

APPLICATION FOR CERTIFICATION

On Behalf of

ASUSTek Computer INC.

300Mbps Wireless ADSL Modem Router

Model No. : DSL-N12U

Brand : ASUS

FCC ID : MSQDSL12U

Prepared for

**ASUSTek Computer INC.**

No.15, Li-Te Rd., Peitou, Taipei 112, Taiwan

Prepared by

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Report Number : ACWE-F1105001

Date of Test : Apr.11~May 31, 2011

Date of Report : May 31, 2011

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## TEST REPORT CERTIFICATION

Applicant : ASUSTek Computer INC.  
 Manufacturer : Askey Technology (Jiangsu) Ltd.  
 EUT Description : 300Mbps Wireless ADSL Modem Router  
 FCC ID : MSQDSL N12U  
 (A) Model No. : DSL-N12U  
 (B) Brand : ASUS  
 (C) Power Supply : DC 12V, 1.5A  
 (D) TEST VOLTAGE : AC 120V, 60Hz (Via Adapter)

Applicable Standards:

FCC RULES AND REGULATIONS PART 15 SUBPART C, Oct. 2010  
 ANSI C63.10/2009

The device described above was tested by Audix Technology (Wujiang) Co., Ltd. EMC Dept. to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C section 15.207, 15.205, 15.209&15.247 limits.

The measurement results are contained in this test report and Audix Technology (Wujiang) Co., Ltd. EMC Dept. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Wujiang) Co., Ltd. EMC Dept.

Date of Test: Apr.11~May 31, 2011

Date of Report: Mar 31, 2011

Prepared by :   
 (Candy Tang/Senior Assistant)

Reviewer :   
 (Kin Lin/Deputy Manager)

Approved & Authorized Signer :   
 (Allen Wang/Senior Manager)

# 1. SUMMARY OF MEASUREMENTS AND RESULTS

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Results
CONDUCTED EMISSION	Section 15.207	PASS
RADIATED EMISSION	Section 15.209& Section 15.205	PASS
6 dB BANDWIDTH	Section 15.247(a)(2)	PASS
MAXIMUM PEAK OUTPUT POWER	Section 15.247(b)(3)	PASS
BAND EDGES	Section 15.247(d)	PASS
POWER SPECTRAL DENSITY	Section 15.247(e)	PASS
EMISSION LIMITATIONS	Section 15.247(d)	PASS
MPE CALCULATION	Part 2: Section 2.1091	PASS

Note1: Pre-scan has been conducted to determine the worst-case mode from all available data rates. Following data rates was selected for the final test as listed below.

Mode	Data Rate (Mbps)
802.11b	5.5
802.11g	6
802.11n HT20	MCS3 26
802.11n HT40	MCS6 121.5

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description	:	300Mbps Wireless ADSL Modem Router
Model No.	:	DSL-N12U
FCC ID	:	MSQDSLNI2U
Brand	:	ASUS
Applicant	:	ASUSTek Computer INC. No.15, Li-Te Rd., Peitou, Taipei 112, Taiwan
Manufacturer	:	Askey Technology (Jiangsu) Ltd. No.1388, Jiao Tong Road, Wujiang Economic -Technological Development Area, Jiangsu Province, P.R.C.
Radio Technology	:	DSSS & OFDM
Antenna Gain	:	5.0dBi
Type of Network	:	IEEE 802.11b/g/n
Fundamental Range	:	2412MHz ~ 2462MHz 2422MHz ~ 2452MHz
Tested Frequency	:	IEEE 802.11b/g/n(HT 20) 2412 MHz(Channel 1) 2437MHz (Channel 6) 2462 MHz(Channel 11) IEEE 802.11n (HT 40) 2422 MHz(Channel 3) 2437MHz (Channel 6) 2452 MHz(Channel 9)
Date of Receipt of Sample	:	Apr.06, 2011
Date of Test	:	Apr.11~May 31, 2011

## 2.1.1. Differences of Samples

Sample No. Difference	#1	#2	#3	#4
DC In	Y	Y	Y	Y
RJ-45	Y	Y	Y	Y
RJ-11	Y	Y	Y	Y
USB	Y	Y	Y	Y
Transformer	EP-025DG	EP-132DG	LAL2009	EP-025DG
Flash	8M(flash on the front of the PCB )	8M(flash on the front of the PCB )	8M(flash on the front of the PCB )	16M(flash on the back of the PCB )
Layout	Same			
Appearance	Same			
Adapter	Same			
Note: According to the FCC DoC Report (EM-F1000427), the Sample #1 is the worst sample and it is tested in this report.				

## 2.2. EUT's Configuration under Test

List of Interface Ports of EUT	:	DC In Port×1 RJ-45 LAN Port ×4 RJ-11 Telecom Port ×1 USB Port ×1
RJ-45 Cable	:	Unshielded, Detachable, 20m
RJ-45 Cable	:	Unshielded, Detachable, 1.5m
RJ-11 Cable	:	Unshielded, Detachable, 20m
I.T.E Power Supply #1	:	Brand: AMIGO M/N: AMS3-1201500FU Input: AC 100-240V, 50-60Hz, 0.5A Output: DC 12V, 1.5A DC Cord: Unshielded, Undetachable, 1.5m
I.T.E Power Supply #2	:	Brand: LEI M/N: MU18-D120150-A1 Input: AC 100-240V, 50-60Hz, 0.6A Output: DC 12V, 1.5A DC Cord: Unshielded, Undetachable, 1.83m

## 2.3. Operating Condition of EUT

2.3.1. Set up the EUT as test setup diagram.

2.3.2. For conducted or radiated emission measurement, setup the EUT as the test condition; turn on all the equipment, Drive the test software “QA\_RT3052-V1.0.1.6”, let EUT operate normal activity.

2.3.3. For other measurement items, keep the EUT powered by AC adapter, Drive the test software “QA\_RT3052-V1.0.1.6”, let the EUT operate wireless TX activity under measurement.

## 2.4. Description of Test Facility

Name of Firm	:	<b>Audix Technology (Wujiang) Co., Ltd. EMC Dept.</b>
Site Location	:	No. 1289 Jiangxing East Road, the Eastern Part of Wujiang Economic Development Zone Jiangsu China 215200
Test Facilities	:	<b>No.1 3m semi-anechoic chamber</b> Valid date until on Aug. 20, 2012 Registration No.: 897661 <b>No. 1 conducted shielding enclosure</b>
NVLAP Lab Code	:	200786-0 (NVLAP is a NATA accredited body under Mutual Recognition Agreement) Valid date until on Sep.30, 2011
DAR-Registration No.	:	DAT-P-264/07-00 Valid date until on Dec.14, 2012

## 2.5. Measurement Uncertainty

Test Item	Range Frequency	Uncertainty
Conducted Disturbance Measurement	0.15MHz ~ 30MHz	± 2.76dB
Radiated Disturbance Measurement (At 3m Chamber)	30MHz ~ 1000MHz	± 4.56dB
	Above 1GHz	± 4.55dB

Remark: Uncertainty =  $ku_c(y)$

Test Item	Uncertainty
6 dB Bandwidth	± $2.8 \times 10^{-6}$ MHz
Maximum Peak Output Power	± 0.33dB
Band Edges	± 0.208dB
Power Spectral Density	± 0.34dB
Emission Limitations	± 0.208dB
Temperature	±0.416
Humidity	±3.16%

Remark: Uncertainty =  $ku_c(y)$

## 2.6. Antenna System

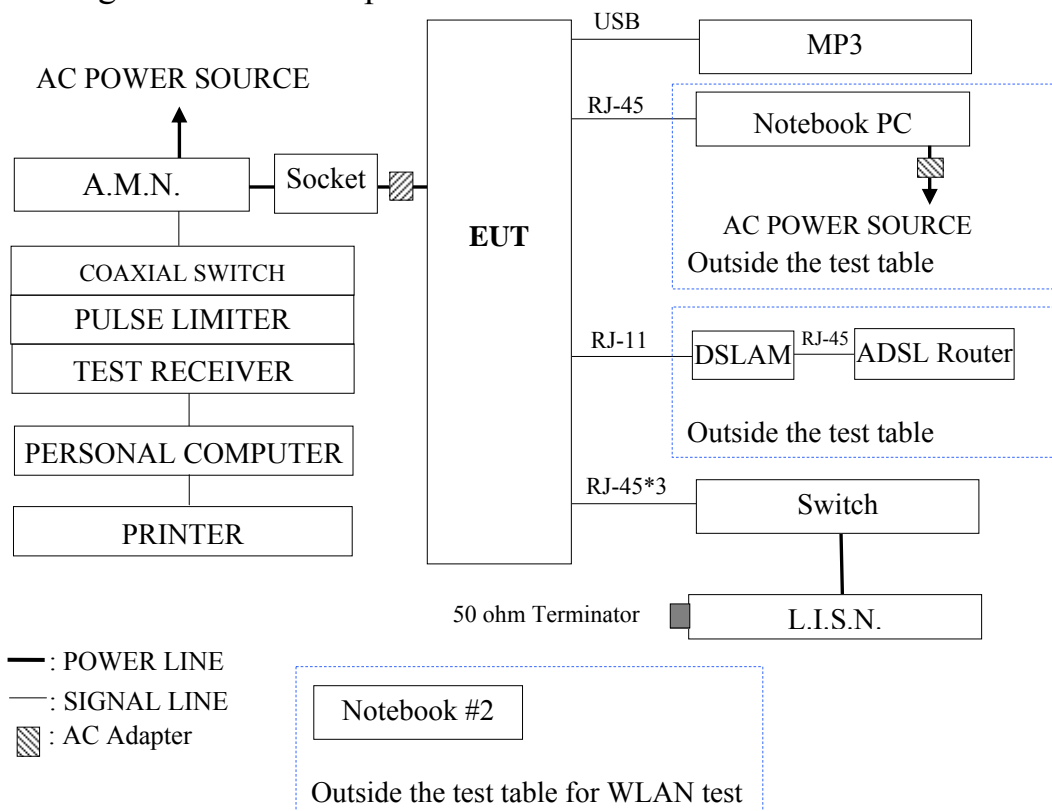
The EUT antenna is dipole antenna system. The antennas connect to the EUT via a MHF antenna connector, there by meeting the requirements of FCC 15.203.

### 3. CONDUCTED EMISSION MEASUREMENT

#### 3.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESCI	100352	2011-01-05	2012-01-04
2.	A.M.N	R & S	ESH2-Z5	100153	2011-03-25	2012-03-24
3.	L.I.S.N.	Kyoritsu	KNW-407	8-1793-4	2010-08-11	2011-08-10
4.	Pulse Limiter	R&S	ESH3-Z2	100605	2010-08-11	2011-08-10
5.	50Ω Coaxial Switch	Anritsu	MP59B	6200547934	2010-08-14	2011-08-13
6.	50ohm Terminator	N/A	N/A	N/A	2011-03-25	2012-03-24
7.	RF Cable	Harbour Industries	RG400	002	2010-08-14	2011-08-13

#### 3.2. Block Diagram of Test Setup



#### 3.3. Power line Conducted Emission Limit (FCC Part15 section 15.207)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV
500kHz ~ 5MHz	56 dBμV	46 dBμV
5MHz ~ 30MHz	60 dBμV	50 dBμV

Remark1: If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2: The lower limit applies at the band edges.



### 3.4. Test Procedure

The measuring process is according to ANSI C63.10 and laboratory internal procedure TKC-301-015.

In the conducted emission measurement, the EUT and all peripheral devices were set up on a non-metallic table which was 0.8 meters height above the ground plane, and 0.4 meters far away from the vertical plane. The EUT (installed in PC system) was powered by AC mains through Artificial Mains Network (A.M.N), other peripheral devices were powered by AC mains through the second Line Impedance Stabilization Network (L.I.S.N). For the measurement, the A.M.N measuring port was terminated by a 50Ω measuring equipment and the second L.I.S.N measuring port was terminated by a 50Ω resistive load. All measurements were done on the phase and neutral line of the EUT’s power cord. All cables or wires placement were verified to find out the maximum emission.

The bandwidth of measuring receiver was set at 9 kHz.

The required frequency band (0.15 MHz ~ 30 MHz) was pre-scanned with peak detector, the final measurement was measured with quasi-peak detector and average detector. (If the average limit is met when using a quasi-peak detector, the average detector is necessary).

The emission level is calculated automatically by the test system which uses the following equation:

$$\text{Emission level (dB}\mu\text{V)} = \text{Meter-Reading (dB}\mu\text{V)} + \text{A.M.N factor (dB)} + \text{Cable loss (dB)}.$$

(Cable loss include pulse limiter loss)

### 3.5. Conducted Emission Measurement Results

**PASSED.**

(All the emissions not reported below are too low against the prescribed limits.)

The EUT selected the worst test mode (EUT Type #1/LEI Adapter) to read Q.P. and Average values, the test data are listed in next pages.

Test Date : Apr. 13, 2011      Temperature : 17.8      Humidity : 44%

Mode	Test Condition	Reference Test Data No.	
		Neutral	Line
1	Ping Test	# 28	# 29

NOTE - The worst emission is detected at 0.19 MHz with emission level of 53.82dB (μV) with AV detector (limit is 63.92dB (μV)), when the Line of the EUT is connected to A.M.N.

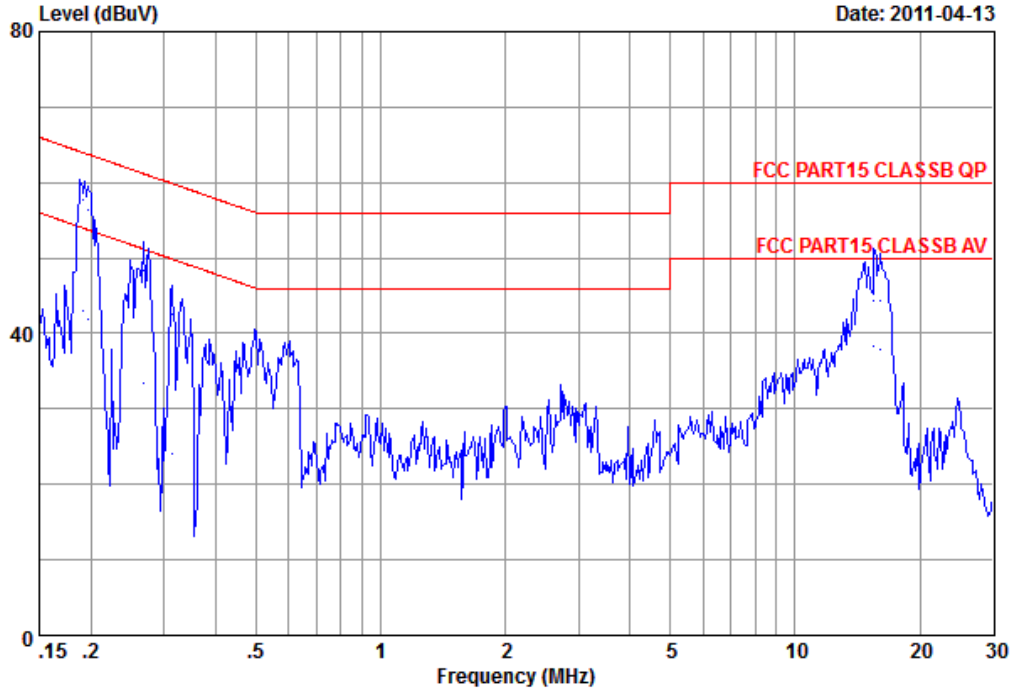


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Data: 28

File: F:\2011Test Data\Report\G1104001-G1104050\G1104020.EM6 (50)

Date: 2011-04-13



Site no. : NO.1 Conduented Shielding Enclosurse Data no. : 28  
 AMN/LISN : ESH2-Z5(110325) Phase : NEUTRAL  
 Limit : FCC PART15 CLASSB QP  
 Env. / Ins. : 17.8\*C&44%/ESCI Engineer : Kevin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating : 120Vac/60Hz  
 Test mode : Ping Test  
 Memo : #1  
 : Adapter:LEI(M/N:MU18-D120150-A1)

Freq (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.19	0.12	9.85	47.70	57.67	63.99	6.32 QP
2	0.19	0.12	9.85	33.00	42.97	53.99	11.02 Average
3	0.20	0.12	9.85	31.90	41.87	53.78	11.91 Average
4	0.20	0.12	9.85	46.40	56.37	63.78	7.41 QP
5	0.27	0.13	9.84	23.40	33.37	51.18	17.81 Average
6	0.27	0.13	9.84	38.30	48.27	61.18	12.91 QP
7	0.31	0.13	9.84	32.50	42.47	59.89	17.42 QP
8	0.31	0.13	9.84	14.10	24.07	49.89	25.82 Average
9	15.47	0.81	9.92	33.61	44.34	60.00	15.66 QP
10	15.47	0.81	9.92	27.61	38.34	50.00	11.66 Average
11	16.05	0.80	9.93	27.20	37.93	50.00	12.07 Average
12	16.05	0.80	9.93	33.60	44.33	60.00	15.67 QP

Note: 1. Emission Level= AMN Factor + Cabel Loss + Reading.  
 2. If the average Limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

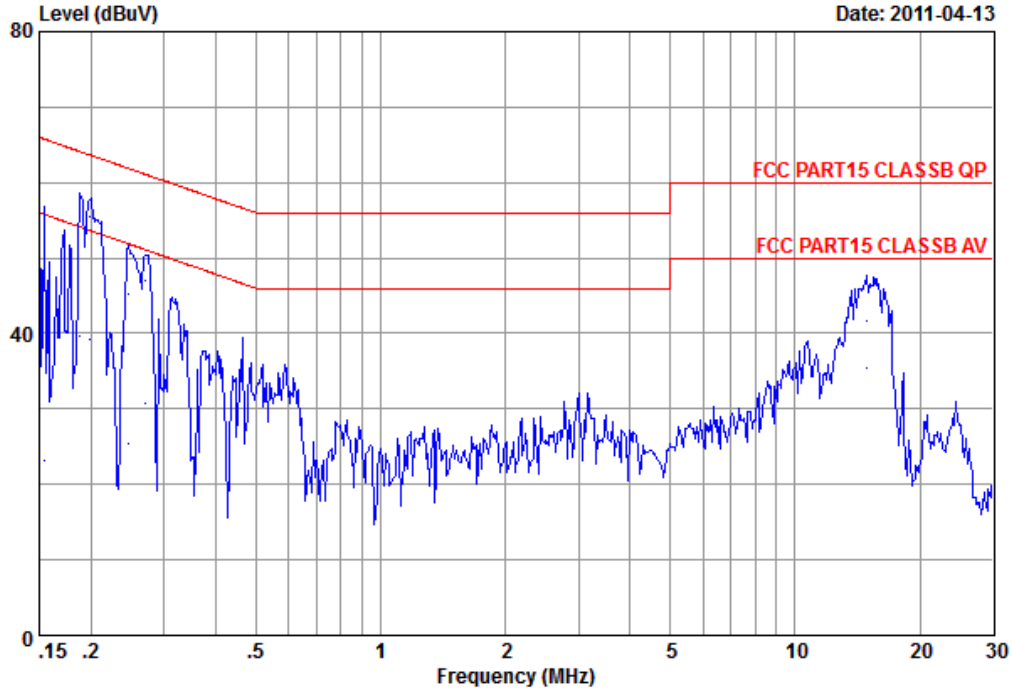


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Data: 29

File: F:\2011Test Data\Report\G1104001-G1104050\G1104020.EM6 (50)

Date: 2011-04-13



Site no. : NO.1 Conduented Shielding Enclosurse Data no. : 29  
 AMN/LISN : ESH2-Z5(110325) Phase : LINE  
 Limit : FCC PART15 CLASSB QP  
 Env. / Ins. : 17.8\*C&44%/ESCI Engineer : Kevin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating : 120Vac/60Hz  
 Test mode : Ping Test  
 Memo : #1  
 : Adapter:LEI(M/N:MU18-D120150-A1)

	Freq (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15	0.23	9.85	35.50	45.58	65.78	20.20	QP
2	0.15	0.23	9.85	13.10	23.18	55.78	32.60	Average
3	0.19	0.25	9.85	46.69	56.79	64.12	7.33	QP
4	0.19	0.25	9.85	29.59	39.69	54.12	14.43	Average
5	0.20	0.25	9.85	45.30	55.40	63.65	8.25	QP
6	0.20	0.25	9.85	29.20	39.30	53.65	14.35	Average
7	0.25	0.25	9.84	35.21	45.30	61.89	16.59	QP
8	0.25	0.25	9.84	15.31	25.40	51.89	26.49	Average
9	0.27	0.26	9.84	36.90	47.00	61.12	14.12	QP
10	0.27	0.26	9.84	20.60	30.70	51.12	20.42	Average
11	14.82	0.95	9.92	30.70	41.57	60.00	18.43	QP
12	14.82	0.95	9.92	24.50	35.37	50.00	14.63	Average

Note: 1. Emission Level= AMN Factor + Cabel Loss + Reading.  
 2. If the average Limit is met when using a quasi-peak detector,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

## 4. RADIATED EMISSION MEASUREMENT

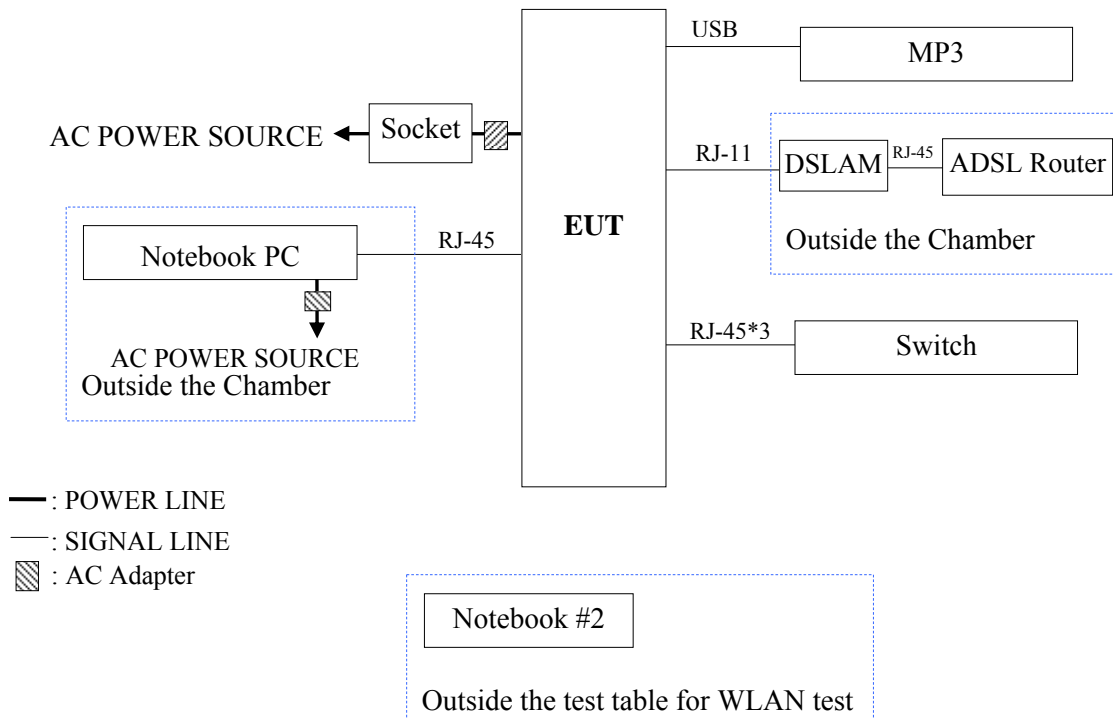
### 4.1. Test Equipment

The following test equipment was used during the radiated emission measurement:  
At 3m Semi-Anechoic Chamber

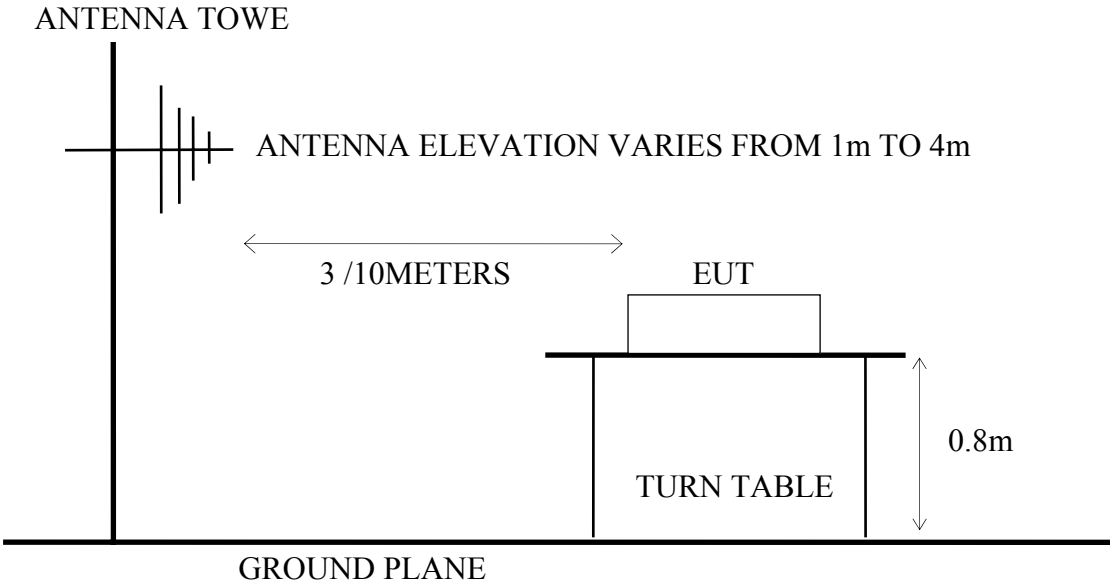
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Preamplifier	Agilent	8449B	2944A10921	2010-08-14	2011-08-13
2.	Spectrum Analyzer	Agilent	E4447A	MY45300136	2011-01-08	2012-01-07
3.	Bi-log Antenna	Schaffner	CBL6112D	22251	2010-05-05	2011-05-04
4.	Test Receiver	R&S	ESCI	100361	2011-01-05	2012-01-04
5.	50Ω Coaxial Switch	Anritsu	MP59B	6200547935	2010-08-14	2011-08-13
6.	RF Cable #1	Yuhang CSYH	cable-3m	001 (Length: 0.5m)	2010-08-14	2011-08-13
7.	RF Cable #2	Yuhang CSYH	cable-3m	002 (Length: 0.5m)	2010-08-14	2011-08-13
8.	RF Cable #3	Yuhang CSYH	cable-3m	003 (Length: 3.0m)	2010-08-14	2011-08-13

### 4.2. Block Diagram of Test Setup

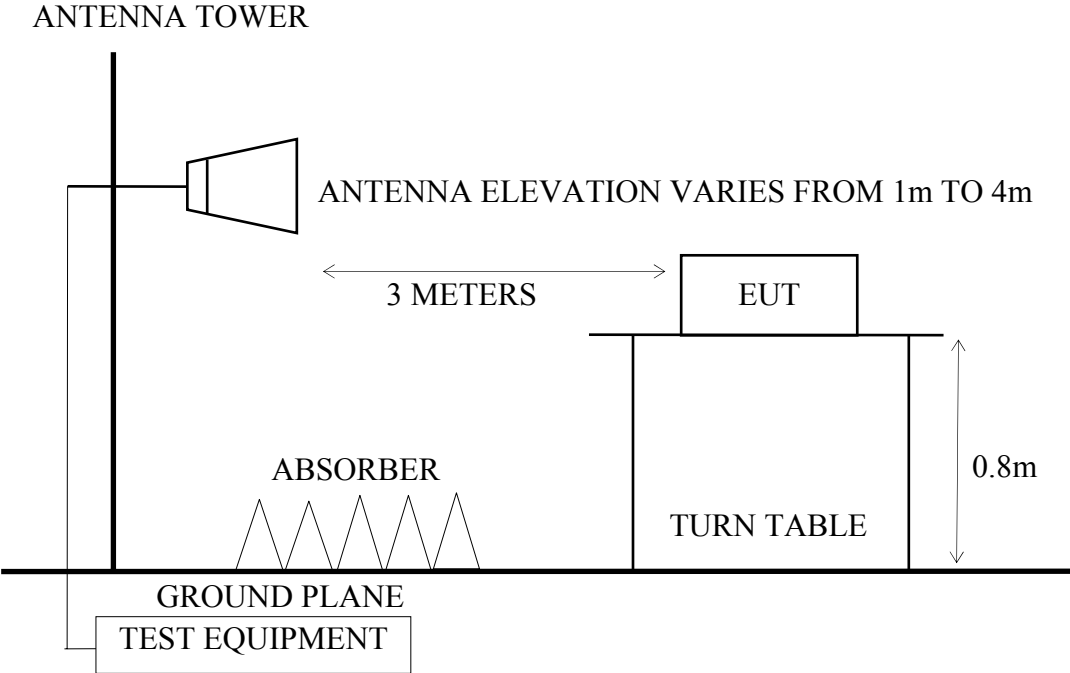
#### 4.2.1. Block Diagram of Test Setup between EUT and simulators



4.2.2.No. 1 10/3m Semi-Anechoic Chamber Setup Diagram for 30-1000MHz (Distance: 3/10m)



4.2.3.No. 1 10/3m Semi-Anechoic Chamber Setup Diagram for above 1GHz



4.3. Radiated Emission Limits (FCC Part15 section 15.109(a)(g))

Frequency MHz	Distance Meters	Field Strengths Limits
		dB $\mu$ V/m
30~230	10	30
230~1000	10	37
Above 1000	3	74.0 dB $\mu$ V/m (Peak) 54.0 dB $\mu$ V/m (Average)

- Remark: 1. The tighter limit applies at the edge between two frequency bands.  
 2. Distance refers to the distance in meters between the measuring instrument antenna and closed point of any part of the EUT.  
 3. There is no over 1GHz limits in CISPR 22/1997 standard. Therefore, a FCC Limit is used based on CFR 47 part 15.35 (b) and Part 15.109 (a)(g).

#### 4.4. Radiated Emission Limits (FCC Part15 section 15.209)

Frequency MHz	Distance Meters	Field Strengths Limits	
		$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
Above 1000	3	74.0 $\text{dB}\mu\text{V/m}$ (Peak) 54.0 $\text{dB}\mu\text{V/m}$ (Average)	

Remark : (1) Emission level ( $\text{dB}\mu\text{V/m}$ ) = 20 log Emission level ( $\mu\text{V/m}$ )  
 (2) The tighter limit applies at the edge between two frequency bands.

#### 4.5. Test Procedure

The measuring process is according to ANSI C63.10 and laboratory internal procedure TKC-301-024.

In the radiated disturbance measurement, the EUT and all simulators were set up on a non-metallic turn table which was 0.8 meters above the ground plane. Measurement distance between EUT and receiving antennas was set at 10 meters at 30MHz~1000MHz and 3 meters at above 1GHz. The specified distance is the distance between the antennas and the closest periphery of EUT. During the radiated measurement, the EUT was rotated 360° and receiving antennas were moved from 1 ~ 4 meters for finding maximum emission. Two receiving antennas were used for both horizontal and vertical polarization detection for 30MHz~1GHz, One receiving antennas was used for both horizontal and vertical polarization detection for above 1GHz (the absorbing material was added when testing of above 1GHz was done). All cables or wires placement were verified to find out the maximum emission.

The bandwidth of measuring receiver (or spectrum analyzer) was set to:

RBW (120 kHz), VBW (300 kHz) for QP detector below 1GHz  
 RBW (1 MHz), VBW (1MHz) for Peak detector above 1GHz  
 RBW (1 MHz), VBW (10 Hz) for Average detector above 1GHz

The required frequency band was pre-scanned with peak detector; all final measurements were measured with quasi-peak detector below 1GHz, measured with average detector and peak detector above 1GHz.

The emission level is calculated automatically by the test system which uses the following equation :

- For 30-1000MHz measurement:  
 Emission Level ( $\text{dB}\mu\text{V/m}$ ) = Meter-Reading ( $\text{dB}\mu\text{V}$ )+Antenna Factor ( $\text{dB/m}$ )+Cable Loss ( $\text{dB}$ )
- For Above 1GHz measurement:  
 Emission Level ( $\text{dB}\mu\text{V/m}$ ) = Meter-Reading ( $\text{dB}\mu\text{V}$ )+Antenna Factor ( $\text{dB/m}$ )+Cable Loss( $\text{dB}$ )  
 -Pre-amplifier factor ( $\text{dB}\mu\text{V}$ )

4.6. Measurement Results

**PASSED**

(All the emissions not reported below are too low against the prescribed limits.)

4.6.1. For 30MHz~1GHz

Test Date : Apr.12, 2011                      Temperature : 20.2                      Humidity : 47%

The EUT selected the worst test mode (EUT Type #1/AMIGO Adapter) to read Q.P. values, the test data are listed in next pages.

Mode	Test Condition	Reference Test Data No.	
		Horizontal	Vertical
1	Ping Test	# 25	# 26

4.6.2. For Above 1GHz

Test Date : Apr.12, 2011                      Temperature : 20.2                      Humidity : 47%

The details of test modes and reference test data are as follows :

Mode	Test Condition	Reference Test Data No.	
		Horizontal	Vertical
1	Ping Test	# 35	# 36

4.6.3. For Restricted Bands:

The EUT with following test modes were performed during this section testing and all the test results are listed in section 4.7.

No.	Test Mode and Frequency		
1.	Transmitting	802.11b Ant.0/1	2412MHz (Channel 1)
2.			2437MHz (Channel 6)
3.			2462MHz (Channel 11)
4.		802.11g Ant.0/1	2412MHz (Channel 1)
5.			2437MHz (Channel 6)
6.			2462MHz (Channel 11)
7.		802.11n HT20	2412MHz (Channel 1)
8.			2437MHz (Channel 6)
9.			2462MHz (Channel 11)
10.		802.11n HT40	2422MHz (Channel 3)
11.			2437MHz (Channel 6)
12.			2452MHz (Channel 9)

## 4.6.4. For Band Edge Emission

The EUT was tested in restricted bands and all the test results are listed in section 4.8. (The restricted bands defined in part 15.205(a))

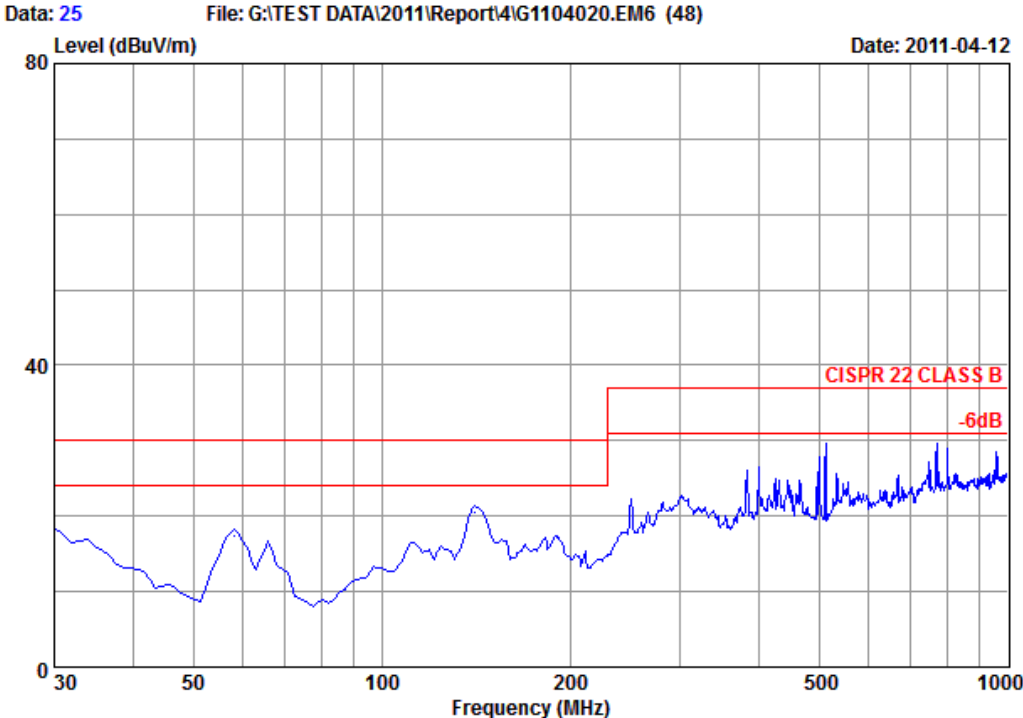
No.	Test Mode and Frequency		Reference Test Data No.		
			Horizontal	Vertical	
1.	Transmitting	802.11b Ant.0	2412MHz (Channel 1)	# 1, # 3	# 2, # 4
2.			2462MHz (Channel 11)	# 9, # 11	# 10, # 12
3.		802.11b Ant.1	2412MHz (Channel 1)	# 5, # 7	# 6, # 8
4.			2462MHz (Channel 11)	# 13, # 15	# 14, # 16
5.		802.11g Ant.0	2412MHz (Channel 1)	# 18, # 22	# 23, # 24
6.			2462MHz (Channel 11)	# 29, # 30	# 31, # 32
7.		802.11g Ant.1	2412MHz (Channel 1)	# 17, # 19	# 20, # 21
8.			2462MHz (Channel 11)	# 25, # 26	# 27, # 28
9.		802.11n HT20	2412MHz (Channel 1)	# 34, # 49	# 33, # 50
10.			2462MHz (Channel 11)	# 38, # 51	# 37, # 52
11.		802.11n HT40	2422MHz (Channel 3)	# 42, # 53	# 41, # 54
12.			2452MHz (Channel 9)	# 46, # 55	# 45, # 56



4.6.5. Radiated Emission Measurement Results  
For 30MHz~1GHz



Audix Technology(Wujiang)Co.,Ltd.  
No.1289,Jiang Xing East Road,Eastern Part of WuJiang  
Economic Development Zone,JiangSu,China  
Tel:0512-63403993 Fax:0512-63403339



Site No. : NO.1 10m Semi-Anechoic Chamber Data NO. : 25  
 Dis./Ant. : 10m BI-LOG 6112D(22253) Ant.pol : HORIZONTAL  
 Env./Ins. : 20.2\*C47%/ESCI Engineer : Kevin  
 EUT. : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating : 120Vac/60Hz  
 Test Mode : Ping Test  
 Memo : #1  
 : Adapter:AMIGO(M/N:AMS3-1201500FU)

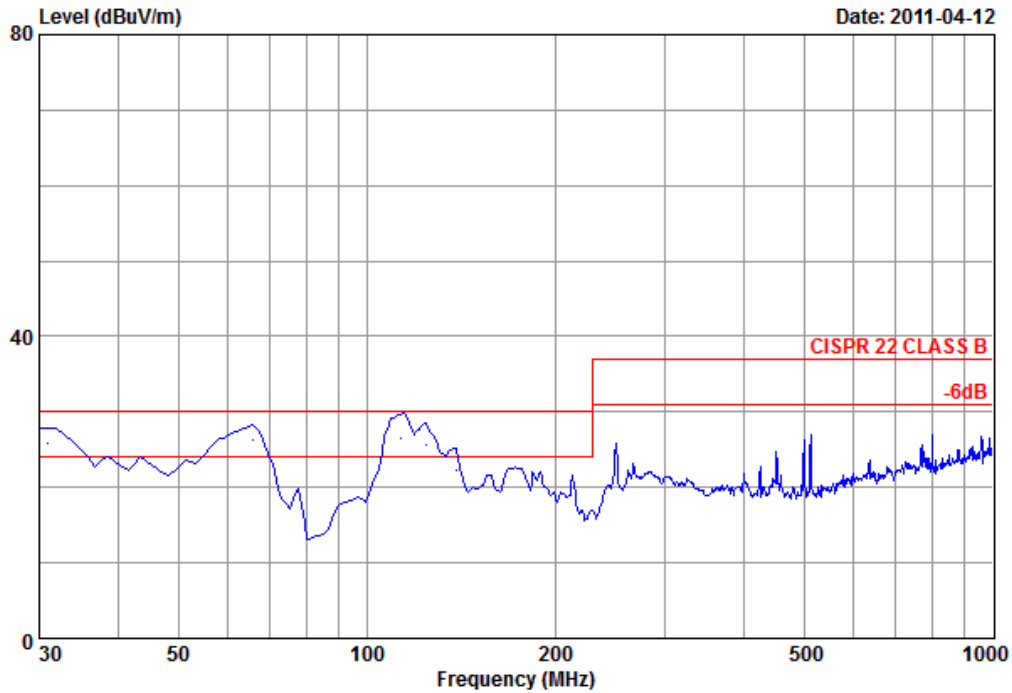
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	58.13	6.60	1.03	9.70	17.33	30.00	12.67	QP
2	140.58	11.70	1.68	7.08	20.46	30.00	9.54	QP
3	400.54	16.10	2.80	6.71	25.61	37.00	11.39	QP
4	499.48	17.64	3.33	5.81	26.78	37.00	10.22	QP
5	512.09	17.28	3.14	8.21	28.63	37.00	8.37	QP
6	769.14	20.58	4.08	3.92	28.58	37.00	8.42	QP

Remarks: 1.Emission Level= Antenna factor + Cable loss + Reading  
 2.The emission level that are 20dB below the official limit are not reported



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Data: 26 File: G:\TEST DATA\2011\Report4\G1104020.EM6 (48)



Site No. : NO.1 10m Semi-Anechoic Chamber Data NO. : 26  
 Dis./Ant. : 10m BI-LOG 6112D(22252) Ant.pol : VERTICAL  
 Env./Ins. : 20.2\*C47%/ESCI Engineer : Kevin  
 EUT. : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating : 120Vac/60Hz  
 Test Mode : Ping Test  
 Memo : #1  
 Adapter: AMIGO(M/N: AMS3-1201500FU)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.97	19.00	0.64	6.23	25.87	30.00	4.13	QP
2	65.89	6.30	0.92	19.12	26.34	30.00	3.66	QP
3	113.63	12.00	1.11	13.50	26.61	30.00	3.39	QP
4	124.09	12.60	1.20	11.83	25.63	30.00	4.37	QP
5	138.64	11.10	1.31	9.81	22.22	30.00	7.78	QP
6	512.09	17.66	2.82	4.38	24.86	37.00	12.14	QP

Remarks: 1.Emission Level= Antenna factor + Cable loss + Reading  
 2.The emission level that are 20dB below the official limit are not reported

**For Above 1GHz**

Data of Test: Apr. 12, 2011

Ambient temperature: 20.2      Relative humidity: 47%

Test mode: Ping Test

Data Number: #35

**Peak:**

Frequency (MHz)	Antenna Polarization	Emission Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)
4828	Horizontal	53.37	74.00	20.63
7831	Horizontal	56.81	74.00	17.19

Note 1. : All the emissions (up to 12GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Average**

Frequency (MHz)	Antenna Polarization	Emission Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)
4828	Horizontal	43.05	54.00	10.95
7831	Horizontal	46.72	54.00	7.28

Note 1. : All the emissions (up to 12 GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Data of Test: Apr. 12, 2011

Ambient temperature: 20.2      Relative humidity: 47%

Test mode: Ping Test

Data Number: #36

**Peak:**

Frequency (MHz)	Antenna Polarization	Emission Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)
4828	Vertical	58.55	74.00	15.45
7886	Vertical	57.10	74.00	16.90

Note 1. : All the emissions (up to 12GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Average:**

Frequency (MHz)	Antenna Polarization	Emission Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)
4828	Vertical	47.15	54.00	6.85
7886	Vertical	46.89	54.00	7.11

Note 1. : All the emissions (up to 12GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

## 4.7. For Restricted Bands

### 4.7.1.Type of Network: IEEE 802.11b Ant.0

Data of Test: Apr.19, 2011

Ambient temperature: 20.9

Relative humidity: 48%

#### Test Frequency band: TX 2412MHz

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1391	Horizontal	40.35	74	33.65	Peak
1646	Horizontal	44.62	74	29.38	Peak
1901	Horizontal	45.57	74	28.43	Peak
3091	Horizontal	48.28	74	25.72	Peak
4417	Horizontal	51.61	74	22.39	Peak
5896	Horizontal	52.4	74	21.60	Peak
4417	Horizontal	40.11	54	13.89	Average
5896	Horizontal	42.37	54	11.63	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.26	74	30.74	Peak
1901	Vertical	44.73	74	29.27	Peak
3210	Vertical	50.21	74	23.79	Peak
4366	Vertical	51.63	74	22.37	Peak
4825	Vertical	52.47	74	21.53	Peak
4366	Vertical	40.64	54	13.36	Average
4825	Vertical	41.83	54	12.17	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

#### Test Frequency band: TX 2437MHz

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.3	74	29.70	Peak
1901	Horizontal	45.42	74	28.58	Peak
2700	Horizontal	45.6	74	28.40	Peak
3567	Horizontal	49.43	74	24.57	Peak
3907	Horizontal	50.42	74	23.58	Peak
4502	Horizontal	51.84	74	22.16	Peak
3907	Horizontal	40.54	54	13.46	Average
4502	Horizontal	42.33	54	11.67	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	44.63	74	29.37	Peak
1901	Vertical	44.48	74	29.52	Peak
2445	Vertical	45.92	74	28.08	Peak
3227	Vertical	50.86	74	23.14	Peak
4366	Vertical	51.77	74	22.23	Peak
5981	Vertical	52.88	74	21.12	Peak
4366	Vertical	41.89	54	12.11	Average
5981	Vertical	42.98	54	11.02	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

#### Test Frequency band: TX 2462MHz

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	43.93	74	30.07	Peak
1782	Horizontal	42.92	74	31.08	Peak
1901	Horizontal	45.08	74	28.92	Peak
3737	Horizontal	50.17	74	23.83	Peak
4451	Horizontal	51.44	74	22.56	Peak
5981	Horizontal	52.17	74	21.83	Peak
4451	Horizontal	40.94	54	13.06	Average
5981	Horizontal	43.23	54	10.77	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	42.75	74	31.25	Peak
1901	Vertical	45.61	74	28.39	Peak
2700	Vertical	45.29	74	28.71	Peak
3516	Vertical	49.85	74	24.15	Peak
4400	Vertical	51.7	74	22.30	Peak
4791	Vertical	51.35	74	22.65	Peak
4400	Vertical	40.63	54	13.37	Average
4791	Vertical	41.56	54	12.44	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

## 4.7.2.Type of Network : IEEE 802.11b Ant.1

Data of Test: Apr.19, 2011

Ambient temperature: 20.9

Relative humidity: 48%

**Test Frequency band: TX 2412MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	43.8	74	30.20	Peak
1901	Horizontal	45.65	74	28.35	Peak
2666	Horizontal	45.54	74	28.46	Peak
3550	Horizontal	49.12	74	24.88	Peak
4485	Horizontal	51.81	74	22.19	Peak
6117	Horizontal	52.87	74	21.13	Peak
4485	Horizontal	40.38	54	13.62	Average
6117	Horizontal	41.66	54	12.34	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1391	Vertical	41.23	74	32.77	Peak
1646	Vertical	43.24	74	30.76	Peak
1901	Vertical	44.87	74	29.13	Peak
2717	Vertical	45.4	74	28.60	Peak
4026	Vertical	50.76	74	23.24	Peak
4026	Vertical	40.15	54	13.85	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Test Frequency band: TX 2437MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.7	74	29.30	Peak
1901	Horizontal	45.14	74	28.86	Peak
2190	Horizontal	43.72	74	30.28	Peak
2700	Horizontal	45.63	74	28.37	Peak
3941	Horizontal	50.9	74	23.10	Peak
5675	Horizontal	51.64	74	22.36	Peak
3941	Horizontal	40.35	54	13.65	Average
5675	Horizontal	41.18	54	12.82	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.94	74	30.06	Peak
1901	Vertical	44.83	74	29.17	Peak
2445	Vertical	45.39	74	28.61	Peak
4026	Vertical	50.78	74	23.22	Peak
4655	Vertical	53.16	74	20.84	Peak
5437	Vertical	51.25	74	22.75	Peak
4655	Vertical	42.46	54	11.54	Average
5437	Vertical	41.53	54	12.47	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

#### Test Frequency band: TX 2462MHz

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.13	74	29.87	Peak
1782	Horizontal	42.68	74	31.32	Peak
1901	Horizontal	45.54	74	28.46	Peak
2700	Horizontal	46.3	74	27.70	Peak
4196	Horizontal	51.41	74	22.59	Peak
4587	Horizontal	51.72	74	22.28	Peak
4196	Horizontal	40.39	54	13.61	Average
4587	Horizontal	40.84	54	13.16	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	42.7	74	31.30	Peak
1901	Vertical	44.97	74	29.03	Peak
2700	Vertical	45.64	74	28.36	Peak
3176	Vertical	48.54	74	25.46	Peak
4247	Vertical	50.79	74	23.21	Peak
4621	Vertical	51.81	74	22.19	Peak
4196	Horizontal	42.41	54	11.59	Average
4587	Horizontal	42.32	54	11.68	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.



