



ELEMENT MATERIALS TECHNOLOGY,

Columbia MD

(formerly PCTEST)

7185 Oakland Mills Road, Columbia, MD 21046 USA

Tel. 410.290.6652 / Fax 410.290.6654

<http://www.element.com>

MEASUREMENT REPORT

FCC Part 15.225 / ISED RSS-210 NFC

Applicant Name:

Garmin International Inc
1200 E. 151st. Street
Olathe, Kansas
United States 66062

Date of Testing:

7/10/2026 - 8/21/2026

Test Report Issue Date:

9/4/2026a

Test Site/Location:

Element lab., Columbia, MD, USA

Test Report Serial No.:

1M2607100063-07-R1.IPH

FCC ID:

IPH-05242

IC:

1792A-05242

APPLICANT:

Garmin International Inc

Application Type:

Certification

Model/HVIN:

A05242

EUT Type:

Portable Digital Transceiver

Frequency:

13.56MHz

FCC Classification:

Low Power Communications Device Transmitter (DXX)

FCC Rule Part(s):

Part 15 Subpart C (15.225)

ISED Specification:

RSS-210 Issue 11, RSS-Gen Issue 6

Test Procedure(s):

ANSI C63.10:2020 + Cor. 1:2023 + C63.10a:2024 + Errata to
C63.10a:2024

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10:2020. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez
Executive Vice President



FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 1 of 27

© 2026 ELEMENT

V 11.3 5/14/2025

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without written permission from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

TEST REPORT REVISION HISTORY

Revision	Comments	Date	Revised By
-	Initial Release	8/26/2026	WKR0000024009
1	Addressed comments from client	9/4/2026	WKR0000005883

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 2 of 27

TABLE OF CONTENTS

1.0	Introduction	4
1.1	Scope.....	4
1.2	Element Test Location	4
1.3	Test Facility / Accreditations	4
2.0	PRODUCT INFORMATION	5
2.1	Equipment Description.....	5
2.2	Device Capabilities	5
2.3	Test Configuration	5
2.4	Software and Firmware.....	5
2.5	EMI Suppression Device(s)/Modifications.....	5
3.0	DESCRIPTION OF TEST	6
3.1	Evaluation Procedure.....	6
3.2	AC Line Conducted Emissions	6
3.3	Radiated Emissions	7
3.4	Environmental Conditions	7
4.0	ANTENNA REQUIREMENTS	8
5.0	MEASUREMENT UNCERTAINTY	9
6.0	TEST EQUIPMENT CALIBRATION DATA.....	10
7.0	TEST DATA	12
7.1	Summary	12
7.2	Occupied Bandwidth Measurement	13
7.3	Frequency Stability Test Data	15
7.4	In-Band Radiated Spurious Emission Measurements.....	18
7.5	Radiated Spurious Emission Measurements, Out-of-Band.....	21
8.0	CONCLUSION	27

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 3 of 27

1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2 Element Test Location

These measurement tests were conducted at the Element laboratory located at 7185 Oakland Mills Road, Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4:2014.

1.3 Test Facility / Accreditations

Measurements were performed at Element lab located in Columbia, MD 21046, U.S.A.

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISSED Standards (RSS).
- Element Washington DC LLC facility is a registered test laboratory with the site description on file with ISSED (Wireless Test Lab number 2451B) and FCC (Designation Number US1113).
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISSED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreements (MRAs).

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 4 of 27

2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Garmin Portable Digital Transceiver FCC ID: IPH-05242** and **IC: 1792A-05242**. The test data contained in this report pertains only to the emissions due to the NFC transmitter of the EUT.

Test Device Serial No.: 3644224060, 3644224106, 3644224117, 3644224067

2.2 Device Capabilities

This device contains the following capabilities:

Multi-band LTE (CAT-M1) / Multi-band NTN / Bluetooth (1x, EDR, LE) / ANT/ANT+ / 802.11b/g/n WLAN / NFC

2.3 Test Configuration

The client confirmed that EUT only supports Type A modulation as an NFC reader used for communication with passive NFC/RFID tags. The EUT was set to continuously transmit at 13.56MHz. This was performed using manufacturer software loaded on the phone to allow for continuous transmission. This device was tested in accordance with the guidance of ANSI C63.10:2020. See Sections 3.3 of this test report for a description of the radiated emissions test setups, respectively.

AC Line Conducted Emissions omitted in testing. NFC capabilities are disabled on EUT while charging.

2.4 Software and Firmware

The test was conducted with software/firmware version 5.25 installed on the EUT.

2.5 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 5 of 27

3.0 DESCRIPTION OF TEST

3.1 Evaluation Procedure

The measurement procedure described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10:2020) was used in the measurement of the EUT.

