

TEST REPORT

APPLICANT

Garmin International Inc

MODEL NAME

A05216

FCC ID

IPH-05216

ISED ID

1792A-05216

REPORT NUMBER

HA2603-0045-R10-01

TEST REPORT

Date of Issue

June 10, 2026

Test Site

HCT America, Inc.

840 Yosemite Way, Milpitas, CA 95035, USA

Applicant	Garmin International Inc
Applicant Address	1200 E. 151 st Street Olathe, Kansas 66062, USA
Model Name	A05216
EUT Type	Mobile GNSS navigator with 2.4 GHz and 5 GHz WLAN
Classification	Spread Spectrum Transmitter (DSS) Digital Transmission System (DTS) Unlicensed National Information Infrastructure (U-NII)
FCC Rule Part(s)	Part 1 (§1.1310 / §1.1307), Part 2 (§2.1091)
ISED Rule Part(s)	RSS 102 ISSUE 6
Test Procedure	KDB 447498 D01 v06

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was in accordance with the procedures specified in §2.947. The results in this report apply only to the product which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

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.

HCT America, Inc. certifies that no party to application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862

Authorized & Released By:**Tested By:**

Dan Corona
Technical Manager



Kevin Kim
RF Engineer

REVISION HISTORY

The revision history for this document is shown in table.

TEST REPORT NO.	REVISION	DATE	DESCRIPTION
HA2603-0045-R10	0	May 30, 2026	Initial Issue
HA2603-0045-R10-01	01	June 10, 2026	Updated pages 1 and 6 to revise RSS-102 from Issue 5 to Issue 6 and to update the ISED uncontrolled and controlled environment table limits.

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1. EUT DESCRIPTION

Model	A05216
Product Name	A05216
Serial Number	Conducted: 3526722732 Radiated: 3526722794
Power rating	Normal operation: 10.0 – 24.0 VDC, 2 A
	*USB: 5 VDC, 3A
RF Specification	Bluetooth 5.0 LE (BR / EDR / 1M / 2M) WIFI 2.4 GHz: 802.11b/g/nHT20 WIFI 5 GHz: 802.11a/n20/n40/ac80
Transmitter Chain	Bluetooth LE / Bluetooth BR/EDR / WIFI 2.4 GHz: SISO WIFI 5 GHz: SISO

NOTE: *The 5 VDC, 3 A supply is via USB and is not used during normal operation.

2. INTRODUCTION

2.1. RF Exposure Exemptions

2.1.1 FCC Rules

Maximum Permissible Exposure

Maximum Permissible Exposure (MPE) limits are provided in Table 2,3, § 1.1310(e)(1), covering the frequency range from 300 MHz to 100 GHz. The table defines limits for power density for both occupational/controlled and general population/uncontrolled exposure.

Occupational/controlled limits apply to personnel fully aware of RF exposure and able to control it, while general population/uncontrolled limits apply where persons may not be aware of or able to control exposure.

Compliance can be evaluated using measurements or validated computational methods, and exposure levels are assessed at separation distances of at least $\lambda/2\pi$ from the radiating structure. Short-term exposures above the limits are allowed if the time-averaged exposure does not exceed the specified limits.

Frequency Range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
0.3-3.0	614	1.63	*(100)	< 6
3.0-30	1842/f	4.89/f	*(900/f ²)	< 6
30-300	61.4	0.163	1.0	< 6
300-1 500	-	-	f/300	< 6
1 500-100 000	-	-	5	< 6

Table 2. § 1.1310(E)(1) – Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
0.3-3.0	614	1.63	*(100)	< 30
3.0-30	824/f	2.19/f	*(180/f ²)	< 30
30-300	27.5	0.073	0.2	< 30
300-1 500	-	-	f/1500	< 30
1 500-100 000	-	-	1.0	< 30

Table 3. § 1.1310(E)(1) – Limits for General Population / Uncontrolled Exposure

f = frequency in MHz

* = Plane-wave equivalent power density

2.1.2 ISED Rules

Frequency range (MHz)	Electric field (V _{RMS} /m)	Magnetic field (A _{RMS} /m)	Power density (W/m ²)	Reference period (minutes)
10-20	27.46	0.0728	2	6
20-48	$58.07 / f^{0.25}$	$0.1540 / f^{0.25}$	$8.944 / f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	$3.142 f^{0.3417}$	$0.008335 f^{0.3417}$	$0.02619 f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	$616000 / f^{1.2}$
150000-300000	$0.158 f^{0.5}$	$4.21 \times 10^{-4} f^{0.5}$	$6.67 \times 10^{-5} f$	$616000 / f^{1.2}$

