



FCC TEST REPORT

Prepared For :	DOREL JUVENILE GROUP
Product Name:	WiFi Remote Video Monitor
Model :	MO136
Prepared By :	Shenzhen BATT Testing Technology Co., Ltd. 11F, Bldg.B, Xinbaoyuan, Xinnanhu Commercial city, Bao'an District, Shenzhen, Guangdong, China. Tel: 86-755-27753991 Fax: 86-755-27754182
Test Date:	August 22 to September 03, 2013
Date of Report :	September 05, 2013
Report No.:	BATT201308168FI

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1 TEST CERTIFICATION

Product:	WiFi Remote Video Monitor
Model:	MO136
Applicant:	DOREL JUVENILE GROUP 2525 State, Columbus, Indiana, United States, 47201-7494
Factory:	NetView Technologies (Shenzhen) Co., Ltd. RM 2901, East Tower, Nanshan Software Park (Nanshan Digital Culture Industry Base), Nanshan District, Shenzhen, Guangdong Province, PRC
Trade Mark:	N/A
Tested:	August 22 to September 03, 2013
Test Voltage:	DC5V, 2.0A
Operational Frequency Range:	IEEE 802.11b/g, 802.11n HT20: 2412-2462MHz IEEE 802.11n HT40 : 2422MHz-2452MHz
Modulation Type:	IEEE 802.11b : DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g : OFDM (64QAM, 16AQM, QPSK, BPSK) IEEE 802.11n HT20/40 : OFDM (64QAM, 16QAM, QPSK, BPSK)
Channel Spacing	IEEE 802.11b/g/n: 5MHz
Air Data Rate	IEEE 802.11b : 11, 5.5, 2, 1 Mbps IEEE 802.11g : 54, 48, 36, 24, 18, 12, 9, 6 Mbps IEEE 802.11n HT20 : 150, 117, 104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6 Mbps IEEE 802.11n HT40 : 150, 117, 104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6 Mbps
Frequency Selection	By software
Channel Number	IEEE 802.11b/g, 802.11n HT20 : 11 Channels IEEE 802.11n HT40 : 7 Channels
Antenna:	Integral antenna with Gain 2.0 dBi
Power Supply:	Model No.: HNB05200U Input: 100-240V, 0.35A, 50/60Hz; Output: 5V, 2.0A Max
FCC ID and IC:	FCC ID: MNJ-MO136, IC: 4703B-MO136
Applicable Standards:	FCC Part 15.247 and RSS-210 Issue 8

The test report was prepared by Shenzhen BATT Testing Technology Co., Ltd. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.



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Mike Yong/Supervisor

Approved & Authorized Signer :

Jones Song

Jones Song/ Manager



2.0

Test Equipments

Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	ROHDE&SCHWA RZ	ESPI 3	100379	2013-05-27	2014-05-26
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	2013-05-27	2014-05-26
Impuls-Begrenzer	ROHDE&SCHWA RZ	ESH3-Z2	100281	2013-05-27	2014-05-26
Loop Antenna	EMCO	6502	00042960	2013-05-27	2014-05-26
ESPI Test Receiver	ROHDE&SCHWA RZ	ESI26	838786/013	2013-05-27	2014-05-26
3m OATS	--	--	N/A	2013-05-27	2014-05-26
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170399	2013-05-27	2014-05-26
Horn Antenna	SCHWARZBECK	BBHA 9120	D143	2013-05-27	2014-05-26
Power meter	Anritsu	ML2487A	6K00003613	2013-05-27	2014-05-26
Power sensor	Anritsu	MA2491A	32263	2013-05-27	2014-05-26
Bilog Antenna	Schwarebeck	VULB916 3	9163/142	2013-05-27	2014-05-26
LISN (Three Phase)	Schwarebeck	NSLK 8126	8126453	2013-05-27	2014-05-26
9*6*6 Anechoic	--	--	N/A	2013-05-27	2014-05-26
EMI Test Receiver	RS	ESCS30	100139	2013-05-27	2014-05-26
LISN	RS	ESH2-Z5	100225	2013-05-27	2014-05-26
LISN (Three Phase)	Schwarebeck	NSLK 8126	8126453	2013-05-27	2014-05-26
Pre-Amplifier	A.H.	PAM-0126	1415261	2013-05-27	2014-05-26



3.0 Technical Details

3.1 Summary of test results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.107 & 15.207 and RSS-210	Conducted Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit and RSS-210	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	PASS	Complies
FCC Part 15, Paragraph 15.247(b) and RSS-210	Maximum peak output power Limit: max. 30dBm	PASS	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209 and RSS-210	Transmitter Radiated Emission Limit: Table 15.209	PASS	Complies
FCC Part 15, Paragraph 15.247(e) and RSS-210	Power Spectral Density Limit: max. 8dBm	PASS	Complies
FCC Part 15, Paragraph 15.247(d) and RSS-210	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	PASS	Complies

4.0 Test LAB Details

All Tests Performed at

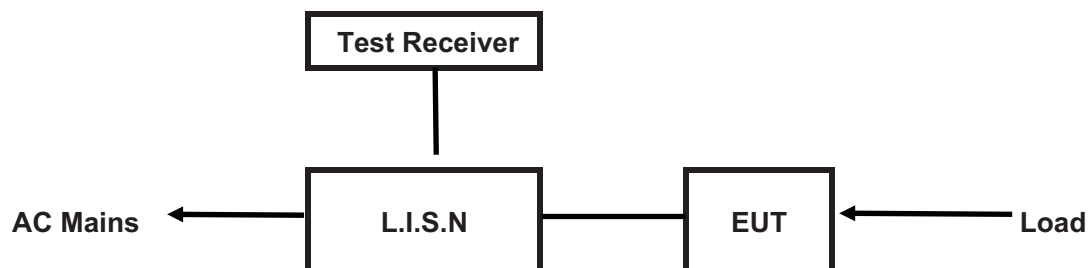
Name: Shenzhen Emtex Co., Ltd.

Address: Bldg. 69, Majialong Industry Zone,,Nanshan District,Shenzhen, Guangdong, 518052China

FCC Registration Number: 406365

5. Power Line Conducted Emission Test

5.1 Schematics of the test

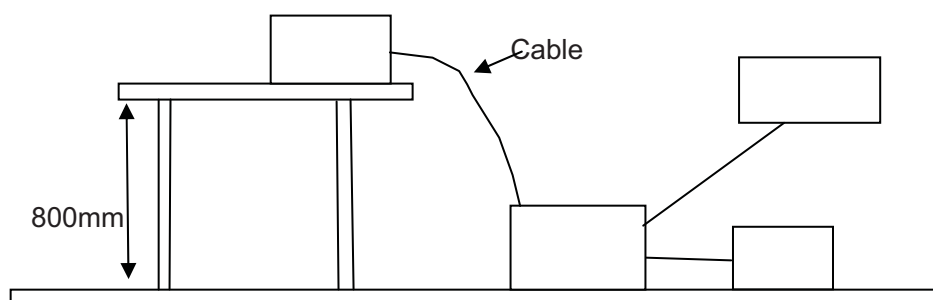


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2003. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2003.

Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.4-2003. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID and IC
WiFi Remote Video Monitor	NetView Technologies (Shenzhen) Co., Ltd.	MO136	FCC ID: MNJ- MO136 IC: 4703B-MO136



B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	FCC ID/DOC	Cable
--	--	--	--	--

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.4 -2003.

A Setup the EUT and simulators as shown on follow

B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.107, 15.207

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

- Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

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

A: Conducted Emission on Live Terminal (150kHz to 30MHz)

EUT Operating Environment

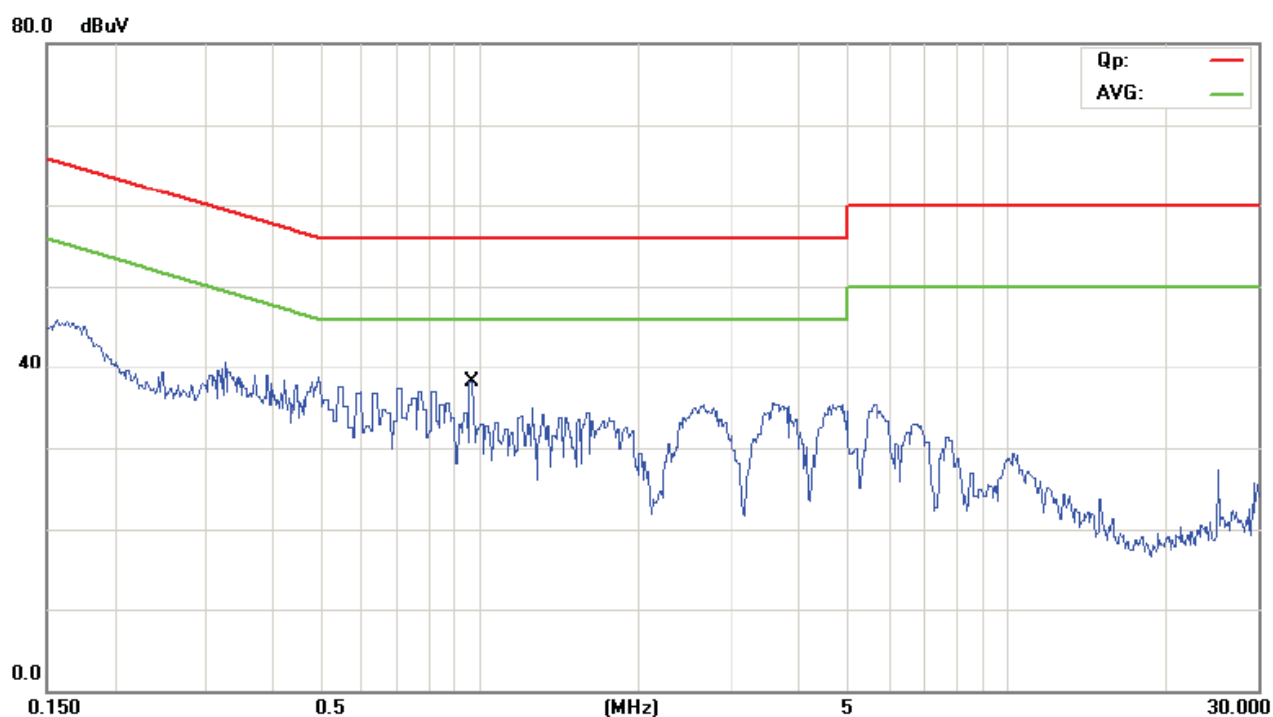
Temperature: 25°C Humidity: 75%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Transmitting

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Line	Reading(dBμV)		Limit(dBμV)	
		Quasi-peak	Average	Quasi-peak	Average
0.9635	Live	17.06	9.76	56.00	46.00

B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

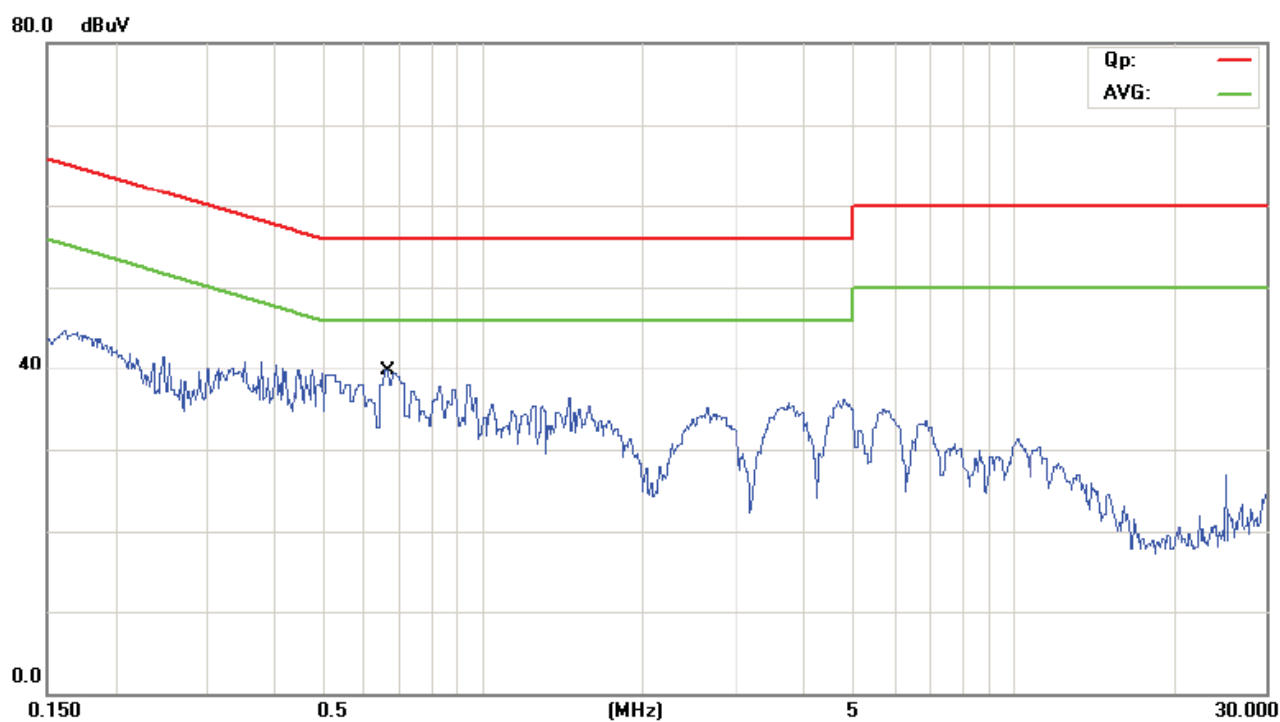
Temperature: 25°C Humidity: 75%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Transmitting

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



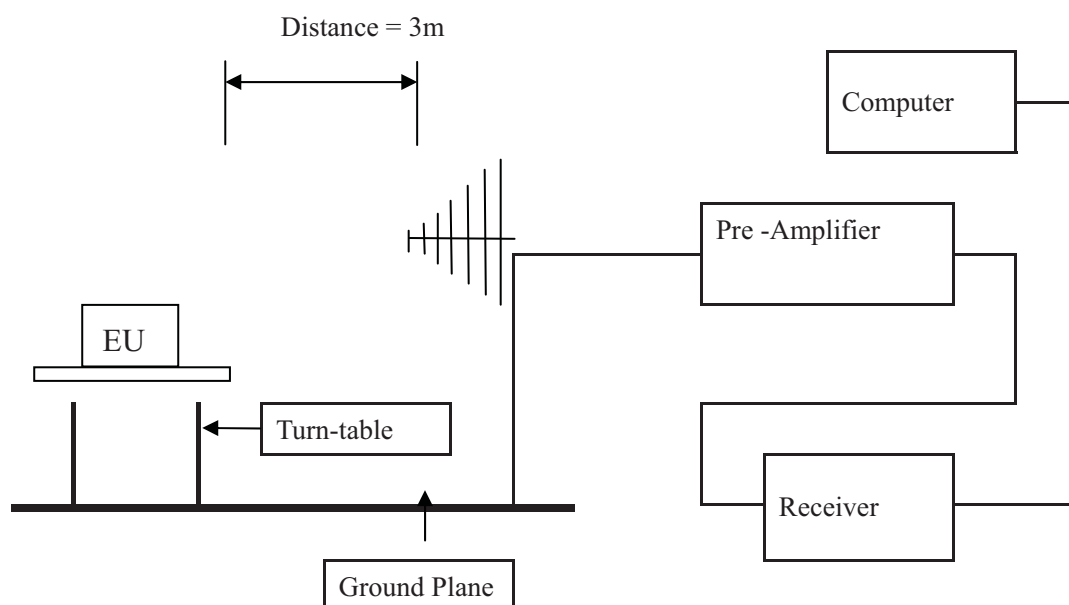
Frequency (MHz)	Line	Reading(dBμV)		Limit(dBμV)	
		Quasi-peak	Average	Quasi-peak	Average
0.6600	Neutral	24.84	12.84	56.00	46.00

6 Radiated Emission Test

6.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.4 –2003. The radiated test was performed at Shenzhen Emtek Co., Ltd.. This site is on file with the FCC laboratory division, Registration No.406365
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-2003.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization : Vertical polarization and Horizontal polarization.

Block diagram of Test setup



6.2 Configuration of The EUT

Same as section 5.3 of this report

6.3 EUT Operating Condition

Same as section 5.4 of this report.

6.4 Radiated Emission Limit

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

Frequencies in restricted band are complied to limit on Paragraph 15.209 and 15.109

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

- Note:
1. RF Voltage (dBuV) = 20 log RF Voltage (μ V)
 2. In the Above Table, the higher limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

**Test result****General Radiated Emission Data and Harmonics Radiated Emission Data****Radiated Emission In Horizontal (30MHz----1000MHz)**

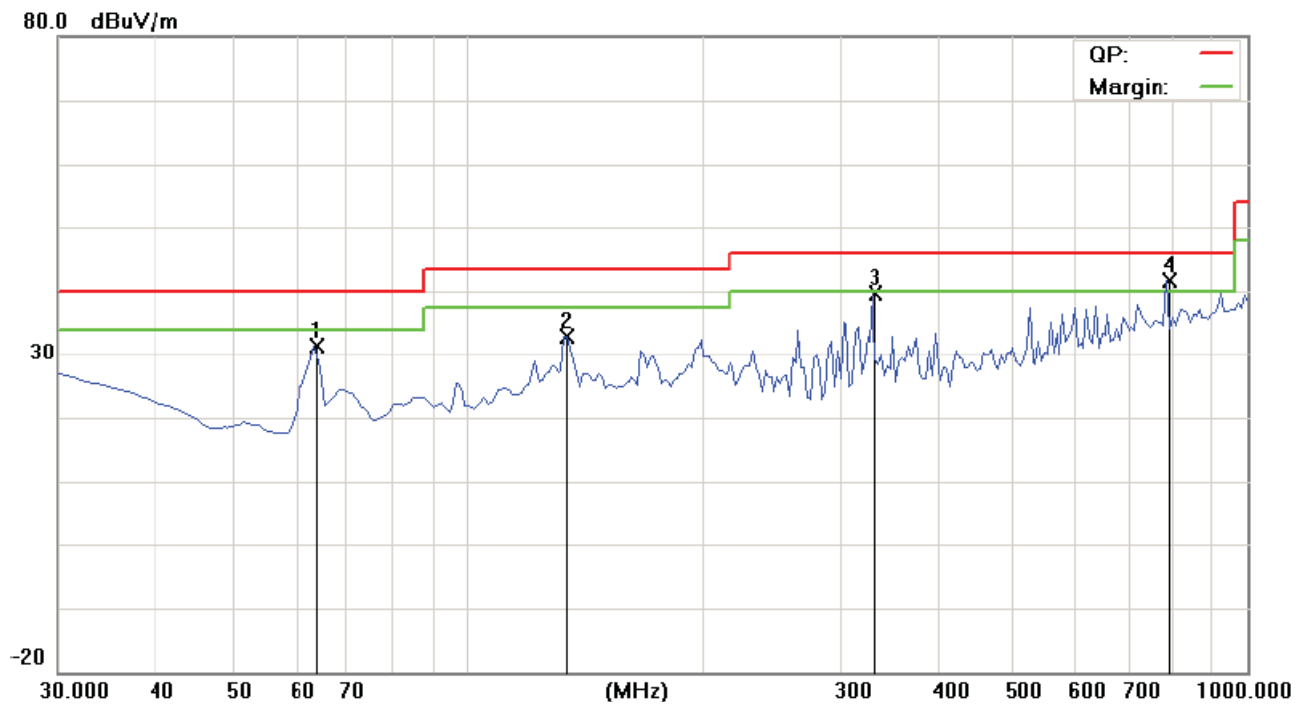
EUT set Condition: Keep Receiving

Results: Pass

Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
63.950	31.31	H	40.00
134.276	32.96	H	43.50
333.125	39.72	H	46.00
793.875	41.66	H	46.00
51.825	34.50	V	40.00
61.562	36.54	V	40.00
529.550	38.92	V	46.00
924.000	42.71	V	46.00

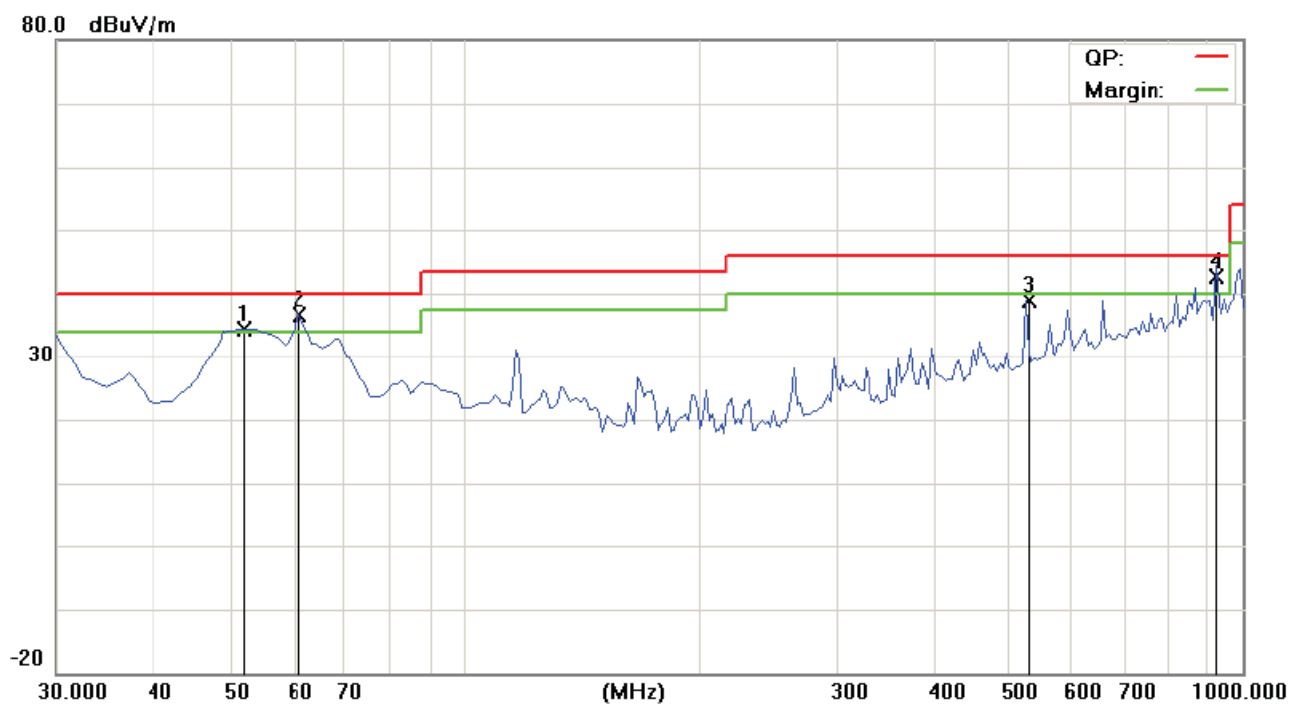
Test Figure:

H



Test Figure:

V



Radiated Disturbance (1000MHz----18000MHz)

EUT Operating Environment

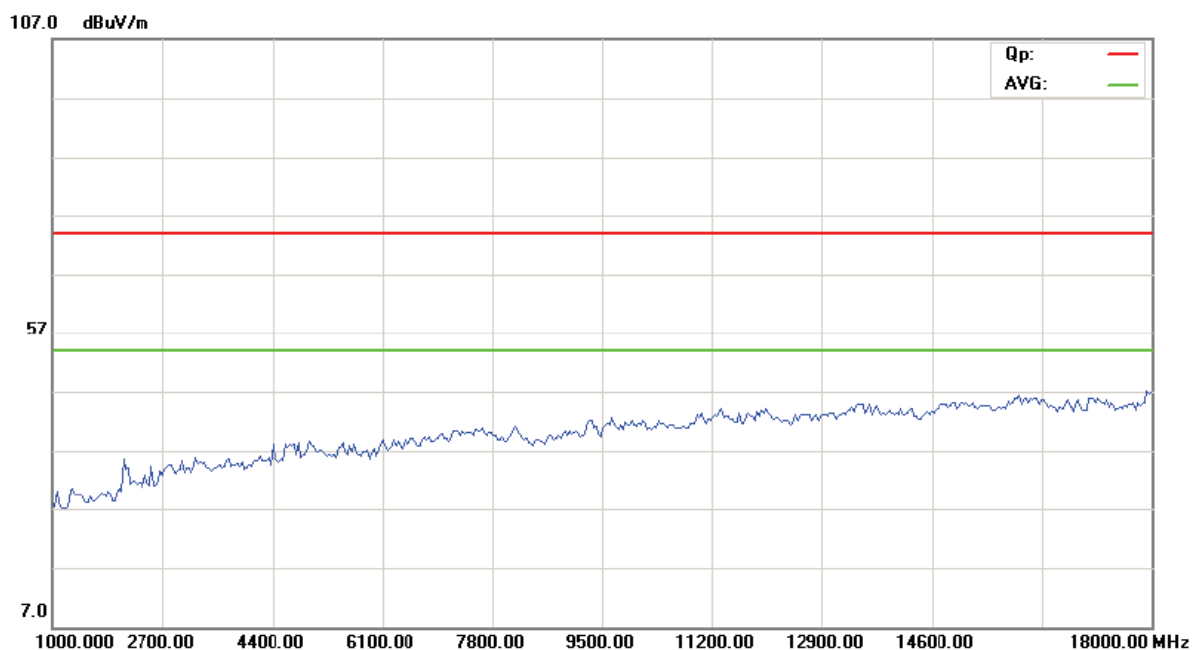
Temperature: 25°C Humidity: 75%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Receiving

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
--	--	H	54(AV)

Note: 1. Due to the final radiated level much less than the limit, so necessary take down final radiated level

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

Radiated Disturbance (1000MHz----18000MHz)

EUT Operating Environment

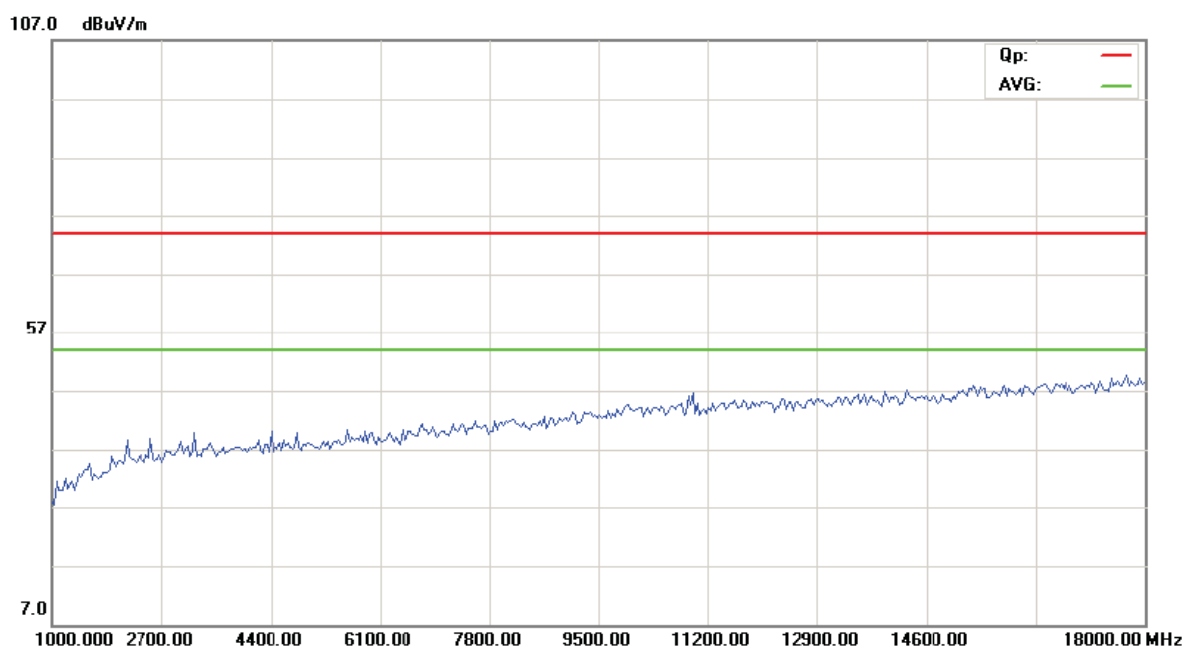
Temperature: 25°C Humidity: 75%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Receiving

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
--	--	V	54(AV)

Note: 1. Due to the final radiated level much less than the limit, so necessary take down final radiated level

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

**Test result****General Radiated Emission Data and Harmonics Radiated Emission Data****Radiated Emission In Horizontal (30MHz---1000MHz)**

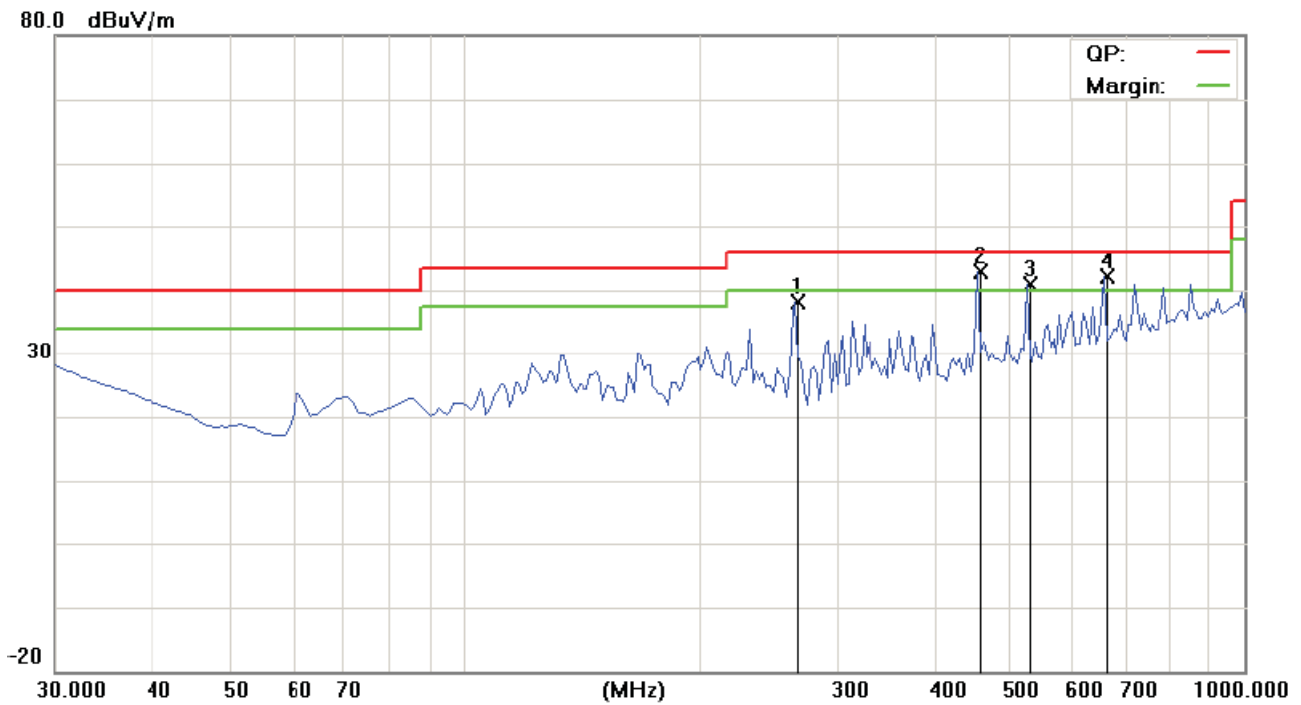
EUT set Condition: Keep Transmitting

Results: Pass

Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
267.652	38.22	H	46.00
454.375	42.95	H	46.00
529.550	40.79	H	46.00
662.925	42.13	H	46.00
49.400	34.58	V	40.00
61.562	34.53	V	40.00
173.075	39.11	V	43.50
340.401	37.77	V	46.00
662.925	39.86	V	46.00

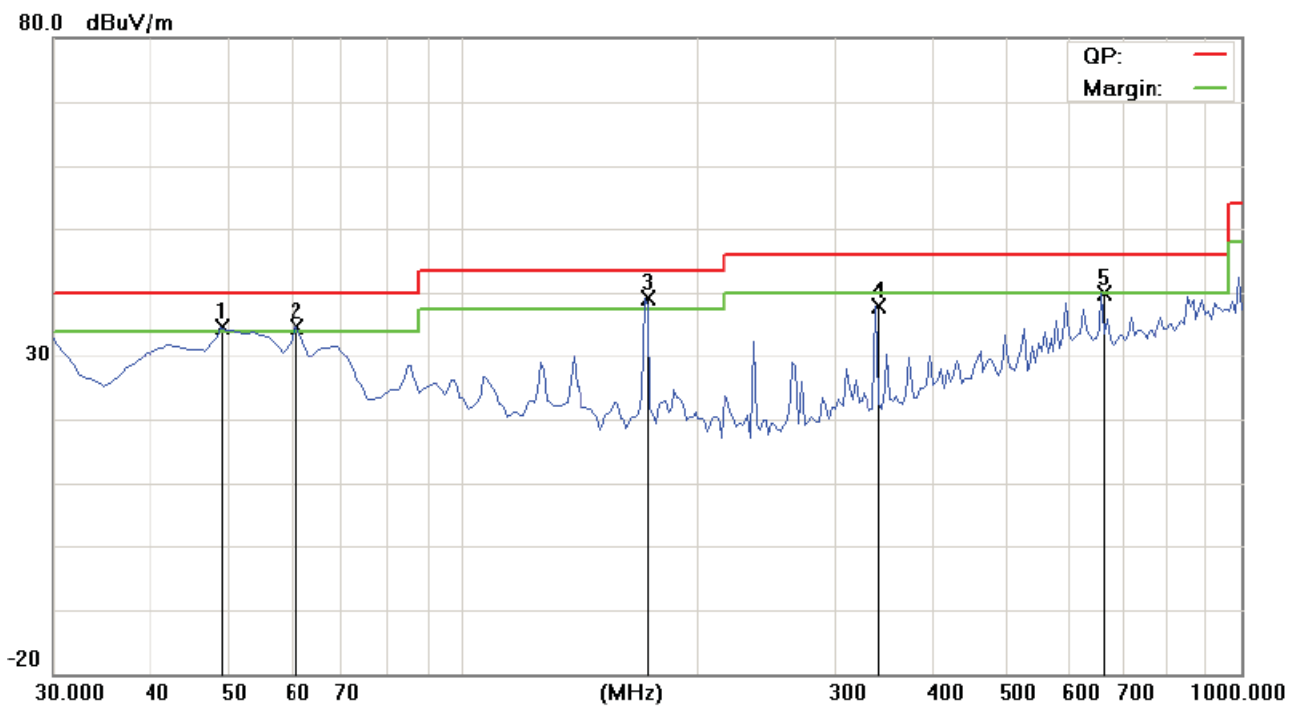
Test Figure:

H



Test Figure:

V





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

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2412.00	99.76 (PK)	H	Fundamental Frequency
2412.00	100.26 (PK)	V	
4824.00	48.88 (PK)	H	74(Peak)/ 54(AV)
4824.00	48.63 (PK)	V	
7236.00	--	H/V	74(Peak)/ 54(AV)
9648.00	--	H/V	74(Peak)/ 54(AV)
12060	--	H/V	74(Peak)/ 54(AV)
14472	--	H/V	74(Peak)/ 54(AV)
16884	--	H/V	74(Peak)/ 54(AV)
19296	--	H/V	74(Peak)/ 54(AV)
21708	--	H/V	74(Peak)/ 54(AV)
24120	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802.11b mode at 11Mbps is the worse case



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

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2437.00	98.13 (PK)	H	Fundamental Frequency
2437.00	98.15 (PK)	V	
4874.00	50.13 (PK)	H	74(Peak)/ 54(AV)
4874.00	50.31 (PK)	V	
7311.00	--	H/V	74(Peak)/ 54(AV)
9748.00	--	H/V	74(Peak)/ 54(AV)
12185	--	H/V	74(Peak)/ 54(AV)
14622	--	H/V	74(Peak)/ 54(AV)
17059	--	H/V	74(Peak)/ 54(AV)
19496	--	H/V	74(Peak)/ 54(AV)
21933	--	H/V	74(Peak)/ 54(AV)
24370	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802.11b mode at 11Mbps is the worse case

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

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2462.00	99.24 (PK)	H	Fundamental Frequency
2462.00	97.95 (PK)	V	
4924	50.29 (PK)	H	74(Peak)/ 54(AV)
4924	50.13 (PK)	V	
7386	--	H/V	74(Peak)/ 54(AV)
9848	--	H/V	74(Peak)/ 54(AV)
12310	--	H/V	74(Peak)/ 54(AV)
14772	--	H/V	74(Peak)/ 54(AV)
17234	--	H/V	74(Peak)/ 54(AV)
19696	--	H/V	74(Peak)/ 54(AV)
22158	--	H/V	74(Peak)/ 54(AV)
24620	--	H/V	74(Peak)/ 54(AV)

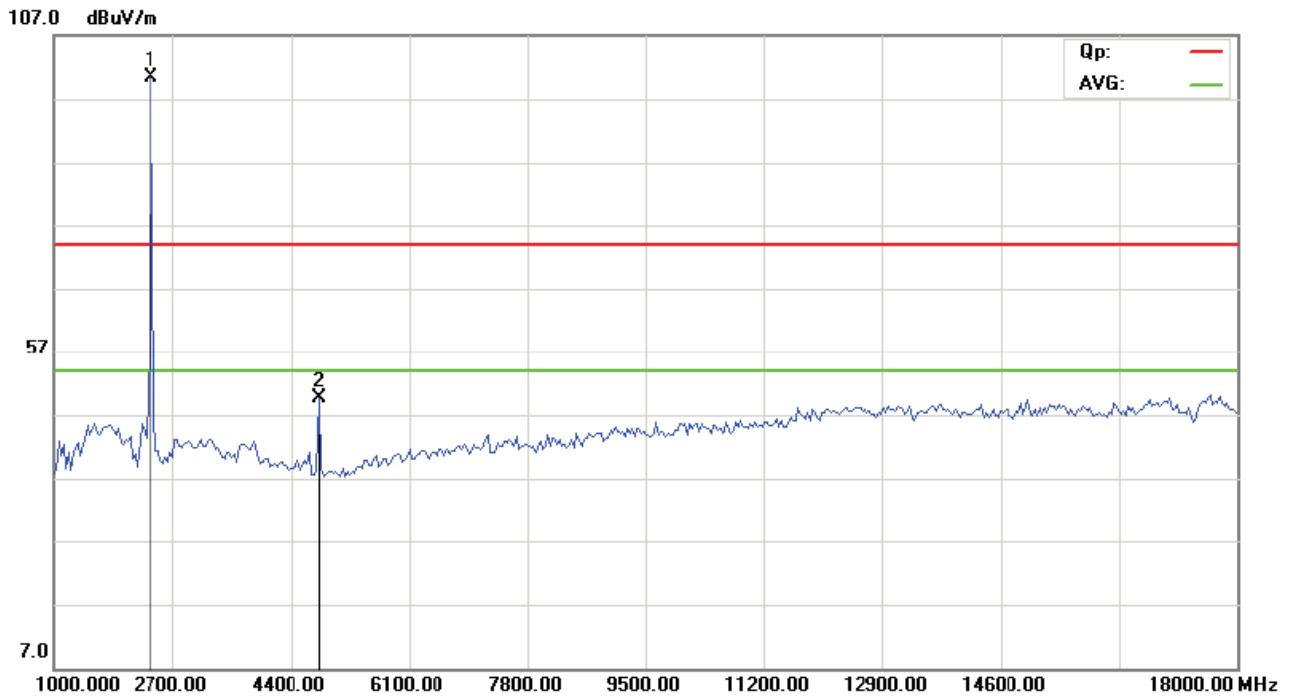
Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

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

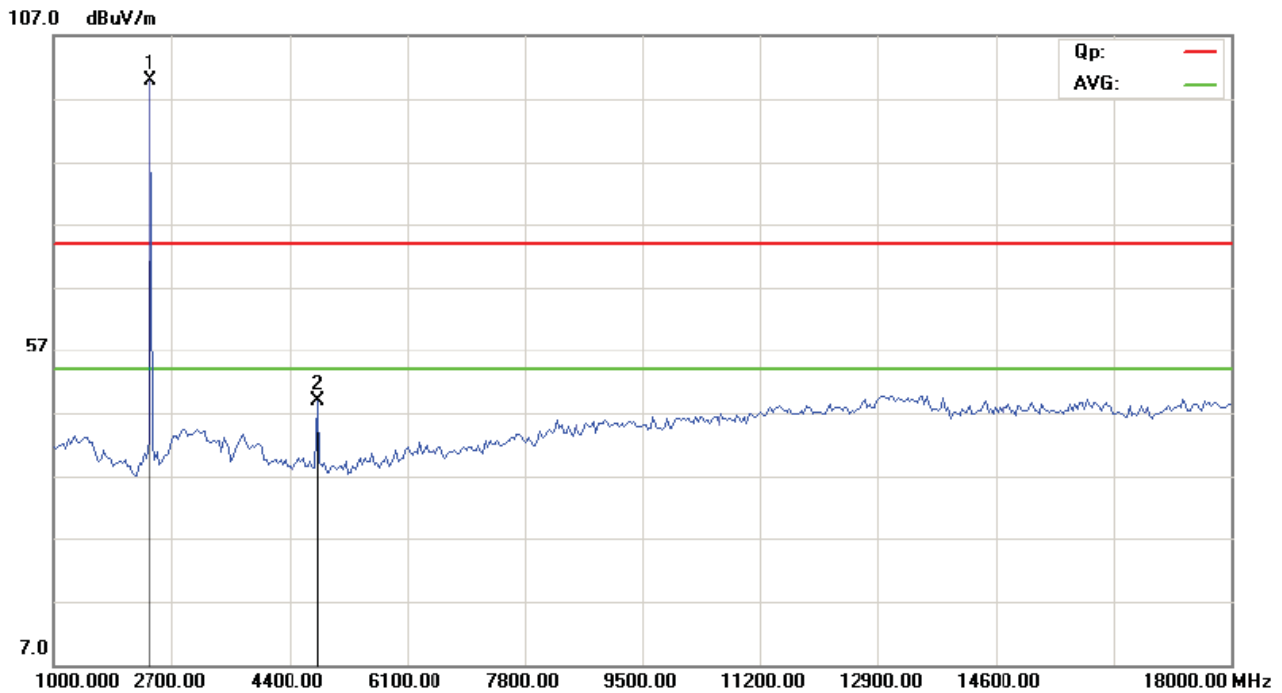
3. For 802.11b mode at 11Mbps is the worse case

