

Report on the Testing of the

Motorola Solution, Inc.

Model Name: APX 8000HXE VHF

Part Number: H91TGD9PW9AN



America

Add value.
Inspire trust.

In accordance with:

FCC Part 90 Subpart I and ISED Canada RSS-119

Prepared for: Motorola Solution, Inc.
8000 WEST SUNRISE BLVD
PLANTATION, Florida, 33322.

COMMERCIAL-IN-CONFIDENCE

Document Number: AT721015957.1V2

SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Bhagyashree Chaudhary	Senior Wireless Engineer TUV SUD America Inc.	Authorized Signatory	5/15/2026

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD America, Inc. document control rules.

FCC Accreditation Designation Number US1233
FCC Test Site Registration Number 967699
Innovation, Science, and Economic Development Canada Lab Code 23932

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with the standards listed above for field strength of spurious radiation as described in this document.



A2LA Cert. No. 2955.09

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1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Table 1.1-1 – Modification Record

Issue	Description of Change	Date of Issue
0	First Issue	4/23/2026
1	Updated the Applicant's address in the clause 1.2	5/15/2026

1.2 Introduction

The purpose of this report is to verify the compliance of the Motorola Solutions, Inc. model H91TGD9PW9AN, with a battery configuration having model number PMNN4494A, with Part 90 Subpart I of the FCC's Code of Federal Regulations and Innovation Science and Economic Development Canada's Radio Standards Specification RSS-119 for the tests documented herein.

Applicant	Motorola Solutions Inc.
Applicant Address	Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
Product Marketing Version (PMN)	APX 8000HXE
Hardware Version Identification Number (HVIN)	H91TGD9PW9AN (IC Model: NUW1038)
Serial Number	123ABC0001, 123ABC4565
FCC ID	AZ489FT7111
ISED Certification Number	109U-89FT7111
Firmware Version Identification Number (FVIN)	D37.00.61
Number of Samples Tested	2
Test Specification/Issue/Date	US Code of Federal Regulation (CFR): Title 47, Part 90:Private Land Mobile Services - 2026 Innovation Science and Economic Development Canada Radio Standards Specifications; RSS-119 - Land Mobile and Fixed Equipment Operating in the Frequency Range 27.41-960 MHz, Issue 12, May 28, 2015, Amendment 1(April 1, 2022), Amendment 2 (July 28, 2025).
Order Number	721015957
Date of Receipt of EUT	11/03/2025
Start of Test	11/20/2025



Finish of Test

12/05/2025

Related Document(s)

ANSI C63.26: American National Standard of Compliance Testing of Transmitters Used in Licensed Radio Services - December 2015

US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedure - 2026

ISED Canada Radio Standards Specification: RSS-GEN – General Requirements for Compliance of Radio Apparatus, Issue 5, Amendment 1 (March 2019), Amendment 2 (February 2021)



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC Part 90 Subpart I, and ISED Canada's RSS-119 is shown below.

Table 1.3-1: Test Result Summary

Test Parameter	Test Plan (Yes/No)	Test Result	FCC Rule Part	ISED Canada's RSS	Worst Case Margin	Test Report Page No
RF Power Output	No	Not Tested	2.1046	RSS-GEN 6.12	-----	-----
Modulation Characteristics	No	Not Tested	2.1047	-----	-----	-----
Occupied Bandwidth (Emission Limits)	No	Not Tested	2.1049	RSS-GEN 6.7	-----	-----
Spurious Emissions at Antenna Terminals	No	Not Tested	2.1051	RSS-GEN 6.13	-----	-----
Field Strength of Spurious Emissions	Yes	Pass	2.1053, 90.210	RSS-GEN 6.13, RSS-119 5.8	35.7 dB	10
Frequency Stability	No	Not Tested	2.1055	RSS-GEN 6.11	-----	-----

1.4 Product Information

1.4.1 Technical Description

The Equipment Under Test (EUT) was two-way portable all band land mobile radio transmitter held to face operating in the band VHF, 136 - 174 MHz using analog FM, Digital C4FM and Phase II modulation.

A full description and detailed product specification details are available from the manufacturer.

Table 1.4.1-1 – Product Technical Information

Detail	Description
FCC ID	AZ489FT7111
ISED Certification Number	109U-89FT7111
Model Name (PMN)	APX 8000HXE
Sales Model Number (HVIN)	H91TGD9PW9AN (IC Model: NUW1038)
Serial Number of EUT	123ABC0001,123ABC4565
FVIN Number	D37.00.61
Frequency Range (MHz)	TX and RX: 136-174MHz
Test Mode	Analog, Digital and Phase II
Emission Designator	LMR(8K10F1D,8K10F1E,8K10F1W,11K0F3E,16K0F3E,20K0F1E)
Power	Max: 6.6 W, Low: 1W
Battery	PMNN4494A
Antenna	KT000026A01



Figure 1.4.1-1 –Front view of the EUT



Figure 1.4.1-2 – Back view of the EUT

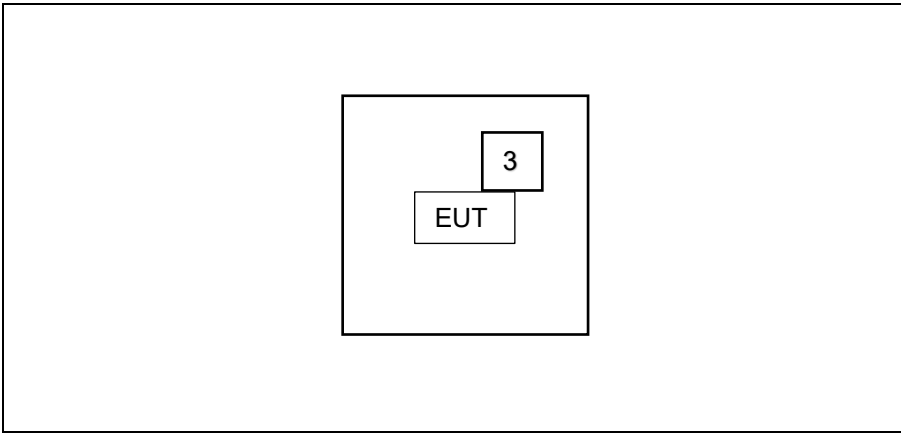


Figure 1.4.1-3 – Test Setup Block Diagram

Table 1.4.1-2: Support Equipment

Item	Equipment Type	Manufacturer	Model Number	Serial Number
1	Battery	Motorola	PMNN4494A	N/A
2	Antenna	Motorola	KT000026A01	N/A
3	50-ohm Terminator	N/A	N/A	N/A



1.4.2 Modes of Operation

The radiated emissions were performed for the EUT operating at the maximum and minimum power where applicable. The EUT was terminated by a 50 Ohm matching load at the antenna connector during the evaluation.

