FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Proware Technologies Co., Ltd.

300Mbps Wireless N Router

Model No.: PW-RN501D,PW-RN501

FCC ID: WWMRN501XV4

Prepared for : Proware Technologies Co., Ltd.
2nd F1 East Wing, South Section, Factory Building 24, Science & Technology Park, Shennan Rd, Nanshan District, Shenzhen

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F12189

Date of Test : Aug.12~31, 2012

Date of Report : Sep.14, 2012

TABLE OF CONTENTS

TEST REPORT CERTIFICATION

Applicant	:	Proware Technologies Co., Ltd.
Manufacturer	:	Proware Technologies Co., Ltd.
EUT Description	:	300Mbps Wireless N Router
FCC ID	:	WWMRN501XV4

(A) MODEL NO. : PW-RN501D,PW-RN501
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : DC 9V From PC Input
(D) TEST VOLTAGE : DC 9V From PC Input AC 120V/60Hz

Tested for comply with:
FCC Rules and Regulations Part 15 Subpart C: 2008

Test procedure used:
ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements.The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Aug.12~31, 2012 Report of date: Sep.14, 2012

Prepared by : Selina Liu / Supervisor

Reviewed by : Sunny Lu / Assistant Manager

AUDIX® 信華科技(深圳)有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: 9/14/12

Approved & Authorized Signer : Ken Lu / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

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

EMISSION		
Description of Test Item	**Standard**	**Results**
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS
Radiated Emission	FCC Part 15: 15.209 ANSI C63.10: 2009	PASS
Band Edge Compliance	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Conducted spurious emissions	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
6dB Bandwidth	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Peak Output Power	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Power Spectral Density	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name	:	300Mbps Wireless N Router
Model Number	:	PW-RN501D,PW-RN501 PW-RN501D antenna detachable, PW-RN501 antenna non-detachable
FCC ID	:	WWMRN501XV4
Operation Frequency	:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE802.11n HT20: 2412MHz—2462MHz IEEE802.11n HT40: 2422MHz—2452MHz
Channel Number	:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7Channels
Modulation Technology	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Assembly Gain	:	Dipole Antenna, 3dBi Gain
Applicant	:	Proware Technologies Co., Ltd. 2nd F1 East Wing, South Section, Factory Building 24, Science & Technology Park, Shennan Rd, Nanshan District, Shenzhen
Manufacturer	:	Proware Technologies Co., Ltd. 2nd F1 East Wing, South Section, Factory Building 24, Science & Technology Park, Shennan Rd, Nanshan District, Shenzhen
Power Adapter	:	Manufacturer: VASATA., M/N: P090060-2B1 Cable: Unshielded, Undetachable, 1.5m
Date of Test	:	Aug.12~31, 2012
Date of Receipt	:	Aug.07, 2012
Sample Type	:	Prototype production

2.2.Test Information

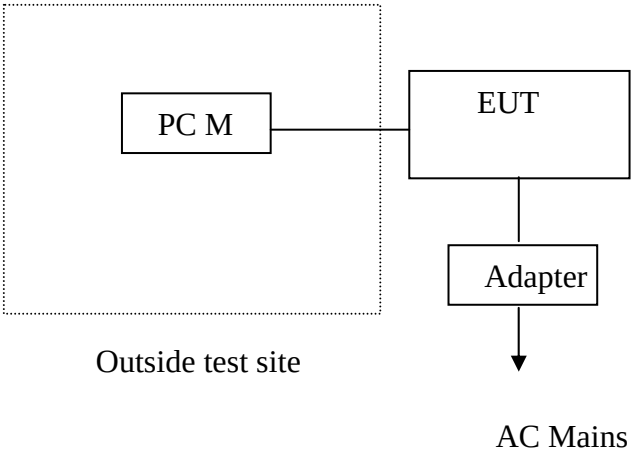
A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n HT20	6.5	Low :CH1	2412
	6.5	Middle: CH6	2437
	6.5	High: CH11	2462
IEEE 802.11n HT40	13.5	Low :CH1	2422
	13.5	Middle: CH4	2437
	13.5	High: CH7	2452
Note 1: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test. Note 2: According to explore test: Chain 0 has the worst case emission, so choose chain 0 for the Radiated emission and band-edge test for 11b/g mode. As to 11n Mode, test with the two antenna transmitting simultaneously.			

2.3.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1	Personal Computer	Test PC M	DELL	Studio 540	224XK2X	☑FCC DoC ☑BSMI ID:R33002
		Power Cord: Unshielded, Detachable, 1.8m Display Card: HD3450 (DVI+VGA+HDMI)				

2.4. Block Diagram of Test Setup



(EUT: 300Mbps Wireless N Router)

2.5. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park,Nantou, Shenzhen, Guangdong, China

3m Anechoic Chamber : Certificated by FCC, USA
Registration Number: 90454
Valid Date: Feb.22, 2015

3m & 10m Anechoic Chamber : Certificated by FCC, USA
Registration Number: 794232
Valid Date: Dec.30, 2012

EMC Lab. : Certificated by Industry Canada
Registration Number: IC 5183A-1
Valid Date: Jun.13, 2014

: Certificated by DAkkS, Germany
Registration No: D-PL-12151-01-01
Valid Date: Feb.01, 2014

Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2013

2.6. Measurement Uncertainty (95% confidence levels, k=2)

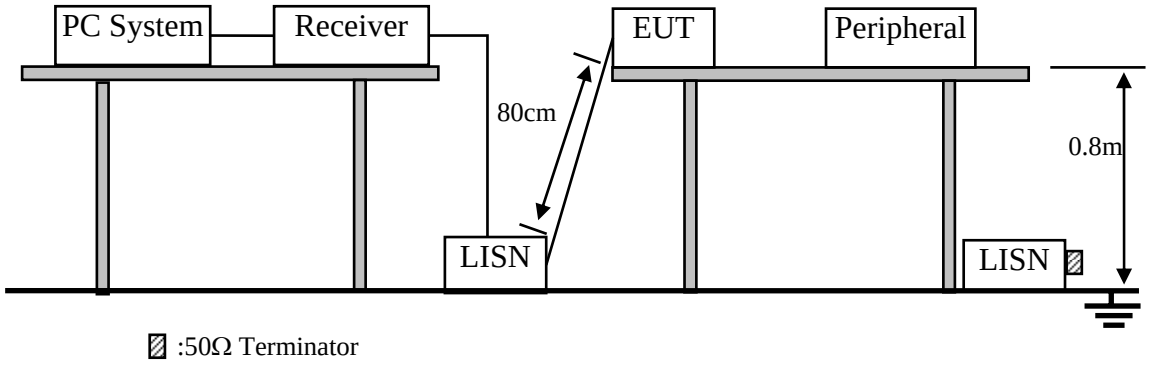
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.2 dB (150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.6 dB(30~200MHz, Polarize: H)
	3.8 dB(30~200MHz, Polarize: V)
	4.2 dB(200M~1GHz, Polarize: H)
	3.8 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	3.1dB (Distance: 3m Polarize: V)
	3.7 dB (Distance: 3m Polarize: H)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57 dB
Uncertainty for Conduction Spurious emission test	2.00 dB
Uncertainty for Output power test	0.73 dB
Uncertainty for Power density test	2.00 dB
Uncertainty for Frequency range test	$7x10^{-8}$
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 11	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Oct.31, 11	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 12	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 12	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 2	May.08, 12	1 Year
6.	RF Cable	Fujikura	3D-2W	No.1	May.08, 12	1Year
7.	Coaxial Switch	Anritsu	MP59B	M50564	May.08, 12	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 12	1 Year

3.2.Block Diagram of Test Setup



:50Ω Terminator

3.3.Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

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

3.4.Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. 300Mbps Wireless N Router (EUT)

Model Number : PW-RN501D
Serial Number : N/A

3.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT and simulator as shown as Section 3.2.

3.5.2. Turned on the power of all equipment.

3.5.3. PC run test software to control EUT work in Tx mode.

3.6. Test Procedure

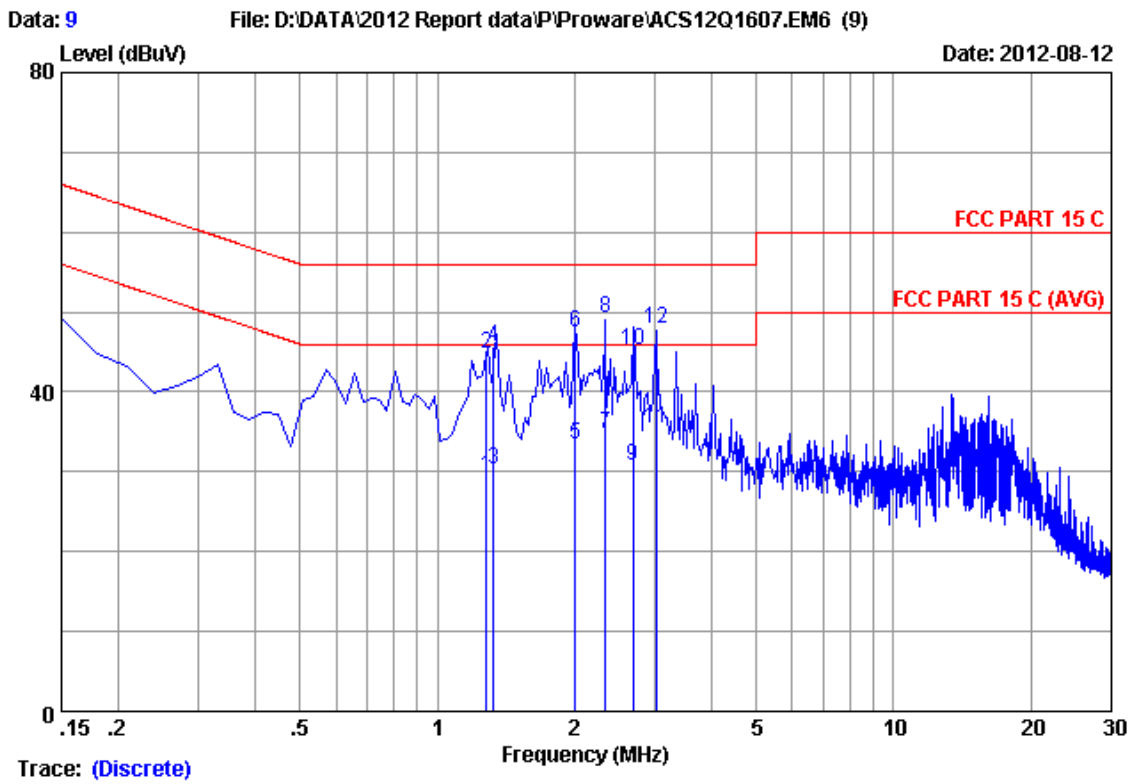
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.7. Power Line Conducted Emission Test Results

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

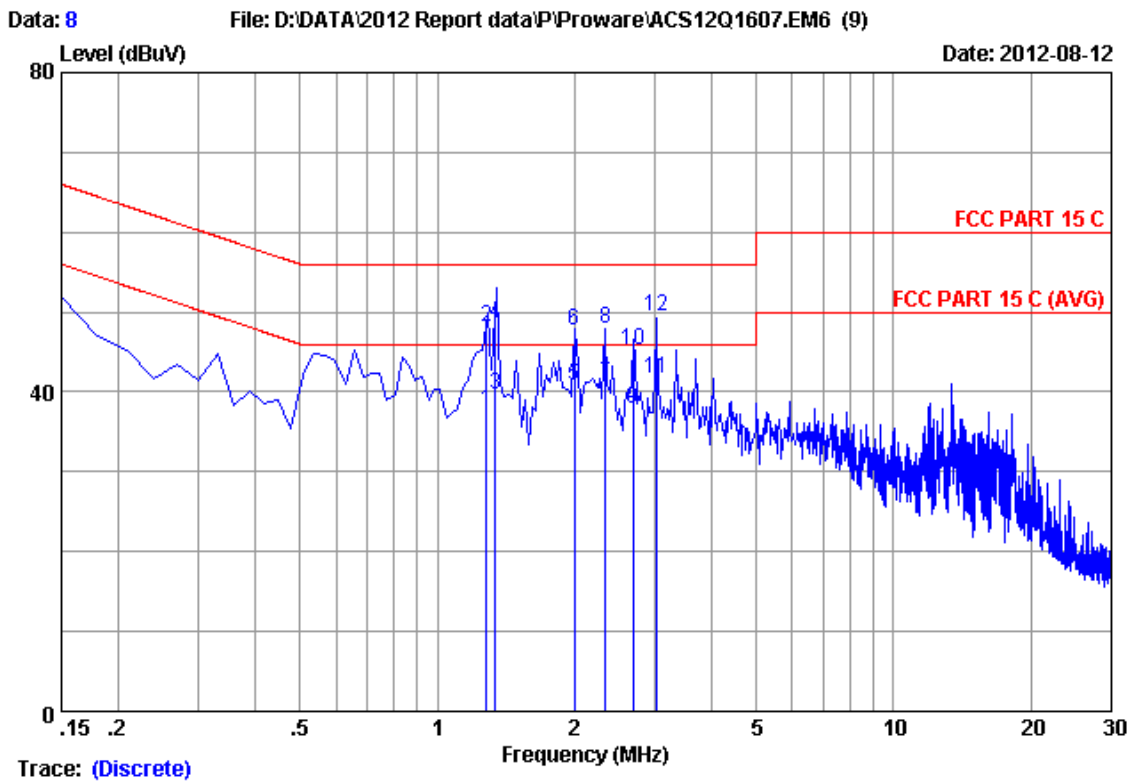


Trace: (Discrete)

Site no :1#conduction Data No :9
Dis./Ant. :** 2012 ESH2-Z5 LINE
Limit :FCC PART 15 C
Env./Ins. :22.9*C/45% Engineer :Leo-Li
EUT :300Mbps Wireless N Router
Power Rating :DC 9V From Adapter Input AC 120V/60Hz
Test Mode :Tx Mode
:M/N:PW-RN501D
:

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	1.280	0.18	9.94	19.40	29.52	46.00	16.48	Average
2	1.280	0.18	9.94	34.70	44.82	56.00	11.18	QP
3	1.330	0.18	9.94	20.20	30.32	46.00	15.68	Average
4	1.330	0.18	9.94	35.50	45.62	56.00	10.38	QP
5	2.010	0.20	9.94	23.20	33.34	46.00	12.66	Average
6	2.010	0.20	9.94	37.30	47.44	56.00	8.56	QP
7	2.340	0.21	9.94	24.60	34.75	46.00	11.25	Average
8	2.340	0.21	9.94	39.00	49.15	56.00	6.85	QP
9	2.680	0.22	9.94	20.69	30.85	46.00	15.15	Average
10	2.680	0.22	9.94	34.99	45.15	56.00	10.85	QP
11	3.010	0.22	9.94	25.30	35.46	46.00	10.54	Average
12	3.010	0.22	9.94	37.70	47.86	56.00	8.14	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)
+Reading.
2.If the average limit is met when useing a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.



Trace: (Discrete)

Site no :1#conduction Data No :8
Dis./Ant. :** 2012 ESH2-Z5 NEUTRAL
Limit :FCC PART 15 C
Env./Ins. :22.9*C/45% Engineer :Leo-Li
EUT :300Mbps Wireless N Router
Power Rating :DC 9V From Adapter Input AC 120V/60Hz
Test Mode :Tx Mode
:M/N:PW-RN501D
:

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	1.280	0.18	9.94	27.60	37.72	46.00	8.28	Average
2	1.280	0.18	9.94	38.10	48.22	56.00	7.78	QP
3	1.339	0.18	9.94	29.60	39.72	46.00	6.28	Average
4	1.339	0.18	9.94	38.50	48.62	56.00	7.38	QP
5	2.000	0.20	9.94	30.70	40.84	46.00	5.16	Average
6	2.000	0.20	9.94	37.60	47.74	56.00	8.26	QP
7	2.340	0.21	9.94	30.90	41.05	46.00	4.95	Average
8	2.340	0.21	9.94	37.70	47.85	56.00	8.15	QP
9	2.680	0.22	9.94	27.69	37.85	46.00	8.15	Average
10	2.680	0.22	9.94	34.99	45.15	56.00	10.85	QP
11	3.010	0.22	9.94	31.60	41.76	46.00	4.24	Average
12	3.010	0.22	9.94	39.40	49.56	56.00	6.44	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)
+Reading.
2.If the average limit is met when useing a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1.Test Equipment

4.1.1. For frequency range 30MHz~1000MHz (At Anechoic Chamber)

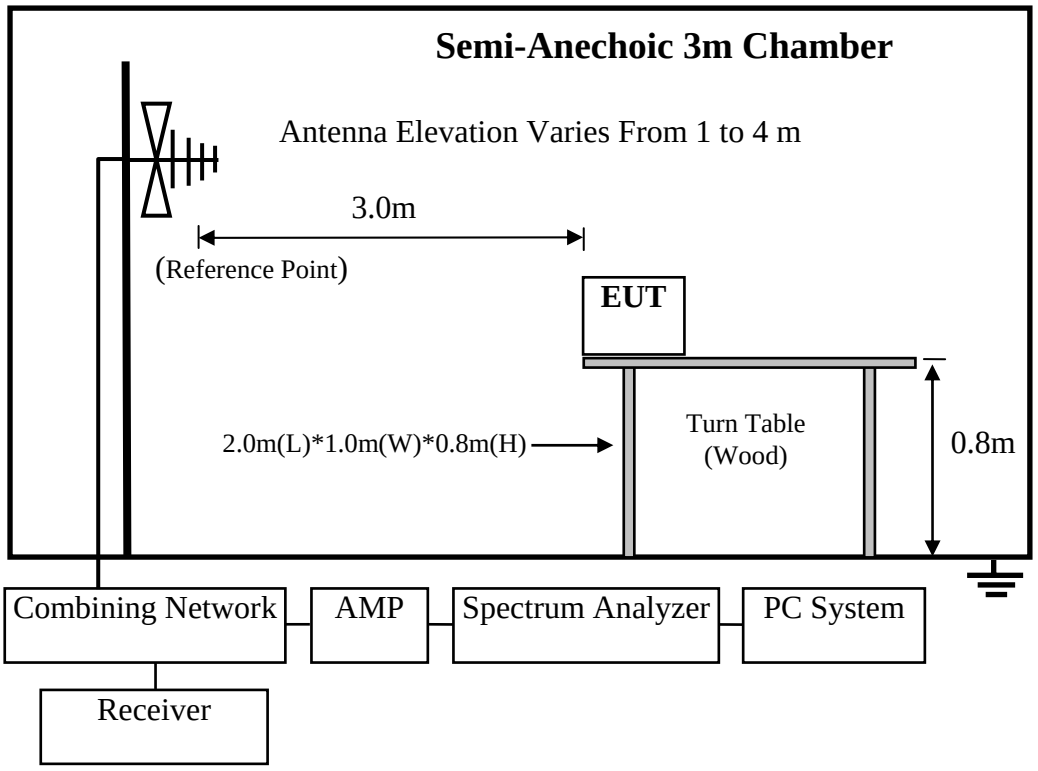
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Nov.28,11	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 12	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 12	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 12	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.26, 10	2.0 Year
6	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	May.08, 12	1 Year
7	Coaxial Switch	Anritsu	MP59B	M74389	May.08, 12	1 Year

4.1.2. For frequency range 1GHz~6GHz (At Anechoic Chamber)

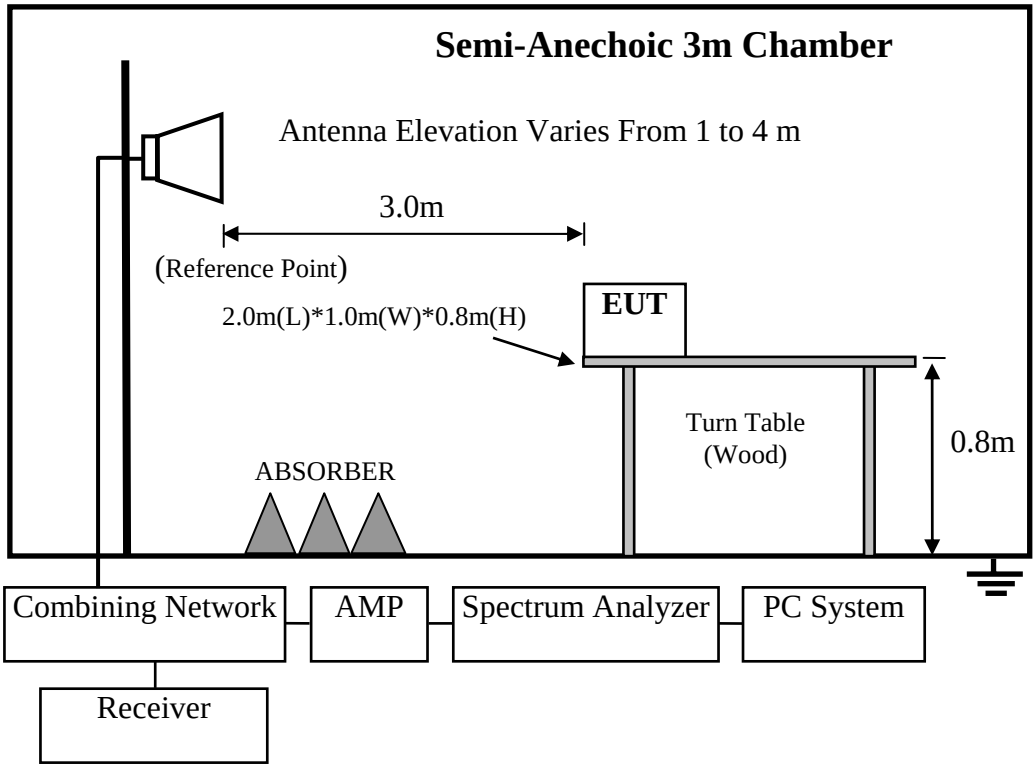
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 12	1 Year
2	Horn Antenna	EMCO	3115	9510-4580	June.05, 12	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 12	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX106	77980/6	May.08, 12	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	May.08, 12	1 Year
6	Horn Antenna	EMCO	3116	00060089	May.08, 12	1.5Year

4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3.Radiated Emission Limit

4.3.1. 15.209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark： (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3.2. 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4. EUT Configuration on Test

The configurations of EUT are listed in Section 3.5.

4.5. Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 4.2.

4.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10^{th} harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

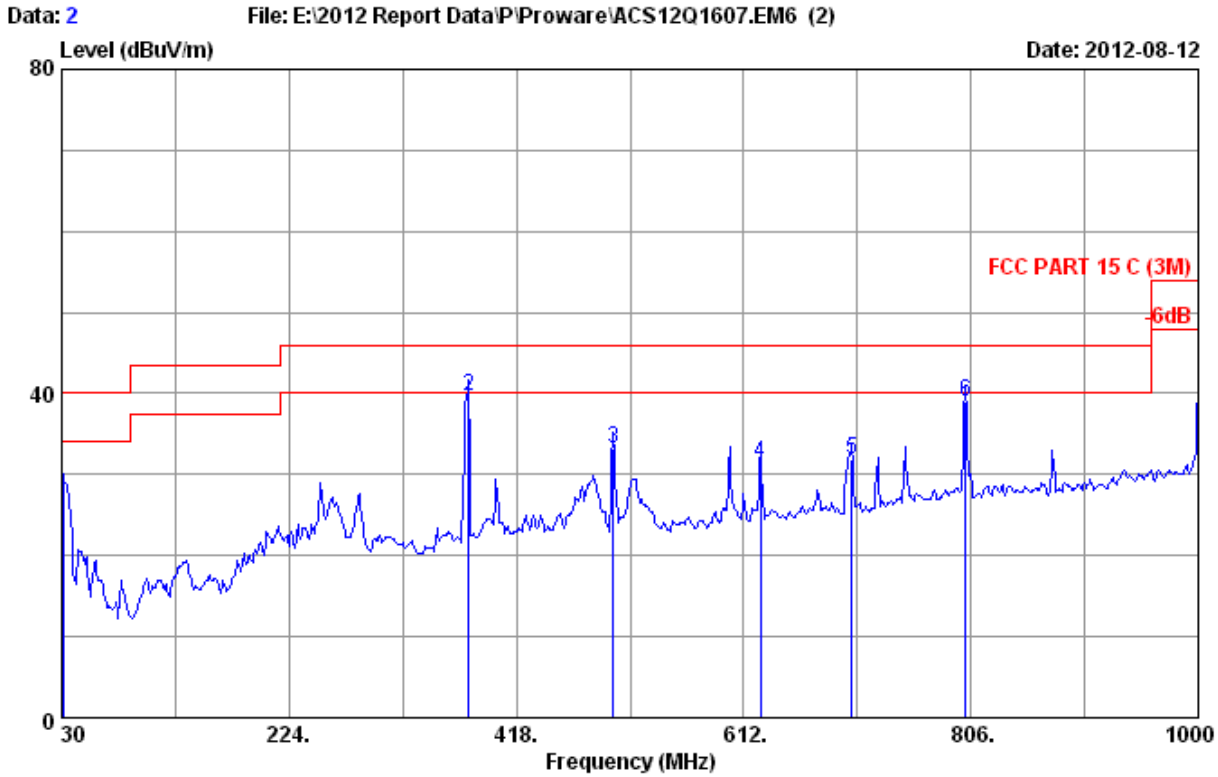
4.7.Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

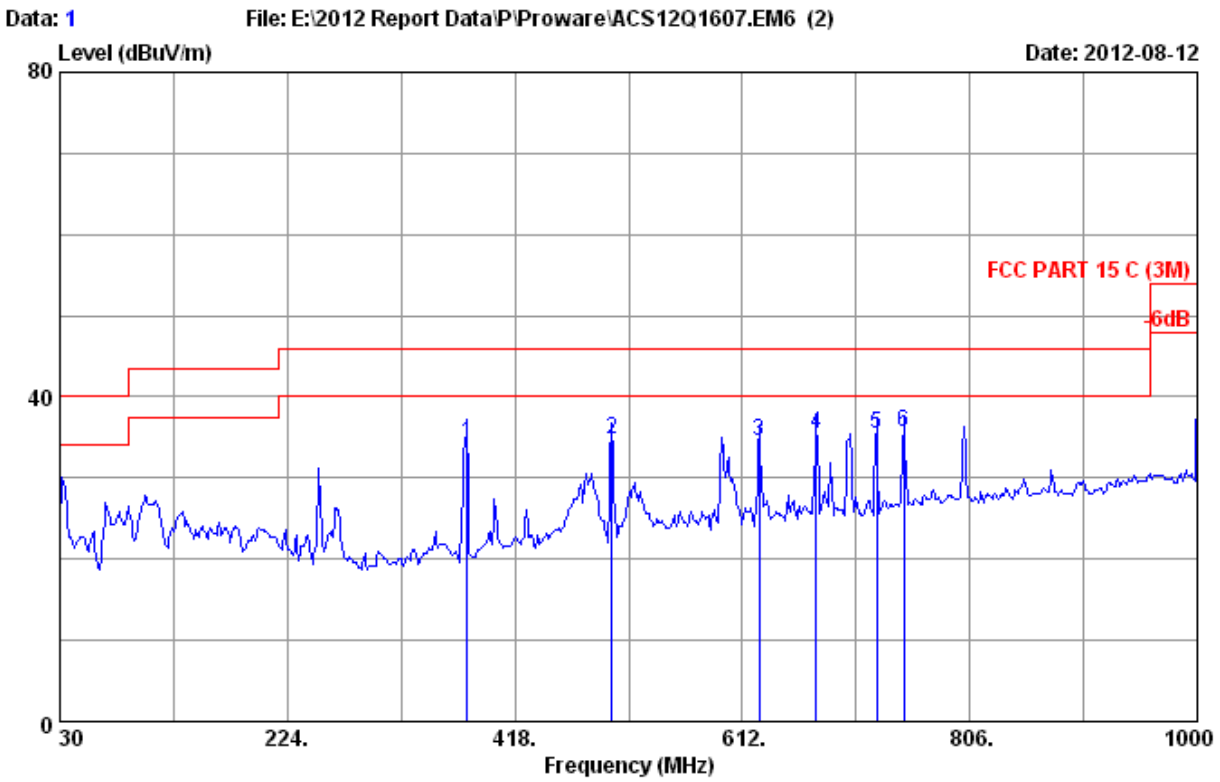
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2012 CBL6111C 2598 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power rating : DC 9V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode
: M/N:PW-RN501D

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	31.940	17.61	0.45	9.29	27.35	40.00	12.65	QP
2	377.260	15.95	1.50	22.25	39.70	46.00	6.30	QP
3	500.450	19.09	1.83	12.21	33.13	46.00	12.87	QP
4	626.550	20.70	2.19	8.57	31.46	46.00	14.54	QP
5	704.150	21.37	2.42	8.10	31.89	46.00	14.11	QP
6	801.150	22.73	2.70	13.67	39.10	46.00	6.90	QP

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

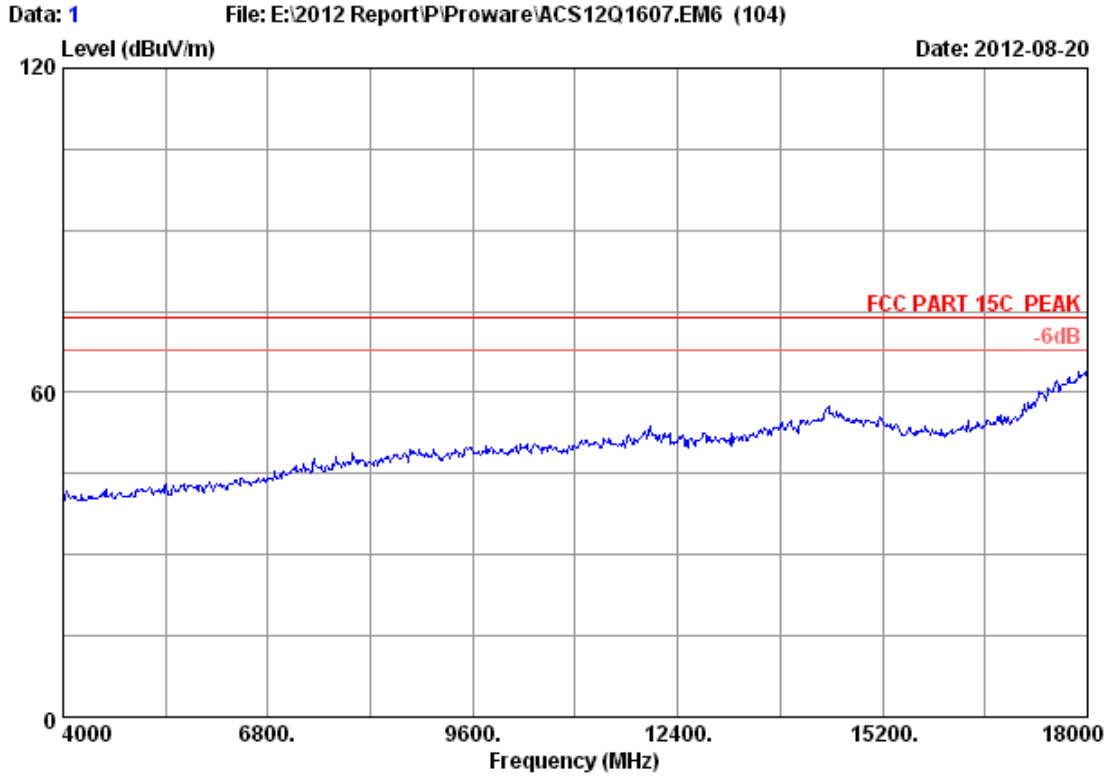


Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2012 CBL6111C 2598 Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power rating : DC 9V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode
: M/N:PW-RN501D

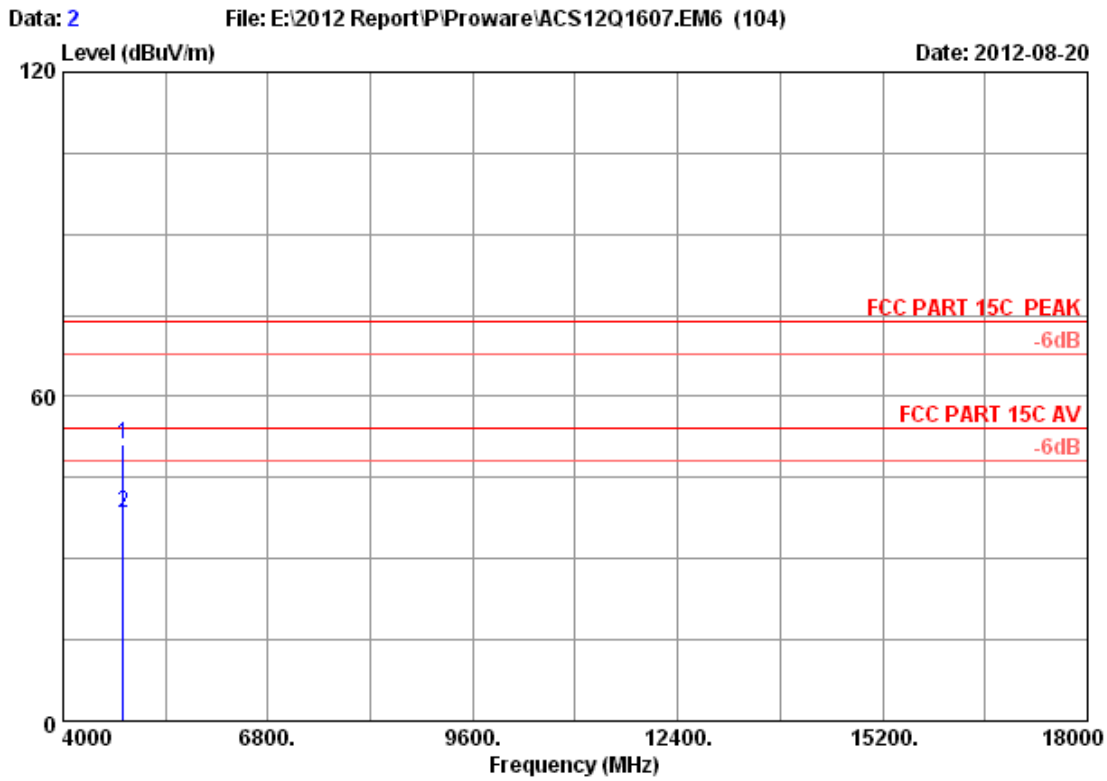
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	377.260	15.95	1.50	16.76	34.21	46.00	11.79	QP
2	500.450	19.09	1.83	13.79	34.71	46.00	11.29	QP
3	626.550	20.70	2.19	11.67	34.56	46.00	11.44	QP
4	675.050	21.42	2.34	11.62	35.38	46.00	10.62	QP
5	726.460	21.64	2.48	11.21	35.33	46.00	10.67	QP
6	749.740	22.28	2.56	10.87	35.71	46.00	10.29	QP

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

Frequency: 1GHz~18GHz



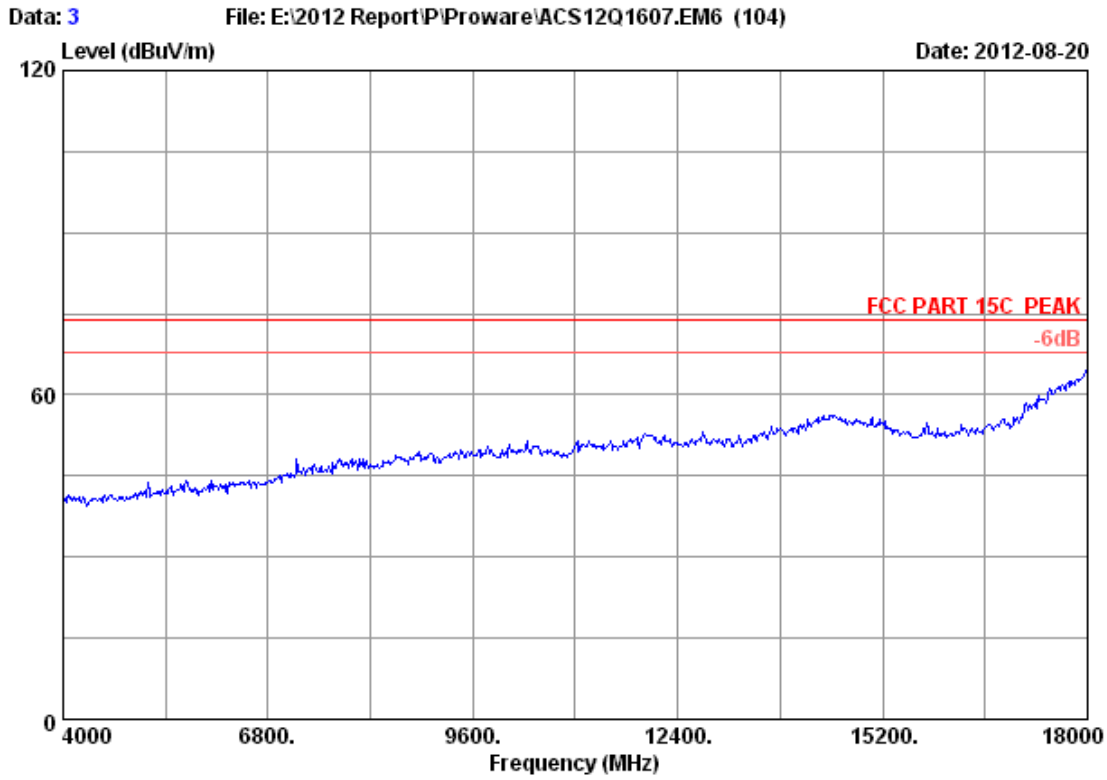

```
Site no.      : 3m Chamber                Data no.   : 1
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11b  CH1 2412MHz  Tx
M/N           : PW-RN501D
```



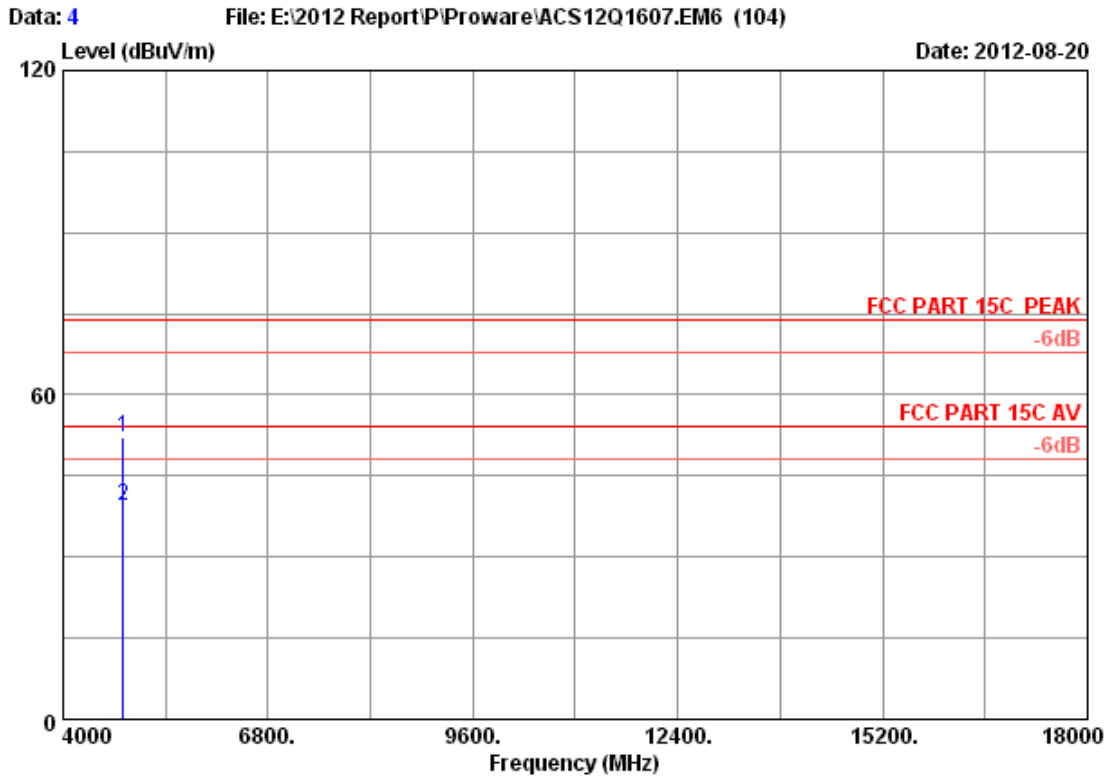
Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.89	8.53	34.60	44.22	51.04	74.00	22.96	Peak
2	4824.000	32.89	8.53	34.60	31.58	38.40	54.00	15.60	Average

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



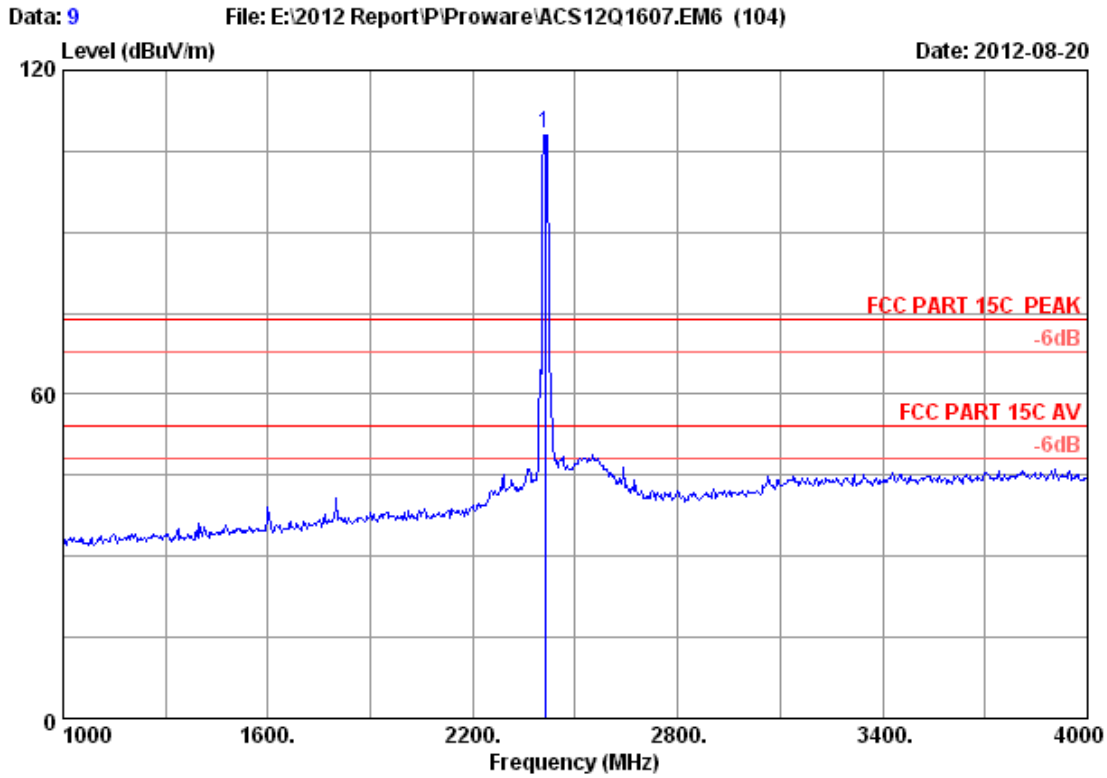

```
Site no.      : 3m Chamber                Data no.   : 3
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11b  CH1 2412MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.89	8.53	34.60	45.19	52.01	74.00	21.99	Peak
2	4824.000	32.89	8.53	34.60	32.53	39.35	54.00	14.65	Average

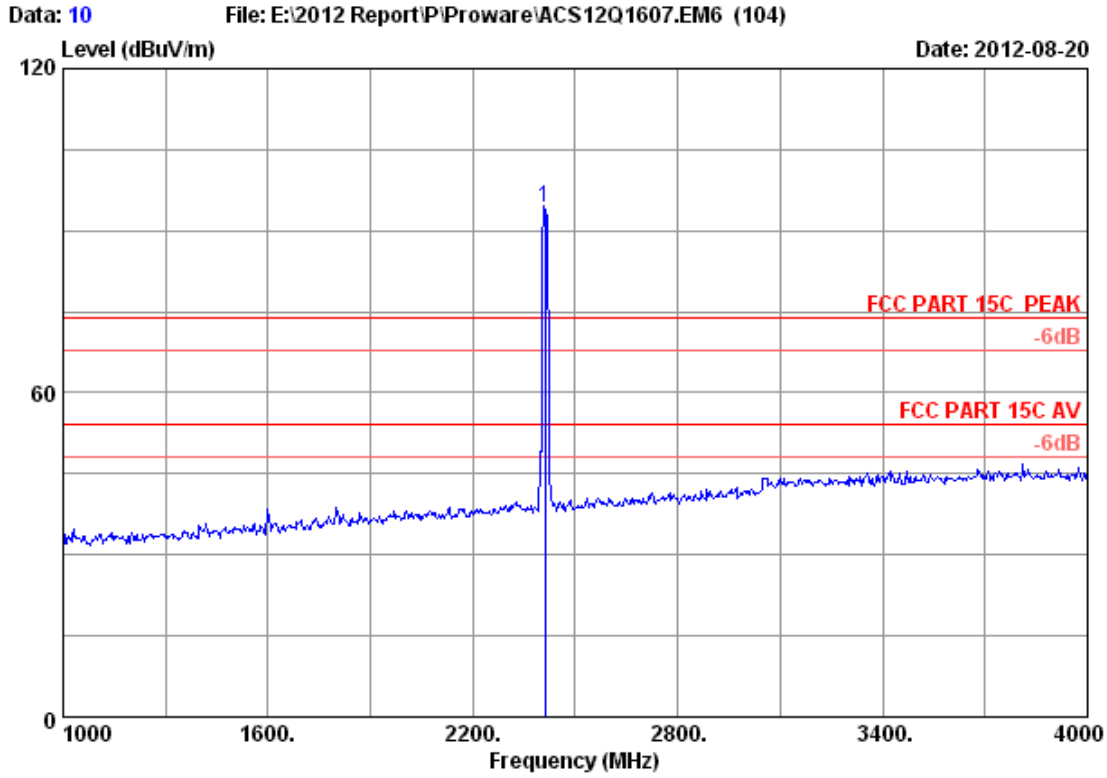
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 9
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	27.98	6.03	34.44	108.77	108.34	74.00	-34.34	Peak

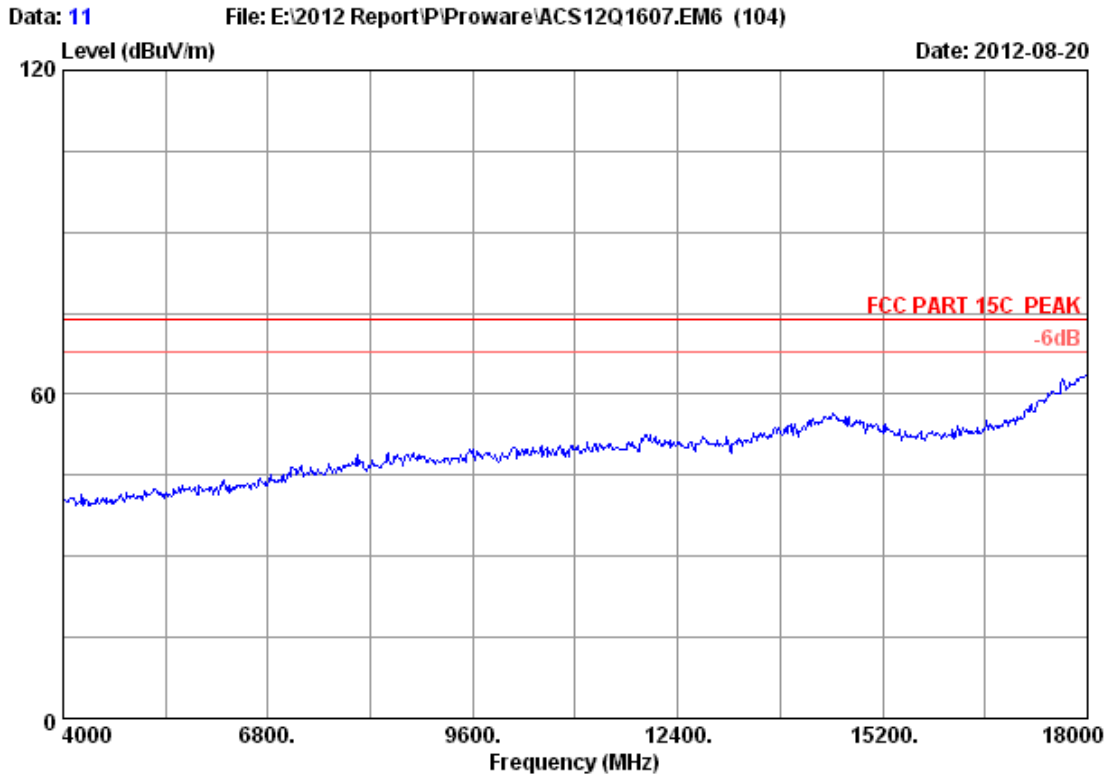
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



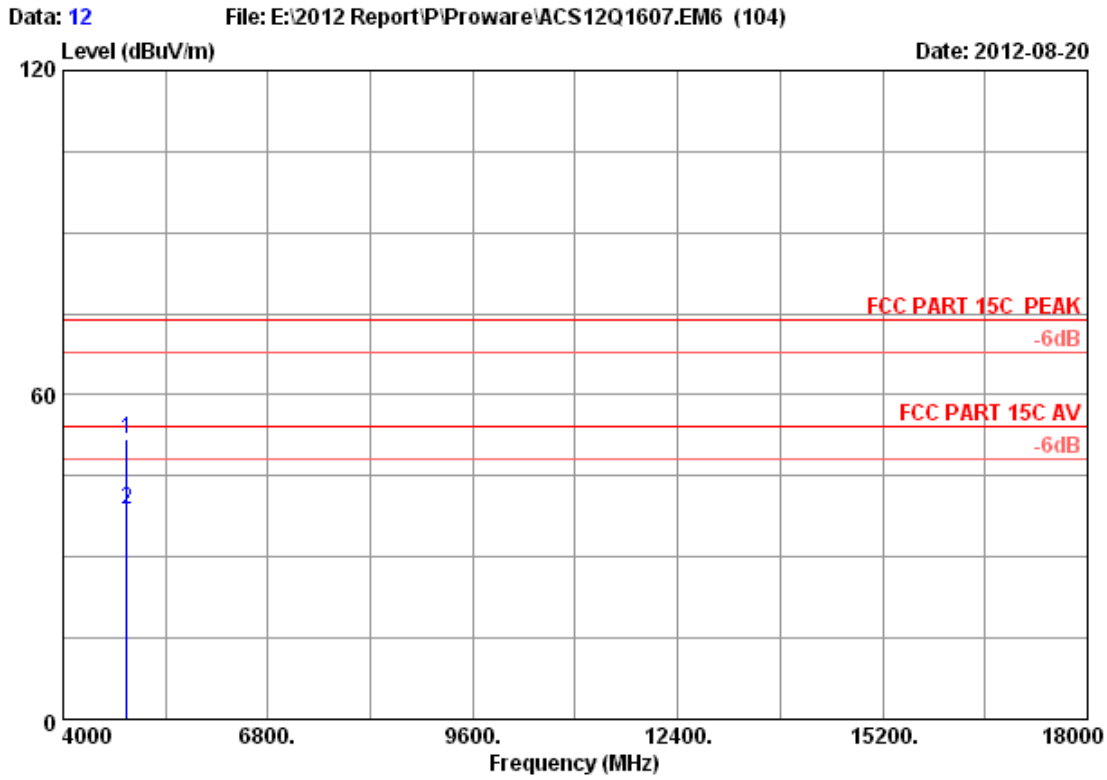
Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	27.98	6.03	34.44	94.78	94.35	74.00	-20.35	Peak

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



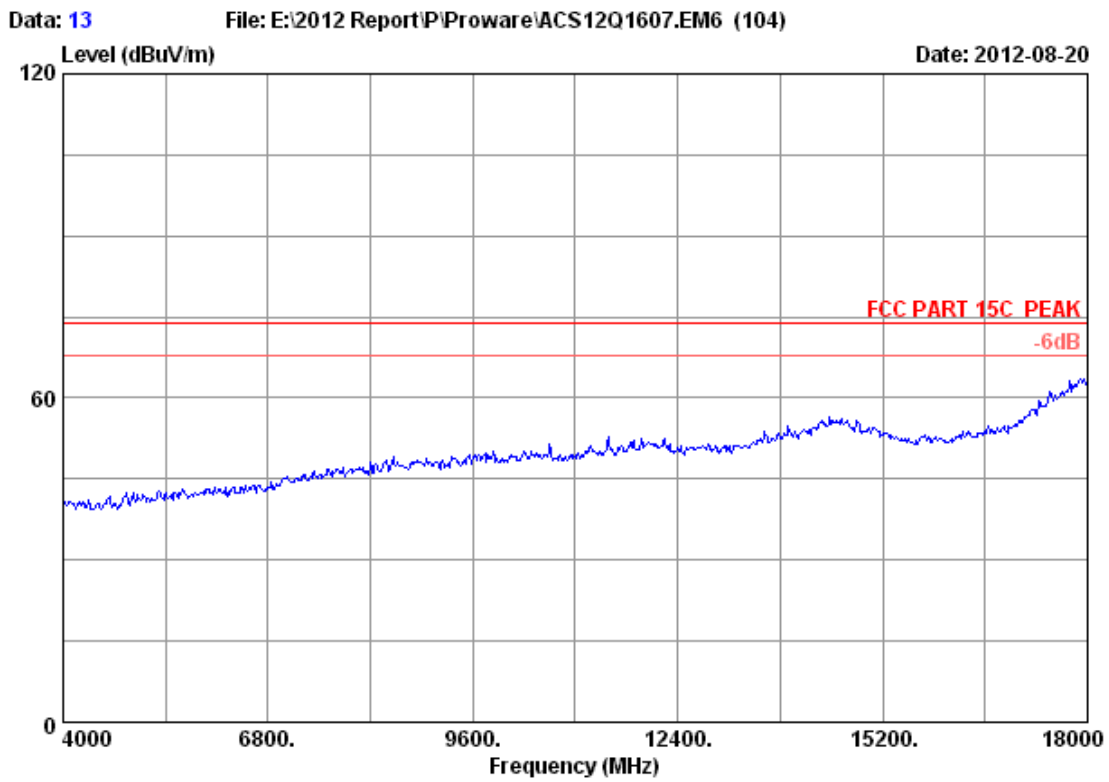

```
Site no.      : 3m Chamber                Data no.   : 11
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11b  CH6 2437MHz  Tx
M/N           : PW-RN501D
```



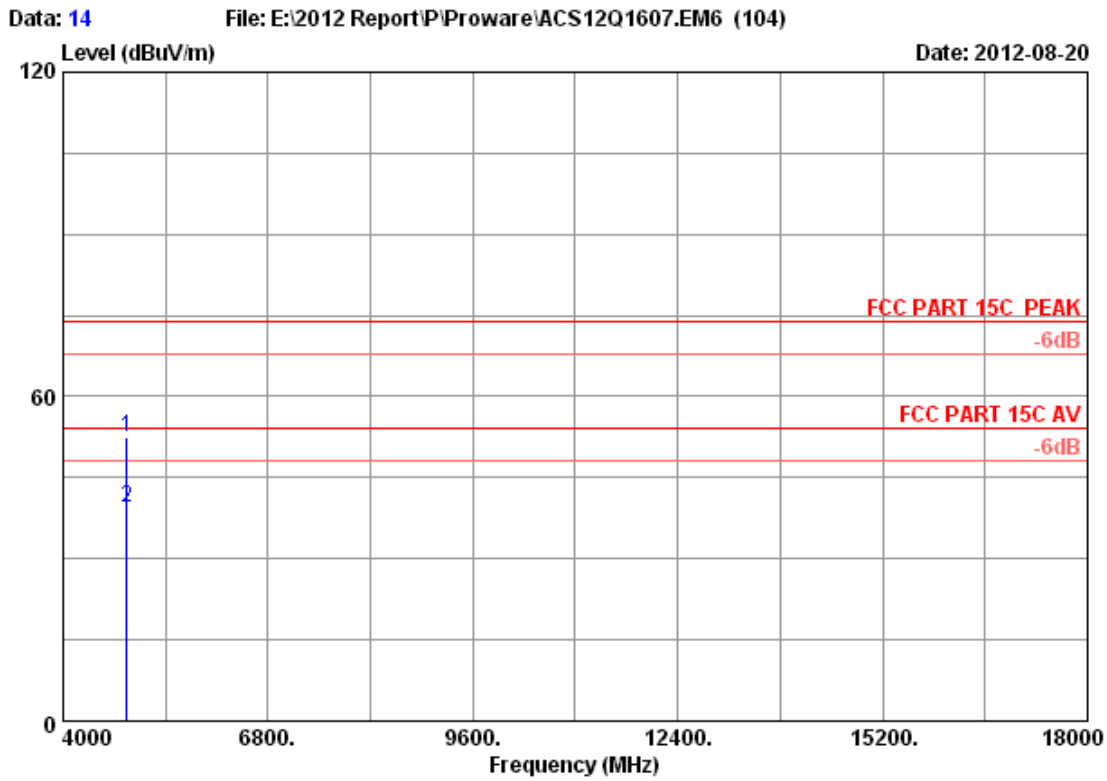
Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	44.69	51.65	74.00	22.35	Peak
2	4874.000	32.98	8.58	34.60	31.74	38.70	54.00	15.30	Average

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



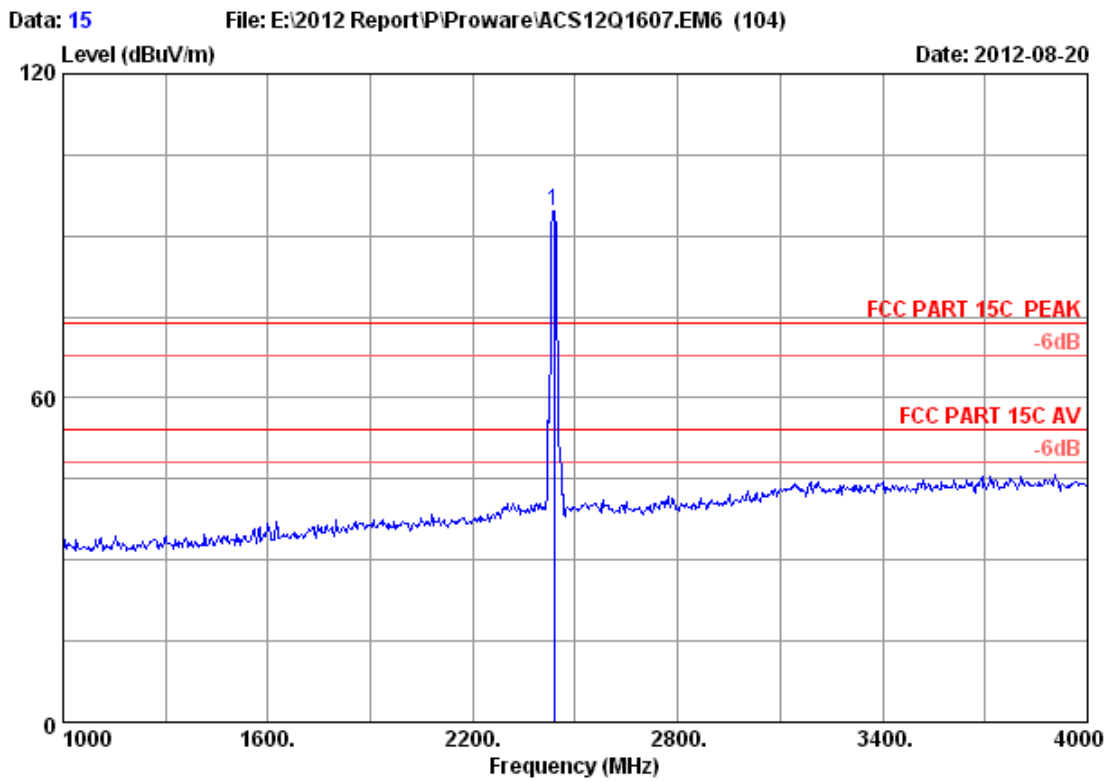

```
Site no.      : 3m Chamber                Data no.   : 13
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11b  CH6 2437MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 14
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	45.65	52.61	74.00	21.39	Peak
2	4874.000	32.98	8.58	34.60	32.32	39.28	54.00	14.72	Average

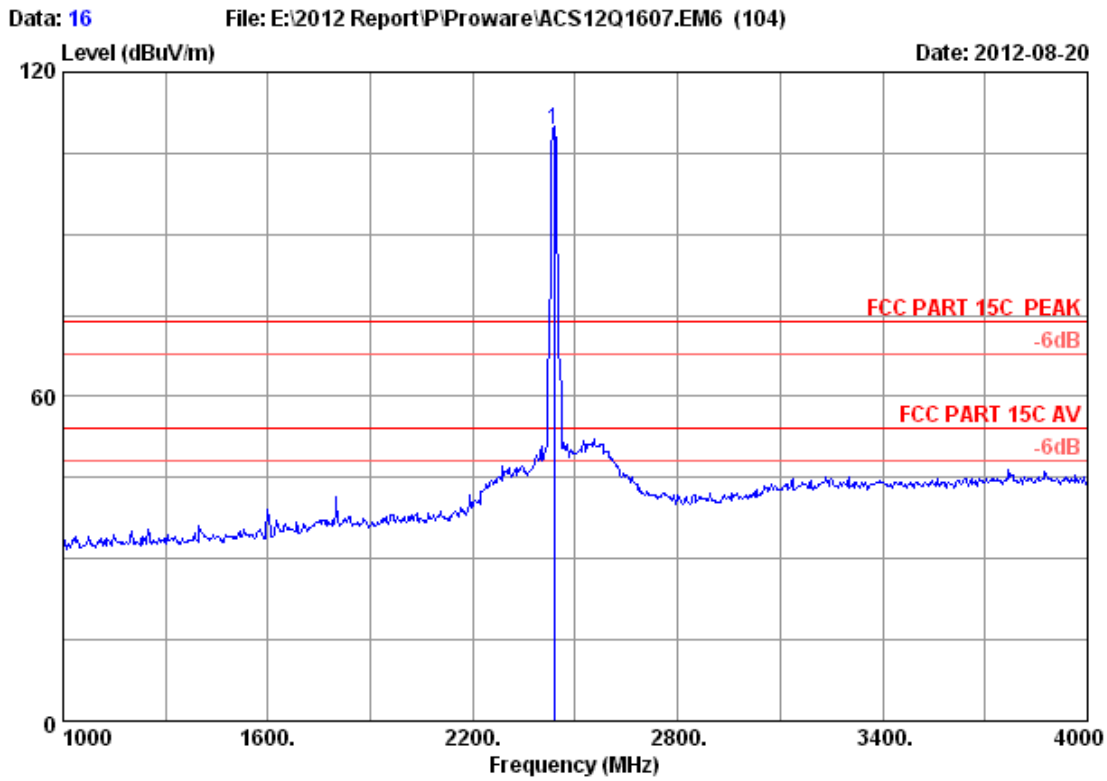
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 15
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	94.89	94.54	74.00	-20.54	Peak

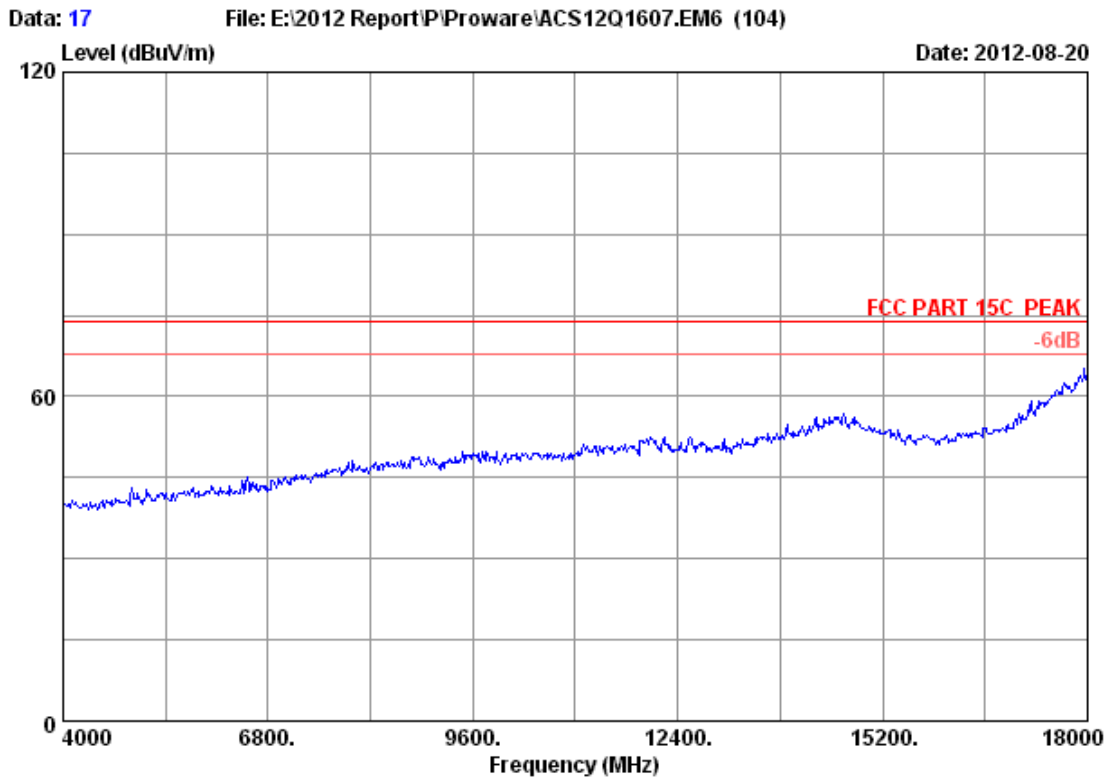
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



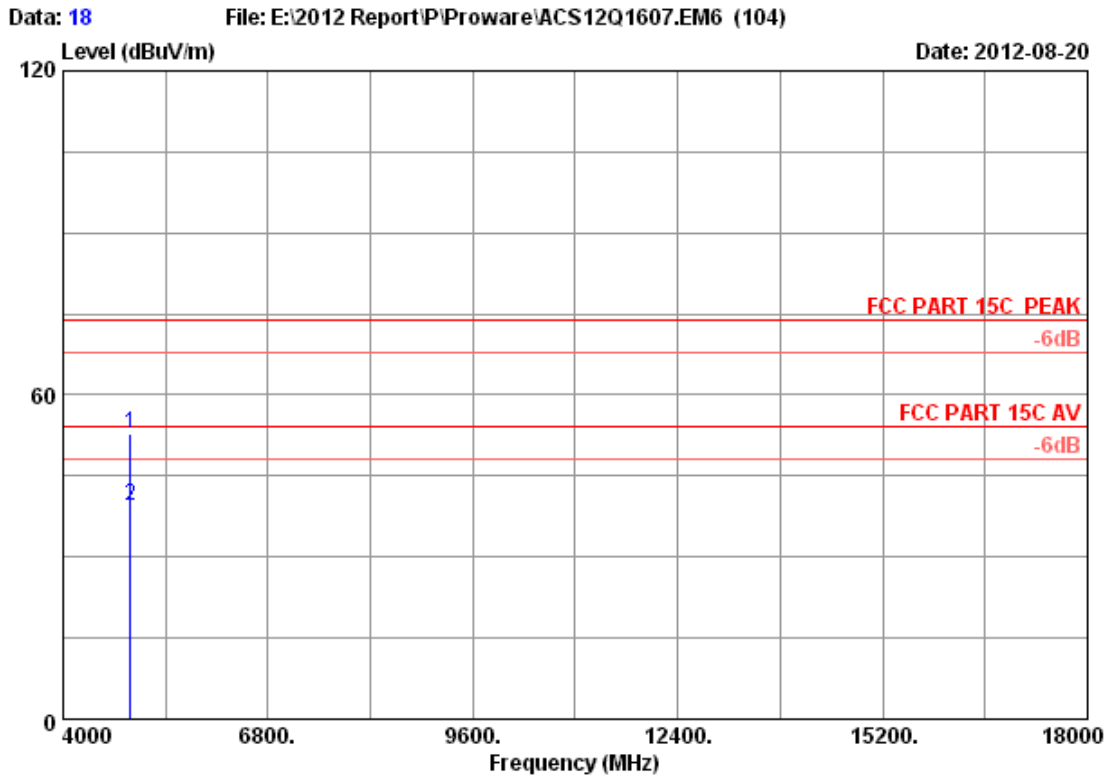
Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	109.71	109.36	74.00	-35.36	Peak

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



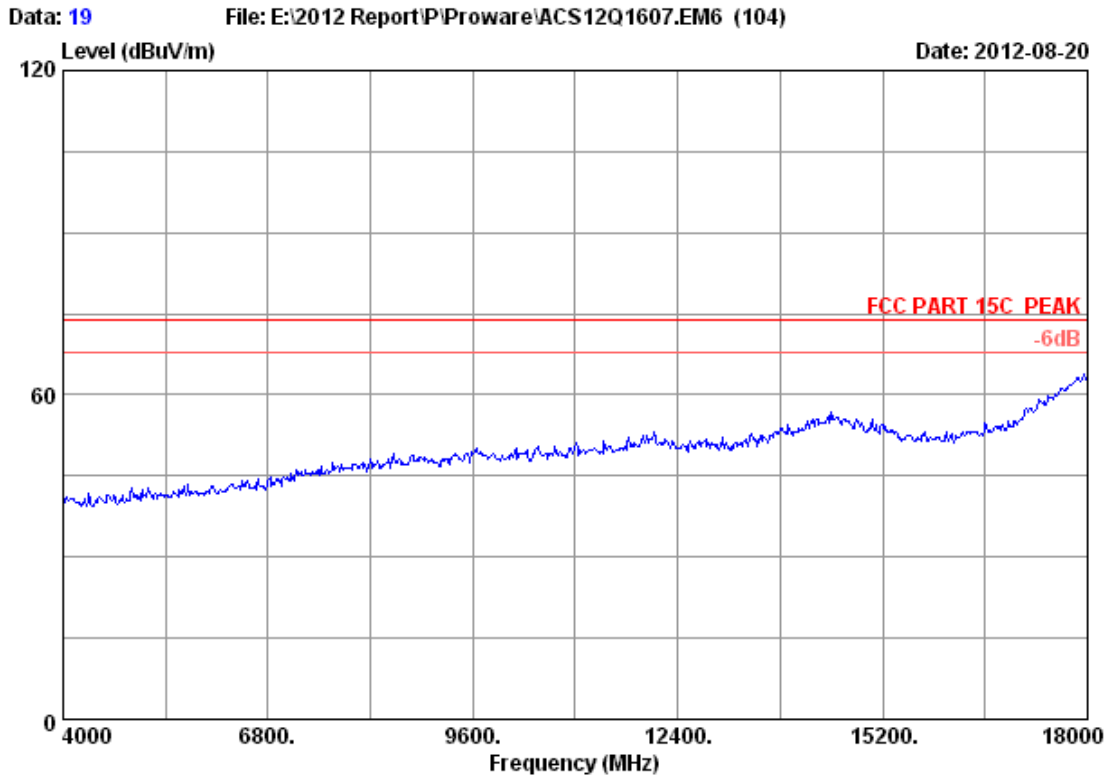

```
Site no.      : 3m Chamber                Data no.   : 17
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11b  CH11 2462MHz  Tx
M/N           : PW-RN501D
```



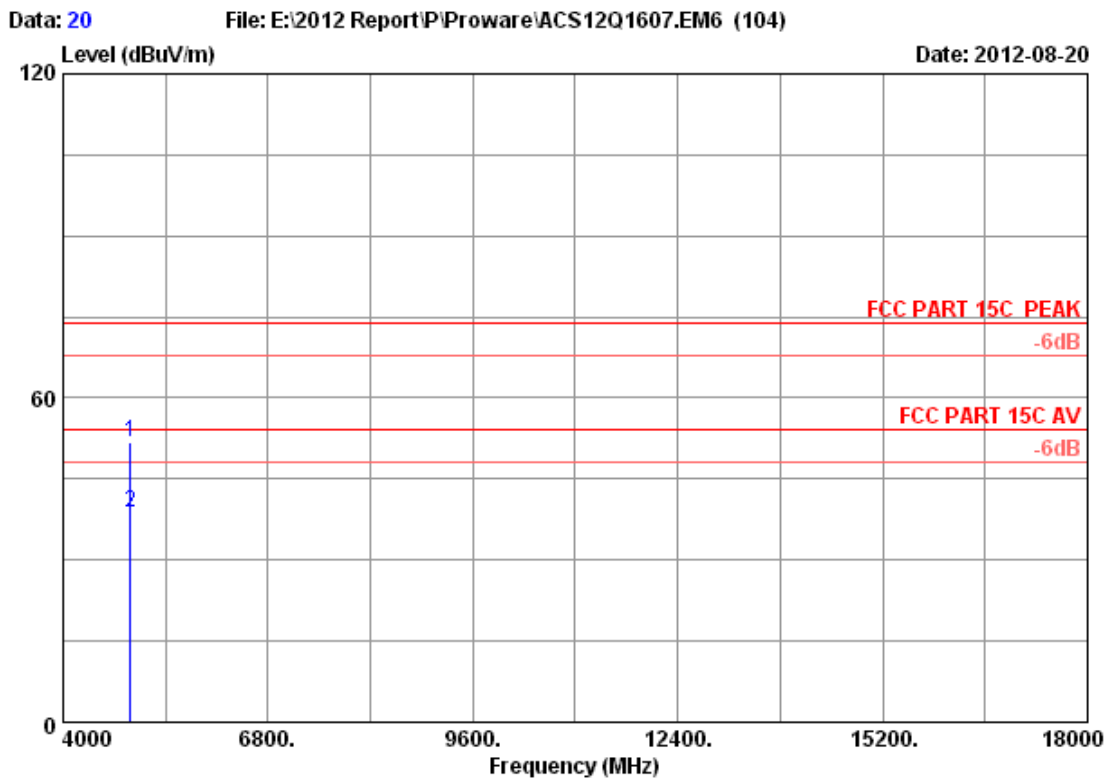
Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.08	8.62	34.60	45.74	52.84	74.00	21.16	Peak
2	4924.000	33.08	8.62	34.60	32.51	39.61	54.00	14.39	Average

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



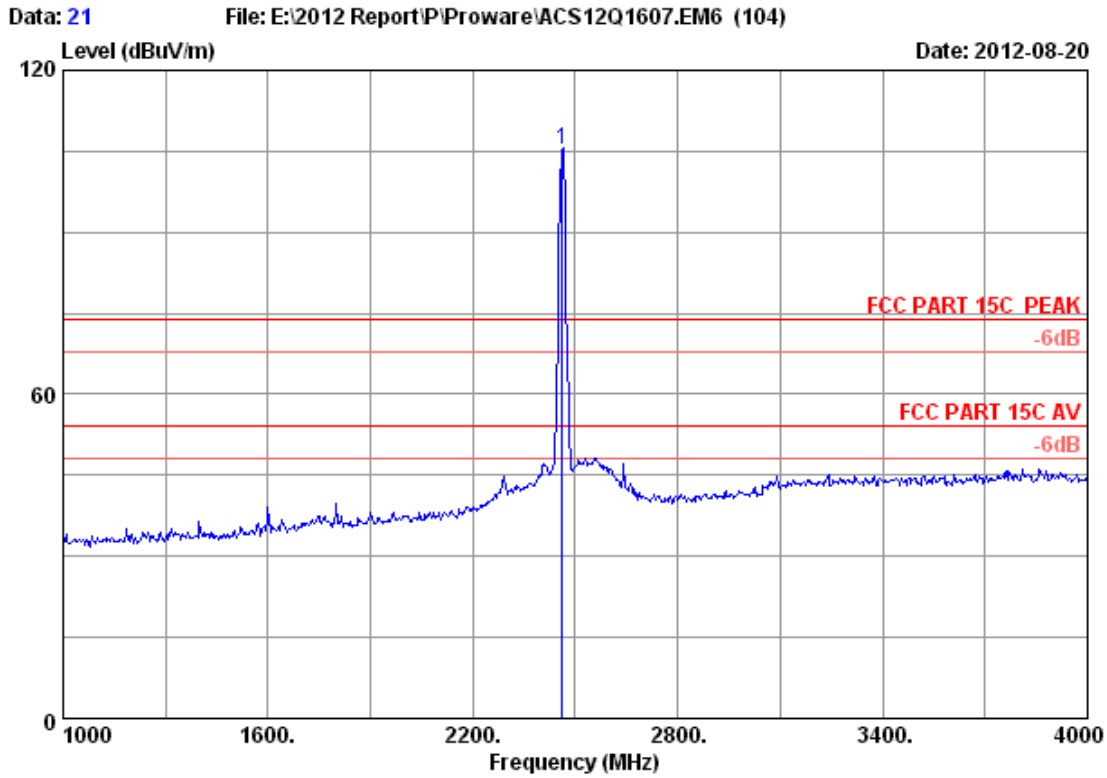

```
Site no.      : 3m Chamber              Data no.   : 19
Dis. / Ant.   : 3m   2011 3115 4580     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11b  CH11 2462MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.08	8.62	34.60	44.73	51.83	74.00	22.17	Peak
2	4924.000	33.08	8.62	34.60	31.52	38.62	54.00	15.38	Average

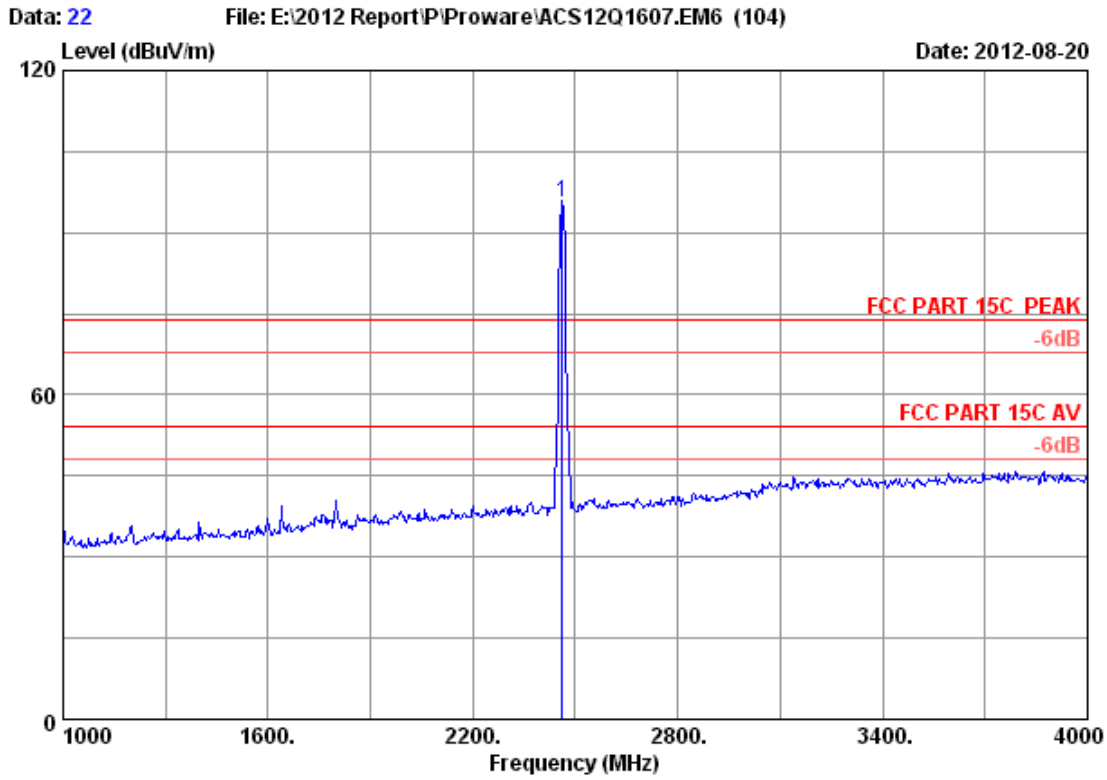
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.05	6.12	34.44	105.52	105.25	74.00	-31.25	Peak

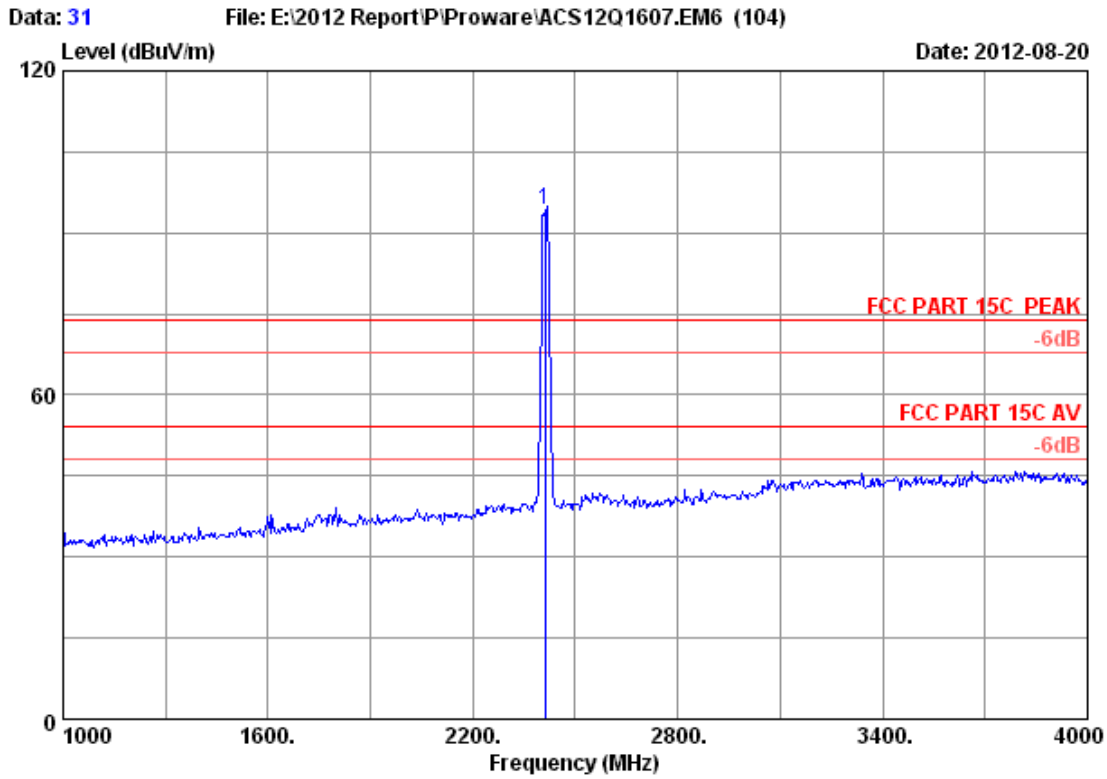
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.05	6.12	34.44	95.81	95.54	74.00	-21.54	Peak

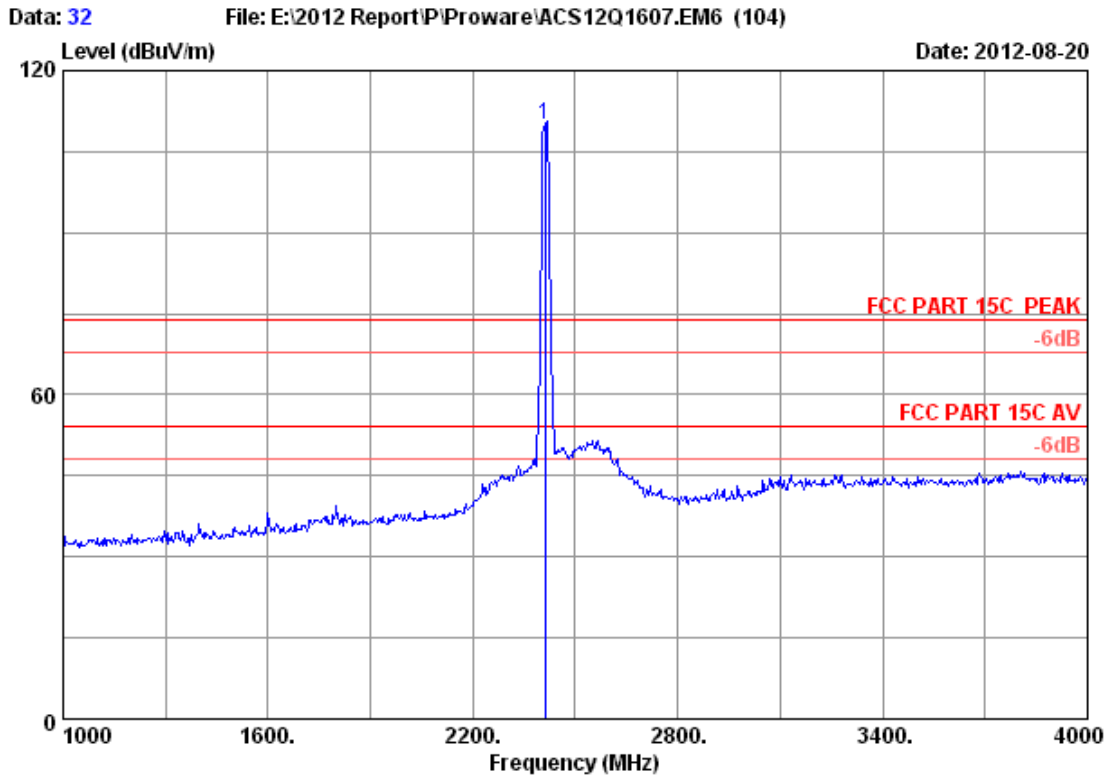
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 31
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	27.98	6.03	34.44	94.79	94.36	74.00	-20.36	Peak

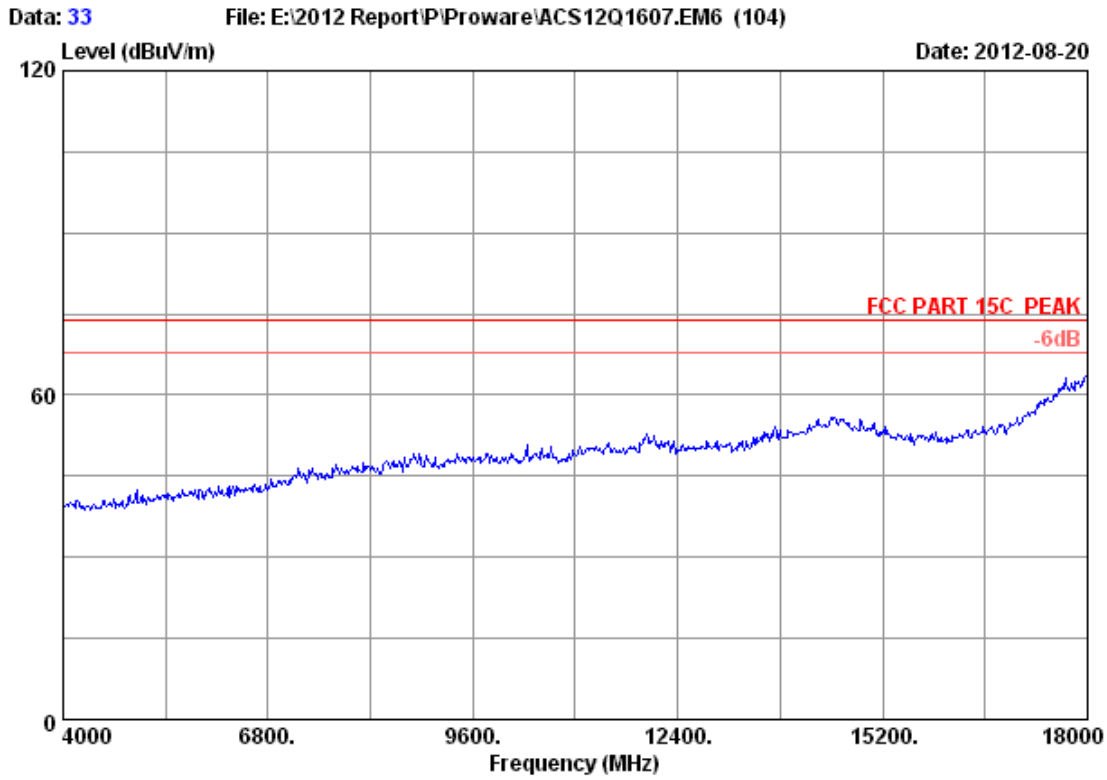
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



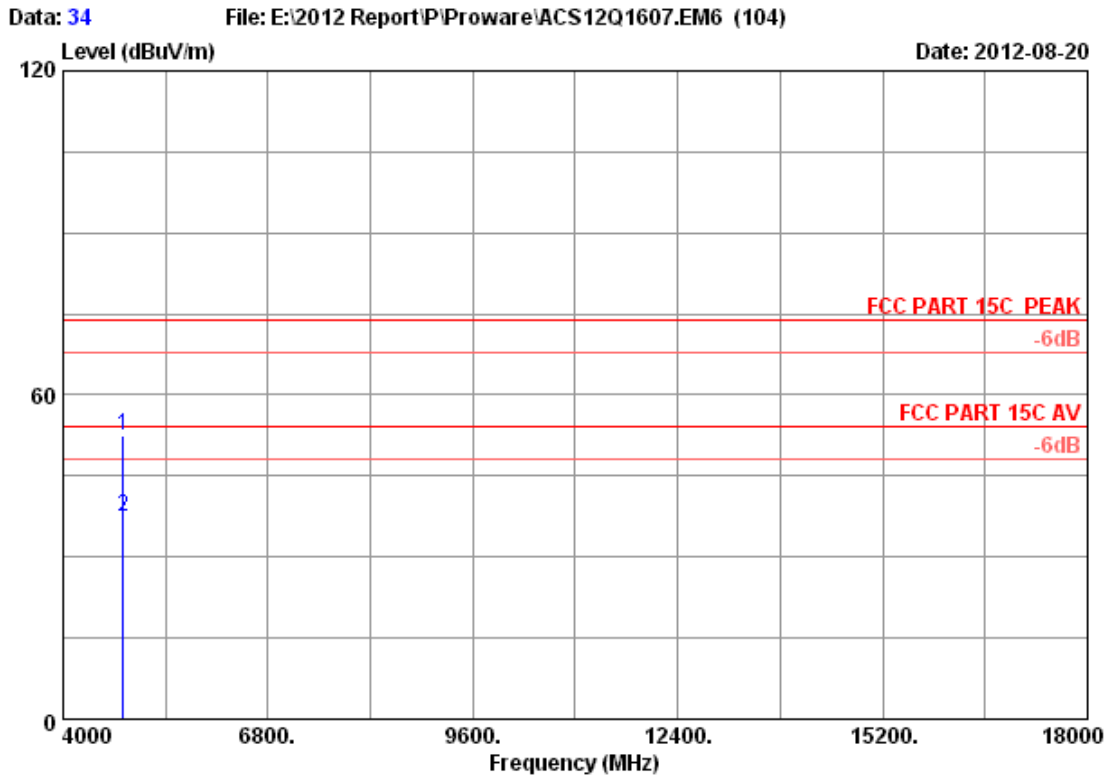
Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	27.98	6.03	34.44	110.35	109.92	74.00	-35.92	Peak

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



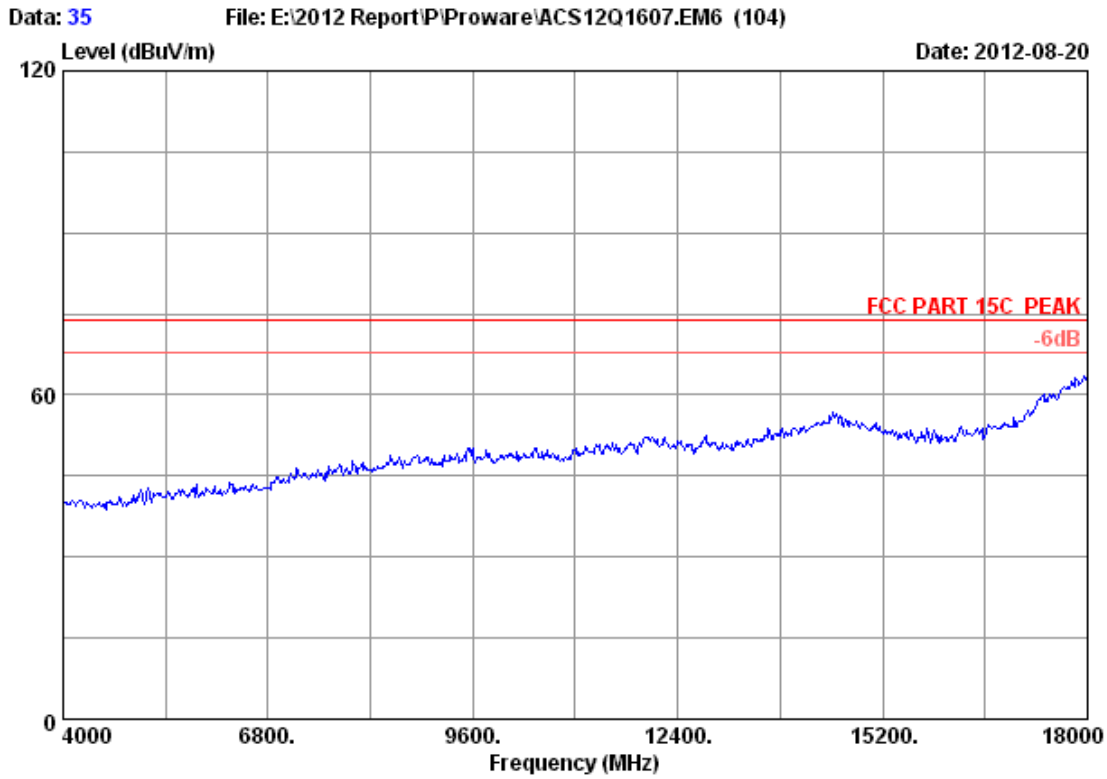

```
Site no.      : 3m Chamber                Data no.   : 33
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11g  CH1 2412MHz  Tx
M/N           : PW-RN501D
```



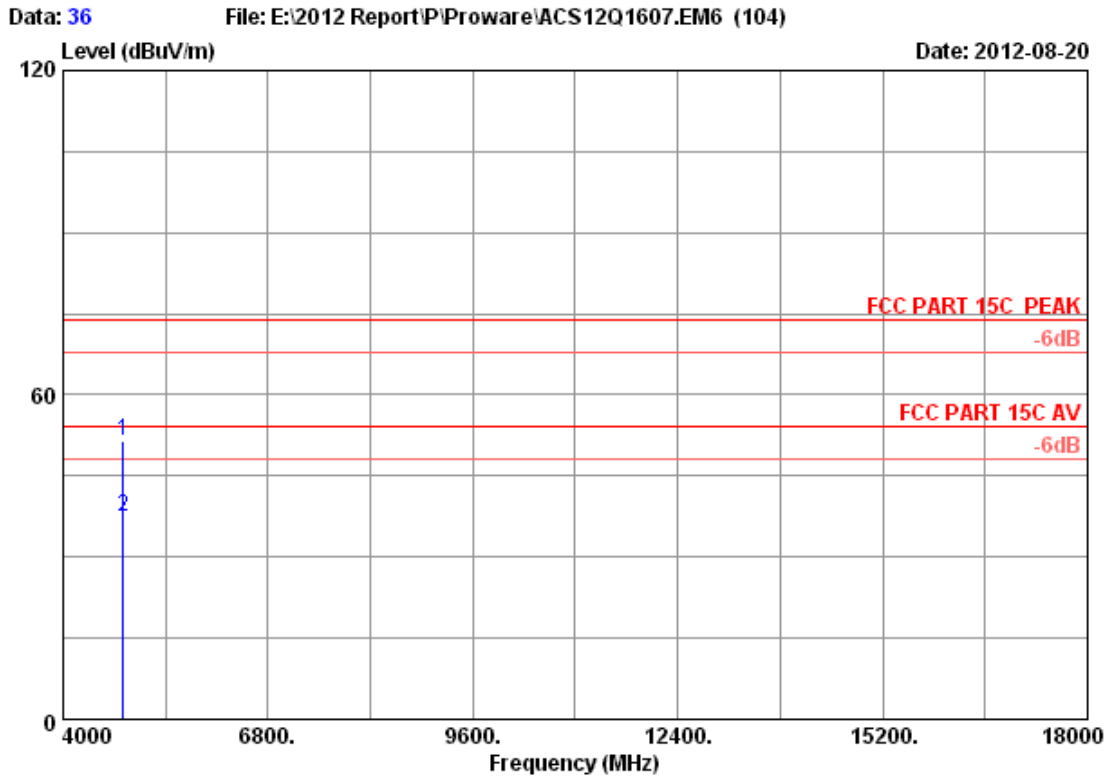
Site no. : 3m Chamber Data no. : 34
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.89	8.53	34.60	45.66	52.48	74.00	21.52	Peak
2	4824.000	32.89	8.53	34.60	30.78	37.60	54.00	16.40	Average

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



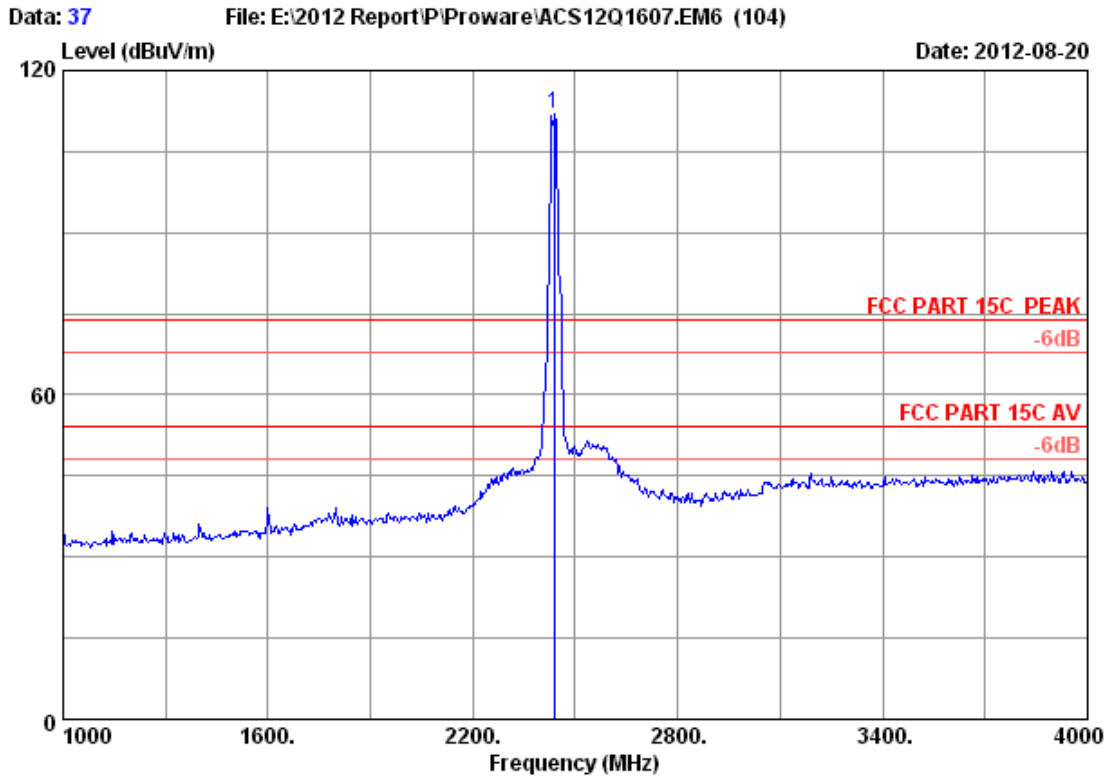

```
Site no.      : 3m Chamber                Data no.   : 35
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11g  CH1 2412MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 36
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.89	8.53	34.60	44.57	51.39	74.00	22.61	Peak
2	4824.000	32.89	8.53	34.60	30.52	37.34	54.00	16.66	Average

