



Report No.: SZEM161201070002

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# SAR Evaluation Report

**Application No.:** SZEM1612010700CR  
**Applicant:** Lidl US Trading, LLC  
**Manufacturer:** SHENZHEN KINGREE ELECTRONIC CO., LTD .  
**Factory:** SHENZHEN KINGREE ELECTRONIC CO., LTD .  
**Product Name:** BLUETOOTH MUSHROOM SPEAKER  
**Model No.(EUT):** SBPL 15 A1  
**Add Model No.:** BT2398  
**Trade Mark:** SILVERCREST  
**FCC ID:** 2AJ9O-SBPL15A1  
**Standards:** 47 CFR Part 1.1307 (2015)  
47 CFR Part 2.1093 (2015)  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2016-12-15  
**Date of Test:** 2016-12-15 to 2017-03-10  
**Date of Issue:** 2017-03-13

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

**CHEN Jian-feng, Jeffrey**

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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## 2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2017-03-13		Original

Authorized for issue by:			
Tested By			2017-03-10
		(Bill Chen) /Project Engineer	Date
Checked By			2017-03-13
		(Eric Fu) /Reviewer	Date



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## 4 General Information

### 4.1 Client Information

Applicant:	Lidl US Trading, LLC
Address of Applicant:	3500 S. Clark Street, Arlington, Virginia, United States
Manufacturer:	SHENZHEN KINGREE ELECTRONIC CO., LTD.
Address of Manufacturer:	3F & 6F BUILDING 70 BOHUA TECH. PARK GUANLAN STREET, SHENZHEN CITY, CHIAN, 518110
Factory:	SHENZHEN KINGREE ELECTRONIC CO., LTD.
Address of Factory:	3F & 6F BUILDING 70 BOHUA TECH. PARK GUANLAN STREET, SHENZHEN CITY, CHIAN, 518110

### 4.2 General Description of EUT

Product Name:	BLUETOOTH MUSHROOM SPEAKER
Model No.:	SBPL 15 A1
Trade Mark:	SILVERCREST
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	Bluetooth 4.1 with EDR
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Sample Type:	Portable production
Antenna Type:	Integral
Antenna Gain:	0dBi
Power Supply	Rechargeable battery: DC 3.7V 200mAh 0.74Wh (Charge by USB)

Remark:

Model No.: BT2398, SBPL 15 A1

Only the model SBPL 15 A1 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, only different on the silicone color.



### **4.3 Test Location**

All tests were subcontracted to Shenzhen EMC Lab:  
SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch,  
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.  
518057.  
Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

### **4.4 Deviation from Standards**

None.

### **4.5 Abnormalities from Standard Conditions**

None.

### **4.6 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:

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

$f(\text{GHz})$  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 1.65dBm in middle channel(2.441GHz);

1.65dBm logarithmic terms convert to numeric result is nearly 1.46mW

According to the formula. calculate the test exclusion thresholds:

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

General RF Exposure =  $(1.46\text{mW} / 5 \text{ mm}) \times \sqrt{2.441\text{GHz}} = 0.46$  ①

SAR requirement:

S= 3.0

② ;

① < ②.

So the SAR report is not required.