

FCC PART 15C TEST REPORT FOR CERTIFICATION  
On Behalf of

Altai Technologies Limited

Altai A8in (ac) Super WiFi Base Station

Model No.: WA8011NAC-H

FCC ID: UCC-WA8011NAC-H

Prepared for : Altai Technologies Limited

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Report Number : ACS-F16074

Date of Test : Jan.28~Mar.06, 2016

Date of Report : Apr.29, 2016

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**TEST REPORT CERTIFICATION**

Applicant : Altai Technologies Limited  
Manufacturer : Altai Technologies Limited  
Product : Altai A8in (ac) Super WiFi Base Station  
FCC ID : UCC-WA8011NAC-H  
(A) Model No. : WA8011NAC-H  
(B) Power Supply : DC 56V  
(C) Test Voltage : DC 56V From POE Input AC 120V/60Hz

Tested for comply with:  
FCC CFR 47 Part 15 Subpart C: 2014

Test procedure used:  
ANSI C63.10: 2013

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

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

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

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

Date of Test : Jan.28~Mar.06, 2016 Report of date: Apr.29, 2016

Prepared by : Kayli He Reviewed by : Sunny Lu  
Kayli He / Assistant Sunny Lu / Assistant Manager

**AUDIX**<sup>®</sup> 信華科技(深圳)有限公司  
Audix Technology (Shenzhen) Co., Ltd.  
EMC 部門報告專用章

Stamp only for EMC Dept. Report

Signature: David Jin

Approved & Authorized Signer :

David Jin / Manager

## 1. SUMMARY OF STANDARDS AND RESULTS

### 1.1. Description of Standards and Results

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

| EMISSION                                   |                     |         |
|--------------------------------------------|---------------------|---------|
| Description of Test Item                   | Standard            | Results |
| Power Line Conducted Emission              | FCC Part 15: 15.207 | PASS    |
| Radiated Emission                          | FCC Part 15: 15.209 | PASS    |
| Band Edge Compliance                       | FCC Part 15: 15.247 | PASS    |
| Conducted spurious emissions               | FCC Part 15: 15.247 | PASS    |
| 6dB Bandwidth                              | FCC Part 15: 15.247 | PASS    |
| Peak Output Power                          | FCC Part 15: 15.247 | PASS    |
| Power Spectral Density                     | FCC Part 15: 15.247 | PASS    |
| MPE Estimation                             | FCC Part 15: 15.247 | PASS    |
| Antenna requirement                        | FCC Part 15: 15.203 | PASS    |
| N/A is an abbreviation for Not Applicable. |                     |         |

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

|                       |                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product               | : Altai A8in (ac) Super WiFi Base Station                                                                                                                                                                                                                                                                                       |
| Model No.             | : WA8011NAC-H                                                                                                                                                                                                                                                                                                                   |
| FCC ID                | : UCC-WA8011NAC-H                                                                                                                                                                                                                                                                                                               |
| Operation Frequency   | : IEEE 802.11a: 5745MHz—5825MHz<br>IEEE 802.11b: 2412MHz—2462MHz<br>IEEE 802.11g: 2412MHz—2462MHz<br>IEEE 802.11n HT20: 2412MHz—2462MHz; 5745MHz—5825MHz<br>IEEE 802.11n HT40: 2422MHz—2452MHz; 5755MHz—5795MHz<br>IEEE 802.11ac VHT20: 5745MHz—5825MHz<br>IEEE 802.11ac VHT40: 5755MHz—5795MHz<br>IEEE 802.11ac VHT80: 5775MHz |
| Modulation Technology | : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)<br>IEEE 802.11a/g: OFDM(64QAM, 16QAM, QPSK, BPSK)<br>IEEE 802.11ac VHT20, VHT40, VHT80: OFDM(16QAM, 64QAM, 256QAM, QPSK, BPSK)<br>IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM,QPSK,BPSK)                                                                                                  |
| Antenna Assembly Gain | : Sector Antenna, 2.4GHz: 14dBi gain,<br>Panel Antenna, 5GHz: 20dBi gain                                                                                                                                                                                                                                                        |
| Applicant             | : Altai Technologies Limited<br>Units 209, 2/F, Lakeside 2.10 Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong, China                                                                                                                                                                                        |
| Manufacturer          | : Altai Technologies Limited<br>Units 209, 2/F, Lakeside 2.10 Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong, China                                                                                                                                                                                        |
| POE                   | : Manufacturer: FSGREAT;M/N: GRT-560110A<br>INPUT:AC 100-240V 50/60Hz<br>OUTPUT:56V 1100mA                                                                                                                                                                                                                                      |
| Date of Test          | : Jan.28~Mar.06, 2016                                                                                                                                                                                                                                                                                                           |
| Date of Receipt       | : Jan.26, 2016                                                                                                                                                                                                                                                                                                                  |
| Sample Type           | : Prototype production                                                                                                                                                                                                                                                                                                          |

## 2.2. Test Information

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

| Tested mode, channel, and data rate information |                               |             |                    |
|-------------------------------------------------|-------------------------------|-------------|--------------------|
| Mode                                            | data rate<br>(Mbps)(see Note) | Channel     | Frequency<br>(MHz) |
| IEEE 802.11b                                    | 1                             | Low :CH1    | 2412               |
|                                                 | 1                             | Middle: CH6 | 2437               |
|                                                 | 1                             | High: CH11  | 2462               |
| IEEE 802.11g                                    | 6                             | Low :CH1    | 2412               |
|                                                 | 6                             | Middle: CH6 | 2437               |
|                                                 | 6                             | High: CH11  | 2462               |
| IEEE 802.11n HT20                               | MCS0                          | Low :CH1    | 2412               |
|                                                 | MCS0                          | Middle: CH6 | 2437               |
|                                                 | MCS0                          | High: CH11  | 2462               |
| IEEE 802.11n HT40                               | MCS0                          | Low :CH3    | 2422               |
|                                                 | MCS0                          | Middle: CH6 | 2437               |
|                                                 | MCS0                          | High: CH9   | 2452               |

Note: 1. According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

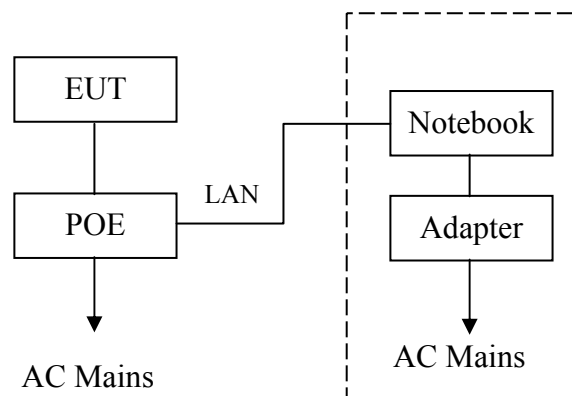
Note: 2. This is 2T2R device use MIMO Technologies, test with two antennas transmit simultaneously, and comply with KDB662911D01 V02r01.

Note: 3. This device contains Four same 2.4GHz RF module, choose the module which has the MAX out power for the test.

## 2.3. Tested Supporting System Details

| No. | Description | ACS No.                                                                                                                                                      | Manufacturer | Model | Serial Number |
|-----|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|---------------|
| 1   | Notebook    | N/A                                                                                                                                                          | DELL         | PP09S | N/A           |
|     |             | Power Cord: Unshielded, Detachable, 1.8m<br>Power Adapter: Manufacturer: DELL, M/N: LA65NS1-00<br>Cable: Unshielded, Detachable, 4.0m(Bond one ferrite core) |              |       |               |

## 2.4. Block diagram of connection between the EUT and simulators



**(EUT: Altai A8in (ac) Super WiFi Base Station)**

## 2.5. Test Facility

### Site Description

|                           |   |                                                                                                                                                     |
|---------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Name of Firm              | : | Audix Technology (Shenzhen) Co., Ltd.<br>No. 6, Ke Feng Rd., 52 Block, Shenzhen<br>Science & Industrial Park, Nantou, Shenzhen,<br>Guangdong, China |
| 3m Anechoic Chamber       | : | Certificated by FCC, USA<br>Registration Number: 90454<br>Valid Date: Dec.30, 2017                                                                  |
| 3m & 10m Anechoic Chamber | : | Certificated by FCC, USA<br>Registration Number: 794232<br>Valid Date: Jul.12, 2016                                                                 |
| EMC Lab.                  | : | Certificated by Industry Canada<br>Registration Number: IC 5183A-1<br>Valid Date: May.14, 2017                                                      |
|                           | : | Certificated by DAkkS, Germany<br>Registration No: D-PL-12151-01-00<br>Valid Date: Dec.15, 2016                                                     |
|                           | : | Accredited by NVLAP, USA<br>NVLAP Code: 200372-0<br>Valid Date: Mar.31, 2017                                                                        |

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

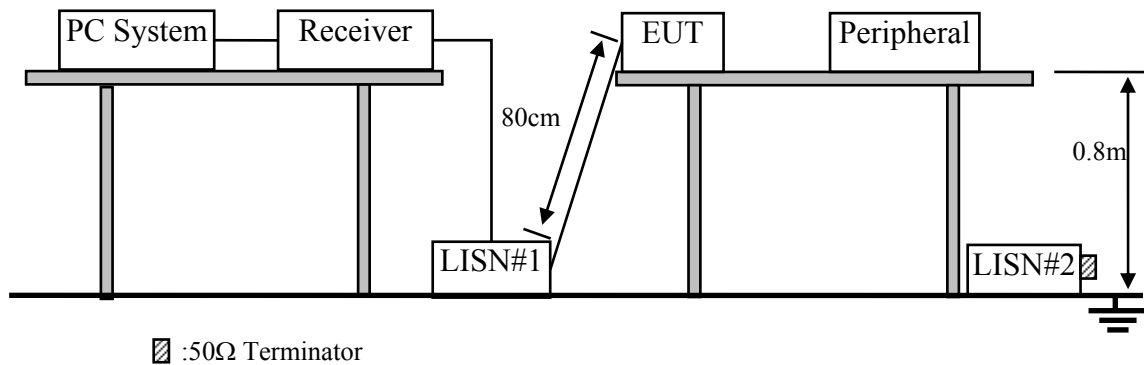
| Test Item                                                             | Uncertainty                       |
|-----------------------------------------------------------------------|-----------------------------------|
| Uncertainty for Conduction emission test<br>in No. 1 Conduction       | 3.4dB (150kHz to 30MHz)           |
| Uncertainty for Radiation Emission test<br>in 3m chamber              | 2.6dB(30~200MHz, Polarization: H) |
|                                                                       | 2.6dB(30~200MHz, Polarization: V) |
|                                                                       | 3.0dB(200M~1GHz, Polarization: H) |
|                                                                       | 2.8dB(200M~1GHz, Polarization: V) |
| Uncertainty for Radiation Emission test in<br>3m chamber (1GHz-18GHz) | 6.3dB (1~6GHz, Distance: 3m)      |
|                                                                       | 5.7dB (6~18GHz, Distance: 3m)     |
| Uncertainty for Radiated Spurious<br>Emission test in RF chamber      | 3.6dB                             |
| Uncertainty for Conduction Spurious<br>emission test                  | 2.0dB                             |
| Uncertainty for Output power test                                     | 0.8dB                             |
| Uncertainty for Bandwidth test                                        | 83kHz                             |
| Uncertainty for DC power test                                         | 0.1%                              |
| Uncertainty for test site temperature and<br>humidity                 | 0.6℃                              |
|                                                                       | 3%                                |

### 3. POWER LINE CONDUCTED EMISSION TEST

#### 3.1. Test Equipments

| Item | Equipment         | Manufacturer    | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|-----------------|-----------|------------|-----------|---------------|
| 1.   | 1# Shielding Room | AUDIX           | N/A       | N/A        | Apr.17,15 | 1 Year        |
| 2.   | Test Receiver     | Rohde & Schwarz | ESCI      | 100842     | Apr.28,15 | 1 Year        |
| 3.   | L.I.S.N.#1        | Rohde & Schwarz | ESH2-Z5   | 100429     | Oct.18,15 | 1 Year        |
| 4.   | L.I.S.N.#2        | Kyoritsu        | K NW-403D | 8-1750-2   | Apr.28,15 | 1 Year        |
| 5.   | Terminator        | Hubersuhner     | 50Ω       | No.1       | Apr.28,15 | 1 Year        |
| 6.   | Terminator        | Hubersuhner     | 50Ω       | No.2       | Apr.28,15 | 1 Year        |
| 7.   | RF Cable          | MIYAZAKI        | 3D-2W     | No.1       | Apr.28,15 | 1 Year        |
| 8.   | Coaxial Switch    | Anritsu         | MP59B     | 6200766906 | Apr.28,15 | 1 Year        |
| 9.   | Test Software     | AUDIX           | e3        | 6.100913a  | N/A       | N/A           |

#### 3.2. Block Diagram of Test Setup



#### 3.3. Power Line Conducted Emission Test Limits

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

Notes: 1. \* Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

#### 3.4. Configuration of EUT on Test

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

##### 3.4.1. Altai A8in (ac) Super WiFi Base Station (EUT)

Model No. : WA8011NAC-H

Serial No. : N/A

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

### 3.5.Operating Condition of EUT

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

3.5.2. Turn on the power of all equipments.

3.5.3. PC runs test software to control EUT work in Tx (WiFi 2.4GHz) mode.

### 3.6.Test Procedure

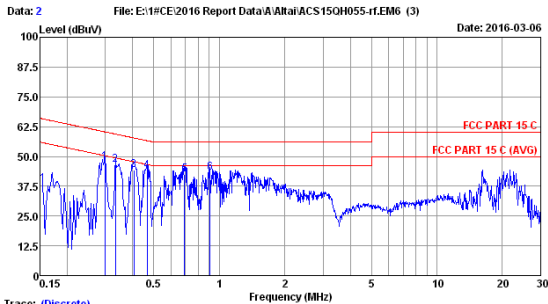
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line is checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.

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

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

### 3.7.Power Line Conducted Emission Test Results

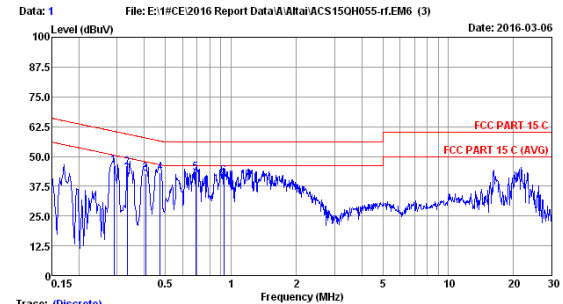
**PASS.** (All emissions not reported below are too low against the prescribed limits.)



Trace: (Discrete)  
 Site no :1# Conduction Data No :2  
 Dis./Lisn :2015 ESH2-25 LINE  
 Limit :FCC PART 15 C  
 Env./Ins. :25.2°C/53% Engineer :Alvis-Wu  
 EUT :Altai A8in (ac) Super WiFi Base Station  
 Power Rating :DC 56V From POE Input AC 120V/60Hz  
 Test Mode :Tx Mode  
 M/N:WA8011NAC-H

| No | Freq (MHz) | LISN Factor (dB) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV) | Limits (dBuV) | Margin (dB) | Remark |
|----|------------|------------------|-----------------|----------------|-----------------------|---------------|-------------|--------|
| 1  | 0.299      | 0.13             | 0.05            | 47.47          | 47.65                 | 60.28         | 12.63       | QP     |
| 2  | 0.334      | 0.13             | 0.06            | 46.21          | 46.40                 | 59.35         | 12.95       | QP     |
| 3  | 0.406      | 0.74             | 0.06            | 43.66          | 44.46                 | 57.73         | 13.27       | QP     |
| 4  | 0.466      | 0.33             | 0.06            | 43.55          | 43.94                 | 56.58         | 12.64       | QP     |
| 5  | 0.694      | 0.15             | 0.06            | 42.23          | 42.44                 | 56.00         | 13.56       | QP     |
| 6  | 0.909      | 0.16             | 0.07            | 42.98          | 43.21                 | 56.00         | 12.79       | QP     |

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



Trace: (Discrete)  
 Site no :1# Conduction Data No :1  
 Dis./Lisn :2015 ESH2-25 NEUTRAL  
 Limit :FCC PART 15 C  
 Env./Ins. :25.2°C/53% Engineer :Alvis-Wu  
 EUT :Altai A8in (ac) Super WiFi Base Station  
 Power Rating :DC 56V From POE Input AC 120V/60Hz  
 Test Mode :Tx Mode  
 M/N:WA8011NAC-H

| No | Freq (MHz) | LISN Factor (dB) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV) | Limits (dBuV) | Margin (dB) | Remark |
|----|------------|------------------|-----------------|----------------|-----------------------|---------------|-------------|--------|
| 1  | 0.289      | 0.13             | 0.05            | 45.82          | 46.00                 | 60.54         | 14.54       | QP     |
| 2  | 0.334      | 0.13             | 0.06            | 45.17          | 45.36                 | 59.35         | 13.99       | QP     |
| 3  | 0.406      | 0.14             | 0.06            | 42.44          | 42.64                 | 57.73         | 15.09       | QP     |
| 4  | 0.474      | 0.14             | 0.06            | 43.06          | 43.26                 | 56.45         | 13.19       | QP     |
| 5  | 0.690      | 0.15             | 0.06            | 43.14          | 43.35                 | 56.00         | 12.65       | QP     |
| 6  | 0.928      | 0.16             | 0.08            | 41.52          | 41.76                 | 56.00         | 14.24       | QP     |

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

## 4. RADIATED EMISSION TEST

### 4.1. Test Equipment

#### 4.1.1. For frequency range 30MHz~1000MHz (In 3m Anechoic Chamber)

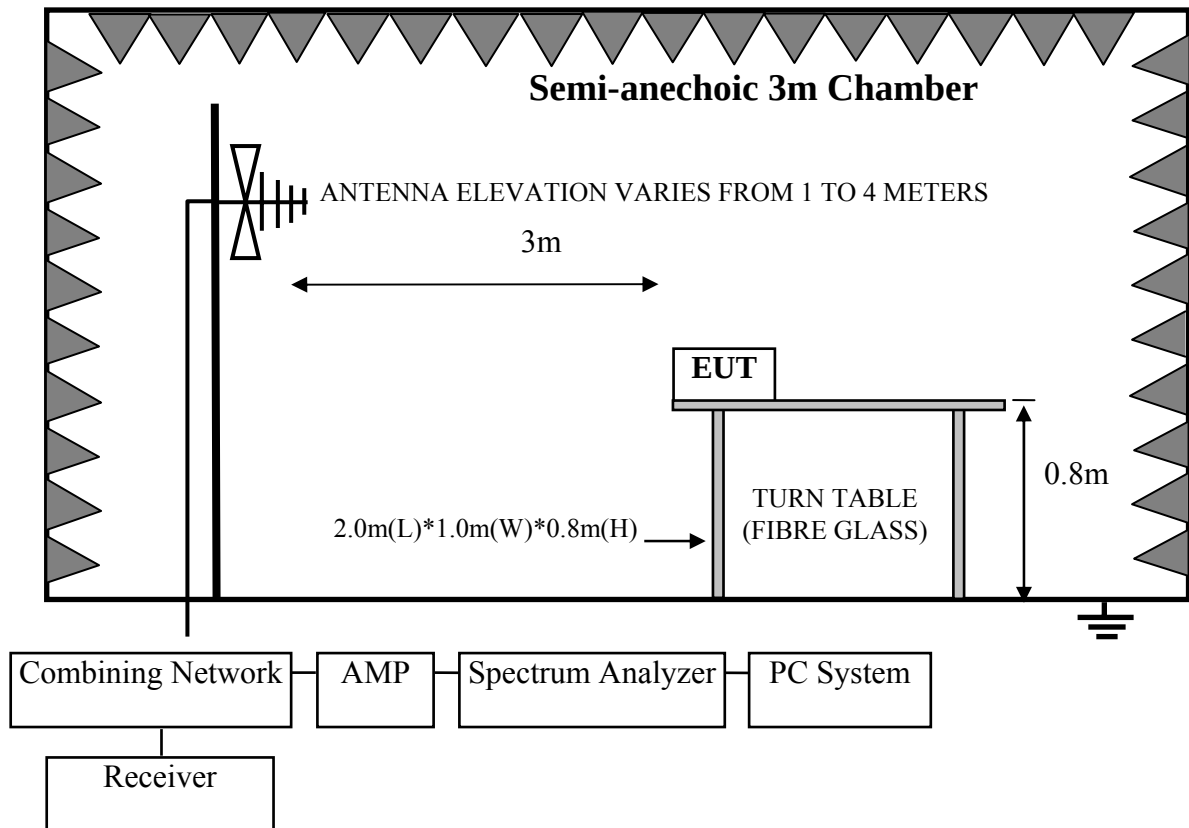
| Item | Equipment      | Manufacturer    | Model No.       | Serial No.      | Last Cal. | Cal. Interval |
|------|----------------|-----------------|-----------------|-----------------|-----------|---------------|
| 1.   | 3#Chamber      | AUDIX           | N/A             | N/A             | Mar.28,15 | 1 Year        |
| 2.   | EMI Spectrum   | Agilent         | E4407B          | MY41440292      | Apr.28,15 | 1 Year        |
| 3.   | Test Receiver  | Rohde & Schwarz | ESVS10          | 834468/011      | Apr.28,15 | 1 Year        |
| 4.   | Amplifier      | HP              | 8447D           | 2648A04738      | Apr.28,15 | 1 Year        |
| 5.   | Bilog Antenna  | TESEQ           | CBL6112D        | 35375           | Jun.30,15 | 1 Year        |
| 6.   | RF Cable       | MIYAZAKI        | CFD400-NW(3.5M) | No.3            | Apr.28,15 | 1 Year        |
| 7.   | RF Cable       | MIYAZAKI        | CFD400-LW(22M)  | No.7            | Apr.28,15 | 1 Year        |
| 8.   | Coaxial Switch | Anritsu         | MP59B           | 6201397222      | Apr.28,15 | 1 Year        |
| 9.   | Test Software  | AUDIX           | e3              | 6.2009-5-21a(n) | N/A       | N/A           |

#### 4.1.2. For frequency range 1GHz~40GHz (In 3m Anechoic Chamber)

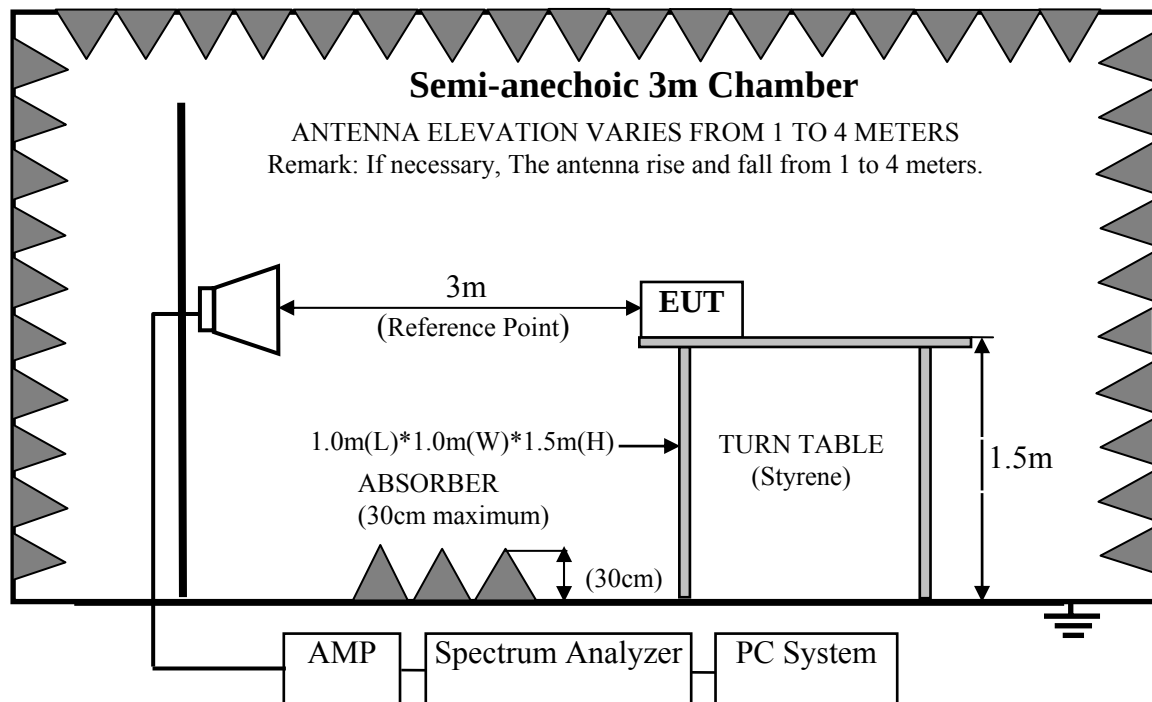
| Item | Equipment         | Manufacturer | Model No.   | Serial No.      | Last Cal. | Cal. Interval |
|------|-------------------|--------------|-------------|-----------------|-----------|---------------|
| 1.   | Spectrum Analyzer | Agilent      | E4446A      | US44300459      | Apr.28,15 | 1 Year        |
| 2.   | Horn Antenna      | ETS          | MCTD 1209   | DRH15F03006     | Feb.03,15 | 1 Year        |
| 3.   | Amplifier         | Agilent      | 8449B       | 3008A02495      | Apr.28,15 | 1 Year        |
| 4.   | RF Cable          | Hubersuhner  | SUCOFLEX106 | 77977/6         | Apr.28,15 | 1 Year        |
| 5.   | Horn Antenna      | ETS          | 3116        | 00060088        | Nov.18.15 | 1 Year        |
| 6.   | Test Software     | AUDIX        | E3          | 6.2009-5-21a(n) | N/A       | N/A           |

## 4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



### 4.3.Radiated Emission Limit

#### 4.3.1. 15.247&209 limits

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

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

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

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

#### 4.3.2. 15.205 Restricted bands of operation

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

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

### 4.4.EUT Configuration on Test

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

#### 4.4.1. Altai A8in (ac) Super WiFi Base Station (EUT)

Model Number : WA8011NAC-H

Serial Number : N/A

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

#### 4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turn on the power of all equipments.
- 4.5.3. Let EUT work in Tx (WiFi 2.4GHz) mode

#### 4.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)\*2.4m(W)\*0.3m(H) on the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and the Horn antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna are set on test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as test photo indicated.

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

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

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

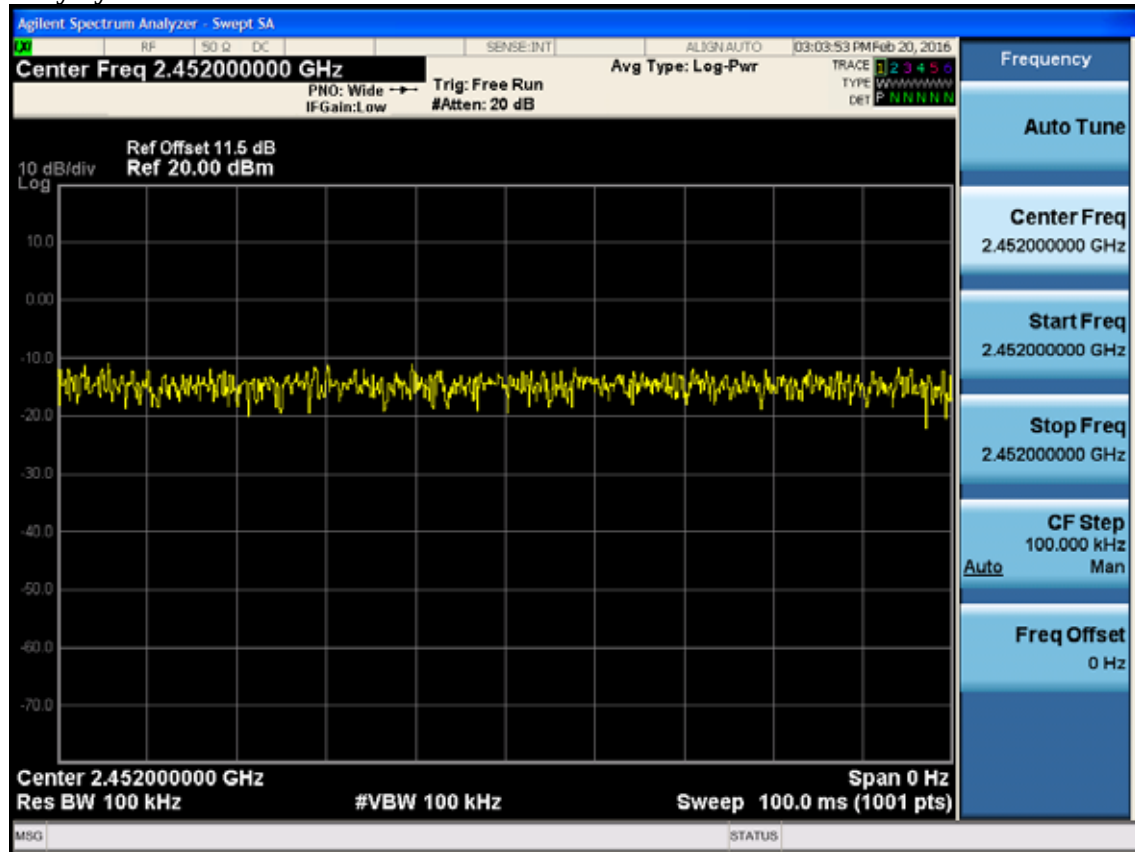
#### 4.7. Radiated Emission Test Results

**PASS.**

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

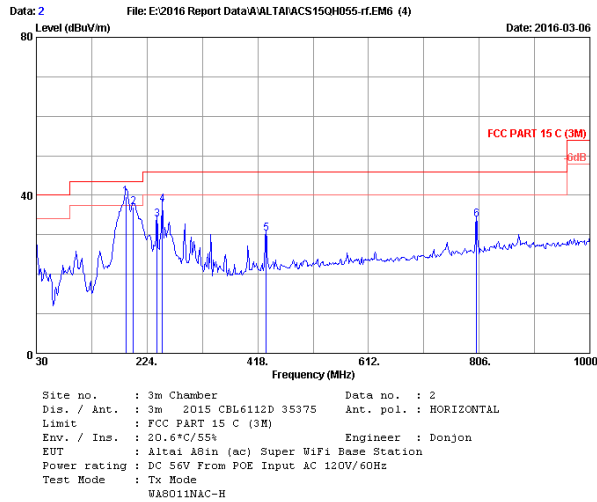
Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

### Duty cycle



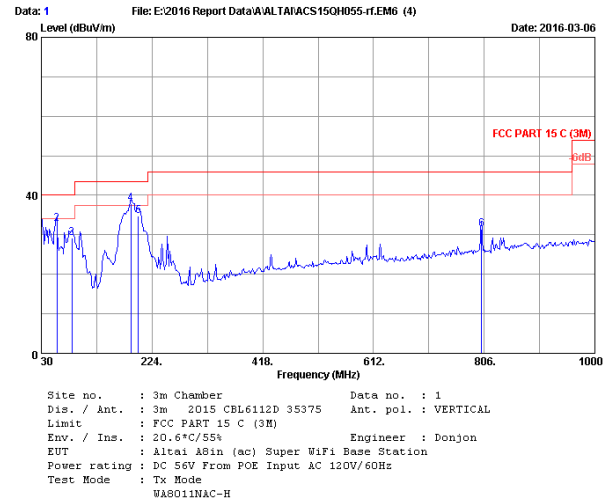
Note: The Duty Cycle is close to 100%.

