

Report No: File reference No:	FCC 1607052 2016-07-12			
Applicant:	Shenzhen Aishine Electronics Co., LTD			
Product:	AC adapter Wi-Fi camera			
Model No:	AI-IP008			
Trademark:	N/A			
Test Standards:	FCC Part 15.247			
Test result:	It is herewith confirmed and found to comply with the requirements set up by ANSI C63.10, FCC Part 15 Subpart C, Paragraph 15.247 regulations for the evaluation of electromagnetic compatibility			

Approved By

Jack Chung

Jack Chung

Manager

Dated:

July 12, 2016

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

# SHENZHEN TIMEWAY TESTING LABORATORIES

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timewaytech.com



# **Special Statement:**

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

# CNAL-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

# FCC-Registration No.: 899988

The 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 No.: 899988.

# IC- Registration No.: IC5205A-02

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration IC No.: 5205A-02.

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## 1.0 General Details

#### 1.1 Test Lab Details

Name : SHENZHEN TIMEWAY TESTING LABORATORIES. Address: Room 512-519,5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong China Telephone: (755) 83448688 Fax: (755) 83442996 Site on File with the Federal Communications Commission - United Sates Registration Number: 899988 For 3m & 10 m OATS Site Listed with Industry Canada of Ottawa, Canada Registration Number: IC: 5205A-02 For 3m & 10 m OATS

## 1.2 Applicant Details

11	
Applicant:	Shenzhen Aishine Electronics Co., LTD
Address:	Room 1512, Floor 15th, DongFangTianDe Building, Minzhi, Bao'an District, Shenzhen, P.R.
	China
Telephone:	
Fax:	

## 1.3 Description of EUT

Description of LOT			
Product:	AC adapter Wi-Fi camera		
Manufacturer:	Shenzhen Aishine Electronics Co., LTD		
Address:	Room 1512, Floor 15th, DongFangTianDe Building, Minzhi, Bao'an District,		
	Shenzhen, P.R. China		
Brand Name:	N/A		
Model Number:	AI-IP008		
Additional Model Nur	nber: N/A		
Type of Modulation	IEEE 802.11b : DSSS (CCK, QPSK, DBPSK)		
	IEEE 802.11g/n (HT20/40) : OFDM(64QAM, 16QAM, QPSK, BPSK)		
Frequency range	IEEE802.11b/g/n (HT20/40): 2412-2462MHz,IEEE802.11n (HT40) : 2422-2452MHz		
Channel Spacing	5MHz for IEEE 802.11b/g/n(HT20/40)		
Air Data Rate	IEEE 802.11b : 11, 5.5, 2, 1 Mbps		
	IEEE 802.11g : 54, 48,36, 24, 18, 12, 9, 6 Mbps		
	IEEE 802.11n HT20/40 : 150, 135, 117 ,104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6.5		
	Mbps		
Frequency Selection	By software		

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Channel NumberIEEE 802.11b/g/n (HT20) : 11 Channels; IEEE 802.11n (HT40) : 7 Channels,Antenna:Integral Antenna and the maximum Gain of this antenna is 1.6dBi;

- 1.4 Submitted Sample: 2 Samples
- 1.5 Test Duration 2016-07-06 to 2016-07-11
- 1.6 Test Uncertainty Conducted Emissions Uncertainty =3.6dB Radiated Emissions Uncertainty =4.7dB
- 1.7 Test Engineer

Terry lang

The sample tested by

Print Name: Terry Tang

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2.0 Test Equipments						
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date	
ESPI Test Receiver	R&S	ESPI 3	100379	2015-08-22	2016-08-21	
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2015-08-22	2016-08-21	
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2015-08-22	2016-08-21	
Ultra Broadband ANT	R&S	HL562	100157	2015-08-23	2016-08-22	
ESDV Test Receiver	R&S	ESDV	100008	2015-08-22	2016-08-21	
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2015-08-22	2016-08-21	
System Controller	СТ	SC100	-			
Printer	EPSON	РНОТО ЕХЗ	CFNH234850			
Computer	IBM	8434	1S8434KCE99BLXLO*	-	-	
Loop Antenna	EMCO	6502	00042960	2015-08-23	2016-08-22	
ESPI Test Receiver	R&S	ESI26	838786/013	2015-08-22	2016-08-21	
3m OATS			N/A	2015-08-24	2016-08-23	
Horn Antenna	R&S	BBHA 9170	BBHA9170265	2015-08-24	2016-08-23	
Horn Antenna	R&S	BBHA 9120D	9120D-631	2015-08-24	2016-08-23	
Power meter	Anritsu	ML2487A	6K00003613	2015-08-22	2016-08-21	
Power sensor	Anritsu	MA2491A	32263	2015-08-22	2016-08-21	
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2015-08-23	2016-08-21	
LISN	AFJ	LS16C	10010947251	2015-08-22	2016-08-21	
LISN (Three Phase)	Schwarebeck	NSLK 8126	8126453	2015-08-23	2016-08-22	
9*6*6 Anechoic			N/A	2015-08-24	2016-08-23	
EMI Test Receiver	RS	ESCS30	100139	2015-08-22	2016-08-21	

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## **3. DESCRIPTION OF TEST MODES**

### IEEE 802.11b, 802.11g, 802.11n (HT20) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 11Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 54Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n (HT20) mode: 6.5Mbps data rate (worst case) were chosen for full testing

### IEEE 802.11n (HT40) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n (HT40) mode: 6.5Mbps data rate (worst case) were chosen for full testing

The worst-case data rates are determined according to the description above, based on the investigations by measuring the PSD and average power across all the data rates, bandwidths, modulations and spatial stream modes.

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### 3.0 **Technical Details**

#### 3.1 Summary of test results

Standard	Test Type	Result	Notes
CC Part 15, Paragraph 15.107 & 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	PASS	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	PASS	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	PASS	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	PASS	Complies

#### 3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247 and ANSI C63.4:2014 AND ANSI C63.10:2013

#### 4.0 **EUT Modification**

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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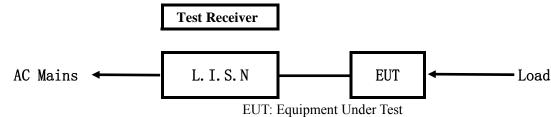
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### 5.0 **Power Line Conducted Emission Test**

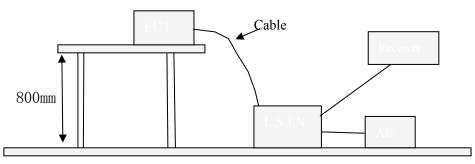
5.1 Schematics of the test



5.2 Test Method and test Procedure

> The EUT was tested according to ANSI C63.4-2014. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4-2014. Test Voltage: 120V~, 60Hz

Block diagram of Test setup



### Configuration of The EUT 5.3

The EUT was configured according to ANSI C63.4-2014. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A.	

A. EUT			
Device	Manufacturer	Model	FCC ID
AC adapter Wi-Fi	Shenzhen Aishine Electronics Co., LTD	AI-IP008	2AI3QAI-IP008
camera	Shelizhen Atshine Electronics Co., ETD	711-11 000	2/115Q/11-11 000

#### B. **Internal Device**

Device	Manufacturer	Model	FCC ID/DOC
N/A			

### C. Peripherals

Device	Manufacturer	Model	FCC ID/DOC	Cable

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- 5.4 EUT Operating Condition
  - Operating condition is according to ANSI C63.4-2014.
- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

## 5.5 Power line conducted Emission Limit according to Paragraph 15.207 and 15.107

Frequency	Class A Limits (dB µ V)		Class B Limits (dB µ V)		
(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level	
$0.15 \sim 0.50$	79.0	66.0	66.0~56.0*	56.0~46.0*	
$0.50 \sim 5.00$	73.0	60.0	56.0	46.0	
$5.00 \sim 30.00$	73.0	60.0	60.0	50.0	

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

## 5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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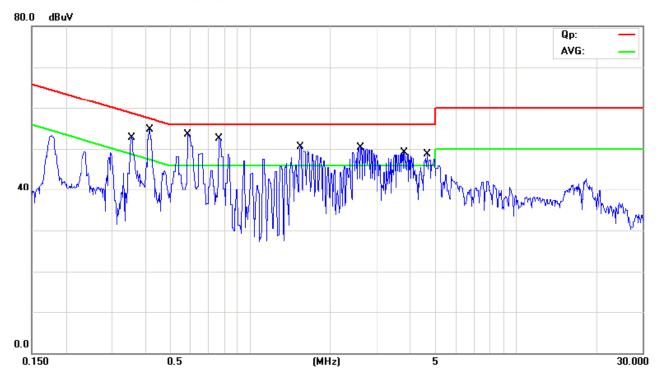
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A: Conducted Emission on Live Terminal (150kHz to 30MHz) EUT Operating Environment Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa EUT set Condition: Keep WIFI Transmitting

## **Results: PASS**

Please refer to following diagram for individual



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No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.3535	42.50	11.22	53.72	58.88	-5.16	QP	
2	0.3535	29.30	11.22	40.52	48.88	-8.36	AVG	
3	0.4142	41.30	11.28	52.58	57.56	-4.98	QP	
4	0.4142	28.60	11.28	39.88	47.56	-7.68	AVG	
5 *	0.5920	40.10	11.47	51.57	56.00	-4.43	QP	
6	0.5920	28.90	11.47	40.37	46.00	-5.63	AVG	
7	0.7660	39.20	11.65	50.85	56.00	-5.15	QP	
8	0.7660	26.20	11.65	37.85	46.00	-8.15	AVG	
9	1.5363	35.00	12.11	47.11	56.00	-8.89	QP	
10	1.5363	21.40	12.11	33.51	46.00	-12.49	AVG	
11	2.6011	32.30	12.54	44.84	56.00	-11.16	QP	
12	2.6011	20.10	12.54	32.64	46.00	-13.36	AVG	
13	3.7684	31.60	13.01	44.61	56.00	-11.39	QP	
		40.50	40.04					
14	3.7684	18.50	13.01	31.51		-14.49	AVG	
15	4.6166	30.60	13.35	43.95	56.00	-12.05	QP	
16	4.6166	23.60	13.35	36.95	46.00	-9.05	AVG	

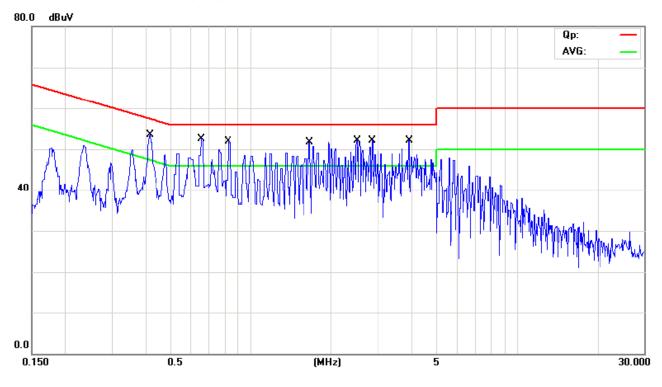
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B: Conducted Emission on Neutral Terminal (150kHz to 30MHz) EUT Operating Environment Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa EUT set Condition: Keep WIFI Transmitting

## **Results: Pass**

Please refer to following diagram for individual



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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.4144	41.00	11.28	52.28	57.56	-5.28	QP	
2		0.4144	28.30	11.28	39.58	47.56	-7.98	AVG	
3		0.6524	38.90	11.53	50.43	56.00	-5.57	QP	
4		0.6524	27.00	11.53	38.53	46.00	-7.47	AVG	
5		0.8216	38.80	11.71	50.51	56.00	-5.49	QP	
6		0.8216	26.00	11.71	37.71	46.00	-8.29	AVG	
7		1.6591	37.70	12.16	49.86	56.00	-6.14	QP	
8		1.6591	26.60	12.16	38.76	46.00	-7.24	AVG	
9		2.4866	36.40	12.49	48.89	56.00	-7.11	QP	
10		2.4866	25.10	12.49	37.59	46.00	-8.41	AVG	
11		2.8390	36.90	12.64	49.54	56.00	-6.46	QP	
12		2.8390	22.60	12.64	35.24	46.00	-10.76	AVG	
13		3.9045	35.40	13.06	48.46	56.00	-7.54	QP	
14		3.9045	18.80	13.06	31.86	46.00	-14.14	AVG	

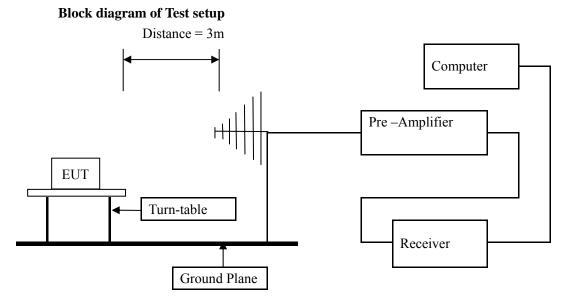
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## 6 Radiated Emission Test

## 6.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.899988
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up Is according to ANSI C63.10–2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz Are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with All installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are Distinguished with a "**QP**" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.



- 6.2 Configuration of The EUT Same as section 5.3 of this report
- 6.3 EUT Operating Condition

Same as section 5.4 of this report.

The report refers only to the sample tested and does not apply to the bulk.

