

TEST REPORT

Product Name : **Wireless IP Camera**
Model Number : **X5, X5P**
FCC ID : **ZDEX5**

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1. TEST RESULT CERTIFICATION

Applicant : ShenZhen Foscam Intelligent Technology Co., Ltd

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EUT : Wireless IP Camera

Model Name : X5, X5P

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 : June 07, 2024 to July 25, 2024

Prepared by : Warren Deng

Warren Deng /Editor

Reviewer : Tim Dong

Tim Dong /Supervisor

Approve & Authorized Signer : Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2406070166E00602R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Wireless IP Camera
Model Number:	X5, X5P (The Model: X5 is the same as the Model: X5P 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);
Transmit Power Max:	7.78 dBm(0.005998 mW)
Antenna Gain:	3.19 dBi
Power supply:	DC 5V 1A from Adapter
Evaluation applied:	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> 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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,²⁴ 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:	3.19	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	6.92	10.11	10±1	11	12.59	0.005221	1	PASS
	2437	7.78	10.99	10±1	11	12.59	0.005221	1	PASS
	2462	6.88	10.07	10±1	11	12.59	0.005221	1	PASS
802.11g	2412	5.95	9.14	9±1	10	10.00	0.004147	1	PASS
	2437	6.83	10.02	10±1	11	12.59	0.005221	1	PASS
	2462	6.13	9.32	9±1	10	10.00	0.004147	1	PASS
802.11n(HT 20)	2412	5.93	9.12	9±1	10	10.00	0.004147	1	PASS
	2437	6.63	9.82	9±1	10	10.00	0.004147	1	PASS
	2462	5.82	9.01	9±1	10	10.00	0.004147	1	PASS
802.11n(HT 40)	2422	6.56	9.75	9±1	10	10.00	0.004147	1	PASS
	2437	6.74	9.93	9±1	10	10.00	0.004147	1	PASS
	2452	6.27	9.46	9±1	10	10.00	0.004147	1	PASS

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

*** End of Report ***