Shenzhen Most Technology Service Co., Ltd.
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RF Exposure Evaluation Report

Report Reference No......:	**MTEB23120036-H**
FCC ID..... :	**2BDXV-CATBOX**
Compiled by (position+printed name+signature)..:	File administrators Alisa Luo
Supervised by (position+printed name+signature)..:	Test Engineer Sunny Deng
Approved by (position+printed name+signature)..:	Manager Yvette Zhou
Date of issue.....:	December 06,2023
Representative Laboratory Name .:	**Shenzhen Most Technology Service Co., Ltd.**
Address .....:	No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.
Applicant's name.....:	**Hangzhou Huanyu Technology Co,Ltd.**
Address .....:	Room 204, 2nd Floor, Building 5, No. 12 Binwen Road, Binjiang District, Hangzhou City
Test specification/ Standard .....**:**	**47 CFR Part 1.1307;47 CFR Part 1.1310** **KDB447498D01 General RF Exposure Guidance v06**
TRF Originator.....:	Shenzhen Most Technology Service Co., Ltd.

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Test item description .....:	Automatic Cat Litter Box
Trade Mark .....:	N/A
Model/Type reference.....:	CATBOX-NEO-A
Listed Models .....:	CATBOX-NEO-B
Modulation Type.....:	b: DSSS ,CCK ; g/n: BPSK,QPSK,QAM GFSK
Operation Frequency.....:	From 2412MHz~2462MHz 2402MHz to 2480MHz
Hardware Version.....	V3.0
Software Version	V3.8
Rating .....:	DC 12V by Adapter
Result.....:	**PASS**

T E S T R E P O R T

Equipment under Test	:	Automatic Cat Litter Box
Model /Type	:	CATBOX-NEO-A
Listed Models		CATBOX-NEO-B
Remark		Only difference in Appearance, Some colors in the appearance are different, and the capacity inside the product is also different.
Applicant	:	**Hangzhou Huanyu Technology Co,Ltd.**
Address	:	Room 204, 2nd Floor, Building 5, No. 12 Binwen Road, Binjiang District, Hangzhou City
Manufacturer(1)	:	**Hangzhou Huanyu Technology Co,Ltd.**
Address	:	Room 204, 2nd Floor, Building 5, No. 12 Binwen Road, Binjiang District, Hangzhou City

Test Result:	**PASS**

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.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2023-12-06	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
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 Exclusion Threshold condition, listed below, is satisfied.

2.1.2 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: Pd = (Pout*G)/(4* Pi * R 2) Where
Pd = power density in mW/cm2
Pout = 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
Pd id 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.

2.1.3 EUT RF Exposure

BLE

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	2.758	2.758±1	3.758
Middle(2440MHz)	0.215	0.215±1	1.215
Highest(2480MHz)	-0.349	-0.349±1	0.651

BLE

Worst case: GFSK						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Lowest(2402MHz)	3.758	2.38	2	0.0008	1.0	Pass

Note: 1) Refer to report MTEB23120036-R for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R2)=(2.38*1.58)/(4*3.1416*20^2)=0.0008

WIFI 2.4G

802.11b			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	11.73	11.73±1	12.73
Middle(2437MHz)	11.34	11.34±1	12.34
Highest(2462MHz)	11.54	11.54±1	12.54

802.11g			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	13.36	13.36±1	14.36
Middle(2437MHz)	13.49	13.49±1	14.49
Highest(2462MHz)	13.44	13.44±1	14.44

802.11n(H20)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	12.86	12.86±1	13.86
Middle(2437MHz)	12.82	12.82±1	13.82
Highest(2462MHz)	12.96	12.96±1	13.96

WIFI 2.4G

Worst case: 802.11g						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Middle(2437MHz)	14.49	28.12	2	0.0088	1.0	Pass

Note: 1) Refer to report MTEB23120036 –R1 for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R2)=(28.12*1.58)/(4*3.1416*20^2)=0.0088

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