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# 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequencies in restricted hand are com	plied to limit on Paragraph 15.209 and 15.109
Frequencies in restricted band are com	pheu to mint on r aragraph 13.209 and 13.109

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note: 1. RF Voltage  $(dBuV) = 20 \log RF$  Voltage (uV)

2. In the Above Table, the higher limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

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# **Test result** General Radiated Emission Data and Harmonics Radiated Emission Data

## Radiated Emission In Horizontal/Vertical (30MHz----1000MHz)

### **EUT set Condition: Keep WIFI Transmitting**

**Results:** 

Pass

Frequency (MHz)	Level@3m (dB µ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
480.000	42.18	Н	46.00
576.000	43.92	Н	46.00
168.000	37.18	Н	43.50
216.000	38.99	Н	43.50
528.000	42.56	V	46.00
576.000	44.77	V	46.00
168.000	41.14	V	43.50
216.000	31.54	V	43.50

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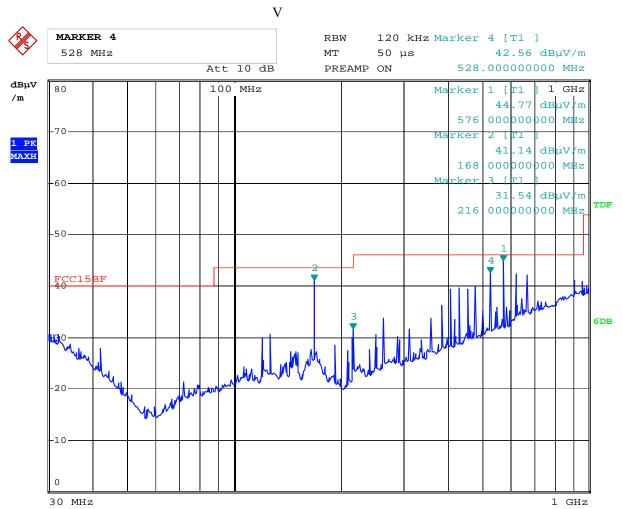
Η MARKER 4 RBW 120 kHz Marker 4 [T1 ] 480 MHz МΤ 50 µs 42.18 dBµV/m Att 10 dB PREAMP ON 480.00000000 MHz dBµV 80 100 MHz 1 GHz Marker 1 [T1 /m 92 dBµV/m 43 576 000000000 MHz 70 Ma ckei 1 1 РК МАХН 37 18 dB ιV m 168 0000000000 M Hz 60 38 99 dB ιV 'n TDF 216 0000000000 MHz -50 FCC15 3 BF 6DB 30 NHU -20 -10 0 30 MHz 1 GHz

Test Figure:

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Test Figure:

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Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	52.78 (PK)	Н	74(Peak)/ 54(AV)
4824.00	52.32 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16884		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

## **Operation Mode: Transmitting under CH01 for 11g at 54Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11g mode 54Mbps

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adopt any other remedies which may be appropriate.



Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
50.70 (PK)	V	74(Peak)/ 54(AV)
50.15 (PK)	Н	74(Peak)/ 54(AV)
	H/V	74(Peak)/ 54(AV)
	50.70 (PK) 50.15 (PK)       	50.70 (PK) V   50.15 (PK) H    H/V    H/V

## **Operation Mode: Transmitting under CH06 for 11g at 54Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11g mode 54 Mbps

## **Operation Mode: Transmitting under CH11 for 11g at 54Mbps**

1	8	8 I	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	51.58 (PK)	Н	74(Peak)/ 54(AV)
4924	51.14 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11g mode at 54 Mbps

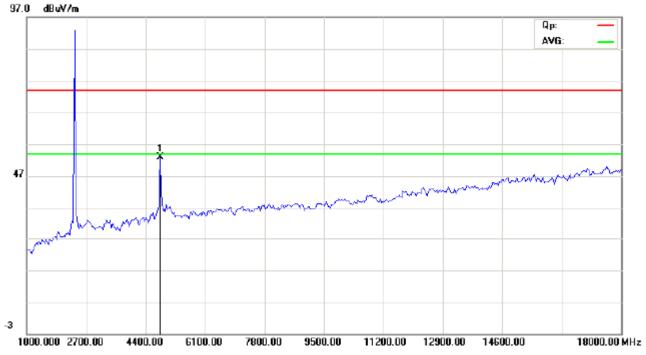
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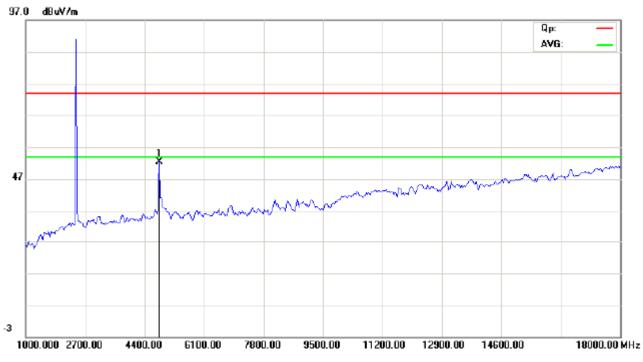


Please refer to the following test plots for details:

# CH01 for 11g at 54Mbps: Horizontal



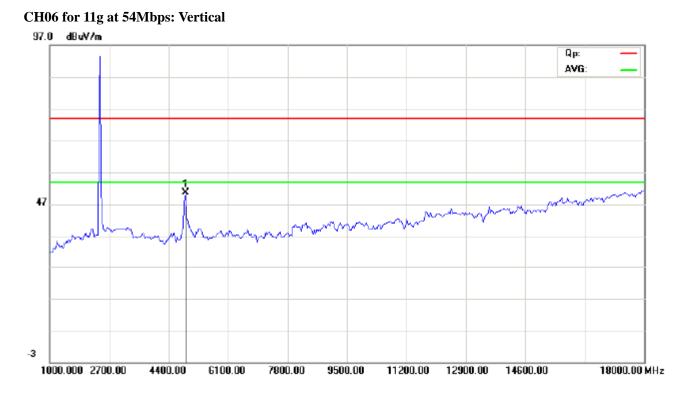
# CH01 for 11g at 54Mbps: Vertical



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## CH06 for 11g at 54Mbps: Horizontal

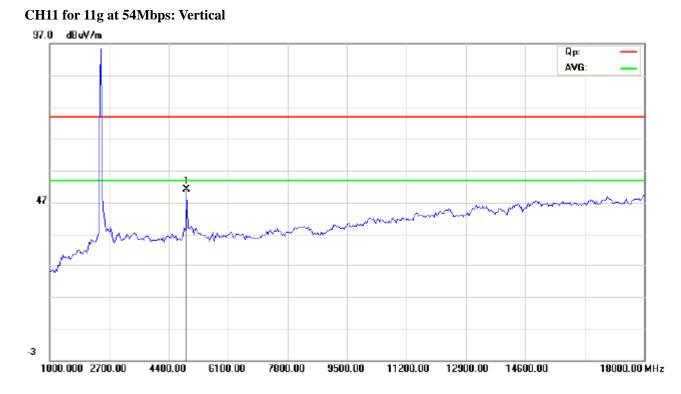
97.0 dBuV/m նթ։ AVG: × 47 -3 1000.000 2700.00 4400.00 6100.00 7800.00 9500.00 11200.00 12900.00 14600.00 18000.00 MHz

The report refers only to the sample tested and does not apply to the bulk.

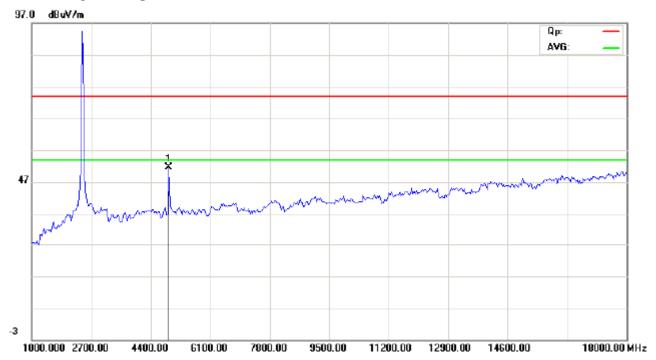
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## CH11 for 11g at 54Mbps: Horizontal



Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

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1	8	1	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	50.32 (PK)	Н	74(Peak)/ 54(AV)
4824.00	50.59 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

## **Operation Mode: Transmitting under CH01 for 11b at 11Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11b mode 11Mbps

## **Operation Mode: Transmitting under CH06 for 11b at 11Mbps**

1	8	1	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	51.01 (PK)	Н	74(Peak)/ 54(AV)
4874.00	51.58 (PK)	V	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11b mode 11Mbps

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	_	—	
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	52.29 (PK)	Н	74(Peak)/ 54(AV)
4924	52.63 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

## **Operation Mode: Transmitting under CH11 for 11b at 11Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11b mode at 11Mbps

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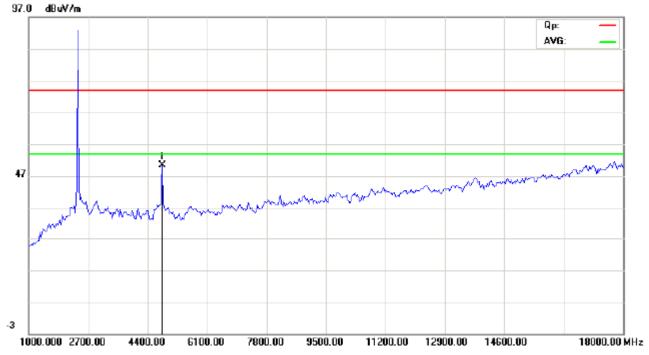
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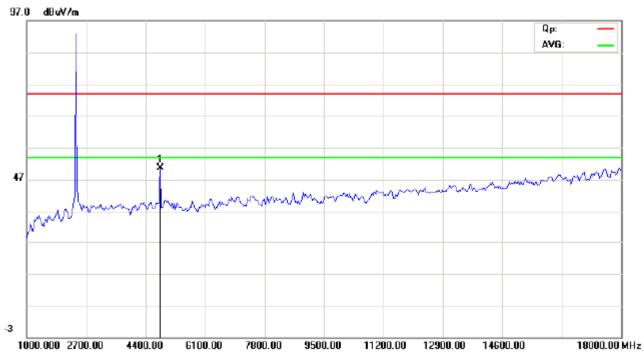


Please refer to the following test plots for details:

# CH01 for 11b at 11Mbps: Horizontal



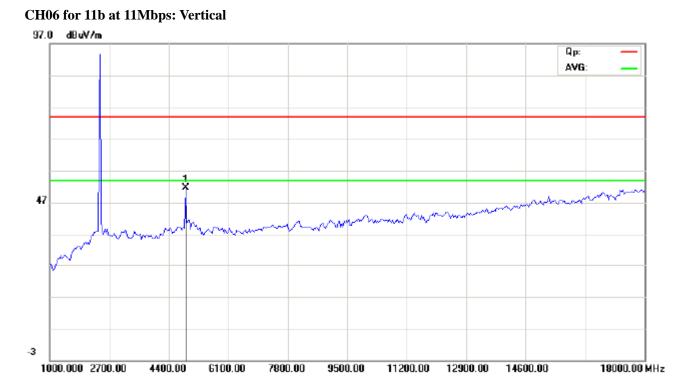
## CH01 for 11b at 11Mbps: Vertical



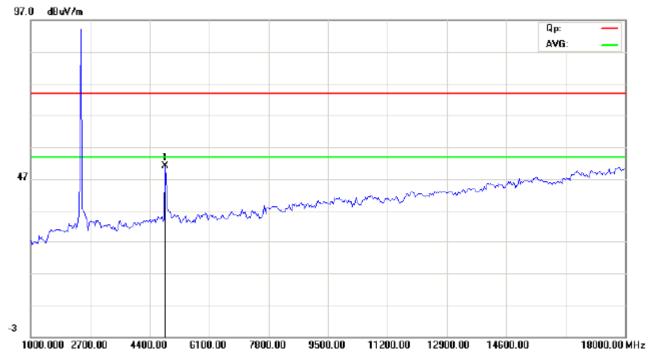
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## CH06 for 11b at 11Mbps: Horizontal

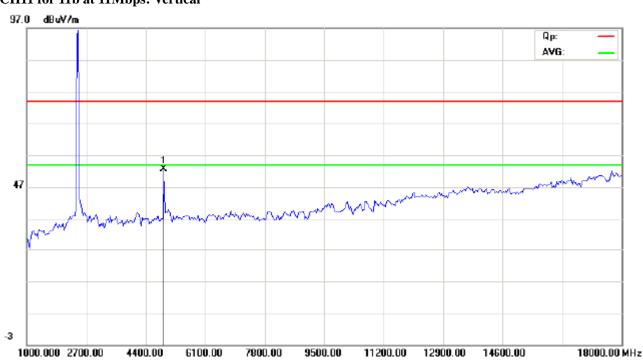


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# CH11 for 11b at 11Mbps: Vertical

## CH11 for 11b at 11Mbps: Horizontal

97.0 dBuV/m նթ։ AVG: And A 47 -3 1000.000 2700.00 6100.00 7800.00 9500.00 18000.00 MHz 4400.00 11200.00 12900.00 14600.00

Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

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<b>1</b>	8	Ĩ	-
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4824.00	51.35 (PK)	Н	74(Peak)/ 54(AV)
4824.00	51.60 (PK)	V	74(Peak)/ 54(AV)
7236.00		H/V	74(Peak)/ 54(AV)
9648.00		H/V	74(Peak)/ 54(AV)
12060		H/V	74(Peak)/ 54(AV)
14472		H/V	74(Peak)/ 54(AV)
16684		H/V	74(Peak)/ 54(AV)
19296		H/V	74(Peak)/ 54(AV)
21708		H/V	74(Peak)/ 54(AV)
24120		H/V	74(Peak)/ 54(AV)

## Operation Mode: Transmitting under CH01 for 11n HT20 at 6.5Mbps

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT20) mode 6.5Mbps

## Operation Mode: Transmitting under CH06 for 11n HT20 at 6.5Mbps

1	0		1
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	52.54 (PK)	Н	74(Peak)/ 54(AV)
4874.00	52.19 (PK)	V	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT20) mode 6.5Mbps

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operation mode. manismitting under entit for min m120 at 0.500ps			
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4924	50.69 (PK)	Н	74(Peak)/ 54(AV)
4924	50.64 (PK)	V	74(Peak)/ 54(AV)
7368		H/V	74(Peak)/ 54(AV)
9848		H/V	74(Peak)/ 54(AV)
12310		H/V	74(Peak)/ 54(AV)
14772		H/V	74(Peak)/ 54(AV)
17234		H/V	74(Peak)/ 54(AV)
19696		H/V	74(Peak)/ 54(AV)
22158		H/V	74(Peak)/ 54(AV)
24620		H/V	74(Peak)/ 54(AV)

## **Operation Mode: Transmitting under CH11 for 11n HT20 at 6.5Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT20) mode 6.5Mbps

The report refers only to the sample tested and does not apply to the bulk.