Deviation from measurement procedure.....None

3.2 AC Line Conducted Emissions

The line-conducted facility is located inside a 7m x 3.66m x 2.7m shielded enclosure. The shielded enclosure is manufactured by AP Americas. The shielding effectiveness of the shielded room is in accordance with MIL-Std-285 or NSA 65-6. A 1m x 1.5m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50μH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. The external power line filter is EPCOS 2X60A Power Line Filter (100dB Attenuation, 14kHz-18GHz) and the two EPCOs 2X48A filters (100dB Minimum Insertion Loss, 14kHz – 10GHz). These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The line-conducted facility is located inside a 10'x16'x9' shielded enclosure. The shielded enclosure is manufactured by ETS Lindgren RF Enclosures. The shielding effectiveness of the shielded room is in accordance with MIL-Std-285 or NSA 65-5. A 1m x 1.5m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50μH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. The external power line filter is an ETS Lindgren Model LPRX-4X30 (100dB Attenuation, 14kHz-18GHz) and the two EMI/RFI filters are ETS Lindgren Model LRW-2030-S1 (100dB Minimum Insertion Loss, 14kHz – 10GHz). These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference groundplane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the spectrum analyzer and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The spectrum was scanned from 150kHz to 30MHz with a spectrum analyzer. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 10kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions is used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

Line conducted emissions test results are shown in Section 7.6. The EMI Receiver mode of the Agilent MXE was used to perform AC line conducted emissions testing.

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 6 of 27

3.3 Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4:2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. An 80cm tall test table made of Styrodur is placed on top of the turn table. For measurements above 1GHz, an additional Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33 depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions.

3.4 Environmental Conditions

The temperature is controlled within range of 15°C to 35°C. The relative humidity is controlled within range of 10% to 75%. The atmospheric pressure is monitored within the range 86-106kPa (860-1060mbar).

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 7 of 27

4.0 ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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.”

- The antenna of the EUT are **permanently attached**.
- This unit was tested with its standard battery.

Conclusion:

The EUT complies with the requirement of §15.203.

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 8 of 27

5.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10:2020. All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty ($\pm$ dB)
Line Conducted Disturbance	3.09
Radiated Disturbance (<1GHz)	4.98

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 9 of 27

6.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
-	AP2-001	EMC Cable and Switch System	1/30/2026	Annual	1/30/2027	AP2-001
-	AP2-002	EMC Cable and Switch System	1/30/2026	Annual	1/30/2027	AP2-002
-	WL25-1	Conducted Cable Set (25GHz)	1/30/2026	Annual	1/30/2027	WL25-1
-	WL25-2	Conducted Cable Set (25GHz)	1/30/2026	Annual	1/30/2027	WL25-2
Com-Power	AL-130R	Active Loop Antenna	1/26/2026	Biennial	1/26/2028	121085
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	7/15/2026	Annual	7/15/2027	MY52350166
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	12/19/2025	Annual	12/19/2026	100342
Rohde & Schwarz	HFH2-Z2E	Loop	6/1/2026	Biennial	6/1/2028	100854
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	9/11/2024	Biennial	9/11/2026	A051107

Table 6-1. Annual Test Equipment Calibration Schedule

Note:

For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 10 of 27

Component	Serial Number
Flex Cable	P2A-0001
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-003
Chamber Passthrough	CP4/X12
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-003
Micro-Coax Utilflex Cable UFB142A-0-0629-5GU200 MFR 6463	232069-001
Rohde & Schwarz TS-PR8 Pre-Amplifier	102335
Rohde & Schwarz OSP130 Open Switch and Control Unit	101181

Table 6-2. AP2-001 EMC Cable and Switch System Components

Component	Serial Number
MiniCircuits Cable CBL-0.5M-SMNM+	47261
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-001
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-002
MegaPhase (CAGE 1GVT4) Cable NC29-N1N1-324	19046401 001
Megaphase (CAGE 1GVT4) Flex Cable 10511-1	15044701-006
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-002
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-004
Micro-Coax Utilflex Cable UFB142A-0-0629-5GU200 MFR 64639	232069-001
Rohde & Schwarz SF Unit	102138
Rohde & Schwarz OSP130 Open Switch and Control Unit	101181
Micro-Coax Utilflex Cable UFB311A-Q-3346-50U50U MFR 64639	231978-003
Micro-Coax Utilflex Cable UFB311A-1-0629-50U50U MFR 64639	231986-003
Rohde & Schwarz TS-PR8 Pre-Amplifier	102335

Table 6-3. AP2-002 EMC Cable and Switch System Components

Component	Serial Number
MegaPhase Cable, Model: TM26-S1S1-36	18160103 003
Pasternack 6dB Attenuator, Model: PE7005-6	N/A

Table 6-4. WL25-1 Conducted Cable Set Components

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 11 of 27

7.0 TEST DATA

7.1 Summary

Company Name: Garmin International Inc
 FCC ID: IPH-05242
 IC: 1792A-05242
 FCC Classification: Low Power Communications Device Transmitter (DXX)
 Frequencies Examined: 13.56MHz

FCC Part Section(s)	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049	RSS-Gen [6.6]	Occupied Bandwidth	N/A	RADIATED	PASS	Section 7.2
15.225 (a)(b)(c)	RSS-210 [B.6]	In-Band Emissions	15,848µV/m @ 30m 13.553 – 13.567 MHz 334µV/m @ 30m 13.410 – 13.553 MHz 13.567 – 13.710 MHz 106µV/m @ 30m 13.110 – 13.410 MHz 13.710 – 14.010 MHz		PASS	Section 7.4
15.225 (d) 15.209	RSS-Gen [8.9]	Out-of-Band Emissions	Emissions outside of the specified band (13.110 – 14.010 MHz) must meet the radiated limits detailed in 15.209 (RSS-Gen [8.9])		PASS	Section 7.5
15.225 (e)	RSS-210 [B.6]	Frequency Stability Tolerance	± 0.01% of Operating Frequency	Temperature Chamber	PASS	Section 7.3

Table 7-1. Summary of Test Results

Note:

This unit was tested with its standard battery.

