# **RF Exposure Evaluation Report**

APPLICANT : PASSTIME

**EQUIPMENT**: Dock device

BRAND NAME : Distracted Driving Device

MODEL NAME : DDD-1

MARKETING NAME : DDD

FCC ID : WXT-DDD1RX

STANDARD : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, 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



Page Number

Report Version

: 1 of 7

: Rev. 01

Report Issued Date: Dec. 14, 2017

Report No.: FA772705-01

#### 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: WXT-DDD1RX

## **Table of Contents**

1.	ADMINISTRATION DATA	4
	1.1. Testing Laboratory	4
2.	DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	5
3.	MAXIMUM RF AVERAGE OUTPUT POWER AMONG PRODUCTION UNITS	5
4.	RF EXPOSURE LIMIT INTRODUCTION	6
5.	RADIO FREQUENCY RADIATION EXPOSURE EVALUATION	7
	5.1 Standalone Power Density Calculation	7

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: WXT-DDD1RX Page Number : 2 of 7

Report Issued Date : Dec. 14, 2017

Report No. : FA772705-01

Report Version : Rev. 01



## SPORTON LAB. RF Exposure Evaluation Report

#### **Revision History**

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REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE		
FA772705-01	Rev. 01	Initial issue of report	Dec. 14, 2017		

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: WXT-DDD1RX Page Number : 3 of 7

Report No. : FA772705-01

Report Issued Date : Dec. 14, 2017 Report Version : Rev. 01

## 1. Administration Data

#### 1.1. <u>Testing Laboratory</u>

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				

Report No. : FA772705-01

Applicant				
Company Name	PASSTIME			
Address	861 Southpark Dr #200 Littleton,CO 80120			

Manufacturer				
Company Name	Wistron NeWeb Corp.			
Address	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan,R.O.C			

**SPORTON INTERNATIONAL INC.** Page Number : 4 of 7

TEL: 886-3-327-3456 Report Issued Date : Dec. 14, 2017
FAX: 886-3-328-4978 Report Version : Rev. 01
FCC ID: WXT-DDD1RX

#### 2. Description of Equipment Under Test (EUT)

Product Feature & Specification				
EUT Type	Dock device			
Brand Name	Distracted Driving Device			
Model Name	DDD-1			
Marketing Name	DDD			
FCC ID	WXT-DDD1RX			
Wireless Technology and Frequency Range	Bluetooth: 2402 MHz ~ 2480 MHz 433.92 MHz			
Mode	Bluetooth LE 433MHz: OOK/ASK			
HW Version	48.UOCDOCK.0GAGUW			
EUT Stage	Production Unit			

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

Bluetooth Antenna Information						
1	Ant. Type	PCB Ant.	Peak Gain(dBi)	3.35		
2	Ant. Type	loop antenna	Peak Gain(dBi)	0.91		

## 3. Maximum RF average output power among production units

	Average Power (dBm)
Band / Mode	LE
	GFSK
Bluetooth	-3

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TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: WXT-DDD1RX Page Number : 5 of 7
Report Issued Date : Dec. 14, 2017

Report No.: FA772705-01

Report Version : Rev. 01

#### 4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range Electric field strength (V/m)		Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)	
800 St.	(A) Limits for O	ccupational/Controlled Expos	sures	W	
0.3-3.0	614	1.63	*(100)	6	
3.0-30	1842/	f 4.89/1	f *(900/f2)	6	
30-300	61.4	0.163	1.0	6	
300-1500			f/300	6	
1500-100,000			5	6	
	(B) Limits for Gene	ral Population/Uncontrolled I	Exposure		
0.3-1.34	614	1.63	*(100)	30	
1.34-30 824		f 2.19/1	2.19/f *(180/f2		
30-300	27.5	0.073	0.2	30	
300-1500			f/1500	30	
1500-100,000			1.0	30	

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

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TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: WXT-DDD1RX Page Number : 6 of 7

Report Issued Date: Dec. 14, 2017

Report No.: FA772705-01

Report Version : Rev. 01



### 5. Radio Frequency Radiation Exposure Evaluation

#### 5.1. Standalone Power Density Calculation

ANT	Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
	433.92 MHz	433				0.000002891	0.003	0.000000575	0.289
PCB	Bluetooth	2402.0	3.35	-3.00	0.350	0.001	1.084	0.0002	1.000
loop	Bluetooth	2402.0	0.91	-3.00	-2.090	0.001	0.618	0.0001	1.000

#### Note:

- 1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band
- 2. The measured 433 MHz function transmission field strength at 3 meter range is 69.84dBuV/m and the equivalent EIRP is 0.000002891W,

#### **Conclusion:**

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

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FAX: 886-3-328-4978 FCC ID: WXT-DDD1RX

TEL: 886-3-327-3456

Page Number : 7 of 7
Report Issued Date : Dec. 14, 2017

Report No.: FA772705-01

Report Version : Rev. 01