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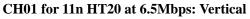
adopt any other remedies which may be appropriate.

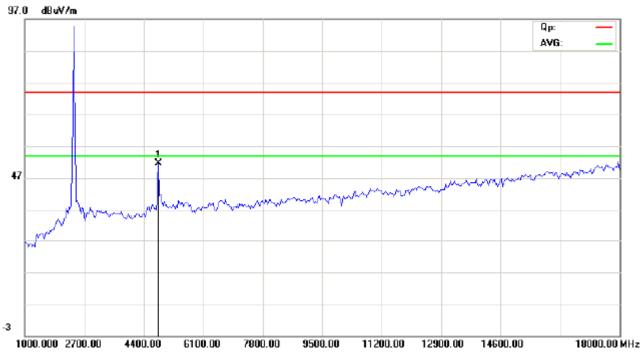


97.0 dBuV/m նթ։ AVG: 47 -3 14600.00 1000.000 2700.00 4400.00 6100.00 7800.00 9500.00 11200.00 12900.00 18000.00 MHz

Please refer to the following test plots for details:

# CH01 for 11n HT20 at 6.5Mbps: Horizontal

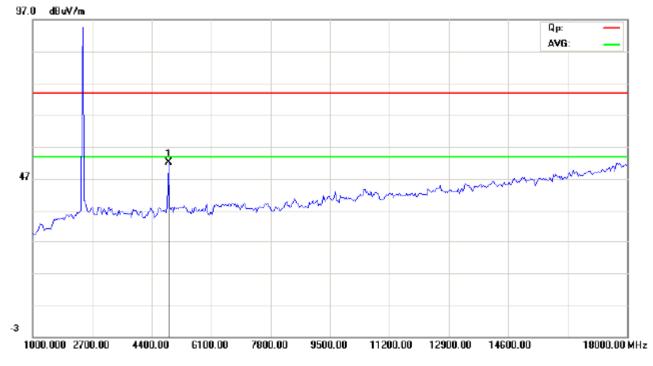




The report refers only to the sample tested and does not apply to the bulk.

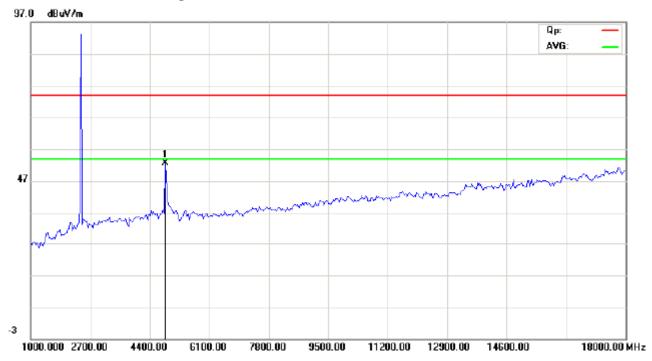
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# CH06 for 11n HT20 at 6.5Mbps: Vertical

### CH06 for 11n HT20 at 6.5Mbps: Horizontal

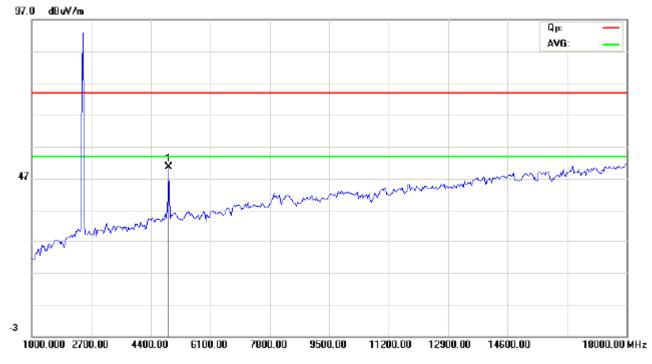


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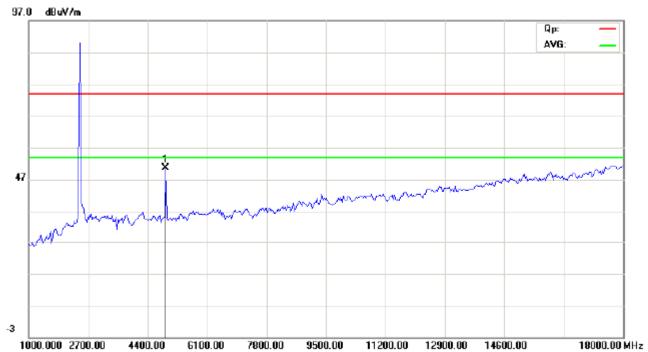
discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.





# CH11 for 11n HT20 at 6.5Mbps: Vertical

## CH11 for 11n HT20 at 6.5Mbps: Horizontal



Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

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_	-		
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4844.00	49.51 (PK)	Н	74(Peak)/ 54(AV)
4844.00	49.27 (PK)	V	74(Peak)/ 54(AV)
7266.00		H/V	74(Peak)/ 54(AV)
9688.00		H/V	74(Peak)/ 54(AV)
12110		H/V	74(Peak)/ 54(AV)
14532		H/V	74(Peak)/ 54(AV)
16954		H/V	74(Peak)/ 54(AV)
19376		H/V	74(Peak)/ 54(AV)
21798		H/V	74(Peak)/ 54(AV)
24220		H/V	74(Peak)/ 54(AV)

## **Operation Mode: Transmitting under CH01 for 11n HT40 at 6.5Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT40) mode 6.5Mbps

## Operation Mode: Transmitting under CH04 for 11n HT40 at 6.5Mbps

1	8		1
Frequency (MHz)	Level@3m (dB $\mu$ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4874.00	49.66 (PK)	Н	74(Peak)/ 54(AV)
4874.00	49.53 (PK)	V	74(Peak)/ 54(AV)
7311.00		H/V	74(Peak)/ 54(AV)
9748.00		H/V	74(Peak)/ 54(AV)
12185		H/V	74(Peak)/ 54(AV)
14622		H/V	74(Peak)/ 54(AV)
17059		H/V	74(Peak)/ 54(AV)
19496		H/V	74(Peak)/ 54(AV)
21933		H/V	74(Peak)/ 54(AV)
24370		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT40) mode 6.5Mbps

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Frequency (MHz)	Level@3m (dB µ V/m)	Antenna Polarity	Limit@3m (dB µ V/m)
4904	48.32 (PK)	Н	74(Peak)/ 54(AV)
4904	48.58 (PK)	V	74(Peak)/ 54(AV)
7356		H/V	74(Peak)/ 54(AV)
9808		H/V	74(Peak)/ 54(AV)
12260		H/V	74(Peak)/ 54(AV)
14712		H/V	74(Peak)/ 54(AV)
17164		H/V	74(Peak)/ 54(AV)
19616		H/V	74(Peak)/ 54(AV)
22068		H/V	74(Peak)/ 54(AV)
24520		H/V	74(Peak)/ 54(AV)

## **Operation Mode: Transmitting under CH07 for 11n HT40 at 6.5Mbps**

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

2. Remark "---" means that the emissions level is too low to be measured

3. For 802.11n (HT40) mode 6.5Mbps

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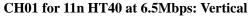
adopt any other remedies which may be appropriate.

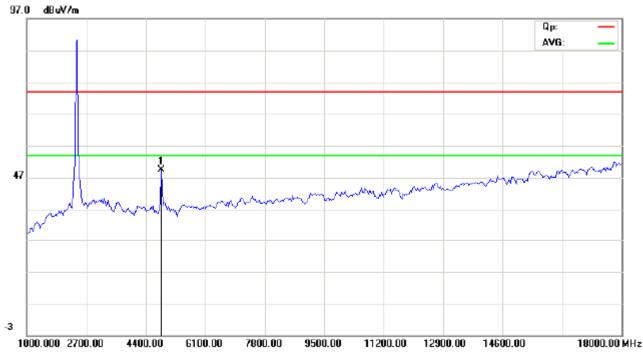


97.0 dBuV/m նթ։ AVG: 47 -3 1000.000 2700.00 4400.00 6100.00 7800.00 9500.00 11200.00 12900.00 14600.00 18000.00 MHz

Please refer to the following test plots for details:

# CH01 for 11n HT40 at 6.5Mbps: Horizontal

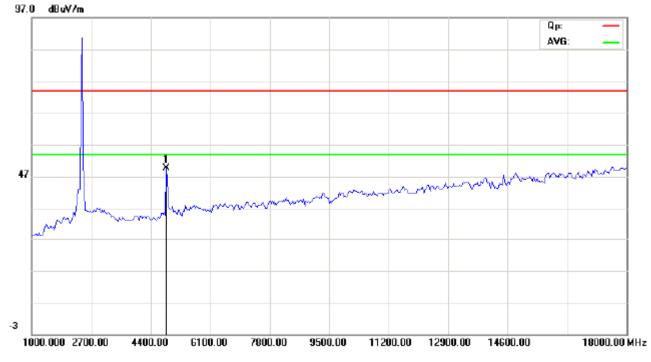




The report refers only to the sample tested and does not apply to the bulk.

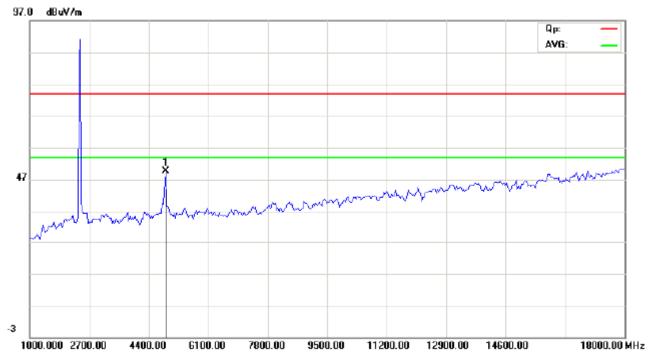
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report. In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to





# CH04 for 11n HT40 at 6.5Mbps: Vertical

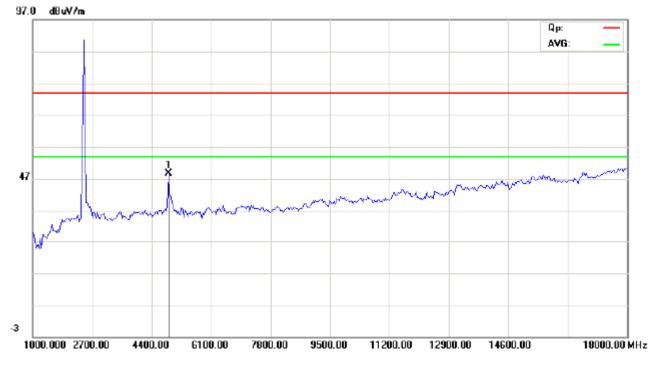
#### CH04 for 11n HT40 at 6.5Mbps: Horizontal



The report refers only to the sample tested and does not apply to the bulk.

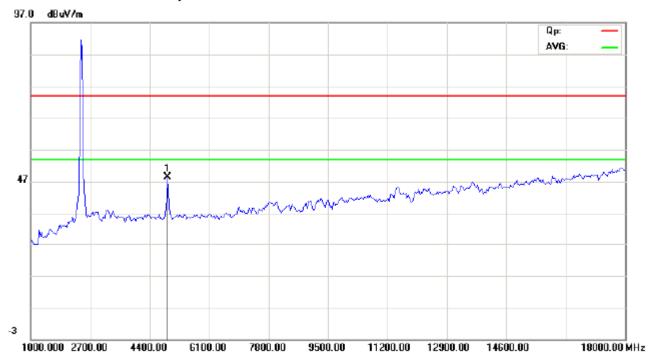
This report is issued in confidence to the client and its will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.





# CH07 for 11n HT40 at 6.5Mbps: Vertical

#### CH07 for 11n HT40 at 6.5Mbps Horizontal



Note: For radiated Emissions from 18-25GHz, it is only the floor noise.

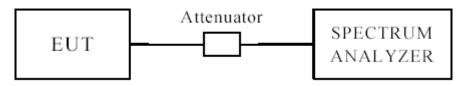
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# 7.0 6dB Bandwidth Measurement

7.1 Test Setup



# 7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

# 7.3 Test Procedure

- 1. Set resolution bandwidth (RBW) = 100 kHz
- 2. Set the video bandwidth (VBW)  $\ge$  3 x RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.