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 12 of 27

7.2 Occupied Bandwidth Measurement

§2.1049; RSS-Gen (6.6)

Test Overview and Limit

The occupied bandwidth is measured with a spectrum analyzer connected to the receive antenna while the EUT is operating in transmission mode at the appropriate frequency.

Test Procedure Used

ANSI C63.10:2020 – Section 6.9.3

Test Settings

1. Spectrum analyzer frequency is set to the nominal EUT channel center frequency.
2. RBW = 1 – 5% OBW
3. VBW $\geq 3 \times$ RBW
4. Reference level set to keep signal from exceeding maximum input mixer level for linear operation.
5. Detector = Peak
6. Trace mode = max hold
7. Sweep = auto couple
8. The trace was allowed to stabilize
9. Using the 99% power bandwidth function of the instrument and report the measured bandwidth.

Test Notes

None.

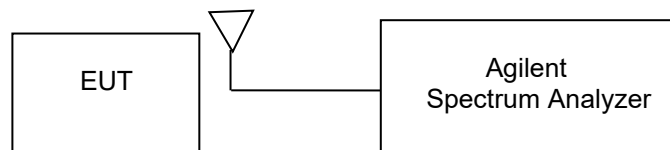


Figure 7-1. Test Instrument & Measurement Setup

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 13 of 27

Frequency	Occupied Bandwidth
13.56MHz	426.68 kHz

Table 7-2. Occupied Bandwidth Measurement

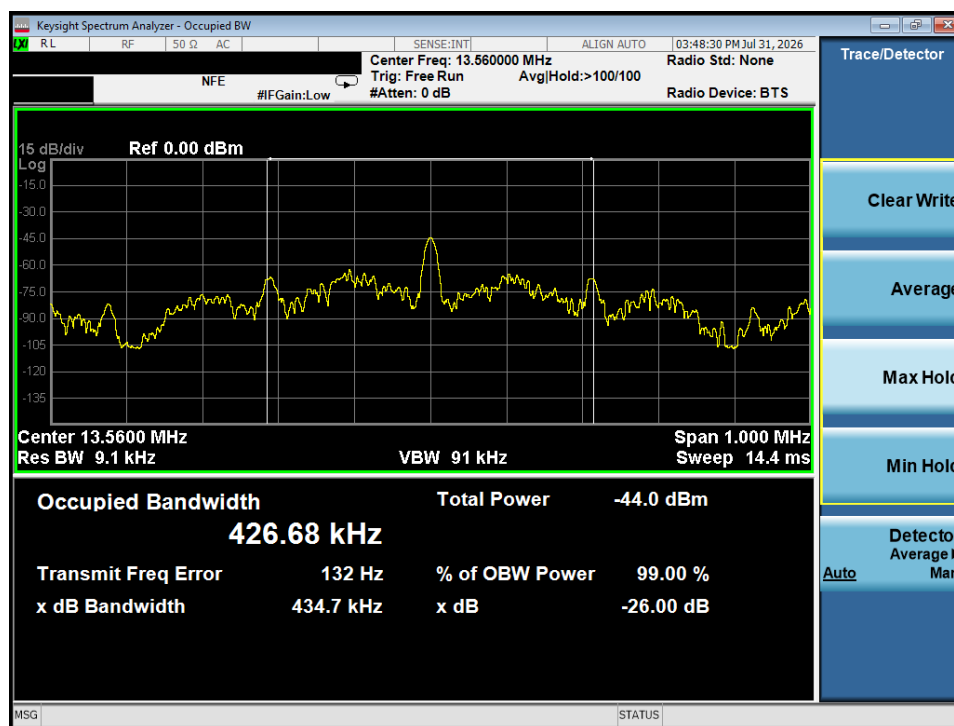


Figure 7-2. Occupied Bandwidth Plot

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 14 of 27

7.3 Frequency Stability Test Data

§15.225; RSS-210 (B.6)

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.10:2020. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -20°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 15.225, the frequency stability of the transmitter shall be maintained within $\pm 0.01\%$ of the center frequency.

Test Procedure Used

ANSI C63.10:2020 – Section 6.8

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -20°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

Test Notes

None.