## Frequency: 30MHz~1GHz



| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 187.140        | 10.21                    | 1.46                  | 27.98             | 39.65                         | 43.50              | 3.85           | QP     |
| 2   | 199.750        | 10.60                    | 1.51                  | 24.96             | 37.07                         | 43.50              | 6.43           | QP     |
| 3   | 241.460        | 12.76                    | 1.65                  | 19.53             | 33.94                         | 46.00              | 12.06          | QP     |
| 4   | 251.160        | 13.57                    | 1.71                  | 22.39             | 37.67                         | 46.00              | 8.33           | QP     |
| 5   | 432.550        | 17.39                    | 2.31                  | 10.53             | 30.23                         | 46.00              | 15.77          | QP     |
| 6   | 801.150        | 21.11                    | 3.26                  | 9.48              | 33.85                         | 46.00              | 12.15          | QP     |

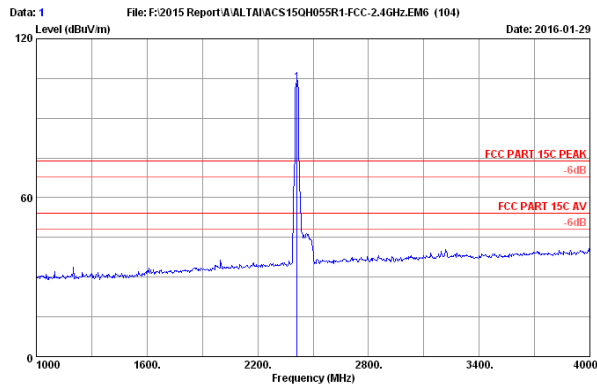
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 30.000         | 20.30                    | 0.51                  | 11.73             | 32.54                         | 40.00              | 7.46           | QP     |
| 2   | 57.160         | 7.64                     | 0.85                  | 24.19             | 32.68                         | 40.00              | 7.32           | QP     |
| 3   | 83.350         | 8.43                     | 1.02                  | 19.83             | 29.28                         | 40.00              | 10.72          | QP     |
| 4   | 187.140        | 10.21                    | 1.46                  | 26.31             | 37.98                         | 43.50              | 5.52           | QP     |
| 5   | 199.750        | 10.60                    | 1.51                  | 22.58             | 34.69                         | 43.50              | 8.81           | QP     |
| 6   | 801.150        | 21.11                    | 3.26                  | 7.00              | 31.37                         | 46.00              | 14.63          | QP     |

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

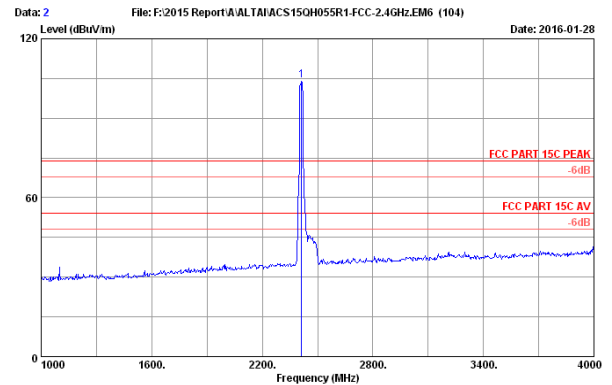
## Frequency: 1GHz~18GHz



Site no. : 3m Chamber Data no. : 1  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai ASin (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2412.000       | 28.02                    | 7.35                  | 36.62                 | 104.64            | 103.39                        | 74.00              | -29.39         | Peak   |

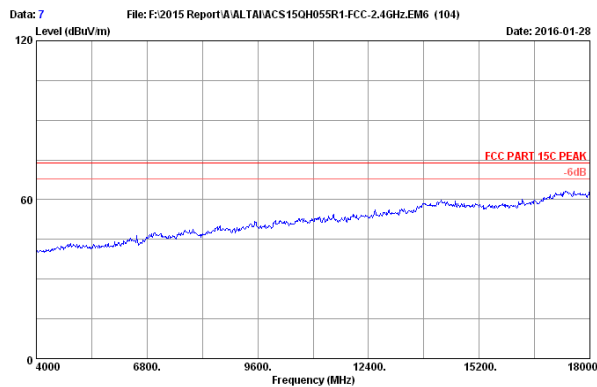
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -AMP Factor  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



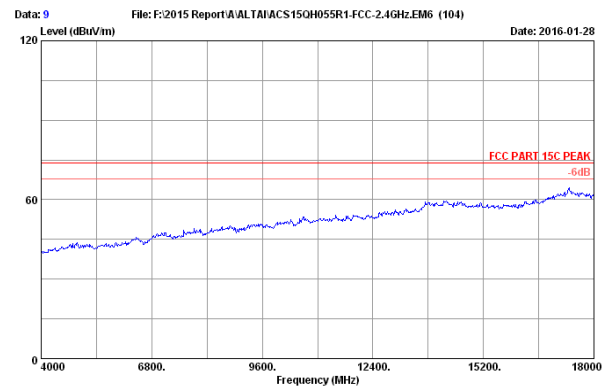
Site no. : 3m Chamber Data no. : 2  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai ASin (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2412.000       | 28.02                    | 7.35                  | 36.62                 | 105.58            | 104.33                        | 74.00              | -30.33         | Peak   |

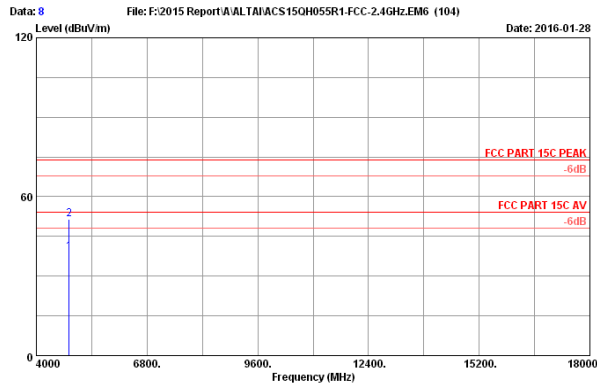
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -AMP Factor  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



Site no. : 3m Chamber Data no. : 7  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai ASin (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H



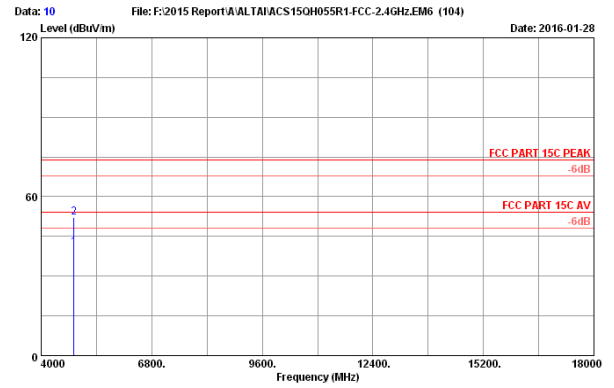
Site no. : 3m Chamber Data no. : 9  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai ASin (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 8  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 31.59             | 39.24                         | 54.00              | 14.76          | Average |
| 2   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 43.85             | 51.50                         | 74.00              | 22.50          | Peak    |

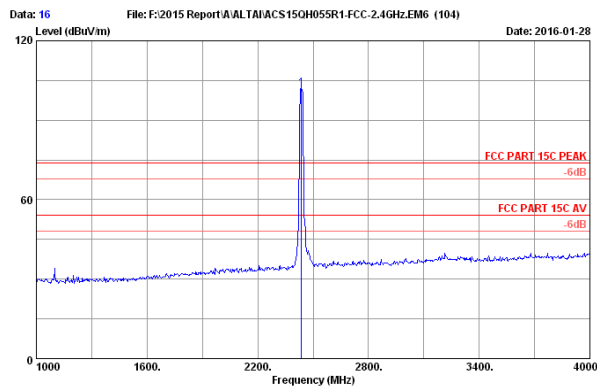
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 10  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 33.15             | 40.80                         | 54.00              | 13.20          | Average |
| 2   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 44.56             | 52.21                         | 74.00              | 21.79          | Peak    |

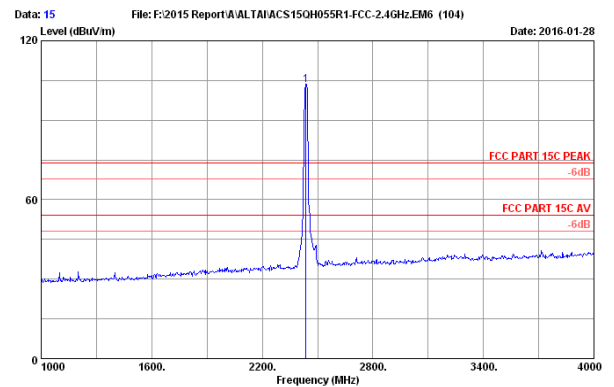
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 16  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2437.000       | 28.07                    | 7.39                  | 36.61                 | 103.08            | 101.93                        | 74.00              | -27.93         | Peak   |

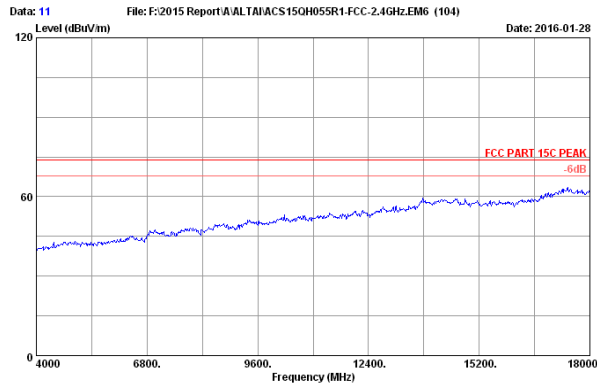
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



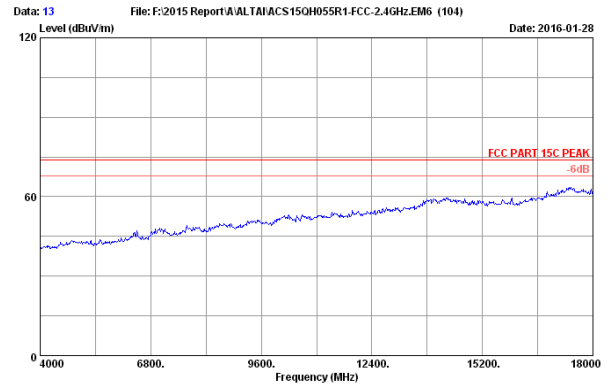
Site no. : 3m Chamber Data no. : 15  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2437.000       | 28.07                    | 7.39                  | 36.61                 | 104.43            | 103.28                        | 74.00              | -29.28         | Peak   |

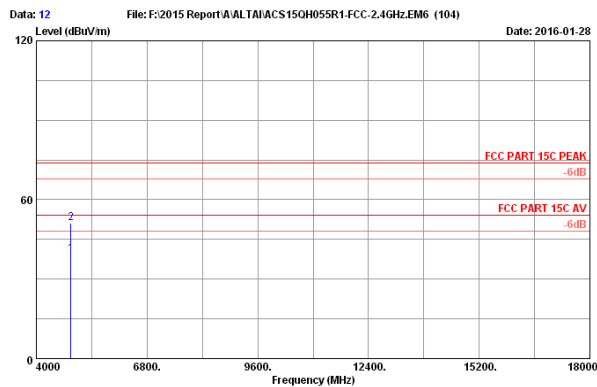
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 11  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2437Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 13  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2437Hz Tx  
 WA8011NAC-H

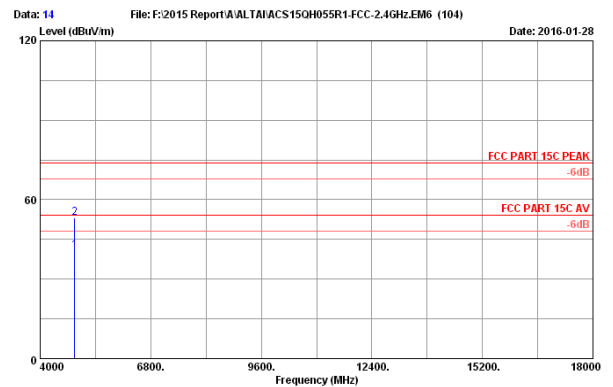


Site no. : 3m Chamber Data no. : 12  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2437Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4874.000 | 33.80 | 9.49 | 35.51 | 31.69 | 39.47 | 54.00 | 14.53 | Average |
| 2 | 4874.000 | 33.80 | 9.49 | 35.51 | 43.26 | 51.04 | 74.00 | 22.96 | Peak    |

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

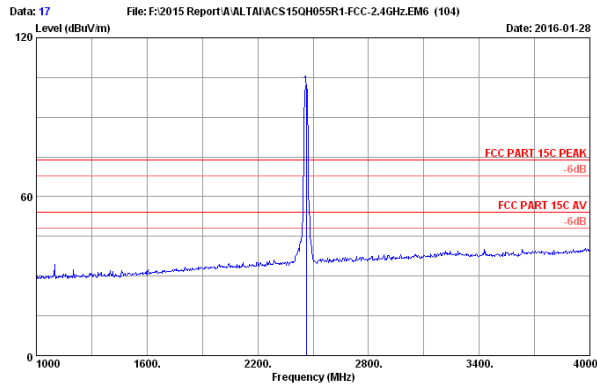


Site no. : 3m Chamber Data no. : 14  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2437Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4874.000 | 33.80 | 9.49 | 35.51 | 32.88 | 40.66 | 54.00 | 13.34 | Average |
| 2 | 4874.000 | 33.80 | 9.49 | 35.51 | 45.26 | 53.04 | 74.00 | 20.96 | Peak    |

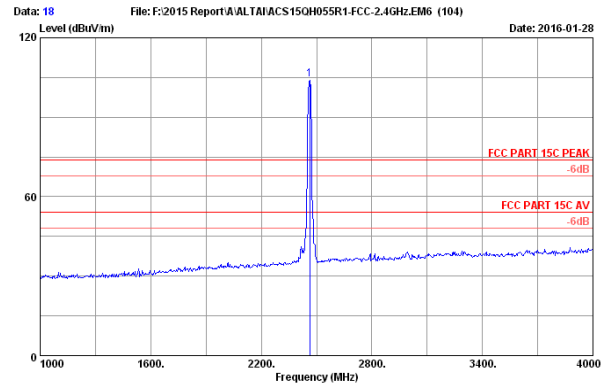
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 17  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2462.000       | 28.12                    | 7.43                  | 36.60                 | 102.59            | 101.54                        | 74.00              | -27.54         | Peak   |

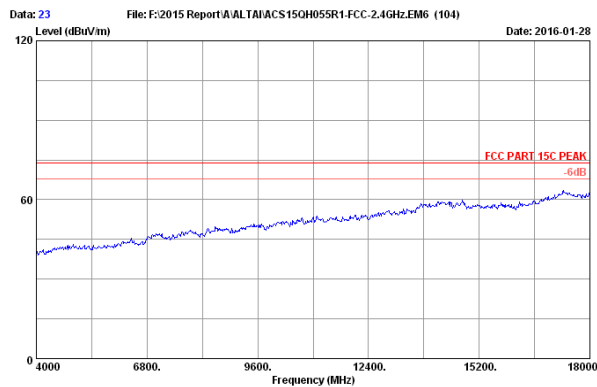
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



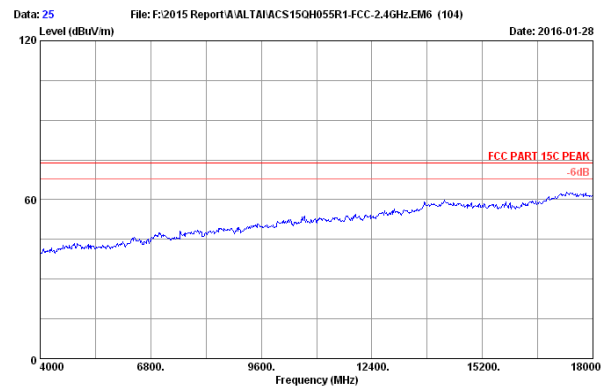
Site no. : 3m Chamber Data no. : 18  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2462.000       | 28.12                    | 7.43                  | 36.60                 | 105.24            | 104.19                        | 74.00              | -30.19         | Peak   |

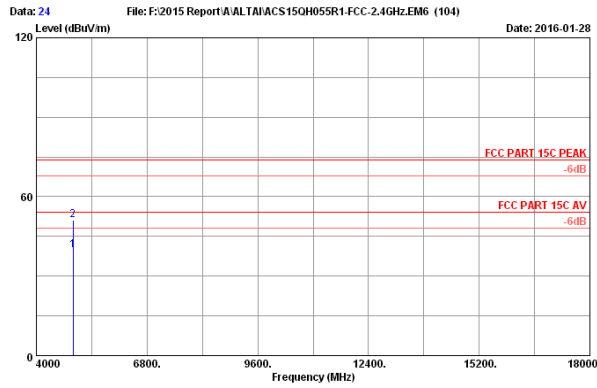
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 23  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H



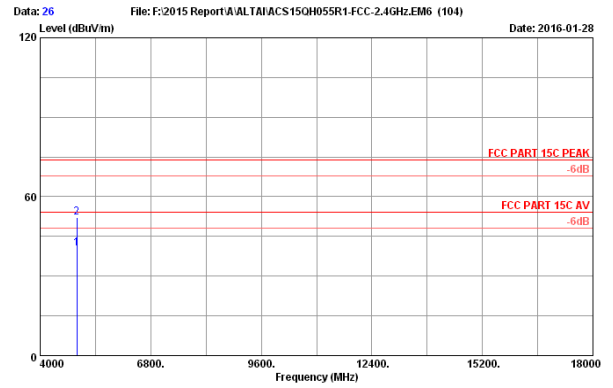
Site no. : 3m Chamber Data no. : 25  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 24  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 32.03             | 39.94                         | 54.00              | 14.06          | Average |
| 2   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 43.11             | 51.02                         | 74.00              | 22.98          | Peak    |

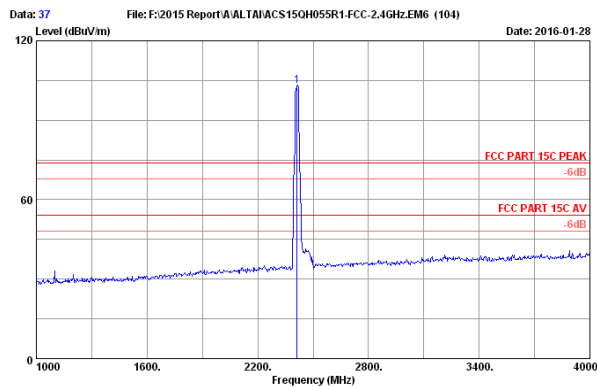
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 26  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 32.55             | 40.46                         | 54.00              | 13.54          | Average |
| 2   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 44.25             | 52.16                         | 74.00              | 21.84          | Peak    |

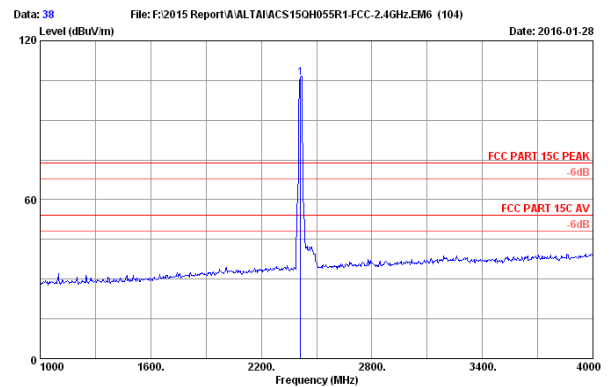
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 37  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2412.000       | 28.02                    | 7.35                  | 36.62                 | 104.27            | 103.02                        | 74.00              | -29.02         | Peak   |

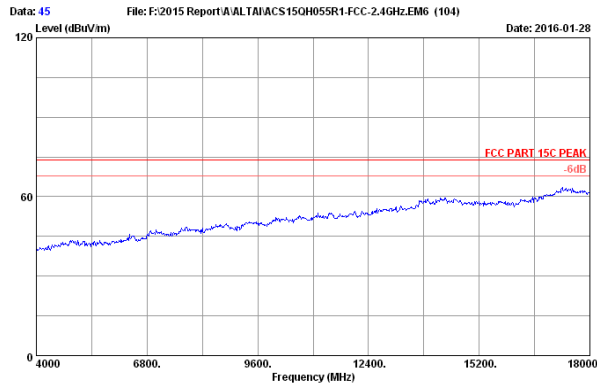
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



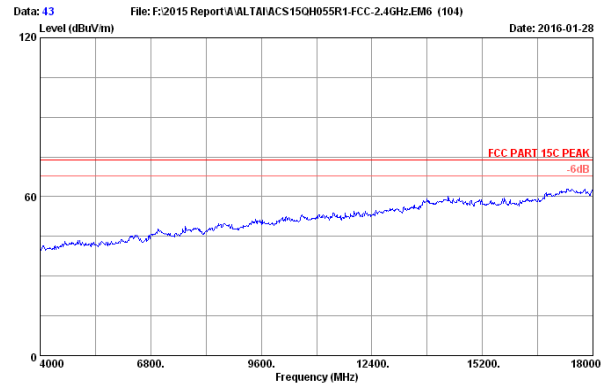
Site no. : 3m Chamber Data no. : 38  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2412.000       | 28.02                    | 7.35                  | 36.62                 | 107.27            | 106.02                        | 74.00              | -32.02         | Peak   |

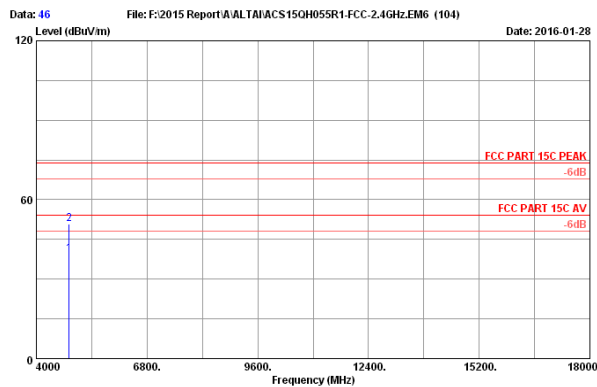
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 45  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 43  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

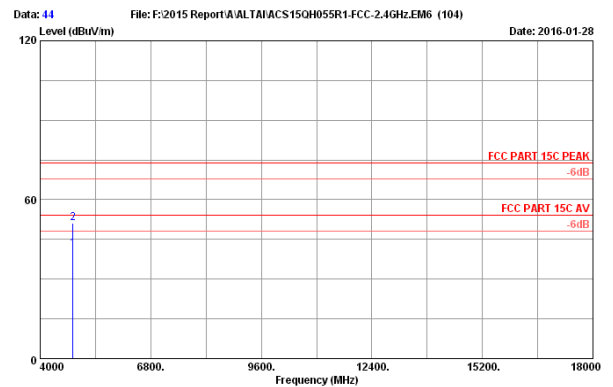


Site no. : 3m Chamber Data no. : 46  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4824.000 | 33.72 | 9.46 | 35.53 | 31.65 | 39.30 | 54.00 | 14.70 | Average |
| 2 | 4824.000 | 33.72 | 9.46 | 35.53 | 43.12 | 50.77 | 74.00 | 23.23 | Peak    |

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

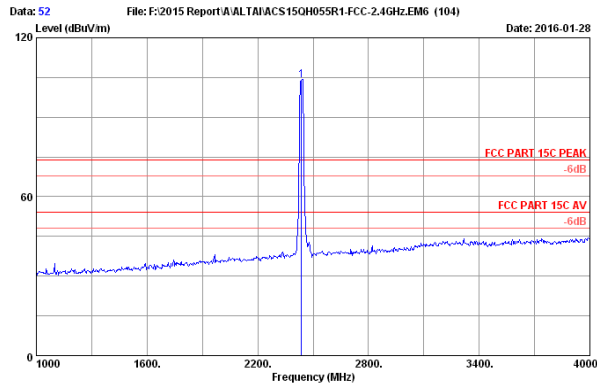


Site no. : 3m Chamber Data no. : 44  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4824.000 | 33.72 | 9.46 | 35.53 | 33.89 | 41.54 | 54.00 | 12.46 | Average |
| 2 | 4824.000 | 33.72 | 9.46 | 35.53 | 43.65 | 51.30 | 74.00 | 22.70 | Peak    |

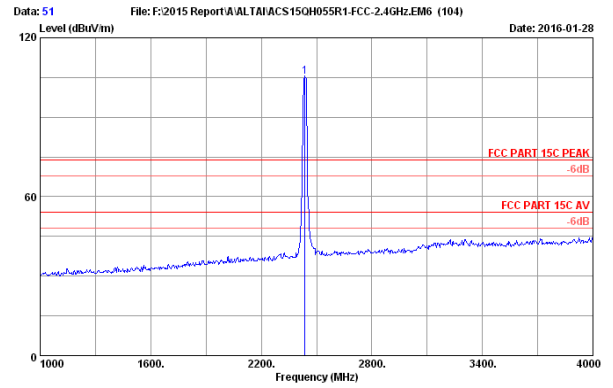
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 52  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2437Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2437.000    | 28.07              | 7.39            | 36.61           | 105.22         | 104.07                  | 74.00           | -30.07      | Peak   |

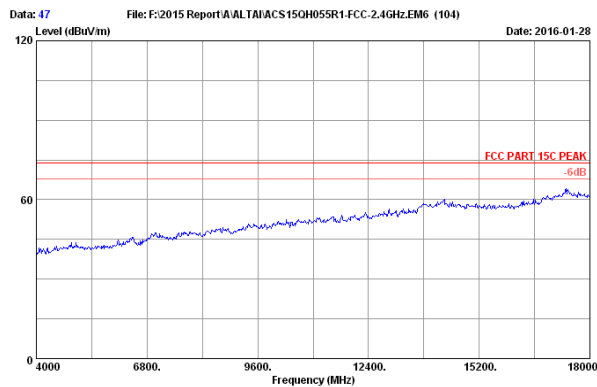
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



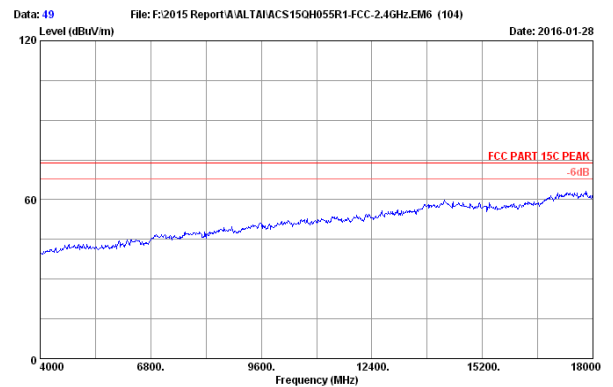
Site no. : 3m Chamber Data no. : 51  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2437Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2437.000    | 28.07              | 7.39            | 36.61           | 106.55         | 105.40                  | 74.00           | -31.40      | Peak   |

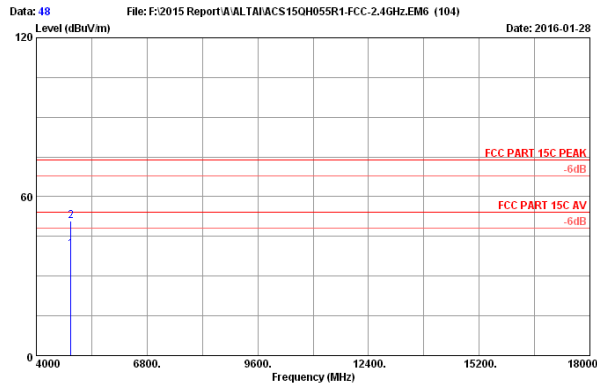
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 47  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2437Hz Tx  
 WA8011NAC-H



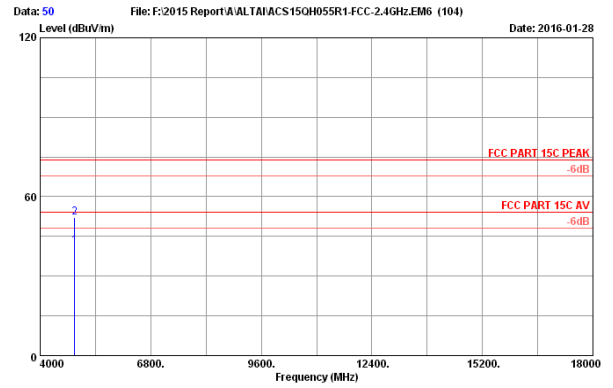
Site no. : 3m Chamber Data no. : 49  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2437Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 48  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 32.24             | 40.02                         | 54.00              | 13.98          | Average |
| 2   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 43.07             | 50.85                         | 74.00              | 23.15          | Peak    |

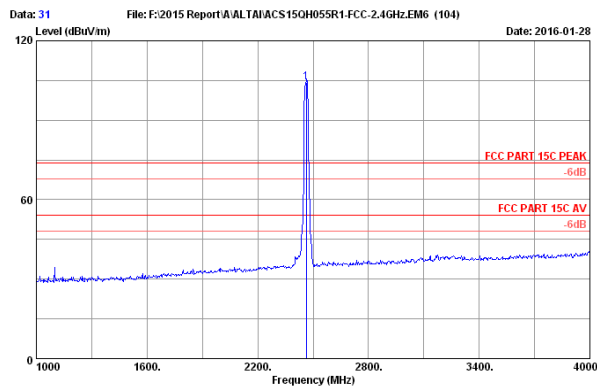
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 50  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 33.67             | 41.45                         | 54.00              | 12.55          | Average |
| 2   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 44.35             | 52.13                         | 74.00              | 21.87          | Peak    |

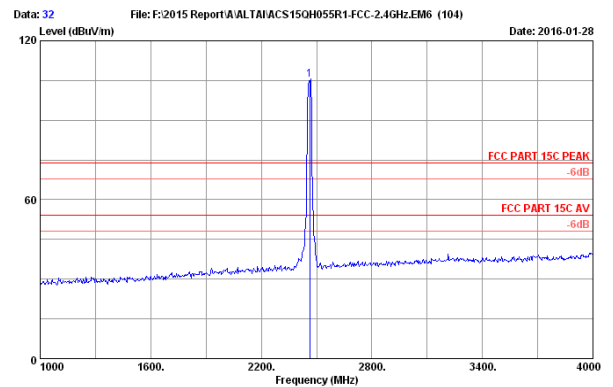
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 31  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2462.000       | 28.12                    | 7.43                  | 36.60                 | 105.24            | 104.19                        | 74.00              | -30.19         | Peak   |

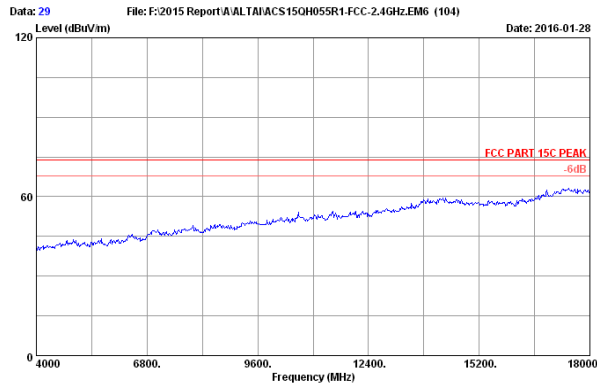
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



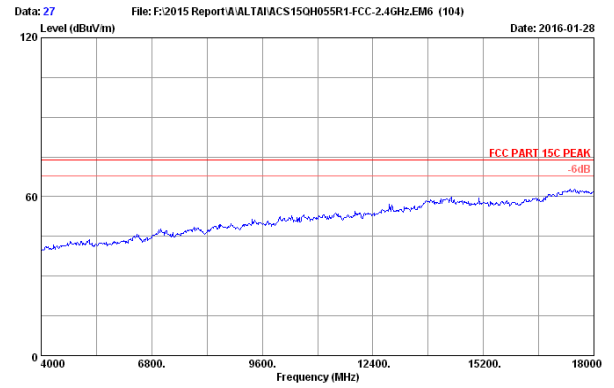
Site no. : 3m Chamber Data no. : 32  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2462.000       | 28.12                    | 7.43                  | 36.60                 | 106.27            | 105.22                        | 74.00              | -31.22         | Peak   |

