

RF Exposure Report

Product Name : Communication Control Unit

Model No. : IMWW

FCC ID : IPH-04484

Applicant : Garmin International Inc.

Address : 1200 East 151st. Street Olathe KS 66062 United

States Of America (Excluding The States Of Alaska)

Date of Receipt : Sep. 06, 2022

Date of Declaration : Nov. 03, 2022

Report No. : 2290126R-RFUSMPEV02-A

Report Version : V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.



Product Name	Communication Control Unit	
Applicant	Garmin International Inc.	
Address	1200 East 151st. Street Olathe KS 66062 United States Of America (Excluding The States Of Alaska	
Manufacturer	Garmin International Inc.	
Model No.	IMWW	
FCC ID	IPH-04484	
Trade Name	GARMIN	
Applicable Standard	KDB 447498 D01 v06	<input checked="" type="checkbox"/> Minimum test separation distance ≥ 20 cm <input type="checkbox"/> For low power devices
Test Result	Complied	

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Tested By : Alan Chen
 (Senior Engineer / Alan Chen)

Approved By : Tim Sung
 (Manager / Tim Sung)

Revision History

Report No.	Version	Description	Issued Date
2290126R-RFUSMPEV02-A	V1.0	Initial issue of report.	Nov. 03, 2022

1. General Information

1.1. EUT Description

Product Name	Communication Control Unit
Trade Name	GARMIN
Model No.	IMWW
FCC ID	IPH-04484

Note: For more detailed information please refer to report No.: 2290126R-RFUSBT2V01-A and 2290126R-RFUSBLEV01-A.

1.2. Test Facility

USA : FCC Registration Number: TW0033
Canada : CAB Identifier Number: TW3023 / Company Number: 26930

Site Description : Accredited by TAF
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd
Address : No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan
Performed Location : No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.
Phone Number : +886-3-275-7255
Fax Number : +886-3-327-8031
Email Address : info.tw@dekra.com
Website : <http://www.dekra.com.tw>

2. RF Exposure Evaluation

2.1. Standard Applicable

According to KDB 447498 D01 (7.1), A minimum test separation distance ≥ 20 cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits.

2.2. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0

2.3. Test Result of RF Exposure Evaluation

Product : Communication Control Unit
Test Item : RF Exposure Evaluation

Band	Frequency (MHz)	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
Bluetooth	2480	3.660	2.323	0.0005	1

Note: The conducted output power is refer to report No.: 2290126R-RFUSBT2V01-A and 2290126R-RFUSBLEV01-A from the DEKRA.