

TEST REPORT

Reference No...... : WTF23D12272911W004
FCC ID : 2BCDM-FRANK
Applicant..... : Guangzhou Bochong Technology Co., Ltd
Address..... : Unit 2270, No. 283-2, Tongsha Road, Tonghe Street, Baiyun District, Guangzhou City, China
Manufacturer : Guangzhou Bochong Technology Co., Ltd
Address..... : Unit 2270, No. 283-2, Tongsha Road, Tonghe Street, Baiyun District, Guangzhou City, China
Product..... : Smart Cat Litter Box
Model(s) : FRANK, FRW, REM, REW, REM1, REW1
Standards..... : FCC 47CFR Part 2 Subpart J Section 2.1091
Date of Receipt sample : 2023-08-25
Date of Test : 2023-08-25 to 2023-09-12
Date of Issue..... : 2024-05-07
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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3. Revision History

Test Report No.	Date of Receipt Sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTF23D12272911W004	2023-08-25	2023-08-25 to 2023-09-12	2024-05-07	Original	-	Valid
Note: This report is based on WTF23D08185189W005 to update models. The update will not affect the Max. RF output power.						

4. General Information

4.1. General Description of E.U.T.

Product:	Smart Cat Litter Box
Model(s):	FRANK, FRW, REM, REW, REM1, REW1
Model difference:	Only the model names, appearance and control circuit PCB board are different for different market requirement. The models FRANK and FRW use control circuit PCB board B. The models REM, REW, REM1 and REW1 use control circuit PCB board C.
BT Version:	V5.0
Wi-Fi Specification:	2.4G-802.11b/g/n HT20/n HT40 5G-802.11a/ n(HT20/40)
Hardware Version:	Main Board: BC002_Main_V1.2 Extend Board: BC002_Key_V1.1 Weigh Board: BC002_Weight_V1.0 Hall Board: BC002_Hall_V1.0 Pir Board: BC002_Pir_V1.0
Software Version:	V1.1.3

4.2. Details of E.U.T.

Operation Frequency:	BLE: 2402~2480MHz 2.4G Wi-Fi: 802.11b/g/n HT20: 2412~2462MHz 802.11n HT40: 2422~2452MHz 5G Wi-Fi: 802.11a/n (HT20): U-NII-1: 5150-5250MHz, U-NII-3:5725-5850MHz 802.11n (HT40): U-NII-1: 5190-5230MHz, U-NII-3: 5755-5795MHz
Max. RF output power:	BLE: 8.99dBm 2.4G Wi-Fi: 18.34dBm 5G Wi-Fi: U-NII-1: 13.93dBm, U-NII-3: 16.61dBm
Modulation Technology:	BLE: GFSK 2.4G Wi-Fi: CCK, OFDM 5G Wi-Fi: OFDM
Antenna installation:	PCB Antenna
Antenna Gain:	BLE/2.4G Wi-Fi: 1.95dBi 5G Wi-Fi: U-NII-1: 1.97dBi, U-NII-3: -0.76dBi

Note:

#: The antenna gain is provided by the applicant, and the applicant should be responsible for its authenticity, WALTERK lab has not verified the authenticity of its information.

Ratings:	Input: DC 12V by adapter
Adapter:	Model: AS024-1202000U Input: 100-240V~ 50/60Hz 0.8A Output: 12V  2A

4.3. Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

4.4. Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

4.5. Abnormalities from Standard Conditions

None.

5. Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	FCC Part 2.1091	PASS

6. RF Exposure

Test Requirement: FCC 47CFR Part 2 Subpart J Section 2.1091

Evaluation Method: FCC 47CFR Part 1 Subpart I Section 1.1310,
KDB 447498 D01 General RF Exposure Guidance v06

6.1. Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

6.2. The procedures / limit

Table 1 to § 1.1310(e)(1) - 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)
(i) 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	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) 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
300-1,500			f/1500	<30
1,500-100,000			1	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

6.3. MPE Calculation Method

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

S = power density (in appropriate units, e.g. mW/cm²)

P = output power to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

From the peak EUT RF output power, the minimum mobile separation distance, R=20cm, as well as the gain of the used antenna, the RF power density can be obtained

6.4. Radio Frequency Radiation Exposure Evaluation

Band	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)
BLE	1.95	1.567	8.99	7.925	0.002470	1.0
2.4G Wi-Fi	1.95	1.567	18.34	68.234	0.021265	1.0
5G Wi-Fi U-NII-1	1.97	1.837	13.93	24.717	0.007739	1.0
5G Wi-Fi U-NII-3	-0.76	1.837	16.61	45.814	0.007650	1.0

Note:

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.

Conclusion:

RF Exposure is FCC compliant.

=====End of Report=====