

Prüfbericht-Nr.: Test report no.:	CN21I5RR(FCC-RFEXP) 001	Auftrags-Nr.: Order no.:	238518324	Seite 1 von 8 Page 1 of 8
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2021-08-05	
Auftraggeber: Client:	Voyetra Turtle Beach, Inc. 44 South Broadway, 4th Floor, White Plains, New York 10601, U.S.A.			
Prüfgegenstand: Test item:	Wireless Ear Buds			
Bezeichnung / Typ-Nr.: Identification / Type no.:	Scout Air, SYN Buds Air			
Auftrags-Inhalt: Order content:	FCC Certification			
Prüfgrundlage: Test specification:	47 CFR §2.1093 47 CFR §1.1310			
Wareneingangsdatum: Date of sample receipt:	2021-08-02			
Prüfmuster-Nr.: Test sample no:	A003102500-004 A003102500-002			
Prüfzeitraum: Testing period:	2021-08-25 - 2021-10-15			
Ort der Prüfung: Place of testing:	EMC/RF Taipei Testing Site			
Prüflaboratorium: Testing laboratory:	Taipei Testing Laboratories			
Prüfergebnis*: Test result*:	Pass			
überprüft von: compiled by:	genehmigt von: authorized by:			
Datum: Date: 2021-11-11	 Ethan Shao		 Ryan Chen	
Stellung / Position:	Assistant Project Engineer		Senior Project Manager	
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

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APPENDIX EP - PHOTOGRAPHS OF EUT

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HISTORY OF THIS TEST REPORT

Report No.	Description	Date Issued
CN21I5RR(FCC-RFEXP) 001	Original Release	2021-11-11

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:
Appendix EP - Photographs of EUT

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2 Test Sites

2.1 Test Facilities

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a Wireless Ear Buds. It contains a Bluetooth compatible module enabling the user to communicate data through a wireless interface.

For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 Ratings and System Details

Basic Information of EUT

Item	EUT information
Kind of Equipment/Test Item	Wireless Ear Buds
Type Identification	Scout Air, SYN Buds Air
FCC ID	XGB-5012R

Technical Specification of EUT

Item	EUT information
Operating Frequency	2402 MHz ~ 2480 MHz
Channel Spacing	BT: 1MHz BLE: 2 MHz
Channel Number	BT: 79 BLE: 40
Operation Voltage	3.7Vdc (Battery) 5Vdc (USB)
Modulation	BT: GFSK, $\pi/4$ -DQPSK, 8DPSK BLE: GFSK
Antenna Type	FPC Antenna
Antenna Gain	-1 dBi

Note:

1. All models are listed as below.

Model Type	Type Identification	Difference
Main	Scout Air	All models are electrically identical, different model names are for marketing purpose.
Series	SYN Buds Air	

4 RF Exposure Evaluation

4.1 SAR test exclusion

Following FCC KDB 447498 D01 “General SAR test exclusion guidance v06”

The corresponding SAR Test Exclusion Threshold condition(s), listed below:

- a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
- $$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{(GHz)}}}] \leq 3.0 \text{ for 1-g SAR, and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
- $f_{\text{(GHz)}}$ is the RF channel transmit frequency in GHz.
 - Power and distance are rounded to the nearest mW and mm before calculation.
 - The result is rounded to one decimal place for comparison
 - The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below
- 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.
- b) For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
- 1) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot (f_{\text{(MHz)}}/150)]\}$ mW, for 100 MHz to 1500 MHz
 - 2) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$ mW, for > 1500 MHz and ≤ 6 GHz
- c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion.
- 1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by $[1 + \log(100/f_{\text{(MHz)}})]$
 - 2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$
 - 3) SAR measurement procedures are not established below 100 MHz.

When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any SAR test results below 100 MHz to be acceptable.

5 Test Results

5.1 SAR Test Exclusion Threshold

BLE

Frequency (GHz)	Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value	1-g head or body SAR test exclusion thresholds	Result
2.4	9.46	5	2.93	3	Pass

BT

Frequency (GHz)	Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value	1-g head or body SAR test exclusion thresholds	Result
2.4	7.64	5	2.37	3	Pass

Conclusion

The device complies with the FCC exposure requirements since the maximum transmitter power density is below the FCC limit.