

# **FCC Test Report**

Product Name : TV-IP762IC: Wireless HD Day/Night Cloud Camera

TV-IP562WI: Megapixel Wireless Day/Night Network Camera

Model No. : TV-IP762IC, TV-IP562WI

FCC ID. : XU8TVIP562-762

Applicant : TRENDnet, INC

Address : 20675 Manhattan Place, Torrance, CA 90501 U.S.A.

Date of Receipt : 2013/04/24

Issued Date : 2013/06/19

Report No. : 134448R-RFUSP42V01

Report Version : V1.0



The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.



# **Test Report Certification**

Issued Date : 2013/06/19

Report No. : 134448R-RFUSP42V01

**QuieTek** 

Product Name : TV-IP762IC: Wireless HD Day/Night Cloud Camera

TV-IP562WI: Megapixel Wireless Day/Night Network Camera

Applicant : TRENDnet, INC

Address : 20675 Manhattan Place, Torrance, CA 90501 U.S.A.

Manufacturer : TRENDnet, INC

Model No. : TV-IP762IC, TV-IP562WI

FCC ID. : XU8TVIP562-762

EUT Test Voltage : AC 100-240V, 50/60Hz

Trade Name : TRENDnet

Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2012

ANSI C63.4: 2009

Test Result : Complied

The test results relate only to the samples tested.

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Documented By : Forbs Fang (Fonbo Fang / Engineering Adm. Assistant )

Reviewed By : Quale Tang (Quale Tang / Senior Engineer )

Approved By : Tang

(Roy Wang / Manager)



#### **Laboratory Information**

We, **QuieTek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

TAF, Accreditation Number: 1313

NCC, Certificate No: NCC-RCB-07

USA : FCC, Registration Number: 365520

Canada : IC, Submission No: 150981

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site: <a href="http://www.quietek.com/tw/ctg/cts/accreditations.htm">http://www.quietek.com/tw/ctg/cts/accreditations.htm</a>

The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : <a href="http://www.quietek.com/">http://www.quietek.com/</a>

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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# 1. General Information

# 1.1. EUT Description

Product Name	TV-IP762IC: Wireless HD Day/Night Cloud Camera TV-IP562WI:
	Megapixel Wireless Day/Night Network Camera
Product Type	WLAN (1TX, 1RX)
Trade Name	TRENDnet
Model No.	TV-IP762IC, TV-IP562WI
Frequency Range/Channel Number	2412~2462MHz / 11 Channels
-IEEE 802.11b/g & IEEE 802.11n	
(20MHz)_2.4GHz	
Frequency Range/Channel Number	2422~2452MHz / 7 Channels
-IEEE 802.11n(40MHz) _2.4GHz	
Type of Modulation (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)
Type of Modulation	Orthogonal Frequency Division Multiplexing (OFDM)
(IEEE 802.11g/n)	
Data Speed (IEEE 802.11b)	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data Speed (IEEE 802.11g)	6Mbps,9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
Data Speed (IEEE 802.11n)	Support a subset of the combination of GI, MCS 0~MCS 7 and
	bandwidth defined in 802.11n
Antenna Gain	1.3dBi
Antenna Type	Chip Antenna

Component				
LAN Cable Non-Shielded, 1.8m				
Power Adapter	AMIGO, AMS47-0501000FU			
	I/P: 100-240V~50/60Hz 0.2A			
	O/P: 5V===1.0A			
	Cable Out: Non-Shielded, 1.5m			



### ANT-TX / Rx & Bandwidth

ANT-TX / RX	Т	X	R	Х
Mode/ Channel Bandwidth	20MHz	40MHz	20MHz	40MHz
IEEE802.11b	✓		✓	
IEEE802.11g	$\checkmark$		$\checkmark$	
IEEE802.11n	✓	✓	<b>√</b>	✓

# **IEEE 802.11n**

MOC				N <sub>CBPS</sub>		N <sub>D</sub>	N <sub>DBPS</sub>		Data Rate(Mb/s)			
MCS	Modulation	R	N <sub>BPSCS</sub>	208411-	400411-	201411-	20MHz 40MHz 26 54 52 108 78 162 104 216 156 324 208 432	800r	s GI	400ns G	(Note1)	
Index				20MHz	40MHz	ZUMHZ		20MHz	40MHz	20MHz	40MHz	
0	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.2	15.0	
1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.4	30.0	
2	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.7	45.0	
3	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.9	60.0	
4	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.3	90.0	
5	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.8	120.0	
6	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.0	135.0	
7	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.2	150.0	
Note 1	: Support of 4	00ns	GI is opt	ional on tra	ansmit and	receive.				•		

Table 1 – MCS parameters for TX Antenna number = 1

Symbol	Explanation
R	Code rate
N <sub>BPSC</sub>	Number of coded bits per single carrier
N <sub>CBPS</sub>	Number of coded bits per symbol
N <sub>DBPS</sub>	Number of data bits per symbol
GI	guard interval



# IEEE 802.11b/g & IEEE 802.11n (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
001	2412 MHz	002	2417 MHz	003	2422 MHz	004	2427 MHz
005	2432 MHz	006	2437 MHz	007	2442 MHz	800	2447 MHz
009	2452 MHz	010	2457 MHz	011	2462 MHz		

#### IEEE 802.11n (40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
003	2422 MHz	004	2427 MHz	005	2432 MHz	006	2437 MHz
007	2442 MHz	008	2447 MHz	009	2452 MHz		

#### Note:

- 1. This device are the Wireless HD Day/Night Cloud Camera including 2.4GHz b/g/n (1x1) transmitting and receiving function.
- 2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
- 3. Regards to the frequency band operation; the lowest \ middle and highest frequency of channel were selected to perform the test, and then shown on this report.
- 4. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 134448R-RFUSP24V02 under Declaration of Conformity.
- 5. The variation of model number is for different Software.



### Test Mode

QuieTek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

TX	Mode 1: Transmit
----	------------------

Test Items	Mode	Channel	Antenna	Result
Conducted Emission	11n(40MHz)	6	0	Complies
Peak Power Output	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies
	11n(40MHz)	3/ 6/ 9	0	Complies
Radiated Emission	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies
	11n(40MHz)	3/ 6/ 9	0	Complies
RF antenna conducted test	b/g	1/ 11	0	Complies
	11n(20MHz)	1/ 11	0	Complies
	11n(40MHz)	3/ 9	0	Complies
Radiated Emission Band Edge	b/g	1/ 11	0	Complies
	11n(20MHz)	1/ 11	0	Complies
	11n(40MHz)	3/ 9	0	Complies
Occupied Bandwidth	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies
	11n(40MHz)	3/ 6/ 9	0	Complies
Power Density	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11	0	Complies
	11n(40MHz)	3/ 6/ 9	0	Complies

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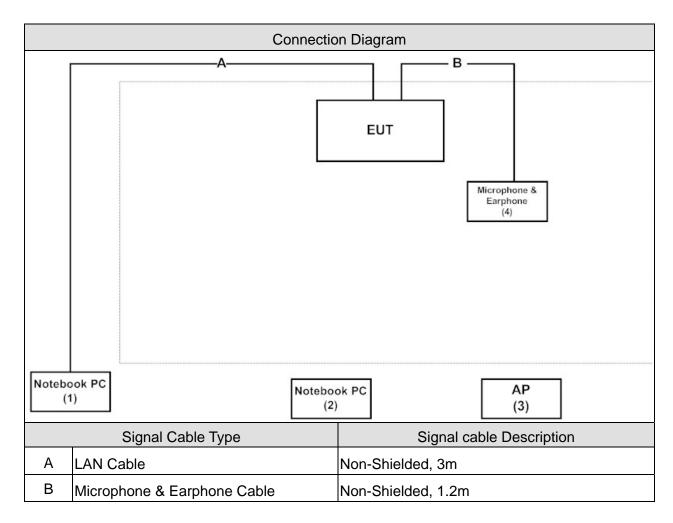


# 1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	HP	HSTNN-146C	CNU8253S1X	Non-Shielded, 1.8m
2	Notebook PC	ACER	MS2296	LUSCV0213911503	Non-Shielded, 2.5m
				32C2000	one ferrite core bonded
3	AP	ASUS	RT-N12HP	N/A	
4	Microphone &	Samsung	N/A	N/A	
	Earphone				

# 1.4. Configuration of tested System





# 1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Execute the test program "RT5x7xQA.exe" on the notebook.
3	Configure the test mode, the test channel, and the data rate.
4	Press "Start TX" to start the continuous transmitting.
5	Verify that the EUT works properly.

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# 1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207	15 - 35	20
Humidity (%RH)	Conducted Emission	25 - 75	50
Barometric pressure (mbar)	Conducted Emission	860 - 1060	950-1000
Temperature (°C)	FCC DADT 45 C 45 247	15 - 35	25
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	45
Barometric pressure (mbar)	Peak Power Output (DSSS)	860 - 1060	950-1000
Temperature (°C)	FCC DADT 45 C 45 247	15 - 35	20
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	50
Barometric pressure (mbar)	Radiated Emission (DSSS)	860 - 1060	950-1000
Temperature (°C)	(°C) FCC PART 15 C 15.247		25
Humidity (%RH)	RF antenna conducted test	25 - 75	45
Barometric pressure (mbar)	(DSSS)	860 - 1060	950-1000
Temperature (°C)	FCC DADT 45 C 45 247	15 - 35	20
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	50
Barometric pressure (mbar)	Band Edge (DSSS)	860 - 1060	950-1000
Temperature (°C)	FOO DADT 45 O 45 O 47	15 - 35	25
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	45
Barometric pressure (mbar)	Occupied Bandwidth (DSSS)	860 - 1060	950-1000
Temperature (°C)	F00 PART 45 0 45 047	15 - 35	25
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	45
Barometric pressure (mbar)	Power Density (DSSS)	860 - 1060	950-1000

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# 2. Conducted Emission

# 2.1. Test Equipment

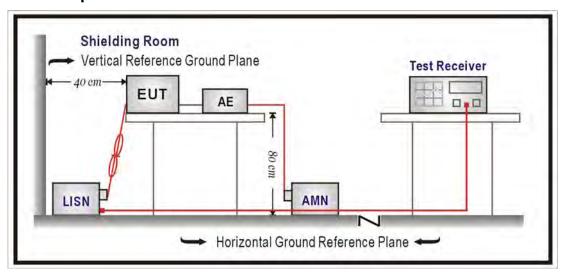
The following test equipments are used during the test:

### Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2013/08/12
LISN	R&S	ESH3-Z5	836679/022	2014/01/20
Test Receiver	R&S	ESCS 30	825442/017	2014/01/01

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

# 2.2. Test Setup





#### 2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)						
Frequency MHz	QP	AV				
0.15 - 0.50	66-56	56-46				
0.50 - 5.0	56	46				
5.0 - 30	60	50				

Remarks: In the above table, the tighter limit applies at the band edges.

#### 2.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

#### 2.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.207: 2012

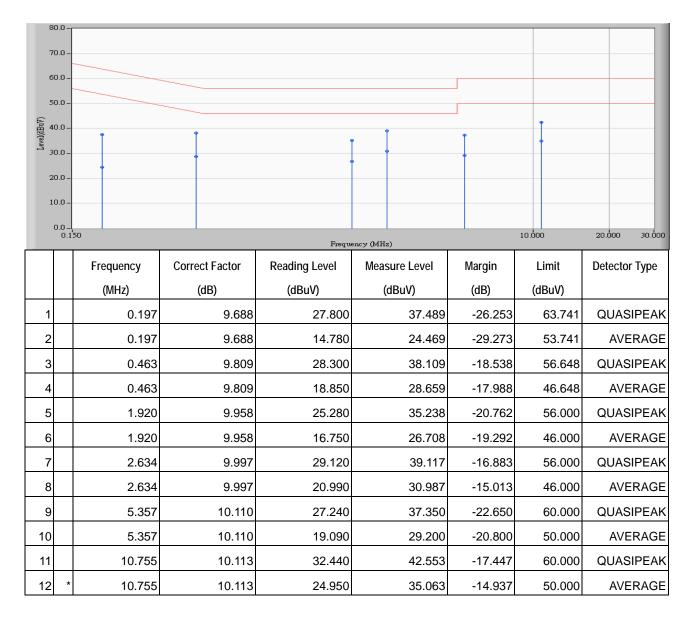
#### 2.6. Uncertainty

The measurement uncertainty is defined as  $\pm 2.26$  dB.



#### 2.7. Test Result

Site : SR3	Time : 2013/06/07 - 15:28
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : AC 120V / 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 2437MHz-802.11n(40MHz)

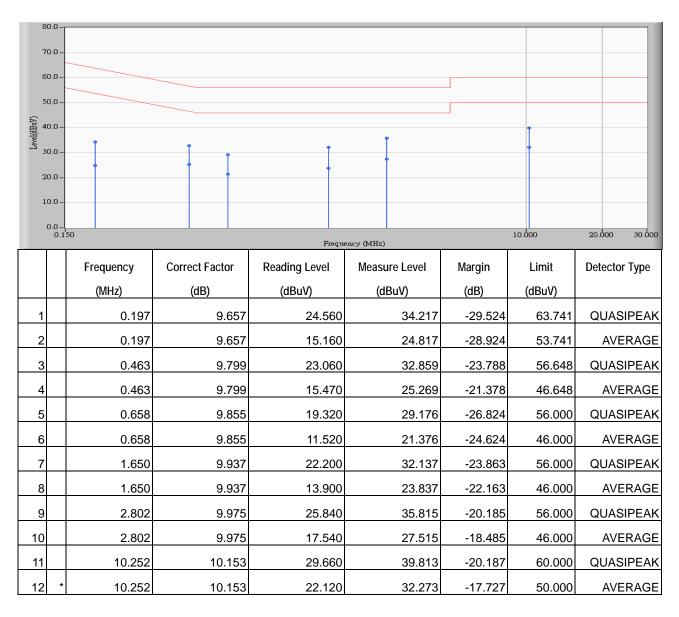


#### Note:

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor.



Site : SR3	Time : 2013/06/07 - 15:32
Limit : CISPR_B_00M_QP	Margin: 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : AC 120V / 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 2437MHz-802.11n(40MHz)



#### Note:

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor.



# 3. Peak Power Output

# 3.1. Test Equipment

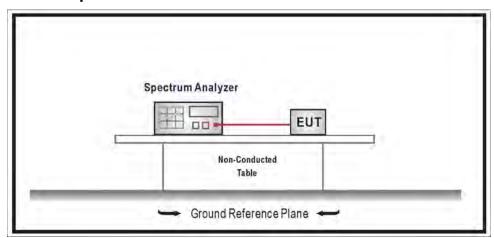
The following test equipments are used during the test:

#### Peak Power / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2013/07/31

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

# 3.2. Test Setup



# 3.3. Test procedures

The EUT was tested according to DTS test procedure of KDB558074, Section 5.2.1.2 Measurement for compliance to FCC 47CFR 15.247 requirements.

#### 3.4. Limits

The maximum peak power shall be less 1 Watt.

# 3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

# 3.6. Uncertainty

The measurement uncertainty is defined as  $\pm$  1.27 dB.



# 3.7. Test Result

Product	Wireless HD Day/Night Cloud Camera			
Test Item	Peak Power Output			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

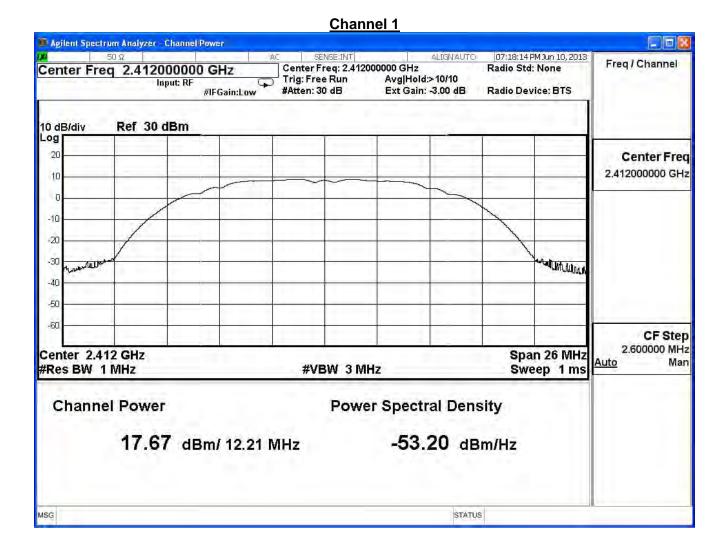
IEEE 802.11b, ANT 0						
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result		
1	2412	17.67	30dBm	Pass		
6	2437	16.96	30dBm	Pass		
11	2462	16.46	30dBm	Pass		

The worst emission of data rate is 1Mbps.

