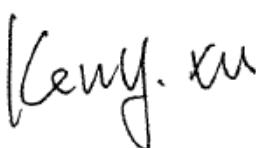


SAR Evaluation Report

Application No.:	SZEM2006005624CR
Applicant:	OC Acoustic
Address of Applicant:	17 Coppercrest, Aliso Viejo, CA 92656, USA
Manufacturer:	Smart Glory Electronics(ShenZhen)Co., Ltd
Address of Manufacturer:	Building Four, No.63, Zhangqi Road, Qiping Village, Daping Community, Guanlan Street, Longhua New District, ShenZhen City
Factory:	Smart Glory Electronics(ShenZhen)Co., Ltd
Address of Factory:	Building Four, No.63, Zhangqi Road, Qiping Village, Daping Community, Guanlan Street, Longhua New District, ShenZhen City
Equipment Under Test (EUT):	
EUT Name:	Newport Plug-in Speaker
Model No.:	PLUGINSP
♦	Please refer to section 4 of this report which indicates which model was actually tested and which were electrically identical.
FCC ID:	2AV58-PLUGINSP20
Standards:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Date of Receipt:	2020-06-28
Date of Test:	2020-07-01 to 2020-07-22
Date of Issue:	2020-07-23

Test Result :	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.



Keny. Xu
EMC Laboratory Manager



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Report No.: SZEM200600562404
Page: 2 of 7

2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2020-07-23		Original

Authorized for issue by:			
	 _____ Powell Bao /Project Engineer		
	 _____ Eric Fu /Reviewer		

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4 General Information

4.1 General Description of EUT

Power Supply:	Input: AC100-240V, 50/60Hz, 0.25A USB Output: DC5V, 2.1A
For BT:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.1 Dual mode
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, π/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Antenna Gain:	0dBi
Antenna Type:	PCB Antenna
For BLE:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.1 Dual mode
Supported Data Rate:	Bluetooth LE 1Mb/s, LE 2Mb/s
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Antenna Gain:	0dBi
Antenna Type:	PCB Antenna

Remark:

Model No.: PLUGINSP

There are four colors of the above model, only the black one was tested, since according to the declaration from the applicant, the electrical circuit design, layout, components used, internal wiring and functions were identical for the model, with only difference on colors of the plastic housing and cloth.

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4.2 Test Location

All tests were performed at:

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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.

4.3 Test Facility

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

- **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 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.4 Deviation from Standards

None.

4.5 Abnormalities from Standard Conditions

None.

4.6 Other Information Requested by the Customer

None.

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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 ≤ 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 calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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

For BT:

The Max. power (including tune-up tolerance) is 2.68 dBm on the middle channel 2.441 GHz (*)

2.68 dBm logarithmic terms convert to numeric result is nearly 1.85 mW

According to the formula. calculate the test exclusion thresholds:

$$\text{General RF Exposure} = \frac{(\text{Max. Power of channel, including tune-up tolerance, mW}) * \sqrt{f(\text{GHz})}}{(\text{min. test separation distance, mm})}$$

$$\text{General RF Exposure} = (1.85 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.441 \text{ GHz}} = 0.58 \quad (1)$$

SAR requirement:

$$S = 3.0 \quad (2)$$

$$(1) < (2)$$

So the SAR report is not required.

(*) Max. power refer to Report No.:SZEM200600562402

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For BLE

The Max. power (including tune-up tolerance) is 0.20 dBm on the middle channel 2.44 GHz (*)

0.20 dBm logarithmic terms convert to numeric result is nearly 1.05 mW

According to the formula. calculate the test exclusion thresholds:

$$\text{General RF Exposure} = \frac{(\text{Max. Power of channel, including tune-up tolerance, mW}) * \sqrt{f (\text{GHz})}}{(\text{min. test separation distance, mm})}$$

$$\text{General RF Exposure} = (1.05 \text{ mW} / 5 \text{ mm}) * \sqrt{2.44 \text{ GHz}} = 0.33 \quad (1)$$

SAR requirement:

$$S = 3.0 \quad (2)$$

$$(1) < (2)$$

So the SAR report is not required.

(*) Max. power refer to Report No.:SZEM200600562403

Note: this device does not support simultaneously transmission for BT and BLE

- End of the Report -

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