

FCC TEST REPORT

FCC ID:2BG3K-BT-3301

Report Number.....: **ZHT-240516027E-2**

Date of Test..... May 16, 2024 to June 20, 2024

Date of issue.....: June 20, 2024

Test Result: PASS

Testing Laboratory.....: **Guangdong Zhonghan Testing Technology Co., Ltd.**

Address: Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Applicant's name: **XUTHUS INT'L LOGISTICS LTD**

Address: ROOM 419 BULDING 2, ZHIMEI HUIZHI INDUSTRIAL PARK, FUZHOU ROAD, FUYONG, SHENZHEN, CHINA

Manufacturer's name: **XUTHUS INT'L LOGISTICS LTD**

Address: ROOM 419 BULDING 2, ZHIMEI HUIZHI INDUSTRIAL PARK, FUZHOU ROAD, FUYONG, SHENZHEN, CHINA

Test specification:

Standard.....: FCC CFR Title 47 Part 15 Subpart C

Test procedure.....: /

Non-standard test method: N/A

This device described above has been tested by ZHT, and the test result shows that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Product name.....: **LED WIRELESS CHARGING SPEAKER**

Trademark: /

Model/Type reference.....: BT-3301, BT-3302 BT-3303, BT-3304, BT-3305, BT-3306, BT-3307, BT-3308, BT-3309

Model Difference..... BT-3301 is tested model, other models are derivative models. The models are identical in circuit, only different on the model names. So the test data of BT-3301 can represent the remaining models.

Ratings.....: Input: Type-C: 5V, or 3.7V by Built-in Battery
Wireless charging Output: 15W Max

Testing procedure and testing location:

Testing Laboratory.....: Guangdong Zhonghan Testing Technology Co., Ltd.

Address.....: Room 104, Building 1, Yibaolai Industrial Park, Qiaotou
Community, Fuhai Street, Bao'an District, Shenzhen,
Guangdong, China

Tested by (name + signature).....: Leon Li

Leon Li

Reviewer (name + signature).....: Baret Wu

Baret Wu

Approved (name + signature).....: Levi Lee

Levi Lee

RF Exposure Evaluation

Product Name:	LED WIRELESS CHARGING SPEAKER
Product Model No.:	BT-3301
Test Auxiliary:	Wireless charging load and AC adapter
Transmitting mode:	Keep the EUT in continuously wireless charging mode
Ratings:	Input: Type-C: 5V, or 3.7V by Built-in Battery Wireless charging Output: 15W Max

Test Modes:	
Mode 1	Wireless charging(5W)
Mode 2	Wireless charging(7.5W)
Mode 3	Wireless charging(10W)
Mode 4	Wireless charging(15W)
Note: 1.All modes were tested, only the worst-case was recorded in the report. Mode 4 is the worst mode. 2.The EUT does not support portable use, and wireless charging output is not supported when only powered by batteries.	

Auxiliary equipment					
Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	AC adapter	N/A	HW-059200CHQ	N/A	AE
E-2	Wireless charging load	N/A	EESON	N/A	AE

1 Measuring Standard

KDB 680106 D01 Wireless Power Transfer v04

2 Requirements

According to the item 5 of KDB 680106 D01 v04:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

(1) The power transfer frequency is below 1 MHz.

The EUT frequency range is: 110kHz- 205kHz.

(2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

The output power is equal to 15W, Only one coil.

(3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

EUT can be directly charged.

(4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).

EUT is a mobile device

(5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.

Yes, the EUT field strength levels are less 50% x MPE limit.

(6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

Yes, EUT has only one coil.

Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

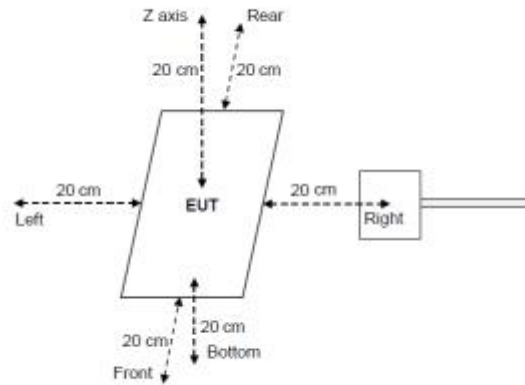
Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
 * =Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310 (use the 300kHz limits for 150kHz: 614V/m, 1.63A/m).

3 Test Setup

For mobile exposure conditions:



4 Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at test distance (20 cm from all sides and 20 cm from the top) which is between the edge of the charger and the geometric center of probe.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

Remark: The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

5 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Magnetic Amplitude and Gradient Probe System	SPEAG	MAGPy-8H3D+E3D V2& MAGPy-DAS V2	SZ186-06& 3061	Feb. 26, 2024	Feb. 25, 2025

6 Test Result

We have evaluated 5W, 7.5W, 10W and 15W Wireless charging mode, and the worst mode (15W) is showed in this report.

E-Filed Strength at 20 cm from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	50%Limits (V/m)	Limits (V/m)	test result
0.110-0.205	0.68	0.63	0.37	0.42	307	614	PASS

E-Filed Strength at 20 cm from the top of the EUT (V/m)

Frequency Range (MHz)	Test Position E	50%Limits (V/m)	Limits (V/m)	test result
0.110-0.205	0.87	307	614	PASS

H-Filed Strength at 20 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	50%Limits (V/m)	Limits (A/m)	test result
0.110-0.205	0.37	0.30	0.21	0.23	0.815	1.63	PASS

H-Filed Strength at 20 cm from the top of the EUT (A/m)

Frequency Range (MHz)	Test Position E	50%Limits (V/m)	Limits (A/m)	test result
0.110-0.205	0.27	0.815	1.63	PASS

Test Set-up Photo