7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

# 7.4 Test Result

The report refers only to the sample tested and does not apply to the bulk.

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#### 6dB Occupied Bandwidth

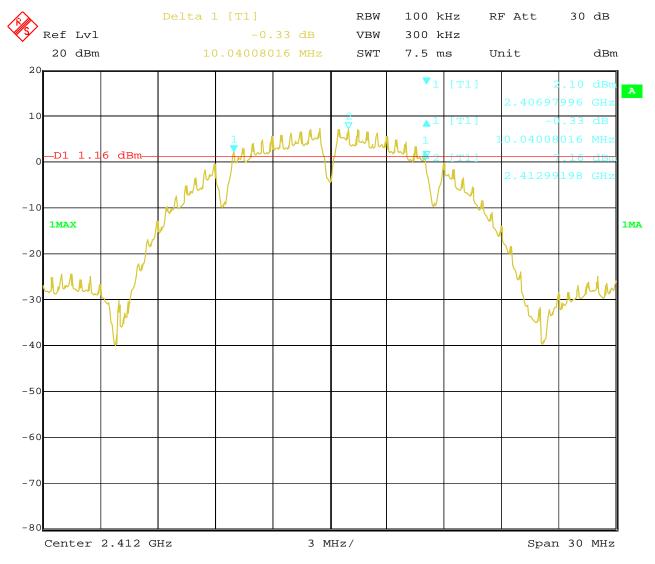
EUT		AC adapter	apter Wi-Fi came		Model		AI-	IP008
Mode		802	2.11b		Input Voltage		12	20V~
Temperat	ure	24 c	leg. C,		Humidity		56	% RH
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)		N	linimum Limit (MHz)	Pass/ Fail
1		2412	1	10.04		0.5		Pass
6		2437	1		10.04		0.5	Pass
11		2462	1		10.05		0.5	Pass
1		2412	11	9.32			0.5	Pass
6	2437		11	9.32		0.5		Pass
11	2462		11		9.32		0.5	Pass

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### 1. 802.11b at 1Mbps of CH01



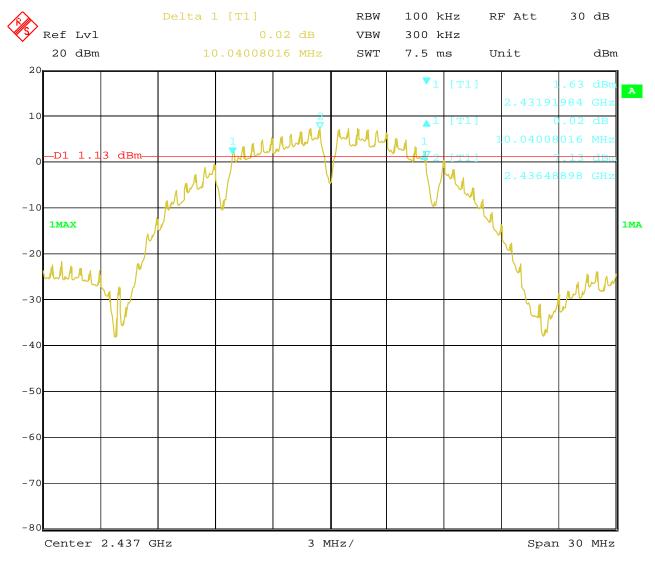
The report refers only to the sample tested and does not apply to the bulk.

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# 2. 802.11b at 1Mbps of CH06



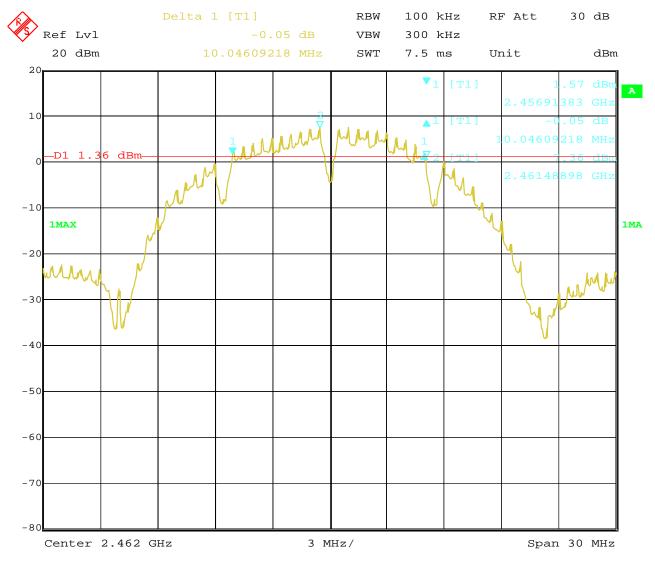
The report refers only to the sample tested and does not apply to the bulk.

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# 3. 802.11b at 1Mbps of CH11



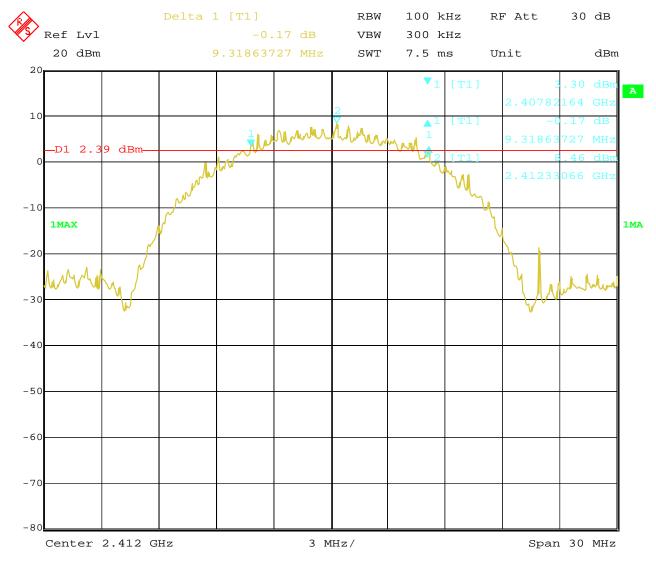
The report refers only to the sample tested and does not apply to the bulk.

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### 4. 802.11b at 11Mbps of CH01



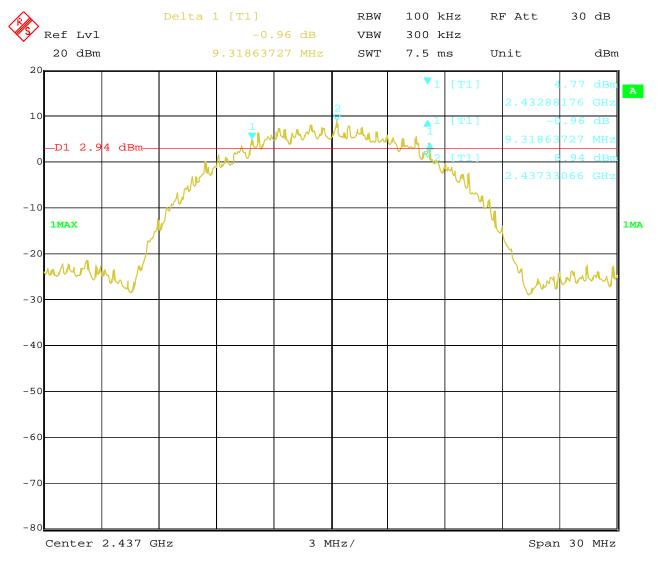
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# 5. 802.11b at 11Mbps of CH06



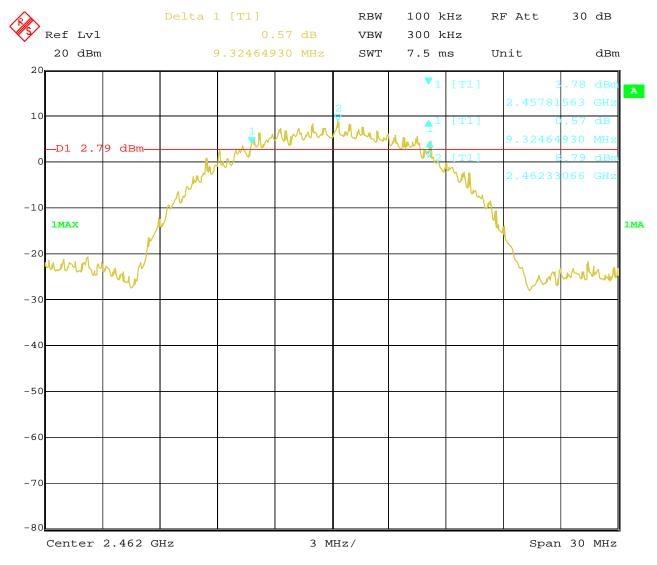
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### 6. 802.11b at 11Mbps of CH11



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#### 6dB Occupied Bandwidth

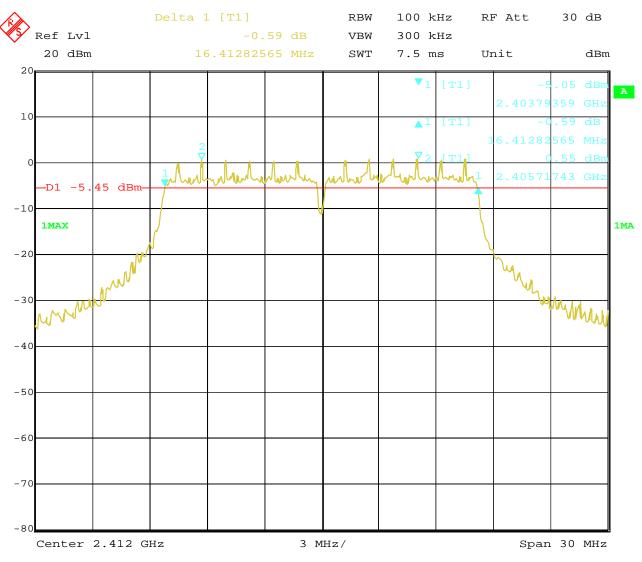
EUT		AC adapter	Wi-Fi cam	era	Model		AI-	IP008
Mode		80	2.11g		Input Voltage		12	0V~
Temperat	ure	24 c	leg. C,		Humidity		569	% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dE	6 dB Bandwidth M (MHz)		linimum Limit (MHz)	Pass/ Fail
1		2412	54	16.41			0.5	Pass
6		2437	54		16.41		0.5	Pass
11		2462	54		16.42		0.5	Pass

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# Test Plots: 1. 802.11g at 54Mbps of CH01



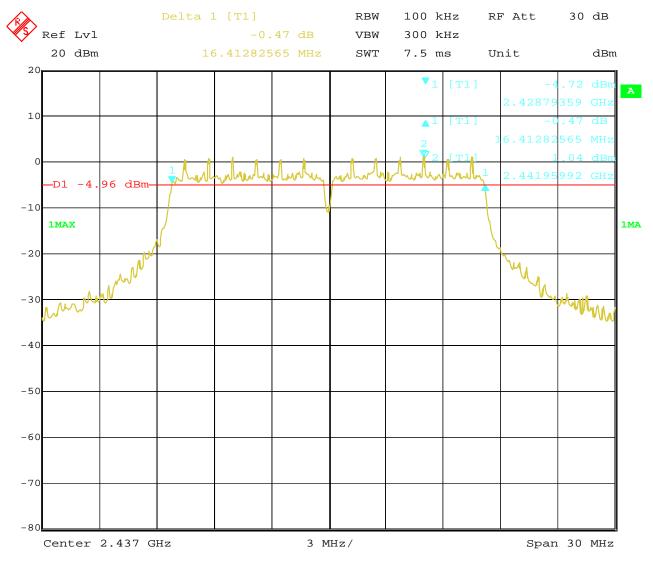
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# 2. 802.11g at 54Mbps of CH06



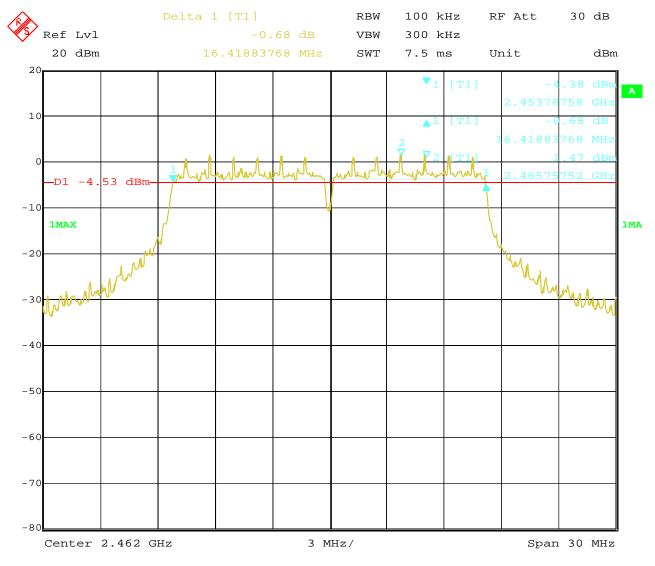
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# 3. 802.11g at 54Mbps of CH11