Table 7: RF field strength and power density limits for devices used by the general public (uncontrolled environment)

Note: f is frequency in MHz

Frequency range (MHz)	Electric field (V _{RMS} /m)	Magnetic field (A _{RMS} /m)	Power density (W/m ²)	Reference period (minutes)
10-20	61.4	0.163	10	6
20-48	$129.8 / f^{0.25}$	$0.3444 / f^{0.25}$	$44.72 / f^{0.5}$	6
48-100	49.33	0.1309	6.455	6
100-6000	$15.60 f^{0.25}$	$0.04138 f^{0.25}$	$0.6455 f^{0.5}$	6
6000-15000	137	0.364	50	6
15000-150000	137	0.364	50	$616000 / f^{1.2}$
150000-300000	$0.354 f^{0.5}$	$9.40 \times 10^{-4} f^{0.5}$	$3.33 \times 10^{-4} f$	$616000 / f^{1.2}$

Table 8: RF field strength and power density limits for controlled-use devices (controlled environment)

Note: f is frequency in MHz

For both table 7 and table 8, refer to Health Canada's [Safety Code 6](#) for relevant notes and additional information.

2.2. RF Exposure Exemptions for Simultaneous Transmission

(A) 1-mW Blanket Exemption

Per § 1.1307(b)(3)(ii)(A), the 1-mW exemption may be also applied to simultaneous transmission conditions, within the same host device, according to one of the following criteria:

- When maximum available power each individual transmitting antenna within the same time averaging period is ≤ 1 mW, and the nearest parts of the antenna structures of the simultaneously operating transmitters are separated by at least 2 cm.
- When the aggregate maximum available power of all transmitting antennas is ≤ 1 mW in the same time-averaging period.

This exemption cannot be combined with other options (B) or (C).

(B) SAR-Based Exemptions and MPE-Based Exemptions

As described in § 1.1307(b)(3)(ii)(B) and covers the situations where both SAR-based and MPE-based exemption may be considered for test exemption in fixed, mobile, or portable device exposure conditions. For these cases, a device with multiple RF sources transmitting simultaneously will be considered an RF exempt device if the condition of the following formula is satisfied:

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1$$

3. RF EXPOSURE RESULTS

In the table(s) below, Power and Gain are entered in units of dBm and dBi respectively and conversions to linear forms are used for the calculations of power density at a separation distance of 20cm.

Band	Mode	Frequency (MHz)	Average Power (dBm)	Antenna Gain (dBi)	Duty Cycle %	EIRP (average) mW	Separation Distance (cm)	FCC Power Density (mW/cm ²)	FCC Limit (mW/cm ²)	FCC Limit (%)	RSS-102 Power Density (W/m ²)	RSS-102 Limit (W/m ²)	RSS 102 Limit (%)
BT		2441	6.0	2.1	100%	6	20	0.001	1.00	0.1%	0.01	5.41	0.2%
BLE		2440	4.0	2.1	100%	4	20	0.001	1.00	0.1%	0.01	5.41	0.1%
ANT		2440	4.0	2.1	100%	4	20	0.001	1.00	0.1%	0.01	5.41	0.2%
2.4 GHz WLAN Tx0 (ANT 5)		2437	17.0	2.1	100%	81	20	0.016	1.00	1.6%	0.16	5.40	3.0%
5 GHz WLAN Tx0 (ANT 5)		5755	17.0	2.1	100%	81	20	0.016	1.00	1.6%	0.16	9.72	1.7%
Highest power density levels as percentage of limit for each transmitter													
			FCC	ISED									
BT			0.1%	0.2%									
BLE			0.1%	0.1%									
ANT			0.1%	0.2%									
2.4 GHz WiFi			1.6%	3.0%									
5 GHz WiFi			1.6%	1.7%									
Simultaneous*			3.5%	5.2%									
* Note this is worst case and is conservative estimate as some conditions are mutually exclusive (e.g. only one 2.4 GHz mode can transmit at any time.)													

Note:

1. For MPE KDB 447498 requires the calculations to use the maximum rated power; that power should be declared by the manufacturer and should not be lower than the measured power. Powers used are the maximum rated powers as declared by the manufacturer.
2. The output power in the tables above is the maximum power per chain among various channels and various modes within the specific band.
3. The antenna gain in the tables above is the maximum antenna gain among various channels within the specified band.
4. Calculation of power density uses the maximum power and maximum antenna gain across all supported antennas for each band to provide a conservative and simplified assessment.

END OF TEST REPORT