The tested mode of operation and configuration during the assessment is listed below as declared by client.

Configuration	Test Frequency (MHz)	TX Power	Channel Spacing (kHz)
1	138.0125	Max	25 (Analog)
2	138.0125	Max	12.5 (Digital)
3	138.0125	Max	12.5 (Phase II)
4	138.0125	Low	25 (Analog)
5	138.0125	Low	12.5 (Digital)
6	138.0125	Low	12.5 (Phase II)
7	158.5500	Max	25 (Analog)
8	158.5500	Max	12.5 (Digital)
9	158.5500	Max	12.5 (Phase II)
10	158.5500	Low	25 (Analog)
11	158.5500	Low	12.5 (Digital)
12	158.5500	Low	12.5 (Phase II)
13	161.7000	Max	25 (Analog)
14	161.7000	Max	12.5 (Digital)
15	161.7000	Max	12.5 (Phase II)
16	161.7000	Low	25 (Analog)
17	161.7000	Low	12.5 (Digital)
18	161.7000	Low	12.5 (Phase II)
19	173.9875	Max	25 (Analog)
20	173.3875	Max	12.5 (Digital)
21	173.3875	Max	12.5 (Phase II)
22	173.9875	Low	25 (Analog)
23	173.3875	Low	12.5 (Digital)
24	173.3875	Low	12.5 (Phase II)

Max Power: 6.6 W

Low Power: 1 W

1.4.3 Monitoring of Performance

The following performance attributes were monitored: Field Strength of Spurious Radiation of the Transmitter

1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.



1.6 EUT Modification Record

The table below details modifications made to the EUT during the test program. The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
0	Initial State		

The equipment was tested as provided without any modifications.

1.7 Test Location

TÜV SÜD conducted the following tests at our Alpharetta, GA test laboratory.

Test Name	Name of Engineer(s)	Accreditation
Battery Powered Operating		
Field Strength of Spurious Radiation	Ivy Yousuf Moutushi / Kyle Davis / Jedsen Villacruz	A2LA

Office address:
TÜV SÜD America
5945 Cabot Parkway, Suite 100
Alpharetta, GA 30005, USA



2 Test Details

2.1 Field Strength of Spurious Radiation

2.1.1 Specification Reference

FCC Sections: 90.210
ISED Canada RSS – 119 Sections 5.8

2.1.2 Equipment Under Test and Modification State

No modifications were needed to comply to the test requirements.

2.1.3 Date of Test

11/20/2025 – 12/05/2025

2.1.4 Test Method

The equipment under test is placed in the Semi- Anechoic Chamber on a RF transparent table at the turntable center. For each spurious emission, the antenna mast is raised and lowered from 1 to 4 meters and the turntable is rotated 360° and the maximum reading on the spectrum analyzer is recorded. This was repeated for both horizontal and vertical polarizations of the receive antenna.

Radiated measurement was performed using the field strength measurement method as per ANSI C 63.26 5.5.4. For frequencies below 150 kHz, peak measurements were made using a resolution bandwidth RBW of CISPR 200 Hz and a video bandwidth VBW of 1 kHz and frequencies between 150 kHz and 30MHz, peak measurements were made using a resolution bandwidth RBW of CISPR 9 kHz and a video bandwidth VBW of 30 kHz. For frequencies between 30 MHz and 1000 MHz, peak measurements were made using a resolution bandwidth RBW of 100 kHz and a video bandwidth VBW of 300 kHz. For frequencies above 1000 MHz, peak measurements were made with RBW of 1 MHz and VBW of 3 MHz.

According to specification, the power of emissions shall be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. Which is equivalent to -13 dBm for 25kHz channel spacing and attenuated below the transmitter power (P) by a factor of at least $50 + 10 \log (P)$ dB. Which is equivalent to -20 dBm for 12.5kHz channel spacing.

Measurements up to 2 GHz were done using Tile7 (Version 7.7.2.4) automated software. Reported level is the actual level with all the correction factors factored in.

2.1.5 Environmental Conditions

The EUT was evaluated within the temperature, humidity and pressure range of the EUT as specified by the standard. The laboratory shall have an ambient temperature range of 15°C to 35°C and relative humidity range of 30% to 60%.

Ambient Temperature	23 °C
Relative Humidity	44 %



2.1.6 Test Results

Test Summary: EUT was set to transmit mode for all 24 configurations as mentioned in 1.4.2

Test Results: Pass

See data below for detailed results.

