# Test Report

Product Name ： 802.11n Wireless LAN Module

Model No. ： N611

FCC ID ： I88N611

Applicant ： ZyXEL Communication Corporation

Address ： No.6, Innovation Rd II, Science-Based Industrial Park, Hsin-Chu, Taiwan

Date of Receipt ： 2008/08/12

Issued Date ： 2008/09/08

Report No. ： 088S063-RF-US-P05V01

# Test Report Certification

Issued Date : 2008/09/08
Report No. : 088S063-RF-US-P05V01

QuieTek

| | | |
|---|---|---|
| Product Name | : | 802.11n Wireless LAN Module |
| Applicant | : | ZyXEL Communication Corporation |
| Address | : | No.6, Innovation Rd II, Science-Based Industrial Park, Hsin-Chu, Taiwan |
| Manufacturer | : | ZyXEL Communication (Wuxi) Corp. |
| Address | : | Wuxi New District 60#-E Jiangsu PRC |
| Model No. | : | N611 |
| FCC ID | : | I88N611 |
| EUT Voltage | : | DC 3.3V |
| Trade Name | : | ZyXEL |
| Applicable Standard | : | FCC CFR Title 47 Part 15 Subpart C: 2007<br>ANSI C63.4: 2003 |
| Test Result | : | Complied |
| Performed Location | : | SuZhou EMC laboratory<br>No.99 Hongye Rd., Suzhou Industrial Park Loufeng<br>Hi-Tech Development Zone., SuZhou, China<br>TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098<br>FCC Registration Number: 800392 |

Documented By : 
( Any Liu )

Reviewed By : 
( Marlin Chen )

Approved By : 
( Gene Chang )

## Laboratory Information

We , **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited by the following accreditation Bodies in compliance with ISO 17025, EN 45001 and Guide 25:

| | | |
|---|---|---|
| **Taiwan R.O.C.** | **:** | **BSMI, DGT, CNLA** |
| **Germany** | **:** | **TUV Rheinland** |
| **Norway** | **:** | **Nemko, DNV** |
| **USA** | **:** | **FCC, NVLAP** |
| **Japan** | **:** | **VCCI** |

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : http://tw.quietek.com/modules/myalbum/
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

**HsinChu Testing Laboratory :**
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

NVLAP Lab Code : 200347-0
1313

**LinKou Testing Laboratory :**
No. 5, Ruei-Shu Valley, Ruei-Ping Tsuen, Lin-Kou Shiang, Taipei, Taiwan, R.O.C.
TEL : +886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

NVLAP Lab Code: 200533-0
0914

**Suzhou Testing Laboratory :**
No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., SuZhou, China
TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

NVLAP Lab Code : 200743-0
1596

# TABLE OF CONTENTS

# 1. General Information

## 1.1. EUT Description

| | |
|---|---|
| Product Name | 802.11n Wireless LAN Module |
| Trade Name | ZyXEL |
| Model No. | N611 |
| FCC ID | I88N611 |

| | |
|---|---|
| WLAN | ZyXEL/N611 |
| Working Voltage | DC 3.3V |
| Frequency Range | 802.11b/g/n(20MHz): 2412 - 2462 MHz<br>802.11n(40MHz): 2422 - 2452 MHz |
| Channel Number | 802.11b/g/n(20MHz): 11<br>802.11n(40MHz): 7 |
| Type of Modulation | 802.11b: DSSS |
| | 802.11g/n: OFDM |
| Data Rate | 802.11b: 1/2/5.5/11 Mbps |
| | 802.11g: 6/9/12/18/24/36/48/54 Mbps |
| | 802.11n: up to 135 Mbps |
| Channel Control | Auto |
| Antenna Type | Dipole |
| Antenna Gain | Refer to the “Antenna List” |

| 802.11b/g/n(20MHz) Working Frequency of Each Channel: | | | | | | | |
|---|---|---|---|---|---|---|---|
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 01 | 2412 MHz | 02 | 2417 MHz | 03 | 2422 MHz | 04 | 2427 MHz |
| 05 | 2432 MHz | 06 | 2437 MHz | 07 | 2442 MHz | 08 | 2447 MHz |
| 09 | 2452 MHz | 10 | 2457 MHz | 11 | 2462 MHz | N/A | N/A |

| 802.11n(40MHz) Working Frequency of Each Channel: | | | | | | | |
|---|---|---|---|---|---|---|---|
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 03 | 2422 MHz | 04 | 2427 MHz | 05 | 2432 MHz | 06 | 2437 MHz |
| 07 | 2442 MHz | 08 | 2447 MHz | 09 | 2452 MHz | N/A | N/A |

**802.11b/g/n Antenna List**

| Part No. | Manufacturer | Fixed Model | Color | Peak Gain |
|---|---|---|---|---|
| AN2400-0314RS | CORTEC | DETACHABLE | WHITE | 2.4GHz: 2.0dBi |
| **C034-510514-A** | **WHA YU** | **DETACHABLE** | **BLACK** | **2.4GHz: 5.0dBi** |
| AN2400-2478GX | CORTEC | FIXED | WHITE | 2.4GHz: 2.0dBi |
| C034-510679-A | WHA YU | DETACHABLE | WHITE | 2.4GHz: 2.0dBi |
| C034-510514-A | WHA YU | FIXED | BLACK | 2.4GHz: 5.0dBi |
| C034-510683-A | WHA YU | FIXED | WHITE | 2.4GHz: 2.95dBi |

Note:

The bold one shown above is the test antenna.

## 1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

| Test Mode |
|---|
| Mode 1: Transmit by 802.11b (DAC0, DAC1) |
| Mode 2: Transmit by 802.11g (DAC0, DAC1) |
| Mode 3: Transmit by 802.11n (20MHz) (DAC0, DAC1, DAC0 and DAC1 ) |
| Mode 4: Transmit by 802.11n (40MHz) (DAC0, DAC1, DAC0 and DAC1 ) |

Note:

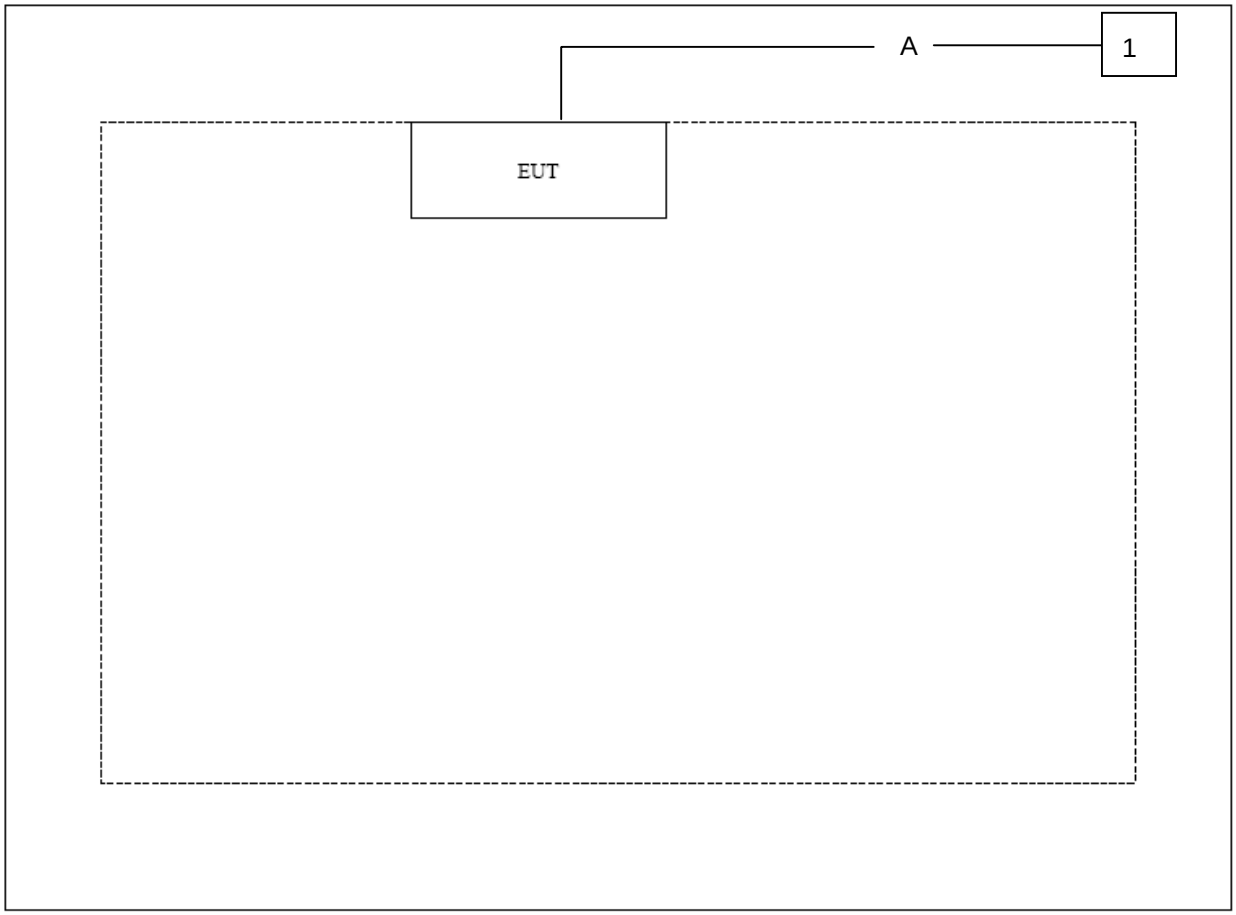
1. Regards to the frequency band operation: the lowest、middle and highest frequency of channel were selected to perform the test, then shown on this report.

## 1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

| Product | | Manufacturer | Model No. | Serial No. | Power Cord |
|---|---|---|---|---|---|
| 1 | Notebook | DELL | PP19L | JH097 A01 | Power by adapter |

## 1.4. Configuration of Tested System

| Connection Diagram |
|---|
|  |



| Signal Cable Type | | Signal cable Description |
|---|---|---|
| A | LAN Cable | Non-Shielded, >10m |

## 1.5. EUT Exercise Software

| | |
|---|---|
| 1 | Setup the EUT and simulators as shown on above |
| 2 | Turn on the power of equipment. |
| 3 | Execute the software “RT2880QA”, set the test mode and test channel, and then start to test. |

# 2. Technical Test

## 2.1. Summary of Test Result

☒ No deviations from the test standards

☐ Deviations from the test standards as below description:

| Performed Test Item | Normative References | Test Performed | Deviation |
|---|---|---|---|
| Conducted Emission | FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.207 | Yes | No |
| Radiated Emission | FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.209 | Yes | No |
| RF Antenna Conducted Spurious | FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(d) | Yes | No |
| Radiated Emission Band Edge | FCC CFR Title 47 Part 15 Subpart C: 2007 15.247(d) | Yes | No |
| Operation Frequency Range of 20dB Bandwidth | FCC CFR Title 47 Part 15 Subpart C: 2007 15.215(c) | Yes | No |
| Occupied Bandwidth | FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(a)(2) | Yes | No |
| Power Output | FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(b)(3) | Yes | No |
| Power Spectral Density | FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.247(e) | Yes | No |

## 2.2. Test Environment

| Items | Required (IEC 68-1) | Actual |
|---|---|---|
| Temperature (°C) | 15-35 | 21 |
| Humidity (%RH) | 25-75 | 50 |
| Barometric pressure (mbar) | 860-1060 | 950-1000 |

# 3. Conducted Emission

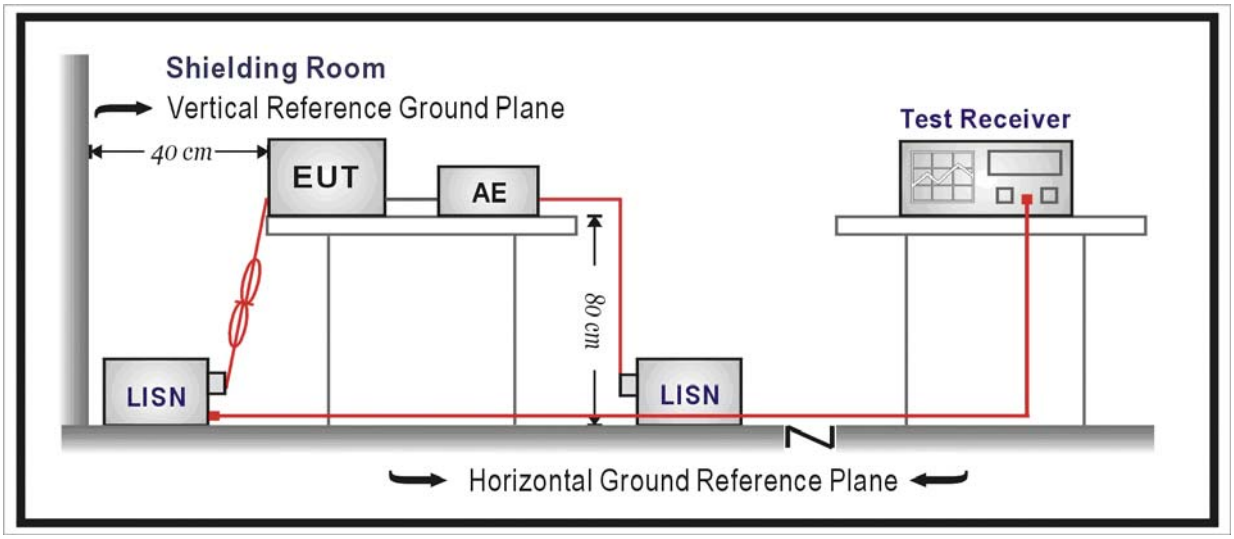
## 3.1. Test Equipment

Conducted Emission / SR-1

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| EMI Test Receiver | R&S | ESCI | 100726 | 2008/06/28 |
| Two-Line V-Network | R&S | ENV216 | 100013 | 2008/06/28 |
| Two-Line V-Network | R&S | ENV216 | 100014 | 2008/06/28 |
| 50ohm Coaxial Switch | Anritsu | MP59B | 6200464462 | 2007/11/25 |
| 50ohm Termination | SHX | TF2 | 07081401 | 2007/10/19 |
| Coaxial Cable | Luthi | RG214 | 519358 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH004 | 2008/03/31 |

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 3.2. Test Setup



## 3.3. Limit

| FCC Part 15 Subpart C Paragraph 15.207 Limits | | |
|---|---|---|
| Frequency (MHz) | QP (dBuV) | AV (dBuV) |
| 0.15 - 0.50 | 66 - 56 | 56 - 46 |
| 0.50 - 5.0 | 56 | 46 |
| 5.0 - 30 | 60 | 50 |

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

## 3.4. Test Procedure

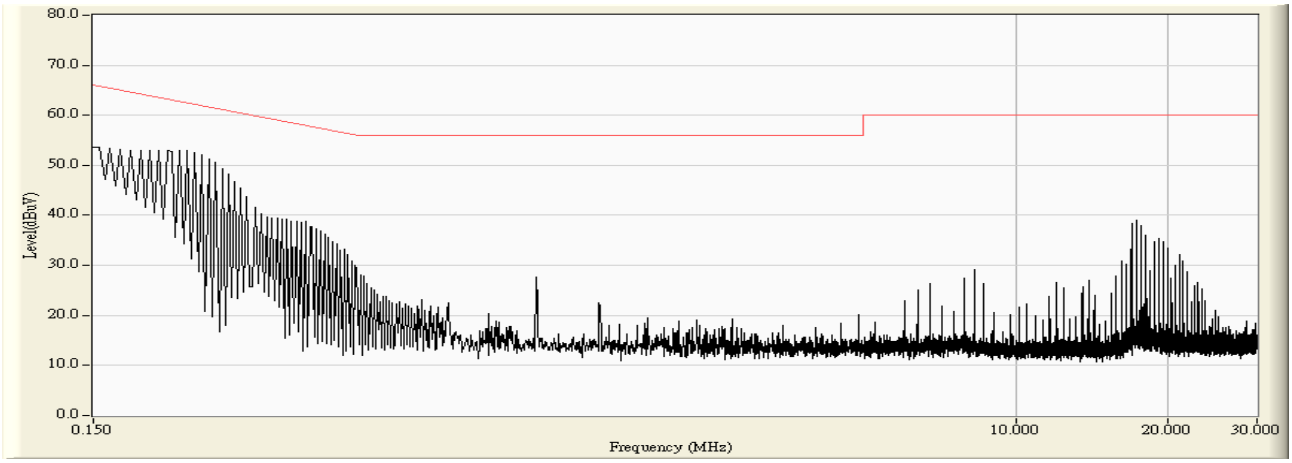
The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

## 3.5. Uncertainty

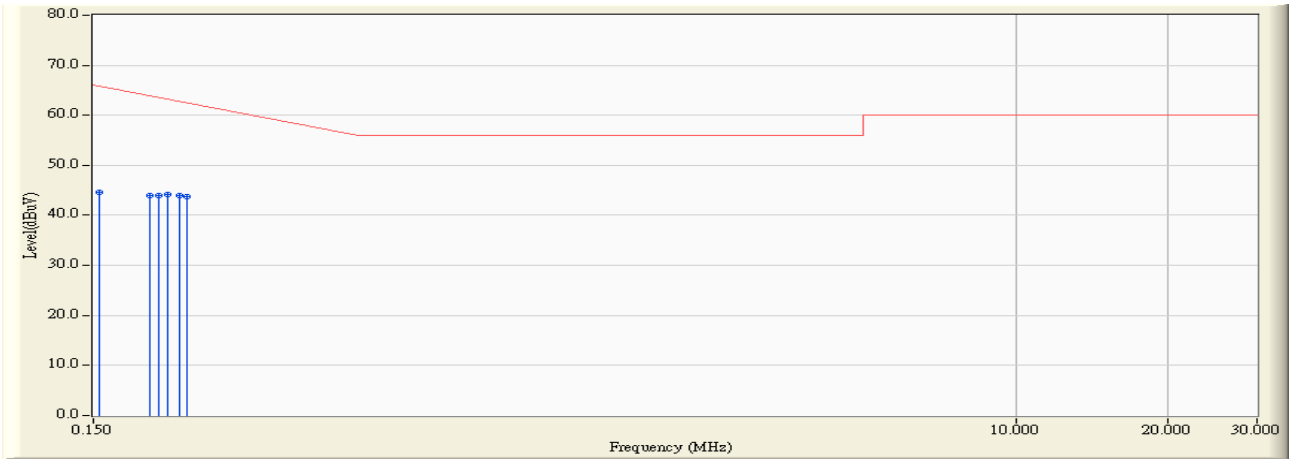
The measurement uncertainty is defined as ± 2.02 dB

## 3.6. Test Result

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : SR-1 (Conducted Emission and Power Disturbance Test)** | **Time : 2008/08/29 - 09:21** |
| **Limit : FCC_Part15.207_00M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : ENV216_100014(0.009-30MHz) - Line1** |
| **Power : AC 120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2437MHz** |



| | |
|---|---|
| **Engineer : Jame** | |
| **Site : SR-1 (Conducted Emission and Power Disturbance Test)** | **Time : 2008/08/29 - 09:21** |
| **Limit : FCC_Part15.207_00M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : ENV216_100014(0.009-30MHz) - Line1** |
| **Power : AC 120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2437MHz** |

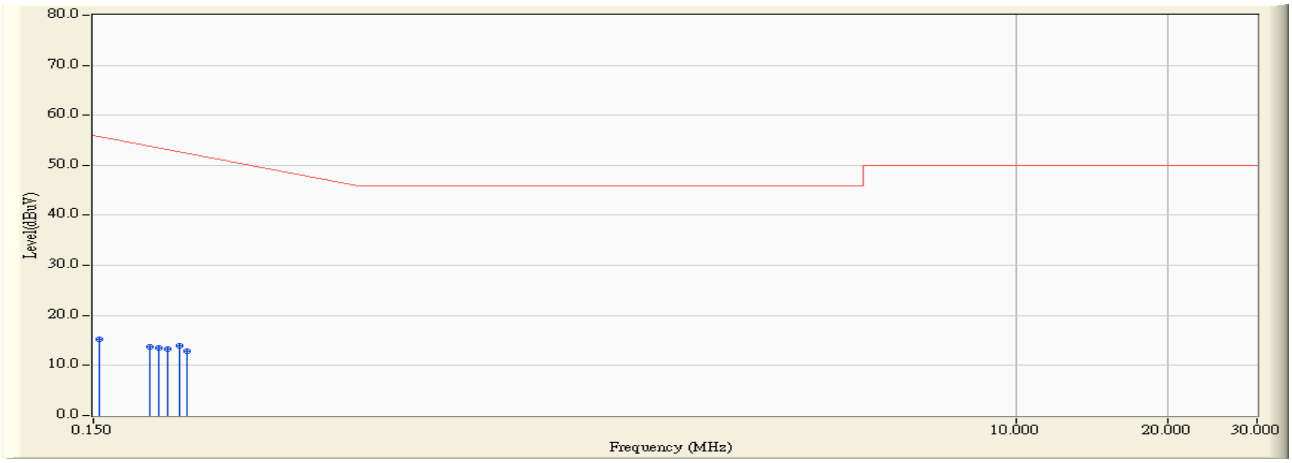



| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 0.154 | 10.187 | 34.400 | 44.587 | -21.299 | 65.886 | QUASIPEAK |
| 2 | | 0.194 | 9.606 | 34.300 | 43.906 | -20.837 | 64.743 | QUASIPEAK |
| 3 | | 0.202 | 9.553 | 34.500 | 44.053 | -20.461 | 64.514 | QUASIPEAK |
| 4 | | 0.210 | 9.500 | 34.600 | 44.100 | -20.186 | 64.286 | QUASIPEAK |
| 5 | | 0.222 | 9.442 | 34.600 | 44.042 | -19.901 | 63.943 | QUASIPEAK |
| 6 | * | 0.230 | 9.447 | 34.400 | 43.847 | -19.867 | 63.714 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : SR-1 (Conducted Emission and Power Disturbance Test)** | **Time : 2008/08/29 - 09:21** |
| **Limit : FCC_Part15_B_00M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : ENV216_100014(0.009-30MHz) - Line1** |
| **Power : AC 120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2437MHz** |

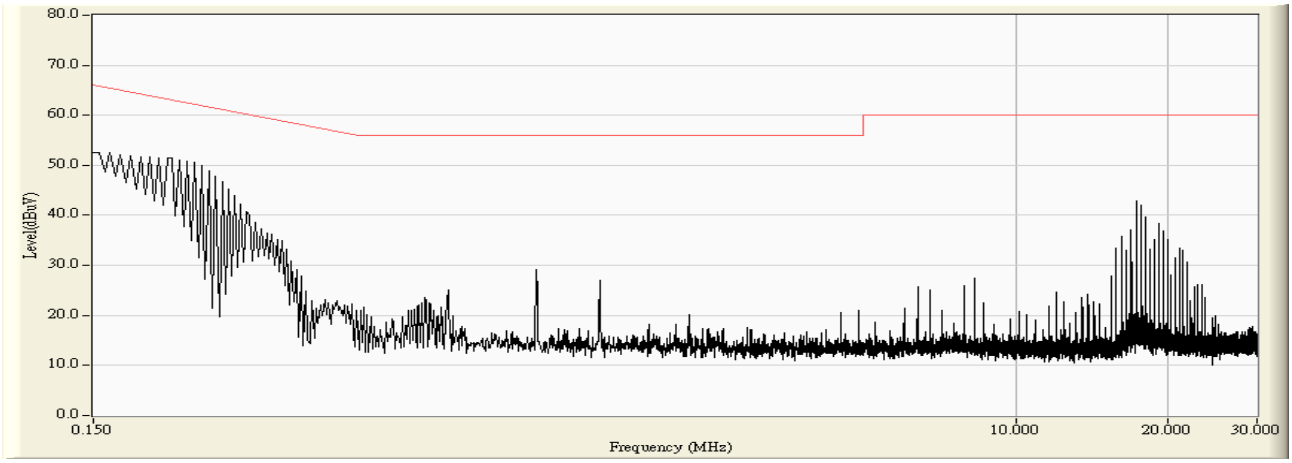



| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 0.154 | 10.187 | 5.100 | 15.287 | -40.599 | 55.886 | AVERAGE |
| 2 | | 0.194 | 9.606 | 4.200 | 13.806 | -40.937 | 54.743 | AVERAGE |
| 3 | | 0.202 | 9.553 | 4.000 | 13.553 | -40.961 | 54.514 | AVERAGE |
| 4 | | 0.210 | 9.500 | 3.900 | 13.400 | -40.886 | 54.286 | AVERAGE |
| 5 | * | 0.222 | 9.442 | 4.600 | 14.042 | -39.901 | 53.943 | AVERAGE |
| 6 | | 0.230 | 9.447 | 3.400 | 12.847 | -40.867 | 53.714 | AVERAGE |

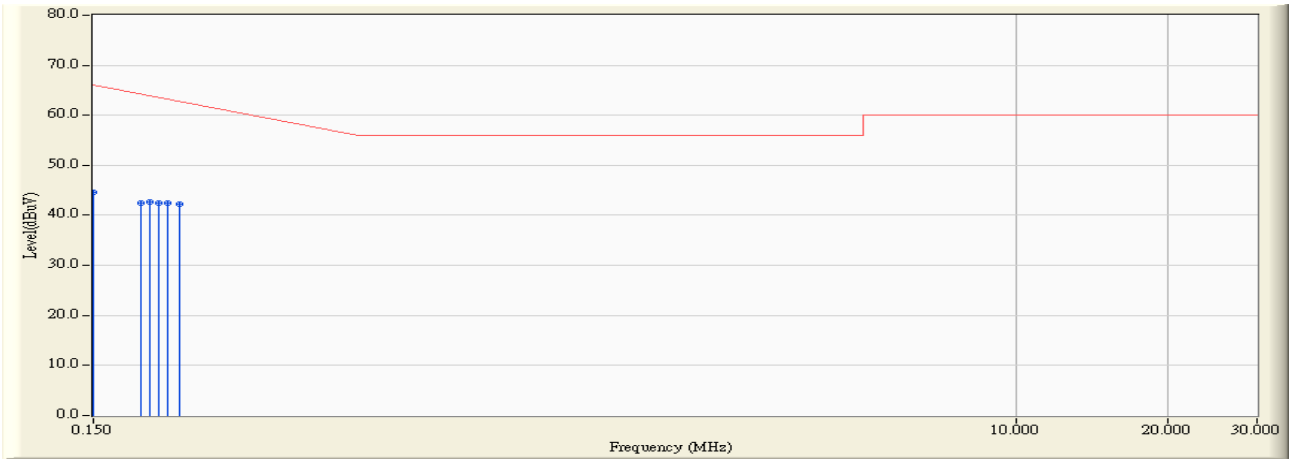
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : SR-1 (Conducted Emission and Power Disturbance Test)** | **Time : 2008/08/29 - 09:21** |
| **Limit : FCC_Part15.207_00M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : ENV216_100014(0.009-30MHz) - Line2** |
| **Power : AC 120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2437MHz** |



| | |
|---|---|
| **Engineer : Jame** | |
| **Site : SR-1 (Conducted Emission and Power Disturbance Test)** | **Time : 2008/08/29 - 09:21** |
| **Limit : FCC_Part15.207_00M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : ENV216_100014(0.009-30MHz) - Line2** |
| **Power : AC 120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2437MHz** |

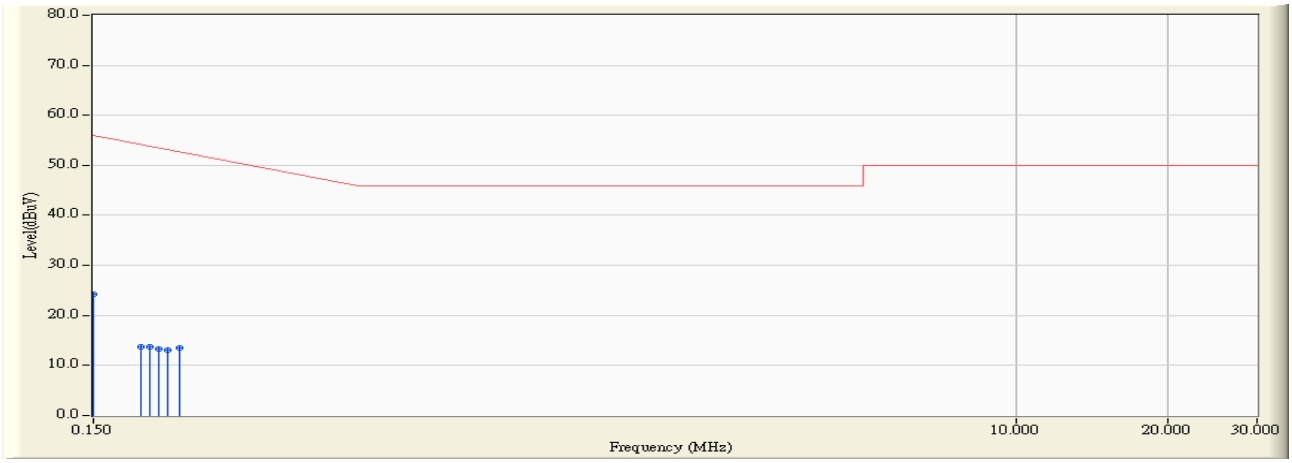



| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 0.150 | 10.006 | 34.500 | 44.506 | -21.494 | 66.000 | QUASIPEAK |
| 2 | | 0.186 | 9.732 | 32.800 | 42.532 | -22.439 | 64.971 | QUASIPEAK |
| 3 | | 0.194 | 9.680 | 32.900 | 42.580 | -22.163 | 64.743 | QUASIPEAK |
| 4 | | 0.202 | 9.648 | 32.900 | 42.548 | -21.966 | 64.514 | QUASIPEAK |
| 5 | | 0.210 | 9.616 | 32.900 | 42.516 | -21.770 | 64.286 | QUASIPEAK |
| 6 | | 0.222 | 9.580 | 32.700 | 42.280 | -21.663 | 63.943 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : SR-1 (Conducted Emission and Power Disturbance Test)** | **Time : 2008/08/29 - 09:21** |
| **Limit : FCC_Part15_B_00M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : ENV216_100014(0.009-30MHz) - Line2** |
| **Power : AC 120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2437MHz** |




| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 0.150 | 10.006 | 14.200 | 24.206 | -31.794 | 56.000 | AVERAGE |
| 2 | | 0.186 | 9.732 | 3.900 | 13.632 | -41.339 | 54.971 | AVERAGE |
| 3 | | 0.194 | 9.680 | 4.000 | 13.680 | -41.063 | 54.743 | AVERAGE |
| 4 | | 0.202 | 9.648 | 3.700 | 13.348 | -41.166 | 54.514 | AVERAGE |
| 5 | | 0.210 | 9.616 | 3.500 | 13.116 | -41.170 | 54.286 | AVERAGE |
| 6 | | 0.222 | 9.580 | 4.000 | 13.580 | -40.363 | 53.943 | AVERAGE |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

# 4. Radiated Emission

## 4.1. Test Equipment

☒Radiated Emission / AC-2

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | E4408B | MY45102679 | 2008/06/28 |
| EMI Test Receiver | R&S | ESCI | 100573 | 2008/05/10 |
| Preamplifier | Quietek | AP-025C | QT-AP003 | 2007/11/25 |
| Preamplifier | Quietek | AP-180C | CHM-0602012 | 2007/11/25 |
| Bilog Type Antenna | Schaffner | CBL6112B | 2932 | 2007/11/22 |
| Broad-Band Horn Antenna | Schwarzbeck | BBHA9120D | 496 | 2008/06/28 |
| High-Pass Filter | Wainwright | WHKX2.8/18G-12SS | SN1 | 2008/03/03 |
| Band Reject Filter | Wainwright | WRCG2400/2485-2375/2510-60/11SS | SN9 | 2008/03/03 |
| High-Pass Filter | Wainwright | WHKX7.0/18G-8SS | SN16 | 2008/03/03 |
| Low-Pass Filter | Wainwright | WLKS4500-9SS | SN2 | 2008/03/03 |
| 50ohm Coaxial Switch | Anritsu | MP59B | 6200447304 | 2007/11/25 |
| Coaxial Cable | Huber+Suhner | AC2-C | 04 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH002 | 2008/03/31 |

☐Radiated Emission / AC-3

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | N9010A | MY48030494 | 2008/04/24 |
| EMI Test Receiver | R&S | ESCI | 100176 | 2007/11/15 |
| Preamplifier | Quietek | AP-025C | QT-AP004 | 2007/11/25 |
| Preamplifier | Quietek | AP-180C | CHM-0602012 | 2007/11/25 |
| Bilog Type Antenna | Schaffner | CBL6112D | 22254 | 2007/11/22 |
| Broad-Band Horn Antenna | Schwarzbeck | BBHA9120D | 496 | 2008/06/28 |
| High-Pass Filter | Wainwright | WHKX2.8/18G-12SS | SN1 | 2008/03/03 |
| Band Reject Filter | Wainwright | WRCG2400/2485-2375/2510-60/11SS | SN9 | 2008/03/03 |
| High-Pass Filter | Wainwright | WHKX7.0/18G-8SS | SN16 | 2008/03/03 |
| Low-Pass Filter | Wainwright | WLKS4500-9SS | SN2 | 2008/03/03 |
| 50ohm Coaxial Switch | Anritsu | MP59B | 6200464463 | 2007/11/25 |
| Coaxial Cable | Huber+Suhner | AC2-C | 05 | 2007/11/25 |

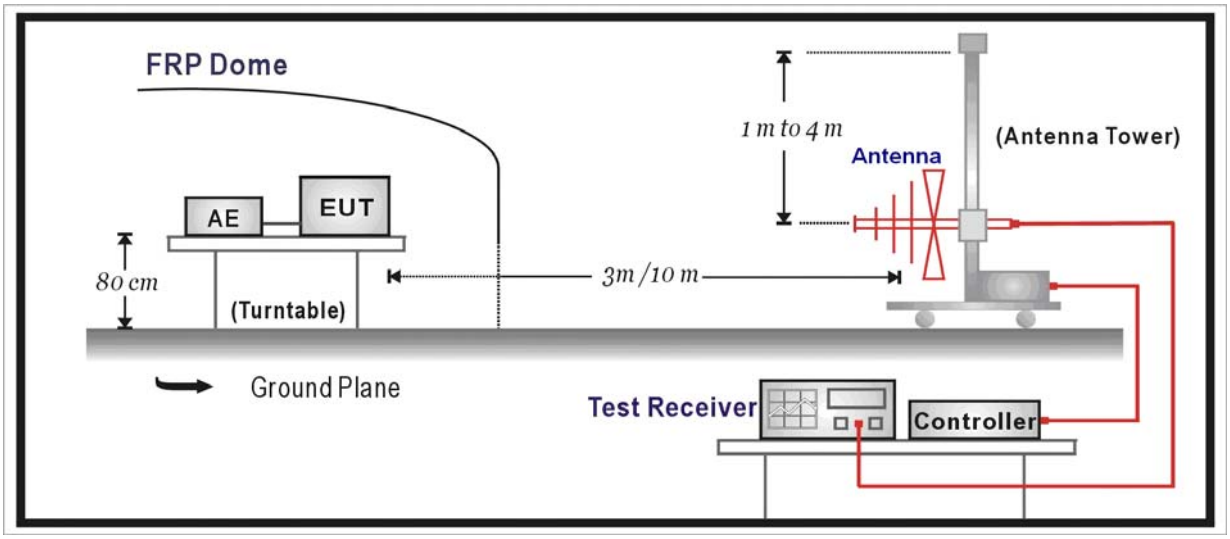
| | | | | |
|---|---|---|---|---|
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH003 | 2008/03/31 |

Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

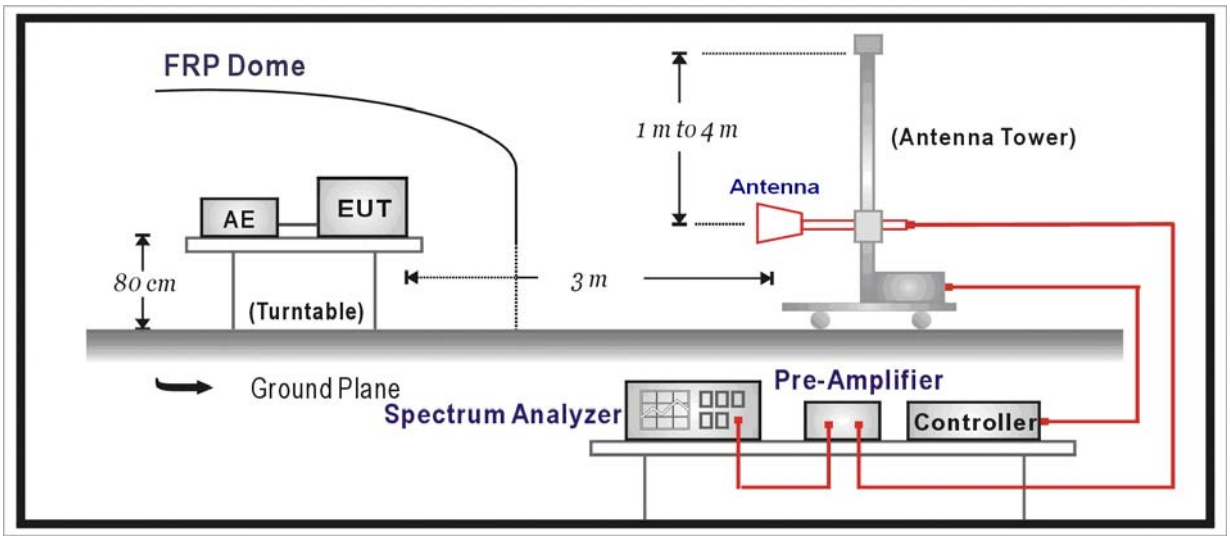
Note 2: The test instruments marked with “X” are used to measure the final test results.

## 4.2. Test Setup

Under 1GHz Test Setup:




Above 1GHz Test Setup:



## 4.3. Limit

| FCC Part 15 Subpart C Paragraph 15.209 | | |
|---|---|---|
| Frequency (MHz) | Distance (m) | Level (dBuV/m) |
| 30 - 88 | 3 | 40 |
| 88 - 216 | 3 | 43.5 |
| 216 - 960 | 3 | 46 |
| Above 960 | 3 | 54 |

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

## 4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

The frequency range from 30MHz to 10th harmonic is checked.

Note: When doing emission measurement above 1GHz, the horn antenna will be bended down a little (as horn antenna have the narrow beamwidth) in order to keeping the antenna in the “cone of radiation” of EUT. This horn’s 3dB beamwidth is 60 degrees for H-plane and 90 degrees for E-plane.

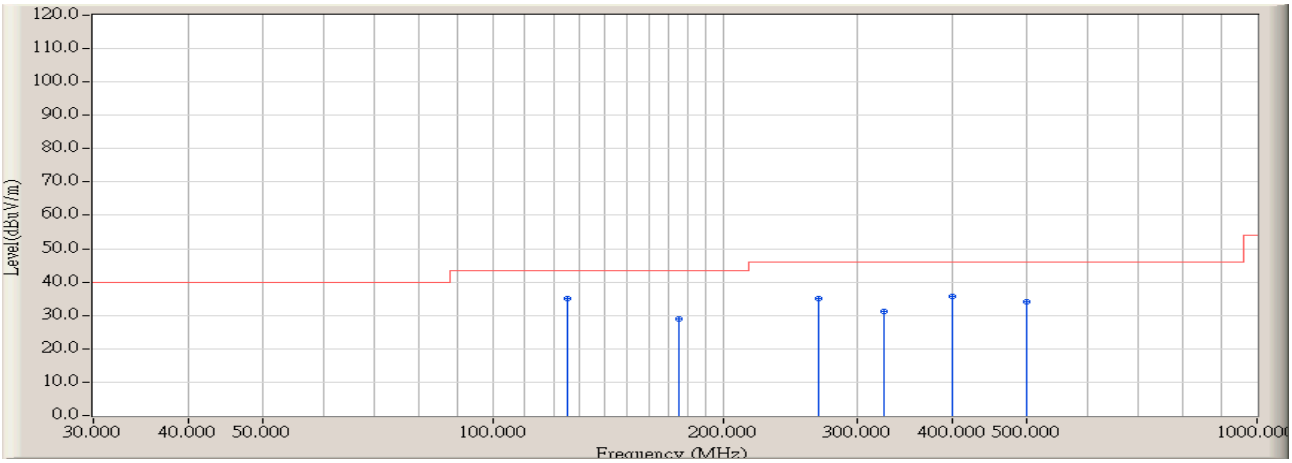
## 4.5. Uncertainty

The measurement uncertainty above 1G is defined as ± 3.9 dB

below 1G is defined as ± 3.8 dB

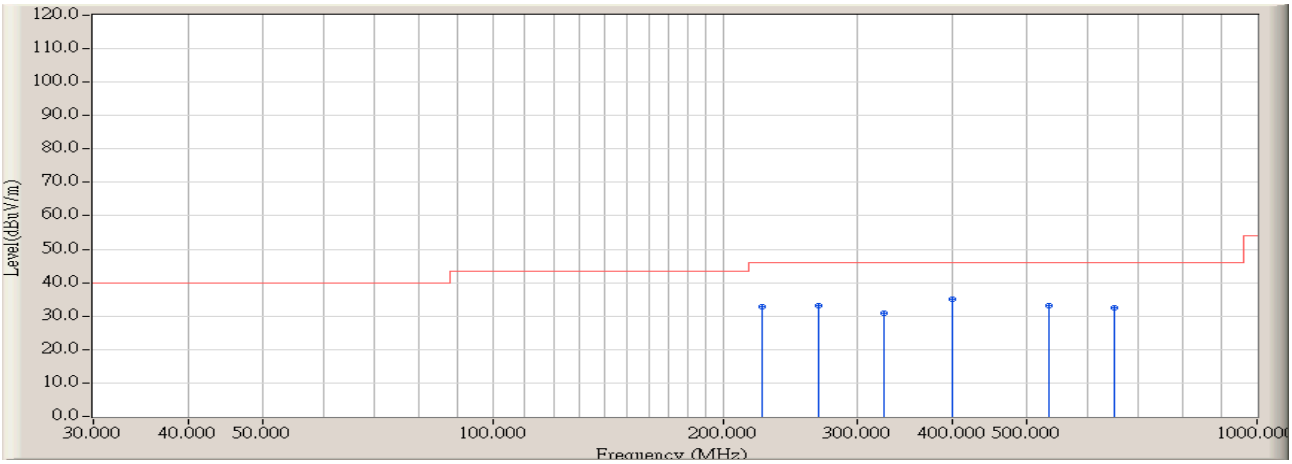
## 4.6. Test Result

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/09/01 - 09:51** |
| **Limit : FCC_SpartC_15.209_03M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC 0)** |



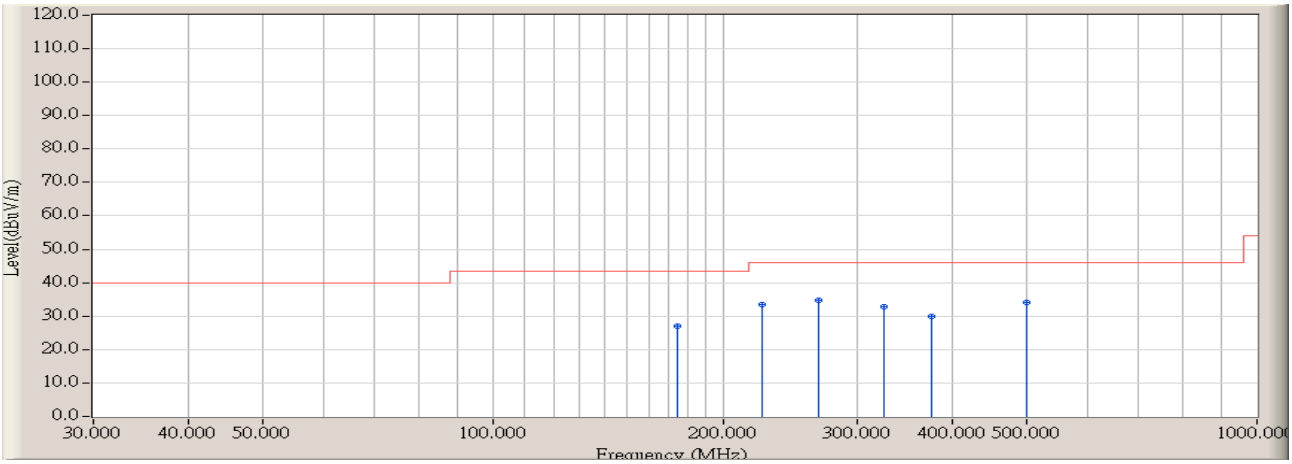

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type | Ant Pos (cm) | Table Pos (deg) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | * | 125.060 | -9.705 | 44.703 | 34.998 | -8.522 | 43.520 | QUASIPEAK | 100.000 | 68.900 |
| 2 | | 175.500 | -11.189 | 39.999 | 28.810 | -14.710 | 43.520 | QUASIPEAK | 142.000 | 84.500 |
| 3 | | 266.680 | -8.529 | 43.551 | 35.022 | -10.998 | 46.020 | QUASIPEAK | 112.000 | 177.500 |
| 4 | | 324.880 | -6.885 | 38.031 | 31.146 | -14.874 | 46.020 | QUASIPEAK | 100.000 | 154.600 |
| 5 | | 399.570 | -4.942 | 40.670 | 35.728 | -10.292 | 46.020 | QUASIPEAK | 100.000 | 148.500 |
| 6 | | 500.450 | -3.384 | 37.602 | 34.218 | -11.802 | 46.020 | QUASIPEAK | 100.000 | 136.600 |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/09/01 - 09:51** |
| **Limit : FCC_SpartC_15.209_03M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : CBL6112D_22254(30-2000MHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC 0)** |



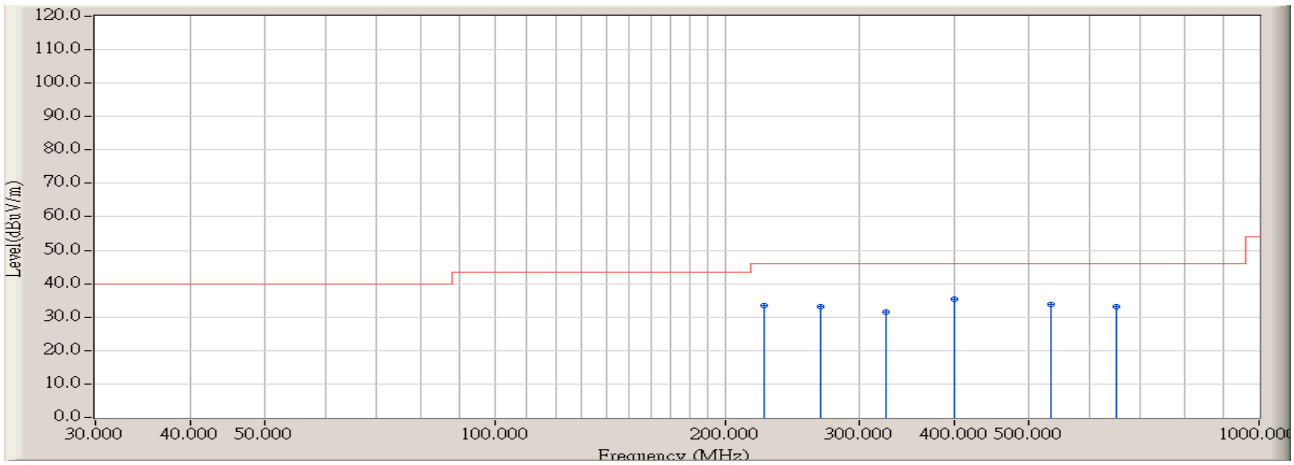

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type | Ant Pos (cm) | Table Pos (deg) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 224.970 | -8.565 | 41.269 | 32.704 | -13.316 | 46.020 | QUASIPEAK | 100.000 | 248.000 |
| 2 | | 266.680 | -8.529 | 41.575 | 33.046 | -12.974 | 46.020 | QUASIPEAK | 100.000 | 211.700 |
| 3 | | 324.880 | -6.885 | 37.655 | 30.770 | -15.250 | 46.020 | QUASIPEAK | 105.600 | 225.000 |
| 4 | * | 399.570 | -4.942 | 40.069 | 35.127 | -10.893 | 46.020 | QUASIPEAK | 100.000 | 247.700 |
| 5 | | 533.430 | -3.198 | 36.373 | 33.175 | -12.845 | 46.020 | QUASIPEAK | 125.500 | 48.600 |
| 6 | | 649.830 | -0.171 | 32.678 | 32.507 | -13.513 | 46.020 | QUASIPEAK | 100.000 | 287.500 |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/09/01 - 09:54** |
| **Limit : FCC_SpartC_15.209_03M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC0 and DAC1)** |




| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type | Ant Pos (cm) | Table Pos (deg) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 174.530 | -11.135 | 38.092 | 26.957 | -16.563 | 43.520 | QUASIPEAK | 100.000 | 215.000 |
| 2 | | 224.970 | -8.565 | 41.956 | 33.391 | -12.629 | 46.020 | QUASIPEAK | 128.000 | 88.500 |
| 3 | * | 266.680 | -8.529 | 43.300 | 34.771 | -11.249 | 46.020 | QUASIPEAK | 100.000 | 274.000 |
| 4 | | 324.880 | -6.885 | 39.627 | 32.742 | -13.278 | 46.020 | QUASIPEAK | 145.500 | 209.000 |
| 5 | | 375.320 | -5.896 | 35.684 | 29.788 | -16.232 | 46.020 | QUASIPEAK | 177.500 | 93.800 |
| 6 | | 500.450 | -3.384 | 37.570 | 34.186 | -11.834 | 46.020 | QUASIPEAK | 100.000 | 174.000 |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/09/01 - 09:55** |
| **Limit : FCC_SpartC_15.209_03M_QP** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : CBL6112D_22254(30-2000MHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC0 and DAC1)** |




| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type | Ant Pos (cm) | Table Pos (deg) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 224.970 | -8.565 | 42.102 | 33.537 | -12.483 | 46.020 | QUASIPEAK | 100.000 | 74.600 |
| 2 | | 266.680 | -8.529 | 41.587 | 33.058 | -12.962 | 46.020 | QUASIPEAK | 100.000 | 116.500 |
| 3 | | 324.880 | -6.885 | 38.477 | 31.592 | -14.428 | 46.020 | QUASIPEAK | 106.500 | 44.800 |
| 4 | * | 399.570 | -4.942 | 40.285 | 35.343 | -10.677 | 46.020 | QUASIPEAK | 113.600 | 210.400 |
| 5 | | 533.430 | -3.198 | 37.059 | 33.861 | -12.159 | 46.020 | QUASIPEAK | 102.600 | 95.000 |
| 6 | | 649.830 | -0.171 | 33.354 | 33.183 | -12.837 | 46.020 | QUASIPEAK | 100.000 | 135.200 |

## Above 1GHz Radiated Emission Test Result

| Mode 1: 802.11b ((DAC0)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 01 (2412MHz) | | | | | | | |
| 4825 | H | 62.94 | 74 | -11.06 | PK | 100.000 | 185.000 |
| 4825 | H | 44.17 | 54 | -9.83 | AV | 100.000 | 185.000 |
| 9653 | H | 57.32 | 74 | -16.68 | PK | 100.000 | 153.000 |
| 9653 | H | 38.35 | 54 | -15.65 | AV | 100.000 | 153.000 |
| 4825 | V | 65.59 | 74 | -8.41 | PK | 104.000 | 206.000 |
| 4825 | V | 47.05 | 54 | -6.95 | AV | 104.000 | 206.000 |
| 9653 | V | 63.60 | 74 | -10.40 | PK | 103.500 | 166.800 |
| 9653 | V | 44.27 | 54 | -9.73 | AV | 103.500 | 166.800 |
| Channel 06 (2437MHz) | | | | | | | |
| 4859 | H | 62.47 | 74 | -11.53 | PK | 100.000 | 196.000 |
| 4859 | H | 44.26 | 54 | -9.74 | AV | 100.000 | 196.000 |
| 9755 | H | 58.26 | 74 | -15.74 | PK | 100.000 | 144.000 |
| 9755 | H | 39.37 | 54 | -14.63 | AV | 100.000 | 144.000 |
| 4859 | V | 66.03 | 74 | -7.97 | PK | 102.500 | 116.700 |
| 4859 | V | 47.84 | 54 | -6.16 | AV | 102.500 | 116.700 |
| 9755 | V | 59.25 | 74 | -14.75 | PK | 106.400 | 158.000 |
| 9755 | V | 40.24 | 54 | -13.76 | AV | 106.400 | 158.000 |
| Channel 11 (2462MHz) | | | | | | | |
| 4927 | H | 63.58 | 74 | -10.42 | PK | 105.400 | 188.400 |
| 4927 | H | 45.02 | 54 | -8.98 | AV | 105.400 | 188.400 |
| 9857 | H | 54.36 | 74 | -19.64 | PK | 103.000 | 136.000 |
| 9857 | H | 36.57 | 54 | -17.43 | AV | 103.000 | 136.000 |
| 4927 | V | 65.07 | 74 | -8.93 | PK | 100.000 | 169.000 |
| 4927 | V | 46.45 | 54 | -7.55 | AV | 100.000 | 169.000 |
| 9857 | V | 58.91 | 74 | -15.09 | PK | 102.400 | 25.600 |
| 9857 | V | 39.73 | 54 | -14.27 | AV | 102.400 | 25.600 |

| Mode 2: 802.11g ((DAC0)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 01 (2412MHz) | | | | | | | |
| 4825 | H | 62.34 | 74 | -11.66 | PK | 100.000 | 152.000 |
| 4825 | H | 43.28 | 54 | -10.72 | AV | 100.000 | 152.000 |
| 4825 | V | 64.87 | 74 | -9.13 | PK | 100.000 | 135.000 |
| 4825 | V | 46.68 | 54 | -7.32 | AV | 100.000 | 135.000 |
| 9653 | V | 59.32 | 74 | -14.68 | PK | 100.000 | 169.000 |
| 9653 | V | 41.03 | 54 | -12.97 | AV | 100.000 | 169.000 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 61.61 | 74 | -12.39 | PK | 100.000 | 167.400 |
| 4876 | H | 42.75 | 54 | -11.25 | AV | 100.000 | 167.400 |
| 4876 | V | 66.12 | 74 | -7.88 | PK | 114.500 | 172.500 |
| 4876 | V | 47.93 | 54 | -6.07 | AV | 114.500 | 172.500 |
| 9755 | V | 60.36 | 74 | -13.64 | PK | 100.000 | 185.400 |
| 9755 | V | 40.94 | 54 | -13.06 | AV | 100.000 | 185.400 |
| Channel 11 (2462MHz) | | | | | | | |
| 4927 | H | 62.42 | 74 | -11.58 | PK | 100.000 | 133.500 |
| 4927 | H | 43.50 | 54 | -10.50 | AV | 100.000 | 133.500 |
| 4927 | V | 65.45 | 74 | -8.55 | PK | 103.400 | 114.600 |
| 4927 | V | 46.38 | 54 | -7.62 | AV | 103.400 | 114.600 |
| 9857 | V | 59.89 | 74 | -14.11 | PK | 100.000 | 152.600 |
| 9857 | V | 41.05 | 54 | -12.95 | AV | 100.000 | 152.600 |

| Mode 3: 802.11n(20MHz) ((DAC0)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 01 (2412MHz) | | | | | | | |
| 4825 | H | 61.64 | 74 | -12.36 | PK | 100.000 | 242.500 |
| 4825 | H | 42.63 | 54 | -11.37 | AV | 100.000 | 242.500 |
| 4825 | V | 63.57 | 74 | -10.43 | PK | 120.500 | 304.000 |
| 4825 | V | 46.74 | 54 | -7.26 | AV | 120.500 | 304.000 |
| 9653 | V | 58.42 | 74 | -15.58 | PK | 109.400 | 65.800 |
| 9653 | V | 40.05 | 54 | -13.95 | AV | 109.400 | 65.800 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 62.73 | 74 | -11.27 | PK | 100.000 | 103.800 |
| 4876 | H | 43.56 | 54 | -10.44 | AV | 100.000 | 103.800 |
| 4876 | V | 65.16 | 74 | -8.84 | PK | 100.000 | 142.400 |
| 4876 | V | 46.73 | 54 | -7.27 | AV | 100.000 | 142.400 |
| 9755 | V | 60.15 | 74 | -13.85 | PK | 103.600 | 84.000 |
| 9755 | V | 39.97 | 54 | -14.03 | AV | 103.600 | 84.000 |
| Channel 11 (2462MHz) | | | | | | | |
| 4927 | H | 61.52 | 74 | -12.48 | PK | 105.100 | 94.000 |
| 4927 | H | 43.55 | 54 | -10.45 | AV | 105.100 | 94.000 |
| 4927 | V | 66.24 | 74 | -7.76 | PK | 100.000 | 284.000 |
| 4927 | V | 46.48 | 54 | -7.52 | AV | 100.000 | 284.000 |
| 9857 | V | 59.57 | 74 | -14.43 | PK | 110.400 | 258.000 |
| 9857 | V | 40.67 | 54 | -13.33 | AV | 110.400 | 258.000 |

| Mode 4: 802.11n(40MHz) ((DAC0)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 03 (2422MHz) | | | | | | | |
| 4845 | H | 62.34 | 74 | -11.66 | PK | 100.000 | 162.000 |
| 4845 | H | 43.75 | 54 | -10.25 | AV | 100.000 | 162.000 |
| 4845 | V | 63.36 | 74 | -10.64 | PK | 100.000 | 77.400 |
| 4845 | V | 44.14 | 54 | -9.86 | AV | 100.000 | 77.400 |
| 9693 | V | 59.52 | 74 | -14.48 | PK | 106.400 | 158.000 |
| 9693 | V | 40.14 | 54 | -13.86 | AV | 106.400 | 158.000 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 61.53 | 74 | -12.47 | PK | 100.000 | 169.000 |
| 4876 | H | 42.36 | 54 | -11.64 | AV | 100.000 | 169.000 |
| 4876 | V | 64.18 | 74 | -9.82 | PK | 100.000 | 167.400 |
| 4876 | V | 45.93 | 54 | -8.07 | AV | 100.000 | 167.400 |
| 9755 | V | 61.35 | 74 | -12.65 | PK | 102.500 | 116.700 |
| 9755 | V | 40.22 | 54 | -13.78 | AV | 102.500 | 116.700 |
| Channel 09 (2452MHz) | | | | | | | |
| 4907 | H | 62.35 | 74 | -11.65 | PK | 110.400 | 258.000 |
| 4907 | H | 43.46 | 54 | -10.54 | AV | 110.400 | 258.000 |
| 4907 | V | 65.24 | 74 | -8.76 | PK | 103.600 | 84.000 |
| 4907 | V | 46.75 | 54 | -7.25 | AV | 103.600 | 84.000 |
| 9817 | V | 58.37 | 74 | -15.63 | PK | 100.000 | 152.600 |
| 9817 | V | 40.42 | 54 | -13.58 | AV | 100.000 | 152.600 |

| Mode 1: 802.11b ((DAC1)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 01 (2412MHz) | | | | | | | |
| 4825 | H | 63.22 | 74 | -10.78 | PK | 120.500 | 65.800 |
| 4825 | H | 44.45 | 54 | -9.55 | AV | 120.500 | 65.800 |
| 9653 | H | 58.37 | 74 | -15.63 | PK | 114.200 | 144.800 |
| 9653 | H | 39.63 | 54 | -14.37 | AV | 114.200 | 144.800 |
| 4825 | V | 64.26 | 74 | -9.74 | PK | 110.500 | 60.800 |
| 4825 | V | 45.65 | 54 | -8.35 | AV | 110.500 | 60.800 |
| 9653 | V | 63.68 | 74 | -10.32 | PK | 104.200 | 124.800 |
| 9653 | V | 44.63 | 54 | -9.37 | AV | 104.200 | 124.800 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 62.36 | 74 | -11.64 | PK | 110.500 | 304.000 |
| 4876 | H | 43.57 | 54 | -10.43 | AV | 110.500 | 304.000 |
| 4876 | H | 58.38 | 74 | -15.62 | PK | 109.400 | 63.800 |
| 4876 | H | 39.27 | 54 | -14.73 | AV | 109.400 | 63.800 |
| 4859 | V | 64.92 | 74 | -9.08 | PK | 100.000 | 152.000 |
| 4859 | V | 46.23 | 54 | -7.77 | AV | 100.000 | 152.000 |
| 9755 | V | 59.28 | 74 | -14.72 | PK | 100.000 | 185.000 |
| 9755 | V | 40.30 | 54 | -13.70 | AV | 100.000 | 185.000 |
| Channel 11 (2462MHz) | | | | | | | |
| 4927 | H | 62.46 | 74 | -11.54 | PK | 105.400 | 188.400 |
| 4927 | H | 43.99 | 54 | -10.01 | AV | 105.400 | 188.400 |
| 9857 | H | 54.83 | 74 | -19.17 | PK | 103.000 | 136.000 |
| 9857 | H | 36.32 | 54 | -17.68 | AV | 103.000 | 136.000 |
| 4927 | V | 65.31 | 74 | -8.69 | PK | 100.000 | 196.000 |
| 4927 | V | 46.83 | 54 | -7.17 | AV | 100.000 | 196.000 |
| 9857 | V | 59.61 | 74 | -14.39 | PK | 100.000 | 144.000 |
| 9857 | V | 40.32 | 54 | -13.68 | AV | 100.000 | 144.000 |

| Mode 2: 802.11g ((DAC1)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 01 (2412MHz) | | | | | | | |
| 4825 | H | 62.83 | 74 | -11.17 | PK | 120.500 | 304.000 |
| 4825 | H | 43.08 | 54 | -10.92 | AV | 120.500 | 304.000 |
| 4825 | V | 63.66 | 74 | -10.34 | PK | 109.400 | 65.800 |
| 4825 | V | 44.59 | 54 | -9.41 | AV | 109.400 | 65.800 |
| 9653 | V | 59.12 | 74 | -14.88 | PK | 100.000 | 187.000 |
| 9653 | V | 40.36 | 54 | -13.64 | AV | 100.000 | 187.000 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 60.92 | 74 | -13.08 | PK | 100.000 | 103.800 |
| 4876 | H | 41.37 | 54 | -12.63 | AV | 100.000 | 103.800 |
| 4876 | V | 63.94 | 74 | -10.06 | PK | 100.000 | 142.400 |
| 4876 | V | 44.92 | 54 | -9.08 | AV | 100.000 | 142.400 |
| 9755 | V | 62.74 | 74 | -11.26 | PK | 106.000 | 328.000 |
| 9755 | V | 43.25 | 54 | -10.75 | AV | 106.000 | 328.000 |
| Channel 11 (2462MHz) | | | | | | | |
| 4927 | H | 61.36 | 74 | -12.64 | PK | 100.000 | 162.000 |
| 4927 | H | 42.48 | 54 | -11.52 | AV | 100.000 | 162.000 |
| 4927 | V | 64.05 | 74 | -9.95 | PK | 100.000 | 77.400 |
| 4927 | V | 45.21 | 54 | -8.79 | AV | 100.000 | 77.400 |
| 9857 | V | 60.45 | 74 | -13.55 | PK | 100.000 | 169.000 |
| 9857 | V | 41.23 | 54 | -12.77 | AV | 100.000 | 169.000 |

| Mode 3: 802.11n(20MHz) ((DAC1)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 01 (2412MHz) | | | | | | | |
| 4825 | H | 62.58 | 74 | -11.42 | PK | 100.000 | 167.400 |
| 4825 | H | 43.24 | 54 | -10.76 | AV | 100.000 | 167.400 |
| 4825 | V | 63.49 | 74 | -10.51 | PK | 105.400 | 188.400 |
| 4825 | V | 45.24 | 54 | -8.76 | AV | 105.400 | 188.400 |
| 9653 | V | 59.27 | 74 | -14.73 | PK | 103.000 | 136.000 |
| 9653 | V | 40.94 | 54 | -13.06 | AV | 103.000 | 136.000 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 62.53 | 74 | -11.47 | PK | 105.100 | 94.000 |
| 4876 | H | 43.72 | 54 | -10.28 | AV | 105.100 | 94.000 |
| 4876 | V | 64.85 | 74 | -9.15 | PK | 100.000 | 284.000 |
| 4876 | V | 45.38 | 54 | -8.62 | AV | 100.000 | 284.000 |
| 9755 | V | 61.27 | 74 | -12.73 | PK | 100.000 | 169.000 |
| 9755 | V | 42.53 | 54 | -11.47 | AV | 100.000 | 169.000 |
| Channel 11 (2462MHz) | | | | | | | |
| 4927 | H | 60.93 | 74 | -13.07 | PK | 100.000 | 153.000 |
| 4927 | H | 42.05 | 54 | -11.95 | AV | 100.000 | 153.000 |
| 4927 | V | 63.28 | 74 | -10.72 | PK | 104.000 | 206.000 |
| 4927 | V | 44.39 | 54 | -9.61 | AV | 104.000 | 206.000 |
| 9857 | V | 60.37 | 74 | -13.63 | PK | 100.000 | 167.400 |
| 9857 | V | 41.84 | 54 | -12.16 | AV | 100.000 | 167.400 |

| Mode 4: 802.11n(40MHz) ((DAC1)) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 03 (2422MHz) | | | | | | | |
| 4845 | H | 63.25 | 74 | -10.75 | PK | 100.000 | 169.000 |
| 4845 | H | 44.78 | 54 | -9.22 | AV | 100.000 | 169.000 |
| 4845 | V | 64.56 | 74 | -9.44 | PK | 102.400 | 25.600 |
| 4845 | V | 45.39 | 54 | -8.61 | AV | 102.400 | 25.600 |
| 9693 | V | 60.84 | 74 | -13.16 | PK | 100.000 | 187.000 |
| 9693 | V | 41.28 | 54 | -12.72 | AV | 100.000 | 187.000 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 60.55 | 74 | -13.45 | PK | 105.100 | 94.000 |
| 4876 | H | 41.36 | 54 | -12.64 | AV | 105.100 | 94.000 |
| 4876 | V | 63.75 | 74 | -10.25 | PK | 100.000 | 284.000 |
| 4876 | V | 44.67 | 54 | -9.33 | AV | 100.000 | 284.000 |
| 9755 | V | 62.29 | 74 | -11.71 | PK | 106.000 | 328.000 |
| 9755 | V | 43.34 | 54 | -10.66 | AV | 106.000 | 328.000 |
| Channel 09 (2452MHz) | | | | | | | |
| 4907 | H | 61.37 | 74 | -12.63 | PK | 105.000 | 113.600 |
| 4907 | H | 42.21 | 54 | -11.79 | AV | 105.000 | 113.600 |
| 4907 | V | 63.34 | 74 | -10.66 | PK | 100.000 | 165.000 |
| 4907 | V | 44.55 | 54 | -9.45 | AV | 100.000 | 165.000 |
| 9817 | V | 60.47 | 74 | -13.53 | PK | 103.600 | 72.800 |
| 9817 | V | 41.56 | 54 | -12.44 | AV | 103.600 | 72.800 |

| Mode 3: 802.11n(20MHz) (DAC0 and DAC1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 01 (2412MHz) | | | | | | | |
| 4825 | H | 63.58 | 74 | -10.42 | PK | 105.400 | 117.500 |
| 4825 | H | 44.24 | 54 | -9.76 | AV | 105.400 | 117.500 |
| 4825 | V | 64.09 | 74 | -9.91 | PK | 110.400 | 258.000 |
| 4825 | V | 45.16 | 54 | -8.84 | AV | 110.400 | 258.000 |
| 9653 | V | 60.27 | 74 | -13.73 | PK | 103.600 | 84.000 |
| 9653 | V | 41.34 | 54 | -12.66 | AV | 103.600 | 84.000 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 62.72 | 74 | -11.28 | PK | 105.400 | 188.400 |
| 4876 | H | 43.44 | 54 | -10.56 | AV | 105.400 | 188.400 |
| 4876 | V | 64.63 | 74 | -9.37 | PK | 103.000 | 136.000 |
| 4876 | V | 45.52 | 54 | -8.48 | AV | 103.000 | 136.000 |
| 9755 | V | 61.74 | 74 | -12.26 | PK | 105.400 | 114.700 |
| 9755 | V | 42.58 | 54 | -11.42 | AV | 105.400 | 114.700 |
| Channel 11 (2462MHz) | | | | | | | |
| 4927 | H | 60.85 | 74 | -13.15 | PK | 100.000 | 153.000 |
| 4927 | H | 41.75 | 54 | -12.25 | AV | 100.000 | 153.000 |
| 4927 | V | 63.44 | 74 | -10.56 | PK | 104.000 | 206.000 |
| 4927 | V | 44.52 | 54 | -9.48 | AV | 104.000 | 206.000 |
| 9857 | V | 60.38 | 74 | -13.62 | PK | 103.500 | 63.800 |
| 9857 | V | 41.93 | 54 | -12.07 | AV | 103.500 | 63.800 |

| Mode 4: 802.11n(40MHz) (DAC0 and DAC1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency (MHz) | Polarization (H/V) | Measure Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type | Height (cm) | Azimuth (degree) |
| Channel 03 (2422MHz) | | | | | | | |
| 4845 | H | 62.55 | 74 | -11.45 | PK | 100.000 | 165.200 |
| 4845 | H | 43.58 | 54 | -10.42 | AV | 100.000 | 165.200 |
| 4845 | V | 64.38 | 74 | -9.62 | PK | 100.000 | 205.000 |
| 4845 | V | 45.75 | 54 | -8.25 | AV | 100.000 | 205.000 |
| 9693 | V | 60.27 | 74 | -13.73 | PK | 100.000 | 166.800 |
| 9693 | V | 41.35 | 54 | -12.65 | AV | 100.000 | 166.800 |
| Channel 06 (2437MHz) | | | | | | | |
| 4876 | H | 60.28 | 74 | -13.72 | PK | 100.000 | 122.000 |
| 4876 | H | 41.47 | 54 | -12.53 | AV | 100.000 | 122.000 |
| 4876 | V | 63.47 | 74 | -10.53 | PK | 105.800 | 94.000 |
| 4876 | V | 44.94 | 54 | -9.06 | AV | 105.800 | 94.000 |
| 9755 | V | 62.32 | 74 | -11.68 | PK | 100.000 | 114.500 |
| 9755 | V | 43.16 | 54 | -10.84 | AV | 100.000 | 114.500 |
| Channel 09 (2452MHz) | | | | | | | |
| 4907 | H | 61.38 | 74 | -12.62 | PK | 105.400 | 114.700 |
| 4907 | H | 42.17 | 54 | -11.83 | AV | 105.400 | 114.700 |
| 4907 | V | 63.43 | 74 | -10.57 | PK | 103.500 | 63.800 |
| 4907 | V | 44.51 | 54 | -9.49 | AV | 103.500 | 63.800 |
| 9817 | V | 60.39 | 74 | -13.61 | PK | 100.000 | 84.900 |
| 9817 | V | 41.48 | 54 | -12.52 | AV | 100.000 | 84.900 |

# 5. RF Antenna Conducted Spurious

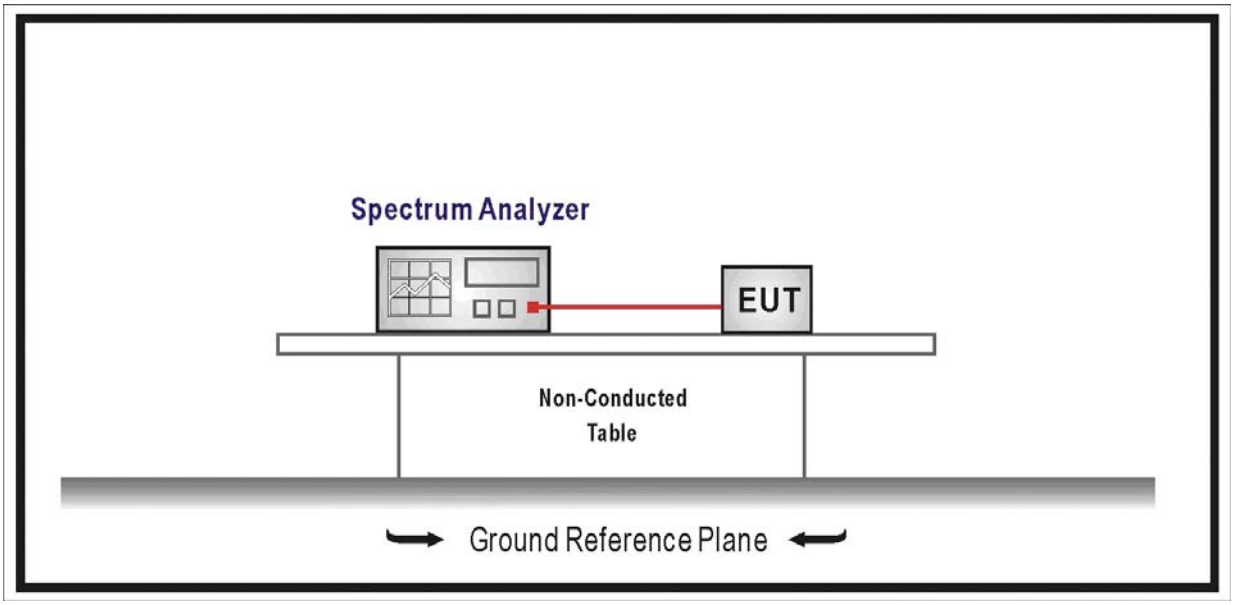
## 5.1. Test Equipment

RF Antenna Conducted Spurious / AC-4

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | E4446A | MY45300103 | 2008/06/11 |
| Coaxial Cable | Huber+Suhner | AC4-RF | 09 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH007 | 2008/03/09 |