Please refer to the following test plots for details:

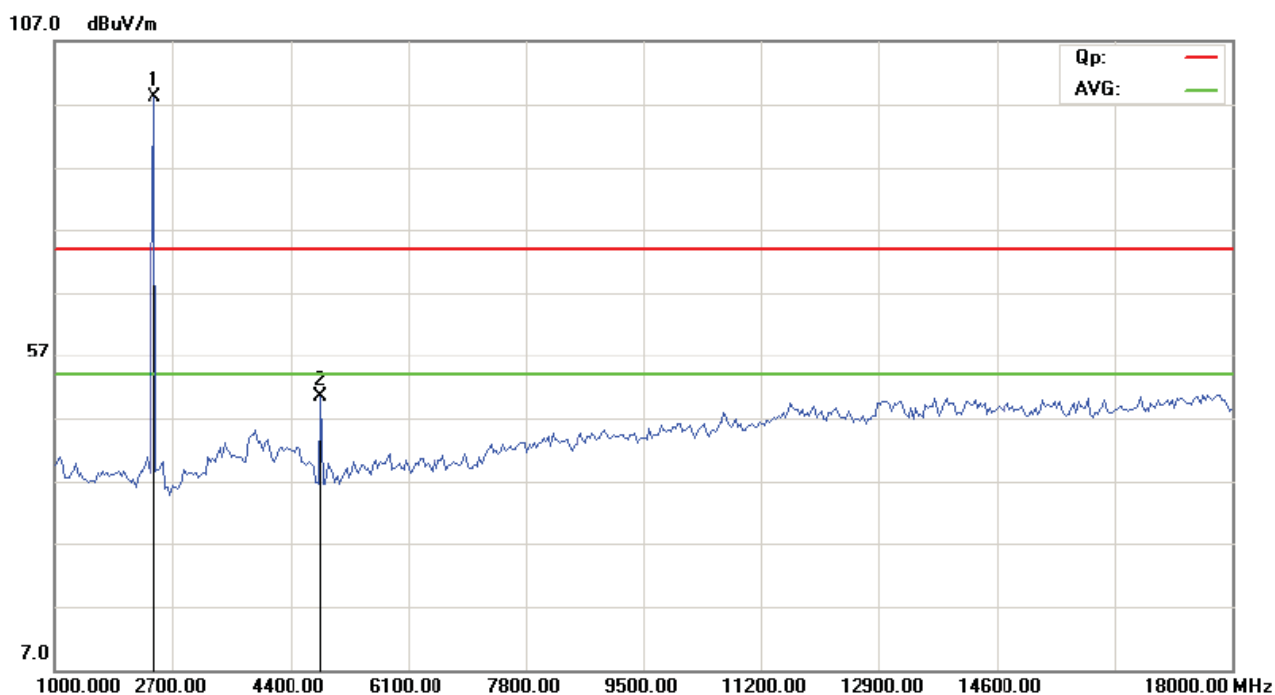
CH01 at 11Mbps: Vertical



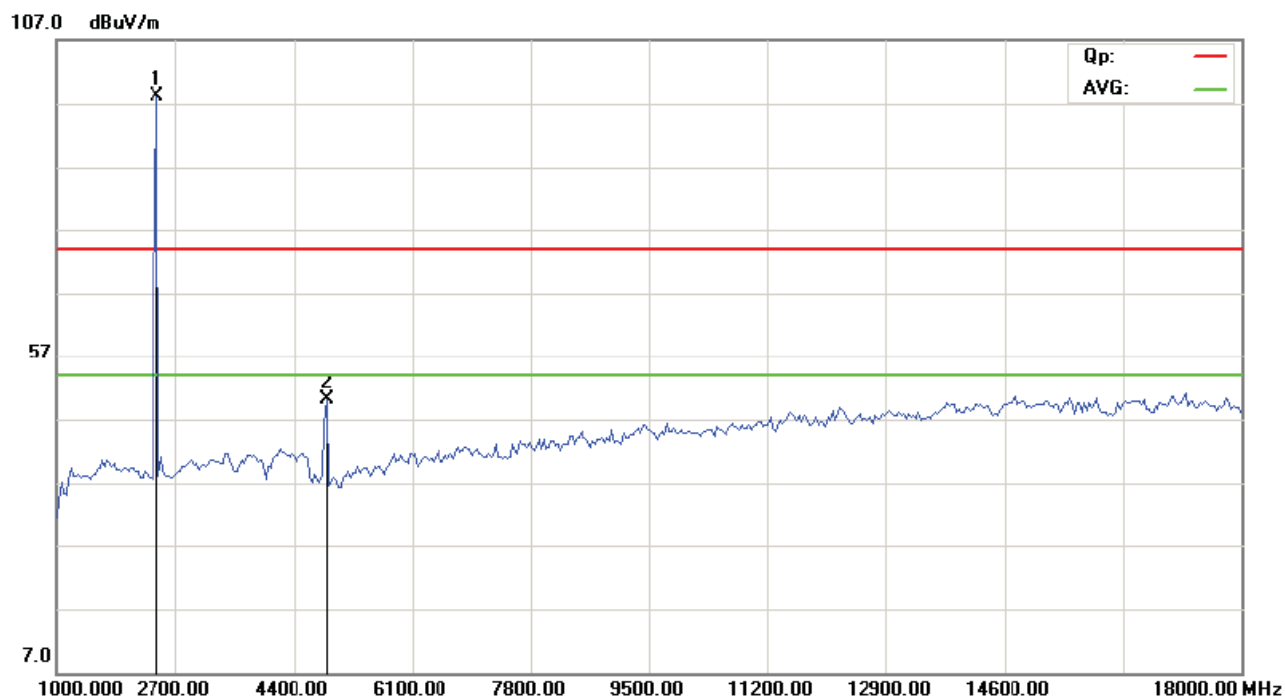
CH01 at 11Mbps: Horizontal



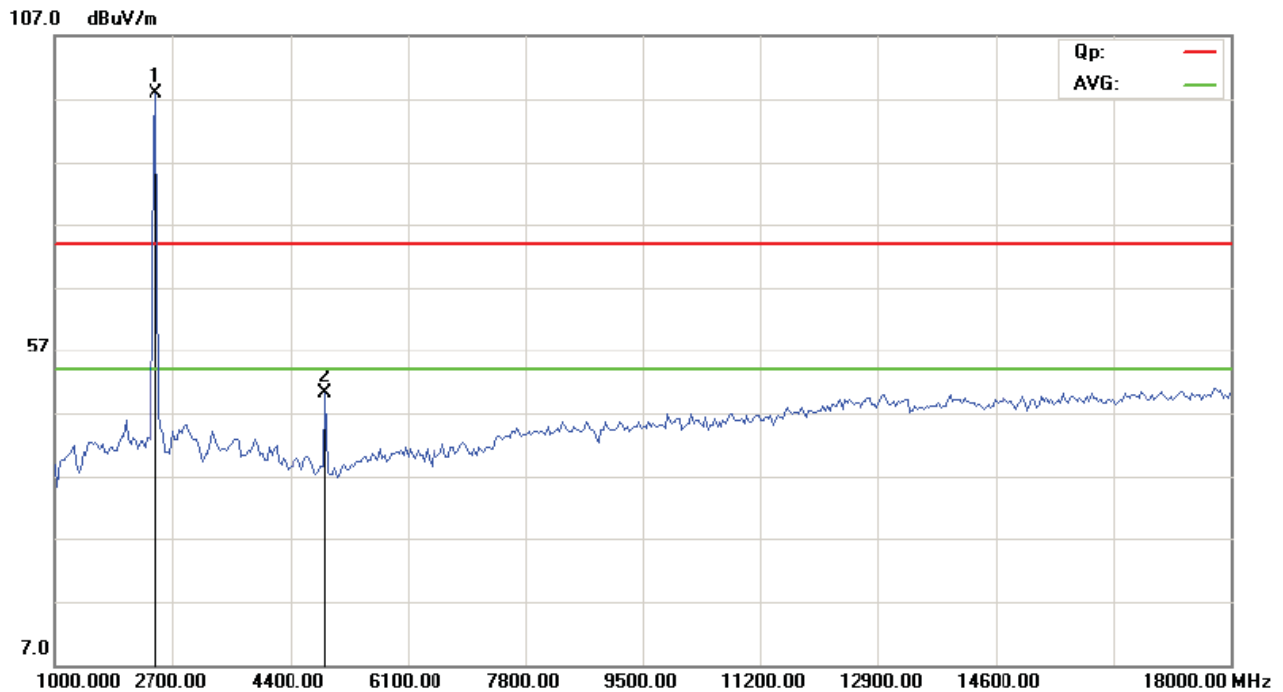
CH06 at 11Mbps: Vertical



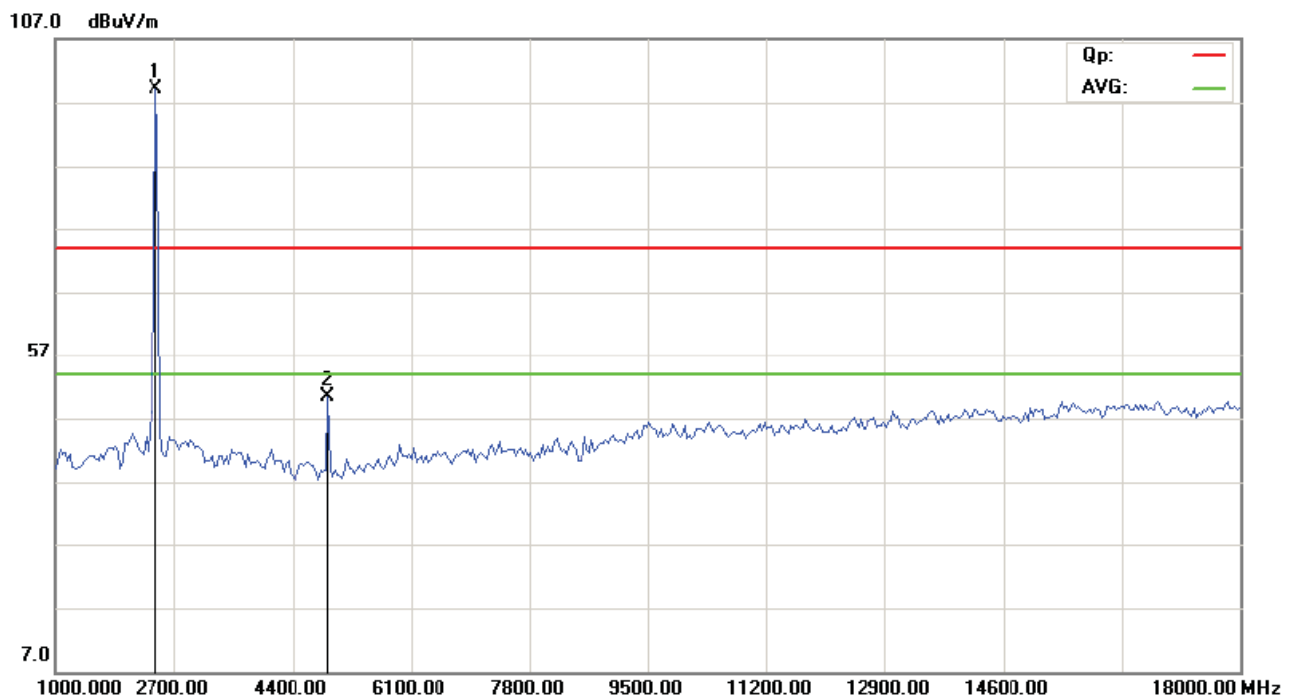
CH06 at 11Mbps: Horizontal



CH11 at 11Mbps: Vertical



CH11at 11Mbps: Horizontal



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

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

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2412.00	98.39 (PK)	H	Fundamental Frequency
2412.00	99.19 (PK)	V	
4824.00	49.78 (PK)	H	74(Peak)/ 54(AV)
4824.00	49.32 (PK)	V	
7236.00	--	H/V	74(Peak)/ 54(AV)
9648.00	--	H/V	74(Peak)/ 54(AV)
12060	--	H/V	74(Peak)/ 54(AV)
14472	--	H/V	74(Peak)/ 54(AV)
16684	--	H/V	74(Peak)/ 54(AV)
19296	--	H/V	74(Peak)/ 54(AV)
21708	--	H/V	74(Peak)/ 54(AV)
24120	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802.11g mode 54Mbps is the worse case

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

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2437.00	100.47 (PK)	H	Fundamental Frequency
2437.00	100.44 (PK)	V	
4874.00	50.50 (PK)	H	74(Peak)/ 54(AV)
4874.00	51.32 (PK)	V	
7311.00	--	H/V	74(Peak)/ 54(AV)
9748.00	--	H/V	74(Peak)/ 54(AV)
12185	--	H/V	74(Peak)/ 54(AV)
14622	--	H/V	74(Peak)/ 54(AV)
17059	--	H/V	74(Peak)/ 54(AV)
19496	--	H/V	74(Peak)/ 54(AV)
21933	--	H/V	74(Peak)/ 54(AV)
24370	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802.11g mode 54Mbps is the worse case

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

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2462.00	98.43 (PK)	H	Fundamental Frequency
2462.00	98.25 (PK)	V	
4924	50.08 (PK)	H	74(Peak)/ 54(AV)
4924	49.64 (PK)	V	
7386	--	H/V	74(Peak)/ 54(AV)
9848	--	H/V	74(Peak)/ 54(AV)
12310	--	H/V	74(Peak)/ 54(AV)
14772	--	H/V	74(Peak)/ 54(AV)
17234	--	H/V	74(Peak)/ 54(AV)
19696	--	H/V	74(Peak)/ 54(AV)
22158	--	H/V	74(Peak)/ 54(AV)
24620	--	H/V	74(Peak)/ 54(AV)

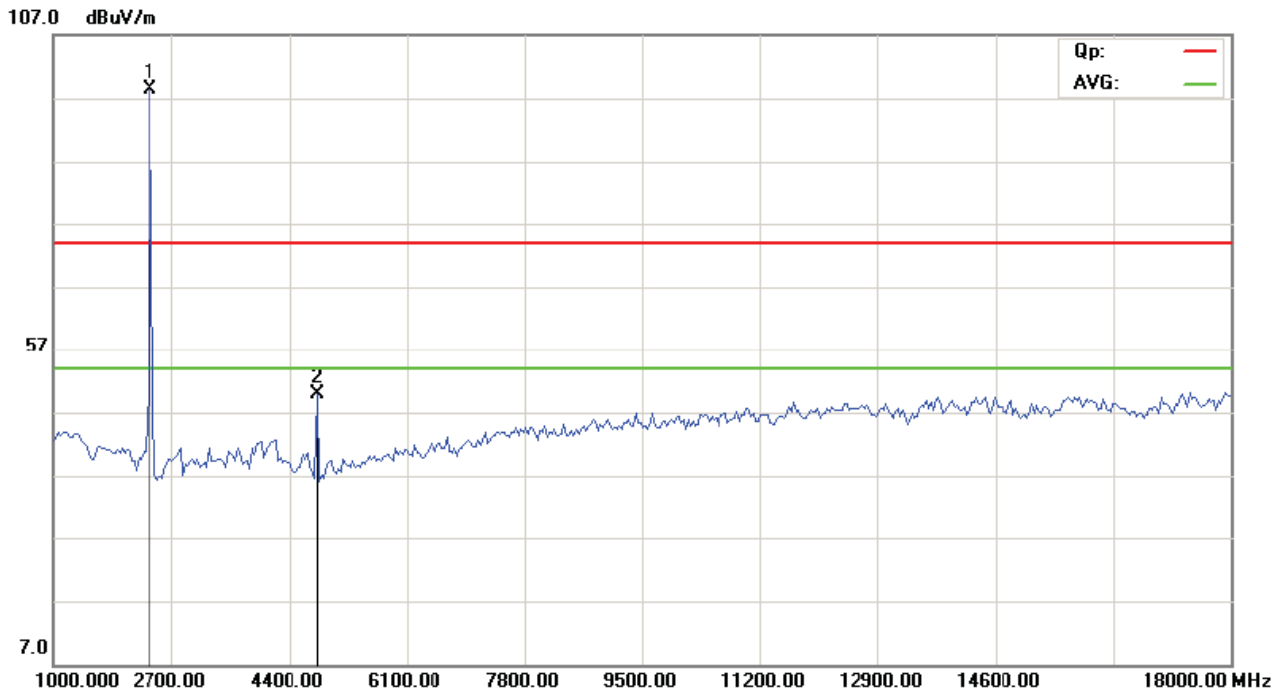
Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

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

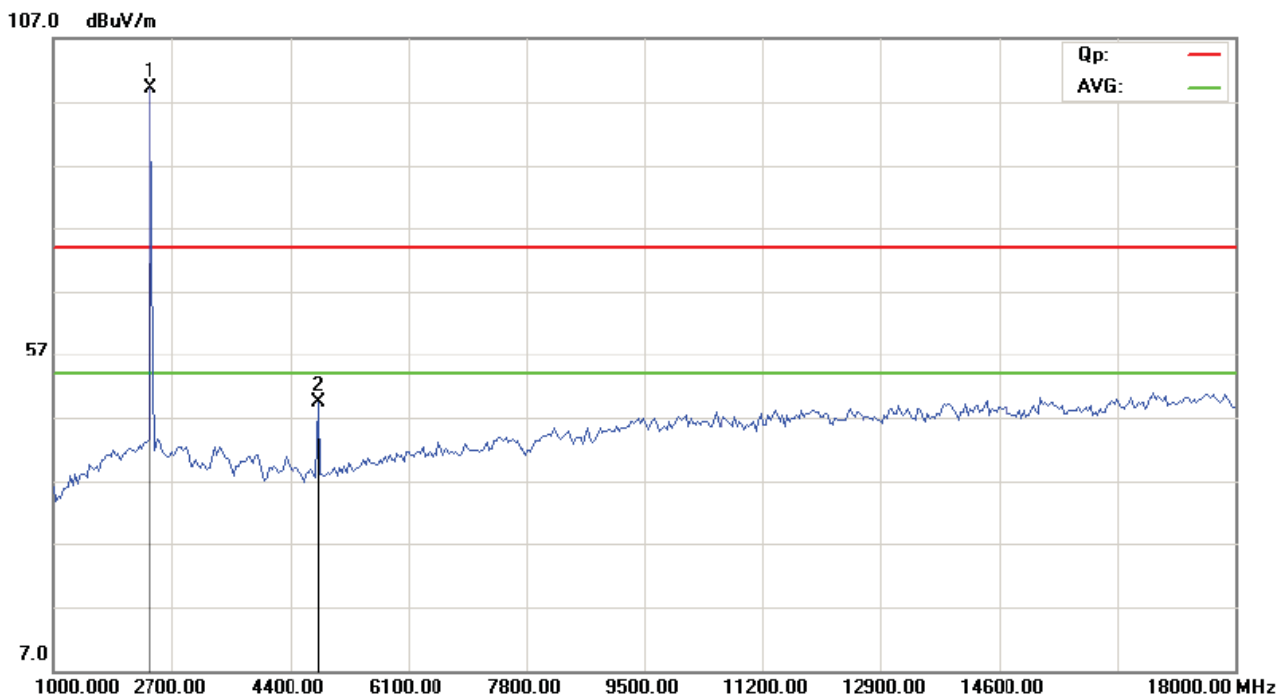
3. For 802.11g mode 54Mbps is the worse case

Please refer to the following test plots for details:

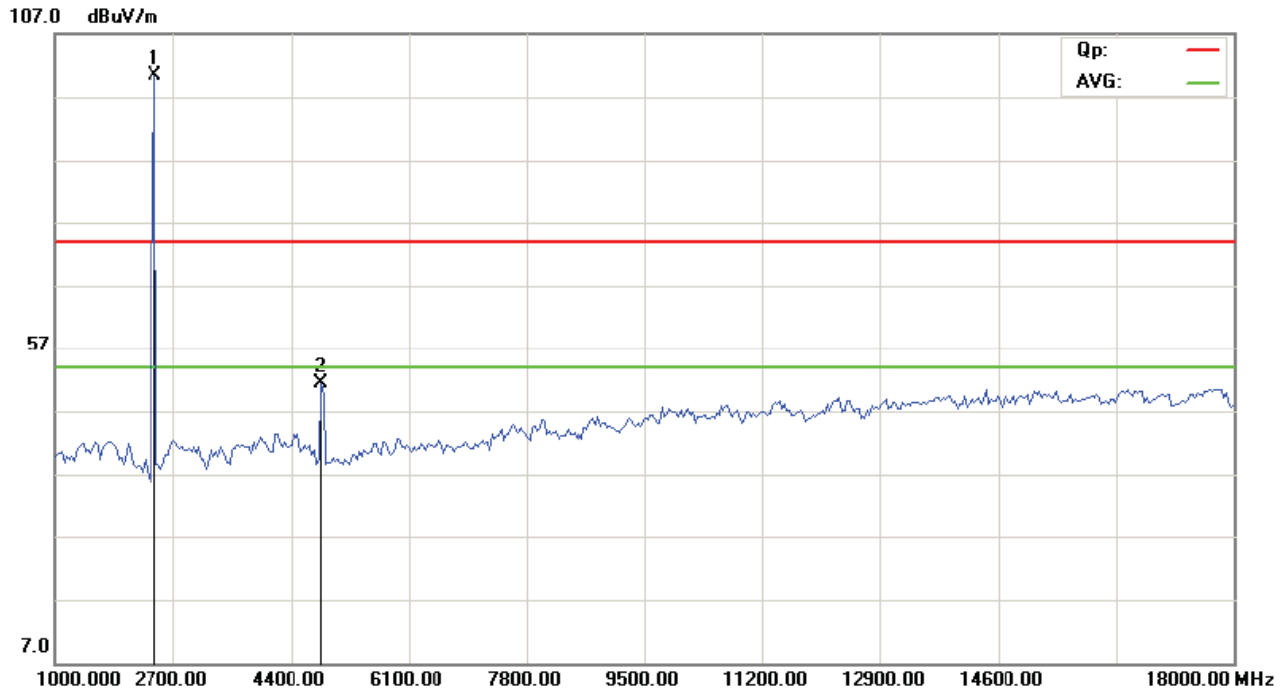
CH01 at 54Mbps: Horizontal



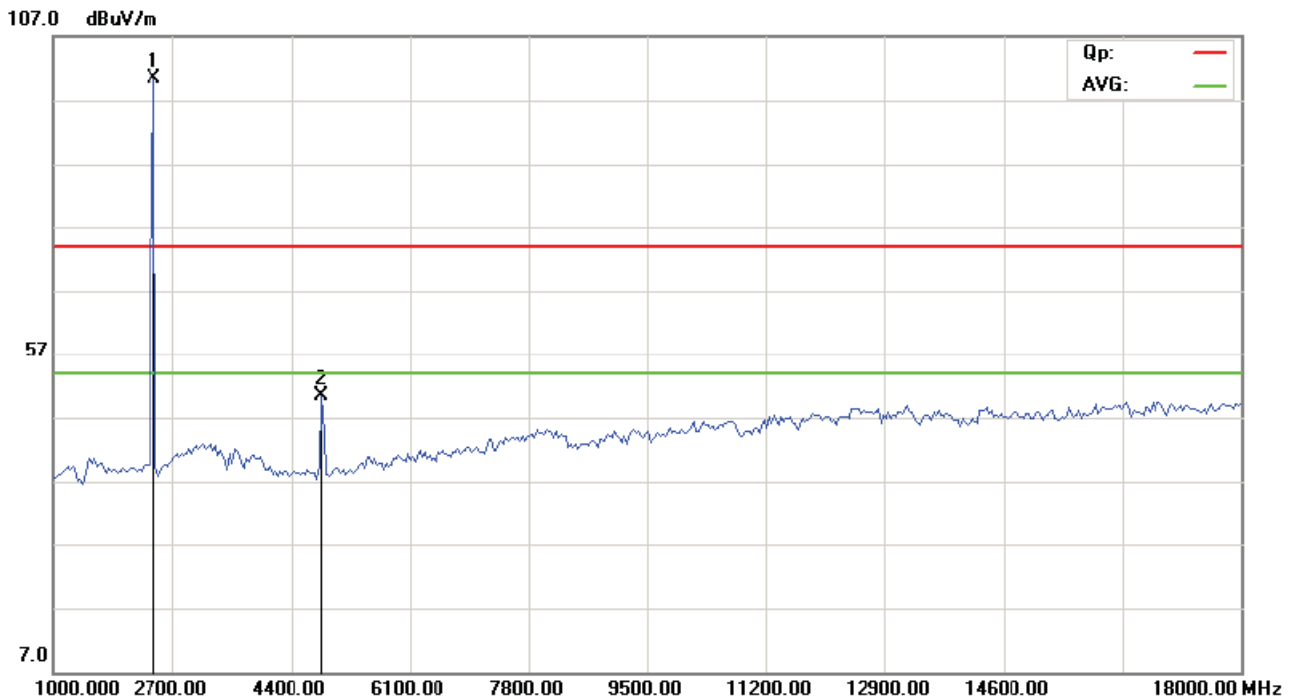
CH01 at 54Mbps: Vertical



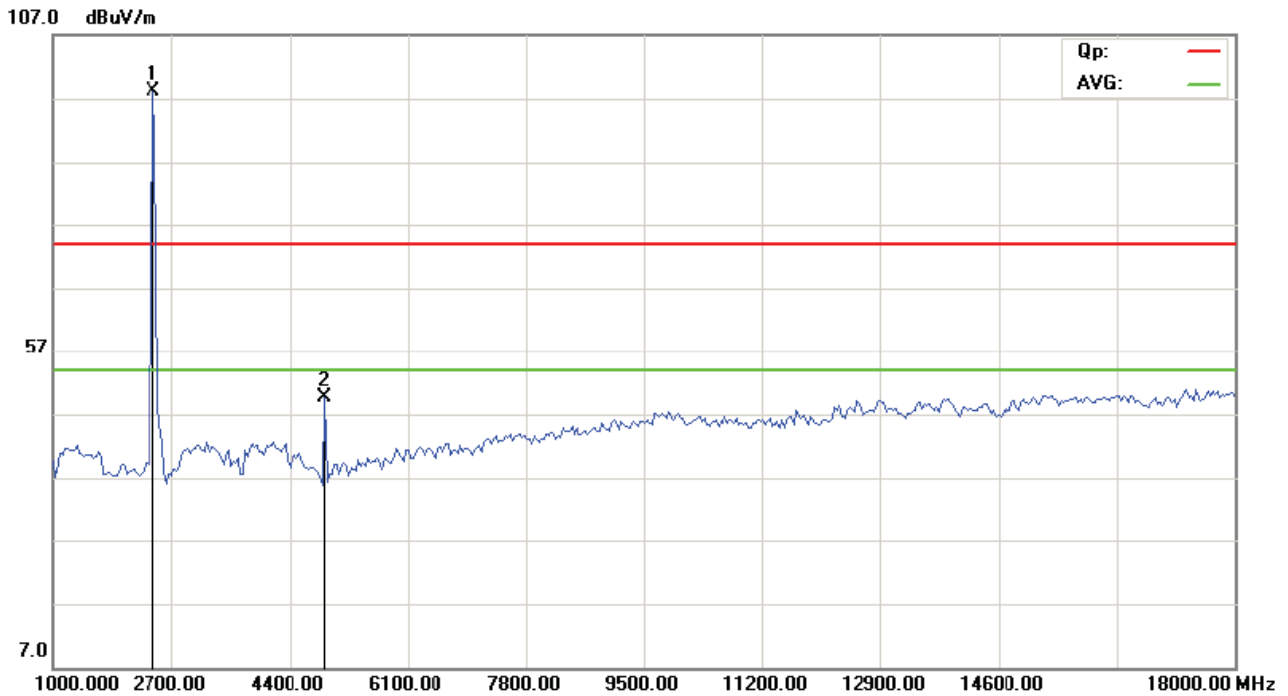
CH06 at 54Mbps: Vertical



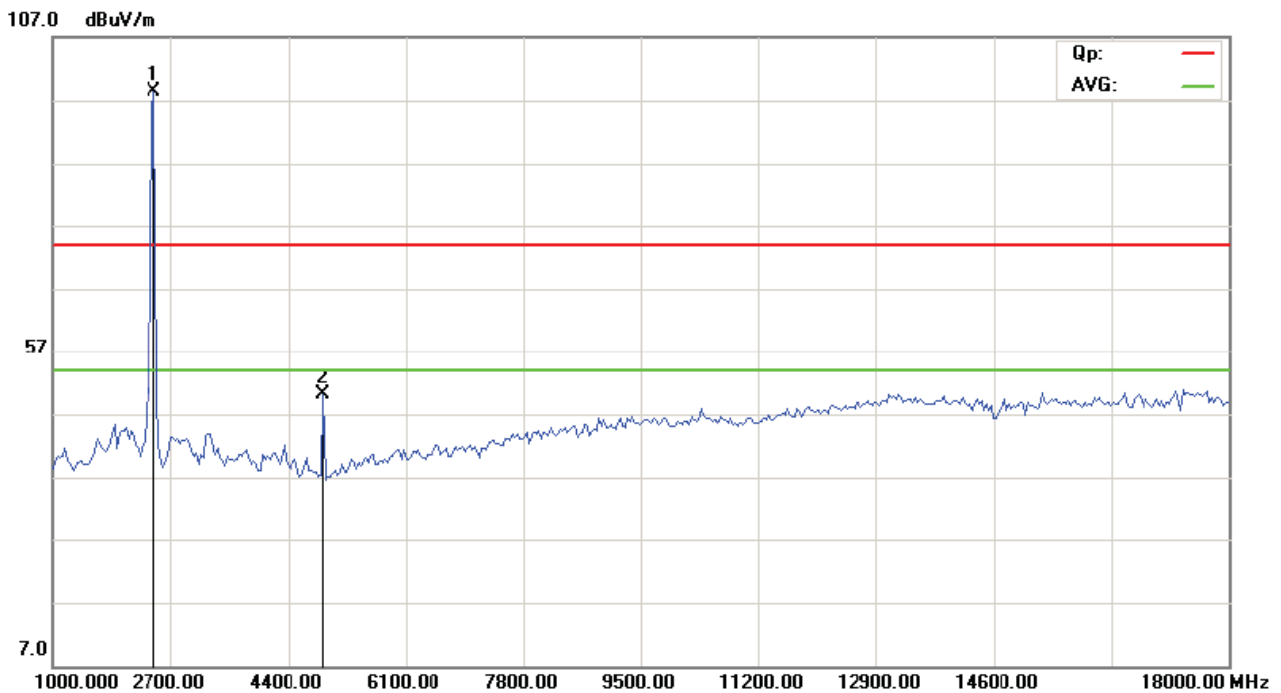
CH06 at 54Mbps: Horizontal



CH11 at 54Mbps: Vertical



CH11 at 54 Mbps: Horizontal



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

Operation Mode: Transmitting under CH01 for 11n HT20 at 65Mbps

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2412.00	98.39 (PK)	H	Fundamental Frequency
2412.00	98.48 (PK)	V	
4824.00	48.86 (PK)	H	74(Peak)/ 54(AV)
4824.00	50.63 (PK)	V	74(Peak)/ 54(AV)
7236.00	--	H/V	74(Peak)/ 54(AV)
9648.00	--	H/V	74(Peak)/ 54(AV)
12060	--	H/V	74(Peak)/ 54(AV)
14472	--	H/V	74(Peak)/ 54(AV)
16684	--	H/V	74(Peak)/ 54(AV)
19296	--	H/V	74(Peak)/ 54(AV)
21708	--	H/V	74(Peak)/ 54(AV)
24120	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802.11n HT20 at 65Mbps is the worse case

**Operation Mode: Transmitting under CH06 for 11n HT20 at 65Mbps**

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2437.00	99.55 (PK)	H	Fundamental Frequency
2437.00	99.56 (PK)	V	
4874.00	50.58 (PK)	H	74(Peak)/ 54(AV)
4874.00	47.90 (PK)	V	74(Peak)/ 54(AV)
7311.00	--	H/V	74(Peak)/ 54(AV)
9748.00	--	H/V	74(Peak)/ 54(AV)
12185	--	H/V	74(Peak)/ 54(AV)
14622	--	H/V	74(Peak)/ 54(AV)
17059	--	H/V	74(Peak)/ 54(AV)
19496	--	H/V	74(Peak)/ 54(AV)
21933	--	H/V	74(Peak)/ 54(AV)
24370	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802. 11n HT20 at 65Mbps is the worse case

Operation Mode: Transmitting under CH11 for 11n HT20 at 65Mbps

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2462.00	100.62 (PK)	H	Fundamental Frequency
2462.00	100.33 (PK)	V	
4924	49.22 (PK)	H	74(Peak)/ 54(AV)
4924	50.68 (PK)	V	74(Peak)/ 54(AV)
7386	--	H/V	74(Peak)/ 54(AV)
9848	--	H/V	74(Peak)/ 54(AV)
12310	--	H/V	74(Peak)/ 54(AV)
14772	--	H/V	74(Peak)/ 54(AV)
17234	--	H/V	74(Peak)/ 54(AV)
19696	--	H/V	74(Peak)/ 54(AV)
22158	--	H/V	74(Peak)/ 54(AV)
24620	--	H/V	74(Peak)/ 54(AV)

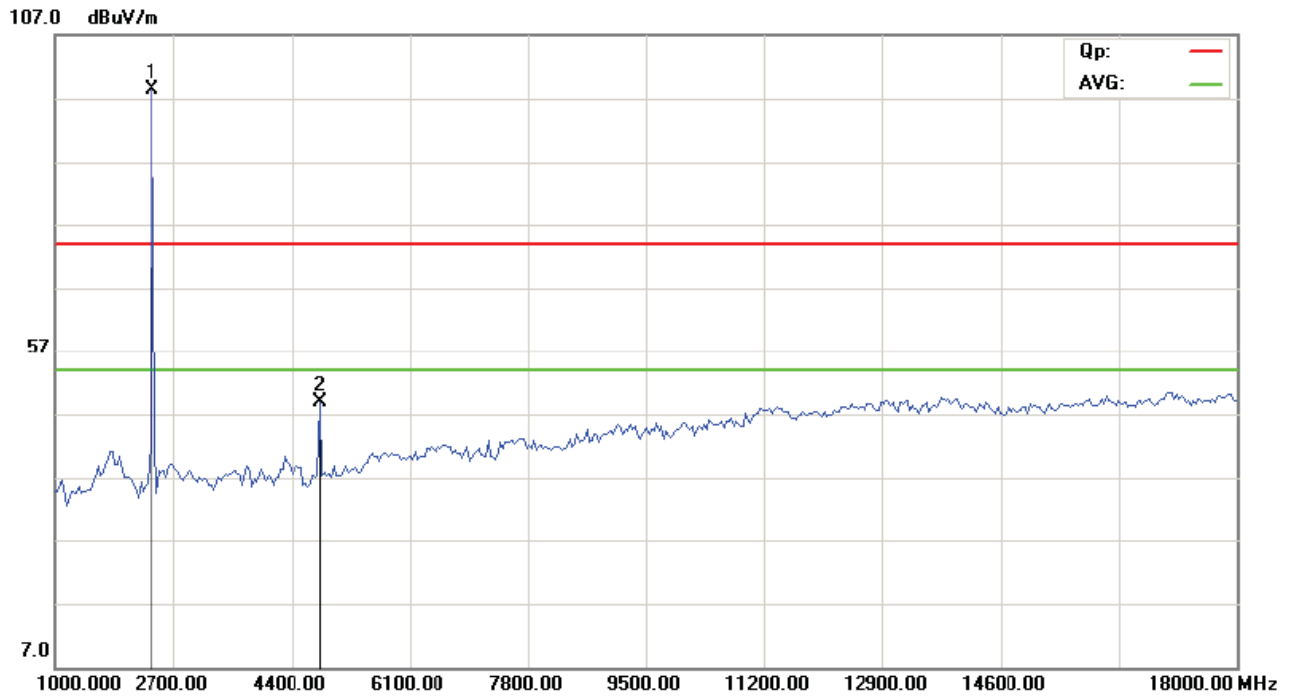
Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

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

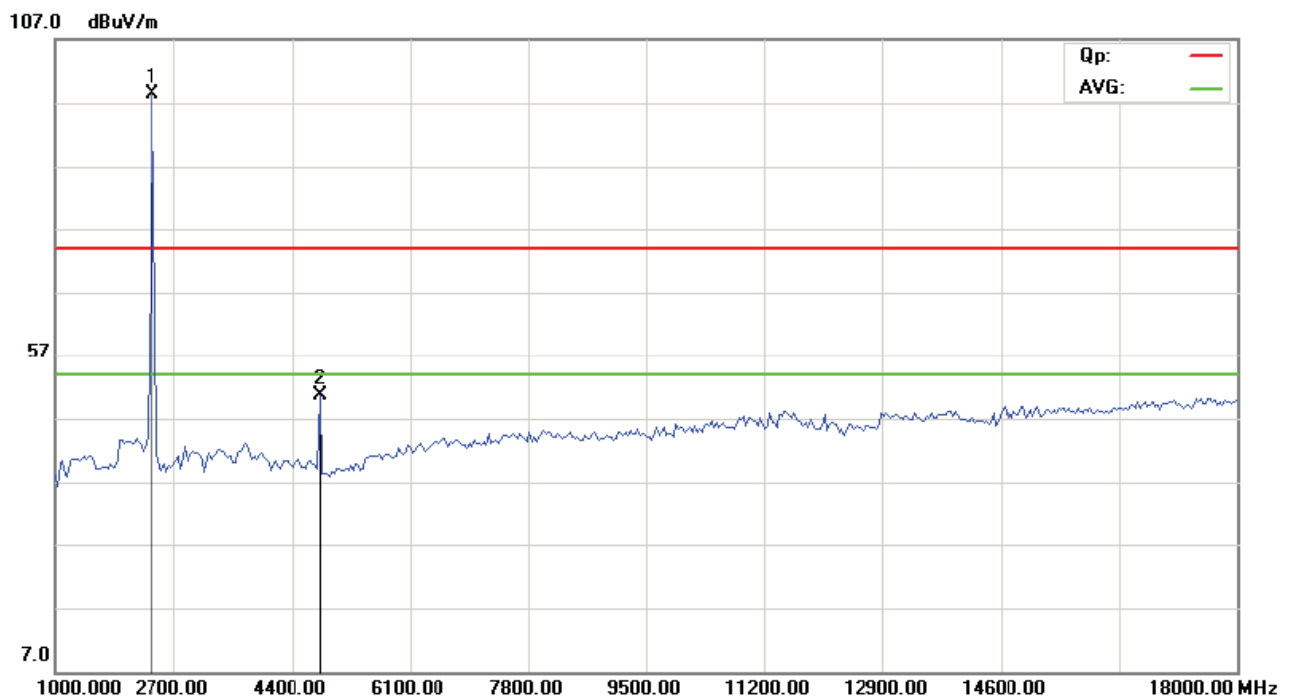
3. For 802. 11n HT20 at 65Mbps is the worse case

Please refer to the following test plots for details:

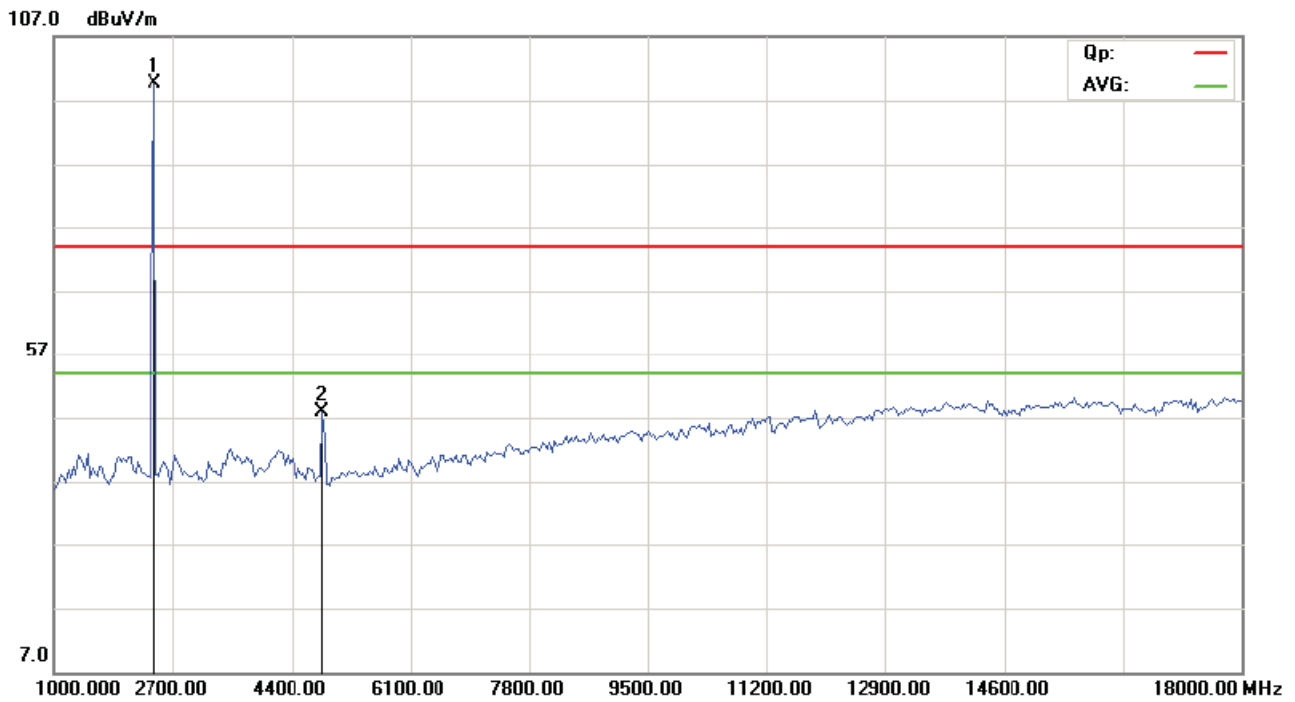
CH01 at 11n HT20: Horizontal



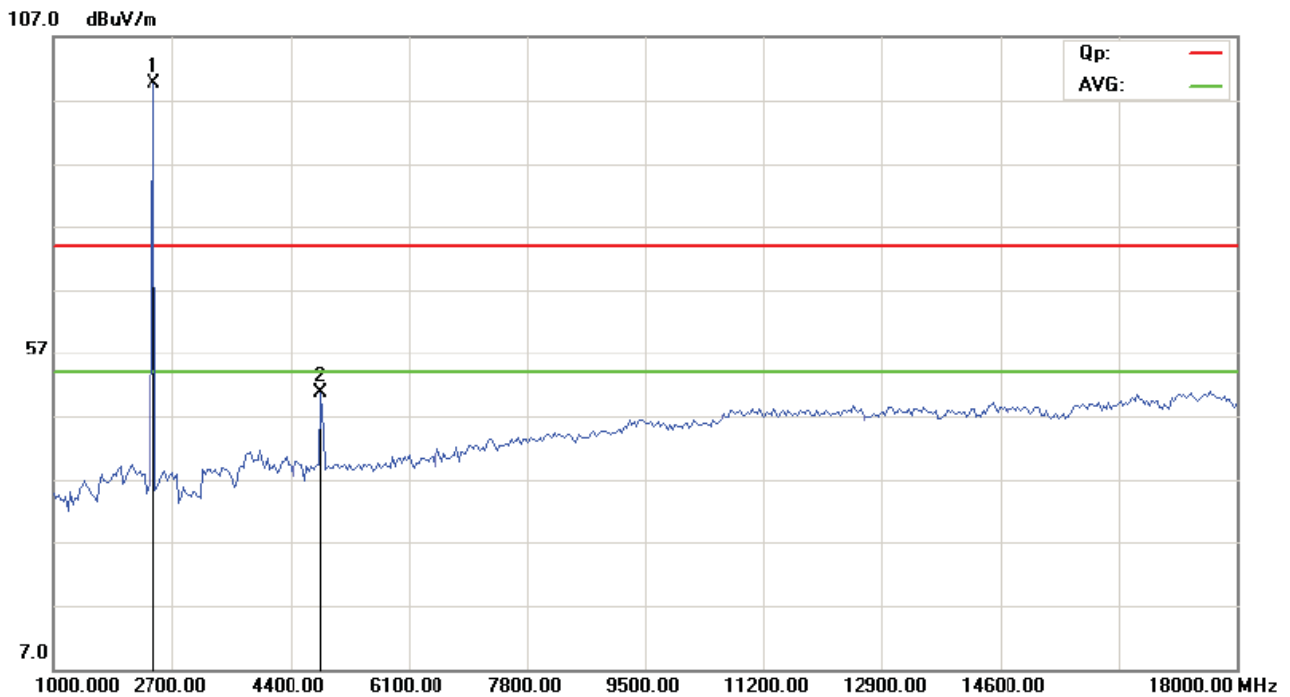
CH01 at 11n HT20: Vertical



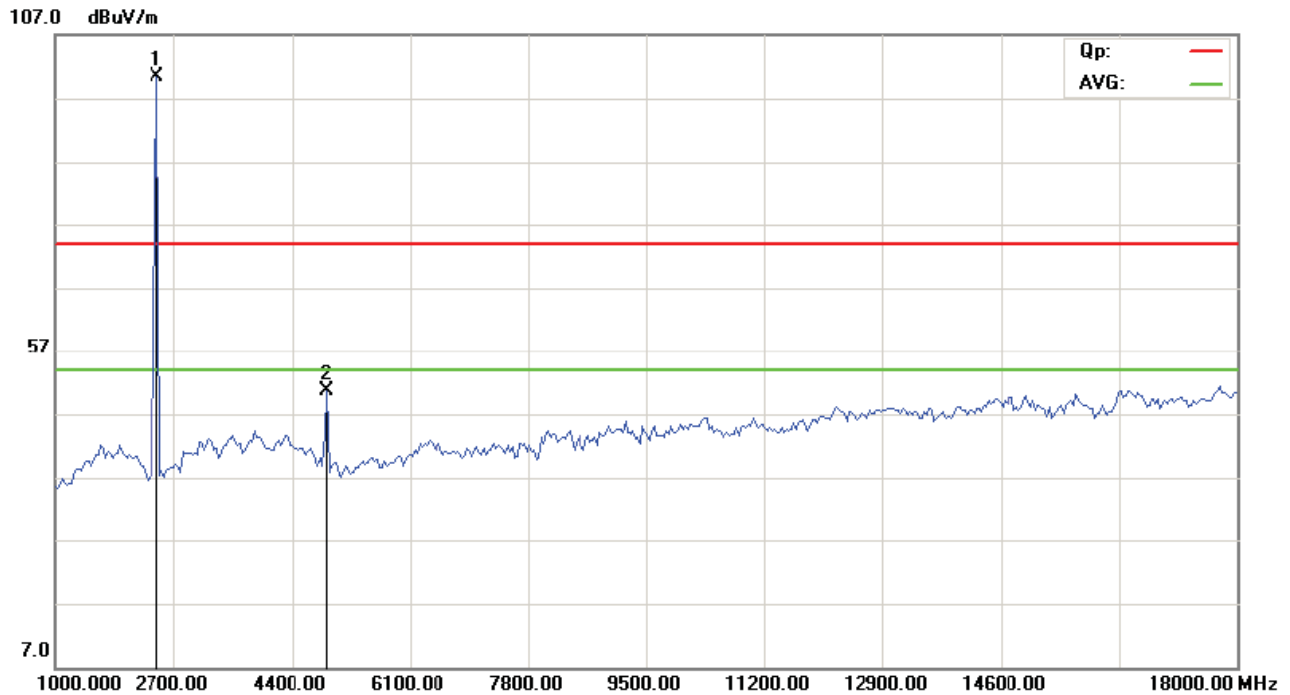
CH06 at 11n HT20: Vertical



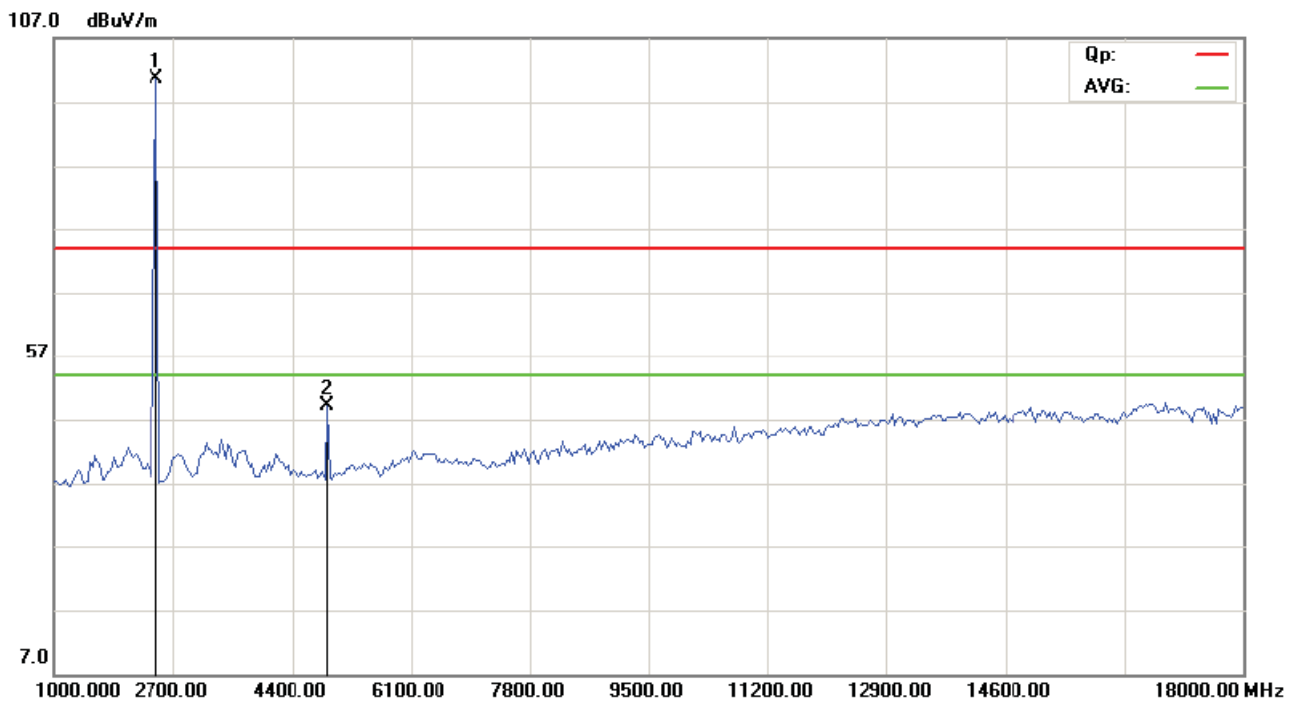
CH06 at 11n HT20: Horizontal



CH11 at 11n HT20: Vertical



CH11 at 11n HT20: Horizontal



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

Operation Mode: Transmitting under CH01 for 11n HT40 at 65Mbps

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2422.00	95.53 (PK)	H	Fundamental Frequency
2422.00	95.46 (PK)	V	
4844.00	47.51 (PK)	H	74(Peak)/ 54(AV)
4844.00	50.71 (PK)	V	74(Peak)/ 54(AV)
7266.00	--	H/V	74(Peak)/ 54(AV)
9688.00	--	H/V	74(Peak)/ 54(AV)
12110	--	H/V	74(Peak)/ 54(AV)
14532	--	H/V	74(Peak)/ 54(AV)
16954	--	H/V	74(Peak)/ 54(AV)
19376	--	H/V	74(Peak)/ 54(AV)
21798	--	H/V	74(Peak)/ 54(AV)
24220	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802.11n HT40 at 65Mbps is the worse case

Operation Mode: Transmitting under CH04 for 11n HT40 at 65Mbps

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2437.00	96.15 (PK)	V	Fundamental Frequency
2437.00	96.72 (PK)	H	
4874.00	50.29 (PK)	V	74(Peak)/ 54(AV)
4874.00	50.20 (PK)	H	74(Peak)/ 54(AV)
7311.00	--	H/V	74(Peak)/ 54(AV)
9748.00	--	H/V	74(Peak)/ 54(AV)
12185	--	H/V	74(Peak)/ 54(AV)
14622	--	H/V	74(Peak)/ 54(AV)
17059	--	H/V	74(Peak)/ 54(AV)
19496	--	H/V	74(Peak)/ 54(AV)
21933	--	H/V	74(Peak)/ 54(AV)
24370	--	H/V	74(Peak)/ 54(AV)

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

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

3. For 802. 11n HT40 at 65Mbps is the worse case

Operation Mode: Transmitting under CH07 for 11n HT40 at 65Mbps

Frequency (MHz)	Level@3m (dBμV/m)	Antenna Polarity	Limit@3m (dBμV/m)
2452.00	97.08 (PK)	H	Fundamental Frequency
2452.00	97.19 (PK)	V	
4904	49.22 (PK)	H	74(Peak)/ 54(AV)
4904	49.58 (PK)	V	74(Peak)/ 54(AV)
7356	--	H/V	74(Peak)/ 54(AV)
9808	--	H/V	74(Peak)/ 54(AV)
12260	--	H/V	74(Peak)/ 54(AV)
14712	--	H/V	74(Peak)/ 54(AV)
17164	--	H/V	74(Peak)/ 54(AV)
19616	--	H/V	74(Peak)/ 54(AV)
22068	--	H/V	74(Peak)/ 54(AV)
24520	--	H/V	74(Peak)/ 54(AV)

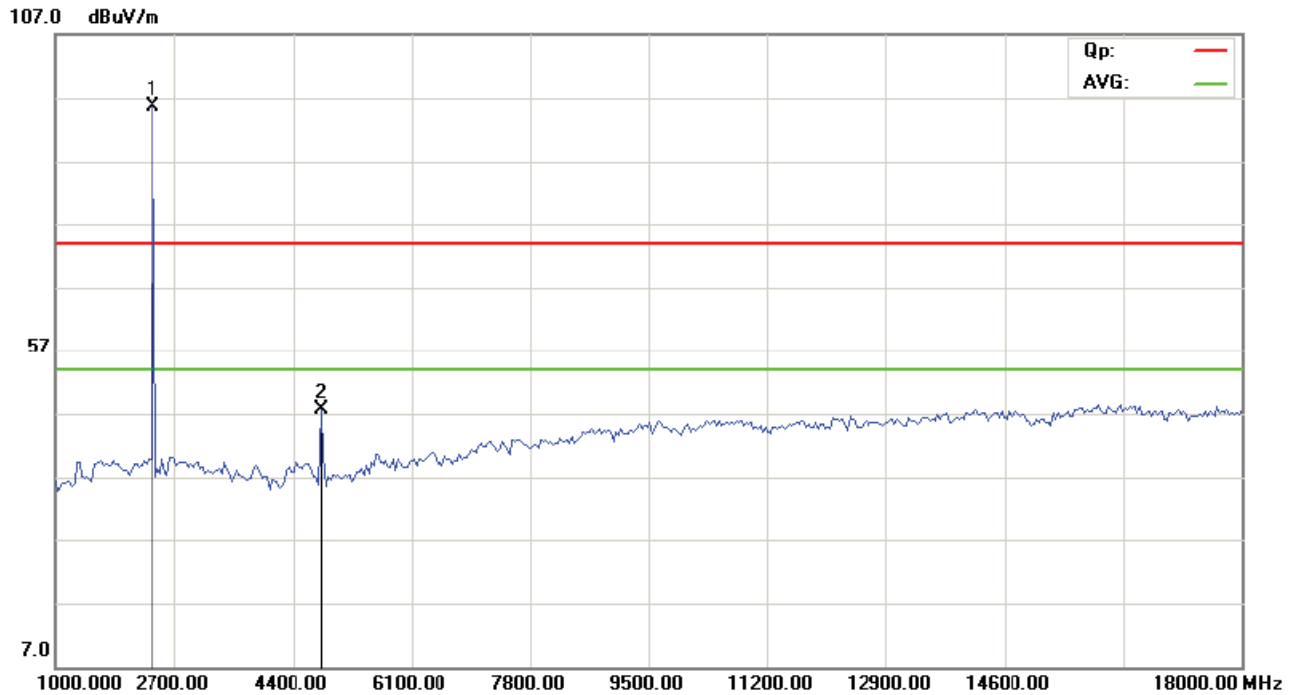
Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

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

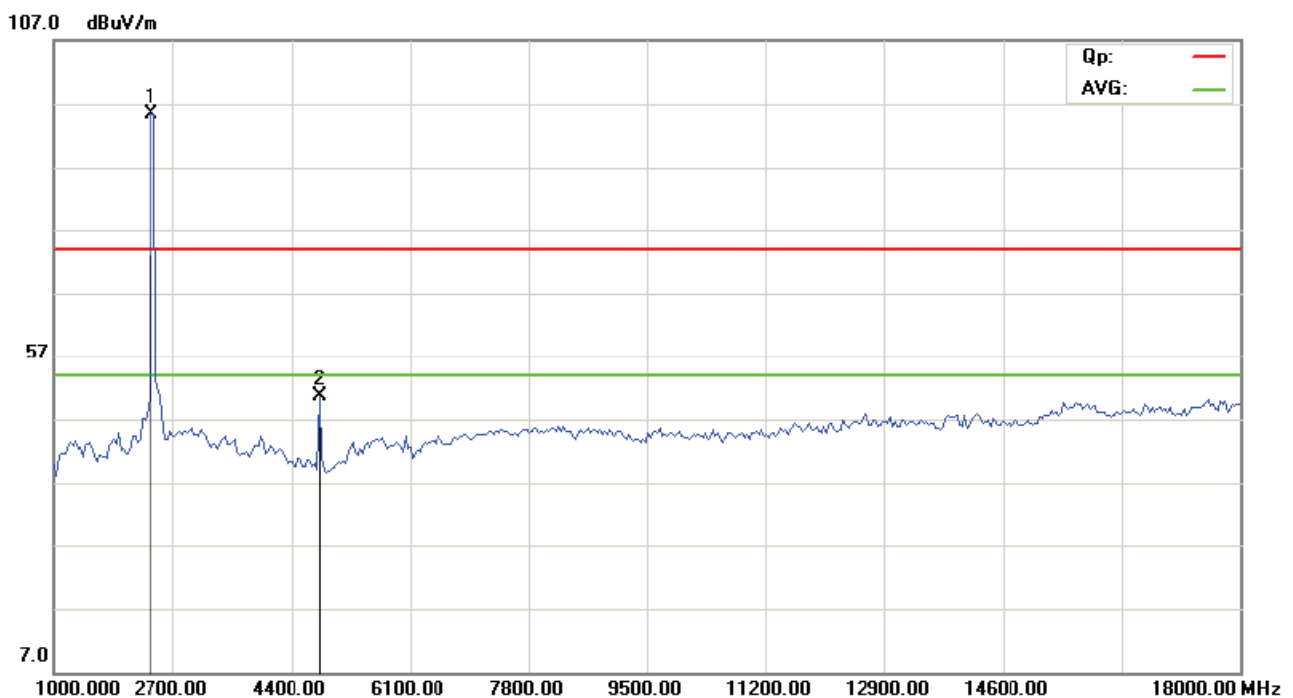
3. For 802. 11n HT40 at 65Mbps is the worse case

Please refer to the following test plots for details:

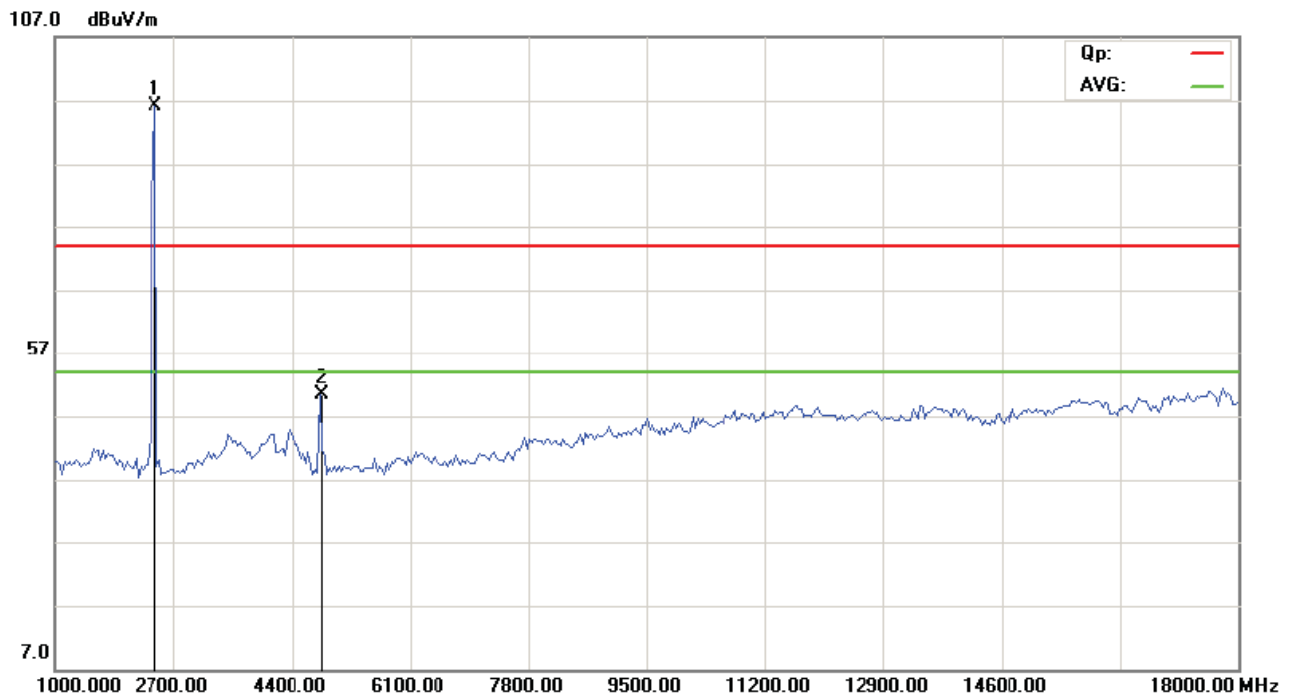
CH01 at 11n HT40: Horizontal



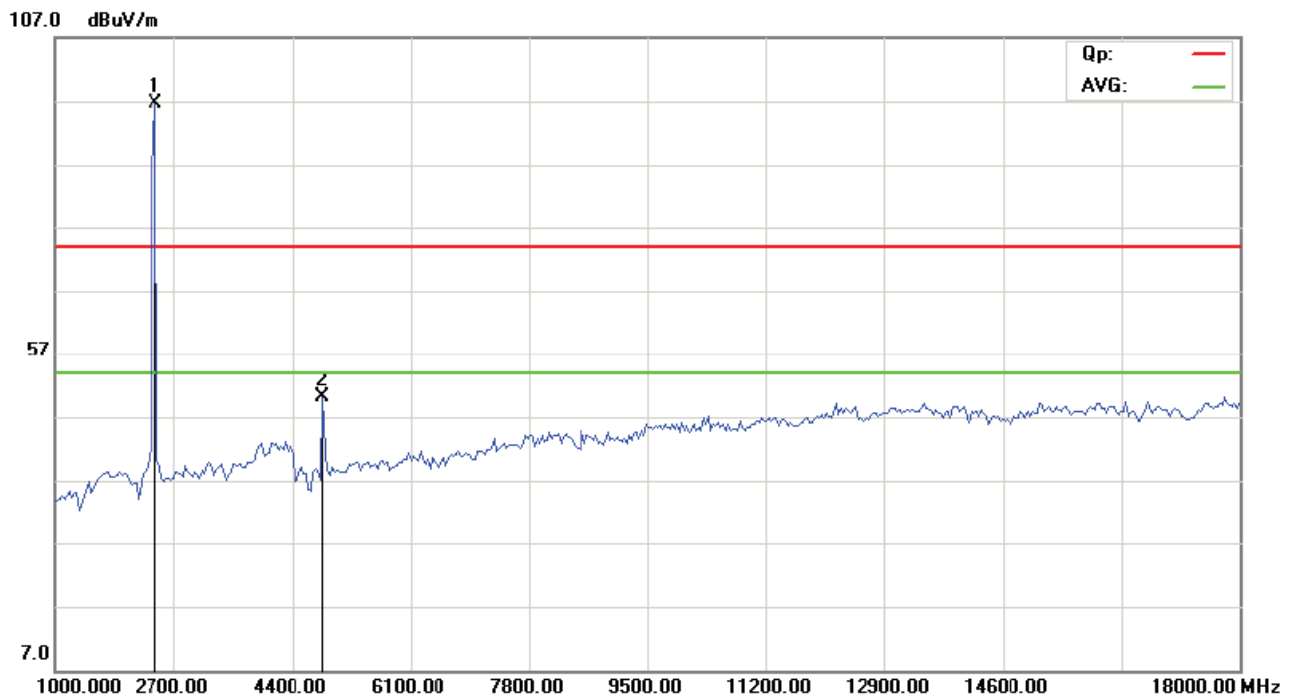
CH01 at 11n HT40: Vertical



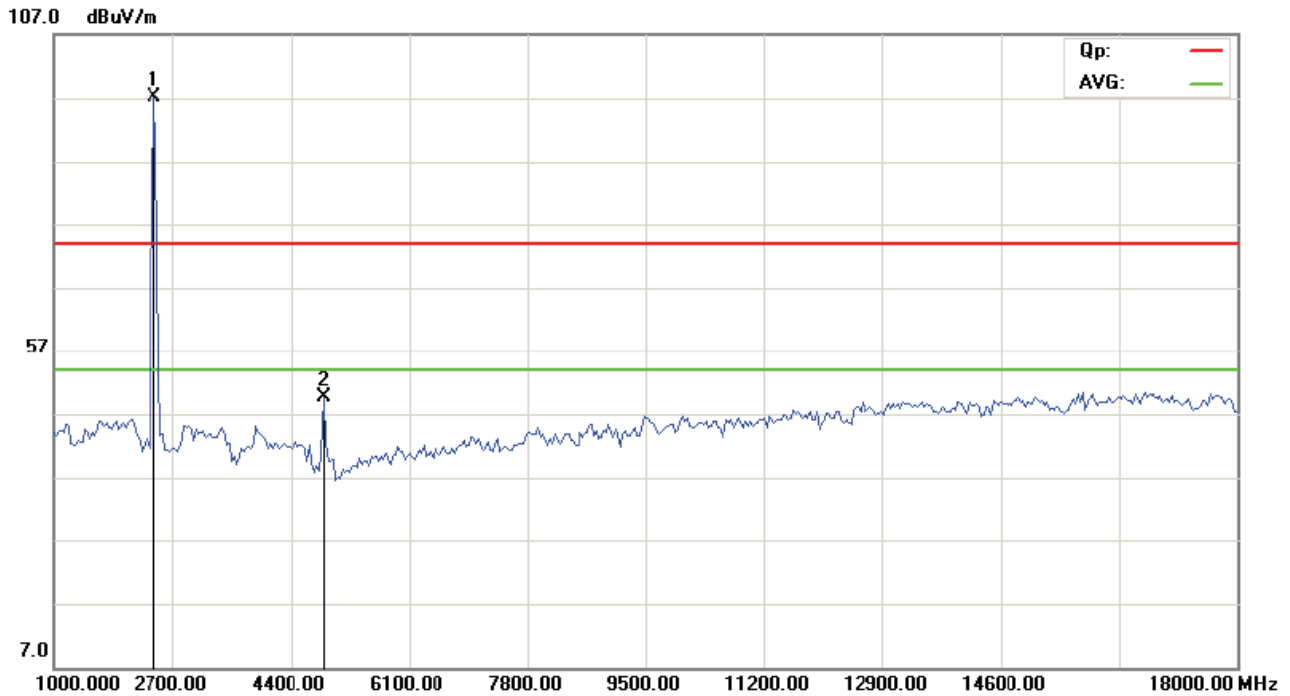
CH04 at 11n HT40: Vertical



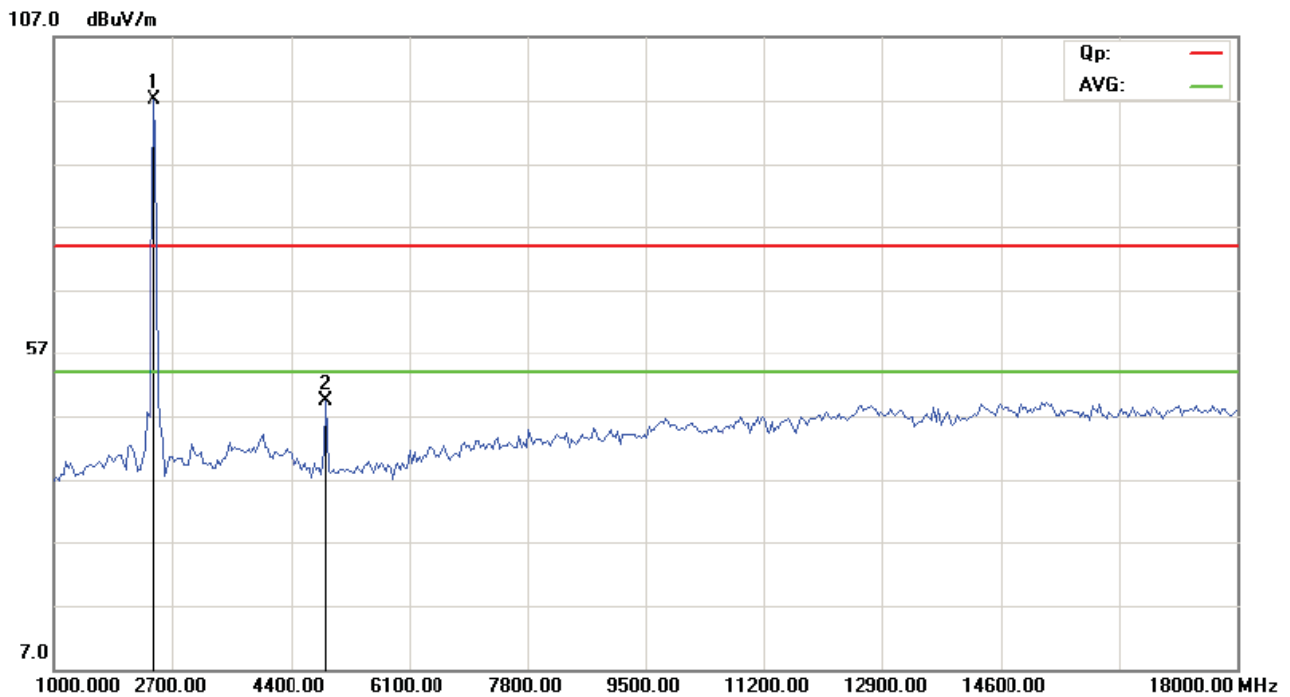
CH04 at 11n HT40: Horizontal



CH07 at 11n HT40: Vertical



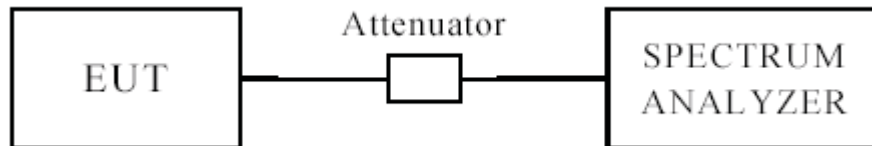
CH07 at 11n HT40: Horizontal



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

7.0 6dB Bandwidth Measurement

7.1 Test Setup



7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500kHz

7.3 Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.4 Test Result



EUT	WiFi Remote Video Monitor			Model	MO136
Mode	802.11b			Input Voltage	120V~
Temperature	24 deg. C,			Humid Pity	56% RH
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1	2412	1	10.02	0.5	Pass
6	2437	1	10.02	0.5	Pass
11	2462	1	10.08	0.5	Pass
1	2412	11	9.30	0.5	Pass
6	2437	11	9.30	0.5	Pass
11	2462	11	9.30	0.5	Pass

EUT	WiFi Remote Video Monitor			Model	MO136
Mode	802.11g			Input Voltage	120V~
Temperature	24 deg. C,			Humid Pity	56% RH
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1	2412	54	16.38	0.5	Pass
6	2437	54	16.32	0.5	Pass
11	2462	54	16.38	0.5	Pass



EUT	WiFi Remote Video Monitor		Model	MO136	
Mode	802.11n HT20/HT40		Input Voltage	120V~	
Temperature	24 deg. C,		Humid Pity	56% RH	
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
HT20					
1	2412	65	17.52	0.5	Pass
6	2437	65	17.58	0.5	Pass
11	2462	65	17.58	0.5	Pass
HT20					
1	2422	65	35.30	0.5	Pass
4	2437	65	35.10	0.5	Pass
7	2452	65	35.10	0.5	Pass

1. 802.11b at 1Mbps of CH01



DELTA MARKER 2

10.02 MHz

Ref 20 dBm

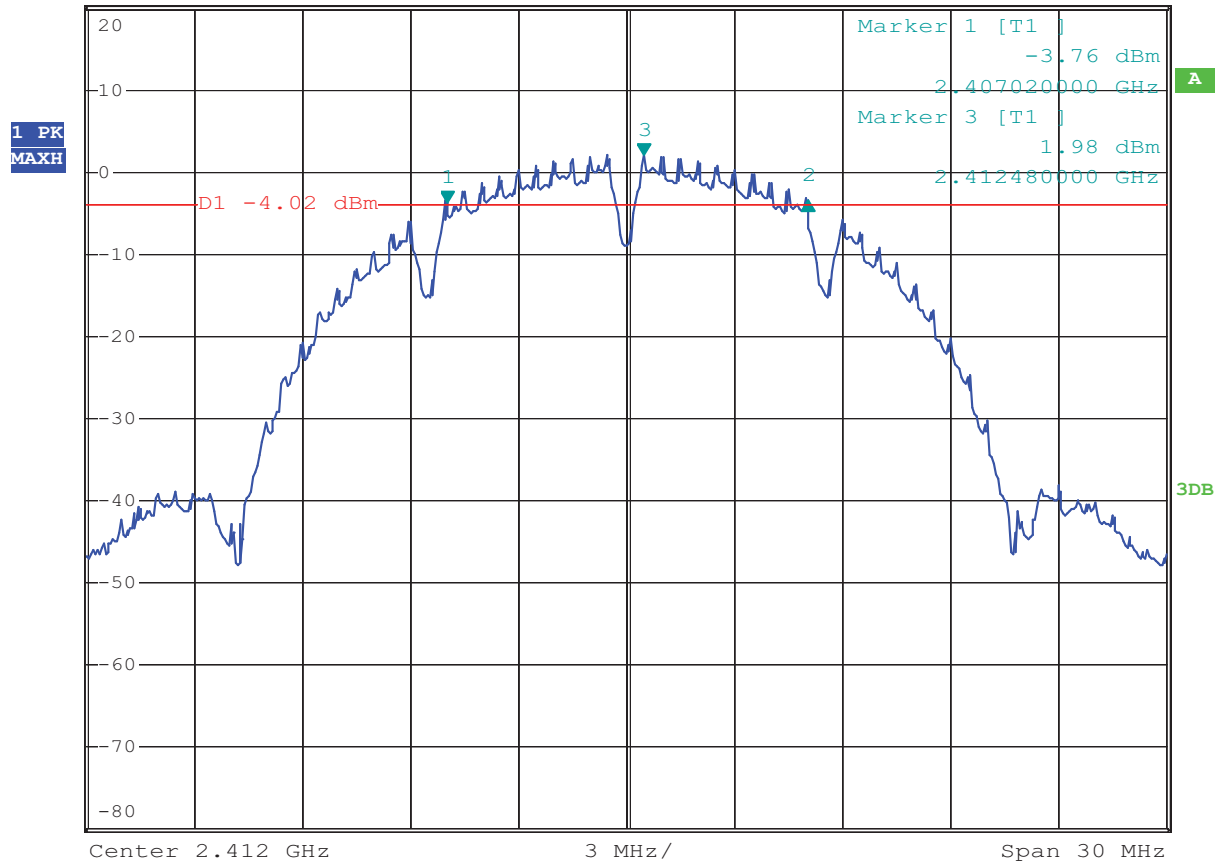
* Att 30 dB

* RBW 100 kHz Delta 2 [T1]

* VBW 300 kHz 0.30 dB

SWT 5 ms

10.02000000 MHz



Date: 2.SEP.2013 18:34:32

2. 802.11b at 1Mbps of CH06



DELTA MARKER 2

10.02 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

Delta 2 [T1]

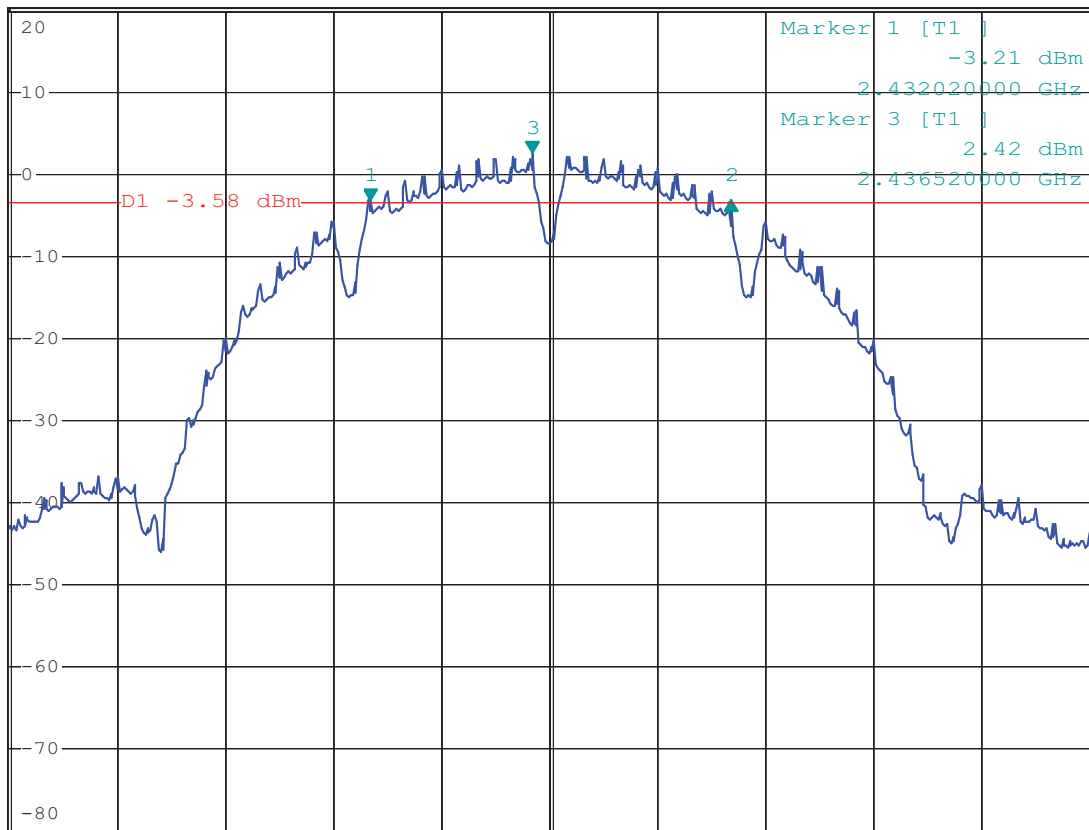
* VBW 300 kHz

-0.10 dB

SWT 5 ms

10.02000000 MHz

1 PK
MAXH



Center 2.437 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:41:02

3. 802.11b at 1Mbps of CH11



DELTA MARKER 2

10.08 MHz

Ref 20 dBm

* Att 30 dB

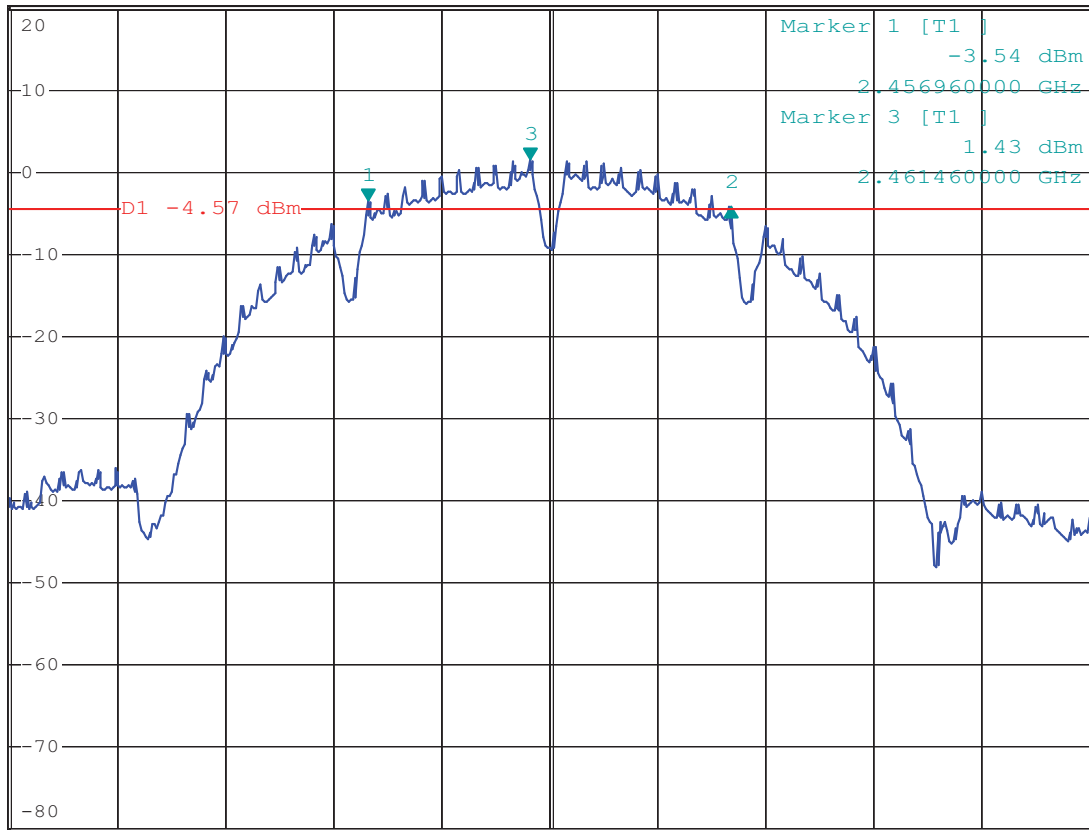
* RBW 100 kHz Delta 2 [T1]

* VBW 300 kHz -0.67 dB

SWT 5 ms

10.08000000 MHz

1 PK
MAXH



Center 2.462 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:46:14

4. 802.11b at 11Mbps of CH01



DELTA MARKER 2

9.3 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

Delta 2 [T1]

