RF Exposure Evaluation

For

Shenzhen Neewer Technology Co., Ltd.

Wireless Microphone

Test Model: KM23

Prepared for	:	Shenzhen Neewer Technology Co., Ltd.
Address	:	ROOM 1901-1903, Block A, LU SHAN BUILDING NO.3023 CHUNFENG RD LUO HU DISTRICT, SHENZHEN, GUANGDONG, 518001, CHINA
Prepared by	:	Guangzhou LCS Compliance Testing Laboratory Ltd.
Address	:	No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China
Tel	:	(+86) 020-39166689
Fax	:	(+86) 020-39166619
Web	:	www.LCS-cert.com
Mail	:	webmaster@LCS-cert.com
Date of receipt of test sample	:	April 17, 2025
Number of tested samples	:	2
Sample No.	:	A250402043-1, A250402043-2
Serial number	:	Prototype
Date of Test	:	April 17, 2025 ~ May 08, 2025
Date of Report	:	July 21, 2025

RF Exposure Evaluation

Report Reference No.	**:**	**LCSC04075011EC**
Date of Issue.....	:	July 21, 2025
Testing Laboratory Name.....	**:**	**Guangzhou LCS Compliance Testing Laboratory Ltd.**
Address.....	:	No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China
Testing Location/ Procedure.....	:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name.....	**:**	**Shenzhen Neewer Technology Co., Ltd.**
Address.....	:	ROOM 1901-1903, Block A, LU SHAN BUILDING NO.3023 CHUNFENG RD LUO HU DISTRICT, SHENZHEN, GUANGDONG, 518001, CHINA
Test Specification		
Standard.....	:	FCC KDB publication 447498 D01 General RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1093
Test Report Form No.....	**:**	TRF-4-E-215 A/0
TRF Originator.....	:	Guangzhou LCS Compliance Testing Laboratory Ltd.
Master TRF.....	:	Dated 2011-03

EUT Description.....	**:**	**Wireless Microphone**
Trade Mark.....	:	NEEWER
Test Model.....	:	KM23
Ratings.....	:	USB-C Input: 5Vdc, 2A Built-in Battery: 3.7V, 80mAh, 0.296Wh
Result	**:**	**PASS**

Compiled by:	**Supervised by:**	**Approved by:**
Lifeng Le / File administrators	Justin Zhu / Technique Director	Gavin Liang/ Manager

RF Exposure Evaluation

Test Report No. : **LCSC04075011EC**	July 21, 2025 Date of issue

Test Model.....	: KM23
EUT.....	: Wireless Microphone
Applicant.....	**: Shenzhen Neewer Technology Co., Ltd.**
Address.....	: ROOM 1901-1903, Block A, LU SHAN BUILDING NO.3023 CHUNFENG RD LUO HU DISTRICT, SHENZHEN, GUANGDONG, 518001, CHINA
Telephone.....	: /
Fax.....	: /
Manufacturer.....	**: Shenzhen Neewer Technology Co., Ltd.**
Address.....	: ROOM 1901-1903, Block A, LU SHAN BUILDING NO.3023 CHUNFENG RD LUO HU DISTRICT, SHENZHEN, GUANGDONG, 518001, CHINA
Telephone.....	:
Fax.....	:
Factory.....	**: Shenzhen Neewer Technology Co., Ltd.**
Address.....	: ROOM 1901-1903, Block A, LU SHAN BUILDING NO.3023 CHUNFENG RD LUO HU DISTRICT, SHENZHEN, GUANGDONG, 518001, CHINA
Telephone.....	: /
Fax.....	: /

Test Result	**PASS**

The test report merely corresponds to the test sample.

