
General RF Exposure Test Report

Report No.: AGC03136150601FH07

FCC ID : 2AEF6I9820
APPLICATION PURPOSE : Original Equipment
PRODUCT DESIGNATION : WIFI CAMERA
BRAND NAME : HSmartLink
MODEL NAME : i9820
CLIENT : Shenzhen Hsmartlink Technology Co., Ltd.
DATE OF ISSUE : Jul14, 2015
STANDARD(S) : KDB447498 D01/ OET Bulletin 65

Attestation of Global Compliance (Shenzhen) Co., Ltd



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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jul.14, 2015	Valid	Original Report

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1. TEST RESULT CERTIFICATION

Applicant Name:	Shenzhen Hsmartlink Technology Co., Ltd.
Address:	5th Floor, 13Block, Nangang 2nd Industrial Park, Songbai Rd.1026, Xili, Nansha District 518055 Shenzhen, China
Manufacturer Name:	Shenzhen Hsmartlink Technology Co., Ltd.
Address:	5th Floor, 13Block, Nangang 2nd Industrial Park, Songbai Rd.1026, Xili, Nansha District 518055 Shenzhen, China
Product Designation	WIFI CAMERA
Brand Name	HSmartLink
Test Model	i9820
Test Standard	KDB447498 D01 General RF Exposure Guidanc v05r02/ OET Bulletin 65
Date of Test:	Jul.6, 2015 to Jul.13, 2015

We, Dongguan Precise Testing Service Co., Ltd. for compliance with the requirements set forth in the KDB447498 D01 General RF Exposure Guidanc v05r02. The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

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2. TECHNICAL INFORMATION

A major technical description of EUT is described as following

Operation Frequency	2.412-2.462GHz
Output Power	IEEE 802.11b:15.95dBm; IEEE 802.11g:14.74dBm; IEEE 802.11n(20):14.36dBm; IEEE 802.11n(40):11.79dBm
Modulation	DSSS(DBPSK/DQPSK/CCK);OFDM(BPSK/QPSK/16-QAM/64-QAM)
Number of channels	11
Hardware Version	main board:V1.2 interface:V1.0
Software Version	system:R31.9.1.1.6 application:8.3.1.1
Antenna Designation	Detachable antenna provide by client
Antenna Gain	2.5dBi
Power Supply	DC12V by adapter

Note:

1. For more details, please refer to the User's manual of the EUT.

3. RF EXPOSURE MEASUREMENT

3.1 INTRODUCTION

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 2.5 cm or more from persons.

The 1992 ANSI/IEEE standard (See Listed limit table) specifies a minimum separation distance of 1cm for performing reliable field measurements to determine adherence to MPE limits.

If the minimum separation distance between a transmitter and nearby persons is more than 2.5 cm under normal operating conditions, compliance with MPE limits may be determined at such distance from the transmitter. When applicable, operation instructions and prominent warning labels may be used to alert the exposed persons to maintain a specified distance from the transmitter or to limit their exposure durations and usage conditions to ensure compliance.

3.2 FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE(MPE)

LIMITS FOR GENERAL POPULATION / CONTROLLED EXPOSURE

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	6
1.34 -- 30	824/f	4.89/f	(900/f ²)*	6
30 -- 300	61.4	0.163	1.0	6
300 -- 1500	--	--	f/300	6
1500 -- 100,000	--	--	5	6

*Note:

1. f=Frequency in MHz * Plane-wave Equivalent Power Density.

4. CLASSIFICATION OF THE ASSESSMENT METHODS

According to user manual, The antenna of the product, under normal use condition is at least 0.2m away from the body of the user. Warning statement to the user for keeping at least 2m separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

$$S = PG / 4\pi R^2$$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

5. EUT OPERATION CONDITION

Make the EUT to transmit at lowest, middle and highest channel individually.

6. TEST RESULTS

Antenna Gain 2.5dBi (Numeric 1.78), $K = 3.1416$

802.11b

Channel	Frequency	Output Power (peak)	Output Power (peak)	Power Density	Power Density Limit	Result
	MHz	dBm	mW	mW/cm ²	mW/cm ²	Pass/Fail
L	2412	15.95	39.36	0.139	5	Pass
M	2437	15.70	37.15	0.131	5	Pass
H	2462	15.62	36.48	0.129	5	Pass

Note: Only the worst case recorded in this test report. The distance between users and EUT is 0.2m.