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#### 6dB Occupied Bandwidth

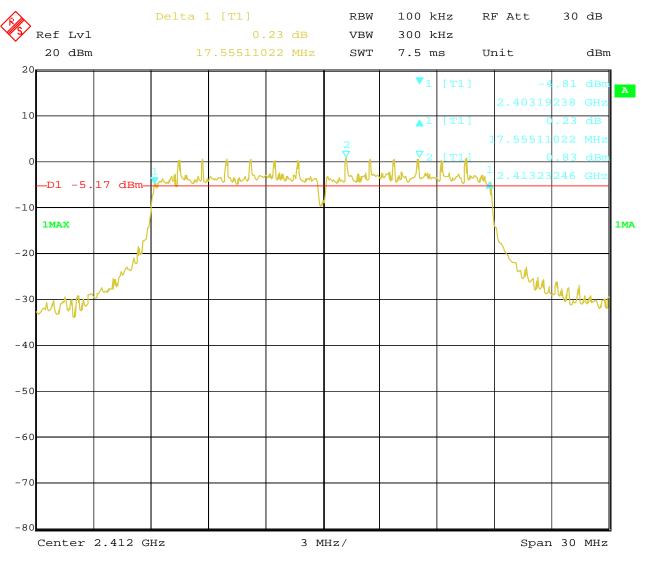
EUT	UT AC adapter		Wi-Fi camera Model		Model		AI-	IP008
Mode		802.11	n HT20		Input Voltage		12	0V~
Temperat	ure	24 de	eg. C,		Humidity		56%	% RH
Channel		annel Frequency Data (MHz) Rate (Mbps)		6	dB Bandwidth M (MHz)		finimum Limit (MHz)	Pass/ Fail
1		2412	6.5M	17.56			0.5	Pass
6		2437	6.5M	17.56			0.5	Pass
11		2462	6.5M	17.56			0.5	Pass

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# Test Plots: 1. 802.11n at HT20 of CH01



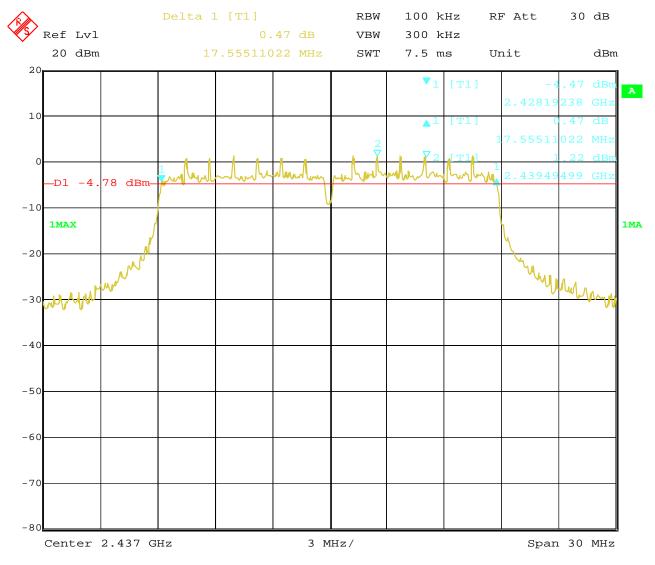
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# 2. 802.11n at HT20 of CH06



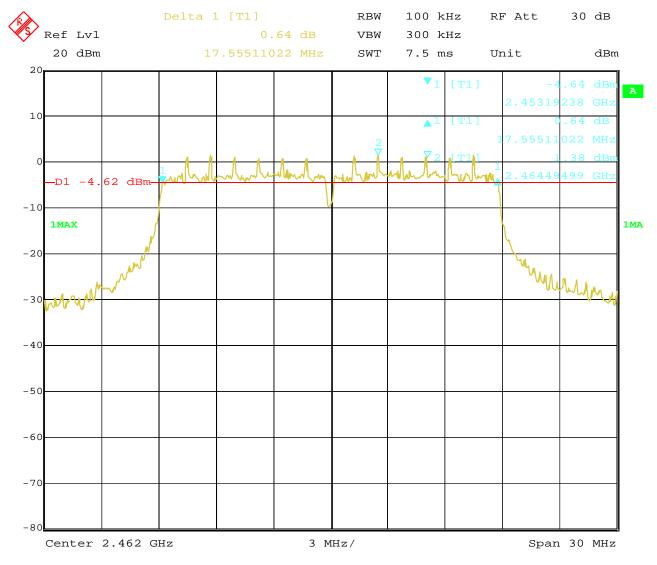
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# 3. 802.11n at HT20 of CH11



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#### 6dB Occupied Bandwidth

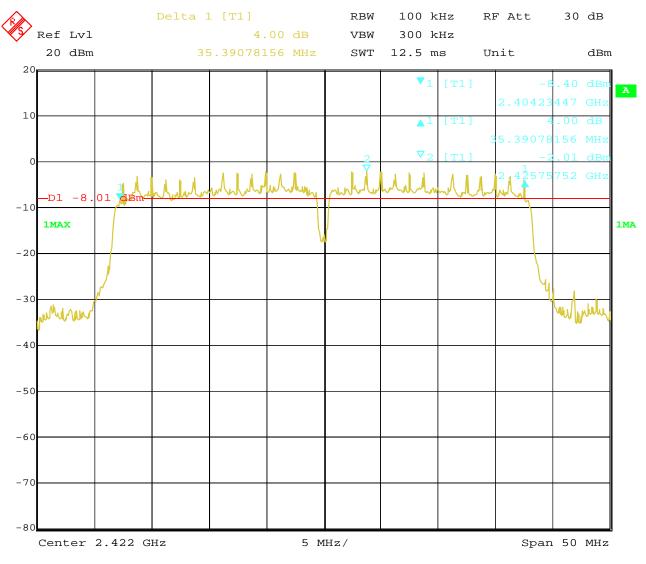
EUT		AC adapter V	Wi-Fi camera		Model	AI-IP	008
Mode	802.11		n HT40 Input Voltage		Input Voltage	120	√~
Temperat	ure	24 de	eg. C,		Humidity	56%	RH
Channel		Channel Frequency (MHz) Rate (Mbps)		6	dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1		2422	6.5M		35.39	0.5	Pass
4		2437	6.5M		35.39	0.5	Pass
7		2452	6.5M		35.39	0.5	Pass

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# Test Plots: 1. 802.11n at HT40 of CH01



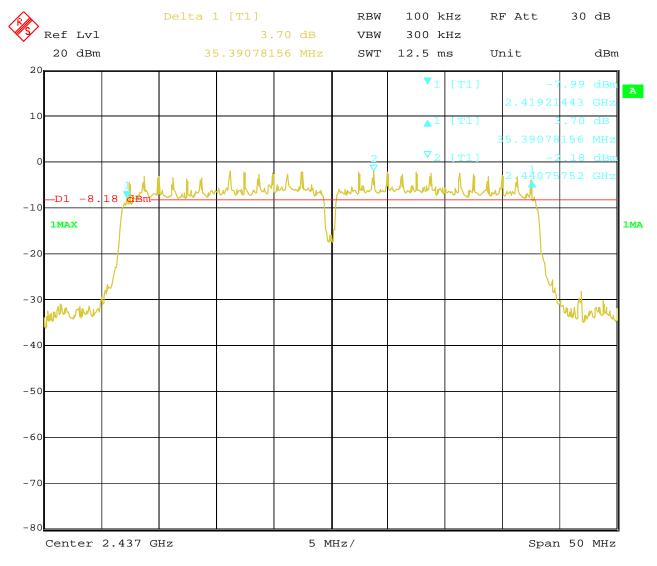
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### 2. 802.11n at HT40 of CH04



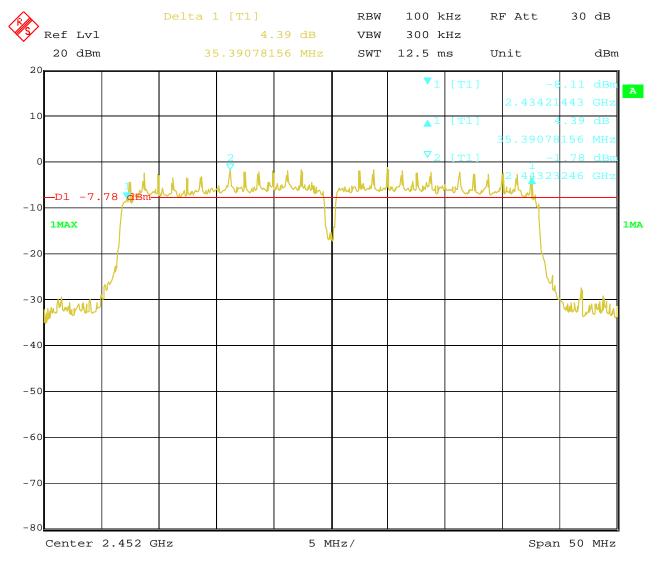
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### 3. 802.11n at HT40 of CH07



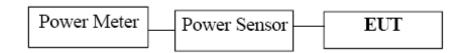
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# 8. Maximum Output Power

8.1 Test Setup



### 8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

#### 8.3 Test Procedure

The RF power output was measured with a Power meter connected to the RF Antenna connector ( conducted measurement ) while EUT was operating in transmit mode at the appropriate centre frequency.

### Note: the Peak power was measured

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#### **8.4Test Results**

EUT	EUT AC adapter Wi-F		Fi camera Model				AI-IP008
Mode	Mode 802.111		)	Input Volt	Input Voltage		120V~
Temperat	ure	24 deg.	C, Humidit		y		56% RH
Channel	Channel Frequency (MHz)		Max. Power Output (dBm)		Po	wer Limit (dBm)	Pass/ Fail
1		2412	19.08			30	Pass
6	2437		19.27			30	Pass
11		2462	19	.61		30	Pass

Note: 1. At finial test to get the worst-case emission at 11Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	EUT AC adapter		Fi camera	Model		AI-IP008	
Mode	Mode 802.11g		g Input Volt		ıge		120V~
Temperat	ure	24 deg. (	С,	Humidity	y	2	56% RH
Channel	Channel Frequency (MHz)		Max. Power Output (dBm)		Р	ower Limit (dBm)	Pass/ Fail
1		2412	17.25			30	Pass
6	2437		17.41			30	Pass
11		2462	17	.42		30	Pass

Note: 1. At finial test to get the worst-case emission at 54Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

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EUT	AC adapter Wi-I		Fi camera Model			AI-IP008	
Mode	ode 802.11n (H		IT20) Input Voltage		;	120V~	
Temperat	mperature 24 deg.		C,	, Humidity		56% RH	
Channel	Cha	annel Frequency (MHz)	Max. Powe	Max. Power Output (dBm)		ower Limit (dBm)	Pass/ Fail
1		2412	1	16.06		30	Pass
6		2437	1	16.21		30	Pass
11		2462	1	15.26		30	Pass

Note: 1. At finial test to get the worst-case emission at 6.5Mbps of 11n HT20 for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	AC adapter Wi-I		Fi camera Model			AI-IP008
Mode		802.11n (H	T40) Input Voltage			120V~
Temperate	ture 24 deg.		C, Humidity			56% RH
Channel	Ch	Channel Frequency (MHz) Max. Power		er Output (dBm)	Power Limit (dBm)	Pass/ Fail
1		2422	1	16.08	30	Pass
4		2437	1	15.96	30	Pass
7		2452	1	16.23	30	Pass

Note: 1. At finial test to get the worst-case emission at 6.5Mbps of 11n HT40 for CH01, CH04 and CH7

2. The result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

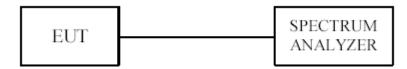
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# 9. Power Spectral Density Measurement

9.1 Test Setup



# 9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm.

### 9.3 Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.

- 2. Set the RBW = 10 kHz.
- 3. Set the VBW  $\geq$  30 kHz.
- 4. Set the span to 1.5 times the DTS channel bandwidth.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
- 11. The resulting peak PSD level must be  $\leq 8$  dBm.