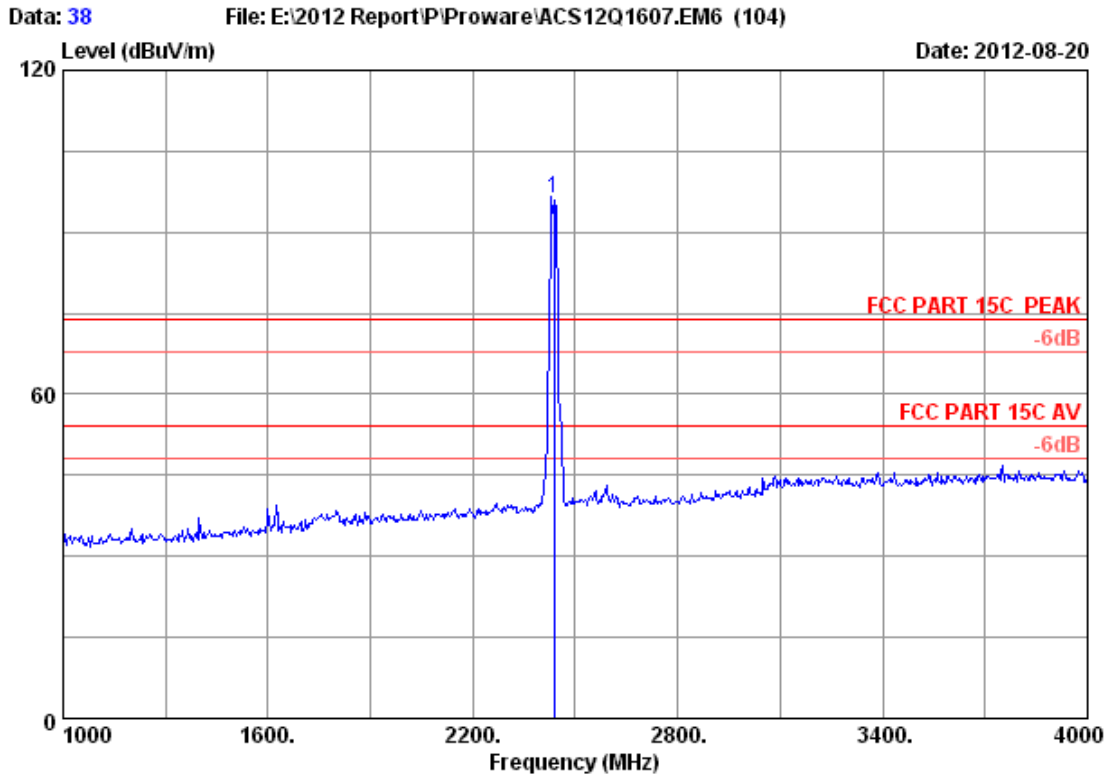
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 37
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	112.26	111.91	74.00	-37.91	Peak

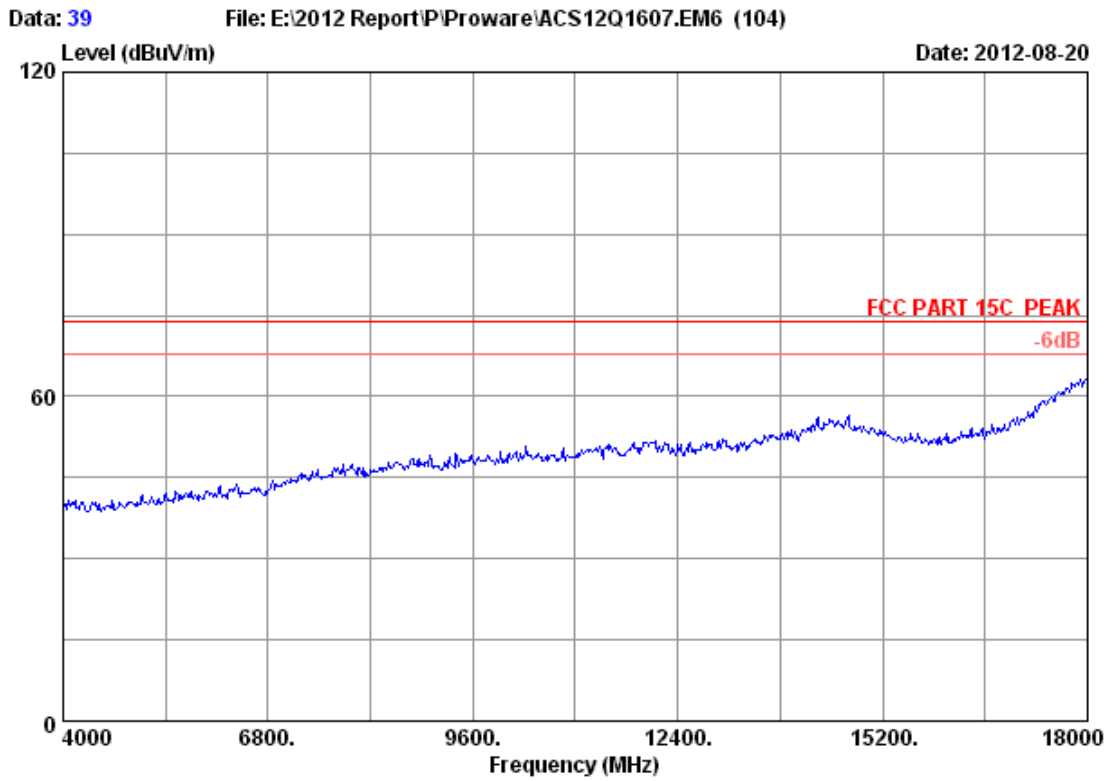
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



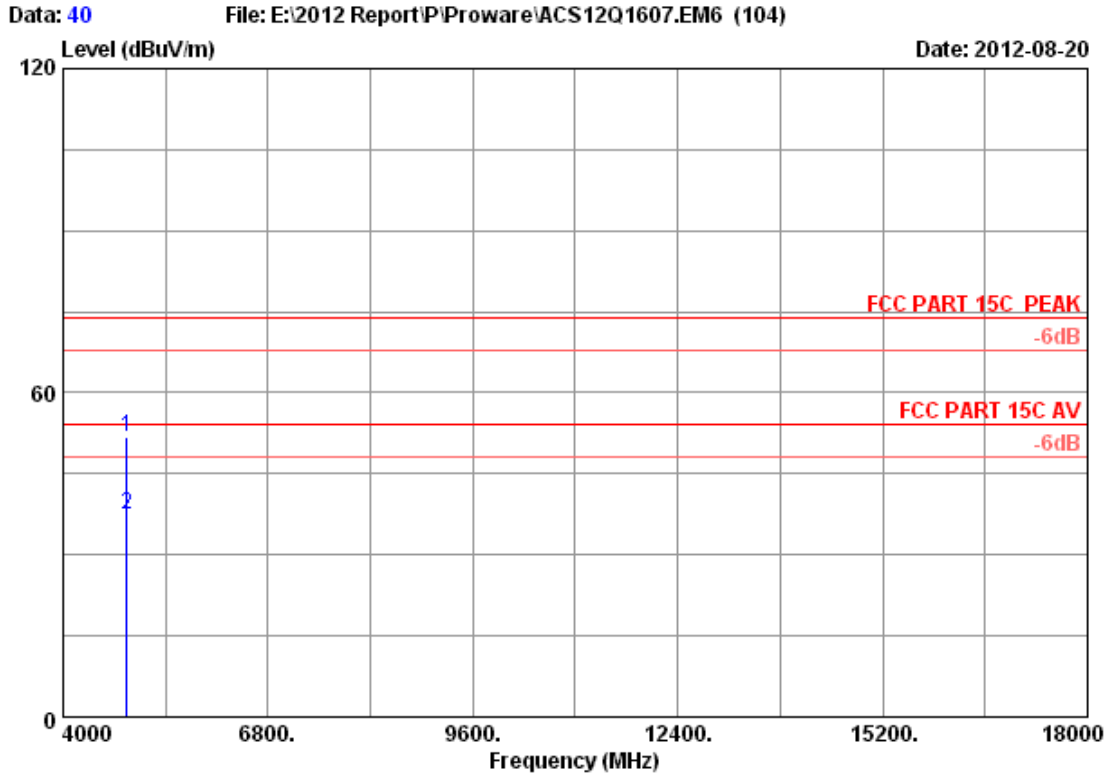
Site no. : 3m Chamber Data no. : 38
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	96.78	96.43	74.00	-22.43	Peak

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



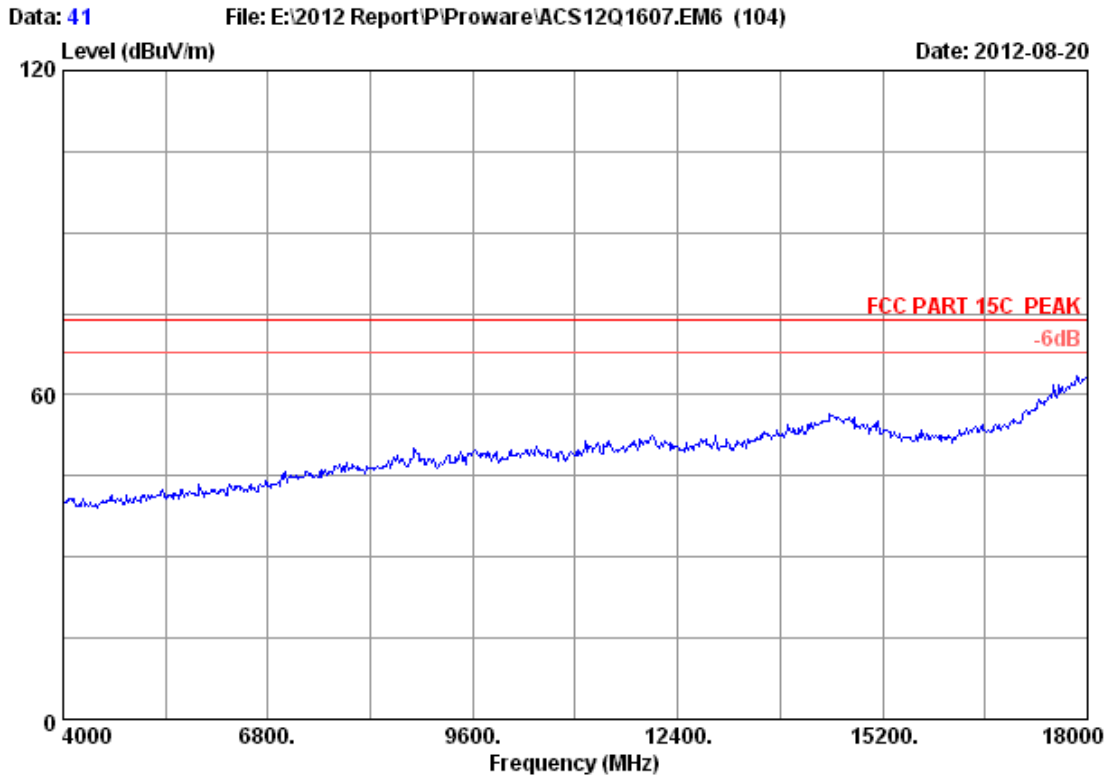

```
Site no.      : 3m Chamber                Data no.   : 39
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11g  CH6 2437MHz  Tx
M/N           : PW-RN501D
```



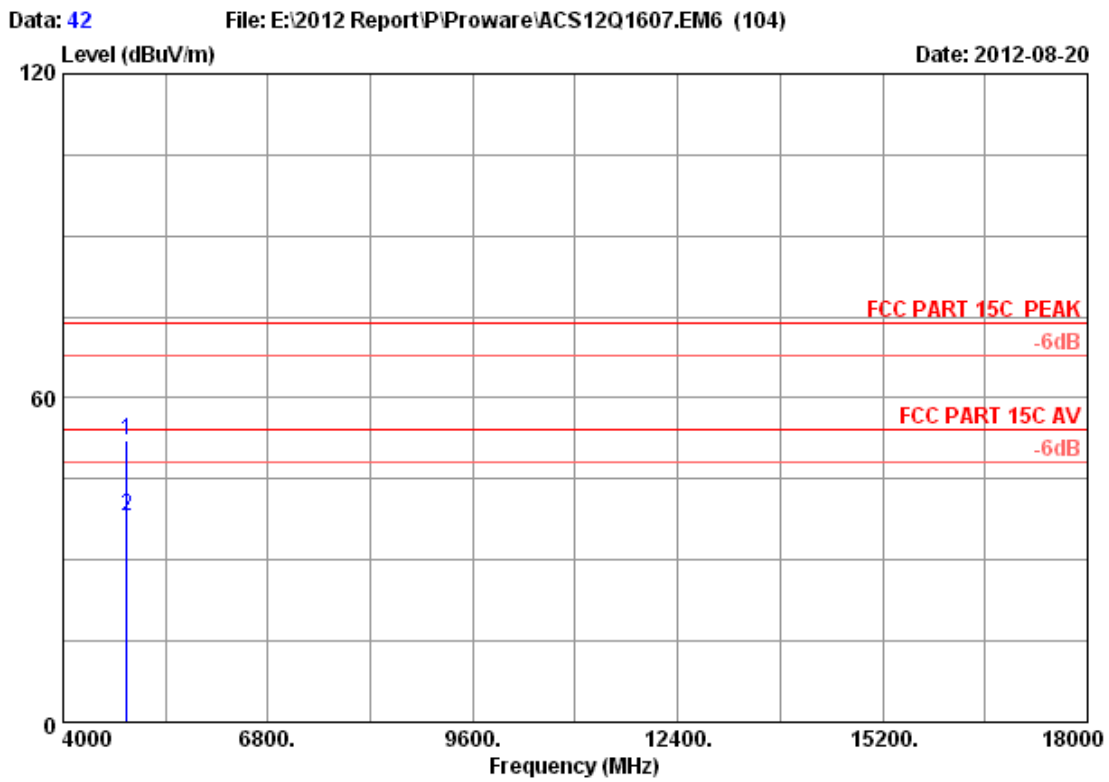
Site no. : 3m Chamber Data no. : 40
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	44.95	51.91	74.00	22.09	Peak
2	4874.000	32.98	8.58	34.60	30.56	37.52	54.00	16.48	Average

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



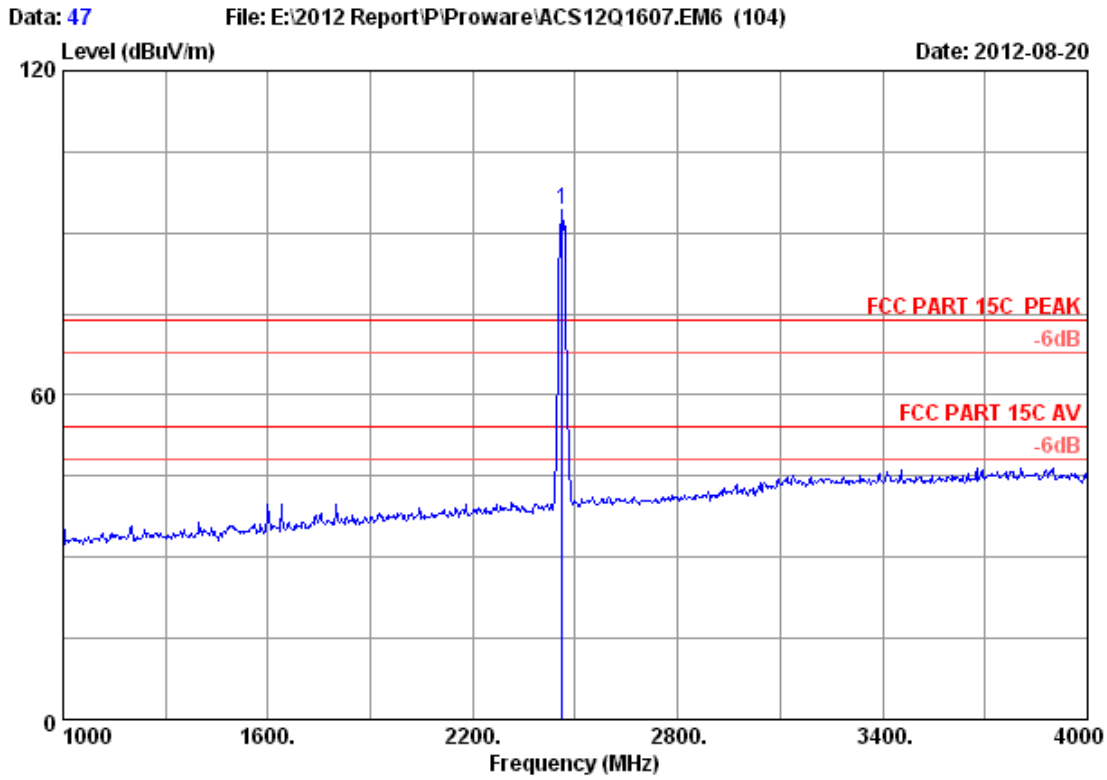

```
Site no.      : 3m Chamber              Data no.   : 41
Dis. / Ant.   : 3m   2011 3115 4580     Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11g  CH6 2437MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 42
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	45.28	52.24	74.00	21.76	Peak
2	4874.000	32.98	8.58	34.60	31.24	38.20	54.00	15.80	Average

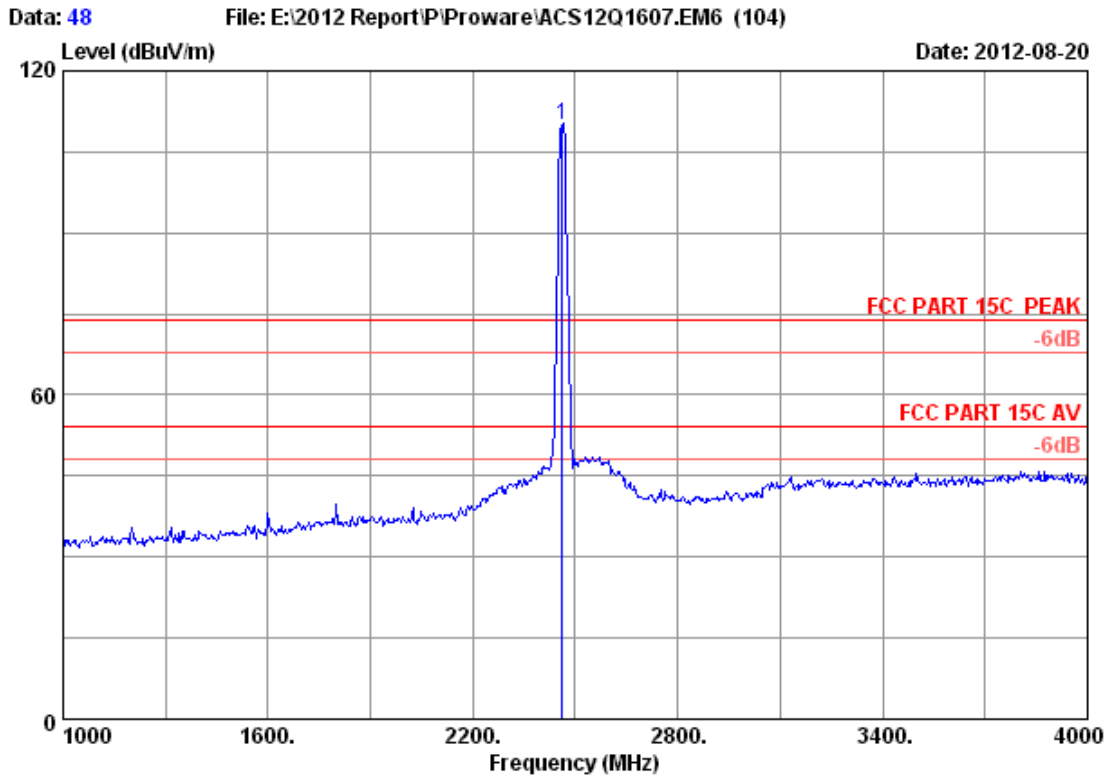
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 47
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.05	6.12	34.44	94.59	94.32	74.00	-20.32	Peak

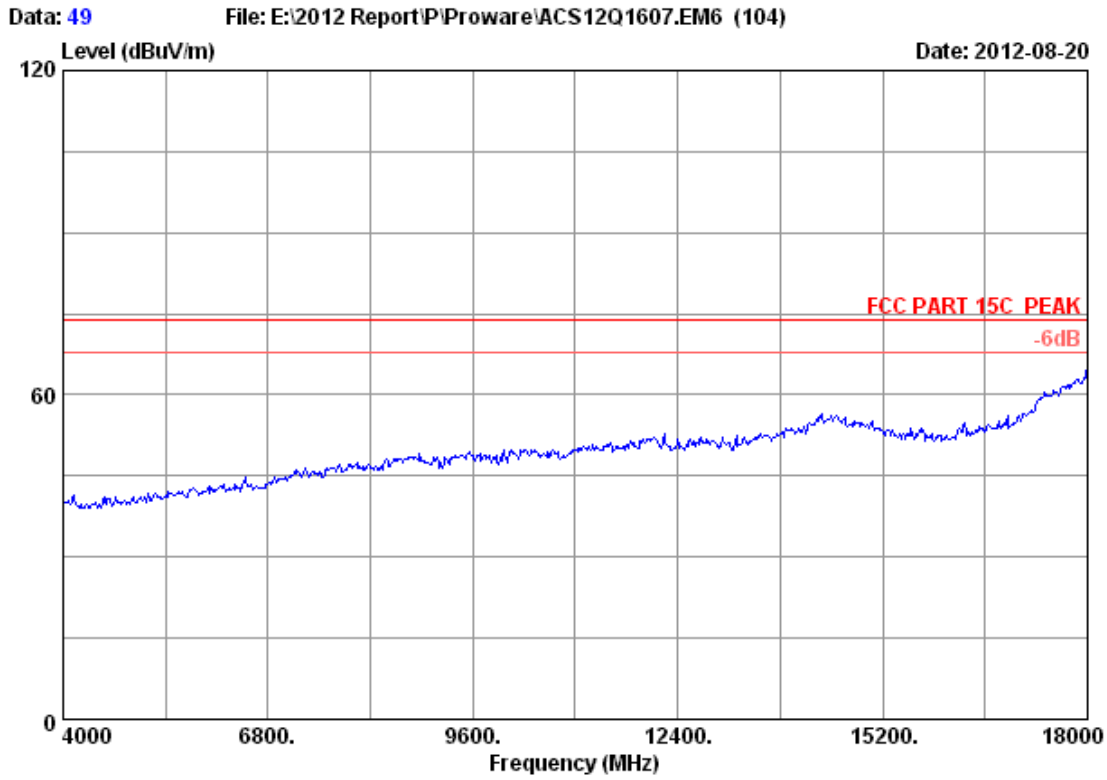
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



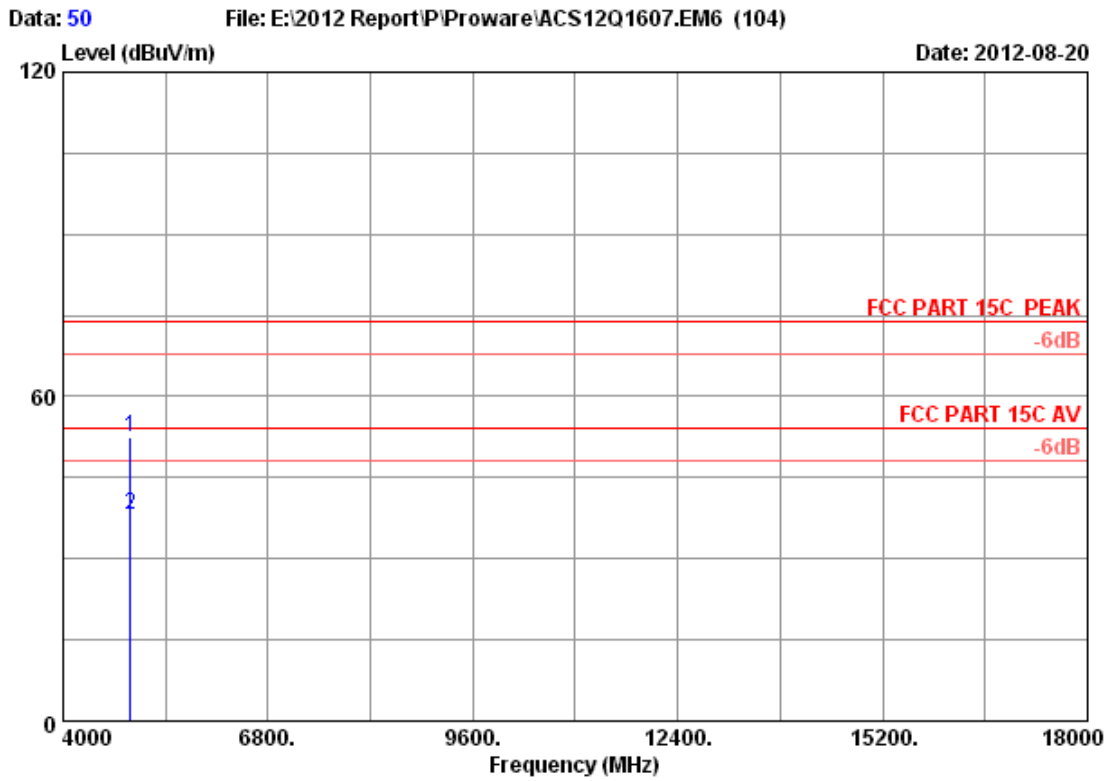
Site no. : 3m Chamber Data no. : 48
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.05	6.12	34.44	110.23	109.96	74.00	-35.96	Peak

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



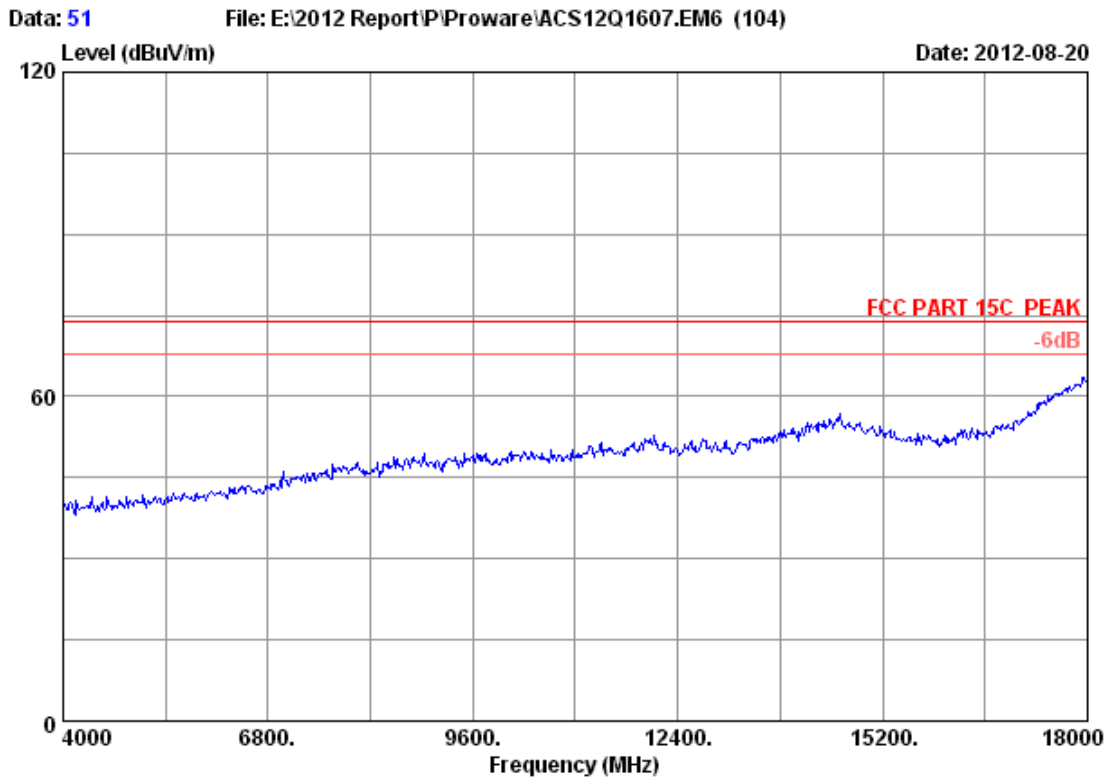

```
Site no.      : 3m Chamber              Data no.   : 49
Dis. / Ant.   : 3m   2011 3115 4580     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11g  CH11 2462MHz  Tx
M/N           : PW-RN501D
```



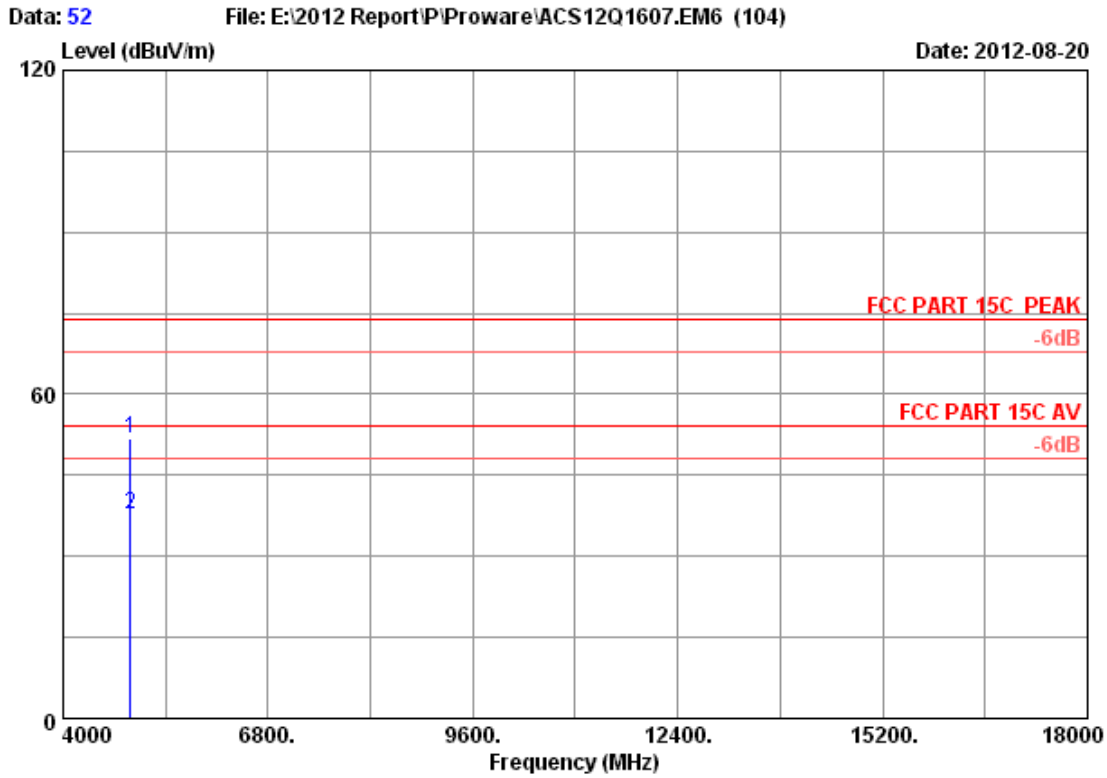
Site no. : 3m Chamber Data no. : 50
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.08	8.62	34.60	45.23	52.33	74.00	21.67	Peak
2	4924.000	33.08	8.62	34.60	31.02	38.12	54.00	15.88	Average

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



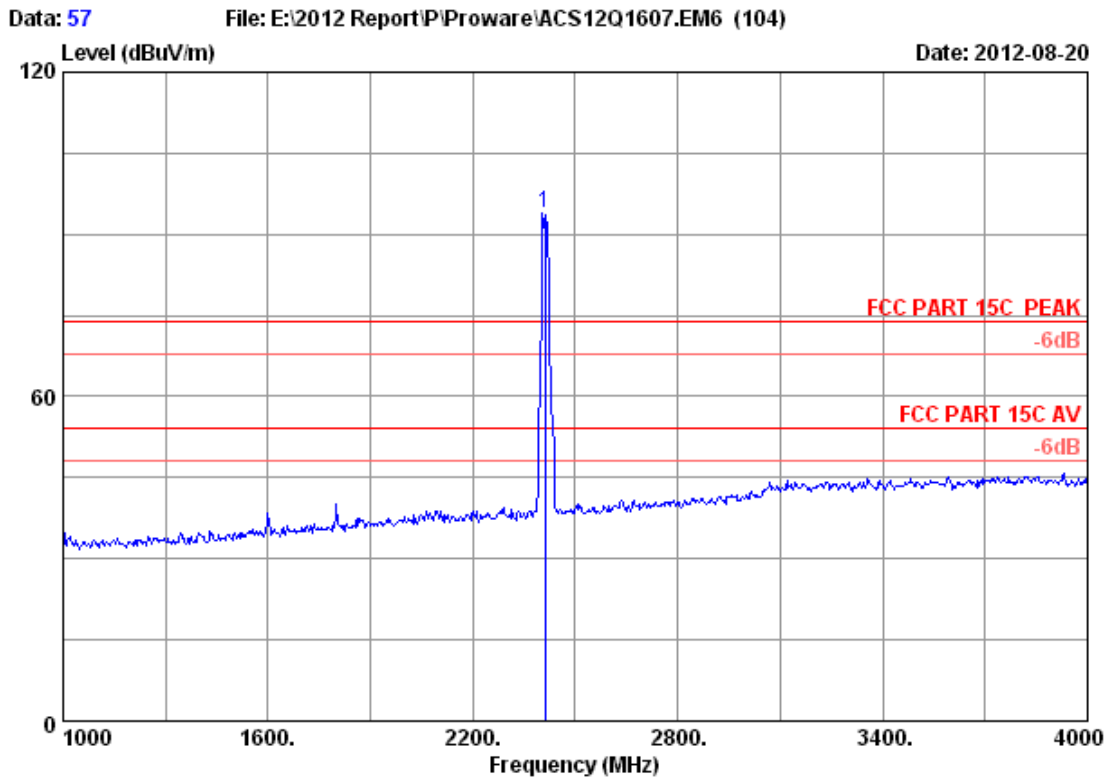

```
Site no.      : 3m Chamber                Data no.   : 51
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11g  CH11 2462MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 52
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.08	8.62	34.60	44.59	51.69	74.00	22.31	Peak
2	4924.000	33.08	8.62	34.60	30.71	37.81	54.00	16.19	Average

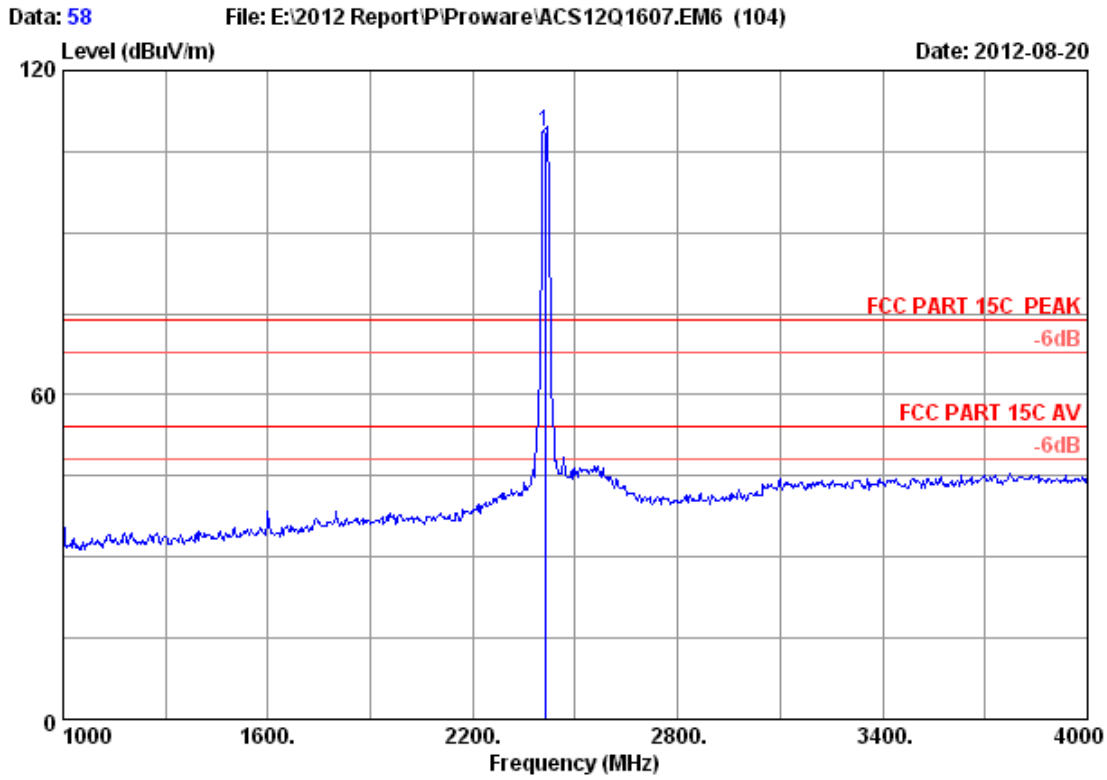
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 57
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	27.98	6.03	34.44	94.32	93.89	74.00	-19.89	Peak

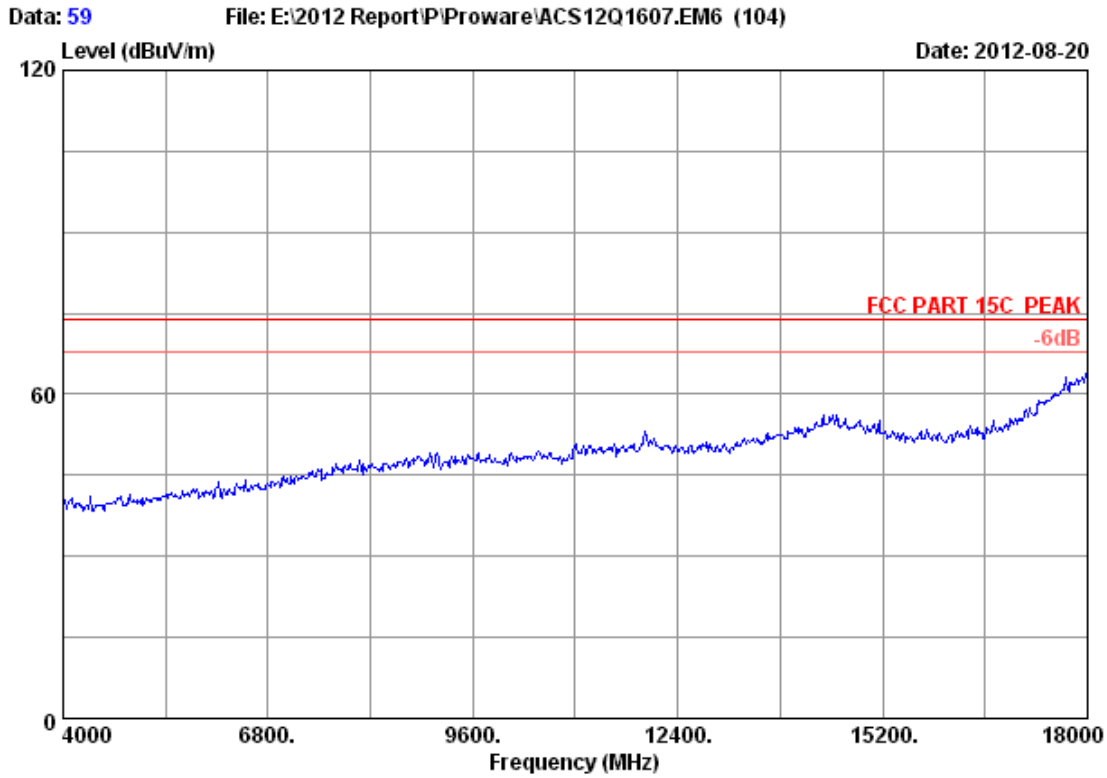
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



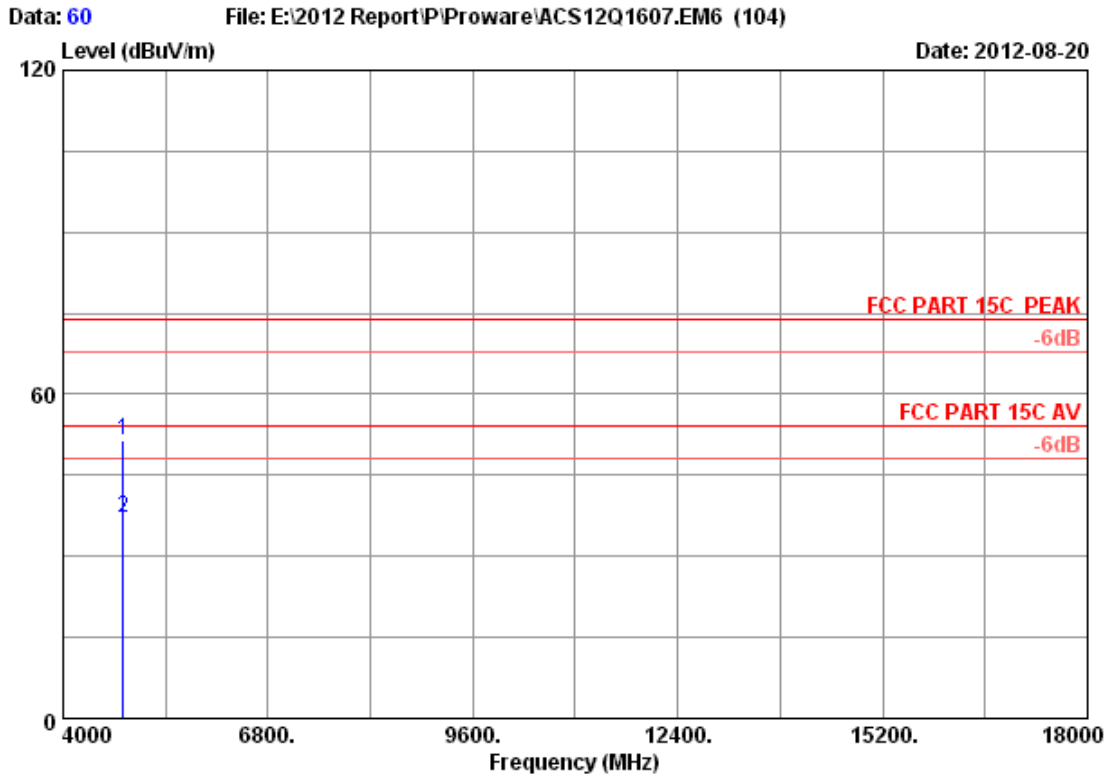

```
Site no.      : 3m Chamber              Data no.   : 58
Dis. / Ant.   : 3m   2011 3115 4580     Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT20  CH1 2412MHz  Tx
M/N           : PW-RN501D
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.000	27.98	6.03	34.44	109.02	108.59	74.00	-34.59	Peak

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



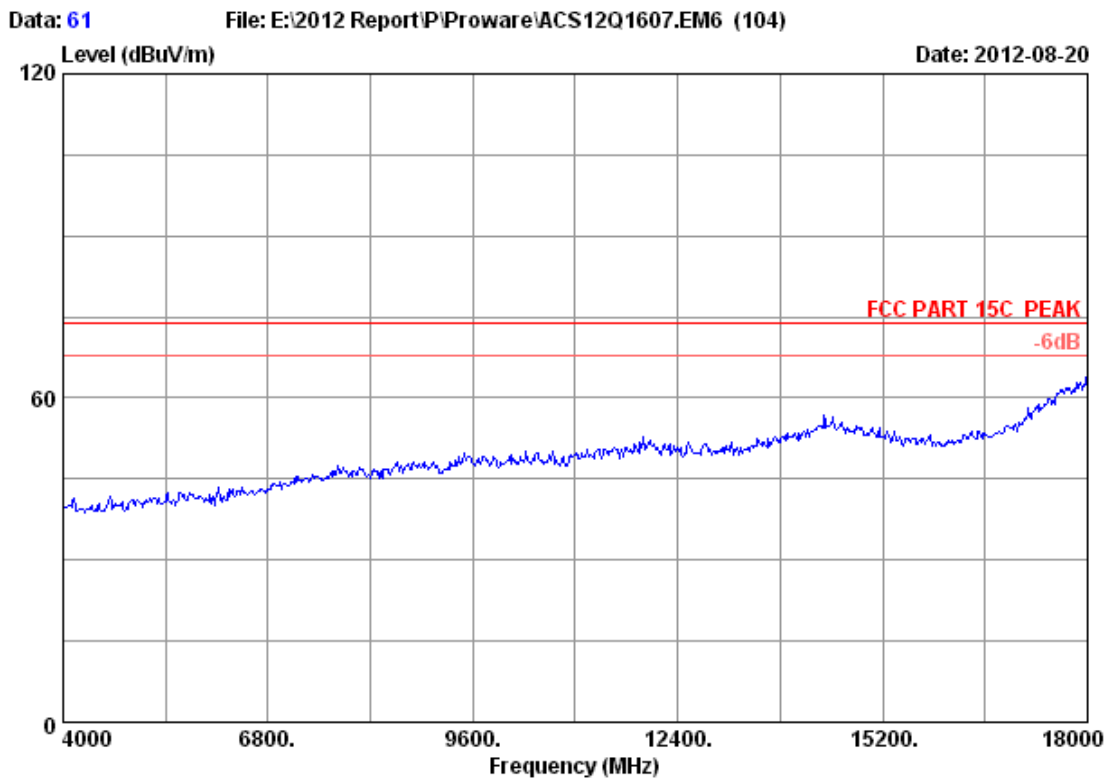

```
Site no.      : 3m Chamber                Data no.   : 59
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT20  CH1 2412MHz  Tx
M/N           : PW-RN501D
```



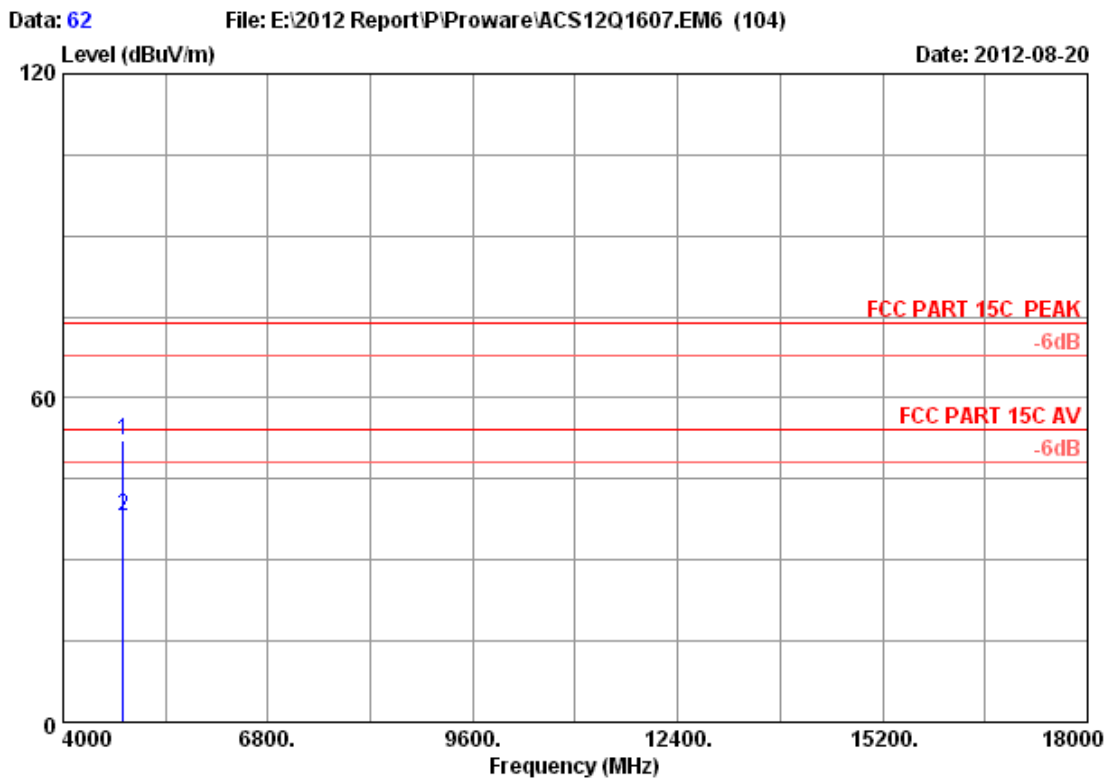
Site no. : 3m Chamber Data no. : 60
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.89	8.53	34.60	44.73	51.55	74.00	22.45	Peak
2	4824.000	32.89	8.53	34.60	30.41	37.23	54.00	16.77	Average

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



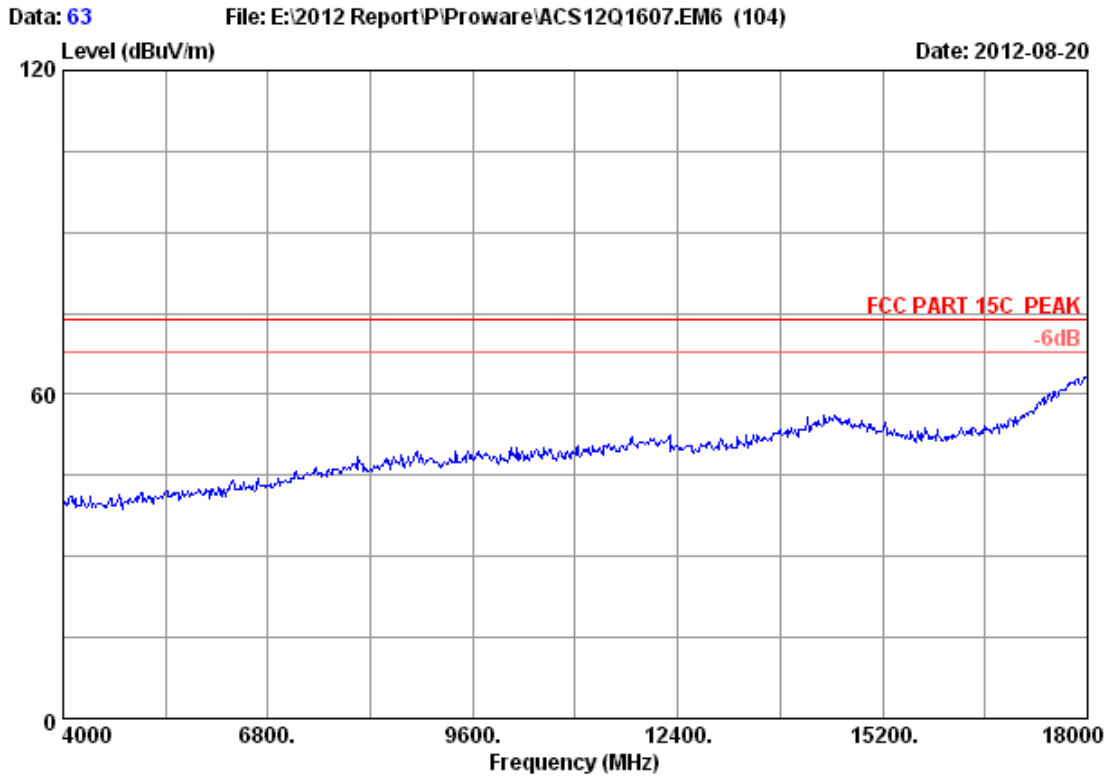

```
Site no.      : 3m Chamber                Data no.   : 61
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT20  CH1 2412MHz  Tx
M/N           : PW-RN501D
```



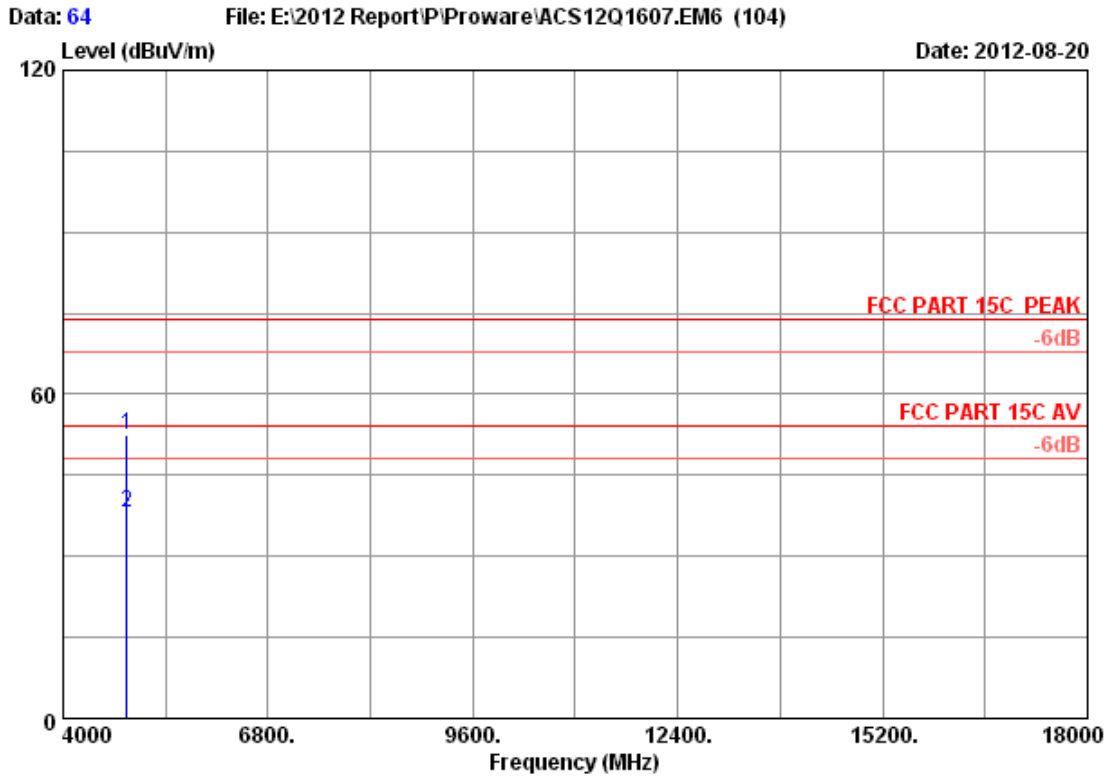
Site no. : 3m Chamber Data no. : 62
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.89	8.53	34.60	45.33	52.15	74.00	21.85	Peak
2	4824.000	32.89	8.53	34.60	31.12	37.94	54.00	16.06	Average

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



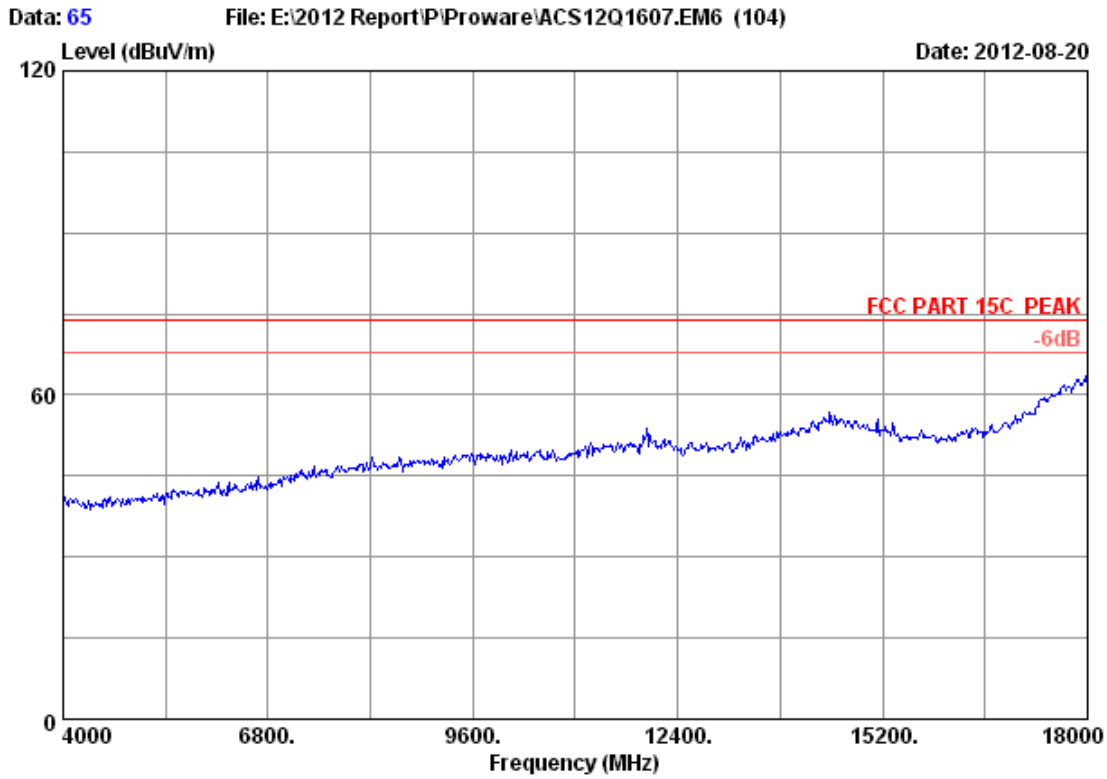

```
Site no.      : 3m Chamber                Data no.   : 63
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT20  CH6 2437MHz  Tx
M/N           : PW-RN501D
```



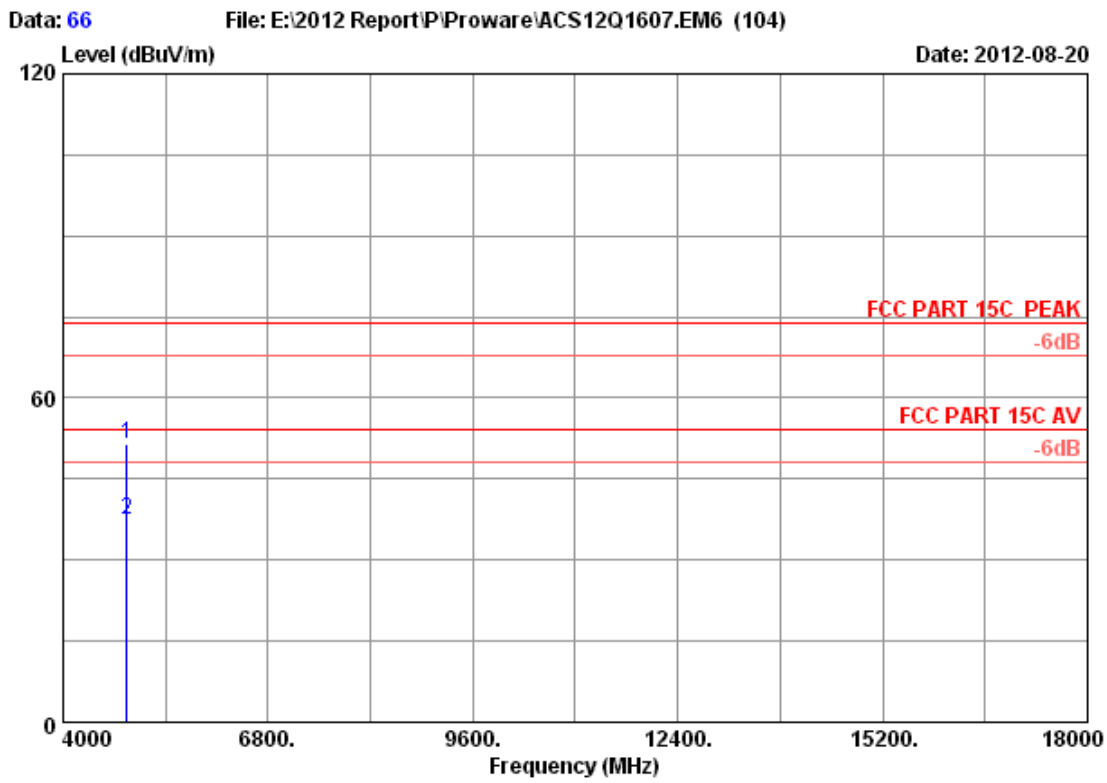
Site no. : 3m Chamber Data no. : 64
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	45.48	52.44	74.00	21.56	Peak
2	4874.000	32.98	8.58	34.60	31.09	38.05	54.00	15.95	Average

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



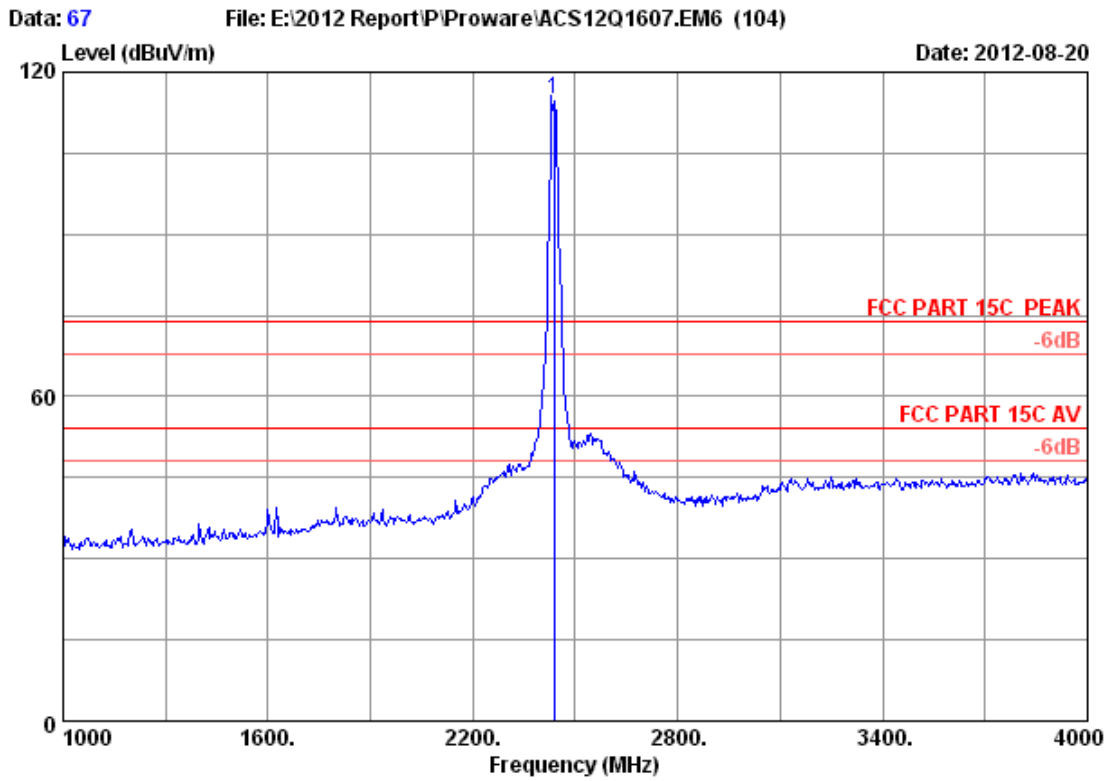

```
Site no.      : 3m Chamber                Data no.   : 65
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT20  CH6 2437MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 66
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	44.68	51.64	74.00	22.36	Peak
2	4874.000	32.98	8.58	34.60	30.47	37.43	54.00	16.57	Average

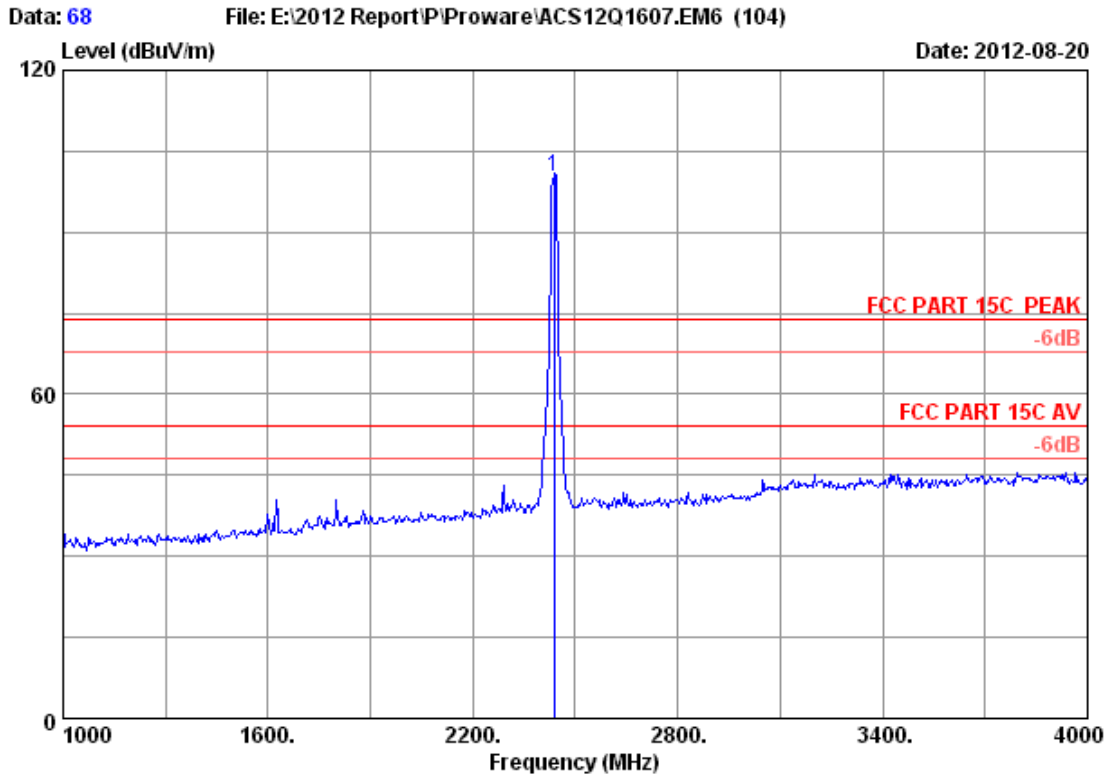
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 67
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	115.39	115.04	74.00	-41.04	Peak

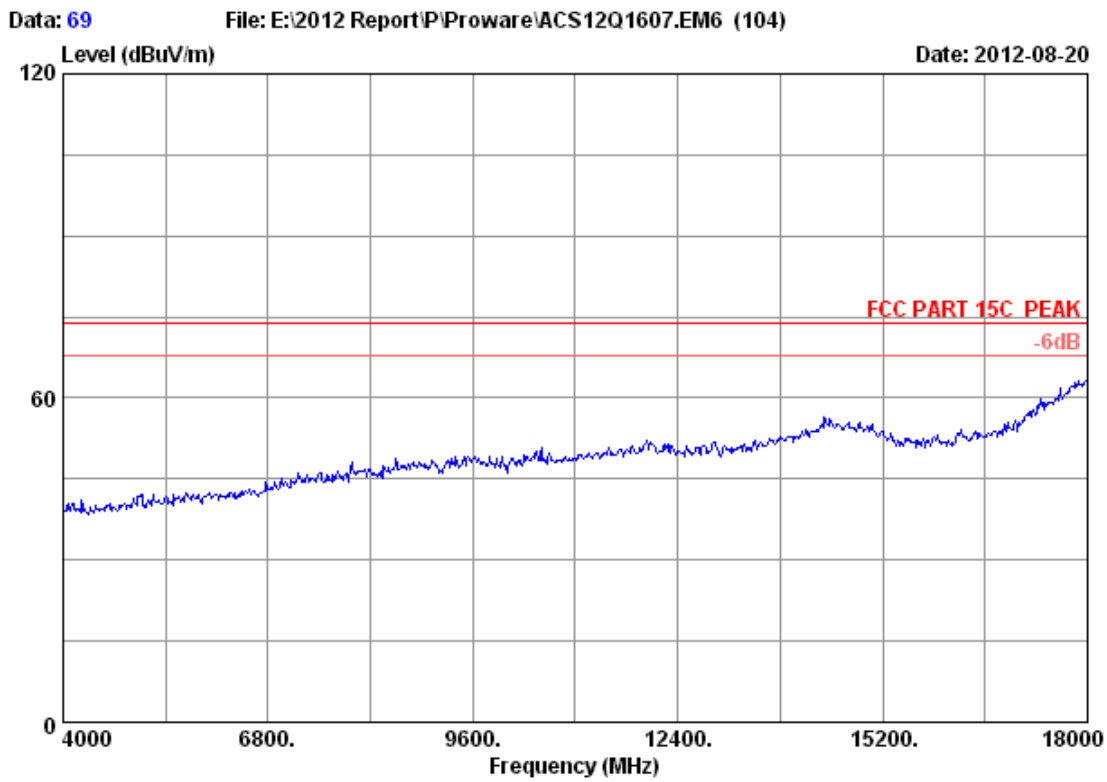
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



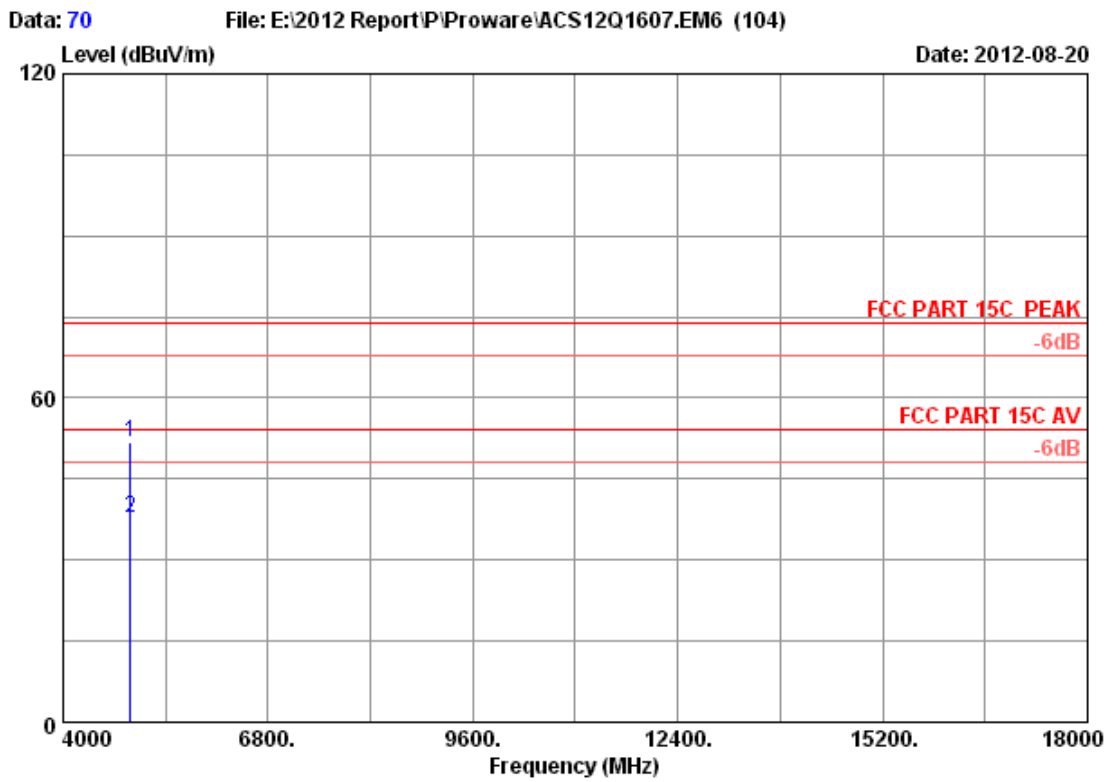
Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	100.58	100.23	74.00	-26.23	Peak

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



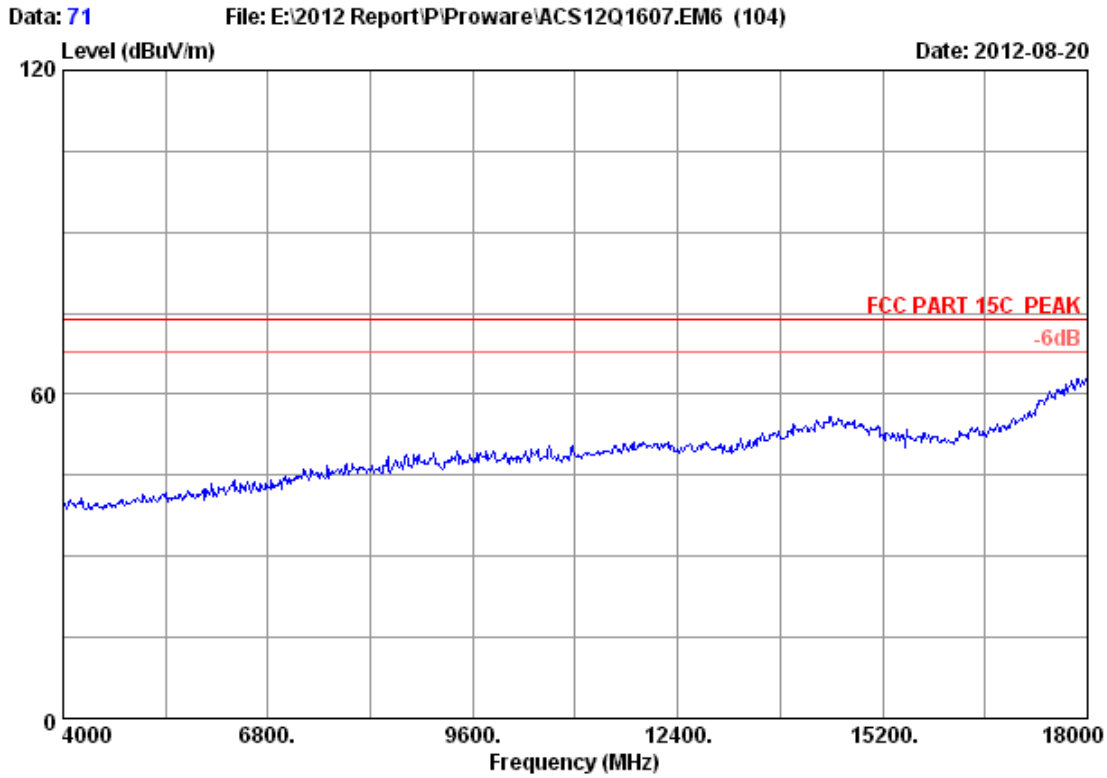

```
Site no.      : 3m Chamber                Data no.   : 69
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT20  CH11 2462MHz  Tx
M/N           : PW-RN501D
```



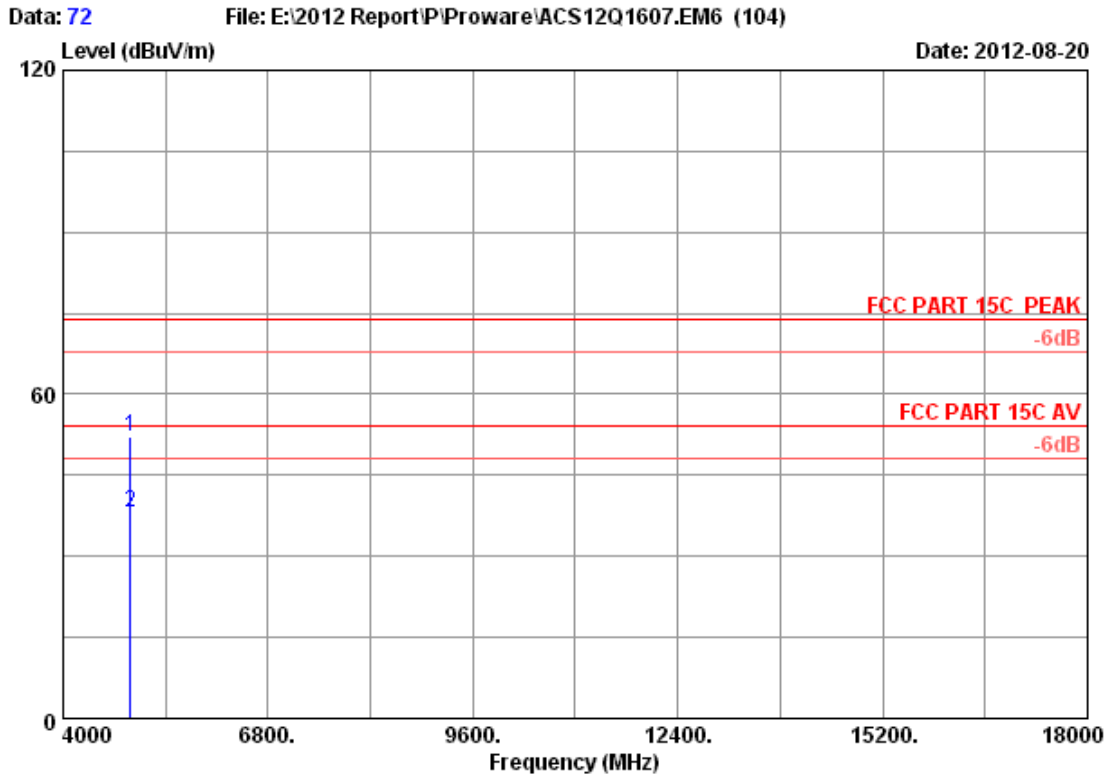
Site no. : 3m Chamber Data no. : 70
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.08	8.62	34.60	44.81	51.91	74.00	22.09	Peak
2	4924.000	33.08	8.62	34.60	30.55	37.65	54.00	16.35	Average

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



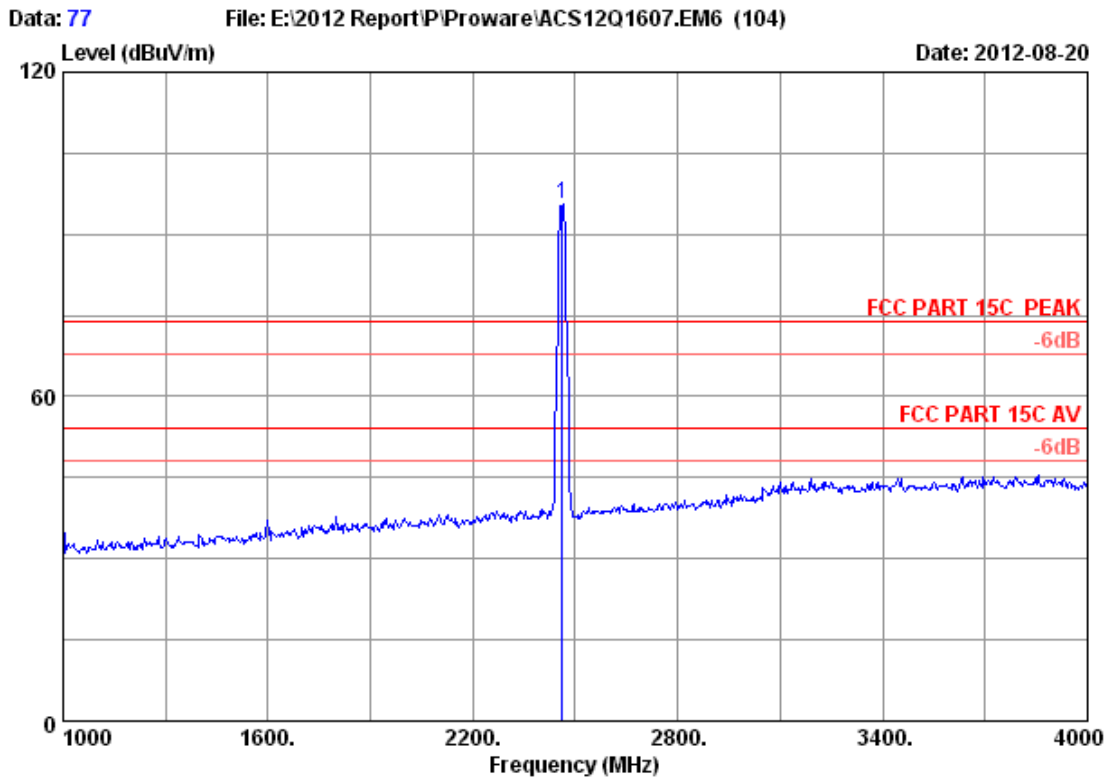

```
Site no.      : 3m Chamber                Data no.   : 71
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT20  CH11 2462MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 72
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.08	8.62	34.60	45.13	52.23	74.00	21.77	Peak
2	4924.000	33.08	8.62	34.60	30.98	38.08	54.00	15.92	Average

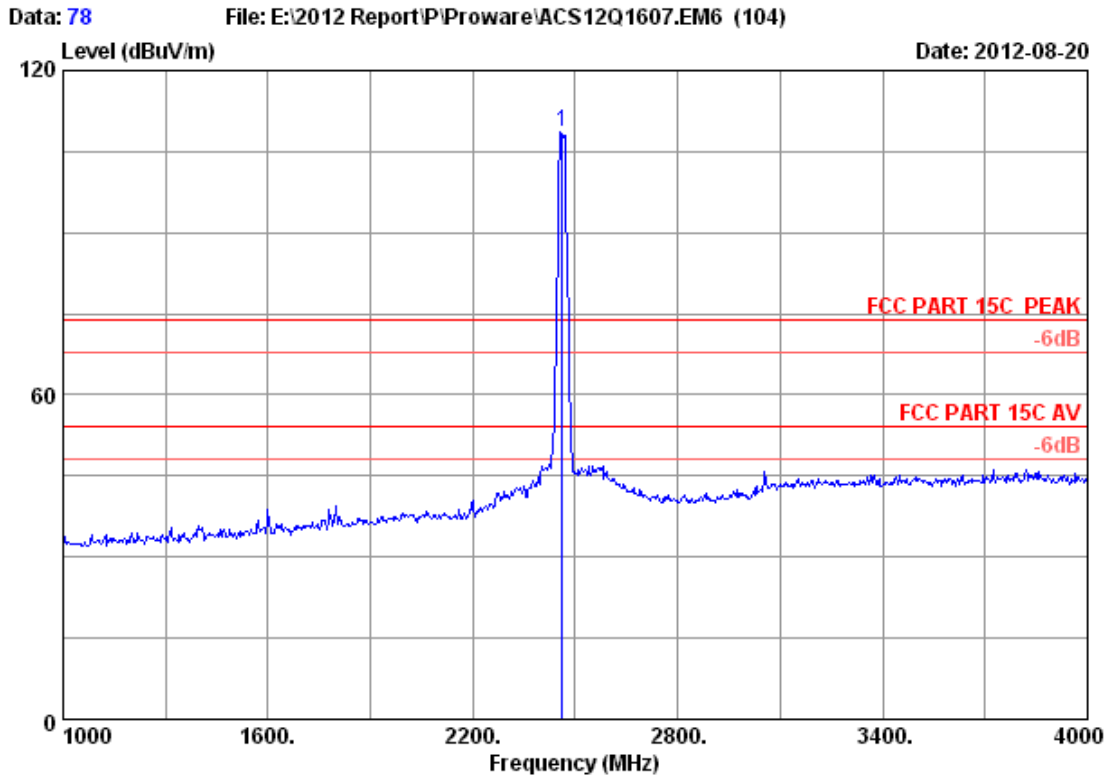
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 77
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.05	6.12	34.44	95.87	95.60	74.00	-21.60	Peak

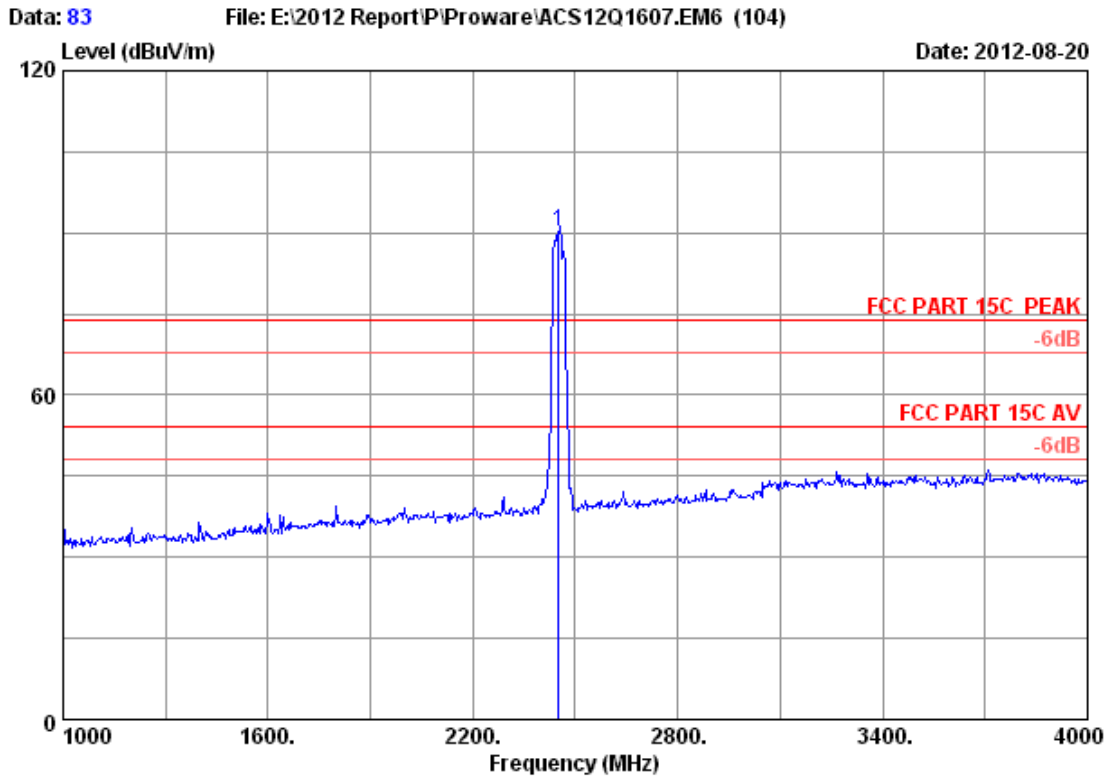
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 78
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.000	28.05	6.12	34.44	108.96	108.69	74.00	-34.69	Peak

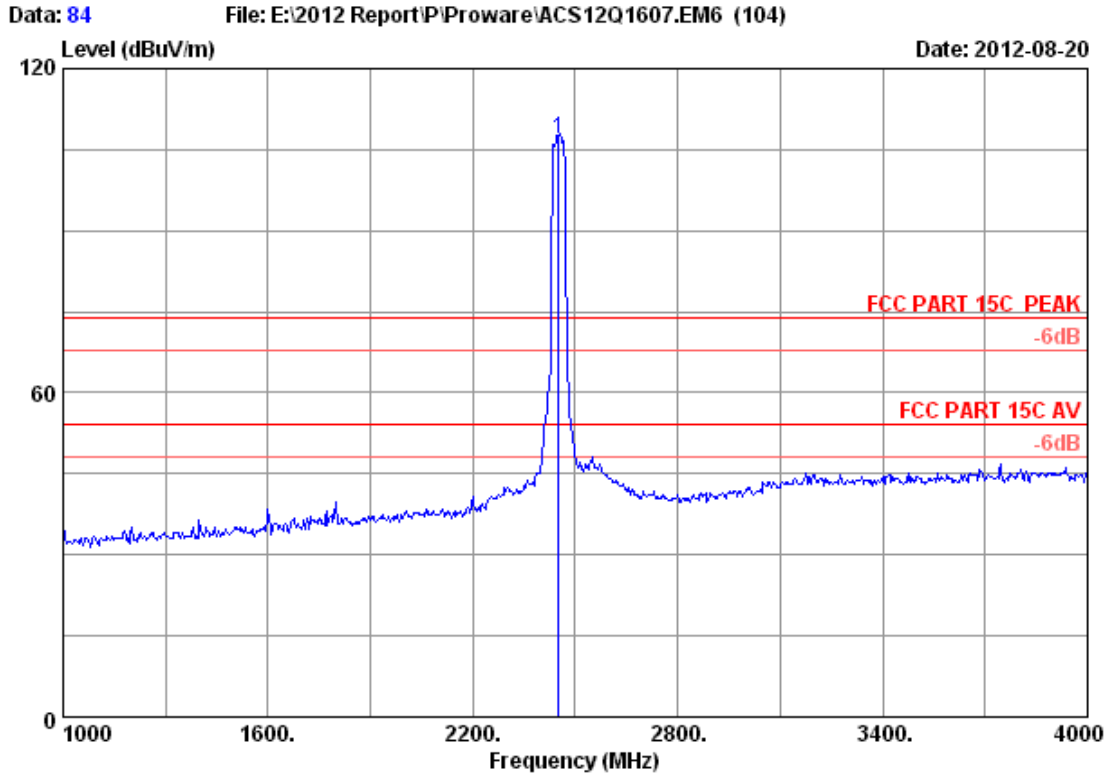
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 83
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.000	28.03	6.09	34.44	90.64	90.32	74.00	-16.32	Peak

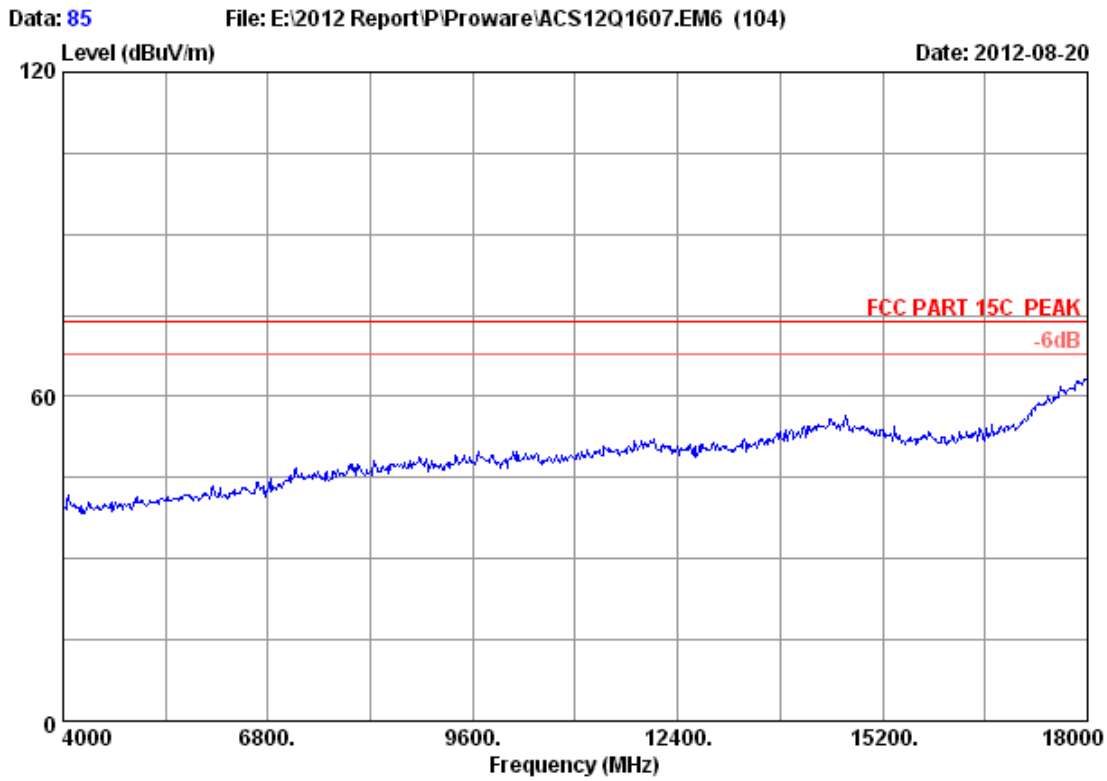
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



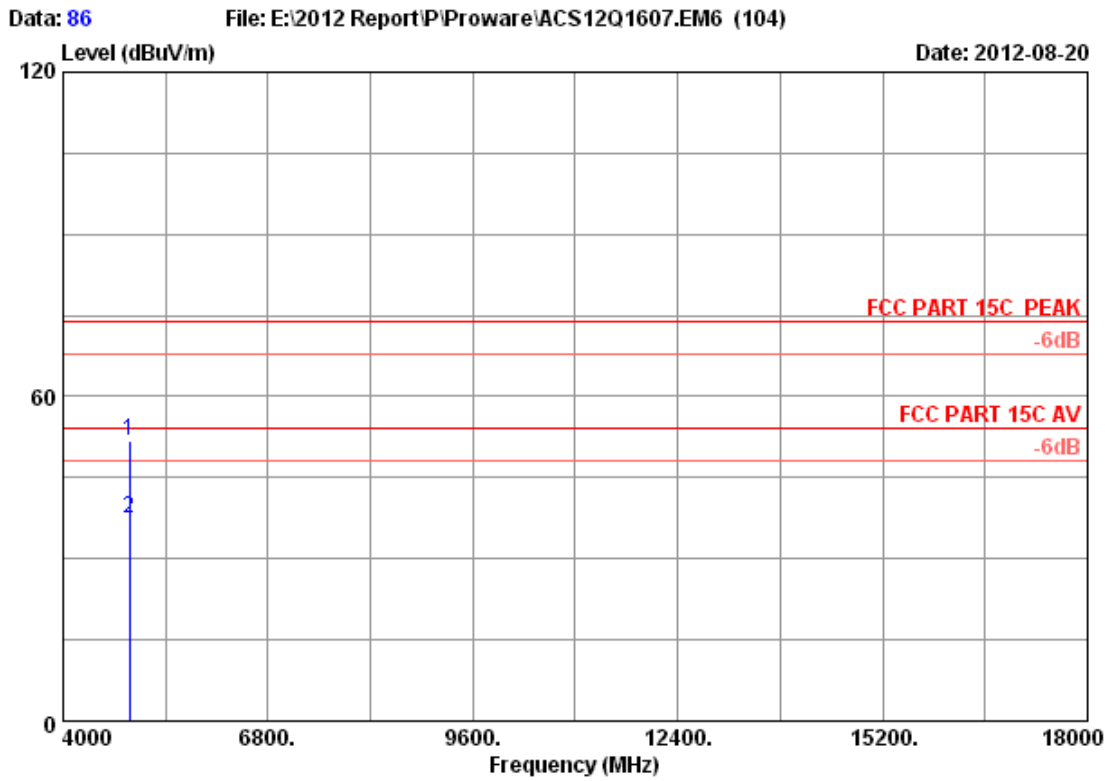
Site no. : 3m Chamber Data no. : 84
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.000	28.03	6.09	34.44	107.34	107.02	74.00	-33.02	Peak

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



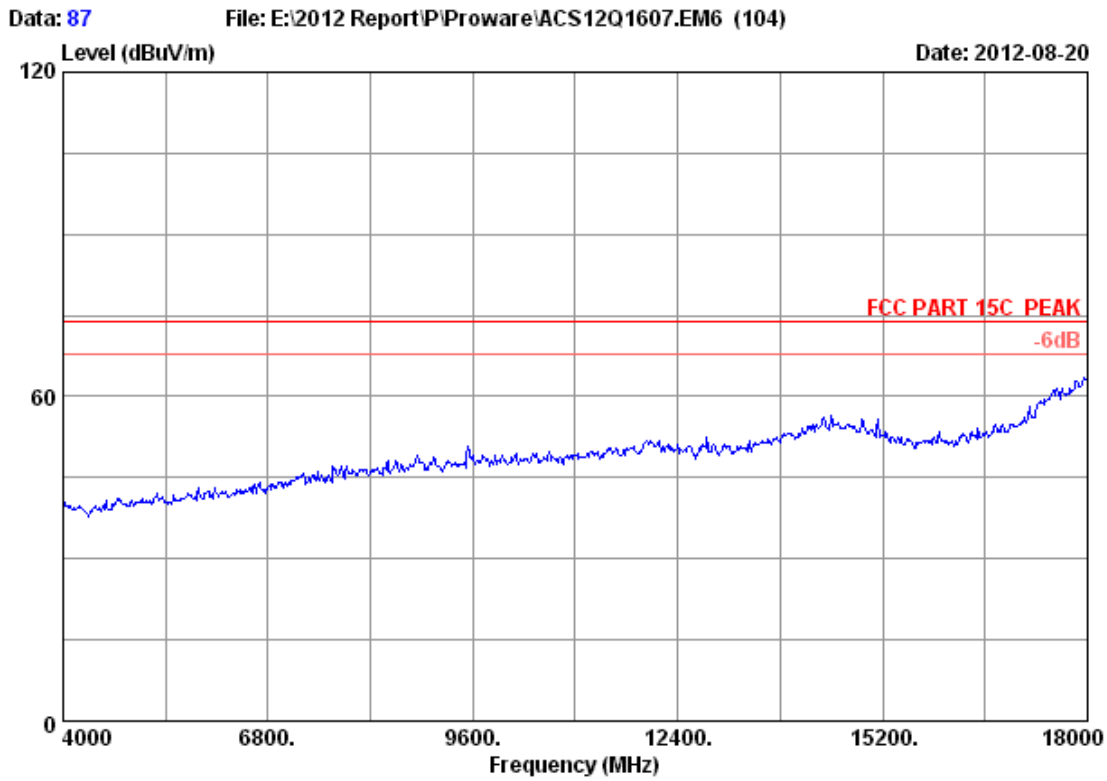

```
Site no.      : 3m Chamber                Data no.   : 85
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT40  CH7 2452MHz  Tx
M/N           : PW-RN501D
```



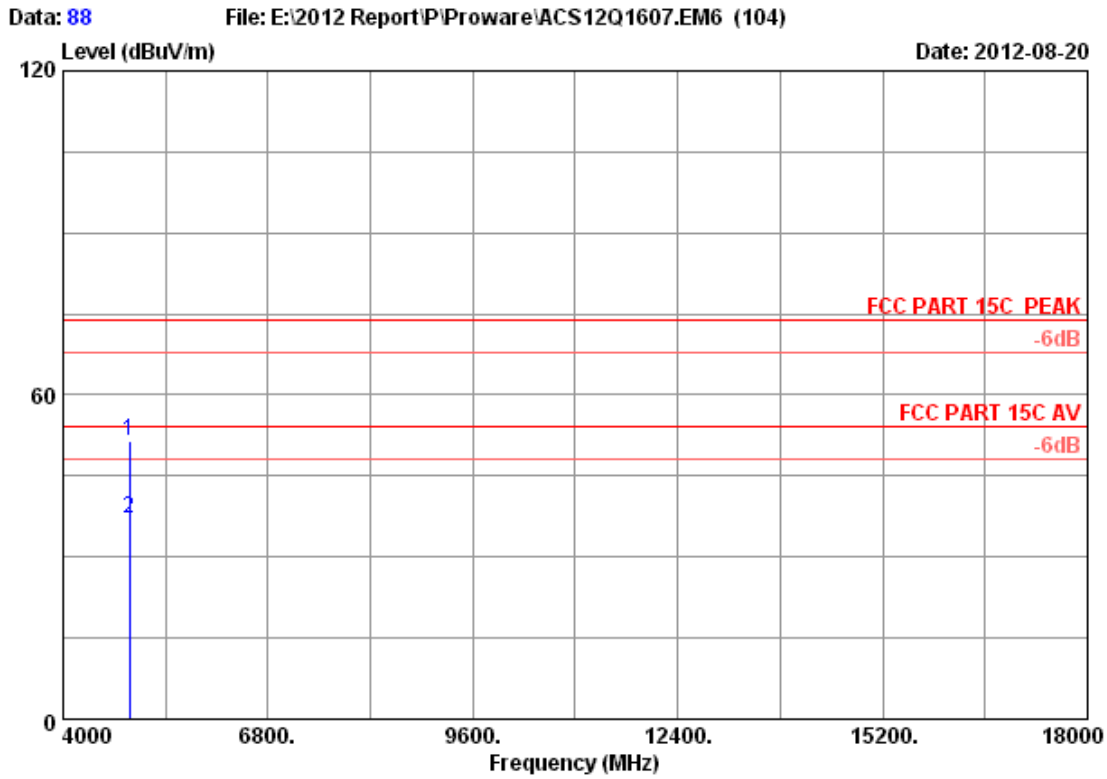
Site no. : 3m Chamber Data no. : 86
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4904.000	33.04	8.61	34.60	44.73	51.78	74.00	22.22	Peak
2	4904.000	33.04	8.61	34.60	30.37	37.42	54.00	16.58	Average

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



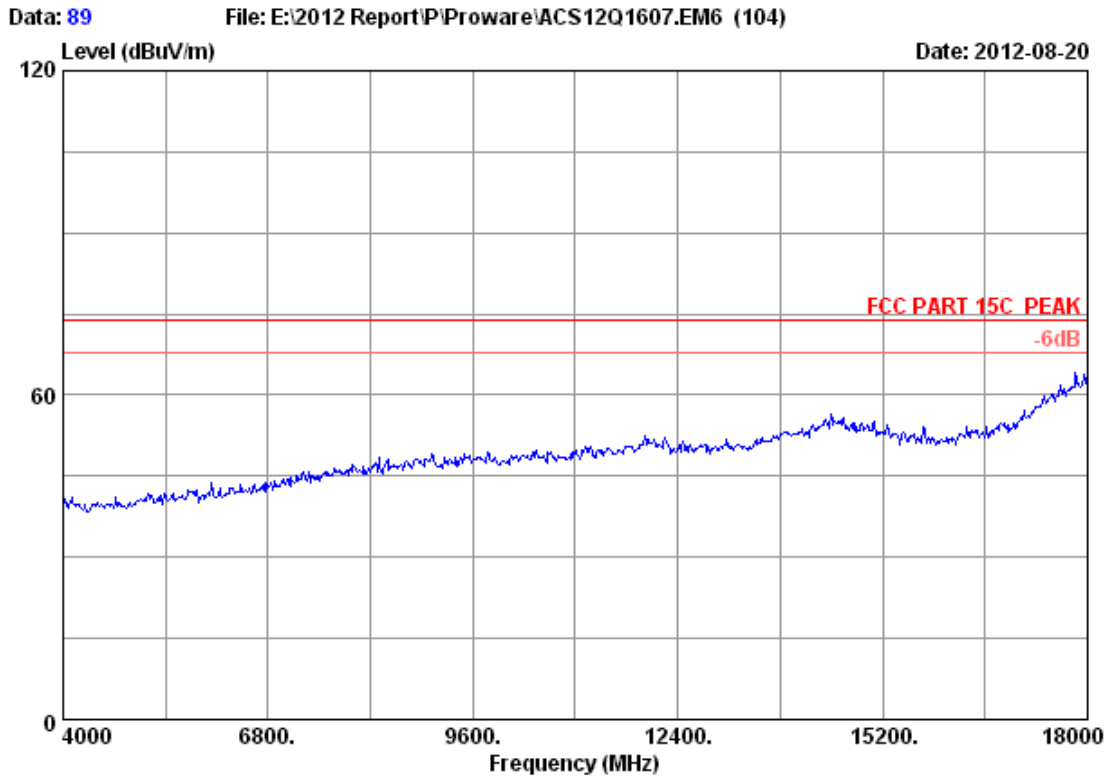