## 4.7.3.Type of Network : IEEE 802.11g Ant.0

Data of Test: April. 19, 2011

Ambient temperature: 20.9      Relative humidity: 48%

**Test Frequency band: TX 2412MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.43	74	29.57	Peak
1782	Horizontal	42.04	74	31.96	Peak
1901	Horizontal	45.15	74	28.85	Peak
2700	Horizontal	45	74	29.00	Peak
3091	Horizontal	47.61	74	26.39	Peak
4502	Horizontal	51.39	74	22.61	Peak
4502	Horizontal	42.55	54	11.45	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.27	74	30.73	Peak
1782	Vertical	42.94	74	31.06	Peak
1901	Vertical	44.23	74	29.77	Peak
2190	Vertical	45.17	74	28.83	Peak
2921	Vertical	45.85	74	28.15	Peak
3210	Vertical	51.03	74	22.97	Peak
3210	Vertical	42.33	54	11.67	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Test Frequency band: TX 2437MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.22	74	29.78	Peak
1782	Horizontal	42.54	74	31.46	Peak
1901	Horizontal	45.66	74	28.34	Peak
3125	Horizontal	48.02	74	25.98	Peak
3465	Horizontal	48.77	74	25.23	Peak
4587	Horizontal	51.88	74	22.12	Peak
4587	Horizontal	43.65	54	10.35	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	42.82	74	31.18	Peak
1901	Vertical	45.09	74	28.91	Peak
2190	Vertical	45.31	74	28.69	Peak
2700	Vertical	45.79	74	28.21	Peak
3227	Vertical	51.26	74	22.74	Peak
4587	Vertical	51.74	74	22.26	Peak
4587	Vertical	42.58	54	11.42	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Test Frequency band: TX 2462MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1391	Horizontal	41.59	74	32.41	Peak
1646	Horizontal	44.11	74	29.89	Peak
1782	Horizontal	43.49	74	30.51	Peak
1901	Horizontal	45.97	74	28.03	Peak
2190	Horizontal	44.27	74	29.73	Peak
4757	Horizontal	51.21	74	22.79	Peak
4757	Horizontal	42.39	54	11.61	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	42.05	74	31.95	Peak
1782	Vertical	42.77	74	31.23	Peak
1901	Vertical	44.5	74	29.50	Peak
2190	Vertical	43.63	74	30.37	Peak
2700	Vertical	46.11	74	27.89	Peak
3295	Vertical	49.43	74	24.57	Peak
3295	Vertical	40.55	54	13.45	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

## 4.7.4.Type of Network : IEEE 802.11g Ant.1

**Test Frequency band: TX 2412MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	43.64	74	30.36	Peak
1901	Horizontal	44.77	74	29.23	Peak
2411	Horizontal	43.08	74	30.92	Peak
3550	Horizontal	49.76	74	24.24	Peak
4757	Horizontal	52.53	74	21.47	Peak
6117	Horizontal	52.45	74	21.55	Peak
4757	Horizontal	43.38	54	10.62	Average
6117	Horizontal	44.52	54	9.48	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	42.73	74	31.27	Peak
1901	Vertical	44.76	74	29.24	Peak
2700	Vertical	45.03	74	28.97	Peak
3856	Vertical	50.31	74	23.69	Peak
4400	Vertical	51.77	74	22.23	Peak
5675	Vertical	52.58	74	21.42	Peak
3856	Vertical	40.89	54	13.11	Average
4400	Vertical	42.53	54	11.47	Average
5675	Vertical	43.64	54	10.36	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

#### Test Frequency band: TX 2437MHz

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	43.58	74	30.42	Peak
1782	Horizontal	43.01	74	30.99	Peak
1901	Horizontal	45.69	74	28.31	Peak
2292	Horizontal	43.65	74	30.35	Peak
2700	Horizontal	45.44	74	28.56	Peak
4400	Horizontal	52.88	74	21.12	Peak
4400	Horizontal	43.28	54	10.72	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1357	Vertical	39.71	74	34.29	Peak
1646	Vertical	43.84	74	30.16	Peak
1901	Vertical	46.14	74	27.86	Peak
2700	Vertical	45.72	74	28.28	Peak
2955	Vertical	46.28	74	27.72	Peak
4621	Vertical	52.03	74	21.97	Peak
4621	Vertical	43.26	54	10.74	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

#### Test Frequency band: TX 2462MHz

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.6	74	29.40	Peak
1901	Horizontal	45.43	74	28.57	Peak
2700	Horizontal	46.08	74	27.92	Peak
3907	Horizontal	50.79	74	23.21	Peak
4485	Horizontal	51.23	74	22.77	Peak
6236	Horizontal	52.71	74	21.29	Peak
4485	Horizontal	42.68	54	11.32	Average
6236	Horizontal	43.19	54	10.81	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	42.43	74	31.57	Peak
1782	Vertical	41.62	74	32.38	Peak
1901	Vertical	44.7	74	29.3	Peak
2275	Vertical	43.08	74	30.92	Peak
2700	Vertical	45.37	74	28.63	Peak
3652	Vertical	50.24	74	23.76	Peak
3652	Vertical	41.42	54	12.58	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

4.7.5.Type of Network : IEEE 802.11n HT20 Ant 0&1

Data of Test: April. 19, 2011

Ambient temperature: 20.9

Relative humidity: 48%

**Test Frequency band: TX 2412MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	42.43	74	31.57	Peak
1901	Horizontal	41.62	74	32.38	Peak
2190	Horizontal	44.7	74	29.30	Peak
3091	Horizontal	43.08	74	30.92	Peak
4366	Horizontal	45.37	74	28.63	Peak
4757	Horizontal	50.24	74	23.76	Peak
4757	Horizontal	41.33	54	12.67	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.05	74	30.95	Peak
1901	Vertical	44.69	74	29.31	Peak
2190	Vertical	45.37	74	28.63	Peak
2870	Vertical	45.99	74	28.01	Peak
3176	Vertical	48.82	74	25.18	Peak
3907	Vertical	51.16	74	22.84	Peak
3907	Vertical	42.35	54	11.65	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Test Frequency band: TX 2437MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.19	74	29.81	Peak
1782	Horizontal	42.92	74	31.08	Peak
1901	Horizontal	45.51	74	28.49	Peak
2700	Horizontal	45.42	74	28.58	Peak
3601	Horizontal	50.55	74	23.45	Peak
4587	Horizontal	51.77	74	22.23	Peak
3601	Horizontal	39.32	54	14.68	Average
4587	Horizontal	41.56	54	12.64	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.51	74	30.49	Peak
1782	Vertical	42.4	74	31.60	Peak
1901	Vertical	45.22	74	28.78	Peak
2156	Vertical	43.98	74	30.02	Peak
2445	Vertical	44.23	74	29.77	Peak
4587	Vertical	52.04	74	21.96	Peak
4587	Vertical	43.14	54	10.86	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Test Frequency band: TX 2462MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1391	Horizontal	41.56	74	32.44	Peak
1646	Horizontal	45.33	74	28.67	Peak
1782	Horizontal	42.64	74	31.36	Peak
1901	Horizontal	45.43	74	28.57	Peak
2700	Horizontal	45.31	74	28.69	Peak
4502	Horizontal	51.17	74	22.83	Peak
4502	Horizontal	42.72	54	11.28	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.16	74	30.84	Peak
1901	Vertical	44.92	74	29.08	Peak
2156	Vertical	44.32	74	29.68	Peak
2700	Vertical	45.78	74	28.22	Peak
4502	Vertical	52.08	74	21.92	Peak
6372	Vertical	53.81	74	20.19	Peak
4502	Vertical	43.24	54	10.76	Average
6372	Vertical	44.16	54	9.84	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

## 4.7.6.Type of Network : IEEE 802.11n HT40 Ant 0&amp;1

Data of Test: April. 19, 2011

Ambient temperature: 20.9 Relative humidity: 48%

**Test Frequency band: TX 2422MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.65	74	29.35	Peak
1901	Horizontal	45.65	74	28.35	Peak
2190	Horizontal	44.6	74	29.40	Peak
3176	Horizontal	48.7	74	25.30	Peak
3720	Horizontal	51.88	74	22.12	Peak
4451	Horizontal	51.95	74	22.05	Peak
3720	Horizontal	42.38	54	11.62	Average
4451	Horizontal	41.64	54	12.36	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.75	74	30.25	Peak
1901	Vertical	44.25	74	29.75	Peak
2190	Vertical	46.49	74	27.51	Peak
2700	Vertical	46.02	74	27.98	Peak
4672	Vertical	51.62	74	22.38	Peak
6202	Vertical	53.3	74	20.70	Peak
4672	Vertical	42.26	54	11.74	Average
6202	Vertical	43.69	54	10.31	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

**Test Frequency band: TX 2437MHz**

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	43.77	74	30.23	Peak
1901	Horizontal	45.53	74	28.47	Peak
3142	Horizontal	48.44	74	25.56	Peak
3771	Horizontal	50.35	74	23.65	Peak
4485	Horizontal	51.9	74	22.10	Peak
6372	Horizontal	54.26	74	19.74	Peak
3771	Horizontal	40.95	54	13.05	Average
4485	Horizontal	42.09	54	11.81	Average
6372	Horizontal	44.9	54	9.1	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	42.79	74	31.21	Peak
1782	Vertical	42.99	74	31.01	Peak
1901	Vertical	45.73	74	28.27	Peak
2173	Vertical	45.1	74	28.90	Peak
4655	Vertical	52.28	74	21.72	Peak
5930	Vertical	52.39	74	21.61	Peak
4655	Vertical	43.02	54	10.98	Average
5930	Vertical	43.19	54	10.81	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

#### Test Frequency band: TX 2452MHz

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Horizontal	44.14	74	29.86	Peak
1782	Horizontal	42.3	74	31.70	Peak
1901	Horizontal	45.26	74	28.74	Peak
2700	Horizontal	45.73	74	28.27	Peak
3108	Horizontal	47.64	74	26.36	Peak
4655	Horizontal	51.98	74	22.02	Peak
4655	Horizontal	42.93	54	11.07	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

Note 2. : The emission behavior belongs to narrowband spurious emission.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuv)	Limit (dBuv)	Margin (dB)	Remark
1646	Vertical	43.11	74	30.89	Peak
1901	Vertical	45.34	74	28.66	Peak
2190	Vertical	45.36	74	28.64	Peak
2700	Vertical	45.84	74	28.16	Peak
3040	Vertical	48.05	74	25.95	Peak
4502	Vertical	51.28	74	22.72	Peak
3040	Vertical	39.16	54	14.84	Average
4502	Vertical	42.29	54	11.71	Average

Note 1. : All the emissions (up to 25GHz) not reported are too low to be measured.

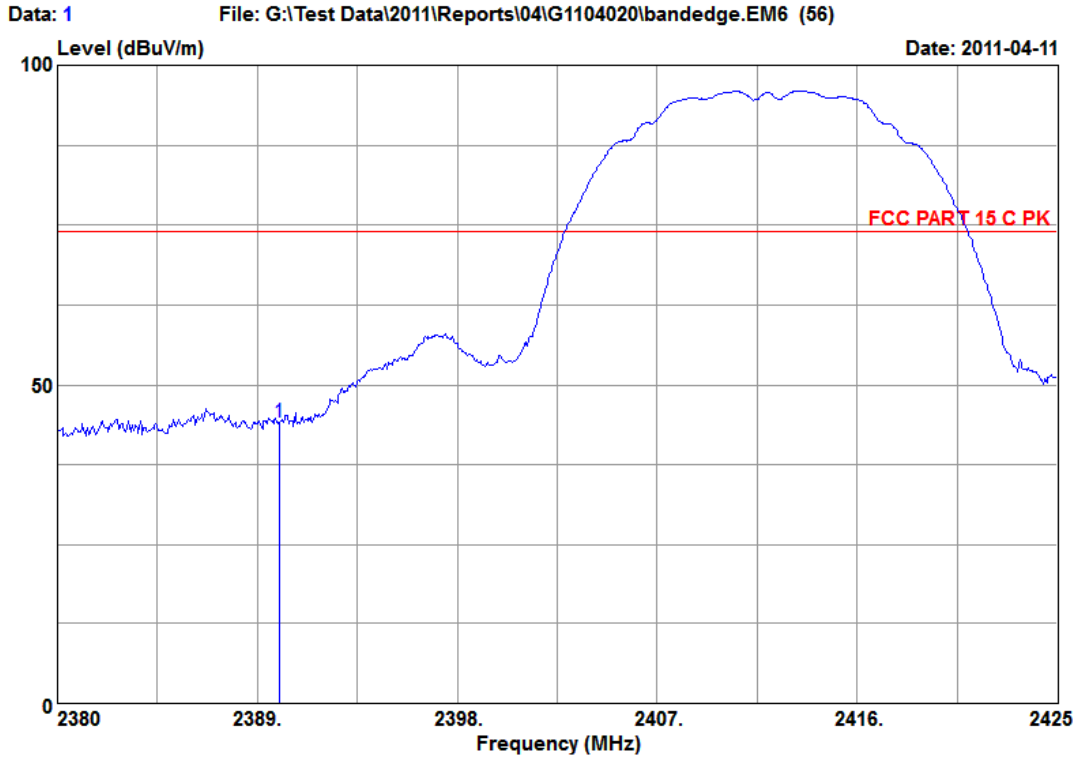
Note 2. : The emission behavior belongs to narrowband spurious emission.

### 4.8. Spurious Emission Measurement Results in Band Edge Emission (FCC Part 15, 15.205)

#### 4.8.1. IEEE 802.11b



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Site NO. : 3m Semi-Anechoic Chamber	Data NO. : 1
Dis. / Ant. : 3m HORN 3115(62961)	Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C PK	Engineer : justin
Env. / Ins. : 16.9*CC&52%/ESCI	
EUT : 300Mbps Wireless ADSL Modem Router	
M/N : DSL-N12U	
Power Rating: 120Vac/60Hz	
Test Mode : FULL SYSTEM	
Memo : 802.11b CH1	
Ant 0	

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	28.53	7.51	43.64	35.46	44.22	74.00	29.78	Peak

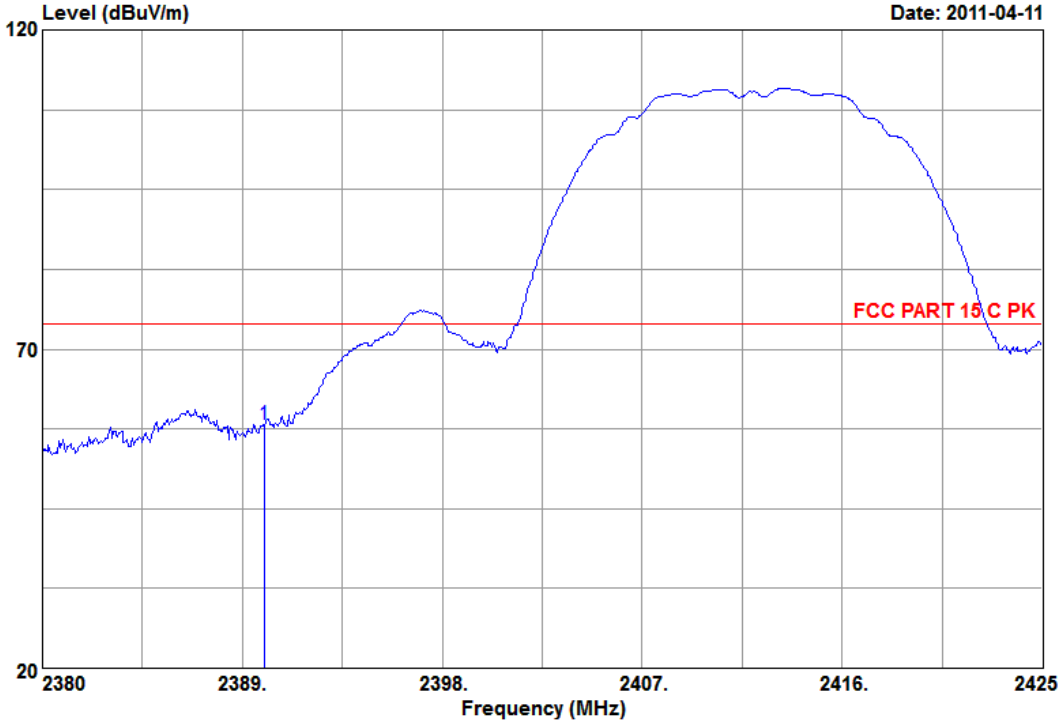
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.





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Data: 2 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 2  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH1  
 Ant 0

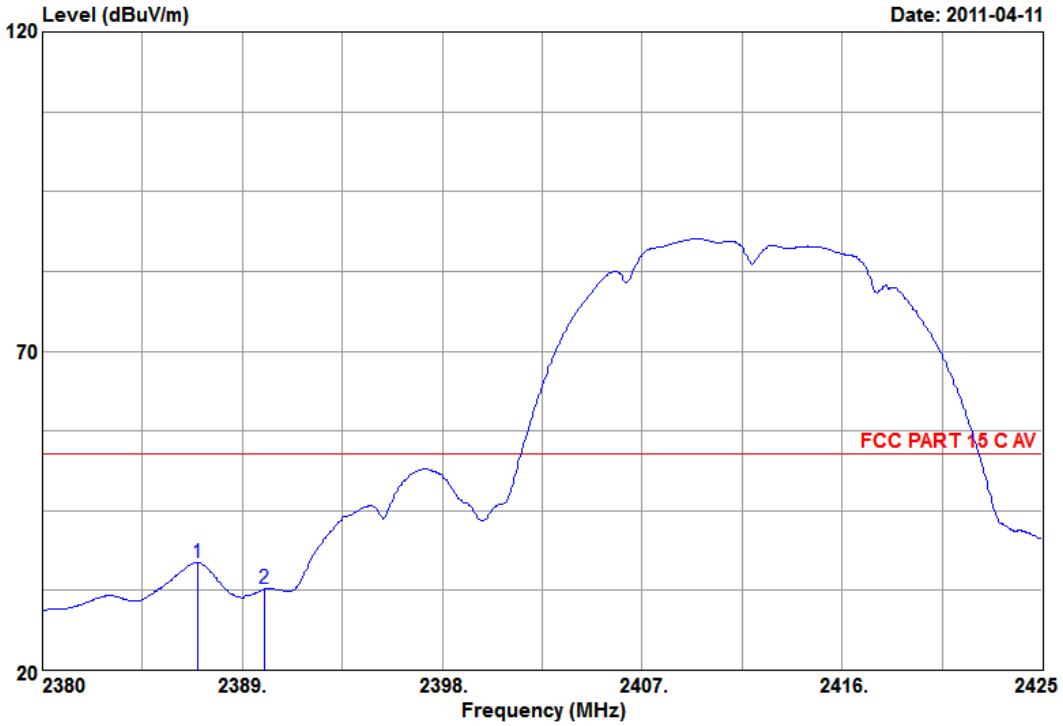
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	28.53	7.51	57.61	35.46	58.19	74.00	15.81	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 3 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 3  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH1  
 Ant 0

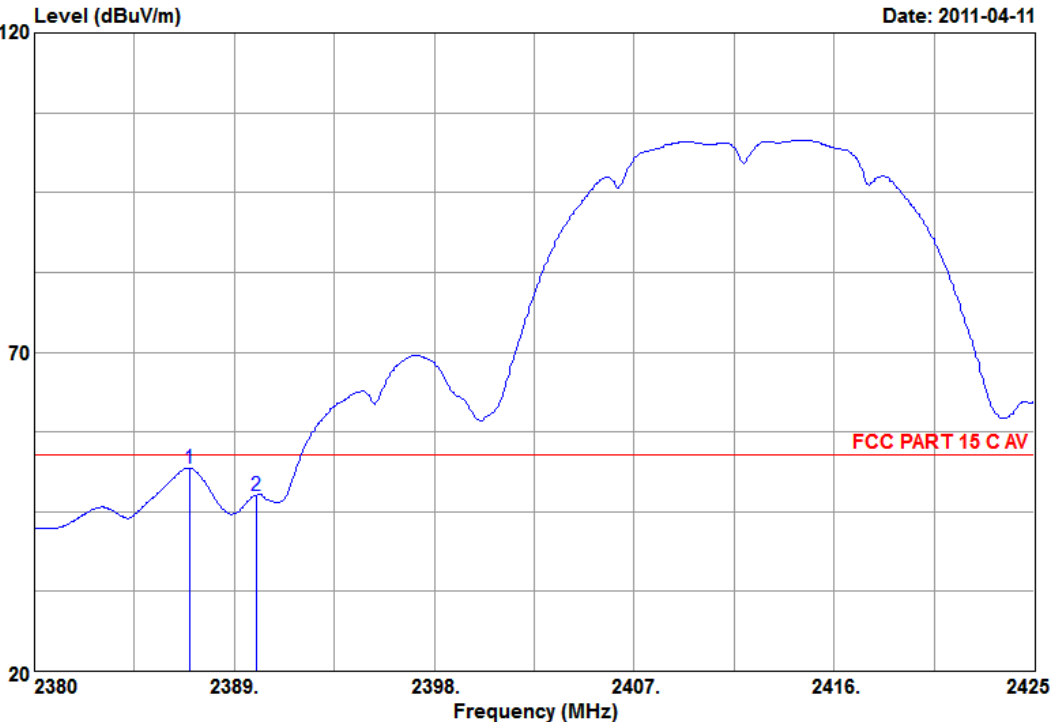
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.98	28.53	7.51	36.28	35.45	36.87	54.00	17.13	Average
2	2390.00	28.53	7.51	32.14	35.46	32.72	54.00	21.28	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 4 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 4  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH1  
 Ant 0

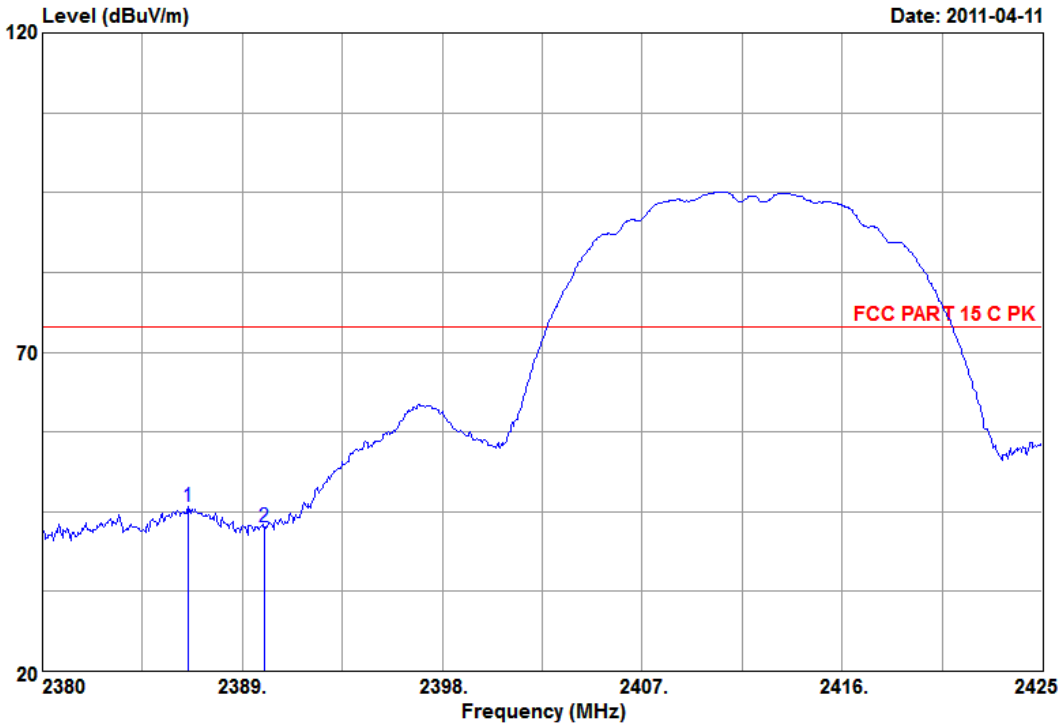
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.98	28.53	7.51	51.29	35.45	51.88	54.00	2.12	Average
2	2390.00	28.53	7.51	47.03	35.46	47.61	54.00	6.39	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 5 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 5  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH1  
 Ant 1

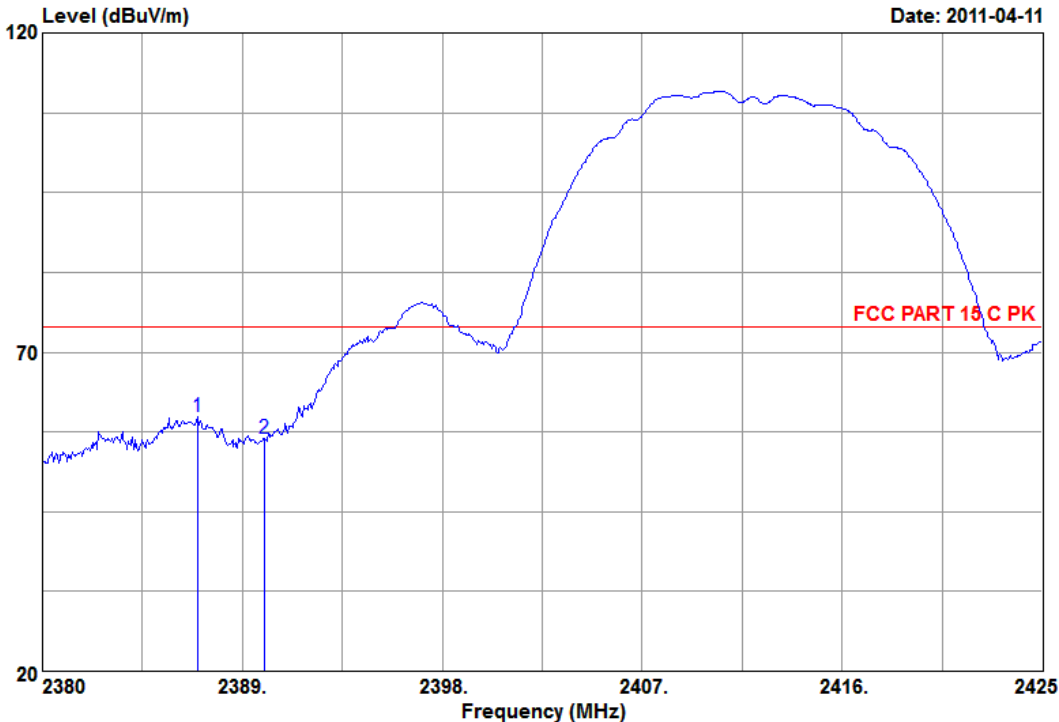
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.57	28.53	7.51	45.14	35.45	45.73	74.00	28.27	Peak
2	2390.00	28.53	7.51	41.96	35.46	42.54	74.00	31.46	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 6 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 6  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH1  
 Ant 1

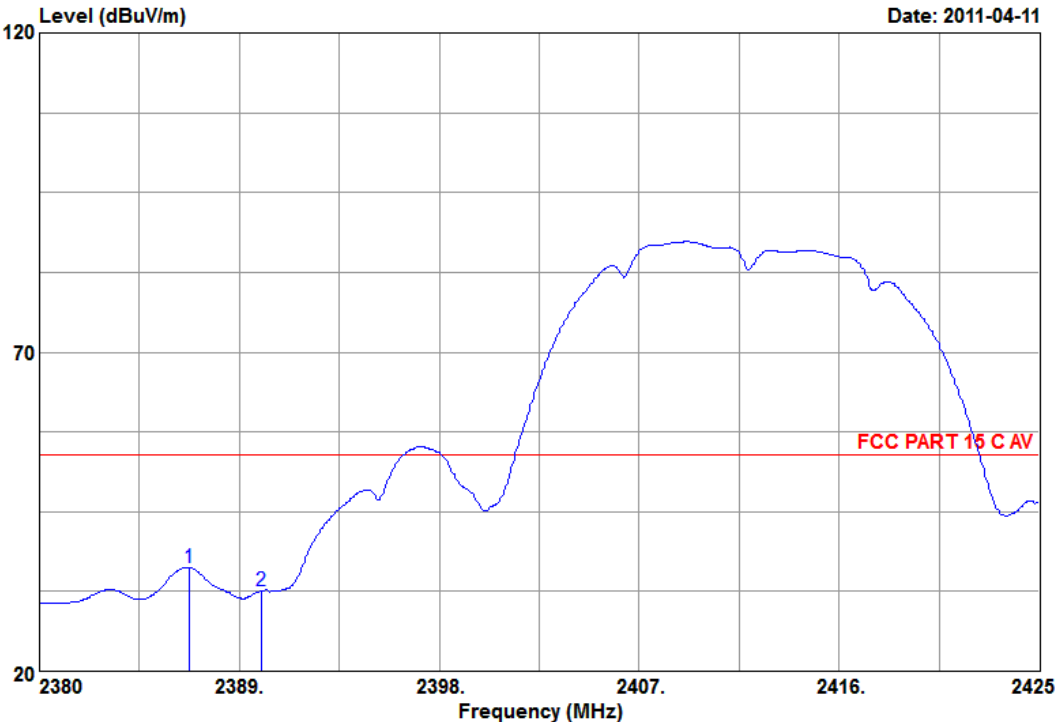
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.98	28.53	7.51	59.29	35.45	59.88	74.00	14.12	Peak
2	2390.00	28.53	7.51	55.80	35.46	56.38	74.00	17.62	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 7 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 7  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9°C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH1  
 Ant 1

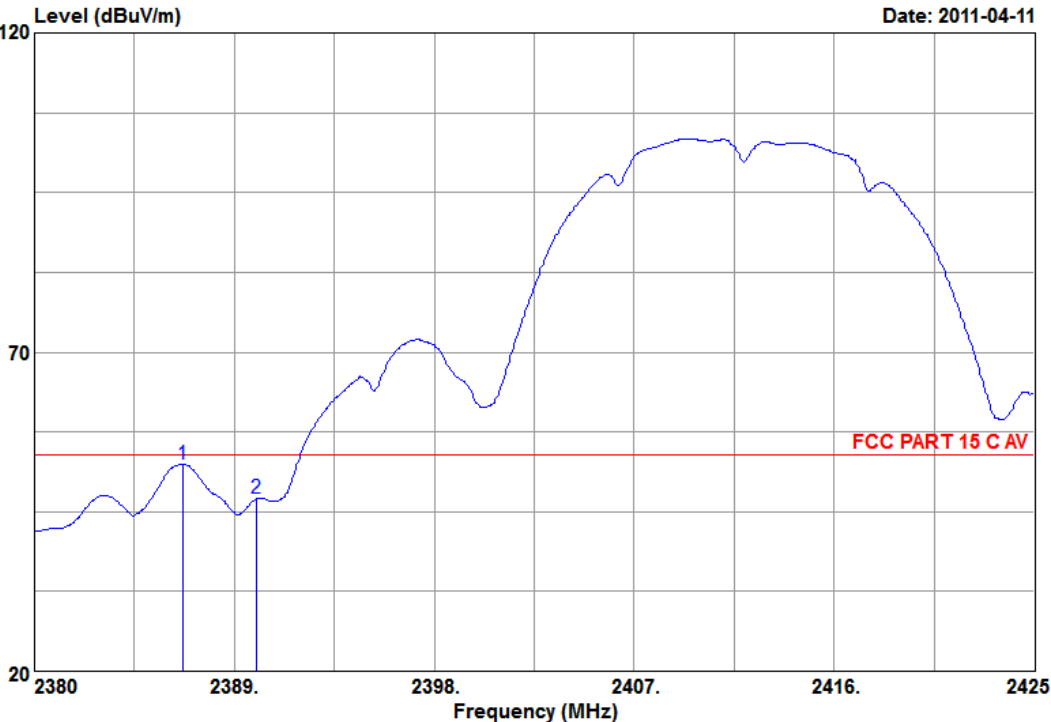
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.75	28.53	7.51	35.65	35.45	36.24	54.00	17.76	Average
2	2390.00	28.53	7.51	32.04	35.46	32.62	54.00	21.38	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 8 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 8  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH1  
 Ant 1

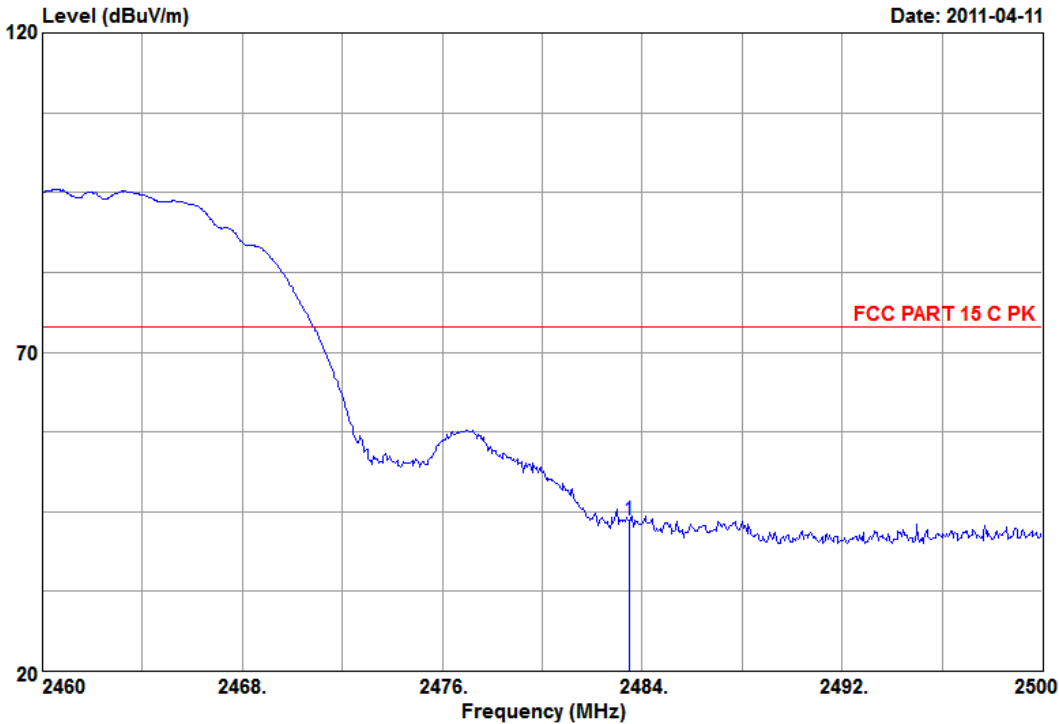
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.66	28.53	7.51	51.84	35.45	52.43	54.00	1.57	Average
2	2390.00	28.53	7.51	46.41	35.46	46.99	54.00	7.01	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 9 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 9  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 0

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	42.60	35.49	43.60	74.00	30.40	Peak

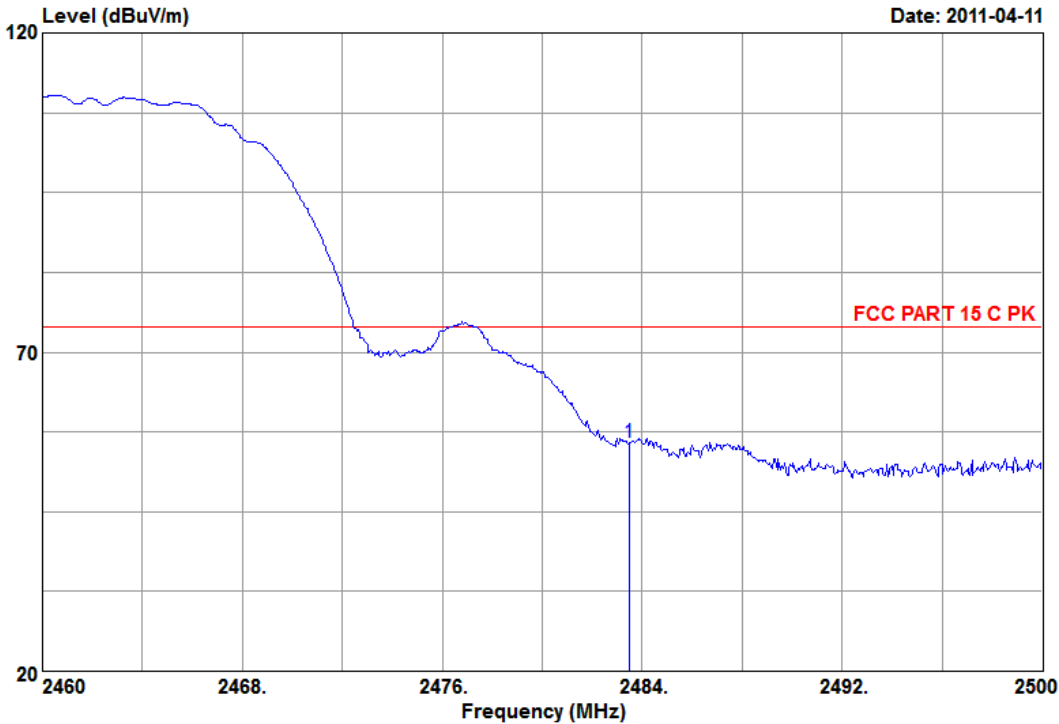
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.





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Data: 10 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber  
 Dis. / Ant. : 3m HORN 3115(62961)  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 0

Data NO. : 10  
 Ant. pol. : VERTICAL  
 Engineer : justin

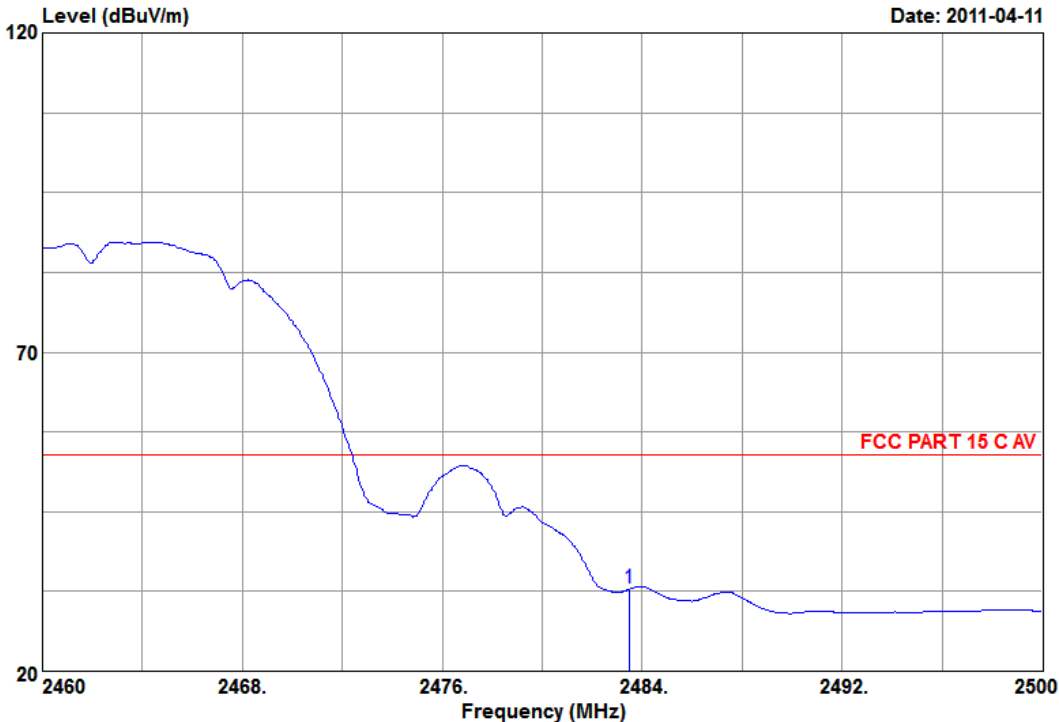
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	54.73	35.49	55.73	74.00	18.27	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 11 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber  
 Dis. / Ant. : 3m HORN 3115(62961)  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 0

Data NO. : 11  
 Ant. pol. : HORIZONTAL  
 Engineer : justin

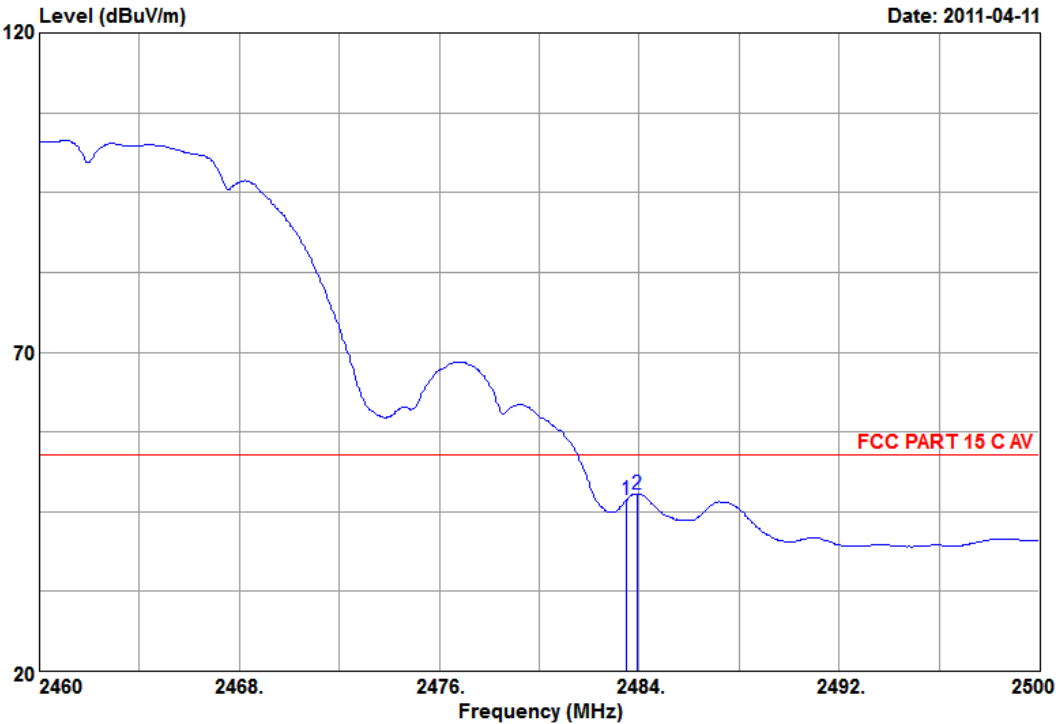
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	31.91	35.49	32.91	54.00	21.09	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 12 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 12  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 0

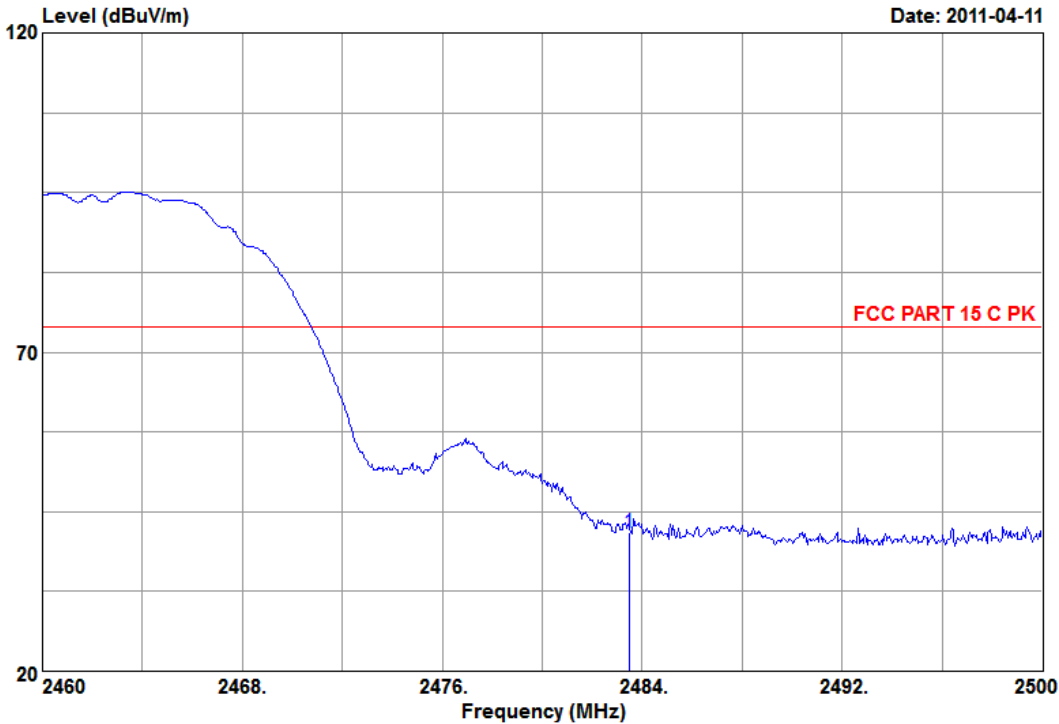
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	45.97	35.49	46.97	54.00	7.03	Average
2	2483.92	28.76	7.73	46.78	35.49	47.78	54.00	6.22	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 13 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber  
 Dis. / Ant. : 3m HORN 3115(62961)  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 1

Data NO. : 13  
 Ant. pol. : HORIZONTAL  
 Engineer : justin

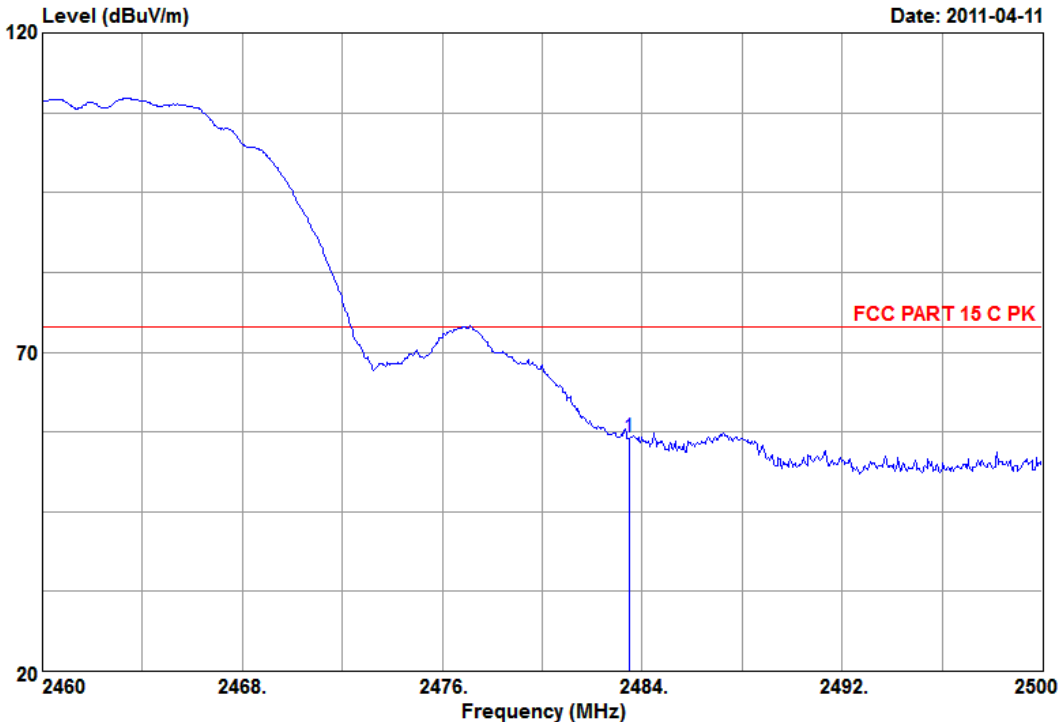
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	40.76	35.49	41.76	74.00	32.24	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 14 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 14  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 1

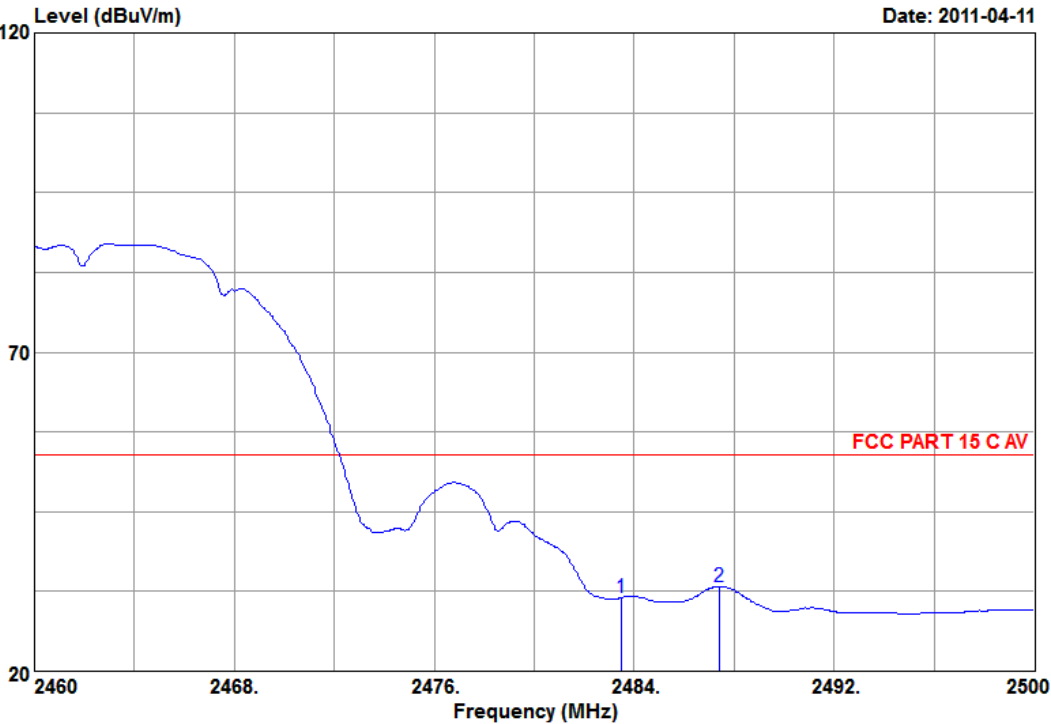
	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	28.76	7.73	55.61	35.49	56.61	74.00	17.39	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 15 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 15  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 1

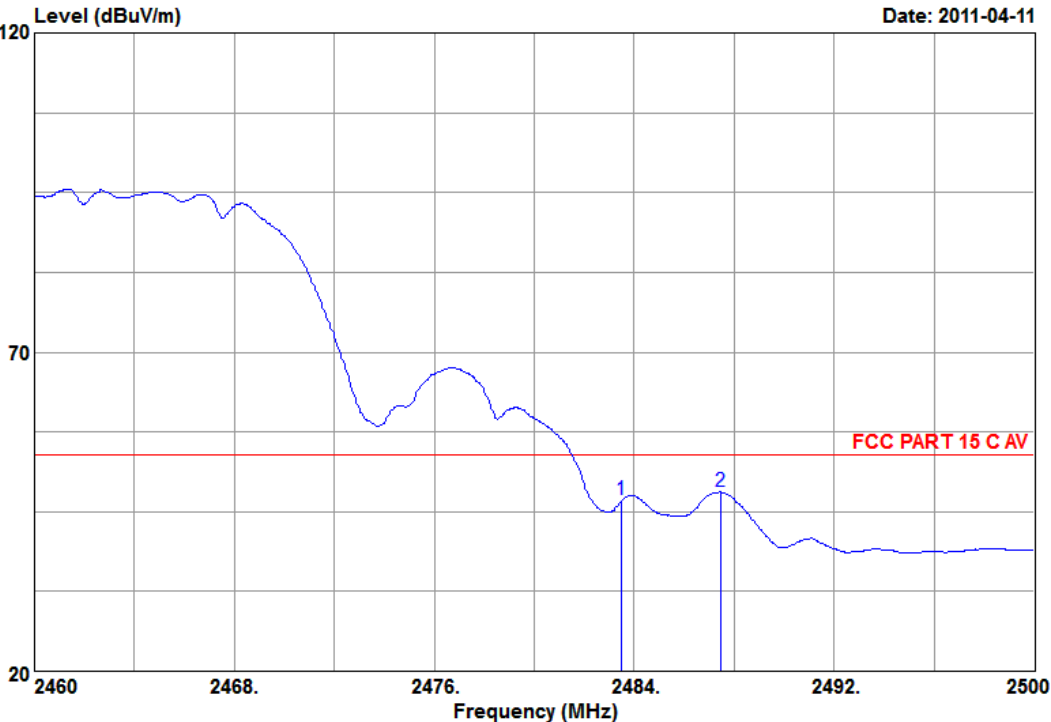
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	30.59	35.49	31.59	54.00	22.41	Average
2	2487.40	28.76	7.73	32.31	35.49	33.31	54.00	20.69	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 16 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 16  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11b CH11  
 Ant 1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	45.78	35.49	46.78	54.00	7.22	Average
2	2487.44	28.76	7.73	47.07	35.49	48.07	54.00	5.93	Average

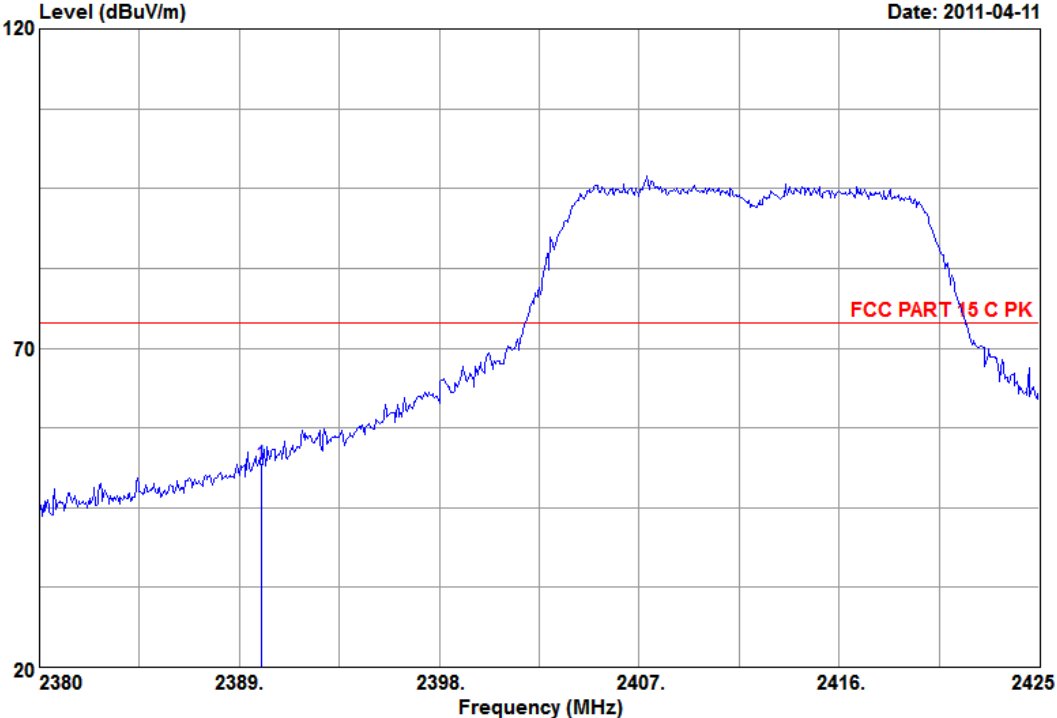
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.