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#### 9.4Test Result

EUT	EUT AC adapter Wi		Fi camera Model			А	I-IP008
Mode 802		802.11b 111	802.11b 11Mbps		Input Voltage		120V~
Temperat	ure	24 deg. C,		Humidity		5	6% RH
Channel	el Channel Frequency (MHz)		Final RF F	Power Level lBm)	Max	ximum Limit (dBm)	Pass/ Fail
		(((((((((((((((((((((((((((((((((((((((	(0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(ubiii)	
			11	Mbps			
1		2412		1.81		8	Pass
6	2437 .		0.69		8	Pass	
11		2462	-	1.03		8	Pass

EUT AC adap		AC adapter Wi-	ndapter Wi-Fi camera		Model		I-IP008
Mode 802.11		802.11b 1N	/lbps	Input Voltage		120V~	
Temperat	ure	24 deg.	C,	Humidity	r	5	6% RH
Channel	Cha	annel Frequency	Final RF F	ower Level	Max	kimum Limit	Pass/ Fail
Channel		(MHz)	in (dBm)			(dBm)	
			1	Mbps			
1		2412 -		-2.68		8	Pass
6	2437		3.07		8	Pass	
11		2462	-	2.86		8	Pass

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EUT	Γ AC adapter Wi-F		Fi camera Model		Al	I-IP008
Mode	Mode 802.11g 54N		Mbps	Input Voltage	1	20V~
Temperat	ure	24 deg.	C,	Humidity	56	5% RH
Channel	Channel Frequency (MHz)		Final RF Power Level in (dBm)		Maximum Limit (dBm)	Pass/ Fail
			5	54Mbps		
1		2412		-9.00	8	Pass
6		2437		-8.81	8	Pass
11		2462		-8.59	8	Pass

EUT	EUT AC adapter Wi-H		Fi camera Model		AI	-IP008	
Mode		802.11n HT20	6.5Mbps	Input Voltage	1	20V~	
Temperatu	ure	24 deg. (	С,	Humidity	56	% RH	
Channel	Channel Frequency (MHz)		Final RF Power Level (dBm)		Maximum Limit (dBm)	Pass/ Fail	
				HT20			
1		2412		-8.19	8	Pass	
6		2437		-7.15	8	Pass	
11		2462		-7.15	8	Pass	

EUT		AC adapter Wi-Fi camera		Model		AI-IP008	
Mode		802.11n HT40 6.5Mbps		Input Voltage		120V~	
Temperature		24 deg. C,		Humidity	.у 5		6% RH
Channel	Cha	annel Frequency (MHz)	Final RF Power Level (dBm)		Maximum Limit (dBm)		Pass/ Fail
HT40							
1	2422		-11.00			8	Pass
4		2437	-10	0.83		8	Pass
7		2452	-10	0.90		8	Pass

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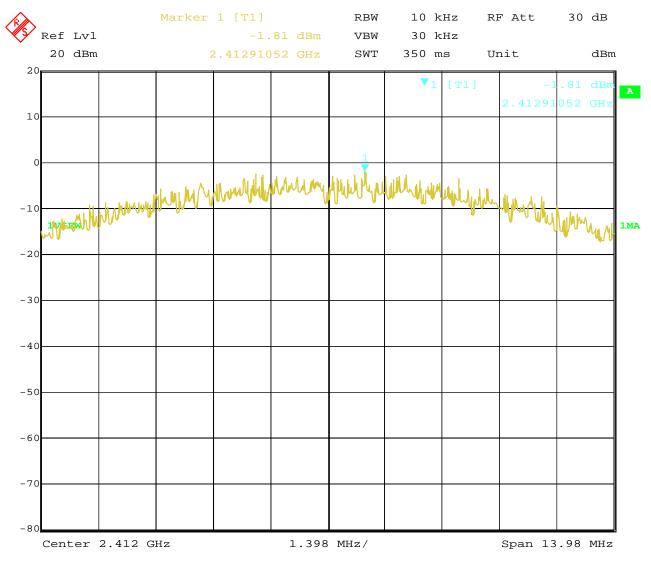
adopt any other remedies which may be appropriate.



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#### 9.5 Photo of Power Spectral Density Measurement

1.802.11b at 11Mbps of CH01



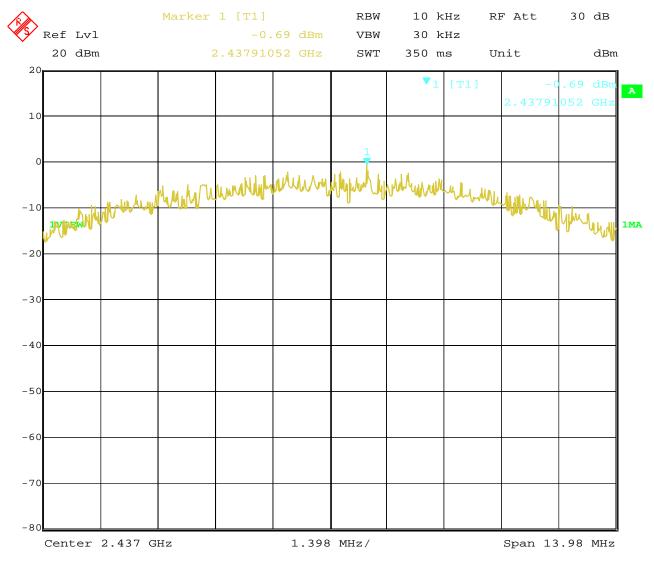
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### 2. 802.11b at 11Mbps at CH06



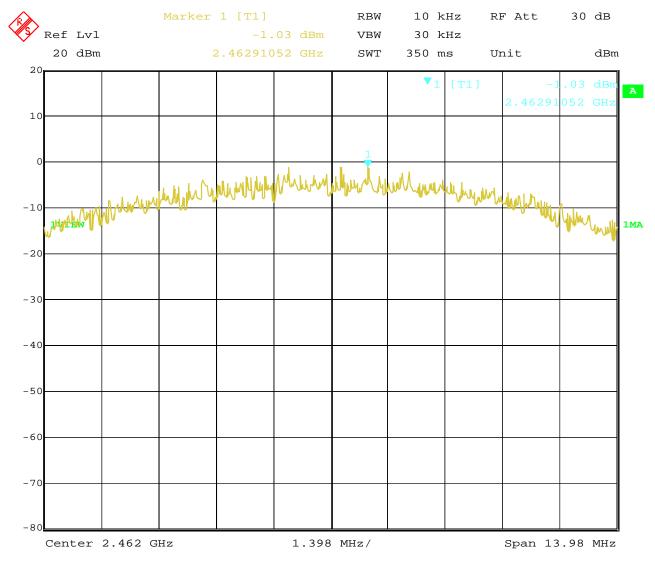
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# 3. 802.11b at 11Mbps of CH11



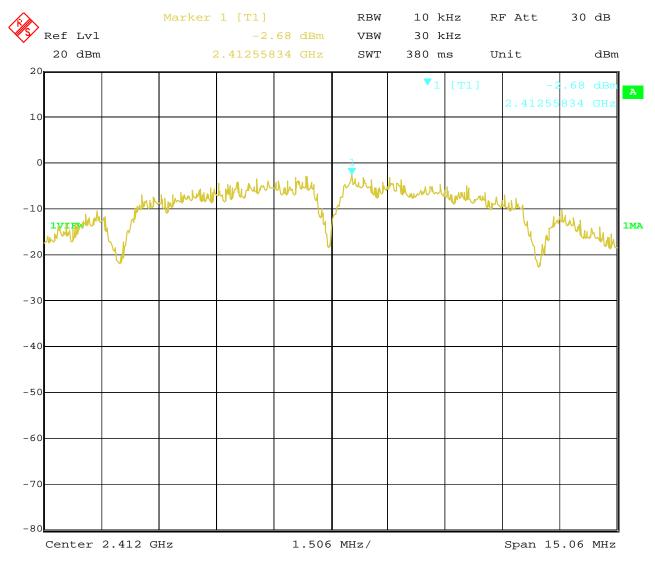
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#### 4. 802.11b at 1Mbps of CH1



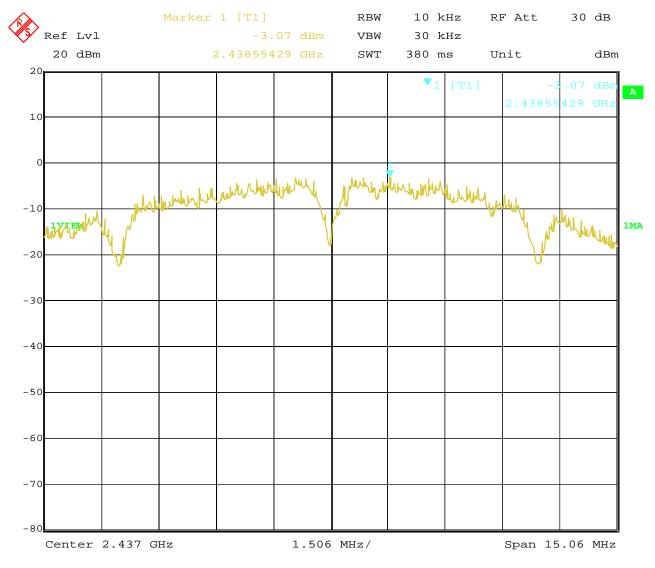
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#### 5. 802.11b at 1Mbps of CH6



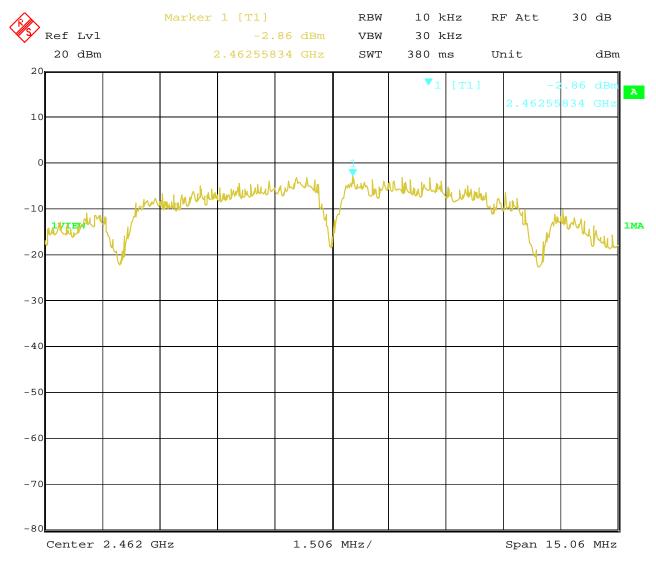
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# 6. 802.11b at 1Mbps of CH11



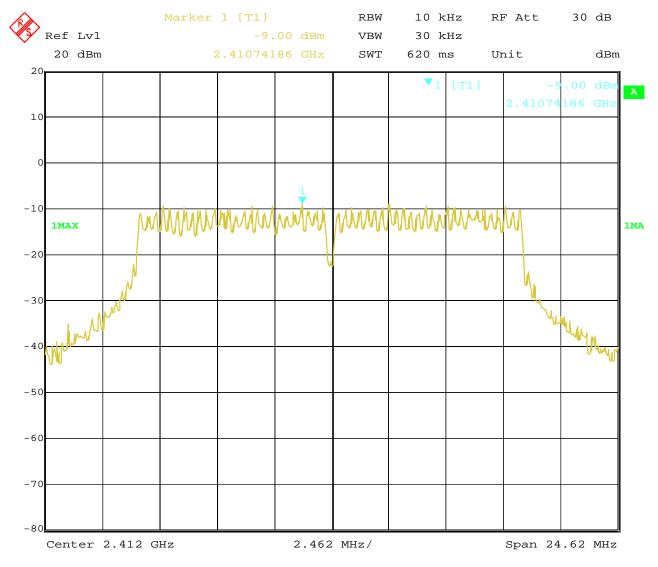
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# 7. 802.11g at 54Mbps of CH1



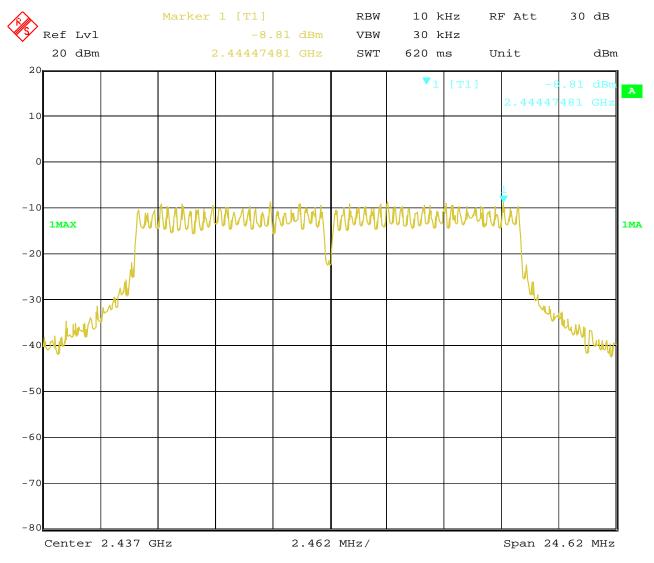
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# 8. 802.11g at 54Mbps of CH6



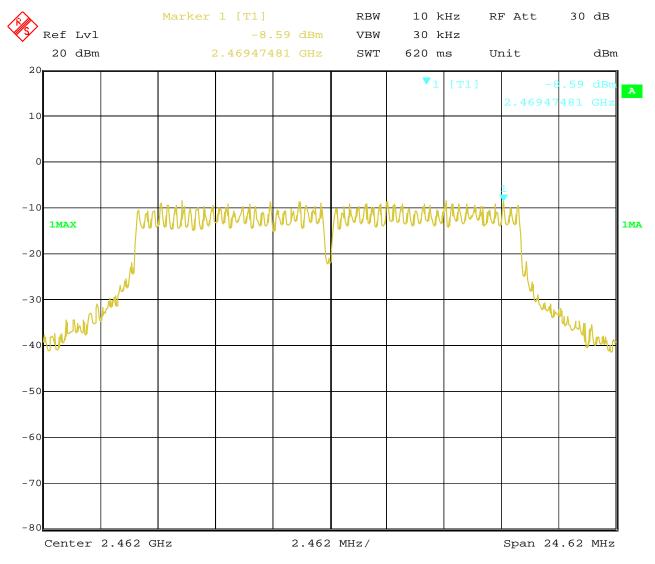
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## 9. 802.11g at 54Mbps of CH11



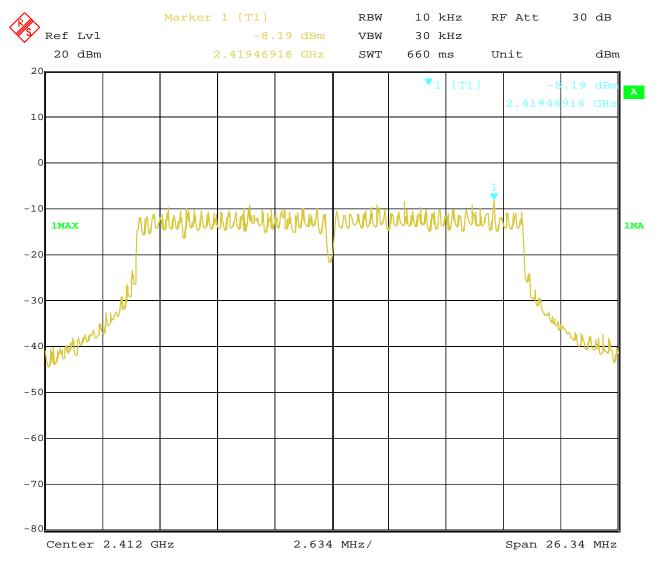
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## 10. 802.11n at HT20 of CH01



The report refers only to the sample tested and does not apply to the bulk.

