

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 R and ISED Canada RSS-119

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

COMMERCIAL-IN-CONFIDENCE

Document Number: AT721015957.5V2

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

DISCLAIMER AND COPYRIGHT

This non-binding report has been prepared by TÜV SÜD America with all reasonable skill and care. The document is confidential to the potential Client and TÜV SÜD America. No part of this document may be reproduced without the prior written approval of TÜV SÜD America. © TÜV SÜD.

ACCREDITATION

Our A2LA Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our A2LA Accreditation.

TÜV SÜD America
5945 Cabot Parkway, Suite 100
Alpharetta, GA 30005

Phone: 678-341-5900
www.tuv-sud-america.com

TÜV SÜD

TÜV®



Contents

1 Report Summary3

1.1 Report Modification Record.....3

1.2 Introduction.....3

1.3 Brief Summary of Results5

1.4 Product Information6

1.5 Deviations from the Standard.....8

1.6 EUT Modification Record8

1.7 Test Location.....8

2 Test Details9

2.1 Field Strength of Spurious Radiation9

2.2 Test Equipment Used..... 12

3 Diagram of Test Set-ups..... 13

4 Accreditation, Disclaimers and Copyright..... 14



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 R 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)
IC Model:	NUW1038
Serial Number	123ABC0001
FCC ID	AZ489FT7111
ISED Certification Number	109U-89FT7111
Firmware Version Identification Number (FVIN)	D37.00.61
Number of Samples Tested	1
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	04/11/2026
Finish of Test	04/11/2026
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 R, 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, 90.543	RSS-GEN 6.13, RSS-119 5.8	14.7 dB	9
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, 792 - 806 MHz using analog FM 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
FVIN Number	D37.00.61
Frequency Range (MHz)	TX and RX: 792-806 MHz
Test Mode	Analog
Emission Designator	LMR(8K10F1D,8K10F1E,8K10F1W,11K0F3E,16K0F3E,20K0F1E)
Power	Max: 2.99 W
Battery	PMNN4494A
Antenna	PMAF4040B



Figure 1.4.1-1 –Front view of the EUT



Figure 1.4.1-2 – Back view of the EUT

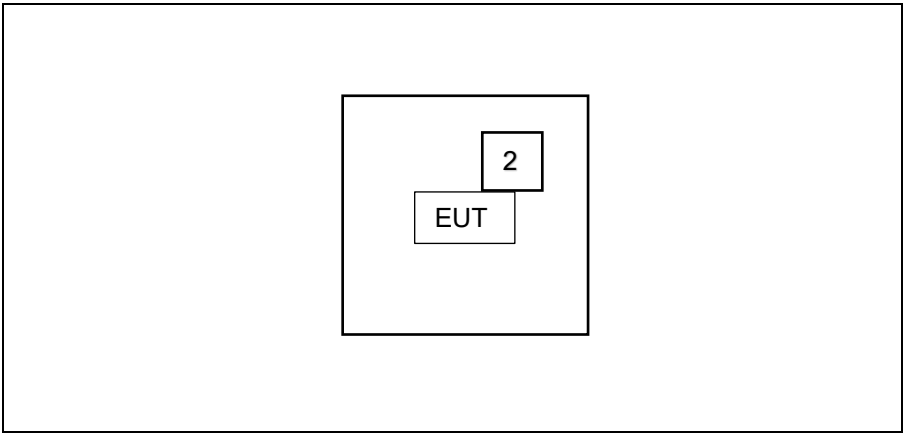


Figure 1.4.1-3 – Test Setup Block Diagram

Table 1.4.1-2: Support Equipment

Item	Equipment Type	Manufacturer	Model Number	Serial Number
1	Battery	Motorola	PMNN4494A	N/A
2	Antenna	Motorola	PMAF4040B	N/A



1.4.2 Modes of Operation

The radiated emissions were performed for the EUT operating at the maximum 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	799.0875	Max	12.5 (Analog)
2	804.9125	Max	12.5 (Analog)

Max Power: 2.99 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	William Stephenson	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: 90.543
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

04/11/2026

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 harmonic emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent (isotropically radiated) for wideband signals, which is equivalent to -40 dBm.

Measurements 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 2 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)
1598.15	-54.7	-40	-14.7*	H
1598.175	-55.2	-40	-15.2*	V

Remark: *Indicates the emission is the 2nd harmonic frequency of the fundamental frequency.

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)
1610.025	-55.9	-40	-15.9	H
1609.825	-55	-40	-15	V

Remark: * Indicates the emission is the 2nd harmonic frequency of the fundamental frequency.