4.8.2. IEEE 802.11g



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Data: 18 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56) Date: 2011-04-11



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 18
Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C PK
Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin
EUT : 300Mbps Wireless ADSL Modem Router
M/N : DSL-N12U
Power Rating: 120Vac/60Hz
Test Mode : FULL SYSTEM
Memo : 802.11g CH1
Ant 0

Table with 10 columns: Freq. (MHz), Ant. Factor (dB/m), Cable Loss (dB), Reading (dBuV), Preamp. Factor (dB), Emission Level (dBuV/m), Limits (dBuV/m), Margin (dB), Remark. Row 1: 2390.00, 28.53, 7.51, 51.22, 35.46, 51.80, 74.00, 22.20, Peak

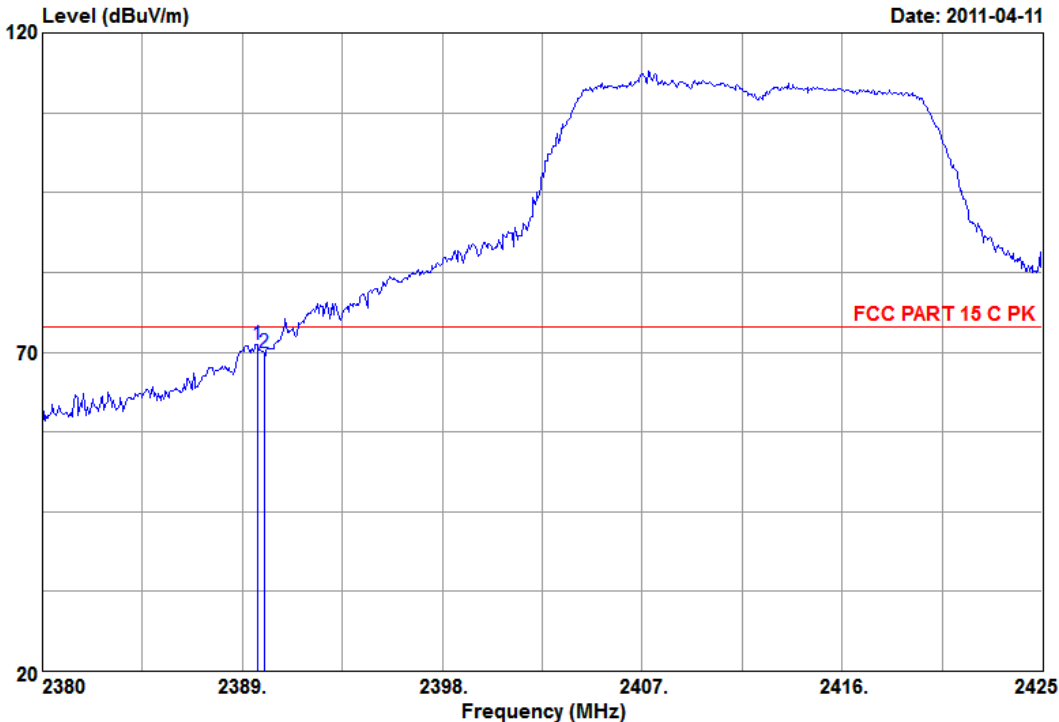
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.





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Data: 23 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 23  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH1  
 Ant 0

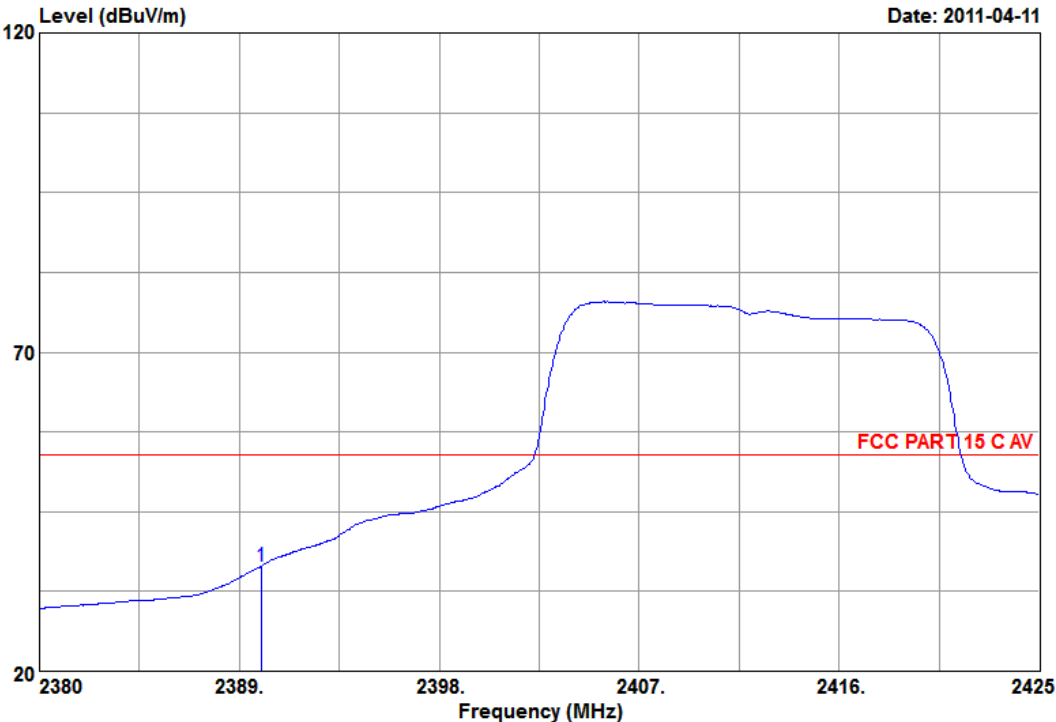
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.68	28.53	7.51	70.69	35.45	71.28	74.00	2.72	Peak
2	2390.00	28.53	7.51	69.30	35.46	69.88	74.00	4.12	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 22 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 22  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH1  
 Ant 0

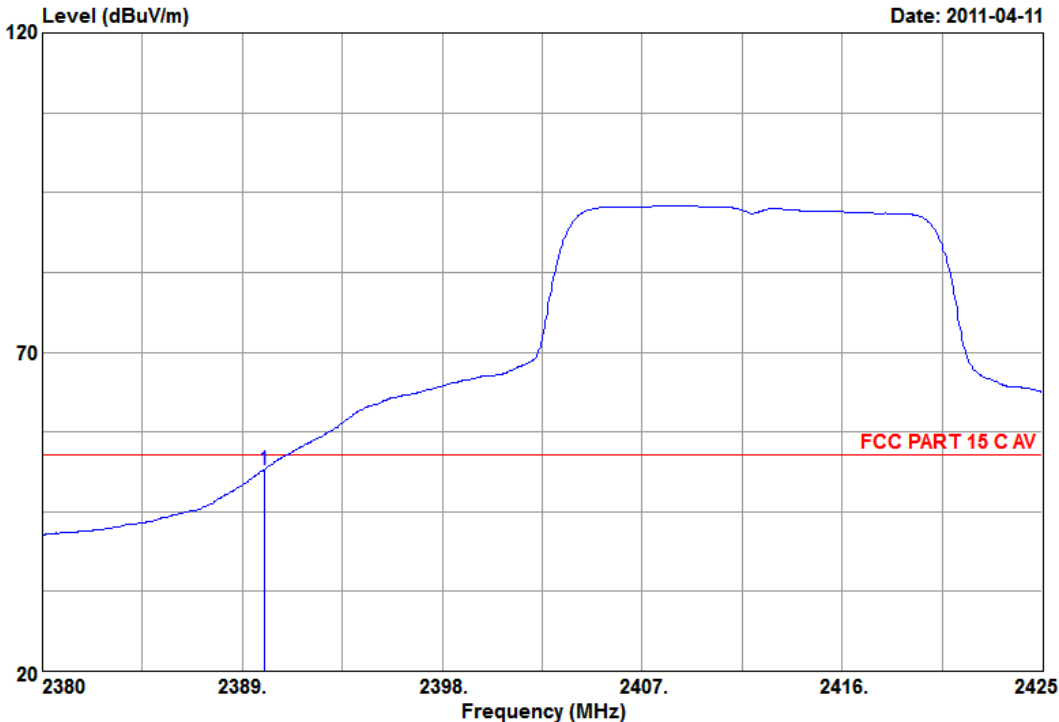
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
-----	1	2390.00	28.53	7.51	35.95	35.46	36.53	54.00	17.47	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 24 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 24  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH1  
 Ant 0

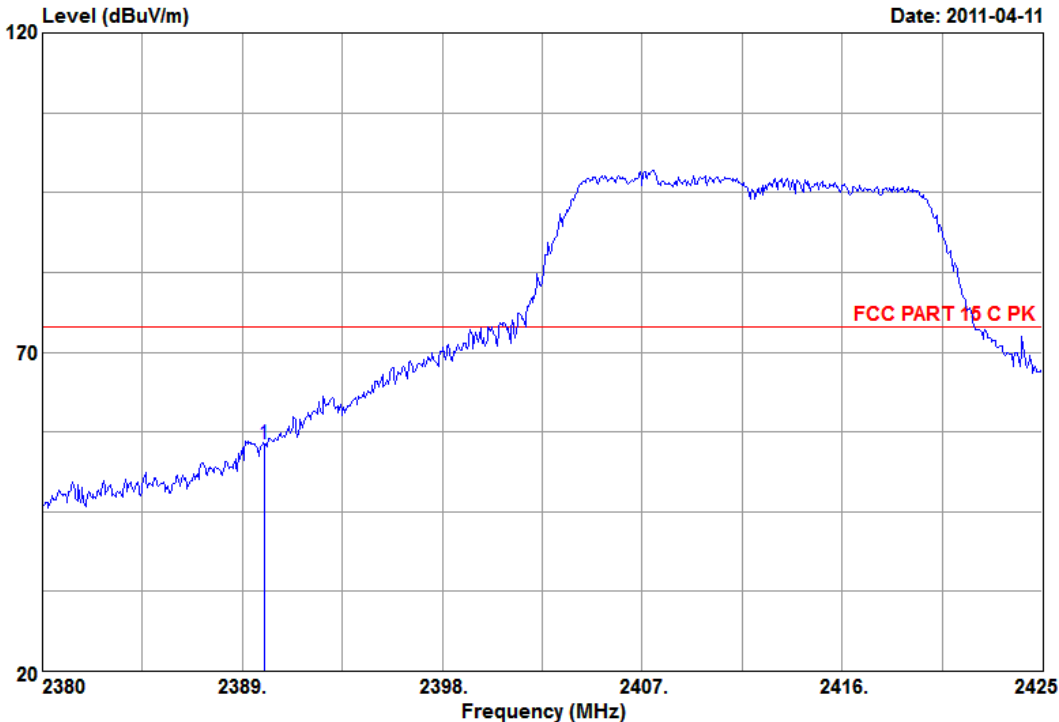
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	28.53	7.51	51.08	35.46	51.66	54.00	2.34	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 17 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO.	: 3m Semi-Anechoic Chamber	Data NO.	: 17
Dis. / Ant.	: 3m HORN 3115(62961)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15 C PK	Engineer	: justin
Env. / Ins.	: 16.9*C&52%/ESCI		
EUT	: 300Mbps Wireless ADSL Modem Router		
M/N	: DSL-N12U		
Power Rating:	: 120Vac/60Hz		
Test Mode	: FULL SYSTEM		
Memo	: 802.11g CH1		
	Ant 1		

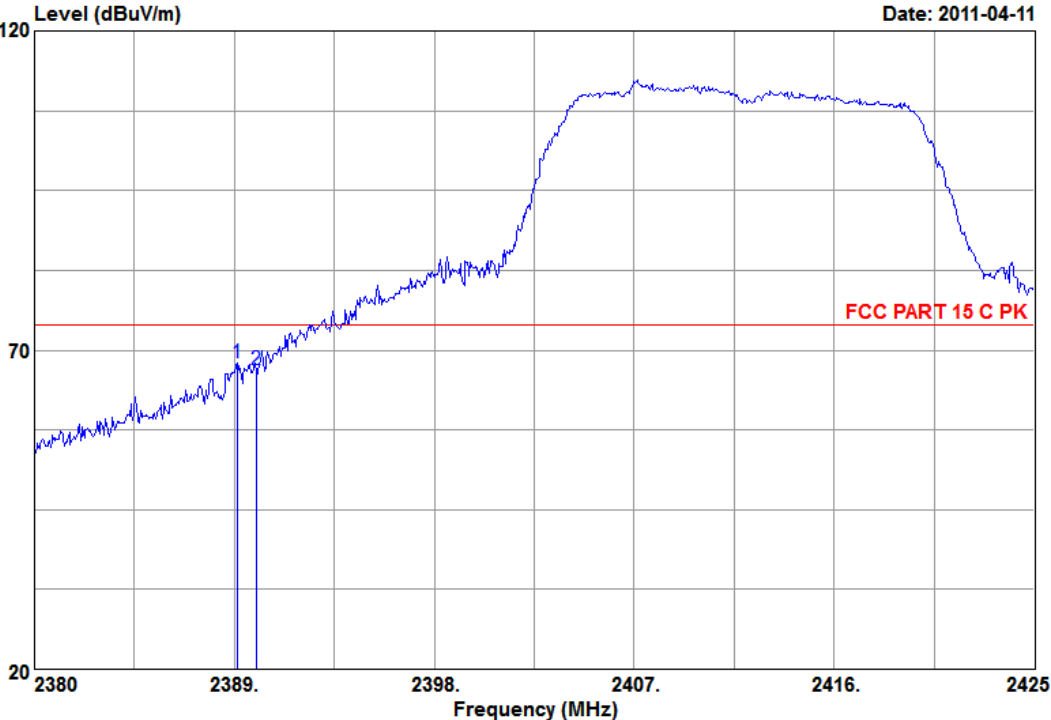
	Ant. Factor	Cable Loss	Reading	Preamp. Factor	Emission Level	Limits	Margin	Remark
1	(dB/m)	(dB)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	28.53	7.51	55.14	35.46	55.72	74.00	18.28	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 20 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56) Date: 2011-04-11



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 20  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH1  
 Ant 1

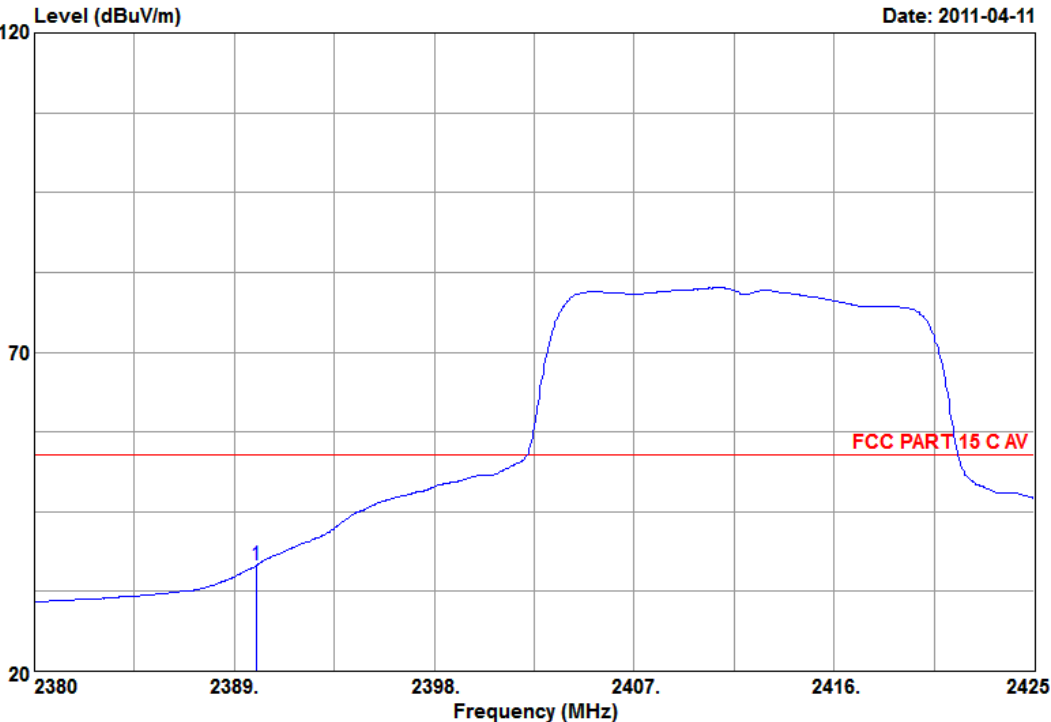
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.14	28.53	7.51	67.38	35.45	67.97	74.00	6.03	Peak
2	2390.00	28.53	7.51	66.28	35.46	66.86	74.00	7.14	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 19 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 19  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH1  
 Ant 1

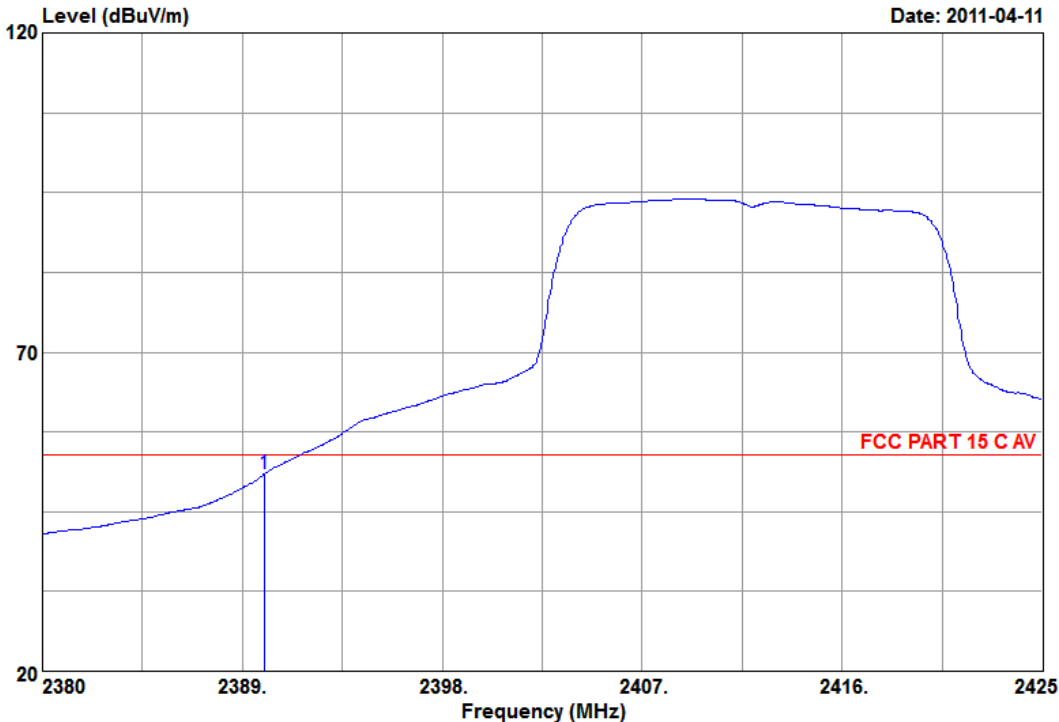
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
-----	1	2390.00	28.53	7.51	36.02	35.46	36.60	54.00	17.40	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 21 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber  
 Dis. / Ant. : 3m HORN 3115(62961)  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH1  
 Ant 1

Data NO. : 21  
 Ant. pol. : VERTICAL  
 Engineer : justin

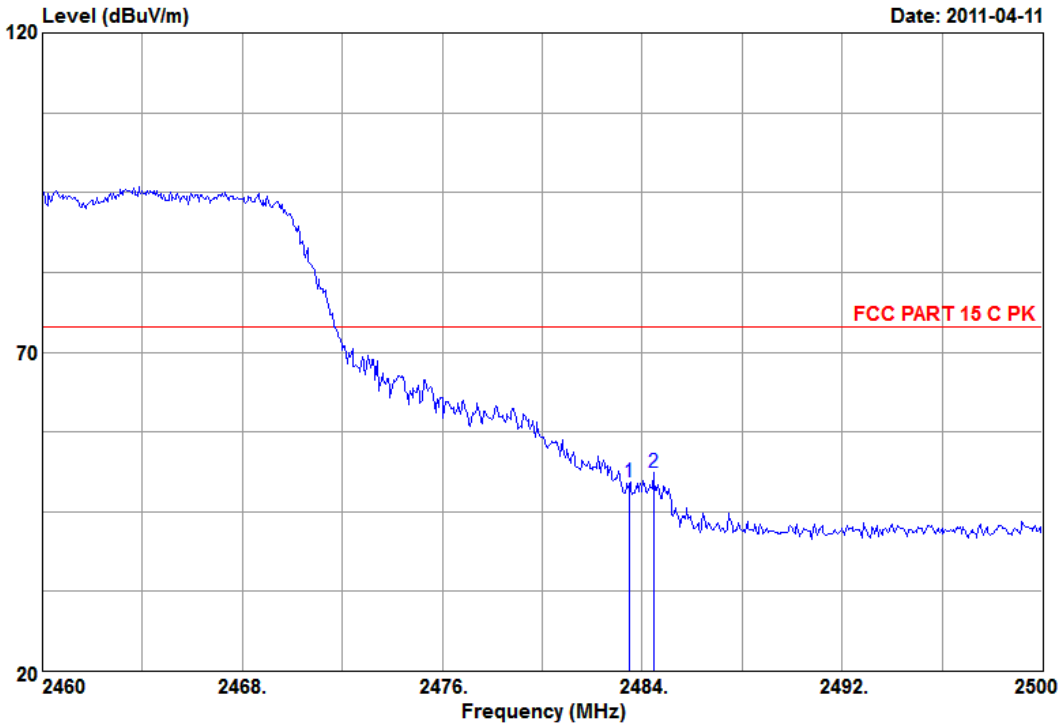
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
-----	1	2390.00	28.53	7.51	50.36	35.46	50.94	54.00	3.06	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 29 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 29  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH11  
 Ant 0

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	48.57	35.49	49.57	74.00	24.43	Peak
2	2484.44	28.76	7.73	50.19	35.49	51.19	74.00	22.81	Peak

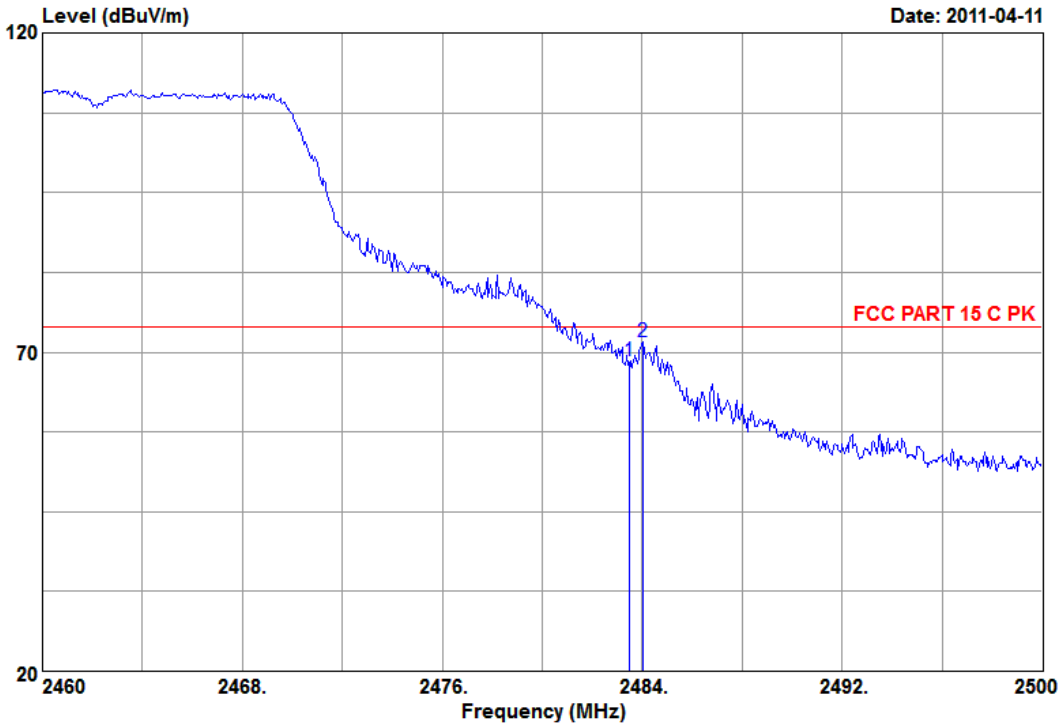
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.





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Data: 31 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 31  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH11  
 Ant 0

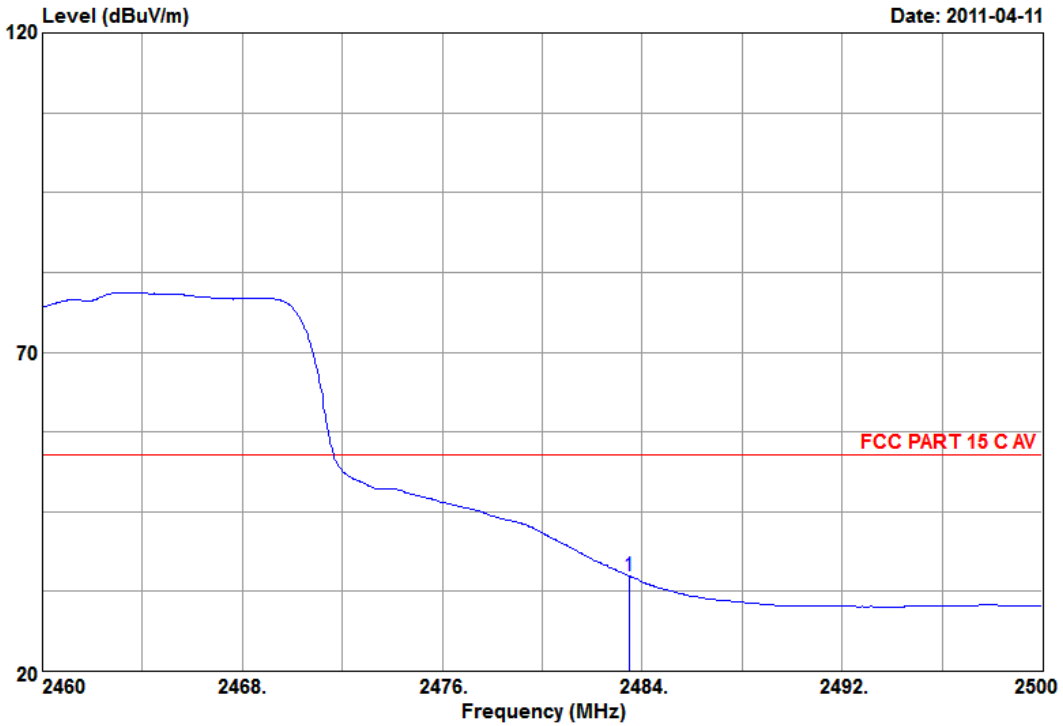
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	67.69	35.49	68.69	74.00	5.31	Peak
2	2484.04	28.76	7.73	70.55	35.49	71.55	74.00	2.45	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 30 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 30  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH11  
 Ant 0

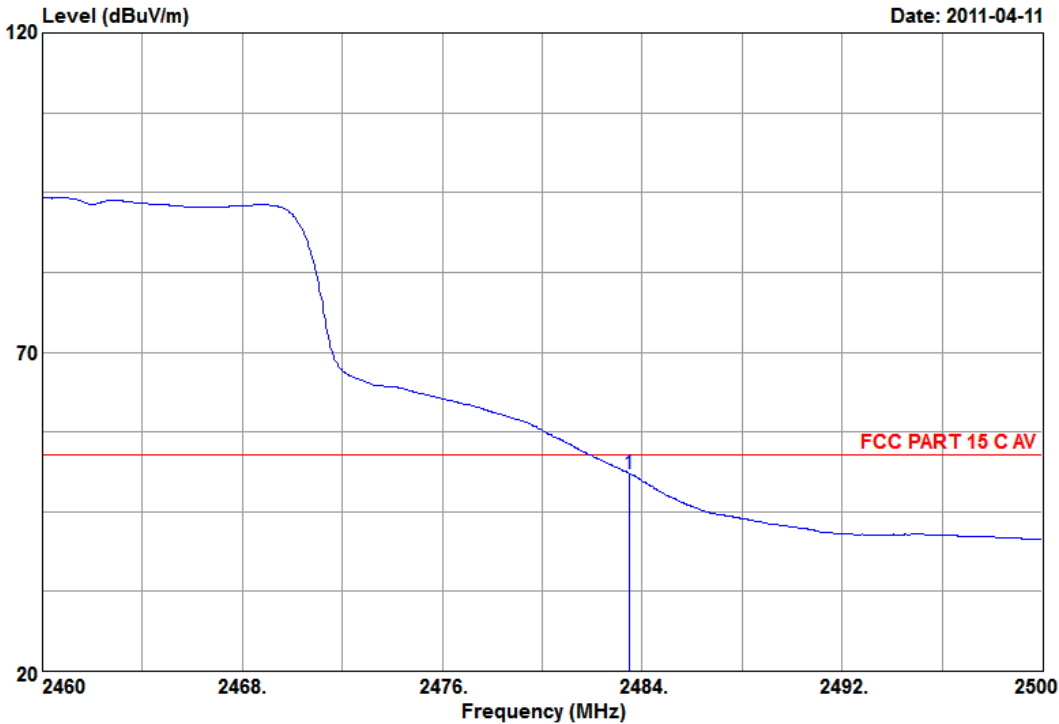
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
-----	1	2483.50	28.76	7.73	33.88	35.49	34.88	54.00	19.12	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 32 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 32  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH11  
 Ant 0

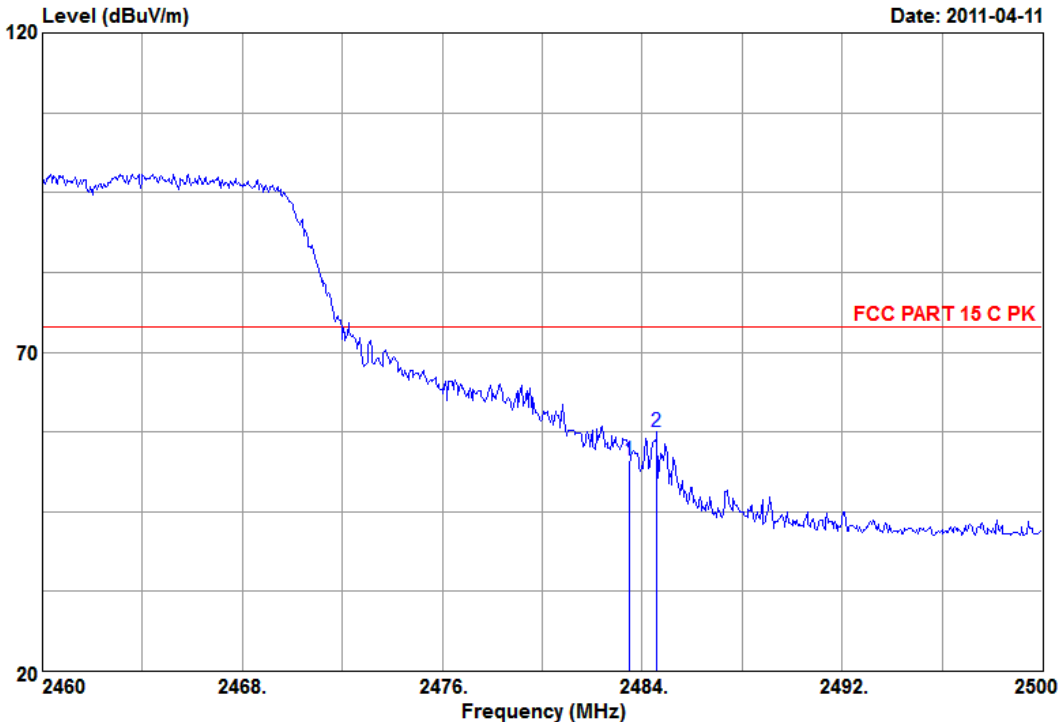
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	49.95	35.49	50.95	54.00	3.05	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 25 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 25  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH11  
 Ant 1

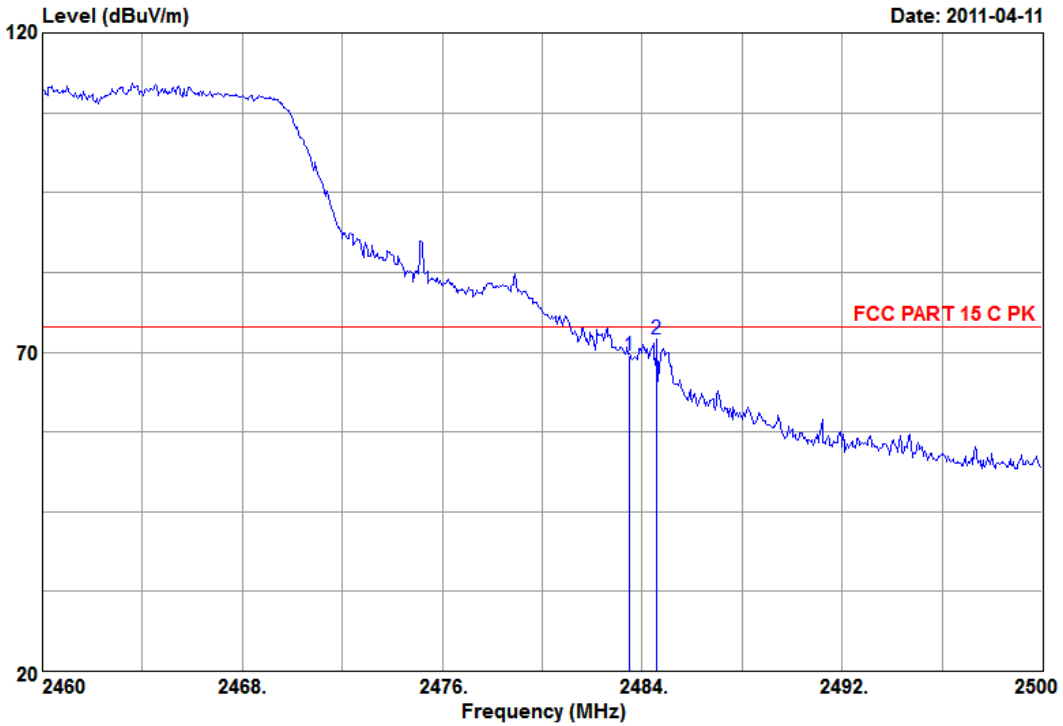
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	52.08	35.49	53.08	74.00	20.92	Peak
2	2484.60	28.76	7.73	56.58	35.49	57.58	74.00	16.42	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 27 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO.	: 3m Semi-Anechoic Chamber	Data NO.	: 27
Dis. / Ant.	: 3m HORN 3115(62961)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15 C PK	Engineer	: justin
Env. / Ins.	: 16.9*C&52%/ESCI		
EUT	: 300Mbps Wireless ADSL Modem Router		
M/N	: DSL-N12U		
Power Rating:	: 120Vac/60Hz		
Test Mode	: FULL SYSTEM		
Memo	: 802.11g CH11		
	Ant 1		

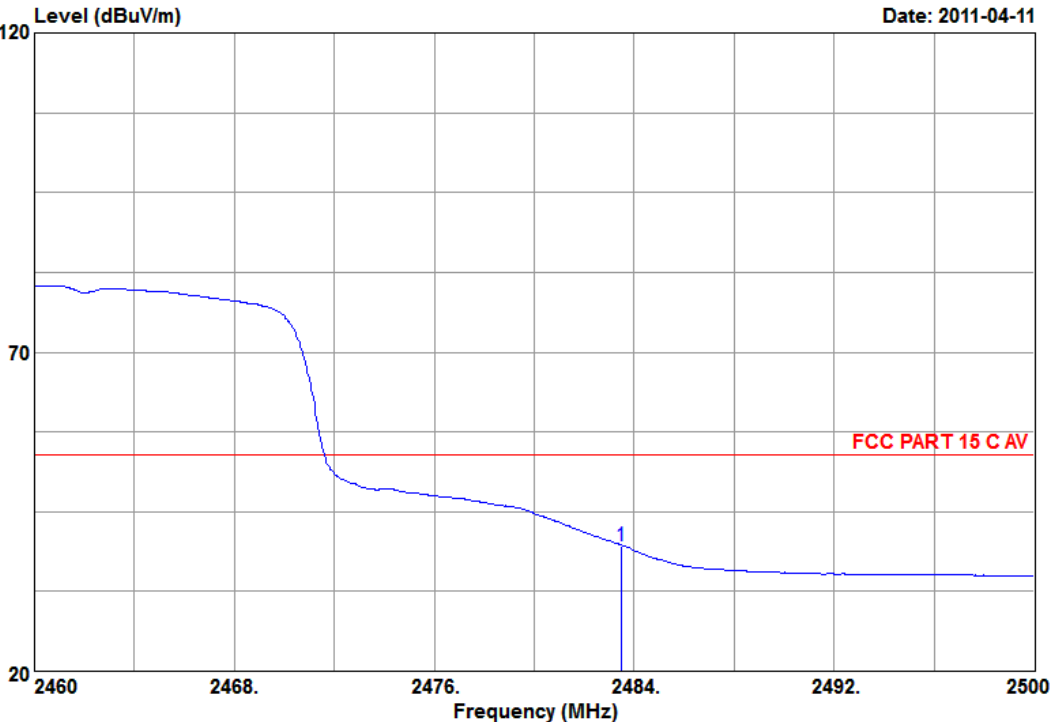
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	68.54	35.49	69.54	74.00	4.46	Peak
2	2484.60	28.76	7.73	71.14	35.49	72.14	74.00	1.86	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 26 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 26  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH11  
 Ant 1

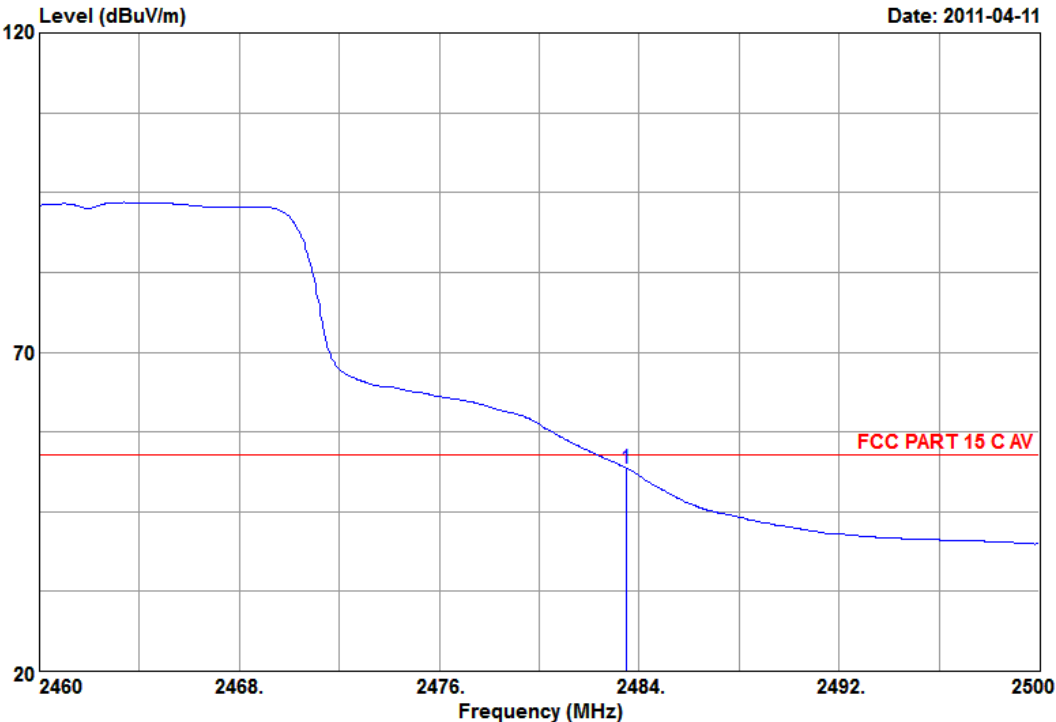
	Ant.	Cable		Preamp.	Emission				
1	Factor	Loss	Reading	Factor	Level	Limits	Margin	Remark	
	(dB/m)	(dB)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)		
1	28.76	7.73	38.69	35.49	39.69	54.00	14.31	Average	

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 28 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber  
 Dis. / Ant. : 3m HORN 3115(62961)  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11g CH11  
 Ant 1

Data NO. : 28  
 Ant. pol. : VERTICAL  
 Engineer : justin

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	50.75	35.49	51.75	54.00	2.25	Average

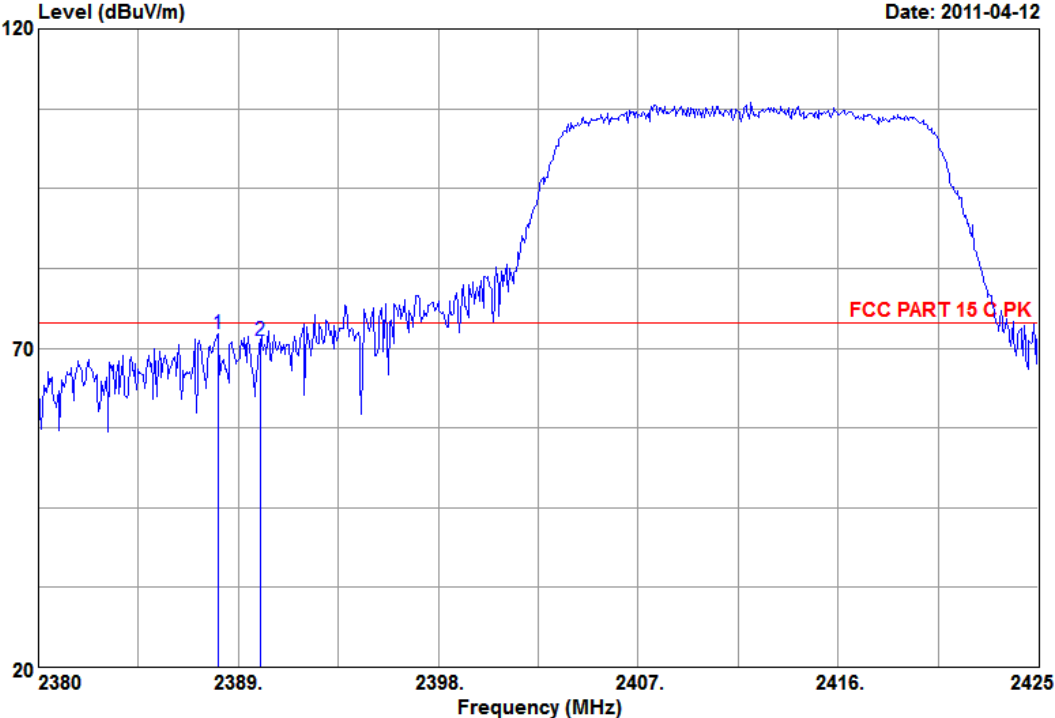
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.

4.8.3. IEEE 802.11n HT20



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Data: 33 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56) Date: 2011-04-12



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 33
Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL
Limit : FCC PART 15 C PK
Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin
EUT : 300Mbps Wireless ADSL Modem Router
M/N : DSL-N12U
Power Rating: 120Vac/60Hz
Test Mode : FULL SYSTEM
Memo : 802.11n HT20 CH1
Ant 0&1

Table with 10 columns: Freq. (MHz), Ant. Factor (dB/m), Cable Loss (dB), Reading (dBuV), Preamp. Factor (dB), Emission Level (dBuV/m), Limits (dBuV/m), Margin (dB), Remark. Contains two rows of data for peaks at 2388.10 MHz and 2390.00 MHz.

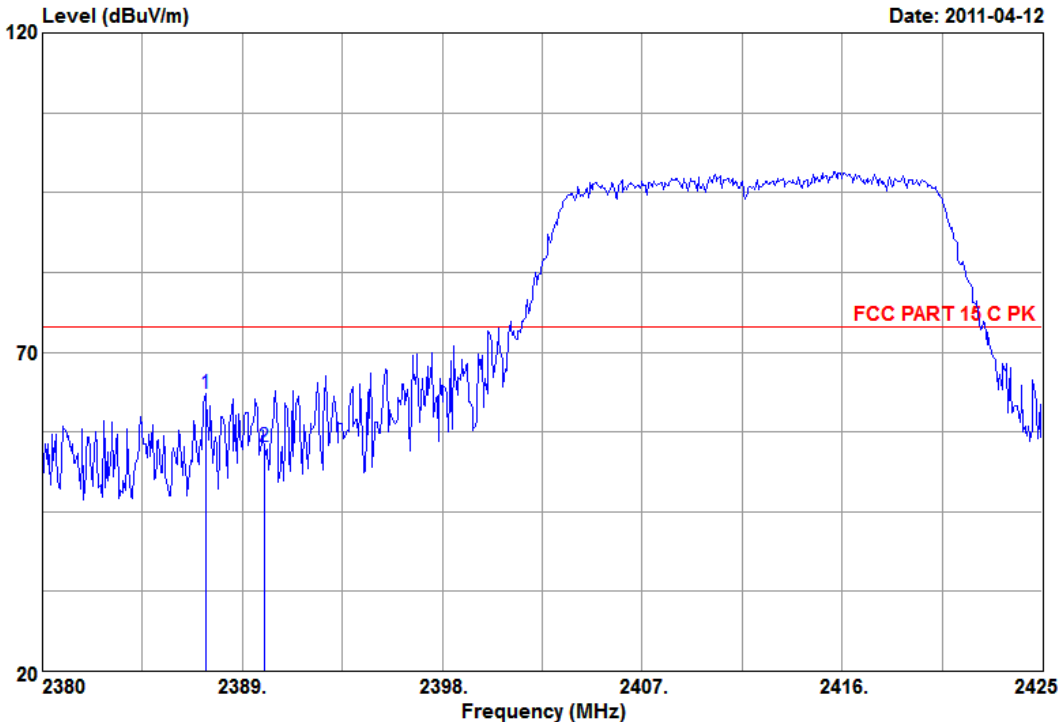
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.
2. The emission levels that are 20dB below the official limit are not reported.





