



# RF EXPOSURE Test Report

**Report No.:** MTi220408008-14E2

**Date of issue:** 2022-05-19

**Applicant:** Shenzhen Anran Security Technology Co., Ltd

**Product name:** Security Camera

**Model(s):**

P2 Pro, P2, P2 Max, B4, B4 Pro, B4 Max, B1,  
B1 Pro, B1 Max, P3 Pro, P3 Max, P5 Pro, P5  
Max, E2 Pro, E2 Max, T2, T2 Pro, T2 Max, T1,  
T1 Pro, T1 Max, F1 Pro, Y4, Y10, W10

**FCC ID:** 2AZUX-P2-PRO

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.com>

# Instructions

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5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.



<b>TEST RESULT CERTIFICATION</b>	
Applicant's name .....	Shenzhen Anran Security Technology Co., Ltd
Address .....	No.290, Jihua Road, Jihua street, Longgang District, Shenzhen, No.112
Manufacturer's Name .....	Shenzhen Anran Security Technology Co., Ltd
Address .....	No.290, Jihua Road, Jihua street, Longgang District, Shenzhen, No.112
<b>Product description</b>	
Product name .....	Security Camera
Trademark .....	N/A
Model Name .....	P2 Pro
Serial Model .....	P2, P2 Max, B4, B4 Pro, B4 Max, B1, B1 Pro, B1 Max, P3 Pro, P3 Max, P5 Pro, P5 Max, E2 Pro, E2 Max, T2, T2 Pro, T2 Max, T1, T1 Pro, T1 Max, F1 Pro, Y4, Y10, W10
Standards .....	N/A
Test procedure .....	KDB 447498 D01 v06
<b>Date of Test</b>	
Date (s) of performance of tests .....	2022-04-08 ~2022-05-19
Test Result .....	Pass

**Testing Engineer**

:

*Cindy Qin*

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(Cindy Qin)

**Technical Manager**

:

*Leon Chen*

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(Leon Chen)

**Authorized Signatory**

:

*Tom Xue*

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(Tom Xue)

## RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of 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 <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*300/f <sup>2</sup>	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density

### MPE Calculation Method

Friis transmission formula:  $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

$P_d$  = Power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

$\pi$  = 3.1415926

R = distance between observation point and center of the radiator in cm (20cm)

$P_d$  the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

## Measurement Result

### 2.4GWiFi:

Operation Frequency: WIFI 802.11b/g/n HT20: 2412-2462MHz,

802.11n HT40: 2422-2452MHz,

Power density limited: 1mW/ cm<sup>2</sup>

Antenna Type: External Antenna;

WIFI antenna gain: 3dBi

R=20cm

$mW=10^{(dBm/10)}$

antenna gain Numeric= $10^{(dBi/10)}=10^{(3/10)}=2$

2.4GWiFi :

Channel Freq. (MHz)	modulation	conducted power (dBm)	Tune-up power (dBm)	Max		Antenna Gain Numeric	Evaluation result at 20cm Power density(mW/cm <sup>2</sup> )	Power density Limits (mW/cm <sup>2</sup> )
				tune-up power				
				(dBm)	(mW)			
		Ant A	Ant A	Ant A	Ant A	Ant A	Ant A	
2412	802.11b	16.44	16±1	17	50.118723	2	0.01994	1
2437		16.62	16±1	17	50.118723	2	0.01994	1
2462		15.67	16±1	17	50.118723	2	0.01994	1
2412	802.11g	16.46	16±1	17	50.118723	2	0.01994	1
2437		16.56	16±1	17	50.118723	2	0.01994	1
2462		15.66	16±1	17	50.118723	2	0.01994	1
2412	802.11n H20	16.58	16±1	17	50.118723	2	0.01994	1
2437		16.52	16±1	17	50.118723	2	0.01994	1
2462		15.52	16±1	17	50.118723	2	0.01994	1
2422	802.11n H40	14.5	15±1	16	39.810717	2	0.01584	1
2437		14.5	15±1	16	39.810717	2	0.01584	1
2452		14.2	15±1	16	39.810717	2	0.01584	1

### Conclusion:

For the max result:  $0.01994 \leq 1.0$  for 1g SAR, No SAR is required.

----END OF REPORT----