

FCC PART 15C TEST REPORT FOR CERTIFICATION  
On Behalf of

Proware Technologies Co., Ltd.

300Mbps Wireless N PCI Adapter

Model No.: PW-DN551D

FCC ID: WWMDN551XV3

Prepared for : Proware Technologies Co., Ltd.  
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Report Number : ACS-F12114  
Date of Test : Apr.18~Apr.19, 2012  
Date of Report : May.21, 2012

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**TEST REPORT CERTIFICATION**

Applicant : Proware Technologies Co., Ltd.  
Manufacturer : Proware Technologies Co., Ltd.  
EUT Description : 300Mbps Wireless N PCI Adapter  
FCC ID : WWMDN551XV3  
(A) MODEL NO. : PW-DN551D  
(B) SERIAL NO. : N/A  
(C) POWER SUPPLY : DC 3.3V From PC Input  
(D) TEST VOLTAGE : DC 3.3V 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.

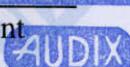
This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

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 : Apr.18~ Apr.19, 2012 Report of date: May.21, 2012

Prepared by : Sandy Gao Reviewed by : Sunny Lu

Sandy Gao / Assistant      Sunny Lu / Supervisor



® 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: Ken Lu

Approved & Authorized Signer : Ken Lu / Manager

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<br>ANSI C63.10: 2009 | PASS    |
| Radiated Emission             | FCC Part 15: 15.209<br>ANSI C63.10: 2009 | PASS    |
| Band Edge Compliance          | FCC Part 15: 15.247<br>ANSI C63.10: 2009 | PASS    |
| Conducted spurious emissions  | FCC Part 15: 15.247<br>ANSI C63.10: 2009 | PASS    |
| 6dB Bandwidth                 | FCC Part 15: 15.247<br>ANSI C63.10: 2009 | PASS    |
| Peak Output Power             | FCC Part 15: 15.247<br>ANSI C63.10: 2009 | PASS    |
| Power Spectral Density        | FCC Part 15: 15.247<br>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 PCI Adapter  |
| Model Number          | : PW-DN551D   |
| FCC ID                | : WWMDN551XV3   |
| Operation Frequency   | : IEEE 802.11b: 2412MHz—2462MHz<br>IEEE 802.11g: 2412MHz—2462MHz<br>IEEE802.11n HT20: 2412MHz—2462MHz<br>IEEE802.11n HT40: 2422MHz—2452MHz                  |
| Channel Number        | : IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels<br>IEEE 802.11n HT40: 7Channels  |
| Modulation Technology | : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)<br>IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)<br>IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)            |
| Antenna Assembly Gain | : MIMO 2X2 Dipole Antenna, 2dBi Gain  |
| Applicant             | : Proware Technologies Co., Ltd.<br>2nd F1 East Wing, South Section, Factory Building 24, Science & Technology Park, Shennan Rd, Nanshan District, Shenzhen |
| Manufacturer          | : Proware Technologies Co., Ltd.<br>2nd F1 East Wing, South Section, Factory Building 24, Science & Technology Park, Shennan Rd, Nanshan District, Shenzhen |
| Date of Test          | : Apr.18~Apr.19, 2012   |
| Date of Receipt       | : Apr.18, 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.

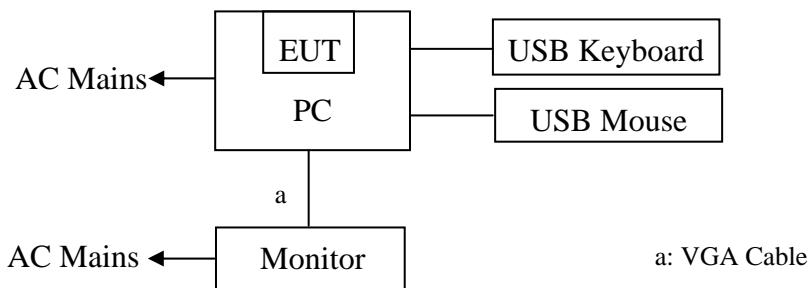
| Tested mode, channel, and data rate information |                               |             |                    |
|---|-------------------------------|-------------|--------------------|
| Mode  | data rate<br>(Mbps)(see Note) | Channel     | Frequency<br>(MHz) |
| IEEE 802.11b                                    | 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: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

### 2.3. Tested Supporting System Details

| No. | Description       | ACS No.  | Manufacturer | Model      | Serial Number                | Approved type  |
|-----|-------------------|--|--------------|------------|------------------------------|--|
| 1   | Personal Computer | Test PC P  | DELL         | Studio 540 | 124XK2X                      | <input checked="" type="checkbox"/> FCC DoC<br><input checked="" type="checkbox"/> BSMI ID:R33002  |
|     |                   | Power Cord: Unshielded, Detachable, 1.8m<br>Display Card: HD3450 (DVI+VGA+HDMI)                    |              |            |                              |  |
| 2.  | Monitor           | ACS-EMC-LM04R  | DELL         | 1907FPt    | CN-009759-7161<br>8-6AP-ACPP | <input checked="" type="checkbox"/> FCC DoC<br><input checked="" type="checkbox"/> BSMI ID: R3A002 |
|     |                   | Power Cord: Unshielded, Detachable, 1.8m<br>VGA Cable: Shielded, Detachable, 2.0m (with two cores) |              |            |                              |  |
| 3.  | USB Keyboard      | ACS-EMC- K04R  | DELL         | SK-8115    | CN-ODJ313-716<br>16-6BB-049J | <input checked="" type="checkbox"/> FCC DoC<br><input checked="" type="checkbox"/> BSMI ID: T3A002 |
|     |                   | USB Cable: shielded, Undetachable, 2.0m  |              |            |                              |  |
| 4.  | USB Mouse         | ACS-EMC- K04R  | DELL         | SK-8115    | CN-ODJ313-716<br>16-6BB-049J | <input checked="" type="checkbox"/> FCC DoC<br><input checked="" type="checkbox"/> BSMI ID: T3A002 |
|     |                   | USB Cable: shielded, Undetachable, 2.0m  |              |            |                              |  |

### 2.4. Block Diagram of Test Setup



( EUT: 300Mbps Wireless N PCI Adapter)

## 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)

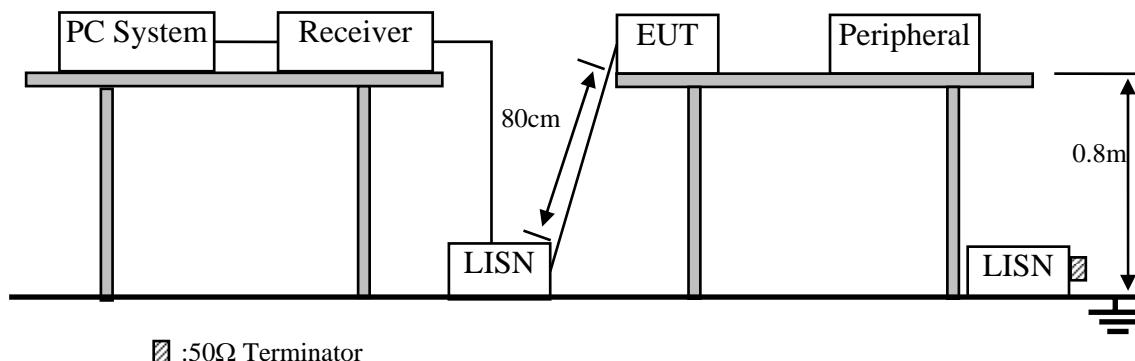
| Test Item  | Uncertainty                       |
|--|-----------------------------------|
| Uncertainty for Conduction emission test in No. 1 Conduction       | 3.2 dB (150KHz to 30MHz)          |
| Uncertainty for Radiation Emission test in 3m chamber              | 3.6 dB(30~200MHz, Polarize: H)    |
|  | 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                               | $7 \times 10^{-8}$                |
| Uncertainty for Bandwidth test                                     | 83 kHz                            |
| Uncertainty for DC power test                                      | 0.038 %                           |
| Uncertainty for test site temperature and humidity                 | 0.6°C                             |
|  | 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, 11 | 1 Year        |
| 4.   | Terminator     | Hubersuhner     | 50Ω       | No. 1      | May.08, 11 | 1 Year        |
| 5.   | Terminator     | Hubersuhner     | 50Ω       | No. 2      | May.08, 11 | 1 Year        |
| 6.   | RF Cable       | Fujikura        | 3D-2W     | No.1       | May.08, 11 | 1 Year        |
| 7.   | Coaxial Switch | Anritsu         | MP59B     | M50564     | May.08, 11 | 1 Year        |
| 8.   | Pulse Limiter  | Rohde & Schwarz | ESH3-Z2   | 100341     | May.08, 11 | 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<br>dB(µV) | Average Level<br>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 PCI Adapter (EUT)

Model Number : PW-DN551D

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 10kHz.

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.)

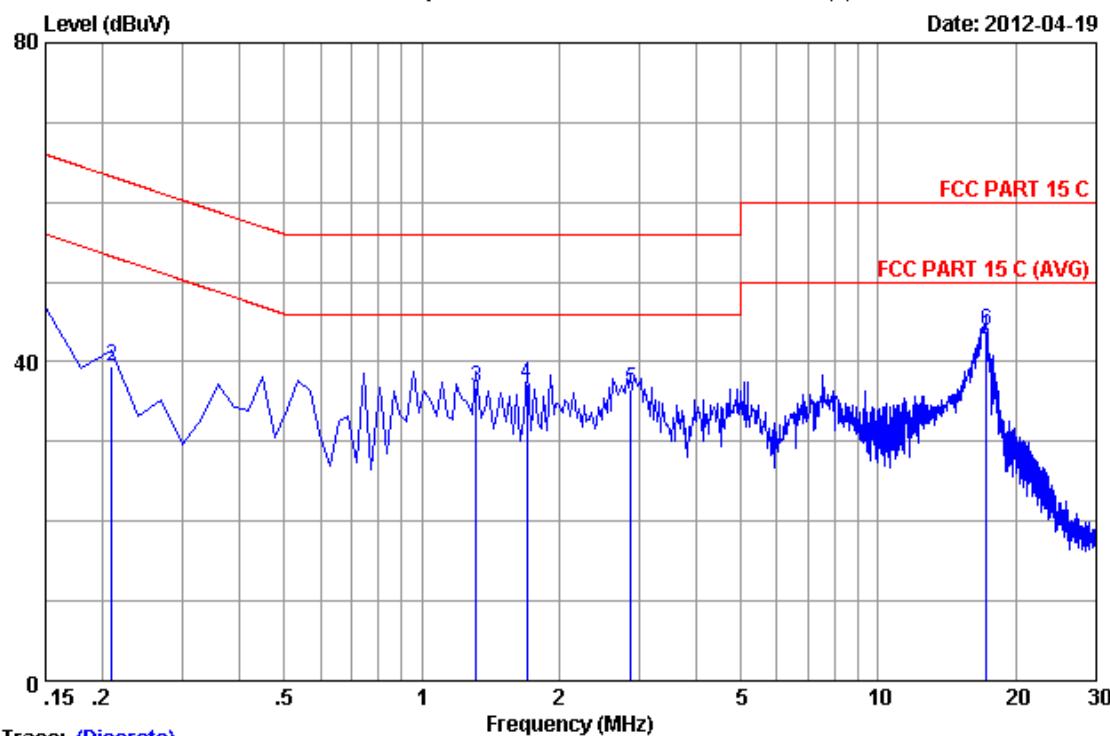


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Postcode:518057

Data: 3

File: D:\DATA\2012 Report data\P\Proware\ACS12Q0838.EM6 (4)

Date: 2012-04-19



## Trace: (Discrete)

Site no : 1#conduction Data No : 3  
 Dis./Ant. : \*\* 2011 ESH2-Z5 LINE  
 Limit : FCC PART 15 C  
 Env./Ins. : 29.5°C/55% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power Rating : DC 3.3V From PC Input AC 120V/60Hz  
 Test Mode : Tx Mode  
 M/N:PW-DN551D

| No | Freq<br>(MHz) | LISN           | Cable        | Emission          |                 |                  |                |        |
|----|---------------|----------------|--------------|-------------------|-----------------|------------------|----------------|--------|
|    |               | Factor<br>(dB) | Loss<br>(dB) | Reading<br>(dBuV) | Level<br>(dBuV) | Limits<br>(dBuV) | Margin<br>(dB) | Remark |
| 1  | 0.15000       | 0.17           | 9.88         | 31.71             | 41.76           | 66.00            | 24.24          | QP     |
| 2  | 0.20970       | 0.17           | 9.88         | 29.50             | 39.55           | 63.22            | 23.67          | QP     |
| 3  | 1.314         | 0.26           | 9.89         | 26.64             | 36.79           | 56.00            | 19.21          | QP     |
| 4  | 1.702         | 0.29           | 9.90         | 26.95             | 37.14           | 56.00            | 18.86          | QP     |
| 5  | 2.866         | 0.33           | 9.93         | 26.29             | 36.55           | 56.00            | 19.45          | QP     |
| 6  | 17.224        | 0.98           | 10.06        | 32.94             | 43.98           | 60.00            | 16.02          | QP     |

Remarks: 1. Emission Level=LISN Factor+Cable Loss (Include 10dB pulse limit)

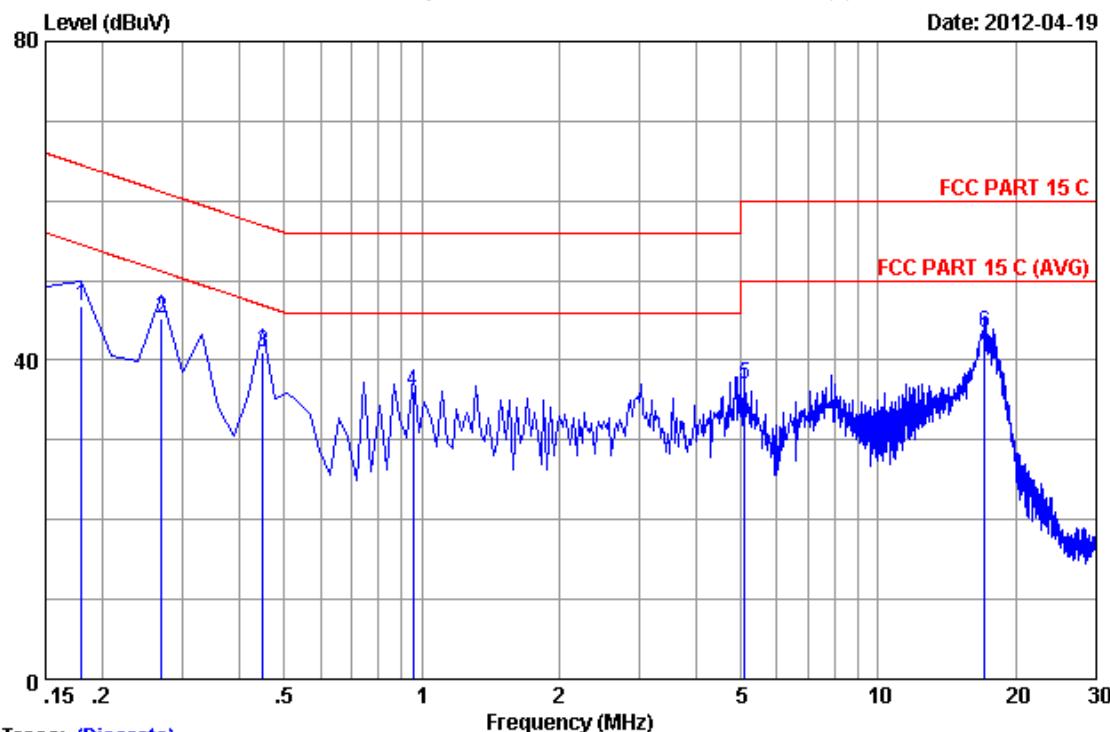
+Reading.

2. If the average limit is met when using a quasi-peak detector,  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.

Data: 4

File: D:\DATA\2012 Report data\P\Proware\ACS12Q0838.EM6 (4)

Date: 2012-04-19



## Trace: (Discrete)

Site no : 1#conduction Data No : 4  
Dis./Ant. : \*\* 2011 ESH2-25 NEUTRAL  
Limit : FCC PART 15 C  
Env./Ins. : 29.5°C/55% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power Rating : DC 3.3V From PC Input AC 120V/60Hz  
Test Mode : Tx Mode  
M/N: PW-DN551D

| No | Freq<br>(MHz) | LISN           | Cable        | Emission          |                 |                  |                | Remark |
|----|---------------|----------------|--------------|-------------------|-----------------|------------------|----------------|--------|
|    |               | Factor<br>(dB) | Loss<br>(dB) | Reading<br>(dBuV) | Level<br>(dBuV) | Limits<br>(dBuV) | Margin<br>(dB) |        |
| 1  | 0.17985       | 0.21           | 9.88         | 36.75             | 46.84           | 64.49            | 17.65          | QP     |
| 2  | 0.26940       | 0.21           | 9.88         | 35.04             | 45.13           | 61.14            | 16.01          | QP     |
| 3  | 0.44850       | 0.22           | 9.88         | 30.81             | 40.91           | 56.90            | 15.99          | QP     |
| 4  | 0.95595       | 0.24           | 9.89         | 25.93             | 36.06           | 56.00            | 19.94          | QP     |
| 5  | 5.105         | 0.33           | 9.94         | 26.71             | 36.98           | 60.00            | 23.02          | QP     |
| 6  | 17.075        | 0.67           | 10.05        | 32.66             | 43.38           | 60.00            | 16.62          | QP     |

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

## 4. RADIATED EMISSION TEST

### 4.1. Test Equipment

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

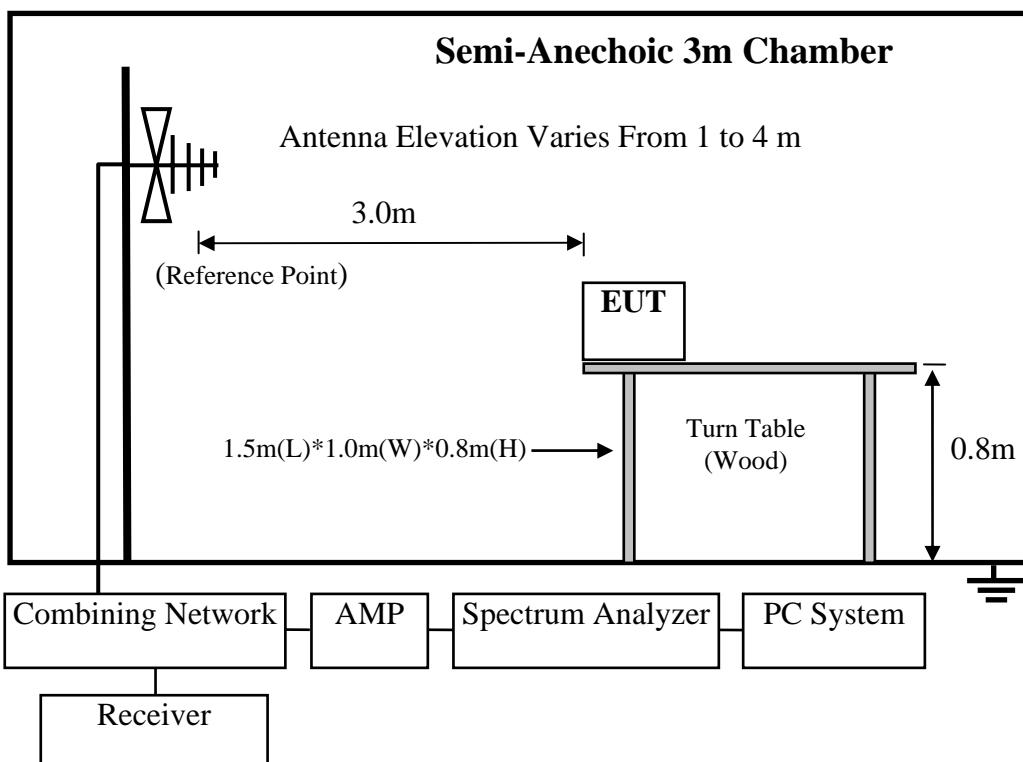
| Item | Equipment      | Manufacturer    | Model No. | Serial No.      | Last Cal.  | Cal. Interval |
|------|----------------|-----------------|-----------|-----------------|------------|---------------|
| 1    | 3#Chamber      | AUDIX           | N/A       | N/A             | Nov.28,11  | 1 Year        |
| 2    | EMI Spectrum   | Agilent         | E4407B    | MY41440292      | May.08, 11 | 1 Year        |
| 3    | Test Receiver  | Rohde & Schwarz | ESVS10    | 834468/011      | May.08, 11 | 1 Year        |
| 4    | Amplifier      | HP              | 8447D     | 2648A04738      | May.08, 11 | 1 Year        |
| 5    | Bilog Antenna  | Schaffner       | CBL6111C  | 2598            | Oct.26, 10 | 1.5 Year      |
| 6    | RF Cable       | MIYAZAKI        | CFD400-NL | 3# Chamber No.1 | Dec.06, 11 | 0.5Year       |
| 7    | Coaxial Switch | Anritsu         | MP59B     | M74389          | May.08, 11 | 1 Year        |

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

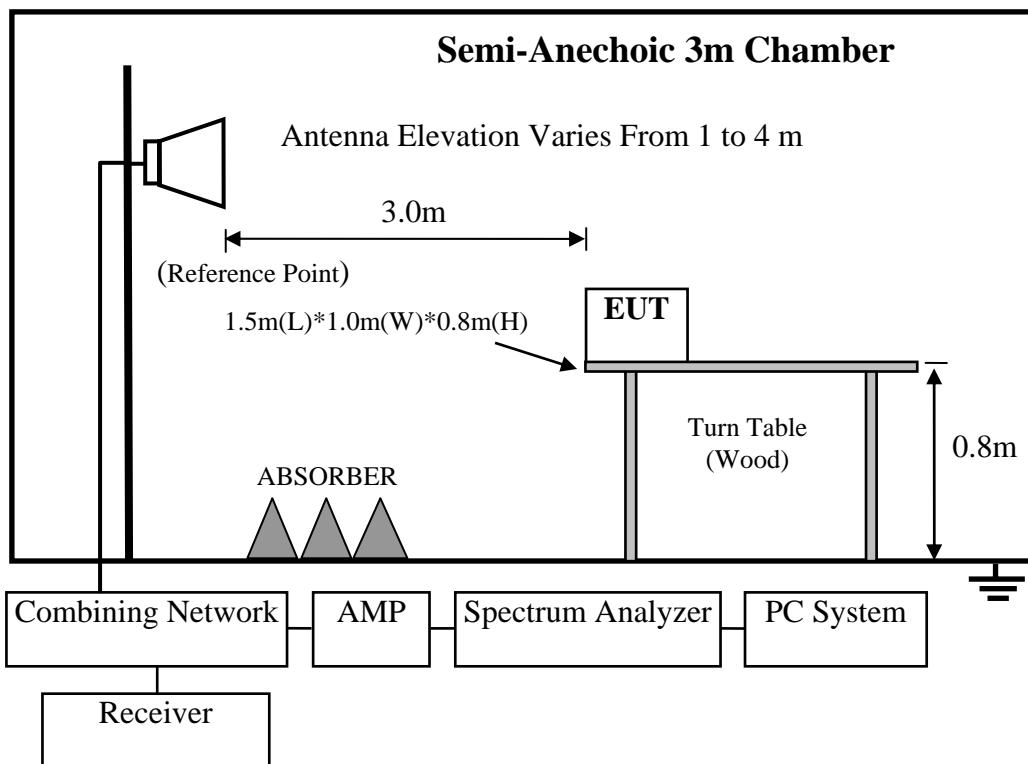
| Item | Equipment         | Manufacturer | Model No.   | Serial No. | Last Cal.   | Cal. Interval |
|------|-------------------|--------------|-------------|------------|-------------|---------------|
| 1    | Spectrum Analyzer | Agilent      | E4407B      | MY41440292 | May.08, 11  | 1 Year        |
| 2    | Horn Antenna      | EMCO         | 3115        | 9607-4877  | July.01, 11 | 1 Year        |
| 3    | Amplifier         | Agilent      | 8449B       | 3008A00863 | May.08, 11  | 1 Year        |
| 4    | RF Cable          | Hubersuhner  | SUCOFLEX106 | 77980/6    | Dec.06, 11  | 0.5Year       |
| 5    | RF Cable          | Hubersuhner  | SUCOFLEX106 | 77977/6    | Dec.06, 11  | 0.5Year       |

### 4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-18GHz



#### 4.3.Radiated Emission Limit

##### 4.3.1.15.209 limits

| FREQUENCY<br>MHz | DISTANCE<br>Meters | FIELD STRENGTHS LIMIT   |                                   |
|------------------|--------------------|---|-----------------------------------|
|                  |                    | $\mu\text{V}/\text{m}$  | $\text{dB}(\mu\text{V})/\text{m}$ |
| 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 $\text{dB}(\mu\text{V})/\text{m}$ (Peak)<br>54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average) |                                   |

Remark : (1) Emission level  $\text{dB}\mu\text{V} = 20 \log$  Emission level  $\mu\text{V}/\text{m}$

- (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       |
| <sup>1</sup> 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     | ( <sup>2</sup> ) |

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<sup>th</sup> 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.

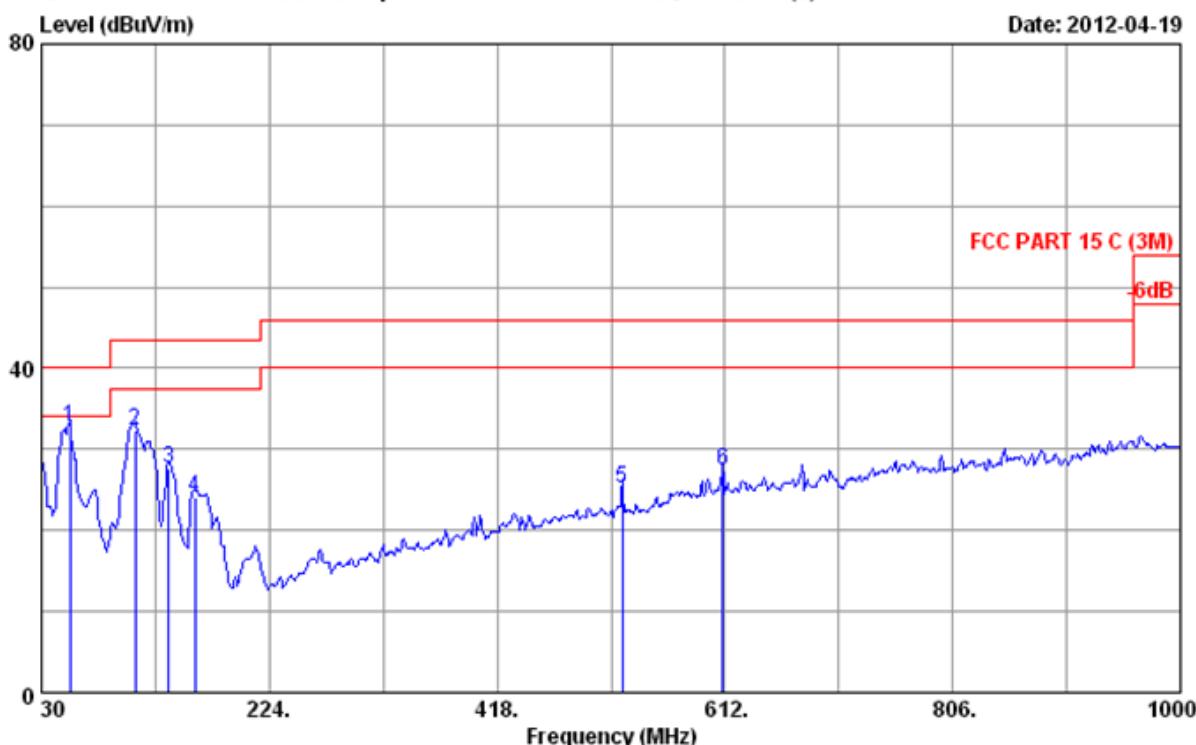
Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

**Frequency: 30MHz~1GHz**

Data: 2

File: E:\2012 Report Data\P\Proware\ACS12Q0838.EM6 (2)

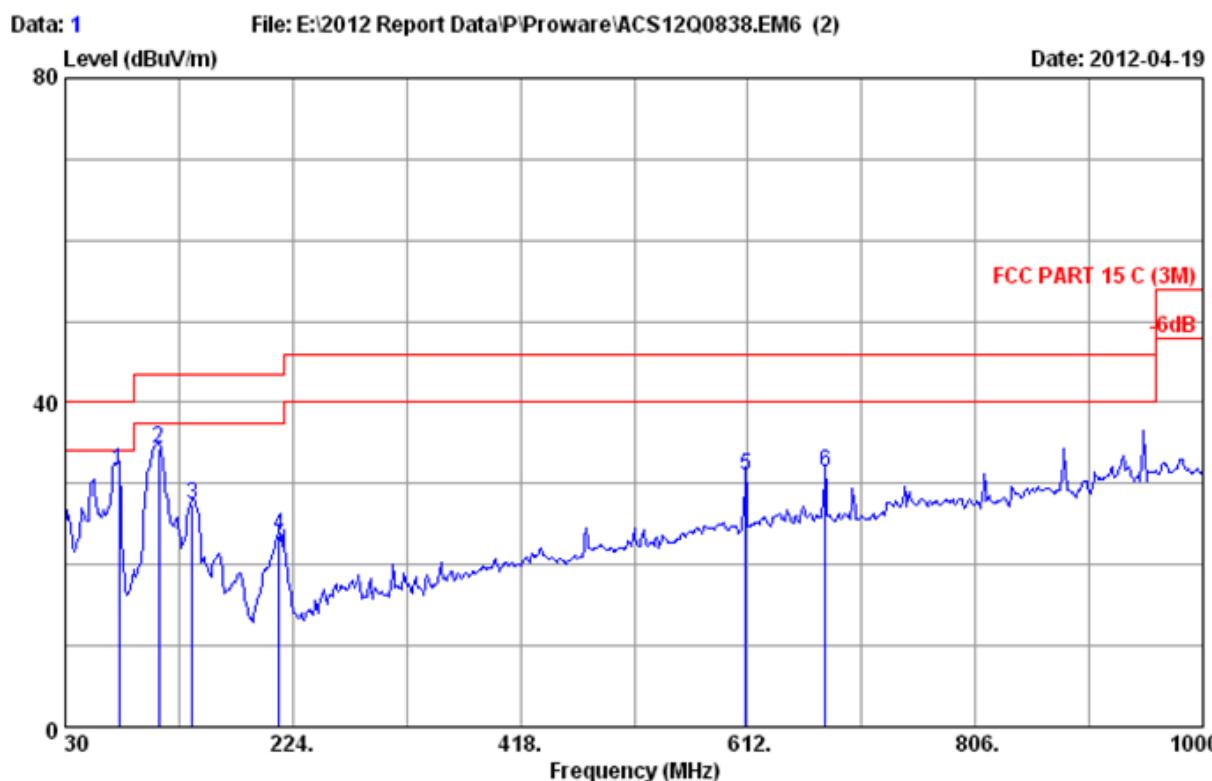
Date: 2012-04-19



Site no. : 3m Chamber Data no. : 2  
 Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 C (3M)  
 Env. / Ins. : 24°C/56% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power rating : DC 3.3V From PC Input AC 120V/60Hz  
 Test Mode : Tx Mode  
 M/N:PW-DN551D

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | Emission          |                   |                    |                | Remark |
|-----|----------------|--------------------------|-----------------------|-------------------|-------------------|--------------------|----------------|--------|
|     |                |                          |                       | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) |        |
| 1   | 54.250         | 7.54                     | 0.86                  | 24.25             | 32.65             | 40.00              | 7.35           | QP     |
| 2   | 109.540        | 11.40                    | 1.24                  | 19.76             | 32.40             | 43.50              | 11.10          | QP     |
| 3   | 138.640        | 12.02                    | 1.43                  | 14.10             | 27.55             | 43.50              | 15.95          | QP     |
| 4   | 160.950        | 11.02                    | 1.57                  | 11.58             | 24.17             | 43.50              | 19.33          | QP     |
| 5   | 524.700        | 18.35                    | 4.12                  | 2.78              | 25.25             | 46.00              | 20.75          | QP     |
| 6   | 610.060        | 19.70                    | 4.55                  | 3.06              | 27.31             | 46.00              | 18.69          | QP     |

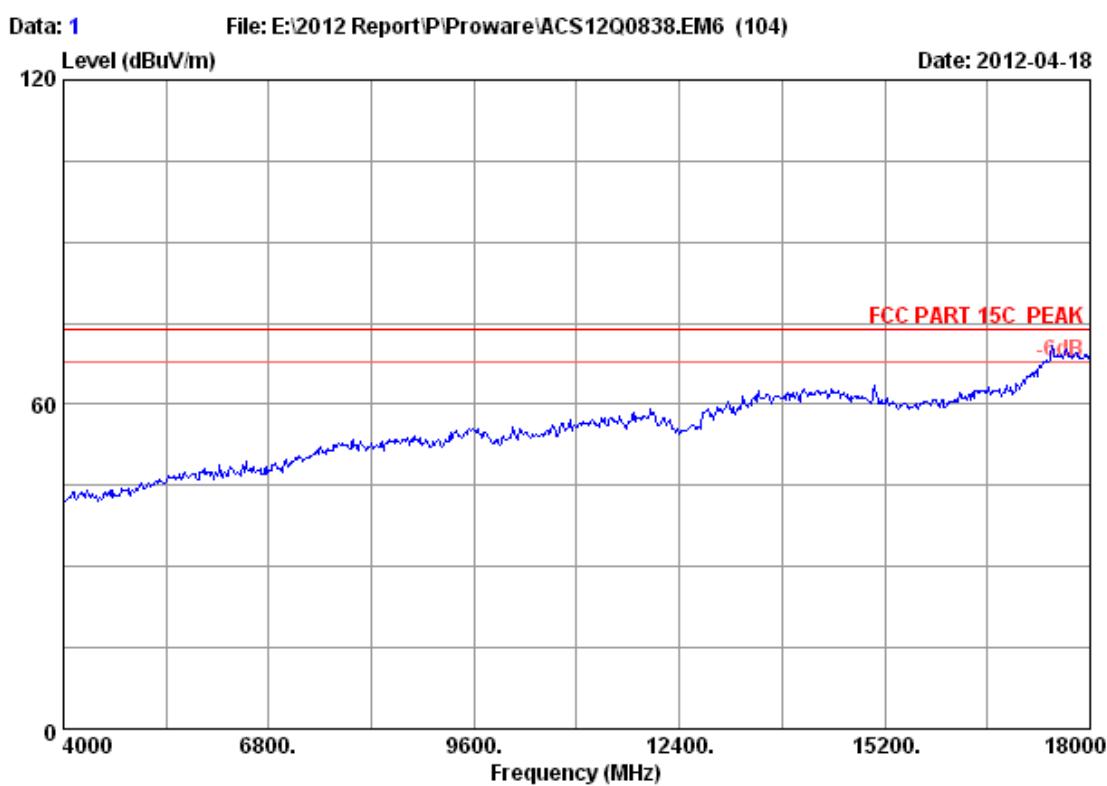
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



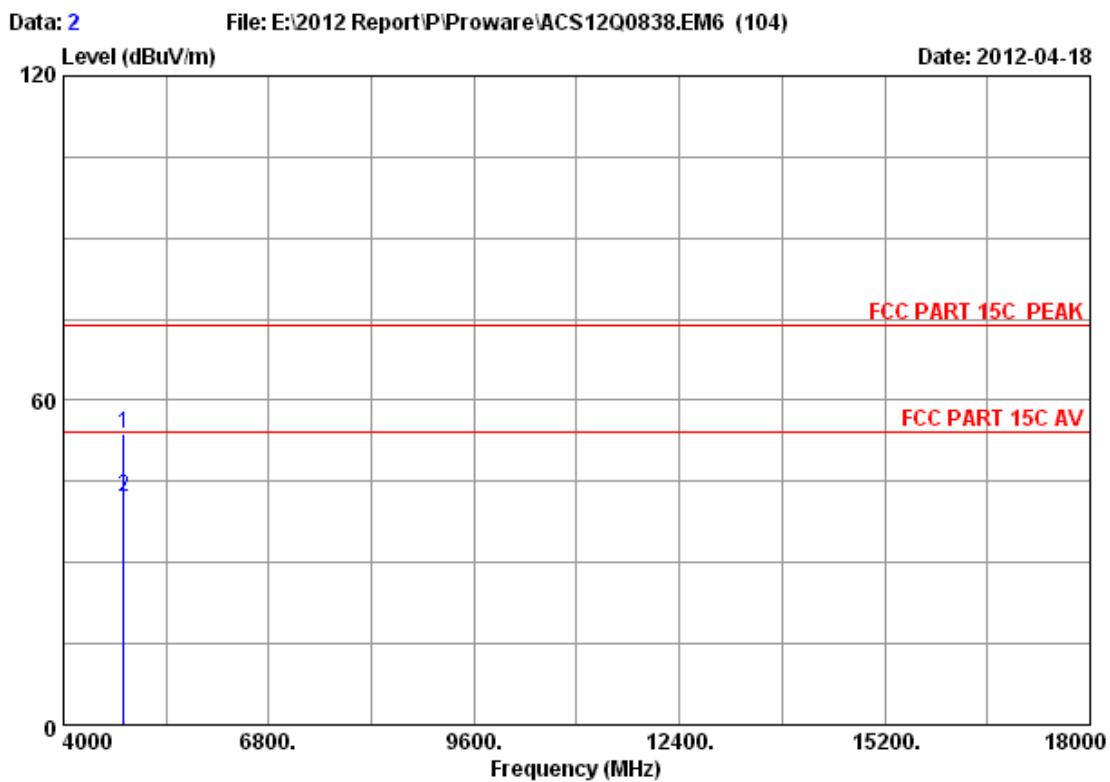
Site no. : 3m Chamber Data no. : 1  
Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : VERTICAL  
Limit : FCC PART 15 C (3M)  
Env. / Ins. : 24°C/56% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power rating : DC 3.3V From PC Input AC 120V/60Hz  
Test Mode : Tx Mode  
M/N:PW-DN551D