Table 2.1.6-1: Field Strength of Spurious Emissions – Configuration 1

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
276.025	-77.4	-13	-64.4*	H
414.012	-77.7	-13	-64.7*	H
552.09	-75.2	-13	-62.2**	H
690.063	-74.5	-13	-61.5**	H
828.175	-74.2	-13	-61.2**	H
965.987	-72.2	-13	-59.2**	H
276.015	-69.9	-13	-56.9*	V
414.048	-69.2	-13	-56.2*	V
552.09	-75.7	-13	-62.7**	V
689.962	-75.3	-13	-62.3**	V
828	-73.5	-13	-60.5**	V
966.112	-71.1	-13	-58.1**	V
1104.2	-58.1	-13	-45.1**	H
1242.162	-56.6	-13	-43.6**	H
1379.925	-56.5	-13	-43.5**	H
1104.35	-59.1	-13	-46.1**	V
1241.912	-57.4	-13	-44.4**	V
1379.925	-56.5	-13	-43.5**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-2: Field Strength of Spurious Emissions – Configuration 2**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
276.125	-80.4	-20	-60.4*	H
414.137	-77.8	-20	-57.8*	H
552.14	-76.4	-20	-56.4**	H
690.138	-75.1	-20	-55.1**	H
828.05	-73.9	-20	-53.9**	H
965.987	-72.4	-20	-52.4**	H
276.041	-68.8	-20	-48.8*	V
414.048	-68.4	-20	-48.4*	V
551.99	-75.4	-20	-55.4**	V
690.038	-74.8	-20	-54.8**	V
828.175	-74.2	-20	-54.2**	V
966.188	-72.6	-20	-52.6**	V
1104.2	-58.8	-20	-38.8**	H
1242.113	-56.7	-20	-36.7**	H
1379.975	-56.1	-20	-36.1**	H
1104.3	-59	-20	-39**	V
1242.313	-57.2	-20	-37.2**	V
1380.175	-56.2	-20	-36.2**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-3: Field Strength of Spurious Emissions – Configuration 3**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
276.025	-77.6	-20	-57.6*	H
414.063	-76	-20	-56*	H
552.04	-75.2	-20	-55.2**	H
689.962	-75.5	-20	-55.5**	H
828.175	-73.9	-20	-53.9**	H
966.112	-72.8	-20	-52.8**	H
276.025	-71.4	-20	-51.4*	V
414.023	-68.4	-20	-48.4*	V
551.965	-75.9	-20	-55.9**	V
690.163	-75.4	-20	-55.4**	V
828.1	-74.1	-20	-54.1**	V
966.138	-72.3	-20	-52.3**	V
1103.95	-58.7	-20	-38.7**	H
1242.212	-57.3	-20	-37.3**	H
1380.325	-56.5	-20	-36.5**	H
1103.85	-59.3	-20	-39.3**	V
1242.162	-57.1	-20	-37.1**	V
1380.325	-56.3	-20	-36.3**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-4: Field Strength of Spurious Emissions – Configuration 4**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
275.95	-80.2	-13	-67.2*	H
414.038	-76.9	-13	-63.9*	H
552.09	-75.4	-13	-62.4**	H
689.962	-75.3	-13	-62.3**	H
828.025	-74	-13	-61**	H
966.038	-72	-13	-59**	H
276.042	-77	-13	-64*	V
414.012	-75.6	-13	-62.6*	V
552.115	-75.8	-13	-62.8**	V
689.962	-74.4	-13	-61.4**	V
828.15	-73.3	-13	-60.3**	V
965.987	-72.6	-13	-59.6**	V
1104.2	-59.5	-13	-46.5**	H
1242.362	-57	-13	-44**	H
1380.375	-56.1	-13	-43.1**	H
1104.35	-58.4	-13	-45.4**	V
1242.063	-56.5	-13	-43.5**	V
1380.325	-55.7	-13	-42.7**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-5: Field Strength of Spurious Emissions – Configuration 5**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
275.975	-80.4	-20	-60.4*	H
413.938	-77	-20	-57*	H
551.94	-75.9	-20	-55.9**	H
690.013	-75.5	-20	-55.5**	H
827.975	-73.9	-20	-53.9**	H
966.087	-71.6	-20	-51.6**	H
276	-75.9	-20	-55.9*	V
414.038	-75.6	-20	-55.6*	V
552.04	-75.9	-20	-55.9**	V
689.962	-74.4	-20	-54.4**	V
828.1	-73.6	-20	-53.6**	V
965.987	-72.3	-20	-52.3**	V
1104	-58.3	-20	-38.3**	H
1241.863	-56.9	-20	-36.9**	H
1380.325	-56.7	-20	-36.7**	H
1103.9	-58.9	-20	-38.9**	V
1242.013	-57.2	-20	-37.2**	V
1380.325	-56.7	-20	-36.7**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-6: Field Strength of Spurious Emissions – Configuration 6**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
276.025	-79.7	-20	-59.7*	H
414.038	-78.4	-20	-58.4*	H
552.14	-75.3	-20	-55.3**	H
690.013	-74.8	-20	-54.8**	H
828.025	-74.3	-20	-54.3**	H
966.063	-72.8	-20	-52.8**	H
276.015	-75.5	-20	-55.5*	V
414.063	-75.1	-20	-55.1*	V
552.115	-75.2	-20	-55.2**	V
690.138	-75.4	-20	-55.4**	V
828.075	-73.7	-20	-53.7**	V
966.112	-72.4	-20	-52.4**	V
1104.15	-58	-20	-38**	H
1242.262	-57.2	-20	-37.2**	H
1380.325	-57.2	-20	-37.2**	H
1104.2	-58.2	-20	-38.2**	V
1242.062	-57.1	-20	-37.1**	V
1380.375	-57	-20	-37**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-7: Field Strength of Spurious Emissions – Configuration 7**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
317.1	-78.5	-13	-65.5*	H
475.65	-74.6	-13	-61.6*	H
634.225	-75.1	-13	-62.1**	H
792.8	-74.5	-13	-61.5**	H
951.35	-73.2	-13	-60.2**	H
317.096	-73.7	-13	-60.7*	V
475.643	-68.1	-13	-55.1*	V
634.1	-75.3	-13	-62.3**	V
792.775	-74	-13	-61**	V
951.4	-72.8	-13	-59.8**	V
1109.8	-57.9	-13	-44.9**	H
1268.45	-56.4	-13	-43.4**	H
1427.05	-56.9	-13	-43.9**	H
1585.55	-57.5	-13	-44.5**	H
1109.7	-57.6	-13	-44.6**	V
1268.4	-55.9	-13	-42.9**	V
1427.2	-56.9	-13	-43.9**	V
1585.7	-57.2	-13	-44.2**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-8: Field Strength of Spurious Emissions – Configuration 8**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
317.075	-78.5	-20	-58.5*	H
475.725	-76.4	-20	-56.4*	H
634.15	-75.4	-20	-55.4**	H
792.725	-73.7	-20	-53.7**	H
951.2	-72.5	-20	-52.5**	H
317.096	-75.2	-20	-55.2*	V
475.666	-68.1	-20	-48.1*	V
634.3	-75.3	-20	-55.3**	V
792.7	-74.5	-20	-54.5**	V
951.225	-71.6	-20	-51.6**	V
1109.65	-57.9	-20	-37.9**	H
1268.35	-56.3	-20	-36.3**	H
1426.75	-57.7	-20	-37.7**	H
1585.5	-57.5	-20	-37.5**	H
1109.8	-58	-20	-38**	V
1268.55	-56.6	-20	-36.6**	V
1426.85	-57.3	-20	-37.3**	V
1588.55	-57.7	-20	-37.7**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-9: Field Strength of Spurious Emissions – Configuration 9**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
317.15	-80.7	-20	-60.7*	H
475.65	-76.5	-20	-56.5*	H
634.1	-74.1	-20	-54.1**	H
792.85	-75	-20	-55**	H
951.325	-72.8	-20	-52.8**	H
317.096	-74.5	-20	-54.5*	V
475.643	-68.3	-20	-48.3*	V
634.225	-74.9	-20	-54.9**	V
792.775	-73.6	-20	-53.6**	V
951.35	-72	-20	-52**	V
1109.8	-58.8	-20	-38.8**	H
1268.65	-57	-20	-37**	H
1427.05	-57.6	-20	-37.6**	H
1585.4	-57.3	-20	-37.3**	H
1109.85	-58.6	-20	-38.6**	V
1268.35	-56.2	-20	-36.2**	V
1426.8	-57.3	-20	-37.3**	V
1585.65	-57.7	-20	-37.7**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-10: Field Strength of Spurious Emissions – Configuration 10**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
317.1	-79.4	-13	-66.4*	H
475.575	-77.5	-13	-64.5**	H
634.2	-74.7	-13	-61.7**	H
792.85	-75	-13	-62**	H
951.4	-72.2	-13	-59.2**	H
317.1	-74.8	-13	-61.8*	V
475.625	-73.3	-13	-60.3**	V
634.225	-73	-13	-60**	V
792.825	-74.4	-13	-61.4**	V
951.2	-73.6	-13	-60.6**	V
1109.9	-58.3	-13	-45.3**	H
1268.15	-57.3	-13	-44.3**	H
1427.15	-56.8	-13	-43.8**	H
1585.65	-57	-13	-44**	H
1109.85	-58	-13	-45**	V
1268.15	-56.1	-13	-43.1**	V
1426.8	-57.2	-13	-44.2**	V
1585.3	-57.5	-13	-44.5**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-11: Field Strength of Spurious Emissions – Configuration 11**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
317.075	-78.7	-20	-58.7*	H
475.675	-77.2	-20	-57.2**	H
634.1	-75.4	-20	-55.4**	H
792.775	-74.2	-20	-54.2**	H
951.35	-72.1	-20	-52.1**	H
317.095	-75	-20	-55*	V
475.625	-75.1	-20	-55.1**	V
634.1	-75.6	-20	-55.6**	V
792.725	-73.7	-20	-53.7**	V
951.2	-72.4	-20	-52.4**	V
1109.8	-58.9	-20	-38.9**	H
1268.35	-57.4	-20	-37.4**	H
1426.95	-57.6	-20	-37.6**	H
1585.6	-57.6	-20	-37.6**	H
1109.65	-58.1	-20	-38.1**	V
1268.15	-56.4	-20	-36.4**	V
1426.8	-57.7	-20	-37.7**	V
1585.7	-58.1	-20	-38.1**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-12: Field Strength of Spurious Emissions – Configuration 12**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
317.125	-79.4	-20	-59.4*	H
475.725	-76.9	-20	-56.9**	H
634.225	-74.9	-20	-54.9**	H
792.65	-74.1	-20	-54.1**	H
951.25	-72.7	-20	-52.7**	H
317.22	-79.9	-20	-59.9*	V
475.675	-75.3	-20	-55.3**	V
634.175	-74.7	-20	-54.7**	V
792.725	-74.6	-20	-54.6**	V
951.275	-72.7	-20	-52.7**	V
1109.75	-58.3	-20	-38.3**	H
1267.85	-56.9	-20	-36.9**	H
1426.25	-57.9	-20	-37.9**	H
1585.2	-57.3	-20	-37.3**	H
1109.3	-58.5	-20	-38.5**	V
1267.8	-57.1	-20	-37.1**	V
1426.7	-57.8	-20	-37.8**	V
1584.9	-57.1	-20	-37.1**	H