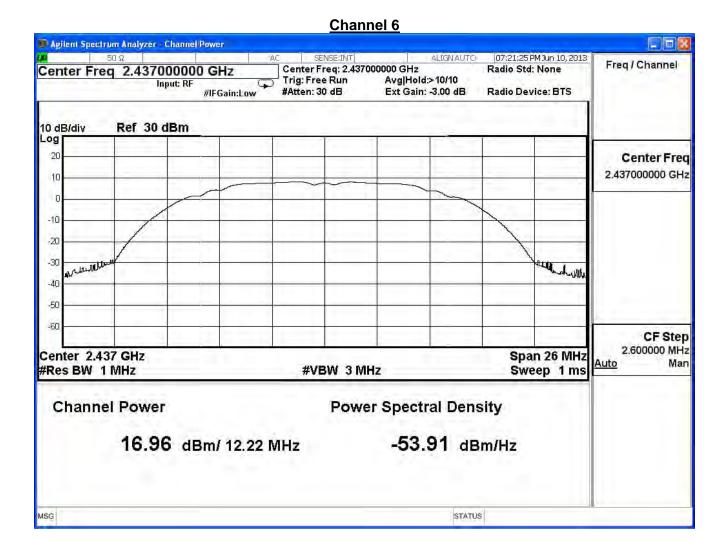
Note: Measure Level =Reading value + cable loss

Peak Power Output (dBm)						
Frequency Data Rate (				Rate (Mbps)		Required
Channel No.	(MHz)	1	2	5.5	11	Limit
1	2412	17.67			1	1 Watt=30dBm
6	2437	16.96	16.86	16.76	16.66	1 Watt=30dBm
11	2462	16.46				1 Watt=30dBm

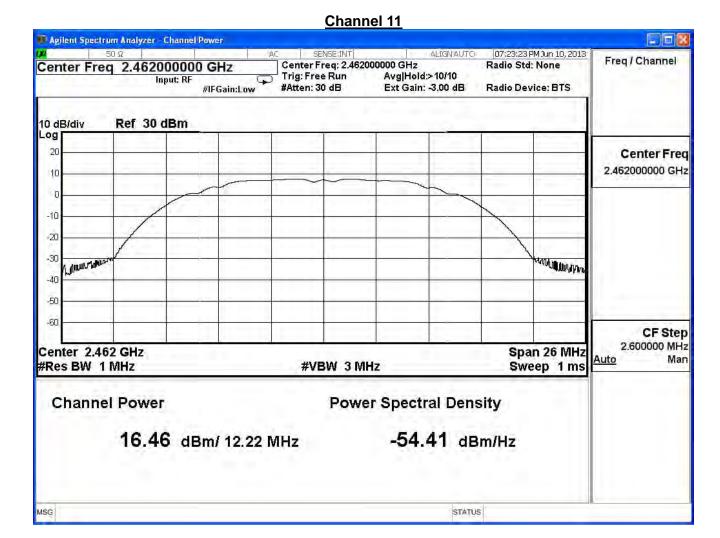














Product	Wireless HD Day/Night Cloud Camera			
Test Item	Peak Power Output			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

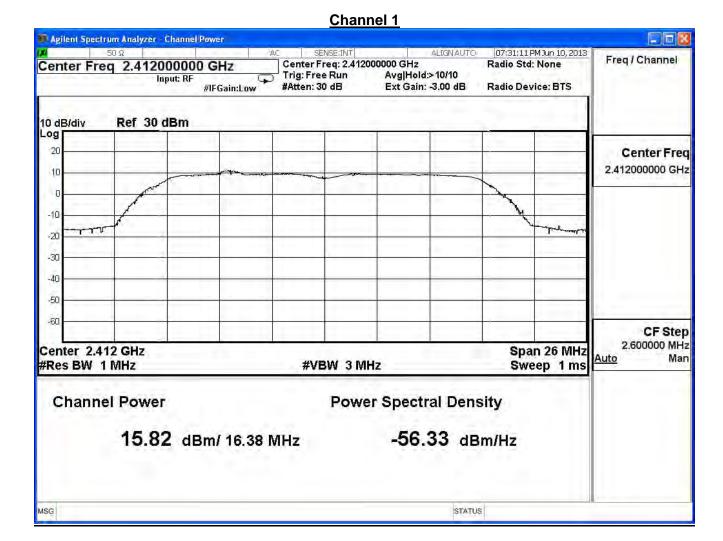
IEEE 802.11g, ANT 0						
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result		
1	2412	15.82	30dBm	Pass		
6	2437	16.01	30dBm	Pass		
11	2462	15.60	30dBm	Pass		

The worst emission of data rate is 6Mbps.

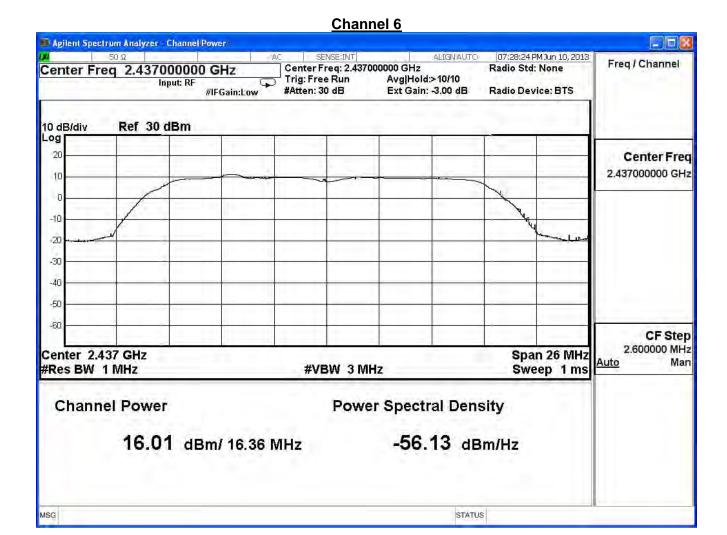
	The worst strikesion of data rate is simple.									
	Peak Power Output Value(dBm)									
Channal Na	Frequency		Data Rate (Mbps)					Degraine de Lineit		
Channel No.	(MHz)	6	12	18	24	36	48	54	Required Limit	
1	2412	15.82		I			I	I	1 Watt=30dBm	
6	2437	16.01	15.91	15.81	15.71	15.59	15.47	15.23	1 Watt=30dBm	
11	2462	15.6							1 Watt=30dBm	

Note: Measure Level =Reading value + cable loss

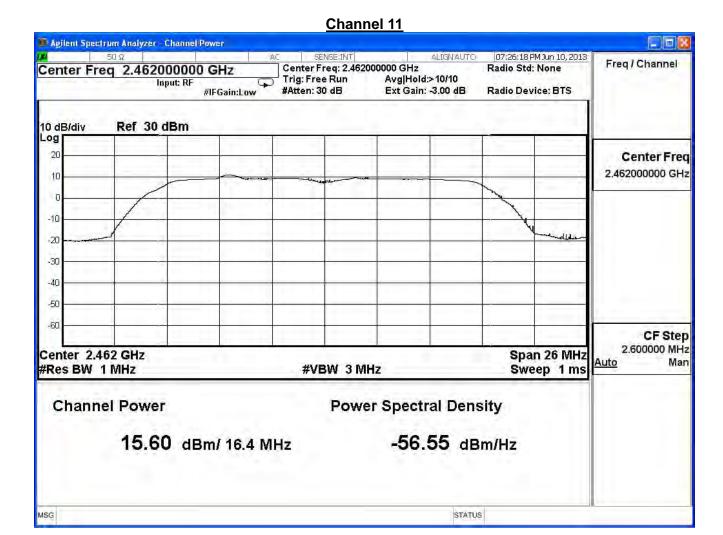














Product	Wireless HD Day/Night Cloud Camera			
Test Item	Peak Power Output			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

# IEEE 802.11n 20MHz, ANT 0

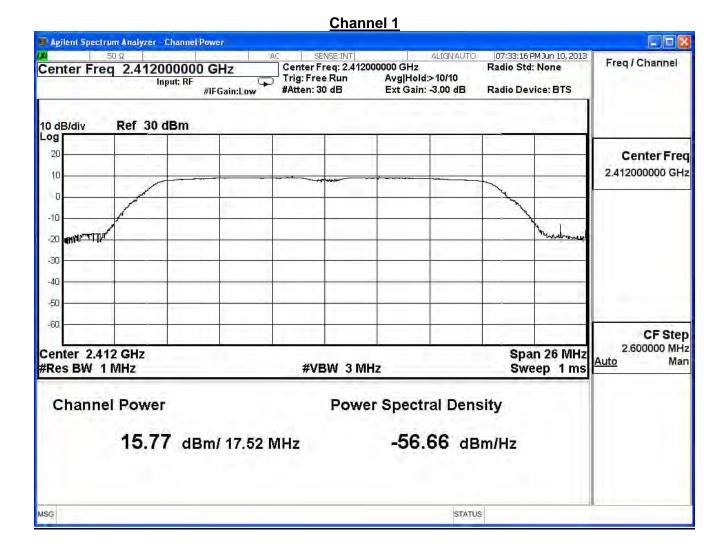
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	15.77	30dBm	Pass
6	2437	15.89	30dBm	Pass
11	2462	15.57	30dBm	Pass

The worst emission of data rate is 19.5 Mbps.

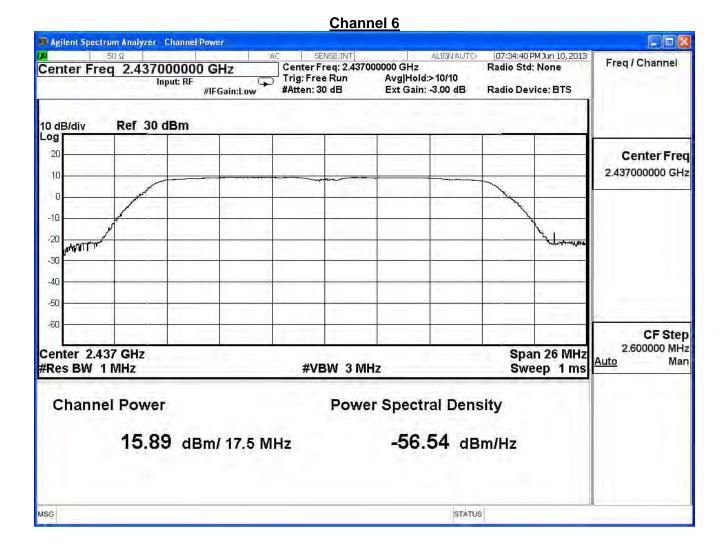
	Peak Power Output (dBm)									
MCS	MCS Index 0 1 2 3 4 5 6 7					Daminad				
Channel	Frequency	requency Data Rate					Required			
No	(MHz)	6.5	13.0	19.5	26.0	39.0	52.0	58.5	65.0	Limit
1	2412	15.77								30dBm
6	2437	15.89	15.79	15.69	15.59	15.49	15.37	15.13	15.01	30dBm
11	2462	15.57								30dBm

Note: Measure Level =Reading value + cable loss

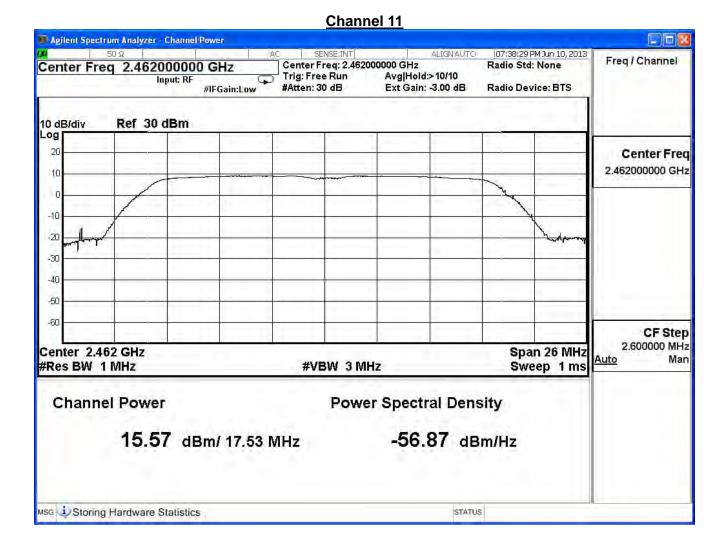














Product	Wireless HD Day/Night Cloud Camera			
Test Item	Peak Power Output			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

# IEEE 802.11n 40MHz, ANT 0

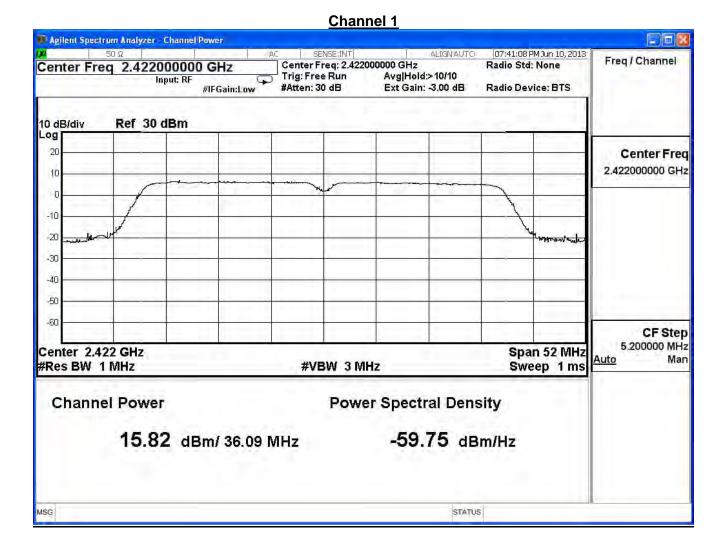
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	15.82	30dBm	Pass
6	2437	16.29	30dBm	Pass
9	2452	15.75	30dBm	Pass

# The worst emission of data rate is 19.5 Mbps.

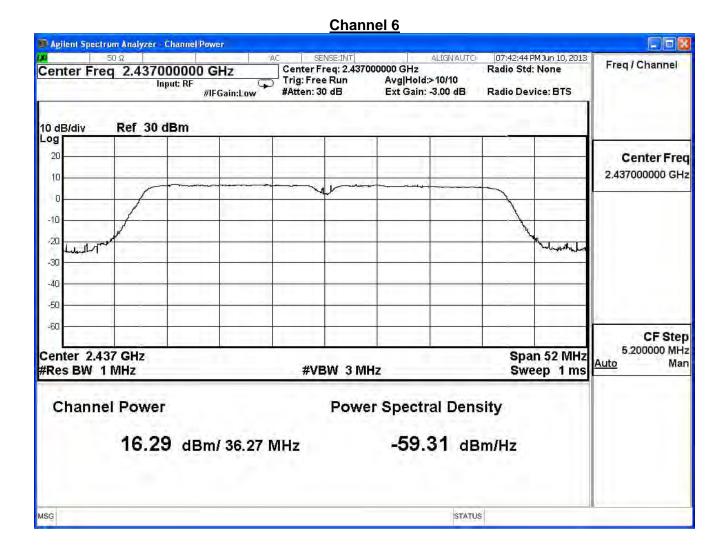
	Peak Power Output (dBm)										
MCS	S Index	0	1	2	3	4	5	6	7		
Channel	Frequency		Data Rate						Required		
No	(MHz)	13.5	27.0	40.5	54.0	81.0	108.0	121.5	135.0	Limit	
3	2422	15.82		-					1	30dBm	
6	2437	16.29	16.19	16.09	15.89	15.79	15.55	15.31	15.19	30dBm	
9	2452	15.75								30dBm	

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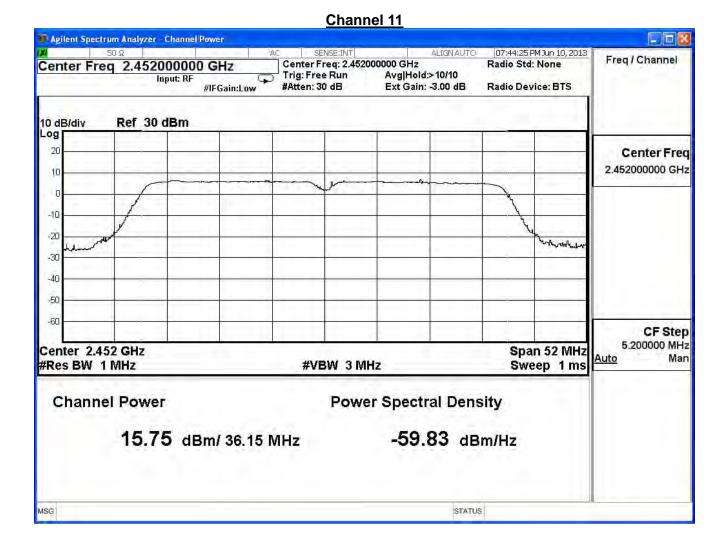














### 4. Radiated Emission

# 4.1. Test Equipment

The following test equipments are used during the test:

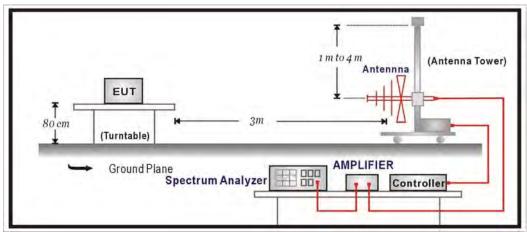
#### Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2013/08/14
Double Ridged	Schwarzback	BBHA 9120	D743	2014/02/17
Guide Horn Antenna				
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2013/12/02
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2014/02/19
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

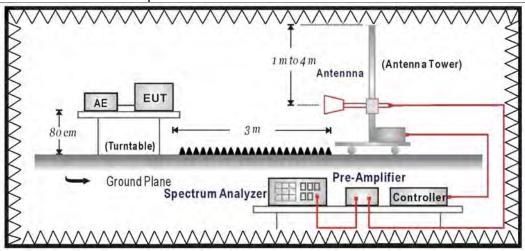
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

# 4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:





#### 4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits					
Frequency MHz	dBuV/m	dBuV/m			
30-88	100	40			
88-216	150	43.5			
216-960	200	46			
Above 960	500	54			

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

#### 4.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

#### 4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

# 4.6. Uncertainty

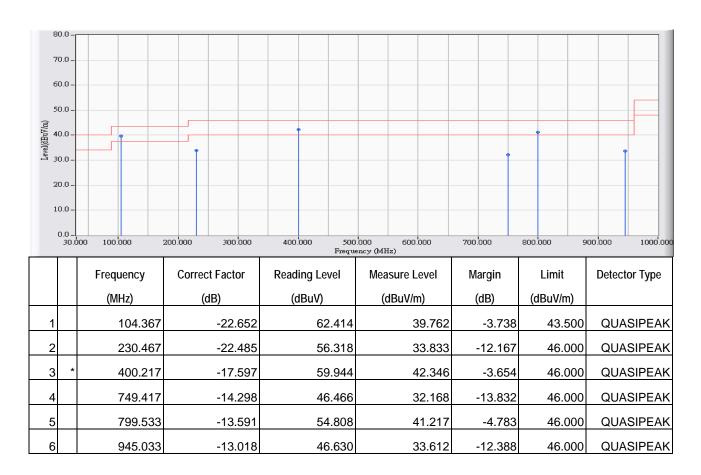
The measurement uncertainty 30MHz~1GHz as ±3.43dB 1GHz~26.5Ghz as ±3.65dB



#### 4.7. Test Result

### 30MHz-1GHz Spurious

Site : CB1	Time : 2013/06/10 - 11:49
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2437MHz



#### Note:

- 1. All Reading Levels are Quasi-Peak value.
- 2. "\*", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor.



