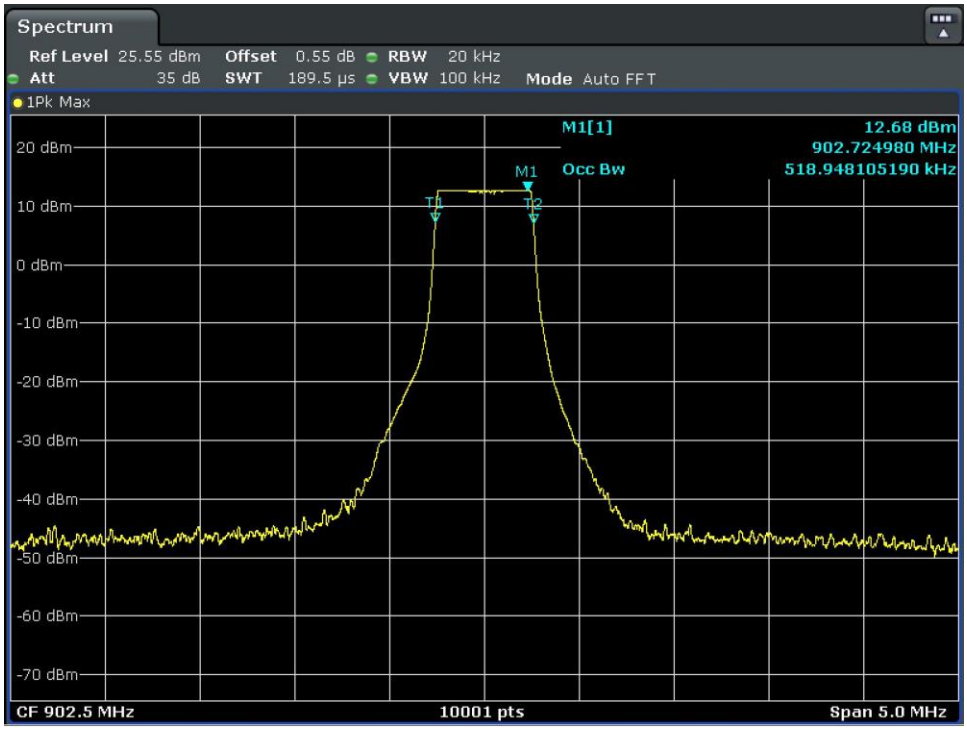

Figure 5. Antenna-Port Conducted Measurements, 99% OBW: Low Channel, 902.5 MHz Plot

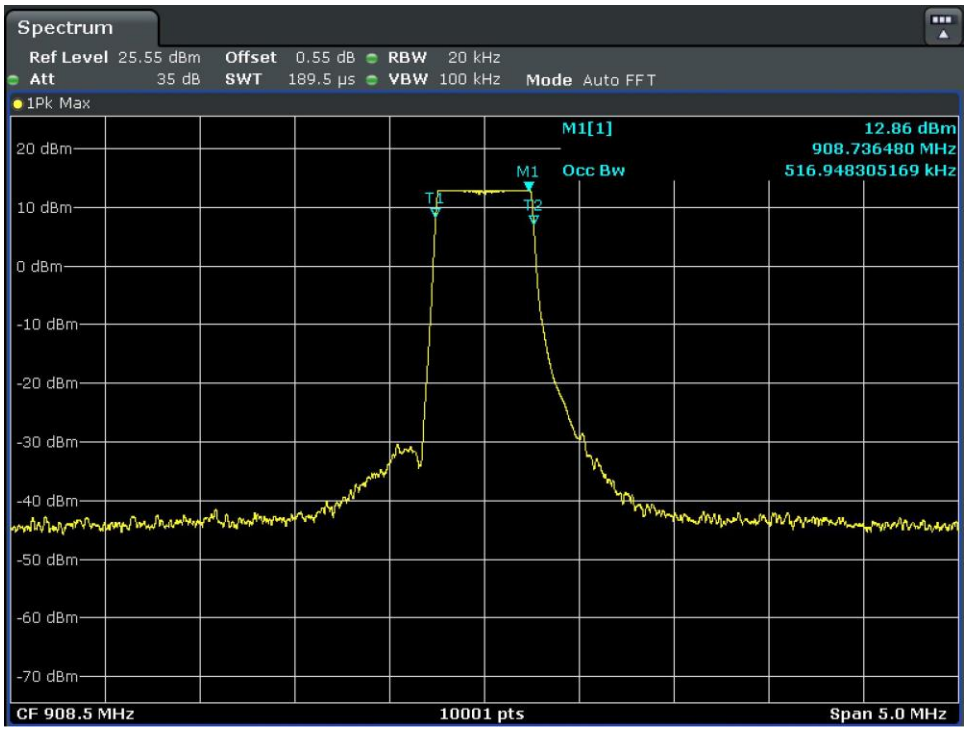

Figure 6. Antenna-Port Conducted Measurements, 99% OBW: Mid Channel, 908.7 MHz Plot

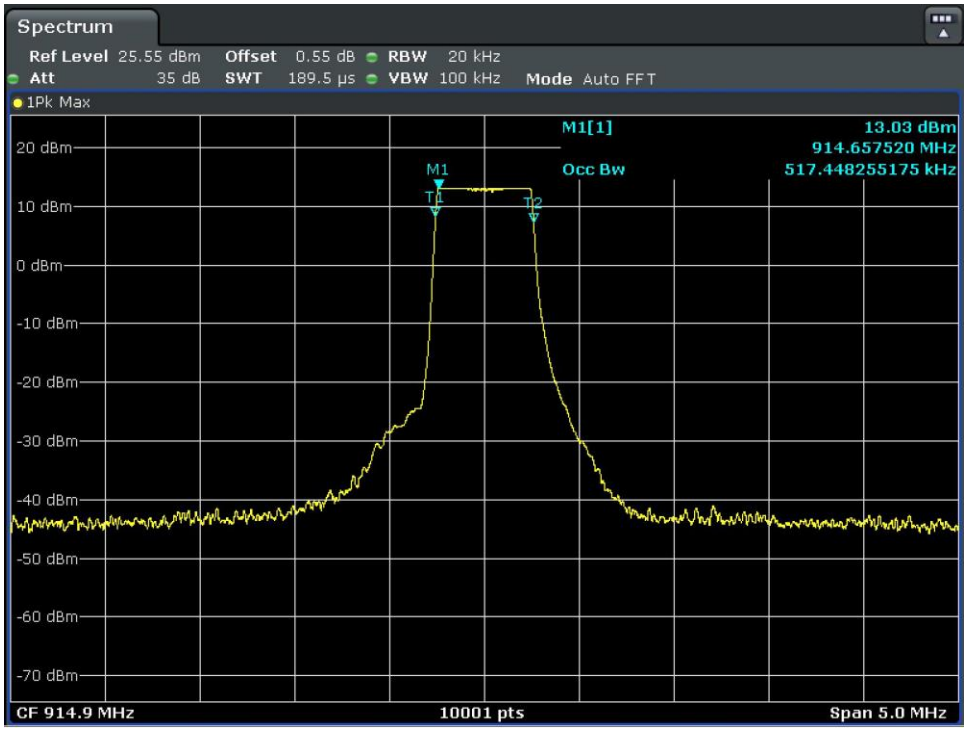

Figure 7. Antenna-Port Conducted Measurements, 99% OBW: High Channel, 914.9 MHz Plot

3.1.4 Maximum Peak Conducted Output Power

Frequency (MHz)	Channel	Measured Max Peak Conducted Output Power (dBm)	Max Peak Conducted Output Power Limit (dBm)
902.5	Low	12.85	30
908.7	Mid	13.08	30
914.9	High	13.14	30