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 5.2. Test Setup




## 5.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

## 5.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

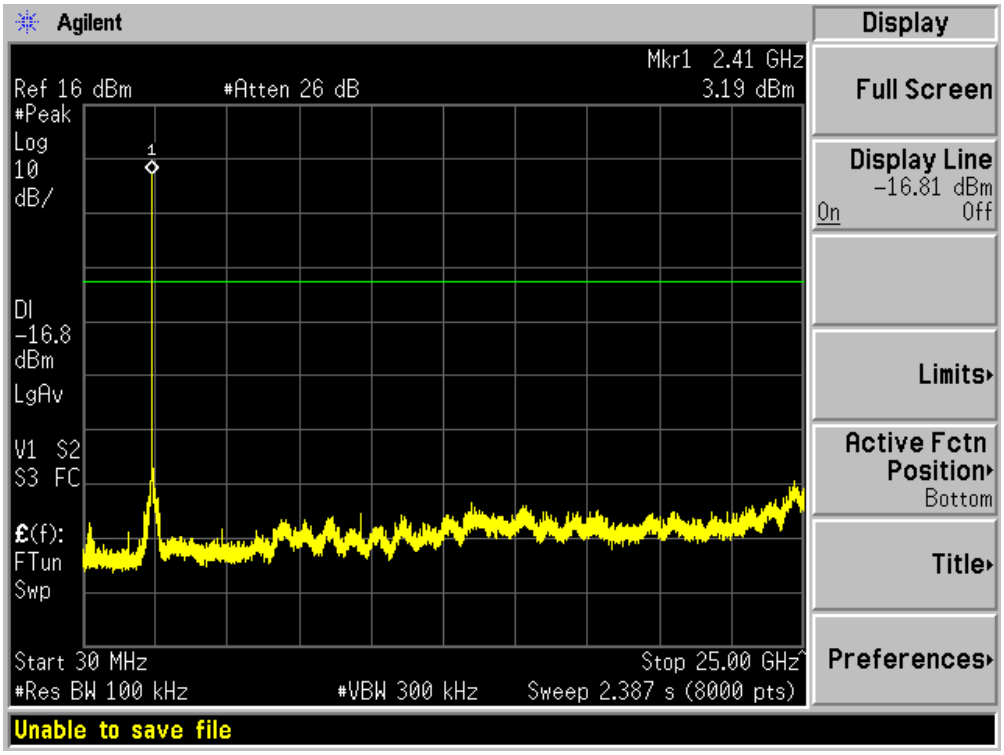
## 5.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

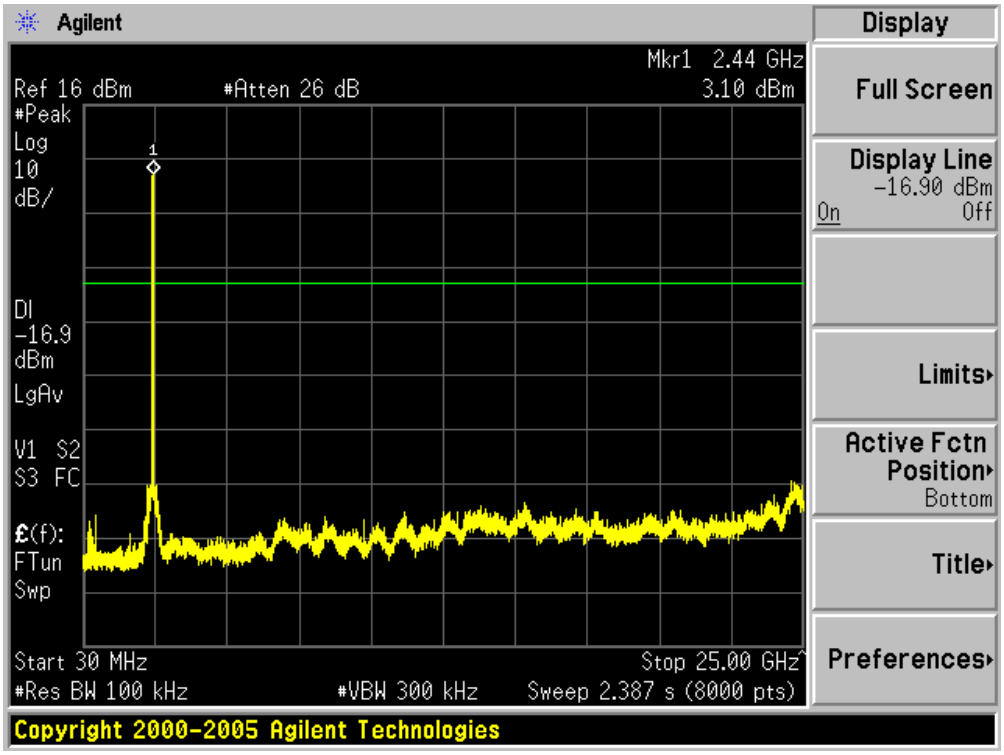
## 5.6. Test Result

| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC0) |

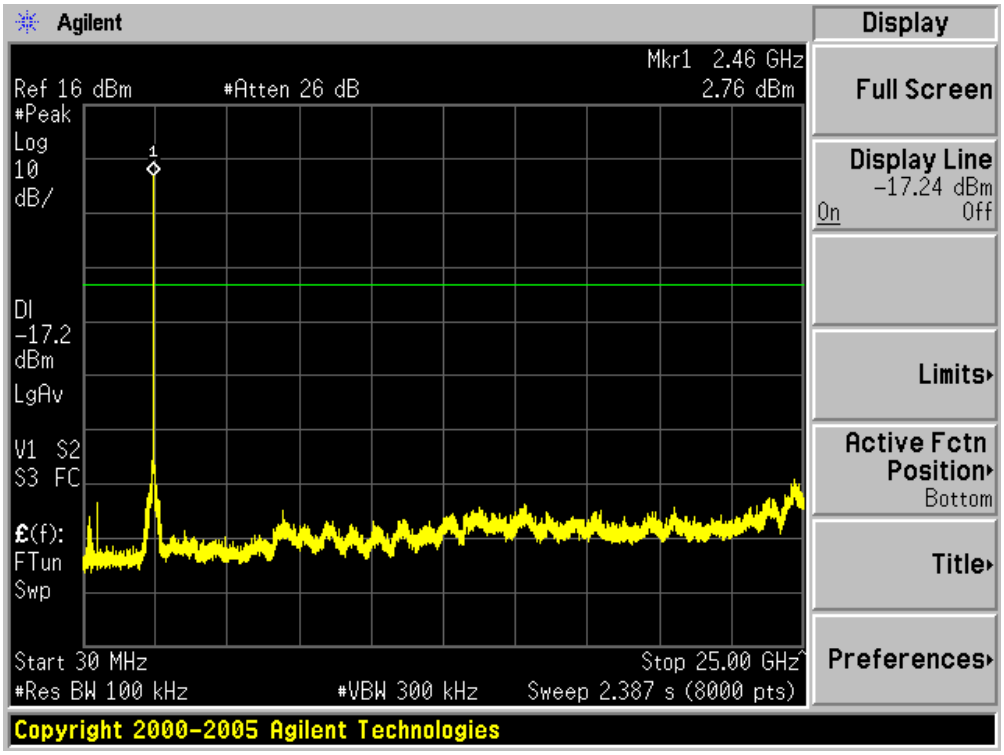
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**

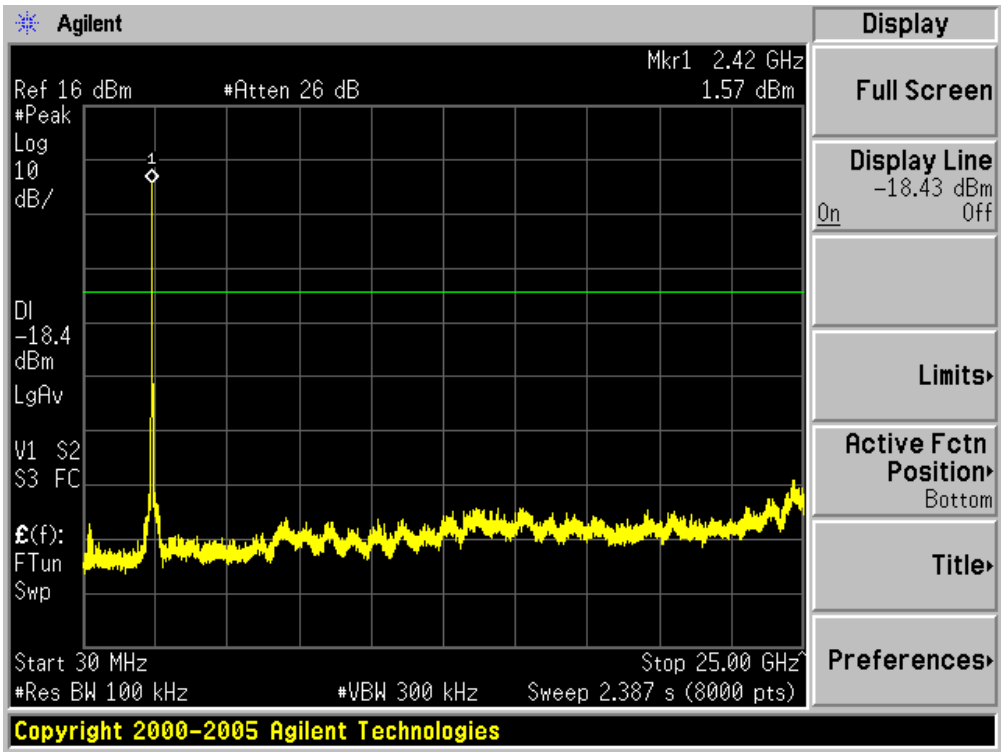



**Channel 11 (2462MHz)**

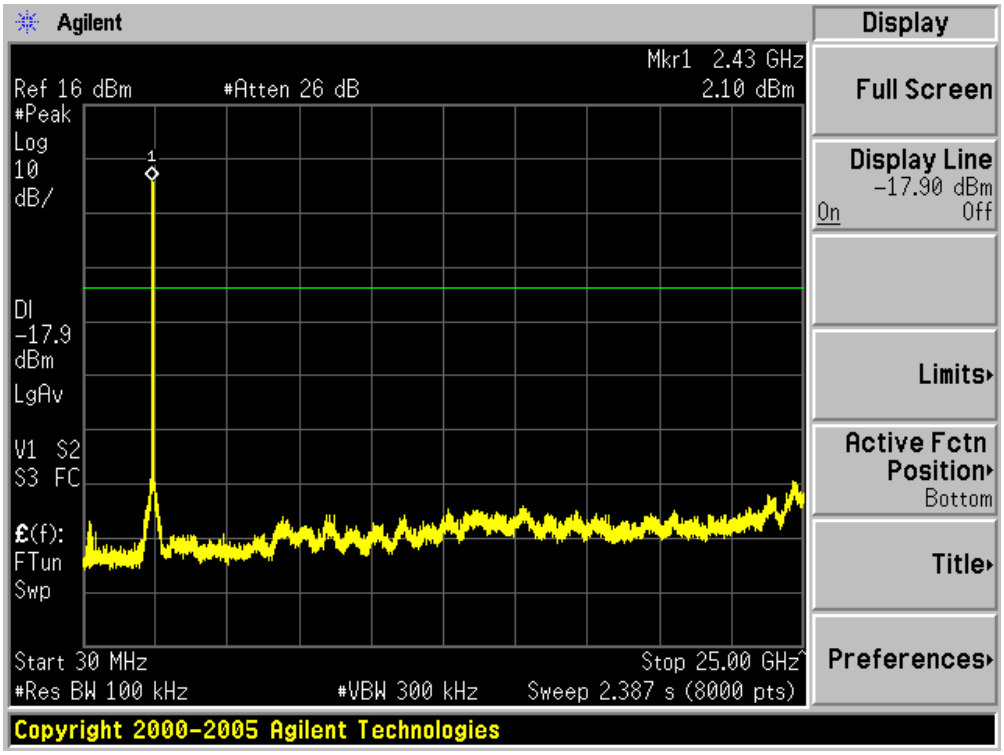


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC0) |

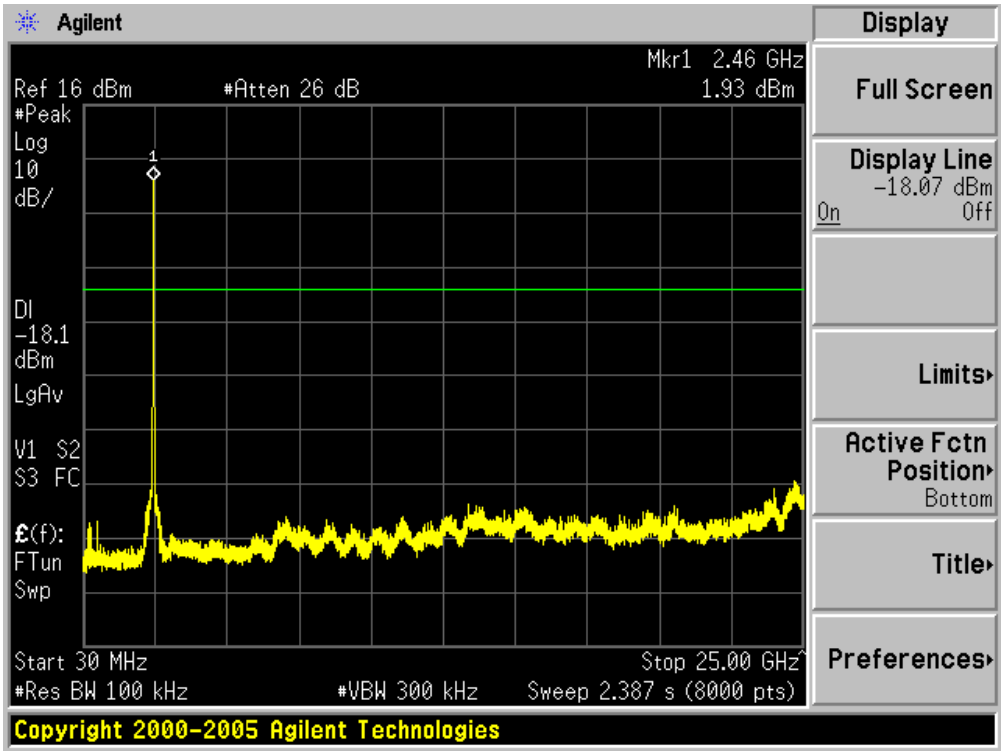
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**

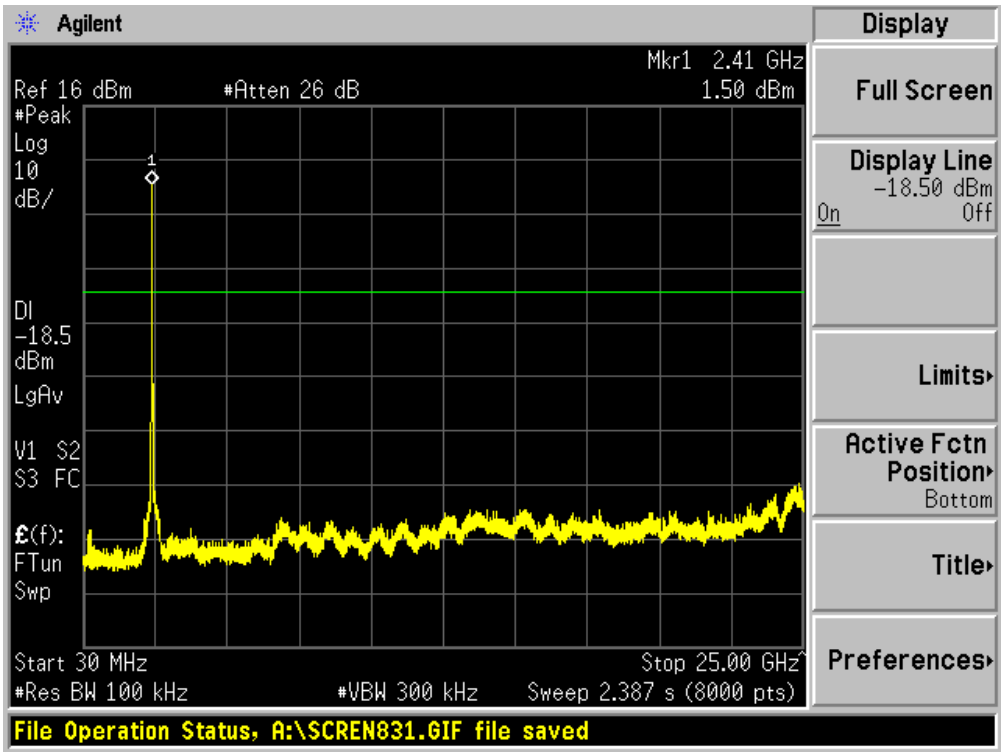



**Channel 11 (2462MHz)**

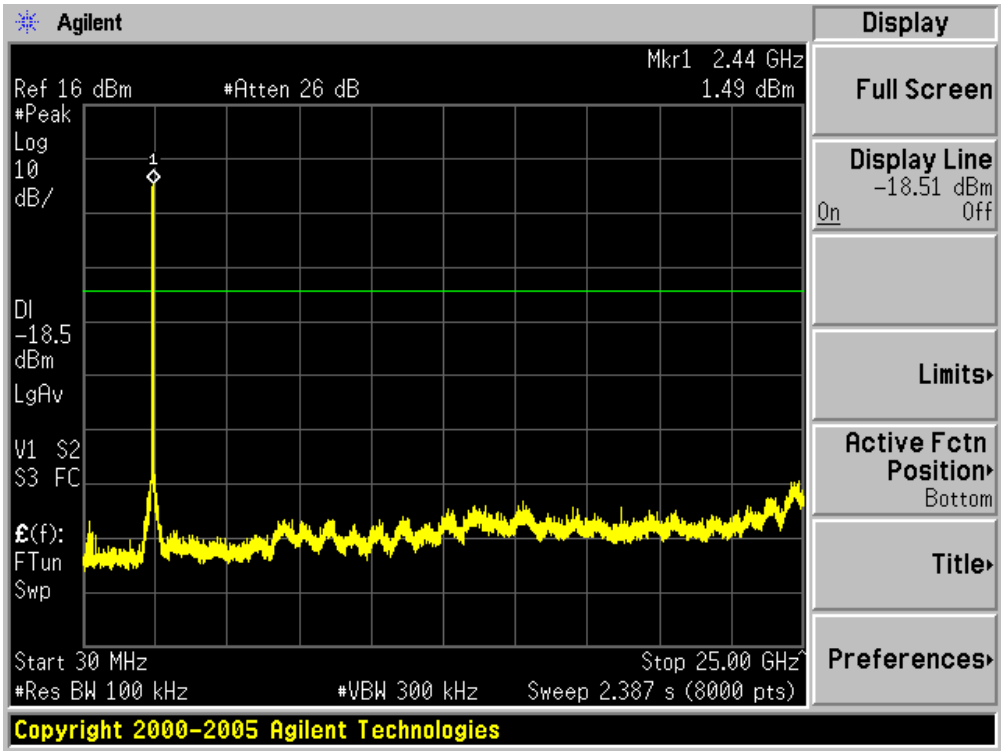


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC0) |

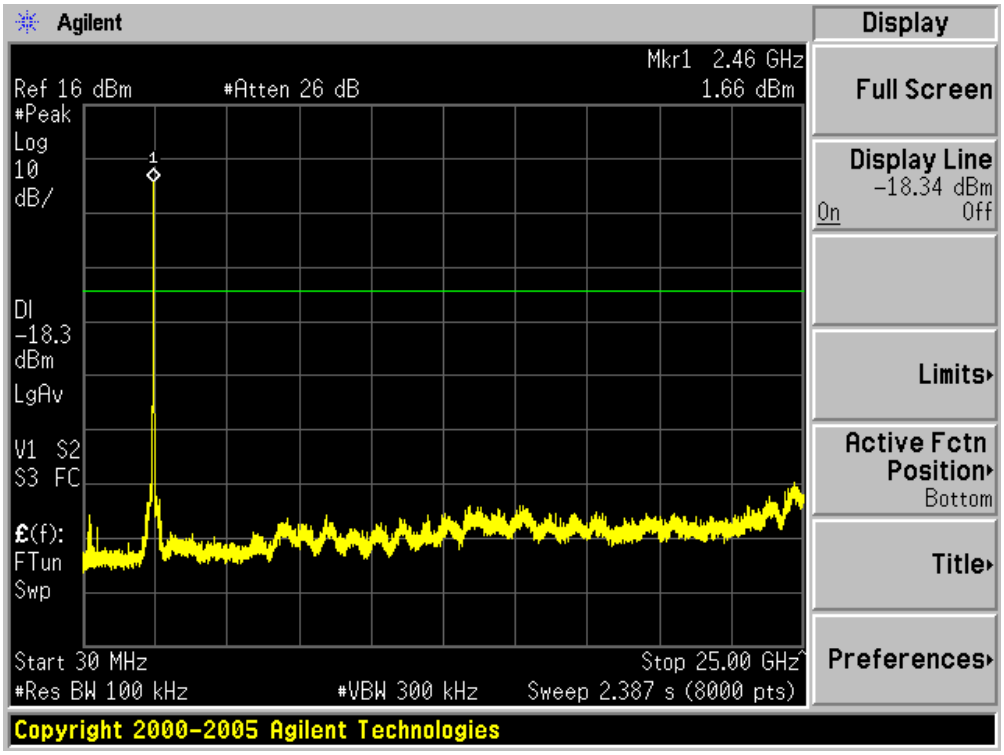
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**

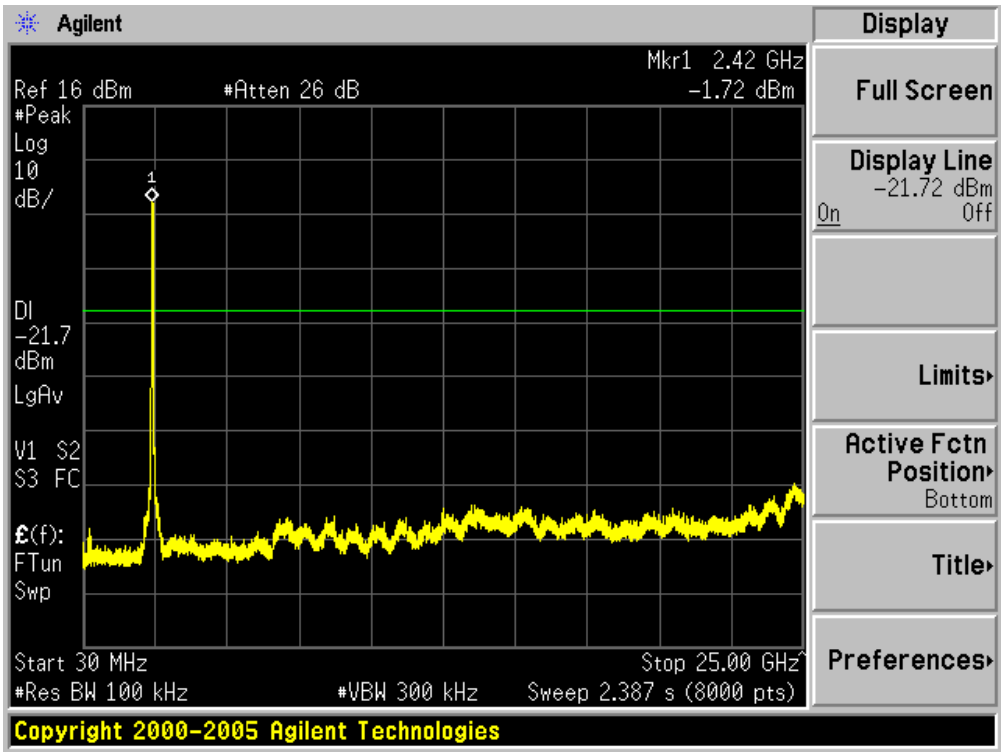



**Channel 11 (2462MHz)**

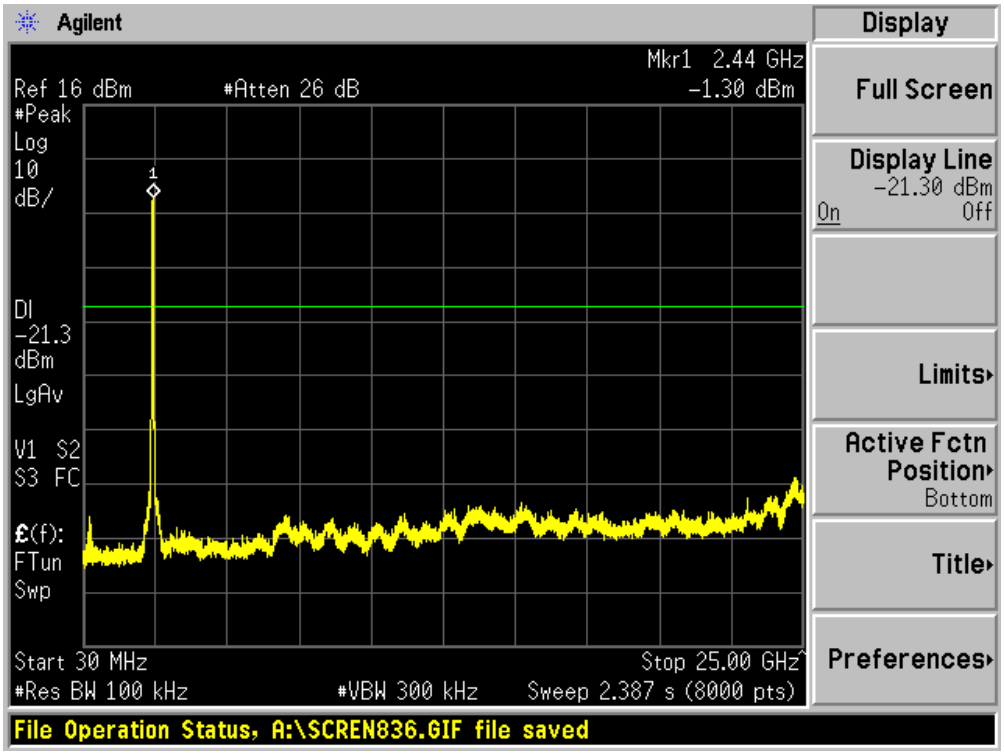


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC0) |

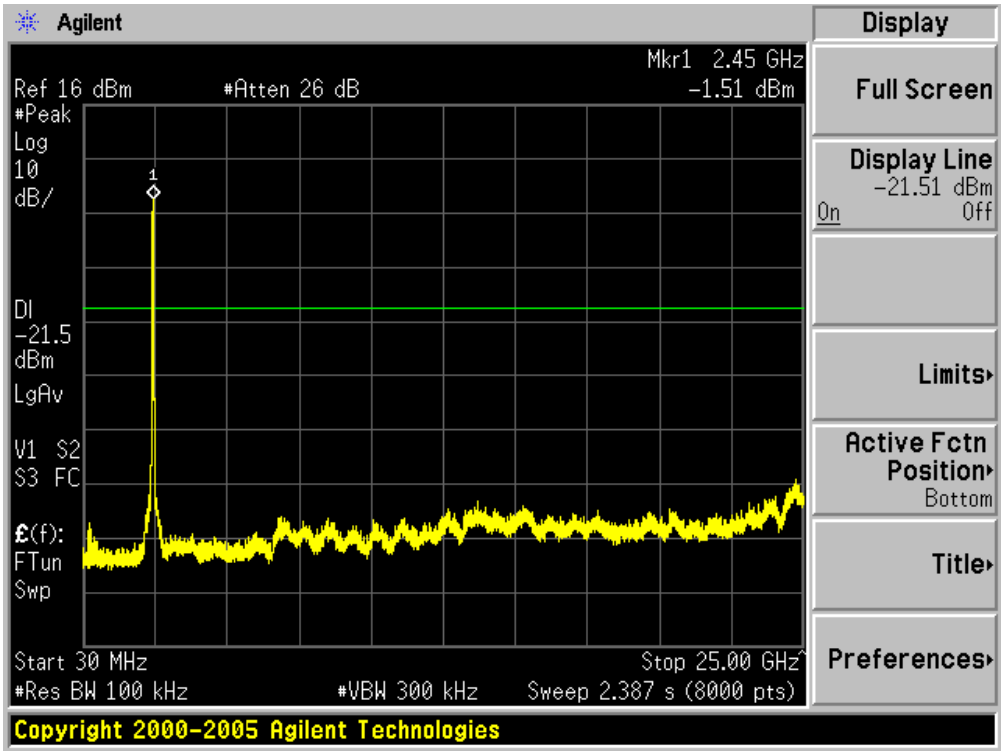
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**

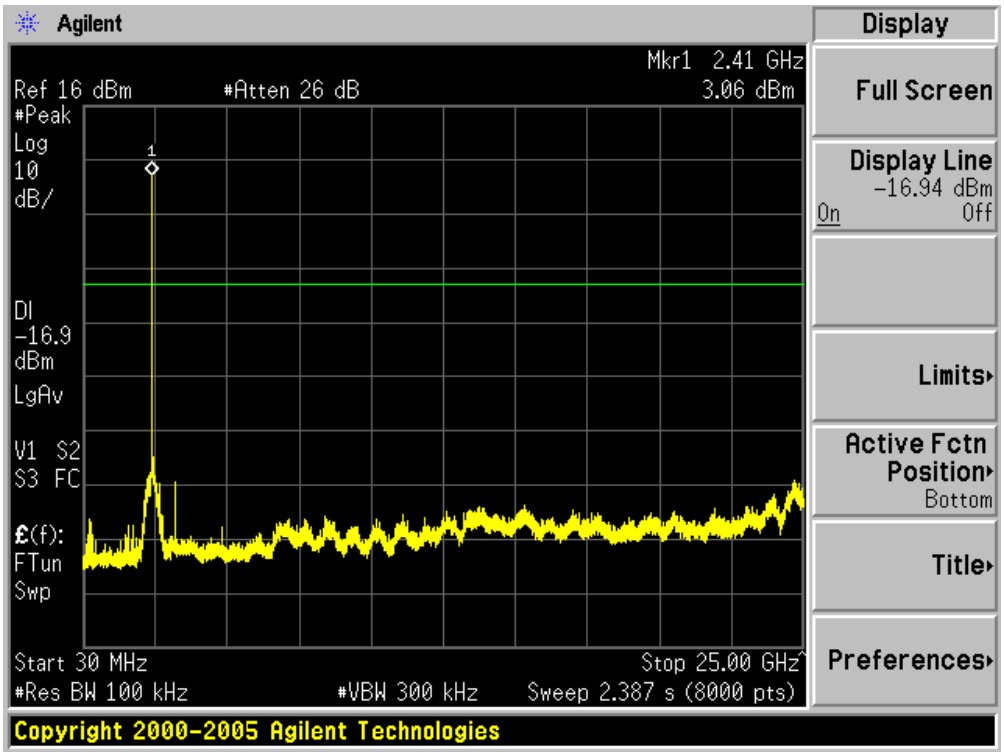



**Channel 09 (2452MHz)**

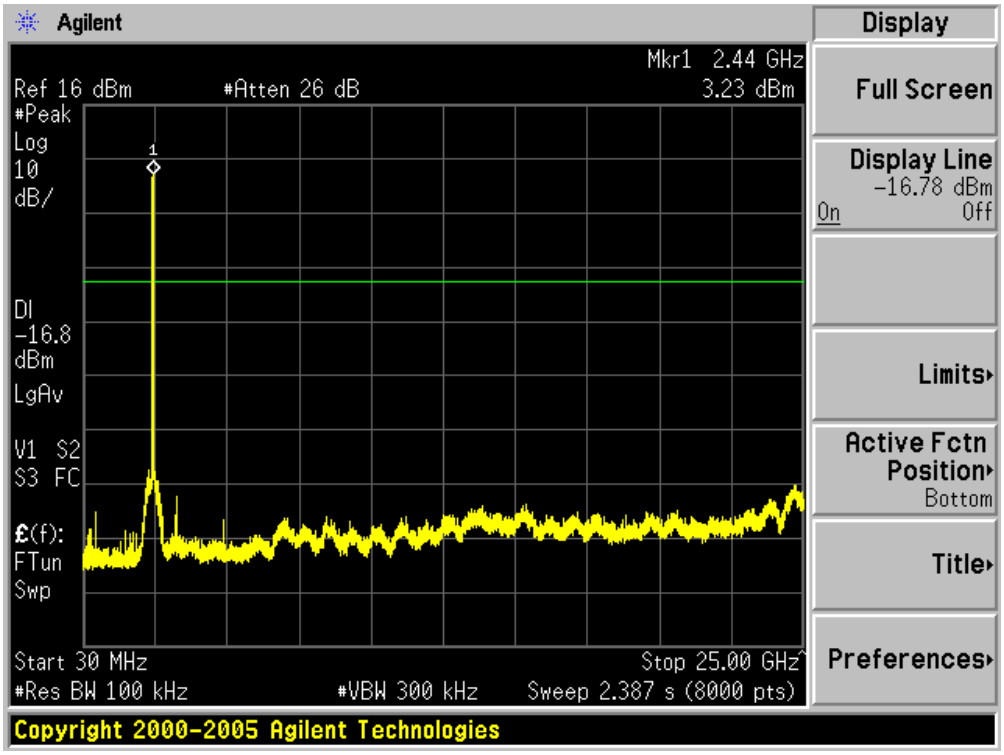


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC1) |

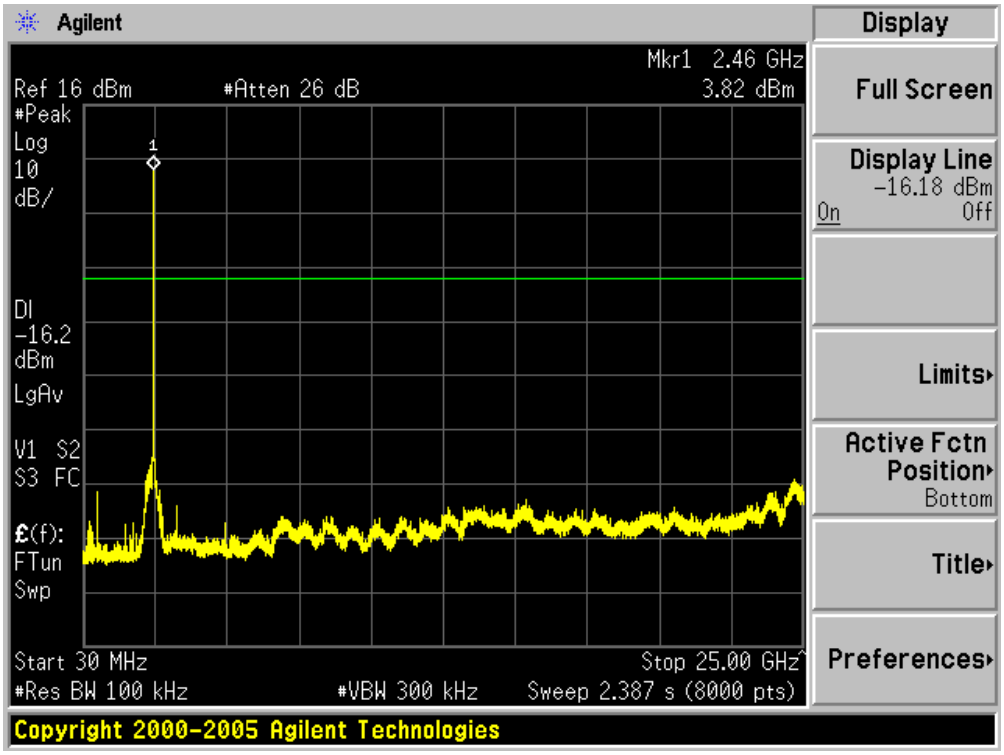
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**

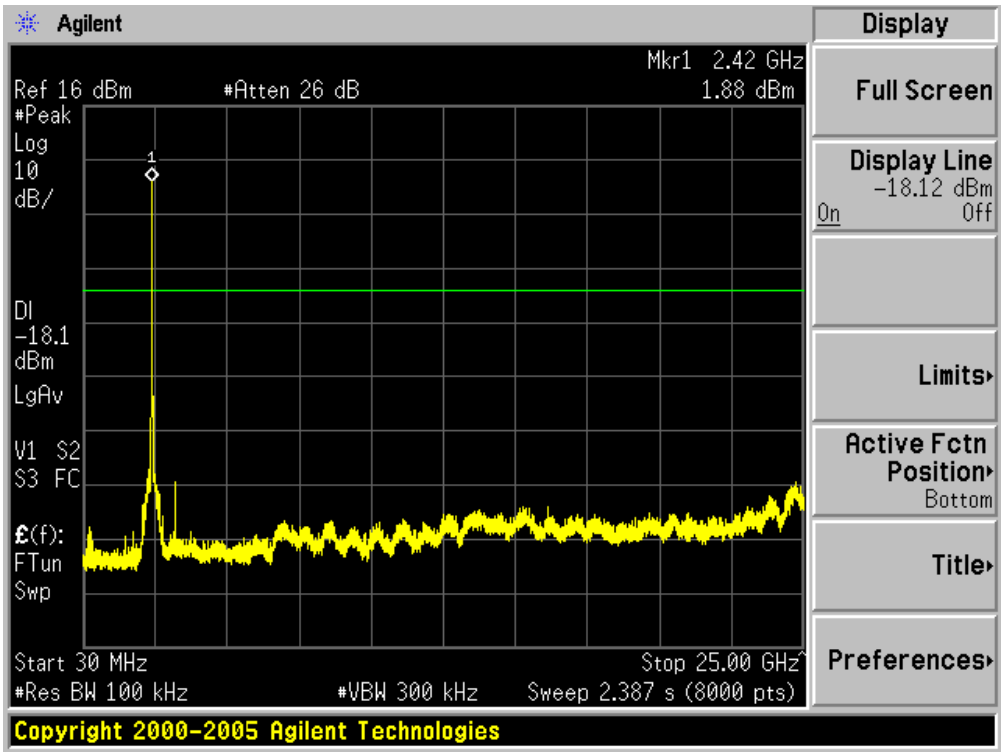



**Channel 11 (2462MHz)**

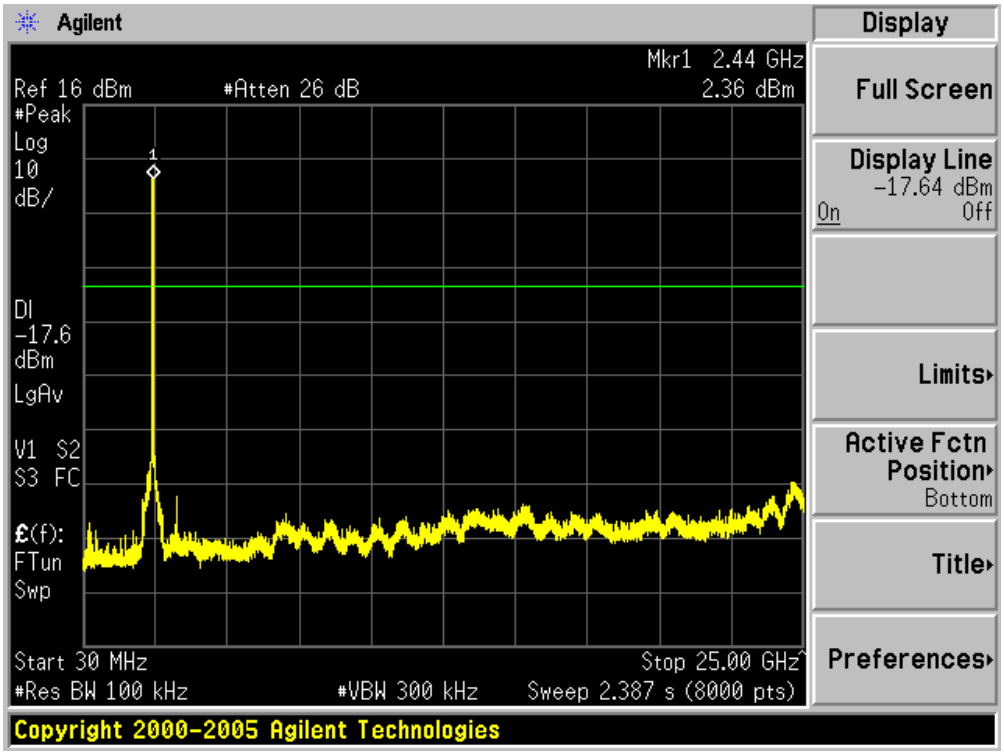


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC1) |

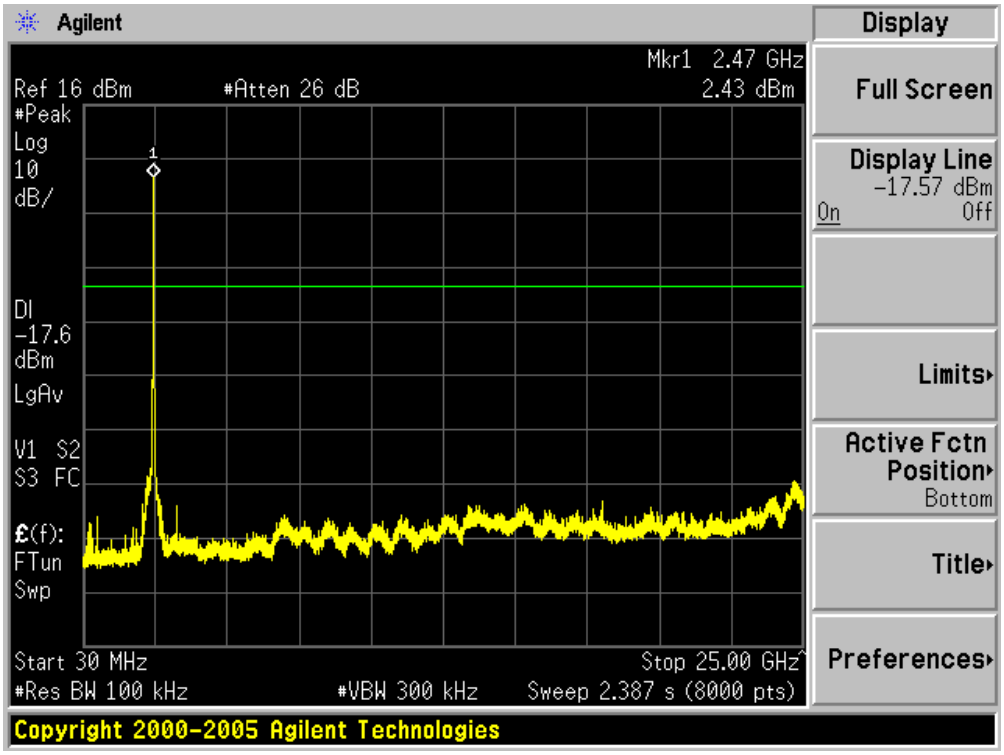
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**

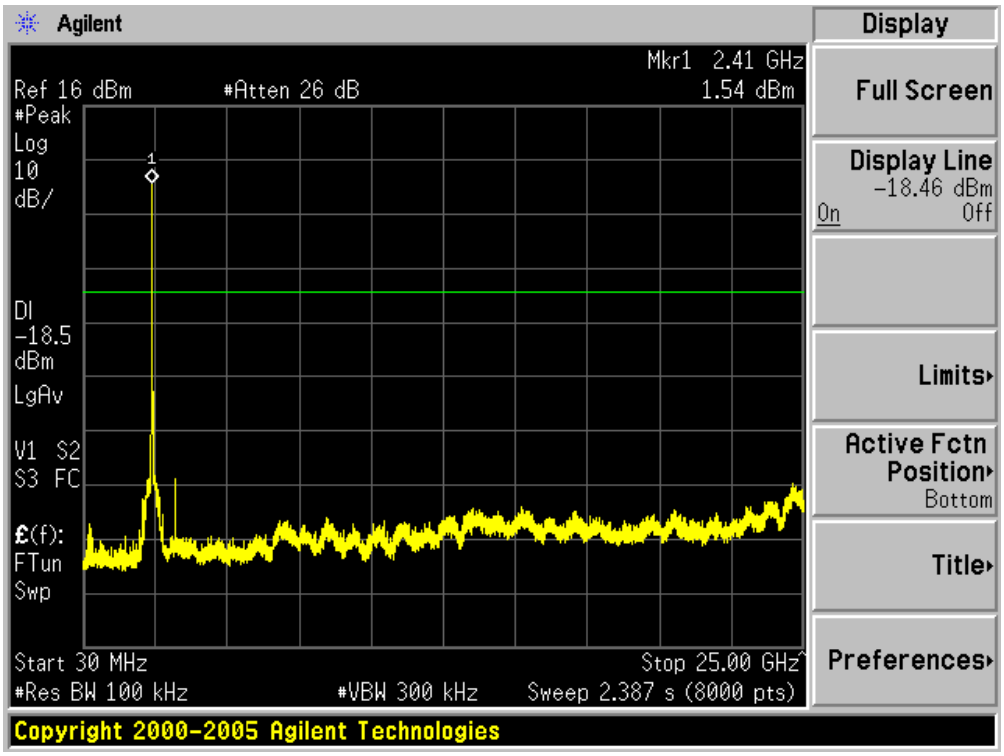



**Channel 11 (2462MHz)**

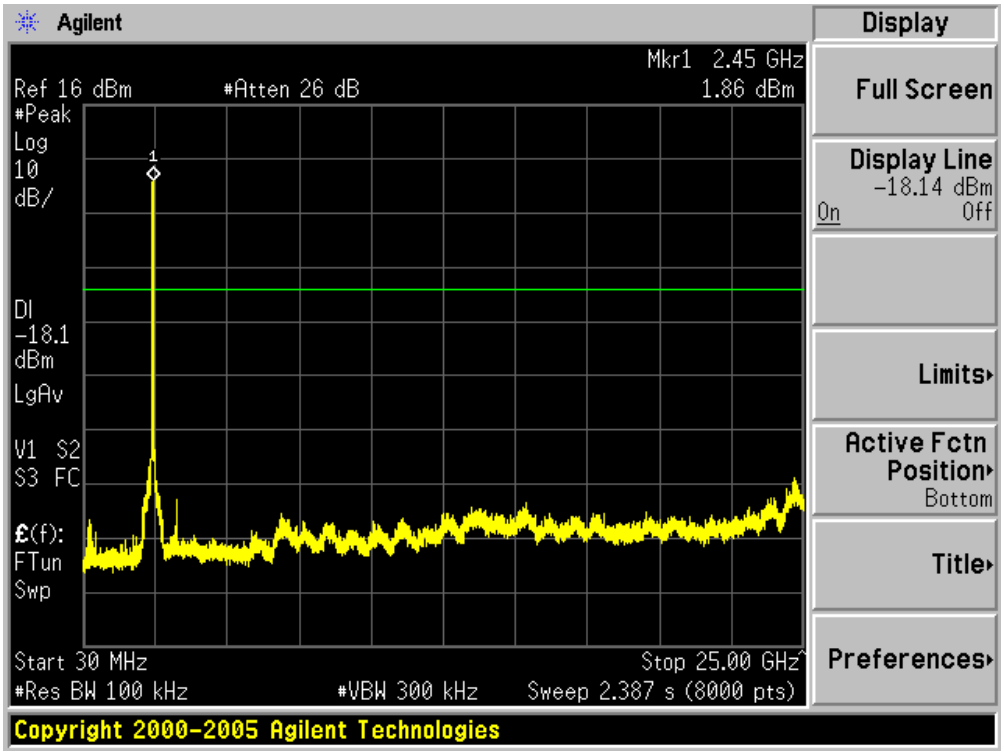


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC1) |

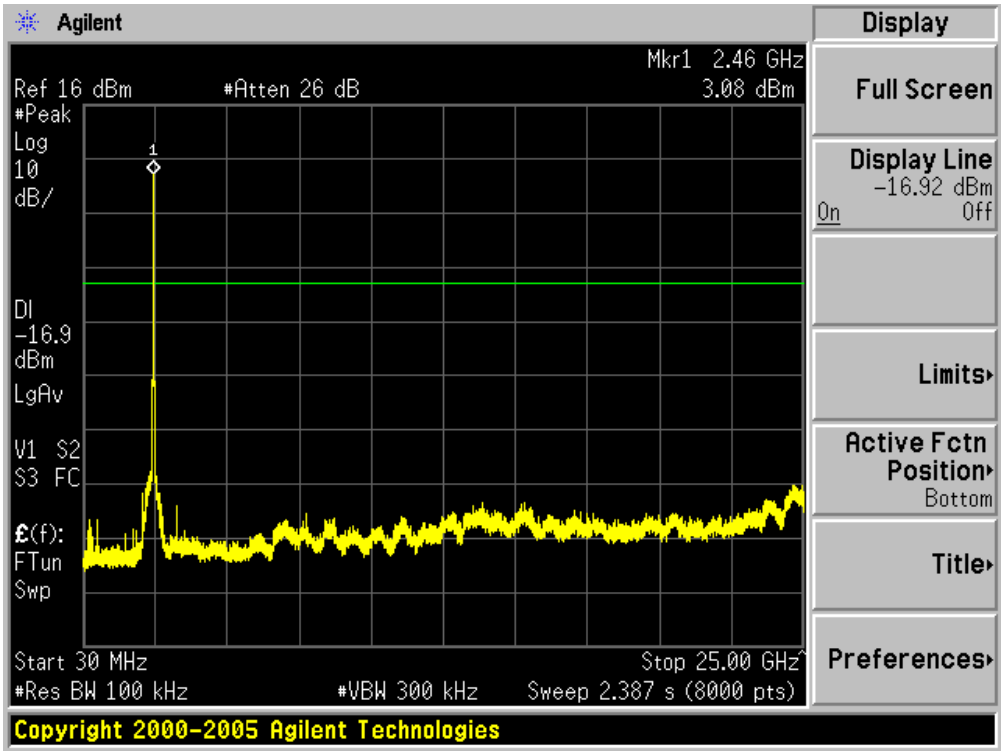
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**

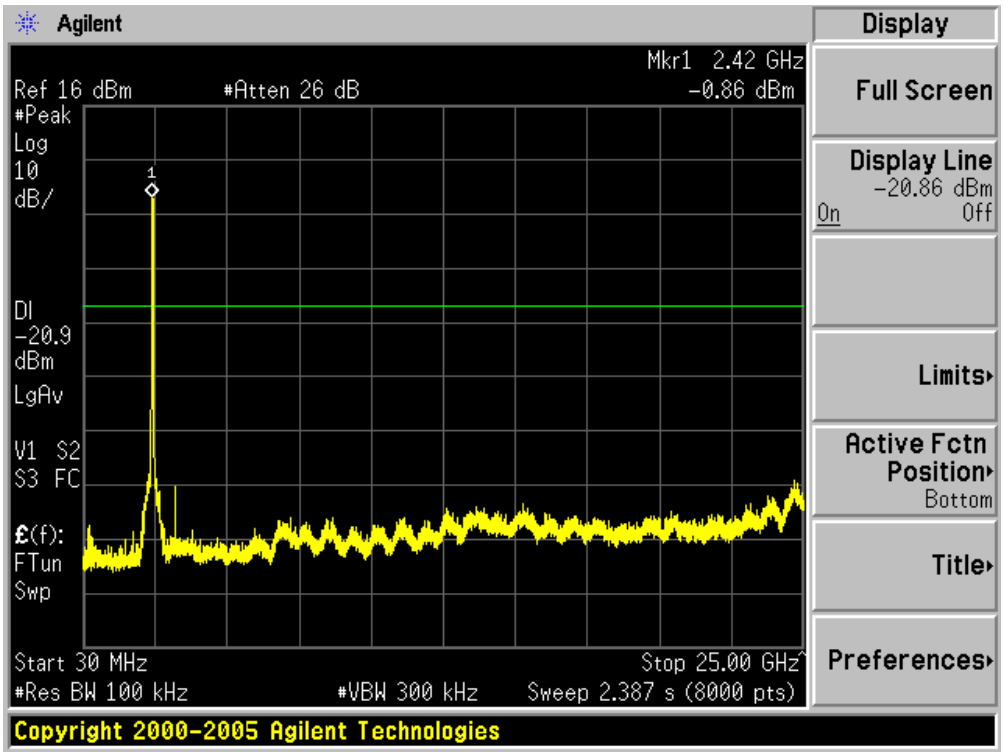



**Channel 11 (2462MHz)**

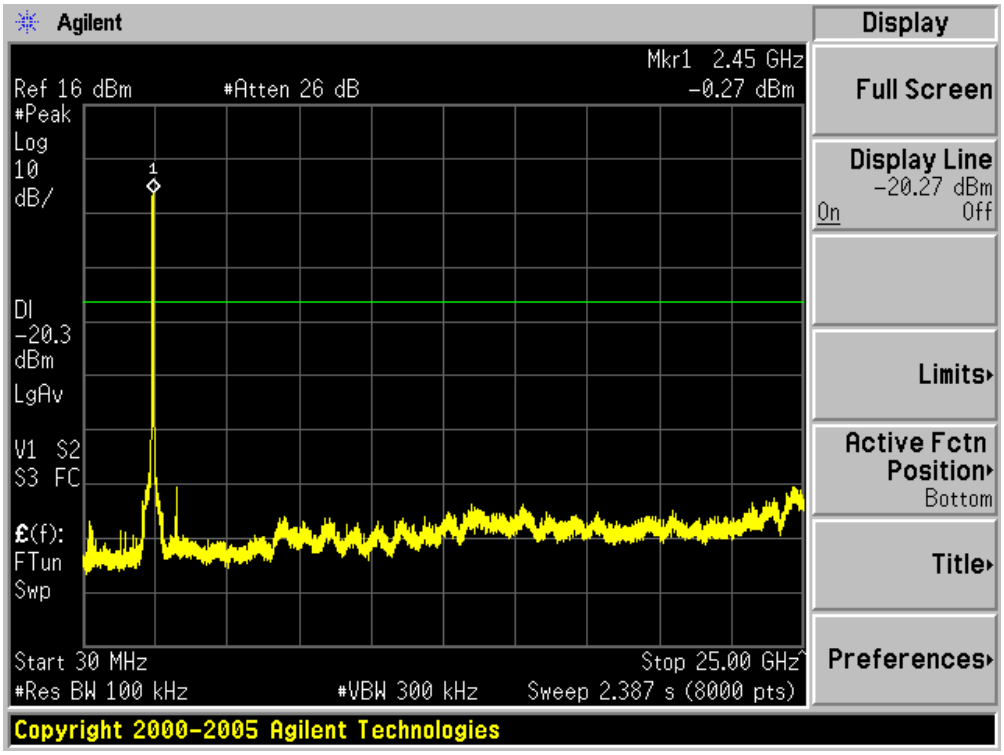


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | RF Antenna Conducted Spurious |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC1) |

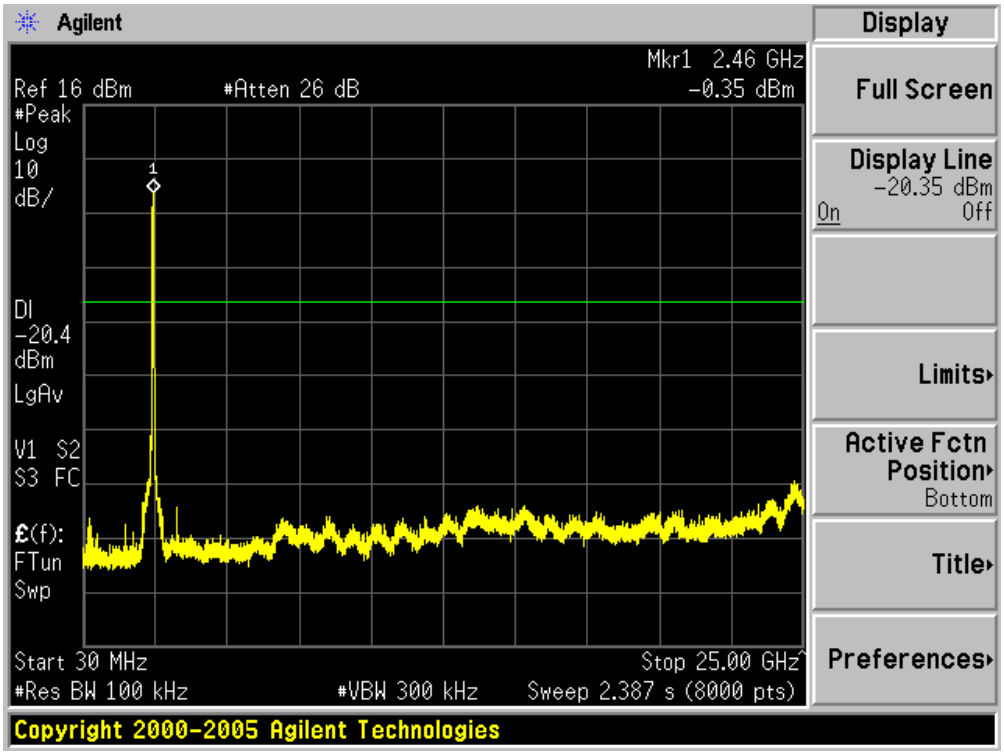
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**




**Channel 09 (2452MHz)**



# 6. Radiated Emission Band Edge

## 6.1. Test Equipment

☒Radiated Emission / AC-2

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | E4408B | MY45102679 | 2008/06/28 |
| EMI Test Receiver | R&S | ESCI | 100573 | 2008/05/10 |
| Preamplifier | Quietek | AP-025C | QT-AP003 | 2007/11/25 |
| Preamplifier | Quietek | AP-180C | CHM-0602012 | 2007/11/25 |
| Bilog Type Antenna | Schaffner | CBL6112B | 2932 | 2007/11/22 |
| Broad-Band Horn Antenna | Schwarzbeck | BBHA9120D | 496 | 2008/06/28 |
| 50ohm Coaxial Switch | Anritsu | MP59B | 6200447304 | 2007/11/25 |
| Coaxial Cable | Huber+Suhner | AC2-C | 04 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH002 | 2008/03/31 |

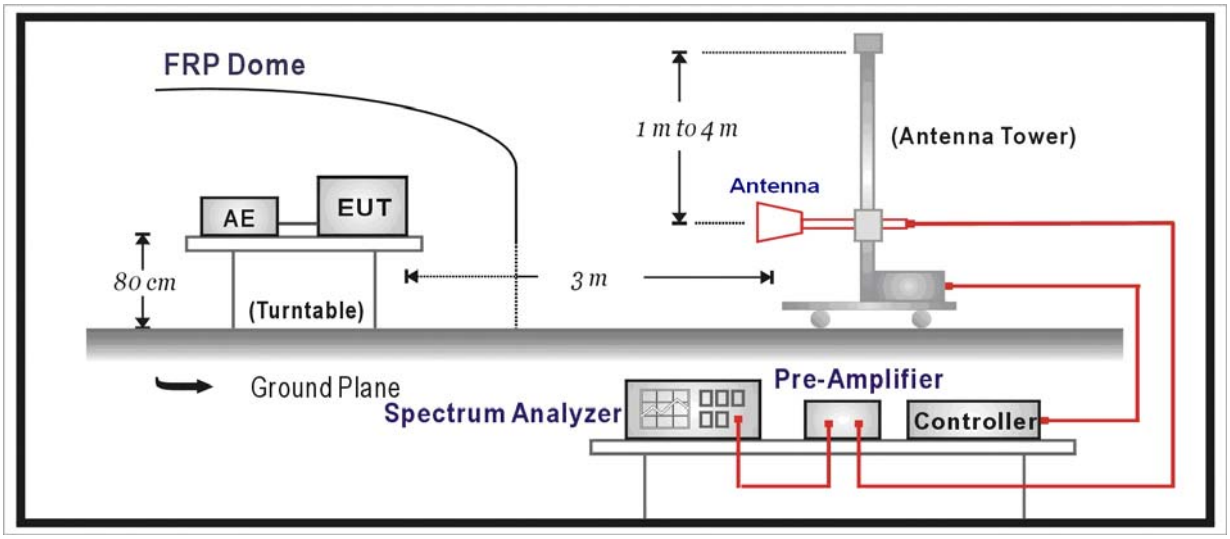
☐Radiated Emission / AC-3

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | N9010A | MY48030494 | 2008/04/24 |
| EMI Test Receiver | R&S | ESCI | 100176 | 2007/11/15 |
| Preamplifier | Quietek | AP-025C | QT-AP004 | 2007/11/25 |
| Preamplifier | Quietek | AP-180C | CHM-0602012 | 2007/11/25 |
| Bilog Type Antenna | Schaffner | CBL6112D | 22254 | 2007/11/22 |
| Broad-Band Horn Antenna | Schwarzbeck | BBHA9120D | 496 | 2008/06/28 |
| 50ohm Coaxial Switch | Anritsu | MP59B | 6200464463 | 2007/11/25 |
| Coaxial Cable | Huber+Suhner | AC2-C | 05 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH003 | 2008/03/31 |

Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Note 2: The test instruments marked with “X” are used to measure the final test results.

## 6.2. Test Setup




## 6.3. Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

## 6.4. Test Procedure

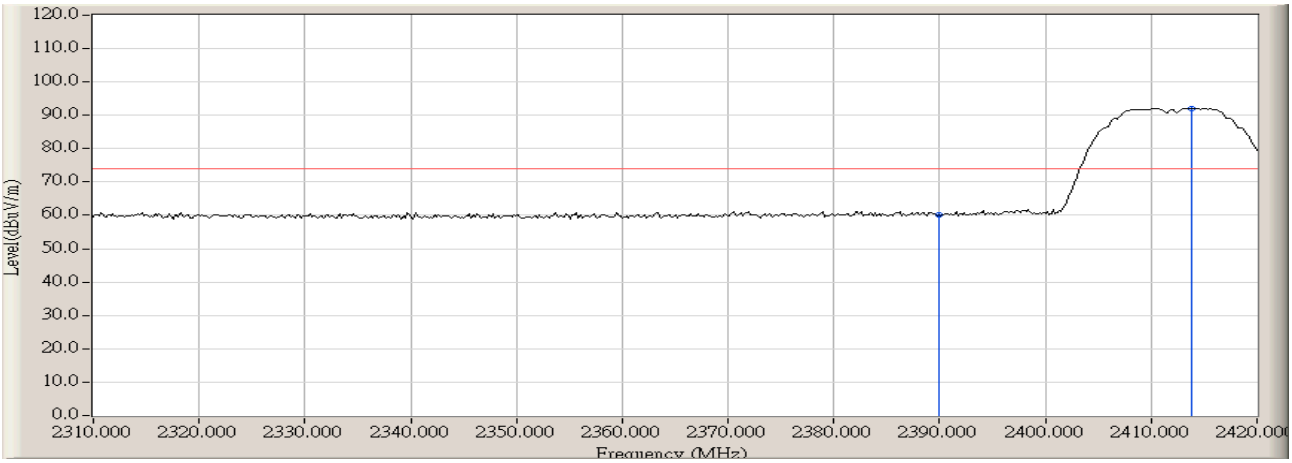
The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

## 6.5. Uncertainty

The measurement uncertainty above 1G is defined as ± 3.9 dB

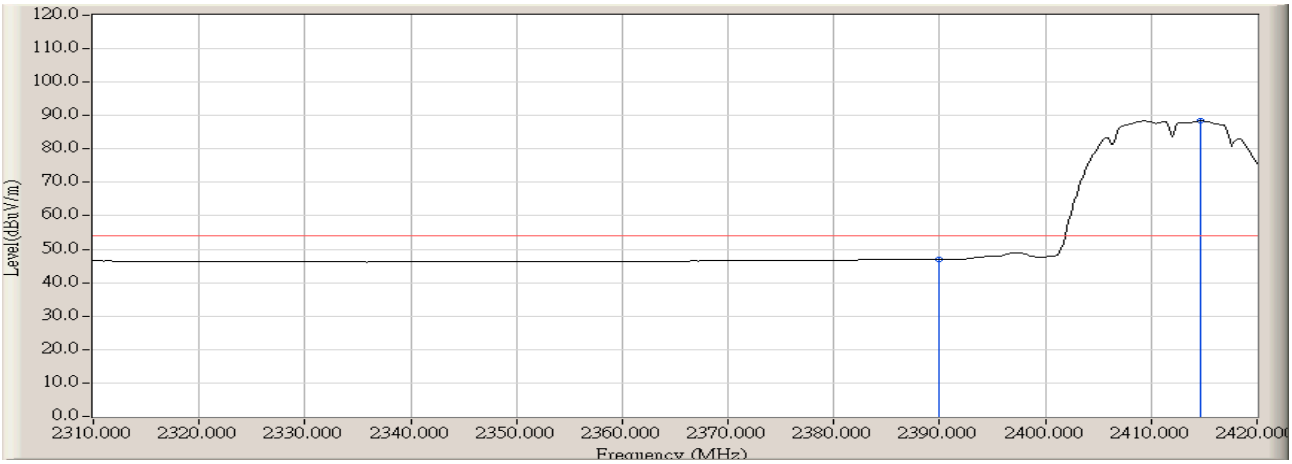
## 6.6. Test Result

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:23** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC0)** |



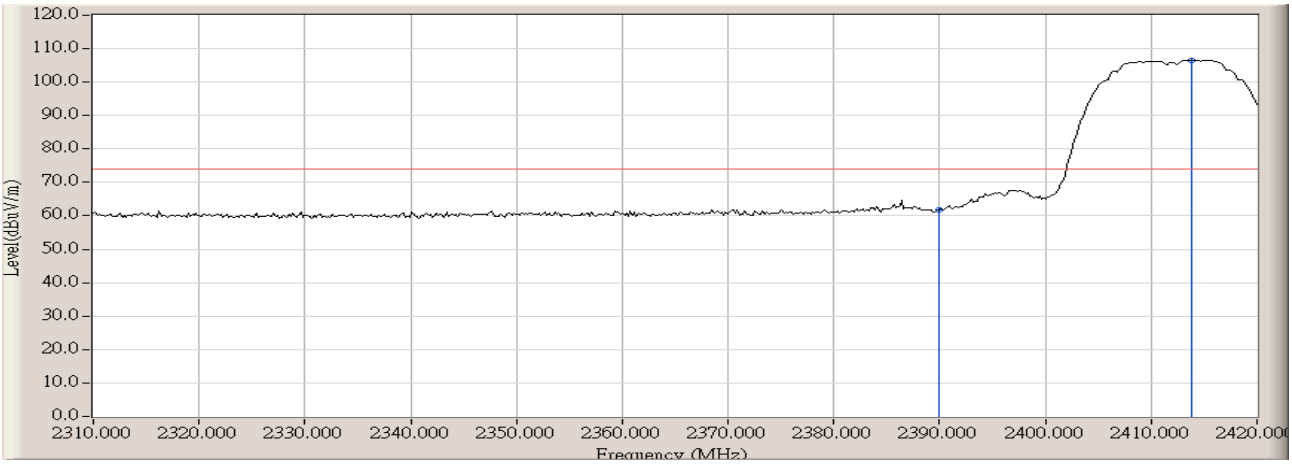

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.423 | 60.145 | -13.825 | 73.970 | PEAK |
| 2 | * | 2413.767 | 32.735 | 59.372 | 92.107 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:24** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC0)** |



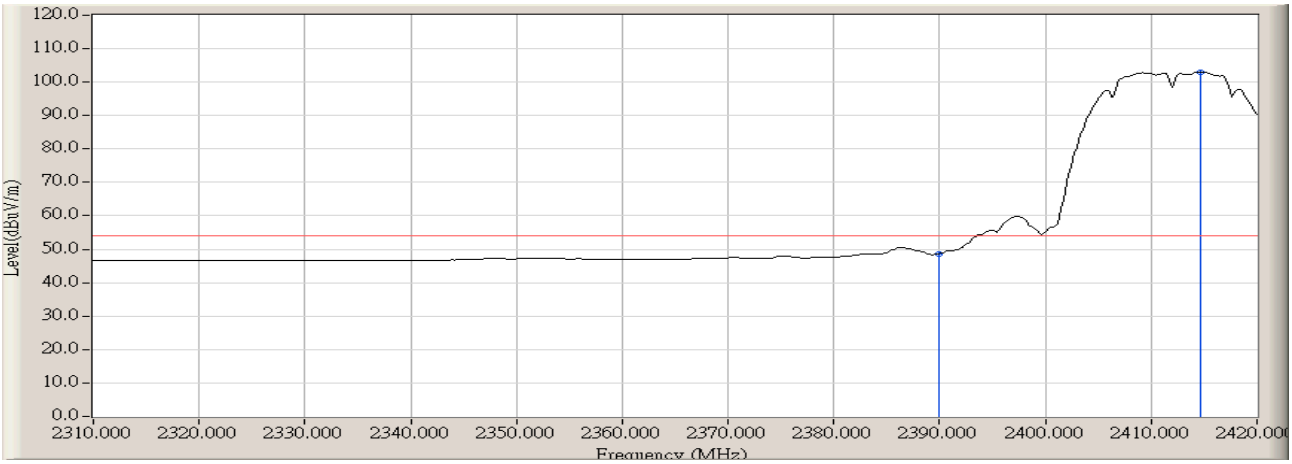

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.172 | 46.894 | -7.076 | 53.970 | AVERAGE |
| 2 | * | 2414.683 | 32.737 | 55.745 | 88.482 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:19** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC0)** |



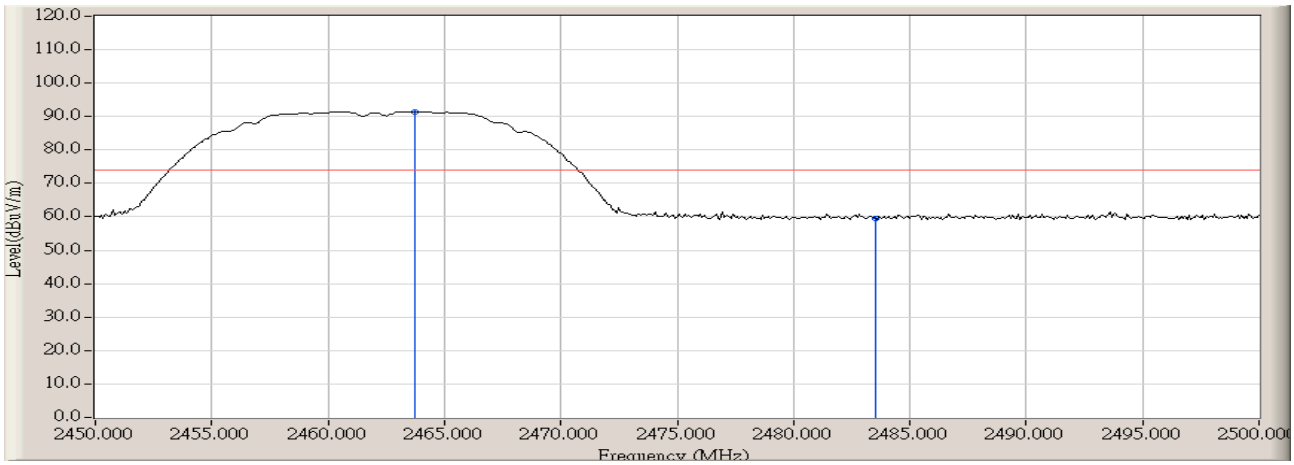

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 29.009 | 61.731 | -12.239 | 73.970 | PEAK |
| 2 | * | 2413.767 | 32.735 | 73.814 | 106.549 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:20** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC0)** |



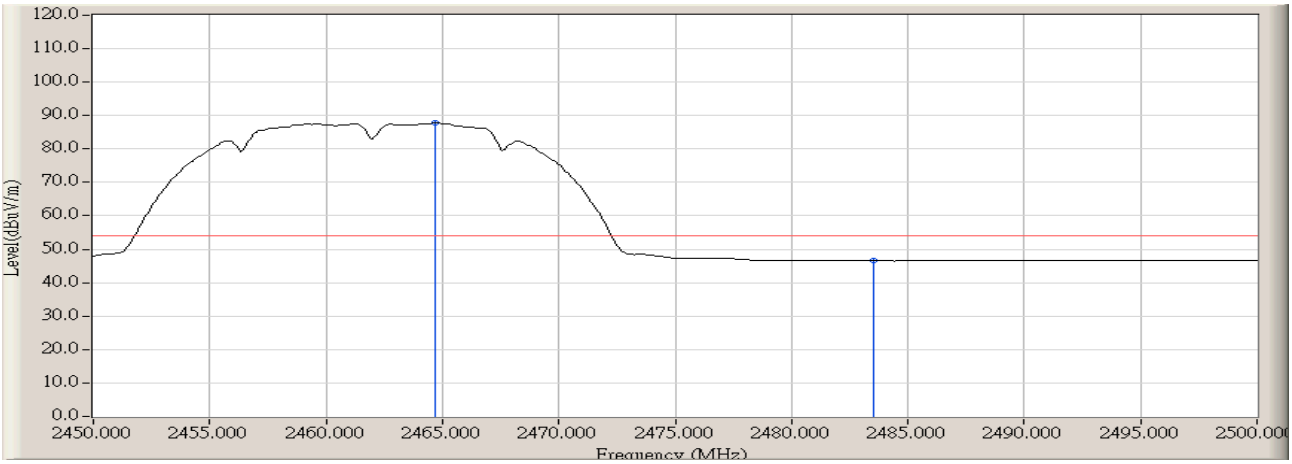

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 15.938 | 48.660 | -5.310 | 53.970 | AVERAGE |
| 2 | * | 2414.683 | 32.737 | 70.339 | 103.076 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:32** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC0)** |