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | Emission          |                   |                    |                |
|-----|----------------|--------------------------|-----------------------|-------------------|-------------------|--------------------|----------------|
|     |                |                          |                       | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) |
| 1   | 75.590         | 7.38                     | 1.01                  | 23.31             | 31.70             | 40.00              | 8.30           |
| 2   | 109.540        | 11.40                    | 1.24                  | 21.63             | 34.27             | 43.50              | 9.23           |
| 3   | 138.640        | 12.02                    | 1.43                  | 13.85             | 27.30             | 43.50              | 16.20          |
| 4   | 212.360        | 10.06                    | 1.97                  | 11.68             | 23.71             | 43.50              | 19.79          |
| 5   | 610.060        | 19.70                    | 4.55                  | 6.75              | 31.00             | 46.00              | 15.00          |
| 6   | 677.960        | 20.72                    | 4.89                  | 5.80              | 31.41             | 46.00              | 14.59          |

-----  
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 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH1 2412MHz Tx  
M/N : PW-DN551D

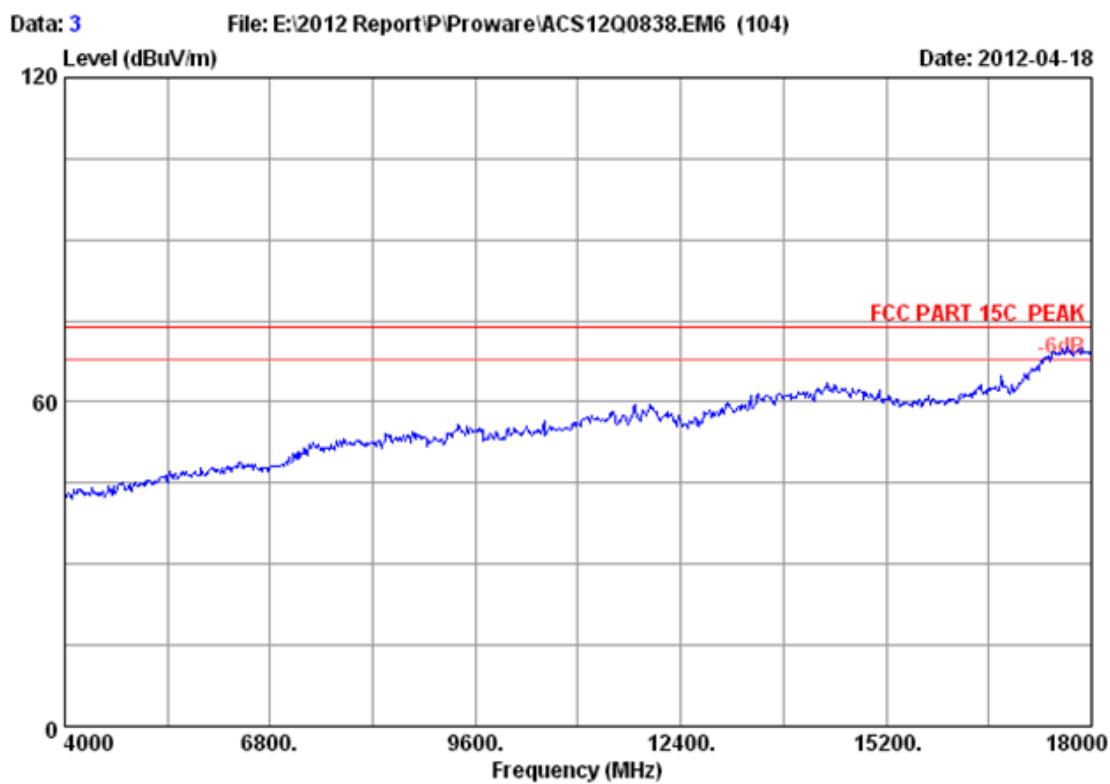


Site no. : 3m Chamber Data no. : 2  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx  
 M/N : PW-DN551D

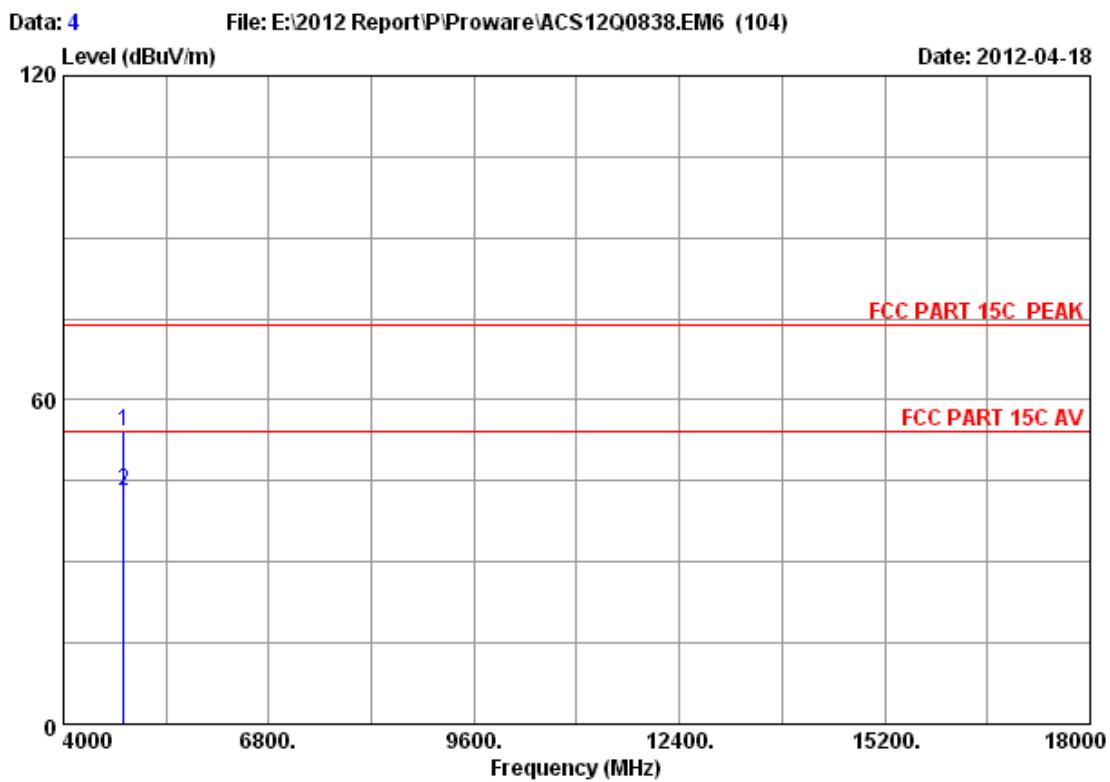
|       | Ant.     | Cable | Amp.   | Emission |          |          |        |               |
|-------|----------|-------|--------|----------|----------|----------|--------|---------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark        |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |               |
| 1     | 4824.000 | 34.32 | 10.64  | 35.08    | 43.93    | 53.81    | 74.00  | 20.19 Peak    |
| 2     | 4824.000 | 34.32 | 10.64  | 35.08    | 32.40    | 42.28    | 54.00  | 11.72 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. : 3  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH1 2412MHz Tx  
M/N : PW-DN551D

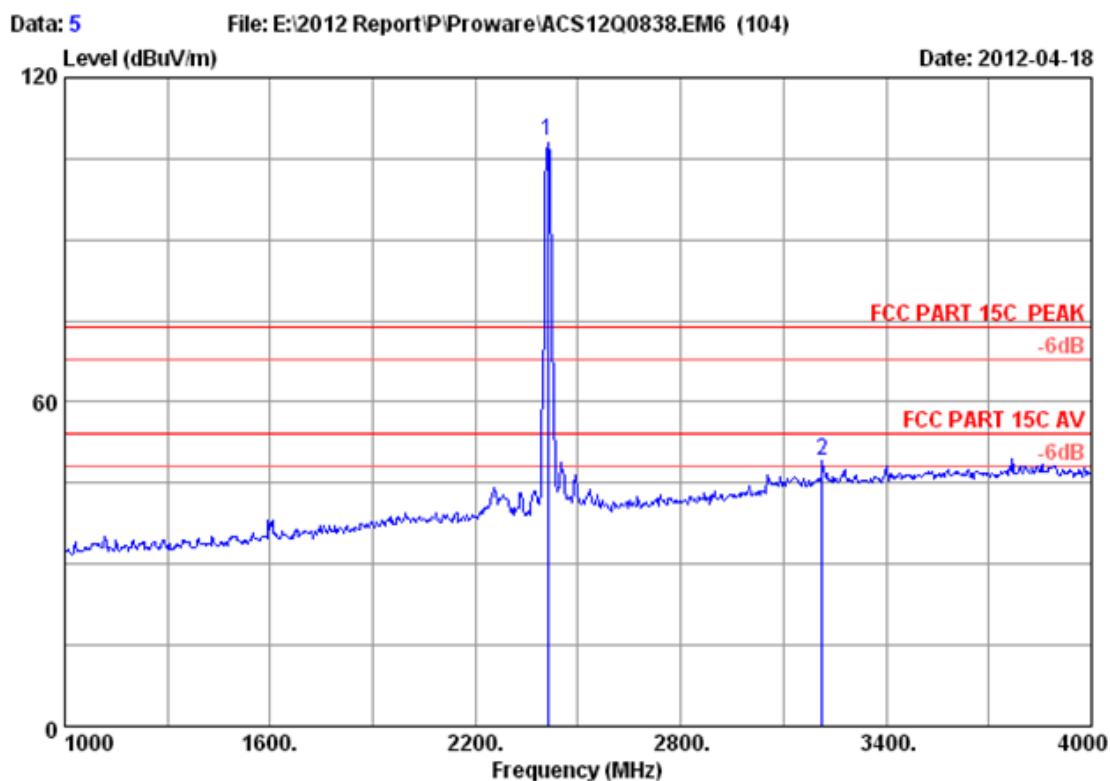


Site no. : 3m Chamber Data no. : 4  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11b CH1 2412MHz Tx  
 M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |        |               |
|-------|----------|-------|--------|----------|----------|----------|--------|---------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark        |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |               |
| 1     | 4824.000 | 34.32 | 10.64  | 35.08    | 44.27    | 54.15    | 74.00  | 19.85 Peak    |
| 2     | 4824.000 | 34.32 | 10.64  | 35.08    | 33.23    | 43.11    | 54.00  | 10.89 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.

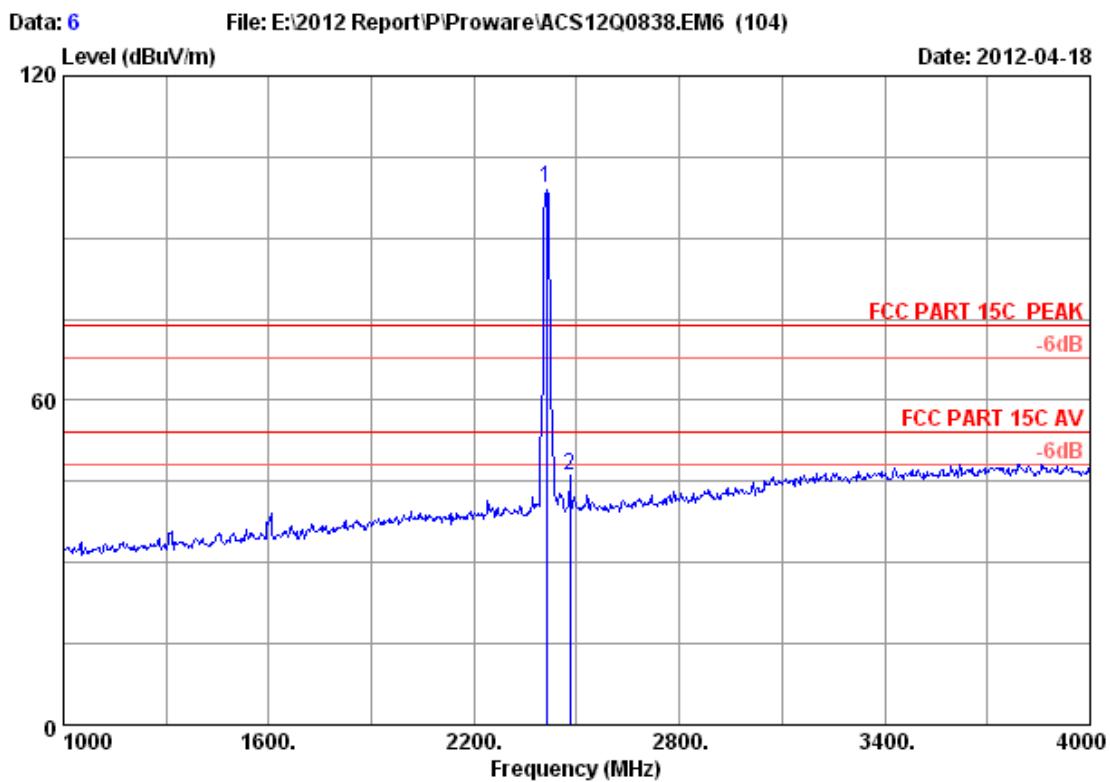


Site no. : 3m Chamber Data no. : 5  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH1 2412MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2412.000     | 29.45                    | 7.43                  | 36.62                  | 107.91            | 108.17            | 74.00              | -34.17         | Peak   |
| 2 3214.000     | 32.54                    | 8.79                  | 36.28                  | 44.14             | 49.19             | 74.00              | 24.81          | 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.

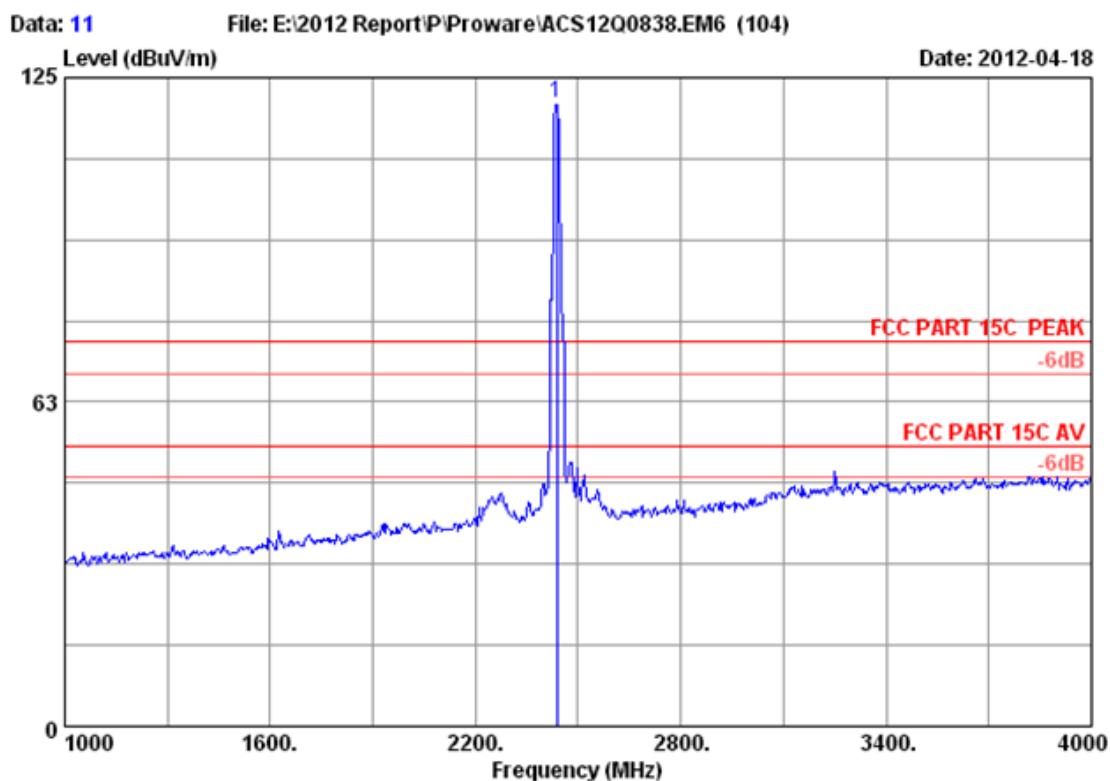


Site no. : 3m Chamber Data no. : 6  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH1 2412MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2412.000     | 29.45                    | 7.43                  | 36.62                  | 98.96             | 99.22             | 74.00              | -25.22         | Peak   |
| 2 2479.000     | 29.49                    | 7.58                  | 36.60                  | 45.54             | 46.01             | 74.00              | 27.99          | 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.

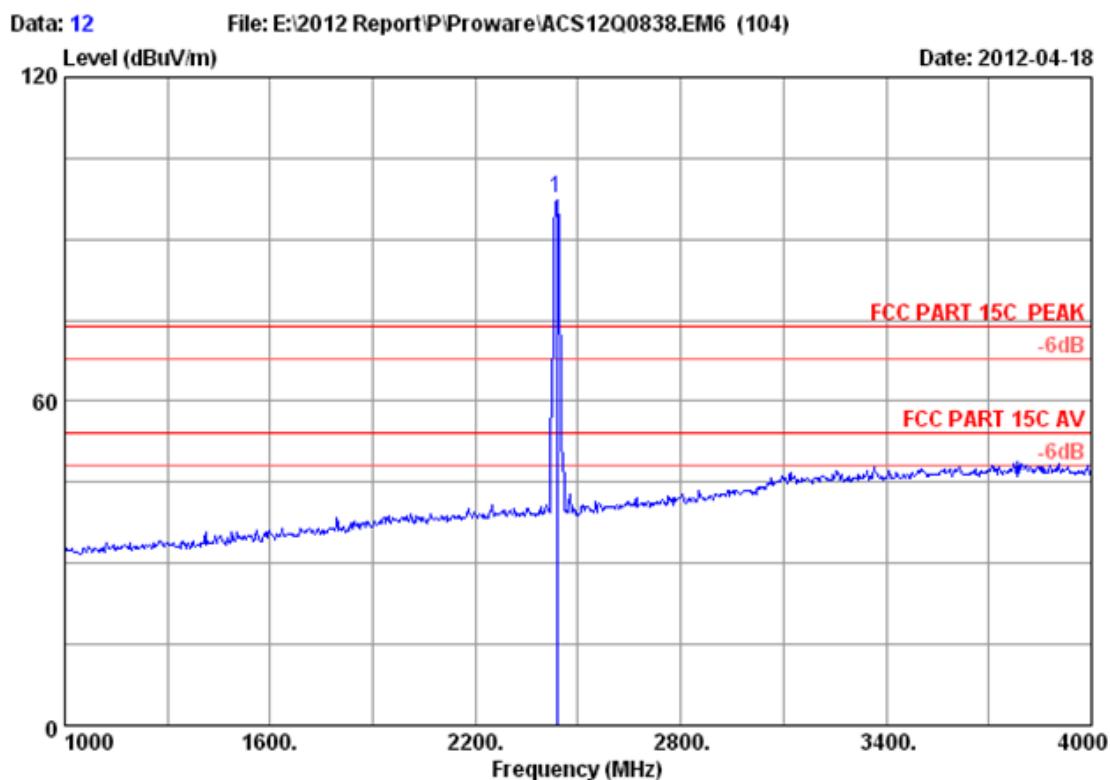


Site no. : 3m Chamber Data no. : 11  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2437MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |        |             |
|-------|----------|-------|--------|----------|----------|----------|--------|-------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark      |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |             |
| 1     | 2437.000 | 29.47 | 7.46   | 36.61    | 119.82   | 120.14   | 74.00  | -46.14 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.

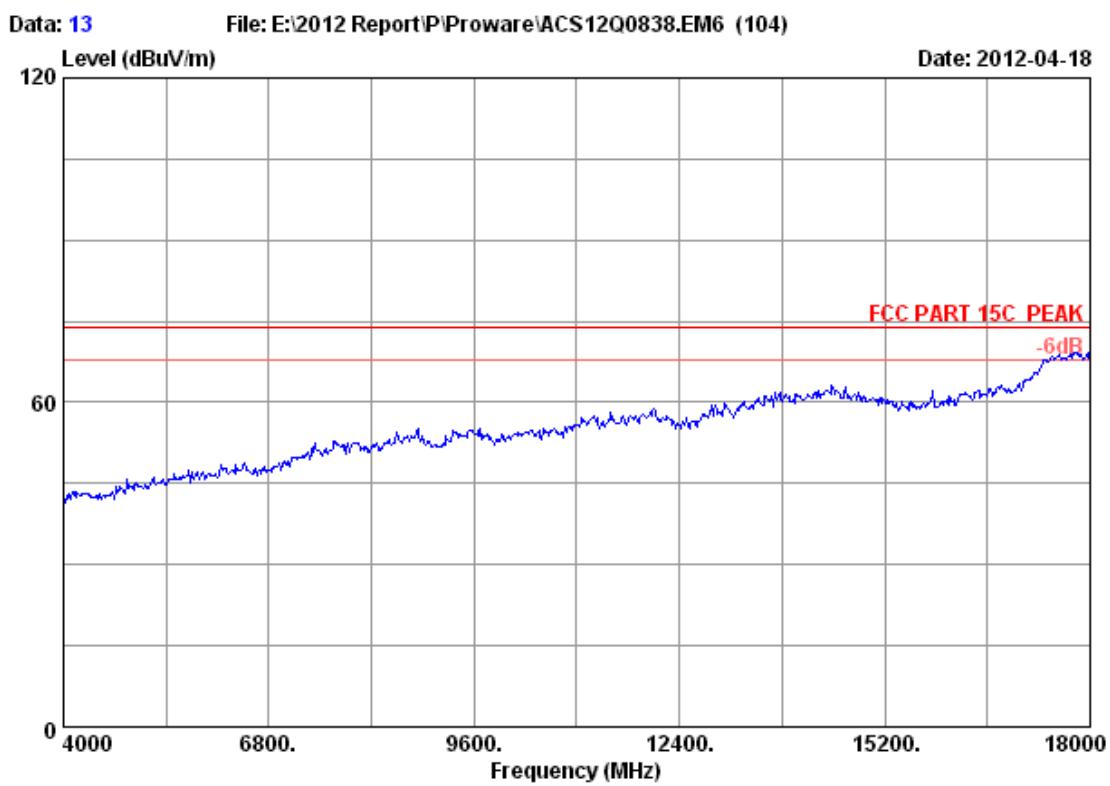


Site no. : 3m Chamber Data no. : 12  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2437MHz Tx  
M/N : PW-DN551D

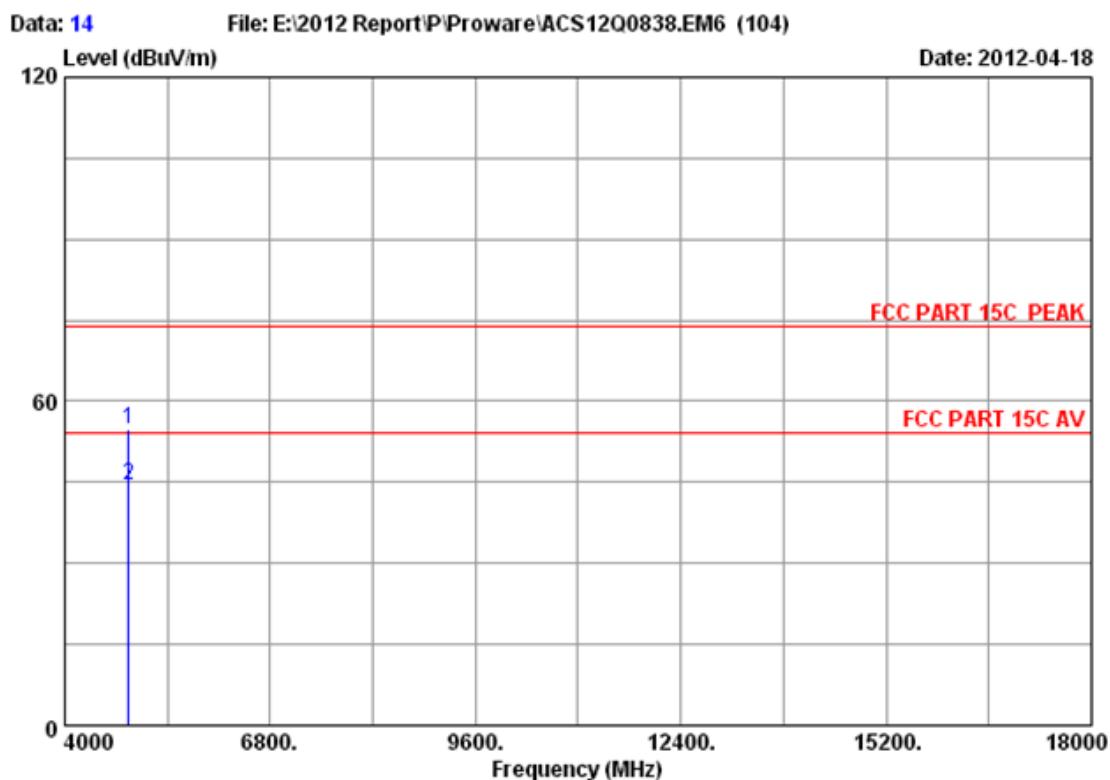
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2437.000     | 29.47                    | 7.46                  | 36.61                  | 97.12             | 97.44             | 74.00              | -23.44         | 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. : 13  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2437MHz Tx  
M/N : PW-DN551D

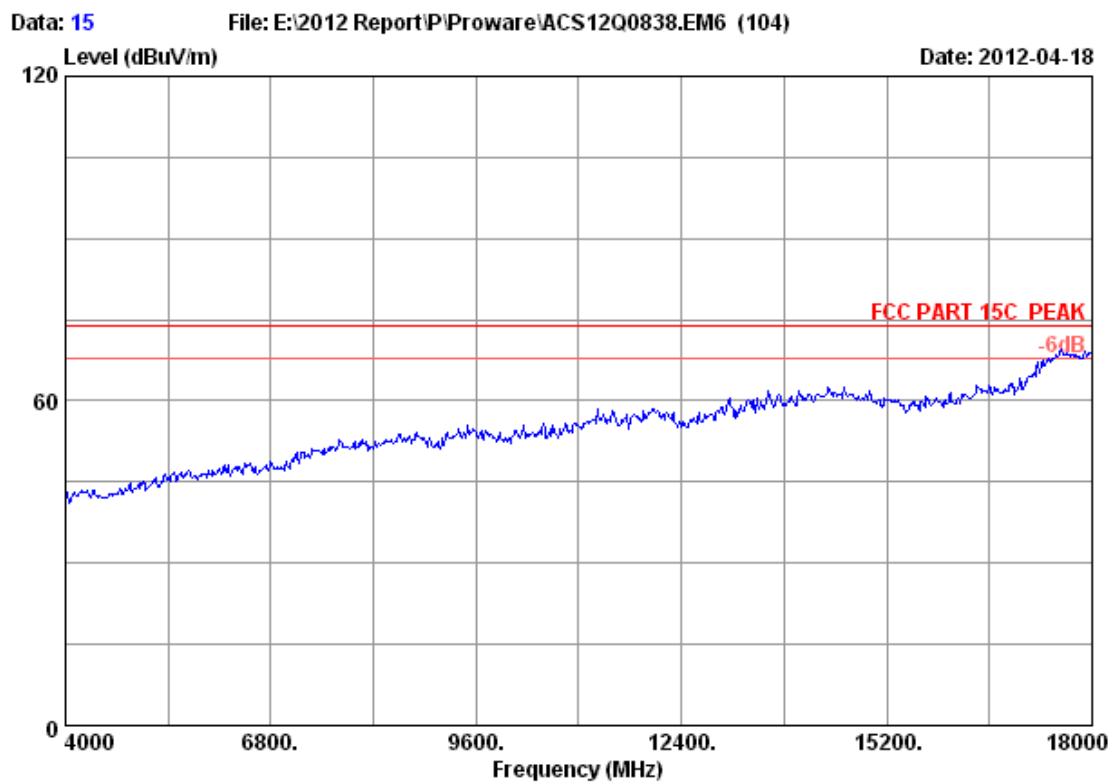


Site no. : 3m Chamber Data no. : 14  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2437MHz Tx  
M/N : PW-DN551D

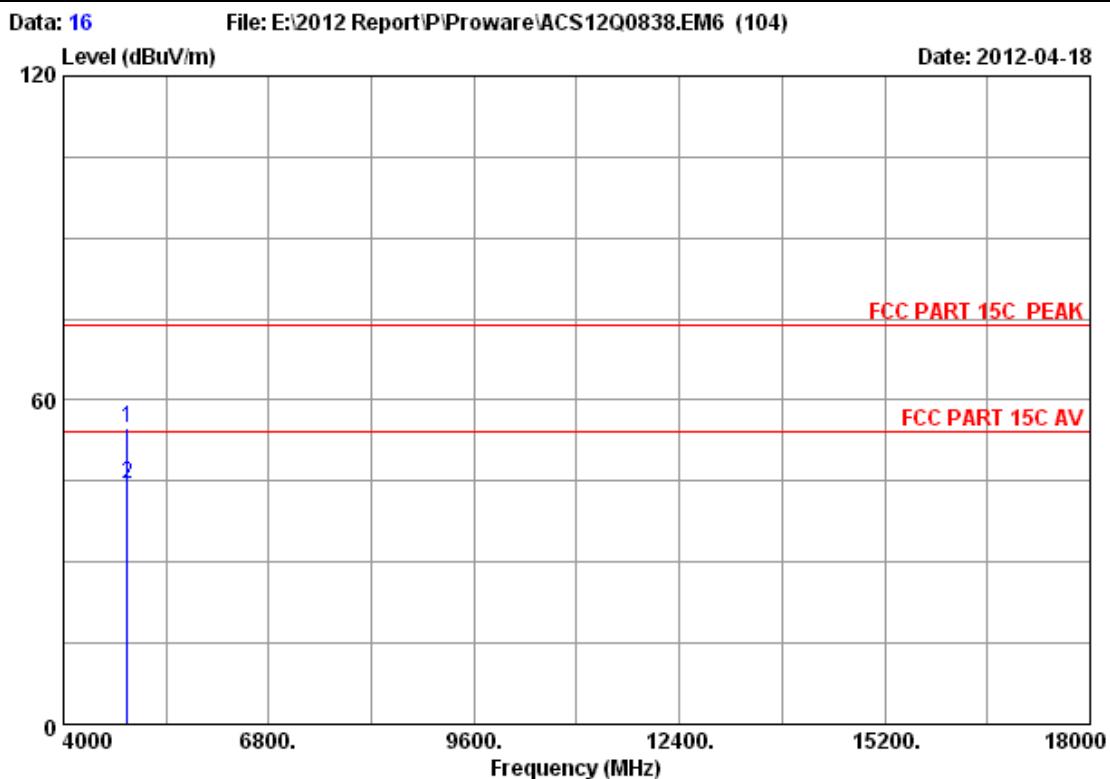
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4874.000     | 34.41                    | 10.69                 | 35.03                  | 44.87             | 54.94             | 74.00              | 19.06          | Peak    |
| 2 4874.000     | 34.41                    | 10.69                 | 35.03                  | 34.37             | 44.44             | 54.00              | 9.56           | 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 3115(0911)                      | Ant. pol. | : | VERTICAL |
| Limit        | : | FCC PART 15C PEAK                  |           |   |          |
| Env. / Ins.  | : | 23°C/54%                           | Engineer  | : | Leo-Li   |
| EUT          | : | 300Mbps Wireless N PCI Adapter     |           |   |          |
| Power supply | : | DC 3.3V From PC input AC 120V/60Hz |           |   |          |
| Test mode    | : | IEEE802.11b CH6 2437MHz Tx         |           |   |          |
| M/N          | : | PW-DN551D                          |           |   |          |

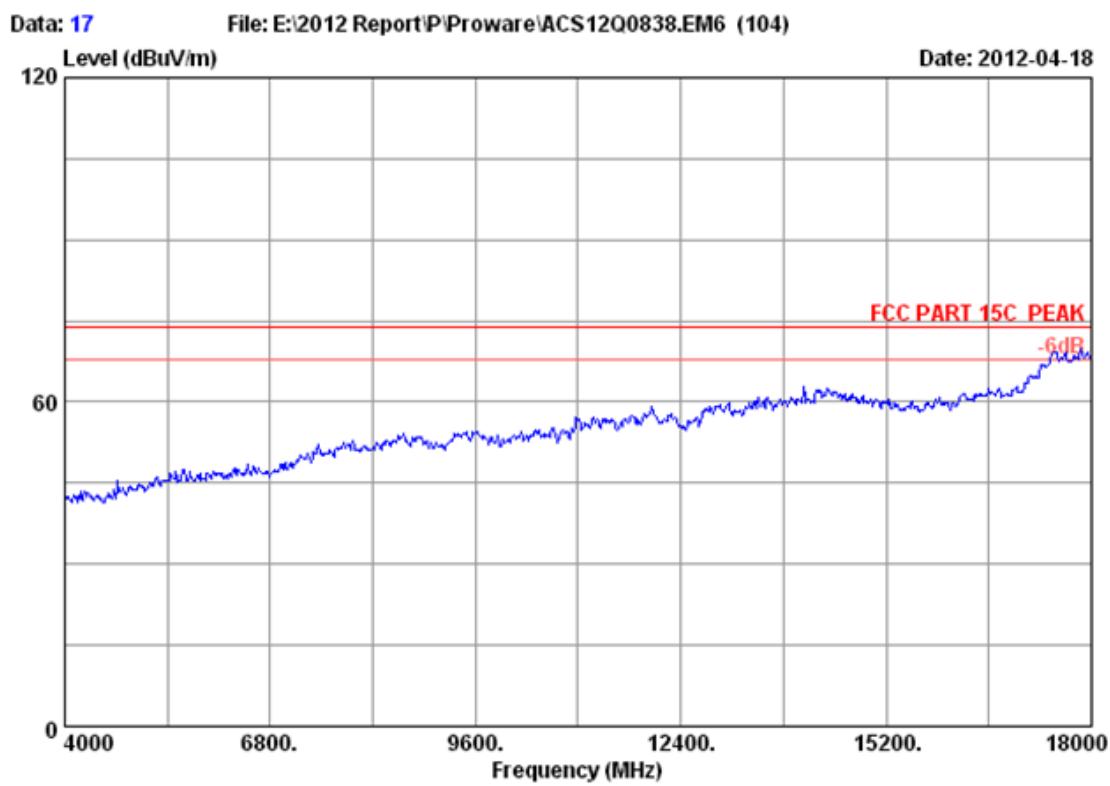


Site no. : 3m Chamber Data no. : 16  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2437MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |        |              |
|-------|----------|-------|--------|----------|----------|----------|--------|--------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark       |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |              |
| 1     | 4874.000 | 34.41 | 10.69  | 35.03    | 44.89    | 54.96    | 74.00  | 19.04 Peak   |
| 2     | 4874.000 | 34.41 | 10.69  | 35.03    | 34.50    | 44.57    | 54.00  | 9.43 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.