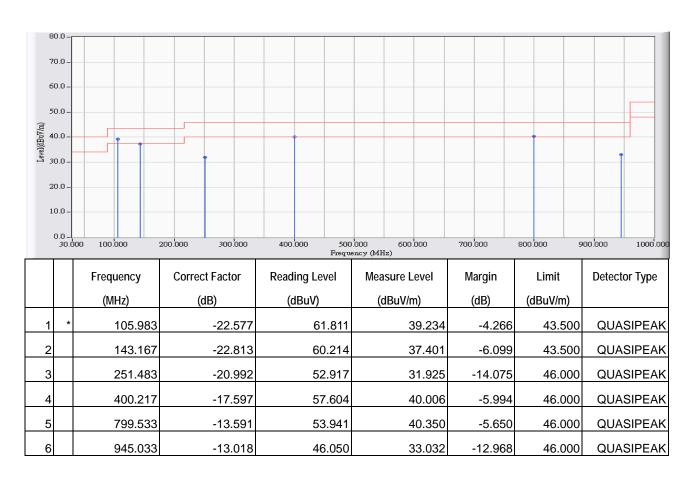
Site : CB1	Time : 2013/06/10 - 11:54
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2437MHz



- 1. All Reading Levels are Quasi-Peak value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



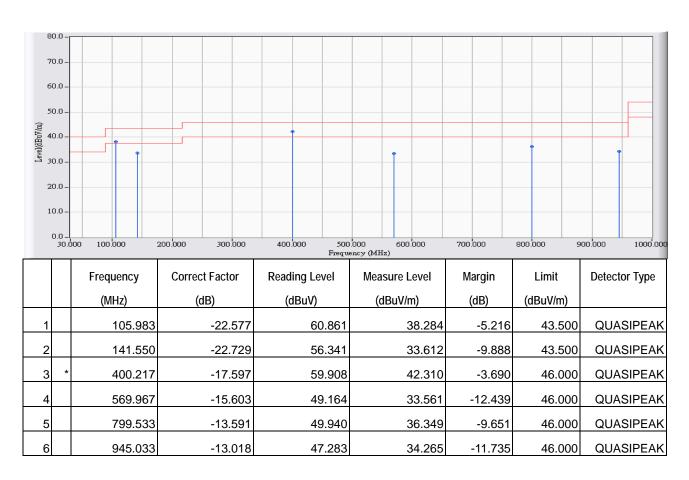
Site : CB1	Time : 2013/06/10 - 11:59
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2437MHz



- 1. All Reading Levels are Quasi-Peak value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



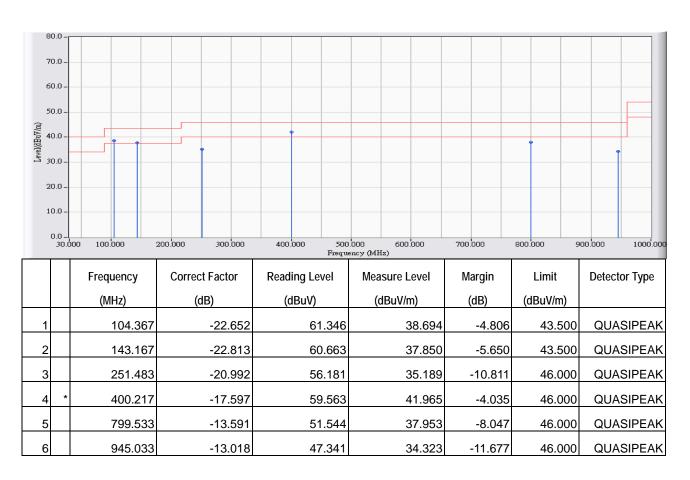
Site : CB1	Time : 2013/06/10 - 13:05
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2437MHz



- 1. All Reading Levels are Quasi-Peak value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



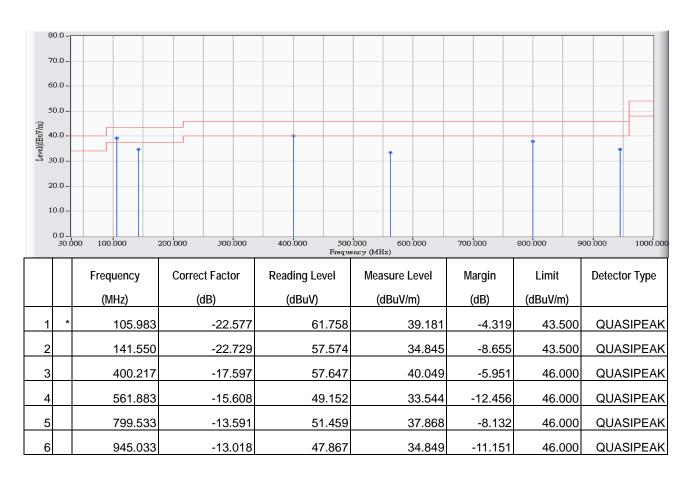
Site : CB1	Time : 2013/06/10 - 13:11
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_ 2437MHz



- 1. All Reading Levels are Quasi-Peak value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



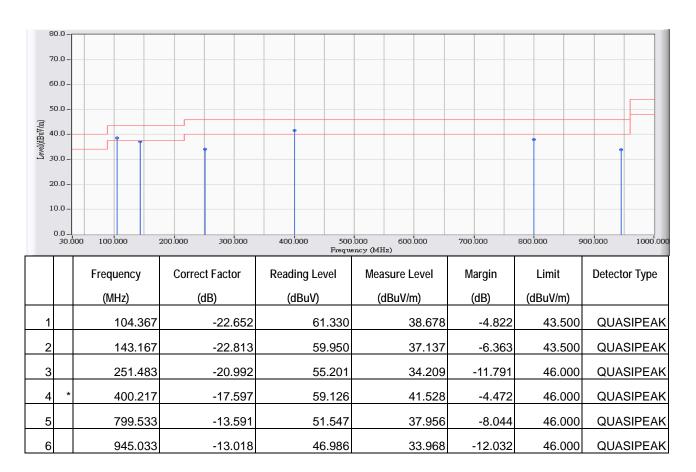
Site : CB1	Time : 2013/06/10 - 13:14
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11n(20MHz)_ 2437MHz



- 1. All Reading Levels are Quasi-Peak value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



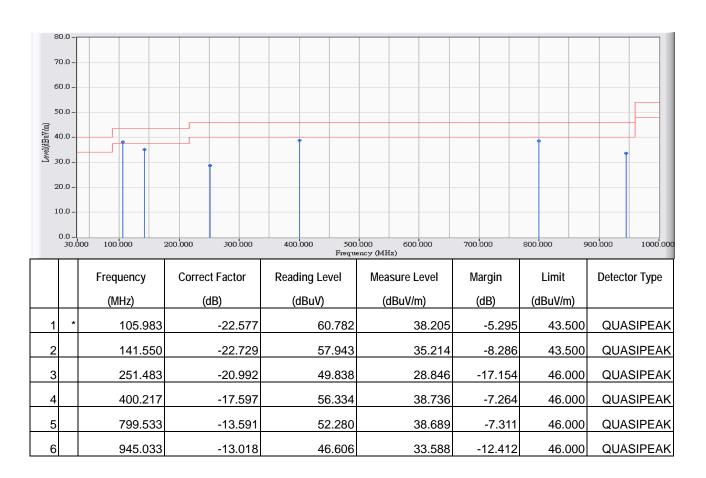
Site : CB1	Time : 2013/06/10 - 13:18
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_ 2437MHz



- 1. All Reading Levels are Quasi-Peak value.
- 2. "\*", means this data is the worst emission level.
- Measurement Level = Reading Level + Correct Factor



Site : CB1	Time : 2013/06/10 - 13:22
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_ 2437MHz

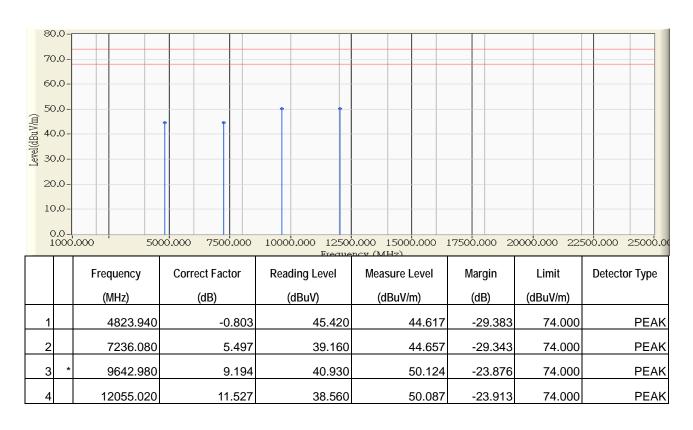


- 1. All Reading Levels are Quasi-Peak value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



**Above 1GHz Spurious** 

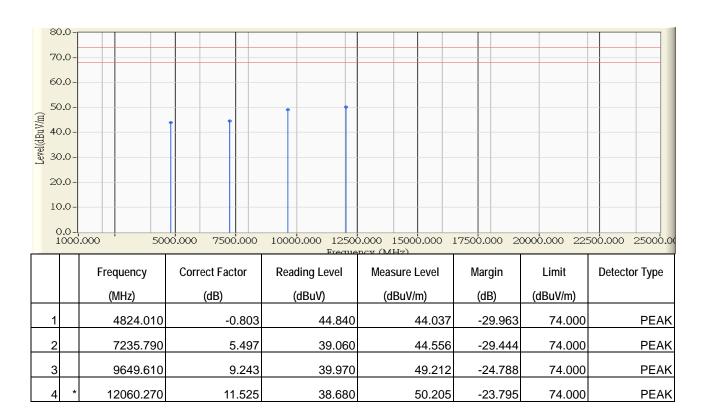
Site : CB1	Time : 2013/06/12 - 11:30
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2412MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



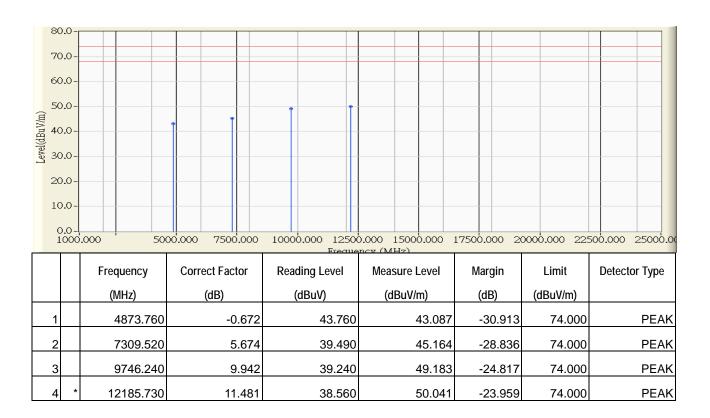
Site : CB1	Time : 2013/06/12 - 11:35
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2412MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



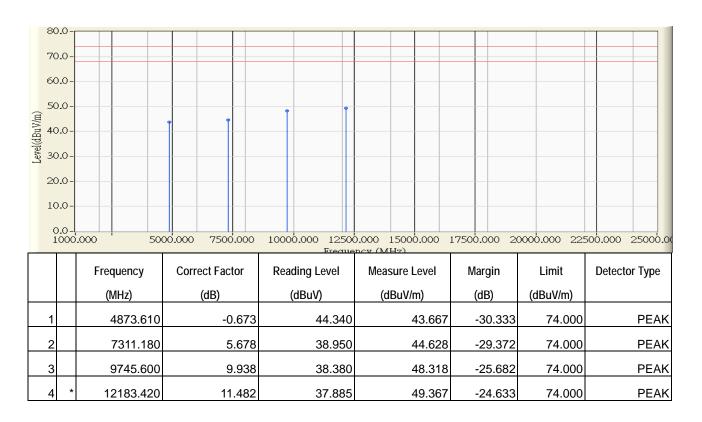
Site : CB1	Time : 2013/06/12 - 11:39
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2437MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



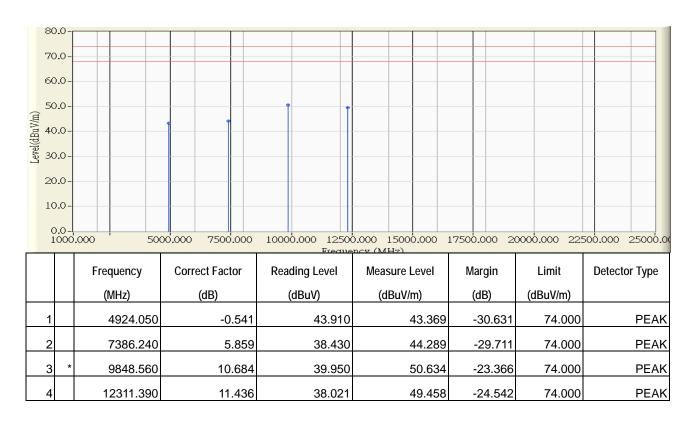
Site : CB1	Time : 2013/06/12 - 11:43	
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6	
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz	
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2437MHz	



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



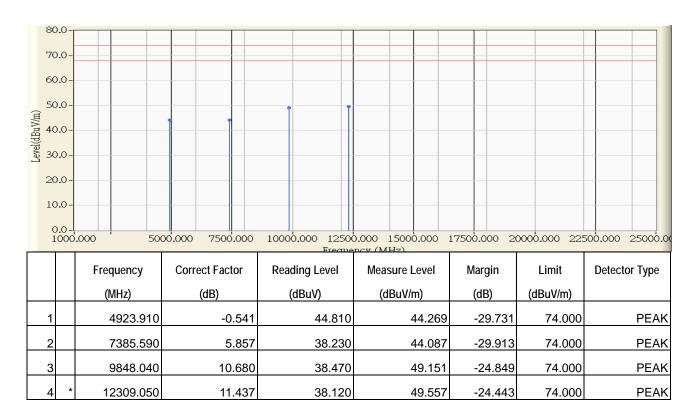
Site : CB1	Time : 2013/06/12 - 11:50
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2462MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



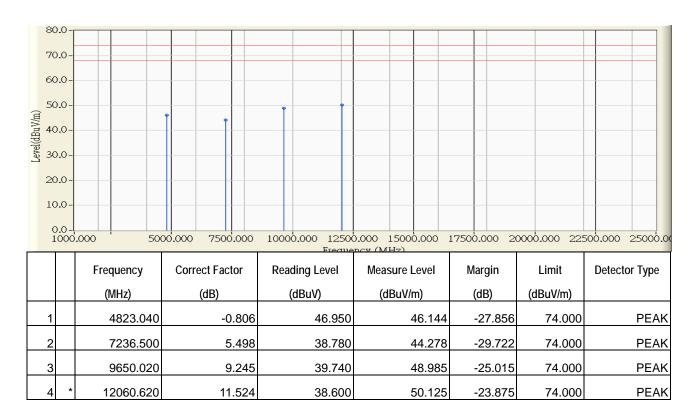
Site : CB1	Time : 2013/06/12 - 11:55
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2462MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



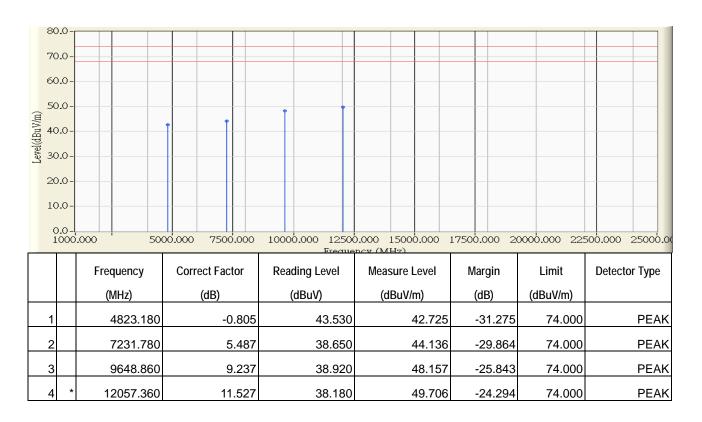
Site : CB1	Time : 2013/06/12 - 14:15
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11g_2412MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



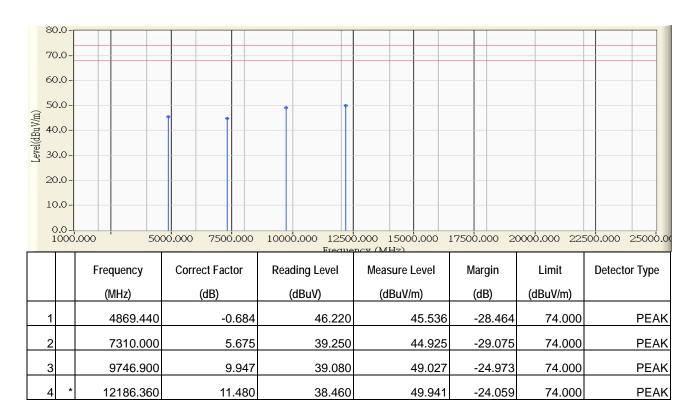
Site : CB1	Time : 2013/06/12 - 14:18
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2412MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