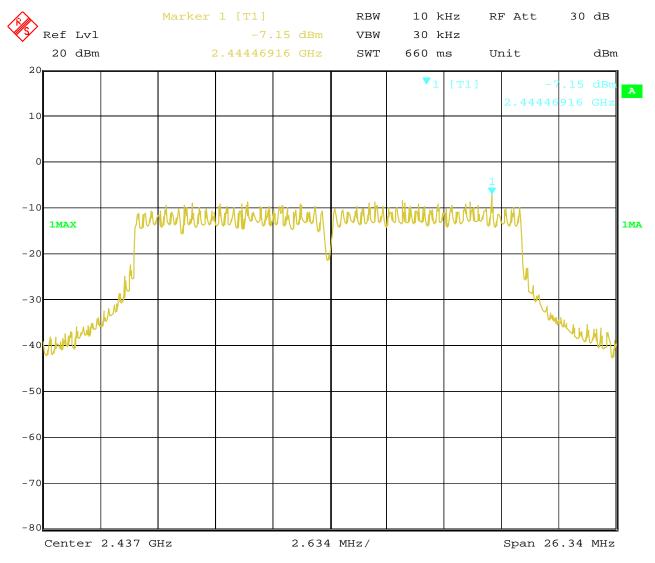
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## 11. 802.11n at HT20 of CH06



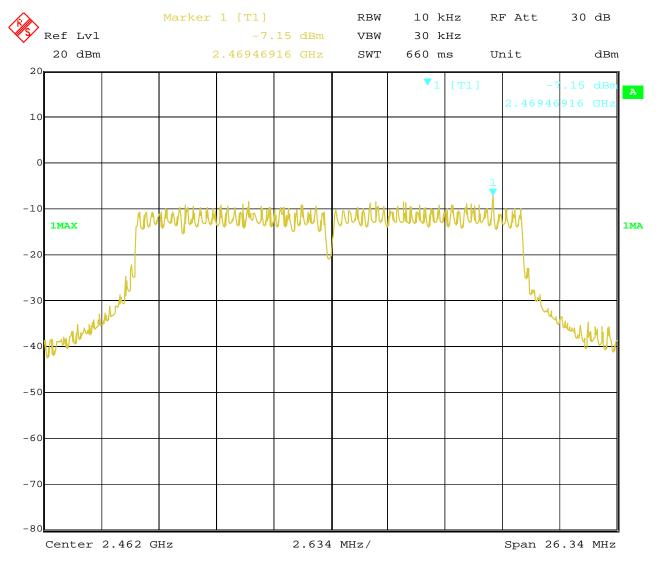
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## 12. 802.11n at HT20 of CH11



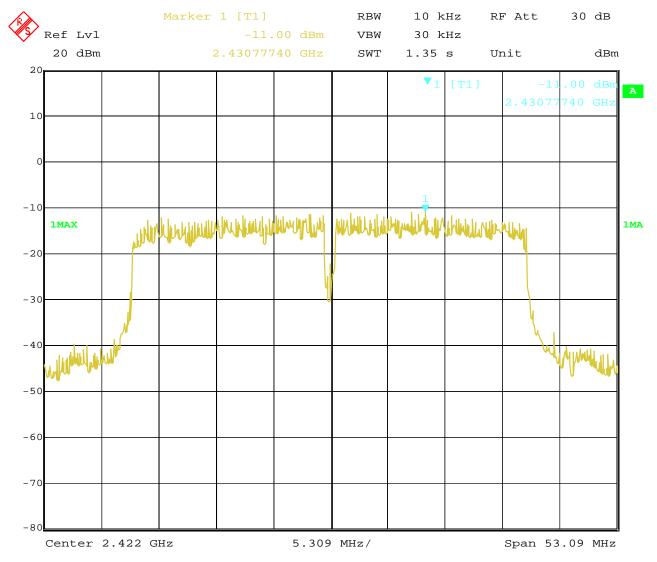
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## 13. 802.11n at HT40 of CH01



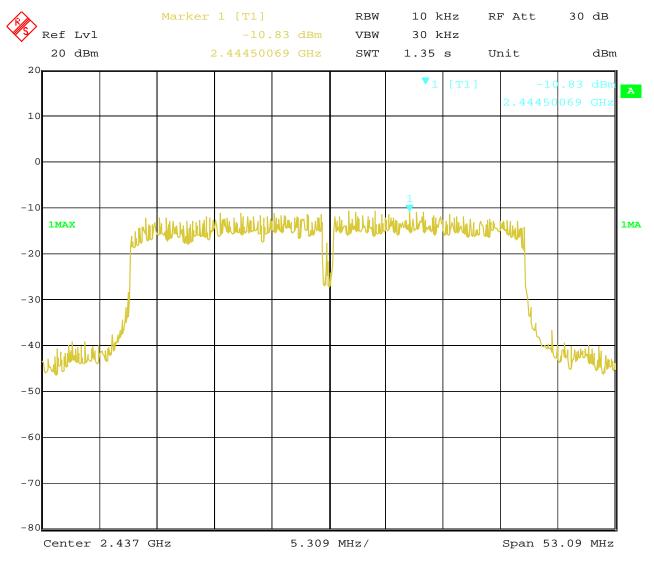
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## 14. 802.11n at HT40 of CH04



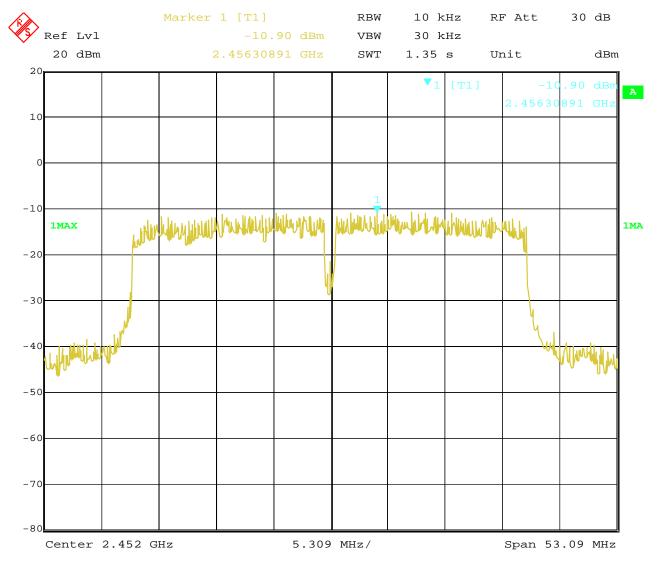
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## 15. 802.11n at HT40 of CH07



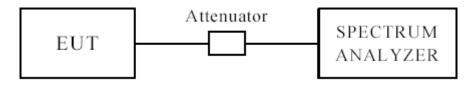
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# 10 Out of Band Measurement

**10.1 Test Setup for band edge** 



## The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

## 10.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

## **10.3 Test Procedure**

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test.( Peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=1MHz and RMS detector)

For bandage test, the spectrum set as follows: RBW=100, VBW=300 kHz. A conducted measurement used

## 10.4 Test Result

Please see next pages

Note: For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

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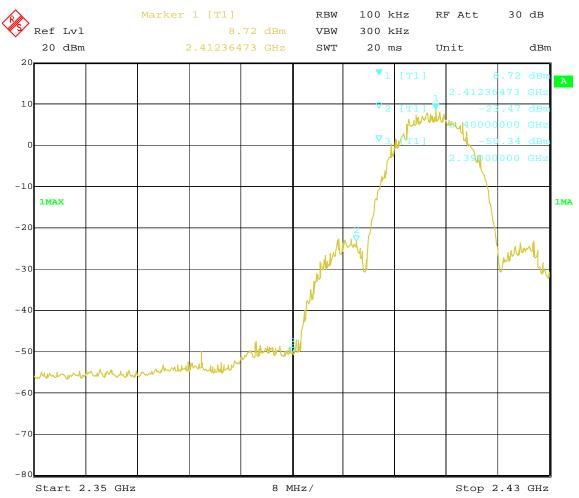
### For 802.11b mode

#### CH01 at 11Mbps

#### 10.4 Band-edge and Restricted band Measurement

EUT	AC adapte	er Wi-Fi camera	Model	AI-IP008
Mode	Keeping	g Transmitting	Input Voltage	120V~
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	67.1	I insit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	46.4	Limit	54(dBµV/m)
2390	PK (dBµV/m)	48.6	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )			54(dBµV/m)

**Test Figure:** 



Note: The Max. FS in Restrict Band are measured in conventional method.

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### CH11 at 11Mbps

10.4 Band-edge and Restricted band Measurement

EUT	AC adapt	er Wi-Fi camera	Moo	del		A	I-IP008	
Mode	Keepin	g Transmitting	Input V	Input Voltage		1	20V~	
Temperature	24	4 deg. C,	Humi	dity		50	5% RH	
Test Result:		Pass	Dete	ctor			РК	
2483.5	PK (dBµV/m)	52.3				74(	dBµV/m)	
	AV (dBµV/m)	33.9	Lin	nit			dBµV/m)	
Test Figure:							• /	
Ref L	vl	cer 1 [T1] 9.22 dBm	RBW VBW	100 kH 300 kH	z	F Att	30 dB	
20 di 20	Bm	2.46232465 GHz	SWT	12.5 ms	U	nit	dBm	
	1			▼1 [	[T1]	g 2.46232	.22 dBm 465 GHz	A
10	mont	manny		₹2 [	[T1]	-47 2.48350	.66 dBm 000 GHz	
0	N how	Wy .						
-10		l l						1MA
-20		hun	hubyy					
-30			<u> </u>	lu l				
- 4 0				1/2	Malling			
-50					M. Contraction	Mulu	unyth	
-60								
-70								
-80 Start	2.45 GHz	5 M	Hz/			Stop	2.5 GHz	

Note: The Max. FS in Restrict Band are measured in conventional method.

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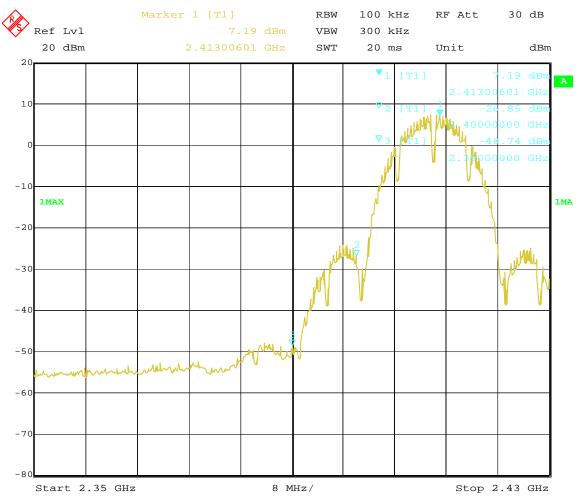
### For 802.11b mode

#### CH01 at 1Mbps

#### 10.4 Band-edge and Restricted band Measurement

EUT	AC adapte	er Wi-Fi camera	Model	AI-IP008
Mode	Keeping	g Transmitting	Input Voltage	120V~
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	68.5	I insit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	49.2	Limit	54(dBµV/m)
2390	PK (dBµV/m)	49.8	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )			54(dBµV/m)

**Test Figure:** 



Note: The Max. FS in Restrict Band are measured in conventional method.

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#### CH11 at 1Mbps

10.4 Band-edge and Restricted band Measurement

1011 Build euge		ina measarement		
EUT	AC adapt	er Wi-Fi camera	Model	AI-IP008
Mode	Keepin	g Transmitting	Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:		Pass	Detector	РК
2483.5	PK (dBµV/m)	54.1		74(dBµV/m)
	AV (dBµV/m)	35.0	Limit	54(dBµV/m)
Test Figure:				
Ref L 20 d	vl	cer 1 [T1] 7.23 dBm 2.46142285 GHz	RBW 100 k VBW 300 k SWT 12.5 m	Hz
10			▼1	[T1] 7.23 dBm A 2.46142285 GHz
0	www	Wyyy,	× 2	[T1] -48.92 dBm 2.48350000 GHz
-10	w <sup>m</sup> V	Mu		
-20		ų, ų		1MA
-30				
-40				
-50				men ma
-60				we wanter the
-70				
-80				
	2.45 GHz	5 M	Hz/	Stop 2.5 GHz

Note: The Max. FS in Restrict Band are measured in conventional method.