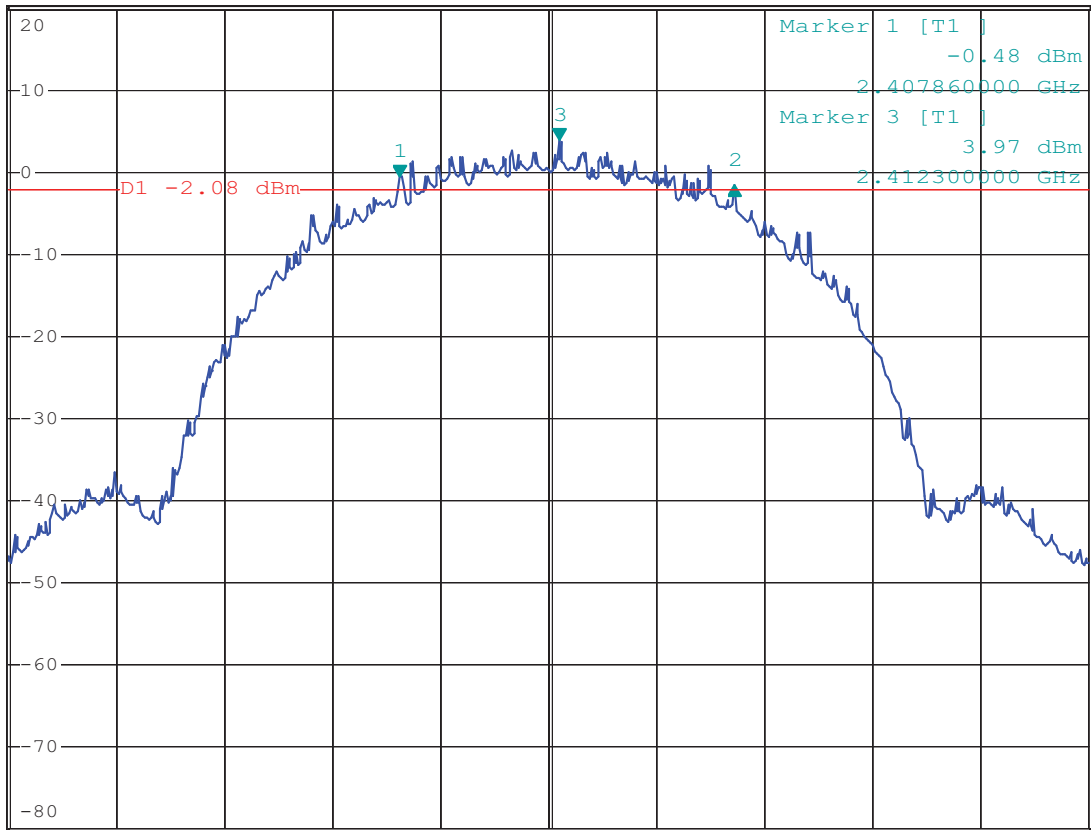
* VBW 300 kHz

-1.15 dB

SWT 5 ms

9.300000000 MHz

1 PK
MAXH



Center 2.412 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:37:01

5. 802.11b at 11Mbps of CH06



DELTA MARKER 2

9.3 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

Delta 2 [T1]

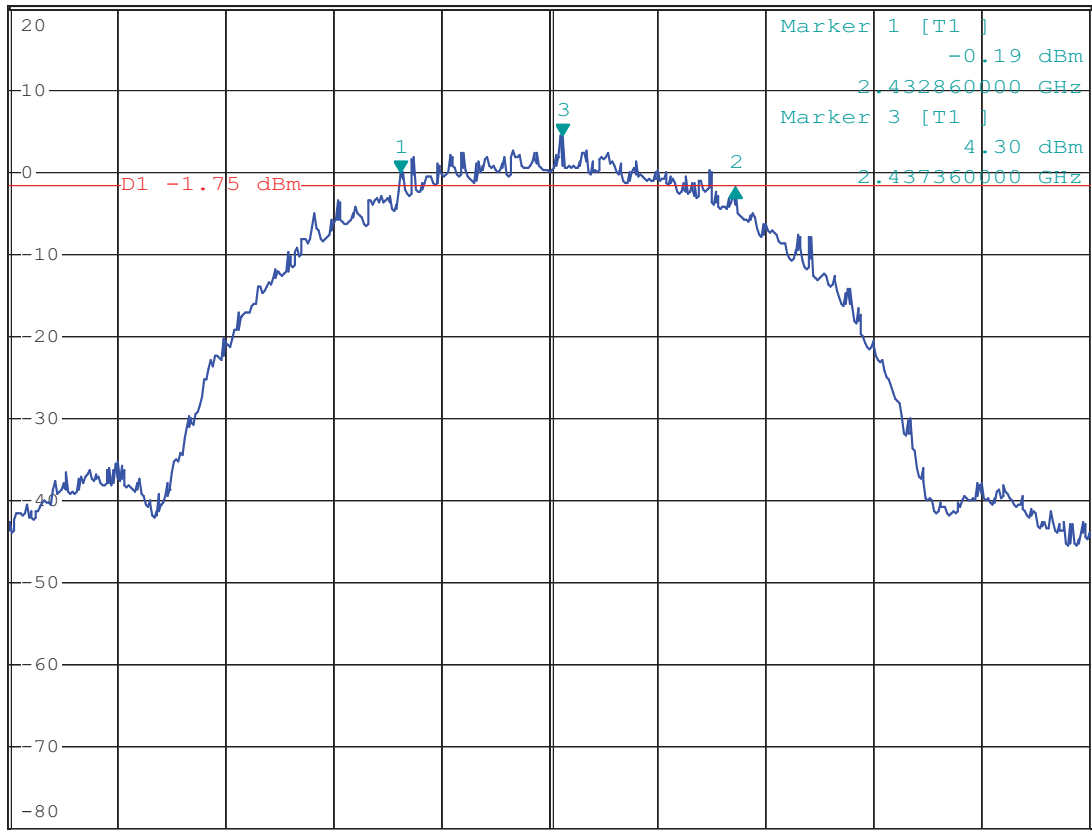
* VBW 300 kHz

-1.73 dB

SWT 5 ms

9.300000000 MHz

1 PK
MAXH



Center 2.437 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:44:39

6. 802.11b at 11Mbps of CH11



DELTA MARKER 2

9.3 MHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

Delta 2 [T1]

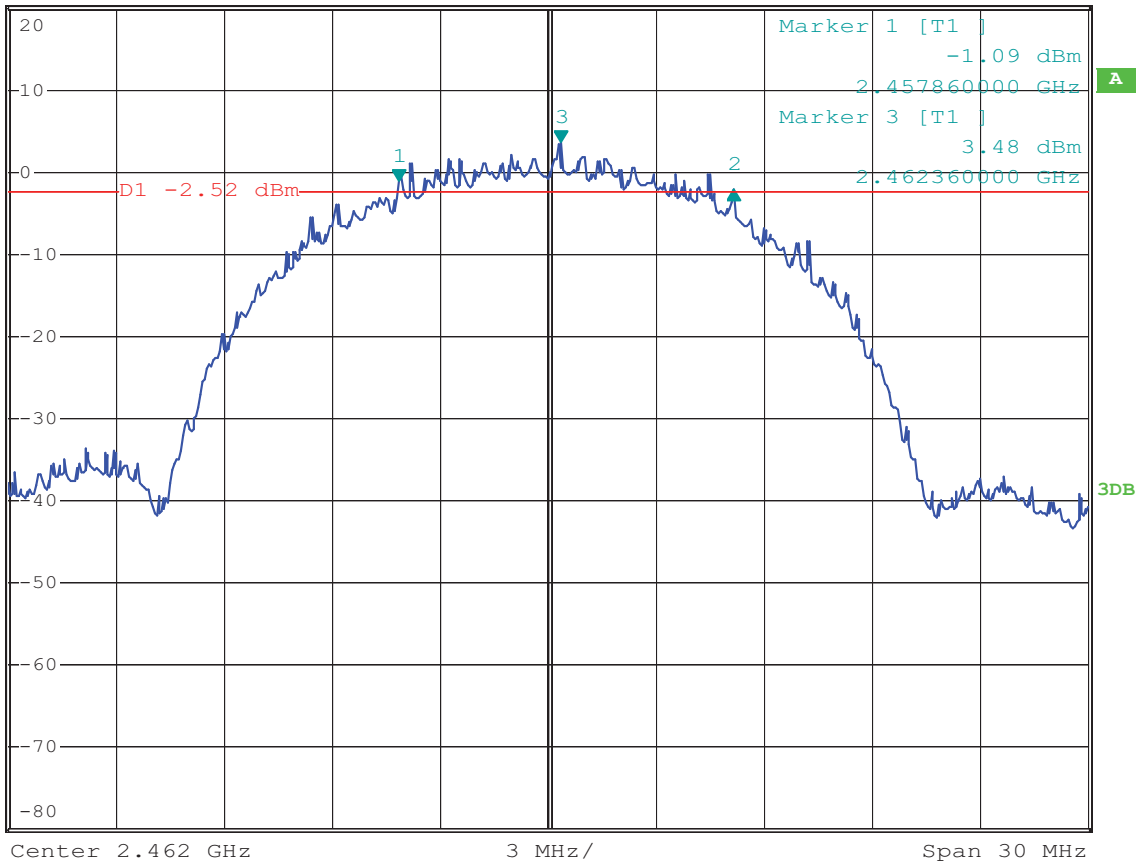
*VBW 300 kHz

-1.21 dB

SWT 5 ms

9.300000000 MHz

1 PK
MAXH



Date: 2.SEP.2013 18:49:33



7. 802.11g at 54 Mbps of CH01



DELTA MARKER 2

16.38 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

Delta 2 [T1]

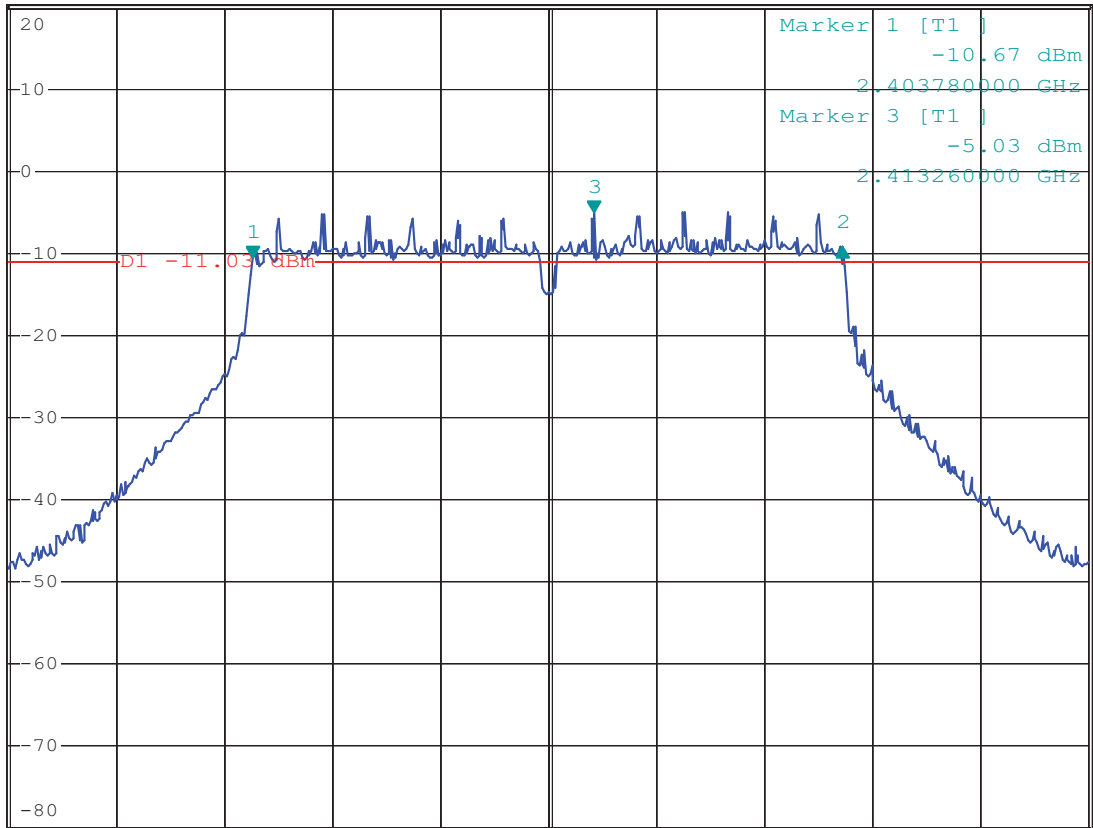
* VBW 300 kHz

1.28 dB

SWT 5 ms

16.38000000 MHz

1 PK
MAXH



Center 2.412 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:35:50



8. 802.11g at 54 Mbps of CH06



DELTA MARKER 2

16.32 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

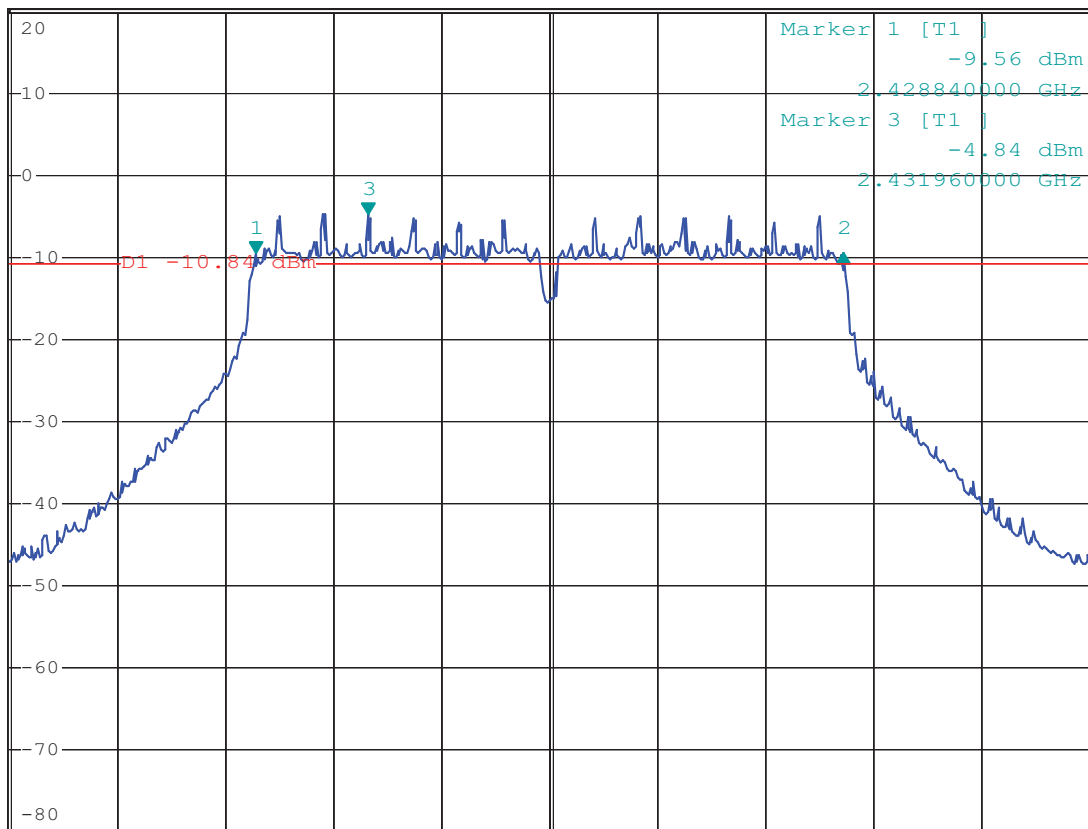
Delta 2 [T1]

* VBW 300 kHz

-0.09 dB

SWT 5 ms

16.32000000 MHz

1 PK
MAXH

Center 2.437 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:42:38



9. 802.11g at 54 Mbps of CH11



DELTA MARKER 2

16.38 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

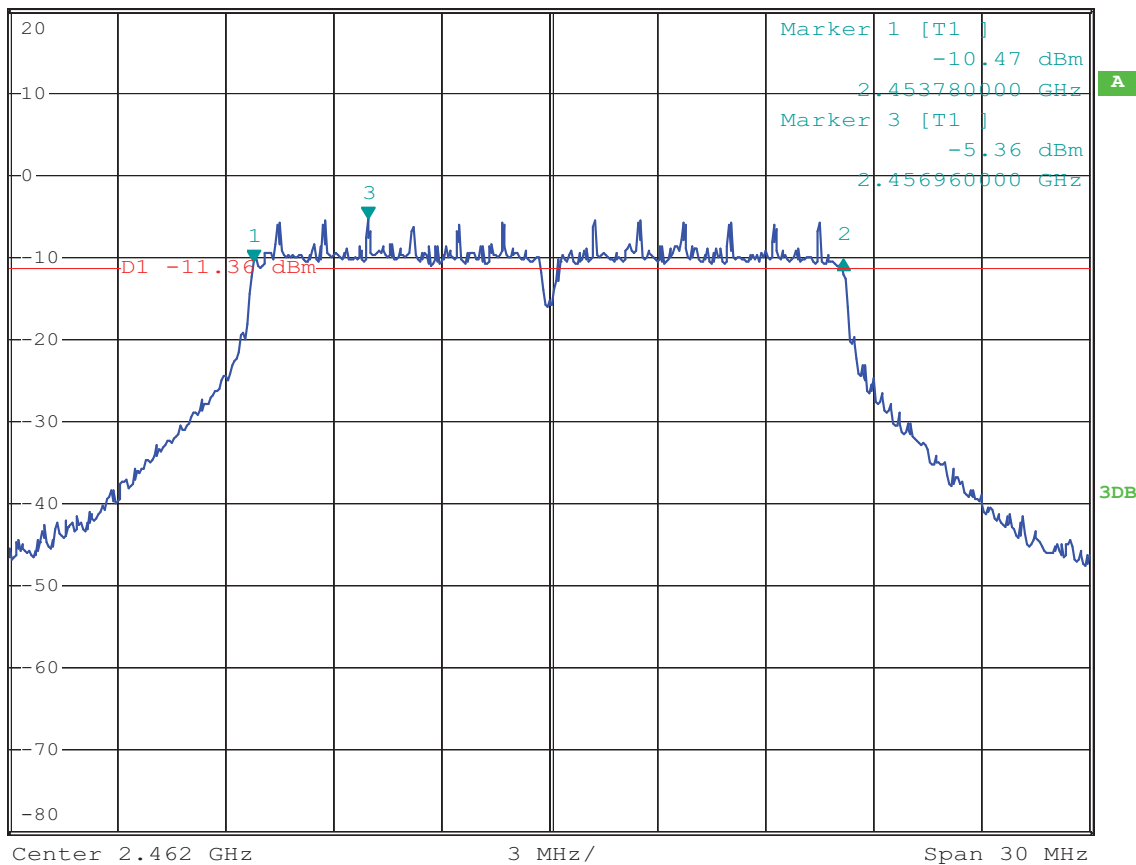
Delta 2 [T1]

* VBW 300 kHz

0.19 dB

SWT 5 ms

16.380000000 MHz

1 PK
MAXH

Date: 2.SEP.2013 18:48:10



10. 802.11n at HT20 of CH01



DELTA MARKER 2

17.52 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

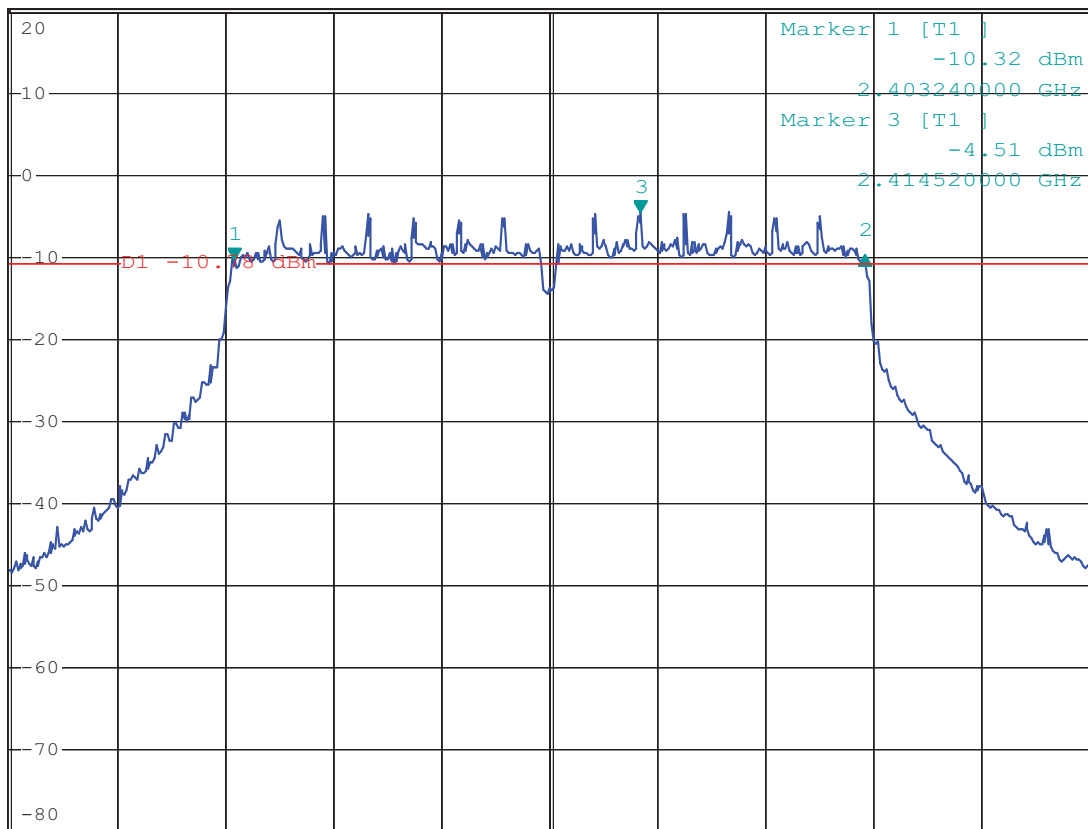
Delta 2 [T1]

* VBW 300 kHz

0.65 dB

* SWT 5 ms

17.52000000 MHz

1 PK
MAXH

Center 2.412 GHz

3 MHz/

Span 30 MHz

Date: 3.SEP.2013 10:39:20



11. 802.11n at HT20 of CH06



DELTA MARKER 2

17.58 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

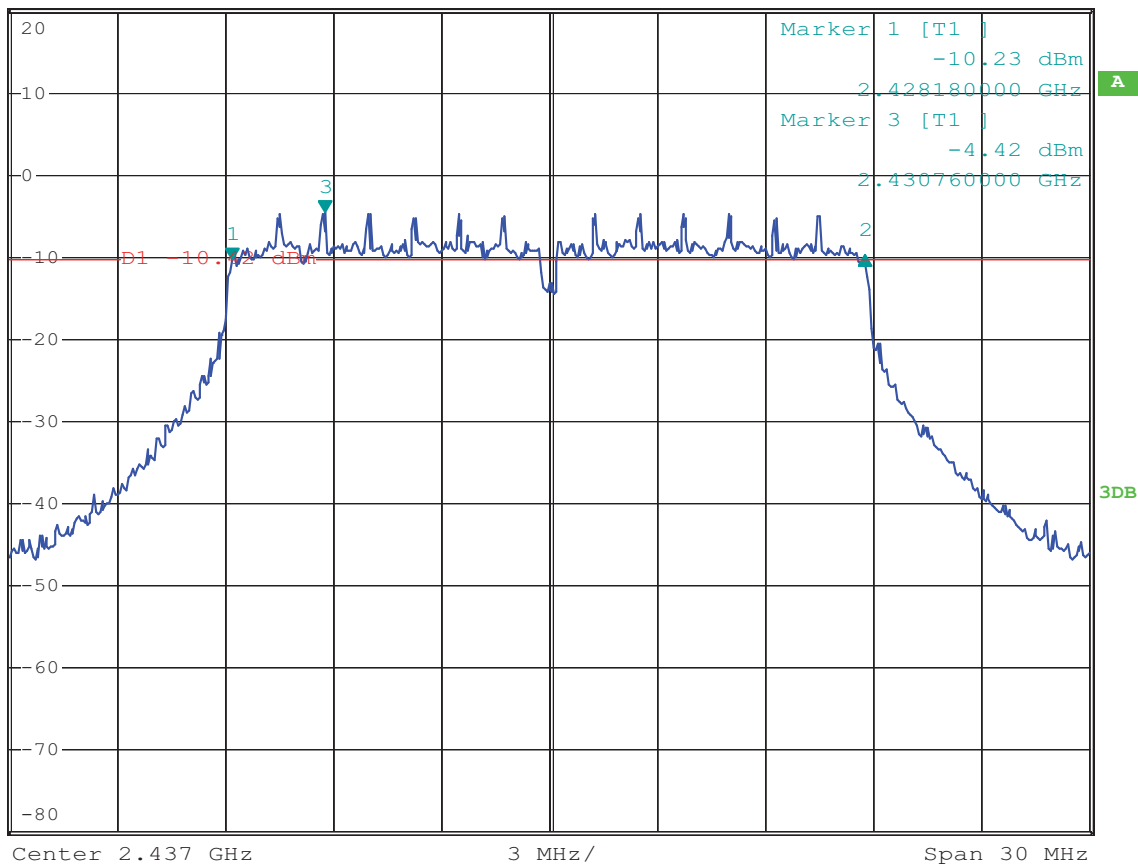
Delta 2 [T1]

* VBW 300 kHz

0.56 dB

* SWT 5 ms

17.580000000 MHz

1 PK
MAXH

Date: 3.SEP.2013 10:41:15



12. 802.11n at HT20 of CH11



DELTA MARKER 2

17.58 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

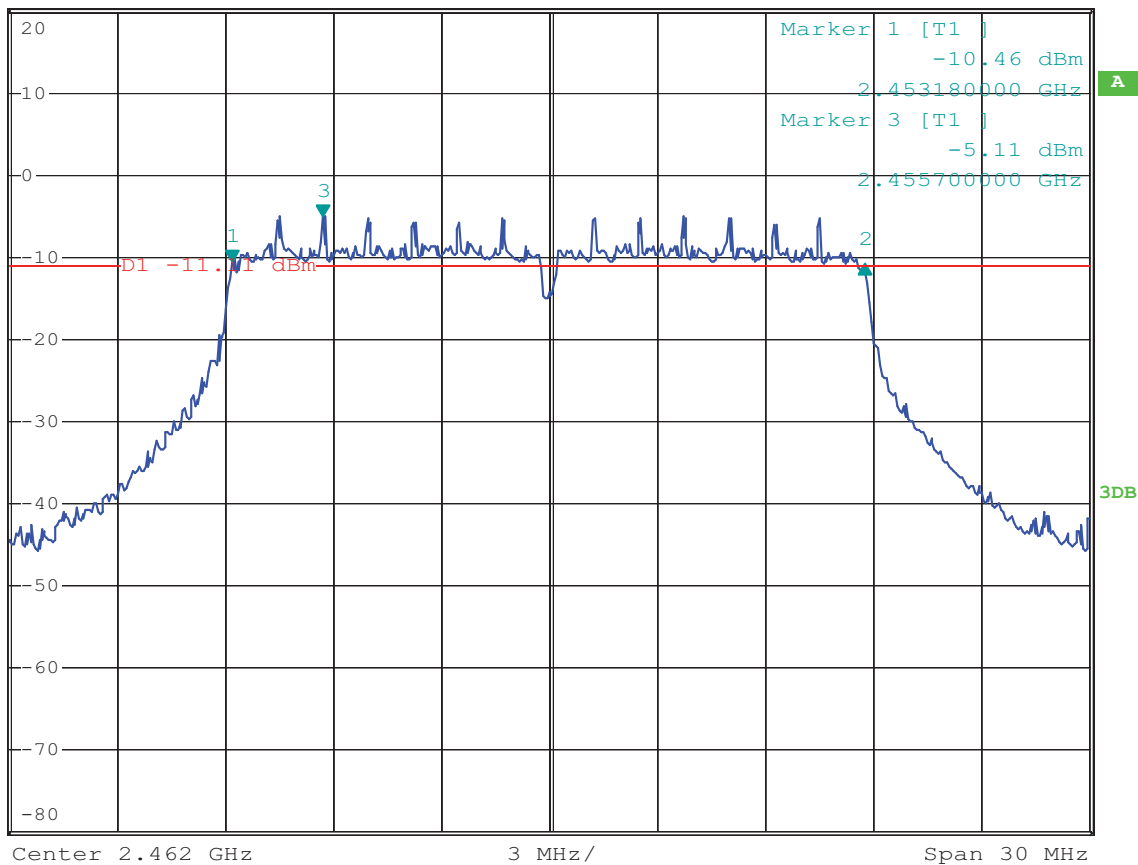
Delta 2 [T1]

* VBW 300 kHz

-0.42 dB

* SWT 5 ms

17.58000000 MHz

1 PK
MAXH

Date: 3.SEP.2013 10:42:39



13. 802.11n at HT40 of CH01



DELTA MARKER 2

35.3 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

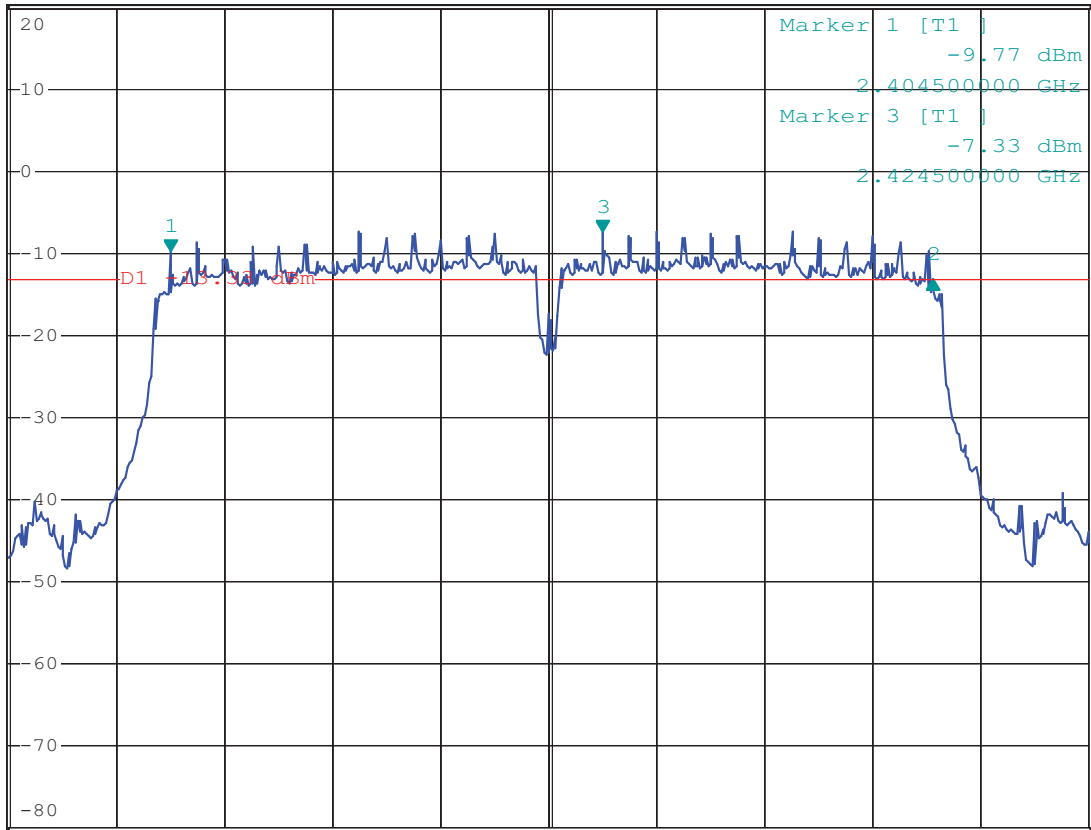
Delta 2 [T1]

* VBW 300 kHz

-3.51 dB

* SWT 5 ms

35.30000000 MHz

1 PK
MAXH

3DB

Date: 3.SEP.2013 10:44:17



14. 802.11n at HT40 of CH04



DELTA MARKER 2

35.1 MHz

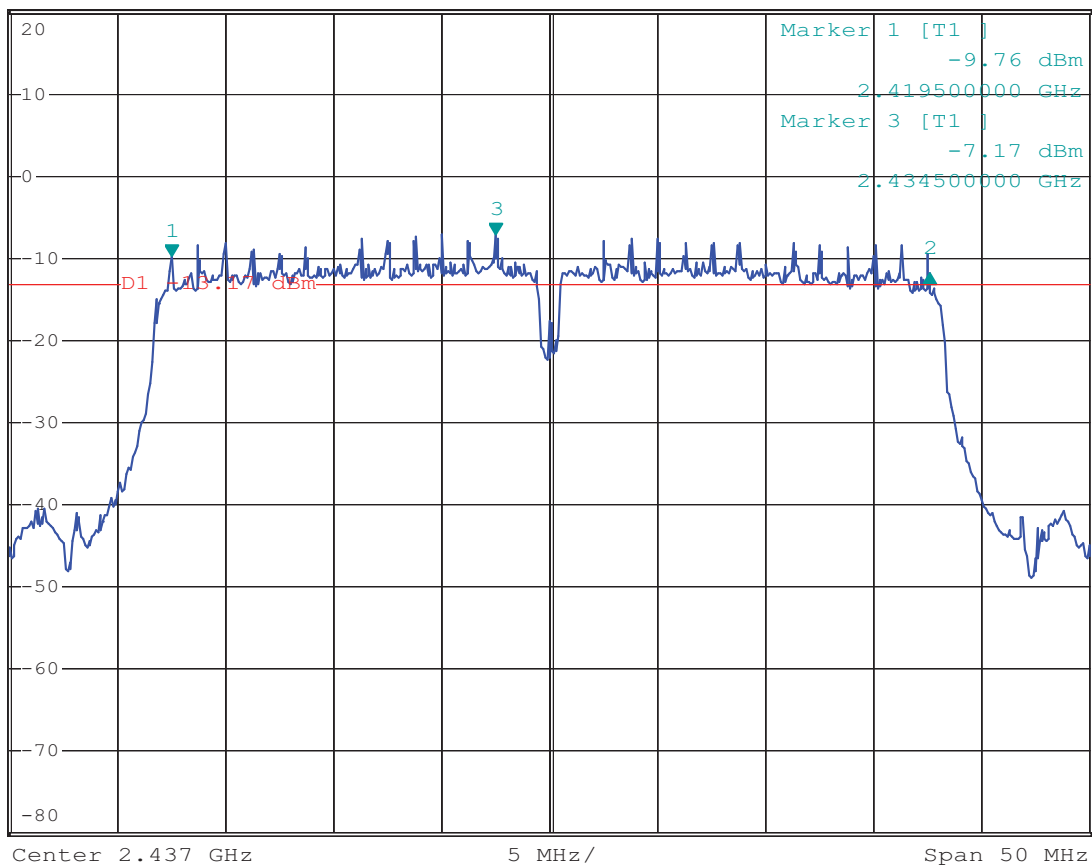
Ref 20 dBm

* Att 30 dB

* RBW 100 kHz Delta 2 [T1]

* VBW 300 kHz -2.13 dB

* SWT 5 ms 35.10000000 MHz

1 PK
MAXH

Date: 3.SEP.2013 10:46:10



15. 802.11n at HT40 of CH07



DELTA MARKER 2

35.1 MHz

Ref 20 dBm

* Att 30 dB

* RBW 100 kHz

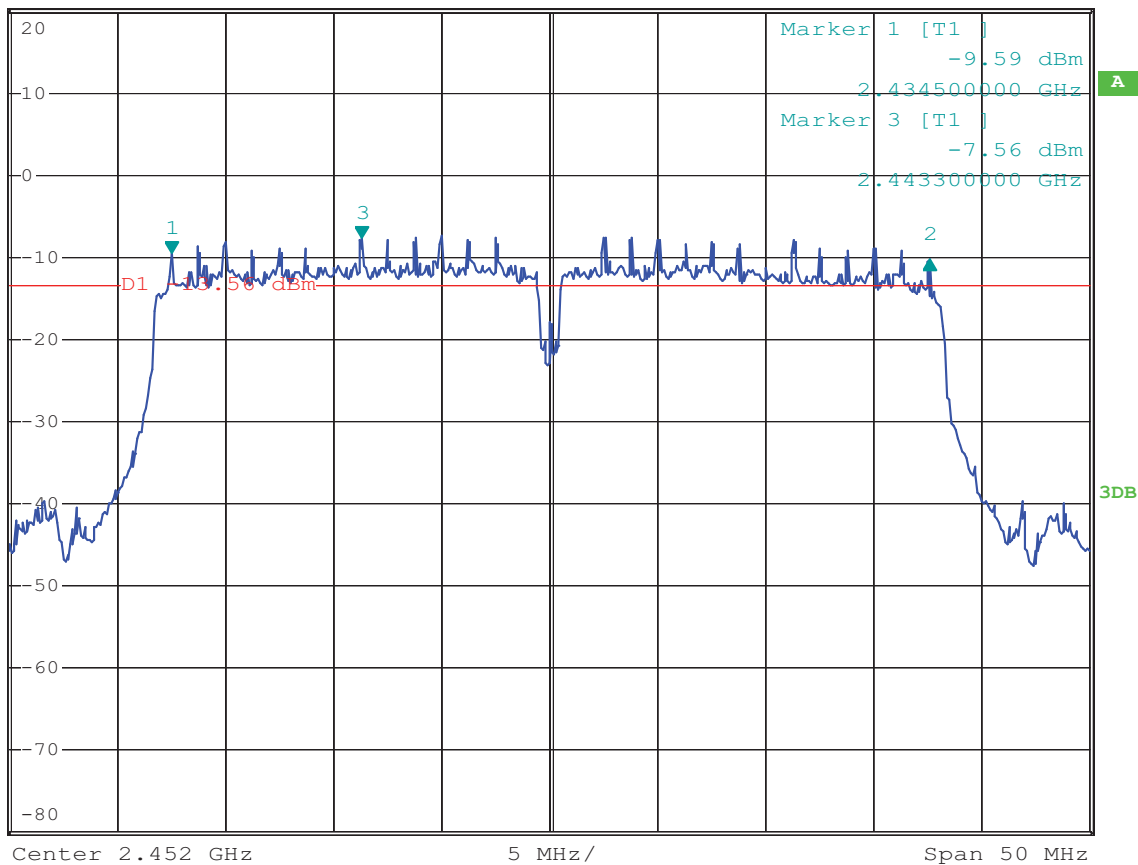
Delta 2 [T1]

* VBW 300 kHz

-0.63 dB

* SWT 5 ms

35.10000000 MHz

1 PK
MAXH

Date: 3.SEP.2013 10:47:40

**99% Occupied Bandwidth**

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	802.11b		Input Voltage	120V~
Temperature	24 deg. C,		Humid Pity	56% RH
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	99% Bandwidth (MHz)	
1	2412	1	14.94	
6	2437	1	14.94	
11	2462	1	15.06	
1	2412	11	14.70	
6	2437	11	14.70	
11	2462	11	14.76	

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	802.11g		Input Voltage	120V~
Temperature	24 deg. C,		Humid Pity	56% RH
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	99% Bandwidth (MHz)	
1	2412	54	16.56	
6	2437	54	16.62	
11	2462	54	16.62	

**99% Occupied Bandwidth**

EUT		WiFi Remote Video Monitor		Model	MO136
Mode		802.11n HT20/HT40		Input Voltage	120V~
Temperature		24 deg. C,		Humid Pity	56% RH
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	99% Bandwidth (MHz)		
HT20					
1	2412	65	17.76		
6	2437	65	17.70		
11	2462	65	17.70		
HT40					
1	2422	65	35.80		
4	2437	65	35.80		
7	2452	65	35.90		