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 15 of 27

Frequency Stability Test Data

§15.225; RSS-210 (B.6)

OPERATING FREQUENCY: 13,560,000 Hz
 REFERENCE VOLTAGE: 3.91 VDC
 DEVIATION LIMIT: ± 0.01 % = 1356Hz

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.91	+ 20 (Ref)	13,560,682	682	0.0050295
100 %		- 30	13,560,615	615	0.0045352
100 %		- 20	13,560,659	659	0.0048596
100 %		- 10	13,560,638	638	0.0047048
100 %		0	13,560,681	681	0.0050219
100 %		+ 10	13,560,661	661	0.0048744
100 %		+ 30	13,560,639	639	0.0047122
100 %		+ 40	13,560,641	641	0.0047269
100 %		+ 50	13,560,619	619	0.0045647
BATT. ENDPOINT	3.20	+ 20	13,560,714	714	0.0052652

Table 7-3. Frequency Stability Test Data

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 16 of 27

Frequency Stability Test Data

§15.225; RSS-210 (B.6)

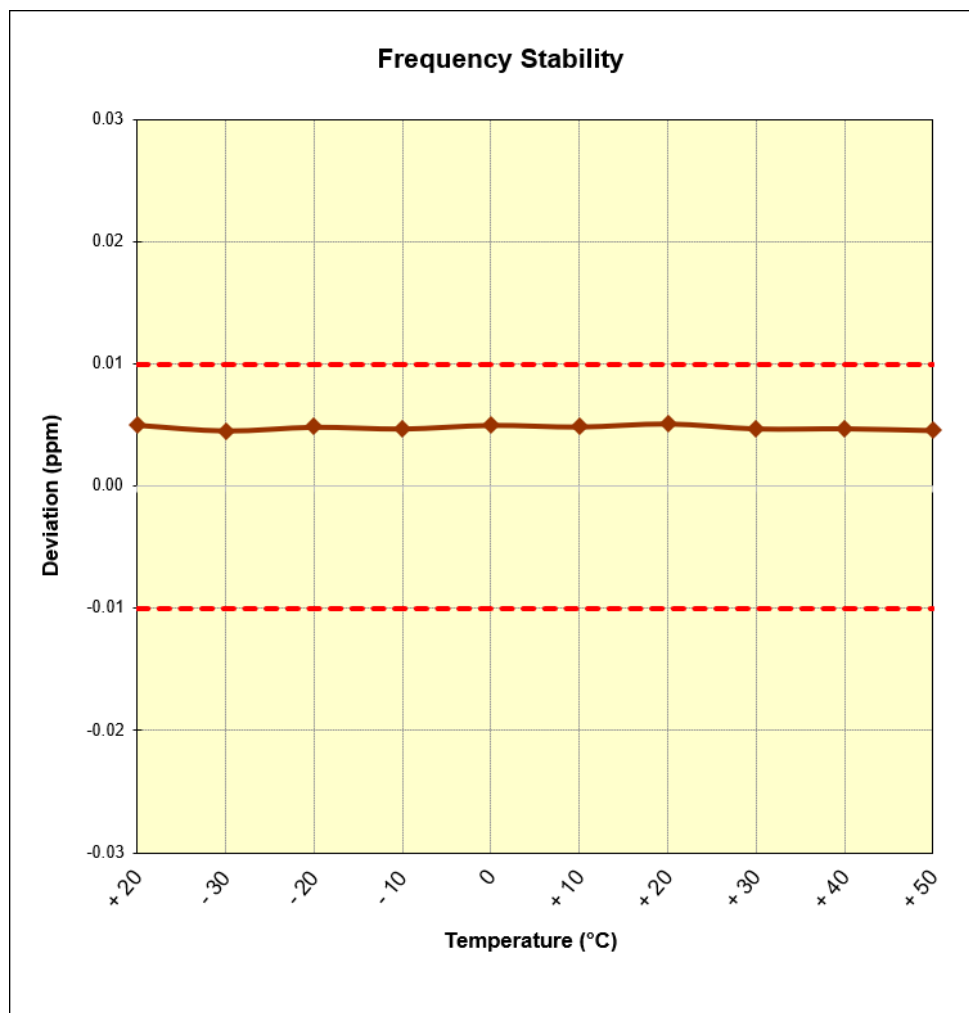


Figure 7-3. Frequency Stability Plot

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 17 of 27

7.4 In-Band Radiated Spurious Emission Measurements

§15.225(a)(b)(c); RSS-210 (B.6)

Test Overview and Limit

The EUT was tested from 13.110 – 14.010 MHz. All in-band radiated spurious emissions are measured with a spectrum analyzer connected to a loop antenna while the EUT is operating at appropriate frequencies. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

All in-band emissions appearing in a restricted band as specified in Section 15.225 of the Title 47 CFR must not exceed the limits shown in Table 7-4.