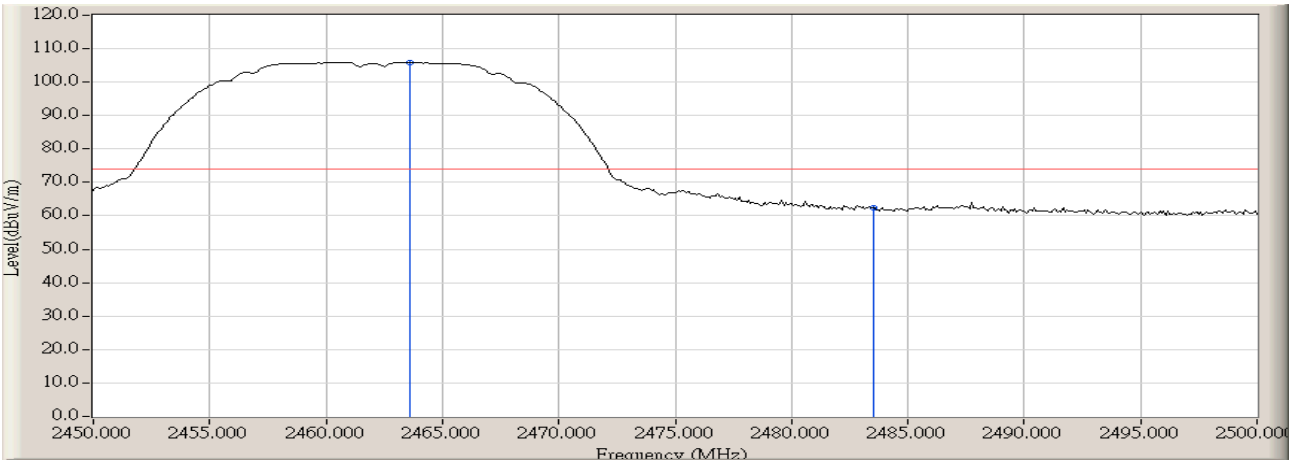

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2463.750 | 32.790 | 58.736 | 91.526 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 26.836 | 59.623 | -14.347 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:33** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC0)** |



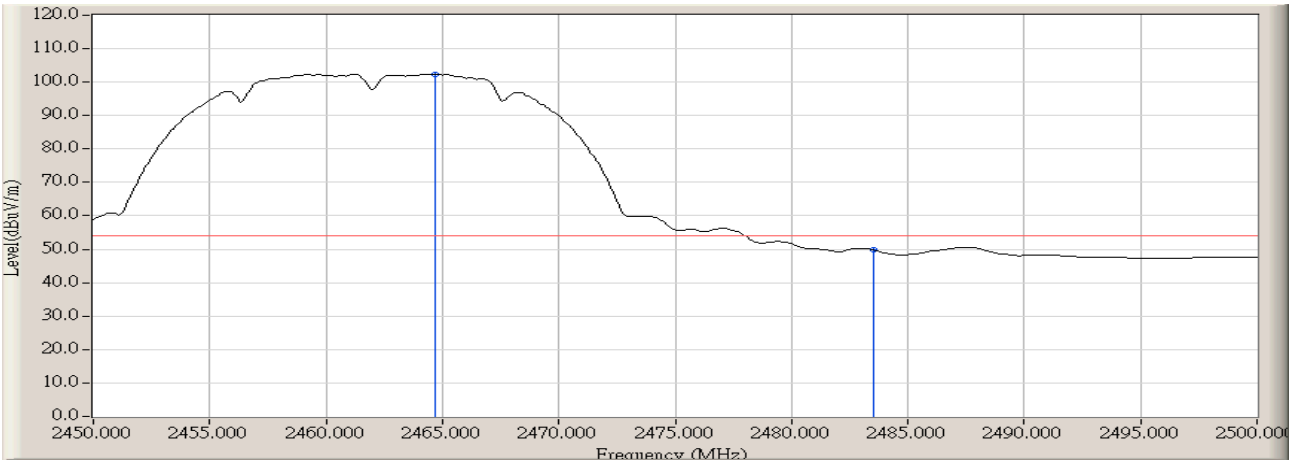

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2464.667 | 32.790 | 54.971 | 87.761 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.788 | 46.575 | -7.395 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:29** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC0)** |



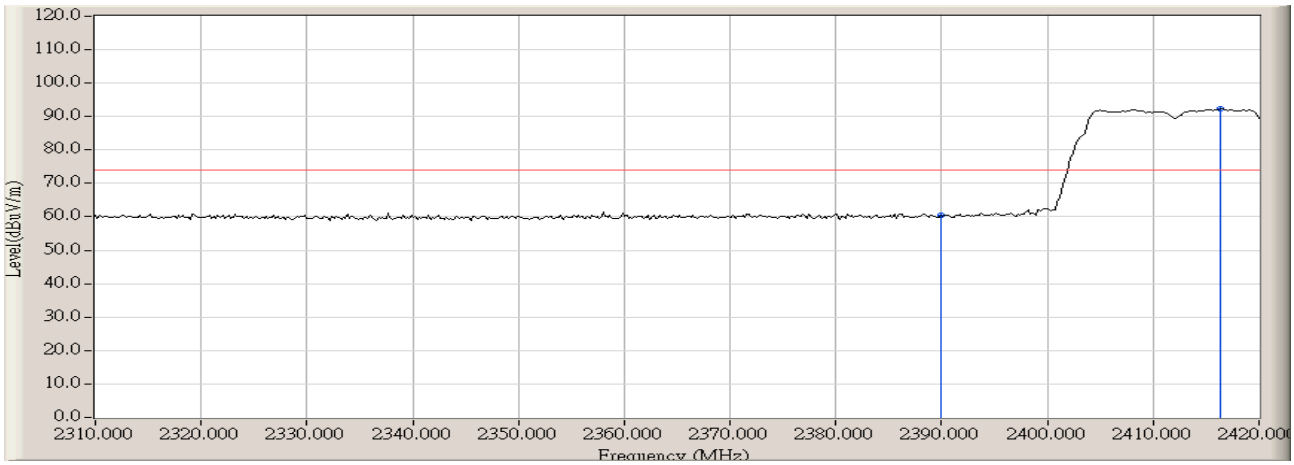

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2463.583 | 32.790 | 73.182 | 105.972 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 29.538 | 62.325 | -11.645 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:30** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC0)** |



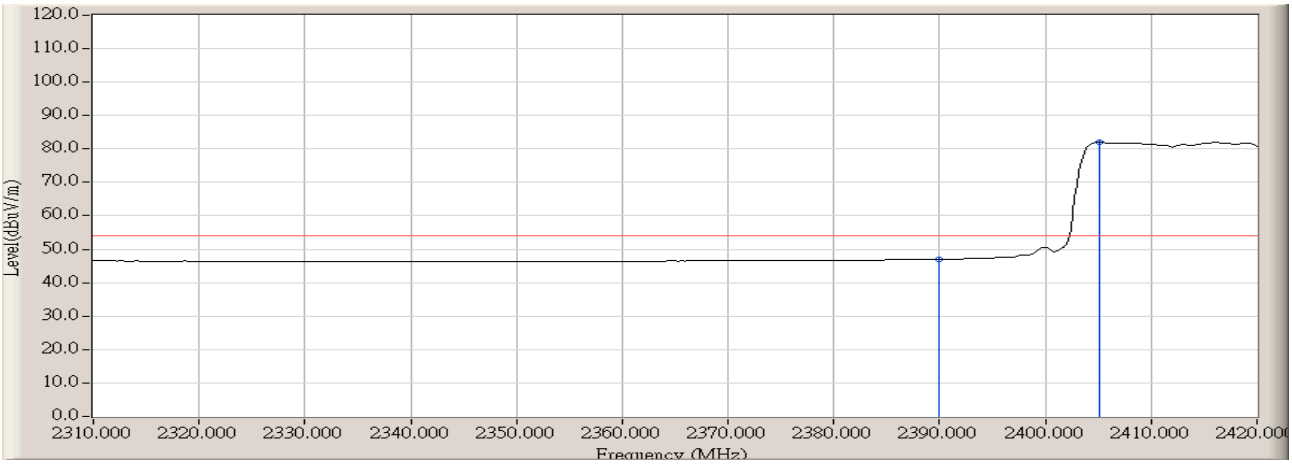

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2464.667 | 32.790 | 69.669 | 102.459 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 17.012 | 49.799 | -4.171 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:42** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC0)** |



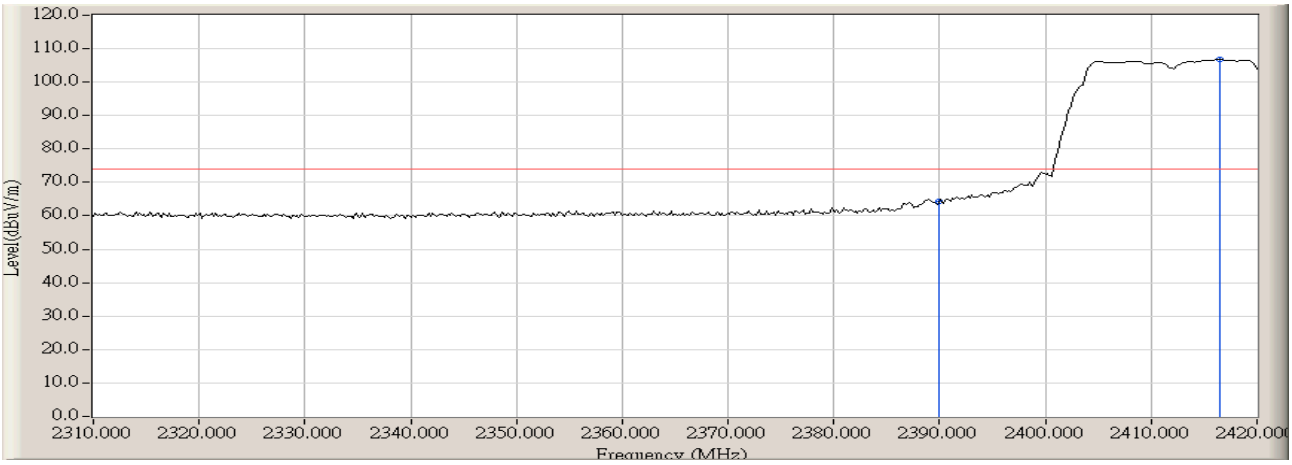

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.685 | 60.407 | -13.563 | 73.970 | PEAK |
| 2 | * | 2416.333 | 32.740 | 59.557 | 92.296 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:43** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC0)** |



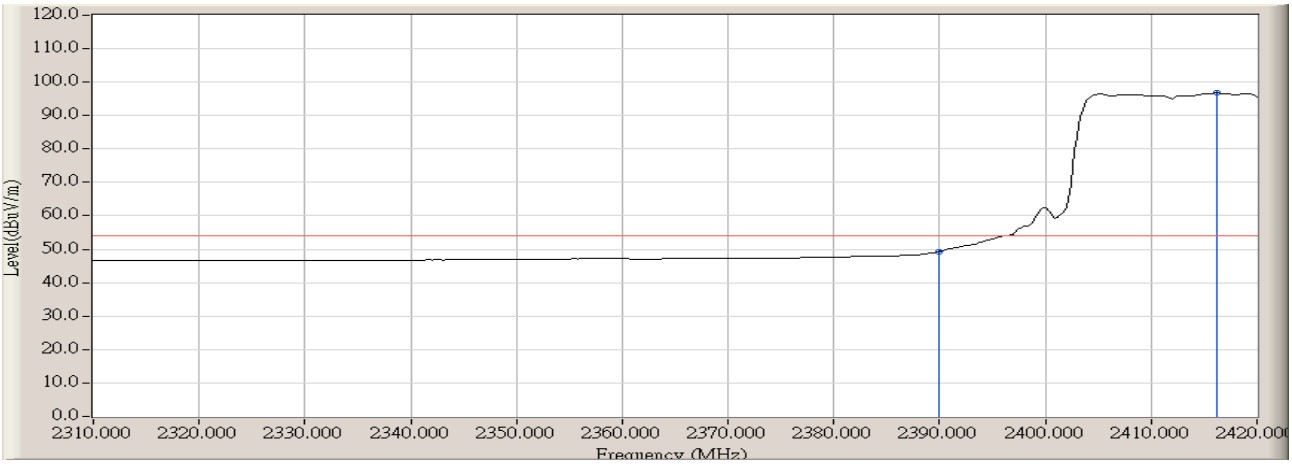

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.273 | 46.995 | -6.975 | 53.970 | AVERAGE |
| 2 | * | 2405.150 | 32.726 | 49.401 | 82.128 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:38** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC0)** |



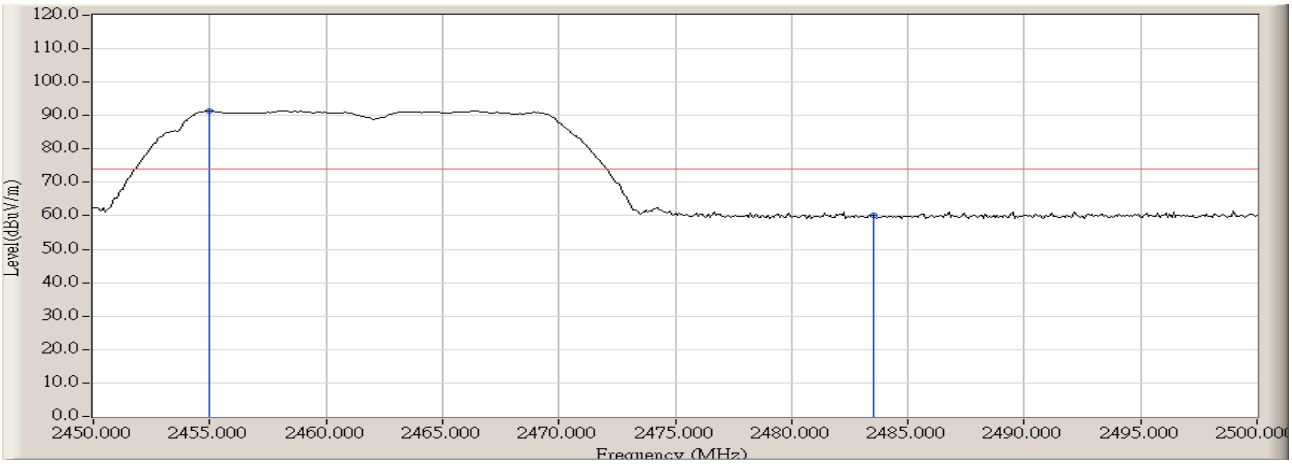

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 31.490 | 64.212 | -9.758 | 73.970 | PEAK |
| 2 | * | 2416.517 | 32.740 | 74.036 | 106.776 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:39** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC0)** |



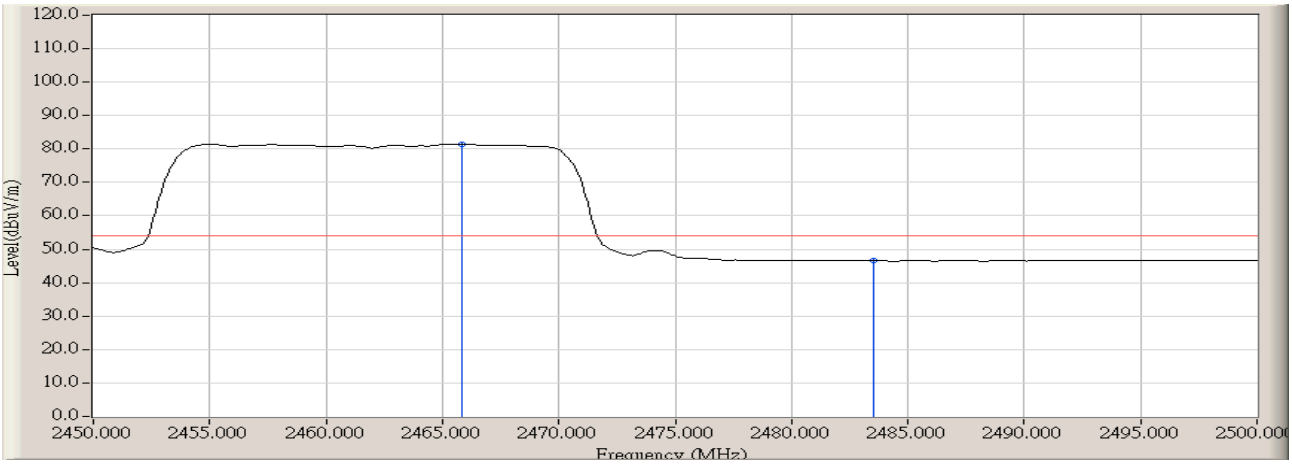

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 16.619 | 49.341 | -4.629 | 53.970 | AVERAGE |
| 2 | * | 2416.150 | 32.739 | 63.960 | 96.699 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:51** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC0)** |



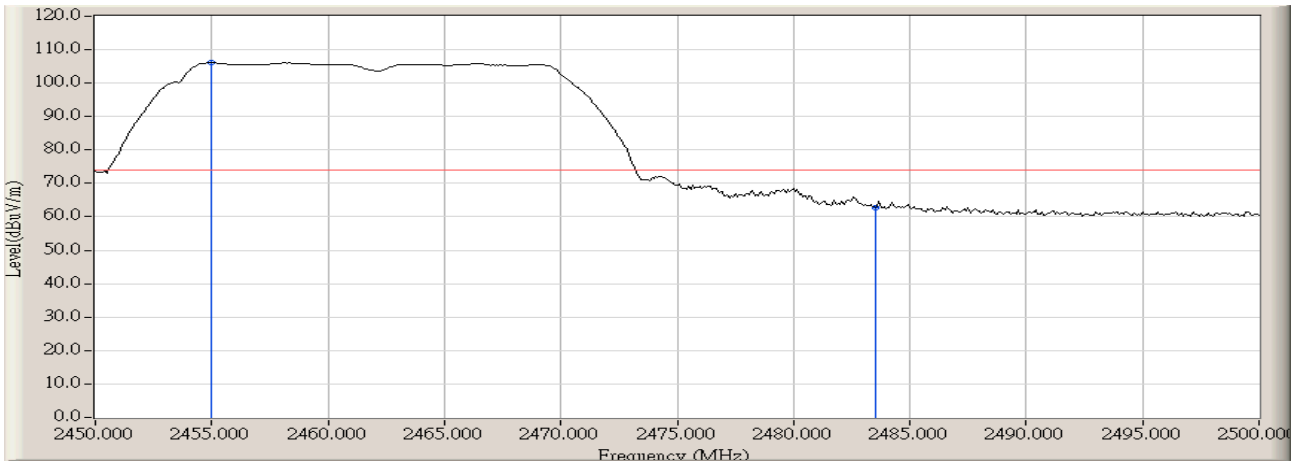

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2455.000 | 32.786 | 58.506 | 91.292 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 27.350 | 60.137 | -13.833 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:51** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC0)** |



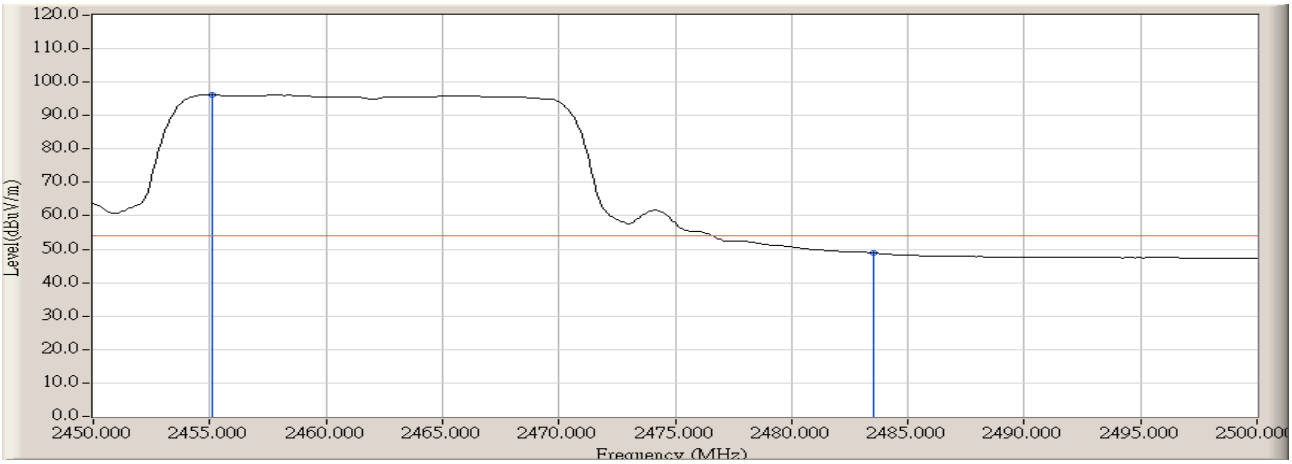

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2465.833 | 32.790 | 48.587 | 81.377 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.733 | 46.520 | -7.450 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:48** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC0)** |



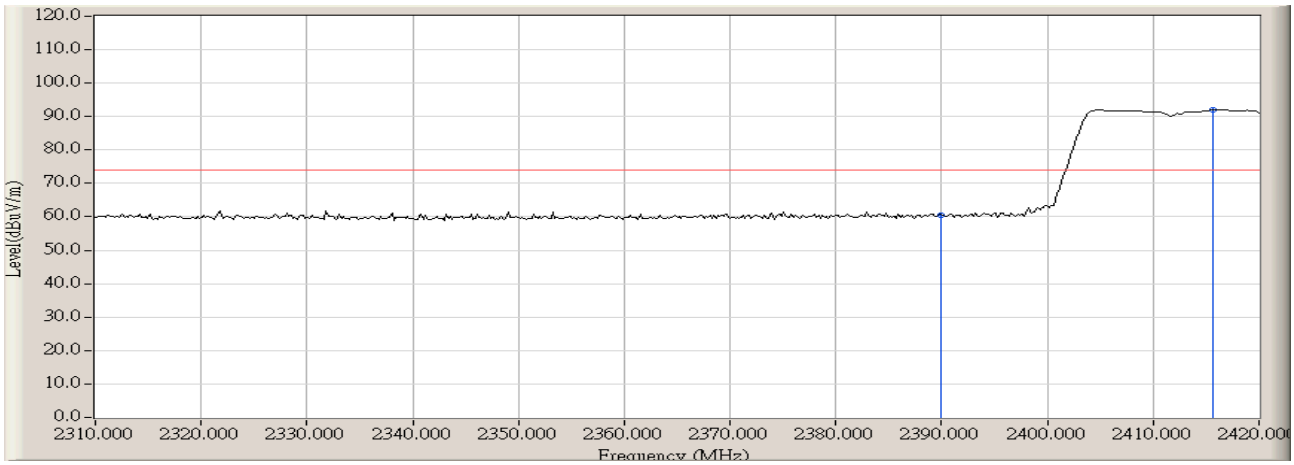

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2455.000 | 32.786 | 73.335 | 106.121 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 29.893 | 62.680 | -11.290 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:48** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC0)** |



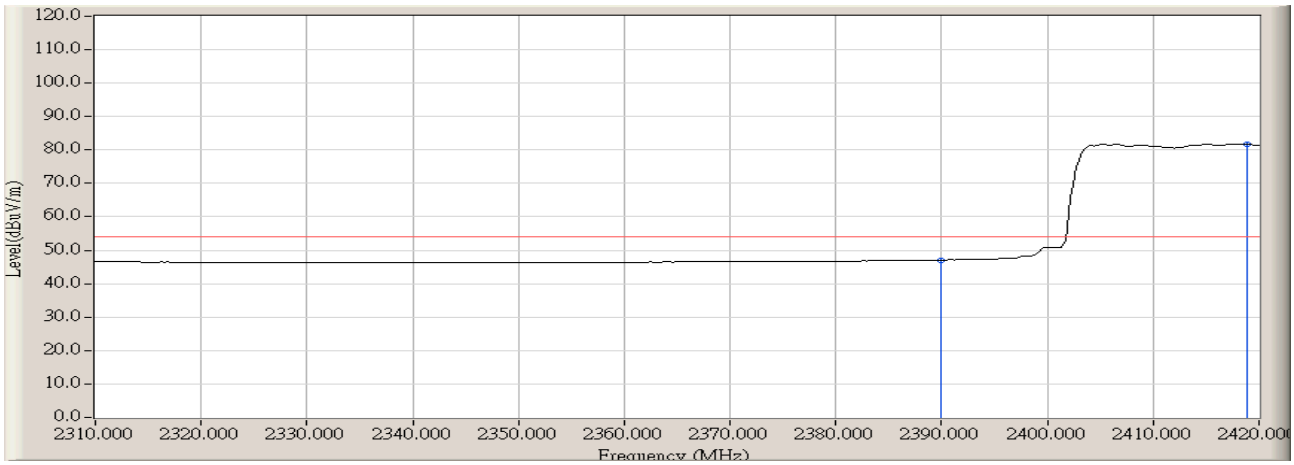

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2455.083 | 32.786 | 63.452 | 96.238 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 16.118 | 48.905 | -5.065 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:00** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC0)** |



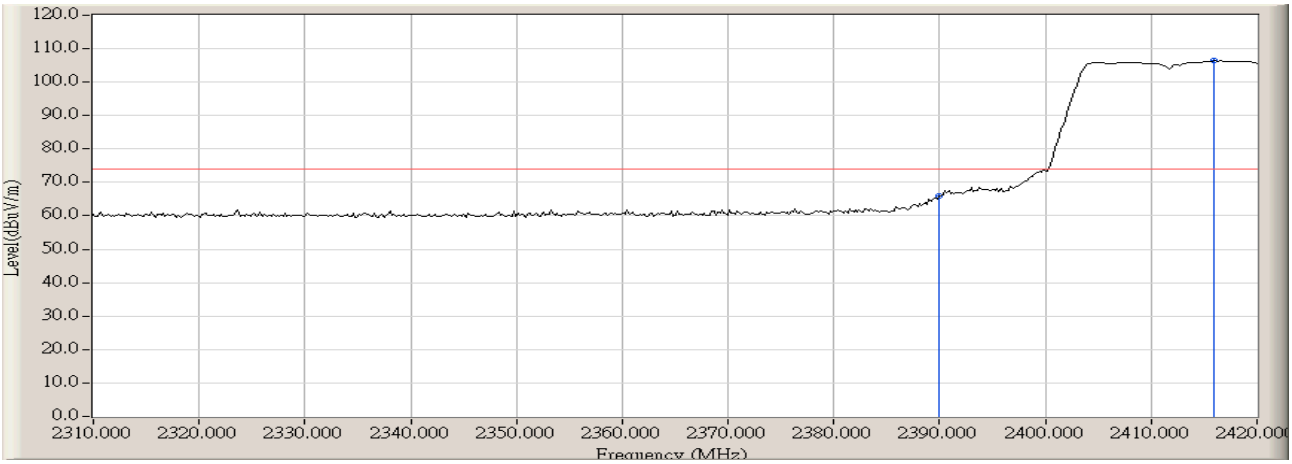

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.915 | 60.637 | -13.333 | 73.970 | PEAK |
| 2 | * | 2415.600 | 32.738 | 59.279 | 92.017 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:01** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC0)** |



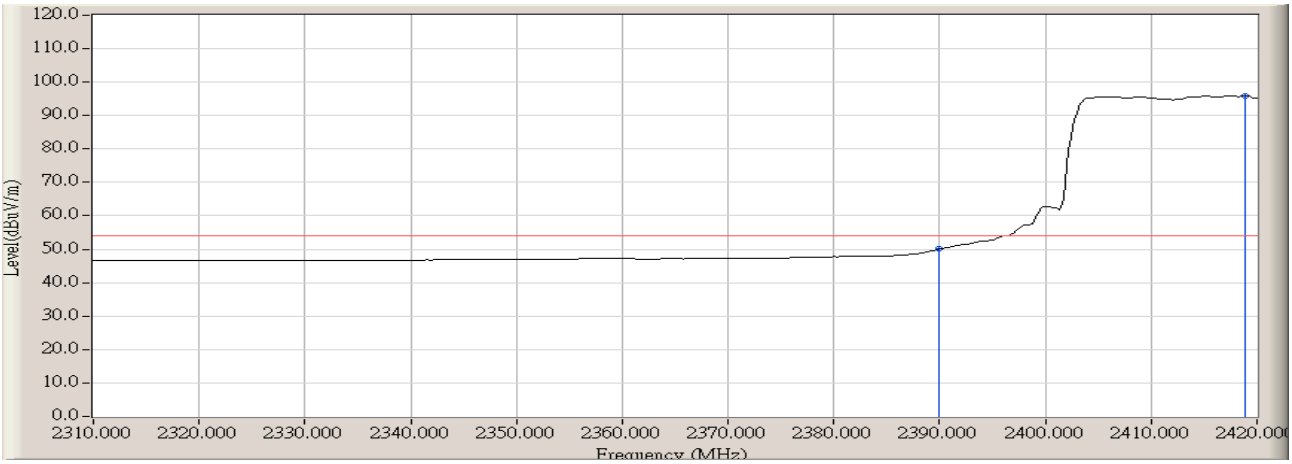

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.364 | 47.086 | -6.884 | 53.970 | AVERAGE |
| 2 | * | 2418.900 | 32.744 | 49.090 | 81.834 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:57** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC0)** |



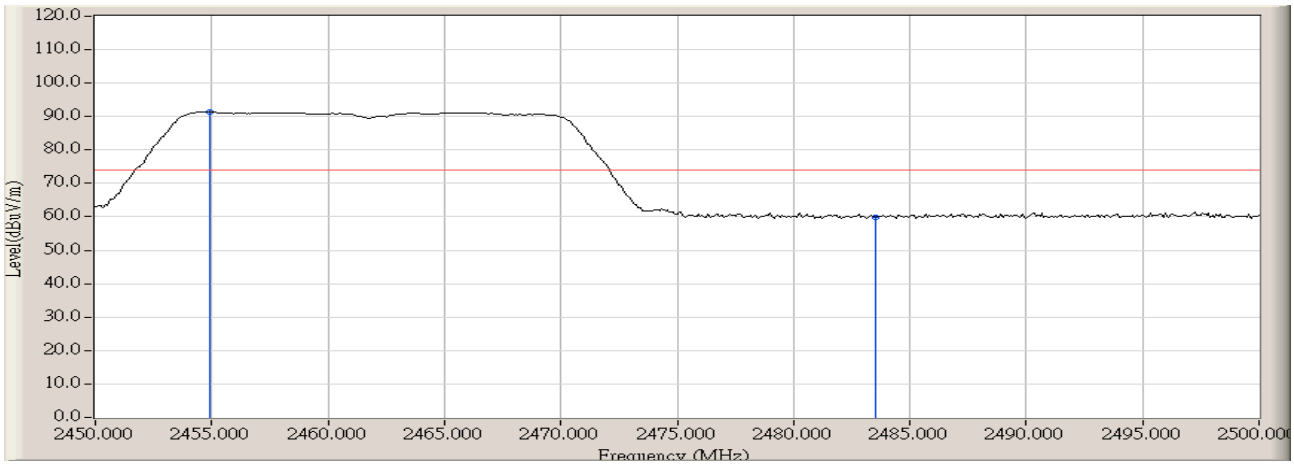

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 33.160 | 65.882 | -8.088 | 73.970 | PEAK |
| 2 | * | 2415.967 | 32.739 | 73.613 | 106.352 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 19:57** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC0)** |



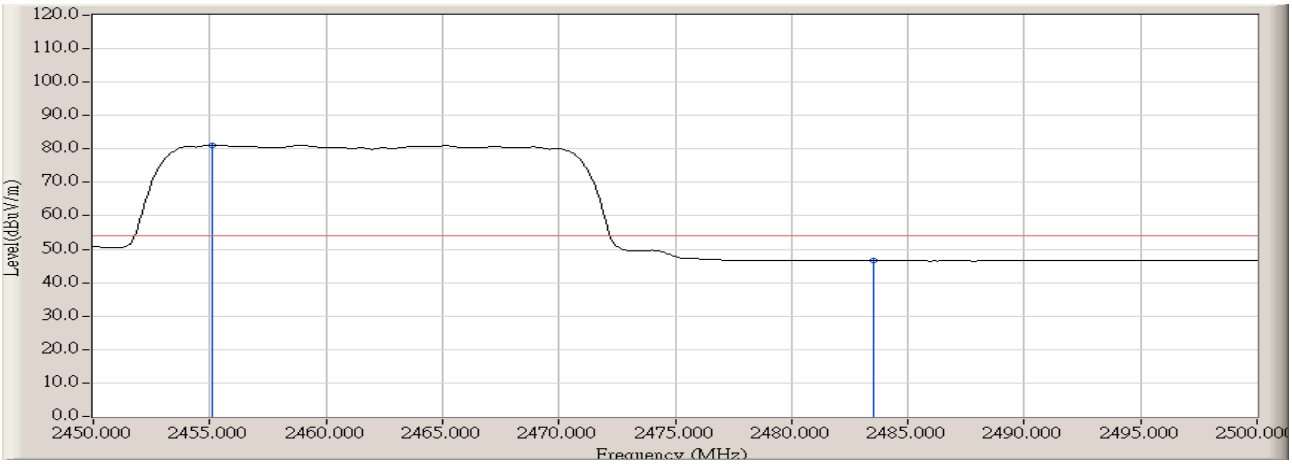

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 17.387 | 50.109 | -3.861 | 53.970 | AVERAGE |
| 2 | * | 2418.900 | 32.744 | 63.206 | 95.950 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:11** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC0)** |



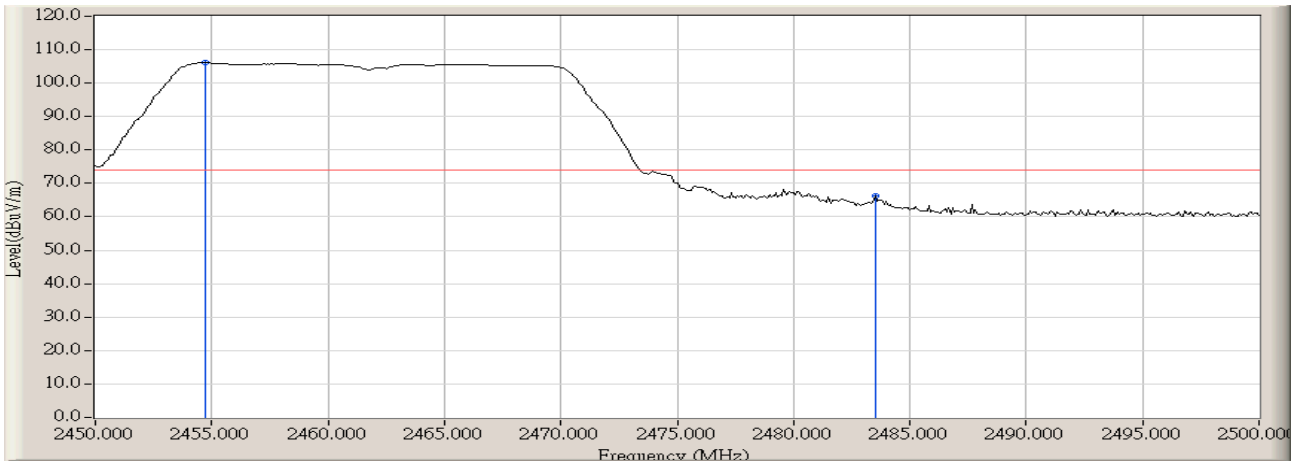

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2454.917 | 32.786 | 58.588 | 91.374 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 27.133 | 59.920 | -14.050 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:12** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC0)** |



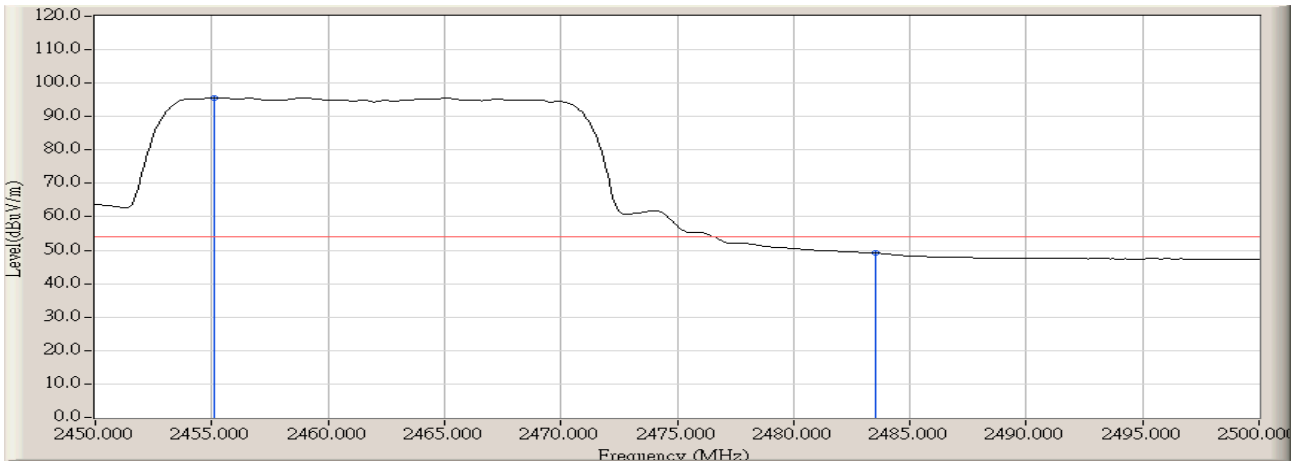

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2455.083 | 32.786 | 48.357 | 81.143 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.769 | 46.556 | -7.414 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:05** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC0)** |



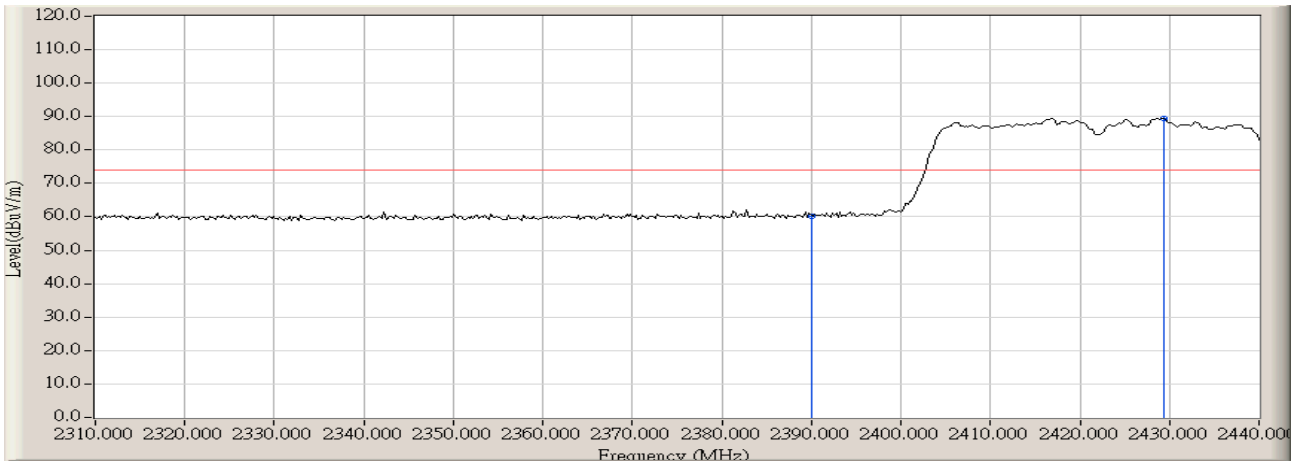

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2454.750 | 32.786 | 73.293 | 106.079 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 33.442 | 66.229 | -7.741 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:05** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC0)** |



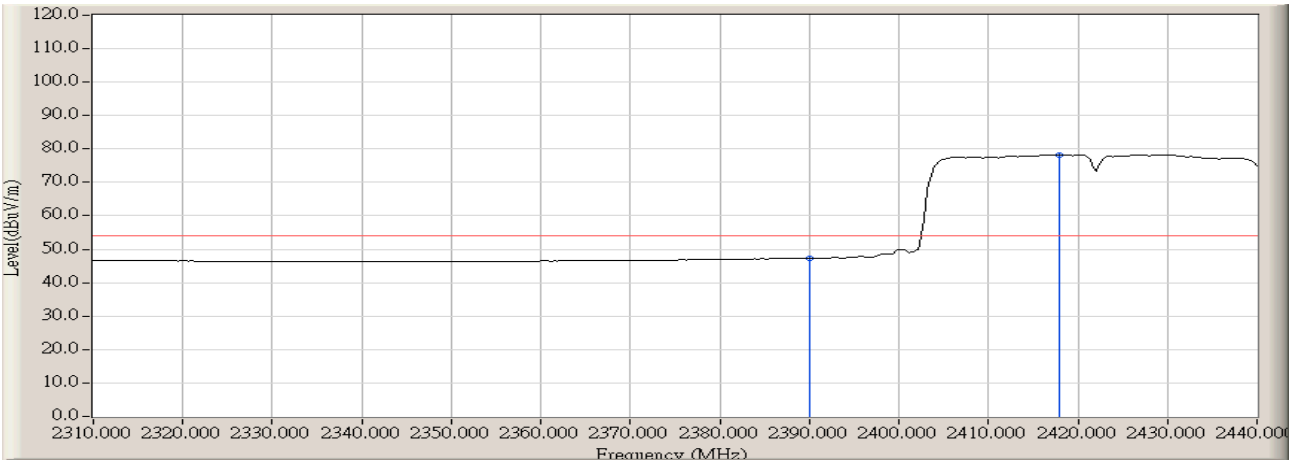

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2455.083 | 32.786 | 62.870 | 95.656 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 16.399 | 49.186 | -4.784 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:24** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC0)** |



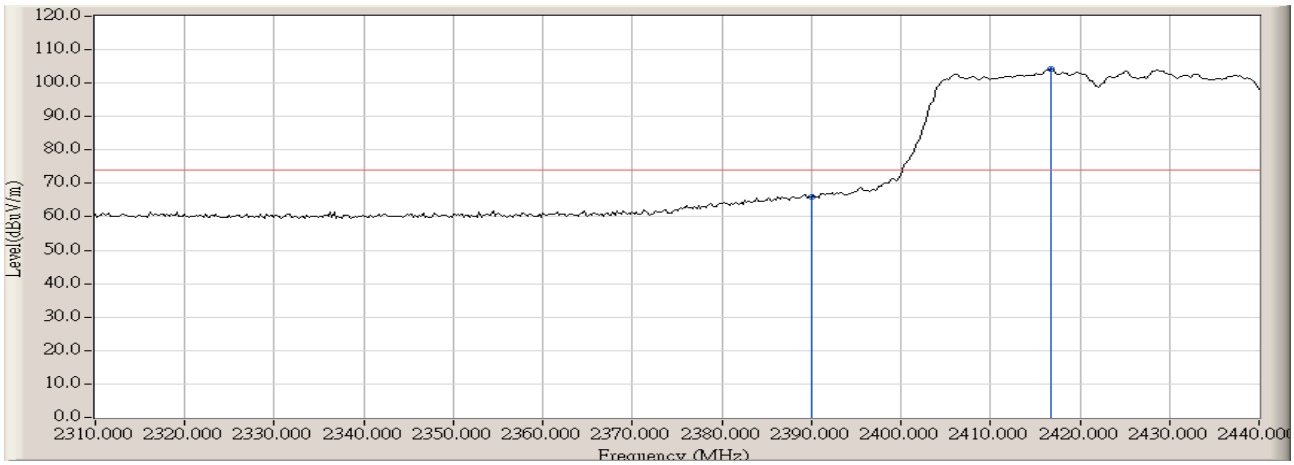

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.537 | 60.259 | -13.711 | 73.970 | PEAK |
| 2 | * | 2429.383 | 32.761 | 56.664 | 89.426 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:25** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC0)** |



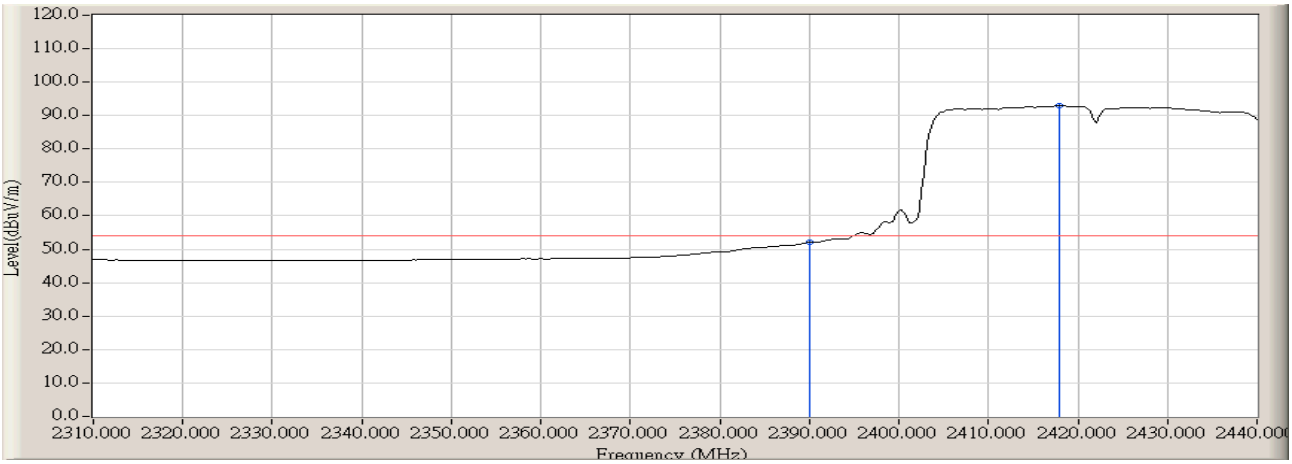

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.659 | 47.381 | -6.589 | 53.970 | AVERAGE |
| 2 | * | 2417.900 | 32.742 | 45.545 | 78.287 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:17** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC0)** |



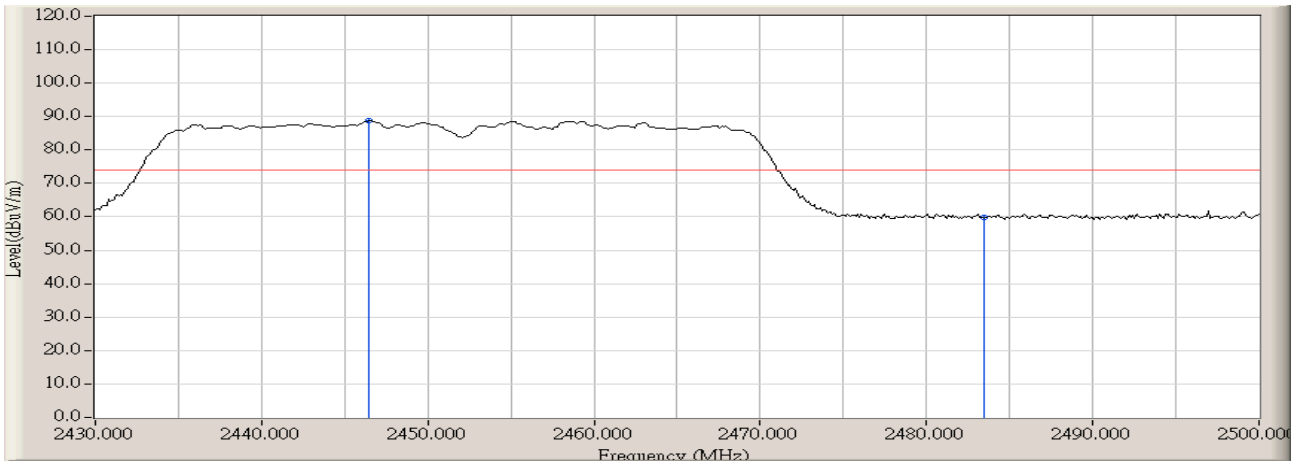

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 33.164 | 65.886 | -8.084 | 73.970 | PEAK |
| 2 | * | 2416.817 | 32.741 | 71.365 | 104.105 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:17** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC0)** |



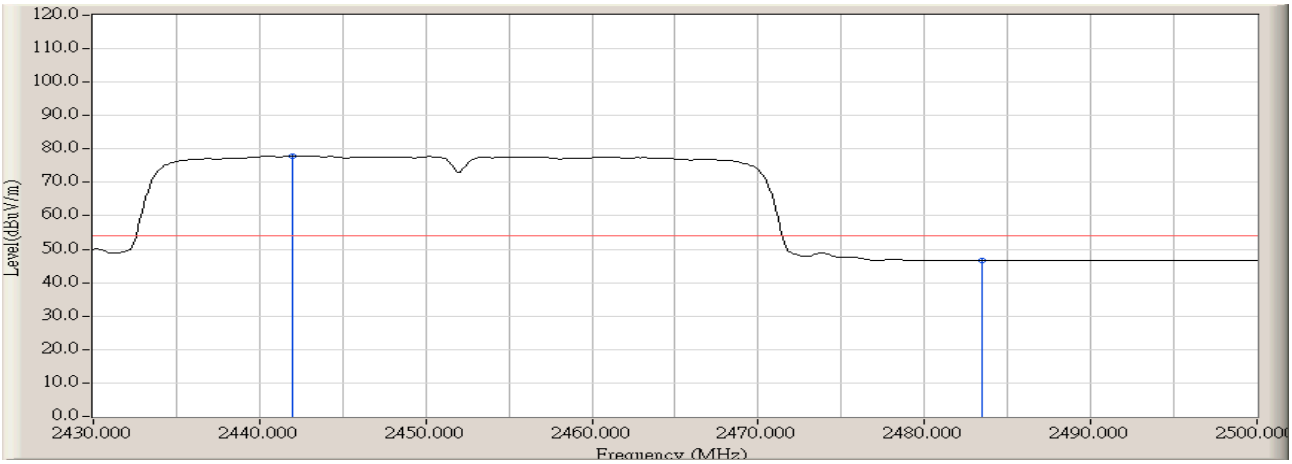

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 19.341 | 52.063 | -1.907 | 53.970 | AVERAGE |
| 2 | * | 2417.900 | 32.742 | 60.132 | 92.874 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:33** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC0)** |



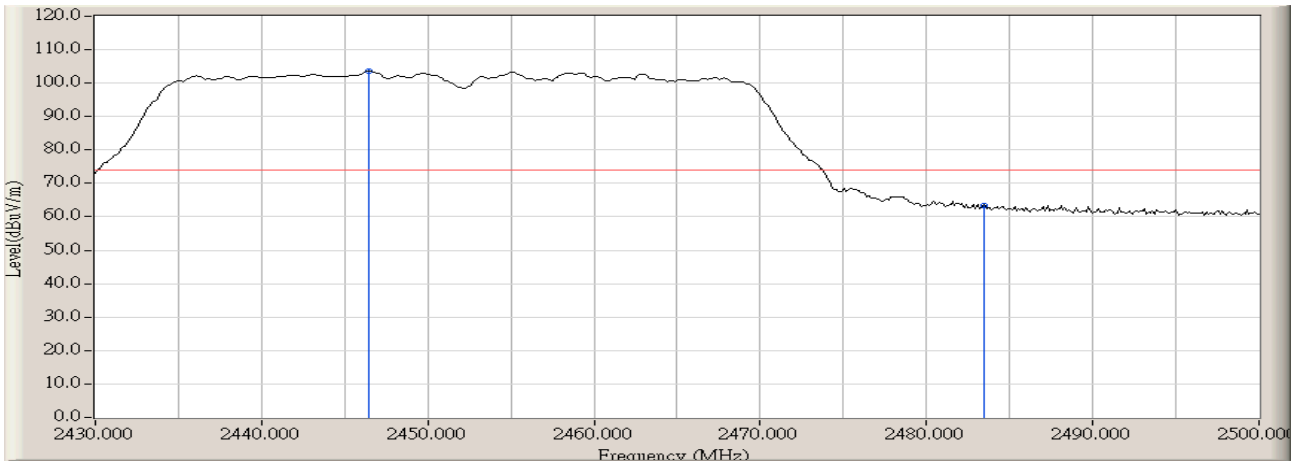

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2446.450 | 32.781 | 55.909 | 88.690 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 26.990 | 59.777 | -14.193 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:34** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC0)** |



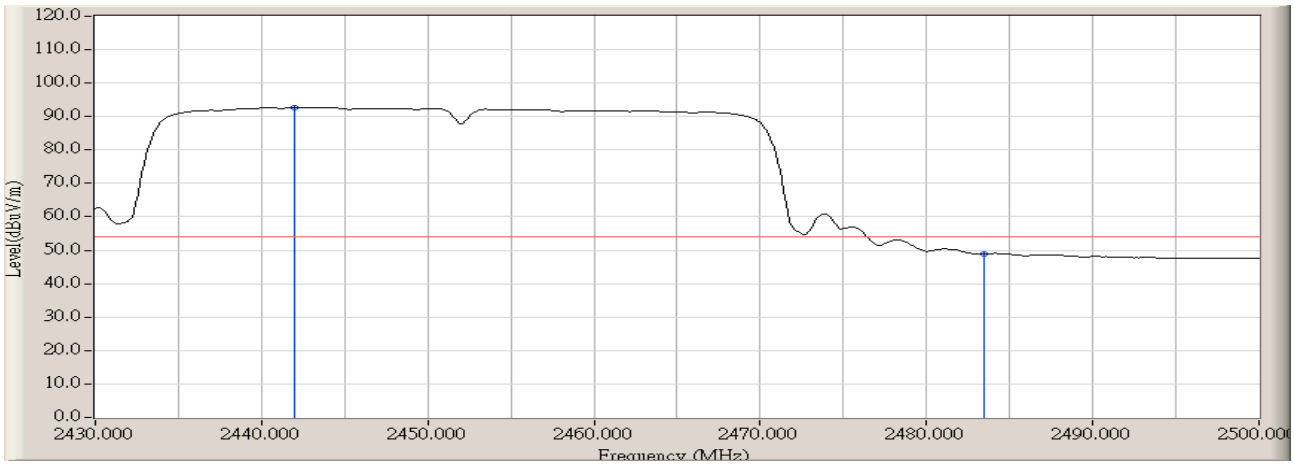

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2442.017 | 32.777 | 45.147 | 77.923 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.849 | 46.636 | -7.334 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:30** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC0)** |



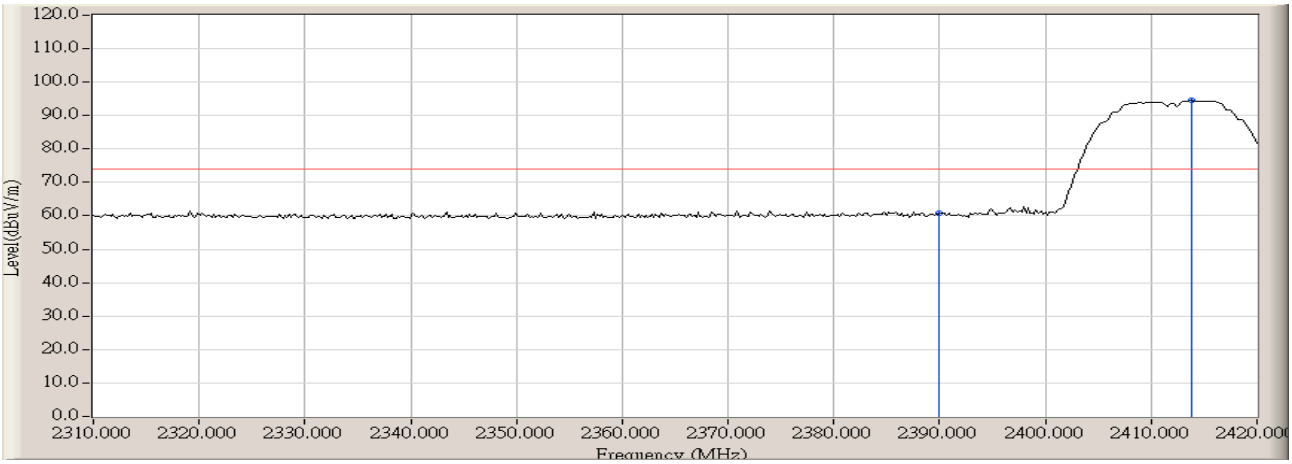

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2446.450 | 32.781 | 70.706 | 103.487 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 30.751 | 63.538 | -10.432 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:31** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC0)** |



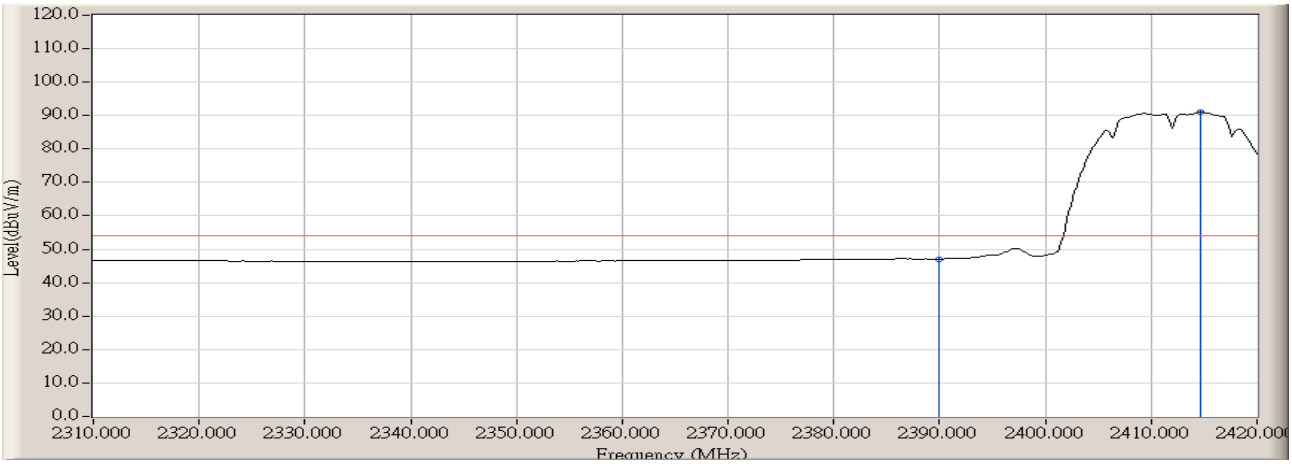

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2442.017 | 32.777 | 60.023 | 92.799 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 16.135 | 48.922 | -5.048 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:41** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC1)** |



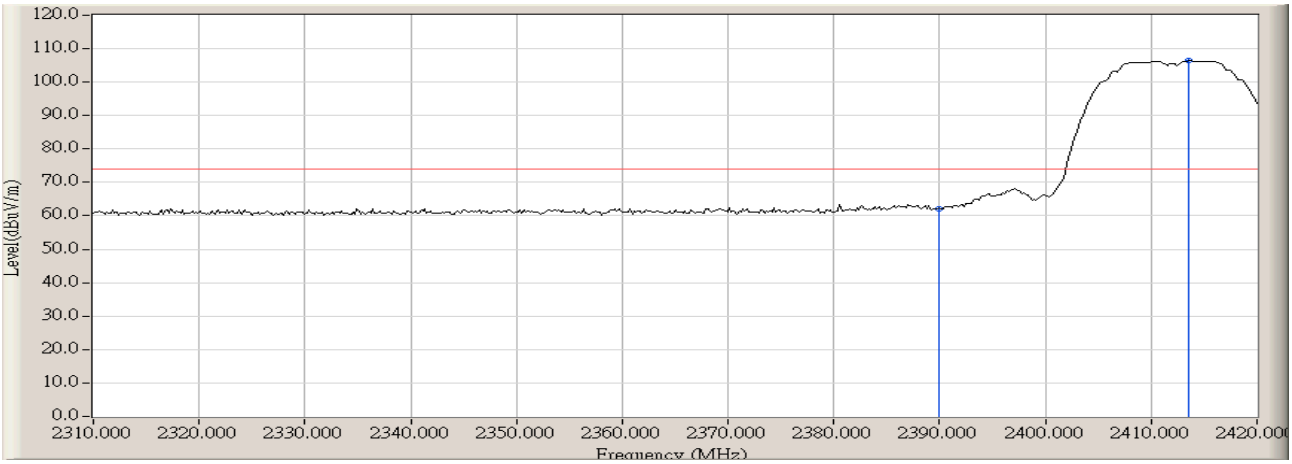

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.984 | 60.706 | -13.264 | 73.970 | PEAK |
| 2 | * | 2413.767 | 32.735 | 61.690 | 94.425 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:42** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC1)** |



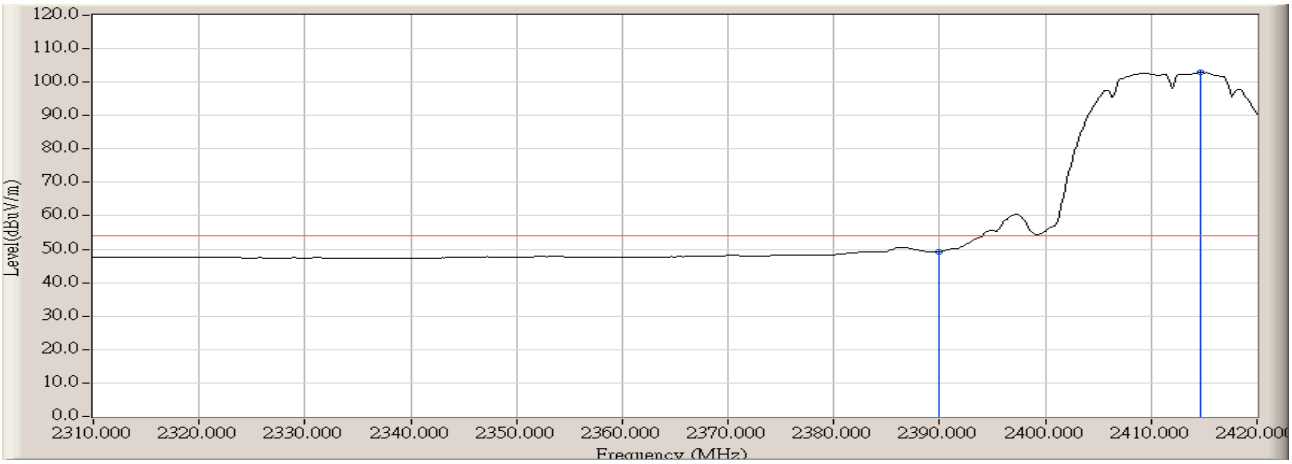

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.373 | 47.095 | -6.875 | 53.970 | AVERAGE |
| 2 | * | 2414.683 | 32.737 | 58.316 | 91.053 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:38** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC1)** |



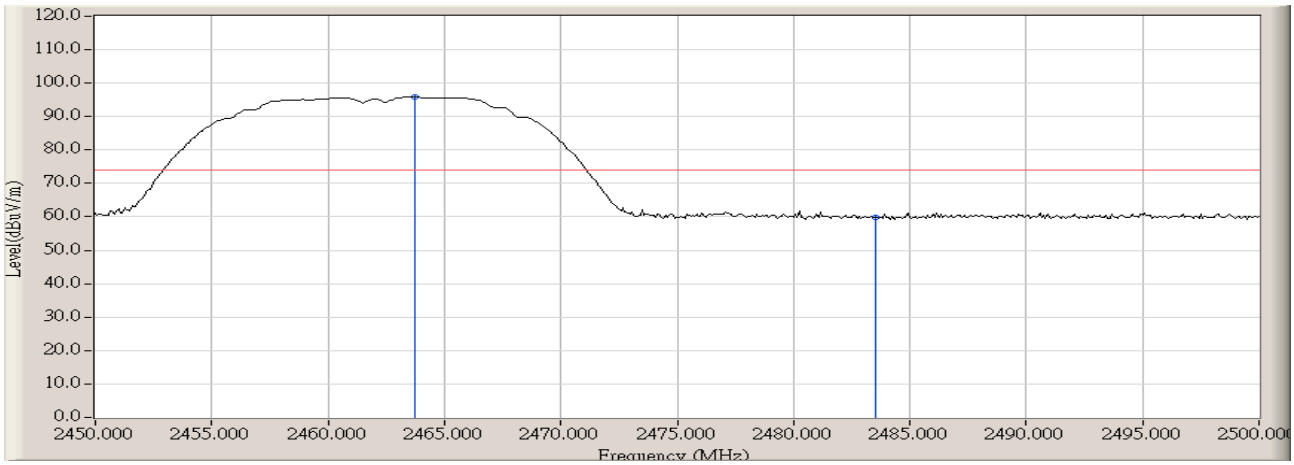

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 29.492 | 62.214 | -11.756 | 73.970 | PEAK |
| 2 | * | 2413.583 | 32.734 | 73.604 | 106.339 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:38** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2412MHz (DAC1)** |



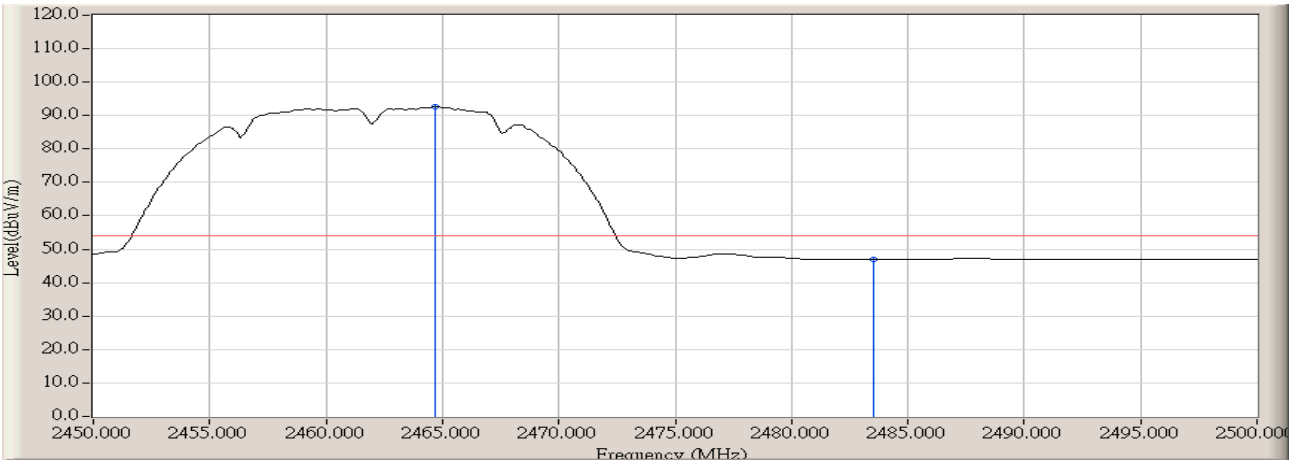

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 16.590 | 49.312 | -4.658 | 53.970 | AVERAGE |
| 2 | * | 2414.683 | 32.737 | 70.259 | 102.996 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:48** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC1)** |



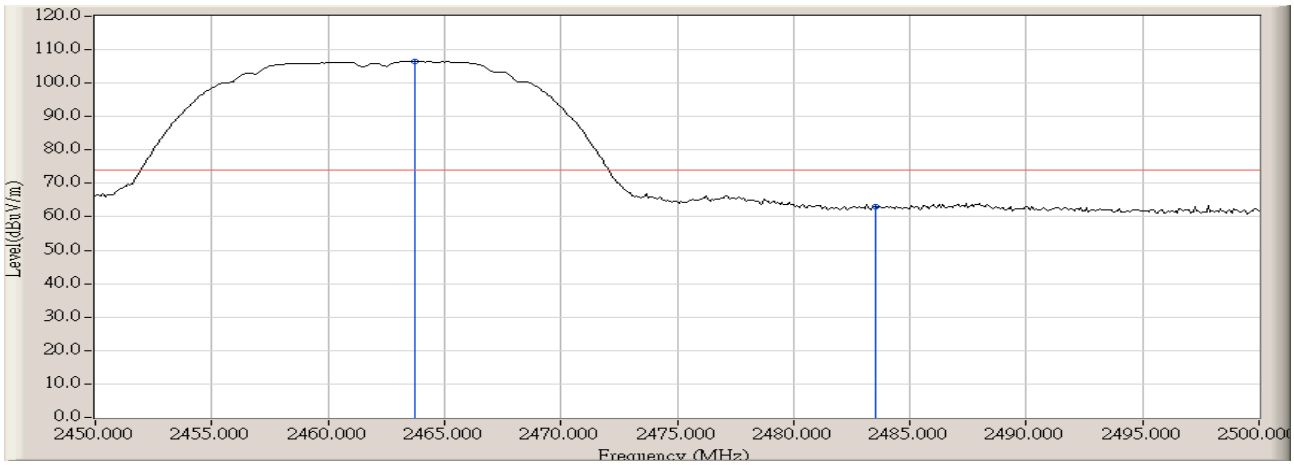

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2463.750 | 32.790 | 63.033 | 95.823 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 26.906 | 59.693 | -14.277 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:49** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC1)** |



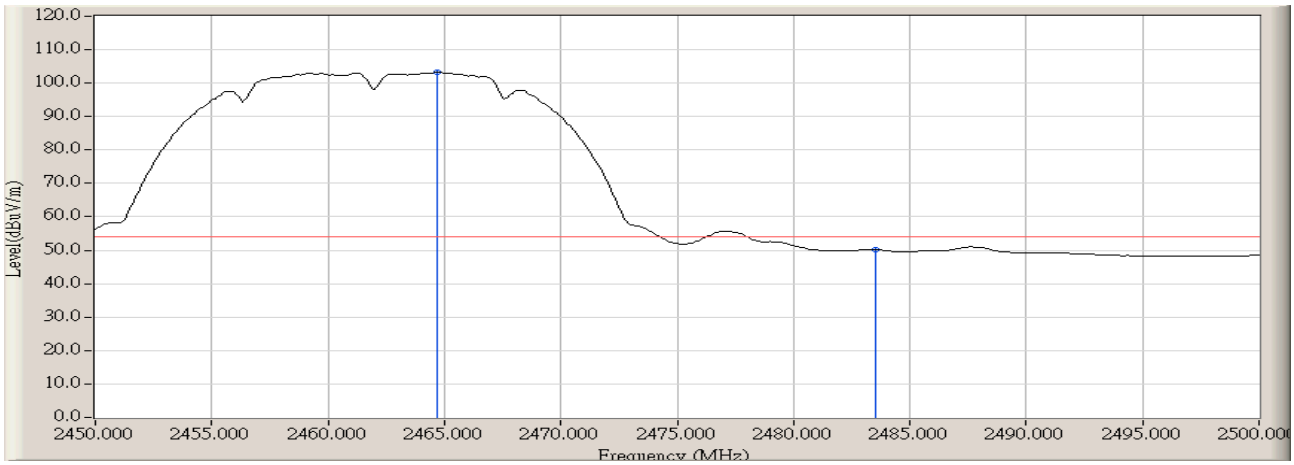

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2464.667 | 32.790 | 59.770 | 92.560 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 14.323 | 47.110 | -6.860 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:45** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC1)** |



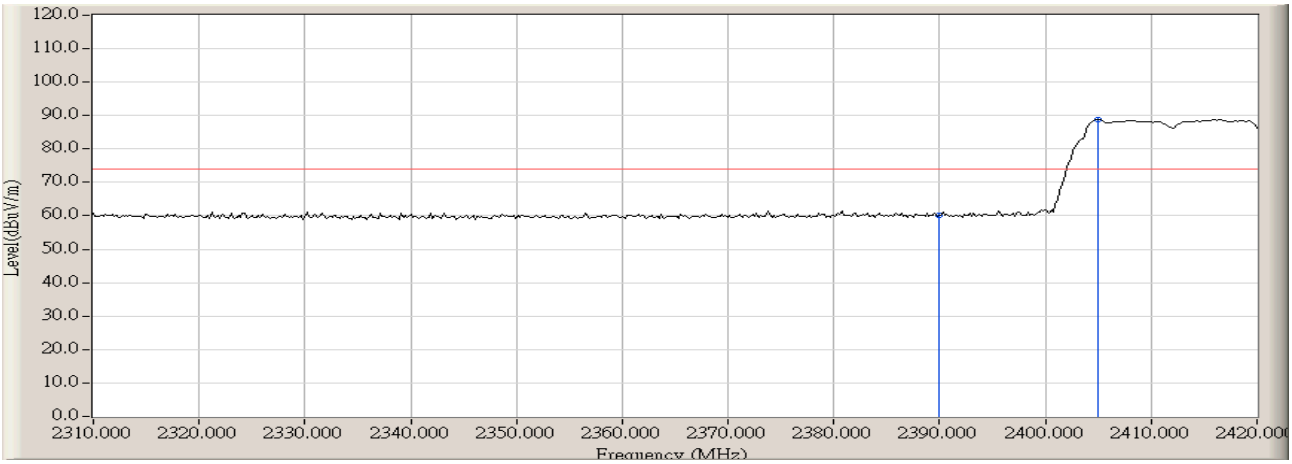

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2463.750 | 32.790 | 73.741 | 106.531 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 30.161 | 62.948 | -11.022 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/16 - 20:46** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 1: Transmit by 802.11b at channel 2462MHz (DAC1)** |