Table 4. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power Test Results

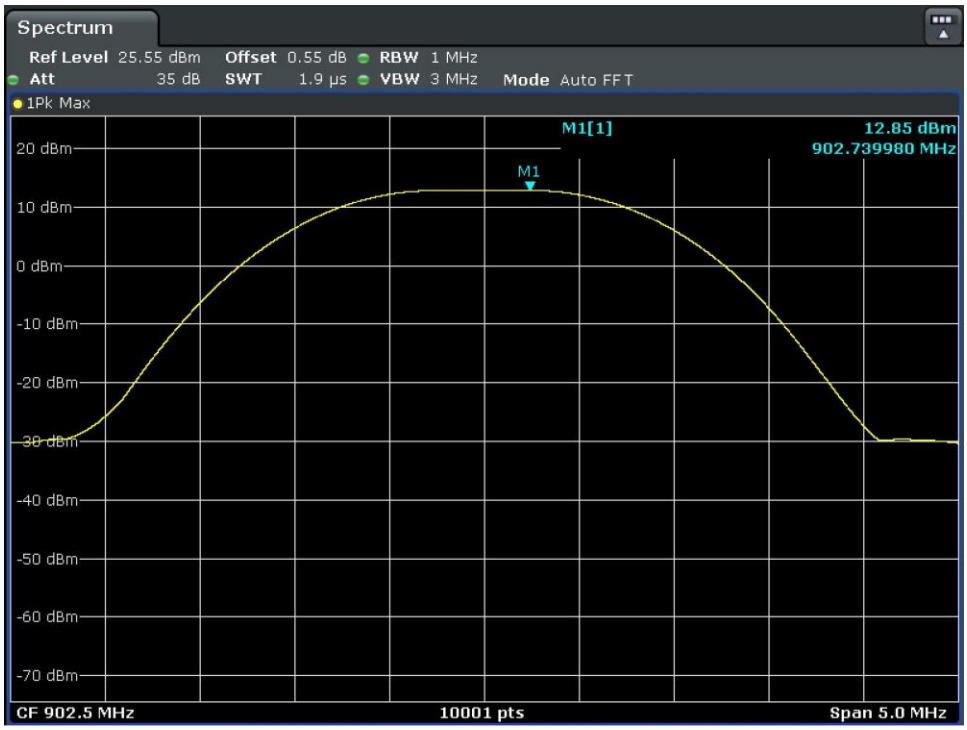

Figure 8. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power: Low Channel, 902.5 MHz Plot

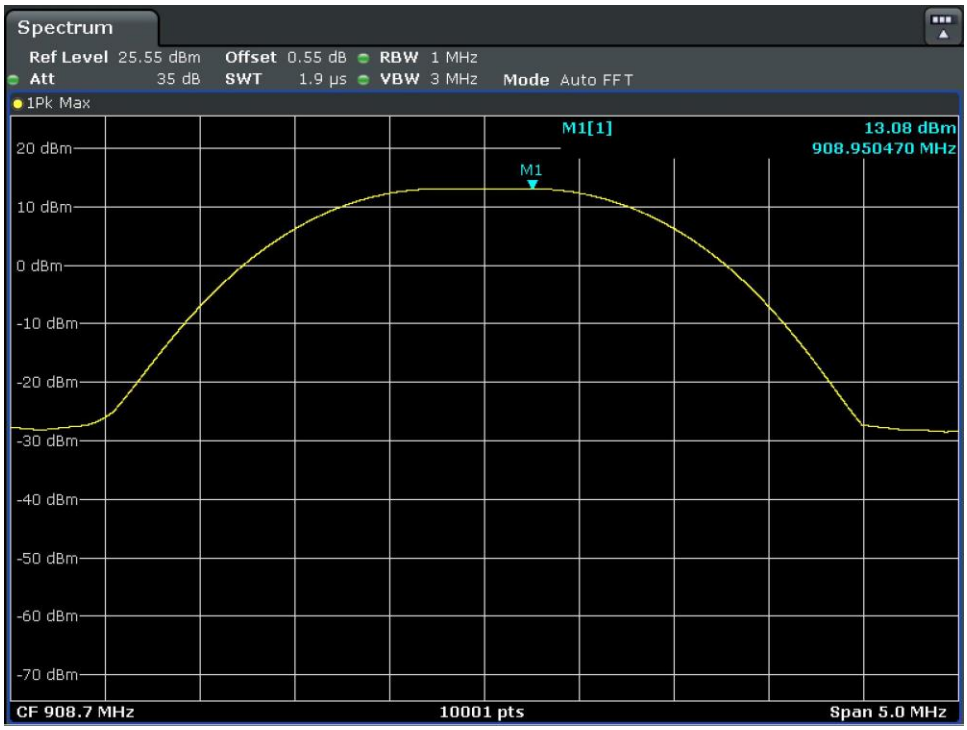

Figure 9. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power: Mid Channel, 908.7 MHz Plot

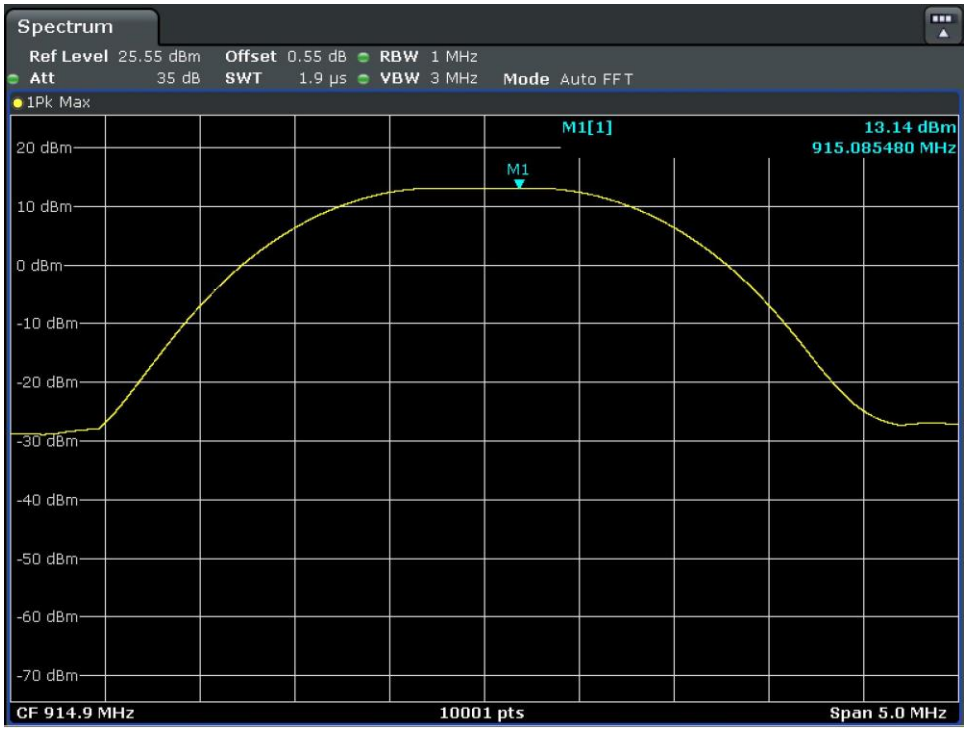

Figure 10. Antenna-Port Conducted Measurements, Maximum Peak Conducted Output Power: High Channel, 914.9 MHz Plot

3.1.5 Maximum Peak Power Spectral Density Test Results

Frequency (MHz)	Channel	Measured Max Peak Conducted Power Spectral Density (dBm / 3 kHz)	Max Peak Conducted Power Spectral Density Limit (dBm / 3 kHz)
902.5	Low	3.16	8
908.7	Mid	3.56	8
914.9	High	3.65	8

Table 5. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density Test Results

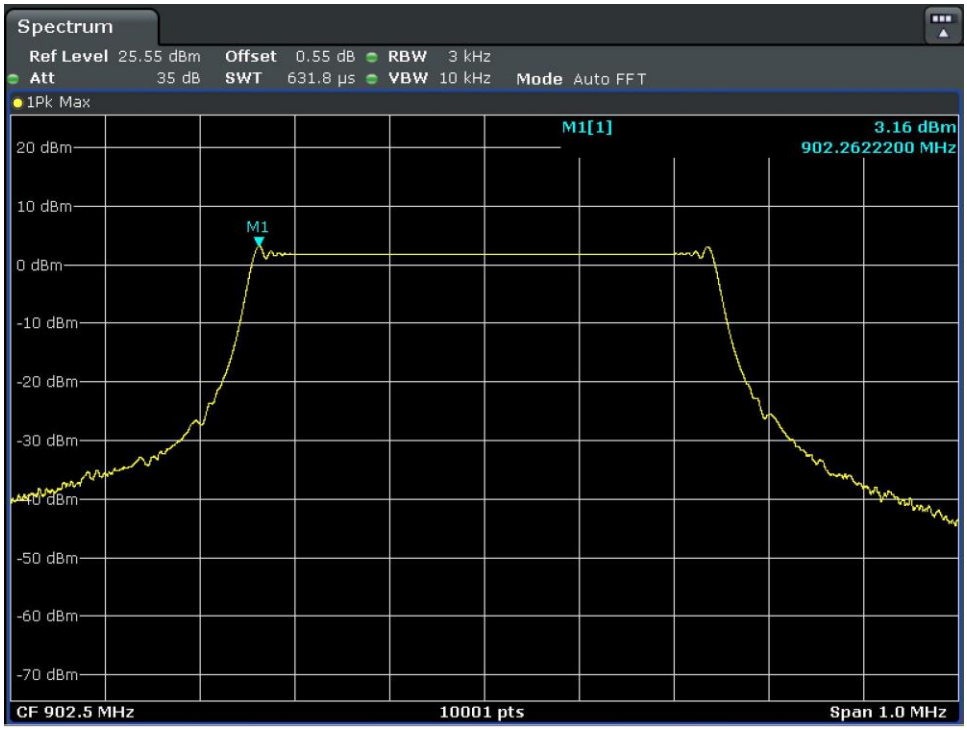

Figure 11. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density: Low Channel, 902.5 MHz Plot