```
Site no.      : 3m Chamber                Data no.   : 87
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT40  CH7 2452MHz  Tx
M/N           : PW-RN501D
```



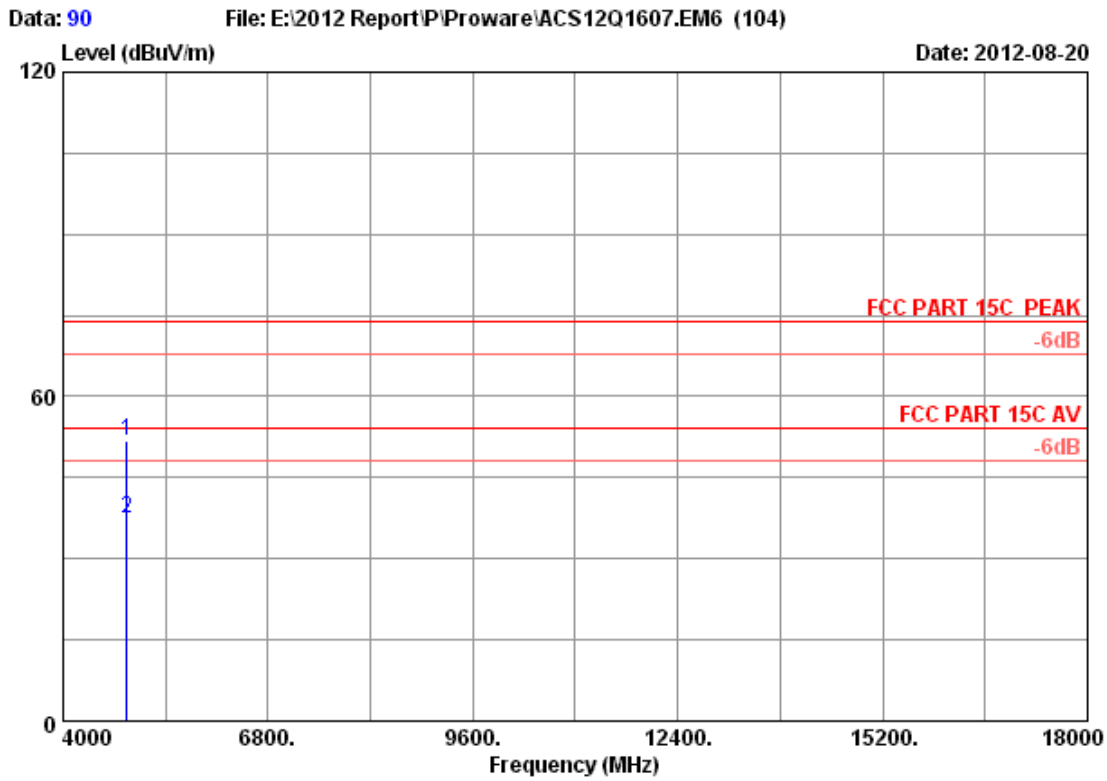
Site no. : 3m Chamber Data no. : 88
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4904.000	33.04	8.61	34.60	44.36	51.41	74.00	22.59	Peak
2	4904.000	33.04	8.61	34.60	30.19	37.24	54.00	16.76	Average

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



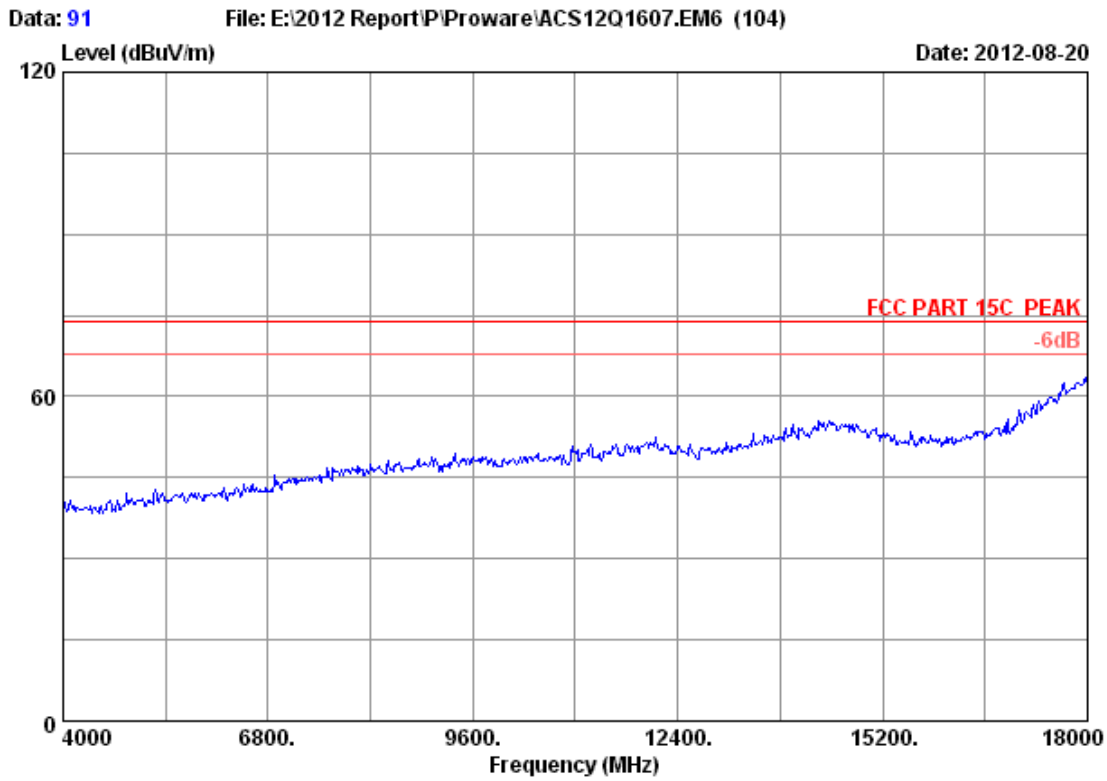

```
Site no.      : 3m Chamber                Data no.   : 89
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT40  CH4 2437MHz  Tx
M/N           : PW-RN501D
```



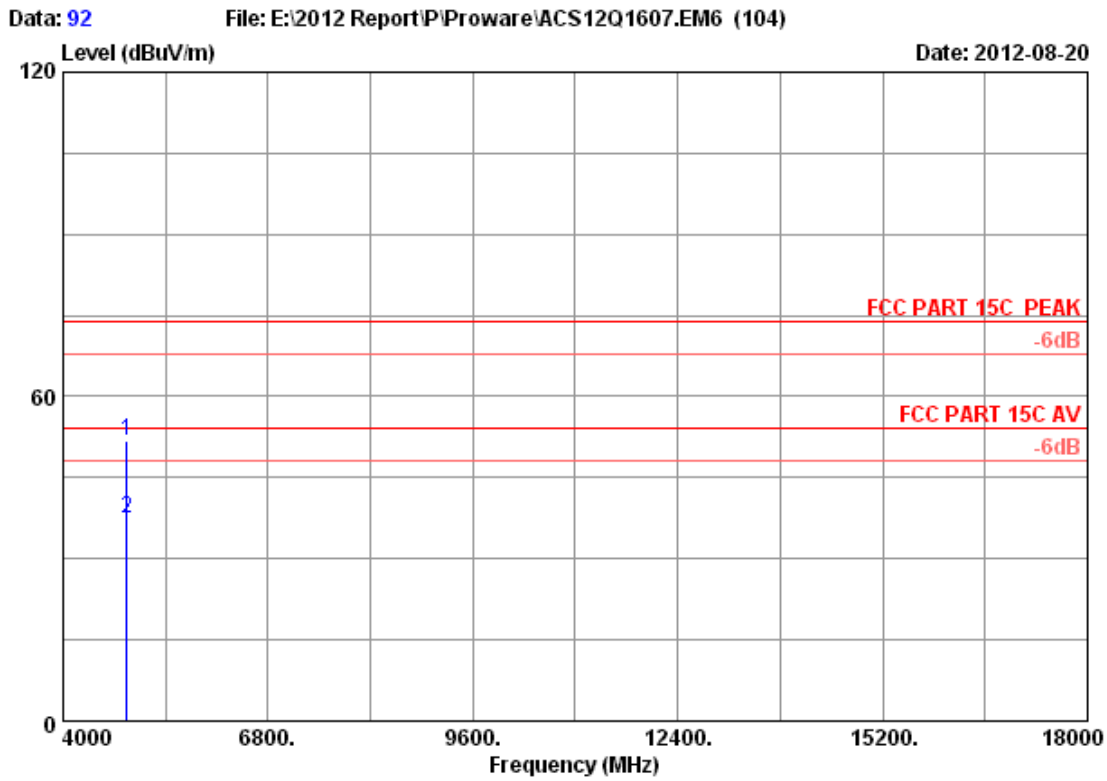
Site no. : 3m Chamber Data no. : 90
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	44.78	51.74	74.00	22.26	Peak
2	4874.000	32.98	8.58	34.60	30.59	37.55	54.00	16.45	Average

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



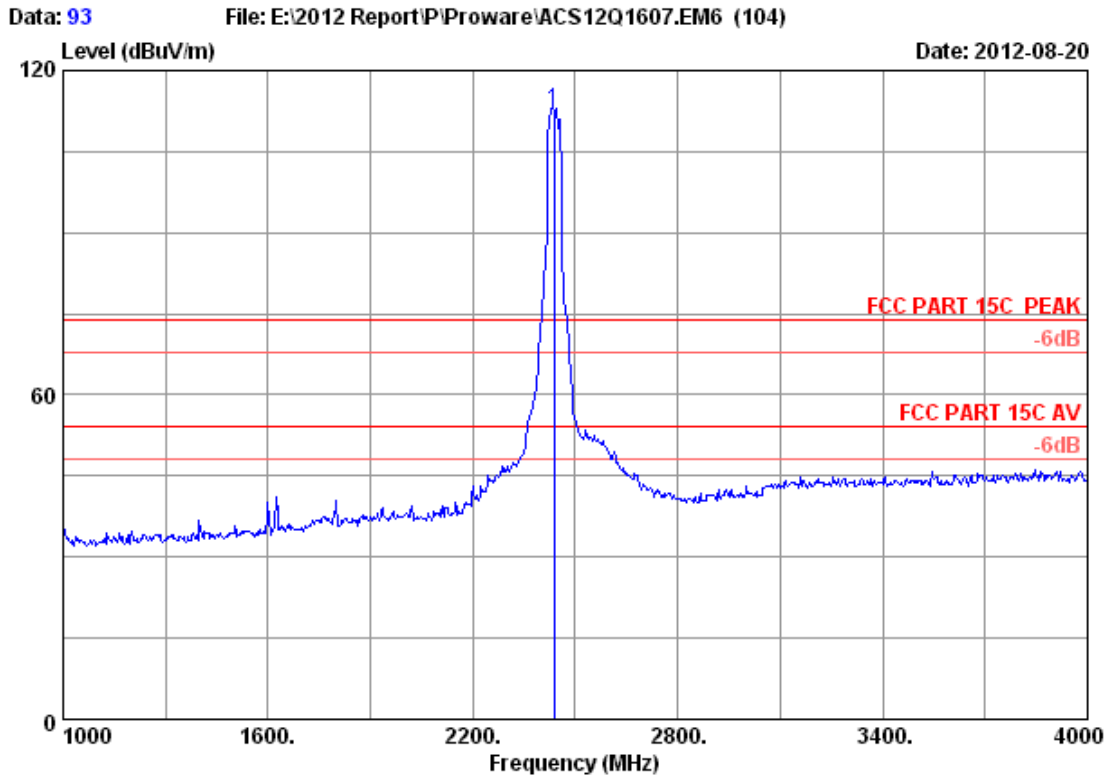

```
Site no.      : 3m Chamber                Data no.   : 91
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT40  CH4 2437MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 92
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98	8.58	34.60	44.69	51.65	74.00	22.35	Peak
2	4874.000	32.98	8.58	34.60	30.51	37.47	54.00	16.53	Average

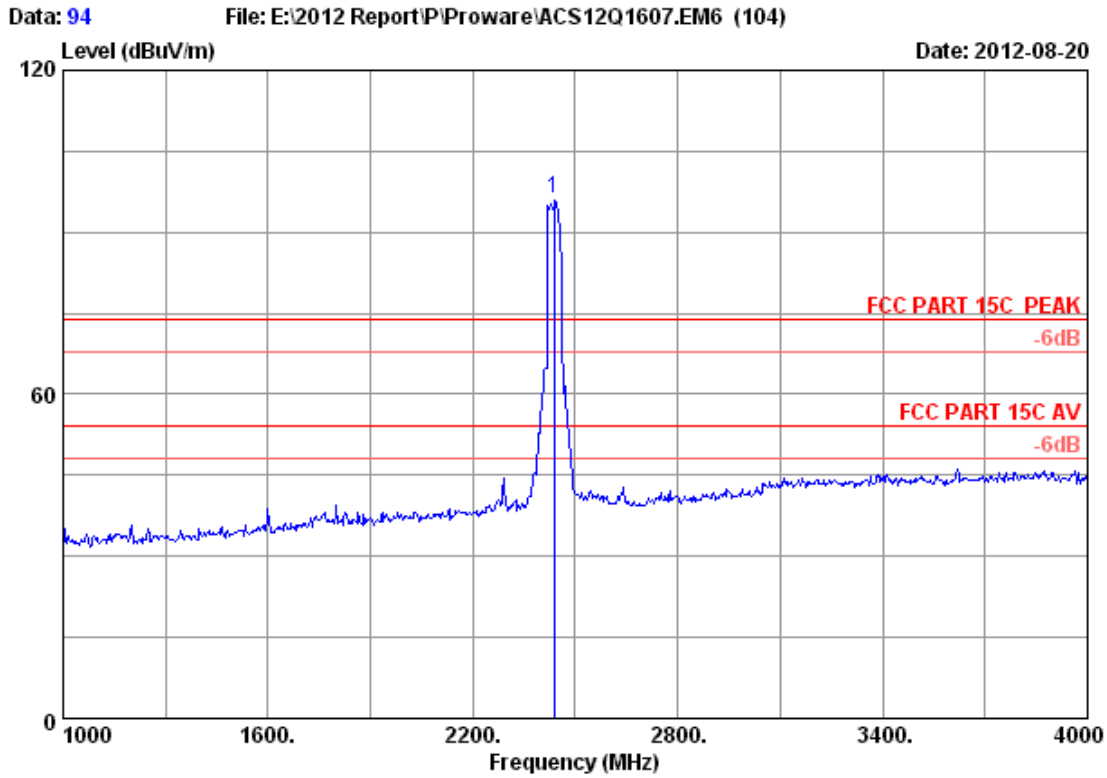
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 93
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	113.06	112.71	74.00	-38.71	Peak

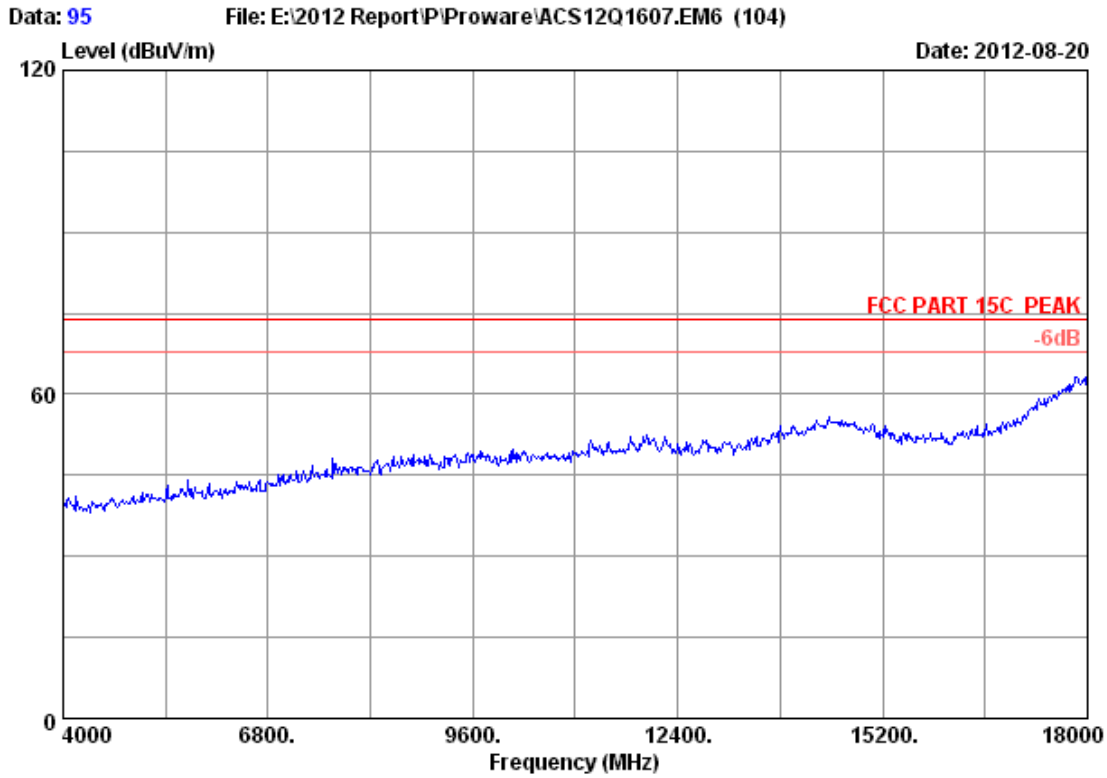
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



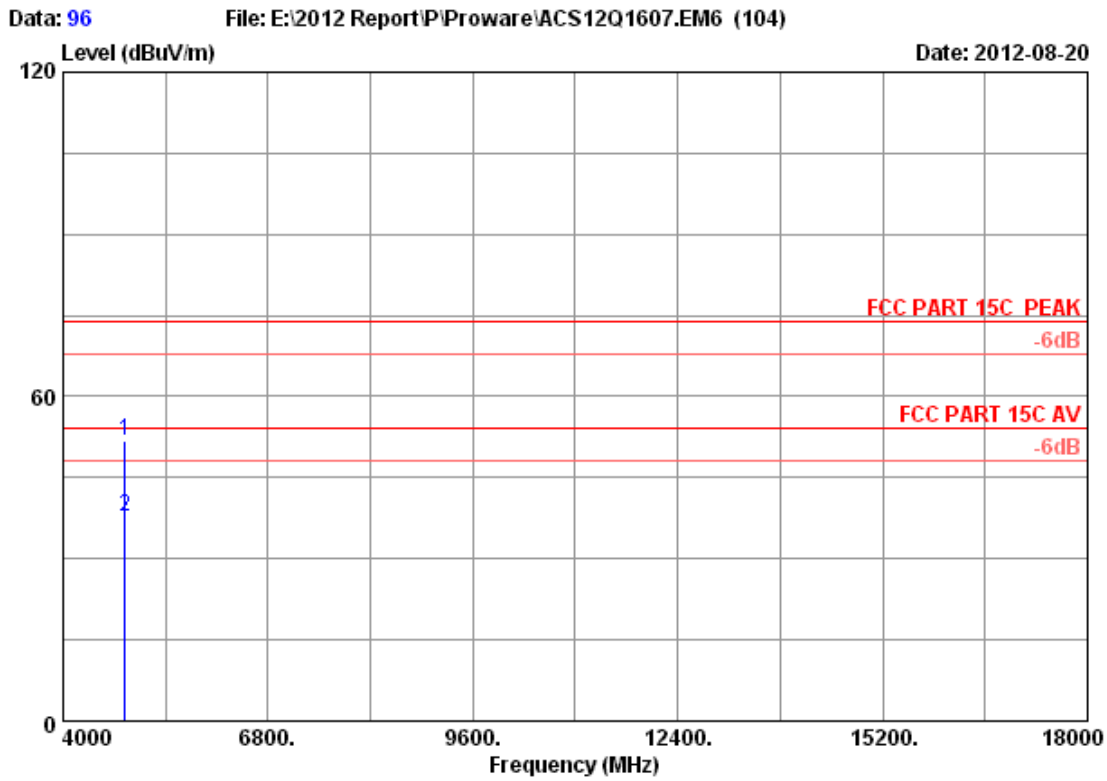
Site no. : 3m Chamber Data no. : 94
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.000	28.03	6.06	34.44	96.52	96.17	74.00	-22.17	Peak

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



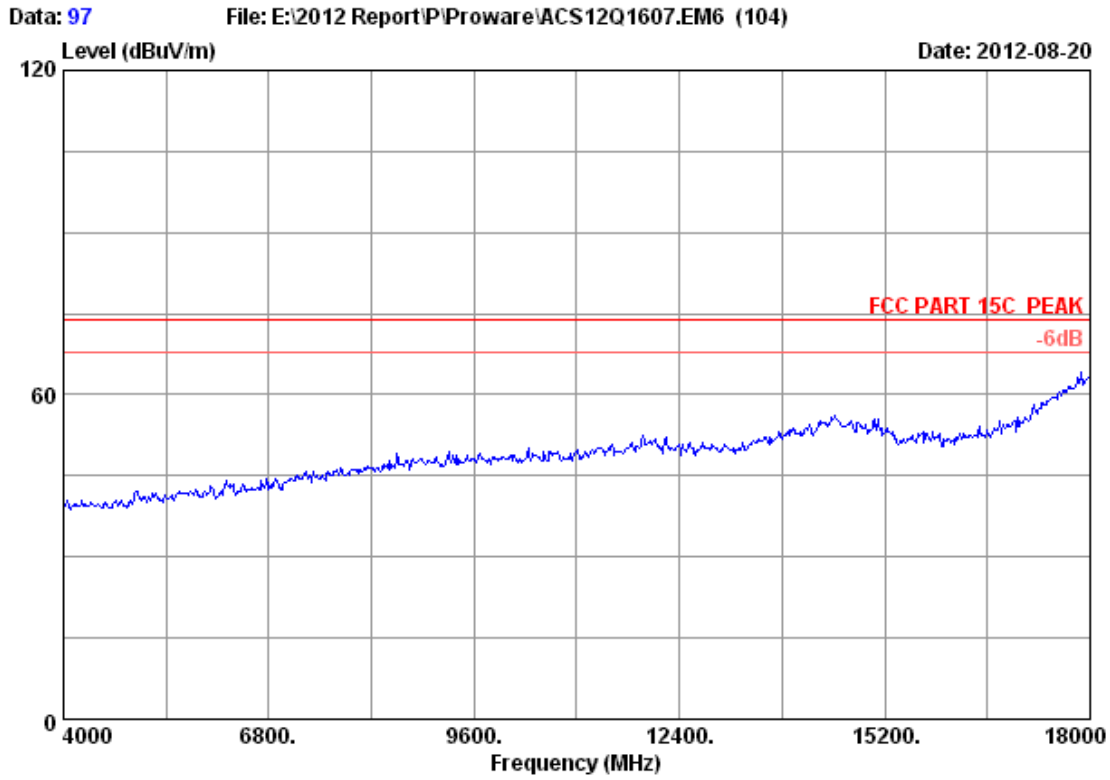

```
Site no.      : 3m Chamber                Data no.   : 95
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT40  CH1 2422MHz  Tx
M/N           : PW-RN501D
```



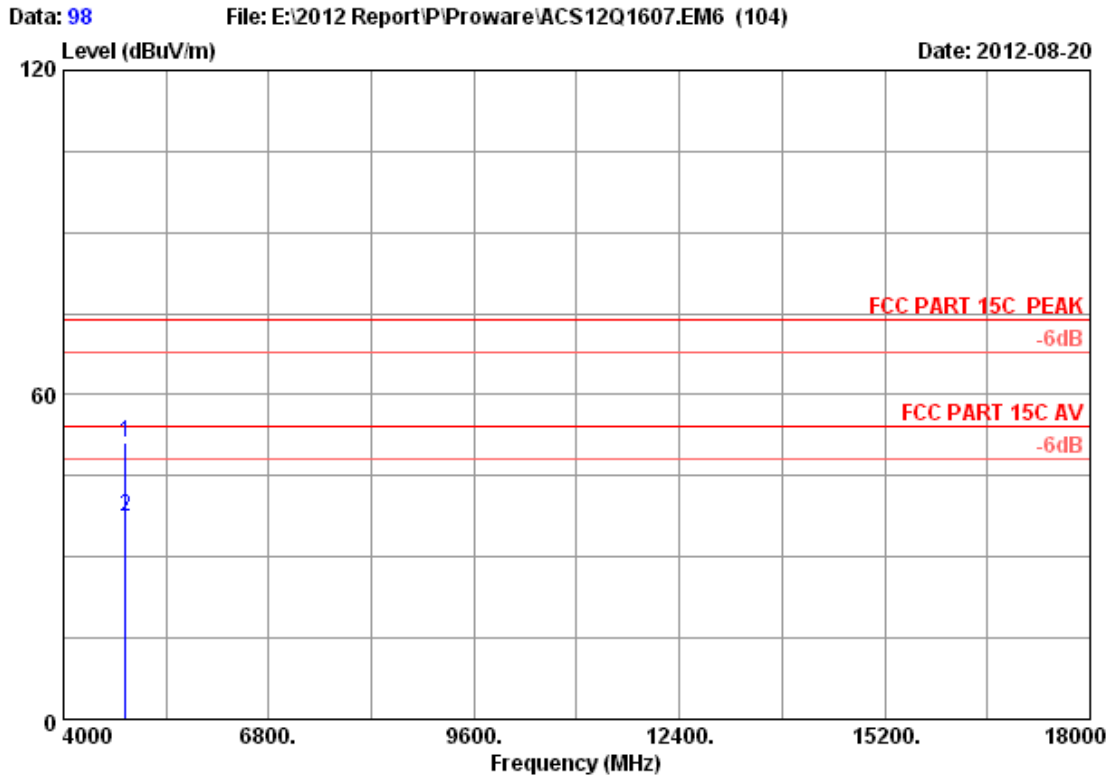
Site no. : 3m Chamber Data no. : 96
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4844.000	32.92	8.55	34.60	44.83	51.70	74.00	22.30	Peak
2	4844.000	32.92	8.55	34.60	30.75	37.62	54.00	16.38	Average

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



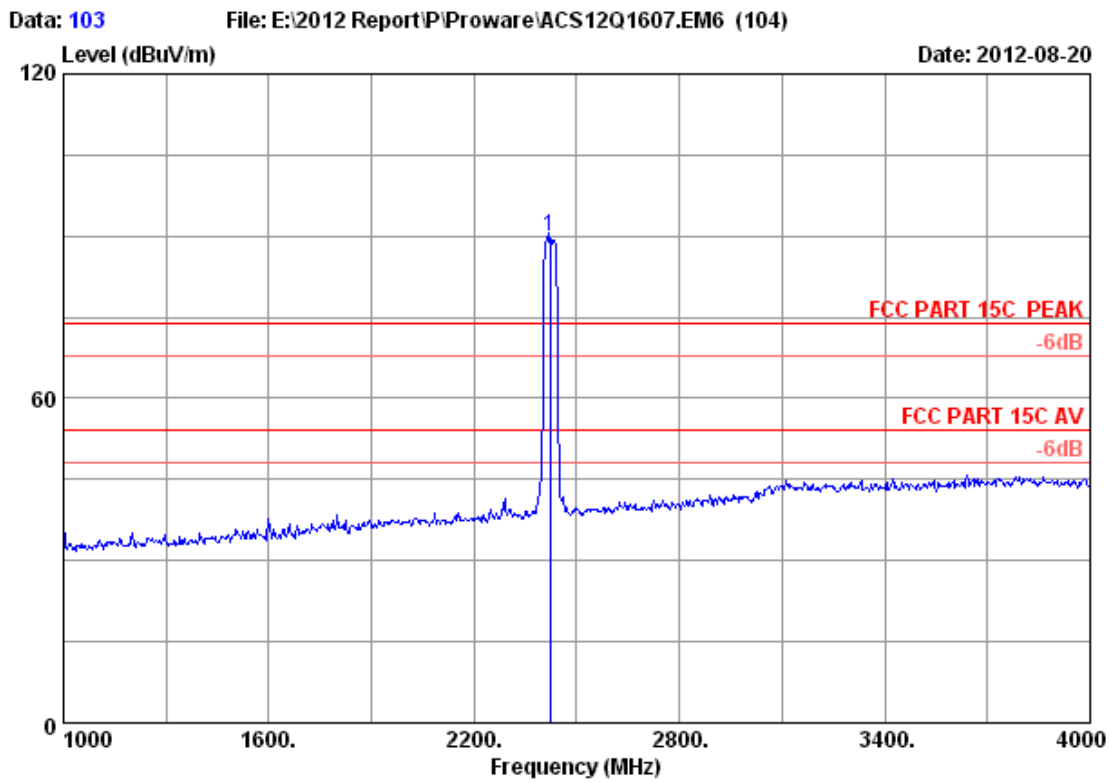

```
Site no.      : 3m Chamber                Data no.   : 97
Dis. / Ant.   : 3m   2011 3115 4580       Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Leo-Li
EUT           : 300Mbps Wireless N Router
Power supply  : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11nHT40  CH1 2422MHz  Tx
M/N           : PW-RN501D
```



Site no. : 3m Chamber Data no. : 98
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4844.000	32.92	8.55	34.60	44.38	51.25	74.00	22.75	Peak
2	4844.000	32.92	8.55	34.60	30.51	37.38	54.00	16.62	Average

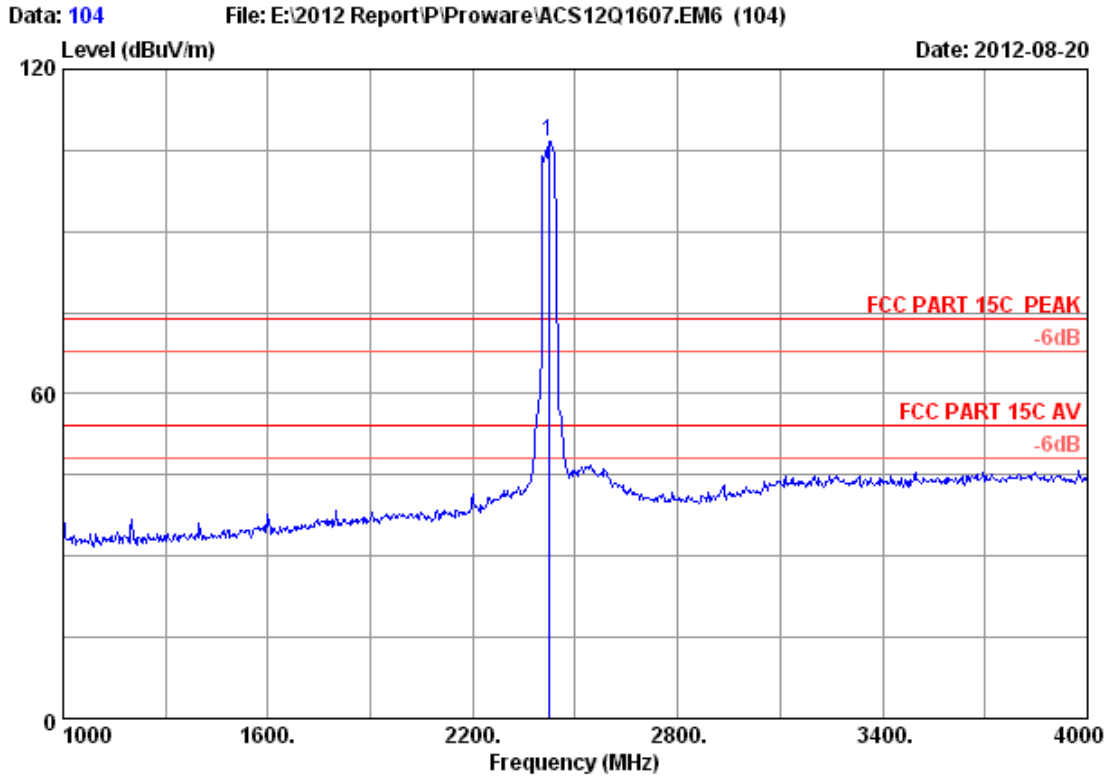
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 103
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.000	28.00	6.06	34.44	90.21	89.83	74.00	-15.83	Peak

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



Site no. : 3m Chamber Data no. : 104
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.000	28.00	6.06	34.44	106.95	106.57	74.00	-32.57	Peak

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

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,12	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,12	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,12	1Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

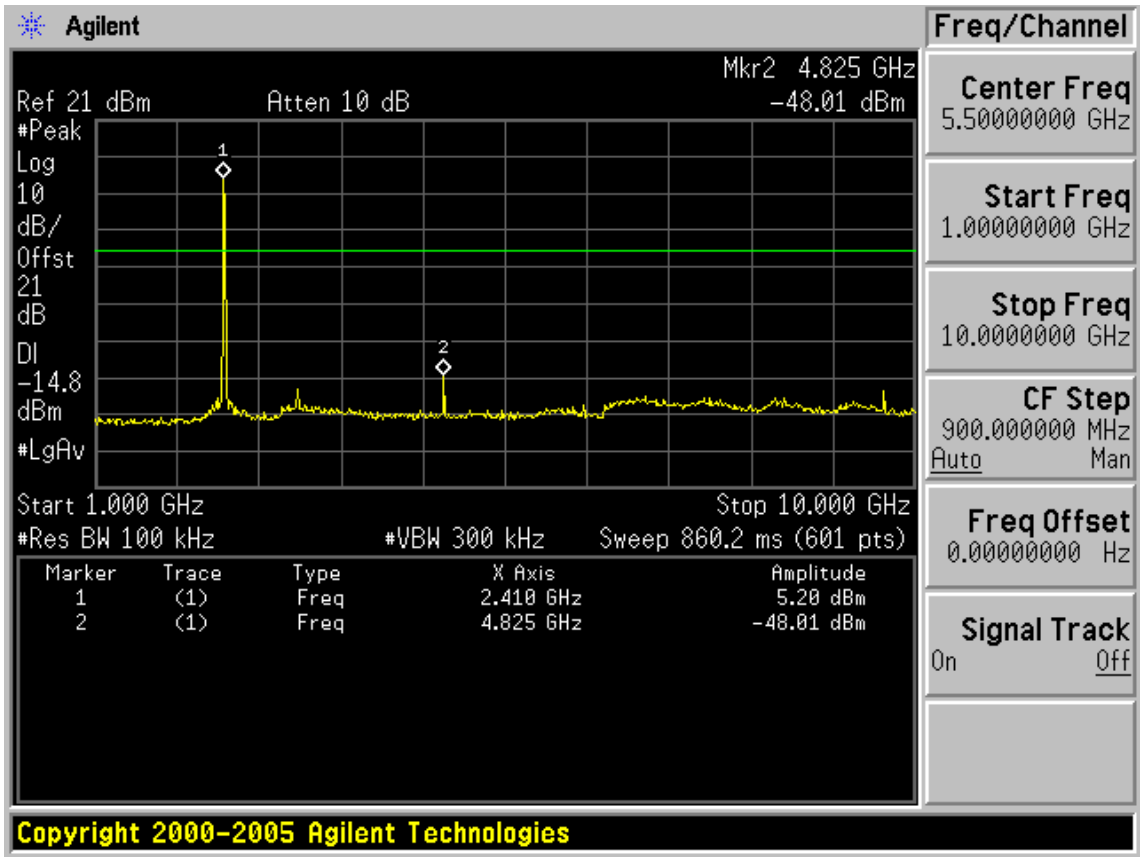
5.3.Test Procedure

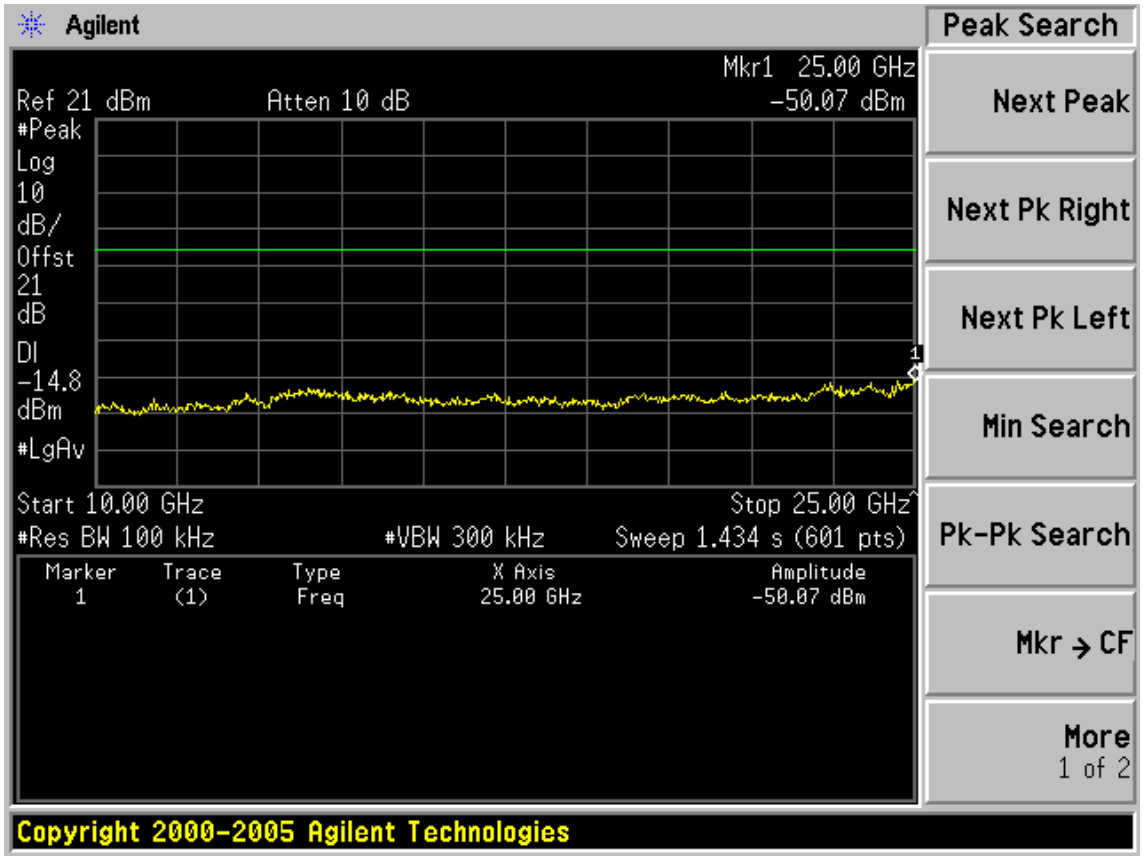
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

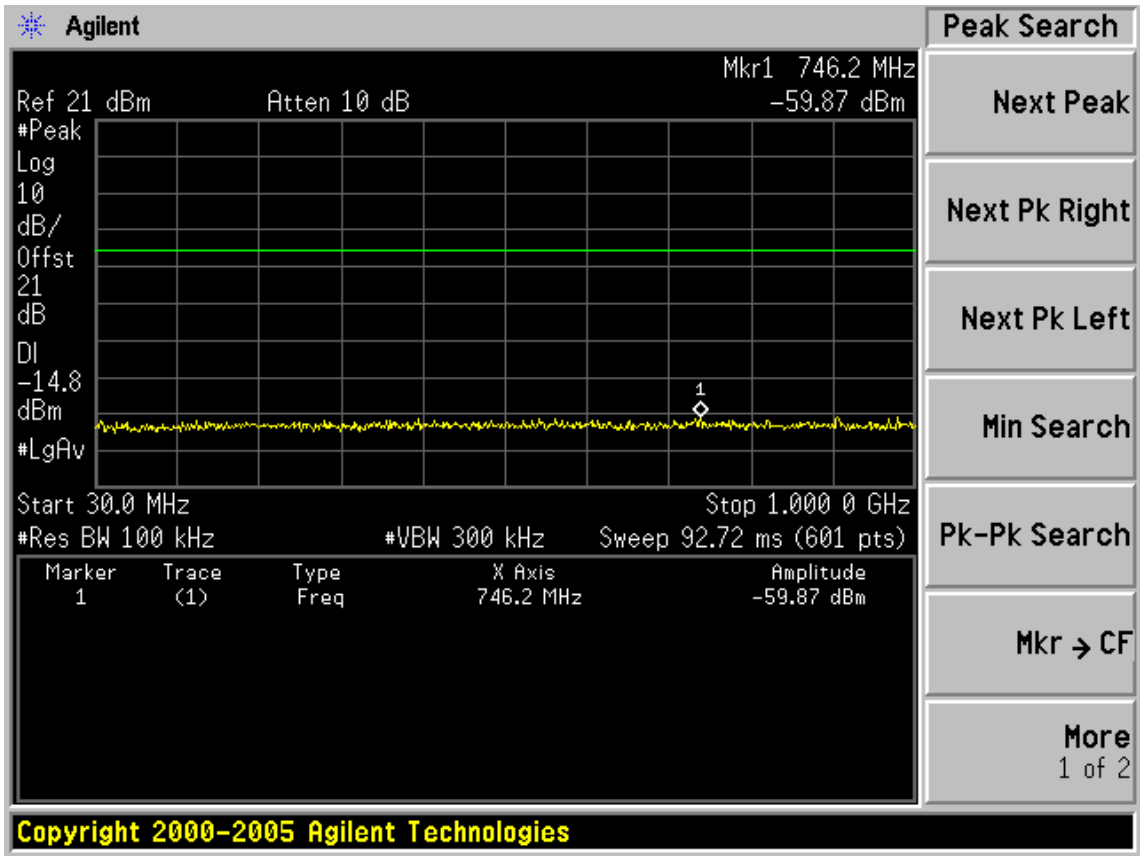
5.4.Test result

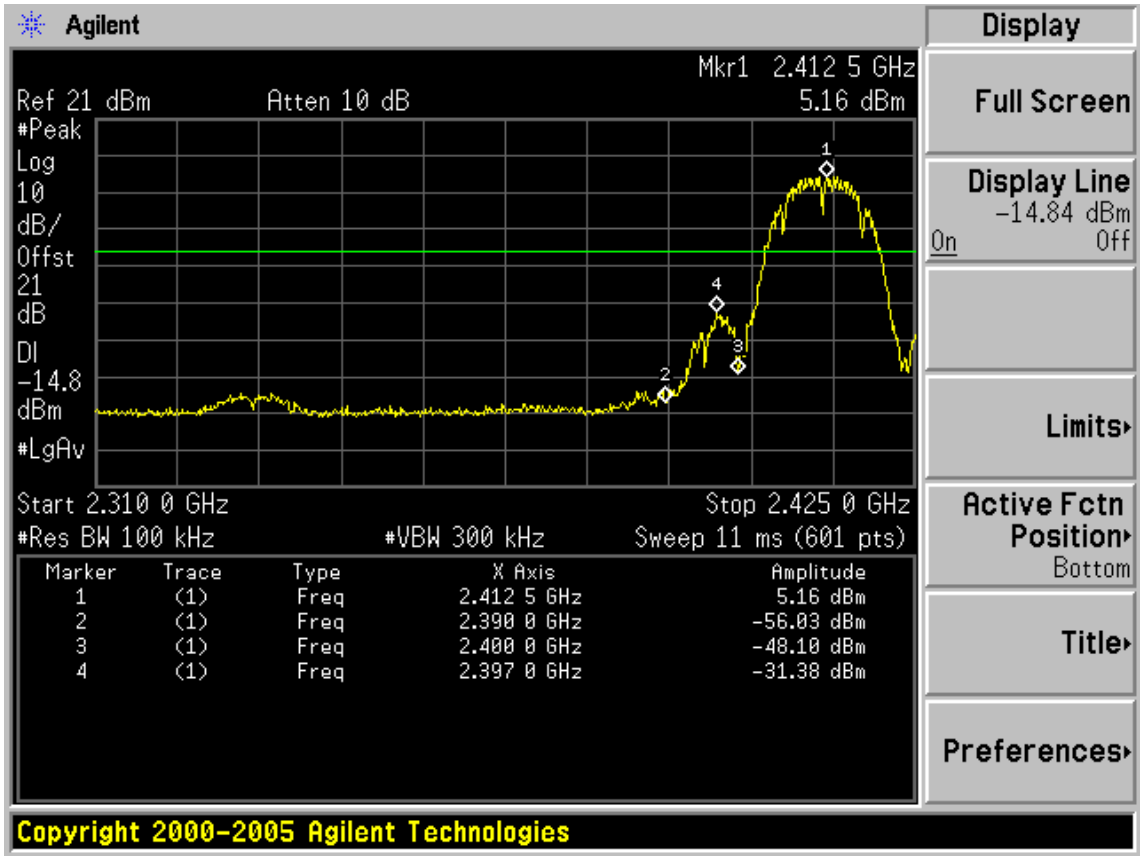
PASS (The testing data was attached in the next pages.)

ANT0
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz

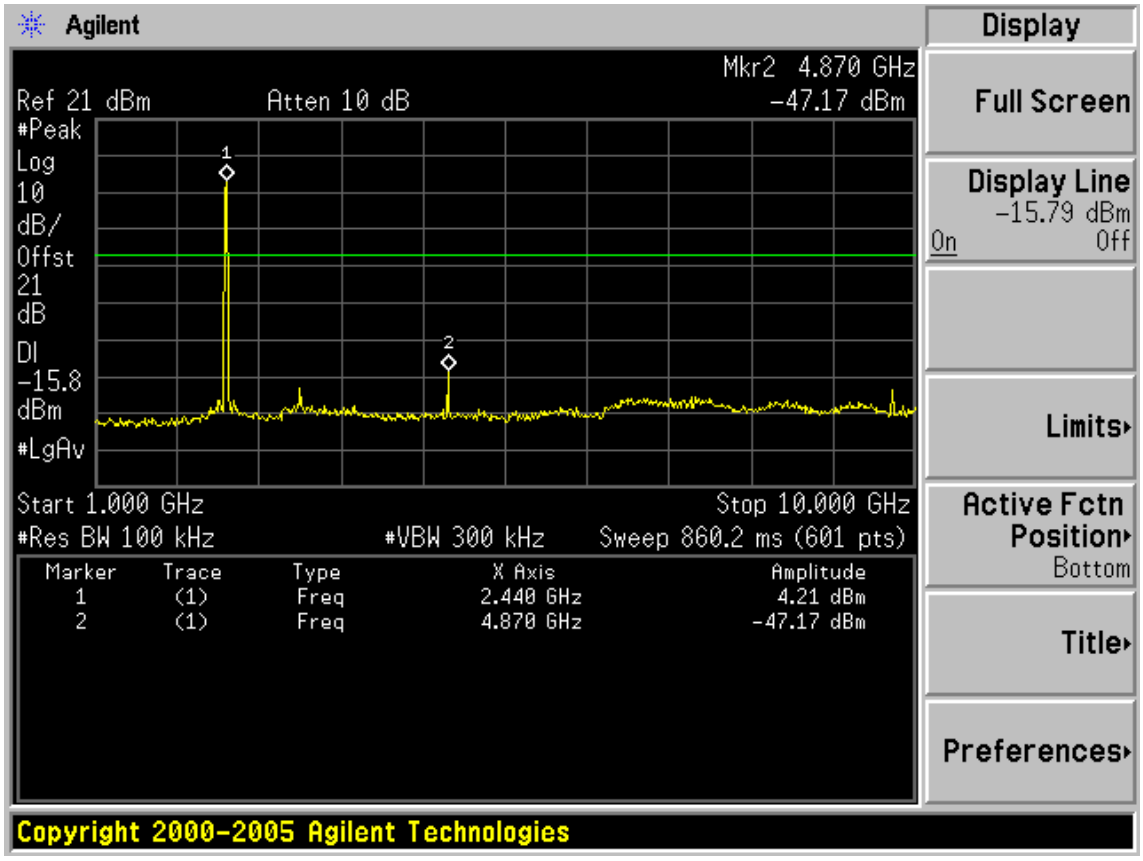


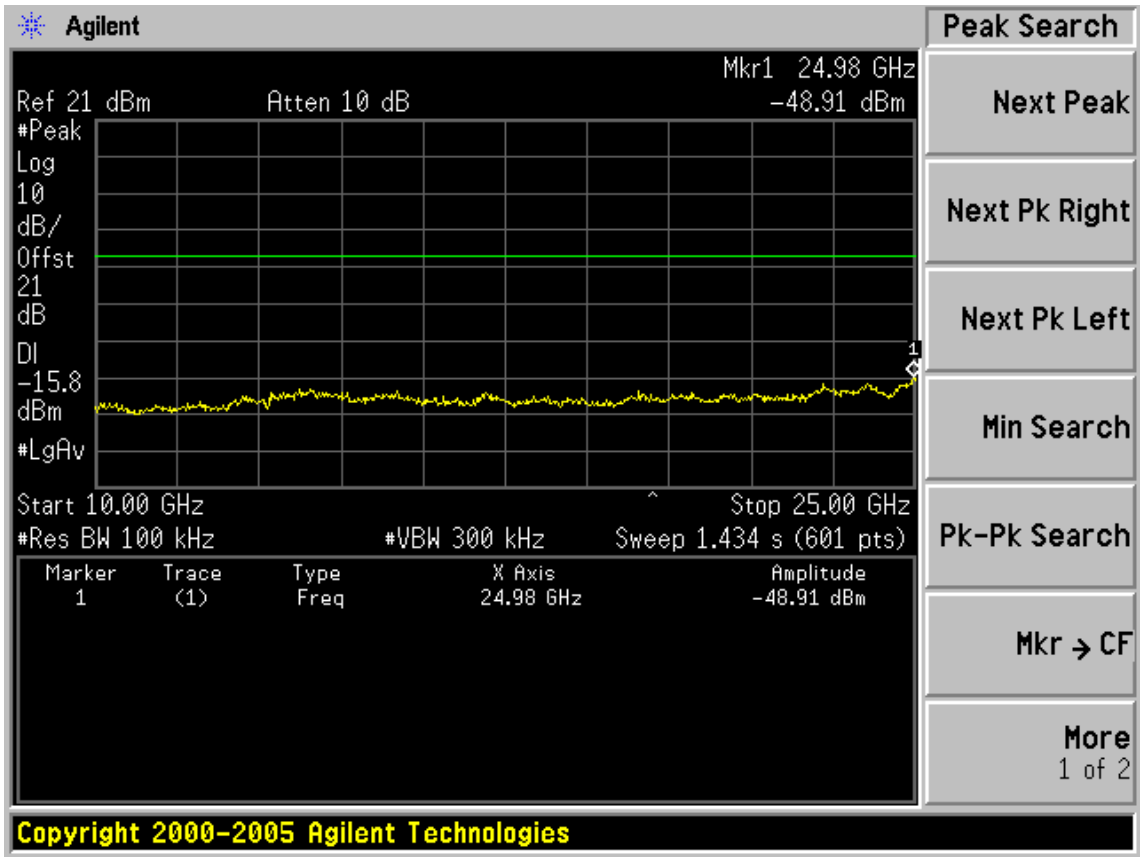


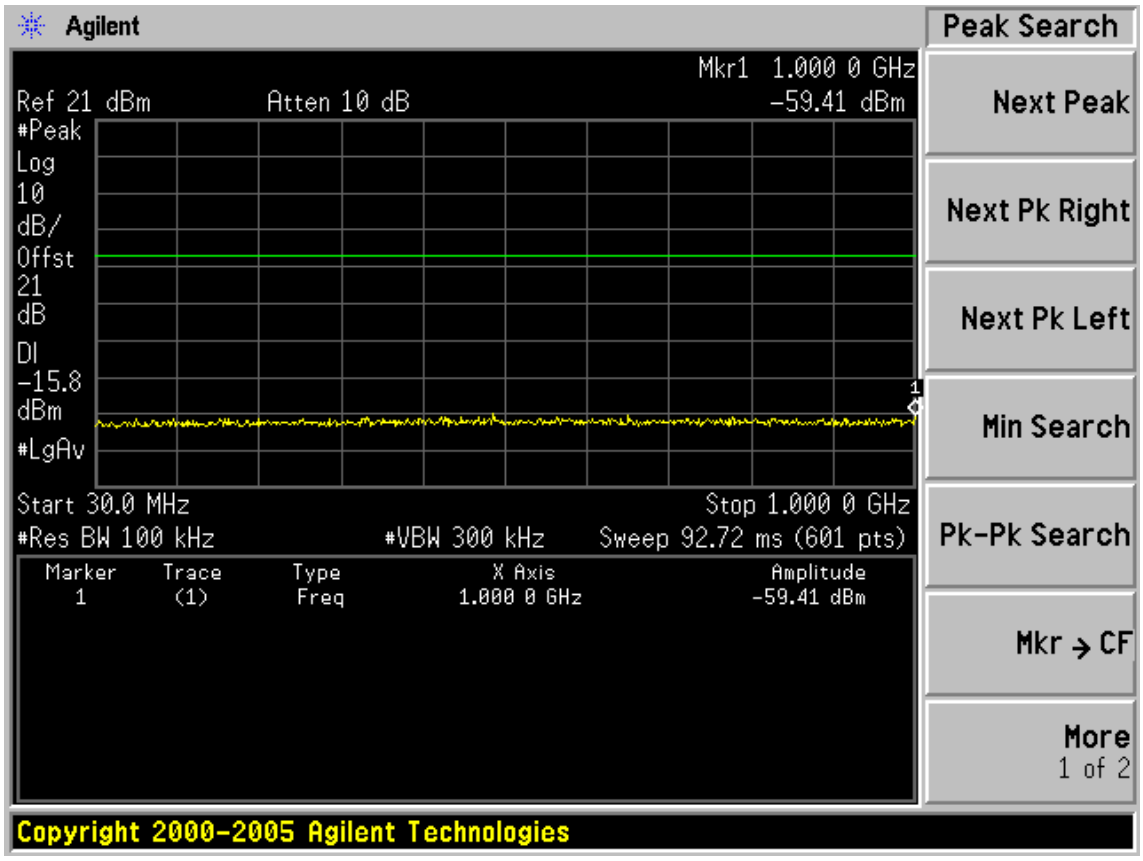

Agilent
Peak Search
Mkr1 746.2 MHz
Ref 21 dBm
Atten 10 dB
-59.87 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-14.8
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 746.2 MHz -59.87 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
Display
Mkr1 2.412 5 GHz
Ref 21 dBm
Atten 10 dB
5.16 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-14.8
dBm
#LgAv
Full Screen
Display Line
-14.84 dBm
On Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Start 2.310 0 GHz
Stop 2.425 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.412 5 GHz 5.16 dBm
2 (1) Freq 2.390 0 GHz -56.03 dBm
3 (1) Freq 2.400 0 GHz -48.10 dBm
4 (1) Freq 2.397 0 GHz -31.38 dBm
Copyright 2000-2005 Agilent Technologies

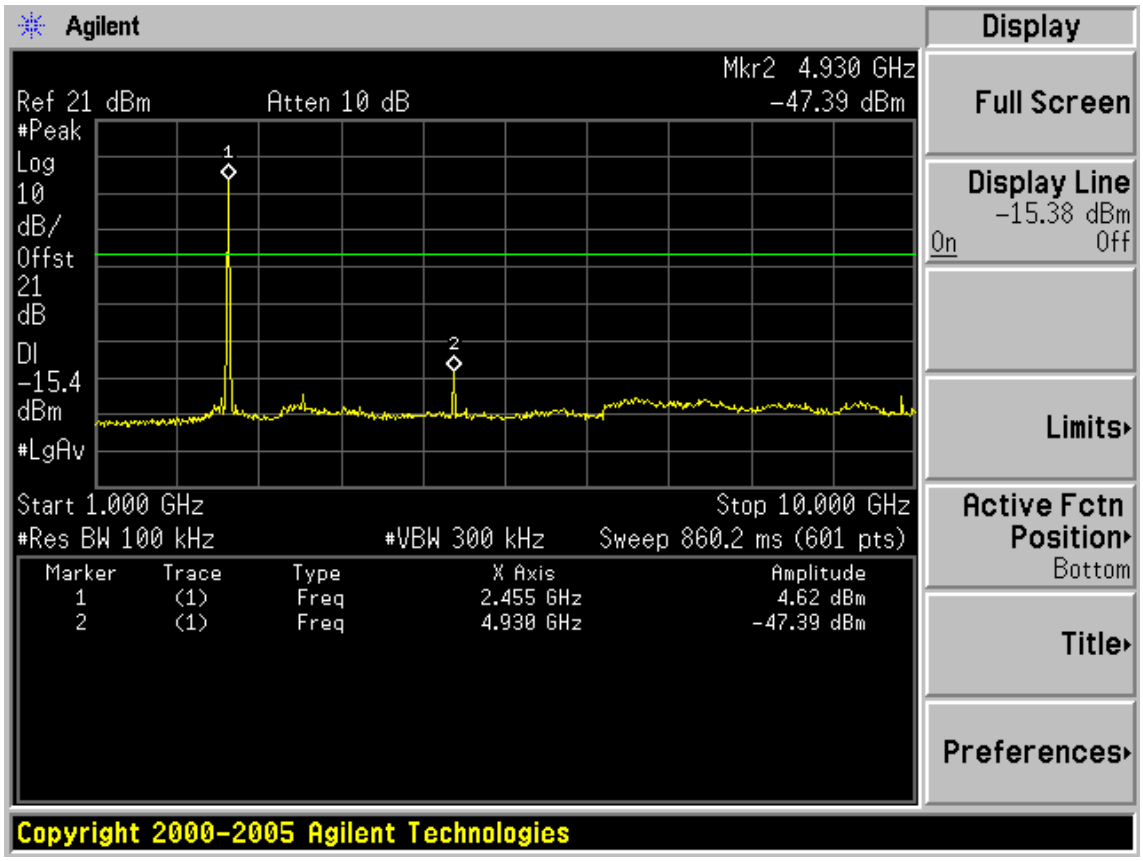
Test CH6: 2437MHz

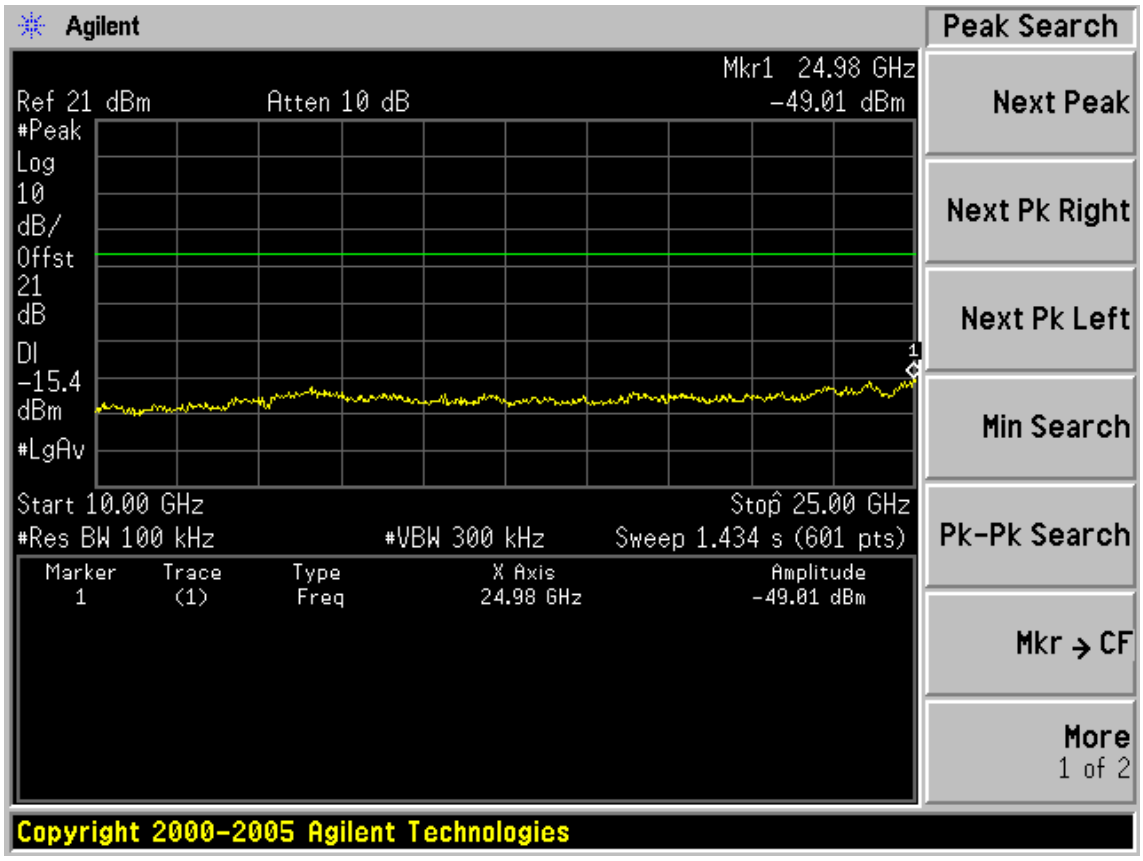


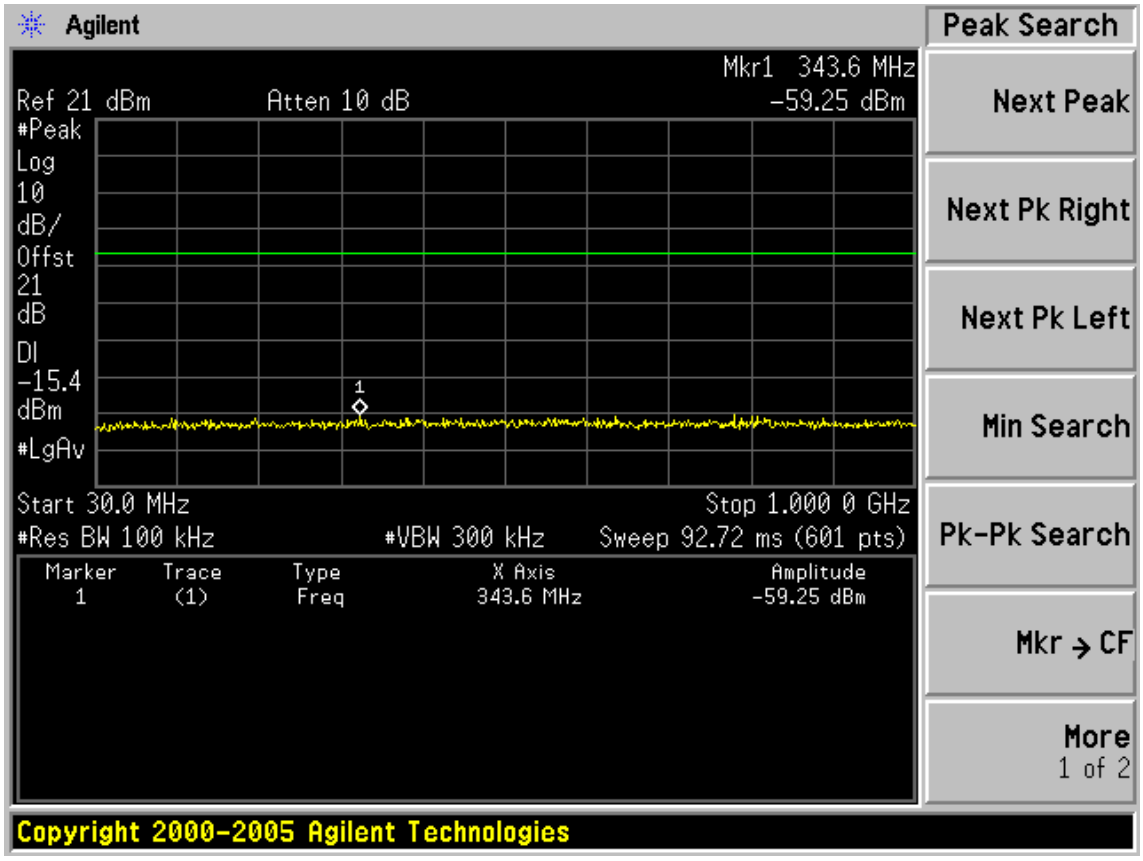


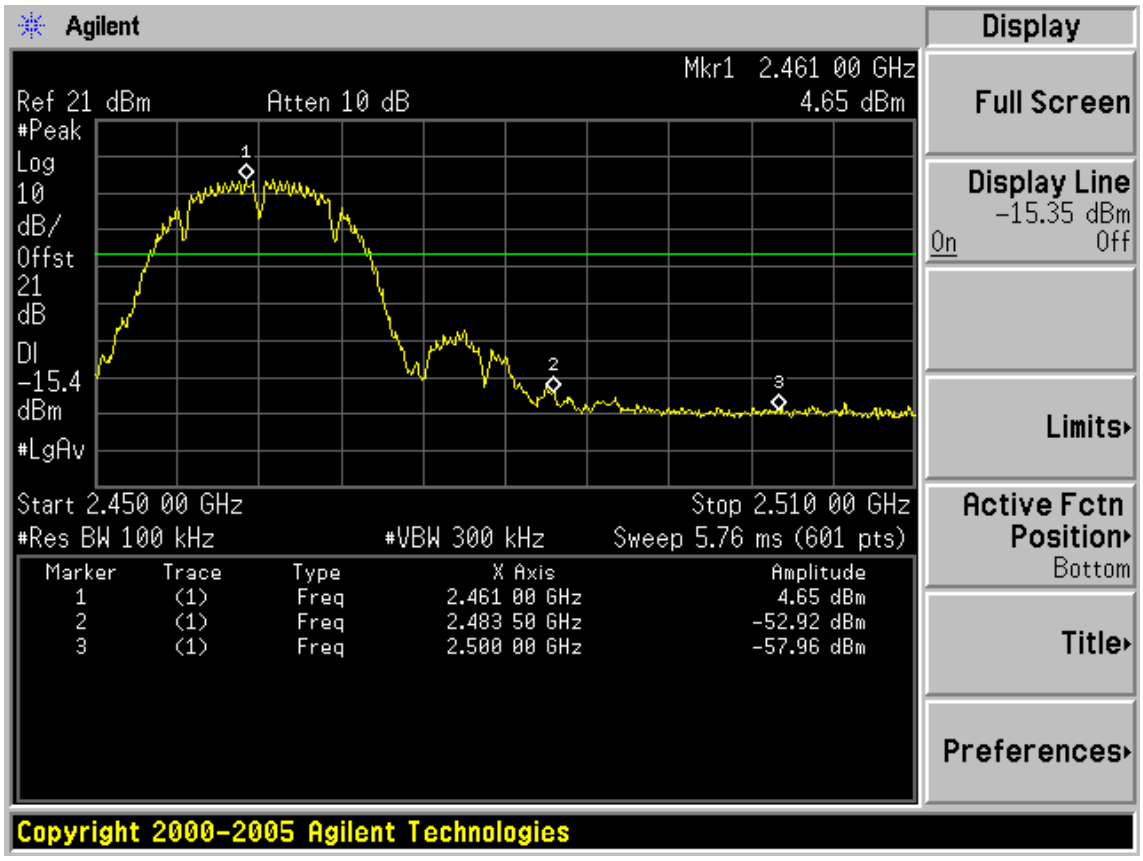


Test CH11: 2462MHz

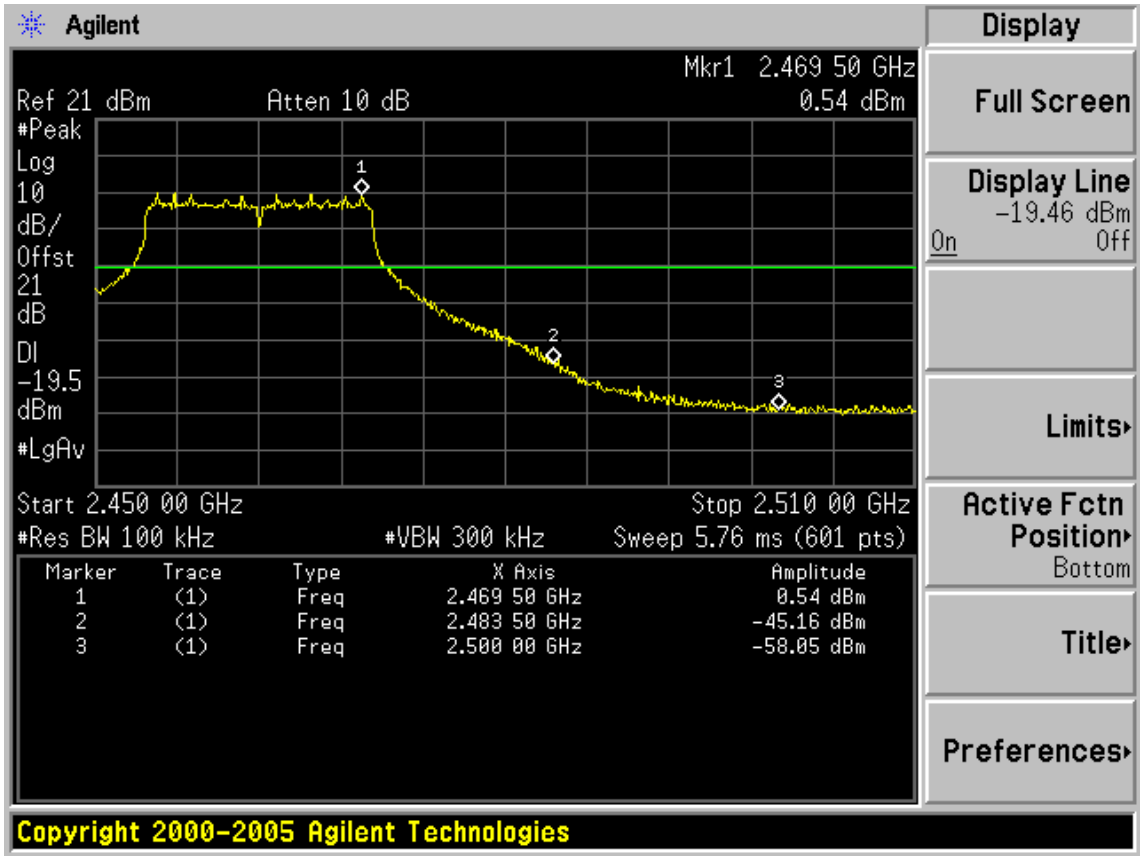


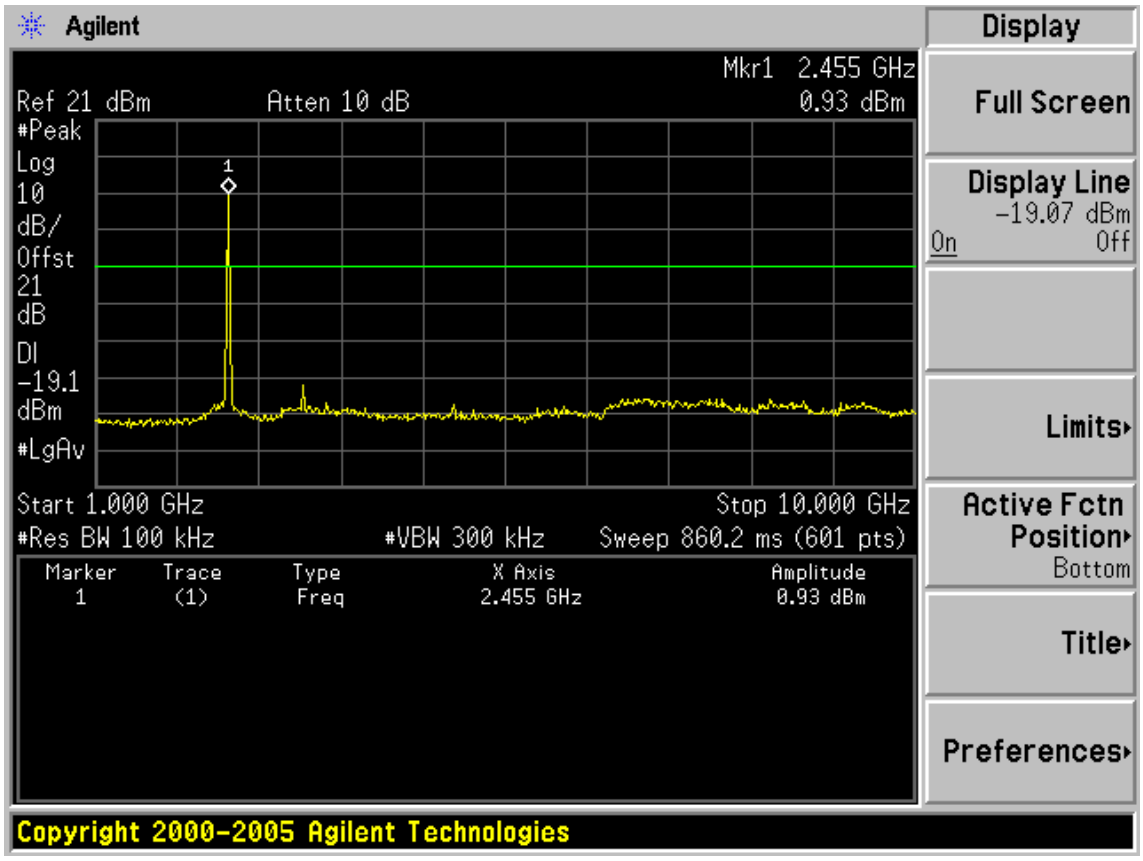

Agilent
Peak Search
Mkr1 24.98 GHz
Ref 21 dBm
Atten 10 dB
-49.01 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-15.4
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.98 GHz -49.01 dBm
Copyright 2000-2005 Agilent Technologies

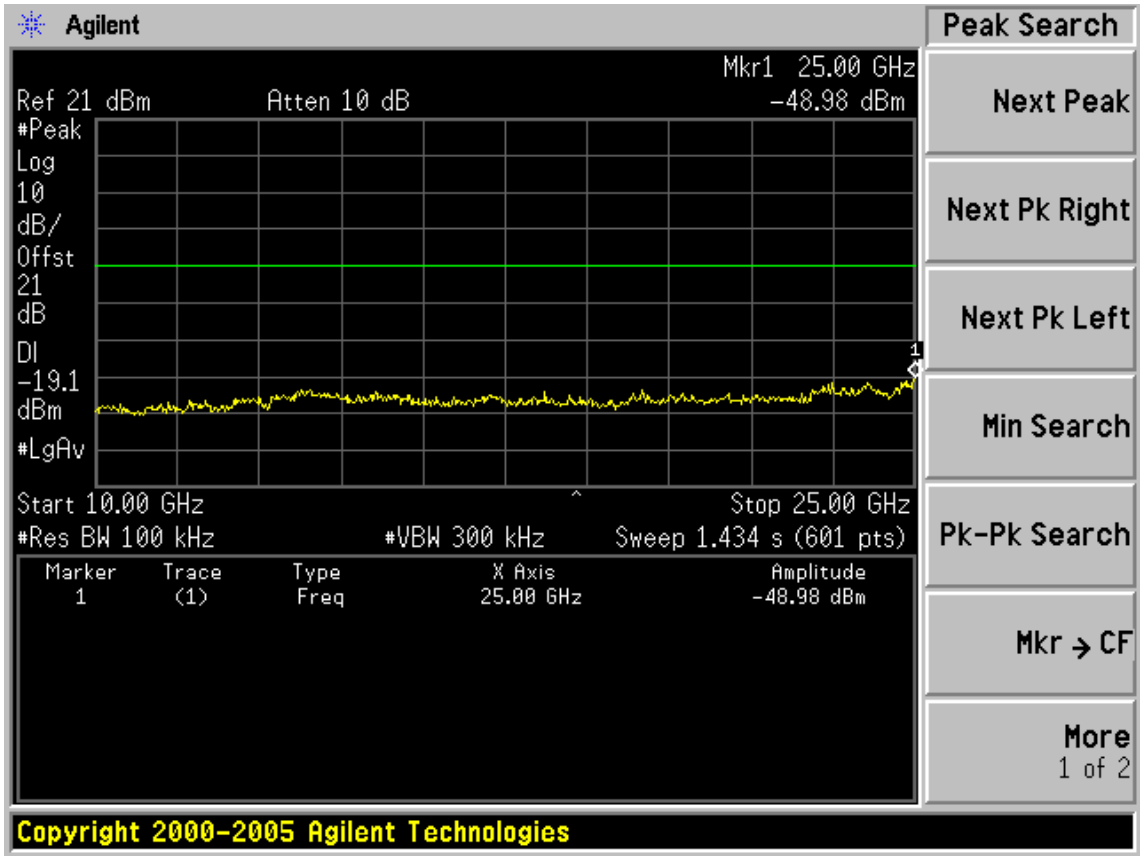

Agilent
Peak Search
Mkr1 343.6 MHz
Ref 21 dBm
Atten 10 dB
-59.25 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-15.4
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 343.6 MHz -59.25 dBm
Copyright 2000-2005 Agilent Technologies

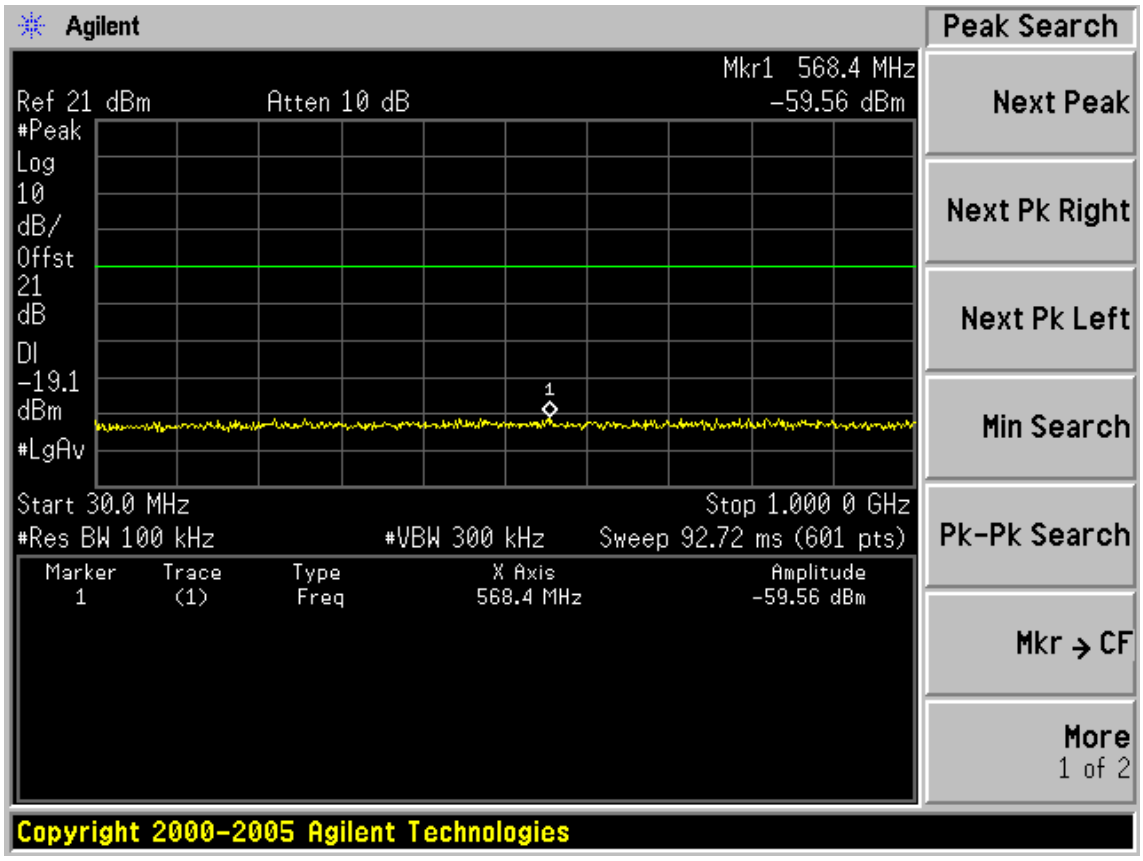


Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz

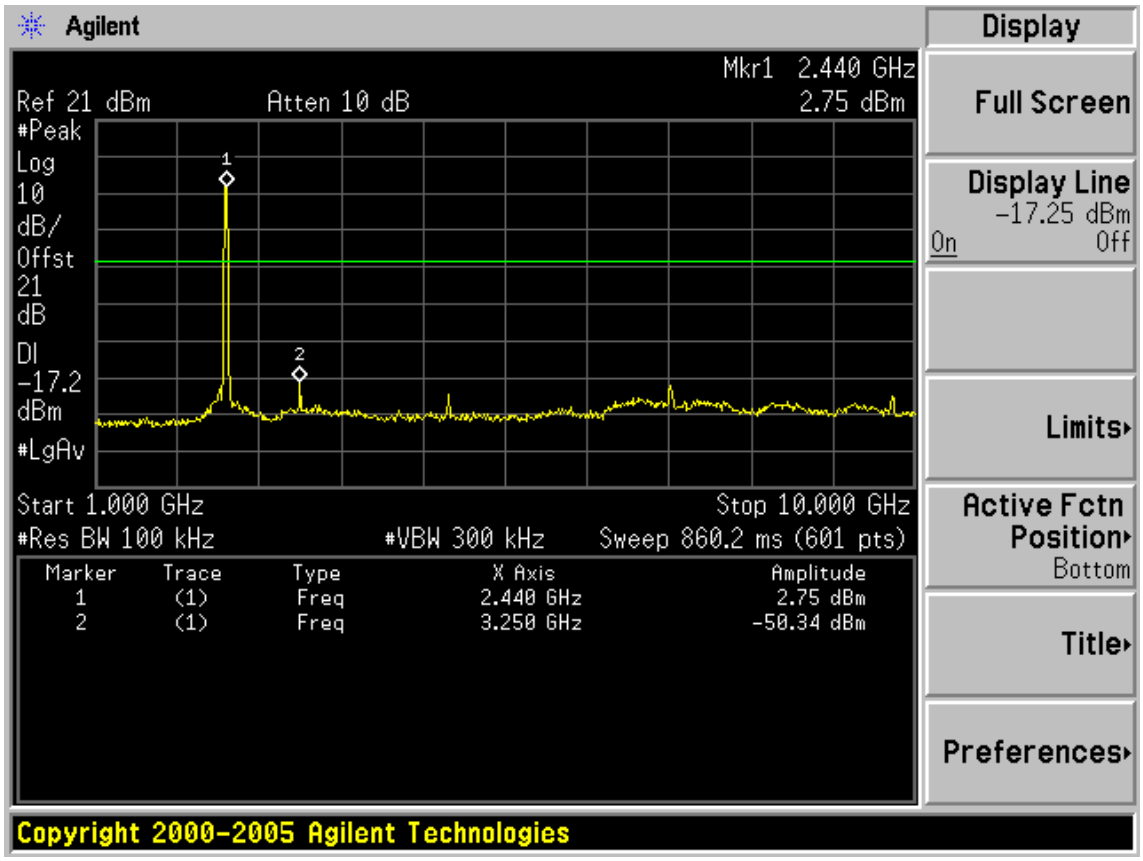


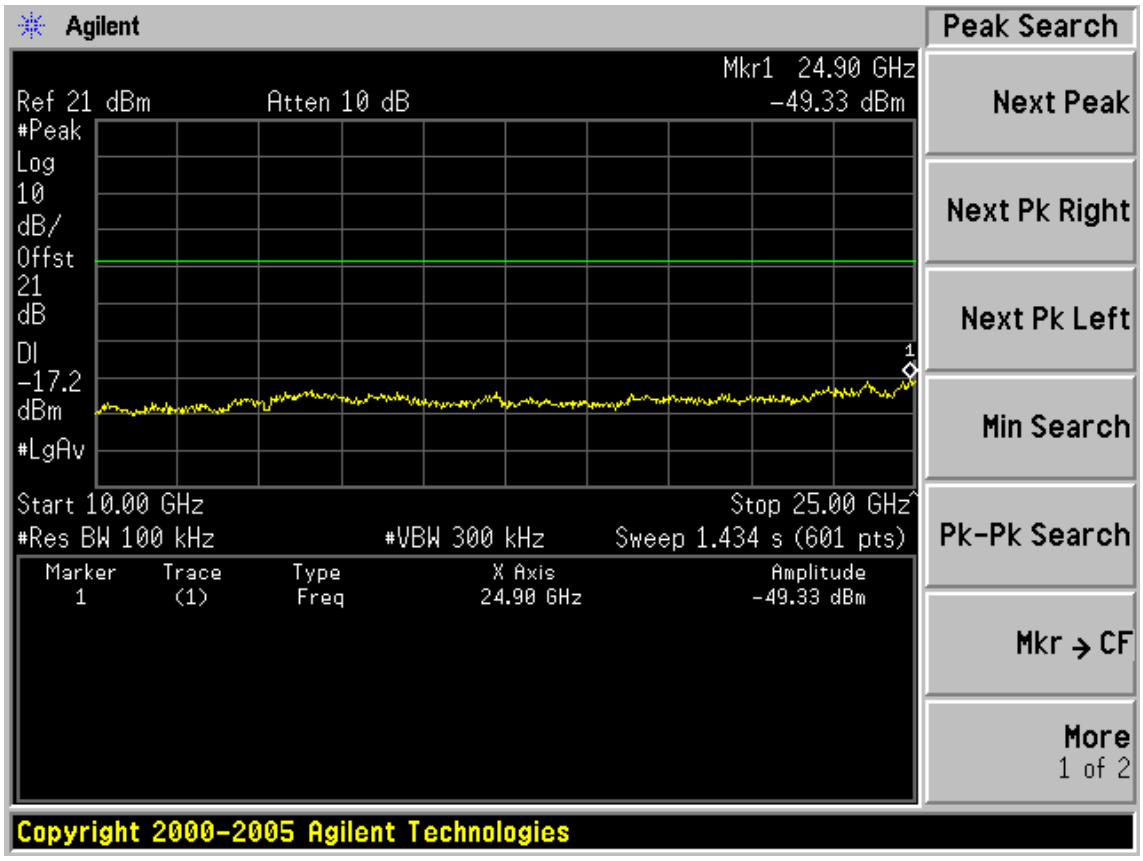

Agilent
Display
Mkr1 2.455 GHz
Ref 21 dBm
Atten 10 dB
0.93 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.1
dBm
#LgAv
Full Screen
Display Line
-19.07 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 860.2 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.455 GHz 0.93 dBm
Copyright 2000-2005 Agilent Technologies

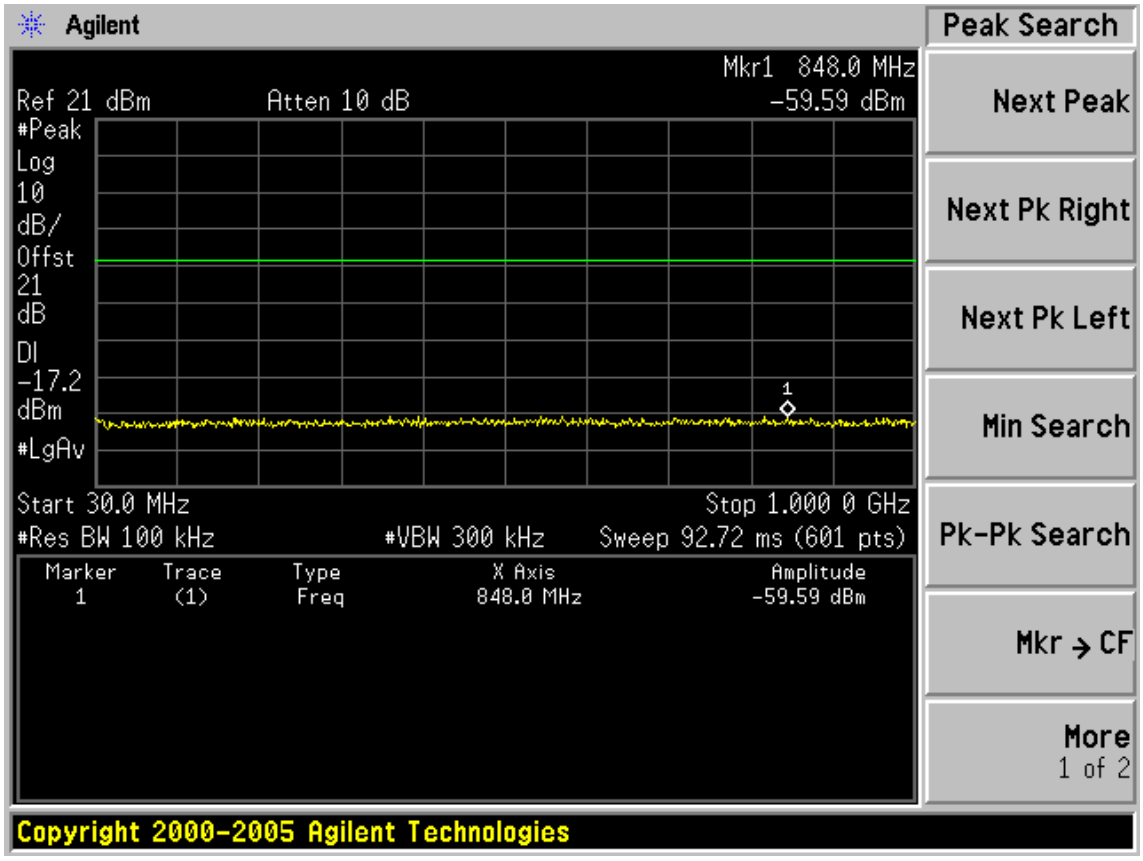

Agilent
Peak Search
Mkr1 25.00 GHz
Ref 21 dBm
Atten 10 dB
-48.98 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.1
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 25.00 GHz -48.98 dBm
Copyright 2000-2005 Agilent Technologies



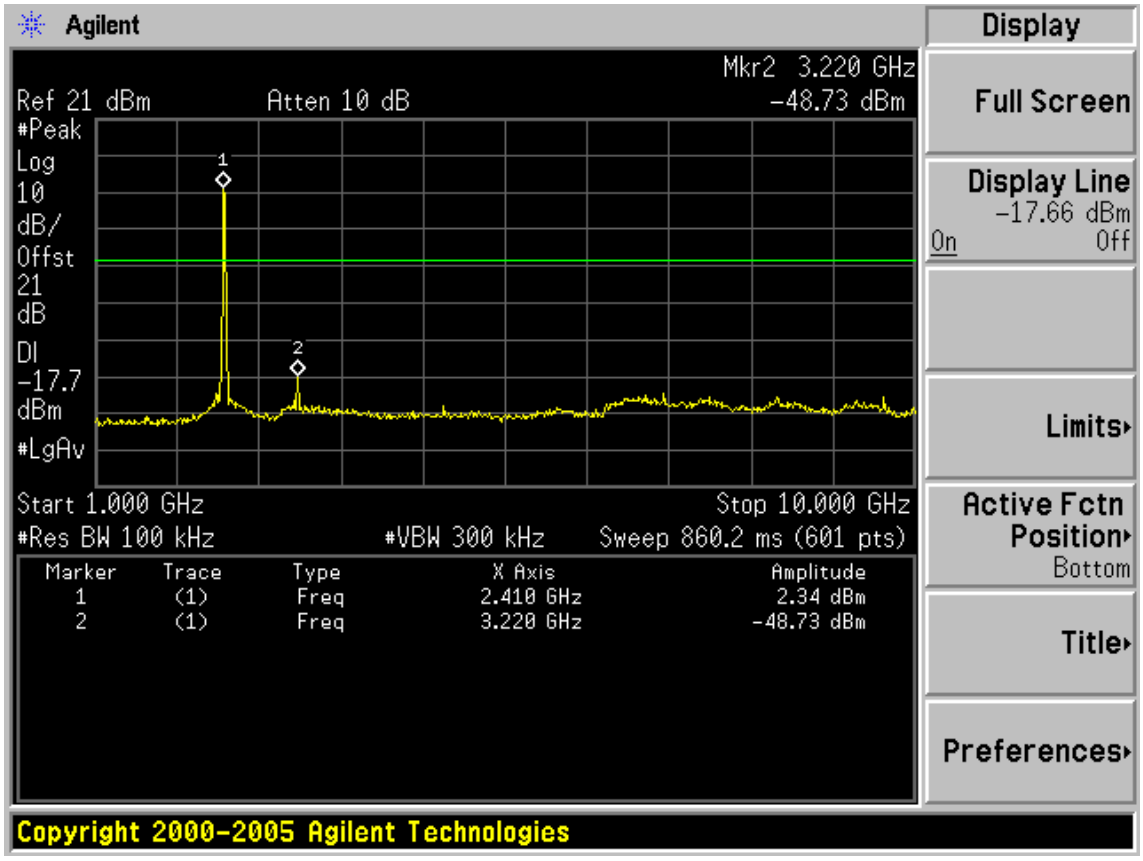
Test CH6: 2437MHz

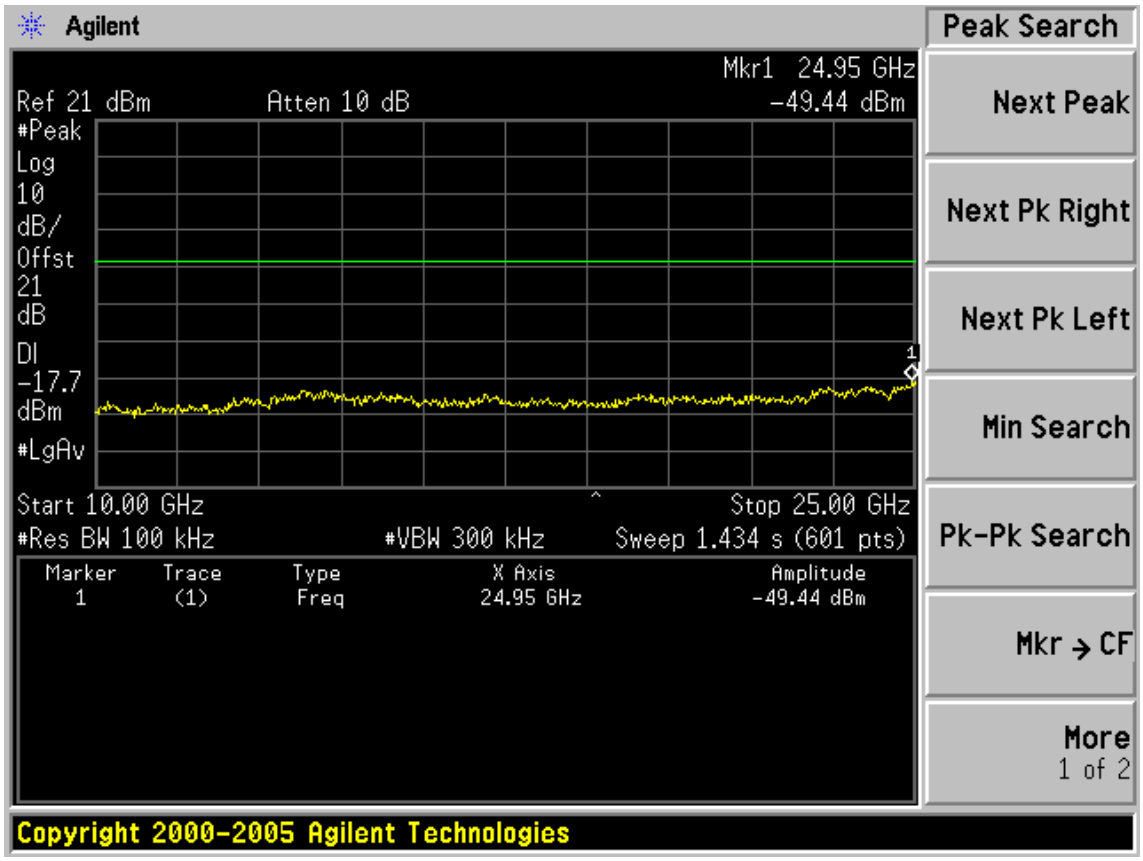


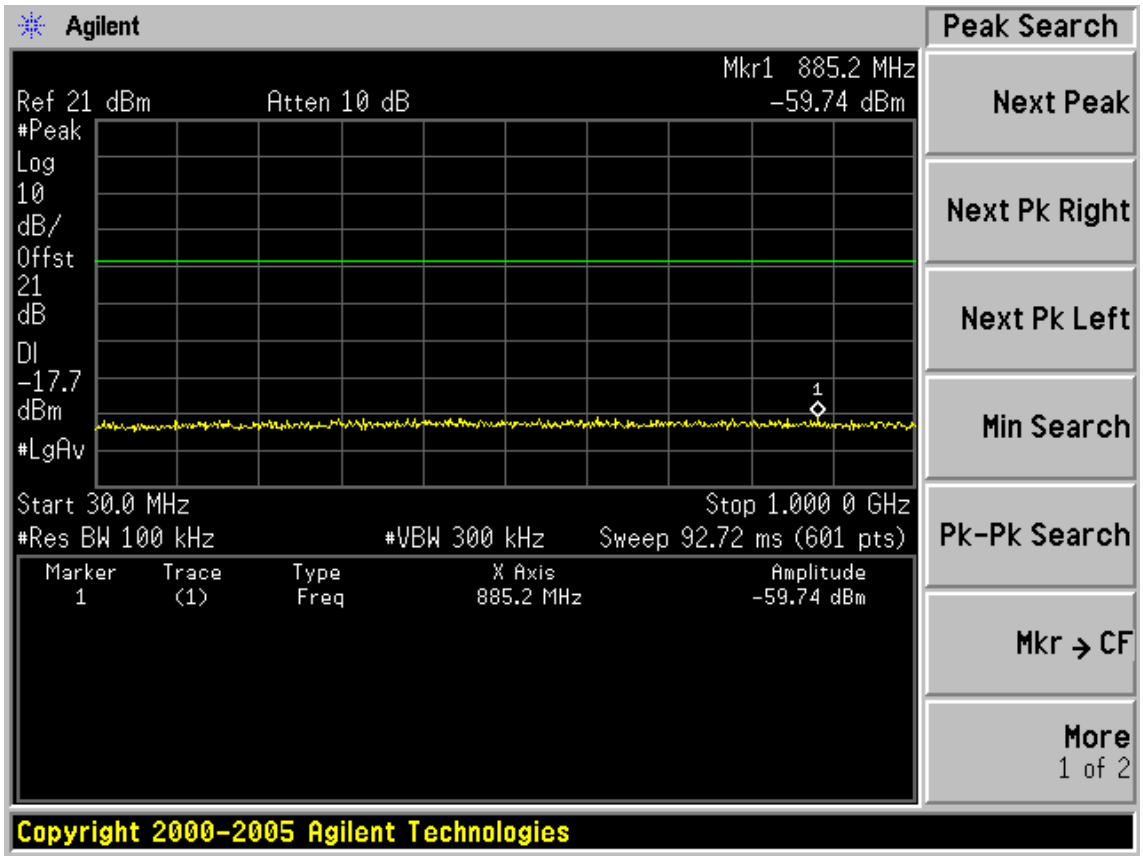

Agilent
Peak Search
Mkr1 24.90 GHz
Ref 21 dBm
Atten 10 dB
-49.33 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.2
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.90 GHz -49.33 dBm
Copyright 2000-2005 Agilent Technologies