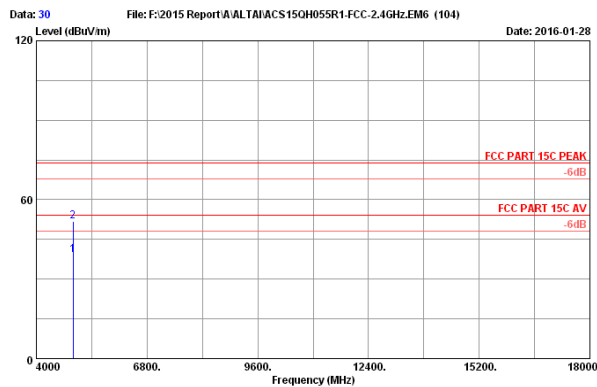
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 29  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H



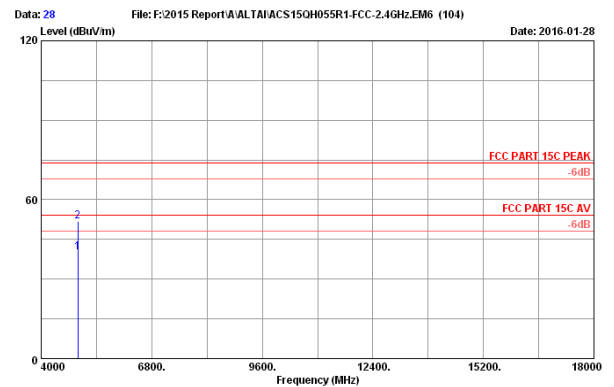
Site no. : 3m Chamber Data no. : 27  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 30  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 31.25             | 39.16                         | 54.00              | 14.84          | Average |
| 2   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 44.02             | 51.93                         | 74.00              | 22.07          | Peak    |

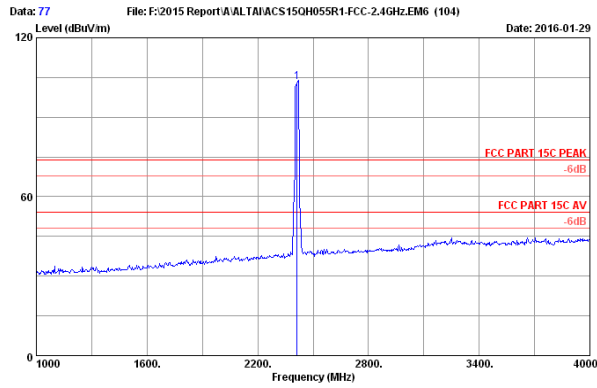
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 28  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 32.13             | 40.04                         | 54.00              | 13.96          | Average |
| 2   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 44.01             | 51.92                         | 74.00              | 22.08          | Peak    |

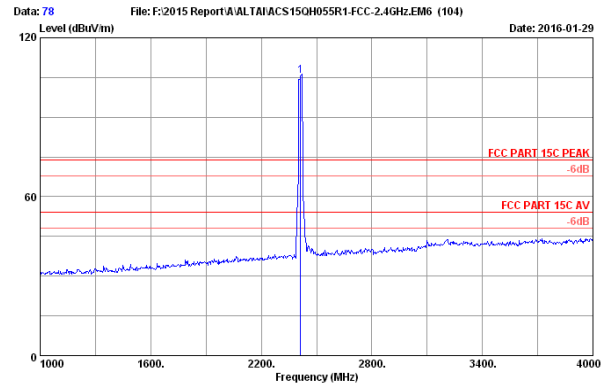
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 77  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2412.000       | 28.02                    | 7.35                  | 36.62                 | 104.66            | 103.41                        | 74.00              | -29.41         | Peak   |

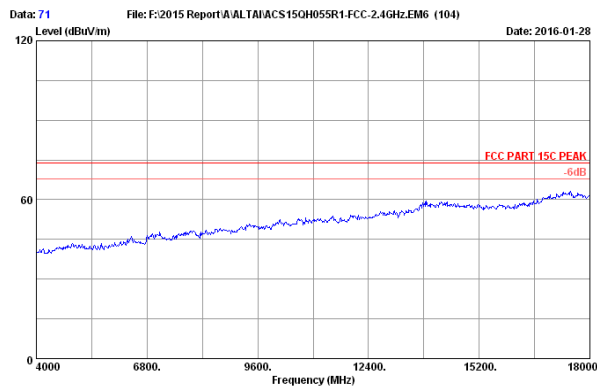
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



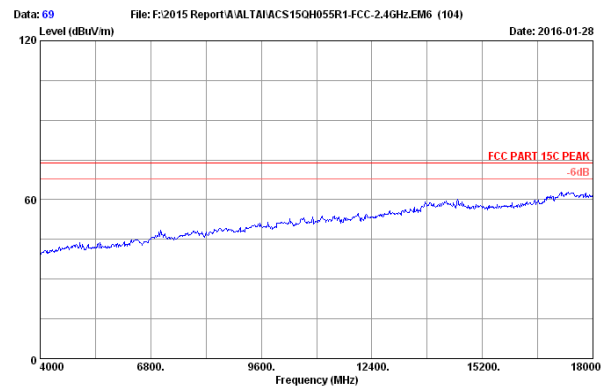
Site no. : 3m Chamber Data no. : 78  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2412.000       | 28.02                    | 7.35                  | 36.62                 | 106.99            | 105.74                        | 74.00              | -31.74         | Peak   |

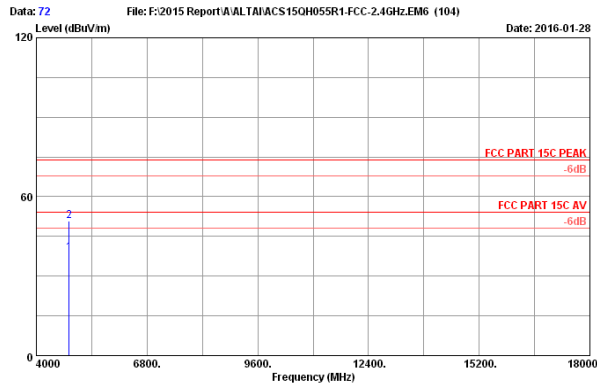
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 71  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H



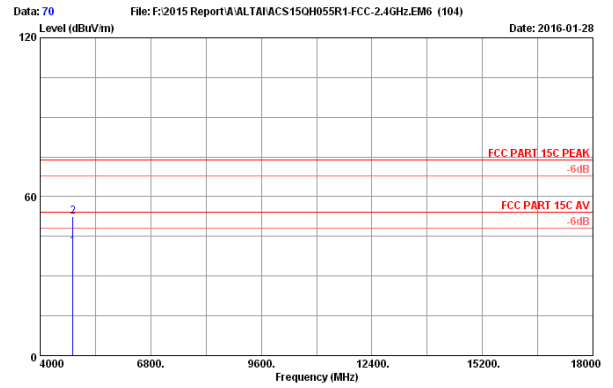
Site no. : 3m Chamber Data no. : 69  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 72  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 31.26             | 38.91                         | 54.00              | 15.09          | Average |
| 2   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 43.26             | 50.91                         | 74.00              | 23.09          | Peak    |

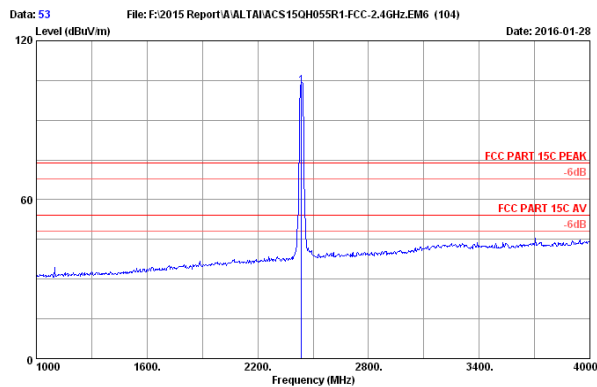
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 70  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 33.41             | 41.06                         | 54.00              | 12.94          | Average |
| 2   | 4824.000       | 33.72                    | 9.46                  | 35.53                 | 44.84             | 52.49                         | 74.00              | 21.51          | Peak    |

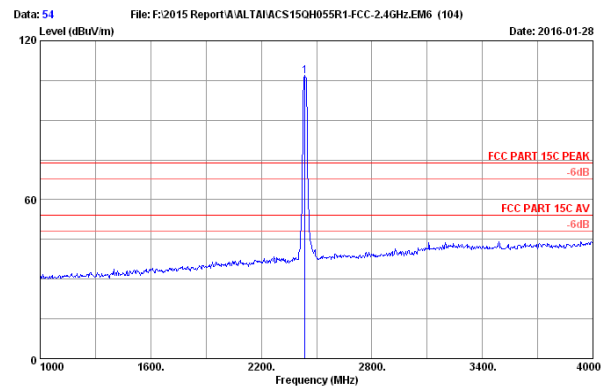
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 53  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2437.000       | 28.07                    | 7.39                  | 36.61                 | 104.24            | 103.09                        | 74.00              | -29.09         | Peak   |

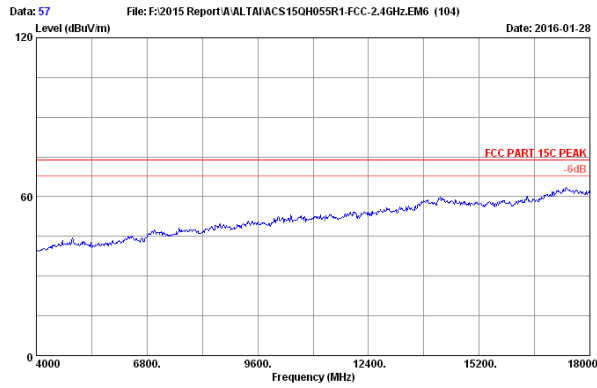
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



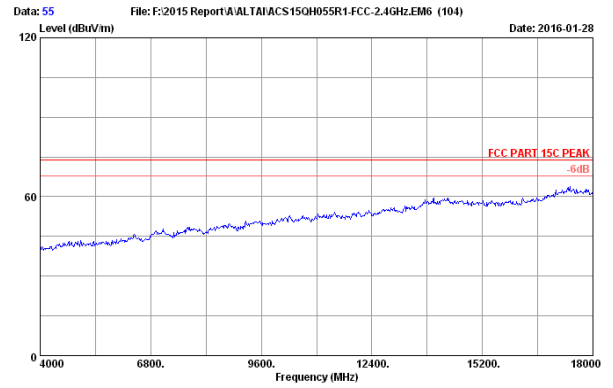
Site no. : 3m Chamber Data no. : 54  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2437.000       | 28.07                    | 7.39                  | 36.61                 | 107.62            | 106.47                        | 74.00              | -32.47         | Peak   |

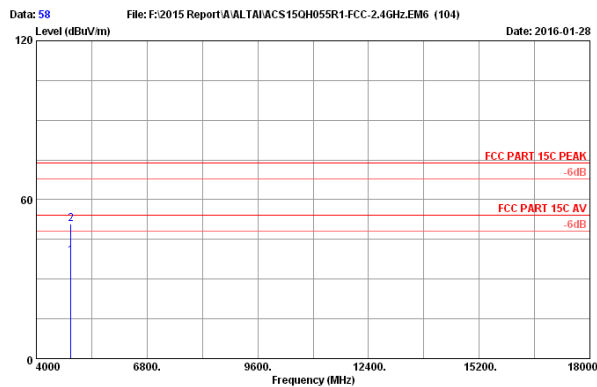
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 57  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2437Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 55  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2437Hz Tx  
 WA8011NAC-H

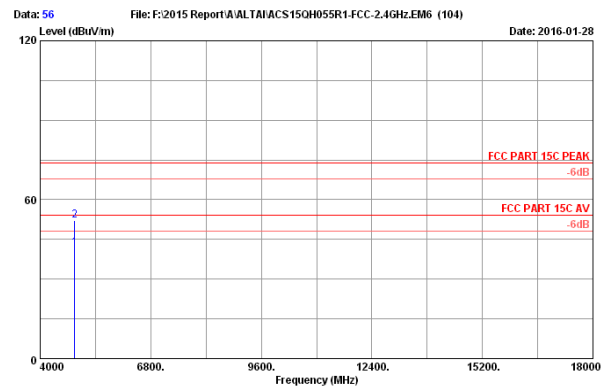


Site no. : 3m Chamber Data no. : 58  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4874.000 | 33.80 | 9.49 | 35.51 | 31.06 | 38.84 | 54.00 | 15.16 | Average |
| 2 | 4874.000 | 33.80 | 9.49 | 35.51 | 42.89 | 50.67 | 74.00 | 23.33 | Peak    |

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

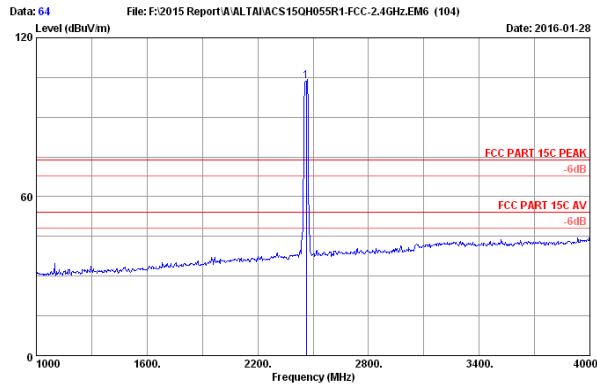


Site no. : 3m Chamber Data no. : 56  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|--------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4874.000 | 33.80 | 9.49 | 35.51 | 33.84 | 41.62 | 54.00 | 12.38 | Average |
| 2 | 4874.000 | 33.80 | 9.49 | 35.51 | 44.26 | 52.04 | 74.00 | 21.96 | Peak    |

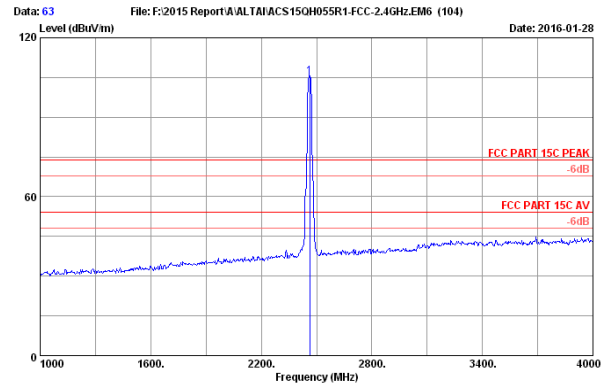
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 64  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2462.000       | 28.12                    | 7.43                  | 36.60                 | 104.67            | 103.62                        | 74.00              | -29.62         | Peak   |

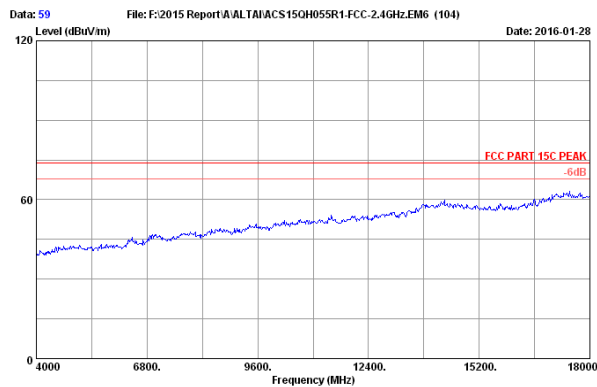
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



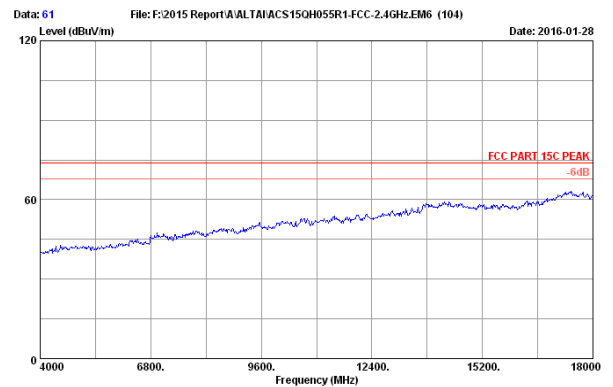
Site no. : 3m Chamber Data no. : 63  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2462.000       | 28.12                    | 7.43                  | 36.60                 | 106.27            | 105.22                        | 74.00              | -31.22         | Peak   |

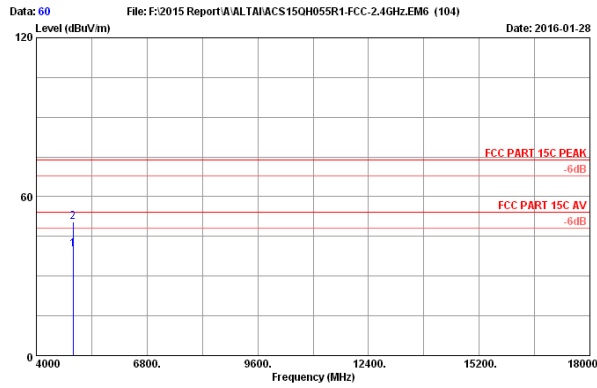
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 59  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H



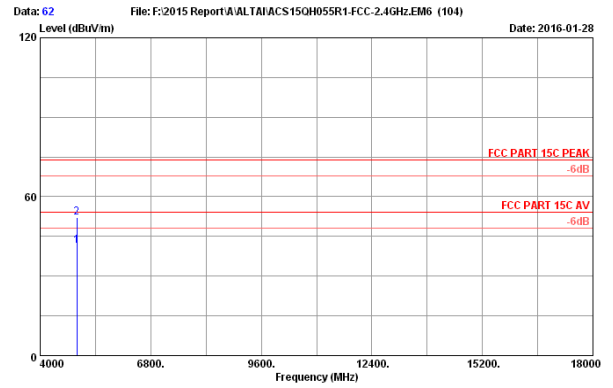
Site no. : 3m Chamber Data no. : 61  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 60  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 32.04             | 39.95                         | 54.00              | 14.05          | Average |
| 2   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 42.68             | 50.59                         | 74.00              | 23.41          | Peak    |

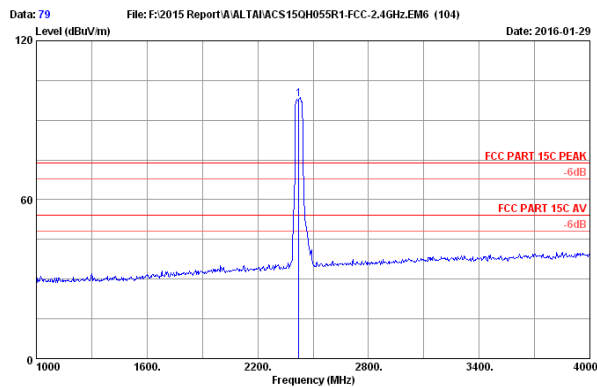
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 62  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 33.44             | 41.35                         | 54.00              | 12.65          | Average |
| 2   | 4924.000       | 33.88                    | 9.51                  | 35.48                 | 44.17             | 52.08                         | 74.00              | 21.92          | Peak    |

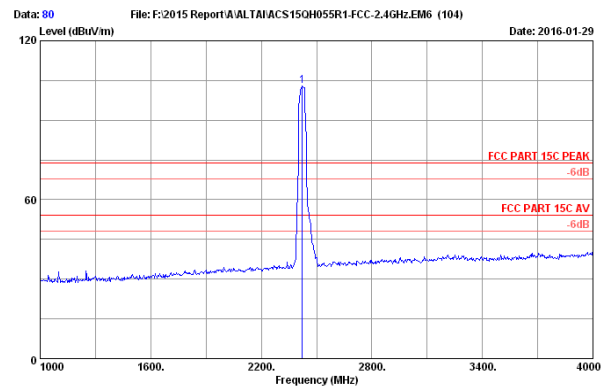
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 79  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2422.000       | 28.04                    | 7.35                  | 36.61                 | 99.27             | 98.05                         | 74.00              | -24.05         | Peak   |

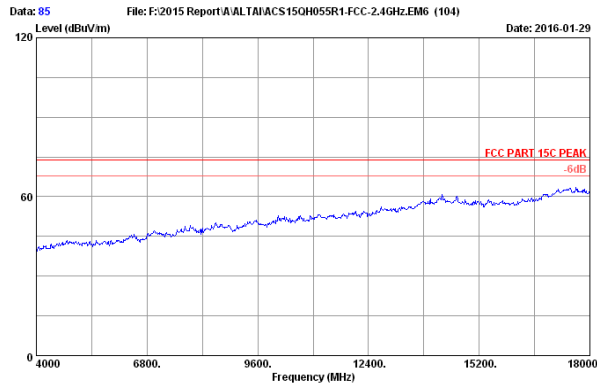
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



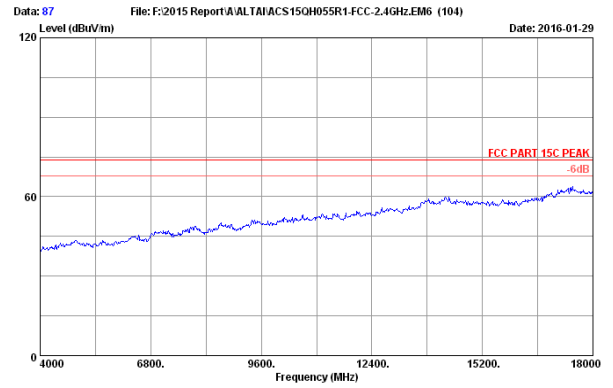
Site no. : 3m Chamber Data no. : 80  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2422.000       | 28.04                    | 7.35                  | 36.61                 | 104.27            | 103.05                        | 74.00              | -29.05         | Peak   |

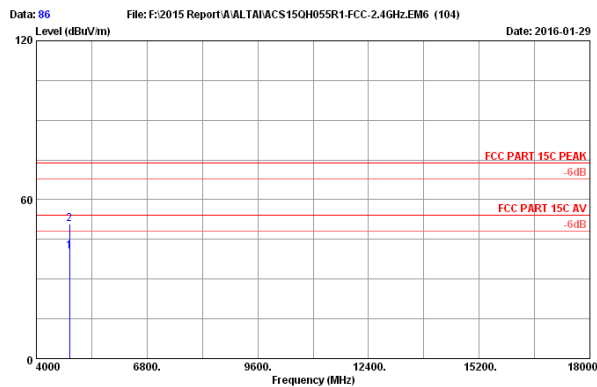
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 85  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 87  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

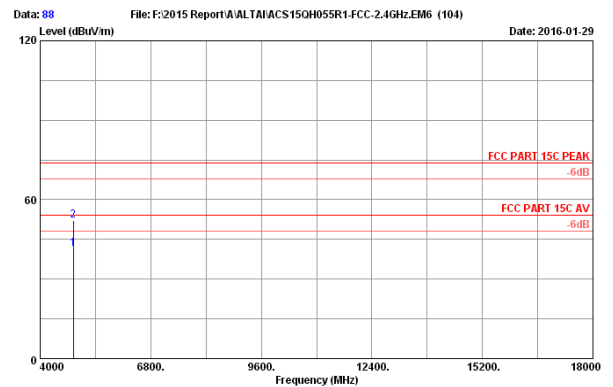


Site no. : 3m Chamber Data no. : 86  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4844.000 | 33.75 | 9.47 | 35.52 | 32.66 | 40.36 | 54.00 | 13.64 | Average |
| 2 | 4844.000 | 33.75 | 9.47 | 35.52 | 43.17 | 50.87 | 74.00 | 23.13 | Peak    |

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

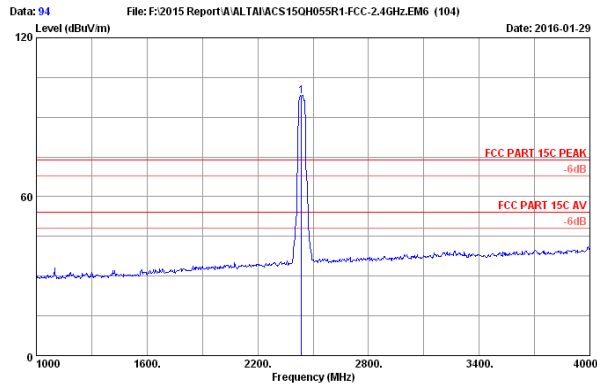


Site no. : 3m Chamber Data no. : 88  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4844.000 | 33.75 | 9.47 | 35.52 | 33.68 | 41.38 | 54.00 | 12.62 | Average |
| 2 | 4844.000 | 33.75 | 9.47 | 35.52 | 44.58 | 52.28 | 74.00 | 21.72 | Peak    |

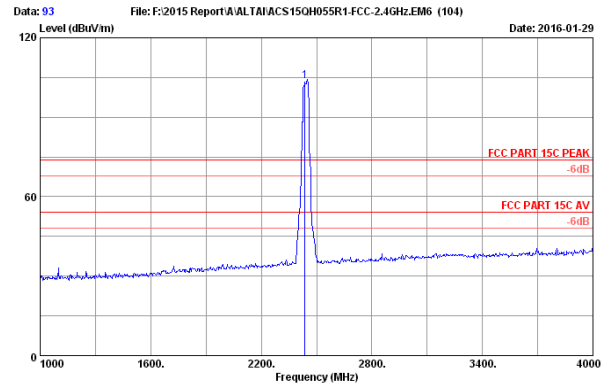
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 94  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2437.000       | 28.07                    | 7.39                  | 36.61                 | 98.96             | 97.81                         | 74.00              | -23.81         | Peak   |

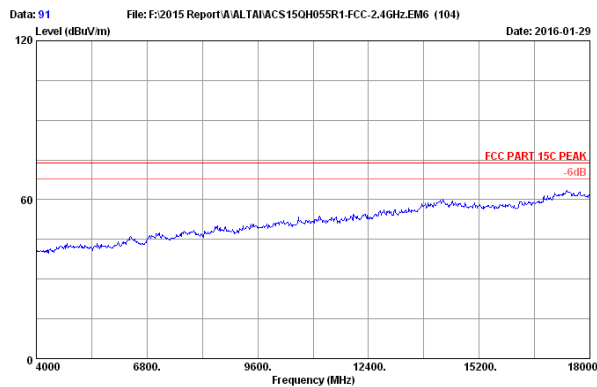
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



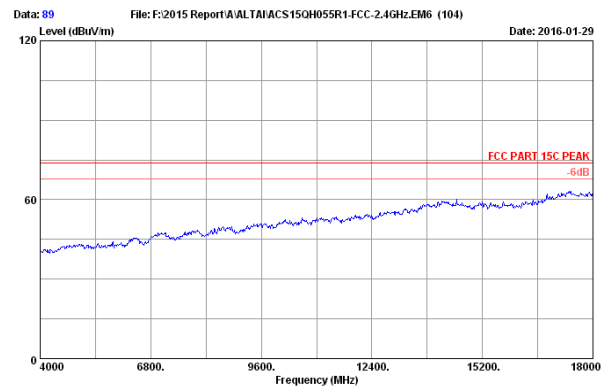
Site no. : 3m Chamber Data no. : 93  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2437.000       | 28.07                    | 7.39                  | 36.61                 | 104.66            | 103.51                        | 74.00              | -29.51         | Peak   |

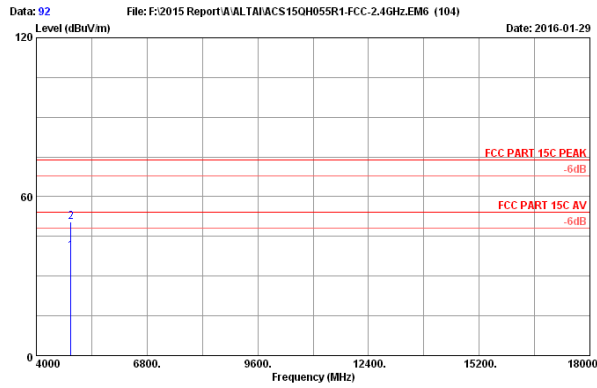
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 91  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2437Hz Tx  
 WA8011NAC-H



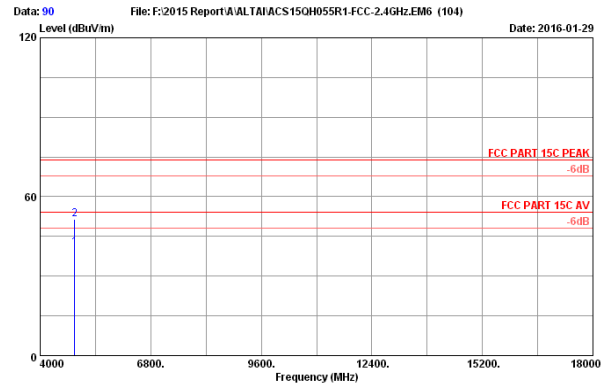
Site no. : 3m Chamber Data no. : 89  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2437Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 92  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 31.59             | 39.37                         | 54.00              | 14.63          | Average |
| 2   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 42.58             | 50.36                         | 74.00              | 23.64          | Peak    |

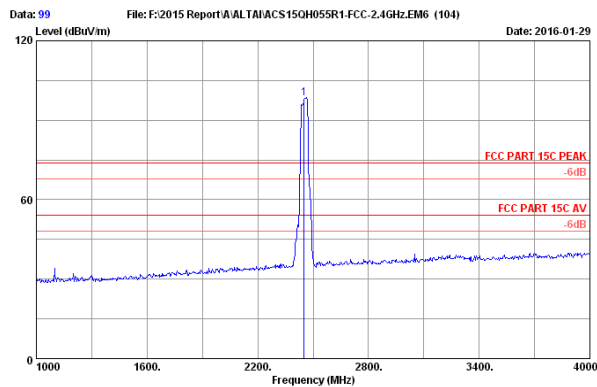
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 90  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2437Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 32.89             | 40.67                         | 74.00              | 33.33          | Average |
| 2   | 4874.000       | 33.80                    | 9.49                  | 35.51                 | 43.68             | 51.46                         | 74.00              | 22.54          | Peak    |

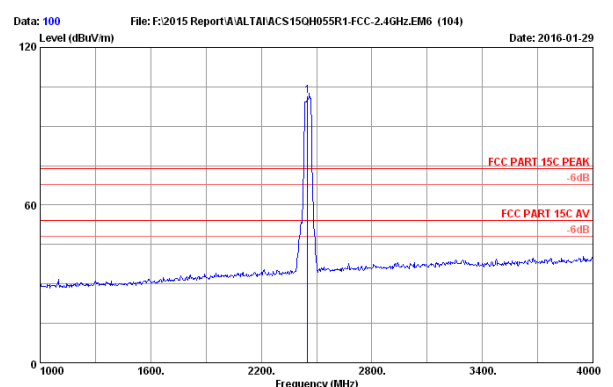
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 99  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2452.000       | 28.10                    | 7.43                  | 36.60                 | 99.40             | 98.33                         | 74.00              | -24.33         | Peak   |

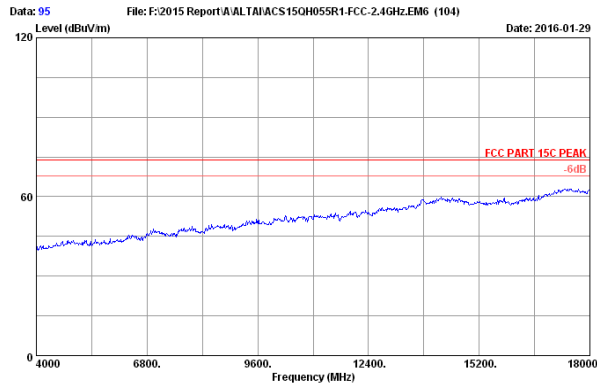
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



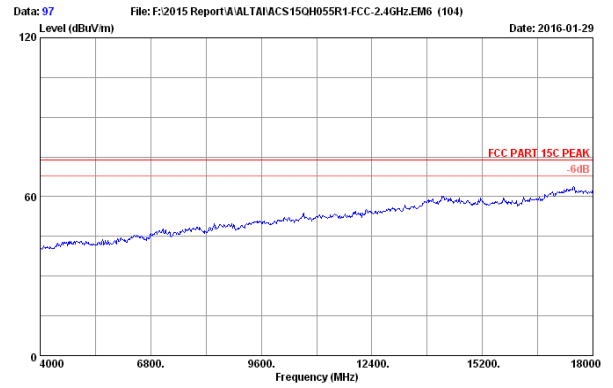
Site no. : 3m Chamber Data no. : 100  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2452.000       | 28.10                    | 7.43                  | 36.60                 | 102.53            | 101.46                        | 74.00              | -27.46         | Peak   |