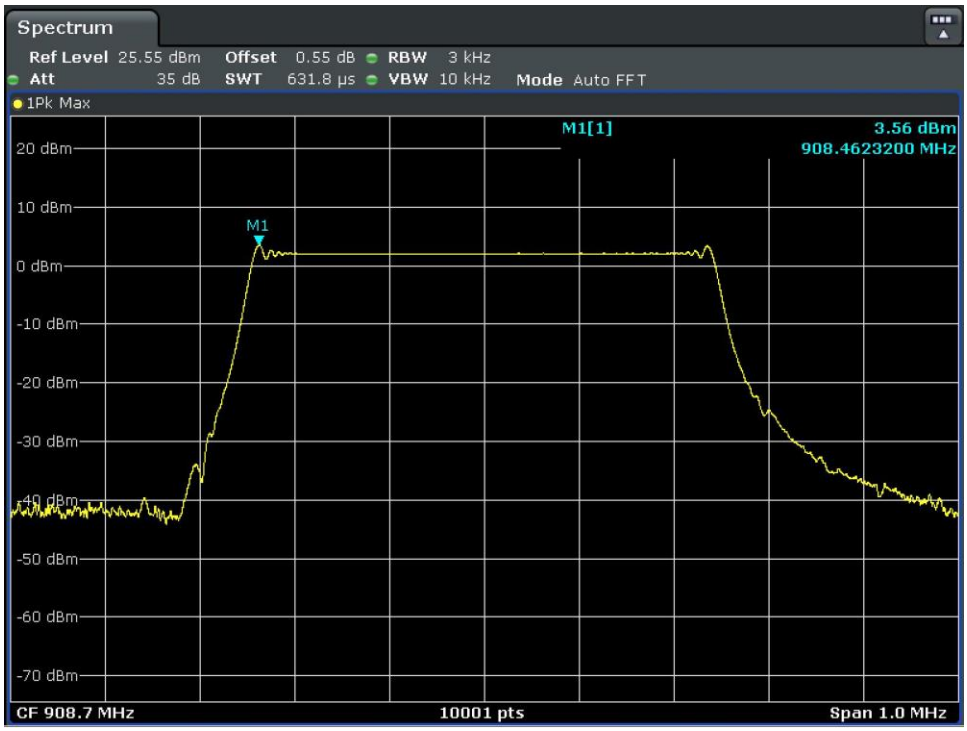

Figure 12. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density: Mid Channel, 908.7 MHz Plot

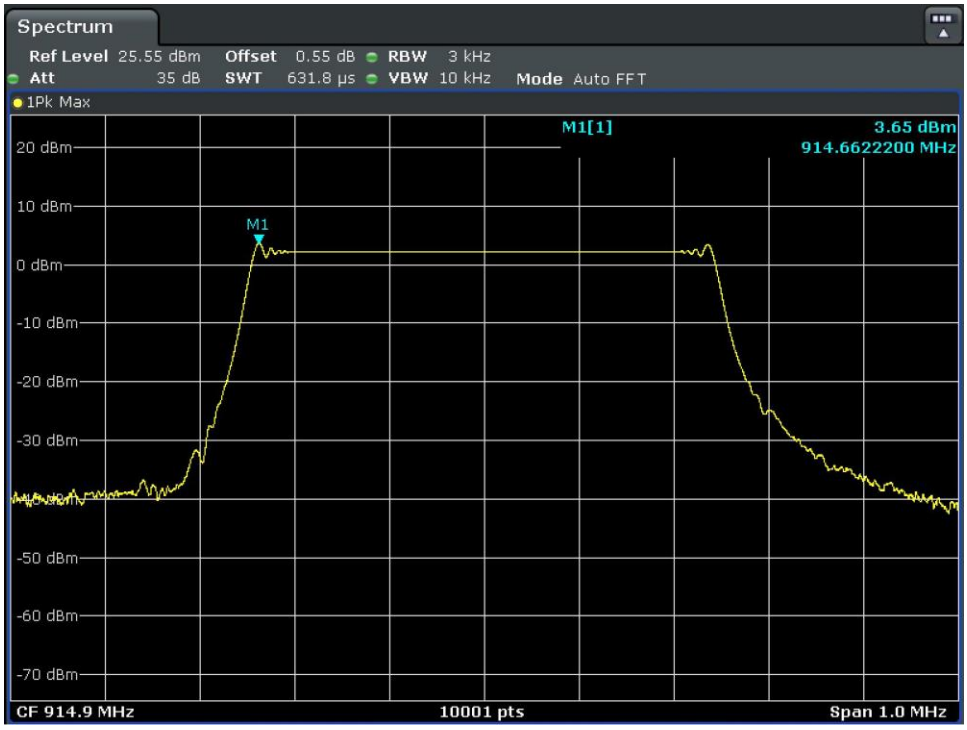

Figure 13. Antenna-Port Conducted Measurements, Maximum Peak Power Spectral Density: High Channel, 914.9 MHz Plot

3.1.6 Conducted Spurious Emissions

Frequency (MHz)	Channel	Fundamental Peak (dBm)	Max Spurious Emission Freq (MHz)	Max Spurious Emission Level (dBm)	Peak-to-Unwanted Emission Delta (Δ) (dBc)	Limit (dBc)
902.5	Low	12.59	1804.97	-43.24	55.83	≥ 20
908.7	Mid	13.05	1817.57	-41.39	54.44	≥ 20
914.9	High	13.16	1829.27	-39.78	52.94	≥ 20

Table 6. Antenna-Port Conducted Measurements, Conducted Spurious Emissions Test Results

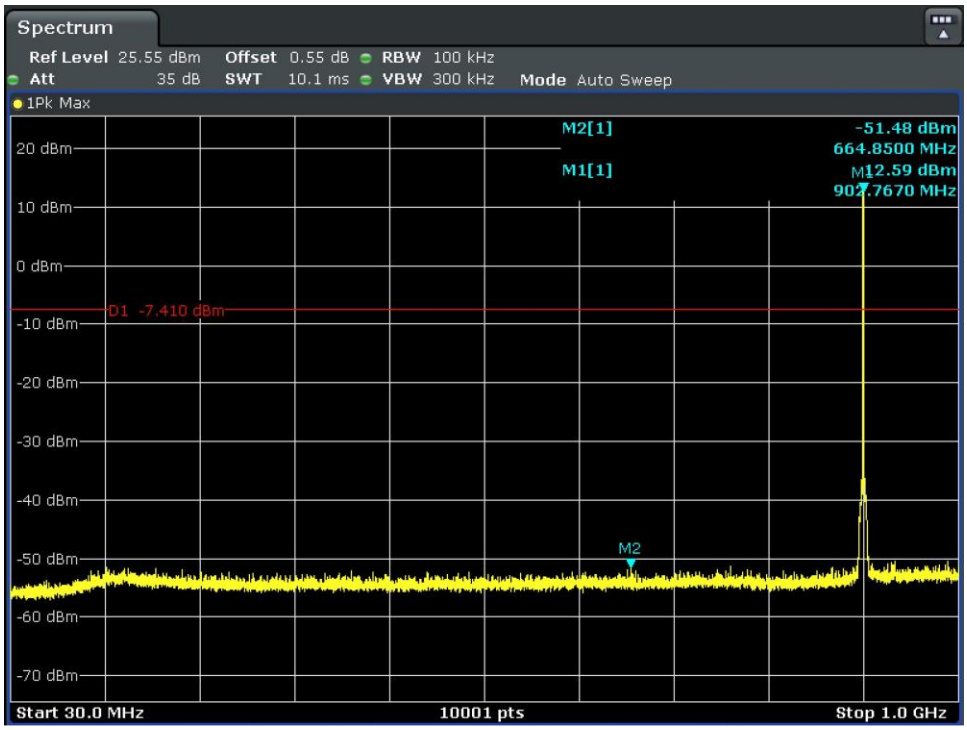

Figure 14. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Low Channel, 902.5 MHz Plot

