



# Radio Test Report

**FCC ID: 2AA68CAM-480DJ**

This report concerns (check one) :  Original Grant  Class II Change

**Issued Date** : Oct. 22, 2013  
**Project No.** : 1307019  
**Equipment** : Wireless Network Camera  
**Model Name** : CAM-480DJ; CAM-480SJ; CAM-720DH;  
CAM-720SH  
**Applicant** : eMPIA Technology Corp.  
**Address** : 2F.-1, No.15, Ln. 360, Sec. 1, Neihu Rd.,  
Neihu Dist., Taipei City 114, Taiwan

**Tested by:** Neutron Engineering Inc. EMC Laboratory

**Date of Receipt:** Jul. 02, 2013

**Date of Test:** Jul. 02, 2013 ~ Jul. 17, 2013

**Testing Engineer:** Josh Lin  
(Josh Lin)

**Technical Manager:** Jeff Yang  
(Jeff Yang)

**Authorized Signatory:** Andy Chiu  
(Andy Chiu)

Neutron Engineering Inc.  
B1, No. 37, Lane 365, YangGuang St.,  
NeiHu District 114, Taipei, Taiwan.

TEL: +886-2-2657-3299  
FAX: +886-2-2657-3331





### **Declaration**

**Neutron** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

**Neutron's** reports apply only to the specific samples tested under conditions. It is manufacturer's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **Neutron** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **Neutron** issued reports.

**Neutron's** reports must not be used by the client to claim product endorsement by the authorities or any agency of the Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **Neutron-self**, extracts from the test report shall not be reproduced except in full with **Neutron's** authorized written approval.

**Neutron's** laboratory quality assurance procedures are in compliance with the **ISO Guide 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

### **Limitation**

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.



## Table of Contents

REPORT ISSUED HISTORY	6
1 CERTIFICATION	7
2 . SUMMARY OF TEST RESULTS	8
2.1 TEST FACILITY	9
2.2 MEASUREMENT UNCERTAINTY	10
3 GENERAL INFORMATION	11
3.1 GENERAL DESCRIPTION OF EUT	11
3.2 DESCRIPTION OF TEST MODES	13
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	14
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	15
3.5 DESCRIPTION OF SUPPORT UNITS	16
4 CONDUCTED EMISSION	17
4.1 LIMIT	17
4.2 MEASUREMENT INSTRUMENTS LIST	17
4.3 TEST PROCEDURES	18
4.4 TEST SETUP LAYOUT	18
4.5 DEVIATION FROM TEST STANDARD	18
4.6 EUT OPERATING CONDITIONS	19
4.7 TEST RESULTS	20
5 ANTENNA CONDUCTED SPURIOUS EMISSION	22
5.1 LIMIT	22
5.2 MEASUREMENT INSTRUMENTS LIST	22
5.3 TEST PROCEDURES	22
5.4 TEST SETUP LAYOUT	22
5.5 DEVIATION FROM TEST STANDARD	22
5.6 EUT OPERATING CONDITIONS	22
5.7 TEST RESULTS - 2400-2483.5 MHZ	23
6 6 DB BANDWIDTH	39
6.1 LIMIT	39
6.2 MEASUREMENT INSTRUMENTS LIST	39
6.3 TEST PROCEDURES	39
6.4 TEST SETUP LAYOUT	39
6.5 DEVIATION FROM TEST STANDARD	39
6.6 EUT OPERATING CONDITIONS	39
6.7 TEST RESULTS - 2400-2483.5 MHZ	40
7 MAXIMUM PEAK CONDUCTED OUTPUT POWER	48
7.1 LIMIT	48
7.2 MEASUREMENT INSTRUMENTS LIST	48



## Table of Contents

7.3	TEST PROCEDURES	48
7.4	TEST SETUP LAYOUT	48
7.5	DEVIATION FROM TEST STANDARD	48
7.6	EUT OPERATING CONDITIONS	48
7.7	TEST RESULTS - 2400-2483.5 MHZ	49
8	RADIATED SPURIOUS EMISSION (9 KHZ TO 1 GHZ)	53
8.1	LIMIT	53
8.2	MEASUREMENT INSTRUMENTS LIST	54
8.3	MEASURING INSTRUMENTS SETTING	54
8.4	TEST PROCEDURES	55
8.5	DEVIATION FROM TEST STANDARD	55
8.6	TEST SETUP LAYOUT	55
8.7	EUT OPERATING CONDITIONS	56
8.8	TEST RESULTS - 2400-2483.5 MHZ	57
9	RADIATED SPURIOUS EMISSION (ABOVE 1 GHZ)	59
9.1	LIMIT	59
9.2	MEASUREMENT INSTRUMENTS LIST	60
9.3	MEASURING INSTRUMENTS SETTING	60
9.4	TEST PROCEDURES	61
9.5	DEVIATION FROM TEST STANDARD	61
9.6	TEST SETUP LAYOUT	61
9.7	EUT OPERATING CONDITIONS	62
9.8	TEST RESULTS - 2400-2483.5 MHZ	63
9.9	TEST RESULTS (RESTRICTED BANDS)	111
10	POWER SPECTRAL DENSITY	127
10.1	LIMIT	127
10.2	MEASUREMENT INSTRUMENTS LIST	127
10.3	TEST PROCEDURES	127
10.4	TEST SETUP LAYOUT	127
10.5	DEVIATION FROM TEST STANDARD	127
10.6	EUT OPERATING CONDITIONS	127
10.7	TEST RESULTS - 2400-2483.5 MHZ	128
11	RF EXPOSURE COMPLIANCE	136
11.1	LIMIT	136
11.2	MEASUREMENT INSTRUMENTS LIST	136
11.3	MPE CALCULATION METHOD	136
11.4	TEST SETUP LAYOUT	137
11.5	DEVIATION FROM TEST STANDARD	137



## Table of Contents

11.6	EUT OPERATING CONDITIONS	137
11.7	TEST RESULTS - 2400-2483.5 MHZ	138
12	EUT TEST PHOTO	142



### **REPORT ISSUED HISTORY**

Revised Version No.	Description	Issued Date
-	Initial Issue.	Oct. 22, 2013



## 1 CERTIFICATION

Equipment : Wireless Network Camera

Brand Name : Camvie

Model Name : CAM-480DJ; CAM-480SJ; CAM-720DH; CAM-720SH

Applicant : eMPIA Technology Corp.

Date of Test : Jul. 02, 2013 ~ Jul. 17, 2013

Standards : FCC Part 15, Subpart C: 2012

ANSI C63.4: 2009

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-1307019) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

**2. SUMMARY OF TEST RESULTS**

FCC Part 15, Subpart C: 2012		
Standard Clause	Test Item	Result
<b>FCC Part 15, Subpart C</b>		
15.207	Conducted Emission	<b>PASS</b>
15.247 (c)	Antenna conducted Spurious Emission	<b>PASS</b>
15.247 (a)(2)	6 dB Bandwidth	<b>PASS</b>
15.247 (b)	Maximum Peak Conducted Output Power	<b>PASS</b>
15.247 (c)	Radiated Spurious Emission	<b>PASS</b>
15.247 (d)(e)	Power Spectral Density	<b>PASS</b>
15.205	Restricted Bands	<b>PASS</b>
15.203	Antenna Requirement	<b>PASS</b>
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	<b>PASS</b>

## NOTE:

(1) N/A: denotes test is not applicable in this Test Report



## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

### Conducted emission Test:

**C01:** (VCCI RN: C-2918; FCC RN: 95335; FCC DN: TW1010)

No.132-1, Ln. 329, Sec. 2, Balian Rd., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)

### Radiated emission Test (Below 1 GHz):

**CB08:** (FCC RN: 614388; FCC DN: TW1054; IC Assigned Code: 4428C-1)

1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

### Radiated emission Test (Above 1 GHz):

**CB08:** (VCCI RN: G-91; FCC RN: 614388; FCC DN: TW1054; IC Assigned Code: 4428C-1)

1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)



## 2.2 MEASUREMENT UNCERTAINTY

**The measurement uncertainty is not specified by FCC/Industry Canada rules and for reference only.**

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2.

**A. Conducted emission test:**

Test Site	Measurement Frequency Range	U, (dB)	NOTE
C01	150 kHz ~ 30 MHz	1.94	

**B. Radiated emission test:**

Test Site	Item	Measurement Frequency Range	Uncertainty	NOTE
CB08	Radiated emission at 3m	Horizontal Polarization	30 - 200MHz	3.35 dB
			200 - 1000MHz	3.11 dB
			1 - 18GHz	3.97 dB
			18 - 40GHz	4.01 dB
		Vertical Polarization	30 - 200MHz	3.22 dB
			200 - 1000MHz	3.24 dB
			1 - 18GHz	4.05 dB
			18 - 40GHz	4.04 dB

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above. These are our  $U_{lab}$  values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called  $U_{CISPR}$ , as follows:

Conducted Disturbance (mains port) – 150 kHz – 30 MHz: 3.6 dB

Radiated Disturbance (electric field strength on an open area test site or alternative test site) – 30 MHz – 1000 MHz: 5.2 dB

It can be seen that our  $U_{lab}$  values are smaller than  $U_{CISPR}$ .

If  $U_{lab}$  is less than or equal to  $U_{CISPR}$ , then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If  $U_{lab}$  is greater than  $U_{CISPR}$ , then:

- compliance is deemed to occur if no measured disturbance level, increased by  $(U_{lab} - U_{CISPR})$ , exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by  $(U_{lab} - U_{CISPR})$ , exceeds the disturbance limit.



### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless Network Camera	
Brand Name	Camvie	
Model Name	CAM-480DJ; CAM-480SJ; CAM-720DH; CAM-720SH	
OEM Brand/Model Name	N/A	
Model Difference	Models' differences between each other only the changes of model name which do not affect the EMI performance. Model CAM-480DJ was used for final testing and collecting test data included in this report.	
Product Description	The EUT is a Wireless Network Camera.	
	Operation Frequency	IEEE 802.11b/g/n(20 MHz): 2412~2462 MHz IEEE 802.11n(40 MHz): 2422~2452 MHz
	Modulation Type	IEEE 802.11b: DSSS(CCK, DBPSK, DQPSK) IEEE 802.11g: OFDM(BPSK, QPSK, 16QAM, 64QAM,) IEEE 802.11n: OFDM(BPSK, QPSK, 16QAM, 64QAM,)
	Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 150 Mbps
	Number Of Channel	Please refer to the Note 2.
	Antenna Designation	Please refer to the Note 3.
	Antenna Gain(Peak)	Please refer to the Note 3.
Power Source	Maximum Conducted Output Power	Peak Output Power: <b>2412~2462 MHz:</b> IEEE 802.11b: 16.54 dBm IEEE 802.11g: 20.69 dBm IEEE 802.11n (20 MHz): 19.71 dBm IEEE 802.11n (40 MHz): 20.38 dBm
	More details of EUT technical specification, please refer to the User's Manual.	
Power Source	DC Voltage supplied from External Power Supply.	
Power Rating	1. EUT: I/P: DC 5V 1.5A 2. External Power Supply: I/P : 100-240V 50-60Hz 0.2A O/P : $5.00 \pm 0.25$ V $2.70 \pm 0.25$ V $2.00 \pm 0.25$ V 1000mA	
Connecting I/O Port(s)	Please refer to the User's Manual	
Products Covered	AC Adapter: LEXS INTERNATIONSL INC./ PS-046	
EUT Modification(s)	N/A	

## NOTE:

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



## 2. Channel List:

2412-2462 MHz Band (IEEE 802.11b/g/n (20MHz))					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		

2422-2452 MHz Band (IEEE 802.11n (40MHz))					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	06	2437	09	2452
04	2427	07	2442		
05	2432	08	2447		

## 3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Master Wave	98P44PIPF006	PCB Antenna	MHF	2.15



### 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

2412-2462 MHz Band					
Test Items	IEEE	Mode	Data Rate	Channel	Note
Conducted Emission	802.11b	DSSS	1 Mbps	06	
Antenna conducted Spurious Emission	802.11b	DSSS	1 Mbps	01/06/11	
	802.11g	OFDM	6 Mbps	01/06/11	
	802.11n (20 MHz)	BPSK	MCS8	01/06/11	
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	
	802.11b	DSSS	1 Mbps	01/06/11	
6 dB Bandwidth	802.11g	OFDM	6 Mbps	01/06/11	
	802.11n (20 MHz)	BPSK	MCS8	01/06/11	
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	
	802.11b	DSSS	1 Mbps	01/06/11	
Maximum Peak Conducted Output Power	802.11g	OFDM	6 Mbps	01/06/11	
	802.11n (20 MHz)	BPSK	MCS8	01/06/11	
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	
Radiated Spurious Emission (30 MHz to 1 GHz)	802.11n (20 MHz)	OFDM	MCS8	06	
Radiated Spurious Emission (above 1 GHz)	802.11b	DSSS	1 Mbps	01/06/11	
	802.11g	OFDM	6 Mbps	01/06/11	
	802.11n (20 MHz)	BPSK	MCS8	01/06/11	
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	
Restricted Bands	802.11b	DSSS	1 Mbps	01/06/11	
	802.11g	OFDM	6 Mbps	01/06/11	
	802.11n (20 MHz)	BPSK	MCS8	01/06/11	
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	
Antenna Requirement	---	---	---	---	
RF Exposure Compliance	---	---	---	---	

NOTE: The measurements are performed at the highest, middle, lowest available channels.



### 3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

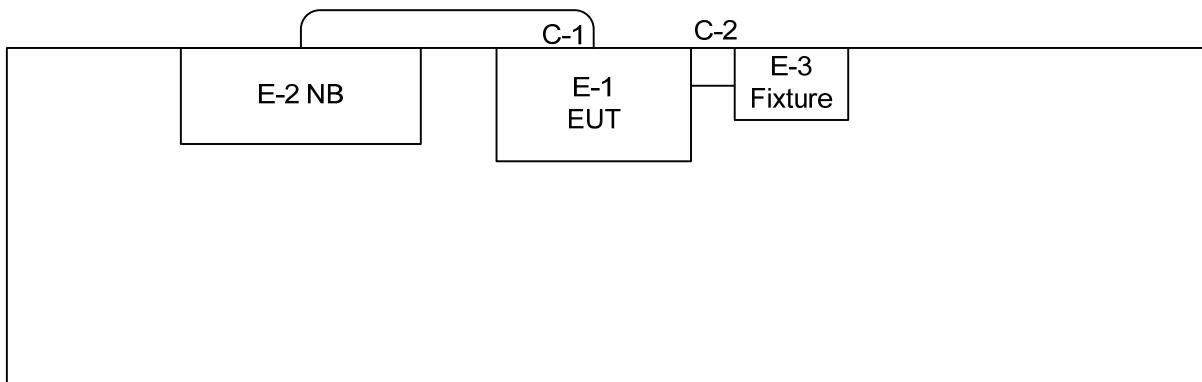
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

2412-2462 MHz Band						
IEEE	802.11b			802.11g		
Test software Version	RT5x9x QA V1.0.8.0			RT5x9x QA V1.0.8.0		
Frequency	2412 MHz	2437 MHz	2462 MHz	2412 MHz	2437 MHz	2462 MHz
Parameter	15	1F	13	14	1F	0C

2412-2462 MHz Band				2422-2452 MHz Band		
IEEE	802.11n (20 MHz)			802.11n (40 MHz)		
Test software Version	RT5x9x QA V1.0.8.0			RT5x9x QA V1.0.8.0		
Frequency	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
Parameter	13	1F	11	1F	1F	1F



### 3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



C-1: RJ-45 cable

C-2: DATA cable

**3.5 DESCRIPTION OF SUPPORT UNITS**

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	Wireless Network Camera	Camvie	CAM-480DJ	2AA68CAM-480DJ	N/A	EUT
E-2	Notebook PC	DELL	D620	DOC	7T390 A03	
E-3	Fixture	N/A	N/A	N/A	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1M	
C-2	NO	NO	0.2M	

NOTE: The support equipment was authorized by Declaration of Conformity (DOC).



## 4 CONDUCTED EMISSION

### 4.1 LIMIT

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 - 5.0	73.00	60.00	56.00	46.00
5.0 - 30.0	73.00	60.00	60.00	50.00

## NOTE:

1. The tighter limit applies at the band edges.
2. The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
3. The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)

Margin Level = Measurement Value – Limit Value

### 4.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	TWO-LINE V-NETWORK	R&S	ENV216	101050	Apr. 22, 2014
2	Test Cable	TIMES	CFD300-NL	C01	Jun. 16, 2014
3	EMI Test Receiver	R&S	ESCI	100082	Mar. 21, 2014
4	Measurement Software	EZ	EZ_EMCA (Version NB-02A)	N/A	N/A

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

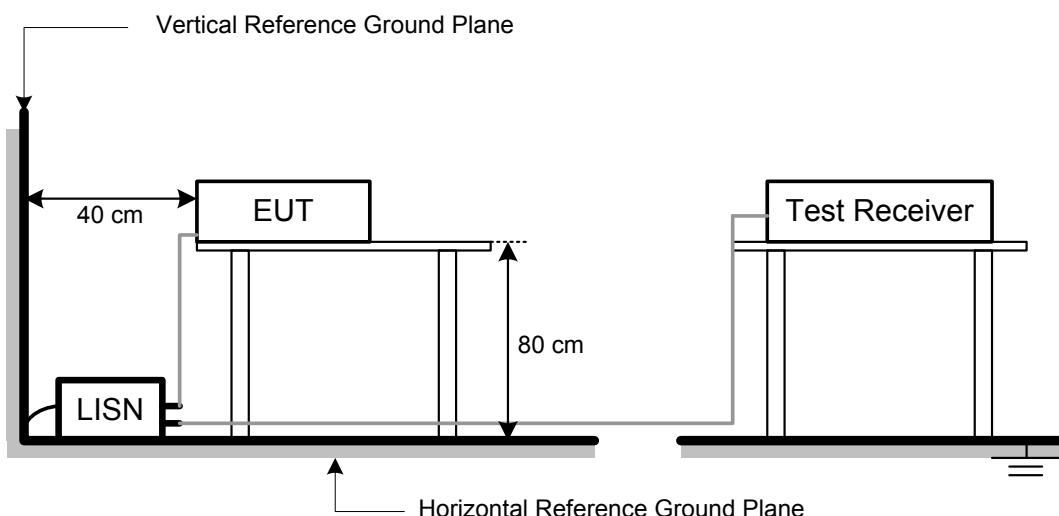
#### 4.3 TEST PROCEDURES

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

**NOTE:**

- a. Reading in which marked as Peak, QP or AVG means measurements by using are Quasi-Peak or Average Mode with Detector BW=9 kHz (6 dB Bandwidth).
- b. All readings are Peak Mode value unless otherwise stated QP or AVG in column of Note. If the Peak or QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only Peak or QP Mode was measured, but AVG Mode didn't perform.

#### 4.4 TEST SETUP LAYOUT



#### 4.5 DEVIATION FROM TEST STANDARD

No deviation



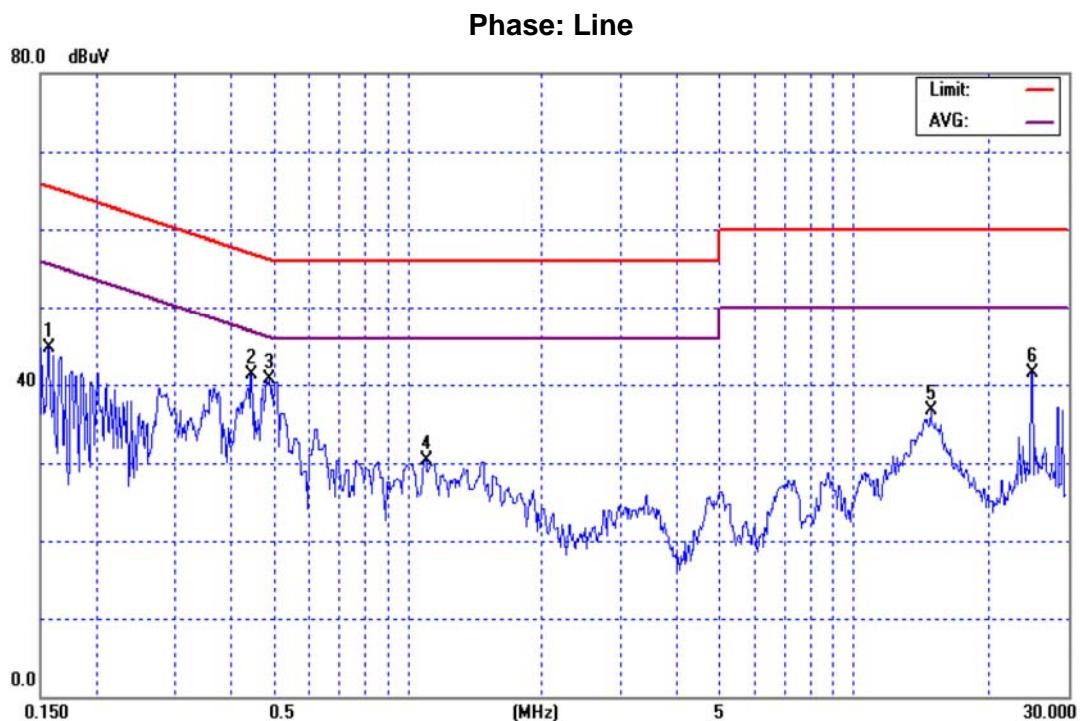
#### **4.6 EUT OPERATING CONDITIONS**

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



#### 4.7 TEST RESULTS

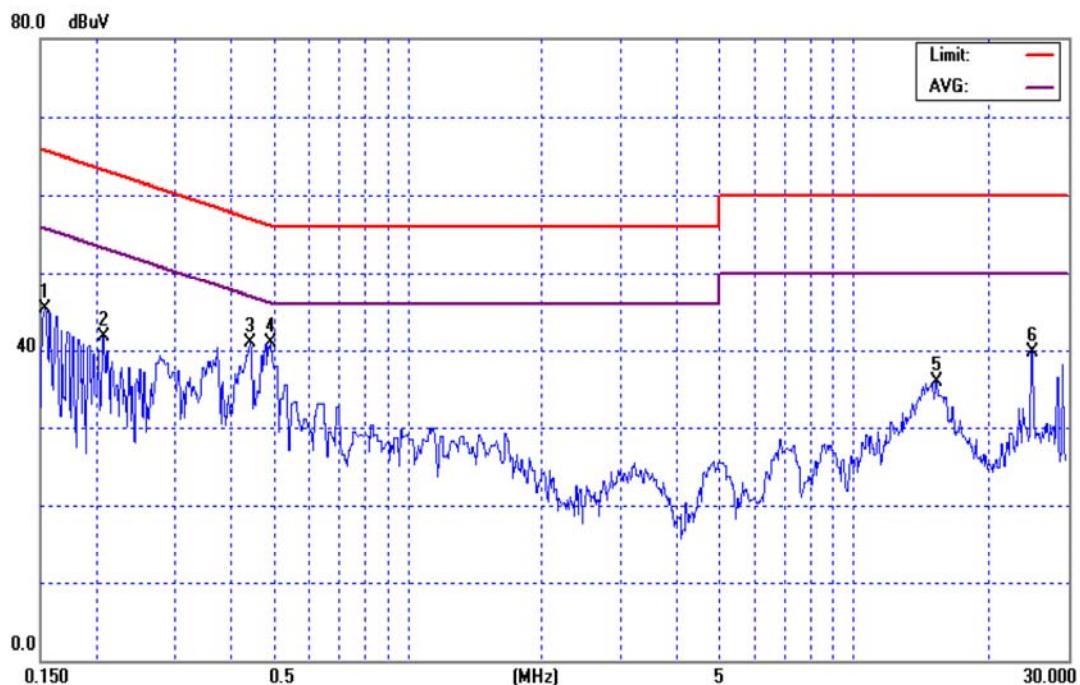
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	48%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		0.1563	35.09	9.60	44.69	65.66	-20.97	peak	
2		0.4447	31.62	9.67	41.29	56.97	-15.68	peak	
3	*	0.4874	31.07	9.66	40.73	56.21	-15.48	peak	
4		1.0940	20.69	9.66	30.35	56.00	-25.65	peak	
5		14.9000	26.83	9.90	36.73	60.00	-23.27	peak	
6		25.1000	31.57	10.01	41.58	60.00	-18.42	peak	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	48%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		

**Phase: Neutral**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		0.1535	35.81	9.58	45.39	65.81	-20.42	peak	
2		0.2074	32.12	9.57	41.69	63.31	-21.62	peak	
3		0.4426	31.29	9.65	40.94	57.01	-16.07	peak	
4	*	0.4916	31.24	9.64	40.88	56.14	-15.26	peak	
5		15.3500	26.02	9.88	35.90	60.00	-24.10	peak	
6		25.1000	29.69	9.99	39.68	60.00	-20.32	peak	



## 5 ANTENNA CONDUCTED SPURIOUS EMISSION

### 5.1 LIMIT

Test Item	Frequency Range (MHz)	Limit
Antenna conducted Spurious Emission	30-25000	20 dB less than the peak value of fundamental frequency

### 5.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

### 5.3 TEST PROCEDURES

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

### 5.4 TEST SETUP LAYOUT



### 5.5 DEVIATION FROM TEST STANDARD

No deviation

### 5.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

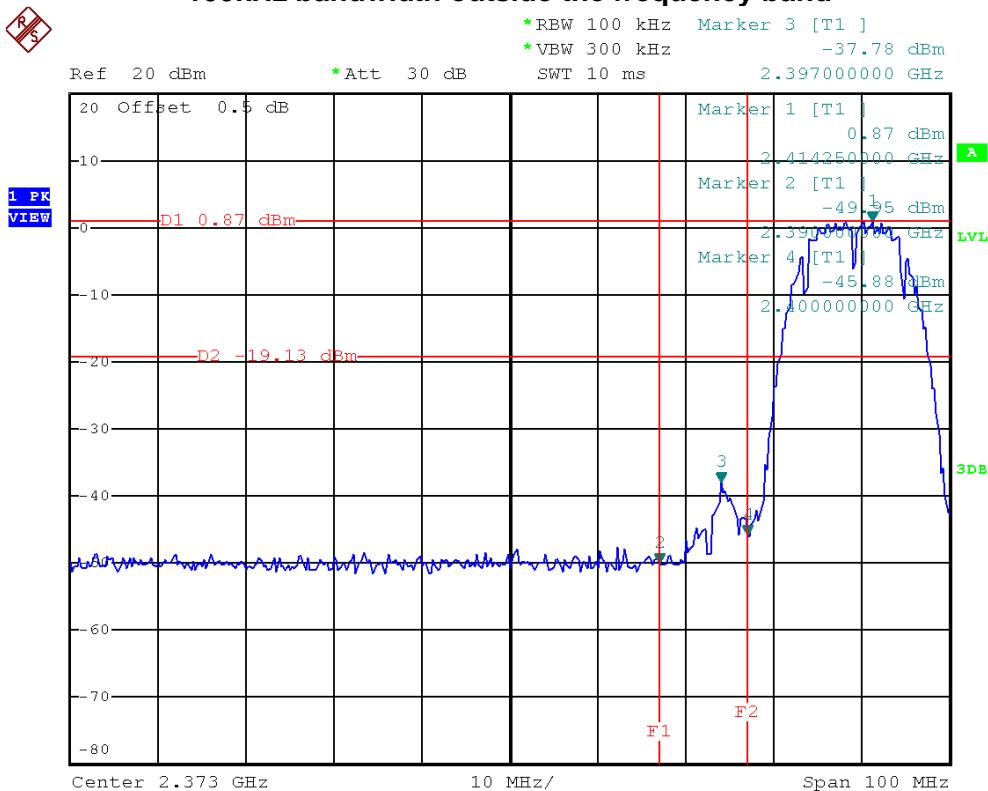
**5.7 TEST RESULTS - 2400-2483.5 MHZ**

E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b		

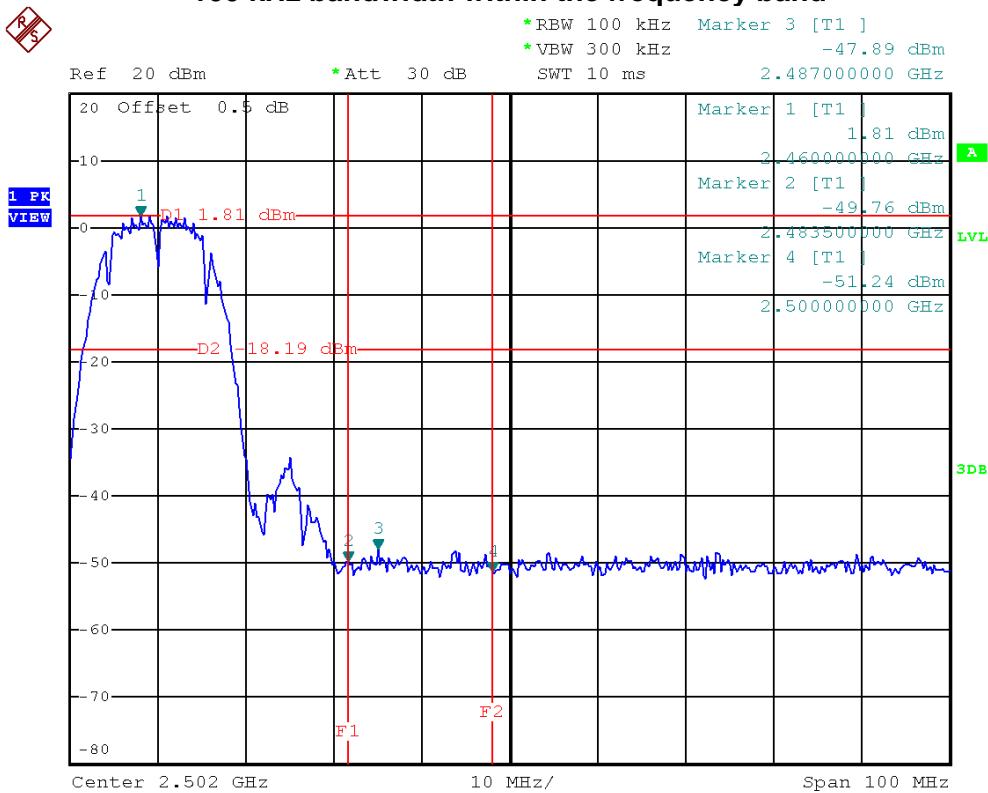
Channel of Worst Data			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2397.00	-37.78	2487.00	-47.89
Result			
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.			



## IEEE 802.11b/The max. radio frequency power in any 100kHz bandwidth outside the frequency band

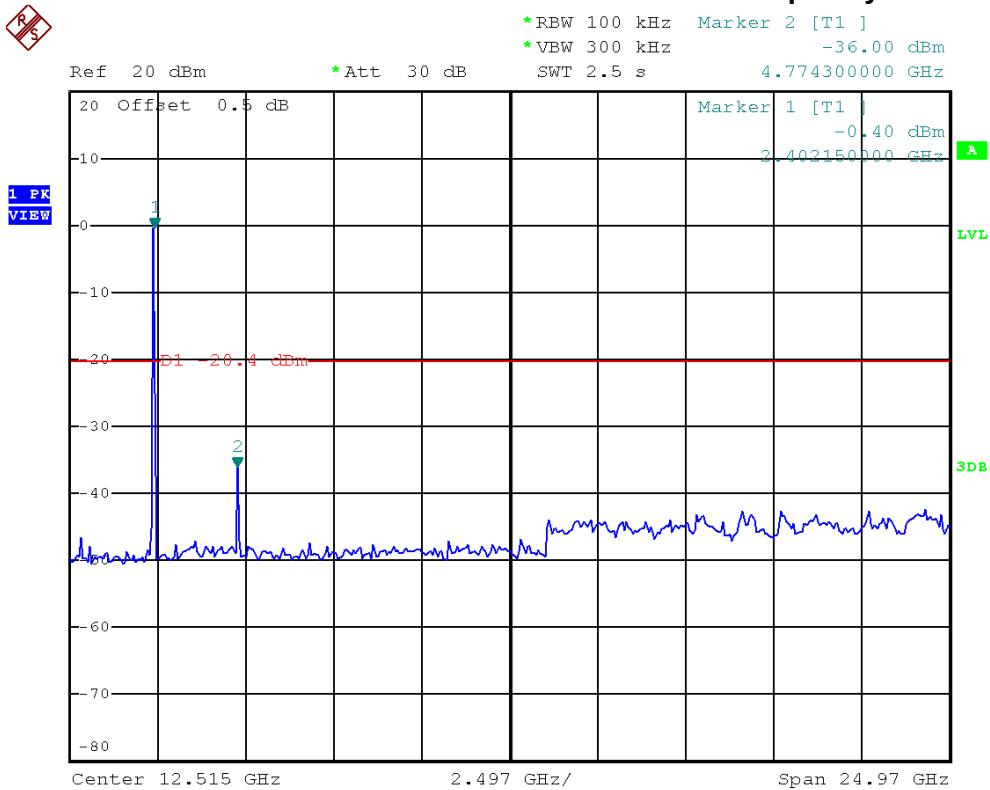


## IEEE 802.11b/The max. radio frequency power in any 100 kHz bandwidth within the frequency band

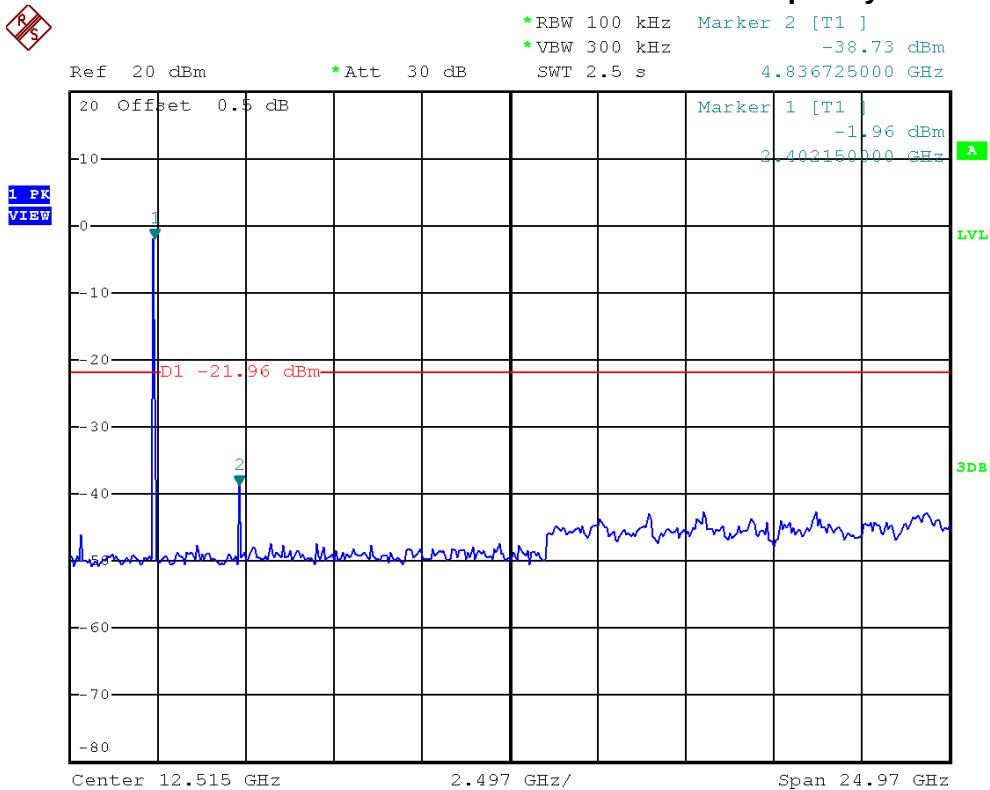




IEEE 802.11b/2412 MHz/10 Harmonic of the frequency

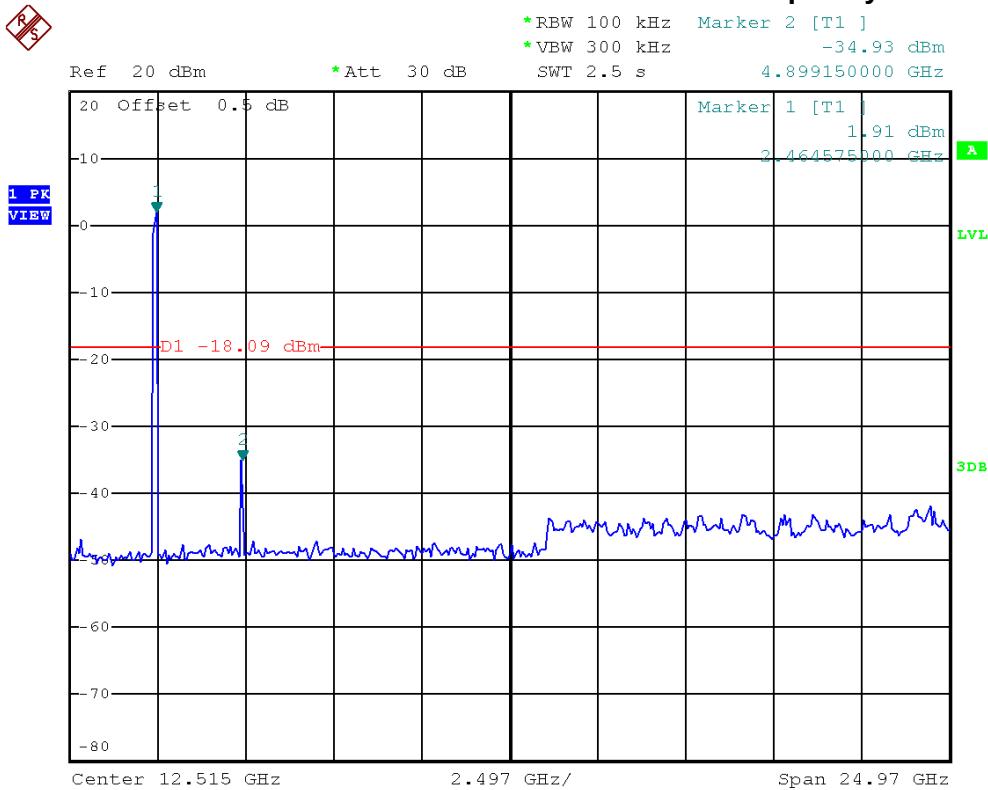


IEEE 802.11b/2437 MHz/10 Harmonic of the frequency





IEEE 802.11b/2462 MHz/10 Harmonic of the frequency





E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g		

**Channel of Worst Data**

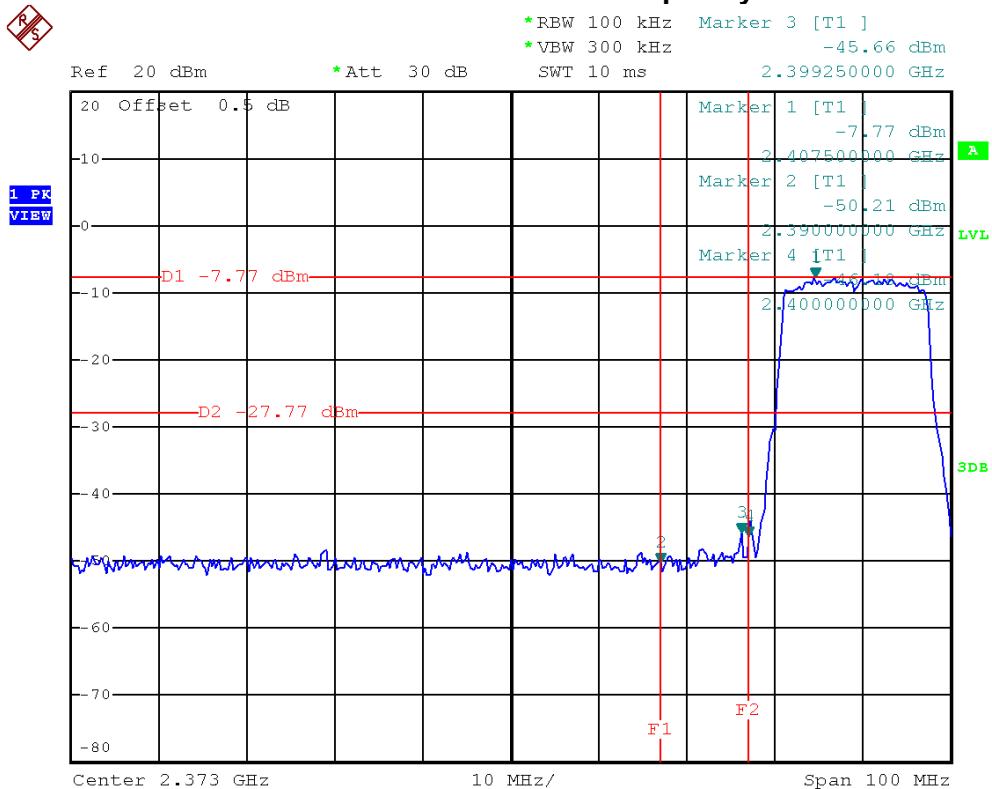
The max. radio frequency power in any 100kHz bandwidth outside the frequency band	The max. radio frequency power in any 100 kHz bandwidth within the frequency band.		
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2399.25	-45.66	2484.00	-48.10

**Result**

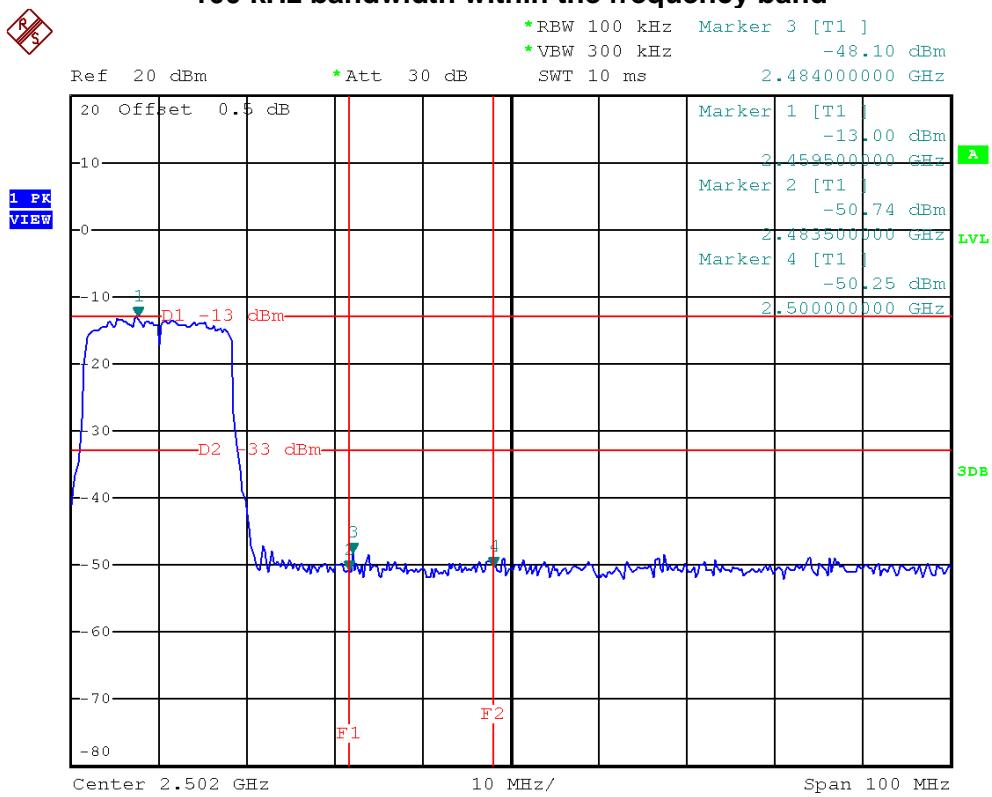
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.



