



BUREAU  
VERITAS

Test Report No.: FM2205WDG011



Certificate # 2951.01

## RF EXPOSURE REPORT

Applicant	POWERPLUS MECHANICAL AND ELECTRICAL TECHNOLOGY CO LTD.
Address	No6, ZiTeng. Road, LiuHe Town, Taicang, Suzhou City, Jiangsu Province in China

Manufacturer or Supplier	POWERPLUS MECHANICAL AND ELECTRICAL TECHNOLOGY CO LTD.
Address	No6, ZiTeng. Road, LiuHe Town, Taicang, Suzhou City, Jiangsu Province in China
Product	Smart Bike Trainer
Brand Name	
Model	V3
Additional Model & Model Difference	N/A
Date of tests	May 11, 2022 ~ Jul. 11, 2022

FCC Part 2 (Section 2.1091)

KDB 447498 D01

IEEE C95.1

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

Tested by Lucas Chen Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department

Date: Aug. 03, 2022

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## **RELEASE CONTROL RECORD**

<b>ISSUE NO.</b>	<b>REASON FOR CHANGE</b>	<b>DATE ISSUED</b>
FM2205WDG0011	Original release	Aug. 03, 2022



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## 1. CERTIFICATION

<b>PRODUCT:</b>	Smart Bike Trainer
<b>BRAND NAME:</b>	
<b>MODEL NO.:</b>	V3
<b>ADDITIONAL MODEL:</b>	N/A
<b>FCC ID:</b>	2A7X9-PP0001
<b>TEST SAMPLE:</b>	ENGINEERING SAMPLE
<b>APPLICANT:</b>	POWERPLUS MECHANICAL AND ELECTRICAL TECHNOLOGY CO LTD.
<b>STANDARDS:</b>	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1



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## 2. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

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

## 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



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## 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Frequency Band	Antenna Gain (dBi)	Antenna Type
BT-LE	3.5	PCB Antenna
ANT+	3.5	PCB Antenna

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
BT-LE	2402-2480MHz	-2	+/-2	-4	0
ANT+	2402-2480MHz	-1	+/-2	-3	1

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
BT-LE	2480	-2.83
ANT+	2457	-1.81



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FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
BT-LE	0	3.5	20	0.000445	1.0
ANT+	1	3.5	20	0.000561	1.0

### CONCLUSION:

The BLE, and ANT+ can transmit simultaneously, the formula of calculated the MPE is:

$$\text{CPD1} / \text{LPD1} + \text{CPD2} / \text{LPD2} + \dots \text{etc.} < 1$$

**CPD = Calculation power density**

**LPD = Limit of power density**

$(0.000445/1) + (0.000561/1) = 0.001006 < 1$ , which is less than the "1" limit.

--- END ---