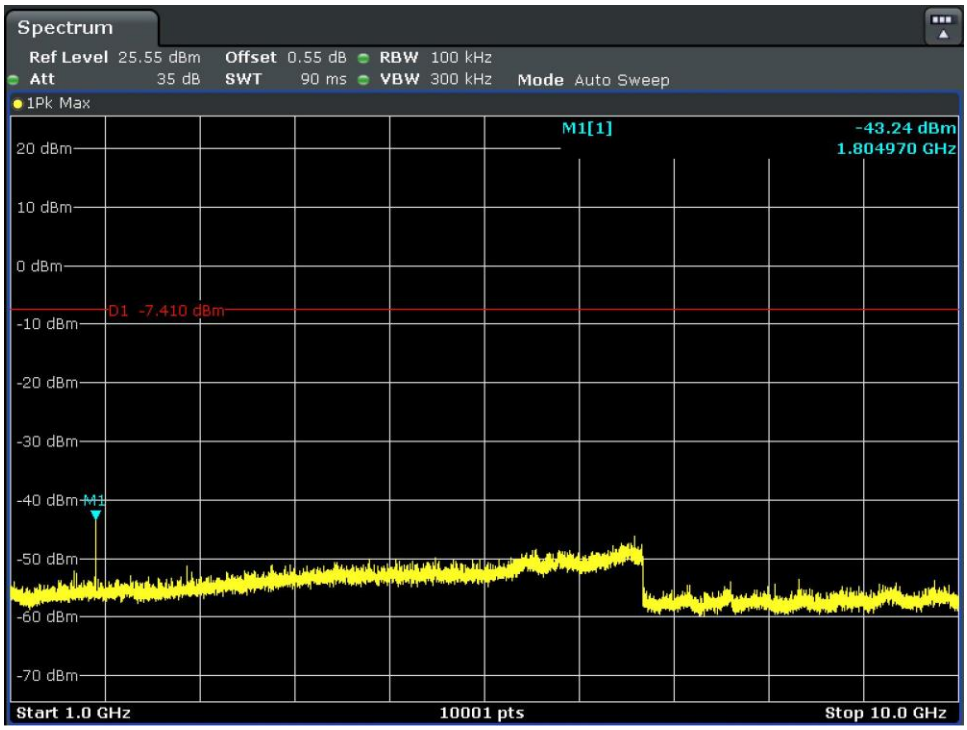

Figure 15. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Low Channel, 902.5 MHz Plot

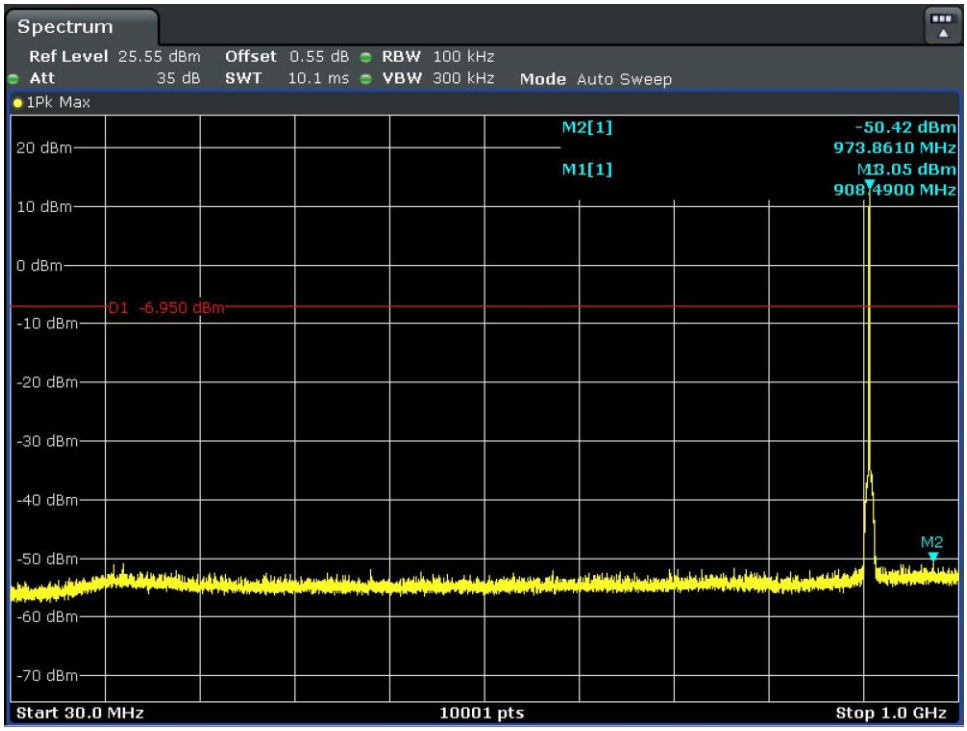

Figure 16. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Mid Channel, 908.7 MHz Plot

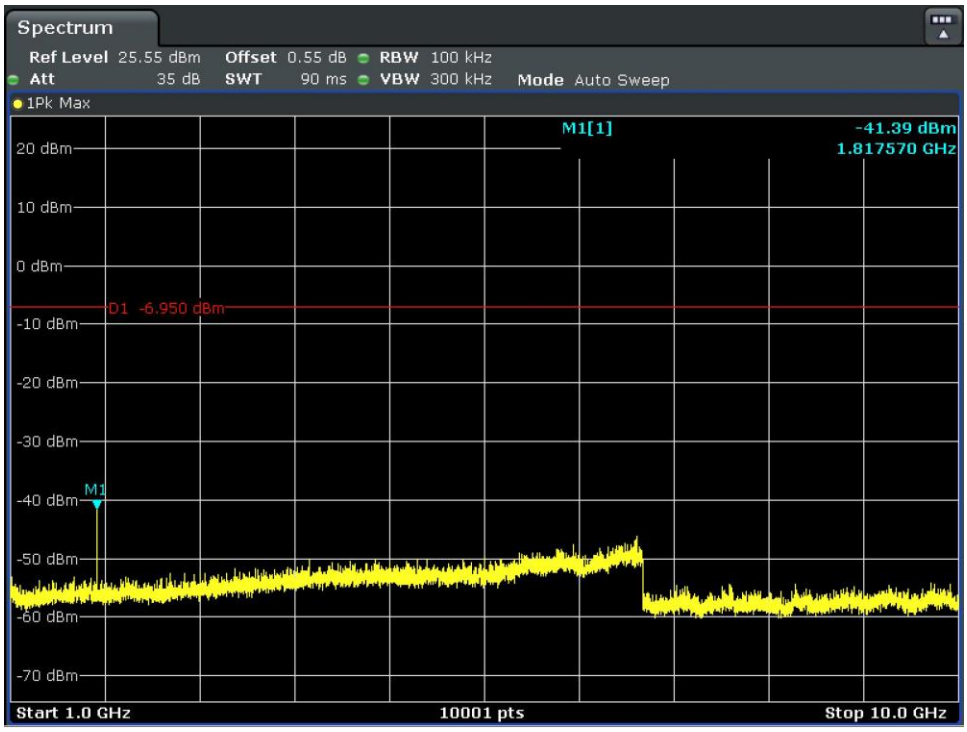

Figure 17. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: Mid Channel, 908.7 MHz Plot

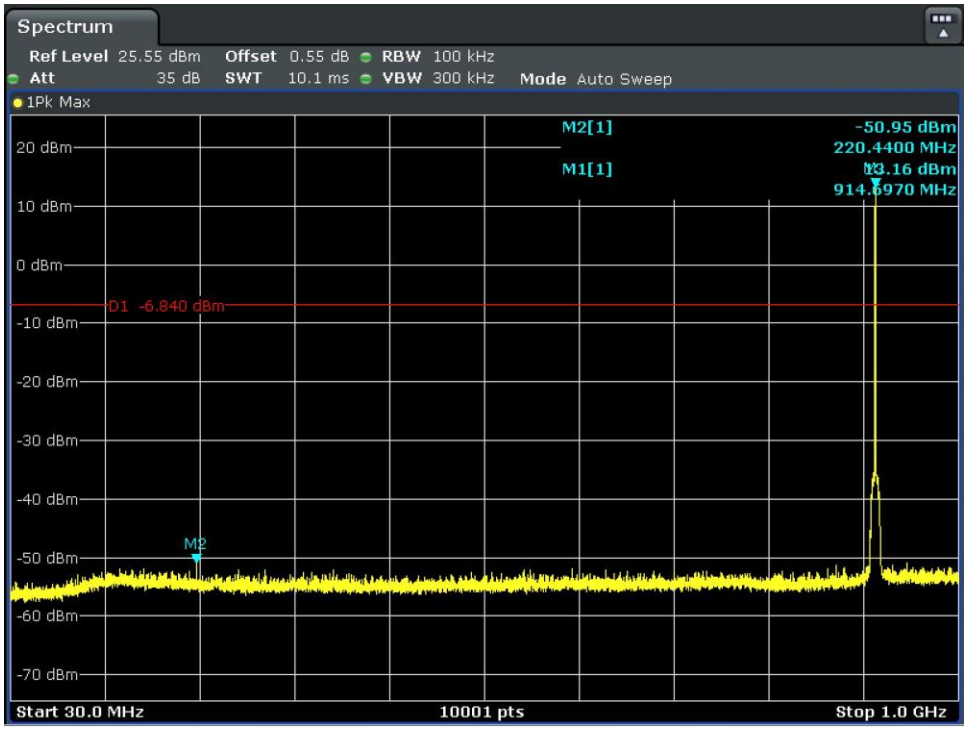

Figure 18. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: High Channel, 914.9 MHz Plot

