

TEST REPORT

Product Name : Wireless IP Camera
Model Number : PD5, PA5, PW5, PS5
FCC ID : ZDEPD5

Prepared for : ShenZhen Foscam Intelligent Technology Co., Ltd.
Address : Room 902, Building 1B, Shenzhen International
Innovation Valley, Xingke 1st Street, Nanshan District,
Shenzhen, Guangdong, China, 518055.

Prepared by : EMTEK (DONGGUAN) CO., LTD.
Address : -1&2/F., Building 2, Zone A, Zhongda Marine Biotechnology
Research and Development Base, No.9, Xincheng Avenue,
Songshanhu High-technology Industrial Development Zone,
Dongguan, Guangdong, China

TEL: +86-0769-22807078
FAX: +86-0769-22807079

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1. TEST RESULT CERTIFICATION

Applicant : ShenZhen Foscam Intelligent Technology Co., Ltd.

Address : Room 902,Building 1B, Shenzhen International innovationValley, Xingke 1st Street, Nanshan District, Shenzhen,Guangdong, China, 518055.

Manufacturer : ShenZhen Foscam Intelligent Technology Co., Ltd.

Address : Room 902,Building 1B, Shenzhen International innovationValley, Xingke 1st Street, Nanshan District, Shenzhen,Guangdong, China, 518055.

Factory : ShenZhen Foscam Intelligent Technology Co., Ltd.

Address : 701, 7th Floor, Building D, Guangming Port Intelligent Manufacturing Innovation Park, No. 8 Jinjun Road, Huangjiang Town, Dongguan, Guangdong, China, 523769

EUT : Wireless IP Camera

Model Name : PD5, PA5, PW5, PS5

Trademark : FOSCAM

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : September 27, 2024 to November 23, 2024

Prepared by :

Warren Deng

Warren Deng /Editor

Reviewer :

Tim Dong

Tim Dong /Supervisor

Approve & Authorized Signer :

Sam Lv

Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2409270211E00403R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Wireless IP Camera
Model Number:	PD5, PA5, PW5, PS5 (Note: The Model: PD5 is the same as the Model: PA5, PW5, PS5 in hardware aspect. The difference in model number serves as marketing strategy.)
Sample:	1#
Data Rate:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Modulation:	DSSS, OFDM
Operating Frequency Range(s) :	2412-2462MHz for 802.11b/g/n(HT20); 2422-2452MHz for 802.11n(HT40); 5745-5825MHz for 802.11a/n(HT20); 5755-5795MHz for 802.11n(HT40);
Transmit Power Max:	UNII-3 Band: 13.27 dBm(0.021232 W) 2.4G: 13.69 dBm(0.023388 W)
Antenna Gain:	4.38 dBi for 2.4G WIFI 2.51 dBi for 5G WIFI
Power supply:	DC 12V 1A from Adapter
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement:

RF EXPOSURE EVALUATION

According to §15.247(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{24} \text{ where}$$

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁵
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval. One antenna is available for the EUT. The minimum separation distance is 5mm.

4. Measurement Result

gain:	4.38 dBi	WIFI 2.4G FCC EMF							
Mode	Frequency (MHz)	Output Power (dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
802.11b	2412	8.55	12.93	12±1	13	19.95	0.010883	1	PASS
	2437	9.31	13.69	13±1	14	25.12	0.013700	1	PASS
	2462	9.12	13.5	13±1	14	25.12	0.013700	1	PASS
802.11g	2412	11.12	15.5	15±1	16	39.81	0.021713	1	PASS
	2437	13.47	17.85	17±1	18	63.10	0.034414	1	PASS
	2462	13.37	17.75	17±1	18	63.10	0.034414	1	PASS
802.11n(HT 20)	2412	12.74	17.12	17±1	18	63.10	0.034414	1	PASS
	2437	11.07	15.45	15±1	16	39.81	0.021713	1	PASS
	2462	12.37	16.75	16±1	17	50.12	0.027336	1	PASS
802.11n(HT 40)	2422	12.36	16.74	16±1	17	50.12	0.027336	1	PASS
	2437	11.64	16.02	16±1	17	50.12	0.027336	1	PASS
	2452	13.55	17.93	17±1	18	63.10	0.034414	1	PASS
802.11ax(H E20)	2412	11.88	16.26	16±1	17	50.12	0.027336	1	PASS
	2437	14.33	18.71	18±1	19	79.43	0.043324	1	PASS
	2462	13.3	17.68	17±1	18	63.10	0.034414	1	PASS
802.11ax(H E40)	2422	11.04	15.42	15±1	16	39.81	0.021713	1	PASS
	2437	12.9	17.28	17±1	18	63.10	0.034414	1	PASS
	2452	12.59	16.97	16±1	17	50.12	0.027336	1	PASS

gain:	UNII-3 Band: 2.51 dBi								
Mode	Frequency (MHz)	Output Power (dBm)	E.I.R.P. (dBm)	Target Power W/tolerance (dBm)	Max tune up power(d Bm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
802.11a	5745	12.9	15.41	15±1	16	39.81	0.0141 17	1	Pass
	5785	12.87	15.38	15±1	16	39.81	0.0141 17	1	Pass
	5825	13	15.51	15±1	16	39.81	0.0141 17	1	Pass
802.11n(HT 20)	5745	9.37	11.88	11±1	12	15.85	0.0056 20	1	Pass
	5785	9.77	12.28	12±1	13	19.95	0.0070 75	1	Pass
	5825	9.09	11.6	11±1	12	15.85	0.0056 20	1	Pass
802.11n(HT 40)	5795	9.14	11.65	11±1	12	15.85	0.0056 20	1	Pass
	5775	10.15	12.66	12±1	13	19.95	0.0070 75	1	Pass
802.11ac(V HT20)	5745	9.43	11.94	11±1	12	15.85	0.005 620	1	Pass
	5785	9.13	11.64	11±1	12	15.85	0.005 620	1	Pass
	5825	8.96	11.47	11±1	12	15.85	0.005 620	1	Pass
802.11ac(V HT40)	5795	9.39	11.9	11±1	12	15.85	0.0056 20	1	Pass
	5775	8.97	11.48	11±1	12	15.85	0.0056 20	1	Pass
802.11ax(H E20)	5745	13.43	15.94	15±1	16	39.81	0.0141 17	1	Pass
	5785	12.95	15.46	15±1	16	39.81	0.0141 17	1	Pass
	5825	13.1	15.61	15±1	16	39.81	0.0141 17	1	Pass
802.11ax(H E40)	5795	13.08	15.59	15±1	16	39.81	0.0141 17	1	Pass
	5775	13.26	15.77	15±1	16	39.81	0.0141 17	1	Pass

Simultaneous launch

MAX Power Density at R=20cm (mW/cm2)

Wireless specification	2.4G WIFI	5GWIFI		
MAX Power Density at R=20cm (mW/cm2)	0.043324	0.014117		
business accounting	0.057441	Limit (mW/cm2)	1	
Verdict	Pass			

According to KDB 447498, no stand-alone required for WIFI antenna, and no simultaneous SAR measurement is required.

*** End of Report ***