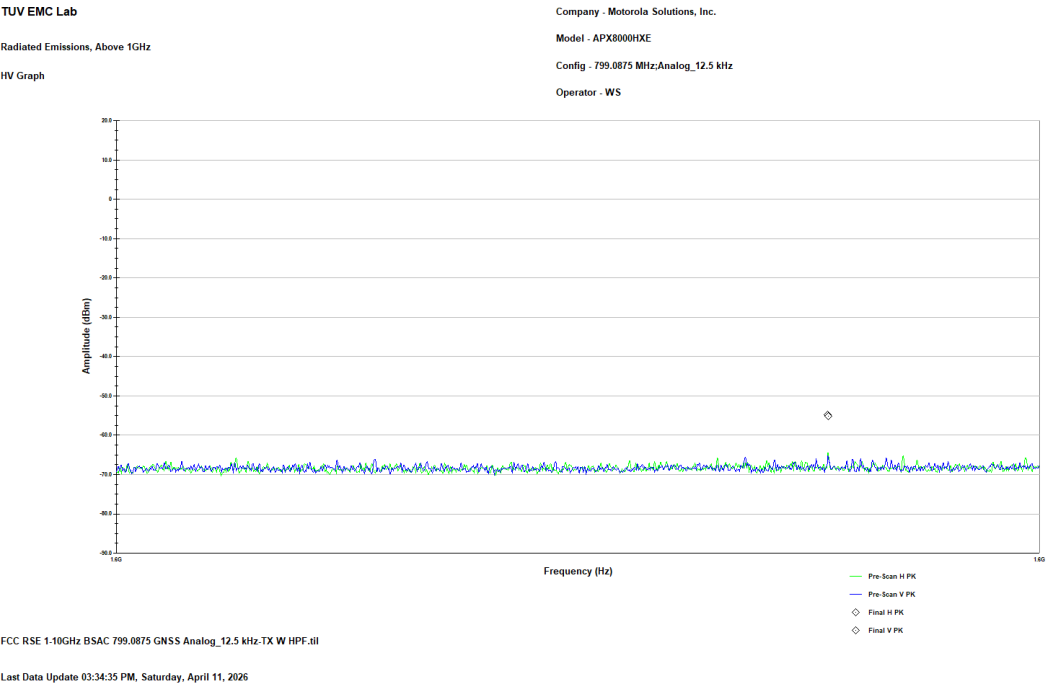


Figure 2.1.6-1: Reference plot for Field Strength of Spurious Emissions – 1559-1610 MHz - Configuration 1

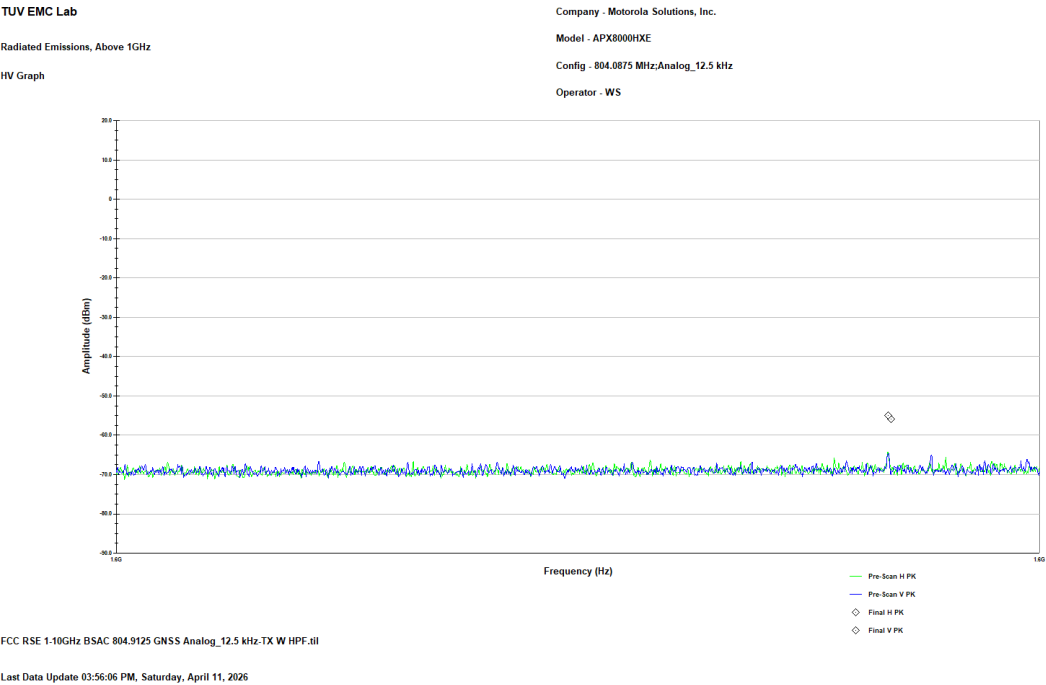


Figure 2.1.6-2: Reference plot for Field Strength of Spurious Emissions – 1559-1610 MHz Configuration 2



