





FCC RF Exposure Report

FCC ID : IPH-A04580

Equipment : Marine Stereo

Model No. : A04580 Brand Name : FUSION

Applicant : Garmin International, Inc.

Address : 1200 E. 151st Street Olathe, KS 66062 United

States

Standard : 47 CFR FCC Part 2.1091

Received Date : Dec. 18, 2024

Tested Date : Mar. 27 ~ Apr. 01, 2025

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: Approved by:

Along Cheୌ/ Assistant Manager 🏻 Gary Chang / Mana

Report No.: FA4D1802 Page: 1 of 7



Table of Contents

1	RF EXPOSURE TEST EXEMPTIONS	4
1.1	1-mW TEST EXEMPTION	4
1.2	SAR-BASED EXEMPTION	4
1.3	MPE-BASED EXEMPTION	4
1.4	DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE	5
1.5	MEASUREMENT UNCERTAINTY	5
1.6	EXEMPTION CALCULATION	6
2	TEST LABORATORY INFORMATION	7



Release Record

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FA4D1802	Rev. 01	Initial issue	Jun. 04, 2025

Report No.: FA4D1802 Page: 3 of 7



1 RF Exposure Test Exemptions

1.1 1-mW TEST EXEMPTION

Available maximum time-averaged power is no more than 1 mW.

1.2 SAR-BASED EXEMPTION

This exemption is applicable to the frequency range between 300 MHz and 6 GHz, with test separation distances between 0.5 cm and 40 cm, and for all RF sources in fixed, mobile, and portable device exposure conditions.

The maximum time-averaged power or effective radiated power (ERP), whichever is greater, ≤ Pth

Pth (mW) = ERP_{20cm}(d/20)^x d \leq 20cm

Pth (mW) = ERP_{20cm} 20 cm < d \leq 40cm

Where $x = -\log_{10}(\frac{60}{\text{ERP}20\text{cm}\sqrt{f}})$

Pth (mW) = ERP_{20cm}(mW) = 2040f 0.3GHz \leq f < 1.5 GHz Pth (mW) = ERP_{20cm}(mW) = 3060 1.5GHz \leq f < 6 GHz

Fraguency (MHz)	Power TI	hresholds
Frequency (MHz)	mW	dBm
663	1353	31.31
699	1426	31.54
704	1436	31.57
777	1585	32.00
824	1681	32.26
902	1840	32.65
1500 ~ 6000	3060	34.86

1.3 MPE-BASED EXEMPTION

For a much wider frequency range, from 300 kHz to 100 GHz, applicable for separation distances greater or equal to $\lambda/2\pi$, where λ is the free-space operating wavelength in meters.

Radio Source Frequency			Mi	nimum Distan	Threshold ERP	
F∟ MHz		F _H MHz	λ∟/2π		λн/2π	W
0.3	-	1.34	159 m	-	35.6 m	1920 R ²
1.34	-	30	35.6 m	-	1.6 m	3450 R ² /f ²
30	-	300	1.6 m	-	159 mm	3.83 R ²
300	-	1500	159 mm	-	31.8 mm	0.0128 R ² f
1500	-	100000	31.8 mm	-	0.5 mm	19.2 R ²

Note: R is the antenna-person separation distance.

Report No.: FA4D1802 Page: 4 of 7



1.4 REFERENCE GUIDANCE

447498 D04 Interim General RF Exposure Guidance v01.

1.5 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

1.6 MEASUREMENT UNCERTAINTY

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Parameters	Uncertainty			
Conducted power	±0.808 dB			

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Report No.: FA4D1802 Page: 5 of 7



1.7 EXEMPTION CALCULATION

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Maximum Tune Up Limit (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	SAR-Based Exemption Thresholds (mW)	Ratio	Pass/ Fail
2412-2462 (Wi-Fi)	16.78	17.0	2.65	19.65	17.50	56.23	3060	0.018	Pass
2402-2480 (BT)	13.14	13.5	2.15	15.65	13.50	22.39	3060	0.007	Pass

Frequency Range	Maximum Fundamental Emissions		Tune Up Limit Gain		Maximum Tune Up Limit (ERP)		SAR-Based Exemption Thresholds	Ratio	Pass / Fail
(MHz)	(dBuV/m)	(EIRP, dBm)	(EIRP, dBm)	(dBi)	(dBm)	(mW)	(mW)		
2460 (ANT)	53.37	-41.86	-41.5	2.15	-43.65	0.00004	3060	1.31 x10 ⁻⁸	Pass

Note:

Minimum separation distance = 20 cm.

1.8 EVALUATION OF SIMULTANEOUS TRANSMISSION

Mode	Max Ratio of Each Mode
Wi-Fi	0.018
ВТ	0.007
Sum	0.025
Limit	1
Pass / Fail	Pass

Mode	Max Ratio of Each Mode
Wi-Fi	0.018
ANT	1.31 x10 ⁻⁸
Sum	0.018
Limit	1
Pass / Fail	Pass

Report No.: FA4D1802 Page: 6 of 7



2 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou

Tel: 886-2-2601-1640 No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)

Kwei Shan

Tel: 886-3-271-8666
No.3-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)
No.2-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640 No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666 Fax: 886-3-318-0345

Email: ICC_Service@icertifi.com.tw

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Report No.: FA4D1802 Page: 7 of 7