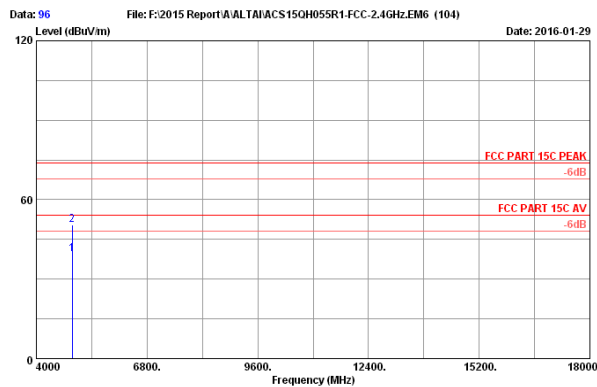
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 95  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H



Site no. : 3m Chamber Data no. : 97  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

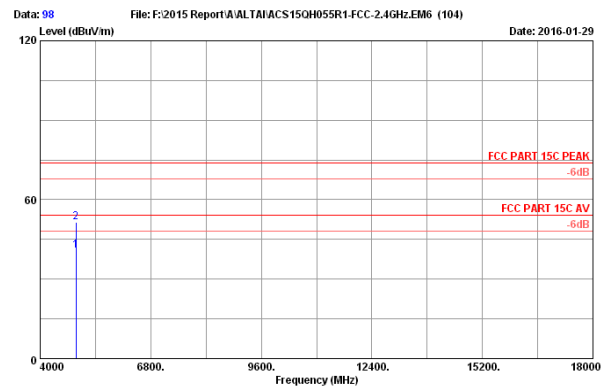


Site no. : 3m Chamber Data no. : 96  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4904.000 | 33.85 | 9.50 | 35.50 | 31.69 | 39.54 | 54.00 | 14.46 | Average |
| 2 | 4904.000 | 33.85 | 9.50 | 35.50 | 42.59 | 50.44 | 74.00 | 23.56 | Peak    |

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



Site no. : 3m Chamber Data no. : 98  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|

|   |          |       |      |       |       |       |       |       |         |
|---|----------|-------|------|-------|-------|-------|-------|-------|---------|
| 1 | 4904.000 | 33.85 | 9.50 | 35.50 | 33.07 | 40.92 | 54.00 | 13.08 | Average |
| 2 | 4904.000 | 33.85 | 9.50 | 35.50 | 43.68 | 51.53 | 74.00 | 22.47 | Peak    |

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

## 5. CONDUCTED SPURIOUS EMISSIONS

### 5.1. Test Equipment

| Item | Equipment         | Manufacturer            | Model No.     | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|-------------------------|---------------|------------|-----------|---------------|
| 1.   | Spectrum          | Agilent                 | N9030A        | MY51380221 | Oct.17,15 | 1 Year        |
| 2.   | Attenuator (20dB) | Agilent                 | 8491B         | MY39262165 | Apr.28,15 | 1 Year        |
| 3.   | RF Cable          | Marvelous Microwave Inc | SFL402105FLEX | NO.1       | Oct.17,15 | 1 Year        |

### 5.2. Limit

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

### 5.3. Test Procedure

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

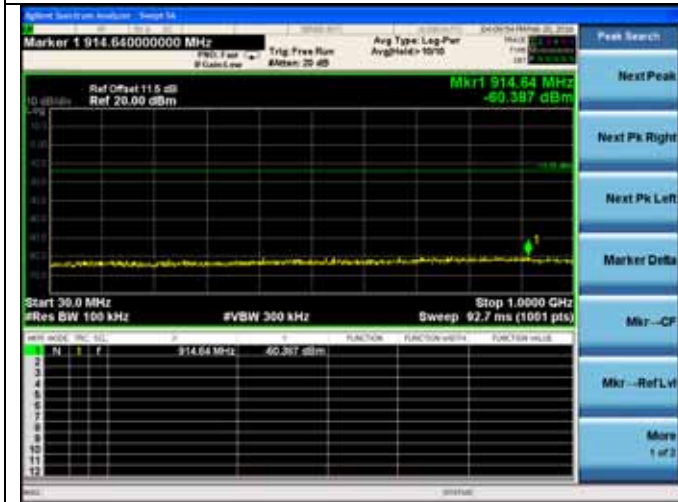
### 5.4. Test result

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

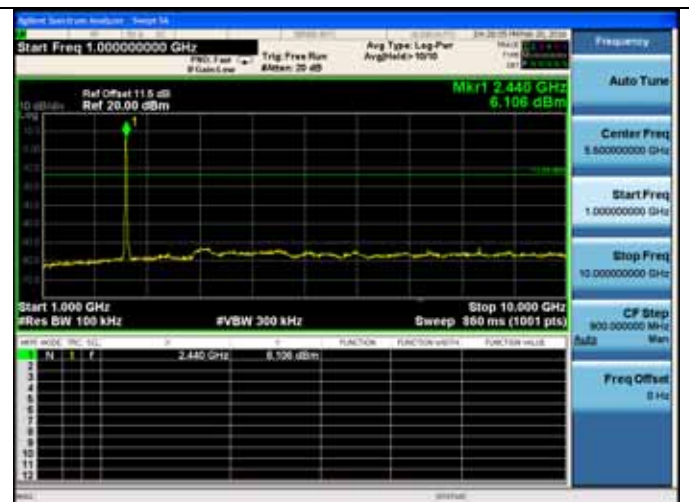
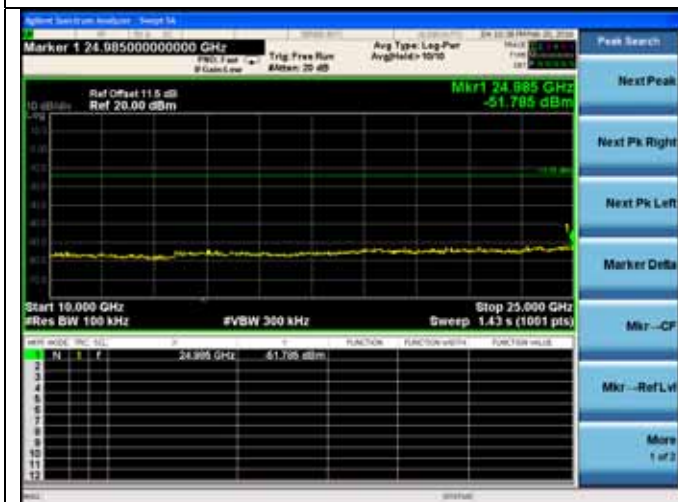
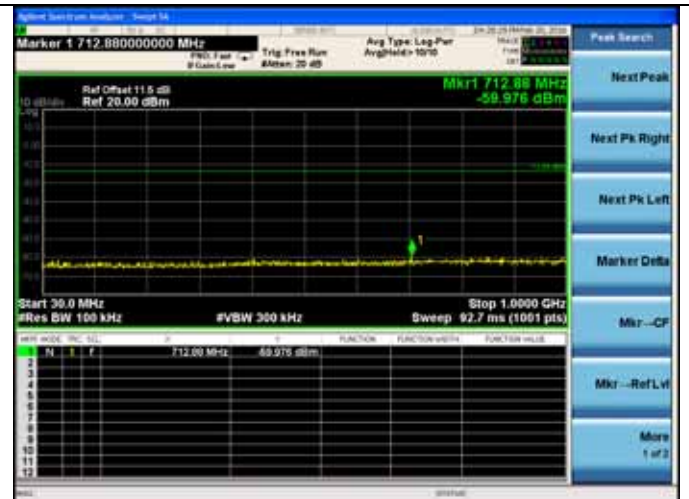
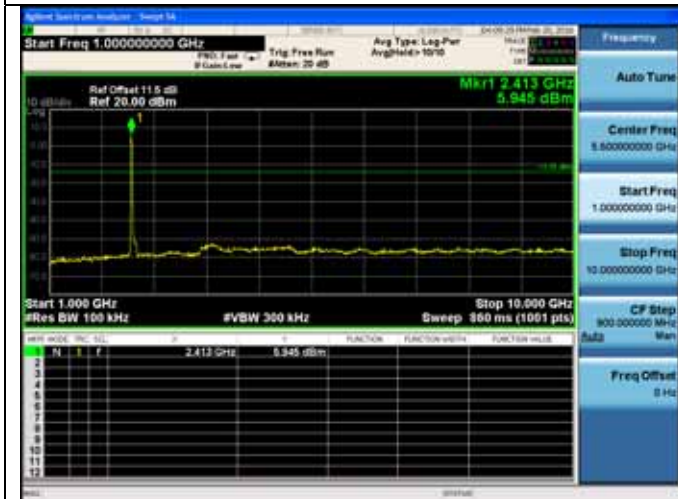
# ANT1:

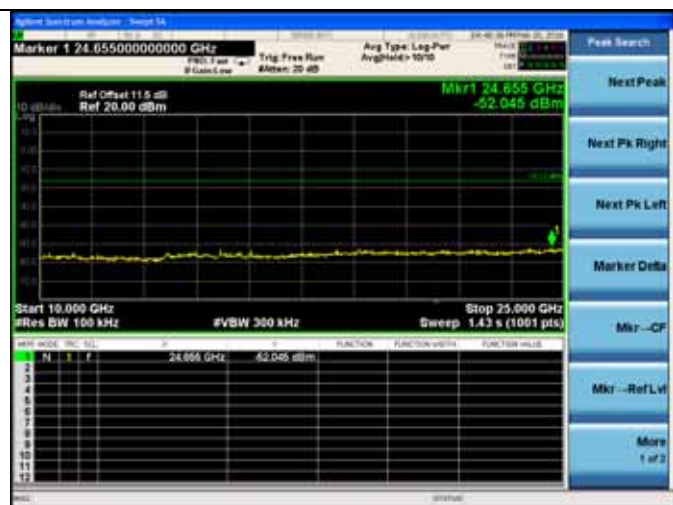
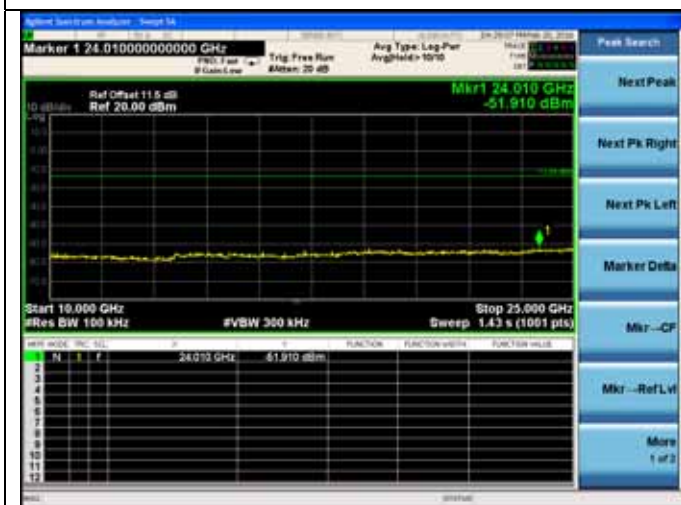
Test Mode: IEEE 802.11b

Test CH1: 2412MHz

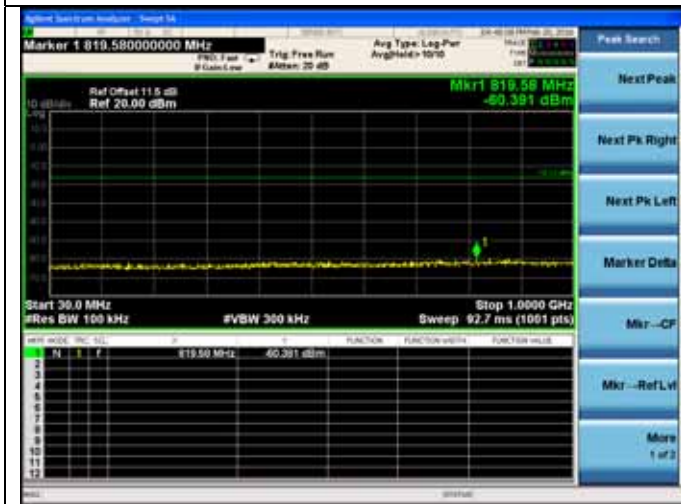


# Test CH6: 2437MHz

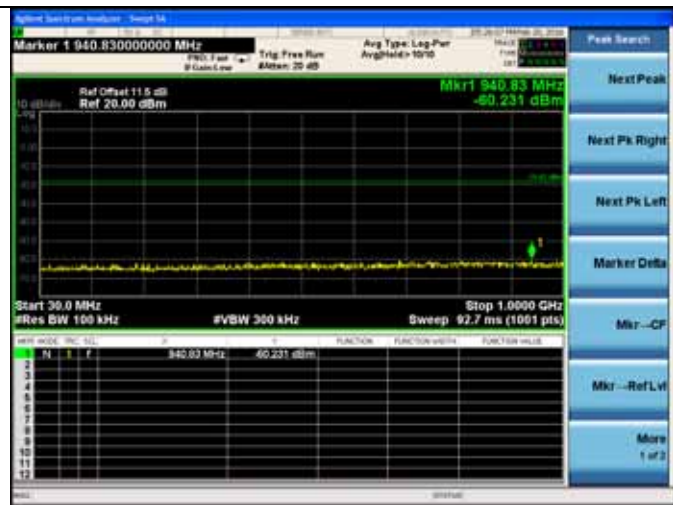
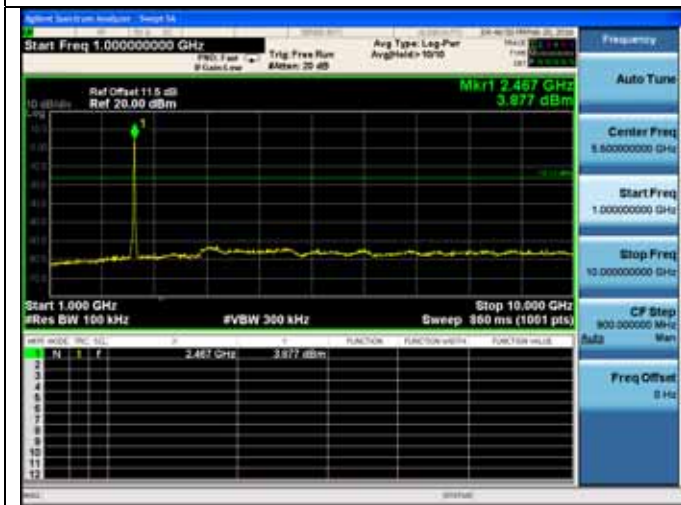




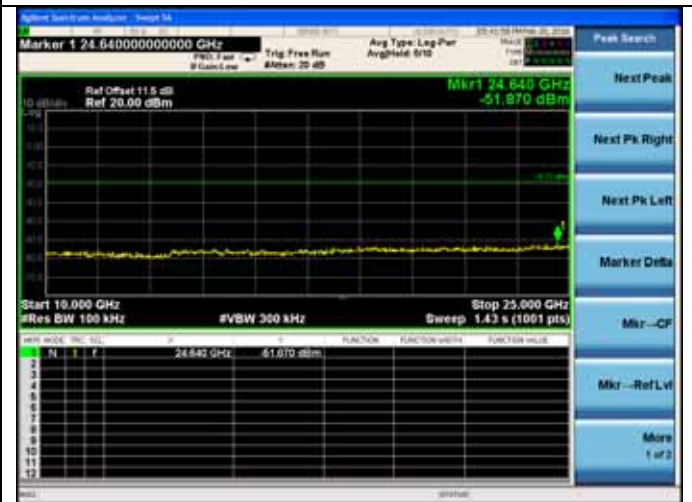
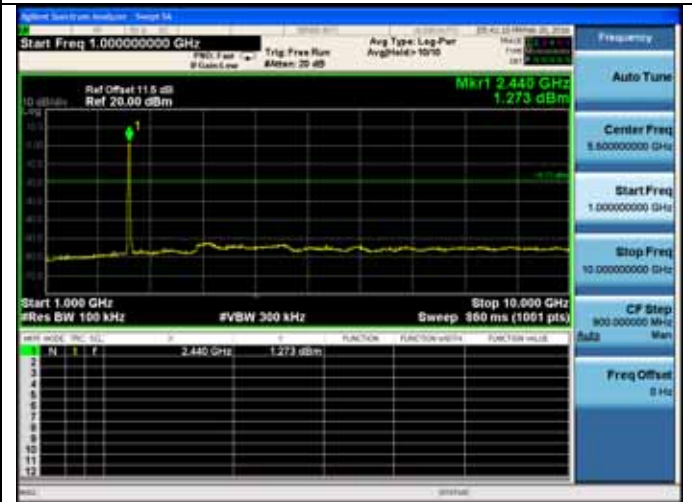
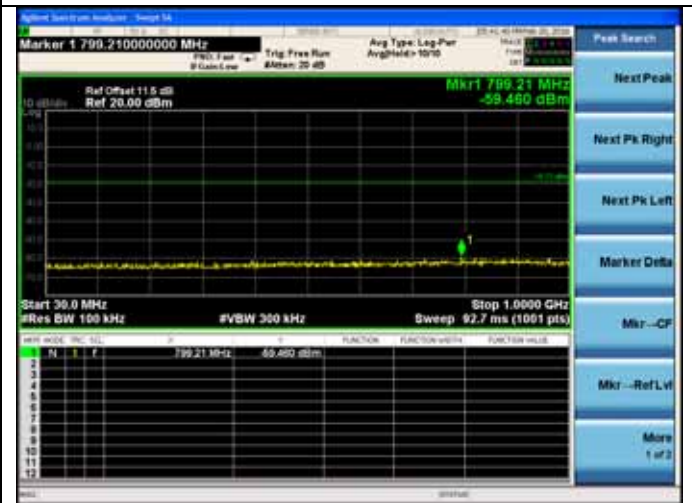
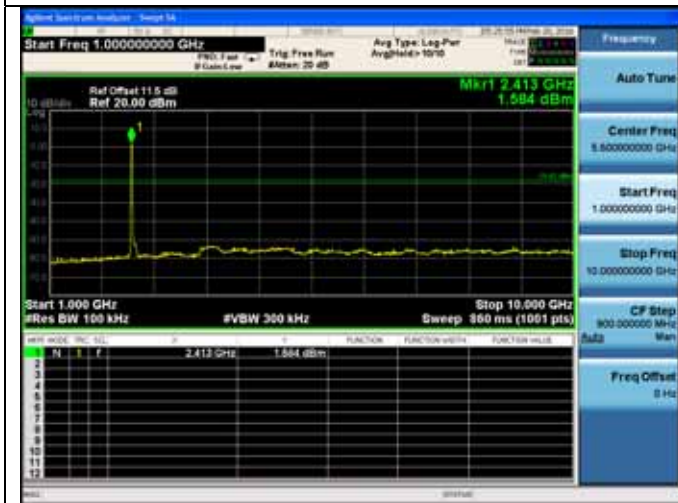
### Test CH11: 2462MHz



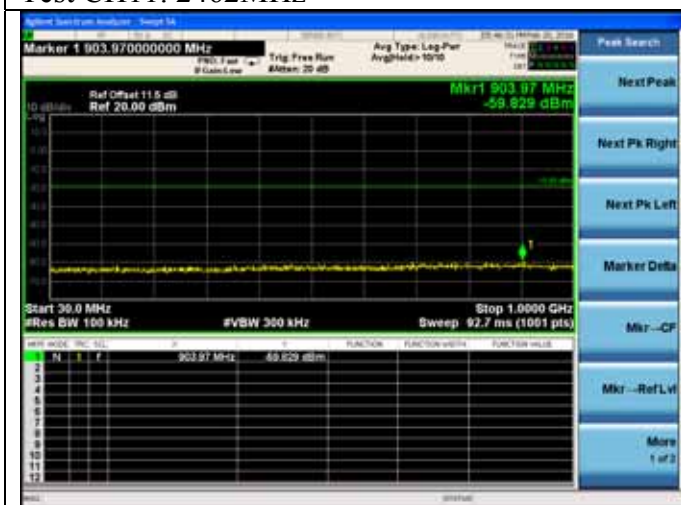
### Test Mode: IEEE 802.11g Test CH1: 2412MHz



## Test CH6: 2437MHz

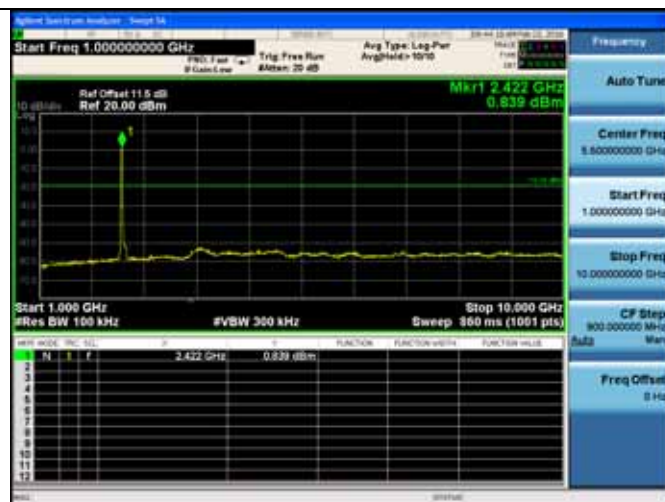
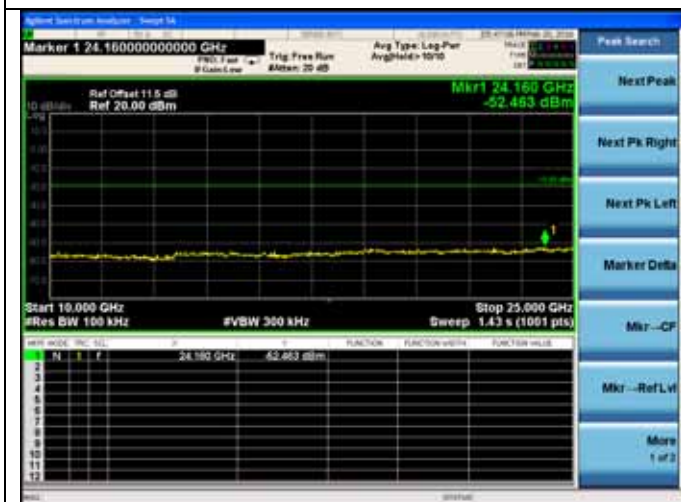
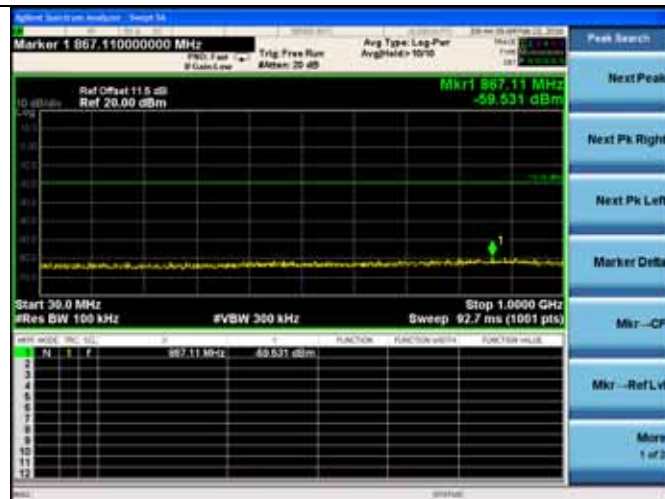
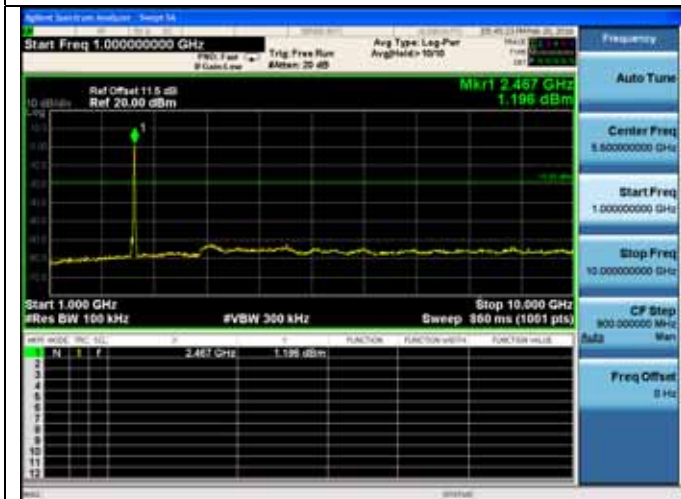


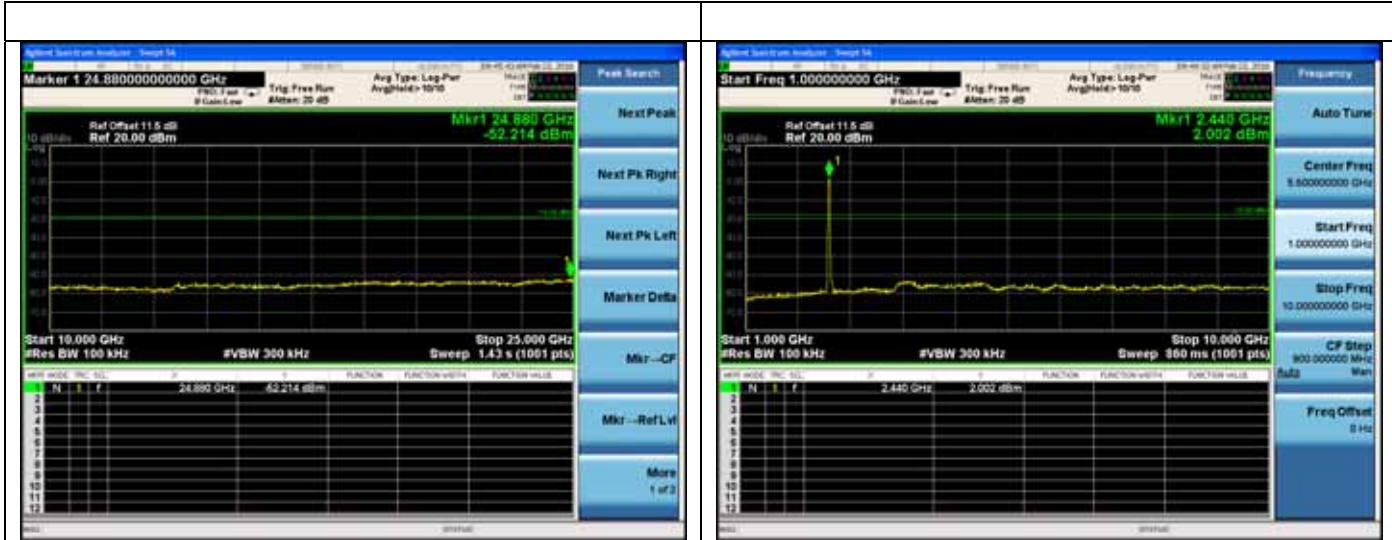
## Test CH11: 2462MHz



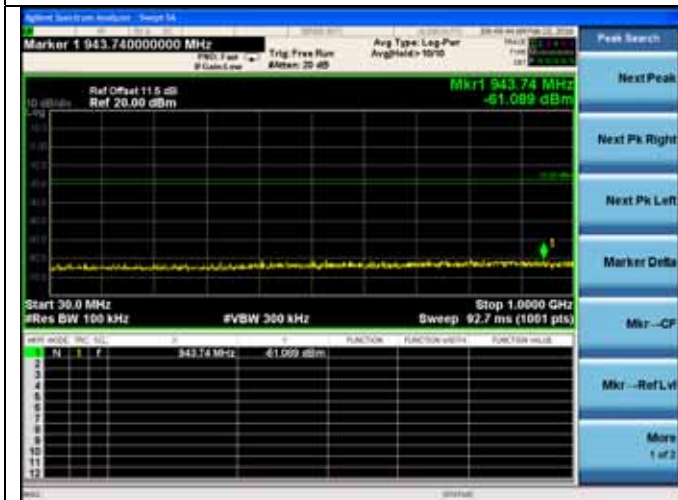
## Test Mode: IEEE 802.11n HT20

## Test CH1: 2412MHz

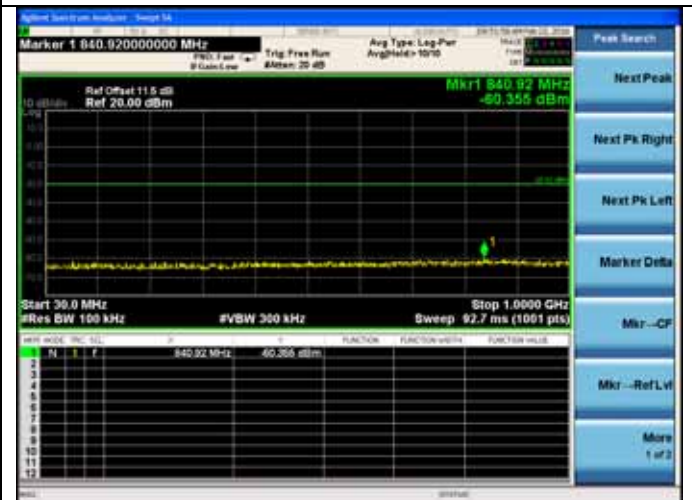




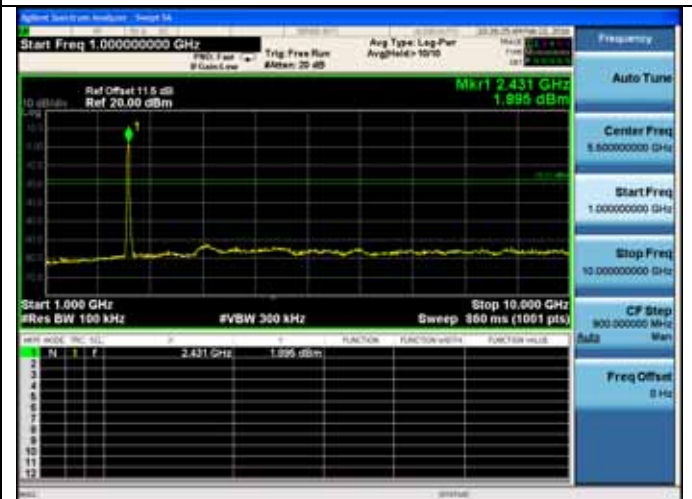
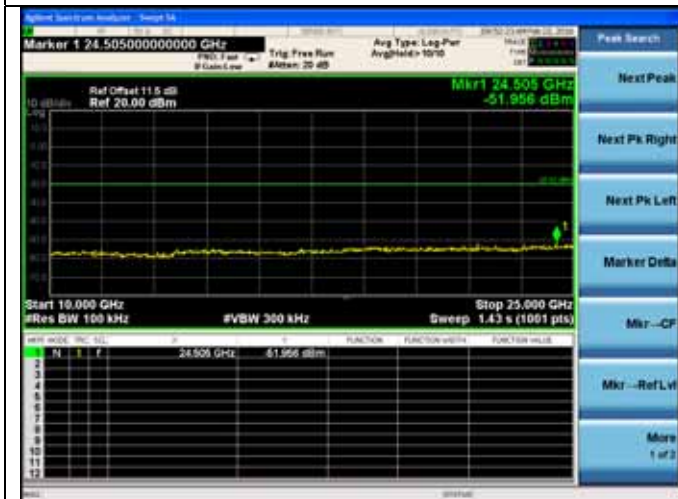
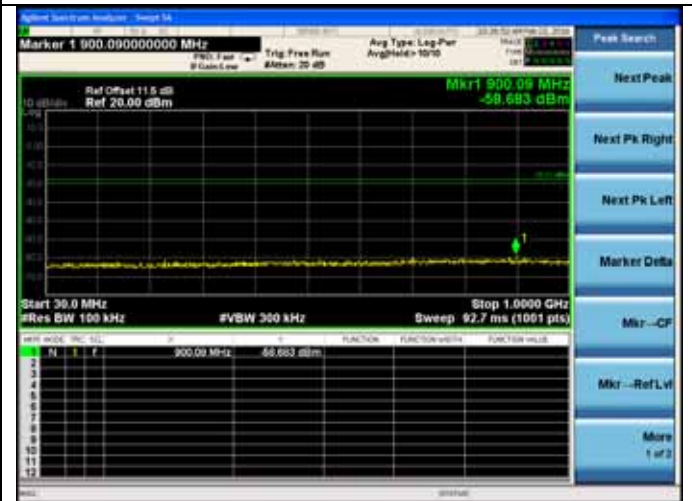
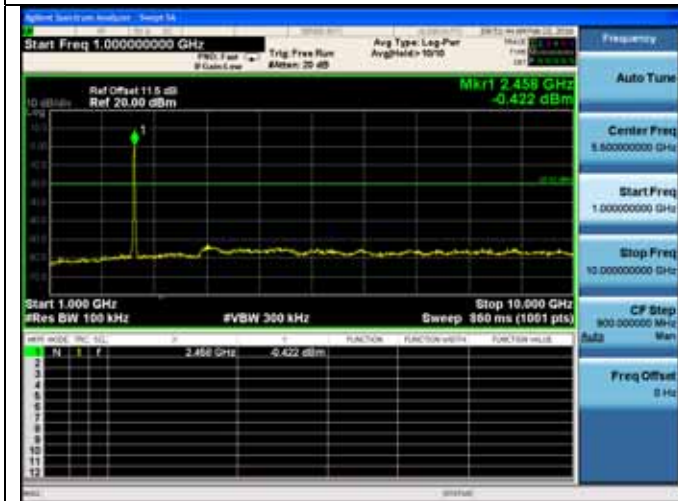
Test CH6: 2437MHz

