

RF EXPOSURE REPORT

Applicant:	RAINVI TECHNOLOGIES PRIVATE LIMITED
Address:	8-2-283/82/A/321/1 HBS CO OP JUBILEE HILLS HYDERABAD, TELANGANA, INDIA - 500034
Manufacturer:	Guangzhou Yuandong Smart Sports Technology Co., LTD
Address:	Room 518, 192 Kezhu Road, Huangpu District, Guangzhou
Product Description:	Portl UltraGym 70
Brand Name:	NA
Tested Model:	PUG-70
FCC ID:	2BKUS-PUG70
Report No.:	JCF240613031-005
Received Date:	Aug. 13, 2024
Tested Date:	Aug. 13, 2024 ~ Sep. 02, 2024
Issued Date:	Sep. 02, 2024
Test Standards:	KDB 447498 D01 General RF Exposure Guidance v06
Test Result:	Pass

Prepared By:  <u>Roger Li/Engineer</u>	Date: Sep. 02, 2024
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Reviewed By:  <u>Kennys Zhang/Engineer</u>	Date: Sep. 02, 2024
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Approved By:  <u>Talent Zhang/Engineer</u>	Date: Sep. 02, 2024
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Note: The test results in this report apply exclusively to the tested model / sample. Without written approval of Guangzhou Jingce Testing Technology Co., Ltd. the test report shall not be reproduced except in full.

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Sep. 02, 2024	Original Report	/

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1. Test Report Declare

Applicant:	RAINVI TECHNOLOGIES PRIVATE LIMITED
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Manufacturer:	Guangzhou Yuandong Smart Sports Technology Co., LTD
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Product Name	Portl UltraGym 70
Brand Name:	NA
Model Name:	PUG-70
Difference Description:	NA

We Declare:

The equipment described above is tested by Guangzhou Jingce Testing Technology Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangzhou Jingce Testing Technology Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests except as provided information by clients.

2. Equipment Under Test

2.1. Description of EUT

EUT* Name:	Portl UltraGym 70
Model Number:	PUG-70
EUT Function Description:	Please refer to user manual of this device
Power Supply:	AC 220V - 240V 50/60Hz 750W
Hardware Version:	NA
Software Version:	NA
Radio Specification:	Bluetooth V4.2, IEEE 802.11b/g/n
Operation Frequency:	Bluetooth: 2402MHz-2480MHz IEEE802.11b/g/n: 2412MHz-2462MHz
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK)
Data Rate:	Bluetooth: 1Mbps, 2Mbps, 3Mbps IEEE 802.11b: up to 11Mbps IEEE 802.11g: up to 54Mbps IEEE 802.11n HT20: up to 72.2Mbps IEEE 802.11n HT40: up to 150Mbps
Antenna Type:	FPC Antenna, 2.71 dBi
Product Type:	☐ Portable device ☒ Mobile device ☐ Fixed device

Note 1: EUT is the ab. of equipment under test.

Note 2: The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.

2.2. Description of Available Antennas

Test Mode	Transmit and Receive Mode	Description
BT&BLE	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
2.4G WIFI	☒ 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.

3. Test Laboratory

Guangzhou Jingce Testing Technology Co., Ltd.

Add.: No.10, Hefeng No.1 street, Huangpu District, Guangzhou, Guangdong, People's Republic of China

Association for Laboratory Accreditation(A2LA). Certificate Number: 6594.03

FCC Designation Number: CN1381. Test Firm Registration Number: 486550

IC Test Firm Registration Number: 31808

Conformity Assessment Body identifier: CN0173

4. RF Exposure Measurement

4.1. Requirement

a) According to 447498 D01 General RF Exposure Guidance v06 The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by: $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where: $f(\text{GHz})$ 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

b) For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

1) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)]\}$ mW, for 100 MHz to 1500 MHz

2) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$ mW, for > 1500 MHz and ≤ 6 GHz

4.2. MPE Calculation Formula

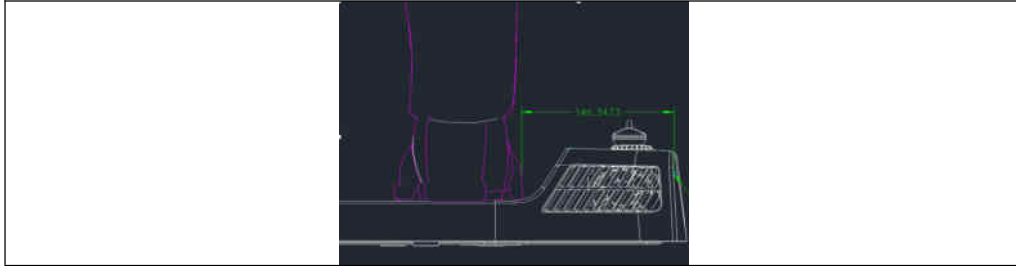
1. $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$

Limit = $[3.0 \cdot (\text{min. test separation distance, mm})] / [\sqrt{f(\text{GHz})}] = (3 \cdot 50 / [\sqrt{f(\text{GHz})}]) 96.8$

2. $\{[\text{Power allowed at numeric threshold for 50 mm in step 1)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$ mW

4.3. Classification

The antenna of this product, under normal use condition, is at least 14.6cm away from the body of the user.



4.4. Conducted Power

Band	Channel Frequency (MHz)	Average Power (dBm)
BT&BLE	2402	7.62
2.4G WIFI	2437	18.81

4.5. Limits for Maximum Permissible Exposure (MPE)

Band	Channel Frequency (MHz)	Limit (mW)
BT&BLE	2402	1056.8
2.4G WIFI	2437	1056.2

5. RF Exposure Calculation

We used the maximum power between the conducted power and ERP/EIRP to perform RF exposure exemption evaluation.

Band	Channel Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (mW)	PASS/FAIL
BT&BLE	2402	6.46	2.71	9.17	8.3	1056.8	PASS
2.4G WIFI	2412	15.78	2.71	18.49	70.6	1056.2	PASS

Both of the WLAN and plug-in device can transmit simultaneously, the formula of calculated the MPE is:

$$E1/L1+E2/L2+.....etc. < 1$$

E = Calculation EIRP

L = Limit of EIRP

Therefore the worst-case situation is $8.3/1056.8+70.6/1056.2=0.074$, which is less than "1", This confirmed that the device comply with FCC 1.1310 MPE limit.

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