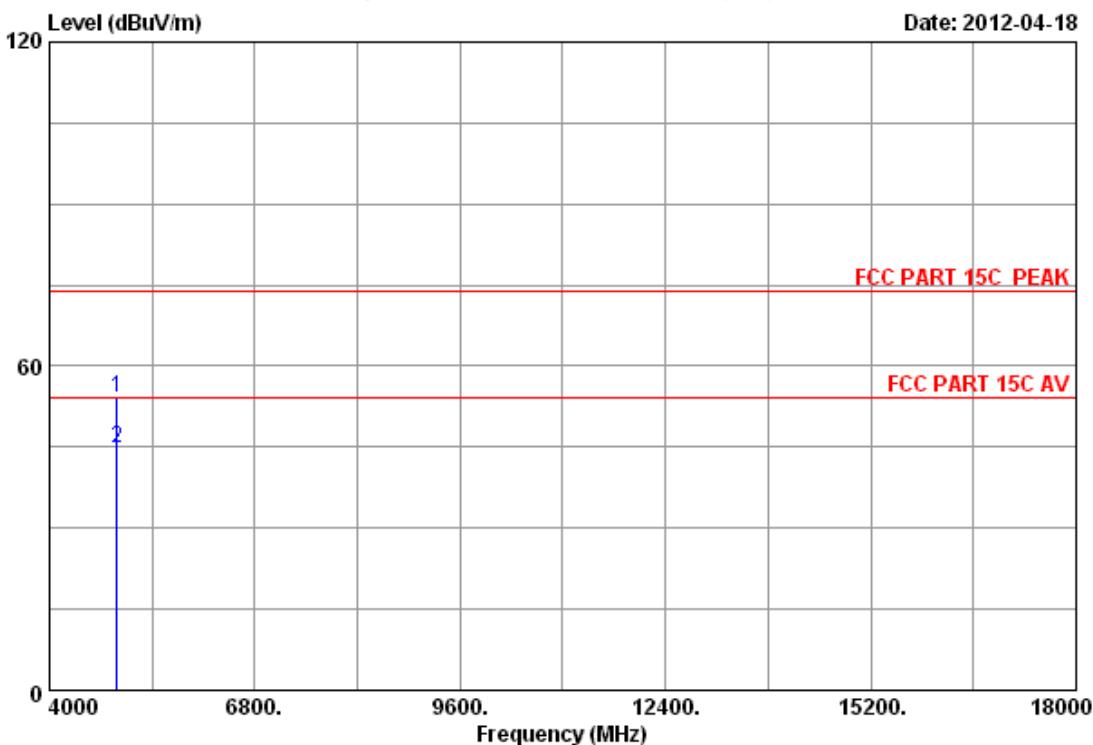


Site no. : 3m Chamber Data no. : 17  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2462MHz Tx  
M/N : PW-DN551D

Data: 18

File: E:\2012 Report\P\Proware\ACS12Q0838.EM6 (104)

Date: 2012-04-18

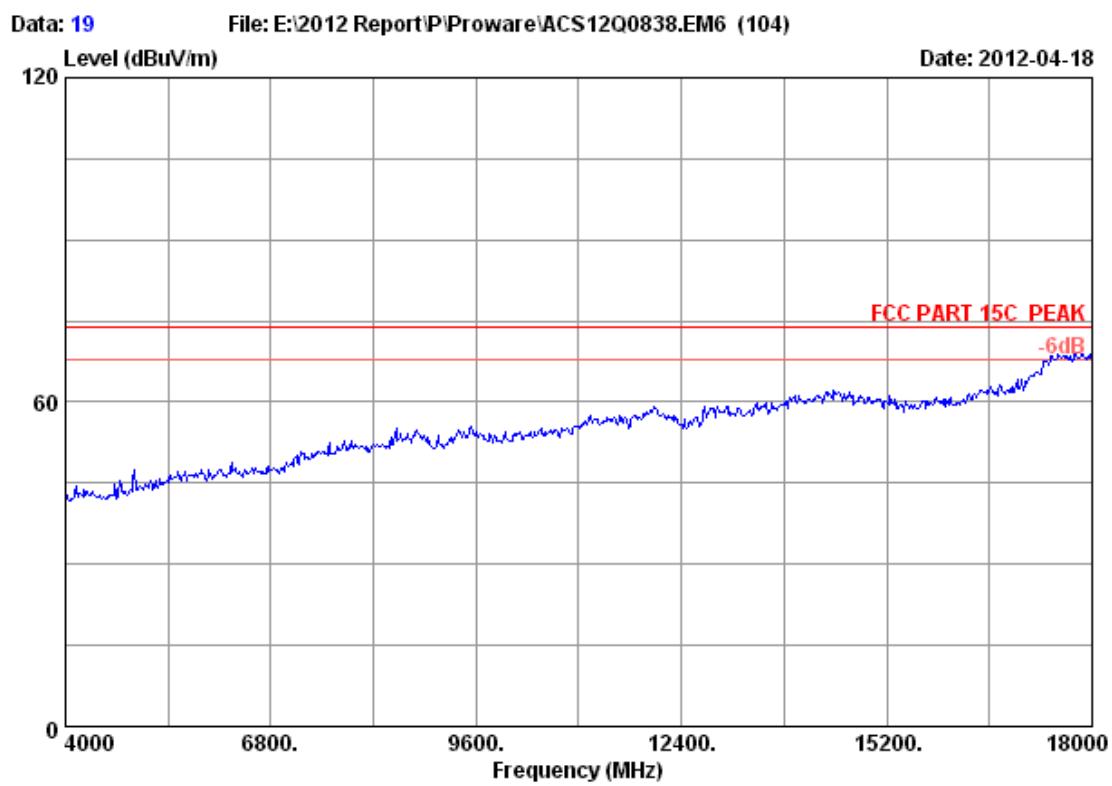


Site no. : 3m Chamber Data no. : 18  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11b CH6 2462MHz Tx  
 M/N : PW-DN551D

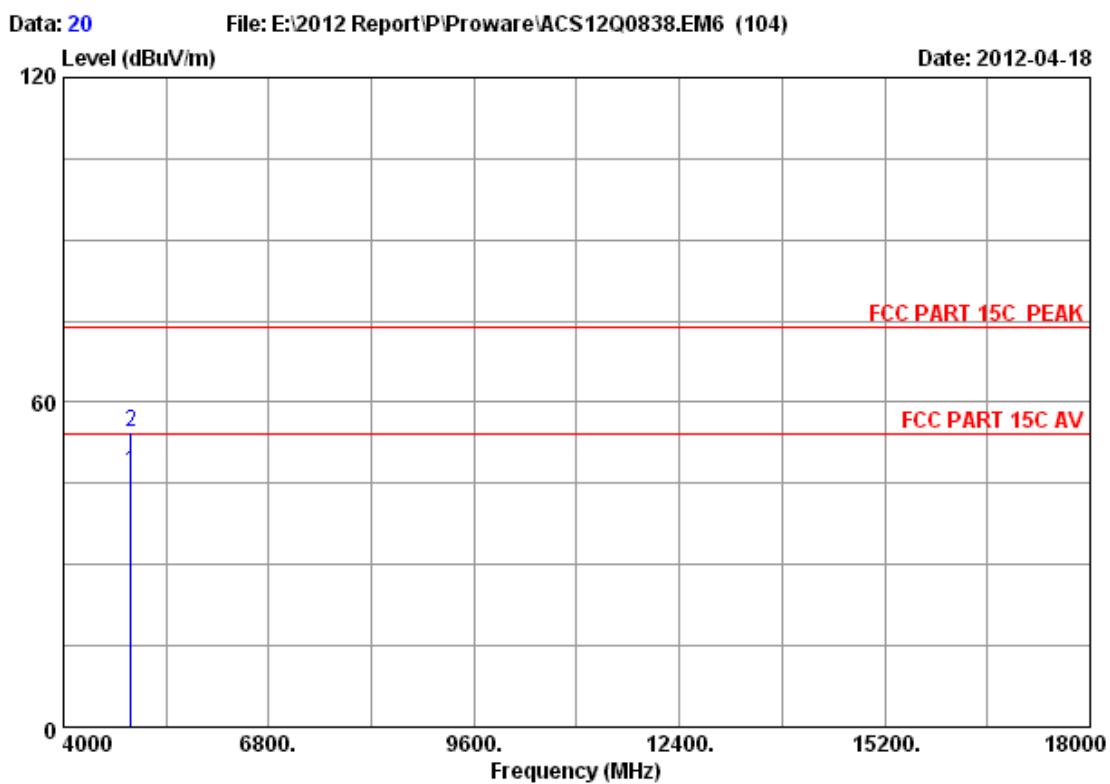
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Reading<br>(dB <sub>uV</sub> ) | Emission                       |                                 |                |         |
|----------------|--------------------------|-----------------------|------------------------|--------------------------------|--------------------------------|---------------------------------|----------------|---------|
|                |                          |                       |                        |                                | Level<br>(dB <sub>uV/m</sub> ) | Limits<br>(dB <sub>uV/m</sub> ) | Margin<br>(dB) | Remark  |
| 1 4924.000     | 34.49                    | 10.76                 | 34.98                  | 44.03                          | 54.30                          | 74.00                           | 19.70          | Peak    |
| 2 4924.000     | 34.49                    | 10.76                 | 34.98                  | 34.59                          | 44.86                          | 54.00                           | 9.14           | 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. : 19  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2462MHz Tx  
M/N : PW-DN551D

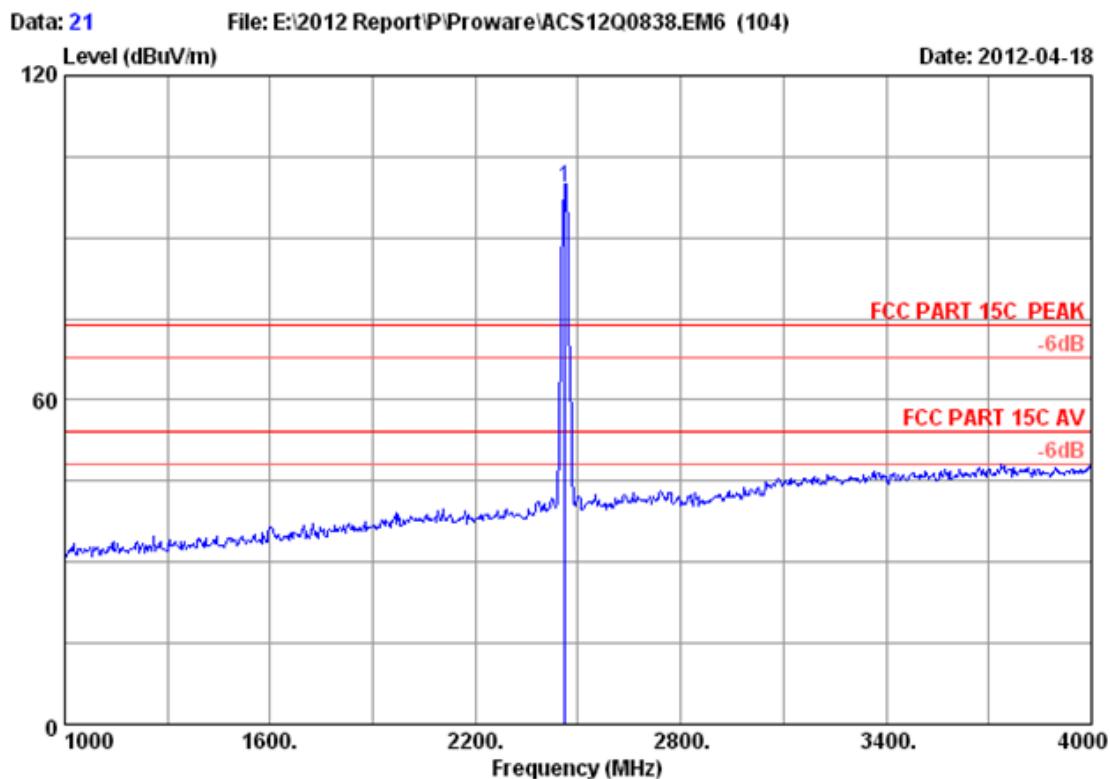


Site no. : 3m Chamber Data no. : 20  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2462MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |        |              |
|-------|----------|-------|--------|----------|----------|----------|--------|--------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark       |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |              |
| 1     | 4924.000 | 34.49 | 10.76  | 34.98    | 36.73    | 47.00    | 54.00  | 7.00 Average |
| 2     | 4924.000 | 34.49 | 10.76  | 34.98    | 44.12    | 54.39    | 74.00  | 19.61 Peak   |

Remarks:

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

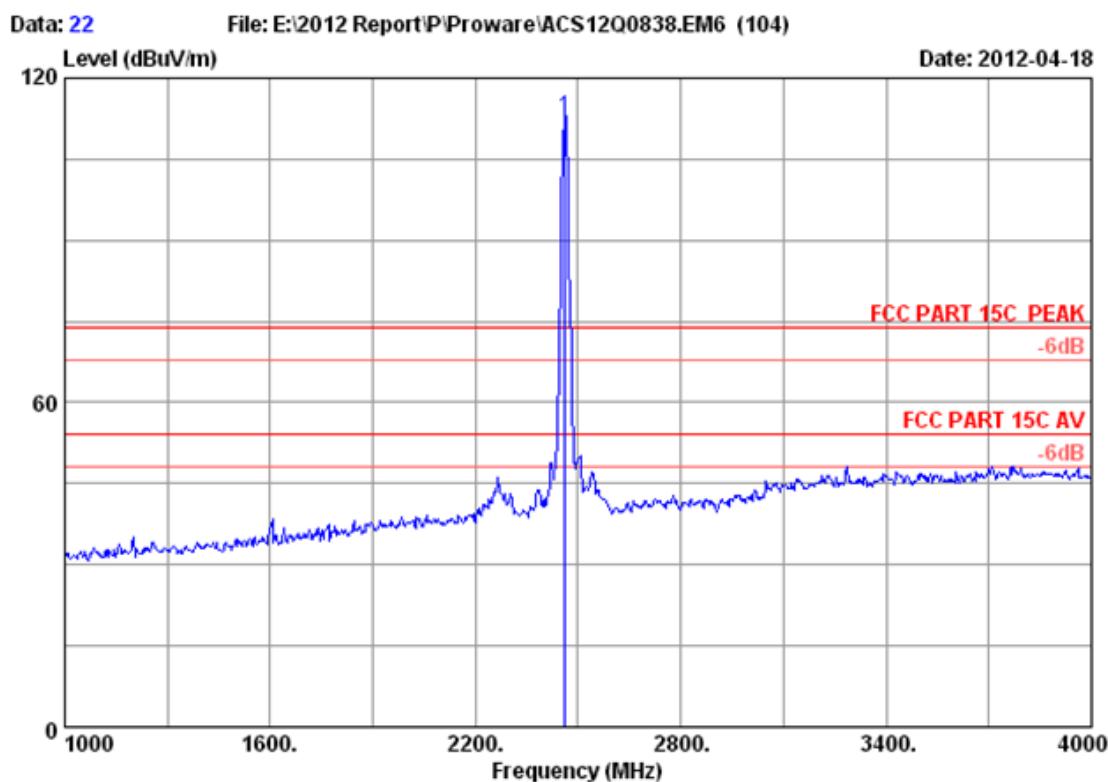


Site no. : 3m Chamber Data no. : 21  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2462MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2462.000 | 29.48 | 7.54   | 36.61    | 98.75    | 99.16    | 74.00 -25.16 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.

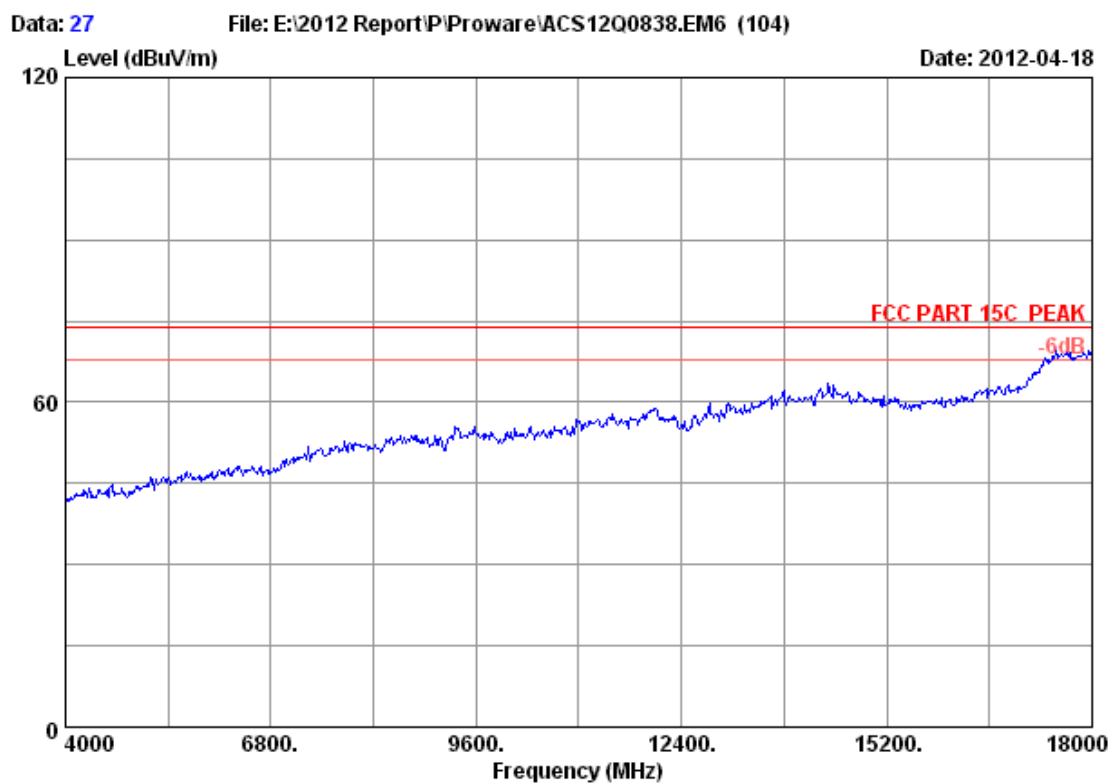


Site no. : 3m Chamber Data no. : 22  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11b CH6 2462MHz Tx  
M/N : PW-DN551D

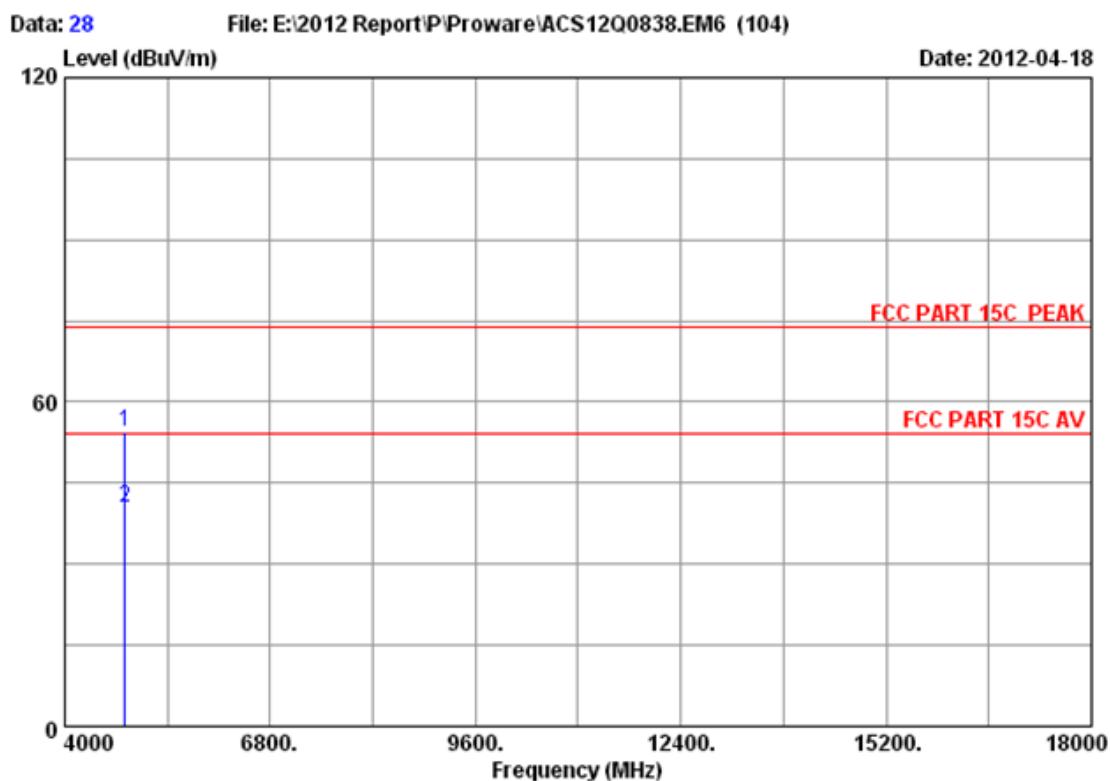
|       | Ant.     | Cable | Amp.   | Emission |          |          |        |             |
|-------|----------|-------|--------|----------|----------|----------|--------|-------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark      |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |             |
| 1     | 2462.000 | 29.48 | 7.54   | 36.61    | 112.18   | 112.59   | 74.00  | -38.59 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. : 27  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH1 2412MHz Tx  
M/N : PW-DN551D

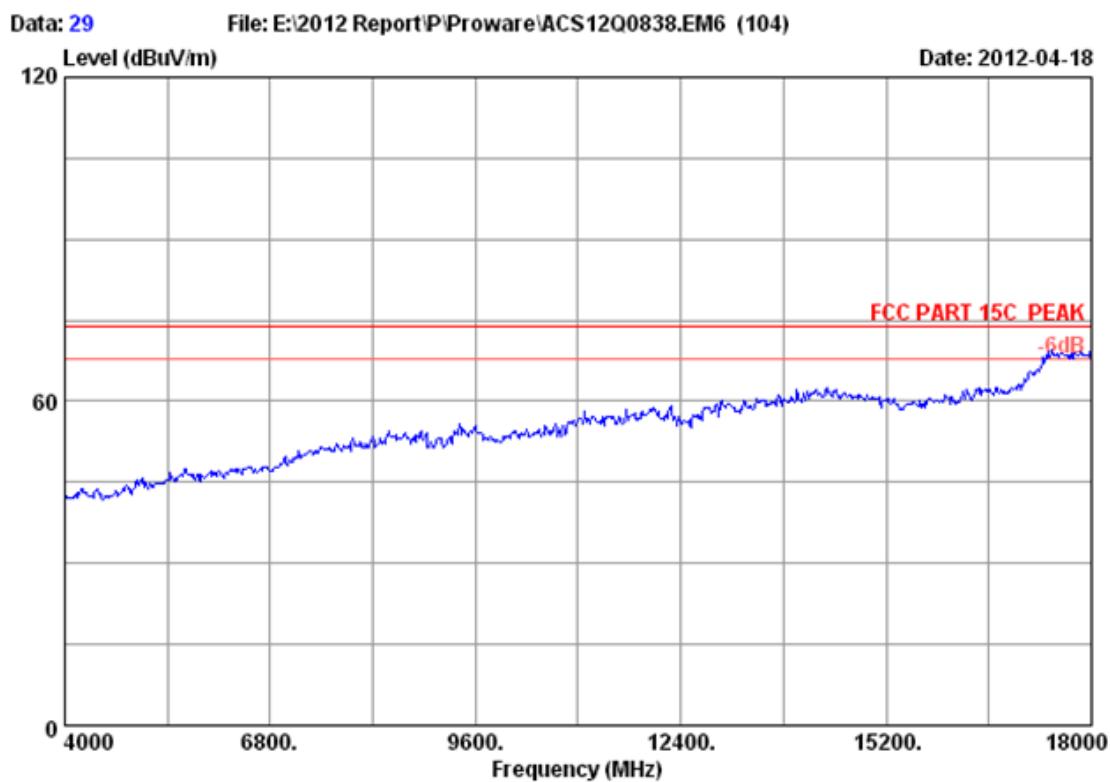


Site no. : 3m Chamber Data no. : 28  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH1 2412MHz Tx  
M/N : PW-DN551D

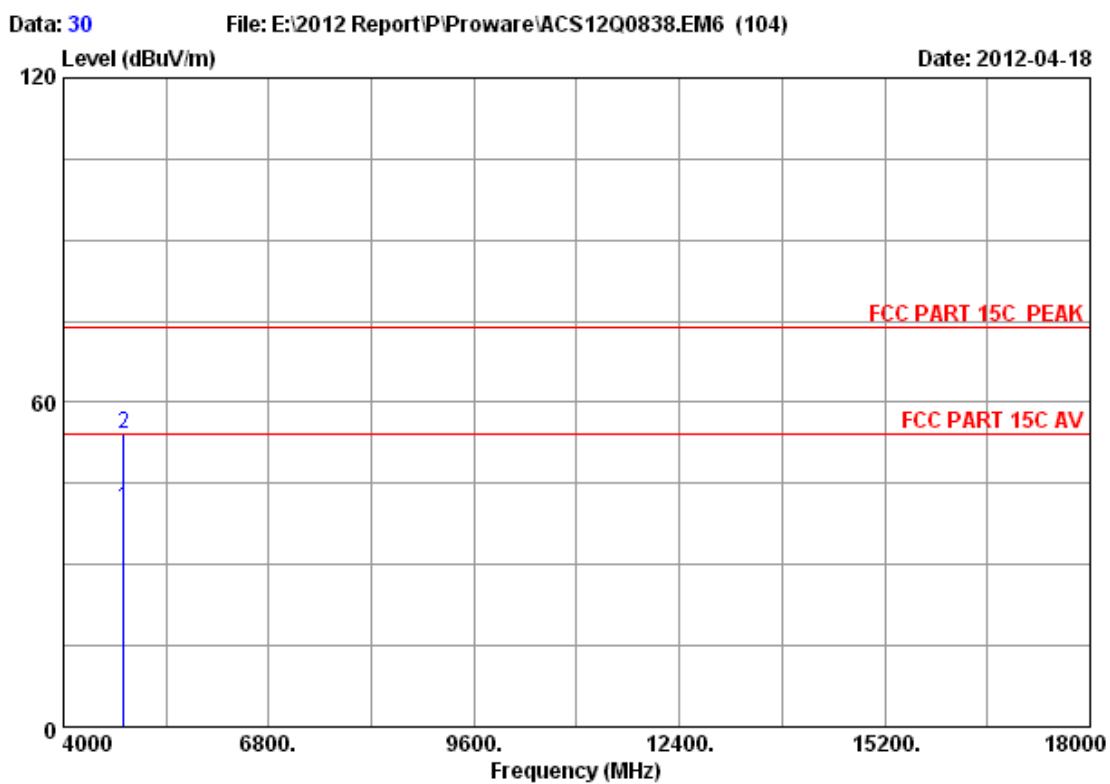
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Reading<br>(dBuV) | Emission          |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        |                   | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4824.000     | 34.32                    | 10.64                 | 35.08                  | 44.64             | 54.52             | 74.00              | 19.48          | Peak    |
| 2 4824.000     | 34.32                    | 10.64                 | 35.08                  | 30.66             | 40.54             | 54.00              | 13.46          | 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. : 29  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH1 2412MHz Tx  
M/N : PW-DN551D

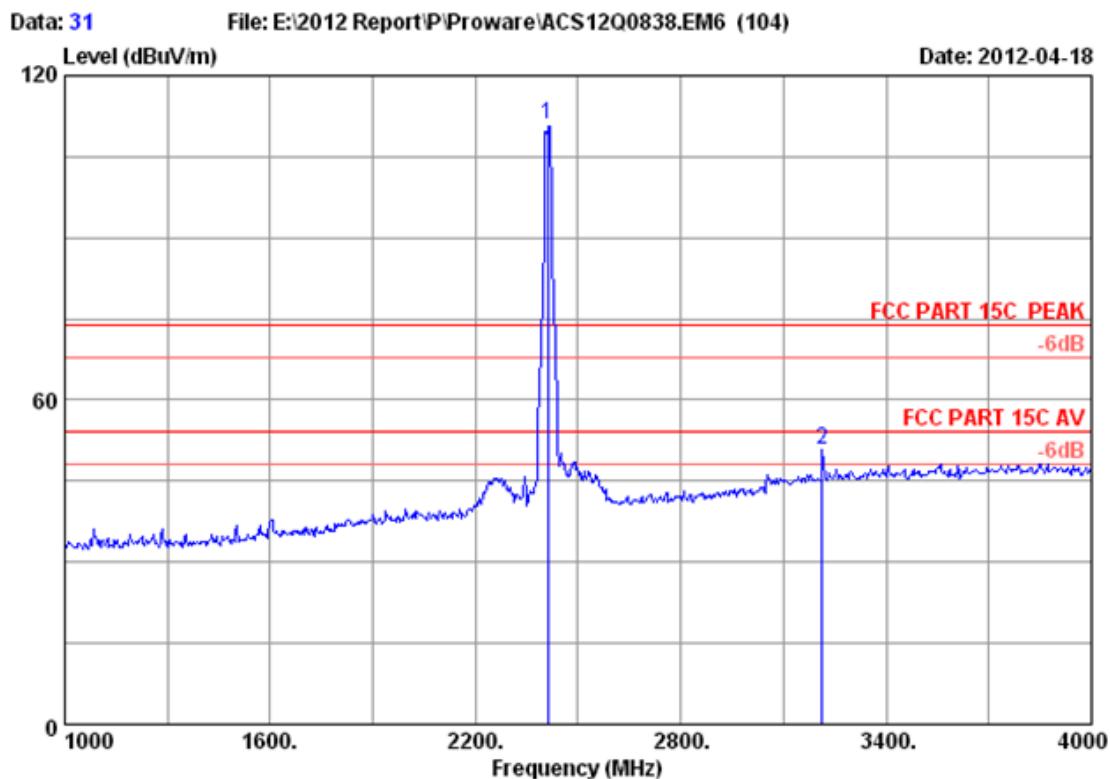


Site no. : 3m Chamber Data no. : 30  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11g CH1 2412MHz Tx  
 M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4824.000     | 34.32                    | 10.64                 | 35.08                  | 30.69             | 40.57             | 54.00              | 13.43          | Average |
| 2 4824.000     | 34.32                    | 10.64                 | 35.08                  | 44.24             | 54.12             | 74.00              | 19.88          | 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.

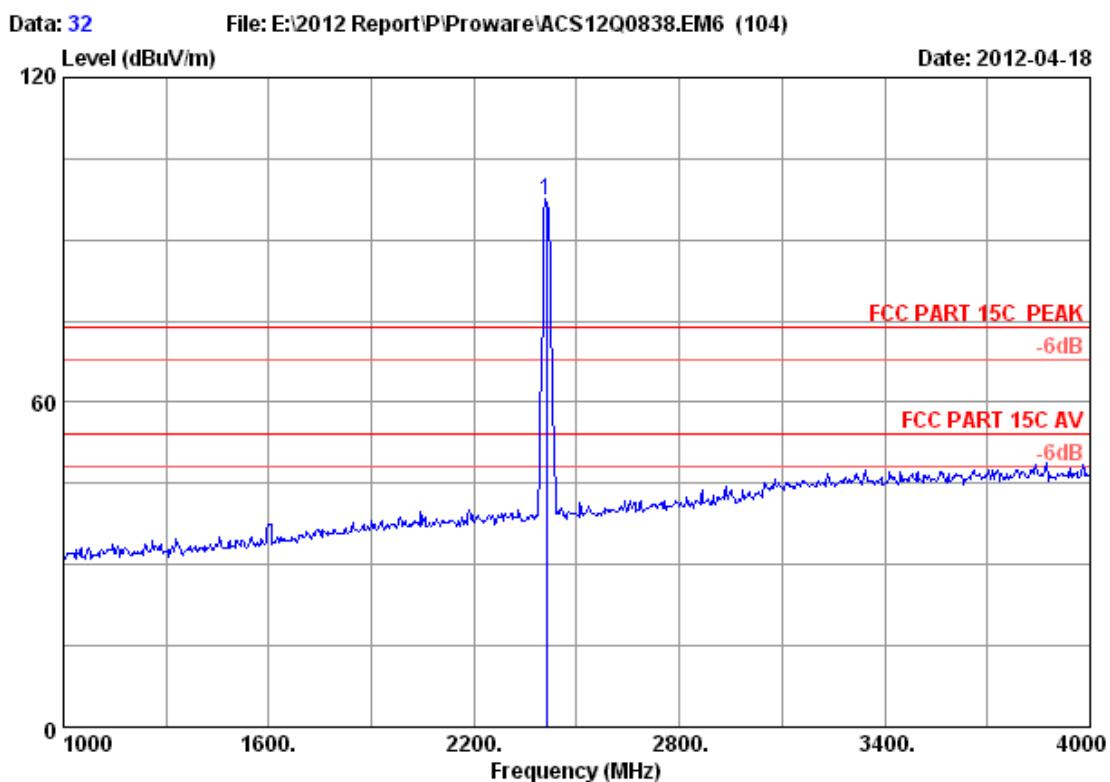


Site no. : 3m Chamber Data no. : 31  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH1 2412MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2412.000     | 29.45                    | 7.43                  | 36.62                  | 110.65            | 110.91            | 74.00              | -36.91         | Peak   |
| 2 3214.000     | 32.54                    | 8.79                  | 36.28                  | 45.82             | 50.87             | 74.00              | 23.13          | 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.

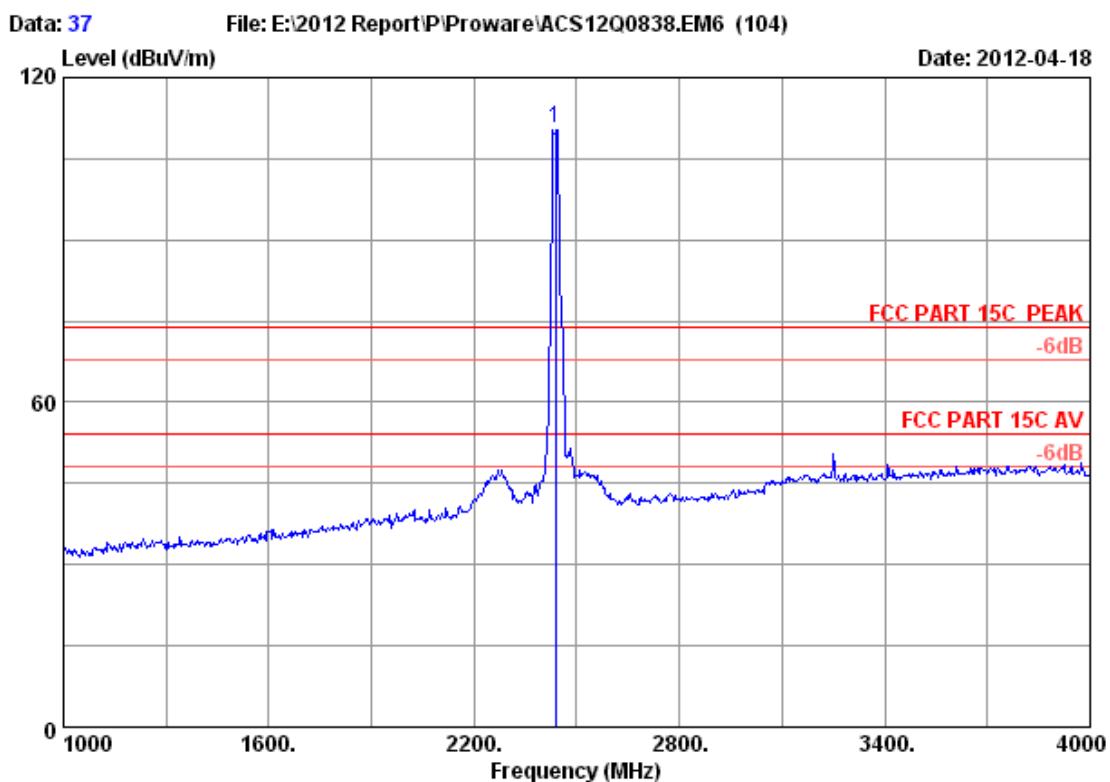


Site no. : 3m Chamber Data no. : 32  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH1 2412MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2412.000 | 29.45 | 7.43   | 36.62    | 97.17    | 97.43    | 74.00 -23.43 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.

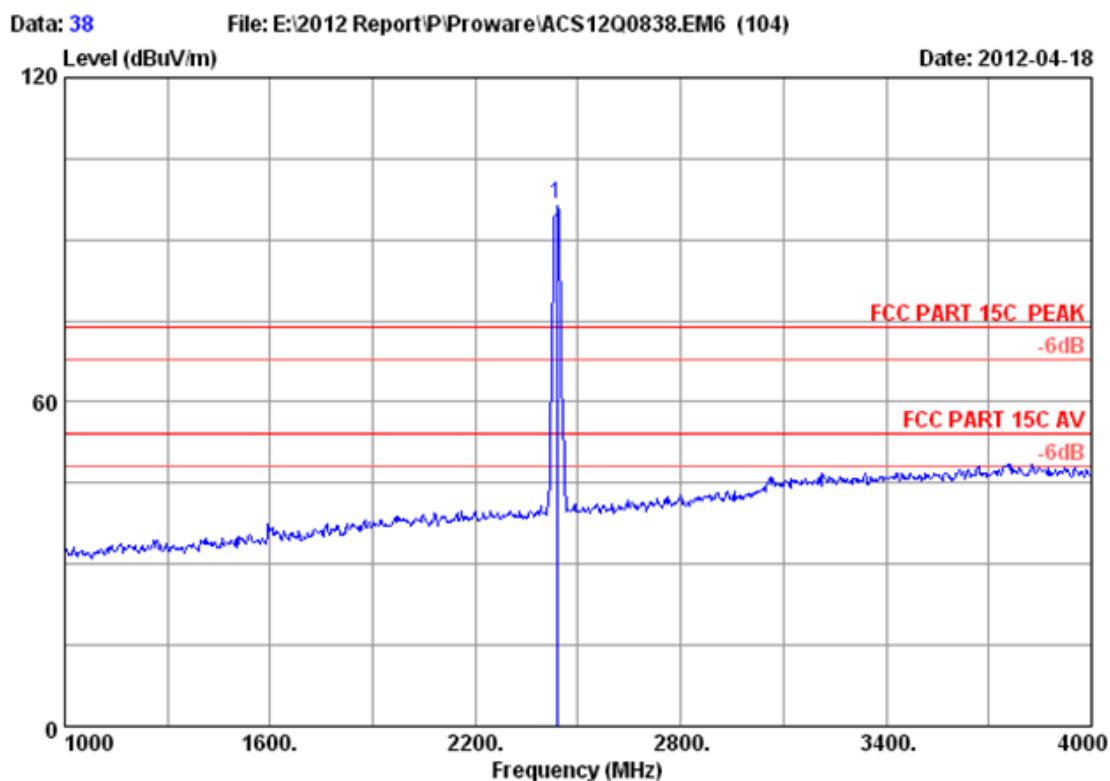


Site no. : 3m Chamber Data no. : 37  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH6 2437MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |        |             |
|-------|----------|-------|--------|----------|----------|----------|--------|-------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark      |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |             |
| 1     | 2437.000 | 29.47 | 7.46   | 36.61    | 110.48   | 110.80   | 74.00  | -36.80 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.