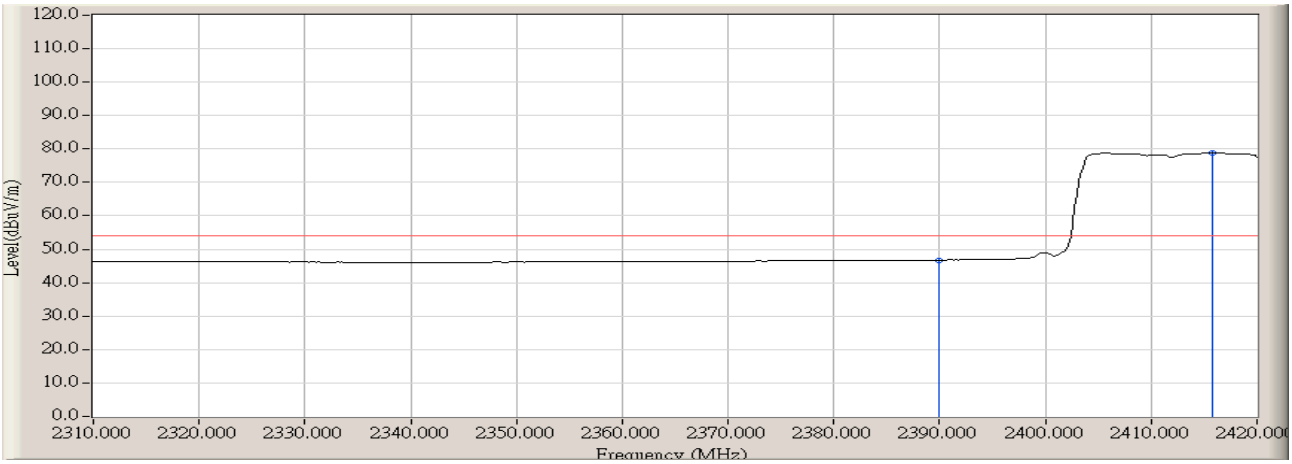

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2464.667 | 32.790 | 70.493 | 103.283 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 17.399 | 50.186 | -3.784 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:36** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC1)** |



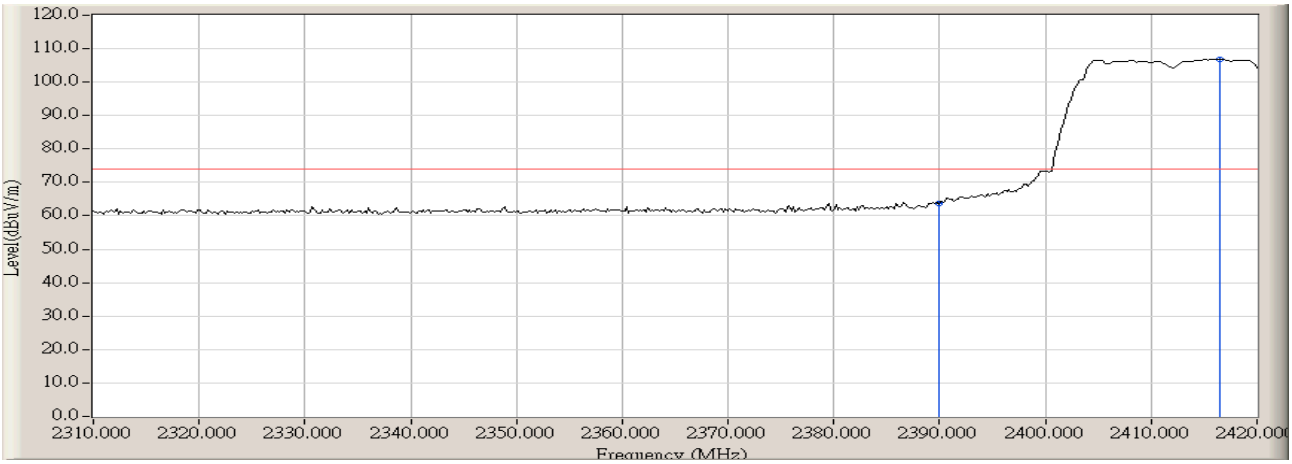

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.521 | 60.243 | -13.727 | 73.970 | PEAK |
| 2 | * | 2404.967 | 32.727 | 55.990 | 88.716 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:36** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC1)** |



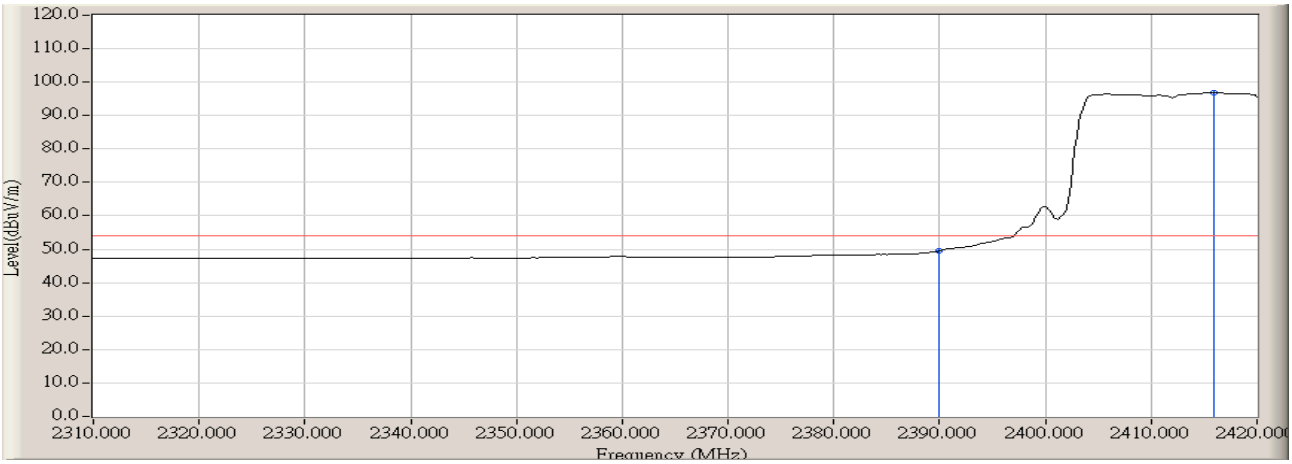

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.044 | 46.766 | -7.204 | 53.970 | AVERAGE |
| 2 | * | 2415.783 | 32.738 | 46.174 | 78.912 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:32** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC1)** |



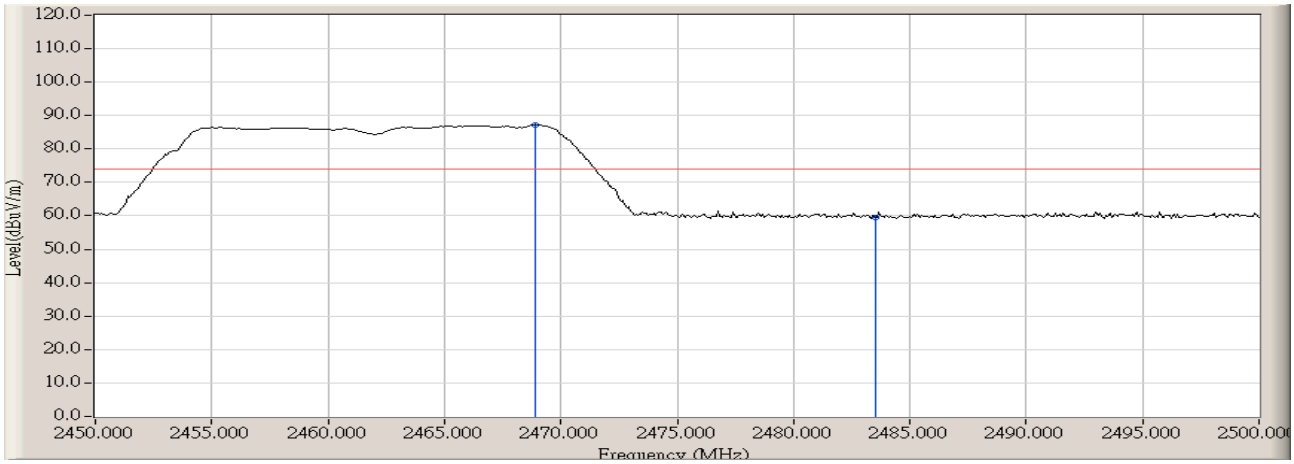

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 31.074 | 63.796 | -10.174 | 73.970 | PEAK |
| 2 | * | 2416.517 | 32.740 | 74.127 | 106.867 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:33** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2412MHz (DAC1)** |



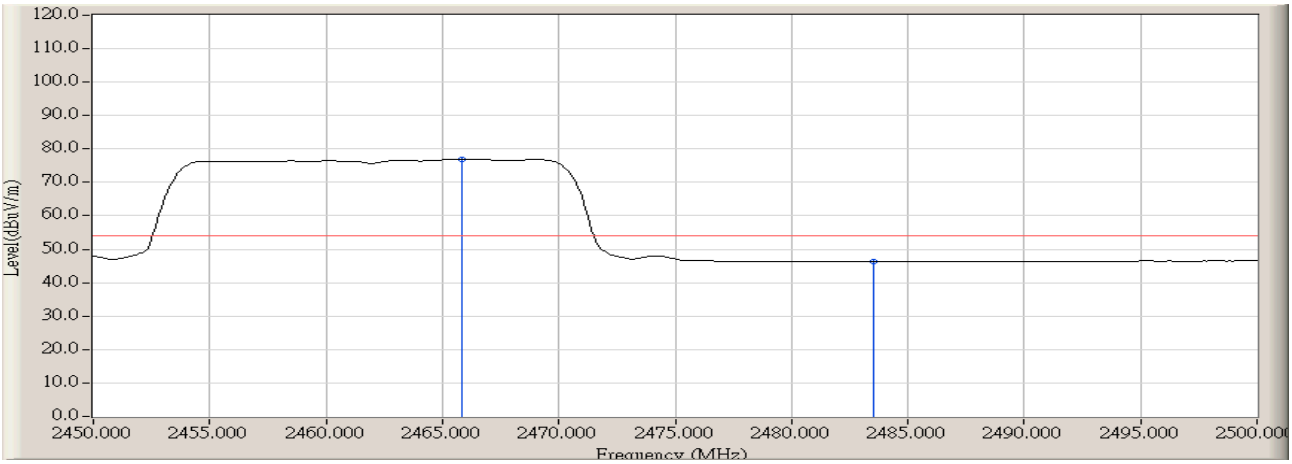

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 16.792 | 49.514 | -4.456 | 53.970 | AVERAGE |
| 2 | * | 2415.967 | 32.739 | 64.101 | 96.840 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:45** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC1)** |



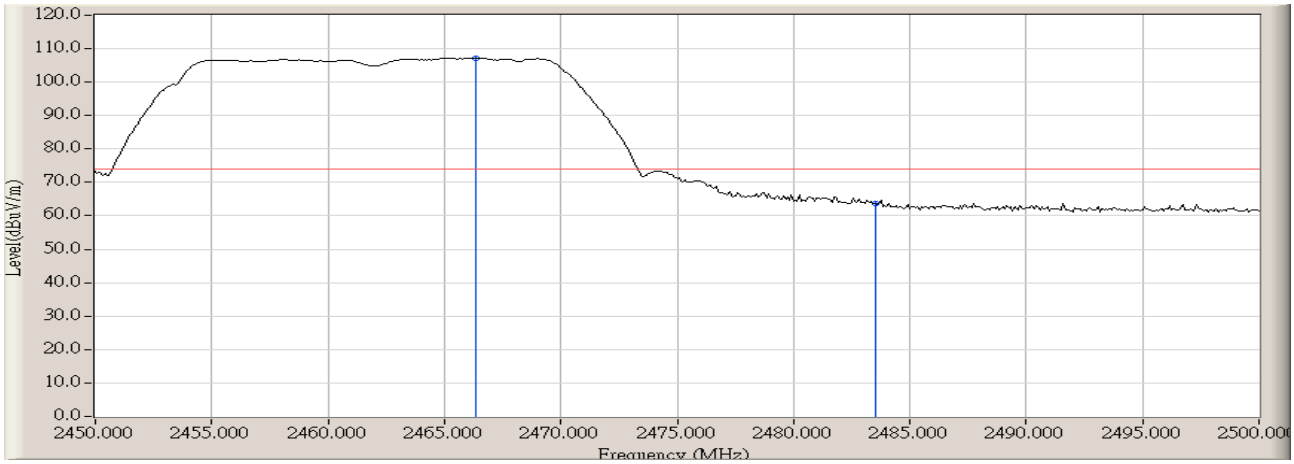

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2468.917 | 32.790 | 54.287 | 87.077 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 26.760 | 59.547 | -14.423 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:46** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC1)** |



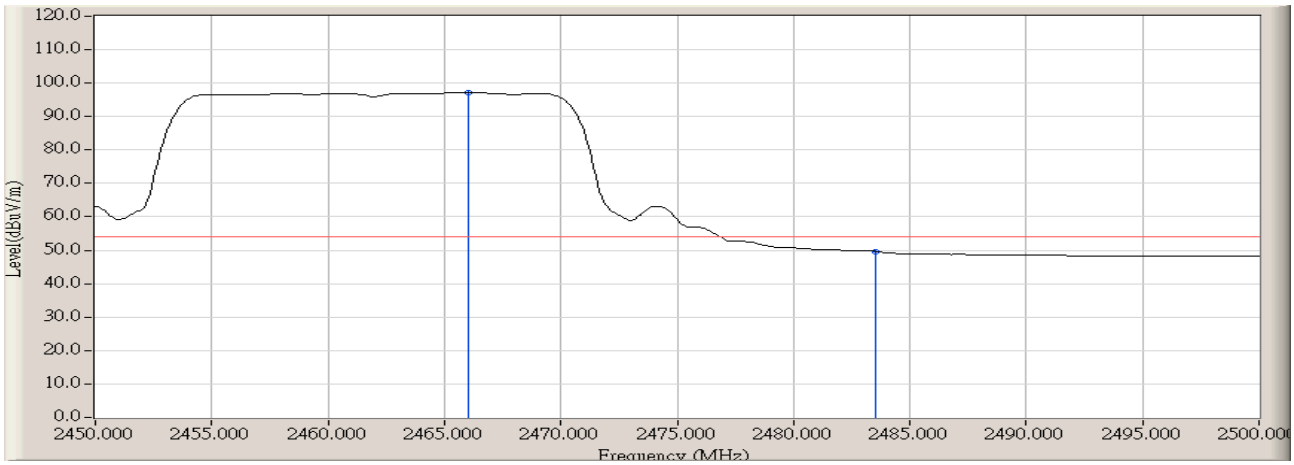

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2465.833 | 32.790 | 44.213 | 77.003 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.596 | 46.383 | -7.587 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:41** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC1)** |



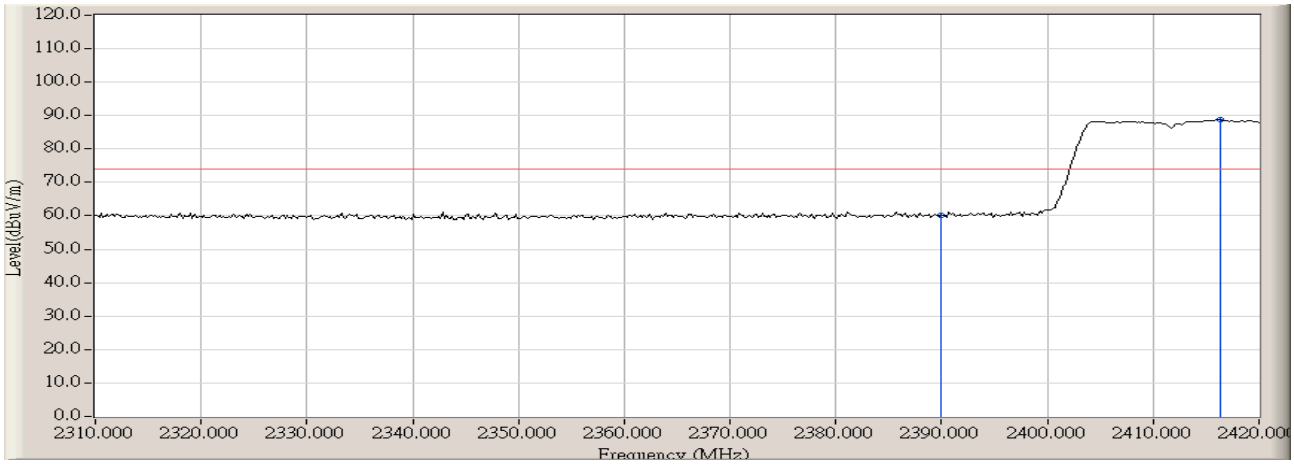

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2466.333 | 32.790 | 74.375 | 107.165 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 30.868 | 63.655 | -10.315 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:41** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 2: Transmit by 802.11g at channel 2462MHz (DAC1)** |



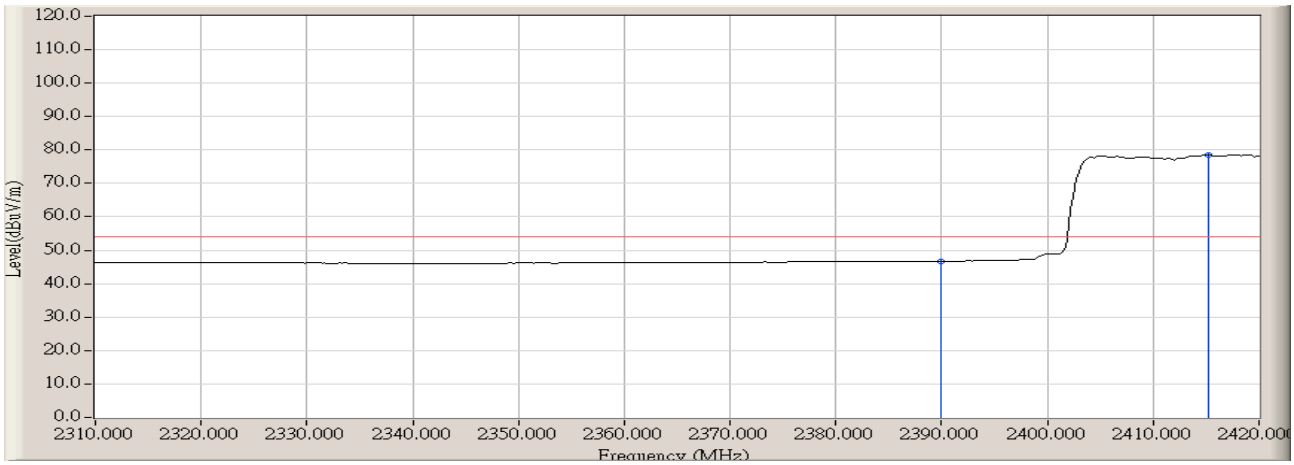

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2466.000 | 32.790 | 64.421 | 97.211 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 16.864 | 49.651 | -4.319 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:53** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC1)** |



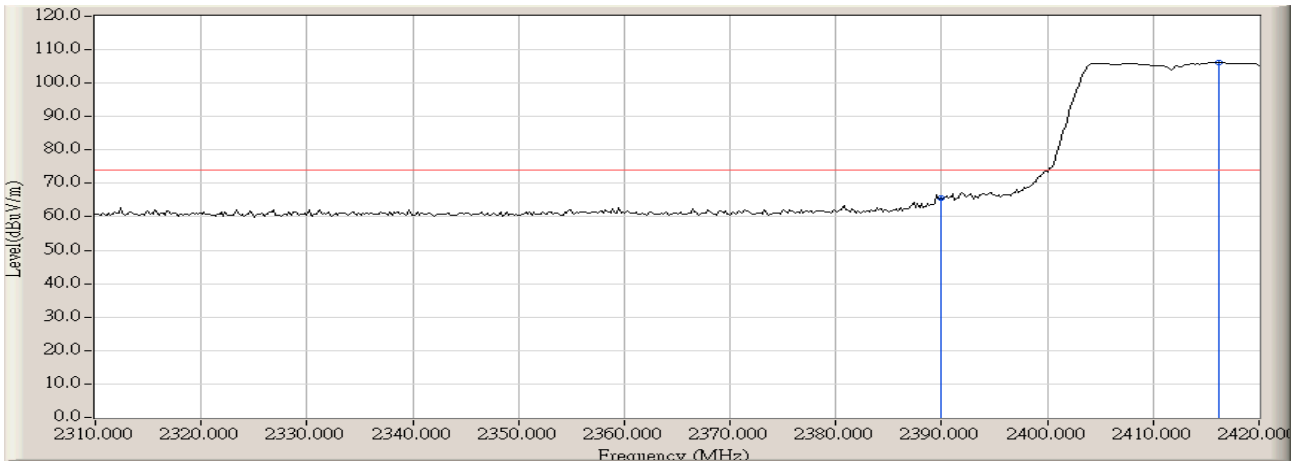

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.537 | 60.259 | -13.711 | 73.970 | PEAK |
| 2 | * | 2416.333 | 32.740 | 56.010 | 88.749 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:55** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC1)** |



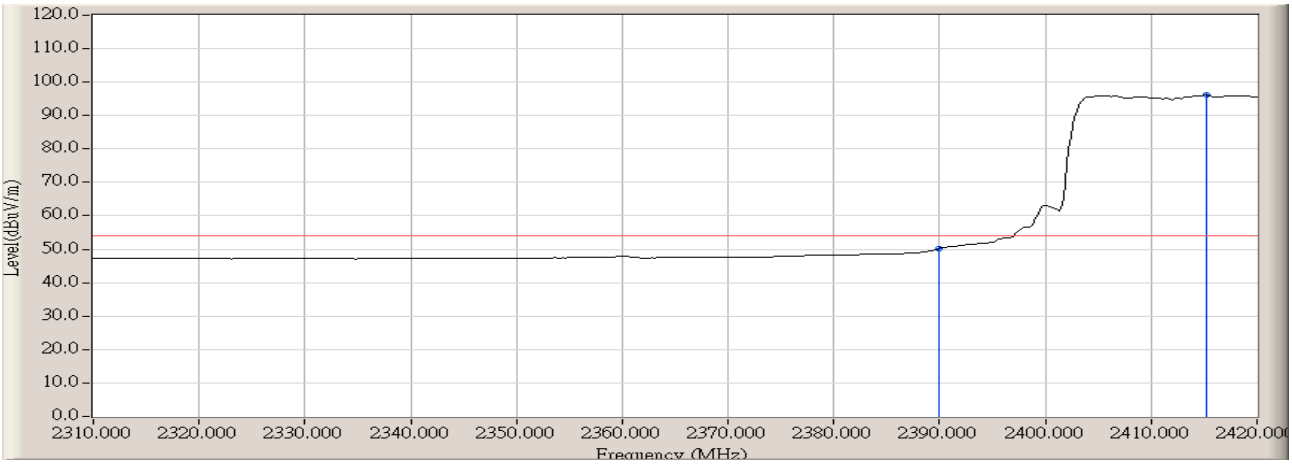

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.046 | 46.768 | -7.202 | 53.970 | AVERAGE |
| 2 | * | 2415.233 | 32.738 | 45.815 | 78.552 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:50** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC1)** |



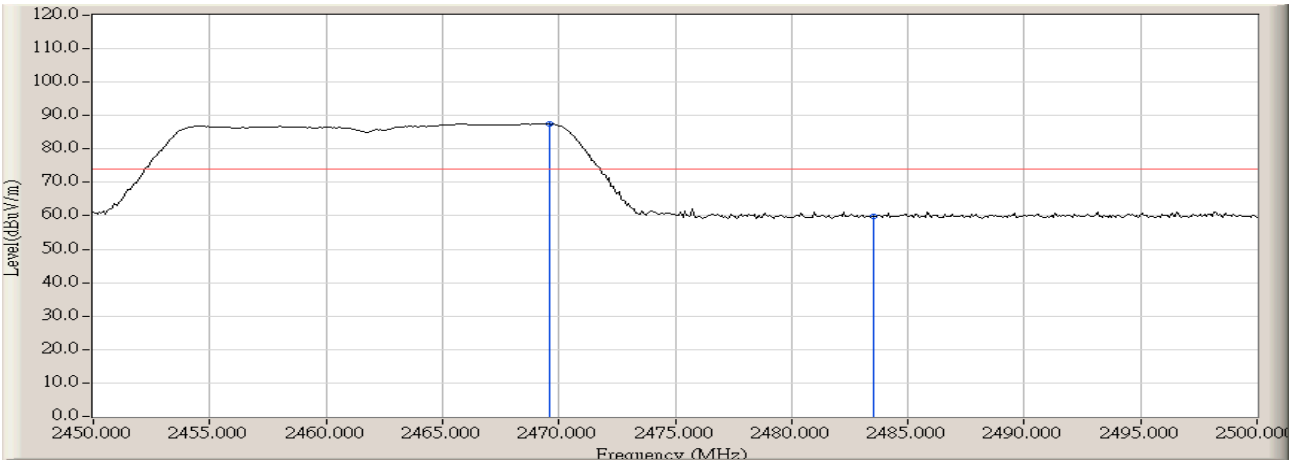

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 32.904 | 65.626 | -8.344 | 73.970 | PEAK |
| 2 | * | 2416.150 | 32.739 | 73.485 | 106.224 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:50** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz (DAC1)** |



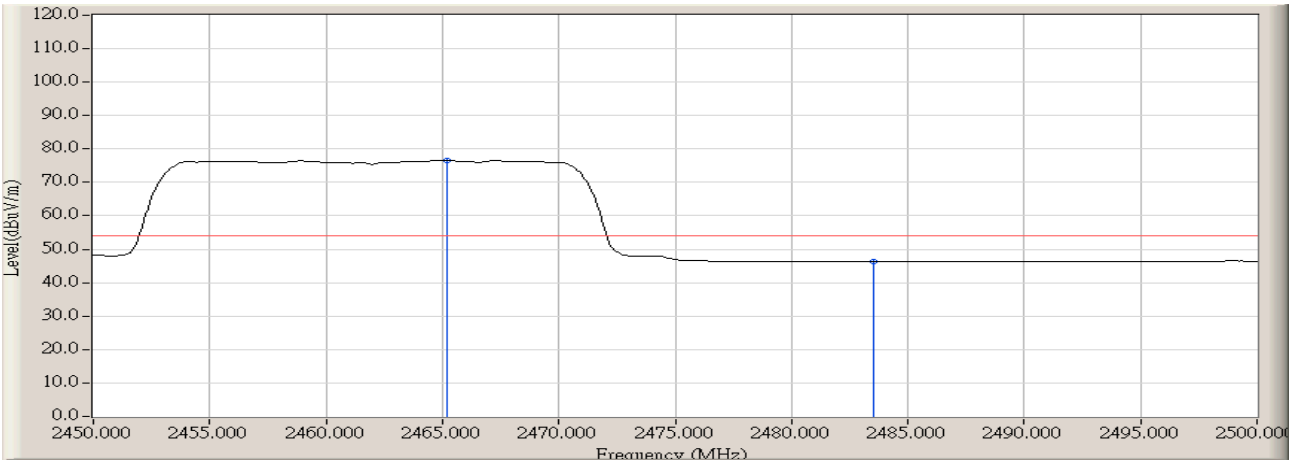

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 17.534 | 50.256 | -3.714 | 53.970 | AVERAGE |
| 2 | * | 2415.233 | 32.738 | 63.352 | 96.089 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:03** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC1)** |



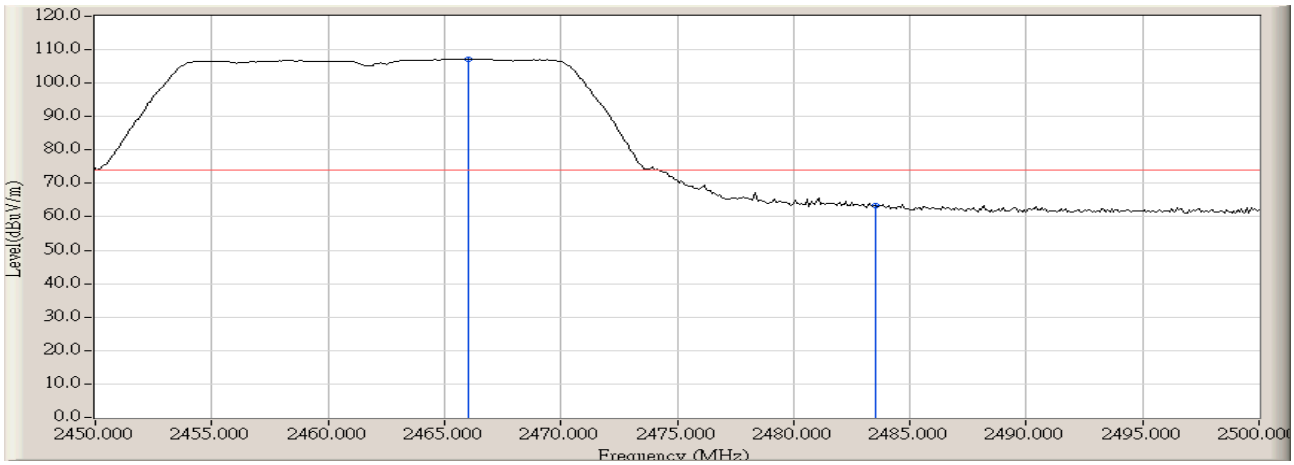

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2469.583 | 32.790 | 54.732 | 87.522 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 26.984 | 59.771 | -14.199 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:03** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC1)** |



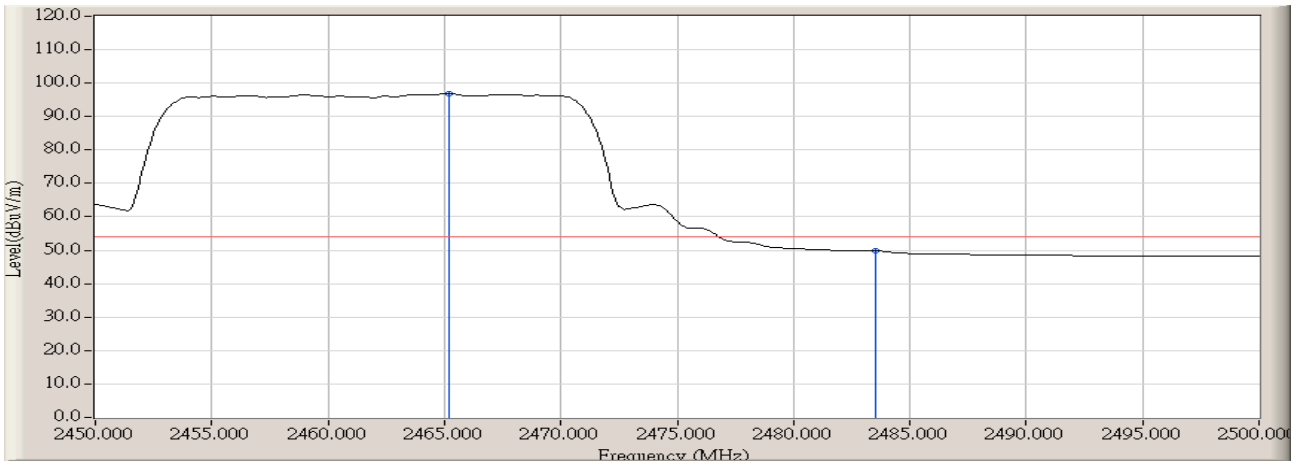

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2465.167 | 32.790 | 43.870 | 76.660 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.577 | 46.364 | -7.606 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:58** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC1)** |



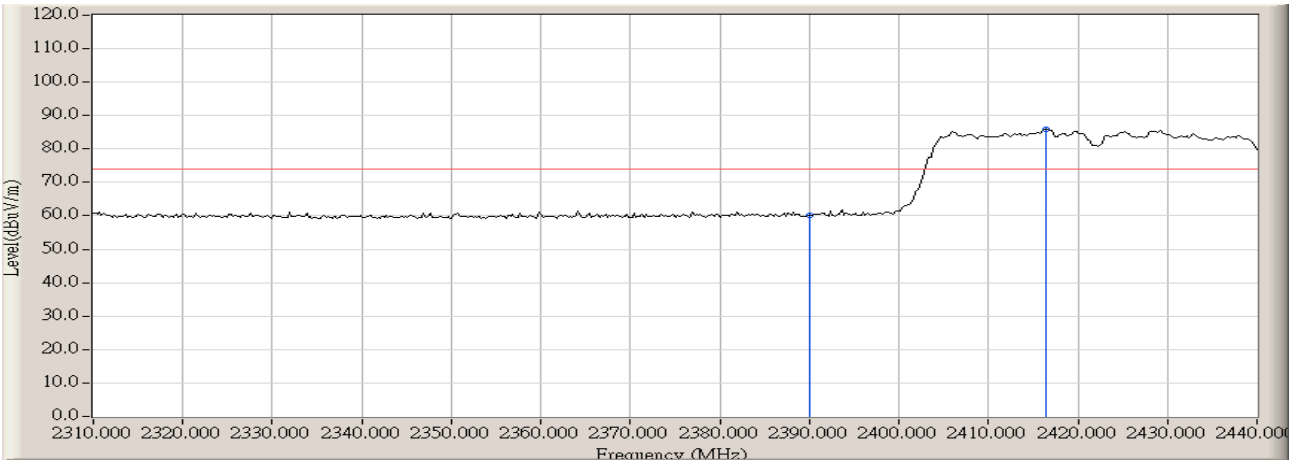

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2466.000 | 32.790 | 74.443 | 107.233 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 30.450 | 63.237 | -10.733 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 10:59** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz (DAC1)** |



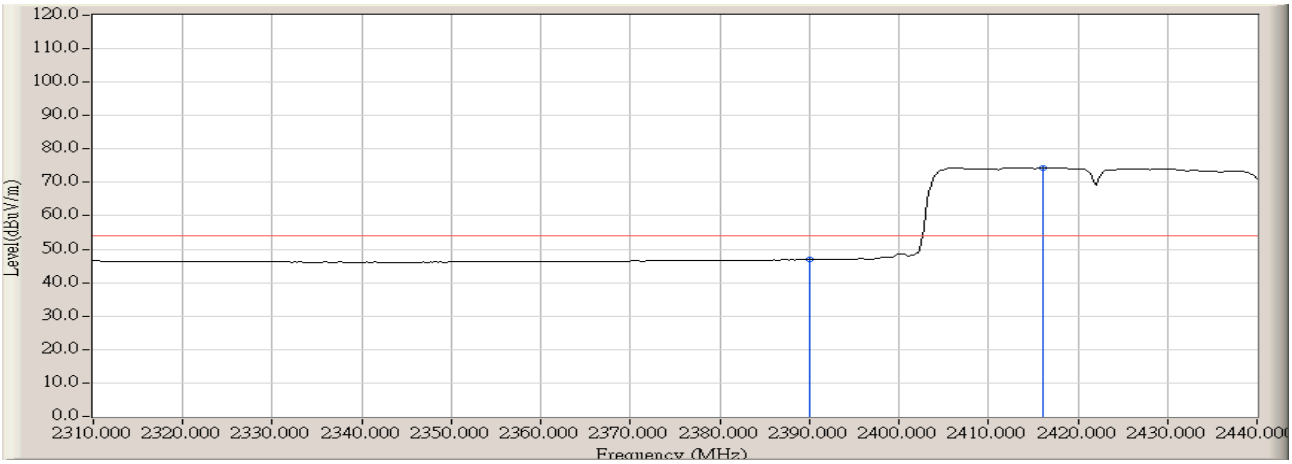

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2465.167 | 32.790 | 64.025 | 96.815 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 17.018 | 49.805 | -4.165 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:12** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC1)** |



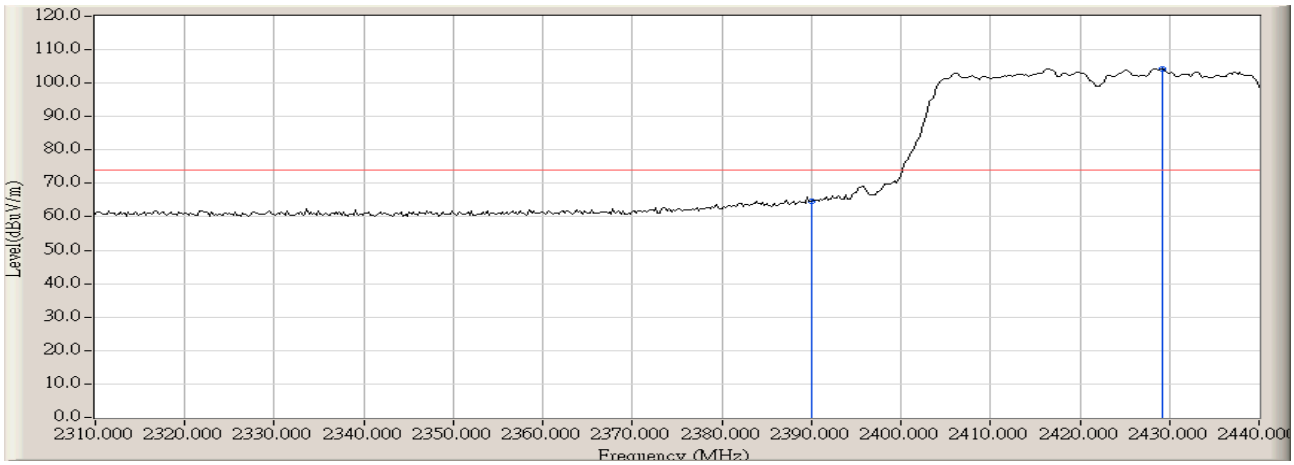

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.465 | 60.187 | -13.783 | 73.970 | PEAK |
| 2 | * | 2416.383 | 32.740 | 53.179 | 85.919 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:13** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC1)** |



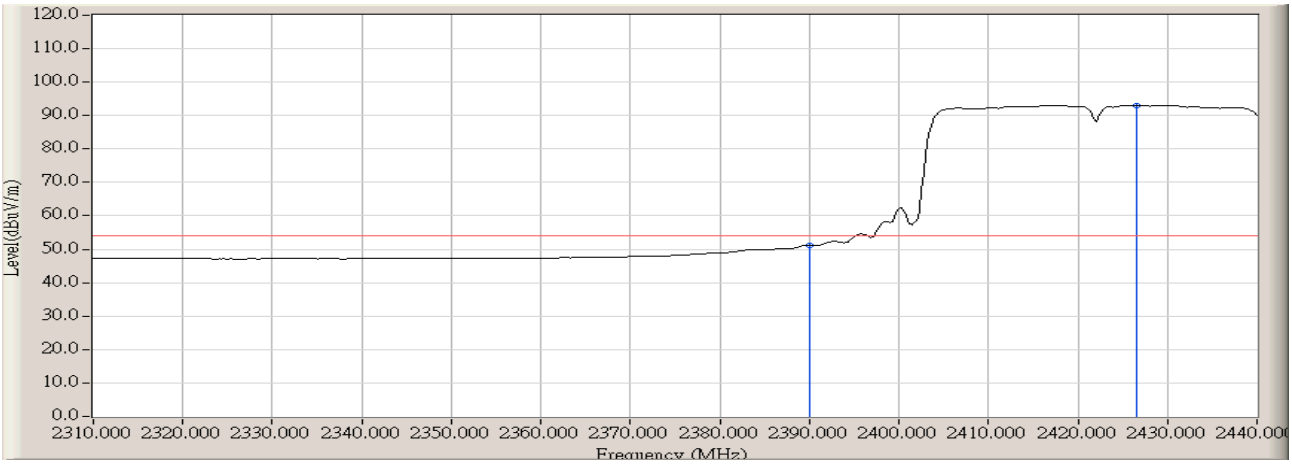

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.184 | 46.906 | -7.064 | 53.970 | AVERAGE |
| 2 | * | 2416.167 | 32.739 | 41.607 | 74.346 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:07** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC1)** |



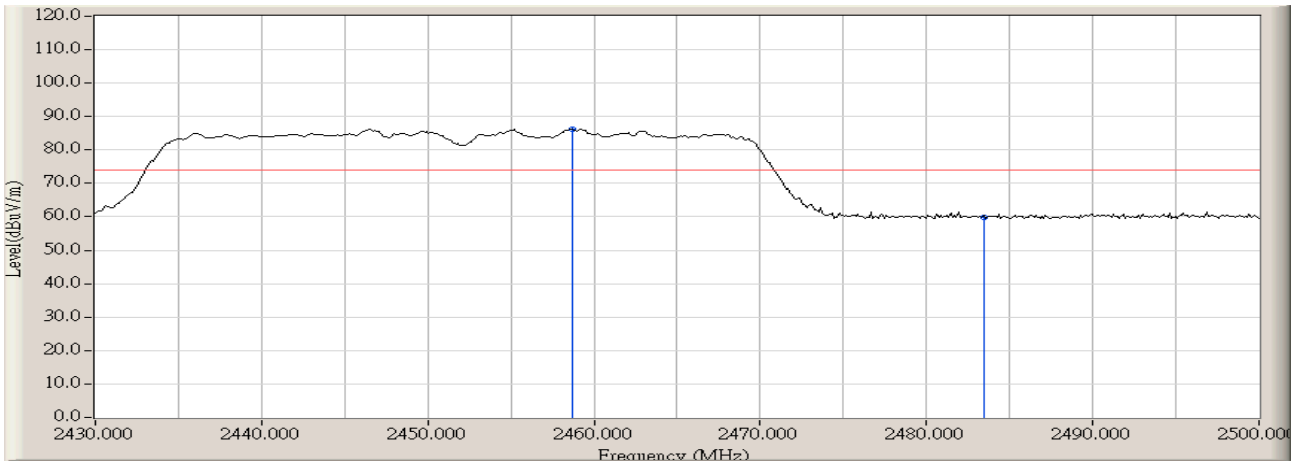

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 32.084 | 64.806 | -9.164 | 73.970 | PEAK |
| 2 | * | 2429.167 | 32.761 | 71.468 | 104.229 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:08** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz (DAC1)** |



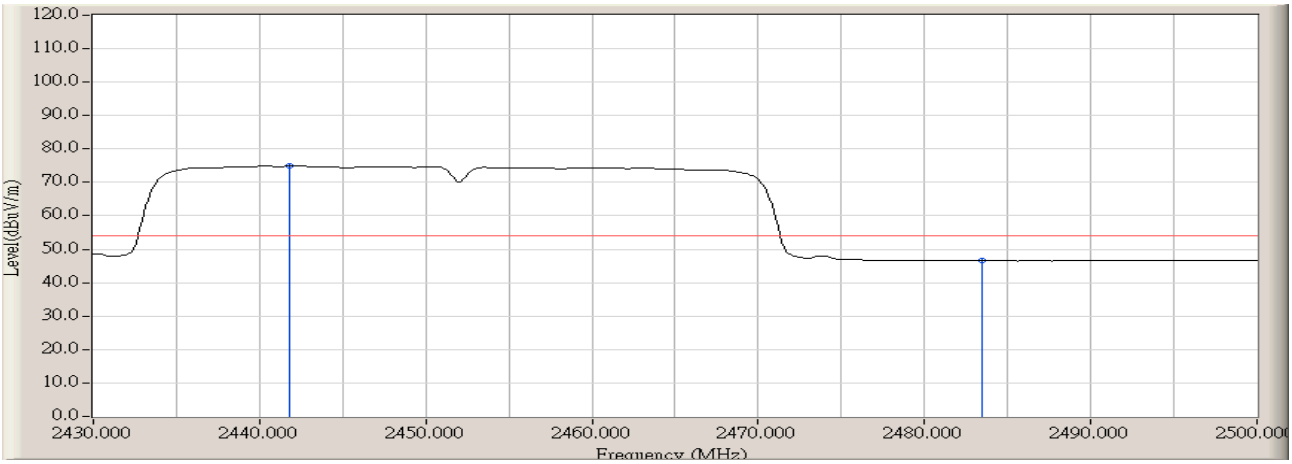

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 18.570 | 51.292 | -2.678 | 53.970 | AVERAGE |
| 2 | * | 2426.567 | 32.758 | 60.307 | 93.064 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:41** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC1)** |



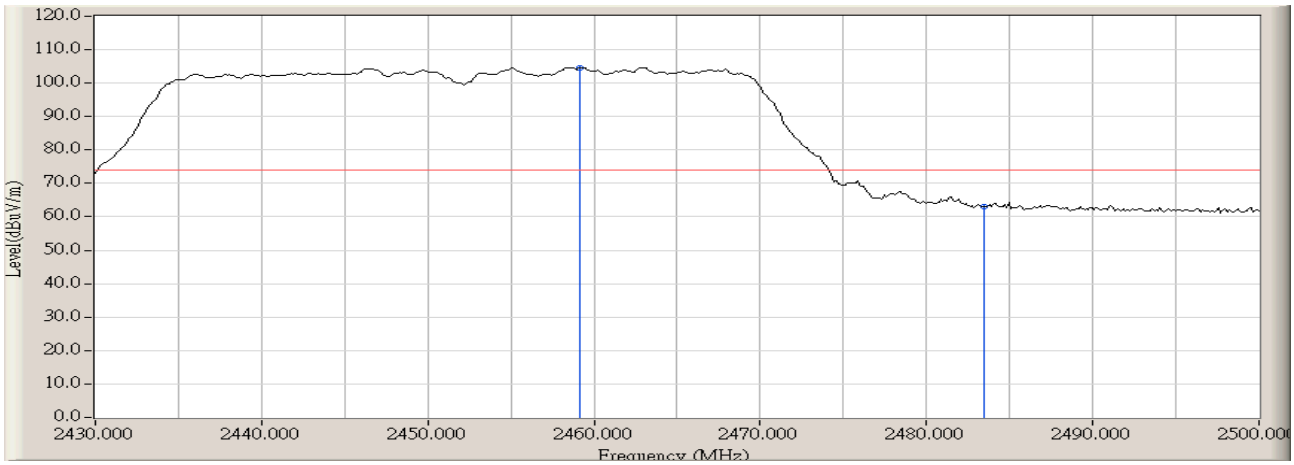

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2458.700 | 32.788 | 53.471 | 86.259 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 27.167 | 59.954 | -14.016 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:42** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC1)** |



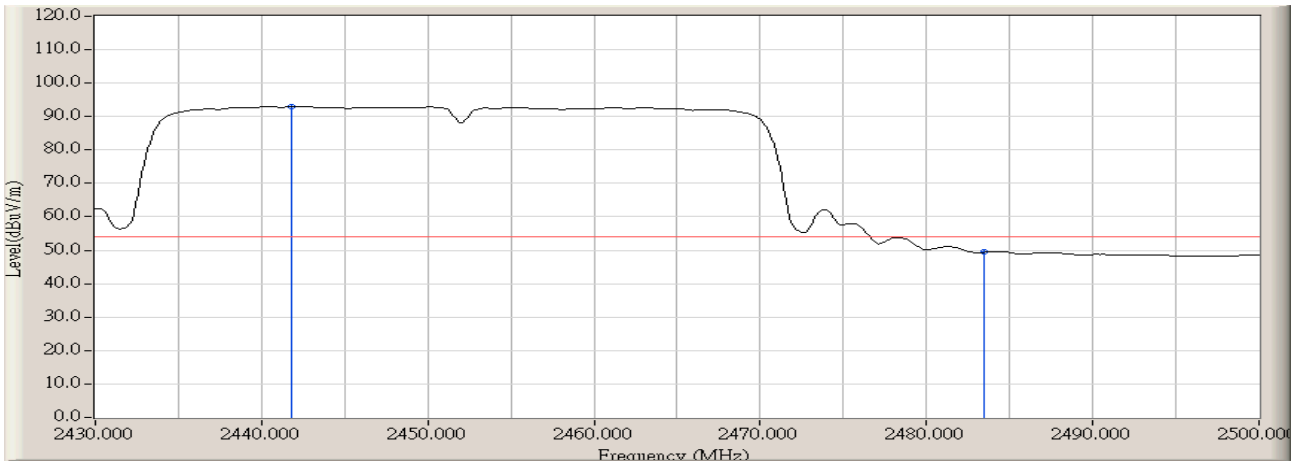

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2441.783 | 32.776 | 42.136 | 74.912 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.730 | 46.517 | -7.453 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:17** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC1)** |



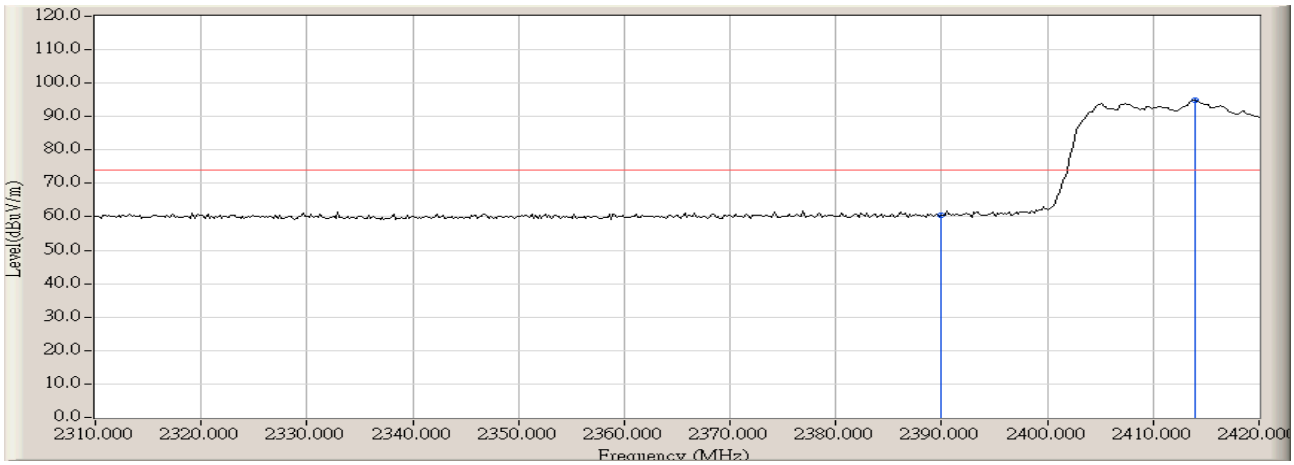

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2459.167 | 32.788 | 71.893 | 104.681 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 30.310 | 63.097 | -10.873 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 11:17** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz (DAC1)** |



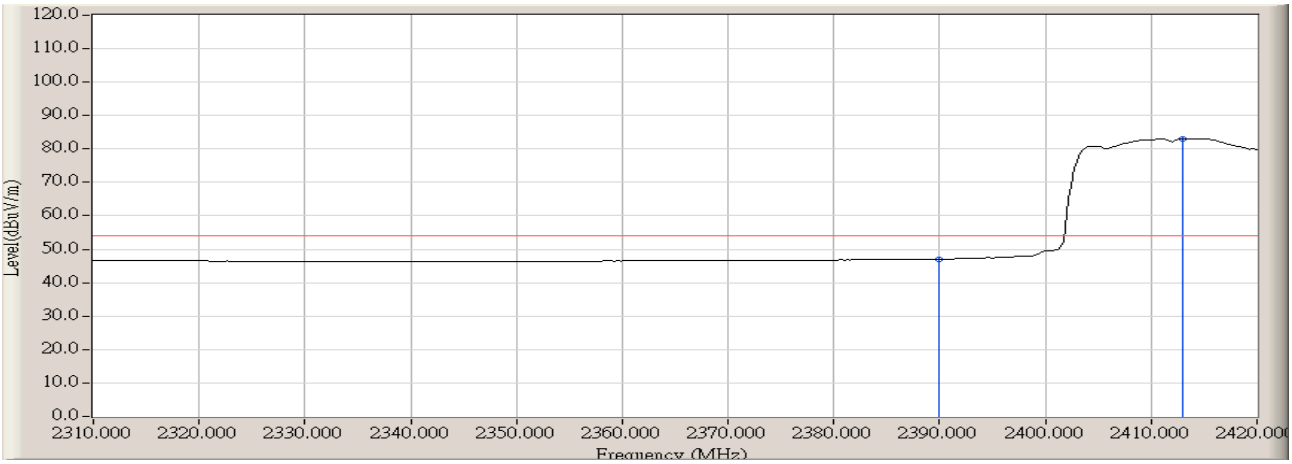

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2441.783 | 32.776 | 60.238 | 93.014 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 16.626 | 49.413 | -4.557 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:40** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz chain (DAC0 and DAC1)** |



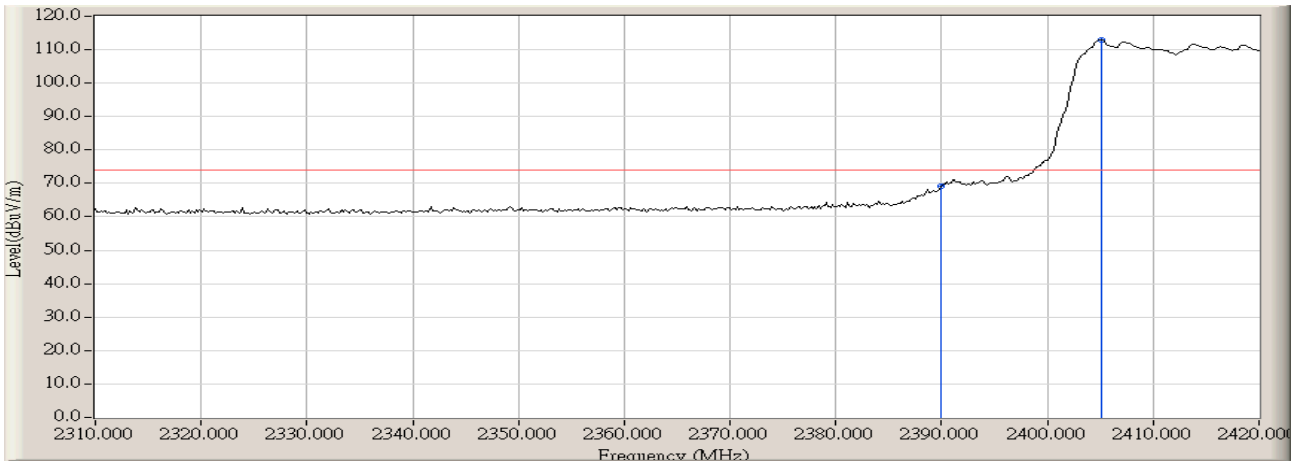

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.820 | 60.542 | -13.428 | 73.970 | PEAK |
| 2 | * | 2413.950 | 32.735 | 62.270 | 95.005 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:42** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz chain (DAC0 and DAC1)** |



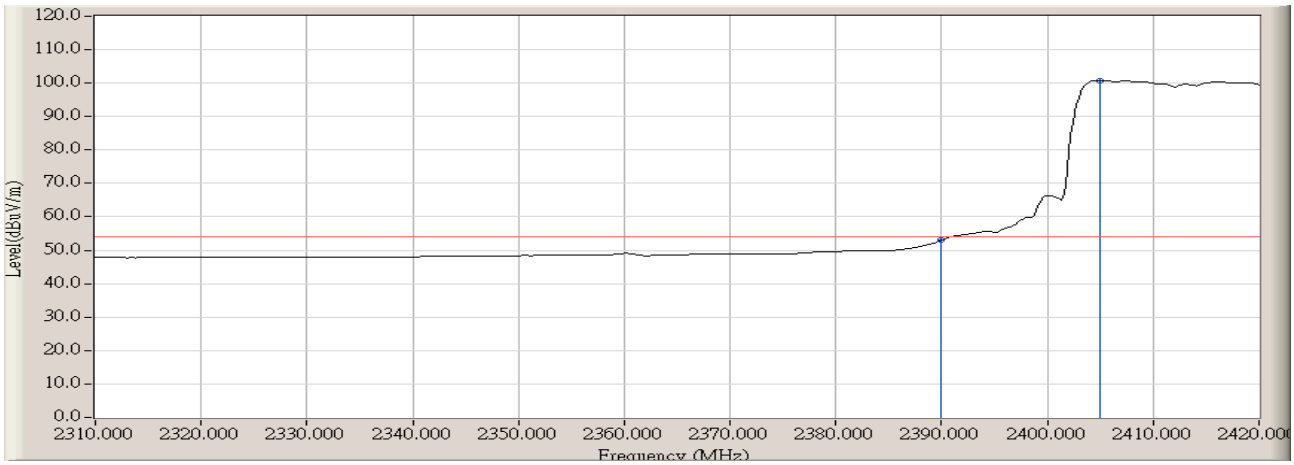

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.289 | 47.011 | -6.959 | 53.970 | AVERAGE |
| 2 | * | 2413.033 | 32.734 | 50.412 | 83.146 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:32** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz chain (DAC0 and DAC1)** |



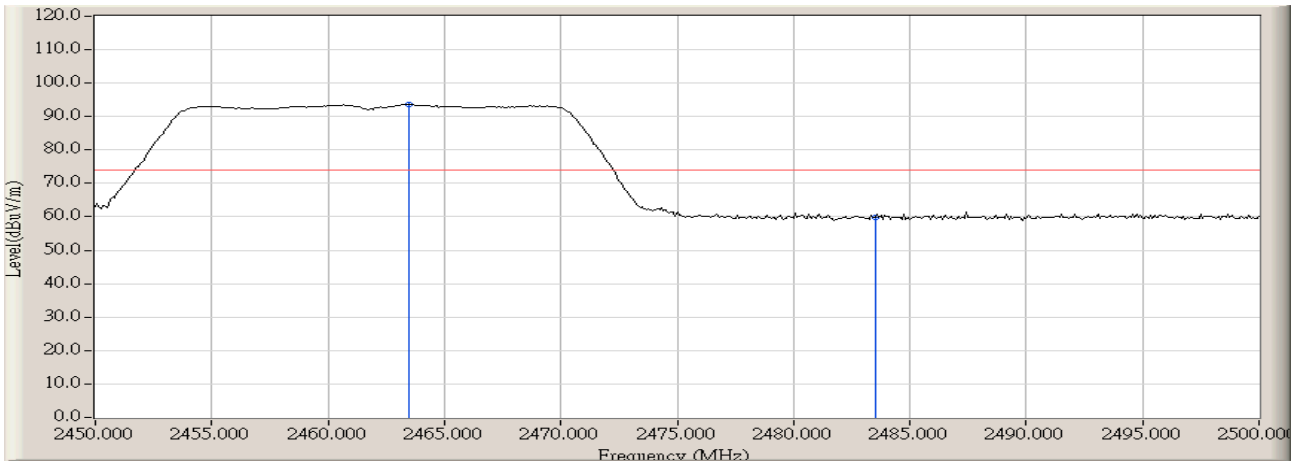

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 36.337 | 69.059 | -4.911 | 73.970 | PEAK |
| 2 | * | 2405.150 | 32.726 | 80.219 | 112.946 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:35** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2412MHz chain (DAC0 and DAC1)** |



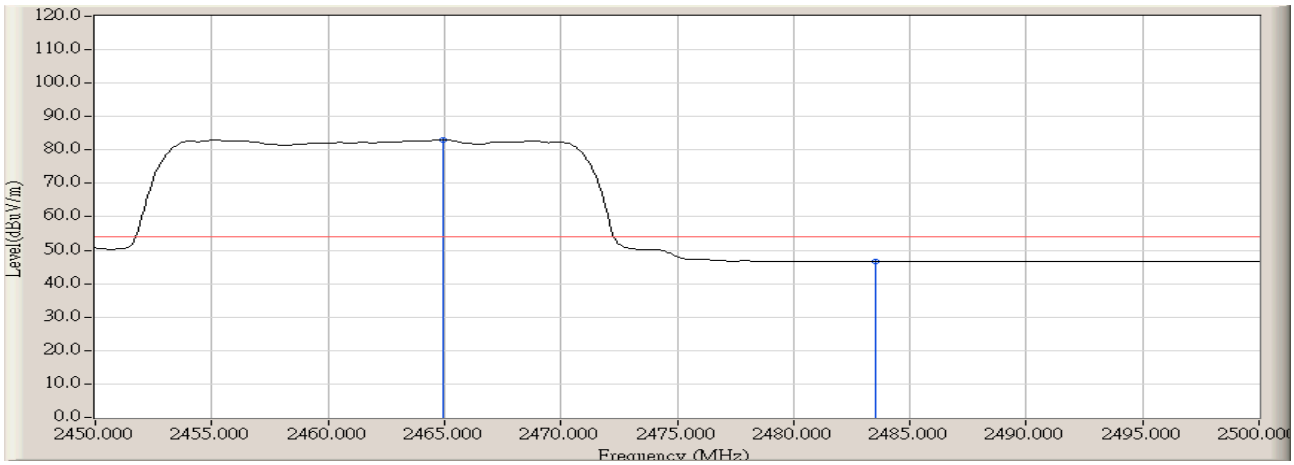

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 20.335 | 53.057 | -0.913 | 53.970 | AVERAGE |
| 2 | * | 2404.967 | 32.727 | 68.108 | 100.834 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:48** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz chain (DAC0 and DAC1)** |



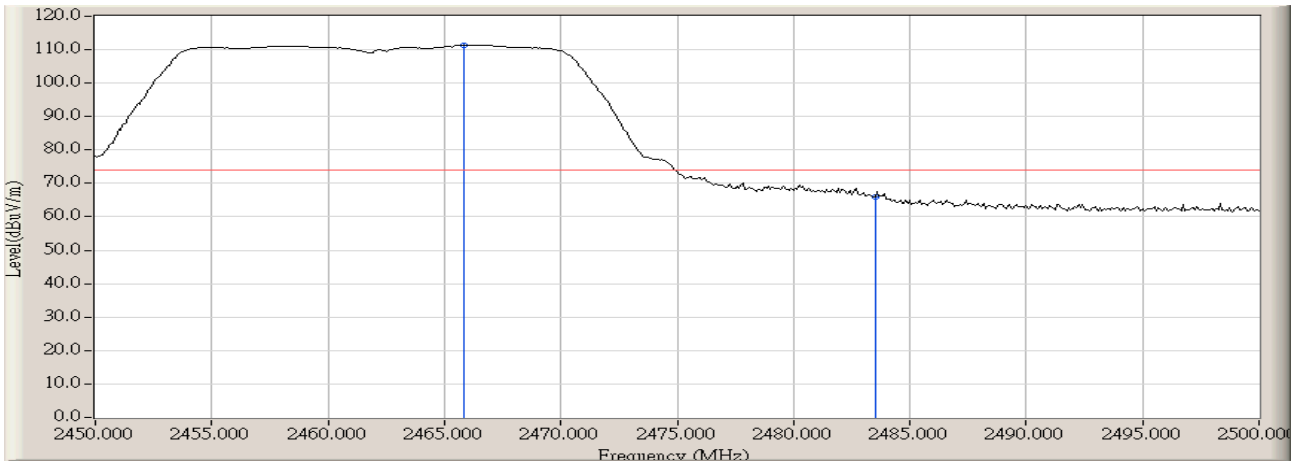

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2463.500 | 32.790 | 60.830 | 93.620 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 26.991 | 59.778 | -14.192 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:50** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz chain (DAC0 and DAC1)** |



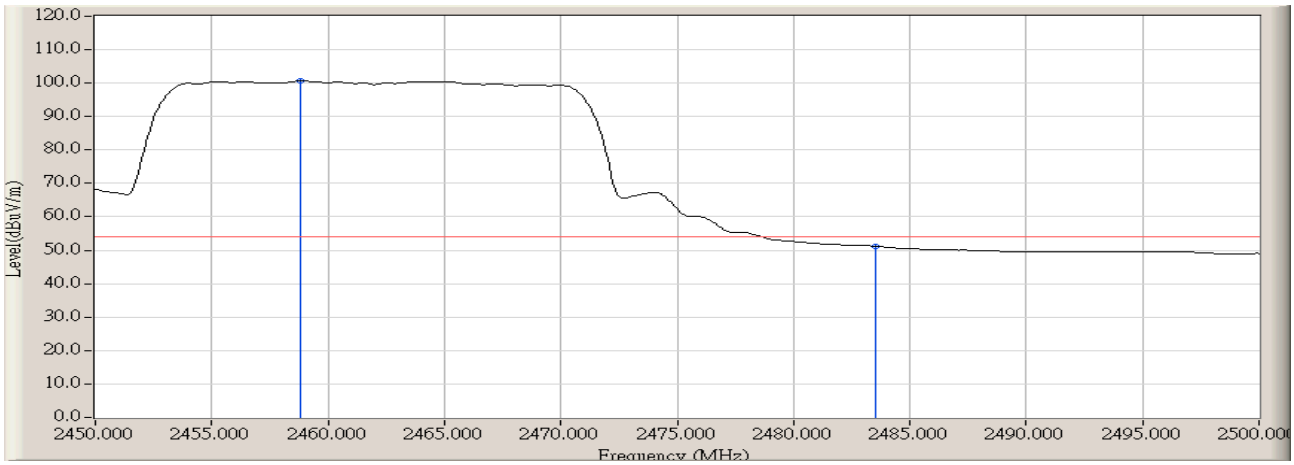

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2464.917 | 32.790 | 50.125 | 82.915 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.842 | 46.629 | -7.341 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:45** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz chain (DAC0 and DAC1)** |



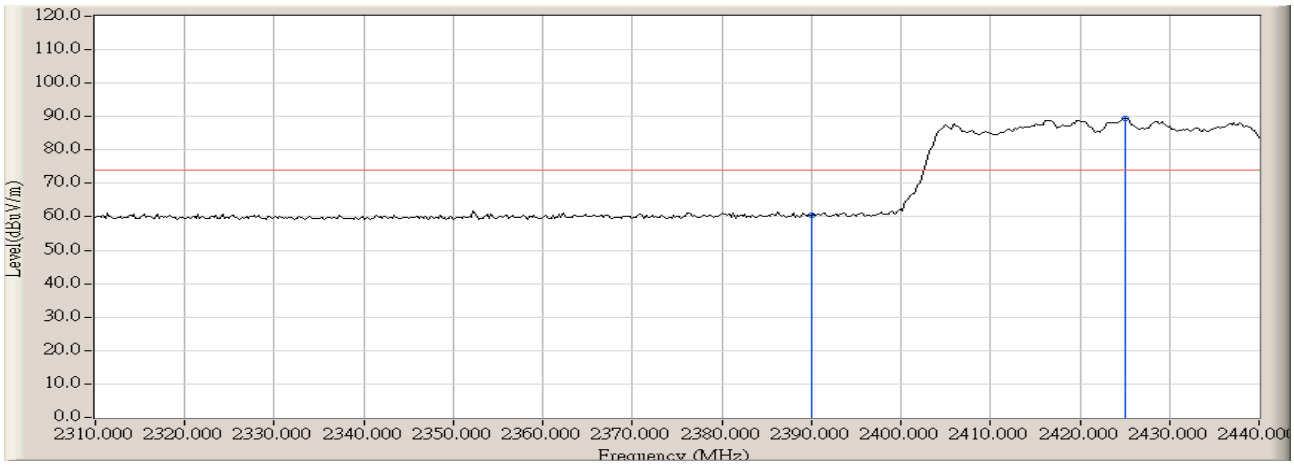

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2465.833 | 32.790 | 78.541 | 111.331 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 33.209 | 65.996 | -7.974 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 13:46** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz chain (DAC0 and DAC1)** |



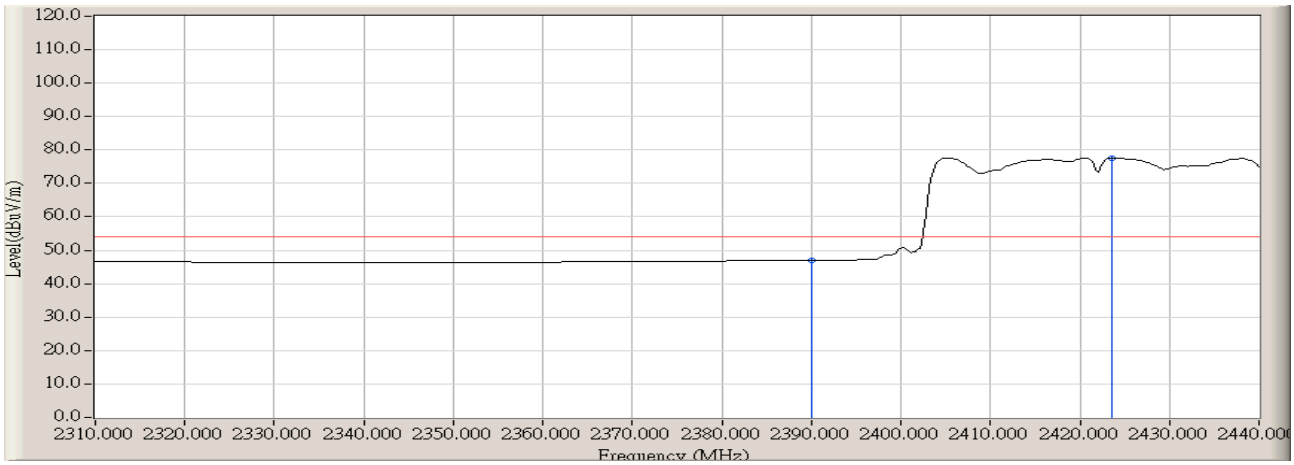

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2458.833 | 32.788 | 67.824 | 100.612 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 18.461 | 51.248 | -2.722 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:26** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz chain (DAC0 and DAC1)** |



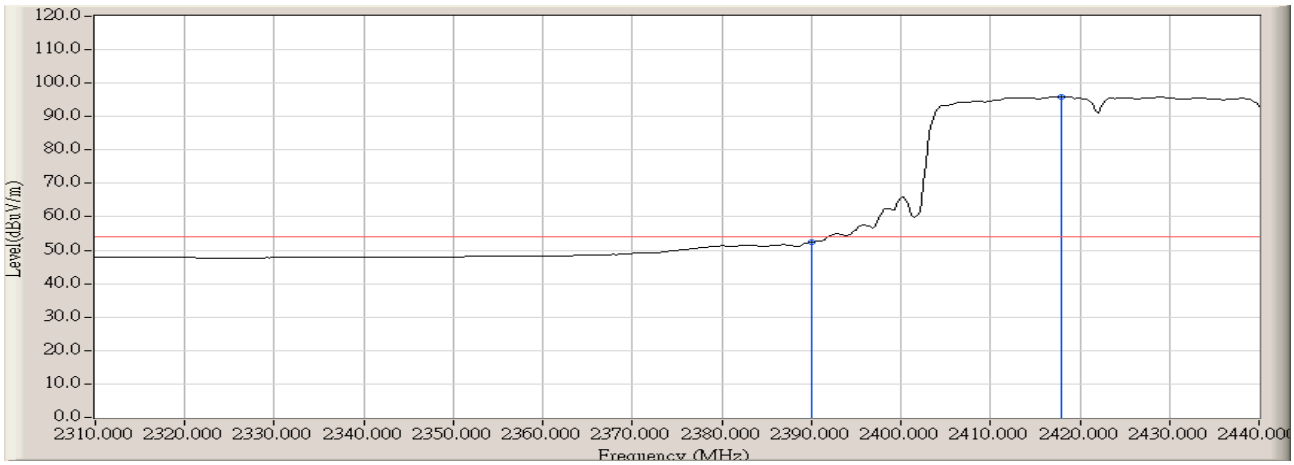

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 27.603 | 60.325 | -13.645 | 73.970 | PEAK |
| 2 | * | 2425.050 | 32.755 | 56.779 | 89.534 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:29** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz chain (DAC0 and DAC1)** |



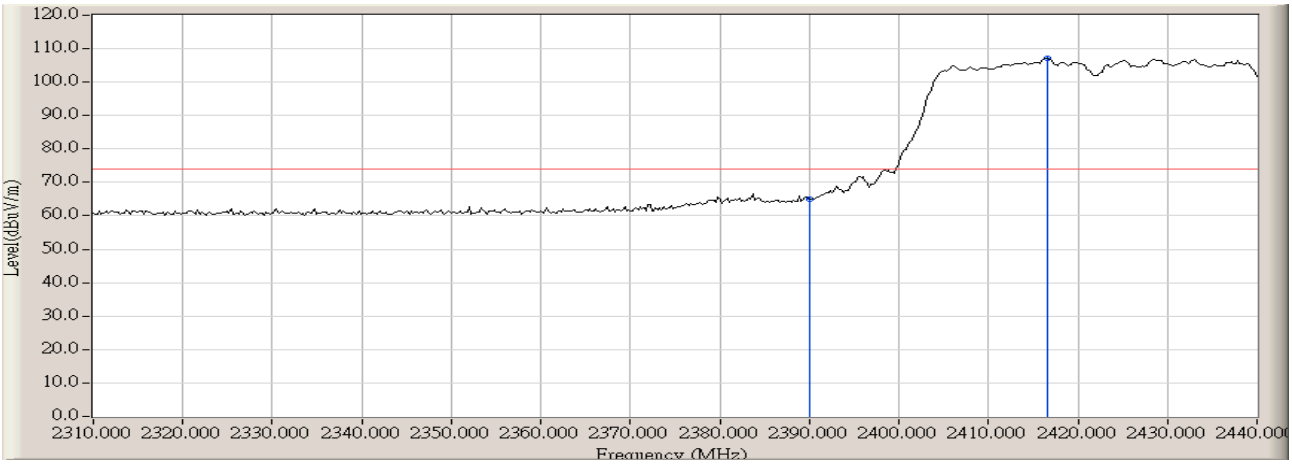

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 14.305 | 47.027 | -6.943 | 53.970 | AVERAGE |
| 2 | * | 2423.533 | 32.752 | 44.916 | 77.668 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:20** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz chain (DAC0 and DAC1)** |