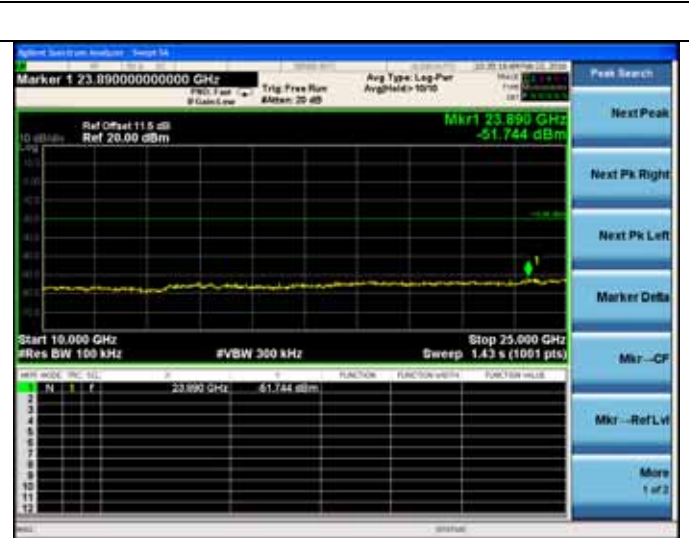


Test CH11: 2462MHz

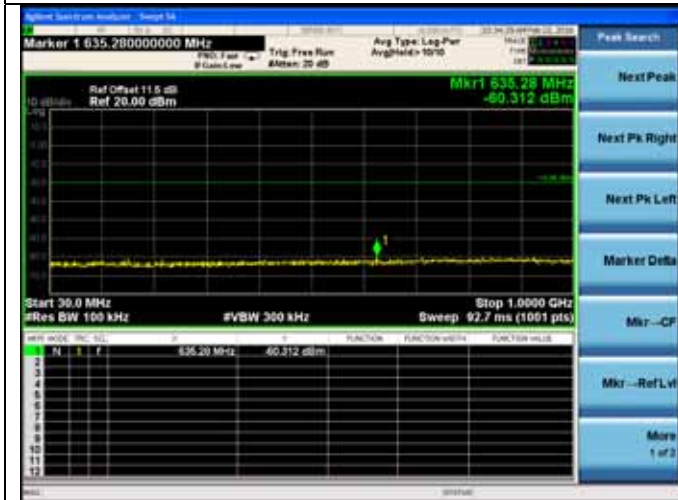


Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz

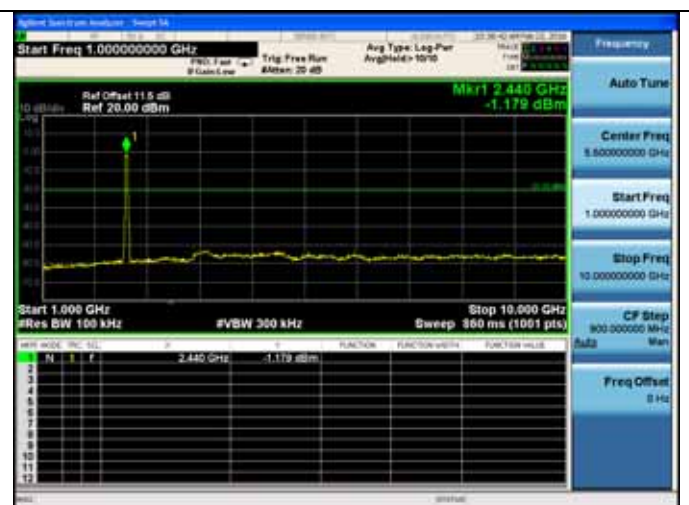
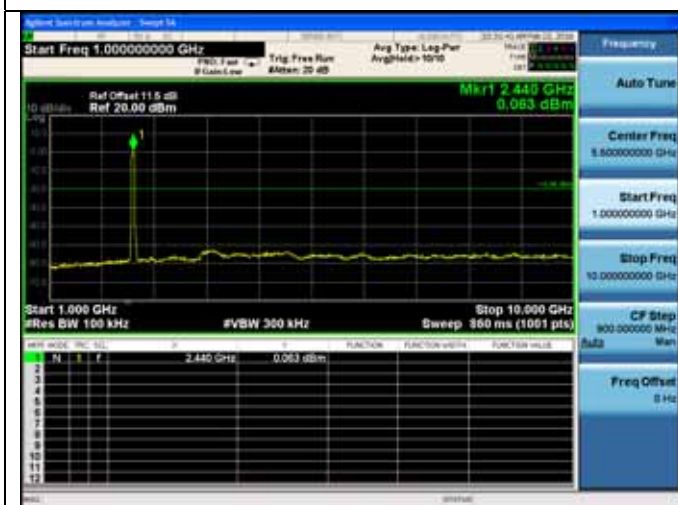
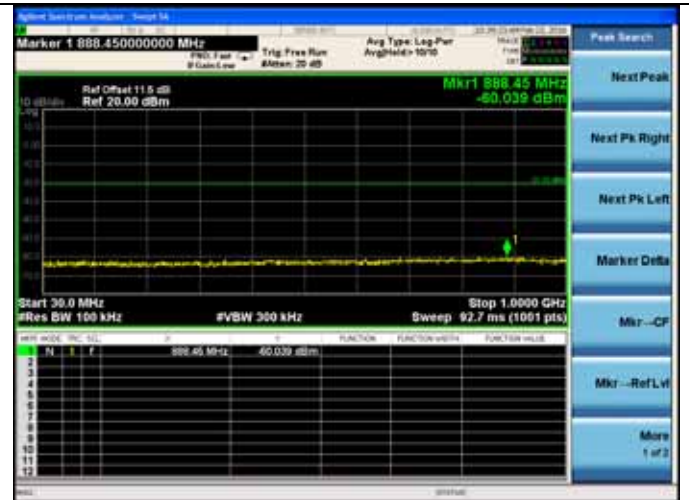


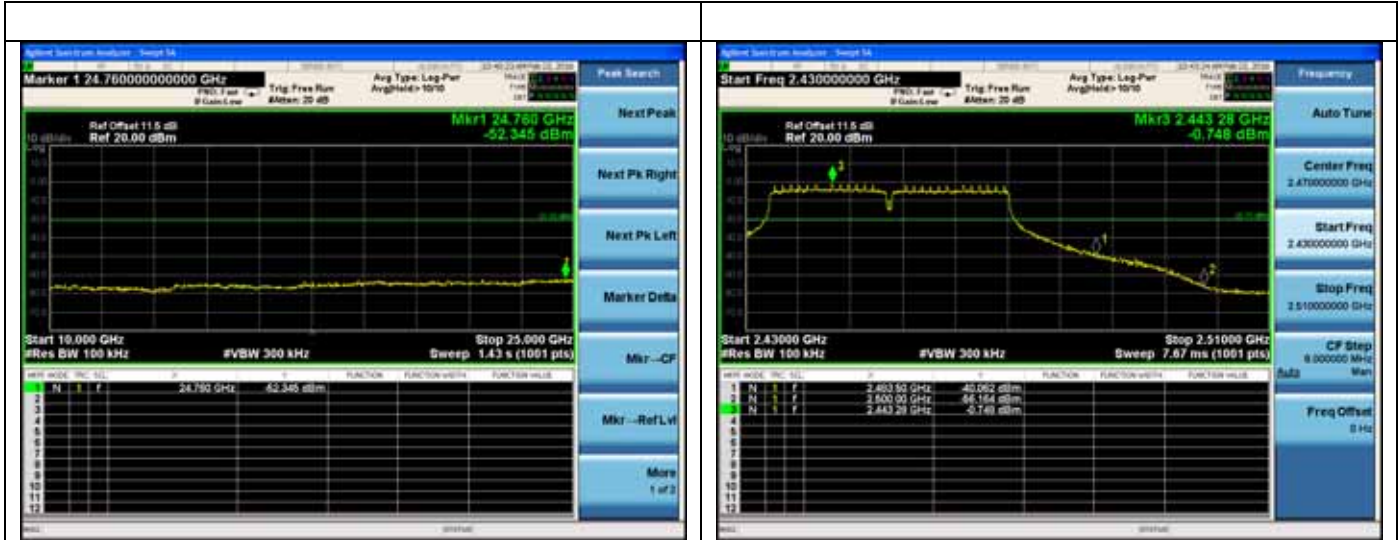


Test CH6: 2437MHz



Test CH9: 2452MHz

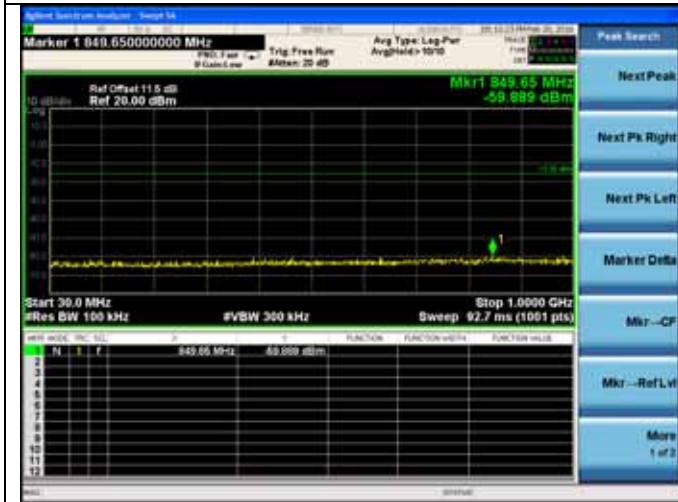




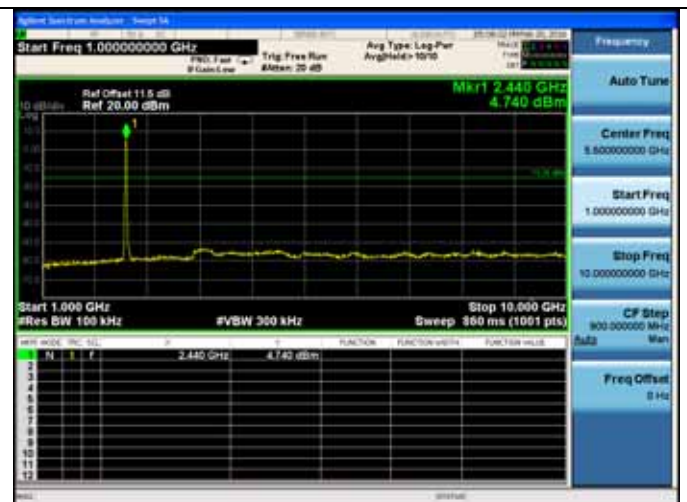
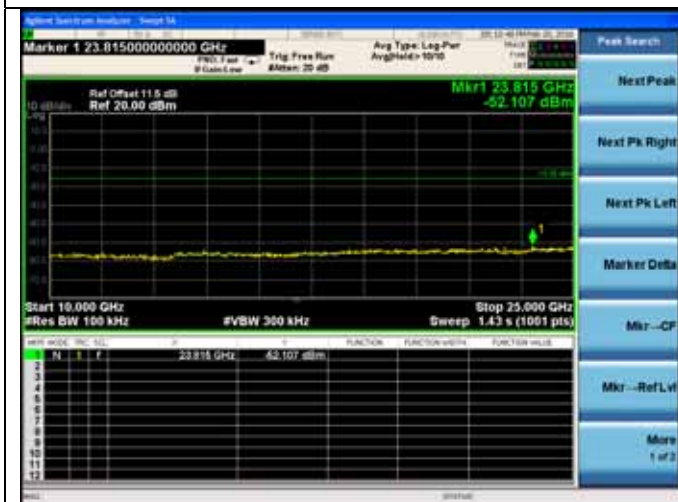
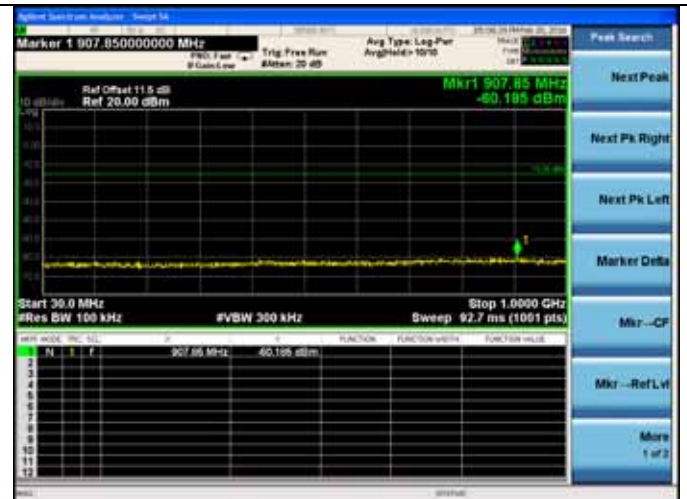
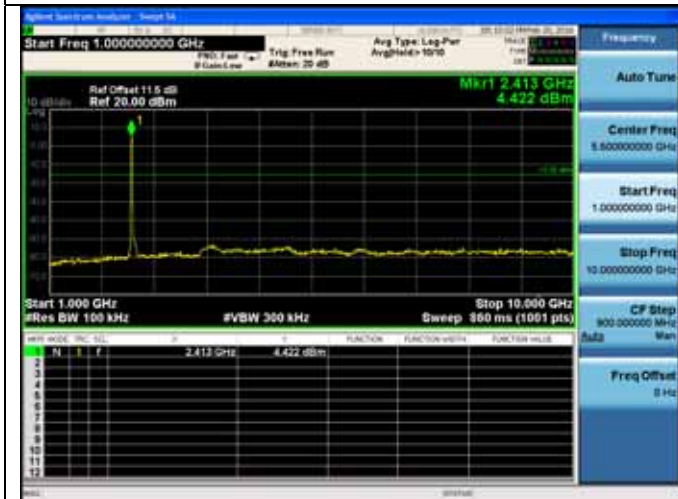
## ANT2:

Test Mode: IEEE 802.11b

Test CH1: 2412MHz

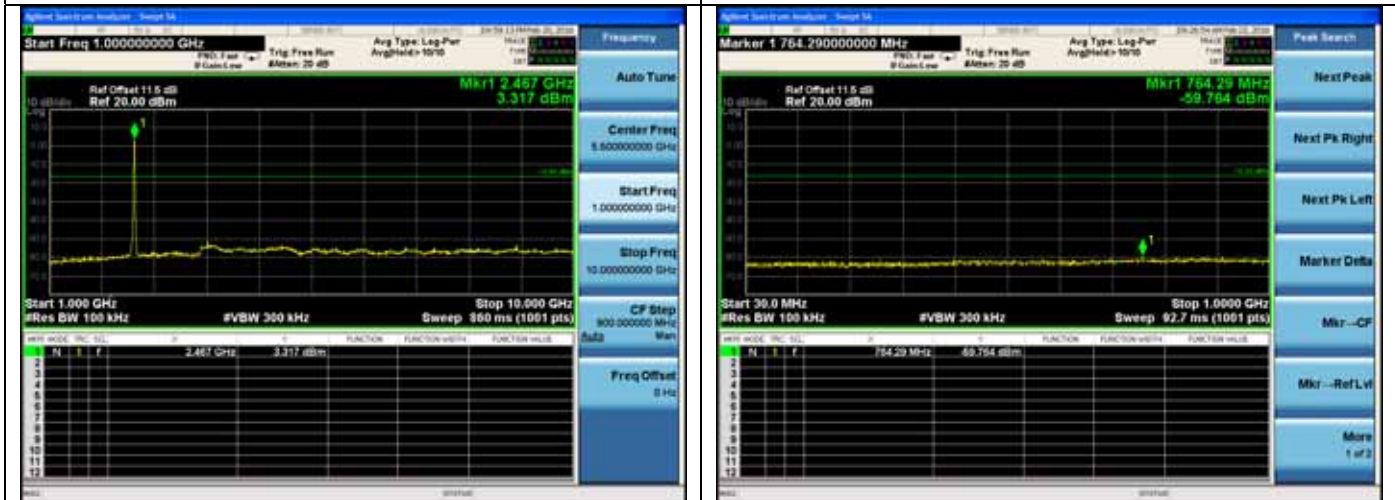


## Test CH6: 2437MHz

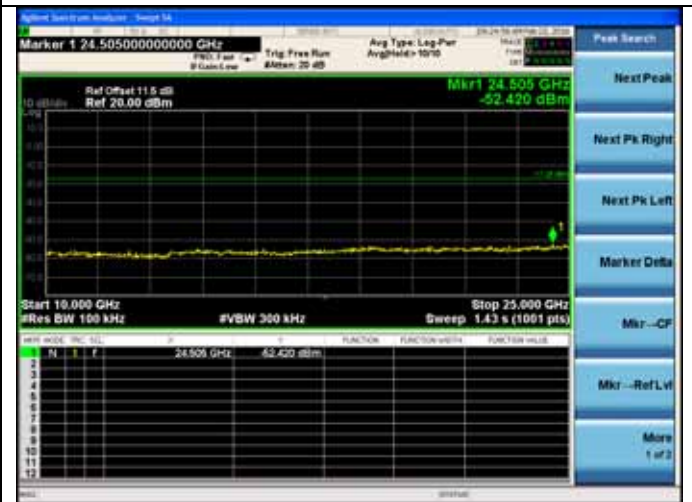
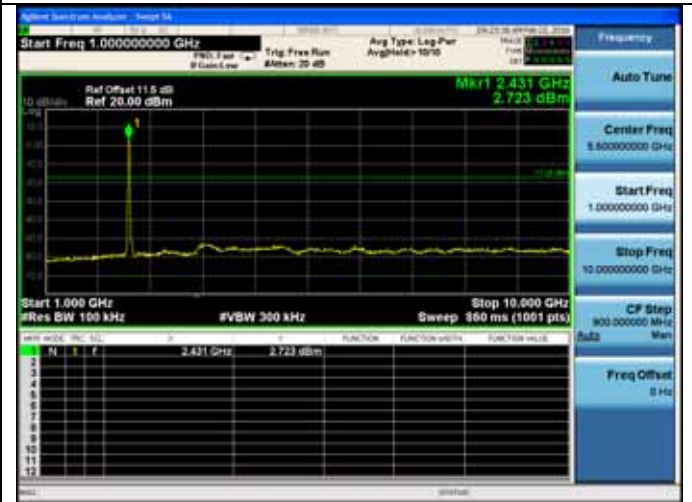
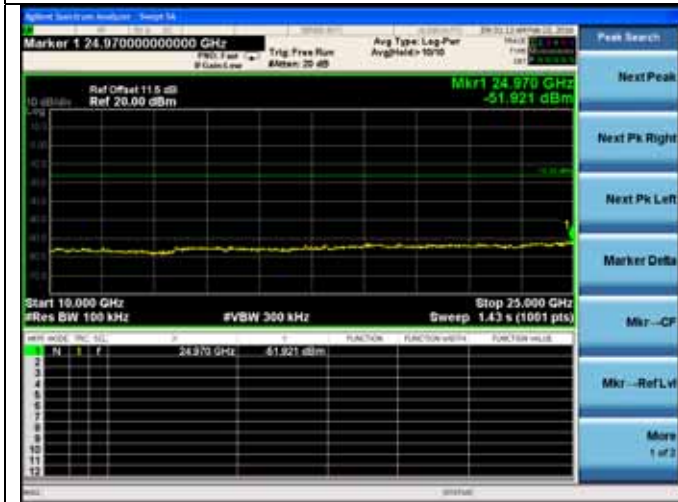
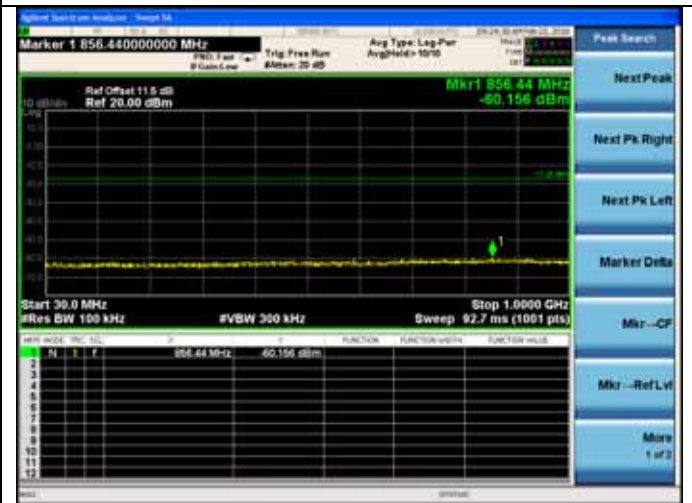
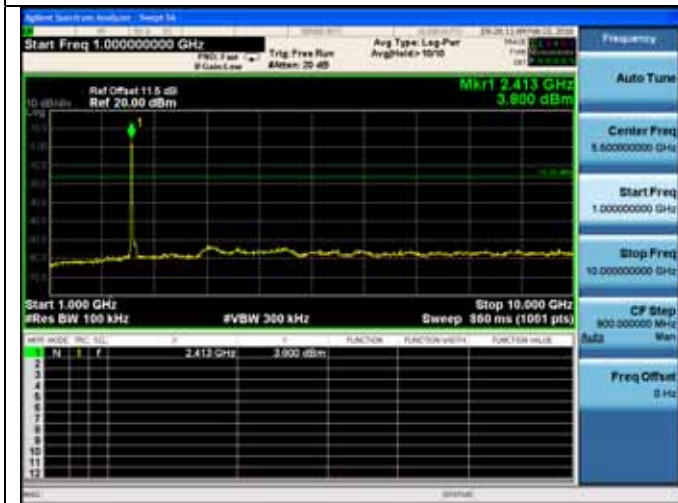




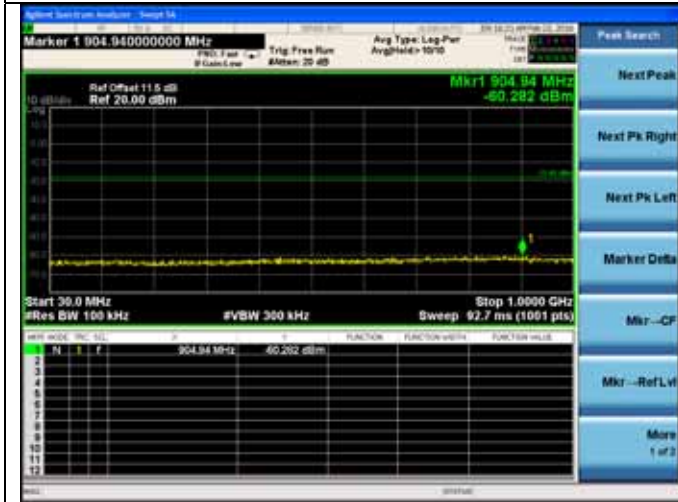
Test CH11: 2462MHz


Test Mode: IEEE 802.11g  
Test CH1: 2412MHz


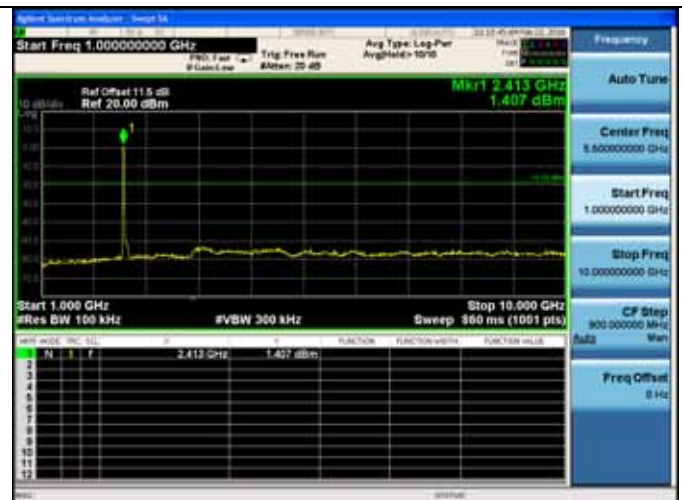
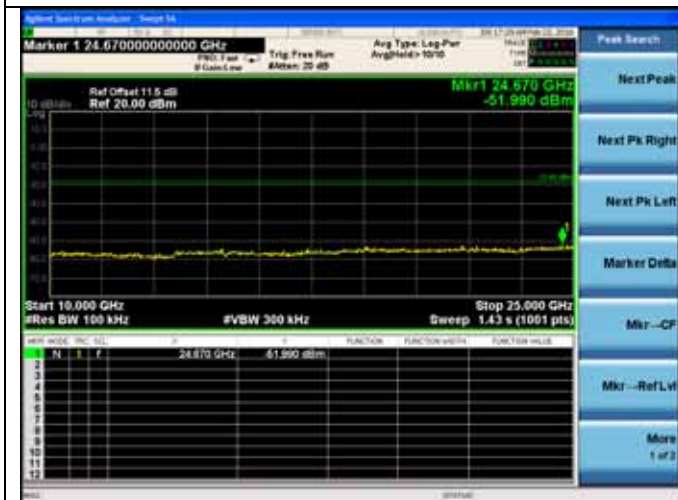
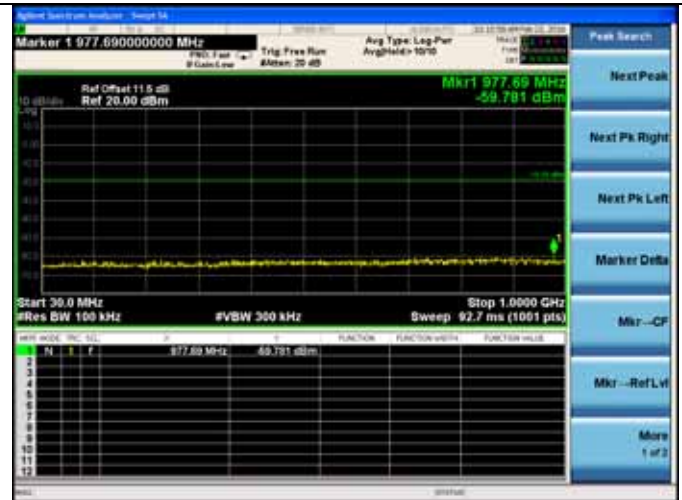
## Test CH6: 2437MHz

