



Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

RF Exposure MPE

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Date of issue.....: Aug. 26, 2025

Testing Laboratory Name.....: Shenzhen CTA Testing Technology Co., Ltd.

Address.....: Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name.....: Shenzhen Limpet Technology Co., Ltd.

Address.....: Room 401, Building 11, Jiangganshan No.1 Garden, Buxin Community, Xin'an Sub-district, Bao'an, District, Shenzhen City, Guangdong Province, China

Standard.....: 47CFR §1.1310
47CFR §2.1091
KDB447498 D01 General RF Exposure Guidance v06

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Test item description.....: Wali Smart Pet Feeder With AI Camera

Trade Mark.....: Limpet

Manufacturer.....: Shenzhen Limpet Technology Co., Ltd.

Model/Type reference.....: P-LFP01

Listed Models.....: N/A

Rating.....: Input: 5.0V $\overline{\text{---}}$ 2.0A

Result.....: PASS

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TEST REPORT

Equipment under Test : Wali Smart Pet Feeder With AI Camera

Model /Type : P-LFP01

Applicant : **Shenzhen Limpet Technology Co., Ltd.**

Address : Room 401, Building 11, Jiangganshan No.1 Garden, Buxin Community, Xin'an Sub-district, Bao'an, District, Shenzhen City, Guangdong Province, China

Manufacturer : **Shenzhen Limpet Technology Co., Ltd.**

Address : Room 401, Building 11, Jiangganshan No.1 Garden, Buxin Community, Xin'an Sub-district, Bao'an, District, Shenzhen City, Guangdong Province, China

Test Result:	PASS
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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.

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1 TEST STANDARDS

The tests were performed according to following standards:

[ANSI C95.1-1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB 447498 D01 General RF Exposure Guidance v06](#): Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Aug. 04, 2025
Testing commenced on	:	Aug. 04, 2025
Testing concluded on	:	Aug. 26, 2025

2.2 Product Description

Product Name:	Wali Smart Pet Feeder With AI Camera			
Model/Type reference:	P-LFP01			
Power supply:	Input: 5.0V $\overline{\text{---}}$ 2.0A			
Adapter 1 information:	Model:HX13B-0502000-CU Input:AC 100-240V 50/60Hz 0.5A Max Output:DC 5V 2A			
Hardware version:	RCV:03			
Software version:	Linux 4.19.164-tag-DK_VERSION armv7l			
Testing sample ID:	CTA250705006-1# (Engineer sample) CTA250705006-2# (Normal sample)			
Bluetooth BLE				
Supported type:	Bluetooth low Energy			
Modulation:	GFSK			
Operation frequency:	2402MHz to 2480MHz			
Channel number:	40			
Channel separation:	2 MHz			
Antenna type:	PCB Antenna			
Antenna gain:	1.85 dBi			
2.4GWIFI :				
Supported type:	802.11b/802.11g/802.11n(HT20)			
Modulation:	802.11b: DSSS 802.11g/802.11n(HT20): OFDM			
Operation frequency:	802.11b/802.11g/802.11n(HT20): 2412MHz~2462MHz			
Channel number:	802.11b/802.11g/802.11n(HT20): 11			
Channel separation:	5MHz			
Antenna type:	FPC Antenna			
Antenna gain:	3.54dBi			
5GWIFI				
Supported type:	20MHz system	40MHz system	80MHz system	160MHz system
	802.11a 802.11n	N/A	N/A	N/A
Operation frequency:	5180-5240MHz, 5260-5320MHz, 5500-5700MHz, 5745-5825MHz	N/A	N/A	N/A
Modulation:	OFDM	N/A	N/A	N/A

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Channel number:	24	N/A	N/A	N/A
Channel separation:	20MHz	N/A	N/A	N/A
Antenna type:	FPC Antenna			
Antenna gain:	5.26dBi			

2.3 Special Accessories

The following is the EUT test of the auxiliary equipment provided by the laboratory:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
/	/	/	/	/	/

2.4 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,
Fuhai Street, Bao'an District, Shenzhen, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd. :

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)
Time	/	±2%	(1)

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4 Test limit

4.1 Requirement

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
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	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 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

*=Plane-wave equivalent power density

4.2 MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

4.3 Conducted Power Results

[BLE 1M]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
BLE	0	2402	-1.95
	19	2440	0.68
	39	2480	-0.25

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[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11b	1	2412	13.63
	6	2437	13.10
	11	2462	13.36
IEEE 802.11g	1	2412	14.26
	6	2437	13.59
	11	2462	13.75
IEEE 802.11n HT20	1	2412	14.77
	6	2437	14.00
	11	2462	14.17

[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11a	36	5180	13.59
	40	5200	13.22
	48	5240	12.48
IEEE 802.11n HT20	36	5180	13.84
	40	5200	13.54
	48	5240	12.62

[5.3G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11a	52	5260	12.84
	60	5300	13.03
	64	5320	13.42
IEEE 802.11n HT20	52	5260	13.07
	60	5300	13.27
	64	5320	14.23

[5.5G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11a	100	5500	13.88
	116	5580	14.1
	140	5700	14.14
IEEE 802.11n HT20	100	5500	14.16
	116	5580	14.34
	140	5700	13.37

[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11a	149	5745	11.45
	157	5785	10.63
	165	5825	10.78
IEEE 802.11n HT20	149	5745	11.61
	157	5785	10.98
	165	5825	11.06

4.4 Manufacturing tolerance

Mode	Max. Peak Conducted Output Power (dBm)	Max. tune-up
BLE	0.68	1.00
2.4GWIFI	14.77	15.00
Mode	Max. Average Conducted Output Power (dBm)	Max. tune-up
5.2GWIFI	13.84	15.00
5.3GWIFI	14.23	15.00
5.5GWIFI	14.34	15.00
5.8GWIFI	11.61	13.00

4.5 Standalone MPE Result

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna is refer to section 2.2, the RF power density can be obtained.

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
BLE	1.0	1.2589	1.85	1.5311	0.0004	1.0000
2.4GWIFI	15.0	31.6228	3.54	2.2594	0.0142	1.0000
5.2GWIFI	15.0	31.6228	5.26	3.3574	0.0211	1.0000
5.3GWIFI	15.0	31.6228	5.26	3.3574	0.0211	1.0000
5.5GWIFI	15.0	31.6228	5.26	3.3574	0.0211	1.0000
5.8GWIFI	13.0	19.9526	5.26	3.3574	0.0133	1.0000

Remark:

1. Output power (Peak) including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.

4.6 Simultaneous Transmission for MPE Result

BLE MPE (Ratio)	5GWIFI MPE (Ratio)	simultaneous MPE (Ratio)	MPE Limits (Ratio)
0.0004	0.0211	0.0215	1.0000

5 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device Threshold per KDB 447498 D01v06

***** End of Report *****