MPE Test Report

Report No.:	CJPS-ESH-P24021016B-3
FCC ID:	2AL5X-YP2022015
Product:	Pet Smart Feeder
Model:	YP2022015, SRQ0171
Received Date:	Mar.01, 2024
Test Date:	Mar.01 to Apr.02, 2024
Issued Date:	Apr.03, 2024
Applicant:	Hangzhou Tianyuan Pet Products Co., Ltd
Address:	No.10-1,Xingling Rd, Xingqiao Town, Linping, Yuhang, Hangzhou, 311100, China
Manufacturer:	Hangzhou Tianyuan Pet Products Co., Ltd
Address:	No.10-1,Xingling Rd, Xingqiao Town, Linping, Yuhang, Hangzhou, 311100, China
Issued By:	BUREAU VERITAS ADT (Shanghai) Corporation
Lab Address:	No. 829, Xinzhuan Road, Shanghai, P.R.China (201612)
FCC Registration / Designation Number:	176467/ CN1213

Test Lab
Cert 2343.01

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Release Control Record

Issue No.	Description	Date Issued
CJPS-ESH-P24021016B-3	Original release	Apr.03, 2024

1 Certificate of Conformity

Product: Pet Smart Feeder

Brand: petstar

Model: YP2022015, SRQ0171

Applicant: Hangzhou Tianyuan Pet Products Co., Ltd

Test Date: Mar.01 to Apr.02, 2024

Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D01 General RF Exposure Guidance v06
IEEE C95.1-2019

The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Yan ZHOU , **Date:** Apr.03, 2024

Project Engineer

Approved by : Sean YU , **Date:** Apr.03, 2024

RF Supervisor

2 General Information

2.1 General Description of EUT

Wi-Fi:

Product	Pet Smart Feeder
Brand	petstar
Test Model	YP2022015, SRQ0171
Model Difference	--
Power Rating	DC 5V 1A, Powered by adaptor
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Operating Frequency	2412MHz-2462MHz
Number of Channel	802.11b, 802.11g and 802.11n (HT20):11
Output Power	14.63 dBm
Antenna Type	PCB Antenna
Antenna Connector	--
Antenna Gain	2.45 dBi

Note:

1. For more details, please refer to the User's manual of the EUT.

BLE:

Product	Pet Smart Feeder
Brand	petstar
Test Model	YP2022015, SRQ0171
Model Difference	--
Power Rating	DC 5V 1A, Powered by adaptor
Modulation Type	GFSK
Modulation Technology	Bluetooth Low Energy 4.2
Operating Frequency	2402MHz ~ 2480MHz
Number of Channel	40
Output Power	6.19 dBm
Antenna Type	PCB Antenna
Antenna Connector	--
Antenna Gain	2.54 dBi

Note:

1. For more details, please refer to the User's manual of the EUT.

2.2 Description of Support Unit

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.
Adaptor	Guangdong Keerda Electronics Co., Ltd	DZ007AHL050100U	NA
Adaptor	Shenzhen Flypower Technology Co., Ltd.	PS06H050K1000UD	NA

3 RF Exposure

3.1 Limits For Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1,500	-	-	F/1500	30
1,500-100,000	-	-	1.0	30

F = Frequency in MHz

3.2 MPE Calculation Formula

Power density (S) is calculated according to the formula:

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

Where S = power density in mW/cm^2

P = transmit power in mW

G = numeric gain of transmit antenna (numeric gain=Log-1(dB antenna gain/10))

R = distance (cm)

3.3 MPE Calculation Formula

The antenna of this product, under normal use condition, is at least 20cm from the body of the user. So the device is classified as Mobile Device.

3.4 Calculation Result of Maximum Permissible Exposure

Frequency Band (MHz)	Max. Conducted output power(dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN 2.4GHz					
2412-2462	14.63	2.45	20	0.0102	1
BLE 4.2					
2402-2480	6.19	2.54	20	0.0015	1
WLAN 2.4GHz + BLE 4.2					
2412-2462 2402-2480	14.63 6.19	2.45 2.54	20	0.0117	1

Conclusion:

The calculation result of MPE is less than the limit.

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