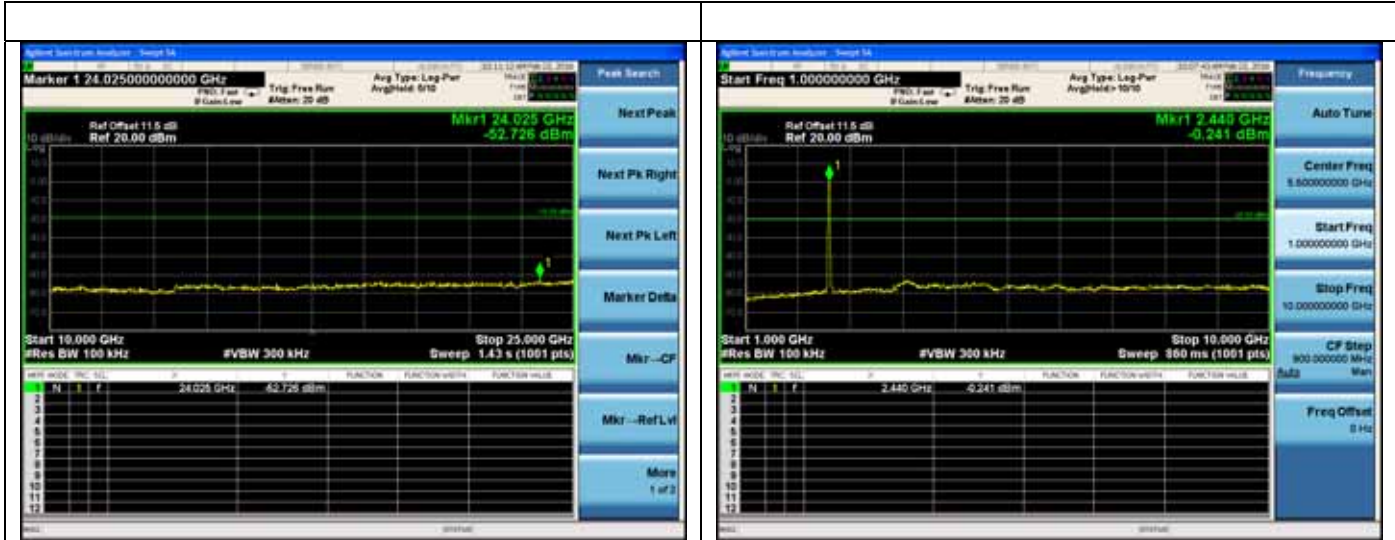


Test CH11: 2462MHz

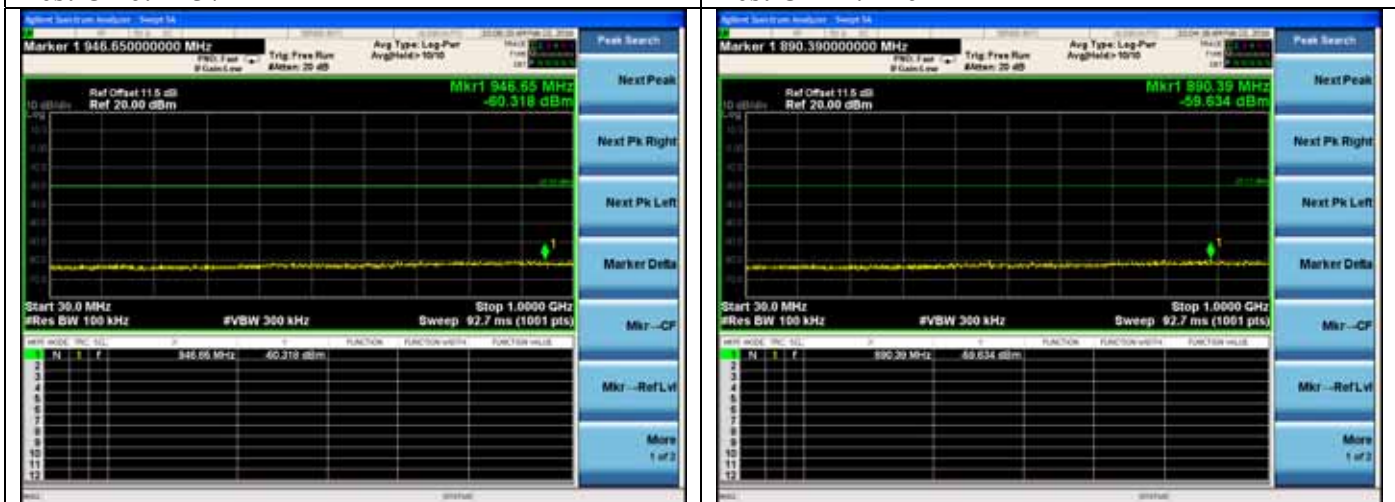


Test Mode: IEEE 802.11n HT20  
Test CH1: 2412MHz

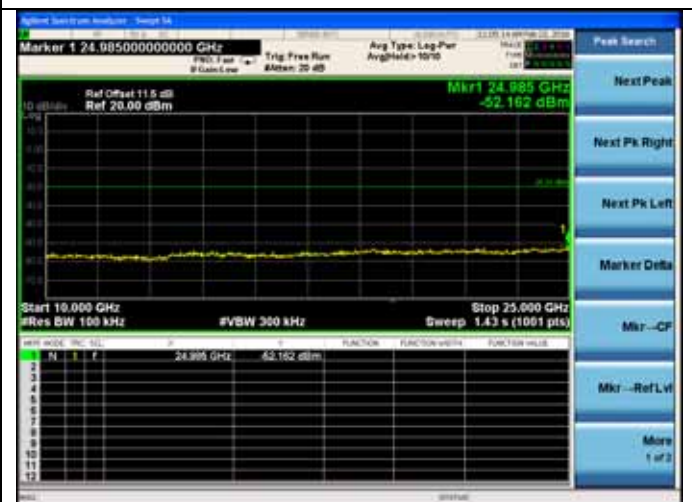
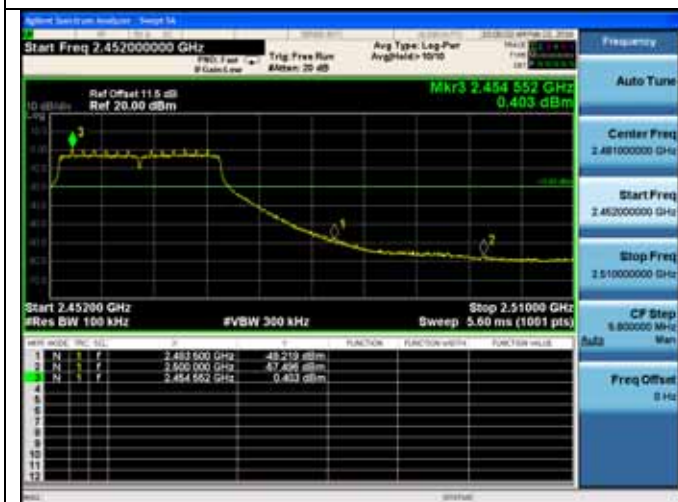
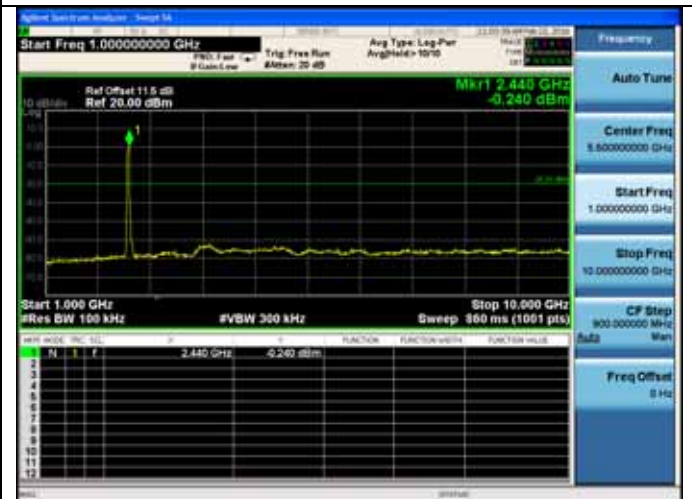
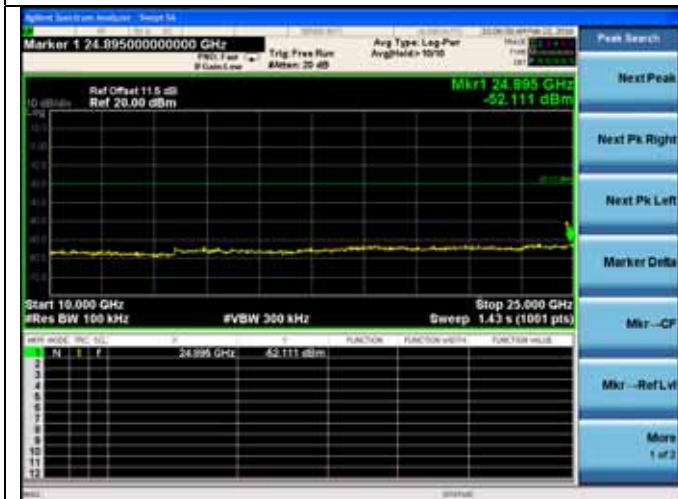
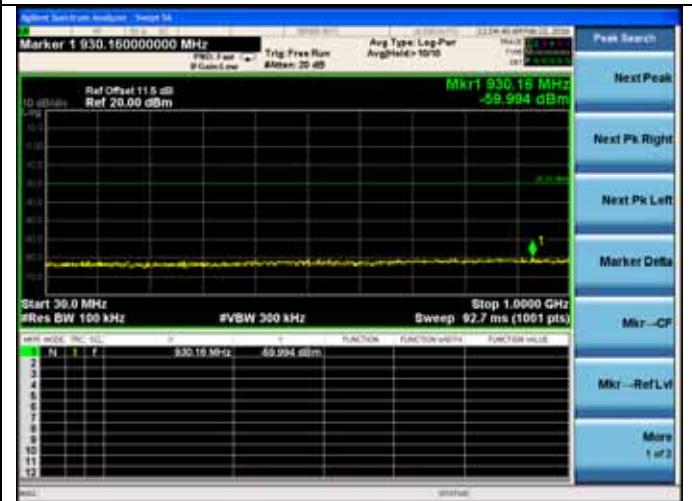
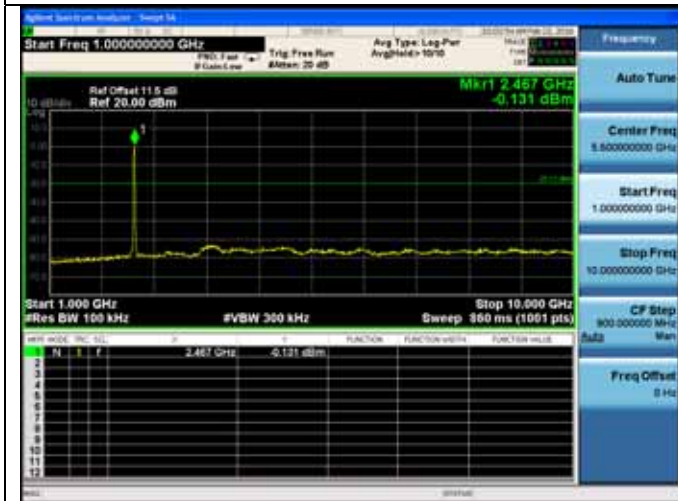




Test CH6: 2437MHz

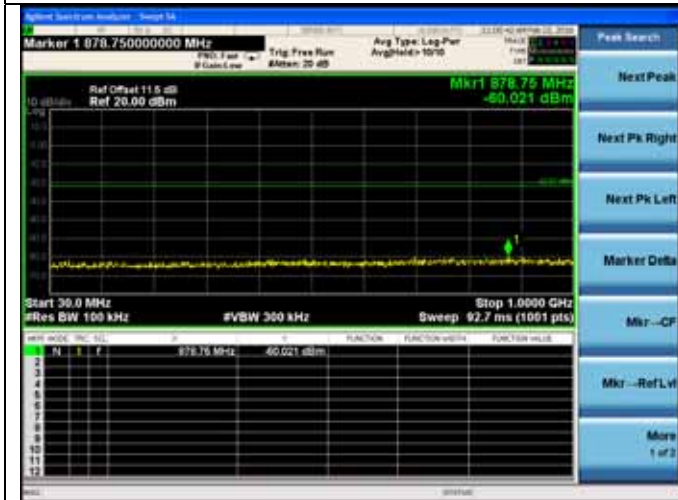


Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz

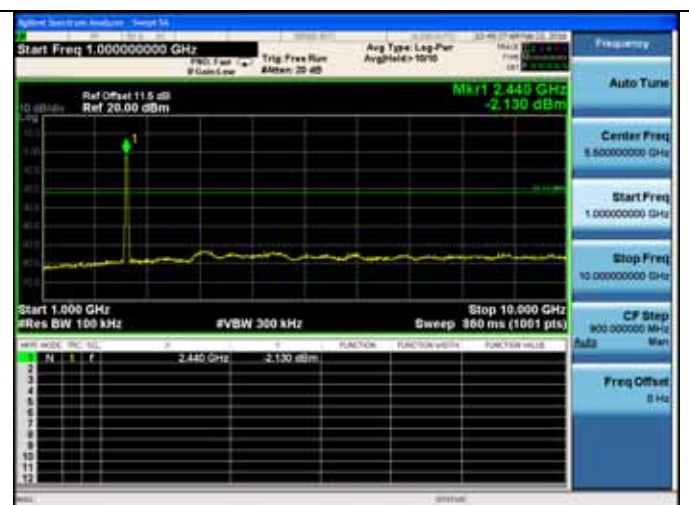
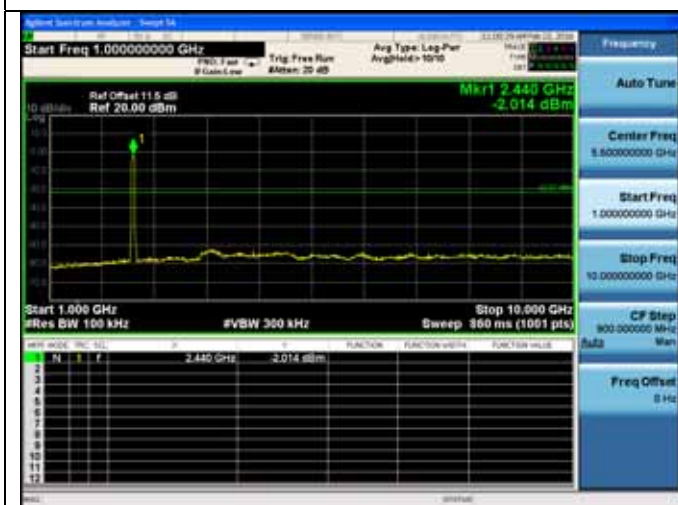
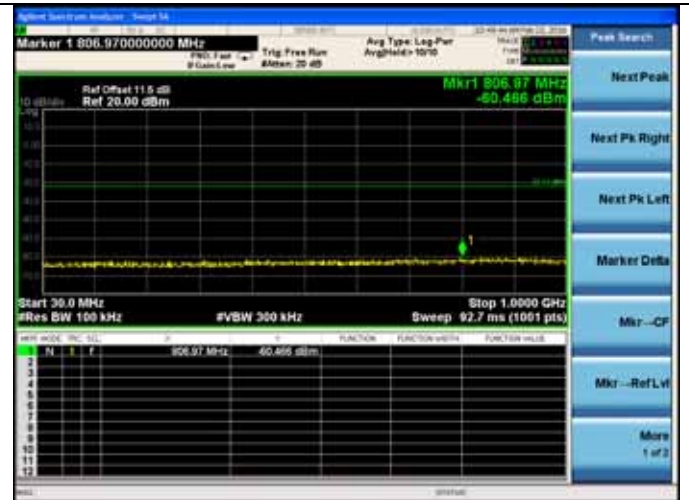




Test CH6: 2437MHz



Test CH9: 2452MHz





## 6. BAND EDGE COMPLIANCE TEST

### 6.1. Test Equipment

| Item | Equipment    | Manufacturer | Model No.   | Serial No. | Last Cal. | Cal. Interval |
|------|--------------|--------------|-------------|------------|-----------|---------------|
| 1.   | Spectrum     | Agilent      | E4446A      | US44300459 | Apr.28,15 | 1 Year        |
| 2.   | Amp          | HP           | 8449B       | 3008A02495 | Apr.28,15 | 1 Year        |
| 3.   | Horn Antenna | ETS          | 3115        | 9510-4877  | Oct.15,15 | 1 Year        |
| 4.   | HF Cable     | Hubersuhner  | Sucoflex104 | 274094/4   | Apr.28,15 | 1 Year        |

### 6.2. Limit

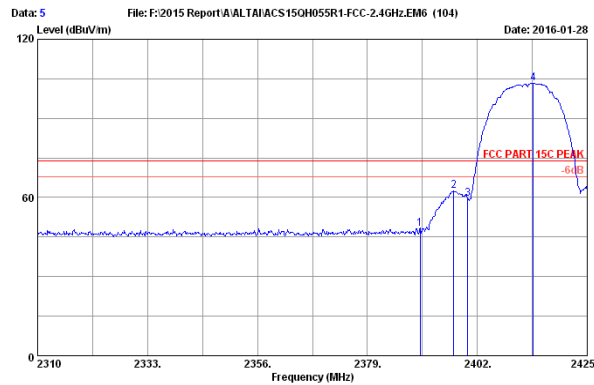
All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental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

### 6.3. Test Produce

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
  - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
  - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

### 6.4. Test Results

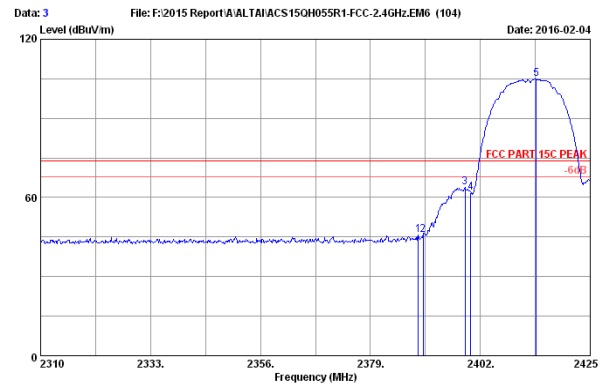
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 5  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 49.64          | 48.28                   | 74.00           | 25.72       | Peak   |
| 2   | 2397.005    | 27.99              | 7.32            | 36.62           | 63.83          | 62.52                   | 74.00           | 11.48       | Peak   |
| 3   | 2400.000    | 28.00              | 7.32            | 36.62           | 60.77          | 59.47                   | 74.00           | 14.53       | Peak   |
| 4   | 2413.730    | 28.03              | 7.35            | 36.61           | 104.63         | 103.40                  | 74.00           | -29.40      | Peak   |

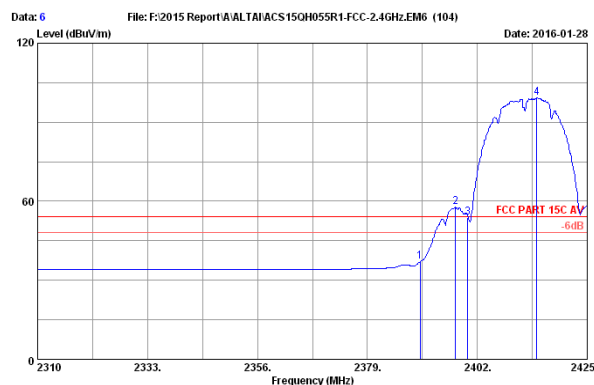
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -AMP Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 3  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2389.005    | 27.98              | 7.28            | 36.62           | 47.05          | 45.69                   | 74.00           | 28.31       | Peak   |
| 2   | 2390.000    | 27.98              | 7.28            | 36.62           | 47.15          | 45.79                   | 74.00           | 28.21       | Peak   |
| 3   | 2398.780    | 28.00              | 7.32            | 36.62           | 65.08          | 63.78                   | 74.00           | 10.22       | Peak   |
| 4   | 2400.000    | 28.00              | 7.32            | 36.62           | 63.05          | 61.75                   | 74.00           | 12.25       | Peak   |
| 5   | 2413.730    | 28.03              | 7.35            | 36.61           | 106.16         | 104.93                  | 74.00           | -30.93      | Peak   |

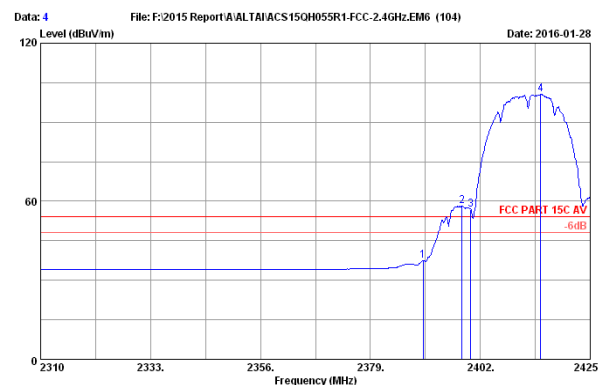
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -AMP Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 38.37          | 37.01                   | 54.00           | 16.99       | Average |
| 2   | 2397.400    | 27.99              | 7.32            | 36.62           | 59.16          | 57.85                   | 54.00           | -3.85       | Average |
| 3   | 2400.000    | 28.00              | 7.32            | 36.62           | 55.20          | 53.90                   | 54.00           | 0.10        | Average |
| 4   | 2414.420    | 28.03              | 7.35            | 36.61           | 100.47         | 99.24                   | 54.00           | -45.24      | Average |

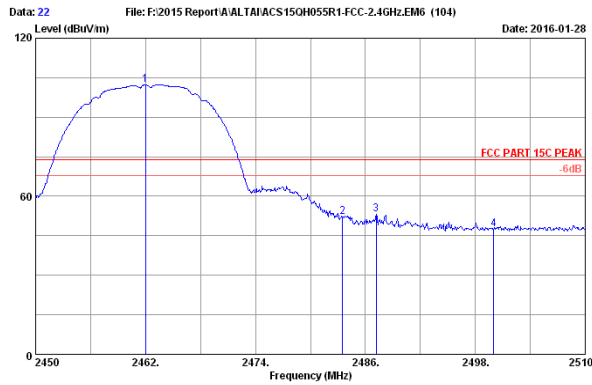
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -AMP Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 4  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 38.76          | 37.40                   | 54.00           | 16.60       | Average |
| 2   | 2398.205    | 28.00              | 7.32            | 36.62           | 59.61          | 58.31                   | 54.00           | -4.31       | Average |
| 3   | 2400.000    | 28.00              | 7.32            | 36.62           | 58.11          | 56.81                   | 54.00           | -2.81       | Average |
| 4   | 2414.650    | 28.03              | 7.35            | 36.61           | 101.73         | 100.50                  | 54.00           | -46.50      | Average |

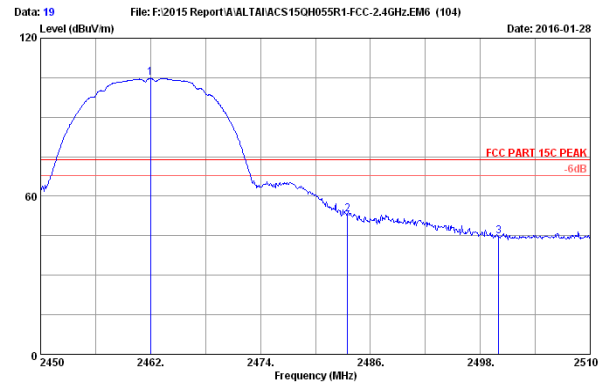
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -AMP Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2462.000    | 28.12              | 7.43            | 36.60           | 103.49         | 102.44                  | 74.00           | -28.44      | Peak   |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 53.11          | 52.20                   | 74.00           | 21.80       | Peak   |
| 3   | 2487.200    | 28.17              | 7.51            | 36.59           | 54.05          | 53.14                   | 74.00           | 20.86       | Peak   |
| 4   | 2500.000    | 28.20              | 7.51            | 36.58           | 48.39          | 47.52                   | 74.00           | 26.48       | Peak   |

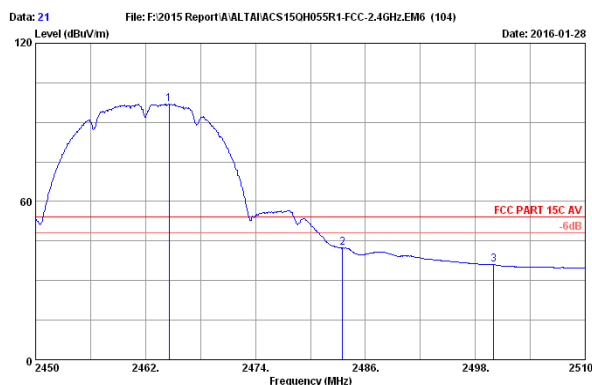
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 19  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2462.000    | 28.12              | 7.43            | 36.60           | 105.89         | 104.84                  | 74.00           | -30.84      | Peak   |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 54.20          | 53.29                   | 74.00           | 20.71       | Peak   |
| 3   | 2500.000    | 28.20              | 7.51            | 36.58           | 45.71          | 44.84                   | 74.00           | 29.16       | Peak   |

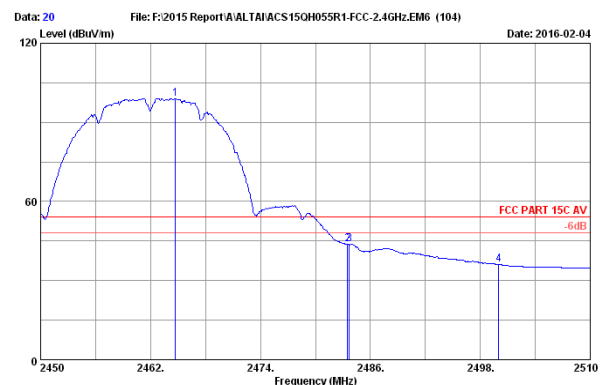
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2464.580    | 28.13              | 7.43            | 36.59           | 98.06          | 97.03                   | 54.00           | -43.03      | Average |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 43.27          | 42.36                   | 54.00           | 11.64       | Average |
| 3   | 2500.000    | 28.20              | 7.51            | 36.58           | 36.96          | 36.09                   | 54.00           | 17.91       | Average |

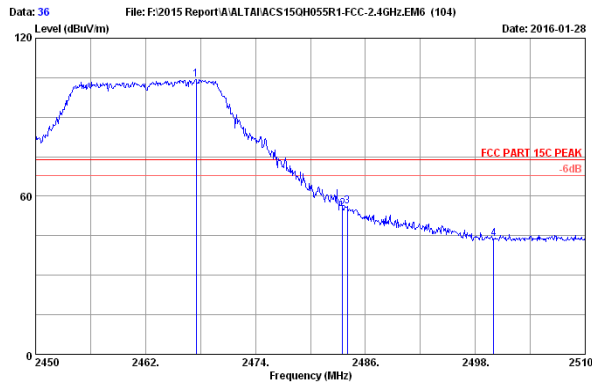
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 20  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11b 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2464.700    | 28.13              | 7.43            | 36.59           | 100.10         | 99.07                   | 54.00           | -45.07      | Average |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 44.65          | 43.74                   | 54.00           | 10.26       | Average |
| 3   | 2483.720    | 28.17              | 7.51            | 36.59           | 44.79          | 43.88                   | 54.00           | 10.12       | Average |
| 4   | 2500.000    | 28.20              | 7.51            | 36.58           | 37.06          | 36.19                   | 54.00           | 17.81       | Average |

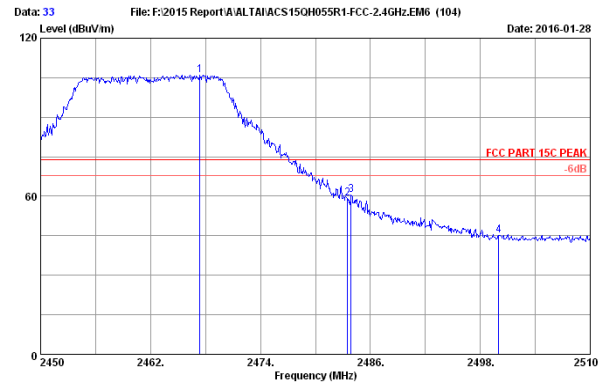
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 36  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2467.520       | 28.14                    | 7.47                  | 36.59                 | 105.36            | 104.38                        | 74.00              | -30.38         | Peak   |
| 2   | 2483.500       | 28.17                    | 7.51                  | 36.59                 | 56.10             | 55.19                         | 74.00              | 18.81          | Peak   |
| 3   | 2484.020       | 28.17                    | 7.51                  | 36.59                 | 57.12             | 56.21                         | 74.00              | 17.79          | Peak   |
| 4   | 2500.000       | 28.20                    | 7.51                  | 36.58                 | 44.65             | 43.78                         | 74.00              | 30.22          | Peak   |

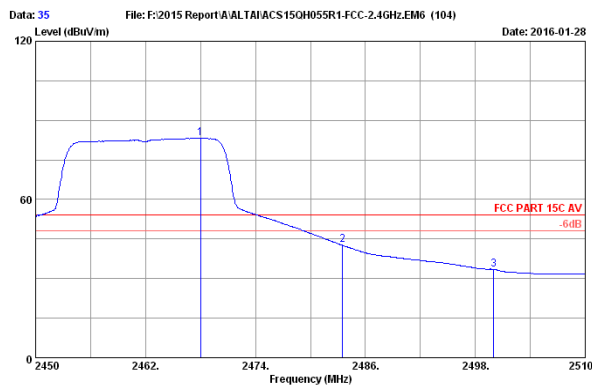
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



Site no. : 3m Chamber Data no. : 33  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|--------|
| 1   | 2467.400       | 28.13                    | 7.47                  | 36.59                 | 106.95            | 105.96                        | 74.00              | -31.96         | Peak   |
| 2   | 2483.500       | 28.17                    | 7.51                  | 36.59                 | 60.10             | 59.19                         | 74.00              | 14.81          | Peak   |
| 3   | 2483.900       | 28.17                    | 7.51                  | 36.59                 | 61.37             | 60.46                         | 74.00              | 13.54          | Peak   |
| 4   | 2500.000       | 28.20                    | 7.51                  | 36.58                 | 45.96             | 45.09                         | 74.00              | 28.91          | Peak   |

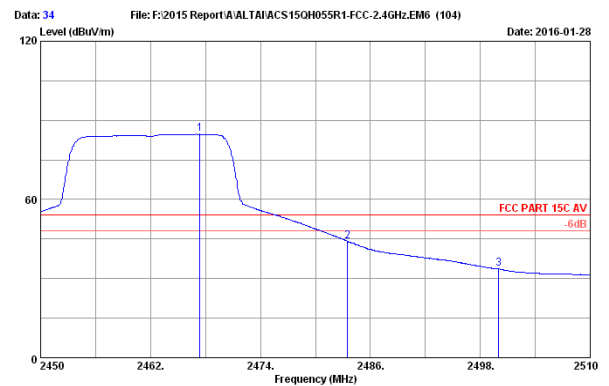
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



Site no. : 3m Chamber Data no. : 35  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 2468.000       | 28.14                    | 7.47                  | 36.59                 | 84.16             | 83.18                         | 54.00              | -29.18         | Average |
| 2   | 2483.500       | 28.17                    | 7.51                  | 36.59                 | 43.54             | 42.63                         | 54.00              | 11.37          | Average |
| 3   | 2500.000       | 28.20                    | 7.51                  | 36.58                 | 34.39             | 33.52                         | 54.00              | 20.48          | Average |

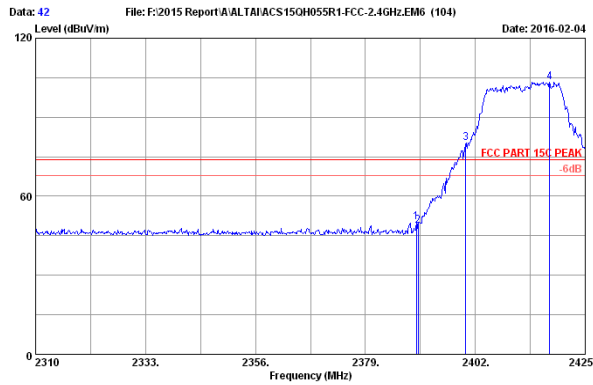
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



Site no. : 3m Chamber Data no. : 34  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2462Hz Tx  
 WA8011NAC-H

| No. | Freq.<br>(MHz) | Ant.<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | AMP<br>factor<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limits<br>(dBuV/m) | Margin<br>(dB) | Remark  |
|-----|----------------|--------------------------|-----------------------|-----------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1   | 2467.400       | 28.13                    | 7.47                  | 36.59                 | 85.73             | 84.74                         | 54.00              | -30.74         | Average |
| 2   | 2483.500       | 28.17                    | 7.51                  | 36.59                 | 45.07             | 44.16                         | 54.00              | 9.84           | Average |
| 3   | 2500.000       | 28.20                    | 7.51                  | 36.58                 | 34.54             | 33.67                         | 54.00              | 20.33          | Average |

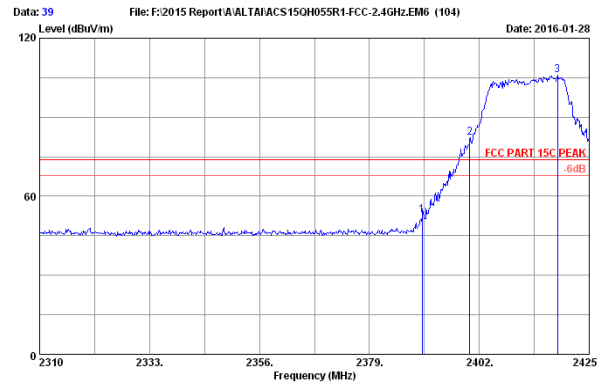
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



Site no. : 3m Chamber Data no. : 42  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2389.695    | 27.98              | 7.28            | 36.62           | 51.62          | 50.26                   | 74.00           | 23.74       | Peak   |
| 2   | 2390.000    | 27.98              | 7.28            | 36.62           | 50.10          | 48.74                   | 74.00           | 25.26       | Peak   |
| 3   | 2400.000    | 28.00              | 7.32            | 36.62           | 81.50          | 80.20                   | 74.00           | -6.20       | Peak   |
| 4   | 2417.525    | 28.04              | 7.35            | 36.61           | 104.62         | 103.40                  | 74.00           | -29.40      | Peak   |

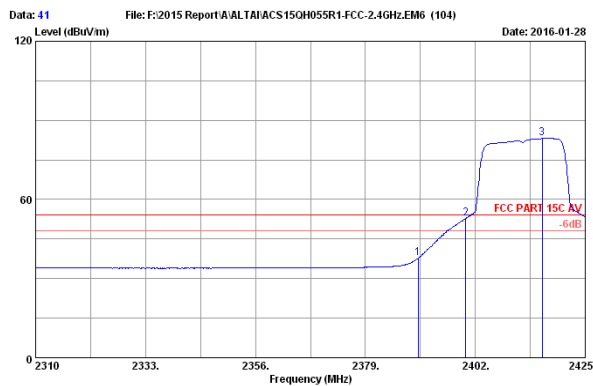
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 39  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 54.18          | 52.82                   | 74.00           | 21.18       | Peak   |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 83.44          | 82.14                   | 74.00           | -8.14       | Peak   |
| 3   | 2418.330    | 28.04              | 7.35            | 36.61           | 107.16         | 105.94                  | 74.00           | -31.94      | Peak   |