**IEEE 802.11g/The max. radio frequency power in any 100kHz bandwidth outside the frequency band**

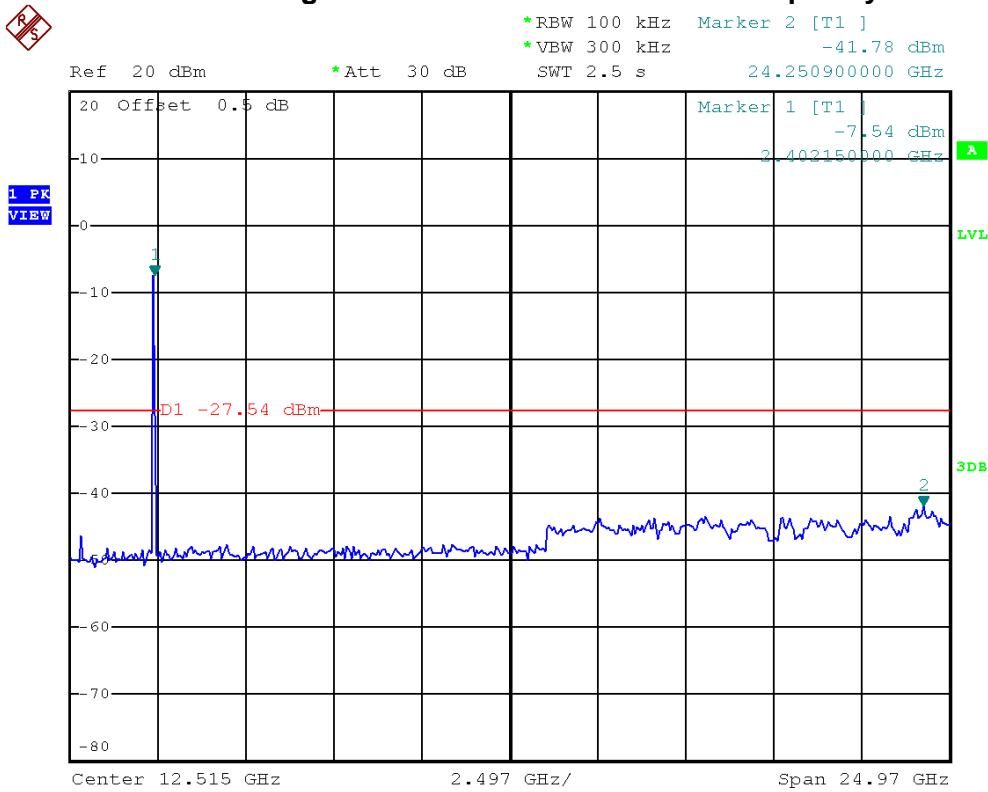


**IEEE 802.11g/The max. radio frequency power in any 100 kHz bandwidth within the frequency band**

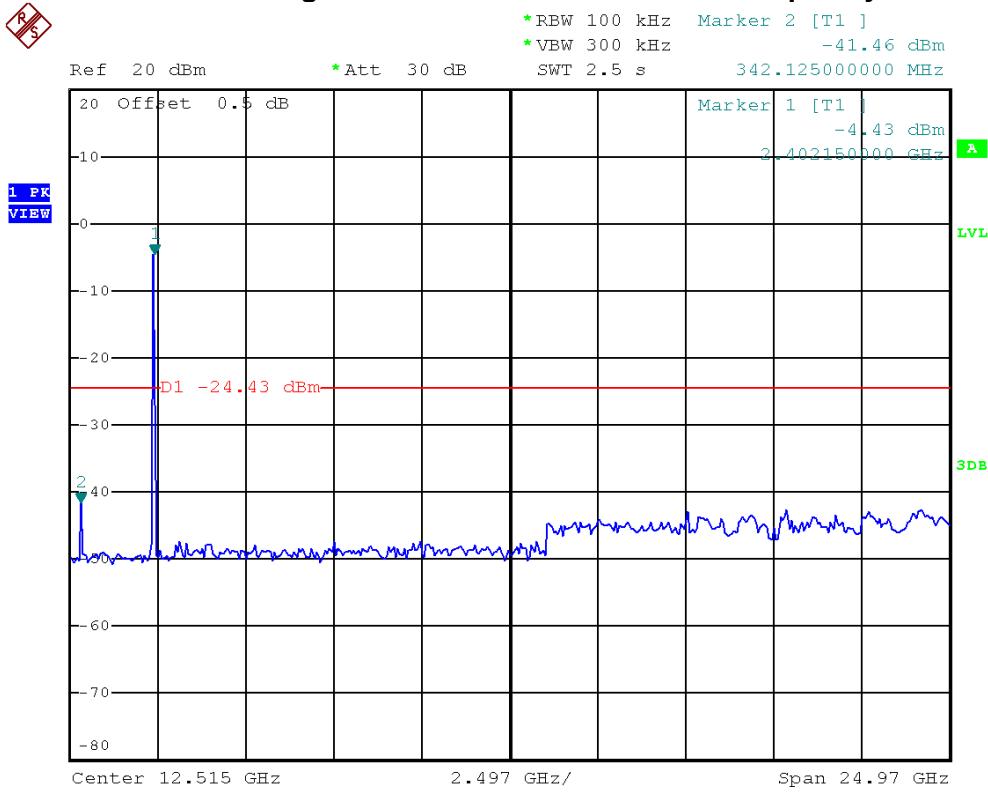




IEEE 802.11g/2412 MHz/10 Harmonic of the frequency



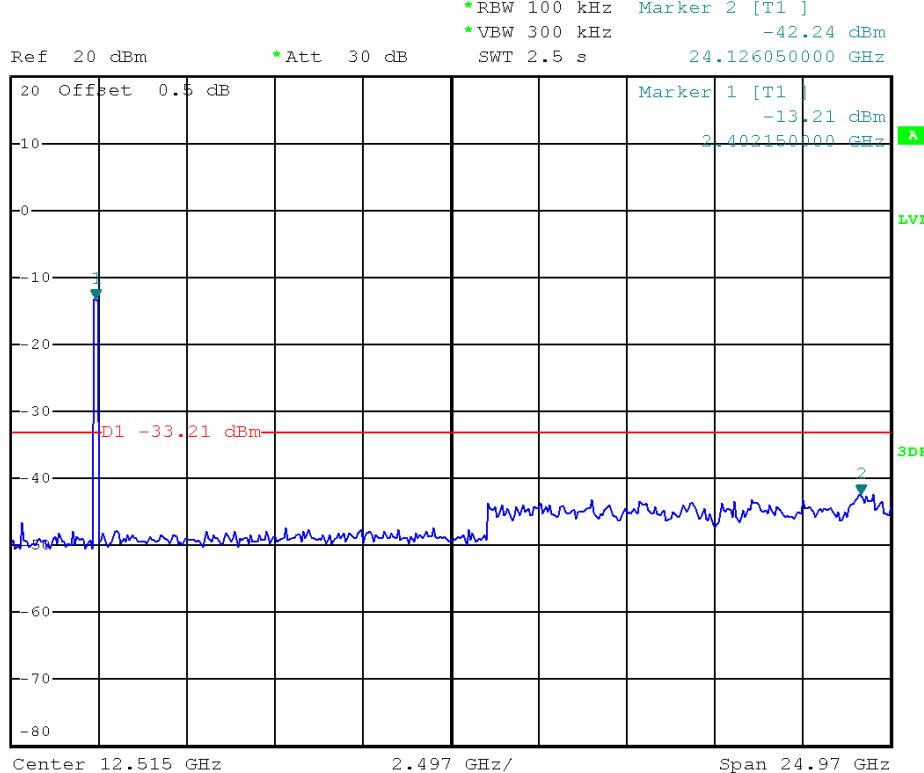
IEEE 802.11g/2437 MHz/10 Harmonic of the frequency





IEEE 802.11g/2462 MHz/10 Harmonic of the frequency

RS





E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1		

**Channel of Worst Data**

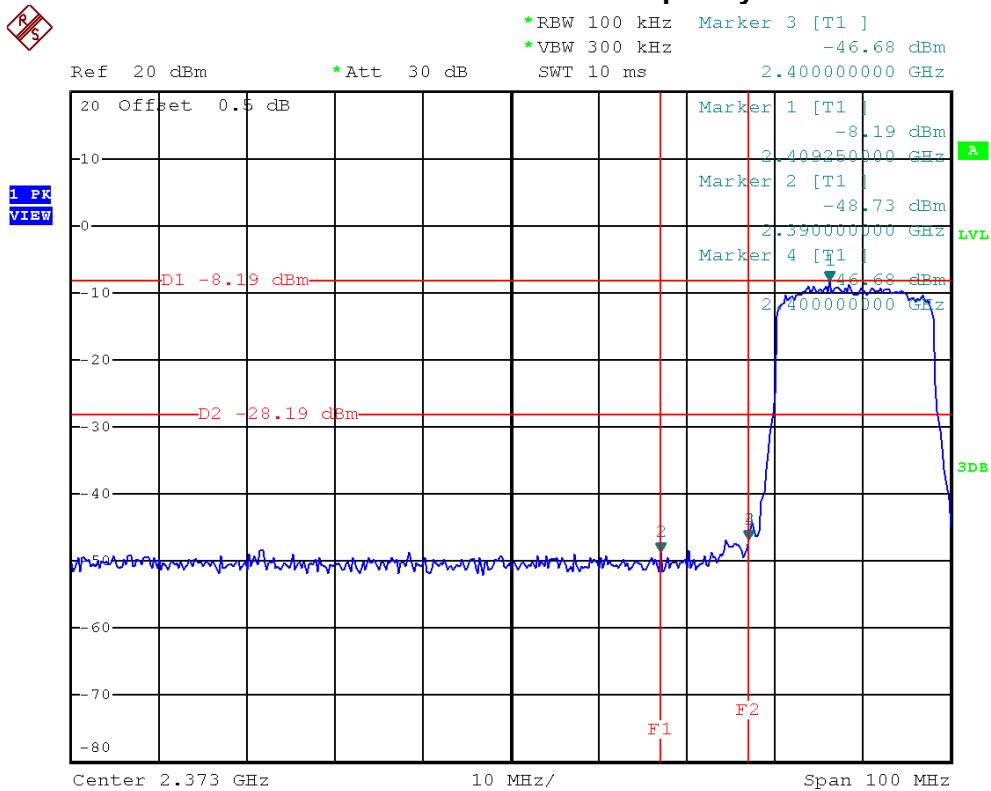
The max. radio frequency power in any 100kHz bandwidth outside the frequency band	The max. radio frequency power in any 100 kHz bandwidth within the frequency band.
FREQUENCY(MHz)	POWER(dBm)
2400.00	-46.68

**Result**

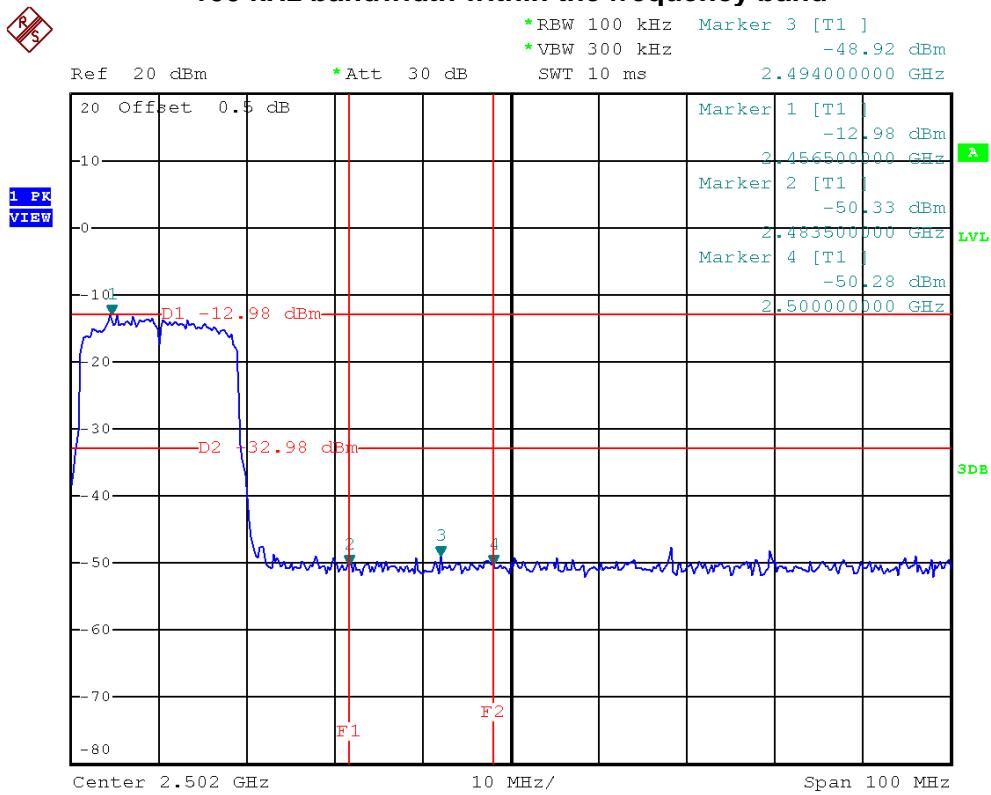
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.



**IEEE 802.11n (20 MHz)/ANT.1/The max. radio frequency power in any 100kHz bandwidth outside the frequency band**

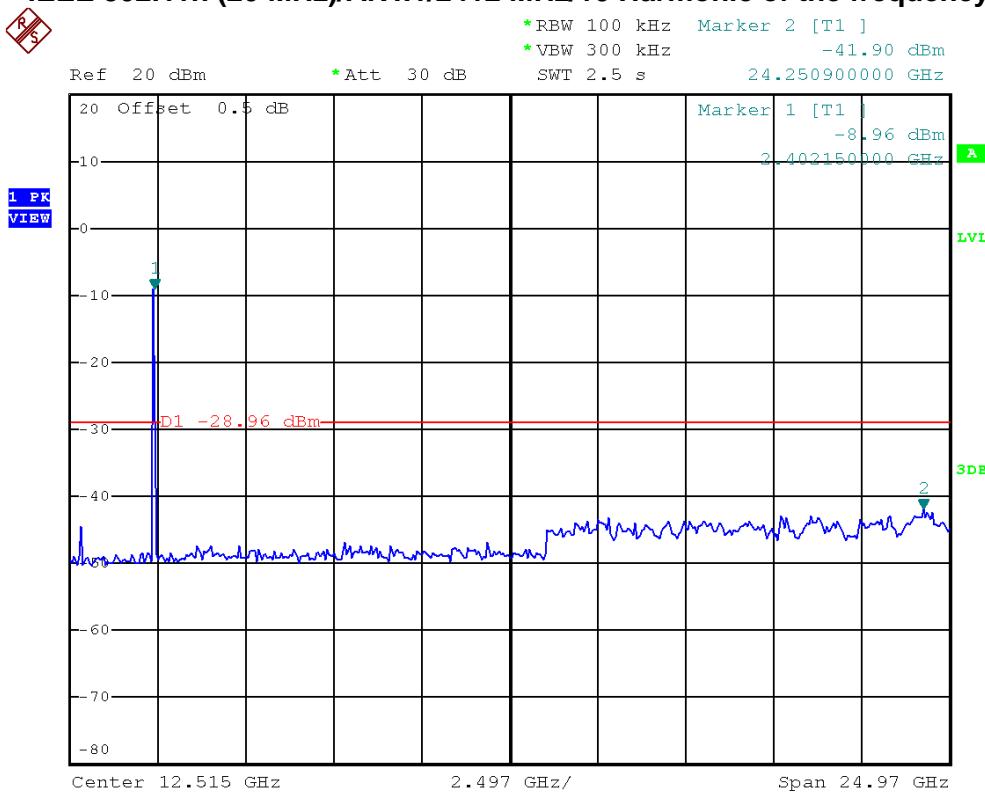


**IEEE 802.11n (20 MHz)/ANT.1/The max. radio frequency power in any 100 kHz bandwidth within the frequency band**

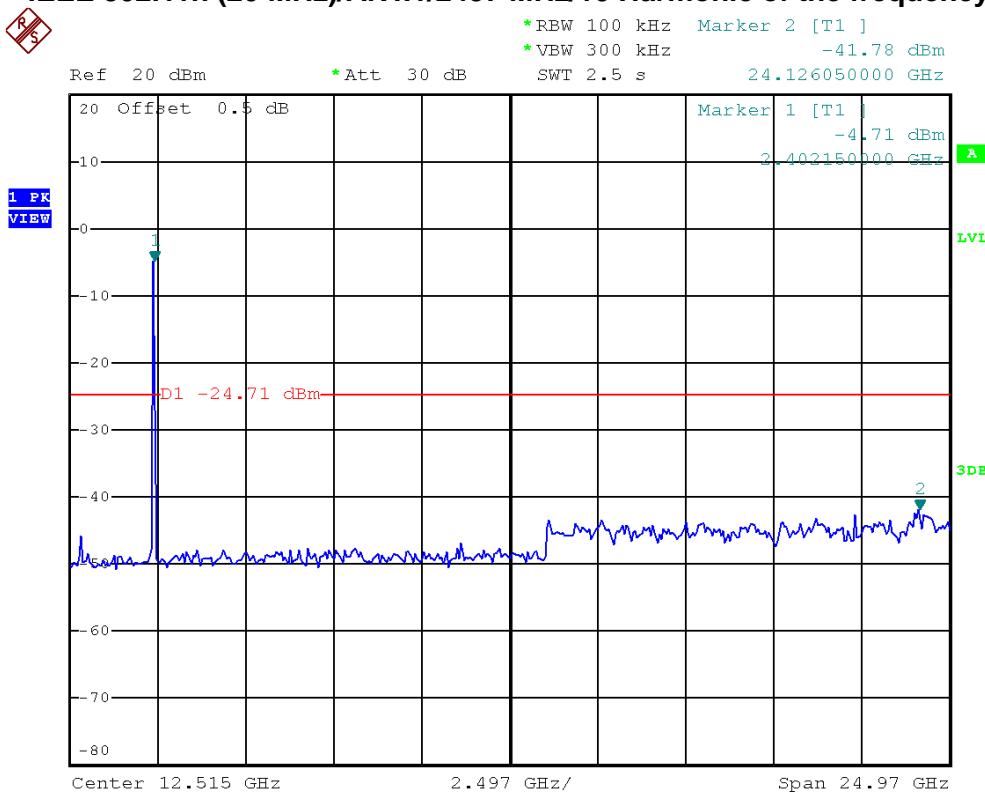




IEEE 802.11n (20 MHz)/ANT.1/2412 MHz/10 Harmonic of the frequency

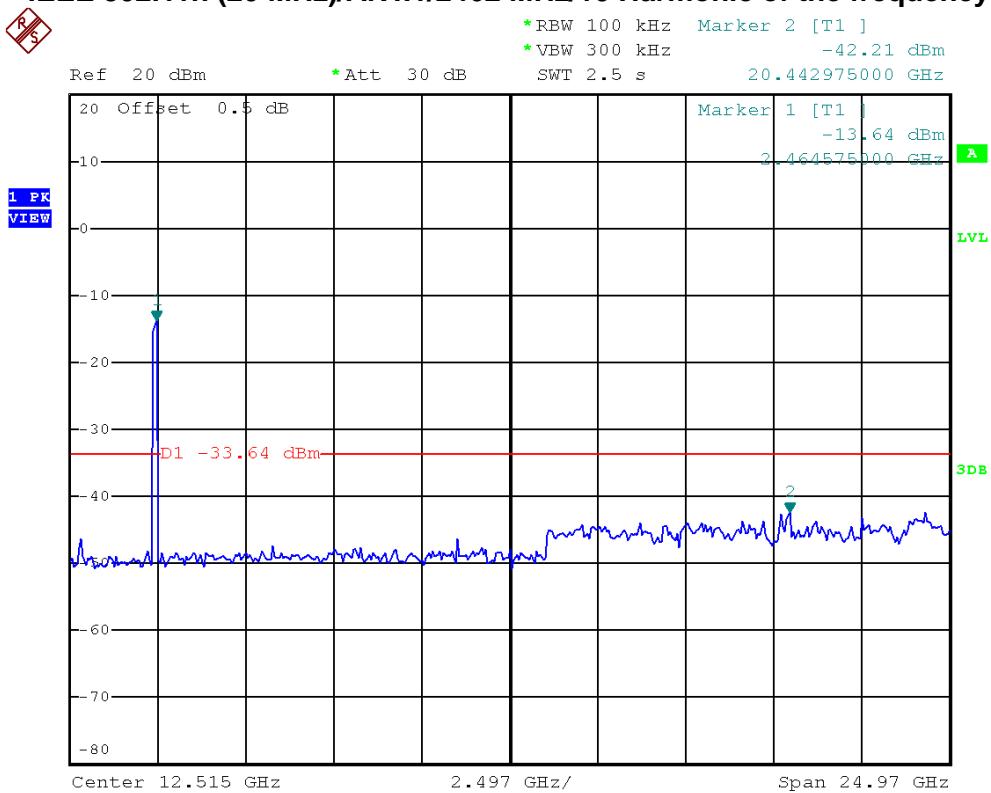


IEEE 802.11n (20 MHz)/ANT.1/2437 MHz/10 Harmonic of the frequency





IEEE 802.11n (20 MHz)/ANT.1/2462 MHz/10 Harmonic of the frequency





E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1		

**Channel of Worst Data**

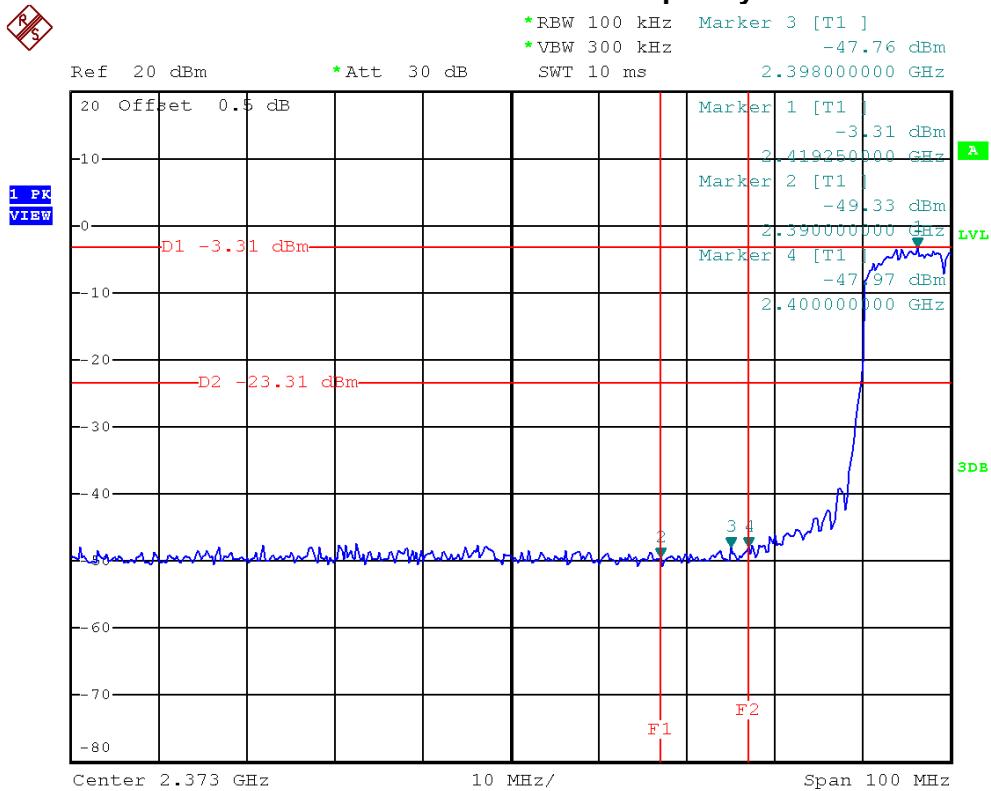
The max. radio frequency power in any 100kHz bandwidth outside the frequency band	The max. radio frequency power in any 100 kHz bandwidth within the frequency band.
FREQUENCY(MHz)	POWER(dBm)
2398.00	-47.76

**Result**

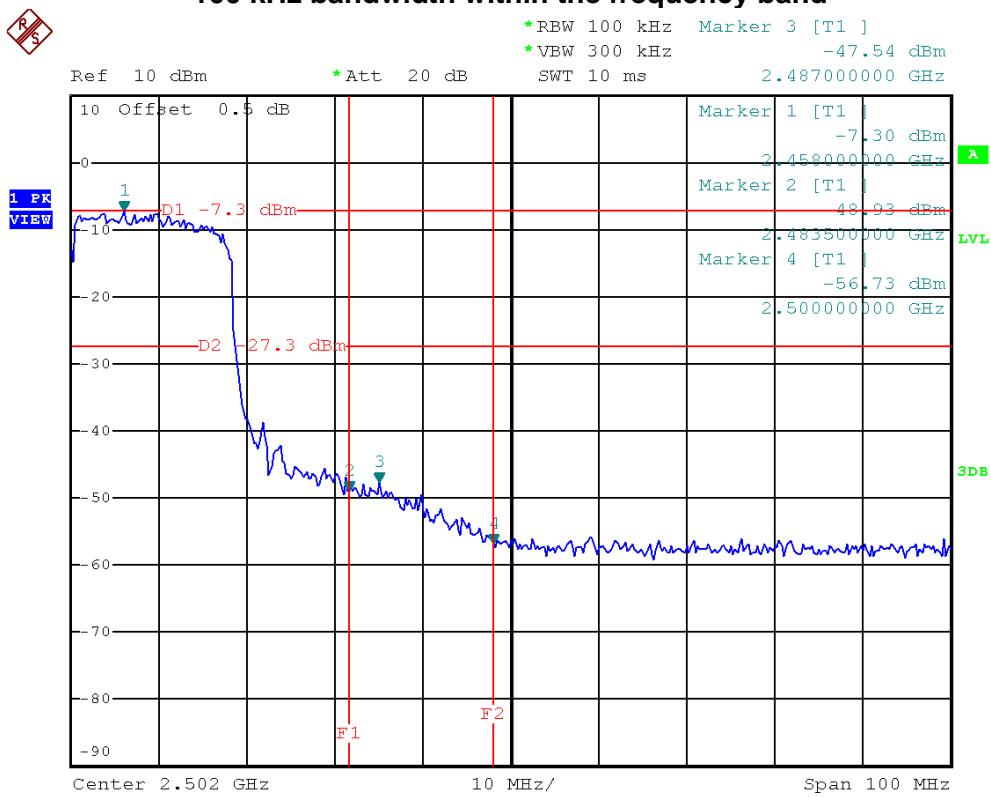
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.



**IEEE 802.11n (40 MHz)/ANT.1/The max. radio frequency power in any 100kHz bandwidth outside the frequency band**



**IEEE 802.11n (40 MHz)/ANT.1/The max. radio frequency power in any 100 kHz bandwidth within the frequency band**

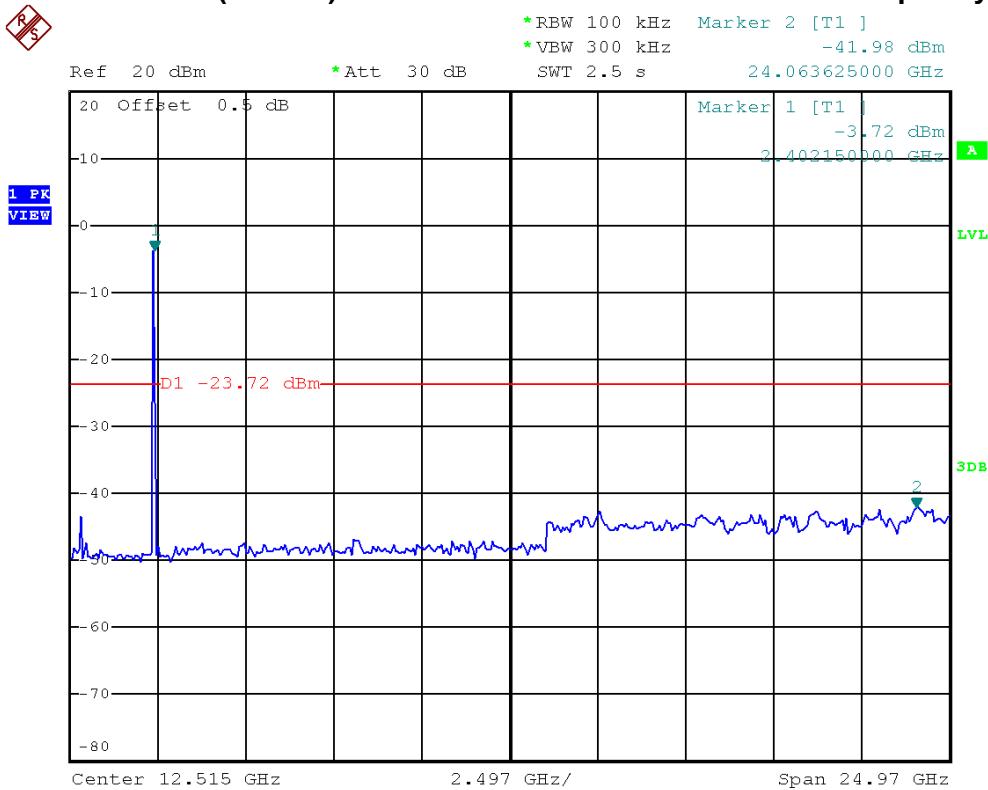




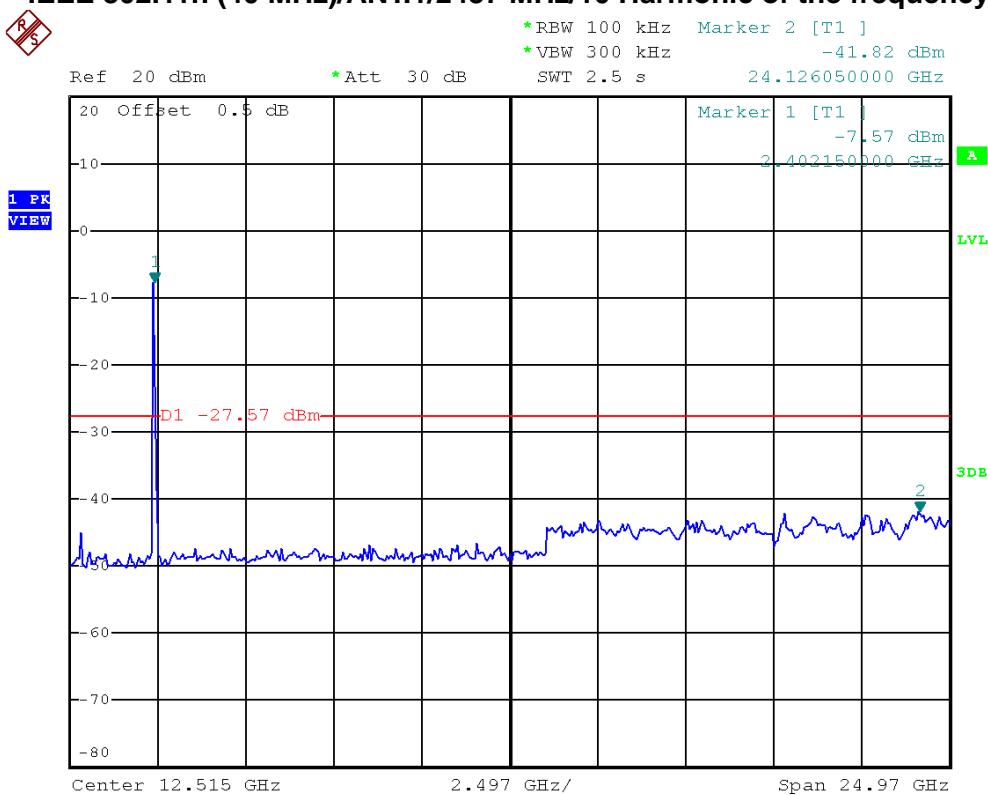
**Neutron Engineering Inc.**

FCC ID: 2AA68CAM-480DJ

**IEEE 802.11n (40 MHz)/ANT.1/2422 MHz/10 Harmonic of the frequency**

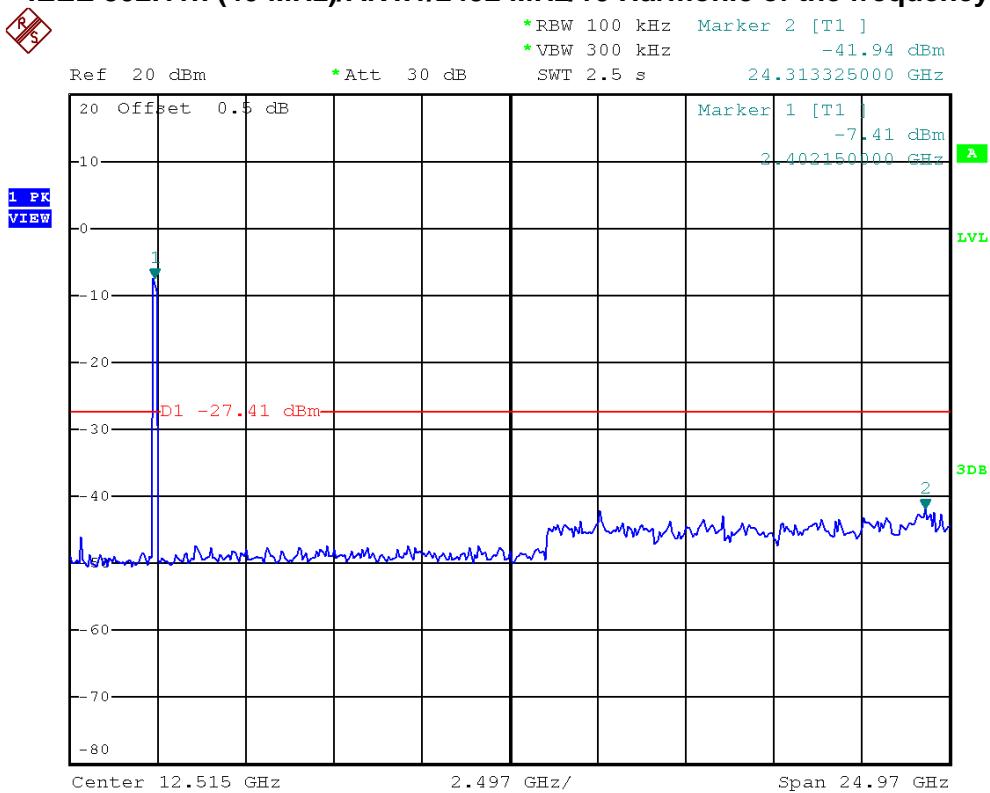


**IEEE 802.11n (40 MHz)/ANT.1/2437 MHz/10 Harmonic of the frequency**





IEEE 802.11n (40 MHz)/ANT.1/2452 MHz/10 Harmonic of the frequency





## 6 6 DB BANDWIDTH

### 6.1 LIMIT

Test Item	Frequency Range (MHz)	Limit
Bandwidth	2400-2483.5	>= 500KHz (6dB bandwidth)

### 6.2 MEASUREMENT INSTRUMENTS LIST

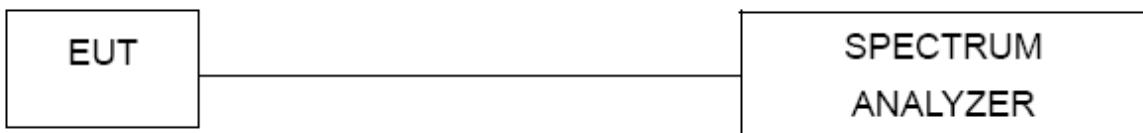
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

### 6.3 TEST PROCEDURES

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

### 6.4 TEST SETUP LAYOUT



### 6.5 DEVIATION FROM TEST STANDARD

No deviation

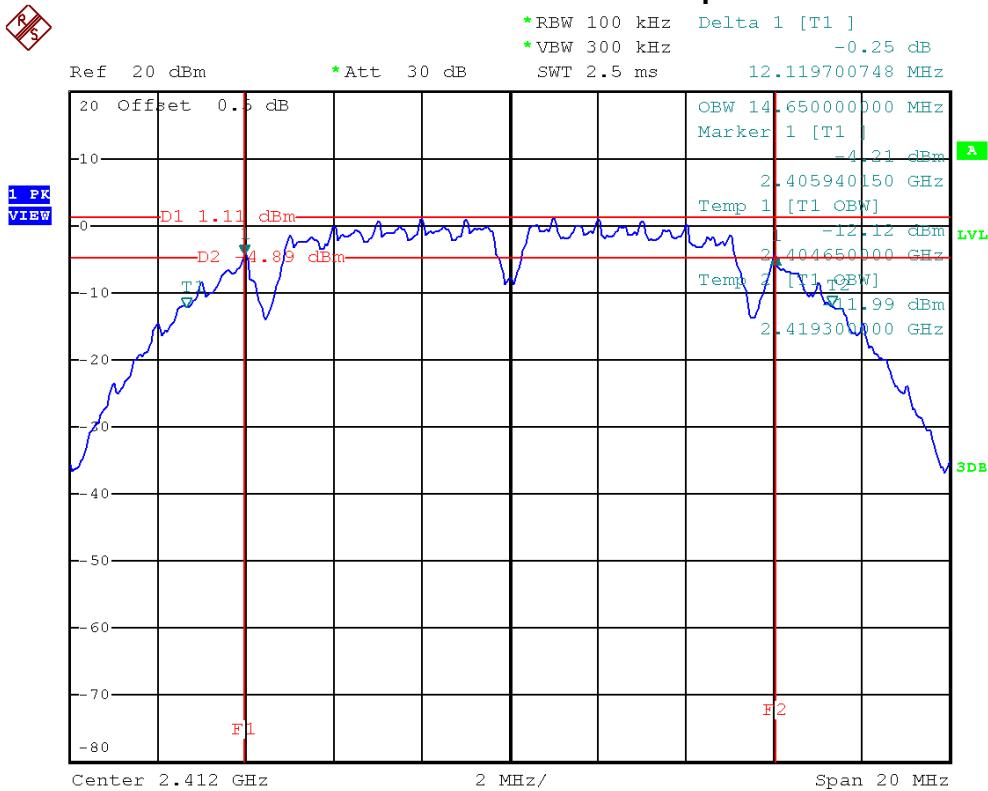
### 6.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