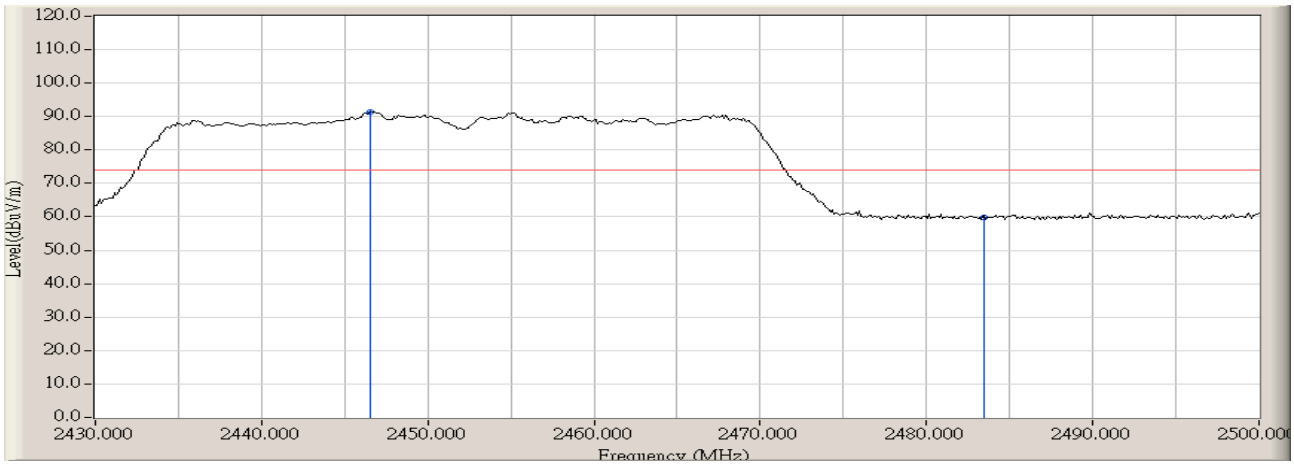

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 19.818 | 52.540 | -1.430 | 53.970 | AVERAGE |
| 2 | * | 2417.900 | 32.742 | 63.221 | 95.963 | N/A | N/A | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:22** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2422MHz chain (DAC0 and DAC1)** |



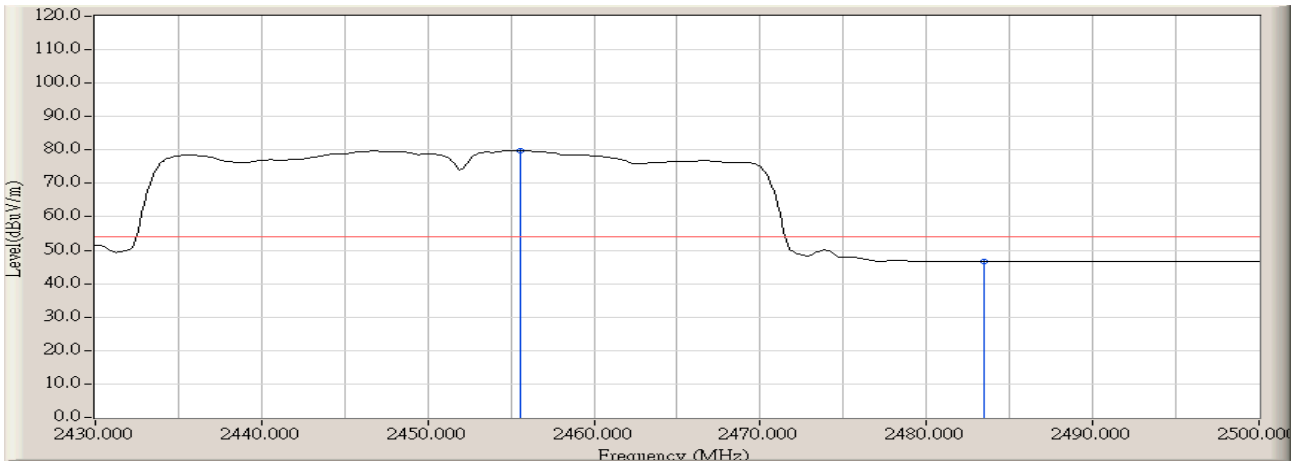

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2390.000 | 32.722 | 32.304 | 65.026 | -8.944 | 73.970 | PEAK |
| 2 | * | 2416.600 | 32.740 | 74.317 | 107.057 | N/A | N/A | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:36** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz chain (DAC0 and DAC1)** |



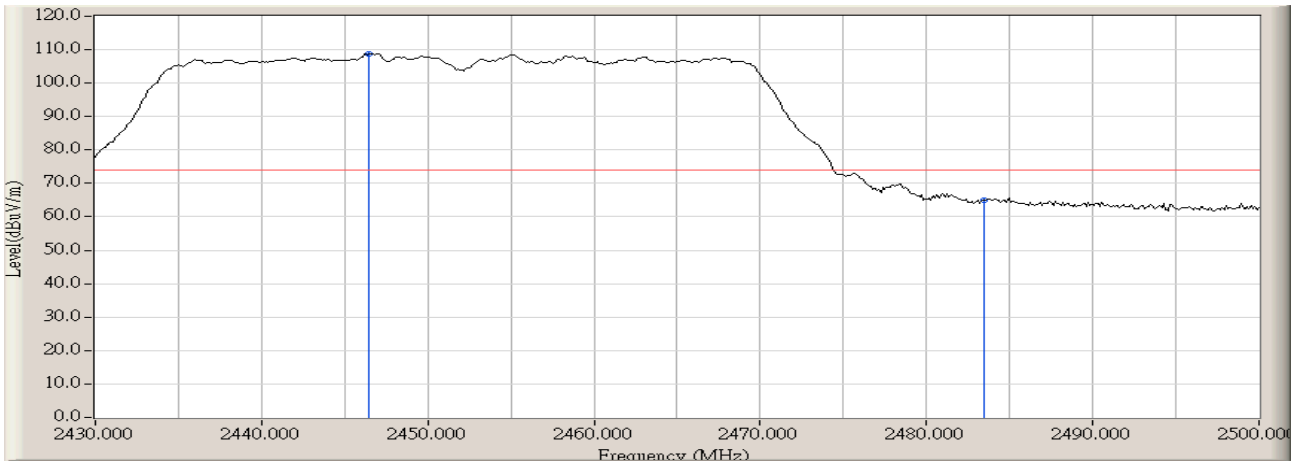

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2446.567 | 32.781 | 58.513 | 91.294 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 27.007 | 59.794 | -14.176 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:42** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz chain (DAC0 and DAC1)** |



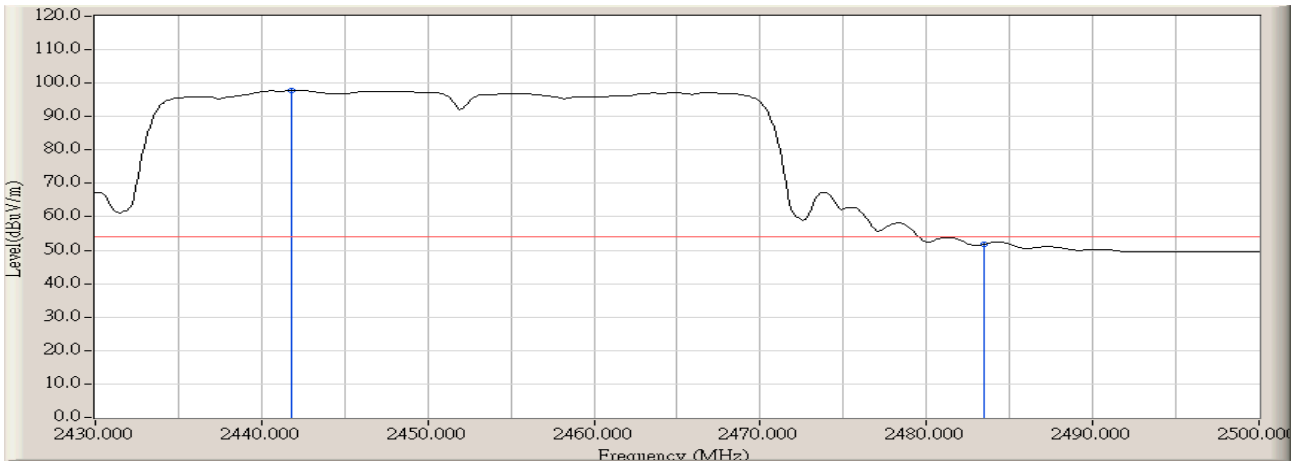

| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2455.550 | 32.786 | 46.973 | 79.759 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 13.794 | 46.581 | -7.389 | 53.970 | AVERAGE |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:31** |
| **Limit : FCC_SpartC_15.209_03M_PK** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz chain (DAC0 and DAC1)** |




| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2446.450 | 32.781 | 75.993 | 108.774 | N/A | N/A | PEAK |
| 2 | | 2483.500 | 32.787 | 32.156 | 64.943 | -9.027 | 73.970 | PEAK |

| | |
|---|---|
| **Engineer : Jame** | |
| **Site : AC-2 (3m Semi-Anechoic Chamber)** | **Time : 2008/08/18 - 14:33** |
| **Limit : FCC_SpartC_15.209_03M_AV** | **Margin : 0** |
| **EUT : 802.11n Wireless LAN Module** | **Probe : BBHA9120D_496(1-18GHz) - VERTICAL** |
| **Power : AC120V/60Hz** | **Note : Mode 4: Transmit by 802.11n(40MHz) at channel 2452MHz chain (DAC0 and DAC1)** |




| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|---|---|---|---|---|---|---|
| 1 | * | 2441.783 | 32.776 | 65.078 | 97.854 | N/A | N/A | AVERAGE |
| 2 | | 2483.500 | 32.787 | 19.095 | 51.882 | -2.088 | 53.970 | AVERAGE |

# 7. Operation Frequency Range of 20dB Bandwidth

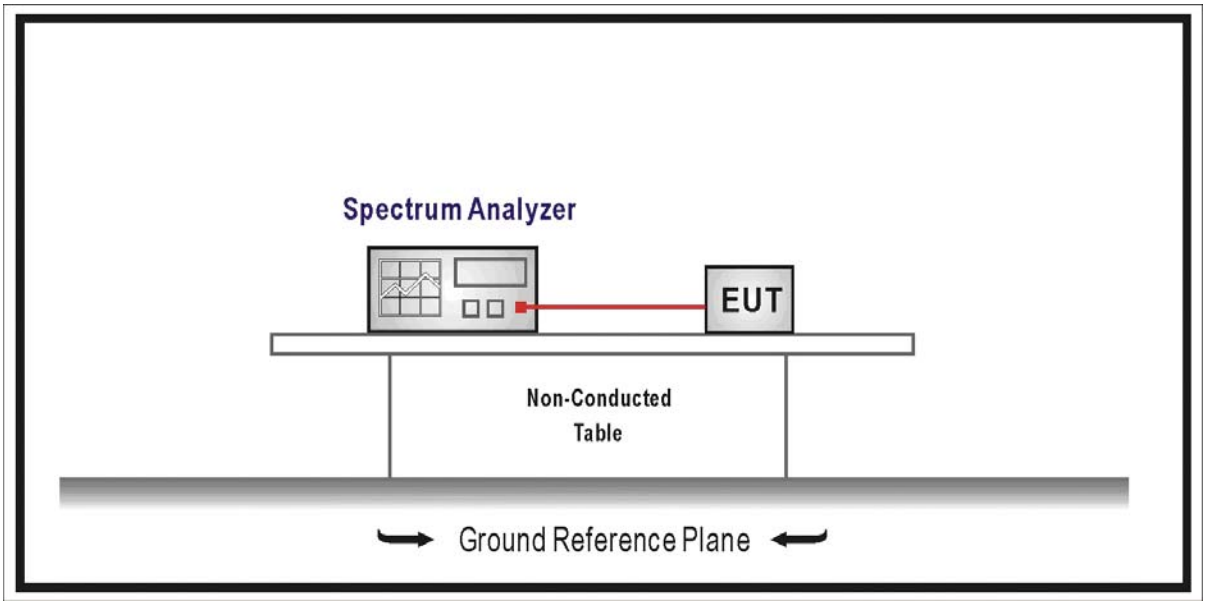
## 7.1. Test Equipment

Operation Frequency Range of 20dB Bandwidth / AC-4

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | E4446A | MY45300103 | 2008/06/11 |
| Coaxial Cable | Huber+Suhner | AC4-RF | 09 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH007 | 2008/03/09 |

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 7.2. Test Setup




## 7.3. Limit

20 dB bandwidth of the emission is contained within the operation frequency band.

## 7.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

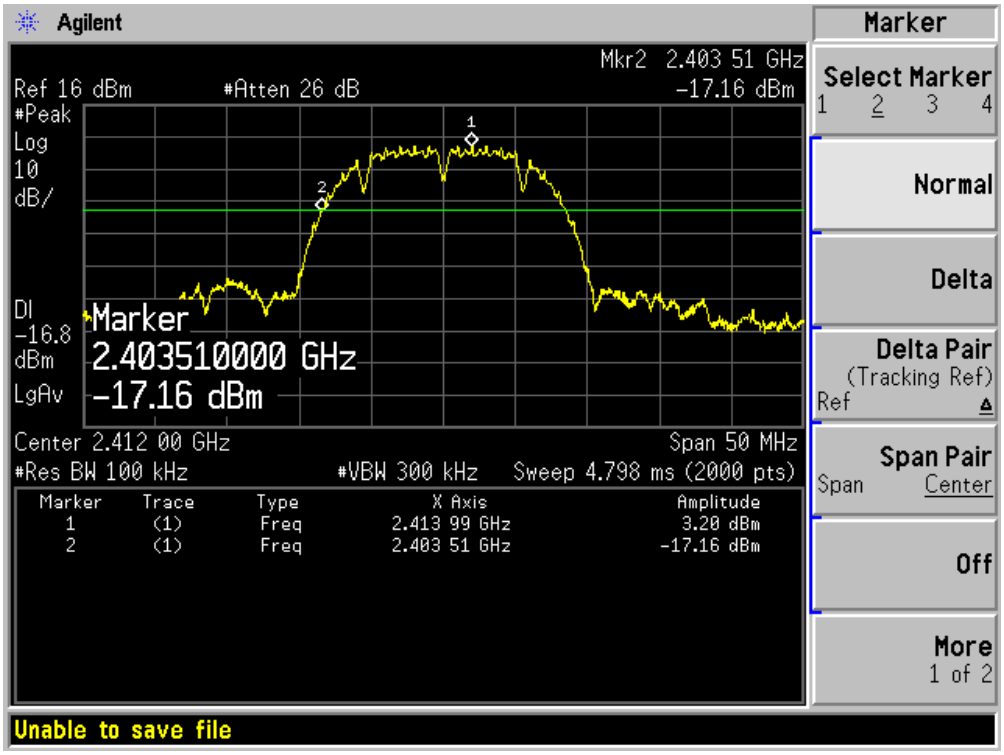
## 7.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

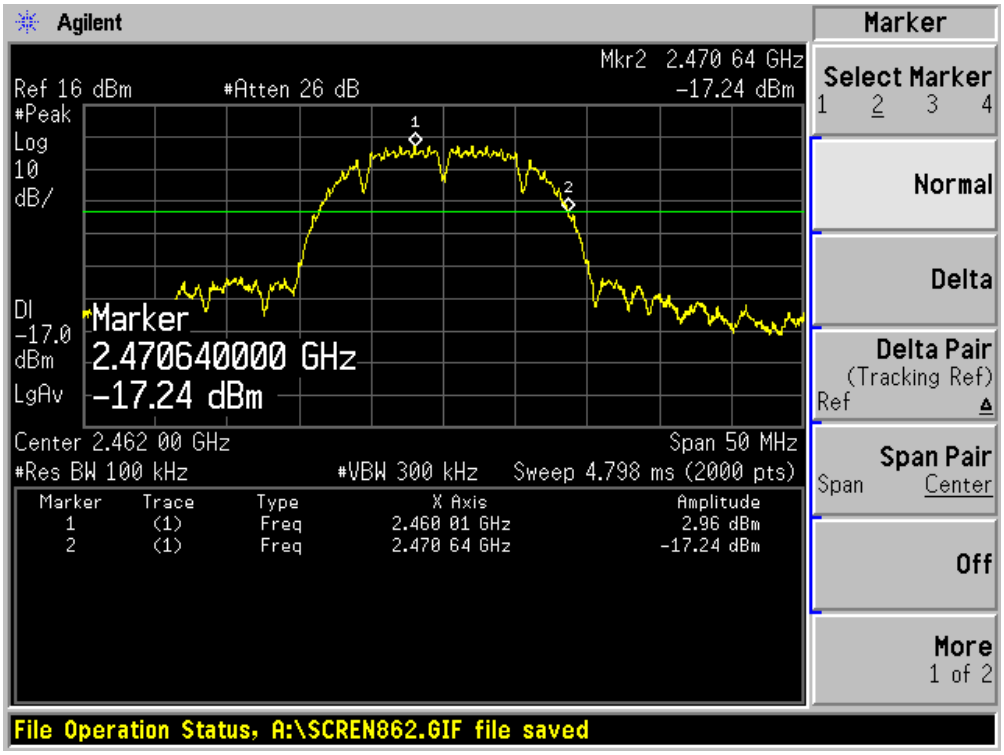
## 7.6. Test Result

| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC0) |

**Channel 01 (2412MHz)**

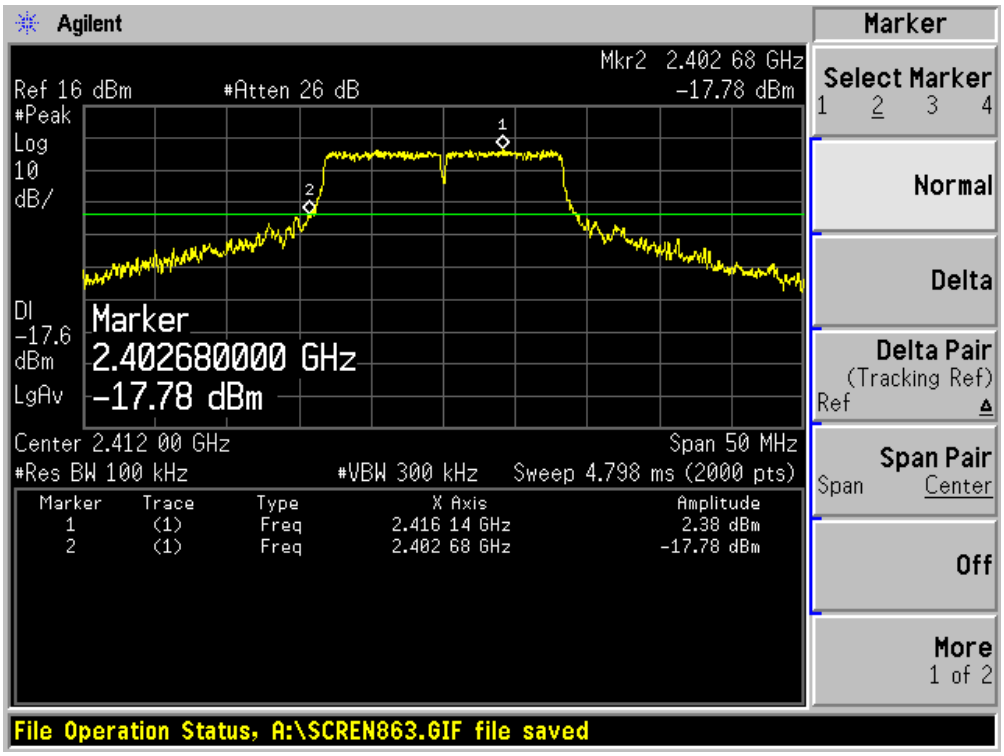


**Channel 11 (2462MHz)**

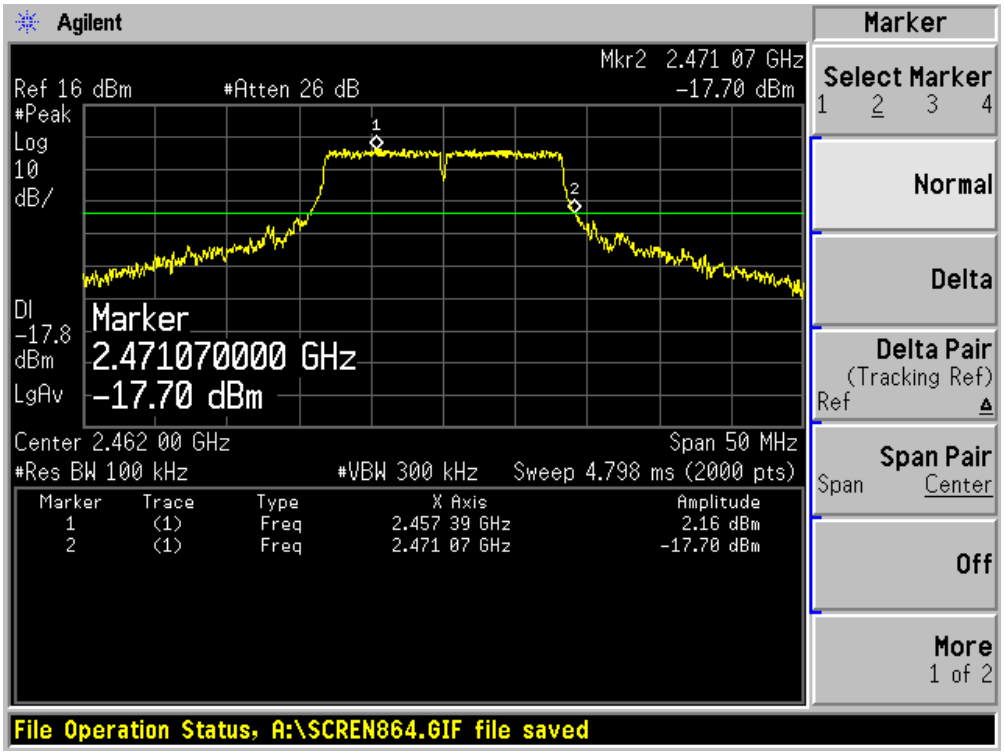


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC0) |

**Channel 01 (2412MHz)**

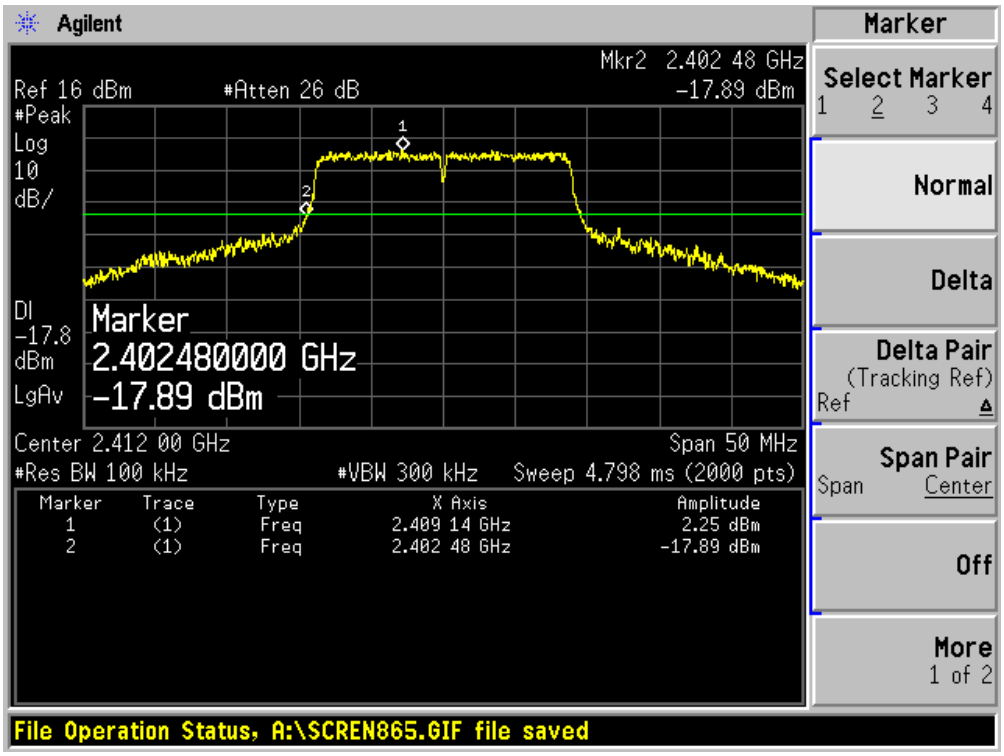


**Channel 11 (2462MHz)**

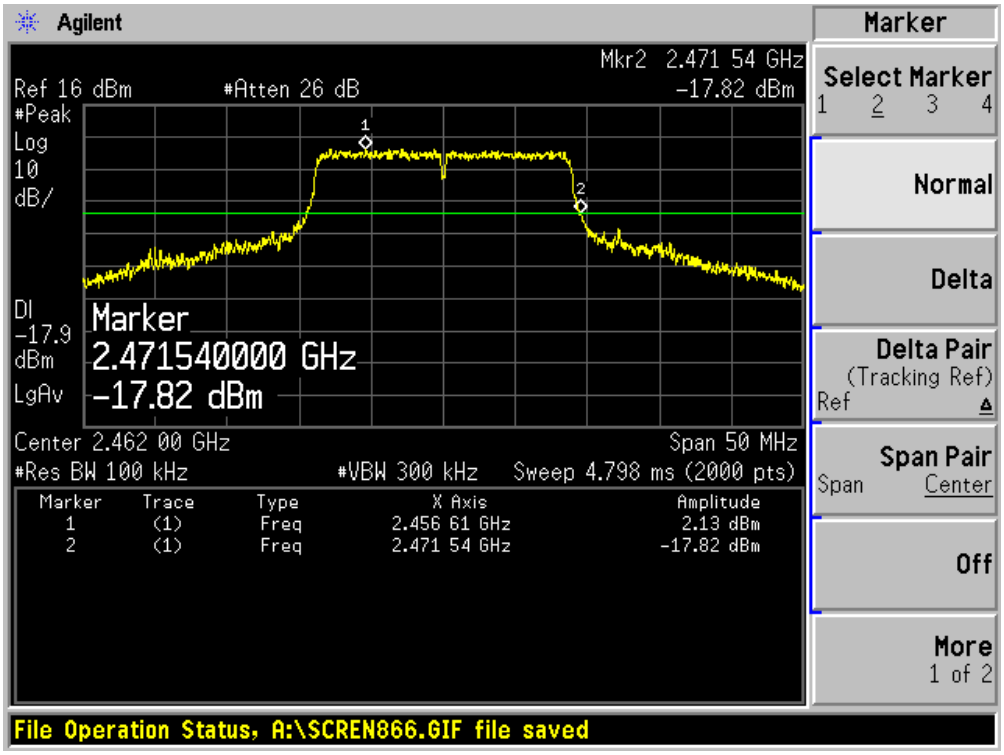


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC0) |

**Channel 01 (2412MHz)**

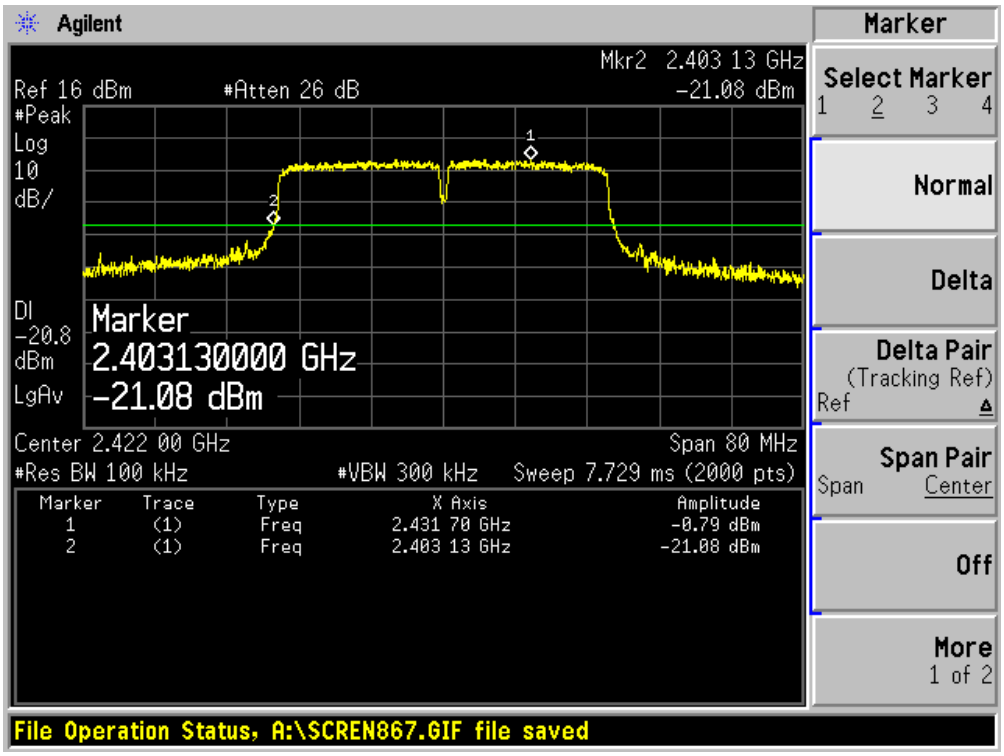


**Channel 11 (2462MHz)**

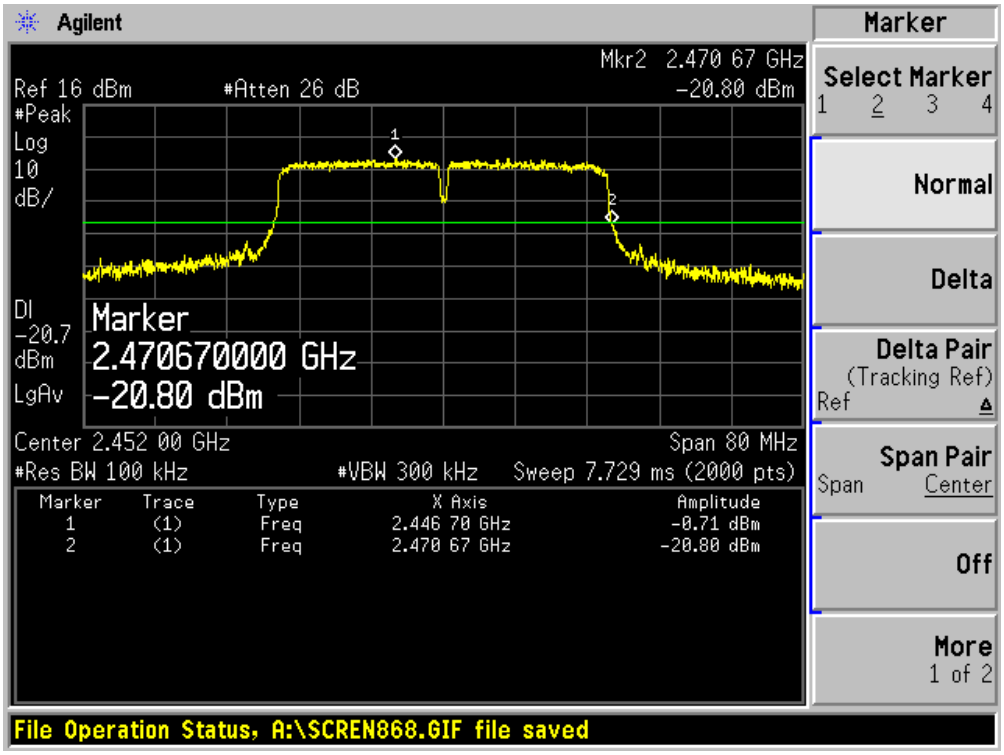


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC0) |

**Channel 03 (2422MHz)**

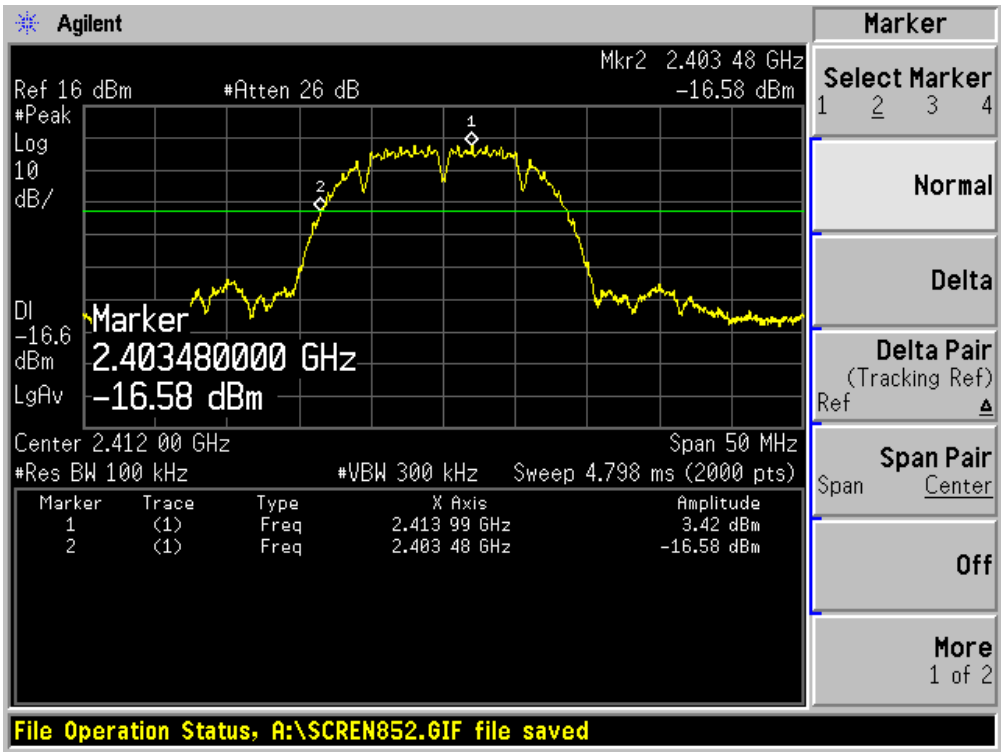


**Channel 09 (2452MHz)**

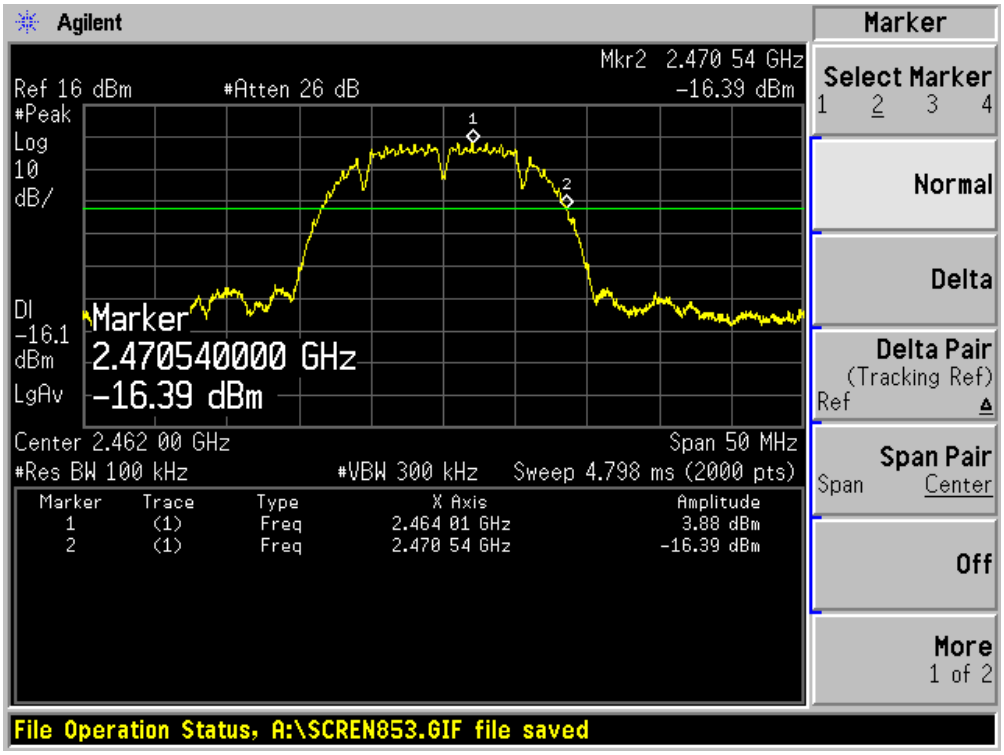


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC1) |

**Channel 01 (2412MHz)**

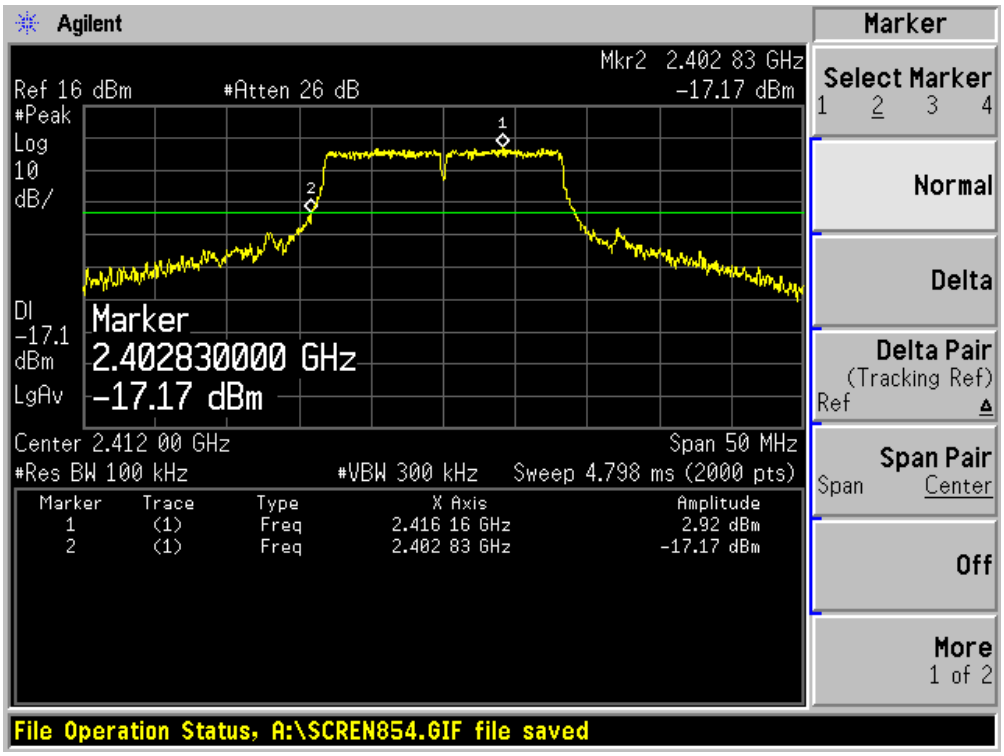


**Channel 11 (2462MHz)**

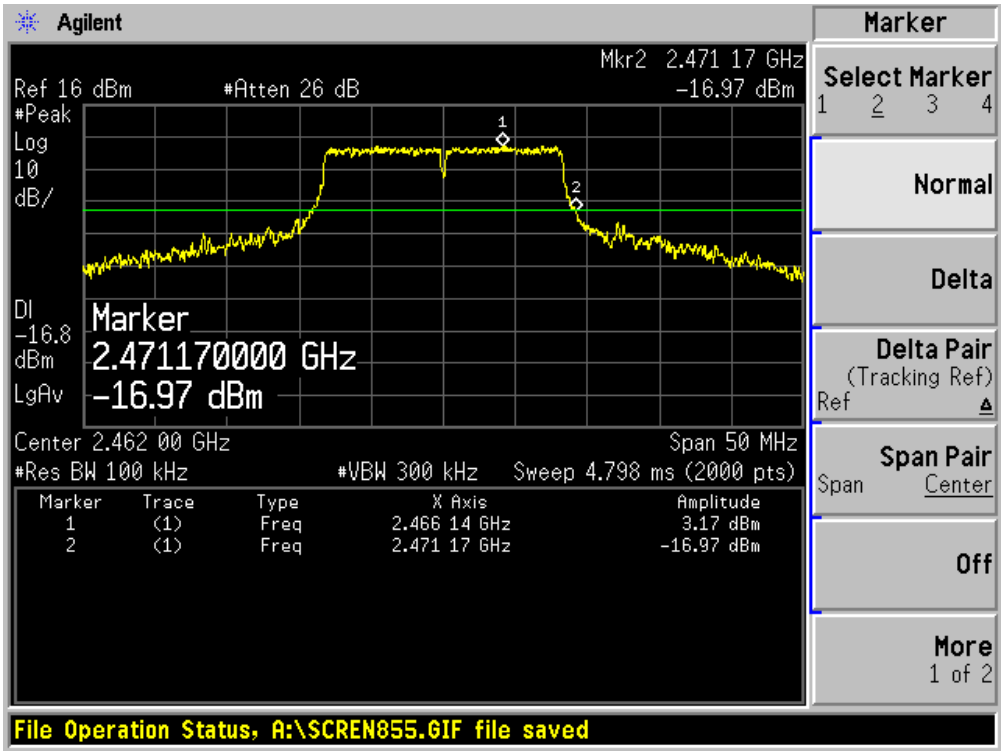


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC1) |

**Channel 01 (2412MHz)**

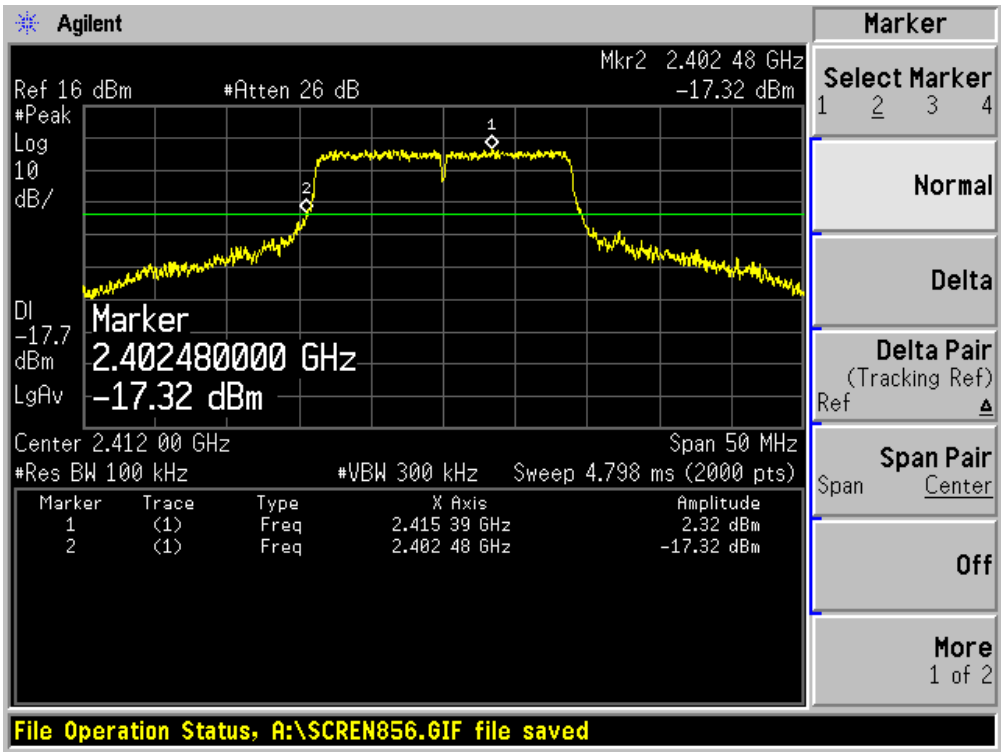


**Channel 11 (2462MHz)**

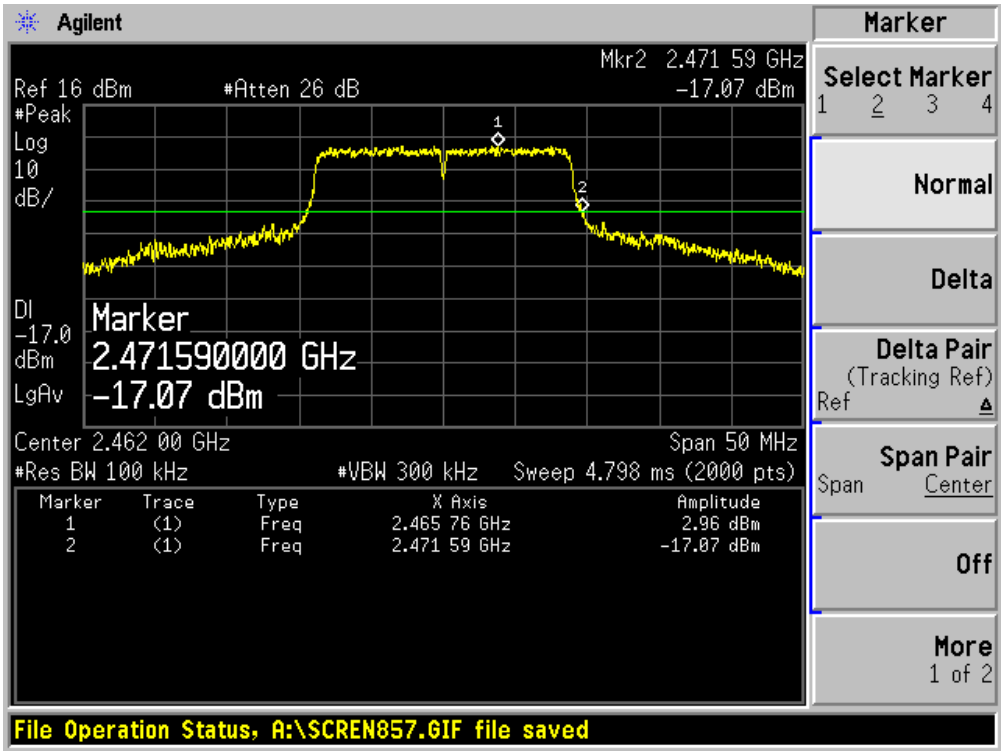


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC1) |

**Channel 01 (2412MHz)**

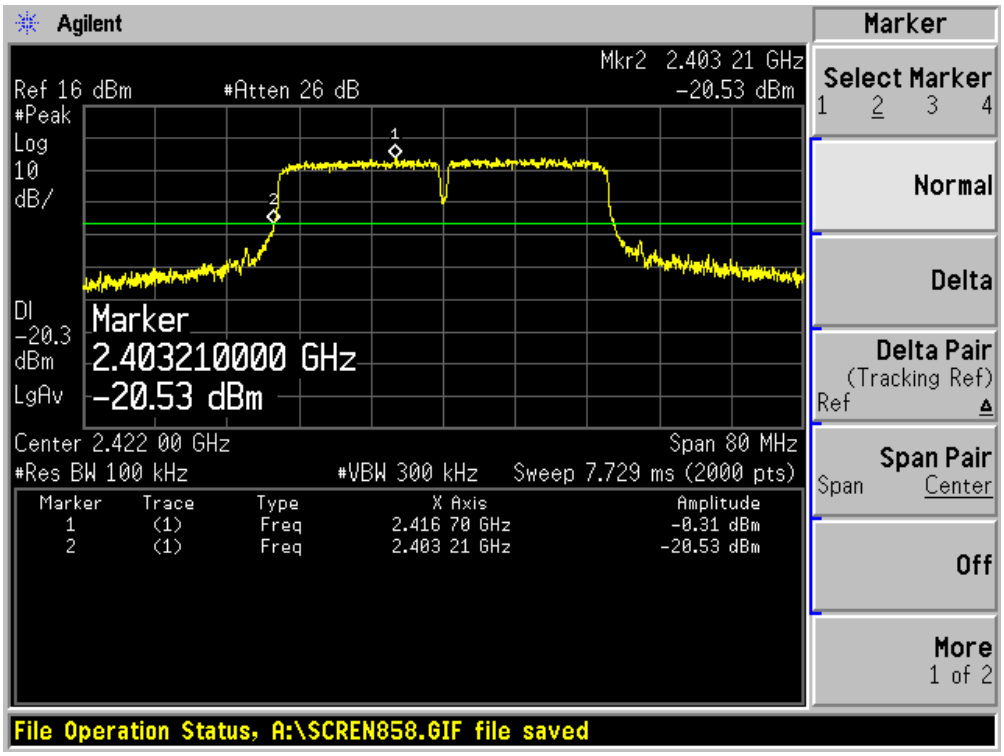


**Channel 11 (2462MHz)**

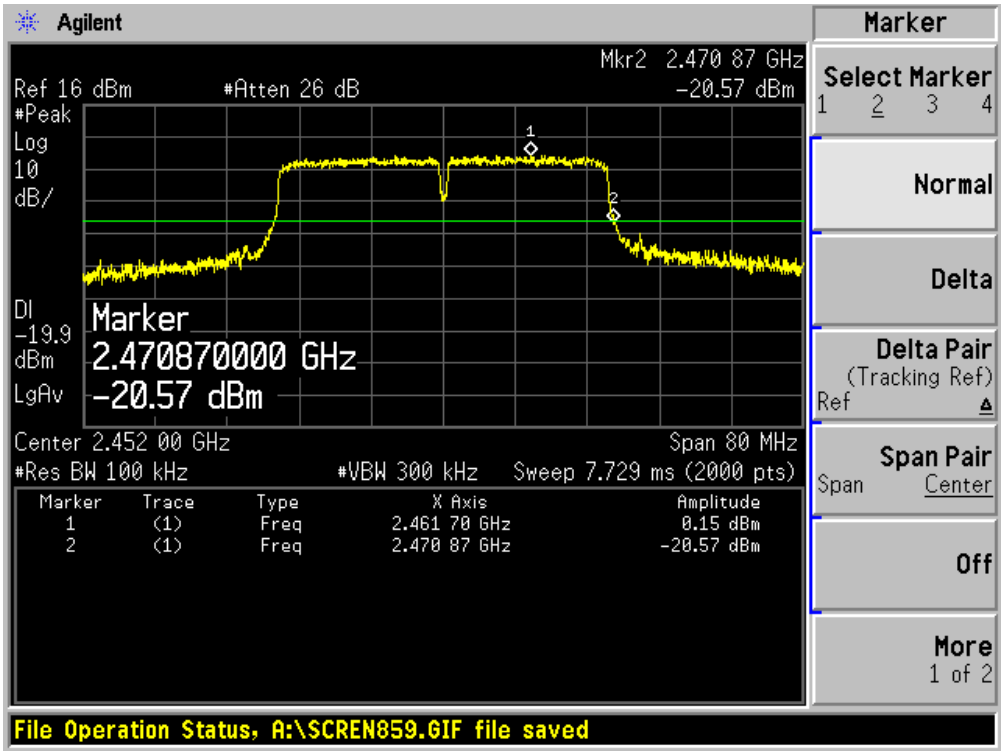


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Operation Frequency Range of 20dB Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC1) |

**Channel 03 (2422MHz)**



**Channel 09 (2452MHz)**



# 8. Occupied Bandwidth

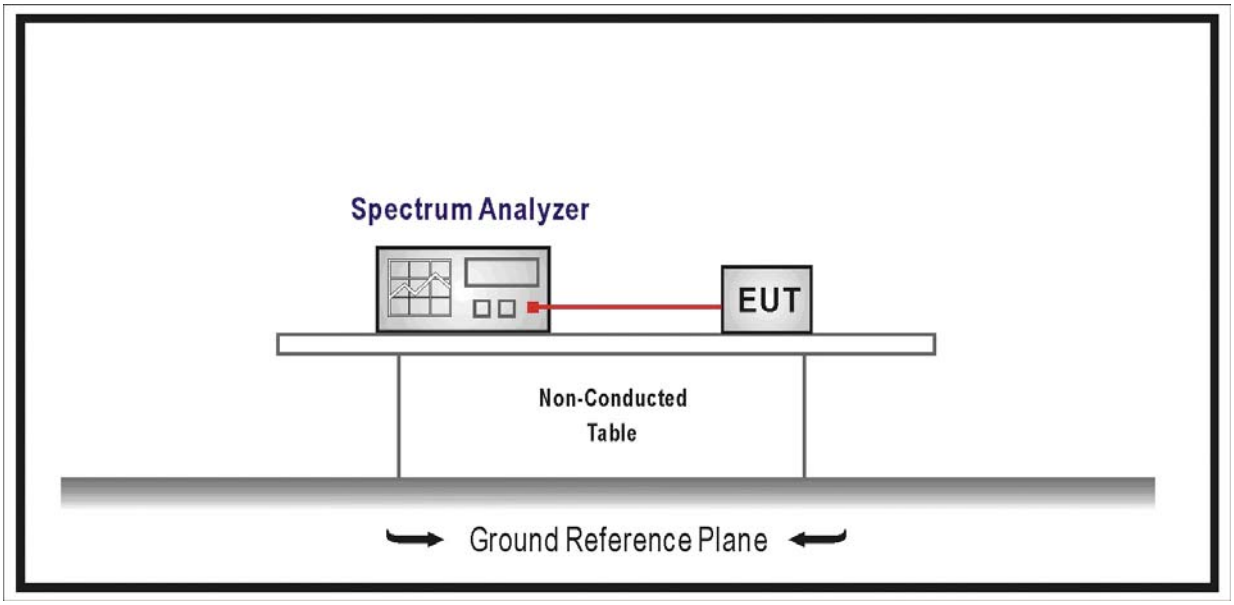
## 8.1. Test Equipment

Occupied Bandwidth / AC-4

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | E4446A | MY45300103 | 2008/06/11 |
| Coaxial Cable | Huber+Suhner | AC4-RF | 09 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH007 | 2008/03/09 |

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 8.2. Test Setup




## 8.3. Limit

The minimum 6 dB bandwidth shall be at least 500 kHz.

## 8.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

## 8.5. Uncertainty

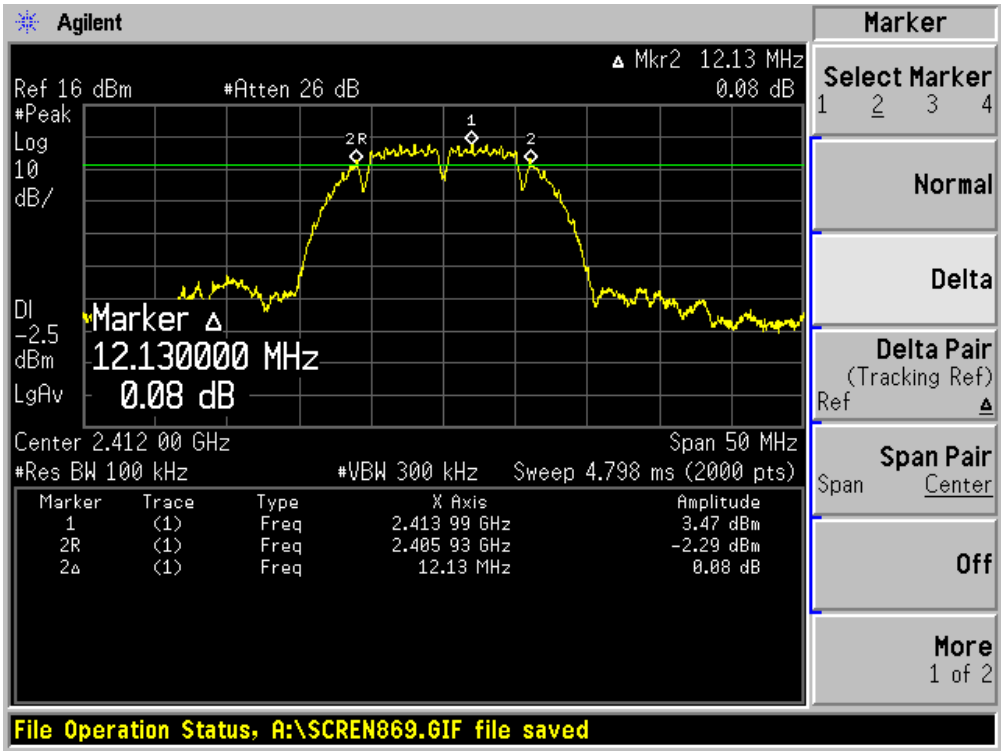
The measurement uncertainty is defined as ± 1 kHz

## 8.6. Test Result

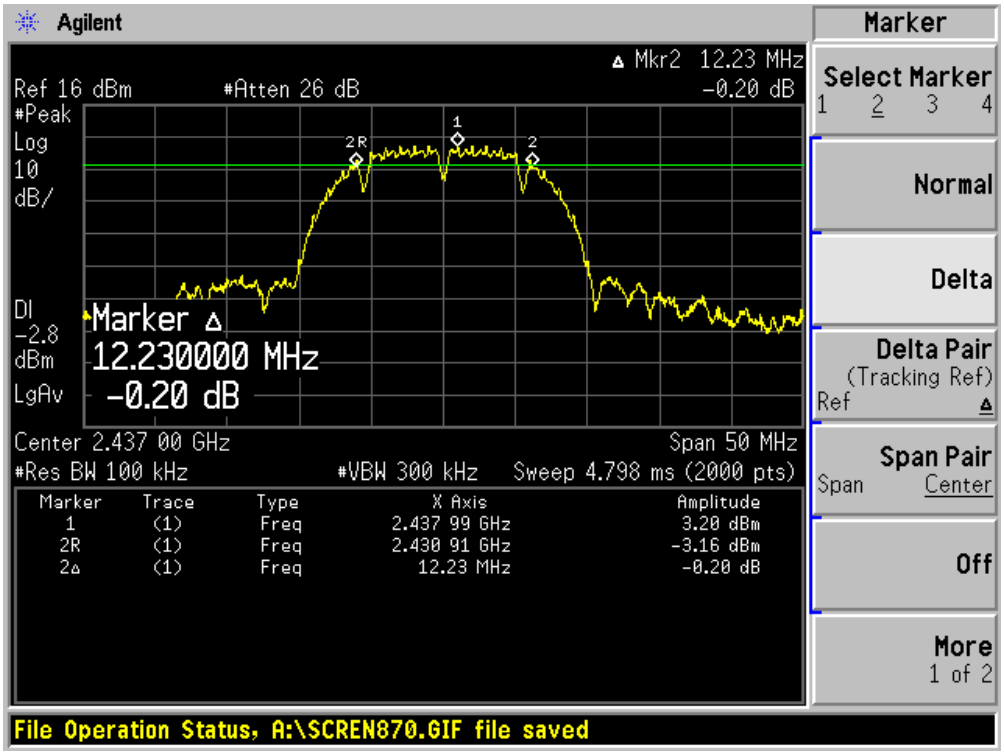
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC0) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 12130 | 500 | Pass |
| 06 | 2437 | 12230 | 500 | Pass |
| 11 | 2462 | 12280 | 500 | Pass |

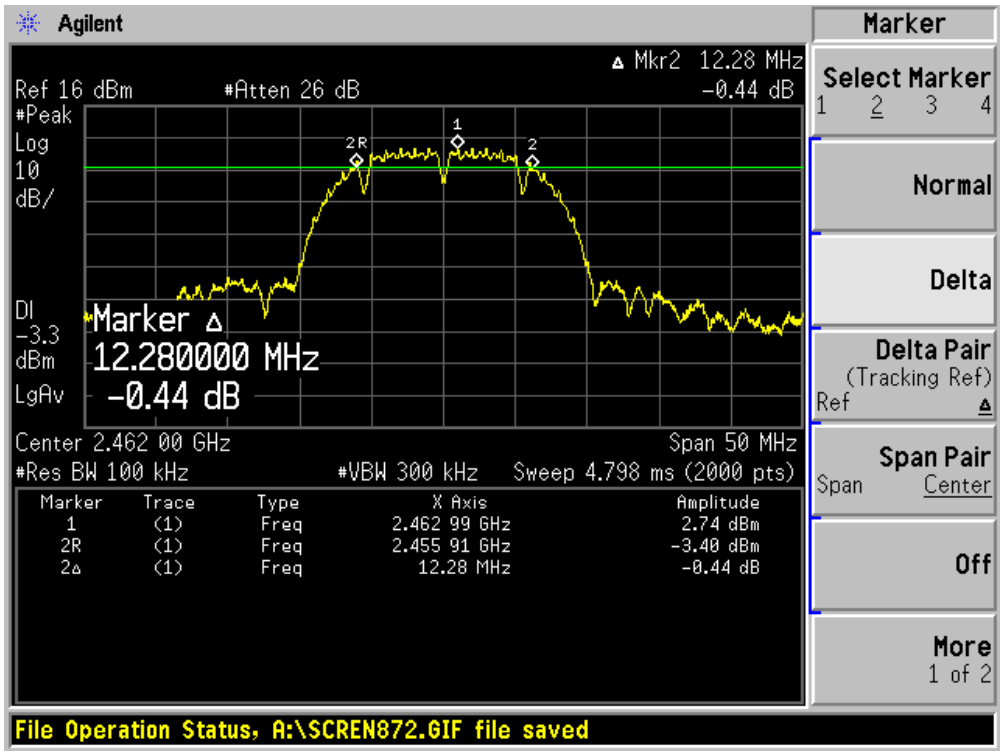
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



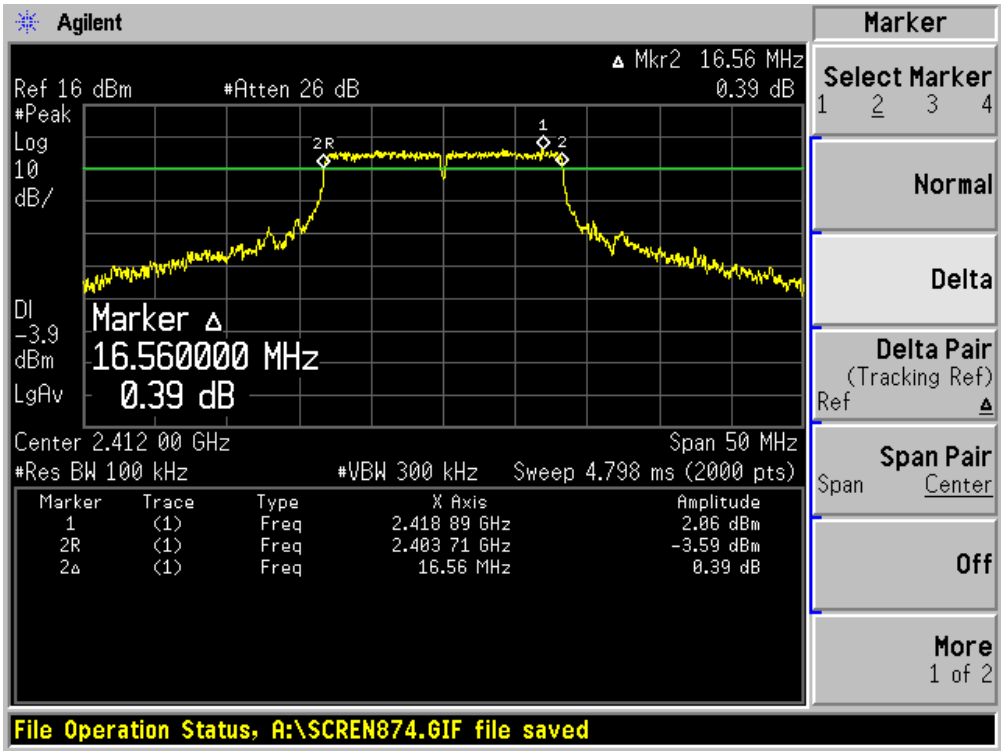

**Channel 11 (2462MHz)**



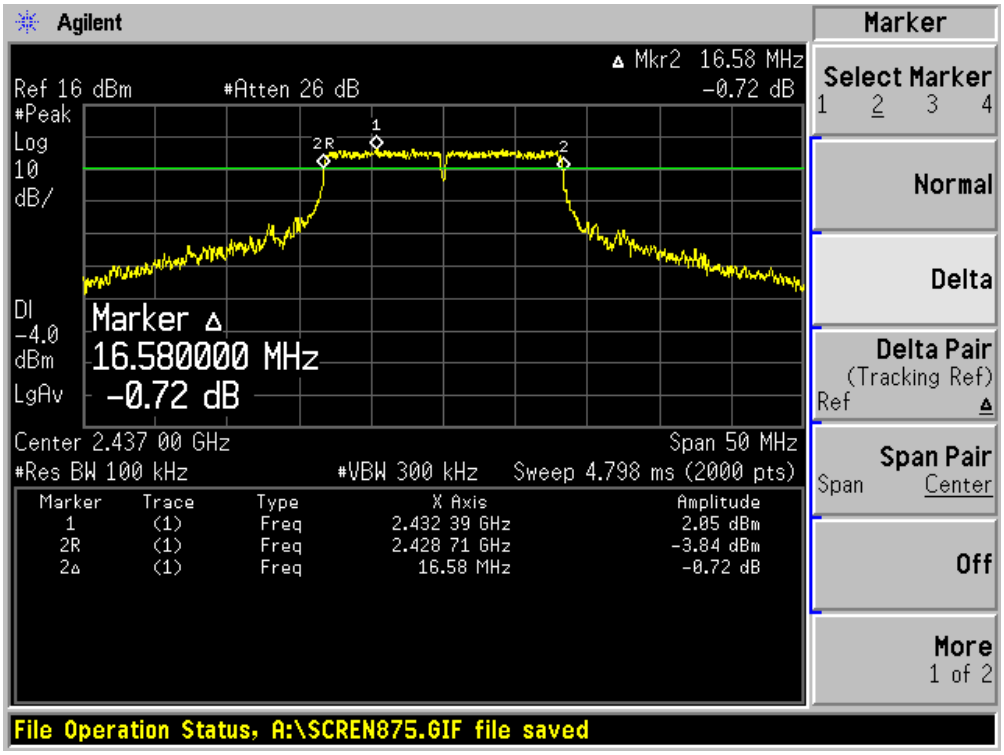
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC0) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 16560 | 500 | Pass |
| 06 | 2437 | 16580 | 500 | Pass |
| 11 | 2462 | 16580 | 500 | Pass |

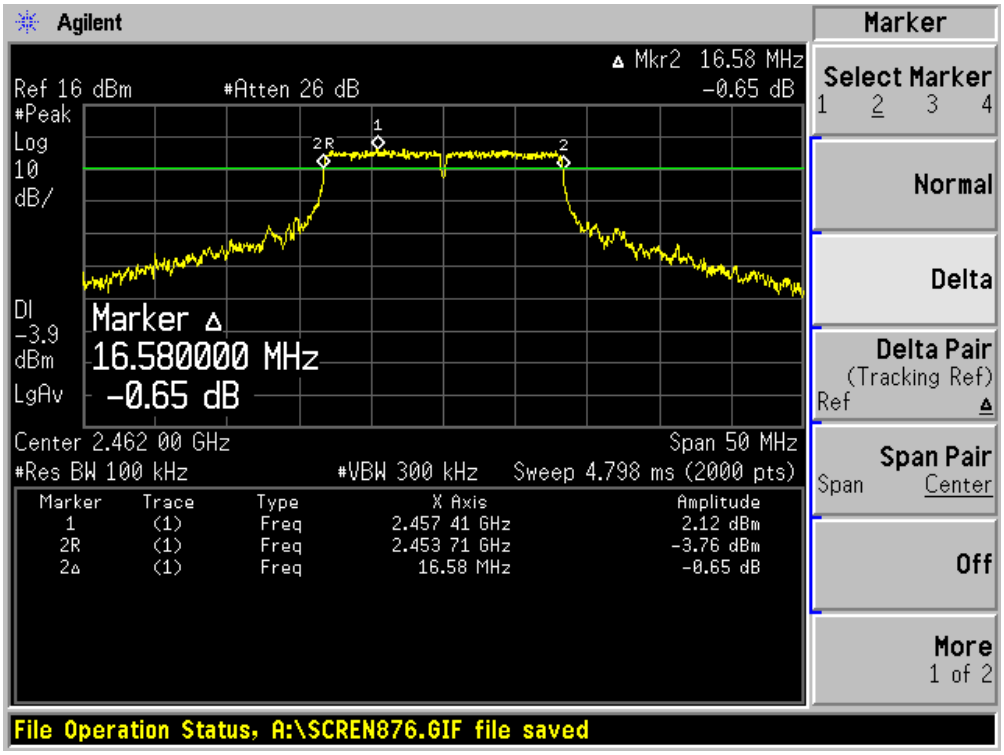
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



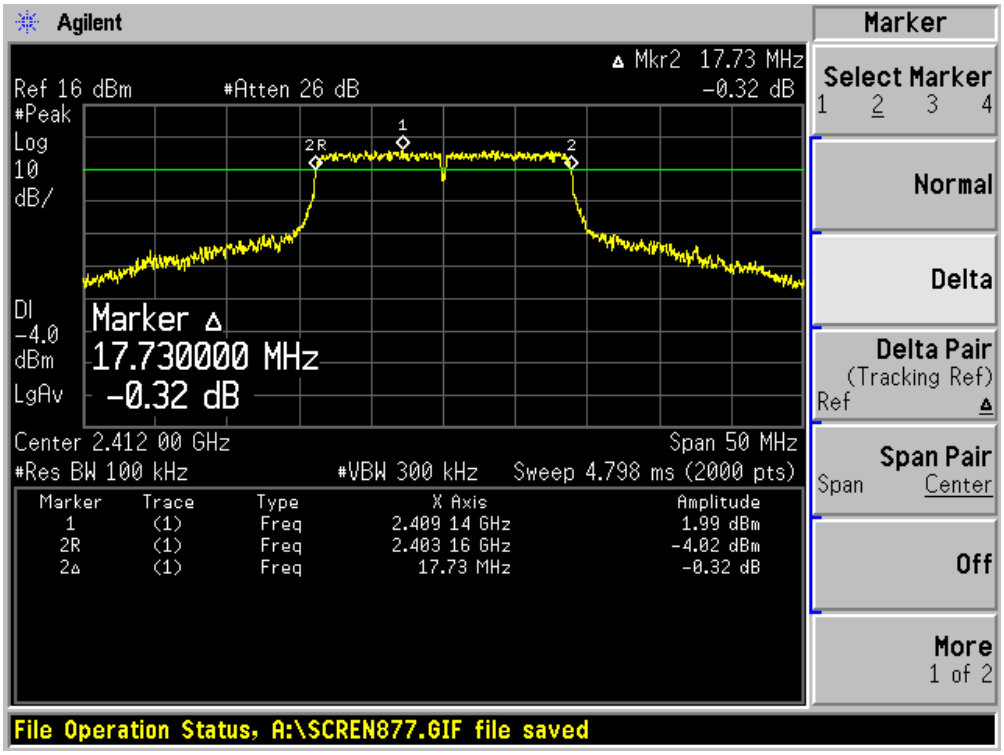

**Channel 11 (2462MHz)**



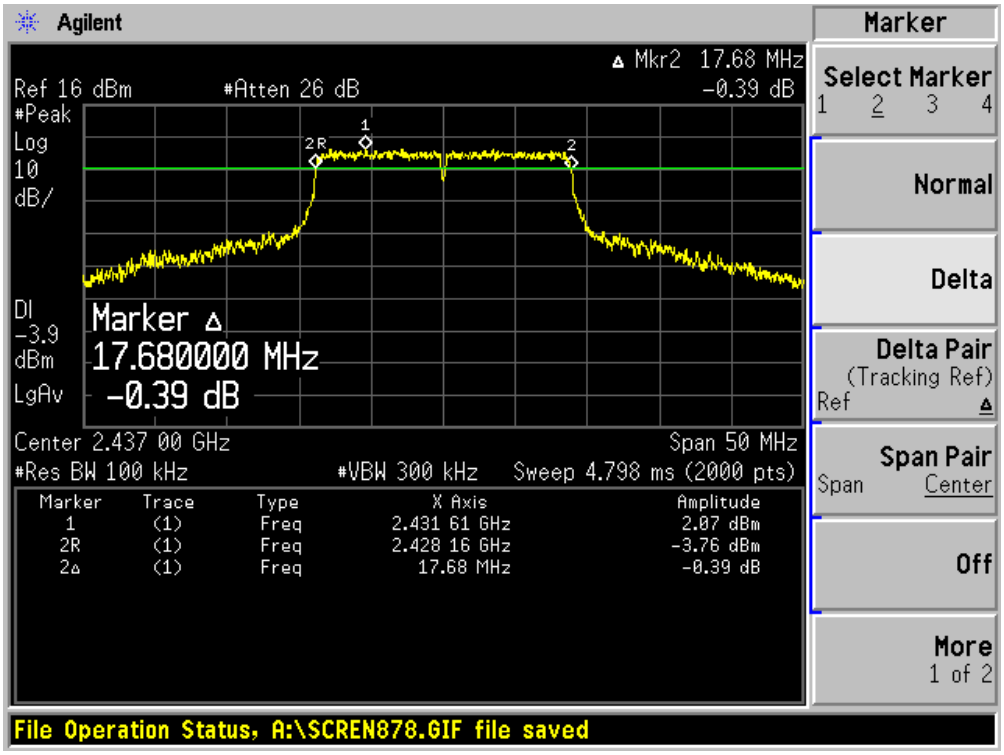
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC0) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 17730 | 500 | Pass |
| 06 | 2437 | 17680 | 500 | Pass |
| 11 | 2462 | 17710 | 500 | Pass |

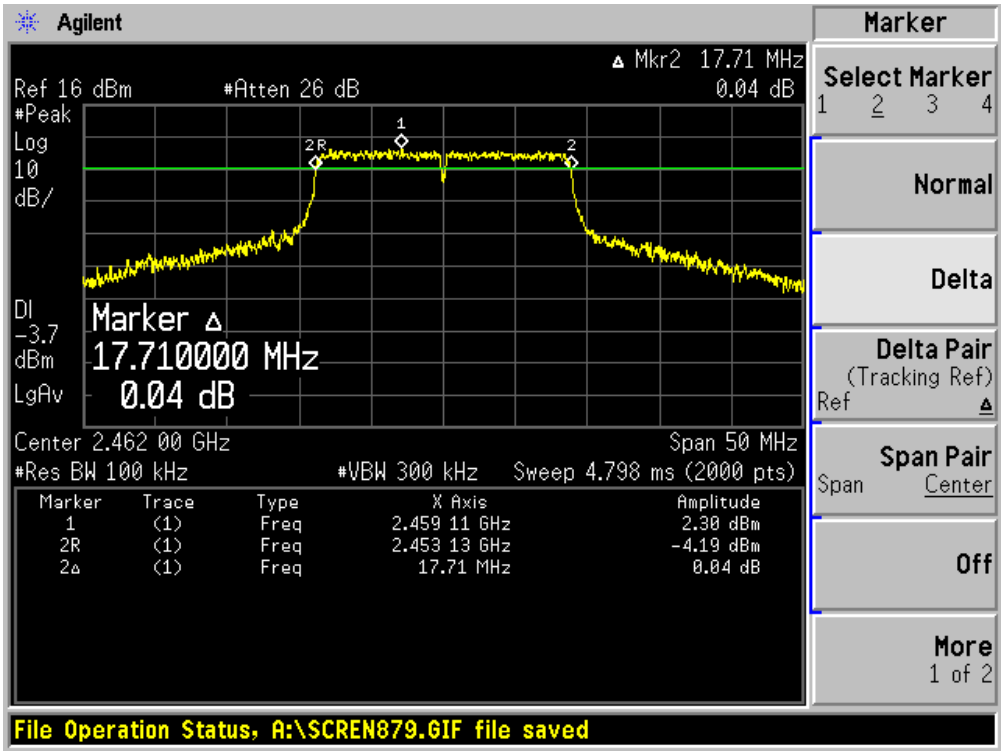
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



