



MPE Report

Report No.:STS2604329H01

Issued for

Shenzhen Ipetmon Creative Technology Co., Ltd.

101, No. 93 Boguang Second Road, Shangcun Community,
Gongming Street, Guangming District, Shenzhen, China

Product Name: RFID Pet Feeder

Brand Name: Ipetmon

Model Name: PTM-90A1

Series Model(s): MS-R100

FCC ID: 2A4A7-MS-R100

Test Standard: FCC 47CFR §2.1091

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the ShenZhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name: Shenzhen Ipetmon Creative Technology Co., Ltd.
Address: 101, No. 93 Boguang Second Road, Shangcun Community,
Gongming Street, Guangming District, Shenzhen, China
Manufacturer's Name: Shenzhen Ipetmon Creative Technology Co., Ltd.
Address: 101, No. 93 Boguang Second Road, Shangcun Community,
Gongming Street, Guangming District, Shenzhen, China

Product Description

Product Name: RFID Pet Feeder
Brand Name: Ipetmon
Model Name: PTM-90A1
Series Model(s): MS-R100

Test Standards: FCC 47CFR §2.1091
447498 D01 Interim General RF Exposure Guidance v06

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Date of Test:

Date of receipt of test item: 1 Apr. 2026
Date (s) of performance of tests: 1 Apr. 2026 ~ 10 Apr. 2026
Date of Issue: 10 Apr. 2026
Test Result: **Pass**

Testing Engineer :

Aaron Bu

(Aaron Bu)

Technical Manager :

Skylar Li

(Skylar Li)

Authorized Signatory :

Bovey Yang

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	10 Apr. 2026	STS2604329H01	ALL	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	RFID Pet Feeder	
Brand Name	Ipetmon	
Model Name	PTM-90A1	
Series Model(s)	MS-R100	
Model Difference	All models are identical except for the model name, the test model is PTM-90A1.	
Product Description	The EUT is a RFID Pet Feeder	
	Operation Frequency:	2402~2480 MHz 802.11b/g/n 20: 2412~2462 MHz 802.11n40:2422~2452MHz NFC: 125 kHz, 134 kHz
	Modulation Type:	GFSK 802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11b/g Support SISO 802.11n Support SISO IEEE 802.11a/ n(HT20): 5.180GHz-5.240GHz IEEE 802.11n(HT40): 5.190GHz-5.230GHz IEEE 802.11a/ n(HT20): 5.745GHz-5.825GHz IEEE 802.11n(HT40):5.755GHz-5.795GHz 802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM 802.11a Support SISO 802.11n Support SISO NFC: ASK
	Antenna gain:	Bluetooth/WLAN 2.4 GHz: 1.95 dBi WLAN 5 GHz: 2.64 dBi NFC: 0 dBi
	Antenna Designation:	Internal Antenna
Power Rating	DC 5V from adapter	
Adapter	Model: DCT10W050200US-C1 Input: 100-240V~ 50/60Hz 0.3A Output: 5V ---2A	
Battery	N/A	
Hardware Version	N/A	
Software Version	N/A	



1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01



2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
3.0-30	1842/f	4.89/f	*(900/f ²)
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1.34-30	824/f	2.19/f	*(180f ²)
1500 – 100000	--	--	1.0

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

π = 3.1416

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

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.



2.3 TEST RESULT

125KHz

Main Power: $80.83\text{dB}\mu\text{V}/\text{m}=80.83-95.2=-14.37\text{dBm}$

134KHz

Main Power: $79.60\text{dB}\mu\text{V}/\text{m}=79.60-95.2=-15.6\text{dBm}$

Tune up

Mode	Detector	Tune up Power
BLE	peak	$1\pm 1\text{dBm}$
2.4G WIFI	peak	$12\pm 1\text{dBm}$
5G WIFI	AV	$12\pm 1\text{dBm}$
125KHz	peak	$-15\pm 1\text{dBm}$
134KHz	peak	$-16\pm 1\text{dBm}$

Protocol	Fre. (MHz)	Separation distance (cm)	Max Tune up power (dBm)	ANT Gain (dBi)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Ratio	Result
BLE	2402	20	2	1.95	3.95	2.483	0.0005	1	0.0005	Pass
2.4G WIFI	2437	20	13	1.95	14.95	31.261	0.0062	1	0.0062	Pass
5G WIFI	2412	20	13	2.64	15.64	36.644	0.0073	1	0.0073	Pass
125KHz	0.125	20	-15	0	-15.00	0.032	0.0000063	1	0.0000063	Pass
134KHz	0.134	20	-16	0	-16	0.025	0.0000050	1	0.0000050	Pass

Multiple transmission:

$$\text{BLE+WLAN+RFID}=0.0005+0.0073+0.0000063=0.0078063<1$$

Note: 1. The Maximum power is less than the limit, complies with the exemption requirements.

2. The Bluetooth and WLAN can't simultaneous transmission at the same time.

3. ERP = EIRP - 2.15

END OF THE REPORT