1. 802.11b at 1M of CH01



*RBW 100 kHz Marker 1 [T1]
*VBW 300 kHz 3.99 dBm
SWT 5 ms 2.411460000 GHz

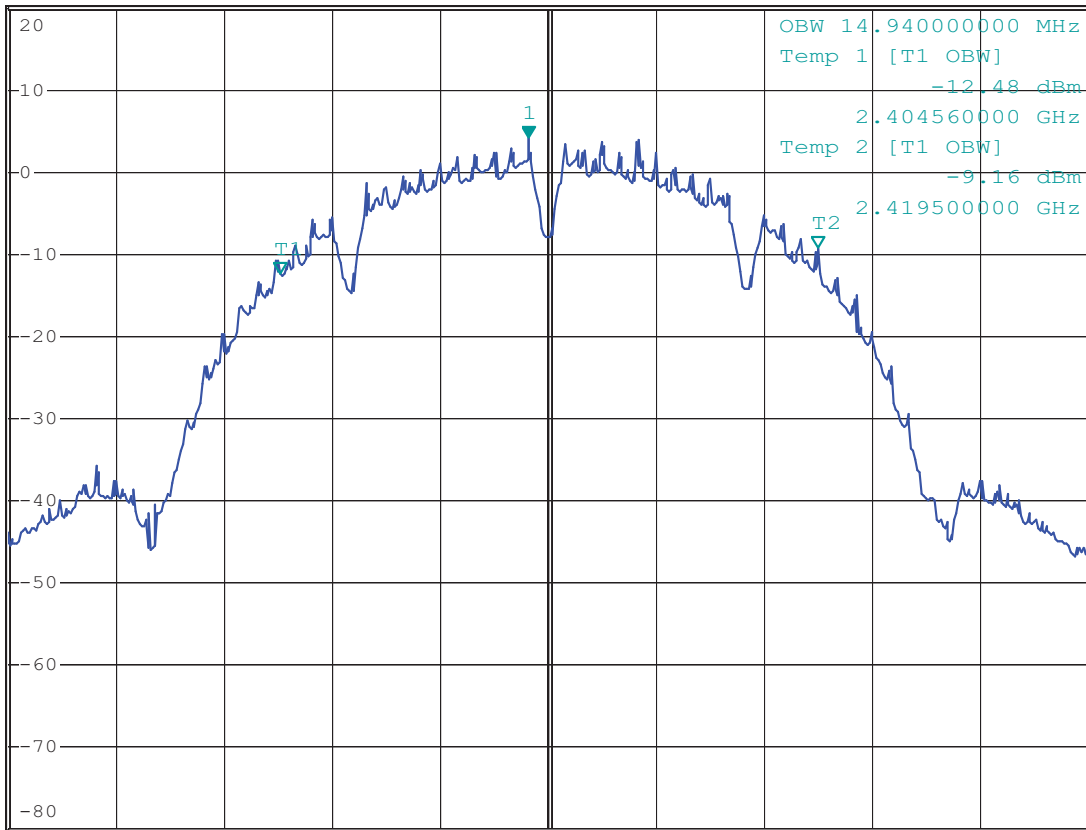
Ref 20 dBm

*Att 30 dB

SWT 5 ms

2.411460000 GHz

1 PK
MAXH



Center 2.412 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:29:08

2. 802.11b at 1M of CH07



MARKER 1

2.43748 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

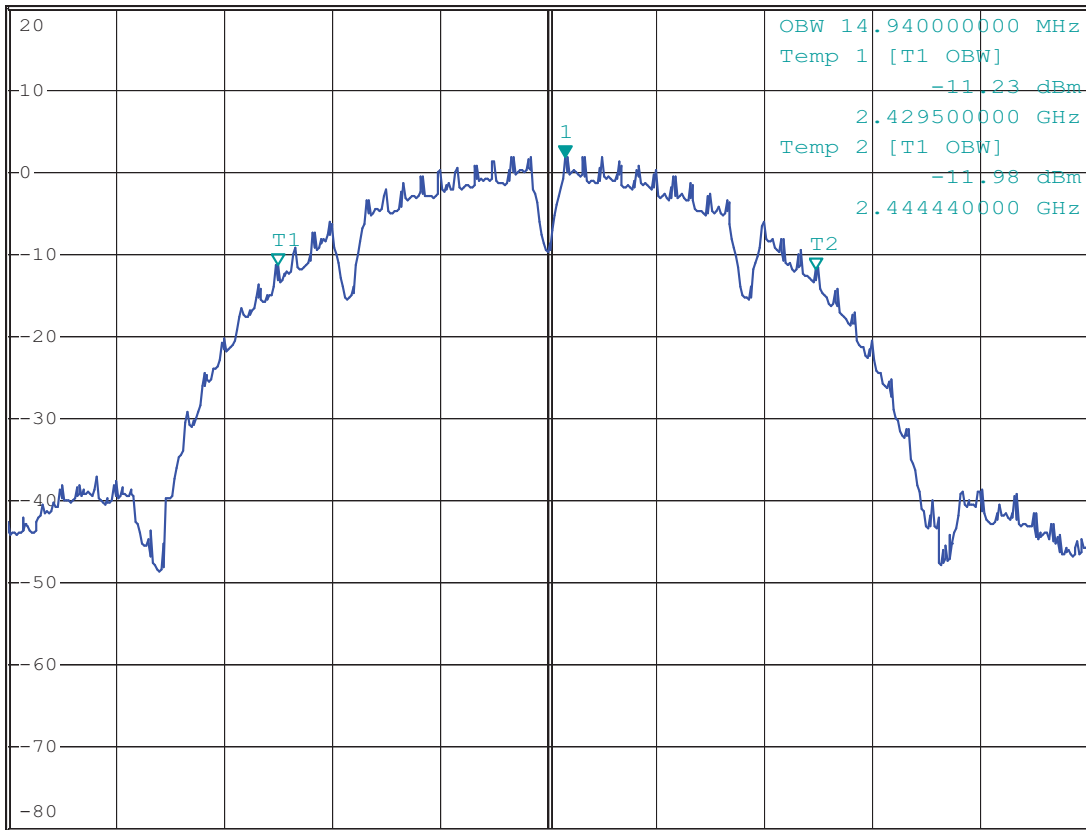
SWT 5 ms

Marker 1 [T1]

1.87 dBm

2.437480000 GHz

1 PK
MAXH



Center 2.437 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:50:59

3. 802.11b at 1M of CH11



MARKER 1

2.46146 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

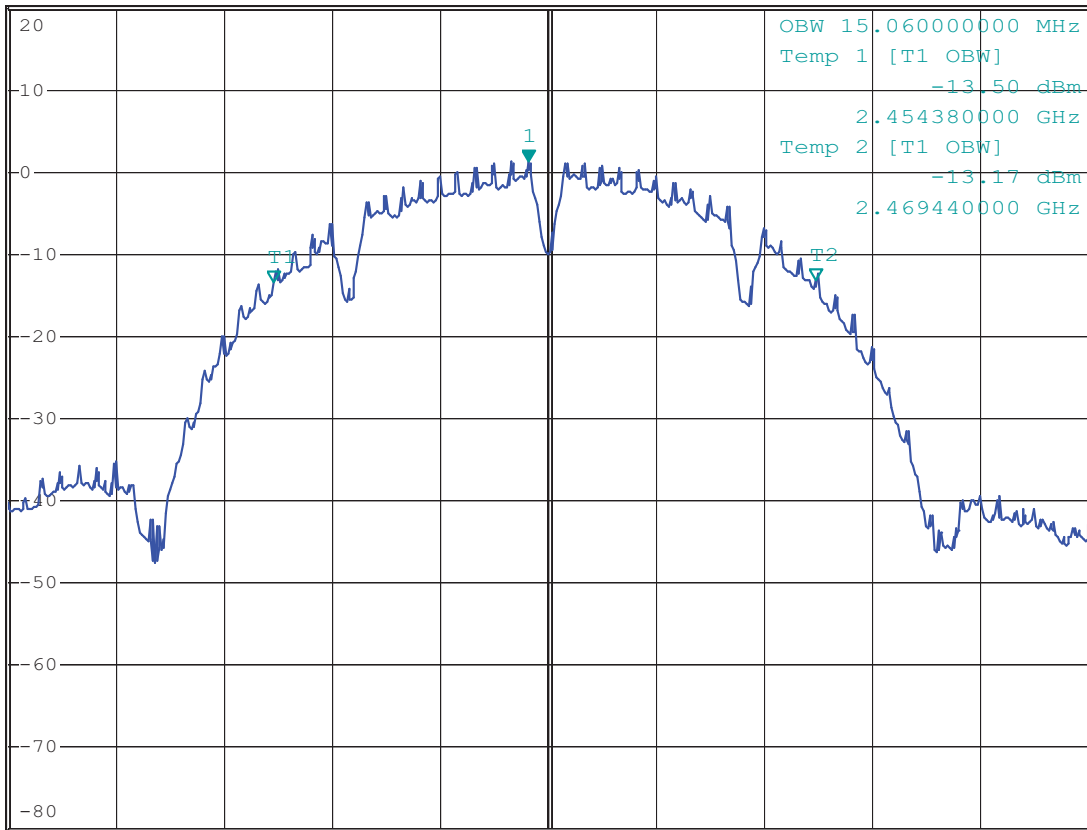
SWT 5 ms

Marker 1 [T1]

1.21 dBm

2.461460000 GHz

1 PK
MAXH



Center 2.462 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:53:39

4. 802.11b at 11M of CH01



MARKER 1

2.4123 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

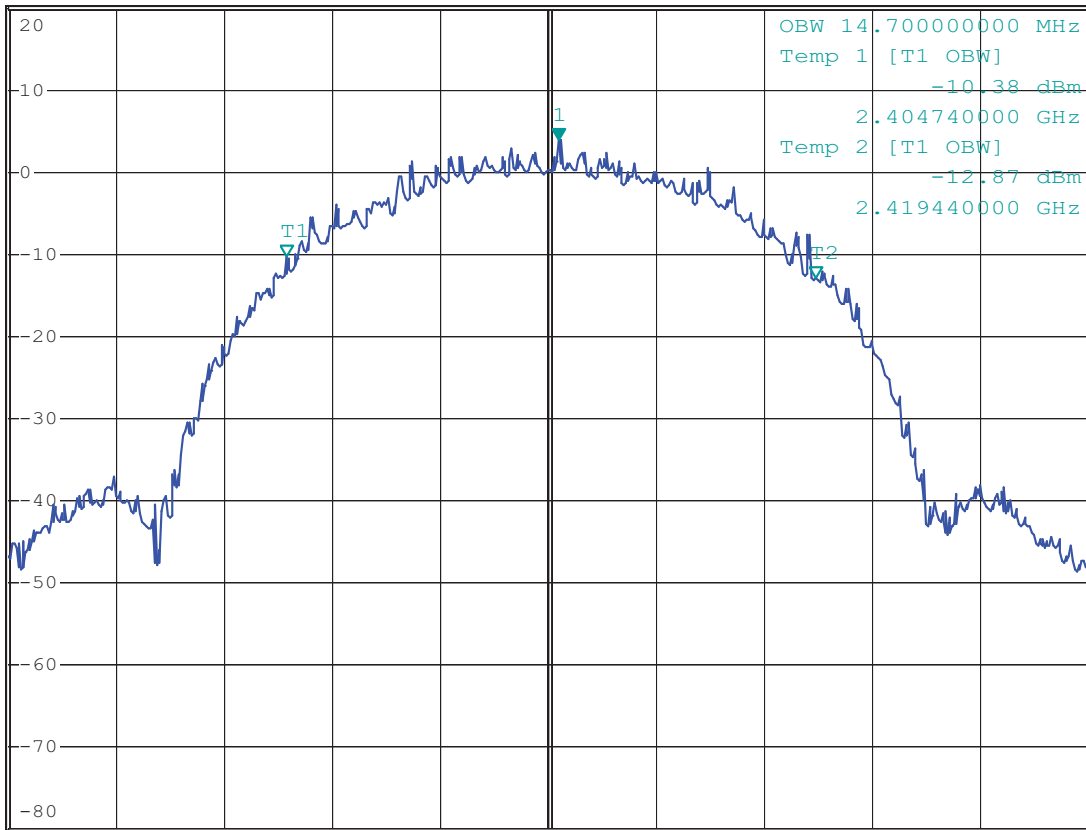
SWT 5 ms

Marker 1 [T1]

3.95 dBm

2.412300000 GHz

1 PK
MAXH



Center 2.412 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:38:02

5. 802.11b at 11M of CH07



MARKER 1

2.43736 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

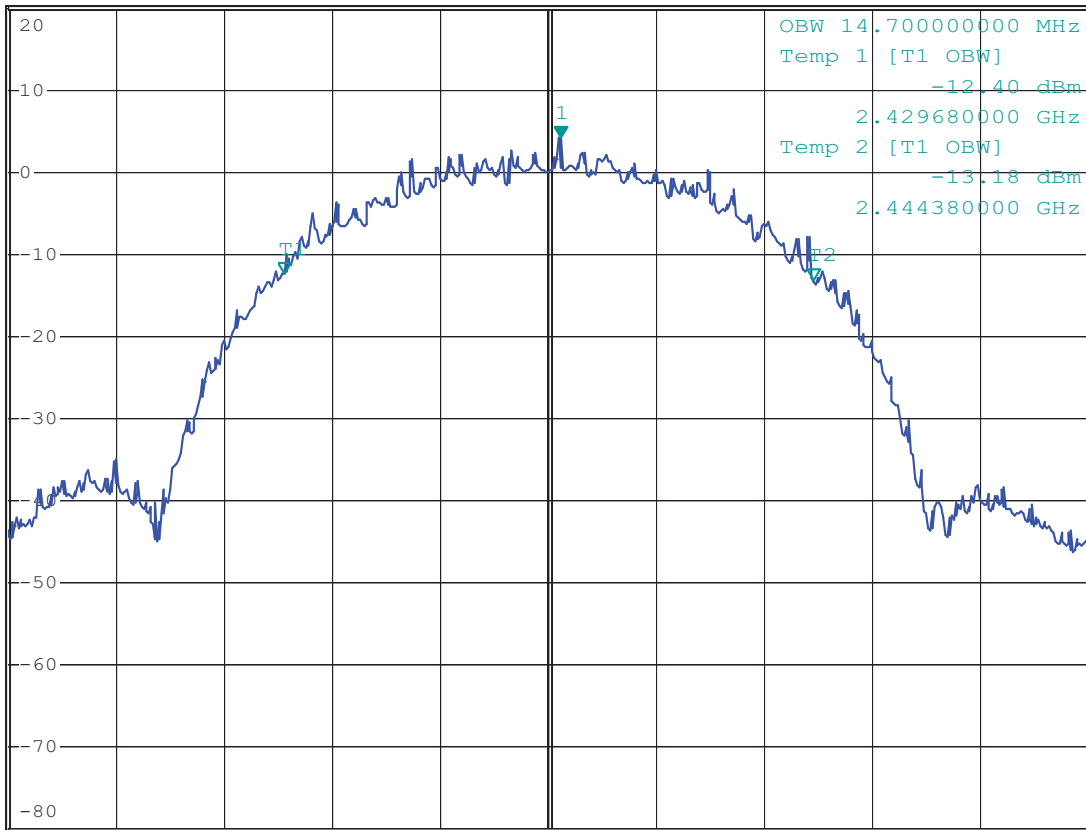
SWT 5 ms

Marker 1 [T1]

4.16 dBm

2.437360000 GHz

1 PK
MAXH



A

3DB

Center 2.437 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:52:48

6. 802.11b at 11M of CH11



MARKER 1

2.46236 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

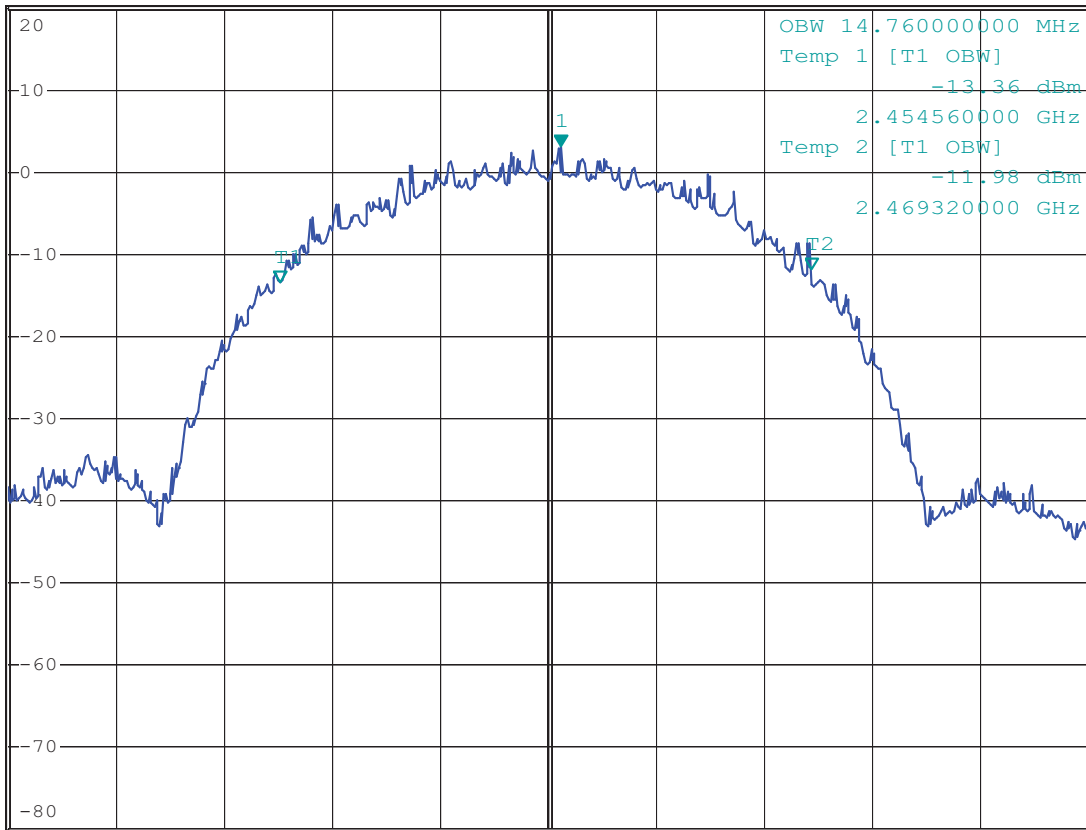
SWT 5 ms

Marker 1 [T1]

3.17 dBm

2.462360000 GHz

1 PK
MAXH



Center 2.462 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:55:20

7. 802.11g at 54M of CH01



MARKER 1

2.41326 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

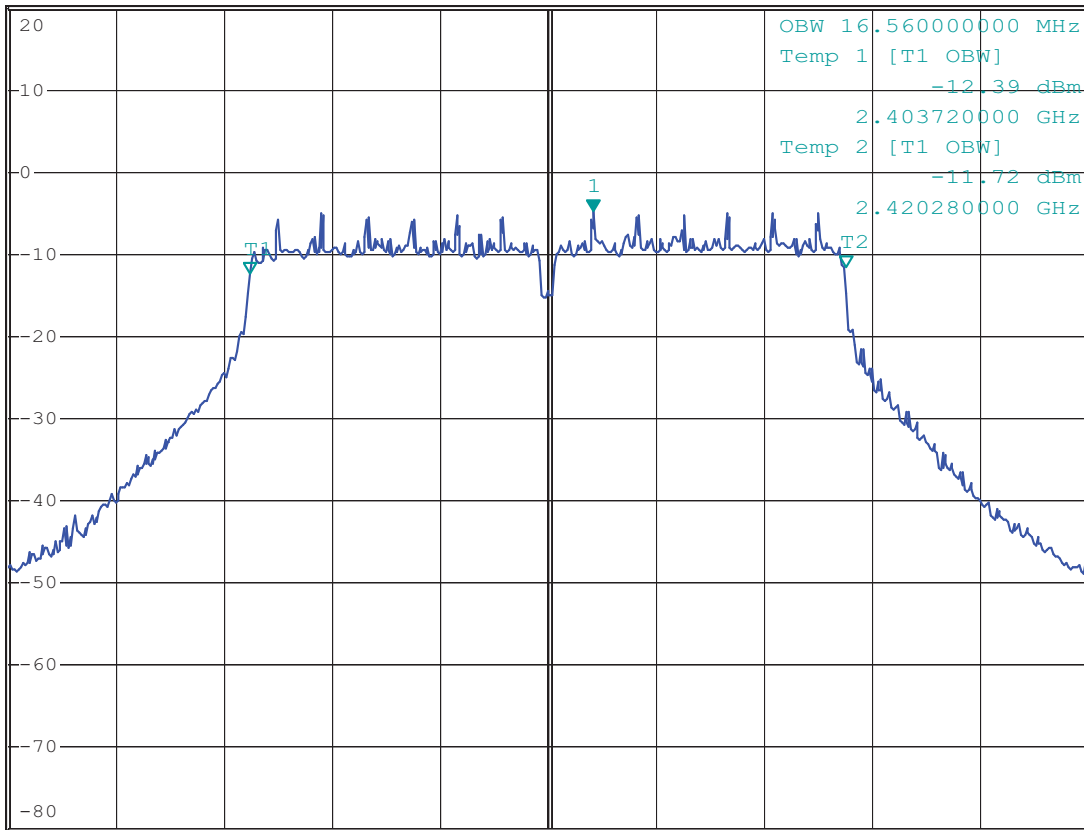
SWT 5 ms

Marker 1 [T1]

-4.71 dBm

2.413260000 GHz

1 PK
MAXH



Center 2.412 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:32:16



8. 802.11g at 54M of CH07



MARKER 1

2.44198 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

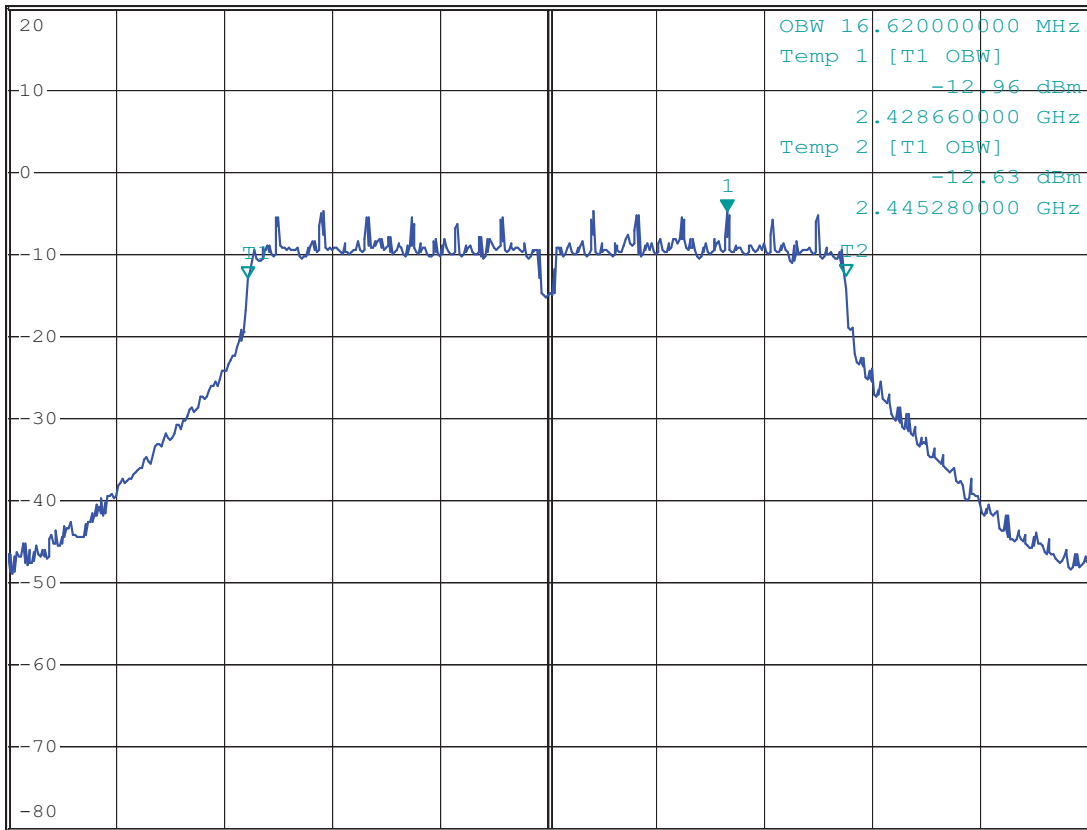
*VBW 300 kHz

SWT 5 ms

Marker 1 [T1]

-4.72 dBm

2.441980000 GHz

1 PK
MAXH

A

3DB

Center 2.437 GHz

3 MHz/

Span 30 MHz

Date: 2.SEP.2013 18:52:01

9. 802.11g at 54M of CH11



MARKER 1

2.45696 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

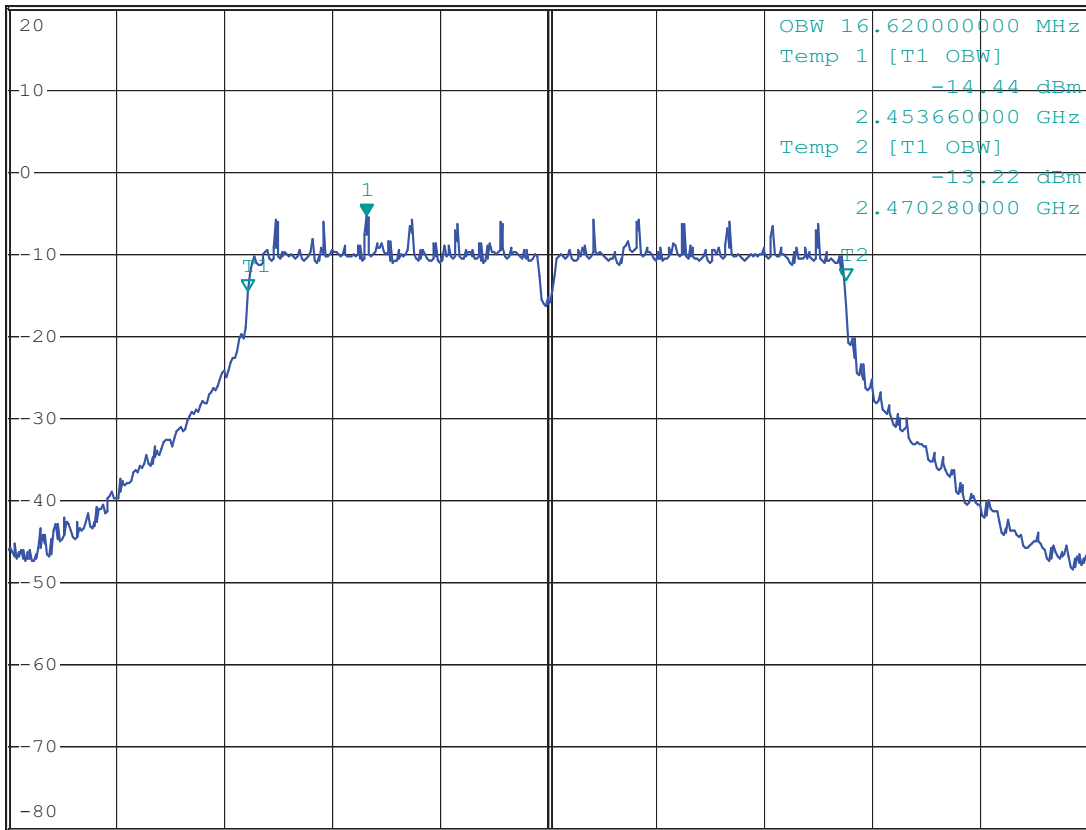
SWT 5 ms

Marker 1 [T1]

-5.29 dBm

2.456960000 GHz

1 PK
MAXH



Center 2.462 GHz

3 MHz/

Span 30 MHz

3DB

Date: 2.SEP.2013 18:54:23

10. 802.11n HT20 at 65M of CH01



MARKER 1

2.41698 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

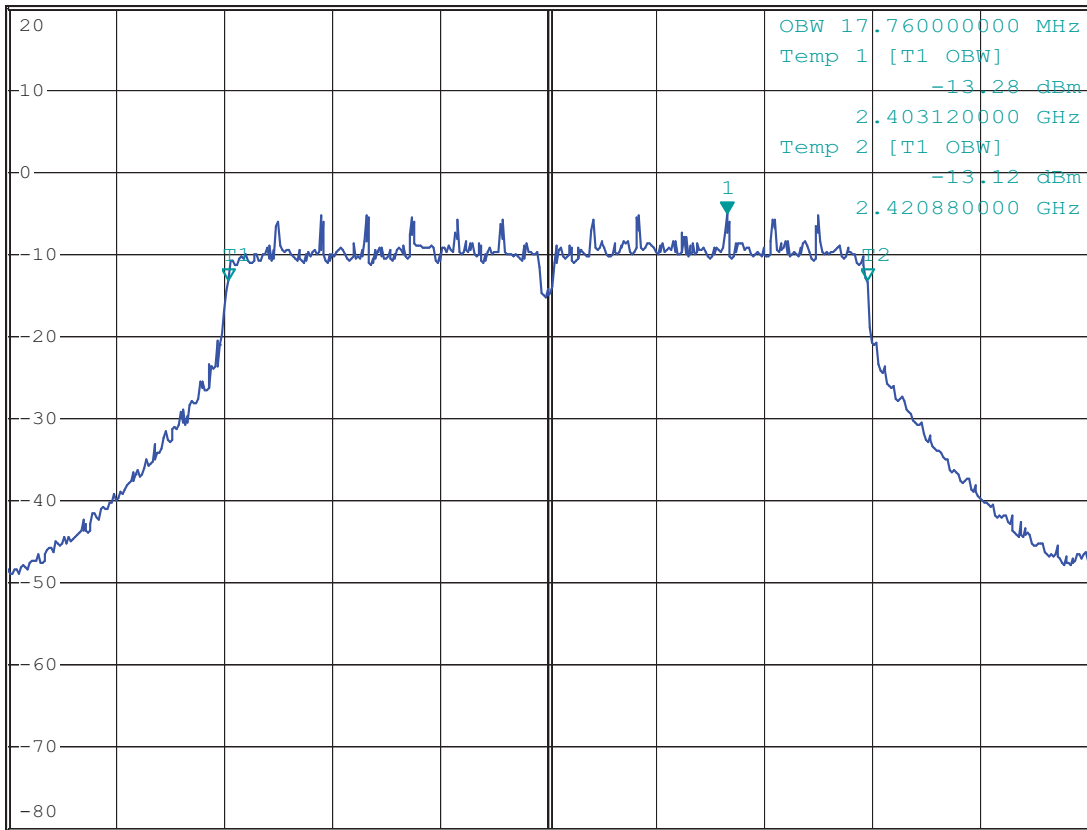
*SWT 5 ms

Marker 1 [T1]

-5.19 dBm

2.416980000 GHz

1 PK
MAXH



Center 2.412 GHz

3 MHz/

Span 30 MHz

Date: 3.SEP.2013 10:49:48

11. 802.11n HT20 at 65M of CH07



MARKER 1

2.44198 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

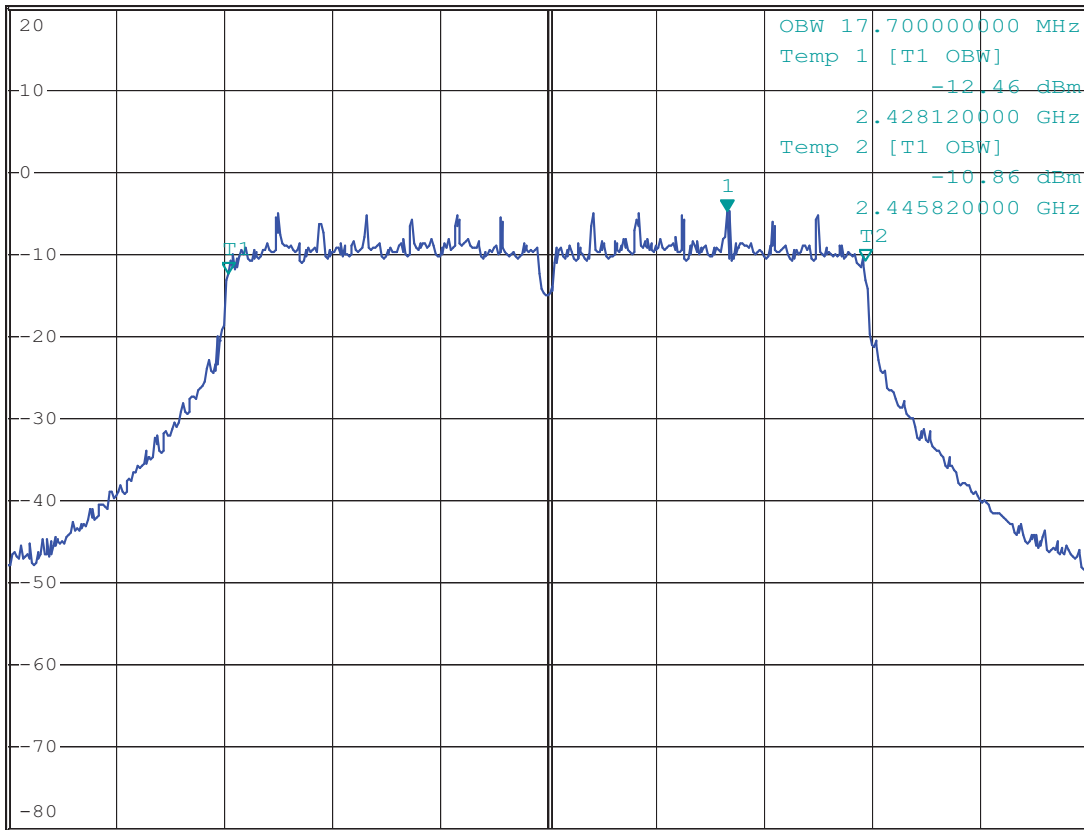
*SWT 5 ms

Marker 1 [T1]

-4.77 dBm

2.441980000 GHz

1 PK
MAXH



Center 2.437 GHz

3 MHz/

Span 30 MHz

3DB

Date: 3.SEP.2013 10:50:50

12. 802.11n HT20 at 65M of CH11



MARKER 1

2.45576 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

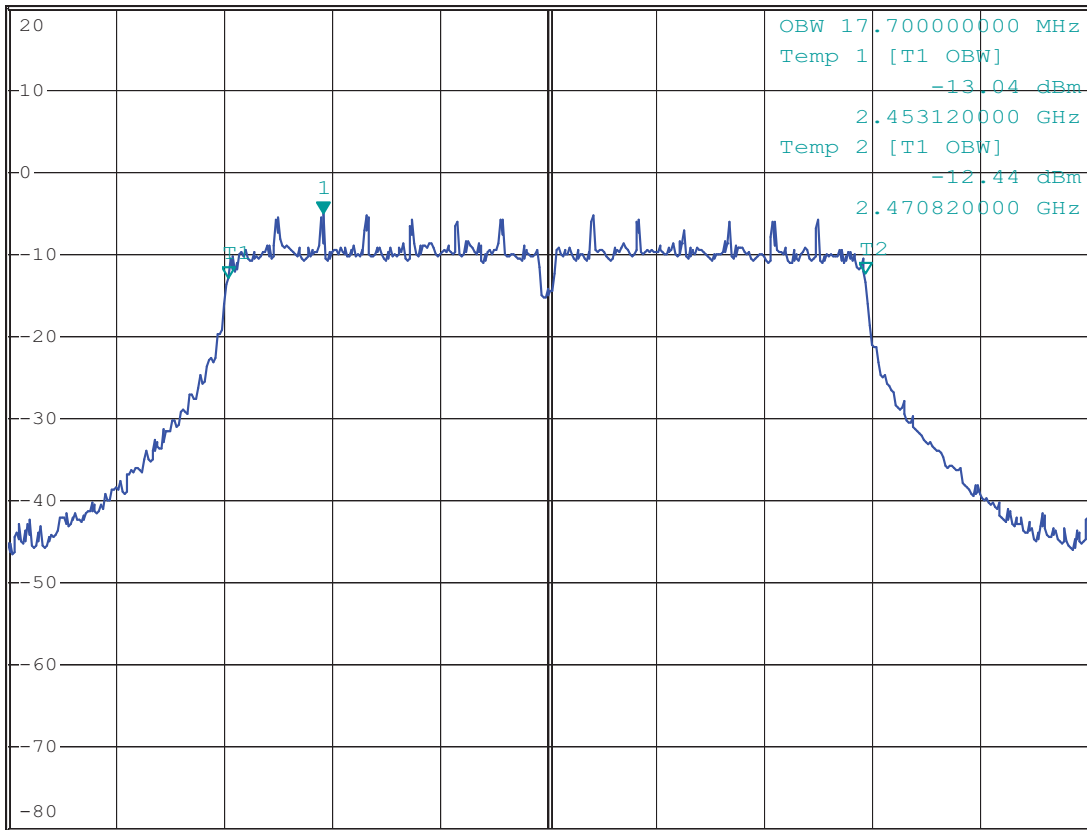
*VBW 300 kHz

*SWT 5 ms

Marker 1 [T1]

-5.10 dBm

2.455760000 GHz



Center 2.462 GHz

3 MHz/

Span 30 MHz

Date: 3.SEP.2013 10:52:18

13. 802.11n HT40 at 65M of CH01



MARKER 1

2.4132 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

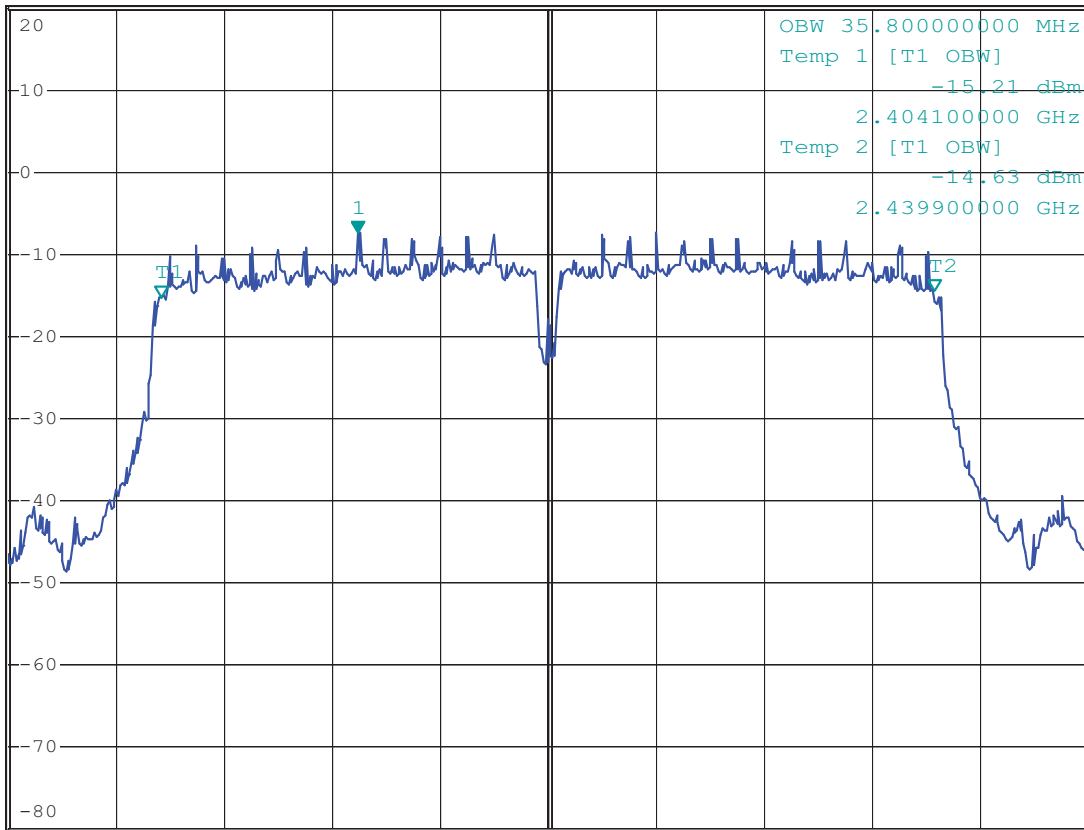
*SWT 5 ms

Marker 1 [T1]

-7.33 dBm

2.413200000 GHz

1 PK
MAXH



Center 2.422 GHz

5 MHz/

Span 50 MHz

Date: 3.SEP.2013 10:54:07

14. 802.11n HT40 at 65M of CH04



MARKER 1

2.4332 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

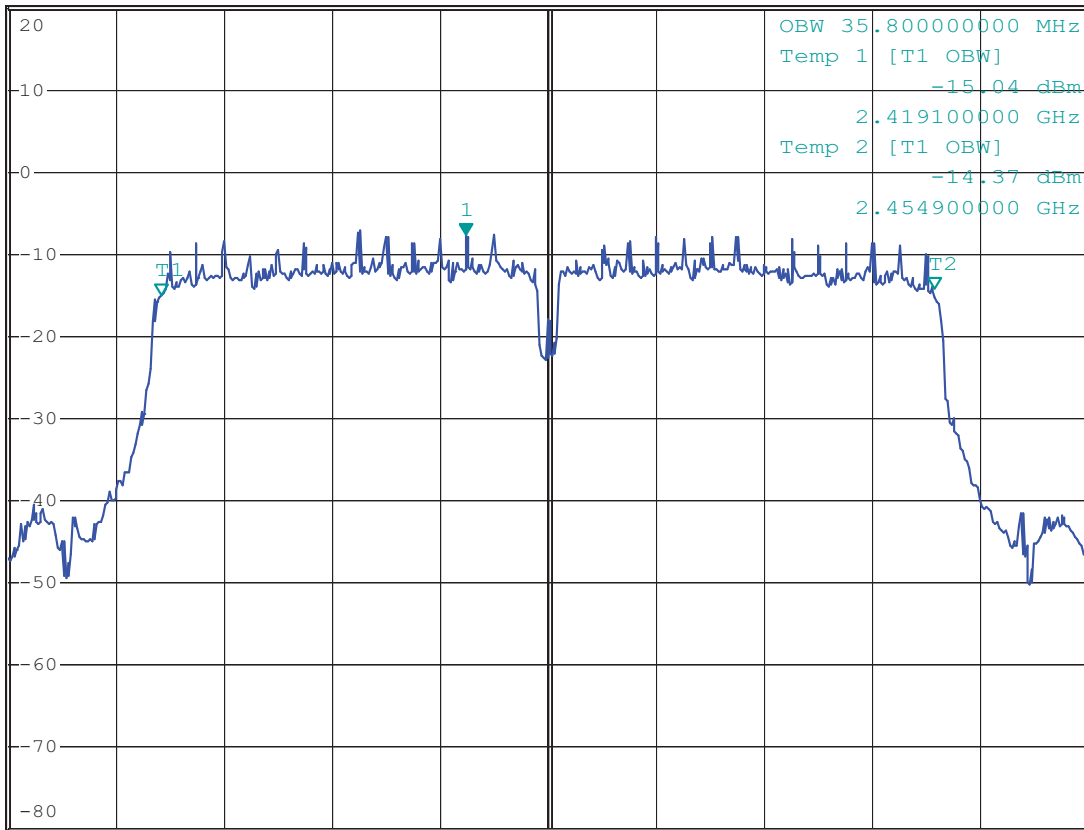
*SWT 5 ms

Marker 1 [T1]

-7.80 dBm

2.433200000 GHz

1 PK
MAXH



Center 2.437 GHz

5 MHz/

Span 50 MHz

Date: 3.SEP.2013 10:55:33

15. 802.11n HT40 at 65M of CH07



MARKER 1

2.4458 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

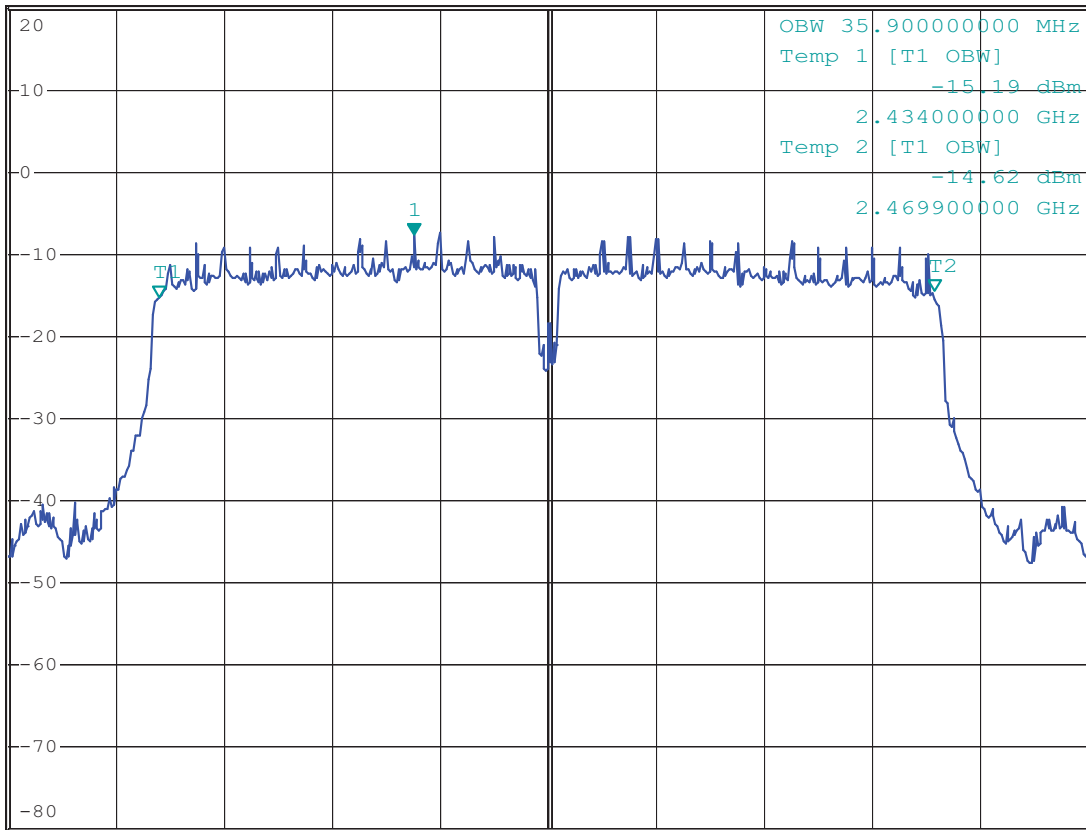
*SWT 5 ms

Marker 1 [T1]

-7.79 dBm

2.445800000 GHz

1 PK
MAXH



Center 2.452 GHz

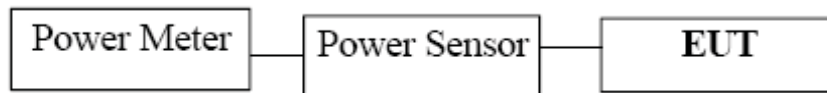
5 MHz/

Span 50 MHz

Date: 3.SEP.2013 10:56:46

8. Maximum Peak Output Power

8.1 Test Setup



8.2 Limits of Maximum Peak Output Power

The Maximum Peak Output Power Measurement is 30dBm.