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-13: Field Strength of Spurious Emissions – Configuration 13**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
323.45	-80.1	-13	-67.1*	H
485.125	-77.1	-13	-64.1*	H
646.725	-75.2	-13	-62.2**	H
808.475	-74.3	-13	-61.3**	H
970.15	-72.3	-13	-59.3**	H
323.4	-74.2	-13	-61.2*	V
485.1	-69.6	-13	-56.6*	V
646.9	-74.7	-13	-61.7**	V
808.475	-73.8	-13	-60.8**	V
970.2	-72.5	-13	-59.5**	V
1131.85	-57.4	-13	-44.4**	H
1293.75	-57	-13	-44**	H
1455.5	-56.6	-13	-43.6**	H
1617	-57.3	-13	-44.3**	H
1131.9	-58.2	-13	-45.2**	V
1293.6	-55.4	-13	-42.4**	V
1455.1	-57.2	-13	-44.2**	V
1617.1	-56.8	-13	-43.8**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-14: Field Strength of Spurious Emissions – Configuration 14**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
323.475	-81.1	-20	-61.1*	H
485.15	-76.5	-20	-56.5*	H
646.7	-75.8	-20	-55.8**	H
808.475	-73.9	-20	-53.9**	H
970.1	-72.3	-20	-52.3**	H
323.4	-75.5	-20	-55.5*	V
485.099	-68.7	-20	-48.7*	V
646.825	-74.4	-20	-54.4**	V
808.5	-74	-20	-54**	V
970.125	-71.8	-20	-51.8**	V
1132.05	-58.6	-20	-38.6**	H
1293.55	-57	-20	-37**	H
1455.5	-57	-20	-37**	H
1617.25	-56.3	-20	-36.3**	H
1132.05	-58.1	-20	-38.1**	V
1293.5	-56.3	-20	-36.3**	V
1455.4	-57	-20	-37**	V
1617.2	-56.4	-20	-36.4**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-15: Field Strength of Spurious Emissions – Configuration 15**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
323.425	-79.4	-20	-59.4*	H
485	-76.9	-20	-56.9*	H
646.75	-75.1	-20	-55.1**	H
808.6	-74.4	-20	-54.4**	H
970.175	-71.6	-20	-51.6**	H
323.325	-78.2	-20	-58.2*	V
485	-74.2	-20	-54.2*	V
646.9	-75.6	-20	-55.6**	V
808.425	-74.2	-20	-54.2**	V
970.25	-72.5	-20	-52.5**	V
1132.1	-58.6	-20	-38.6**	H
1293.7	-56.6	-20	-36.6**	H
1455.2	-57.2	-20	-37.2**	H
1616.8	-56.8	-20	-36.8**	H
1131.8	-57.5	-20	-37.5**	V
1293.4	-56.7	-20	-36.7**	V
1455.3	-56.5	-20	-36.5**	V
1617.1	-56.7	-20	-36.7**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-16: Field Strength of Spurious Emissions – Configuration 16**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
323.3	-80.8	-13	-67.8*	H
485	-76.6	-13	-63.6**	H
646.75	-75.6	-13	-62.6**	H
808.5	-74.6	-13	-61.6**	H
970.175	-71.5	-13	-58.5**	H
323.4	-80.8	-13	-67.8*	V
485.05	-76.5	-13	-63.5**	V
646.725	-75.2	-13	-62.2**	V
808.6	-74.6	-13	-61.6**	V
970.175	-72.2	-13	-59.2**	V
1132.15	-57.9	-13	-44.9**	H
1293.8	-57.1	-13	-44.1**	H
1455.25	-55.9	-13	-42.9**	H
1616.9	-56.8	-13	-43.8**	H
1132.05	-56.6	-13	-43.6**	V
1293.65	-56.6	-13	-43.6**	V
1455.35	-56.8	-13	-43.8**	V
1616.8	-56.6	-13	-43.6**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-17: Field Strength of Spurious Emissions – Configuration 17**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
323.375	-79.5	-20	-59.5*	H
485.075	-76	-20	-56**	H
646.725	-75.3	-20	-55.3**	H
808.45	-74.5	-20	-54.5**	H
970.3	-72.5	-20	-52.5**	H
323.426	-76.2	-20	-56.2*	V
485.1	-74.4	-20	-54.4**	V
646.85	-75.3	-20	-55.3**	V
808.6	-74.4	-20	-54.4**	V
970.1	-72.1	-20	-52.1**	V
1131.8	-57.6	-20	-37.6**	H
1293.8	-56.2	-20	-36.2**	H
1455.5	-57.3	-20	-37.3**	H
1617.05	-57.5	-20	-37.5**	H
1131.75	-57.9	-20	-37.9**	V
1293.35	-56.5	-20	-36.5**	V
1455.15	-56.9	-20	-36.9**	V
1617.25	-56.1	-20	-36.1**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-18: Field Strength of Spurious Emissions – Configuration 18**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
323.325	-80.7	-20	-60.7*	H
485.125	-77.3	-20	-57.3**	H
646.725	-75.4	-20	-55.4**	H
808.4	-74.3	-20	-54.3**	H
970.275	-72.1	-20	-52.1**	H
264.11	-80.7	-20	-60.7***	V
323.325	-78	-20	-58*	V
444.339	-77.5	-20	-57.5***	V
479.471	-77.4	-20	-57.4***	V
485.125	-75.6	-20	-55.6**	V
646.875	-75.5	-20	-55.5**	V
808.4	-73.7	-20	-53.7**	V
970.225	-73	-20	-53**	V
1132	-58.7	-20	-38.7**	H
1293.75	-56.2	-20	-36.2**	H
1455.4	-57.2	-20	-37.2**	H
1617.15	-56.8	-20	-36.8**	H
1131.65	-57.2	-20	-37.2**	V
1293.6	-55.9	-20	-35.9**	V
1455.5	-56.6	-20	-36.6**	V
1616.9	-56.7	-20	-36.7**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