Revision History

Report Version	Issue Date	Revision Content	Revised By
000	July 21, 2025	Initial Issue	---

TABLE OF CONTENTS

Description **Page**

1. Product Information

Product name	:	Wireless Microphone
Test Model	:	KM23
Ratings	:	USB-C Input: 5Vdc, 2A Built-in Battery: 3.7V, 80mAh, 0.296Wh
Hardware Version	:	/
Software Version	:	/
Bluetooth	:	2402MHz ~ 2480MHz
Channel Number	:	79 channels for Bluetooth V5.1 (DSS) 40 channels for Bluetooth V5.1 (DTS)
Channel Spacing	:	1MHz for Bluetooth V5.1(DSS) 2MHz for Bluetooth V5.1(DTS)
Modulation Type	:	GFSK , π/4-DQPSK, 8-DPSK for Bluetooth V5.1 (DSS) GFSK for Bluetooth V5.1 (DTS)
Bluetooth Version	:	V5.1
Antenna Type	:	Chip Antenna
Antenna Gain	:	0.9dBi
Exposure category	:	General population/uncontrolled environment
EUT Type	:	Production Unit
Device Type	:	Portable Device

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.s-Middle Channel

2. Evaluation method and Limit

According to KDB447498 D01 General RF Exposure Guidance v06 Section 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 Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.22 The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops & tablets etc.“

[(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
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 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 according to f) in section 4.1 is applied to determine SAR test exclusion.

When one of the following test exclusion conditions is satisfied for all combinations of simultaneous transmission configurations, further equipment approval is not required to incorporate transmitter modules in host devices that operate in the mixed mobile and portable host platform exposure conditions. The grantee is responsible for documenting this according to Class I permissive change requirements. Antennas that qualify for standalone SAR test exclusion must apply the estimated standalone SAR to determine simultaneous transmission test exclusion.

a) The [∑ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) / 1.6 W/kg] + [∑ of MPE ratios] is ≤ 1.0.

b)The SAR to peak location separation ratios of all simultaneously transmitting antenna pairs operating in portable device exposure conditions are all ≤ 0.04, and the [∑ of MPE ratios] is ≤ 1.0.

3. Refer Evaluation Method

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

FCC KDB publication 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

FCC CFR 47 part1 1.1310: Radiofrequency radiation exposure limits.

FCC CFR 47 part2 2.1093: Radiofrequency radiation exposure evaluation: portable devices

4. Conducted Power Results

<BT>

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	0	2402	-0.94
	39	2441	-0.95
	78	2480	-1.80
π/4DQPSK	0	2402	-1.75
	39	2441	0.81
	78	2480	0.01
8DPSK	0	2402	-1.36
	39	2441	1.19
	78	2480	0.40

< BLE 1M>

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	0	2402	-1.45
	19	2440	1.04
	39	2480	-0.01

< BLE 2M>

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	0	2402	-1.56
	19	2440	0.84
	39	2480	-0.19

5. Manufacturing Tolerance

<BT>

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0	0	-1.0
Tolerance ±(dB)	1.0	1.0	1.0
π/4DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-1.0	0	0
Tolerance ±(dB)	1.0	1.0	1.0
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	-1.0	1.0	0
Tolerance ±(dB)	1.0	1.0	1.0

< BLE 1M>

GFSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-1.0	1.0	0
Tolerance ±(dB)	1.0	1.0	1.0

<BLE 2M>

GFSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-1.0	0	0
Tolerance ±(dB)	1.0	1.0	1.0

6. Evaluation Results

6.1 Standalone Evaluation

Band/Mode		f (GHz)	Antenna Distance (mm)	RF output power		SAR Test Exclusion Threshold	SAR Test Exclusion
				dBm	mW		
BT	GFSK	2.441	5	1.0	1.2589	0.3934< 3.0	Yes
	π/4DQPSK	2.480	5	1.0	1.2589	0.3965< 3.0	Yes
	8DPSK	2.441	5	2.0	1.5849	0.4952< 3.0	Yes
BLE 1M	GFSK	2.440	5	2.0	1.5849	0.4951< 3.0	Yes
BLE 2M	GFSK	2.440	5	1.0	1.2589	0.3933< 3.0	Yes

Remark:

1. Output power including tune up tolerance;

2. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.

6.2 Simultaneous Transmission for SAR Exclusion

The sample support one BT modular. No need consider simultaneous transmission.

7. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

8. Description of Test Facility

Site Description

EMC Lab. : CNAS Registration Number is L11555
A2LA Certificate Number: 5099.01
FCC Designation Number is CN1379
Test Firm Registration Number: 729882

9. Measurement Uncertainty

BT/BLE:

Test Item		Frequency Range	Uncertainty	Note
Output power	:	1GHz-40GHz	±0.57dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

.....THE END OF REPORT.....