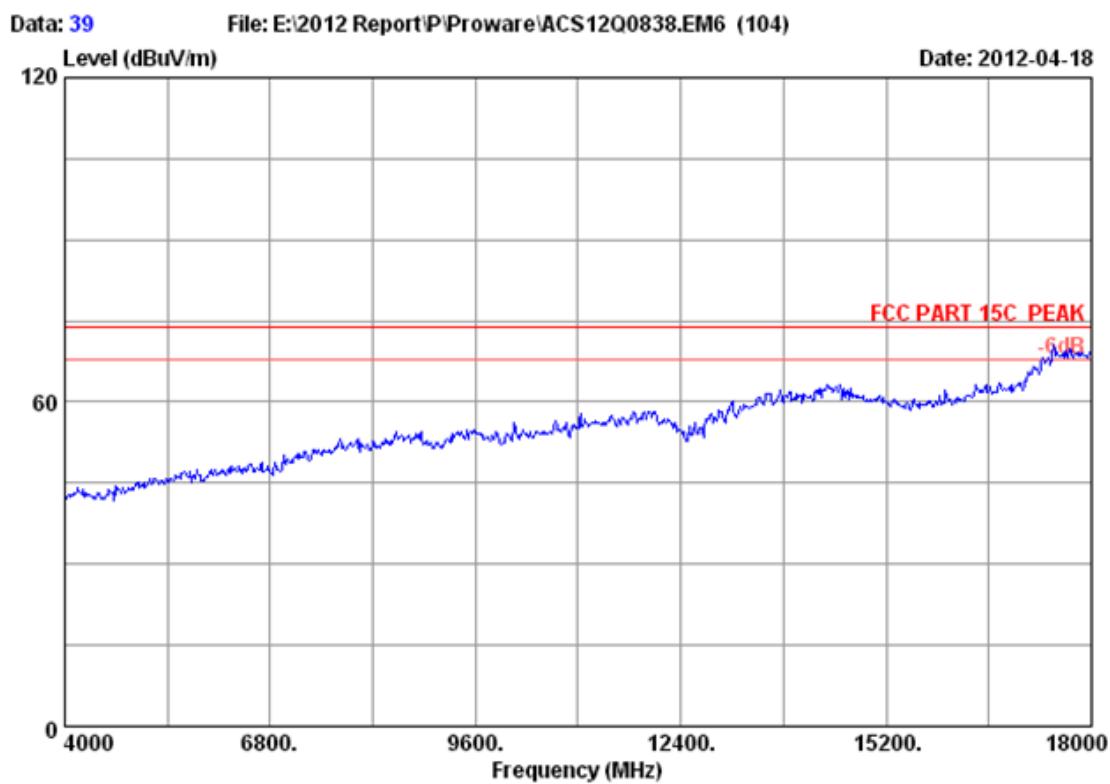


Site no. : 3m Chamber Data no. : 38  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH6 2437MHz Tx  
M/N : PW-DN551D

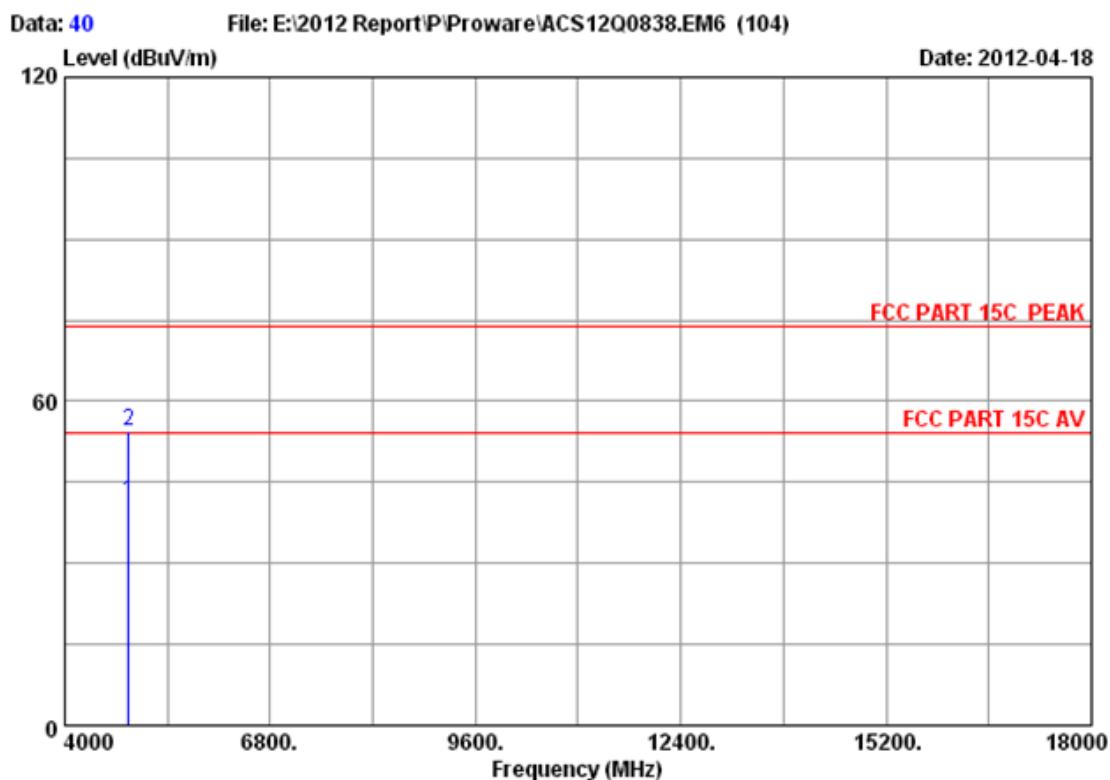
|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2437.000 | 29.47 | 7.46   | 36.61    | 96.37    | 96.69    | 74.00 -22.69 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. : 39  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH6 2437MHz Tx  
M/N : PW-DN551D



Site no. : 3m Chamber Data no. : 40  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH6 2437MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4874.000     | 34.41                    | 10.69                 | 35.03                  | 31.23             | 41.30             | 54.00              | 12.70          | Average |
| 2 4874.000     | 34.41                    | 10.69                 | 35.03                  | 44.35             | 54.42             | 74.00              | 19.58          | Peak    |

Remarks:

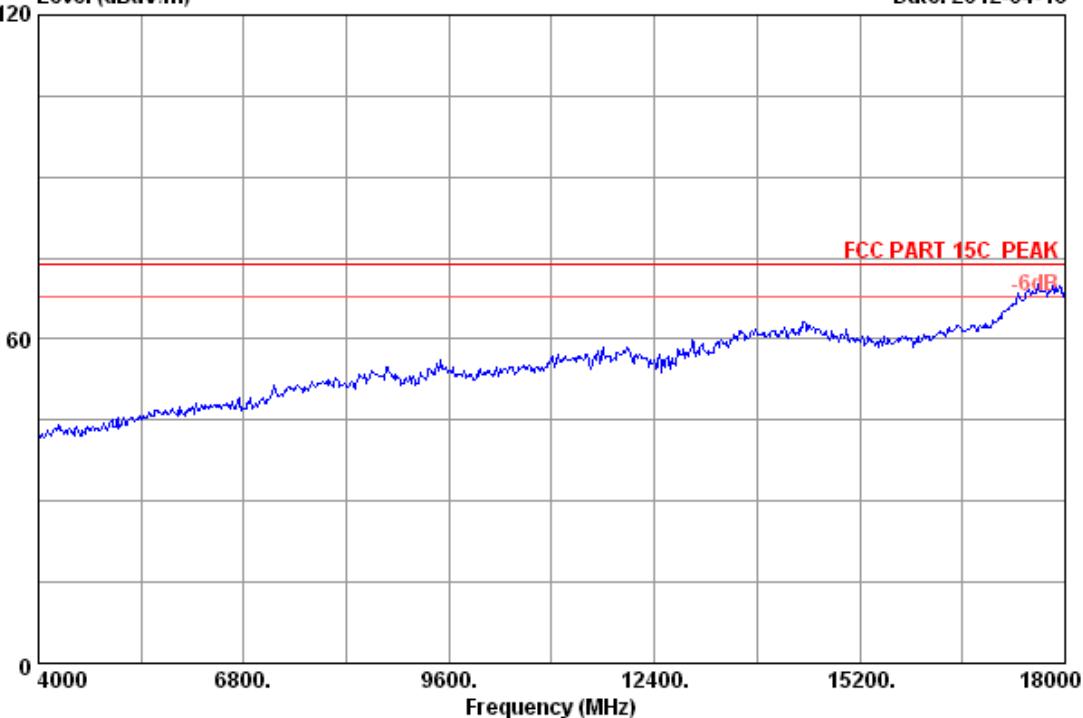
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Data: 41

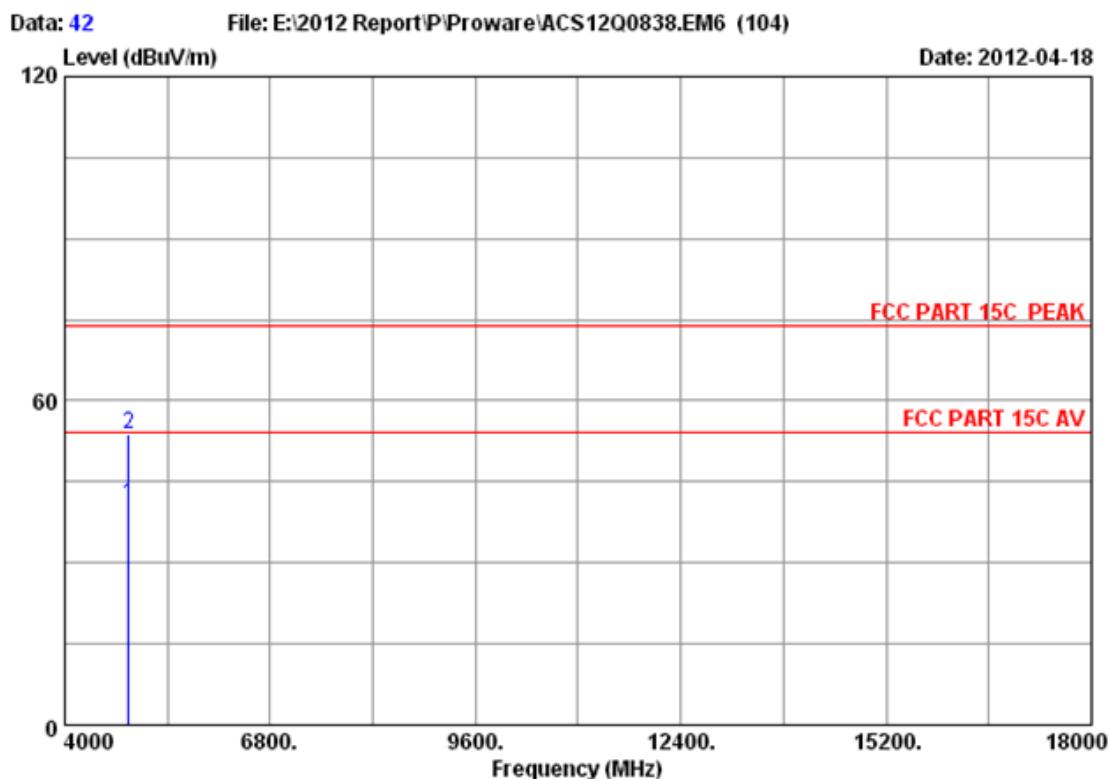
File: E:\2012 Report\P\Proware\ACS12Q0838.EM6 (104)

Level (dBuV/m)

Date: 2012-04-18



|              |   |                                    |           |   |          |
|--------------|---|------------------------------------|-----------|---|----------|
| Site no.     | : | 3m Chamber                         | Data no.  | : | 41       |
| Dis. / Ant.  | : | 3m 3115(0911)                      | Ant. pol. | : | VERTICAL |
| Limit        | : | FCC PART 15C PEAK                  |           |   |          |
| Env. / Ins.  | : | 23°C/54%                           | Engineer  | : | Leo-Li   |
| EUT          | : | 300Mbps Wireless N PCI Adapter     |           |   |          |
| Power supply | : | DC 3.3V From PC input AC 120V/60Hz |           |   |          |
| Test mode    | : | IEEE802.11g CH6 2437MHz Tx         |           |   |          |
| M/N          | : | PW-DN551D                          |           |   |          |

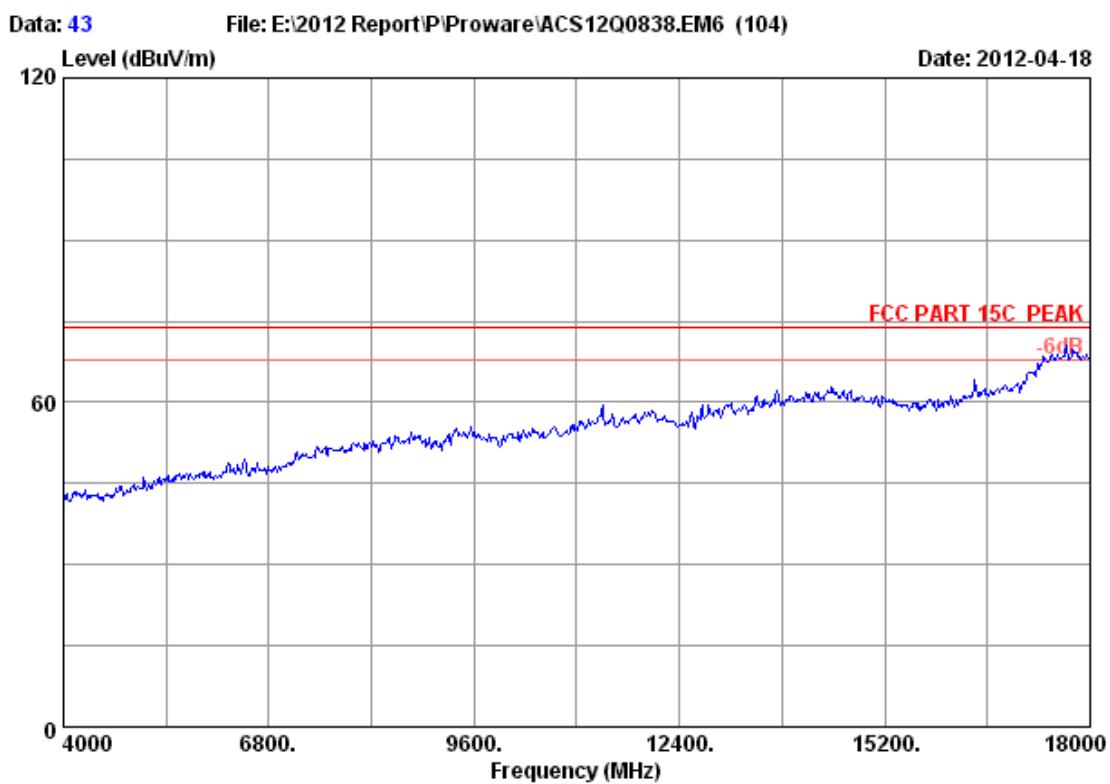


Site no. : 3m Chamber Data no. : 42  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH6 2437MHz Tx  
M/N : PW-DN551D

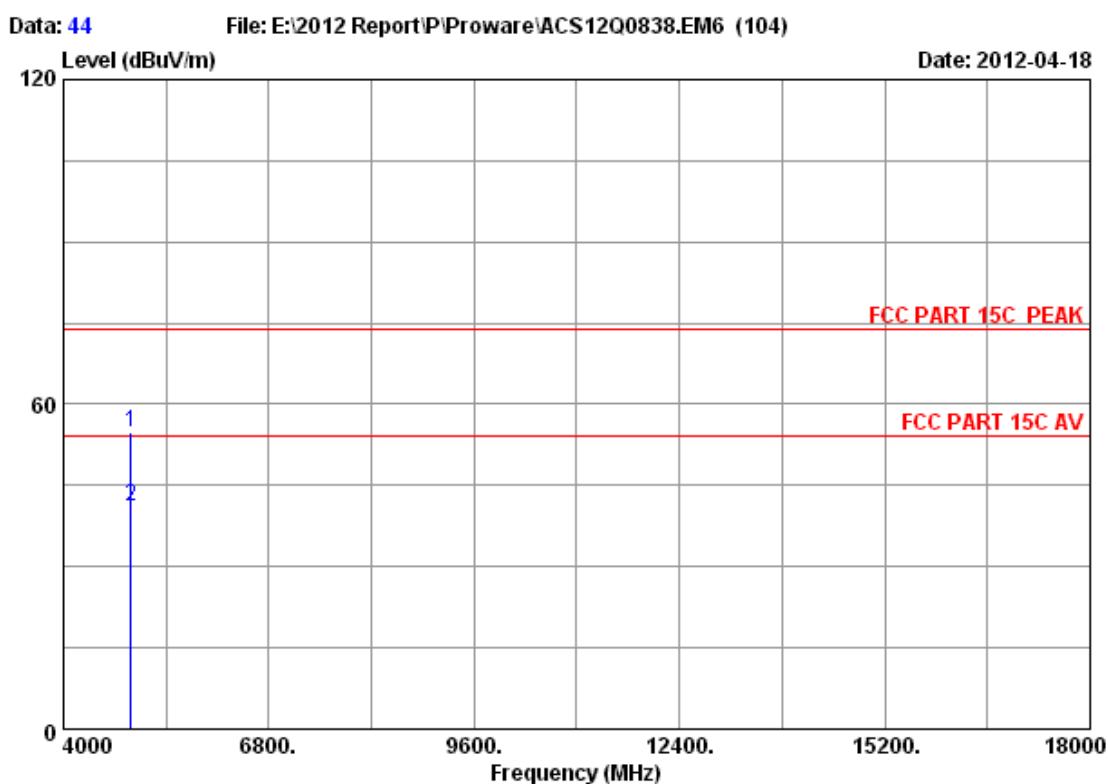
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4874.000     | 34.41                    | 10.69                 | 35.03                  | 30.78             | 40.85             | 54.00              | 13.15          | Average |
| 2 4874.000     | 34.41                    | 10.69                 | 35.03                  | 43.87             | 53.94             | 74.00              | 20.06          | 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. : 43  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH11 2462MHz Tx  
M/N : PW-DN551D

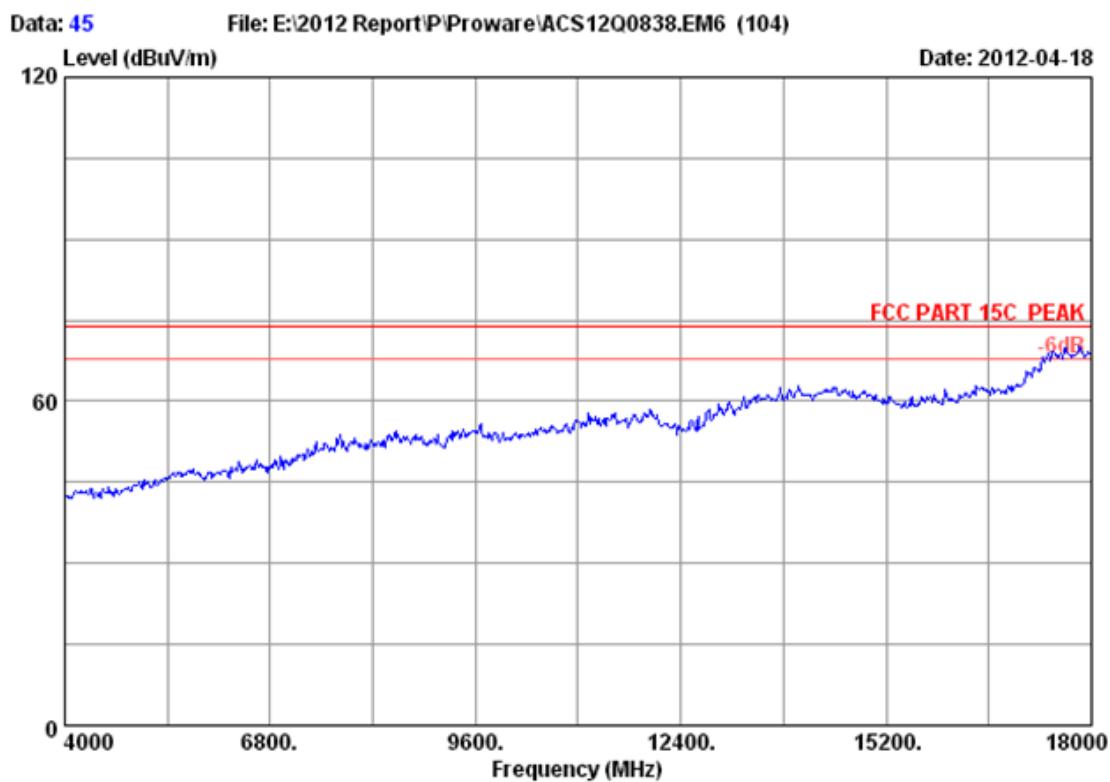


Site no. : 3m Chamber Data no. : 44  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH11 2462MHz Tx  
M/N : PW-DN551D

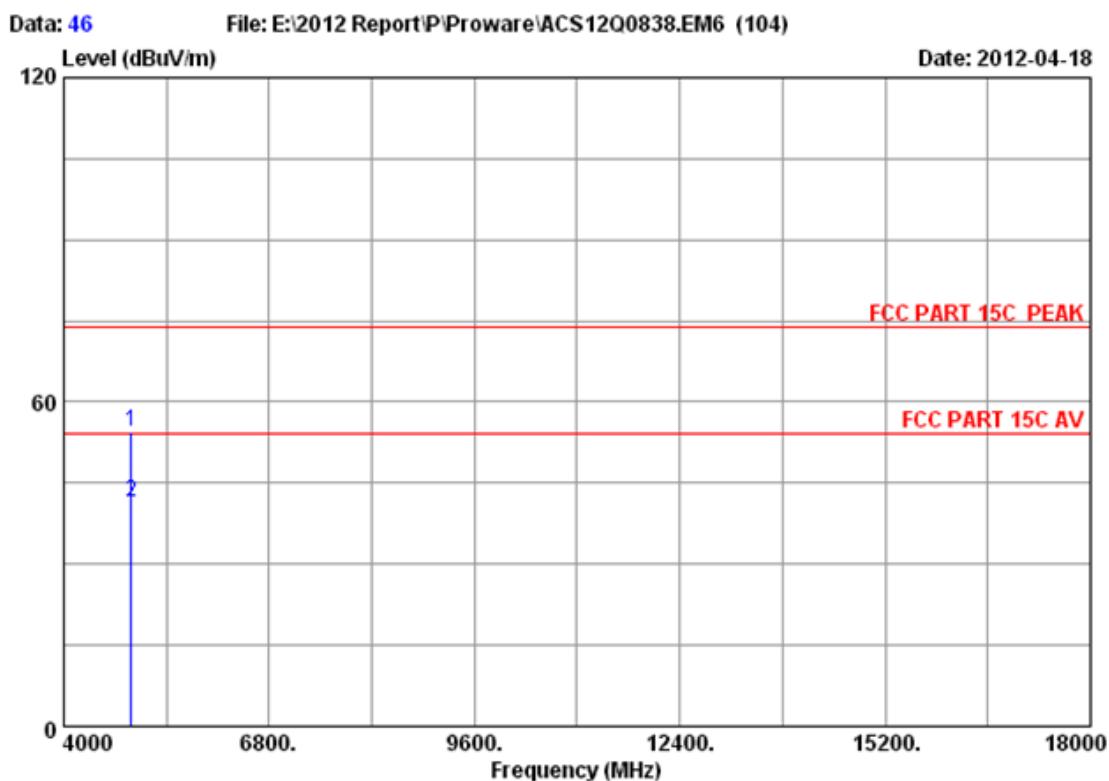
|       | Ant.     | Cable | Amp.   | Emission |          |          |        |               |
|-------|----------|-------|--------|----------|----------|----------|--------|---------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark        |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |               |
| 1     | 4924.000 | 34.49 | 10.76  | 34.98    | 44.65    | 54.92    | 74.00  | 19.08 Peak    |
| 2     | 4924.000 | 34.49 | 10.76  | 34.98    | 30.78    | 41.05    | 54.00  | 12.95 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. : 45  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH11 2462MHz Tx  
M/N : PW-DN551D



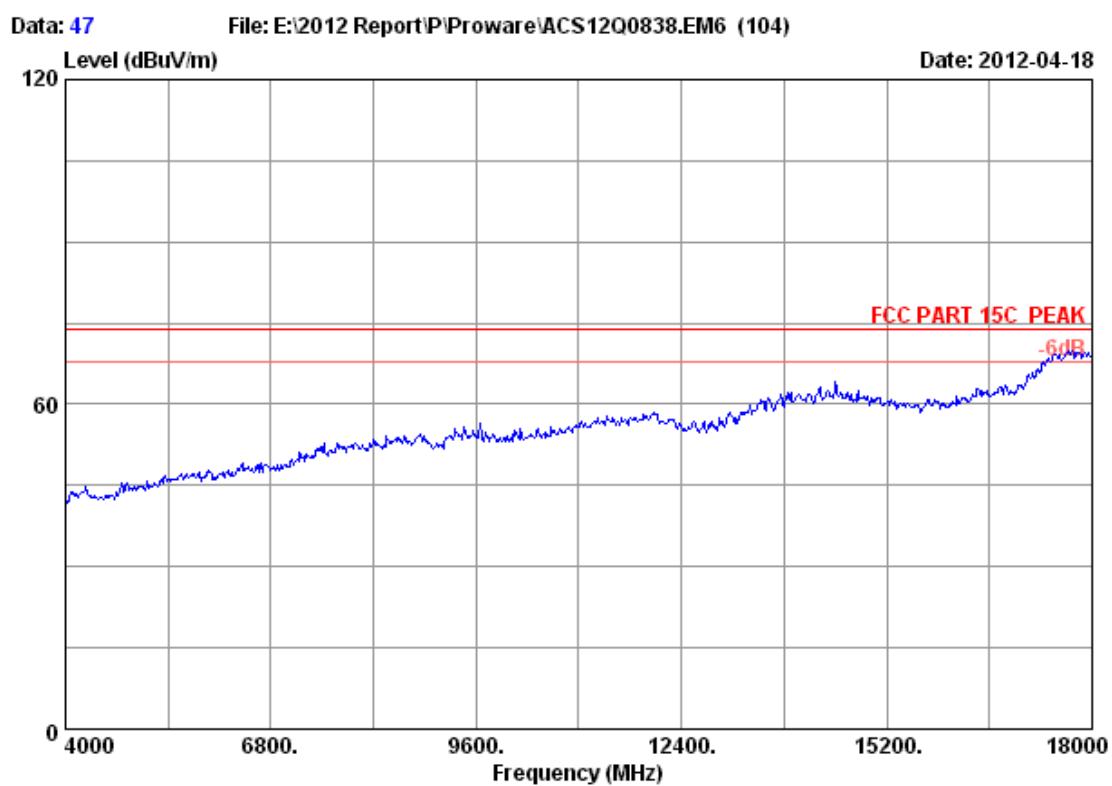
Site no. : 3m Chamber Data no. : 46  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH11 2462MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |  |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|--|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |  |
| <hr/>          |                          |                       |                        |                   |                   |                    |                |         |  |
| 1 4924.000     | 34.49                    | 10.76                 | 34.98                  | 44.16             | 54.43             | 74.00              | 19.57          | Peak    |  |
| 2 4924.000     | 34.49                    | 10.76                 | 34.98                  | 31.02             | 41.29             | 54.00              | 12.71          | Average |  |

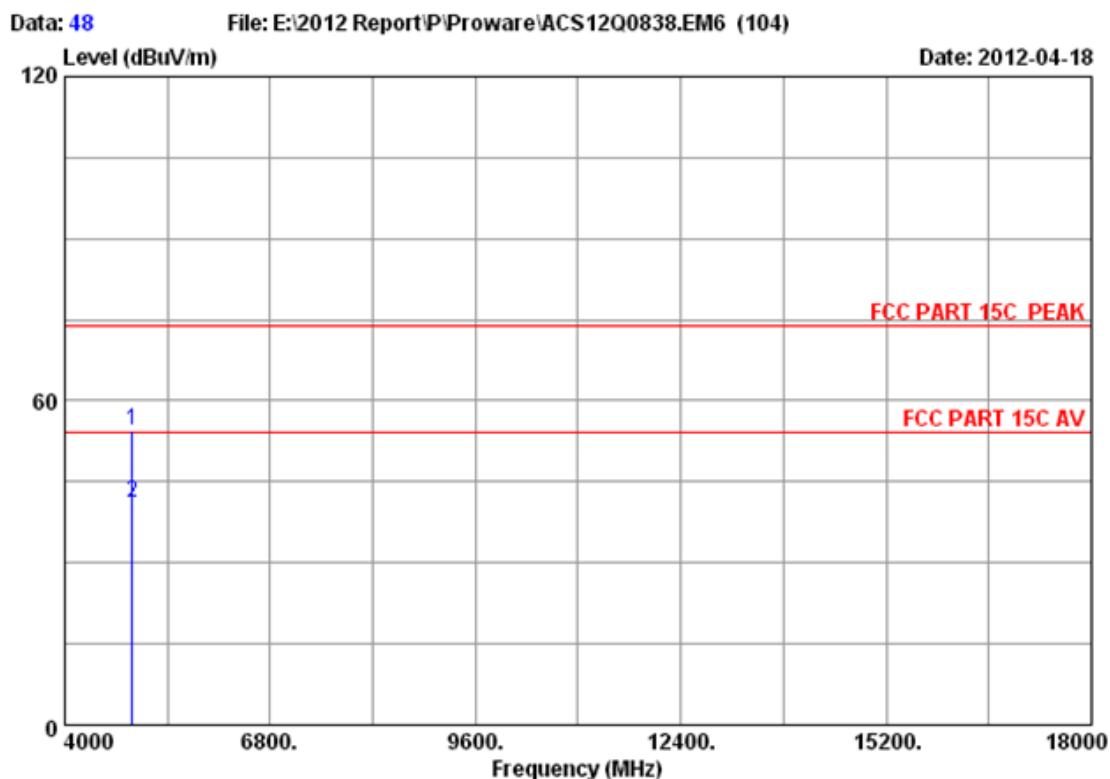
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Remarks:

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



Site no. : 3m Chamber Data no. : 47  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx  
M/N : PW-DN551D

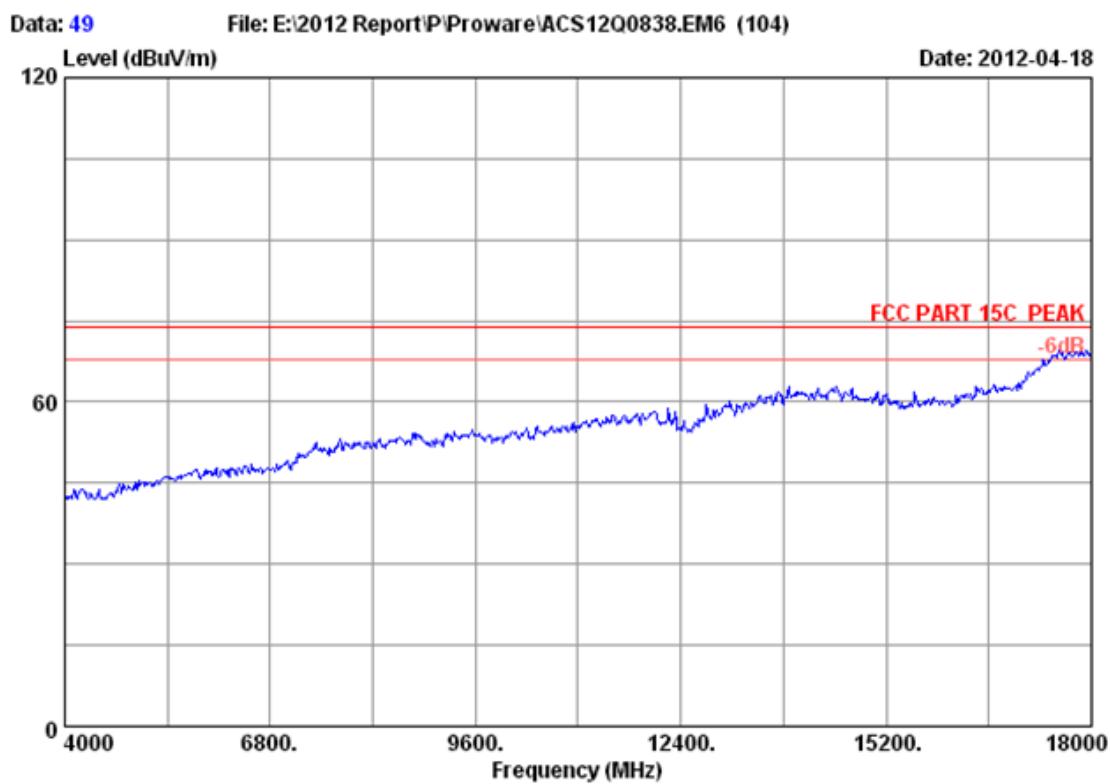


Site no. : 3m Chamber Data no. : 48  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11n HT20 CH11 2462MHz Tx  
 M/N : PW-DN551D

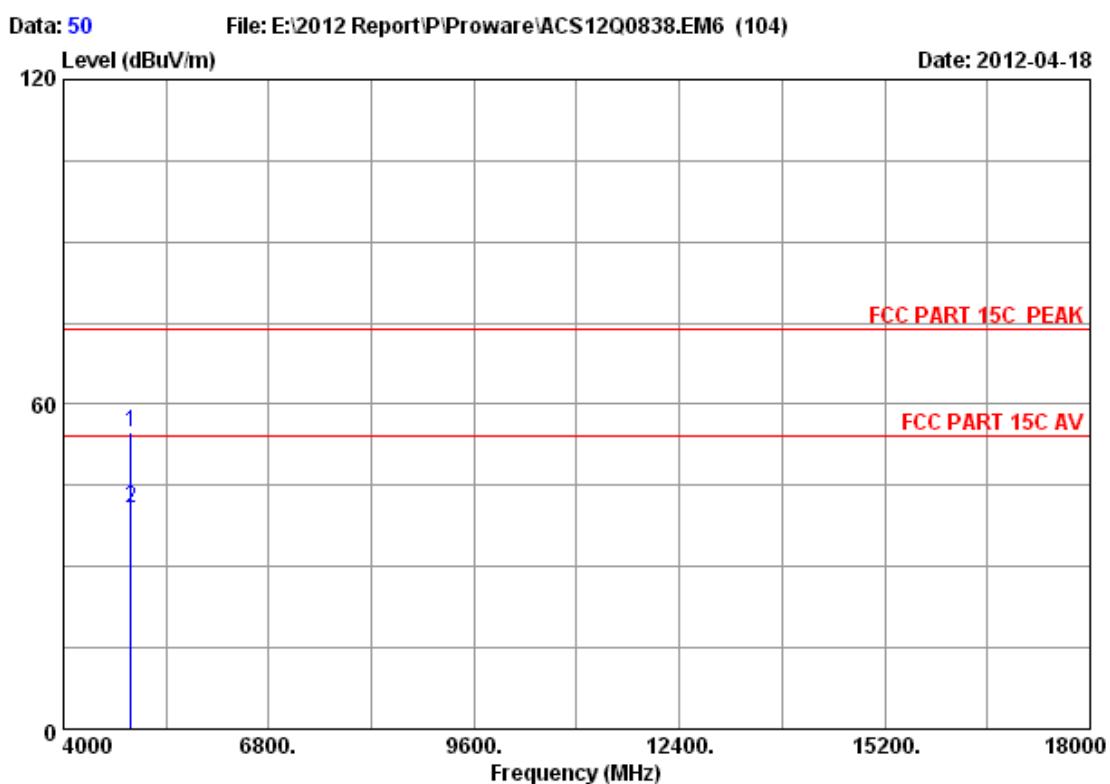
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4924.000     | 34.49                    | 10.76                 | 34.98                  | 44.26             | 54.53             | 74.00              | 19.47          | Peak    |
| 2 4924.000     | 34.49                    | 10.76                 | 34.98                  | 30.74             | 41.01             | 54.00              | 12.99          | 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. : 49  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx  
M/N : PW-DN551D

