



RF Exposure Evaluation

For

Hangzhou Huiji Technology Co., Ltd

rowing machine

Test Model: R1

Prepared for : Hangzhou Huiji Technology Co., Ltd
Address : Room 02-030, No. 1666 Economic and Technological Development Zone, Xinjie Street, Xiaoshan, District, Hangzhou City, Zhejiang Province, China

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
Address : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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Date of receipt of test sample : January 03, 2025

Number of tested samples : 2

Sample No. : A241227064-1, A241227064-2

Serial number : Prototype

Date of Test : January 03, 2025 ~ February 28, 2025

Date of Report : February 28, 2025



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**RF Exposure Evaluation****Report Reference No.** : **LCSA12264131ED****Date of Issue**..... : February 28, 2025**Testing Laboratory Name**..... : **Shenzhen LCS Compliance Testing Laboratory Ltd.****Address**..... : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China**Testing Location/ Procedure**..... : Full application of Harmonised standards ■
Partial application of Harmonised standards □
Other standard testing method □**Applicant's Name**..... : **Hangzhou Huiji Technology Co., Ltd****Address**..... : Room 02-030, No. 1666 Economic and Technological Development Zone, Xinjie Street, Xiaoshan, District, Hangzhou City, Zhejiang Province, China**Test Specification****Standard**..... : FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06
FCC CFR 47 part1 1.1310
FCC CFR 47 part2 2.1093**Test Report Form No**..... : TRF-4-E-145 A/0**TRF Originator**..... : Shenzhen LCS Compliance Testing Laboratory Ltd.**Master TRF**..... : Dated 2011-03**Shenzhen LCS Compliance Testing Laboratory Ltd. All rights reserved.**

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EUT Description..... : **rowing machine****Trade Mark**..... : N/A**Test Model**..... : R1**Ratings**..... : Input: DC 9.0V, 1.0A
For AC Adapter Input: AC 100-240V, 50/60Hz, 0.5A
Adapter Output: DC 9.0V, 1.0A**Result** : **Positive****Compiled by:**

Kevin Huang/ Administrator

Supervised by:

Jack Liu/ Technique principal

Approved by:

Gavin Liang/ Manager



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**TEST REPORT**

Test Report No. :	LCSA12264131ED	<u>February 28, 2025</u> Date of issue
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Test Model.....	: R1
EUT.....	: rowing machine
Applicant.....	: Hangzhou Huiji Technology Co., Ltd
Address.....	: Room 02-030, No. 1666 Economic and Technological Development Zone, Xinjie Street, Xiaoshan, District, Hangzhou City, Zhejiang Province, China
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Hangzhou Huiji Technology Co., Ltd
Address.....	: Room 02-030, No. 1666 Economic and Technological Development Zone, Xinjie Street, Xiaoshan, District, Hangzhou City, Zhejiang Province, China
Telephone.....	: /
Fax.....	: /
Factory.....	: NingBo Powerful Electrical Appliance CO.,LTD.
Address.....	: No.222, Zhushan North Road, Ninghai County, Ningbo City, Zhejiang Province, China
Telephone.....	: /
Fax.....	: /

Test Result	Positive
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



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Revision History

Report Version	Issue Date	Revision Content	Revised By
000	February 28, 2025	Initial Issue	---





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1. Product Information

FCC ID	: 2BNLB-R9
Applicant's Name	: Hangzhou Huiji Technology Co., Ltd
Address	: Room 02-030, No. 1666 Economic and Technological Development Zone, Xinjie Street, Xiaoshan, District, Hangzhou City, Zhejiang Province, China
EUT	: rowing machine
Test Model	: R1
Ratings	: Input: DC 9.0V, 1.0A For AC Adapter Input: AC 100-240V, 50/60Hz, 0.5A Adapter Output: DC 9.0V, 1.0A
Hardware Version	: /
Software Version	: /
Bluetooth	
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 40 channels for Bluetooth V5.0 (DTS)
Channel Spacing	: 2MHz for Bluetooth V5.0 (DTS)
Modulation Type	: GFSK for Bluetooth V5.0 (DTS)
Bluetooth Version	: V5.0
Antenna Description	: Ant 1: PCB Antenna, 3.65dBi(Max.)
WIFI(2.4G Band)	
Frequency Range	: 2412MHz~2462MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz)
Channel Spacing	: 5MHz
Modulation Type	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Ant 1: PCB Antenna, 3.65dBi(Max.)
Bluetooth	
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 40 channels for Bluetooth V5.0 (DTS)
Channel Spacing	: 2MHz for Bluetooth V5.0 (DTS)
Modulation Type	: GFSK for Bluetooth V5.0 (DTS)
Bluetooth Version	: V5.0
Antenna Description	: Ant 2: PCB Antenna, -0.58dBi(Max.)
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit
Device Type	: Portable Device
Date of Test	: January 03, 2025 ~ February 28, 2025
Date of Report	: February 28, 2025



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2. Evaluation method and Limit

According to KDB447498 D01 General RF Exposure Guidance v06 Section 4.3.1 Standalone SAR test exclusion considerations: "Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops & tablets etc."

