RF Exposure Evaluation Report

APPLICANT: Tien Hsin industries Co., LTD

EQUIPMENT: Electronic Drive Train

BRAND NAME: FSA

MODEL NAME : FD-ED-8400

FCC ID : 2ALMLFDED8400

STANDARD : 47 CFR Part 2.1093

FCC KDB 447498 D01 v06

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1093, and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Eric Huang / Manager

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Approved by: Jones Tsai / Manager





Report No. : FA760902

SPORTON INTERNATIONAL INC.

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.)

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: 2ALMLFDED8400 Page Number : 1 of 5
Report Issued Date : May 17, 2018

Report Version : Rev. 01

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA760902	Rev. 01	Initial issue of report	May 17, 2018

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1. Administration Data

Testing Laboratory			
Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978		

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Applicant			
Company Name Tien Hsin industries Co., LTD			
Address	No.6, Wugong 8th Rd., Wufeng Dist., Taichung City 41353, Taiwan (R.O.C.)		

Manufacturer			
Company Name	Tien Hsin industries Co., LTD		
Address	No.6, Wugong 8th Rd., Wufeng Dist., Taichung City 41353, Taiwan (R.O.C.)		

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2. General Information

2.1 Description of Device Under Test (DUT)

Product Feature & Specification			
DUT Type	Electronic Drive Train		
Brand Name	FSA		
Model Name	FD-ED-8400		
FCC ID	2ALMLFDED8400		
	Bluetooth: 2402 MHz ~ 2480 MHz ANT+:2402 MHz ~ 2480 MHz		
modo	Bluetooth LE ANT+: GFSK		
DUT Stage	Production Unit		

Remark: The above DUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

3. Maximum RF output power among production units

Band / Mode	Average Power (dBm)
Bluetooth LE	-14.5
ANT+	-7.0

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4. RF Exposure Evaluation

Bluetooth	mW	Separation	Frequency	Exclusion
Max Power (dBm)		Distance (mm)	(GHz)	Thresholds
-14.5	0.04	5	2.48	0.01

ANT+	mW	Separation	Frequency	Exclusion
Max Power (dBm)		Distance (mm)	(GHz)	Thresholds
-7	0.20	5	2.48	0.06

Note:

1. Per KDB 447498 D01v06 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:

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

- 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

Conclusion:

- For Bluetooth, Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 0.01 which is <= 7.5, SAR testing is not required.
- For ANT+, Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance 2. of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 0.06 which is <= 7.5, SAR testing is not required.

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