

RF Exposure Evaluation

FCC ID:2BB4B-YSDT200

1. Client Information

Applicant	:	Yongkang Ma souTrade Co., Ltd.
Address	:	The first room from west to east, the second floor, Building 2, No. 386, Huajin Road, Huajie Town, Yongkang City, Jinhua, Zhejiang Province, China
Manufacturer	:	XIAMEN MYDO SPORTS EQUIPMENT CO., LTD.
Address	:	NO.30 BANNAN ROAD, DONGFU STREET, HAICANG DISTRICT, XIAMEN, CHINA

2. General Description of EUT

EUT Name	:	YOSUDA Treadmill YSD-T200
Model(s) No.	:	YSD-T200, YSD-T serial
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is that appearance color.
Product Description	:	Operation Frequency: Bluetooth V5.0: 2402MHz~2480MHz Bluetooth 5.0(BLE): 2402MHz~2480MHz
		Number of Channel: Bluetooth 5.0: 79 channels Bluetooth 5.0(BLE):40 channels
		Antenna Gain: -0.58dBi PCB Antenna
		Modulation Type: GFSK, Pi/4-DQPSK Bluetooth LE:1Mbps
		Bit Rate of Transmitter: 1/2Mbps
Power Supply	:	Input: AC 120V, 60Hz
Software Version	:	----
Hardware Version	:	----
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.		

Note: More test information about the EUT please refer the RF Test Report.

SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

- (1) Clause 4.3: General SAR test reduction and exclusion guidance

- Sub clause 4.31: Standalone SAR test exclusion considerations

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 5 mm are determined by:

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] * $\sqrt{f_{\text{GHz}}}$ ≤ 3.0 for 1-g SAR

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] * $\sqrt{f_{\text{GHz}}}$ $\leq 7.5.0$ for 10-g SAR

2. Calculation:

Test separation: 5mm						
Bluetooth Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	3.44	3±1	4	2.512	0.779	3.0
2.441	3.213	3±1	4	2.512	0.785	3.0
2.480	3.244	3±1	4	2.512	0.791	3.0
Bluetooth Mode (Pi/4-DQPSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	4.126	4±1	5	3.162	0.980	3.0
2.441	3.909	4±1	5	3.162	0.988	3.0
2.480	3.937	4±1	5	3.162	0.996	3.0
Bluetooth LE Mode(1Mbps)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	3.488	3±1	4	2.512	0.779	3.0
2.440	3.223	3±1	4	2.512	0.785	3.0
2.480	3.264	3±1	4	2.512	0.791	3.0

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.

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