8.3 Test Procedure

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

Note: the peak power was measured

8.4 Test Results

EUT	WiFi Remote Video Monitor		Model	MO136	
Mode	802.11b 11Mbps		Input Voltage	120V~	
Temperature	24 deg. C,		Humid Pity	56% RH	
Channel	Channel Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass/ Fail	
1	2412	17.75	30	Pass	
6	2437	17.88	30	Pass	
11	2462	17.38	30	Pass	

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

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	WiFi Remote Video Monitor		Model	MO136	
Mode	802.11g		Input Voltage	120V~	
Temperature	24 deg. C,		Humid Pity	56% RH	
Channel	Channel Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass/ Fail	
1	2412	14.30	30	Pass	
6	2437	14.60	30	Pass	
11	2462	14.10	30	Pass	

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

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT		WiFi Remote Video Monitor		Model		MO136	
Mode		802.11n HT20		Input Voltage		120V~	
Temperature		24 deg. C,		Humid Pity		56% RH	
Channel	Channel Frequency (MHz)		Peak Power Output (dBm)		Peak Power Limit (dBm)		Pass/ Fail
1	2412		14.49		30		Pass
6	2437		14.67		30		Pass
11	2462		14.34		30		Pass

Note: 1. At final test to get the worst-case emission at 65Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT		WiFi Remote Video Monitor		Model	MO136	
Mode		802.11n HT40		Input Voltage	120V~	
Temperature		24 deg. C,		Humid Pity	56% RH	
Channel	Channel Frequency (MHz)		Peak Power Output (dBm)		Peak Power Limit (dBm)	Pass/ Fail
1	2422		14.69		30	Pass
5	2437		14.84		30	Pass
7	2452		14.49		30	Pass

Note: 1. At final test to get the worst-case emission at 65Mbps for CH01, CH06 and CH11

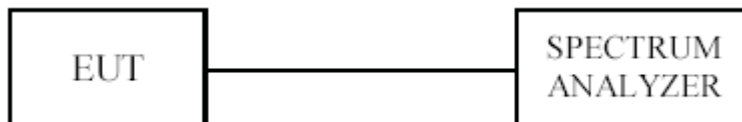
2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

9. Power Spectral Density Measurement

9.1 Test Setup



9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm.

9.3 Test Procedure

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

**9.4 Test Result**

EUT	WiFi Remote Video Monitor	Model	MO136	
Mode	802.11b 1Mbps	Input Voltage	120V~	
Temperature	24 deg. C,	humidity	56% RH	
Channel	Channel Frequency (MHz)	Final RF Power Level (dBm)	Maximum Limit (dBm)	Pass/ Fail
1Mbps				
1	2412	-7.68	8	Pass
6	2437	-8.52	8	Pass
11	2462	-9.10	8	Pass

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

EUT	WiFi Remote Video Monitor	Model	MO136	
Mode	802.11b 11Mbps	Input Voltage	120V~	
Temperature	24 deg. C,	humidity	56% RH	
Channel	Channel Frequency (MHz)	Final RF Power Level (dBm)	Maximum Limit (dBm)	Pass/ Fail
11Mbps				
1	2412	-5.90	8	Pass
6	2437	-7.60	8	Pass
11	2462	-7.22	8	Pass

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



EUT		WiFi Remote Video Monitor		Model		MO136	
Mode		802.11g		Input Voltage		120V~	
Temperature		24 deg. C,		humidity		56% RH	
Channel	Channel Frequency (MHz)		Final RF Power Level (dBm)		Maximum Limit (dBm)		Pass/ Fail
54Mbps							
1	2412		-15.92		8		Pass
6	2437		-15.25		8		Pass
11	2462		-15.36		8		Pass

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

EUT		WiFi Remote Video Monitor		Model		MO136	
Mode		802.11n HT20		Input Voltage		120V~	
Temperature		24 deg. C,		humidity		56% RH	
Channel	Channel Frequency (MHz)		Final RF Power Level (dBm)		Maximum Limit (dBm)		Pass/ Fail
11n HT20							
1	2412		-15.30		8		Pass
6	2437		-15.04		8		Pass
11	2462		-15.77		8		Pass

Note: At final test to get the worst-case emission at 65M for CH01, CH06 and CH11

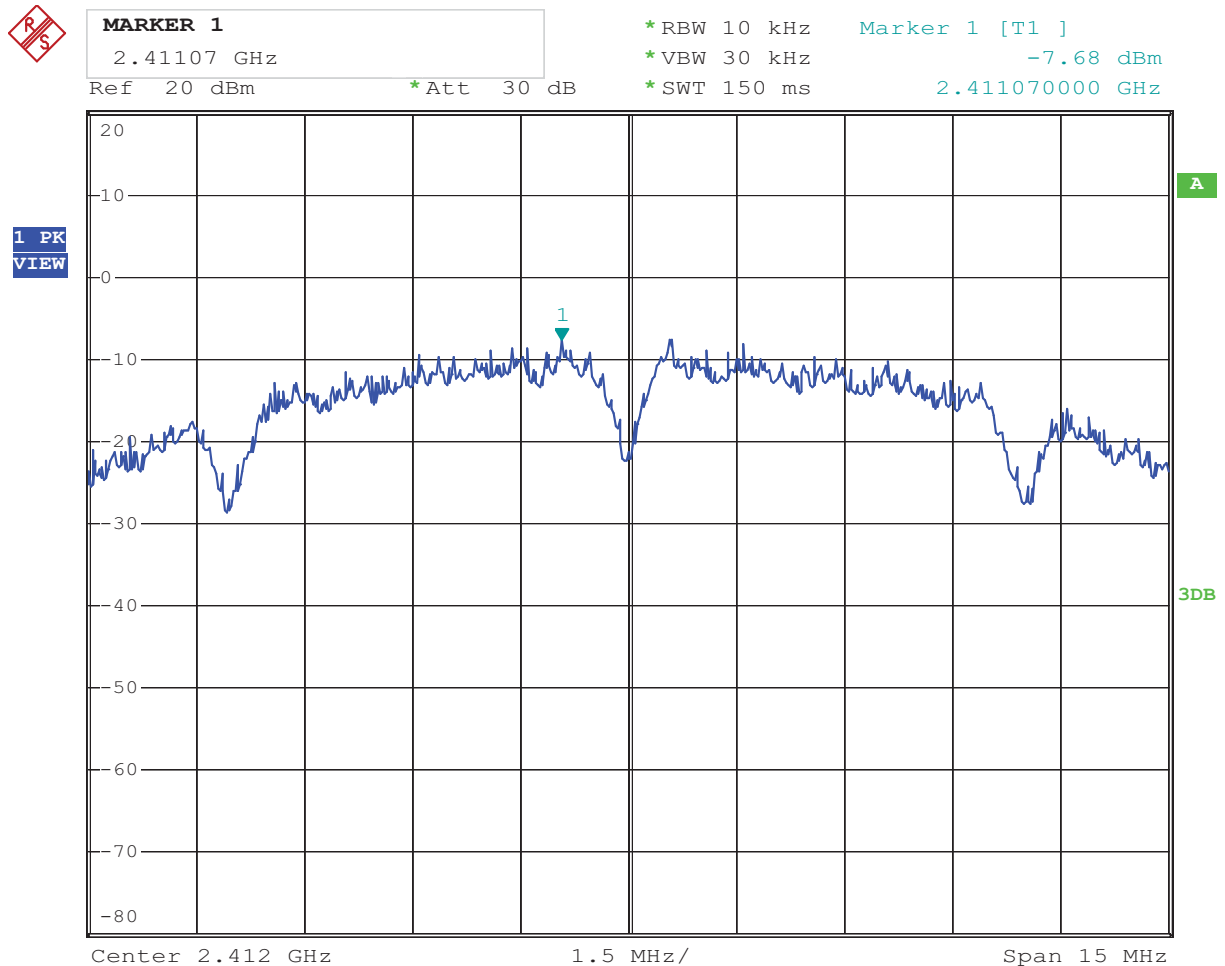


EUT	WiFi Remote Video Monitor		Model	MO136
Mode	802.11n HT40		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Channel	Channel Frequency (MHz)	Final RF Power Level (dBm)	Maximum Limit (dBm)	Pass/ Fail
11n HT40				
1	2422	-17.01	8	Pass
4	2437	-17.06	8	Pass
7	2452	-17.74	8	Pass

Note: At final test to get the worst-case emission at 65Mfor CH01, CH04 and CH07

9.5 Photo of Power Spectral Density Measurement

1. 802.11b at 1Mbps of CH01



Date: 3.SEP.2013 11:27:46

2. 802.11b at 1Mbps of CH06



MARKER 1

2.43538 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

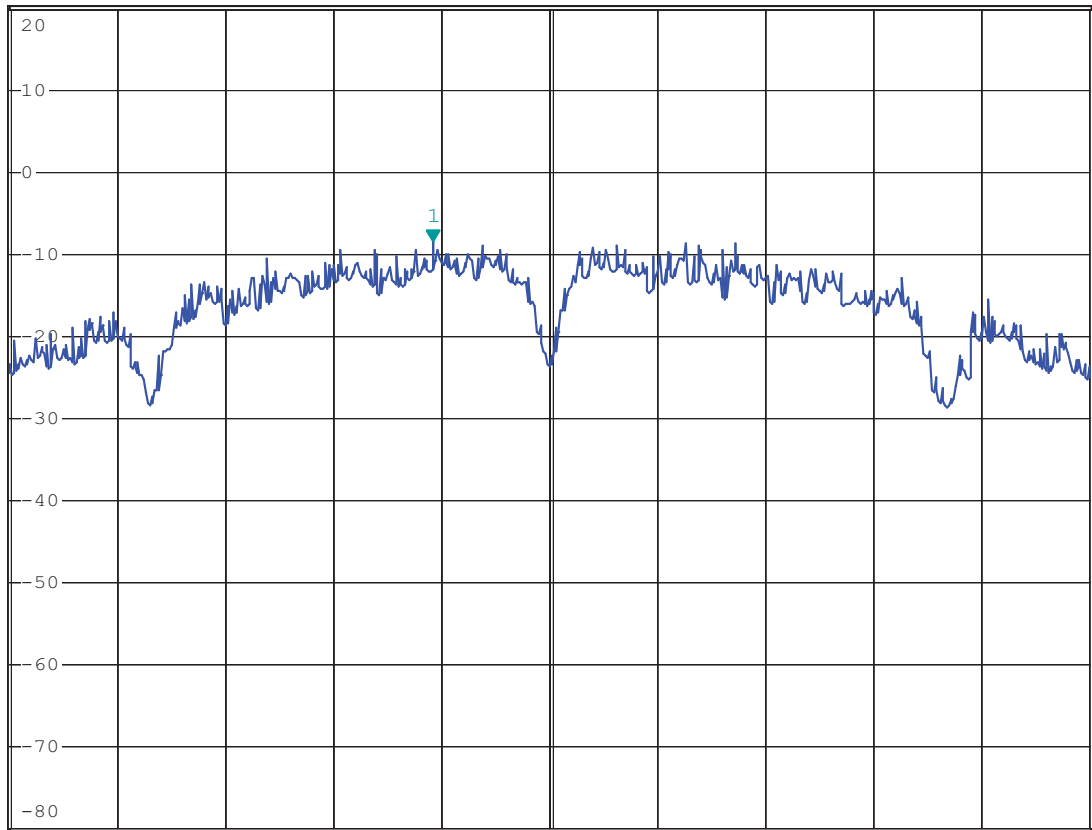
* SWT 150 ms

Marker 1 [T1]

-8.52 dBm

2.435380000 GHz

1 PK
VIEW



Center 2.437 GHz

1.5 MHz/

Span 15 MHz

Date: 3.SEP.2013 11:31:01

3. 802.11b at 1Mbps of CH11



MARKER 1

2.46008 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

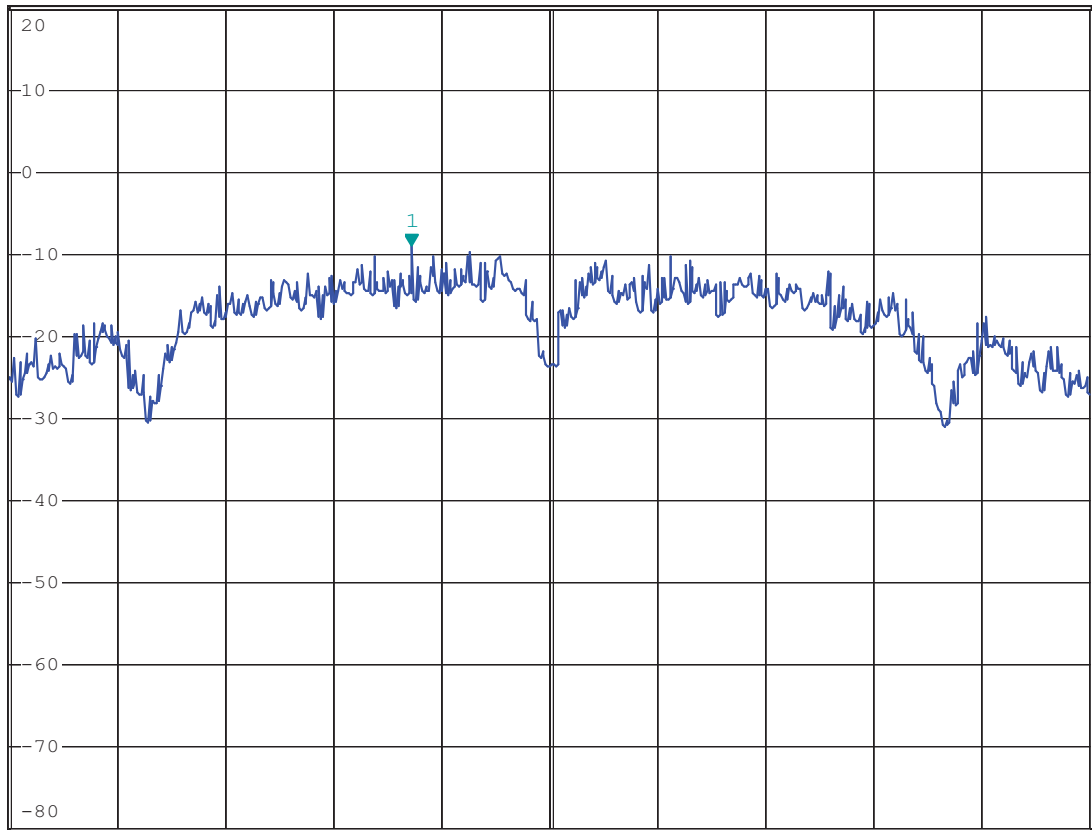
* SWT 150 ms

Marker 1 [T1]

-9.10 dBm

2.460080000 GHz

1 PK
VIEW



Center 2.462 GHz

1.5 MHz/

Span 15 MHz

Date: 3.SEP.2013 11:33:53



4. 802.11b at 11Mbps of CH01



MARKER 1

2.412924 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

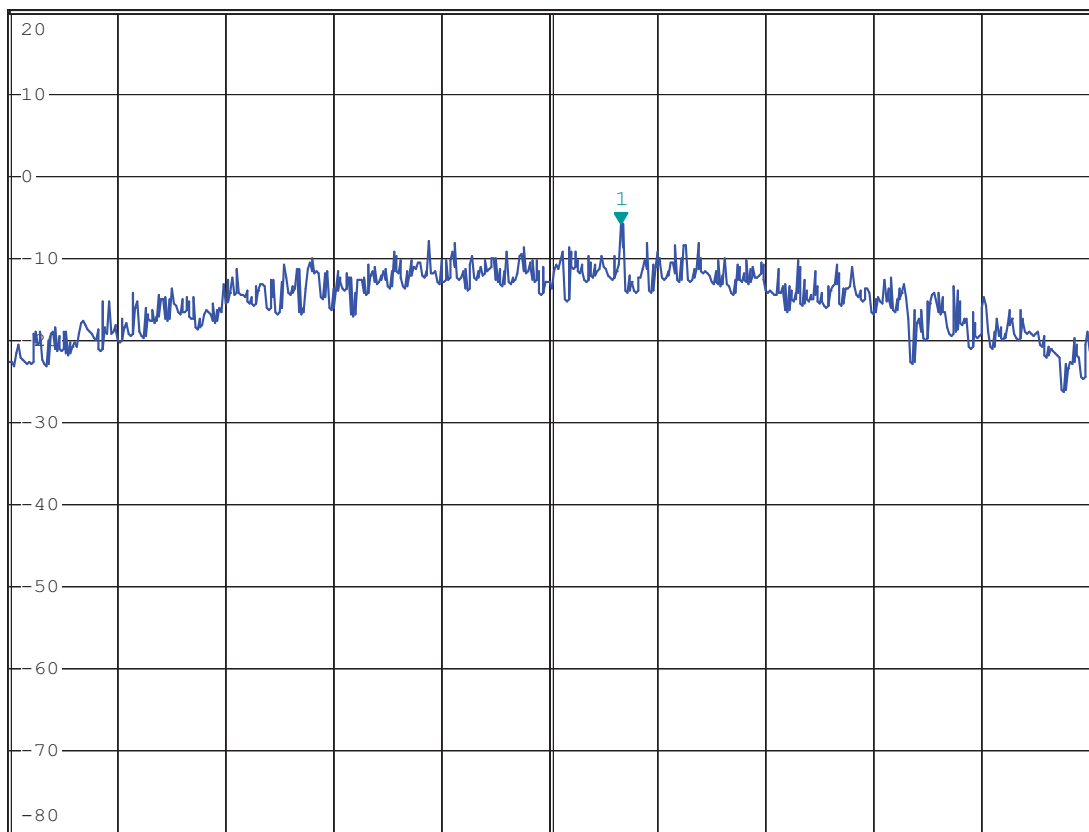
* SWT 140 ms

Marker 1 [T1]

-5.90 dBm

2.412924000 GHz

1 PK
VIEW



Center 2.412 GHz

1.4 MHz/

Span 14 MHz

Date: 3.SEP.2013 11:30:07



5. 802.11b at 11Mbps of CH06



MARKER 1

2.438708 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

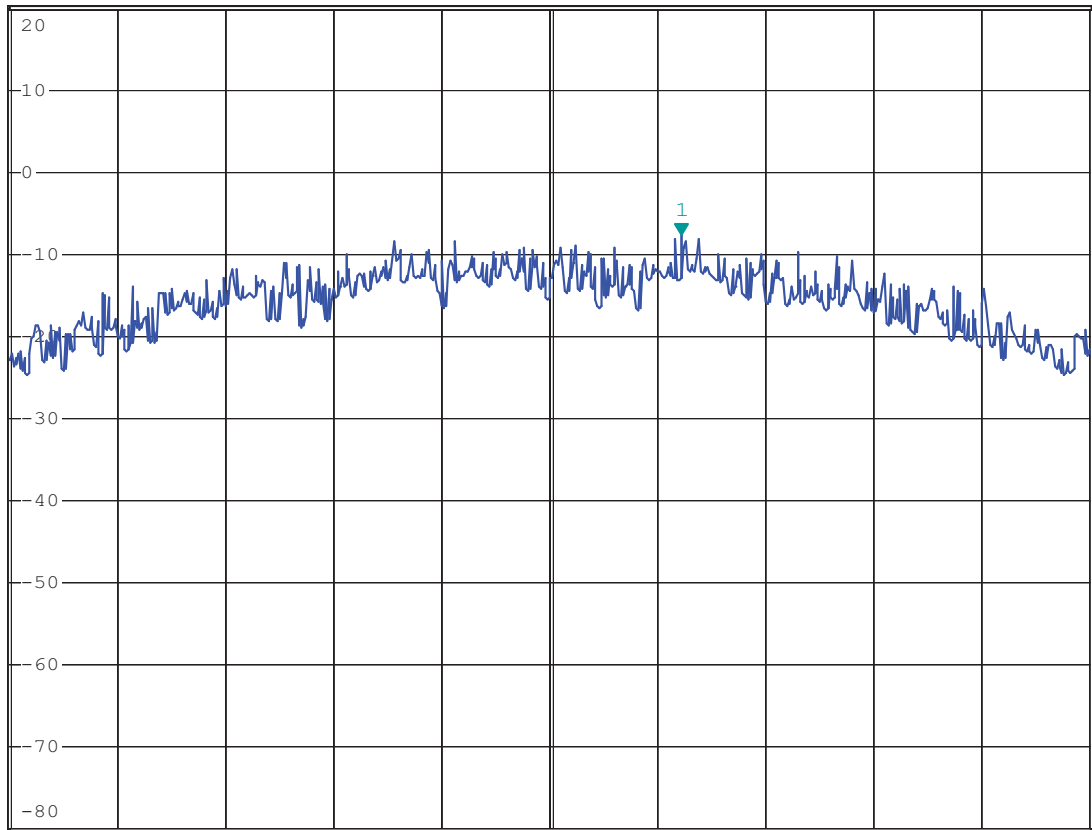
* SWT 140 ms

Marker 1 [T1]

-7.60 dBm

2.438708000 GHz

1 PK
VIEW



Center 2.437 GHz

1.4 MHz/

Span 14 MHz

Date: 3.SEP.2013 11:32:45

6. 802.11b at 11Mbps of CH11



MARKER 1

2.462924 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

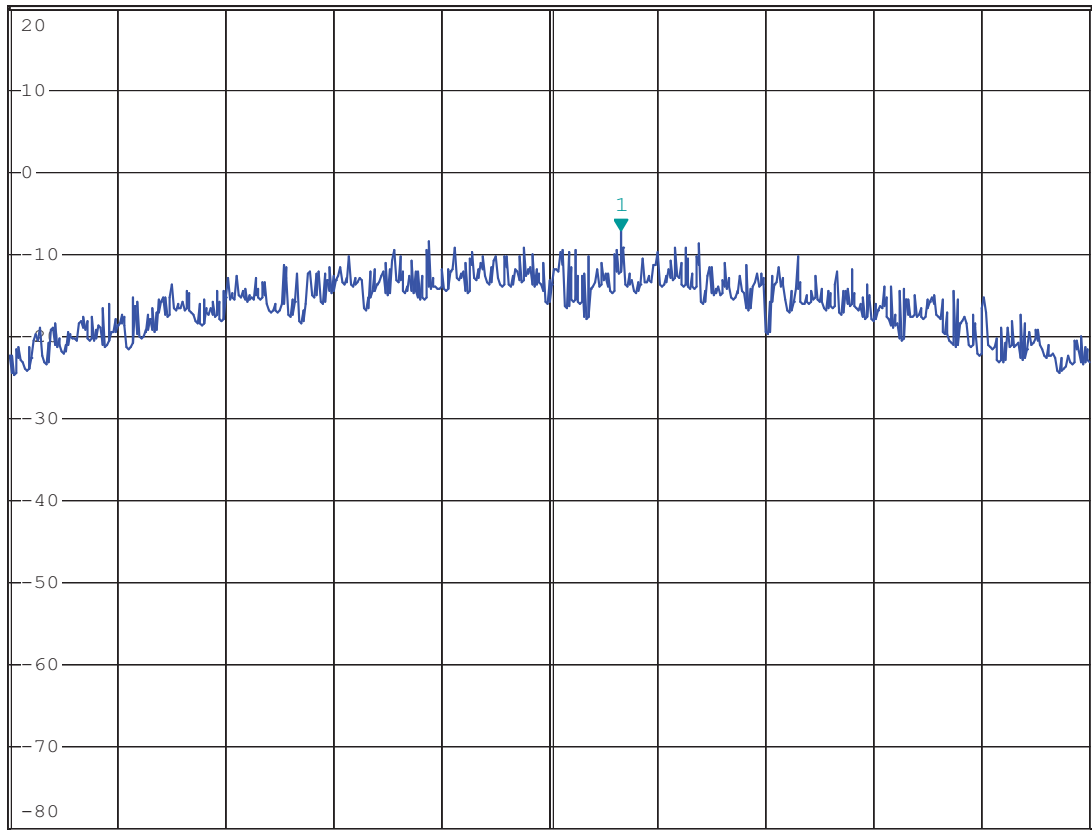
* SWT 140 ms

Marker 1 [T1]

-7.22 dBm

2.462924000 GHz

1 PK
VIEW



Center 2.462 GHz

1.4 MHz/

Span 14 MHz

Date: 3.SEP.2013 11:35:34

7. 802.11g at 54Mbps of CH1



MARKER 1

2.4142 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

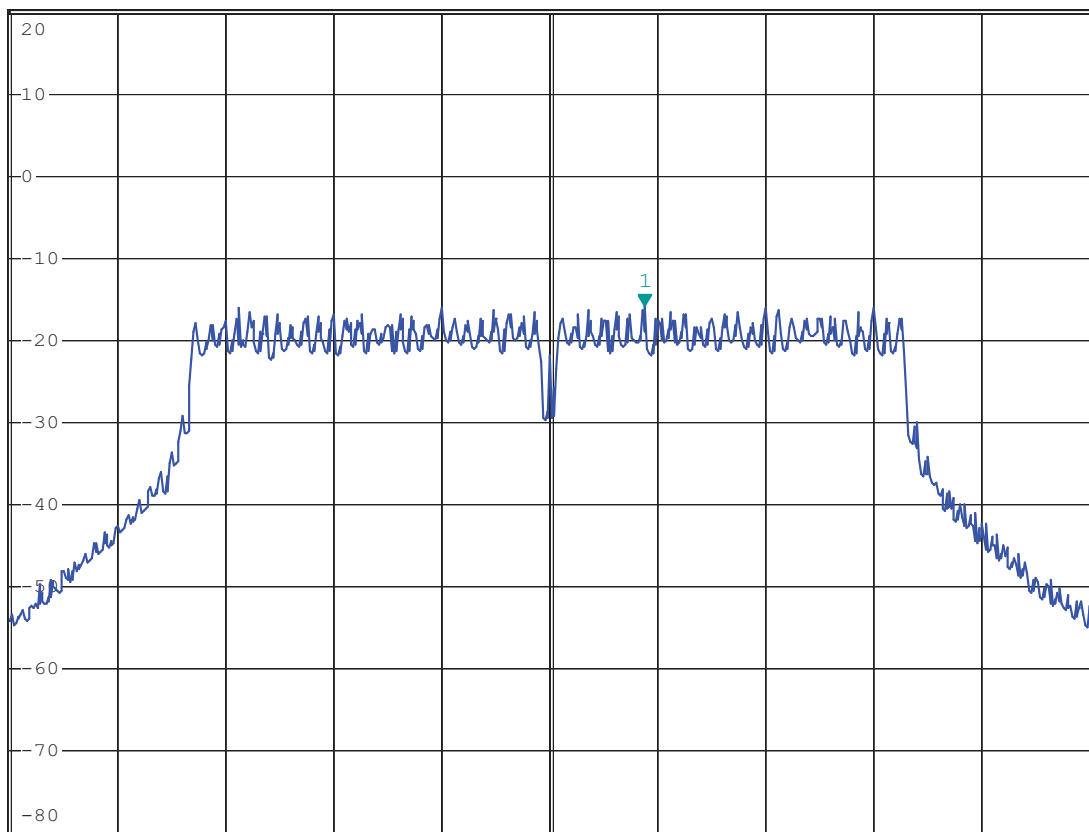
* SWT 250 ms

Marker 1 [T1]

-15.92 dBm

2.41420000 GHz

1 PK
MAXH



Center 2.412 GHz

2.5 MHz/

Span 25 MHz

Date: 3.SEP.2013 11:29:07

8. 802.11g at 54Mbps of CH6



MARKER 1

2.4336 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

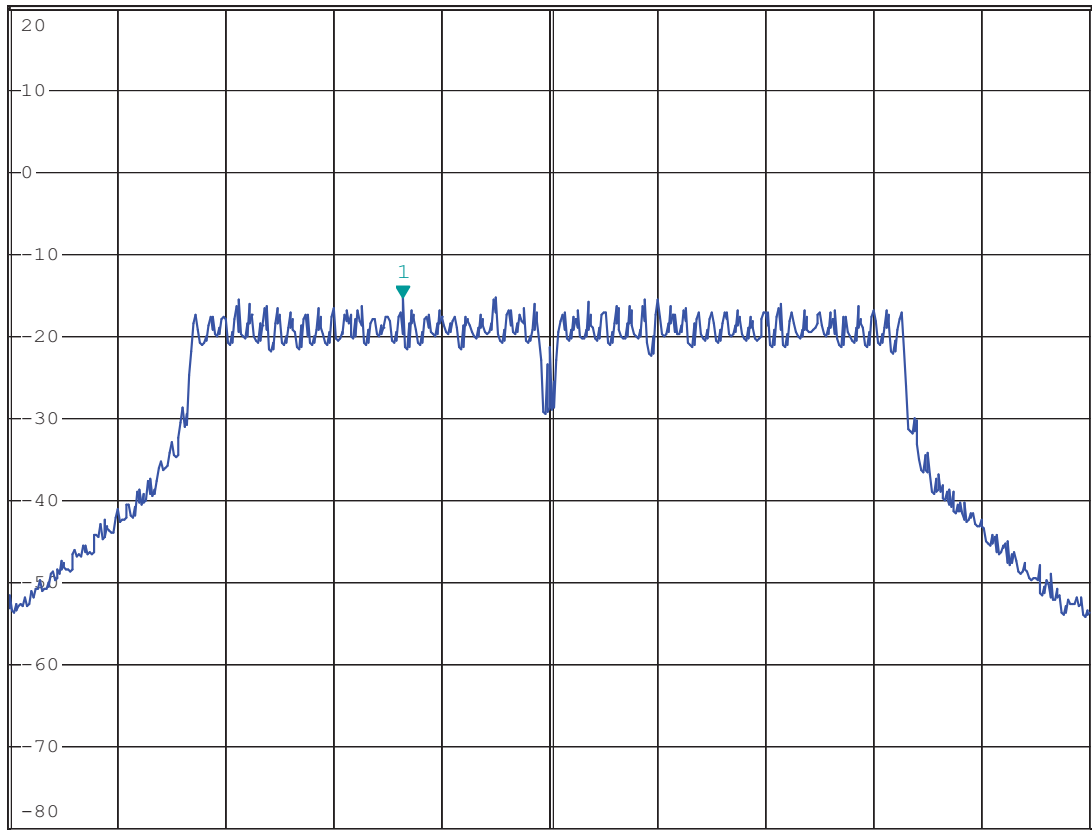
* SWT 250 ms

Marker 1 [T1]

-15.25 dBm

2.43360000 GHz

1 PK
MAXH



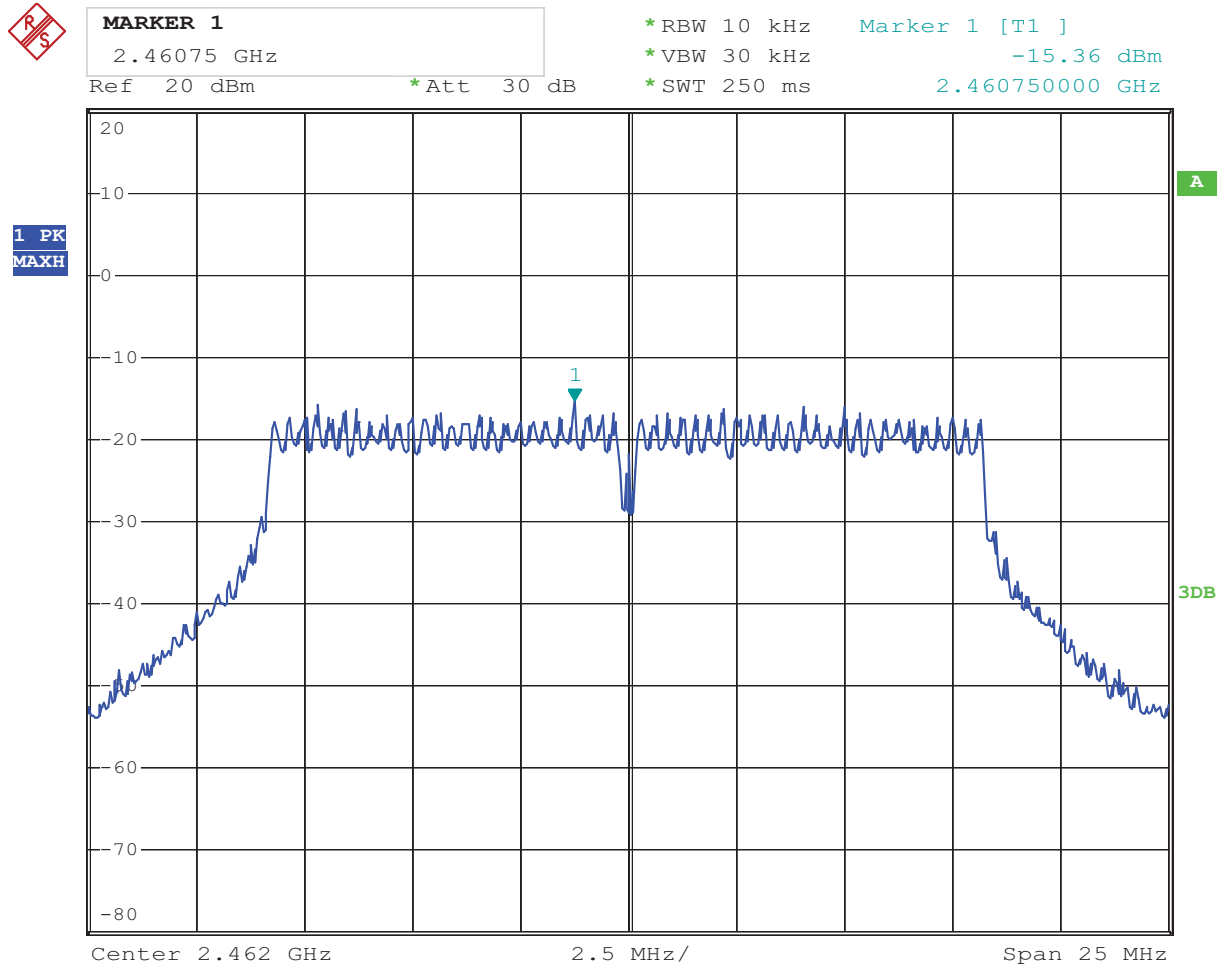
Center 2.437 GHz

2.5 MHz/

Span 25 MHz

Date: 3.SEP.2013 11:32:03

9. 802.11g at 54Mbps of CH11



Date: 3.SEP.2013 11:34:59

10. 802.11n at HT20 of CH01 65Mbps


MARKER 1

2.41848 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

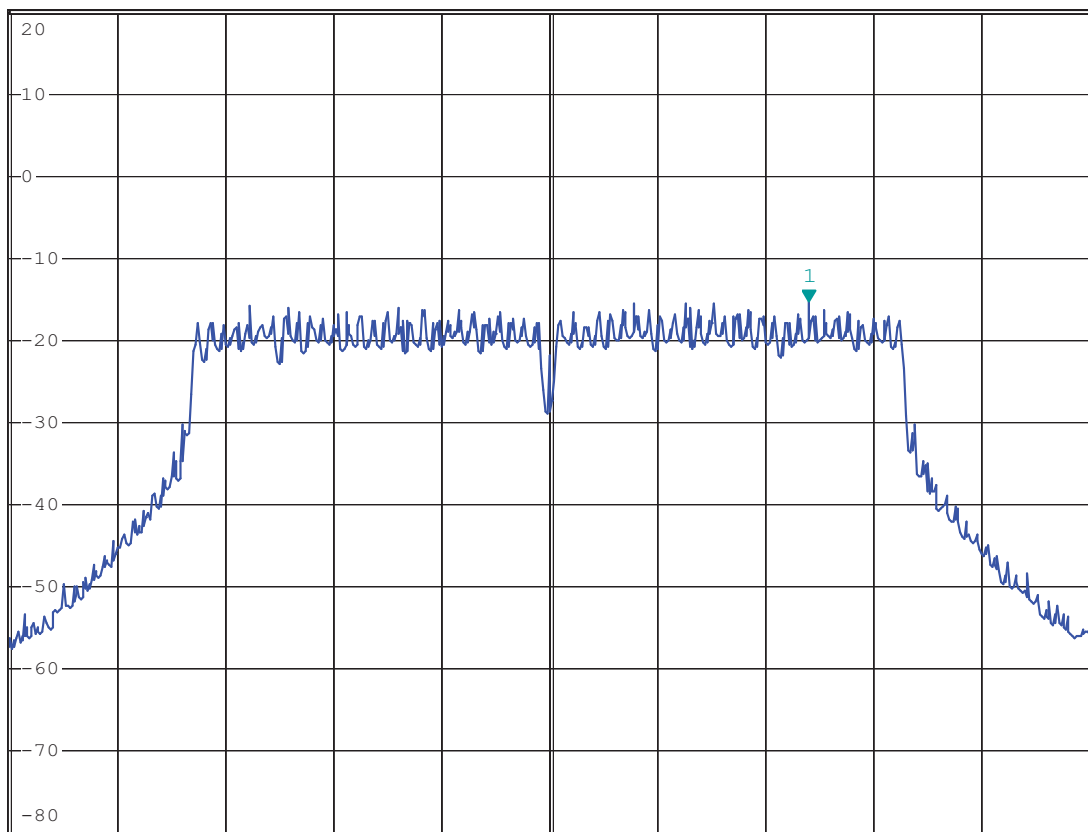
* VBW 30 kHz

* SWT 270 ms

Marker 1 [T1]

