RF EXPOSURE EVALUATION REPORT

Application No.:	SZCR2311003742AT
Applicant:	Voyetra Turtle Beach, Inc.
Address of Applicant:	44 South Broadway 4th Floor, White Plains, New York, 10601, United States
Manufacturer:	Voyetra Turtle Beach, Inc.
Address of Manufacturer:	44 South Broadway 4th Floor, White Plains, New York, 10601, United States
Factory:	Acoustic Innovation (Huizhou) Co., Ltd.
Address of Factory:	(Innovation Factory) Xiangshuihe, Dayawan, Huizhou City, Guangdong Province, P.R. China
Equipment Under Test (EUT):	
EUT Name:	Wireless Headset
Model No.:	HWBB0005 ♣
♣	Please refer to section 3.1 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark:	Turtle Beach
FCC ID:	XGB-HWBB0005
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:	2023-11-21
Date of Evaluation:	2023-11-22 to 2023-12-20
Date of Issue:	2024-01-08
Evaluation Result:	**Pass***

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

Keny Xu
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2024-01-08		Original

Authorized for issue by:				
		Gebin Sun **Gebin Sun/Project Engineer**		
		Eric Fu **Eric Fu/Reviewer**		

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2 Contents

3 General Information

3.1 Details of E.U.T.

Power supply:	Rechargeable battery DC3.7V,500mAh for headset
Cable(s):	Type-C USB cable:75cm unshielded
For BT of headset	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.3
Modulation Type:	GFSK, Pi/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Antenna Type:	PCB Antenna
Antenna Gain:	4.23dBi
For 2.4G property of headset	
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Channel Spacing:	2MHz
Number of Channels:	40
Antenna Type:	PCB Antenna
Antenna Gain:	4.23dBi

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

The Model No.: HWBB0005

There are two versions(XBOX and PC) of this model HWBB0005 and only version XBOX was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used, internal wiring and functions were identical for the two versions except difference on the length of USB-C charging cable.

3.2 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, Nanshan District, Shenzhen, Guangdong, China. 518057.

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

No tests were sub-contracted.

3.3 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 (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.

3.4 Deviation from Standards

None

3.5 Abnormalities from Standard Conditions

None

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 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.

4.1.2 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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation[17]

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

4.1.3 EUT RF Exposure

For BT of Headset:

Antenna Gain:4.23dBi

The Max. power (including tune-up tolerance) is 7.81 dBm on the middle channel 2.441 GHz (*)
7.81 dBm logarithmic terms convert to numeric result is nearly 6.04 mW
According to the formula. calculate the test exclusion thresholds:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]

$$General\ RF\ Exposure = (6.04\ mW / 5\ mm)\ x\ \sqrt{2.441\ GHz} = 1.89 \quad (1)$$

SAR requirement:

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

(1) < (2)
So the SAR report is not required.

(*) Max. power refer to Report No.:: SZCR231100374202

For 2.4G property of headset:

Antenna Gain:4.23dBi

The Max. power (including tune-up tolerance) is 7.37 dBm on the middle channe 2.44 GHz (*)
7.37 dBm logarithmic terms convert to numeric result is nearly 5.46 mW
According to the formula. calculate the test exclusion thresholds:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]

$$General\ RF\ Exposure = (5.46\ mW / 5\ mm)\ x\ \sqrt{2.44\ GHz} = 1.71 \quad (1)$$

SAR requirement:

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

(1) < (2)
So the SAR report is not required.

(*) Max. power refer to Report No.:: SZCR231100374203

- End of the Report -