**6.7 TEST RESULTS - 2400-2483.5 MHZ**

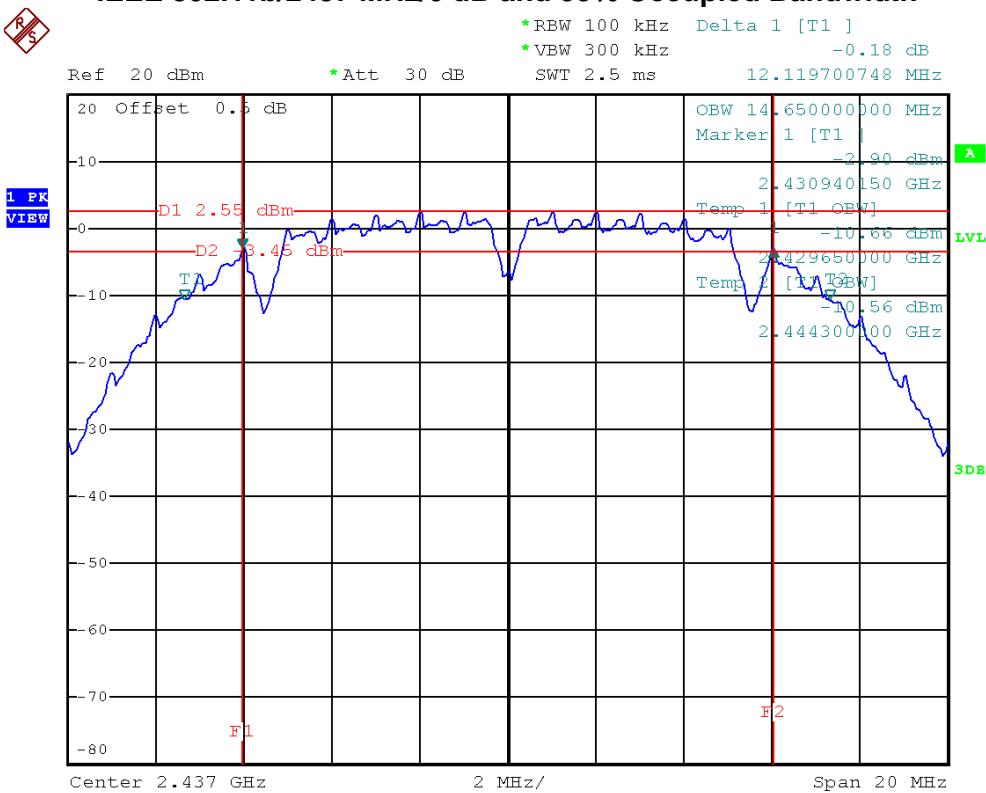
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2412 MHz	12.12	14.65	>=500 kHz	PASS
2437 MHz	12.12	14.65	>=500 kHz	PASS
2462 MHz	12.12	14.65	>=500 kHz	PASS

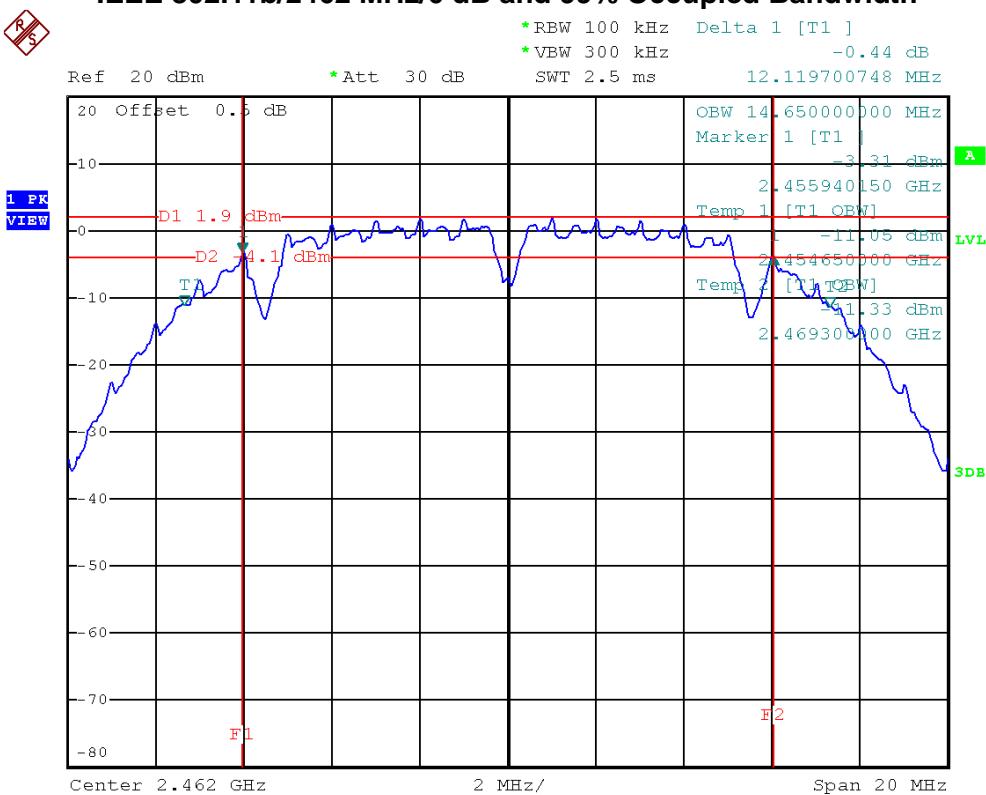
**IEEE 802.11b/2412 MHz/6 dB and 99% Occupied Bandwidth**



## IEEE 802.11b/2437 MHz/6 dB and 99% Occupied Bandwidth



## IEEE 802.11b/2462 MHz/6 dB and 99% Occupied Bandwidth

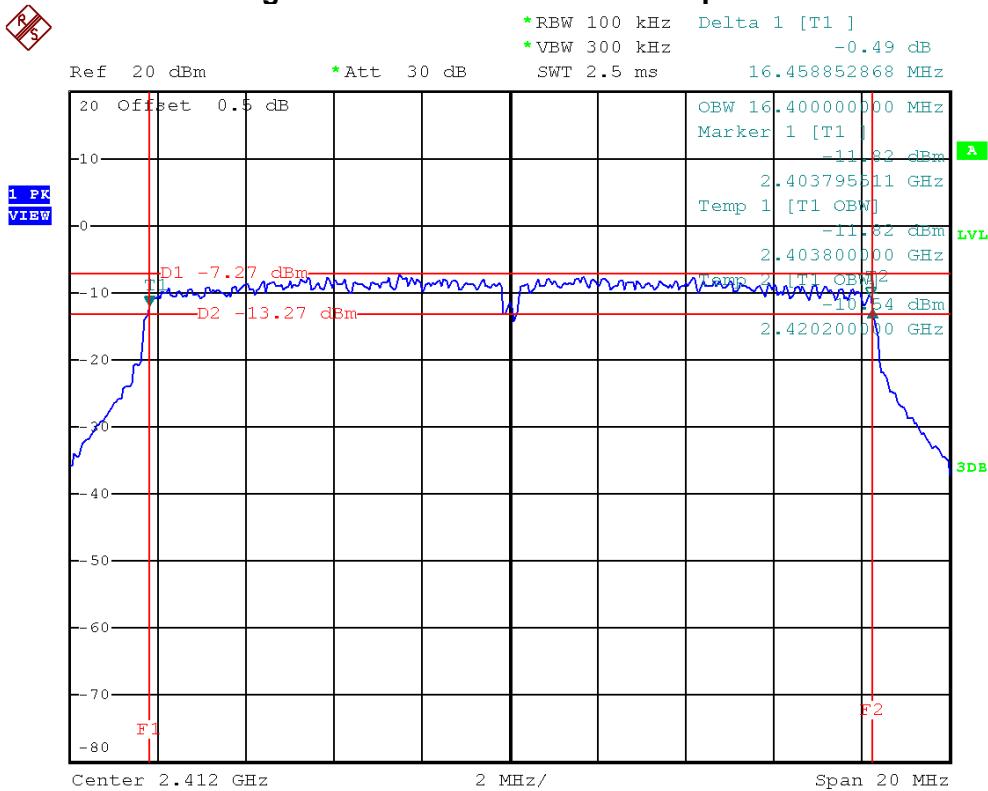




E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2412 MHz	16.45	16.40	>=500 kHz	PASS
2437 MHz	16.30	16.40	>=500 kHz	PASS
2462 MHz	17.60	17.50	>=500 kHz	PASS

#### IEEE 802.11g/2412 MHz/6 dB and 99% Occupied Bandwidth

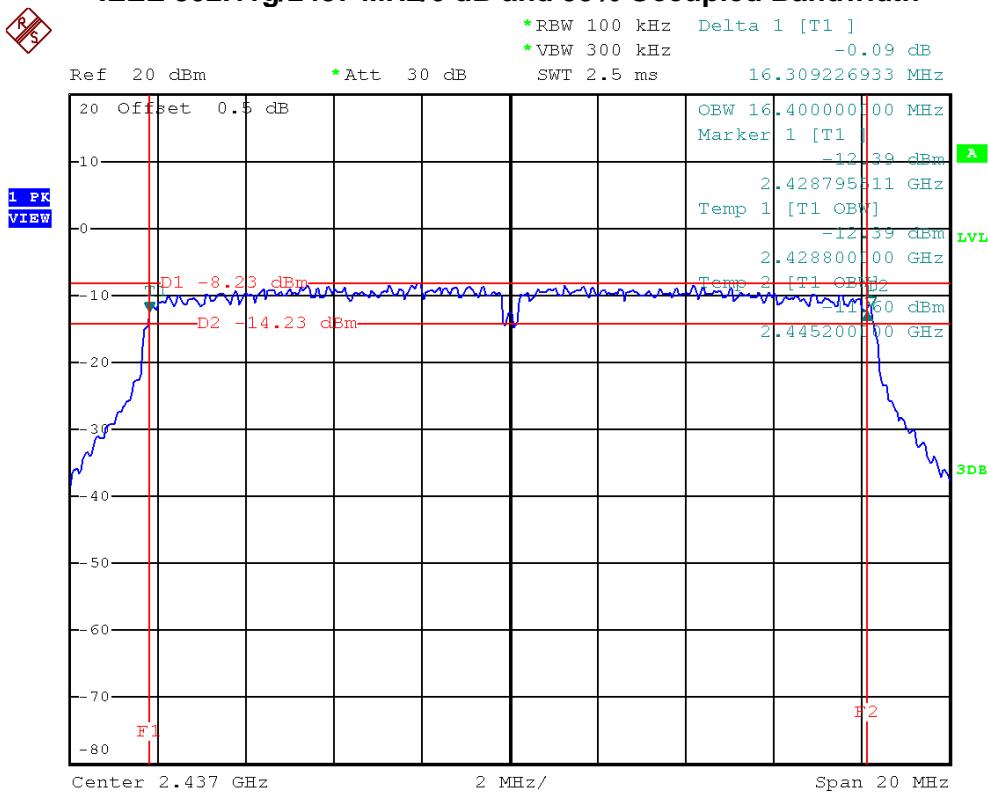




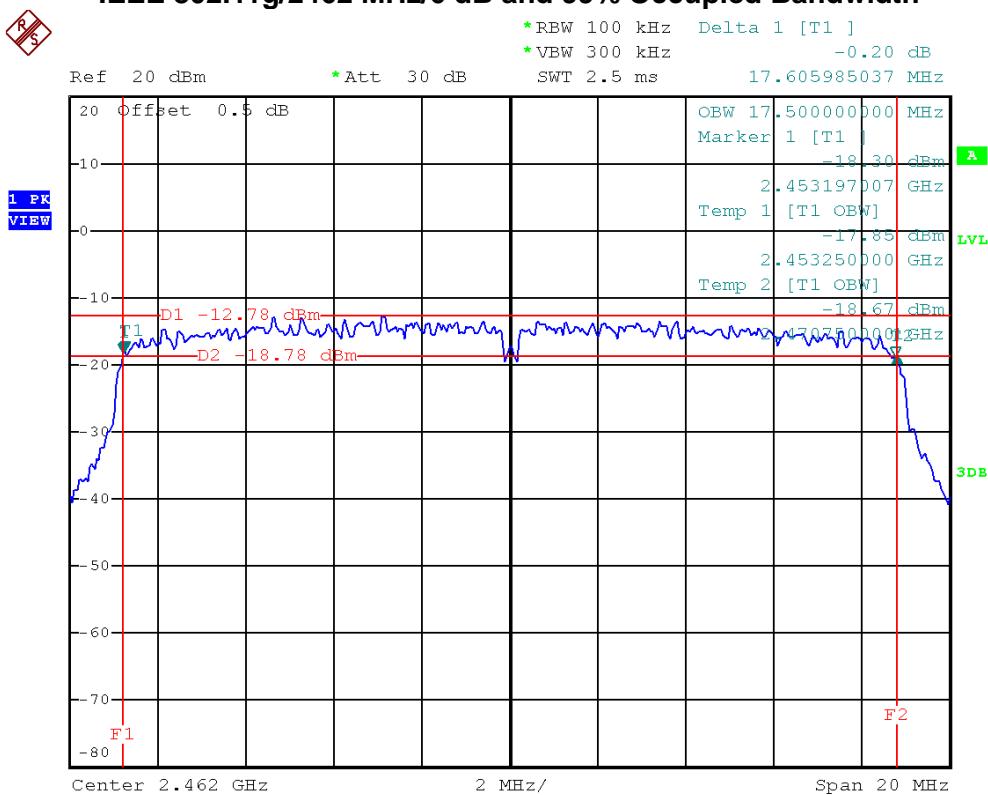
Neutron Engineering Inc.

FCC ID: 2AA68CAM-480DJ

### IEEE 802.11g/2437 MHz/6 dB and 99% Occupied Bandwidth



### IEEE 802.11g/2462 MHz/6 dB and 99% Occupied Bandwidth

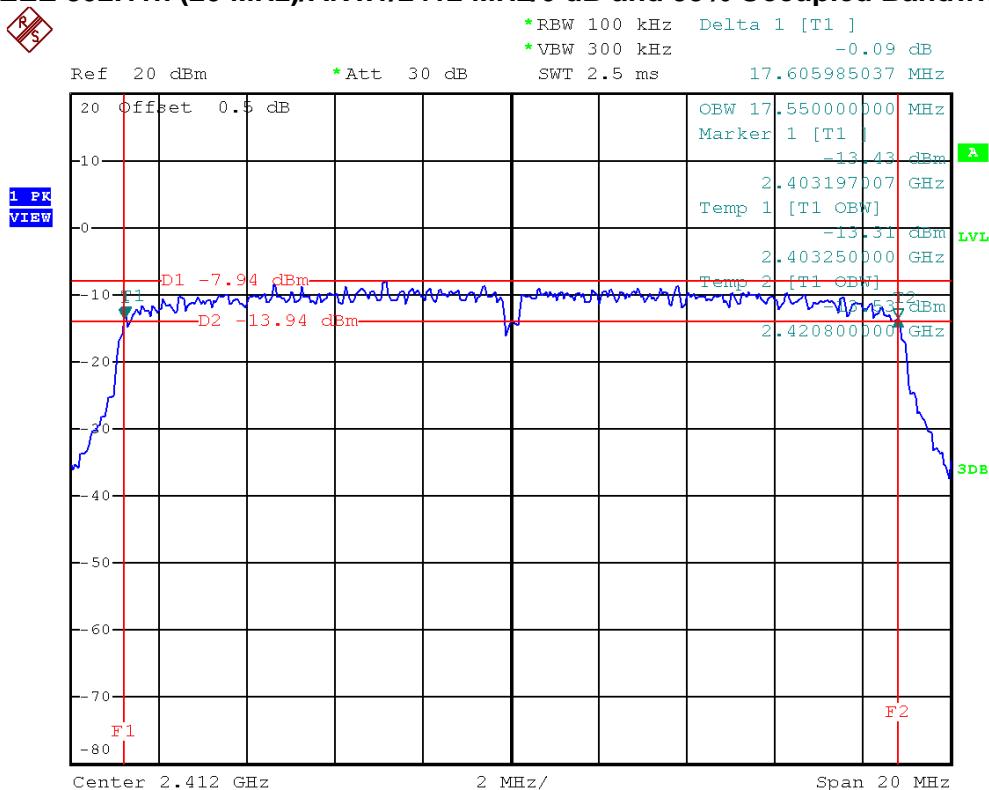




E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2412 MHz	17.60	17.55	$\geq 500$ kHz	PASS
2437 MHz	17.60	17.55	$\geq 500$ kHz	PASS
2462 MHz	17.60	17.55	$\geq 500$ kHz	PASS

## IEEE 802.11n (20 MHz)/ANT.1/2412 MHz/6 dB and 99% Occupied Bandwidth

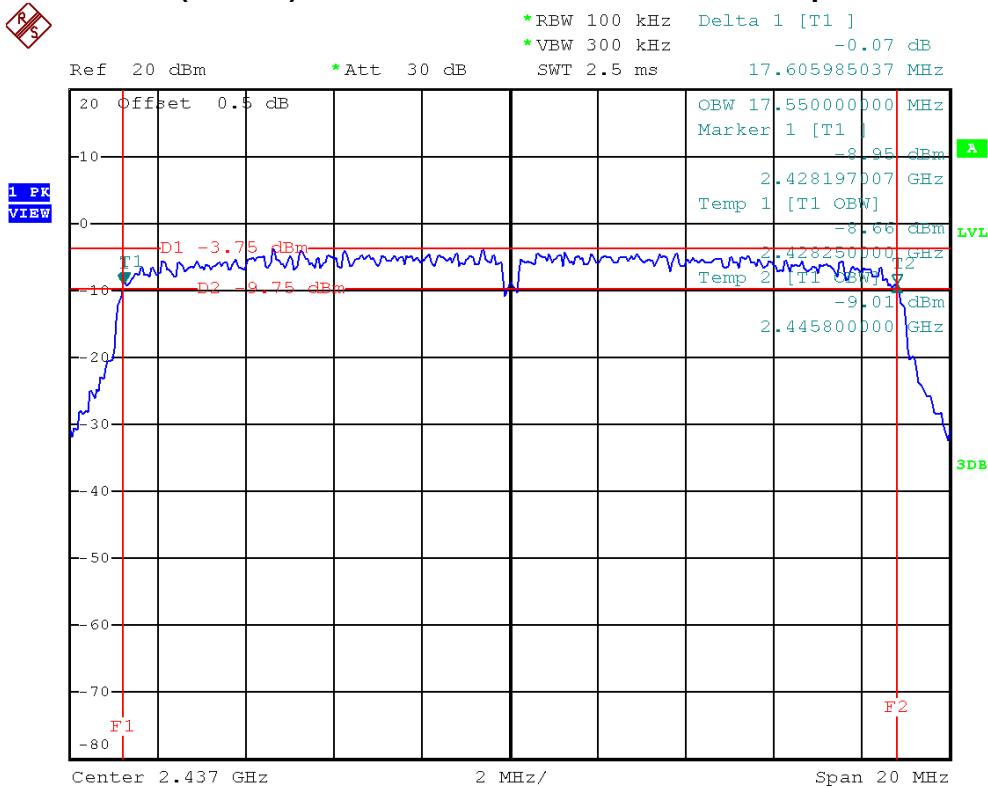




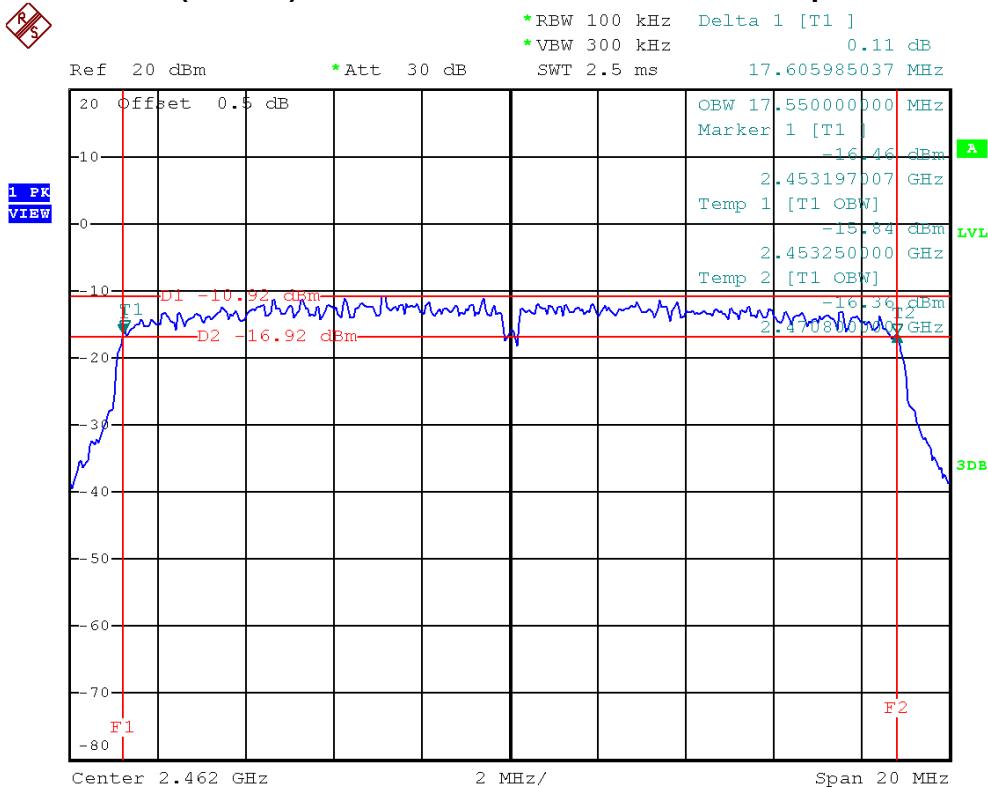
Neutron Engineering Inc.

FCC ID: 2AA68CAM-480DJ

**IEEE 802.11n (20 MHz)/ANT.1/2437 MHz/6 dB and 99% Occupied Bandwidth**



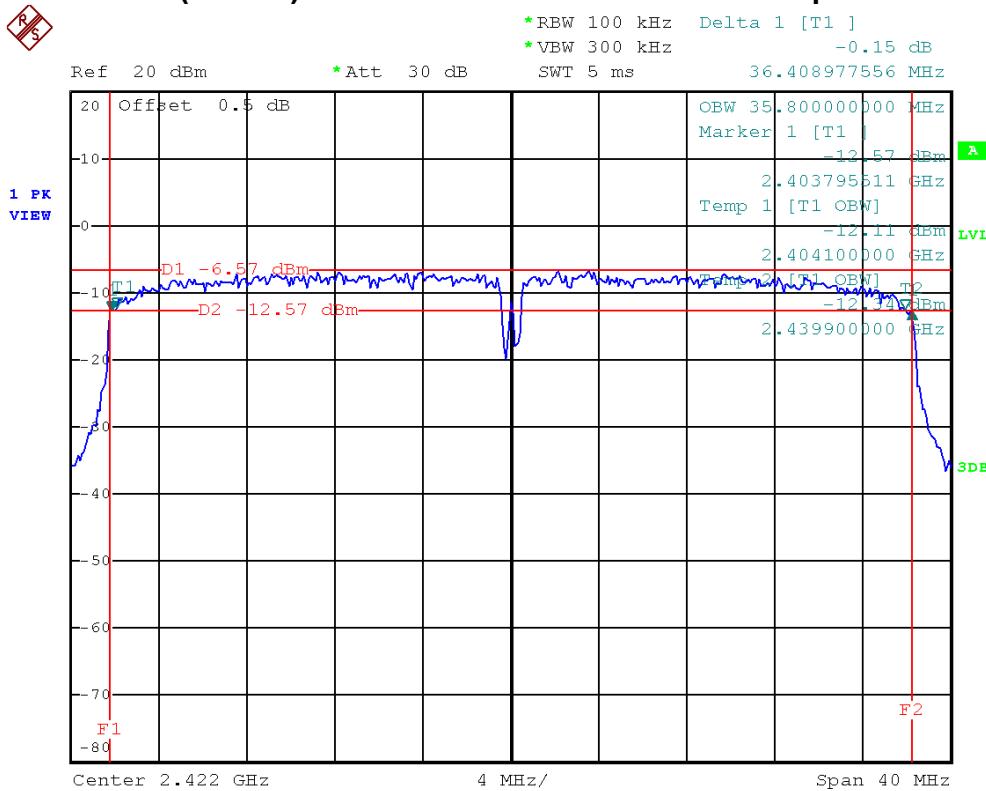
**IEEE 802.11n (20 MHz)/ANT.1/2462 MHz/6 dB and 99% Occupied Bandwidth**





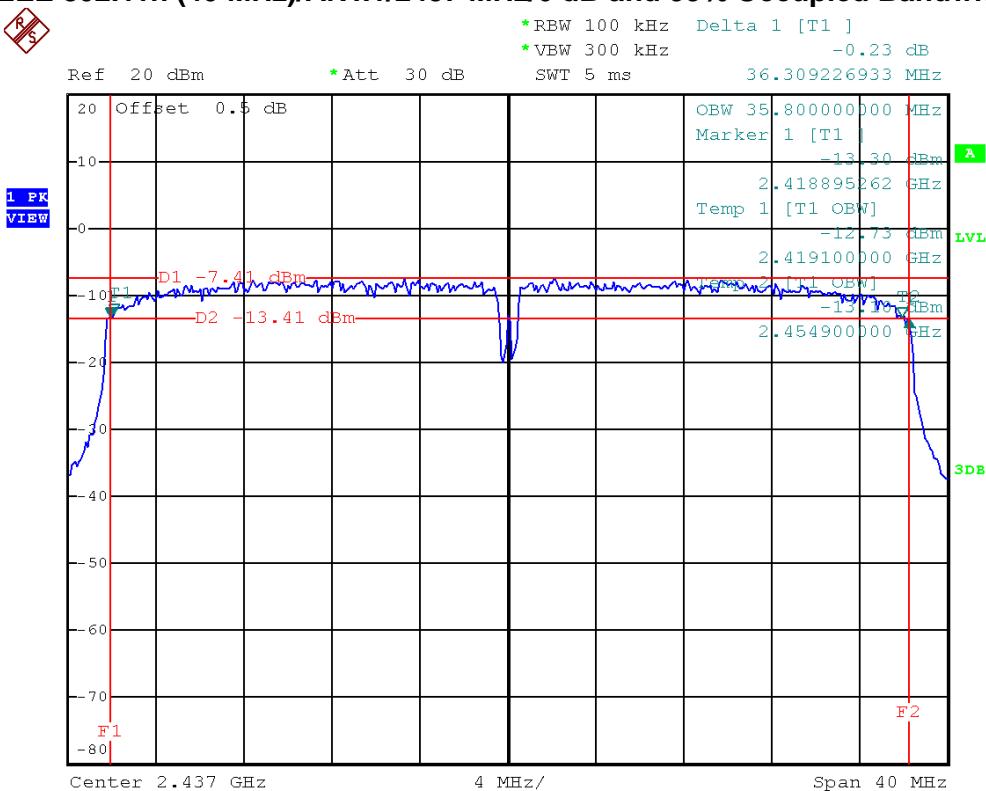
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/2422 MHz, 2437 MHz, 2452 MHz		

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2422 MHz	36.40	35.80	>=500 kHz	PASS
2437 MHz	36.30	35.80	>=500 kHz	PASS
2452 MHz	35.50	35.80	>=500 kHz	PASS

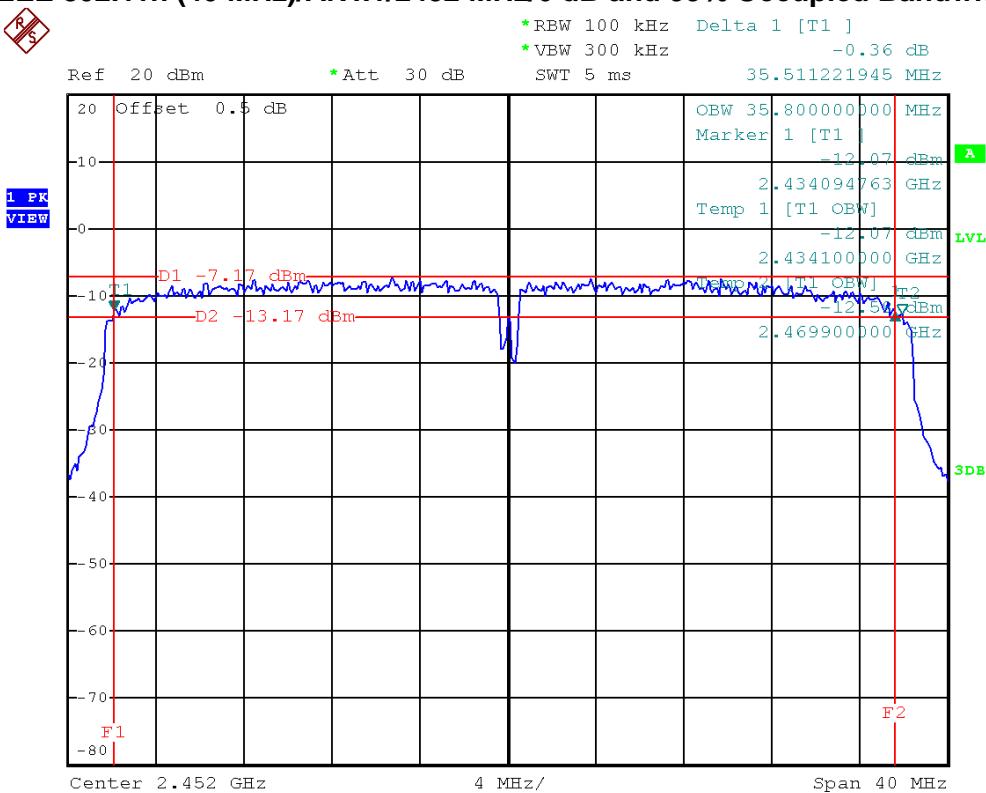
**IEEE 802.11n (40 MHz)/ANT.1/2422 MHz/6 dB and 99% Occupied Bandwidth**



**IEEE 802.11n (40 MHz)/ANT.1/2437 MHz/6 dB and 99% Occupied Bandwidth**



## IEEE 802.11n (40 MHz)/ANT.1/2452 MHz/6 dB and 99% Occupied Bandwidth





## 7 MAXIMUM PEAK CONDUCTED OUTPUT POWER

### 7.1 LIMIT

Test Item	Frequency Range (MHz)	Limit
Maximum Peak Conducted Output Power	2400-2483.5	1 watt or 30 dBm

### 7.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

### 7.3 TEST PROCEDURES

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

### 7.4 TEST SETUP LAYOUT



### 7.5 DEVIATION FROM TEST STANDARD

No deviation

### 7.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 5.6 Unless otherwise a special operating condition is specified in the follows during the testing.



## 7.7 TEST RESULTS - 2400-2483.5 MHZ

E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	Peak Output Power (dBm)	LIMIT (dBm)	Result
2412 MHz	13.56	30	PASS
2437 MHz	16.54	30	PASS
2462 MHz	11.30	30	PASS



**Neutron Engineering Inc.**

FCC ID: 2AA68CAM-480DJ

E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	Peak Output Power (dBm)	LIMIT (dBm)	Result
2412 MHz	17.05	30	PASS
2437 MHz	20.69	30	PASS
2462 MHz	12.39	30	PASS



**Neutron Engineering Inc.**

FCC ID: 2AA68CAM-480DJ

E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	Peak Output Power (dBm)	LIMIT (dBm)	Result
2412 MHz	15.87	30	PASS
2437 MHz	19.71	30	PASS
2462 MHz	13.19	30	PASS



**Neutron Engineering Inc.**

FCC ID: 2AA68CAM-480DJ

E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/2422 MHz, 2437 MHz, 2452 MHz		

Frequency	Peak Output Power (dBm)	LIMIT (dBm)	Result
2422 MHz	20.38	30	PASS
2437 MHz	20.05	30	PASS
2452 MHz	19.66	30	PASS

**8 RADIATED SPURIOUS EMISSION (9 KHZ TO 1 GHZ)****8.1 LIMIT**

20 dB in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency Range: 9 kHz to 1 GHz		
FREQUENCY (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Frequency Range: above 1 GHz				
FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
above 1 GHz	80	60	74	54

**NOTE:**

1. The limit for radiated test was performed according to FCC PART 15B.

2. The tighter limit applies at the band edges.

3. Emission level (dBuV/m)=20log Emission level (uV/m).

4. The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain(if use)

Margin Level = Measurement Value – Limit Value



## 8.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013
2	Horn Antenna	Schwarzbeck	BBHA 9120	D-325	Apr. 15, 2014
3	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 16, 2014
4	Microflex Cable	Harbour industries	27478LL142	1m	May. 13, 2014
5	Microflex Cable	EMC	S104-SMA	8m	May. 13, 2014
6	Microflex Cable	Harbour industries	27478LL142	3m	May. 13, 2014
7	Test Cable	LMR	LMR-400	12m	May. 14, 2014
8	Test Cable	LMR	LMR-400	3m	May. 14, 2014
9	Pre-Amplifier	Anritsu	MH648A	M92649	Jun. 18, 2014
10	Log-Bicon Antenna	Schwarzbeck	VULB9168-352	9168-352	Jun. 11, 2014
11	Preamplifier With Adaptor	EMC	EMC2654045	980030	Feb. 18, 2014
12	Horn Antenna	Schwarzbeck	BBHA 9170	187	Dec. 24, 2013

Remark: "N/A" denotes No Model Name, No Serial No. or No Calibration specified.

## 8.3 MEASURING INSTRUMENTS SETTING

EMI Test Receiver	Parameter Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP



#### 8.4 TEST PROCEDURES

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1 GHz. For frequencies above 1 GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m Semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.
- g. The testing follows the guidelines in ANSI C63.4 and FCC Public Notice DA 00-705 Measurement Guidelines. In case the emission is fail due to the used RBW/VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

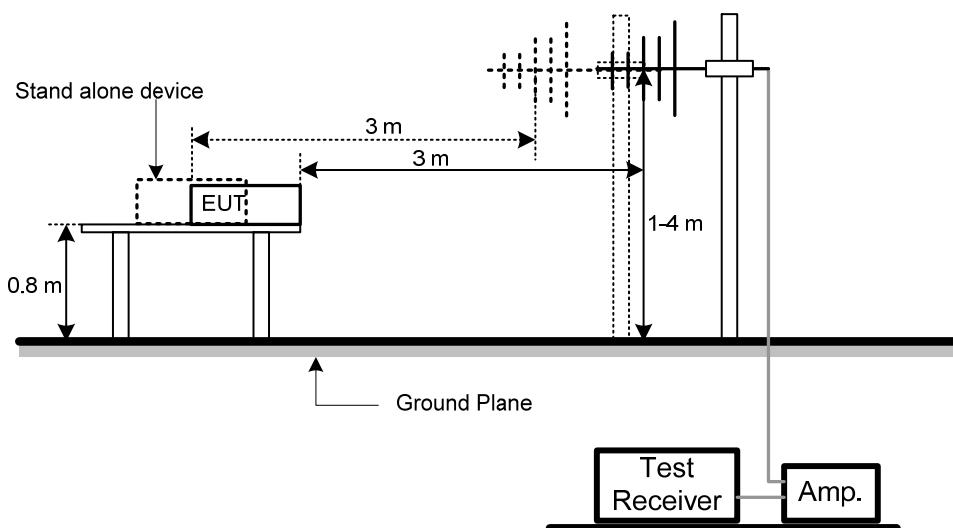
**NOTE:**

- a. Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode with Detector BW=120 kHz; SPA setting in RBW=100 kHz, VBW =100 kHz, Swp. Time = 0.3 sec./ MHz.
- b. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.

#### 8.5 DEVIATION FROM TEST STANDARD

No deviation

#### 8.6 TEST SETUP LAYOUT





## **8.7 EUT OPERATING CONDITIONS**

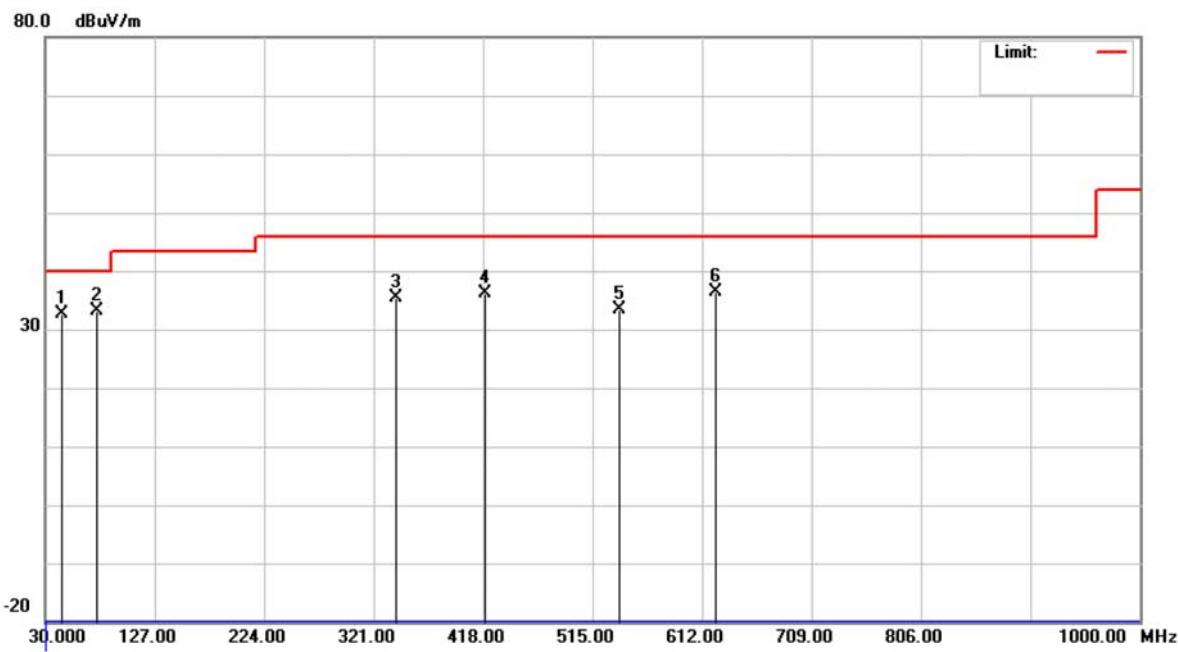
The EUT tested system was configured as the statements of 5.6 Unless otherwise a special operating condition is specified in the follows during the testing.



## 8.8 TEST RESULTS - 2400-2483.5 MHZ

E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		

### Polarization: Vertical

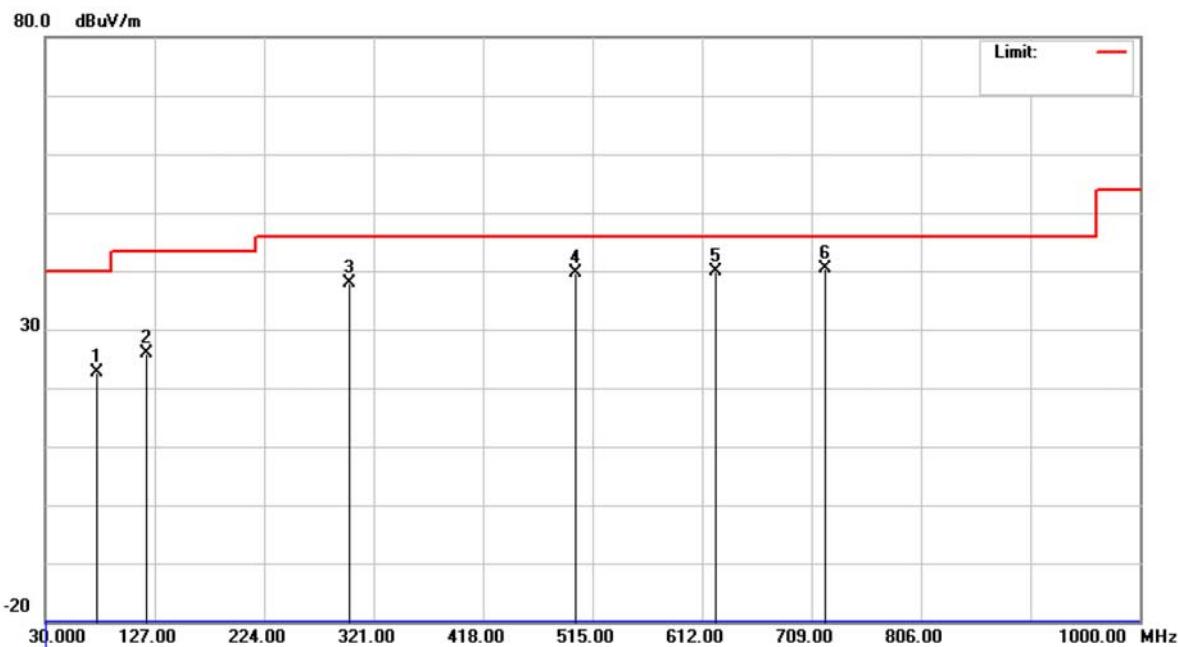


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over		
						Detector	Comment	
1	44.5499	51.58	-18.86	32.72	40.00	-7.28	peak	
2 *	76.0749	55.42	-22.38	33.04	40.00	-6.96	peak	
3	340.3999	52.65	-17.34	35.31	46.00	-10.69	peak	
4	420.4249	51.54	-15.32	36.22	46.00	-9.78	peak	
5	539.2500	46.04	-12.58	33.46	46.00	-12.54	peak	
6	624.1250	47.30	-10.90	36.40	46.00	-9.60	peak	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		

**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	76.0749	45.08	-22.38	22.70	40.00	-17.30	peak
2	119.7249	47.33	-21.46	25.87	43.50	-17.63	peak
3	299.1749	56.15	-18.30	37.85	46.00	-8.15	peak
4	500.4500	53.58	-13.95	39.63	46.00	-6.37	peak
5	624.1250	50.87	-10.90	39.97	46.00	-6.03	peak
6 *	721.1250	50.06	-9.78	40.28	46.00	-5.72	peak

**9 RADIATED SPURIOUS EMISSION (ABOVE 1 GHZ)****9.1 LIMIT**

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency Range: 9 kHz to 1 GHz		
FREQUENCY (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Frequency Range: above 1 GHz				
FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
above 1 GHz	80	60	74	54

**NOTE:**

(1) The limit for radiated test was performed according to FCC PART 15B.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

(4) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain(if use)

Margin Level = Measurement Value – Limit Value

**9.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013
2	Horn Antenna	Schwarzbeck	BBHA 9120	D-325	Apr. 15, 2014
3	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 16, 2014
4	Microflex Cable	Harbour industries	27478LL142	1m	May. 13, 2014
5	Microflex Cable	EMC	S104-SMA	8m	May. 13, 2014
6	Microflex Cable	Harbour industries	27478LL142	3m	May. 13, 2014
7	Test Cable	LMR	LMR-400	12m	May. 14, 2014
8	Test Cable	LMR	LMR-400	3m	May. 14, 2014
9	Pre-Amplifier	Anritsu	MH648A	M92649	Jun. 18, 2014
10	Log-Bicon Antenna	Schwarzbeck	VULB9168-352	9168-352	Jun. 11, 2014
11	Preamplifier With Adaptor	EMC	EMC2654045	980030	Feb. 18, 2014
12	Horn Antenna	Schwarzbeck	BBHA 9170	187	Dec. 24, 2013

Remark: "N/A" denotes No Model Name, No Serial No. or No Calibration specified.