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
AEMC0884	ETS Lindgren (EMCO)	3117	DOUBLE-RIDGED GUIDE ANTENNA	240106	5/22/2025	5/22/2027
AEMC00338	Hewlett Packard	8449B	Pre-amplifier	3008A01111	11/13/2025	11/13/2026
AEMC00882	Rohde & Schwarz	ESW44	ESW44 EMI TEST RECEIVER	101961	6/10/2025	6/10/2026
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
AEMC12345	Teledyne Storm Microwave	90-195-396	BSAC cable	N/A	3/16/2026	3/16/2027
AEMC3144	ETS Lindgren	USB Key MD 800608	Tile! Software Key	00232063	NCR	NCR

N/A – Not Applicable

NCR – No Calibration Required



3 Diagram of Test Set-ups

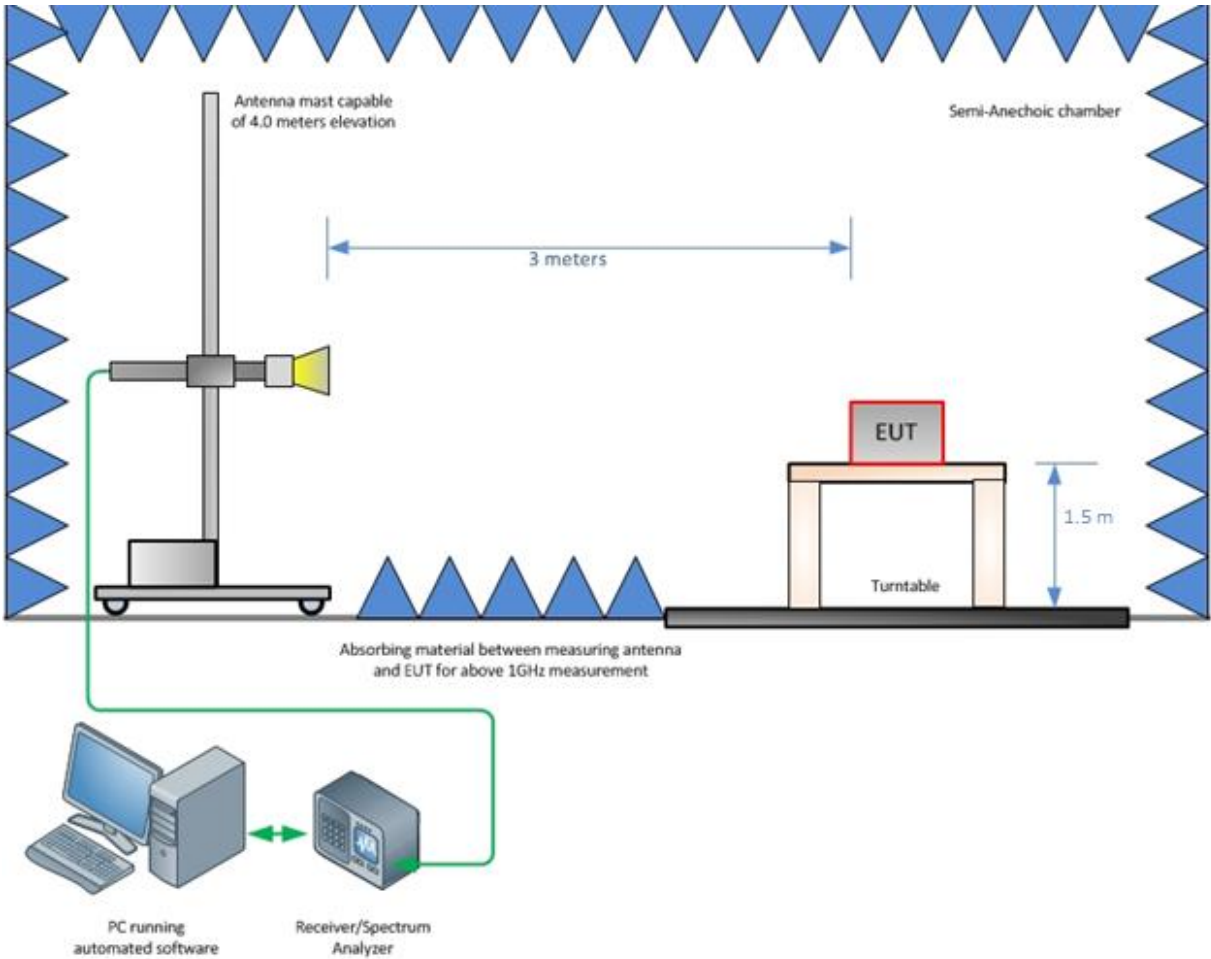


Figure 3-1 – Radiated Emissions Test Setup above 1 GHz



4 Accreditation, Disclaimers and Copyright

TÜV SÜD America Inc.'s reports apply only to the specific sample tested under stated test conditions. It is the manufacturer's responsibility to assure the continued compliance of production units of this model. TÜV SÜD America, Inc. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD America, Inc.'s issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and TÜV SÜD America, Inc., extracts from the test report shall not be reproduced, except in full without TÜV SÜD America, Inc.'s written approval.

This report must not be used to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the federal government.

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 BSAC	± 5.02 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