RF Exposure Evaluation Report

APPLICANT : Zebra Technologies Corporation

EQUIPMENT: Digital Scanner

BRAND NAME: Zebra

MODEL NAME: DS8178

FCC ID : UZ7DS8178

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 / Deputy Manager

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Jones/sai

Approved by: Jones Tsai / Manager



Report No.: FA680207

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: UZ7DS8178 Page Number : 1 of 4
Report Issued Date : Sep. 14, 2016

Report Version : Rev. 01

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA680207 Rev. 01		Initial issue of report	Sep. 14, 2016

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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	Zebra Technologies Corporation	
Address	1 Zebra Plaza, Holtsville, NY 11742	

	Manufacturer
Company Name	Zebra Technologies Corporation
Address	1 Zebra Plaza, Holtsville, NY 11742

2. General Information

2.1 Description of Device Under Test (DUT)

Product Feature & Specification			
DUT Type	Digital Scanner		
Brand Name	Zebra		
Model Name	DS8178		
FCC ID UZ7DS8178			
Wireless Technology and Frequency Range	Bluetooth: 2402 MHz ~ 2480 MHz		
Mode	Bluetooth EDR/LE		
Antenna Type	SMD Antenna		
HW Version	Rev A		
SW Version	Rev A		
MFD	12JUL16		
DUT Stage	Identical Prototype		

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

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3. Maximum RF output power among production units

		Average Po	ower (dBm)	
Mode / Band	EDR			LE
	1Mbps	2Mbps	3Mbps	(GFSK)
Bluetooth	3	3	3	3

4. RF Exposure Evaluation

	Bluetooth Max Power (dBm)	mW	Separation Distance (mm)	Frequency (GHz)	Exclusion Thresholds
	3	2.00	5	2.48	0.63

Note:

 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:

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 0.63 which is <= 3, SAR testing is not required.

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