*** Indicates the emission is the unintentional emission and not related to the fundamental frequency

**Table 2.1.6-19: Field Strength of Spurious Emissions – Configuration 19**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
347.875	-81.1	-13	-68.1*	H
522.038	-76.8	-13	-63.8**	H
695.9	-74.5	-13	-61.5**	H
869.913	-72.2	-13	-59.2**	H
348.05	-80.3	-13	-67.3*	V
521.888	-76.9	-13	-63.9**	V
695.975	-75.1	-13	-62.1**	V
869.837	-72.9	-13	-59.9**	V
1043.975	-58.5	-13	-45.5**	H
1218.113	-56.5	-13	-43.5**	H
1391.85	-56.8	-13	-43.8**	H
1565.838	-57.1	-13	-44.1**	H
1739.725	-55.9	-13	-42.9**	H
1044.175	-59.5	-13	-46.5**	V
1217.713	-57.4	-13	-44.4**	V
1391.95	-57.2	-13	-44.2**	V
1565.688	-57	-13	-44**	V
1739.725	-55	-13	-42**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-20: Field Strength of Spurious Emissions – Configuration 20**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
346.775	-77.6	-20	-57.6*	H
520.237	-77	-20	-57**	H
693.6	-75.2	-20	-55.2**	H
866.913	-71.3	-20	-51.3**	H
346.75	-74.3	-20	-54.3*	V
520.163	-75.6	-20	-55.6**	V
693.65	-75.6	-20	-55.6**	V
866.888	-73.1	-20	-53.1**	V
1040.375	-58.2	-20	-38.2**	H
1213.712	-57.1	-20	-37.1**	H
1387.3	-56.7	-20	-36.7**	H
1560.437	-56.9	-20	-36.9**	H
1734.075	-56.4	-20	-36.4**	H
1040.225	-58.4	-20	-38.4**	V
1213.612	-58.4	-20	-38.4**	V
1387.25	-55.9	-20	-35.9**	V
1560.487	-57	-20	-37**	V
1733.725	-56.3	-20	-36.3**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-21: Field Strength of Spurious Emissions – Configuration 21**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
346.875	-80.2	-20	-60.2*	H
520.138	-75.9	-20	-55.9**	H
693.5	-75.3	-20	-55.3**	H
866.962	-72.8	-20	-52.8**	H
346.853	-76.6	-20	-56.6*	V
476.418	-77.4	-20	-57.4***	V
520.063	-76.7	-20	-56.7**	V
693.575	-75.7	-20	-55.7**	V
866.938	-71.2	-20	-51.2**	V
1040.175	-58.5	-20	-38.5**	H
1213.463	-58.2	-20	-38.2**	H
1386.95	-56.6	-20	-36.6**	H
1560.238	-57.6	-20	-37.6**	H
1733.775	-56.4	-20	-36.4**	H
1040.075	-57.7	-20	-37.7**	V
1213.563	-58	-20	-38**	V
1386.95	-56.4	-20	-36.4**	V
1560.638	-57.4	-20	-37.4**	V
1733.625	-55.9	-20	-35.9**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

*** Indicates the emission is the unintentional emission and not related to the fundamental frequency

**Table 2.1.6-22: Field Strength of Spurious Emissions – Configuration 22**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
348.05	-80	-13	-67*	H
521.862	-75.4	-13	-62.4**	H
695.85	-75.1	-13	-62.1**	H
870.013	-73.2	-13	-60.2**	H
347.95	-74.7	-13	-61.7*	V
521.962	-76.2	-13	-63.2**	V
696	-75.8	-13	-62.8**	V
870.038	-72.6	-13	-59.6**	V
1043.775	-58.6	-13	-45.6**	H
1217.913	-56.4	-13	-43.4**	H
1392.15	-57.3	-13	-44.3**	H
1565.688	-57.7	-13	-44.7**	H
1740.125	-56	-13	-43**	H
1043.925	-59.7	-13	-46.7**	V
1217.813	-56.9	-13	-43.9**	V
1391.85	-57.4	-13	-44.4**	V
1565.688	-57.4	-13	-44.4**	V
1739.725	-55.6	-13	-42.6**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

**Table 2.1.6-23: Field Strength of Spurious Emissions – Configuration 23**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
346.675	-80.5	-20	-60.5*	H
520.163	-76.7	-20	-56.7**	H
693.55	-75.8	-20	-55.8**	H
866.888	-73.1	-20	-53.1**	H
346.775	-76	-20	-56*	V
520.063	-76.7	-20	-56.7**	V
693.6	-74.4	-20	-54.4**	V
866.913	-73.9	-20	-53.9**	V
1040.575	-58.4	-20	-38.4**	H
1213.462	-58.3	-20	-38.3**	H
1387.3	-56.6	-20	-36.6**	H
1560.237	-57.4	-20	-37.4**	H
1733.975	-55.7	-20	-35.7***	H
1040.175	-57.8	-20	-37.8**	V
1213.962	-58.1	-20	-38.1**	V
1387	-56.3	-20	-36.3**	V
1560.687	-57.5	-20	-37.5**	V
1734.075	-56.3	-20	-36.3**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