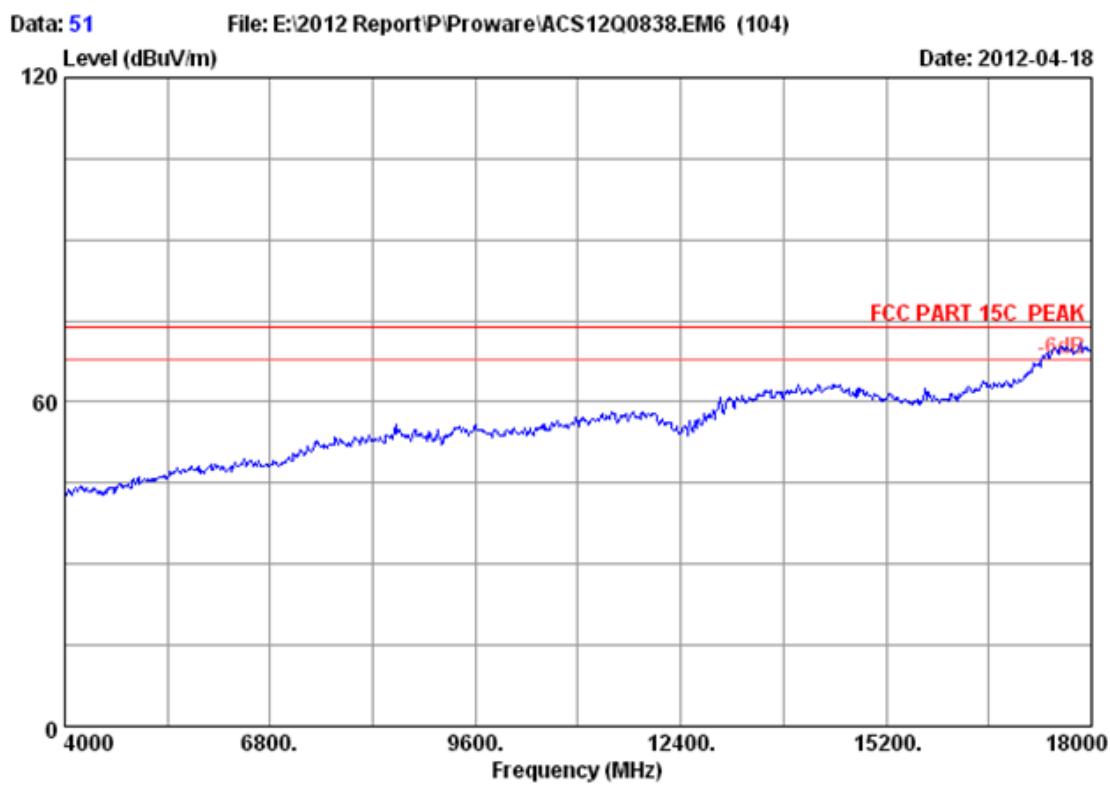


Site no. : 3m Chamber Data no. : 50  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx  
M/N : PW-DN551D

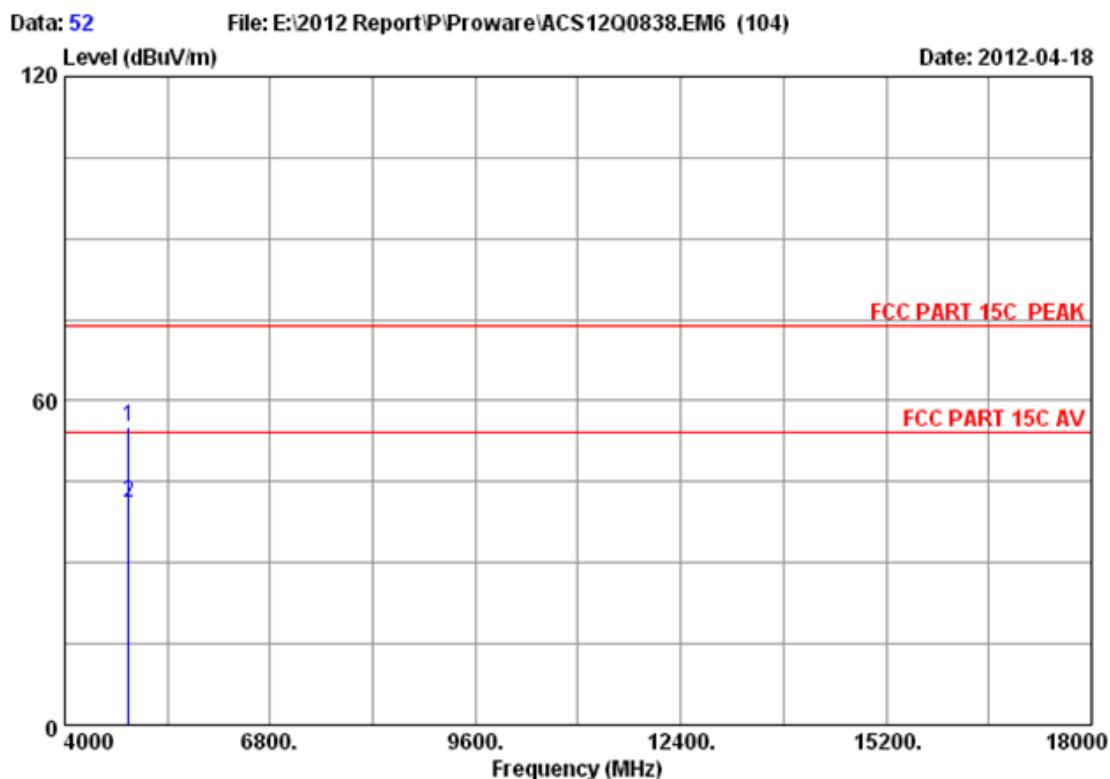
|       | Ant.     | Cable | Amp.   | Emission |          |          |        |               |
|-------|----------|-------|--------|----------|----------|----------|--------|---------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark        |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |               |
| 1     | 4924.000 | 34.49 | 10.76  | 34.98    | 44.38    | 54.65    | 74.00  | 19.35 Peak    |
| 2     | 4924.000 | 34.49 | 10.76  | 34.98    | 30.54    | 40.81    | 54.00  | 13.19 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. : 51  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH6 2437MHz Tx  
M/N : PW-DN551D

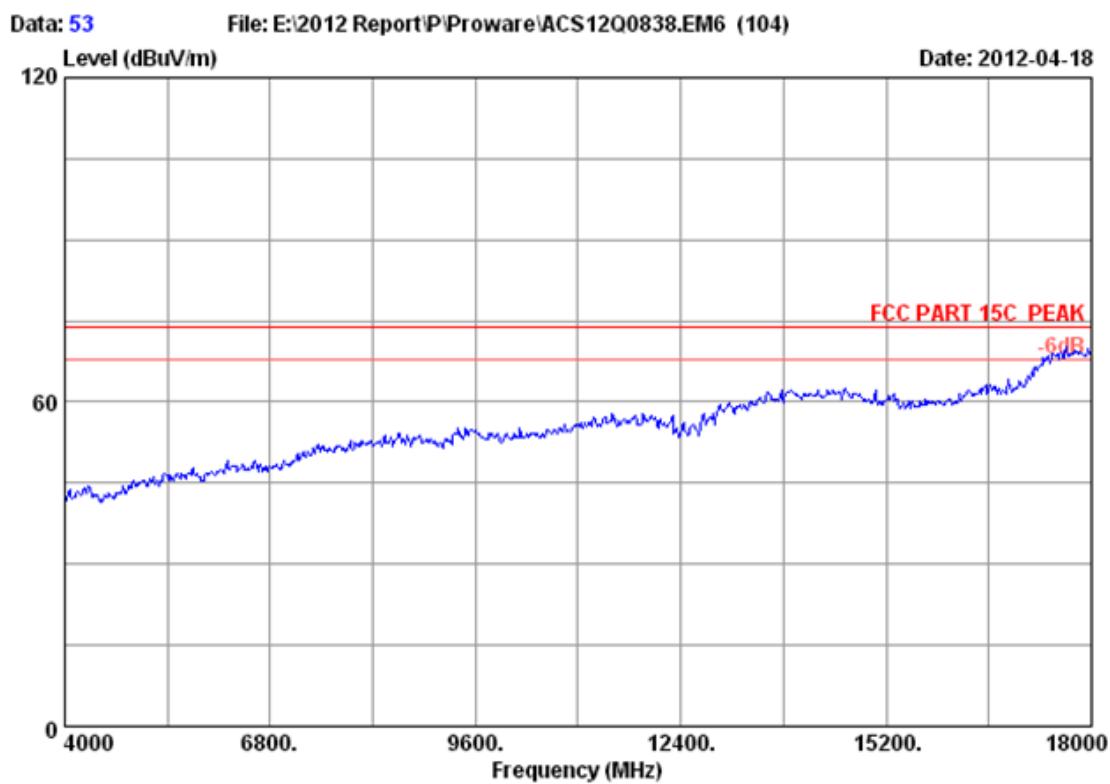


Site no. : 3m Chamber Data no. : 52  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11n HT20 CH6 2437MHz Tx  
 M/N : PW-DN551D

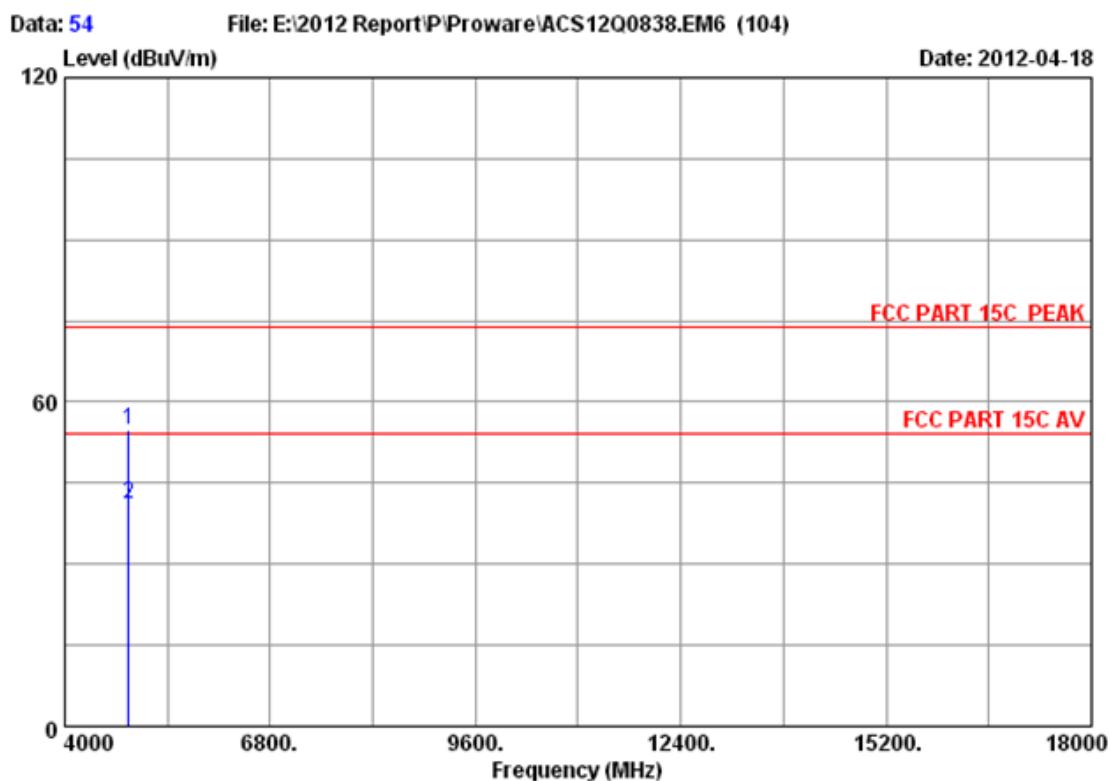
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4874.000     | 34.41                    | 10.69                 | 35.03                  | 45.12             | 55.19             | 74.00              | 18.81          | Peak    |
| 2 4874.000     | 34.41                    | 10.69                 | 35.03                  | 31.19             | 41.26             | 54.00              | 12.74          | 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. : 53  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH6 2437MHz Tx  
M/N : PW-DN551D

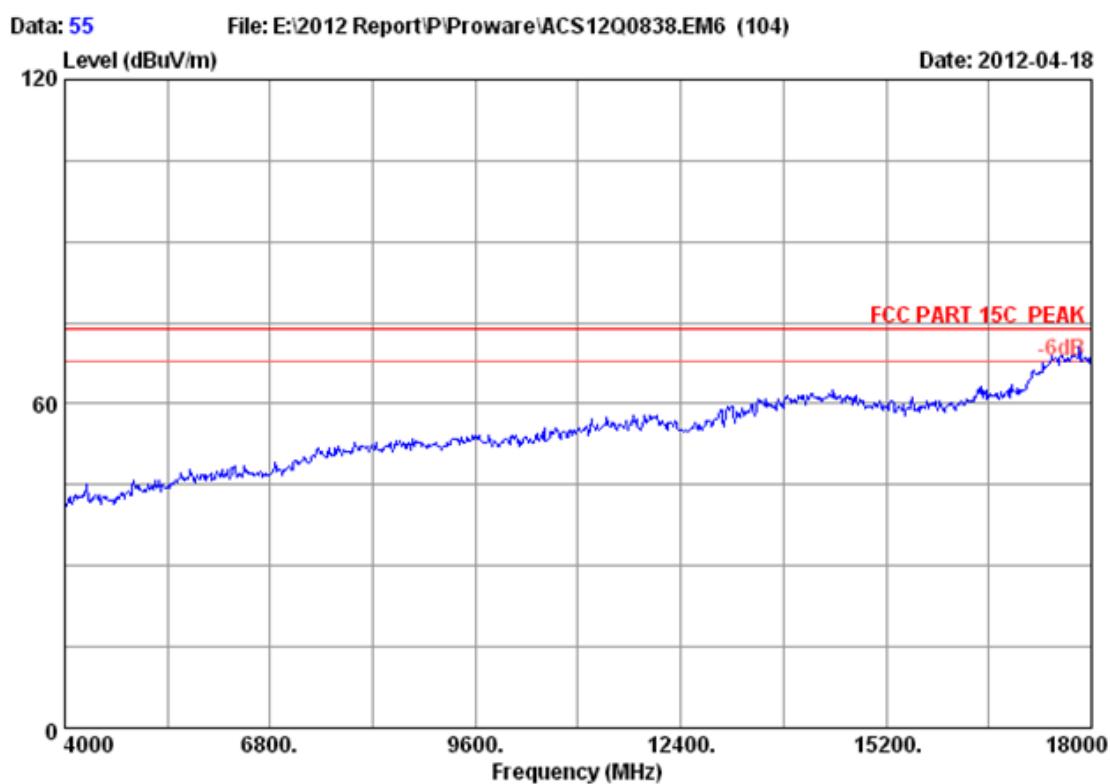


Site no. : 3m Chamber Data no. : 54  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH6 2437MHz Tx  
M/N : PW-DN551D

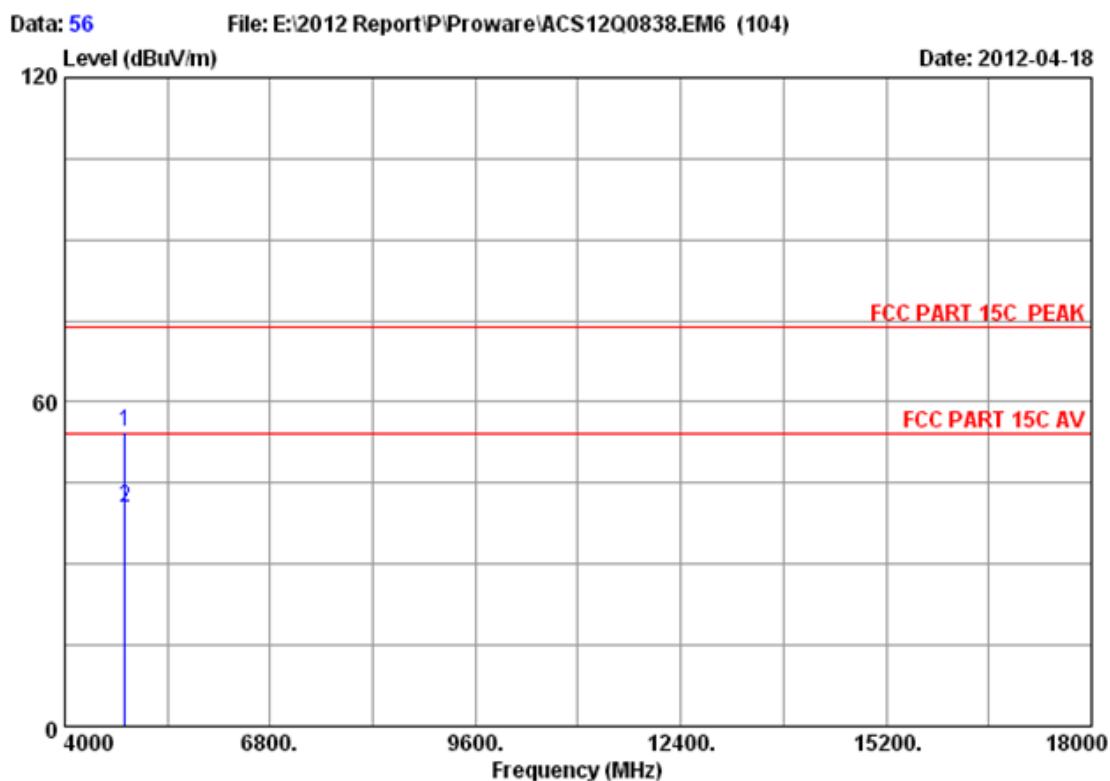
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Reading<br>(dBuV) | Emission          |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        |                   | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4874.000     | 34.41                    | 10.69                 | 35.03                  | 44.89             | 54.96             | 74.00              | 19.04          | Peak    |
| 2 4874.000     | 34.41                    | 10.69                 | 35.03                  | 31.02             | 41.09             | 54.00              | 12.91          | 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. : 55  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx  
M/N : PW-DN551D

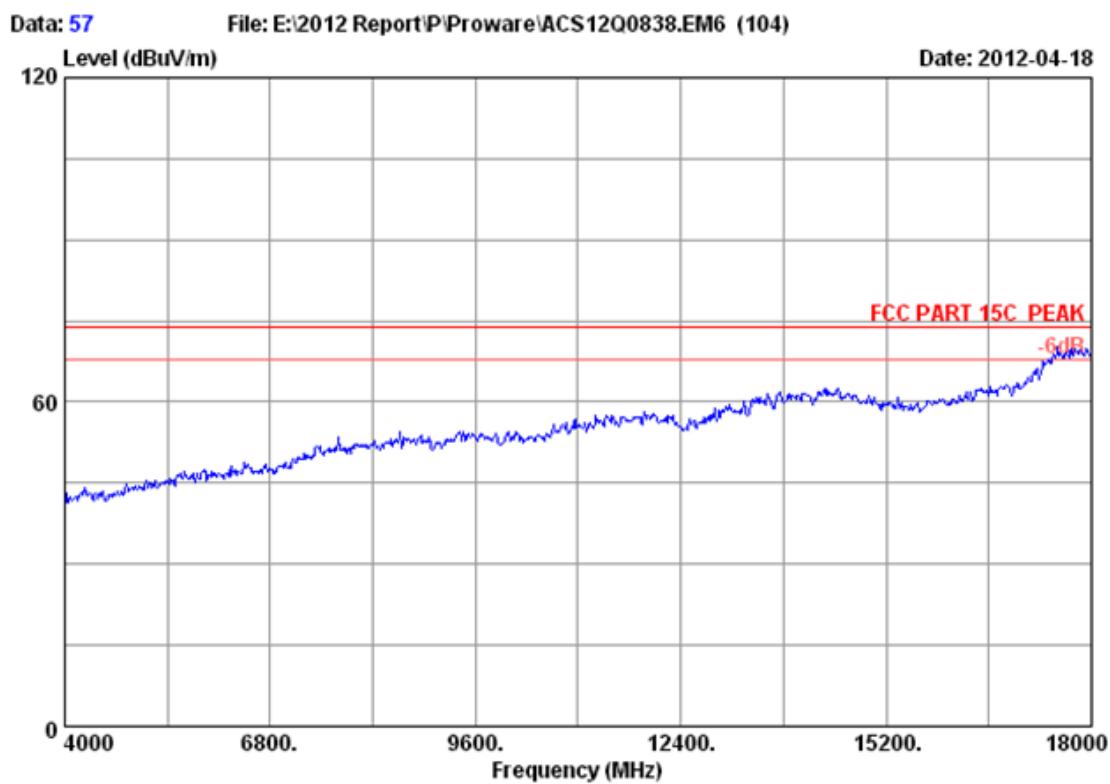


Site no. : 3m Chamber Data no. : 56  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx  
M/N : PW-DN551D

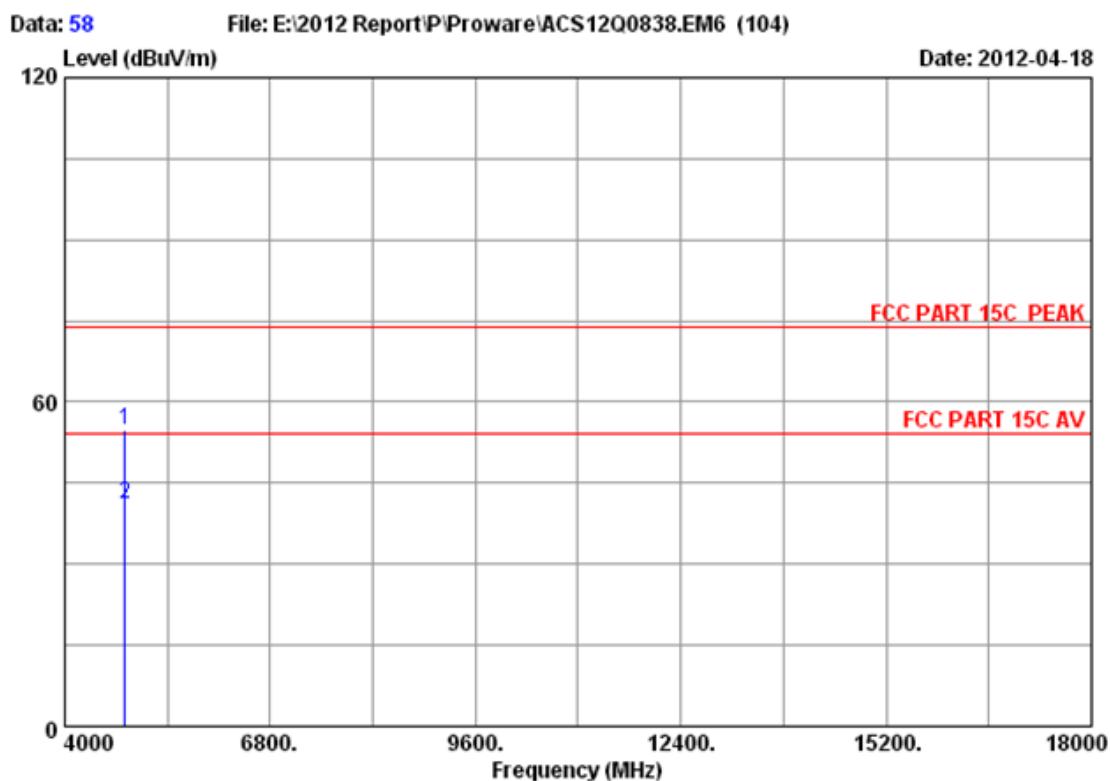
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4824.000     | 34.32                    | 10.64                 | 35.08                  | 44.70             | 54.58             | 74.00              | 19.42          | Peak    |
| 2 4824.000     | 34.32                    | 10.64                 | 35.08                  | 30.42             | 40.30             | 54.00              | 13.70          | 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 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx  
M/N : PW-DN551D

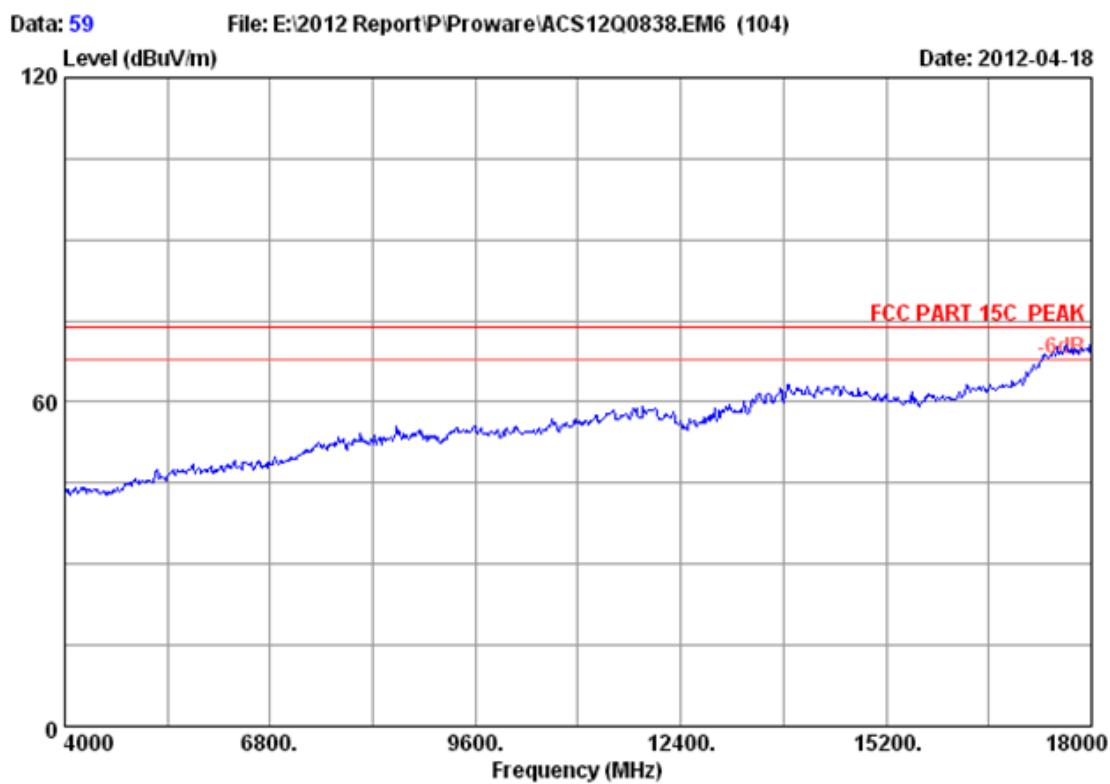


Site no. : 3m Chamber Data no. : 58  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx  
M/N : PW-DN551D

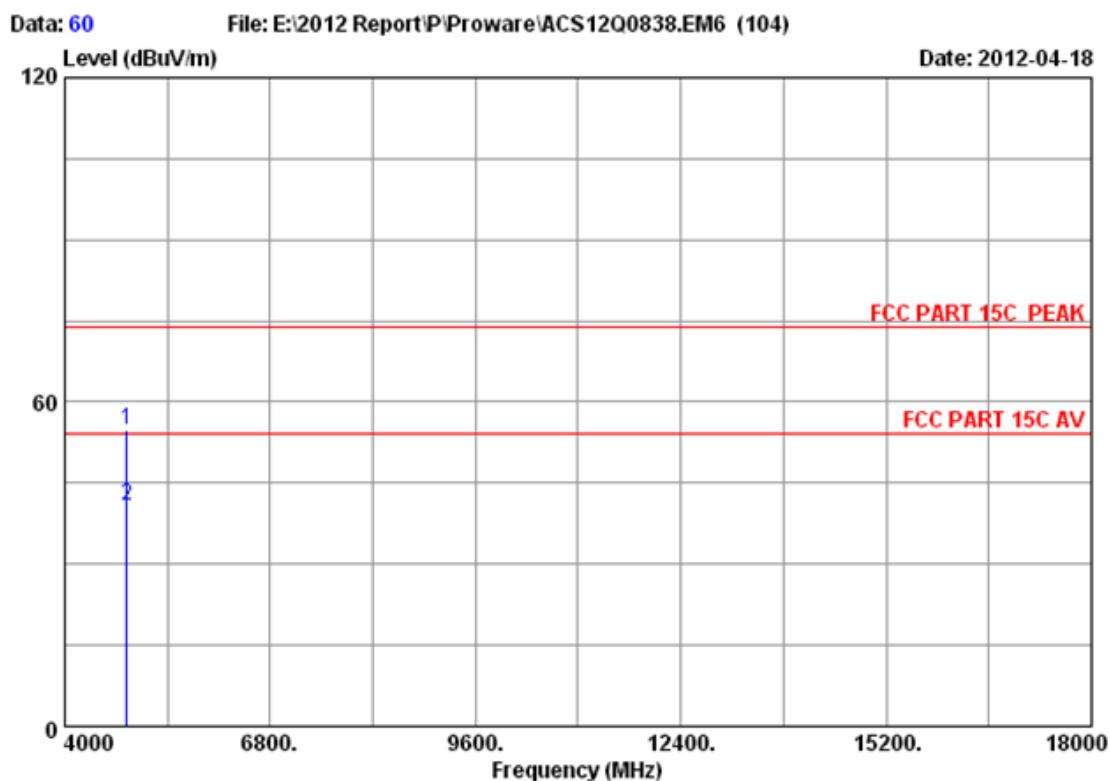
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4824.000     | 34.32                    | 10.64                 | 35.08                  | 45.10             | 54.98             | 74.00              | 19.02          | Peak    |
| 2 4824.000     | 34.32                    | 10.64                 | 35.08                  | 31.33             | 41.21             | 54.00              | 12.79          | 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. : 59  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH3 2422MHz Tx  
M/N : PW-DN551D



Site no. : 3m Chamber Data no. : 60  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH3 2422MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Reading<br>(dBuV) | Emission          |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        |                   | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4844.000     | 34.35                    | 10.67                 | 35.05                  | 44.96             | 54.93             | 74.00              | 19.07          | Peak    |
| 2 4844.000     | 34.35                    | 10.67                 | 35.05                  | 30.65             | 40.62             | 54.00              | 13.38          | Average |

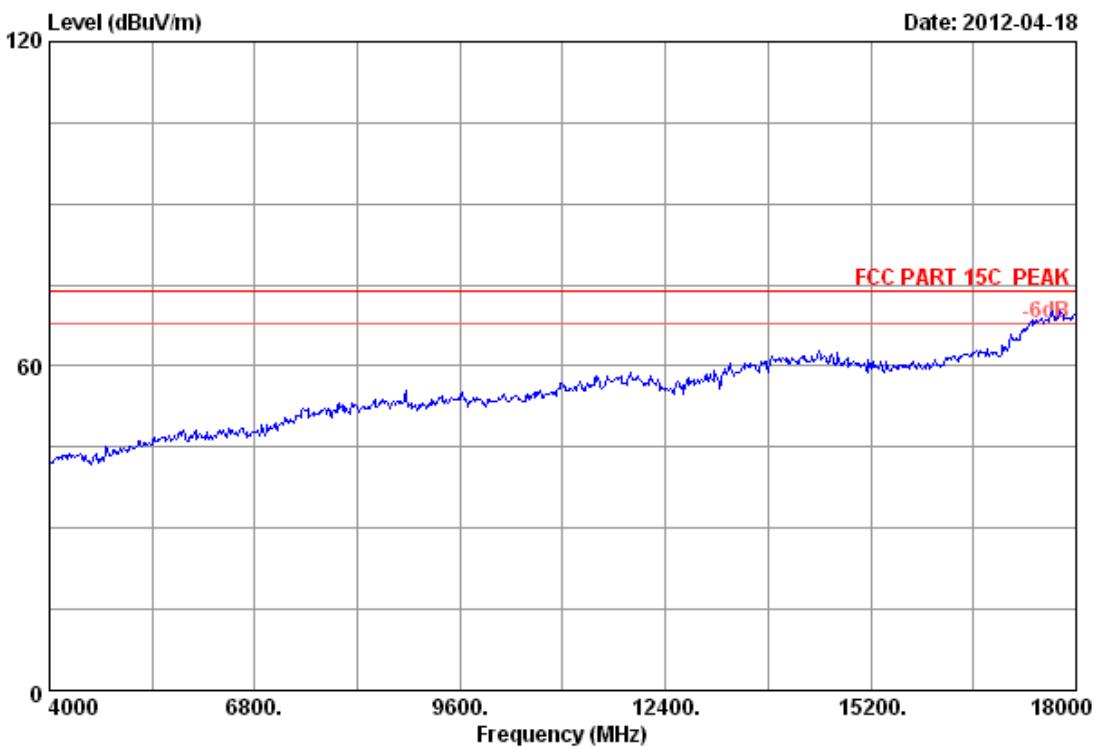
Remarks:

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

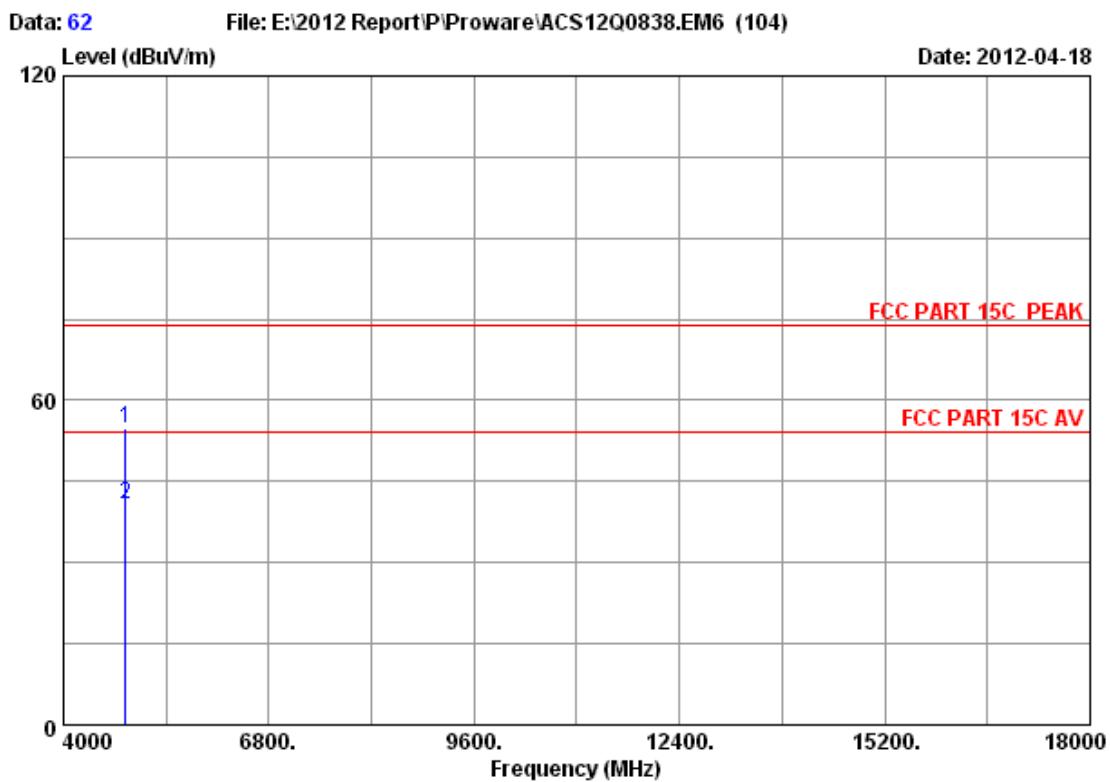
Data: 61

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Date: 2012-04-18



Site no. : 3m Chamber Data no. : 61  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH3 2422MHz Tx  
M/N : PW-DN551D

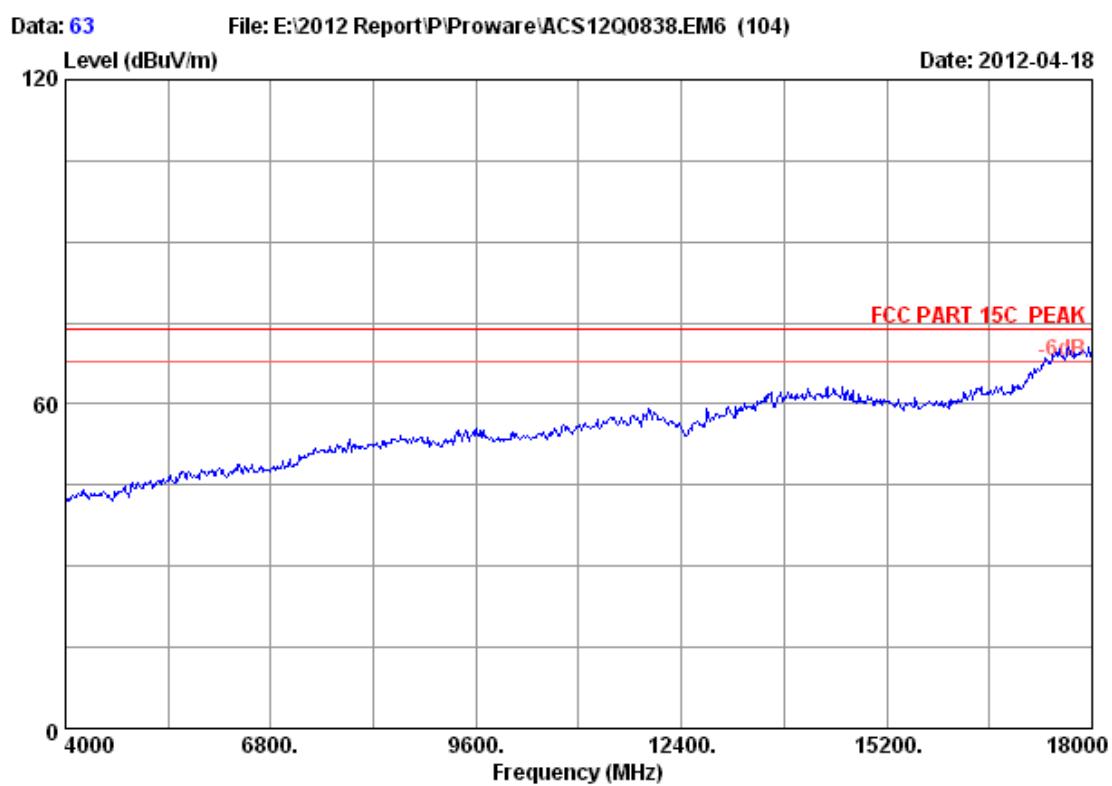


Site no. : 3m Chamber Data no. : 62  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH3 2422MHz Tx  
M/N : PW-DN551D