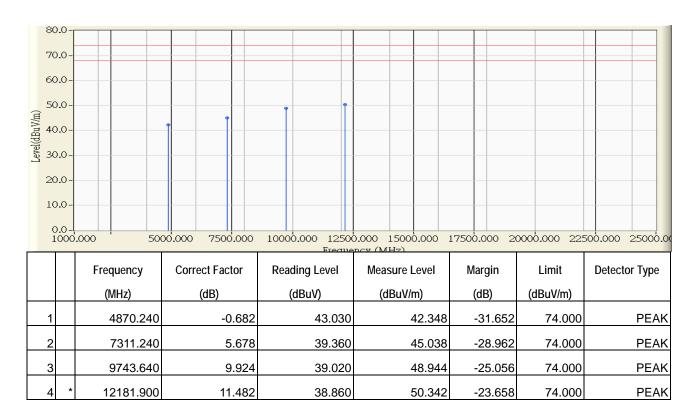
Site : CB1	Time : 2013/06/12 - 14:23
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11g_2437MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



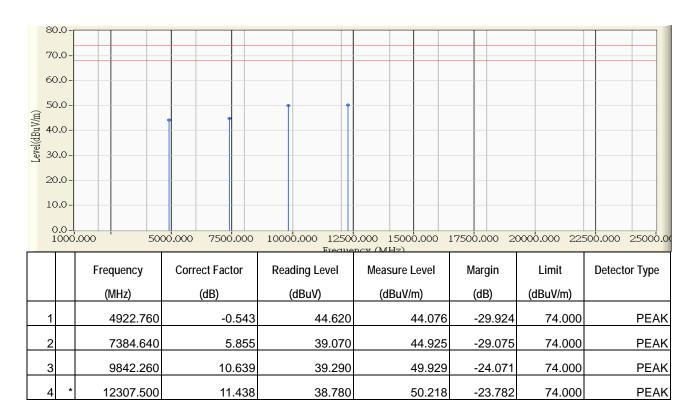
Site : CB1	Time : 2013/06/12 - 14:26
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2437MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



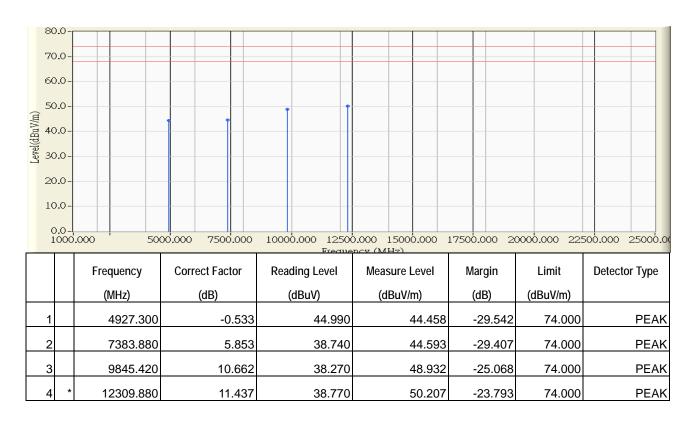
Site : CB1	Time : 2013/06/12 - 14:29
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2462MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



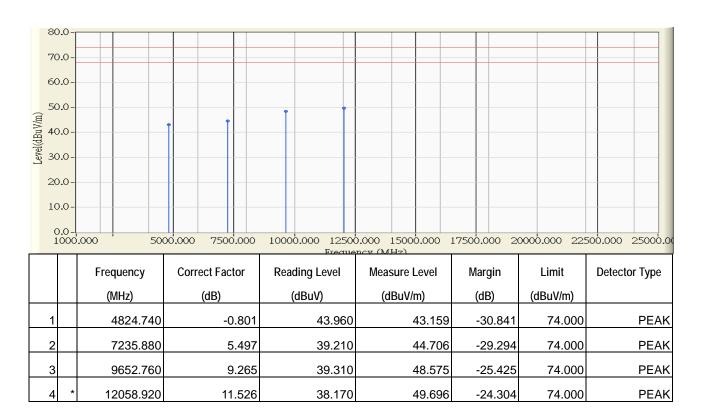
Site : CB1	Time : 2013/06/12 - 14:31
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2462MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



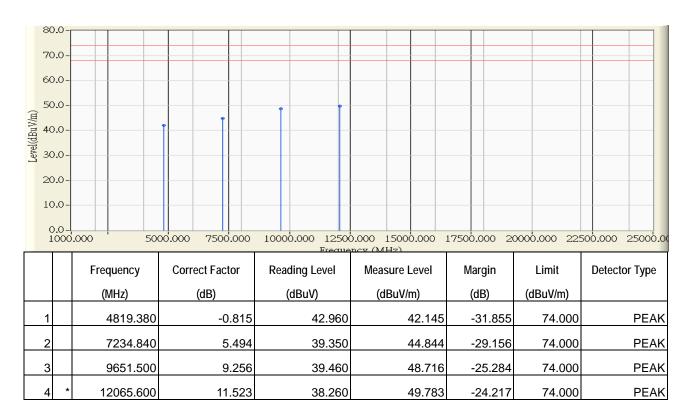
Site : CB1	Time : 2013/06/12 - 14:36
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_2412MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



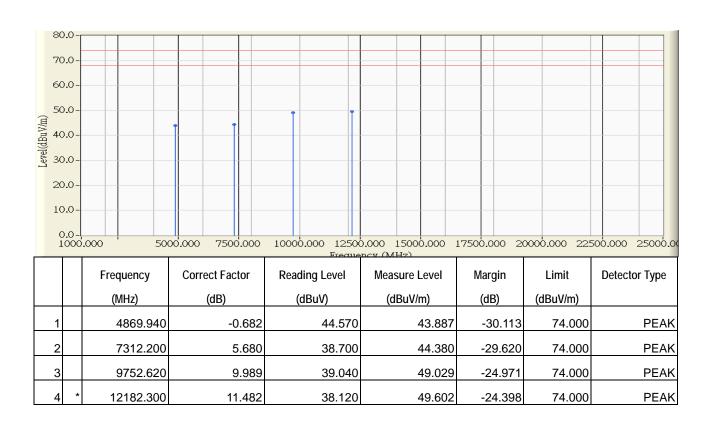
Site : CB1	Time : 2013/06/12 - 14:39
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_2412MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



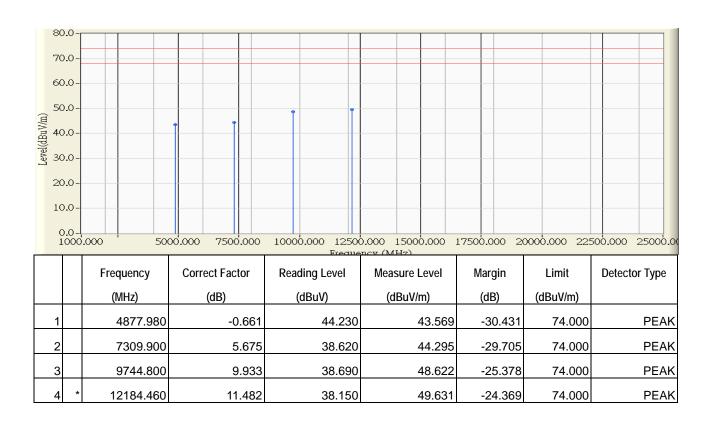
Site : CB1	Time : 2013/06/12 - 14:43
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_2437MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



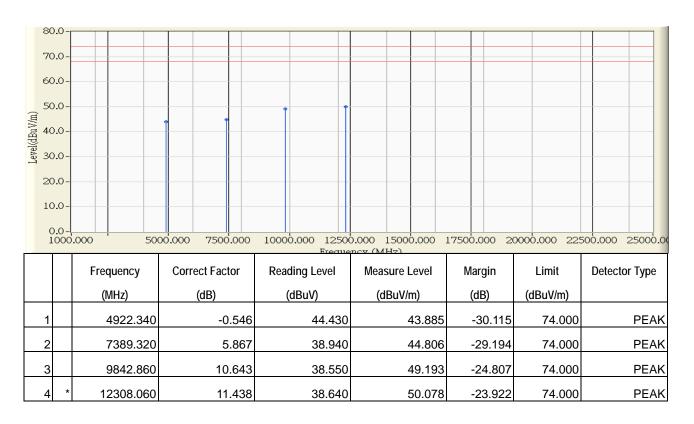
Site : CB1	Time : 2013/06/12 - 14:45
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_2437MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



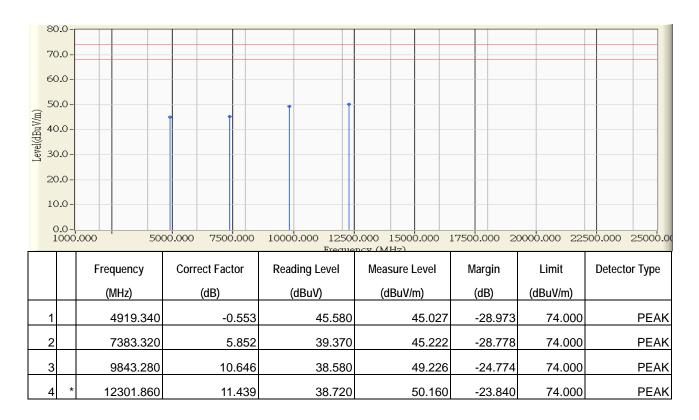
Site : CB1	Time : 2013/06/12 - 14:49
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11n(20MHz)_2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



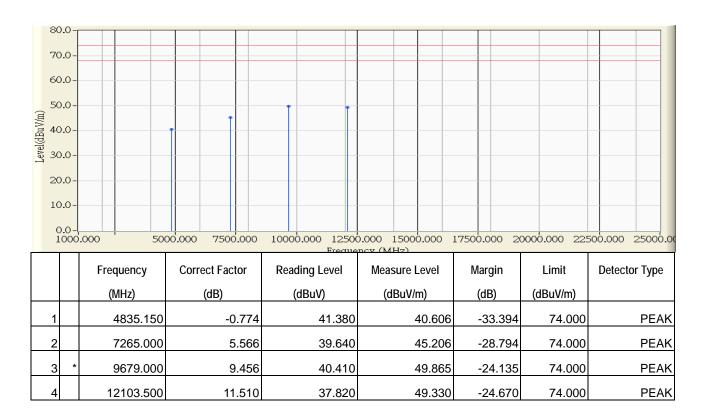
Site : CB1	Time : 2013/06/12 - 14:51
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



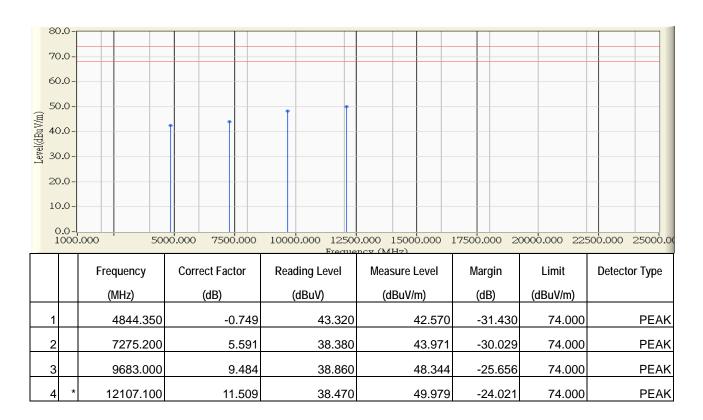
Site : CB1	Time : 2013/06/12 - 14:56
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2422MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



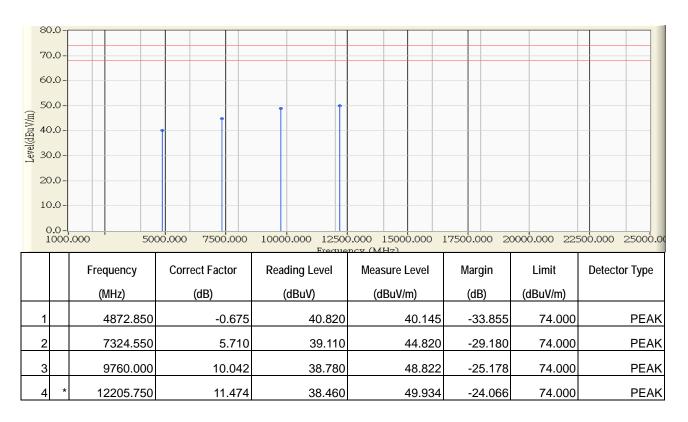
Site : CB1	Time : 2013/06/12 - 14:59
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2422MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



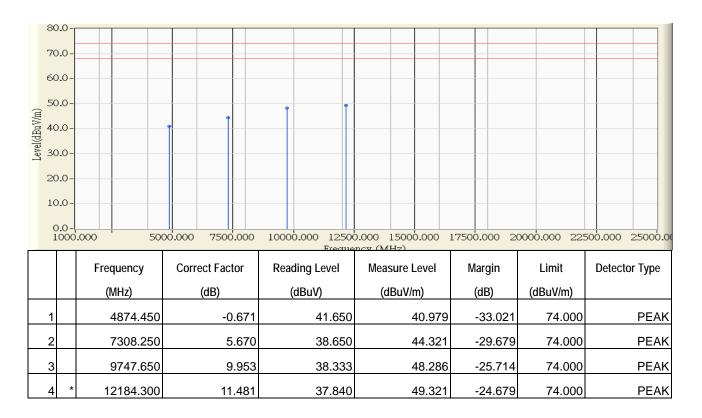
Site : CB1	Time : 2013/06/12 - 15:03
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2437MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



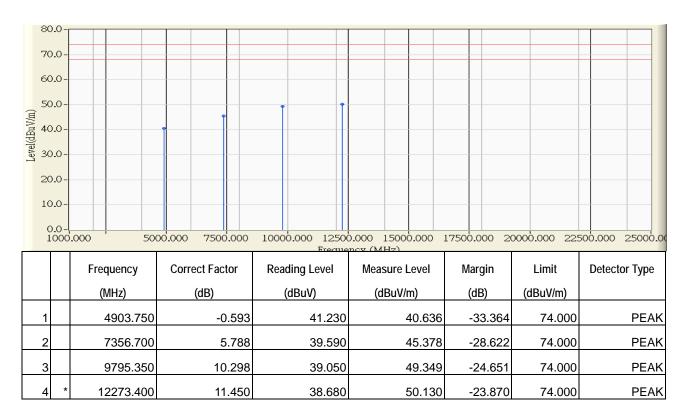
Site : CB1	Time : 2013/06/12 - 15:05
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2437MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



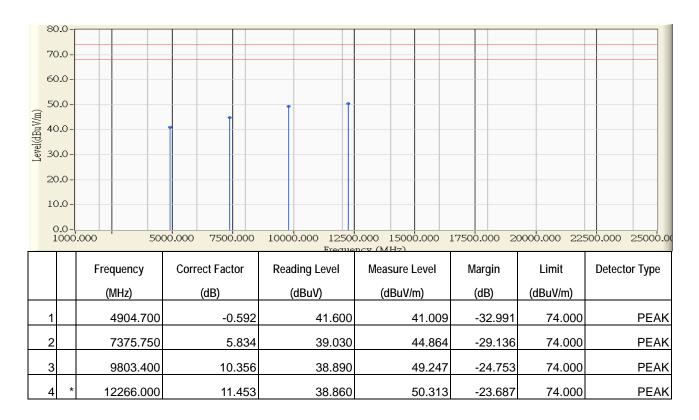
Site : CB1	Time : 2013/06/12 - 15:08
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2452MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



Site : CB1	Time : 2013/06/12 - 15:09
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11n(40MHz)_2452MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The Emission above 18GHz were not included is because their levels are too low.