*** Indicates the worst-case margin 35.7 dB is observed on 10th harmonic of the fundamental frequency

**Table 2.1.6-24: Field Strength of Spurious Emissions – Configuration 24**

Frequency (MHz)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarity (H/V)
346.75	-79.4	-20	-59.4**	H
520.212	-76.8	-20	-56.8**	H
693.6	-75.7	-20	-55.7**	H
866.837	-73.5	-20	-53.5**	H
346.875	-78.9	-20	-58.9**	V
520.237	-76.5	-20	-56.5**	V
693.625	-75.6	-20	-55.6**	V
867.038	-73.8	-20	-53.8**	V
1040.125	-58.4	-20	-38.4**	H
1213.463	-58.1	-20	-38.1**	H
1386.85	-56	-20	-36**	H
1560.288	-57.7	-20	-37.7**	H
1734.075	-55.7	-20	-35.7***	H
1040.275	-58.5	-20	-38.5**	V
1213.663	-58	-20	-38**	V
1387.2	-56.2	-20	-36.2**	V
1560.688	-57.4	-20	-37.4**	V
1733.775	-55.9	-20	-35.9**	V

Remark: *Indicates the spurious emission is the harmonic frequency of the fundamental frequency.

**Indicates the spurious emission could not be detected due to noise limitation or ambient.

*** Indicates the worst-case margin 35.7 dB is observed on 10th harmonic of the fundamental frequency.

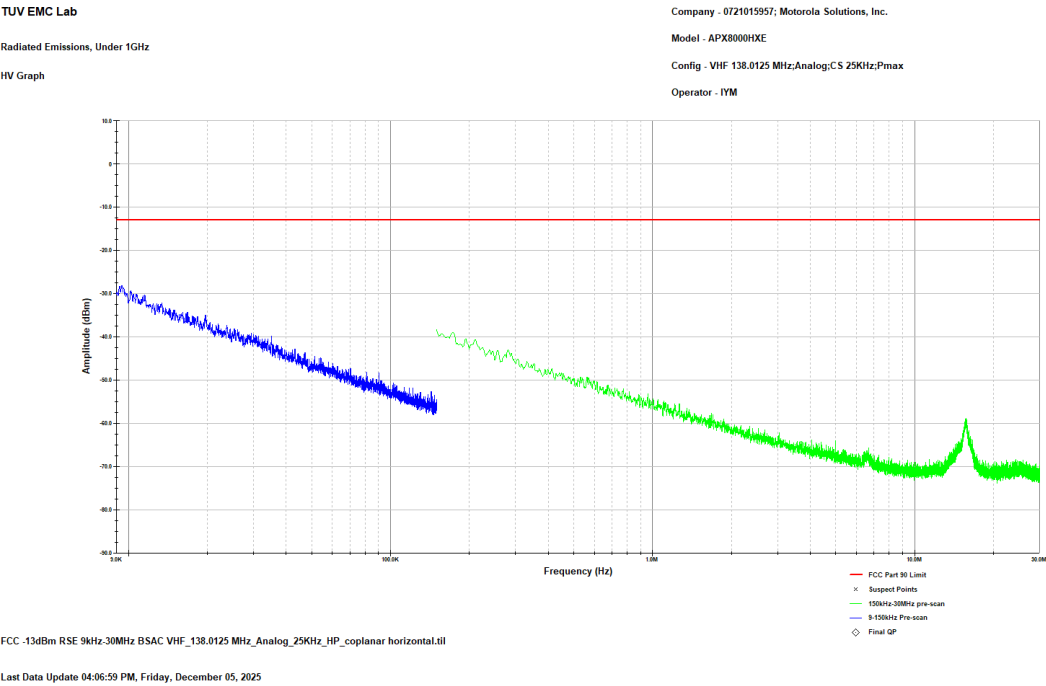


Figure 2.1.6-1: Reference plot for Field Strength of Spurious Emissions – 9 kHz – 30 MHz – Configuration 1

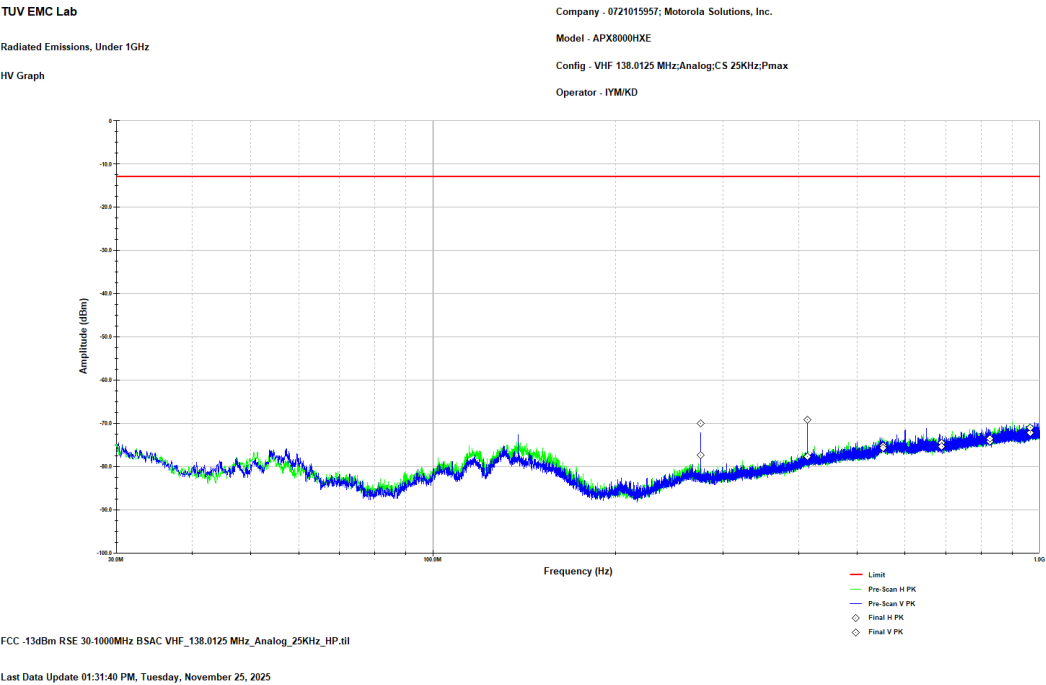


Figure 2.1.6-2: Reference plot for Field Strength of Spurious Emissions – 30 MHz – 1 GHz - Configuration 1