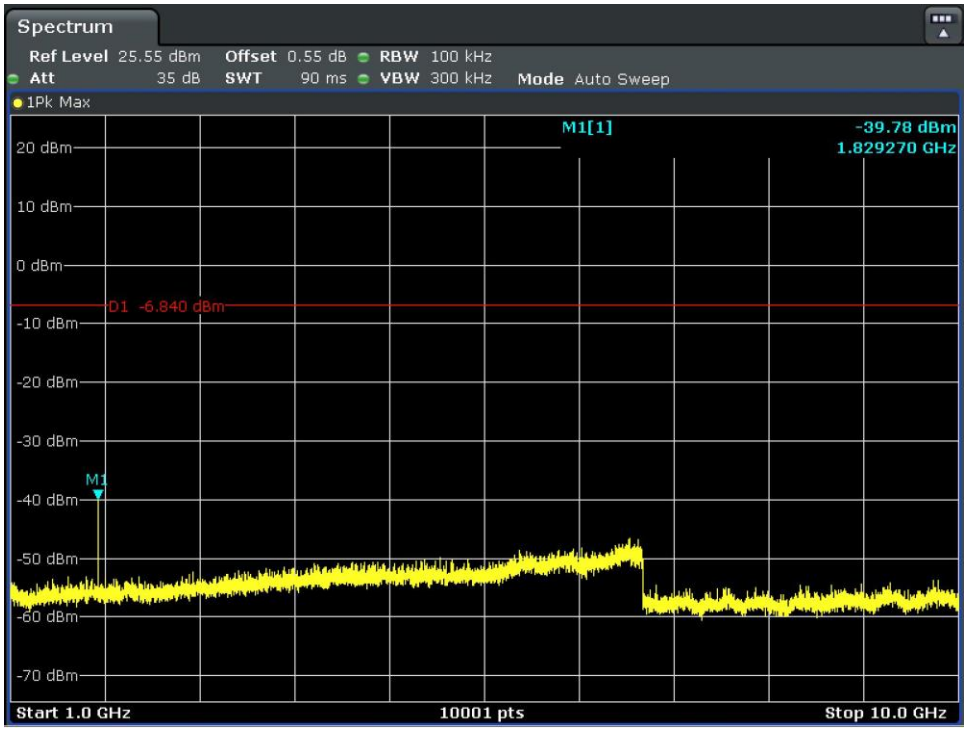

Figure 19. Antenna-Port Conducted Measurements, Conducted Spurious Emissions: High Channel, 914.9 MHz Plot

3.1.7 Band Edge

Frequency (MHz)	Channel	Fundamental Peak (dBm)	Unwanted Emission Level (dBm)	Peak-to-Unwanted Emission Delta (Δ) (dBc)	Limit (dBc)
902.5	Low	12.84	-14.06	26.9	≥ 20
914.9	High	13.30	-52.22	65.52	≥ 20

Table 7. Antenna-Port Conducted Measurements, Band Edge Test Results

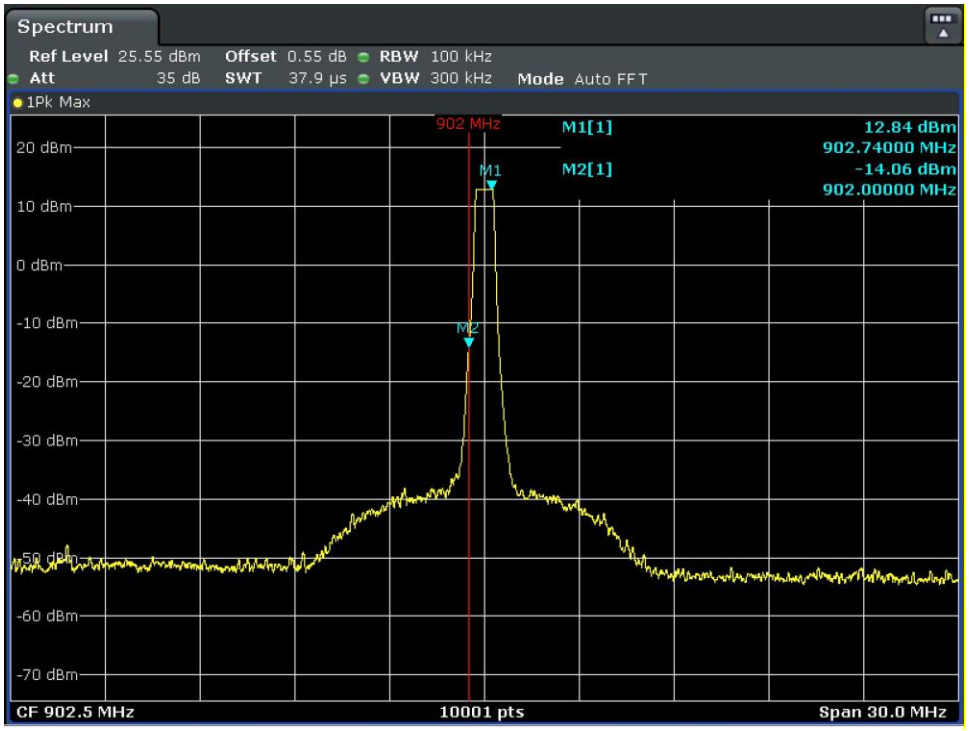

Figure 20. Antenna-Port Conducted Measurements, Lower Band Edge: Low Channel, 902.5 MHz Plot

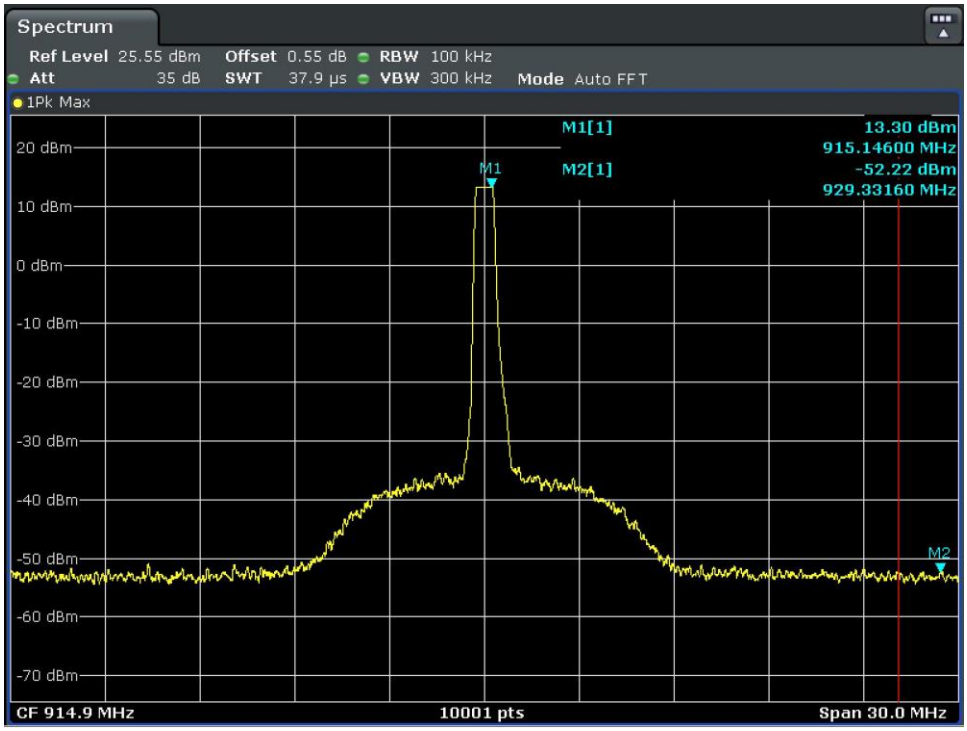

Figure 21. Antenna-Port Conducted Measurements, Upper Band Edge: High Channel, 914.9 MHz Plot

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

Test Name: FCC 15.247 & RSS-247			**Test Date(s):** 06/19/2025		
Asset #	**Equipment**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Date**
1S3812	Signal Analyzer	Rohde & Schwarz	FSV	01/10/2025	01/10/2027
Note 1: Functionally tested equipment is verified using calibrated instrumentation at the time of testing. **Note 2:** Latest NSA and VSWR data available upon request.					

Table 8. Antenna-Port Conducted Measurements, Test Equipment

3.2 Radiated Spurious Emissions

Test Method: ANSI C63.10: 2020; FCC KDB 558074 D01 15.247 Meas Guidance v05r02

Test Requirement(s): The following standards specified below are covered in the scope of this section of the test report:

- FCC Part 15 Subpart C §15.247
- RSS-247 Issue 3

FCC – §15.209 Radiated emission limits; general requirements.
(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (dBµV/m)	Measurement Distance (m)
30 - 88	40	3
88 - 216	43.5	3
216 - 960	46	3
Above 960	54	3

ISED – Transmitter emission limits:
Refer to RSS-Gen Issue 5 Section 8.9 Transmitter emission limits Table 5 – General field strength limits at frequencies above 30 MHz.