**9.3 MEASURING INSTRUMENTS SETTING**

Spectrum Analyzer	Parameter Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

#### 9.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m Semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- d. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.
- f. The testing follows the guidelines in ANSI C63.4 and FCC Public Notice DA 00-705 Measurement Guidelines. In case the emission is fail due to the used RBW/VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

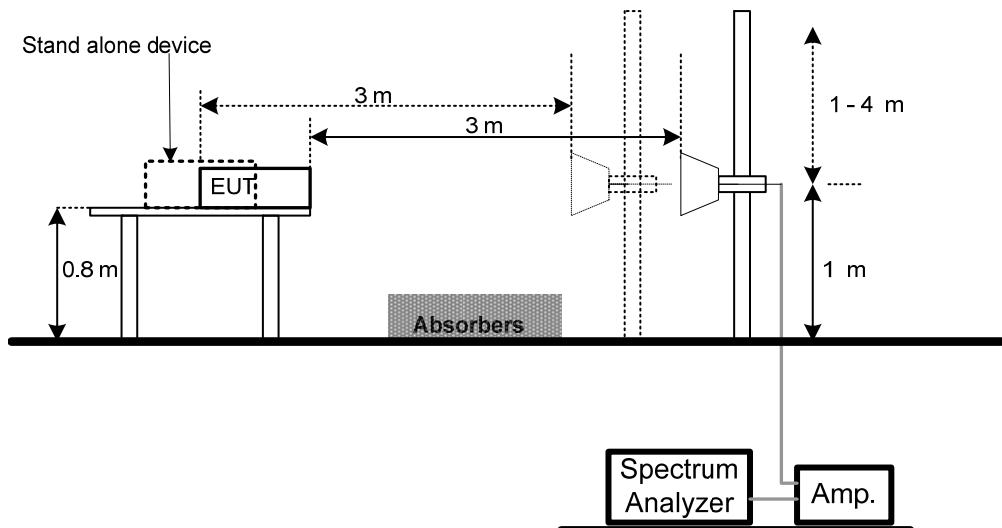
**NOTE:**

- a. Reading in which marked as Peak means measurements by using are Peak Mode with instrument setting in RBW= 1 MHz, VBW= 1 MHz, Swp. Time = Auto.  
Reading in which marked as AVG means measurements by using are Average Mode with instrument setting in RBW= 1 MHz, VBW= 10 Hz, Swp. Time = Auto.
- b. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform.

#### 9.5 DEVIATION FROM TEST STANDARD

No deviation

#### 9.6 TEST SETUP LAYOUT



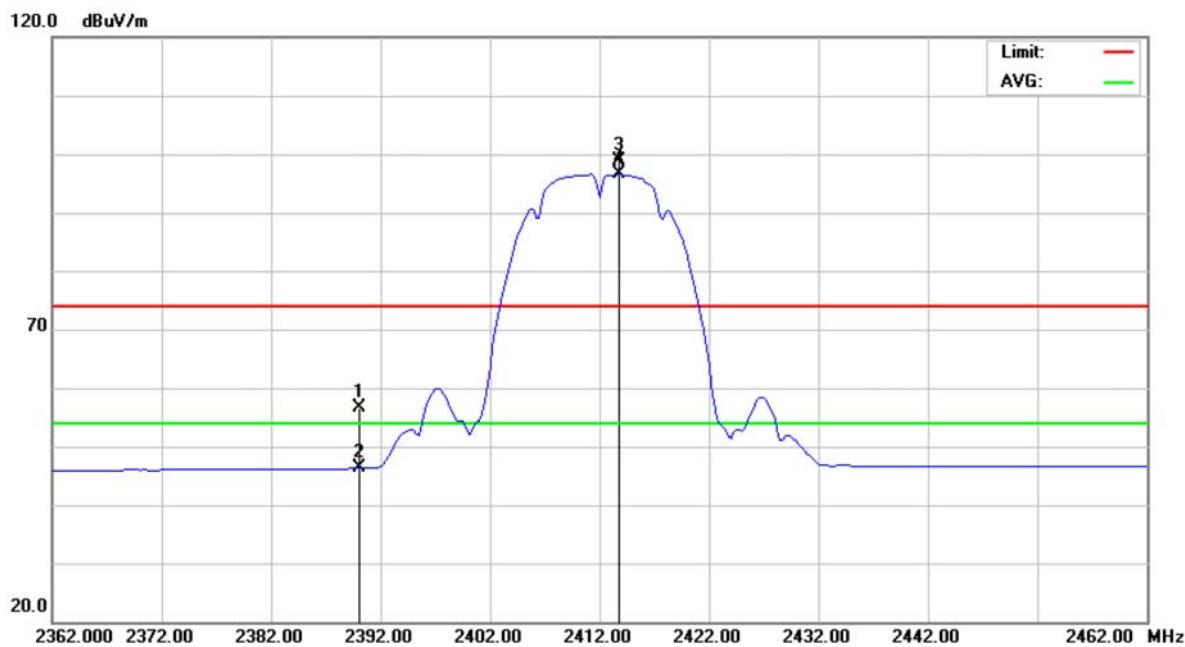


## **9.7 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 5.6 Unless otherwise a special operating condition is specified in the follows during the testing.

**9.8 TEST RESULTS - 2400-2483.5 MHZ**

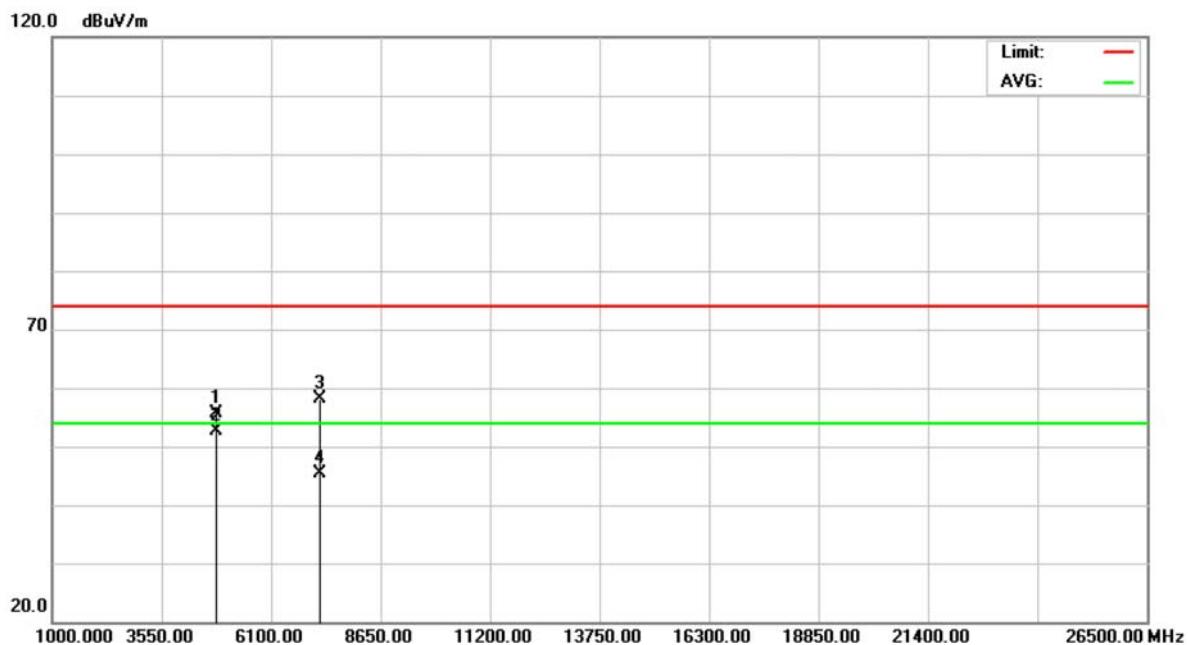
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2412 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	2390.000	23.56	32.99	56.55	74.00	-17.45	peak
2	2390.000	13.47	32.99	46.46	54.00	-7.54	AVG
3	X 2413.750	65.85	33.12	98.97	74.00	24.97	peak
4	* 2413.750	63.49	33.12	96.61	54.00	42.61	AVG



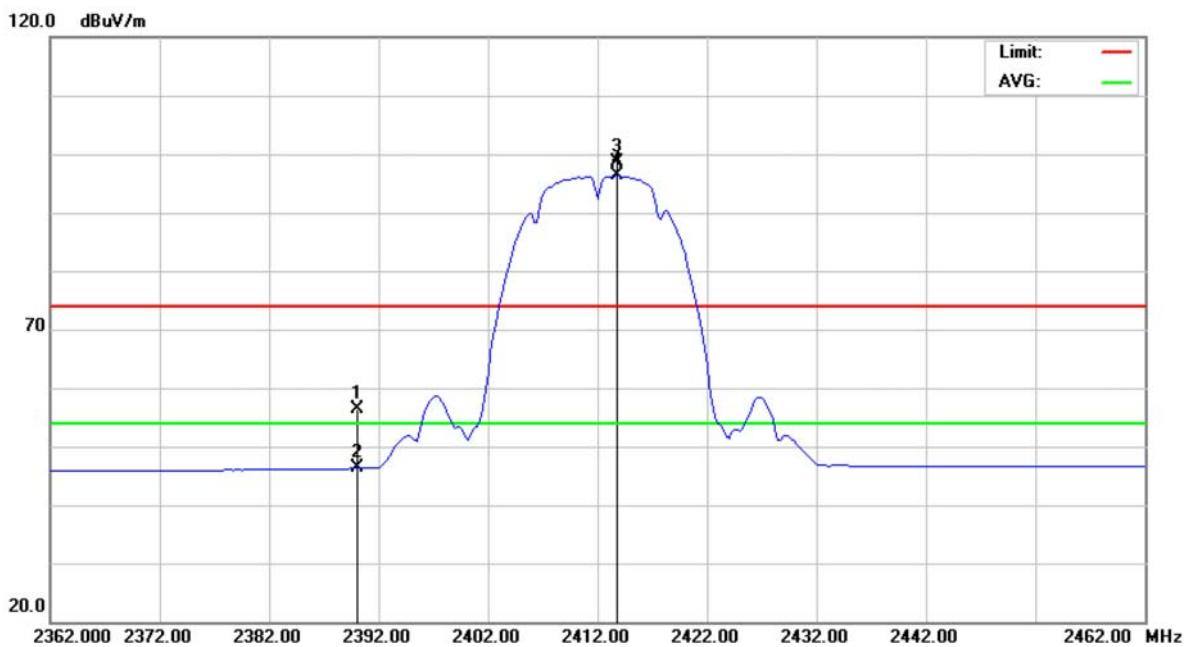
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2412 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Limit dB	Detector
1	4824.000	48.23	7.49	55.72	74.00	-18.28	peak
2	*	4824.025	45.25	52.74	54.00	-1.26	AVG
3	7235.975	43.17	14.87	58.04	74.00	-15.96	peak
4	7235.975	30.57	14.87	45.44	54.00	-8.56	AVG



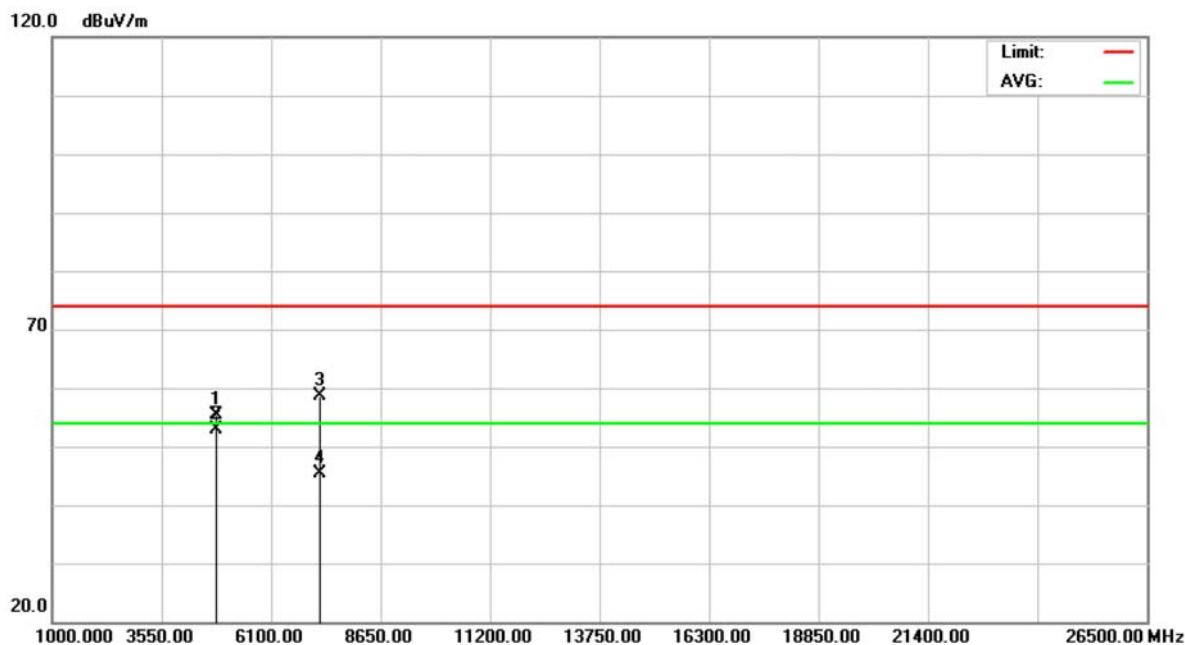
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2412 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	2390.000	23.47	32.99	56.46	74.00	-17.54	peak
2	2390.000	13.33	32.99	46.32	54.00	-7.68	AVG
3	X 2413.750	65.48	33.12	98.60	74.00	24.60	peak
4	* 2413.750	63.23	33.12	96.35	54.00	42.35	AVG



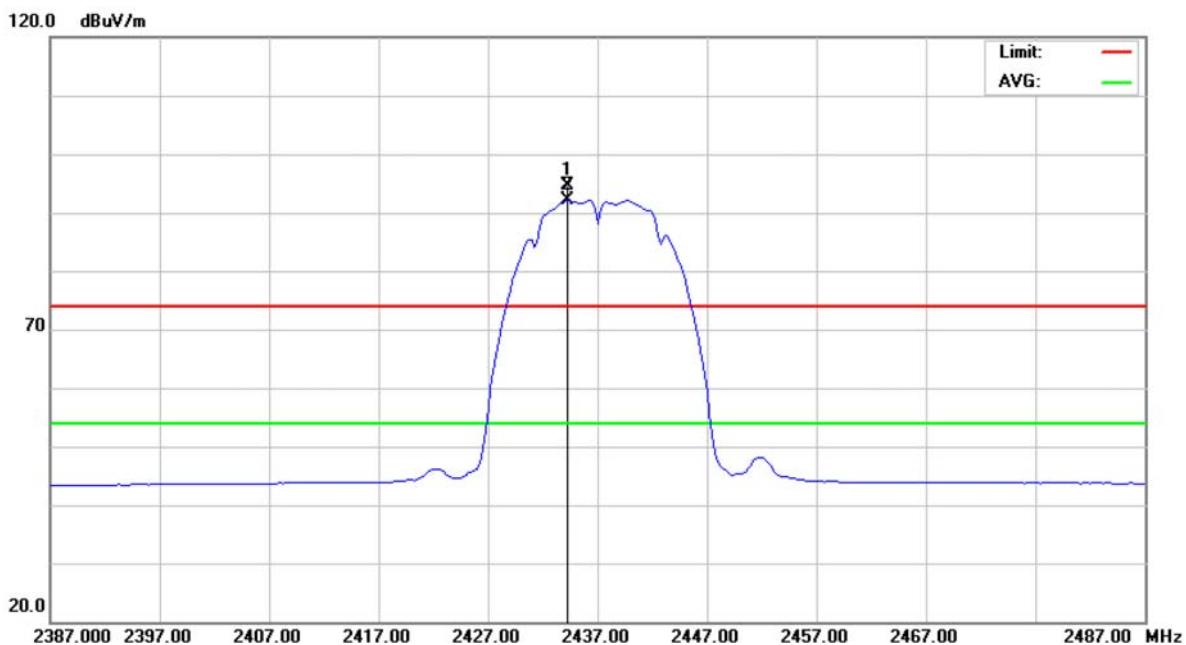
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2412 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over	Detector	Comment
		Level dBuV	Factor dB	ment dBuV/m				
1	4824.050	47.91	7.49	55.40	74.00	-18.60	peak	
2	*	45.37	7.49	52.86	54.00	-1.14	AVG	
3	7236.663	43.74	14.87	58.61	74.00	-15.39	peak	
4	7236.663	30.58	14.87	45.45	54.00	-8.55	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		

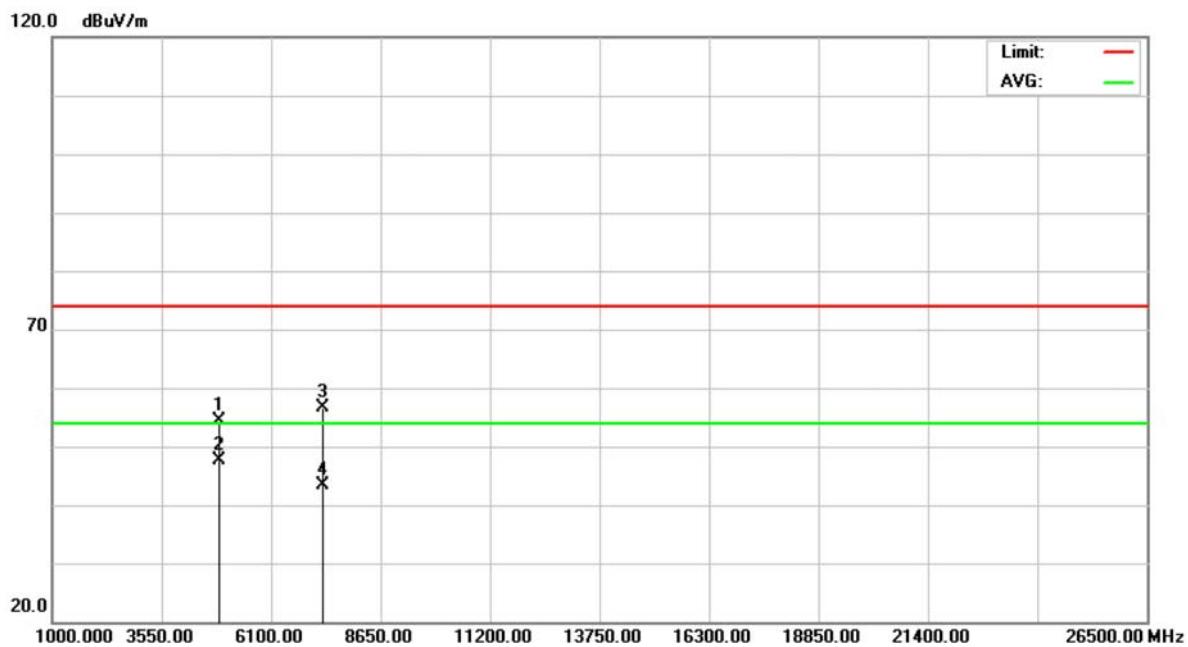
**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1 X	2434.250	62.88	31.87	94.75	74.00	20.75	peak	
2 *	2434.250	60.18	31.87	92.05	54.00	38.05	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		

**Polarization: Vertical**

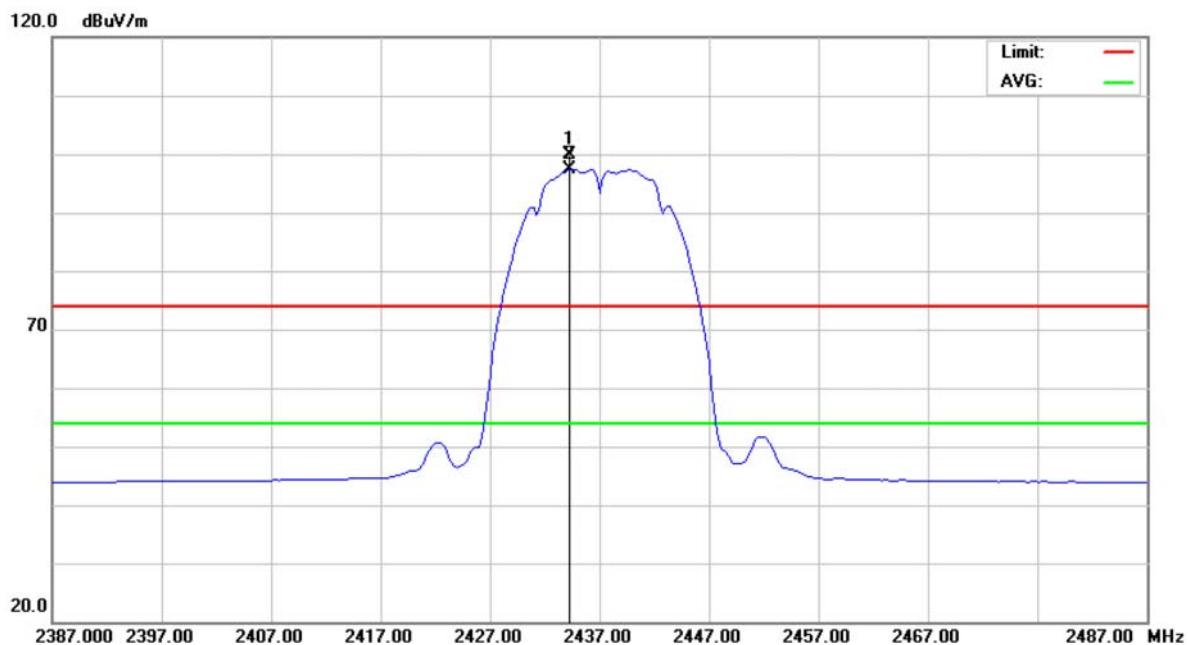


No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	4874.087	48.56	5.78	54.34	74.00	-19.66	peak	
2 *	4874.087	41.74	5.78	47.52	54.00	-6.48	AVG	
3	7310.875	44.15	12.57	56.72	74.00	-17.28	peak	
4	7310.875	30.75	12.57	43.32	54.00	-10.68	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		

**Polarization: Horizontal**

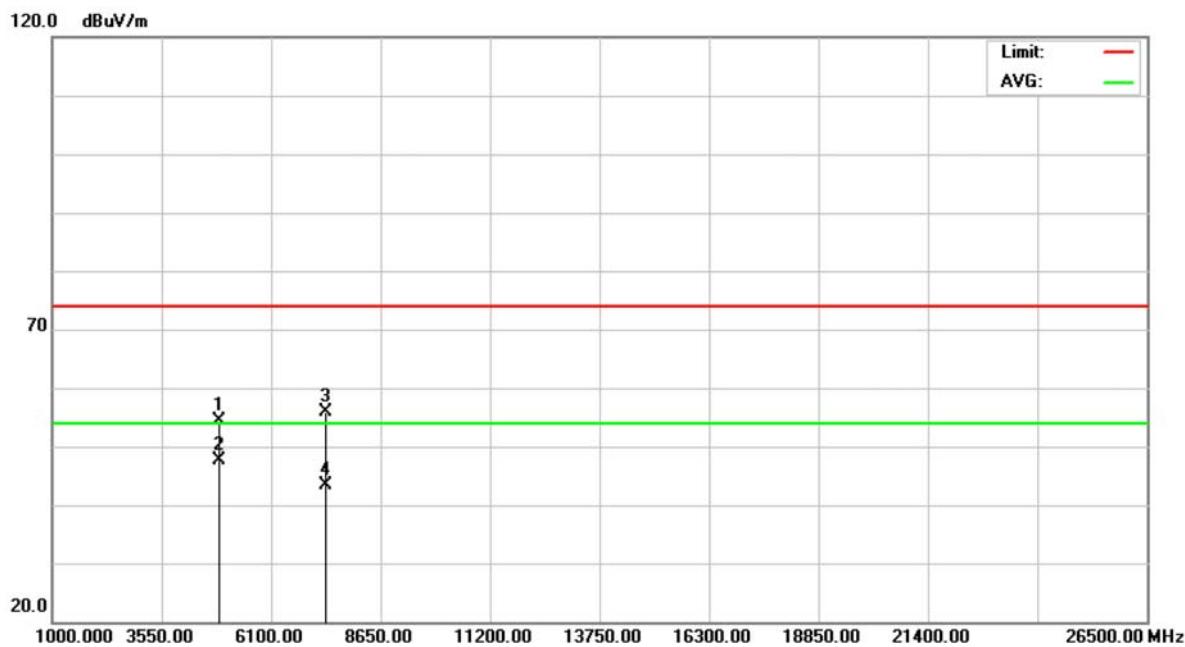


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1 X	2434.250	68.05	31.87	99.92	74.00	25.92	peak
2 *	2434.250	65.46	31.87	97.33	54.00	43.33	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2437 MHz		

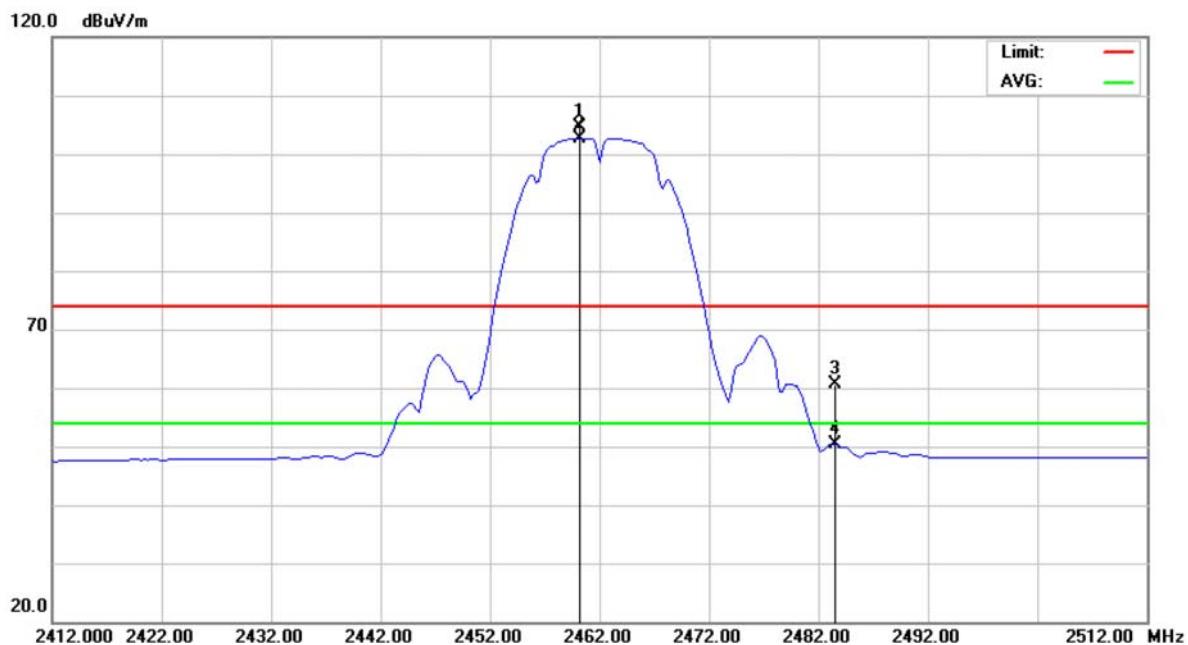
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	4874.100	48.49	5.78	54.27	74.00	-19.73	peak
2	*	4874.100	5.78	47.53	54.00	-6.47	AVG
3	7311.288	43.43	12.57	56.00	74.00	-18.00	peak
4	7311.288	30.70	12.57	43.27	54.00	-10.73	AVG



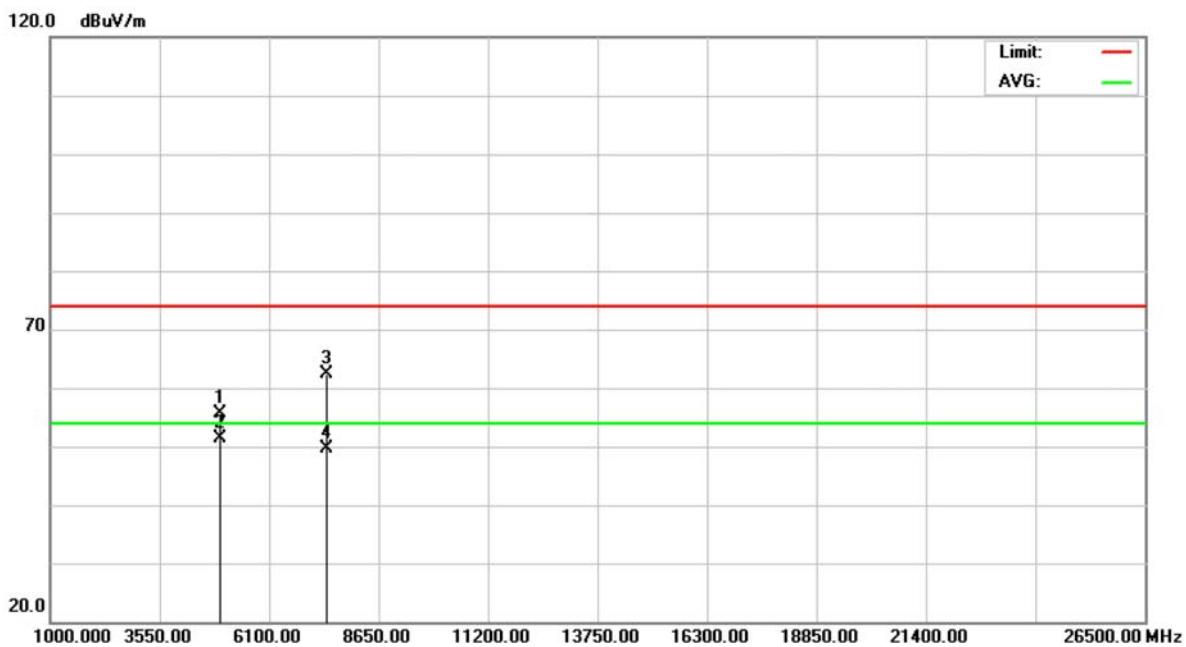
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2462 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1 X	2460.250	70.40	34.21	104.61	74.00	30.61	peak
2 *	2460.250	68.52	34.21	102.73	54.00	48.73	AVG
3	2483.500	26.41	34.32	60.73	74.00	-13.27	peak
4	2483.500	16.07	34.32	50.39	54.00	-3.61	AVG



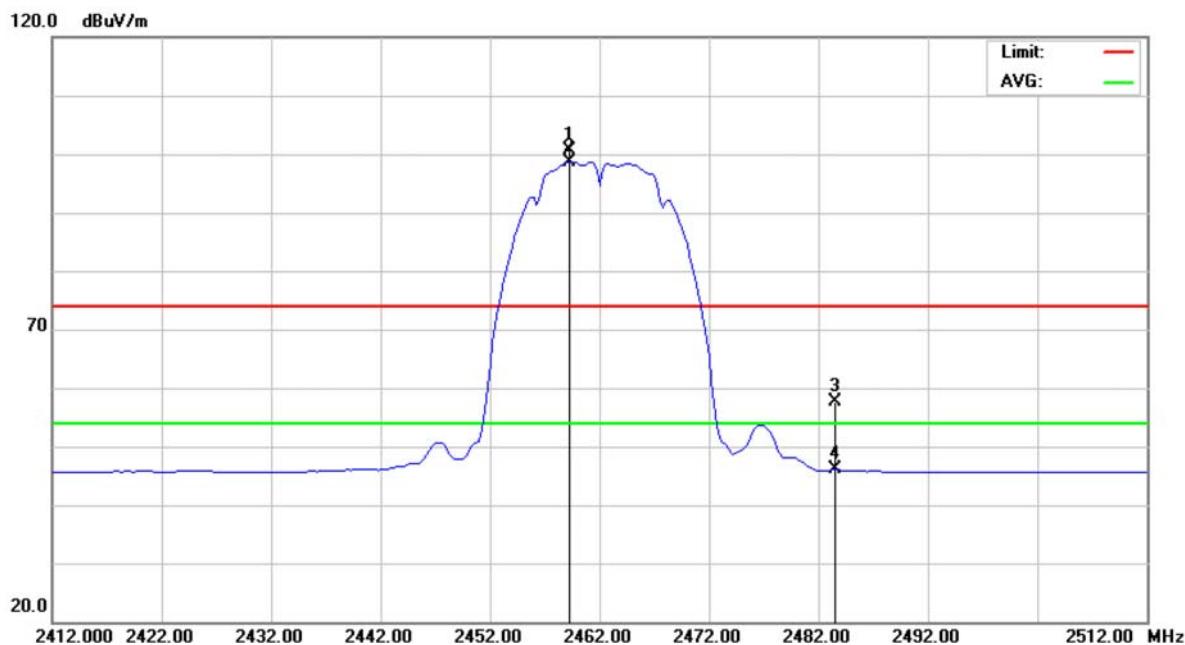
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2462 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1	4924.000	45.65	9.98	55.63	74.00	-18.37	peak
2	*	4924.000	41.38	9.98	51.36	-2.64	AVG
3	7386.125	43.69	18.57	62.26	74.00	-11.74	peak
4	7386.125	30.95	18.57	49.52	54.00	-4.48	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2462 MHz		

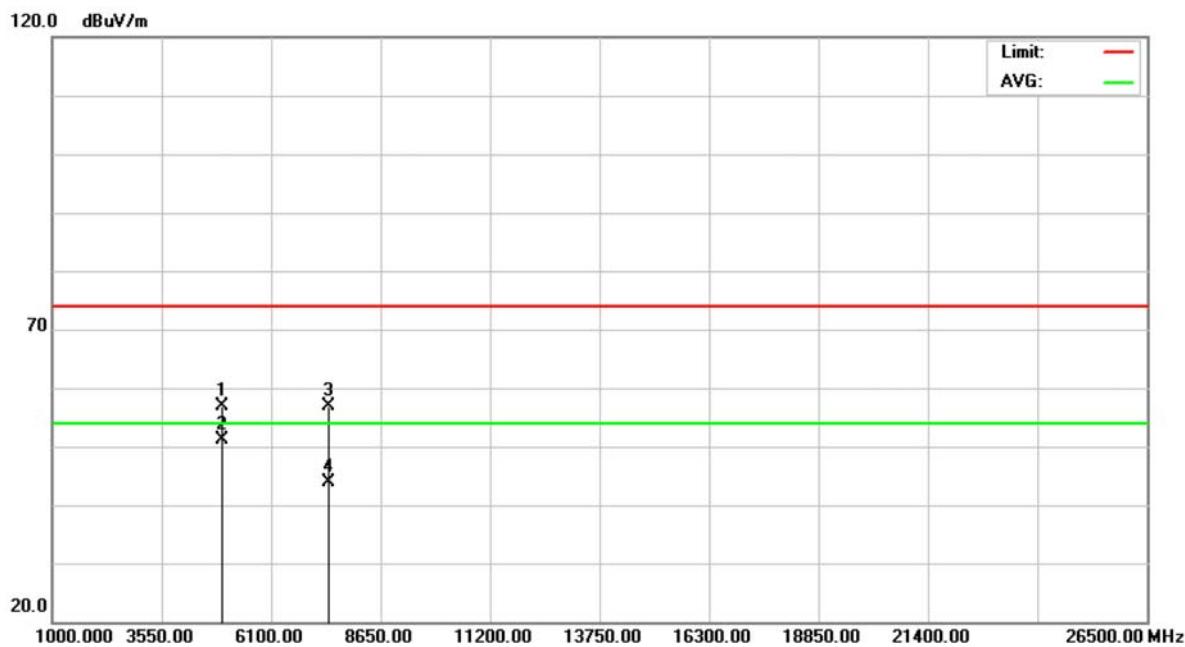
**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1	X 2459.250	68.74	31.98	100.72	74.00	26.72	peak
2	*	66.67	31.98	98.65	54.00	44.65	AVG
3	2483.500	25.42	32.09	57.51	74.00	-16.49	peak
4	2483.500	13.95	32.09	46.04	54.00	-7.96	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2462 MHz		

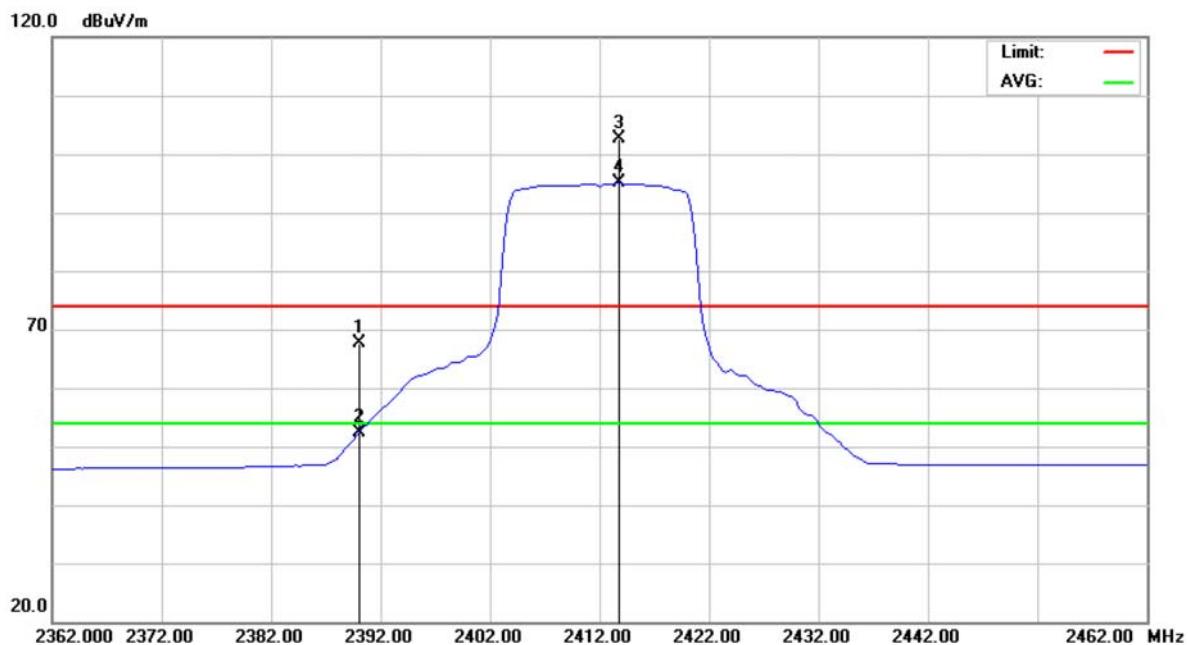
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	4924.075	51.06	5.84	56.90	74.00	-17.10	peak
2	*	45.29	5.84	51.13	54.00	-2.87	AVG
3	7385.725	44.05	12.84	56.89	74.00	-17.11	peak
4	7385.725	31.09	12.84	43.93	54.00	-10.07	AVG



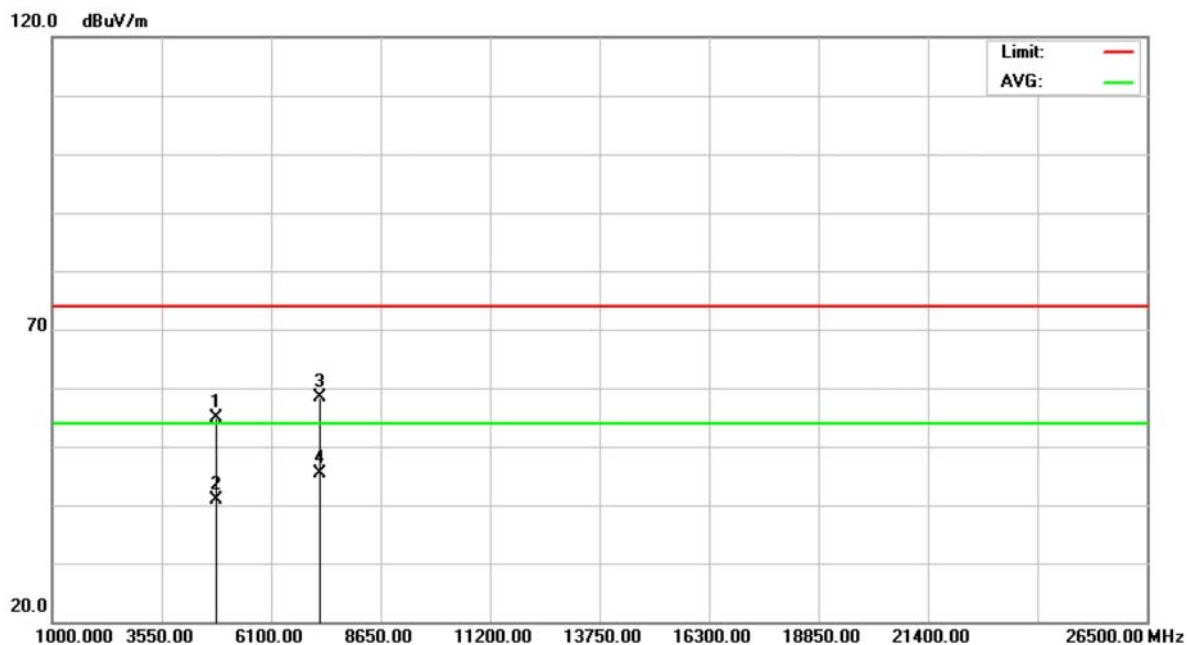
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2412 MHz		

