



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

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR230600178308

Page: 1 of 8

# RF EXPOSURE EVALUATION REPORT

**Application No.:** SZCR2306001783AT  
**Applicant:** Huizhou Enya Musical Instruments Ltd.  
**Address of Applicant:** Shun Ju Village, Chayuan Admin district, Qiuchang, Huiyang, Huizhou, Guangdong, 516221 China  
**Manufacturer:** Huizhou Enya Musical Instruments Ltd.  
**Address of Manufacturer:** Shun Ju Village, Chayuan Admin district, Qiuchang, Huiyang, Huizhou, Guangdong, 516221 China  
**Factory:** Huizhou Enya Musical Instruments Ltd.  
**Address of Factory:** Shun Ju Village, Chayuan Admin district, Qiuchang, Huiyang, Huizhou, Guangdong, 516221 China  
**Equipment Under Test (EUT):**  
**EUT Name:** Enya Intelligent Sound Guitar  
**Model No.:** NEXG 2, NEXG II,  
NEXG 2 Classic, NEXG II Classic,  
NEXG 2 Basic, NEXG II Basic ♣  
♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.  
**FCC ID:** 2A6K2NEXG697456640  
**Standard(s) :** 47 CFR PART 1, Subpart I, Section 1.1310  
47 CFR PART 2, Subpart J, Section 2.1093  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2023-06-08  
**Date of Evaluation:** 2023-06-09 to 2023-09-14  
**Date of Issue:** 2023-12-13

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

Keny Xu

Keny Xu  
EMC Laboratory Manager



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Shenzhen Branch EMC Laboratory

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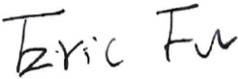
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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2023-12-13		Original

Authorized for issue by:				
				
		Bill Chen/Project Engineer		
				
		Eric Fu/Reviewer		



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## 2 Evaluation Summary

### Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

### Declaration of EUT Family Grouping:

Model No.: NEXG 2, NEXG II,  
NEXG 2 Classic, NEXG II Classic,  
NEXG 2 Basic, NEXG II Basic

Only the model NEXG 2 was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference on colour and model No..



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	Headset microphone: DC 3.7V 450mAh by rechargeable battery and charged by an adapter. Guitars: DC 14.4V 2600mAh 37.44Wh by rechargeable battery and charged by an adapter. Handheld microphone: DC 3.6V 2600mAh 9.36Wh by rechargeable battery and charged by an adapter. Adapter Model: RY-U33 Input: AC 100-240V, 50/60Hz 0.8A Output USB-A+ Type-C: 5V 4.5A USB-A: 5V 4.5A/5V 3A/9V 3A/12V 2.5A/15V 2A/20V 1.5A Type-C: 5V 3A/9V 3A/10V 2.25A/12V 2.5A/15V 2A/20V 1.5A
Frequency Range:	670MHz~679.5MHz
Declared BW	100KHz
Modulation:	pi/4 DQPSK
Number of Channel:	20
Channel Spacing:	500KHz
Sample Type:	Portable device
Antenna Type:	External antenna
Cable Loss(for RF conducted test)	0.6dB



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## 4.2 Evaluating Location

All tests were performed at:

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Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

## 4.3 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 (Member No. 1937)

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. Shenzhen EMC laboratory 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: CN1336

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

Designation Number: CN1336. Test Firm Registration Number: 787754.

### • 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



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## 5 Technical Requirements Specification

### 5.1 RF Exposure Evaluation

#### 5.1.1 Limit & Test Method

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:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})} \right] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 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

#### 5.1.2 Conclusion

##### For Wireless Microphone:

The Max. power (including tune-up tolerance) is 3.35 dBm on the highest channel 0.68 GHz (\*)  
3.35 dBm logarithmic terms convert to numeric result is nearly 2.16 mW

According to the formula, calculate the test exclusion thresholds:

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

$$\text{General RF Exposure} = (2.16 \text{ mW} / 5 \text{ mm}) \times \sqrt{0.6795 \text{ GHz}} = 0.36 \quad (1)$$

SAR requirement:

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

(1) < (2)

So the SAR report is not required.

(\*) Max. power refer to Report No.:SZCR230600178307 and the User Manual.

## 6 EUT Constructional Details (EUT Photos)

Refer to appendix - external and internal photos for SZCR2306001783AT

- End of the Report -



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