Frequency [MHz]	Field Strength [μ V/m]	Measured Distance [Meters]
13.553-13.567 MHz	15,848	30
13.410-13.553 MHz and 13.567-13.710 MHz	334	30
13.110-13.410 MHz and 13.710-14.010 MHz	106	30

Table 7-4. Radiated Limits

Test Procedures Used

ANSI C63.10:2020 – Section 6.4.7

Test Settings

1. RBW = 9kHz
2. VBW $\geq 3 \times$ RBW
3. Detector = peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 18 of 27

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

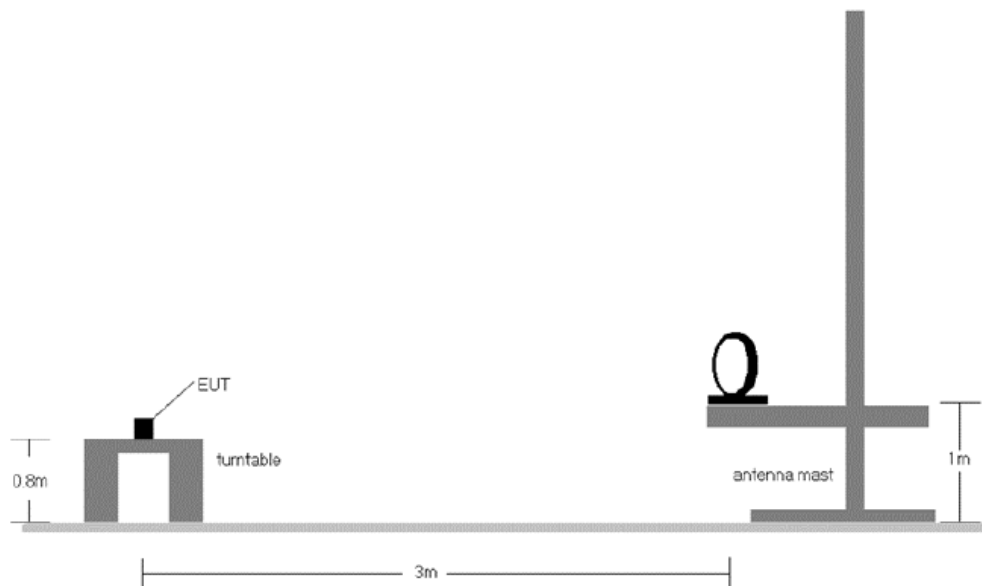


Figure 7-4. Radiated Test Setup

Test Notes:

1. All emissions lying in restricted bands specified in §15.225 and RSS-210 are below the limit shown in Table 7-4.
2. All measurements were performed using a loop antenna. The antenna was positioned in three orthogonal positions (X front, Y side, Z top) and the position with the highest emission level was recorded.
3. The EUT was positioned in three orthogonal planes to determine the orientation resulting in the worst case emissions.
4. Measurements were performed at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear distance extrapolation factor (40 dB/decade) as specified in §15.31(f)(2). Extrapolation Factor = $20 \log_{10}(30/3)^2 = 40\text{dB}$.
5. The spectrum was investigated from 9kHz up to 30MHz using the loop antenna. Only the emissions shown in the table below were found to be significant.
6. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

Sample Calculation

- Field Strength Level $[\text{dB}\mu\text{V/m}] = \text{Analyzer Level} [\text{dBm}] + 107 + \text{AFCL} [\text{dB/m}]$
- $\text{AFCL} [\text{dB/m}] = \text{Antenna Factor} [\text{dB/m}] + \text{Cable Loss} [\text{dB}]$
- Margin $[\text{dB}] = \text{Field Strength Level} [\text{dB}\mu\text{V/m}] - \text{Limit} [\text{dB}\mu\text{V/m}]$

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 19 of 27



In-Band Radiated Spurious Emission Measurements

§15.225(a)(b)(c); RSS-210 (B.6)

Frequency: 13.56MHz

Measurement Distance: 1.5 Meters

Frequency [MHz]	Ant. Pol. [X/Y/Z]	Antenna Height [cm]	Turntable Azimuth [degree]	Level [dBm]	AFCL [dB/m]	1.5m Field Strength [dBµV/m]	30m Field Strength [dBµV/m]	Limit [µV/m]	Limit [dBµV/m]	Margin [dB]
13.239	X	100	228	-98.82	22.02	30.20	-21.84	106.00	40.51	-62.35
13.346	X	100	228	-98.25	22.04	30.79	-21.26	106.00	40.51	-61.76
13.452	X	100	228	-99.01	22.15	30.14	-21.91	334.00	50.47	-72.38
13.559	X	100	228	-80.65	22.10	48.45	-3.59	15848.00	84.00	-87.59
13.664	X	100	228	-98.21	22.20	30.99	-21.05	334.00	50.47	-71.52
13.770	X	100	228	-98.56	22.09	30.53	-21.51	106.00	40.51	-62.02
13.876	X	100	228	-98.97	22.07	30.10	-21.95	106.00	40.51	-62.45

Table 7-5. In-Band Radiated Measurements

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 20 of 27

7.5 Radiated Spurious Emission Measurements, Out-of-Band

§15.209 §15.225(d); RSS-Gen (8.9)

Test Overview and Limit

The EUT was tested from 9kHz up to the 1GHz excluding the band 13.110 – 14.010 MHz.

All out-of-band emissions appearing in a restricted band as specified in Section 15.225 of the Title 47 CFR must not exceed the limits shown in Table 7-6 per Section 15.209.

