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Report No.: SZEM160300124302

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## SAR Evaluation Report

<b>Application No:</b>	SZEM1603001243CR
<b>Applicant:</b>	Shenzhen Damai Technology Co., Ltd
<b>Manufacturer:</b>	Shenzhen Damai Technology Co., Ltd
<b>Product Name:</b>	Wireless Portable Disk
<b>Model No.(EUT):</b>	A6
<b>Trade Mark:</b>	airdisk
<b>FCC ID:</b>	2AFTT-A6
<b>Standards:</b>	47 CFR Part 1.1307 (2015) 47 CFR Part 2.1093 (2015) KDB447498D01 General RF Exposure Guidance v06
<b>Date of Receipt:</b>	2016-03-11
<b>Date of Test:</b>	2016-03-17 to 2016-04-25
<b>Date of Issue:</b>	2016-05-05

<b>Test Result :</b>	<b>PASS*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang  
EMC Laboratory Manager

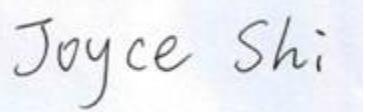
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## 2 Version

<b>Revision Record</b>				
<b>Version</b>	<b>Chapter</b>	<b>Date</b>	<b>Modifier</b>	<b>Remark</b>
00		2016-05-05		Original

Authorized for issue by:			
Tested By	 (Bill Chen) /Project Engineer	2016-04-25	Date
Prepared By	 (Joyce Shi) /Clerk	2016-05-05	Date
Checked By	 (Eric Fu) /Reviewer	2016-05-05	Date

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## 4 General Information

### 4.1 Client Information

Applicant:	Shenzhen Damai Technology Co., Ltd
Address of Applicant:	5/F. 1 Building, Financial Base, No.8, kefa Road, High-TechPark, Shenzhen, China
Manufacturer:	Shenzhen Damai Technology Co., Ltd
Address of Manufacturer:	5/F. 1 Building, Financial Base, No.8, kefa Road, High-TechPark, Shenzhen, China

### 4.2 General Description of EUT

Product Name:	Wireless Portable Disk
Model No.:	A6
Trade Mark:	airdisk
Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7 Channels
Channel Separation:	5MHz
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Type	Chip
Antenna Gain:	1dBi
Test voltage	120V60Hz
Battery	Rechargeable battery: DC 3.7V 5000mAh 18.5Wh (charge by USB)

### 4.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch E&E Lab  
No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China  
518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

No tests were sub-contracted.

#### **4.4 Test Facility**

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

- **FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

- **Industry Canada (IC)**

The 10m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-3.

#### **4.5 Deviation from Standards**

None.

#### **4.6 Abnormalities from Standard Conditions**

None.

#### **4.7 Other Information Requested by the Customer**

None.



## 5 SAR Evaluation

### 5.1 RF Exposure Compliance Requirement

#### 5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 5.1.2 Limits

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:

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

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

#### 5.1.3 EUT RF Exposure

The Max Conducted Peak Output Power is 8.37dBm in highest channel(2.437GHz);

The best case gain of the antenna is 1dBi.

$$\text{EIRP} = 8.37\text{dBm} + 1\text{dBi} = 9.37\text{dBm}$$

9.37dBm logarithmic terms convert to numeric result is nearly 8.65mW

According to the formula. calculate the EIRP test result:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\text{General RF Exposure} = (8.65\text{mW} / 5 \text{ mm}) \times \sqrt{2.437\text{GHz}} = 2.70 \quad ①$$

SAR requirement:

$$S = 3.0 \quad ② ;$$

$$① < ②.$$

So the SAR report is not required.