# 5. RF antenna conducted test

# 5.1. Test Equipment

The following test equipments are used during the test:

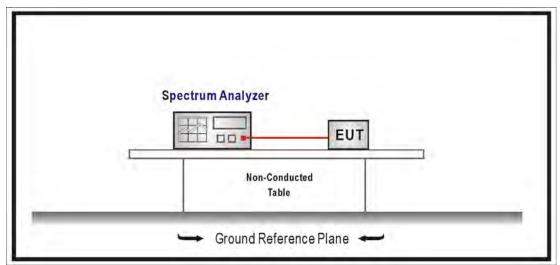
# RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2013/07/31

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

# 5.2. Test Setup

RF Antenna Conducted Measurement:





## 5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 5.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

# 5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

# 5.6. Uncertainty

Conducted is defined as ± 1.27dB

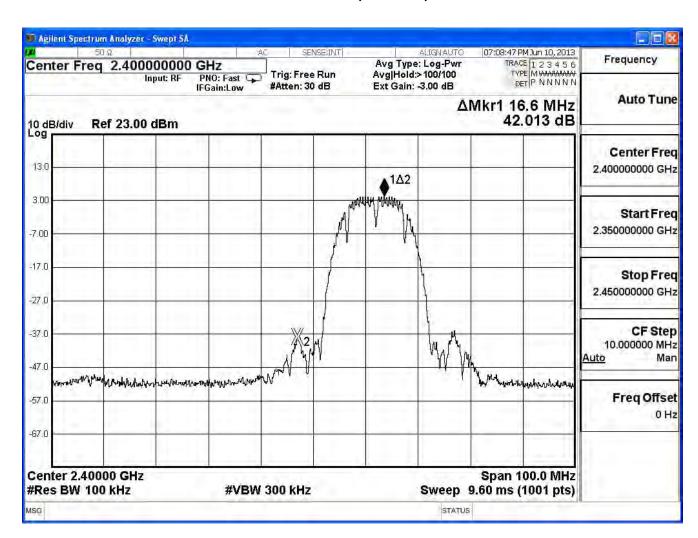


### 5.7. Test Result

Product	Wireless HD Day/Night Cloud Camera		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/06/10	Test Site	SR7

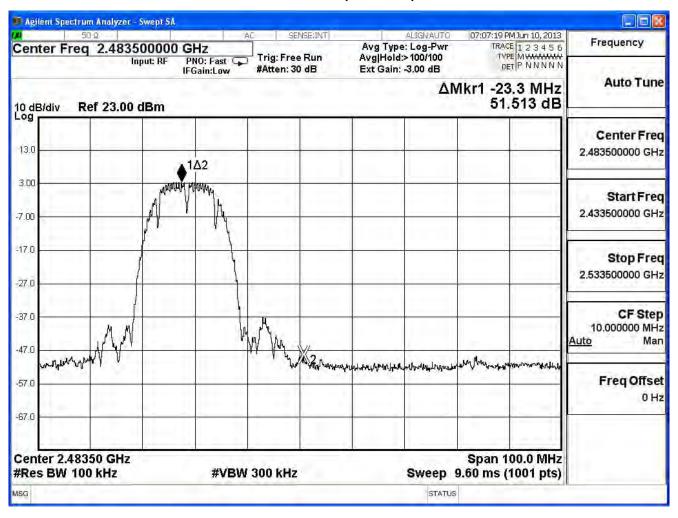
IEEE 802.11b, ANT 0, Duty Cycle: 1				
Channel No	Frequency	Measure Level	Limit	Decult
Channel No.	(MHz)	(dBc)	(dBc)	Result
1	2412	42.01	≥20	Pass
11	2462	51.51	≥20	Pass

# **Channel 01 (2412MHz)**





# **Channel 11 (2462MHz)**

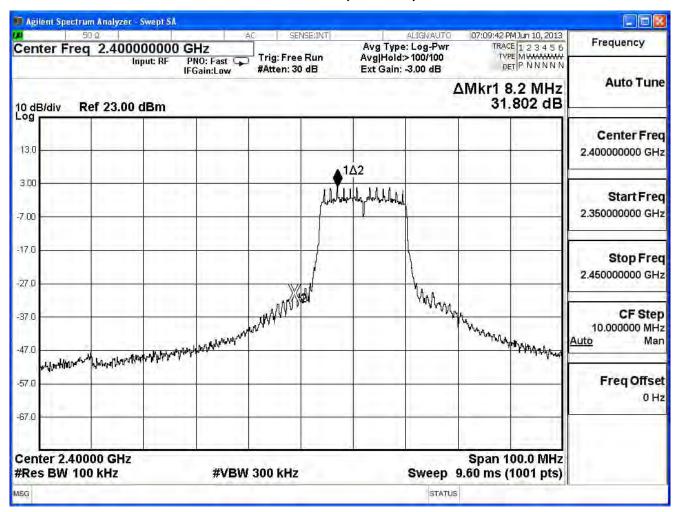




Product	Wireless HD Day/Night Cloud Camera		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/06/10	Test Site	SR7

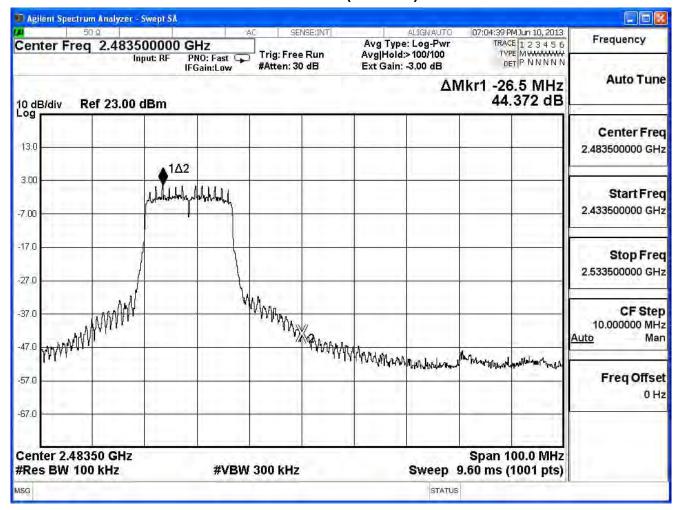
IEEE 802.11g, ANT 0, Duty Cycle: 1				
Channal Na	Frequency	Measure Level	Limit	Dooult
Channel No.	(MHz)	(dBc)	(dBc)	Result
1	2412	31.80	<b>≧20</b>	Pass
11	2462	44.37	≥20	Pass

# Channel 01 (2412MHz)





### **Channel 11 (2462MHz)**

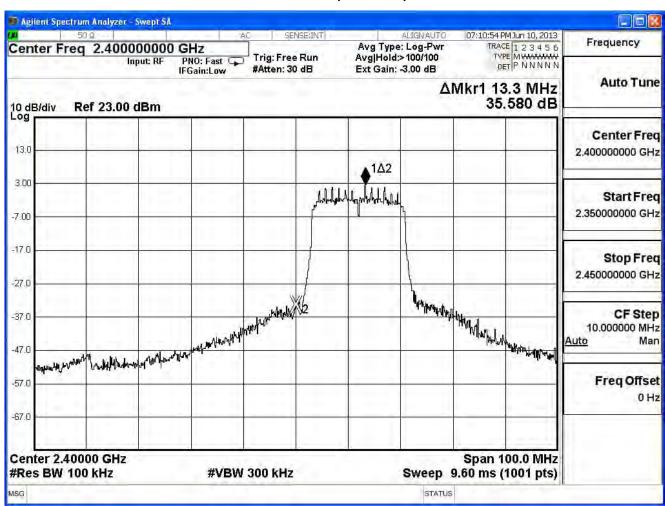




Product	Wireless HD Day/Night Cloud Camera		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/06/10	Test Site	SR7

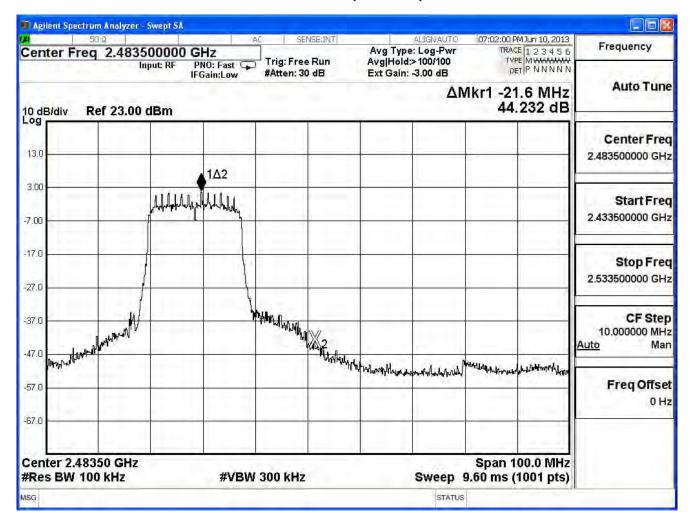
IEEE 802.11n (20MHz), ANT 0, Duty Cycle: 1				
Channel No.	Frequency	Measure Level	Limit	Dogult
Channel No.	(MHz)	(dBc)	(dBc)	Result
1	2412	35.58	<b>≧20</b>	Pass
11	2462	44.23	≥20	Pass

### Channel 1 (2412MHz)





### **Channel 11 (2462MHz)**

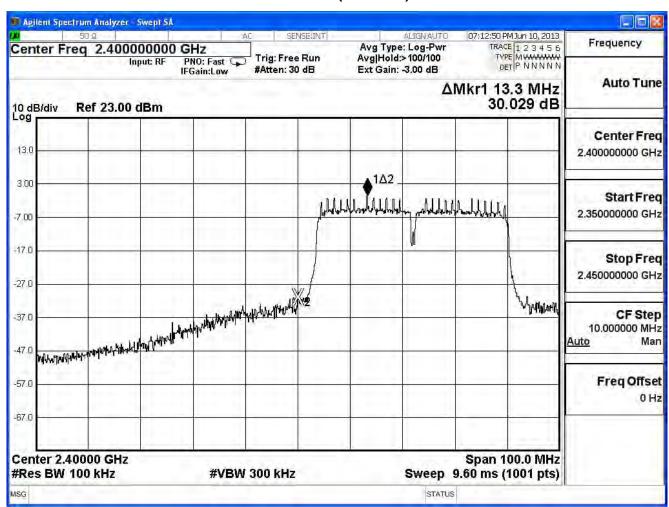




Product	Wireless HD Day/Night Cloud Ca	ımera		
Test Item	RF antenna conducted test			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

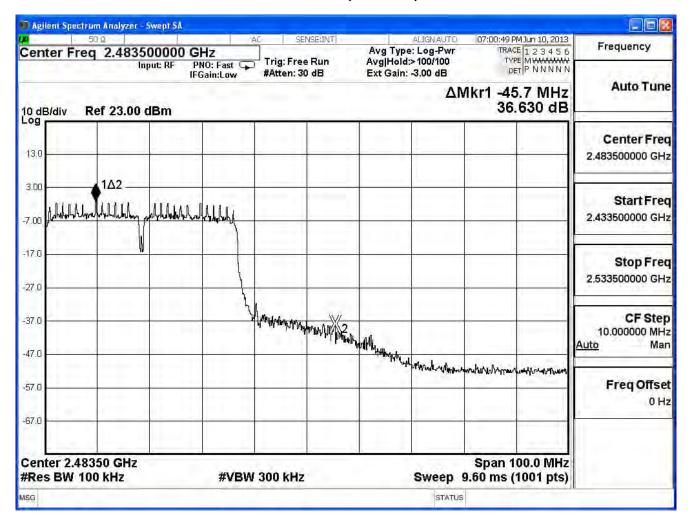
IEEE 802.11n (40MHz) , ANT 0, Duty Cycle: 1				
Channel No	Frequency	Measure Level	Limit	Decult
Channel No.	(MHz)	(dBc)	(dBc)	Result
3	2422	30.02	≥20	Pass
9	2452	36.63	≥20	Pass

#### Channel 3 (2422MHz)

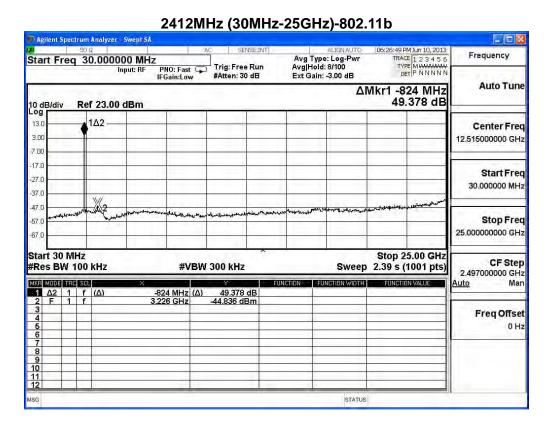


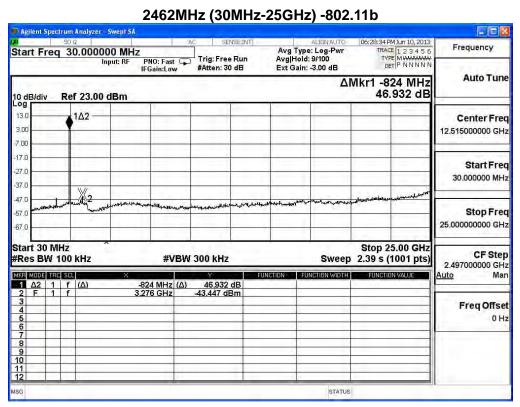


#### **Channel 9 (2452MHz)**

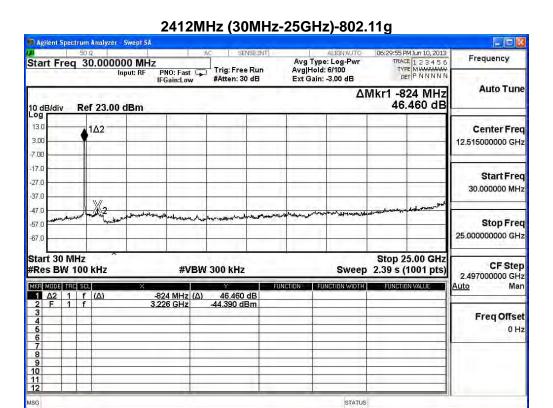


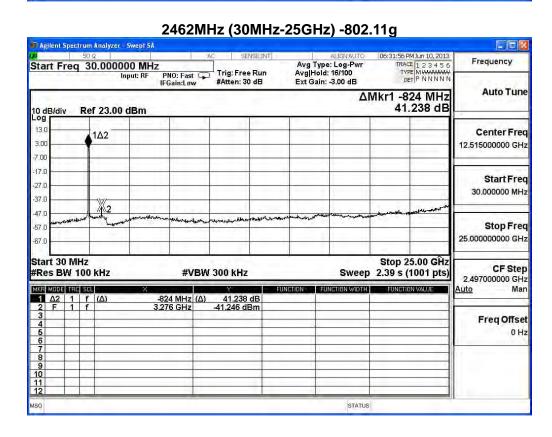




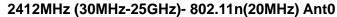


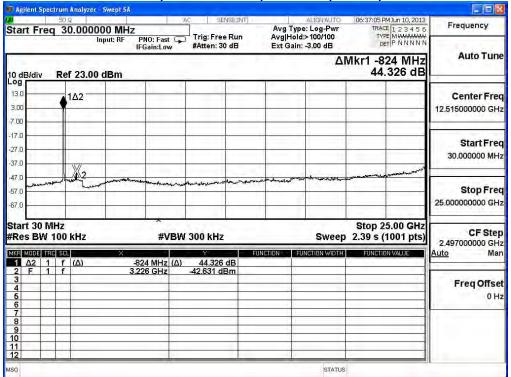




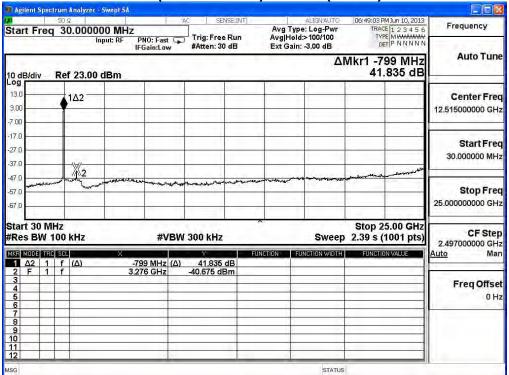




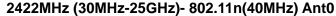


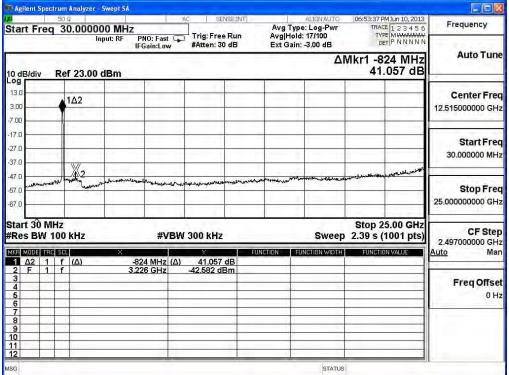


## 2462MHz (30MHz-25GHz) -802.11n(20MHz) Ant0

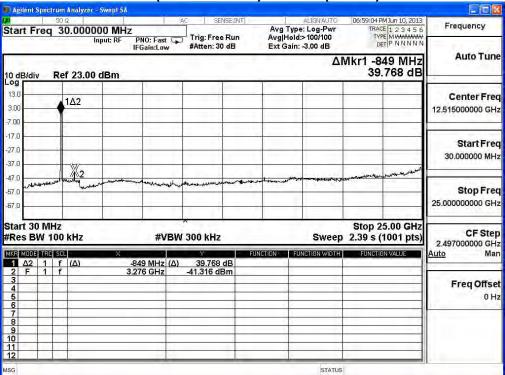








## 2452MHz (30MHz-25GHz) -802.11n(40MHz) Ant0





# 6. Radiated Emission Band Edge

# 6.1. Test Equipment

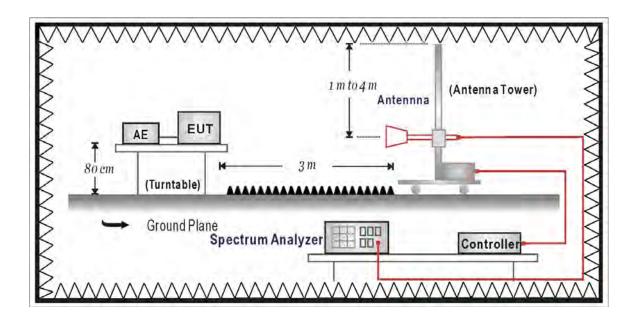
The following test equipments are used during the test:

Radiated Emission Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide	Schwarzback	BBHA 9120	D743	2014/02/17
Horn Antenna				
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

## 6.2. Test Setup





#### 6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

#### 6.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

## 6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

## 6.6. Uncertainty

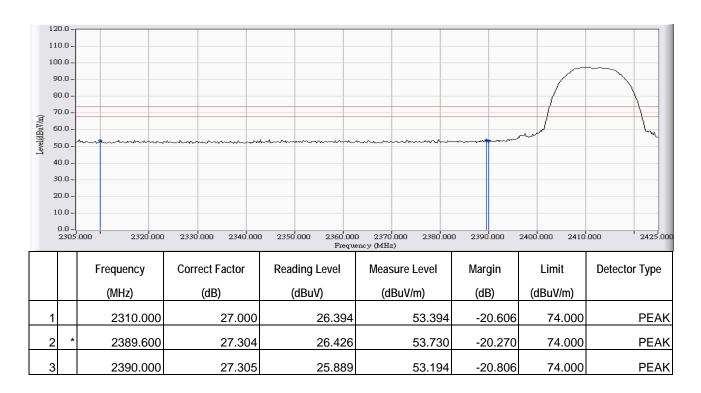
The measurement uncertainty ± 3.9 dB above 1GHz



#### 6.7. Test Result

#### Radiated is defined as

Site : CB1	Time : 2013/06/10 - 17:30
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2412MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