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-6. Radiated Limits – Out of band

Test Procedures Used

ANSI C63.10:2020 – Section 6.5.4

Test Settings

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 9kHz for emissions below 30MHz and 100kHz for emissions between 30MHz and 1GHz
3. VBW $\geq 3 \times$ RBW
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 21 of 27

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

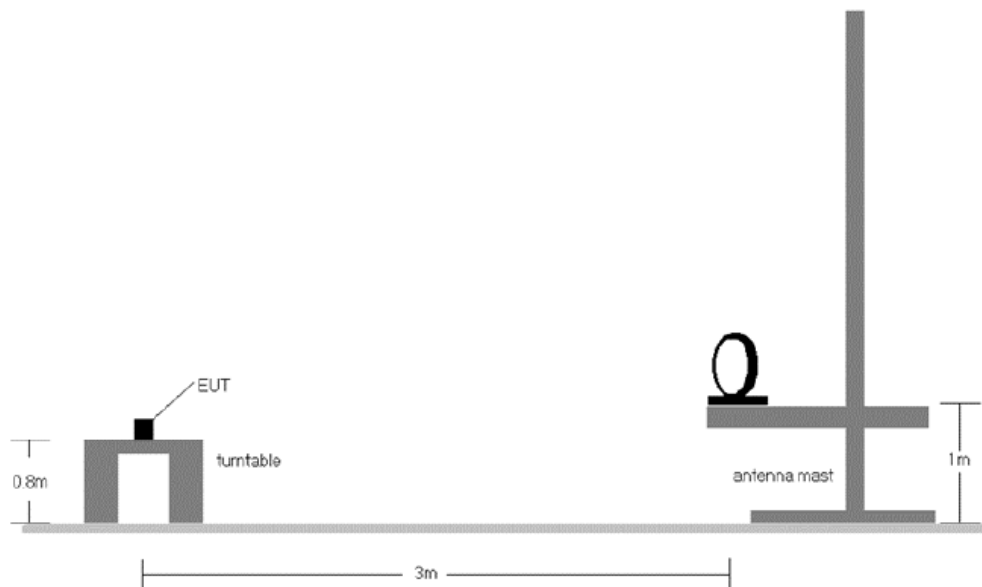


Figure 7-5. Radiated Test Setup < 30MHz

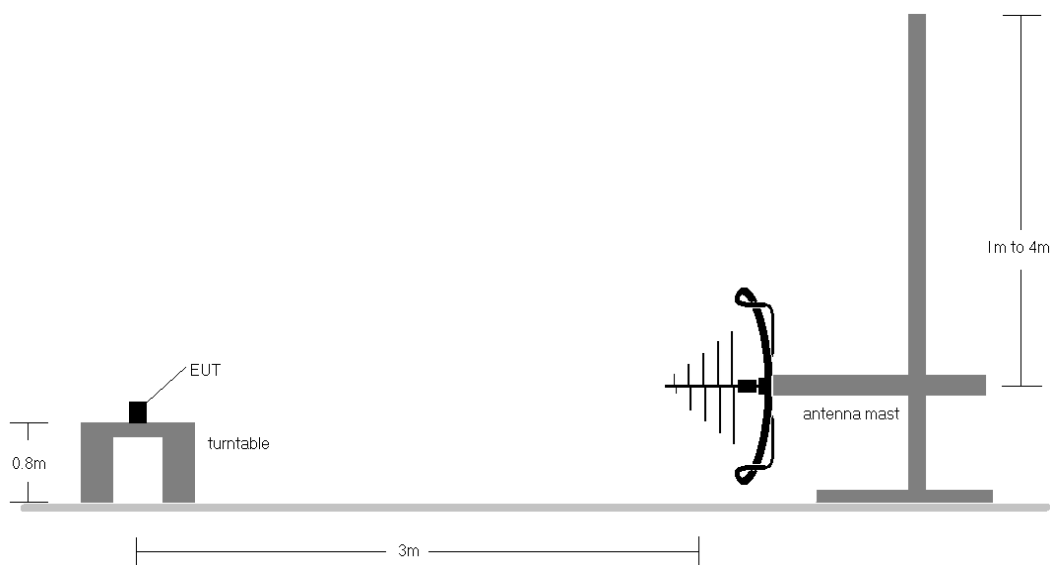


Figure 7-6. Radiated Test Setup > 30MHz

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 22 of 27

Test Notes:

1. A loop antenna was used to investigate emissions below 30MHz.
2. Both Vertical and Horizontal polarities of the receive antenna were evaluated with the worst case emissions being reported. Below 30MHz the loop antenna was positioned in 3 orthogonal planes (X front, Y side, Z top) to determine the orientation resulting in the worst case emissions.
3. The EUT was positioned in three orthogonal planes to determine the orientation resulting in the worst case emissions.
4. The spectrum is measured from 9kHz to the 10th harmonic and the worst-case emissions are reported.
5. No spurious emissions levels were found to be greater than the level of the fundamental.
6. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