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Data: 34 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 34  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT20 CH1  
 Ant 0&1

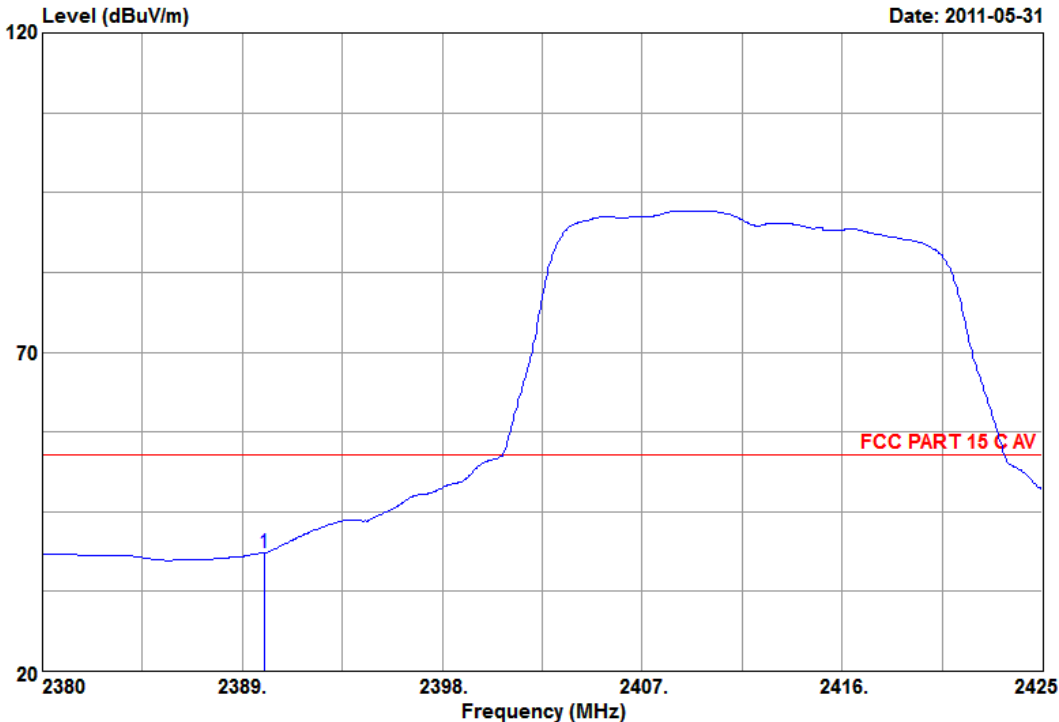
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2387.34	28.53	7.51	62.81	35.45	63.40	74.00	10.60	Peak
2	2390.00	28.53	7.51	54.60	35.46	55.18	74.00	18.82	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 49 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 49  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT20 CH1  
 Ant 0&1

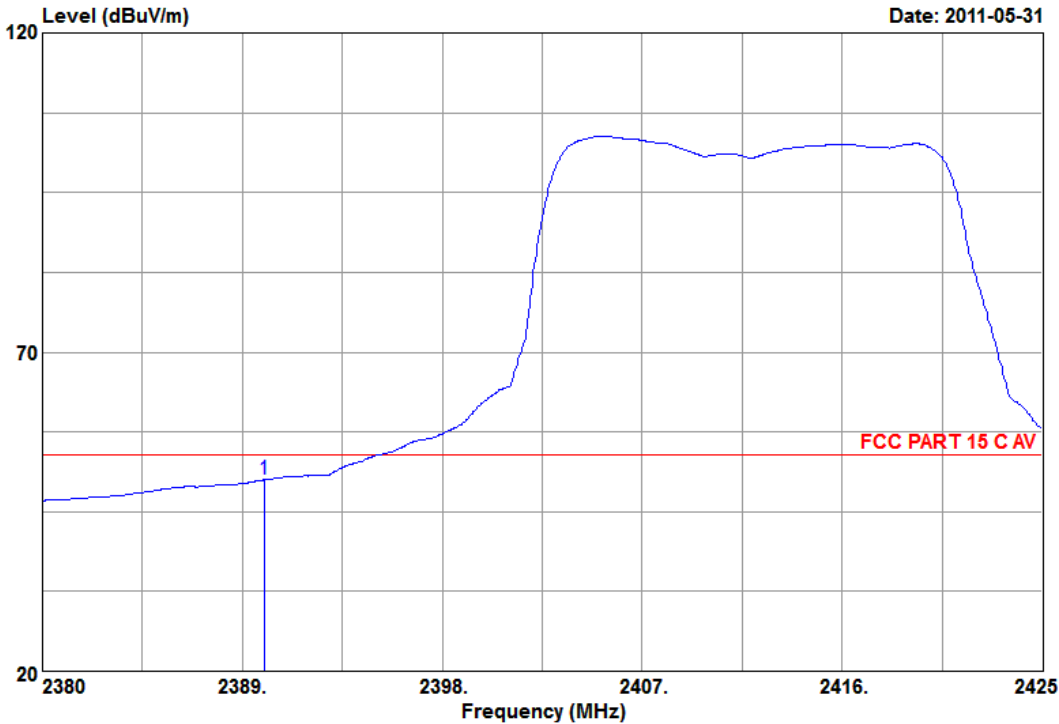
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
-----	1	2390.00	28.53	7.51	38.01	35.46	38.59	54.00	15.41	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 50 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 50  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT20 CH1  
 Ant 0&1

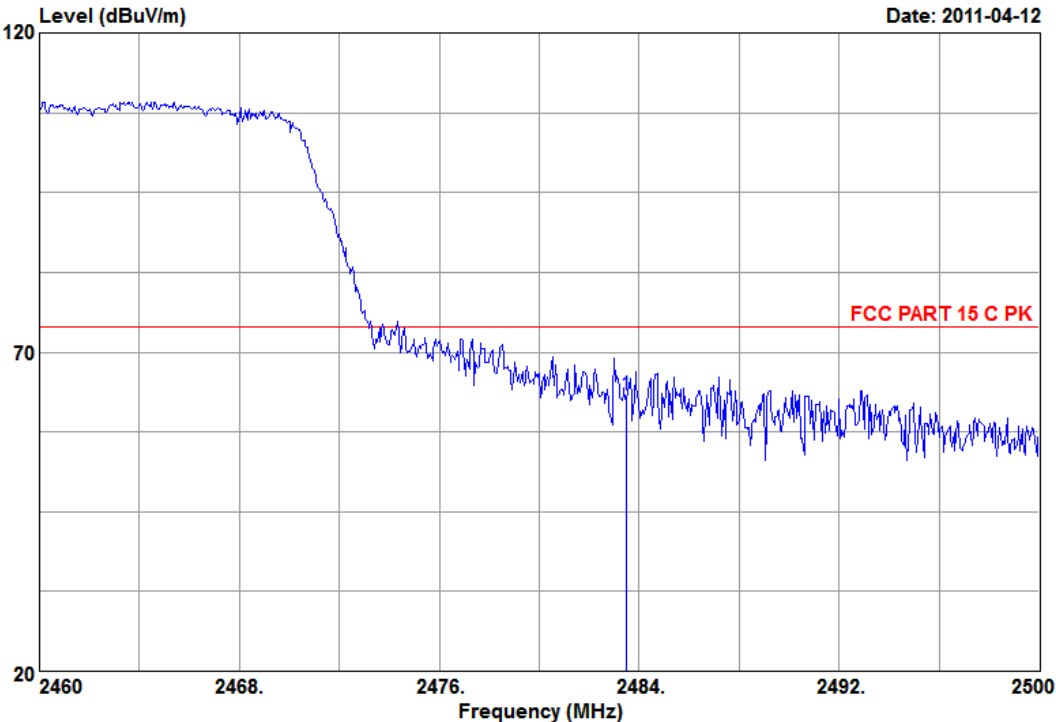
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
-----	1	2390.00	28.53	7.51	49.43	35.46	50.01	54.00	3.99	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 37 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 37  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT20 CH11  
 Ant 0&1

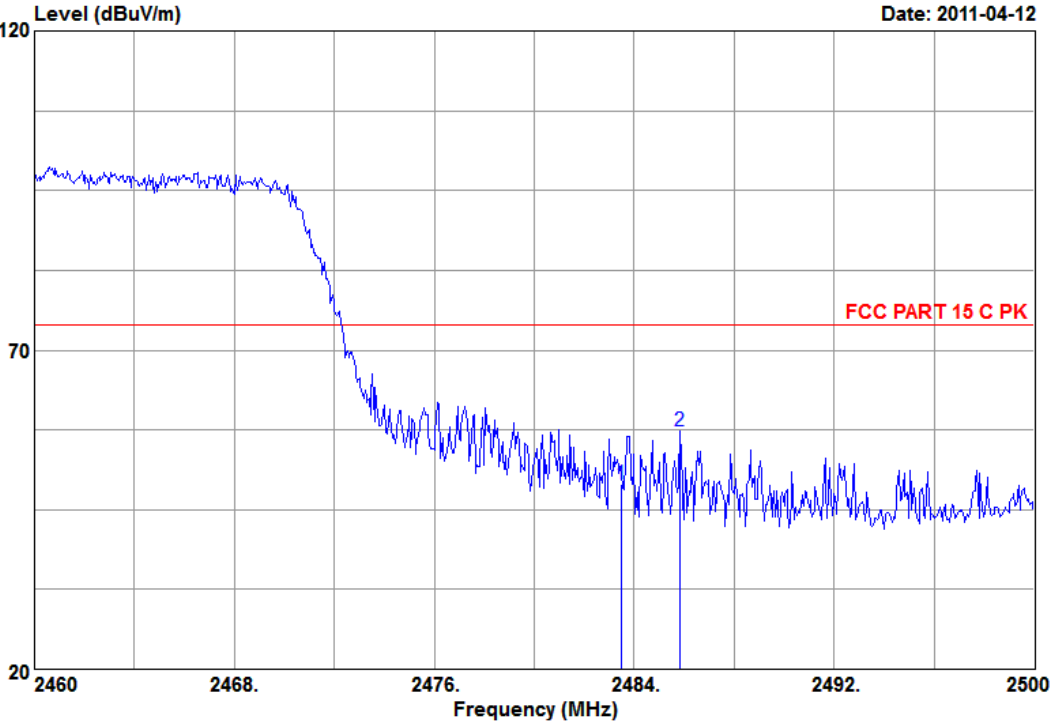
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	62.29	35.49	63.29	74.00	10.71	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 38 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56) Date: 2011-04-12



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 38  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT20 CH11  
 Ant 0&1

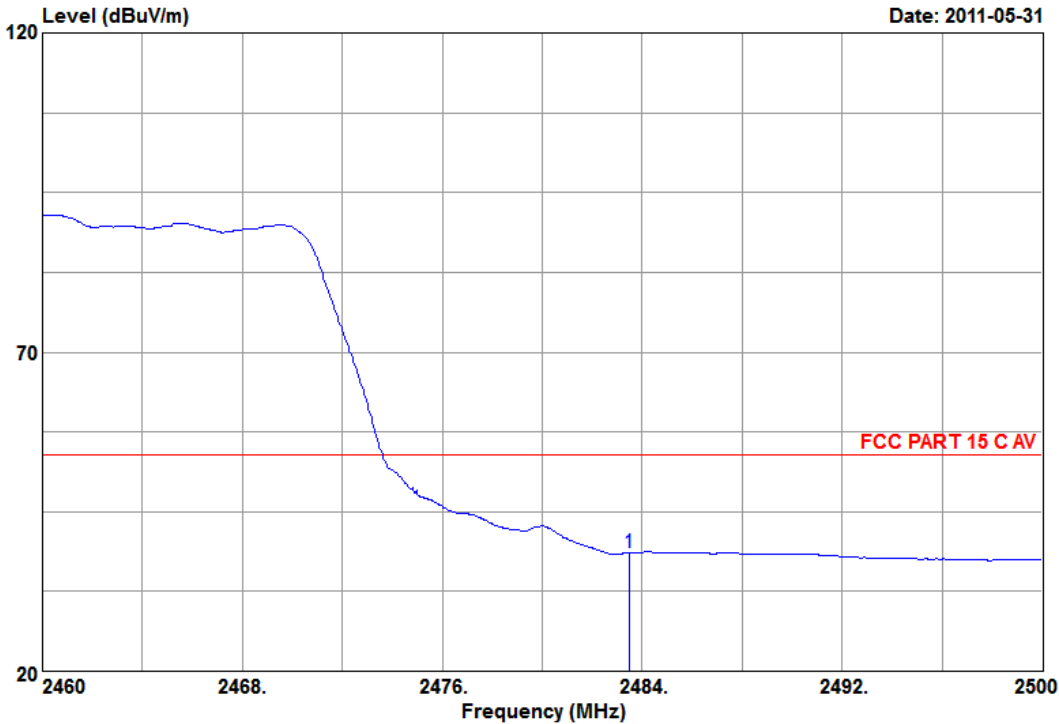
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	47.94	35.49	48.94	74.00	25.06	Peak
2	2485.84	28.76	7.73	56.28	35.49	57.28	74.00	16.72	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 51 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 51  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT20 CH11  
 Ant 0&1

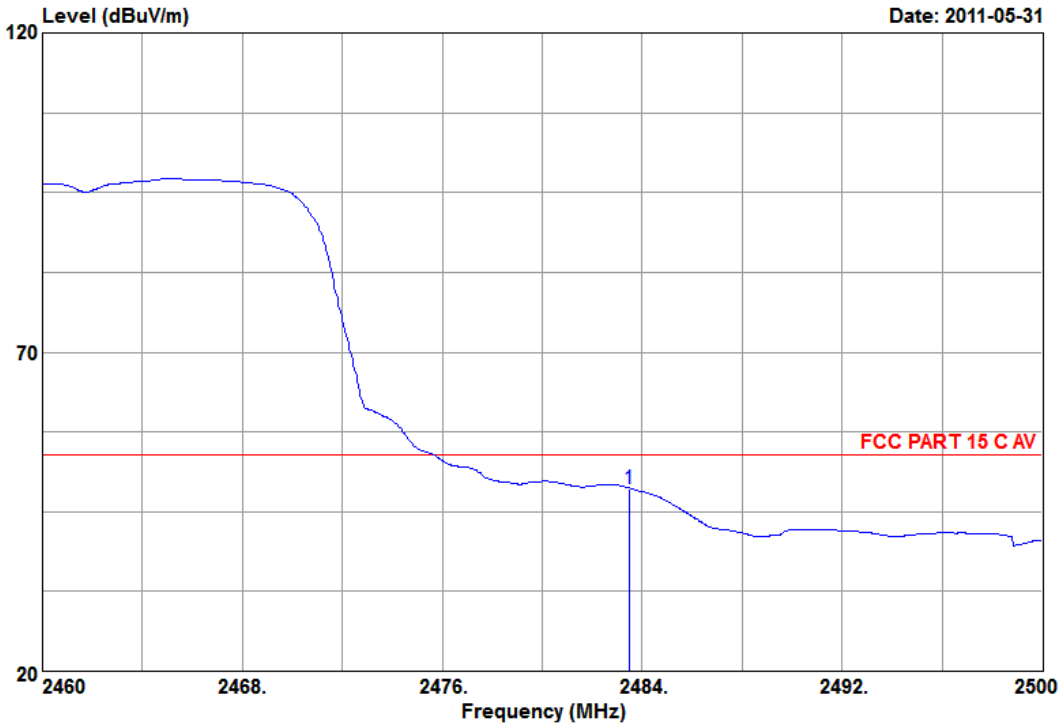
	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	28.76	7.73	37.55	35.49	38.55	54.00	15.45	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 52 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO.	: 3m Semi-Anechoic Chamber	Data NO.	: 52
Dis. / Ant.	: 3m HORN 3115(62961)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15 C AV	Engineer	: justin
Env. / Ins.	: 16.9*C&52%/ESCI		
EUT	: 300Mbps Wireless ADSL Modem Router		
M/N	: DSL-N12U		
Power Rating:	: 120Vac/60Hz		
Test Mode	: FULL SYSTEM		
Memo	: 802.11n HT20 CH11		
	: Ant 0&1		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
-----	1	2483.50	28.76	7.73	47.66	35.49	48.66	54.00	5.34	Average

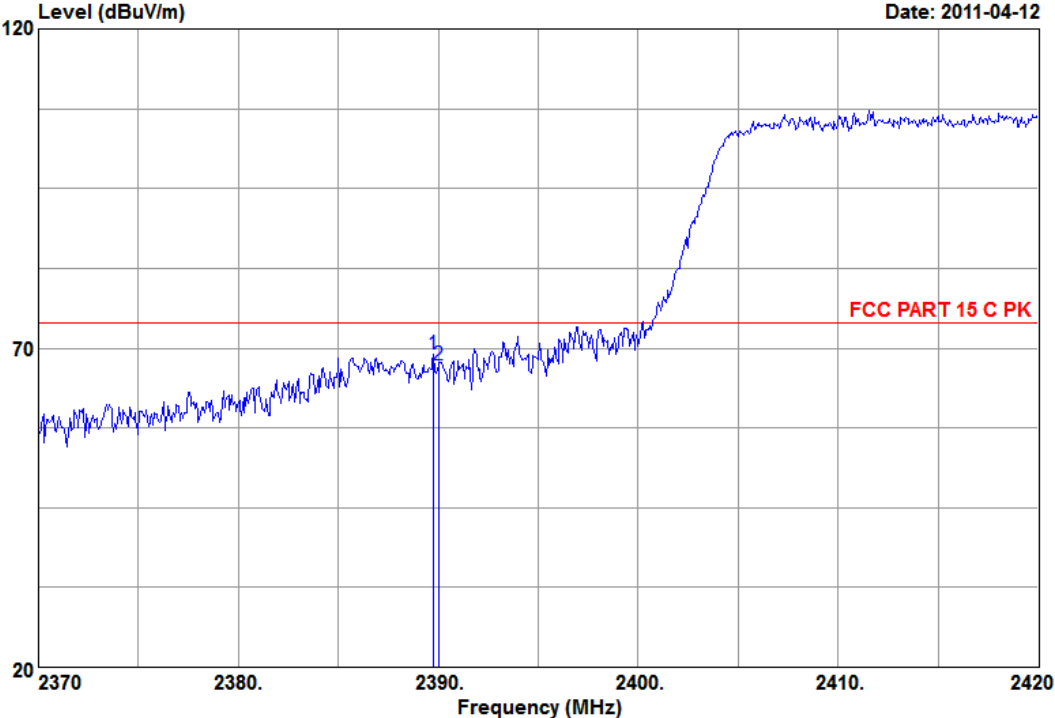
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.

4.8.4. IEEE 802.11n HT40



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Data: 41 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56) Date: 2011-04-12



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 41  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT40 CH3  
 Ant 0&1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.75	28.53	7.51	68.51	35.45	69.10	74.00	4.90	Peak
2	2390.00	28.53	7.51	66.76	35.46	67.34	74.00	6.66	Peak

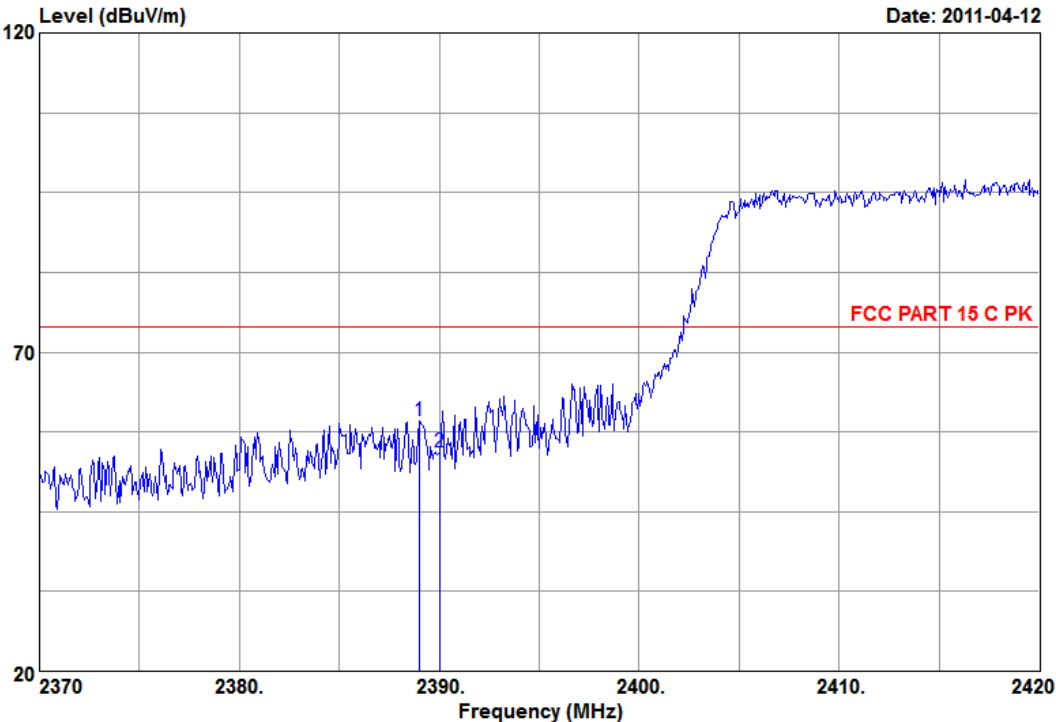
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.





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Data: 42 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber	Data NO. : 42
Dis. / Ant. : 3m HORN 3115(62961)	Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C PK	Engineer : justin
Env. / Ins. : 16.9*C&52%/ESCI	
EUT : 300Mbps Wireless ADSL Modem Router	
M/N : DSL-N12U	
Power Rating: 120Vac/60Hz	
Test Mode : FULL SYSTEM	
Memo : 802.11n HT40 CH3	
Ant 0&1	

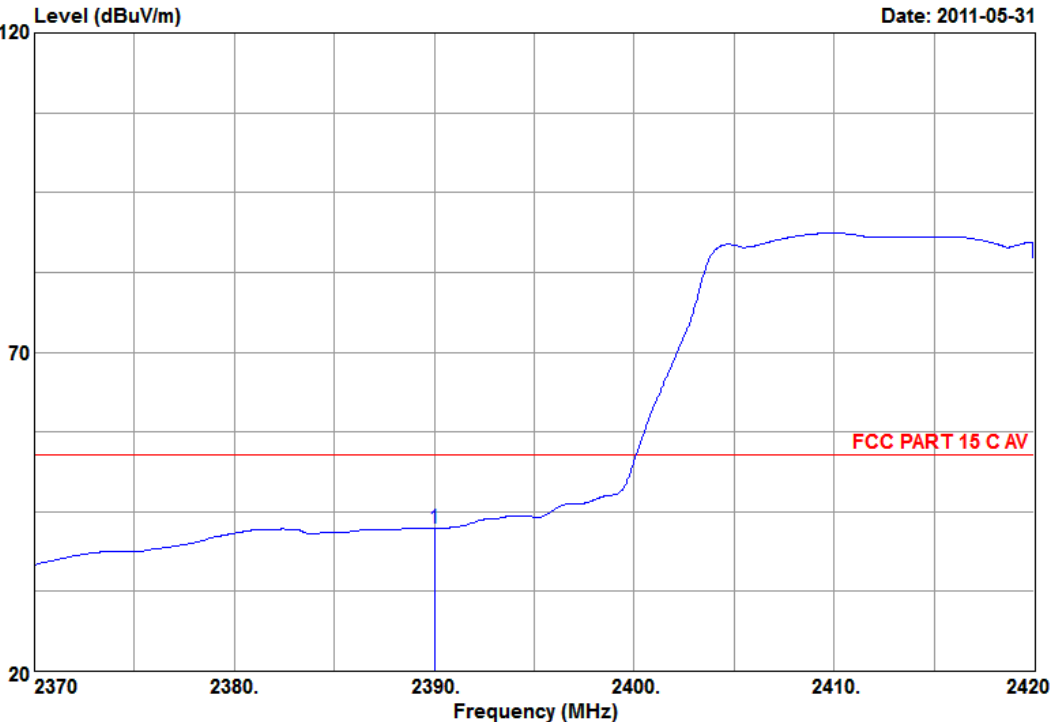
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.00	28.53	7.51	58.75	35.45	59.34	74.00	14.66	Peak
2	2390.00	28.53	7.51	53.76	35.46	54.34	74.00	19.66	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 53 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber  
 Dis. / Ant. : 3m HORN 3115(62961)  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9°C&52%/ESCI  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT40 CH3  
 Ant 0&1

Data NO. : 53  
 Ant. pol. : HORIZONTAL  
 Engineer : justin

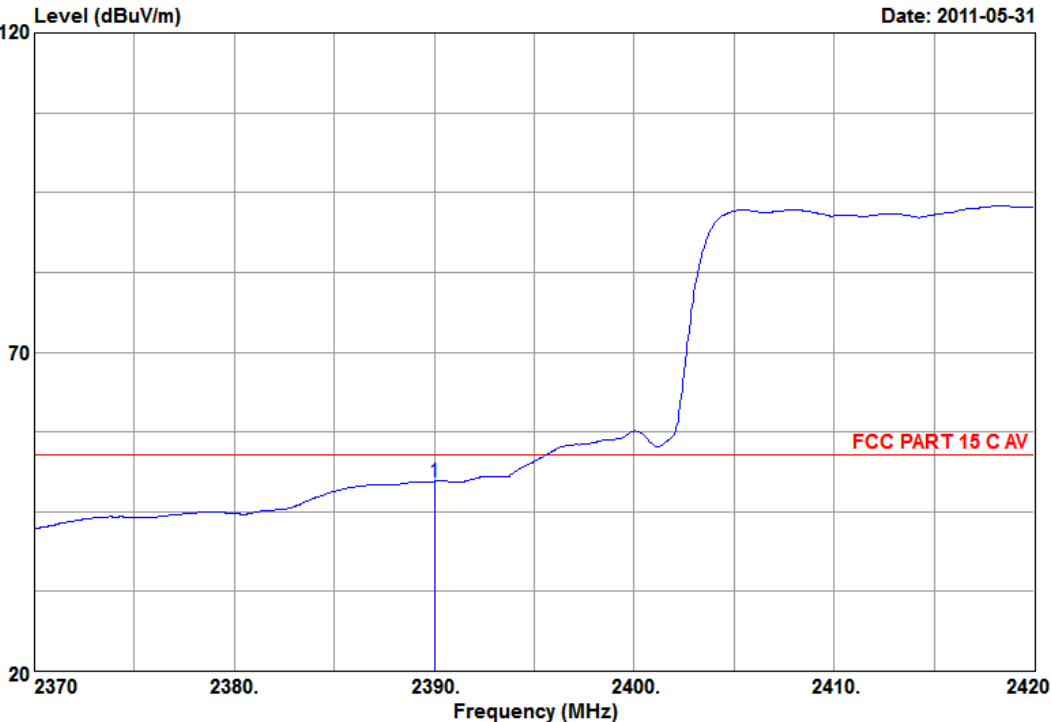
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	28.53	7.51	41.80	35.46	42.38	54.00	11.62	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 54 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 54  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT40 CH3  
 Ant 0&1

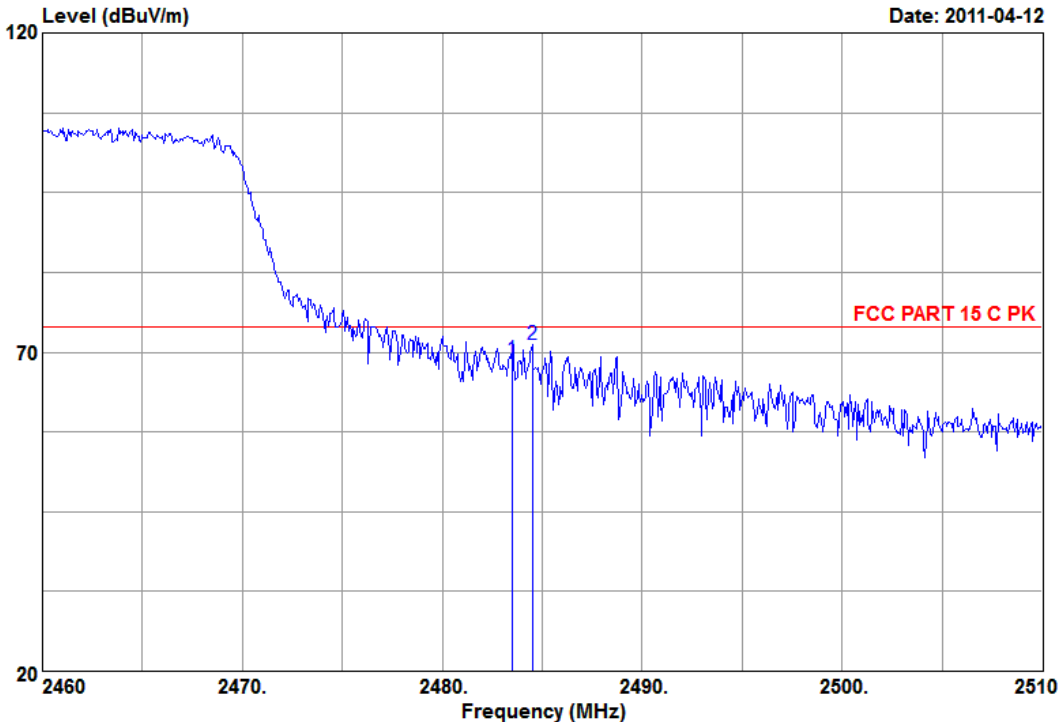
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	28.53	7.51	49.16	35.46	49.74	54.00	4.26	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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 Economic Development Zone,JiangSu,China  
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Data: 45 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 45  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT40 CH9  
 Ant 0&1

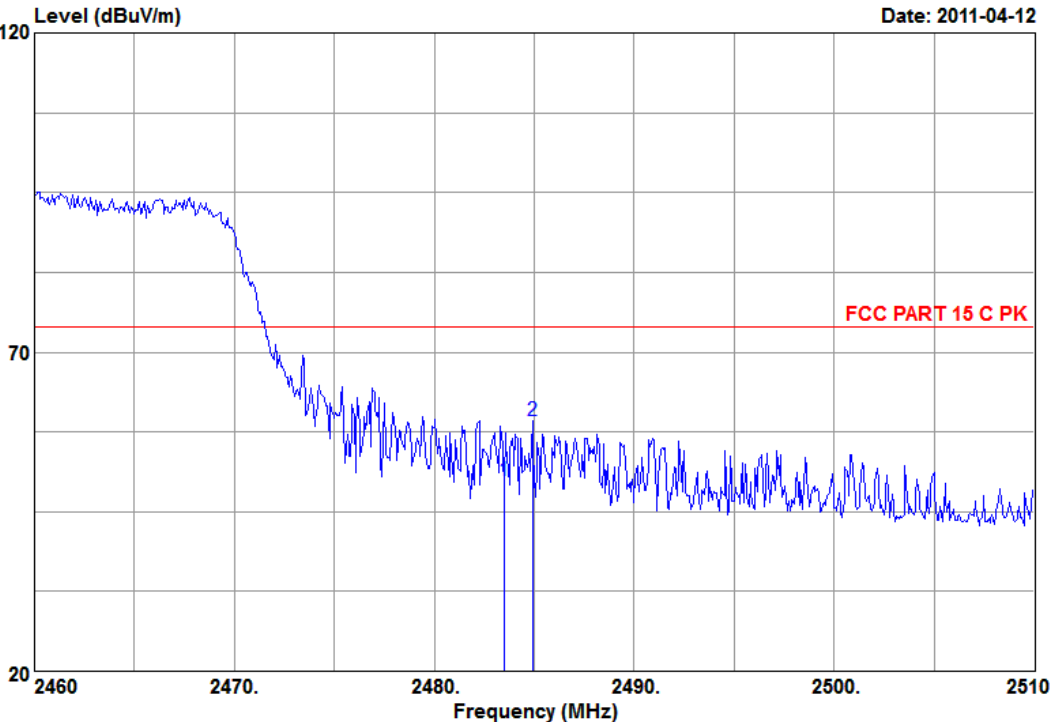
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	67.81	35.49	68.81	74.00	5.19	Peak
2	2484.50	28.76	7.73	70.19	35.49	71.19	74.00	2.81	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 46 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56) Date: 2011-04-12



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 46  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C PK  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT40 CH9  
 Ant 0&1

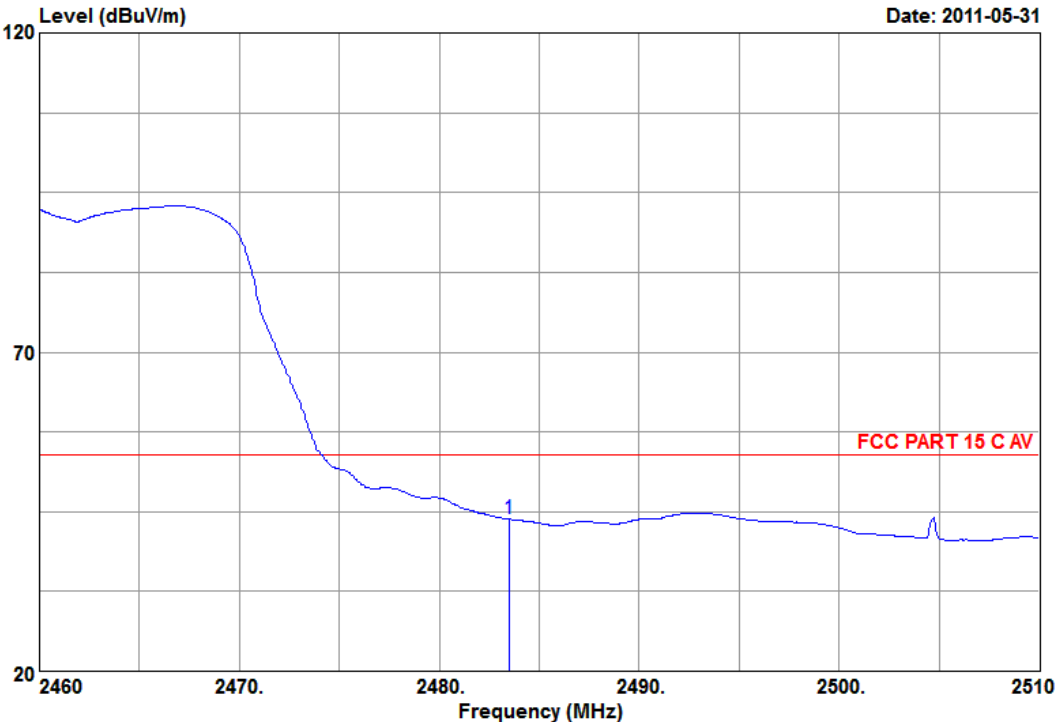
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	48.86	35.49	49.86	74.00	24.14	Peak
2	2484.90	28.76	7.73	58.20	35.49	59.20	74.00	14.80	Peak

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 55 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 55  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT40 CH9  
 Ant 0&1

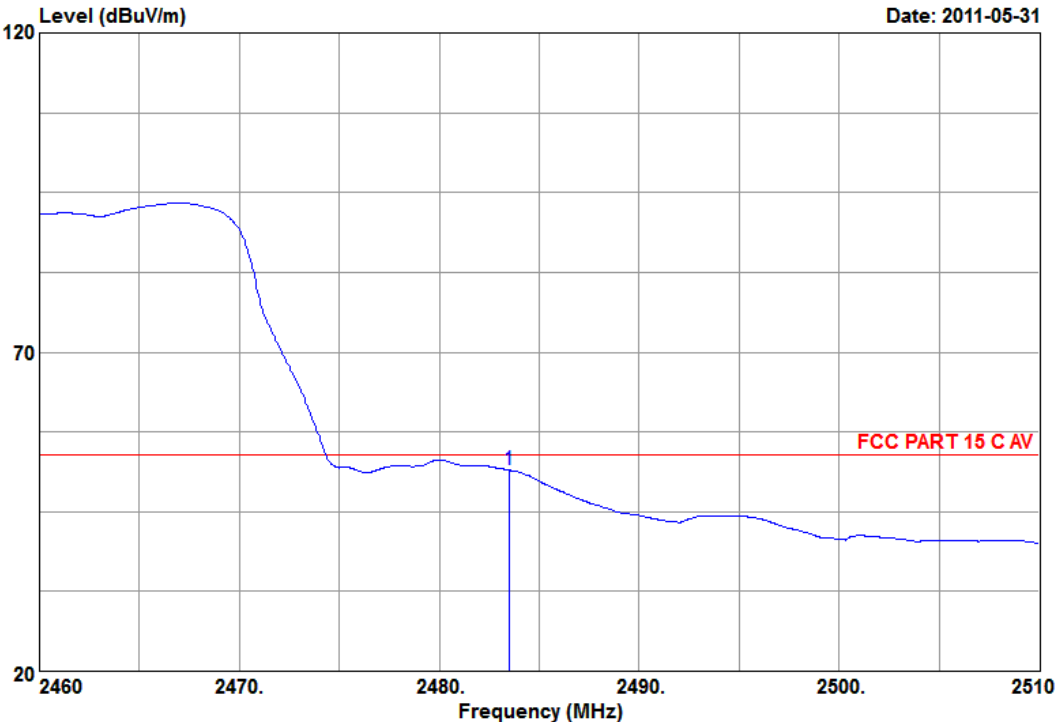
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	42.87	35.49	43.87	54.00	10.13	Average

Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 56 File: G:\Test Data\2011\Reports\04\G1104020\bandedge.EM6 (56)



Site NO. : 3m Semi-Anechoic Chamber Data NO. : 56  
 Dis. / Ant. : 3m HORN 3115(62961) Ant. pol. : VERTICAL  
 Limit : FCC PART 15 C AV  
 Env. / Ins. : 16.9\*C&52%/ESCI Engineer : justin  
 EUT : 300Mbps Wireless ADSL Modem Router  
 M/N : DSL-N12U  
 Power Rating: 120Vac/60Hz  
 Test Mode : FULL SYSTEM  
 Memo : 802.11n HT40 CH9  
 Ant 0&1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Preamp. Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2483.50	28.76	7.73	50.52	35.49	51.52	54.00	2.48	Average

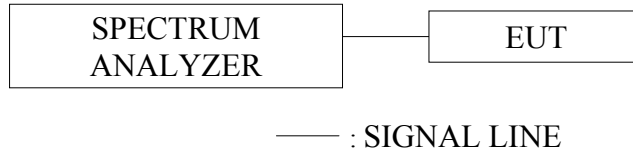
Remarks: 1. Emission Level= Ant.Factor + Cable Loss + Reading - Preamp.Factor.  
 2. The emission levels that are 20dB below the official limit are not reported.

## 5. 6 dB BANDWIDTH MEASUREMENT

### 5.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4447A	MY45300136	2011-01-08	2012-01-07

### 5.2. Block Diagram of Test Setup



### 5.3. Specification Limits (§15.247(a)(2))

Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

### 5.4. Test Results

**PASSED.** All the test results are attached in next pages.

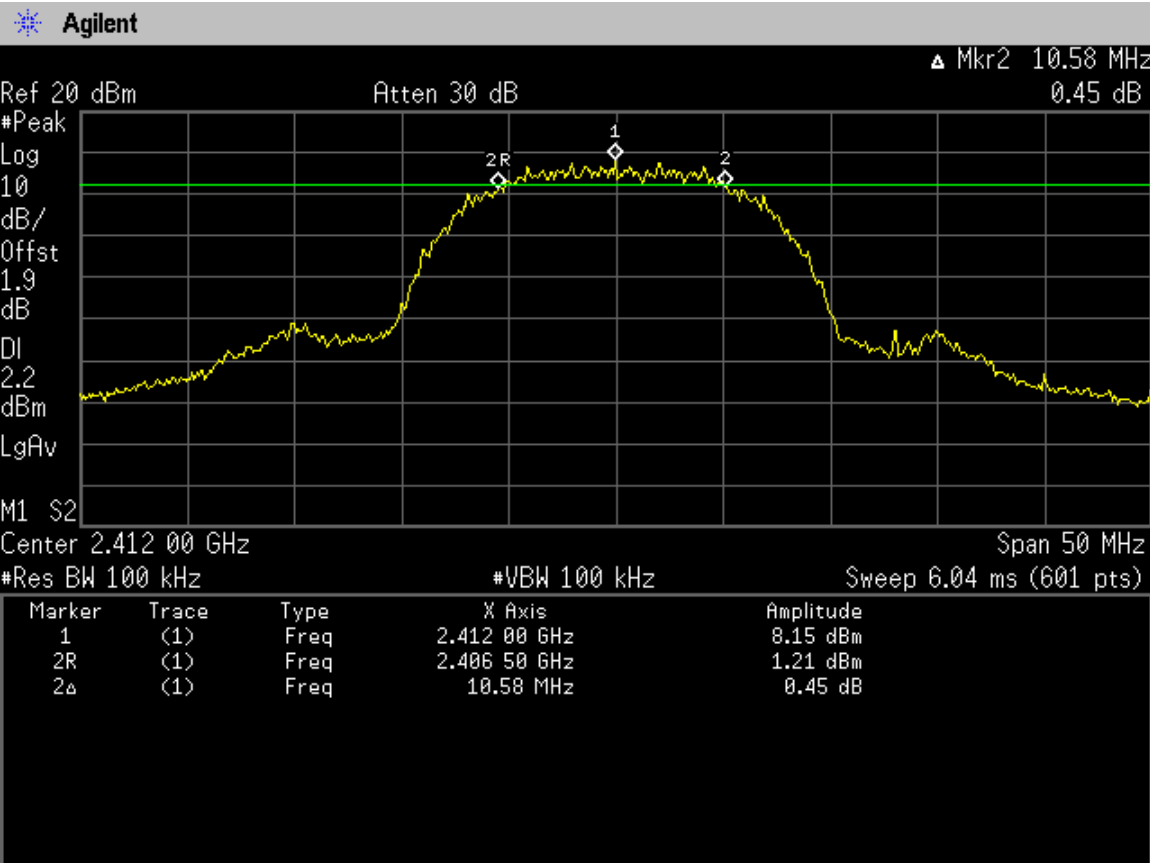
Test Date: Apr.12, 2011      Temperature: 16.9      Humidity: 52 %

Item	Channel	Test Frequency	6dB Bandwidth
802.11b Ant.0	1	2412MHz	<b>10.58MHz</b>
	6	2437MHz	<b>10.58MHz</b>
	11	2462MHz	<b>10.58MHz</b>
802.11b Ant.1	1	2412MHz	<b>10.75MHz</b>
	6	2437MHz	<b>10.58MHz</b>
	11	2462MHz	<b>10.17MHz</b>
802.11g Ant.0	1	2412MHz	<b>16.42MHz</b>
	6	2437MHz	<b>16.42MHz</b>
	11	2462MHz	<b>16.00MHz</b>
802.11g Ant.1	1	2412MHz	<b>16.42MHz</b>
	6	2437MHz	<b>16.08MHz</b>
	11	2462MHz	<b>16.08MHz</b>
802.11n HT20	1	2412MHz	<b>16.92MHz</b>
	6	2437MHz	<b>16.75MHz</b>
	11	2462MHz	<b>17.25MHz</b>
802.11n HT40	3	2422MHz	<b>35.67MHz</b>
	6	2437MHz	<b>35.00MHz</b>
	9	2452MHz	<b>35.50MHz</b>