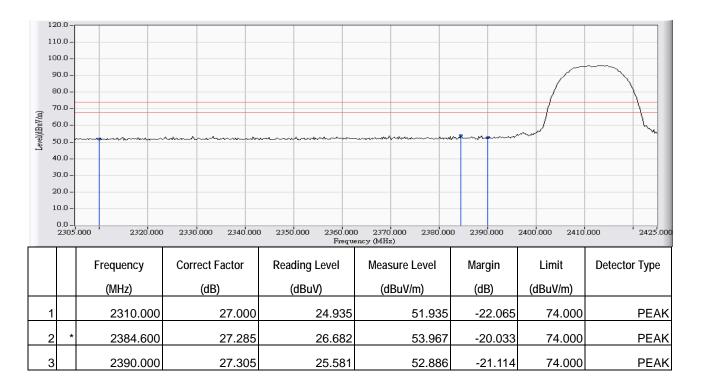
Site : CB1	Time : 2013/06/10 - 17:31
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



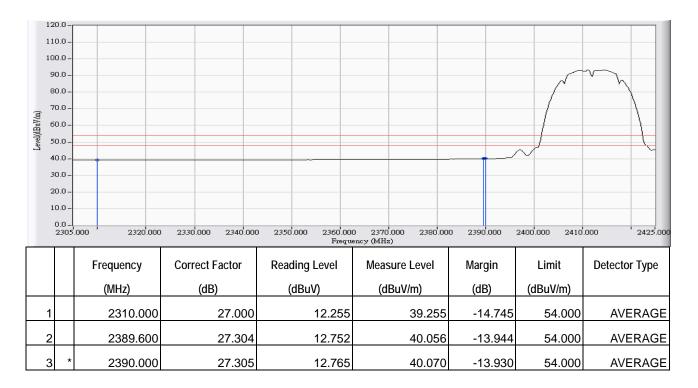
Site : CB1	Time : 2013/06/10 - 17:34
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



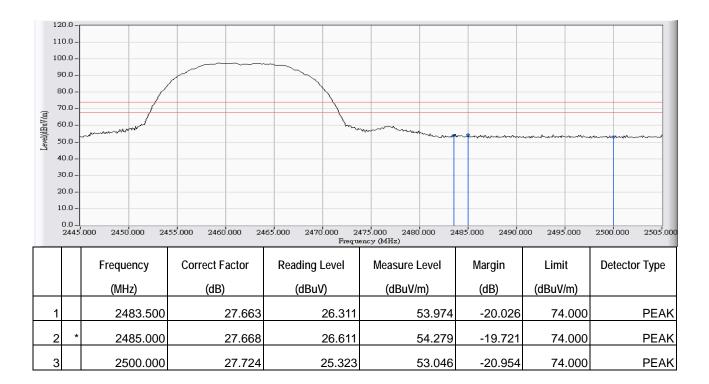
Site : CB1	Time : 2013/06/10 - 17:34	
Limit : FCC_SpartC_15.209_03M_AV	Margin: 6	
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz	
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2412MHz	



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



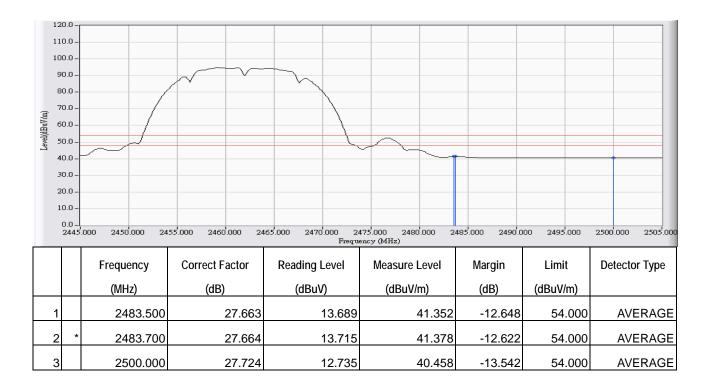
Site : CB1	Time : 2013/06/10 - 17:39
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



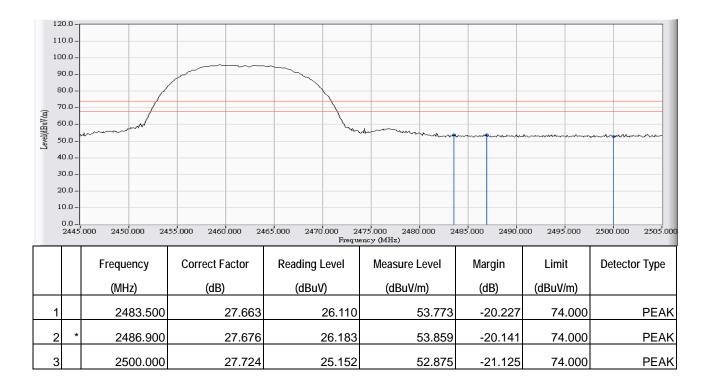
Site : CB1	Time : 2013/06/10 - 17:40
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



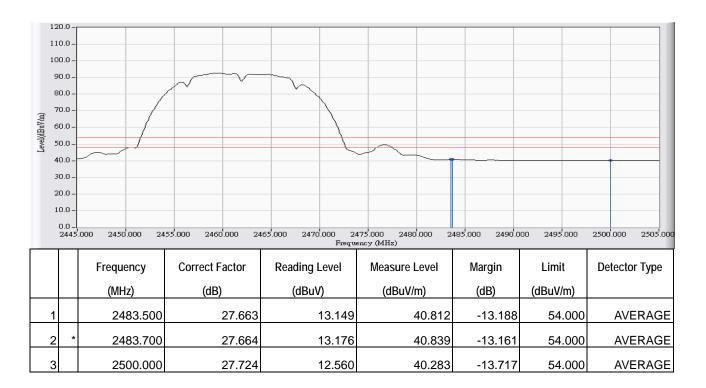
Site : CB1	Time : 2013/06/10 - 17:43	
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6	
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz	
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11b_2462MHz	



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



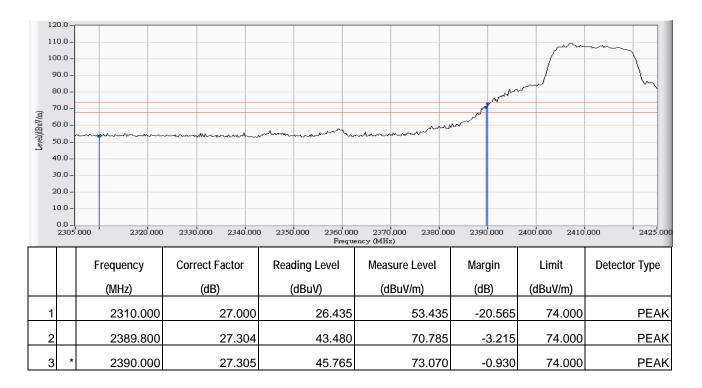
Site : CB1	Time : 2013/06/10 - 17:44
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11b_2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Site : CB1	Time : 2013/04/23 - 09:43
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



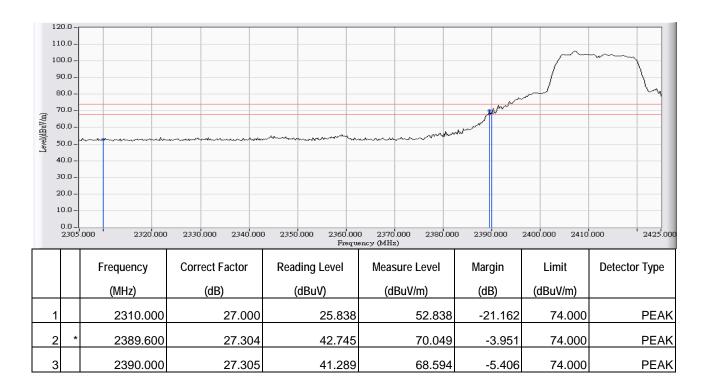
Site : CB1	Time : 2013/04/23 - 09:41
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Site : CB1	Time : 2013/04/23 - 09:49
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



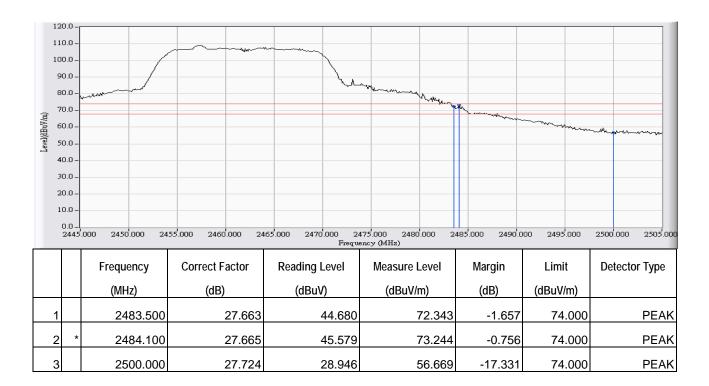
Site : CB1	Time : 2013/04/23 - 09:49
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



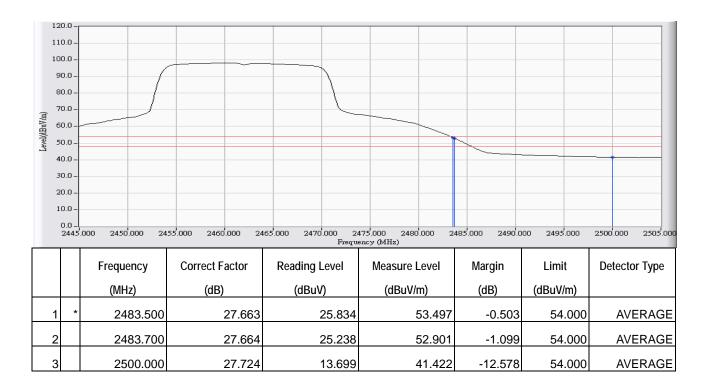
Engineer :	
Site : CB1	Time : 2013/04/23 - 09:54
Limit: FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2462MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



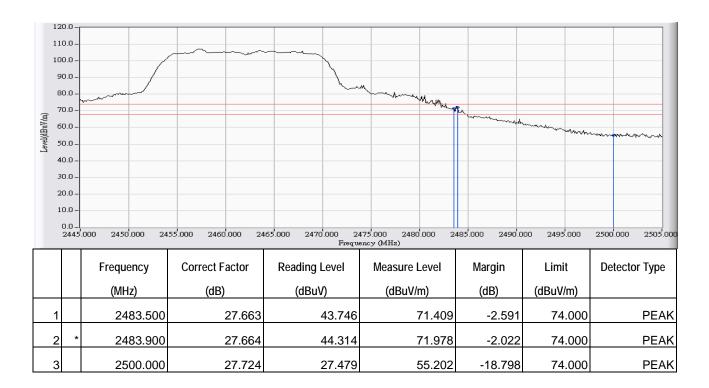
Site : CB1	Time : 2013/04/23 - 09:55
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11g_2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



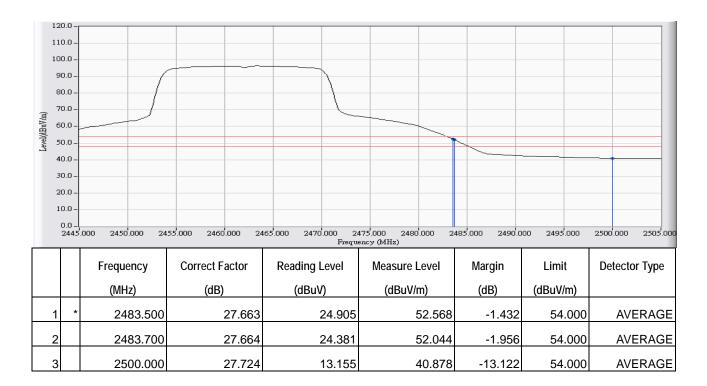
Site : CB1	Time : 2013/04/23 - 10:00	
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6	
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz	
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2462MHz	



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



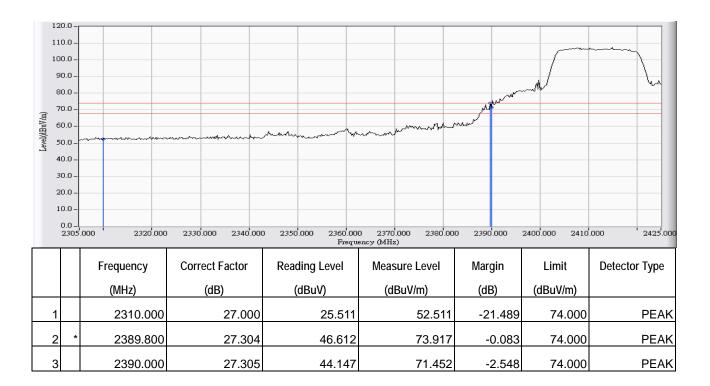
Site : CB1	Time : 2013/04/23 - 10:01
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11g_2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Site : CB1	Time : 2013/04/23 - 10:26
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_ 2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



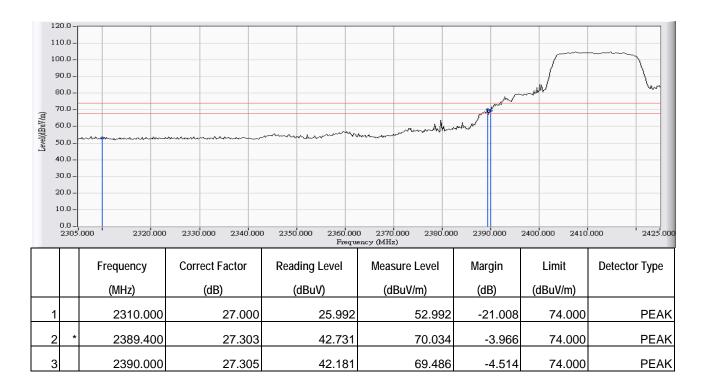
Site : CB1	Time : 2013/04/23 - 10:27
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11n(20MHz)_ 2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



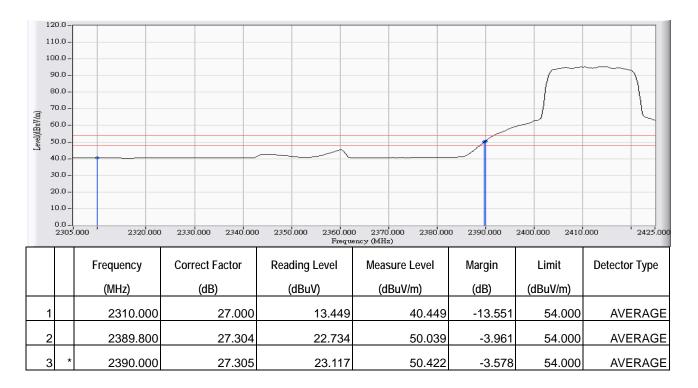
Site : CB1	Time : 2013/04/23 - 10:31
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_ 2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



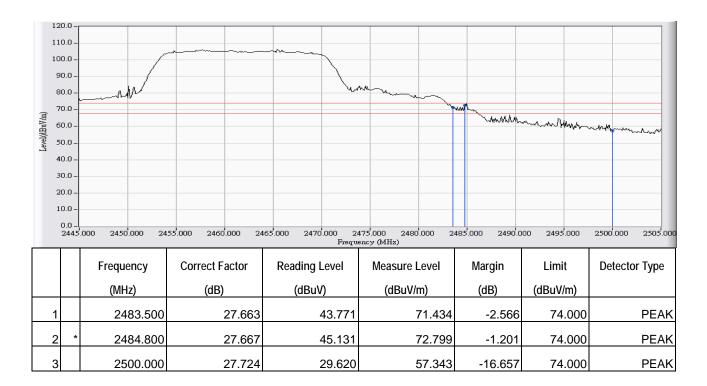
Site : CB1	Time : 2013/04/23 - 10:32
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_ 2412MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



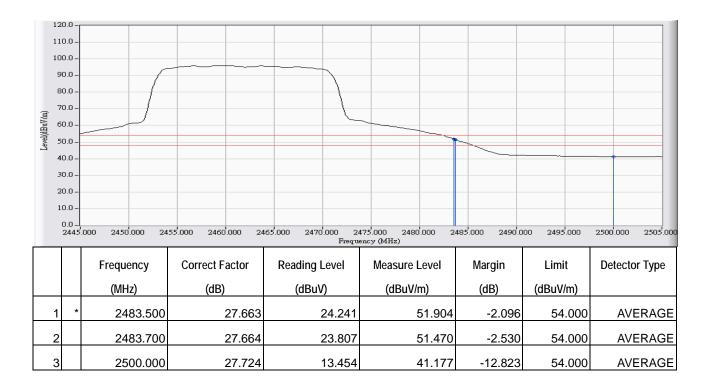
Site : CB1	Time : 2013/04/23 - 10:41
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz) _2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. " \* ", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



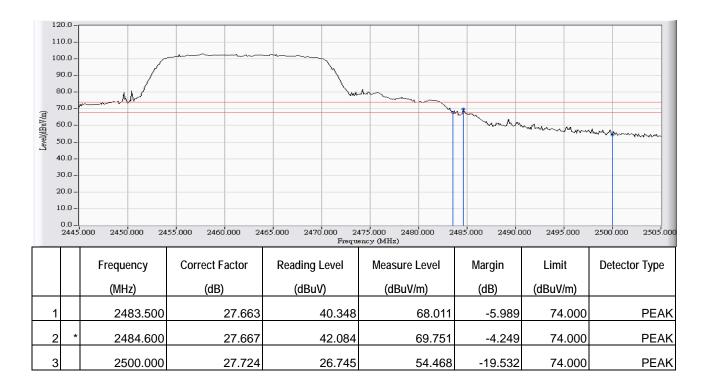
Site : CB1	Time : 2013/04/23 - 10:41
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_ 2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