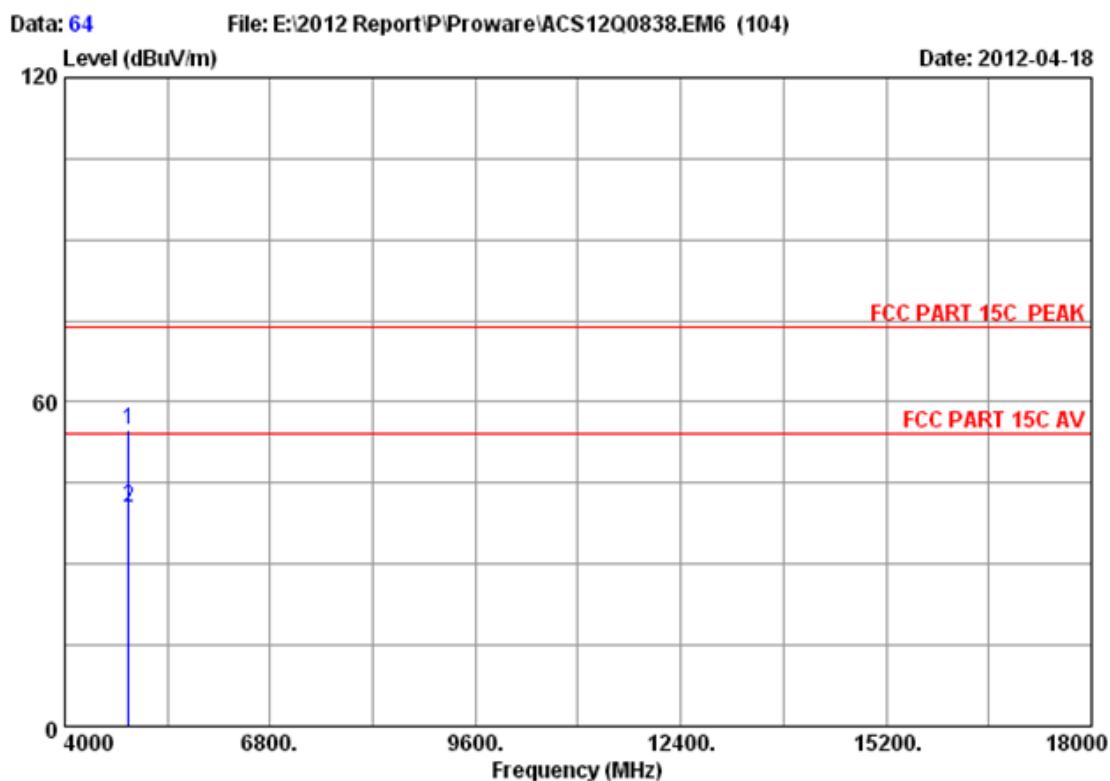
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4844.000     | 34.35                    | 10.67                 | 35.05                  | 44.72             | 54.69             | 74.00              | 19.31          | Peak    |
| 2 4844.000     | 34.35                    | 10.67                 | 35.05                  | 30.69             | 40.66             | 54.00              | 13.34          | 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 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH6 2437MHz Tx  
M/N : PW-DN551D

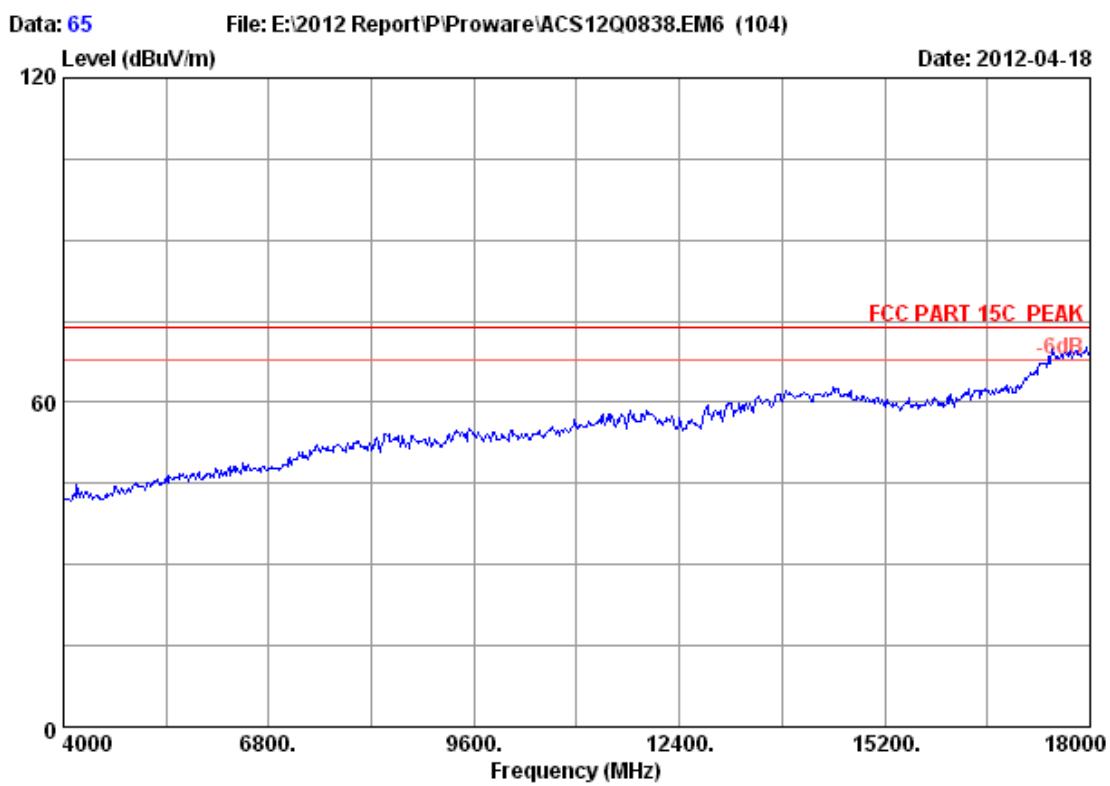


Site no. : 3m Chamber Data no. : 64  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11n HT40 CH6 2437MHz Tx  
 M/N : PW-DN551D

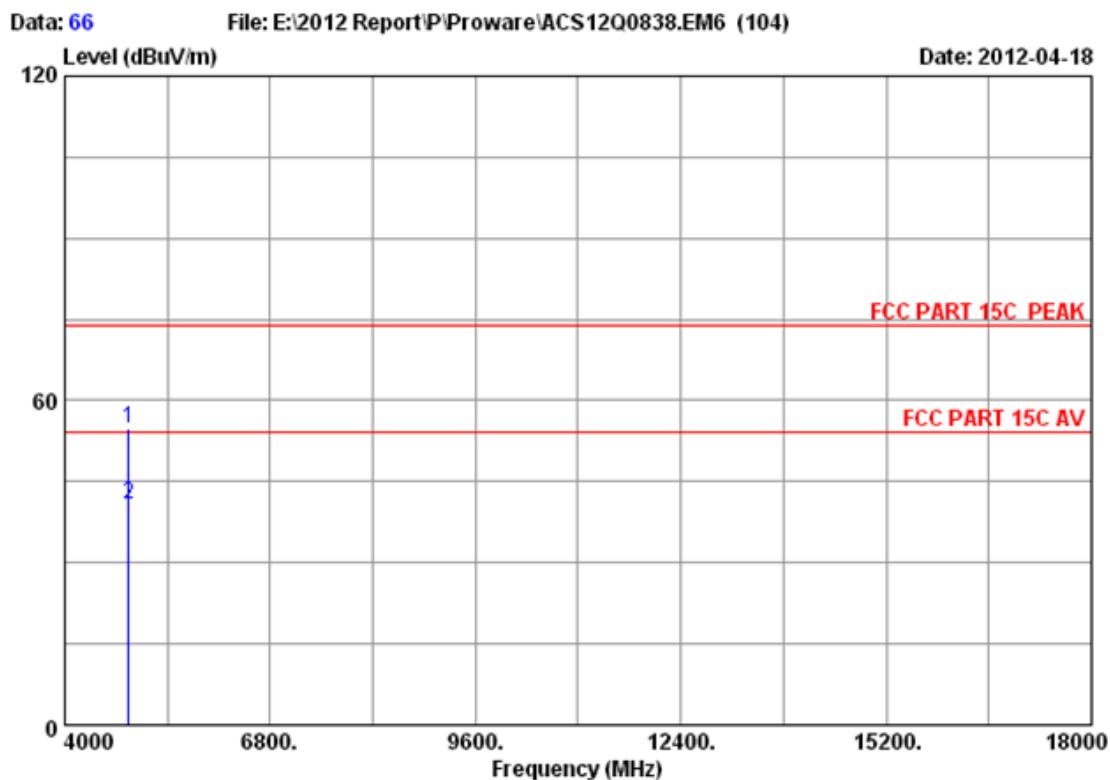
|       | Ant.     | Cable | Amp.   | Emission |          |          |        |               |
|-------|----------|-------|--------|----------|----------|----------|--------|---------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark        |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |               |
| 1     | 4874.000 | 34.41 | 10.69  | 35.03    | 44.77    | 54.84    | 74.00  | 19.16 Peak    |
| 2     | 4874.000 | 34.41 | 10.69  | 35.03    | 30.48    | 40.55    | 54.00  | 13.45 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. : 65  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH6 2437MHz Tx  
M/N : PW-DN551D

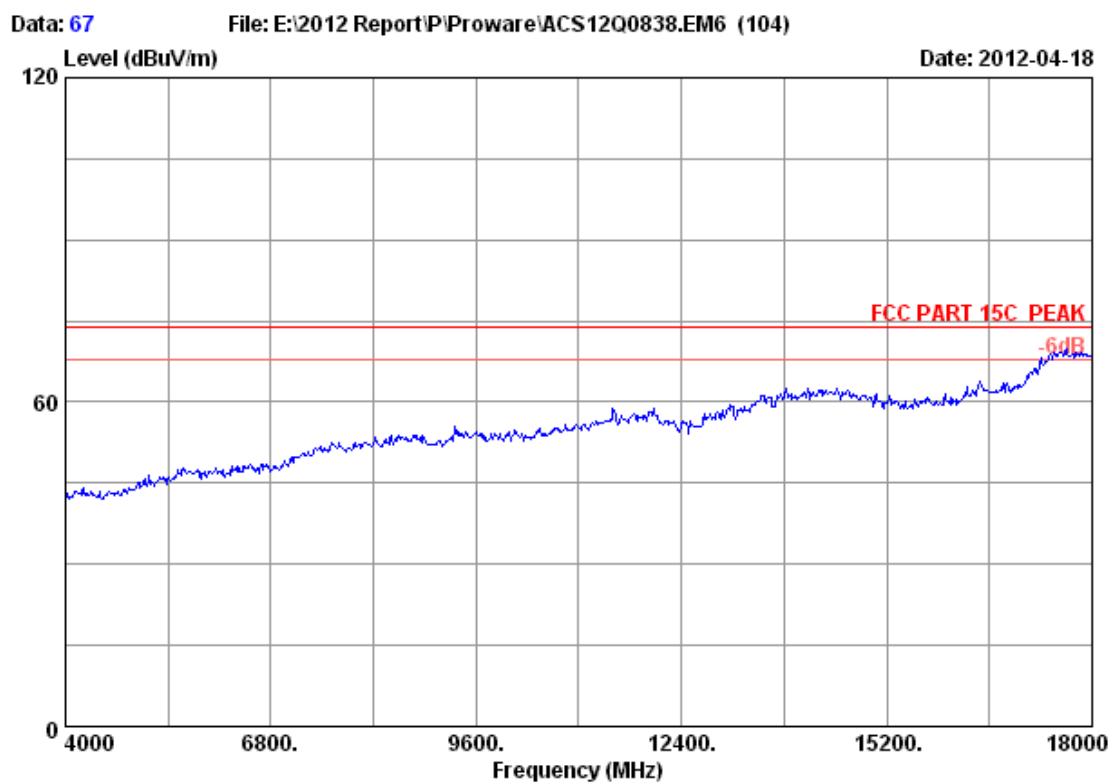


Site no. : 3m Chamber Data no. : 66  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH6 2437MHz Tx  
M/N : PW-DN551D

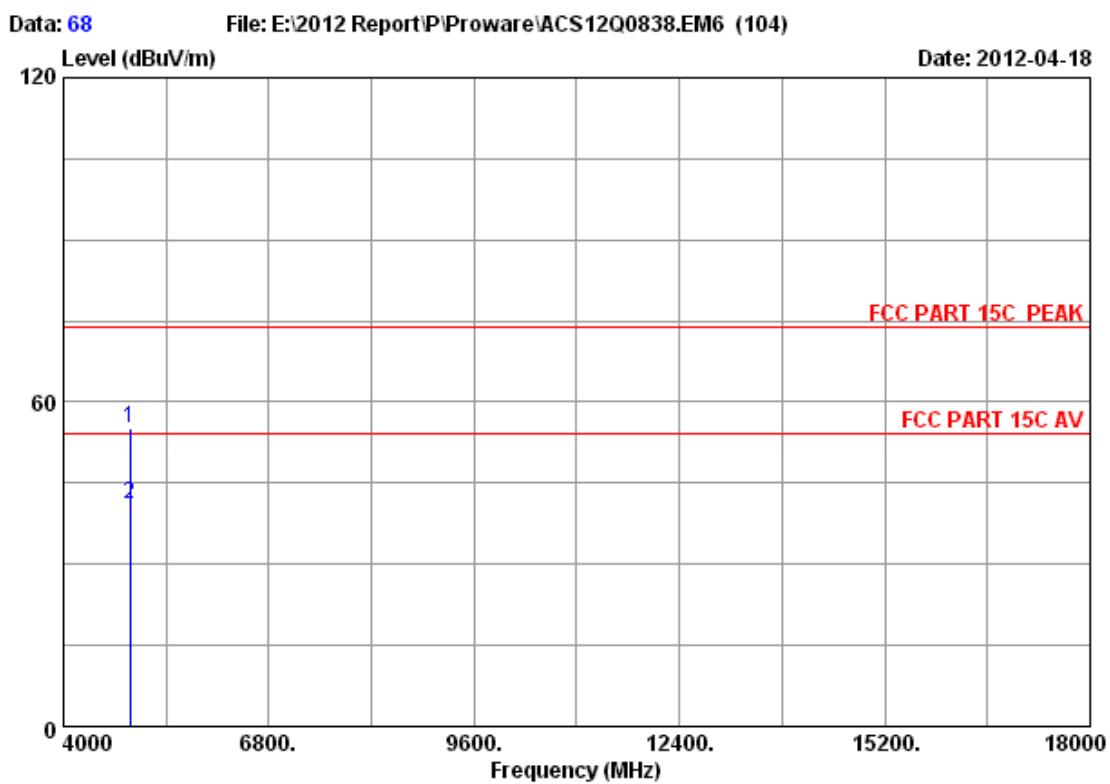
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4874.000     | 34.41                    | 10.69                 | 35.03                  | 44.60             | 54.67             | 74.00              | 19.33          | Peak    |
| 2 4874.000     | 34.41                    | 10.69                 | 35.03                  | 30.81             | 40.88             | 54.00              | 13.12          | 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 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH9 2452MHz Tx  
M/N : PW-DN551D

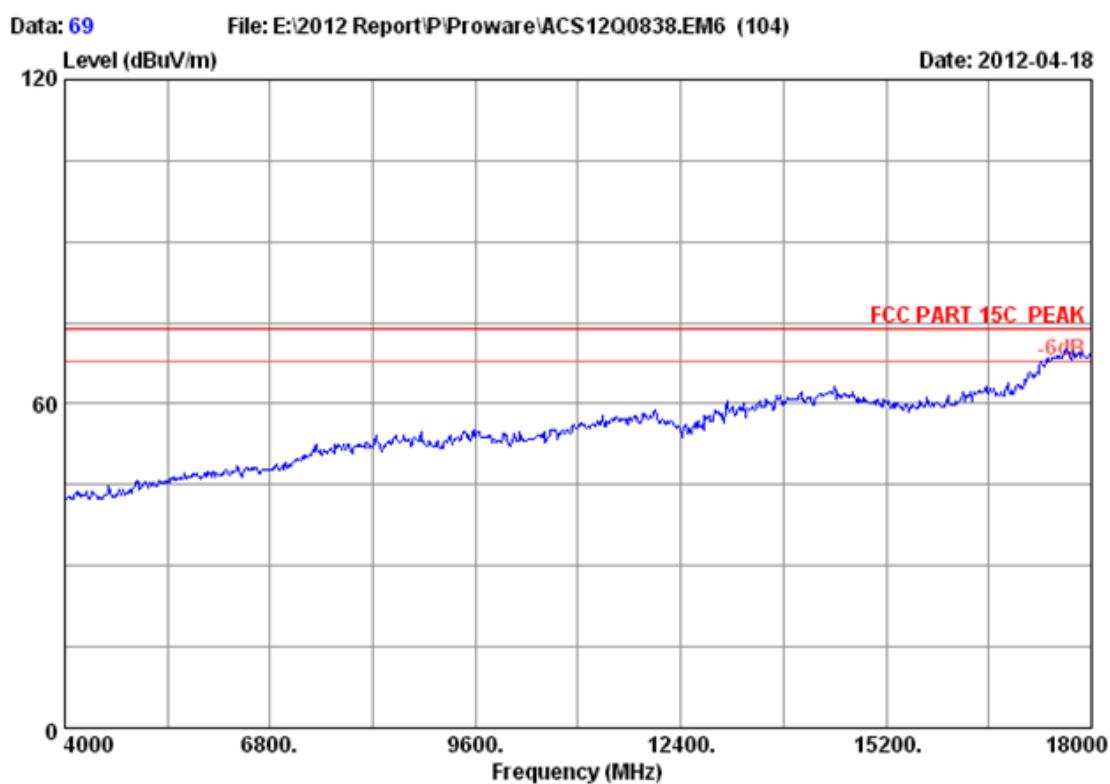


Site no. : 3m Chamber Data no. : 68  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11n HT40 CH9 2452MHz Tx  
 M/N : PW-DN551D

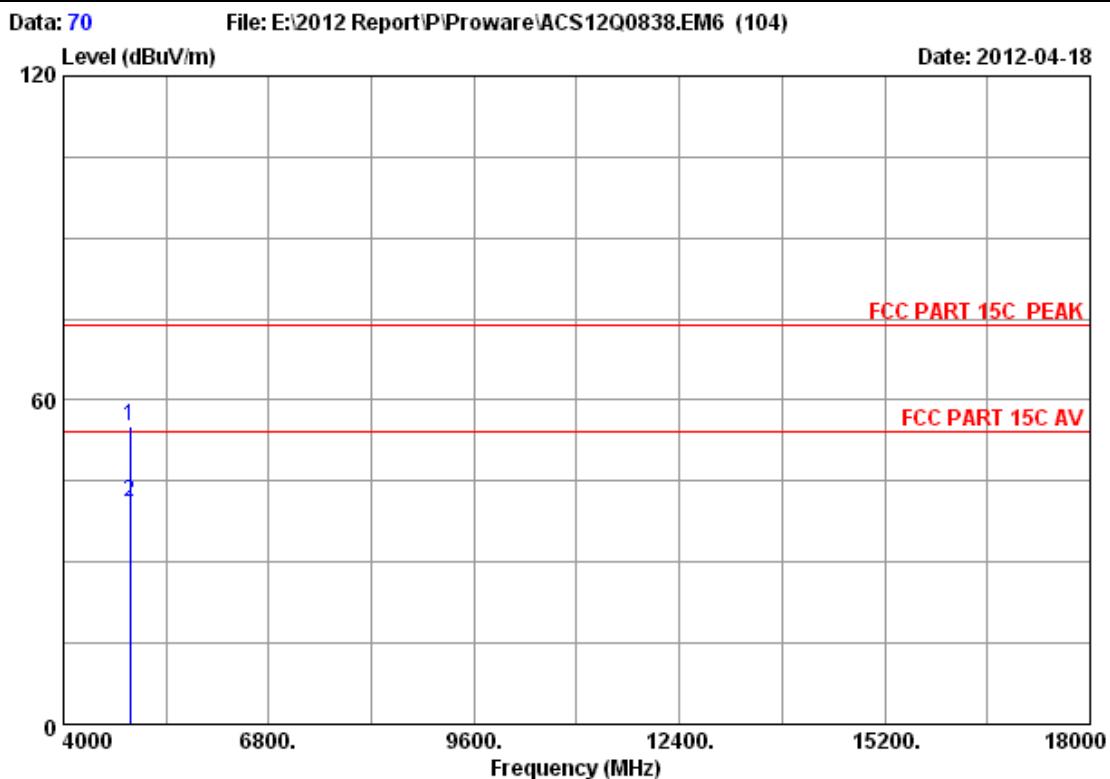
| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |         |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|---------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
| 1 4904.000     | 34.46                    | 10.74                 | 35.00                  | 44.83             | 55.03             | 74.00              | 18.97          | Peak    |
| 2 4904.000     | 34.46                    | 10.74                 | 35.00                  | 30.84             | 41.04             | 54.00              | 12.96          | 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. : 69  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH9 2452MHz Tx  
M/N : PW-DN551D

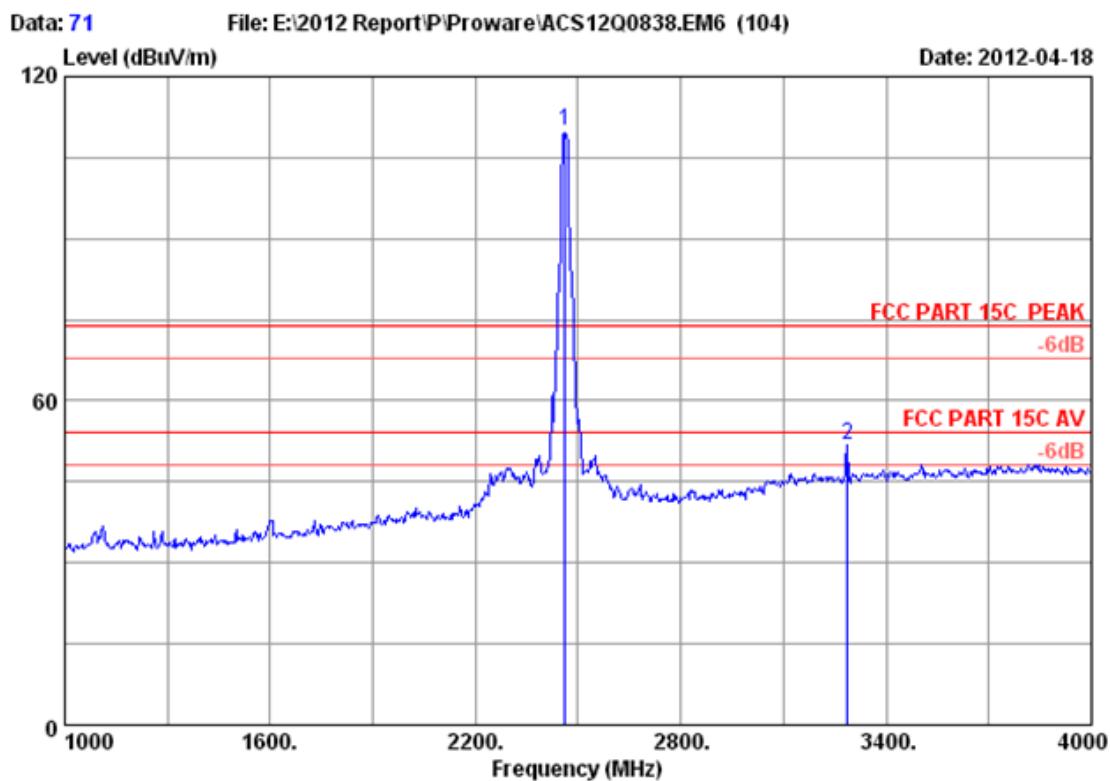


Site no. : 3m Chamber Data no. : 70  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH9 2452MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |        |               |
|-------|----------|-------|--------|----------|----------|----------|--------|---------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark        |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |               |
| 1     | 4904.000 | 34.46 | 10.74  | 35.00    | 44.90    | 55.10    | 74.00  | 18.90 Peak    |
| 2     | 4904.000 | 34.46 | 10.74  | 35.00    | 30.99    | 41.19    | 54.00  | 12.81 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.

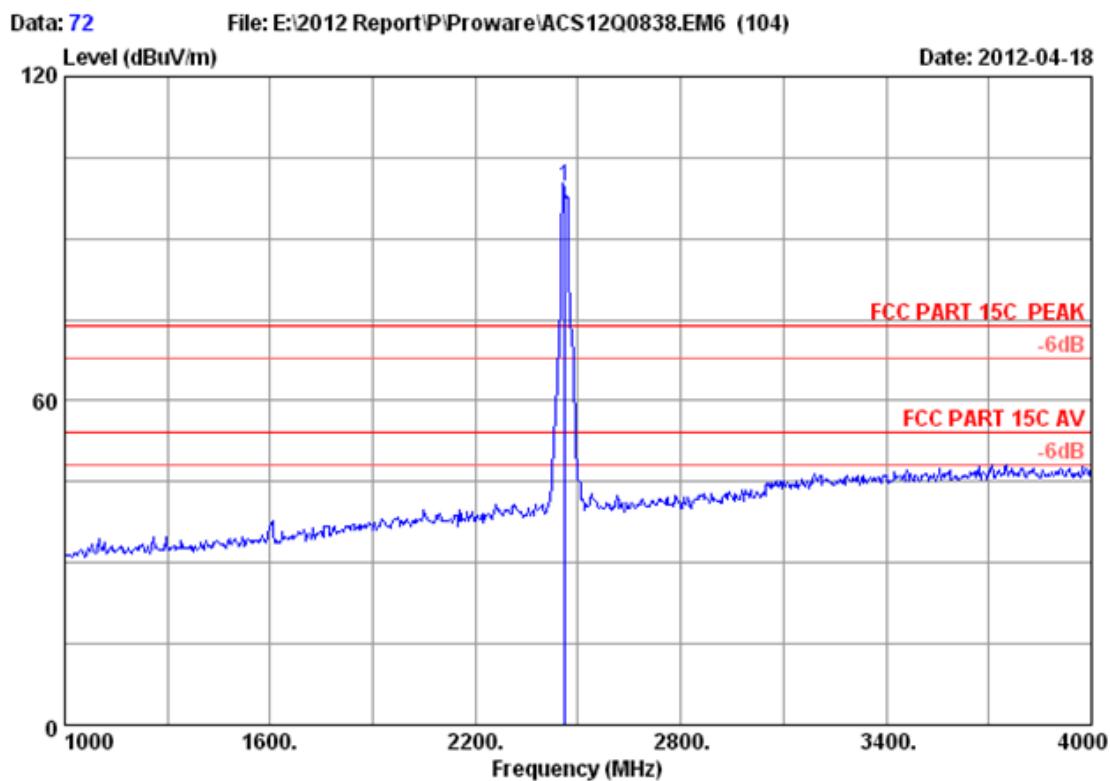


Site no. : 3m Chamber Data no. : 71  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH11 2462MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2462.000     | 29.48                    | 7.54                  | 36.61                  | 109.44            | 109.85            | 74.00              | -35.85         | Peak   |
| 2 3286.000     | 32.72                    | 8.88                  | 36.20                  | 46.26             | 51.66             | 74.00              | 22.34          | 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.

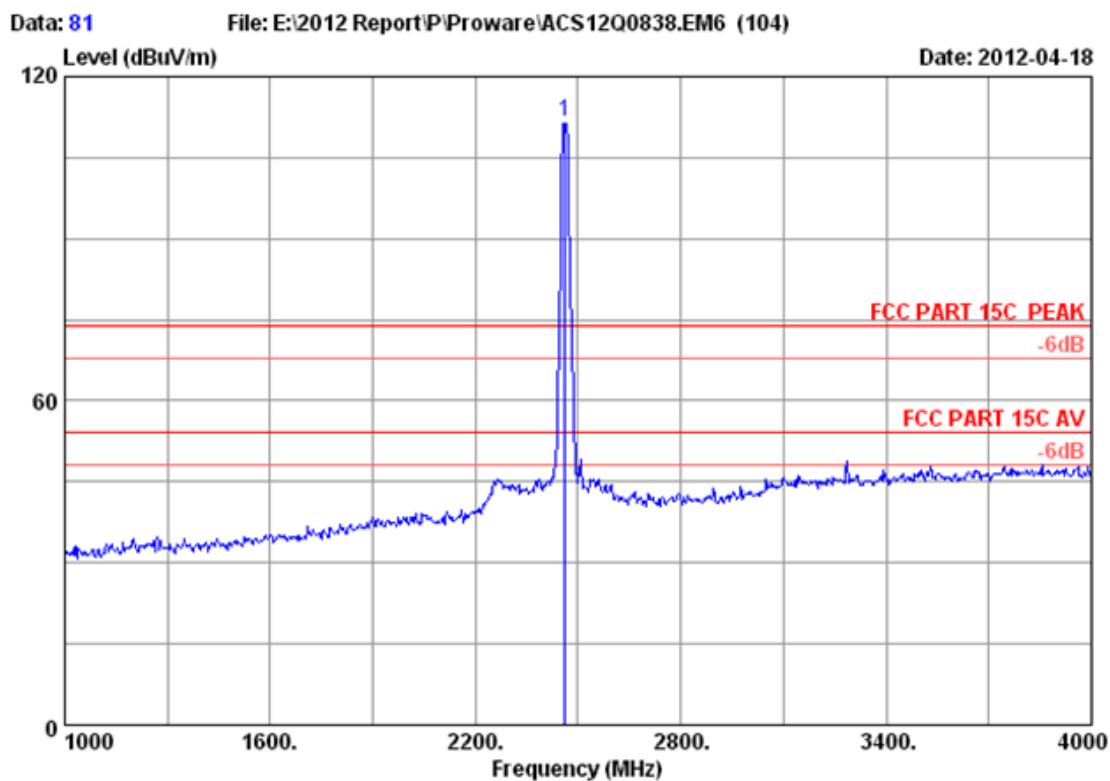


Site no. : 3m Chamber Data no. : 72  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11g CH11 2462MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2462.000 | 29.48 | 7.54   | 36.61    | 99.28    | 99.69    | 74.00 -25.69 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.

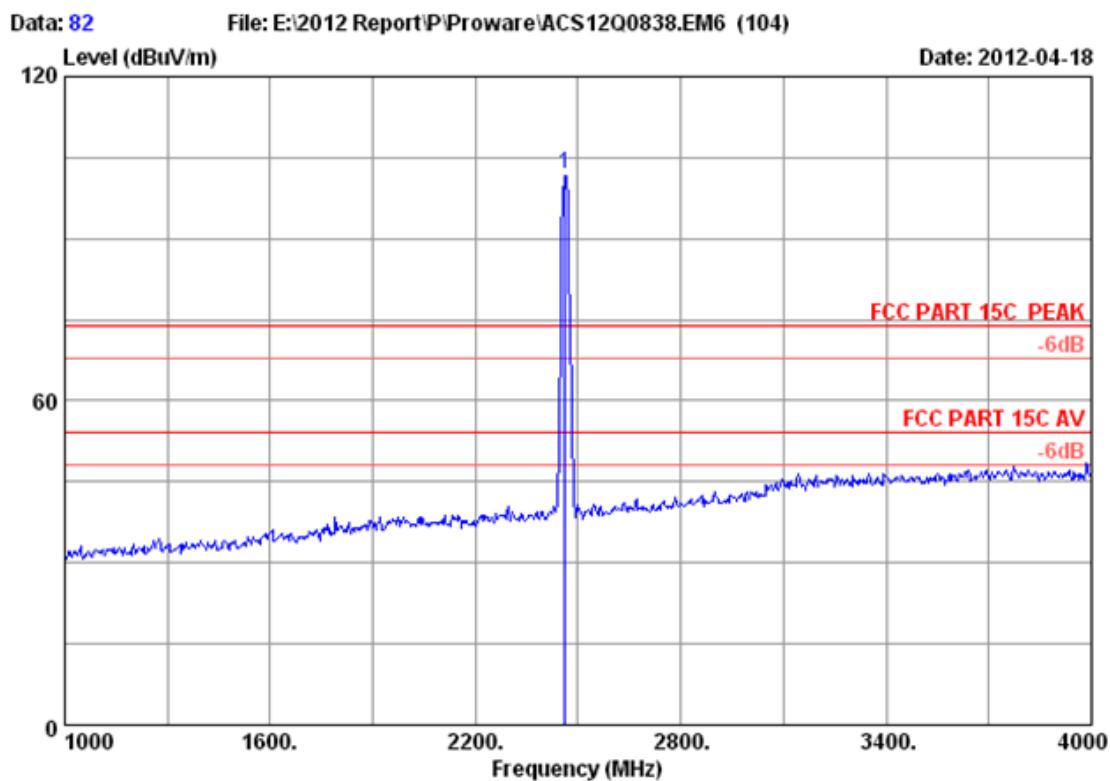


Site no. : 3m Chamber Data no. : 81  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2462.000 | 29.48 | 7.54   | 36.61    | 111.12   | 111.53   | 74.00 -37.53 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.

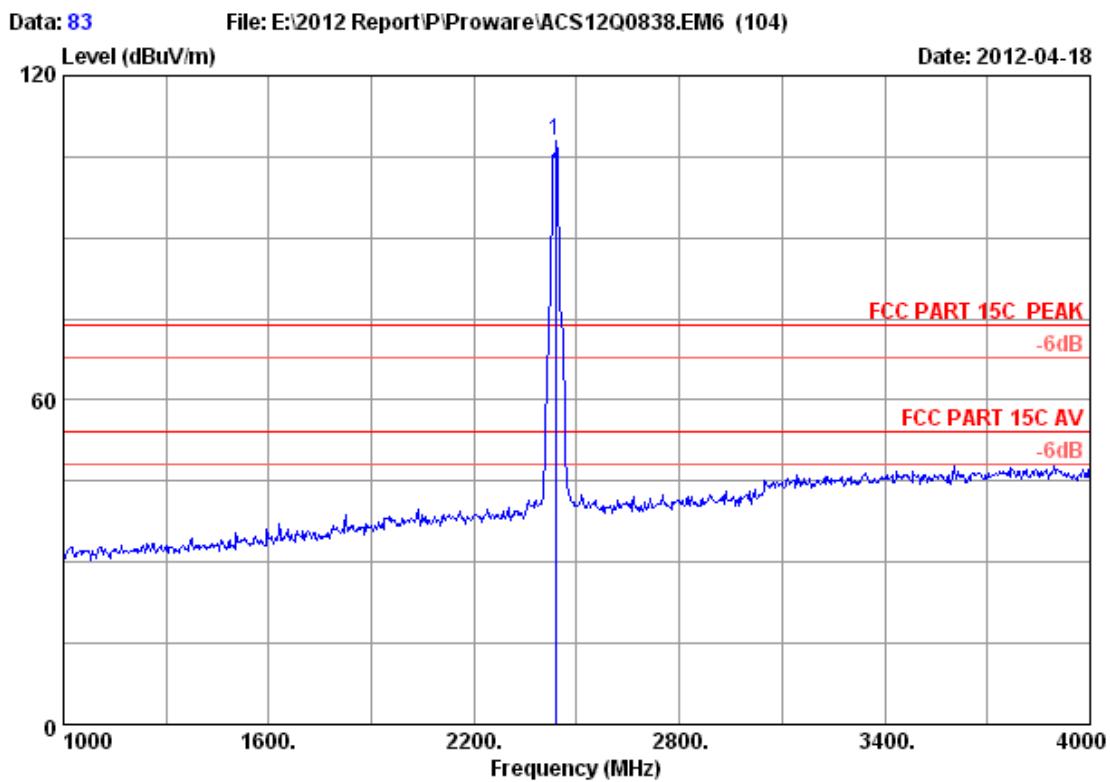


Site no. : 3m Chamber Data no. : 82  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2462.000 | 29.48 | 7.54   | 36.61    | 101.48   | 101.89   | 74.00 -27.89 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.