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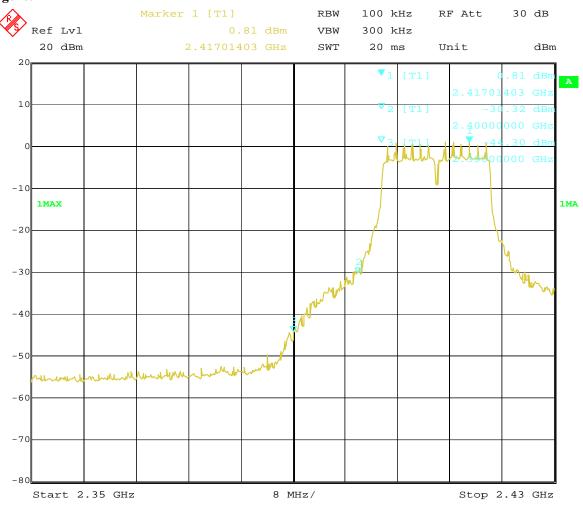
## For 802.11g mode

#### CH01 at 54Mbps

#### 10.4 Band-edge and Restricted band Measurement

EUT	AC adapt	er Wi-Fi camera	Model	AI-IP008
Mode	Keeping	g Transmitting	Input Voltage	120V~
Temperature	24	l deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK ( $dB\mu V/m$ )	69.2	T insi4	74(dBµV/m)
	AV ( $dB\mu V/m$ )	49.2	Limit	54(dBµV/m)
2390	PK (dBµV/m)	51.3	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	32.5	Liillit	54(dBµV/m)

#### **Test Figure:**



Note: The Max. FS in Restrict Band are measured in conventional method.

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## CH11 at 54Mbps

10.4 Band-edge and Restricted band Measurement

EUT		er Wi-Fi camera	Мо	del		Δ	I-IP008	
Mode	-				120V~			
				Humidity56% RH				
Temperature Test Result:	24	Pass	Dete	-			PK	
	DV (dD. V/m)		Dete					
2483.5	PK ( $dB\mu V/m$ )	60.3	Limit			74(dBµ		
	AV ( $dB\mu V/m$ )	40.6				54(dBµ	lV/m)	
Test Figure:	vl	er 1 [T1] 1.44 dBm 2.46442886 GHz	RBW VBW SWT	100 kH 300 kH 12.5 ms	Hz	F Att nit	30 dB dBm	
20					[T1]		.44 dBm	
				-	[ 1 1 ]	2.46442		A
10				₹2	[T1]	-40	.82 dBm	
		1				2.48350	000 GHz	
-10	Mulululu	hold half						
-20								1MA
alder		un un un						
-30			hunnen	Mu.1.2				
-40					L, ,			
-50					white	whenter	Jonnahle	
-60								
-70								
-80	2.45 GHz	5 M						

Note: The Max. FS in Restrict Band are measured in conventional method.

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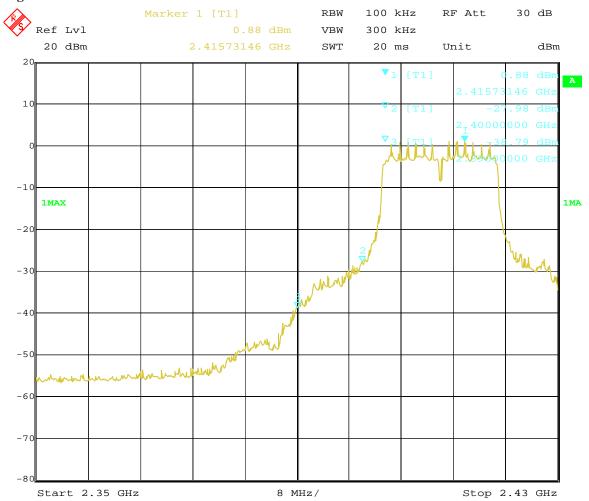
# For 802.11n (HT20) mode

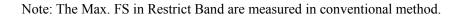
CH01 at 6.5Mbps

#### 10.4 Band-edge and Restricted band Measurement

EUT	AC adapt	er Wi-Fi camera	Model	AI-IP008
Mode	Keeping	g Transmitting	Input Voltage	120V~
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	69.2	T ::4	74(dBµV/m)
	AV ( $dB\mu V/m$ )	50.1	Limit	54(dBµV/m)
2390	PK (dBµV/m)	52.6	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	33.7	Limit	54(dBµV/m)







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adopt any other remedies which may be appropriate.



## CH11 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	AC adapt	er Wi-Fi camera	Model	AI-IP008
Mode	Keeping	g Transmitting	Input Voltage	e 120V~
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2483.5	PK (dBµV/m)	60.2	<b>T</b> · · ·	74(dBµV/m)
	AV (dBµV/m)	39.7	Limit	54(dBµV/m)
Test Figure:				
Ref L	vl	er 1 [T1] 1.60 dBm	RBW 100 VBW 300	kHz
20 d: 20	Bm	2.46322645 GHz	SWT 12.5	ms Unit dBm
10				2.46322645 GHz
				2 [T1] -39.44 dBm 2.48350000 GHz
0	delad dub dy w	which have		
-10				IMA
-20		Lul Lul	hang the of the start with	
-30			- WWWWWWWWWWWWWW	h
-40				Marcharle and and
-50				
-60				
-70				
-80	2.45 GHz	5 MI	Hz/	Stop 2.5 GHz

Note: The Max. FS in Restrict Band are measured in conventional method.

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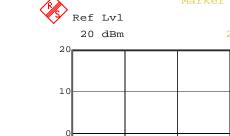
For 802.11n (HT40) mode

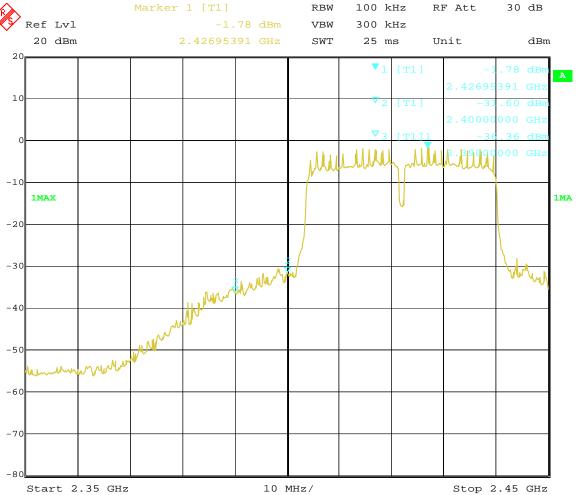
CH01 at 6.5Mbps

**Test Figure:** 

10.4 Band-edge and Restricted band Measurement

EUT	AC adapte	er Wi-Fi camera	Model	AI-IP008
Mode	Keeping	Transmitting	Input Voltage	120V~
Temperature	24	deg. C,	Humidity	56% RH
Test Result:		Pass	Detector	РК
2400	PK (dBµV/m)	68.9	T ::4	74(dBµV/m)
	AV ( $dB\mu V/m$ )	49.1	Limit	54(dBµV/m)
2390	PK (dBµV/m)	54.6	Limit	74(dBµV/m)
	AV ( $dB\mu V/m$ )	35.3	Liint	54(dBµV/m)





Note: The Max. FS in Restrict Band are measured in conventional method.

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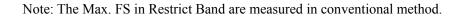
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## CH7 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	AC adapte	er Wi-Fi camera	Model	A	AI-IP008
Mode	Keeping	g Transmitting	Input Voltage		120V~
Temperature	24	deg. C,	Humidity	4	56% RH
Test Result:		Pass	Detector		РК
2483.5	PK (dBµV/m)	62.9	T in it	74	(dBµV/m)
	AV ( $dB\mu V/m$ )	43.2	Limit	54	(dBµV/m)
Test Figure:					
K A	Marke	er 1 [T1]	RBW 100 kHz	z RF Att	30 dB
Ref Lvl		-1.27 dBm	VBW 300 kHz		
20 dBr 20	n	2.45567134 GHz	SWT 17.5 ms	Unit	dBm
			▼1 [	T1] -1.	.27 dBm
10					.34 GHz
			* 2 [	T1] -35. 2.483500	.55 dBm
0		1		2.100000	
1	Mahahllul	he will filled the	1.1.		
-10	Winner				
1MAX		V			1MA
-20					
-30			Winth La. A.	WANNA	
			1 V VVV	Whitehall.	
-40					un
					" WYM W
-50					
-60	<u> </u>				
-70	<u> </u>				
-80					



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## 11.0 Antenna Requirement

## **11.1 Standard Applicable**

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 11.2 Antenna Connected construction

Integral antenna used. The maximum Gain of the antennas is 1.6dBi.

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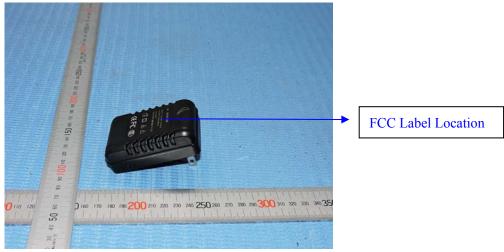
## 12.0 FCC ID Label

#### FCC ID: 2AI3QAI-IP008

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

### Mark Location:



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#### 13.0 Photo of testing

Conducted Emission Test Setup:



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Radiated Emission Test Setup:



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## **Photographs – EUT**

Outside view 10 III III III III III 180 190 00110 120 130 140 150 160 170 80 nalanina kananana maharima maharima na 80 00 D 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 90 100 110 120 60 alaataalaataalaataalaataalaataalaataalaataalaataalaataalaataalaataa 50 10



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Outside view



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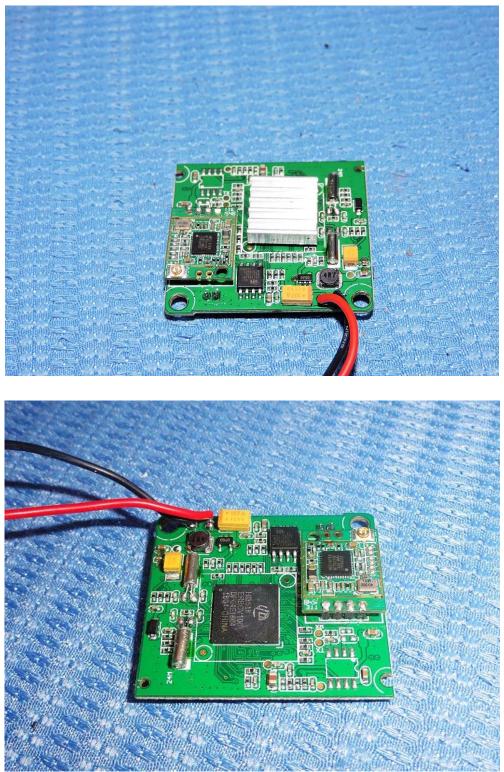
Inside view



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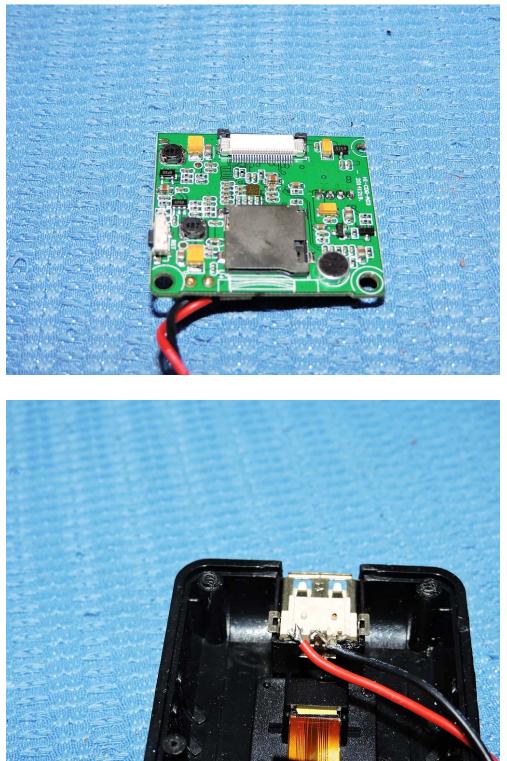
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Inside view



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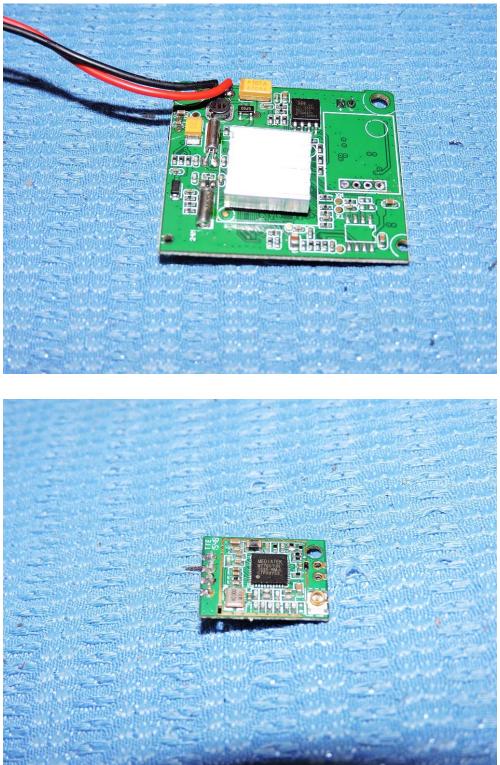
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Inside view

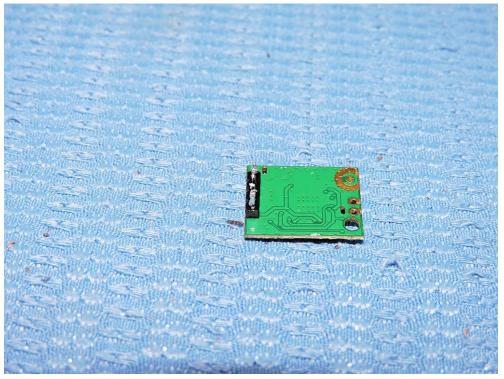


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Inside view



End of the report

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