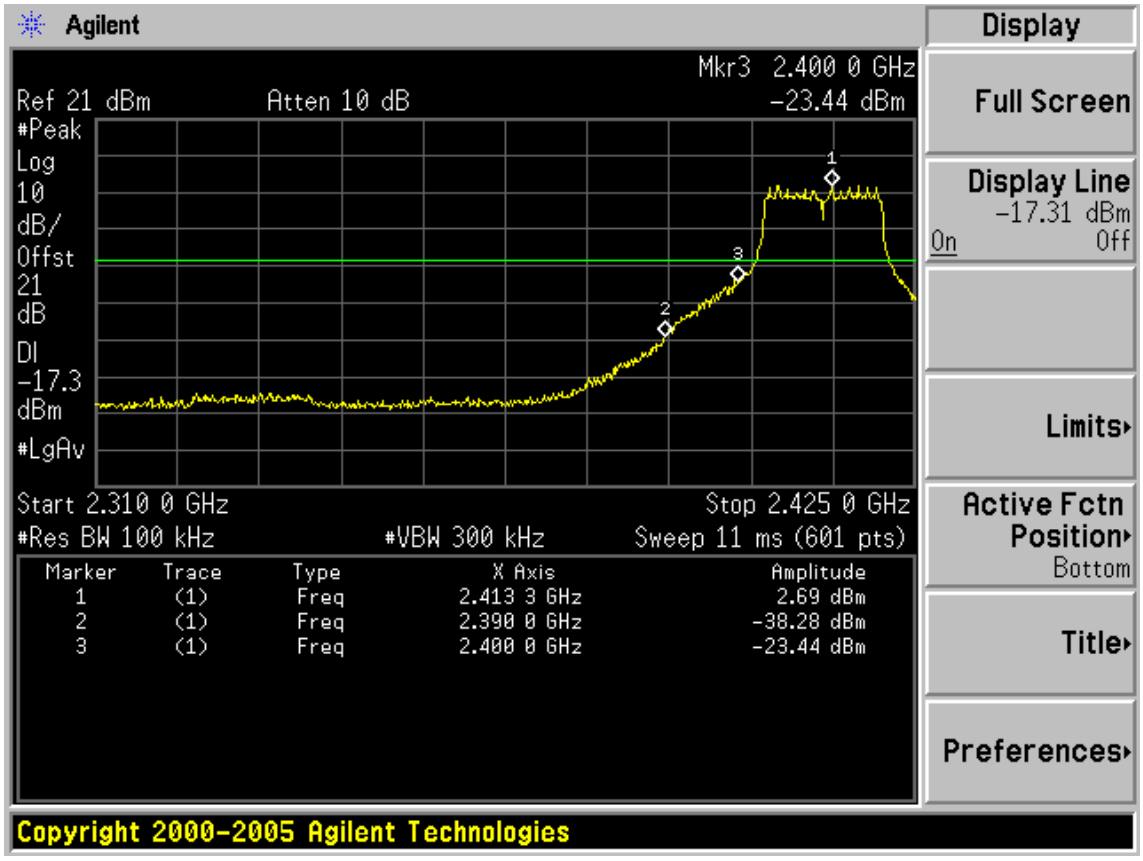

Agilent
Peak Search
Mkr1 848.0 MHz
Ref 21 dBm
Atten 10 dB
-59.59 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.2
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 848.0 MHz -59.59 dBm
Copyright 2000-2005 Agilent Technologies

Test CH11: 2462MHz

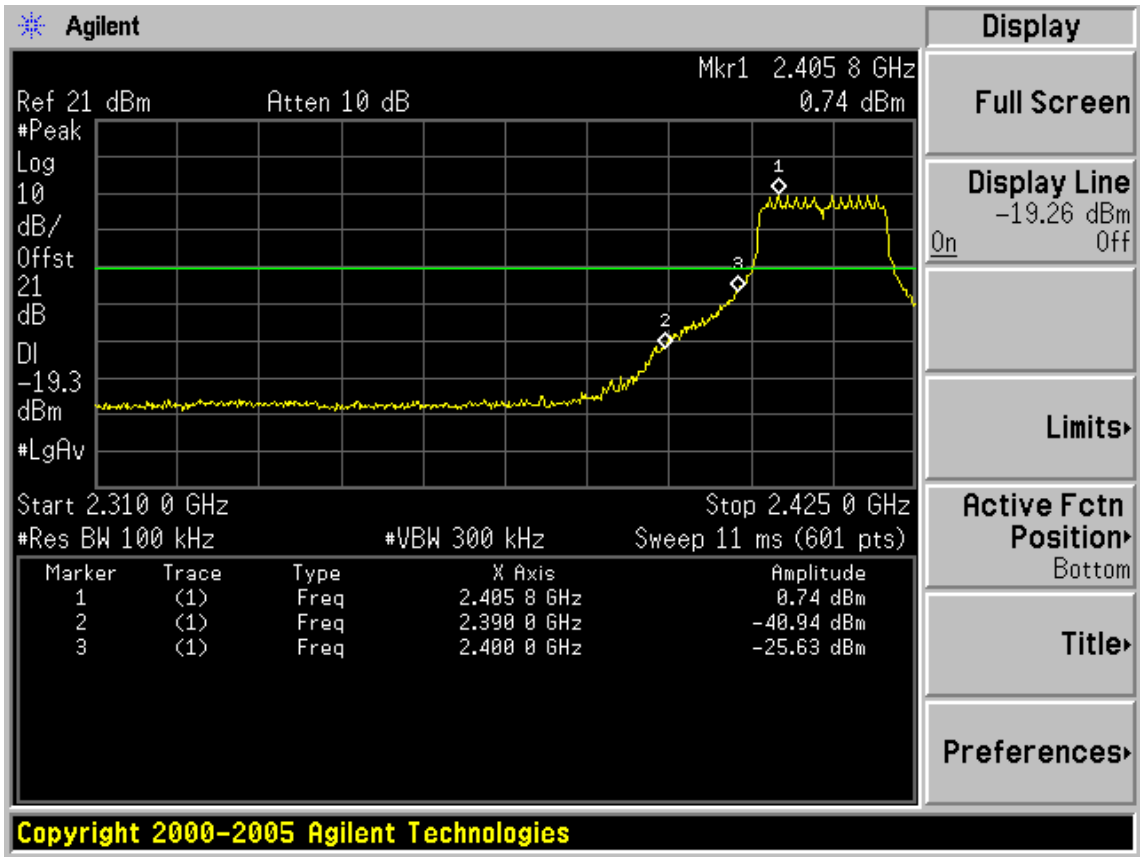


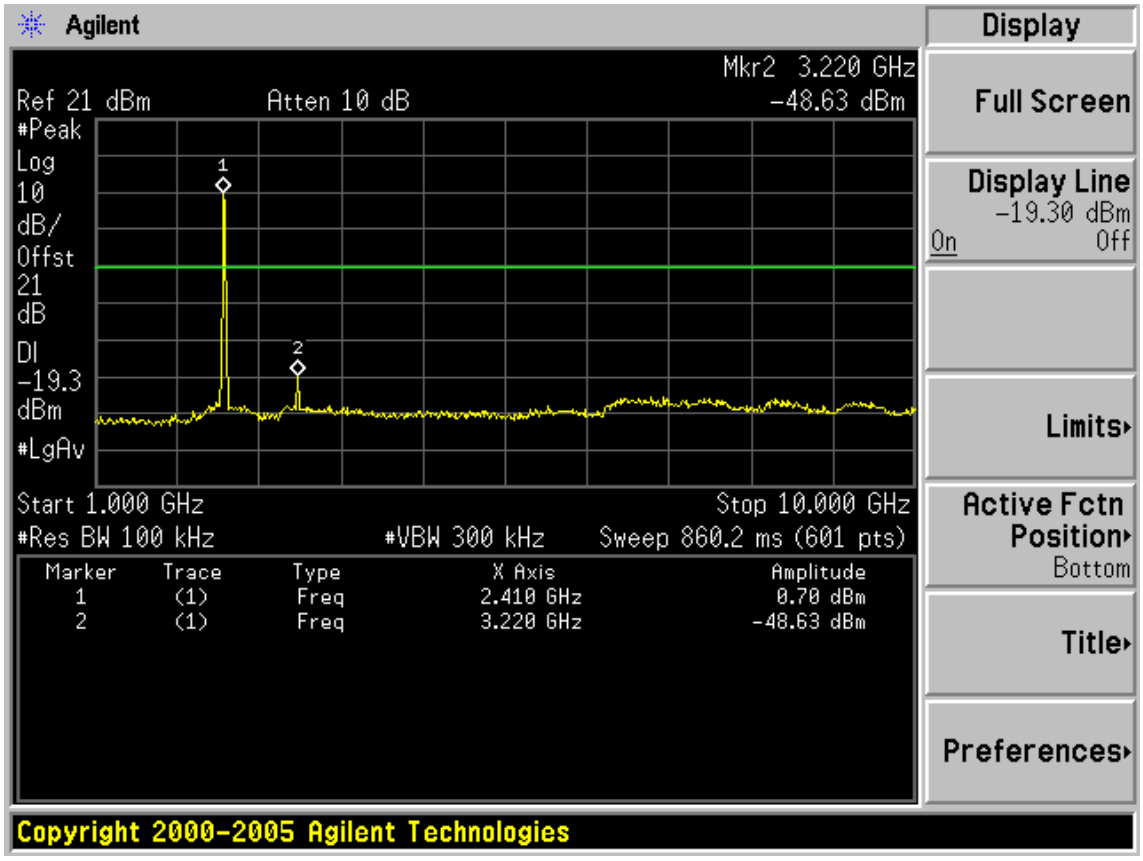


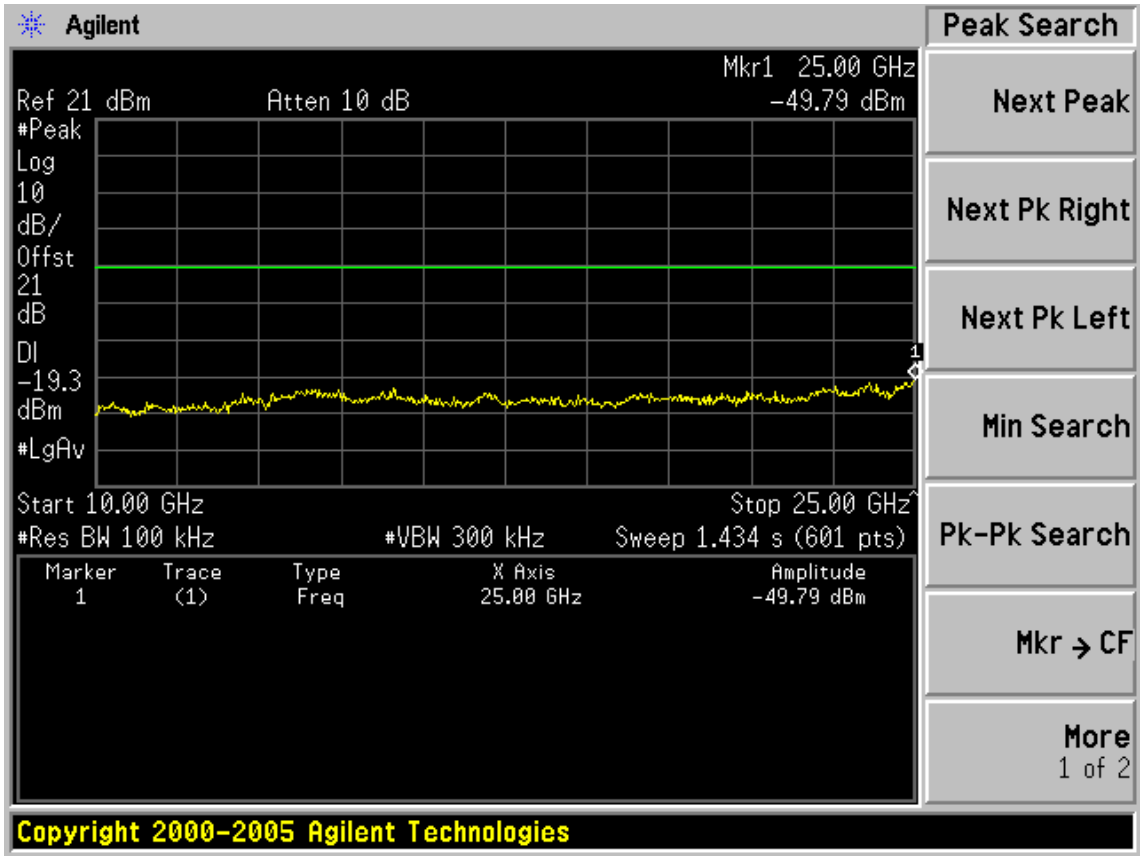

Agilent
Peak Search
Mkr1 885.2 MHz
Ref 21 dBm
Atten 10 dB
-59.74 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.7
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 885.2 MHz -59.74 dBm
Copyright 2000-2005 Agilent Technologies

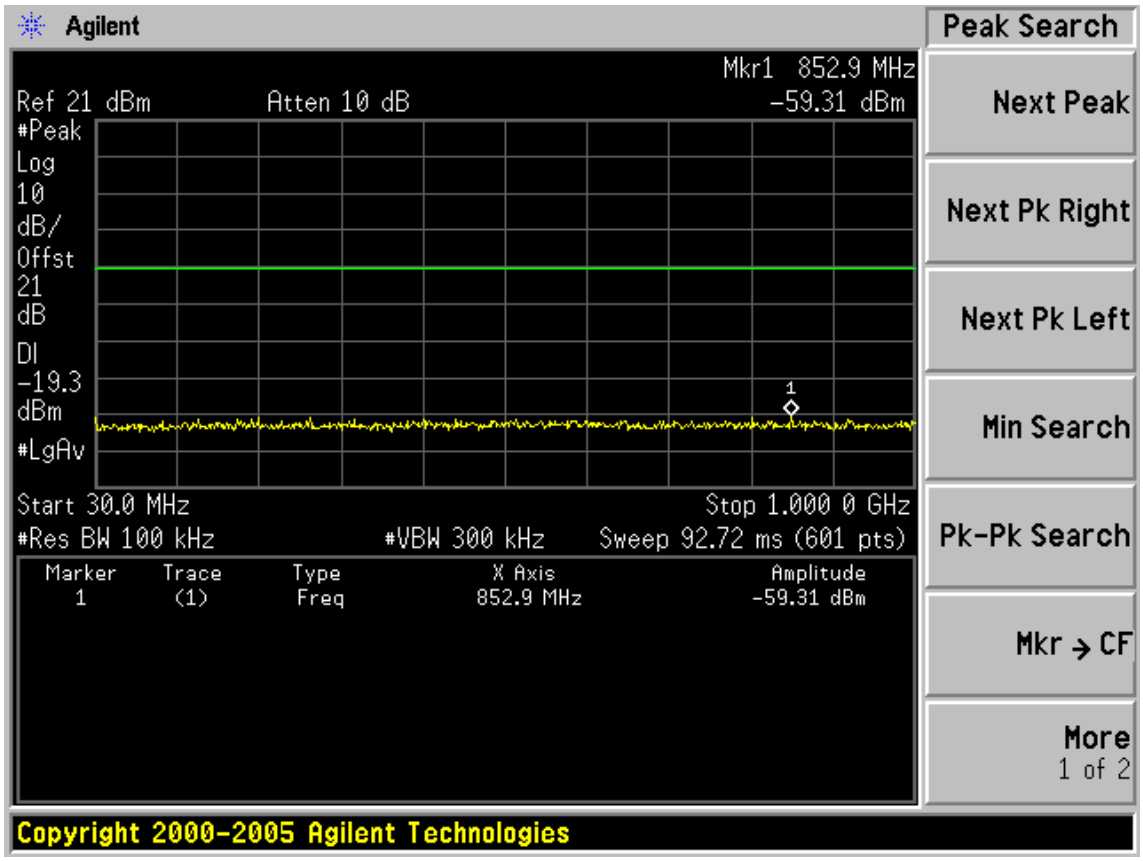

Agilent
Display
Mkr3 2.400 0 GHz
Ref 21 dBm
Atten 10 dB
-23.44 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-17.3
dBm
#LgAv
Full Screen
Display Line
-17.31 dBm
On Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Start 2.310 0 GHz
Stop 2.425 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.413 3 GHz 2.69 dBm
2 (1) Freq 2.390 0 GHz -38.28 dBm
3 (1) Freq 2.400 0 GHz -23.44 dBm
Copyright 2000-2005 Agilent Technologies

Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz

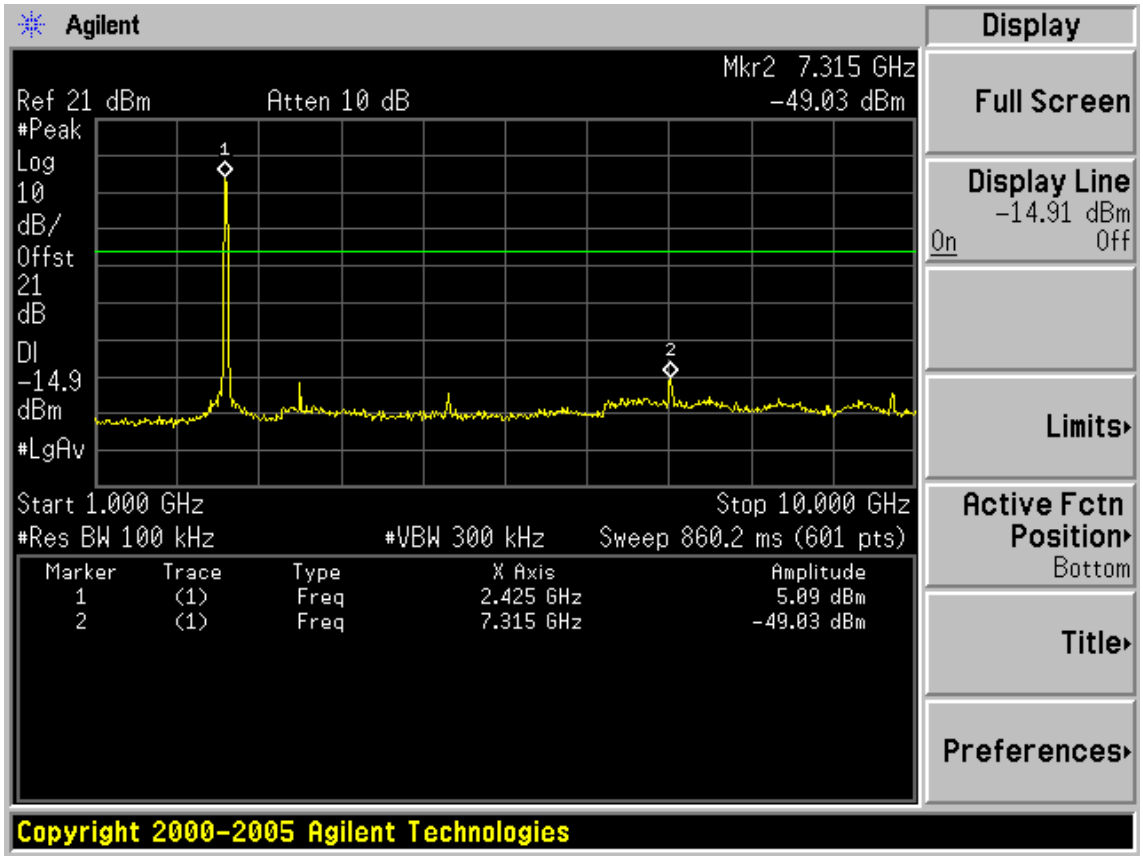


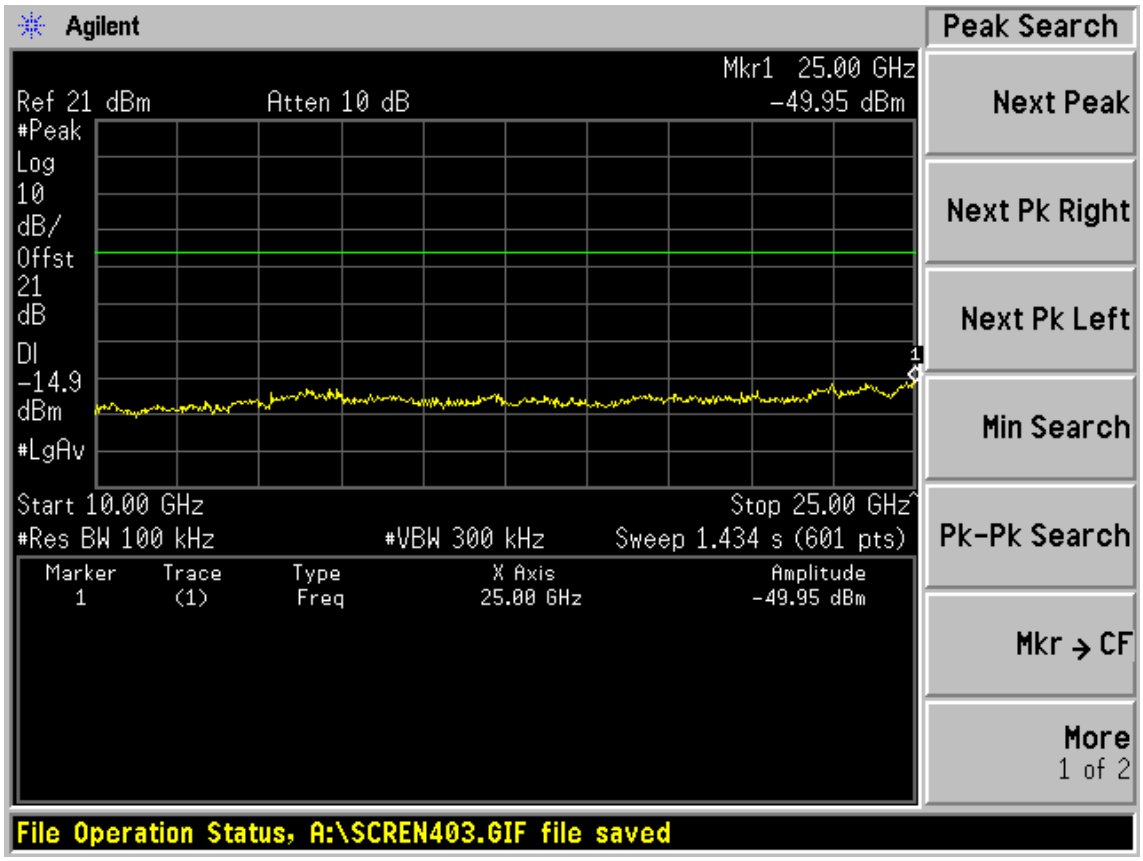


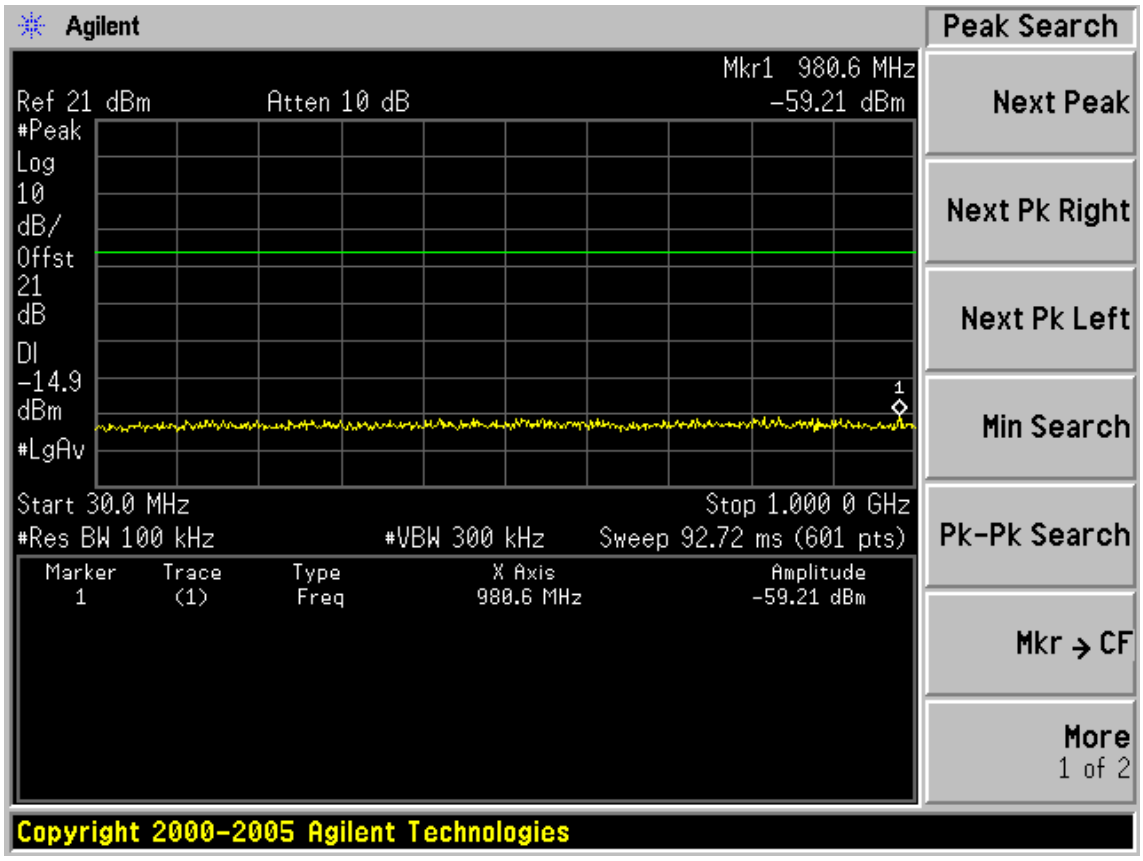

Agilent
Peak Search
Mkr1 25.00 GHz
Ref 21 dBm
Atten 10 dB
-49.79 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.3
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 25.00 GHz -49.79 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
Peak Search
Mkr1 852.9 MHz
Ref 21 dBm
Atten 10 dB
-59.31 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.3
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 852.9 MHz -59.31 dBm
Copyright 2000-2005 Agilent Technologies

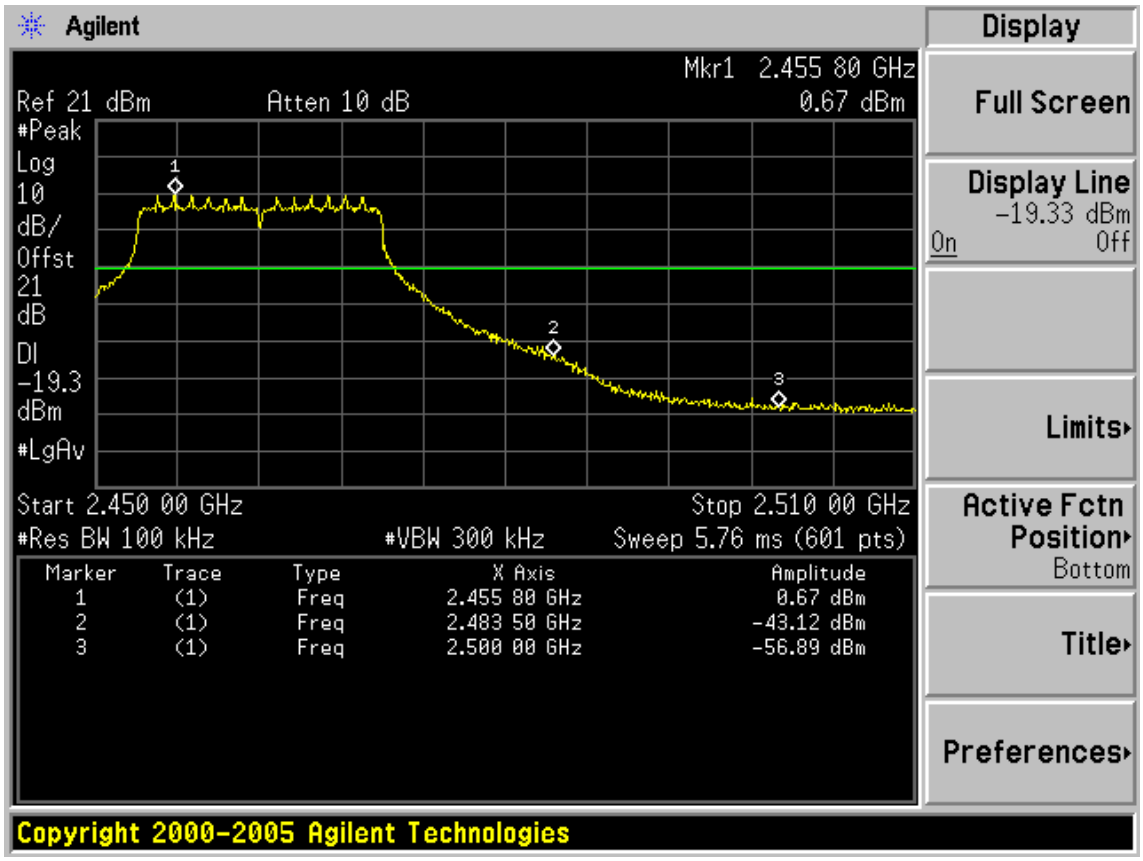
Test CH6: 2437MHz

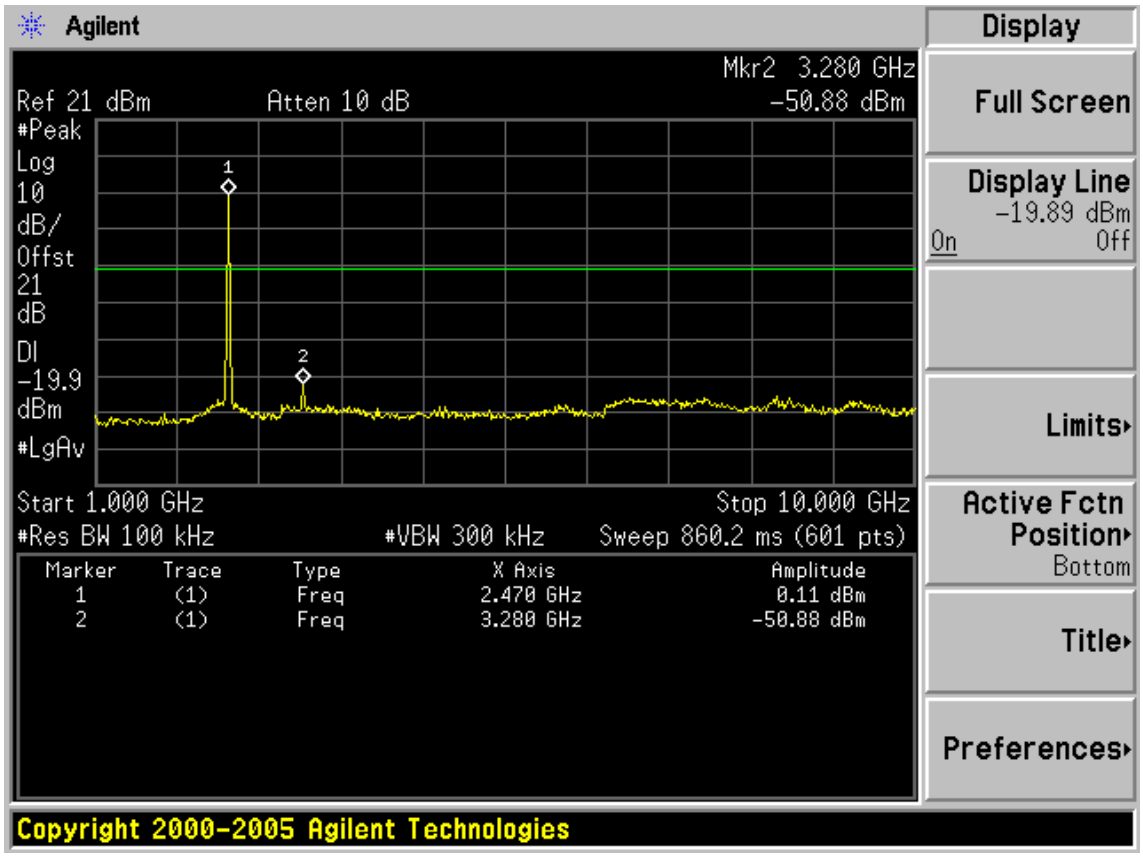


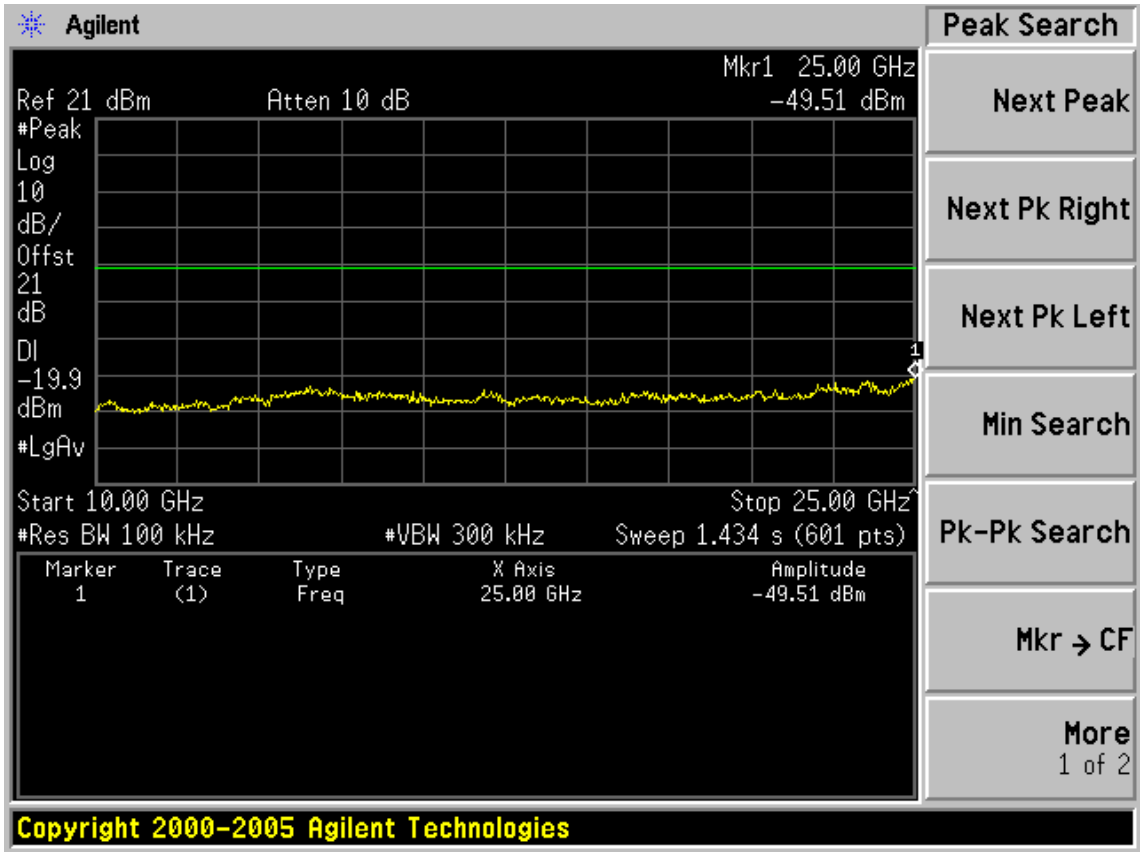


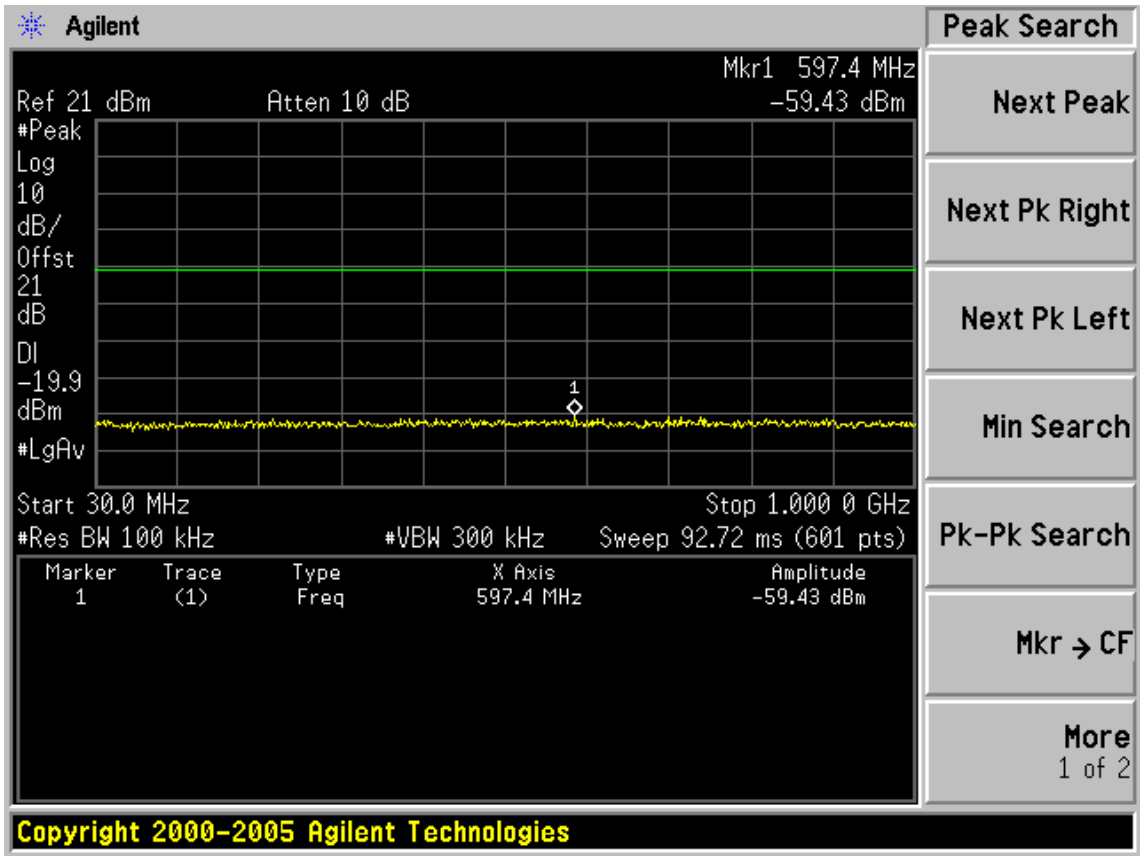


Test CH11: 2462MHz

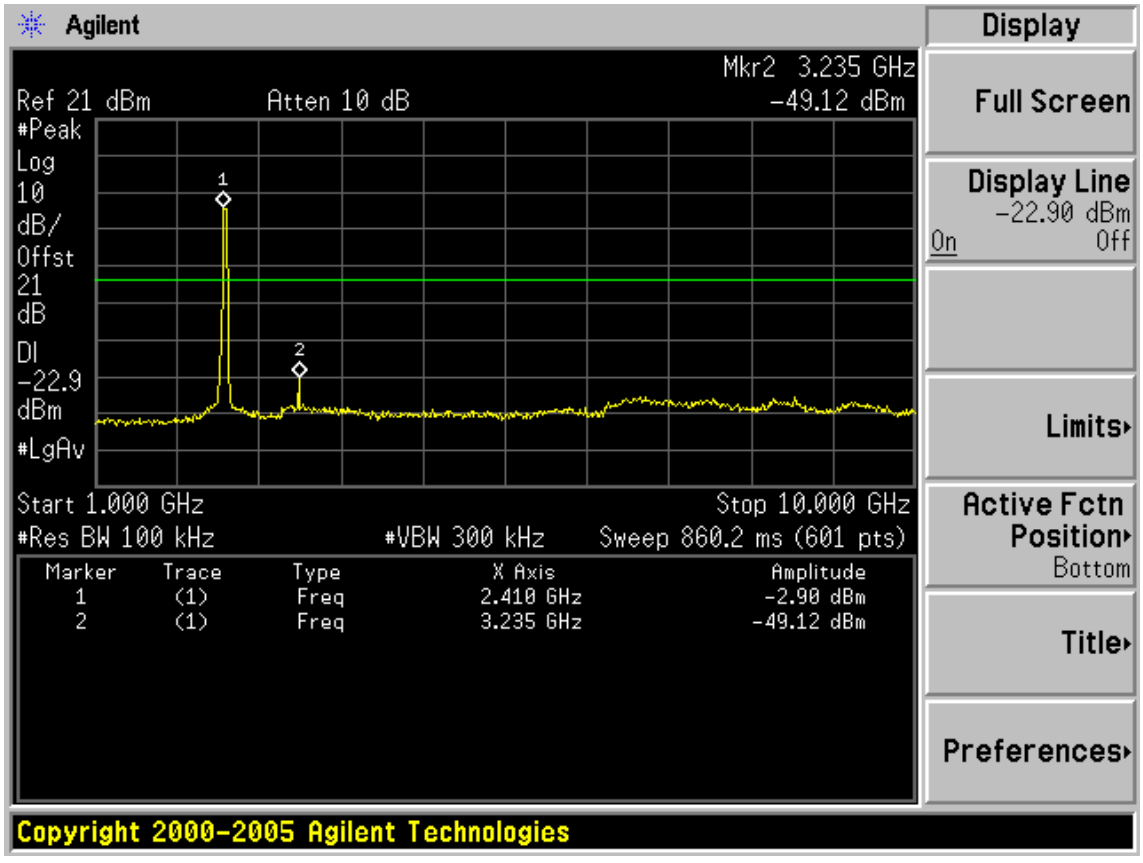


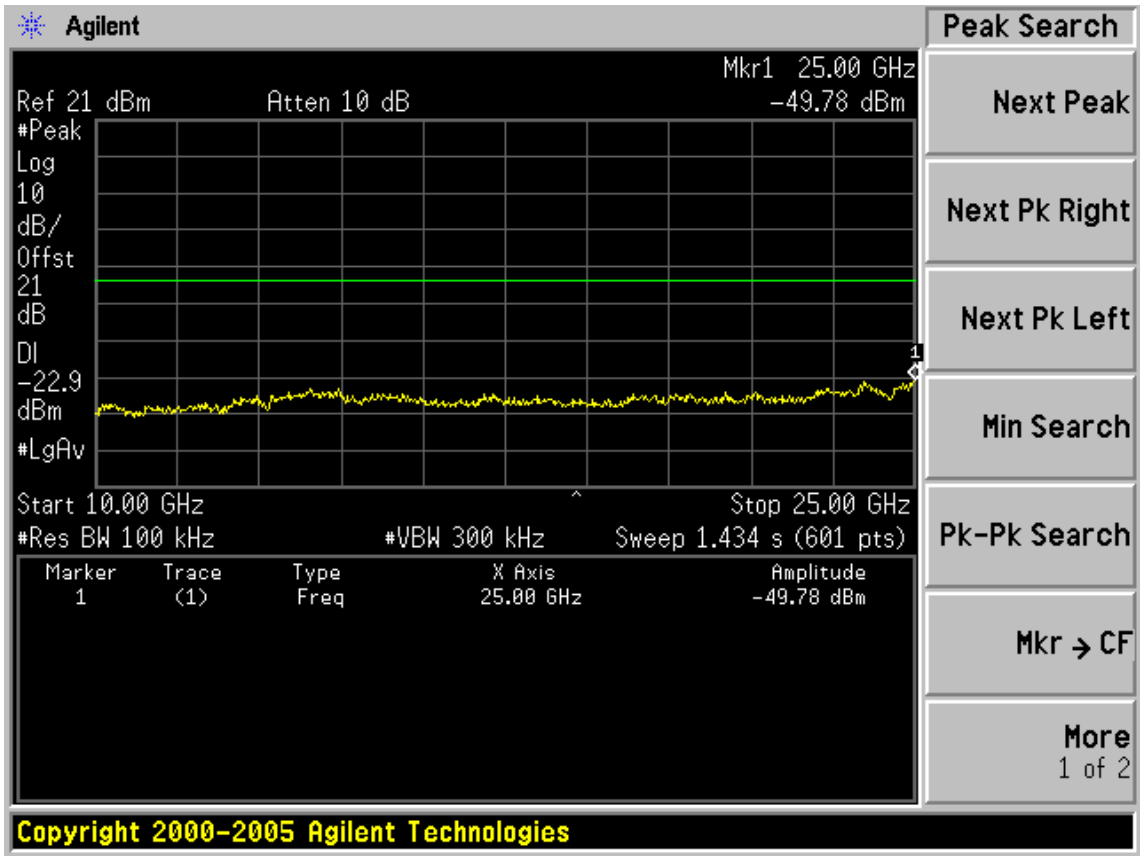

Agilent
Mkr2 3.280 GHz
Ref 21 dBm
Atten 10 dB
-50.88 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.9
dBm
#LgAv
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 860.2 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.470 GHz 0.11 dBm
2 (1) Freq 3.280 GHz -50.88 dBm
Display
Full Screen
Display Line
-19.89 dBm
On Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Copyright 2000-2005 Agilent Technologies

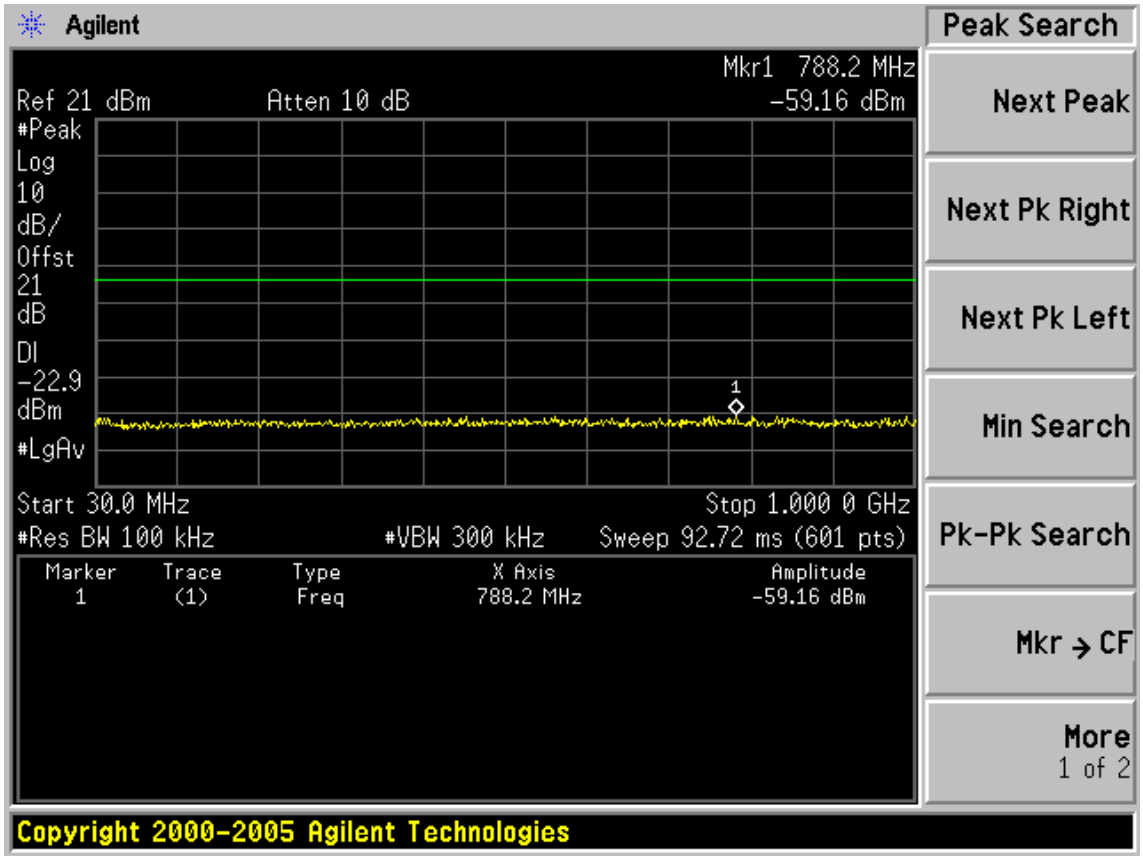

Agilent
Mkr1 25.00 GHz
Ref 21 dBm
Atten 10 dB
-49.51 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.9
dBm
#LgAv
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 25.00 GHz -49.51 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

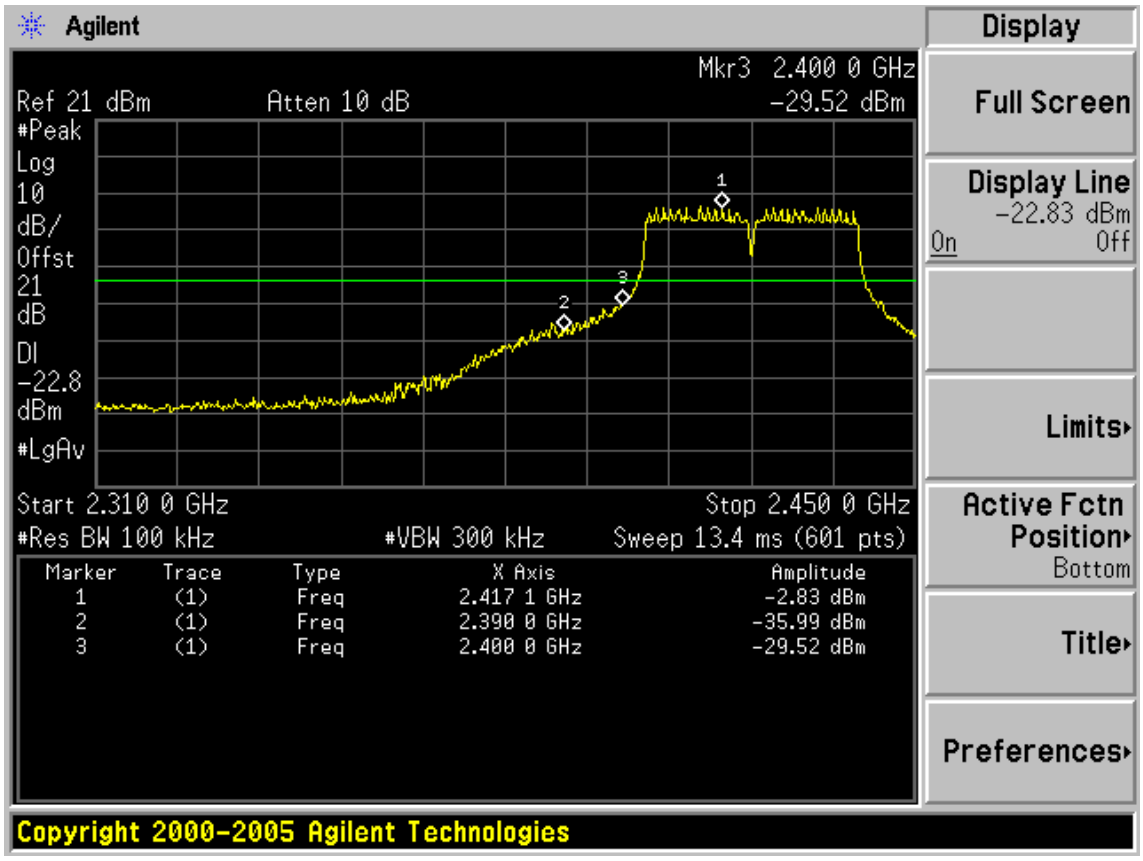


Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz

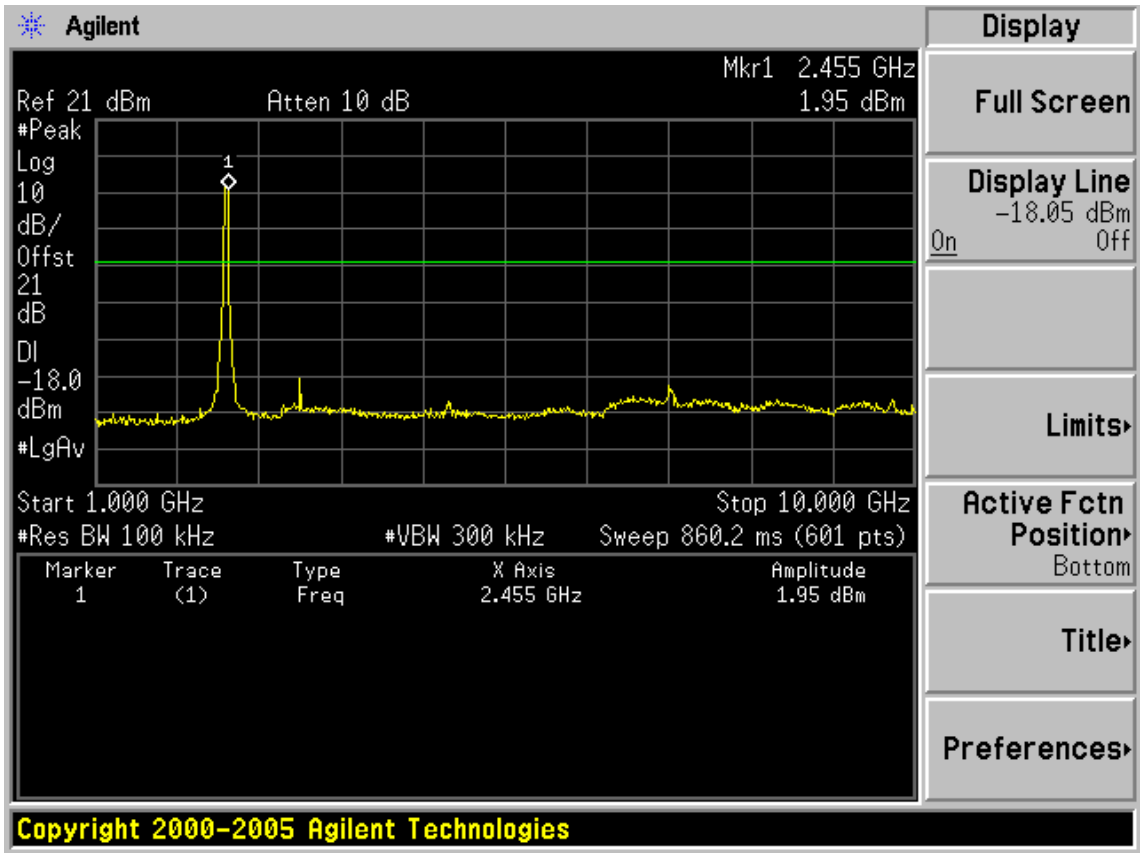


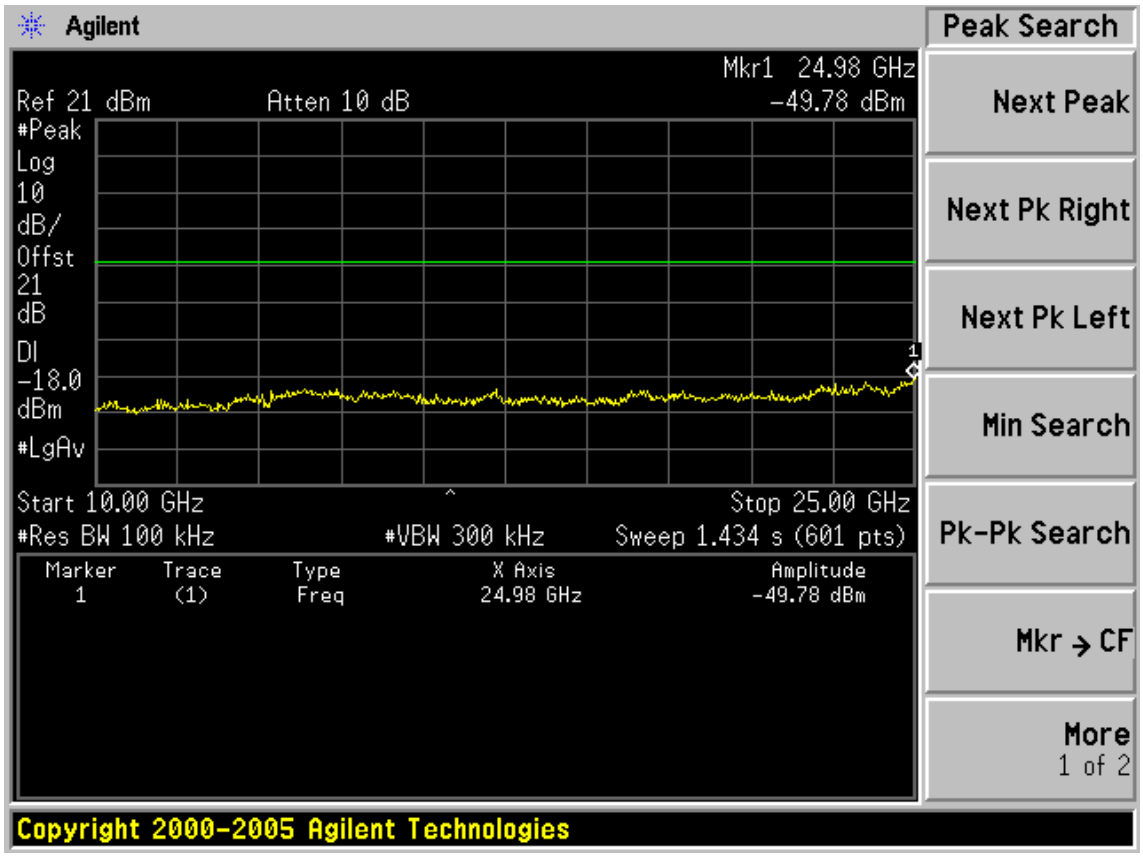

Agilent
Peak Search
Mkr1 25.00 GHz
Ref 21 dBm
Atten 10 dB
-49.78 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-22.9
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 25.00 GHz -49.78 dBm
Copyright 2000-2005 Agilent Technologies

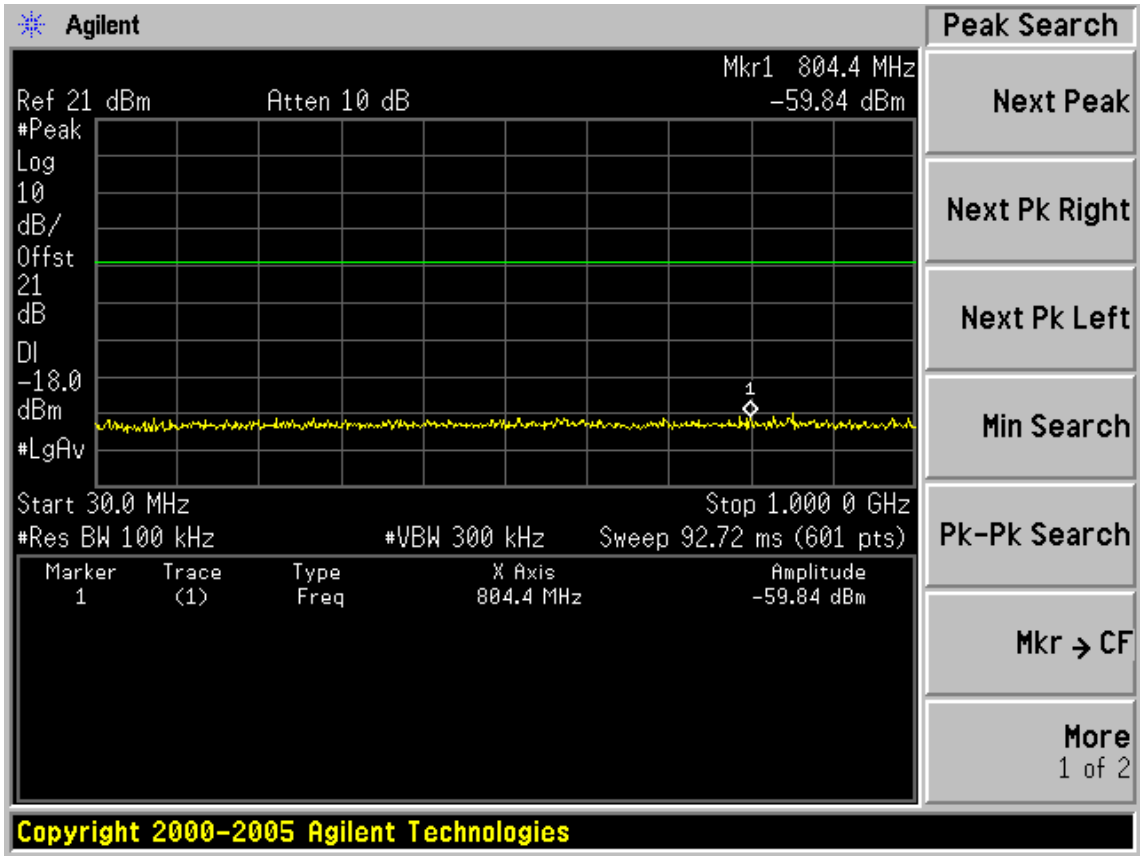

Agilent
Peak Search
Mkr1 788.2 MHz
Ref 21 dBm
Atten 10 dB
-59.16 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-22.9
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 788.2 MHz -59.16 dBm
Copyright 2000-2005 Agilent Technologies



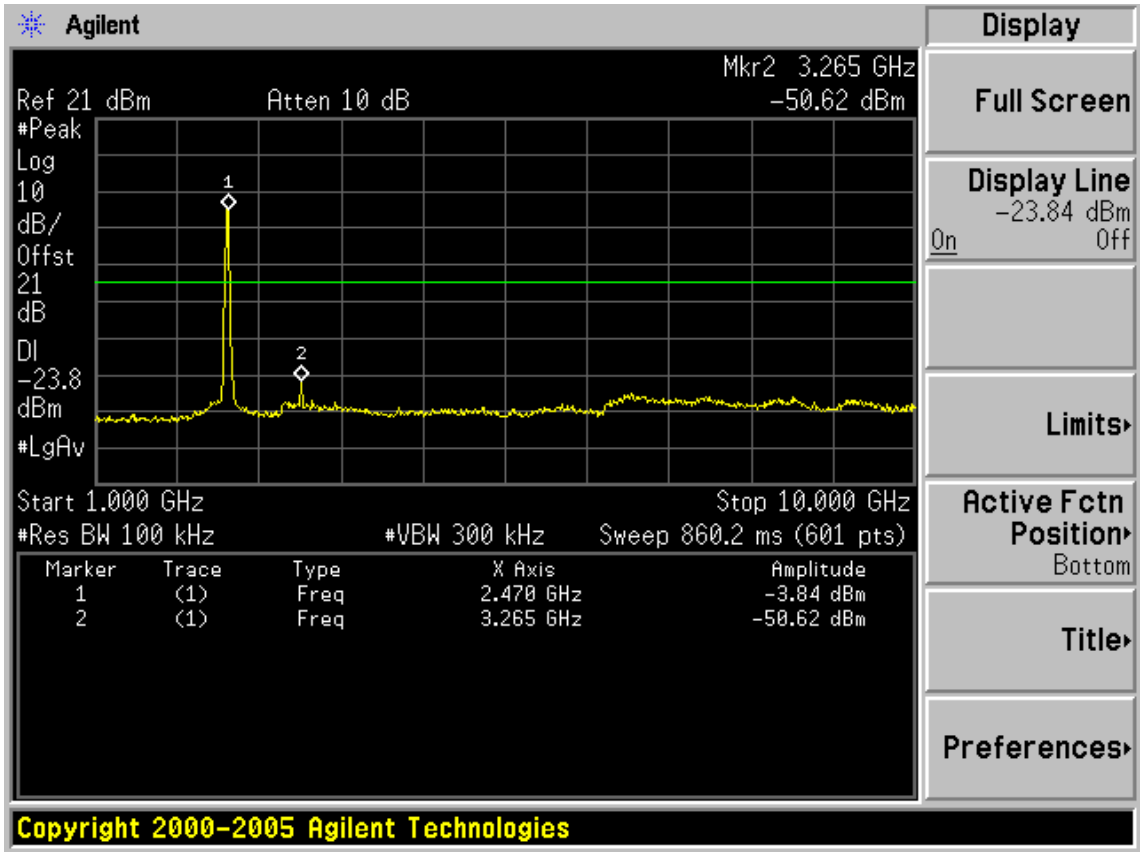
Test CH4: 2437MHz

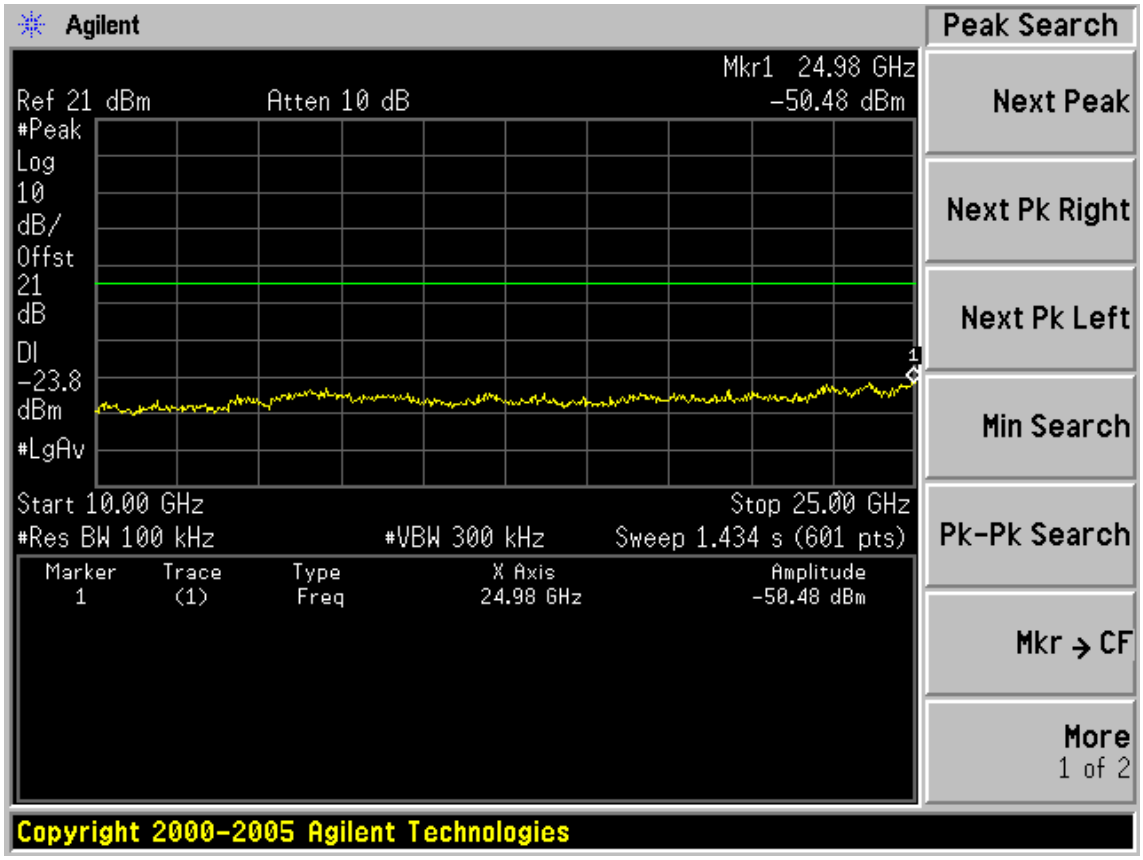


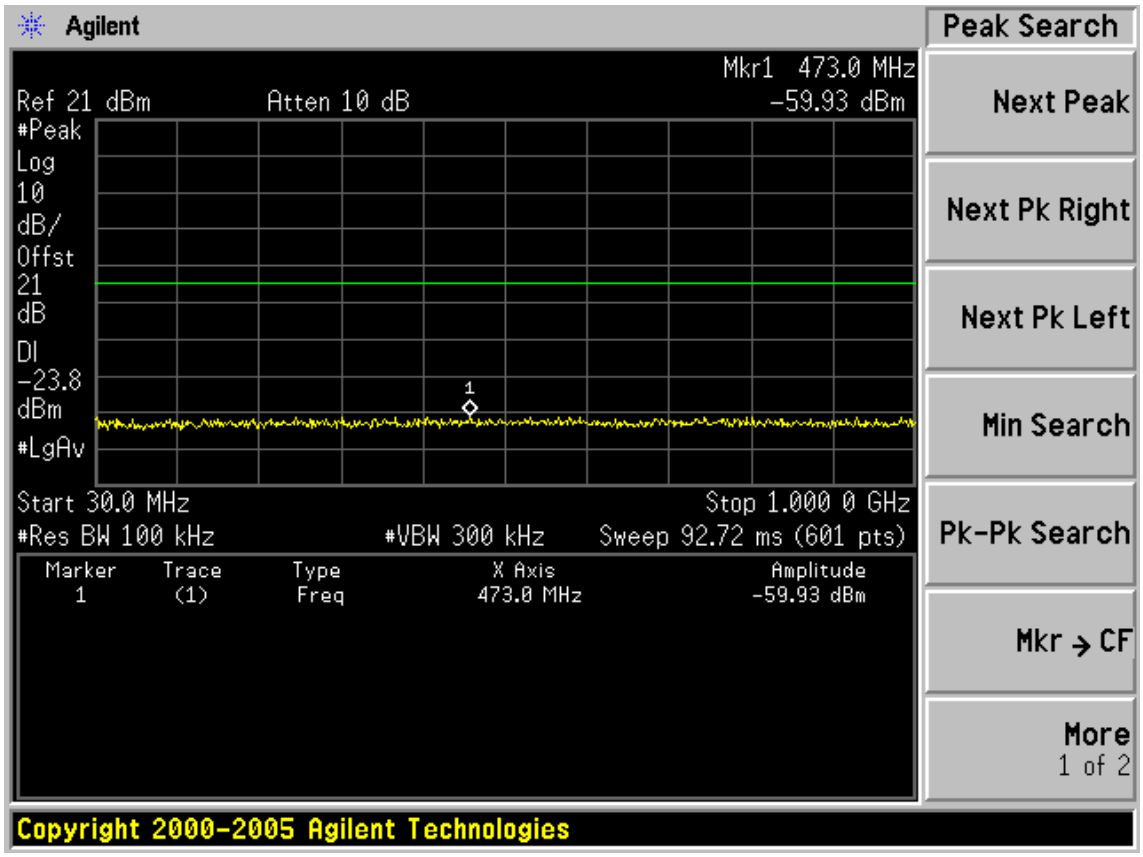

Agilent
Peak Search
Mkr1 24.98 GHz
Ref 21 dBm
Atten 10 dB
-49.78 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-18.0
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.98 GHz -49.78 dBm
Copyright 2000-2005 Agilent Technologies

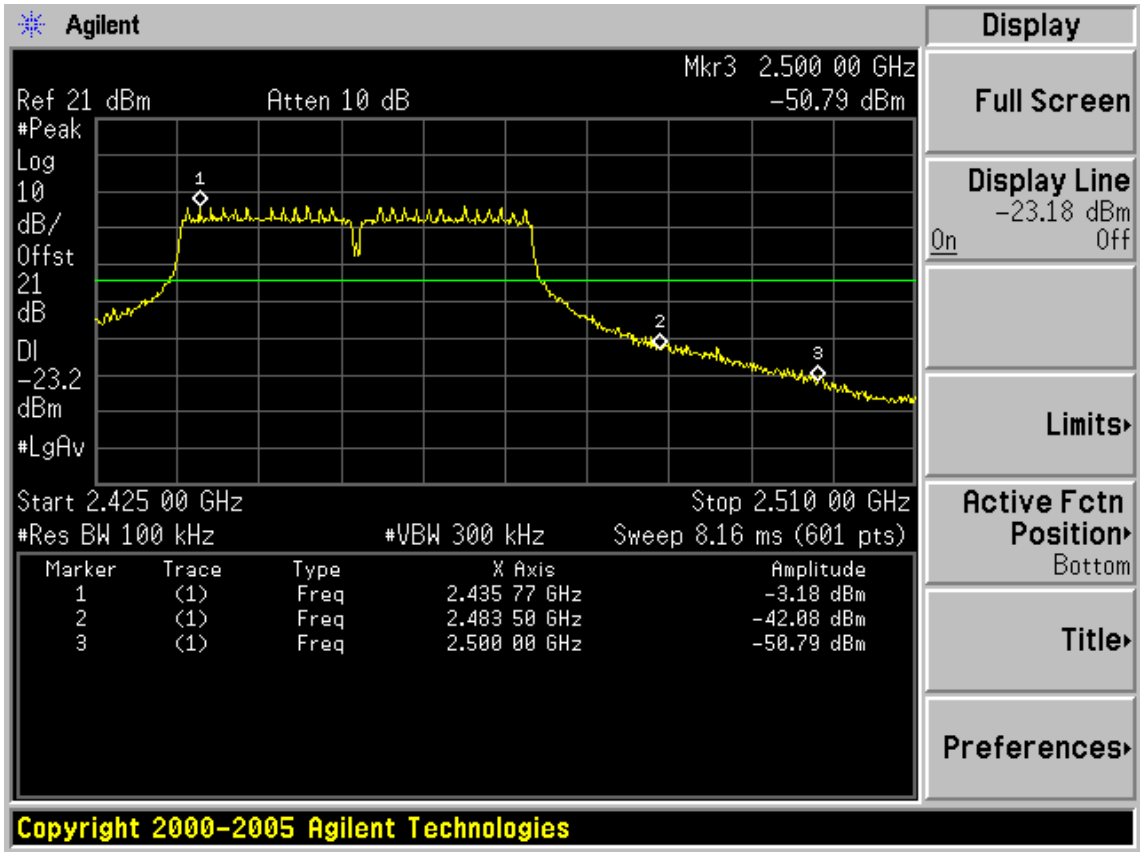

Agilent
Peak Search
Mkr1 804.4 MHz
Ref 21 dBm
Atten 10 dB
-59.84 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-18.0
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 804.4 MHz -59.84 dBm
Copyright 2000-2005 Agilent Technologies

Test CH7: 2452MHz

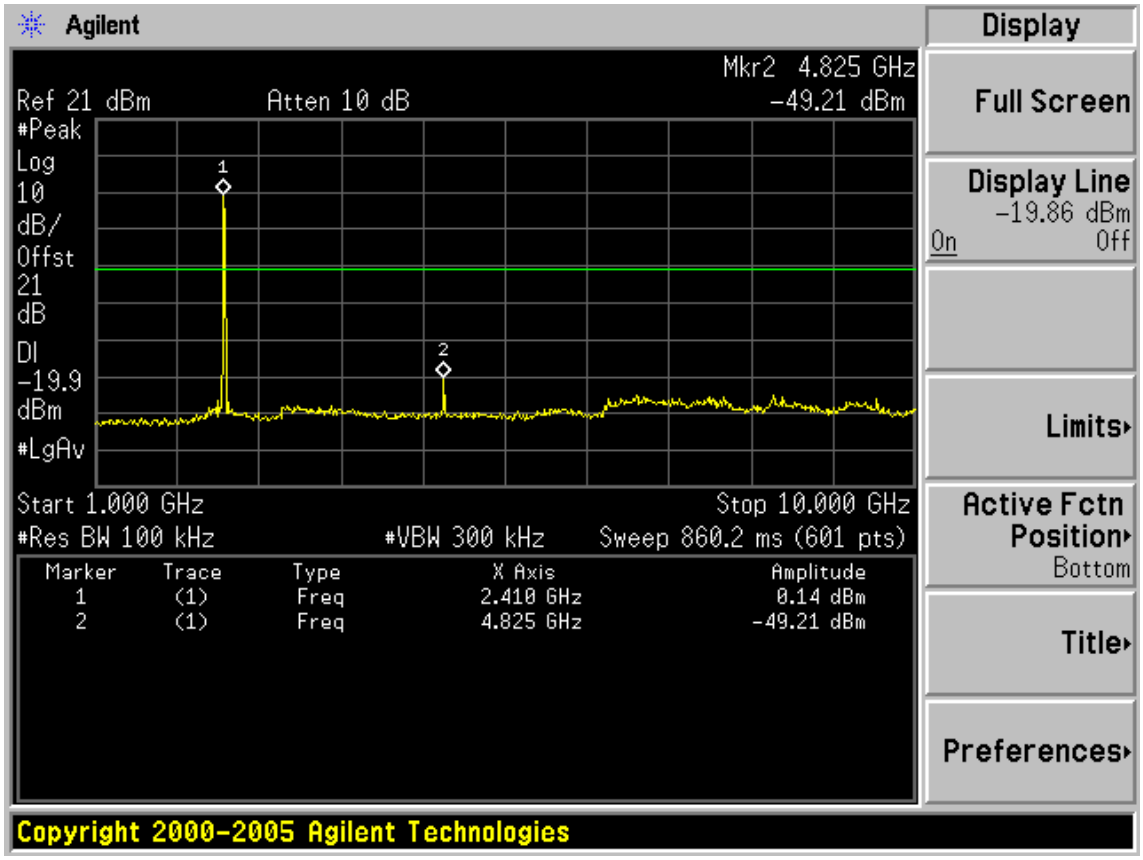


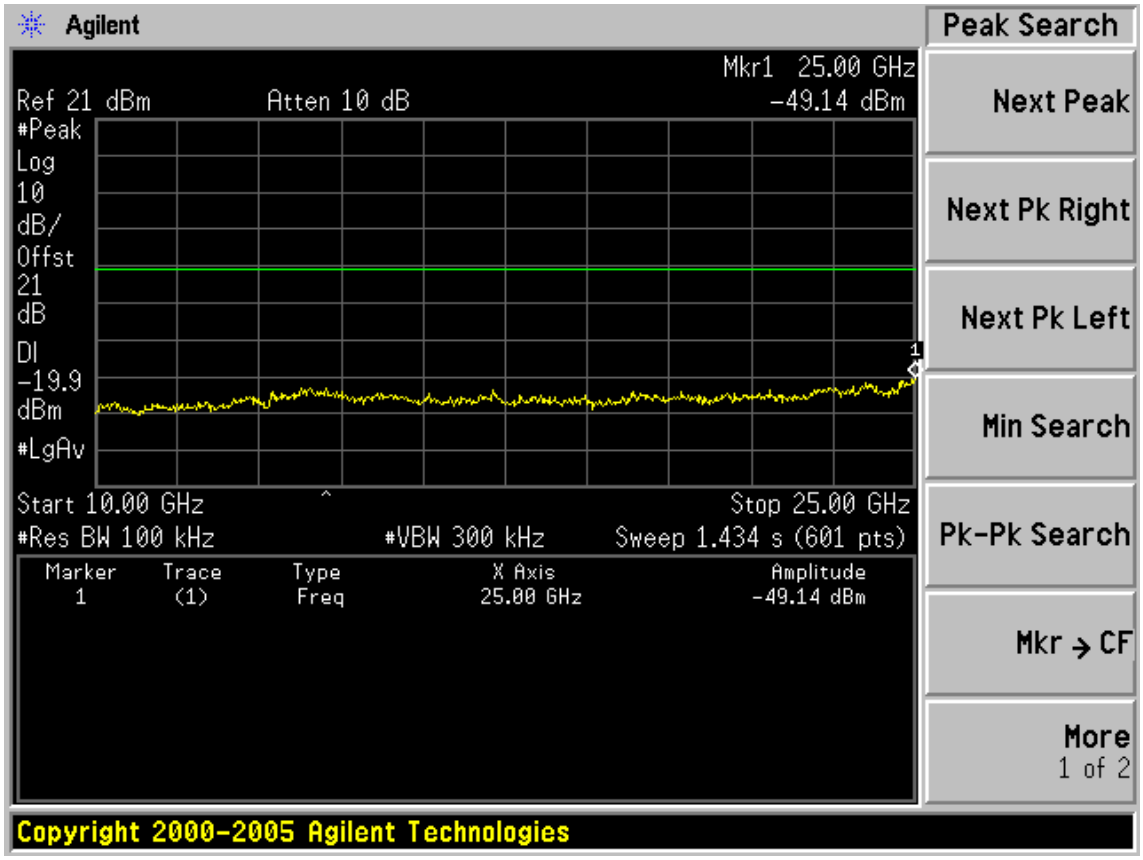


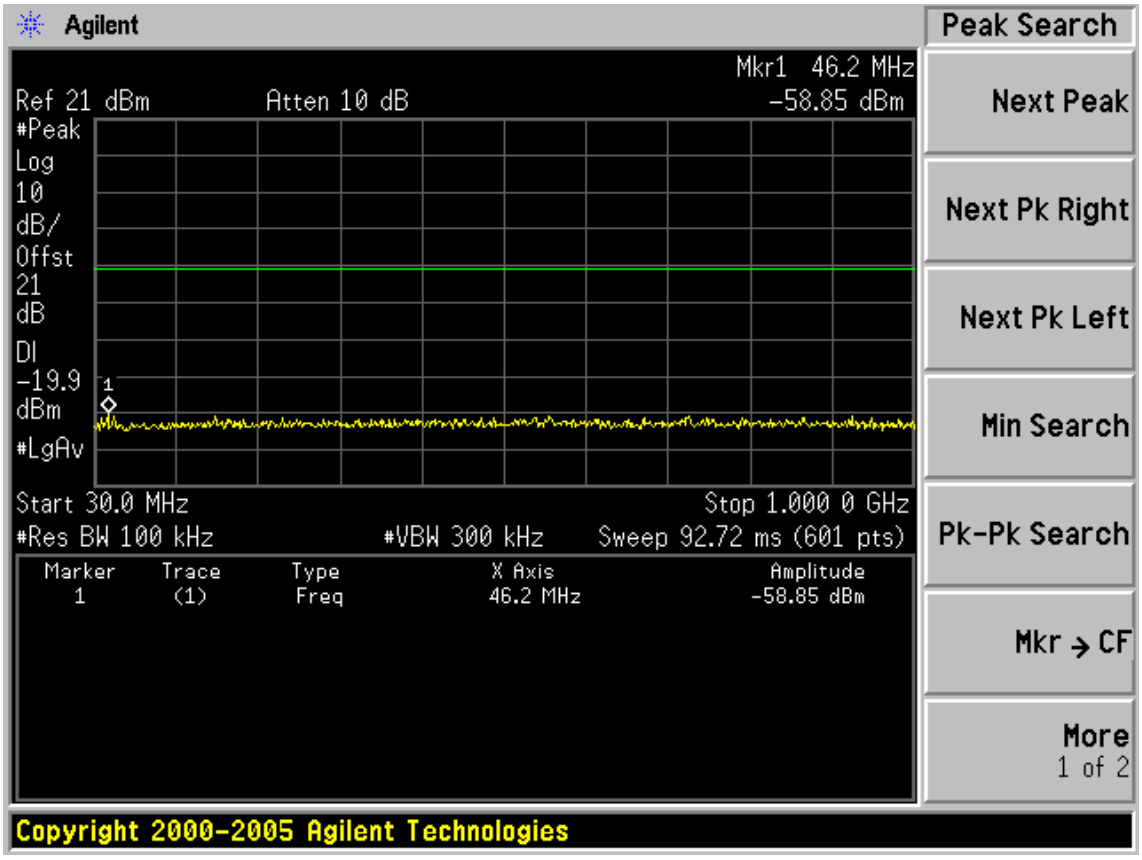

Agilent
Peak Search
Mkr1 473.0 MHz
Ref 21 dBm
Atten 10 dB
-59.93 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-23.8
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 473.0 MHz -59.93 dBm
Copyright 2000-2005 Agilent Technologies

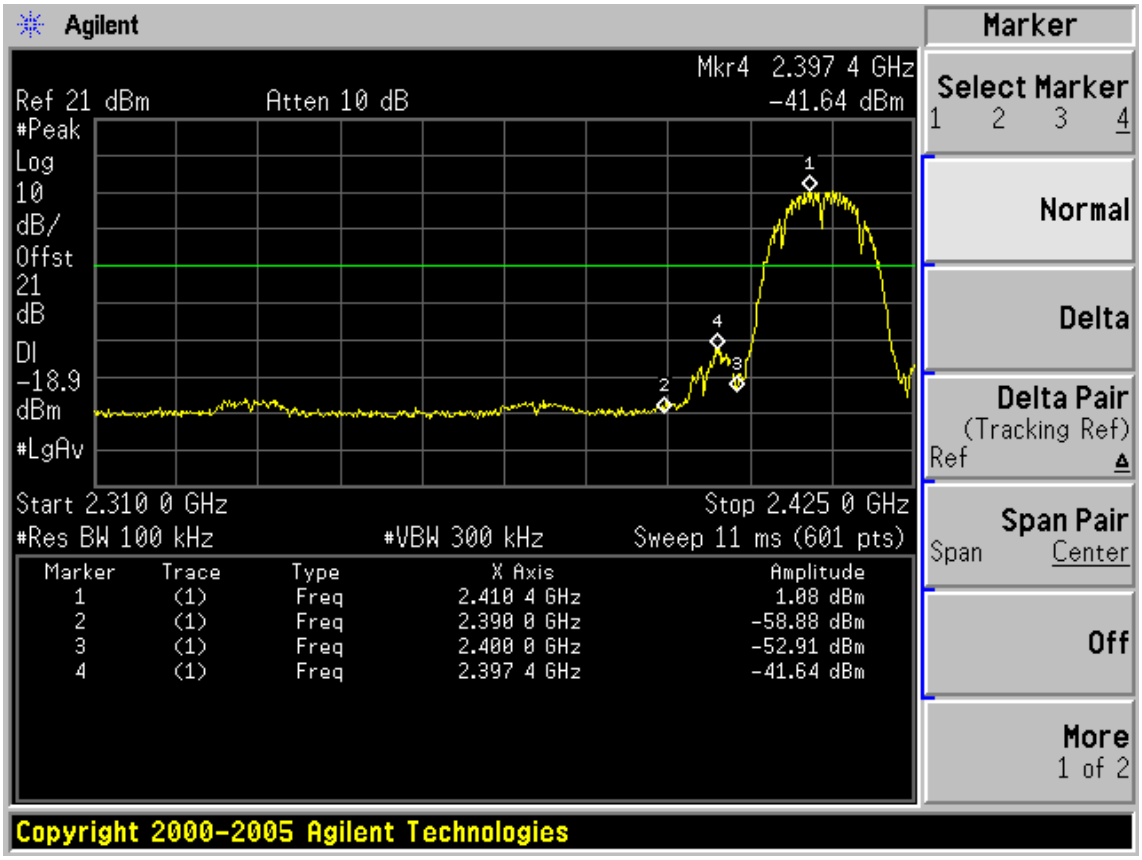

Agilent
Display
Mkr3 2.500 00 GHz
Ref 21 dBm
Atten 10 dB
-50.79 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-23.2
dBm
#LgAv
Full Screen
Display Line
-23.18 dBm
On Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Start 2.425 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 8.16 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.435 77 GHz -3.18 dBm
2 (1) Freq 2.483 50 GHz -42.08 dBm
3 (1) Freq 2.500 00 GHz -50.79 dBm
Copyright 2000-2005 Agilent Technologies

ANT1
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz

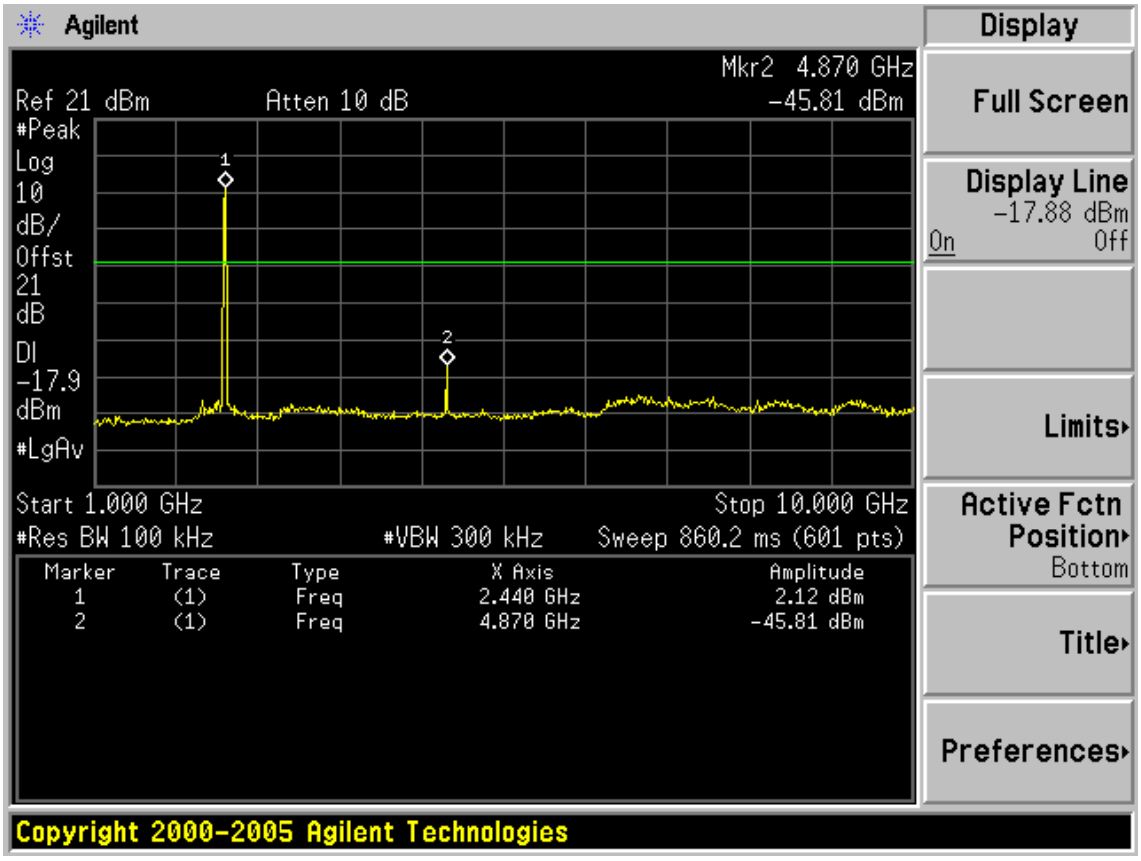


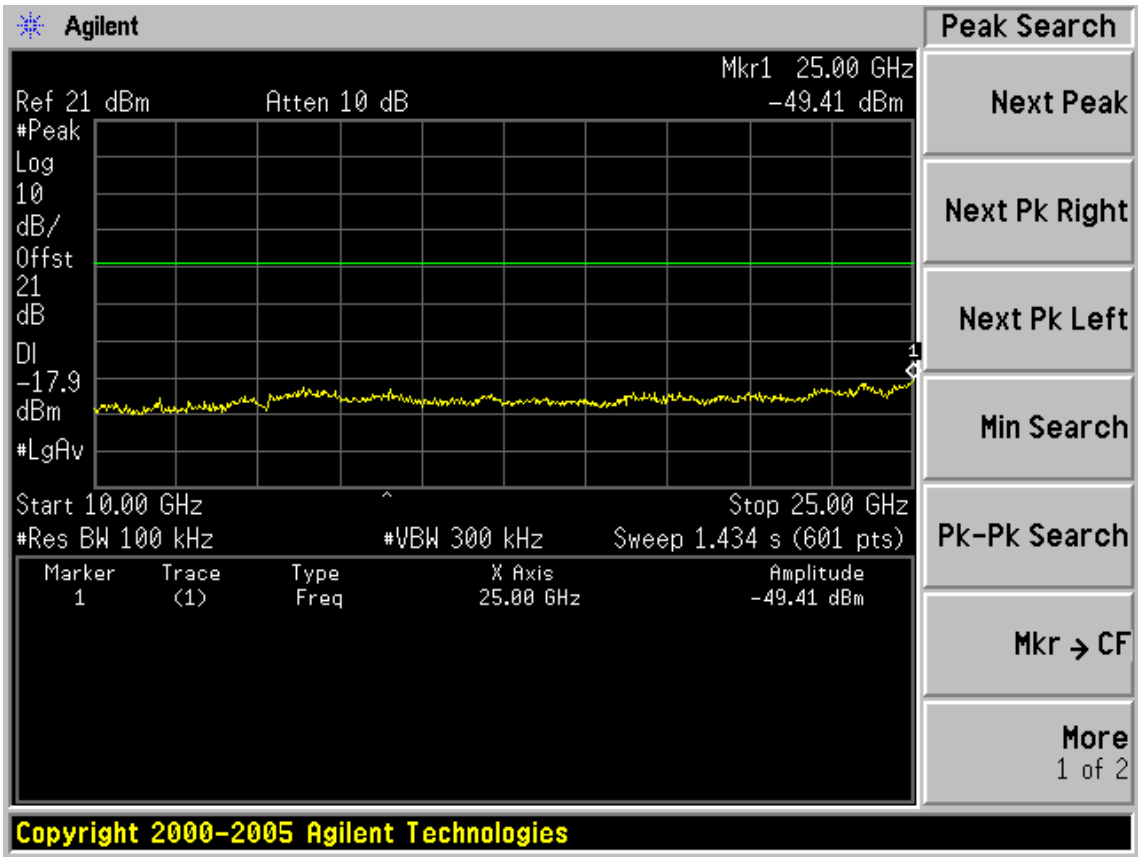


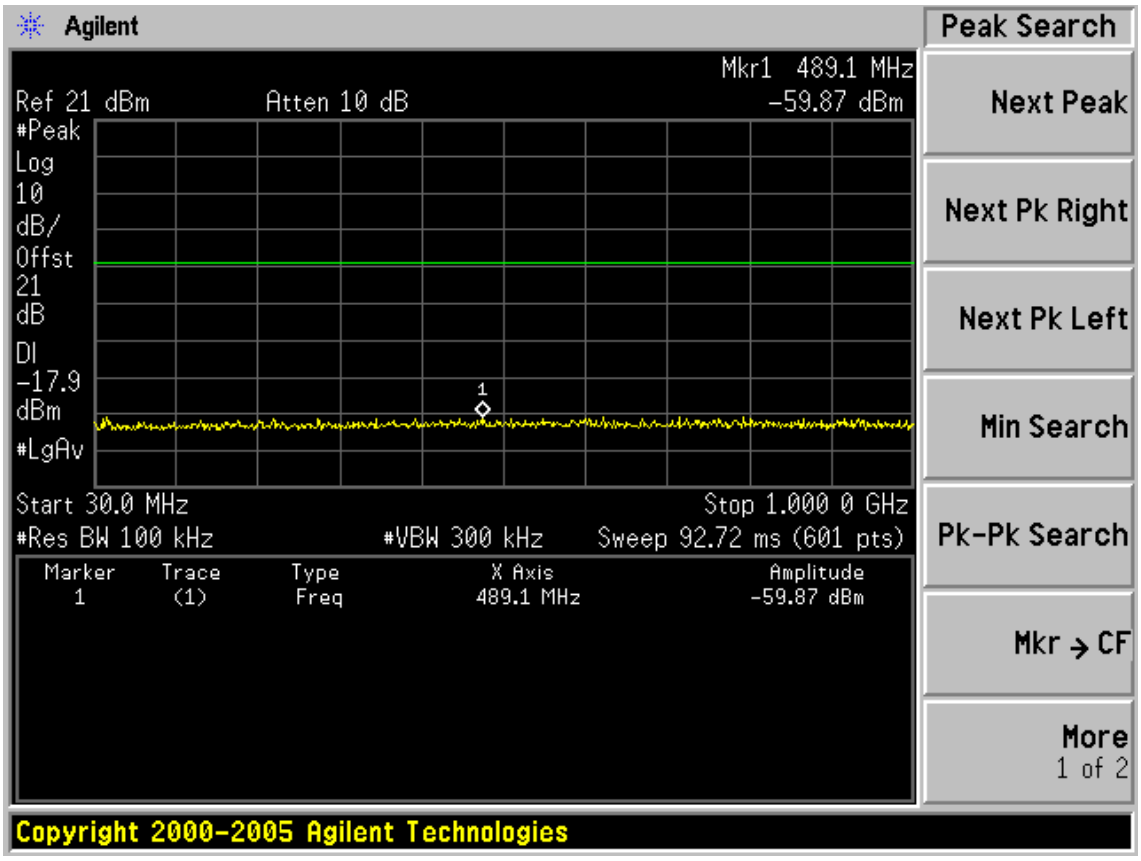

Agilent
Peak Search
Mkr1 46.2 MHz
Ref 21 dBm
Atten 10 dB
-58.85 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.9
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 46.2 MHz -58.85 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
Marker
Mkr4 2.397 4 GHz
Ref 21 dBm
Atten 10 dB
-41.64 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-18.9
dBm
#LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.310 0 GHz
Stop 2.425 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.410 4 GHz 1.08 dBm
2 (1) Freq 2.390 0 GHz -58.88 dBm
3 (1) Freq 2.400 0 GHz -52.91 dBm
4 (1) Freq 2.397 4 GHz -41.64 dBm
Copyright 2000-2005 Agilent Technologies

