Shenzhen GTI Technology Co., Ltd

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EMC TEST REPORT

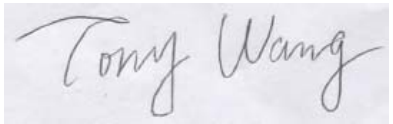
Product name	:	WIFI Camera
Trademark	:	HITVIS
Model no.	:	HT811WP
Test Standards	:	**FCC Per 47 CFR 2.1091(b)** **KDB447498 v05r01**
Applicant	:	Shenzhen HITVIS Technology Co., Ltd.
Address of applicant	:	Room 306,Unit C,Block A,Huamei ju,Xin' an Street,Xin' hu Road, Bao' an District, Shenzhen, China
Date of Receipt	:	June 23, 2014
Date of Test Date	:	June 24, 2014 -- July 01, 2014
Data of issue.	:	July 02, 2014

Test result :	**Pass**

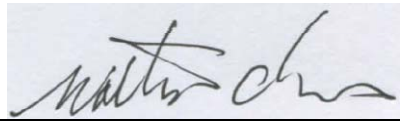
GENERAL DESCRIPTION OF EUT	
Equipment	WIFI Camera
Model Name	HT811WP
Manufacturer	Shenzhen HITVIS Technology Co., Ltd.
Manufacturer Address	Room 306,Unit C,Block A,Huamei ju,Xin' an Street,Xin' hu Road, Bao' an District, Shenzhen, China
Power Source	DC Voltage from ac/dc adapter
Power Rating	DC 5V, 2A

Testing Engineer 

(Allen Wang)

Reviewed By: 

(Tony Wang)

Approved Signatory 

(Walter Chen)

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1 . SUMMARY

1.1. GENERAL DESCRIPTION OF EUT

Name of EUT	WIFI Camera
Trade Mark:	HITVIS
Model No.:	HT811WP
List Model:	/
Power supply:	DC 5.0V for adapter
Adapter information:	Model No.:UWP-12W-0520S Input: AC 100~240V, 50/60Hz, 300mA Output: DC 5.0V 2A
WIFI :	
Supported type:	802.11b/802.11g/802.11n(H20)/802.11n(H40)
Modulation:	802.11b: DSSS 802.11g/802.11n(H20)/802.11n(H40): OFDM
Operation frequency:	802.11b/802.11g/802.11n(H20): 2412MHz~2462MHz 802.11n(H40): 2422MHz~2452MHz
Channel number:	802.11b/802.11g/802.11n(H20): 11 802.11n(H40): 7
Channel separation:	5MHz
Antenna type:	Internal Antenna
Antenna gain:	1 dBi

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

1.2. DESCRIPTION OF TEST MODES

802.11b/g/n(20/40), 11 channels are provided to the EUT. Channel 1/6/11 were selected for 802.11b/g/n(20) test and channel 3/6/9 for 802.11n(40).

Operation Frequency:

Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	**2412**	8	2447
2	2417	**9**	**2452**
3	**2422**	10	2457
4	2427	**11**	**2462**
5	2432		
6	**2437**		
7	2442		

2. TEST ENVIRONMENT

2.1. Address of the test laboratory

Shenzhen GTI Technology Co., Ltd
1F, 2 Block, Jiaquan Building, Guanlan High-tech Park Baoan District, Shenzhen, Guangdong, China

2.2. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35°C
lative Humidity:	30~60 %
Air Pressure:	950~1050mba

2.3. Statement of the measurement uncertainty

Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.57 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

3. Method of measurement

3.1. Applicable Standard

According to §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.

According to §1.1310 and §2.1091 RF exposure is calculated.

KDB447498 v05r01: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

3.2. Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/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

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	($180/f^2$)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz
*=Plane-wave equivalent power density

3.3. MPE Calculation Method

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01

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

As declared by the Applicant, the EUT transmits with the maximum Duty Cycle more than 98%-see the User manual, and the EUT is a wireless device used in a mobile application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum mobile separation distance, r =20cm, as well as the gain of the used antenna is 1dBi, the RF power density can be obtained.

TEST RESULTS

802.11b							
Test Frequency (MHz)	Minimum Separation Distance (cm)	Output Power (dBm)	Output Power (mW)	Antenna Gain (Numeric)	Power Density At 20 cm (mW/cm^2)	Power Density Limit FCC (mW/cm^2)	Test Results
2412	20.00	19.55	90.1571	1.2589	0.0226	1	PASS
2437	20.00	20.02	100.4616	1.2589	0.0252	1	PASS
2462	20.00	19.52	89.5365	1.2589	0.0224	1	PASS

802.11g							
Test Frequency (MHz)	Minimum Separation Distance (cm)	Output Power (dBm)	Output Power (mW)	Antenna Gain (Numeric)	Power Density At 20 cm (mW/cm^2)	Power Density Limit FCC (mW/cm^2)	Test Results
2412	20.00	20.78	119.6741	1.2589	0.0300	1	PASS
2437	20.00	20.36	108.6426	1.2589	0.0272	1	PASS
2462	20.00	20.54	113.2400	1.2589	0.0284	1	PASS

802.11n(HT20)							
Test Frequency (MHz)	Minimum Separation Distance (cm)	Output Power (dBm)	Output Power (mW)	Antenna Gain (Numeric)	Power Density At 20 cm (mW/cm^2)	Power Density Limit FCC (mW/cm^2)	Test Results
2412	20.00	20.96	124.7384	1.2589	0.0312	1	PASS
2437	20.00	20.43	110.4079	1.2589	0.0277	1	PASS
2462	20.00	20.77	119.3988	1.2589	0.0299	1	PASS

802.11n(HT40)							
Test Frequency (MHz)	Minimum Separation Distance (cm)	Output Power (dBm)	Output Power (mW)	Antenna Gain (Numeric)	Power Density At 20 cm (mW/cm^2)	Power Density Limit FCC (mW/cm^2)	Test Results
2422	20.00	21.74	149.2794	1.2589	0.0374	1	PASS
2437	20.00	21.36	136.7729	1.2589	0.0343	1	PASS
2452	20.00	21.57	143.5489	1.2589	0.0360	1	PASS

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure.

**************************THE END**************************