-15.30 dBm

2.418480000 GHz

1 PK
MAXH


Center 2.412 GHz

2.7 MHz/

Span 27 MHz

Date: 3.SEP.2013 11:36:45

11. 802.11n at HT20 of CH06 65Mbps



MARKER 1

2.439106 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

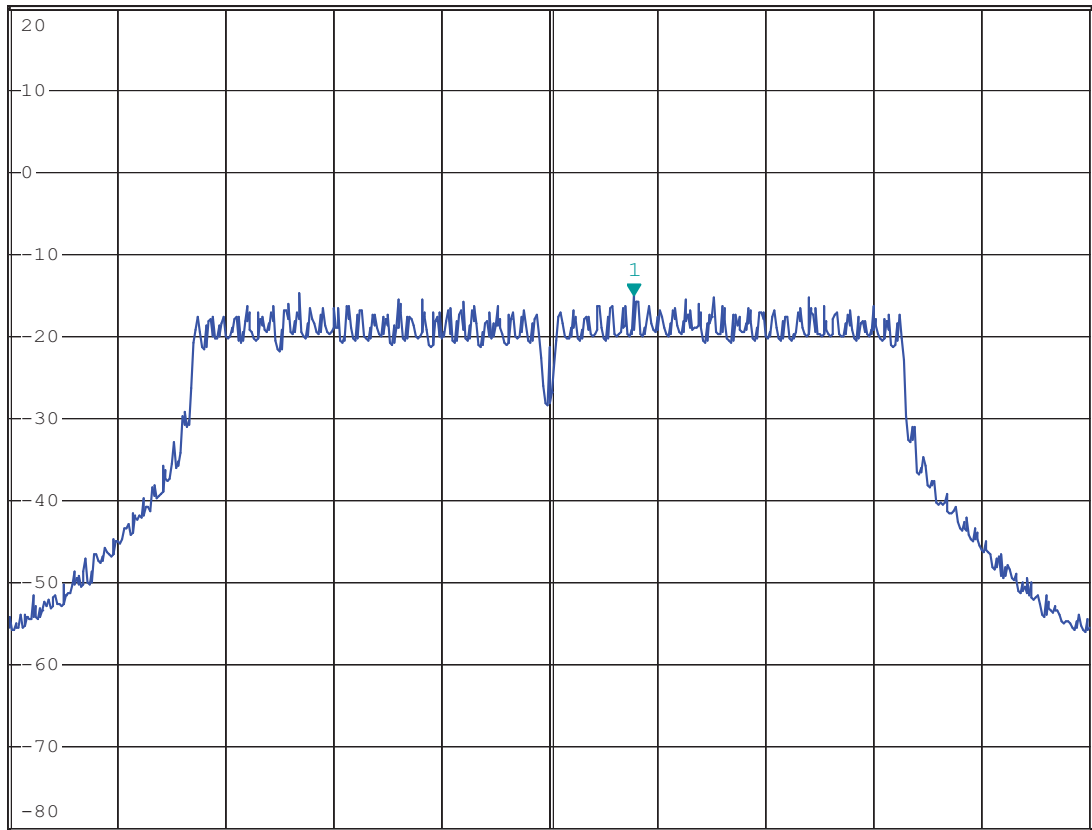
* SWT 270 ms

Marker 1 [T1]

-15.04 dBm

2.439106000 GHz

1 PK
MAXH



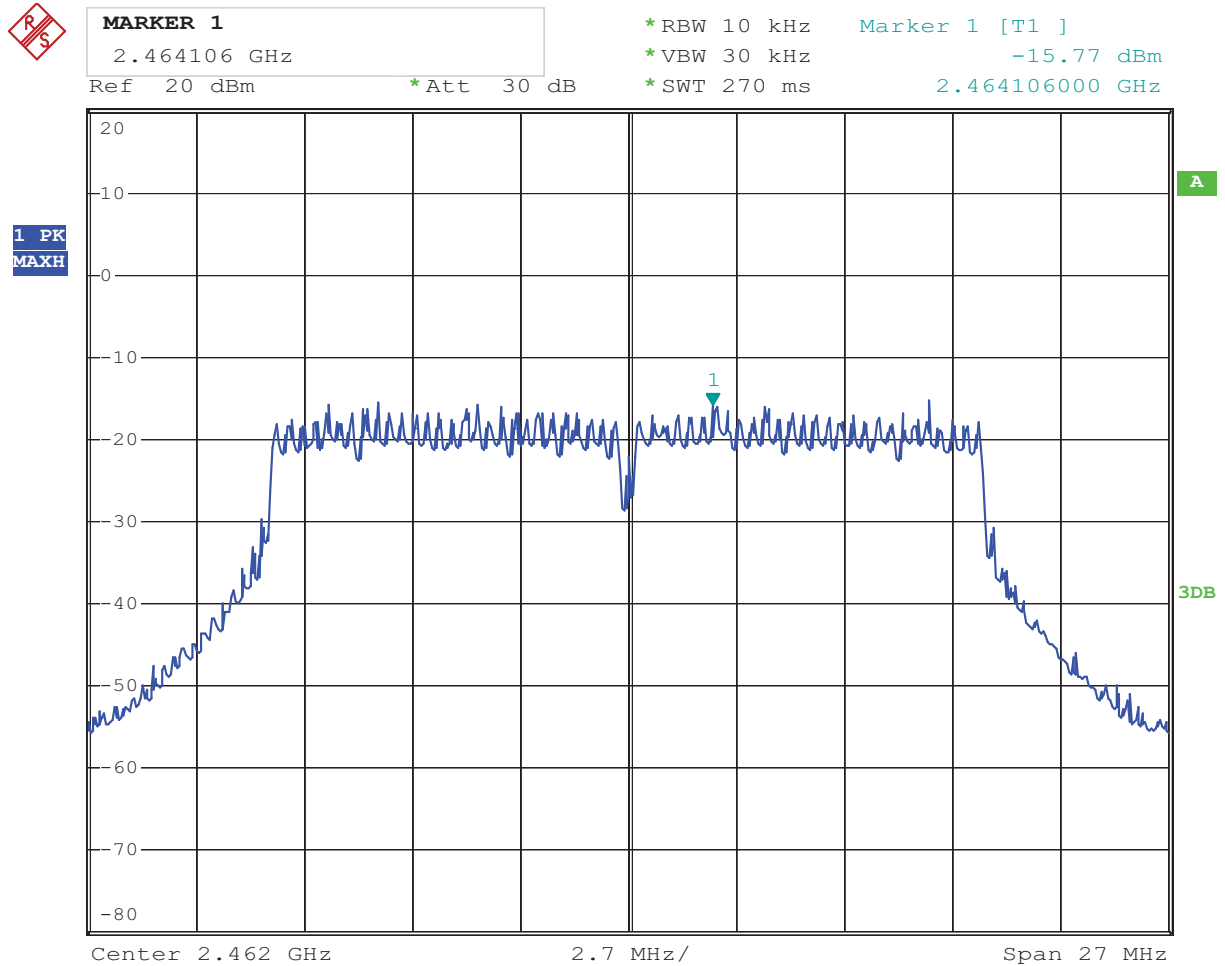
Center 2.437 GHz

2.7 MHz/

Span 27 MHz

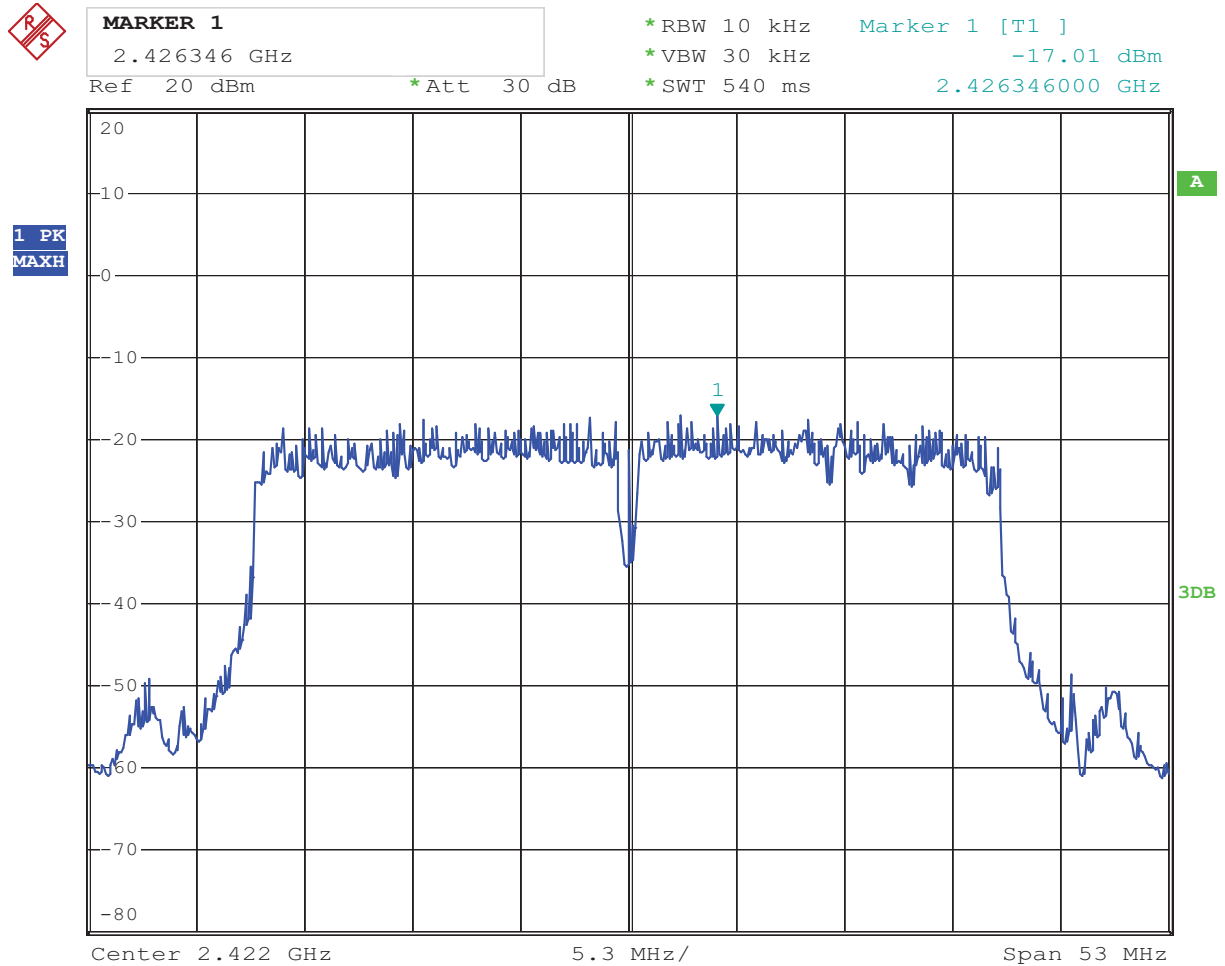
Date: 3.SEP.2013 11:37:42

12. 802.11n at HT20 of CH11 65Mbps



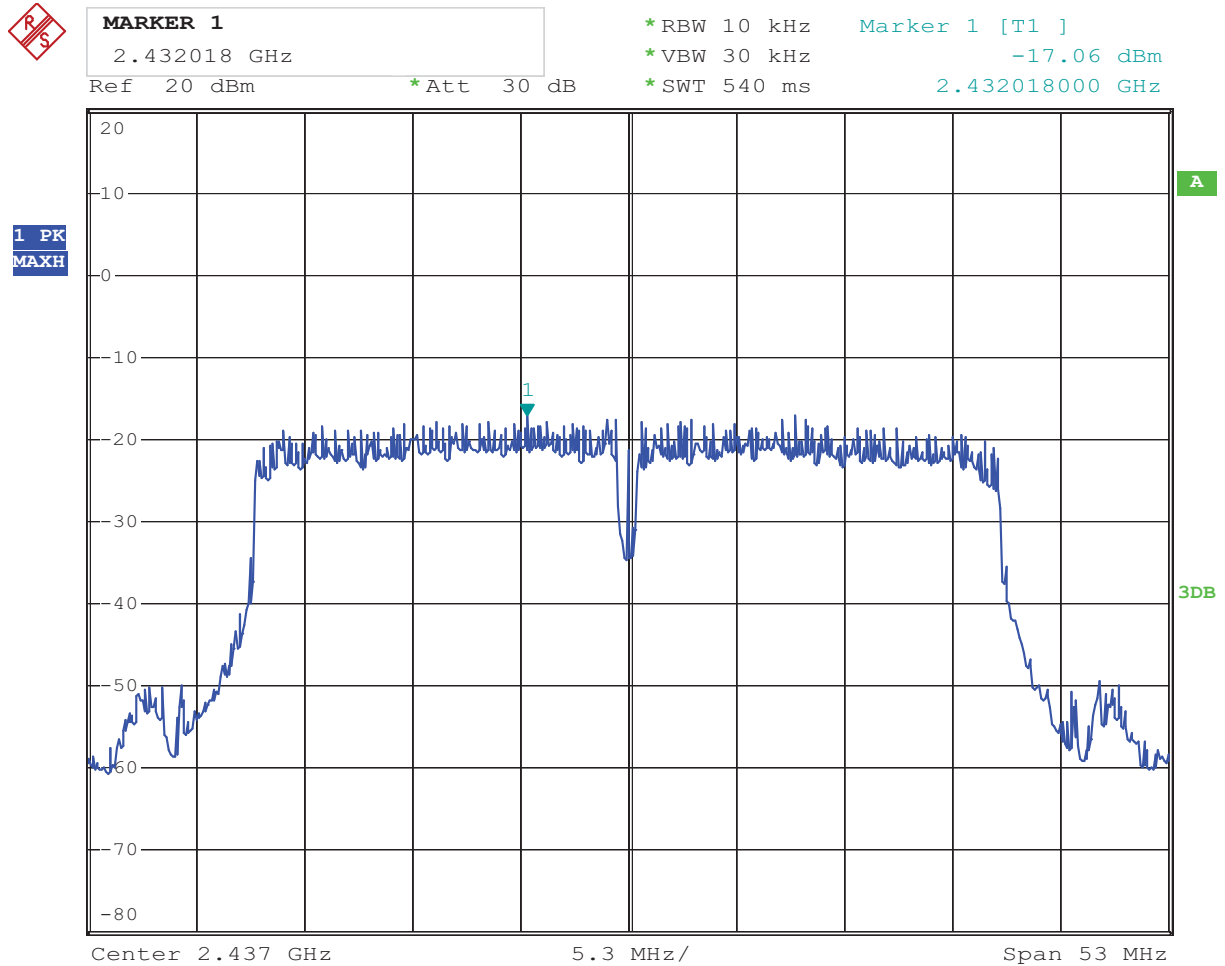
Date: 3.SEP.2013 11:38:27

13. 802.11n at HT40 of CH01 65Mbps



Date: 3.SEP.2013 11:40:40

14. 802.11n at HT40 of CH04 65Mbps



Date: 3.SEP.2013 11:41:41

15. 802.11n at HT40 of CH07 65Mbps



MARKER 1

2.444474 GHz

Ref 20 dBm

* Att 30 dB

* RBW 10 kHz

* VBW 30 kHz

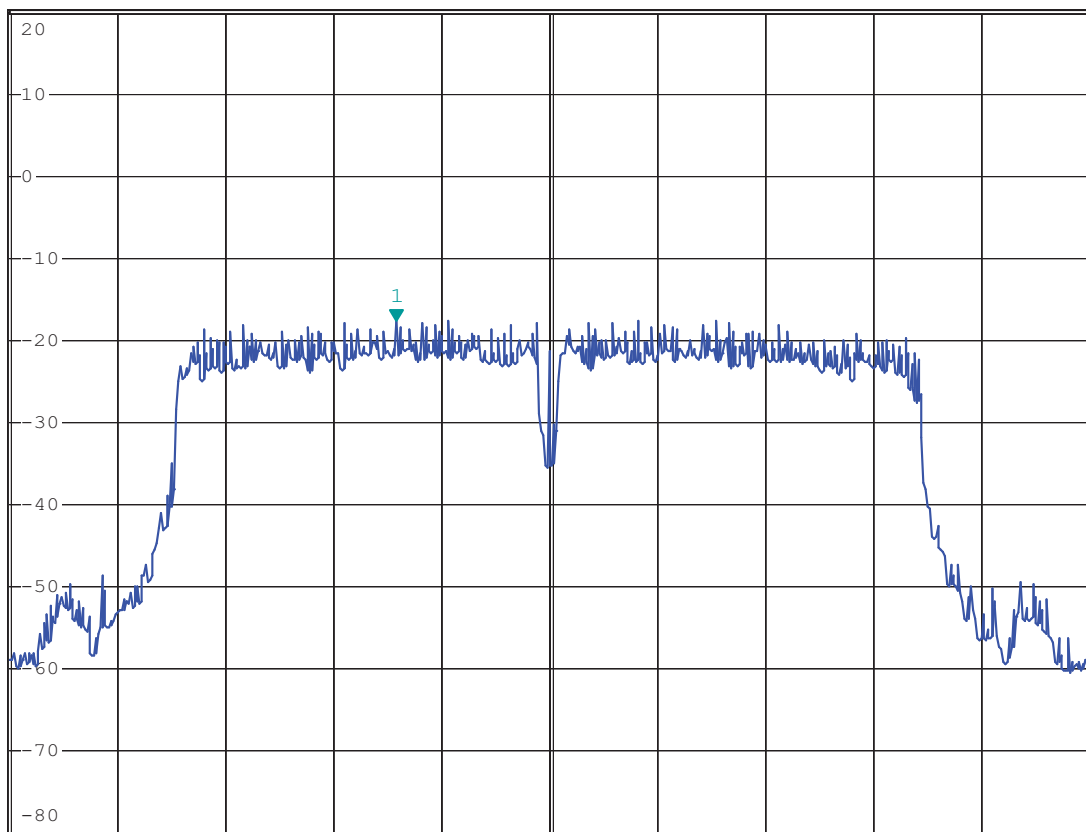
* SWT 540 ms

Marker 1 [T1]

-17.74 dBm

2.444474000 GHz

1 PK
MAXH

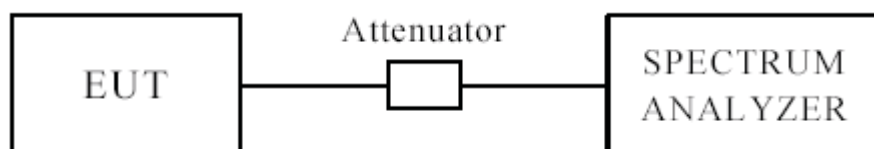


3DB

Date: 3.SEP.2013 11:42:28

10 Out of Band Measurement

10.1 Test Setup for band edge



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

10.2 Limits of Out of Band Emissions Measurement

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

10.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test.(Peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector)

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

10.4 Test Result

Please see next pages

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



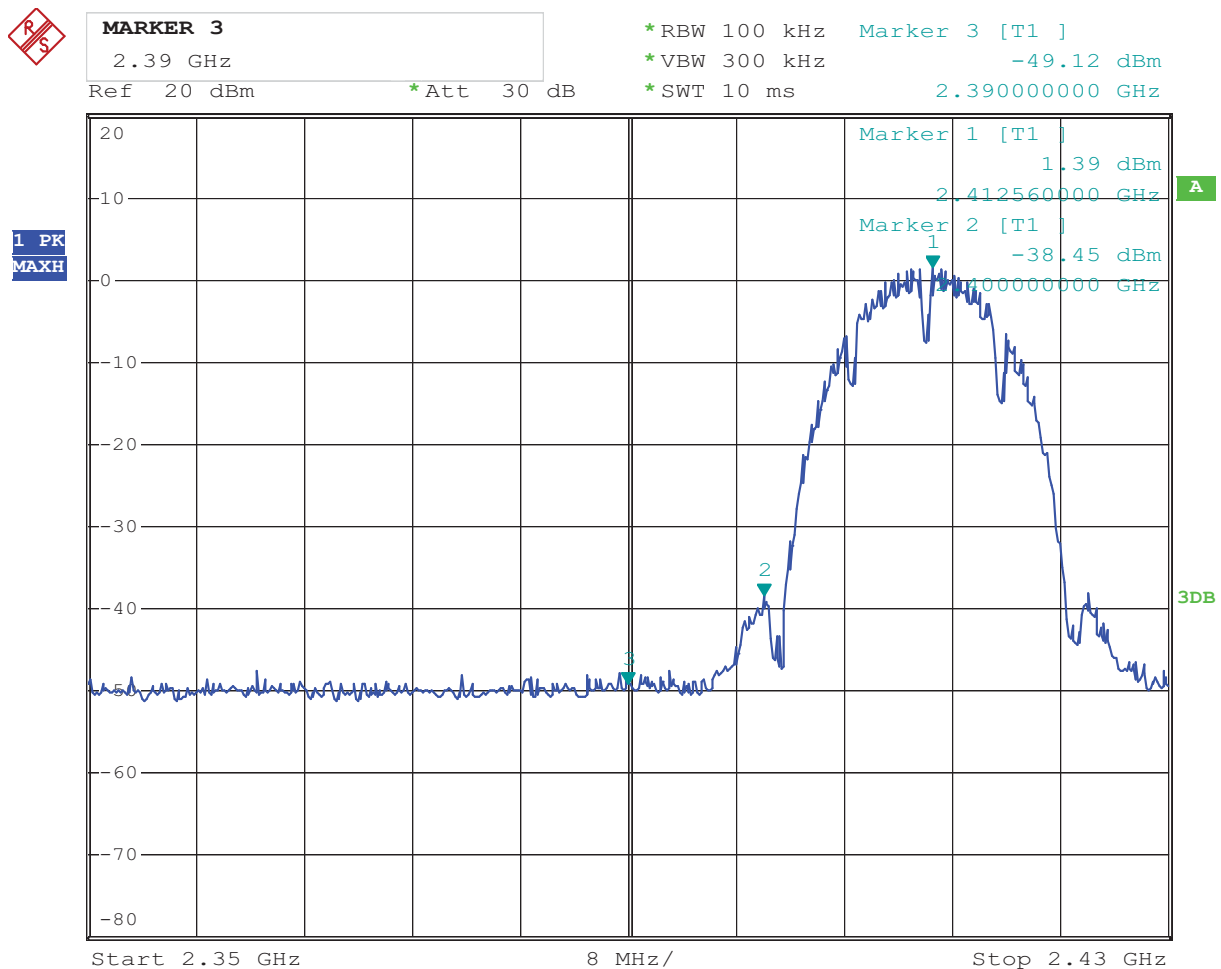
For 802.11b mode

CH01 at 1Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2400MHz	PK (dB μ V/m)	60.4	Limit	74(dB μ V/m)
	AV (dB μ V/m)	38.7		54(dB μ V/m)
2390MHz	PK (dB μ V/m)	42.1	Limit	74(dB μ V/m)
	AV (dB μ V/m)			54(dB μ V/m)

Test Figure:



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CH11 at 1Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dB μ V/m)	45.3	Limit	74(dB μ V/m)
	AV (dB μ V/m)	--		54(dB μ V/m)

Test Figure:



MARKER 1

2.4615 GHz

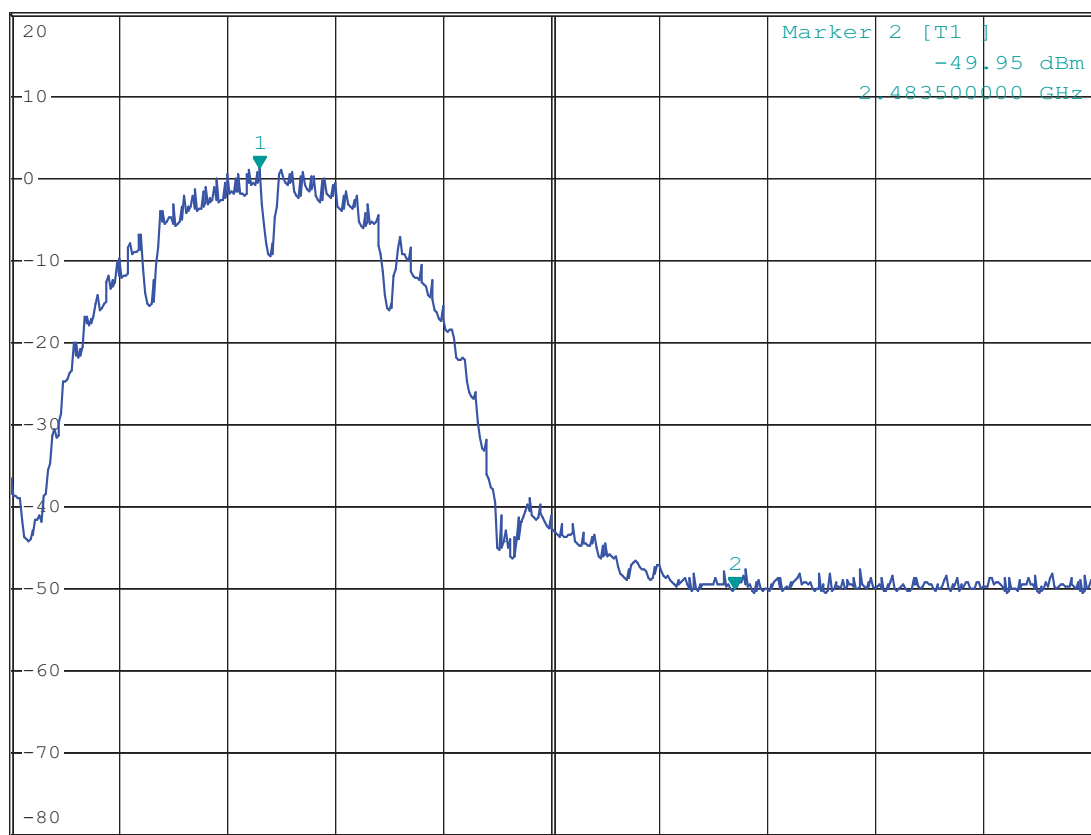
Ref 20 dBm

* Att 30 dB

* RBW 100 kHz Marker 1 [T1]

* VBW 300 kHz 1.12 dBm

* SWT 10 ms 2.461500000 GHz



Start 2.45 GHz

5 MHz/

Stop 2.5 GHz

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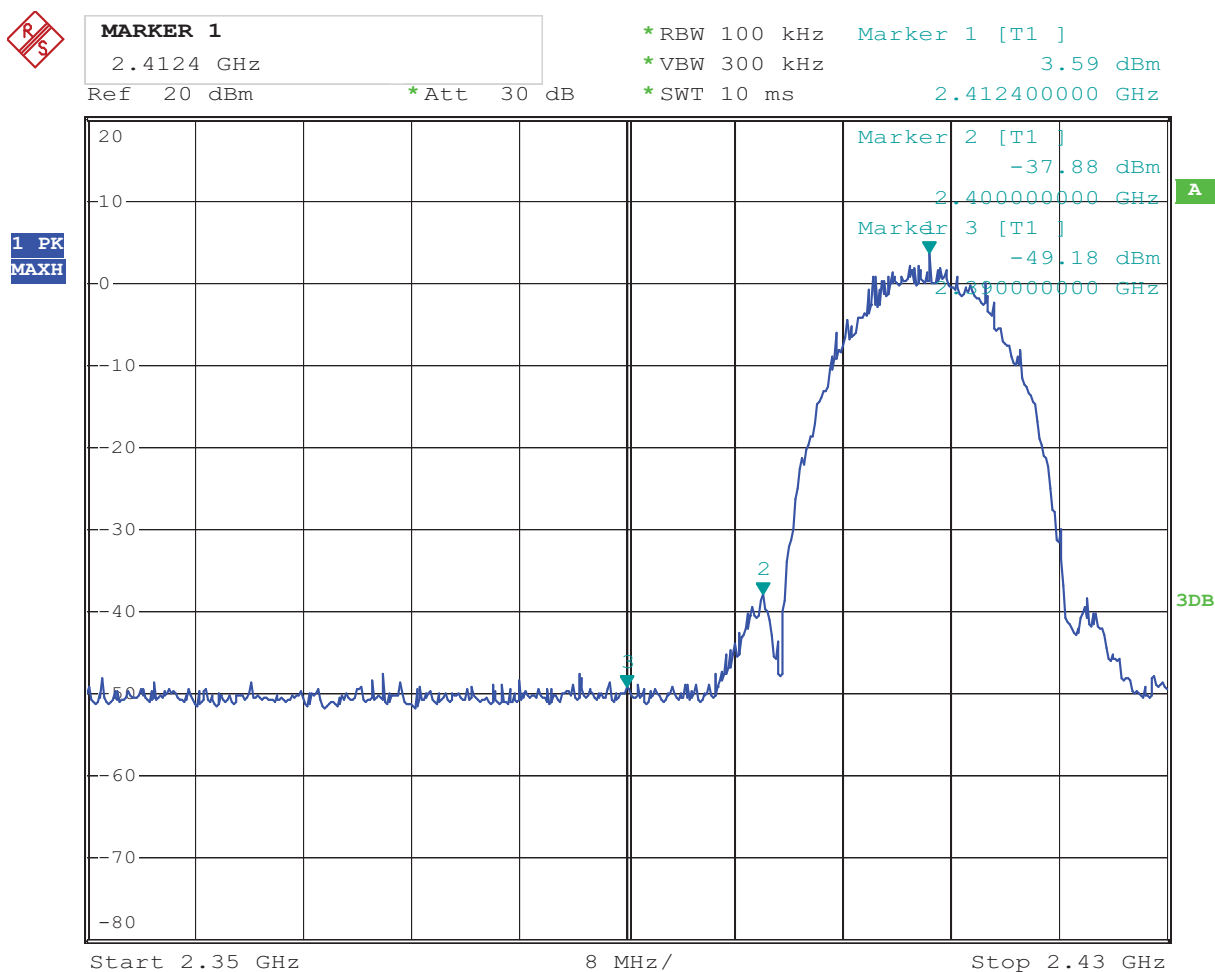
For 802.11b mode

CH01 at 11Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2400MHz	PK (dBμV/m)	59.6	Limit	74(dBμV/m)
	AV (dBμV/m)	37.5		54(dBμV/m)
2390MHz	PK (dBμV/m)	42.6	Limit	74(dBμV/m)
	AV (dBμV/m)			54(dBμV/m)

Test Figure:

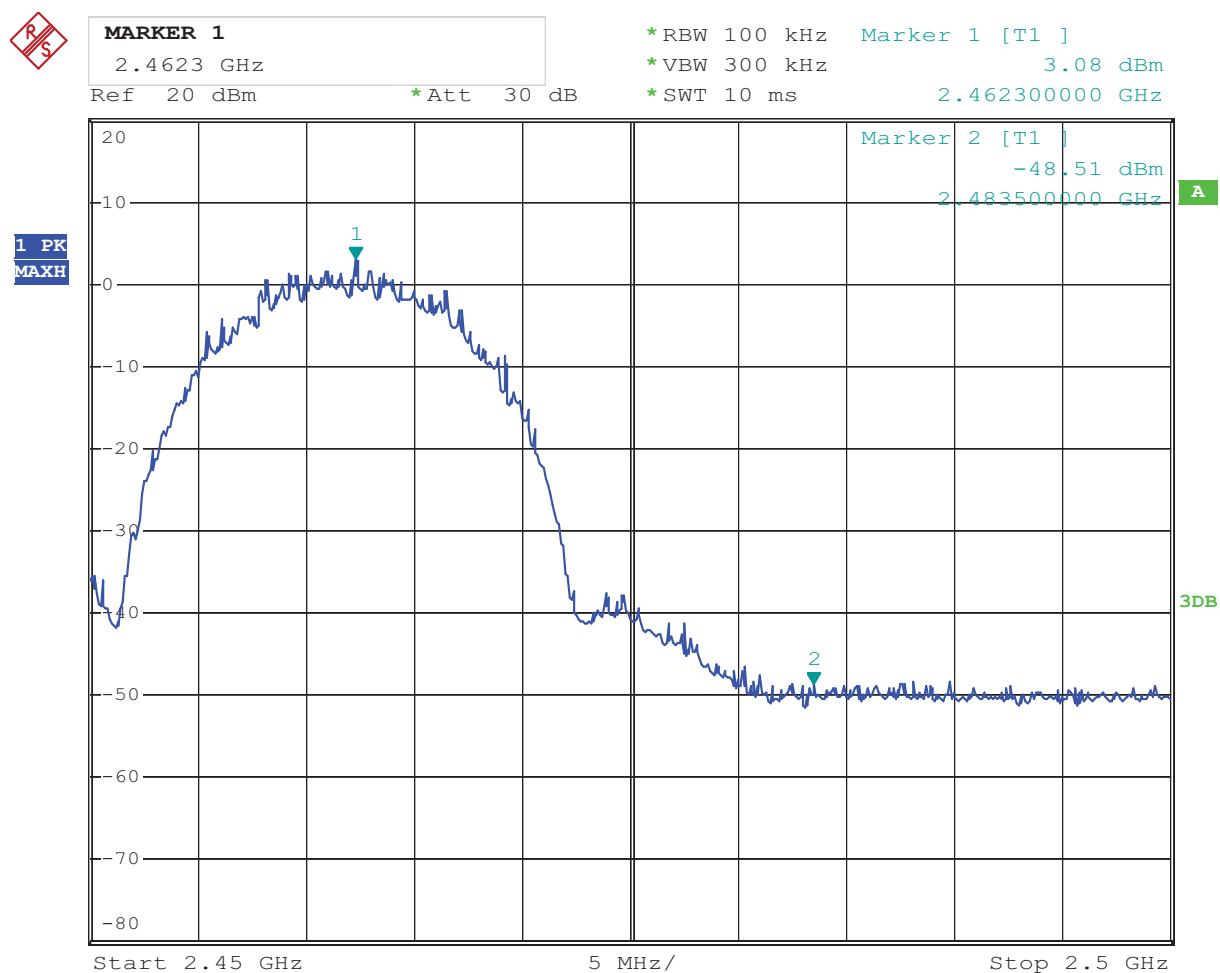


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CH11 at 11Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dB μ V/m)	44.6	Limit	74(dB μ V/m)
	AV (dB μ V/m)	--		54(dB μ V/m)

Test Figure:


Date: 3.SEP.2013 11:53:55

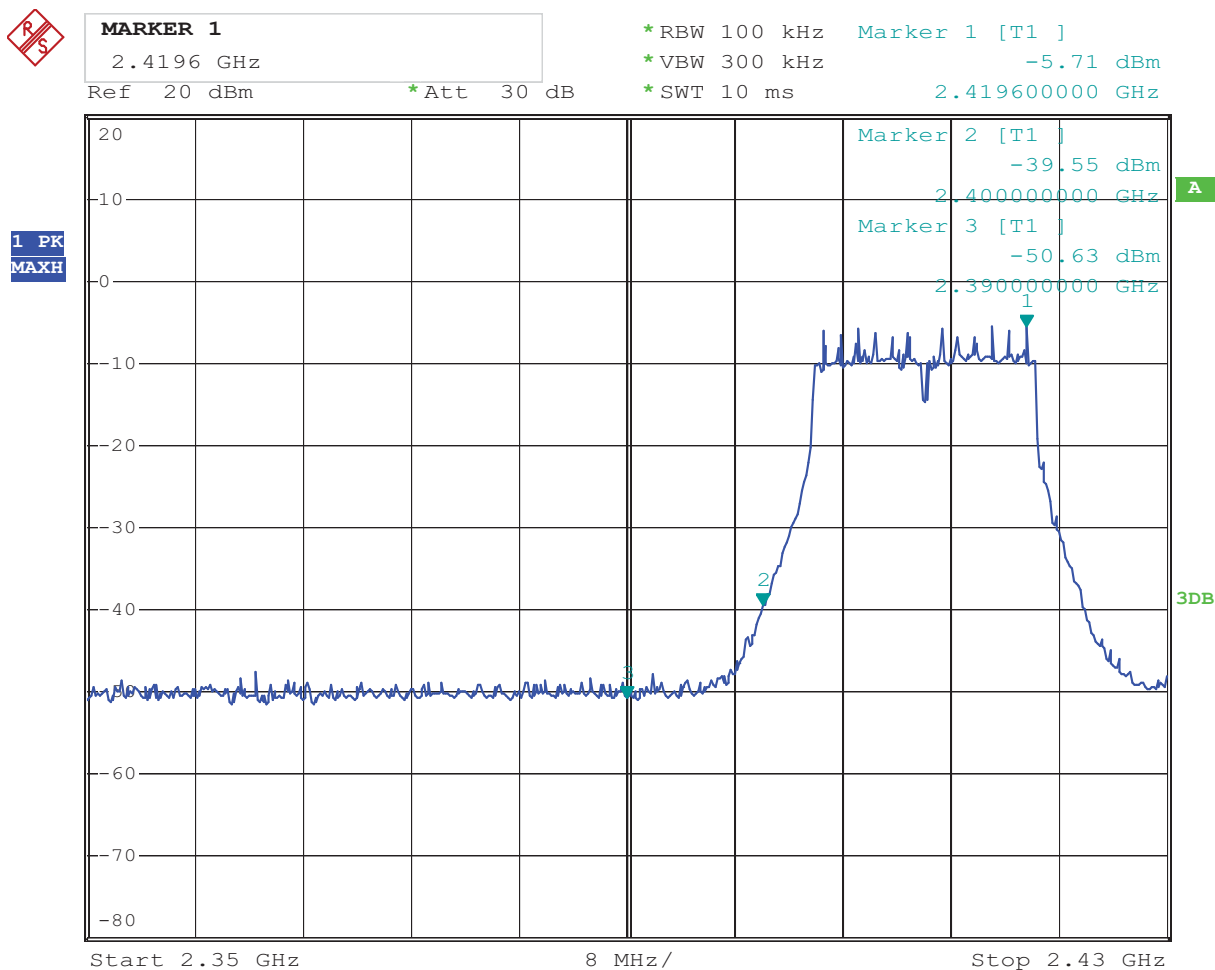
For 802.11g mode

CH01 at 54Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2400MHz	PK (dBμV/m)	58.9	Limit	74(dBμV/m)
	AV (dBμV/m)	40.8		54(dBμV/m)
2390MHz	PK (dBμV/m)	45.9	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



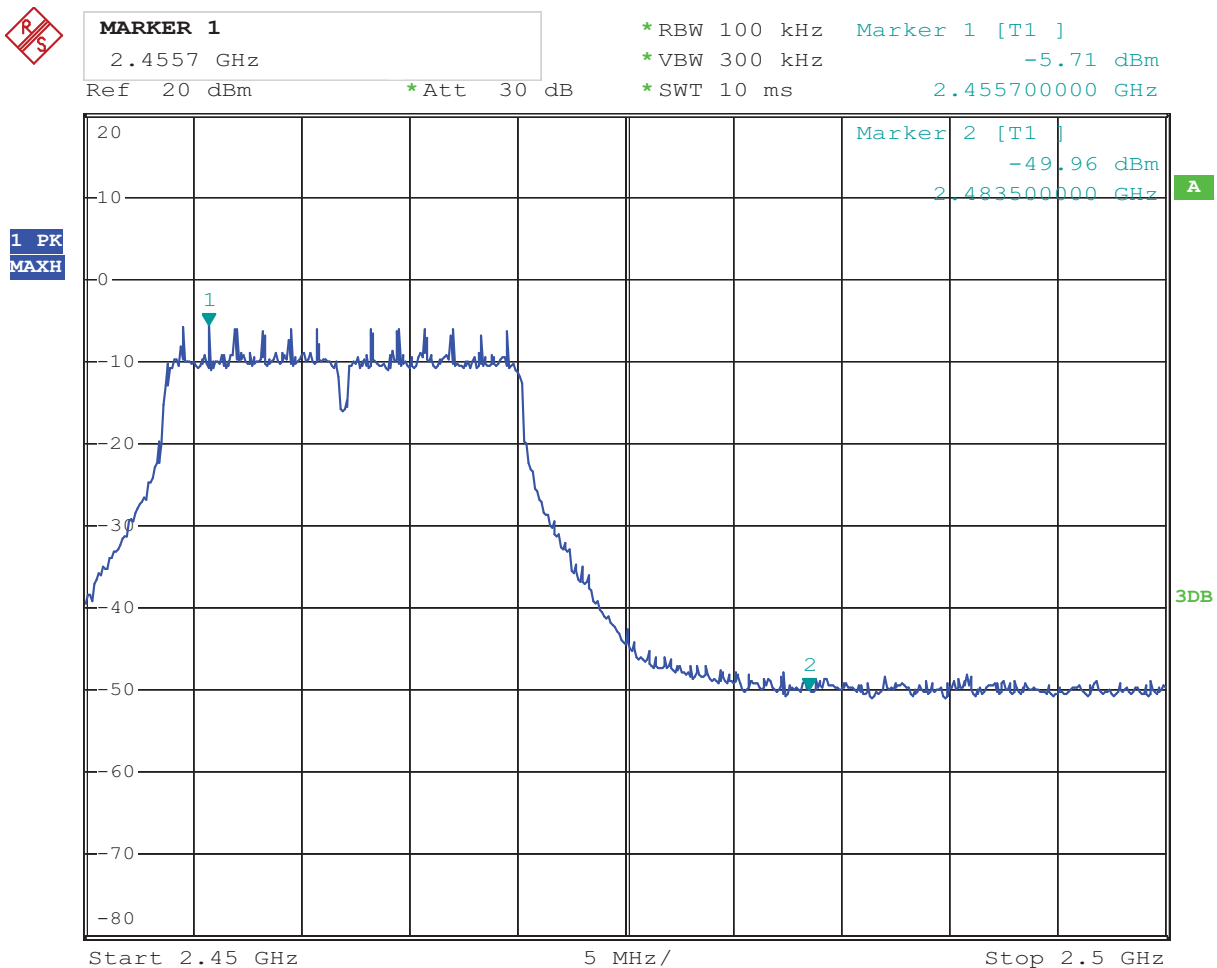
Date: 3.SEP.2013 11:46:46

CH11 at 54Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	46.1	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