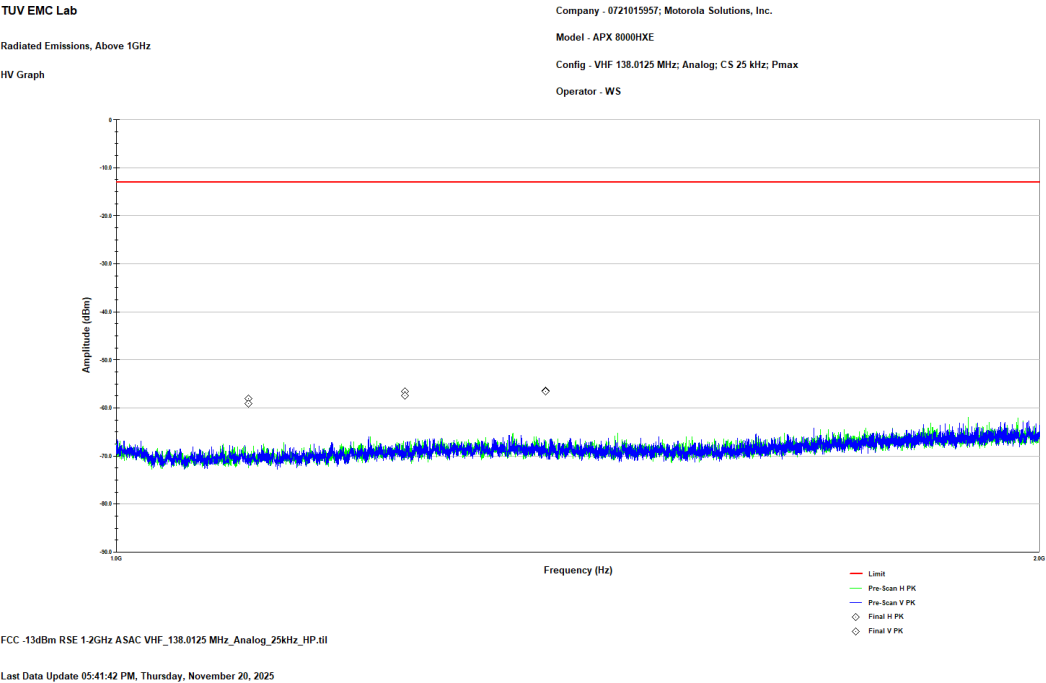


Figure 2.1.6-3: Reference plot for Field Strength of Spurious Emissions – 1 GHz – 2 GHz - Configuration 1



2.2 Test Equipment Used

Table 2.2-1 –Equipment List

Asset ID	Manufacturer	Model	Equipment Type	Serial Number	Last Calibration Date	Calibration Due Date
AEMC3155	EMCO	AI-130R	Active Loop Antenna 10kHz-30MHz	10160004	05/07/2025	05/07/2027
AEMC00853	Teseq	CBL6112D	BiLog Antenna	51616	08/07/2025	08/07/2027
AEMC0884	ETS Lindgren (EMCO)	3117	DOUBLE-RIDGED GUIDE ANTENNA	240106	5/22/2025	5/22/2027
AEMC0889	Com Power	PAM 103	Pre-amplifier	18020215	09/30/2025	09/30/2026
AEMC00819	Rohde & Schwarz	ESR26	EMI Test Receiver	101345	06/11/2025	06/11/2026
AEMC00882	Rohde & Schwarz	ESW44	ESW44 EMI TEST RECEIVER	101961	6/10/2025	6/10/2026
AEMC00013	Teledyne Storm Microwave	R90-195-036	In-Situ Short RE Cable	N/A	11/06/2025	11/06/2026
AEMC00015	Teledyne Storm Microwave	R90-195-396	ASAC cable long	N/A	11/06/2025	11/06/2026
AEMC0020	Teledyne Storm Microwave	90-195-456	BSAC Cable	N/A	07/15/2025	07/15/2026
AEMC0021	Teledyne Storm Microwave	R-90-195-036	BSAC Cable	N/A	07/15/2025	07/15/2026
AEMC00226	Teledyne Storm Microwave	R-90-195-072	BSAC Cable	N/A	07/15/2025	07/15/2026
AEMC3144	ETS Lindgren	USB Key MD 800608	Tile! Software Key	00232063	NCR	NCR
AEMC00566	Teledyne Storm Microwave	190-00-120.0	10 FT Cable	566	11/06/2025	11/06/2026
AEMC00905	Hewlett Packard	8449B	High Frequency Pre-Amp	3008A00526	06/12/2025	06/12/2026

