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Report No.: SZEM150800498603

Page : 1 of 6

## SAR Evaluation Report

Application No.:	SZEM1508004986CR (SGS SZ No.: T51510230033EM)
Applicant:	ZHEN CHENG TOYS FACTORY
Manufacturer:	SEMTEL (HONGKONG) LTD
Supplier:	SEMTEL (HONGKONG) LTD
Importer:	SEMTEL (HONGKONG) LTD
Product Name:	7 CH R/C BATTNG TANKS 2 PK
Model No.(EUT):	130436
Add Model No.:	1412F396-1, 333-ZJ01, 333-ZJ01A, 333-ZJ11, 333-ZJ11A, 333-TK01, 333-TK01A, 333-TK11, 333-TK11A
FCC ID:	2AAGPSMLTD1549
Standards:	47 CFR Part 1.1307 (2014) 47 CFR Part 2.1093 (2014) KDB447498D01 General RF Exposure Guidance v05r02
Date of Receipt:	2015-08-12
Date of Test:	2015-08-20
Date of Issue:	2015-08-26
Test Result :	PASS*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang  
EMC Laboratory Manager

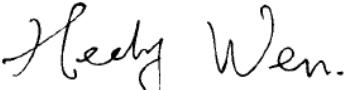
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## 2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		2015-08-26		Original

Authorized for issue by:				
				2015-08-20
Tested By		(Eric Fu) /Project Engineer		Date
				2015-08-26
Prepared By		(Hedy Wen) /Clerk		Date
				2015-08-26
Checked By		(Owen Zhou) /Reviewer		Date

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## 4 General Information

### 4.1 Client Information

Applicant:	ZHEN CHENG TOYS FACTORY
Address of Applicant:	CHENGHAI DISTRICT, SHANTOU CITY, GUANGDONG PROVINCE, CHINA
Manufacturer:	SEMTEL (HONGKONG) LTD
Supplier:	SEMTEL (HONGKONG) LTD
Importer:	SEMTEL (HONGKONG) LTD

### 4.2 General Description of EUT

Product Name:	7 CH R/C BATTLNG TANKS 2 PK
Model No.:	130436
Country of Origin:	CHINA
Country of Destination:	USA
Request Age Grading:	3+
Sample Type:	Portable production
Operation Frequency:	49MHz
Modulation Type:	AM
Antenna Type:	Integral
Antenna Gain:	0dBi
Power Supply:	DC 3.0V (2*1.5V"AAA"Size Batteries) for TX, DC 4.5V (3*1.5V"AAA"Size Batteries) for RX.

Remark:

Model No.: 130436, 1412F396-1, 333-ZJ01, 333-ZJ01A, 333-ZJ11, 333-ZJ11A, 333-TK01, 333-TK01A, 333-TK11, 333-TK11A.

Only the model 130436 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for all above models. Only different on colors.

### 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

At frequencies below 100 MHz, the following may be considered for SAR test exclusion:

- a) The power threshold at the corresponding test separation distance at 100 MHz in below step 1) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$  for test separation distances  $> 50 \text{ mm}$  and  $< 200 \text{ mm}$
- b) The power threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq 50 \text{ mm}$ .

1)  $[\text{Power allowed at numeric threshold for } 50 \text{ mm in step 1)} + (\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)] \text{ mW}$ , at 100 MHz to 1500 MHz

#### 5.1.3 EUT RF Exposure

The maximum conducted output power specified is  $-34.76 \text{ dBm} = 3.34 \times 10^{-4} \text{ mW}$

The source- based time-averaging conducted output power

$$= 0.0003 \times \text{Duty Cycle mW} = 0.00009 \text{ mW}$$

The SAR Exclusion Threshold Level for 49.86MHz when the minimum test separation distance is  $< 50\text{mm}$ :

$$= 474 \times [1 + \log(100/f(\text{MHz}))]/2$$

$$= 308.1 \text{ mW}$$

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.