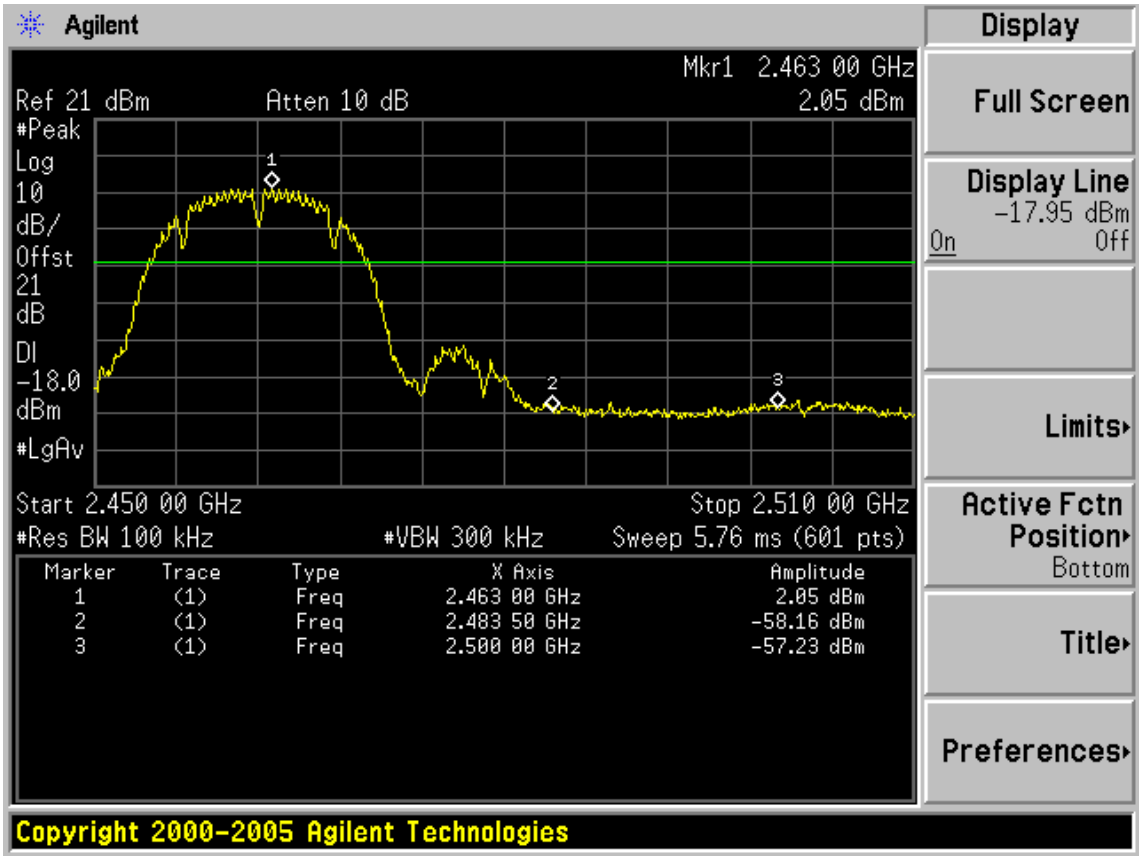
Test CH6: 2437MHz

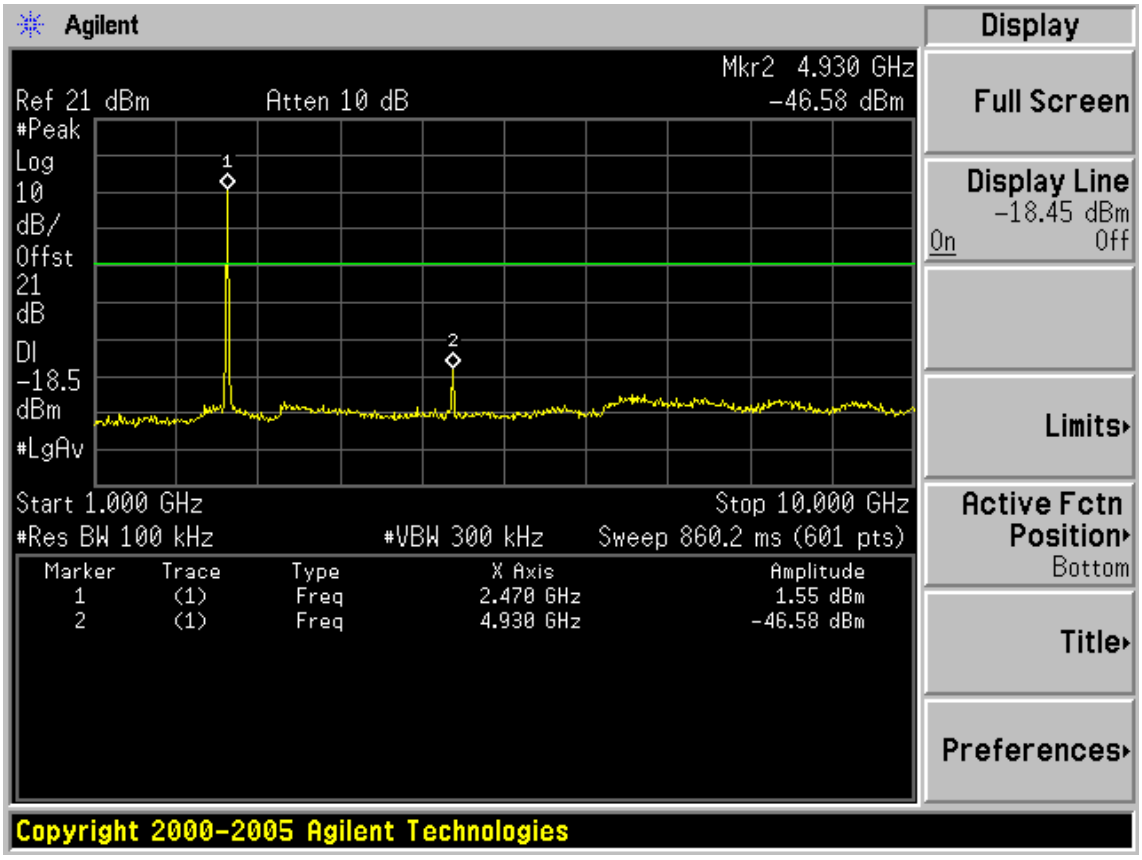


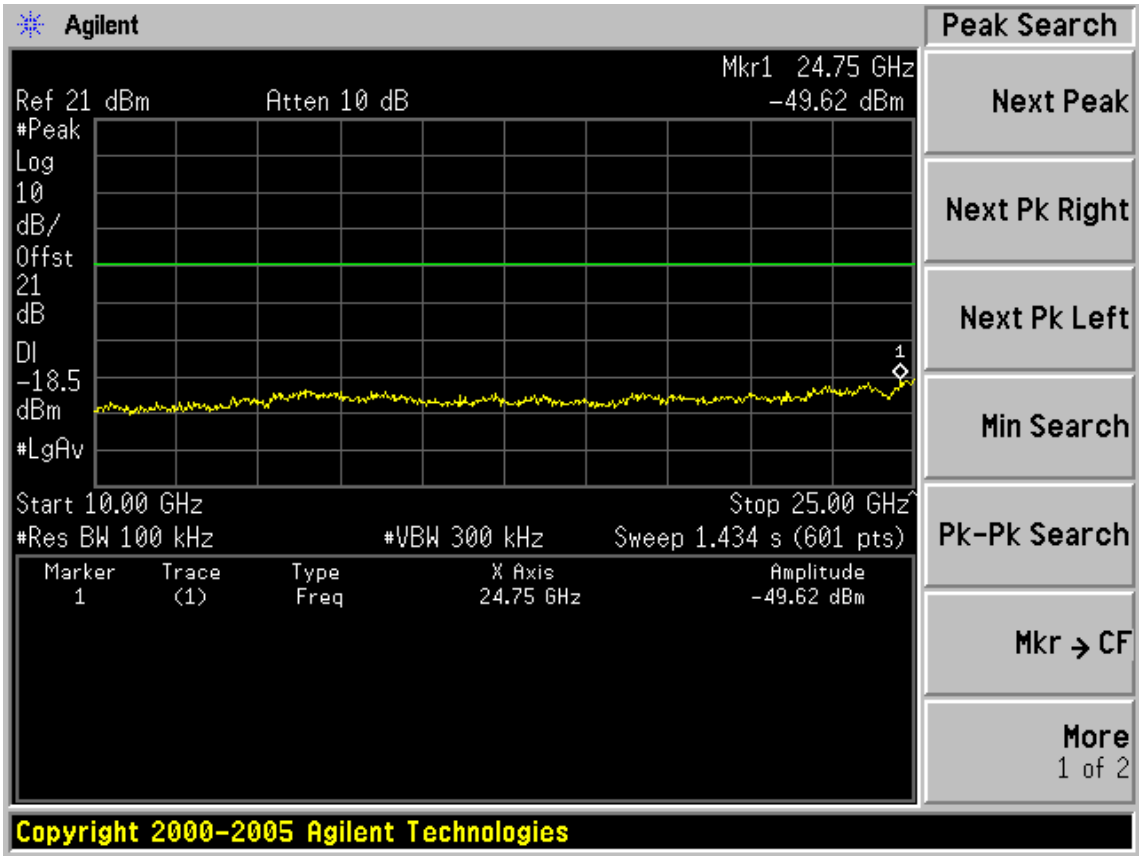


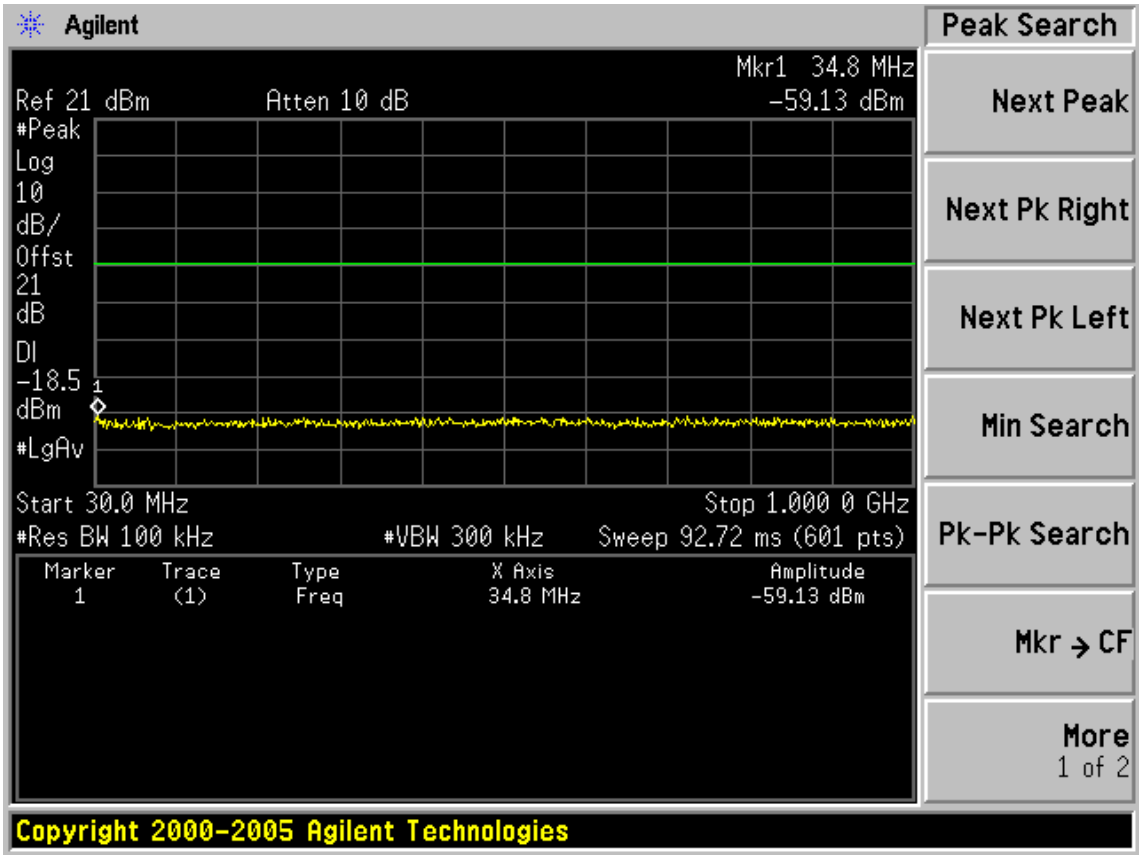


Test CH11: 2462MHz

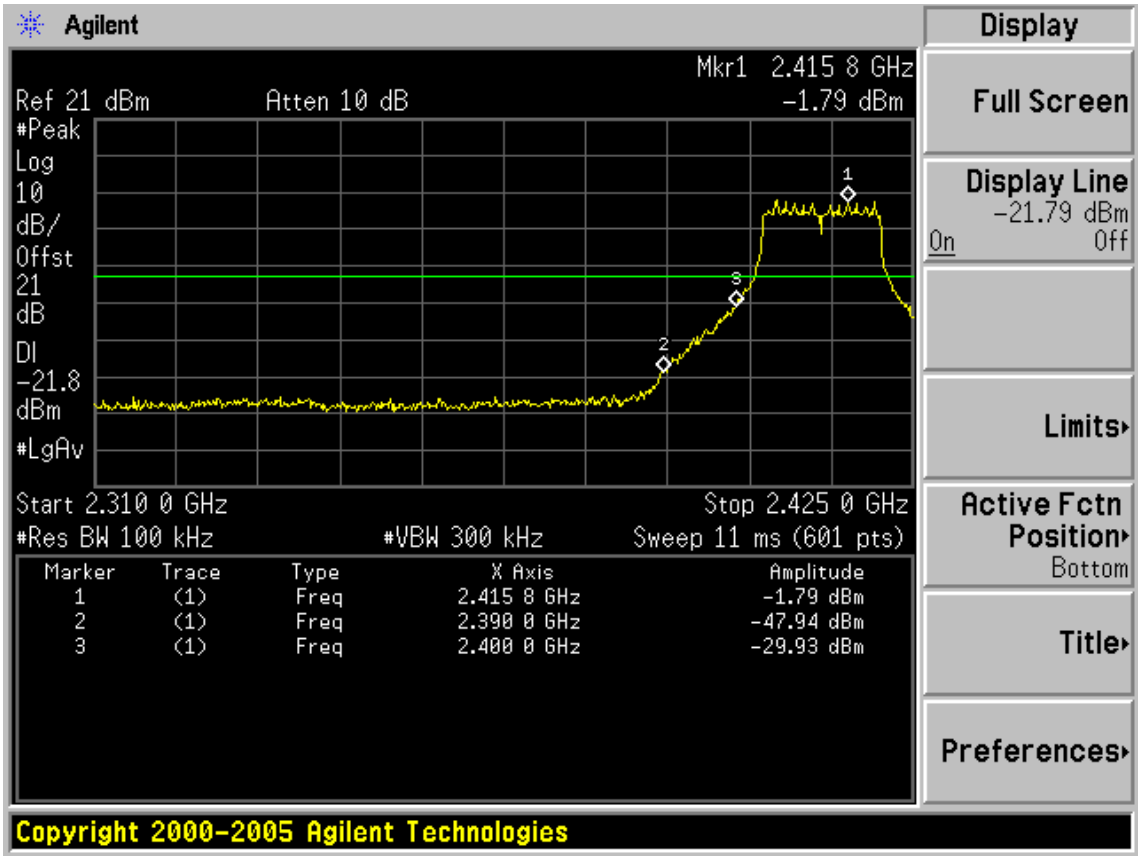


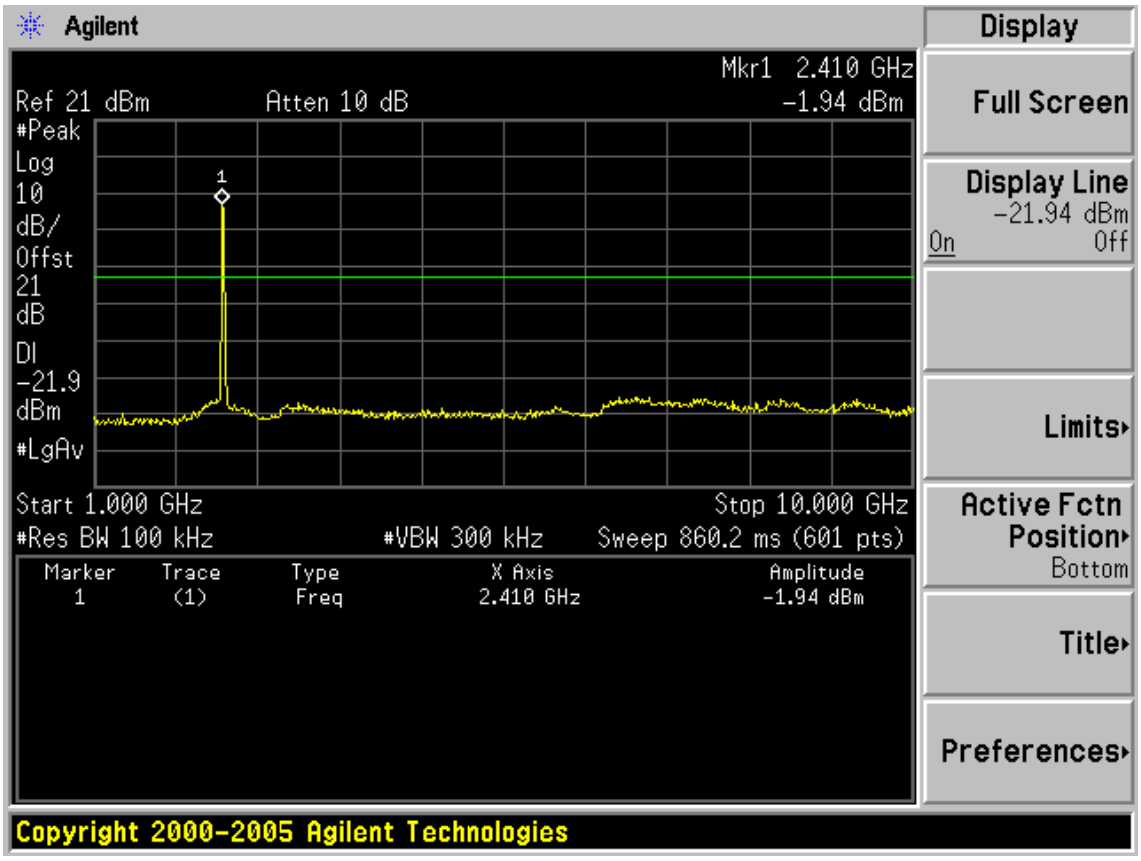

Agilent
Display
Mkr2 4.930 GHz
Ref 21 dBm
Atten 10 dB
-46.58 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-18.5
dBm
#LgAv
Full Screen
Display Line
-18.45 dBm
On
Off
Limits
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 860.2 ms (601 pts)
Active Fctn
Position
Bottom
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.470 GHz 1.55 dBm
2 (1) Freq 4.930 GHz -46.58 dBm
Title
Preferences
Copyright 2000-2005 Agilent Technologies

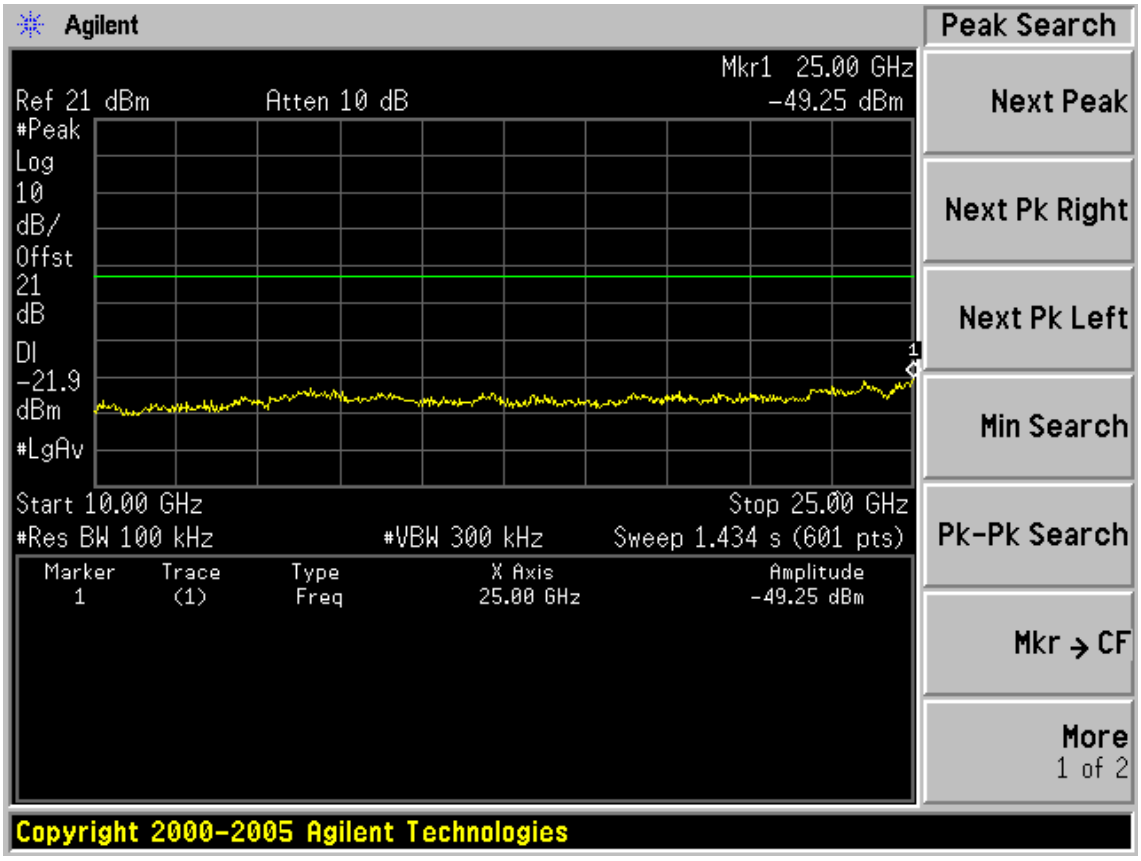

Agilent
Peak Search
Mkr1 24.75 GHz
Ref 21 dBm
Atten 10 dB
-49.62 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-18.5
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.75 GHz -49.62 dBm
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

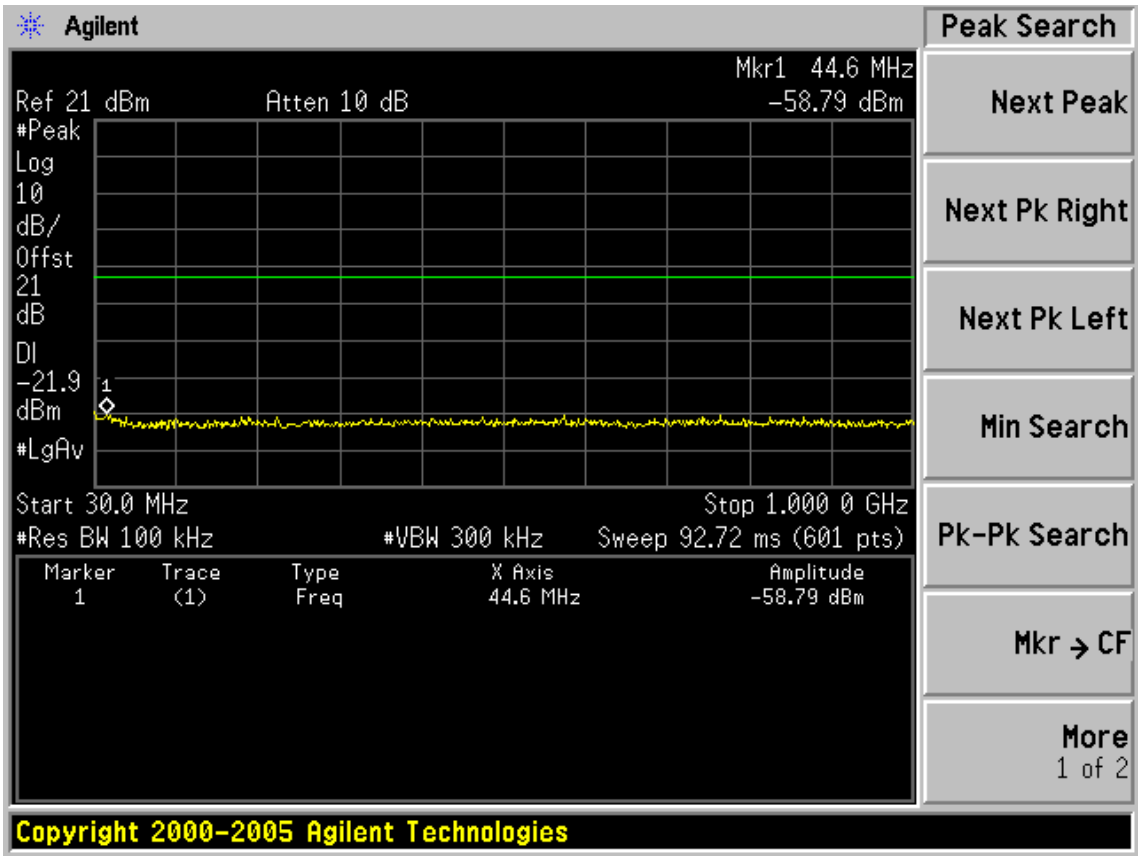


Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz

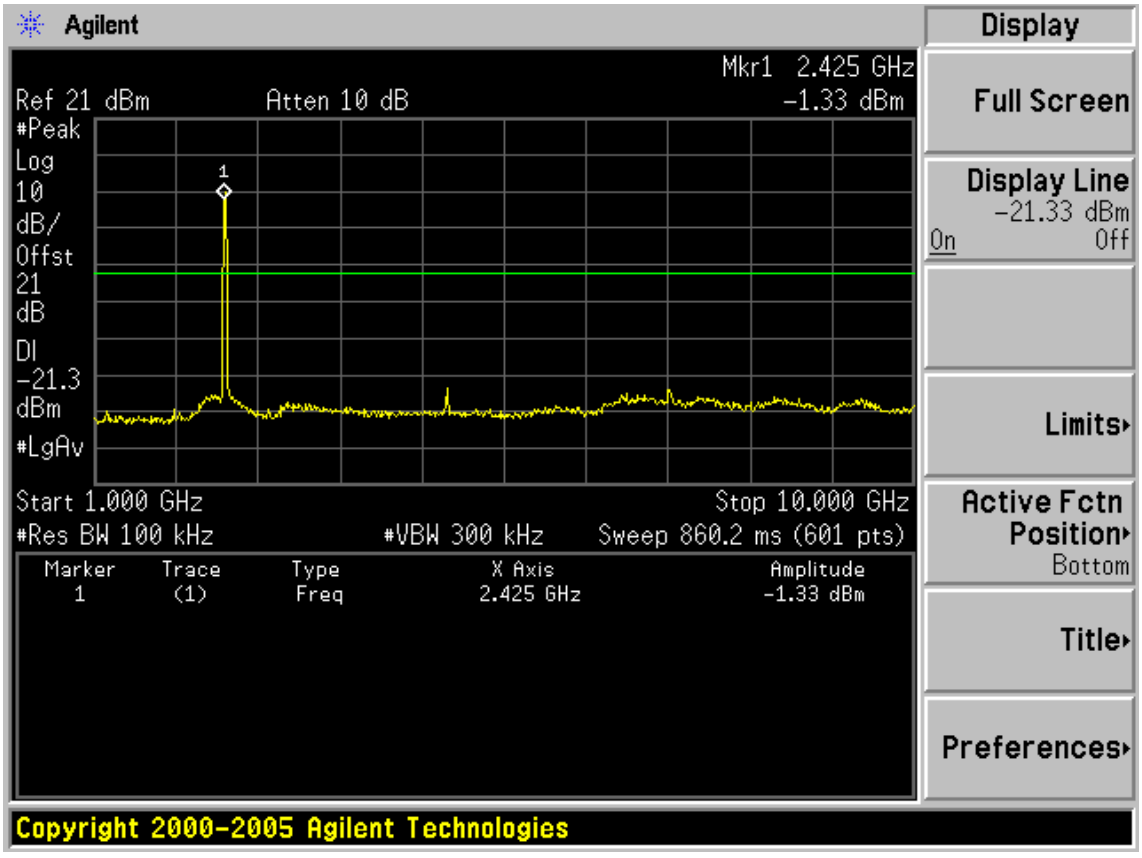


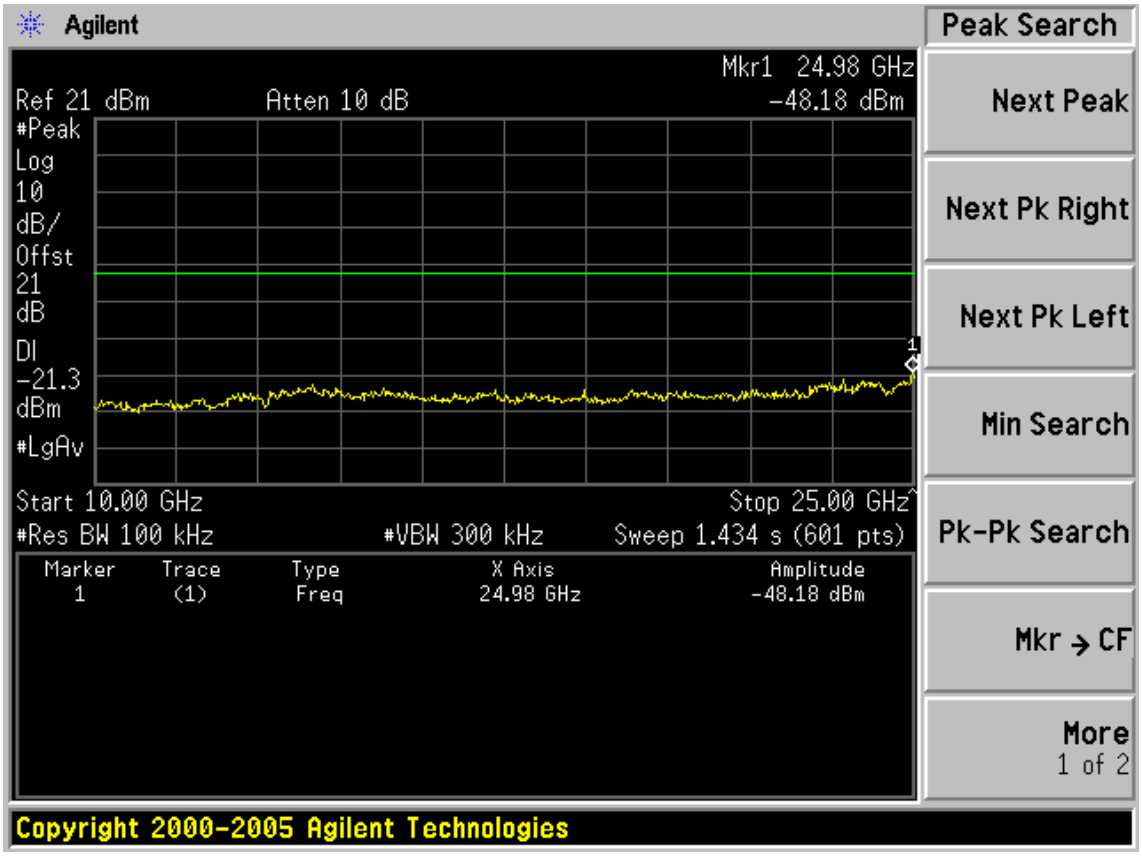

Agilent
Display
Mkr1 2.410 GHz
Ref 21 dBm
Atten 10 dB
-1.94 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-21.9
dBm
#LgAv
1
Start 1.000 GHz
Stop 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 860.2 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.410 GHz -1.94 dBm
Full Screen
Display Line
-21.94 dBm
On Off
Limits
Active Fctn
Position
Bottom
Title
Preferences
Copyright 2000-2005 Agilent Technologies

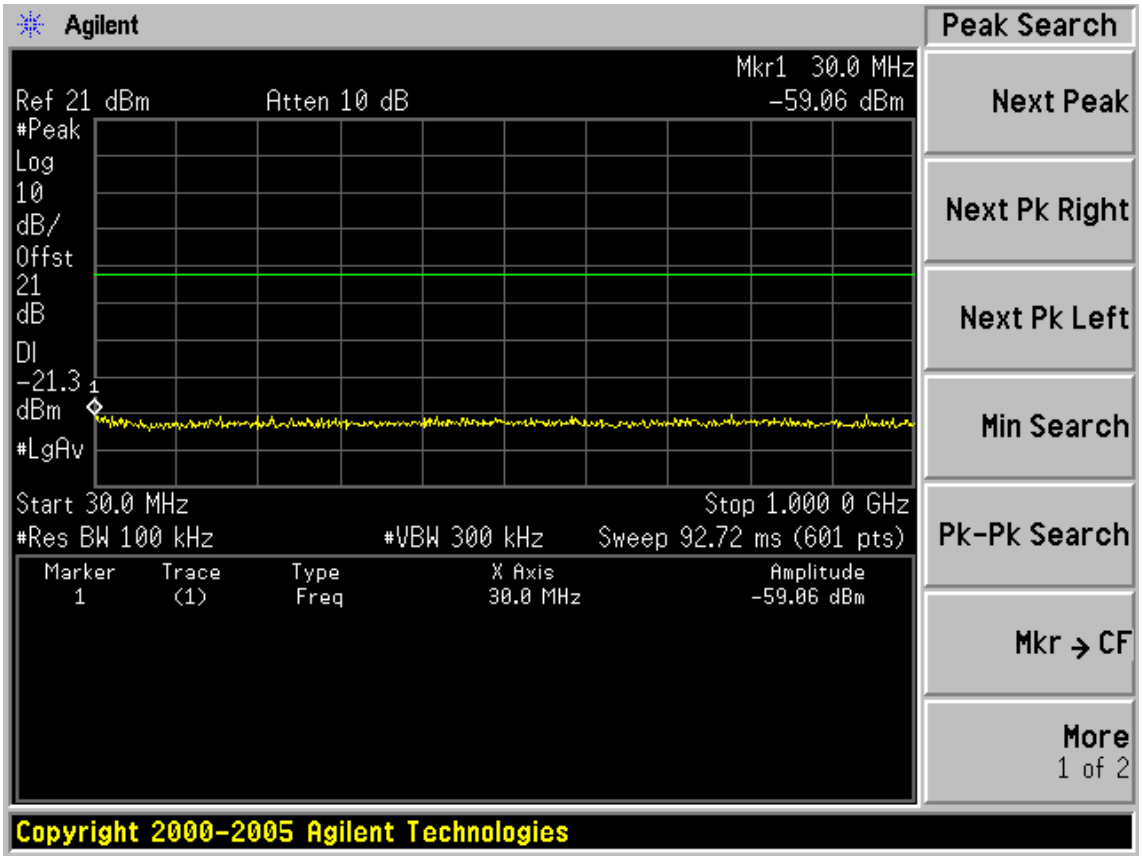

Agilent
Peak Search
Mkr1 25.00 GHz
Ref 21 dBm
Atten 10 dB
-49.25 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-21.9
dBm
#LgAv
1
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 25.00 GHz -49.25 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies



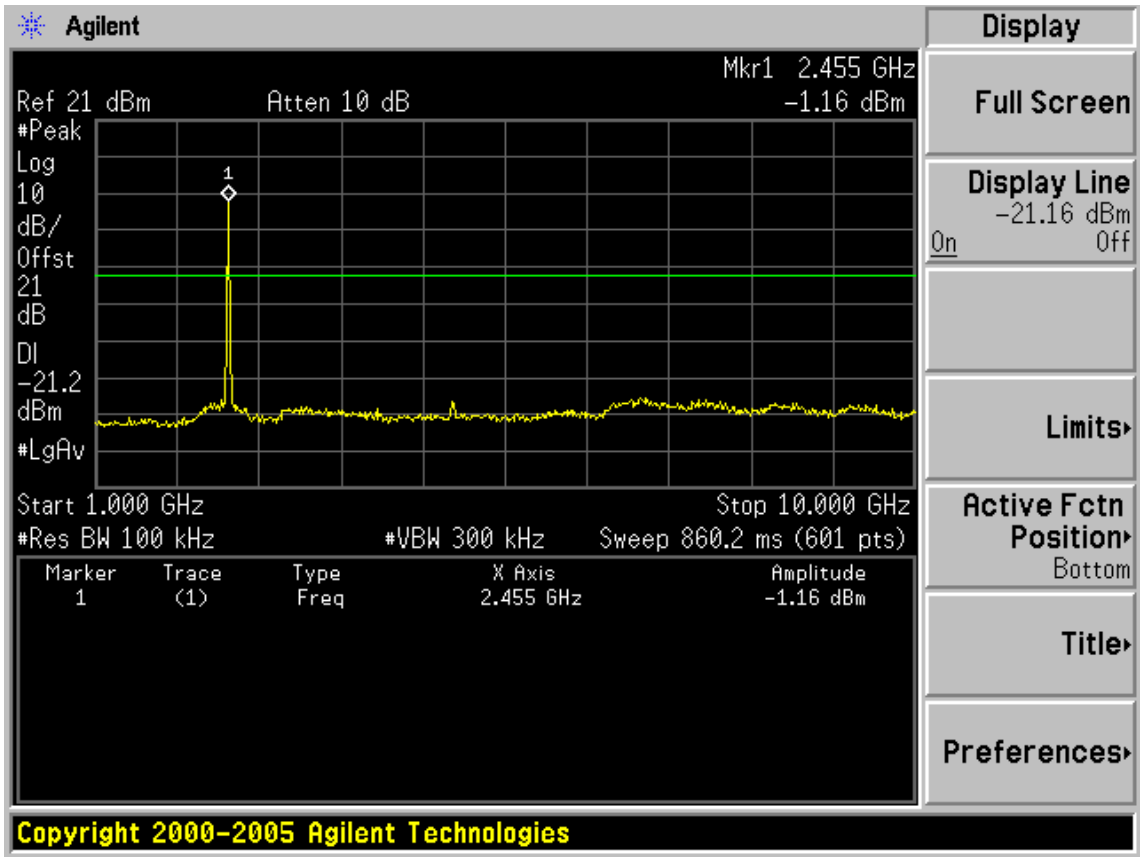
Test CH6: 2437MHz

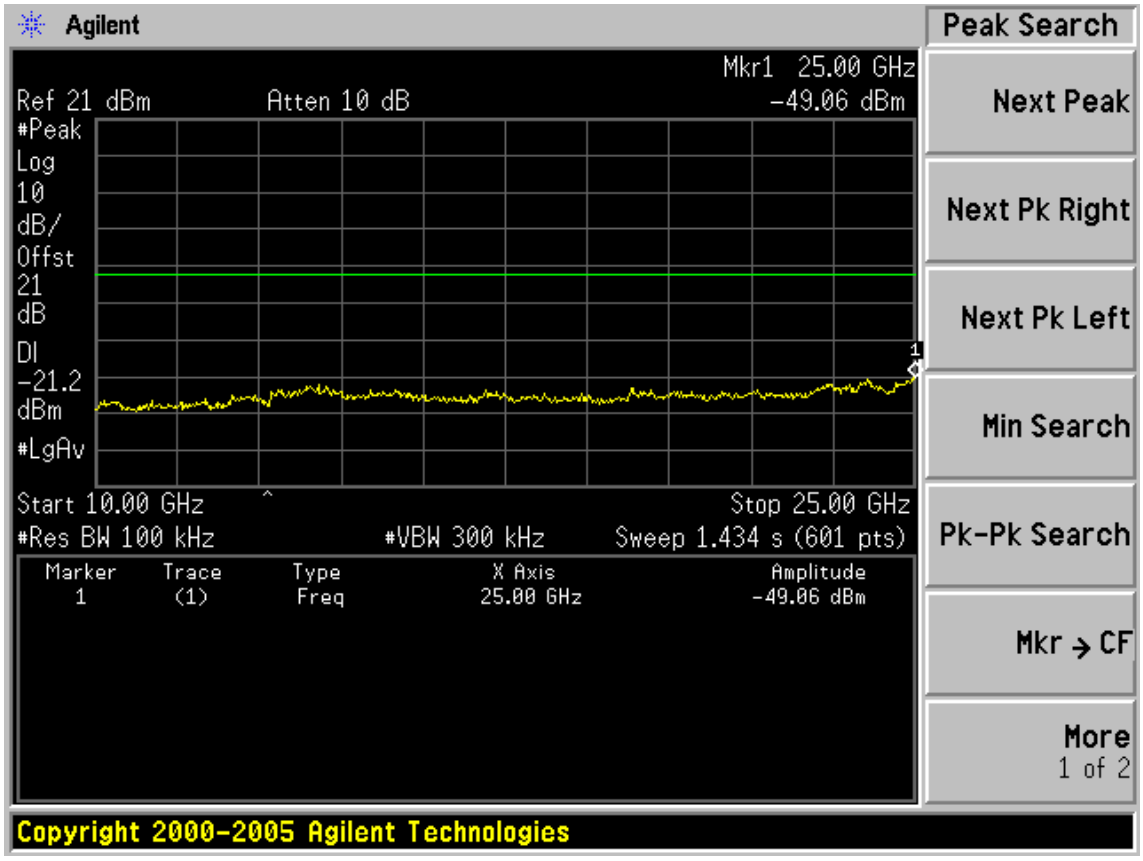


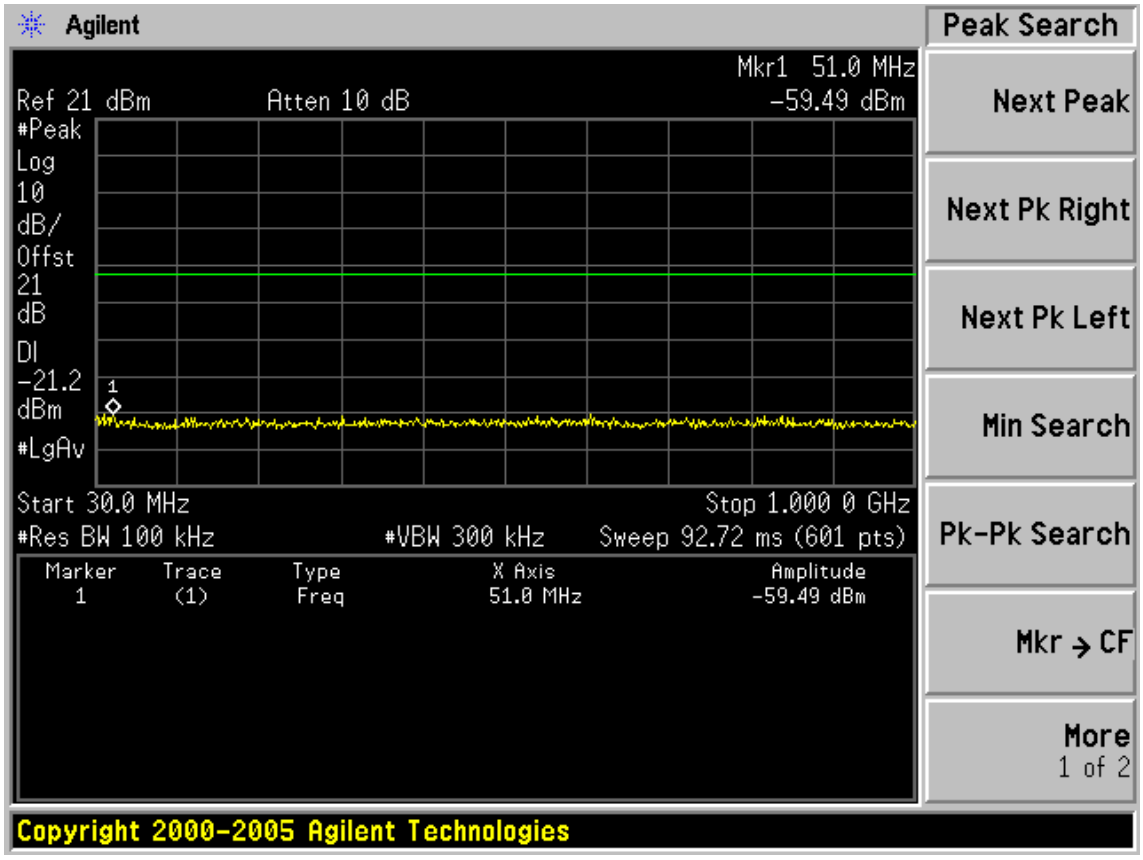

Agilent
Peak Search
Mkr1 24.98 GHz
Ref 21 dBm
Atten 10 dB
-48.18 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-21.3
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.98 GHz -48.18 dBm
Copyright 2000-2005 Agilent Technologies

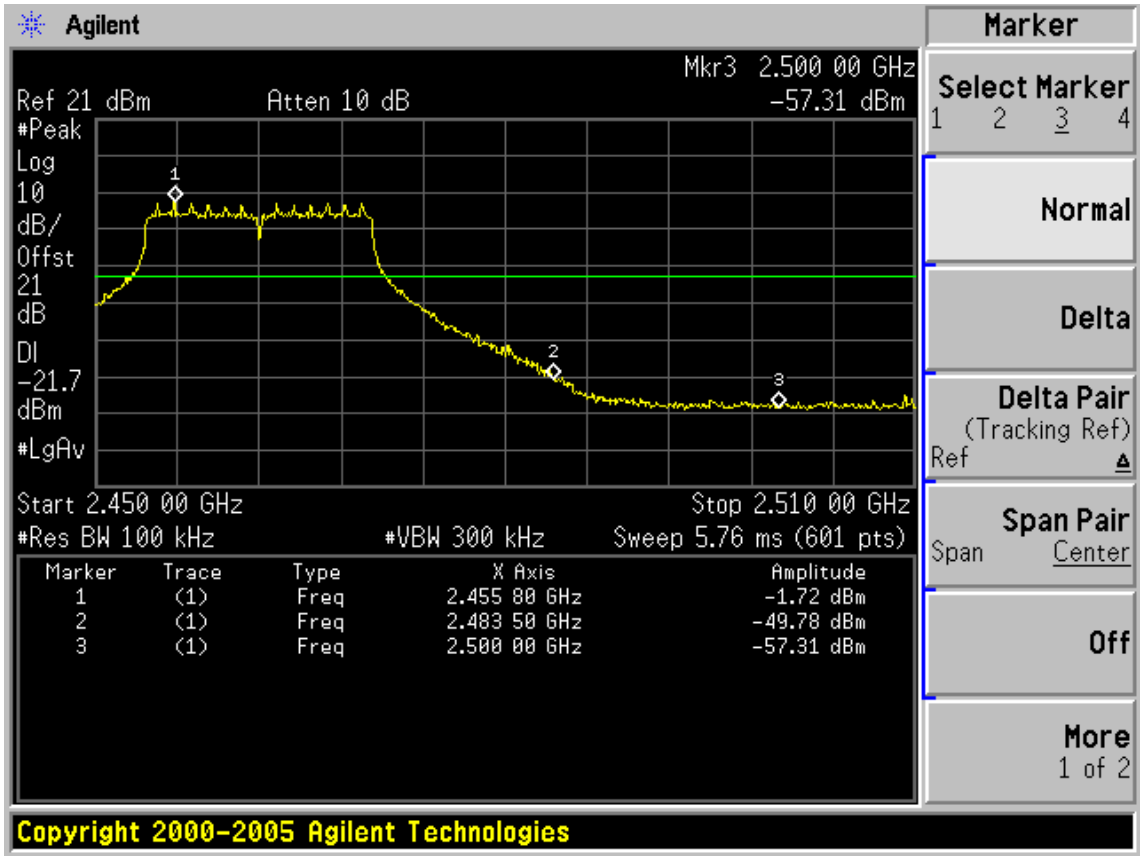

Agilent
Peak Search
Mkr1 30.0 MHz
Ref 21 dBm
Atten 10 dB
-59.06 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-21.3
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 30.0 MHz -59.06 dBm
Copyright 2000-2005 Agilent Technologies

Test CH11: 2462MHz

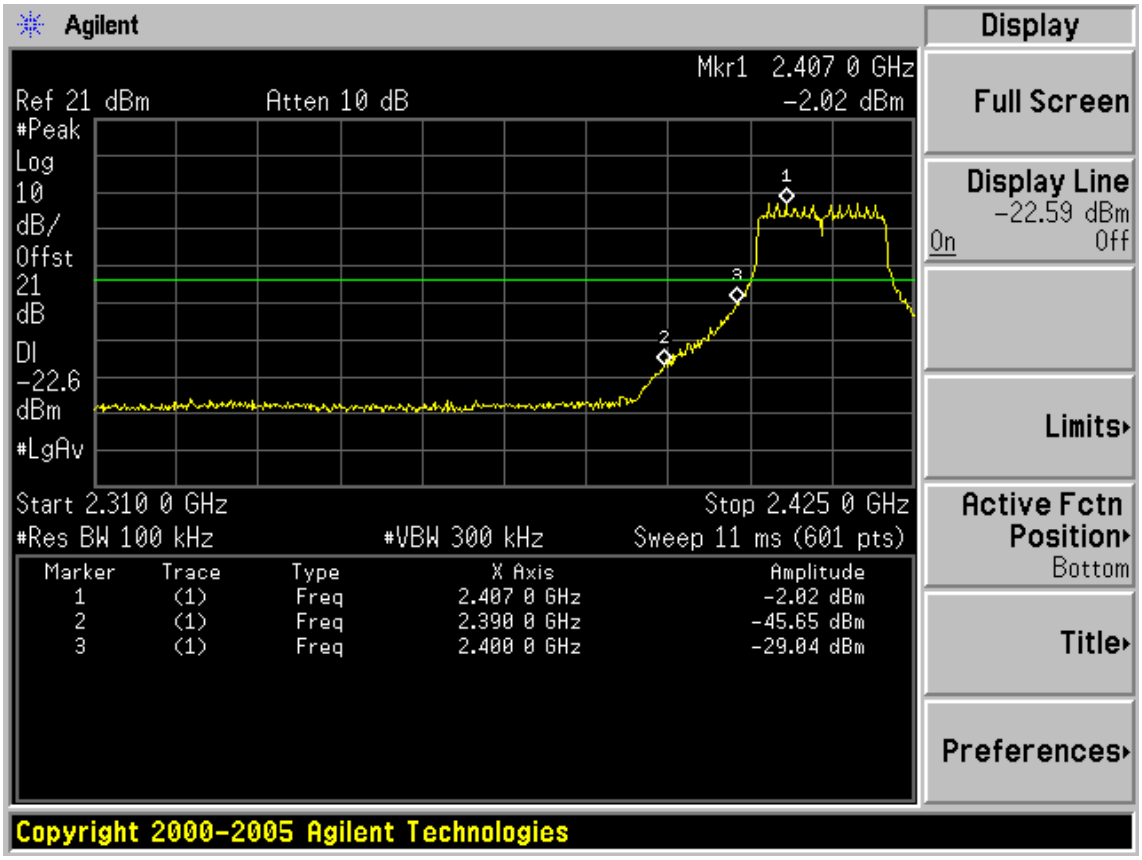


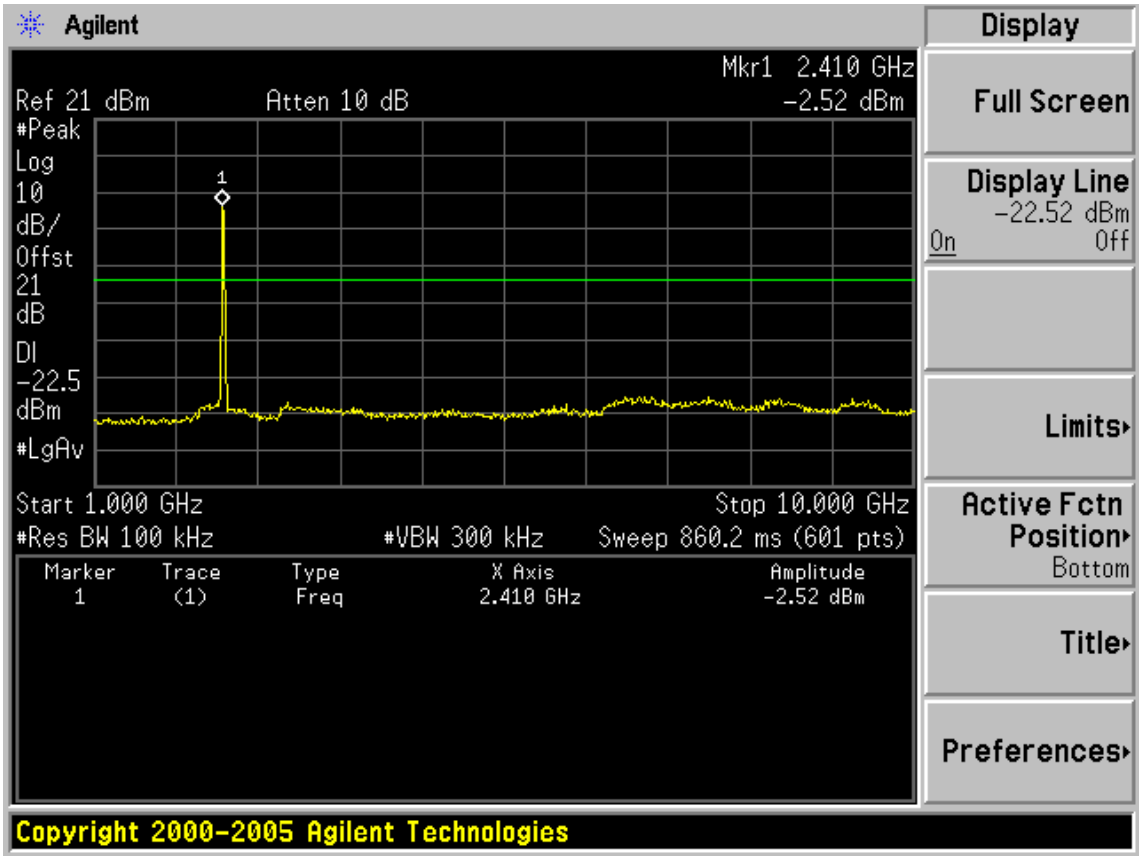


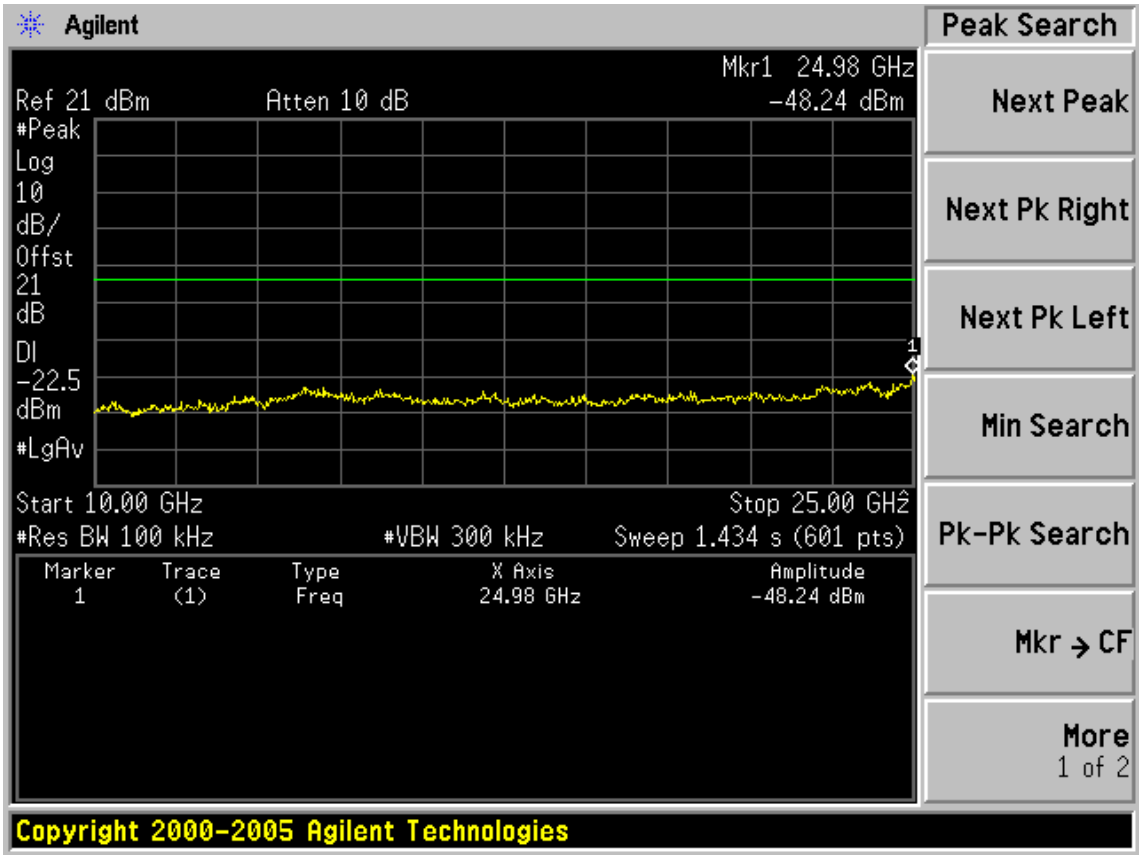

Agilent
Peak Search
Mkr1 51.0 MHz
Ref 21 dBm
Atten 10 dB
-59.49 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-21.2
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 51.0 MHz -59.49 dBm
Copyright 2000-2005 Agilent Technologies

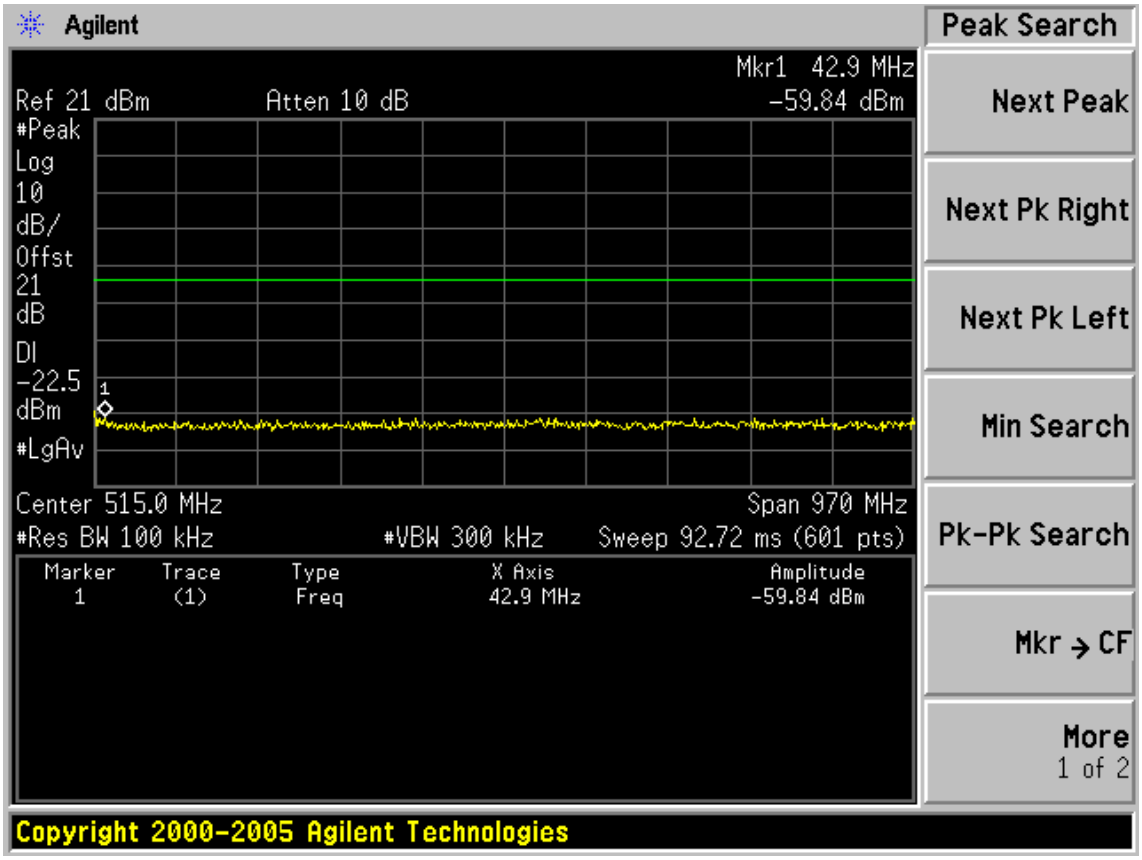

Agilent
Marker
Mkr3 2.500 00 GHz
Ref 21 dBm
Atten 10 dB
-57.31 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-21.7
dBm
#LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.450 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5.76 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.455 80 GHz -1.72 dBm
2 (1) Freq 2.483 50 GHz -49.78 dBm
3 (1) Freq 2.500 00 GHz -57.31 dBm
Copyright 2000-2005 Agilent Technologies

Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz

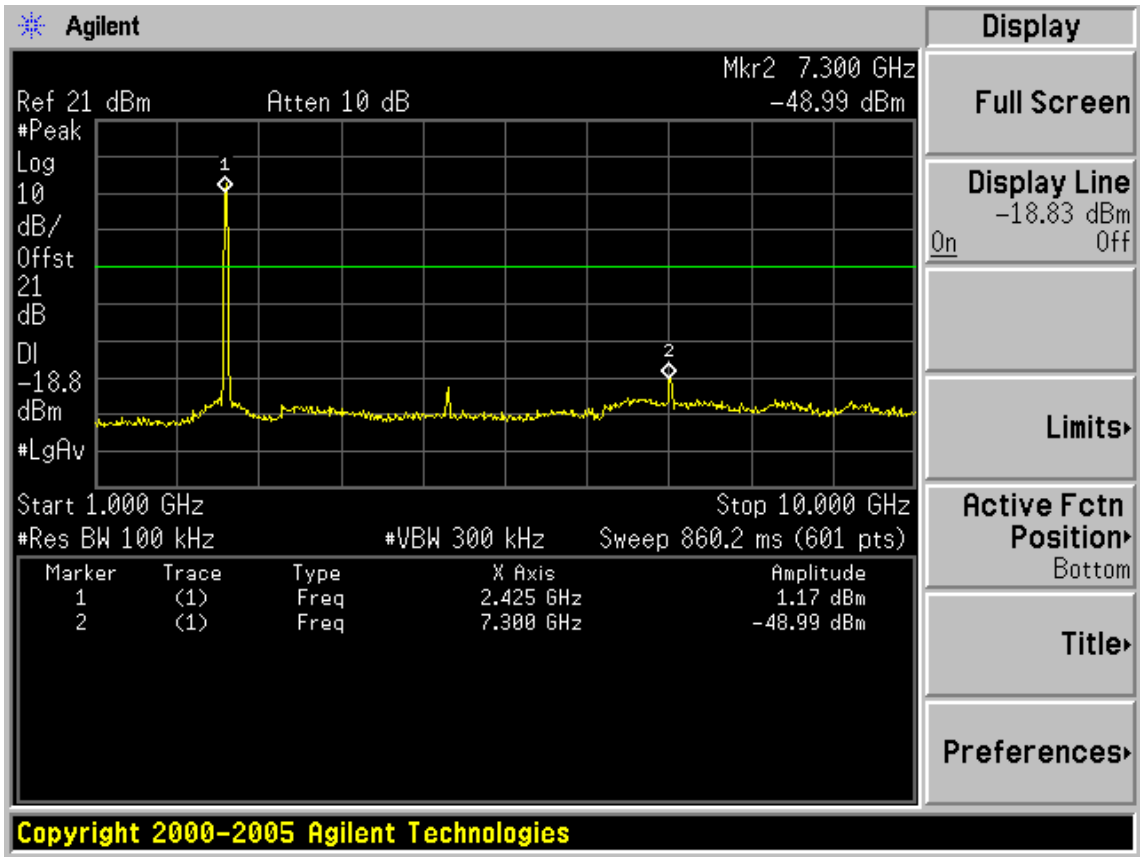


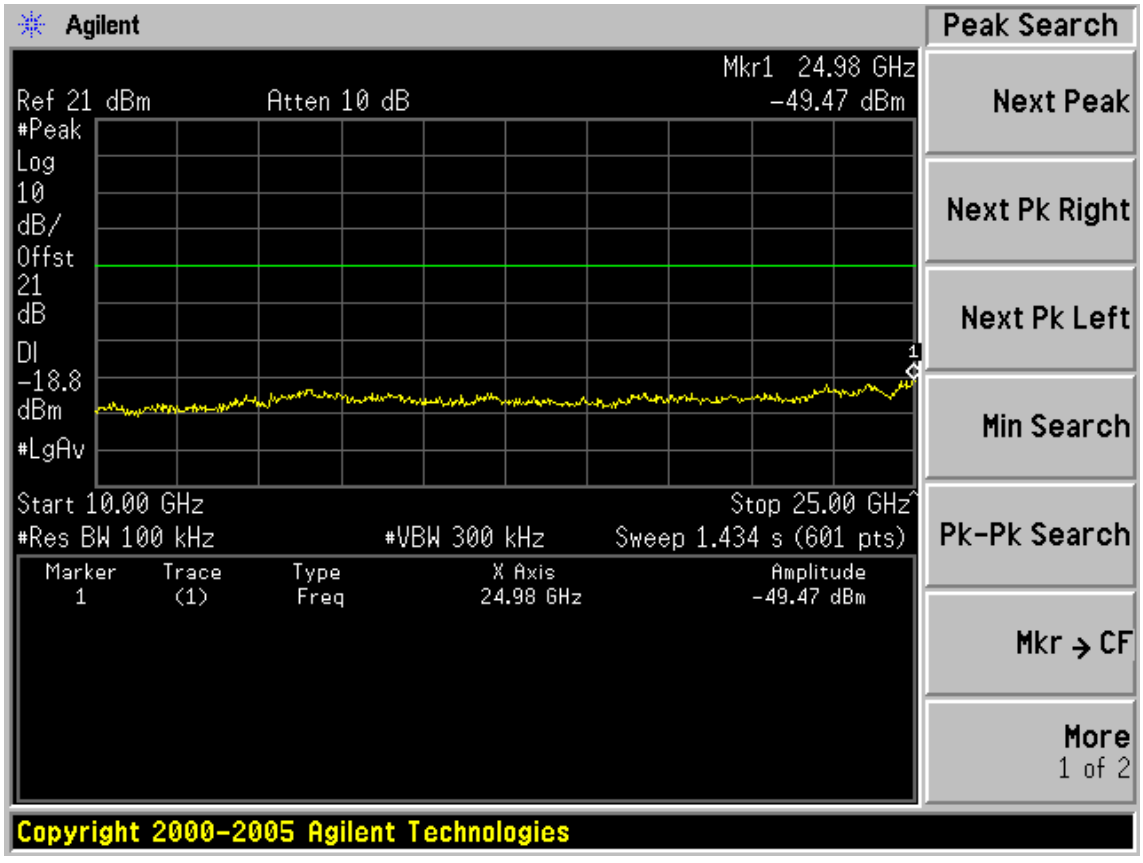


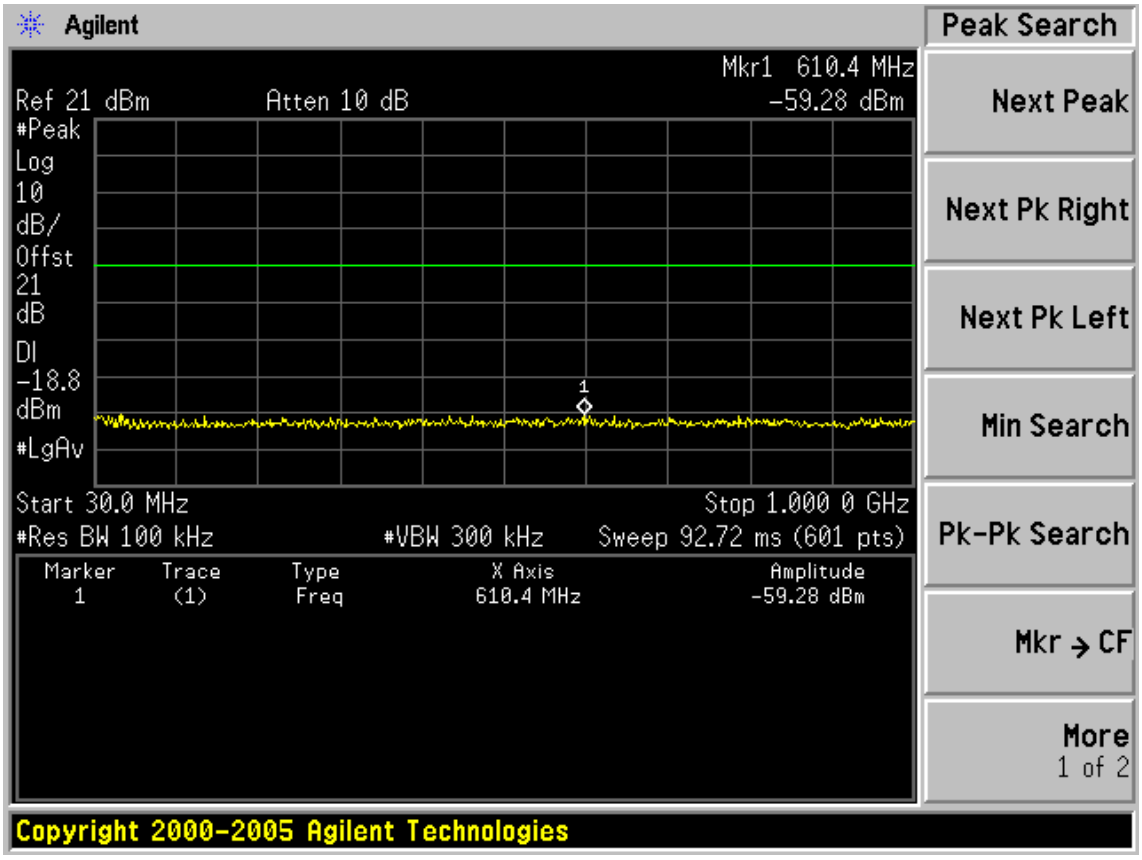

Agilent
Peak Search
Mkr1 24.98 GHz
Ref 21 dBm
Atten 10 dB
-48.24 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-22.5
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.98 GHz -48.24 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
Peak Search
Mkr1 42.9 MHz
Ref 21 dBm
Atten 10 dB
-59.84 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-22.5
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 515.0 MHz
Span 970 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 42.9 MHz -59.84 dBm
Copyright 2000-2005 Agilent Technologies

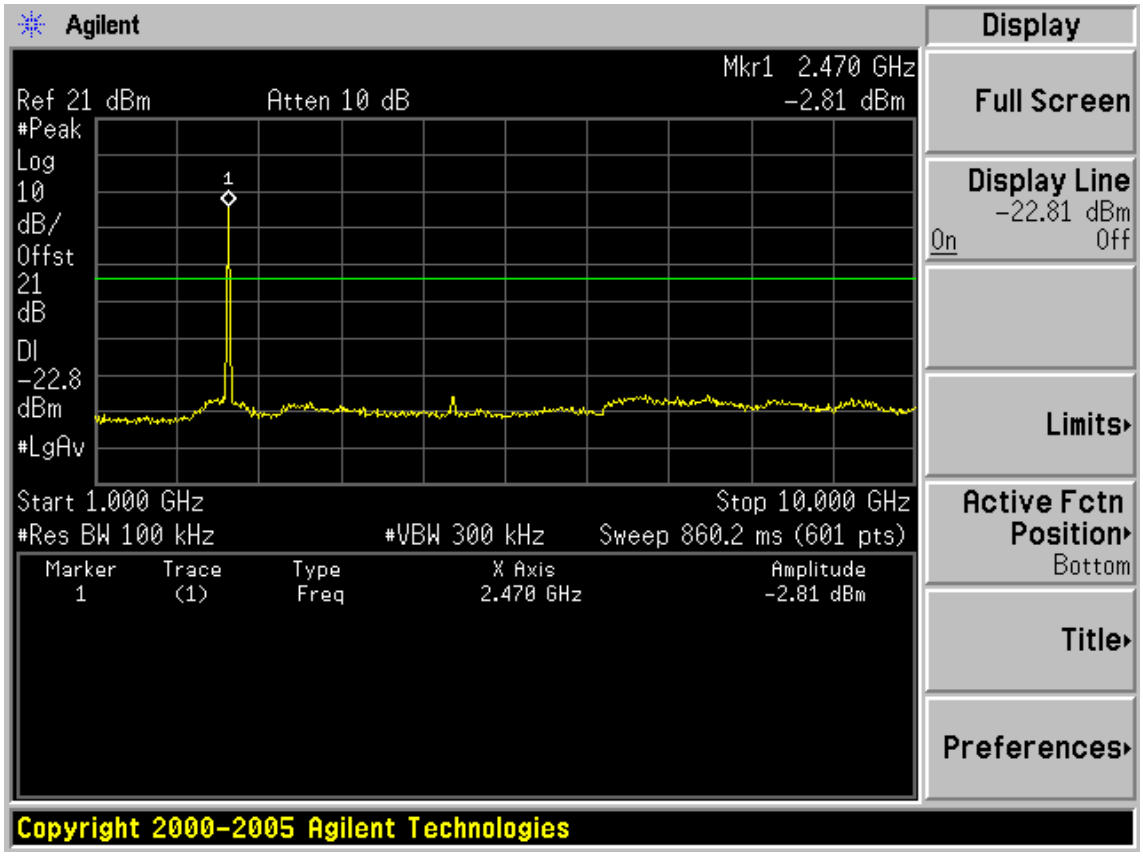
Test CH6: 2437MHz

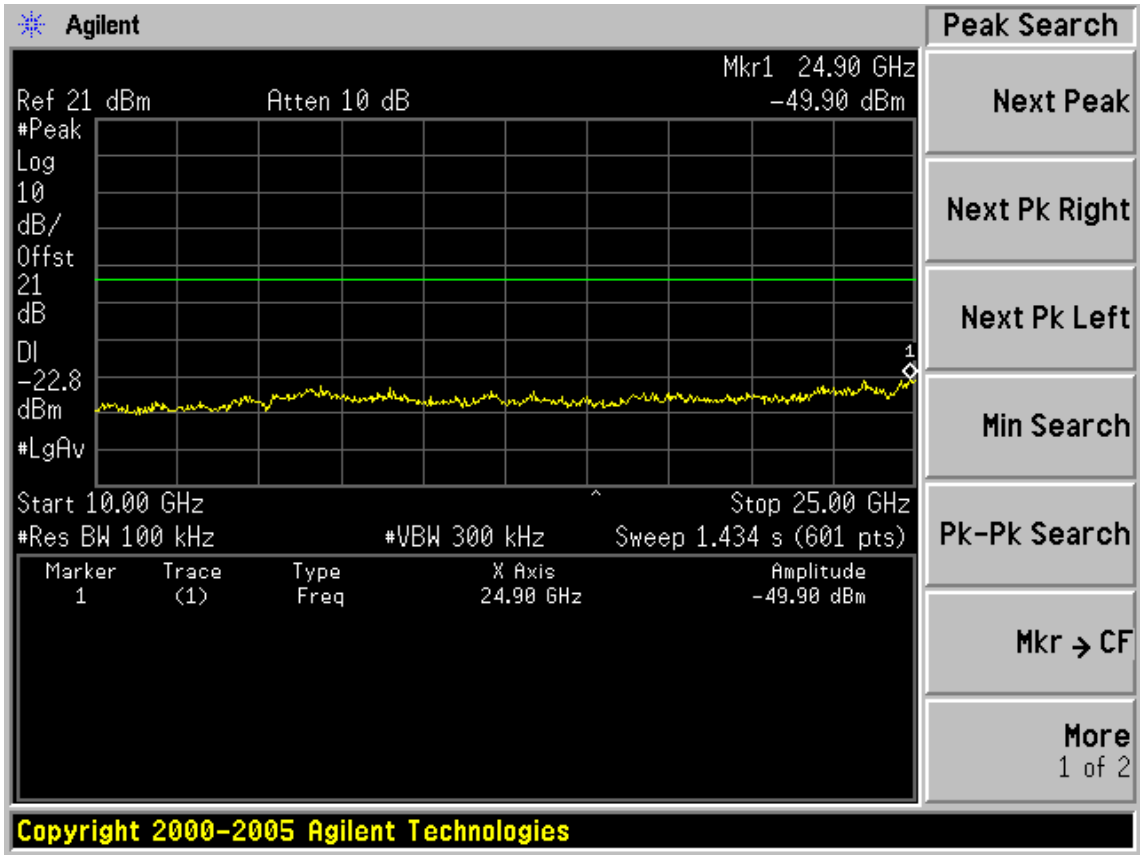


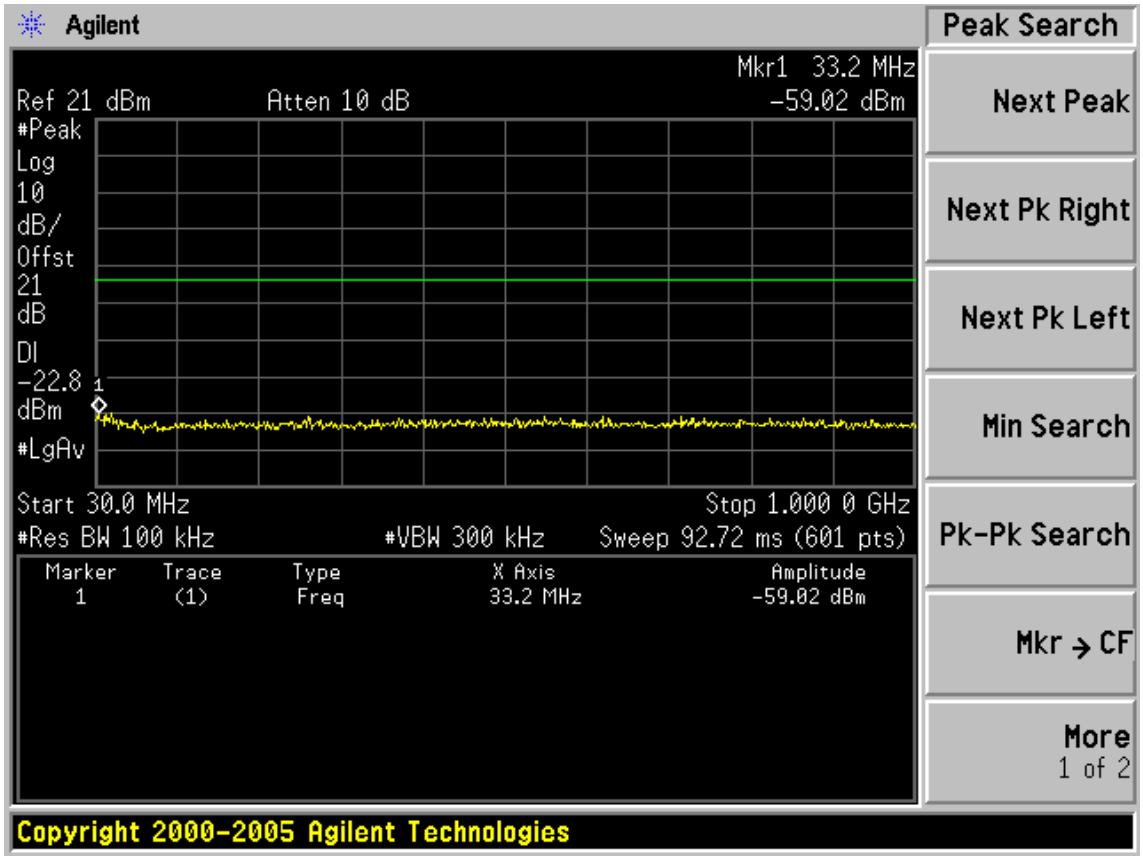


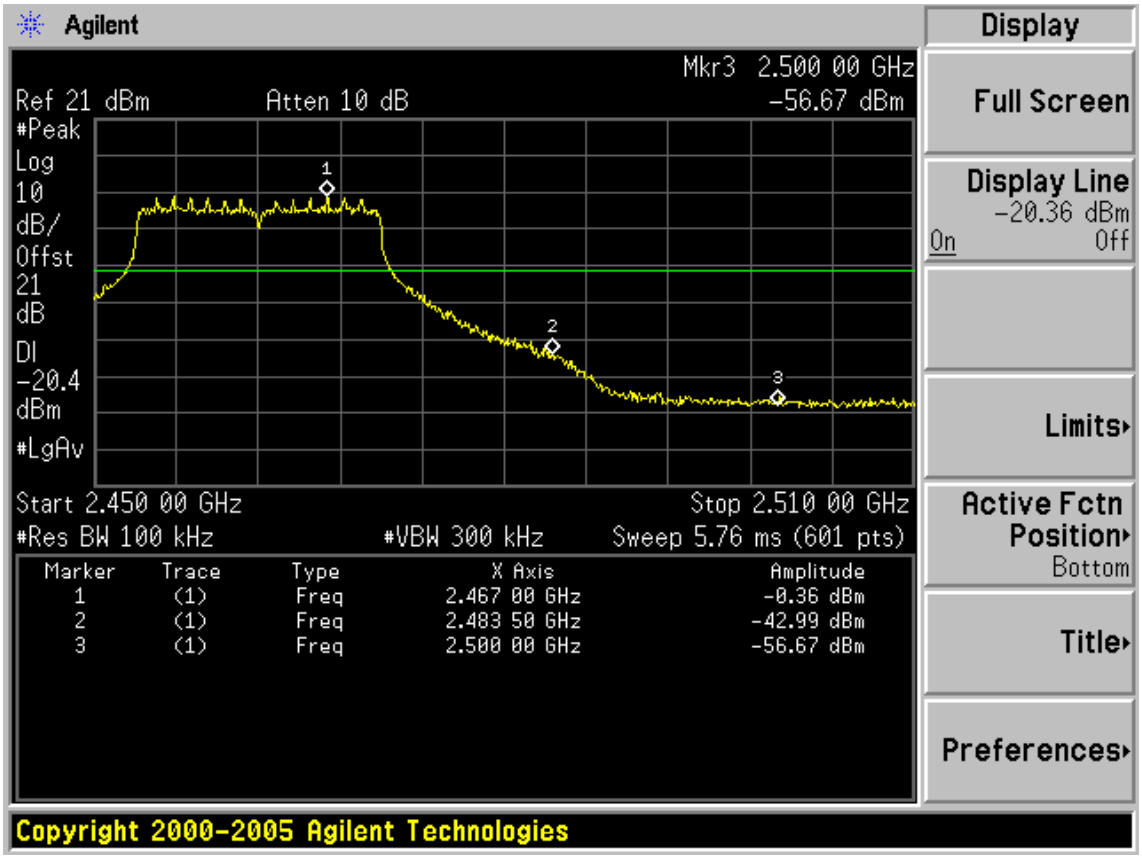


Test CH11: 2462MHz

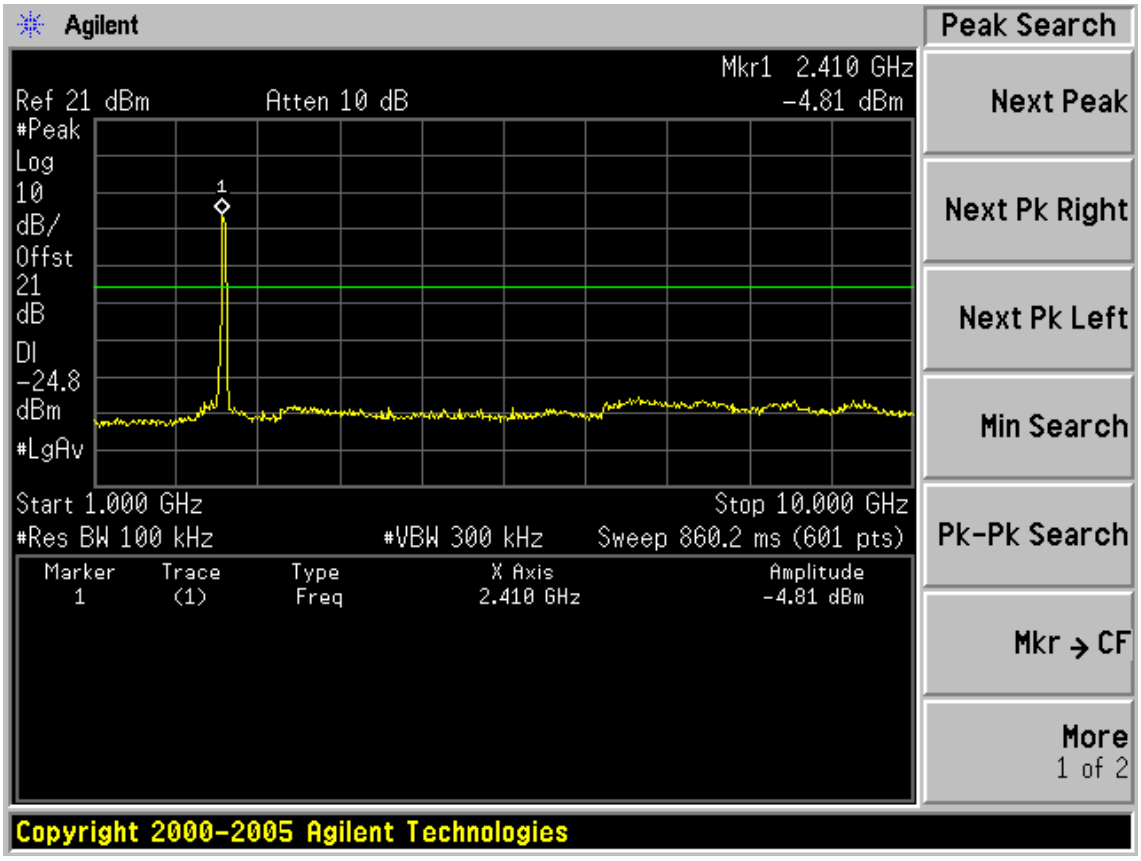


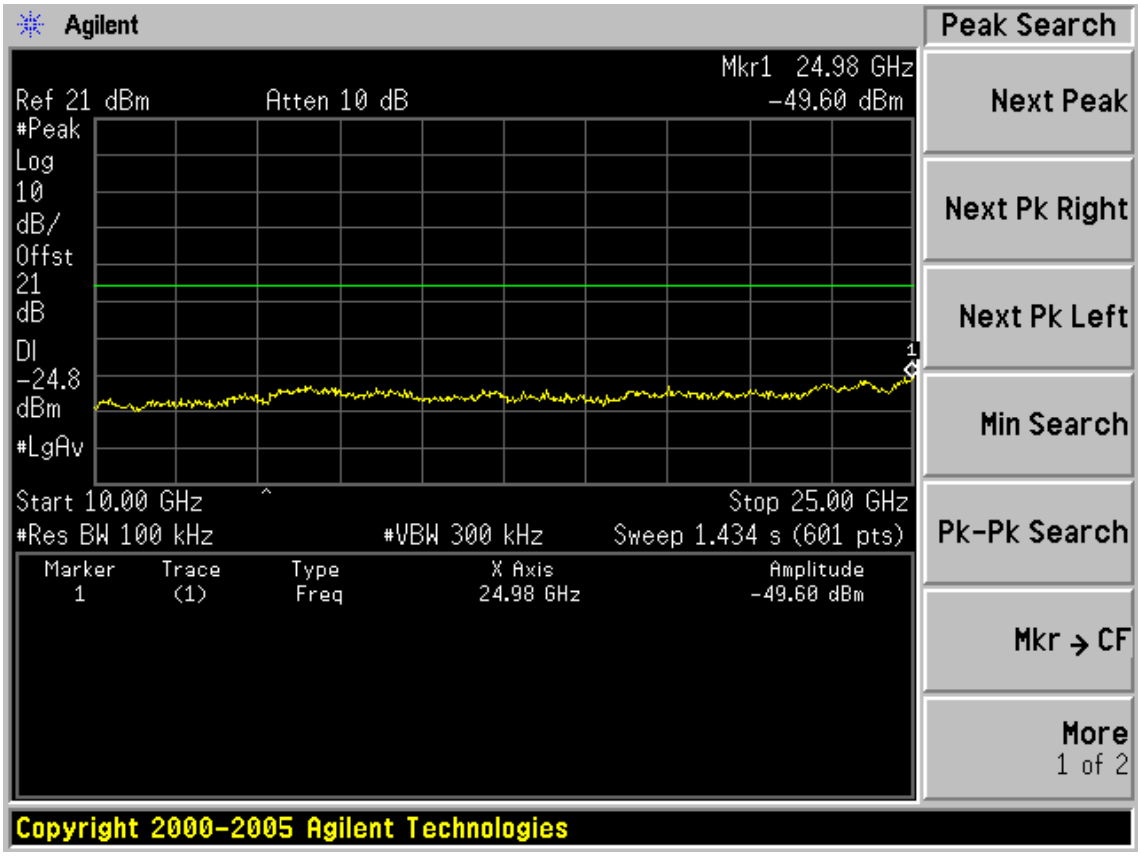

Agilent
Peak Search
Mkr1 24.90 GHz
Ref 21 dBm
Atten 10 dB
-49.90 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-22.8
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.90 GHz -49.90 dBm
Copyright 2000-2005 Agilent Technologies

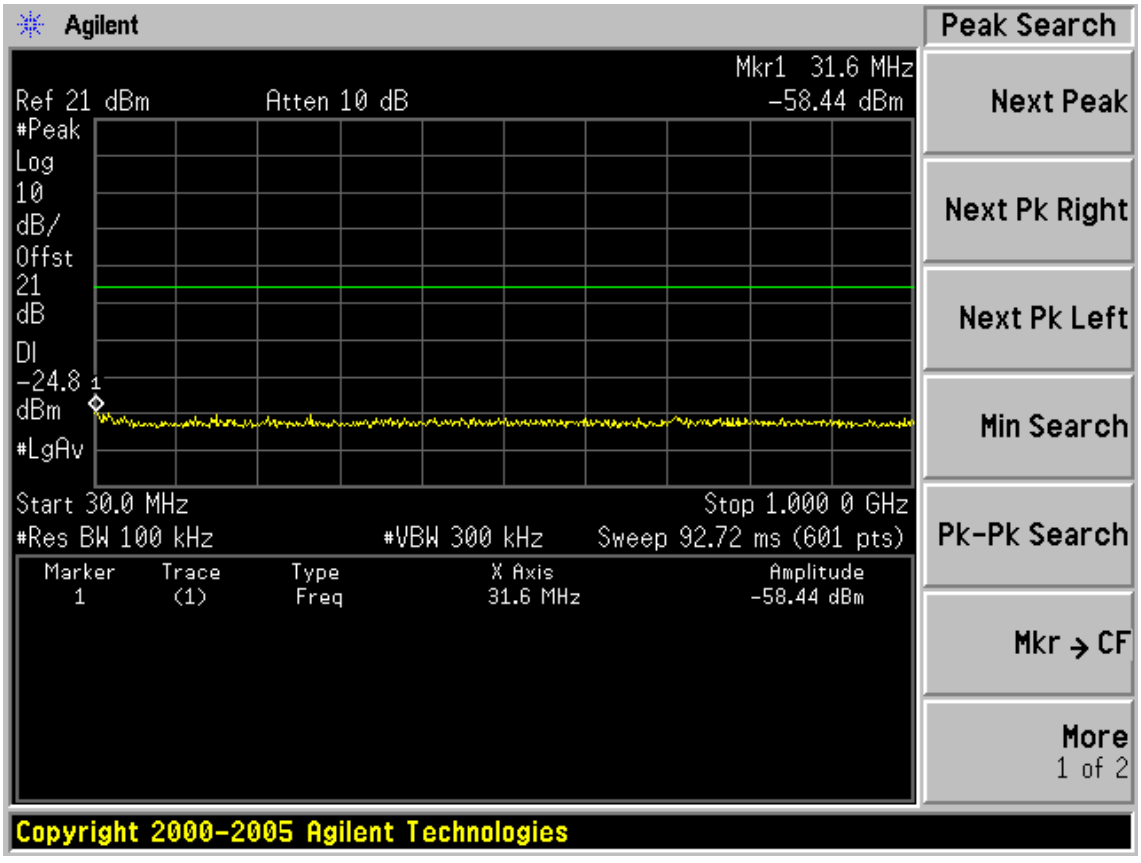

Agilent
Peak Search
Mkr1 33.2 MHz
Ref 21 dBm
Atten 10 dB
-59.02 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-22.8
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 33.2 MHz -59.02 dBm
Copyright 2000-2005 Agilent Technologies

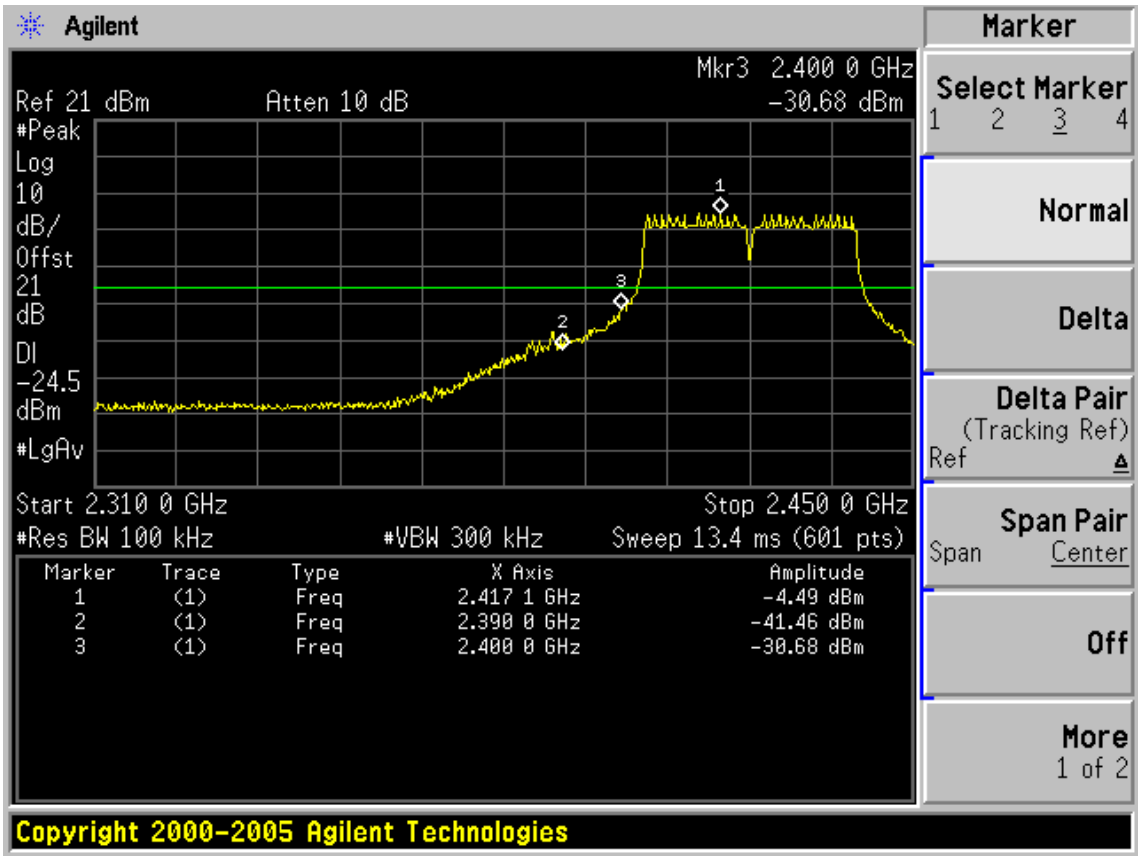


Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz

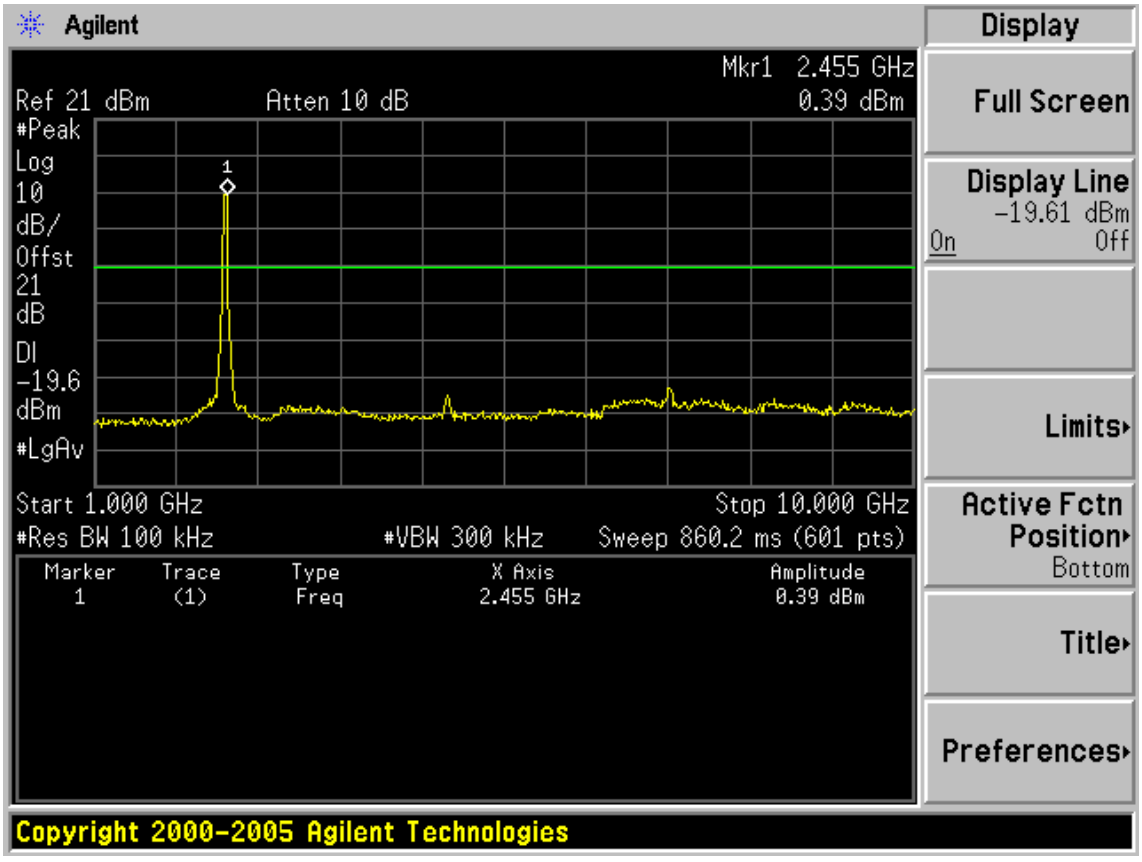


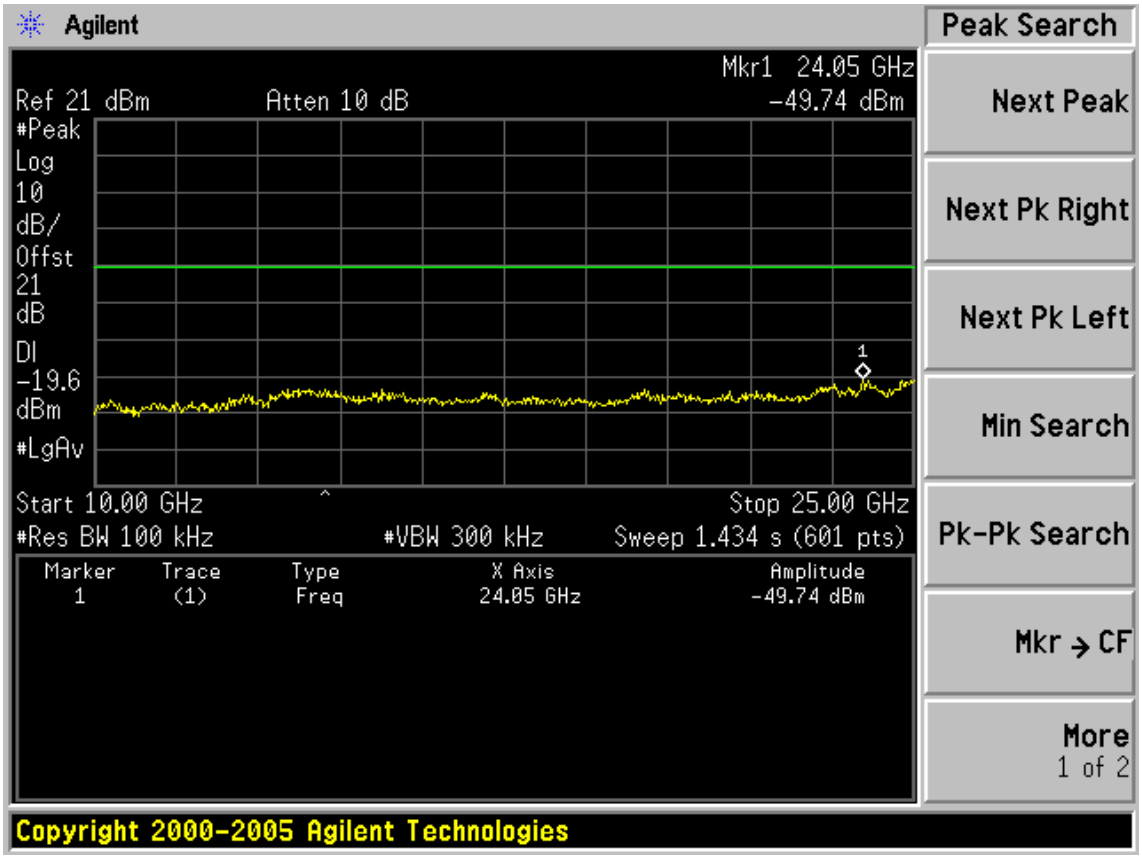

Agilent
Peak Search
Mkr1 24.98 GHz
Ref 21 dBm
Atten 10 dB
-49.60 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-24.8
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.98 GHz -49.60 dBm
Copyright 2000-2005 Agilent Technologies

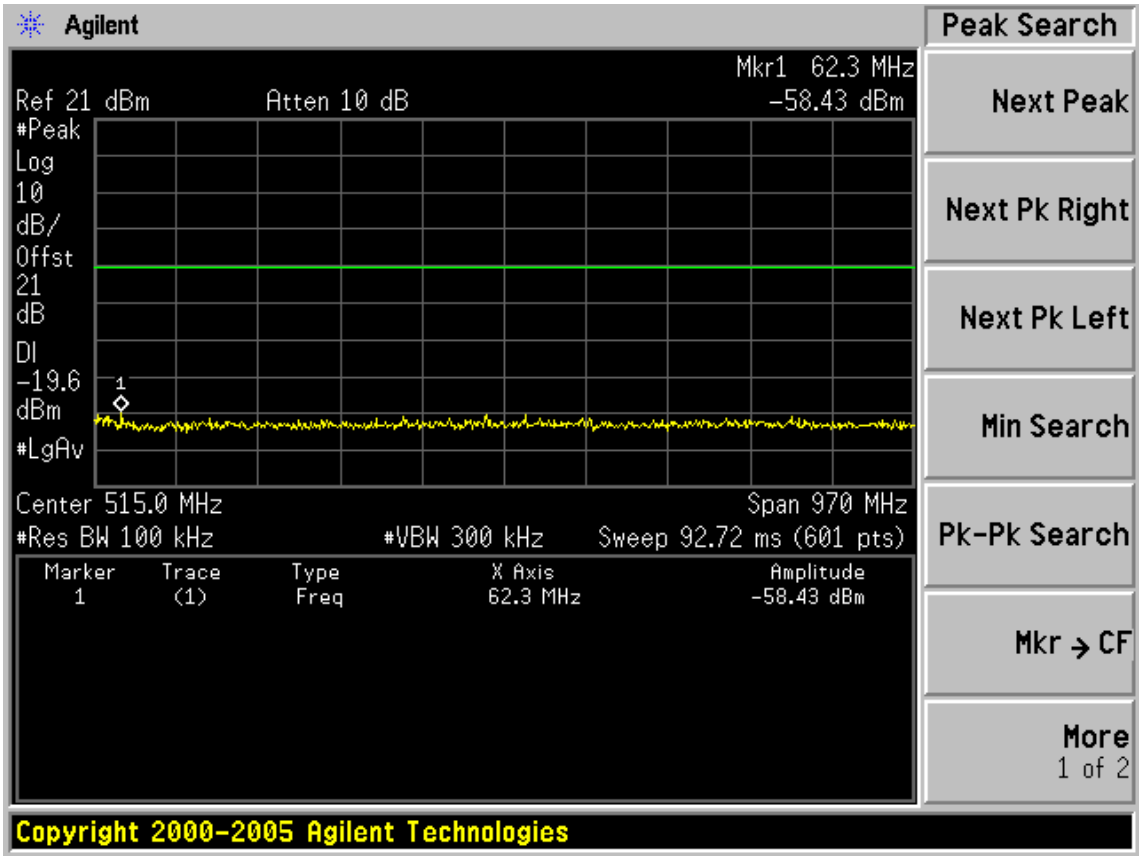

Agilent
Peak Search
Mkr1 31.6 MHz
Ref 21 dBm
Atten 10 dB
-58.44 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-24.8
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 31.6 MHz -58.44 dBm
Copyright 2000-2005 Agilent Technologies



