

RF Exposure Evaluation Report

Product : Svanar Wireless Jr
Trade mark : HIFIMAN
Model/Type reference : Svanar Wireless Jr
Serial Number : N/A
Report Number : EED32P81346802
FCC ID : 2BAQY-T050BTA201BL
Date of Issue : Oct. 20, 2023
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	HIFIMAN Kunshan Technology Group Co, Ltd.
Address of Applicant:	2nd floor, Building C1, Shangkun Zhichuang Industrial Park, No.2001 Yingbin West Road, Bacheng Town Kunshan, China
Manufacturer:	HIFIMAN Kunshan Technology Group Co, Ltd.
Address of Manufacturer:	2nd floor, Building C1, Shangkun Zhichuang Industrial Park, No.2001 Yingbin West Road, Bacheng Town Kunshan, China
Factory:	Dolphin Electronics (DongGuan) Co.,Ltd.
Address of Factory:	Room 301, Building 3, No.2 Baolong Road, Houjie Town, Dongguan City, Guangdong Province, China

4.2 General Description of EUT

Product Name:	Svanar Wireless Jr
Model No.(EUT):	Svanar Wireless Jr
Trade Mark:	HIFIMAN

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz	
Modulation Type:	GFSK, π/4DQPSK, 8DPSK	
Test Power Grade:	Default	
Test Software of EUT:	AB1565_AB1568_Airoha_Tool_Kit(ATK)_v2.11.2	
Antenna Type:	LDS Antenna	
Antenna Gain:	-2.16dBi	
Power Supply:	USB port:	DC 5.0V
	Battery:	
Sample Received Date:	Aug. 30, 2023	
Sample tested Date:	Oct. 08, 2023 to Oct. 12, 2023	
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.		

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

5.1.3 EUT RF Exposure Evaluation**For Stand alone:****For BT:**

Frequency (MHz)	Available maximum time- averaged power (dBm)	Antenna gain (dBi)	ERP (dBm)	Available maximum time- averaged power (mW)	Limit (mW)	Result
2402	3.51	-2.16	1.35	2.2439	≤2.7880	PASS

Note:

①EIRP=Available maximum time-averaged power+Antenna gain;

②ERP=EIRP-2.15;

③According to § 1.1307(b)(3)(i)(B), RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW). Only the worst case data was recorded in the report.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

***** End of Report *****