



RF Exposure Evaluation
For
Shenzhen Chongxin Technology Co.,Ltd
Pet Water Fountain
Test Model: WF311
Additional Model No.: Please Refer to Page 6

Prepared for : Shenzhen Chongxin Technology Co.,Ltd
Address : Room 903, building 6, Dongjiu Innovation Technology Park, Bulan Road,
Longgang District, Shenzhen, China

Prepared by : Guangzhou LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : May 30, 2025
Number of tested samples : 2
Sample No. : A250527041-1, A250527041-2
Serial number : Prototype
Date of Test : May 30, 2025 ~ June 27, 2025
Date of Report : July 25, 2025



RF Exposure Evaluation	
Report Reference No.	LCSC05295021EC
Date of Issue	July 25, 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 Chongxin Technology Co.,Ltd
Address	Room 903, building 6, Dongjiu Innovation Technology Park, Bulan Road, Longgang District, Shenzhen, China
Test Specification	
Standard	FCC KDB publication 447498 D01 General RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1091
Test Report Form No	TRF-4-E-215 A/0
TRF Originator	Guangzhou LCS Compliance Testing Laboratory Ltd.
Master TRF	Dated 2011-03
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Test Item Description	Pet Water Fountain
Trade Mark	Tikpaws, Petrust
Test Model	WF311
Ratings	Please Refer to Page 6
Result	Pass

Compiled by:

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Approved by:

Gavin Liang/ Manager



RF Exposure Evaluation

Test Report No. : LCSC05295021EC	<u>July 25, 2025</u> Date of issue
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EUT.....	: Pet Water Fountain
Test Model.....	: WF311
Applicant.....	: Shenzhen Chongxin Technology Co.,Ltd
Address.....	: Room 903, building 6, Dongjiu Innovation Technology Park, Bulan Road, Longgang District, Shenzhen, China
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Address.....	: Room 903, building 6, Dongjiu Innovation Technology Park, Bulan Road, Longgang District, Shenzhen, China
Telephone.....	: /
Fax.....	: /

Test Result	Pass
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



Revision History

Report Version	Issue Date	Revision Content	Revised By
000	July 25, 2025	Initial Issue	---



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**1. Product Information**

EUT	: Pet Water Fountain
Test Model	: WF311
Additional Model No.	: WF315
Model Declaration	: PCB board, structure and internal of these model(s) are the same, So no additional models were tested
Ratings	: Input: 5.0V $\pm$ 1.0A For AC Adapter Input: 100-240V~, 50/60Hz, 0.2A Adapter Output: 5.0V $\pm$ 1.0A, 5.0W DC 3.6V by Rechargeable Li-ion Battery, 5.2Ah, 18.72Wh
Hardware Version	: CX_PWW02_WF011 REV:07A
Software Version	: 2.0.7
Bluetooth	:
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 40 channels for Bluetooth V5.0 (DTS)
Channel Spacing	: 2MHz for Bluetooth V5.0 (DTS)
Modulation Type	: GFSK for Bluetooth V5.0 (DTS)
Bluetooth Version	: V5.0
Antenna Description	: PCB Antenna, 1.01dBi(Max.)
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz~2462MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz)
Channel Spacing	: 5MHz
Modulation Type	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PCB Antenna, 1.01dBi(Max.)
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit
Device Type	: Mobile Device
Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.	



2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3. Limit

3.1 Refer Evaluation Method

[ANSI C95.1-2019](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz

[FCC KDB publication 447498 D01 General 1 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 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices.

3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
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

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Uncontrolled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 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

4. MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2$$

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

**5. Conducted Power****[BLE 1M]**

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE 1M	0	2402	-2.54
	19	2440	-3.05
	39	2480	-3.76

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
IEEE 802.11b	1	2412	15.56
	6	2437	15.28
	11	2462	15.15
IEEE 802.11g	1	2412	16.53
	6	2437	16.87
	11	2462	17.19
IEEE 802.11n HT20	1	2412	15.80
	6	2437	16.02
	11	2462	16.22
IEEE 802.11n HT40	3	2422	15.57
	6	2437	15.90
	9	2452	15.96



6. Manufacturing Tolerance

[BLE 1M]

GFSK (Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	-2.0	-3.0	-3.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

[2.4G WIFI]

IEEE 802.11b (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	15.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11g (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	16.0	16.0	17.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	16.0	16.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	15.0	15.0	15.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0



7. Measurement Results

7.1 Standalone MPE Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

[BLE 1M]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
GFSK	-1.0	0.7943	1.01	1.2618	0.0002	1.0000

[2.4G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	16.0	39.8107	1.01	1.2618	0.0100	1.0000
IEEE 802.11g	18.0	63.0957	1.01	1.2618	0.0158	1.0000
IEEE 802.11n HT20	17.0	50.1187	1.01	1.2618	0.0126	1.0000
IEEE 802.11n HT40	16.0	39.8107	1.01	1.2618	0.0100	1.0000

Remark:

1. Output power including tune-up tolerance;
2. Output power was adjusted to duty cycle at 100% if measured duty cycle less than 98%;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer.



7.2 Simultaneous Transmission MPE Evaluation

The EUT equipped with one BLE/WIFI antenna and one WPT antenna. So, need consider simultaneous transmission.

Simultaneous Transmission MPE

BLE Max MPE (Ratio)	WIFI Max MPE (Ratio)	WPT Max MPE (Ratio)	simultaneous MPE (Ratio)	MPE Limits (Ratio)
0.0002	0.0158	0.1451	0.1611	1.0000

8. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

9. Description of Test Facility

CNAS Registration Number is L11555

A2LA Certificate Number: 5099.01

FCC Designation Number is CN1379

Test Firm Registration Number: 729882

10. Measurement Uncertainty

BT/BLE/2.4GWIFI:

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-----