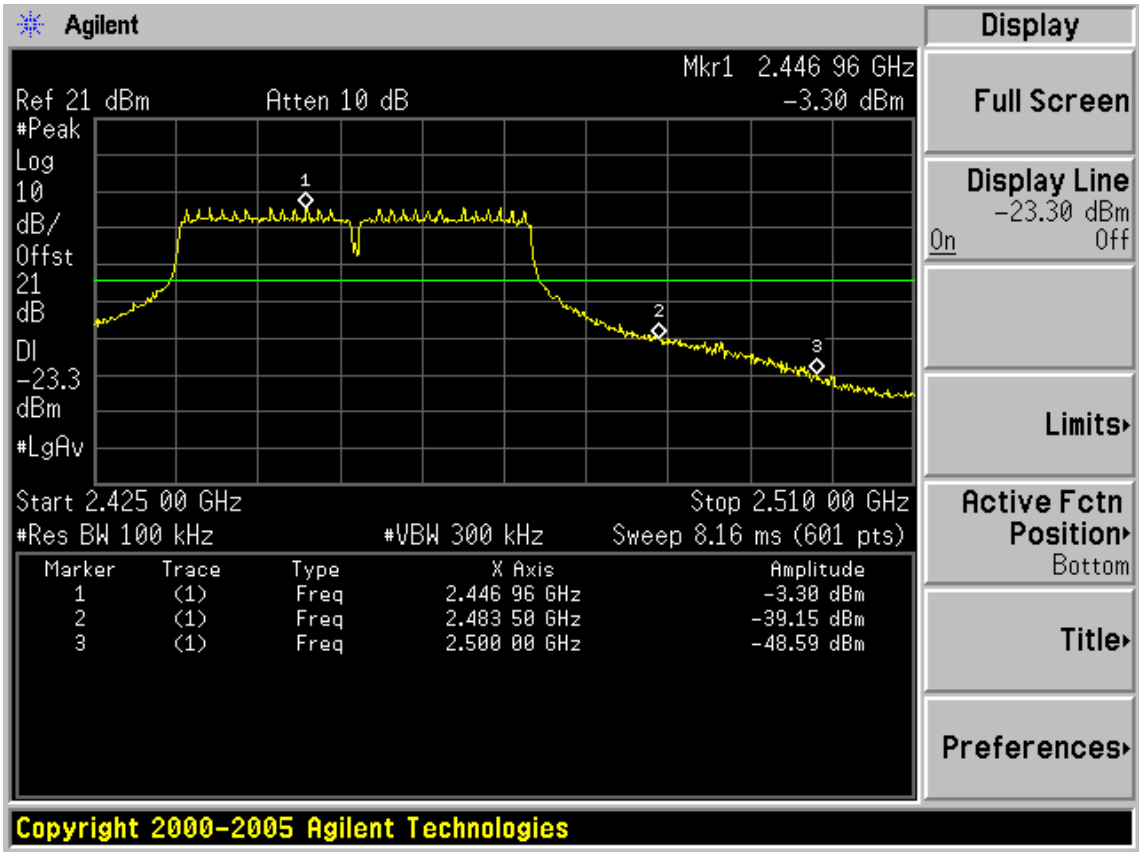
Test CH4: 2437MHz

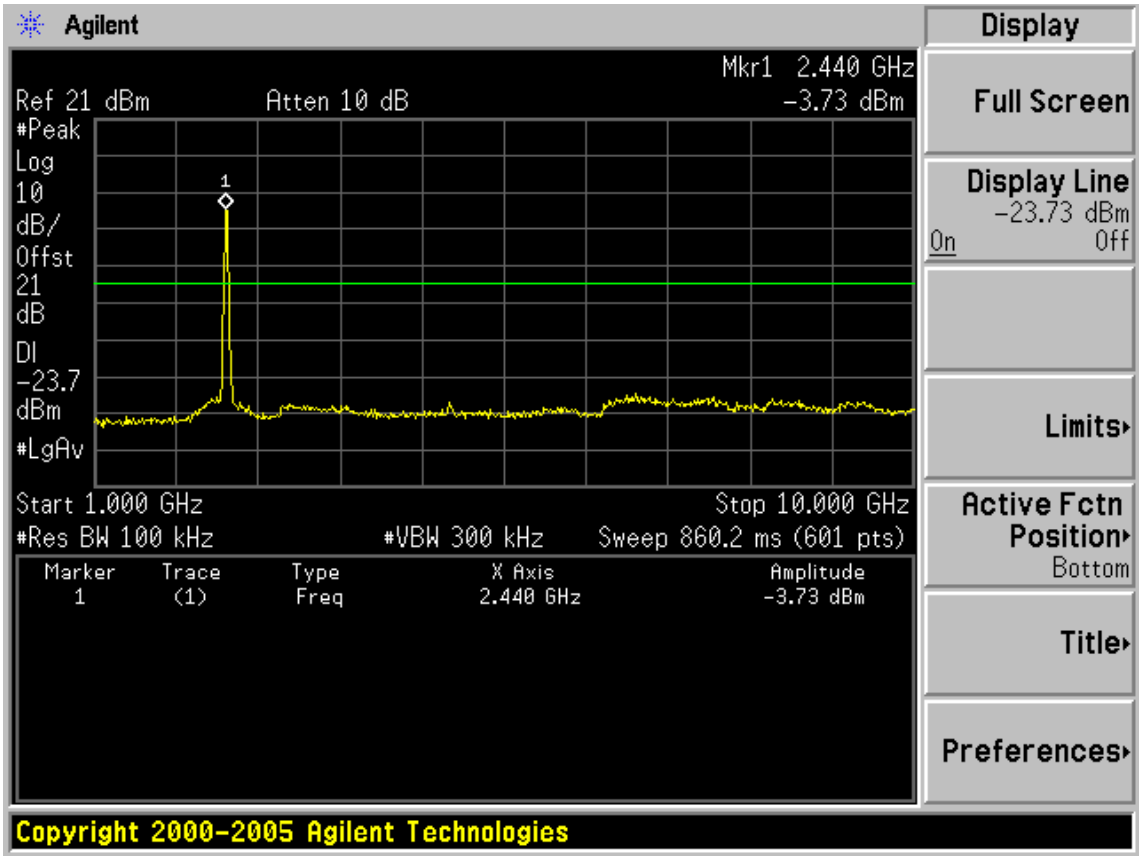


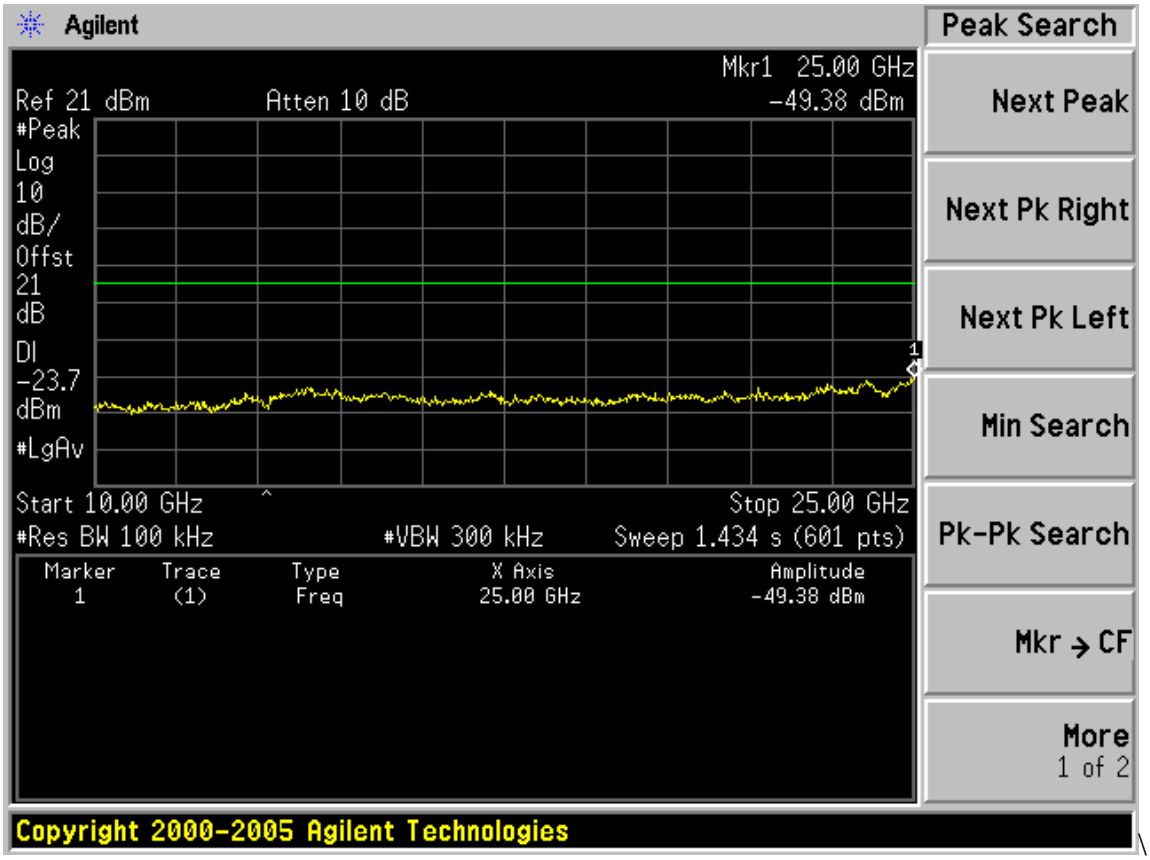

Agilent
Peak Search
Mkr1 24.05 GHz
Ref 21 dBm
Atten 10 dB
-49.74 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.6
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 24.05 GHz -49.74 dBm
Copyright 2000-2005 Agilent Technologies

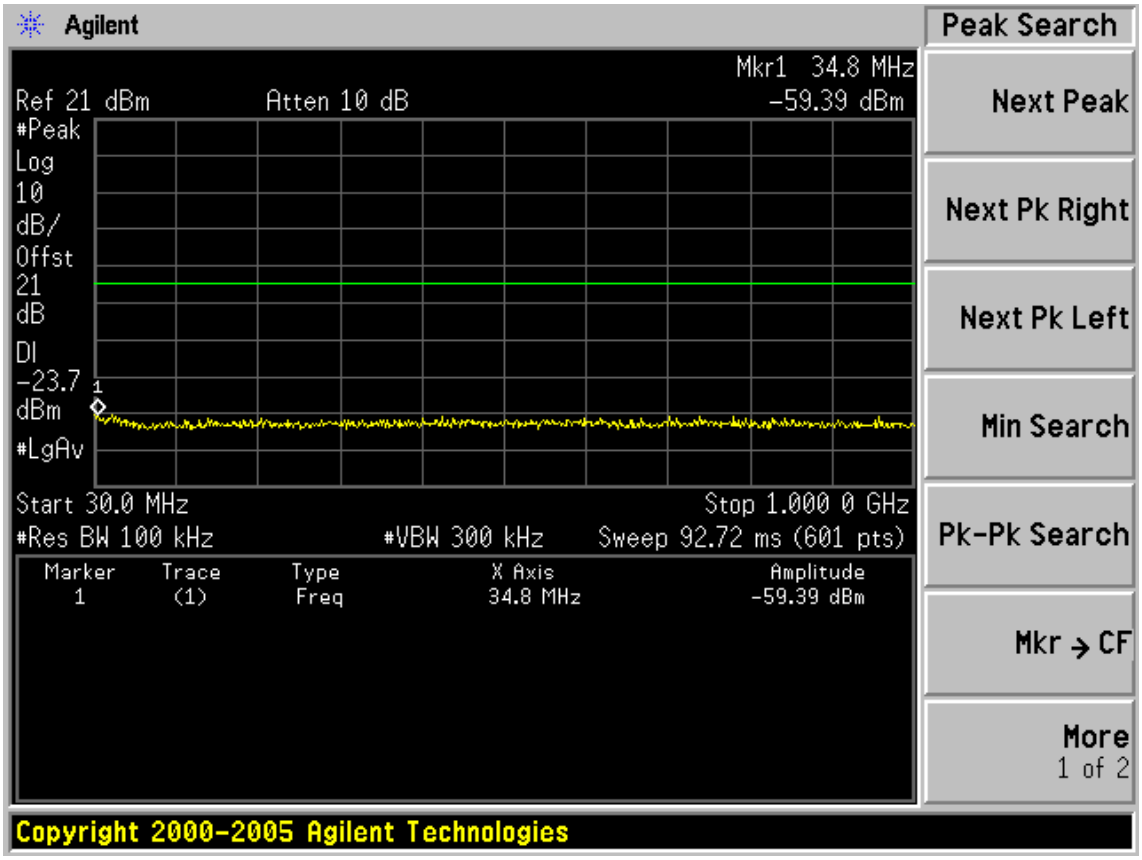

Agilent
Peak Search
Mkr1 62.3 MHz
Ref 21 dBm
Atten 10 dB
-58.43 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-19.6
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Center 515.0 MHz
Span 970 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 62.3 MHz -58.43 dBm
Copyright 2000-2005 Agilent Technologies

Test CH7: 2452MHz






Agilent
Peak Search
Mkr1 25.00 GHz
Ref 21 dBm
Atten 10 dB
-49.38 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-23.7
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.00 GHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 1.434 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 25.00 GHz -49.38 dBm
Copyright 2000-2005 Agilent Technologies


Agilent
Peak Search
Mkr1 34.8 MHz
Ref 21 dBm
Atten 10 dB
-59.39 dBm
#Peak
Log
10
dB/
Offst
21
dB
Dl
-23.7
dBm
#LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 34.8 MHz -59.39 dBm
Copyright 2000-2005 Agilent Technologies

6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.08, 12	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 12	1 Year

6.2.Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3.Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

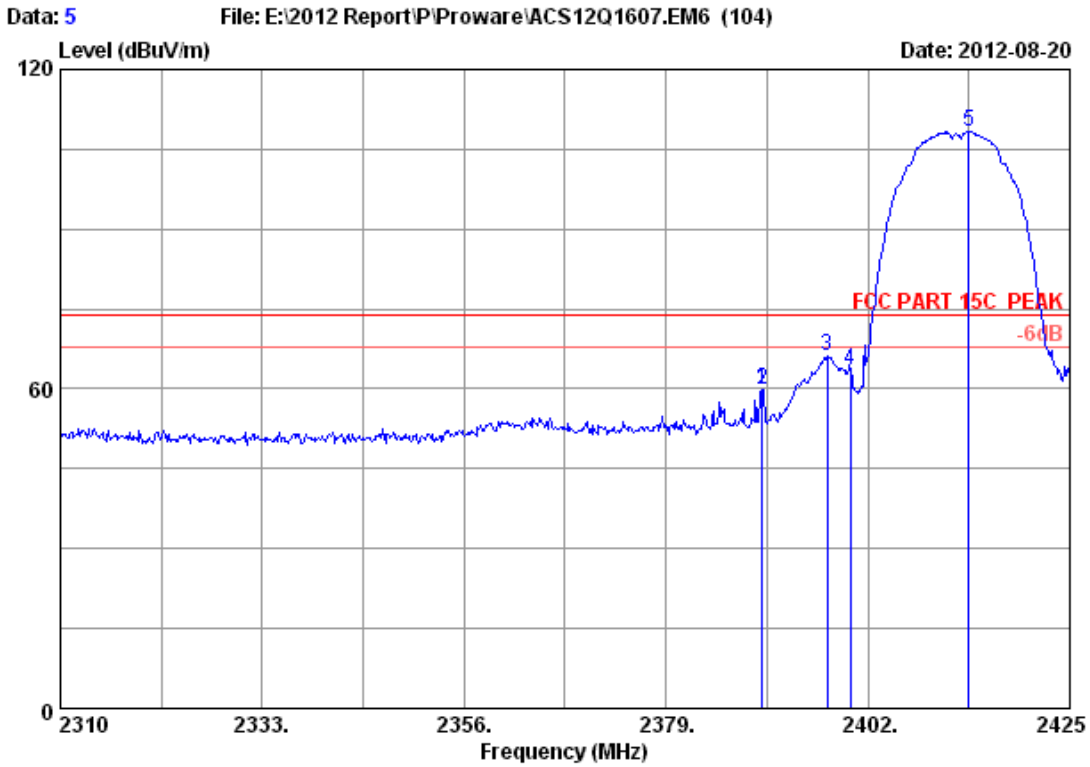
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

(a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
(b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4.Test Results

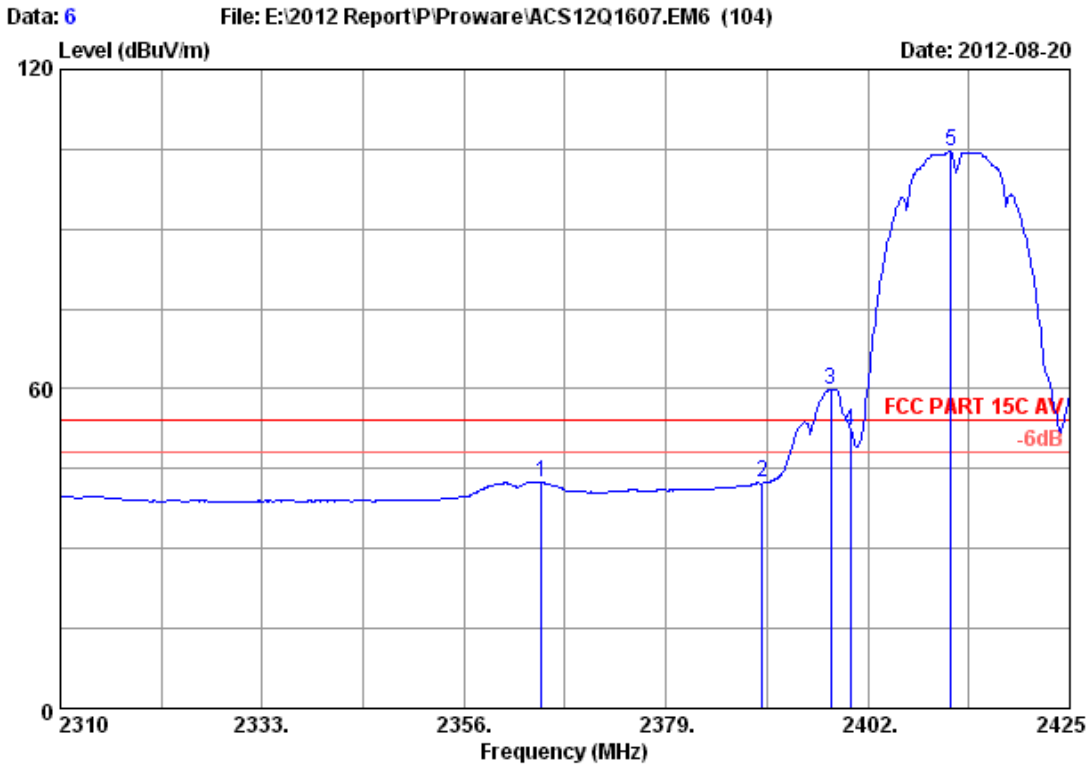
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 5
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.925	27.96	6.01	34.44	60.36	59.89	74.00	14.11	Peak
2	2390.000	27.96	6.01	34.44	60.22	59.75	74.00	14.25	Peak
3	2397.400	27.96	6.01	34.44	66.50	66.03	74.00	7.97	Peak
4	2400.000	27.96	6.01	34.44	64.11	63.64	74.00	10.36	Peak
5	2413.500	27.98	6.03	34.44	108.69	108.26	74.00	-34.26	Peak

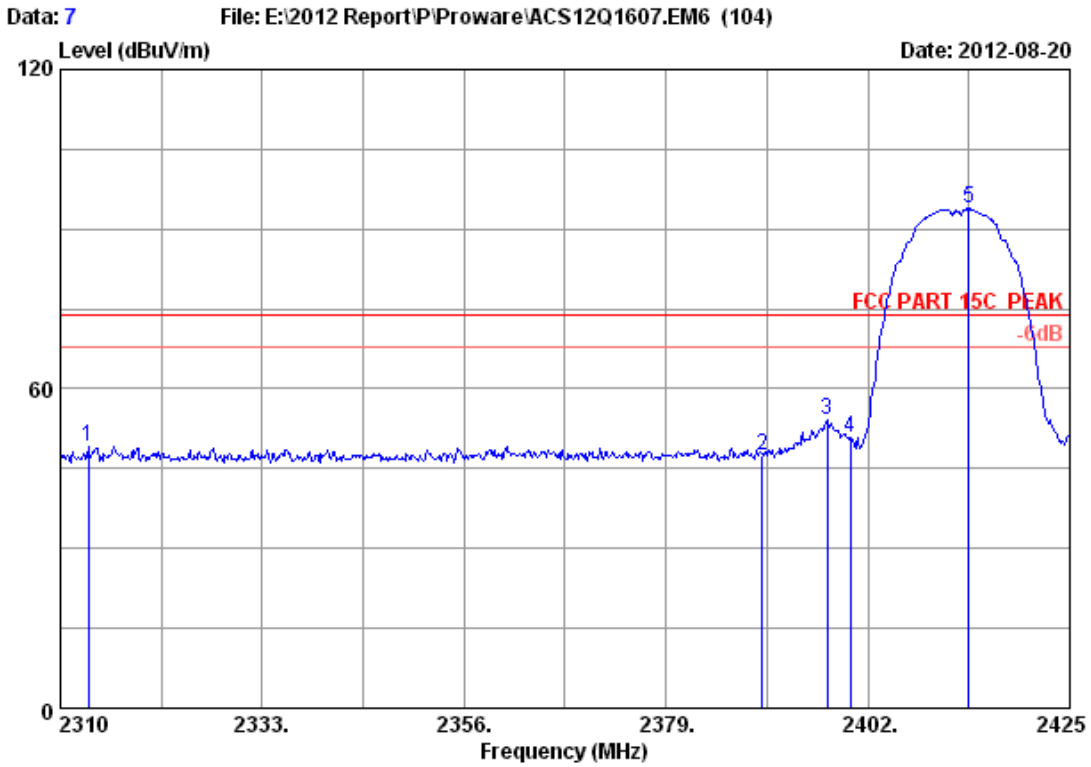
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2364.855	27.91	5.95	34.44	43.14	42.56	54.00	11.44	Average
2	2390.000	27.96	6.01	34.44	42.76	42.29	54.00	11.71	Average
3	2397.745	27.96	6.01	34.44	60.47	60.00	54.00	-6.00	Average
4	2400.000	27.96	6.01	34.44	52.72	52.25	54.00	1.75	Average
5	2411.430	27.98	6.03	34.44	104.94	104.51	54.00	-50.51	Average

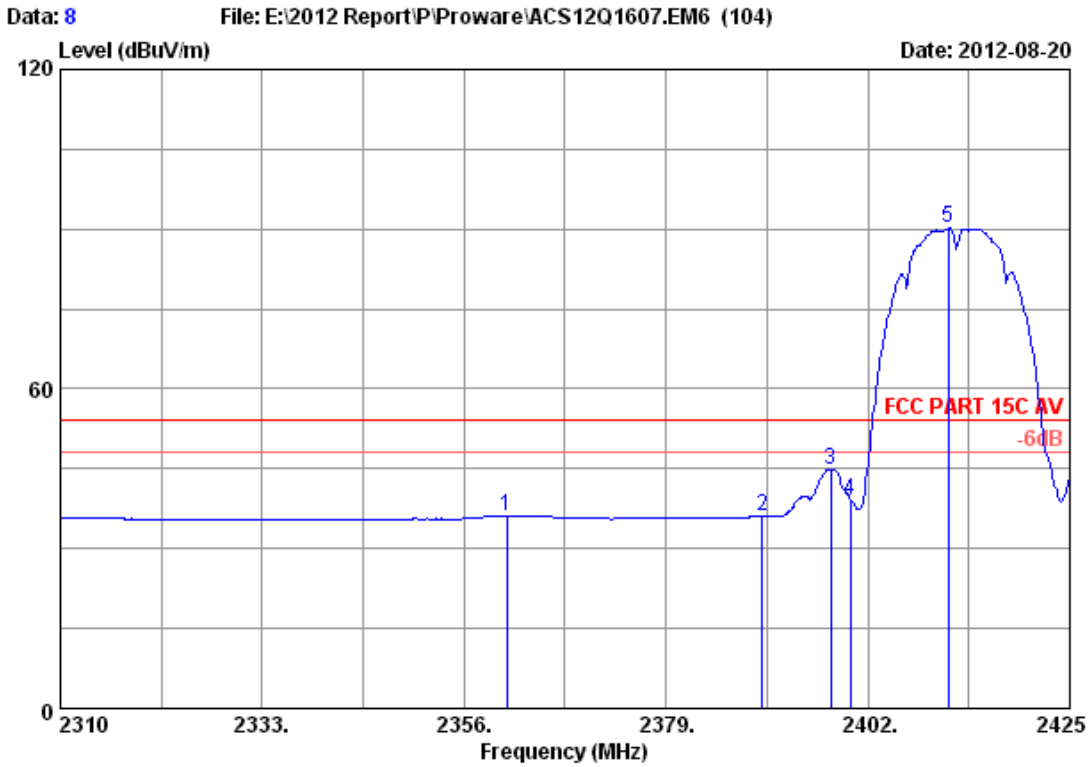
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2313.220	27.83	5.89	34.43	50.01	49.30	74.00	24.70	Peak
2	2390.000	27.96	6.01	34.44	48.09	47.62	74.00	26.38	Peak
3	2397.400	27.96	6.01	34.44	54.65	54.18	74.00	19.82	Peak
4	2400.000	27.96	6.01	34.44	51.20	50.73	74.00	23.27	Peak
5	2413.500	27.98	6.03	34.44	94.25	93.82	74.00	-19.82	Peak

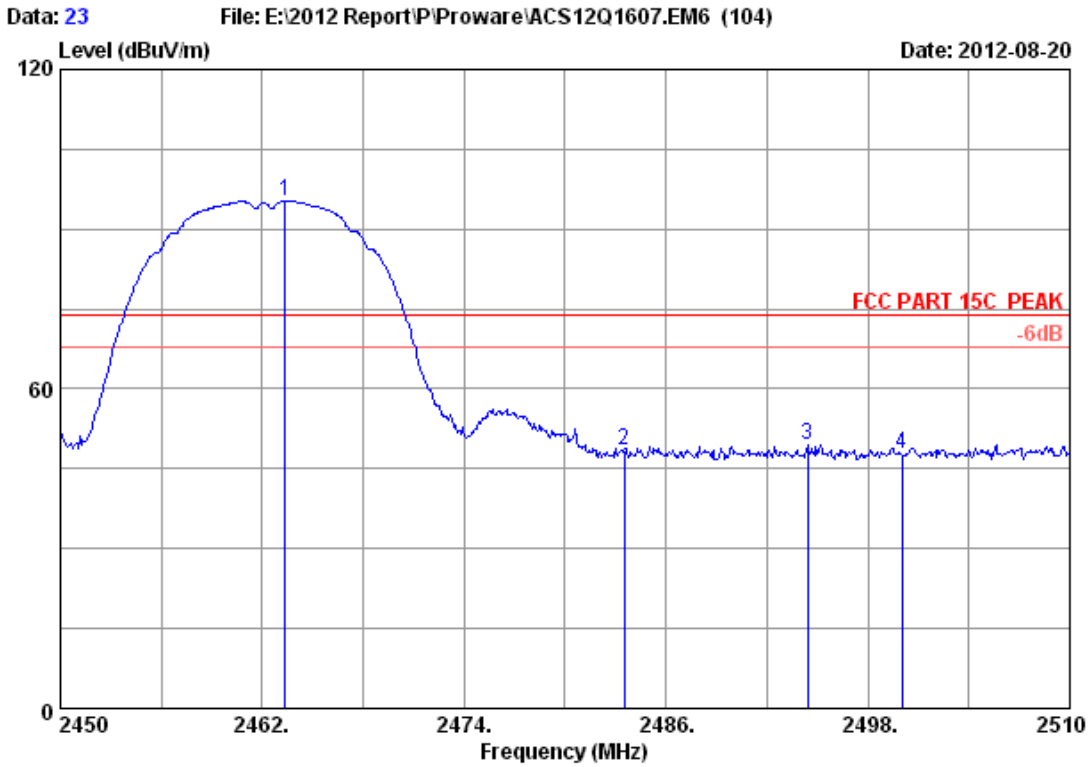
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2360.830	27.91	5.95	34.44	36.80	36.22	54.00	17.78	Average
2	2390.000	27.96	6.01	34.44	36.42	35.95	54.00	18.05	Average
3	2397.745	27.96	6.01	34.44	45.38	44.91	54.00	9.09	Average
4	2400.000	27.96	6.01	34.44	39.71	39.24	54.00	14.76	Average
5	2411.200	27.98	6.03	34.44	90.57	90.14	54.00	-36.14	Average

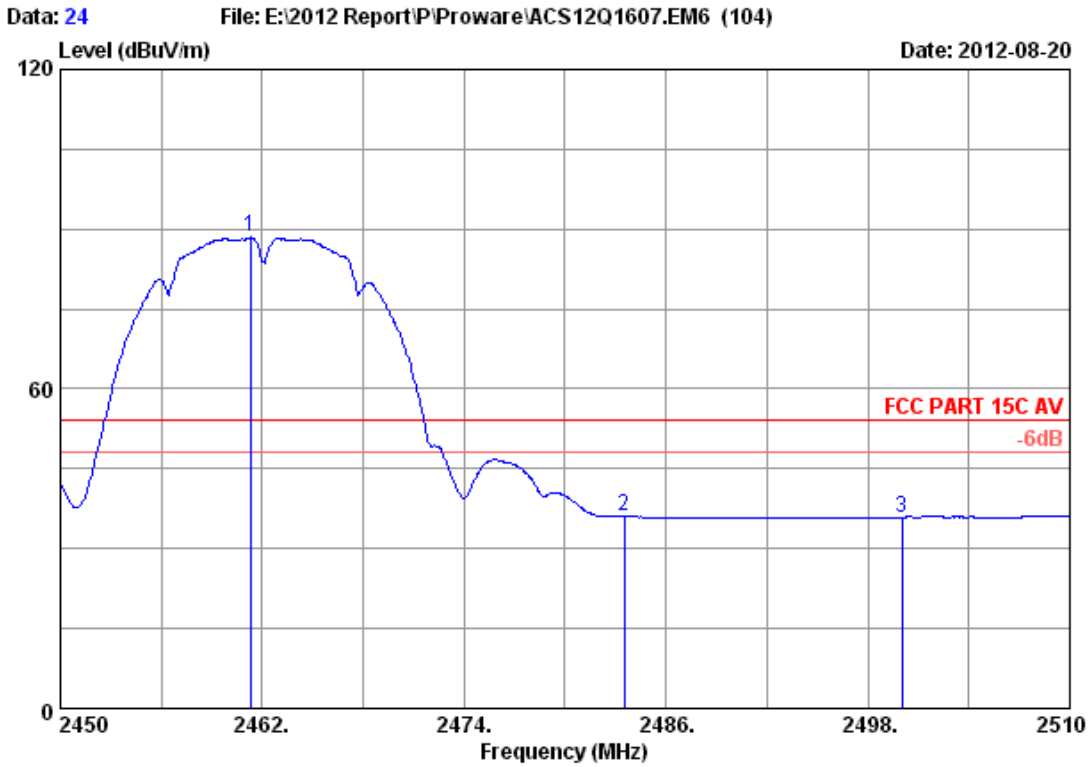
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.380	28.05	6.12	34.45	95.59	95.31	74.00	-21.31	Peak
2	2483.500	28.08	6.15	34.45	48.63	48.41	74.00	25.59	Peak
3	2494.400	28.10	6.18	34.45	49.76	49.59	74.00	24.41	Peak
4	2500.000	28.10	6.18	34.45	48.00	47.83	74.00	26.17	Peak

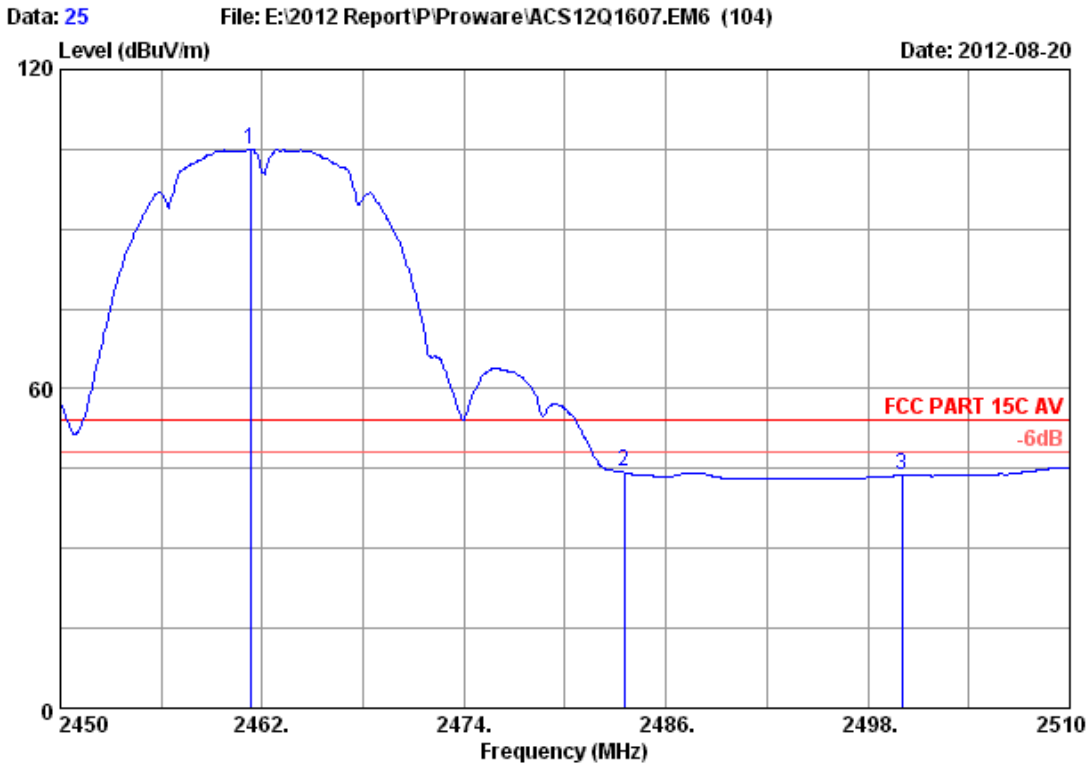
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.280	28.05	6.12	34.44	88.68	88.41	54.00	-34.41	Average
2	2483.500	28.08	6.15	34.45	36.20	35.98	54.00	18.02	Average
3	2500.000	28.10	6.18	34.45	36.10	35.93	54.00	18.07	Average

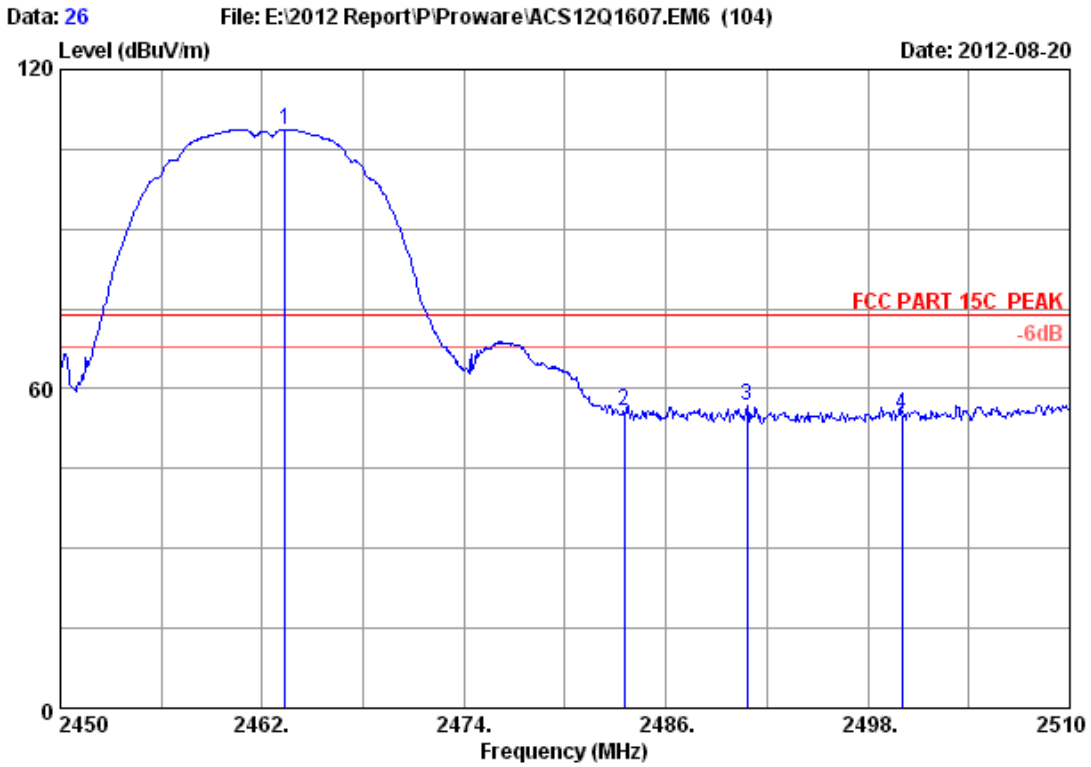
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 25
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.280	28.05	6.12	34.44	105.33	105.06	54.00	-51.06	Average
2	2483.500	28.08	6.15	34.45	44.55	44.33	54.00	9.67	Average
3	2500.000	28.10	6.18	34.45	44.03	43.86	54.00	10.14	Average

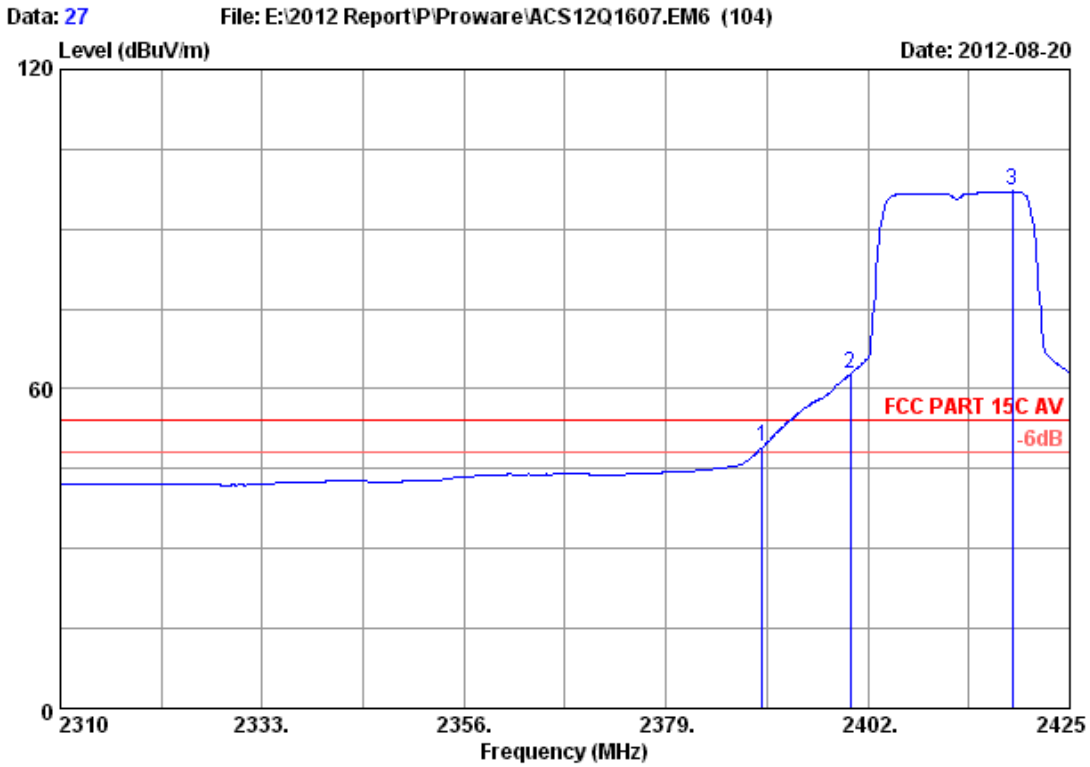
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.380	28.05	6.12	34.45	109.03	108.75	74.00	-34.75	Peak
2	2483.500	28.08	6.15	34.45	56.06	55.84	74.00	18.16	Peak
3	2490.800	28.10	6.15	34.45	56.93	56.73	74.00	17.27	Peak
4	2500.000	28.10	6.18	34.45	55.23	55.06	74.00	18.94	Peak

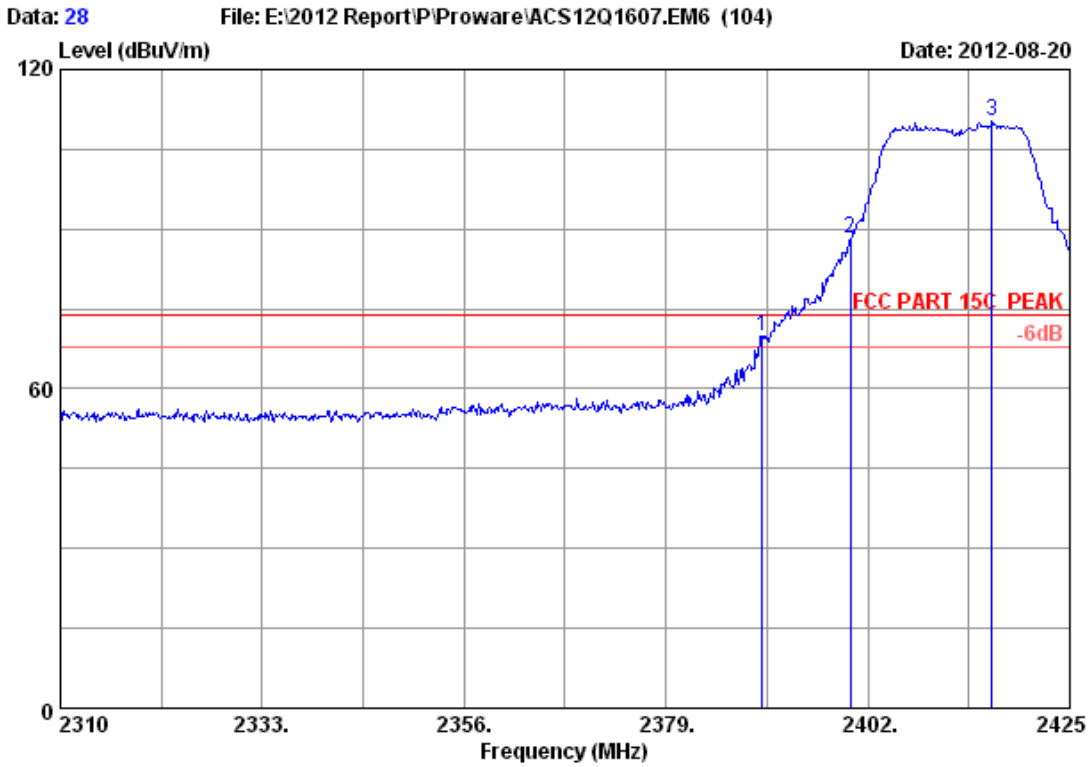
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 27
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	49.59	49.12	54.00	4.88	Peak
2	2400.000	27.96	6.01	34.44	63.38	62.91	54.00	-8.91	Average
3	2418.445	27.98	6.03	34.44	97.53	97.10	54.00	-43.10	Average

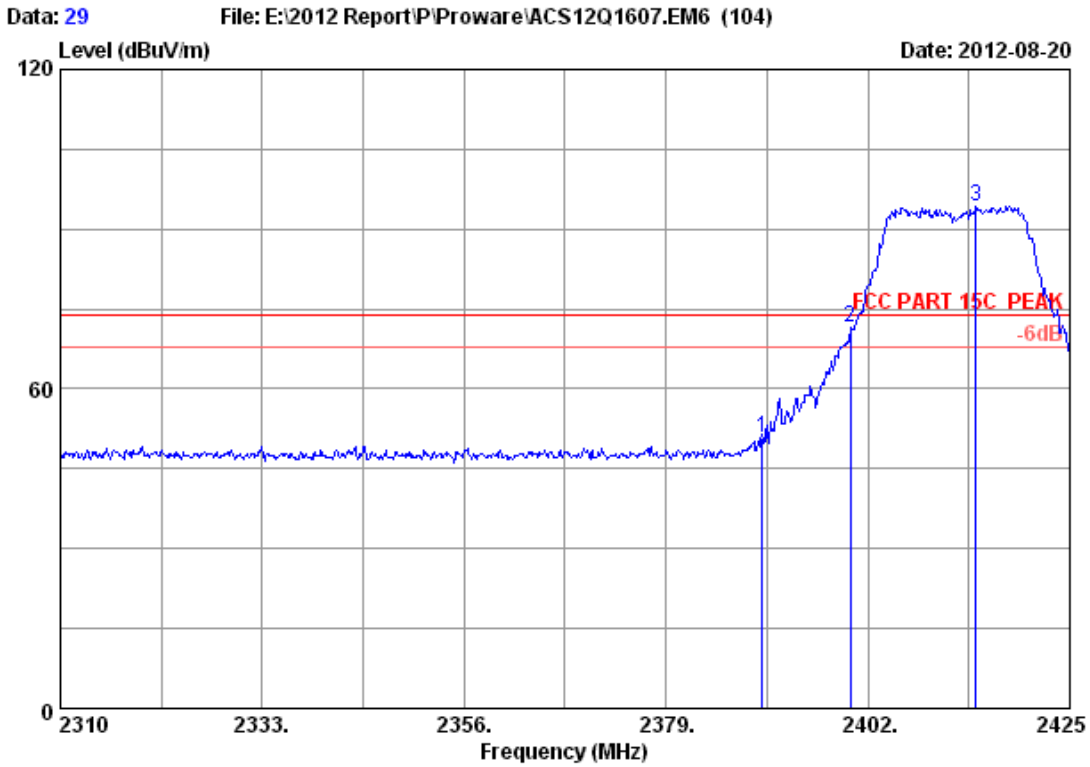
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 28
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	70.28	69.81	74.00	4.19	Peak
2	2400.000	27.96	6.01	34.44	88.83	88.36	74.00	-14.36	Peak
3	2416.145	27.98	6.03	34.44	110.79	110.36	74.00	-36.36	Peak

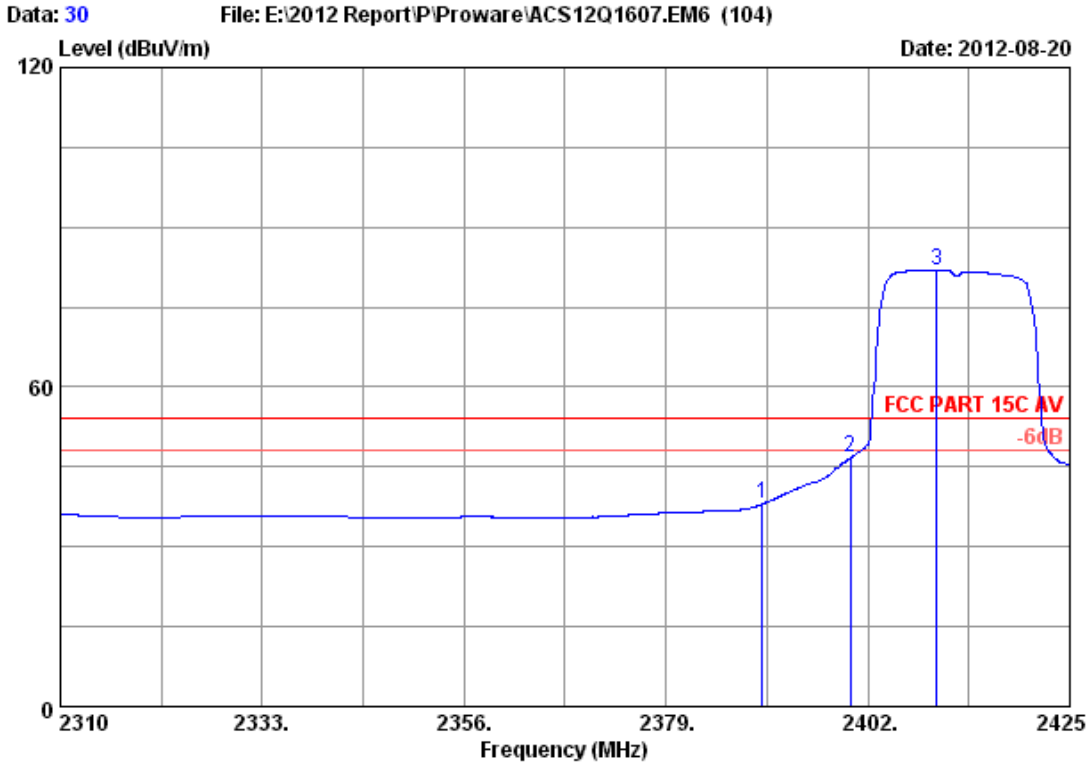
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 29
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	51.16	50.69	74.00	23.31	Peak
2	2400.000	27.96	6.01	34.44	71.86	71.39	74.00	2.61	Peak
3	2414.305	27.98	6.03	34.44	94.75	94.32	74.00	-20.32	Peak

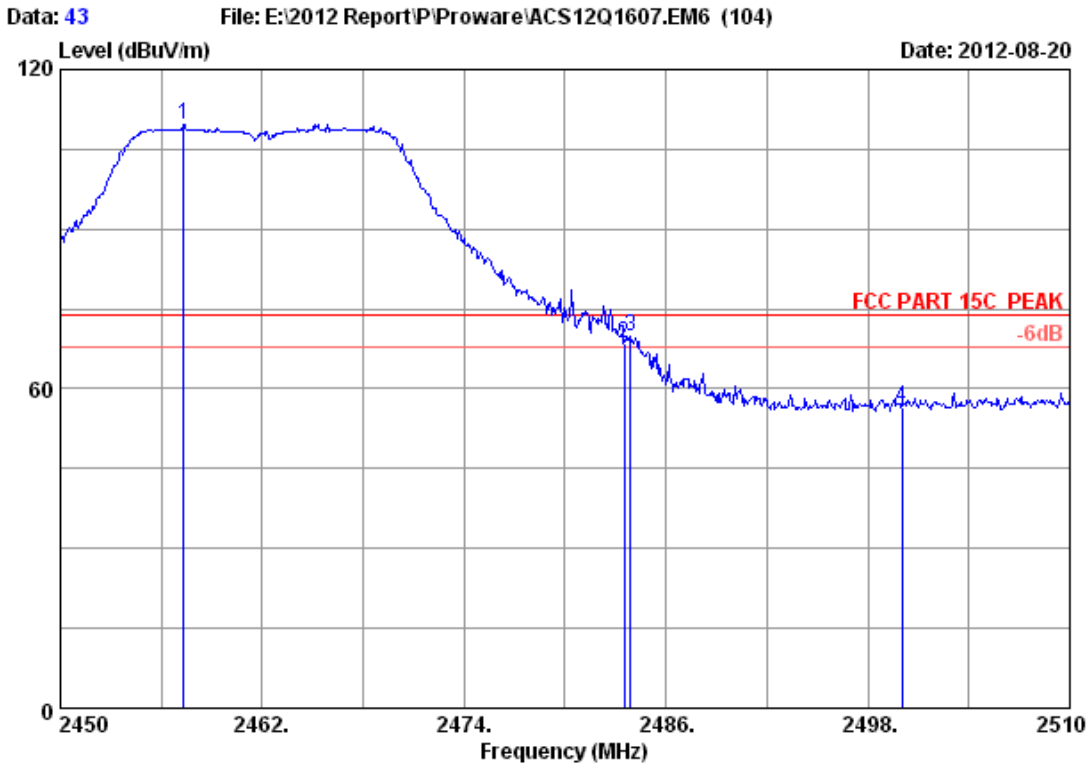
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	38.52	38.05	54.00	15.95	Average
2	2400.000	27.96	6.01	34.44	47.24	46.77	54.00	7.23	Average
3	2409.820	27.98	6.03	34.44	82.39	81.96	54.00	-27.96	Average

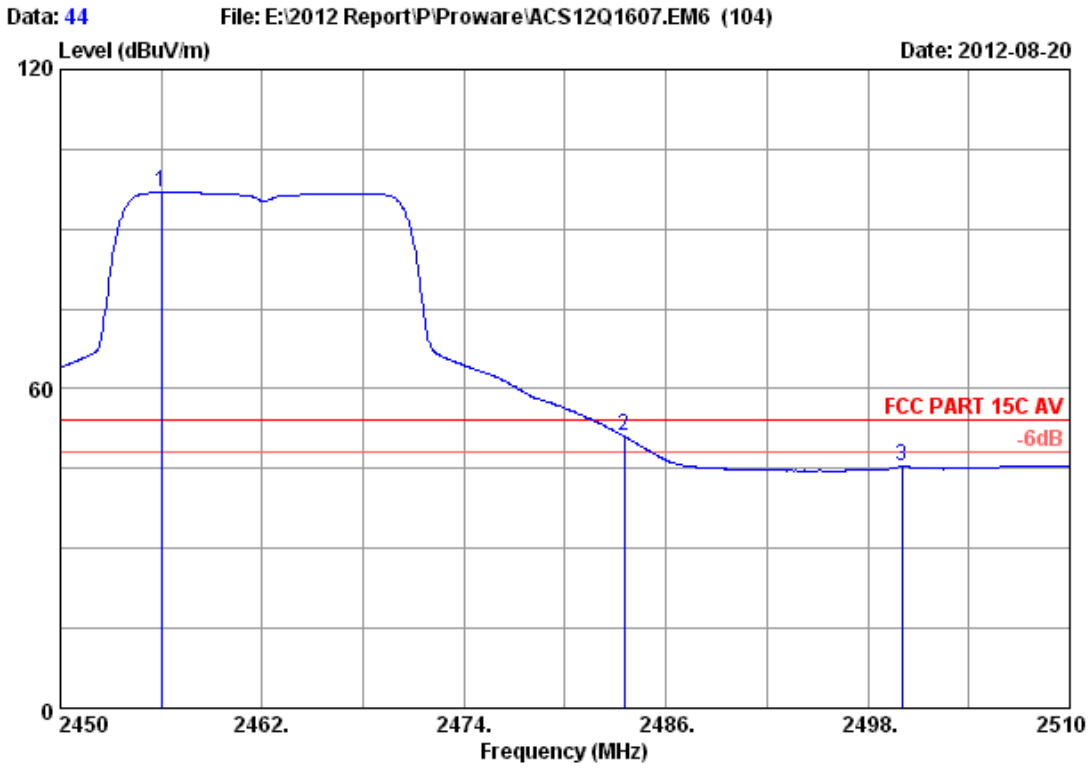
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 43
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2457.320	28.05	6.12	34.44	110.06	109.79	74.00	-35.79	Peak
2	2483.500	28.08	6.15	34.45	68.73	68.51	74.00	5.49	Peak
3	2483.900	28.08	6.15	34.45	70.08	69.86	74.00	4.14	Peak
4	2500.000	28.10	6.18	34.45	56.54	56.37	74.00	17.63	Peak

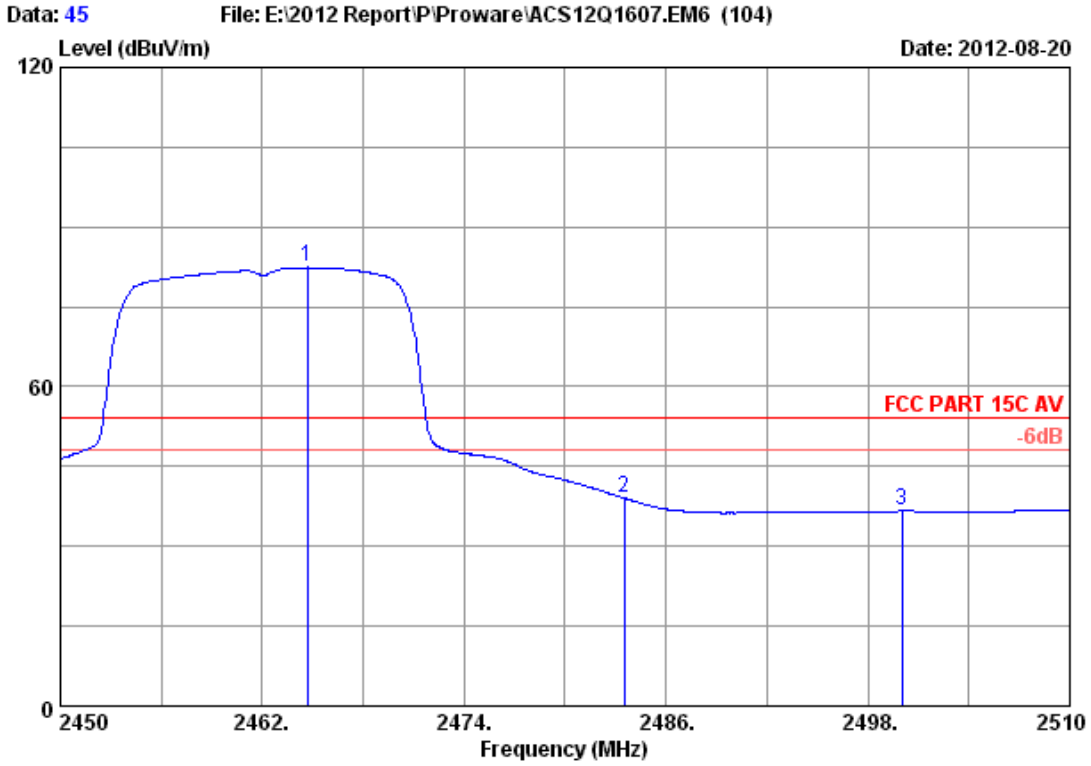
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 44
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.000	28.05	6.09	34.44	97.25	96.95	54.00	-42.95	Average
2	2483.500	28.08	6.15	34.45	51.32	51.10	54.00	2.90	Average
3	2500.000	28.10	6.18	34.45	45.57	45.40	54.00	8.60	Average

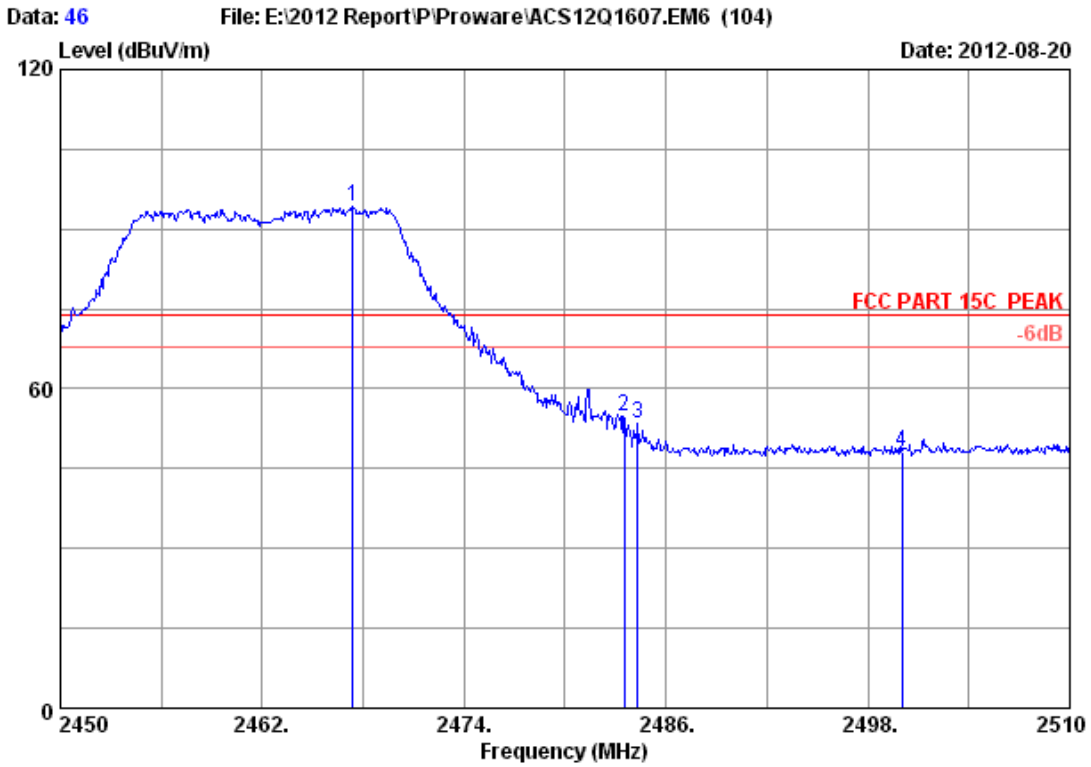
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 45
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2464.700	28.05	6.12	34.45	82.69	82.41	54.00	-28.41	Average
2	2483.500	28.08	6.15	34.45	39.26	39.04	54.00	14.96	Average
3	2500.000	28.10	6.18	34.45	36.85	36.68	54.00	17.32	Average

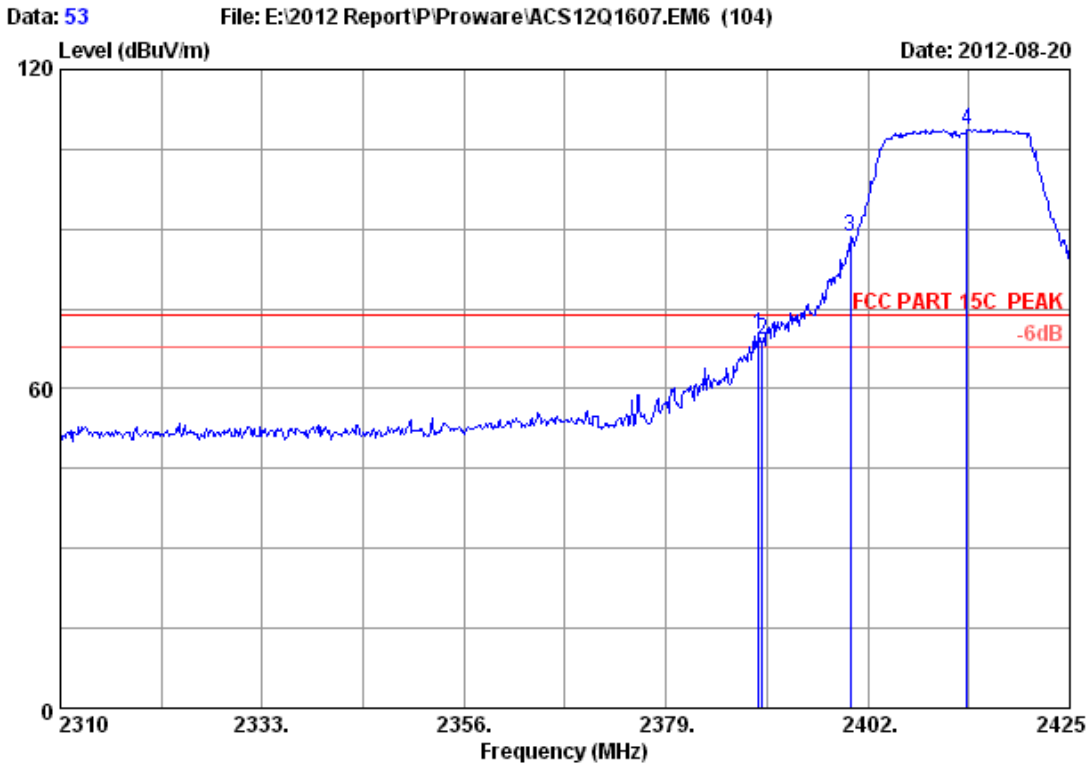
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 46
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2467.400	28.05	6.12	34.45	94.42	94.14	74.00	-20.14	Peak
2	2483.500	28.08	6.15	34.45	55.20	54.98	74.00	19.02	Peak
3	2484.320	28.08	6.15	34.45	53.77	53.55	74.00	20.45	Peak
4	2500.000	28.10	6.18	34.45	48.31	48.14	74.00	25.86	Peak

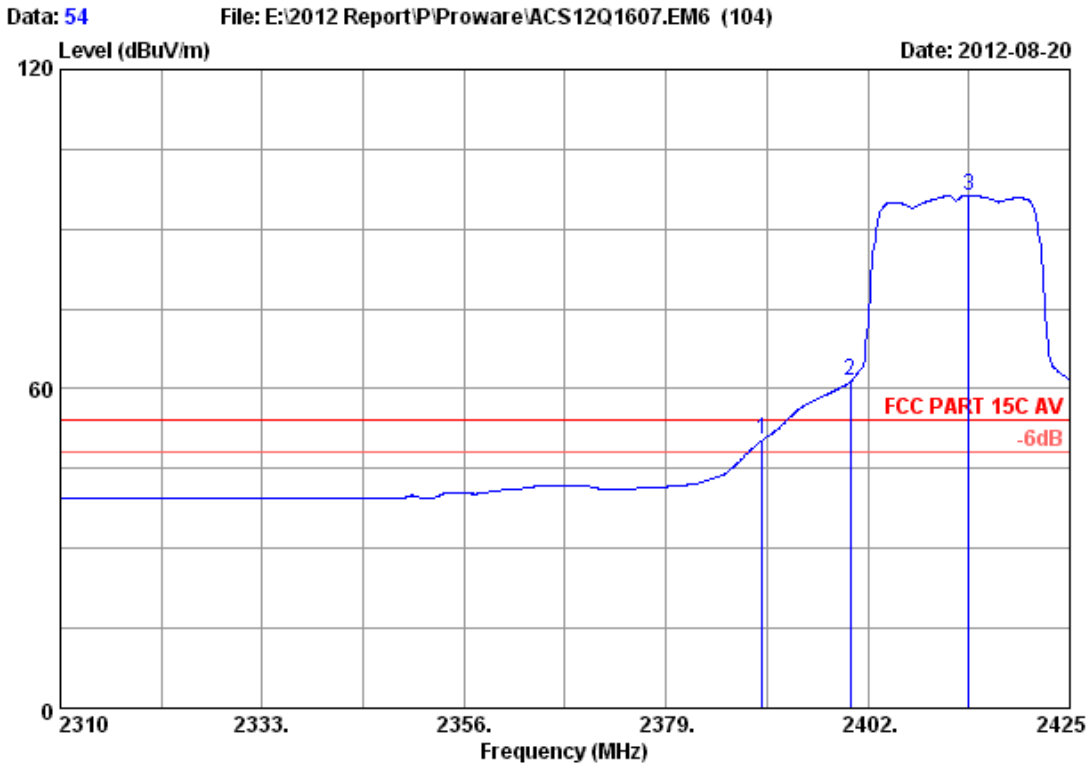
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 53
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.580	27.96	6.01	34.44	70.61	70.14	74.00	3.86	Peak
2	2390.000	27.96	6.01	34.44	69.61	69.14	74.00	4.86	Peak
3	2400.000	27.96	6.01	34.44	89.14	88.67	74.00	-14.67	Peak
4	2413.270	27.98	6.03	34.44	109.18	108.75	74.00	-34.75	Peak

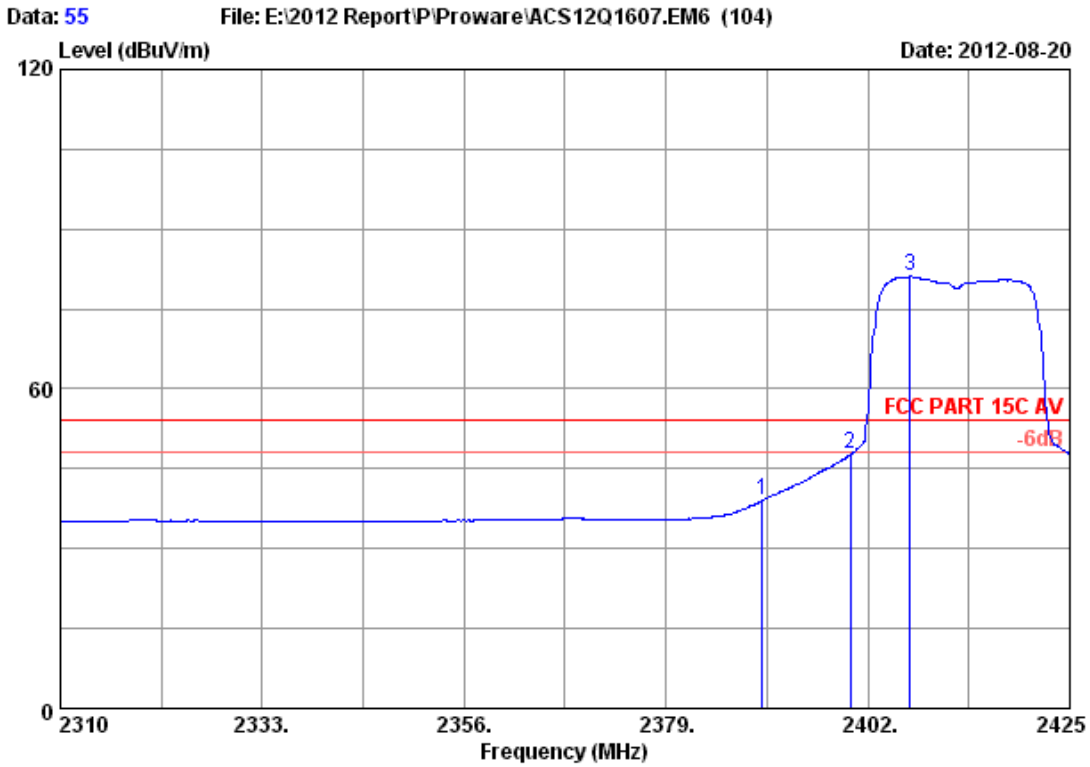
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 54
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	50.87	50.40	54.00	3.60	Average
2	2400.000	27.96	6.01	34.44	61.92	61.45	54.00	-7.45	Average
3	2413.500	27.98	6.03	34.44	96.81	96.38	54.00	-42.38	Average

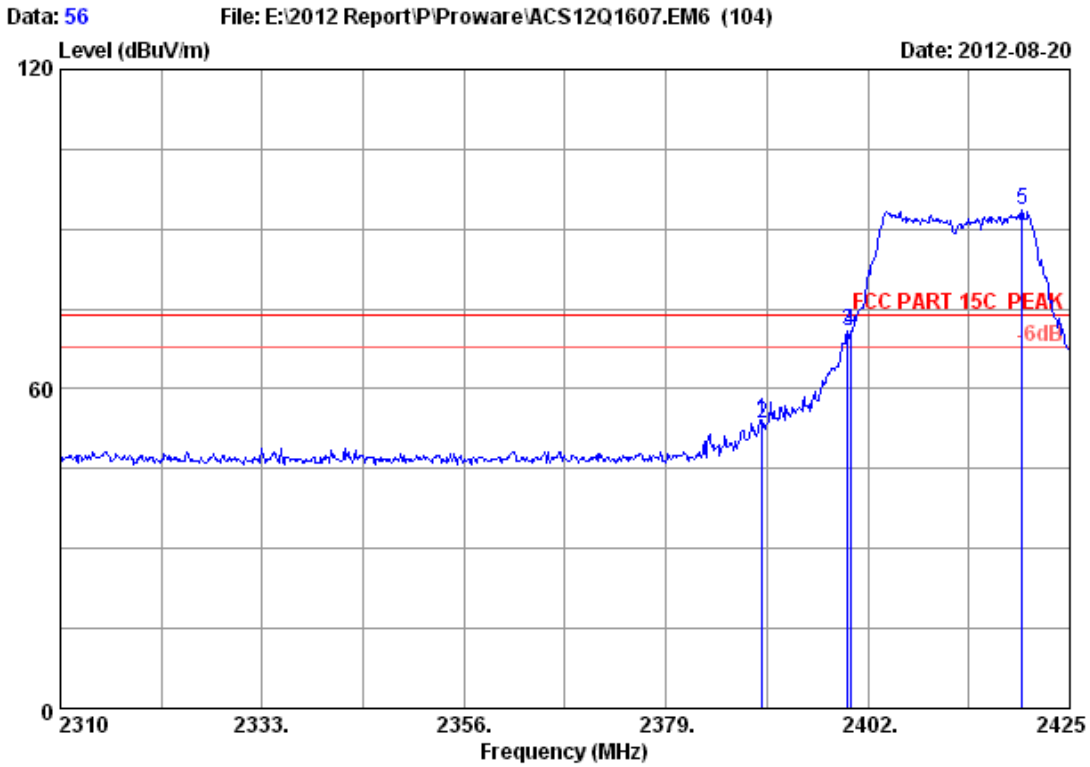
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 55
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	39.51	39.04	54.00	14.96	Average
2	2400.000	27.96	6.01	34.44	48.29	47.82	54.00	6.18	Average
3	2406.830	27.98	6.03	34.44	81.51	81.08	54.00	-27.08	Average

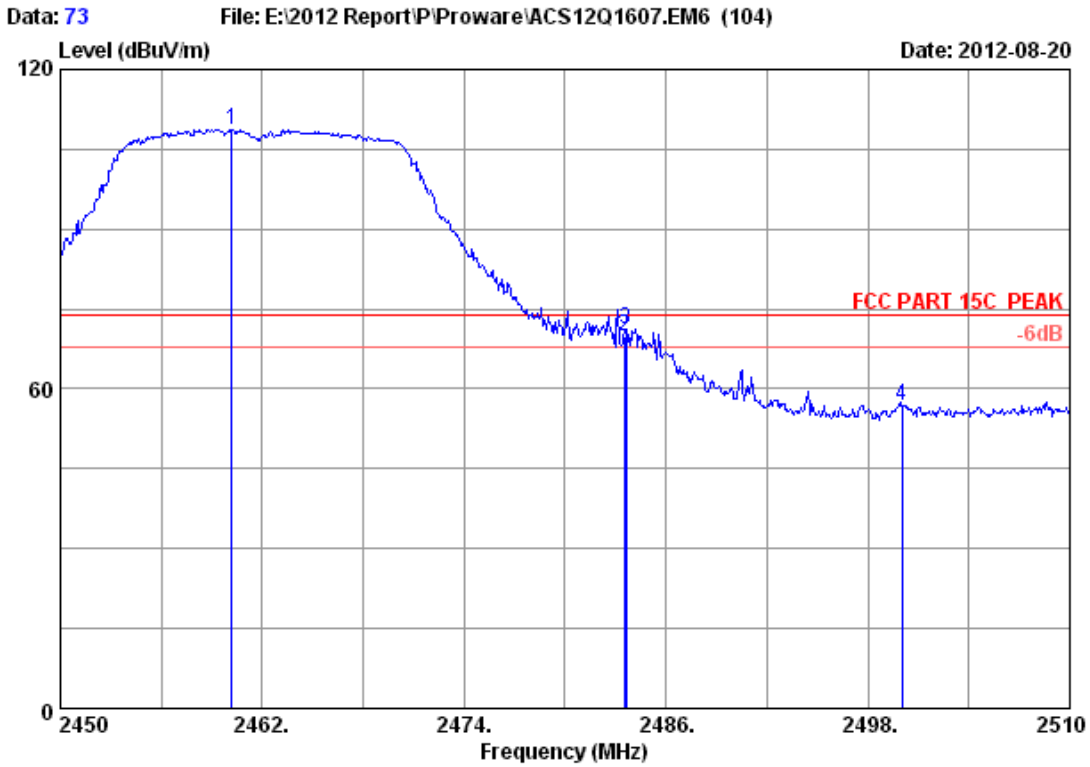
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 56
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.925	27.96	6.01	34.44	54.73	54.26	74.00	19.74	Peak
2	2390.000	27.96	6.01	34.44	53.96	53.49	74.00	20.51	Peak
3	2399.700	27.96	6.01	34.44	71.38	70.91	74.00	3.09	Peak
4	2400.000	27.96	6.01	34.44	71.27	70.80	74.00	3.20	Peak
5	2419.595	28.00	6.03	34.44	94.02	93.61	74.00	-19.61	Peak

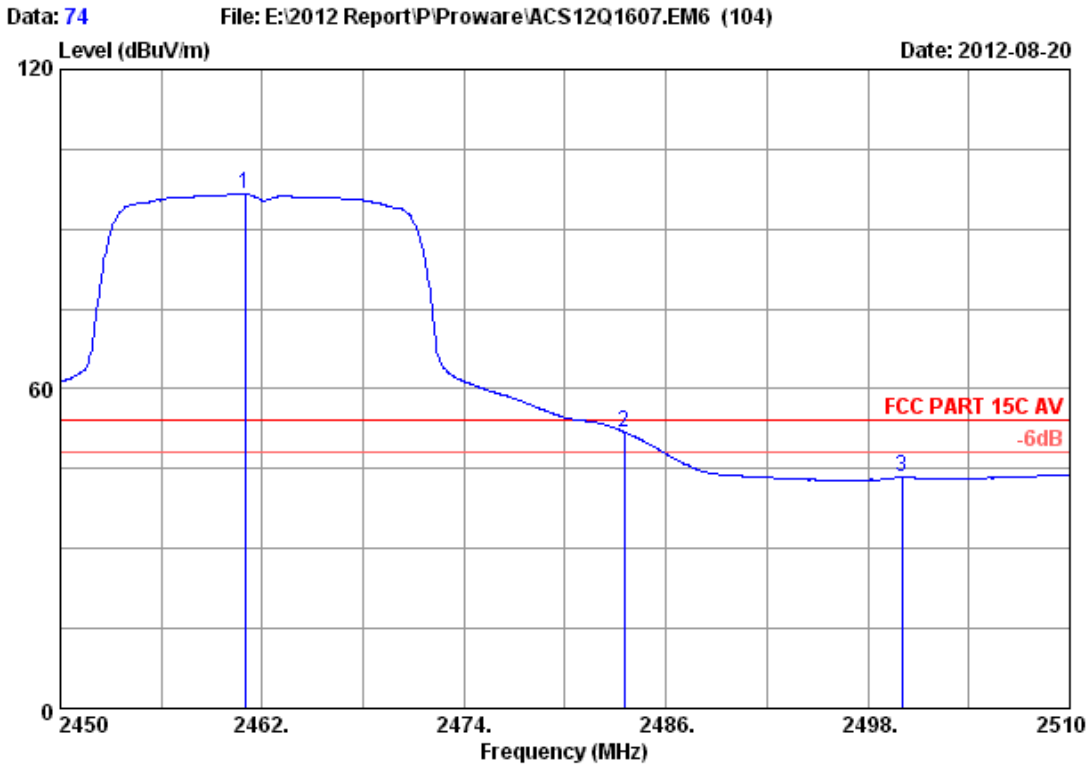
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 73
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.200	28.05	6.12	34.44	108.95	108.68	74.00	-34.68	Peak
2	2483.500	28.08	6.15	34.45	70.05	69.83	74.00	4.17	Peak
3	2483.600	28.08	6.15	34.45	71.51	71.29	74.00	2.71	Peak
4	2500.000	28.10	6.18	34.45	57.05	56.88	74.00	17.12	Peak

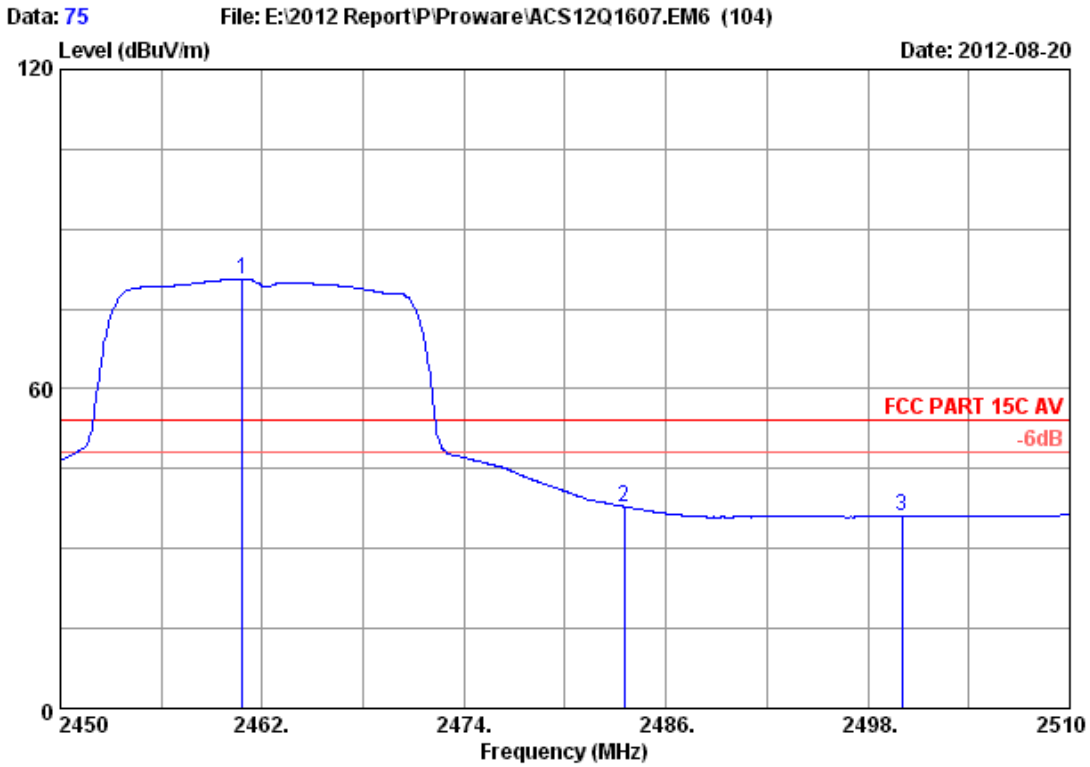
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 74
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.980	28.05	6.12	34.44	96.81	96.54	54.00	-42.54	Average
2	2483.500	28.08	6.15	34.45	52.14	51.92	54.00	2.08	Average
3	2500.000	28.10	6.18	34.45	43.70	43.53	54.00	10.47	Average

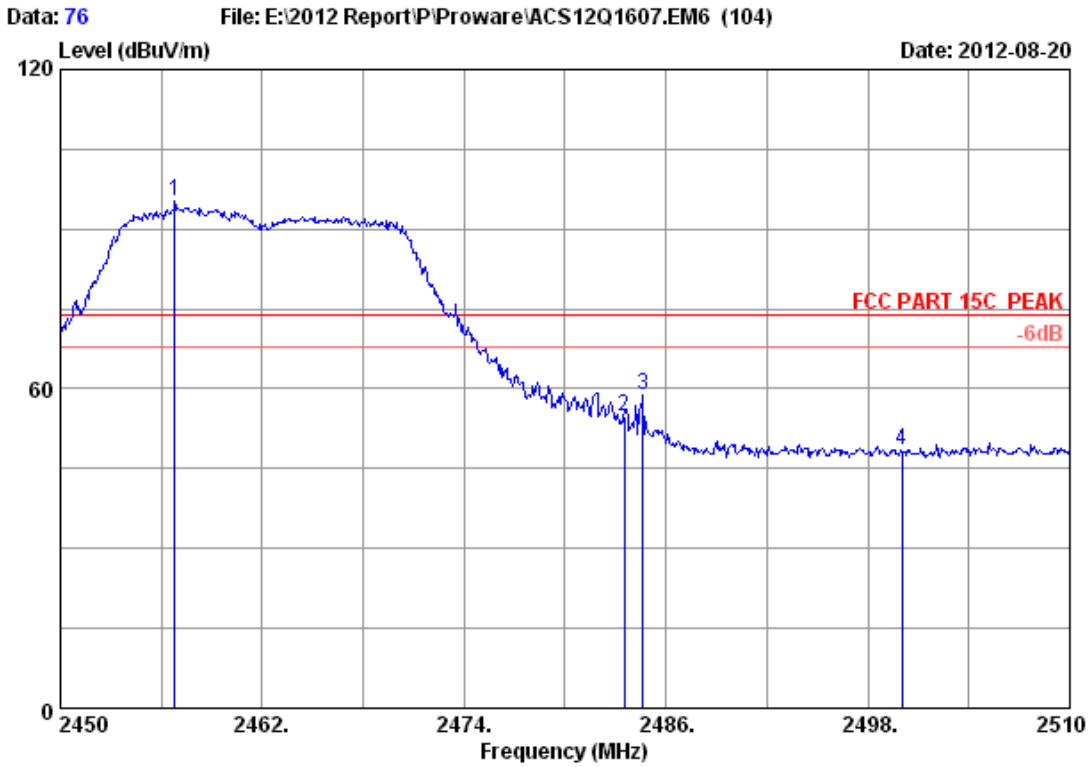
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 75
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.800	28.05	6.12	34.44	80.96	80.69	54.00	-26.69	Average
2	2483.500	28.08	6.15	34.45	38.15	37.93	54.00	16.07	Average
3	2500.000	28.10	6.18	34.45	36.26	36.09	54.00	17.91	Average

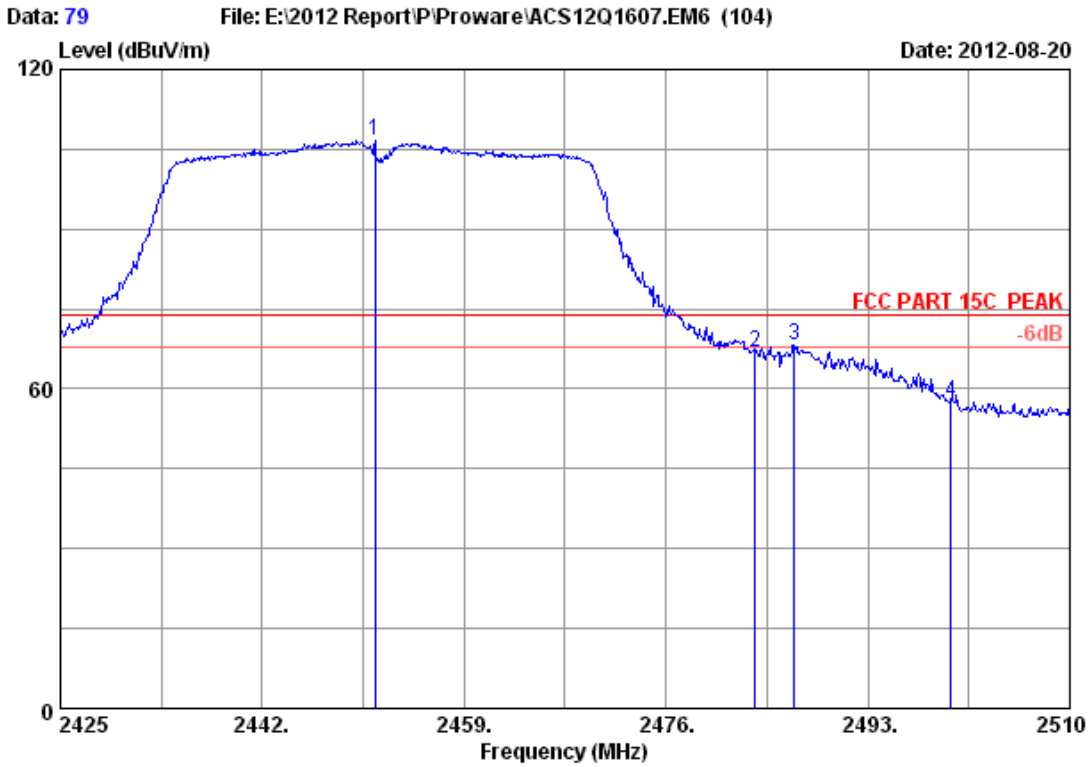
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.780	28.05	6.12	34.44	95.43	95.16	74.00	-21.16	Peak
2	2483.500	28.08	6.15	34.45	54.91	54.69	74.00	19.31	Peak
3	2484.620	28.08	6.15	34.45	59.21	58.99	74.00	15.01	Peak
4	2500.000	28.10	6.18	34.45	48.54	48.37	74.00	25.63	Peak

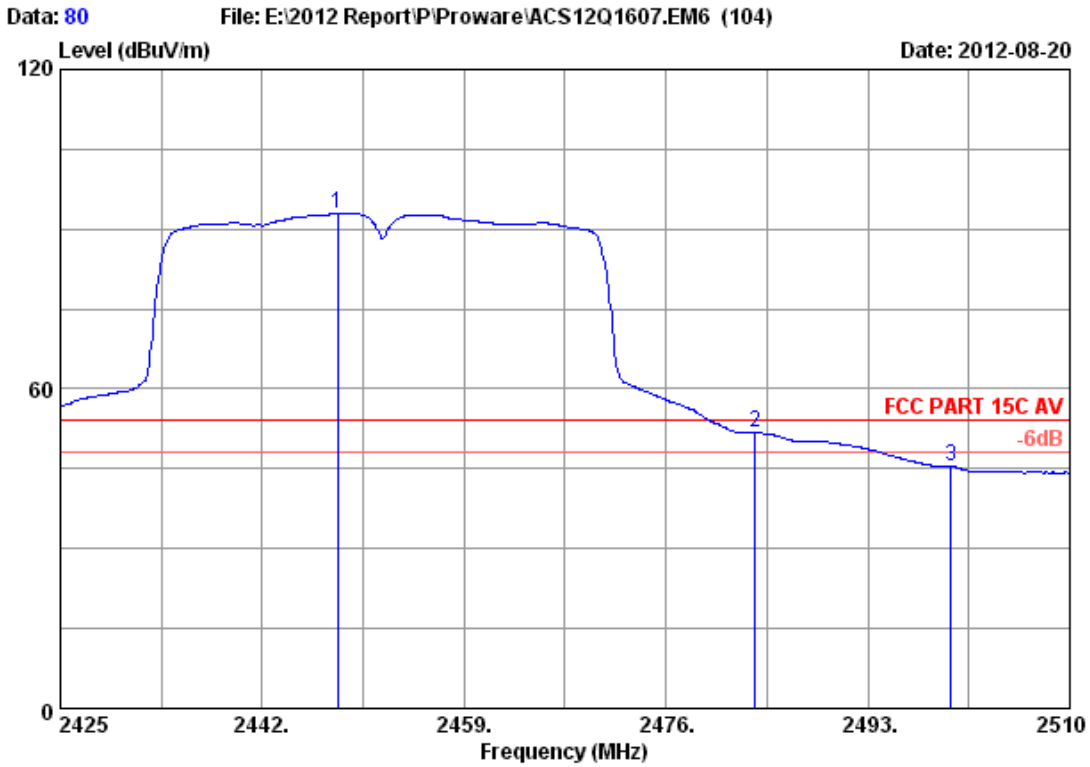
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 79
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2451.520	28.03	6.09	34.44	107.11	106.79	74.00	-32.79	Peak
2	2483.500	28.08	6.15	34.45	66.98	66.76	74.00	7.24	Peak
3	2486.795	28.08	6.15	34.45	68.44	68.22	74.00	5.78	Peak
4	2500.000	28.10	6.18	34.45	57.51	57.34	74.00	16.66	Peak

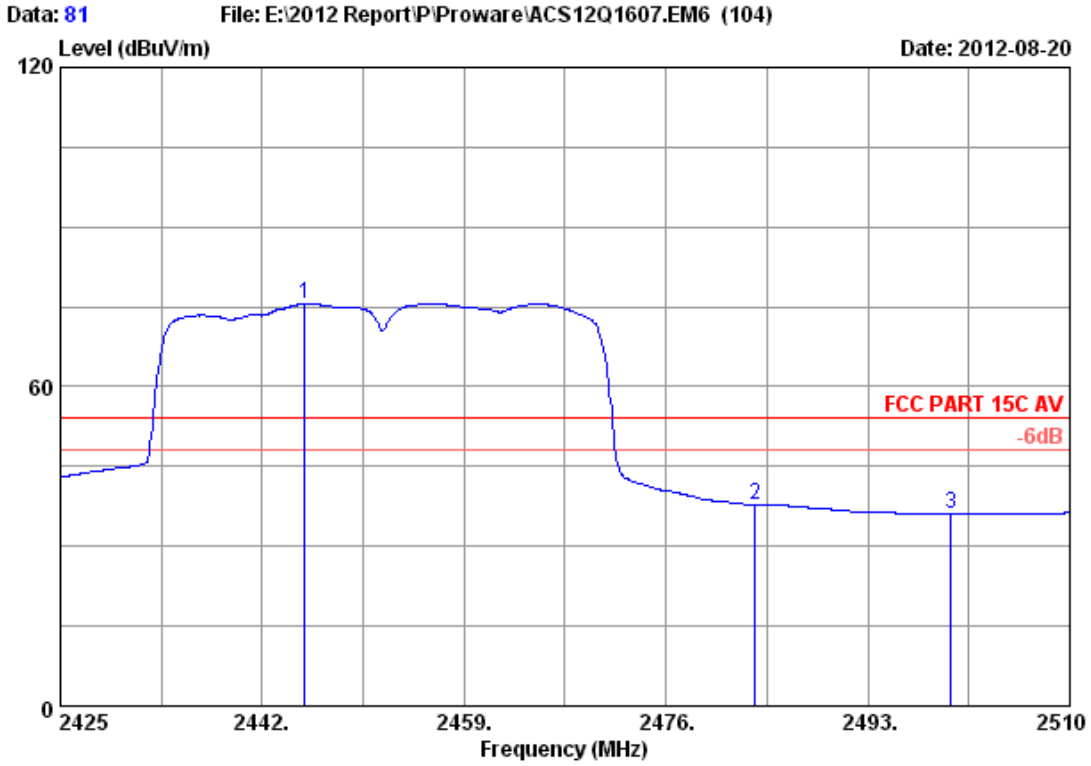
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 80
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2448.375	28.03	6.09	34.44	93.21	92.89	54.00	-38.89	Average
2	2483.500	28.08	6.15	34.45	51.97	51.75	54.00	2.25	Average
3	2500.000	28.10	6.18	34.45	45.62	45.45	54.00	8.55	Average

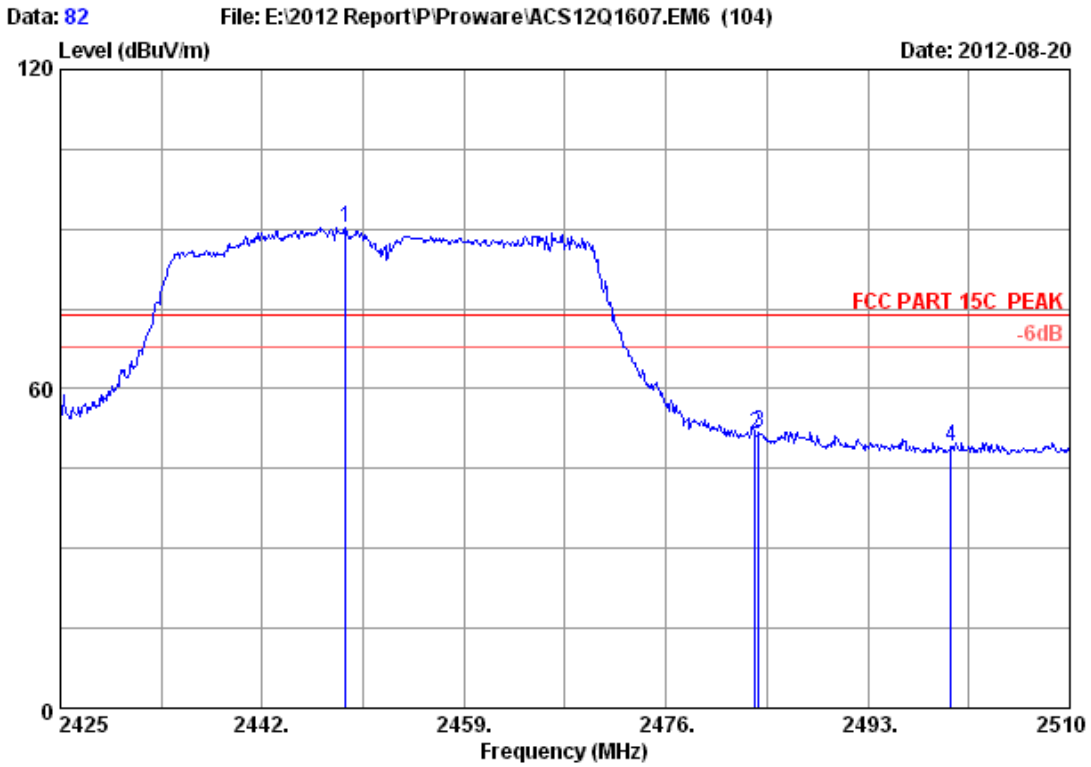
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 81
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2445.570	28.03	6.09	34.44	75.94	75.62	54.00	-21.62	Average
2	2483.500	28.08	6.15	34.45	38.11	37.89	54.00	16.11	Average
3	2500.000	28.10	6.18	34.45	36.32	36.15	54.00	17.85	Average

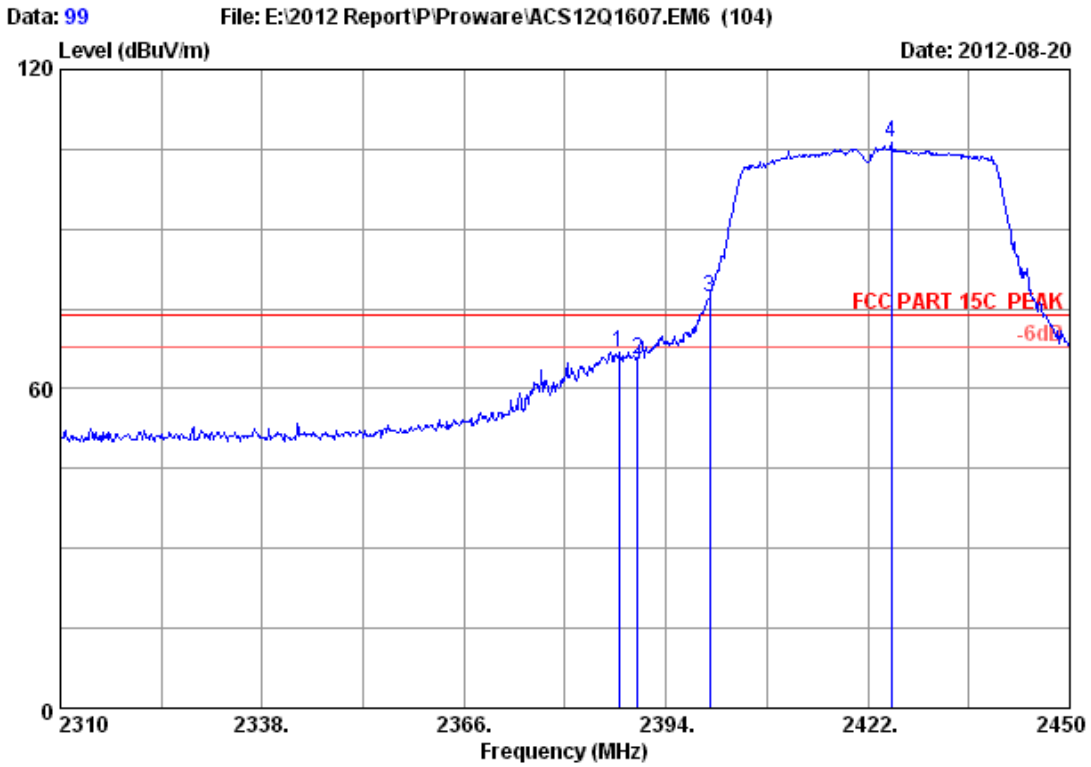
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 82
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2449.055	28.03	6.09	34.44	90.72	90.40	74.00	-16.40	Peak
2	2483.500	28.08	6.15	34.45	51.74	51.52	74.00	22.48	Peak
3	2483.820	28.08	6.15	34.45	52.15	51.93	74.00	22.07	Peak
4	2500.000	28.10	6.18	34.45	49.31	49.14	74.00	24.86	Peak

