



Test Report - RF Exposure Evaluation Report for
SAR Exclusion, Model A04932
FCC ID: IPH-04932, IPH-A4932
Applicant: Garmin International Inc.

Signature:

A handwritten signature in black ink, appearing to read "Tim Royer", is written over a horizontal line.

Sr. EMC Engineer
EMC-003838-NE



Name & Title: Tim Royer, Lab Manager

Date of Signature 10/28/2025

This test report relates only to the items tested as identified and is not valid for any subsequent changes or modifications made to the equipment under test.

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1. Applicant Information

Applicant: Garmin International Inc.
Address: 1200 East 151st Street
Olathe, Kansas, 66062, United States

2. Location of Testing

2.1 Test Laboratory

IIA Lab Services LLC. is a subsidiary of Industrial Inspection & Analysis, Inc. ("IIA"). Testing was performed at IIA's permanent laboratory located at 13146 NW 86th Drive, Suite 400, Alachua, Florida 32615.

FCC test firm # 578780
FCC Designation # US1070
FCC site registration is under A2LA certificate # 0955.01
ISED Canada test site registration # 2056A
EU Notified Body # 1177
For all designations see A2LA scope # 0955.01

3. Test Sample(s) (EUT/DUT)

The test sample was received: 6/17/2025

3.1 Description of the EUT

A description as well as unambiguous identification of the EUT(s) tested. Where more than one sample is required for technical reasons (such as the use of connected units for the purpose of conducted output power testing where the product units will have integral antennas), each specific test shall identify which unit was tested.

Identification	
FCC ID:	IPH-04932, IPH-A4932
Brief Description	Portable Digital Transceiver
Model(s) #	A04932
Firmware version	N/A
Software version	N/A
Serial Number	N/A

Both FCC ID numbers: IPH-04932 and IPH-A4932 are identical electrically and mechanically in design including Build of Materials between both products. No RF Characteristics is affected and the only difference between both products is the Software that is loaded. The Software loaded has no affect on the RF testing outcome on either products whether the product is with or without AIS. IPH-04932 (with AIS) was tested since it is the product that is going through USCG Certification

Technical Characteristics	
Frequency Range	156.025 MHz- 162.025 MHz
RF O/P Power (Max.)	Mode 1, Low Power: 30.32 dBm/ 1.076 W Mode 2, High Power: 43.77 dBm/ 23.823 W
Modulation	FM
Bandwidth & Emission Class	10K2F1D
Duty Cycle	100%
Antenna Connector	VHF
Voltage Rating (AC or Batt.)	12 VDC

Antenna Characteristics			
Antenna	Frequency Range	Mode / BW	Antenna Gain
1	n/a	n/a	6 dBi

- Note: Information such as antenna gain, firmware/software numbers are provided by manufacturer and cannot be validated by the test lab.

SAR EXCLUSION CALCULATION:

Section 4.3.1 General SAR test exclusion guidance

Equation:

For 100 MHz to 6 GHz and *test separation distances* ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,³⁰ where

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation³¹
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

RSS 102 Issue 6 Section 6.3 Exemption Limits for Routine Evaluation

Equation:

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

Conclusion: SAR testing is not required

MPE

Frequency Band	Evaluation Distance (cm)	Max Power + Tolerance (dBm)	Antenna Gain (dBi)	Duty Cycle (%)	EIRP (W)	Power Density	Limit for Uncontrolled Exposure	Limit for Controlled Exposure	Distance Required to meet Uncontrolled Exposure Limit (cm)
156-174 MHz	20	50.00	6.00	100%	100.0000	19.894 mW/cm ²	0.2 mW/cm ²	1 mW/cm ²	199.47

4. History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_21639-25_Head Unit_VHF_RF Exp SAR Exclusion_1	1	Initial release	10/28/25
	2	Updated page 4	4/13/2026
	3	Updated Section 3.1	4/14/2026
	4	Updated pages 4,6	4/28/2026
	5	Updated Pages 6	05/06/2026

END OF TEST REPORT
