



RF EXPOSURE REPORT

Report No.: SET2015-06690

Product Name: wifi camera

FCC ID: 2ADOG-N1S

Model No. : N1, N1-B, N1-R, N1-G

Applicant: Shenzhen Need Technology Co.,Ltd.

Address: 5th Floor FuXinFa Industrial Park, XiLi Liuxiandong, Nanshan District, Shenzhen, Guangdong, China.

Dates of Testing: 05/14/2015 — 05/20/2015

Issued by: CCIC-SET

Lab Location: Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, 518055, P. R. China

Tel: 86 755 26627338 **Fax:** 86 755 26627238

This test report consists of 6 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by CCIC-SET. The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to CCIC-SET within 20 days since the date when the report is received. It will not be taken into consideration beyond this limit.



Test Report

Product Name : wifi camera

Brand Name : tofucam

Trade Name : tofucam

Applicant : Shenzhen Need Technology Co.,Ltd.

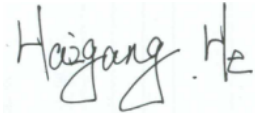
Applicant Address : 5th Floor FuXinFa Industrial Park, XiLi Liuxiandong,
Nanshan District, Shenzhen, Guangdong, China.

Manufacturer : Shenzhen Need Technology Co.,Ltd.

Manufacturer Address : 5th Floor FuXinFa Industrial Park, XiLi Liuxiandong,
Nanshan District, Shenzhen, Guangdong, China.

Test Standards : FCC Part 2 (Section 2.1091)
IEEE C95.1

Test Result : PASS

Tested by : 
2015.05.20
Haigang He, Test Engineer

Reviewed by : 
2015.05.20
Zhu Qi, Senior Engineer

Approved by : 
2015.05.20
Wu Li'an, Manager

TABLE OF CONTENTS

1. GENERAL INFORMATION	4
1.1. EUT Description	4
1.2. Test Facilities	4
2. RF EXPOSURE	5
2.1. Limits for maximum permissible exposure (MPE).....	5
2.2. MPE calculation Formula	5
2.3. Classification.....	5
2.4. Classification results of maximum conducted power	6
2.5. Result	6

Change History		
Issue	Date	Reason for change
1.0	2015-05-20	First edition

1. General Information

1.1. EUT Description

EUT Type	wifi camera
Hardware Version	V2.1
Software Version	V3.0.1
EUT supports Radios application	WLAN2.4GHz 802.11b/g/n (HT20/HT40)
Frequency Range	802.11b/g/n-20MHz: 2.412GHz - 2.462GHz 802.11n-40MHz:2.422GHz – 2.452GHz
Channel Number	802.11b/g/n-20MHz: 11 802.11n-40MHz: 7
Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 135Mbps
Modulation Type	DSSS (802.11b), OFDM (802.11g/n)
Antenna Type	Internal Antenna
Antenna Gain	3dBi

Note: The EUT has four models, called N1, N1-B, N1-R, N1-G. They have the same size, appearance and internal structure, only different colors.

1.2. Test Facilities

CNAS-Lab Code: L1659

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659. A 12.8*6.8*6.4 (m) fully anechoic chamber was used for the radiated spurious emissions test.

FCC-Registration No.: 406086

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 406086, valid time is until October 28, 2017.

IC-Registration No.: 11185A-1

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A-1 on July. 15, 2013, valid time is until July. 15, 2016.

2. RF Exposure

2.1. Limits for maximum permissible exposure (MPE)

Frequency Range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Average time (minutes)
Limits for general population / uncontrolled exposure				
300-1500	...	...	F/1500	30
1500-100,000	...	...	10	30

F = Frequency in MHz

2.2. MPE calculation 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 = gain of antenna in linear scale

π = 3.1416

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

2.3. Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4. Classification results of maximum conducted power

Test mode	Channel	Frequency (MHz)	RF Power(dBm)
802.11b	1	2412	17.68
	6	2437	17.76
	11	2462	18.05
802.11g	1	2412	15.85
	6	2437	16.77
	11	2462	17.11
802.11n20	1	2412	13.40
	6	2437	14.15
	11	2462	14.48
802.11n40	3	2422	12.50
	6	2437	12.86
	9	2452	13.24

Frequency band (MHz)	Modulation mode	Peak output power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	802.11b	18.05	3	20	0.025	10
	802.11g	17.11	3	20	0.020	10
	802.11n (20MHz)	14.48	3	20	0.011	10
	802.11n (40MHz)	13.24	3	20	0.008	10

2.5. Result

This is a Mobile Device and the maximum Power Density is 0.025(mW/cm²), which is lower than the exclusion threshold 10(mW/cm²).

The SAR measurement is not required.