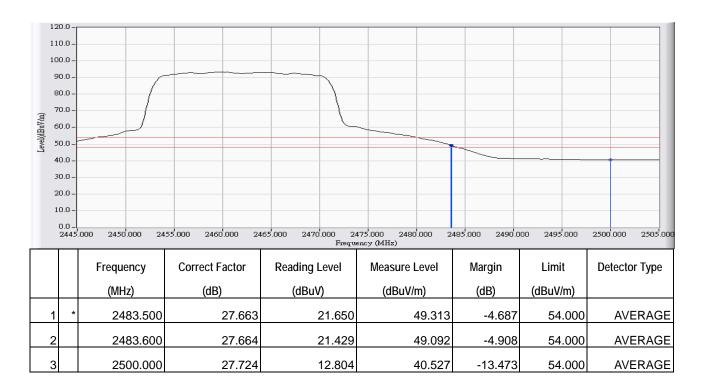
Site : CB1	Time : 2013/04/23 - 10:44
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_ 2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



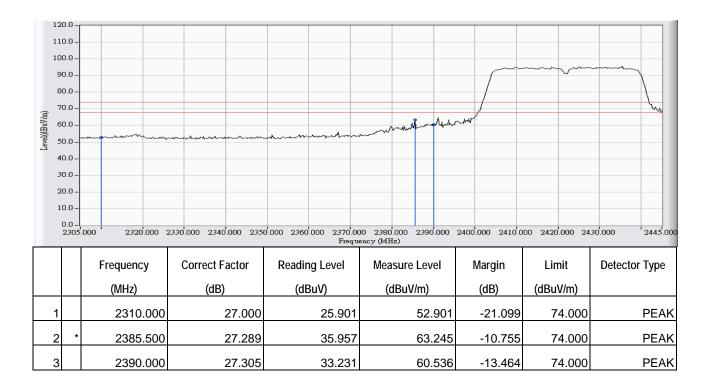
Site : CB1	Time : 2013/04/23 - 10:45
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(20MHz)_ 2462MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



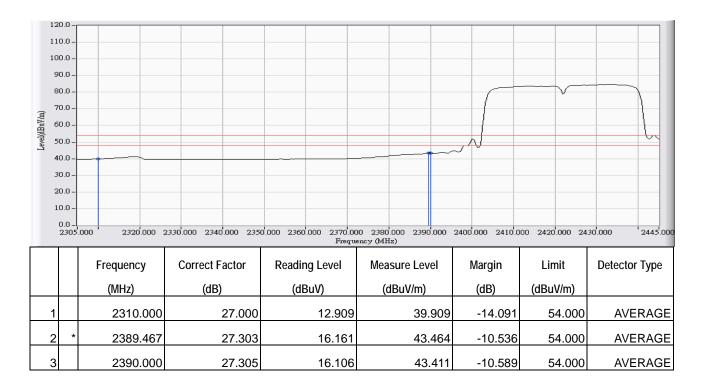
Site : CB1	Time : 2013/06/10 - 17:53
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2422MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



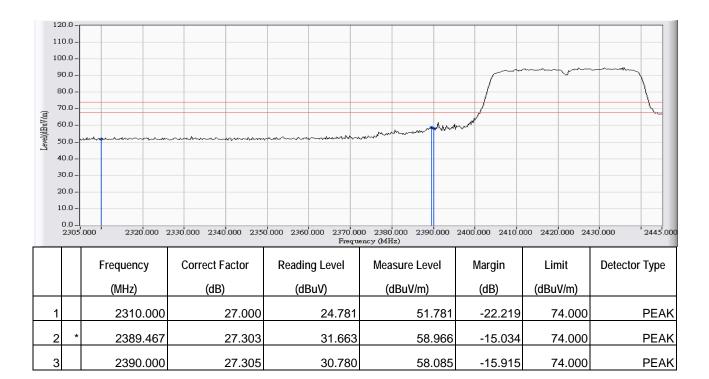
Site : CB1	Time : 2013/06/10 - 17:53
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11n(40MHz)_2422MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



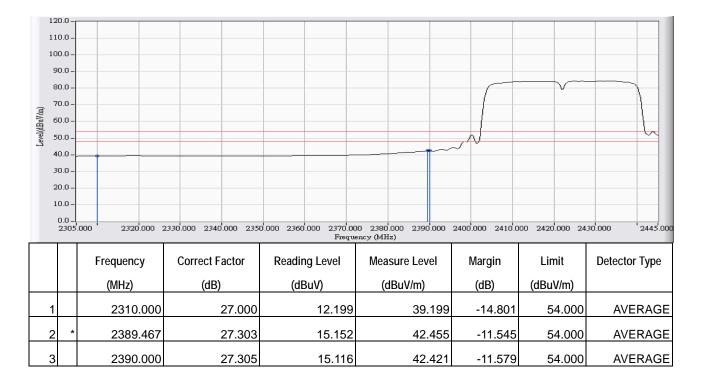
Site : CB1	Time : 2013/06/10 - 17:56
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note : 802.11n(40MHz)_2422MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



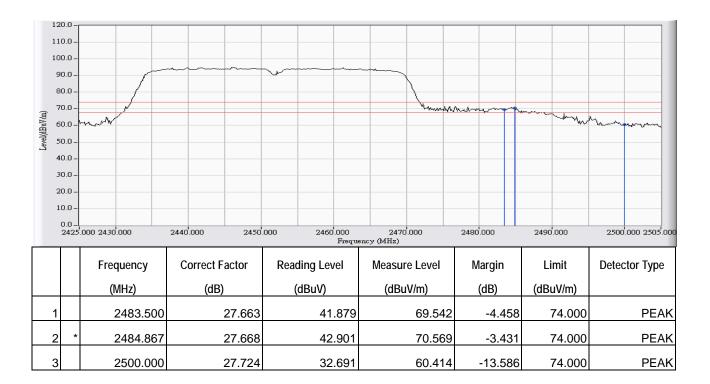
Site : CB1	Time : 2013/06/10 - 17:56
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2422MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



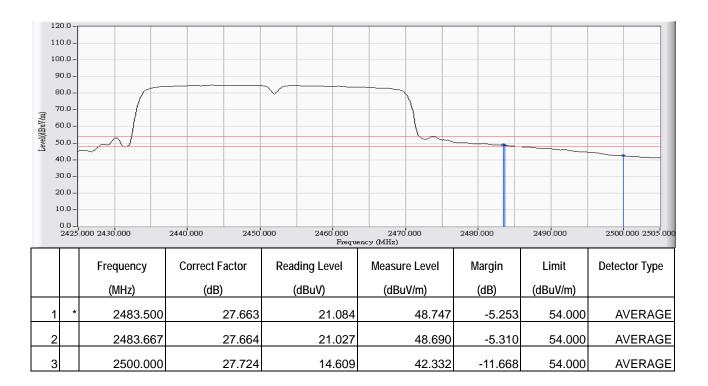
Site : CB1	Time : 2013/06/10 - 18:00
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2452MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



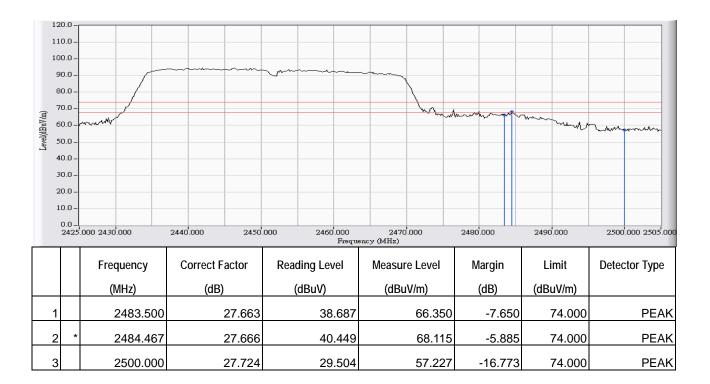
Site : CB1	Time : 2013/06/10 - 18:01
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2452MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



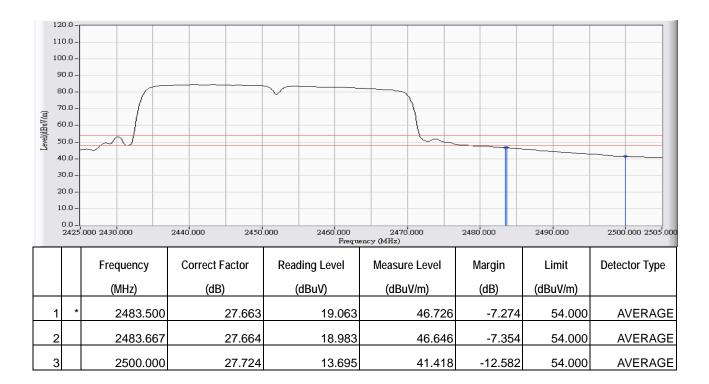
Site : CB1	Time : 2013/06/10 - 18:03
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2452MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Site : CB1	Time : 2013/06/10 - 18:04
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/ 60Hz
EUT : Wireless HD Day/Night Cloud Camera	Note: 802.11n(40MHz)_2452MHz



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "\*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



# 7. Occupied Bandwidth

# 7.1. Test Equipment

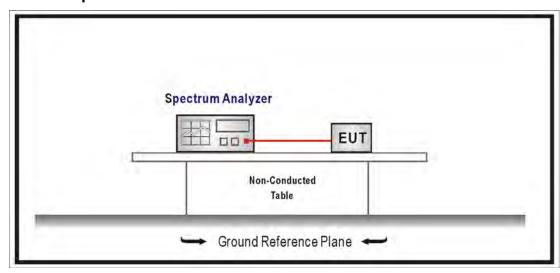
The following test equipments are used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2013/07/31

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

# 7.2. Test Setup



#### 7.3. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1% of EBW, Span greater than RBW.

#### 7.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

# 7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

# 7.6. Uncertainty

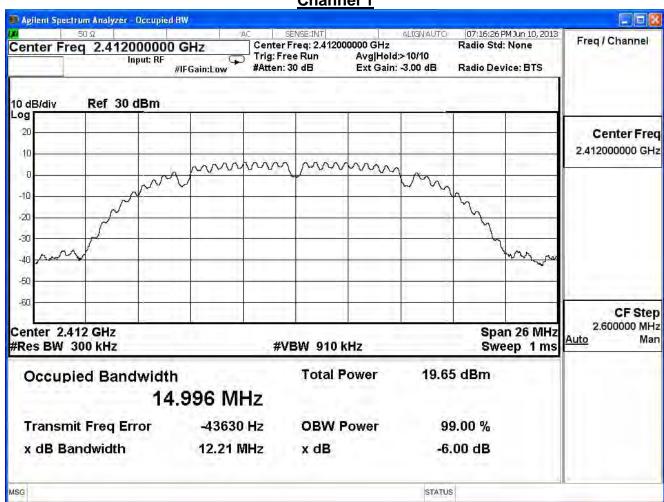
The measurement uncertainty is defined as ±150Hz



#### 7.7. Test Result

Product	Wireless HD Day/Night Cloud Camera			
Test Item	Occupied Bandwidth	Occupied Bandwidth		
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

802.11 b, ANT 0				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	12.21	≧0.5	Pass
6	2437	12.22	≧0.5	Pass
11	2462	12.22	≧0.5	Pass



Span 26 MHz

Sweep 1 ms

2.600000 MHz

Man

Auto



Center 2.437 GHz

#Res BW 300 kHz

**Channel 6** 🗊 Agilent Spectrum Analyzer - Occupied BW 07:20:54 PM Jun 10, 2013 24 50 Ω Center Freq 2.437000000 GHz Freq / Channel Center Freq: 2.437000000 GHz Radio Std: None Avg|Hold:>10/10 Trig: Free Run Input: RF Ext Gain: -3.00 dB #Atten: 30 dB Radio Device: BTS #IFGain:Low 10 dB/div Ref 30 dBm og 20 Center Freq 2.437000000 GHz 10 ~~ -10 -20 -30 -40 -50 -60 CF Step

**#VBW 910 kHz** 

Occupied Bandwidth Total Power 18.57 dBm
14.993 MHz

 Transmit Freq Error
 -46195 Hz
 OBW Power
 99.00 %

 x dB Bandwidth
 12.22 MHz
 x dB
 -6.00 dB

MSG STATUS



MSG

**Channel 11** 🗊 Agilent Spectrum Analyzer - Occupied BW 07(22:46 PM Jun 10, 2013 24 50 Ω Center Freq 2.462000000 GHz Freq / Channel Center Freq: 2.462000000 GHz Radio Std: None Avg|Hold:>10/10 Trig: Free Run Input: RF Ext Gain: -3.00 dB #Atten: 30 dB Radio Device: BTS #IFGain:Low 10 dB/div Ref 30 dBm og 20 Center Freq 2.462000000 GHz 10 -10 -20 -30 40 -60 CF Step 2.600000 MHz Center 2.462 GHz Span 26 MHz Auto Man #Res BW 300 kHz **#VBW 910 kHz** Sweep 1 ms **Total Power** 18.00 dBm Occupied Bandwidth 14.986 MHz -39845 Hz **OBW Power** 99.00 % Transmit Freq Error x dB Bandwidth -6.00 dB 12.22 MHz x dB

STATUS

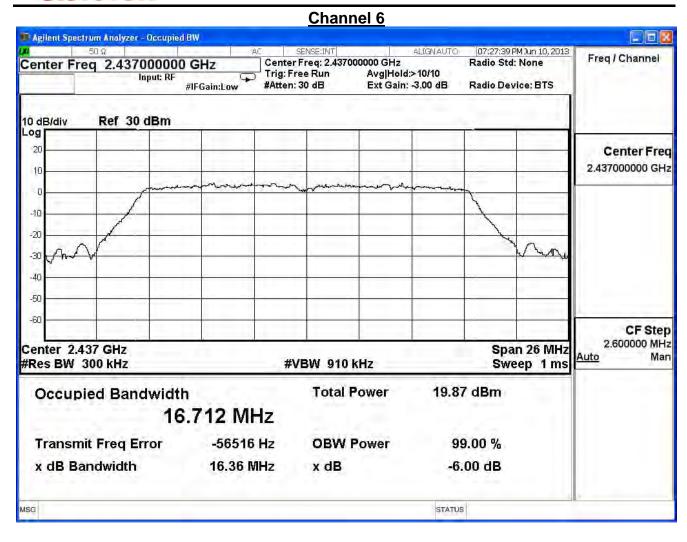


Product	Wireless HD Day/Night Cloud Camera		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/06/10	Test Site	SR7

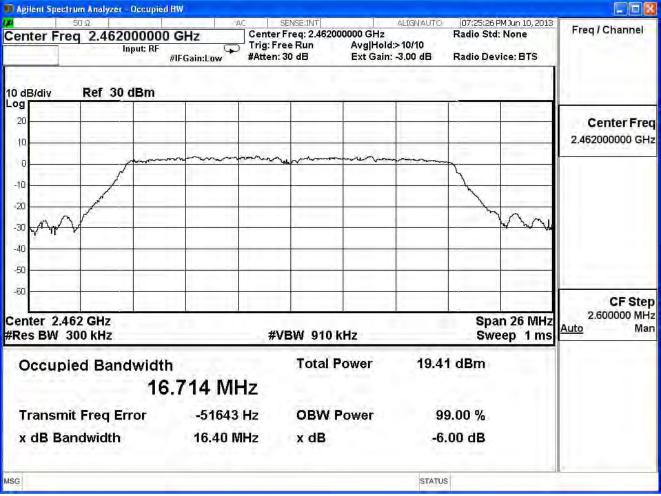
IEEE 802.11g, ANT 0				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	16.38	≥0.5	Pass
6	2437	16.36	≧0.5	Pass
11	2462	16.40	≧0.5	Pass

Channel 1 🔟 Agilent Spectrum Analyzer - Occupied BW 07:30:41 PM Jun 10, 2013 Freq / Channel Center Freq 2.412000000 GHz Center Freq: 2.412000000 GHz Radio Std: None Trig: Free Run Avg|Hold:>10/10 Input: RF #IFGain:Low #Atten: 30 dB Ext Gain: -3.00 dB Radio Device: BTS 10 dB/div Ref 30 dBm og 20 Center Freq 2.412000000 GHz 10 -10 -20 -30 -40 -50 -60 CF Step 2.600000 MHz Span 26 MHz Center 2.412 GHz Man #Res BW 300 kHz **#VBW 910 kHz** Sweep 1 ms **Total Power** 19.63 dBm Occupied Bandwidth 16.743 MHz -51442 Hz **Transmit Freq Error OBW Power** 99.00 % x dB Bandwidth 16.38 MHz x dB -6.00 dB STATUS MSG





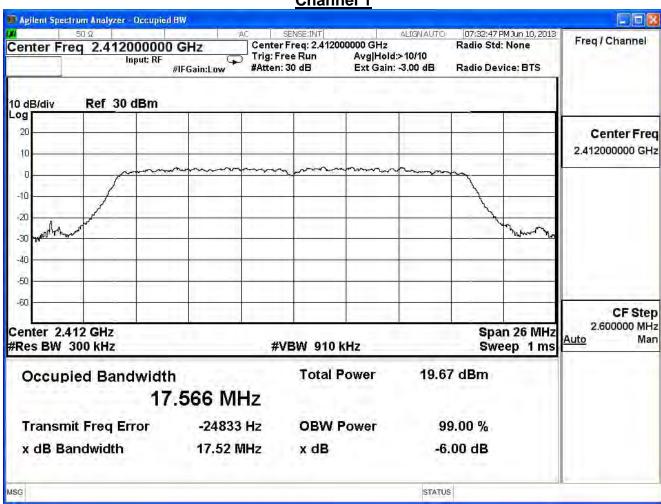






Product	Wireless HD Day/Night Cloud Camera		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/06/10	Test Site	SR7

IEEE 802.11n (20MHz), ANT 0				
Channel No. Frequency (MHz) Measurement Level Required Limit (MHz) Result				
1	2412	17.52	≧0.5	Pass
6	2437	17.50	≧0.5	Pass
11	2462	17.53	≧0.5	Pass