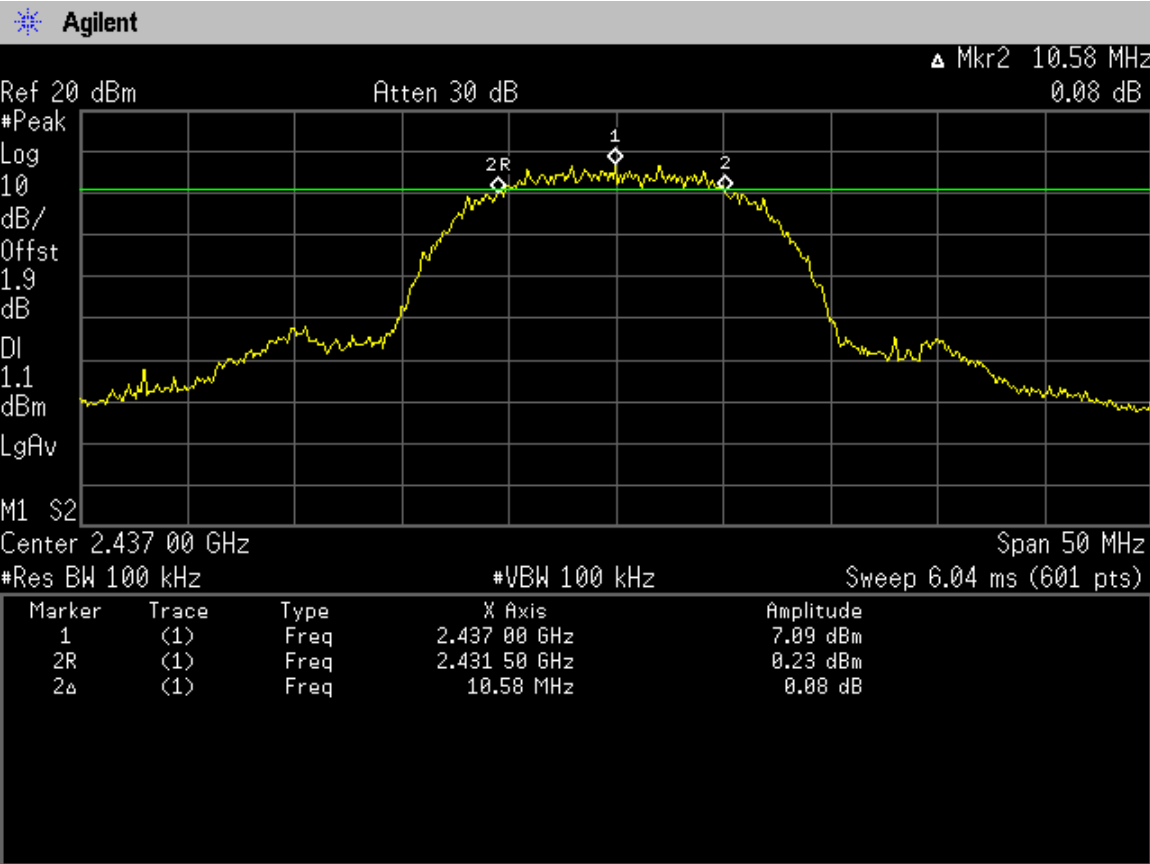


5.4.1.802.11b Ant.0

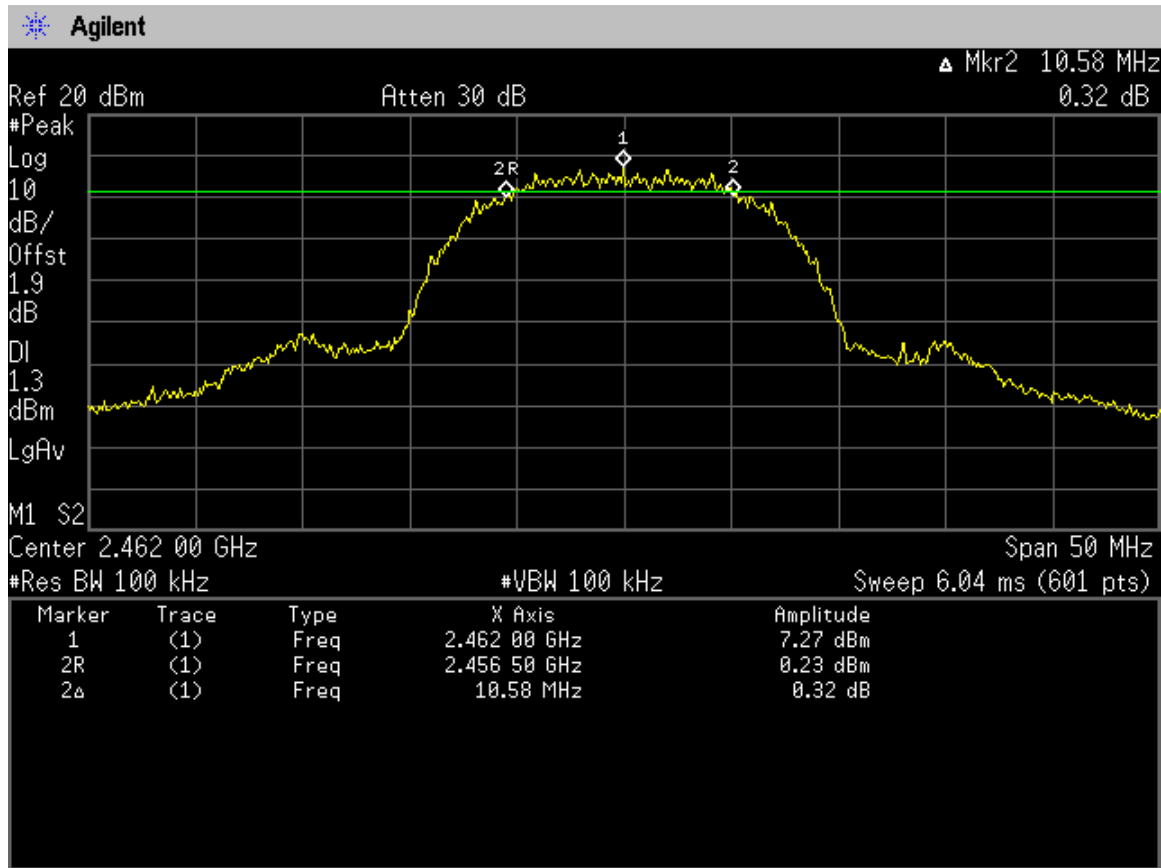
CH1



CH6

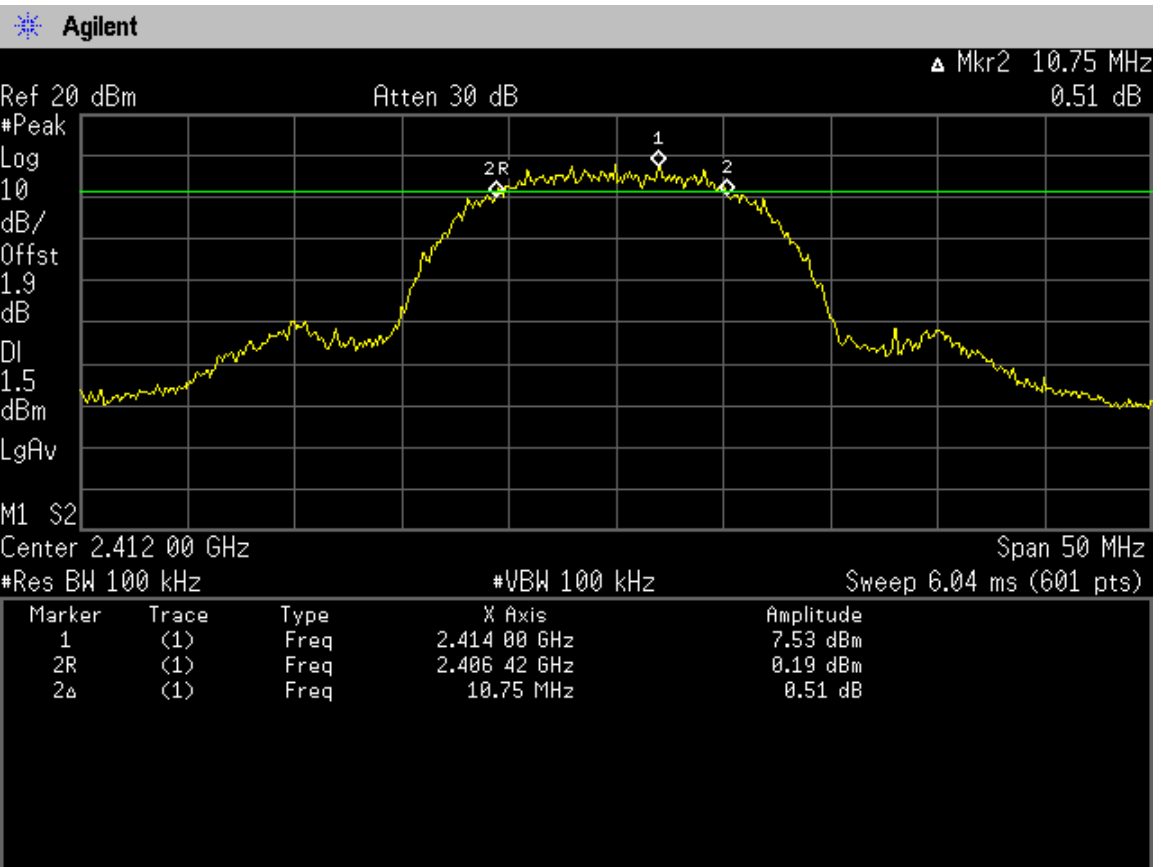


CH11

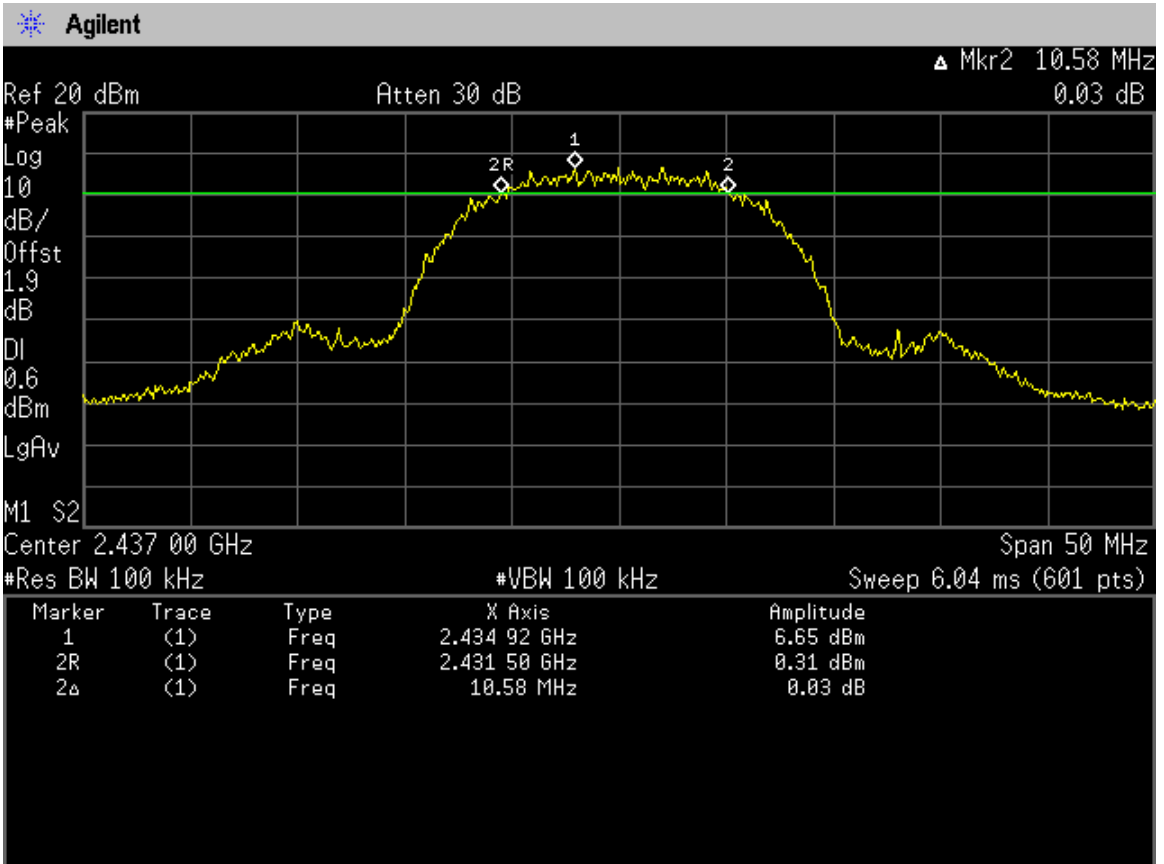


5.4.2.802.11b Ant.1

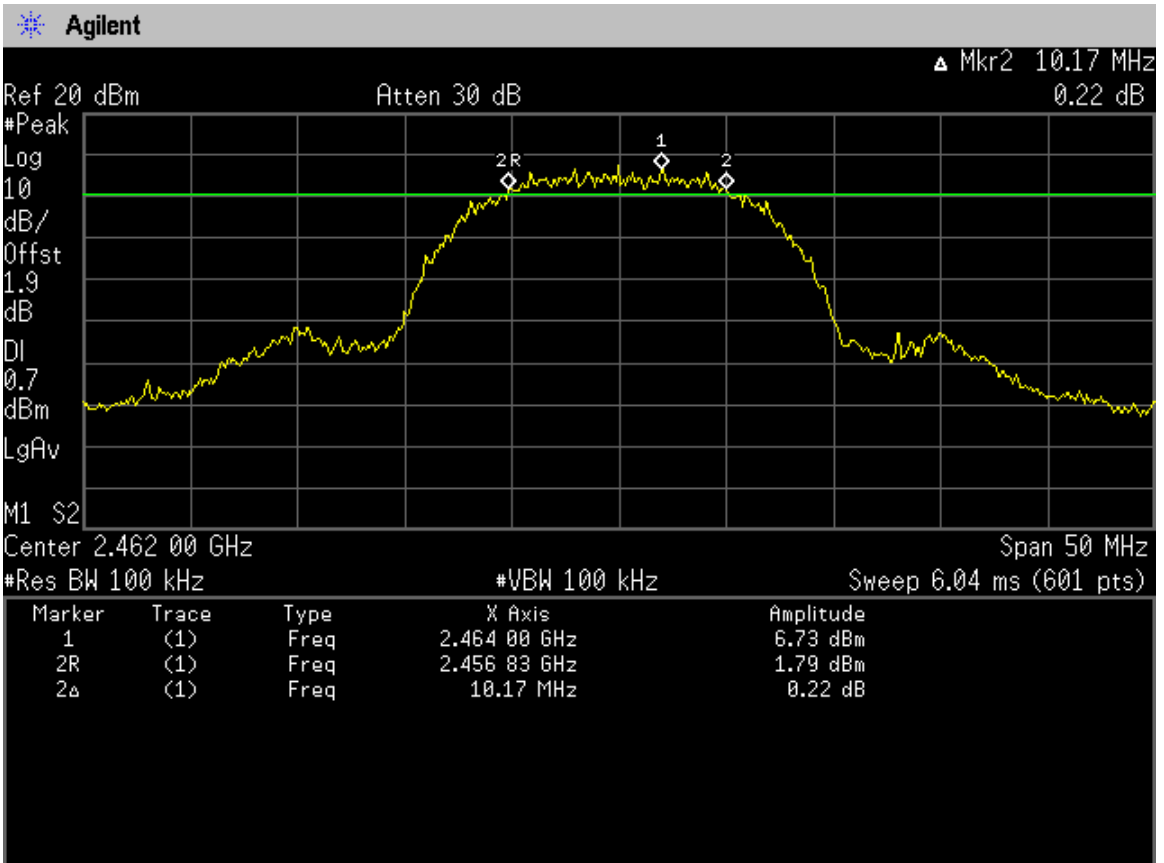
CH1



CH6

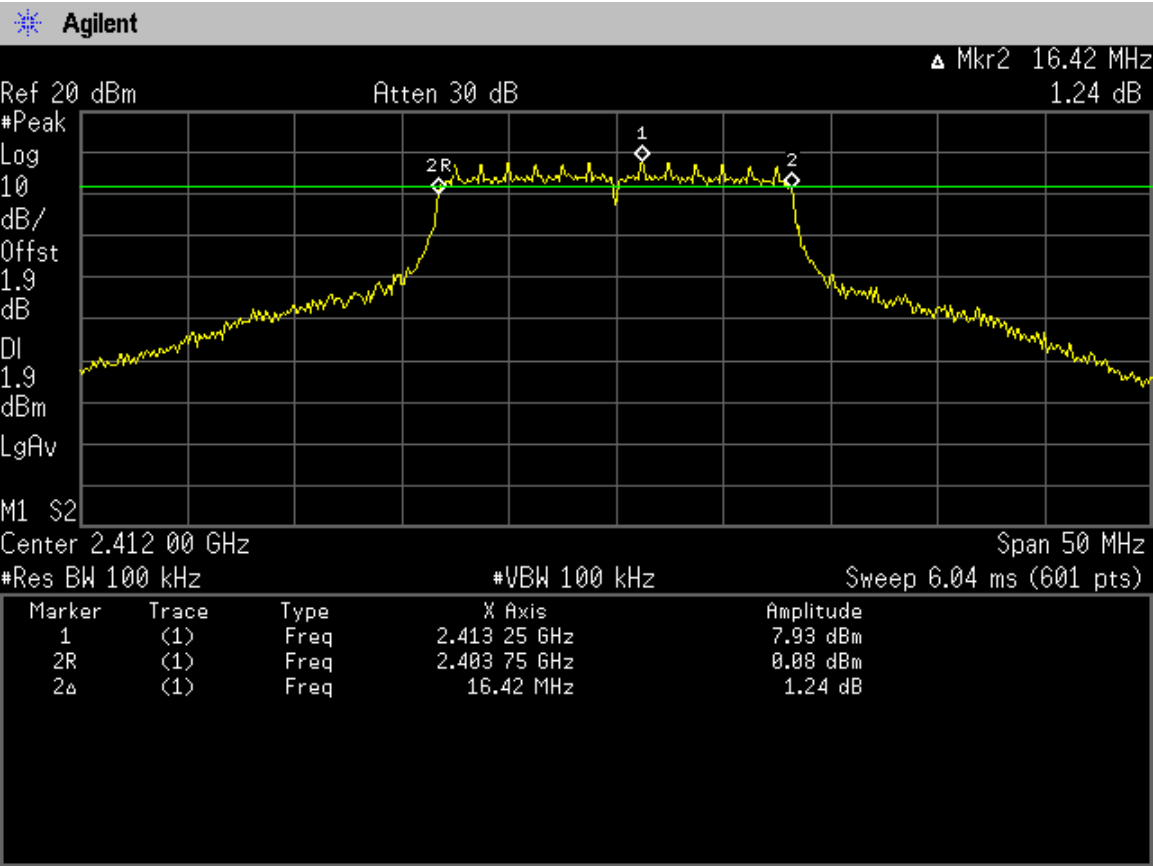


CH11

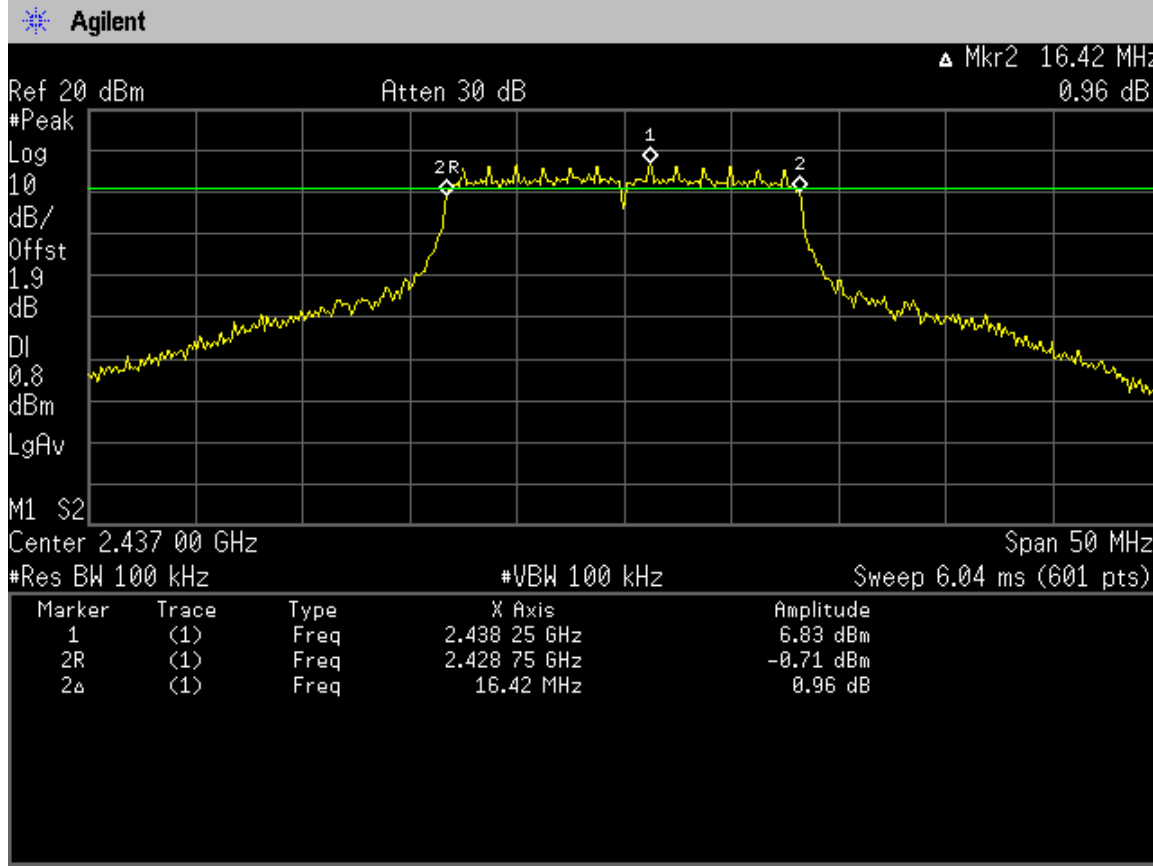


5.4.3.802.11g Ant.0

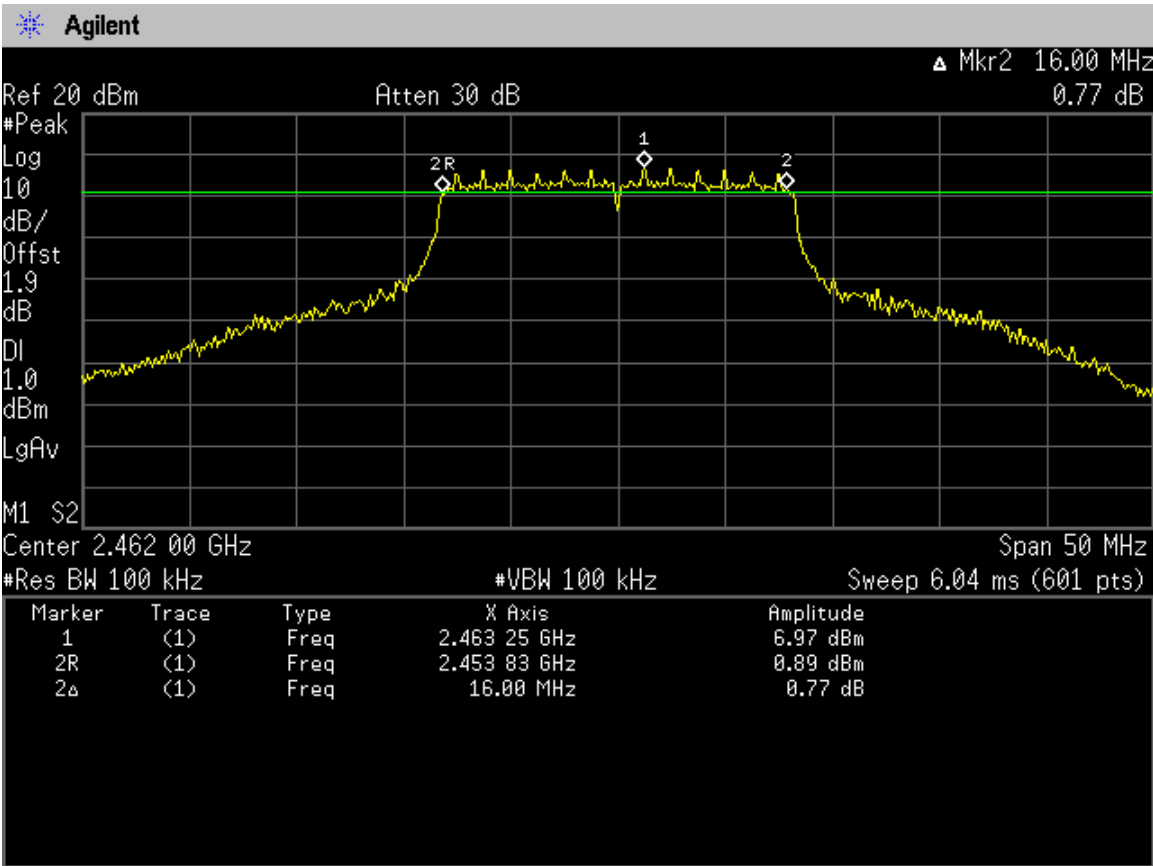
CH1



CH6

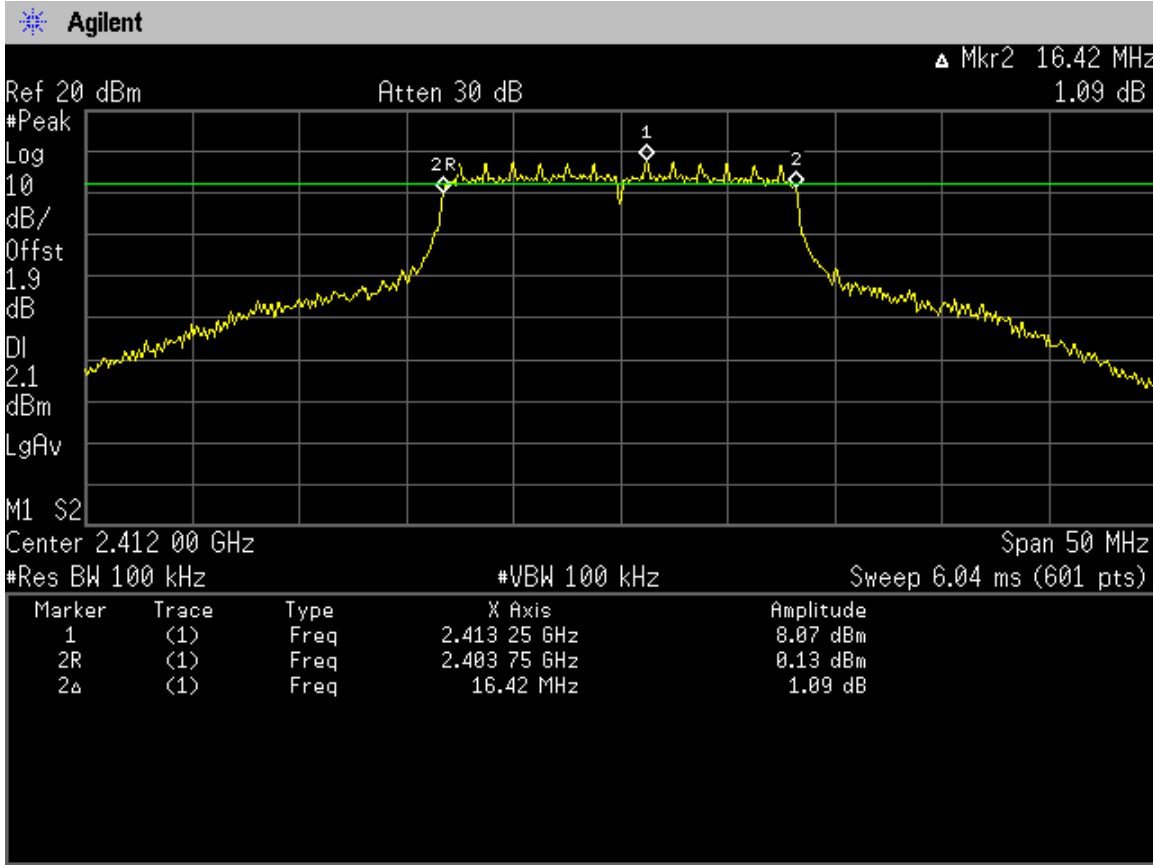


CH11



5.4.4.802.11g Ant.1

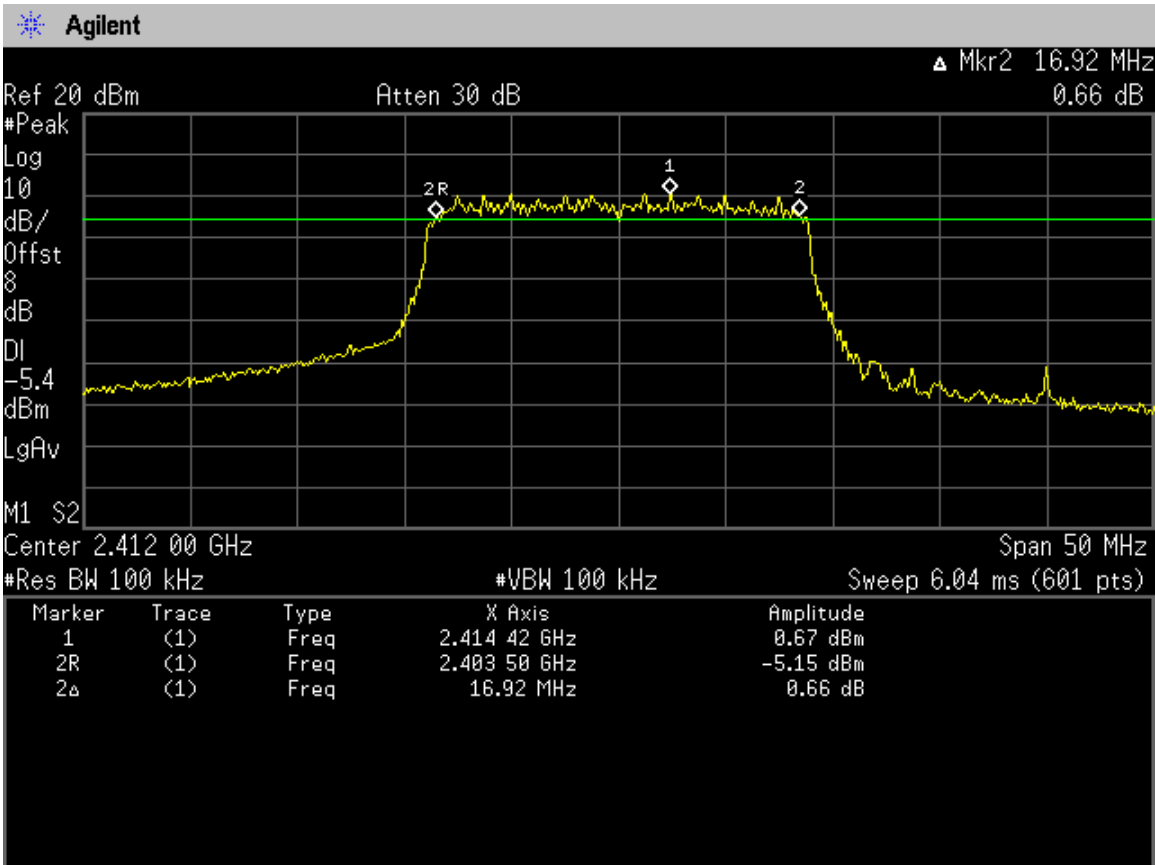
CH1



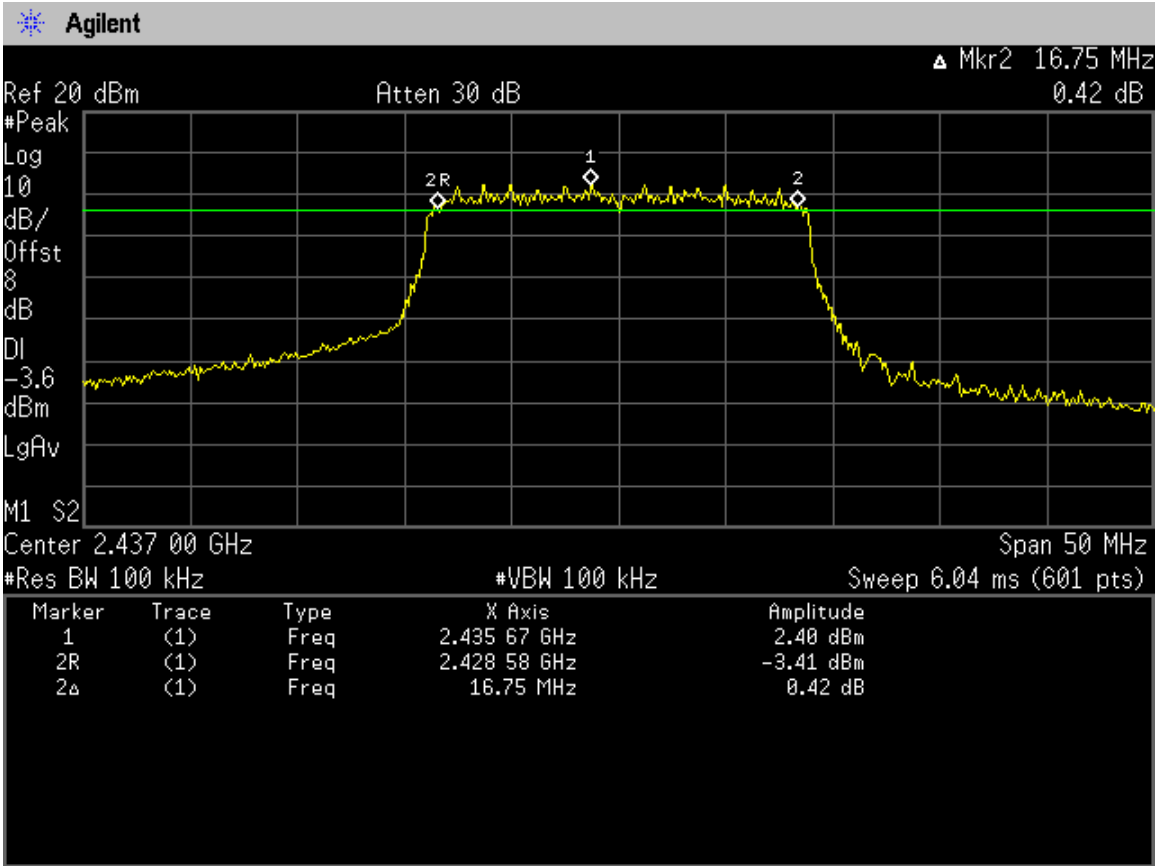


5.4.5.802.11n HT20 Ant.0 & 1

CH1



CH6







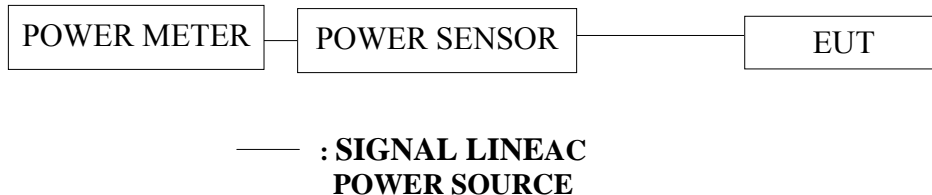


## 6. MAXIMUM PEAK OUTPUT POWER MEASUREMENT

### 6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Power Meter	Agilent	N1911A	MY45100361	2011-01-05	2012-01-04
2.	Power Sensor	Agilent	N1921A	MY45240521	2011-01-05	2012-01-04

### 6.2. Block Diagram of Test Setup



### 6.3. Specification Limits (§15.247(b)(3))

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.

### 6.4. Test Results

**PASSED.** All the test results are attached in next pages.

There have not used the combiner for the test. The final test results have summed by the two individual powers for 802.11n mode.

Test Date: Apr.12, 2011 Test Mode: 802.11b Ant.0

Channel \ Rate	CH1	CH6	CH11
1Mbps	19.87	19.14	19.11
2Mbps	19.79	19.59	19.67
5.5Mbps	20.12	19.57	19.66
11Mbps	20.21	19.69	19.72

Test Date: Apr.12, 2011 Test Mode: 802.11b Ant.1

Channel \ Rate	CH1	CH6	CH11
1Mbps	19.61	19.25	18.95
2Mbps	20.21	19.66	19.46
5.5Mbps	20.35	19.89	19.45
11Mbps	20.27	19.81	19.55

Test Date: Apr.12, 2011 Test Mode: 802.11g Ant.0

Channel \ Rate	CH1	CH6	CH11
6Mbps	26.94	26.70	26.66
9Mbps	26.75	26.27	26.57
12 Mbps	26.62	26.33	24.92
18 Mbps	26.36	25.94	25.10
24 Mbps	26.15	25.69	25.61
36 Mbps	25.69	25.02	25.73
48 Mbps	24.78	24.32	24.12
54 Mbps	24.71	24.02	24.05

Test Date: Apr.12, 2011 Test Mode: 802.11g Ant.1

Channel \ Rate	CH1	CH6	CH11
6Mbps	26.65	26.52	26.14
9Mbps	26.71	26.21	26.06
12 Mbps	26.10	25.96	25.72
18 Mbps	26.16	25.76	26.15
24 Mbps	25.93	25.64	25.32
36 Mbps	25.39	25.07	24.89
48 Mbps	24.50	24.06	23.90
54 Mbps	24.53	24.14	23.94

Test Date: Apr.12, 2011 Test Mode: 802.11n HT20

Channel \ Rate	CH1	CH6	CH11
MCS0	19.42	21.89	21.71
MCS1	19.41	21.80	21.65
MCS2	19.64	22.06	21.81
MCS3	19.71	22.58	22.26
MCS4	18.90	22.27	21.23
MCS5	18.91	21.65	21.43
MCS6	19.57	21.94	21.85
MCS7	19.62	21.97	21.82
MCS8	18.59	21.08	20.63
MCS9	18.79	21.37	21.40
MCS10	19.62	21.53	21.39
MCS11	18.97	21.18	21.34
MCS12	19.02	21.81	21.52
MCS13	19.47	22.10	22.00
MCS14	19.70	21.88	21.73
MCS15	19.42	21.74	21.75

Test Date: Apr.12, 2011 Test Mode: 802.11n HT40

Rate \ Channel	CH1	CH6	CH11
MCS0	18.64	18.59	17.44
MCS1	18.61	18.52	17.34
MCS2	18.73	18.64	17.44
MCS3	19.10	18.99	17.75
MCS4	19.34	19.27	18.03
MCS5	19.34	19.29	18.05
MCS6	19.44	19.36	18.10
MCS7	19.19	19.15	17.95
MCS8	19.07	19.04	17.66
MCS9	18.47	18.53	17.09
MCS10	18.59	18.61	17.19
MCS11	19.15	19.09	17.78
MCS12	19.03	18.98	17.66
MCS13	19.21	19.08	17.73
MCS14	19.06	18.98	17.71
MCS15	19.05	19.05	17.85

## 7. BAND EDGES MEASUREMENT

### 7.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4447A	MY45300136	2011-01-08	2012-01-07

### 7.2. Block Diagram of Test Setup

The same as section 5.2.

### 7.3. Specification Limits (§15.247(d))

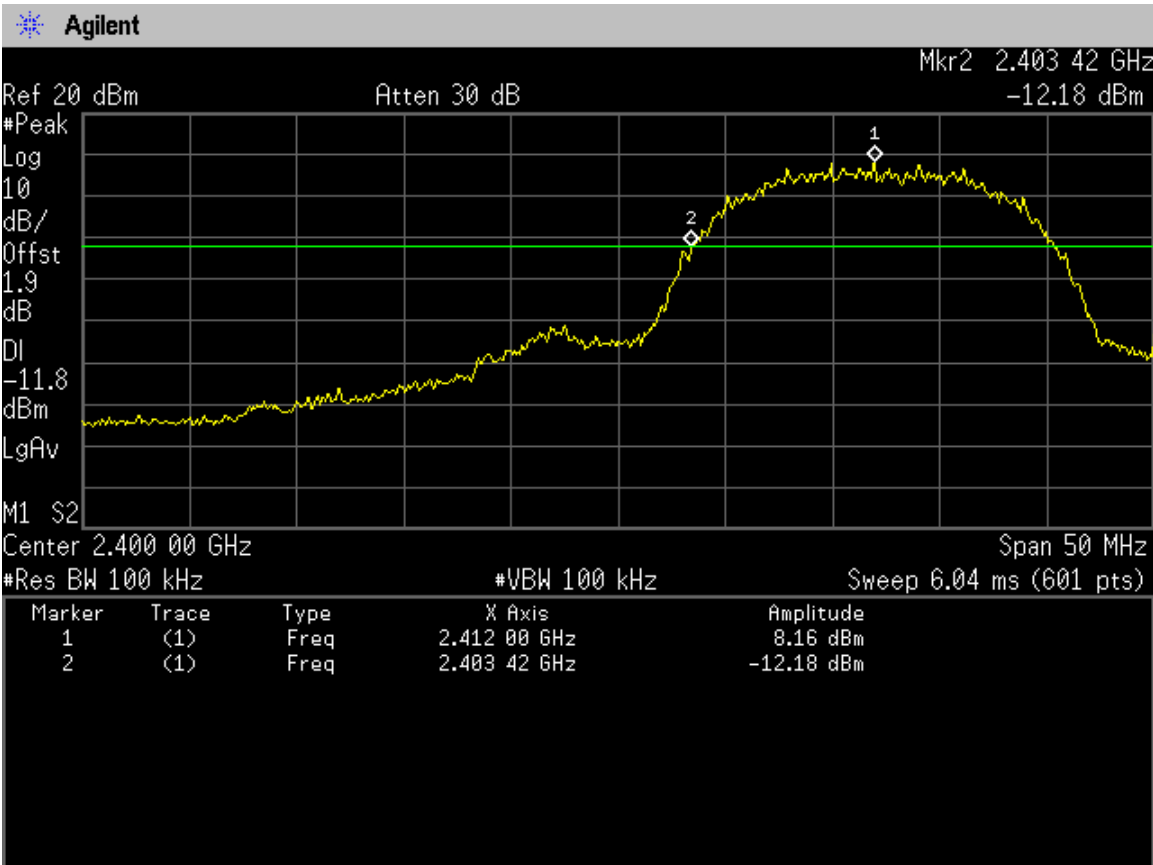
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 7.4. Test Results

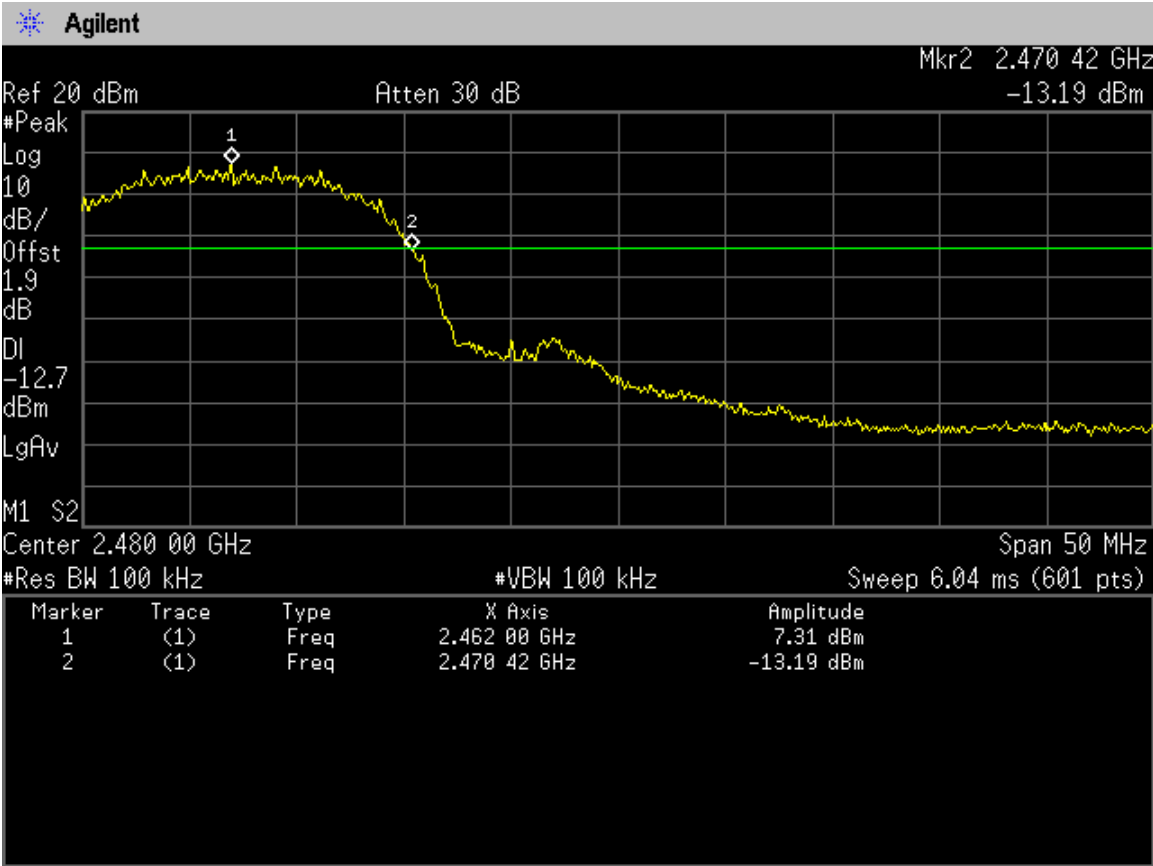
**PASSED.** The testing data was attached in the next pages.

