


# SAR Evaluation Report

**Application No.:** SZEM2007005836CR  
**Applicant:** SKULLCANDY, INC.  
**Address of Applicant:** 6301 N Landmark Dr Park City UT 84098, Utah United States of America  
**Manufacturer:** SKULLCANDY, INC.  
**Address of Manufacturer:** 6301 N Landmark Dr Park City UT 84098, Utah United States of America  
**Equipment Under Test (EUT):**  
**EUT Name:** Vinyl / Spoke ♣  
 ♣ Please refer to section 4 of this report which indicates which model was actually tested and which were electrically identical.  
**Model No.:** V2VYW  
**Trade mark:**   
 Skullcandy  
**FCC ID:** Y22-V2VYW  
**Standards:** 47 CFR Part 1.1307  
 47 CFR Part 2.1093  
 KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2020-07-01  
**Date of Test:** 2020-07-04 to 2020-07-27  
**Date of Issue:** 2020-08-08

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

Keny Xu  
EMC Laboratory Manager



## 2 Version

<i>Revision Record</i>				
<i>Version</i>	<i>Chapter</i>	<i>Date</i>	<i>Modifier</i>	<i>Remark</i>
01		2020-08-08		Original

<b>Authorized for issue by:</b>			
			
		<hr/> <b>Benson Wang /Project Engineer</b>	
			
		<hr/> <b>Eric Fu /Reviewer</b>	





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## 4 General Information

### 4.1 General Description of EUT

Power Supply:	Left earbuds: Li-Ion Polymer Battery 3.7V 43mAh (Charge by travel case) Right earbuds: Li-Ion Polymer Battery 3.7V 43mAh (Charge by travel case) travel case with backup battery: Li-Ion Polymer Battery 3.7V 370mAh (Charged by usb port)
Cable:	Usb cable: 22cm unshielded
Bluetooth Version:	V5.0 Classic
Operation Frequency:	2402MHz to 2480MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Antenna Type:	Integral Antenna
Antenna Gain:	Left earbuds: -1.19dBi; Right earbuds: -2.81dBi

#### Remark:

EUT Name: Vinyl / Spoke

Only the EUT name Vinyl 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 above models, with only difference on the product name.



## 4.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

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.



## 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:

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

For Left and Right earbuds:

The Max. power (including tune-up tolerance) is 5.6 mW on the highest channel 2.480GHz (\*)

According to the formula. calculate the test exclusion thresholds:

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

$$\text{General RE exposure} = (5.6\text{mW} / 5\text{mm}) \times \sqrt{2.48 \text{ GHz}} = 1.76 \quad (1)$$

SAR requirement:

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

$$(1) < (2)$$

So, SAR report is not required.

End of the Report -