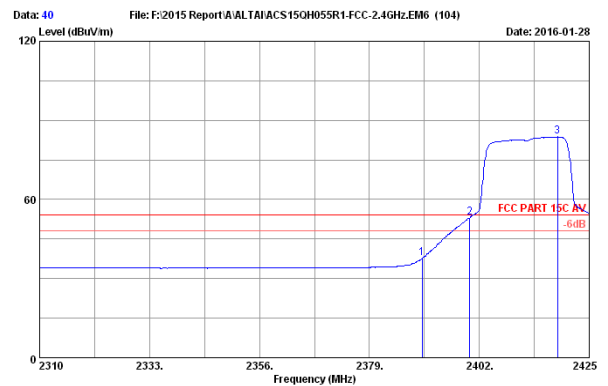
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 41  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 39.08          | 37.72                   | 54.00           | 16.28       | Average |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 54.23          | 52.93                   | 54.00           | 1.07        | Average |
| 3   | 2416.030    | 28.03              | 7.35            | 36.61           | 84.36          | 83.13                   | 54.00           | -29.13      | Average |

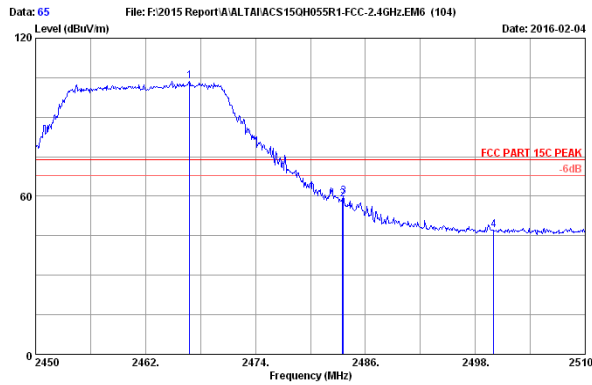
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 40  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11g 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 39.04          | 37.68                   | 54.00           | 16.32       | Average |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 54.51          | 53.21                   | 54.00           | 0.79        | Average |
| 3   | 2418.330    | 28.04              | 7.35            | 36.61           | 84.98          | 83.76                   | 54.00           | -29.76      | Average |

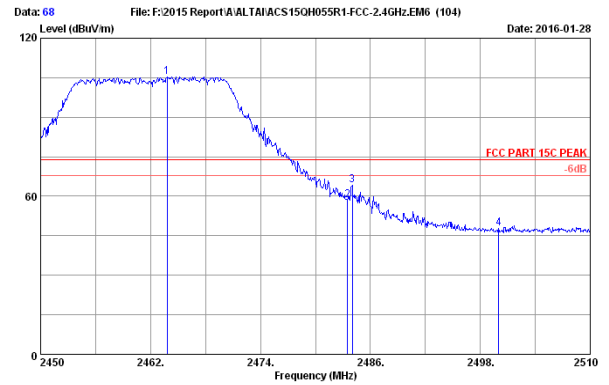
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 65  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2466.800    | 28.13              | 7.47            | 36.59           | 104.68         | 103.69                  | 74.00           | -29.69      | Peak   |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 59.87          | 58.96                   | 74.00           | 15.04       | Peak   |
| 3   | 2483.600    | 28.17              | 7.51            | 36.59           | 60.76          | 59.85                   | 74.00           | 14.15       | Peak   |
| 4   | 2500.000    | 28.20              | 7.51            | 36.58           | 47.84          | 46.97                   | 74.00           | 27.03       | Peak   |

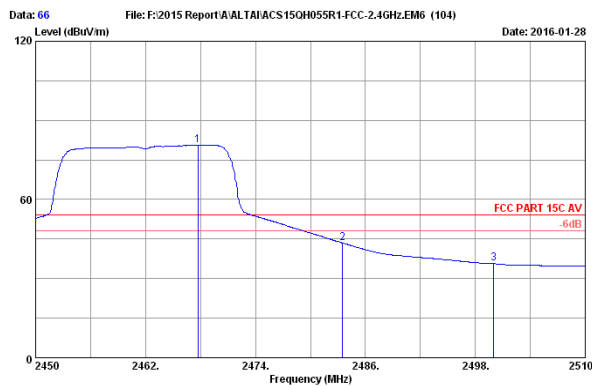
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 68  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2463.800    | 28.13              | 7.43            | 36.59           | 106.48         | 105.45                  | 74.00           | -31.45      | Peak   |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 59.32          | 58.41                   | 74.00           | 15.59       | Peak   |
| 3   | 2484.020    | 28.17              | 7.51            | 36.59           | 65.24          | 64.33                   | 74.00           | 9.67        | Peak   |
| 4   | 2500.000    | 28.20              | 7.51            | 36.58           | 48.56          | 47.69                   | 74.00           | 26.31       | Peak   |

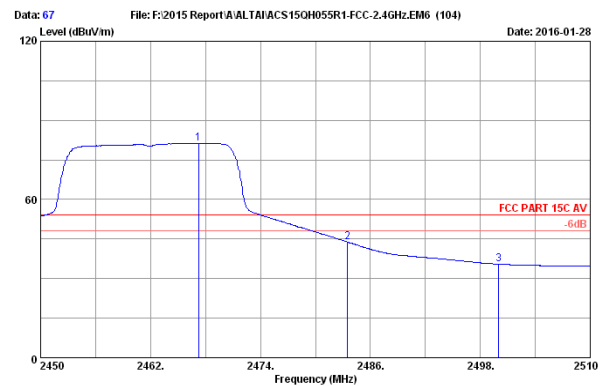
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 66  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2467.700    | 28.14              | 7.47            | 36.59           | 81.58          | 80.60                   | 54.00           | -26.60      | Average |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 44.47          | 43.56                   | 54.00           | 10.44       | Average |
| 3   | 2500.000    | 28.20              | 7.51            | 36.58           | 36.59          | 35.72                   | 54.00           | 18.28       | Average |

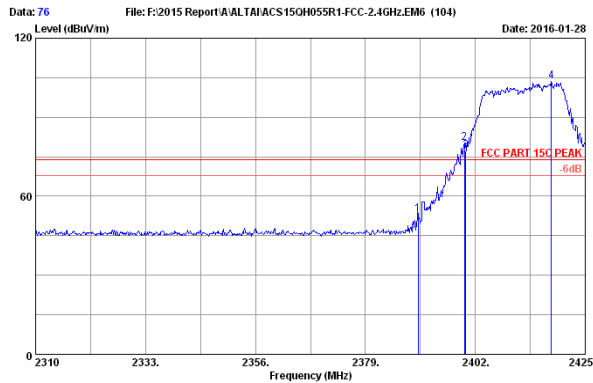
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 67  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2462Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2467.220    | 28.13              | 7.47            | 36.59           | 82.33          | 81.34                   | 54.00           | -27.34      | Average |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 44.72          | 43.81                   | 54.00           | 10.19       | Average |
| 3   | 2500.000    | 28.20              | 7.51            | 36.58           | 36.42          | 35.55                   | 54.00           | 18.45       | Average |

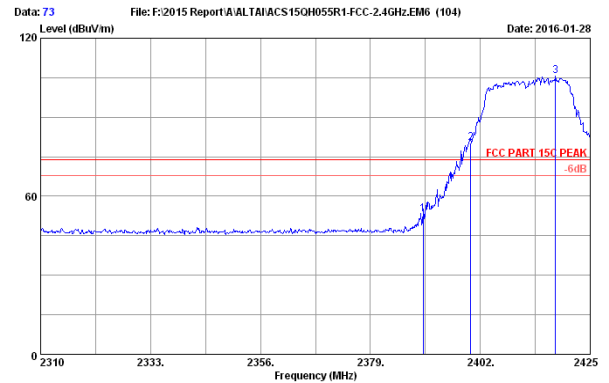
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 76  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 54.54          | 53.18                   | 74.00           | 20.82       | Peak   |
| 2   | 2399.700    | 28.00              | 7.32            | 36.62           | 81.62          | 80.32                   | 74.00           | -6.32       | Peak   |
| 3   | 2400.000    | 28.00              | 7.32            | 36.62           | 78.36          | 77.06                   | 74.00           | -3.06       | Peak   |
| 4   | 2417.870    | 28.04              | 7.35            | 36.61           | 104.78         | 103.56                  | 74.00           | -29.56      | Peak   |

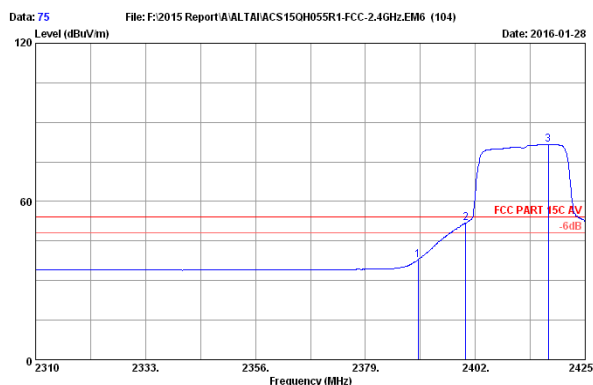
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 73  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2390.040    | 27.98              | 7.28            | 36.62           | 54.51          | 53.15                   | 74.00           | 20.85       | Peak   |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 81.62          | 80.32                   | 74.00           | -6.32       | Peak   |
| 3   | 2417.755    | 28.04              | 7.35            | 36.61           | 106.70         | 105.48                  | 74.00           | -31.48      | Peak   |

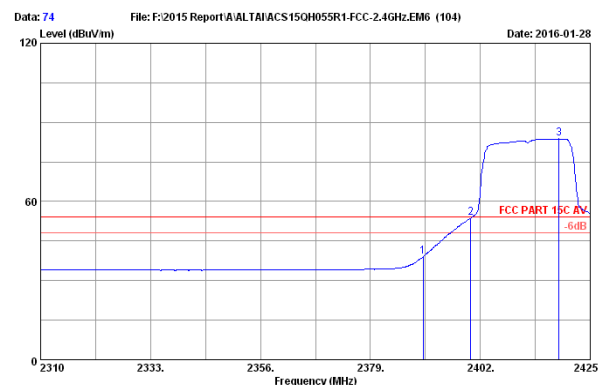
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 75  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 39.23          | 37.87                   | 54.00           | 16.13       | Average |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 53.21          | 51.91                   | 54.00           | 2.09        | Average |
| 3   | 2417.295    | 28.03              | 7.35            | 36.61           | 82.91          | 81.68                   | 54.00           | -27.68      | Average |

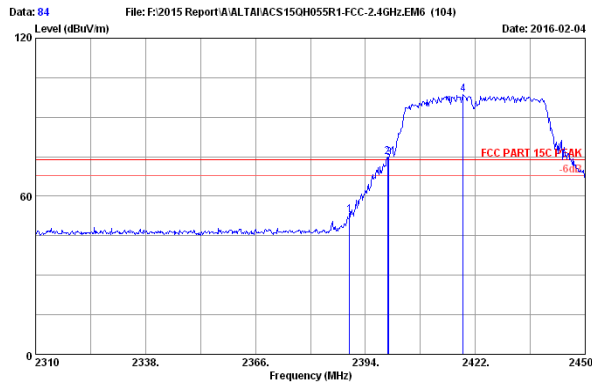
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 74  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT20 2412Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 40.35          | 38.99                   | 54.00           | 15.01       | Average |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 55.14          | 53.84                   | 54.00           | 0.16        | Average |
| 3   | 2418.445    | 28.04              | 7.35            | 36.61           | 84.97          | 83.75                   | 54.00           | -29.75      | Average |

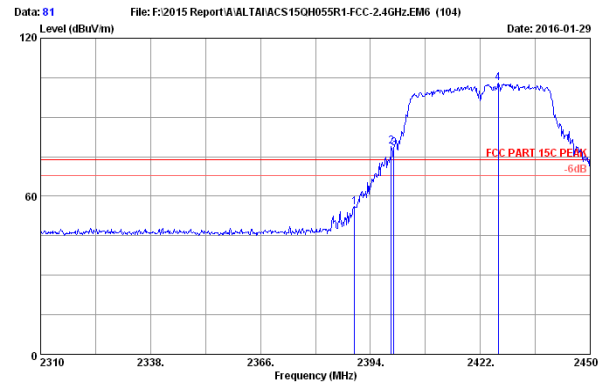
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 84  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 54.11          | 52.75                   | 74.00           | 21.25       | Peak   |
| 2   | 2399.600    | 28.00              | 7.32            | 36.62           | 76.18          | 74.88                   | 74.00           | -0.88       | Peak   |
| 3   | 2400.000    | 28.00              | 7.32            | 36.62           | 75.73          | 74.43                   | 74.00           | -0.43       | Peak   |
| 4   | 2418.920    | 28.04              | 7.35            | 36.61           | 99.71          | 98.49                   | 74.00           | -24.49      | Peak   |

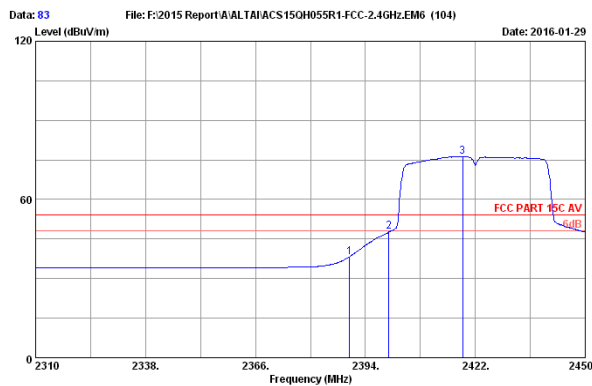
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 81  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 57.29          | 55.93                   | 74.00           | 18.07       | Peak   |
| 2   | 2399.320    | 28.00              | 7.32            | 36.62           | 80.09          | 78.79                   | 74.00           | -4.79       | Peak   |
| 3   | 2400.000    | 28.00              | 7.32            | 36.62           | 79.36          | 78.06                   | 74.00           | -4.06       | Peak   |
| 4   | 2426.620    | 28.05              | 7.35            | 36.61           | 104.10         | 102.89                  | 74.00           | -28.89      | Peak   |

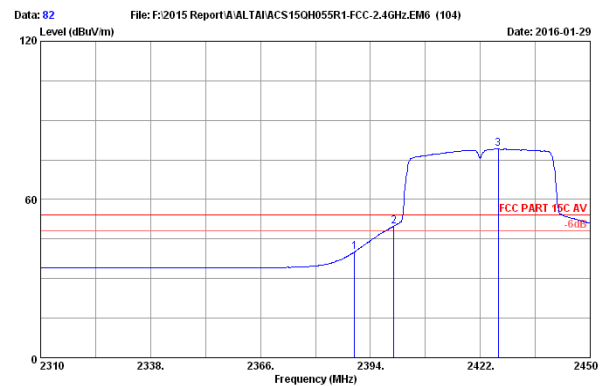
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 83  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 39.59          | 38.23                   | 54.00           | 15.77       | Average |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 49.00          | 47.70                   | 54.00           | 6.30        | Average |
| 3   | 2418.780    | 28.04              | 7.35            | 36.61           | 77.47          | 76.25                   | 54.00           | -22.25      | Average |

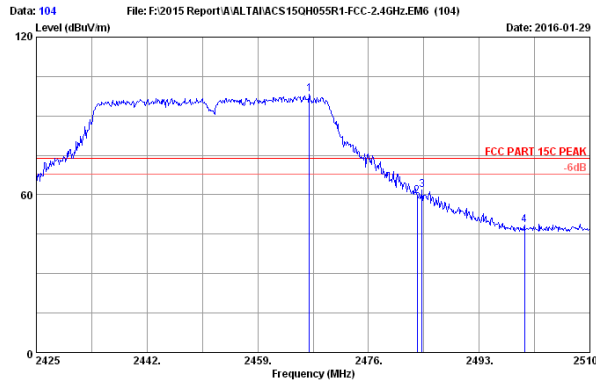
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 82  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2422Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2390.000    | 27.98              | 7.28            | 36.62           | 41.44          | 40.08                   | 54.00           | 13.92       | Average |
| 2   | 2400.000    | 28.00              | 7.32            | 36.62           | 51.25          | 49.95                   | 54.00           | 4.05        | Average |
| 3   | 2426.620    | 28.05              | 7.35            | 36.61           | 80.31          | 79.10                   | 54.00           | -25.10      | Average |

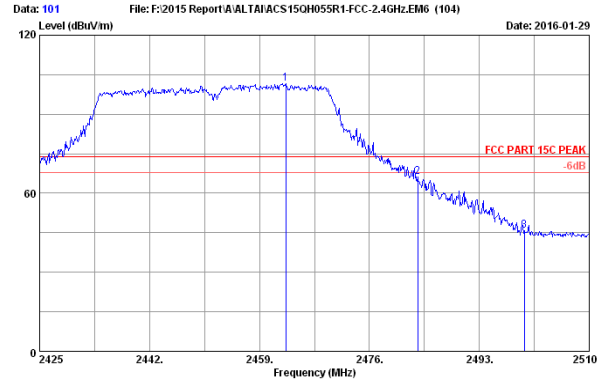
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 104  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2466.905    | 28.13              | 7.47            | 36.59           | 99.26          | 98.27                   | 74.00           | -24.27      | Peak   |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 60.47          | 59.56                   | 74.00           | 14.44       | Peak   |
| 3   | 2484.245    | 28.17              | 7.51            | 36.59           | 62.75          | 61.84                   | 74.00           | 12.16       | Peak   |
| 4   | 2500.000    | 28.20              | 7.51            | 36.58           | 49.45          | 48.58                   | 74.00           | 25.42       | Peak   |

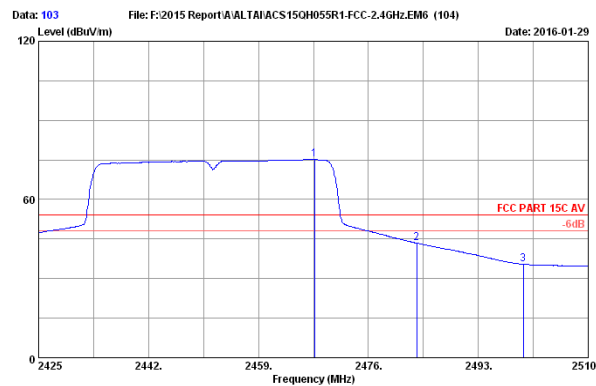
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 101  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|--------|
| 1   | 2463.080    | 28.13              | 7.43            | 36.59           | 102.56         | 101.53                  | 74.00           | -27.53      | Peak   |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 67.12          | 66.21                   | 74.00           | 7.79        | Peak   |
| 3   | 2500.000    | 28.20              | 7.51            | 36.58           | 46.53          | 45.66                   | 74.00           | 28.34       | Peak   |

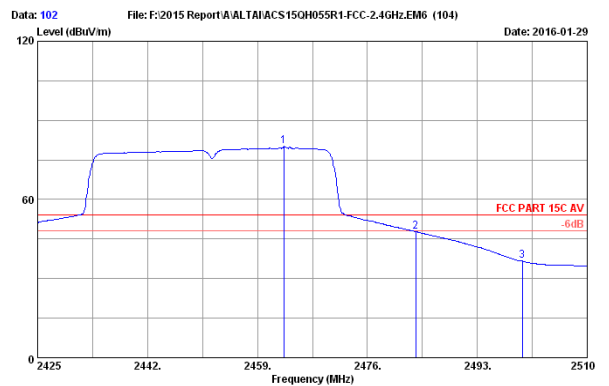
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 103  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2467.670    | 28.14              | 7.47            | 36.59           | 76.12          | 75.14                   | 54.00           | -21.14      | Average |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 44.35          | 43.44                   | 54.00           | 10.56       | Average |
| 3   | 2500.000    | 28.20              | 7.51            | 36.58           | 36.40          | 35.53                   | 54.00           | 18.47       | Average |

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



Site no. : 3m Chamber Data no. : 102  
 Dis. / Ant. : 3m 2015 MCTD1209 3006 Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 23°C/54%  
 Engineer : Leo-Li  
 EUT : Altai A8in (ac) Super WiFi Base Station  
 Power rating : DC 56V From POE Input AC 120V/60Hz  
 Test Mode : IEEE802.11nHT40 2452Hz Tx  
 WA8011NAC-H

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark  |
|-----|-------------|--------------------|-----------------|-----------------|----------------|-------------------------|-----------------|-------------|---------|
| 1   | 2463.080    | 28.13              | 7.43            | 36.59           | 81.18          | 80.15                   | 54.00           | -26.15      | Average |
| 2   | 2483.500    | 28.17              | 7.51            | 36.59           | 48.68          | 47.77                   | 54.00           | 6.23        | Average |
| 3   | 2500.000    | 28.20              | 7.51            | 36.58           | 37.48          | 36.61                   | 54.00           | 17.39       | Average |

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

## 7. 6dB Bandwidth Test

### 7.1. Test Equipment

| Item | Equipment         | Manufacturer            | Model No.     | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|-------------------------|---------------|------------|-----------|---------------|
| 1.   | Spectrum          | Agilent                 | N9030A        | MY51380221 | Oct.18,15 | 1 Year        |
| 2.   | Attenuator (20dB) | Agilent                 | 8491B         | MY39262165 | Apr.28,15 | 1 Year        |
| 3.   | RF Cable          | Marvelous Microwave Inc | SFL402105FLEX | NO.1       | Oct.17.15 | 1 Year        |

### 7.2. Limit

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

### 7.3. Test Procedure

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

### 7.4. Test Results

|                                              |                        |                          |
|----------------------------------------------|------------------------|--------------------------|
| EUT: Altai A8in (ac) Super WiFi Base Station |                        |                          |
| M/N: WA8011NAC-H                             |                        |                          |
| Test date: 2016-02-20                        | Pressure: 101.3±1.0kPa | Humidity: 50.1±3.0%      |
| Tested by: Donjon_Huang                      | Test site: RF site     | Temperature: 20.1±0.6 °C |

| Test Mode         | CH   | 6dB bandwidth<br>( MHz ) |       | Limit<br>(KHz) |
|-------------------|------|--------------------------|-------|----------------|
|                   |      | ANT1                     | ANT2  |                |
| 11b               | CH1  | 12.58                    | 12.57 | ≥ 500          |
|                   | CH6  | 11.12                    | 12.57 | ≥ 500          |
|                   | CH11 | 12.08                    | 12.58 | ≥ 500          |
| 11g               | CH1  | 16.36                    | 16.41 | ≥ 500          |
|                   | CH6  | 16.34                    | 16.41 | ≥ 500          |
|                   | CH11 | 16.41                    | 16.43 | ≥ 500          |
| 11n<br>HT20       | CH1  | 17.34                    | 17.61 | ≥ 500          |
|                   | CH6  | 17.36                    | 17.62 | ≥ 500          |
|                   | CH11 | 17.62                    | 17.64 | ≥ 500          |
| 11n<br>HT40       | CH3  | 35.72                    | 35.78 | ≥ 500          |
|                   | CH6  | 35.39                    | 35.75 | ≥ 500          |
|                   | CH9  | 36.32                    | 36.37 | ≥ 500          |
| Conclusion : PASS |      |                          |       |                |

# ANT1:

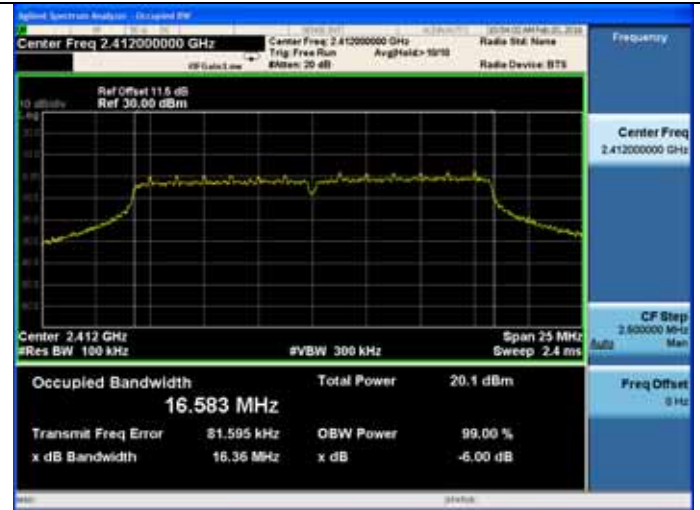
Test Mode: IEEE 802.11b

Test CH1: 2412MHz



Test Mode: IEEE 802.11g

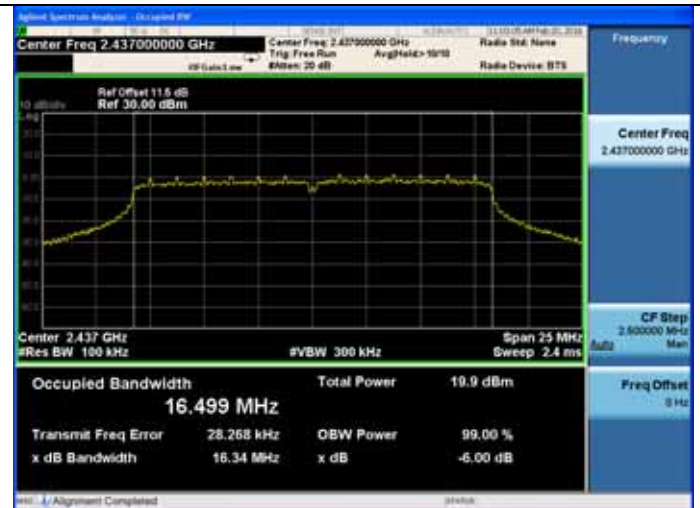
Test CH1: 2412MHz



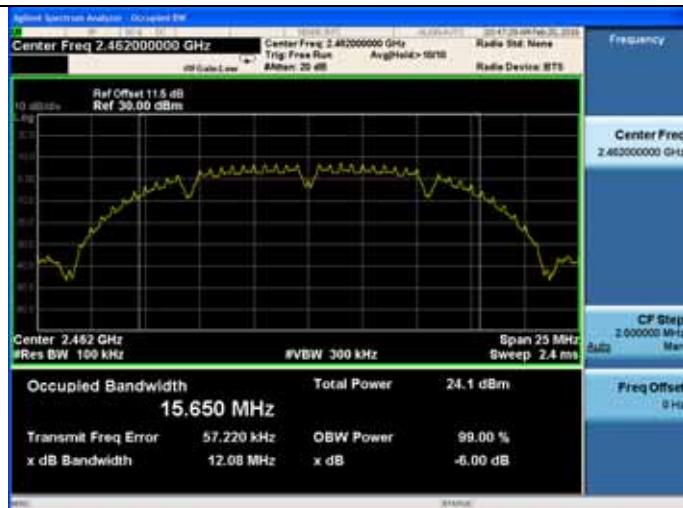
Test CH6: 2437MHz



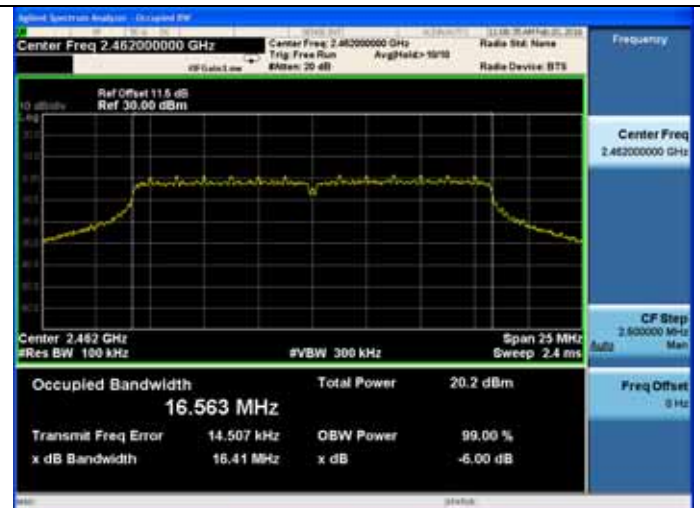
Test CH6: 2437MHz



Test CH11: 2462MHz

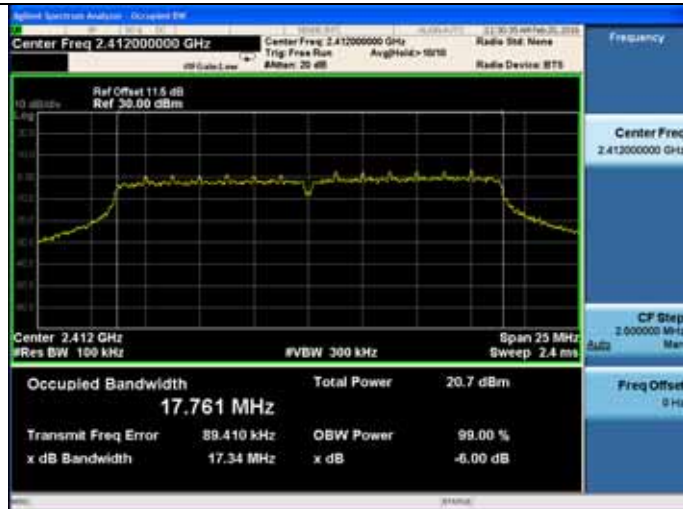


Test CH11: 2462MHz



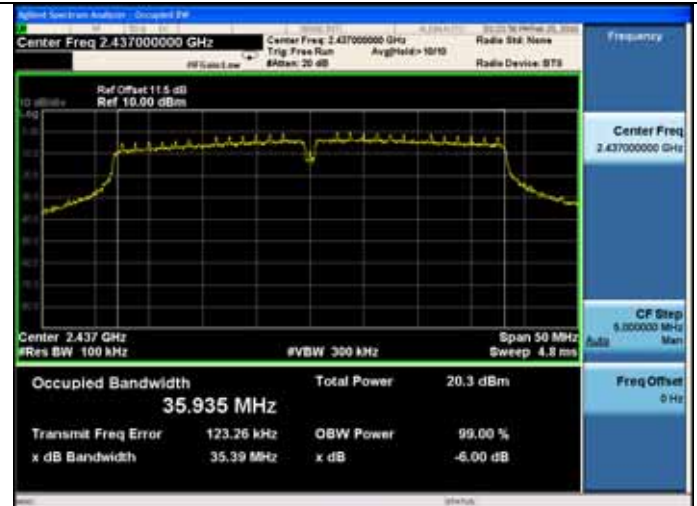
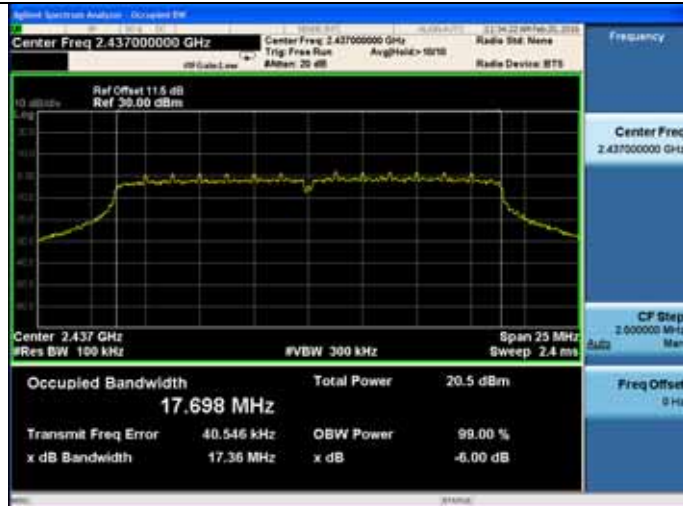
Test Mode: IEEE 802.11n HT20  
Test CH1: 2412MHz