7.4.1.802.11b Ant.0

CH1



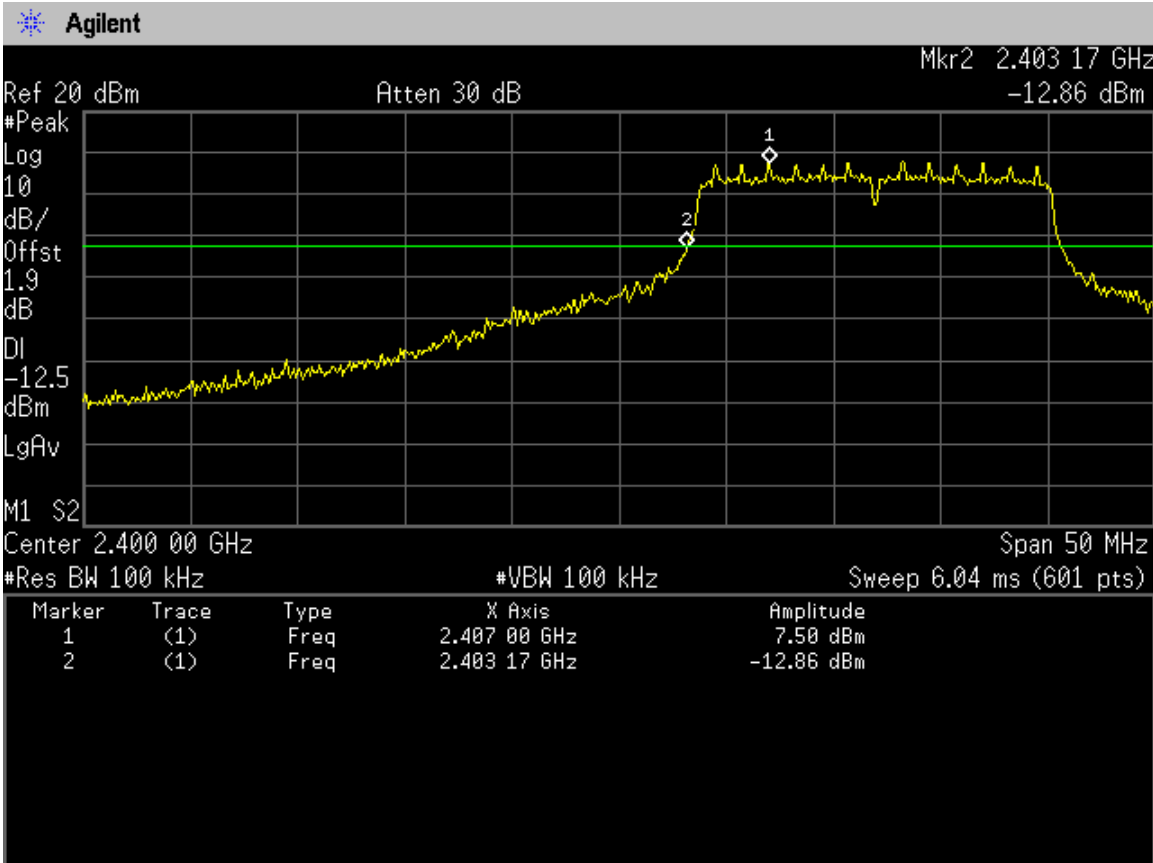
CH11



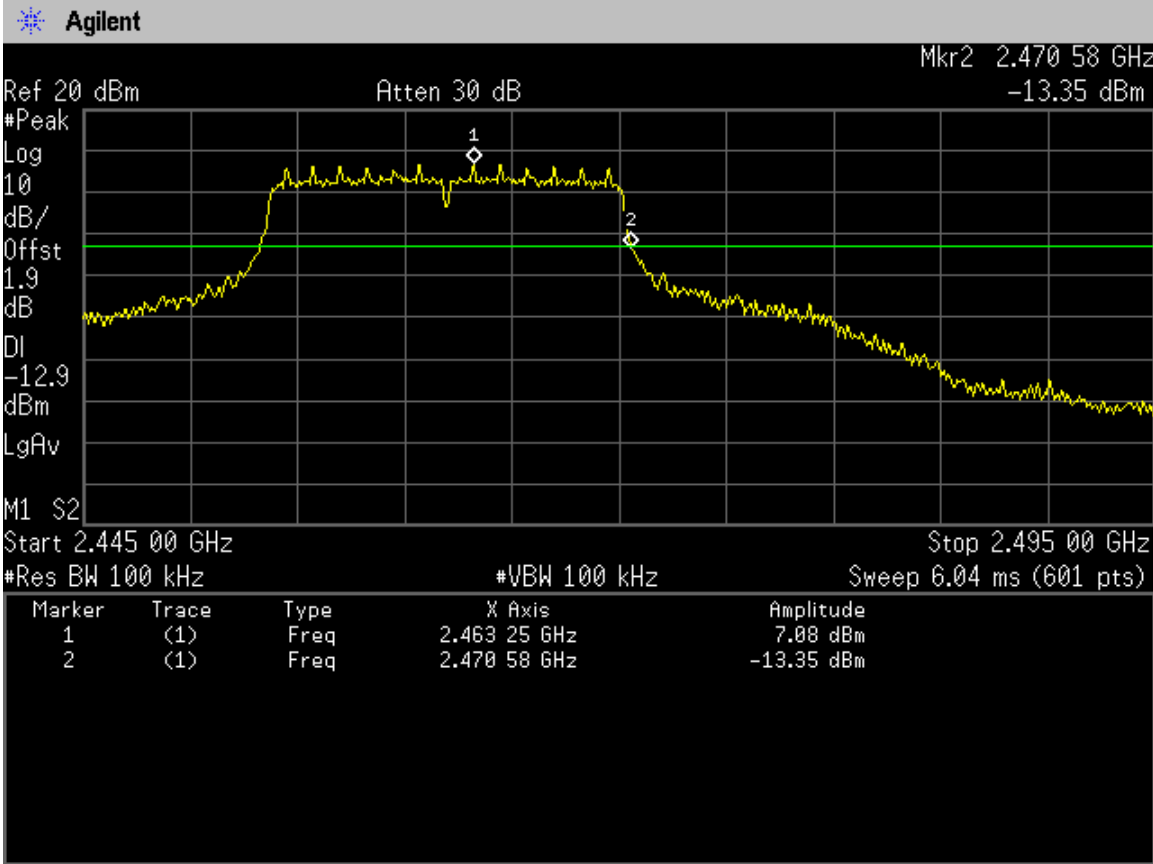


7.4.3.802.11g Ant.0

CH1



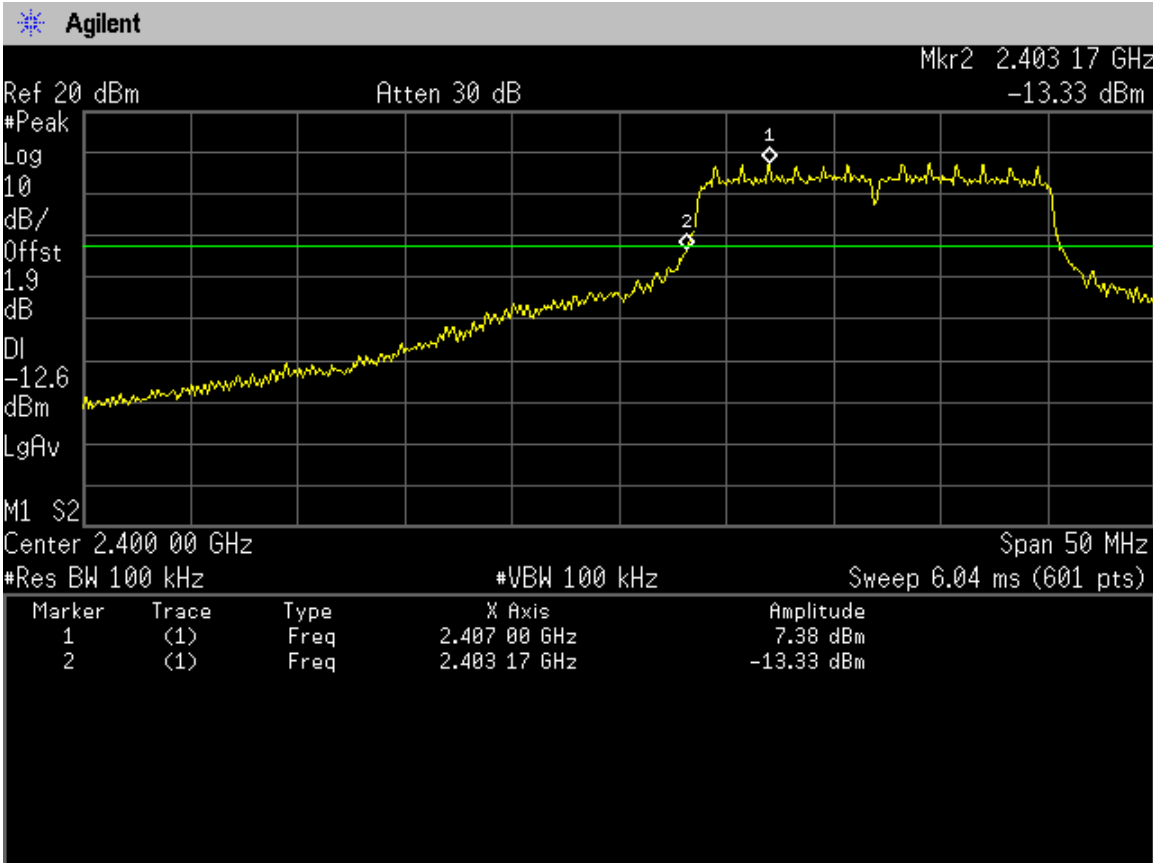
CH11



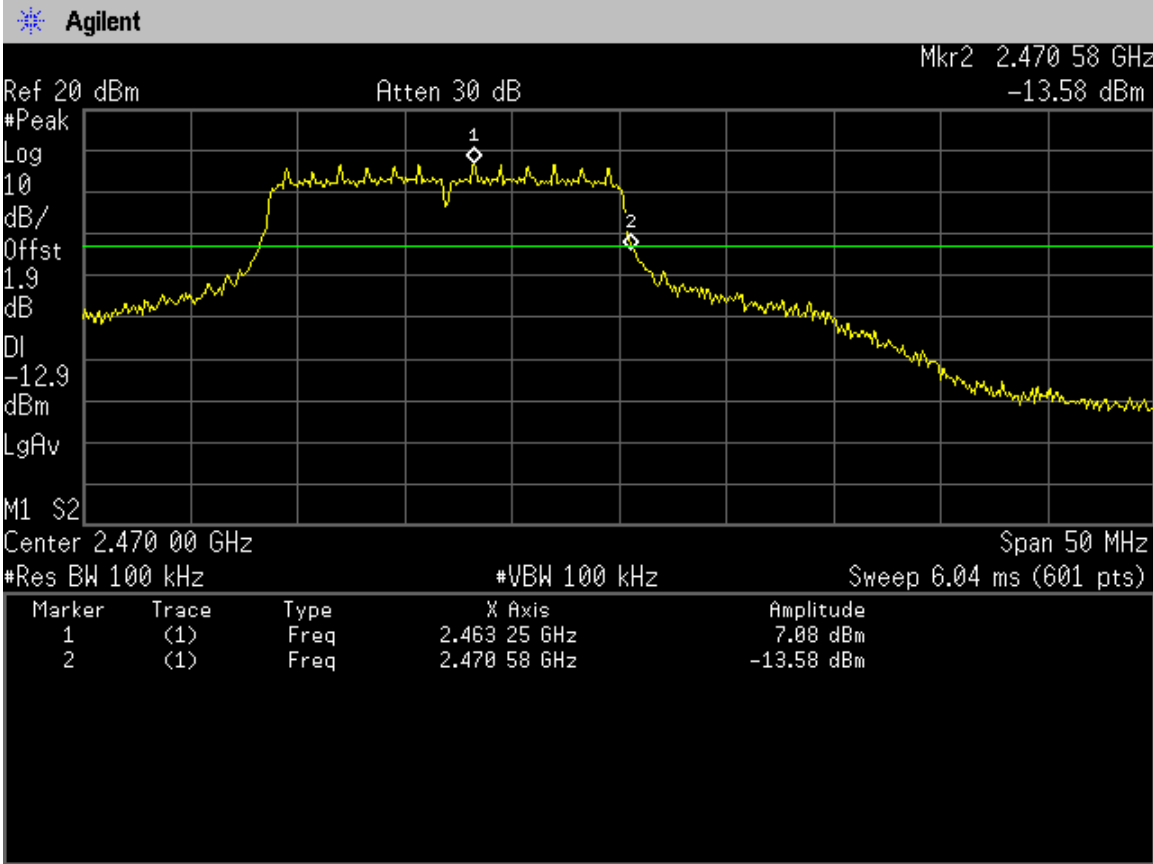


7.4.4.802.11g Ant.1

CH1

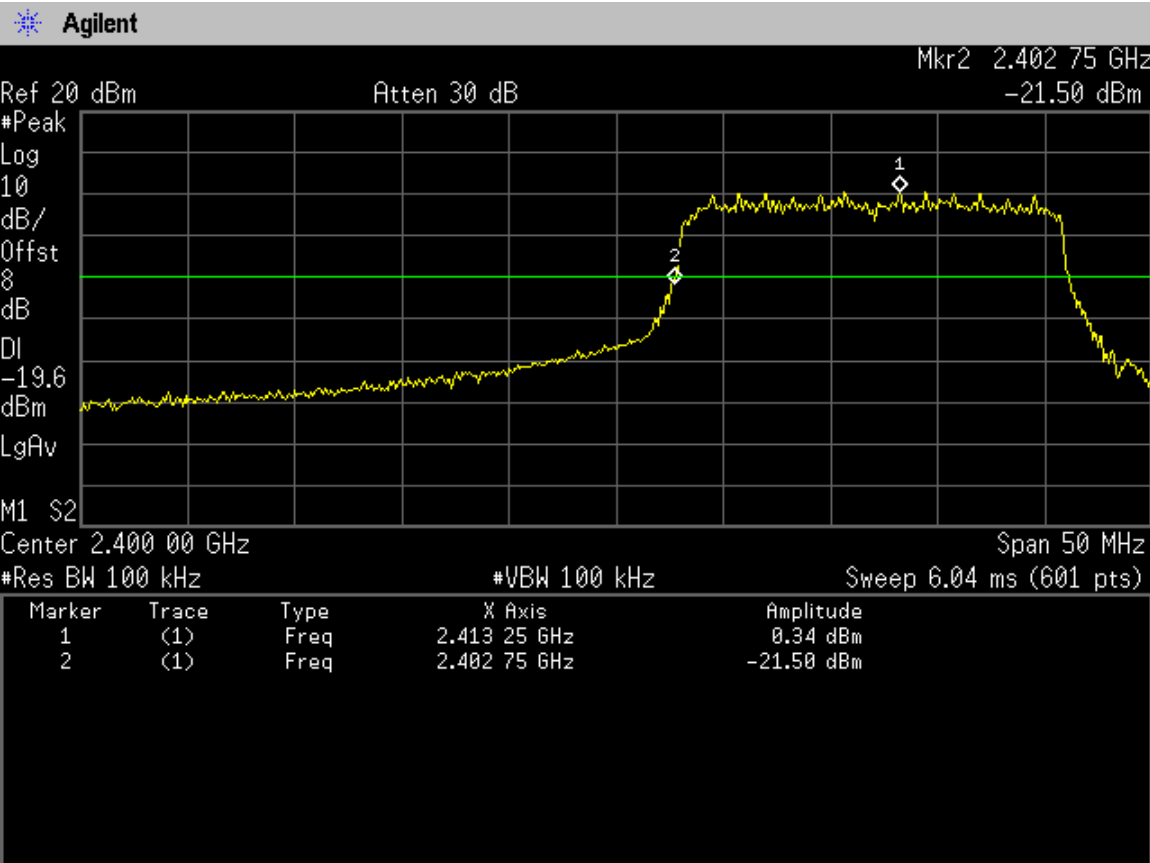


CH11

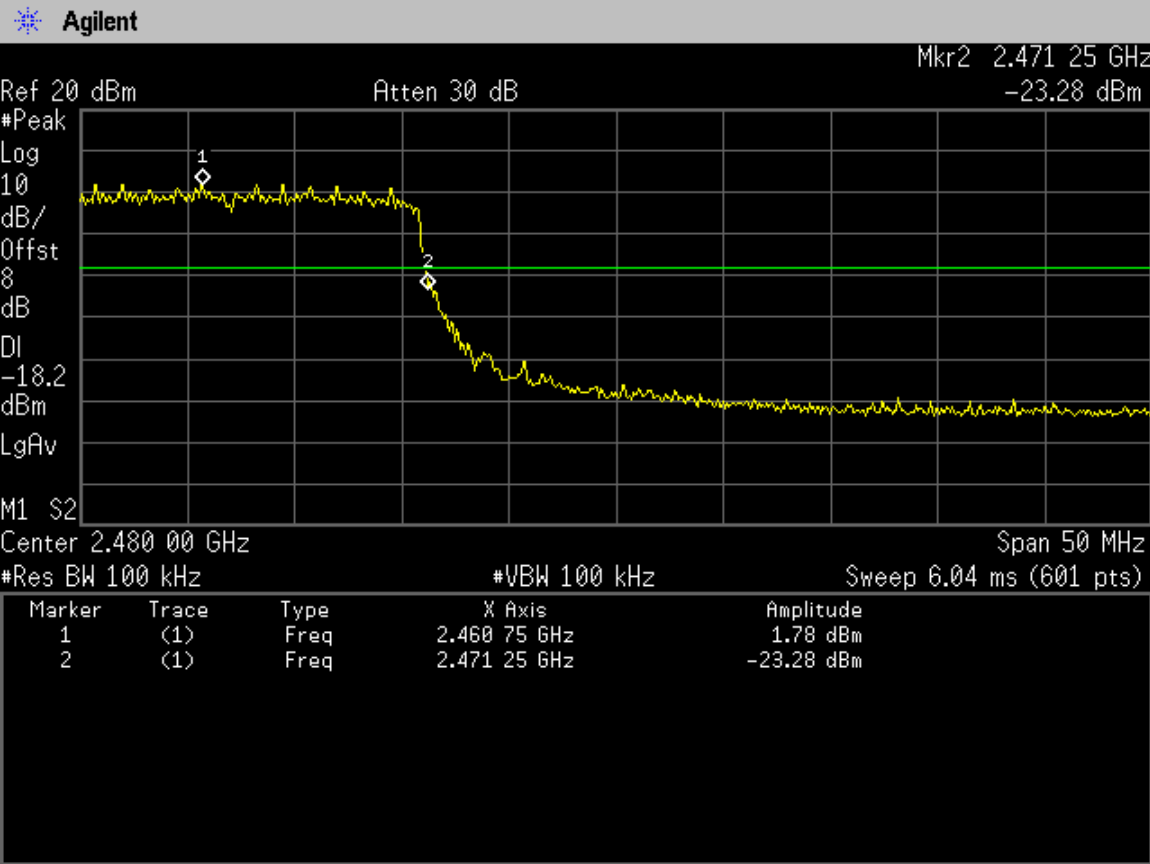


7.4.5.802.11n HT20

CH1

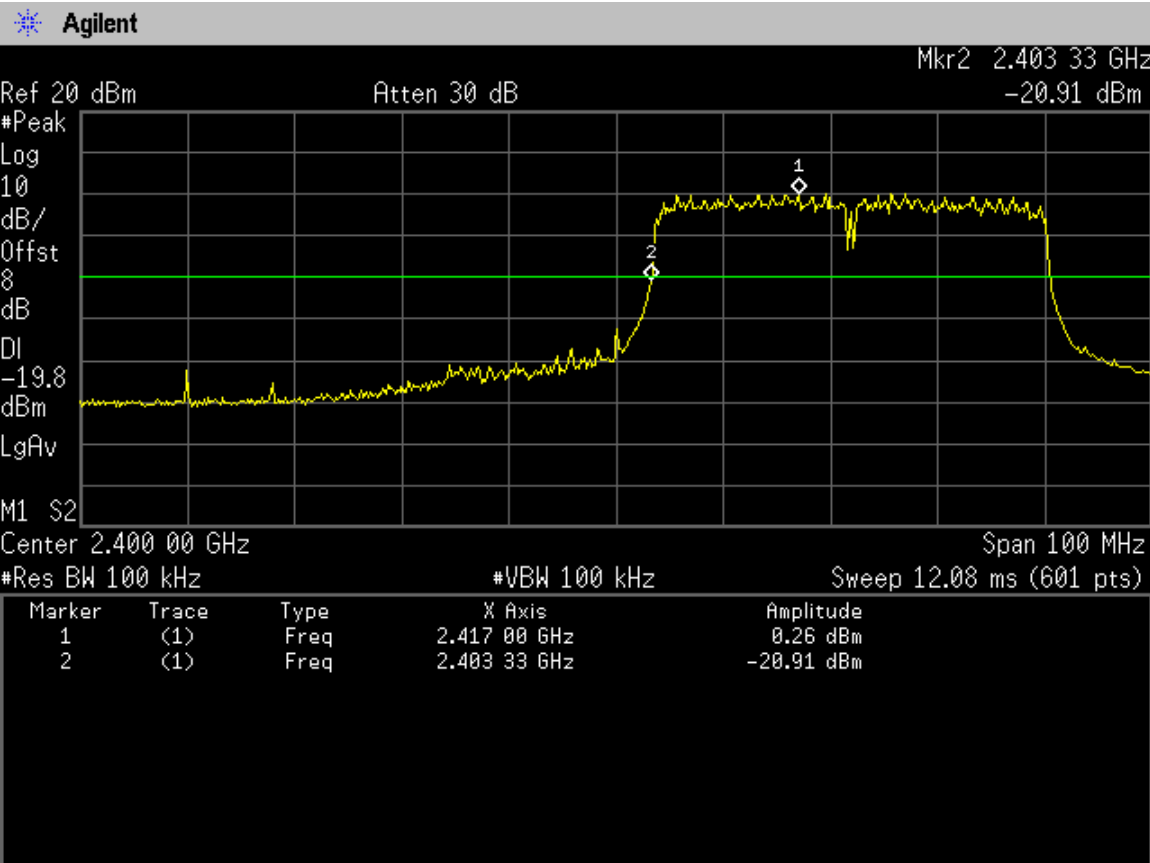


CH11

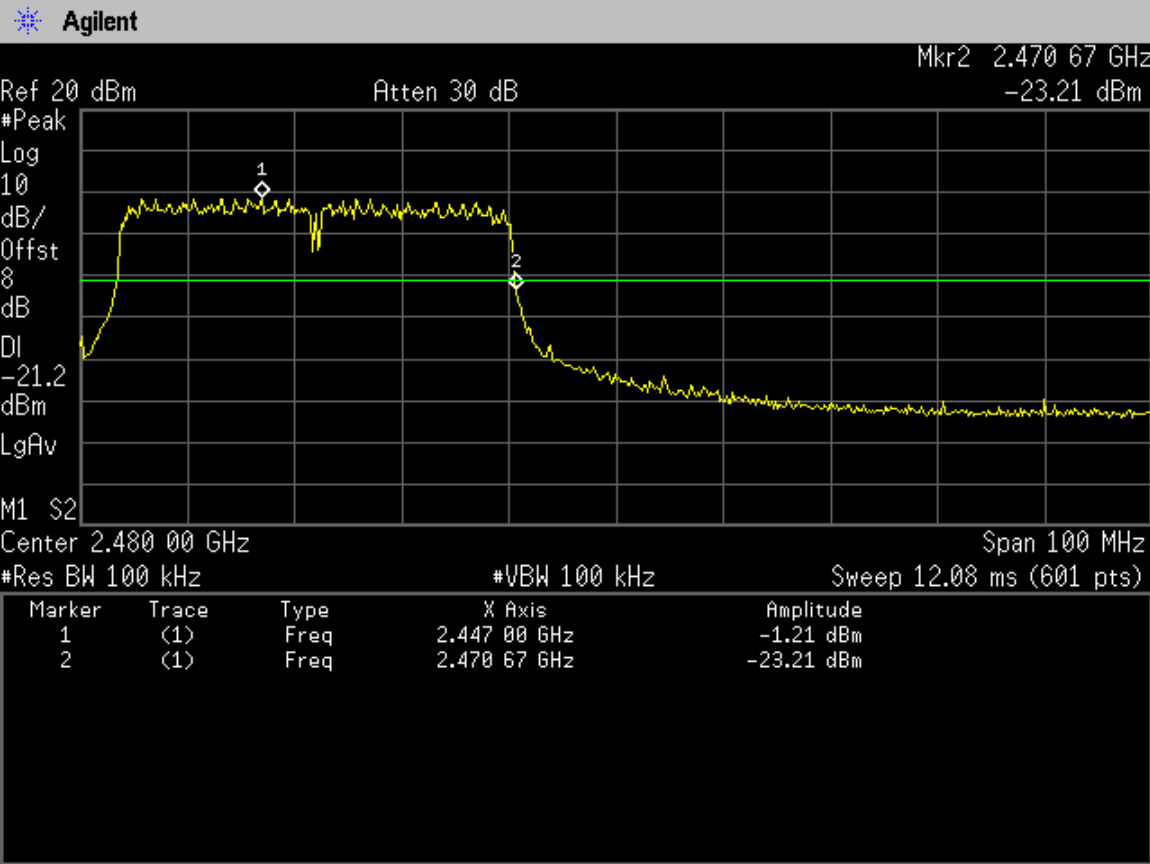


7.4.6.802.11n HT40

CH3



CH9



## 8. POWER SPECTRAL DENSITY MEASUREMENT

### 8.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4447A	MY45300136	2011-01-08	2012-01-07

### 8.2. Block Diagram of Test Setup

The same as section 5.2.

### 8.3. Specification Limits (§15.247(e))

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### 8.4. Test Results

**PASSED.** All the test results are attached in next page.

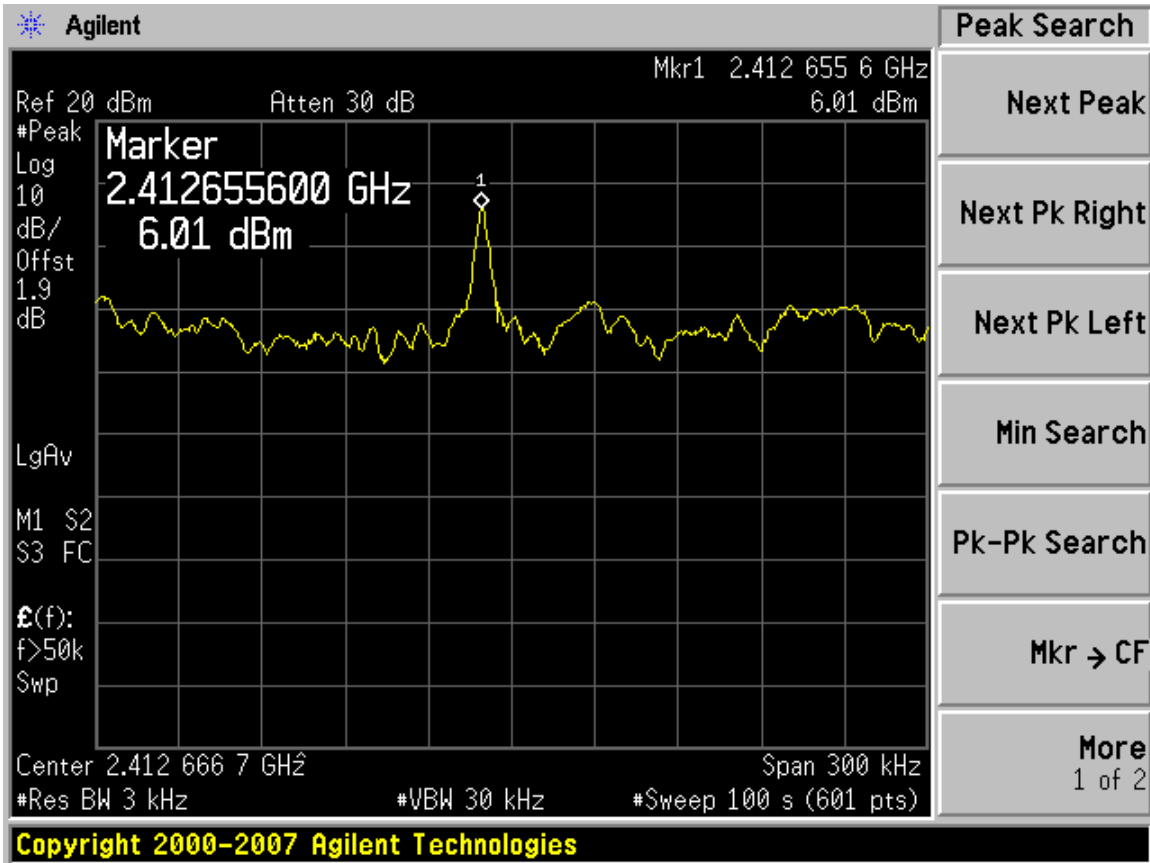
There have not used the combiner for the test. The final test results have summed by the two individual powers for 802.11n mode.

Test Date: Apr.12~May 31, 2011      Temperature: 16.9      Humidity: 52 %

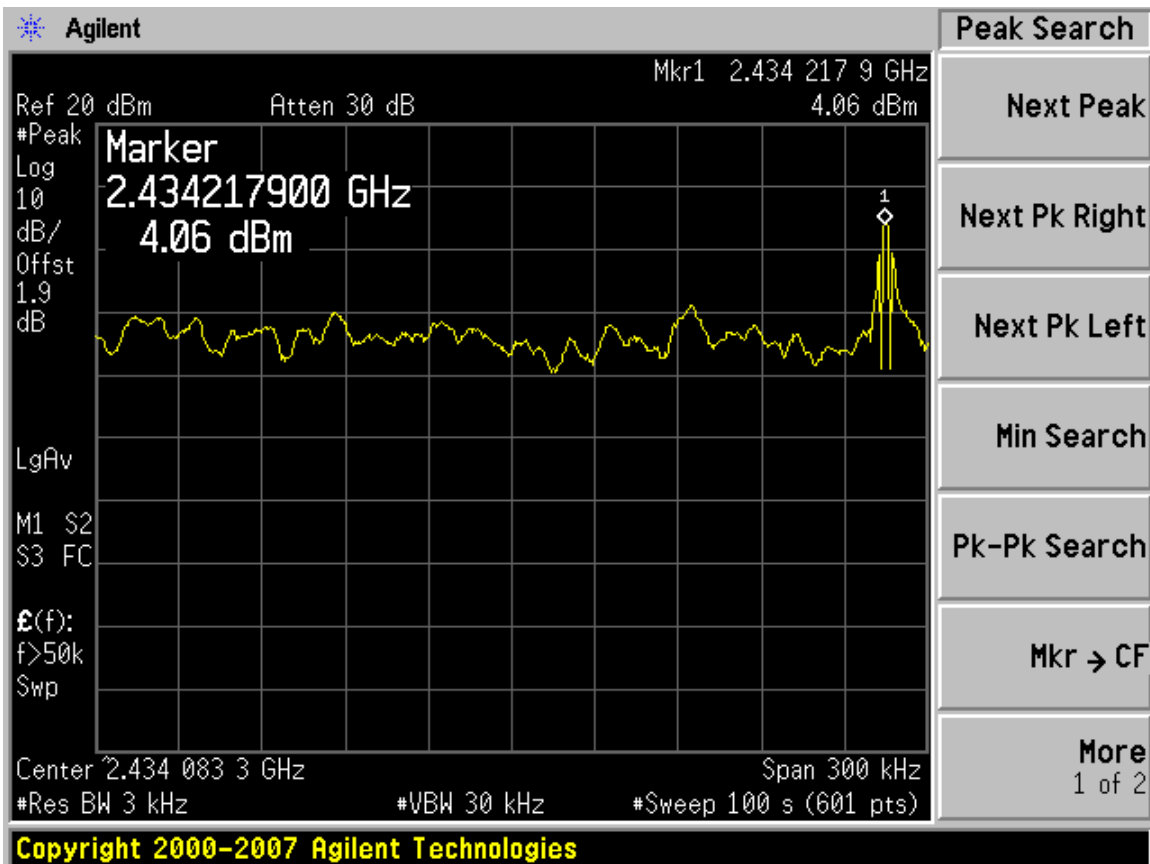
Mode	Channel	Ant0	Ant1	Final value
802.11 b	CH1	6.01	7.05	N/A
	CH6	4.06	5.67	
	CH11	5.06	6.16	
802.11 g	CH1	-8.90	-9.03	
	CH6	-9.80	-9.81	
	CH11	-9.80	-9.23	
802.11 n HT20	CH1	-14.43	-14.68	-11.54
	CH6	-15.12	-15.41	-12.25
	CH11	-15.13	-15.38	-12.24
802.11 n HT40	CH3	-20.25	-18.39	-16.21
	CH6	-19.87	-18.77	-16.27
	CH9	-19.39	-19.95	-16.65