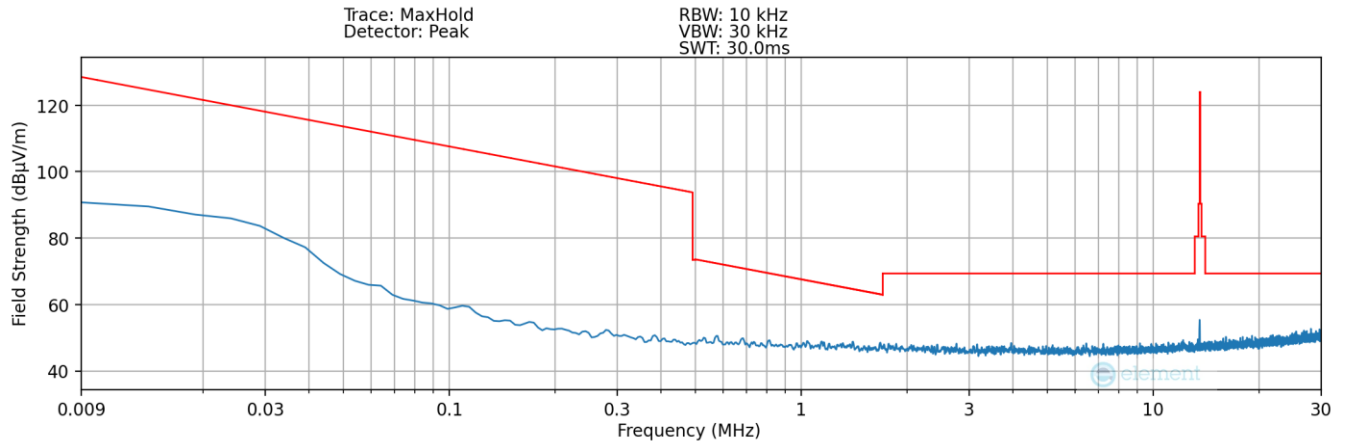
Sample Calculation

- Field Strength Level $_{[dB\mu V/m]} = \text{Analyzer Level }_{[dBm]} + 107 + \text{AFCL }_{[dB/m]}$
- AFCL $_{[dB/m]} = \text{Antenna Factor }_{[dB/m]} + \text{Cable Loss }_{[dB]}$
- Margin $_{[dB]} = \text{Field Strength Level }_{[dB\mu V/m]} - \text{Limit }_{[dB\mu V/m]}$

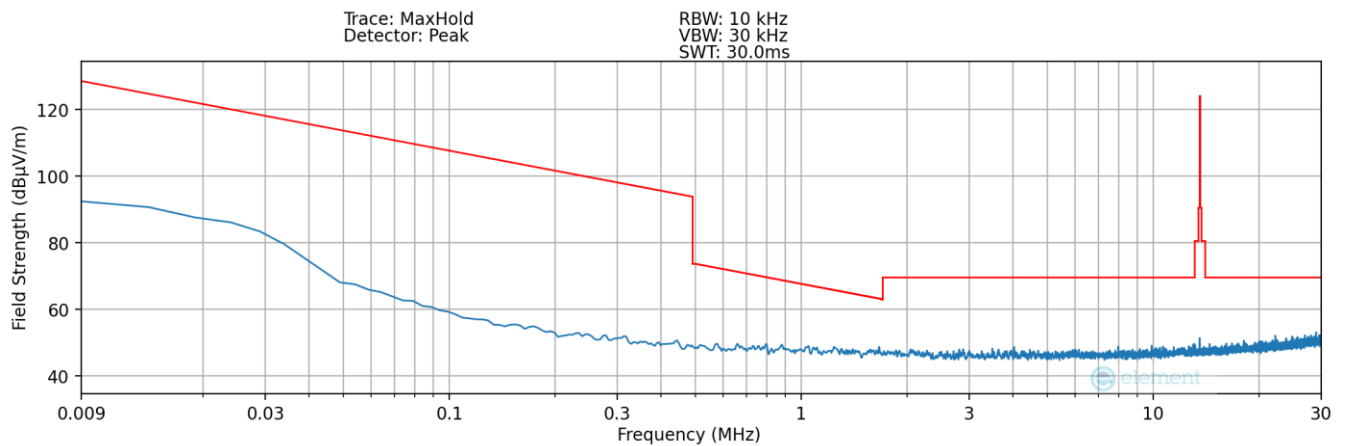
FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 23 of 27