Date: 3.SEP.2013 11:53:19

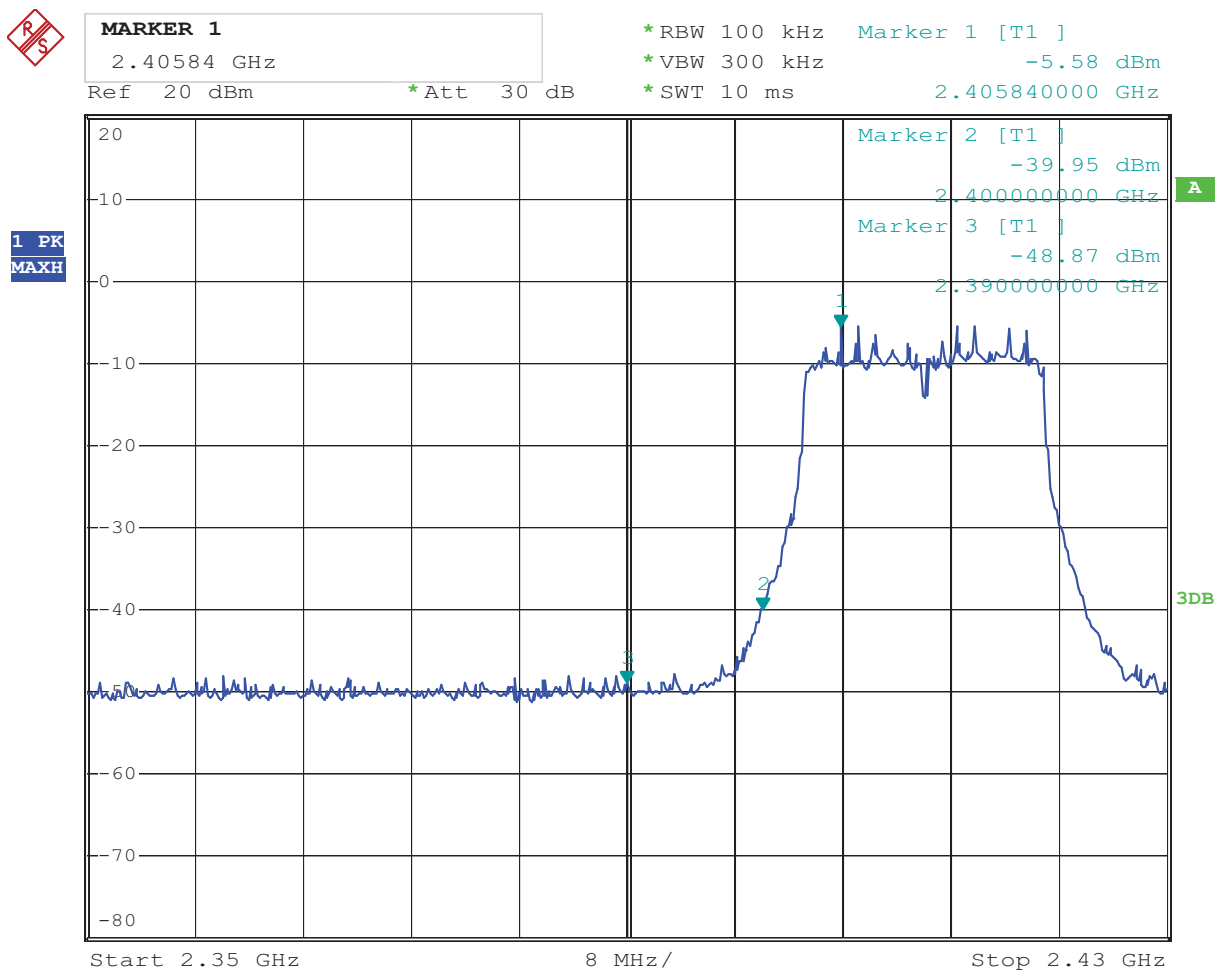
For 802.11n mode

CH01 at HT20 65Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2400MHz	PK (dBμV/m)	61.2	Limit	74(dBμV/m)
	AV (dBμV/m)	44.6		54(dBμV/m)
2390MHz	PK (dBμV/m)	46.3	Limit	74(dBμV/m)
	AV (dBμV/m)			54(dBμV/m)

Test Figure:



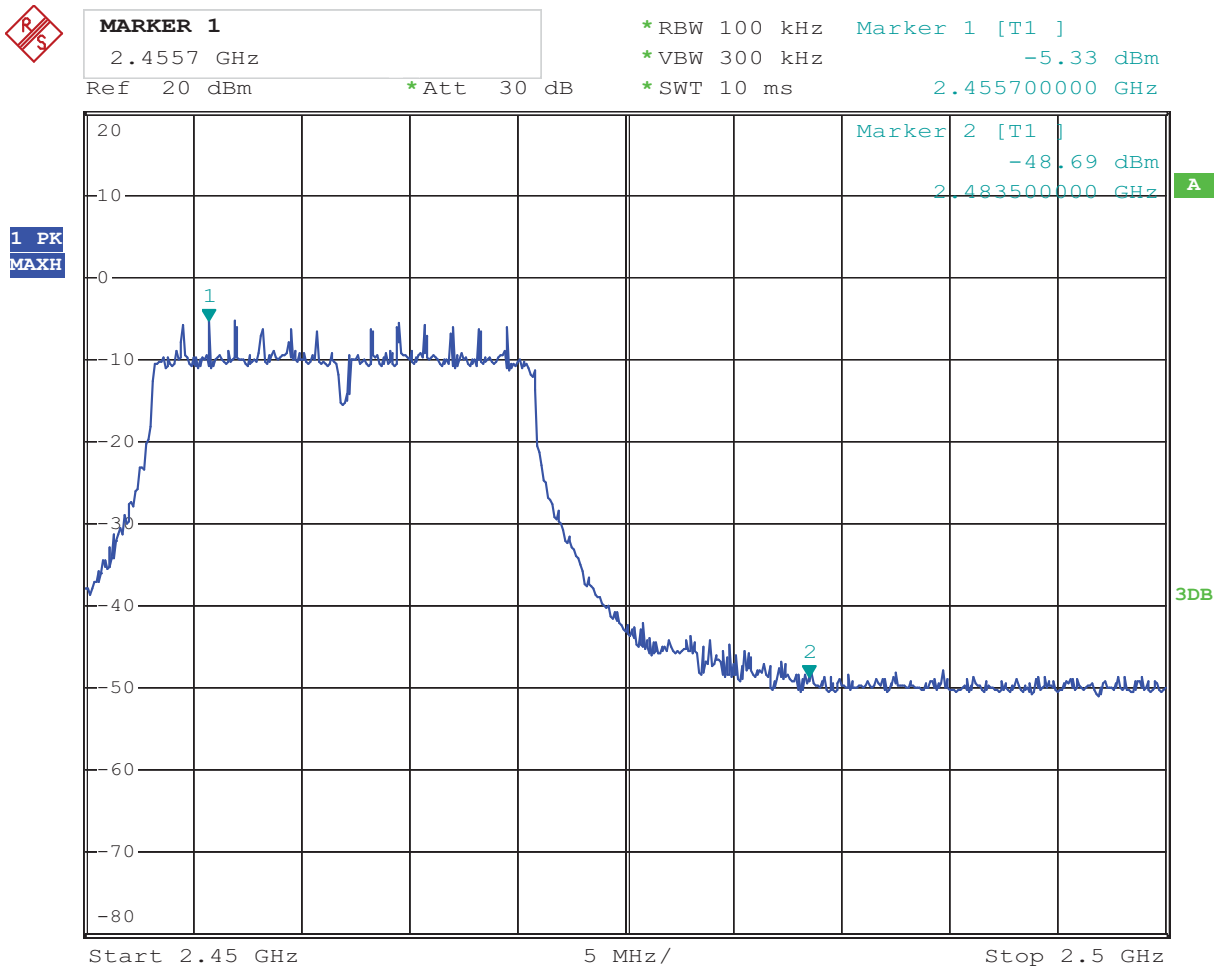
Date: 3.SEP.2013 11:48:32

CH11 at HT20 65Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dB μ V/m)	47.8	Limit	74(dB μ V/m)
	AV (dB μ V/m)	--		54(dB μ V/m)

Test Figure:



Date: 3.SEP.2013 11:55:03

For 802.11n mode

CH01 at HT40 65Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2400MHz	PK (dBμV/m)	64.8	Limit	74(dBμV/m)
	AV (dBμV/m)	46.2		54(dBμV/m)
2390MHz	PK (dBμV/m)	48.7	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



MARKER 1

2.4134 GHz

Ref 20 dBm

*Att 30 dB

*RBW 100 kHz

*VBW 300 kHz

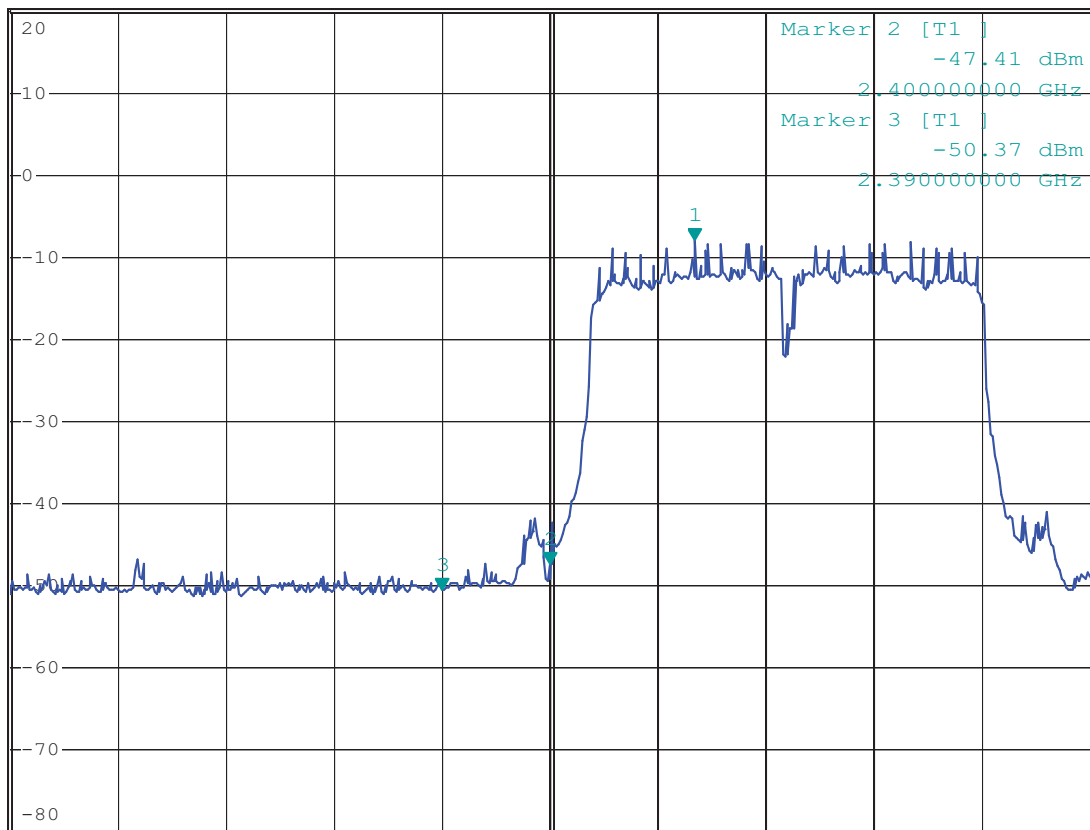
*SWT 10 ms

Marker 1 [T1]

-8.01 dBm

2.413400000 GHz

1 PK
MAXH



Start 2.35 GHz

10 MHz/

Stop 2.45 GHz

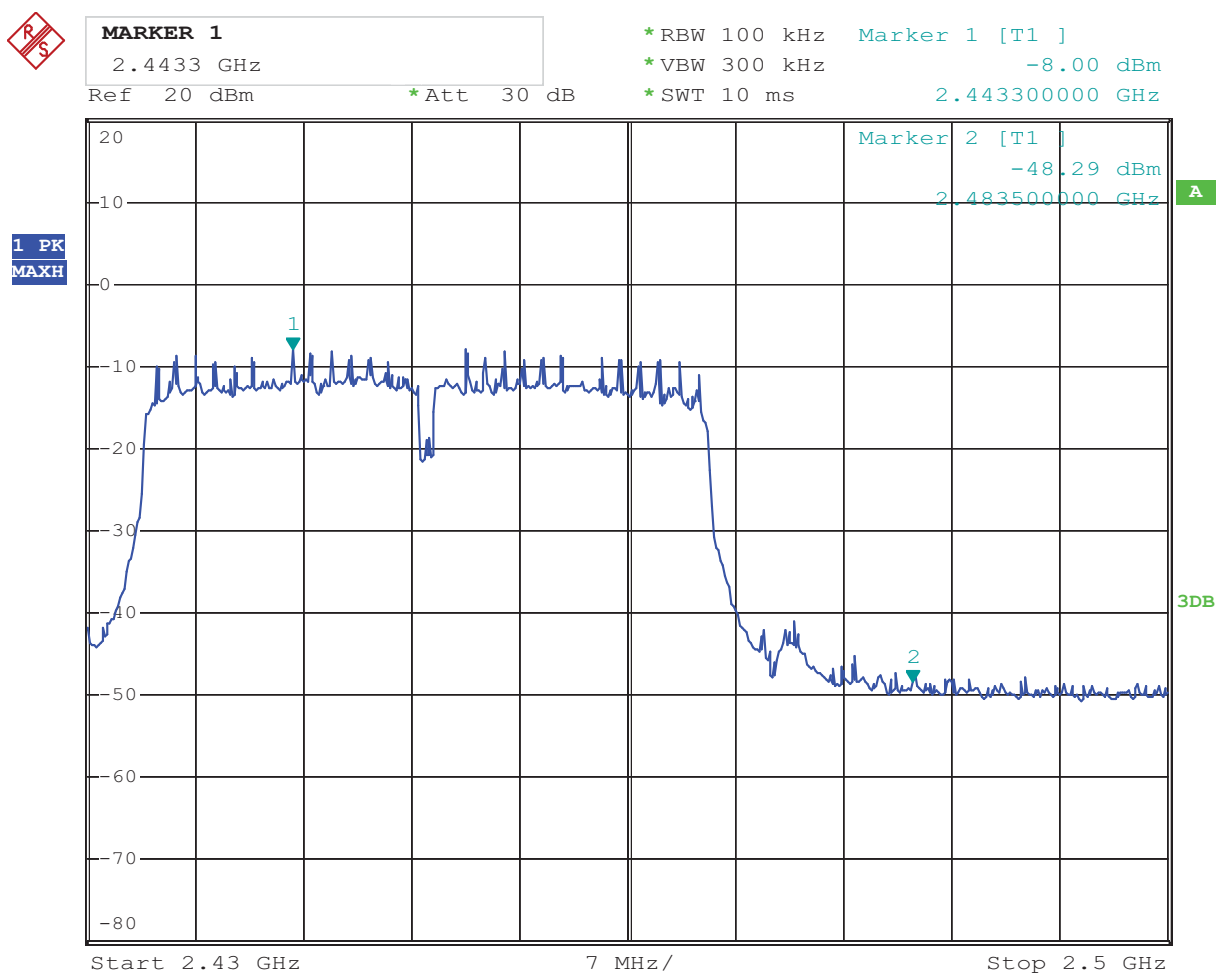
Date: 3.SEP.2013 11:49:51

CH7 at HT40 65Mbps

10.4 Band-edge Measurement

EUT	WiFi Remote Video Monitor		Model	MO136
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	55.2	Limit	74(dBμV/m)
	AV (dBμV/m)	38.1		54(dBμV/m)

Test Figure:



Date: 3.SEP.2013 11:56:38



11.0 Antenna Requirement

11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2 Antenna Connected construction

Integral antenna used. The maximum Gain of the antennas is 2.0 dBi.

12.0 FCC ID and IC Label

FCC ID: MNJ- MO136

IC: 4703B-MO136

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

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

Mark Location:



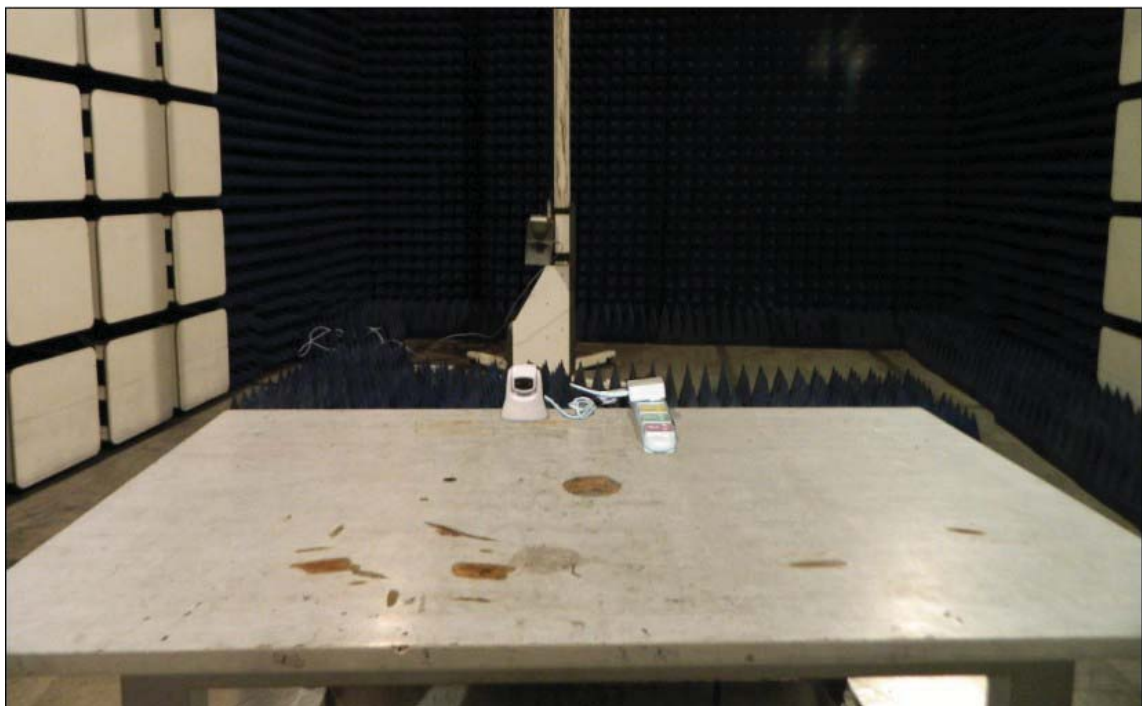
Label Location

13 PHOTOGRAPHS OF THE TEST CONFIGURATION

Conducted Emissions



Radiated Emissions



PHOTOGRAPHS OF EUT



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

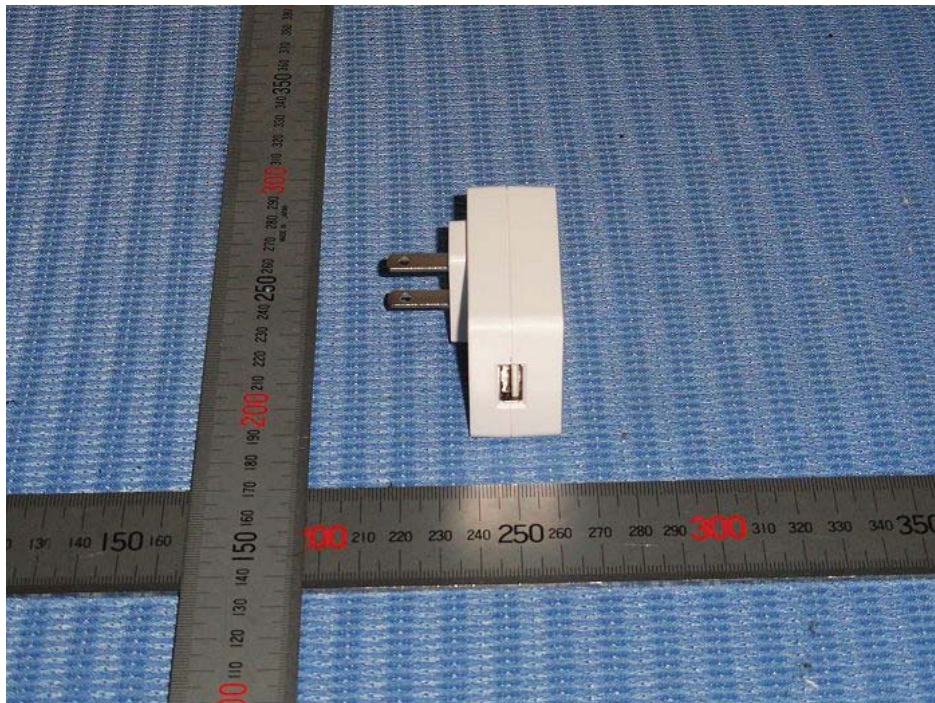


Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12

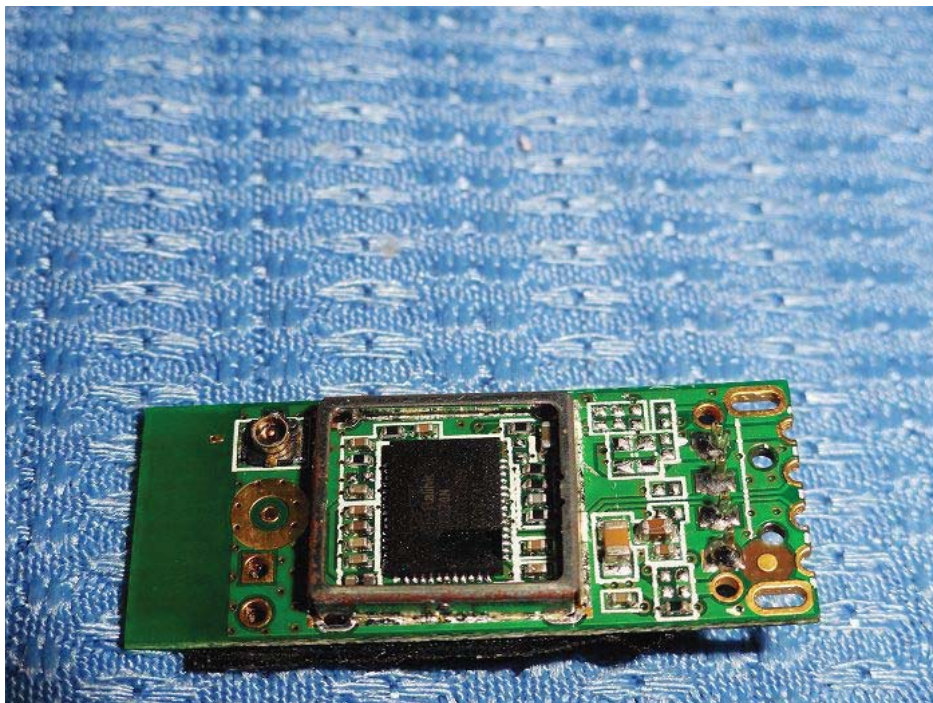


Photo 13

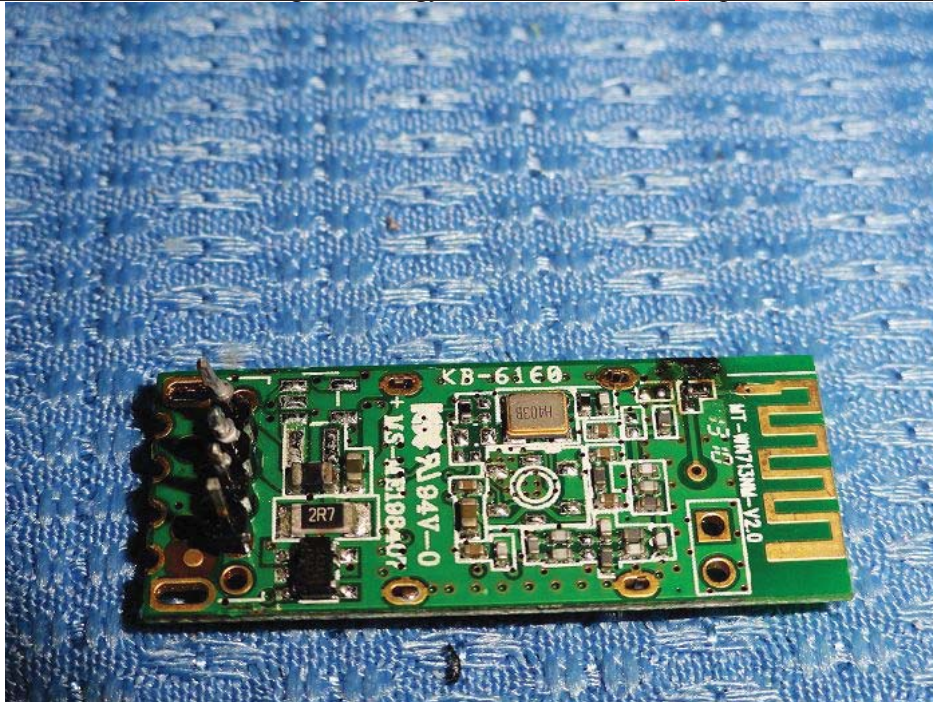


Photo 14

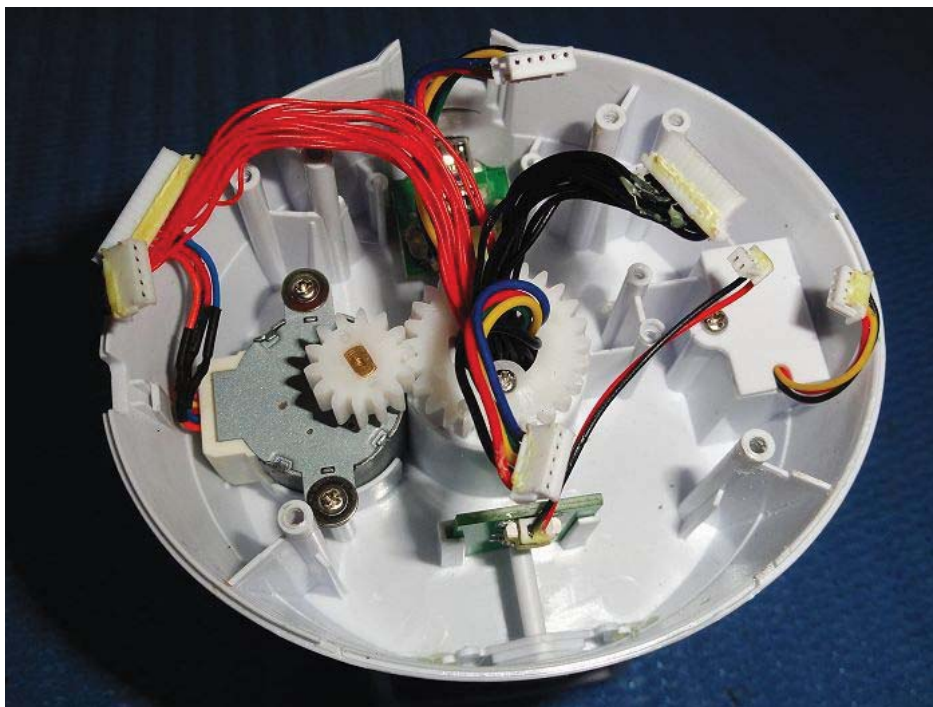


Photo 15

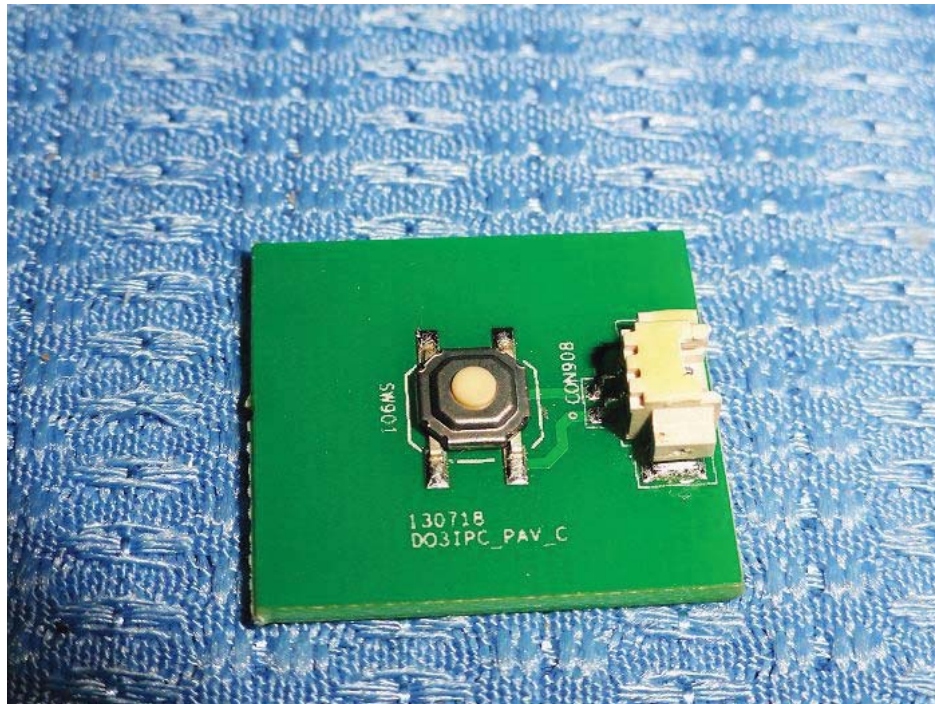


Photo 16



Photo 17

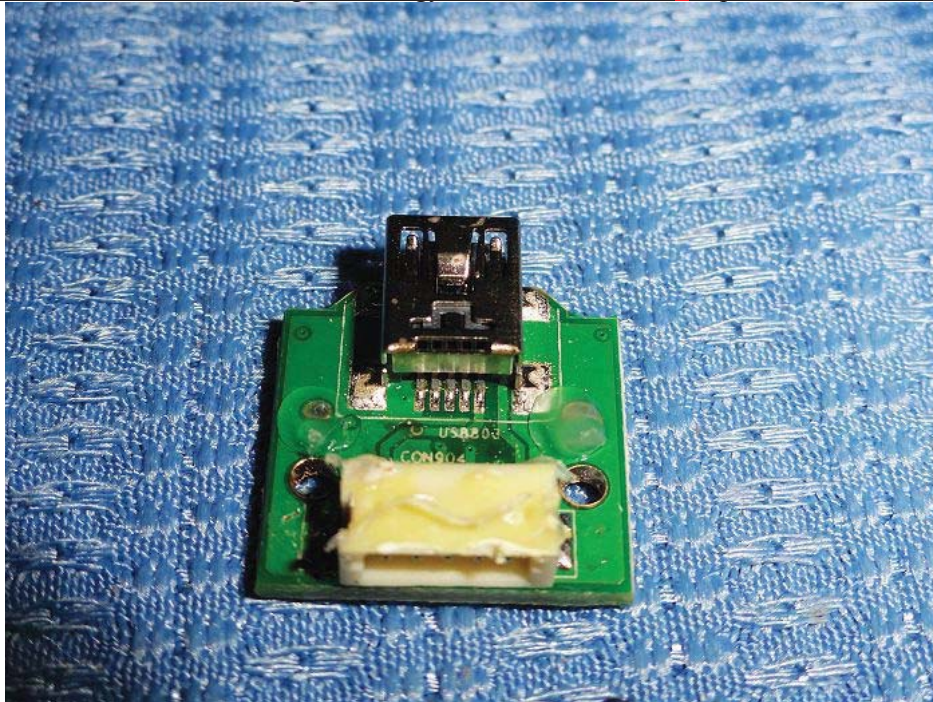


Photo 18

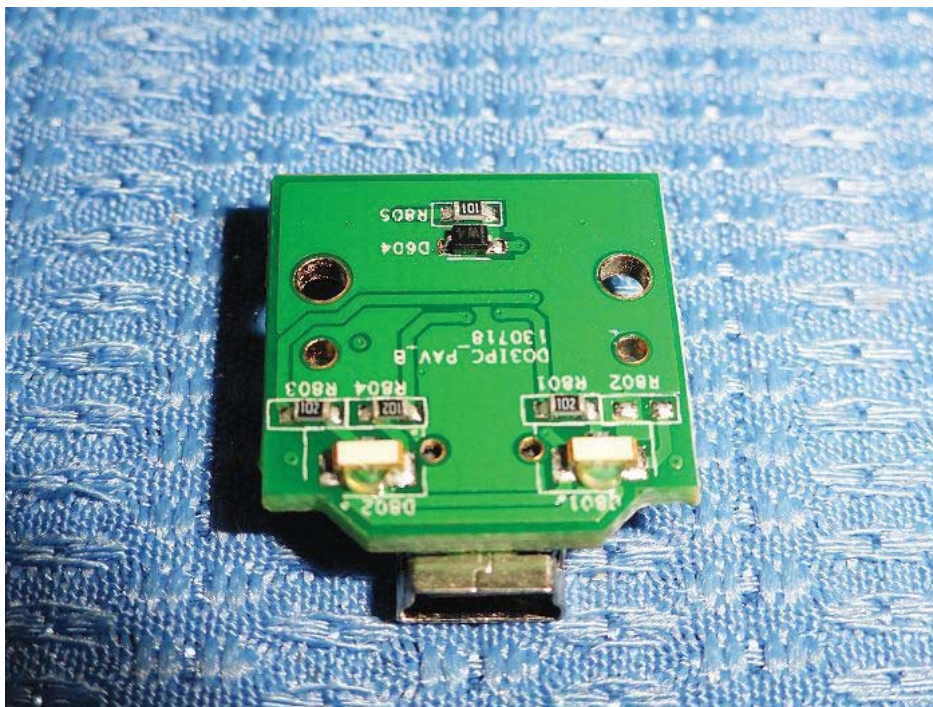


Photo 19

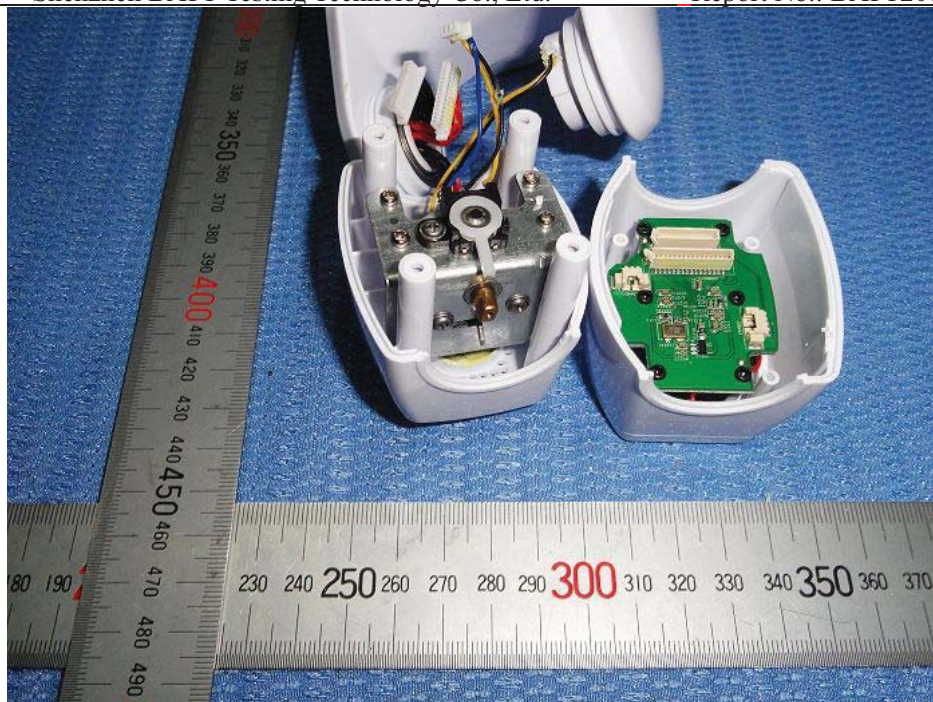


Photo 20

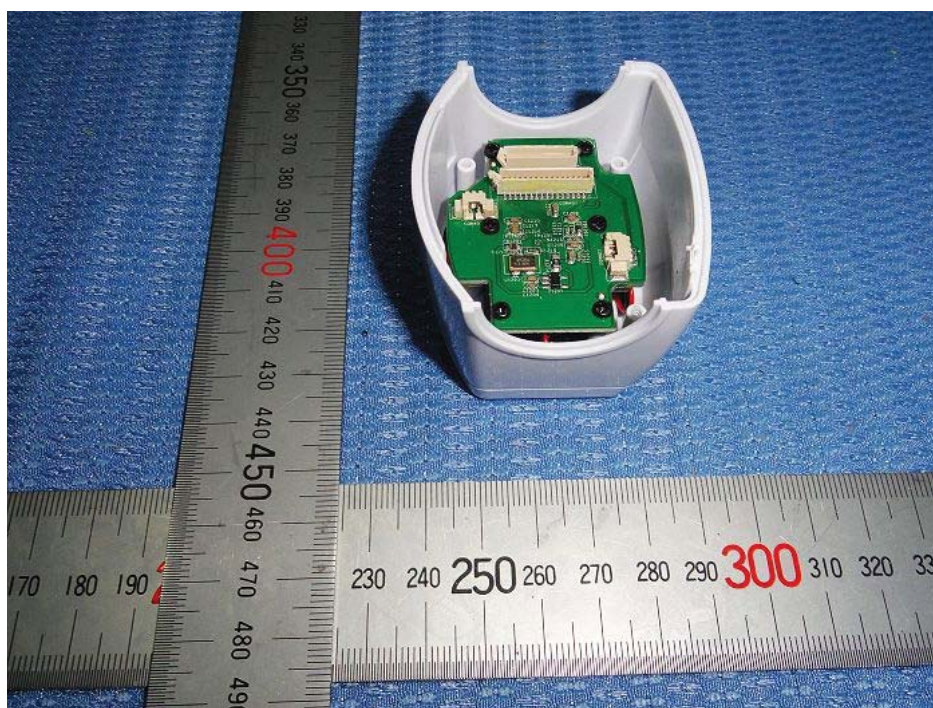


Photo 21



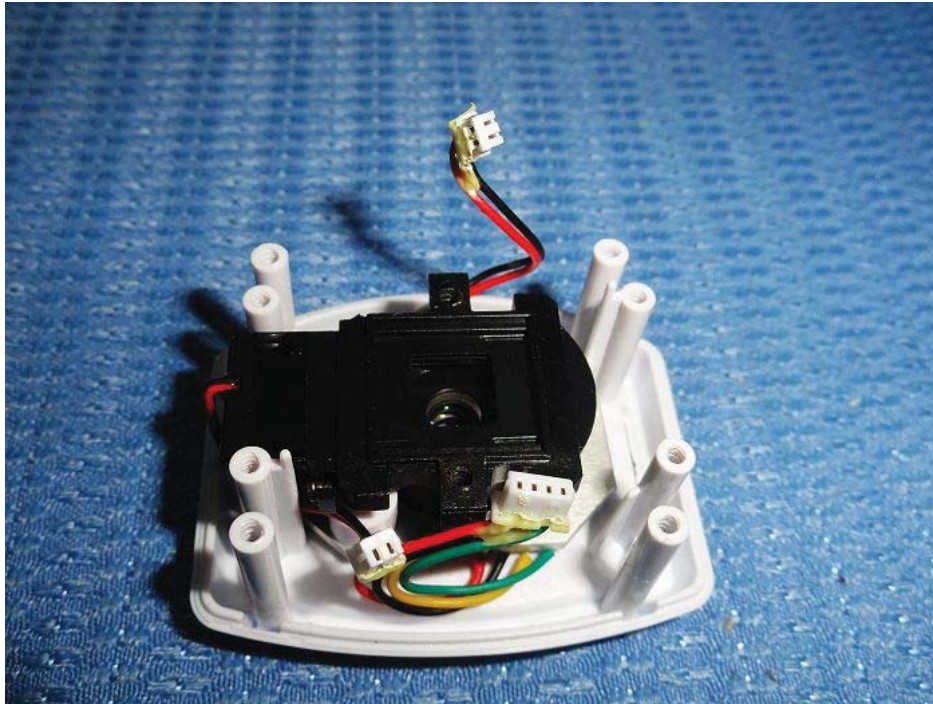


Photo 24



Photo 25

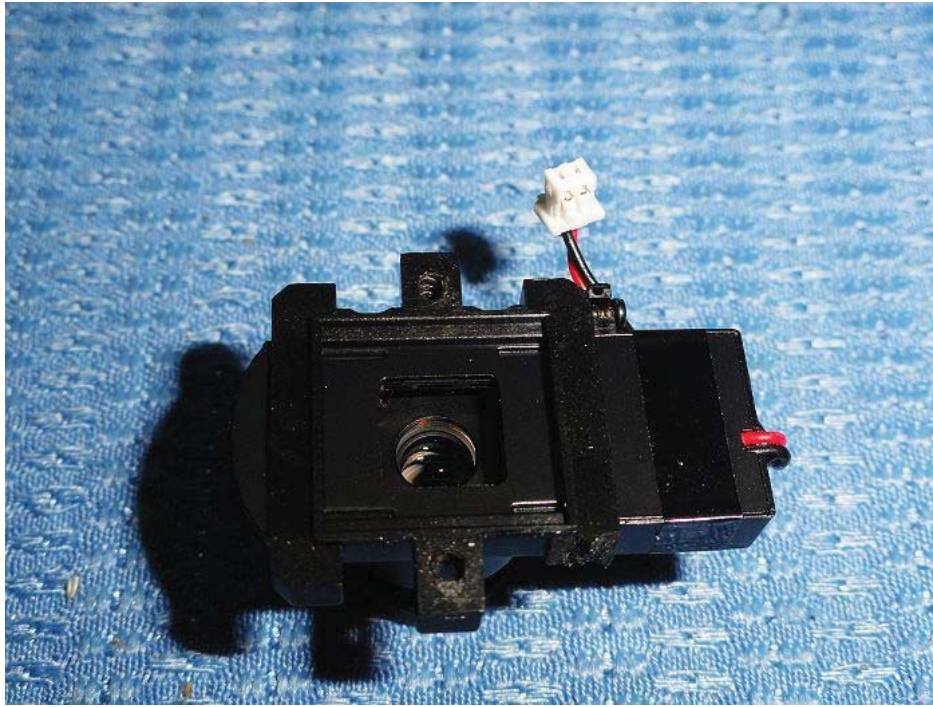


Photo 26

The Report End