

RF Exposure Evaluation Report

Product : ANC Wireless Headphone
Trade mark : Lighkeep
Model/Type reference : NC65, Yoozer Go
Serial Number : N/A
Report Number : EED32Q80195902
FCC ID : 2A988-005A00100NC65
Date of Issue : Mar. 25, 2024
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

Shen Zhen Lighkeep Co., Limited
No 19, Baotong South Road, Xikeng Community, Longgang Zone,
Shenzhen City, Guangdong Province, China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by:

mark.chen.

Reviewed by:

Frazer. Li

Mark Chen

Frazer Li

Approved by:

Aaron Ma

Date:

Mar. 25, 2024

Aaron Ma



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1 Version

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3 General Information

3.1 Client Information

Applicant:	Shen Zhen Lighkeep Co., Limited
Address of Applicant:	No 19, Baotong South Road, Xikeng Community, Longgang Zone, Shenzhen City, Guangdong Province, China
Manufacturer:	Shen Zhen Lighkeep Co., Limited
Address of Manufacturer:	No 19, Baotong South Road, Xikeng Community, Longgang Zone, Shenzhen City, Guangdong Province, China
Factory:	Shen Zhen Lighkeep Co., Limited
Address of Factory:	No 19, Baotong South Road, Xikeng Community, Longgang Zone, Shenzhen City, Guangdong Province, China

3.2 General Description of EUT

Product Name:	ANC Wireless Headphone
Model No.(EUT):	NC65, Yoozer Go
Test Model No.:	NC65
Trade Mark:	Lighkeep

3.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Test Power Grade:	Default
Test Software of EUT:	Non Signaling Test tool
Antenna Type:	Chip Antenna
Antenna Gain:	3.59 dBi
Power Supply:	Battery DC 3.7V
Sample Received Date:	Feb. 26, 2024
Sample tested Date:	Feb. 26, 2024 to Mar. 21, 2024

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

Model No.: NC65, Yoozer Go

Only the model NC65 was tested. Their electrical circuit design, layout, components used and internal wiring are identical. Only the color of the appearance, Bluetooth pairing name, logo are different.

3.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.1.3 EUT RF Exposure Evaluation**For Stand alone:****For Bluetooth Classic**

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2441	-0.86	3.59	2.73	0.58	1.143	≤2.752	PASS

Note:

- ① EIRP=conducted power+antenna gain;
- ② $ERP=EIRP-2.15$;
- ③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;
- ④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;
- ⑤ The estimation distance is 0.5cm;
- ⑥ The test data please refer to the report of EED32Q80195901 and only the worst case data was recorded in the report.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***