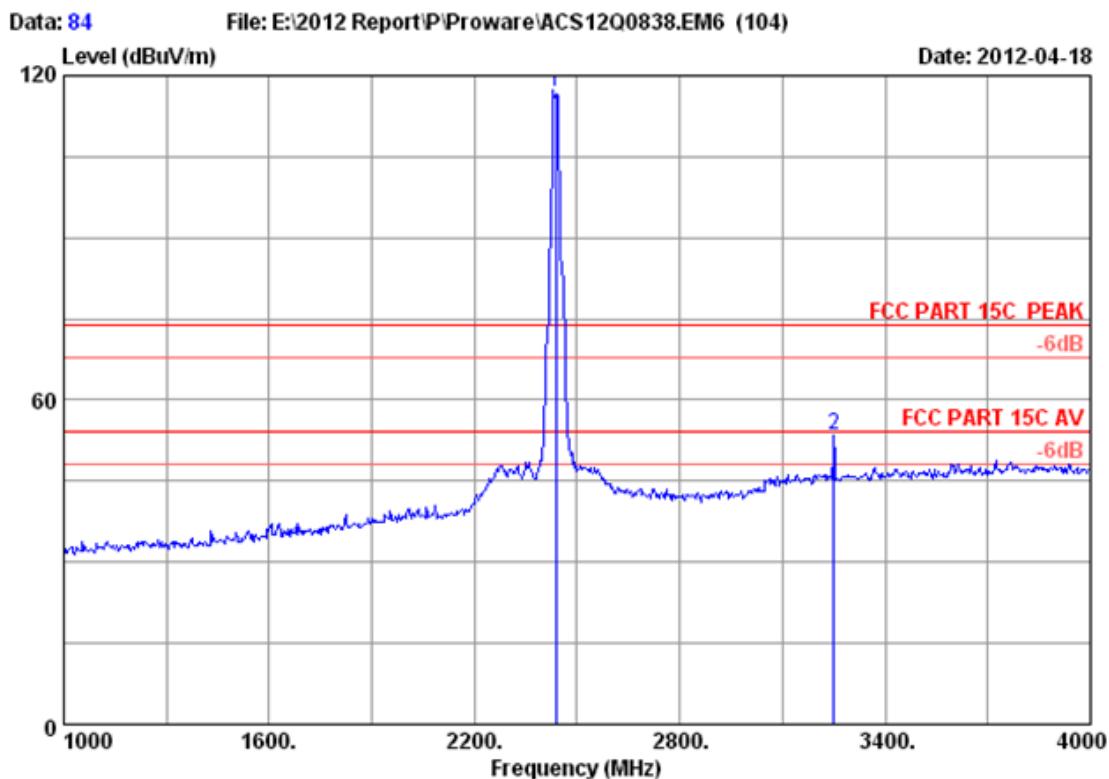


Site no. : 3m Chamber Data no. : 83  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11n HT20 CH6 2437MHz Tx  
 M/N : PW-DN551D

|            | Ant.   | Cable | Amp.   | Emission |          |          |        |        |
|------------|--------|-------|--------|----------|----------|----------|--------|--------|
| Freq.      | Factor | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark |
| (MHz)      | (dB/m) | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1 2437.000 | 29.47  | 7.46  | 36.61  | 107.58   | 107.90   | 74.00    | -33.90 | 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 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH6 2437MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2437.000     | 29.47                    | 7.46                  | 36.61                  | 116.55            | 116.87            | 74.00              | -42.87         | Peak   |
| 2 3250.000     | 32.63                    | 8.83                  | 36.25                  | 48.36             | 53.57             | 74.00              | 20.43          | Peak   |

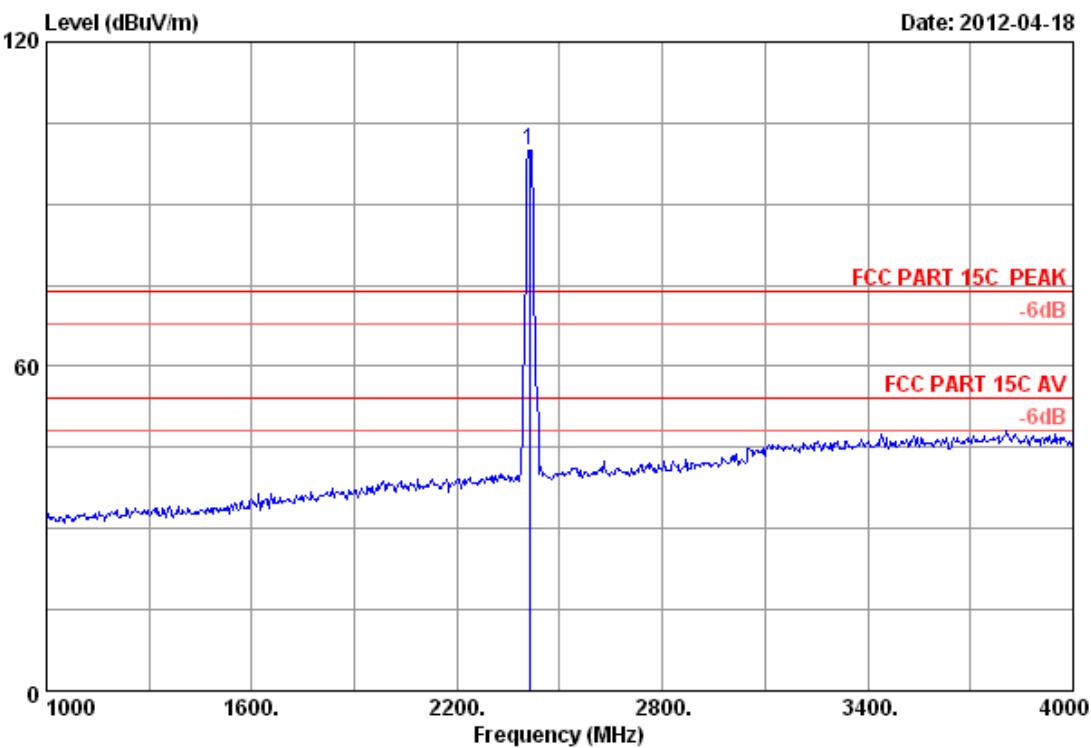
Remarks:

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

Data: 89

File: E:\2012 Report\P\Proware\ACS12Q0838.EM6 (104)

Date: 2012-04-18

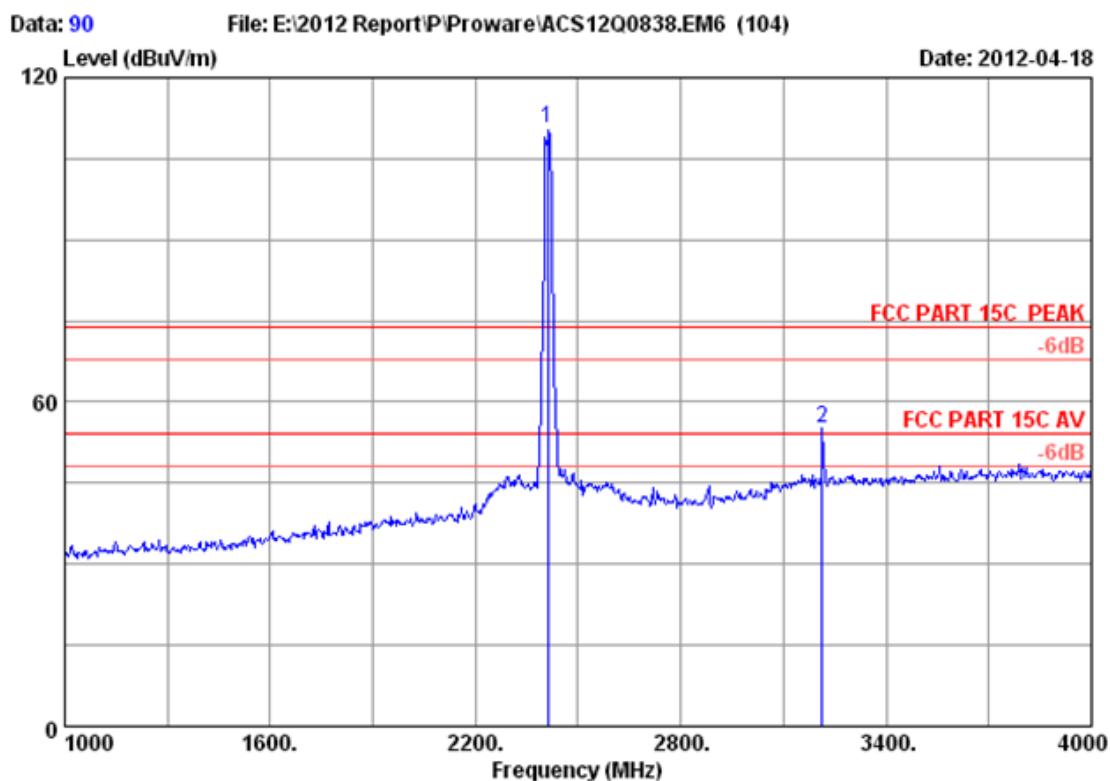


Site no. : 3m Chamber Data no. : 89  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2412.000 | 29.45 | 7.43   | 36.62    | 99.56    | 99.82    | 74.00 -25.82 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.



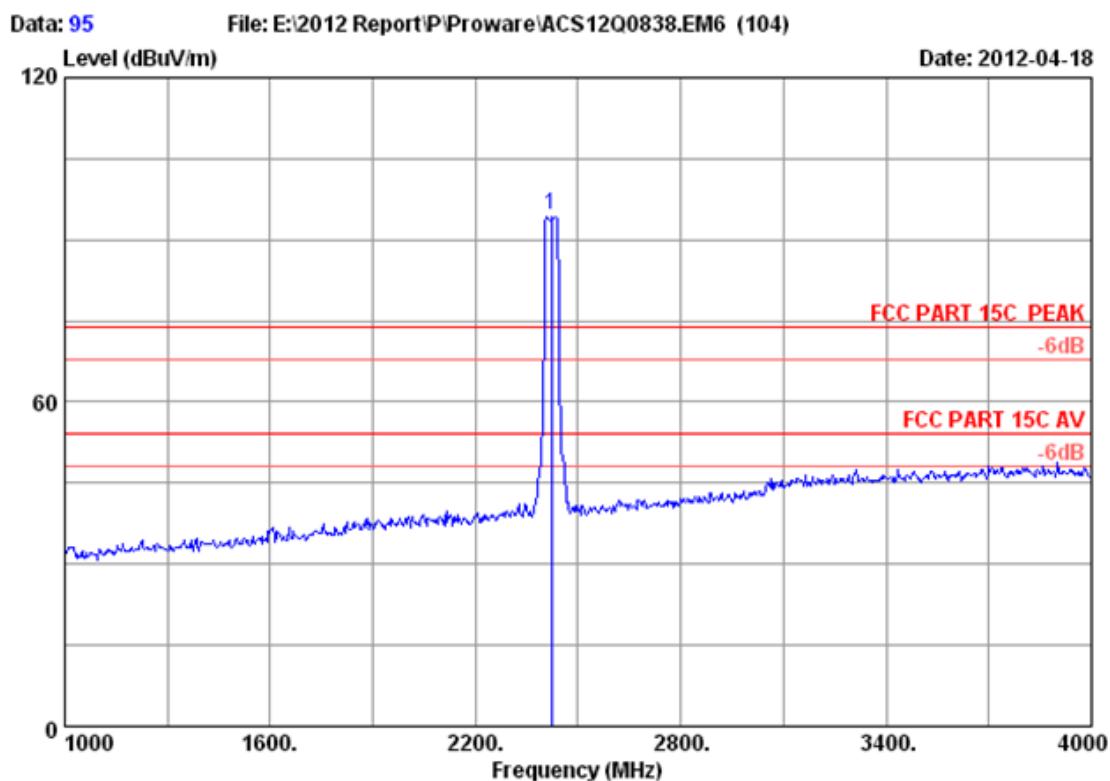
Site no. : 3m Chamber Data no. : 90  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |  |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|--|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |  |
| <hr/>          |                          |                       |                        |                   |                   |                    |                |        |  |
| 1 2412.000     | 29.45                    | 7.43                  | 36.62                  | 110.31            | 110.57            | 74.00              | -36.57         | Peak   |  |
| 2 3214.000     | 32.54                    | 8.79                  | 36.28                  | 49.96             | 55.01             | 74.00              | 18.99          | Peak   |  |

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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.

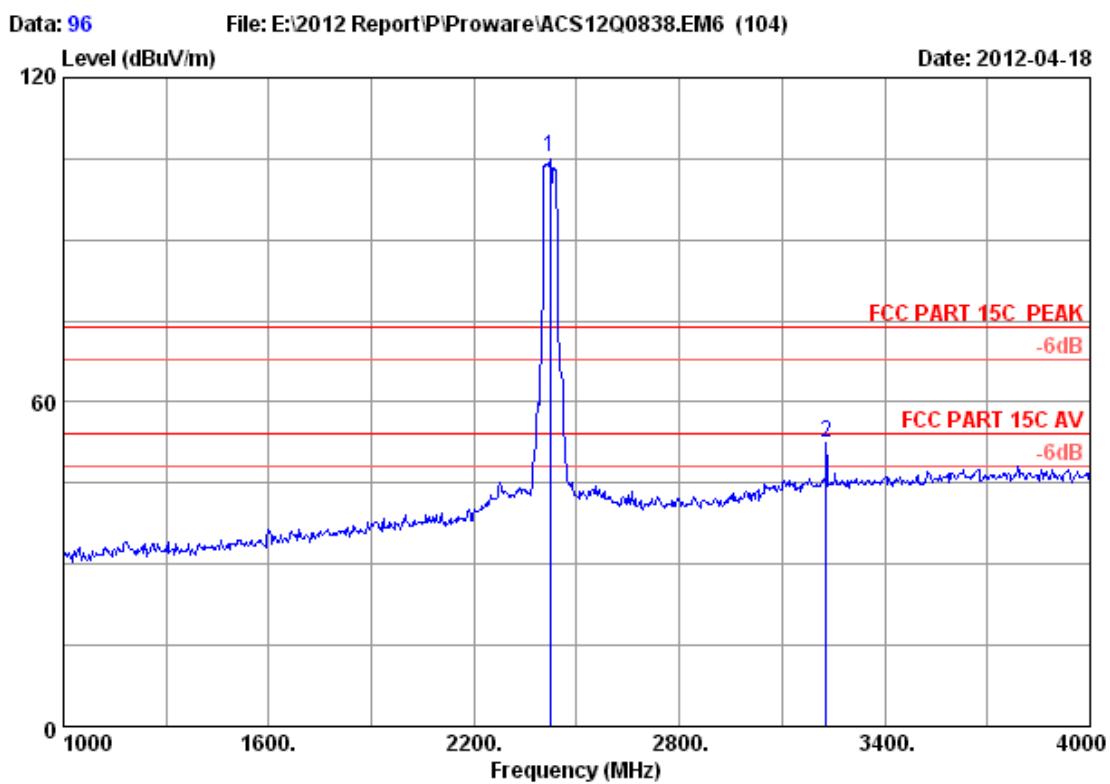


Site no. : 3m Chamber Data no. : 95  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH3 2422MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2422.000 | 29.46 | 7.46   | 36.61    | 94.42    | 94.73    | 74.00 -20.73 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. : 96  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH3 2422MHz Tx  
M/N : PW-DN551D

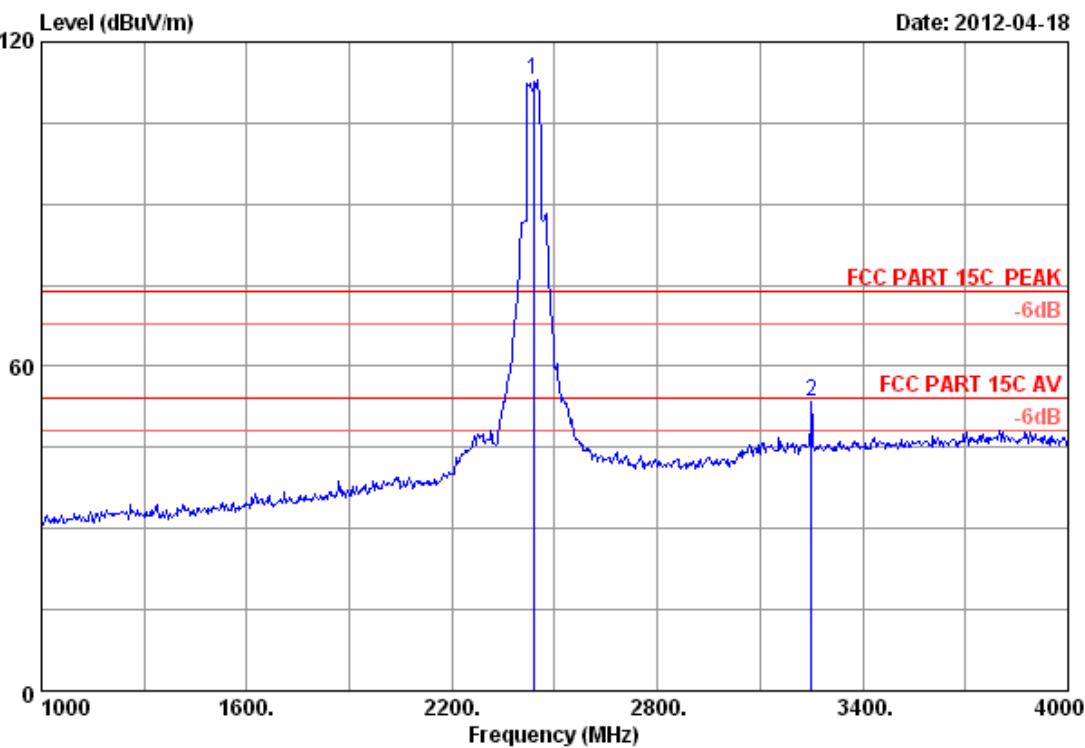
|       | Ant.     | Cable | Amp.   | Emission |          |          |        |             |
|-------|----------|-------|--------|----------|----------|----------|--------|-------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin | Remark      |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)   |             |
| 1     | 2422.000 | 29.46 | 7.46   | 36.61    | 104.95   | 105.26   | 74.00  | -31.26 Peak |
| 2     | 3229.000 | 32.58 | 8.81   | 36.28    | 47.24    | 52.35    | 74.00  | 21.65 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.

Data: 97 File: E:\2012 Report\P\Proware\ACS12Q0838.EM6 (104)

Date: 2012-04-18

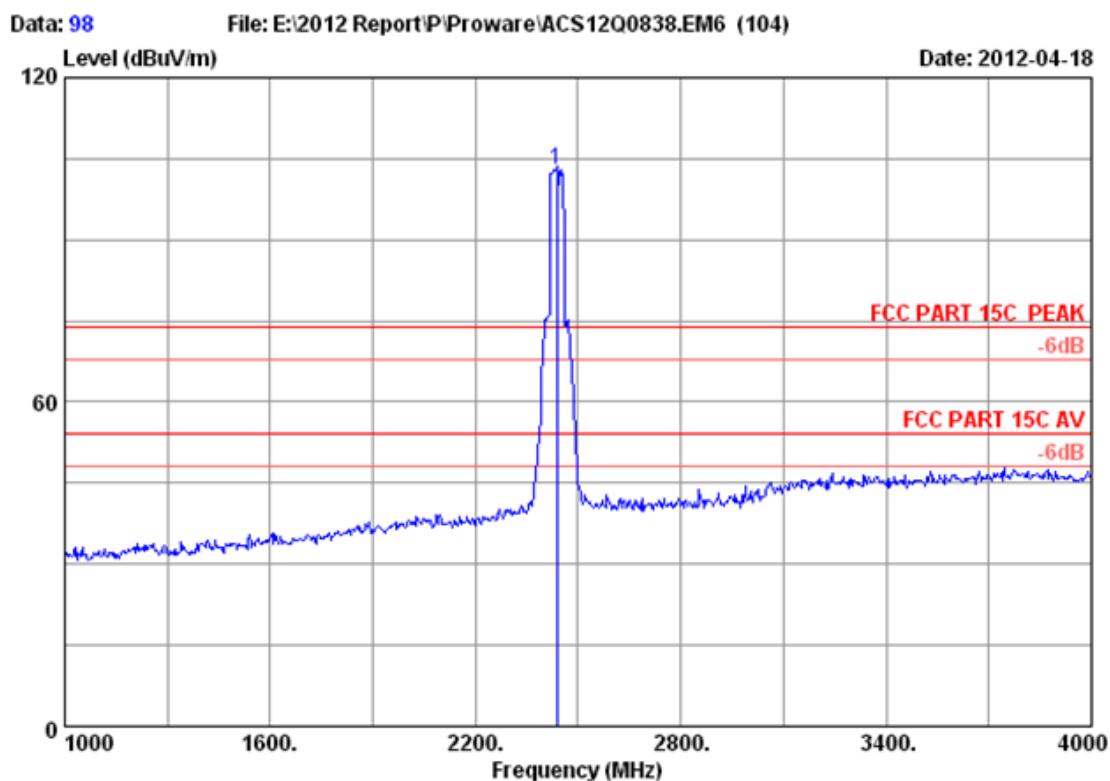


Site no. : 3m Chamber Data no. : 97  
 Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54% Engineer : Leo-Li  
 EUT : 300Mbps Wireless N PCI Adapter  
 Power supply : DC 3.3V From PC input AC 120V/60Hz  
 Test mode : IEEE802.11n HT40 CH6 2437MHz Tx  
 M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2437.000     | 29.47                    | 7.46                  | 36.61                  | 112.68            | 113.00            | 74.00              | -39.00         | Peak   |
| 2 3250.000     | 32.63                    | 8.83                  | 36.25                  | 48.16             | 53.37             | 74.00              | 20.63          | 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.

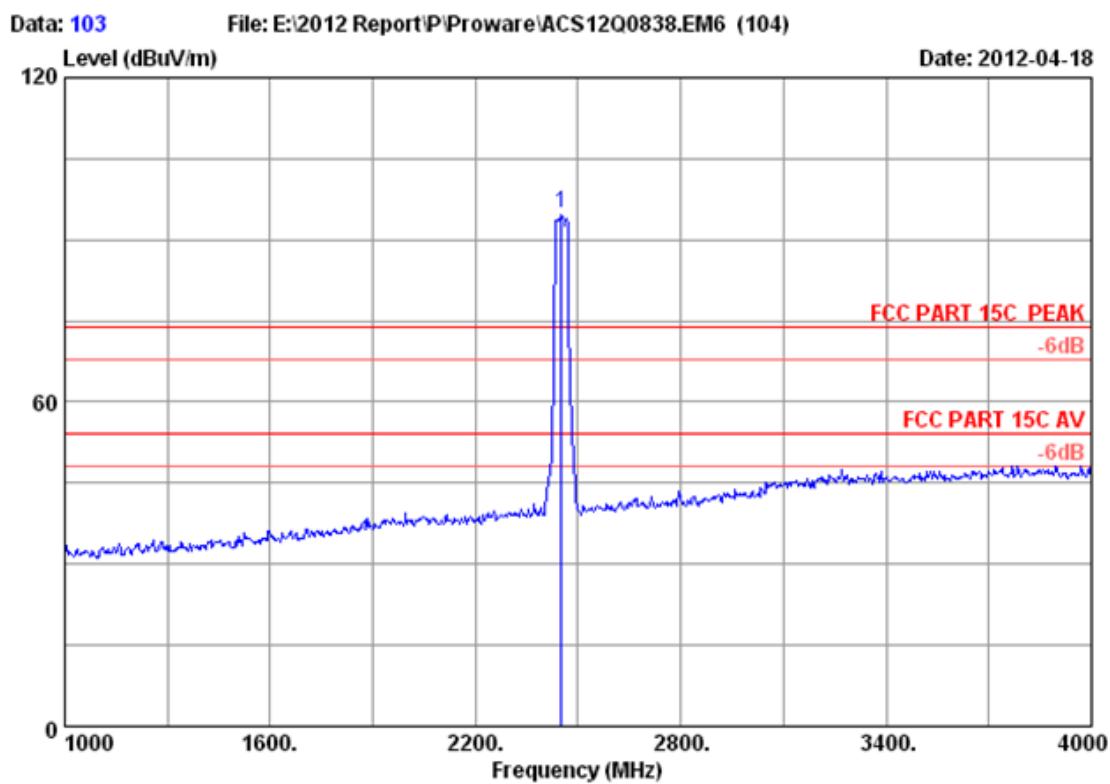


Site no. : 3m Chamber Data no. : 98  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH6 2437MHz Tx  
M/N : PW-DN551D

|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2437.000 | 29.47 | 7.46   | 36.61    | 102.68   | 103.00   | 74.00 -29.00 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. : 103  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH9 2452MHz Tx  
M/N : PW-DN551D

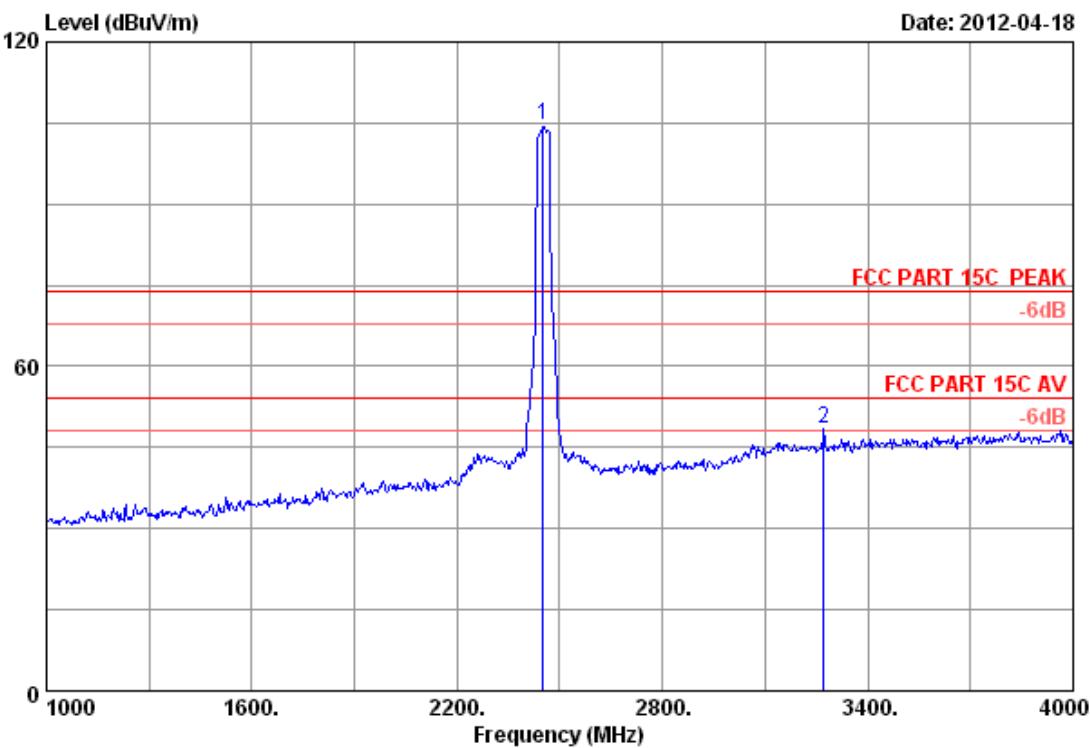
|       | Ant.     | Cable | Amp.   | Emission |          |          |                   |
|-------|----------|-------|--------|----------|----------|----------|-------------------|
| Freq. | Factor   | loss  | Factor | Reading  | Level    | Limits   | Margin            |
| (MHz) | (dB/m)   | (dB)  | (dB)   | (dBuV)   | (dBuV/m) | (dBuV/m) | (dB)              |
| 1     | 2452.000 | 29.47 | 7.50   | 36.61    | 94.67    | 95.03    | 74.00 -21.03 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.

Data: 104 File: E:\2012 Report\P\Proware\ACS12Q0838.EM6 (104)

Date: 2012-04-18



Site no. : 3m Chamber Data no. : 104  
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL  
Limit : FCC PART 15C PEAK  
Env. / Ins. : 23°C/54% Engineer : Leo-Li  
EUT : 300Mbps Wireless N PCI Adapter  
Power supply : DC 3.3V From PC input AC 120V/60Hz  
Test mode : IEEE802.11n HT40 CH9 2452MHz Tx  
M/N : PW-DN551D

| Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>loss<br>(dB) | Amp.<br>Factor<br>(dB) | Emission          |                   |                    |                |        |
|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------|--------------------|----------------|--------|
|                |                          |                       |                        | Reading<br>(dBuV) | Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
| 1 2452.000     | 29.47                    | 7.50                  | 36.61                  | 104.18            | 104.54            | 74.00              | -30.54         | Peak   |
| 2 3271.000     | 32.72                    | 8.86                  | 36.22                  | 43.14             | 48.50             | 74.00              | 25.50          | Peak   |

## Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 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.08,11 | 1 Year        |
| 2.   | Attenuator        | Agilent      | 8491B       | MY39262165 | May.08,11 | 1 Year        |
| 3.   | RF Cable          | Hubersuhner  | SUCOFLEX102 | 28618/2    | May.08,11 | 1 Year        |

### 5.2. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is 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.

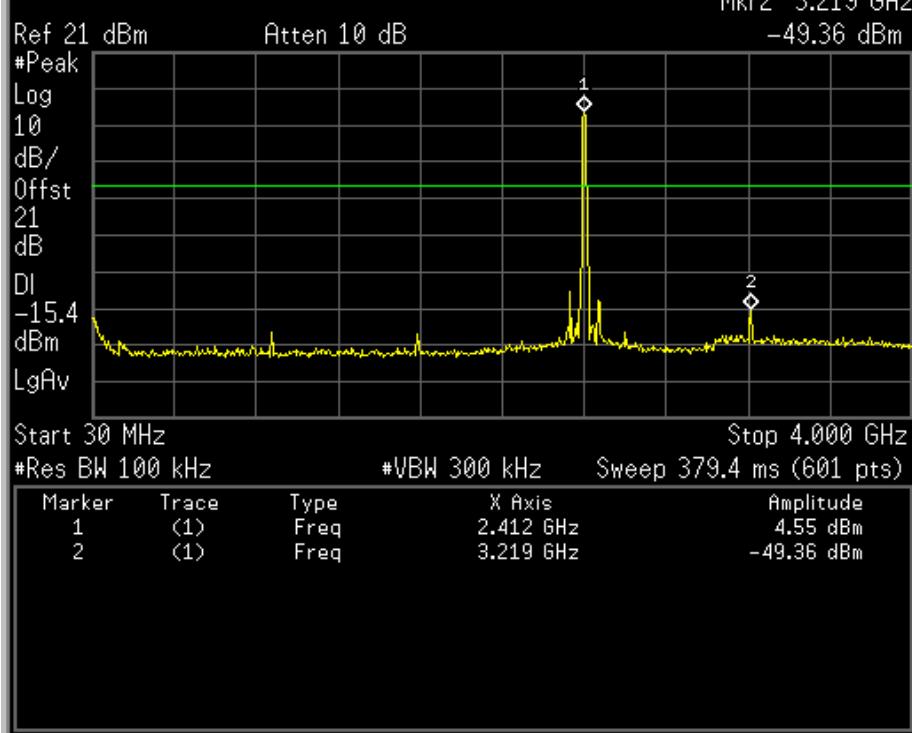
### 5.4. Test result

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

**Chain 0:**

Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz

**Agilent****Display****Full Screen****Display Line**

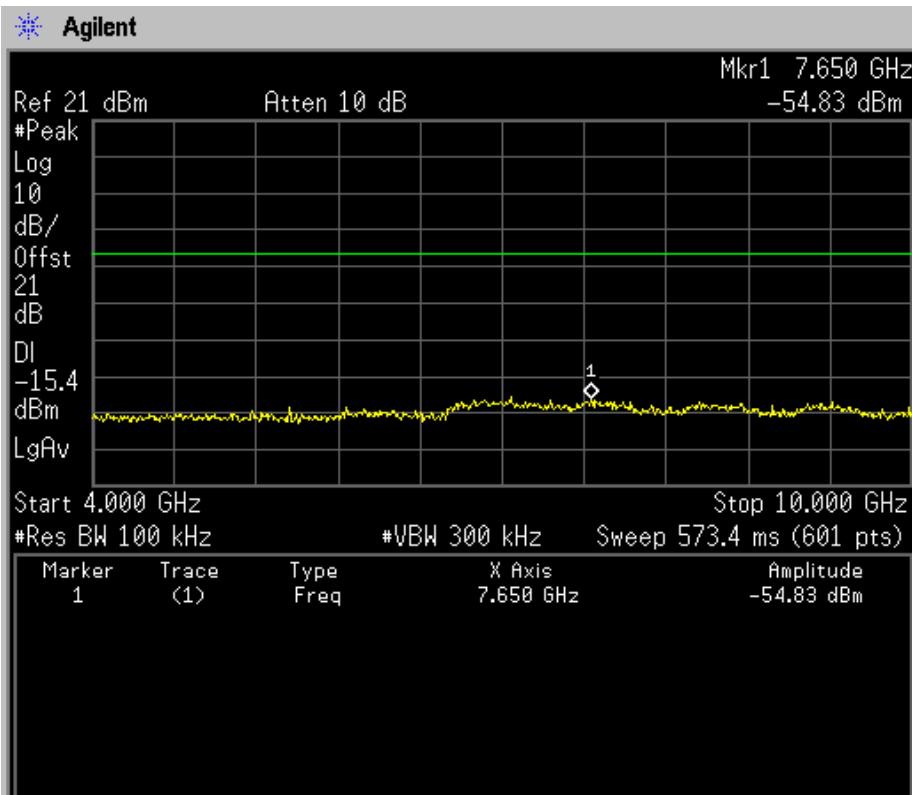
On Off

**Limits****Active Fctn Position**

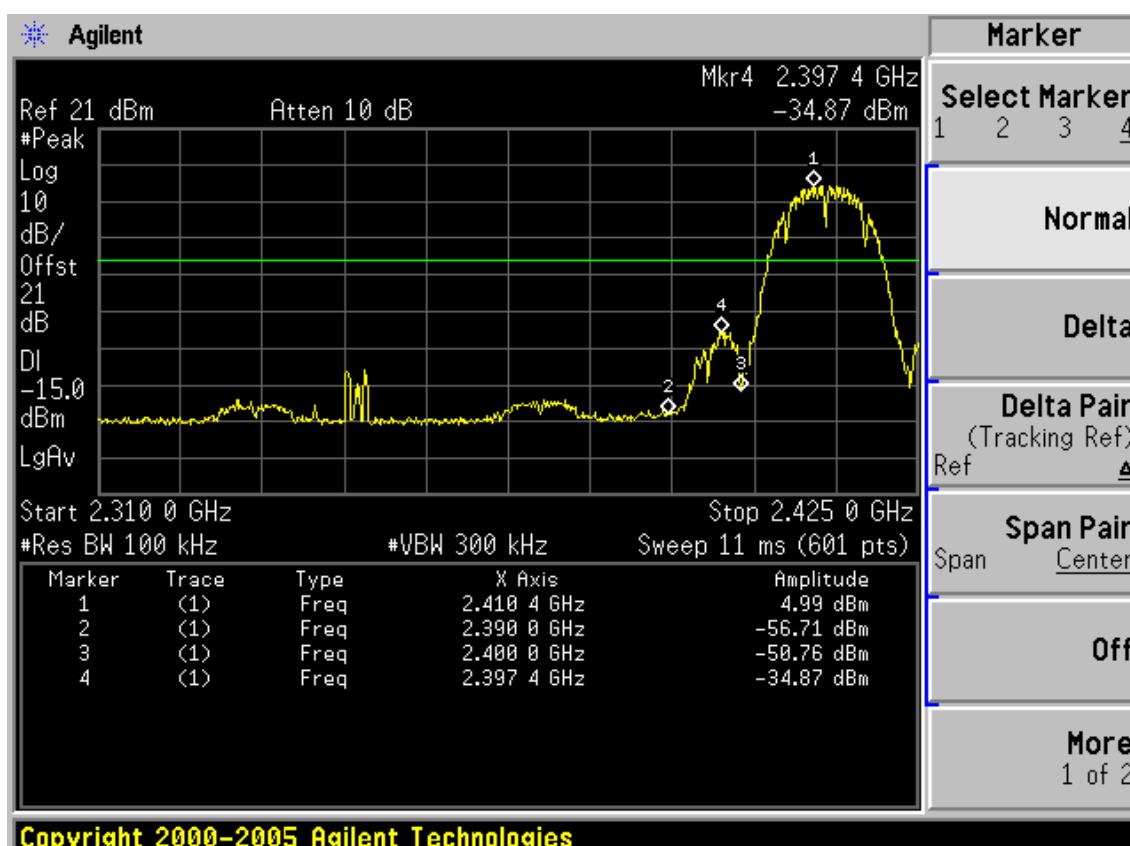
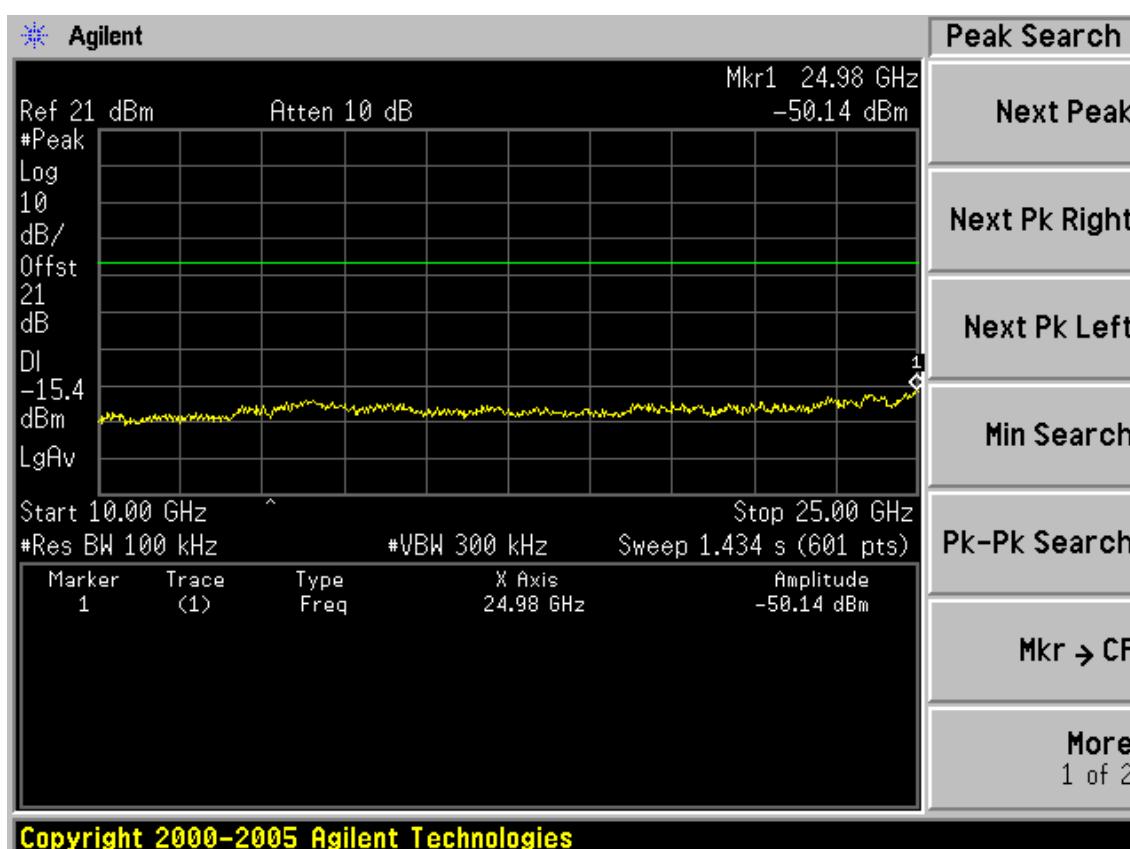
Bottom