N/A – Not Applicable

NCR – No Calibration Required

3 Diagram of Test Set-ups

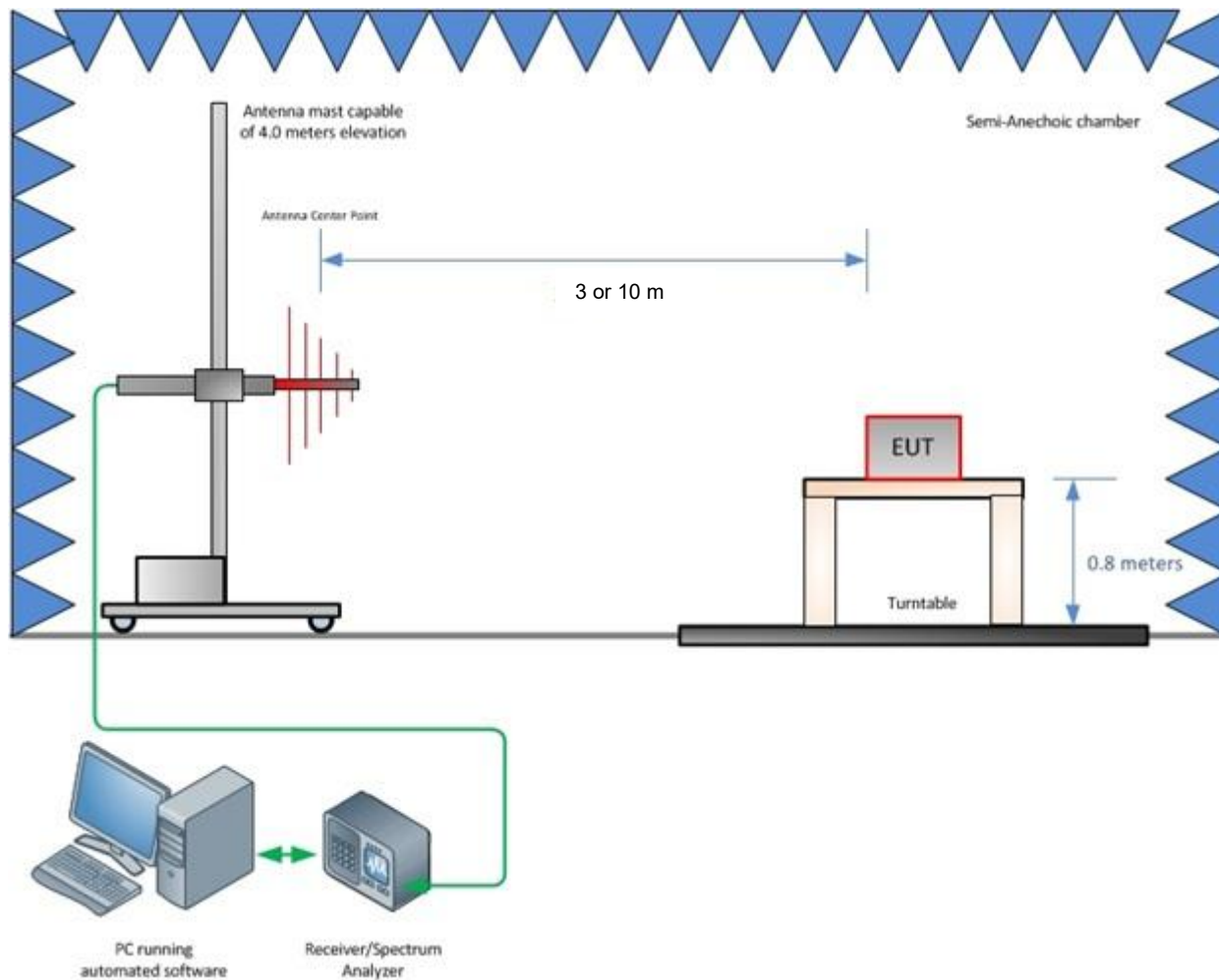


Figure 3-1 – Radiated Emissions Test Setup up to 1 GHz

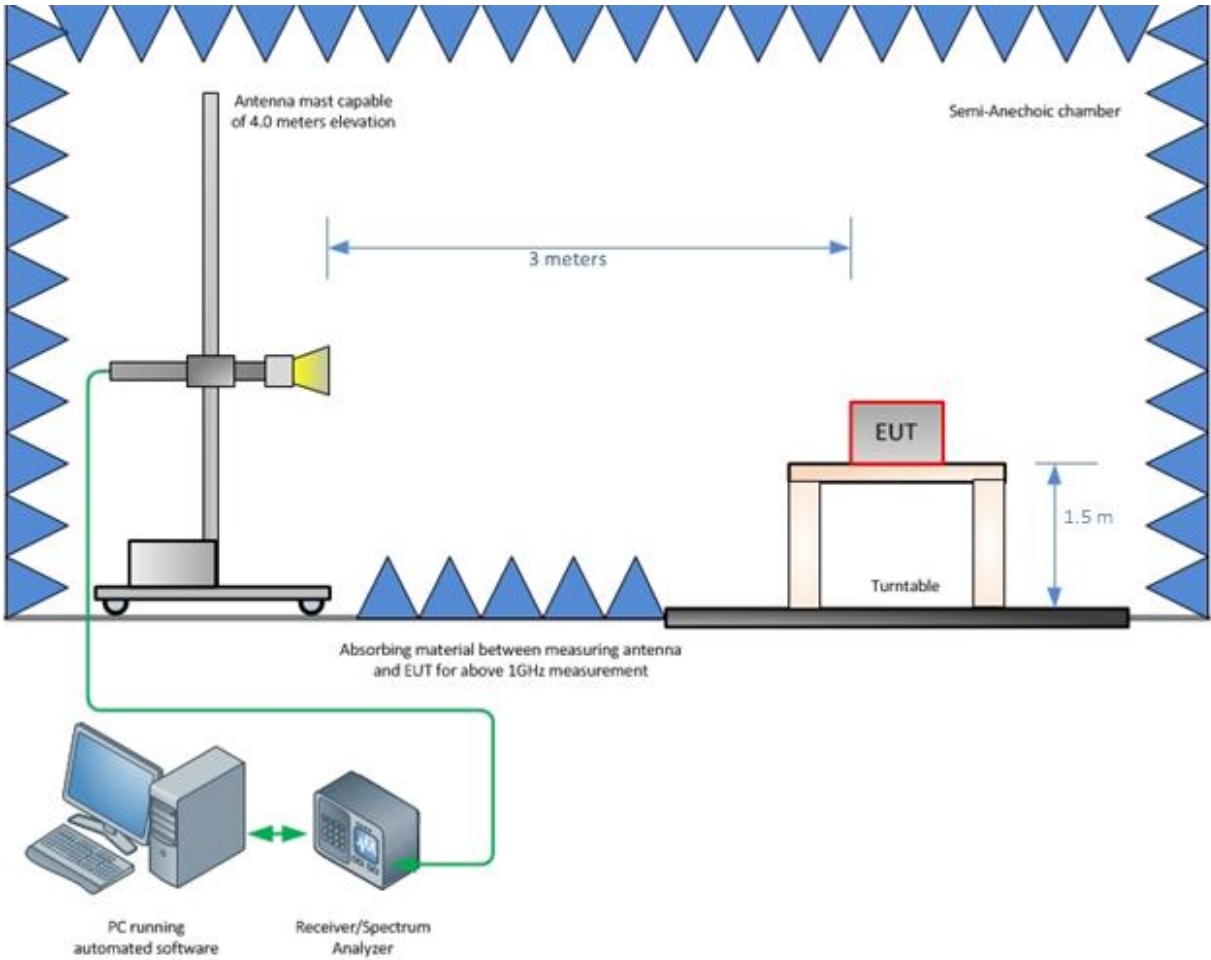


Figure 3-2 – Radiated Emissions Test Setup above 1 GHz



4 Accreditation, Disclaimers and Copyright

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STATEMENT OF MEASUREMENT UNCERTAINTY – Emissions

The expanded laboratory measurement uncertainty figures (U_{Lab}) provided below correspond to an expansion factor (coverage factor) $k = 1.96$ which provide confidence levels of 95%.

Table 4-1: Estimation of Measurement Uncertainty

Parameter	U_{lab}
Radiated Emissions ≤ 1 GHz BSAC	± 5.72 dB
Radiated Emissions ≤ 1 GHz ASAC	± 4.99 dB
Radiated Emissions > 1 GHz BSAC	± 5.02 dB
Radiated Emissions > 1 GHz ASAC	± 4.93 dB
Temperature	± 0.860 °C
Radio Frequency	$\pm 2.832 \times 10^{-8}$

TEST EQUIPMENT

All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated to meet test method standard requirements and/or manufacturer's specifications.



END REPORT