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Report No.: SZEM150700433802

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## **SAR Evaluation Report**

<b>Application No.:</b>	SZEM1507004338CR
<b>Applicant:</b>	MJS Technology Co., Limited
<b>Manufacturer:</b>	MJS Technology Co., Limited
<b>Factory:</b>	MJS Technology Co., Limited
<b>Product Name:</b>	7" Tablet
<b>Model No.(EUT):</b>	T2702
<b>Trade Mark:</b>	MJS
<b>FCC ID:</b>	2AFGU-T2702
<b>Standards:</b>	47 CFR Part 1.1307 (2014) 47 CFR Part 2.1093 (2014) KDB447498D01 General RF Exposure Guidance v05r02
<b>Date of Receipt:</b>	2015-07-21
<b>Date of Test:</b>	2015-07-23 to 2015-08-19
<b>Date of Issue:</b>	2015-08-25

<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

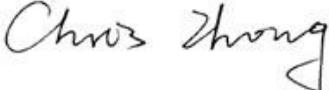
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## 2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2015-08-25		Original

Authorized for issue by:			
Tested By	 (Chris Zhong) /Project Engineer		2015-08-19
Prepared By	 (Jade Chen) /Clerk		2015-08-25
Checked By	 (Owen Zhou) /Reviewer		2015-08-25
			Date
			Date
			Date

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## 4 General Information

### 4.1 Client Information

Applicant:	MJS Technology Co., Limited
Address of Applicant:	2580 Corporate PI, Suite F105, Monterey Park, CA 91754, USA
Manufacturer:	MJS Technology Co., Limited
Address of Manufacturer:	2F, A10 Tanglang Industrial Park, Nanshan, Shenzhen 518055, China
Factory:	MJS Technology Co., Limited
Address of Factory:	2F, A10 Tanglang Industrial Park, Nanshan, Shenzhen 518055, China

### 4.2 General Description of EUT

Product Name:	7" Tablet
Model No.:	T2702
Trade Mark:	MJS
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)
Sample Type:	Portable production
Test Power Grade:	8.5 dBm (manufacturer declare)
Test Software of EUT:	Android 5.1.1 (manufacturer declare)
Antenna Type and Gain:	Type: PIFA Gain: 2 dBi
Power Supply:	Battery: 3.7V 2100mAh
Adaptor:	Model: TEKA006-0501500UKU Input: 100-240V~ 50/60Hz 0.3A Output: 5.0V=2.0A

### **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.

- VCCI**

The 10m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) 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)**

Two 3m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-2.

### **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 v05r02

##### 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 7.70dBm in Middle channel(2.437GHz);

The best case gain of the antenna is 2dBi.

$$\text{EIRP} = 7.70\text{dBm} + 2\text{dBi} = 9.70\text{dBm}$$

9.70dBm logarithmic terms convert to numeric result is nearly 9.333mW

According to the formula. calculate the EIRP test result:

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

$$\text{General RF Exposure} = (9.333\text{mW} / 5 \text{ mm}) \times \sqrt{2.437\text{GHz}} = 1.196 \text{ ①}$$

SAR requirement:

$$S = 3.0 \text{ ② ;}$$

$$\text{①} < \text{②}.$$

So the SAR report is not required.