**Polarization: Vertical**

No. Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		Level	Factor	ment		dB	Detector
1	2390.000	34.62	32.99	67.61	74.00	-6.39	peak
2	2390.000	19.31	32.99	52.30	54.00	-1.70	AVG
3	X 2413.750	69.55	33.12	102.67	74.00	28.67	peak
4	* 2413.750	61.95	33.12	95.07	54.00	41.07	AVG



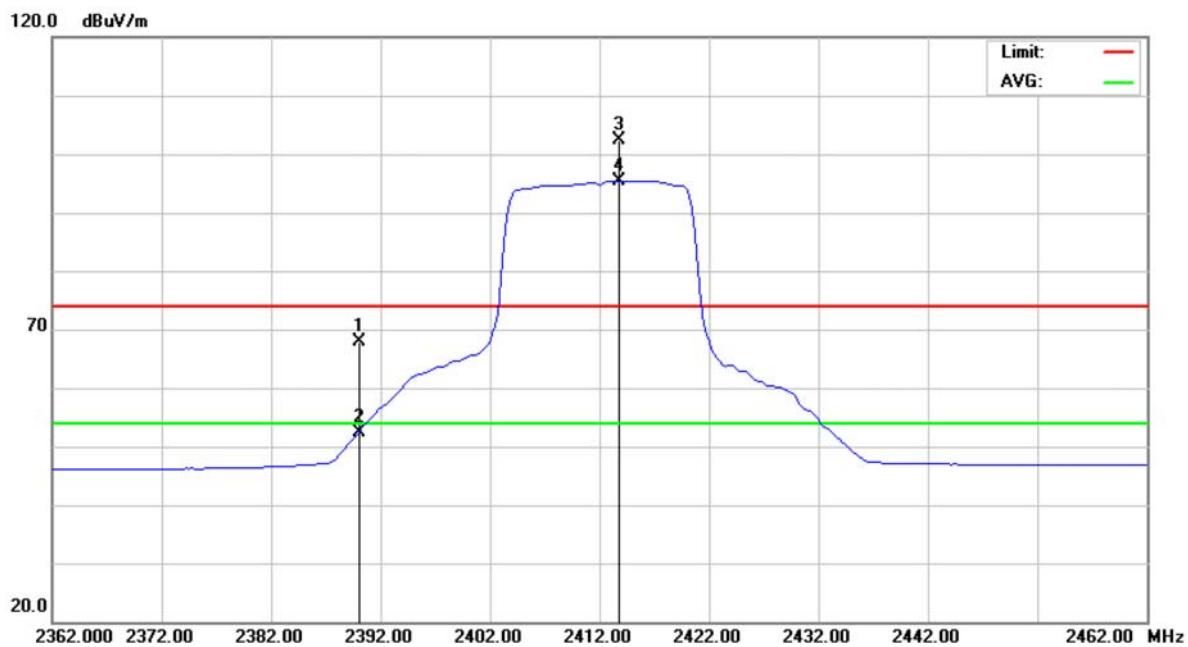
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2412 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	4824.375	47.42	7.49	54.91	74.00	-19.09	peak
2	4824.375	33.28	7.49	40.77	54.00	-13.23	AVG
3	7235.788	43.52	14.87	58.39	74.00	-15.61	peak
4 *	7235.788	30.56	14.87	45.43	54.00	-8.57	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2412 MHz		

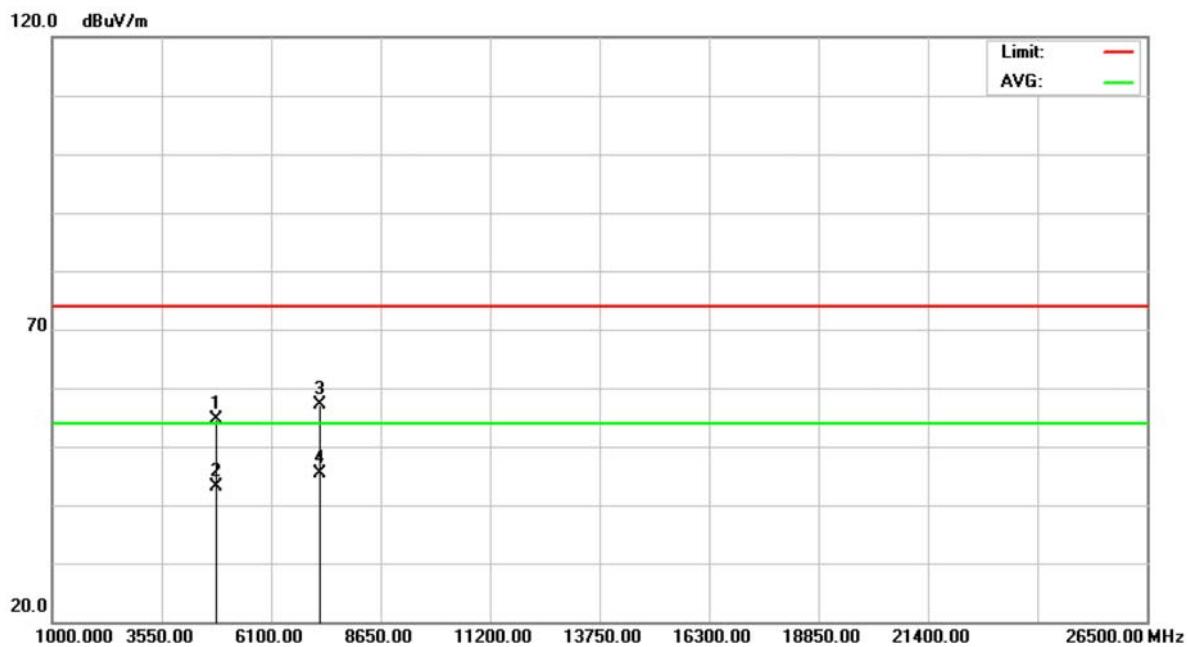
**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1	2390.000	34.94	32.99	67.93	74.00	-6.07	peak
2	2390.000	19.49	32.99	52.48	54.00	-1.52	AVG
3	X 2413.750	69.38	33.12	102.50	74.00	28.50	peak
4	* 2413.750	62.33	33.12	95.45	54.00	41.45	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2412 MHz		

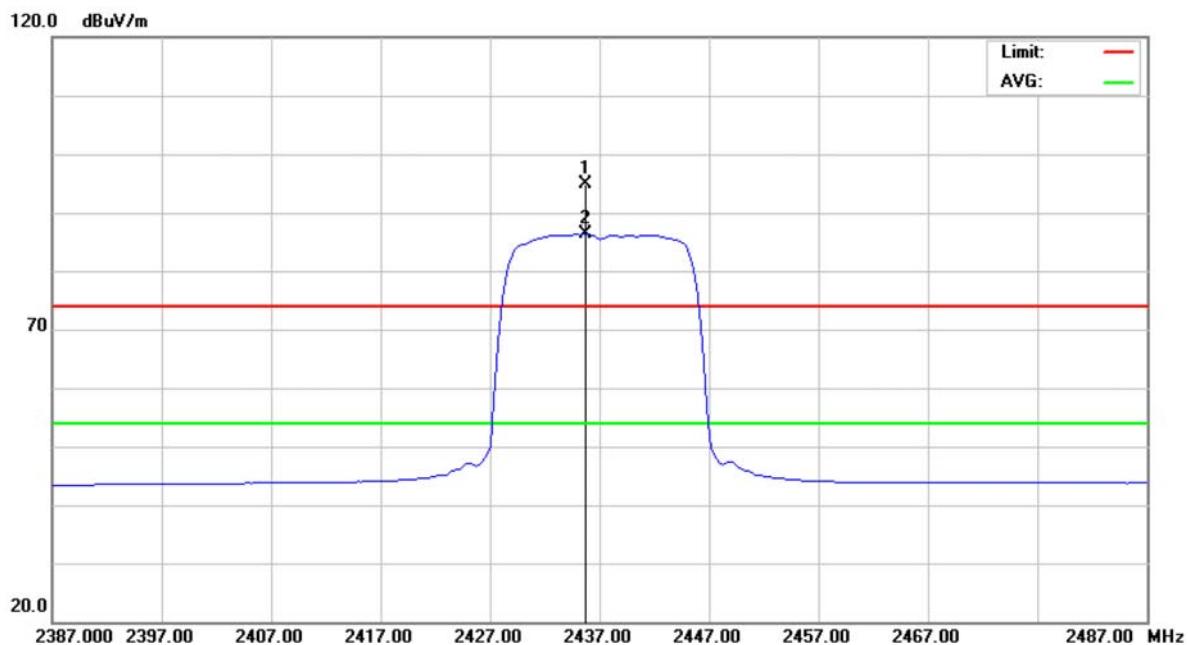
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Limit dB	Detector
1	4824.500	47.14	7.49	54.63	74.00	-19.37	peak
2	4824.500	35.54	7.49	43.03	54.00	-10.97	AVG
3	7236.100	42.22	14.87	57.09	74.00	-16.91	peak
4 *	7236.100	30.46	14.87	45.33	54.00	-8.67	AVG



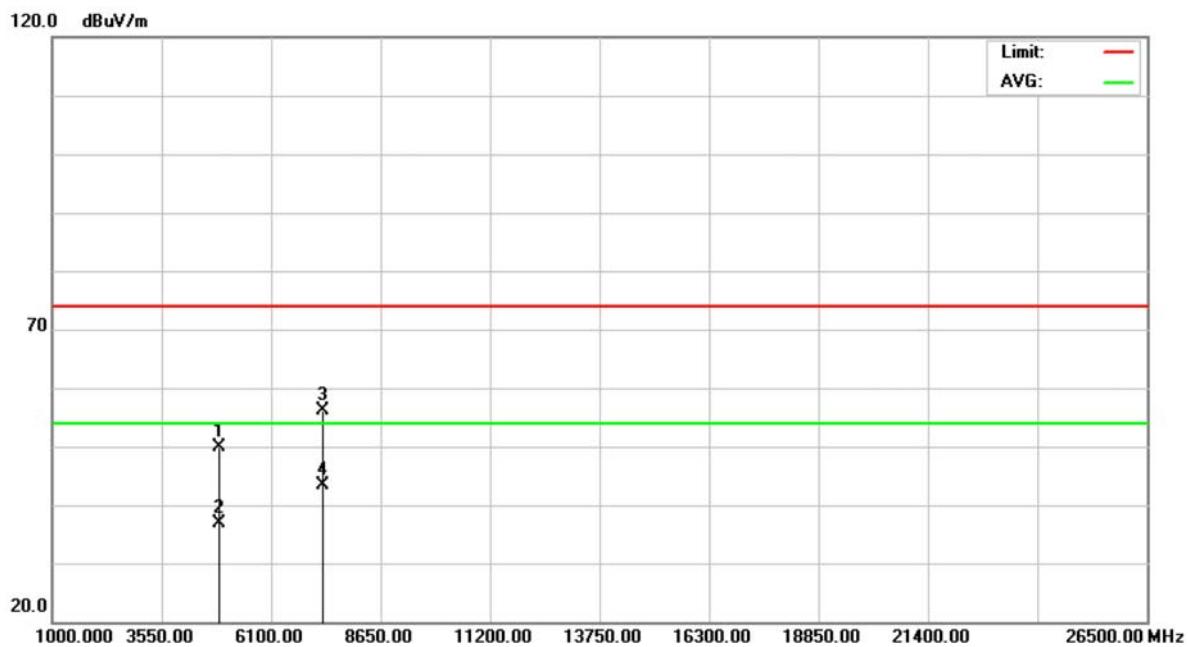
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2437 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1 X	2435.750	62.98	31.87	94.85	74.00	20.85	peak
2 *	2435.750	54.42	31.87	86.29	54.00	32.29	AVG



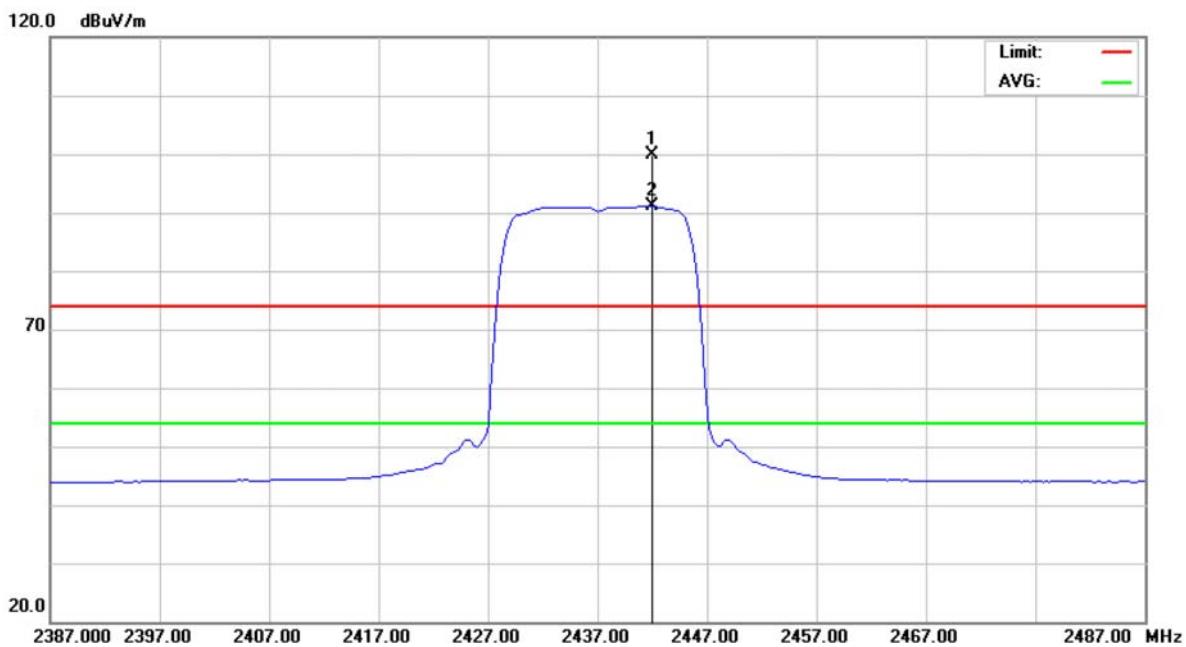
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2437 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over	Detector	Comment
		Level dBuV	Factor dB	ment dBuV/m				
1	4873.962	44.09	5.78	49.87	74.00	-24.13	peak	
2	4873.962	31.11	5.78	36.89	54.00	-17.11	AVG	
3	7310.763	43.51	12.57	56.08	74.00	-17.92	peak	
4 *	7310.763	30.78	12.57	43.35	54.00	-10.65	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2437 MHz		

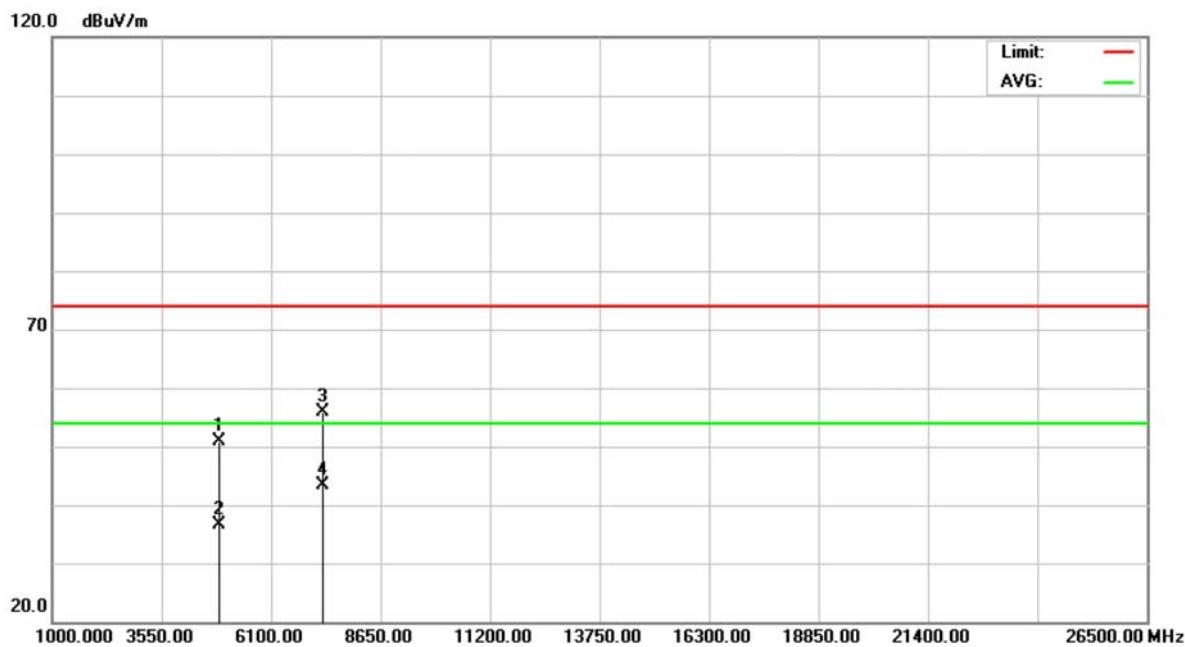
**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1 X	2442.000	68.01	31.90	99.91	74.00	25.91	peak	
2 *	2442.000	59.16	31.90	91.06	54.00	37.06	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2437 MHz		

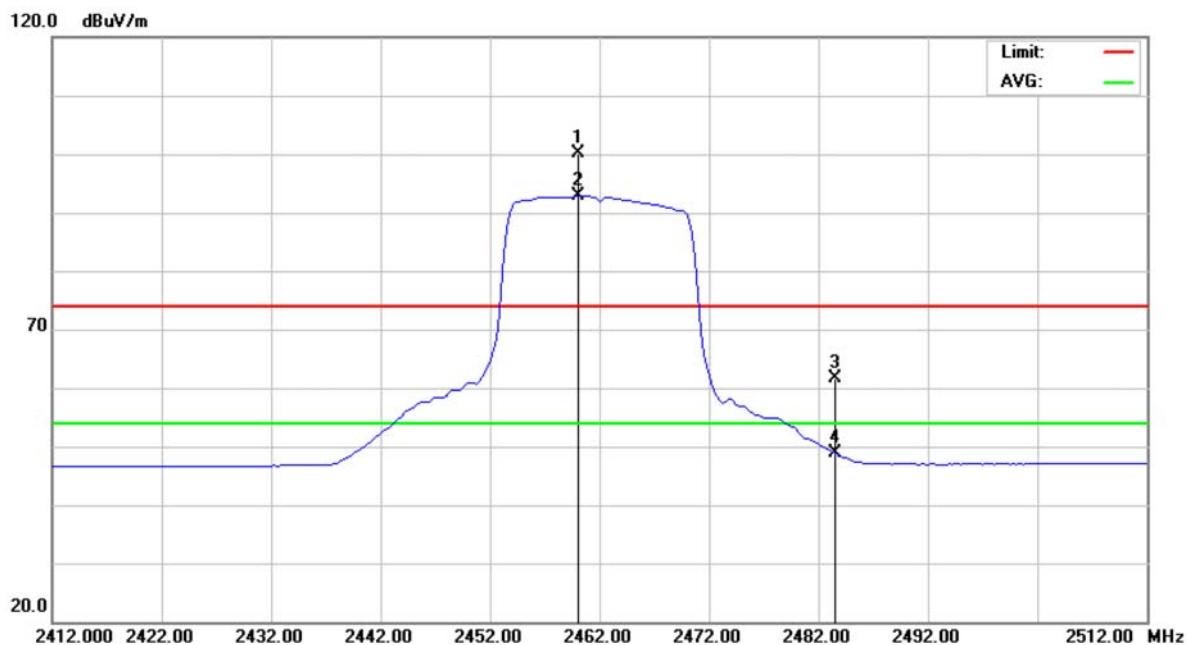
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	4873.650	45.15	5.78	50.93	74.00	-23.07	peak
2	4873.650	30.97	5.78	36.75	54.00	-17.25	AVG
3	7310.862	43.26	12.57	55.83	74.00	-18.17	peak
4 *	7310.862	30.75	12.57	43.32	54.00	-10.68	AVG



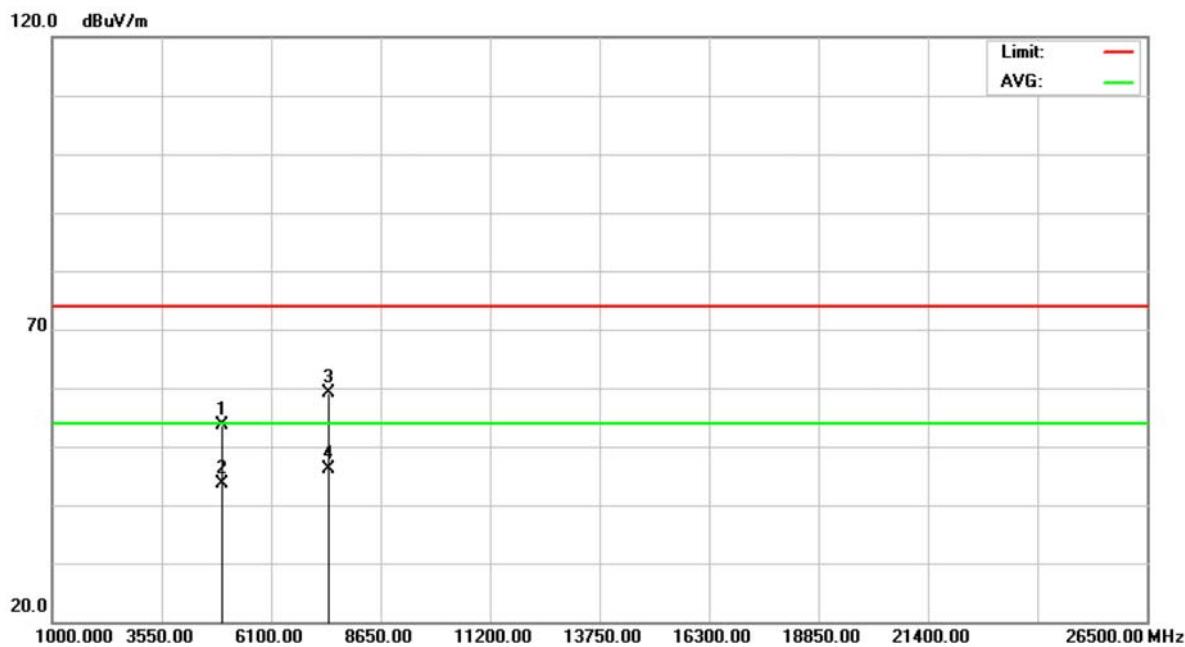
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2462 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1	X 2460.000	66.68	33.37	100.05	74.00	26.05	peak
2	*	59.42	33.37	92.79	54.00	38.79	AVG
3	2483.500	28.23	33.50	61.73	74.00	-12.27	peak
4	2483.500	15.31	33.50	48.81	54.00	-5.19	AVG



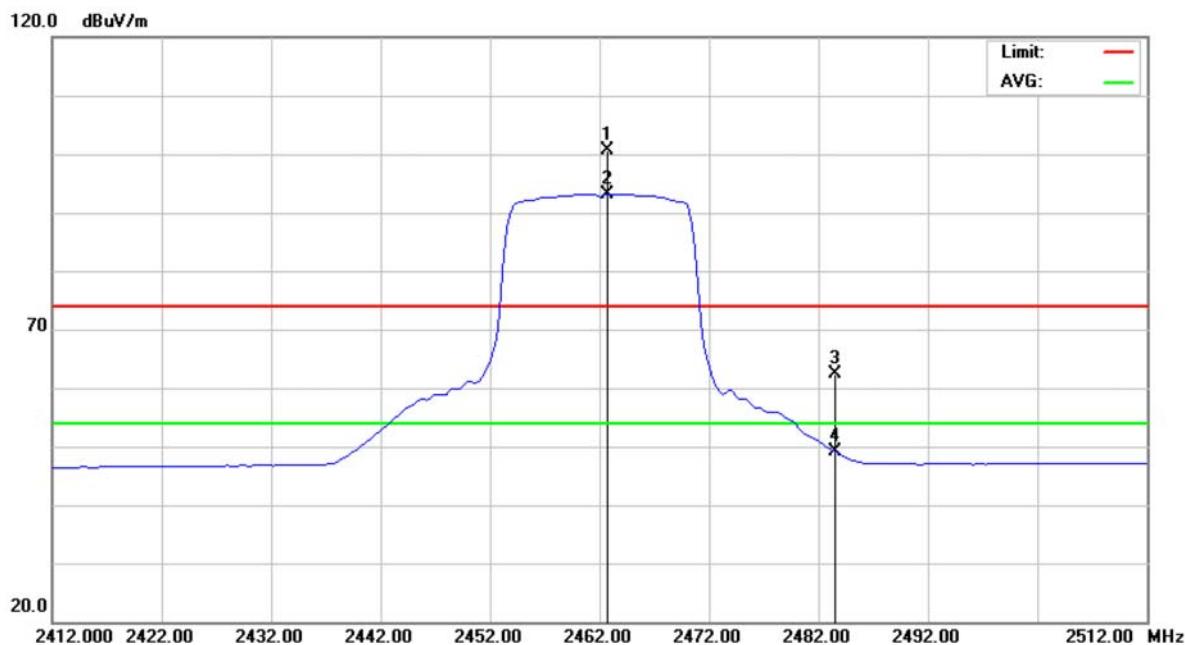
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2462 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over	Detector	Comment
		Level dBuV	Factor dB	ment dBuV/m				
1	4924.250	45.71	7.85	53.56	74.00	-20.44	peak	
2	4924.250	35.76	7.85	43.61	54.00	-10.39	AVG	
3	7386.288	43.80	15.26	59.06	74.00	-14.94	peak	
4 *	7386.288	30.87	15.26	46.13	54.00	-7.87	AVG	



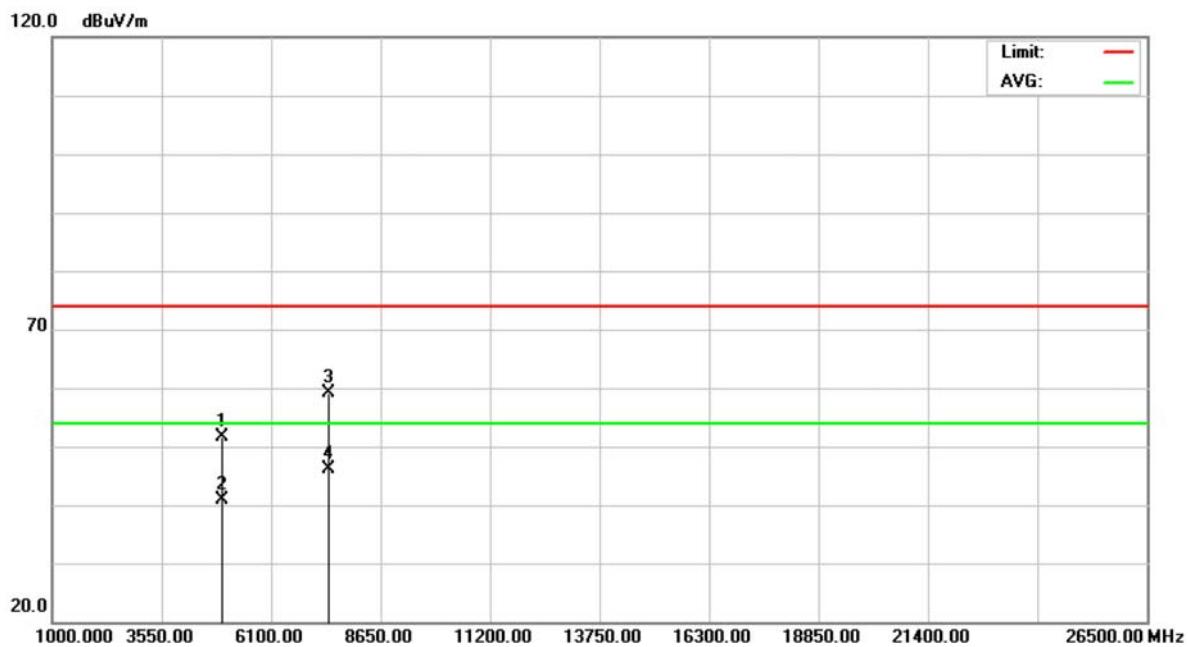
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2462 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1 X	2462.750	67.21	33.39	100.60	74.00	26.60	peak
2 *	2462.750	59.85	33.39	93.24	54.00	39.24	AVG
3	2483.500	28.78	33.50	62.28	74.00	-11.72	peak
4	2483.500	15.61	33.50	49.11	54.00	-4.89	AVG



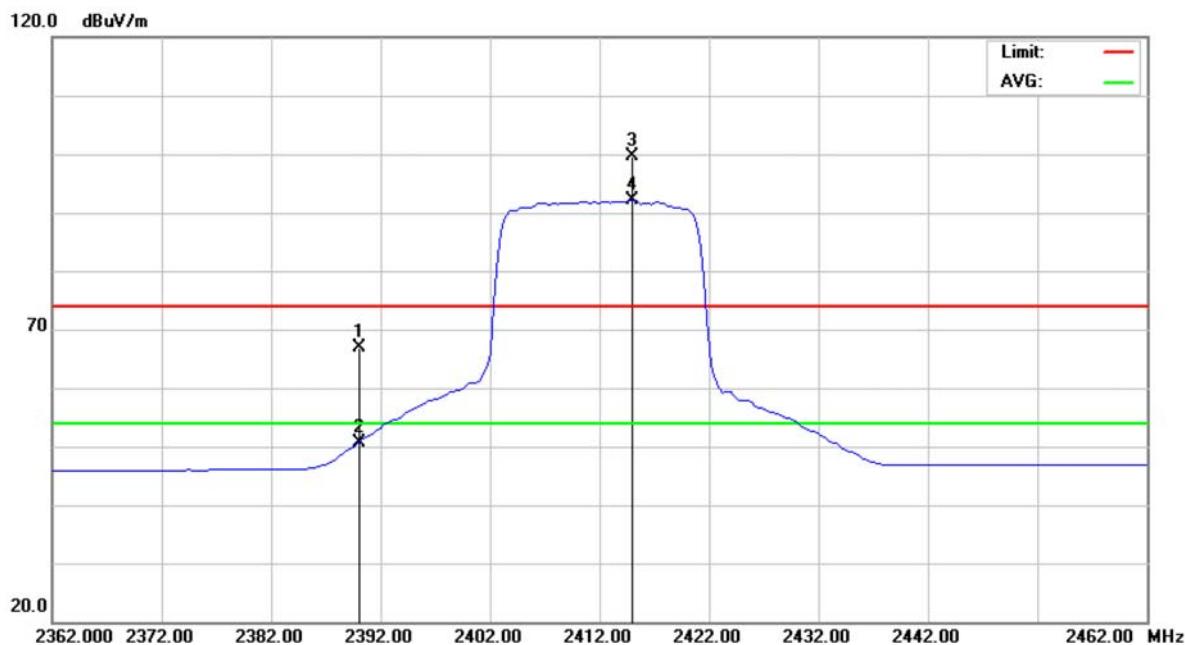
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2462 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over	Detector	Comment
		Level dBuV	Factor dB	ment dBuV/m				
1	4924.250	43.67	7.85	51.52	74.00	-22.48	peak	
2	4924.250	32.99	7.85	40.84	54.00	-13.16	AVG	
3	7386.612	43.75	15.26	59.01	74.00	-14.99	peak	
4 *	7386.612	30.86	15.26	46.12	54.00	-7.88	AVG	



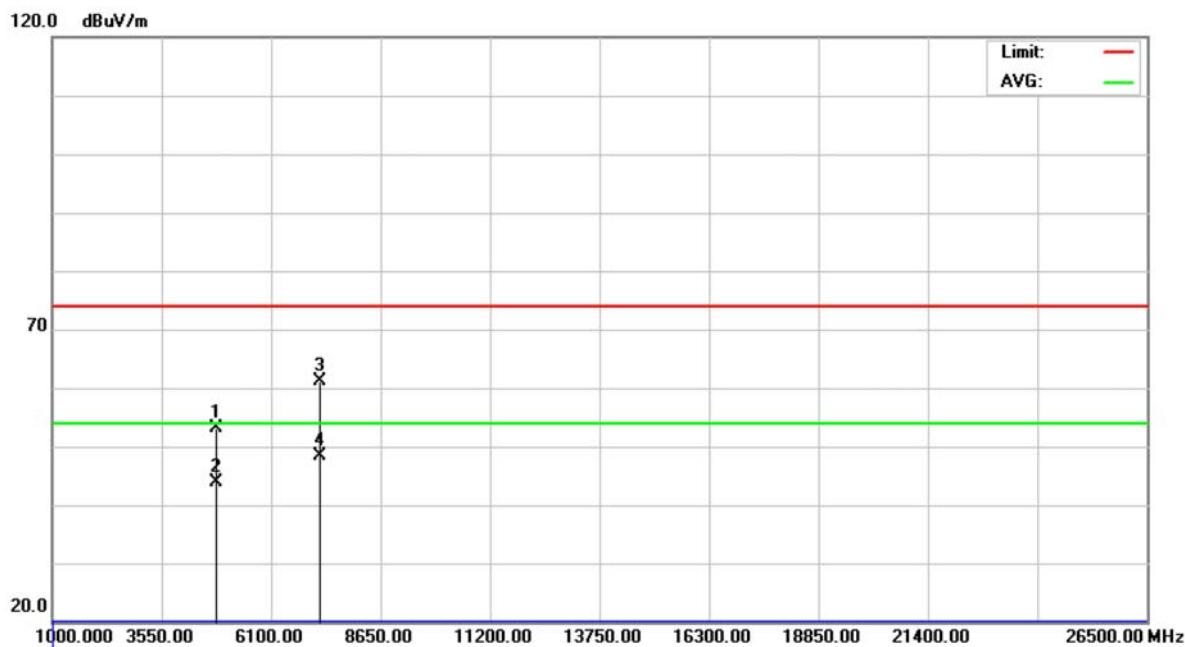
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	2390.000	33.87	32.99	66.86	74.00	-7.14	peak
2	2390.000	17.72	32.99	50.71	54.00	-3.29	AVG
3	X 2415.000	66.42	33.13	99.55	74.00	25.55	peak
4	* 2415.000	58.96	33.13	92.09	54.00	38.09	AVG



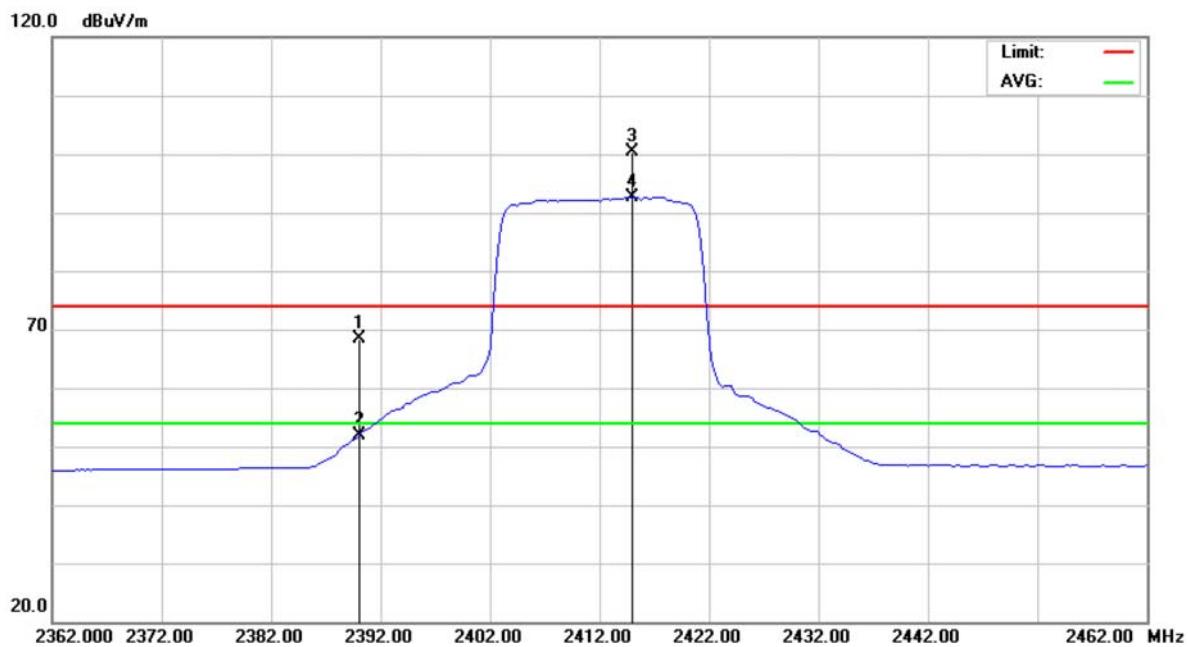
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	4823.000	43.22	9.90	53.12	74.00	-20.88	peak
2	4823.000	33.91	9.90	43.81	54.00	-10.19	AVG
3	7236.413	43.46	17.75	61.21	74.00	-12.79	peak
4 *	7236.413	30.59	17.75	48.34	54.00	-5.66	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz		

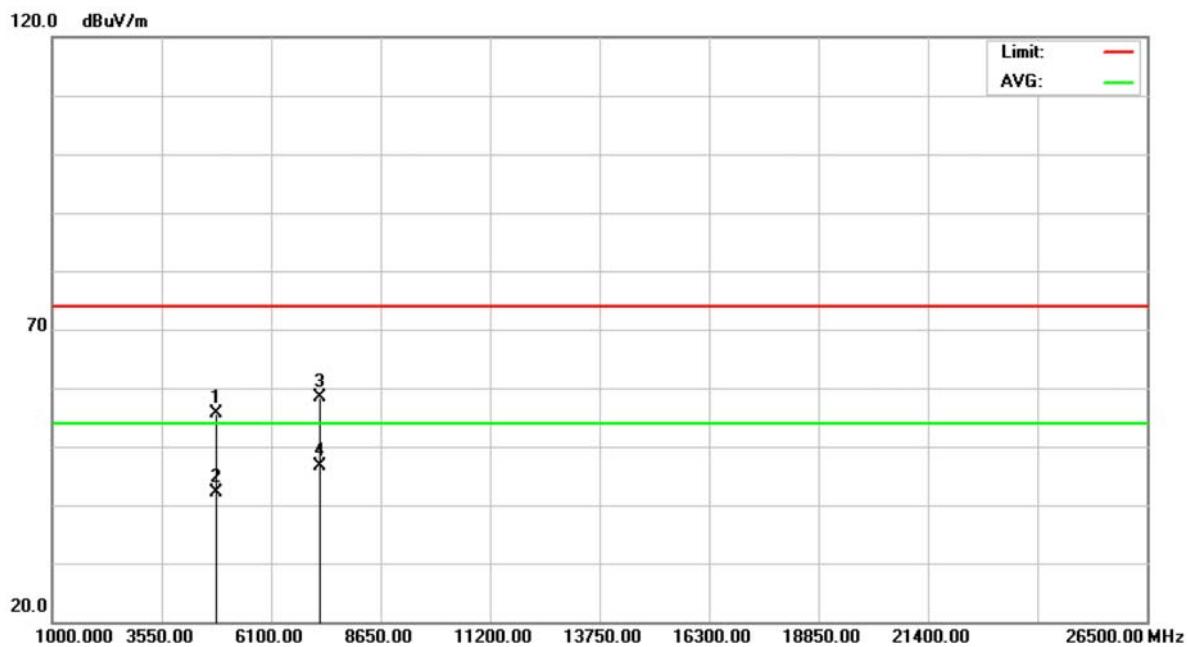
**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	2390.000	35.35	32.99	68.34	74.00	-5.66	peak
2	2390.000	18.95	32.99	51.94	54.00	-2.06	AVG
3	X 2415.000	67.33	33.13	100.46	74.00	26.46	peak
4	* 2415.000	59.55	33.13	92.68	54.00	38.68	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz		