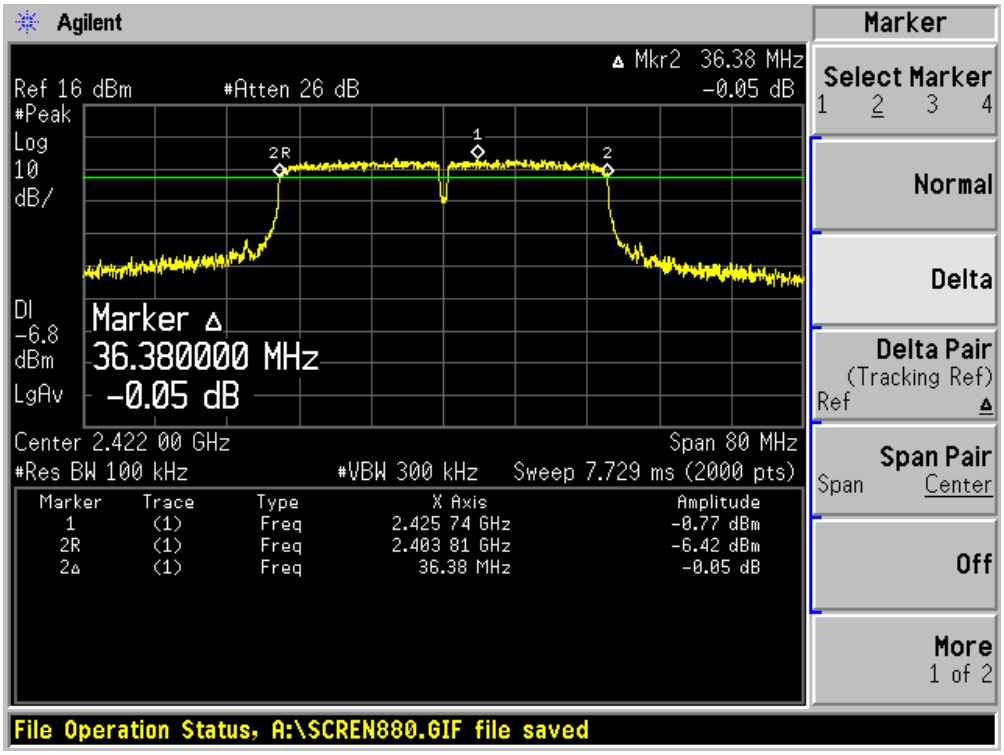

**Channel 11 (2462MHz)**



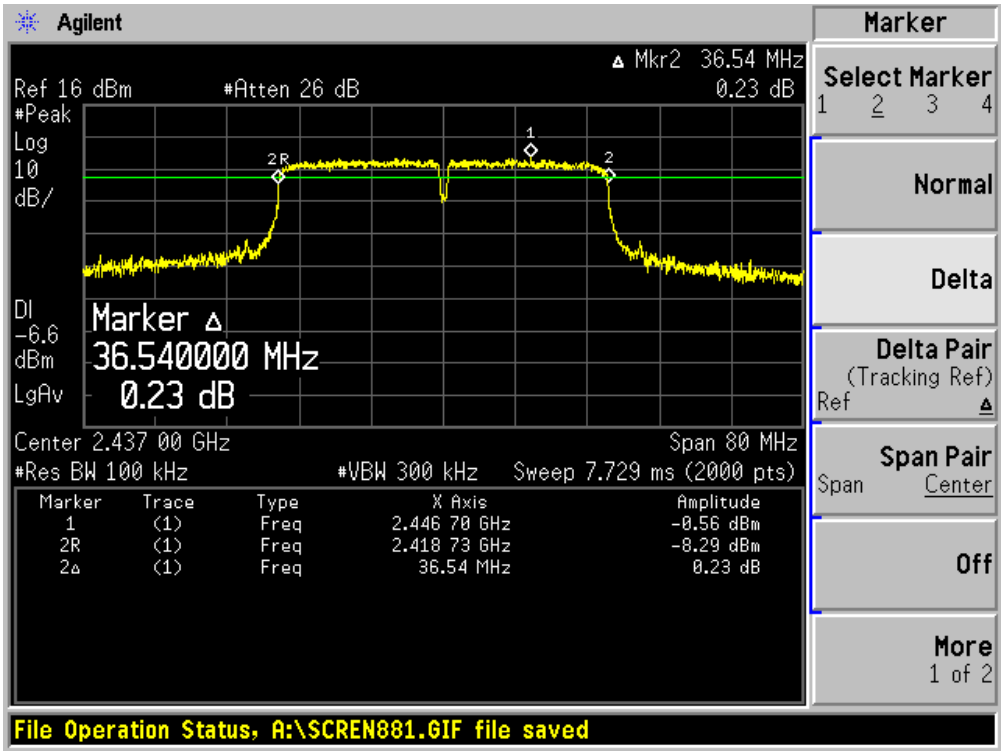
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC0) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 03 | 2422 | 36380 | 500 | Pass |
| 06 | 2437 | 36540 | 500 | Pass |
| 09 | 2452 | 36420 | 500 | Pass |

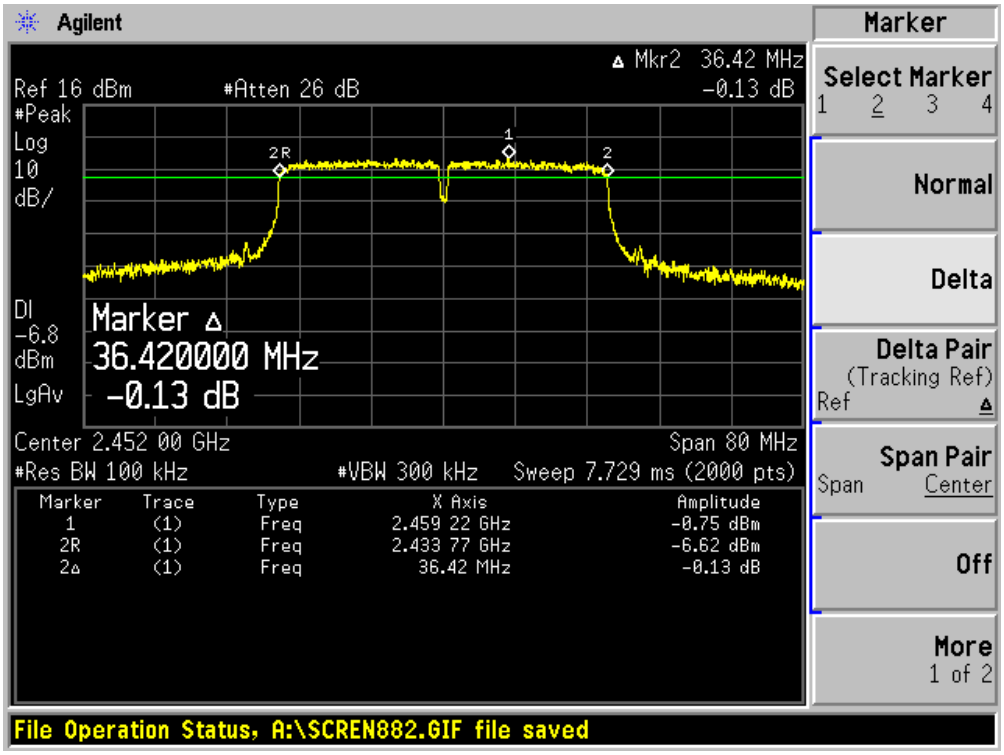
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**



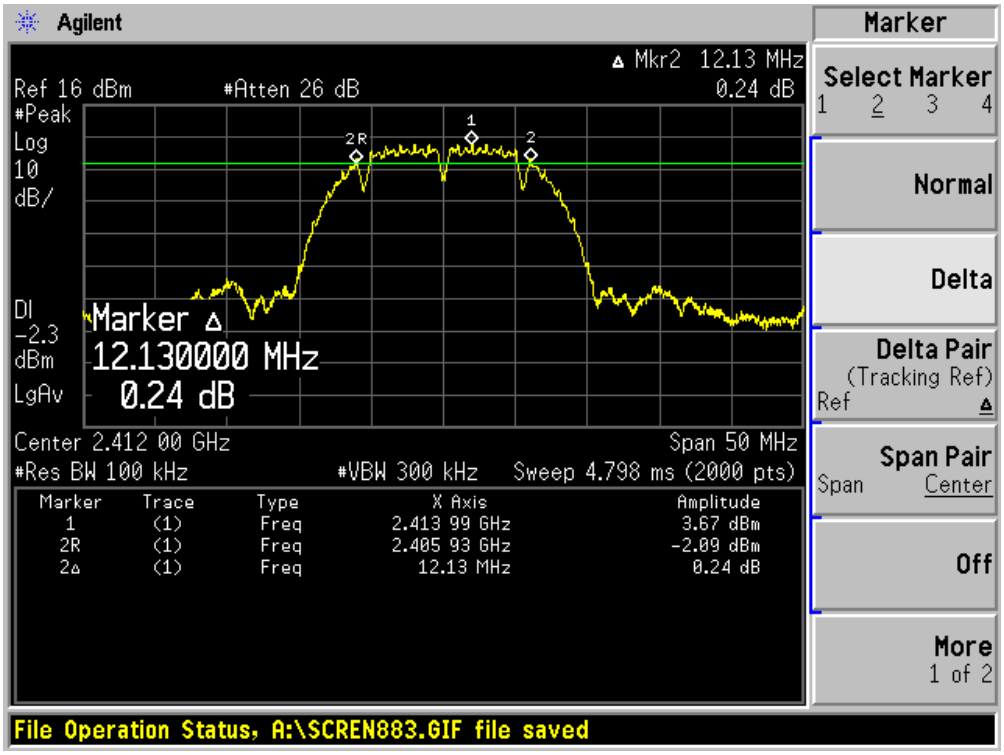

**Channel 09 (2452MHz)**



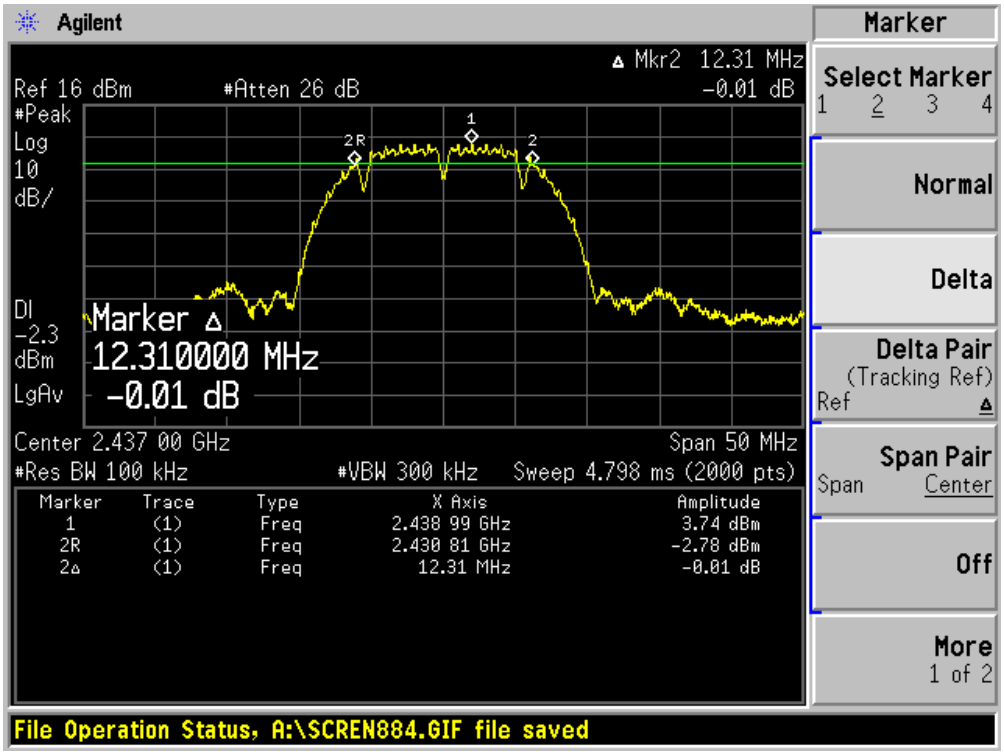
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC1) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 12130 | 500 | Pass |
| 06 | 2437 | 12310 | 500 | Pass |
| 11 | 2462 | 12130 | 500 | Pass |

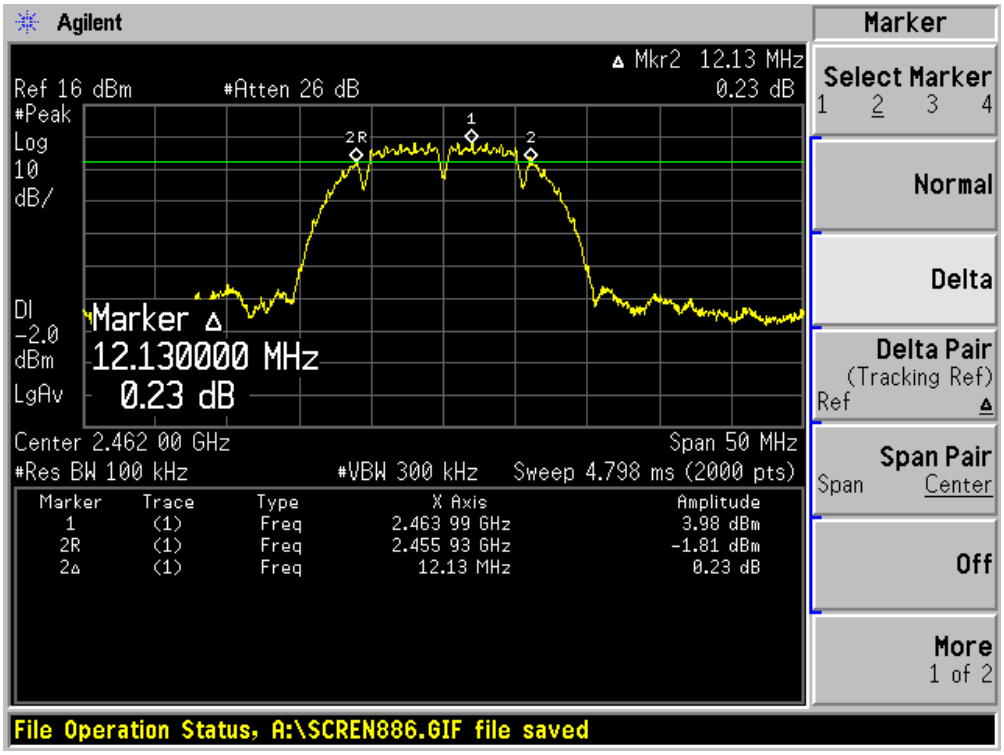
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



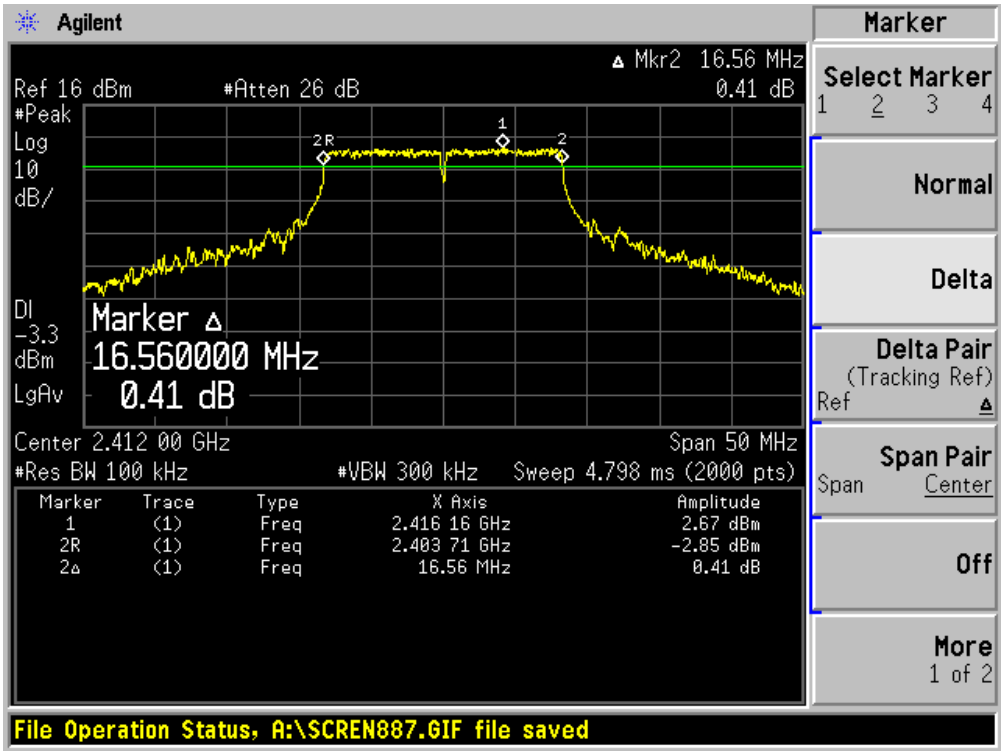

**Channel 11 (2462MHz)**



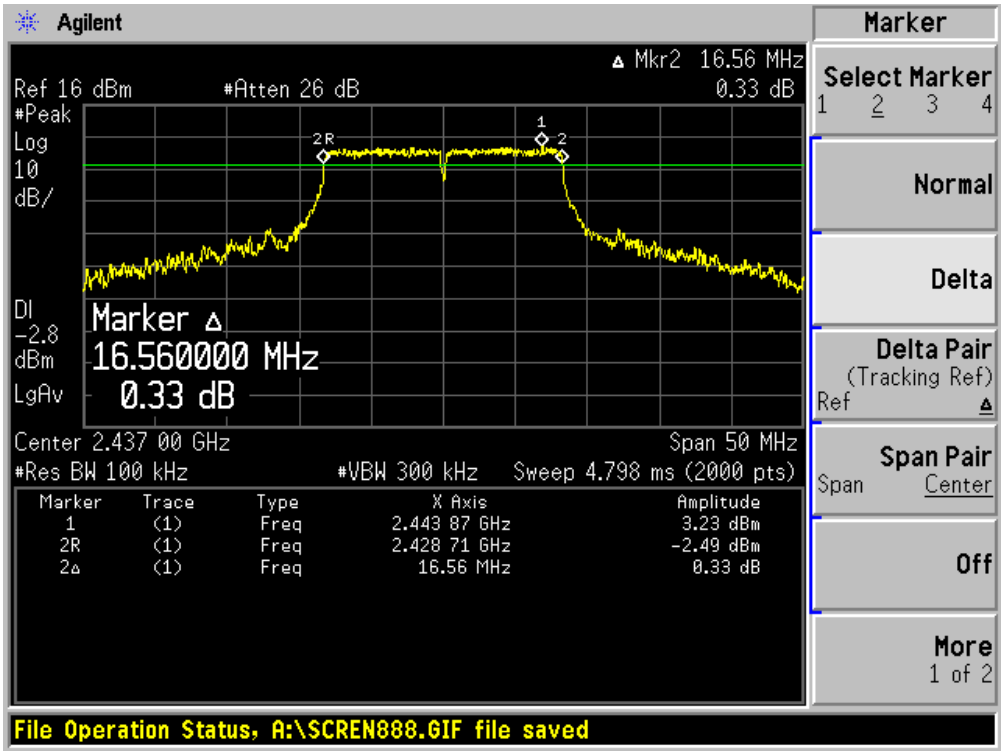
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC1) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 16560 | 500 | Pass |
| 06 | 2437 | 16560 | 500 | Pass |
| 11 | 2462 | 16560 | 500 | Pass |

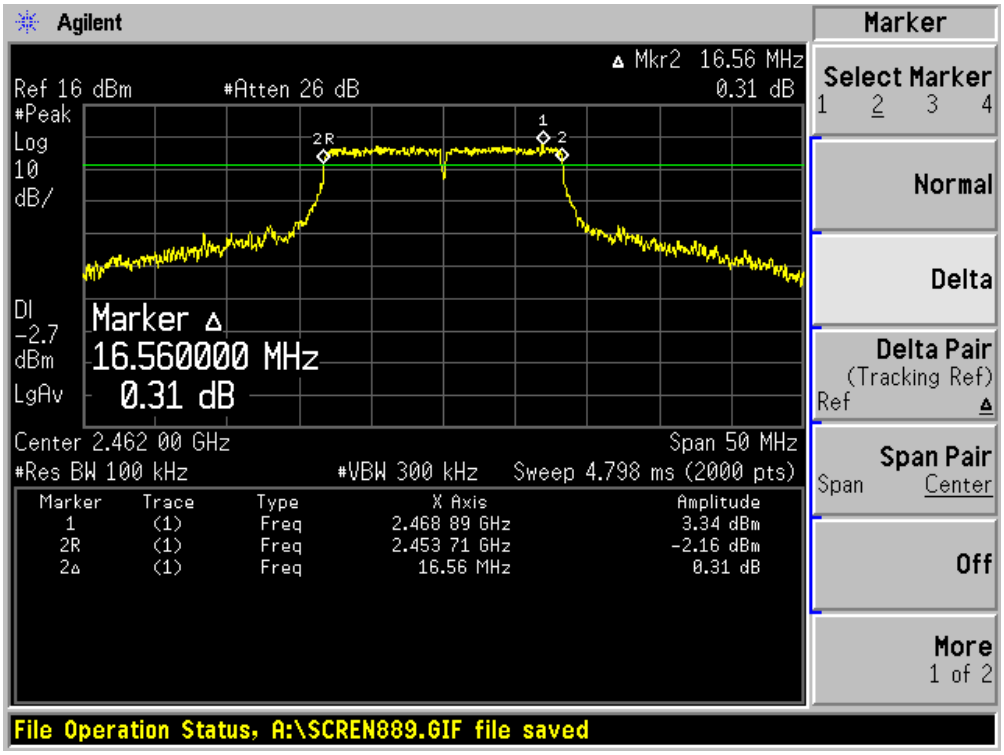
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



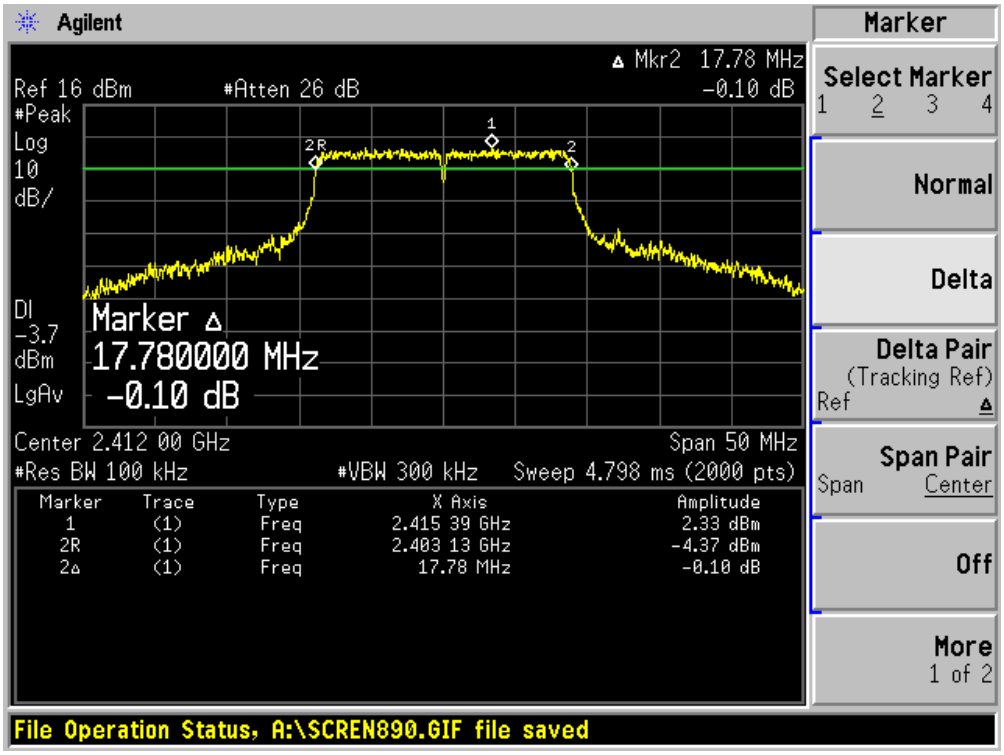

**Channel 11 (2462MHz)**



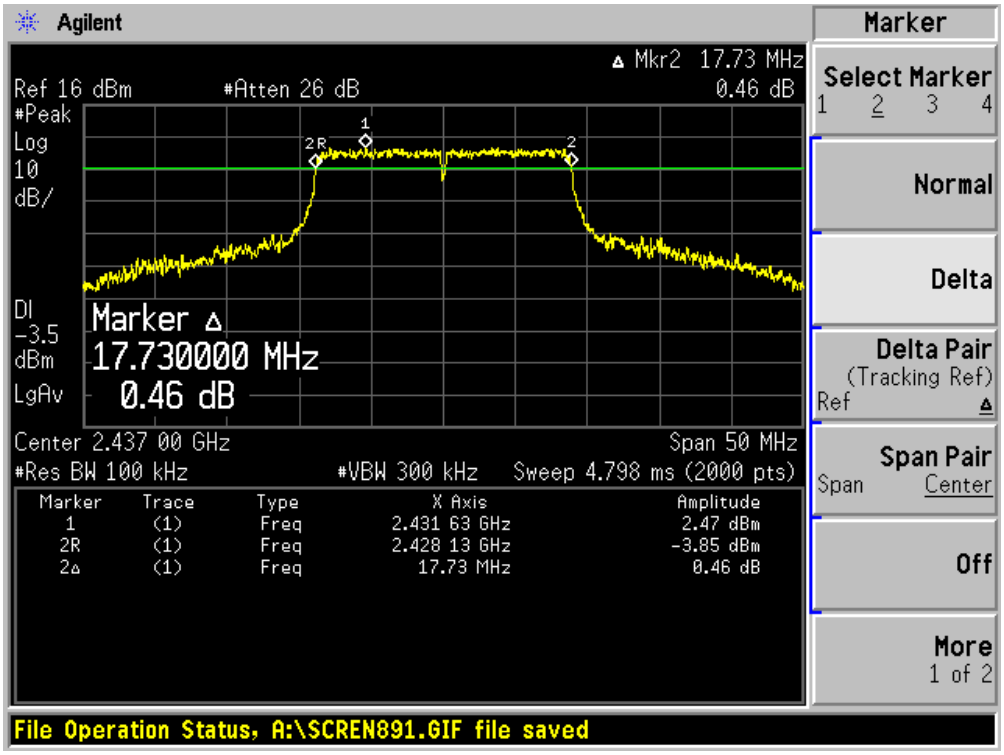
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC1) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | 17780 | 500 | Pass |
| 06 | 2437 | 17730 | 500 | Pass |
| 11 | 2462 | 17680 | 500 | Pass |

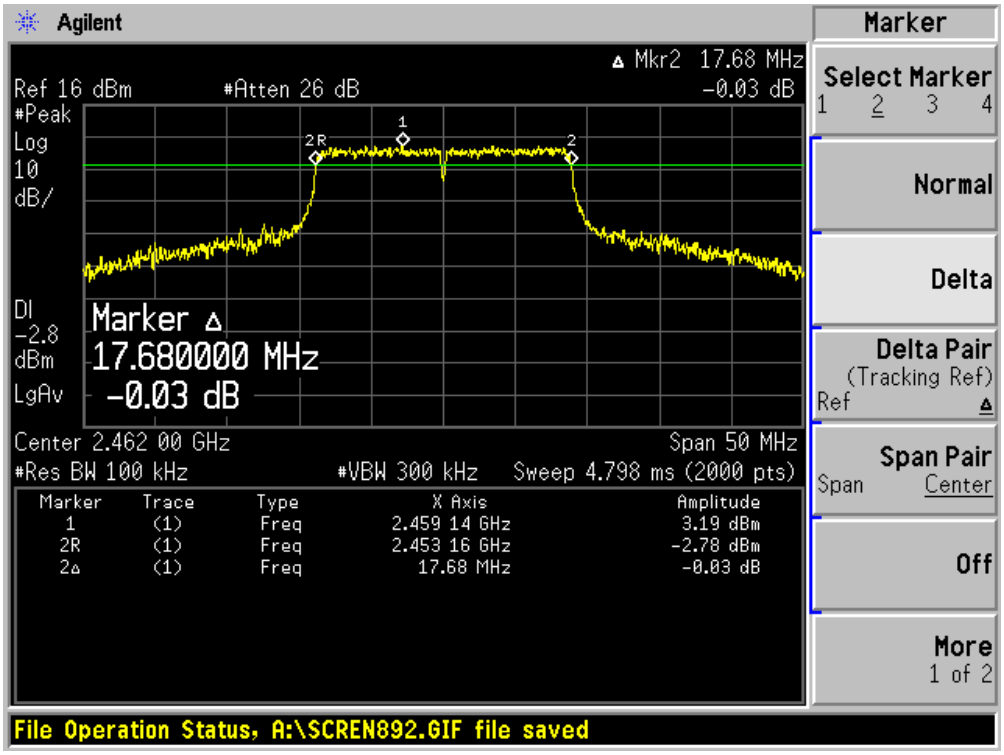
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



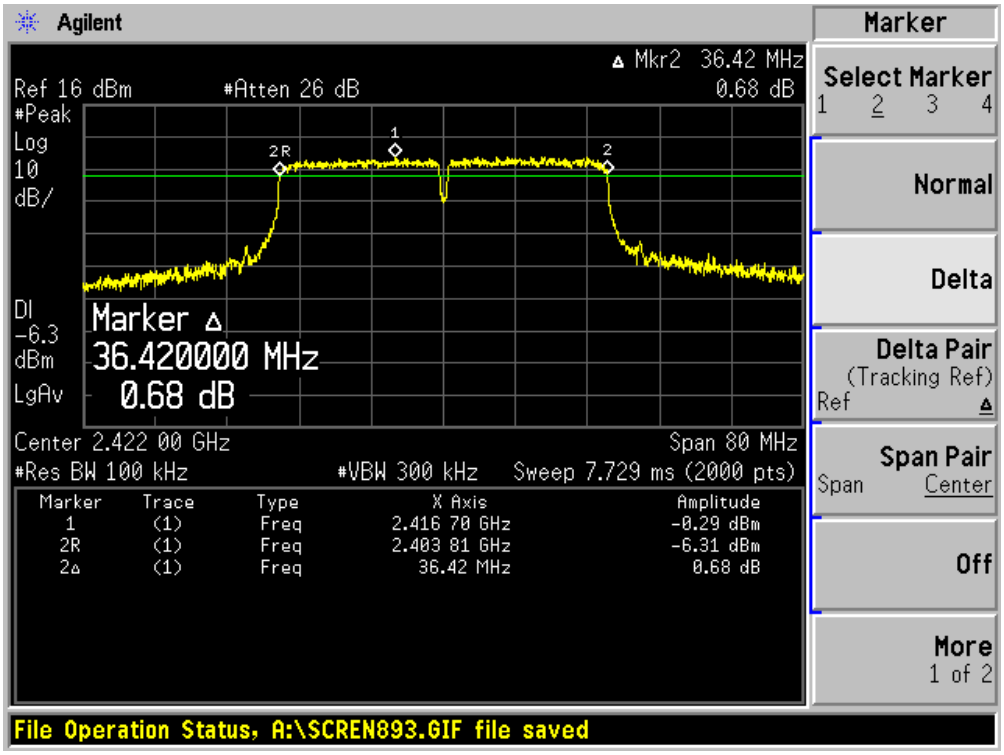

**Channel 11 (2462MHz)**



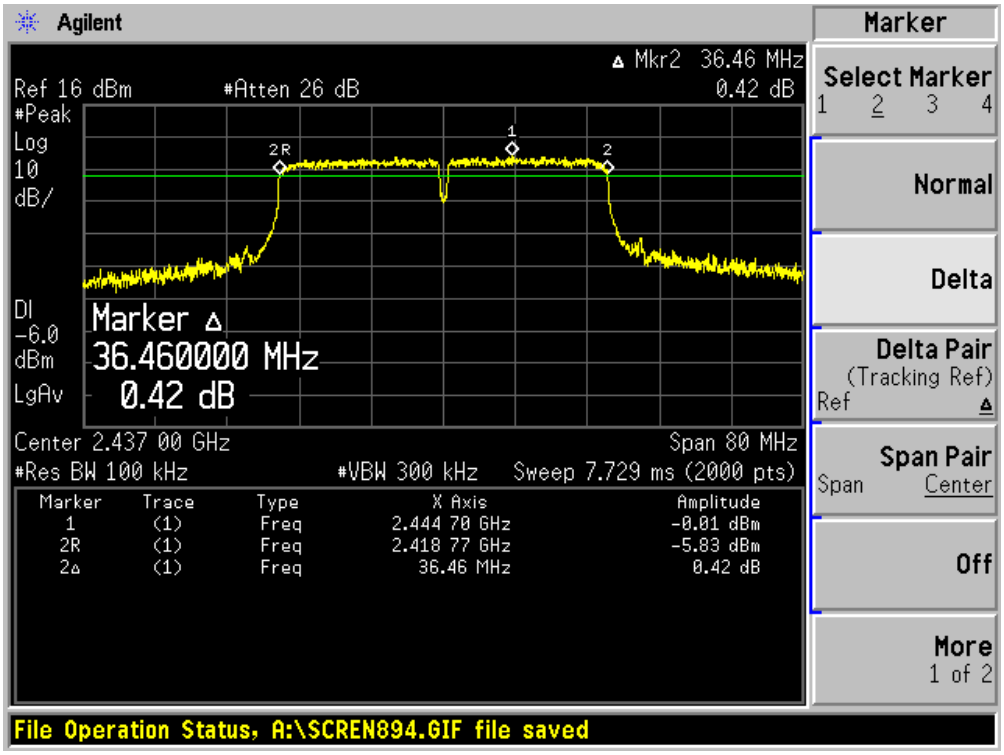
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Occupied Bandwidth |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC1) |

| Channel No. | Frequency (MHz) | Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|---|
| 03 | 2422 | 36420 | 500 | Pass |
| 06 | 2437 | 36460 | 500 | Pass |
| 09 | 2452 | 36420 | 500 | Pass |

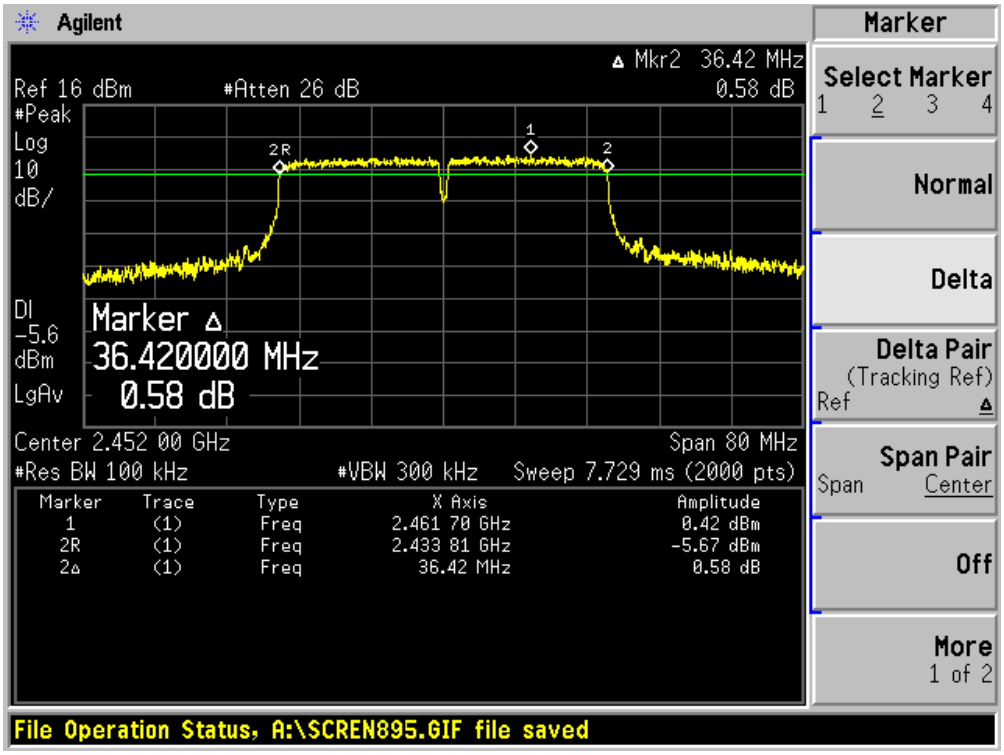
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**




**Channel 09 (2452MHz)**



# 9. Power Output

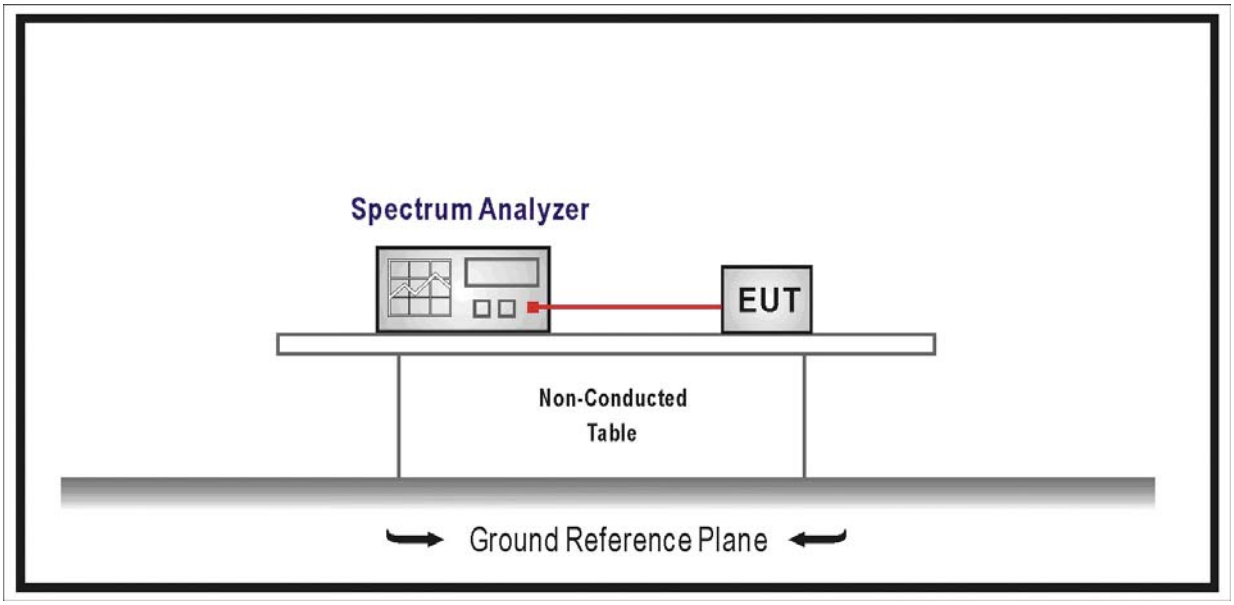
## 9.1. Test Equipment

Power Output / AC-4

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | E4446A | MY45300103 | 2008/06/11 |
| Coaxial Cable | Huber+Suhner | AC4-RF | 09 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH007 | 2008/03/09 |

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 9.2. Test Setup




## 9.3. Limit

The maximum peak power shall be less 1 Watt (30dBm).

Note: the conducted output power limit specified above is based on the use the antennas with directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

## 9.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Power output measurement allowed per Section 15.247(b)(3).
In the following, “T” is the transmission pulse duration over which the transmitter is on and transmitting at its maximum power control level. Measurements are performed with a spectrum analyzer. Three methods are provided to accommodate measurement limitations of the spectrum analyzer depending on signal parameters. Set resolution bandwidth (RBW) = 1 MHz. Set span to encompass the entire emission bandwidth (EBW) of the signal. Use automatic setting for analyzer sweep time.

As “T” ≧ sweep time, the test procedure will be used as following:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz.
3. Set VBW ≧ 3 MHz.
4. Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode.
5. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.
6. Trace average 100 traces in power averaging mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

## 9.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

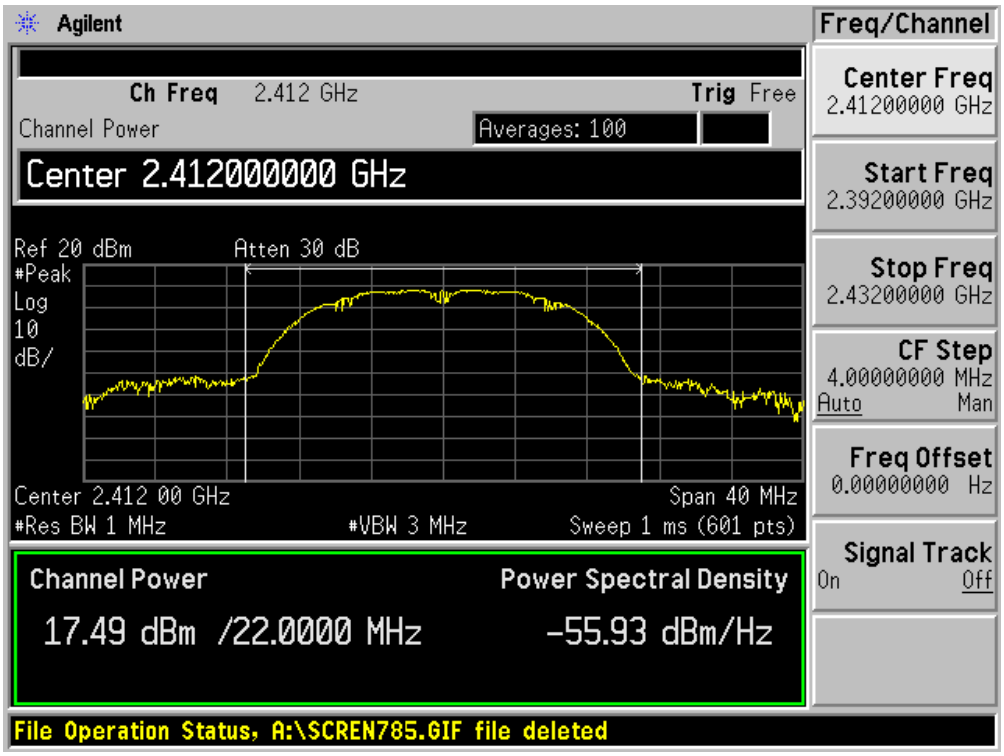
## 9.6. Test Result

| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC0) |

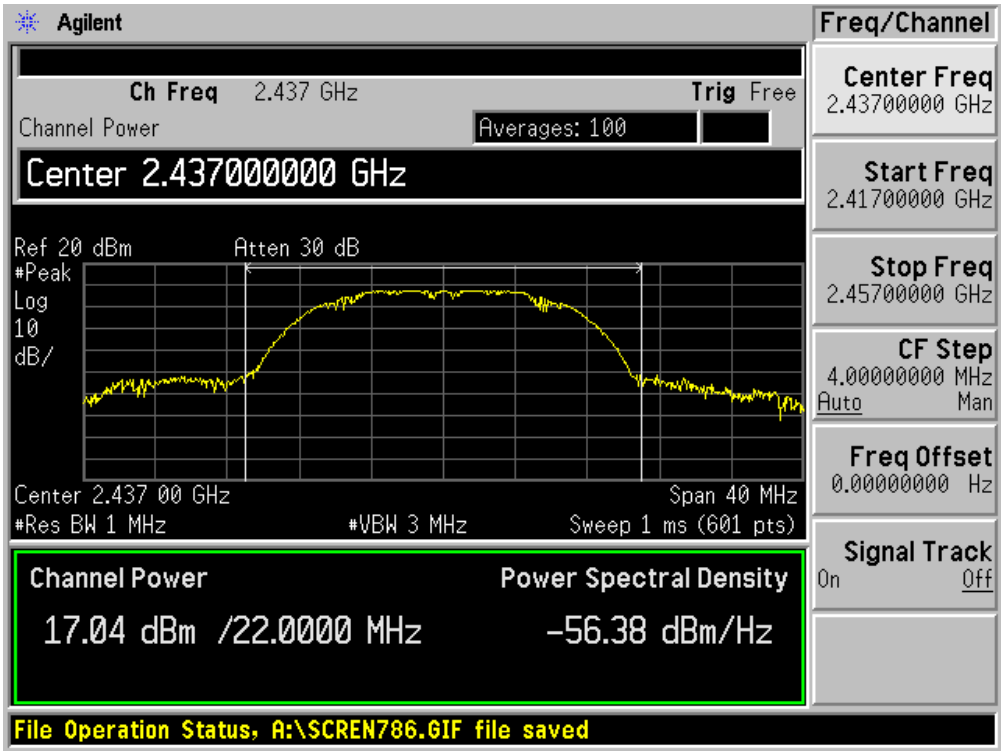
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | Limit (dBm) |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 5.5 | 11 | |
| 01 | 2412 | 17.49 | -- | -- | -- | 30 |
| 06 | 2437 | 17.04 | 17.02 | 16.98 | 16.95 | 30 |
| 11 | 2462 | 16.92 | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

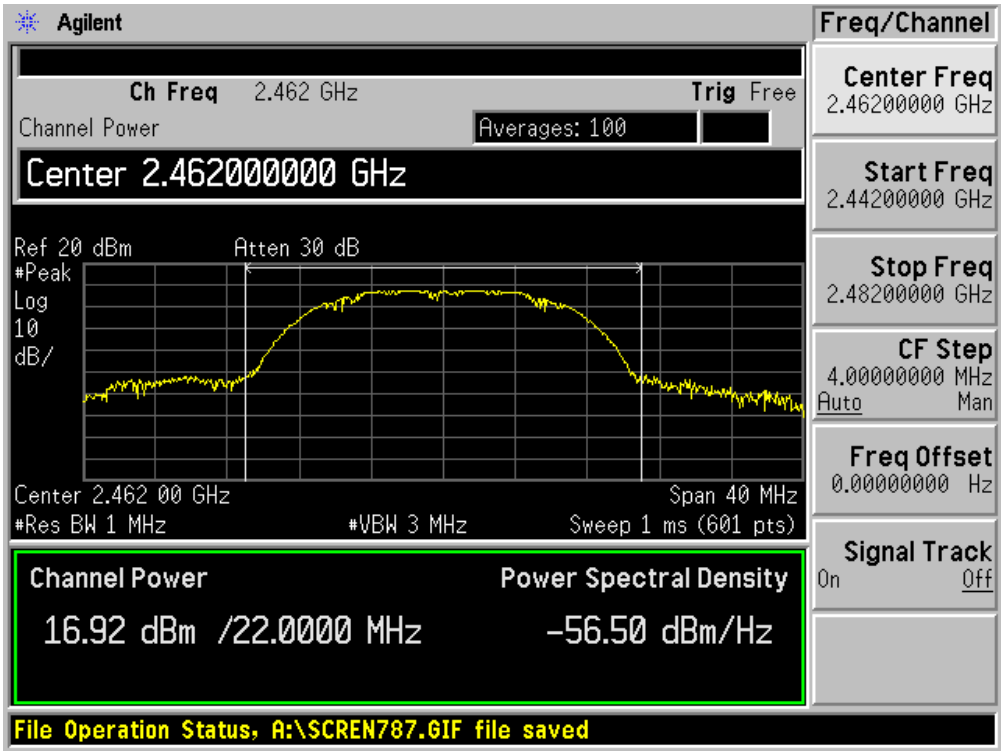
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**




**Channel 11 (2462MHz)**

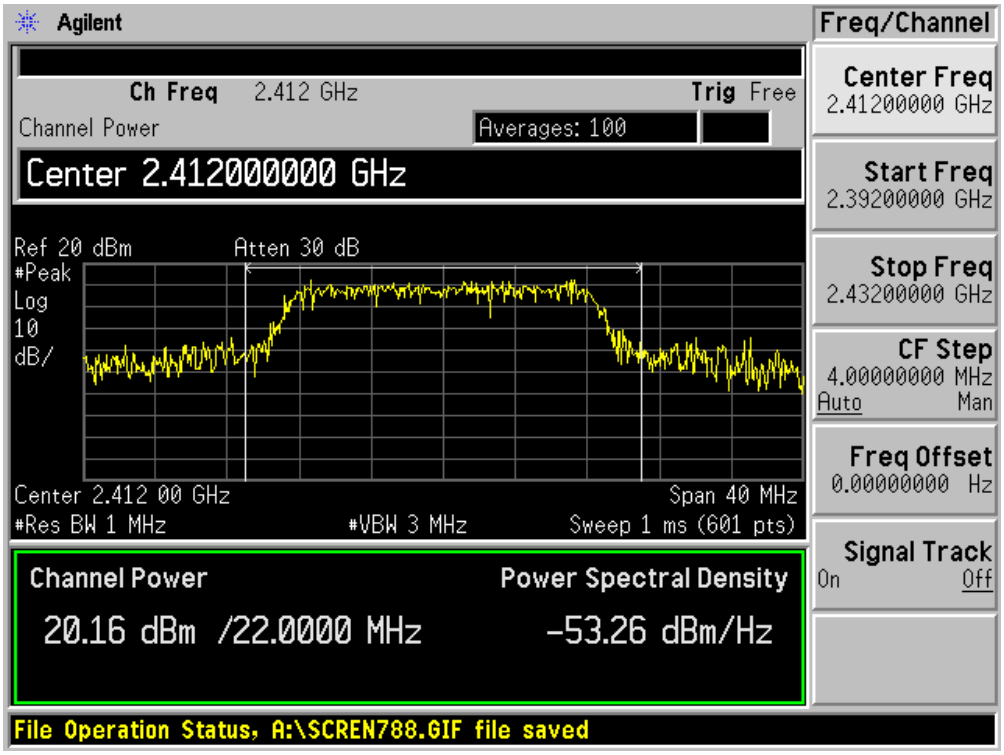


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC0) |

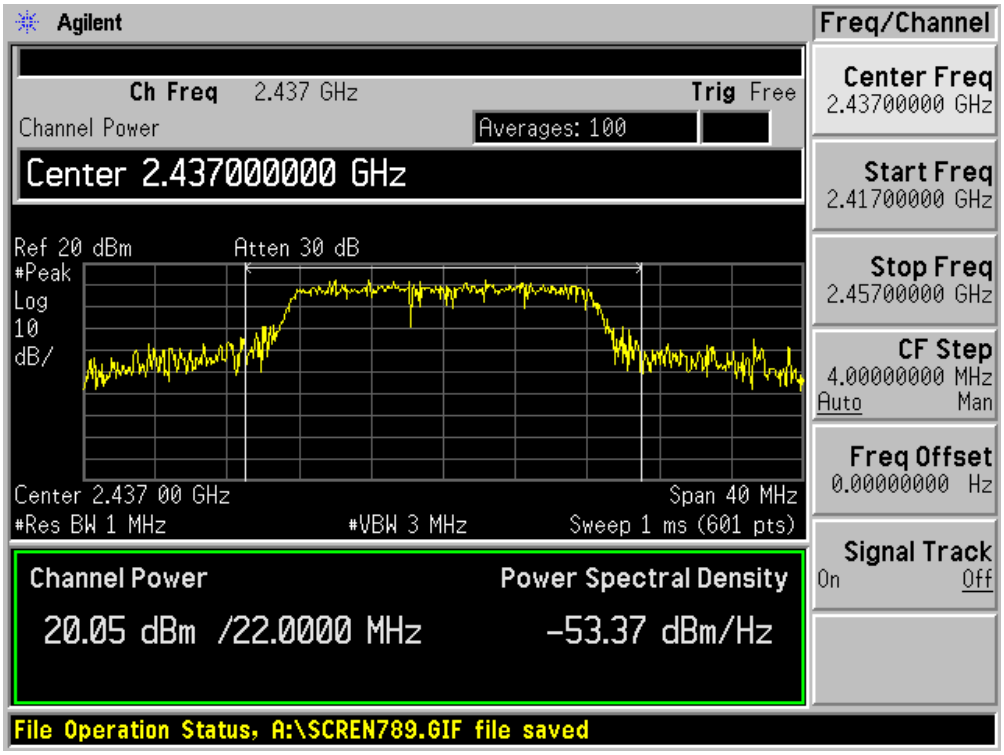
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | | | | | Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 6 | 9 | 12 | 18 | 24 | 36 | 48 | 54 | |
| 01 | 2412 | 20.16 | -- | -- | -- | -- | -- | -- | -- | 30 |
| 06 | 2437 | 20.05 | 20.02 | 20.00 | 19.98 | 19.95 | 19.91 | 19.89 | 19.86 | 30 |
| 11 | 2462 | 19.77 | -- | -- | -- | -- | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

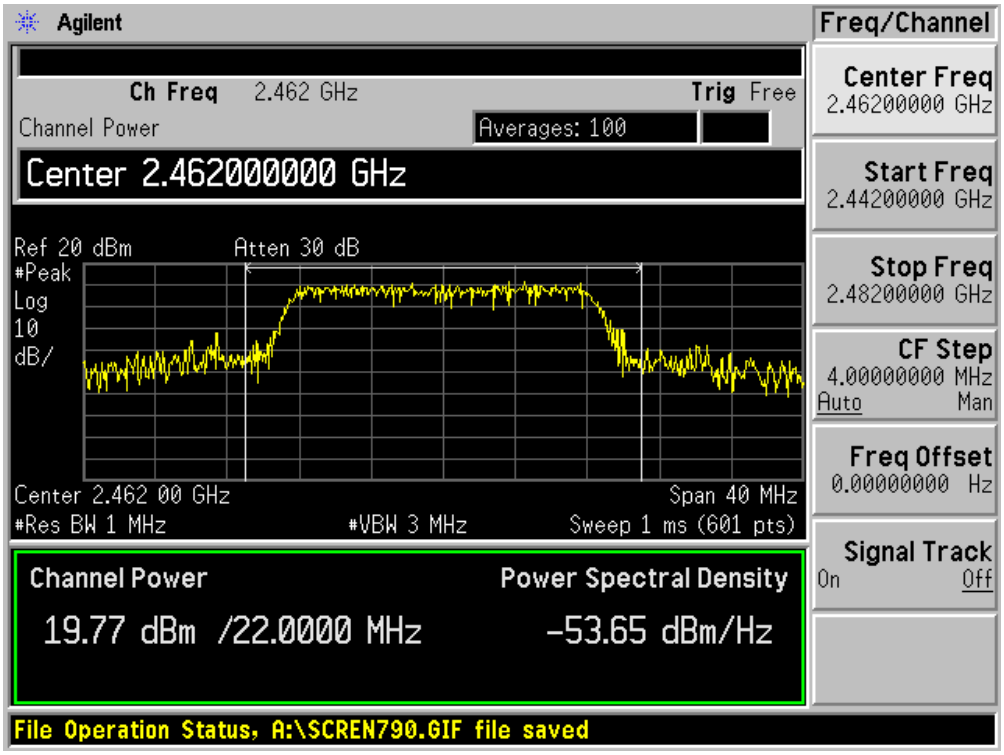
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**




**Channel 11 (2462MHz)**

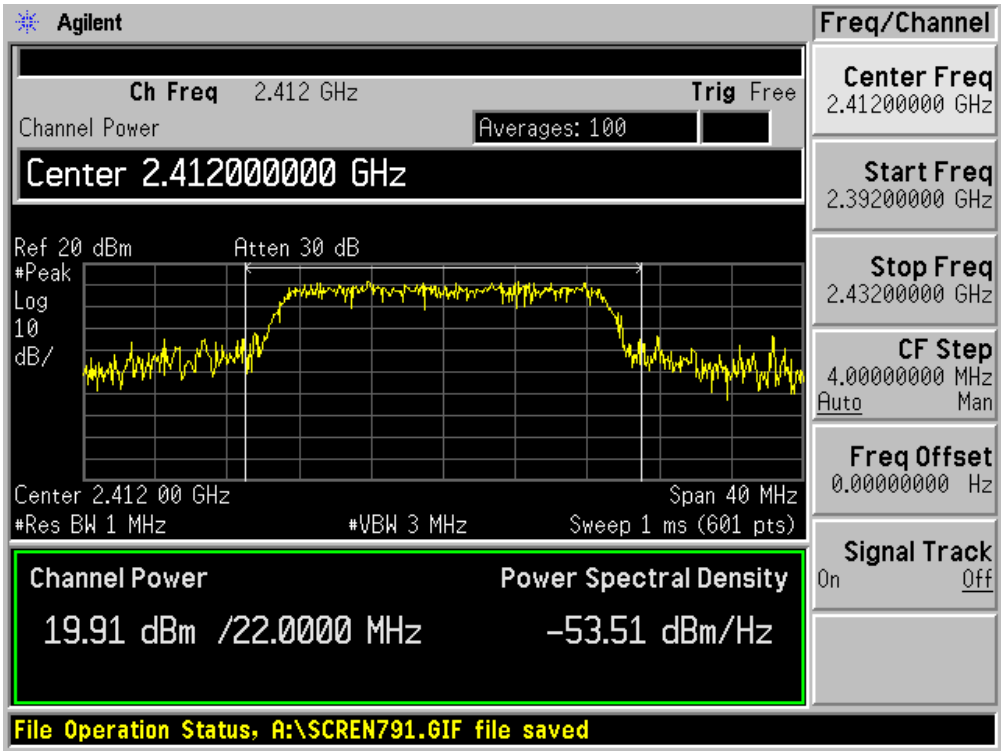


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC0) |

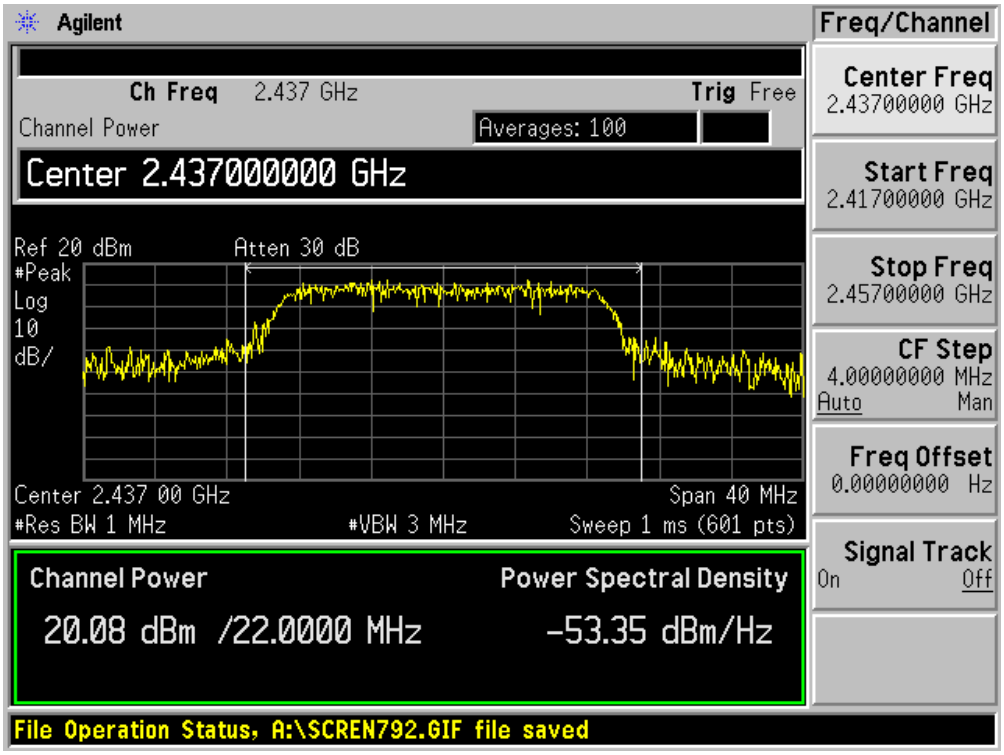
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | | | | | Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 6.5 | 13.0 | 19.5 | 26.0 | 39.0 | 52.0 | 58.5 | 65.0 | |
| 01 | 2412 | 19.91 | -- | -- | -- | -- | -- | -- | -- | 30 |
| 06 | 2437 | 20.08 | 20.06 | 20.03 | 20.01 | 19.99 | 19.95 | 19.93 | 19.90 | 30 |
| 11 | 2462 | 19.88 | -- | -- | -- | -- | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

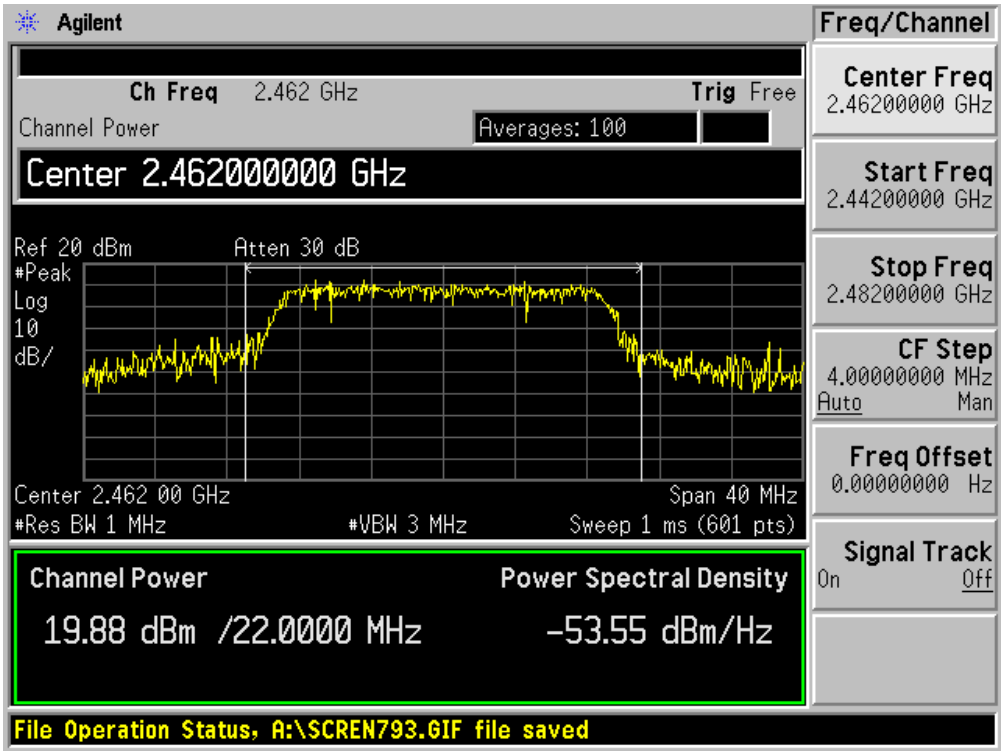
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**




**Channel 11 (2462MHz)**

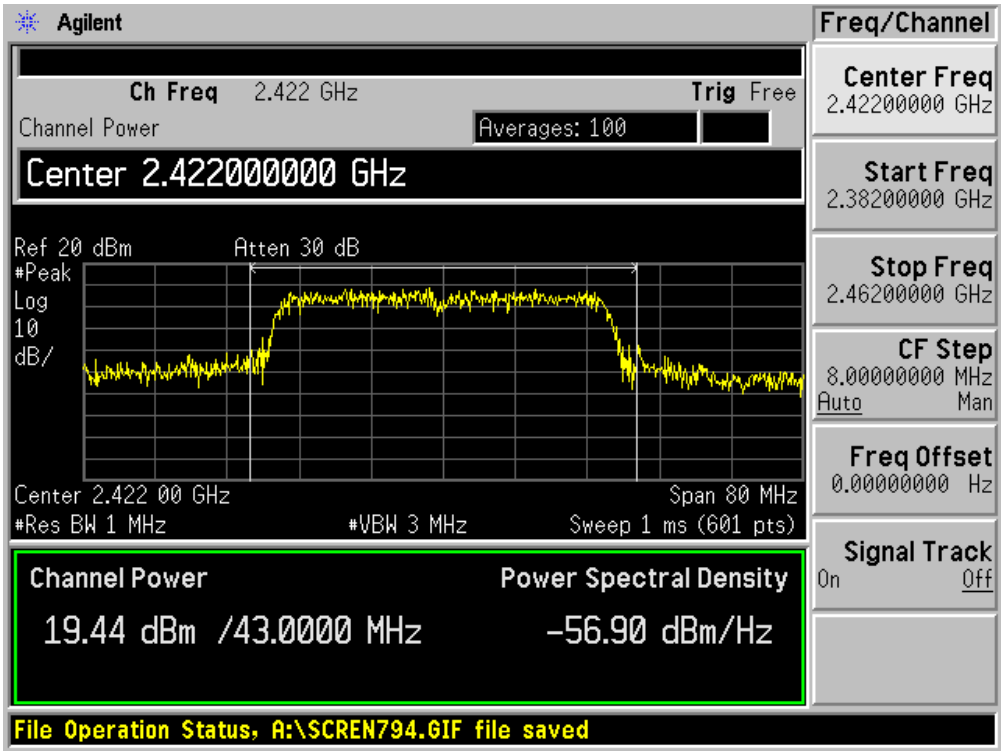


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC0) |

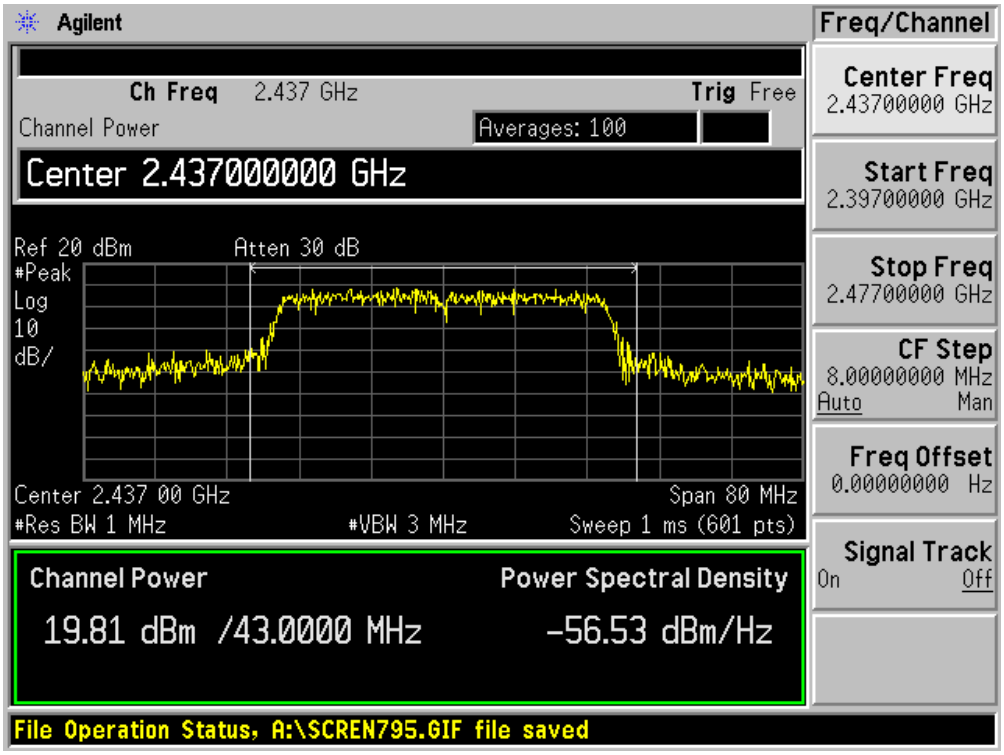
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | | | | | Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 13.5 | 27.0 | 40.5 | 54.0 | 81.0 | 108.0 | 121.5 | 135.0 | |
| 03 | 2422 | 19.44 | -- | -- | -- | -- | -- | -- | -- | 30 |
| 06 | 2437 | 19.81 | 19.80 | 19.77 | 19.75 | 19.72 | 19.70 | 19.67 | 19.64 | 30 |
| 09 | 2452 | 19.52 | -- | -- | -- | -- | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

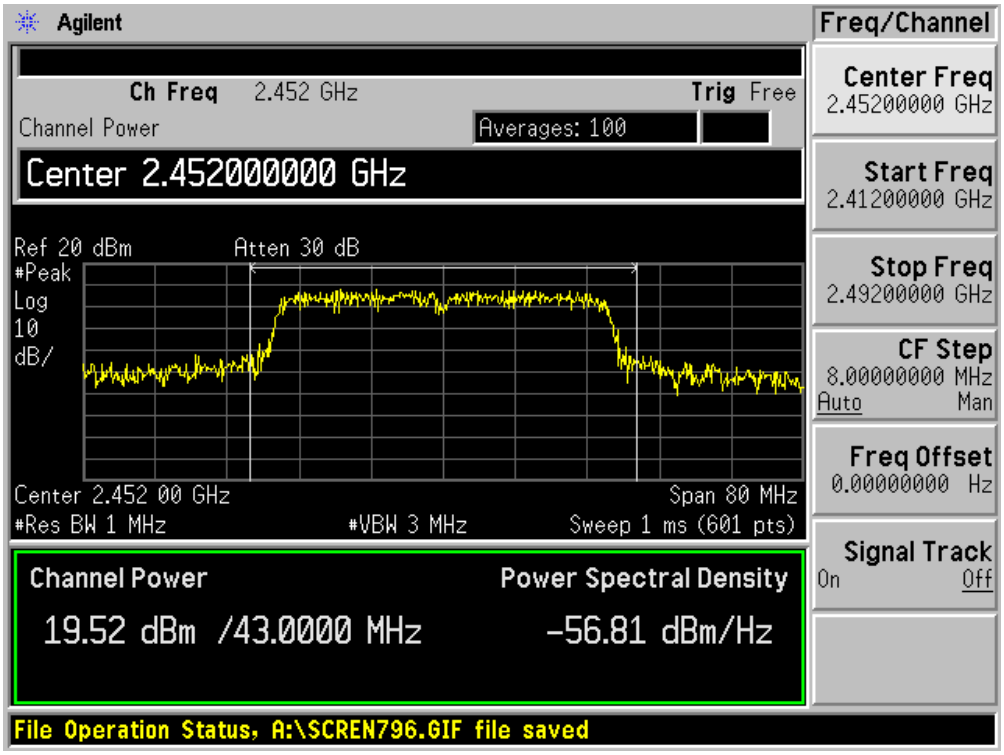
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**




**Channel 09 (2452MHz)**

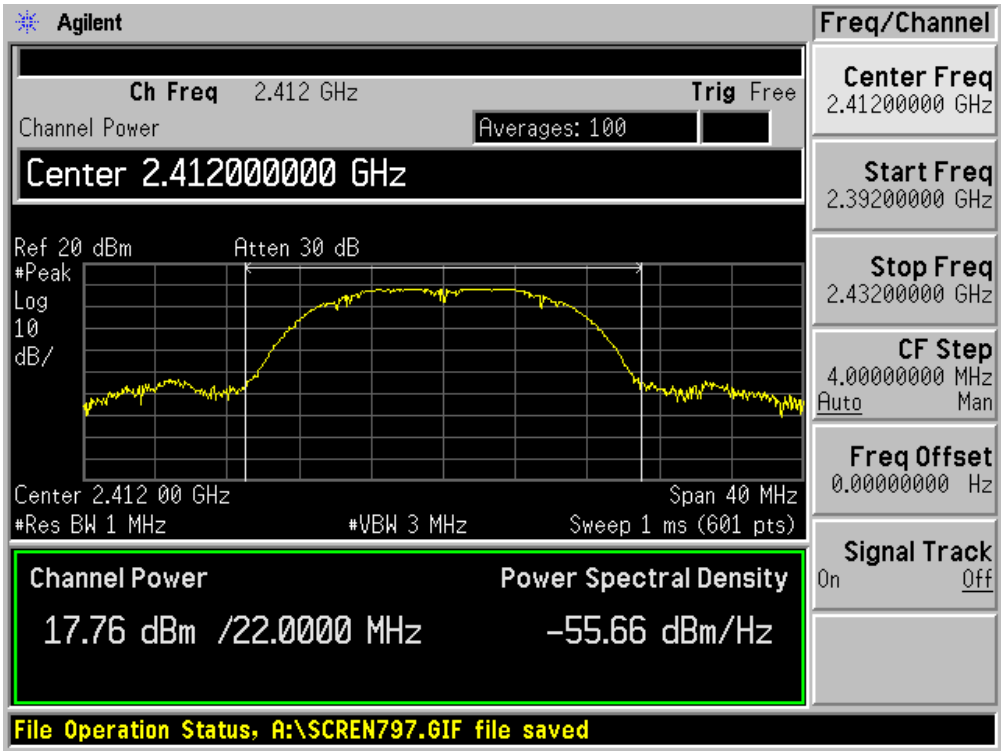


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC1) |

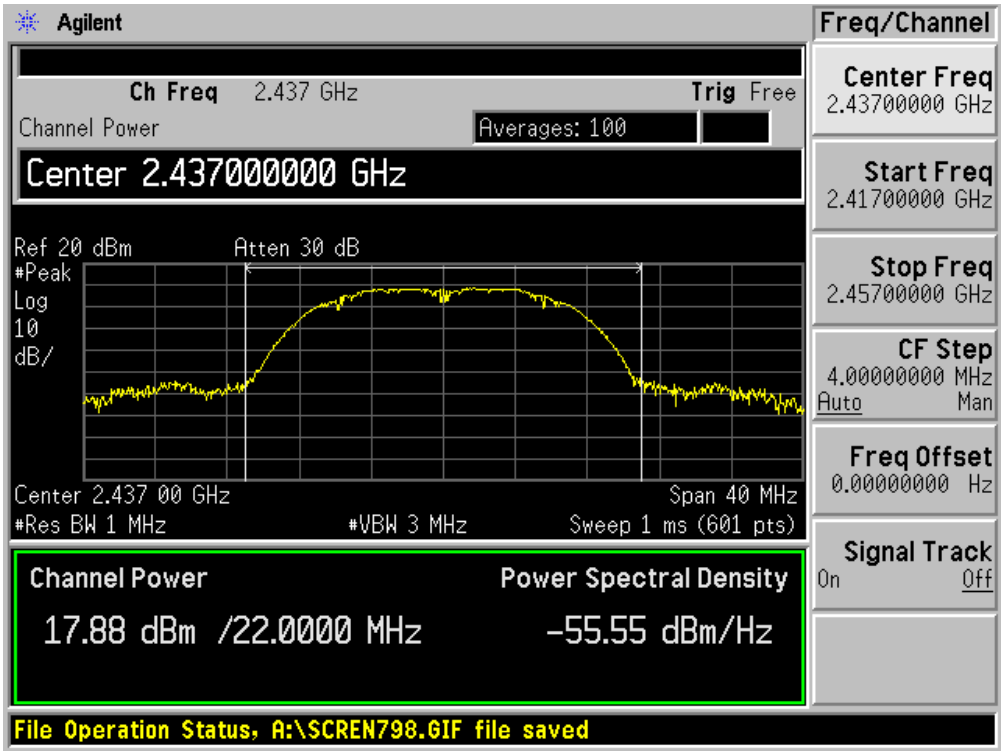
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | Limit (dBm) |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 5.5 | 11 | |
| 01 | 2412 | 17.76 | -- | -- | -- | 30 |
| 06 | 2437 | 17.88 | 17.83 | 17.80 | 17.77 | 30 |
| 11 | 2462 | 18.26 | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

