



RF EXPOSURE Test Report

Report No.: MTi220408008-07E2

Date of issue: 2022-09-26

Applicant: Shenzhen Anran Security Technology Co., Ltd

Product name: IP Camera with Battery

Model(s): Q3 Pro, Q1, Q1 Max, Q1 Pro, Q3 Max, G1 Pro, G1 Max, C2, C2 Pro, C2 Max, S2, S2 Pro, S2 Max, S1, S1 Pro, S1 Max, R1, R2 Pro, Y8, W11, Q5 Pro, Q5 Max, Q6 Pro, Q6 Max

FCC ID: 2AZUX-Q1PRO

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.com>

Instructions

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TEST RESULT CERTIFICATION	
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
Product description	
Product name	IP Camera with Battery
Trademark	N/A
Model Name	Q3 Pro
Serial Model	Q1, Q1 Max, Q1 Pro, Q3 Max, G1 Pro, G1 Max, C2, C2 Pro, C2 Max, S2, S2 Pro, S2 Max, S1, S1 Pro, S1 Max, R1, R2 Pro, Y8, W11, Q5 Pro, Q5 Max, Q6 Pro, Q6 Max
Standards	N/A
Test procedure	KDB 447498 D01 v06
Date of Test	
Date (s) of performance of tests	2022-05-09 ~ 2022-09-24
Test Result	Pass

Testing Engineer

:

Cindy Qin

(Cindy Qin)

Technical Manager

:

Leon Chen

(Leon Chen)

Authorized Signatory

:

Tom Xue

(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 ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*300/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	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/cm²

P_{out} = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π = 3.1415926

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

P_d the limit of MPE, 1mW/cm². 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,

Power density limited: 1mW/ cm²

Antenna Type: External Antenna;

WIFI antenna gain: 3.2dBi

R=20cm

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

antenna gain Numeric= $10^{(dBi/10)}=10^{(3.2/10)}=2.09$

2.4GWiFi :

Channel Freq. (MHz)	modulation	conducted power (dBm)	Tune-up power (dBm)	Max		Antenna Gain Numeric	Evaluation result at 20cm Power density(mW/cm2)	Power density Limits (mW/cm2)
				tune-up power				
				(dBm)	(mW)			
		Ant A	Ant A	Ant A	Ant A	Ant A	Ant A	
2412	802.11b	16.18	17±1	18	63.095734	2.09	0.02623	1
2437		16.13	17±1	18	63.095734	2.09	0.02623	1
2462		16.05	17±1	18	63.095734	2.09	0.02623	1
2412	802.11g	17.02	17±1	18	63.095734	2.09	0.02623	1
2437		16.24	17±1	18	63.095734	2.09	0.02623	1
2462		16.12	17±1	18	63.095734	2.09	0.02623	1
2412	802.11n H20	16.16	17±1	18	63.095734	2.09	0.02623	1
2437		16.64	17±1	18	63.095734	2.09	0.02623	1
2462		16.17	17±1	18	63.095734	2.09	0.02623	1

Conclusion:

For the max result: $0.02623 \leq 1.0$ SAR, No SAR is required.

----END OF REPORT----