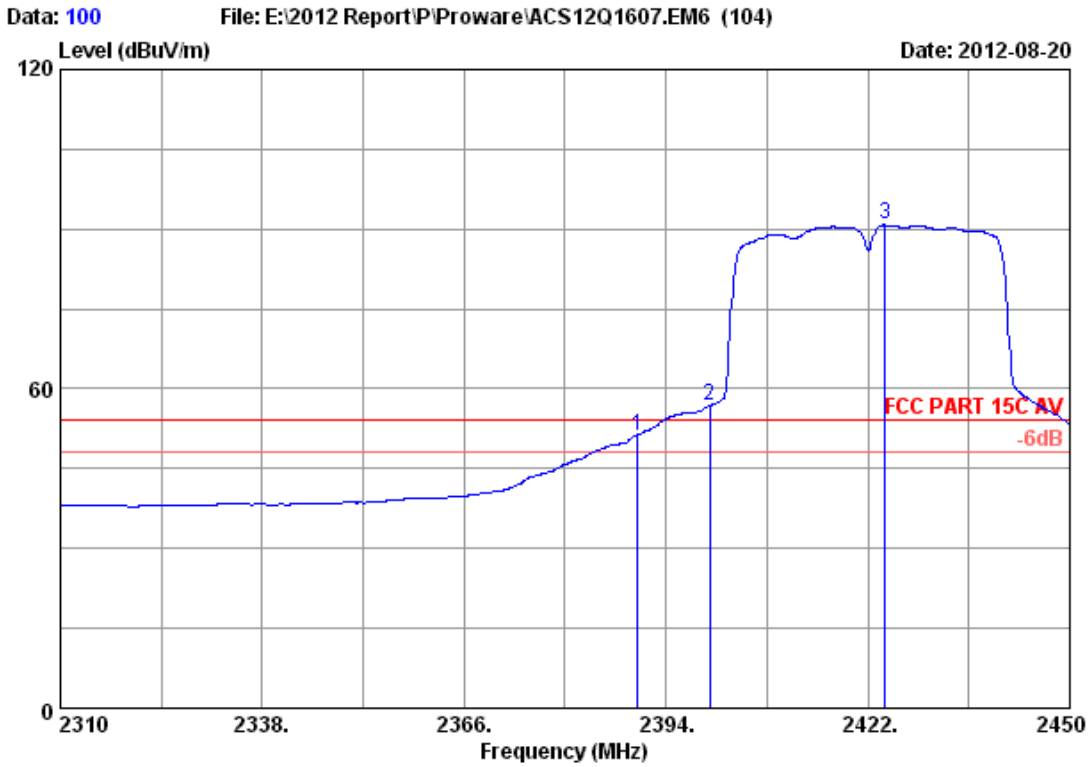
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 99
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2387.420	27.96	6.01	34.44	67.34	66.87	74.00	7.13	Peak
2	2390.000	27.96	6.01	34.44	66.10	65.63	74.00	8.37	Peak
3	2400.000	27.96	6.01	34.44	77.63	77.16	74.00	-3.16	Peak
4	2425.220	28.00	6.06	34.44	106.70	106.32	74.00	-32.32	Peak

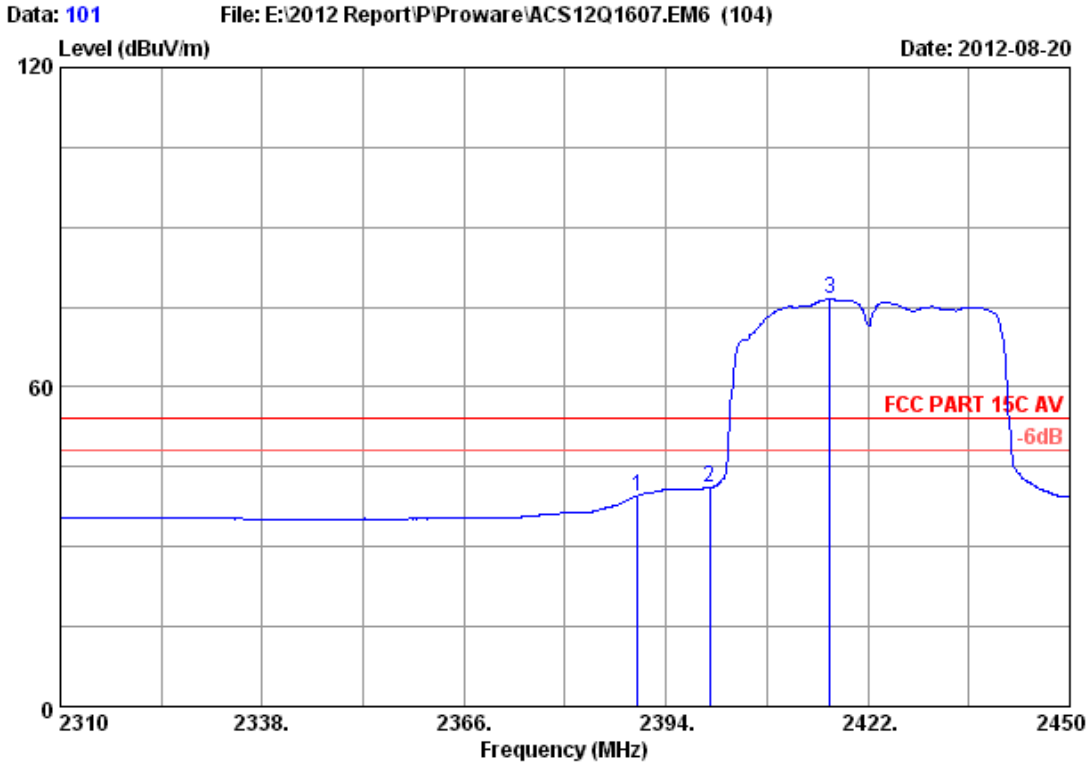
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 100
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	51.75	51.28	54.00	2.72	Average
2	2400.000	27.96	6.01	34.44	57.30	56.83	54.00	-2.83	Average
3	2424.380	28.00	6.06	34.44	91.15	90.77	54.00	-36.77	Average

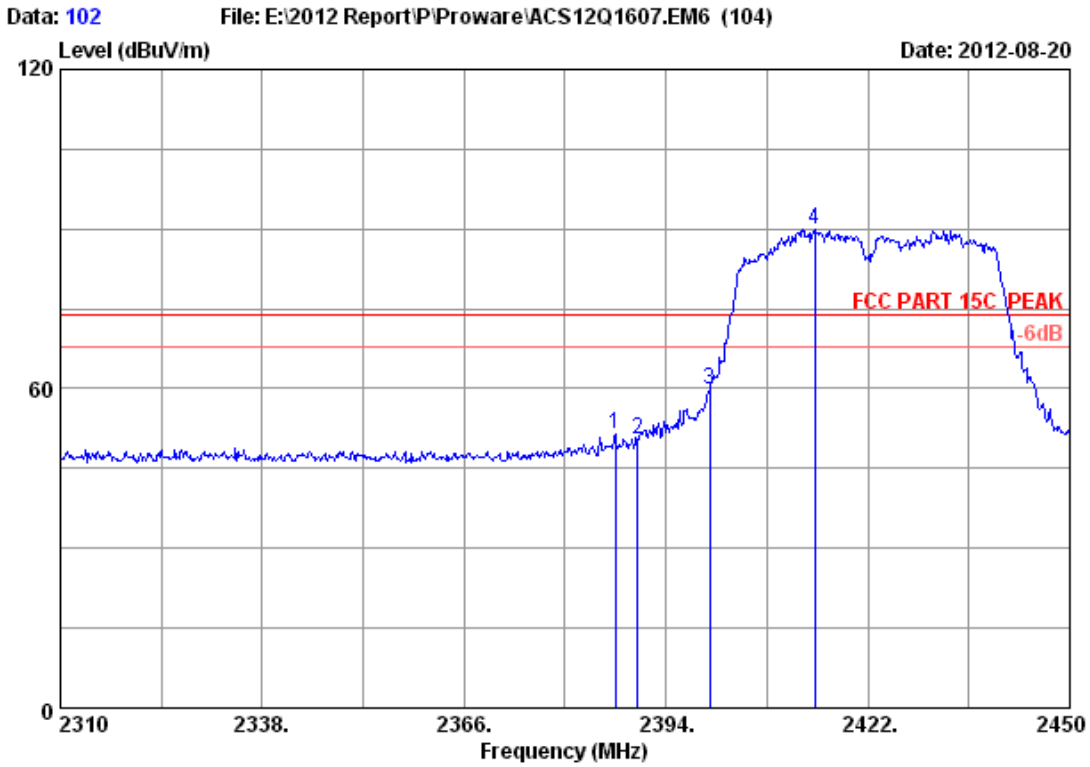
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 101
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	39.93	39.46	54.00	14.54	Average
2	2400.000	27.96	6.01	34.44	41.56	41.09	54.00	12.91	Average
3	2416.680	27.98	6.03	34.44	76.89	76.46	54.00	-22.46	Average

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



Site no. : 3m Chamber Data no. : 102
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Leo-Li
EUT : 300Mbps Wireless N Router
Power supply : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : PW-RN501D

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2387.000	27.96	6.01	34.44	52.03	51.56	74.00	22.44	Peak
2	2390.000	27.96	6.01	34.44	50.92	50.45	74.00	23.55	Peak
3	2400.000	27.96	6.01	34.44	60.34	59.87	74.00	14.13	Peak
4	2414.580	27.98	6.03	34.44	90.40	89.97	74.00	-15.97	Peak

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

7. 6dB Bandwidth Test

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.31, 12	1Year
4.	HF Cable	Hubersuhner	Sucoflex104	-	May.08, 12	1 Year

7.2.Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3.Test Procedure

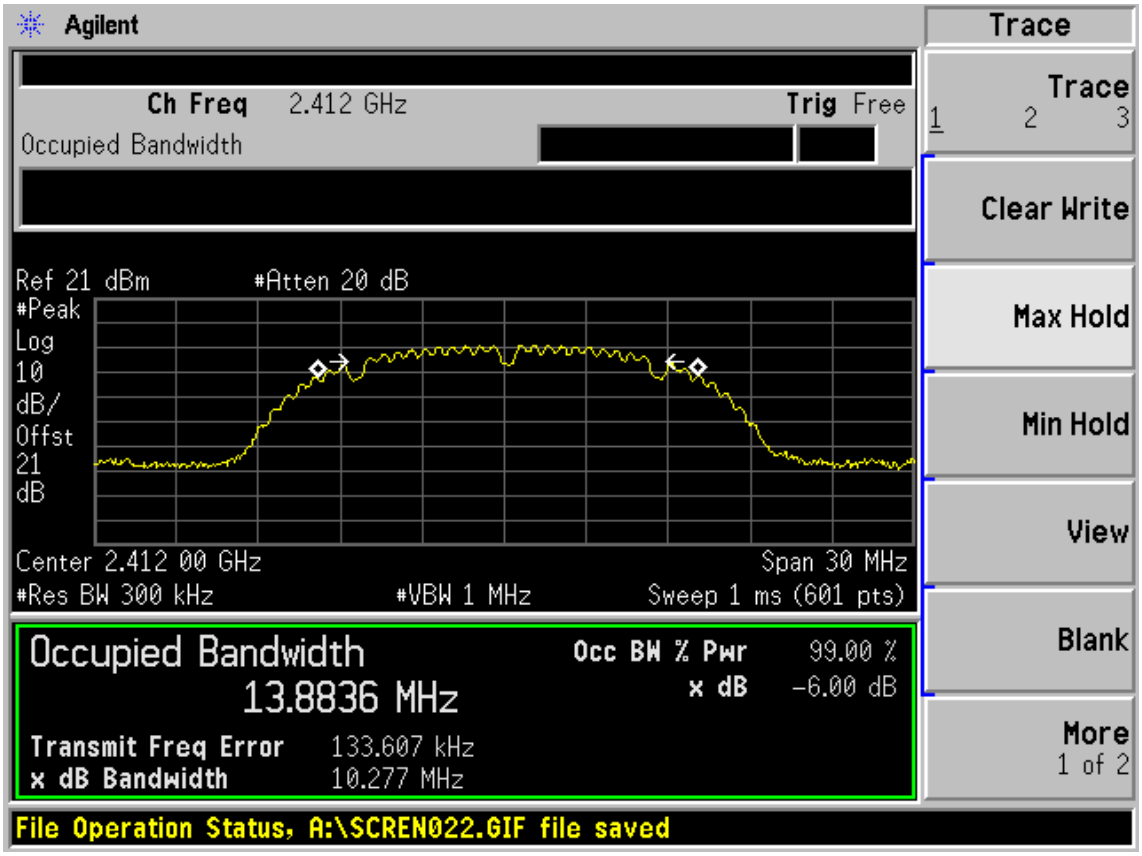
The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4.Test Results

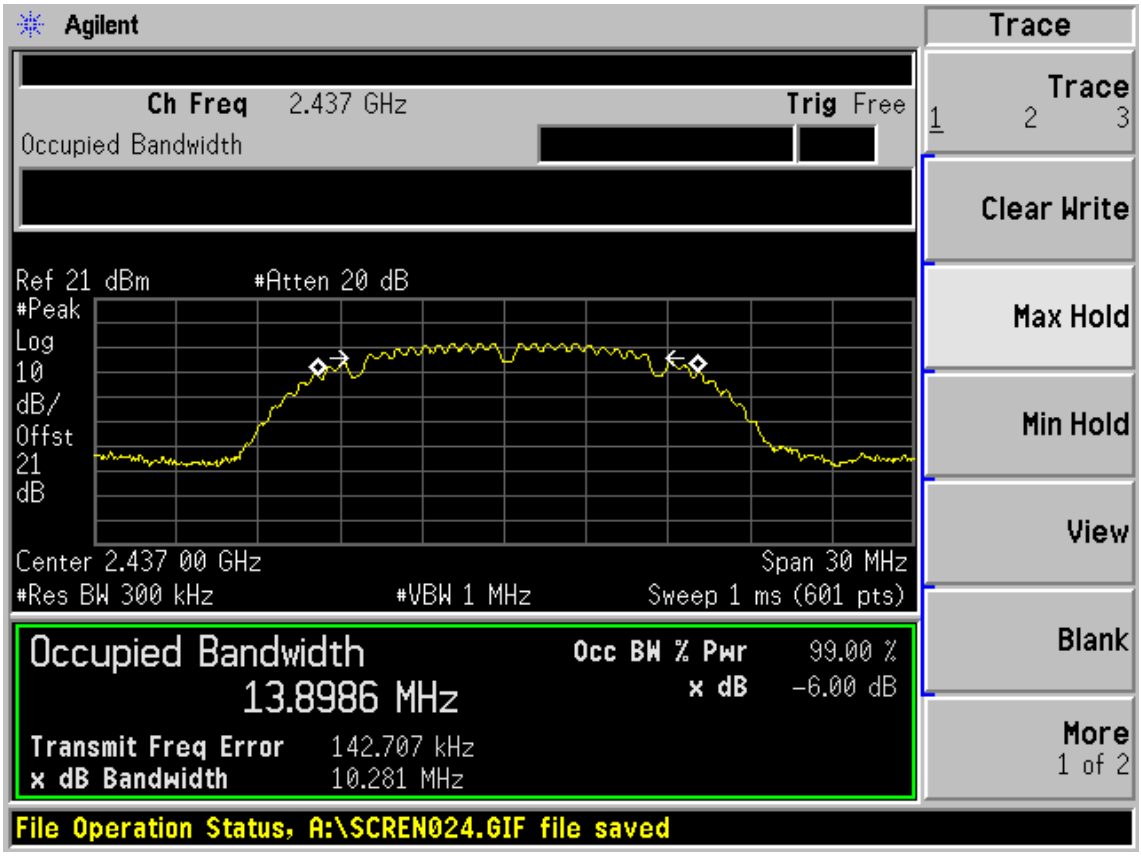
EUT: 300Mbps Wireless N Router		
M/N: PWRN501D		
Test date:2012-08-31	Pressure: 101.3 kpa	Humidity: 52.3%
Tested by: Leo-Li	Test site: RF Site	Temperature：24.2℃

Cable loss: 1 dB		Attenuator loss: 20 dB		
Test Mode	CH	6dB bandwidth (MHz)		Limit (KHz)
		Chain0	Chain1	
11b	CH1	10.277	10.280	>500
	CH6	10.281	10.276	>500
	CH11	10.284	10.281	>500
11g	CH1	16.443	16.502	>500
	CH6	16.502	16.467	>500
	CH11	16.522	16.445	>500
11n HT20	CH1	17.646	17.666	>500
	CH6	17.650	17.706	>500
	CH11	17.711	17.699	>500
11n HT40	CH1	35.154	35.460	>500
	CH4	35.573	35.072	>500
	CH7	35.674	35.678	>500
Conclusion：PASS				

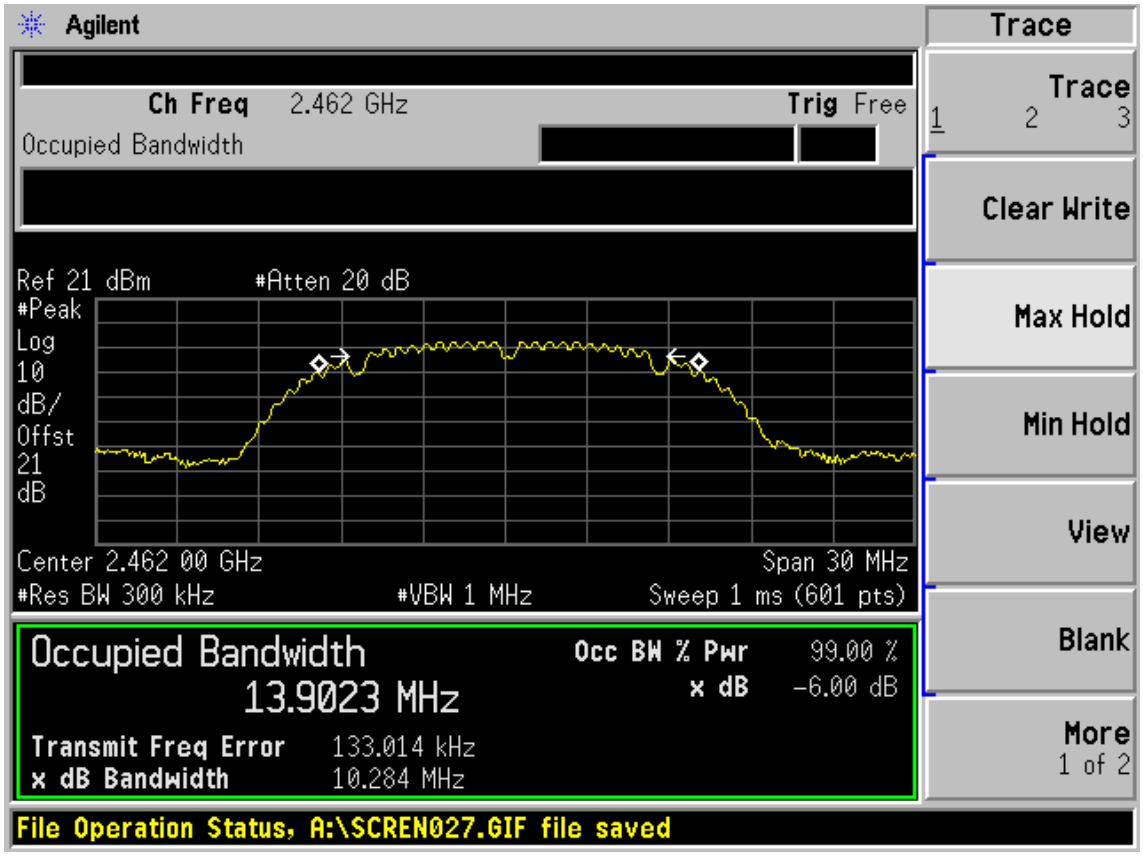
ANT0
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



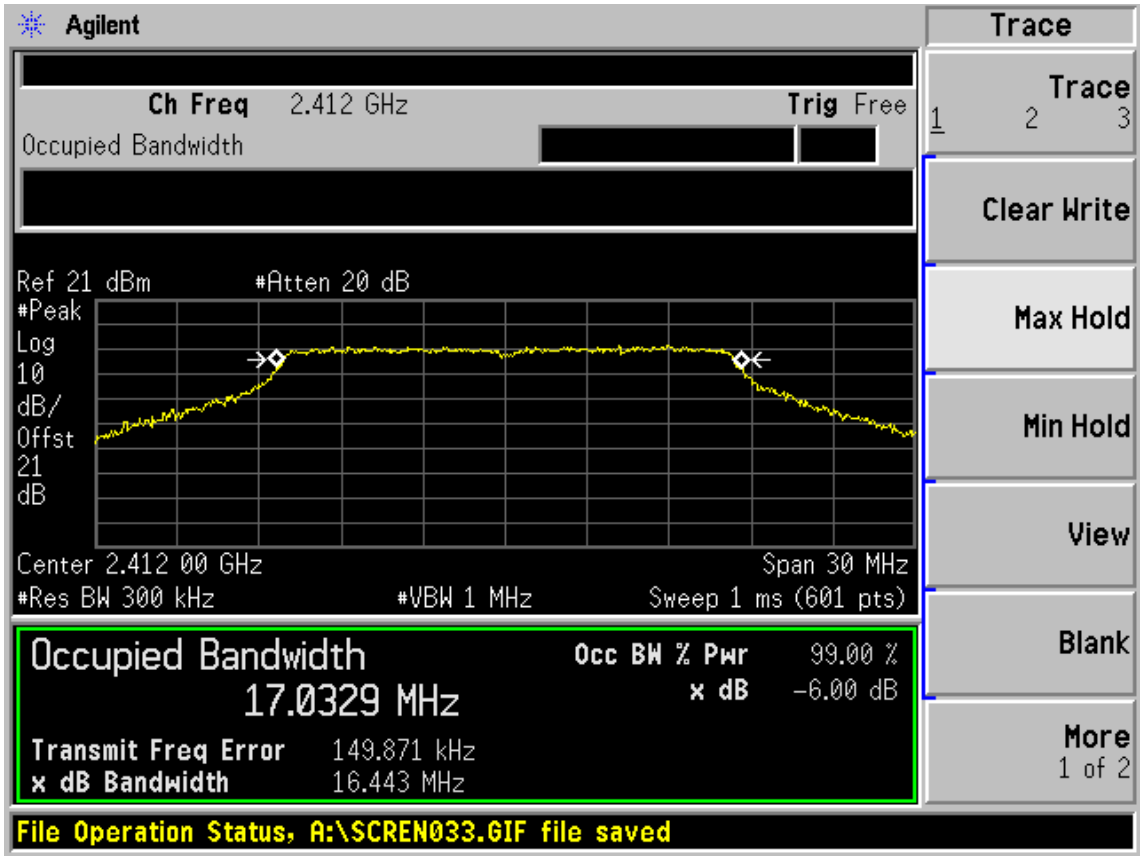
Test CH6: 2437MHz



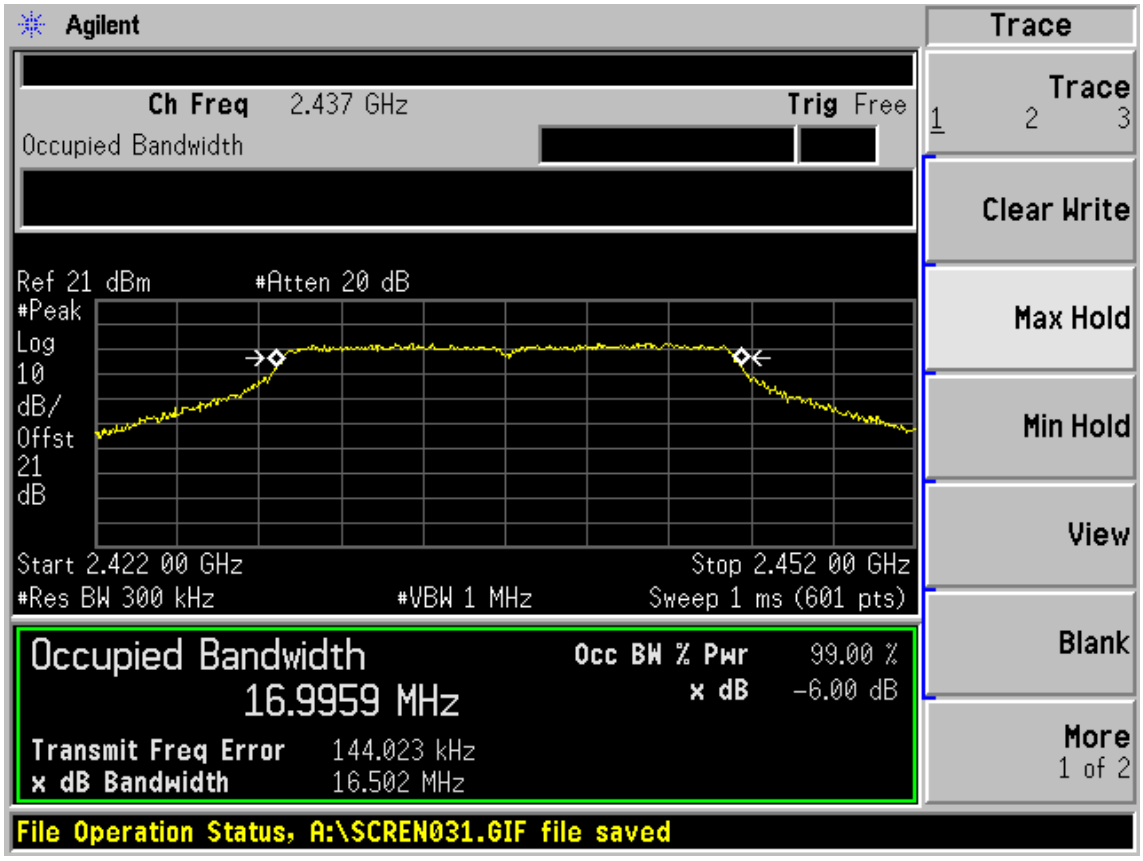
Test CH11: 2462MHz



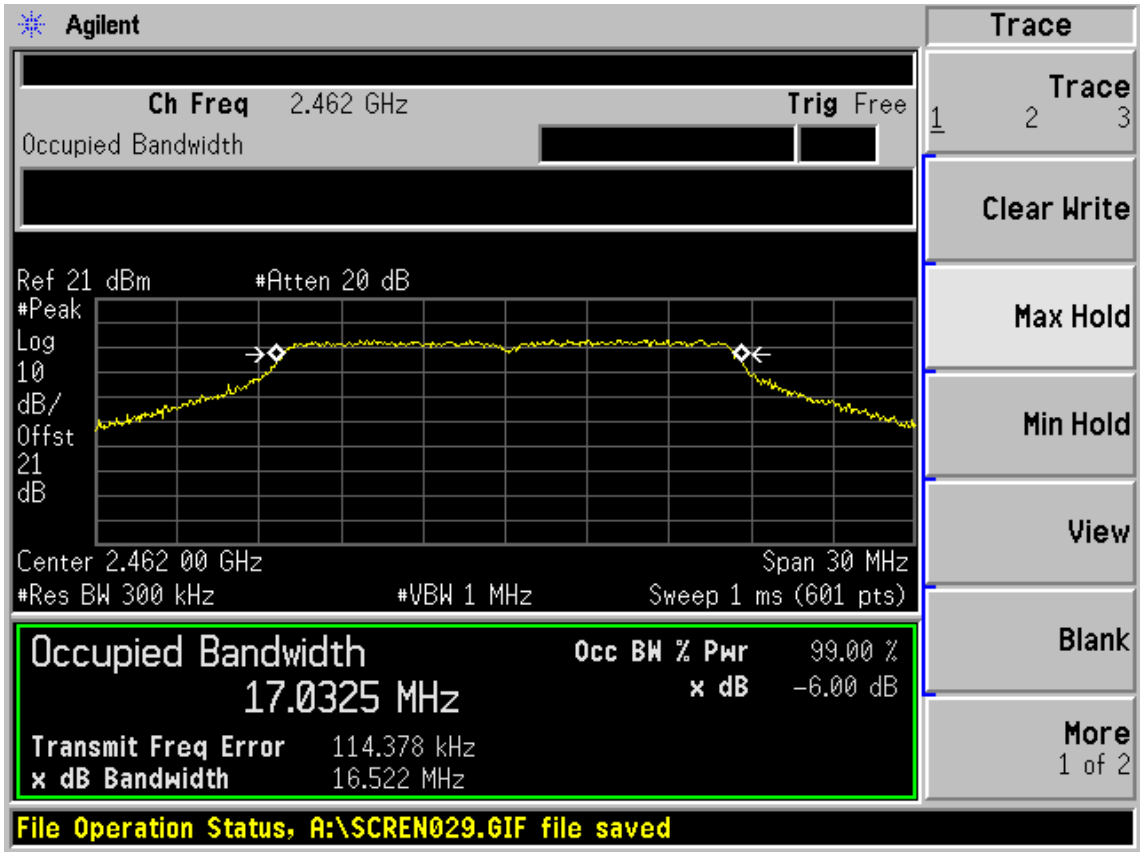
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



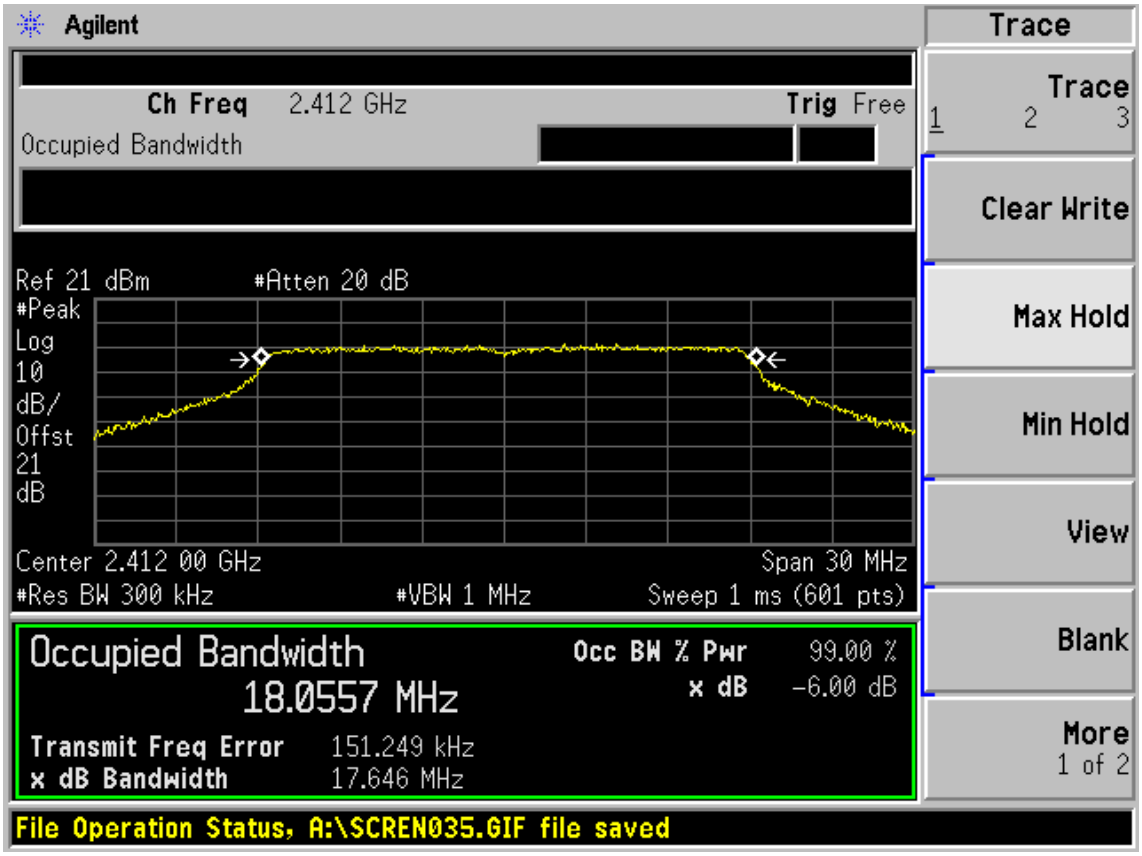
Test CH6: 2437MHz



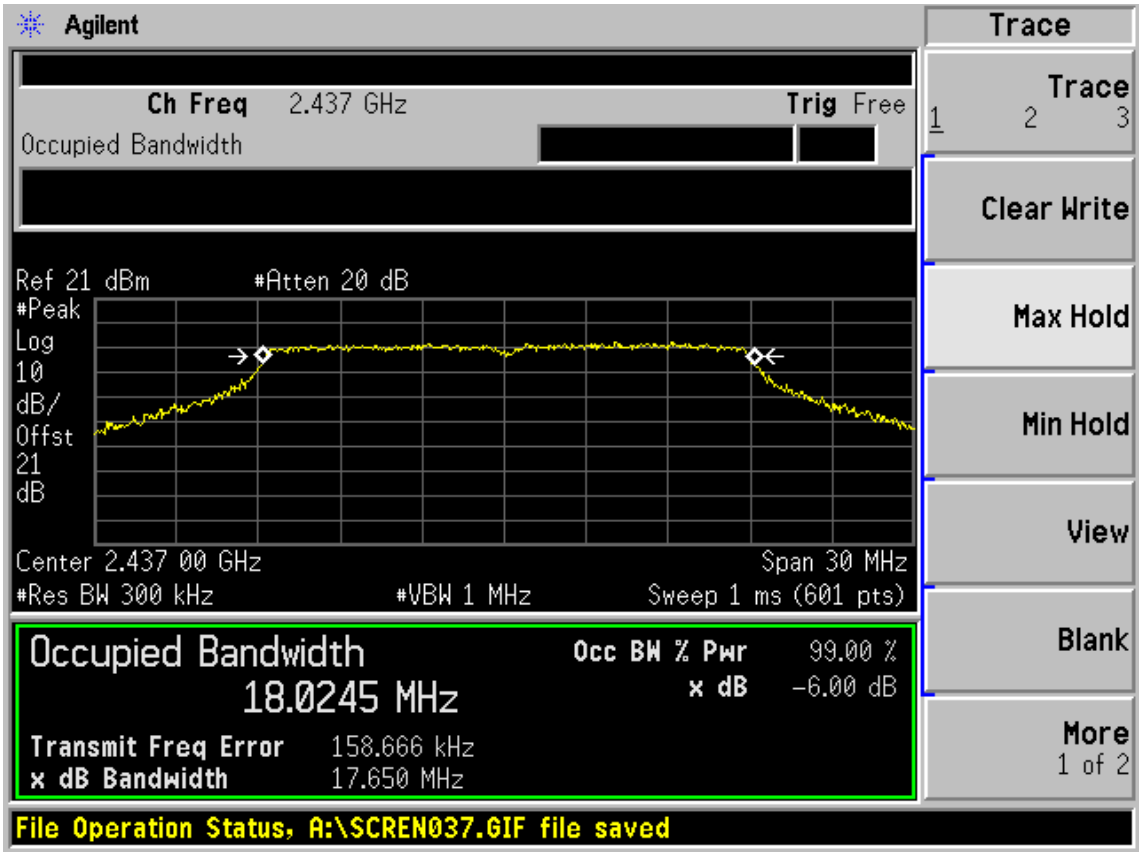
Test CH11: 2462MHz



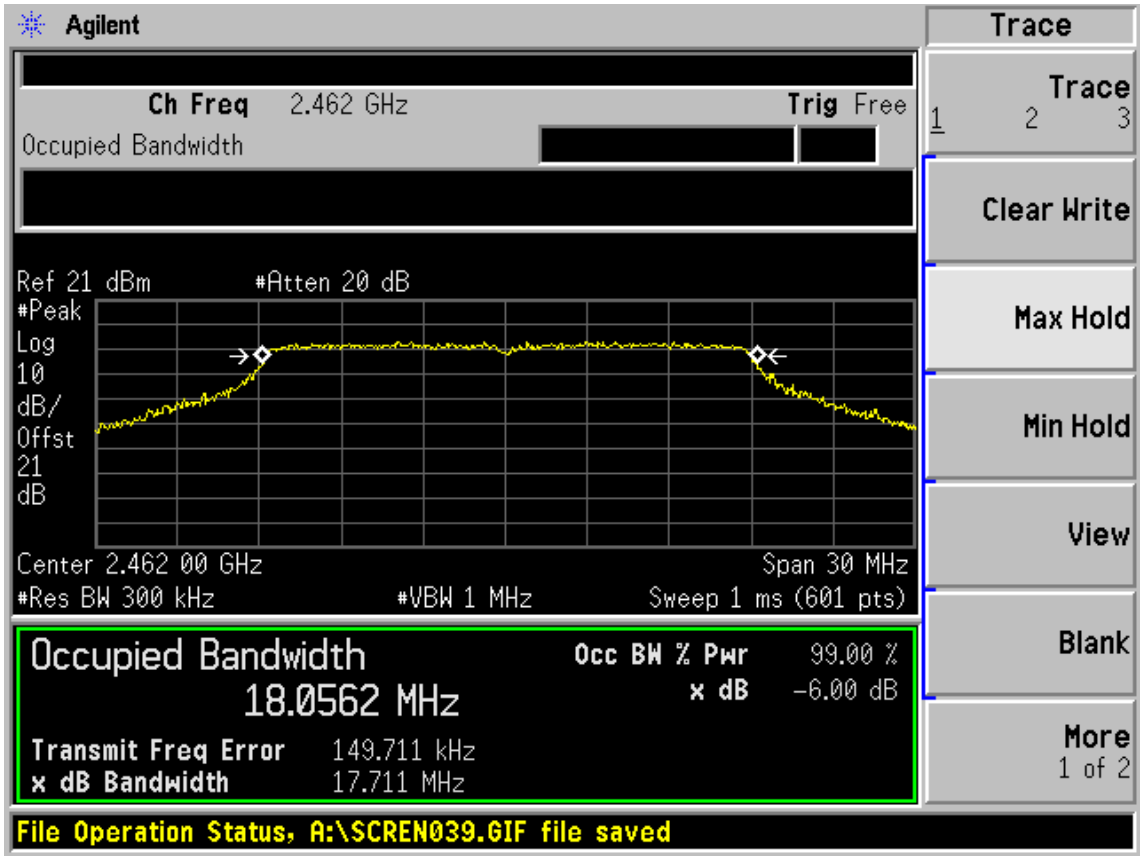
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



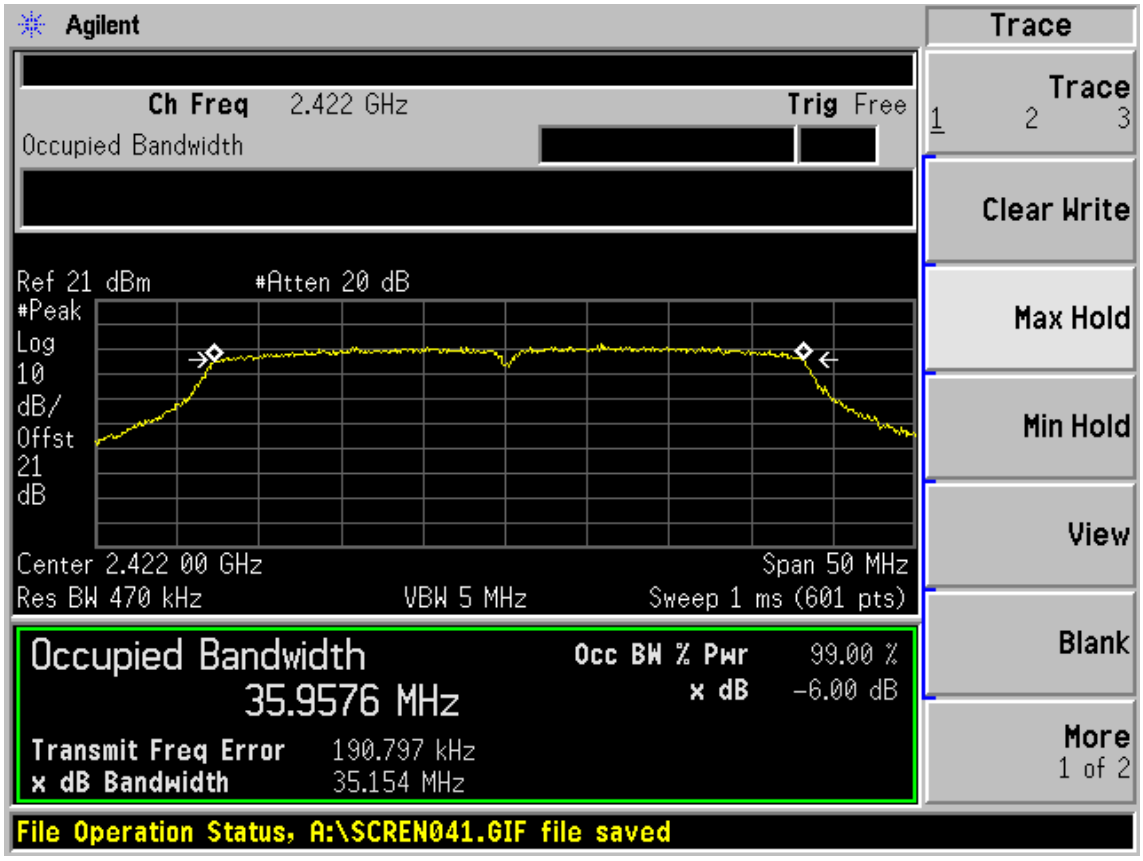
Test CH6: 2437MHz



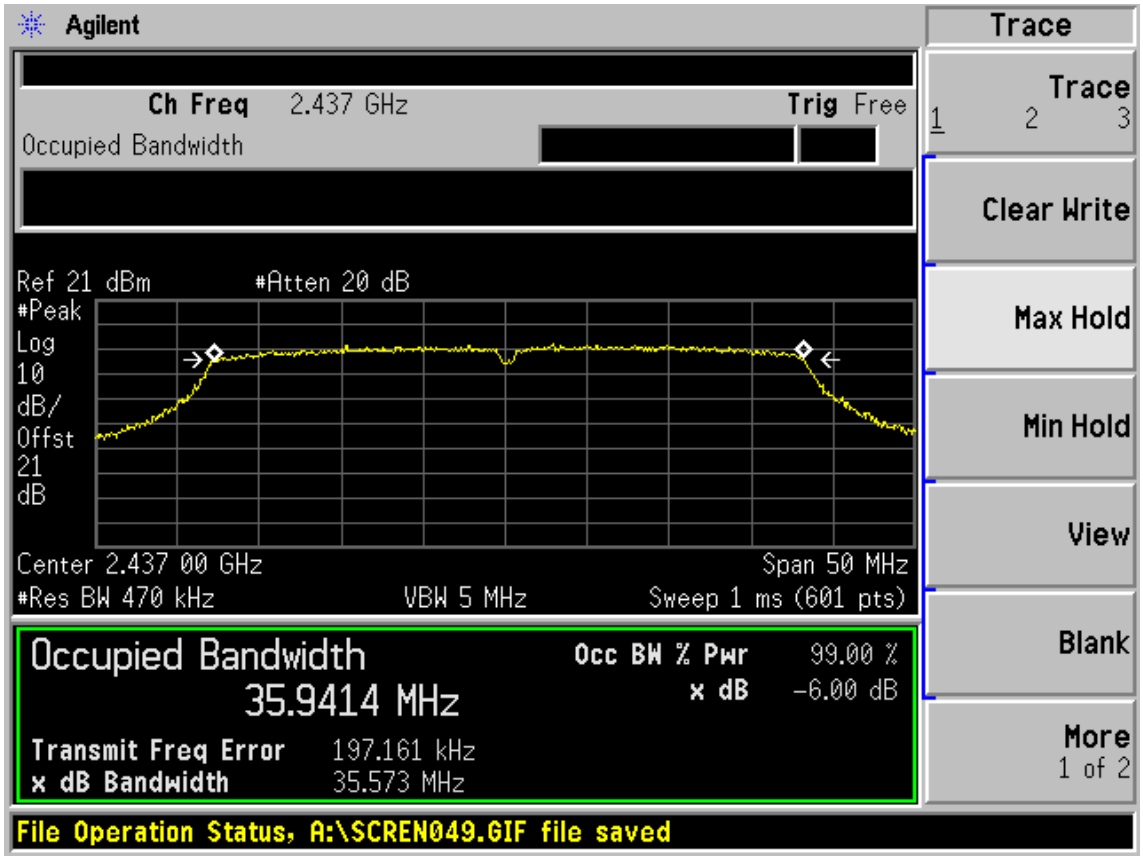
Test CH11: 2462MHz



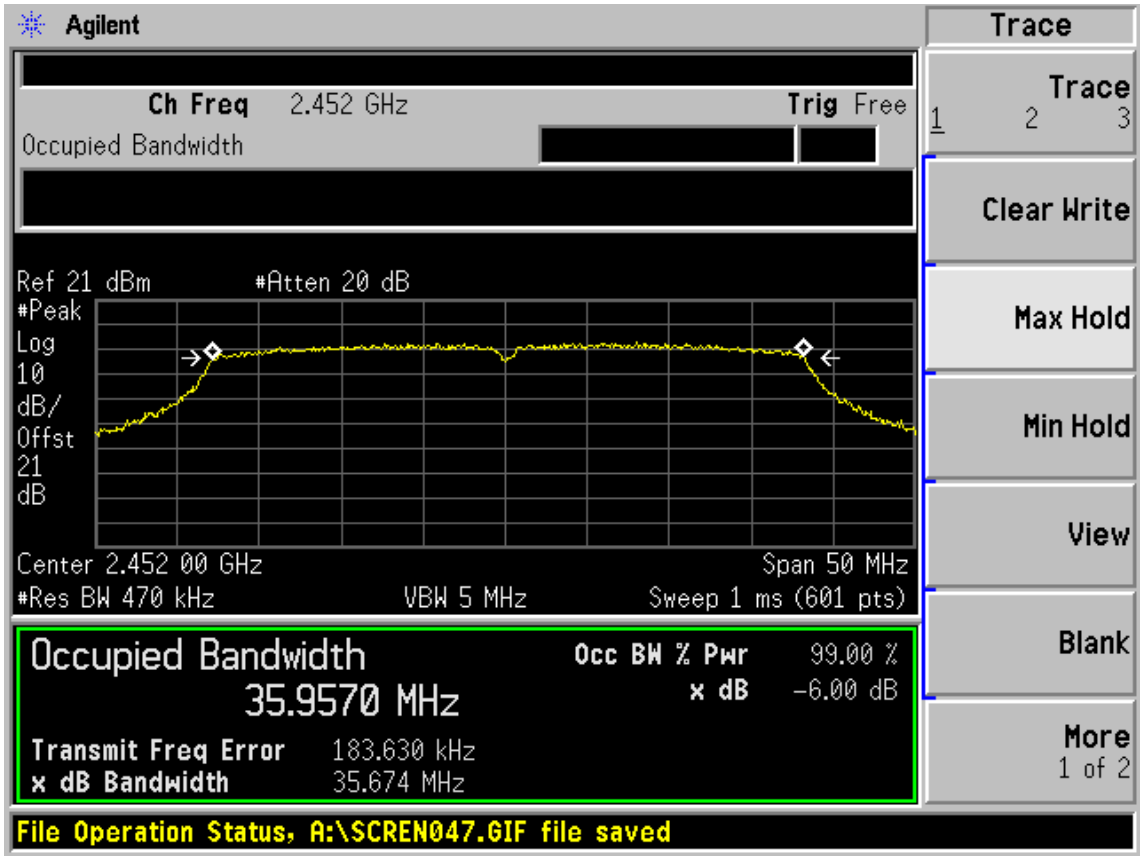
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



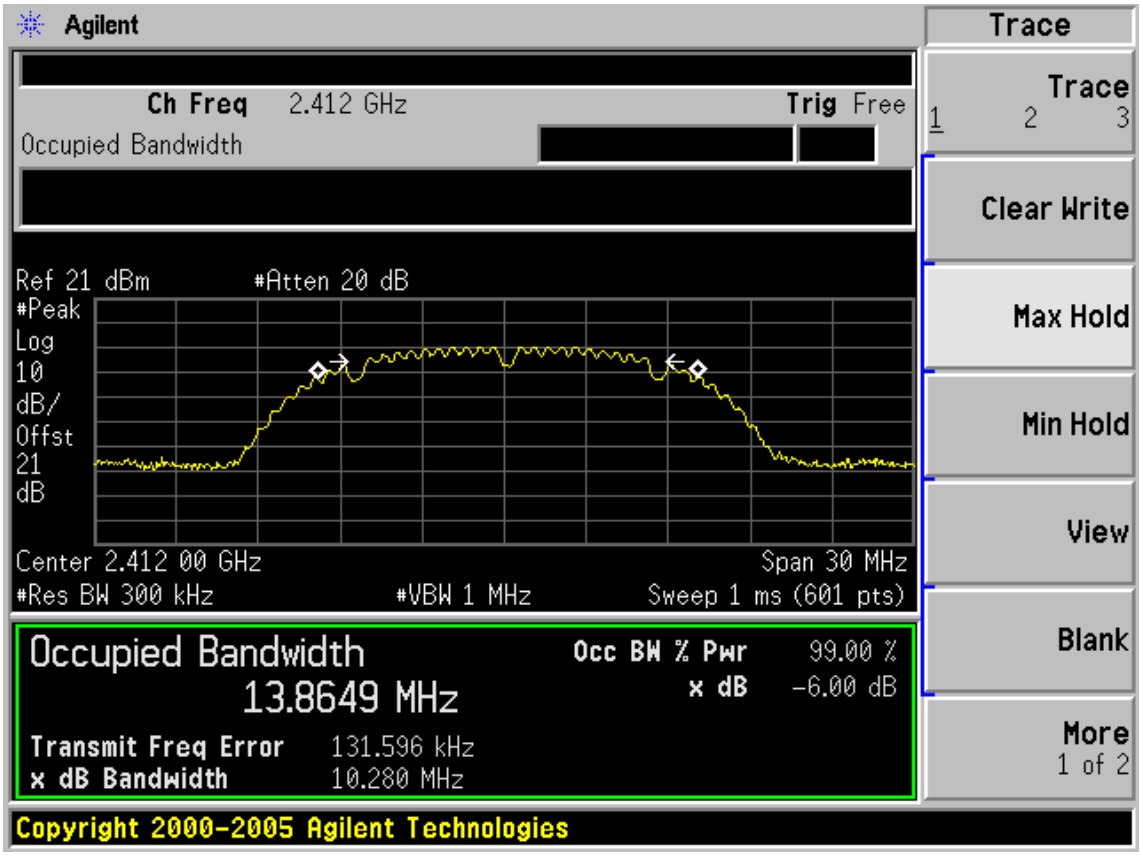
Test CH4: 2437MHz



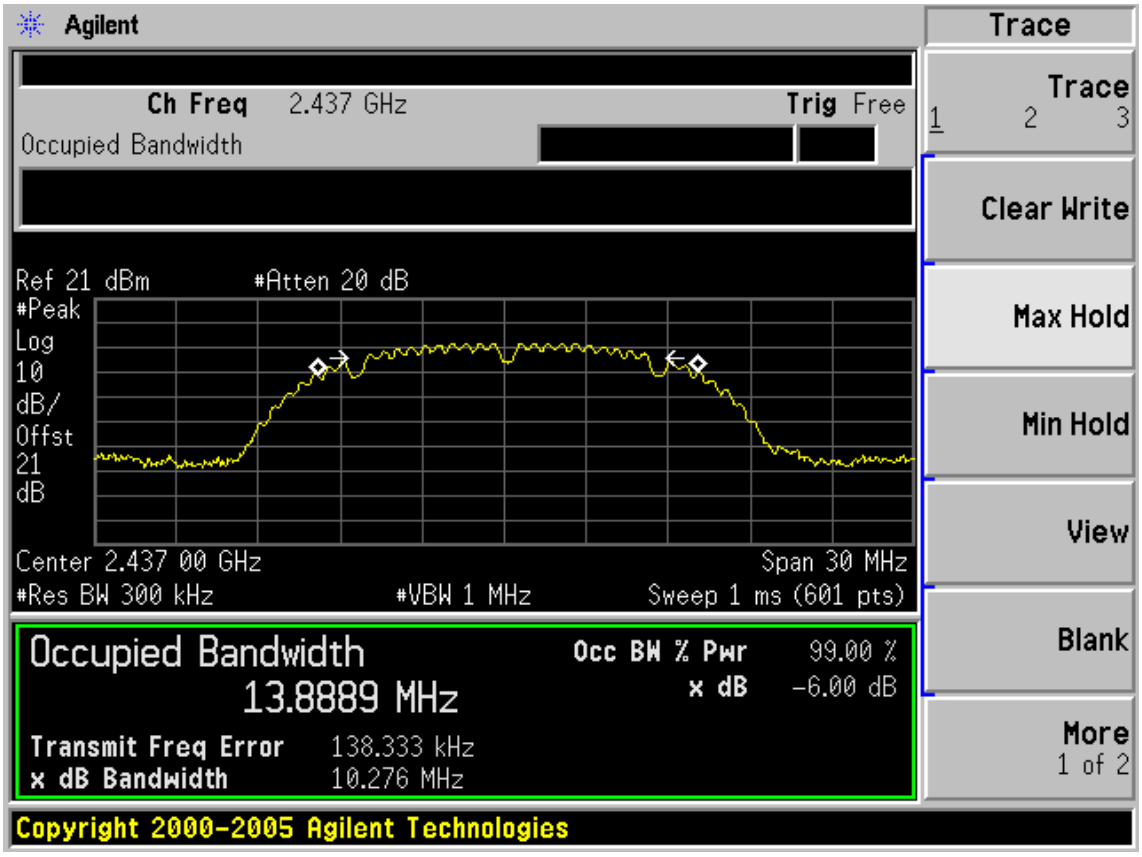
Test CH7: 2452MHz



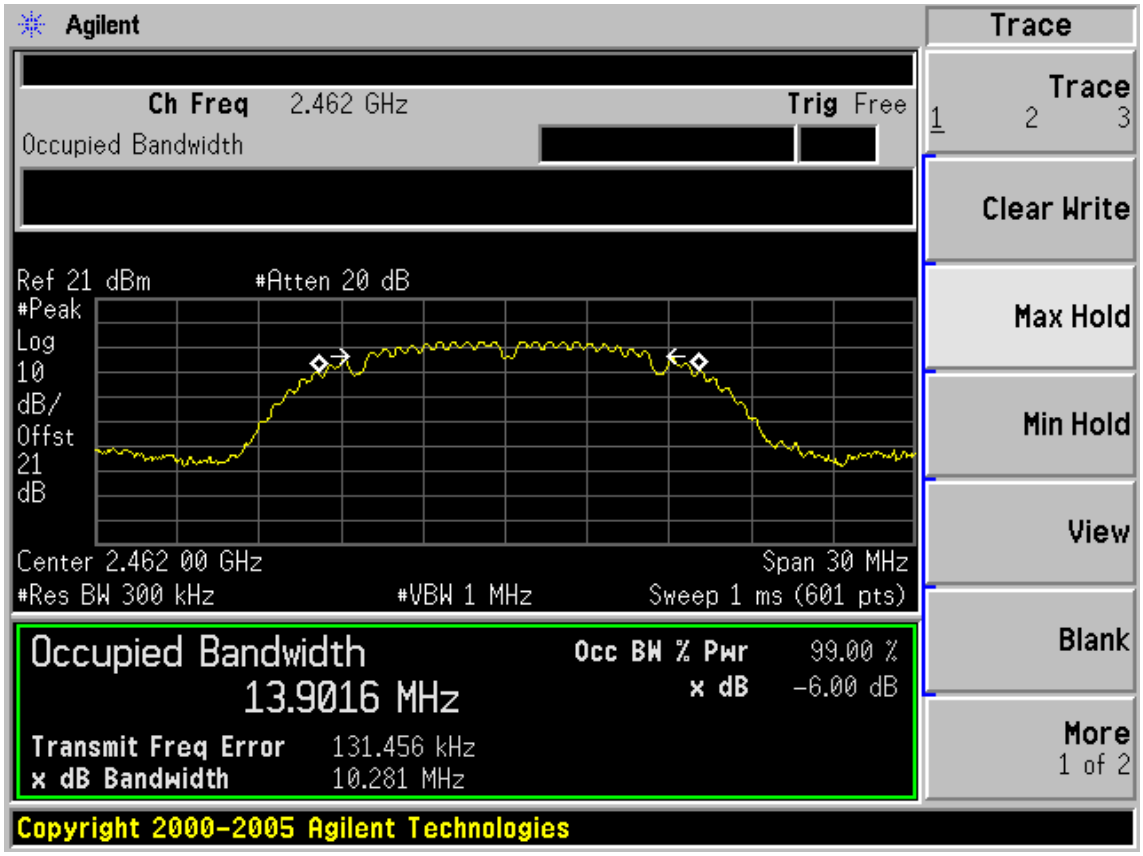
ANT1
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



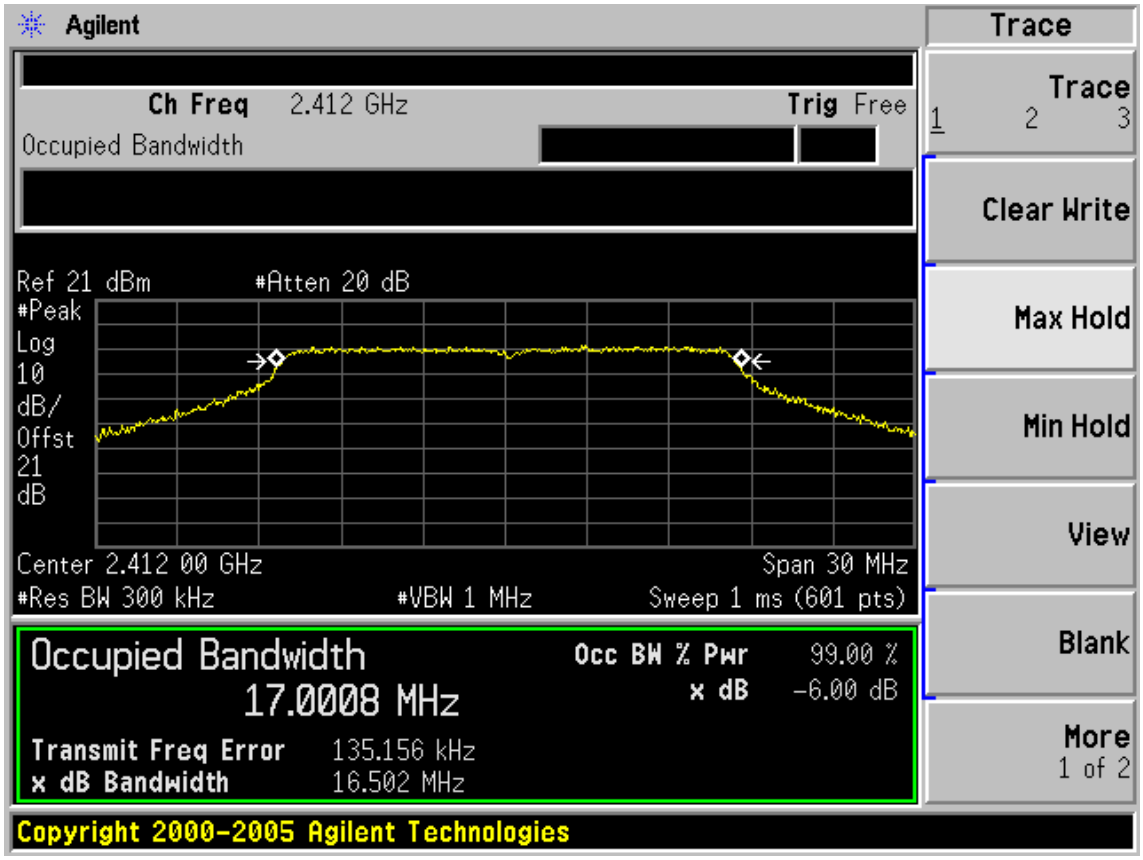
Test CH6: 2437MHz



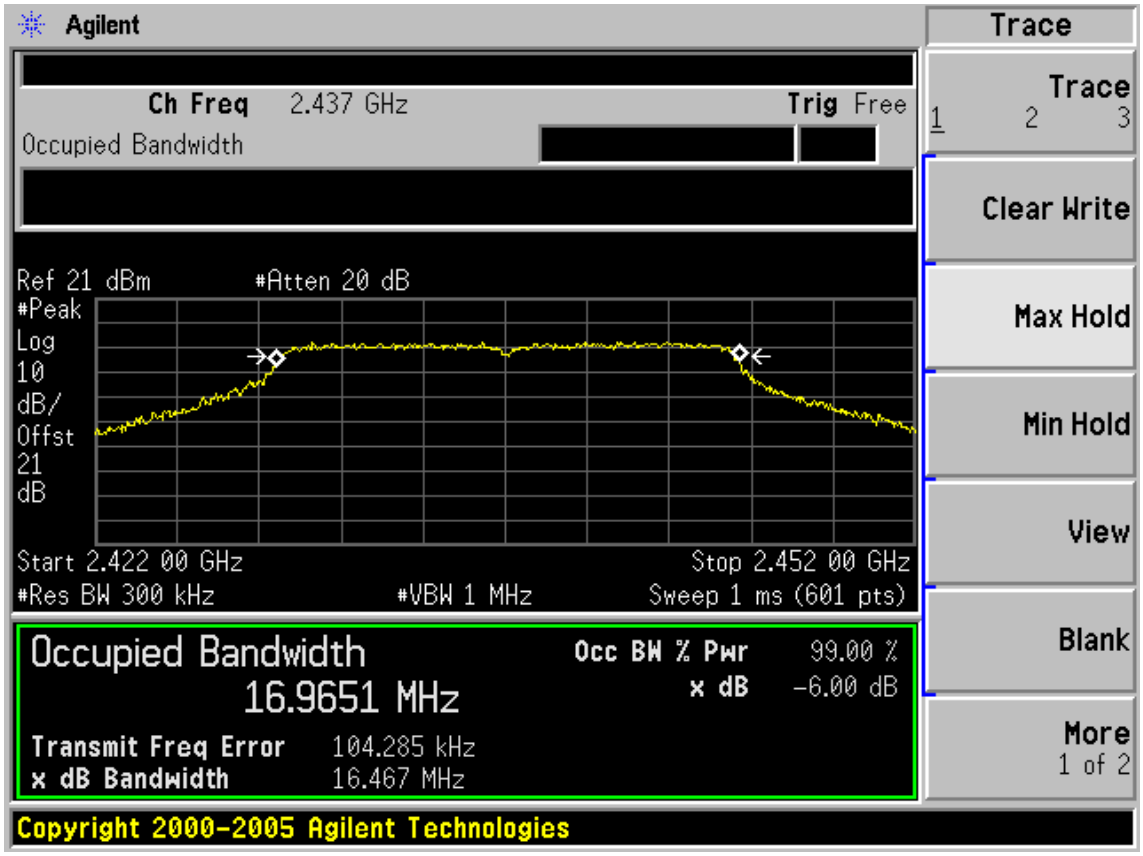
Test CH11: 2462MHz



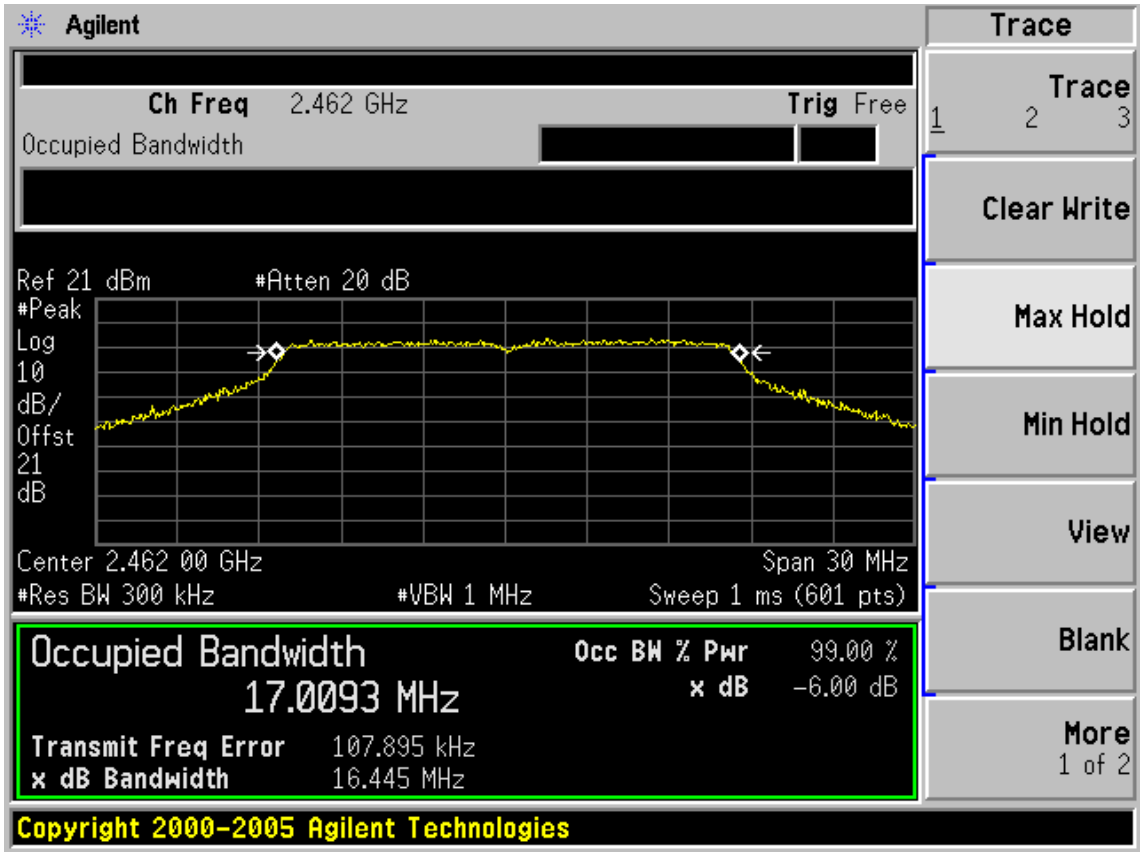
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



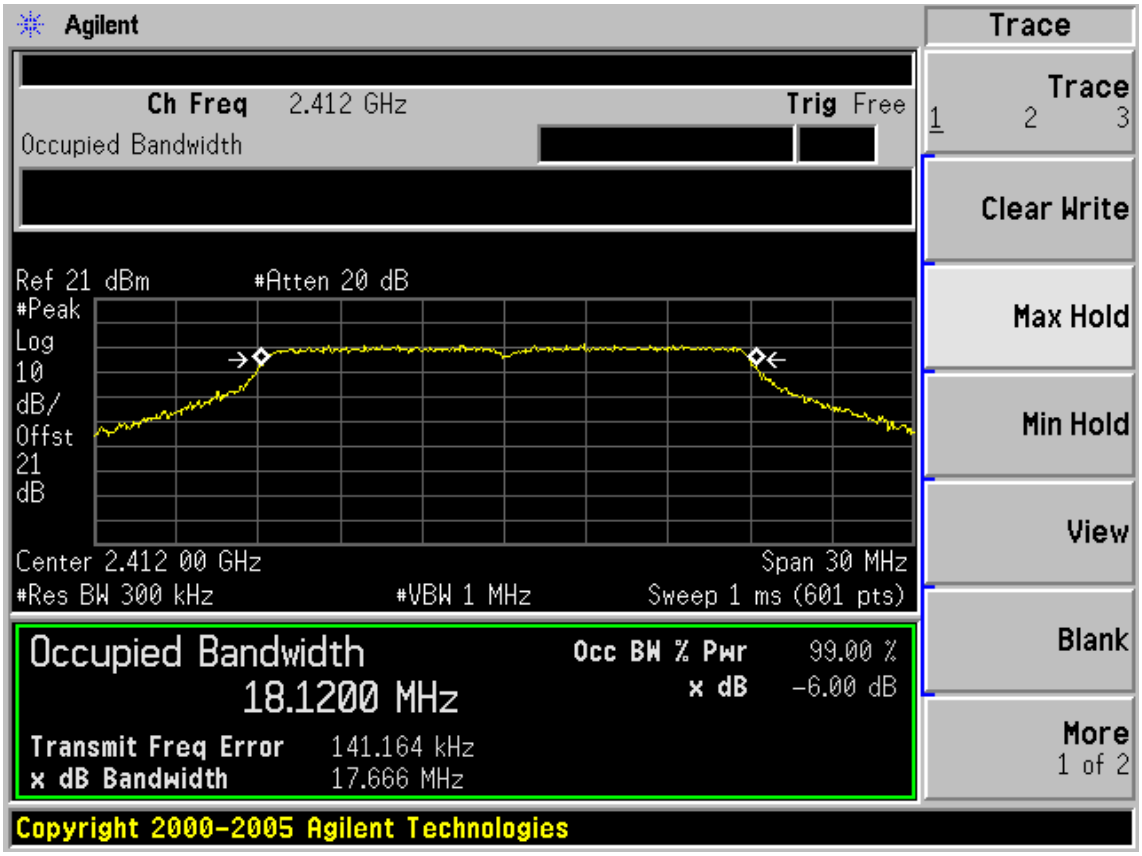
Test CH6: 2437MHz



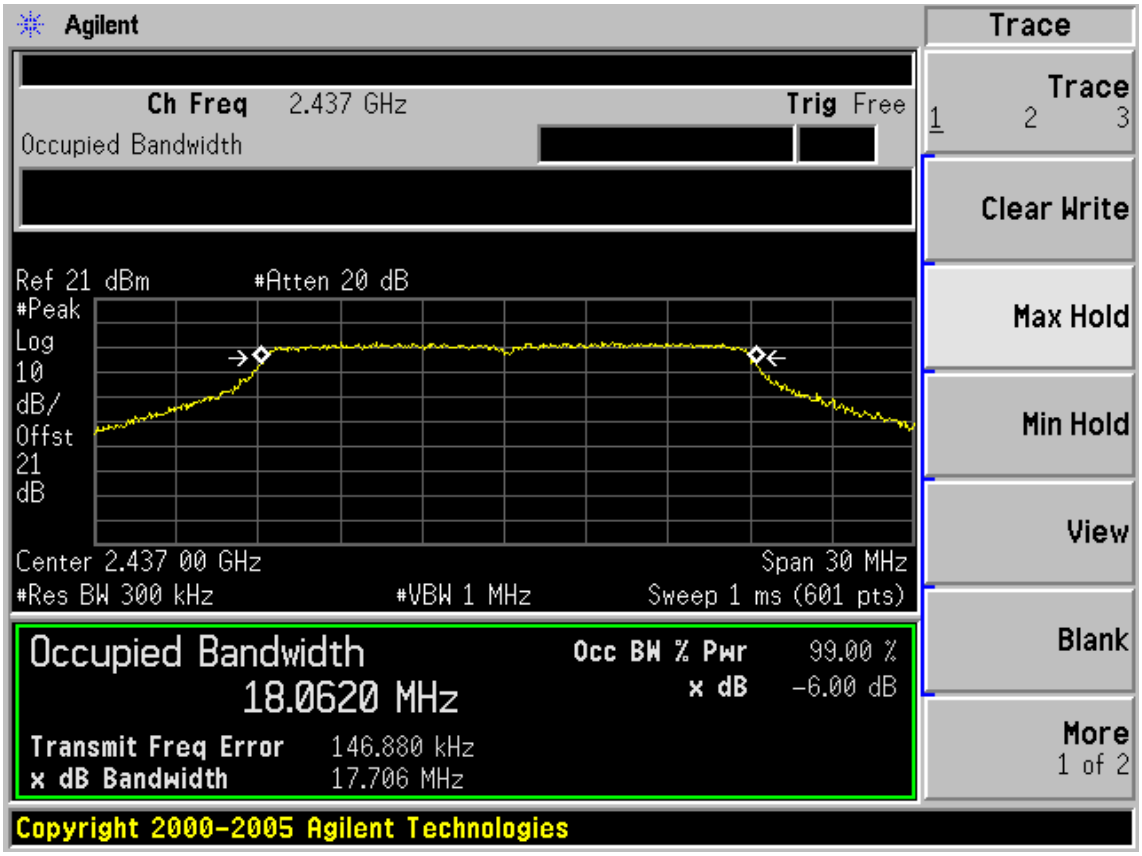
Test CH11: 2462MHz



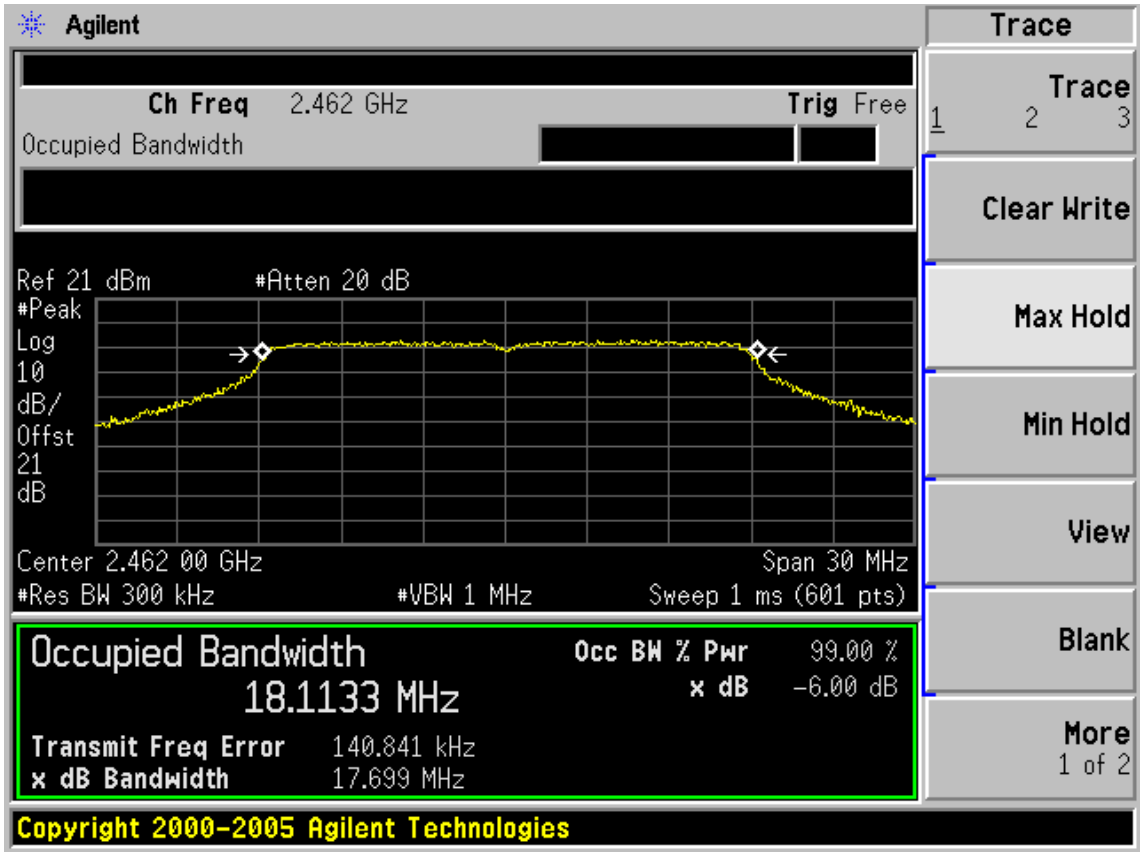
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



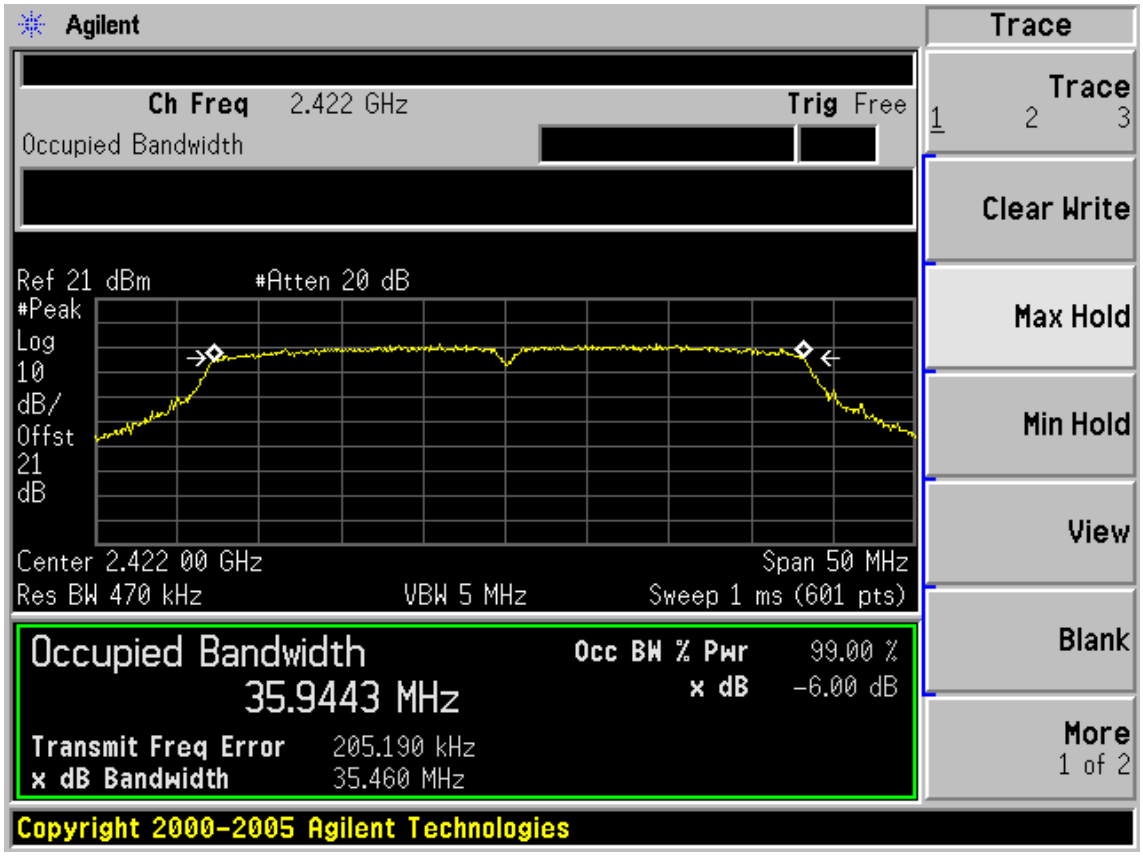
Test CH6: 2437MHz



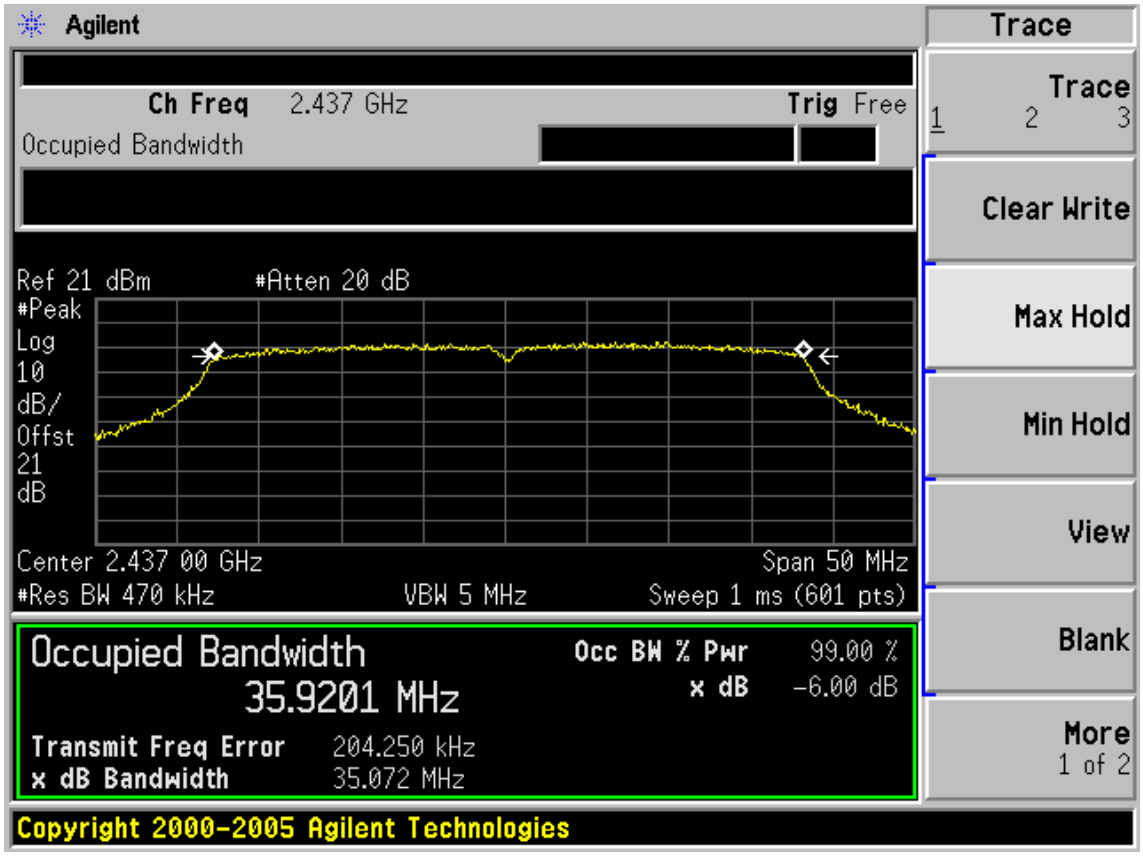
Test CH11: 2462MHz



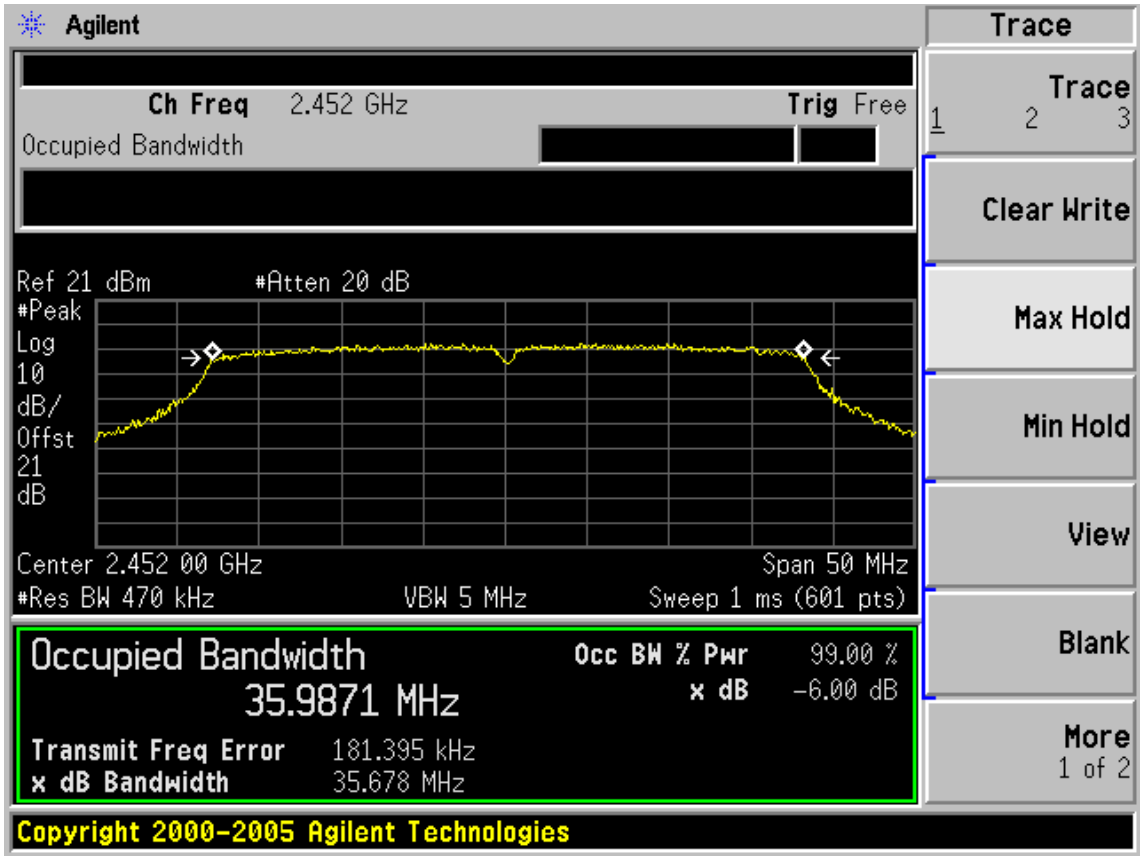
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.31, 12	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 12	1 Year
5.	Power Meter	Anritsu	ML2487A	6K00002472	May.08, 12	1Year
6.	Power Sensor	Anritsu	MA2491A	033005	May.08, 12	1Year

8.2.Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

8.3.Test Procedure

1, Connected the EUT's antenna port to measure device by 26dB attenuator.

2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is 20MHz and above 26dB bandwidth of signal to measure out each test modes' PK output power.

3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So Bandwidth correction method according to ANSI C63.10 clause 6.10.2.1 part (c) was used:

1) Set the RBW=3MHz and VBW =8MHz
2) Turn averaging off
3) Set sweep to automatic
4) Set the span just large enough to capture the emission
5) Use a peak detector on max hold
6) Record the measured power
7) Calculate Output power of EUT use the formula:

Peak output power =measured power+ 10log[(26dB bandwidth of emission)/(analyzer RBW)]

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

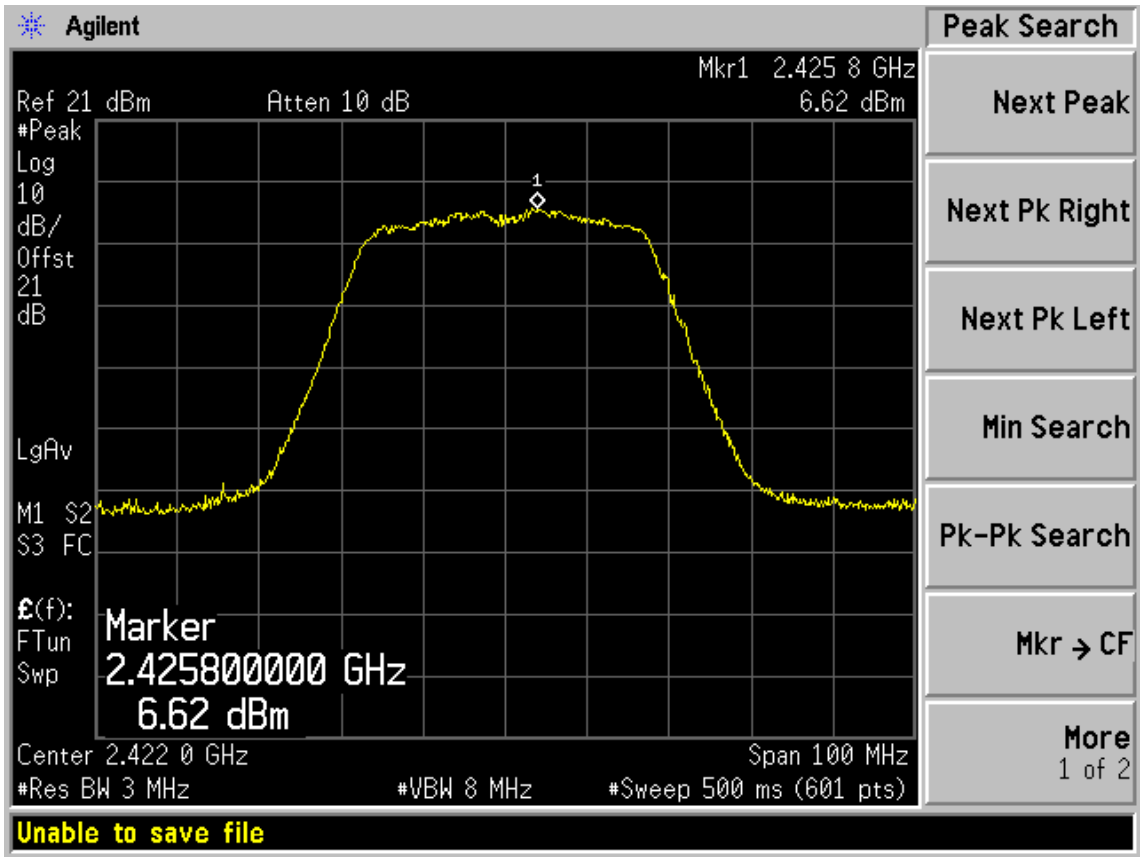
8.4.Test Results

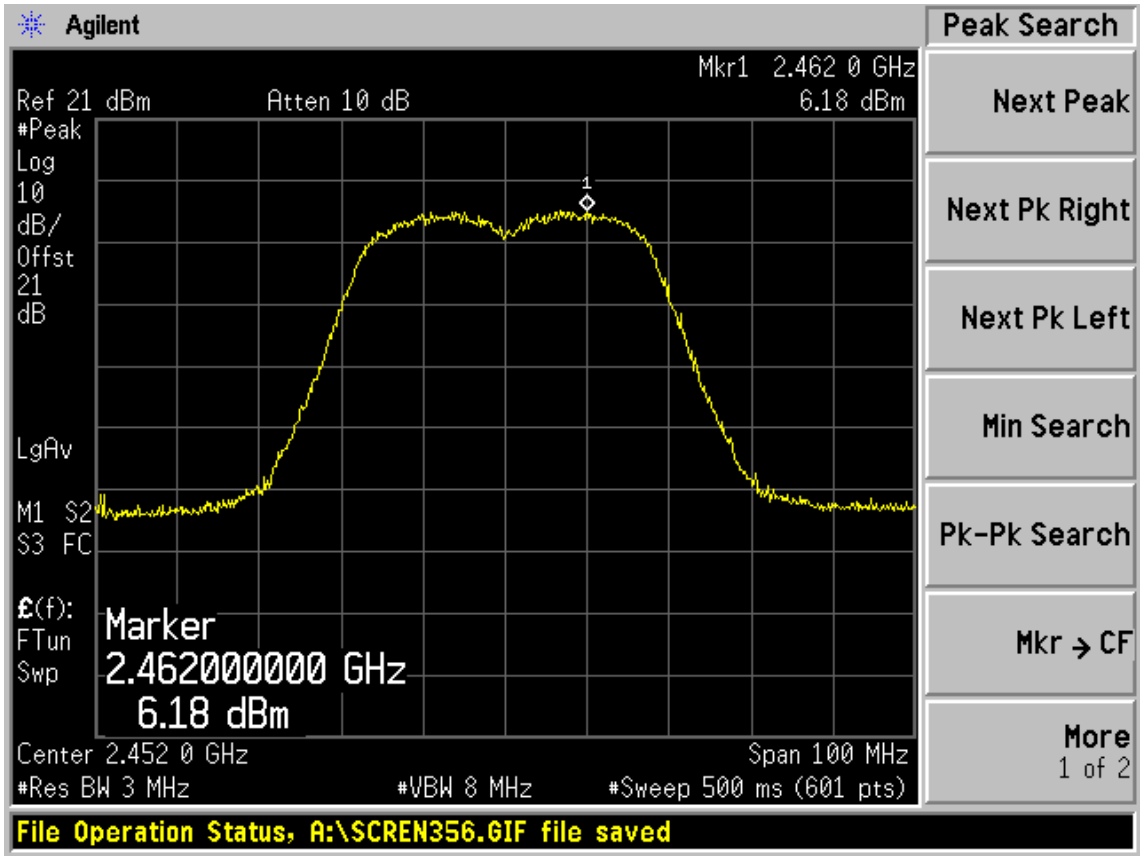
EUT: 300Mbps Wireless N Router		
M/N: PW-RN501D		
Test date: 2012-08-31	Pressure: 101.1 kpa	Humidity: 52.2 %
Tested by: Leo-Li	Test site: RF site	Temperature: 25.3 ℃

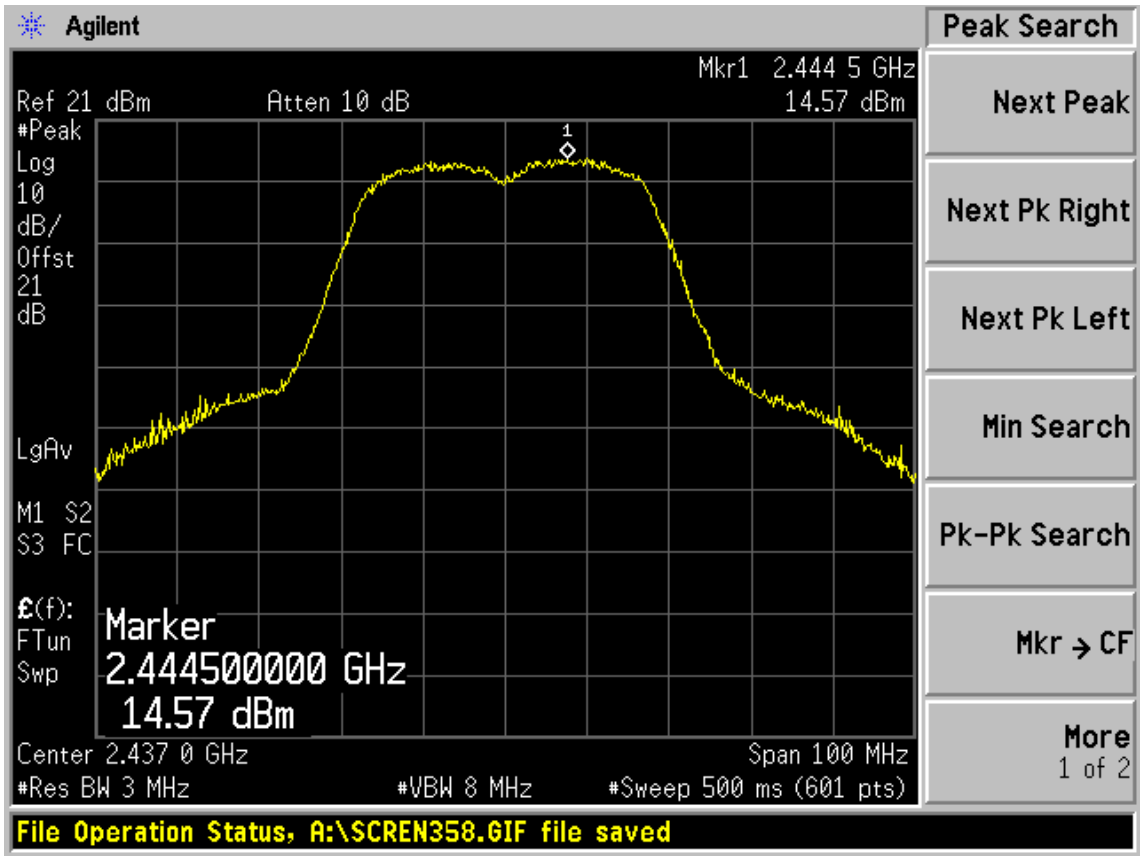
Cable loss: 1 dB		Attenuator loss: 20 dB			
Test Mode	CH (MHz)	Peak output Power (dBm)			Limit (dBm)
		Chain0	Chain1	Total	
11b	CH1	18.74	18.31	N/A	30
	CH6	20.80	20.09	N/A	30
	CH11	18.13	17.85	N/A	30
11g	CH1	22.93	22.46	N/A	30
	CH6	25.66	24.95	N/A	30
	CH11	20.62	20.32	N/A	30
11n HT20	CH1	18.83	18.56	21.71	30
	CH6	25.79	25.19	28.51	30
	CH11	17.55	16.92	20.26	30

Test Mode	CH	Result					Limit
		Measured power(dBm)/3MHz		PK Output power (dBm)			(dBm)
		Chain0	Chain1	Chain0	Chain1	Total	
11n HT40	CH1	6.62	6.03	18.06	17.47	20.79	30
	CH4	14.57	14.26	26.11	25.70	28.92	30
	CH7	6.18	5.86	17.62	17.30	20.47	30
Chain 26 6dB Bandwidth for 11n HT40: 41.830MHz Chain 26 6dB Bandwidth for 11n HT40: 41.832MHz							
Chain 0 BW correction factor = 10log[(41.830MHz)/(3MHz)] = 11.44B Chain 1 BW correction factor = 10log[(41.832MHz)/(3MHz)] = 11.44dB							
Conclusion: PASS							