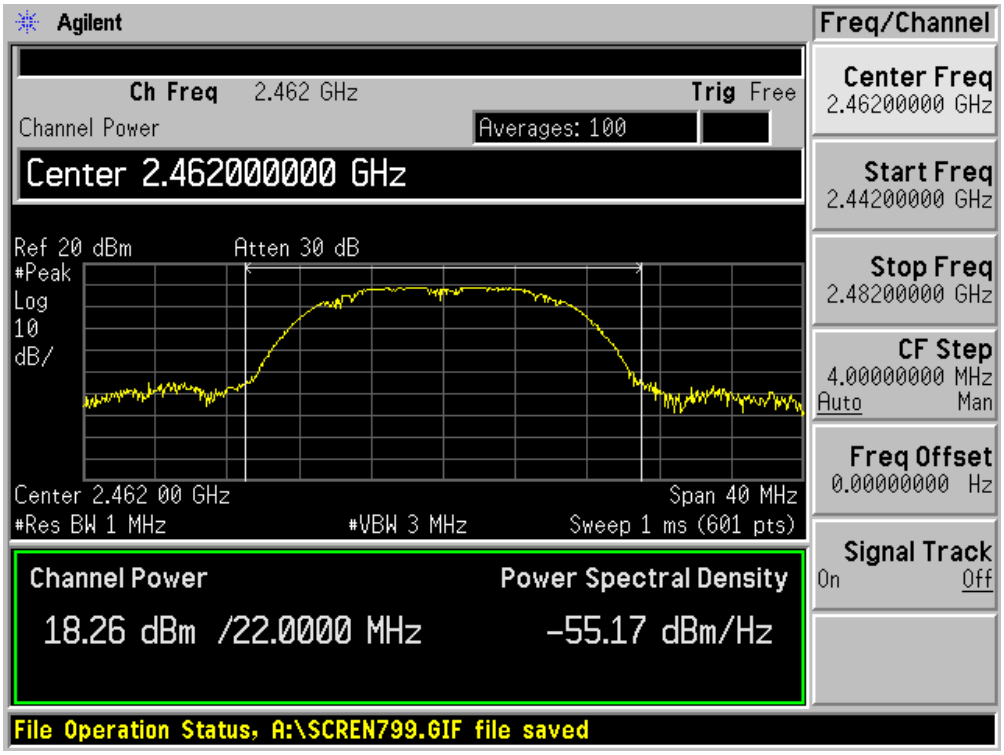
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**




**Channel 11 (2462MHz)**

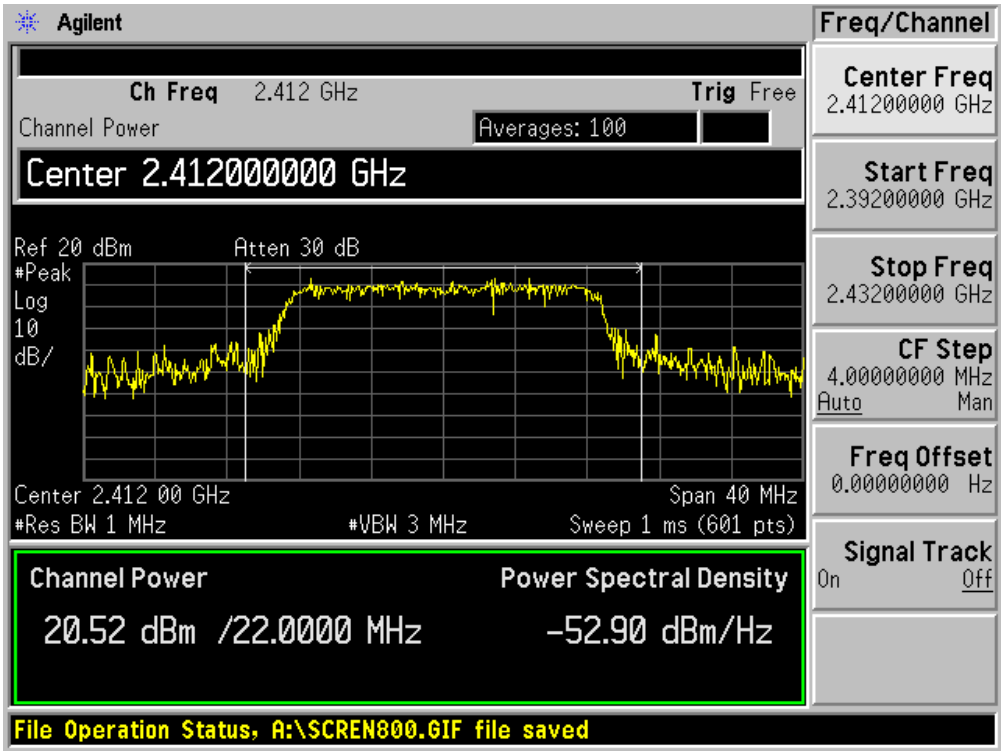


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC1) |

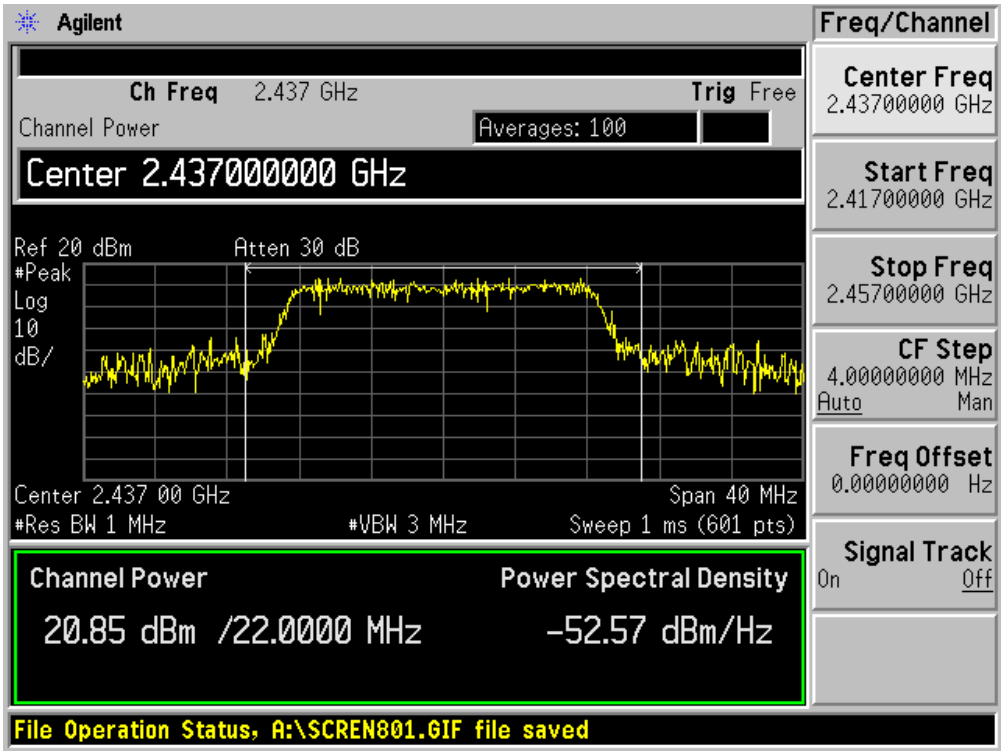
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | | | | | Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 6 | 9 | 12 | 18 | 24 | 36 | 48 | 54 | |
| 01 | 2412 | 20.52 | -- | -- | -- | -- | -- | -- | -- | 30 |
| 06 | 2437 | 20.85 | 20.82 | 20.80 | 20.78 | 20.75 | 20.72 | 20.70 | 20.67 | 30 |
| 11 | 2462 | 21.11 | -- | -- | -- | -- | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

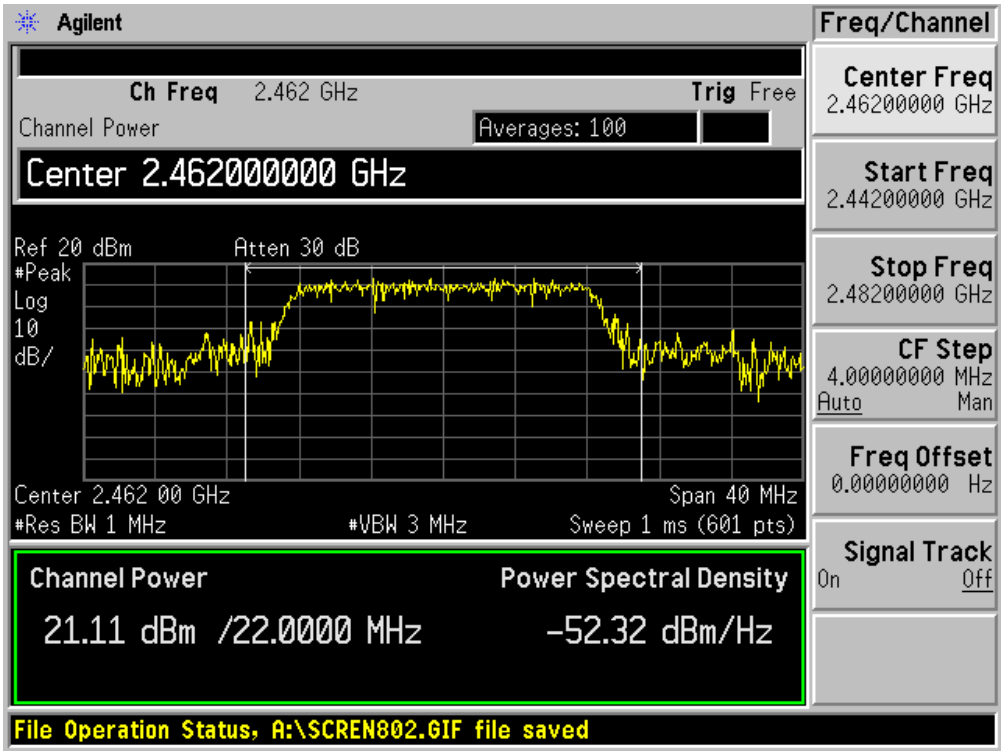
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**




**Channel 11 (2462MHz)**

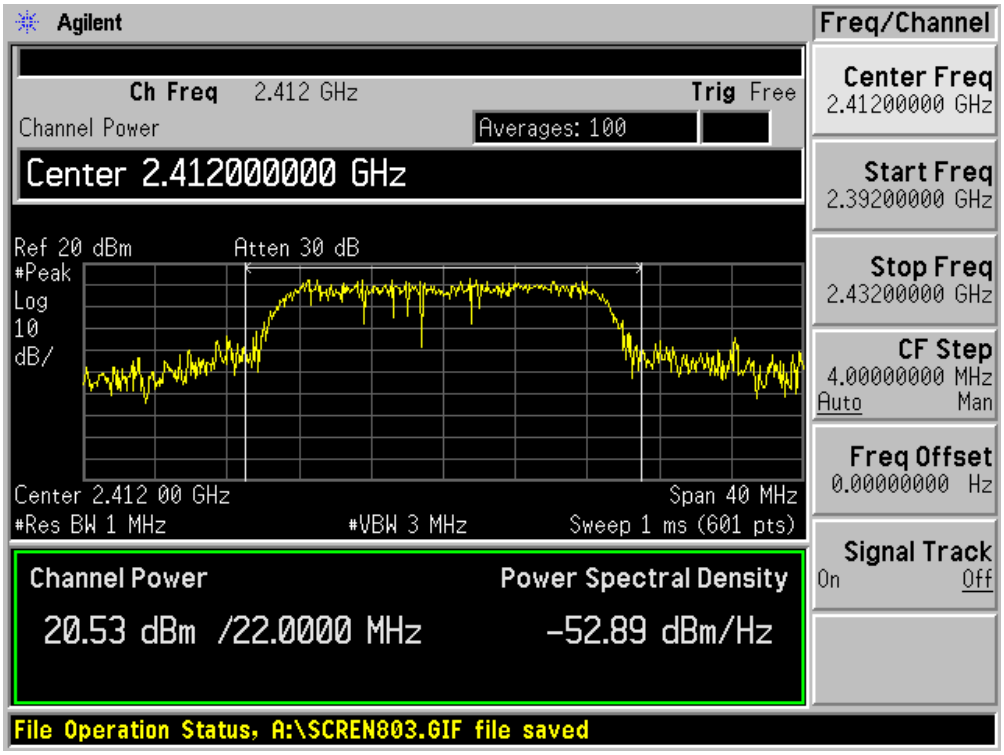


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC1) |

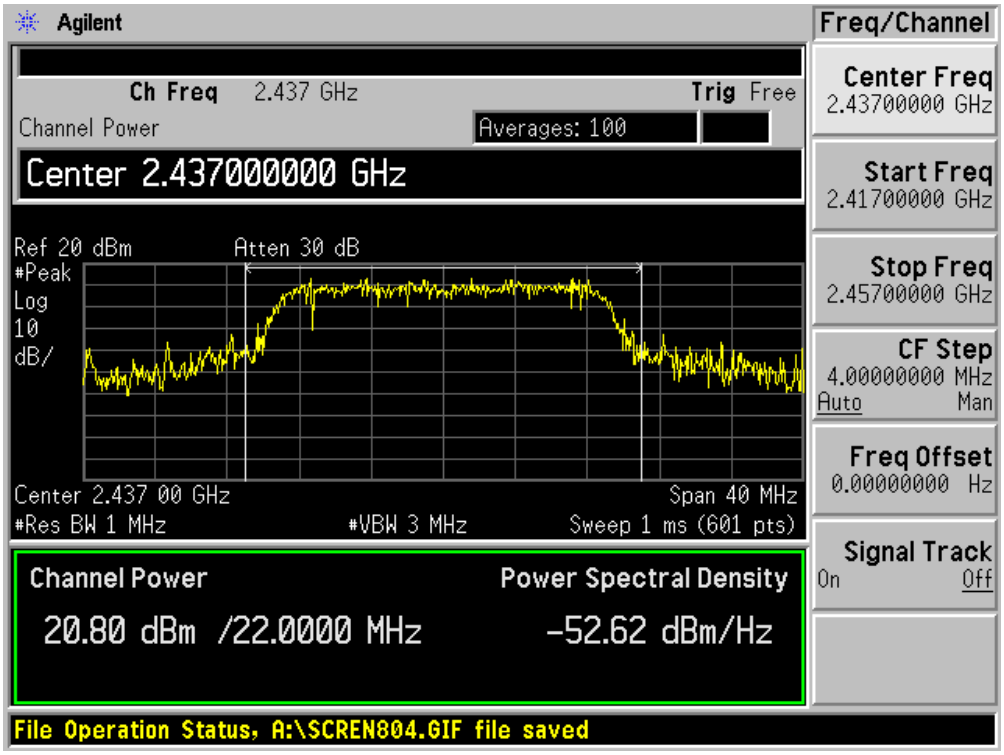
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | | | | | Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 6.5 | 13.0 | 19.5 | 26.0 | 39.0 | 52.0 | 58.5 | 65.0 | |
| 01 | 2412 | 20.53 | -- | -- | -- | -- | -- | -- | -- | 30 |
| 06 | 2437 | 20.80 | 20.77 | 20.75 | 20.73 | 20.70 | 20.68 | 20.65 | 20.62 | 30 |
| 11 | 2462 | 21.10 | -- | -- | -- | -- | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

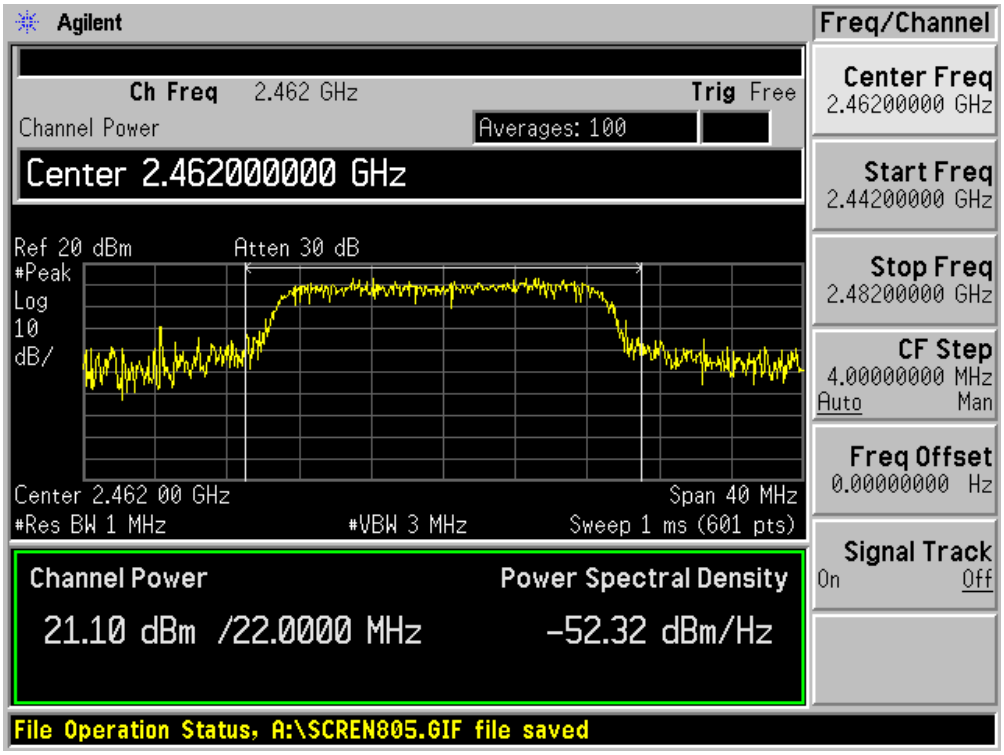
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**




**Channel 11 (2462MHz)**

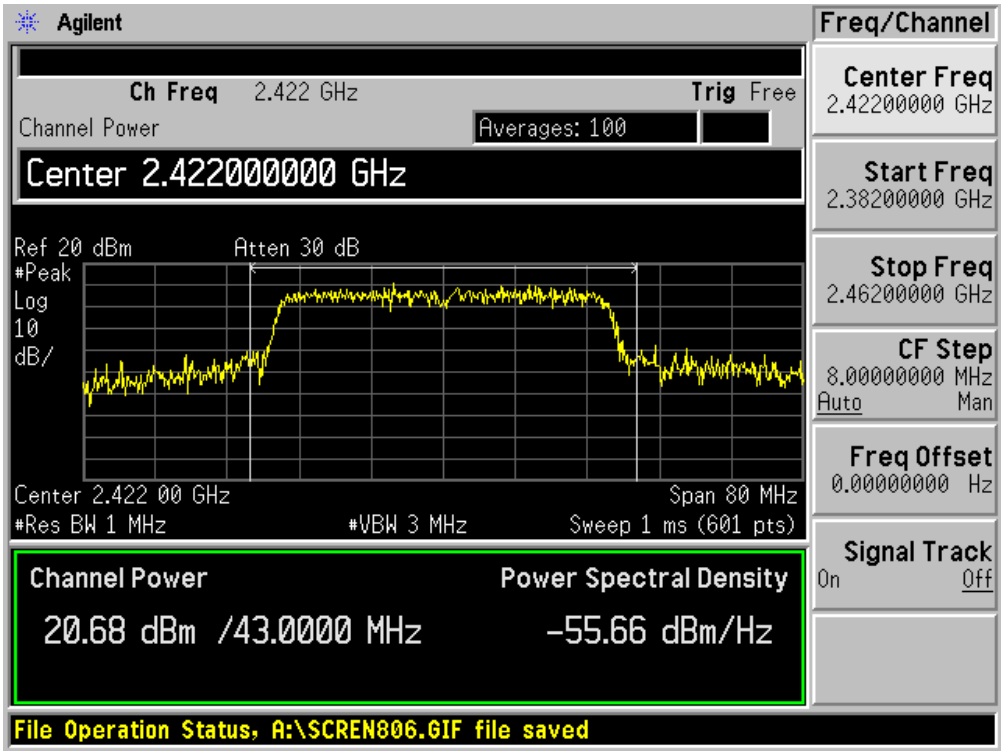


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC1) |

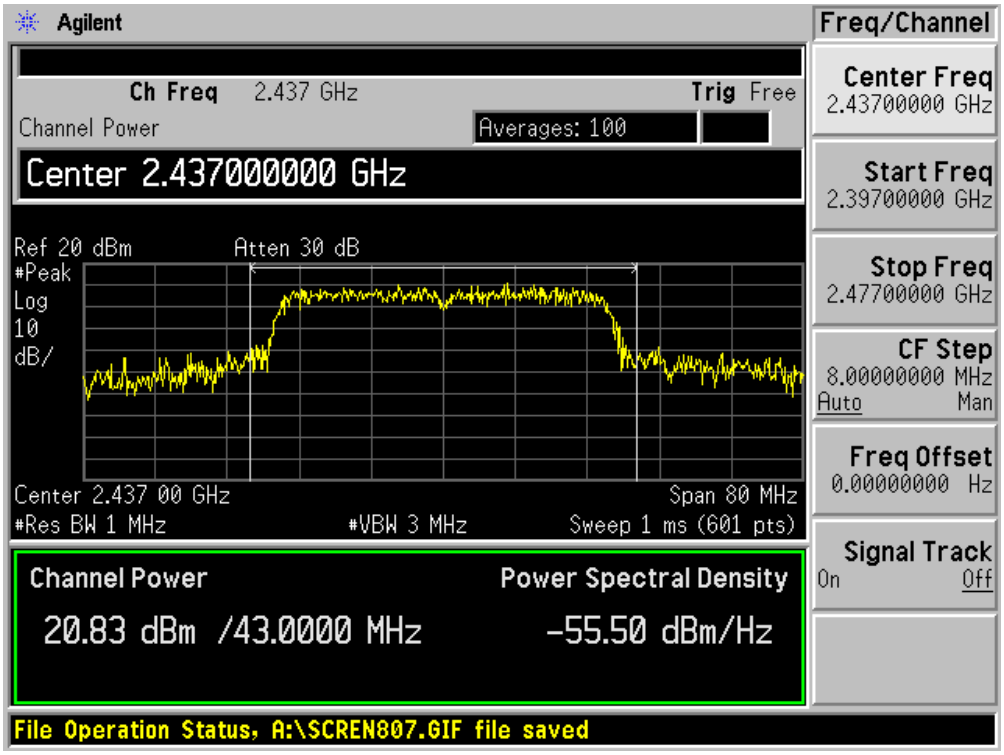
| Channel No. | Frequency (MHz) | Data Rate (Mbps) | | | | | | | | Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 13.5 | 27.0 | 40.5 | 54.0 | 81.0 | 108.0 | 121.5 | 135.0 | |
| 03 | 2422 | 10.68 | -- | -- | -- | -- | -- | -- | -- | 30 |
| 06 | 2437 | 20.83 | 20.81 | 20.78 | 20.75 | 20.72 | 20.70 | 20.68 | 20.65 | 30 |
| 09 | 2452 | 21.01 | -- | -- | -- | -- | -- | -- | -- | 30 |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

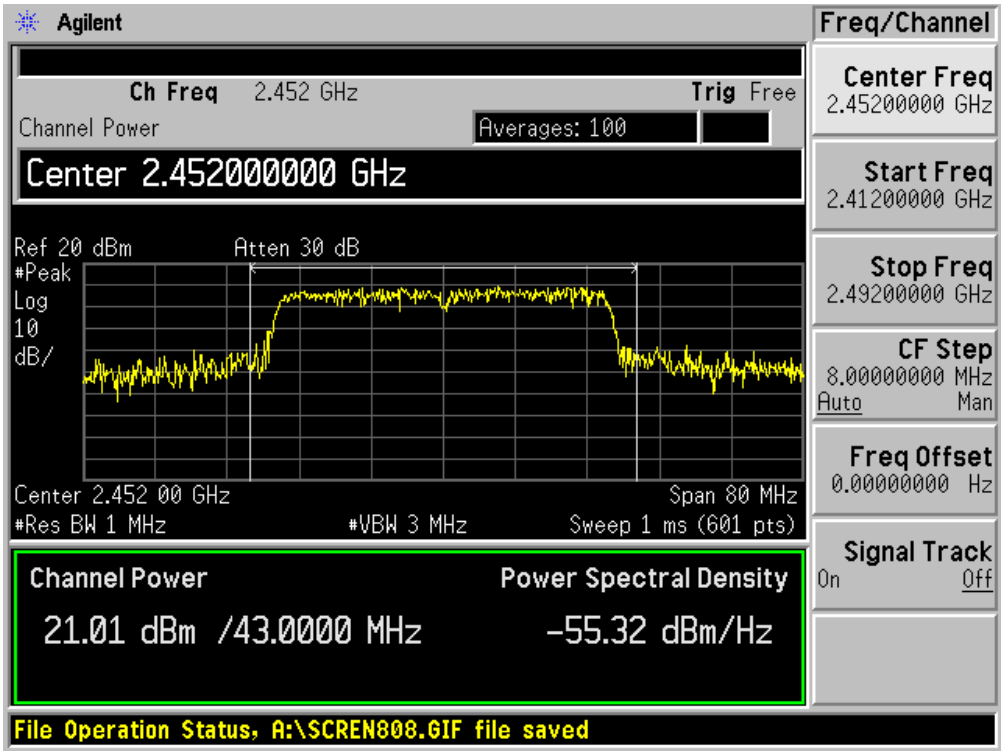
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**




**Channel 09 (2452MHz)**

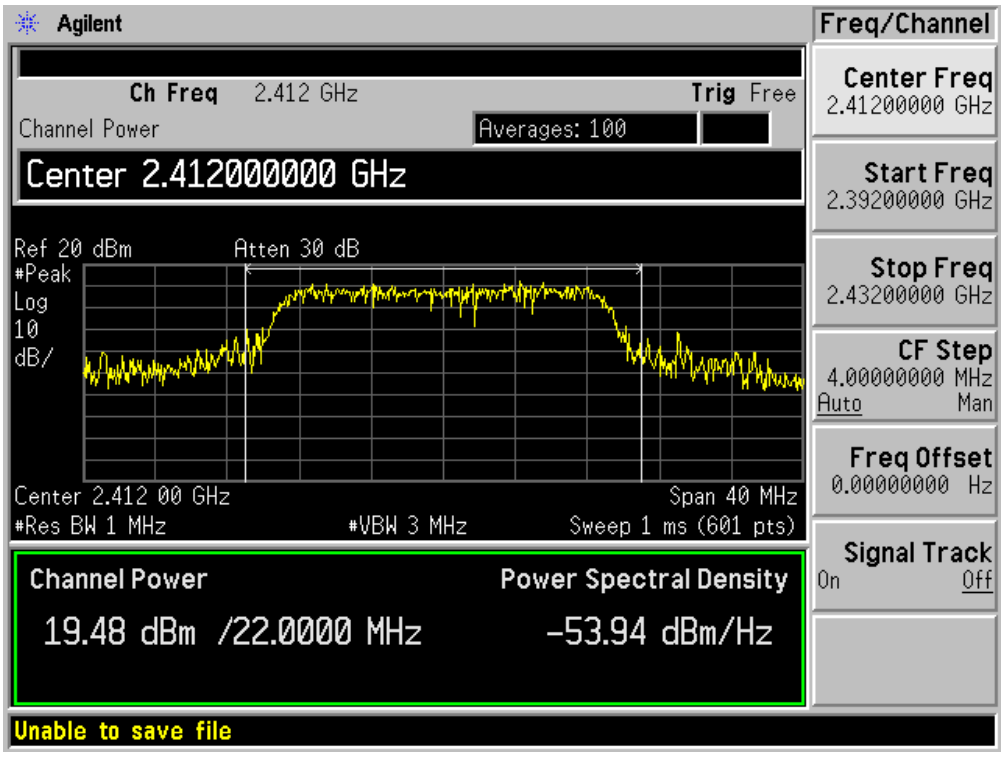


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC0 and DAC1) |

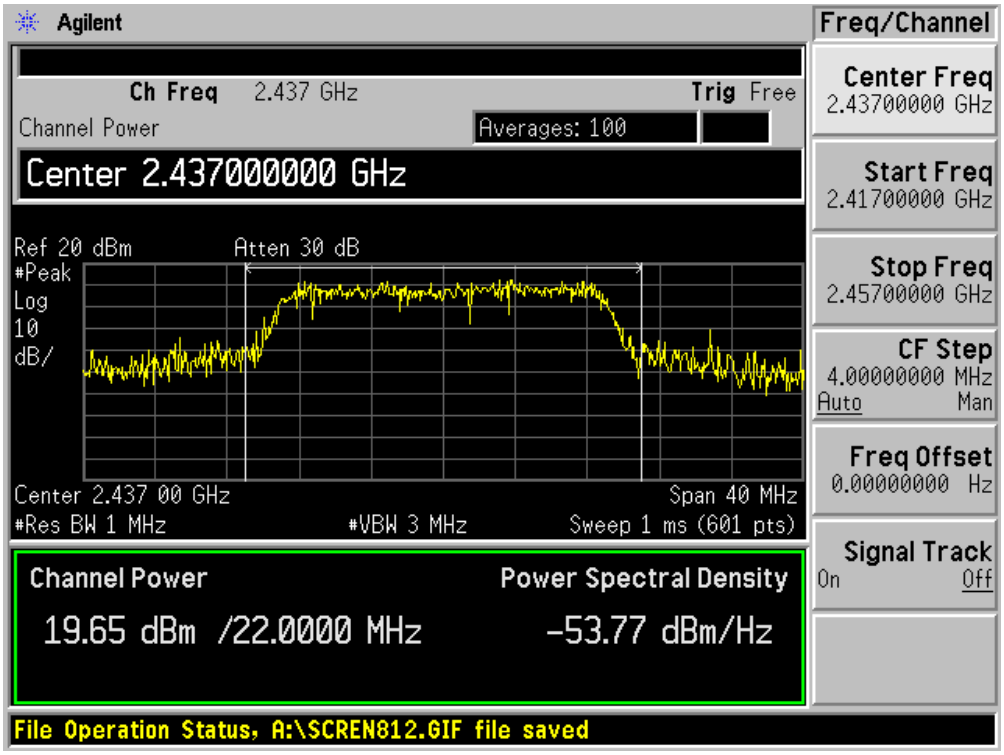
| Channel No. | Frequency (MHz) | Measurement Power Output (dBm) | | Total Power (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|
| | | Chain DAC0 | Chain DAC1 | | | |
| 1 | 2412 | 19.48 | 19.69 | 22.60 | 30.00 | Pass |
| 6 | 2437 | 19.65 | 19.95 | 22.81 | 30.00 | Pass |
| 11 | 2462 | 20.06 | 20.56 | 23.33 | 30.00 | Pass |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

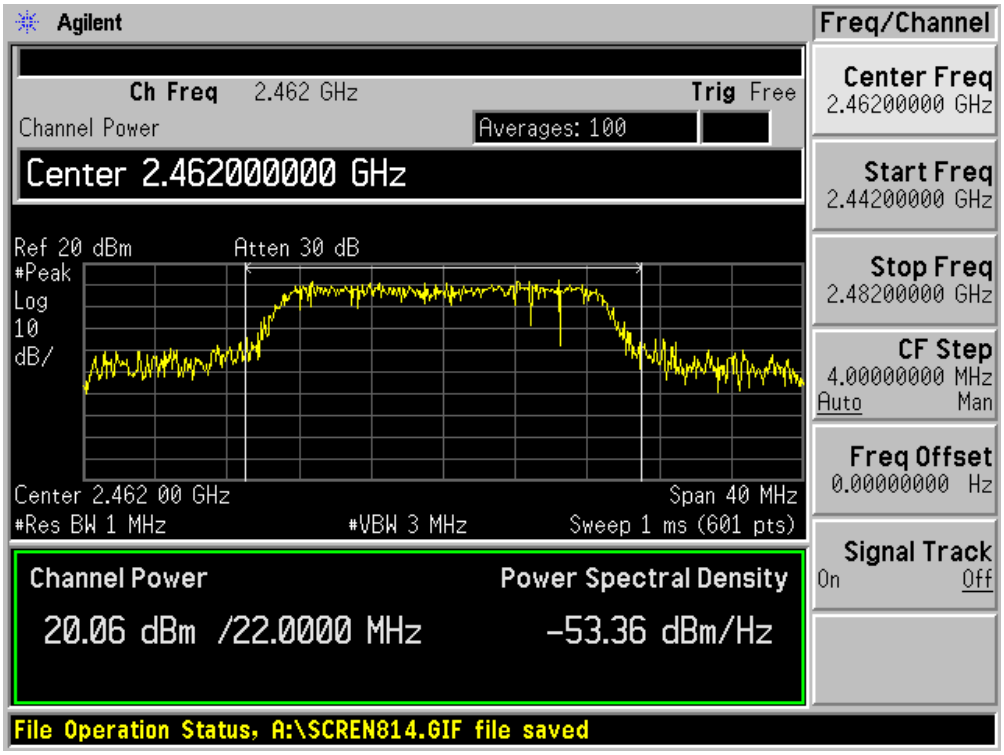
**Channel 01 (2412MHz) – Chain DAC0**



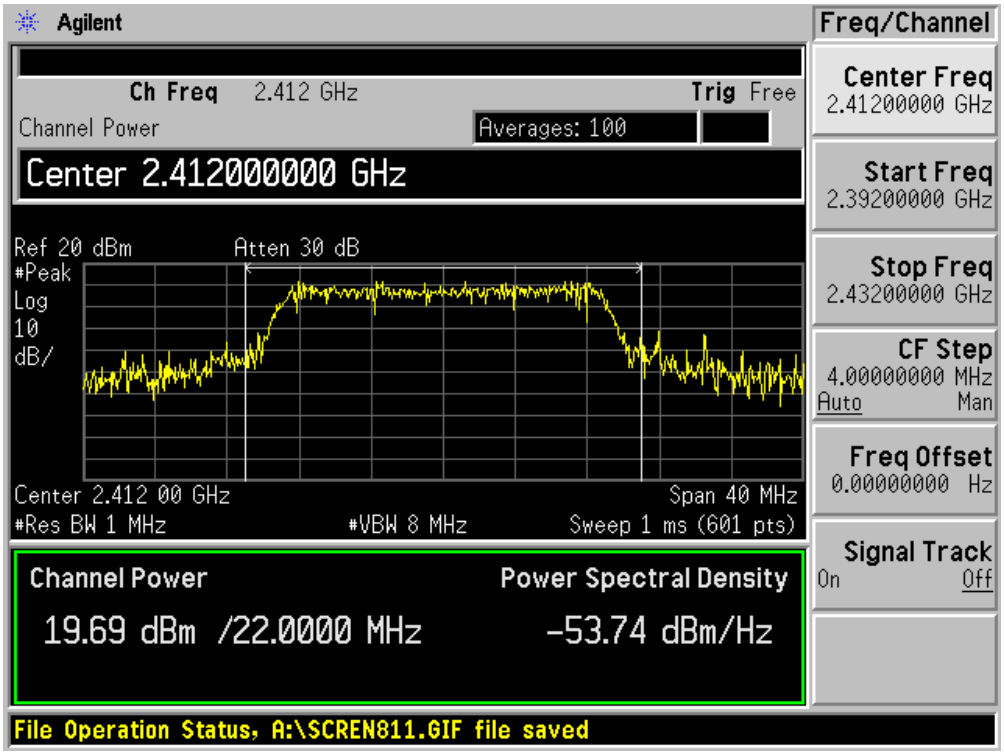
**Channel 06 (2437MHz) – Chain DAC0**



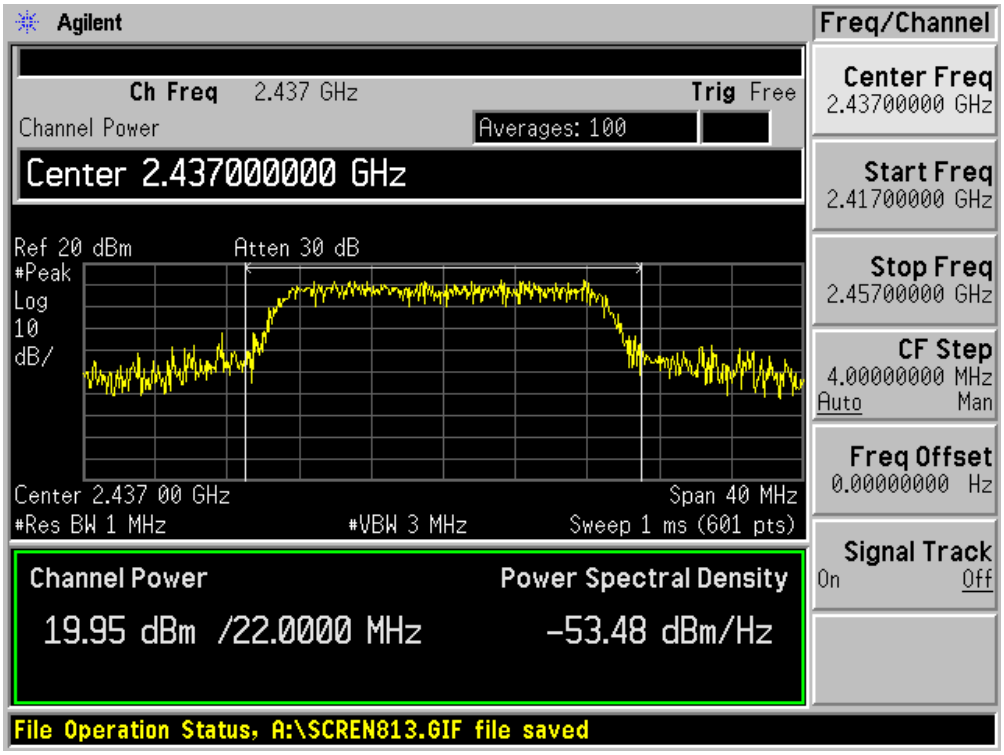

**Channel 11 (2462MHz) – Chain DAC0**



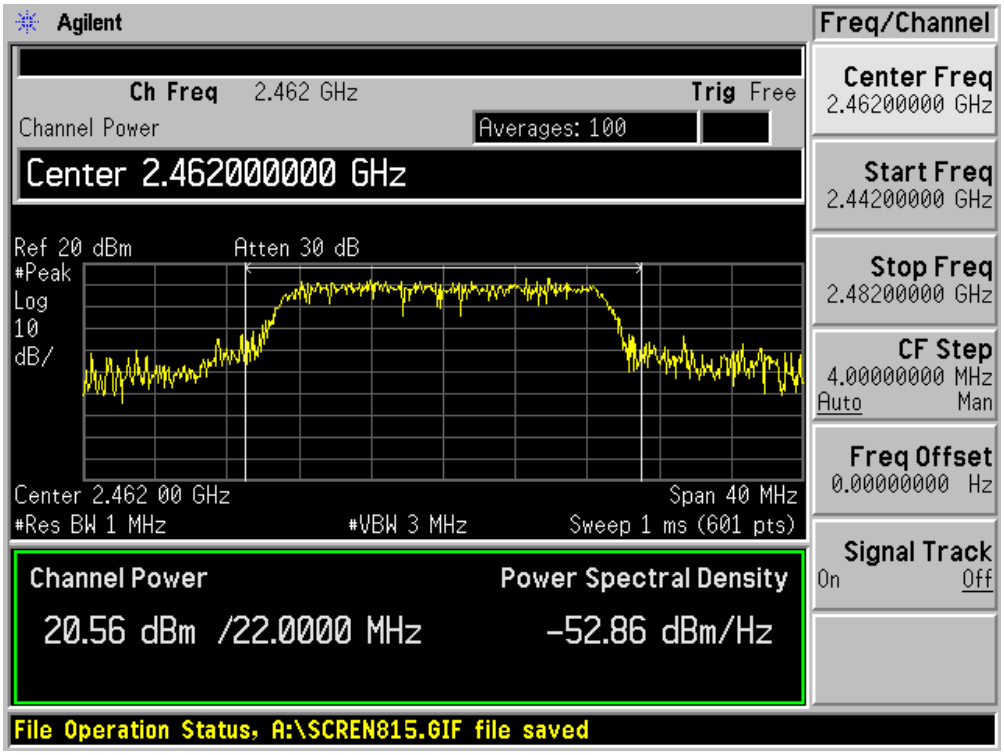
**Channel 01 (2412MHz) – Chain DAC1**




**Channel 06 (2437MHz) – Chain DAC1**



**Channel 11 (2462MHz) – Chain DAC1**

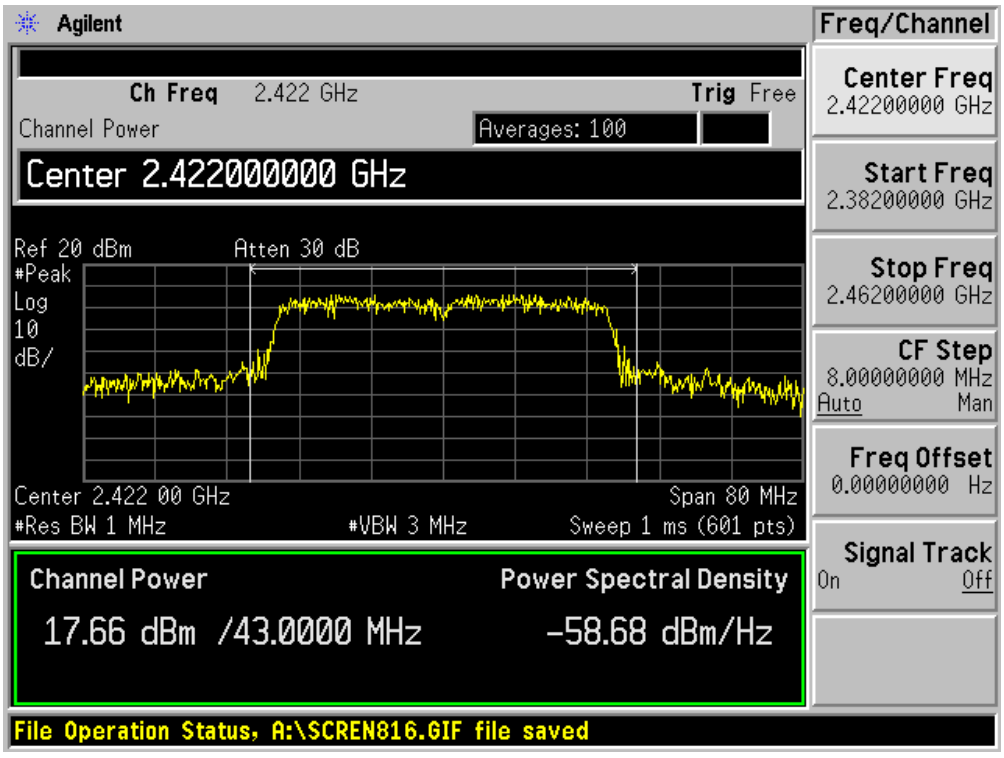


| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Output |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (40MHz) (DAC0 and DAC1) |

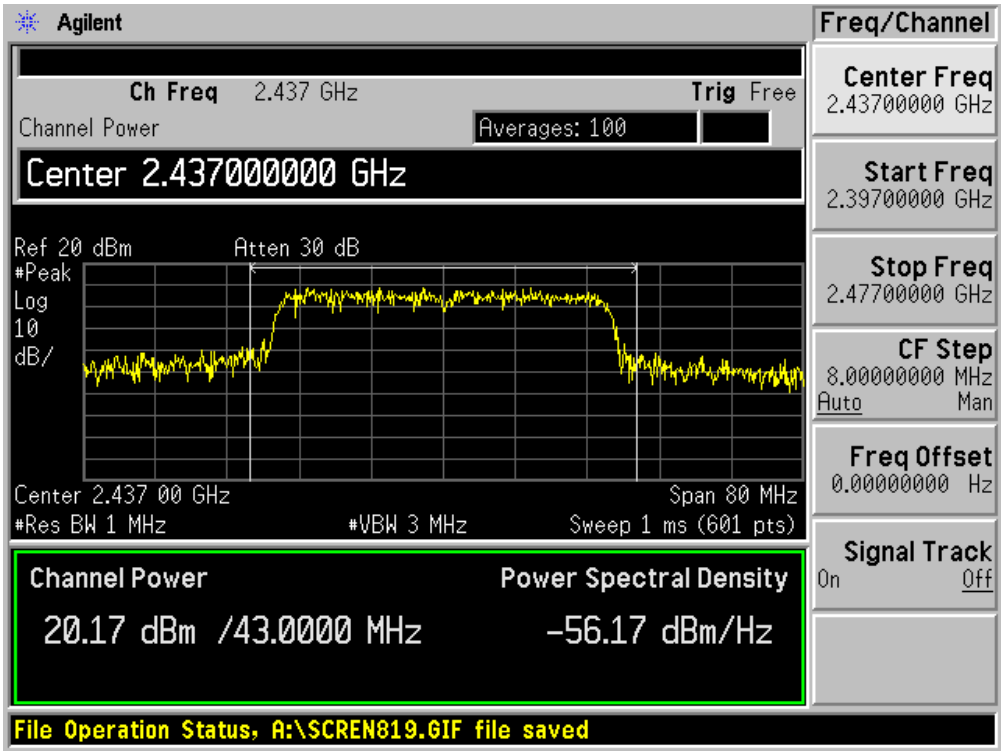
| Channel No. | Frequency (MHz) | Measurement Power Output (dBm) | | Total Power (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|
| | | Chain DAC0 | Chain DAC1 | | | |
| 03 | 2422 | 17.66 | 19.80 | 21.87 | 30.00 | Pass |
| 06 | 2437 | 20.17 | 20.31 | 23.25 | 30.00 | Pass |
| 09 | 2452 | 19.46 | 20.36 | 22.94 | 30.00 | Pass |

Note: The antenna gain of transmitter is less than 6 dBi and other than fixed, point-to-point operation, therefore the limit is 30 dBm.

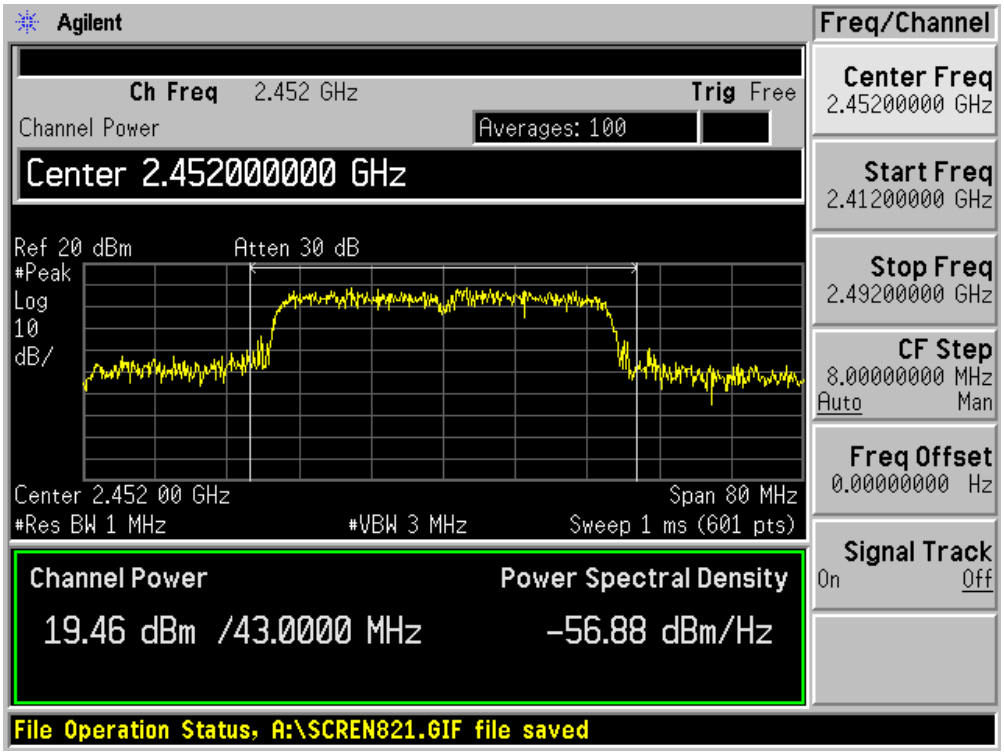
**Channel 03 (2422MHz) – Chain DAC0**



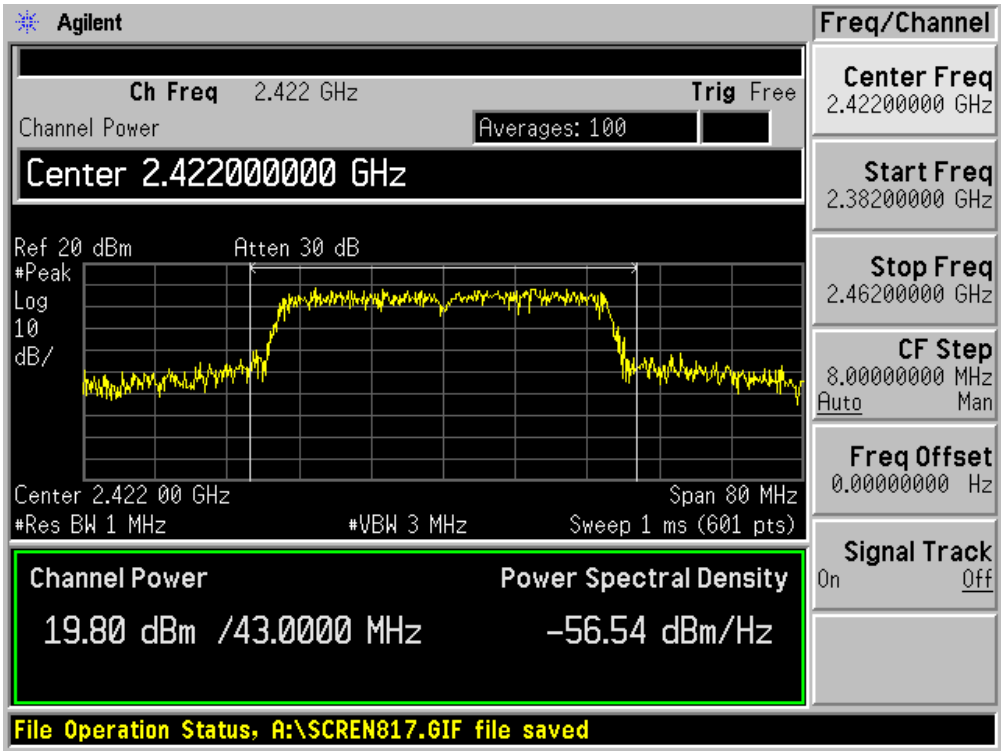
**Channel 06 (2437MHz) – Chain DAC0**



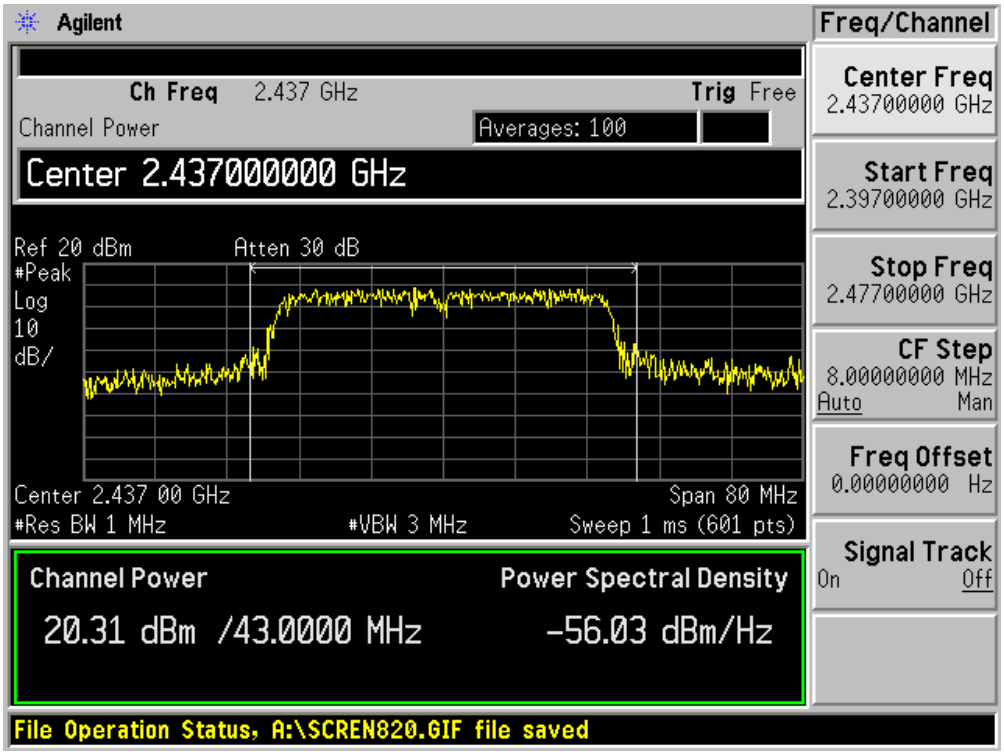

**Channel 09 (2452MHz) – Chain DAC0**



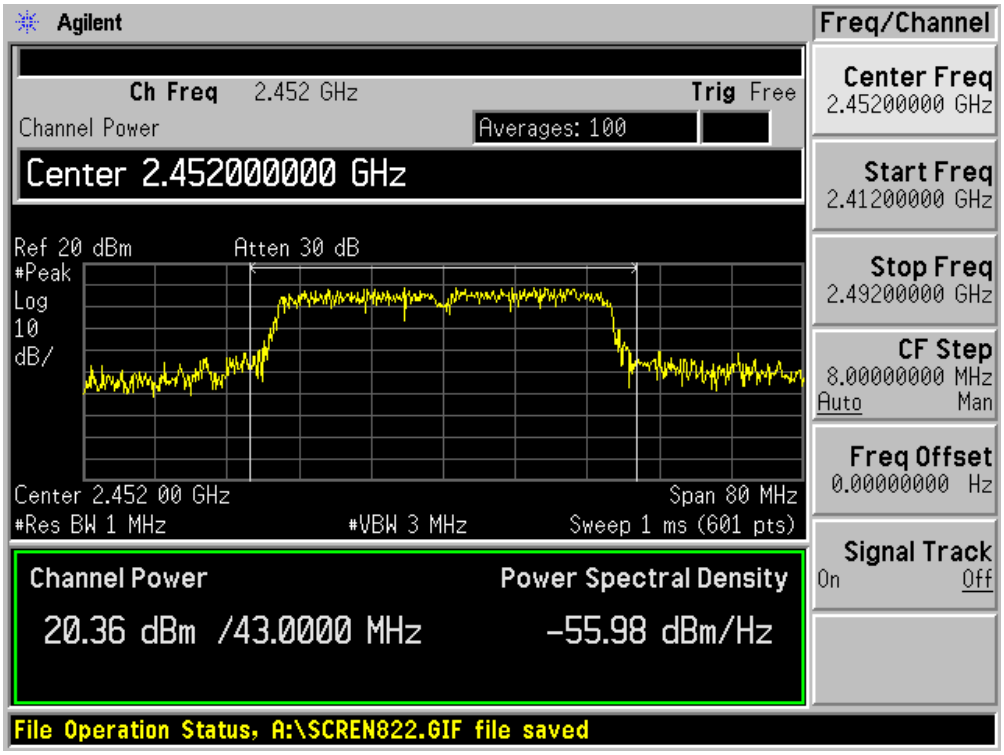
**Channel 03 (2422MHz) – Chain DAC1**




**Channel 06 (2437MHz) – Chain DAC1**



**Channel 09 (2452MHz) – Chain DAC1**



# 10. Power Spectral Density

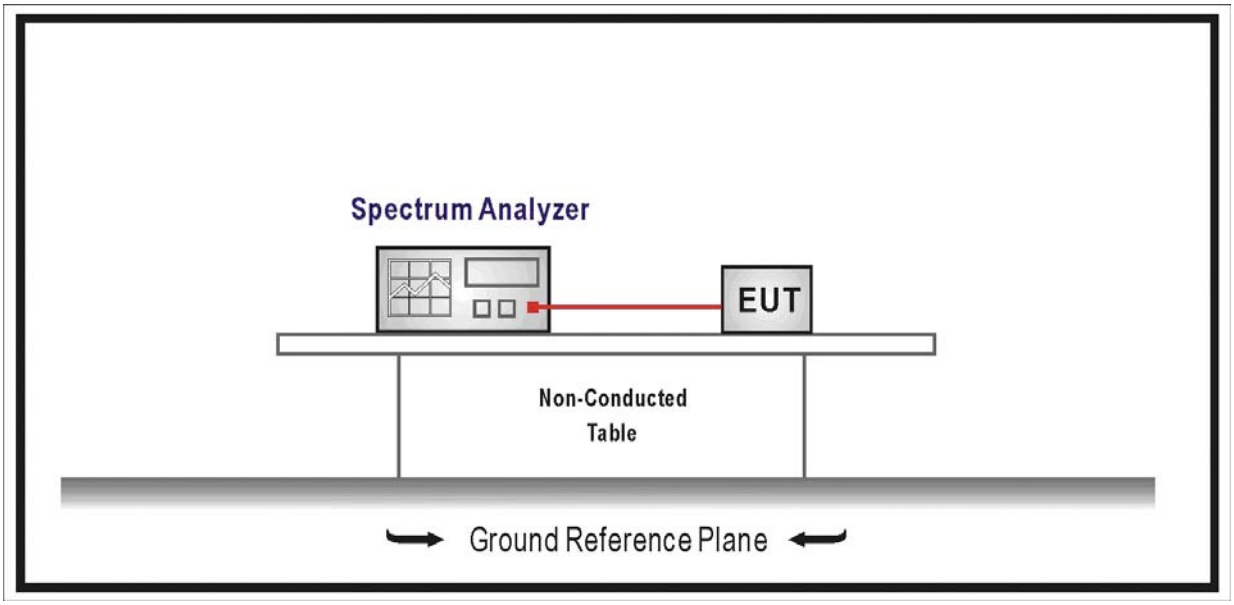
## 10.1. Test Equipment

Power Spectral Density / AC-4

| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date |
|---|---|---|---|---|
| Spectrum Analyzer | Agilent | E4446A | MY45300103 | 2008/06/11 |
| Coaxial Cable | Huber+Suhner | AC4-RF | 09 | 2007/11/25 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | QT-TH007 | 2008/03/09 |

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 10.2. Test Setup




## 10.3. Limit

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

## 10.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, Set VBW≧ 9 kHz, Sweep time=Auto, Set detector=Peak detector.

## 10.5. Uncertainty

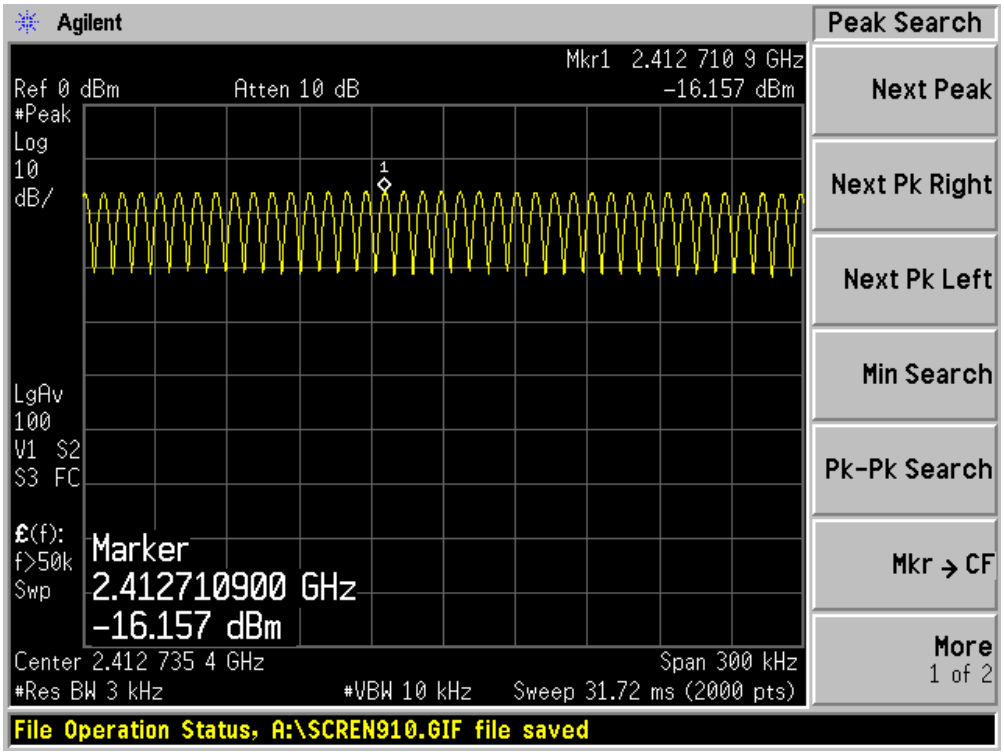
The measurement uncertainty is defined as ± 1.27 dB

## 10.6. Test Result

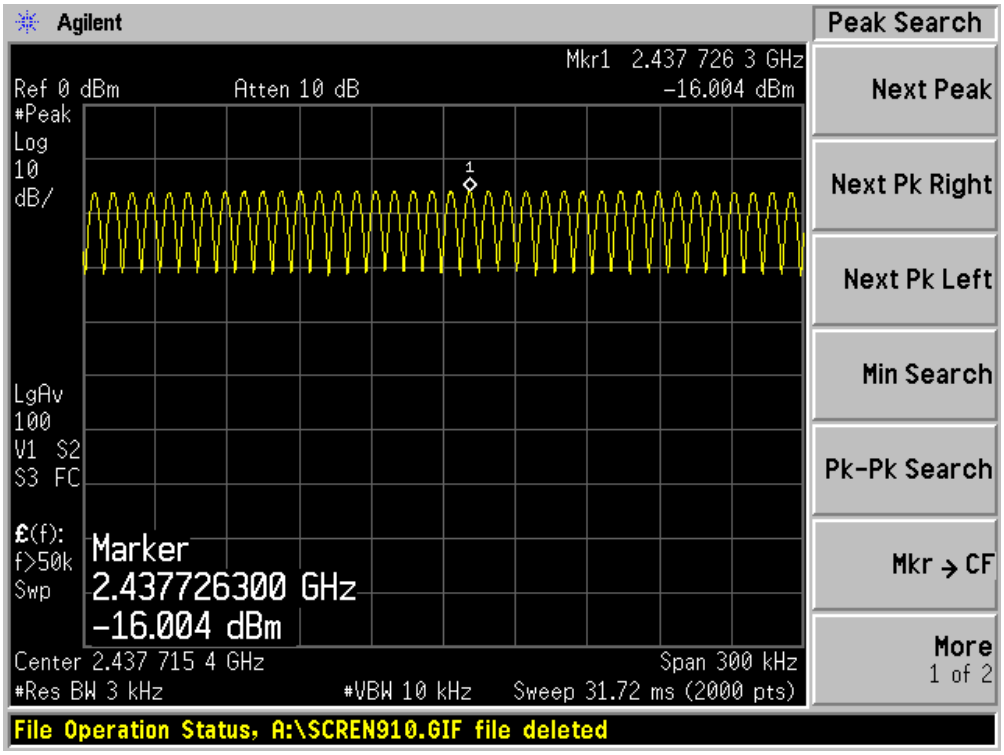
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC0) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -16.157 | 8 | Pass |
| 06 | 2437 | -16.004 | 8 | Pass |
| 11 | 2462 | -16.304 | 8 | Pass |

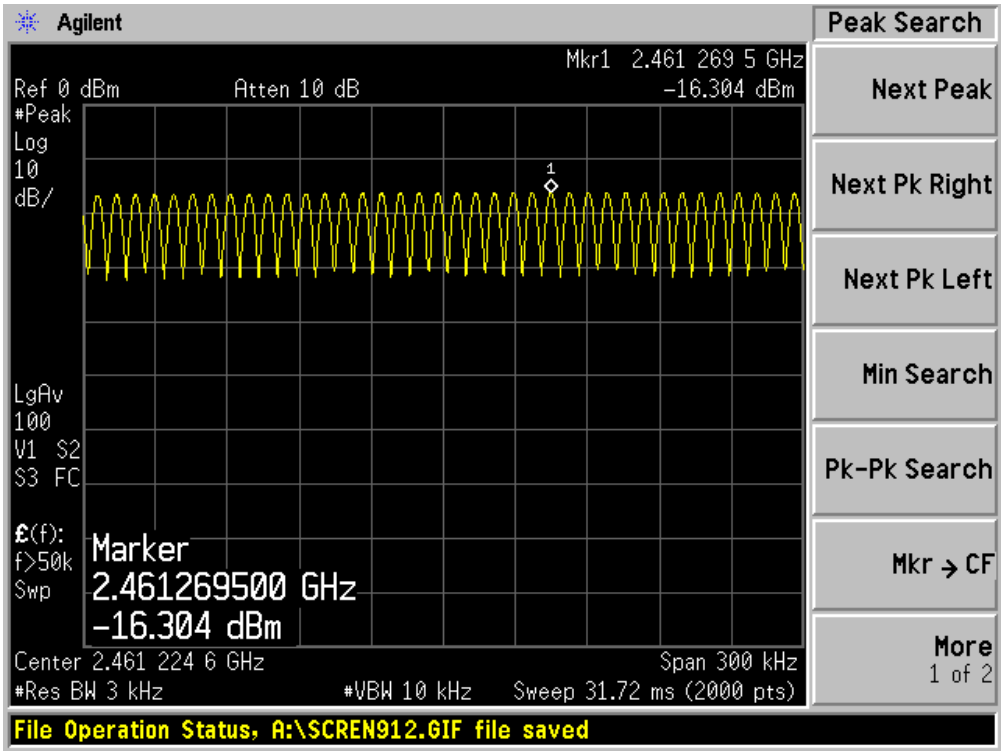
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



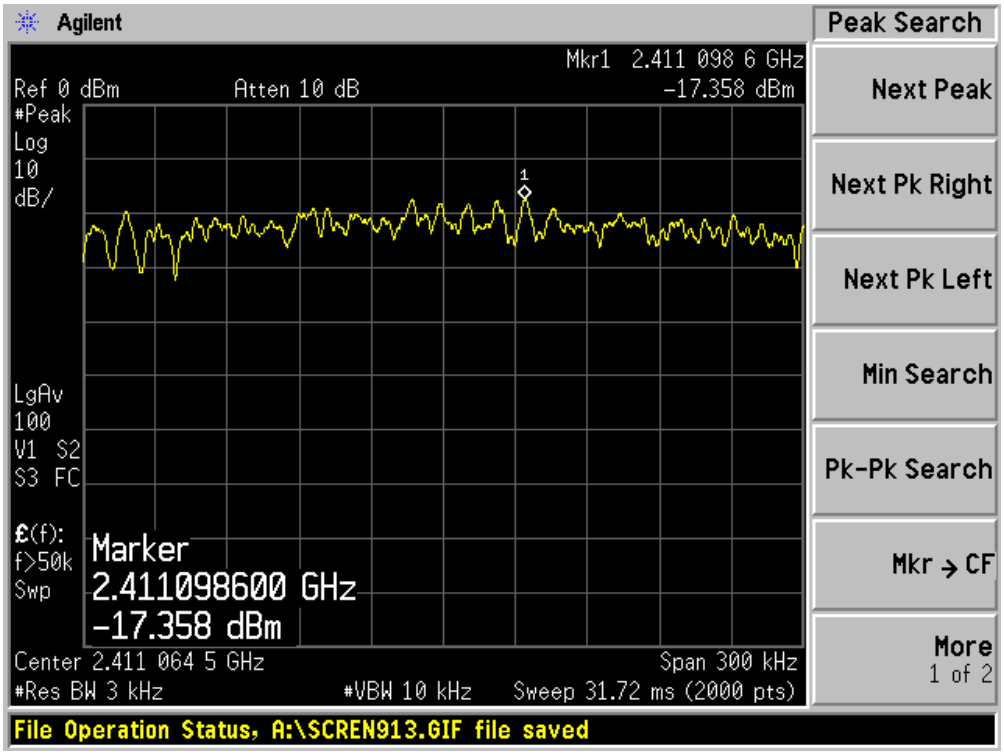

**Channel 11 (2462MHz)**



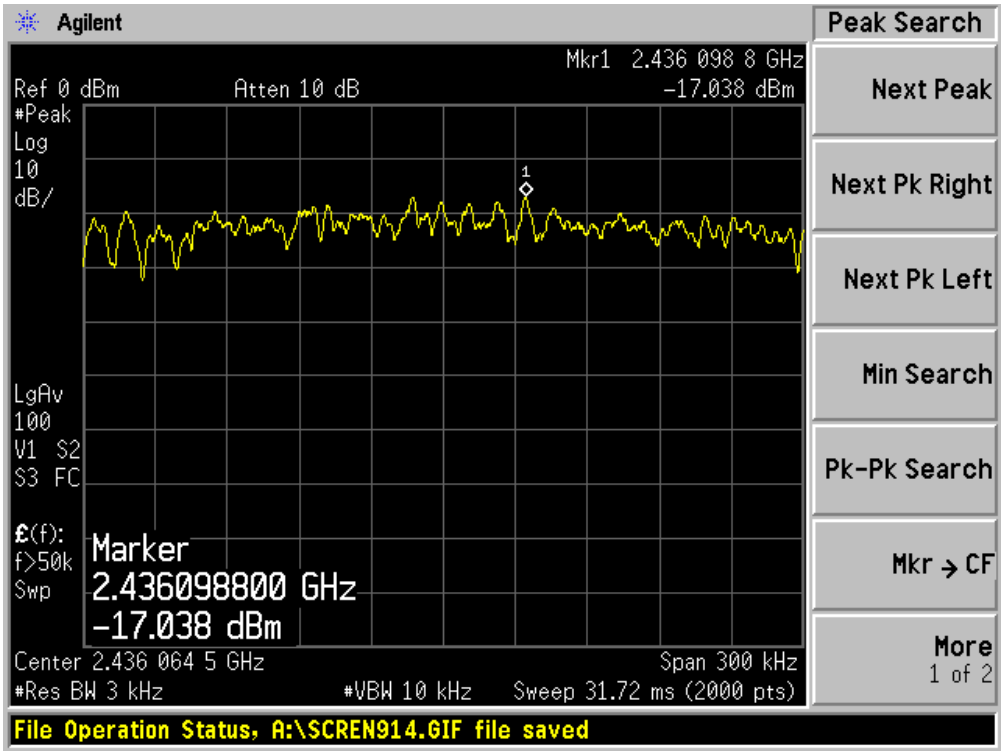
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC0) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -17.358 | 8 | Pass |
| 06 | 2437 | -17.038 | 8 | Pass |
| 11 | 2462 | -17.355 | 8 | Pass |