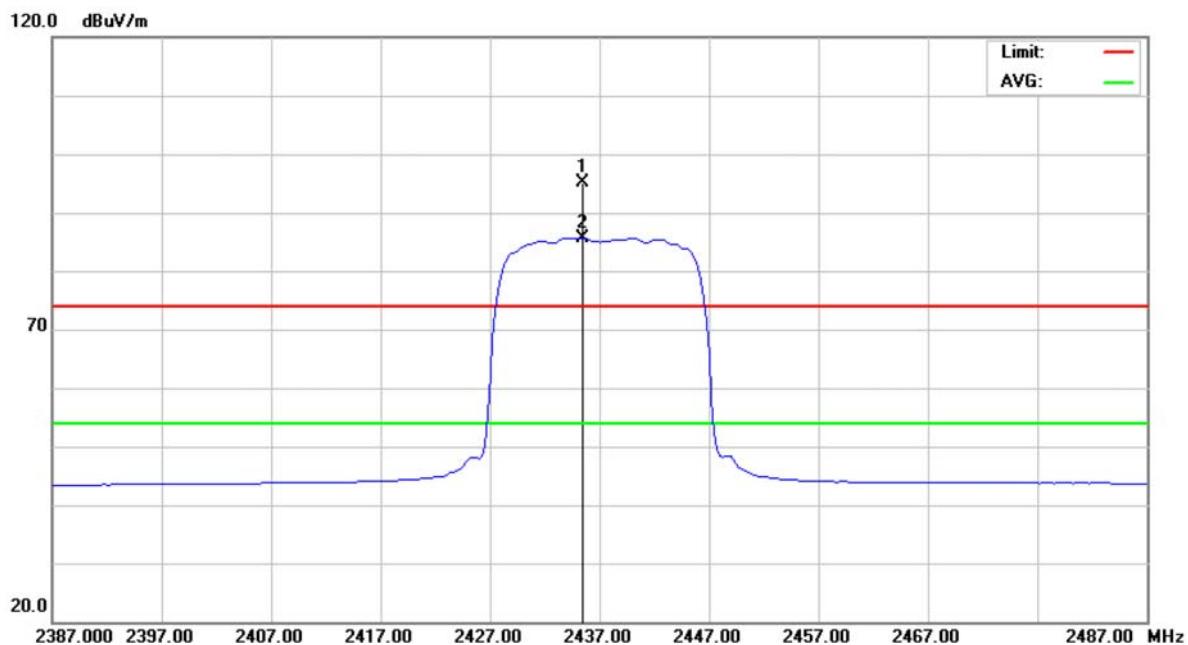
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Limit dB	Detector
1	4824.250	48.25	7.49	55.74	74.00	-18.26	peak
2	4824.250	34.58	7.49	42.07	54.00	-11.93	AVG
3	7236.640	43.46	14.87	58.33	74.00	-15.67	peak
4 *	7236.640	31.73	14.87	46.60	54.00	-7.40	AVG



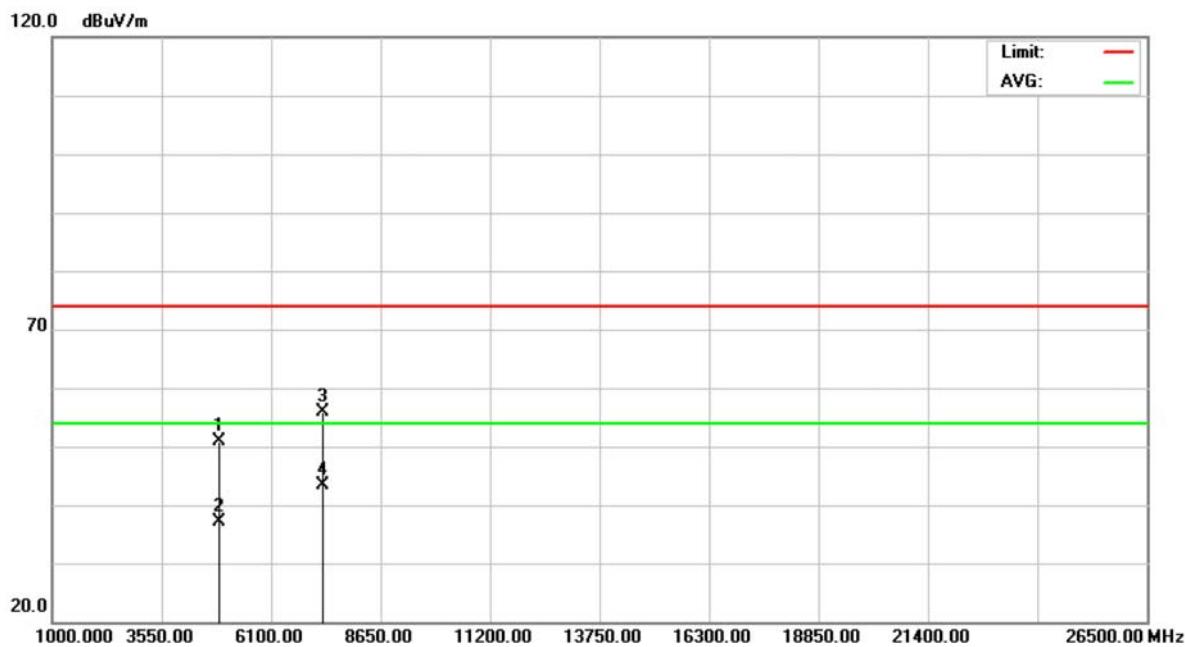
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	X 2435.500	63.14	31.87	95.01	74.00	21.01	peak	
2	* 2435.500	53.80	31.87	85.67	54.00	31.67	AVG	



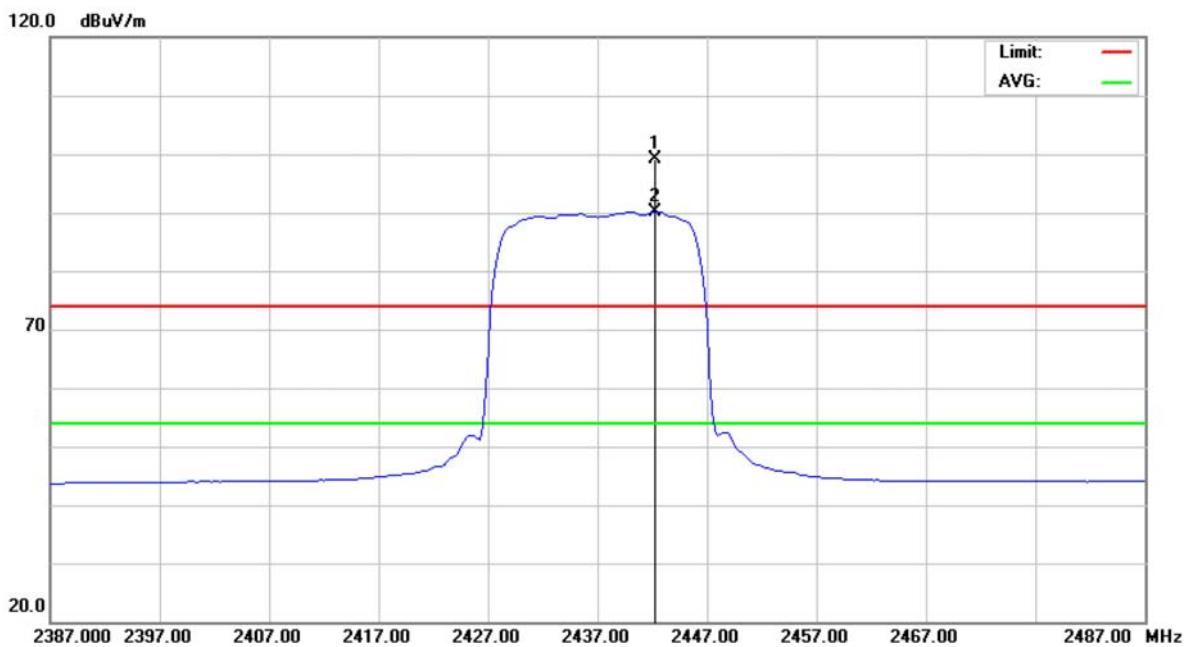
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over	Detector	Comment
		Level dBuV	Factor dB	ment dBuV/m				
1	4873.638	45.22	5.78	51.00	74.00	-23.00	peak	
2	4873.638	31.28	5.78	37.06	54.00	-16.94	AVG	
3	7311.013	43.42	12.57	55.99	74.00	-18.01	peak	
4 *	7311.013	30.86	12.57	43.43	54.00	-10.57	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz		

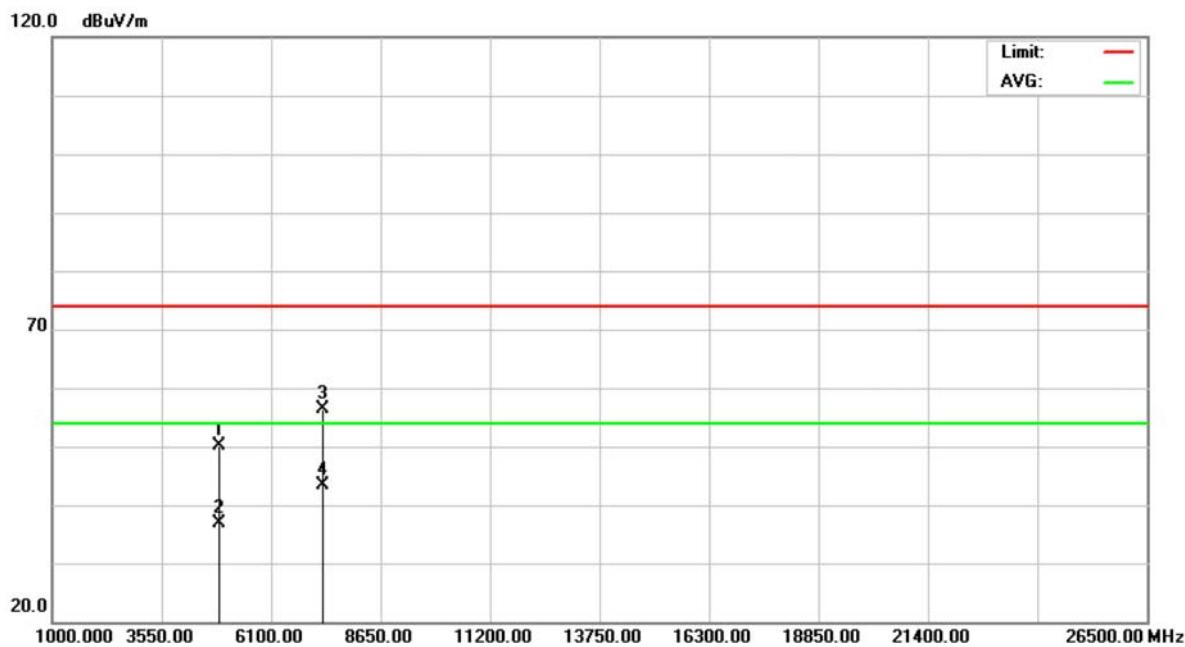
**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1 X	2442.250	67.11	31.90	99.01	74.00	25.01	peak	
2 *	2442.250	58.26	31.90	90.16	54.00	36.16	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz		

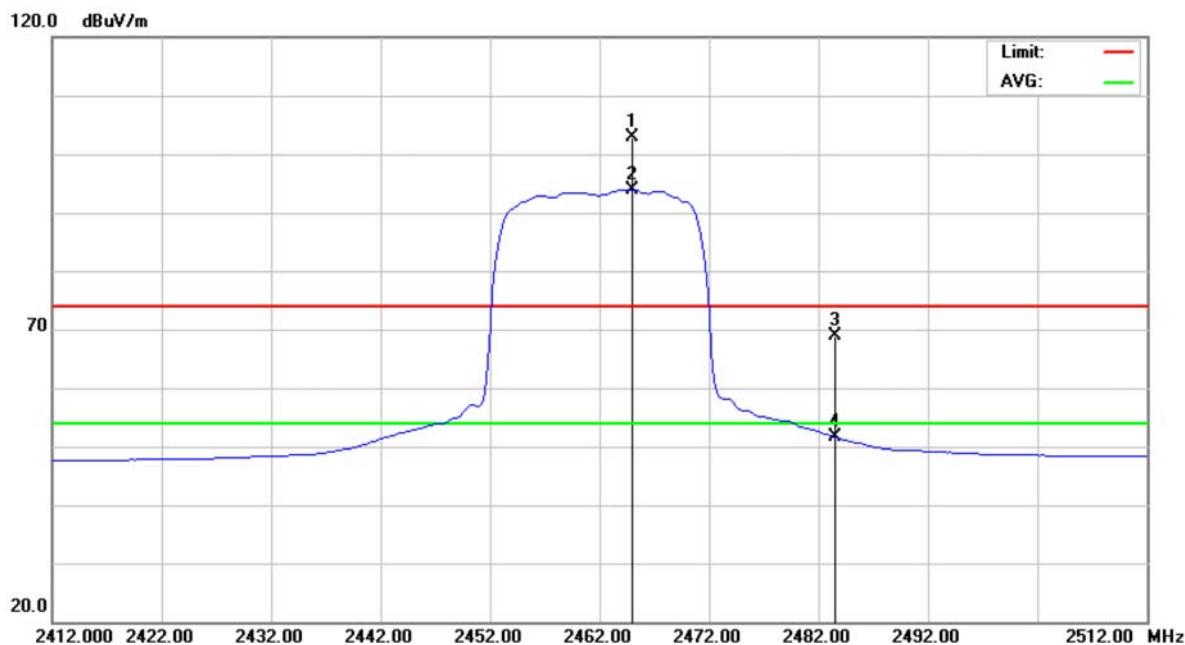
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1	4874.237	44.28	5.78	50.06	74.00	-23.94	peak
2	4874.237	31.08	5.78	36.86	54.00	-17.14	AVG
3	7310.938	43.78	12.57	56.35	74.00	-17.65	peak
4 *	7310.938	30.80	12.57	43.37	54.00	-10.63	AVG



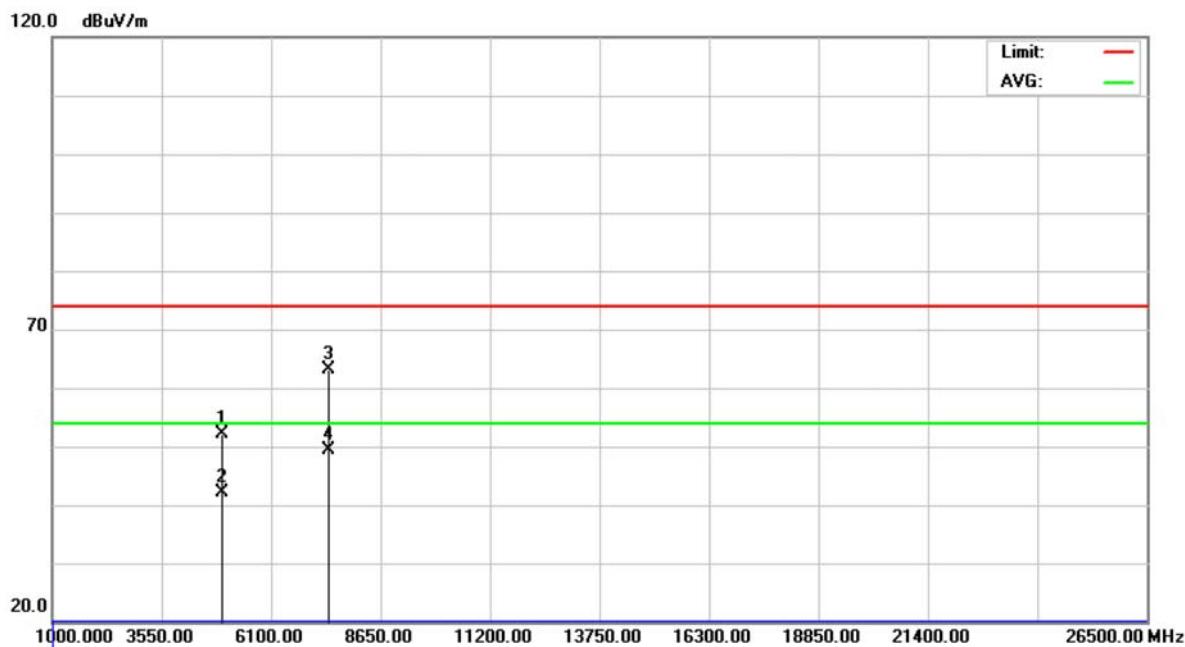
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1 X	2465.000	68.62	34.23	102.85	74.00	28.85	peak
2 *	2465.000	59.77	34.23	94.00	54.00	40.00	AVG
3	2483.500	34.59	34.32	68.91	74.00	-5.09	peak
4	2483.500	17.22	34.32	51.54	54.00	-2.46	AVG



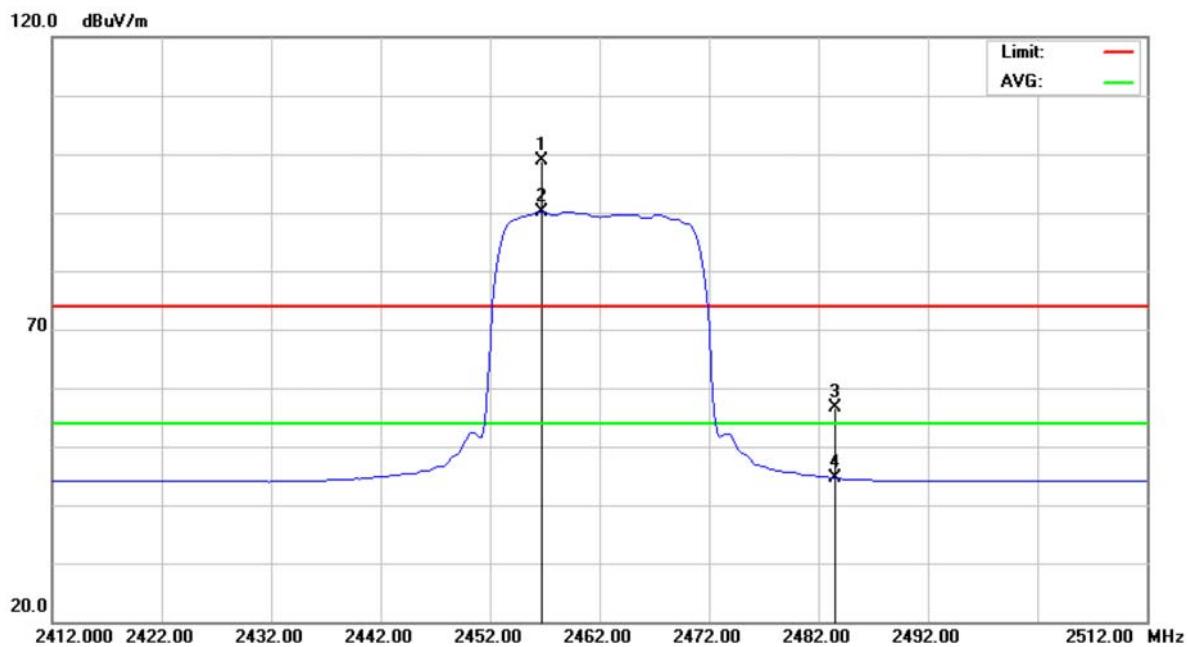
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	4923.000	42.06	9.98	52.04	74.00	-21.96	peak
2	4923.000	32.05	9.98	42.03	54.00	-11.97	AVG
3	7385.913	44.66	18.56	63.22	74.00	-10.78	peak
4 *	7385.913	30.87	18.56	49.43	54.00	-4.57	AVG



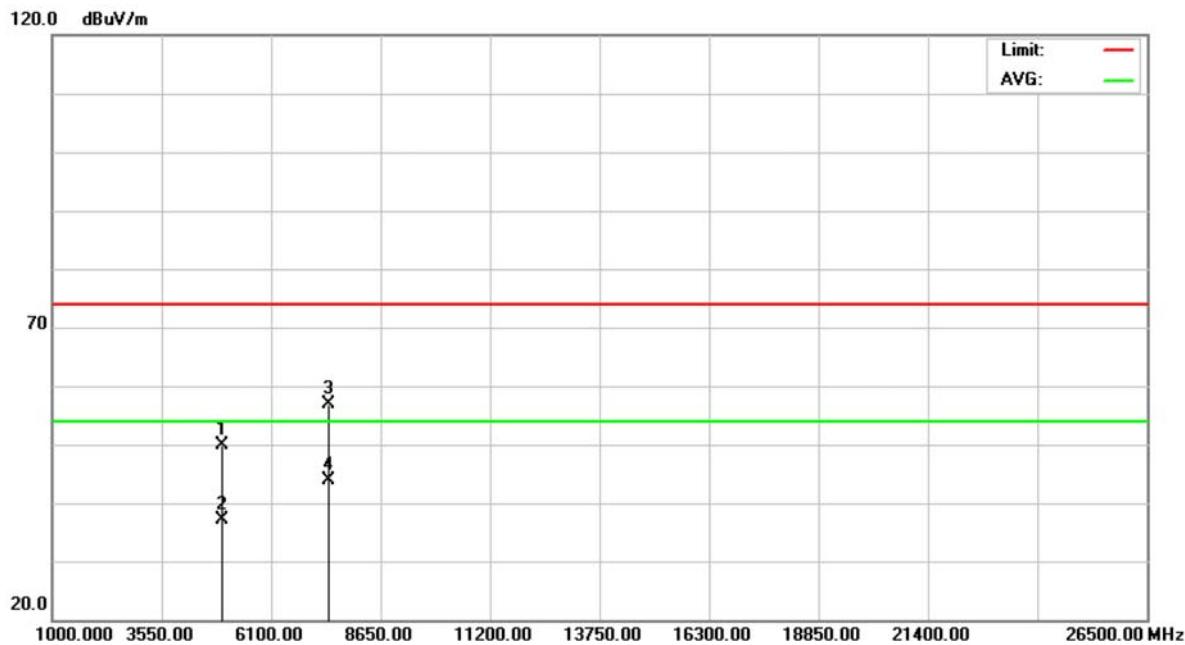
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1 X	2456.750	66.98	31.97	98.95	74.00	24.95	peak
2 *	2456.750	58.16	31.97	90.13	54.00	36.13	AVG
3	2483.500	24.44	32.09	56.53	74.00	-17.47	peak
4	2483.500	12.53	32.09	44.62	54.00	-9.38	AVG



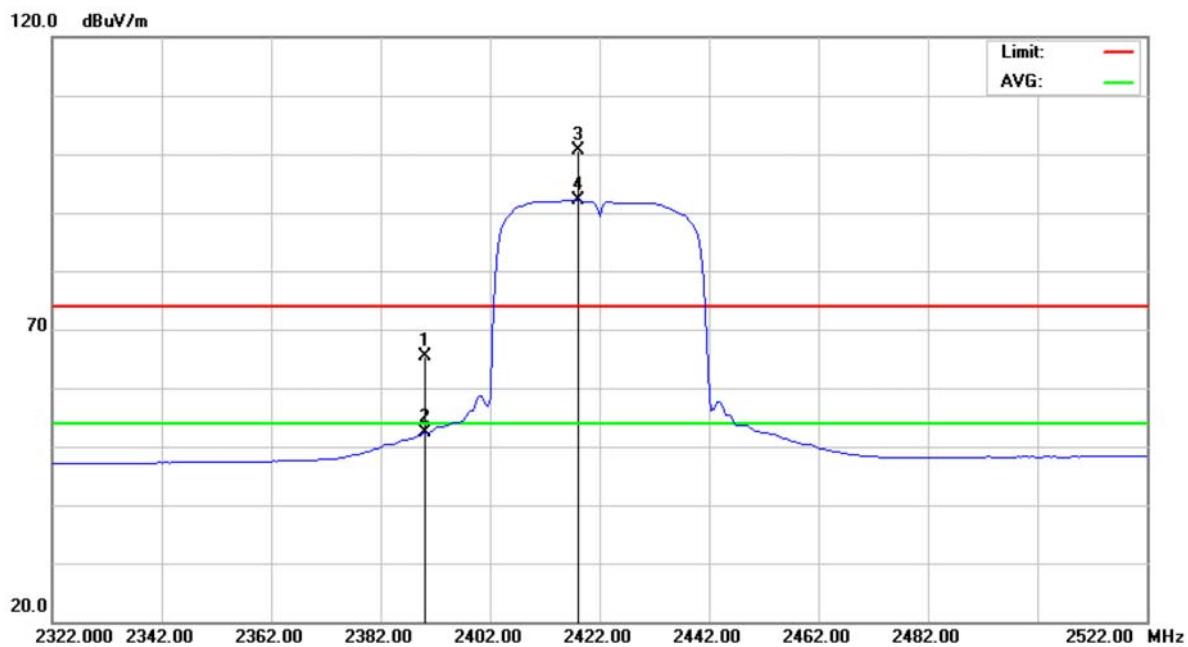
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1	4924.725	43.99	5.84	49.83	74.00	-24.17	peak
2	4924.725	31.36	5.84	37.20	54.00	-16.80	AVG
3	7385.375	44.01	12.84	56.85	74.00	-17.15	peak
4 *	7385.375	30.99	12.84	43.83	54.00	-10.17	AVG



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	2390.000	31.46	33.90	65.36	74.00	-8.64	peak
2	2390.000	18.39	33.90	52.29	54.00	-1.71	AVG
3 X	2418.000	66.58	34.03	100.61	74.00	26.61	peak
4 *	2418.000	58.11	34.03	92.14	54.00	38.14	AVG



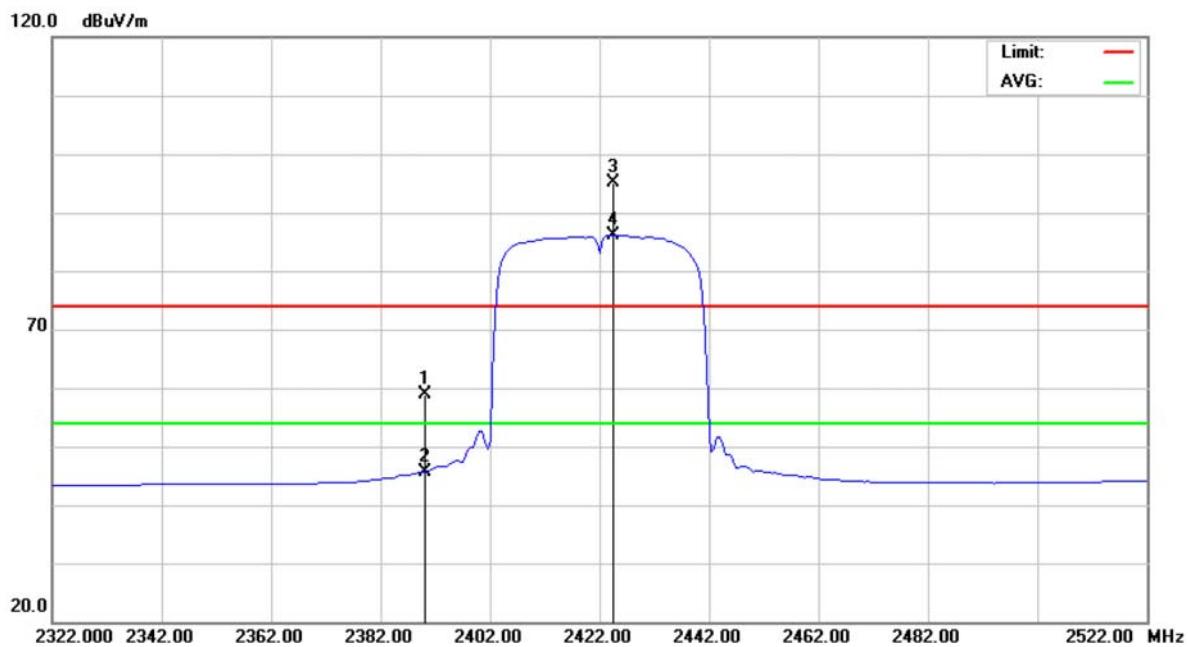
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Limit dB	Detector
1	4844.000	40.92	9.92	50.84	74.00	-23.16	peak
2	4844.000	31.46	9.92	41.38	54.00	-12.62	AVG
3	7265.900	45.03	17.91	62.94	74.00	-11.06	peak
4 *	7265.900	31.60	17.91	49.51	54.00	-4.49	AVG



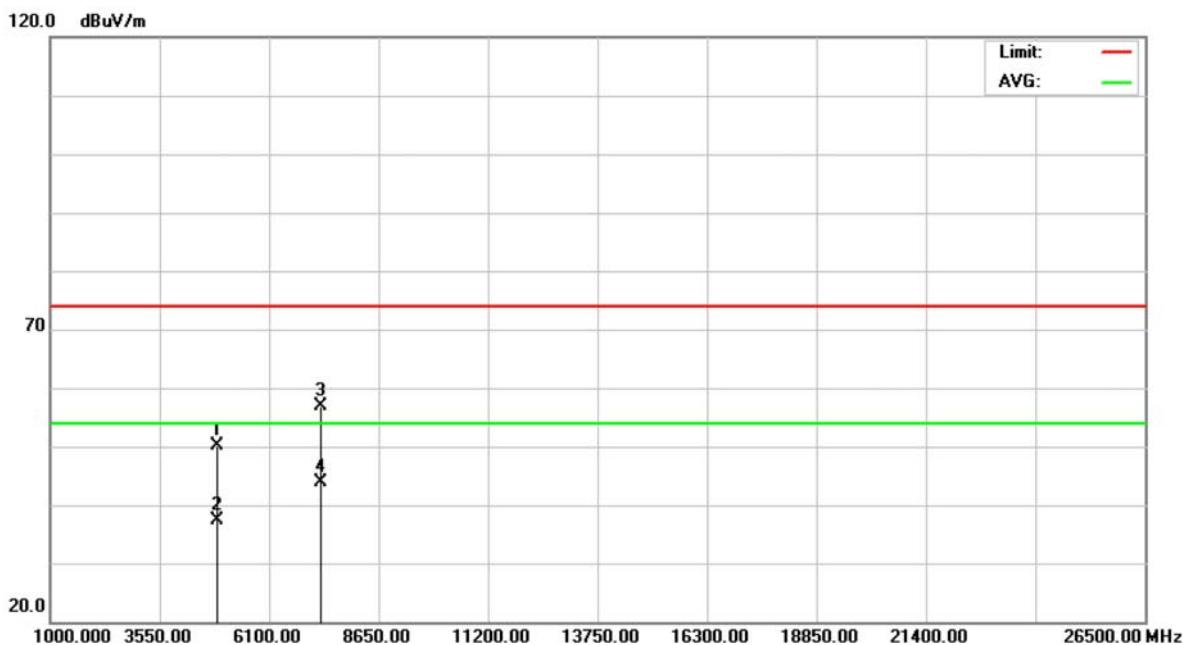
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	2390.000	27.26	31.67	58.93	74.00	-15.07	peak
2	2390.000	14.08	31.67	45.75	54.00	-8.25	AVG
3	X 2424.500	63.41	31.82	95.23	74.00	21.23	peak
4	* 2424.500	54.38	31.82	86.20	54.00	32.20	AVG



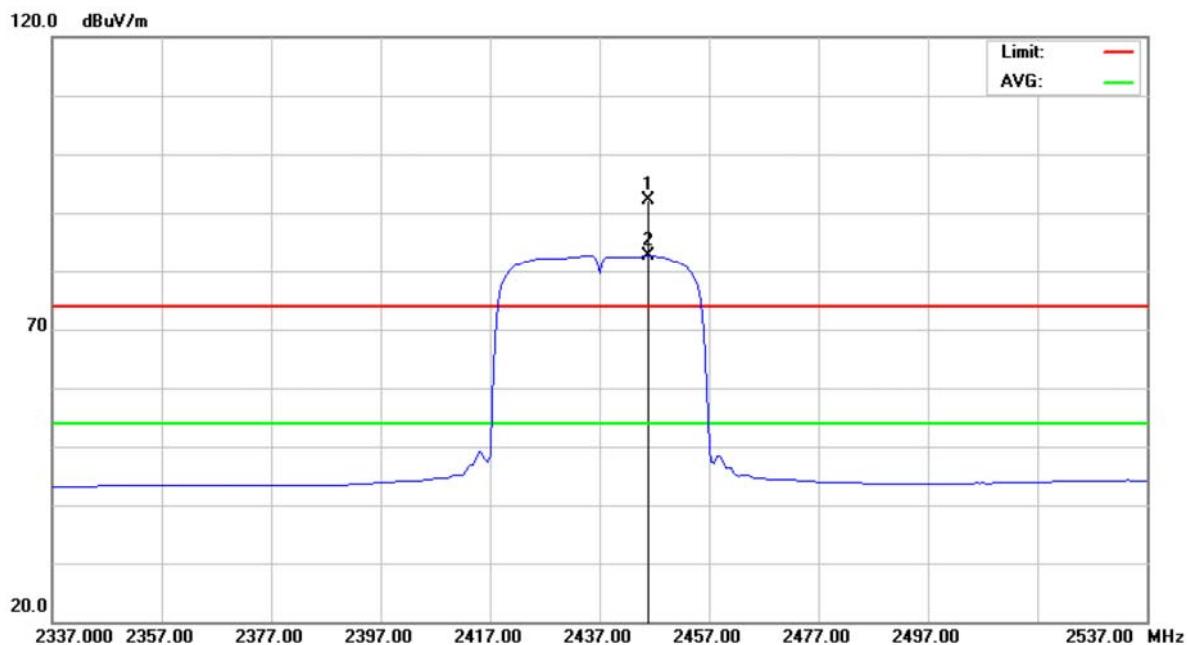
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over	
						Detector	Comment
1	4843.875	44.40	5.74	50.14	74.00	-23.86	peak
2	4843.875	31.61	5.74	37.35	54.00	-16.65	AVG
3	7266.750	44.52	12.40	56.92	74.00	-17.08	peak
4 *	7266.750	31.57	12.40	43.97	54.00	-10.03	AVG



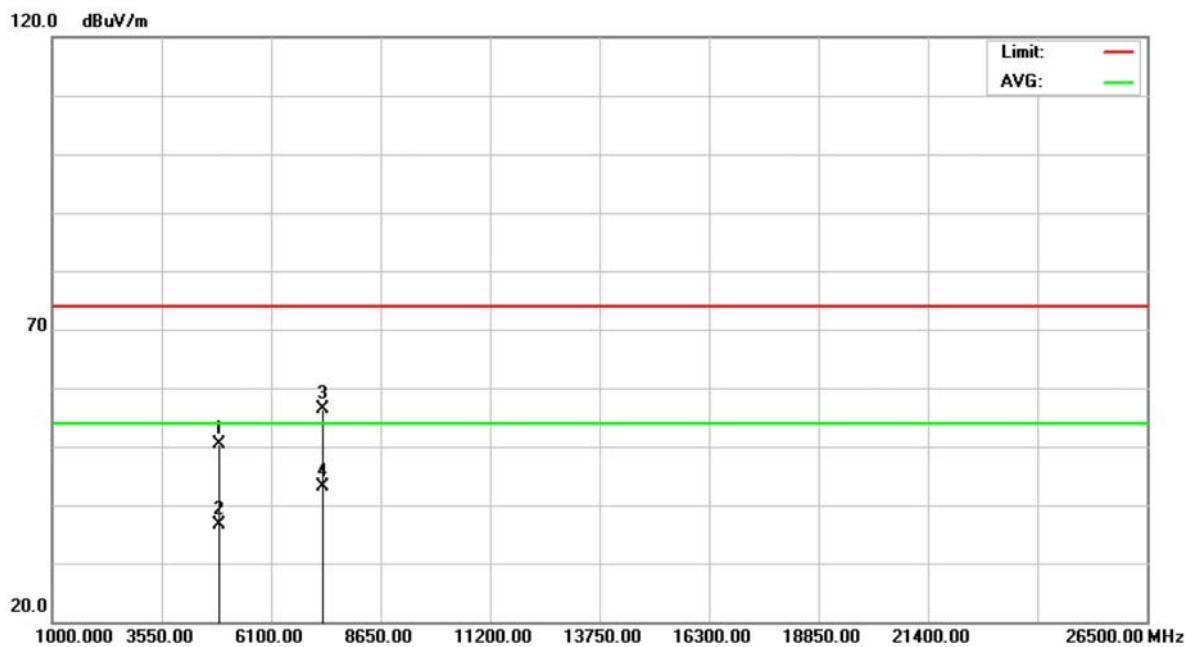
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz		

**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1 X	2446.000	60.19	31.92	92.11	74.00	18.11	peak	
2 *	2446.000	50.68	31.92	82.60	54.00	28.60	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz		

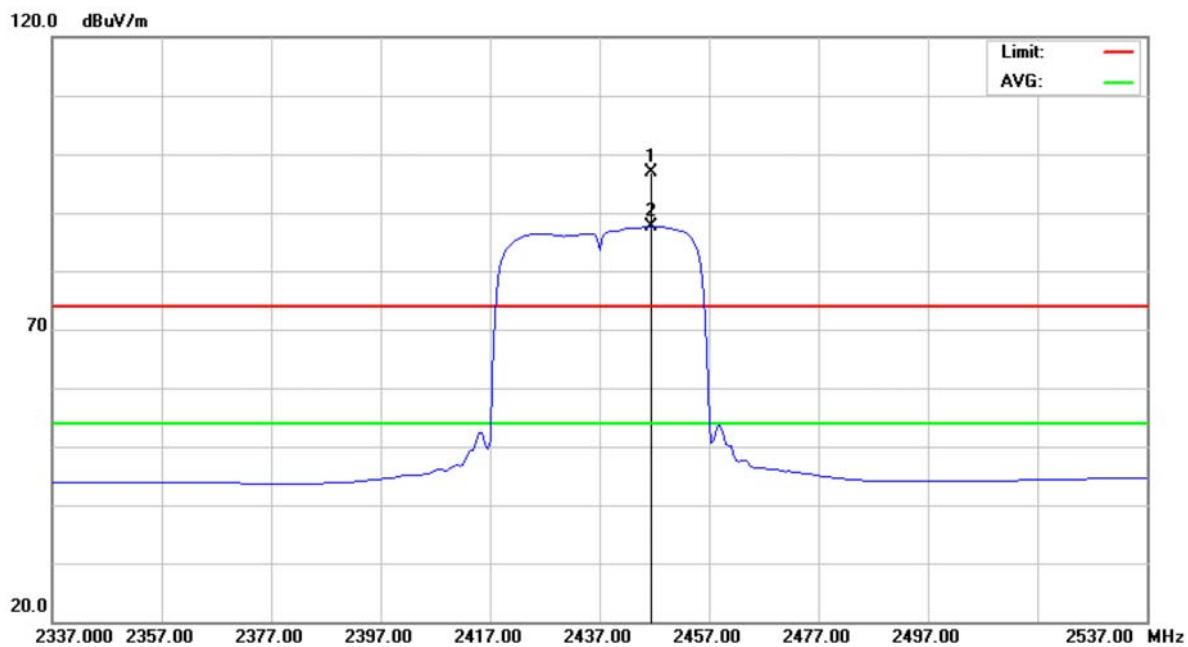
**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	4874.438	44.55	5.78	50.33	74.00	-23.67	peak	
2	4874.438	30.80	5.78	36.58	54.00	-17.42	AVG	
3	7311.000	43.70	12.57	56.27	74.00	-17.73	peak	
4	* 7311.000	30.66	12.57	43.23	54.00	-10.77	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz		

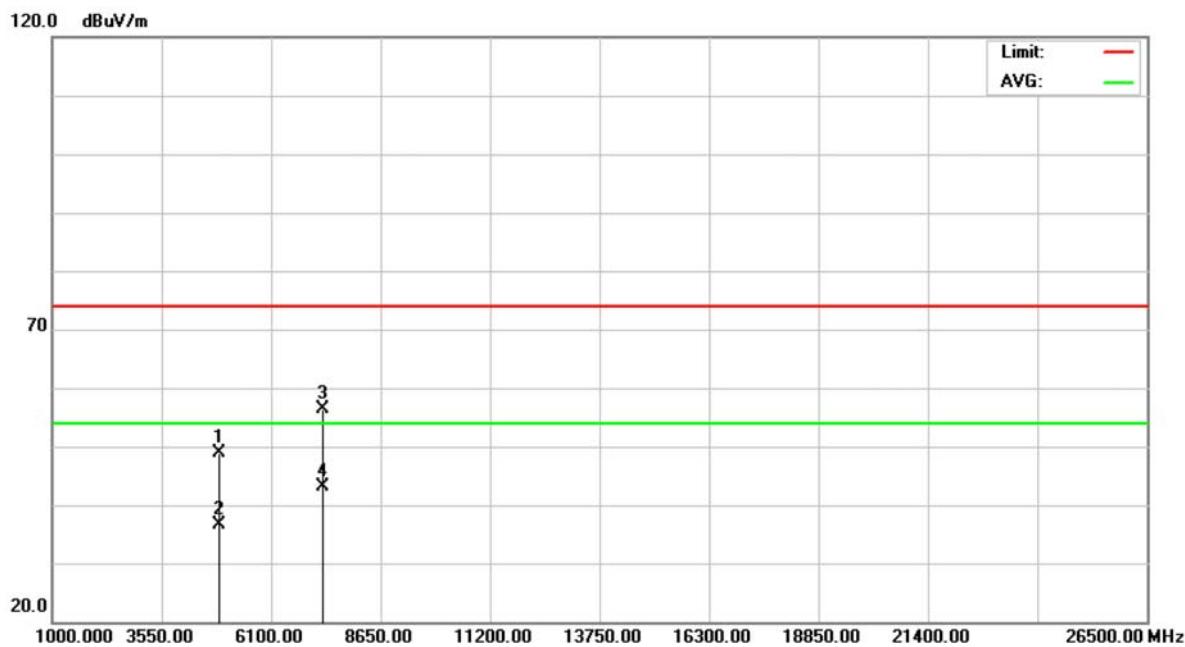
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	X 2446.500	64.98	31.92	96.90	74.00	22.90	peak	
2	* 2446.500	55.75	31.92	87.67	54.00	33.67	AVG	