Radiated Spurious Emission Measurements, Out-of-Band

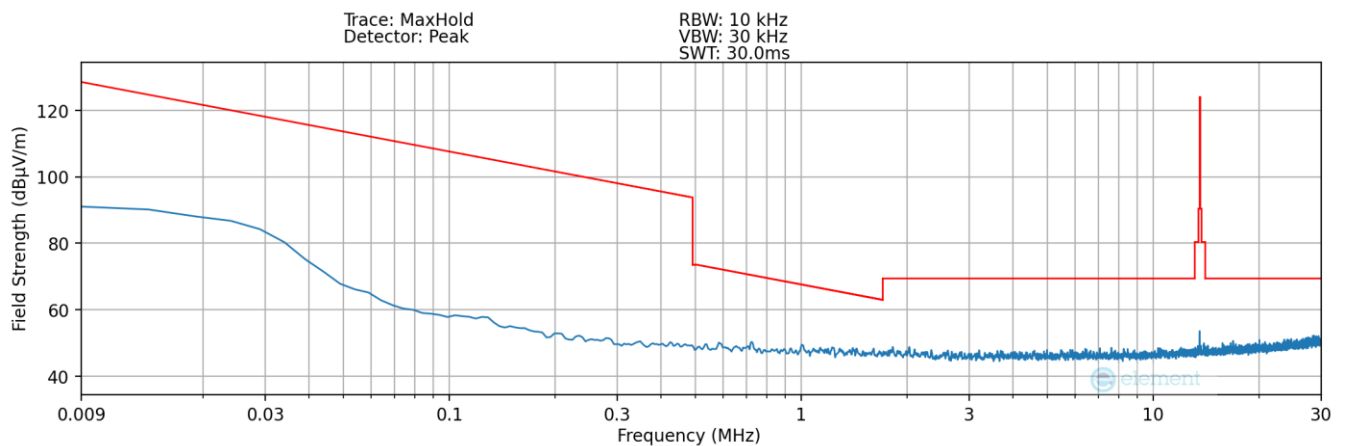
§15.209 §15.225(d); RSS-Gen (8.9)



Plot 7-1. Radiated Spurious Plot 9kHz – 30MHz (Pol. X)

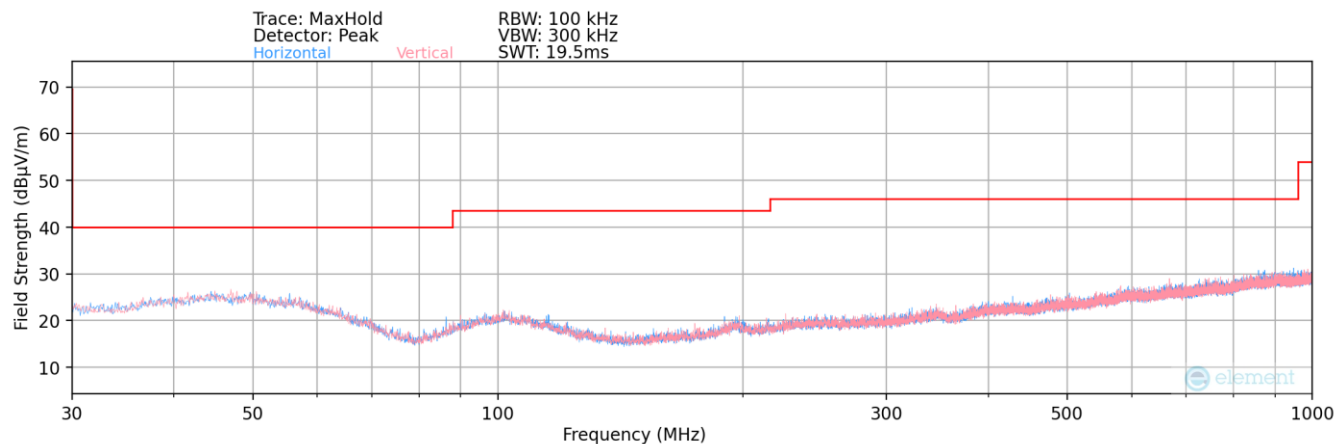


Plot 7-2. Radiated Spurious Plot 9kHz – 30MHz (Pol. Y)



Plot 7-3. Radiated Spurious Plot 9kHz – 30MHz (Pol. Z)

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 24 of 27



Plot 7-4. Radiated Spurious Plot 30MHz – 1GHz

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 25 of 27

Radiated Spurious Emission Measurements, Out-of-Band §15.209 §15.225(d); RSS-Gen (8.9)

Tx Frequency 13.56MHz

Measurement Distance: 3 Meters

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level [dBm]	AFCL [dB/m]	3m Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
27.12	X	100	273	-99.53	24.18	31.65	69.54	-37.89
40.68	V	-	-	-63.66	-11.95	31.39	40.00	-8.61
54.24	H	-	-	-64.97	-11.10	30.93	40.00	-9.07
67.80	V	-	-	-63.88	-14.88	28.24	40.00	-11.76
81.36	H	-	-	-66.73	-18.06	22.21	40.00	-17.79
94.92	V	-	-	-65.67	-14.24	27.09	43.52	-16.43
108.48	H	-	-	-66.59	-13.62	26.79	43.52	-16.73
428.62	H	-	-	-72.83	-7.81	26.36	46.02	-19.66
670.94	V	-	-	-73.78	-3.48	29.73	46.02	-16.29

Table 7-7. Radiated Measurements

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 26 of 27

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Garmin Portable Digital Transceiver FCC ID: IPH-05242** and **IC: 1792A-05242** has been tested to show compliance with Part 15 Subpart C (15.225) of the FCC Rules and RSS-210 of the ISED Rules.

- END OF TEST REPORT -

FCC ID: IPH-05242 IC: 1792A-05242		Test Dates: 7/10/2026 - 8/21/2026	EUT Type: Portable Digital Transceiver	Approved by: Technical Manager
Test Report S/N: 1M2607100063-07-R1.IPH		This report is Blockchain Verified. To verify the report authenticity, please visit https://www.blockchain-verified.com or by clicking on the Blockchain logo.		Page 27 of 27