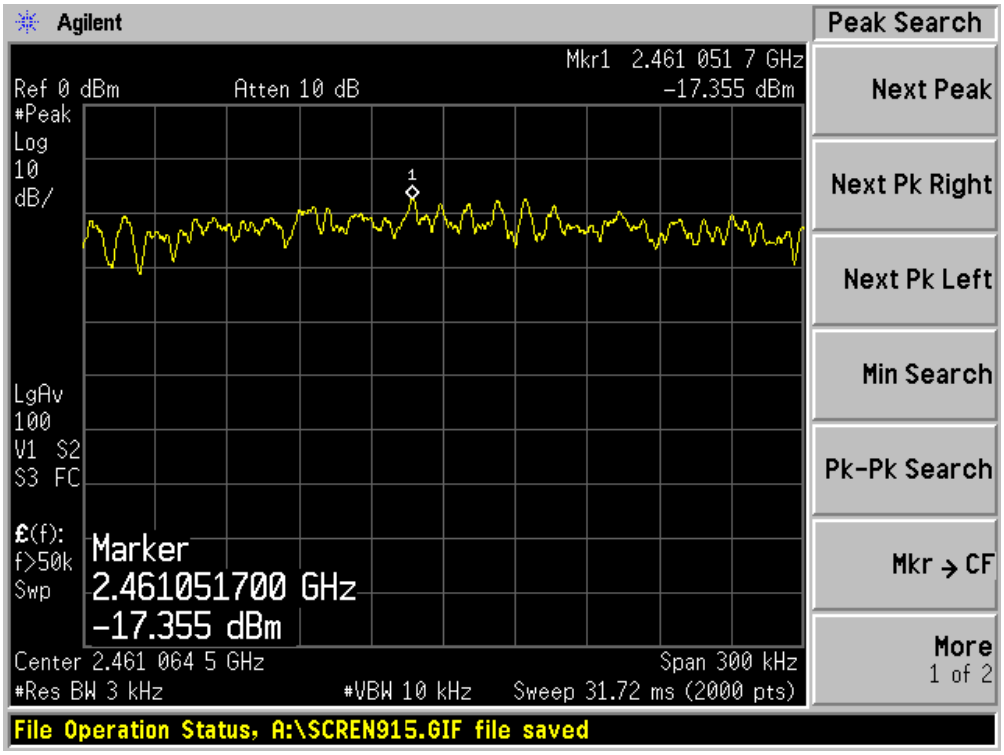
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



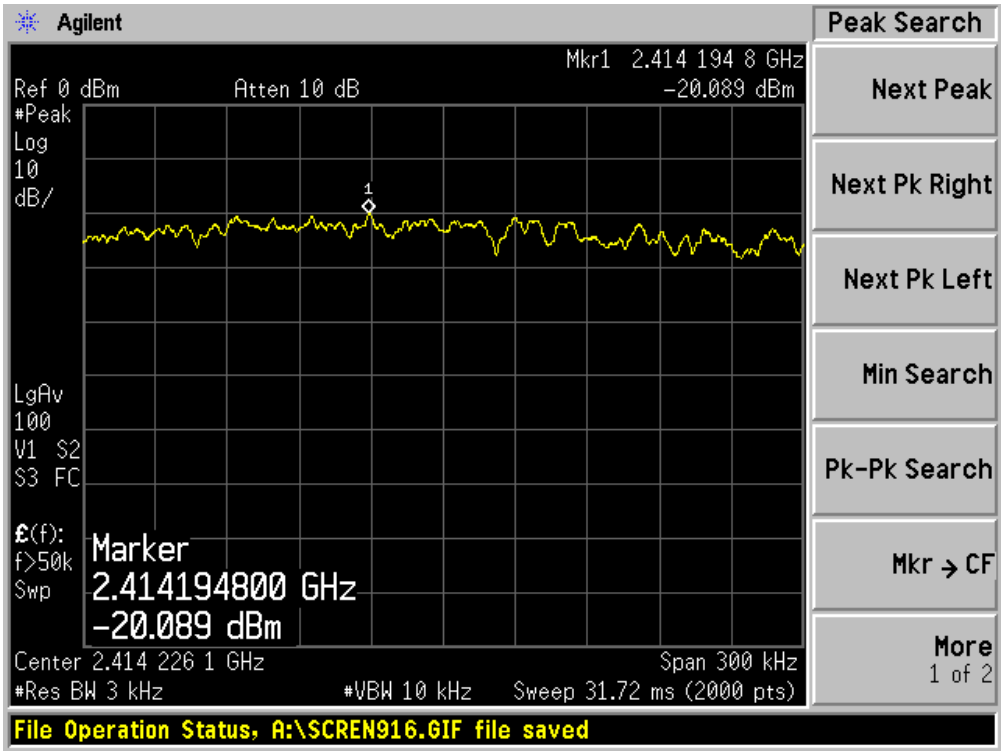

**Channel 11 (2462MHz)**



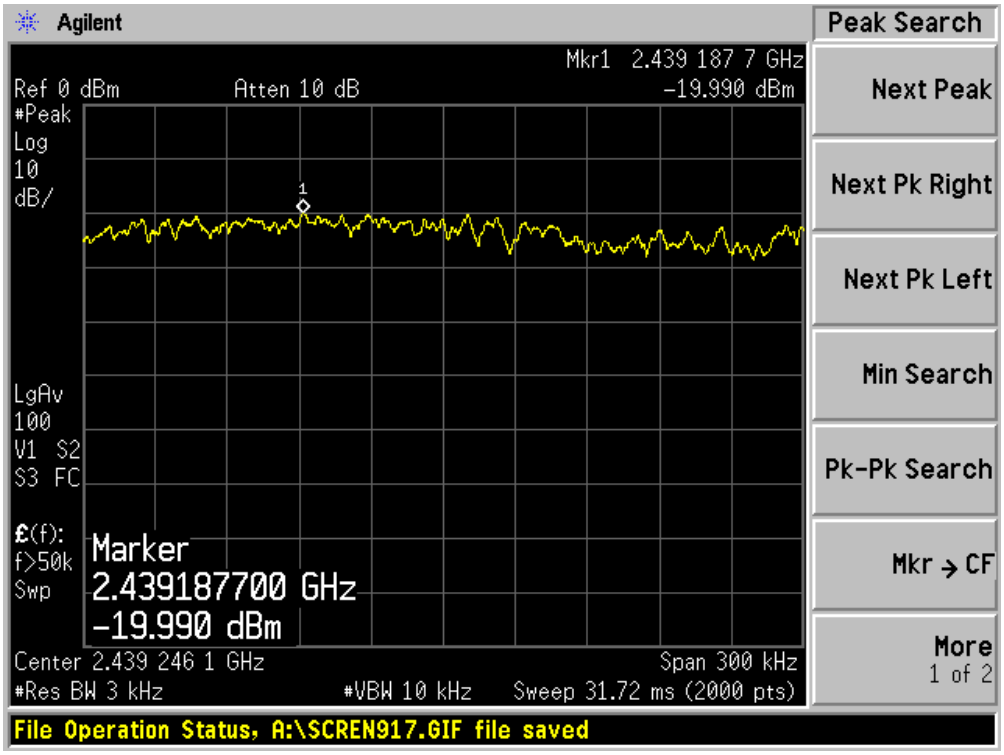
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC0) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -20.089 | 8 | Pass |
| 06 | 2437 | -19.990 | 8 | Pass |
| 11 | 2462 | -20.419 | 8 | Pass |

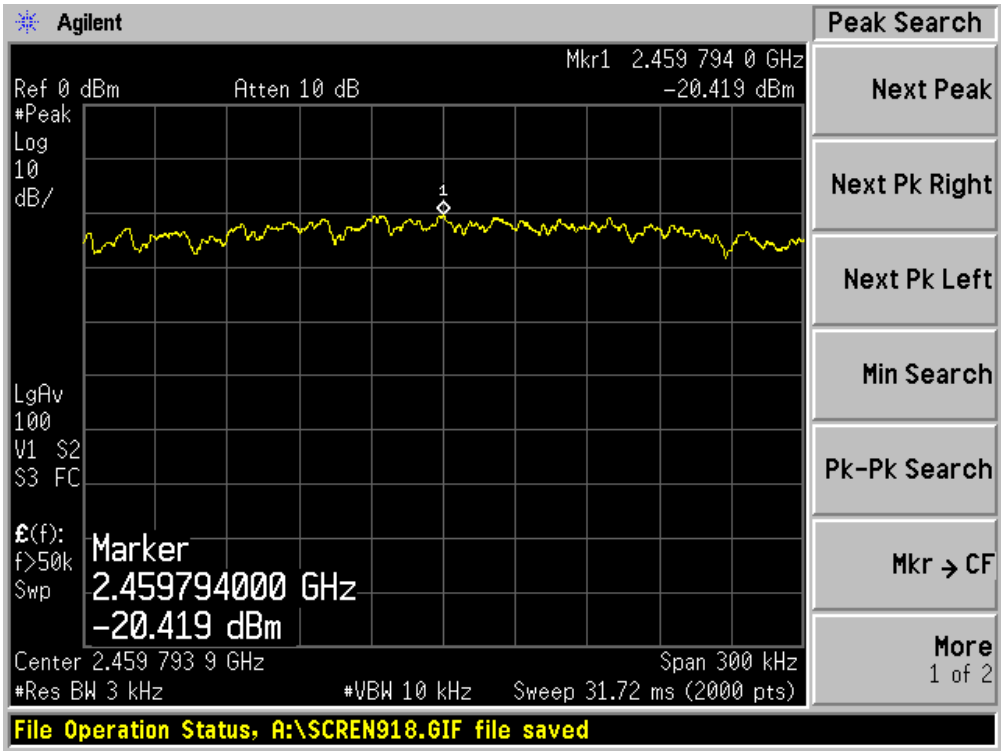
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



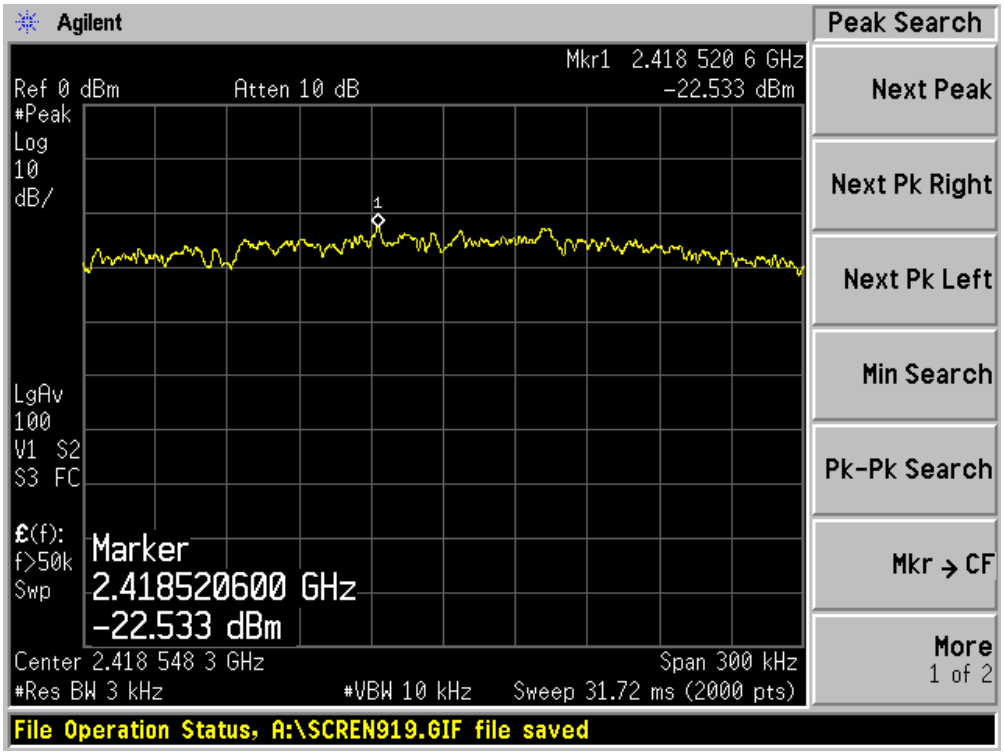

**Channel 11 (2462MHz)**



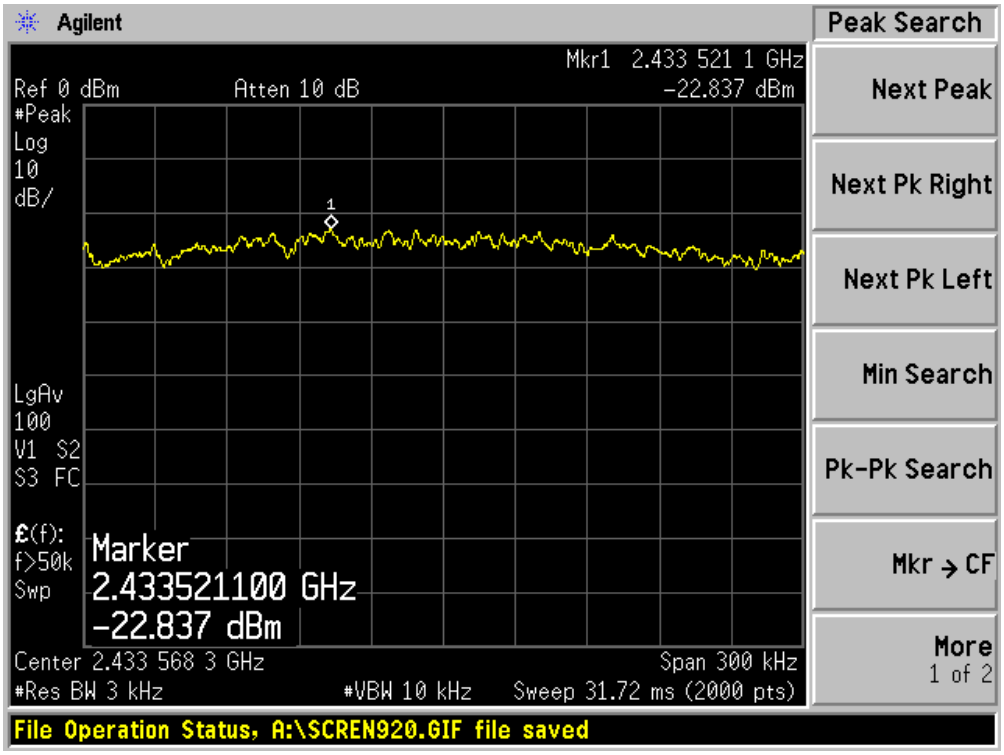
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC0) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 03 | 2412 | -22.533 | 8 | Pass |
| 06 | 2437 | -22.837 | 8 | Pass |
| 09 | 2462 | -22.359 | 8 | Pass |

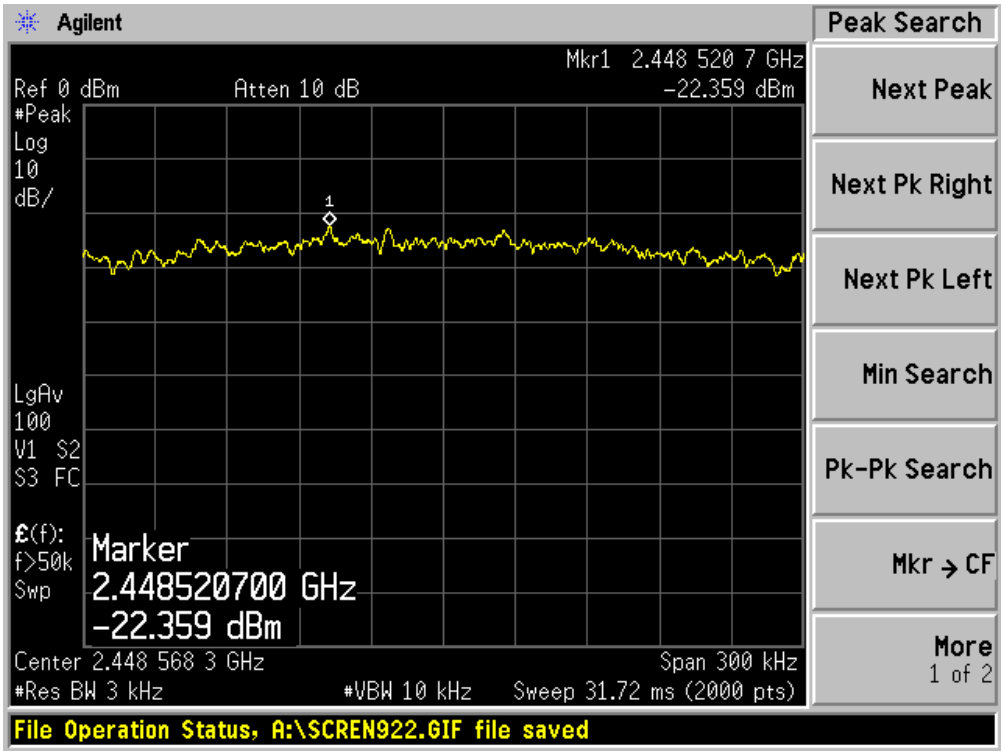
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**



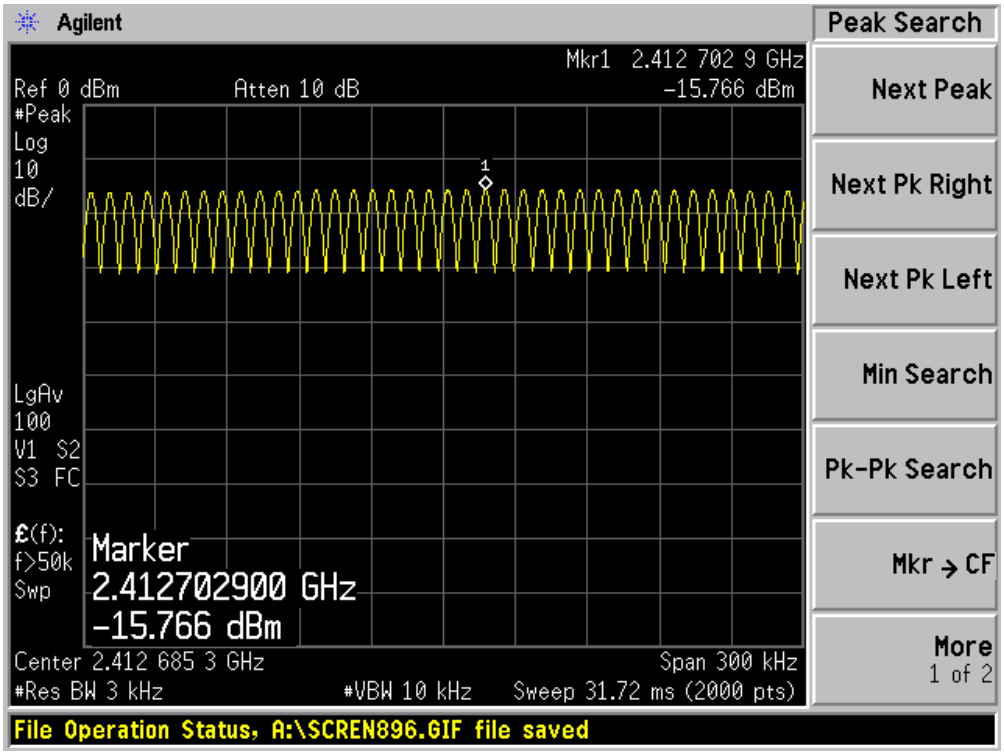

**Channel 09 (2462MHz)**



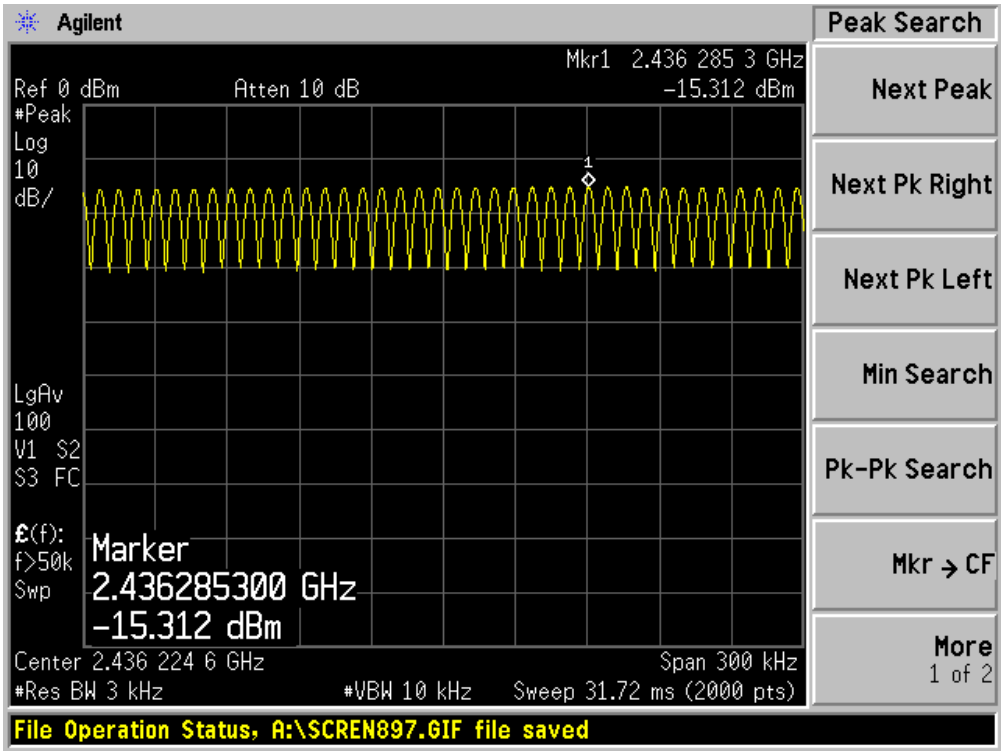
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 1: Transmit by 802.11b (DAC1) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -15.766 | 8 | Pass |
| 06 | 2437 | -15.312 | 8 | Pass |
| 11 | 2462 | -14.933 | 8 | Pass |

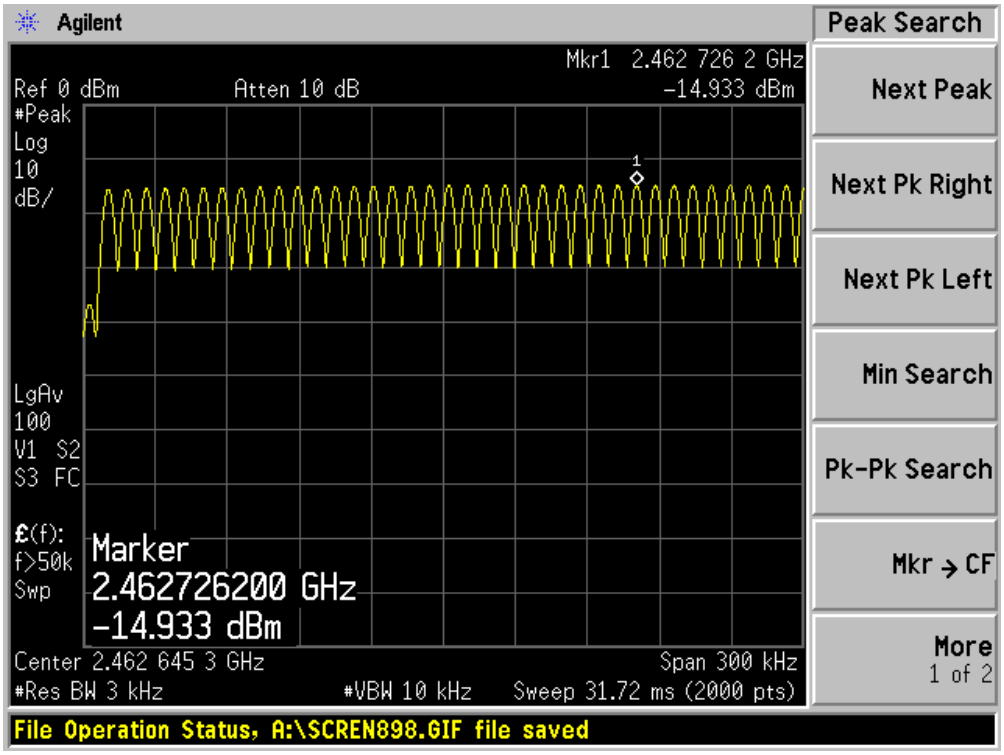
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



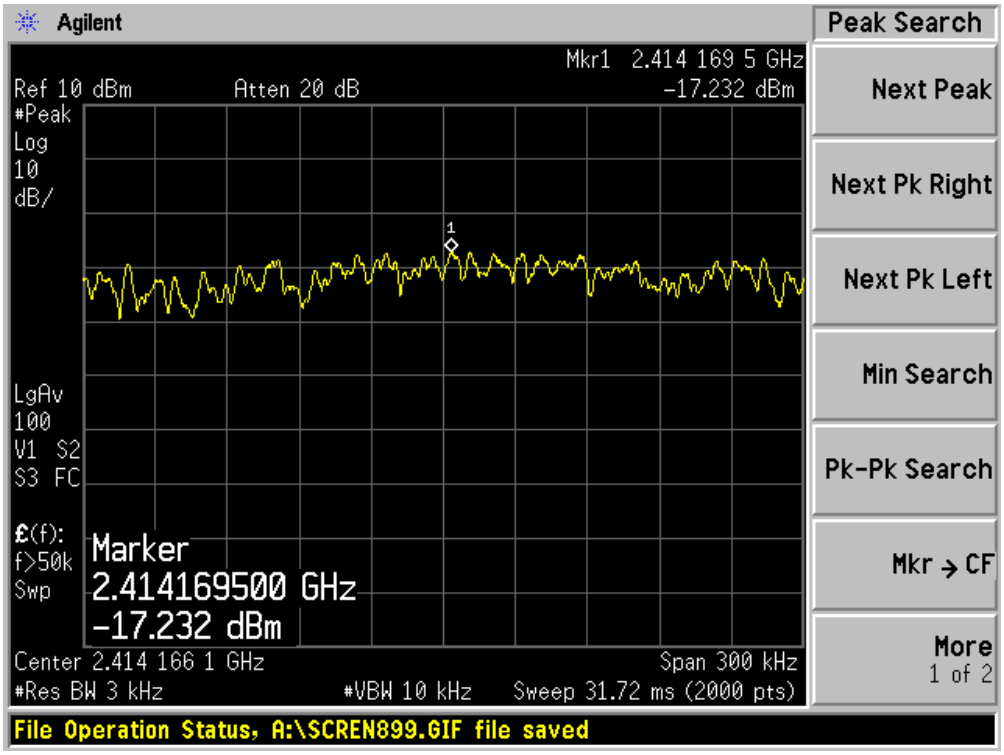

**Channel 11 (2462MHz)**



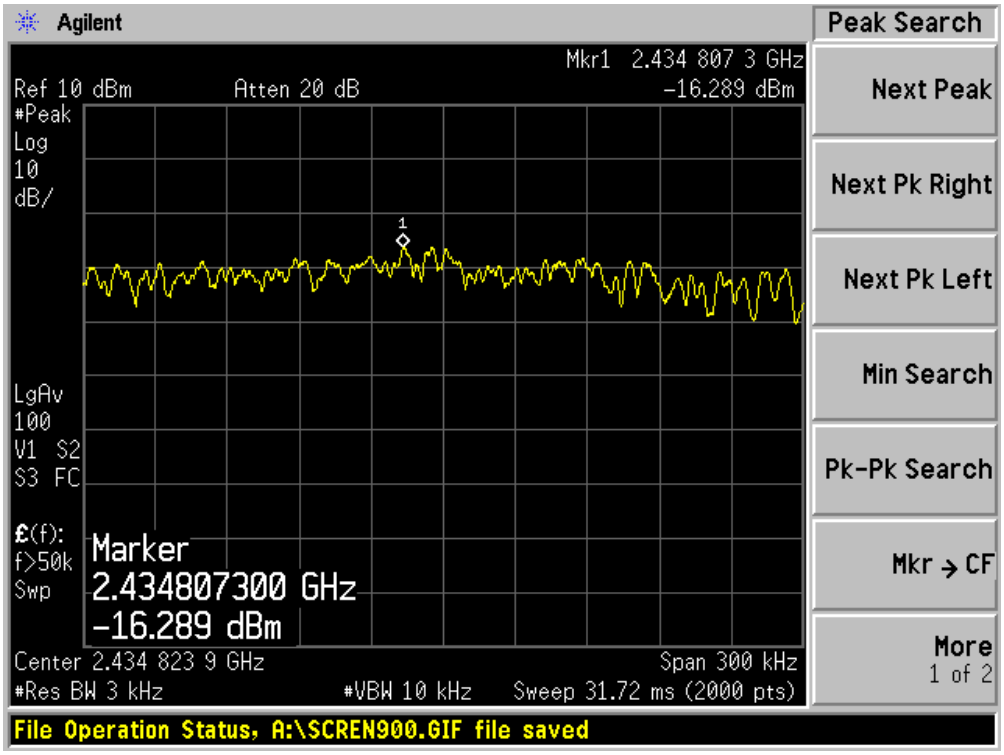
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 2: Transmit by 802.11g (DAC1) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -17.232 | 8 | Pass |
| 06 | 2437 | -16.289 | 8 | Pass |
| 11 | 2462 | -16.475 | 8 | Pass |

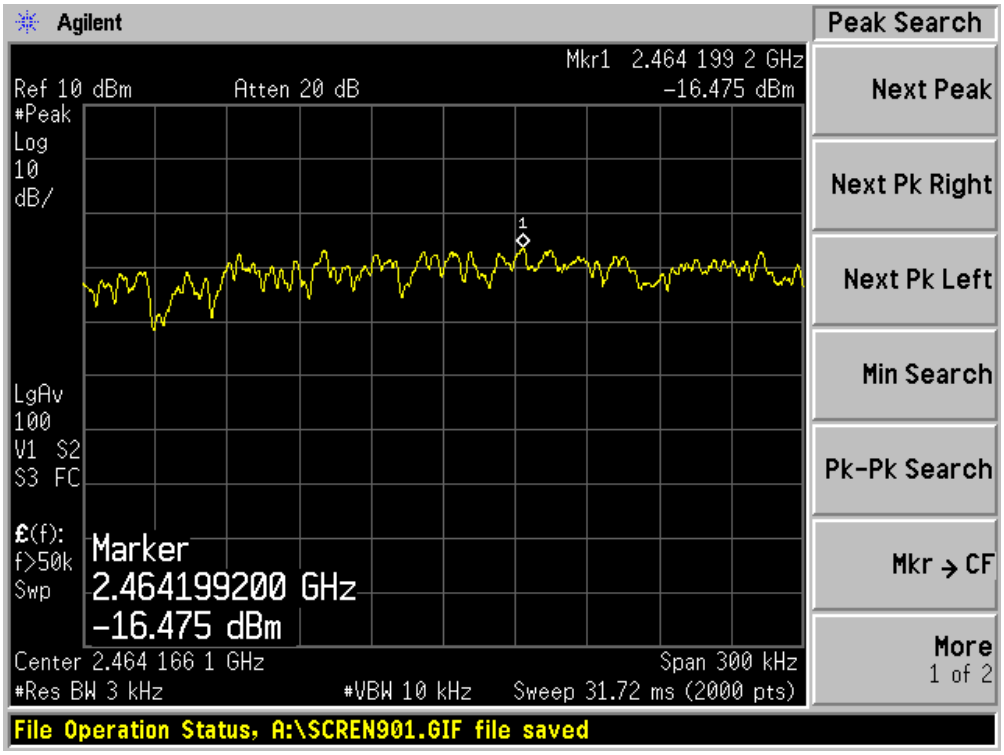
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



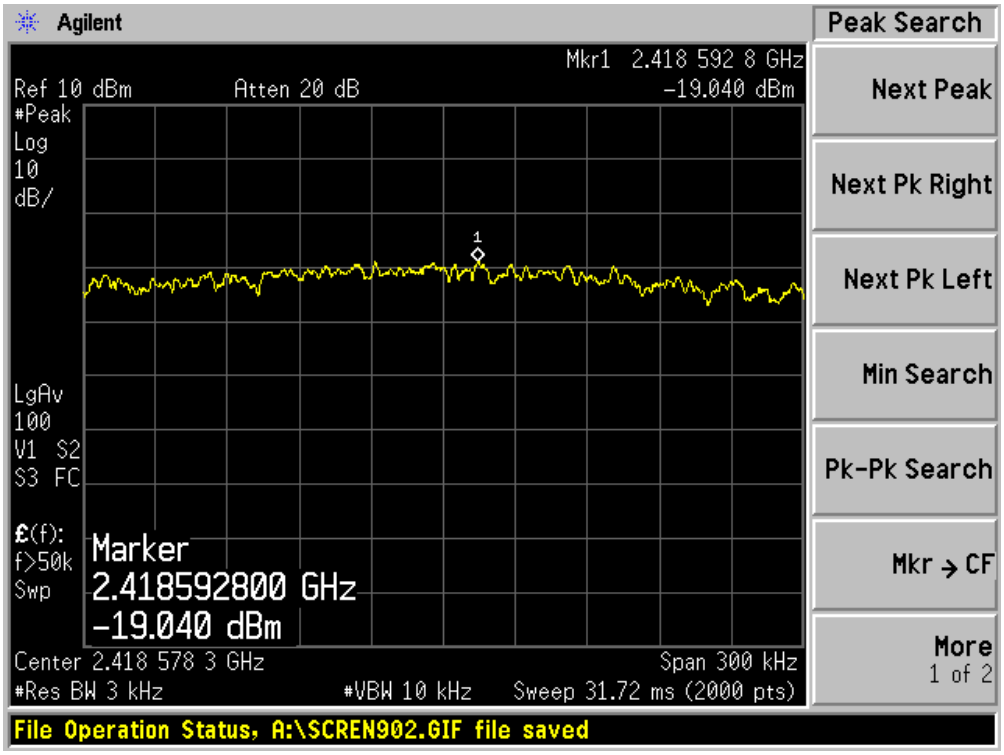

**Channel 11 (2462MHz)**



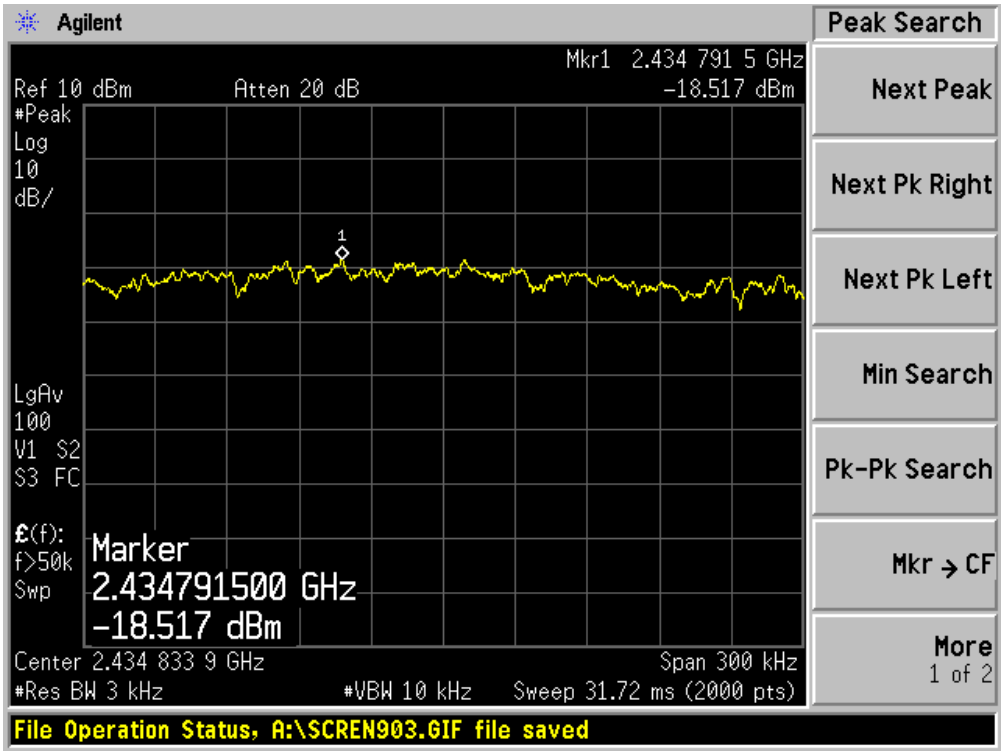
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC1) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 01 | 2412 | -19.040 | 8 | Pass |
| 06 | 2437 | -18.517 | 8 | Pass |
| 11 | 2462 | -18.181 | 8 | Pass |

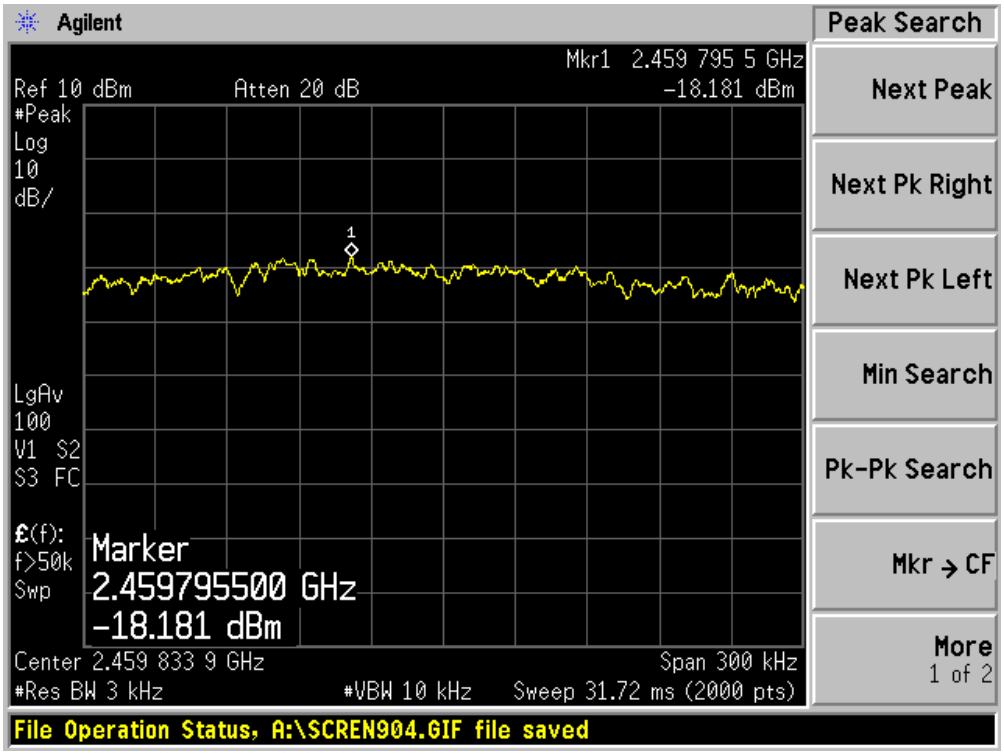
**Channel 01 (2412MHz)**



**Channel 06 (2437MHz)**



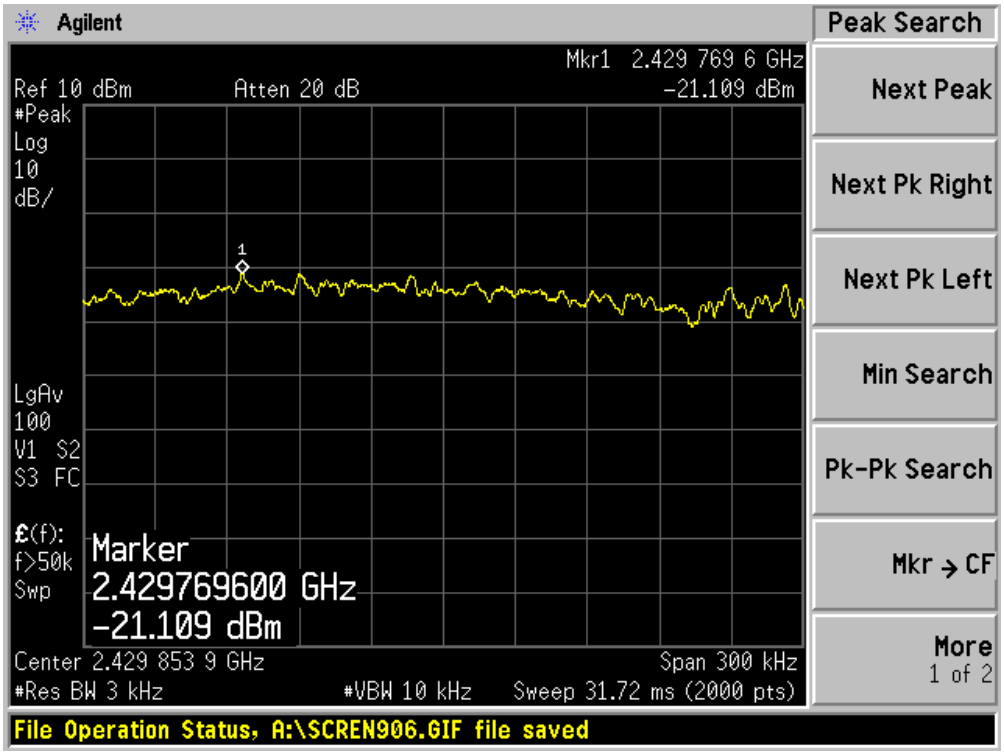

**Channel 11 (2462MHz)**



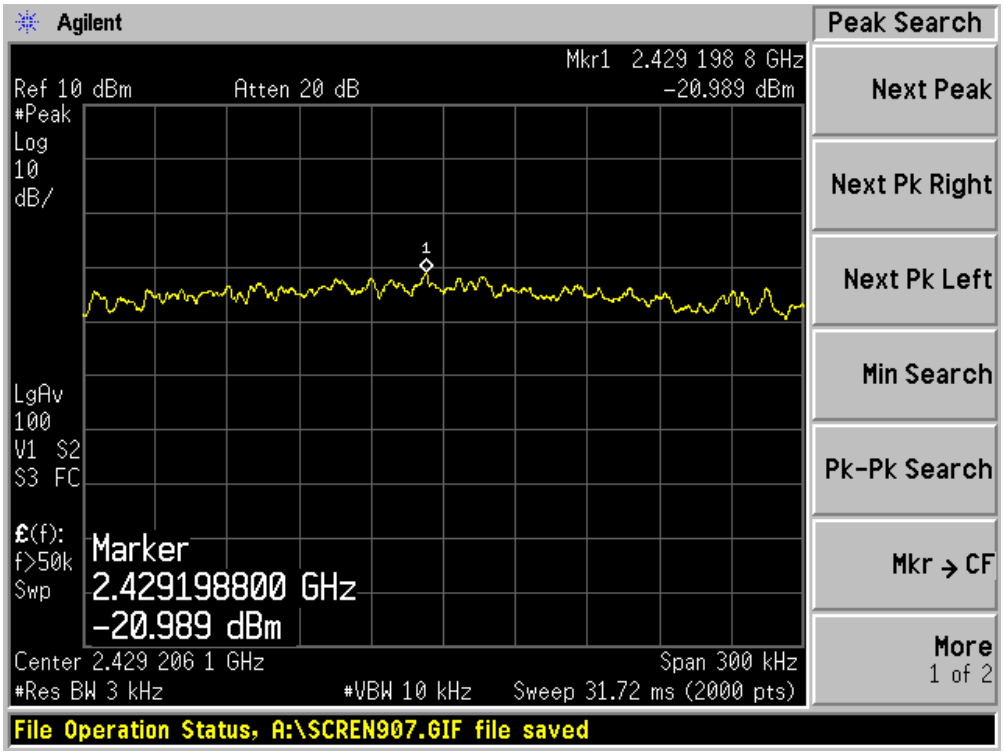
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 4: Transmit by 802.11n (40MHz) (DAC1) |

| Channel No. | Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---|---|---|---|---|
| 03 | 2412 | -21.109 | 8 | Pass |
| 06 | 2437 | -20.989 | 8 | Pass |
| 09 | 2462 | -20.088 | 8 | Pass |

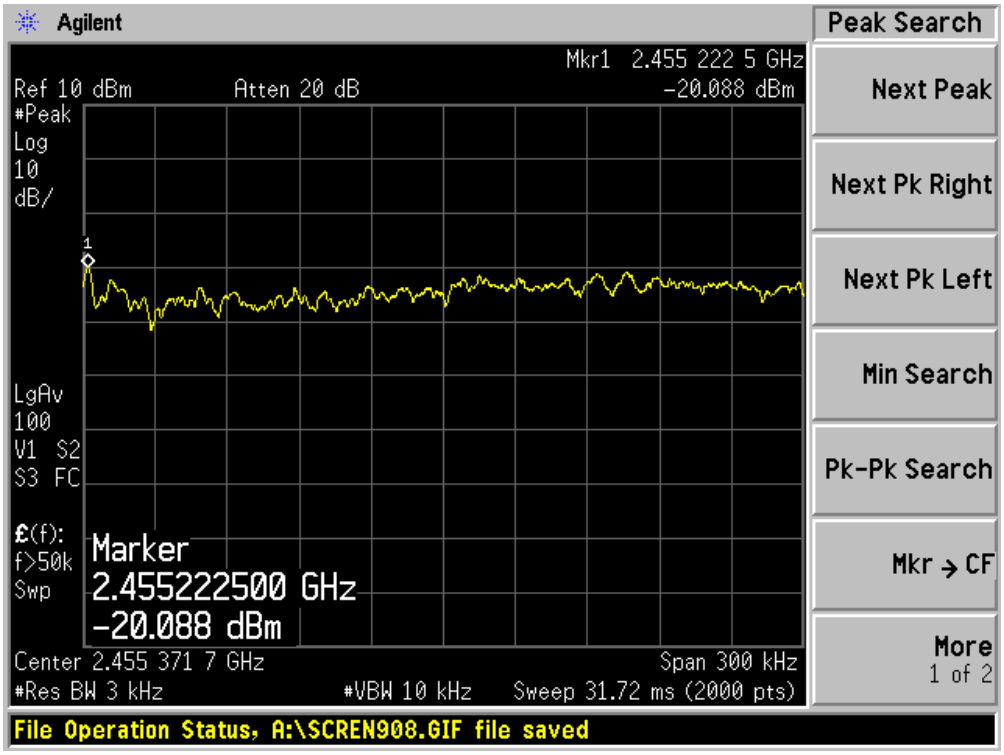
**Channel 03 (2422MHz)**



**Channel 06 (2437MHz)**



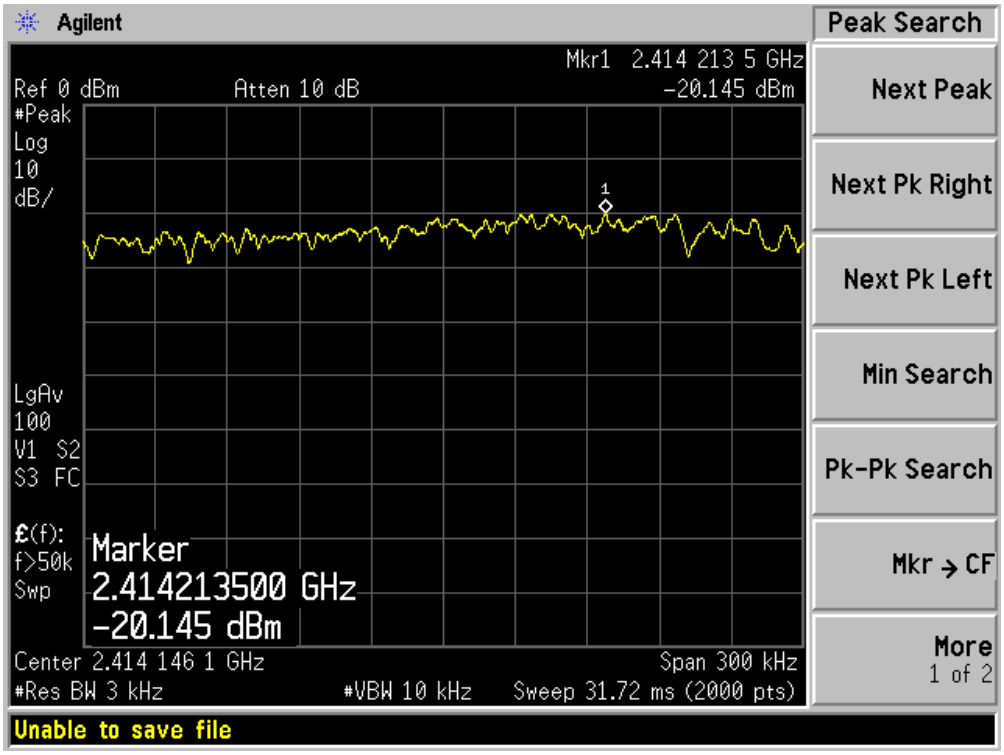

**Channel 09 (2462MHz)**



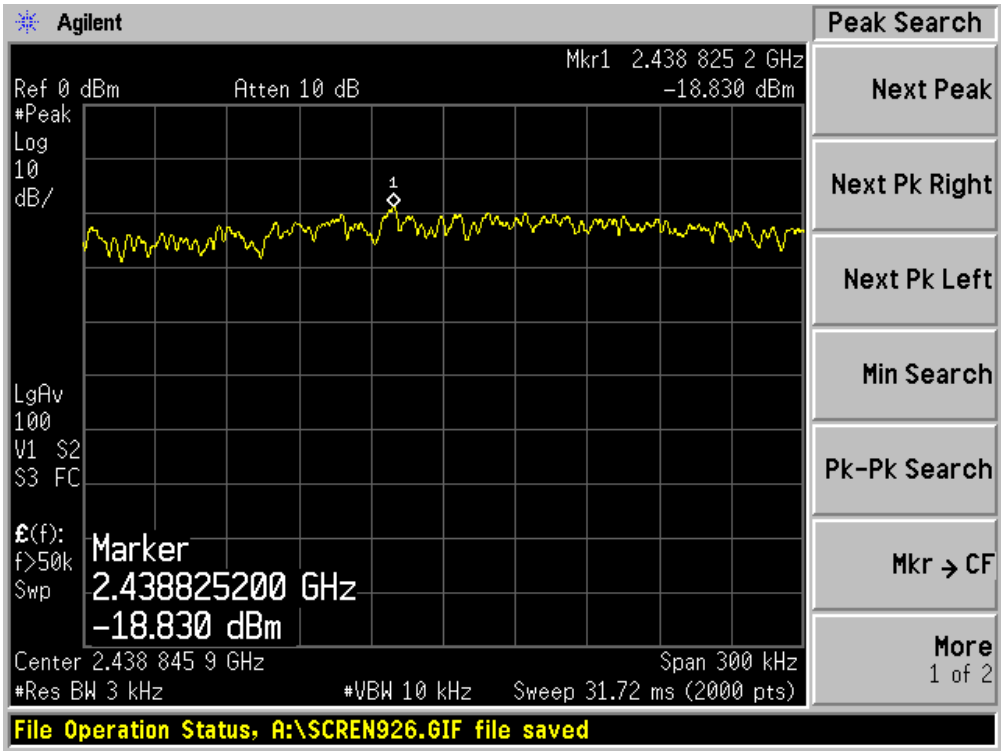
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (20MHz) (DAC0 and DAC1) |

| Channel No. | Frequency (MHz) | Measurement PPSD (dBm) | | Total PPSD (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|
| | | Chain DAC0 | Chain DAC1 | | | |
| 01 | 2412 | -20.145 | -17.914 | -15.88 | 8 | Pass |
| 06 | 2437 | -18.830 | -19.845 | -16.30 | 8 | Pass |
| 11 | 2462 | -18.752 | -19.806 | -16.24 | 8 | Pass |

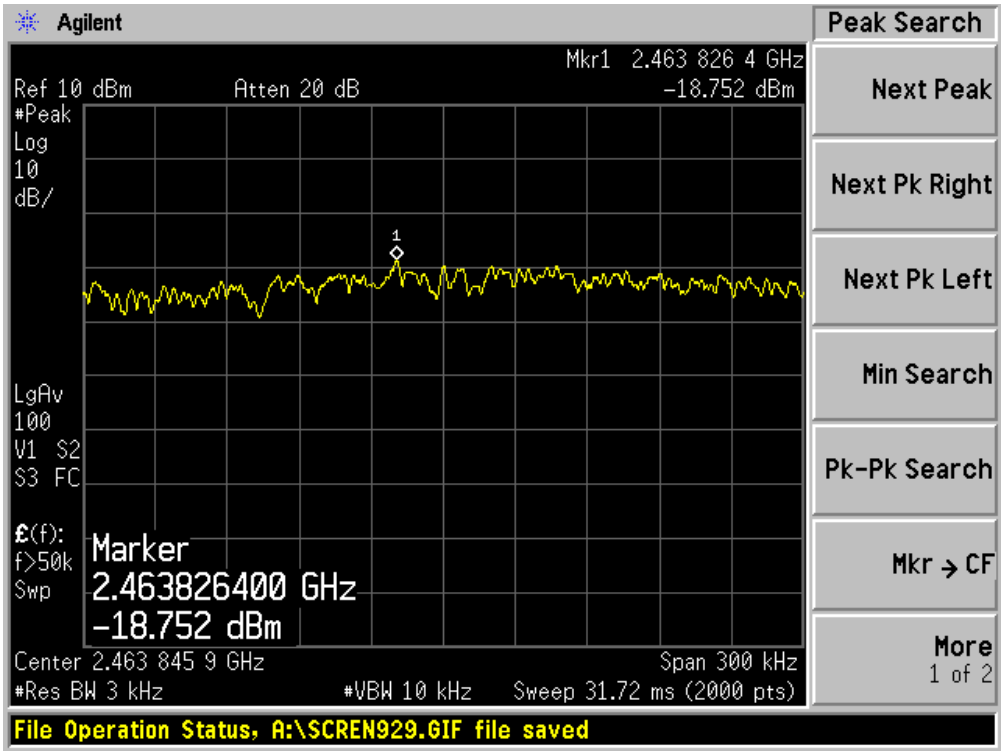
**Channel 01 (2412MHz) – Chain DAC0**



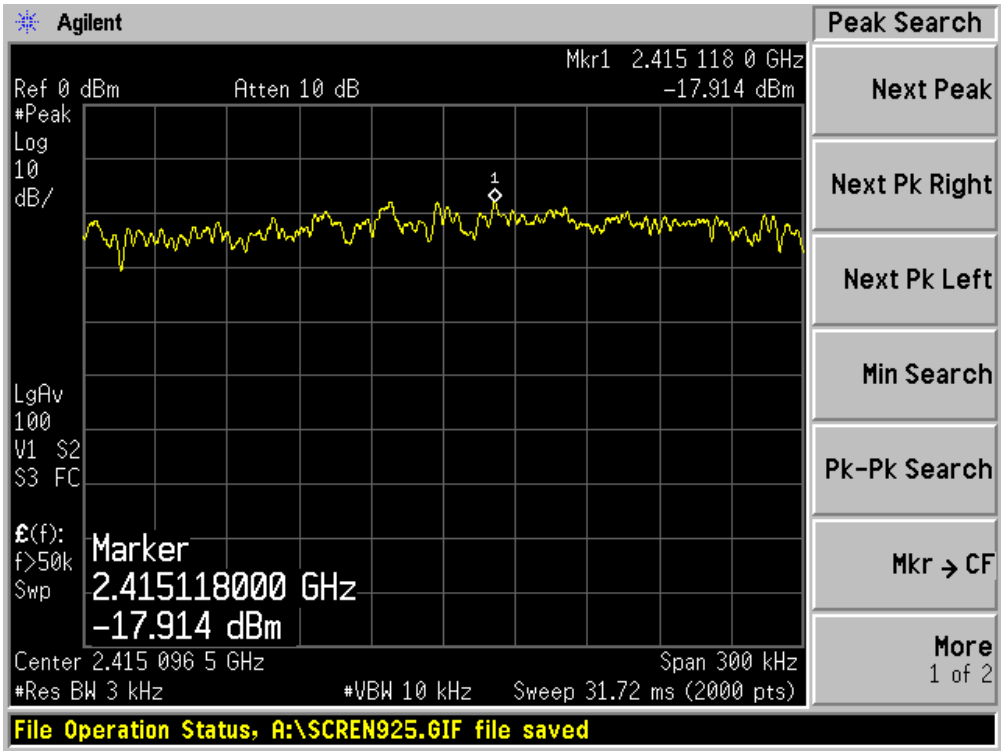
**Channel 06 (2437MHz) – Chain DAC0**



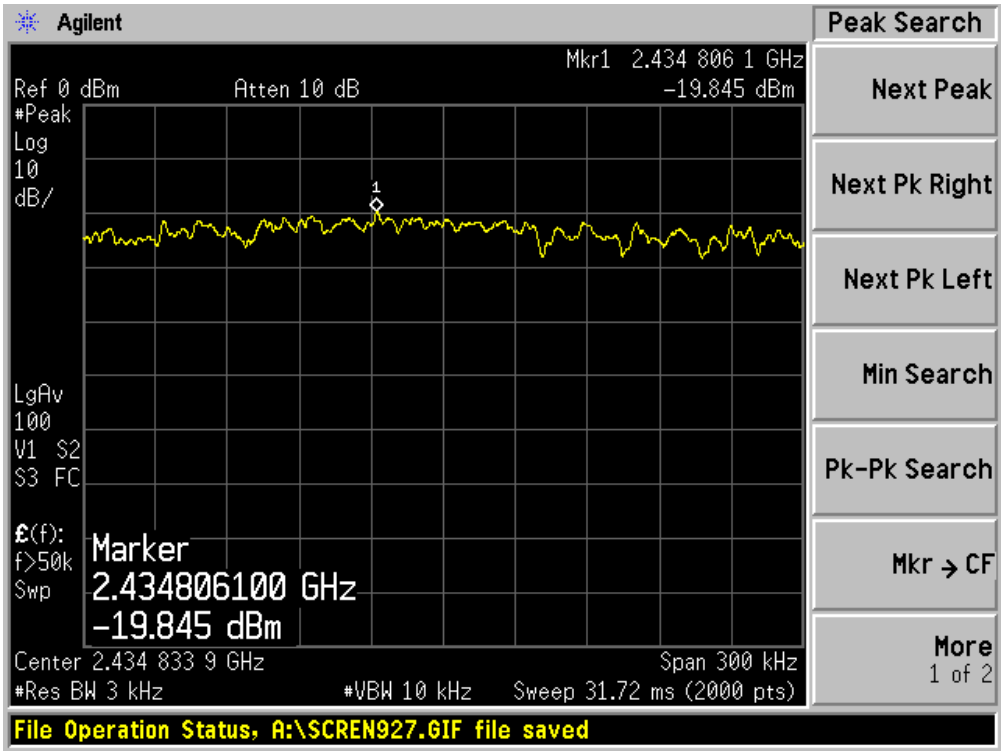

**Channel 11 (2462MHz) – Chain DAC0**



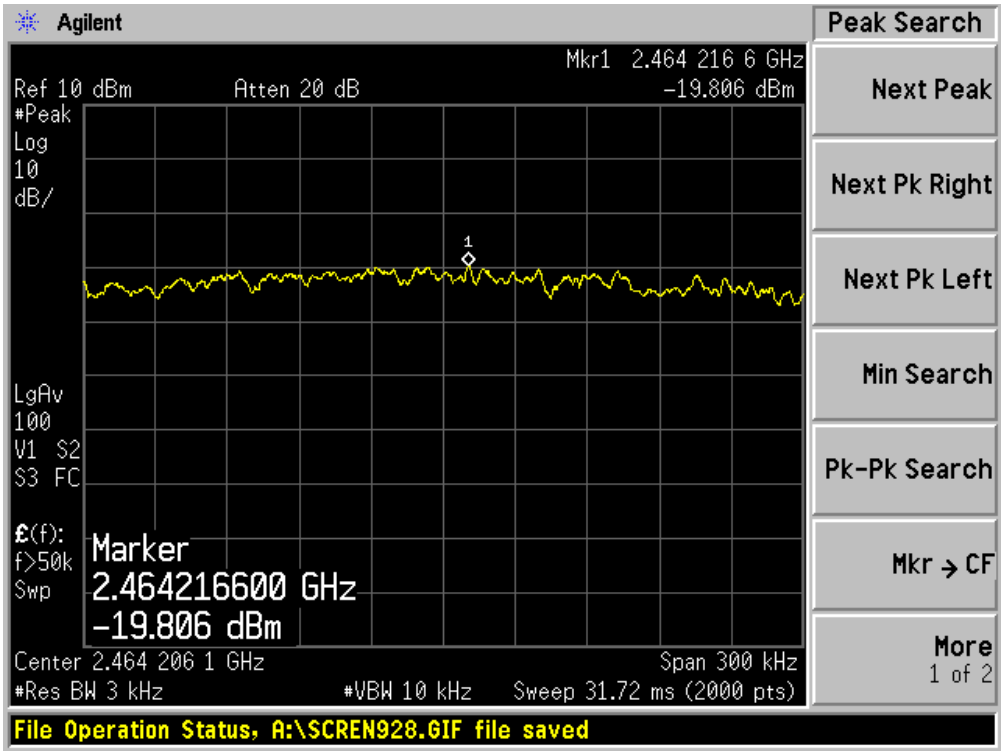
**Channel 01 (2412MHz) – Chain DAC1**




**Channel 06 (2437MHz) – Chain DAC1**



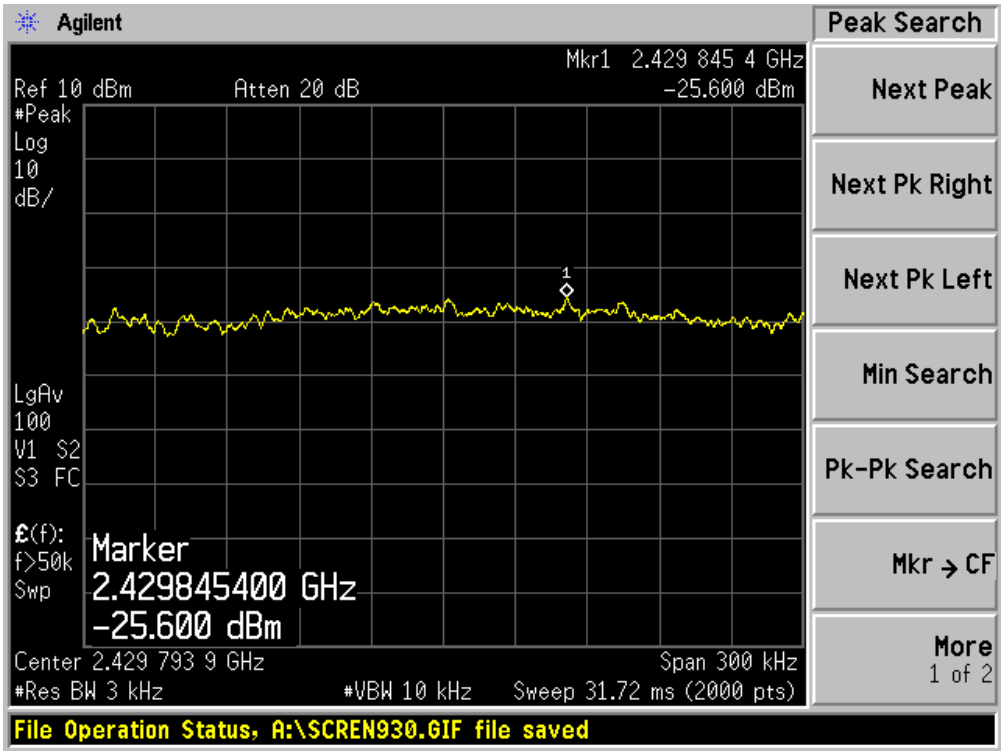
**Channel 11 (2462MHz) – Chain DAC1**



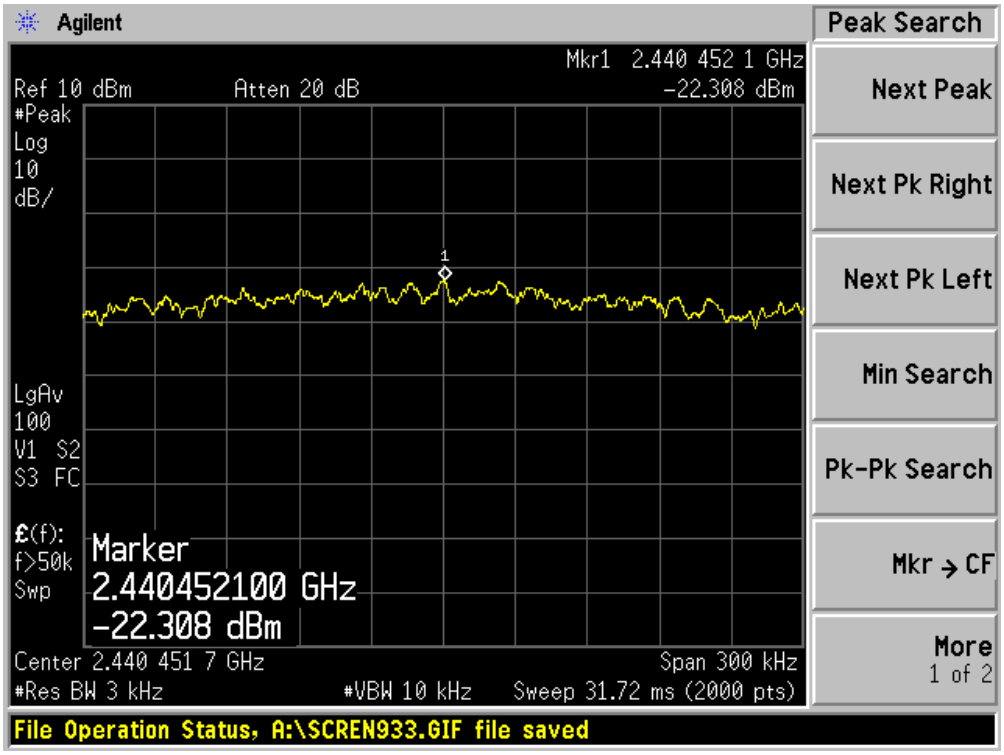
| | | |
|---|---|---|
| Product | : | 802.11n Wireless LAN Module |
| Test Item | : | Power Spectral Density |
| Test Site | : | AC-4 |
| Test Mode | : | Mode 3: Transmit by 802.11n (40MHz) (DAC0 and DAC1) |

| Channel No. | Frequency (MHz) | Measurement PPSD (dBm) | | Total PPSD (dBm) | Limit (dBm) | Result |
|---|---|---|---|---|---|---|
| | | Chain DAC0 | Chain DAC1 | | | |
| 03 | 2422 | -25.600 | -22.369 | -20.68 | 8 | Pass |
| 06 | 2437 | -22.308 | -22.242 | -19.26 | 8 | Pass |
| 09 | 2452 | -23.165 | -21.929 | -19.49 | 8 | Pass |

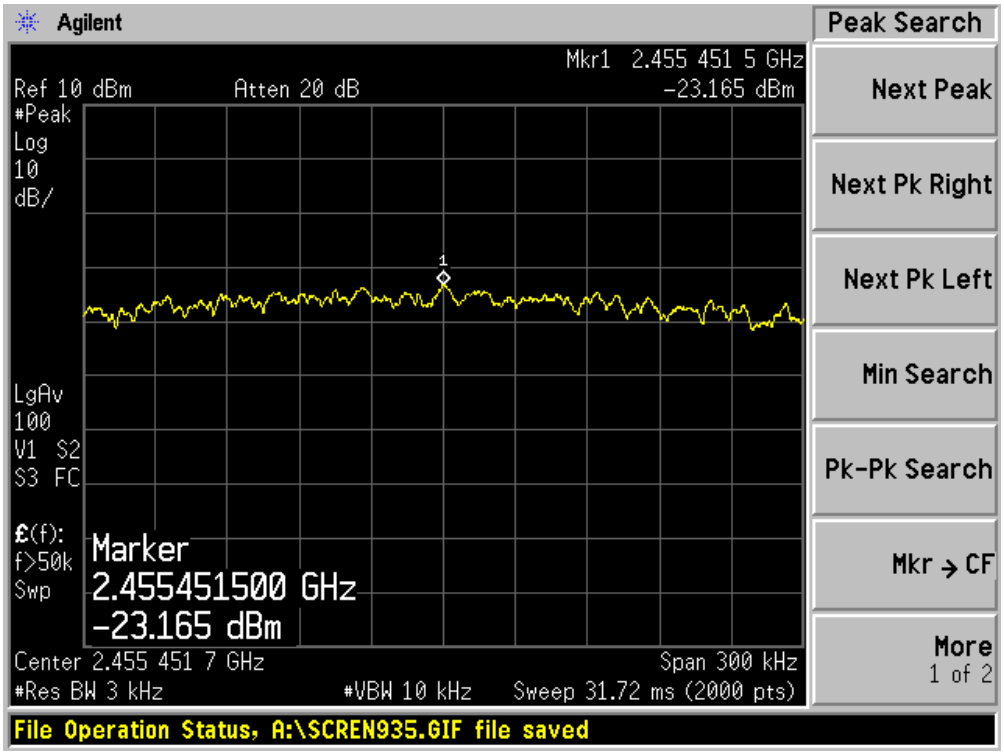
**Channel 03 (2422MHz) – Chain DAC0**



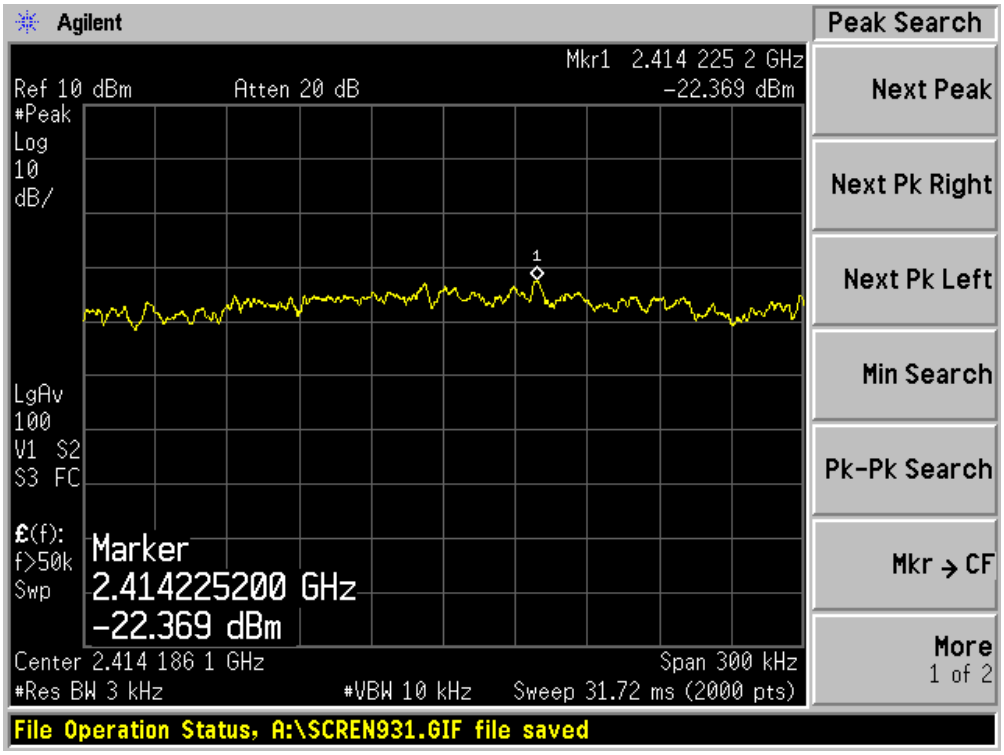
**Channel 06 (2437MHz) – Chain DAC0**



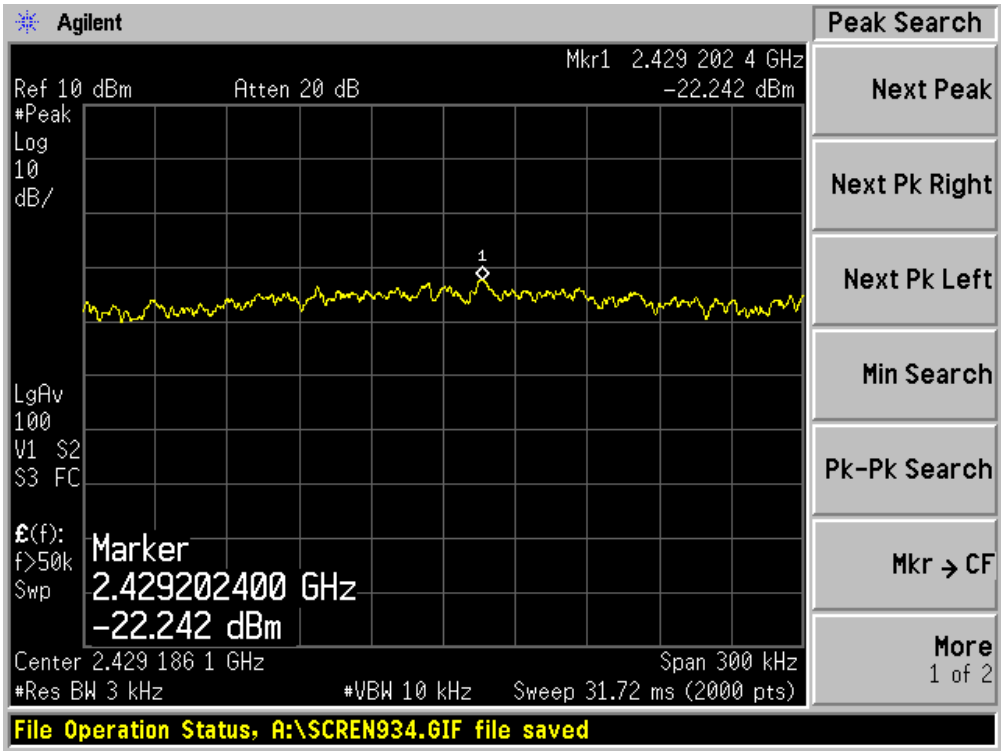

**Channel 09 (2452MHz) – Chain DAC0**



**Channel 03 (2422MHz) – Chain DAC1**




**Channel 06 (2437MHz) – Chain DAC1**



**Channel 09 (2452MHz) – Chain DAC1**