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

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

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

ISED – Restricted frequency bands:
Refer to RSS-Gen Issue 5 Section 8.10 Restricted frequency bands Table 7 – Restricted frequency bands.

Sample Calculation for Distance Correction factor (DCF) measurement:

$$F_d = 20*LOG_{10}(D_m/D_s)$$

where:

F_d = Distance Factor in dB
D_m = Measurement Distance in meters
D_s = Specification Distance in meters

Sample formula for calculating the Corrected Data for the Radiated Emissions Measurements:

Frequency (MHz)	Antenna Polarity	EUT Azimuth (Degrees)	Antenna Height (cm)	Uncorrected Amplitude (dBµV)	ACF (dB/m) (+)	Pre Amp Gain (dB)(-)	CBL (dB) (+)	DCF (dB) (+)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
249.99	V	359.9	240.7	55.46	11.4	28.335	0	0	***38.505***	47	-8.495

Corrected Amplitude (dBµV/m) = Uncorrected Amplitude (dBµV) +ACF (dB/m) - Preamp Gain (dB) + CBL (dB) +DCF (dB) = 55.46 + 11.4 - 28.335 + 0 + 0 = ***38.505***

Test Procedure:

The method of testing, test conditions, and test procedures of ANSI C63.10: 2020 were used in addition to FCC KDB 558074 D01 15.247 Meas Guidance v05r02. Any measured frequency that exhibits a margin of compliance that is less than 3 dB below the specification limit is marked. Eurofins E&E recommends that every emission measured, has at least a 3 dB margin to allow for deviations in the emission characteristics that may occur during the production process.

For emissions between 30 MHz and 1000 MHz, the EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber a biconilog antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT was rotated, and the antenna height was varied between 1 m and 4 m to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. Unless otherwise specified, measurements were made using a quasi-peak detector with a 120 kHz resolution bandwidth.

For emissions between 1 GHz and 18 GHz, a double ridged guide horn was located 3 m from the EUT on an adjustable mast. The EUT as placed on a non-metallic table 150 cm above the ground plane inside a semi-anechoic chamber. A pre-scan was performed and used to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT was rotated, and the antenna height was varied depending on the geometry of the EUT. To ensure maximized emissions, the horn antenna was positioned both vertically and horizontally. Unless otherwise specified, measurements were made using a peak and average detector with a 1 MHz resolution bandwidth.

For emission between 18 GHz and 26 GHz, a high frequency standard gain horn antenna was located 3 m from the EUT on an adjustable mast. The EUT as placed on a non-metallic table 150 cm above the ground plane inside a semi-anechoic chamber. A pre-scan was performed and used to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT was rotated, and the antenna height was varied depending on the geometry of the EUT. To ensure maximized emissions, the horn antenna was positioned both vertically and horizontally. Unless otherwise specified, measurements were made using a peak and average detector with a 1 MHz resolution bandwidth.

Due to the size of the EUT, pre-liminary measurements were performed with the EUT rotated on different axis (X, Y, Z). The worst-case data is presented in this report.

Test Software Used: Nexio BAT-EMC was used to perform this test.

Test Results:

Test Standard:	FCC Part 15.247 (Per FCC KDB 558074 D01 15.247 Meas Guidance v05r02; ANSI C63.10-2020) RSS-247 Issue 3
Test Name	Radiated Spurious Emissions
Test Dates:	06/20/2025
Laboratory	Eurofins E&E Testing NA, LLC.
Test Engineer:	Chin Ming Lui
Test Results:	Compliant

Test Data (FCC 15.247 & RSS-247 Radiated Spurious Emissions)

LoRa Low Channel 902.5 MHz

Frequency (MHz)	Source	Level (dBµV/m)	Limit (dBuV/m)	Margin (dB)	Height (m)	Azimuth (°)	Pol.	RBW (Hz)	Meas. Time (s)	Correction (dB)
34.341	QuasiPeak (PASS)	18.071	40	-21.929	3.705	300	Vertical	120000	0.1	-7.923
54.726	QuasiPeak (PASS)	26.308	40	-13.692	1.691	17	Vertical	120000	0.1	-14.801
466.46	QuasiPeak (PASS)	29.664	46.021	-16.357	3.178	34	Horizontal	120000	0.1	-3.901
870.61	QuasiPeak (PASS)	40.735	46.021	-5.286	1	145	Horizontal	120000	0.1	-0.356

Table 9. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (30 MHz – 1 GHz) Test Results

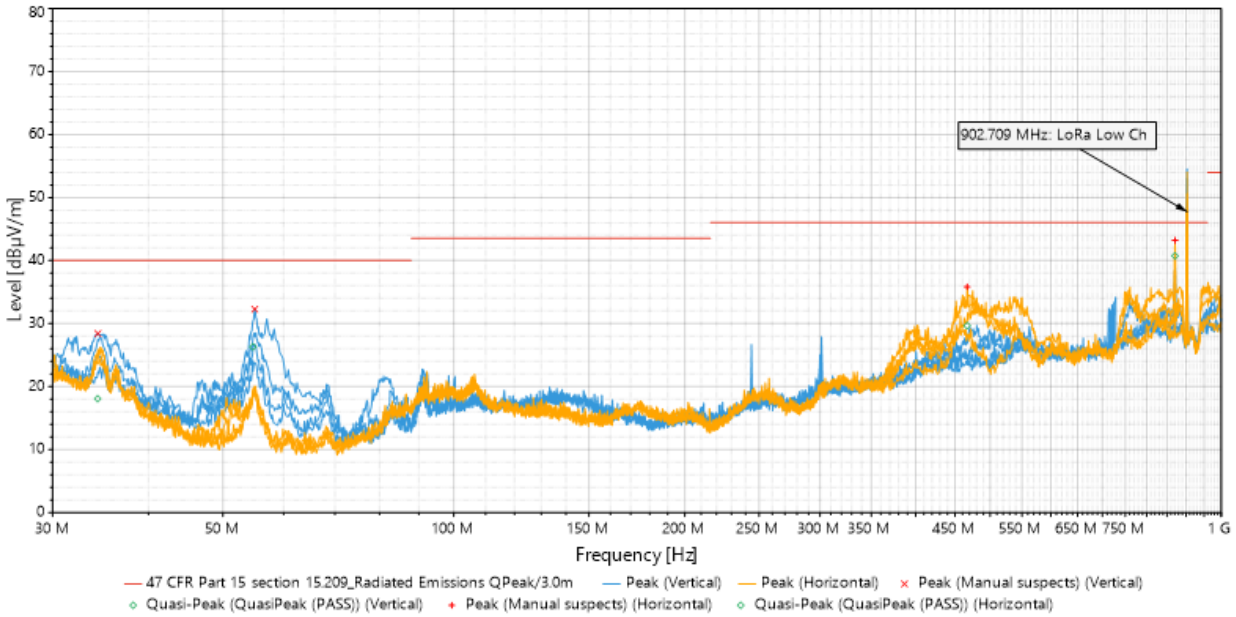

Figure 22. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (30 MHz – 1 GHz) Plot

Frequency (MHz)	Source	Level (dBµV/m)	Limit (dBuV/m)	Margin (dB)	Height (m)	Azimuth (°)	Pol.	RBW (Hz)	Meas. Time (s)	Correction (dB)
1804.9	Peak (PASS)	47.411	74	-26.589	2.604	317	Vertical	1000000	0.1	-1.551
1804.9	Average (PASS)	41.332	54	-12.668	2.604	317	Vertical	1000000	0.1	-1.551
1805.4	Peak (PASS)	49.825	74	-24.175	2.503	167	Horizontal	1000000	0.1	-1.462
1805.4	Average (PASS)	42.531	54	-11.469	2.503	167	Horizontal	1000000	0.1	-1.462
2706.9	Peak (PASS)	53.863	74	-20.137	1.691	113	Vertical	1000000	0.1	0.307
2706.9	Average (PASS)	45.055	54	-8.945	1.691	113	Vertical	1000000	0.1	0.307
2706.9	Peak (PASS)	51.659	74	-22.341	1.364	59	Horizontal	1000000	0.1	0.157
2706.9	Average (PASS)	42.338	54	-11.662	1.364	59	Horizontal	1000000	0.1	0.157

Table 10. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (1 – 10 GHz) Test Results