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

- f (GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.

When one of the following test exclusion conditions is satisfied for all combinations of simultaneous transmission configurations, further equipment approval is not required to incorporate transmitter modules in host devices that operate in the mixed mobile and portable host platform exposure conditions. The grantee is responsible for documenting this according to Class I permissive change requirements. Antennas that qualify for standalone SAR test exclusion must apply the estimated standalone SAR to determine simultaneous transmission test exclusion.

a) The $[\sum \text{ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) } / 1.6 \text{ W/kg}] + [\sum \text{ of MPE ratios}] \leq 1.0$.

b) The SAR to peak location separation ratios of all simultaneously transmitting antenna pairs operating in portable device exposure conditions are all ≤ 0.04 , and the $[\sum \text{ of MPE ratios}] \leq 1.0$.

3. Refer Evaluation Method

[ANSI C95.1-1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB publication 447498 D01 General RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1093](#): Radiofrequency radiation exposure evaluation: portable devices



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4. Conducted Power Results

<BT LE Ant 1>

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE 1M	0	2402	0.08
	19	2440	0.44
	39	2480	-0.58

<BT LE Ant 2>

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE 1M	0	2402	1.37
	19	2440	1.26
	39	2480	0.08

<2.4GWIFI Ant 1>

Mode	Channel	Frequency(MHz)	Max Conducted Power (dBm)
11B	1	2412	8.91
	6	2437	8.12
	11	2462	8.97
11G	1	2412	8.64
	6	2437	8.27
	11	2462	8.39
11N20SISO	1	2412	8.05
	6	2437	8.77
	11	2462	8.81
11N40SISO	3	2422	8.49
	6	2437	8.75
	9	2452	8.42

5. Manufacturing Tolerance

<BT LE Ant 1>

GFSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	0	0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

<BT LE Ant 2>

GFSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	1.0	1.0	0
Tolerance $\pm$ (dB)	1.0	1.0	1.0



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<2.4GWIFI Ant 1>

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	8.0	8.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	8.0	8.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20SISO (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	8.0	8.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40SISO (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	8.0	8.0	8.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

6. Evaluation Results

6.1 Standalone Evaluation

<BT LE Ant 1>

Modulation Type	f (GHz)	Antenna Distance (mm)	RF output power		SAR Test Exclusion Threshold	SAR Test Exclusion
			dBm	mW		
GFSK	2.480	5	1.0	1.2589	0.3965< 3.0	Yes

<2.4G WIFI Ant 1>

Modulation Type	f (GHz)	Antenna Distance (mm)	RF output power		SAR Test Exclusion Threshold	SAR Test Exclusion
			dBm	mW		
IEEE 802.11b	2.462	5	9.0	7.9433	2.4927<3.0	Yes
IEEE 802.11g	2.462	5	9.0	7.9433	2.4927<3.0	Yes
IEEE 802.11n HT20	2.462	5	9.0	7.9433	2.4927<3.0	Yes
IEEE 802.11n HT40	2.452	5	9.0	7.9433	2.4877<3.0	Yes

<BT LE Ant 2>

Modulation Type	f (GHz)	Antenna Distance (mm)	RF output power		SAR Test Exclusion Threshold	SAR Test Exclusion
			dBm	mW		
GFSK	2.440	5	2.0	1.5849	0.4951< 3.0	Yes

Remark:

1. Output power including tune up tolerance;
2. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.



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6.2 Simultaneous Transmission for SAR Exclusion

The EUT equipped with one Bluetooth/2.4G WIFI antenna and one Bluetooth antenna. so need consider simultaneous transmission;

$$\Sigma \text{ of (the highest estimated SAR}_{\text{ant1}} + \text{SAR}_{\text{ant2}}) / 1.6 = (0.417 + 0.083) / 1.6 = 0.3125 < 1.0;$$

7. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

8. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

Test Firm Registration Number: 254912.

.....THE END OF REPORT.....



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