8.4.1.802.11b Ant.0

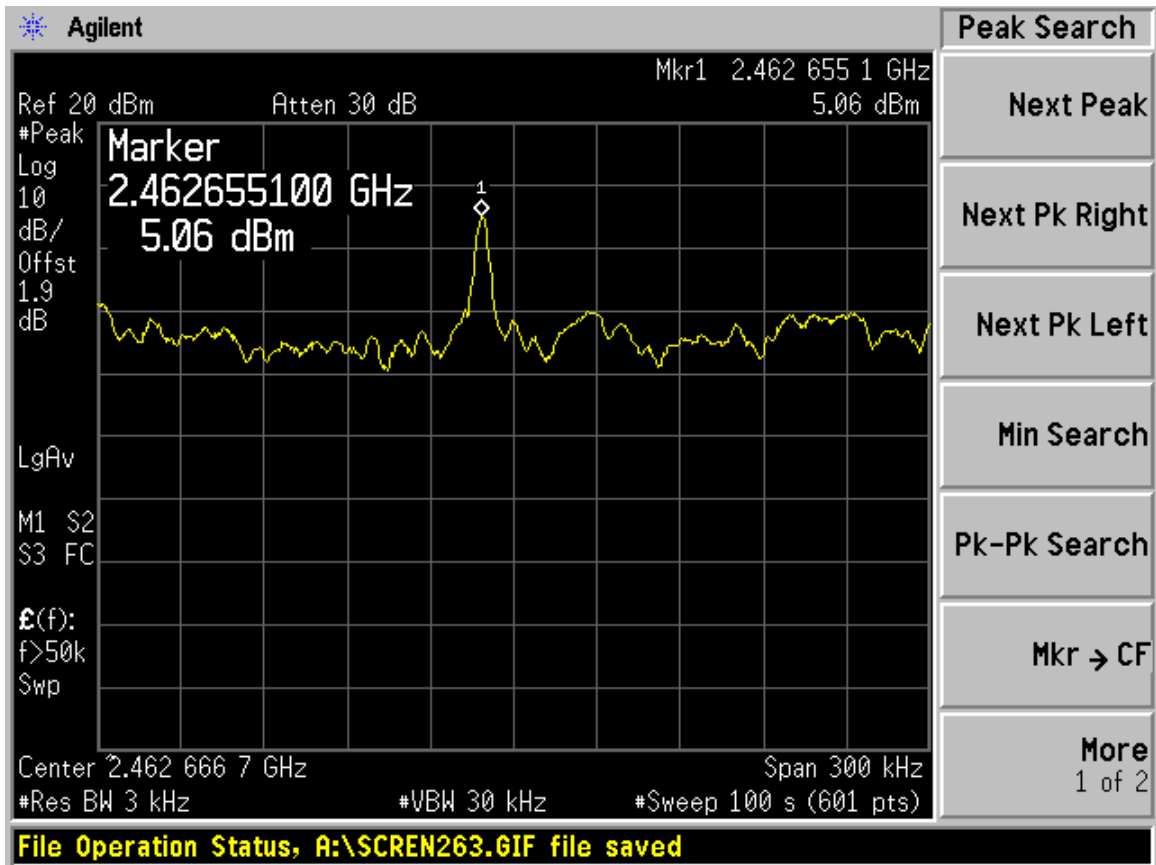
CH1



CH6

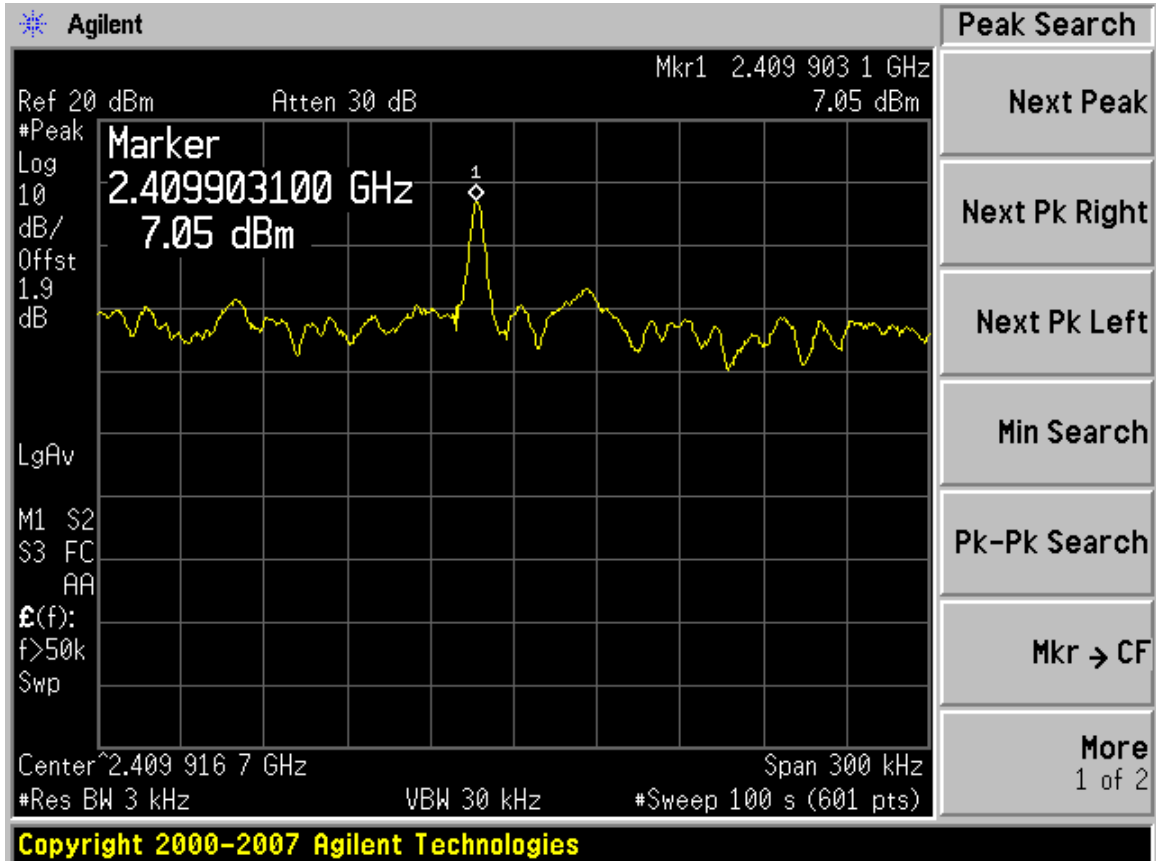


CH1

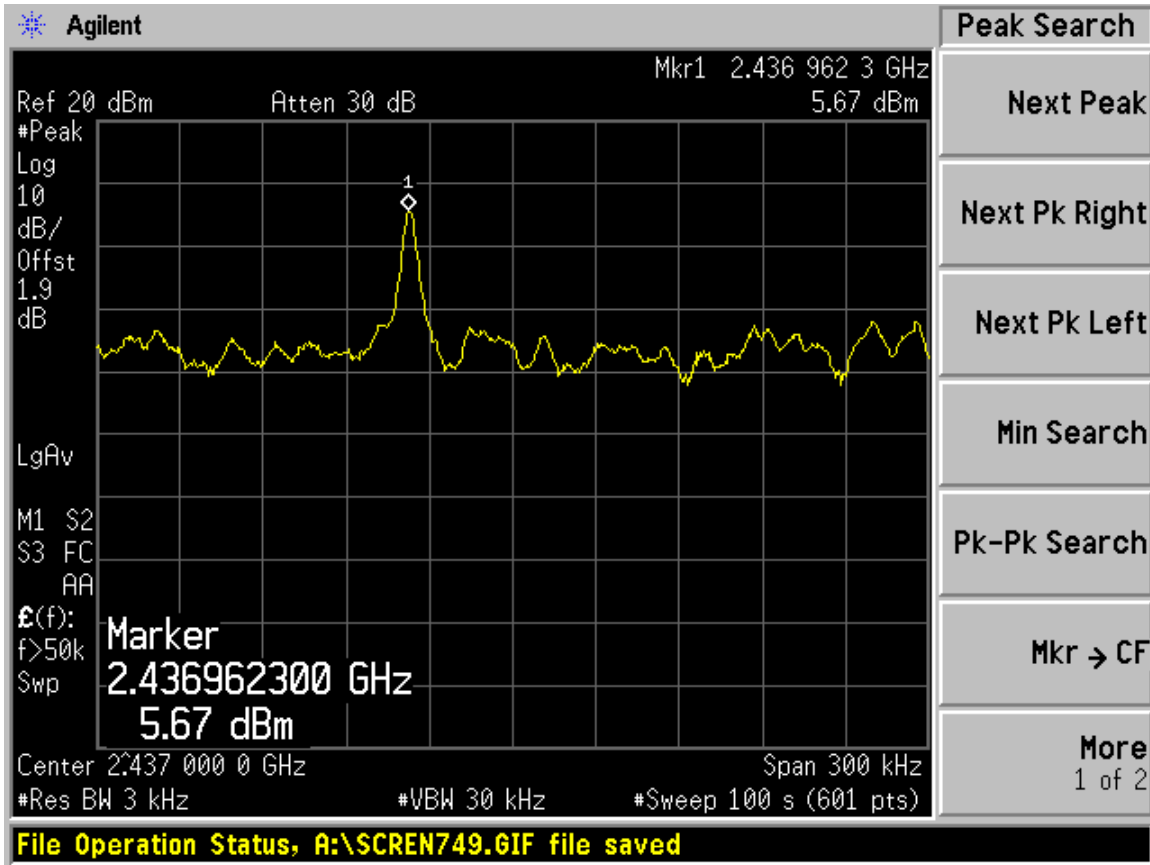


8.4.2.802.11b Ant.1

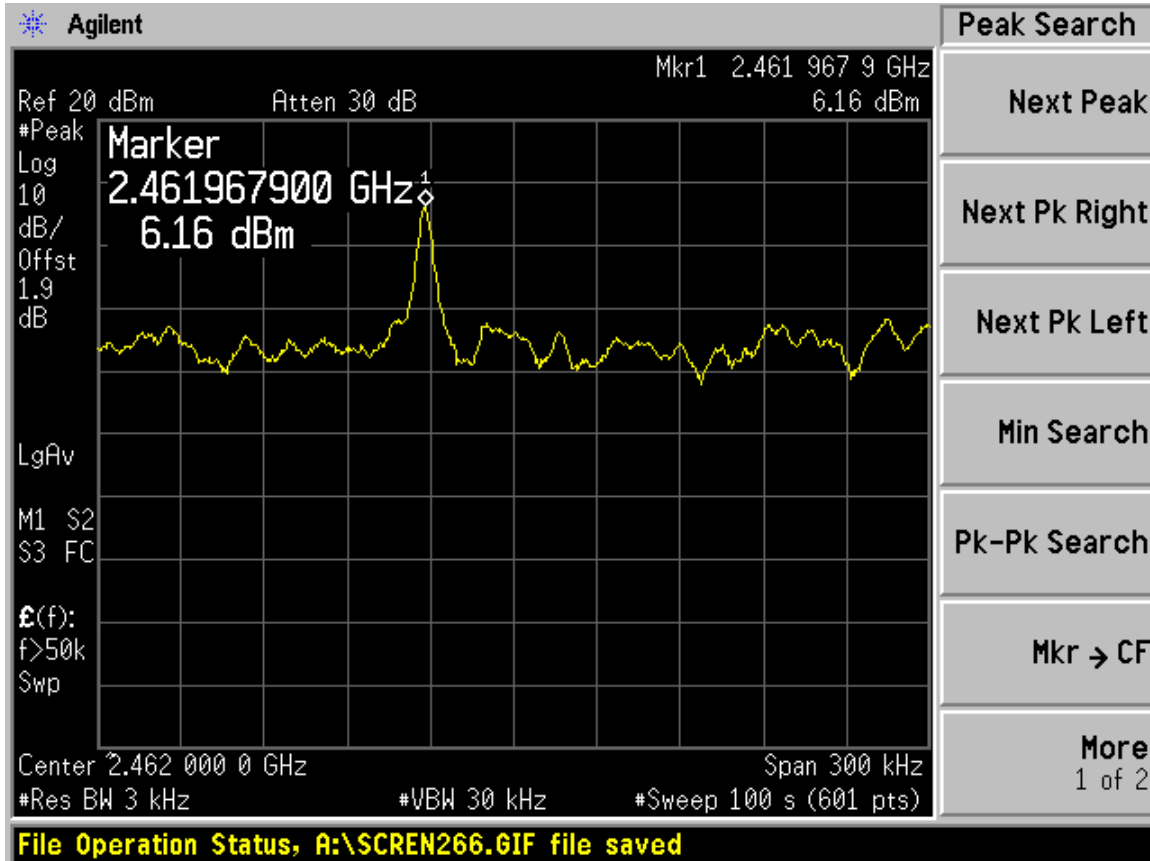
CH1



CH6

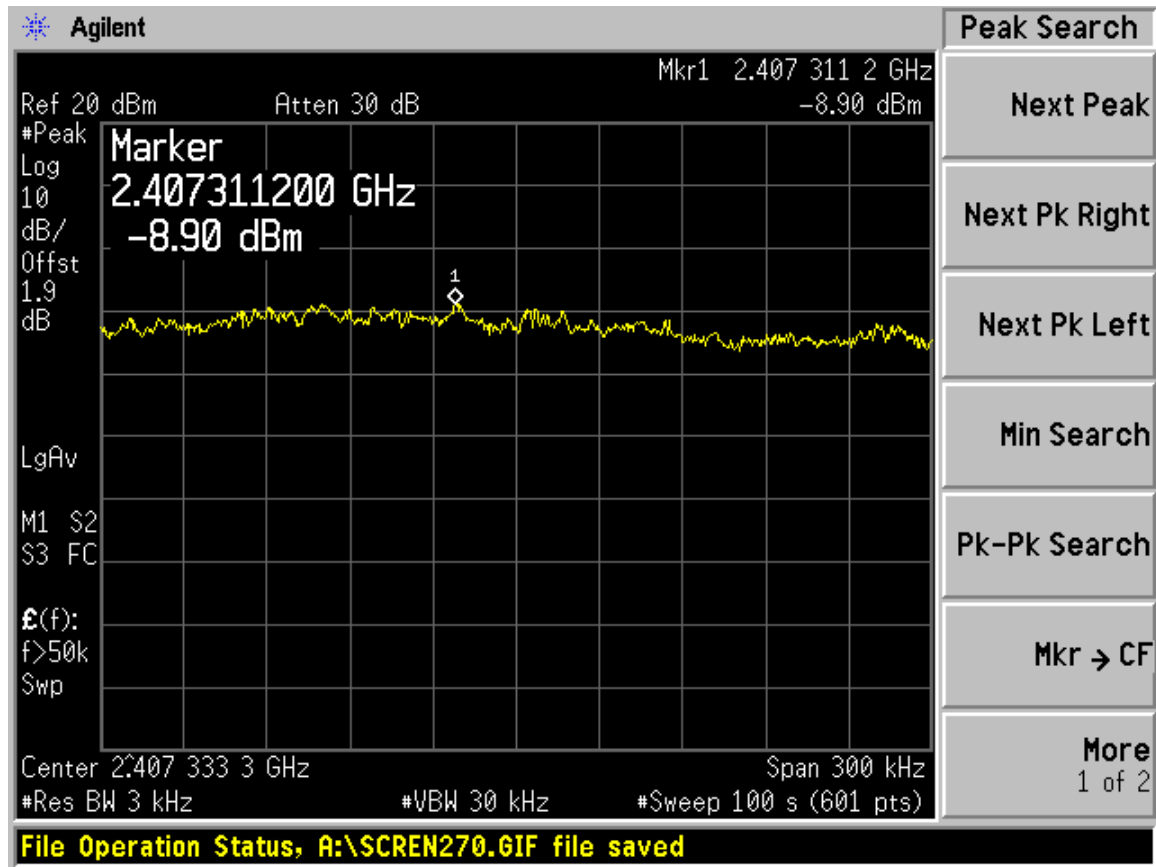


CH11

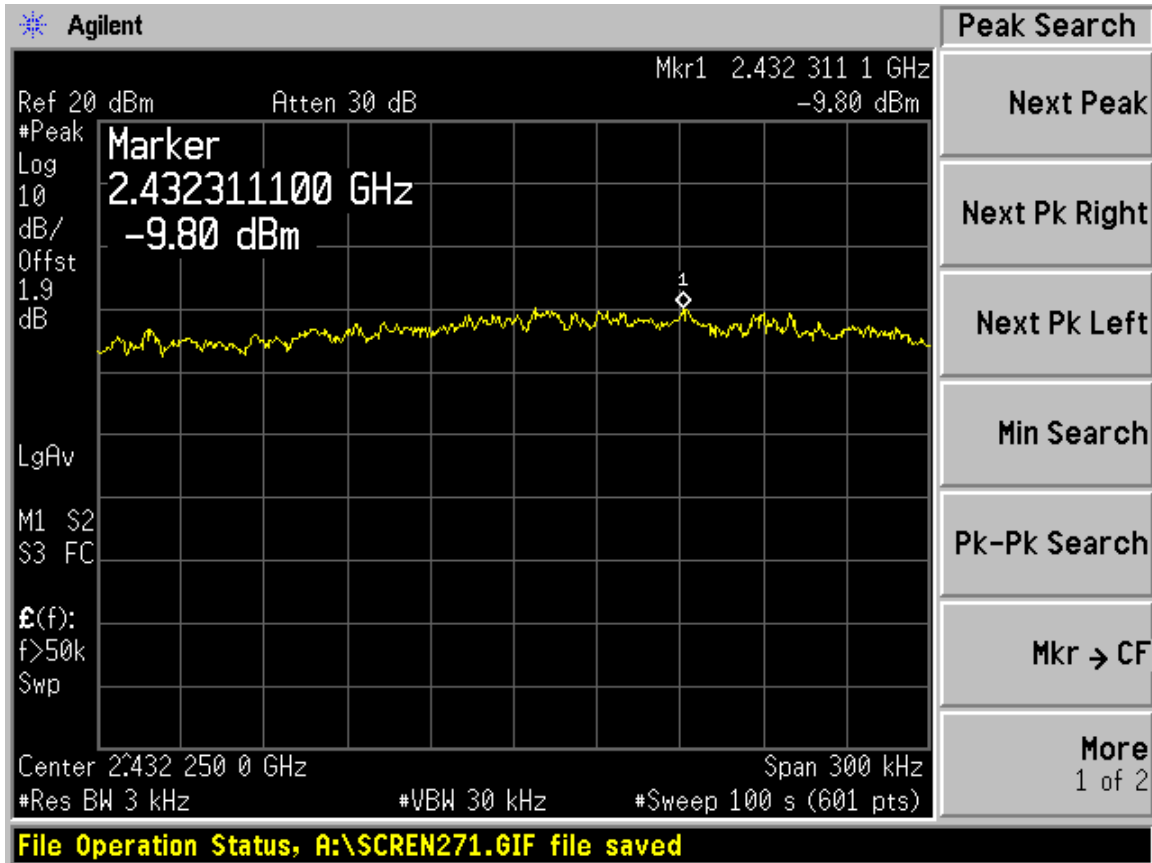


8.4.3.802.11g Ant.0

CH1

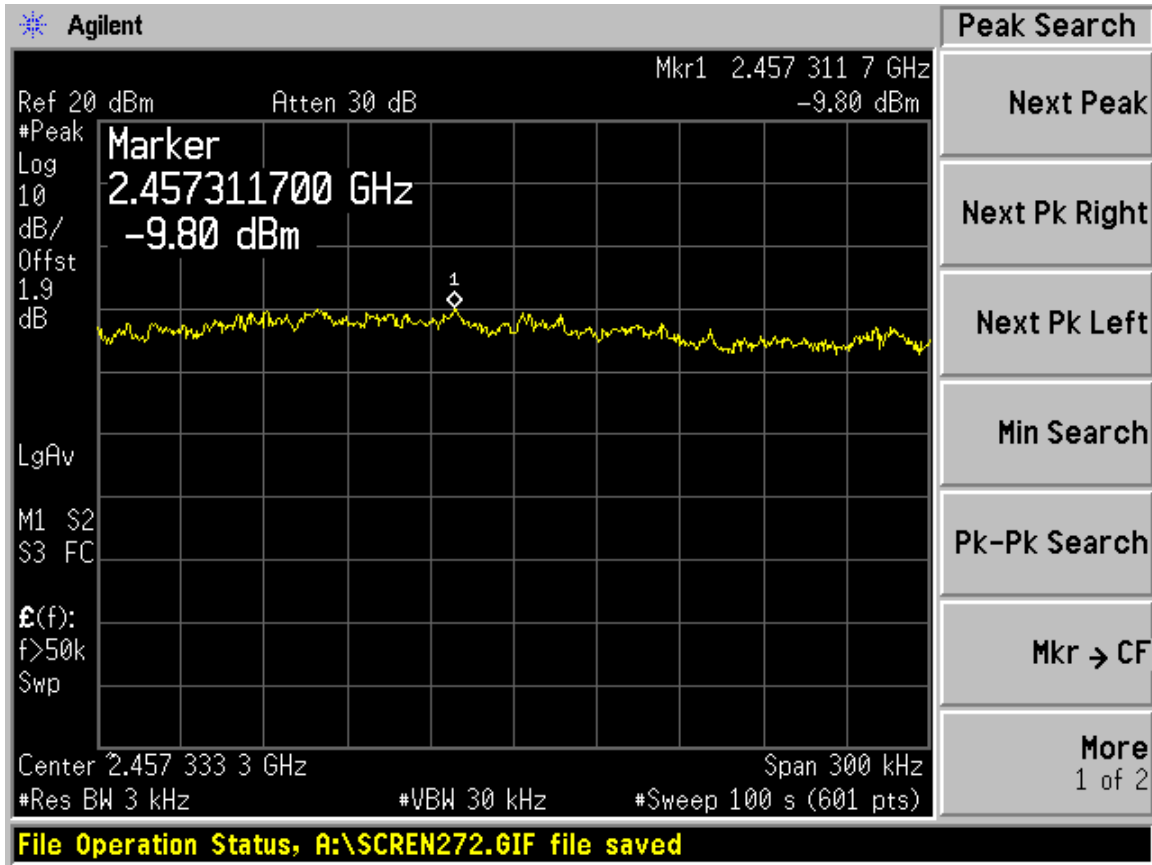


CH6



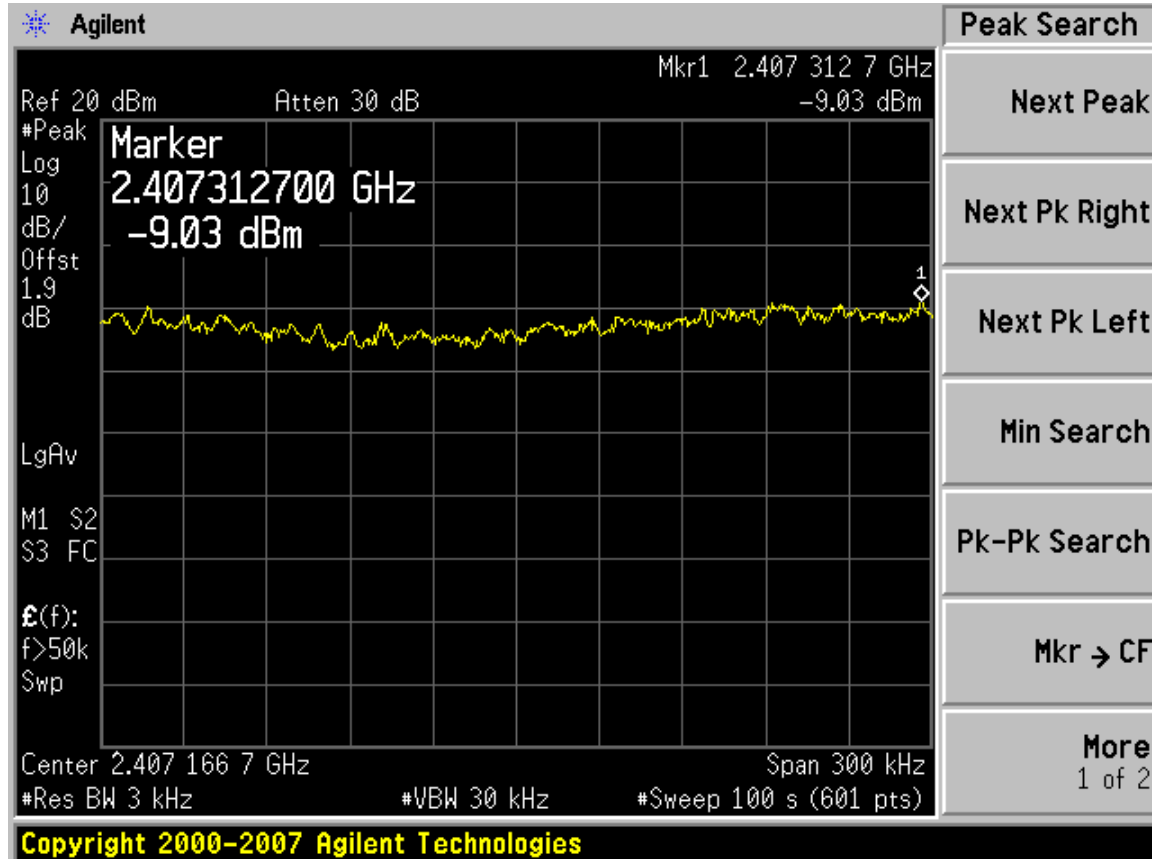


CH11

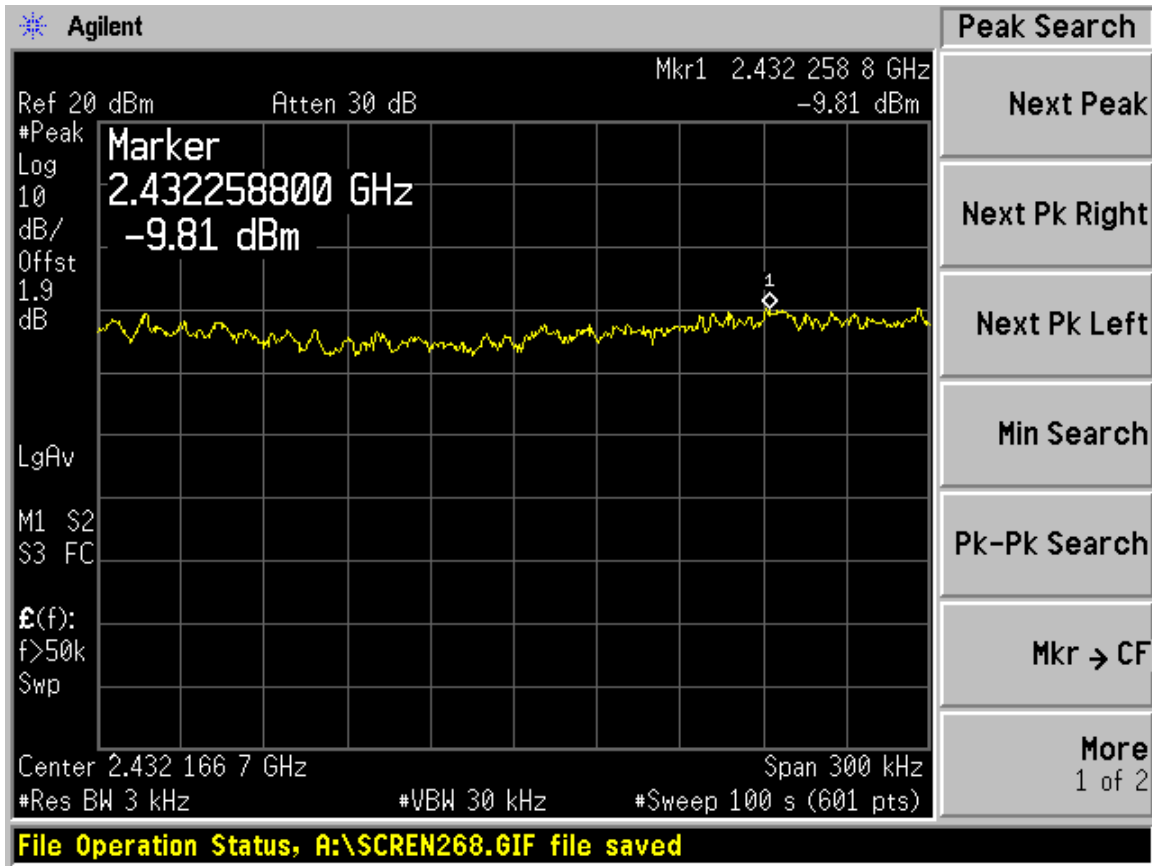


8.4.4.802.11g Ant.1

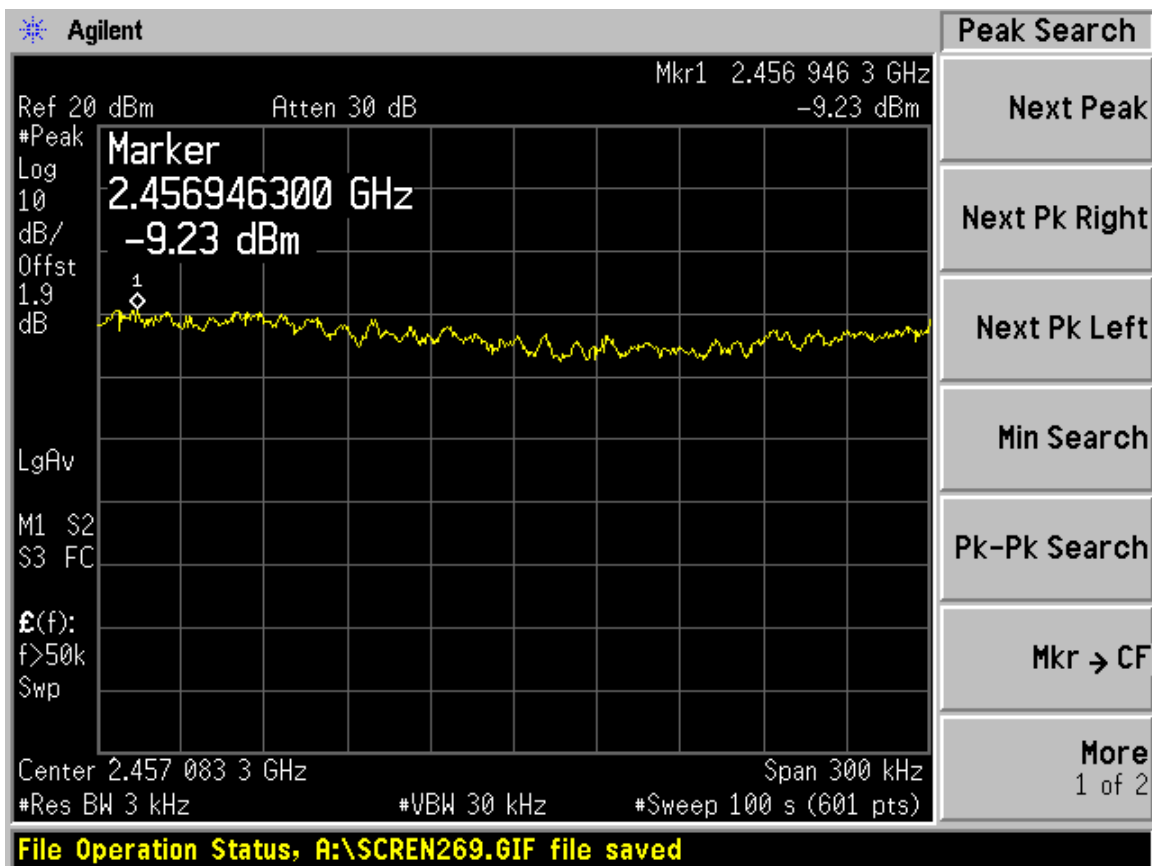
CH1



CH6

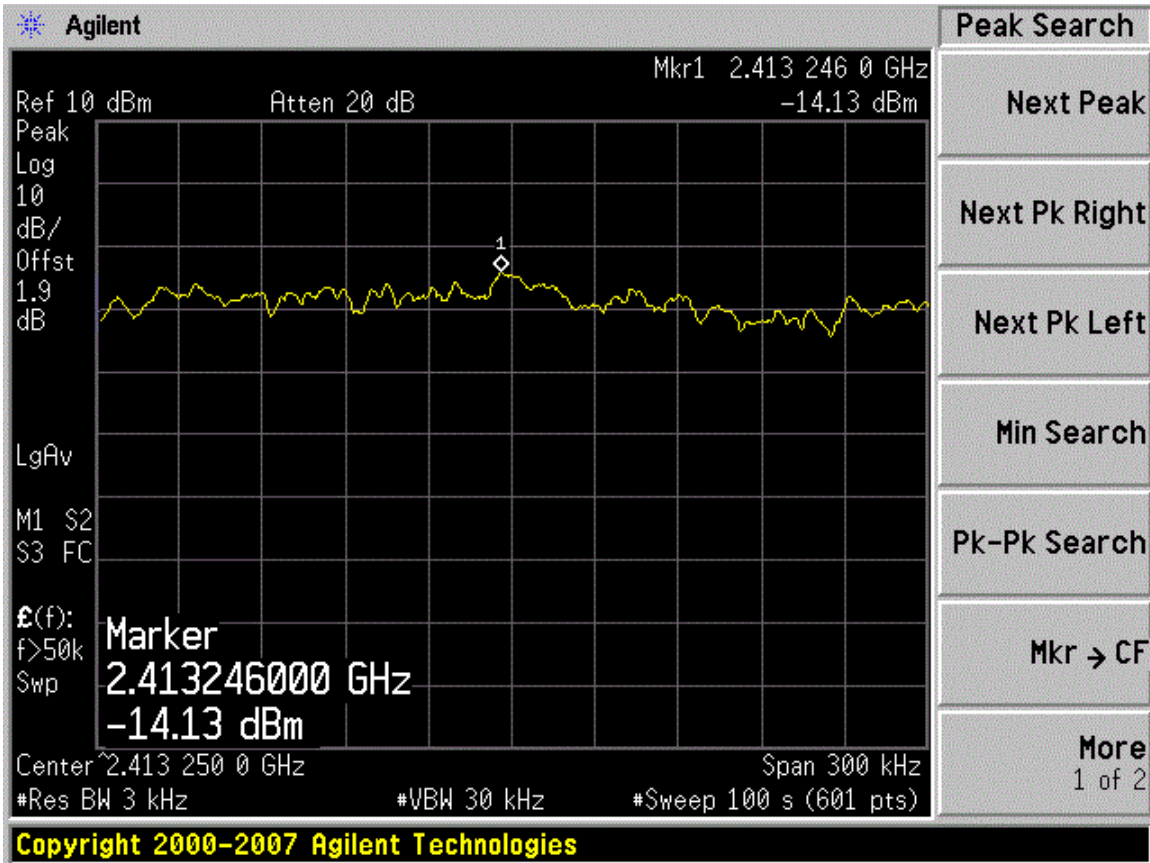


CH11

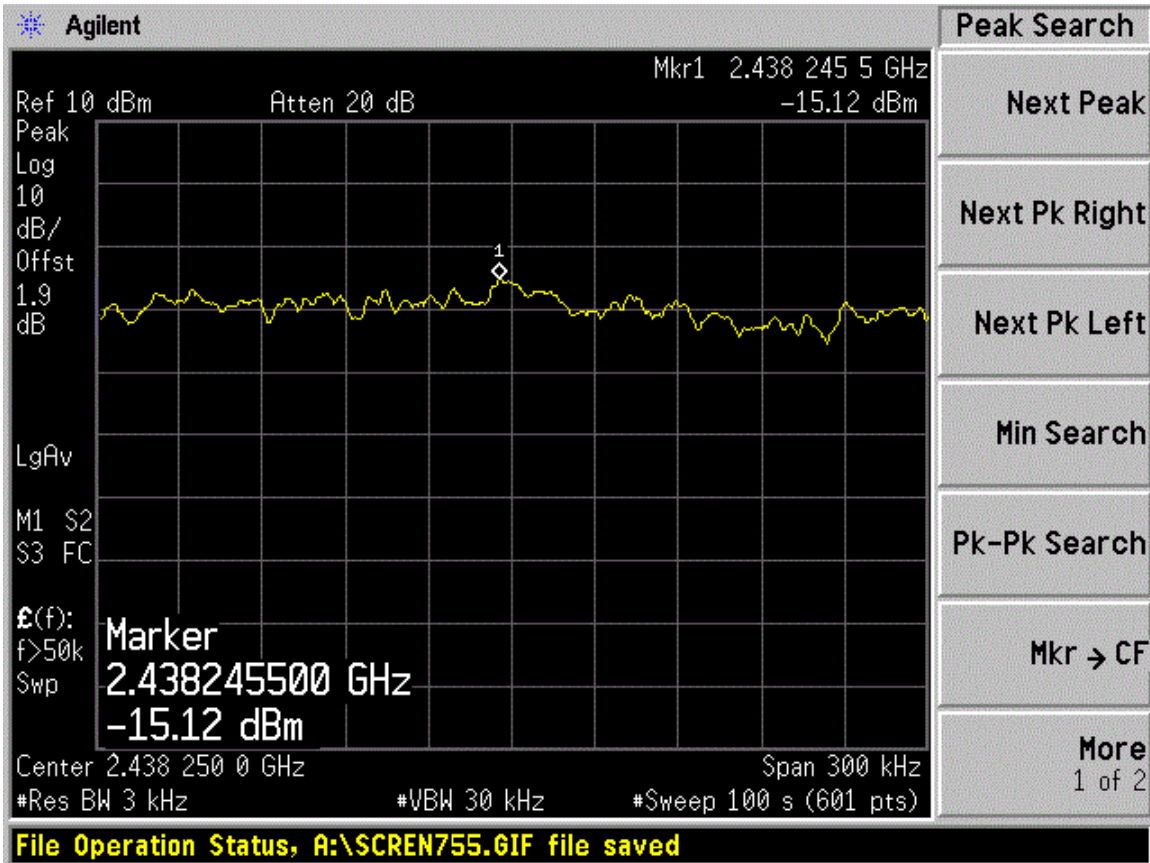


8.4.5.802.11n HT20 Ant.0

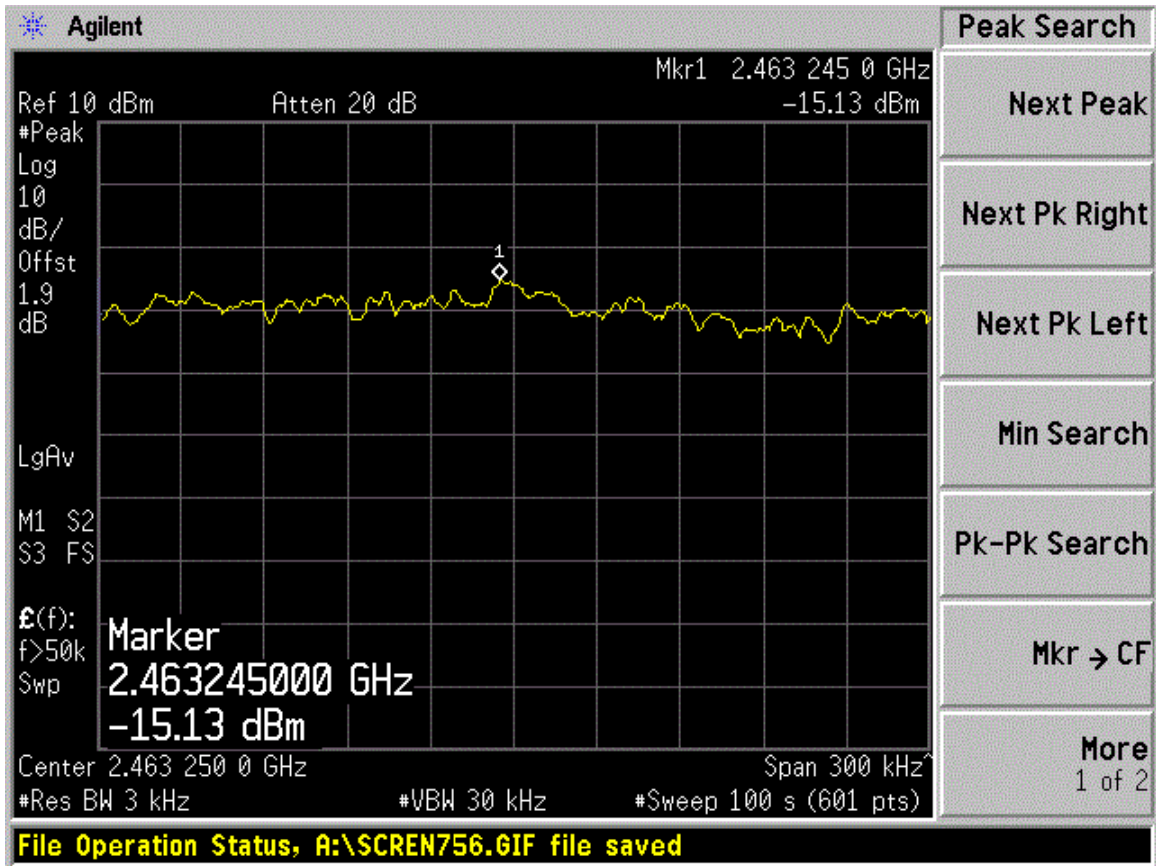
CH1



CH6

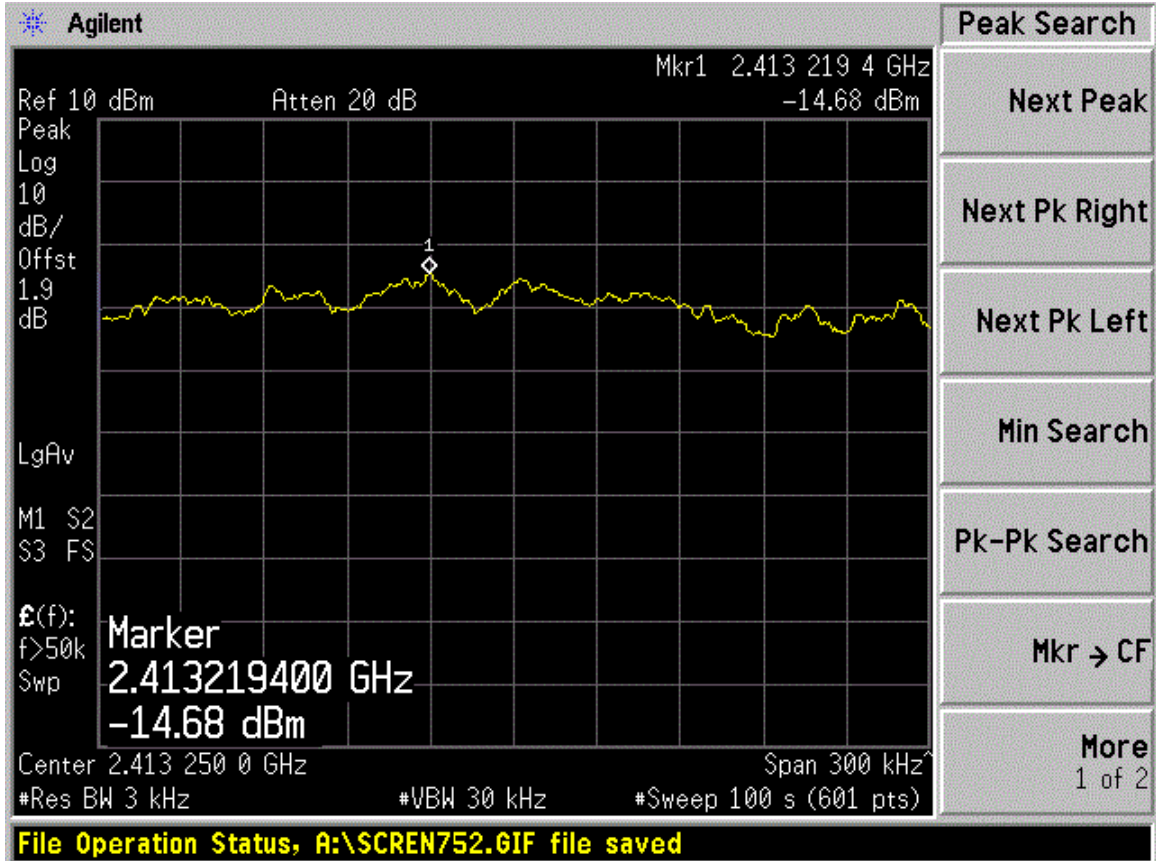


CH11

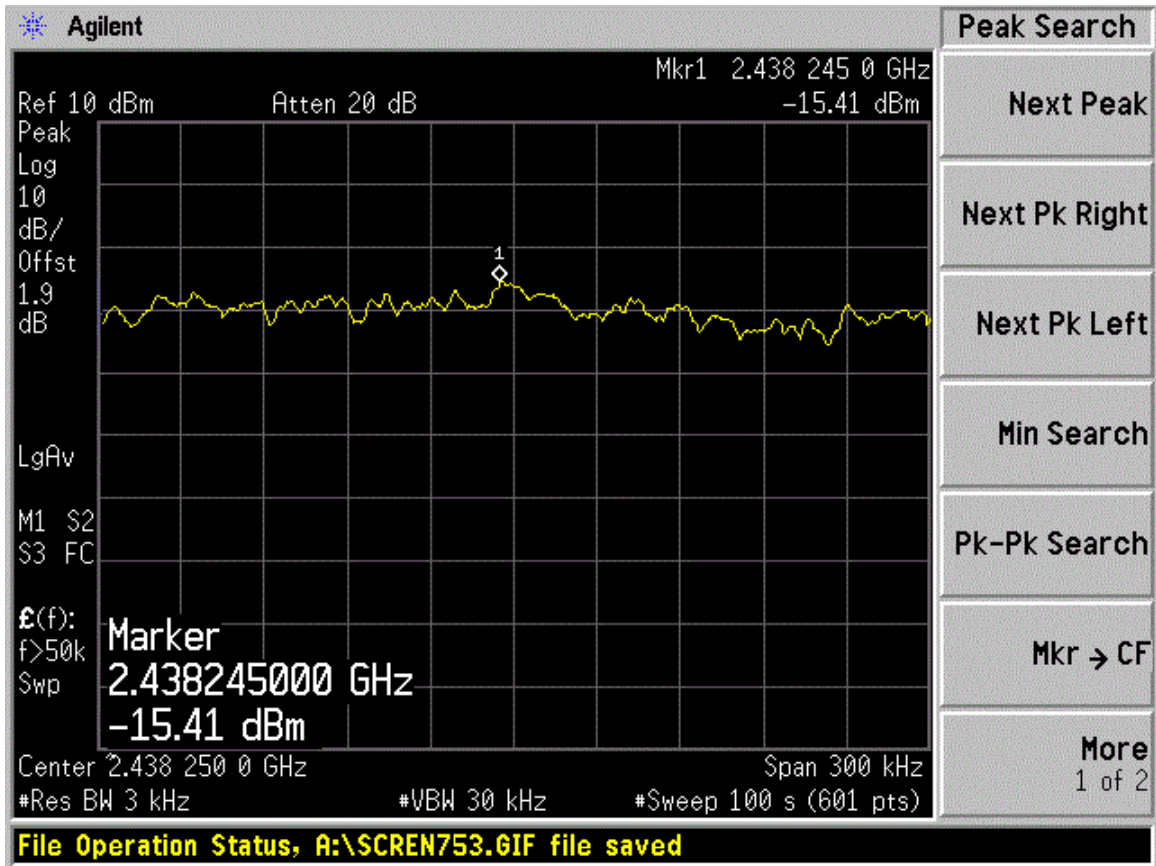


8.4.6.802.11n HT20 Ant.1

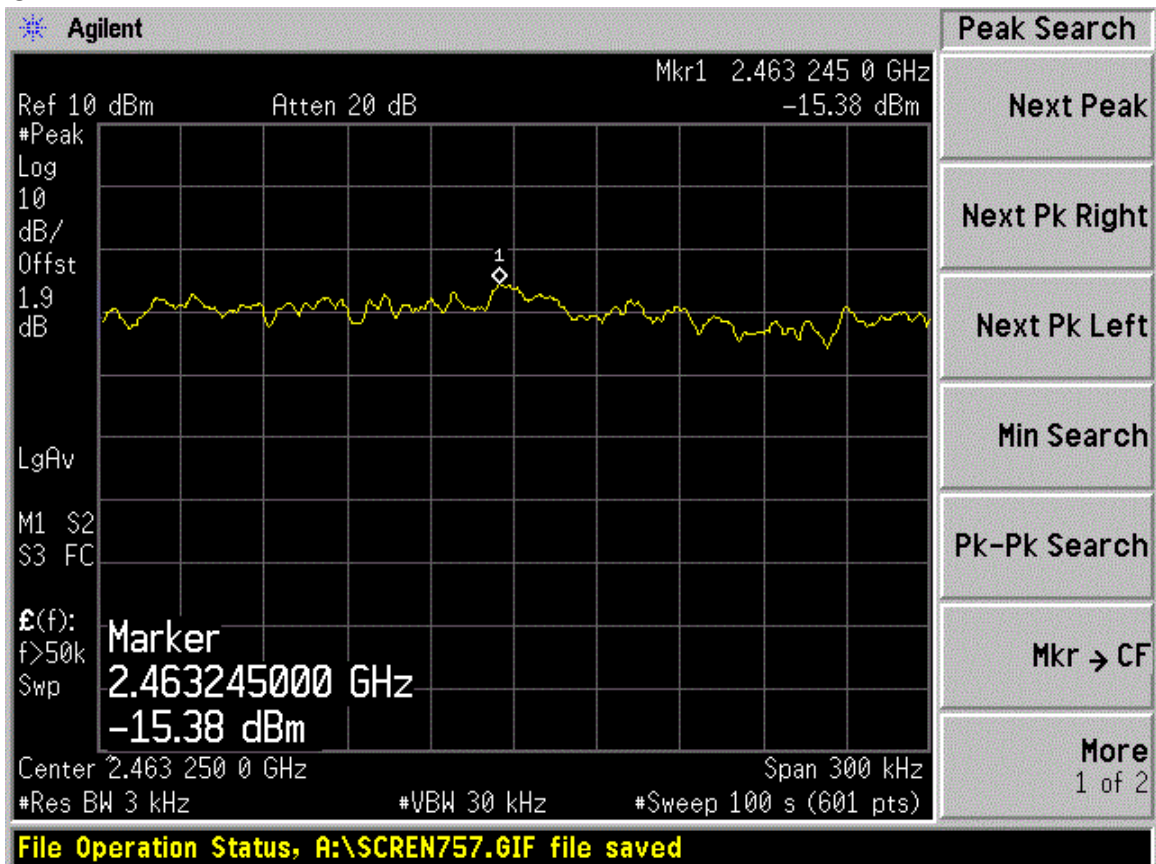
CH1



CH6

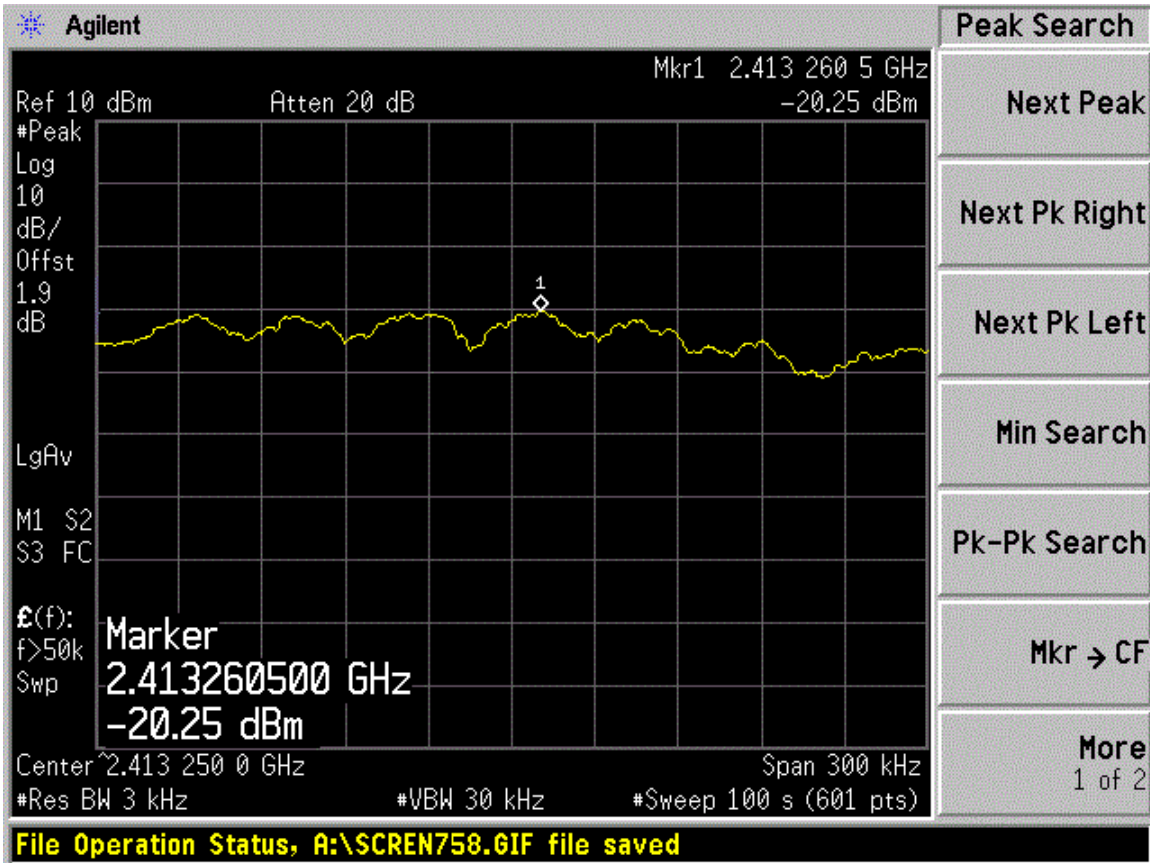


CH11

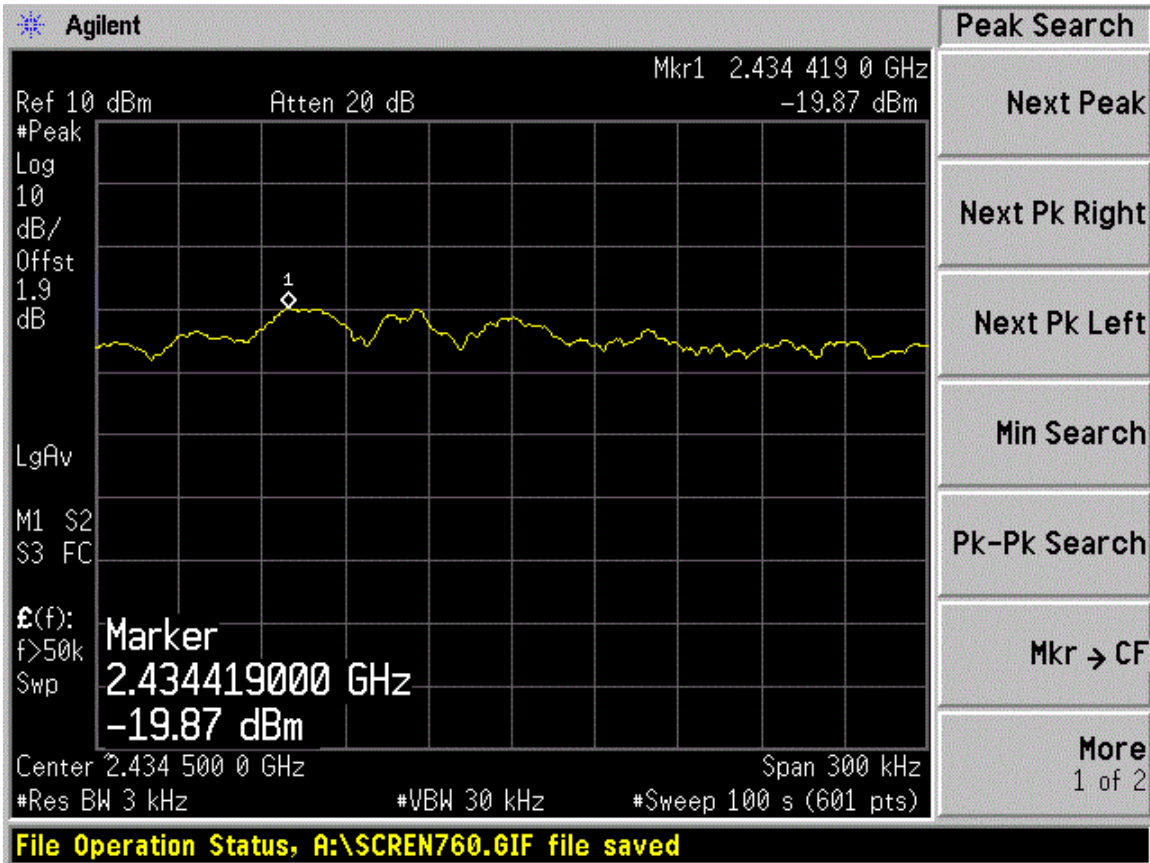


8.4.7.802.11n HT40 Ant.0

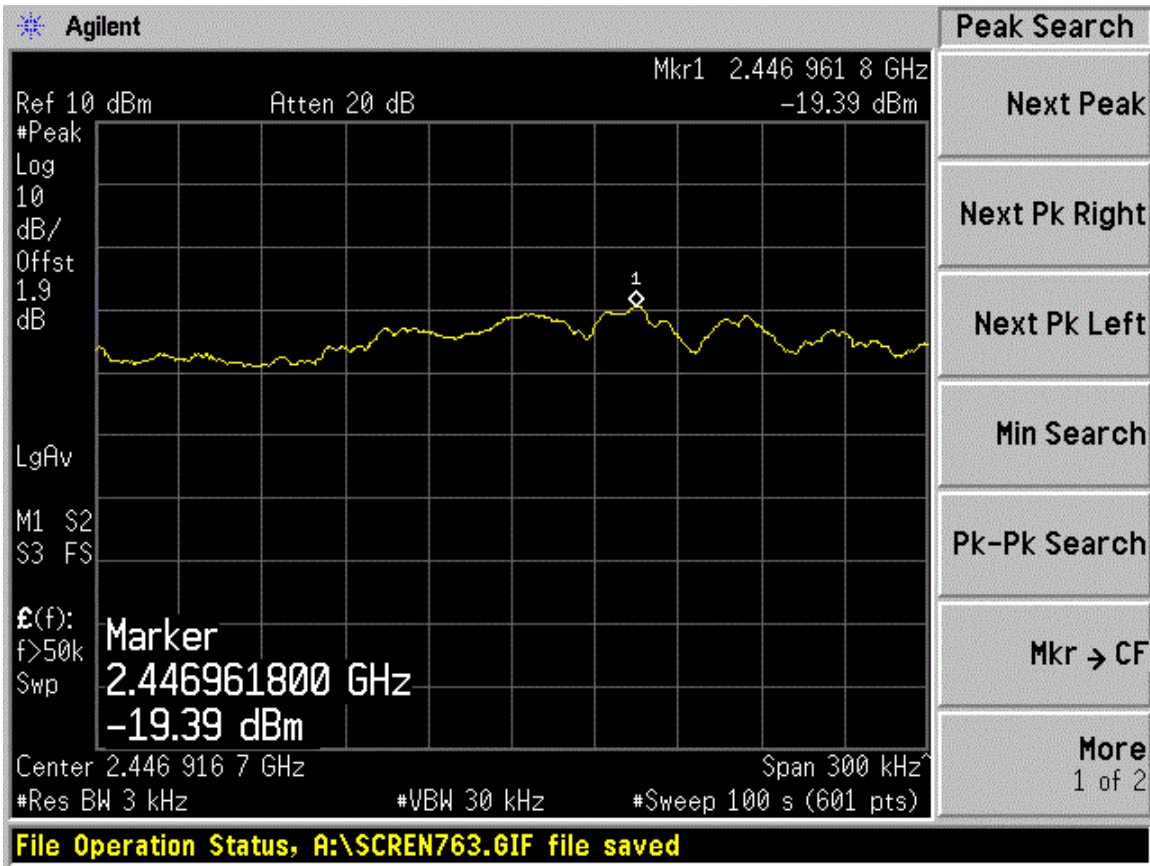
CH3



CH6

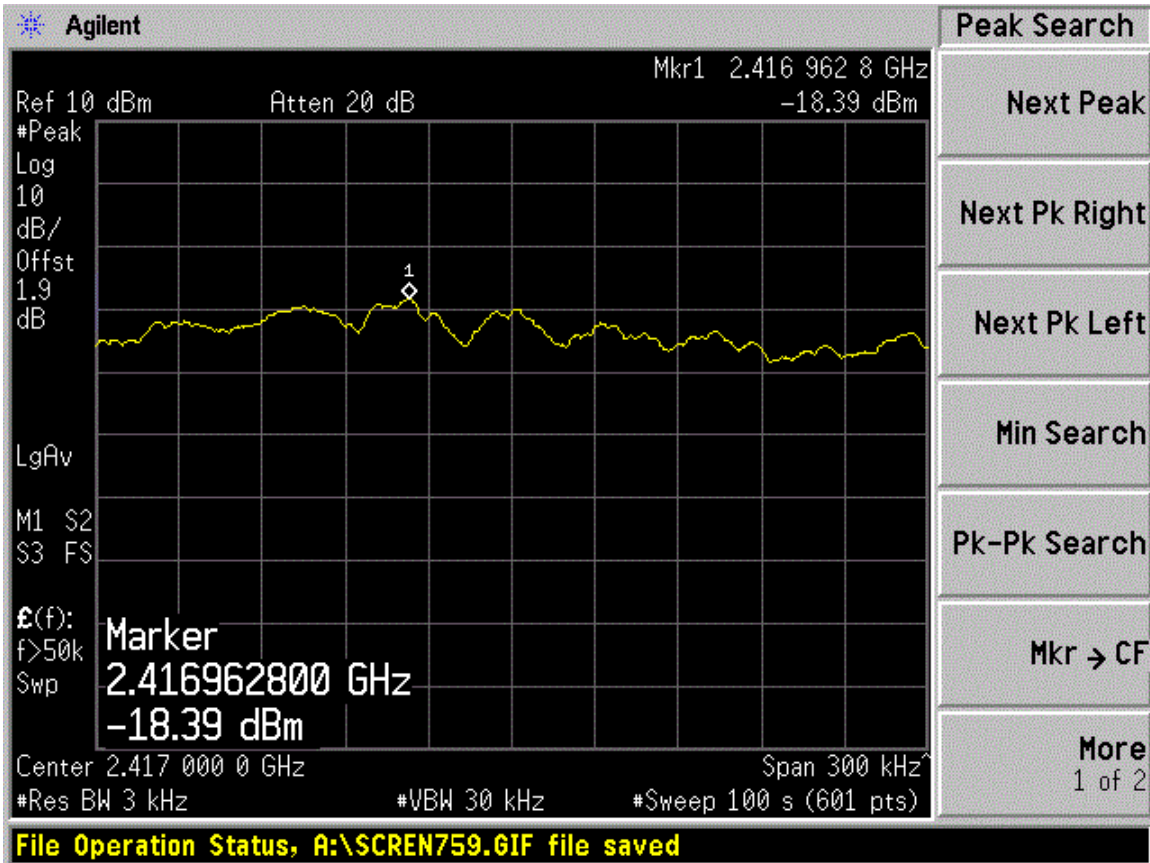


CH9

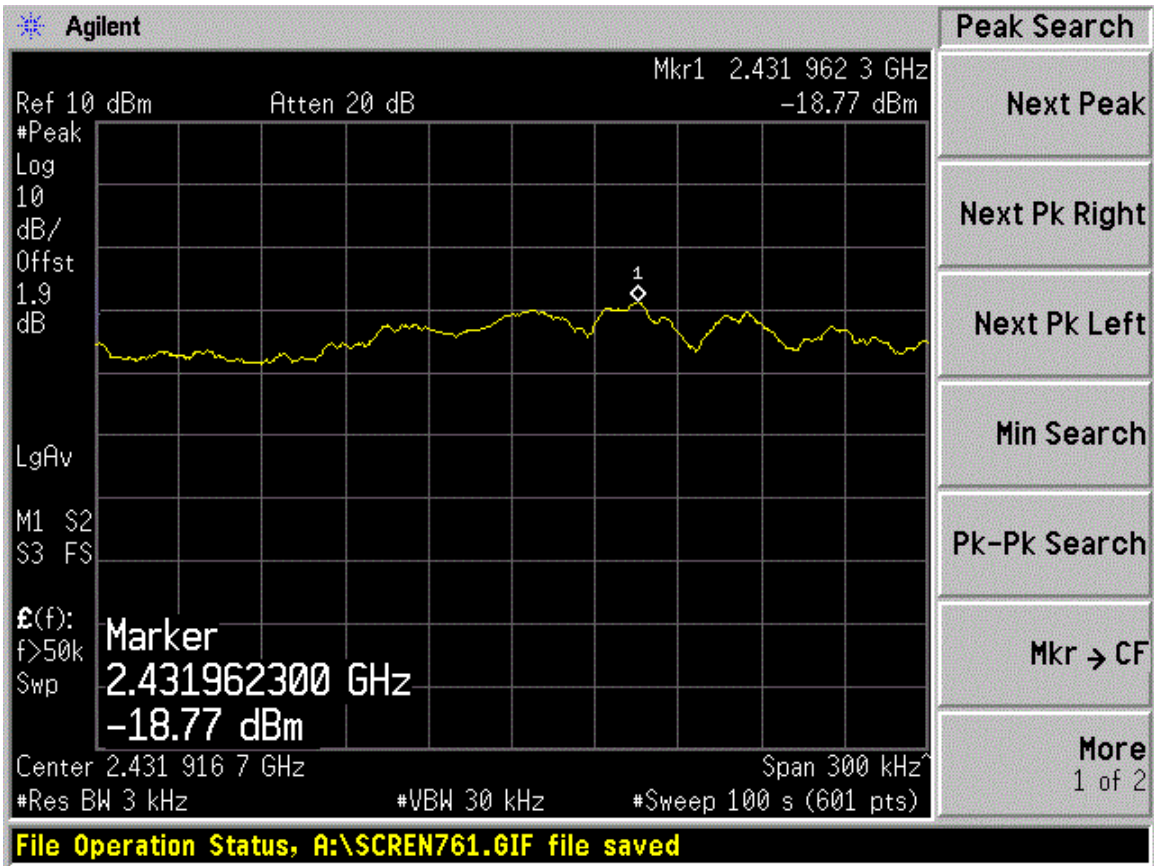


8.4.8.802.11n HT40 Ant.1

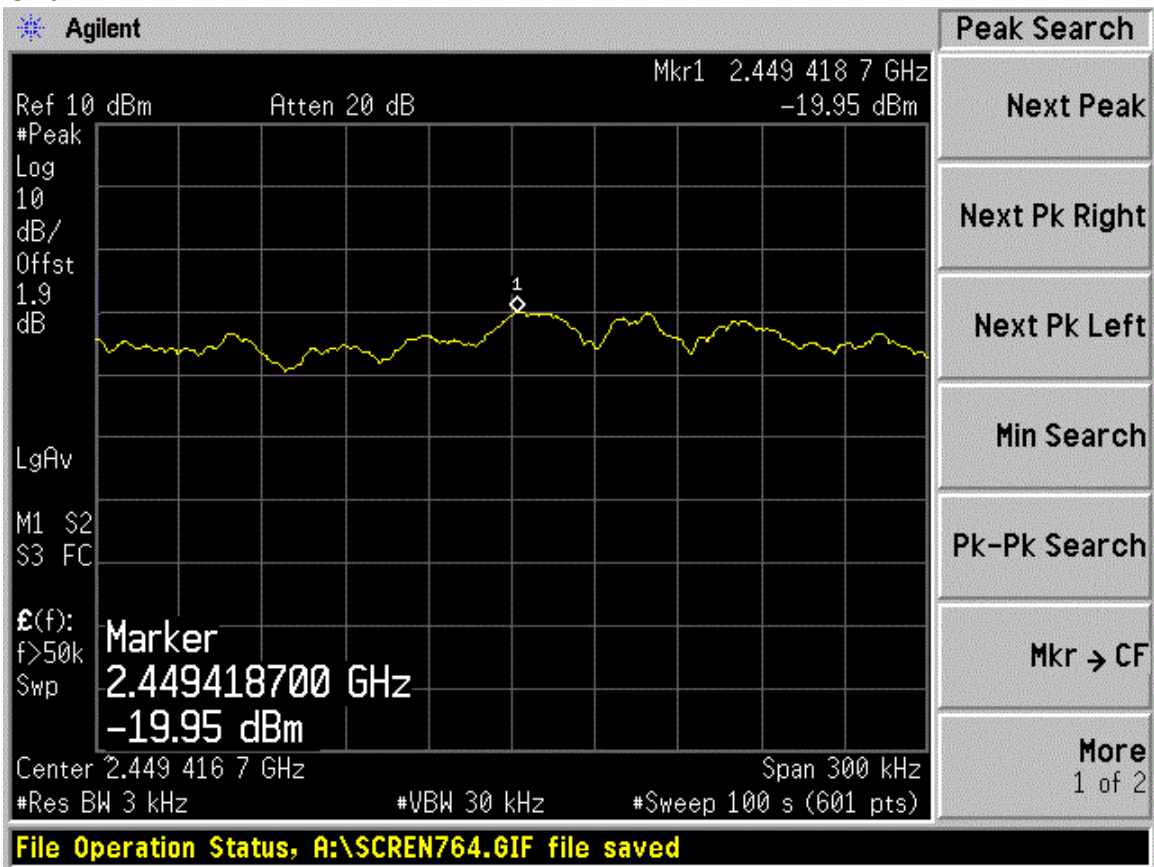
CH3



CH6



CH9





## 9. EMISSION LIMITATIONS MEASUREMENT

### 9.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4447A	MY45300136	2011-01-08	2012-01-07

### 9.2. Block Diagram of Test Setup

The same as section 5.2.

### 9.3. Specification Limits (§15.247(d))

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

## 9.4. Test Results

**PASSED.** All the test results are attached in next pages.

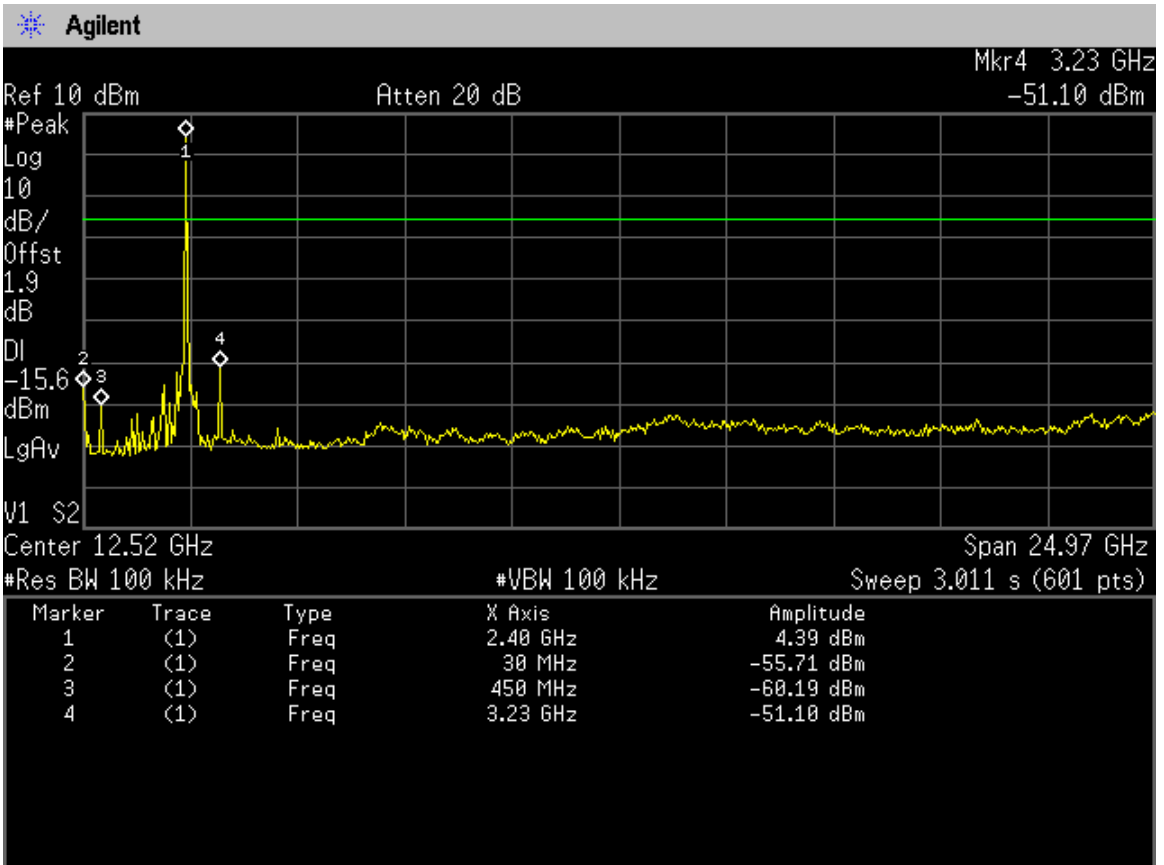
Test Date: Apr.11, 2011    Temperature: 16.9    Humidity: 52 %

Item	Channel	Frequency(GHz)	Amplitude(dBm)
802.11b Ant.0	1	2.40	<b>4.39</b>
		0.03	<b>-55.71</b>
		0.45	<b>-60.19</b>
	6	2.4	<b>1.29</b>
		0.9	<b>-58.87</b>
		3.23	<b>-58.76</b>
	11	2.44	<b>4.4</b>
		0.03	<b>-56.58</b>
		1.15	<b>-63.76</b>
802.11b Ant.1	1	2.40	<b>4.62</b>
		0.03	<b>-56.54</b>
		0.45	<b>-54.05</b>
	6	2.44	<b>1.94</b>
		0.03	<b>-56.53</b>
		1.9	<b>-62.15</b>
	11	2.44	<b>3.62</b>
		0.03	<b>-56.76</b>
		0.49	<b>-63.47</b>
802.11g Ant.0	1	2.4	<b>6.37</b>
		0.03	<b>-57.34</b>
		0.45	<b>-58.66</b>
	6	2.44	<b>2.06</b>
		0.03	<b>-55.29</b>
		1.9	<b>-61.42</b>
	11	2.44	<b>5.93</b>
		0.03	<b>-59.43</b>
		0.49	<b>-65.68</b>
802.11g Ant.1	1	2.4	<b>3.30</b>
		0.03	<b>-57.07</b>
		0.45	<b>-61.04</b>
	6	2.44	<b>1.44</b>
		0.03	<b>-56.46</b>
		1.28	<b>-64.45</b>
	11	2.49	<b>3.43</b>
		0.03	<b>-59.12</b>
		0.49	<b>-64.75</b>

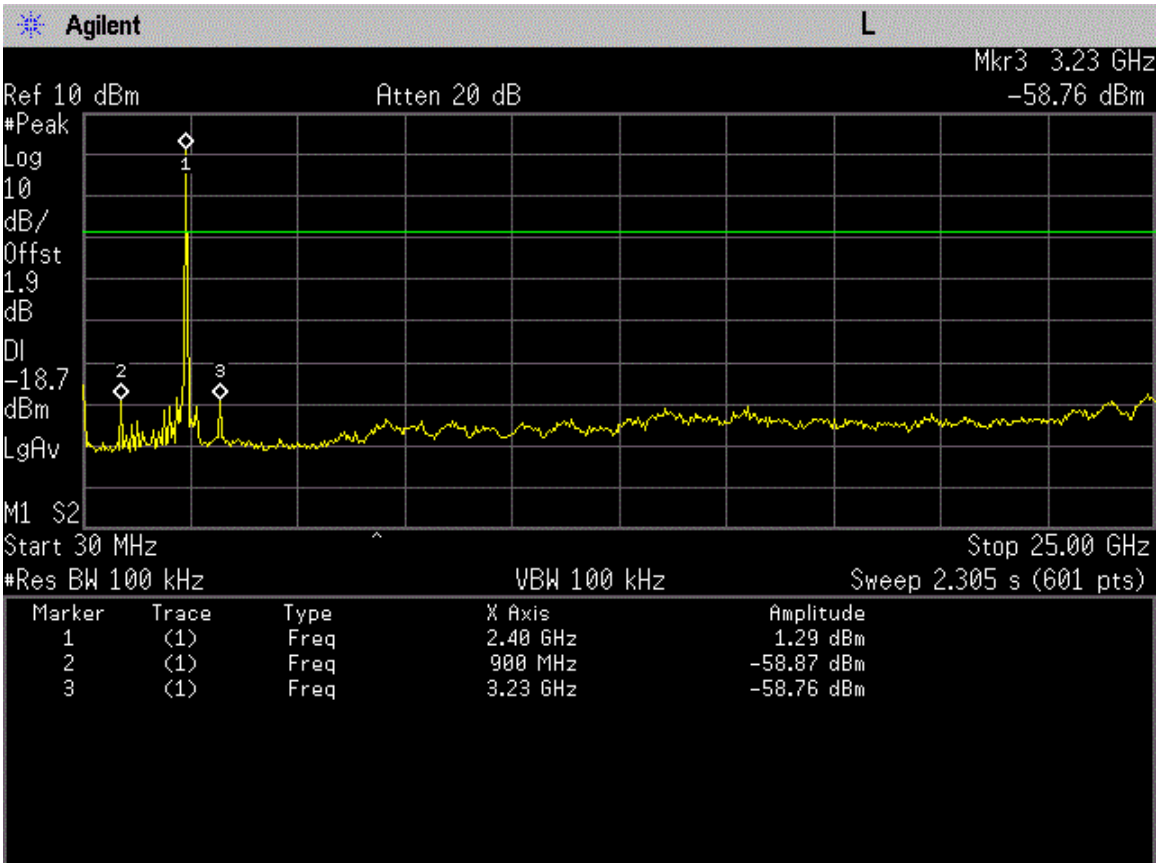
802.11n HT20	1	2.4	<b>-1.21</b>
		0.03	<b>-54.92</b>
		1.28	<b>-53.28</b>
	6	2.44	<b>-1.19</b>
		0.03	<b>-61.09</b>
		1.28	<b>-56.42</b>
	11	2.44	<b>-1.43</b>
		0.03	<b>-55.21</b>
		1.28	<b>-55.61</b>
802.11n HT40	3	2.40	<b>-1.11</b>
		0.03	<b>-44.21</b>
		1.28	<b>-54.90</b>
	6	2.44	<b>-0.52</b>
		0.03	<b>-53.51</b>
		1.28	<b>-54.74</b>
	9	2.44	<b>-2.63</b>
		0.03	<b>-47.74</b>
		1.28	<b>-55.76</b>