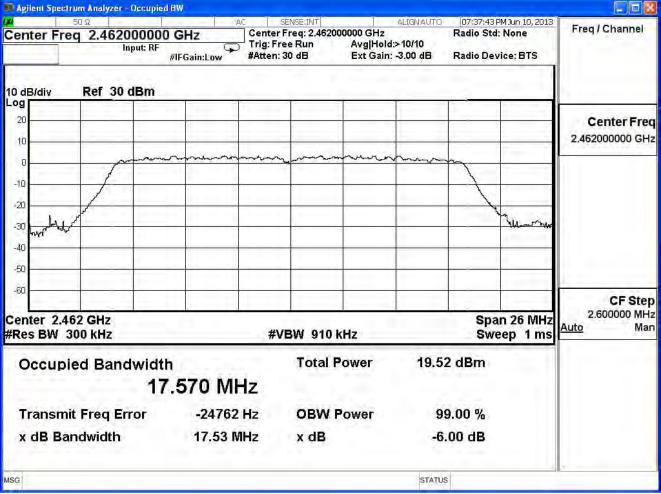


MSG

**Channel 6** 🗊 Agilent Spectrum Analyzer - Occupied BW 07:34:16 PM Jun 10, 2013 24 50 Ω Center Freq 2.437000000 GHz Freq / Channel Center Freq: 2.437000000 GHz Radio Std: None Avg|Hold:>10/10 Trig: Free Run Input: RF Ext Gain: -3.00 dB #Atten: 30 dB Radio Device: BTS #IFGain:Low Ref 30 dBm 10 dB/div og 20 Center Freq 2.437000000 GHz 10 -10 -20 -30 -40 -50 -60 CF Step 2.600000 MHz Center 2.437 GHz Span 26 MHz Auto Man #Res BW 300 kHz Sweep 1 ms **#VBW 910 kHz Total Power** 19.77 dBm Occupied Bandwidth 17.556 MHz -23710 Hz **OBW Power** 99.00 % Transmit Freq Error x dB Bandwidth 17.50 MHz -6.00 dB x dB

STATUS

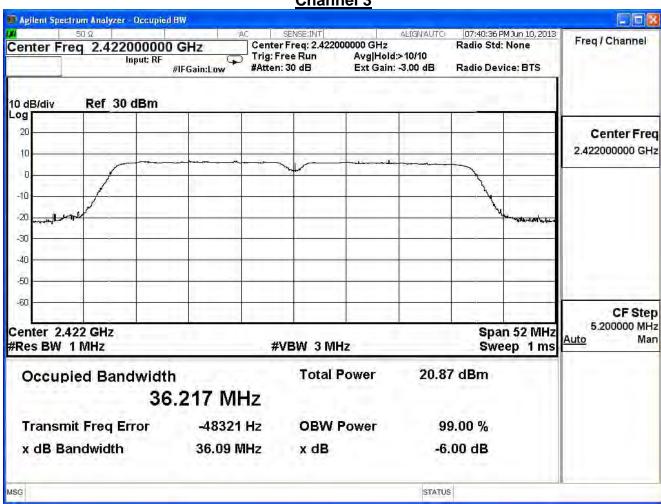






Product	Wireless HD Day/Night Cloud Camera			
Test Item	Occupied Bandwidth	Occupied Bandwidth		
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

IEEE 802.11n (40MHz), ANT 0				
Channel No. Frequency (MHz) Measurement Level Required Limit (MHz) Result				
3	2422	36.09	≧0.5	Pass
6	2437	36.27	≧0.5	Pass
9	2452	36.15	≧0.5	Pass



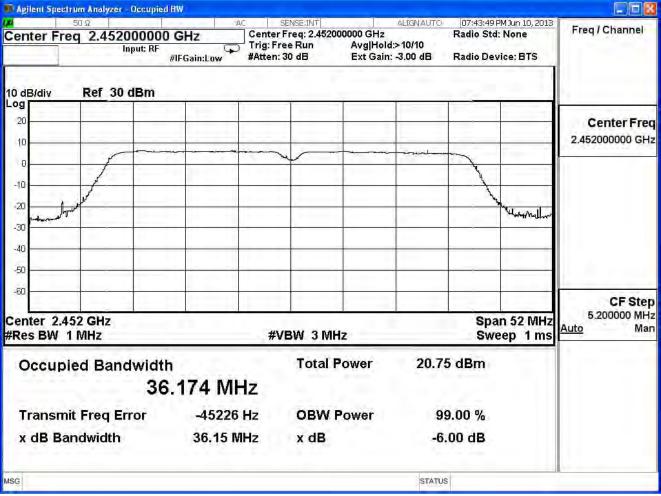


MSG

**Channel 6** 🗊 Agilent Spectrum Analyzer - Occupied BW 07:42:00 PM Jun 10, 2013 24 50 Ω Center Freq 2.437000000 GHz Freq / Channel Center Freq: 2.437000000 GHz Radio Std: None Avg|Hold:>10/10 Trig: Free Run Input: RF Ext Gain: -3.00 dB #Atten: 30 dB Radio Device: BTS #IFGain:Low 10 dB/div Ref 30 dBm og 20 Center Freq 2.437000000 GHz 10 -10 -20 -30 -40 -50 -60 CF Step 5.200000 MHz Center 2.437 GHz Span 52 MHz Auto Man #Res BW 1 MHz #VBW 3 MHz Sweep 1 ms **Total Power** 21.35 dBm Occupied Bandwidth 36.232 MHz -81176 Hz **OBW Power** 99.00 % Transmit Freq Error x dB Bandwidth 36.27 MHz -6.00 dB x dB

STATUS







# 8. Power Density

# 8.1. Test Equipment

The following test equipment is used during the test:

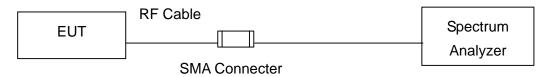
# Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2013/07/31

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

# 8.2. Test Setup

IEEE 802.11 b/g/a/n (20M/40M) MODE



#### 8.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

## 8.4. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW to :  $3KHz \le RBW \le 100 \text{ kHz}$ , Set  $VBW \ge 3xRBW$ , Sweep time=Auto, Set detector=Peak detector

# 8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

# 8.6. Uncertainty

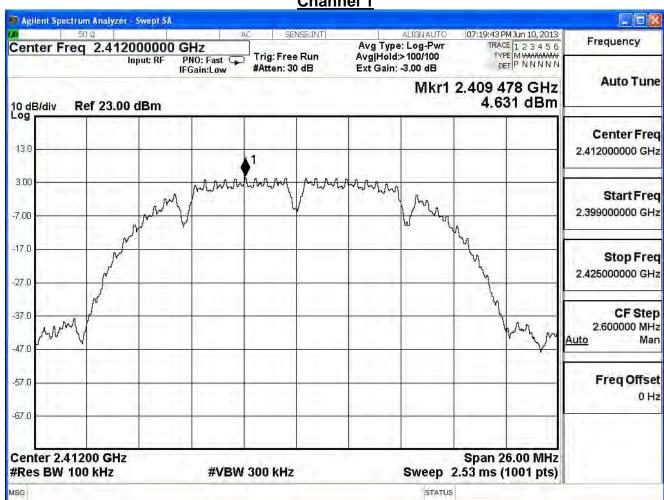
The measurement uncertainty is defined as ±1.27dB.



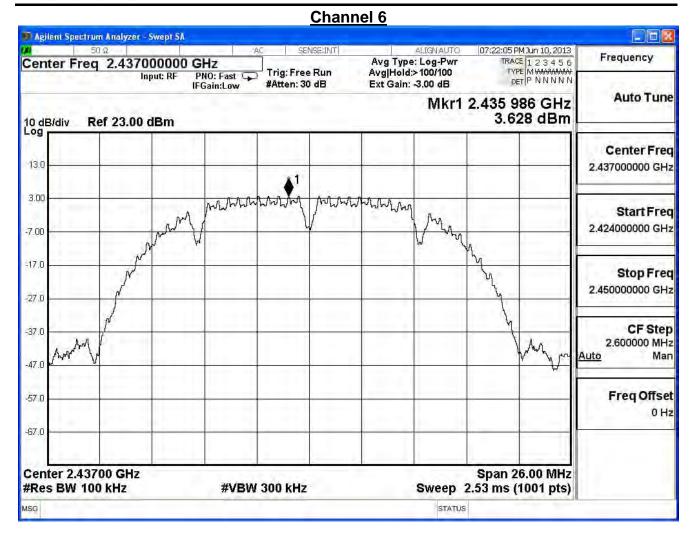
#### 8.7. **Test Result**

Product	Wireless HD Day/Night Cloud	Wireless HD Day/Night Cloud Camera		
Test Item	Power Density	Power Density		
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

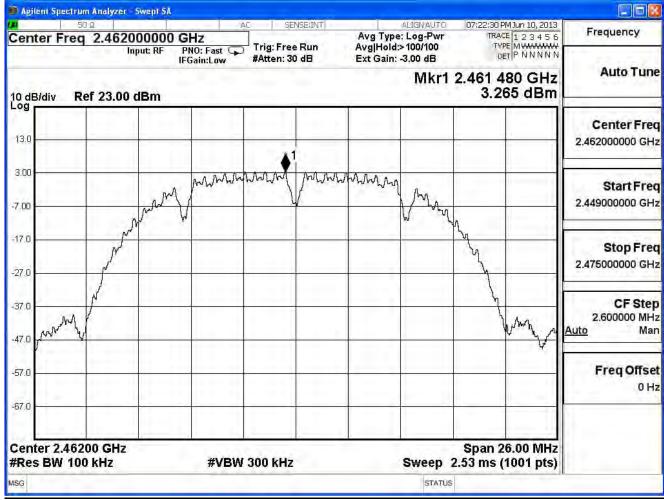
IEEE 802.11b, ANT 0				
Channel No. Frequency Measure Level L				Result
(MHz)		(dBm)	(dBm)	1100011
1	2412	4.63	≦8	Pass
6	2437	3.62	≦8	Pass
11	2462	3.26	≦8	Pass







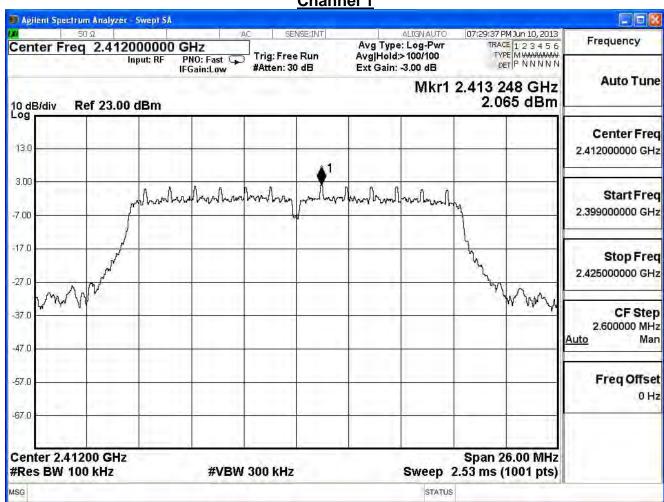




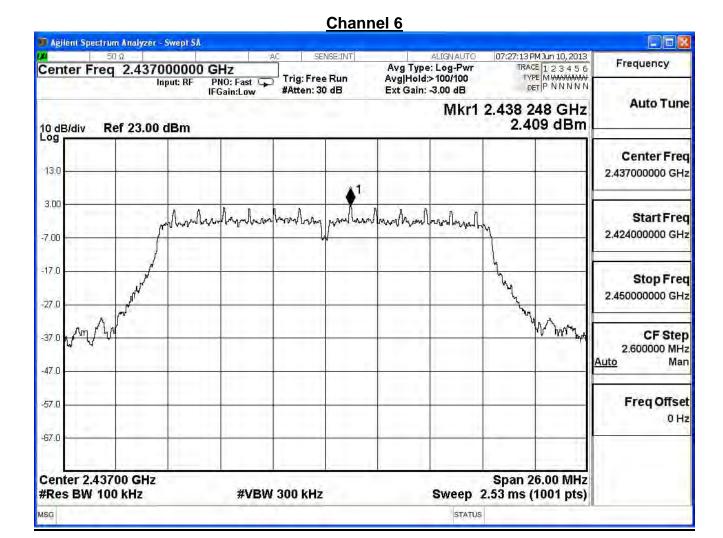


Product	Wireless HD Day/Night Clo	Wireless HD Day/Night Cloud Camera		
Test Item	Power Density			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

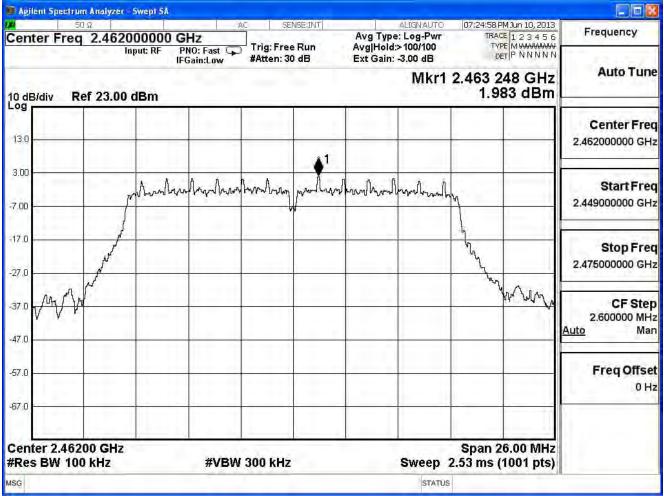
IEEE 802.11g, ANT 0				
Channel No. Frequency (MHz) Measurement Limit (dBm) Result				
1	2412	2.06	≦8	Pass
6	2437	2.40	≦8	Pass
11	2462	1.98	≦8	Pass







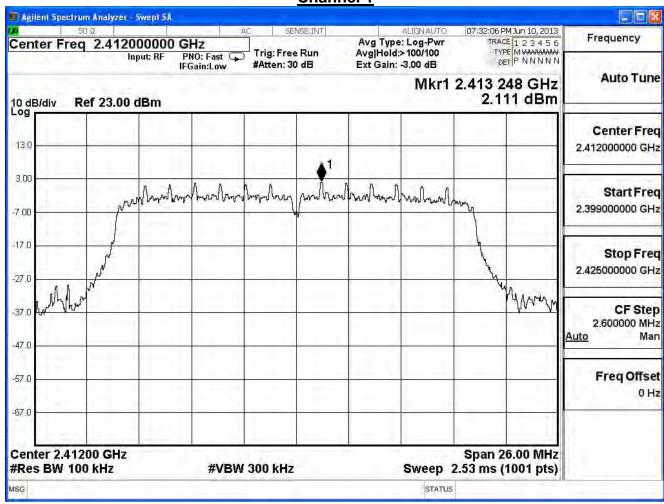




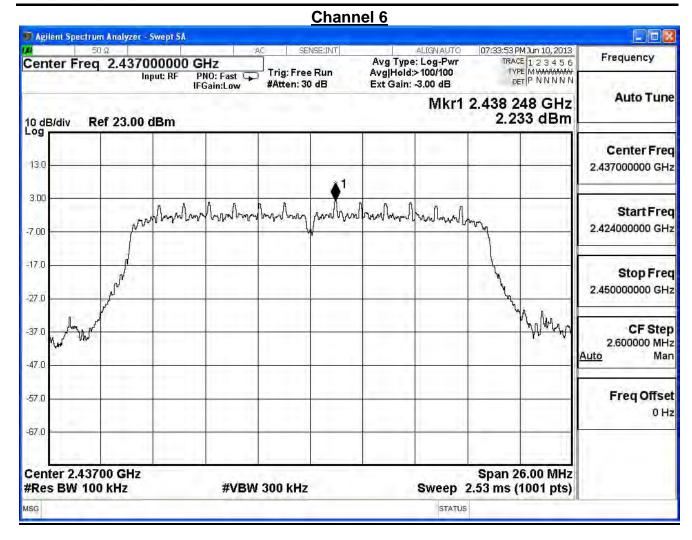


Product	Wireless HD Day/Night Clo	Wireless HD Day/Night Cloud Camera		
Test Item	Power Density			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

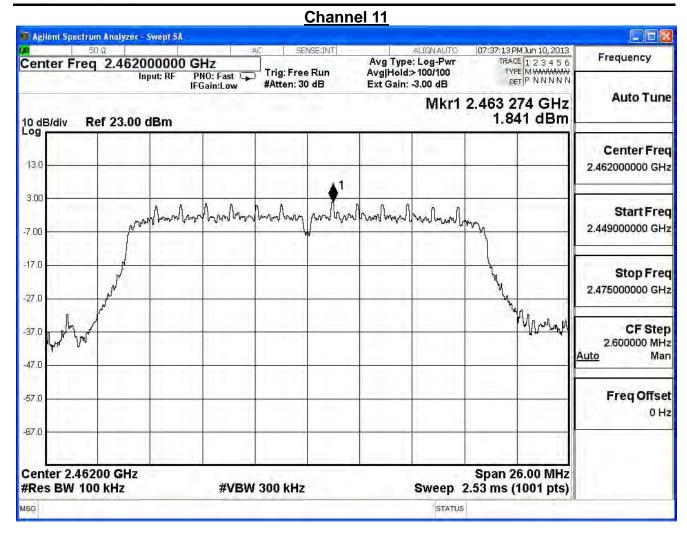
IEEE802.11n_2	IEEE802.11n_20MHz, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result	
1	2412	2.11	≦8	Pass	
6	2437	2.23	≦8	Pass	
11	2462	1.84	≦8	Pass	













Product	Wireless HD Day/Night Cloud	Wireless HD Day/Night Cloud Camera		
Test Item	Power Density			
Test Mode	Mode 1: Transmit			
Date of Test	2013/06/10	Test Site	SR7	

IEEE802.11n_40MHz, ANT 0				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-0.69	≦8	Pass
6	2437	-0.21	≦8	Pass
9	2452	-0.86	≦8	Pass