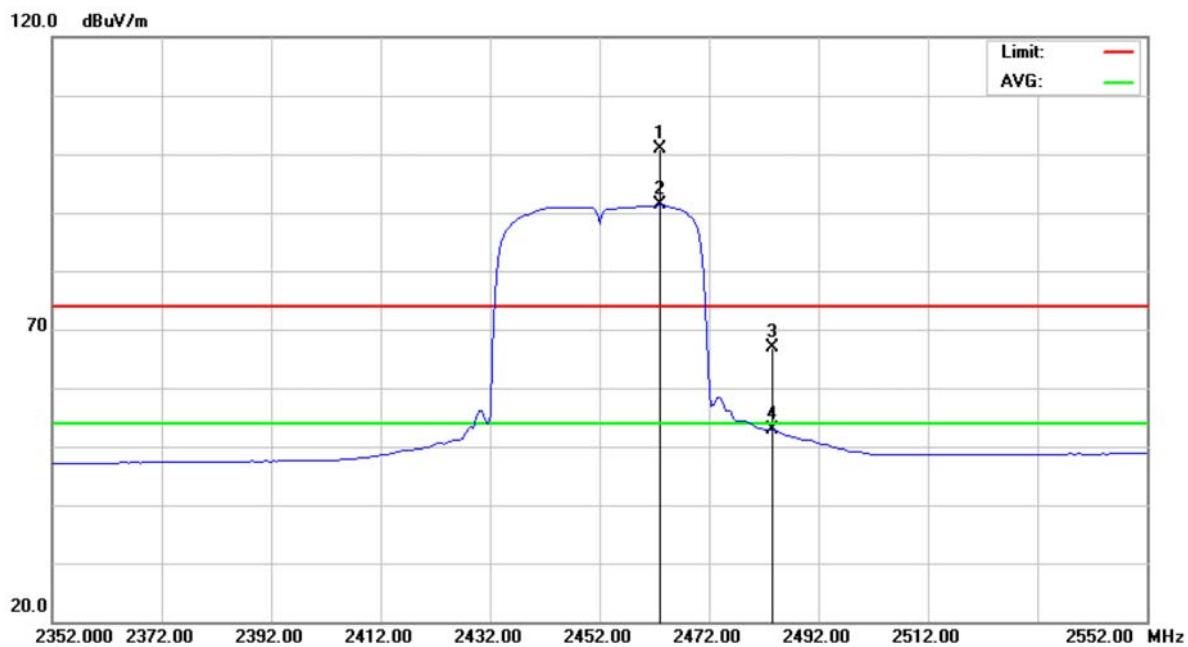
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz		

**Polarization: Horizontal**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	4874.300	43.08	5.78	48.86	74.00	-25.14	peak	
2	4874.300	30.91	5.78	36.69	54.00	-17.31	AVG	
3	7310.563	43.88	12.57	56.45	74.00	-17.55	peak	
4 *	7310.563	30.62	12.57	43.19	54.00	-10.81	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz		

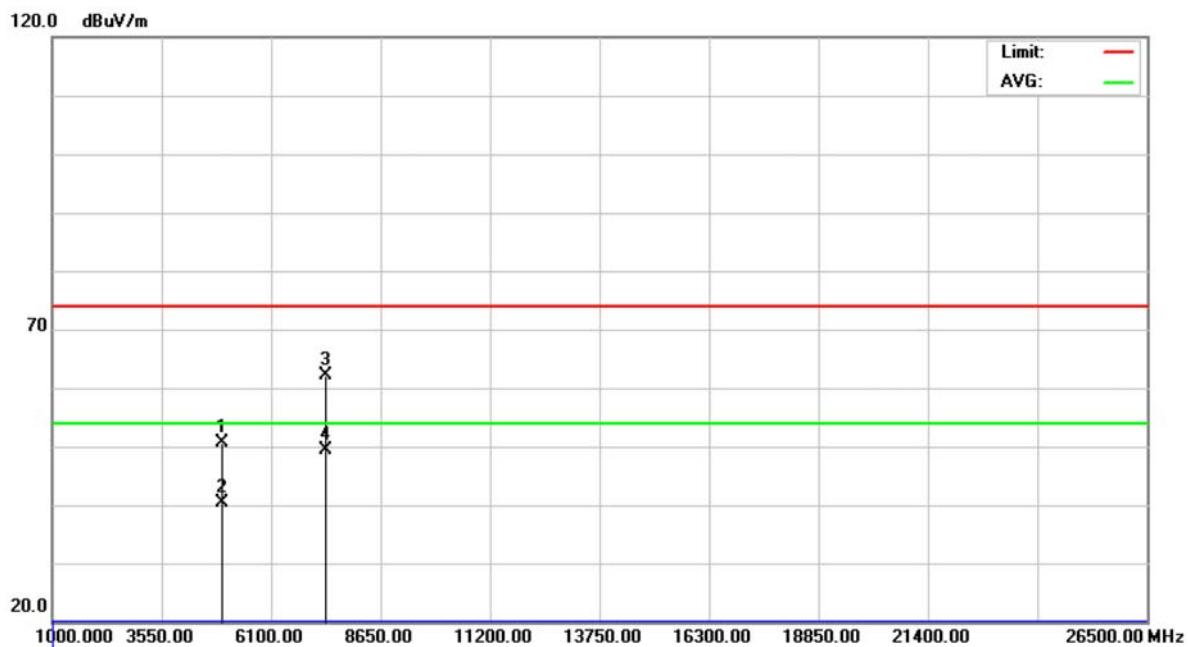
**Polarization: Vertical**

No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1 X	2463.000	66.67	34.23	100.90	74.00	26.90	peak	
2 *	2463.000	57.03	34.23	91.26	54.00	37.26	AVG	
3	2483.500	32.47	34.32	66.79	74.00	-7.21	peak	
4	2483.500	18.44	34.32	52.76	54.00	-1.24	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz		

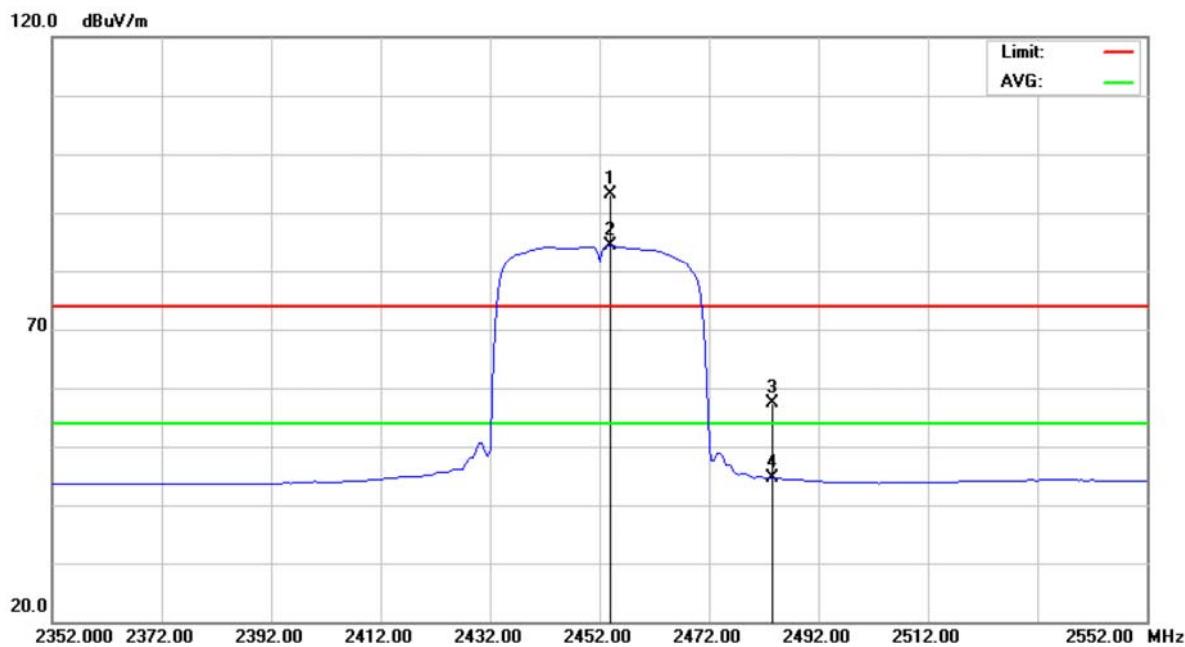
**Polarization: Vertical**



No. Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector	Comment
		dBuV	dB	dBuV/m	dBuV/m	dB		
1	4903.000	40.69	9.97	50.66	74.00	-23.34	peak	
2	4903.000	30.49	9.97	40.46	54.00	-13.54	AVG	
3	7355.913	43.65	18.40	62.05	74.00	-11.95	peak	
4 *	7355.913	30.90	18.40	49.30	54.00	-4.70	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz		

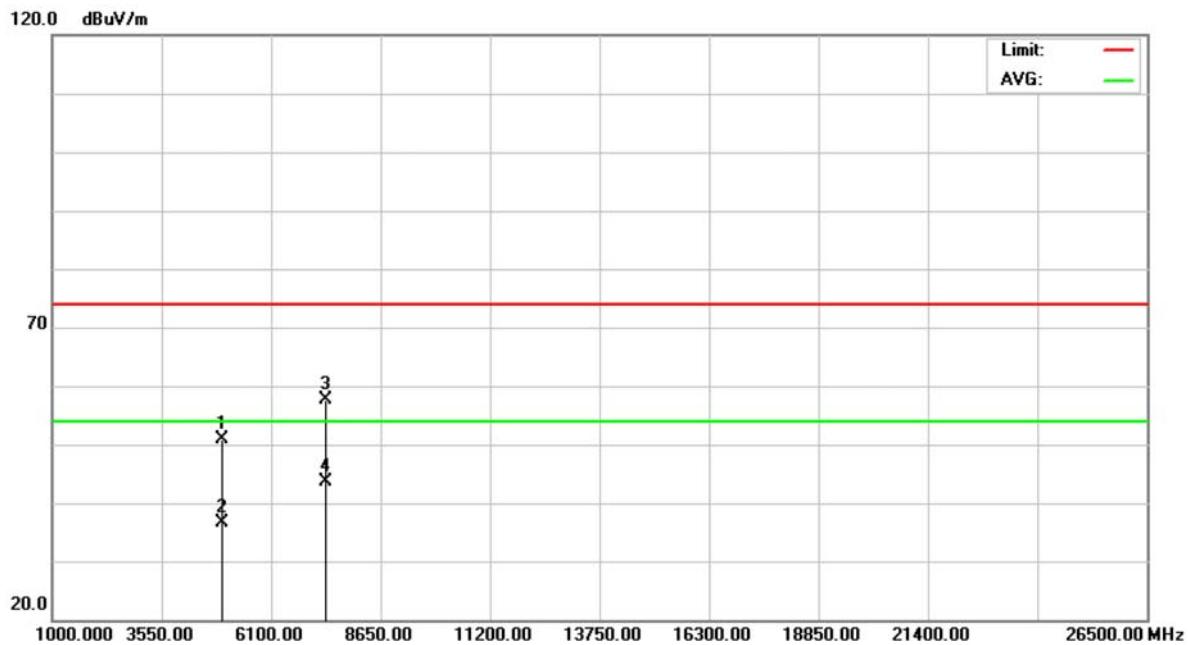
**Polarization: Horizontal**

No. Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
		Level	Factor	ment				
1	X 2454.000	61.22	31.95	93.17	74.00	19.17	peak	
2	*	52.38	31.95	84.33	54.00	30.33	AVG	
3	2483.500	25.23	32.09	57.32	74.00	-16.68	peak	
4	2483.500	12.52	32.09	44.61	54.00	-9.39	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz		

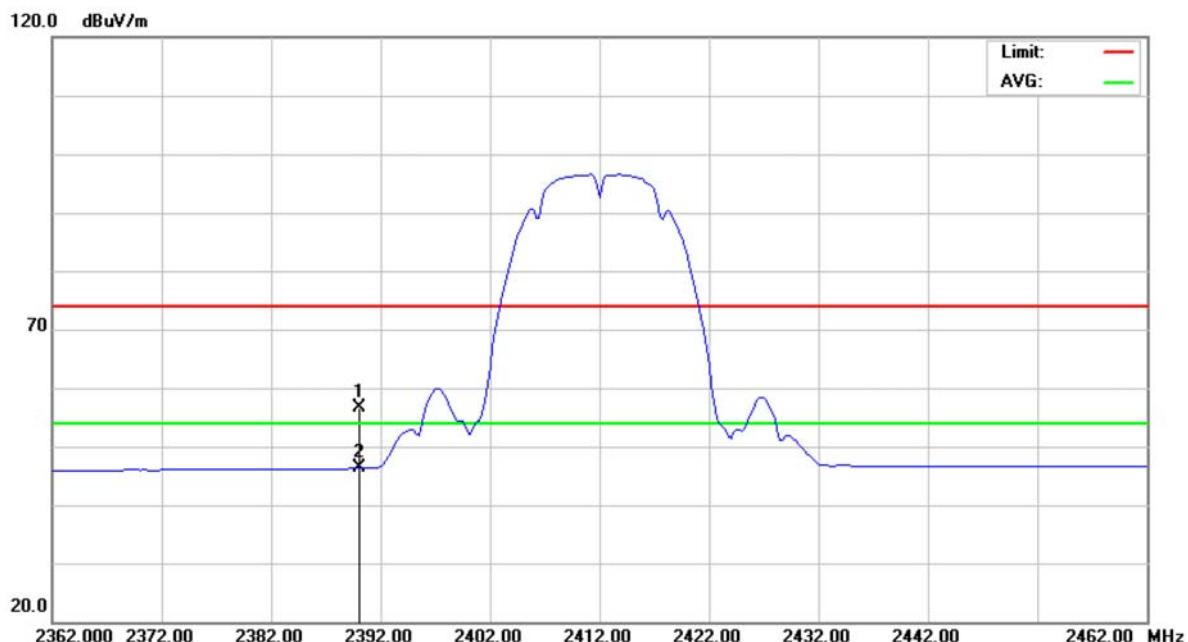
**Polarization: Horizontal**



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
						Detector	Comment
1	4903.638	45.00	5.82	50.82	74.00	-23.18	peak
2	4903.638	30.74	5.82	36.56	54.00	-17.44	AVG
3	7355.850	44.93	12.73	57.66	74.00	-16.34	peak
4 *	7355.850	30.85	12.73	43.58	54.00	-10.42	AVG

**9.9 TEST RESULTS (RESTRICTED BANDS)**

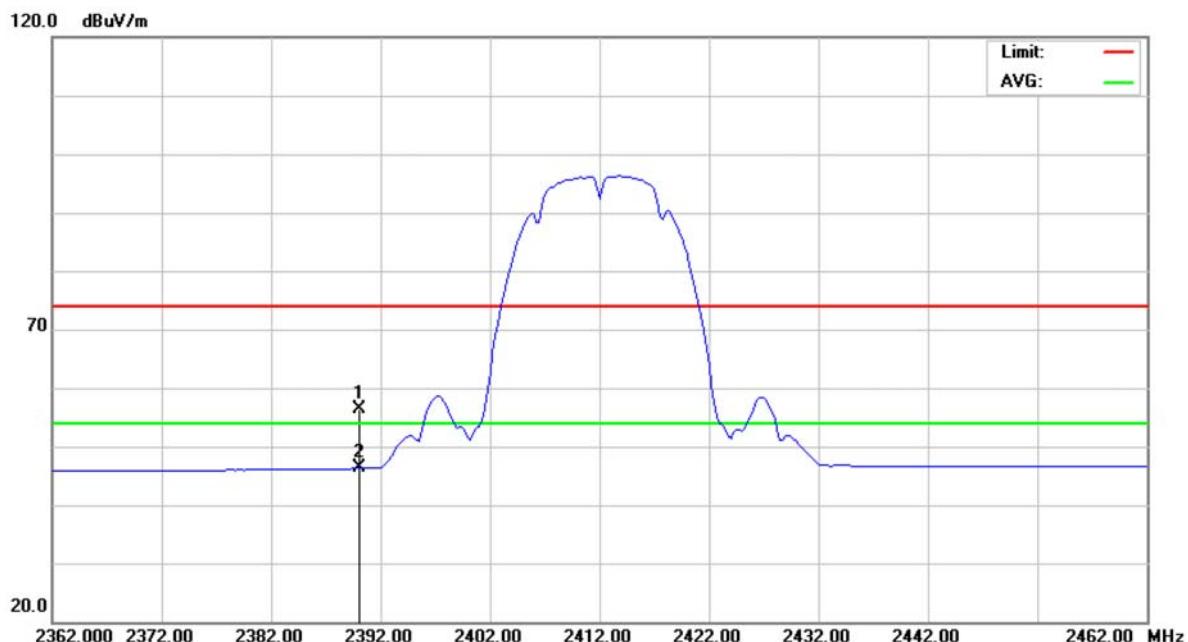
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2390.000	23.56	32.99	56.55	74.00	-17.45	peak	
2	*	2390.000	13.47	32.99	46.46	54.00	-7.54	AVG	



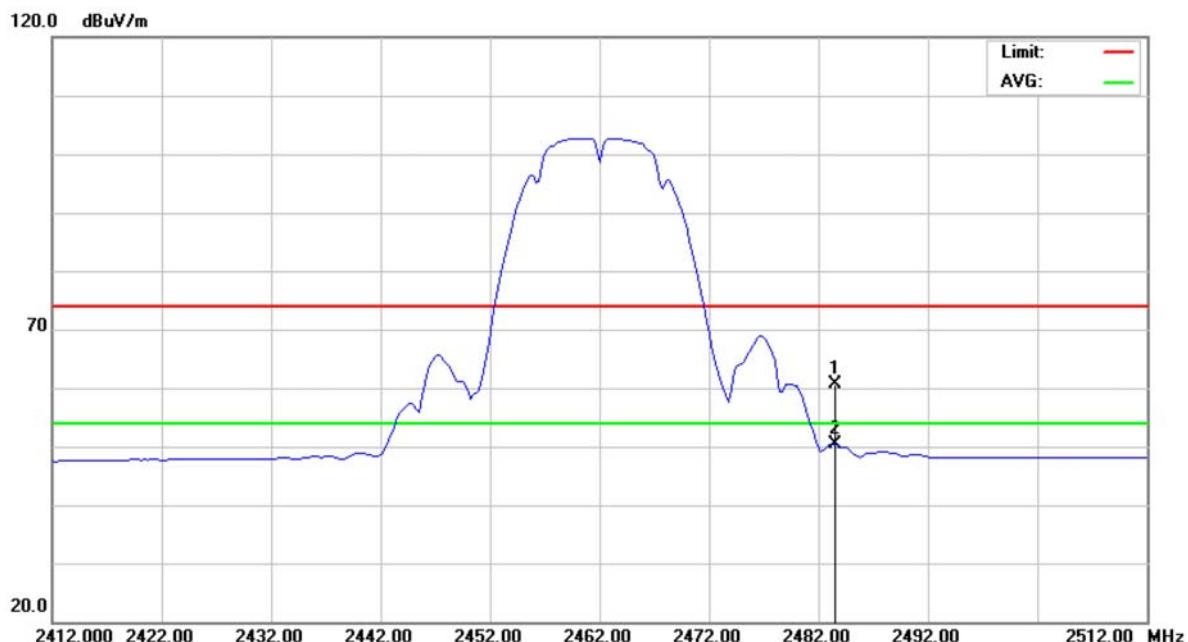
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2390.000	23.47	32.99	56.46	74.00	-17.54	peak	
2	*	2390.000	13.33	32.99	46.32	54.00	-7.68	AVG	



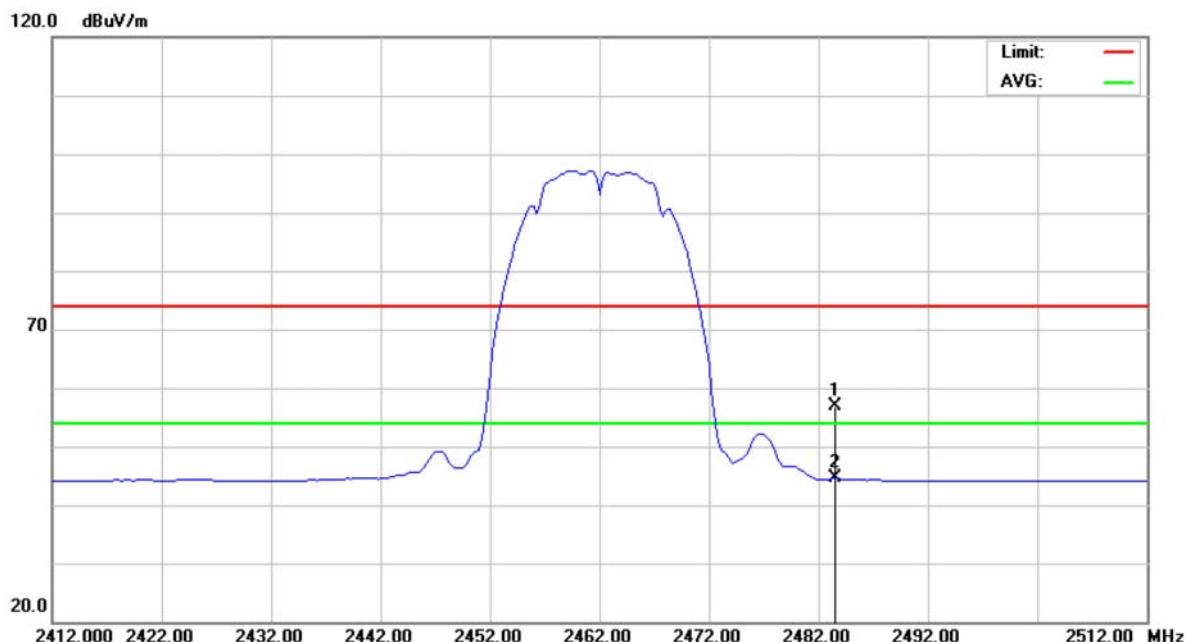
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2483.500	26.41	34.32	60.73	74.00	-13.27	peak	
2	*	2483.500	16.07	34.32	50.39	54.00	-3.61	AVG	



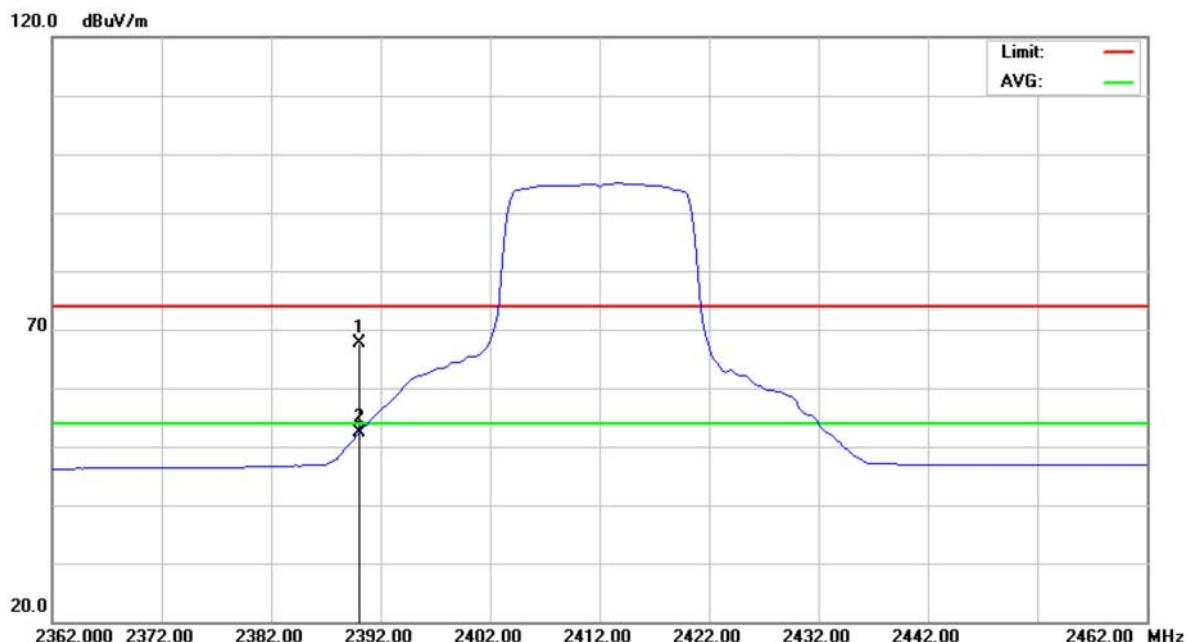
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2483.500	24.84	32.09	56.93	74.00	-17.07	peak	
2	*	2483.500	12.45	32.09	44.54	54.00	-9.46	AVG	



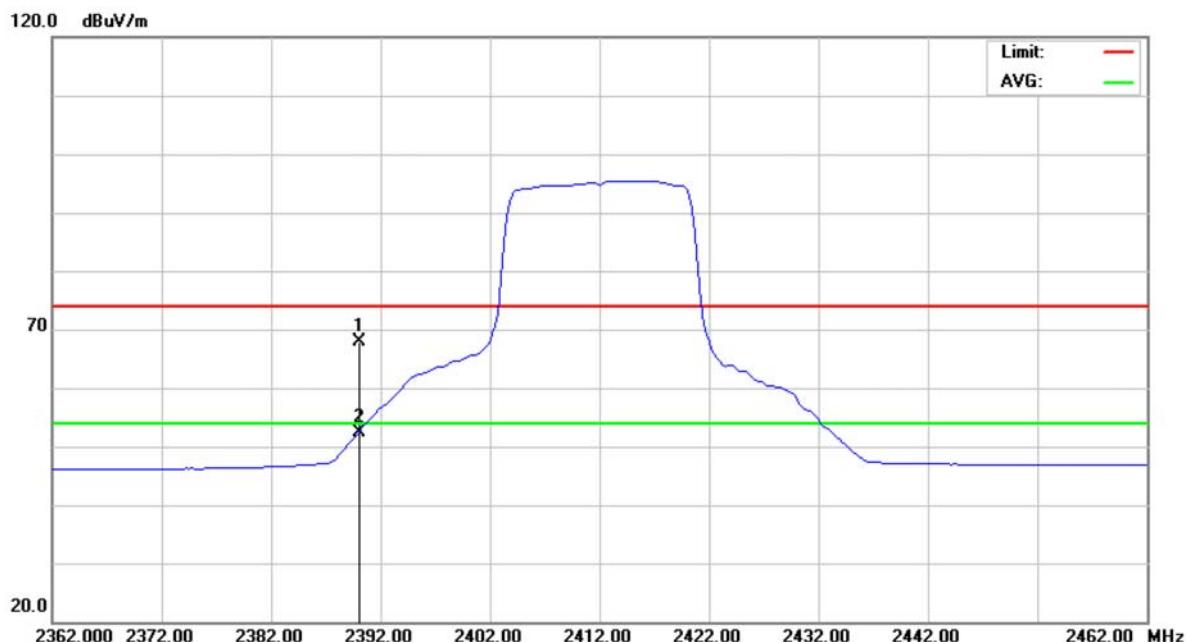
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2390.000	34.62	32.99	67.61	74.00	-6.39	peak	
2	*	2390.000	19.31	32.99	52.30	54.00	-1.70	AVG	



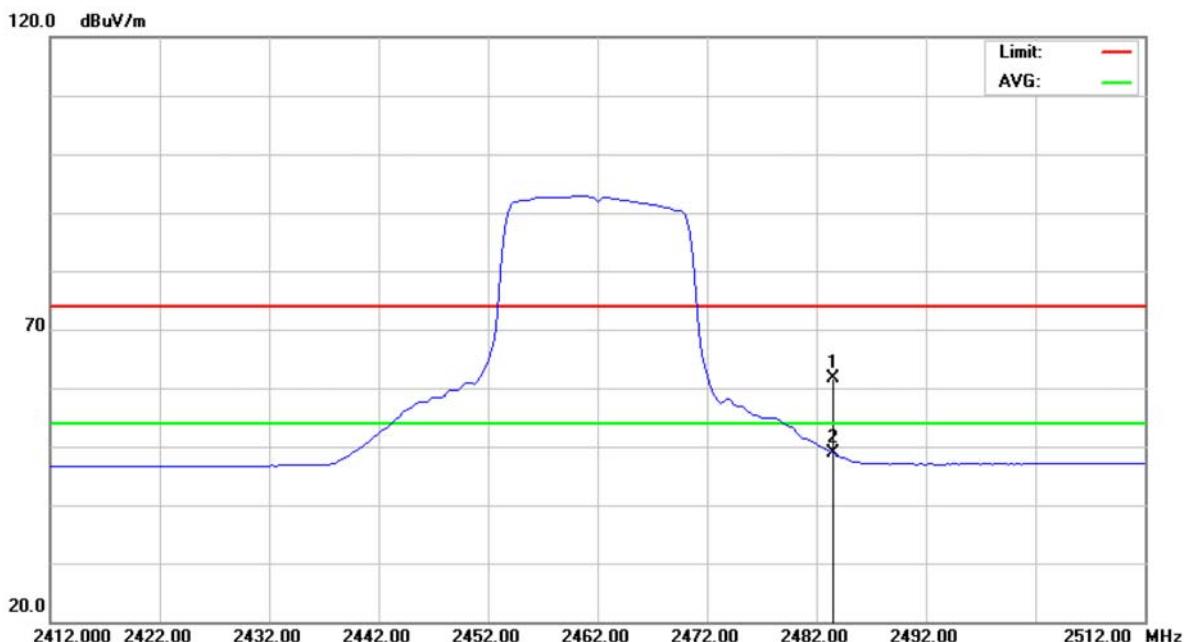
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2390.000	34.94	32.99	67.93	74.00	-6.07	peak	
2	*	2390.000	19.49	32.99	52.48	54.00	-1.52	AVG	



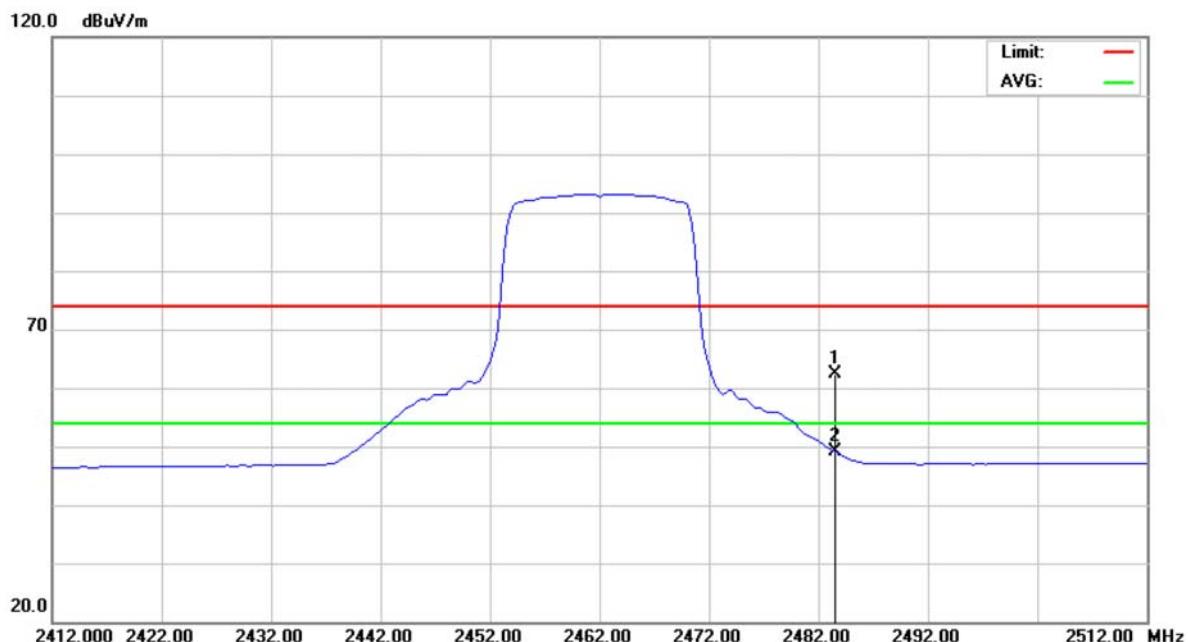
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2483.500	28.23	33.50	61.73	74.00	-12.27	peak	
2	*	2483.500	15.31	33.50	48.81	54.00	-5.19	AVG	



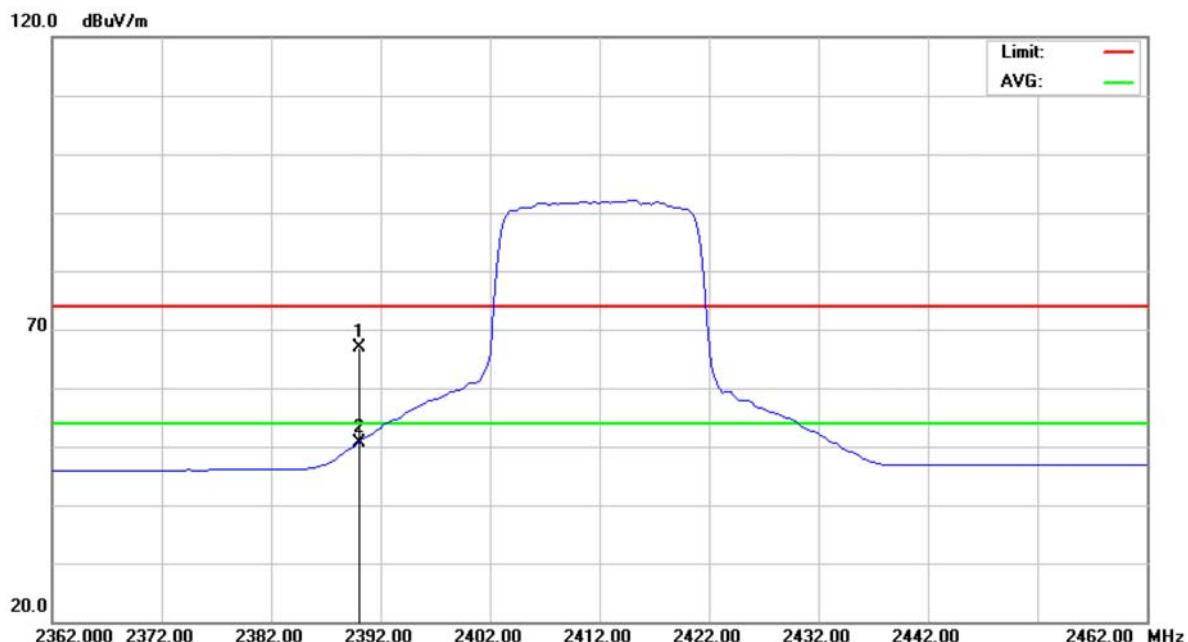
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2483.500	28.78	33.50	62.28	74.00	-11.72	peak	
2	*	2483.500	15.61	33.50	49.11	54.00	-4.89	AVG	



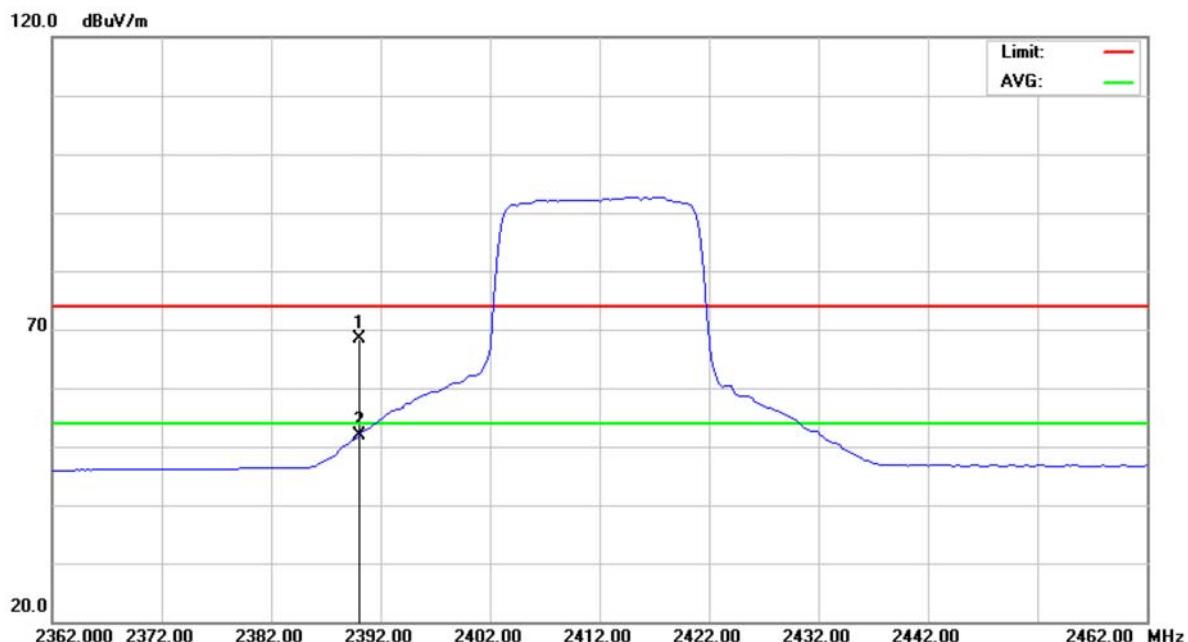
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2390.000	33.87	32.99	66.86	74.00	-7.14	peak	
2	*	2390.000	17.72	32.99	50.71	54.00	-3.29	AVG	



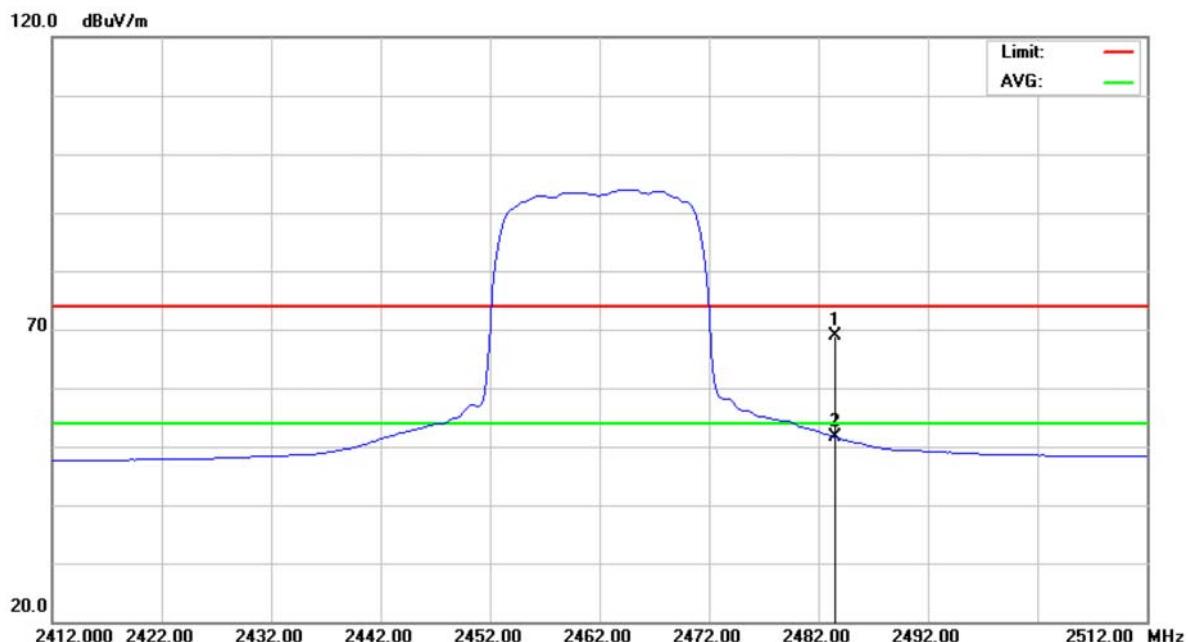
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2390.000	35.35	32.99	68.34	74.00	-5.66	peak	
2	*	2390.000	18.95	32.99	51.94	54.00	-2.06	AVG	



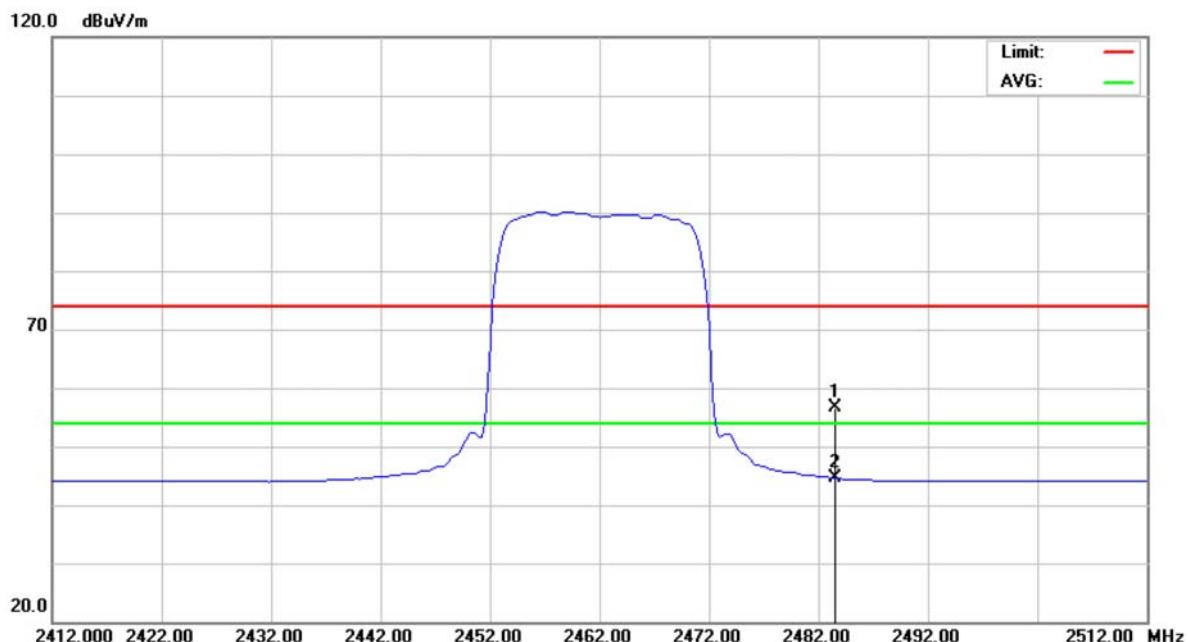
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2483.500	34.59	34.32	68.91	74.00	-5.09	peak	
2	*	2483.500	17.22	34.32	51.54	54.00	-2.46	AVG	



