

TEST REPORT

Product Name : iPet Automatic Cat Litter Box
Brand Mark : HHOLOVE
Model No. : U000A022
FCC ID : 2A5DZ-U000A022
Report Number : BLA-EMC-202201-A1605
Date of Sample Receipt : 2022/1/7
Date of Test : 2022/1/7 to 2022/3/1
Date of Issue : 2022/3/1
Test Standard : 47 CFR Part 1.1310, Part 2.1093,
KDB 447498
Test Result : Pass

Prepared for:

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Prepared by:

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2022/3/1



REPORT REVISE RECORD

Version No.	Date	Description
00	2022/3/1	Original

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1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
RF Exposure	47 CFR Part 1.1310, Part 2.1093, KDB 447498	CFR 47 Part 2.1093	CFR 47 Part 2.1093	PASS

2 GENERAL INFORMATION

Applicant	HHO (Hangzhou) Digital Technology Co., Ltd.
Address	Room 106-2, Building 1, 1818-2 West Wenyi Road, Yuhang District, Hangzhou City
Manufacturer	HHO (Hangzhou) Digital Technology Co., Ltd.
Address	Room 106-2, Building 1, 1818-2 West Wenyi Road, Yuhang District, Hangzhou City
Factory	Zhejiang Daxiong Mould Industry Co.,Ltd
Address	Xicheng Mould City, Huangyan District, Taizhou, Zhejiang
Product Name	iPet Automatic Cat Litter Box
Test Model No.	U000A022

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	BQHV20210920-1.0
Software Version	BQSV20211120-0.5
2.4G Wifi	
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Channel Spacing:	5MHz
Number of Channels:	802.11b/g/n(HT20):11
Antenna Type:	PCB Antenna
Antenna Gain:	2.5dBi(Provided by the applicant)
BLE	
Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK
Channel Spacing:	2MHz
Number of Channels:	40
Antenna Type:	PCB Antenna
Antenna Gain:	2.5dBi (Provided by the applicant)
5.8GHz	
Operation Frequency:	5850MHz-5870MHz
Channel spacing:	1MHz
Channel numbers:	21

Modulation type:	CW
Antenna Type:	PCB antenna
Antenna gain:	0dBi(Provided by customer)

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4 LABORATORY LOCATION

All tests were performed at:
BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province,
China
Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673
No tests were sub-contracted.

5 RF EXPOSURE EVALUATION

5.1 RF EXPOSURE COMPLIANCE REQUIREMENT

5.2 LIMITS

According to FCC Part1.1310: 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 part1.1307(b)

TABLE 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)
(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

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

$\pi = 3.1416$

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

5.3 TEST PROCEDURE

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

5.4 EUT RF EXPOSURE EVALUATION

Antenna Gain: BLE/2.4G WIFI:2.5dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

BLE

Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit	Result
middle	2442	3.884	2.45	0.000865	1.0	PASS

2.4G WIFI: 802.11b

Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit	Result
highest	2462	13.636	23.10	0.00817	1.0	PASS

Note: Refer to report No. BLA-EMC-202201-A16-02/03 for EUT test Max Conducted Peak Output Power value.

The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation Requirement

----END OF REPORT----

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