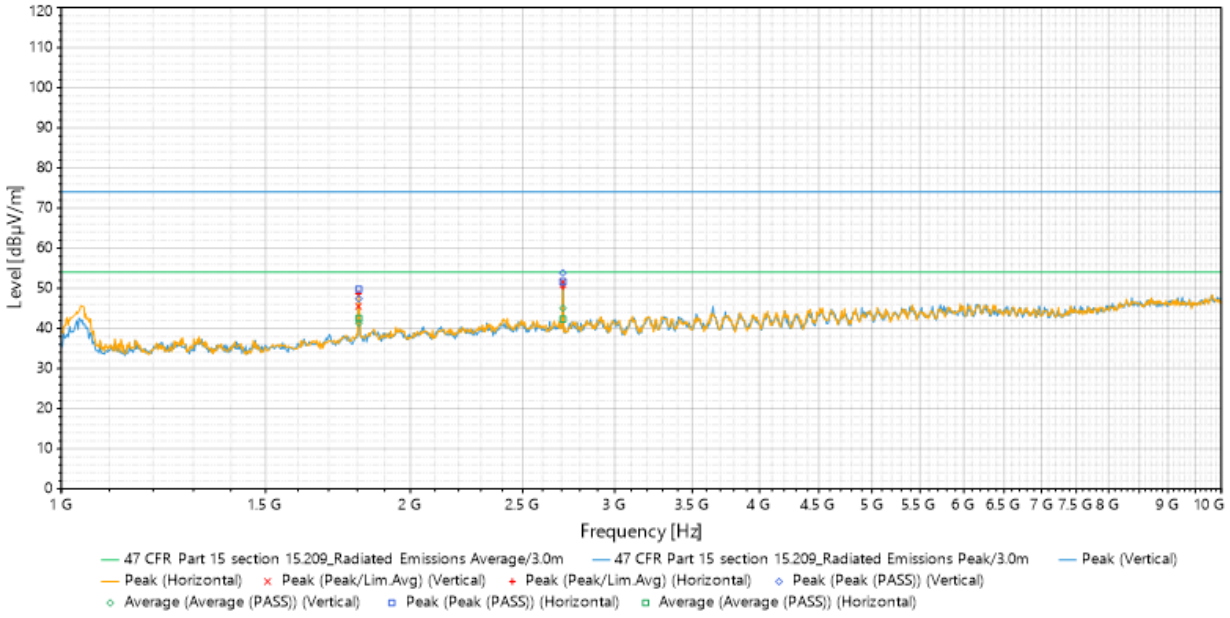

Figure 23. Radiated Spurious Emissions, LoRa Low Channel 902.5 MHz (1 – 10 GHz) Plot

LoRa Mid Channel 908.7 MHz

Frequency (MHz)	Source	Level (dBµV/m)	Limit (dBuV/m)	Margin (dB)	Height (m)	Azimuth (°)	Pol.	RBW (Hz)	Meas. Time (s)	Correction (dB)
34.637	QuasiPeak (PASS)	20.909	40	-19.091	2.14	344	Vertical	120000	0.1	-8.129
54.544	QuasiPeak (PASS)	23.598	40	-16.402	2.229	93	Vertical	120000	0.1	-14.853
471.031	QuasiPeak (PASS)	21.031	46.021	-24.99	1.708	211	Horizontal	120000	0.1	-4.172
876.459	QuasiPeak (PASS)	40.642	46.021	-5.379	1.131	212	Horizontal	120000	0.1	0.26

Table 11. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (30 MHz – 1 GHz) Test Results

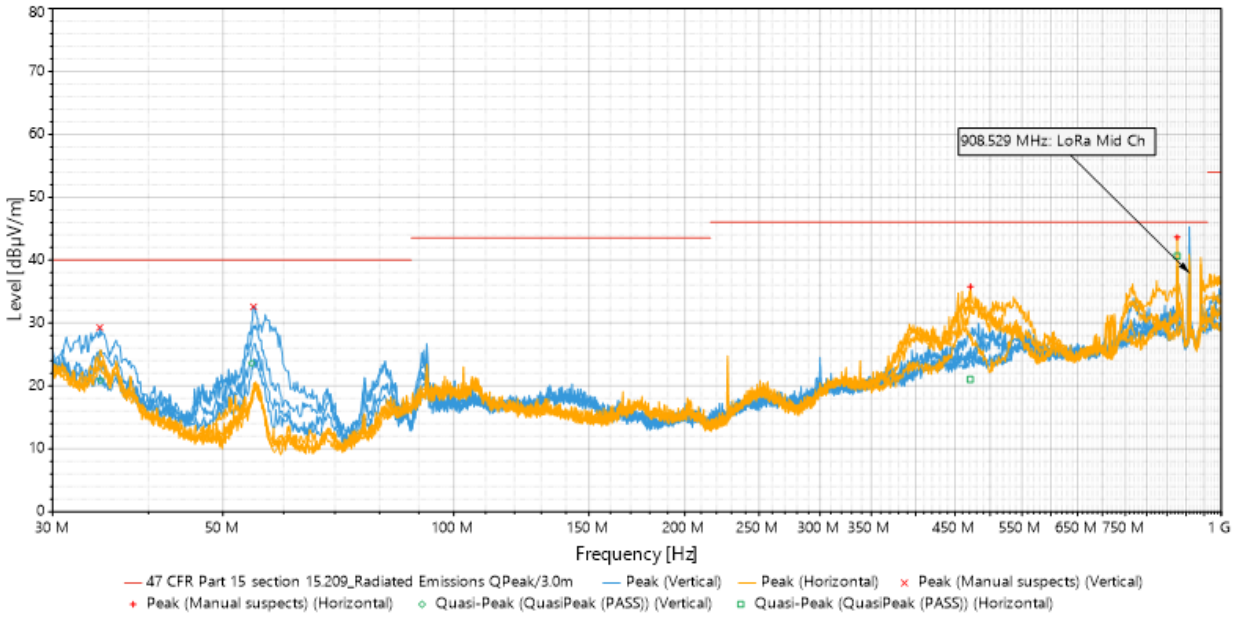

Figure 24. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (30 MHz – 1 GHz) Plot

Frequency (MHz)	Source	Level (dBµV/m)	Limit (dBuV/m)	Margin (dB)	Height (m)	Azimuth (°)	Pol.	RBW (Hz)	Meas. Time (s)	Correction (dB)
1817.4	Peak (PASS)	52.579	74	-21.421	3.754	243	Horizontal	1000000	0.1	-1.398
1817.4	Average (PASS)	48.846	54	-5.154	3.754	243	Horizontal	1000000	0.1	-1.398
1817.6	Peak (PASS)	49.052	74	-24.948	2.493	285	Vertical	1000000	0.1	-1.394
1817.6	Average (PASS)	44	54	-10	2.493	285	Vertical	1000000	0.1	-1.394
2725.9	Peak (PASS)	50.21	74	-23.79	1.469	111	Vertical	1000000	0.1	0.171
2725.9	Average (PASS)	43.232	54	-10.768	1.469	111	Vertical	1000000	0.1	0.171
2726.3	Peak (PASS)	49.169	74	-24.831	1.126	58	Horizontal	1000000	0.1	0.018
2726.3	Average (PASS)	41.692	54	-12.308	1.126	58	Horizontal	1000000	0.1	0.018

Table 12. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (1 – 10 GHz) Test Results

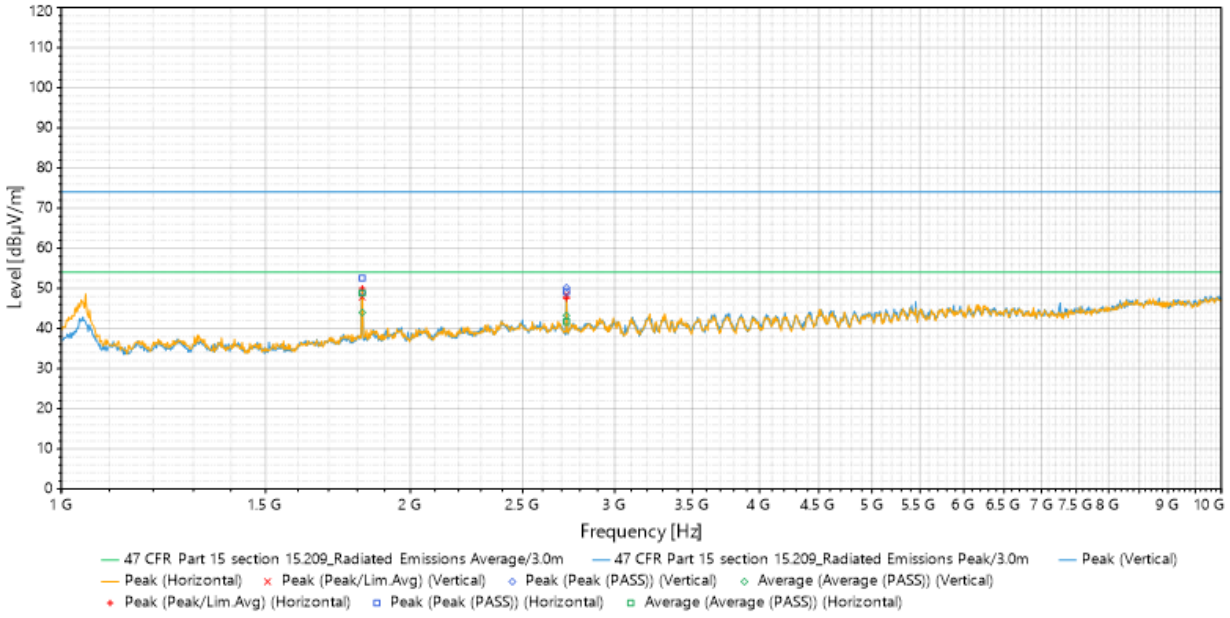

Figure 25. Radiated Spurious Emissions, LoRa Mid Channel 908.7 MHz (1 – 10 GHz) Plot