9.4.1.802.11b Ant.0

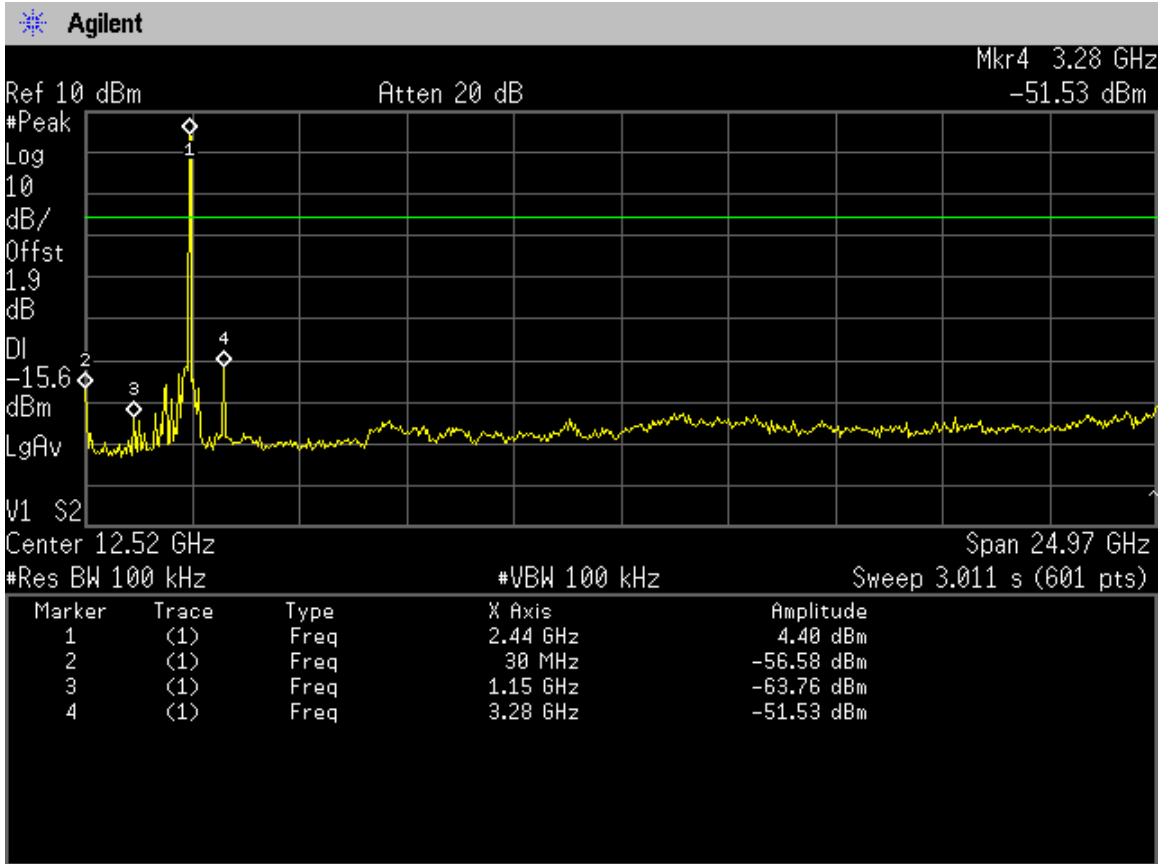
CH1



CH6

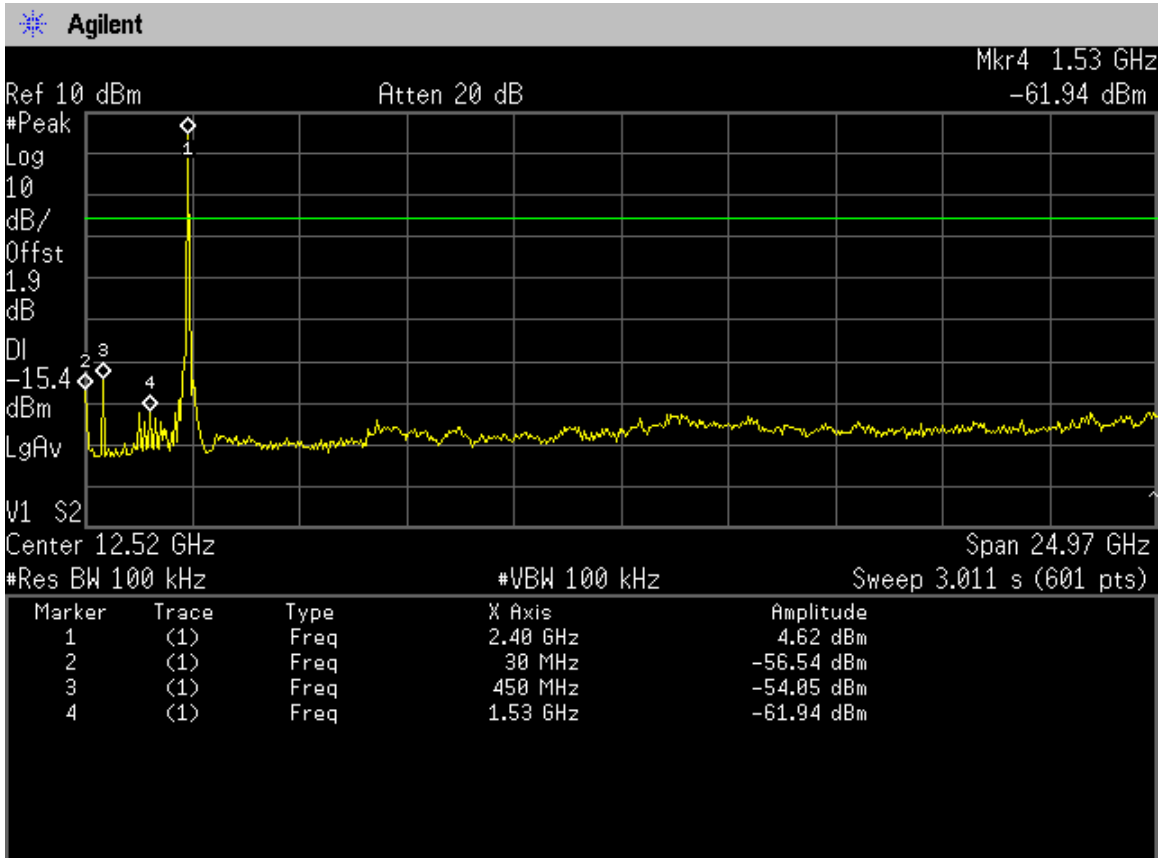


CH11

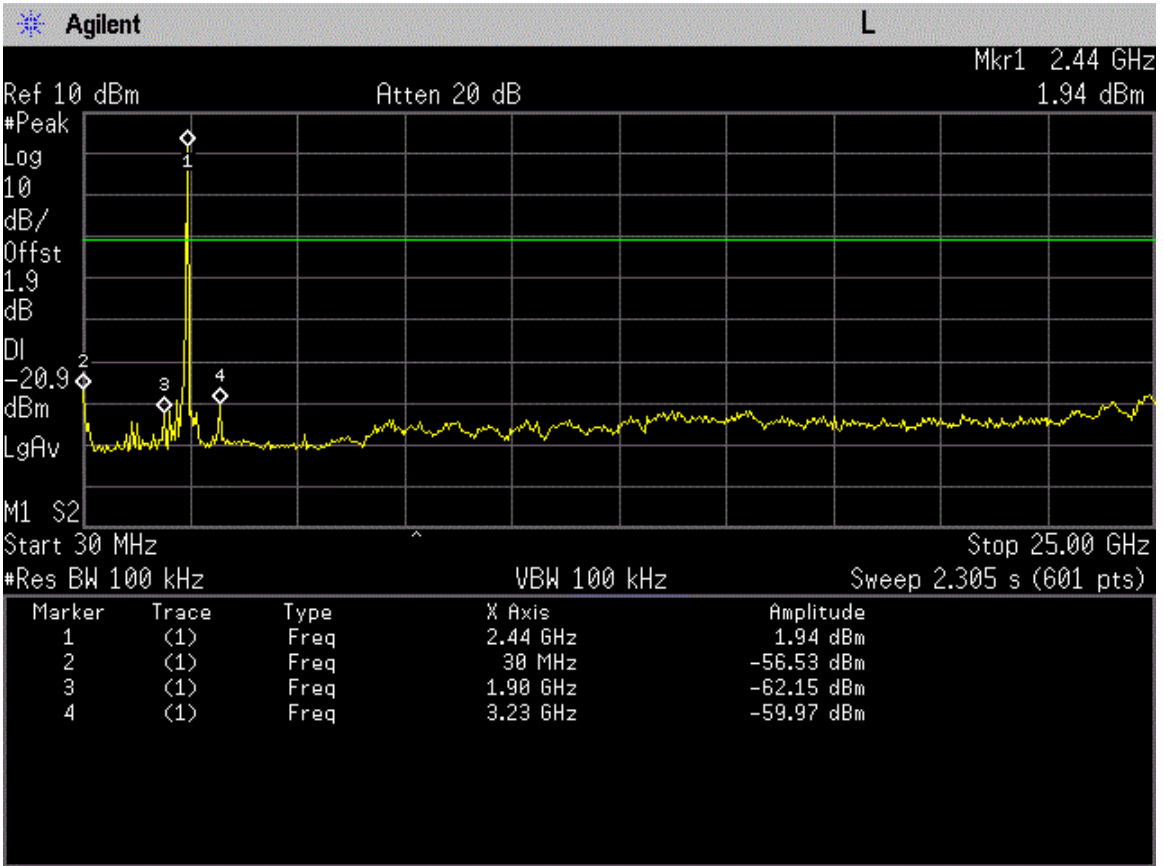


9.4.2.802.11b Ant.1

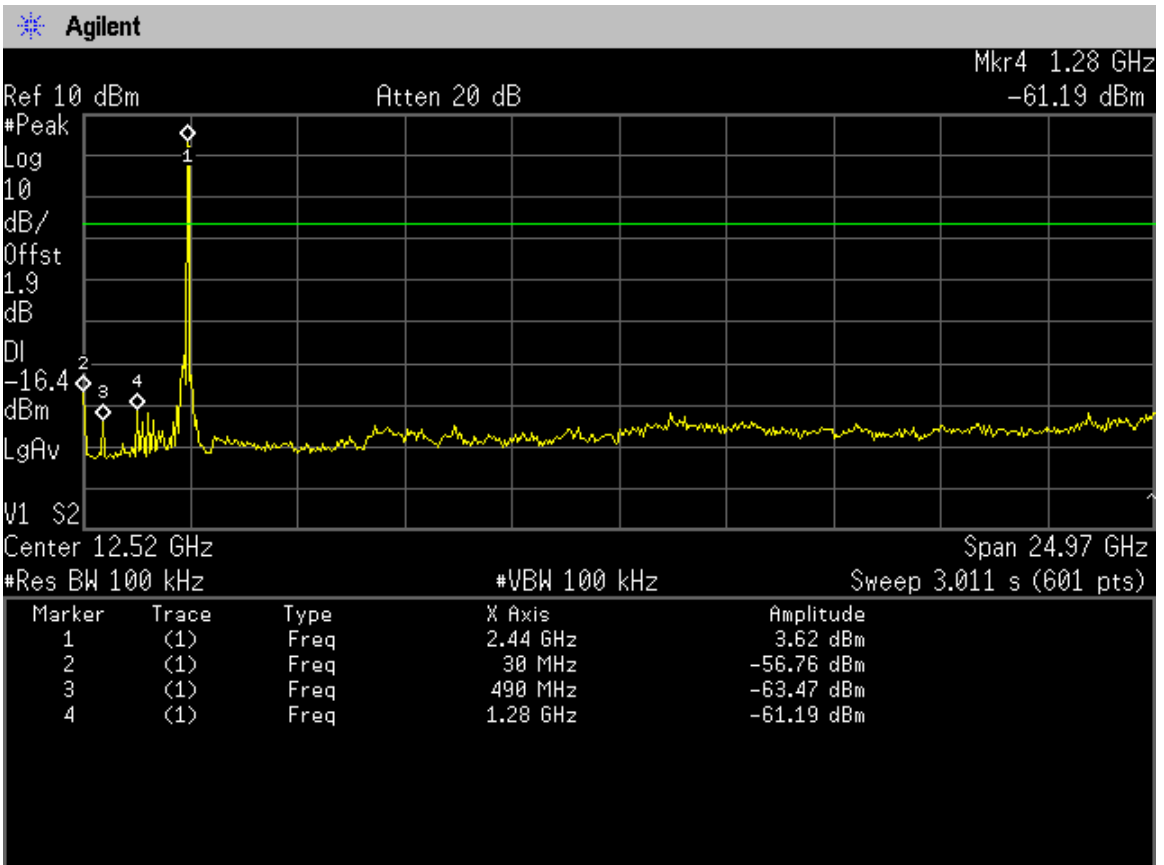
CH1



CH6

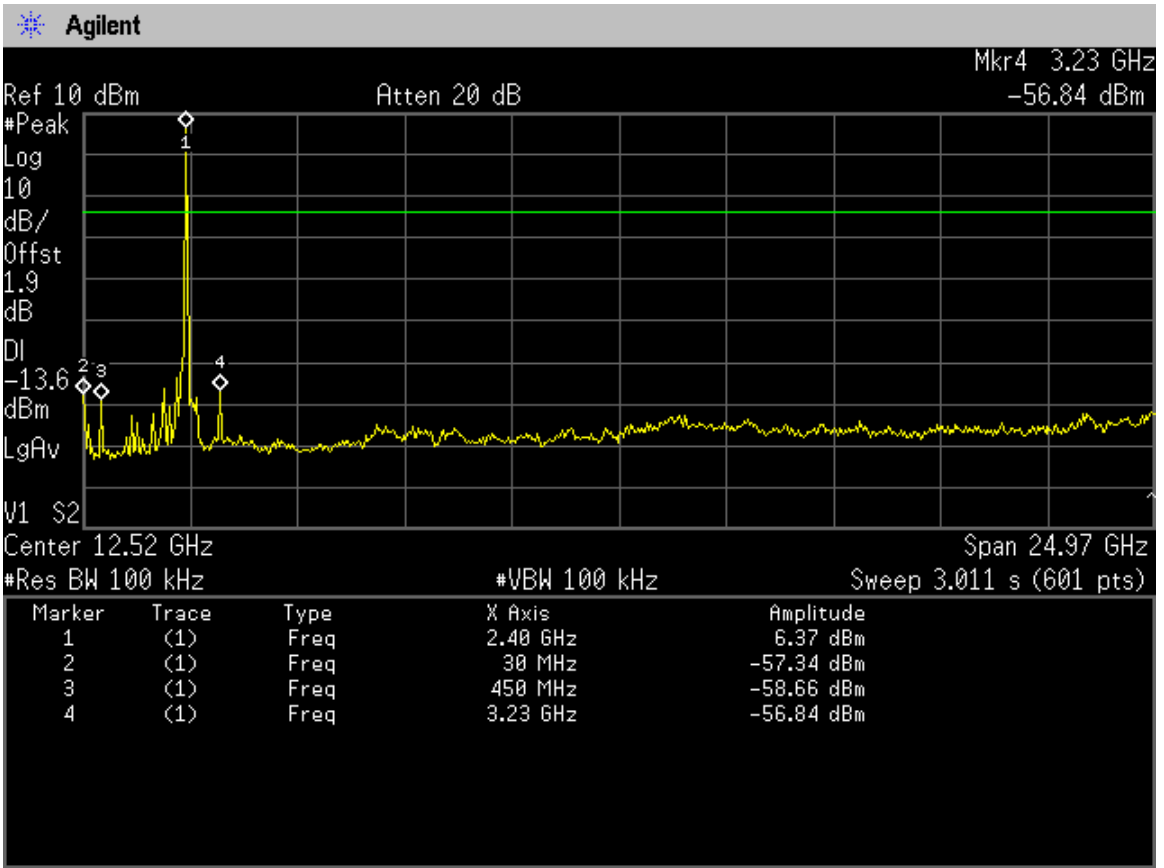


CH11

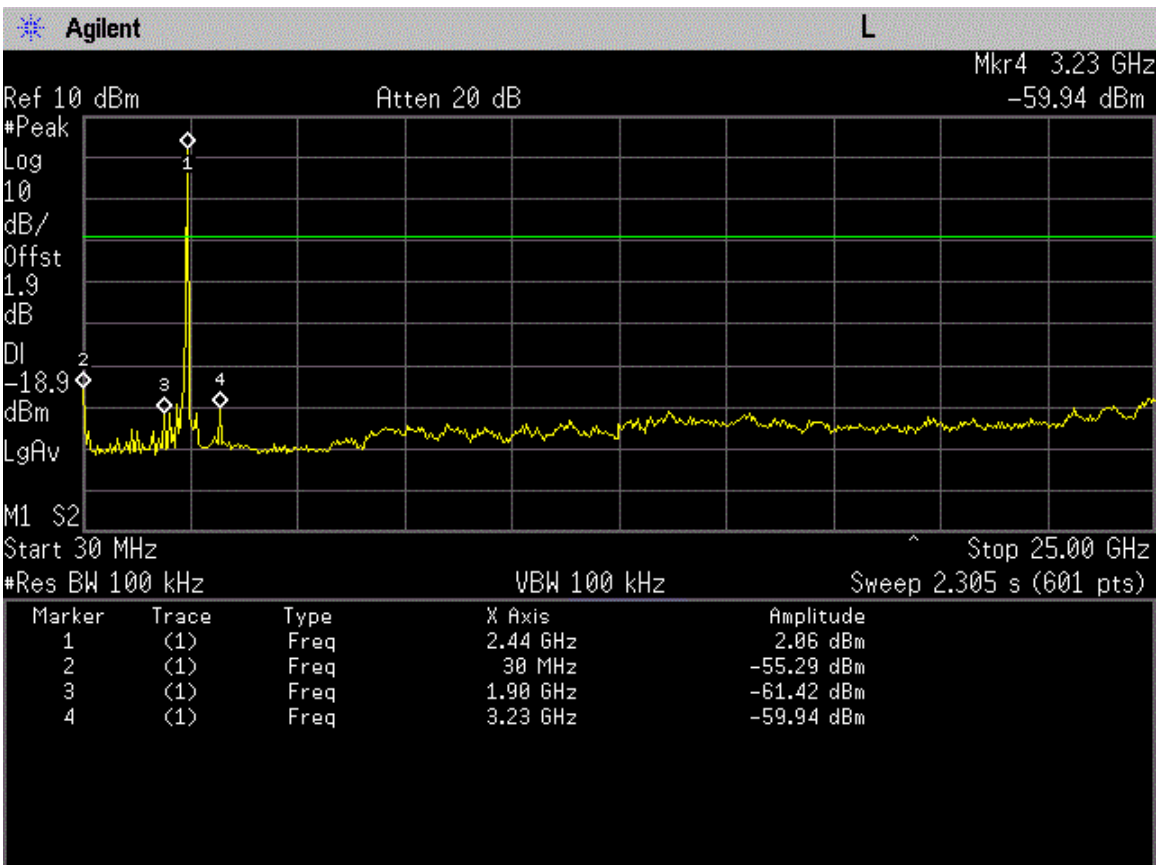


9.4.3.For 802.11g Ant.0

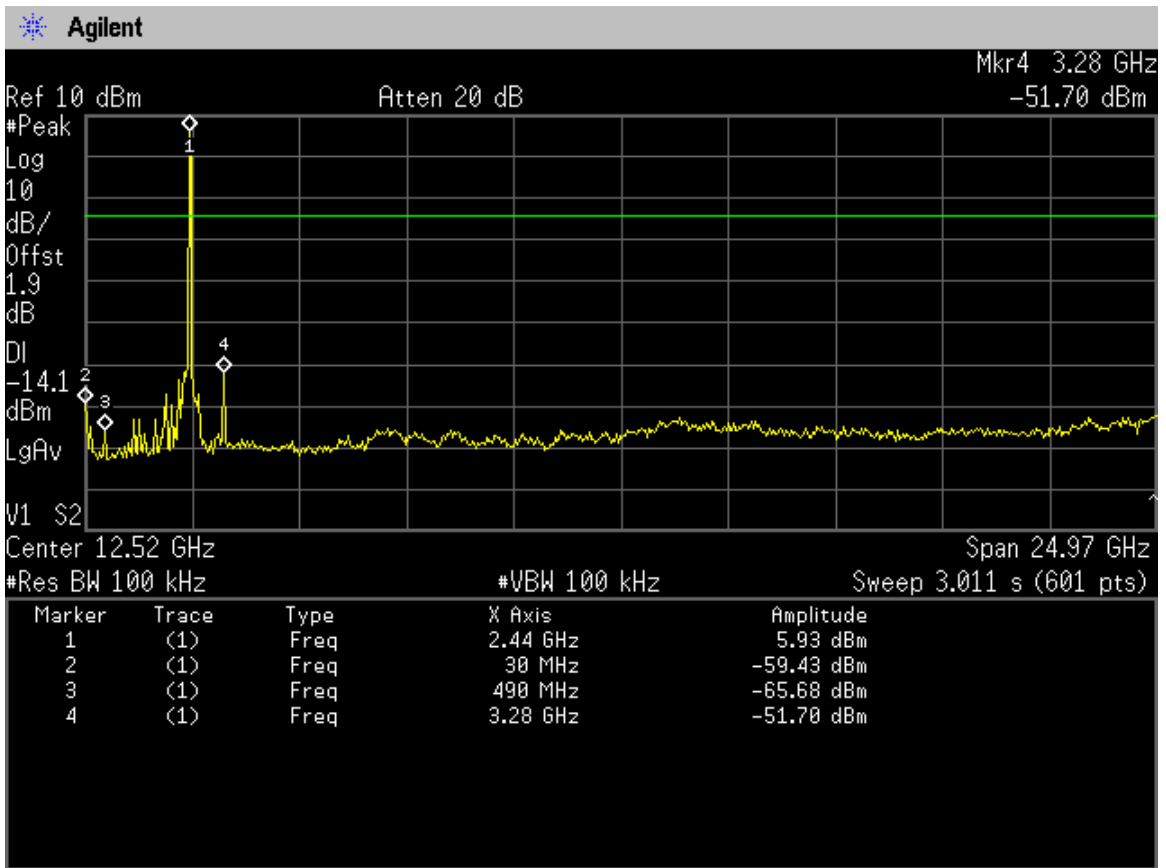
CH1



CH6

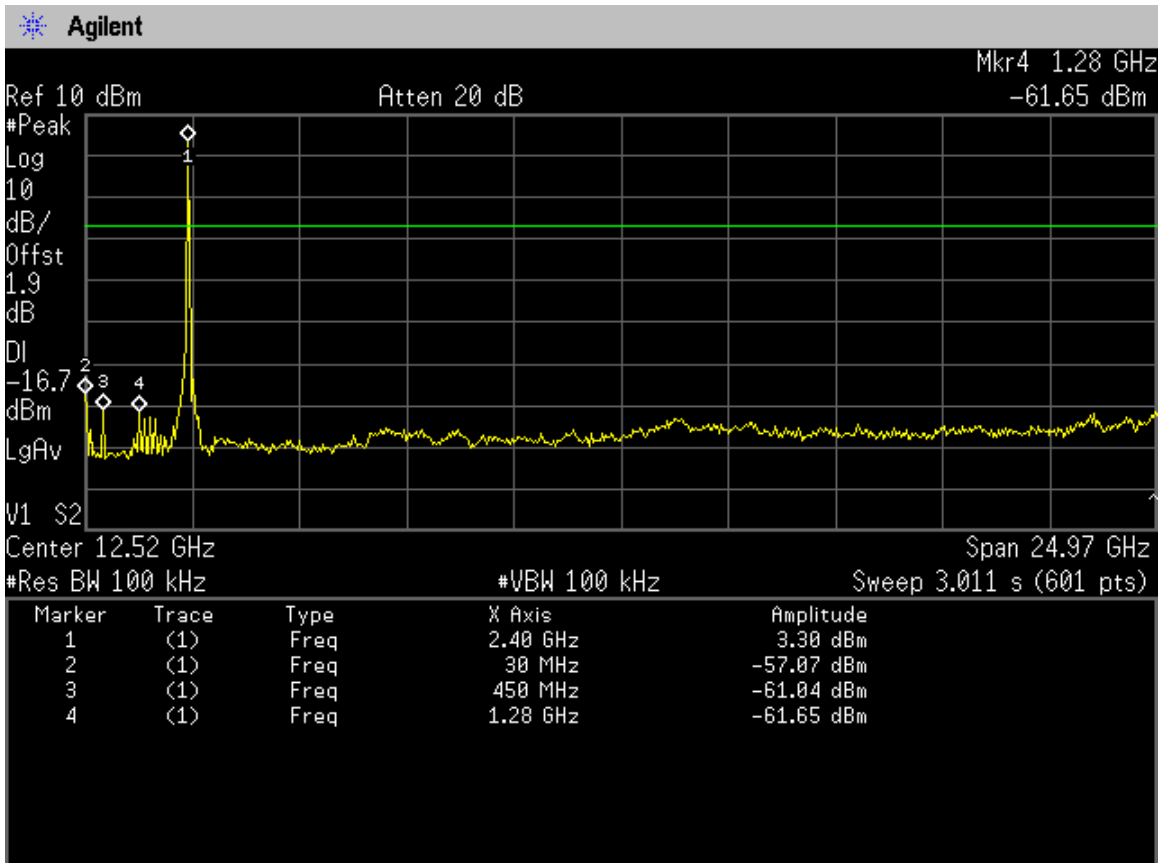


CH11



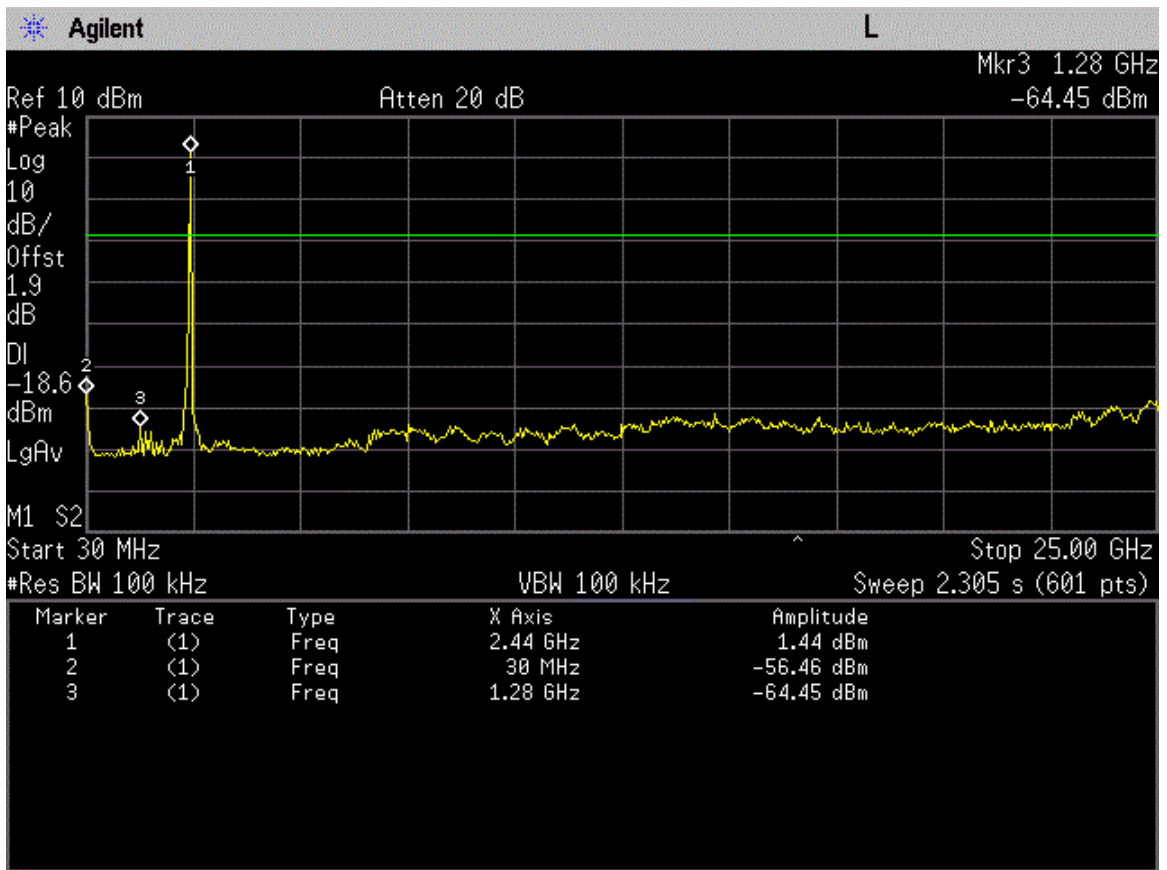
9.4.4.For 802.11g Ant.1

CH1

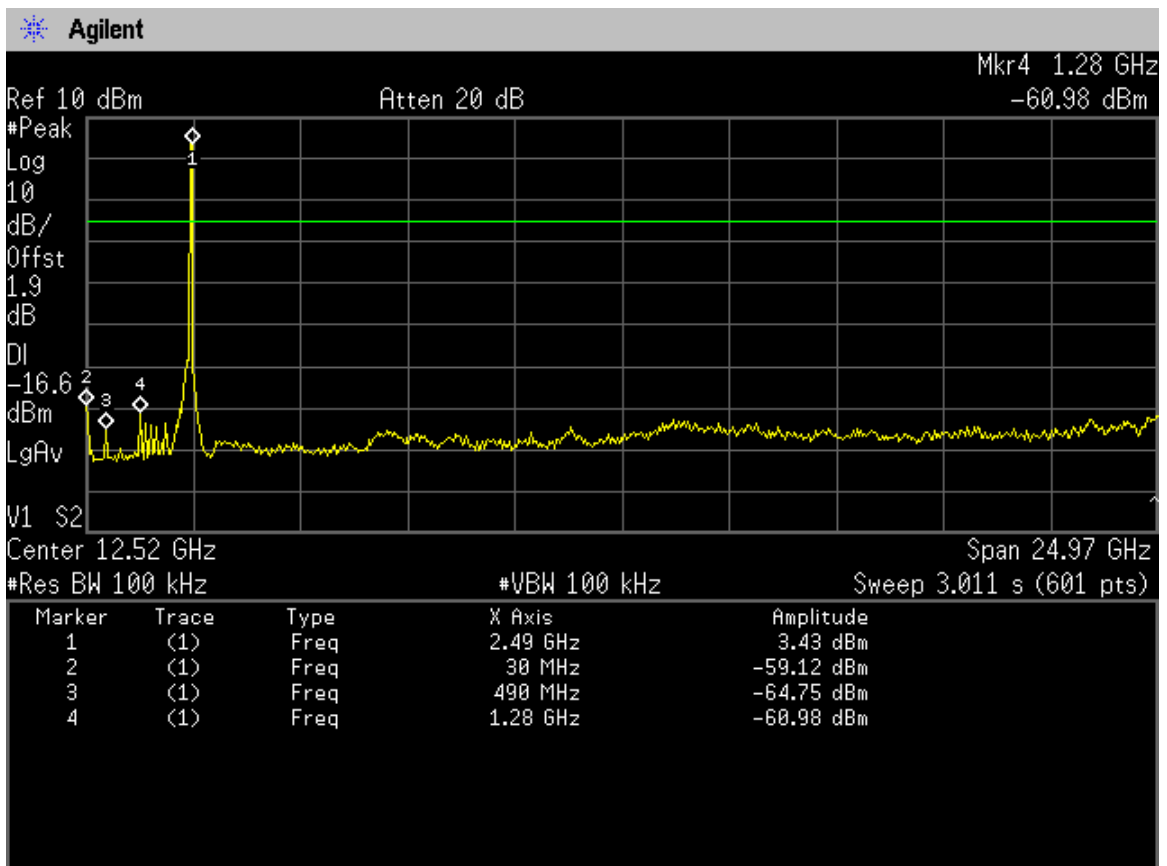




CH6

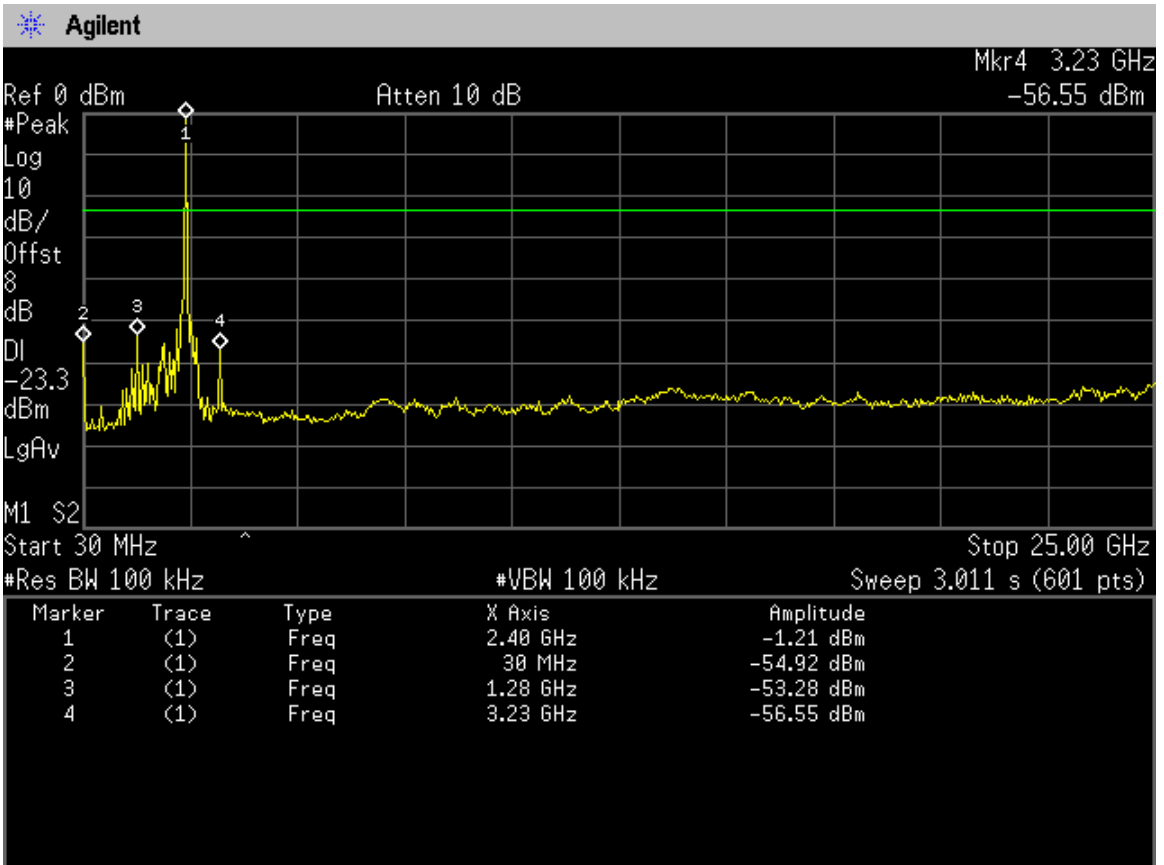


CH11

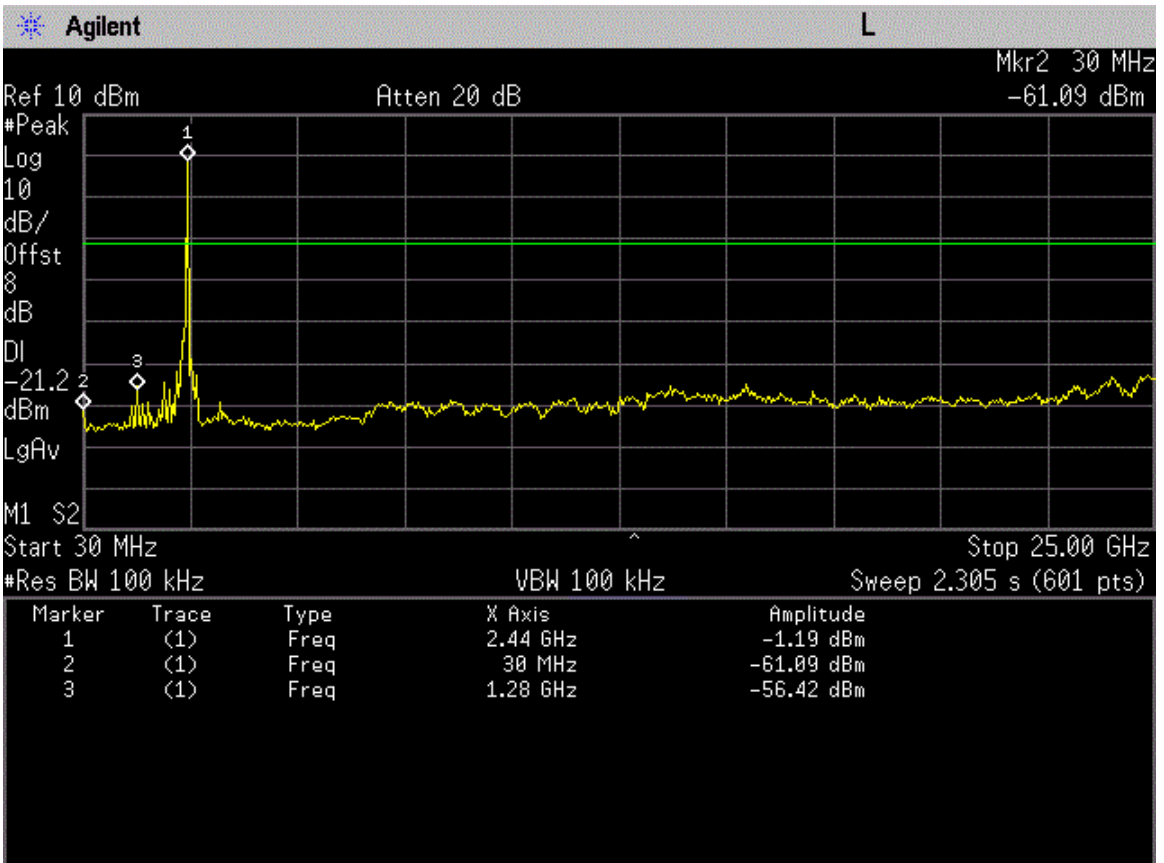


9.4.5.For 802.11n HT20

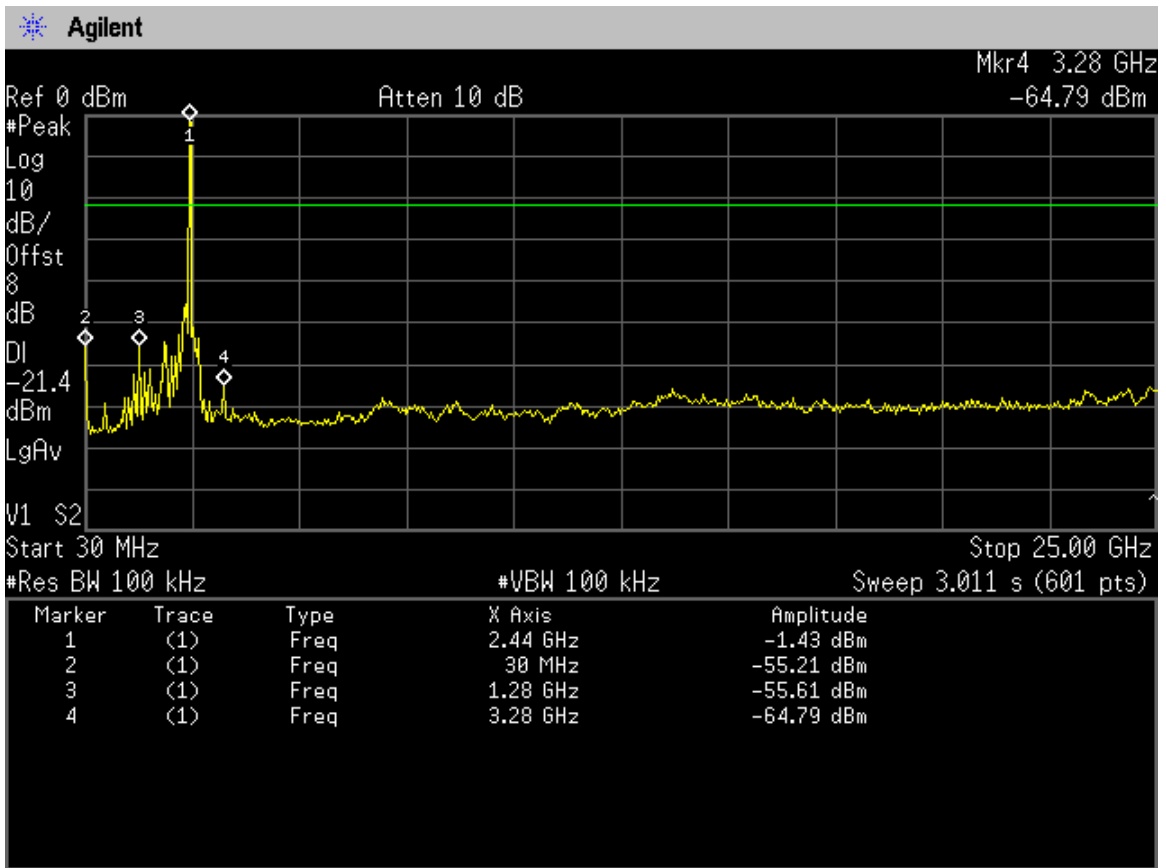
CH1



CH6

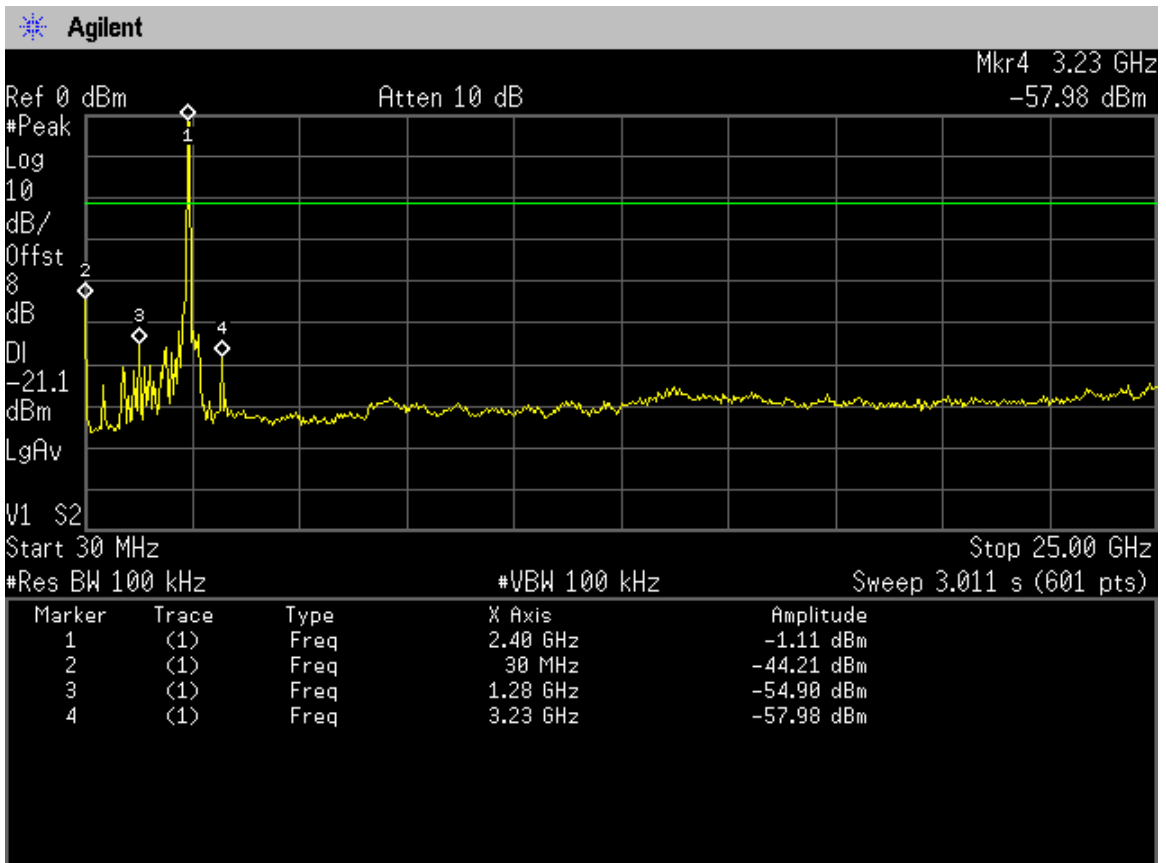


CH11

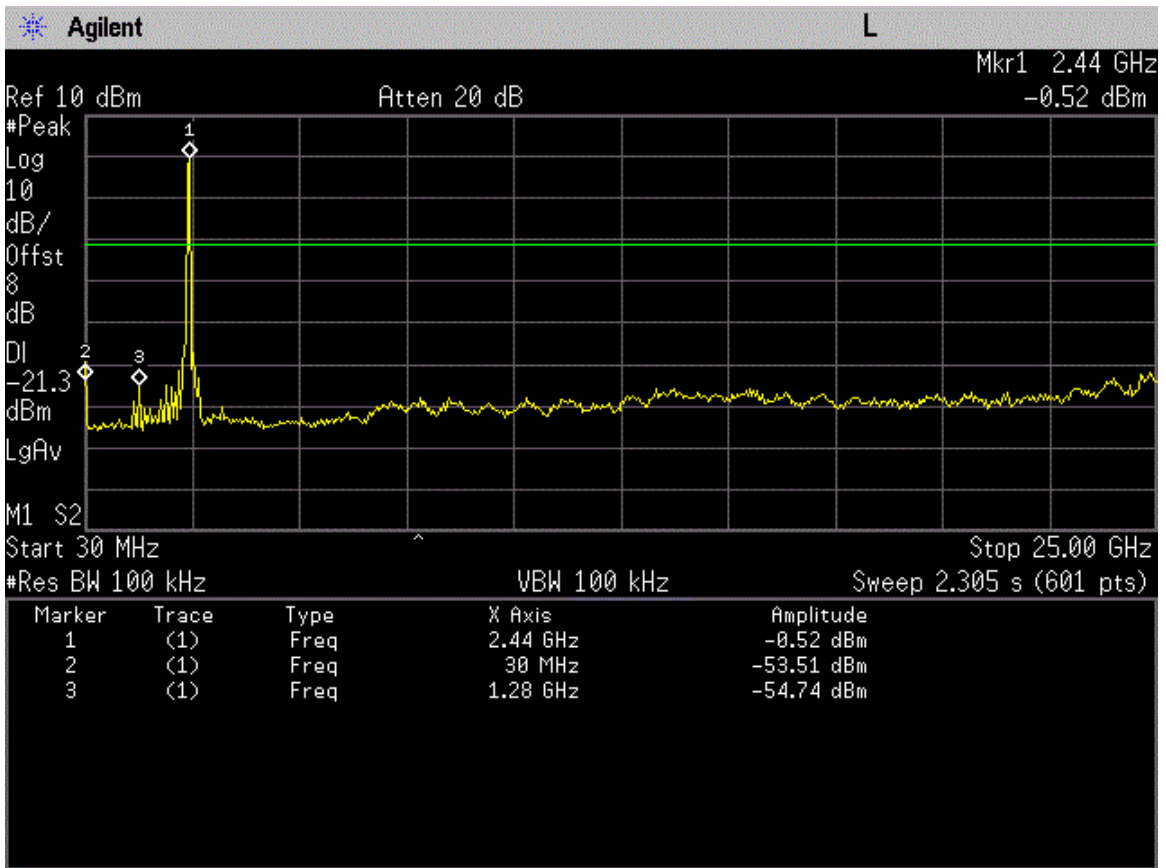


9.4.6.For 802.11n HT40

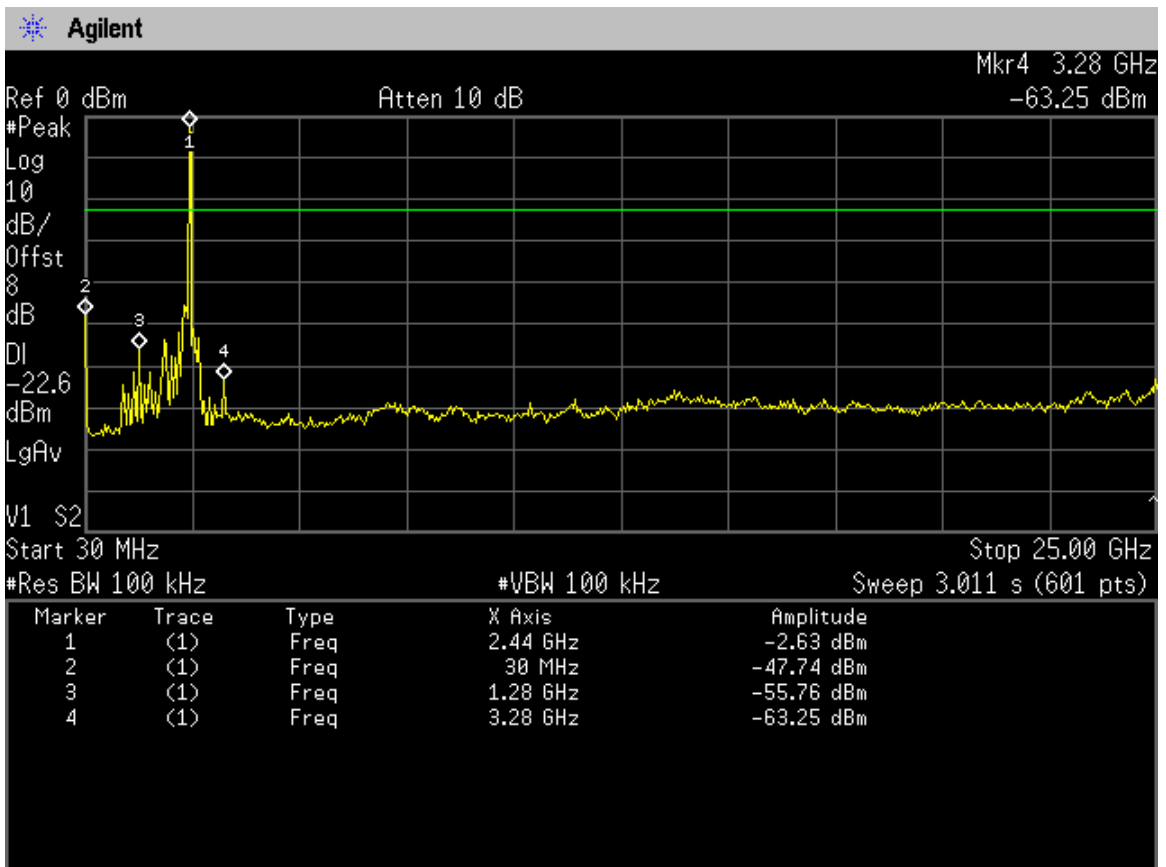
CH3



CH6



CH9



## 10. DEVIATION TO TEST SPECIFICATIONS

**【NONE】**