**Title****Preferences**

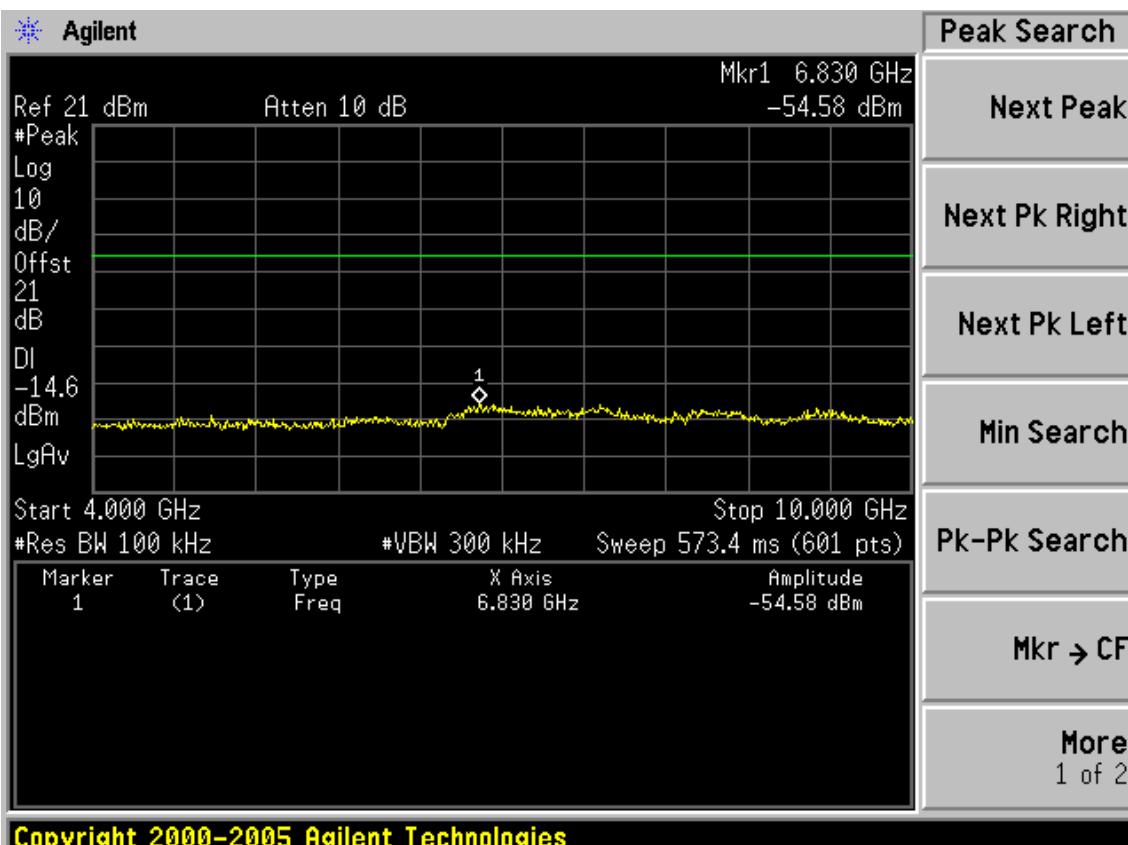
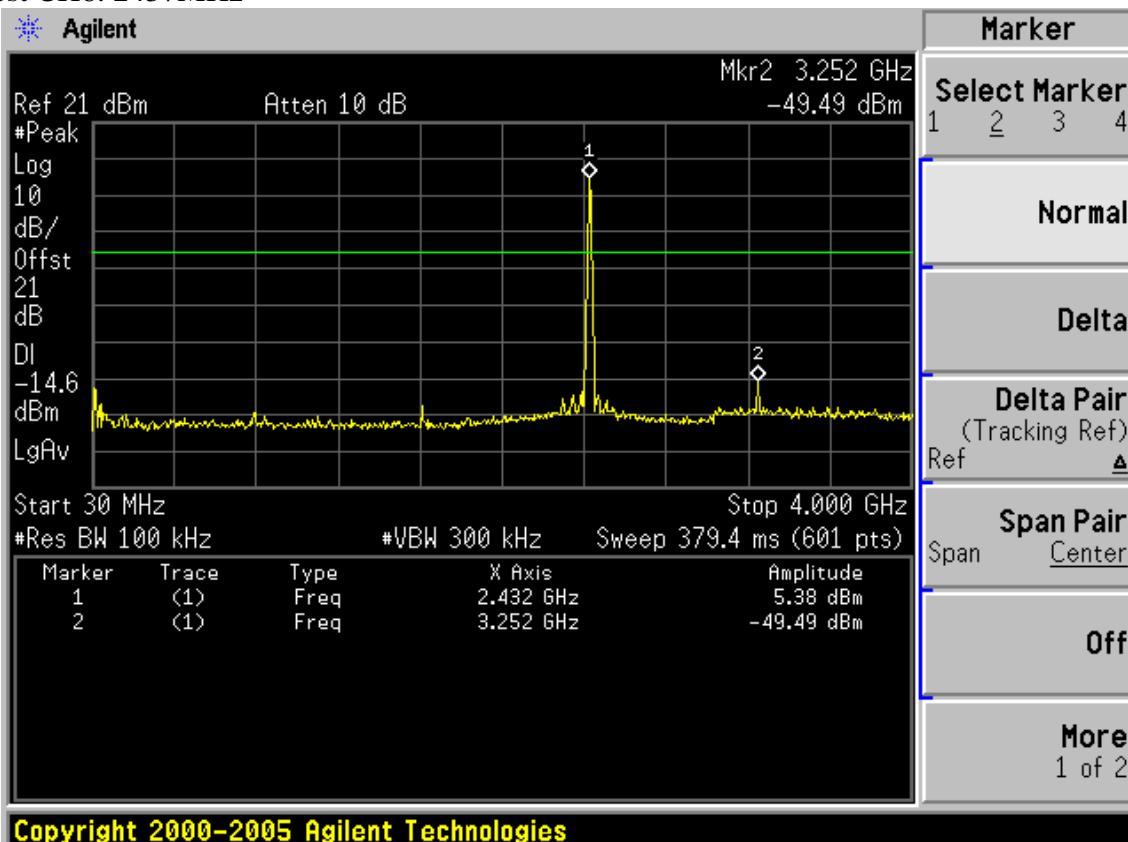
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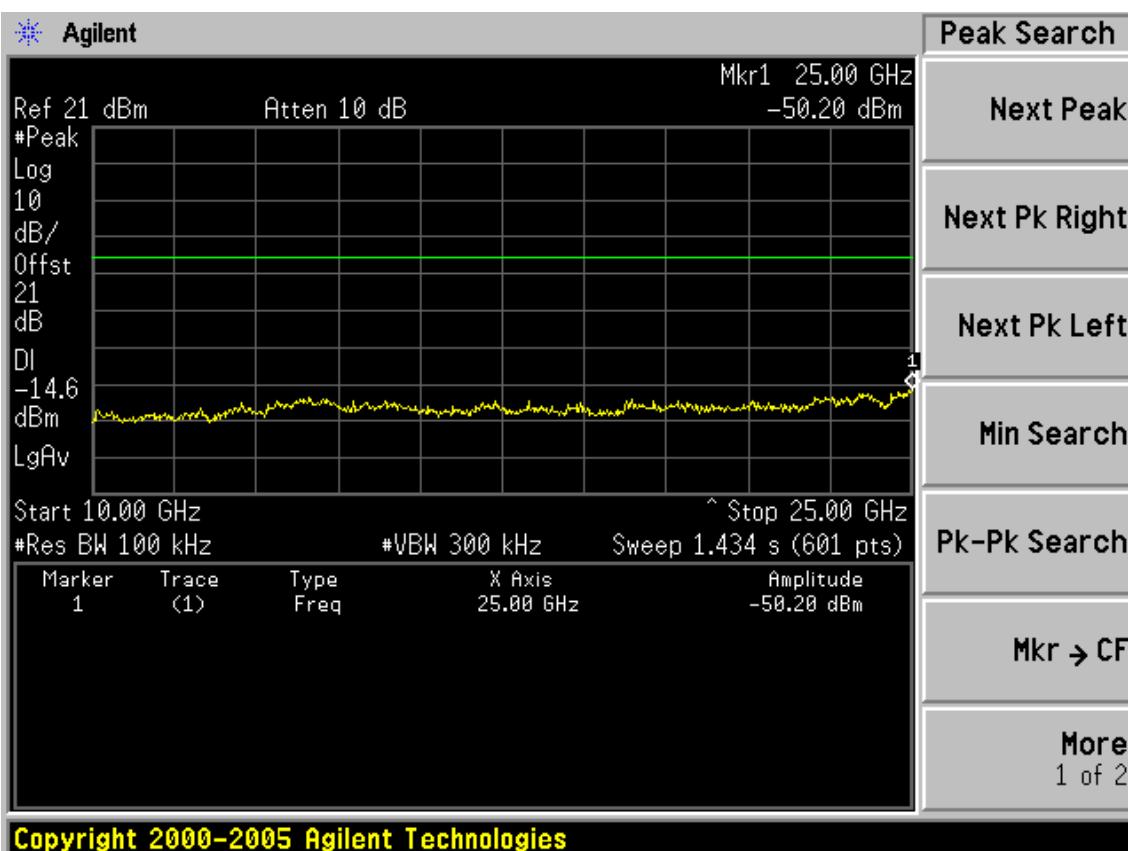
**Peak Search****Next Peak****Next Pk Right****Next Pk Left****Min Search****Pk-Pk Search****Mkr → CF****More**  
1 of 2

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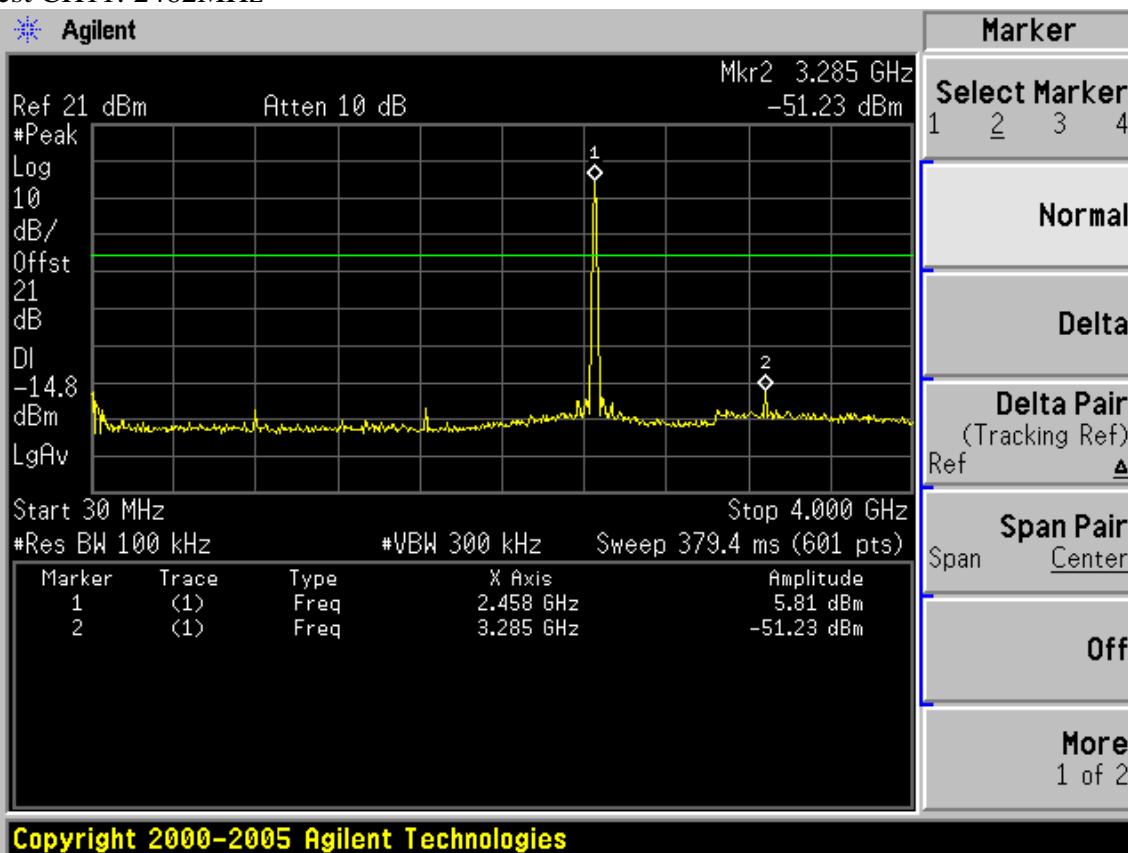


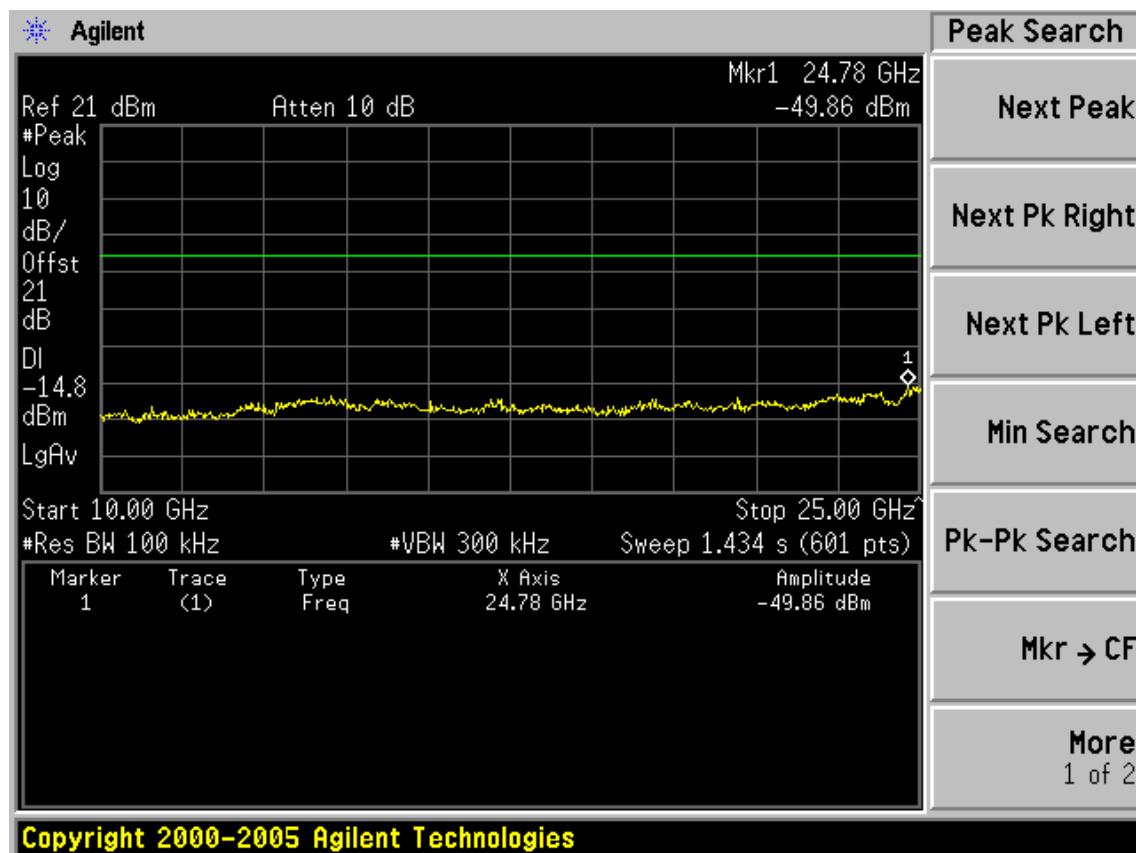
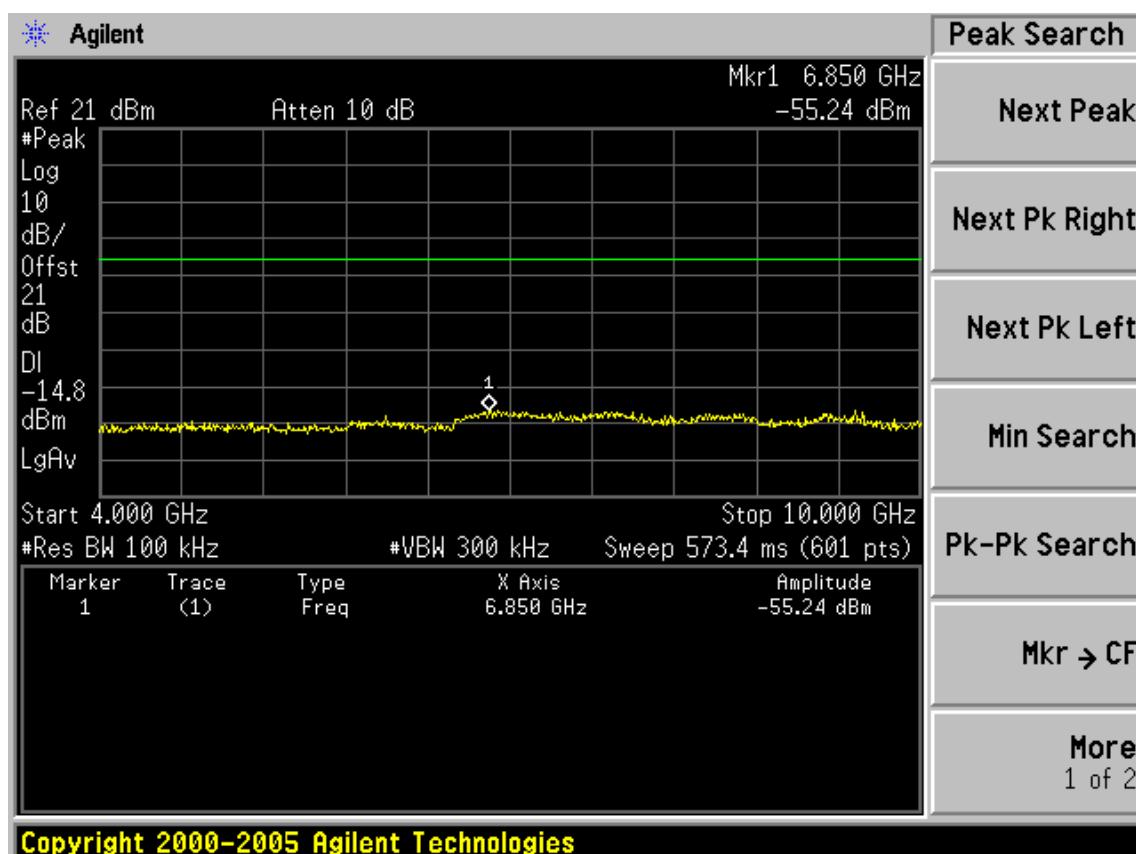
Test CH6: 2437MHz

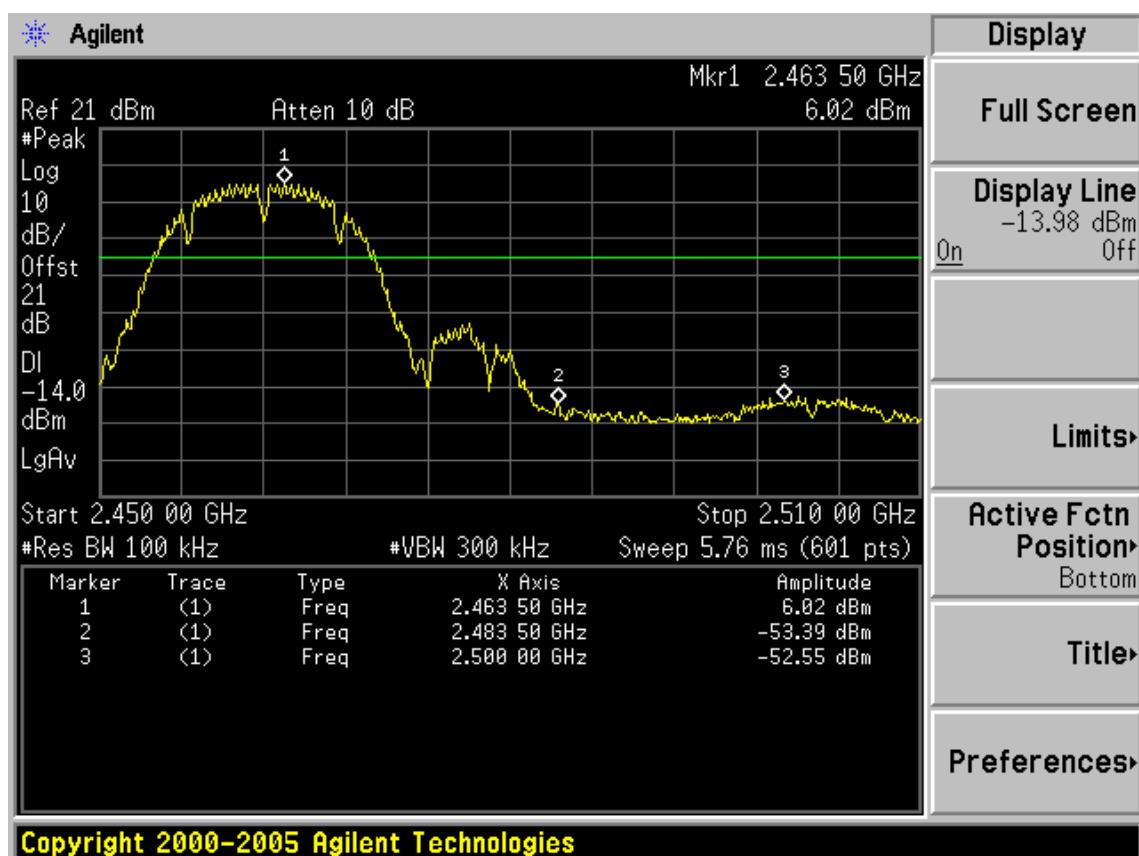




Test CH11: 2462MHz

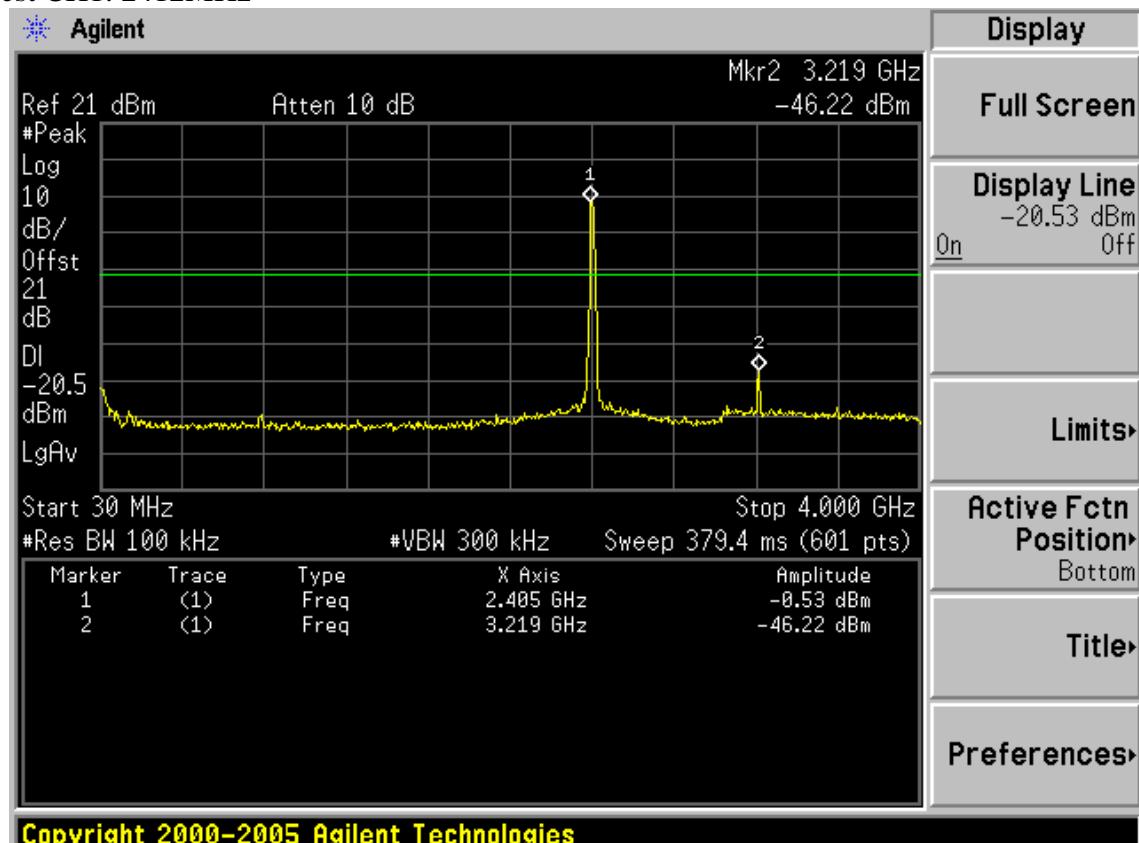


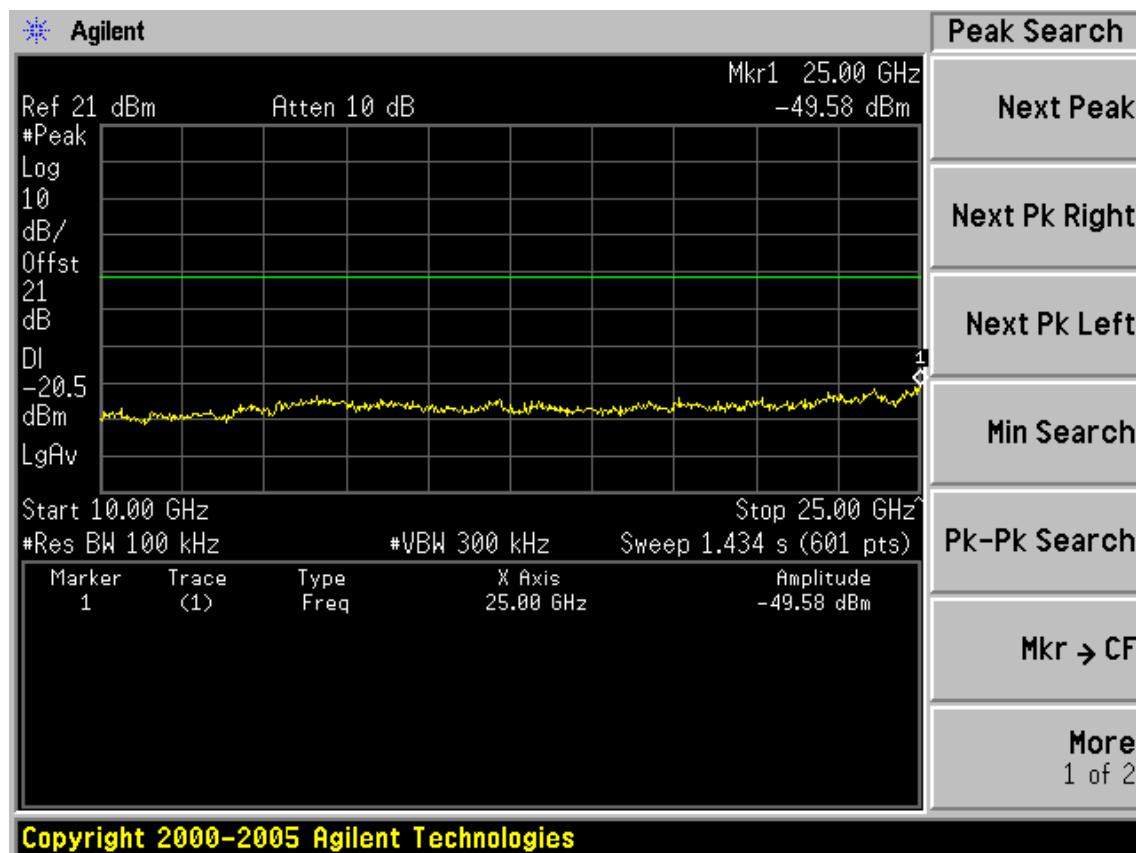
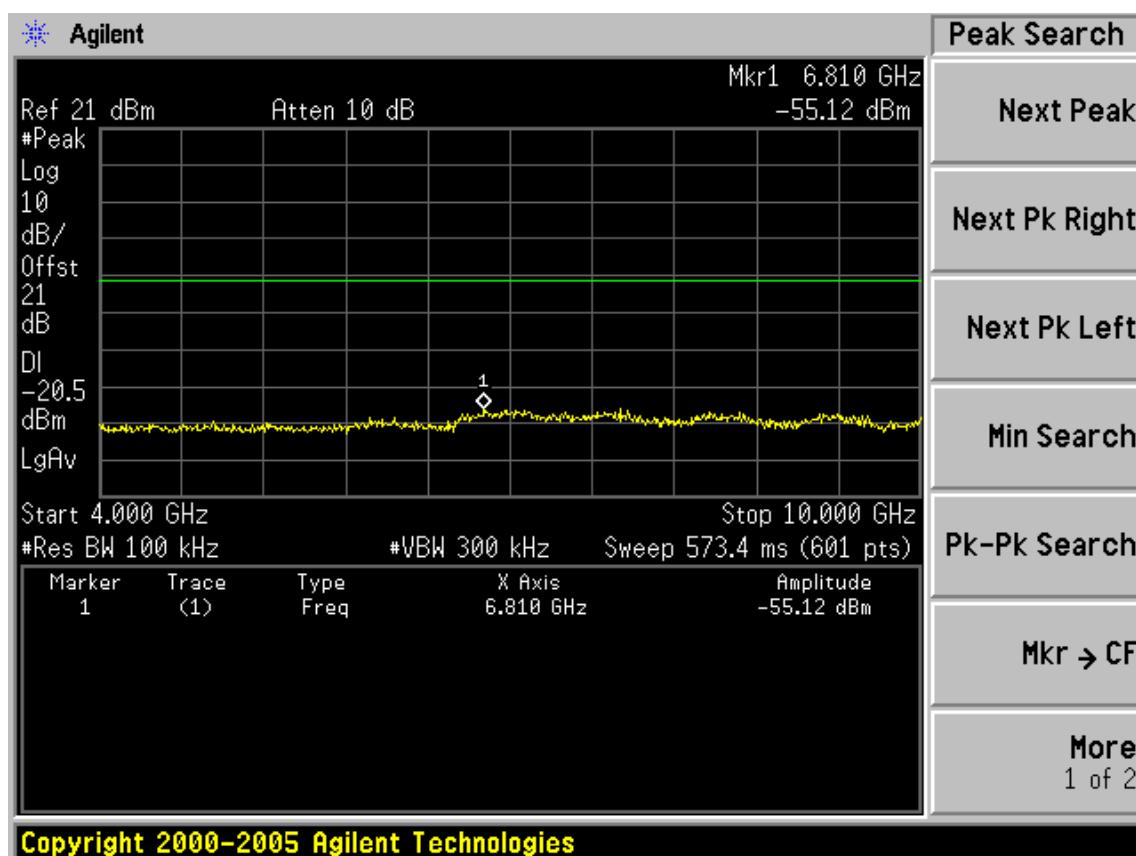


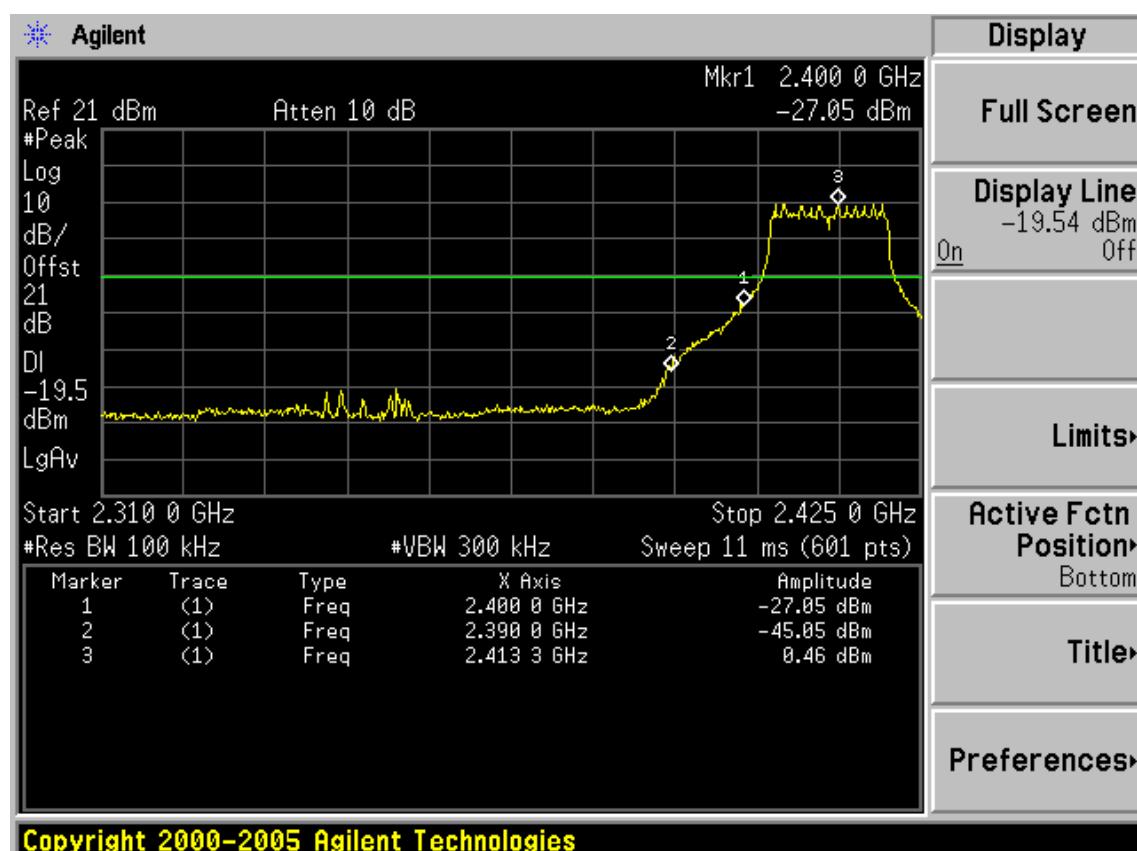


Test Mode: IEEE 802.11g TX

Test CH1: 2412MHz







Test CH6: 2437MHz

