

RF Exposure Evaluation Report

FCC ID : 2ADPT-SD010
Equipment : Smart Card
Brand Name : SMARTdisplayer
Model Name : SD010,G1
Applicant : SmartDisplayer Technology
No. 2-1,Gongjian Rd.,Qidu Dist,
Keelung City,Taiwan
Manufacturer : SmartDisplayer Technology
No. 2-1,Gongjian Rd.,Qidu Dist,
Keelung City,Taiwan
Standard : 47 CFR FCC Part 2 Subpart J, section 2.1093

The product was received on Sep. 07, 2023, and testing was started from Sep. 19, 2023 and completed on Sep. 19, 2023. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in KDB 447498 D04 Interim General RF Exposure Guidance v01 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Jackson Tsai

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Photographs of EUT V01



1. General Description

1.1. EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)

1.2. Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	SmartDisplayer	SmartDisplayer	PCB antenna	N/A	2.09

Note 1: The EUT has one antenna.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive.

1.3. Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Brand Name	Model Name	Description
SMARTdisplayer	SD010	All the models are identical, the different model served as marketing strategy.
	G1	

From the above models, model: SD010 was selected as representative model for the test and its data was recorded in this report.

1.4. Accessories

Accessories				
Battery	Brand Name	NGK	Model Name	EC302304P-C
	Power Rating	3.8 Vdc, 14 mAh	Type	Li-ion
USB Charger Dongle	Brand Name	SmartDisplayer	Model Name	M0028
Micro USB Cable	Brand Name	SmartDisplayer	Model Name	54-00000003-01
	Power Cord	0.2 meter, non-shielded cable, w/o ferrite core		

Reminder: Regarding to more detail and other information, please refer to user manual.

1.5. Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory			
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)		
	TEL: 886-3-327-3456		FAX: 886-3-327-0973
Test site Designation No. TW3785 with FCC.			

2. RF Exposure Evaluation

2.1. Applicable Standard

In accordance with FCC 47 CFR part 2 (2.1093) this device has been defined as a portable device which is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

Portable devices must be evaluated using the specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2003.

2.2. SAR evaluation

1. Per KDB 447498 D04 Interim General RF Exposure Guidance v01,

Option (B): §1.1307(b)(3)(i)(B): Device operates between 300 MHz and 6 GHz and the maximum time-averaged power or effective radiated power (ERP), whichever is greater, $\leq P_{th}$.

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;BT-LE	2.09	4.38	6.47	0.00	2.70	0.50	B	2.717	0.9954

2. Per KDB 447498 D04 Interim General RF Exposure Guidance v01 exclusion thresholds is $2.7 < 2.717$, RF exposure evaluation is not required.

—————THE END—————