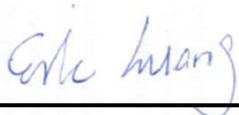


# RF Exposure Evaluation Report

APPLICANT : Tien Hsin industries Co., LTD  
EQUIPMENT : Electronic Drive Train  
BRAND NAME : FSA  
MODEL NAME : SF-ED-8400  
FCC ID : 2ALMLSFED8400  
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



Approved by: Jones Tsai / Manager



## SPORTON INTERNATIONAL INC.

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



## **Table of Contents**

1.	Administration Data .....	3
2.	General Information .....	4
2.1	Description of Device Under Test (DUT) .....	4
3.	Maximum RF output power among production units .....	4
4.	RF Exposure Evaluation .....	5

## **Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA760823	Rev. 01	Initial issue of report	May 17, 2018

**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

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.)



## **2. General Information**

### **2.1 Description of Device Under Test (DUT)**

Product Feature & Specification	
DUT Type	Electronic Drive Train
Brand Name	FSA
Model Name	SF-ED-8400
FCC ID	2ALMLSFED8400
Wireless Technology and Frequency Range	Bluetooth: 2402 MHz ~ 2480 MHz ANT+:2402 MHz ~ 2480 MHz
Mode	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	-14.5
ANT+	-6

**4. RF Exposure Evaluation**

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

ANT+ Max Power (dBm)	mW	Separation Distance (mm)	Frequency (GHz)	Exclusion Thresholds
-6	0.25	5	2.48	0.08

**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*  $\leq 50$  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  $\leq 7.5$  for 10-g extremity SAR

- $f(\text{GHz})$  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

**Conclusion:**

1. 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  $\leq 7.5$ , SAR testing is not required.
2. For ANT+, 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 0.08 which is  $\leq 7.5$ , SAR testing is not required.