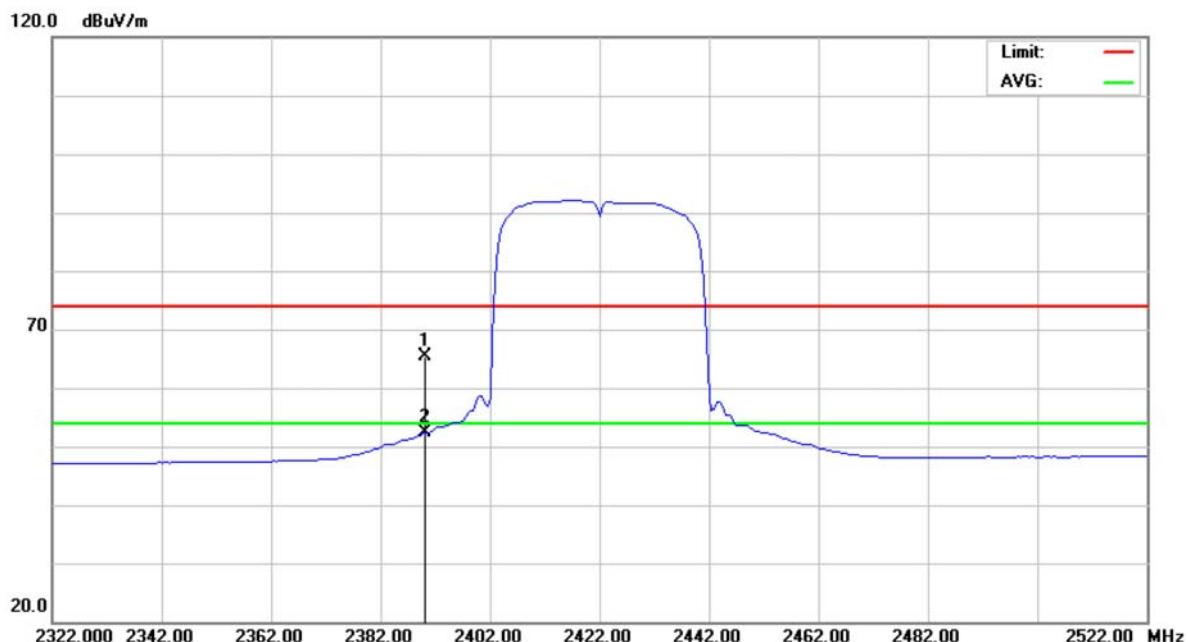
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2483.500	24.44	32.09	56.53	74.00	-17.47	peak	
2	*	2483.500	12.53	32.09	44.62	54.00	-9.38	AVG	



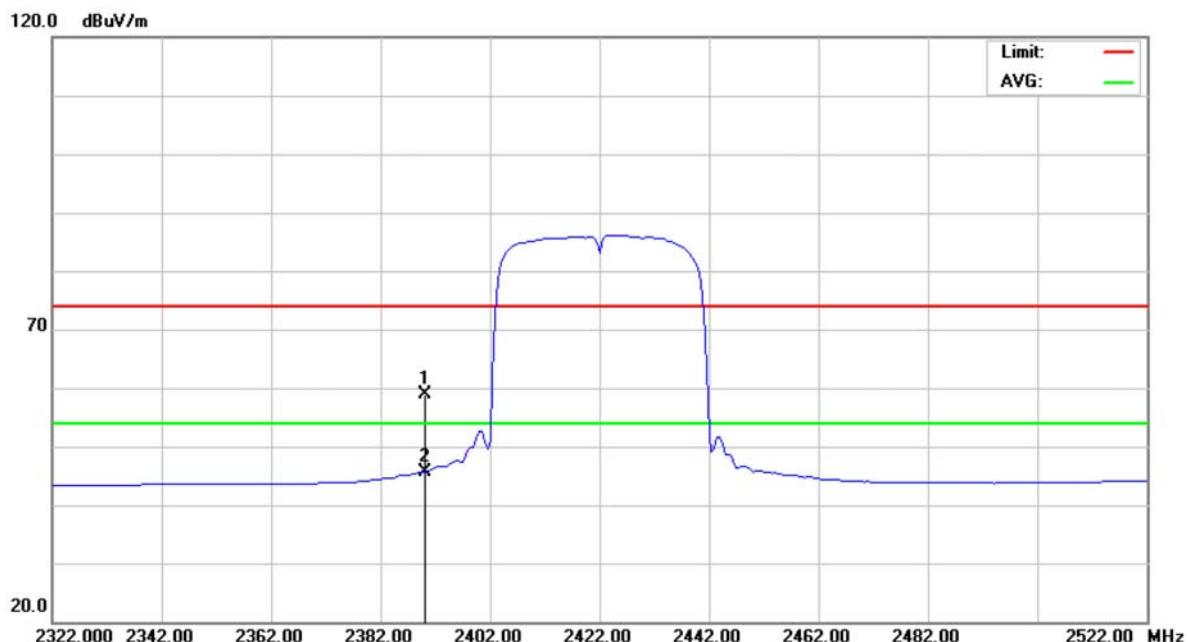
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2390.000	31.46	33.90	65.36	74.00	-8.64	peak	
2	*	2390.000	18.39	33.90	52.29	54.00	-1.71	AVG	



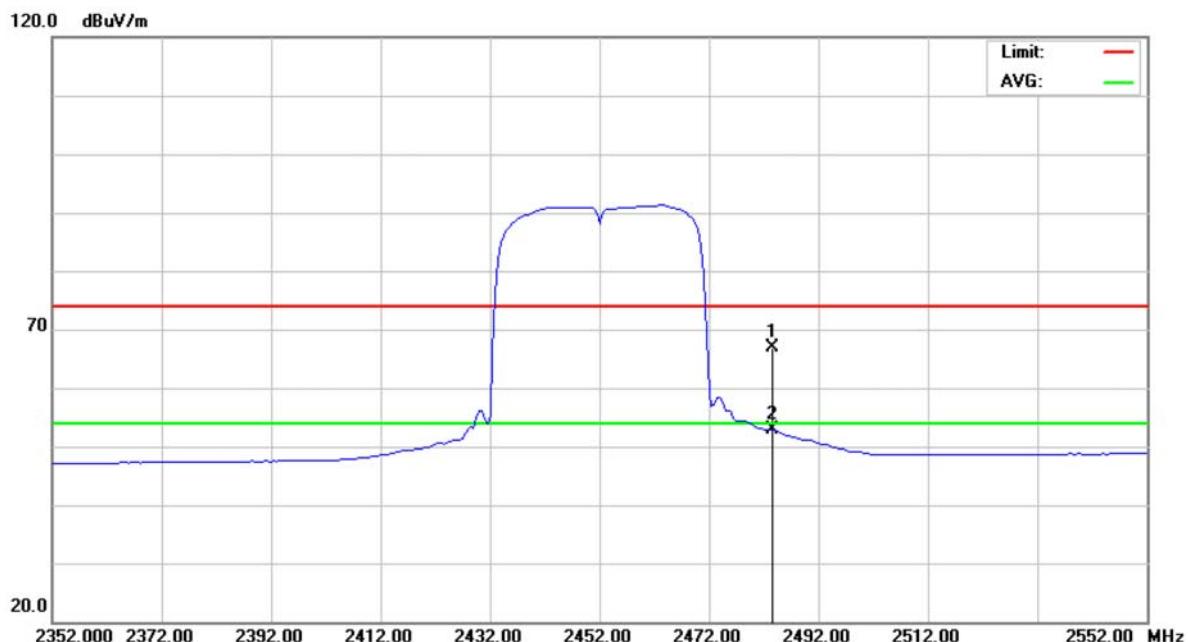
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		2390.000	27.26	31.67	58.93	74.00	-15.07	peak	
2	*	2390.000	14.08	31.67	45.75	54.00	-8.25	AVG	



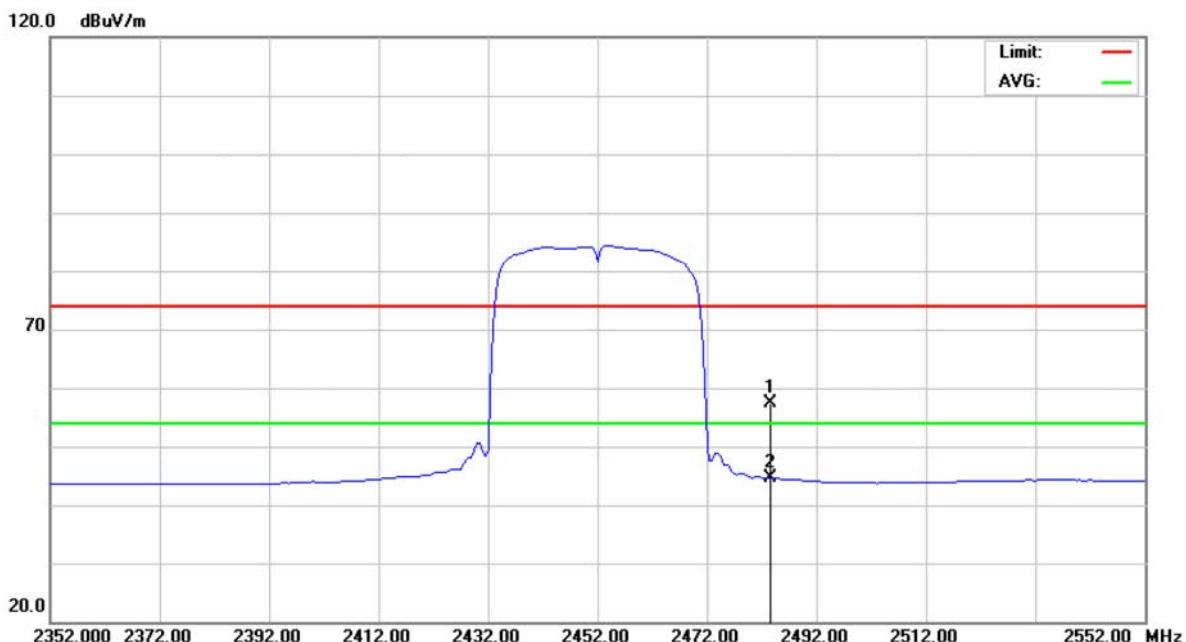
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Vertical**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2483.500	32.47	34.32	66.79	74.00	-7.21	peak	
2	*	2483.500	18.44	34.32	52.76	54.00	-1.24	AVG	



E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.		

**Polarization: Horizontal**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		2483.500	25.23	32.09	57.32	74.00	-16.68	peak	
2	*	2483.500	12.52	32.09	44.61	54.00	-9.39	AVG	



## 10 POWER SPECTRAL DENSITY

### 10.1 LIMIT

Test Item	Frequency Range (MHz)	Limit
Power Spectral Density	2400-2483.5	8 dBm (in any 3 kHz)

### 10.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

### 10.3 TEST PROCEDURES

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting: RBW=3 kHz, VBW=30 kHz, Sweep time = 500s.

### 10.4 TEST SETUP LAYOUT



### 10.5 DEVIATION FROM TEST STANDARD

No deviation

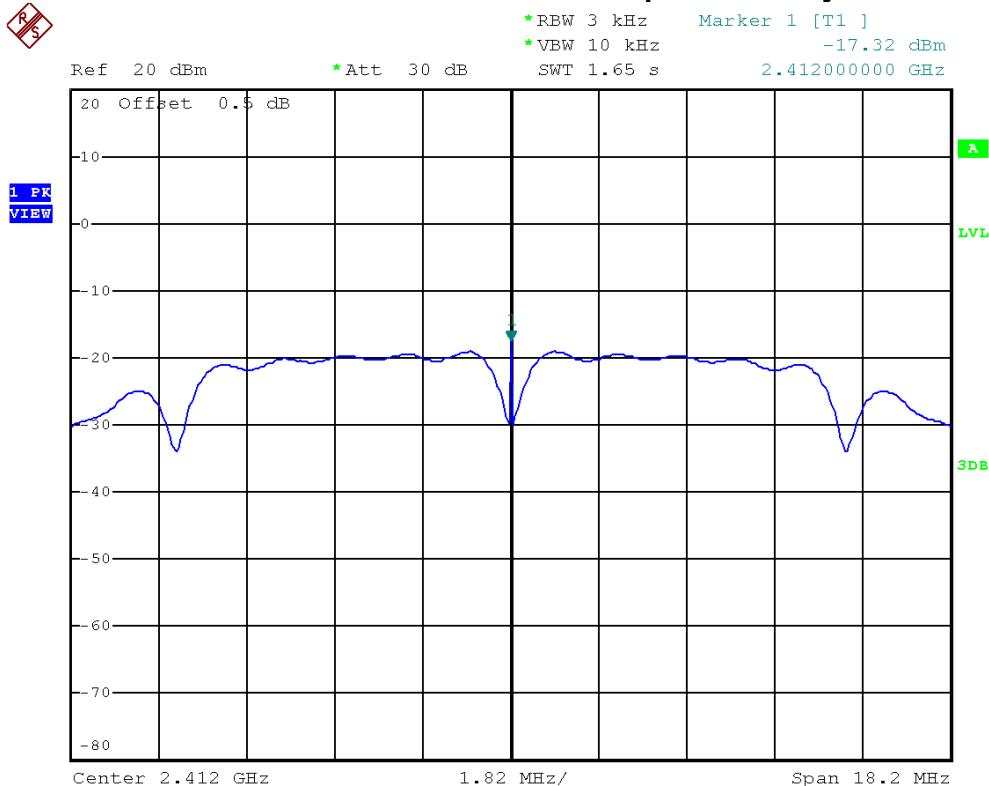
### 10.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 5.6 Unless otherwise a special operating condition is specified in the follows during the testing.

**10.7 TEST RESULTS - 2400-2483.5 MHZ**

E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11b/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-17.32	8	PASS
2437 MHz	-14.92	8	PASS
2462 MHz	-15.47	8	PASS

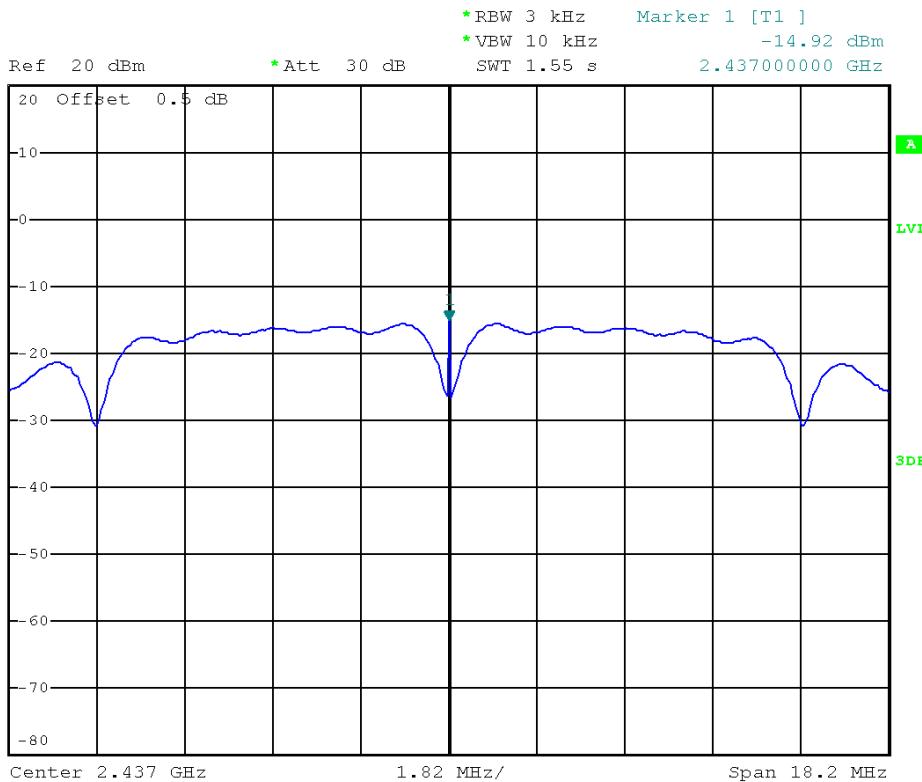
**IEEE 802.11b/2412 MHz/Power Sepctral Density**



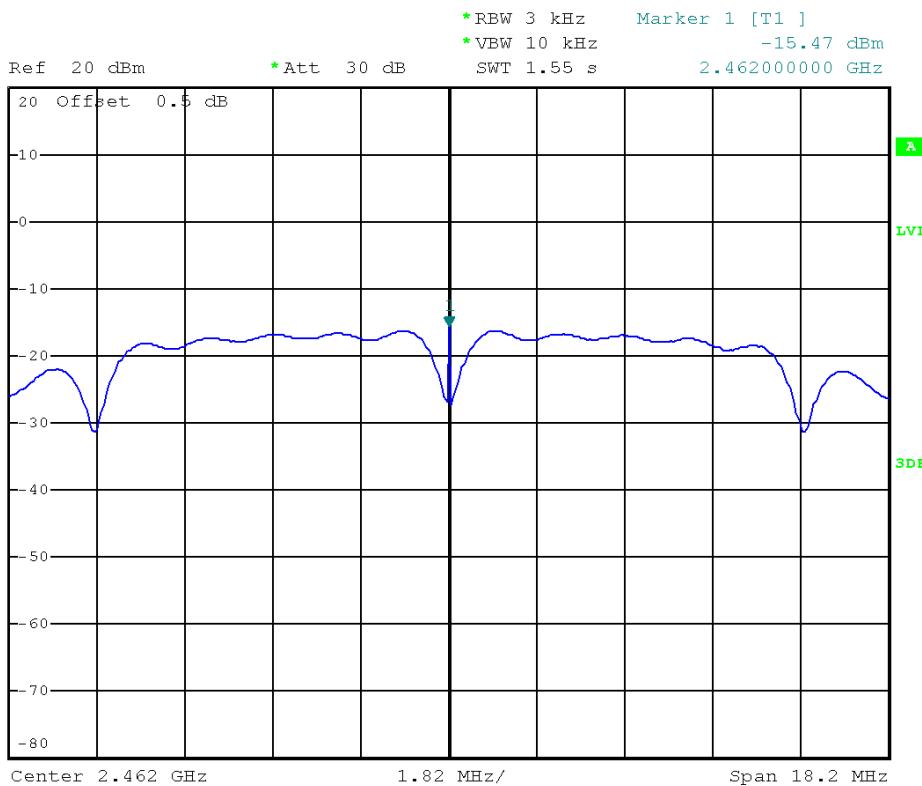
**Neutron Engineering Inc.**

FCC ID: 2AA68CAM-480DJ

### IEEE 802.11b/2437 MHz/Power Sepctral Density



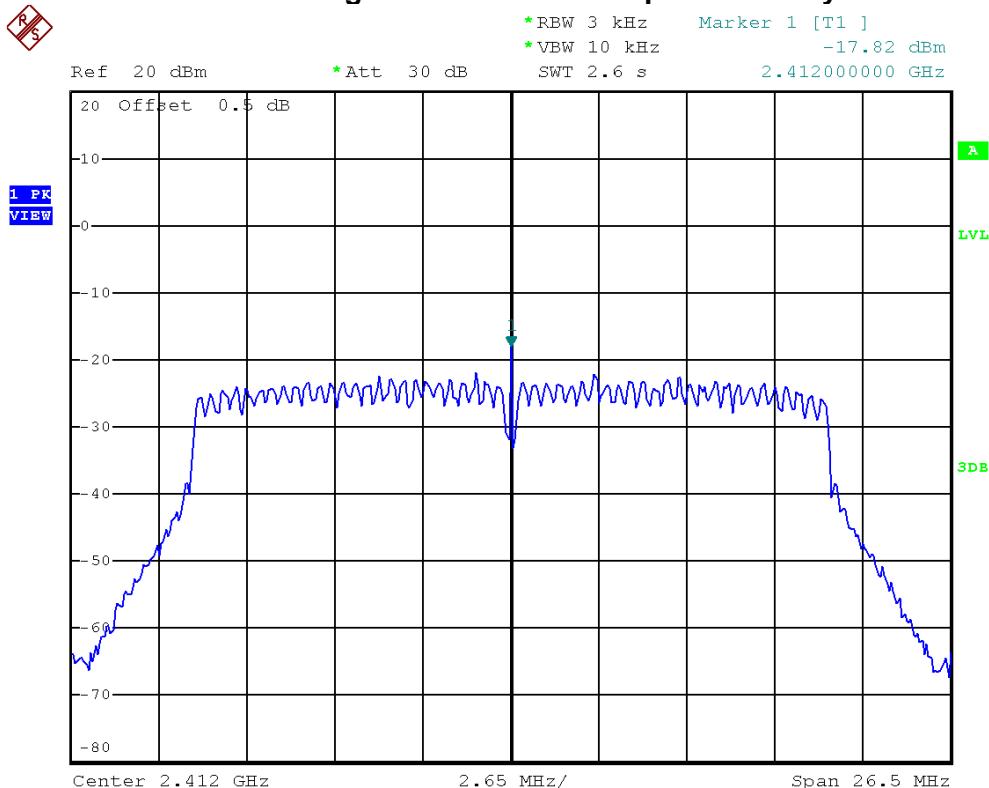
### IEEE 802.11b/2462 MHz/Power Sepctral Density





E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11g/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-17.82	8	PASS
2437 MHz	-18.29	8	PASS
2462 MHz	-23.34	8	PASS

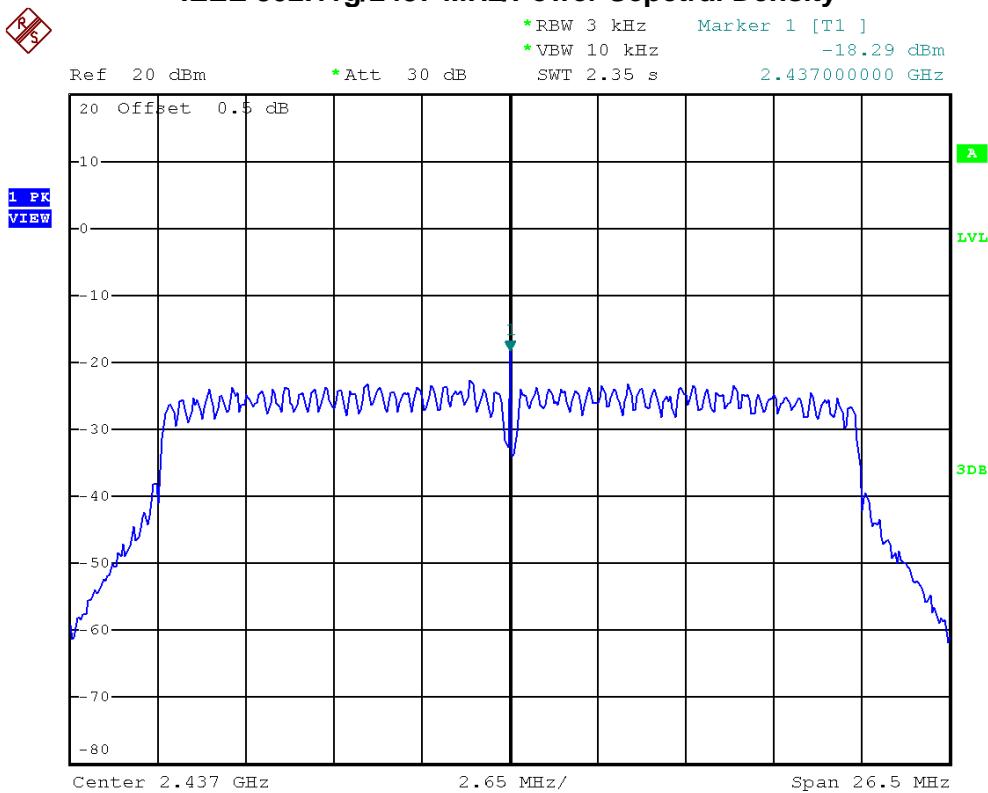
**IEEE 802.11g/2412 MHz/Power Sepctral Density**



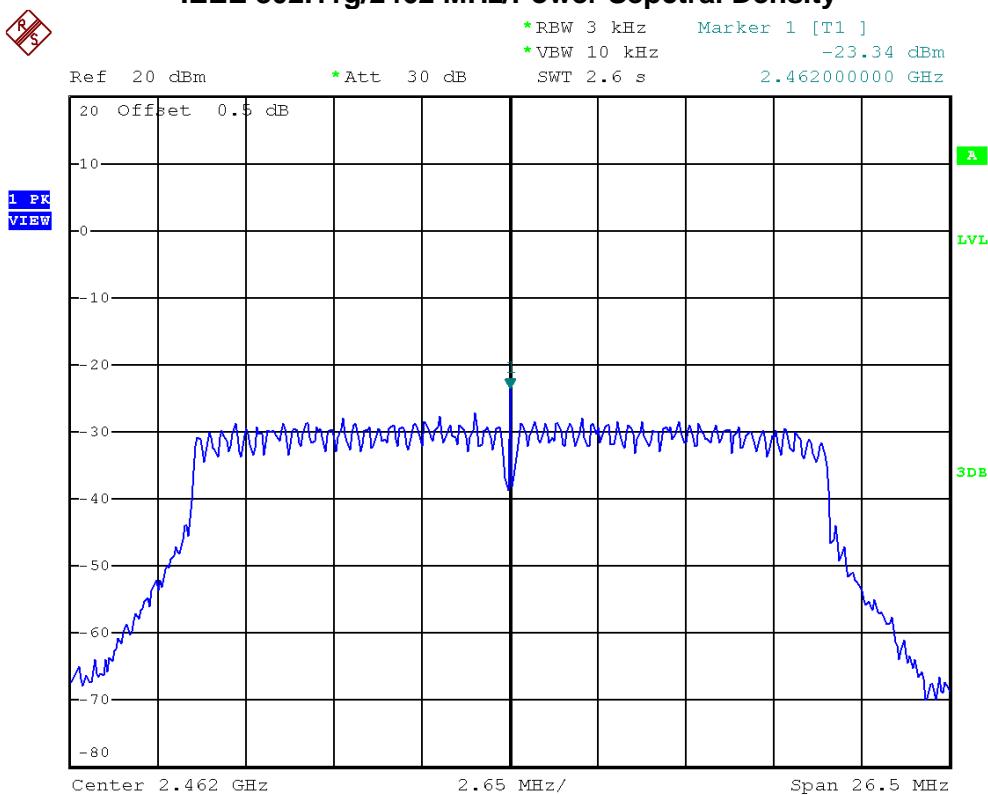
Neutron Engineering Inc.

FCC ID: 2AA68CAM-480DJ

### IEEE 802.11g/2437 MHz/Power Sepctral Density



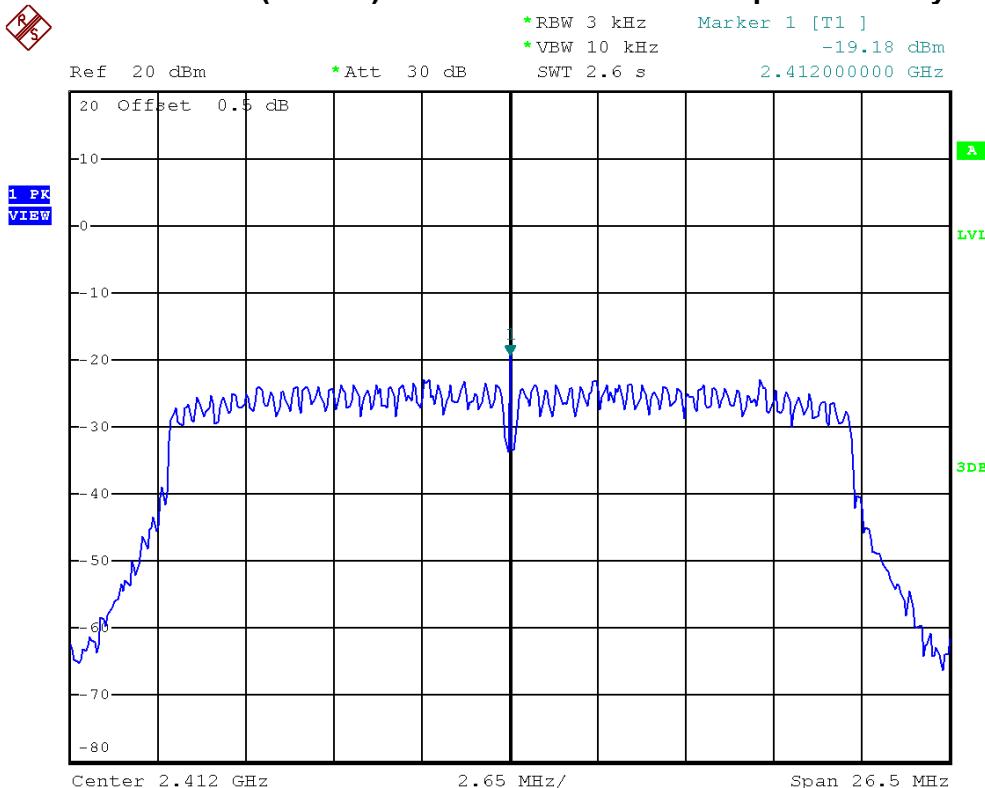
### IEEE 802.11g/2462 MHz/Power Sepctral Density





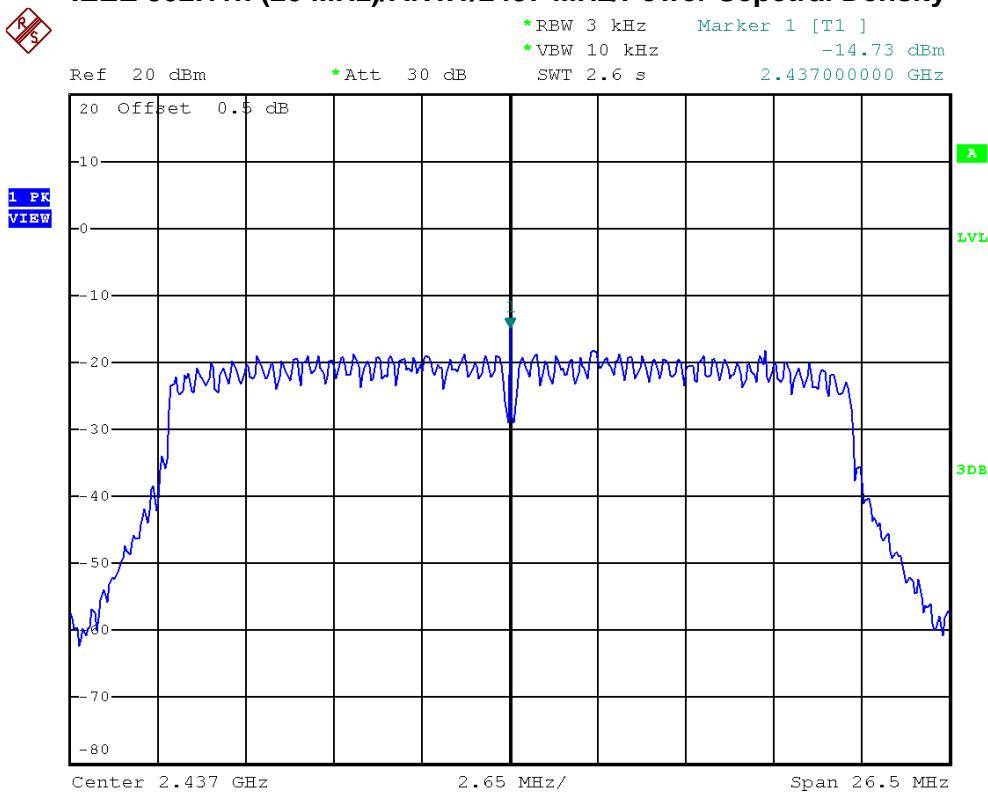
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/2412 MHz, 2437 MHz, 2462 MHz		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-19.18	8	PASS
2437 MHz	-14.73	8	PASS
2462 MHz	-22.86	8	PASS

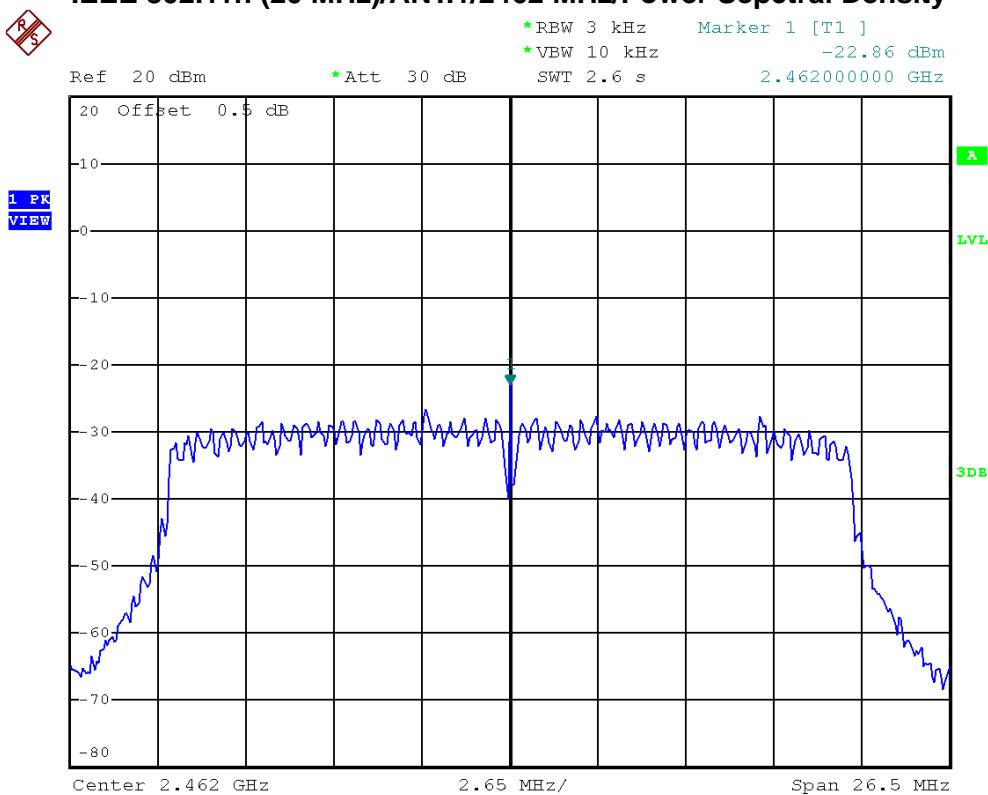
**IEEE 802.11n (20 MHz)/ANT.1/2412 MHz/Power Sepctral Density**



IEEE 802.11n (20 MHz)/ANT.1/2437 MHz/Power Sepctral Density



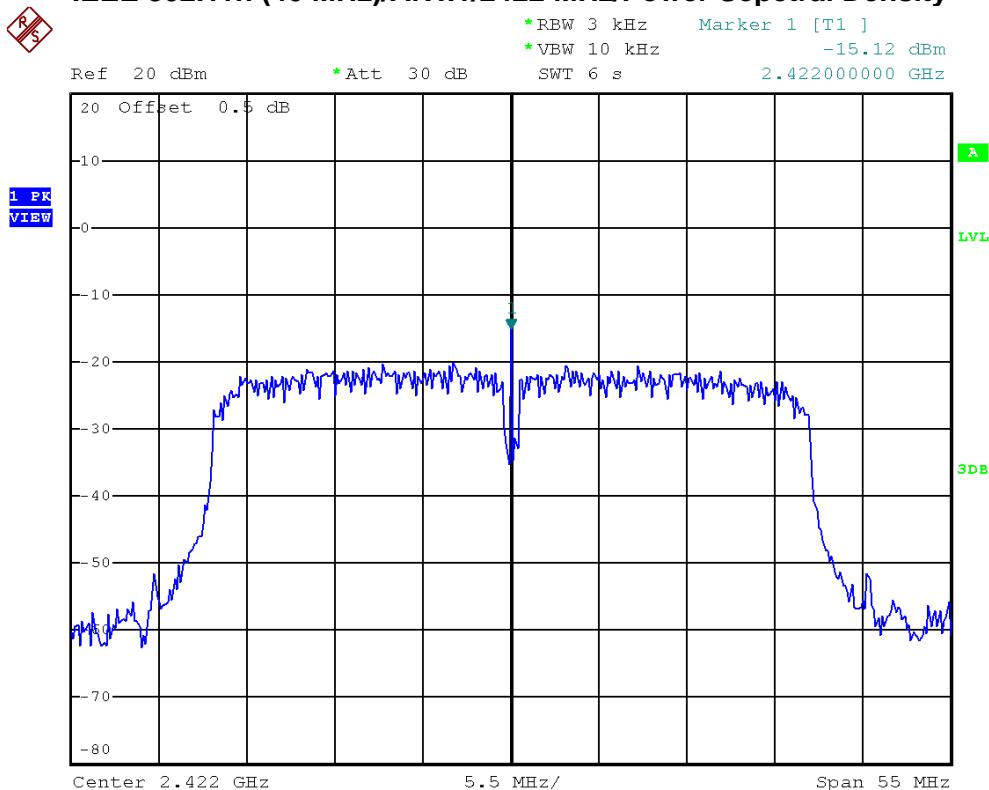
IEEE 802.11n (20 MHz)/ANT.1/2462 MHz/Power Sepctral Density





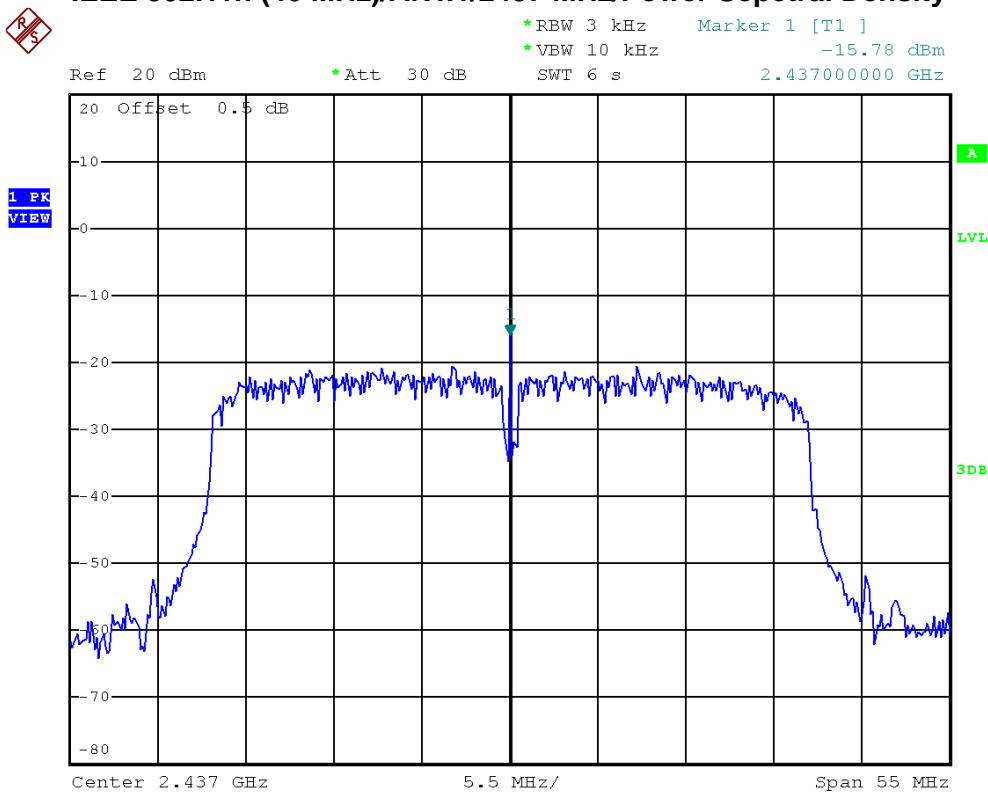
E.U.T	Wireless Network Camera	Model Name	CAM-480DJ
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/2422 MHz, 2437 MHz, 2452 MHz		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2422 MHz	-15.12	8	PASS
2437 MHz	-15.78	8	PASS
2452 MHz	-16.14	8	PASS

**IEEE 802.11n (40 MHz)/ANT.1/2422 MHz/Power Sepctral Density**



IEEE 802.11n (40 MHz)/ANT.1/2437 MHz/Power Sepctral Density



IEEE 802.11n (40 MHz)/ANT.1/2452 MHz/Power Sepctral Density