LoRa High Channel 914.9 MHz

Frequency (MHz)	Source	Level (dBµV/m)	Limit (dBuV/m)	Margin (dB)	Height (m)	Azimuth (°)	Pol.	RBW (Hz)	Meas. Time (s)	Correction (dB)
57.104	QuasiPeak (PASS)	13.023	40	-26.977	3.483	347	Vertical	120000	0.1	-14.084
781.06	QuasiPeak (PASS)	33.035	46.021	-12.986	1.241	55	Horizontal	120000	0.1	-1.425

Table 13. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (30 MHz – 1 GHz) Test Results

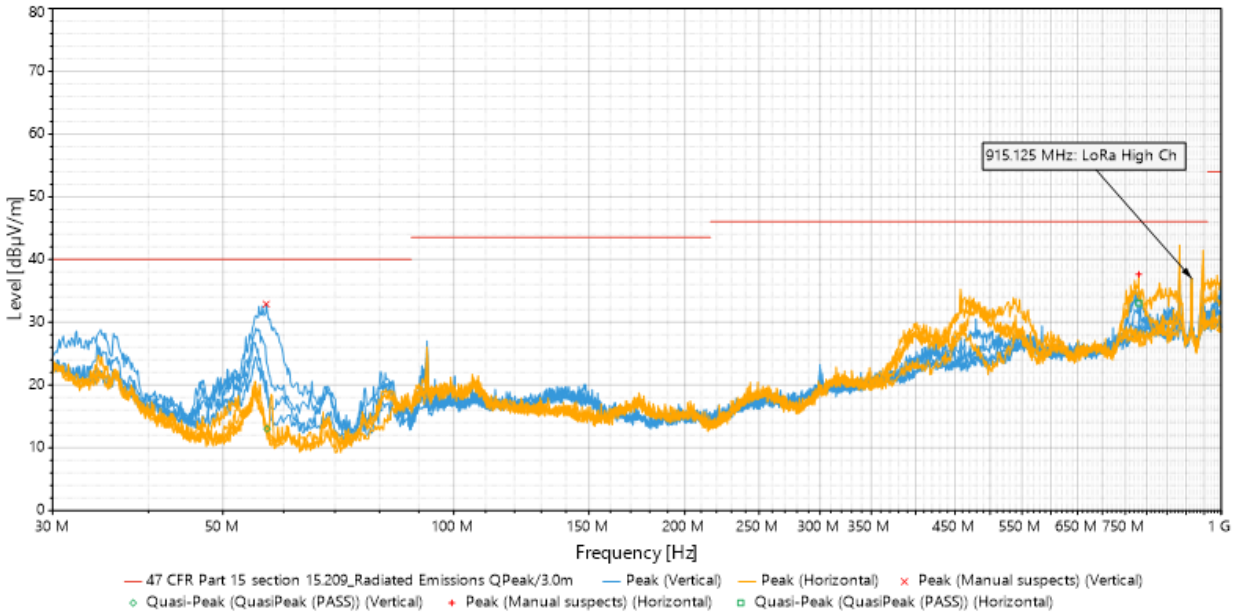

Figure 26. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (30 MHz – 1 GHz) Plot

Frequency (MHz)	Source	Level (dBµV/m)	Limit (dBuV/m)	Margin (dB)	Height (m)	Azimuth (°)	Pol.	RBW (Hz)	Meas. Time (s)	Correction (dB)
1829.7	Peak (PASS)	51.277	74	-22.723	2.496	285	Vertical	1000000	0.1	-1.297
1829.7	Average (PASS)	46.995	54	-7.005	2.496	285	Vertical	1000000	0.1	-1.297
1830.1	Peak (PASS)	53.564	74	-20.436	2.656	168	Horizontal	1000000	0.1	-1.365
1830.1	Average (PASS)	48.172	54	-5.828	2.656	168	Horizontal	1000000	0.1	-1.365
2745.2	Peak (PASS)	46.449	74	-27.551	3.046	60	Horizontal	1000000	0.1	0.047
2745.2	Average (PASS)	35.219	54	-18.781	3.046	60	Horizontal	1000000	0.1	0.047
2745.3	Peak (PASS)	48.589	74	-25.411	1.818	97	Vertical	1000000	0.1	0.141
2745.3	Average (PASS)	37.62	54	-16.38	1.818	97	Vertical	1000000	0.1	0.141

Table 14. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (1 – 10 GHz) Test Results

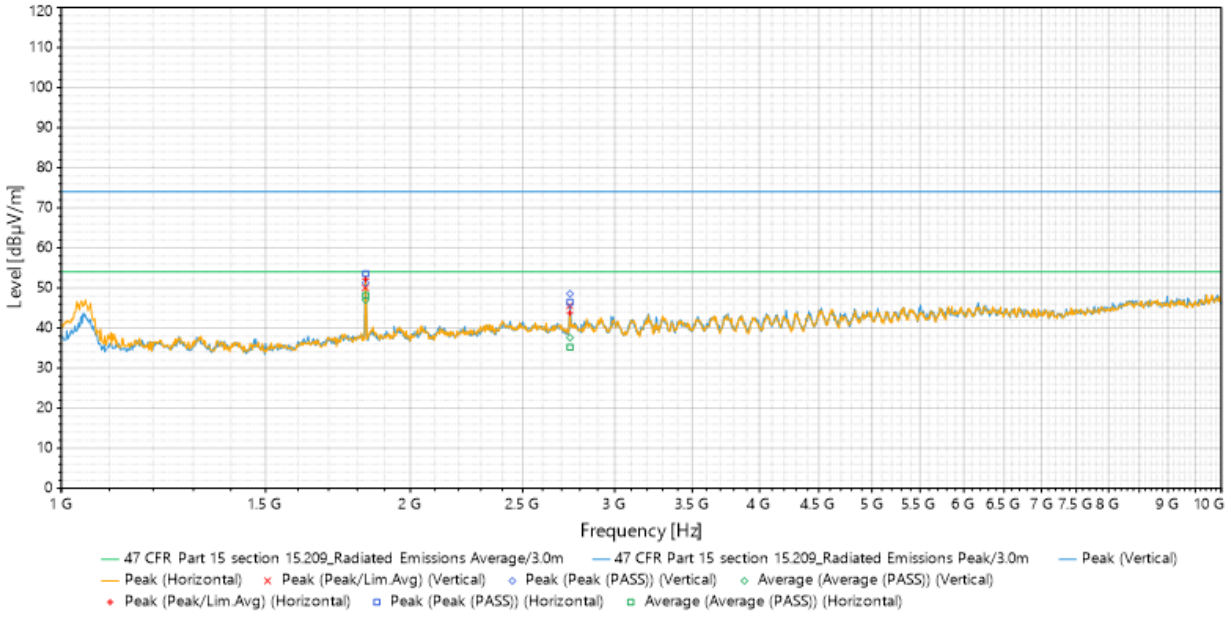

Figure 27. Radiated Spurious Emissions, LoRa High Channel 914.9 MHz (1 – 10 GHz) Plot

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

Test Name: FCC 15.247 & RSS-247			**Test Date(s):** 06/20/2025		
Asset #	**Equipment**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Date**
1S2399	Turntable Controller	Sunol Sciences	SC99V	See Note 1	
1S4856	Antenna Positioning Tower	ETS-Lindgren	2171B	See Note 1	
1S2482	5 Meter Chamber	Panashield - ETS	5 Meter Semi-Anechoic Chamber	See Note 2	
1S4804	EMI Test Receiver	Rohde & Schwarz	ESW44	08/07/2024	08/07/2025
1S2485	Bilog Antenna	Teseq	CBL6112D	11/27/2024	11/27/2026
1S2435	Horn Antenna	ETS-Lindgren	3117	03/17/2025	03/17/2027
1S2668	Pre-Amplifier	Sonoma Instruments	310 N	03/18/2025	03/18/2027
1S4802	Pre-Amplifier	EMC Instruments Corporation	EMC118A45SE	See Note 1	
Note 1: Functionally tested equipment is verified using calibrated instrumentation at the time of testing. **Note 2:** Latest NSA and VSWR data available upon request.					

Table 15. Radiated Spurious Emissions, Test Equipment

END OF REPORT