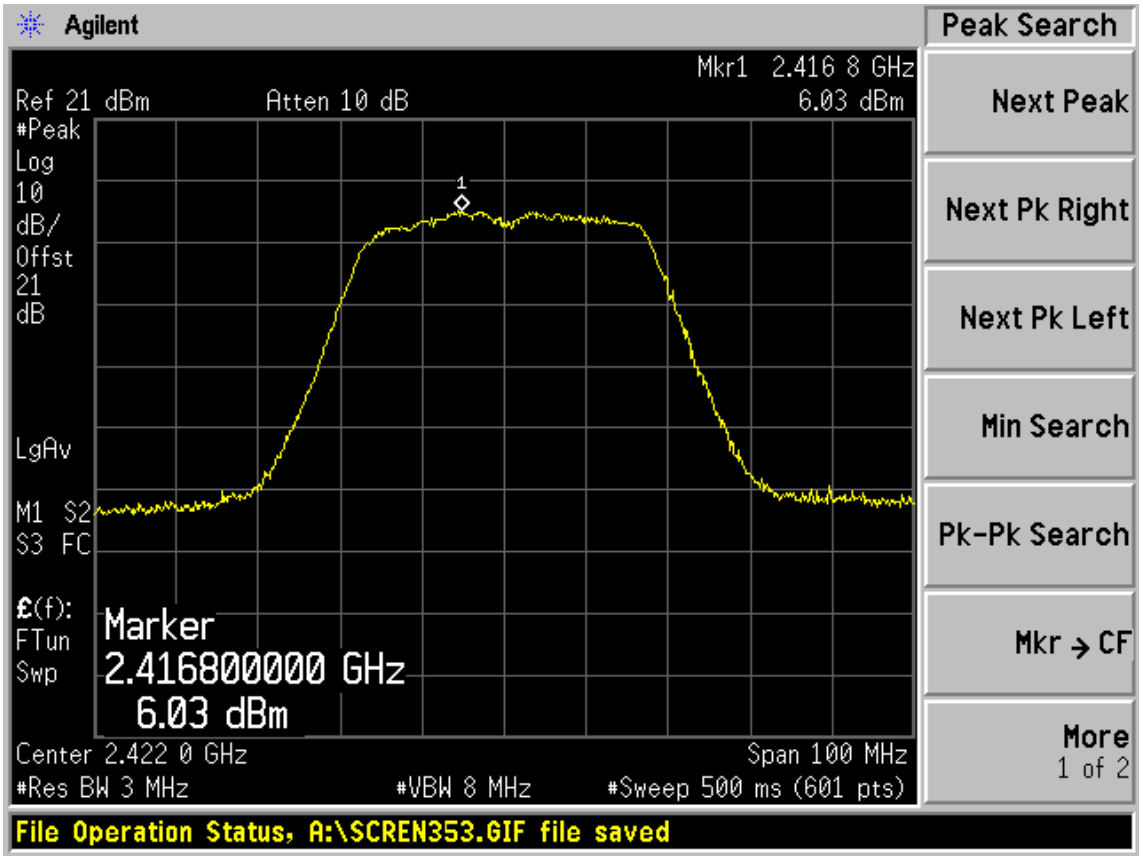
ANT 0
Test Mode: IEEE 802.11n HT40

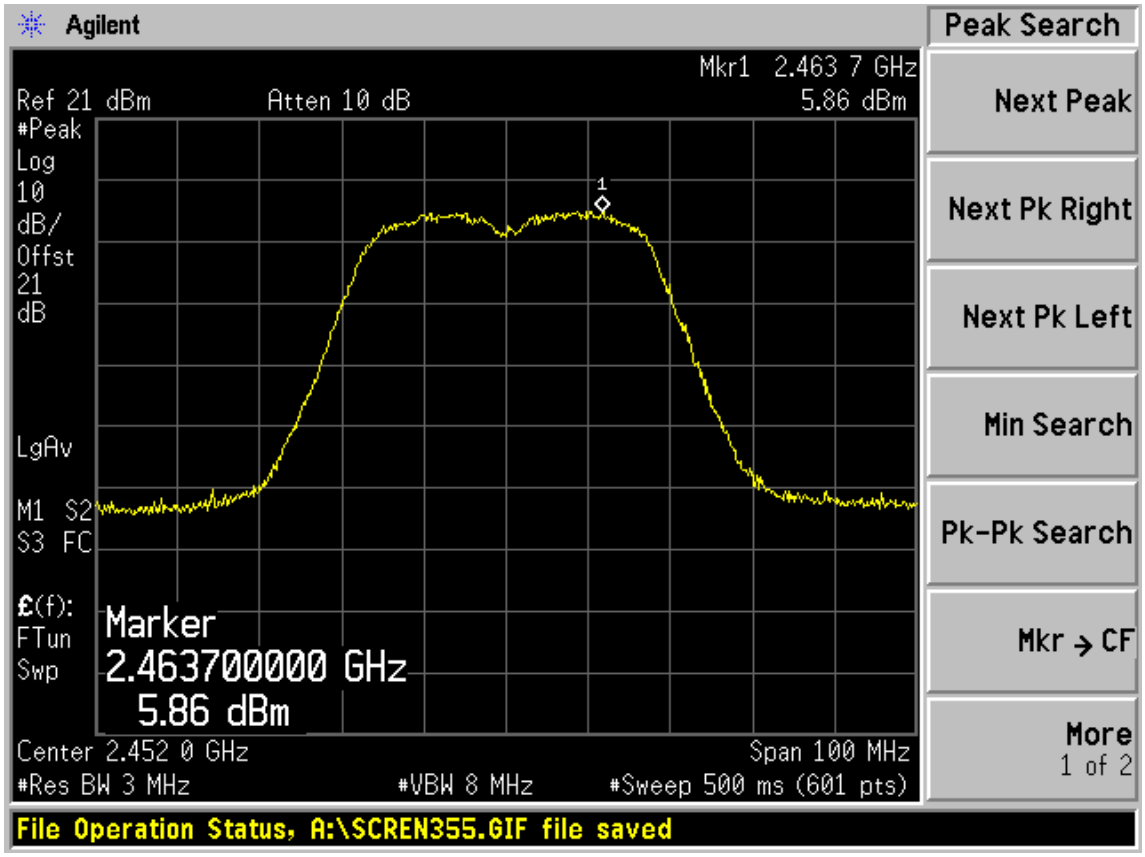


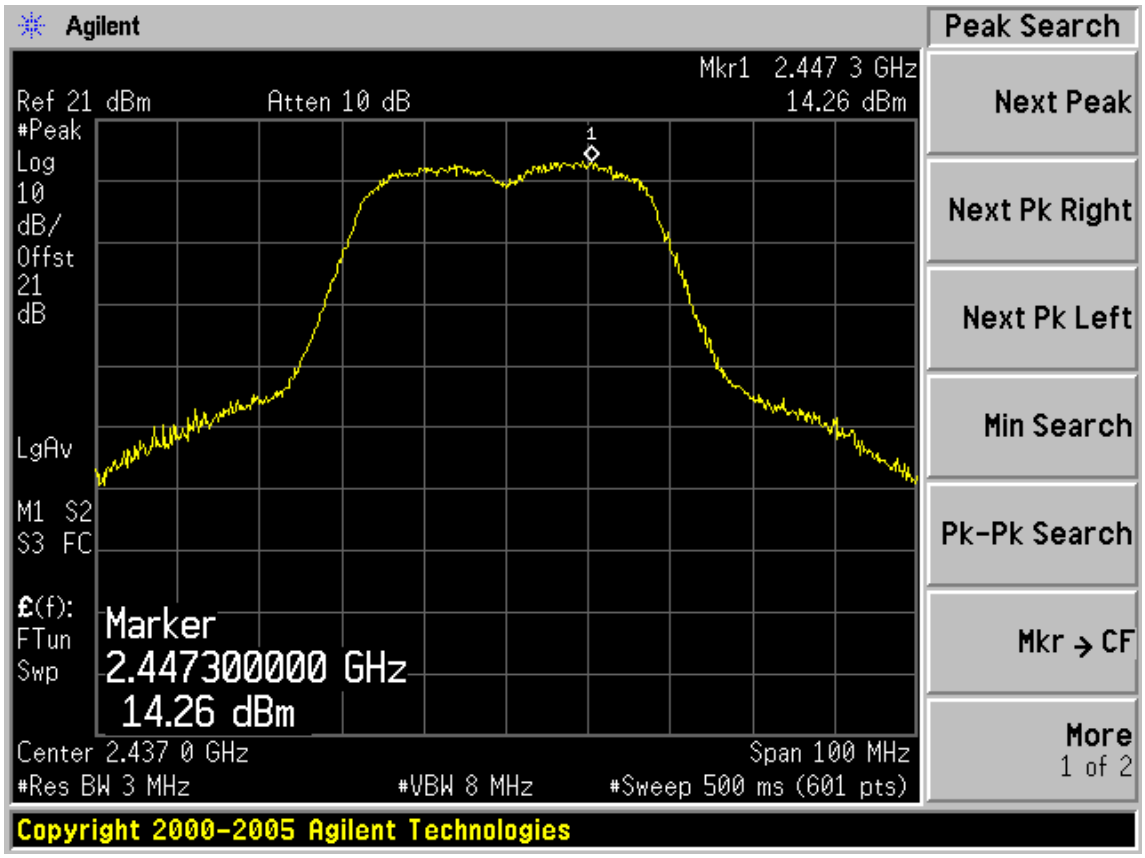




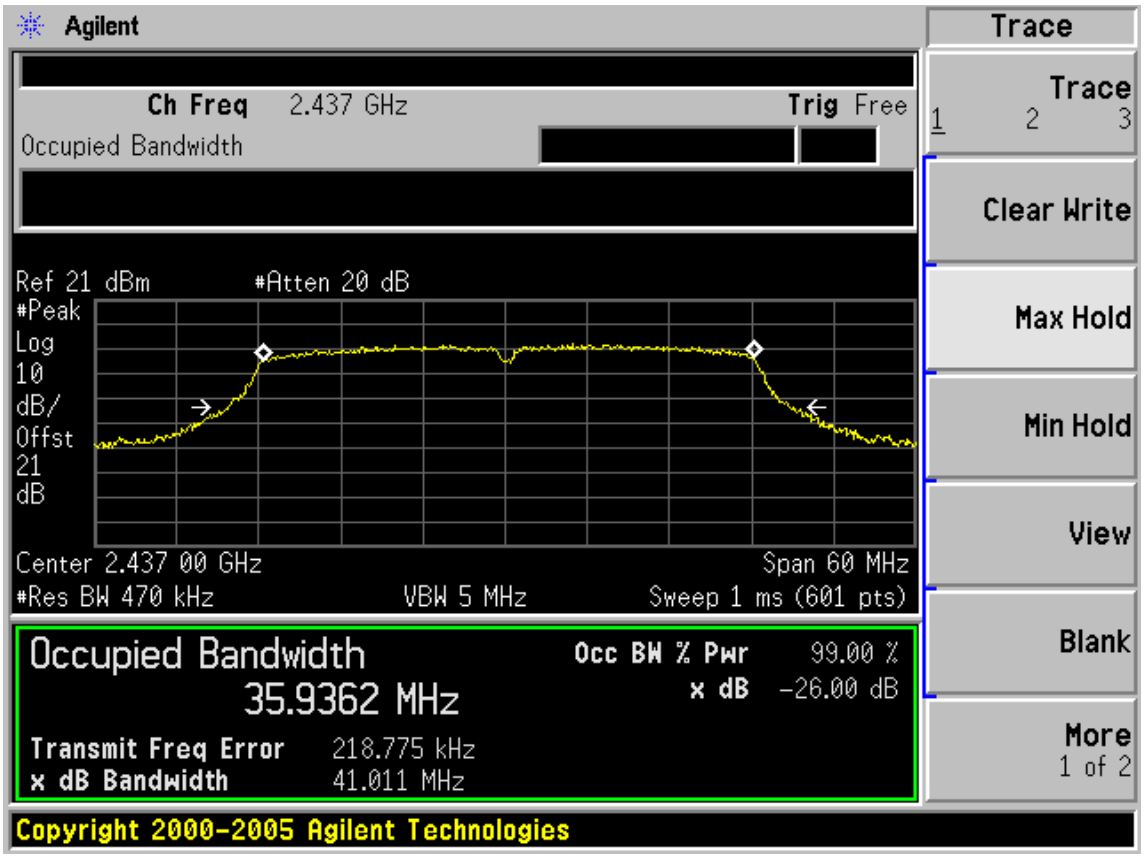
ANT 1
Test Mode: IEEE 802.11n HT40

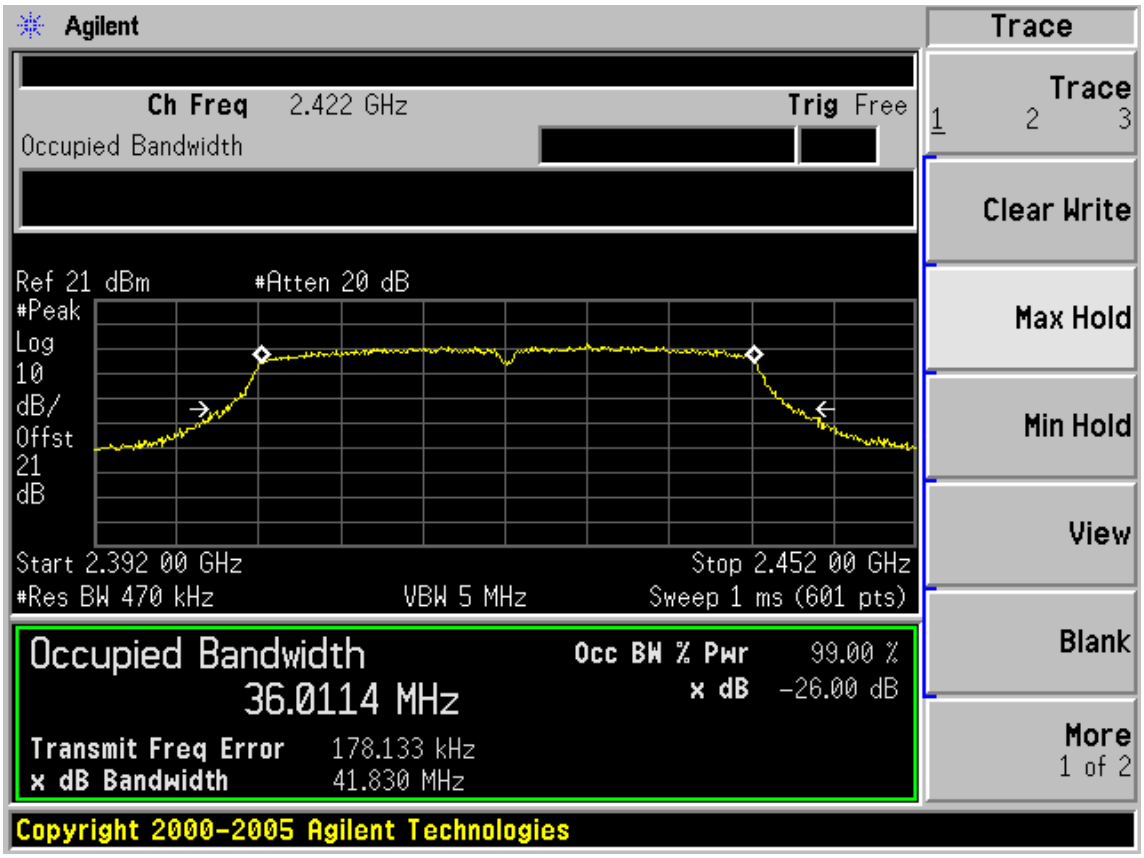


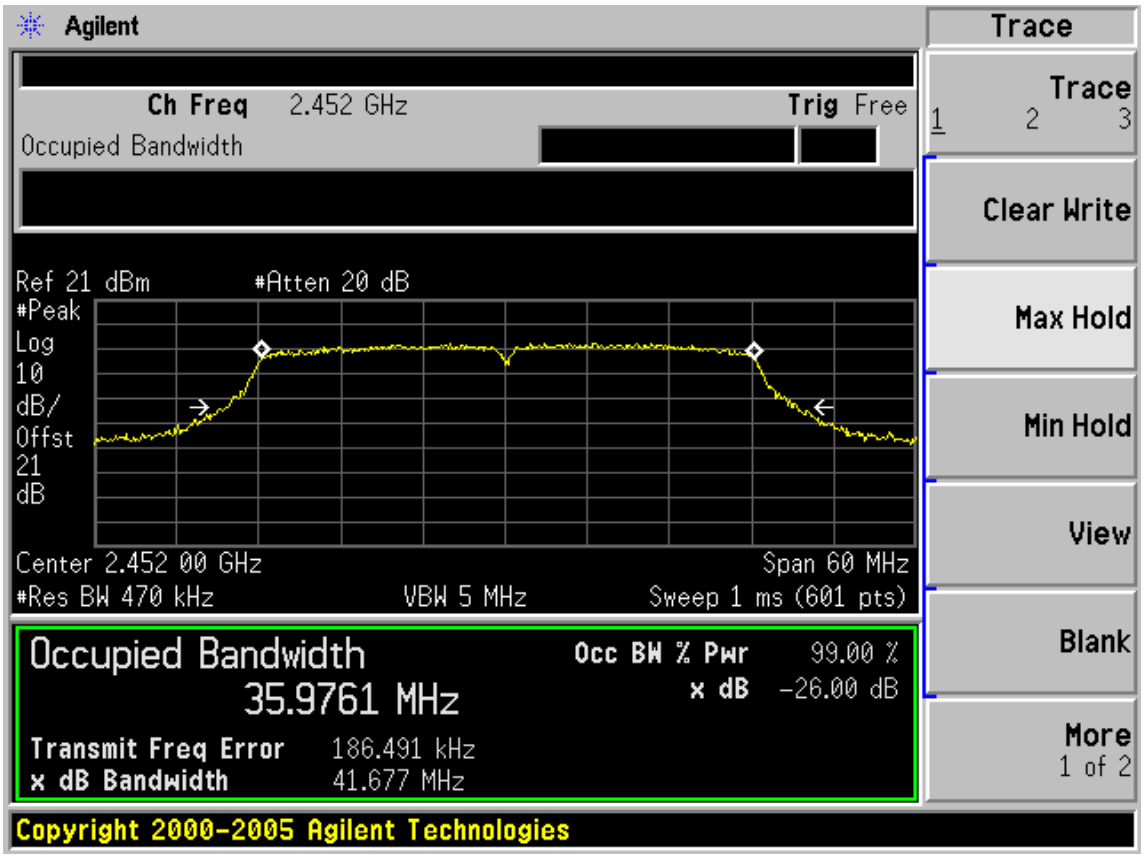

Agilent
Peak Search
Mkr1 2.463 7 GHz
5.86 dBm
Ref 21 dBm
Atten 10 dB
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Marker
2.463700000 GHz
5.86 dBm
Center 2.452 0 GHz
Span 100 MHz
#Res BW 3 MHz
#VBW 8 MHz
#Sweep 500 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
File Operation Status, A:\SCREN355.GIF file saved


Agilent
Peak Search
Mkr1 2.447 3 GHz
14.26 dBm
Ref 21 dBm
Atten 10 dB
#Peak
Log
10
dB/
Offst
21
dB
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Marker
2.447300000 GHz
14.26 dBm
Center 2.437 0 GHz
Span 100 MHz
#Res BW 3 MHz
#VBW 8 MHz
#Sweep 500 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

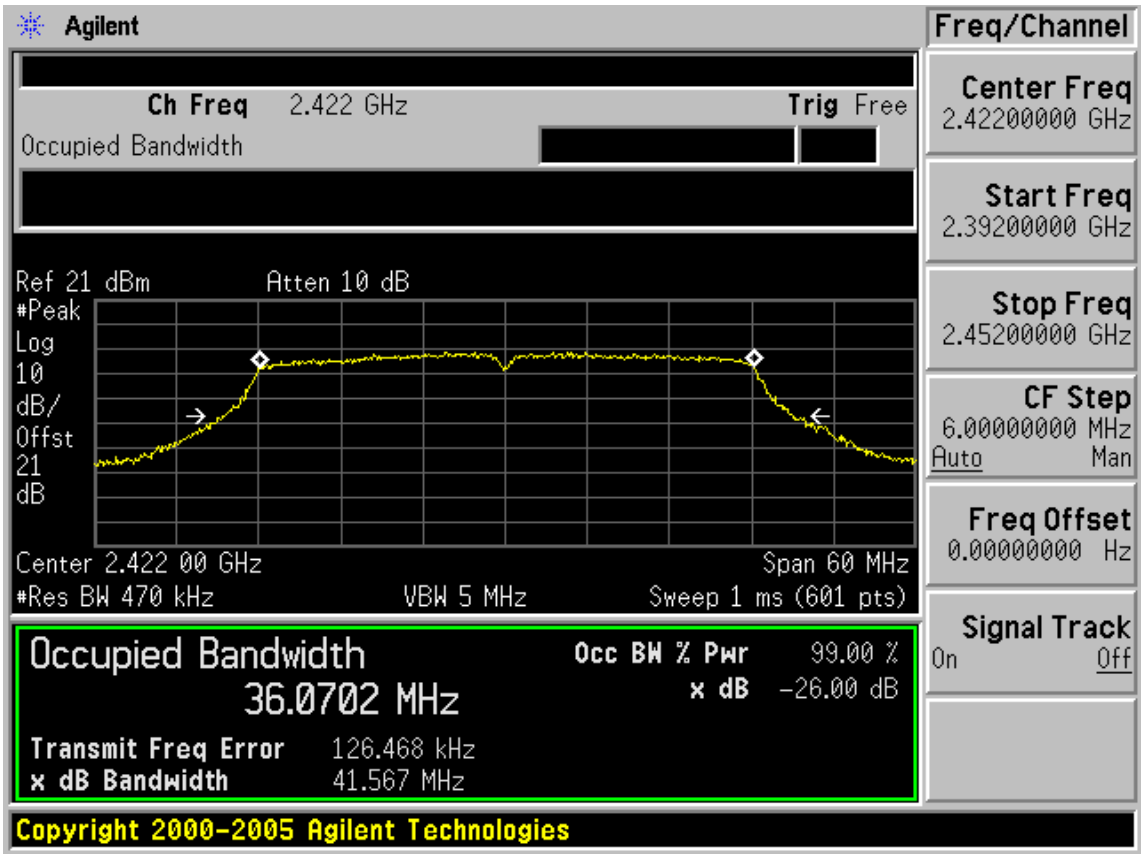
ANT 0
26dB Bandwidth

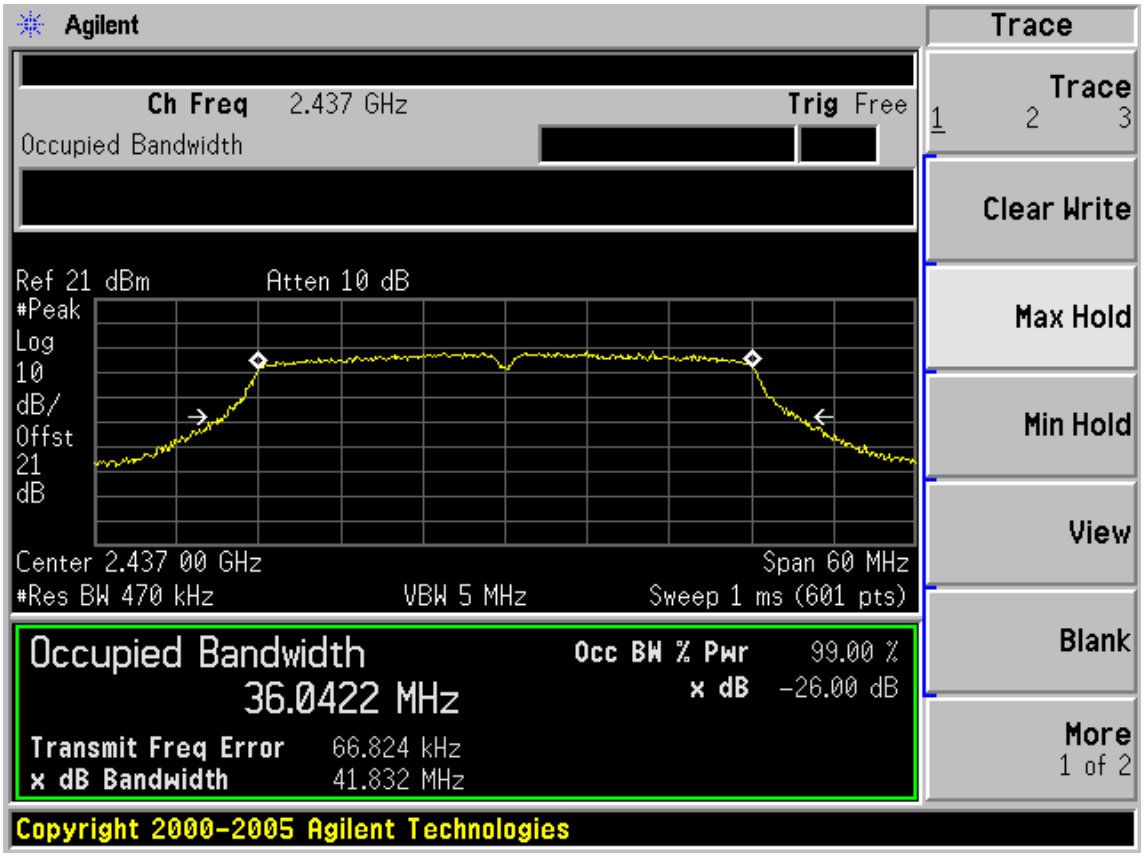


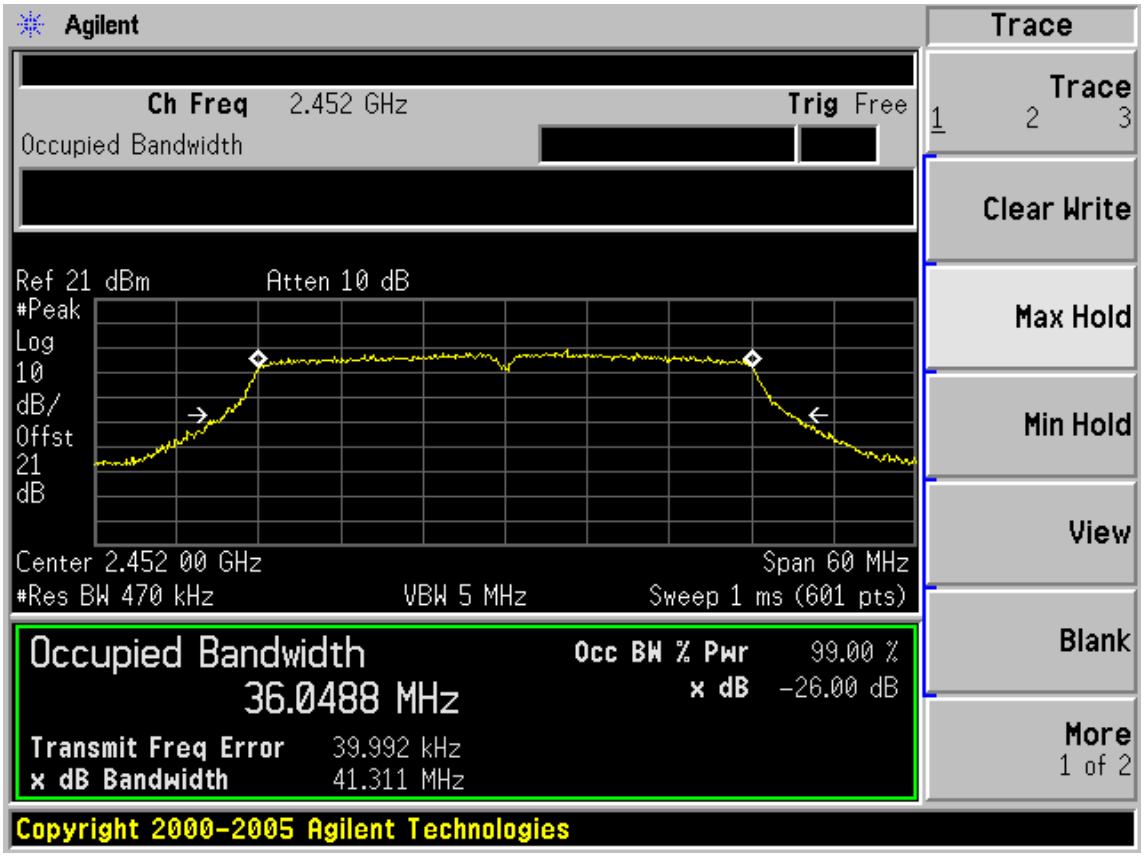




ANT 1
26dB Bandwidth




Agilent
Trace
Ch Freq 2.437 GHz
Trig Free
Occupied Bandwidth
Trace
1 2 3
Clear Write
Ref 21 dBm
Atten 10 dB
#Peak
Log
10
dB/
Offst
21
dB
Max Hold
Min Hold
View
Center 2.437 00 GHz
Span 60 MHz
#Res BW 470 kHz
VBW 5 MHz
Sweep 1 ms (601 pts)
Occupied Bandwidth
36.0422 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 66.824 kHz
x dB Bandwidth 41.832 MHz
Blank
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
Trace
Ch Freq 2.452 GHz
Trig Free
Occupied Bandwidth
Trace
1 2 3
Clear Write
Ref 21 dBm
Atten 10 dB
#Peak
Log
10
dB/
Offst
21
dB
Max Hold
Min Hold
View
Center 2.452 00 GHz
Span 60 MHz
#Res BW 470 kHz
VBW 5 MHz
Sweep 1 ms (601 pts)
Occupied Bandwidth
36.0488 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 39.992 kHz
x dB Bandwidth 41.311 MHz
Blank
More
1 of 2
Copyright 2000-2005 Agilent Technologies

9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.31, 12	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 12	1 Year

9.2.Limit

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

9.3.Test Procedure

1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.

2 , Set the test frequency as center frequency,Set RBW=3KHz,VBW=10KHz,Span large enough capture the entire frequency,Read out maximum peak leval frequency

3, Set the frequency read from produce 2 as center frequency,then set the span= 300KHz, Sweep time=Span/RBW,Then Max hold,read out each mode and each chain's Power density.

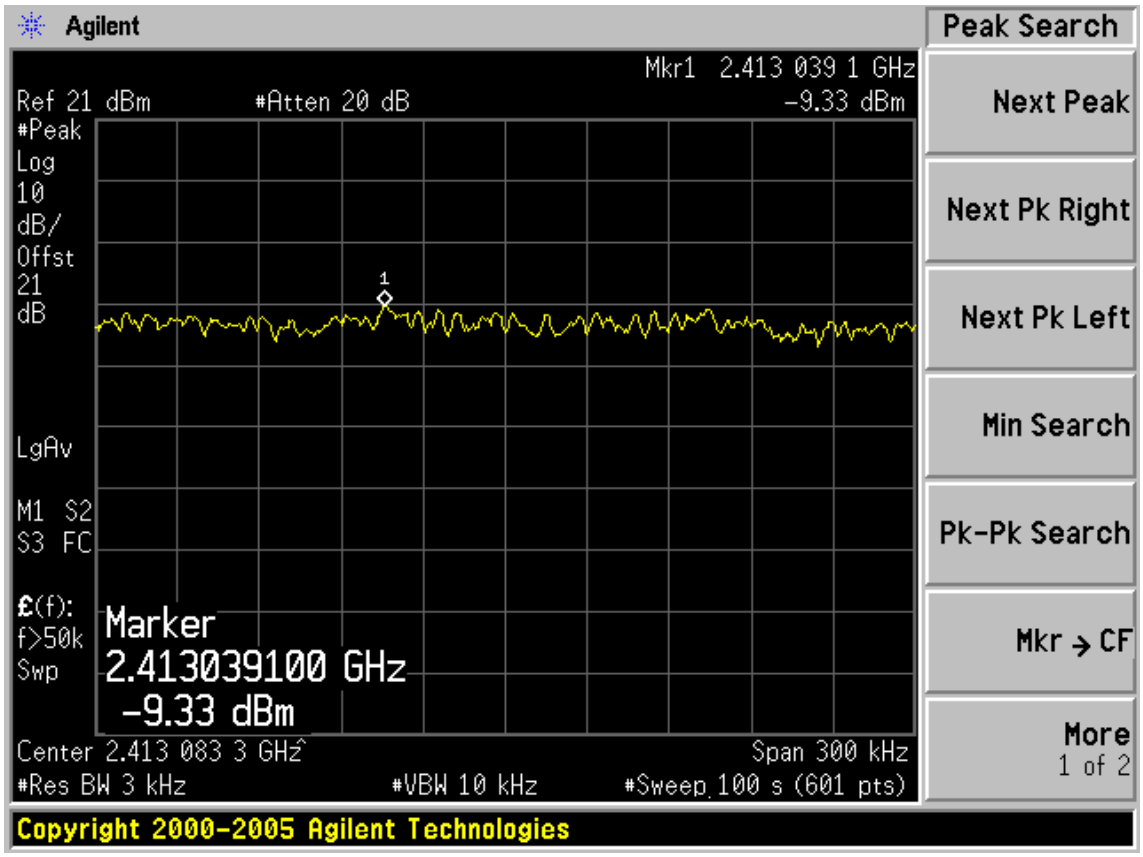
Note: The cable loss and attenuator loss were offset into measure device as an amplitude

9.4.Test Results

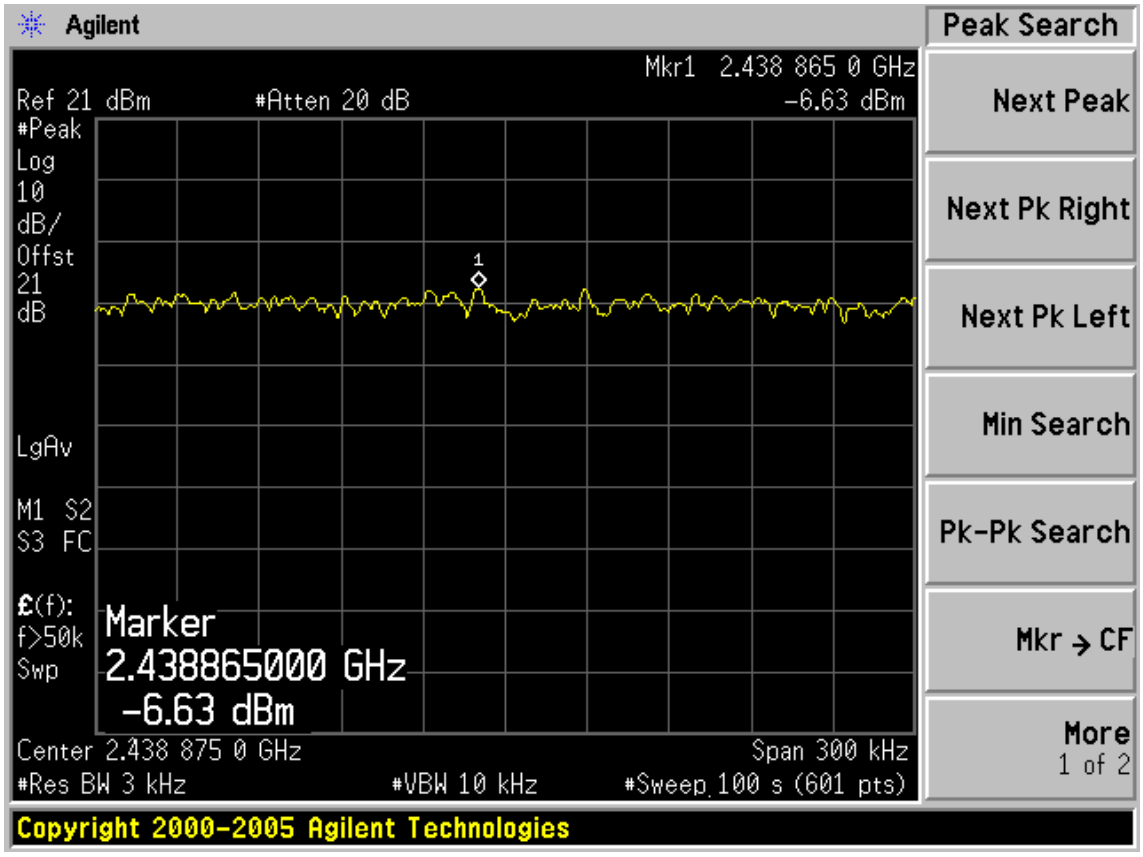
EUT: 300Mbps Wireless N Router		
M/N: PWRN501D		
Test date:2012-08-31	Pressure: 101.1 kpa	Humidity: 52.7 %
Tested by: Leo-Li	Test site: RF Site	Temperature：24.9℃

Cable loss: 1 dB		Attenuator loss: 20 dB			
Test Mode	CH	Power density（dBm/3KHz）			Limit (dBm/3KHz)
		Chain0	Chain1	Total	
11b	CH1	-9.33	-13.62	N/A	8
	CH6	-6.63	-11.09	N/A	8
	CH11	-7.44	-12.58	N/A	8
11g	CH1	-12.19	-16.13	N/A	8
	CH6	-7.67	-12.36	N/A	8
	CH11	-11.14	-16.20	N/A	8
11n HT20	CH1	-15.23	-18.83	-13.66	8
	CH6	-6.80	-13.41	-5.94	8
	CH11	-13.05	-20.35	-12.31	8
11n HT40	CH1	-18.71	-23.87	-17.55	8
	CH4	-9.69	-15.76	-8.73	8
	CH7	-19.00	-21.37	-17.01	8
Conclusion：PASS					

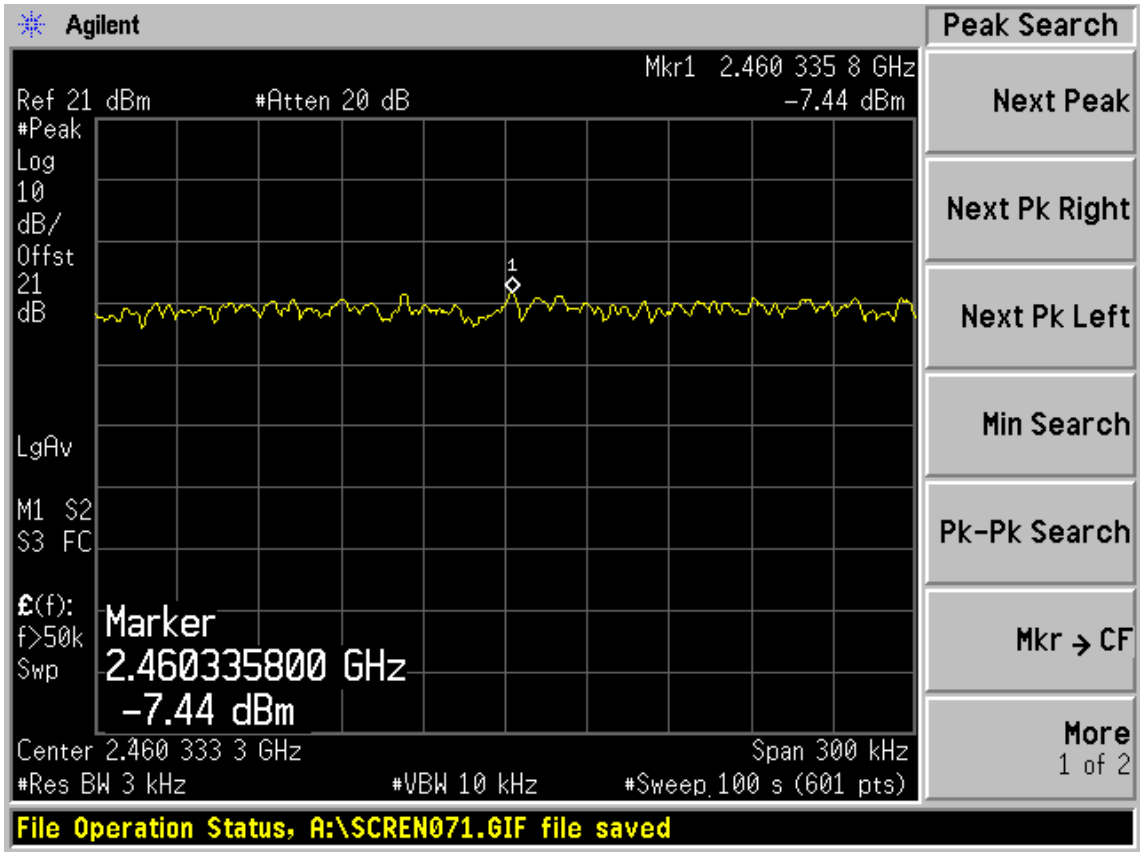
ANT 0
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



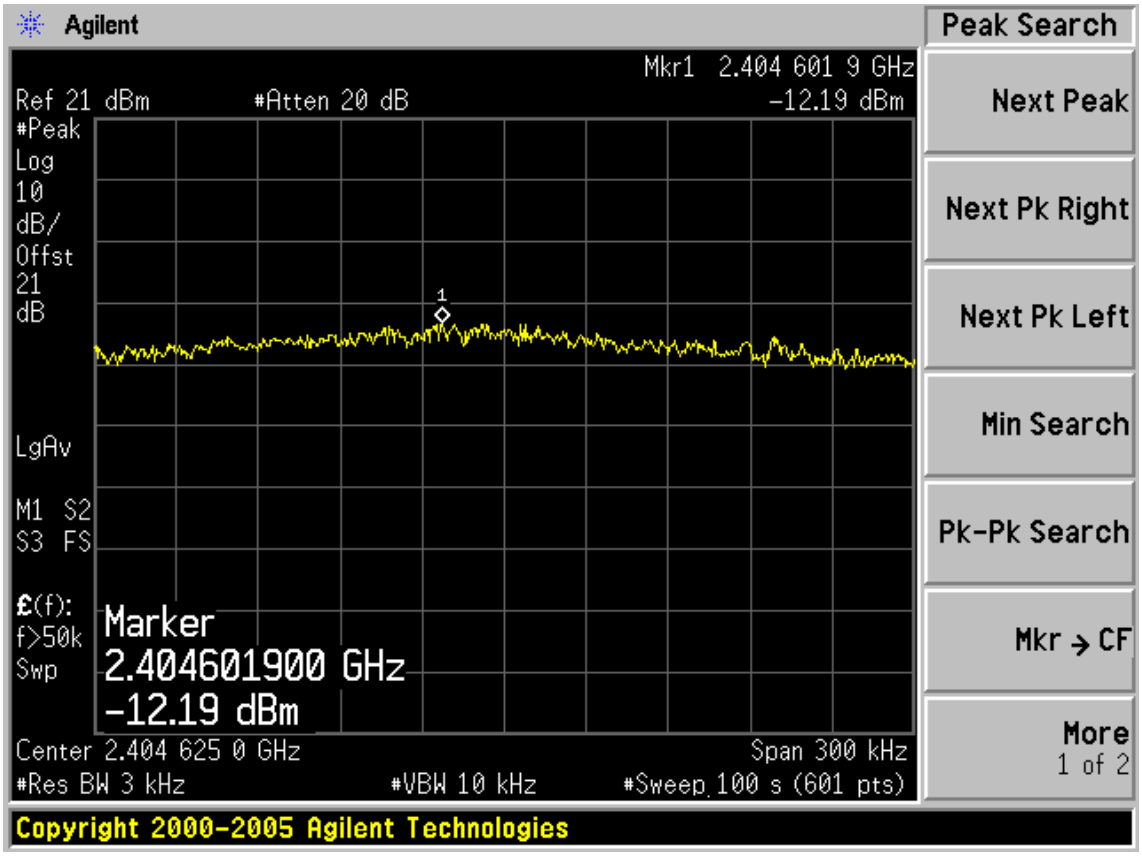
Test CH6: 2437MHz



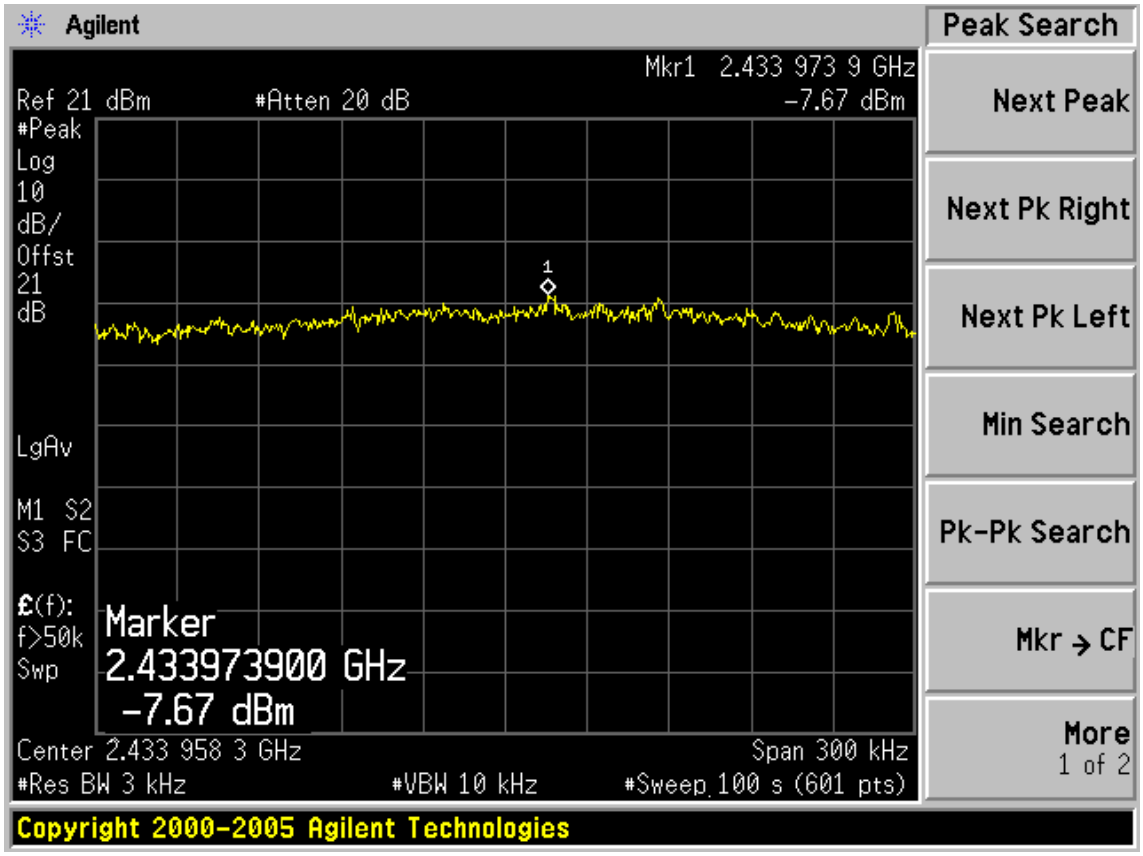
Test CH11: 2462MHz



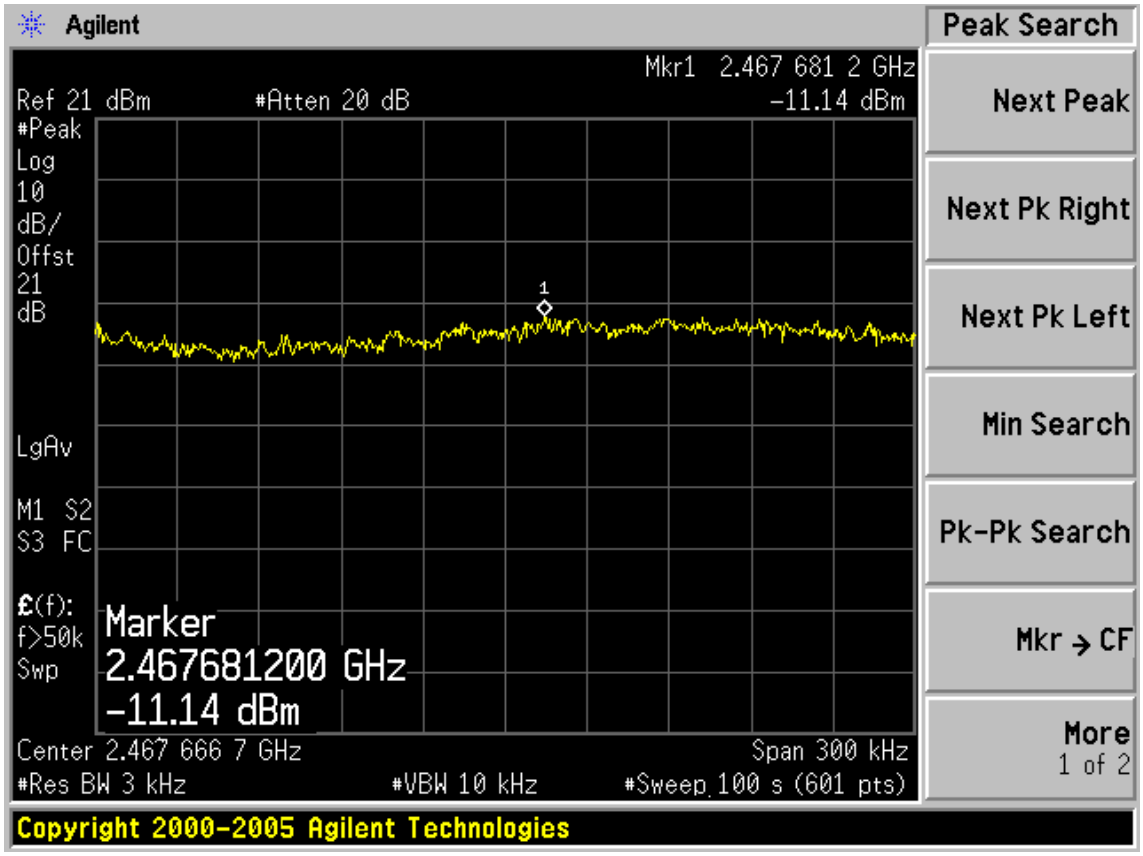
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



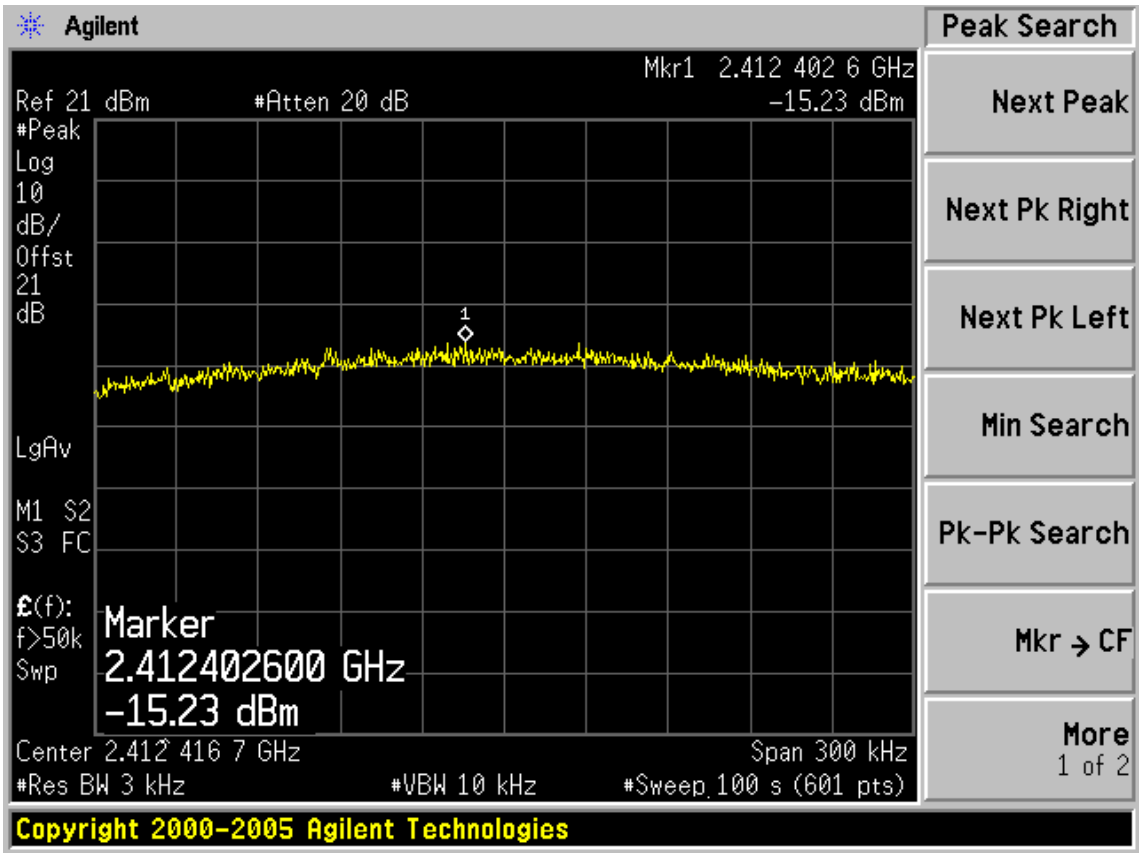
Test CH6: 2437MHz



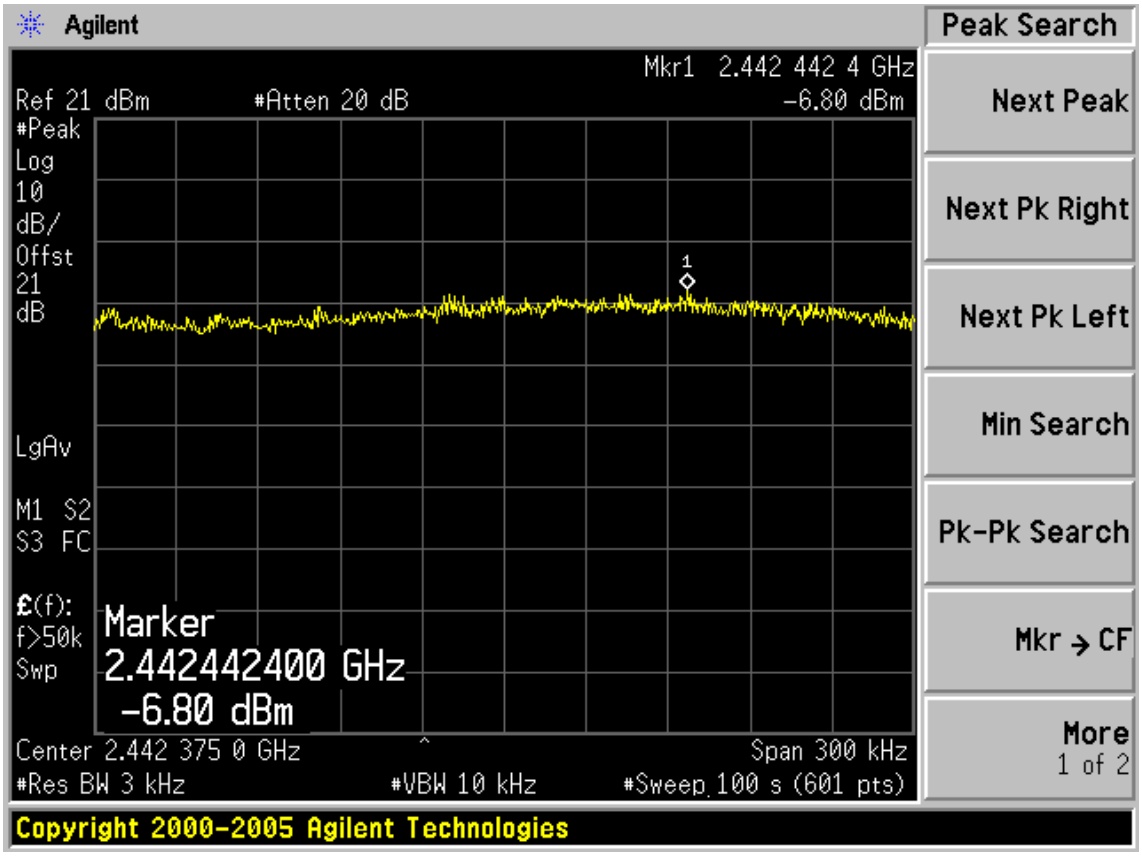
Test CH11: 2462MHz



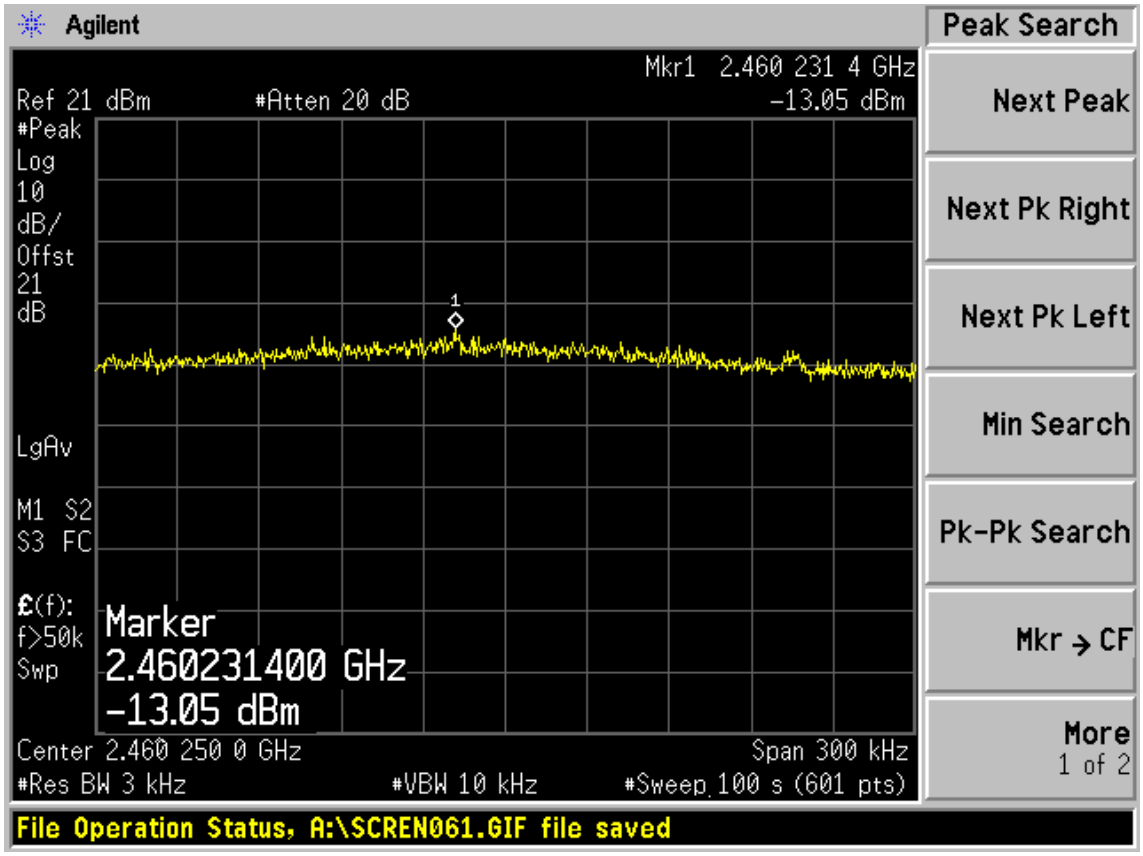
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



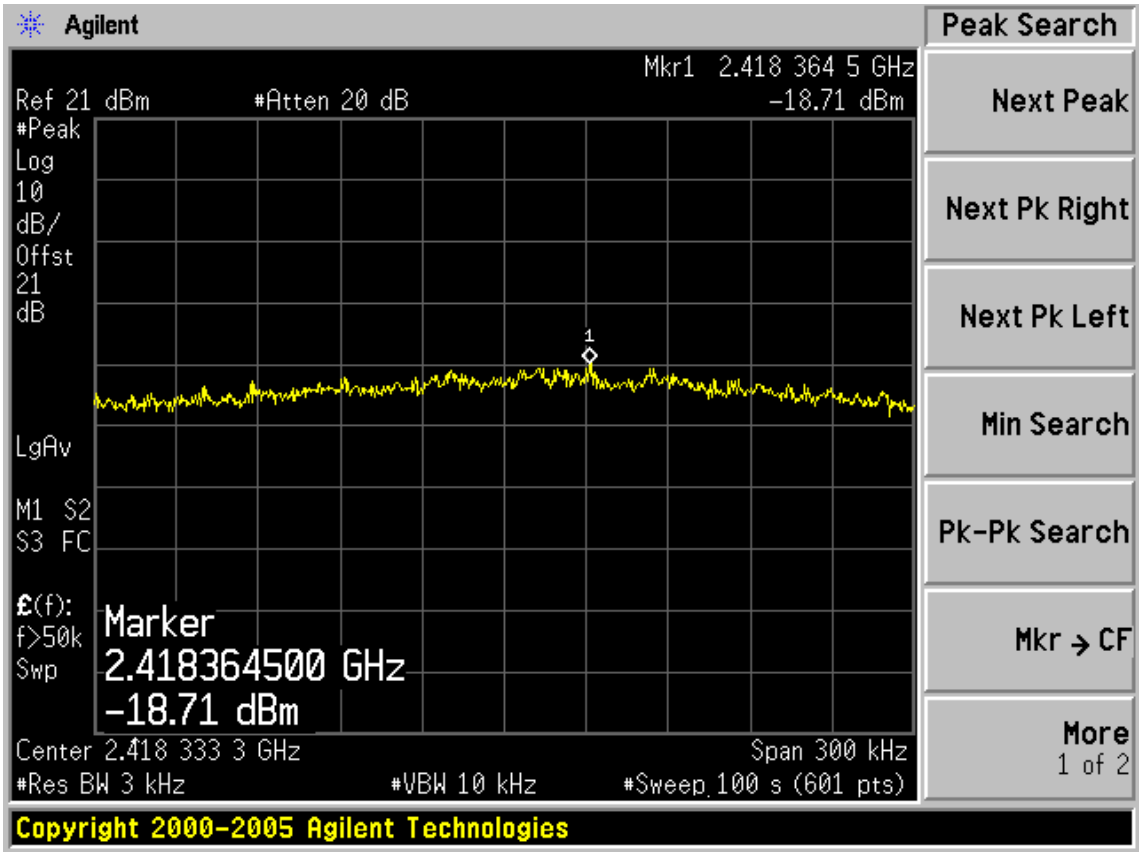
Test CH6: 2437MHz



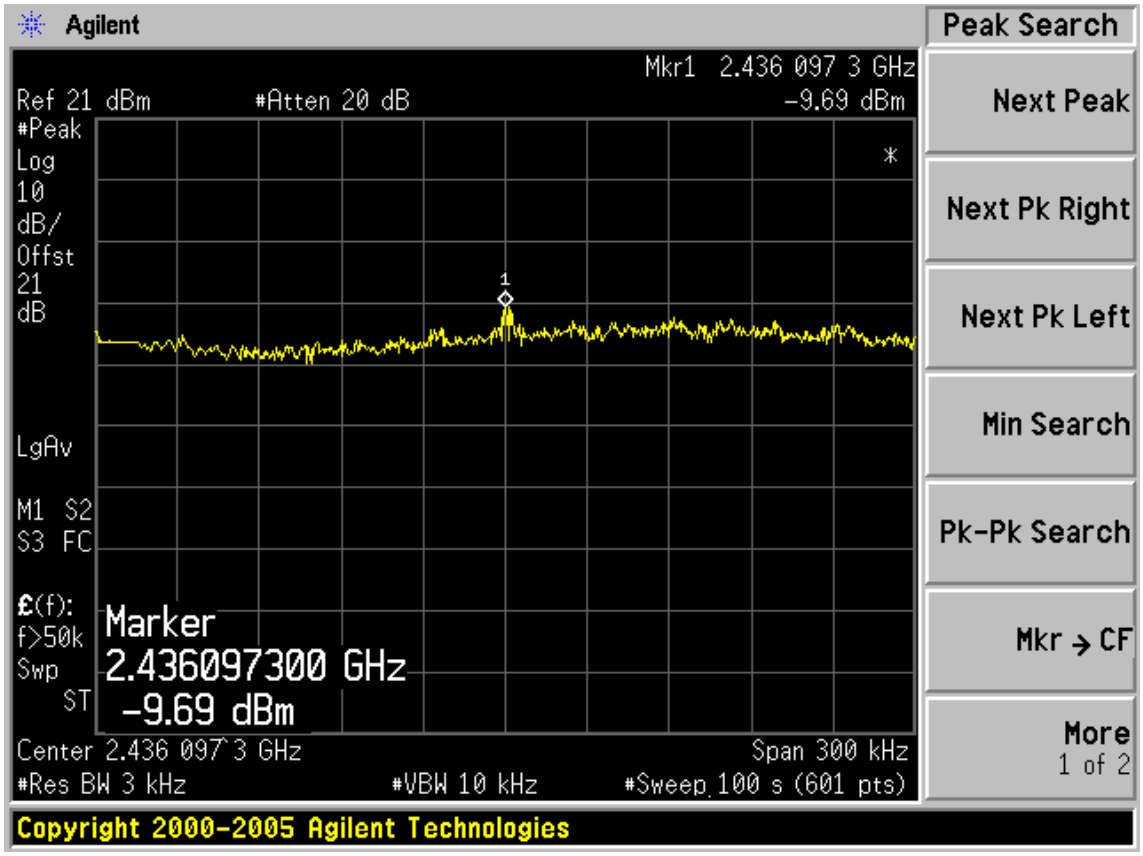
Test CH11: 2462MHz



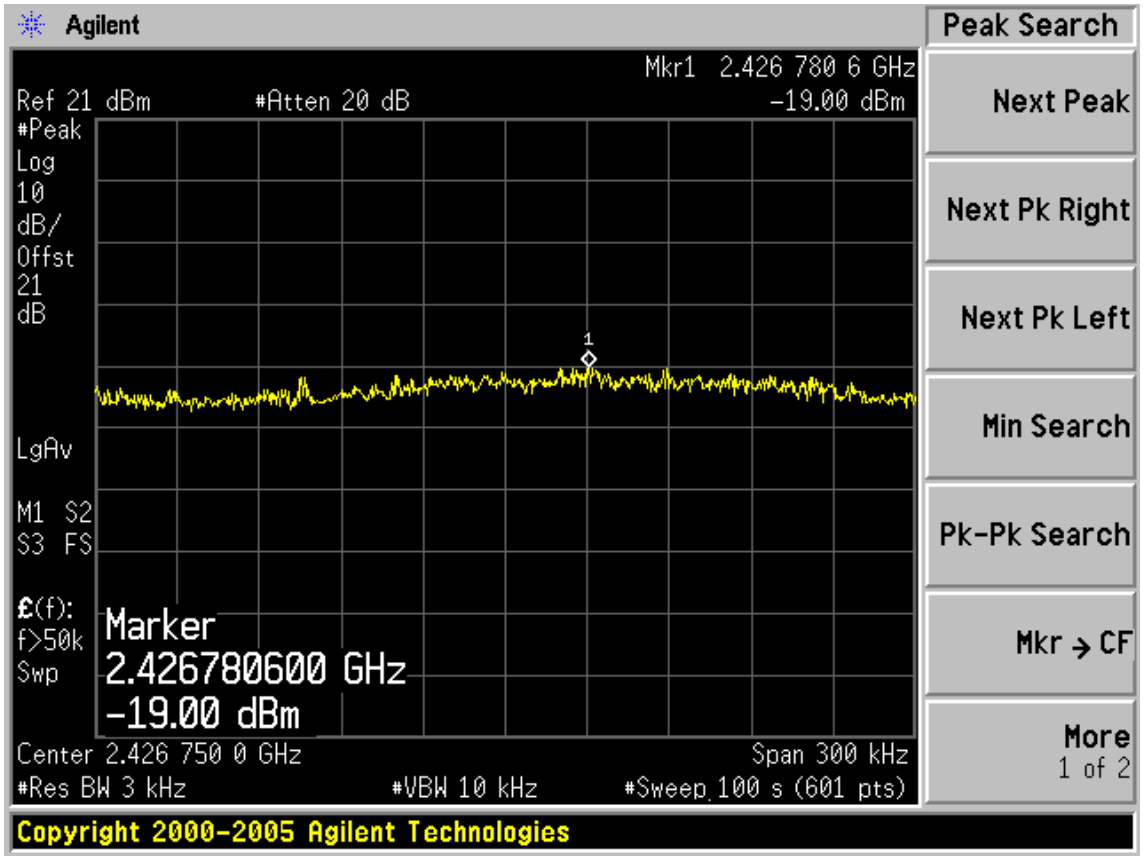
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



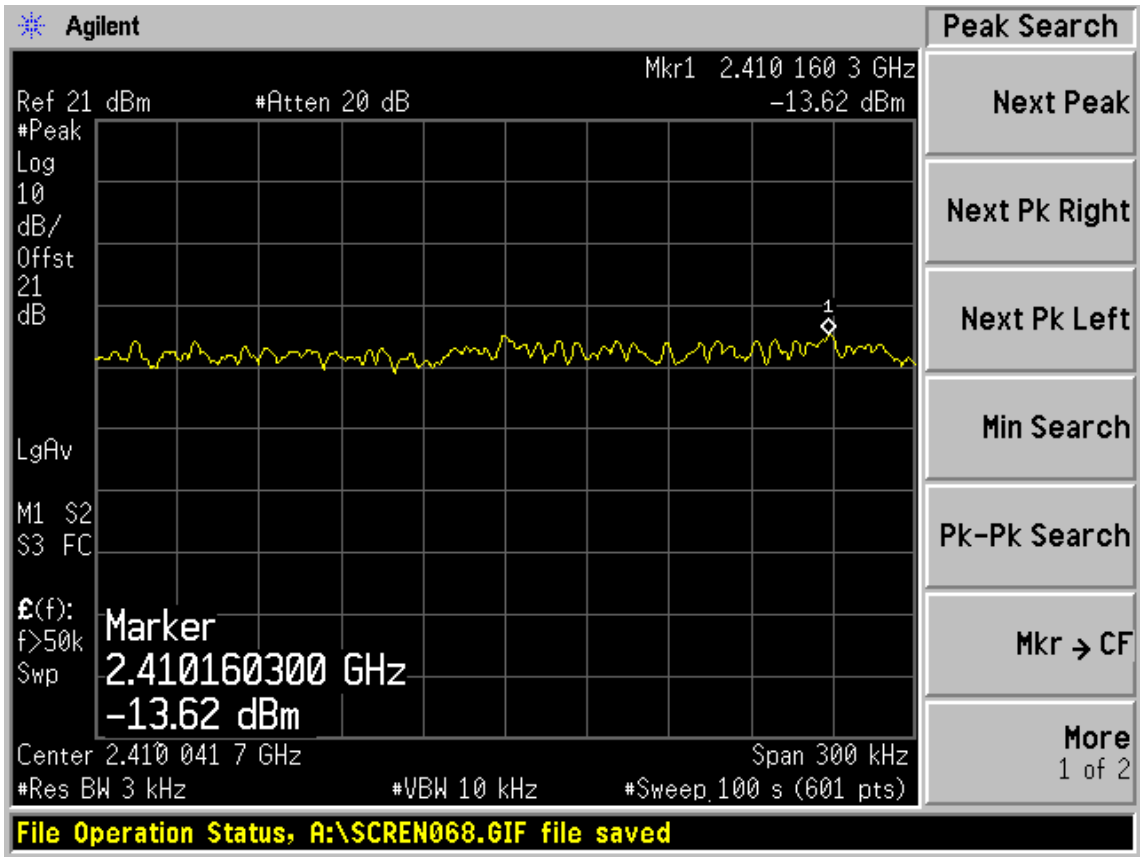
Test CH4: 2437MHz



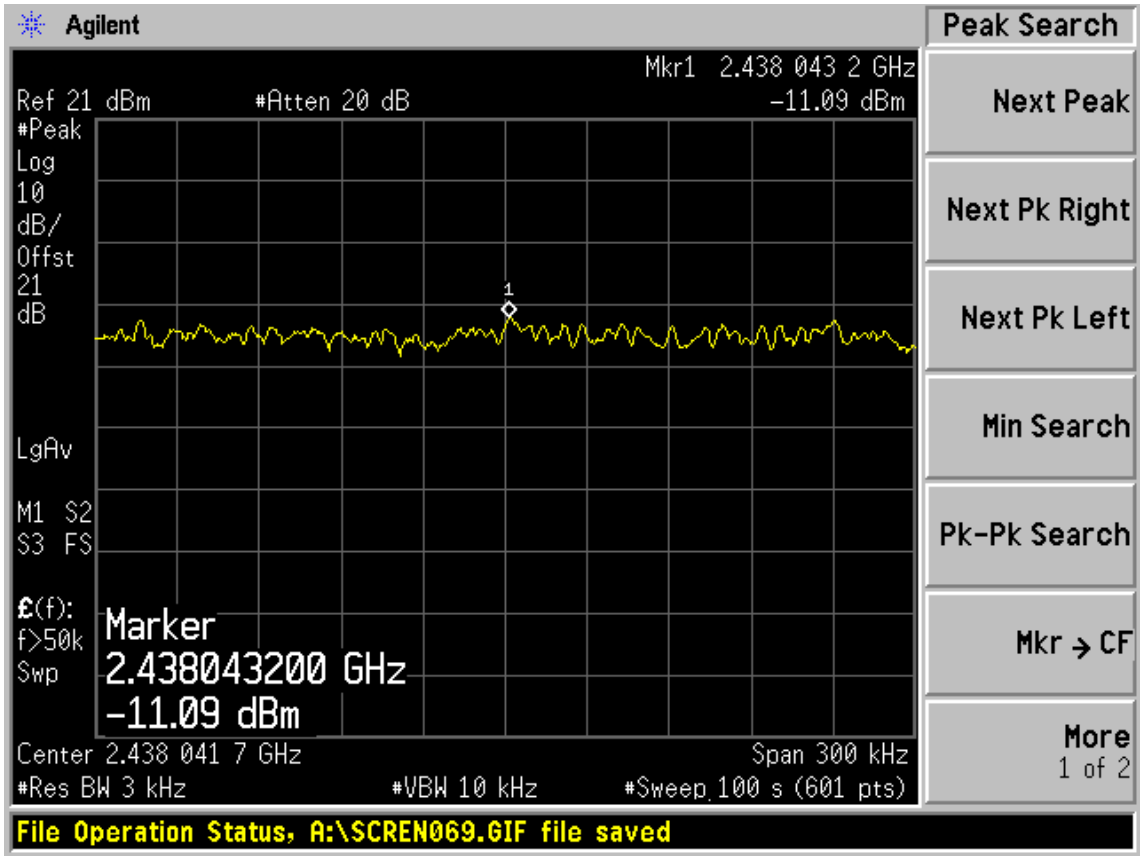
Test CH7: 2452MHz



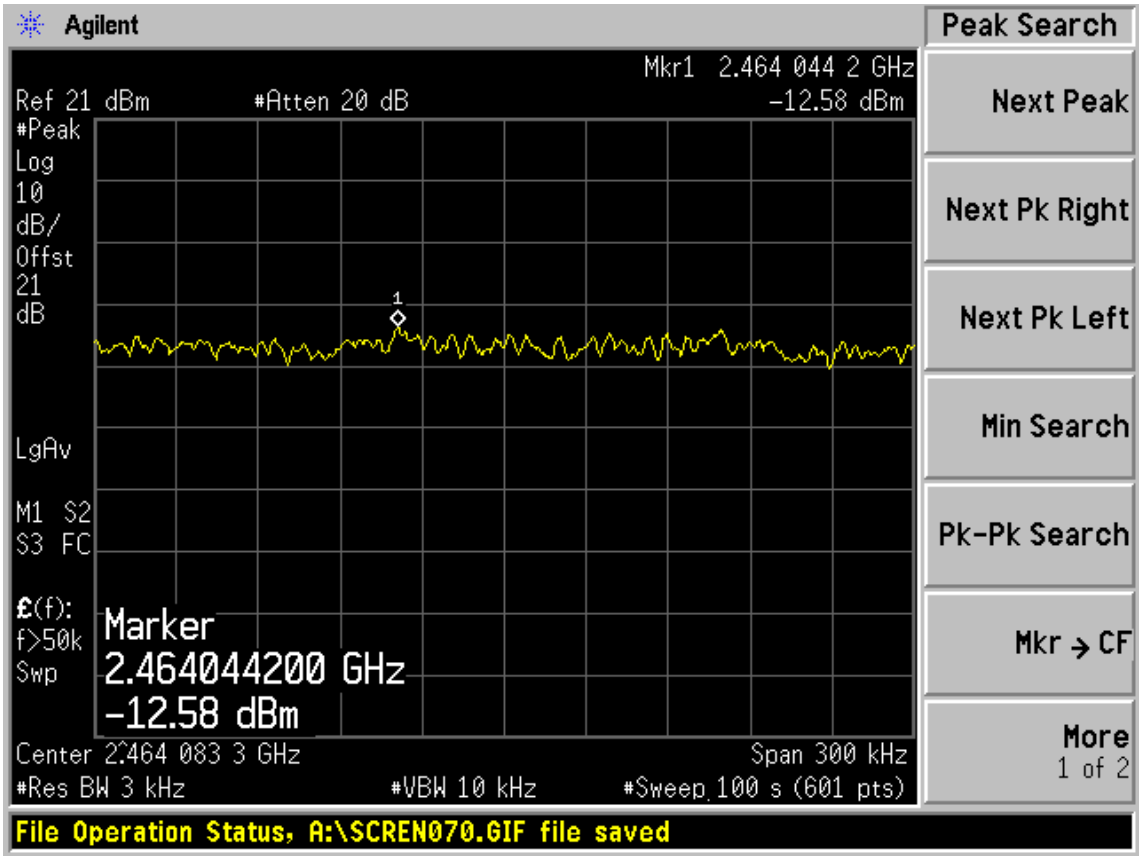
ANT 1
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



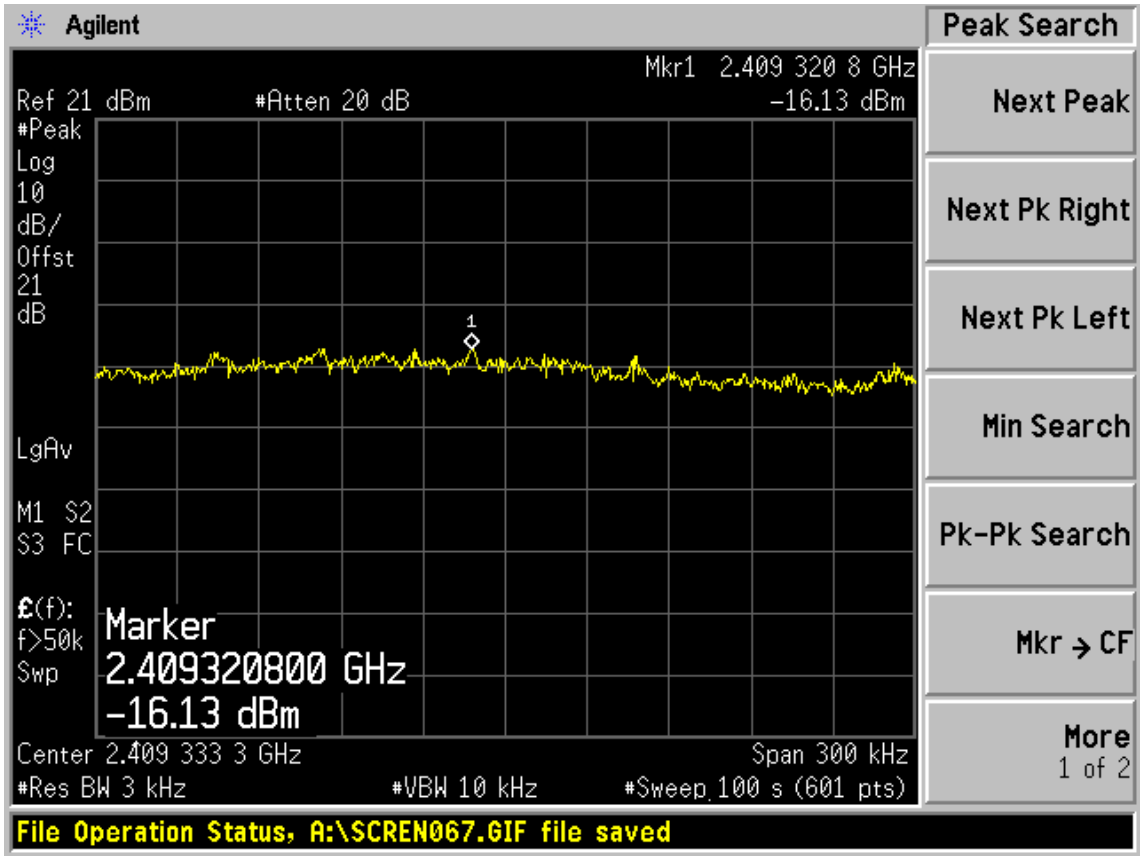
Test CH6: 2437MHz



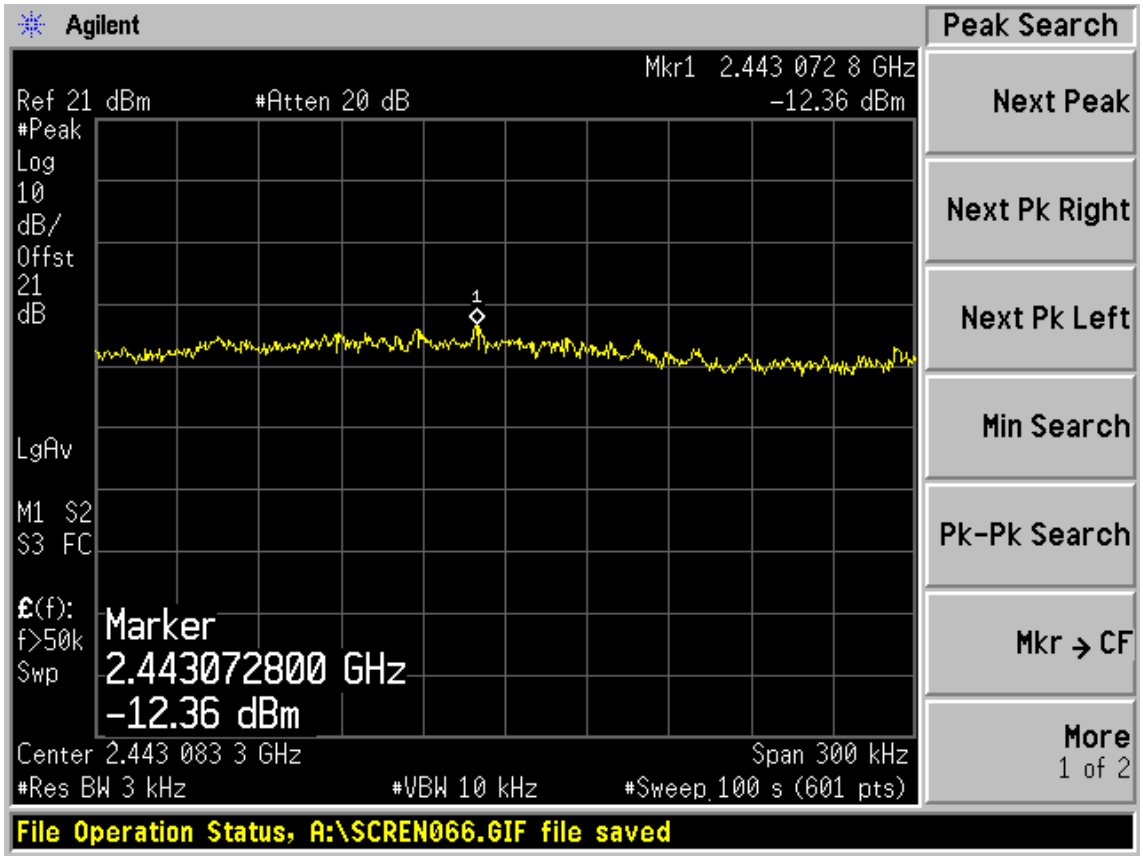
Test CH11: 2462MHz



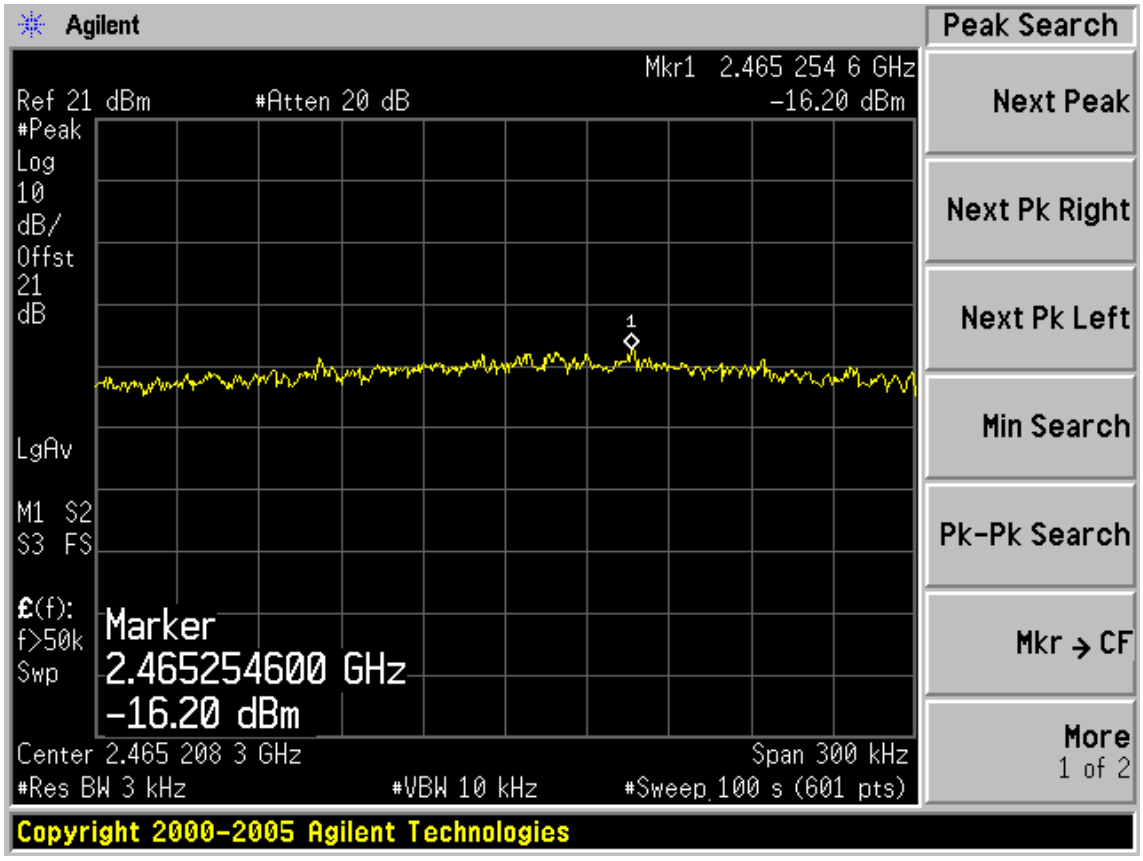
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



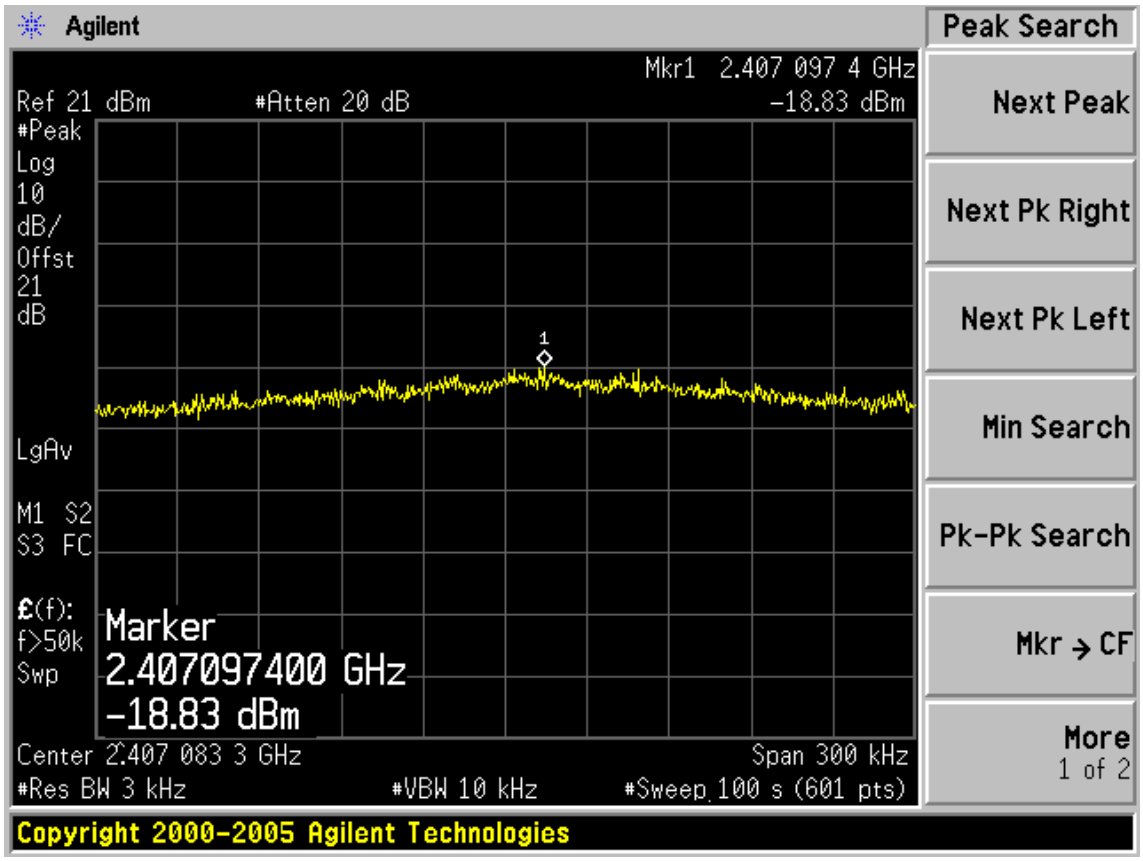
Test CH6: 2437MHz



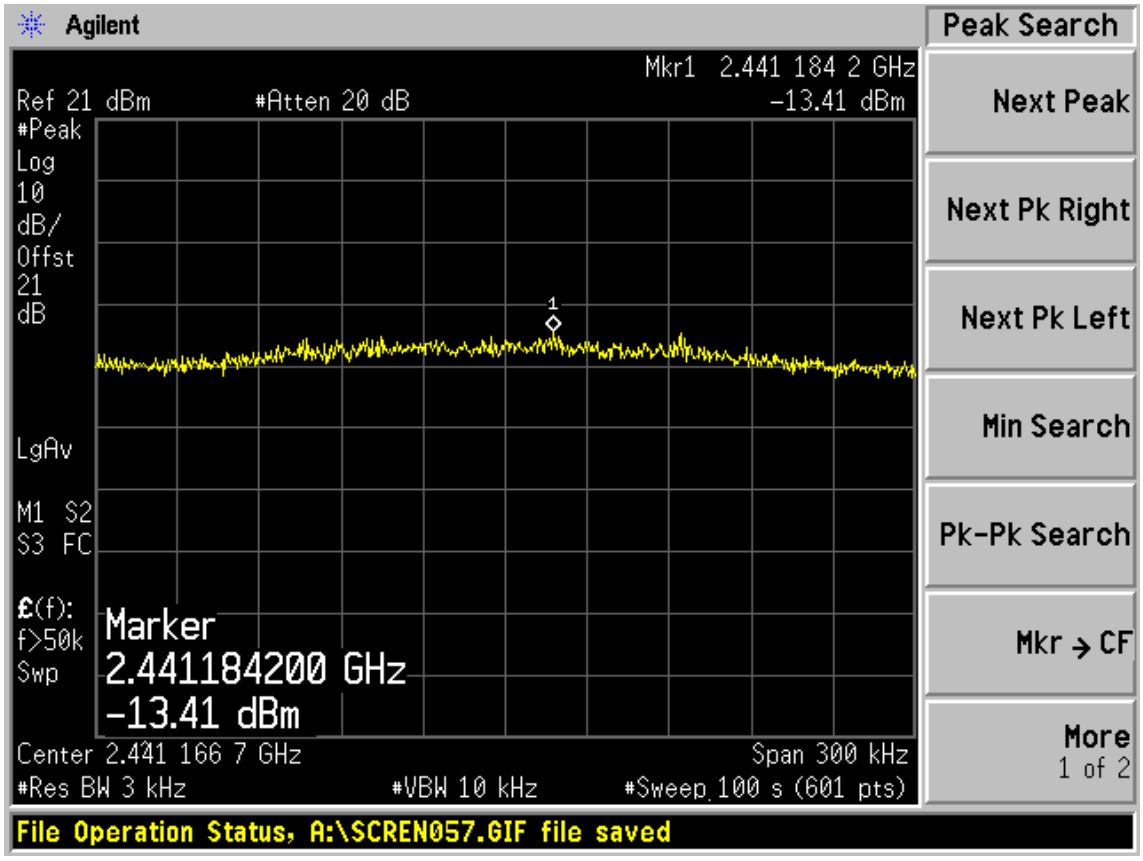
Test CH11: 2462MHz



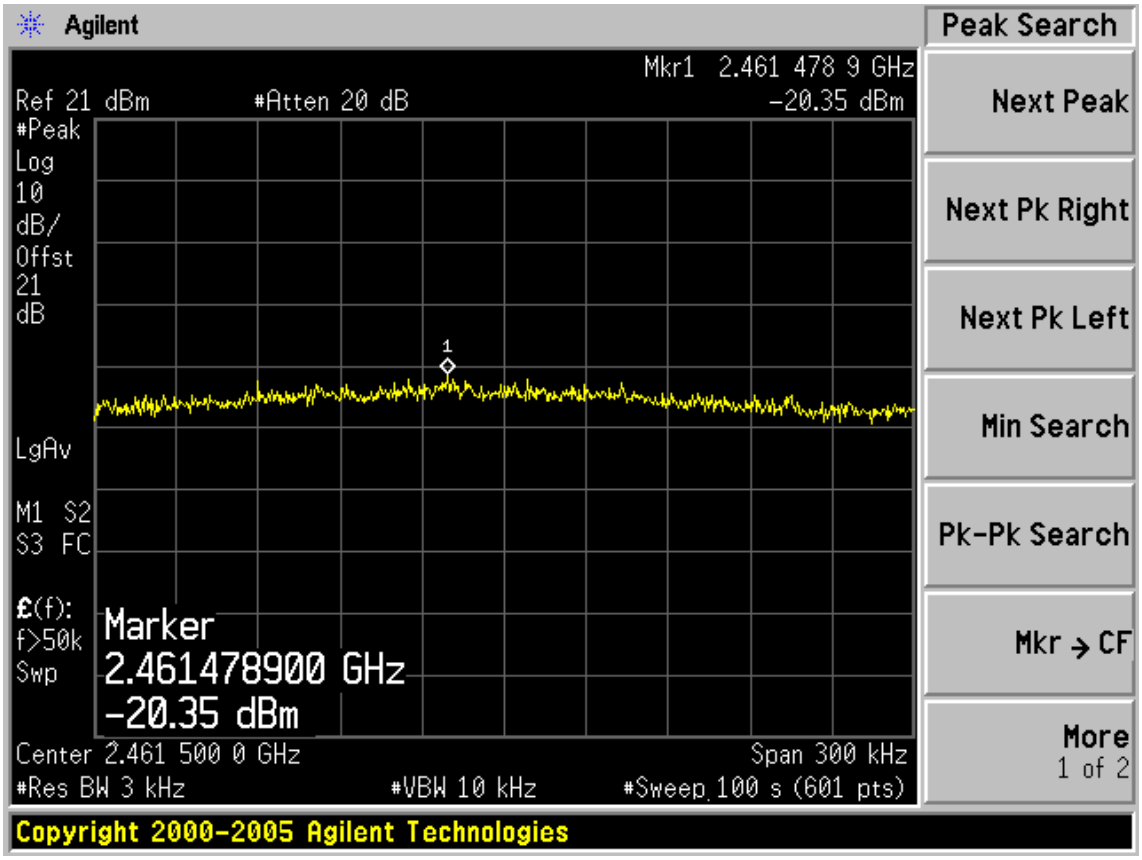
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



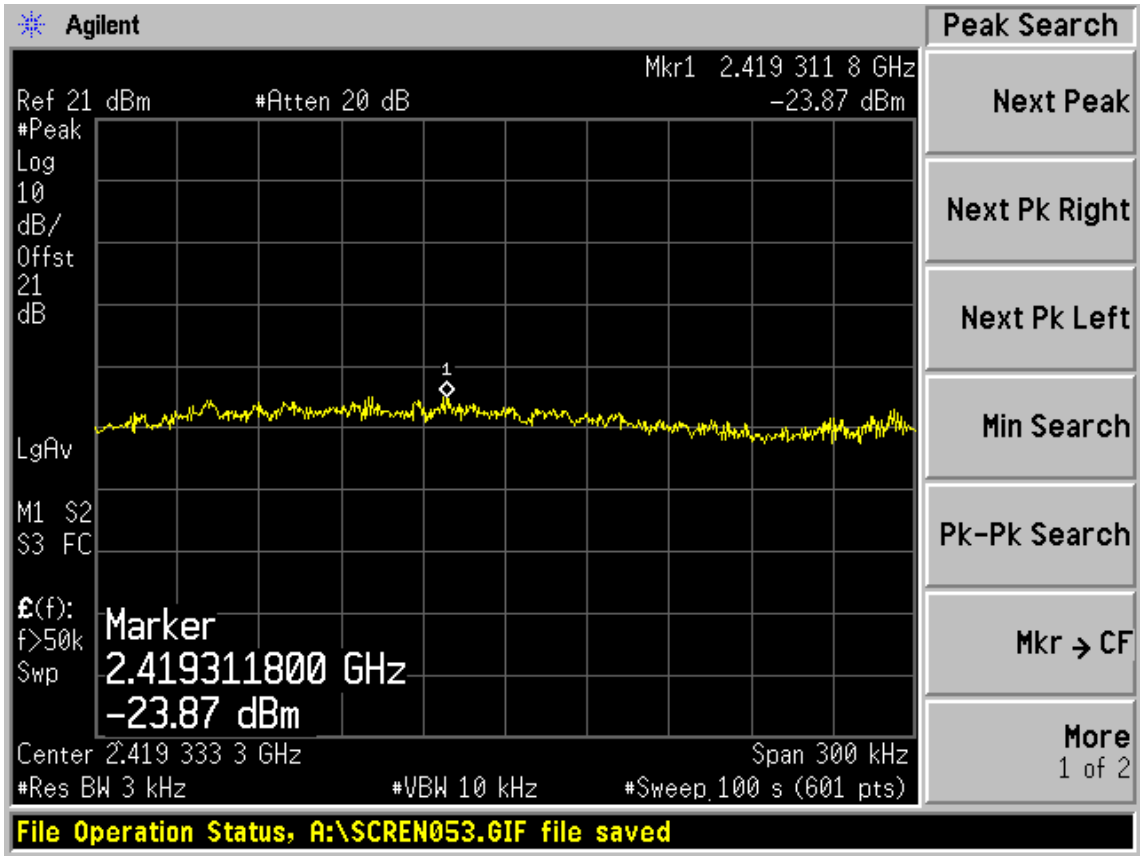
Test CH6: 2437MHz



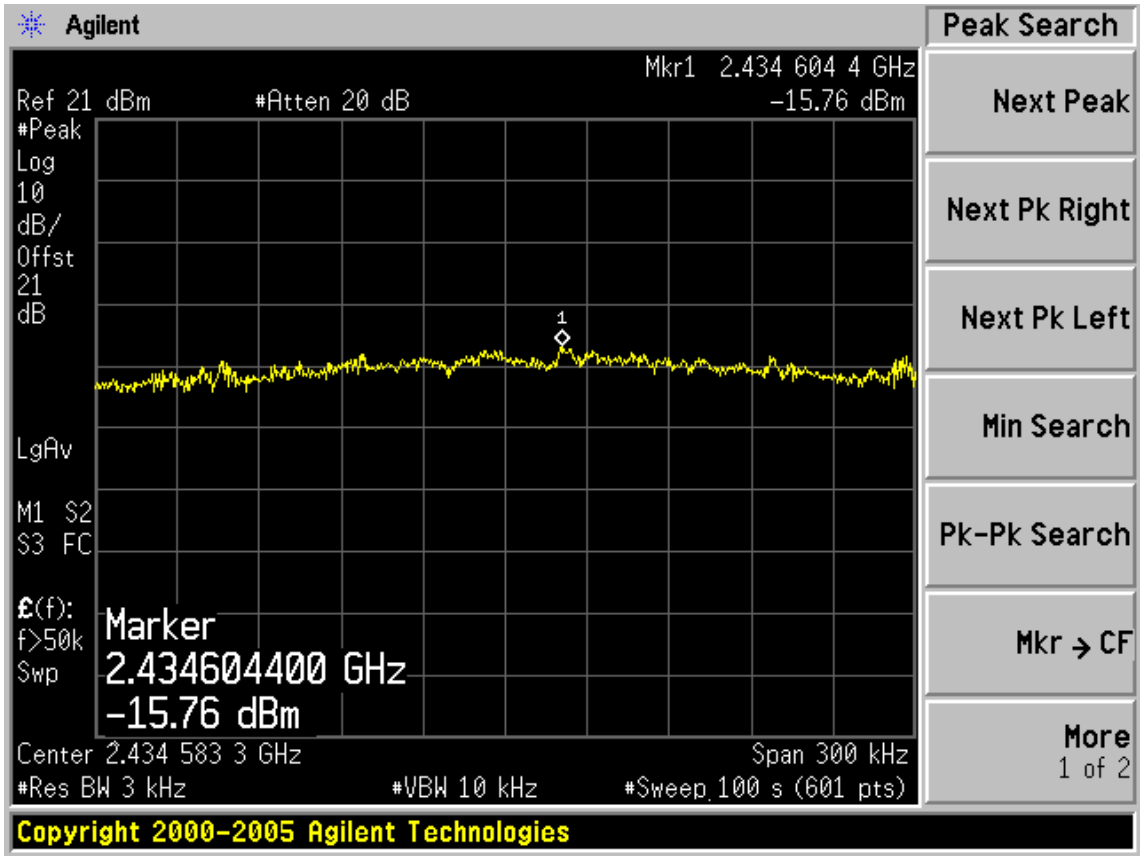
Test CH11: 2462MHz



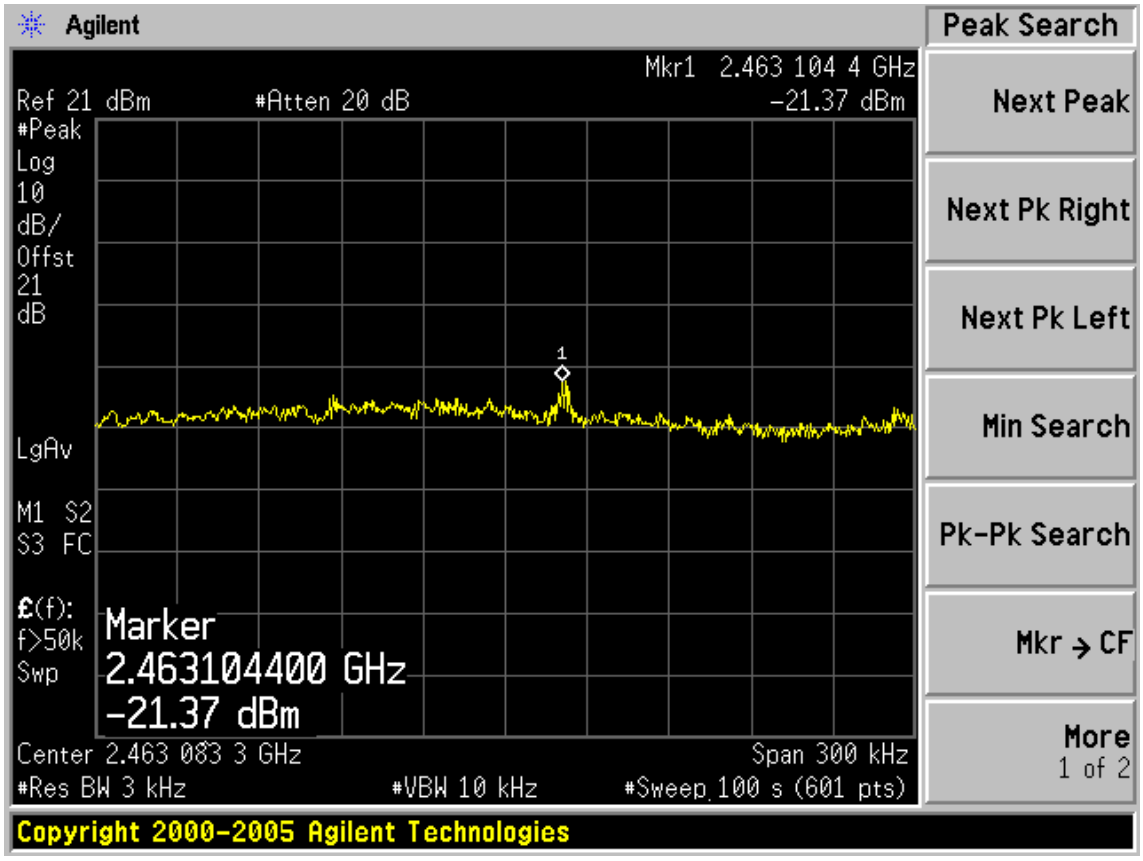
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



10. ANTENNA REQUIREMENT

10.1. STANDARD APPLICABLE

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

10.2. ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are Dipole antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 3dBi.