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



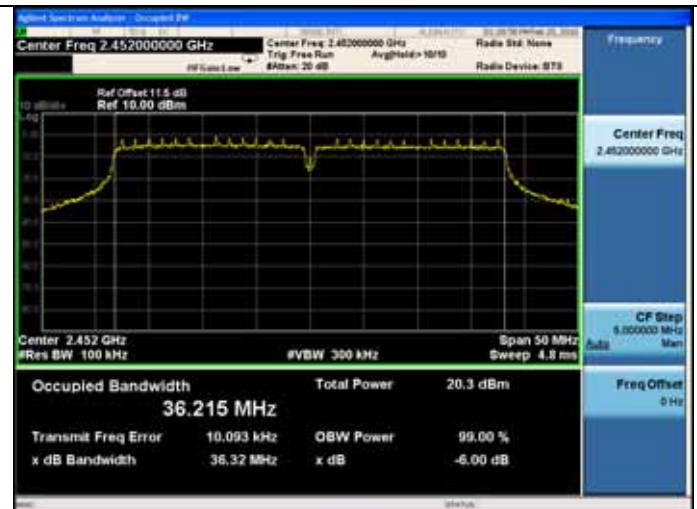
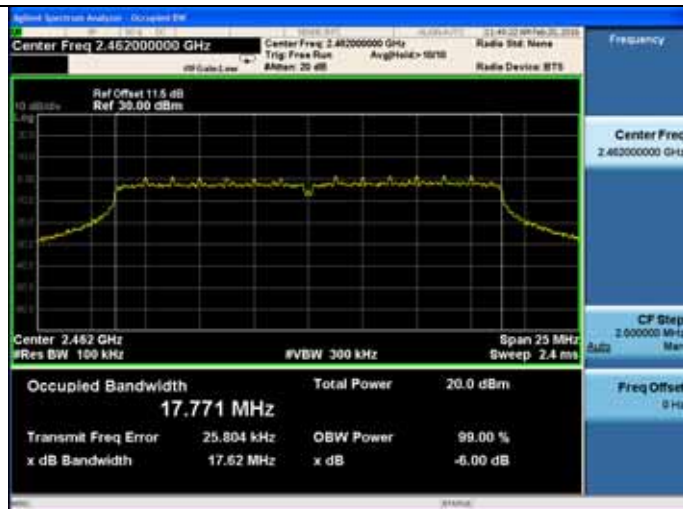
Test CH6: 2437MHz

Test CH6: 2437MHz



Test CH11: 2462MHz

Test CH9: 2452MHz



## ANT2:

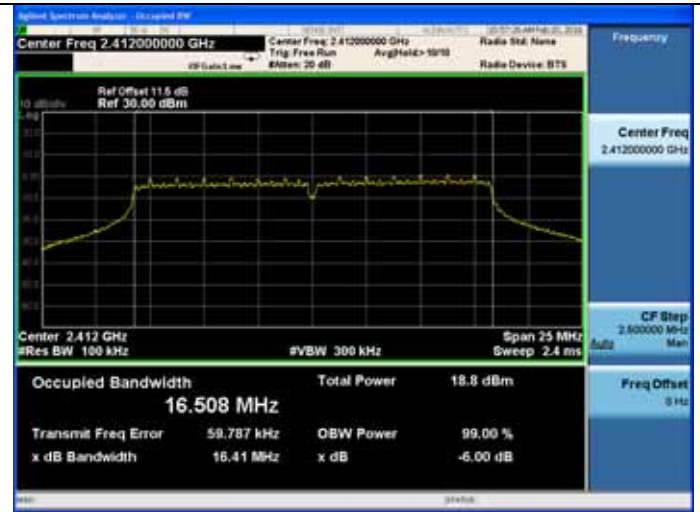
Test Mode: IEEE 802.11b

Test CH1: 2412MHz



Test Mode: IEEE 802.11g

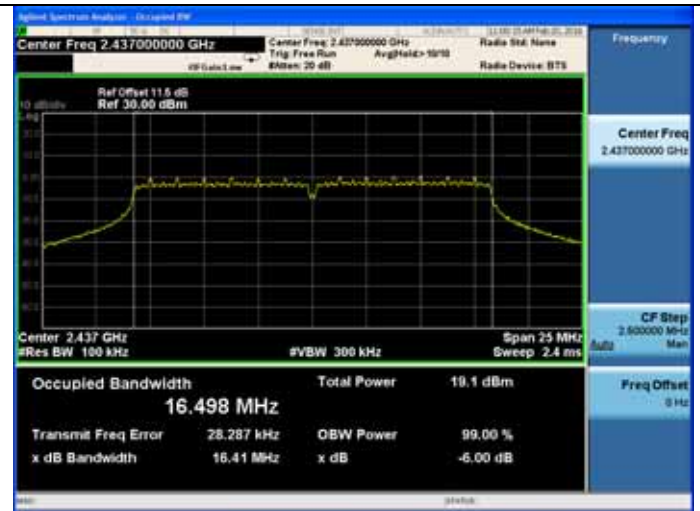
Test CH1: 2412MHz



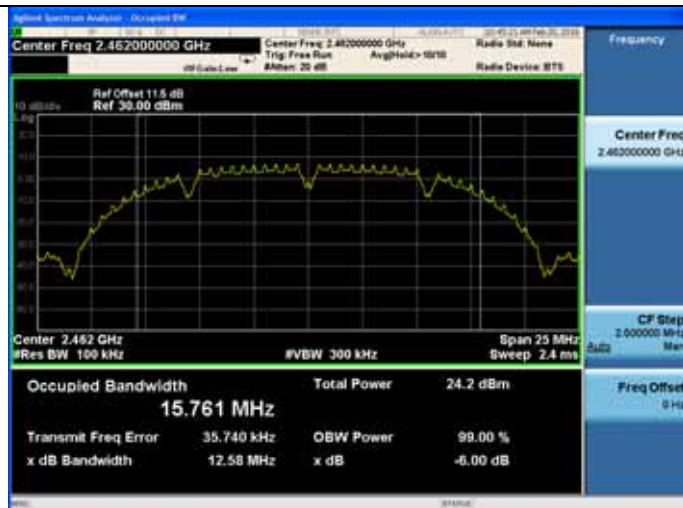
Test CH6: 2437MHz



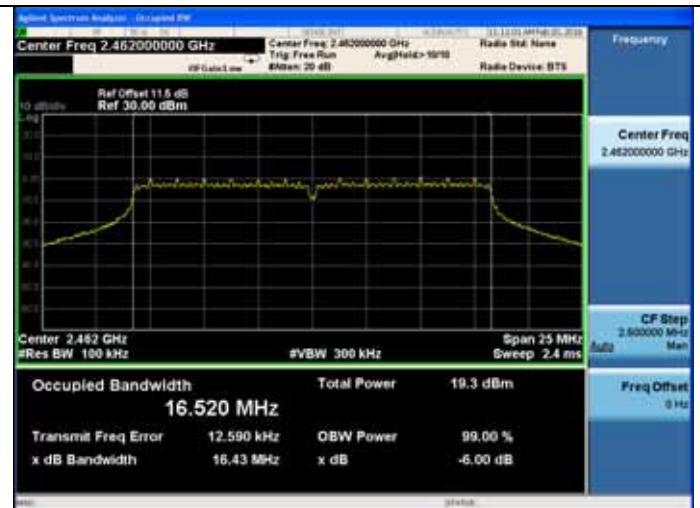
Test CH6: 2437MHz



Test CH11: 2462MHz

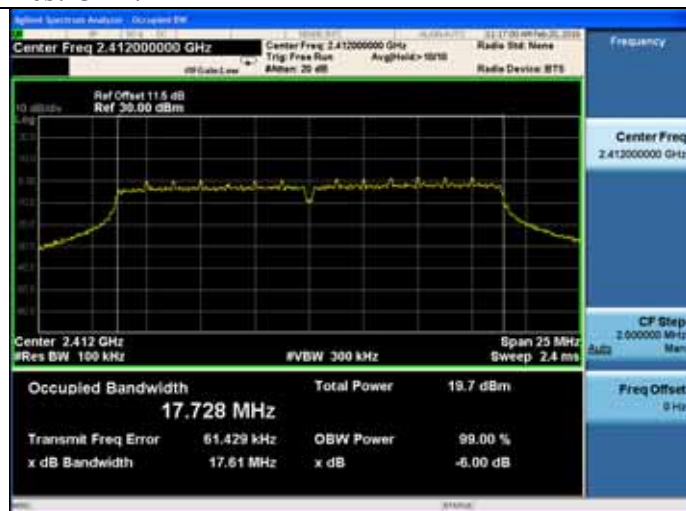


Test CH11: 2462MHz



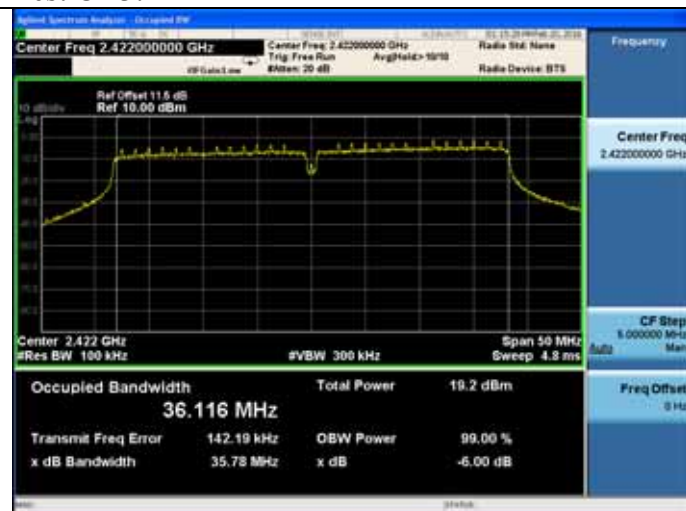
Test Mode: IEEE 802.11n HT20

Test CH1: 2412MHz

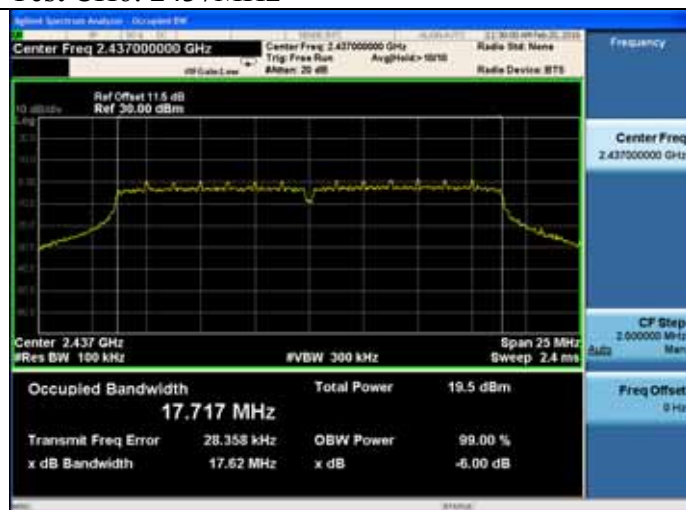


Test Mode: IEEE 802.11n HT40

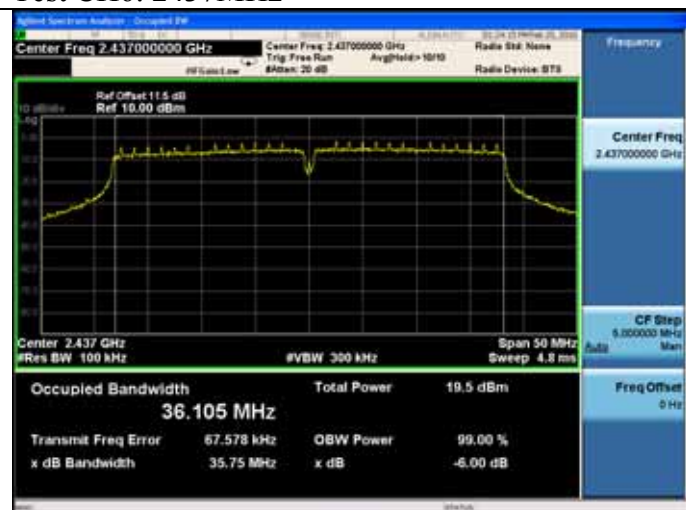
Test CH3: 2422MHz



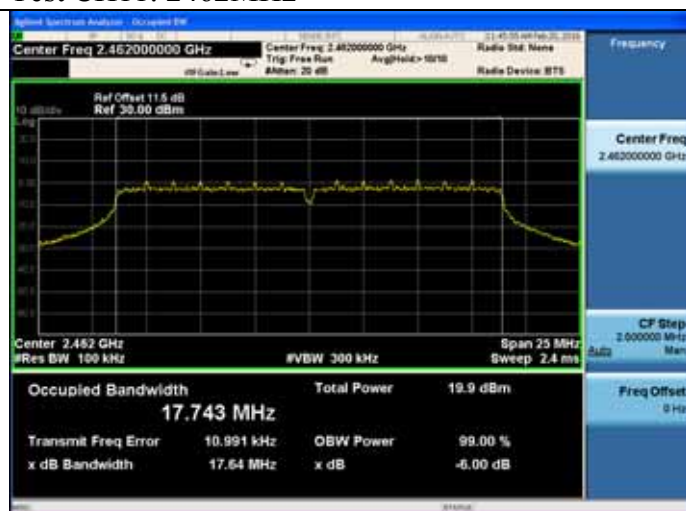
Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



Test CH9: 2452MHz



## 8. OUTPUT POWER TEST

### 8.1. Test Equipment

| Item | Equipment         | Manufacturer            | Model No.     | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|-------------------------|---------------|------------|-----------|---------------|
| 1.   | Spectrum          | Agilent                 | N9030A        | MY51380221 | Oct.18,15 | 1 Year        |
| 2.   | Power meter       | Anritsu                 | ML2487A       | 6K00002472 | Aug.21,15 | 1 Year        |
| 3.   | Power sensor      | Anritsu                 | MA2491A       | 0033005    | Aug.21,15 | 1 Year        |
| 4.   | Attenuator (20dB) | Agilent                 | 8491B         | MY39262165 | Apr.28,15 | 1 Year        |
| 5.   | RF Cable          | Marvelous Microwave Inc | SFL402105FLEX | NO.1       | Oct.17,15 | 1 Year        |

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

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm), As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level.

### 8.3. Test Procedure

1. Connected the EUT's antenna port to measure device by 26dB attenuator.
2. For IEEE 802.11b/g and IEEE802.11n HT20 modes, use a power meter which bandwidth is 20MHz, above the bandwidth of signals, to measure out output power in each mode.
3. For IEEE802.11n HT40 mode, since the signal bandwidth is nearly 40MHz, which is above 20MHz bandwidth of power sensor of ML2491A. use the test method descried in KDB558074 clause 9.2.2.
  - 1) Set the RBW=1MHz and VBW =3MHz
  - 2) Set the span at least 1.5 times the OBW
  - 3) Detector = RMS
  - 4) Sweep time = auto couple
  - 5) Allow trace to fully stabilize
  - 6) Use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges.

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

## 8.4. Test Results

### Module 1:

| EUT: Altai A8in (ac) Super WiFi Base Station |      |                        |       |                          |             |
|----------------------------------------------|------|------------------------|-------|--------------------------|-------------|
| M/N: WA8011NAC-H                             |      |                        |       |                          |             |
| Test date: 2016-02-20                        |      | Pressure: 101.3±1.0kPa |       | Humidity: 50.3±3.0%      |             |
| Tested by: Donjon_Huang                      |      | Test site: RF site     |       | Temperature: 20.4±0.6 °C |             |
| Test Mode                                    | CH   | output Power (dBm)     |       |                          | Limit (dBm) |
|                                              |      | ANT 1                  | ANT2  | Total                    |             |
| 11b                                          | CH1  | 18.11                  | 18.40 | 21.27                    | 19          |
|                                              | CH6  | 18.37                  | 17.75 | 21.08                    | 19          |
|                                              | CH11 | 17.99                  | 18.15 | 21.08                    | 19          |
| 11g                                          | CH1  | 18.34                  | 18.19 | 21.28                    | 19          |
|                                              | CH6  | 18.23                  | 18.31 | 21.28                    | 19          |
|                                              | CH11 | 18.06                  | 18.54 | 21.32                    | 19          |
| 11n HT20                                     | CH1  | 18.65                  | 18.15 | 21.42                    | 19          |
|                                              | CH6  | 18.56                  | 18.08 | 21.34                    | 19          |
|                                              | CH11 | 18.32                  | 18.62 | 21.48                    | 19          |
| 11n HT40                                     | CH3  | 18.58                  | 17.79 | 21.21                    | 19          |
|                                              | CH6  | 18.70                  | 17.90 | 21.33                    | 19          |
|                                              | CH9  | 18.75                  | 18.04 | 21.42                    | 19          |
| Conclusion: PASS                             |      |                        |       |                          |             |

$$\begin{aligned}
 \text{Directional Gain} &= G_{\text{ANT}} + 10\log 2(\text{dBi}) \\
 &= 14\text{dBi} + 3\text{dBi} \\
 &= 17\text{dBi} > 6\text{dBi}
 \end{aligned}$$

$$\begin{aligned}
 \text{Output Power Limit} &= 30\text{dBm} - (17\text{dBi} - 6\text{dBi}) \\
 &= 19\text{dBm}
 \end{aligned}$$

**Module 2:**

| EUT: Altai A8in (ac) Super WiFi Base Station |      |                        |       |                          |             |
|----------------------------------------------|------|------------------------|-------|--------------------------|-------------|
| M/N: WA8011NAC-H                             |      |                        |       |                          |             |
| Test date: 2016-02-20                        |      | Pressure: 101.3±1.0kPa |       | Humidity: 50.3±3.0%      |             |
| Tested by: Donjon_Huang                      |      | Test site: RF site     |       | Temperature: 20.4±0.6 °C |             |
| Test Mode                                    | CH   | output Power ( dBm )   |       |                          | Limit (dBm) |
|                                              |      | ANT 1                  | ANT 2 | Total                    |             |
| 11b                                          | CH1  | 17.96                  | 18.04 | 21.01                    | 19          |
|                                              | CH6  | 18.12                  | 17.49 | 20.83                    | 19          |
|                                              | CH11 | 17.61                  | 17.89 | 20.76                    | 19          |
| 11g                                          | CH1  | 18.01                  | 17.87 | 20.95                    | 19          |
|                                              | CH6  | 17.82                  | 18.11 | 20.98                    | 19          |
|                                              | CH11 | 17.84                  | 18.13 | 21.00                    | 19          |
| 11n<br>HT20                                  | CH1  | 18.21                  | 17.79 | 21.02                    | 19          |
|                                              | CH6  | 18.01                  | 17.86 | 20.95                    | 19          |
|                                              | CH11 | 17.91                  | 18.26 | 21.10                    | 19          |
| 11n<br>HT40                                  | CH3  | 18.16                  | 17.60 | 20.90                    | 19          |
|                                              | CH6  | 18.30                  | 17.56 | 20.96                    | 19          |
|                                              | CH9  | 18.38                  | 18.01 | 21.21                    | 19          |
| Conclusion: PASS                             |      |                        |       |                          |             |

$$\text{Directional Gain} = G_{\text{ANT}} + 10\log 2(\text{dBi})$$

$$= 14\text{dBi} + 3\text{dBi}$$

$$= 17\text{dBi} > 6\text{dBi}$$

$$\text{Output Power Limit} = 30\text{dBm} - (17\text{dBi} - 6\text{dBi})$$

$$= 19\text{dBm}$$

**Module 3:**

| EUT: Altai A8in (ac) Super WiFi Base Station |      |                        |       |                          |             |
|----------------------------------------------|------|------------------------|-------|--------------------------|-------------|
| M/N: WA8011NAC-H                             |      |                        |       |                          |             |
| Test date: 2016-02-20                        |      | Pressure: 101.3±1.0kPa |       | Humidity: 50.3±3.0%      |             |
| Tested by: Donjon_Huang                      |      | Test site: RF site     |       | Temperature: 20.4±0.6 °C |             |
| Test Mode                                    | CH   | output Power ( dBm )   |       |                          | Limit (dBm) |
|                                              |      | ANT 1                  | ANT 2 | Total                    |             |
| 11b                                          | CH1  | 17.84                  | 18.14 | 21.00                    | 19          |
|                                              | CH6  | 18.02                  | 17.74 | 20.89                    | 19          |
|                                              | CH11 | 17.76                  | 18.08 | 20.93                    | 19          |
| 11g                                          | CH1  | 18.14                  | 17.88 | 21.02                    | 19          |
|                                              | CH6  | 17.95                  | 18.05 | 21.01                    | 19          |
|                                              | CH11 | 17.86                  | 18.22 | 21.05                    | 19          |
| 11n<br>HT20                                  | CH1  | 18.31                  | 18.08 | 21.21                    | 19          |
|                                              | CH6  | 18.21                  | 17.83 | 21.03                    | 19          |
|                                              | CH11 | 18.12                  | 18.27 | 21.21                    | 19          |
| 11n<br>HT40                                  | CH3  | 18.18                  | 17.55 | 20.89                    | 19          |
|                                              | CH6  | 18.10                  | 17.74 | 20.93                    | 19          |
|                                              | CH9  | 18.43                  | 17.60 | 21.05                    | 19          |
| Conclusion: PASS                             |      |                        |       |                          |             |

$$\text{Directional Gain} = G_{\text{ANT}} + 10\log 2(\text{dBi})$$

$$= 14\text{dBi} + 3\text{dBi}$$

$$= 17\text{dBi} > 6\text{dBi}$$

$$\text{Output Power Limit} = 30\text{dBm} - (17\text{dBi} - 6\text{dBi})$$

$$= 19\text{dBm}$$

**Module 4:**

| EUT: Altai A8in (ac) Super WiFi Base Station |      |                        |       |                          |             |
|----------------------------------------------|------|------------------------|-------|--------------------------|-------------|
| M/N: WA8011NAC-H                             |      |                        |       |                          |             |
| Test date: 2016-02-20                        |      | Pressure: 101.3±1.0kPa |       | Humidity: 50.3±3.0%      |             |
| Tested by: Donjon_Huang                      |      | Test site: RF site     |       | Temperature: 20.4±0.6 °C |             |
| Test Mode                                    | CH   | output Power ( dBm )   |       |                          | Limit (dBm) |
|                                              |      | ANT 1                  | ANT 2 | Total                    |             |
| 11b                                          | CH1  | 18.06                  | 18.08 | 21.08                    | 19          |
|                                              | CH6  | 18.12                  | 17.43 | 20.80                    | 19          |
|                                              | CH11 | 17.76                  | 18.13 | 20.96                    | 19          |
| 11g                                          | CH1  | 17.95                  | 18.10 | 21.04                    | 19          |
|                                              | CH6  | 17.83                  | 18.24 | 21.05                    | 19          |
|                                              | CH11 | 18.31                  | 18.04 | 21.19                    | 19          |
| 11n<br>HT20                                  | CH1  | 18.28                  | 17.87 | 21.09                    | 19          |
|                                              | CH6  | 18.31                  | 17.96 | 21.15                    | 19          |
|                                              | CH11 | 18.18                  | 18.21 | 21.21                    | 19          |
| 11n<br>HT40                                  | CH3  | 18.05                  | 17.91 | 20.99                    | 19          |
|                                              | CH6  | 18.53                  | 17.53 | 21.07                    | 19          |
|                                              | CH9  | 18.32                  | 18.00 | 21.17                    | 19          |
| Conclusion: PASS                             |      |                        |       |                          |             |

$$\text{Directional Gain} = G_{\text{ANT}} + 10\log 2(\text{dBi})$$

$$= 14\text{dBi} + 3\text{dBi}$$

$$= 17\text{dBi} > 6\text{dBi}$$

$$\text{Output Power Limit} = 30\text{dBm} - (17\text{dBi} - 6\text{dBi})$$

$$= 19\text{dBm}$$

## Module 1:

### ANT1:

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



### ANT2:

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH9: 2452MHz



Test CH9: 2452MHz



**Module 2:**
**ANT1:**

Test Mode: IEEE 802.11n HT40

Test CH3: 2422MHz


**ANT2:**

Test Mode: IEEE 802.11n HT40

Test CH3: 2422MHz



Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH9: 2452MHz



Test CH9: 2452MHz



### Module 3:

#### ANT1:

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



#### ANT2:

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



#### Test CH6: 2437MHz



#### Test CH6: 2437MHz



#### Test CH9: 2452MHz



#### Test CH9: 2452MHz



Module 4:

ANT1:

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



ANT2:

Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH9: 2452MHz



Test CH9: 2452MHz



## 9. POWER SPECTRAL DENSITY TEST

### 9.1. Test Equipment

| Item | Equipment         | Manufacturer            | Model No.     | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|-------------------------|---------------|------------|-----------|---------------|
| 1.   | Spectrum          | Agilent                 | N9030A        | MY51380221 | Oct.18,15 | 1 Year        |
| 2.   | Attenuator (20dB) | Agilent                 | 8491B         | MY39262165 | Apr.28,15 | 1 Year        |
| 3.   | RF Cable          | Marvelous Microwave Inc | SFL402105FLEX | NO.1       | Oct.17,15 | 1 Year        |

### 9.2. Limit

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

### 9.3. Test Procedure

1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.
2. Set span to 1.5 times the DTS Bandwidth.
3. Set the RBW=3KHz, VBW=10KHz.
4. Detector=peak, Sweep time=Auto, Trace mode=max Hold
5. All the trace to fully stabilize.
6. Use the peak marker function to determine the maximum amplitude level with in the RBW.

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

## 9.4. Test Results

| EUT: Altai A8in (ac) Super WiFi Base Station |      |                               |         |                          |                     |
|----------------------------------------------|------|-------------------------------|---------|--------------------------|---------------------|
| M/N: WA8011NAC-H                             |      |                               |         |                          |                     |
| Test date: 2016-02-20                        |      | Pressure: 101.1±1.0kPa        |         | Humidity: 49.9±3.0%      |                     |
| Tested by: Donjon_Huang                      |      | Test site: RF site            |         | Temperature: 20.2±0.6 °C |                     |
| Test Mode                                    | CH   | Power Density<br>( dBm/3KHz ) |         |                          | Limit<br>(dBm/3KHz) |
|                                              |      | ANT 1                         | ANT 2   | Total                    |                     |
| 11b                                          | CH1  | -6.742                        | -6.311  | -3.51                    | -3                  |
|                                              | CH6  | -6.379                        | -7.631  | -3.95                    | -3                  |
|                                              | CH11 | -7.309                        | -6.288  | -3.76                    | -3                  |
| 11g                                          | CH1  | -12.192                       | -12.702 | -9.43                    | -3                  |
|                                              | CH6  | -10.979                       | -12.960 | -8.85                    | -3                  |
|                                              | CH11 | -11.456                       | -12.531 | -8.95                    | -3                  |
| 11n<br>HT20                                  | CH1  | -11.239                       | -12.407 | -8.77                    | -3                  |
|                                              | CH6  | -11.934                       | -13.376 | -9.59                    | -3                  |
|                                              | CH11 | -12.411                       | -13.088 | -9.73                    | -3                  |
| 11n<br>HT40                                  | CH3  | -14.424                       | -15.304 | -11.83                   | -3                  |
|                                              | CH6  | -13.137                       | -15.372 | -11.10                   | -3                  |
|                                              | CH9  | -14.764                       | -15.522 | -12.12                   | -3                  |
| Conclusion: PASS                             |      |                               |         |                          |                     |

Note: 11b/g/n

Directional Gain= $G_{ANT} + \text{Array Gain}$

=14dBi+10log2(dBi)

=17dBi > 6dBi

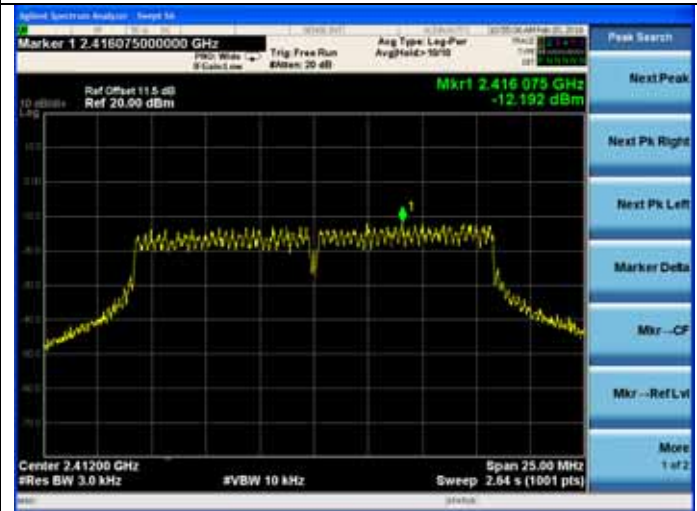
Output Power Limit=8dBm-(17dBi-6dBi)

=-3dBm

**ANT1:**

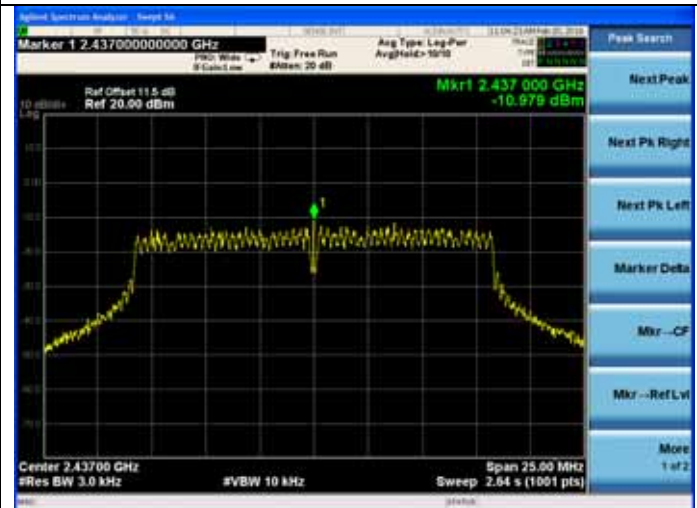
Test Mode: IEEE 802.11b  
Test CH1: 2412MHz

Test Mode: IEEE 802.11g  
Test CH1: 2412MHz



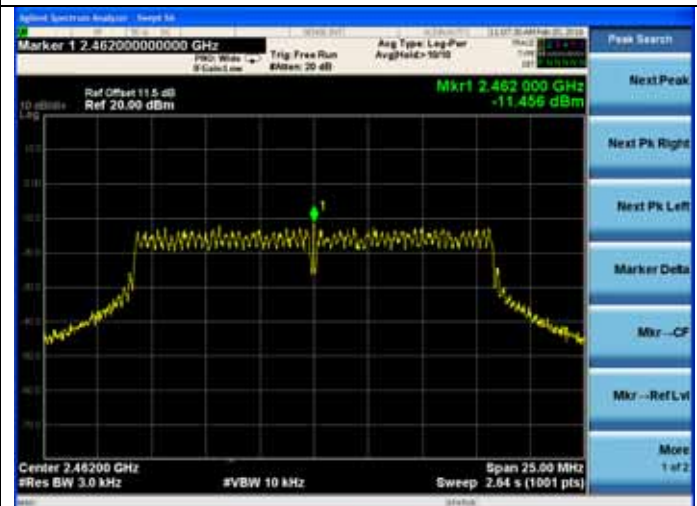
Test CH6: 2437MHz

Test CH6: 2437MHz



Test CH11: 2462MHz

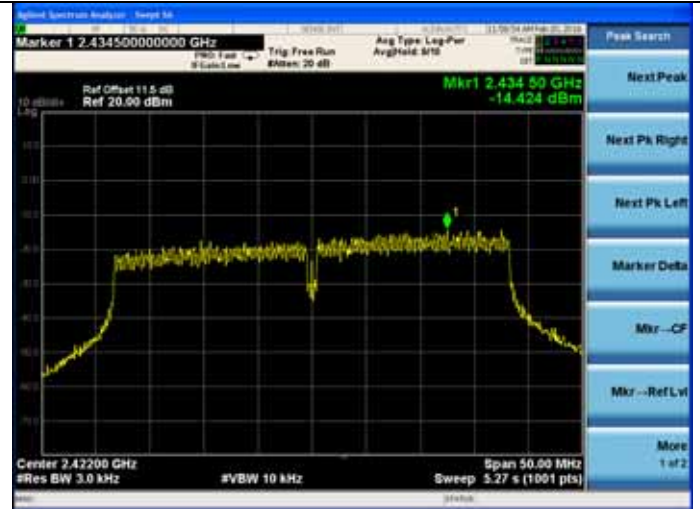
Test CH11: 2462MHz



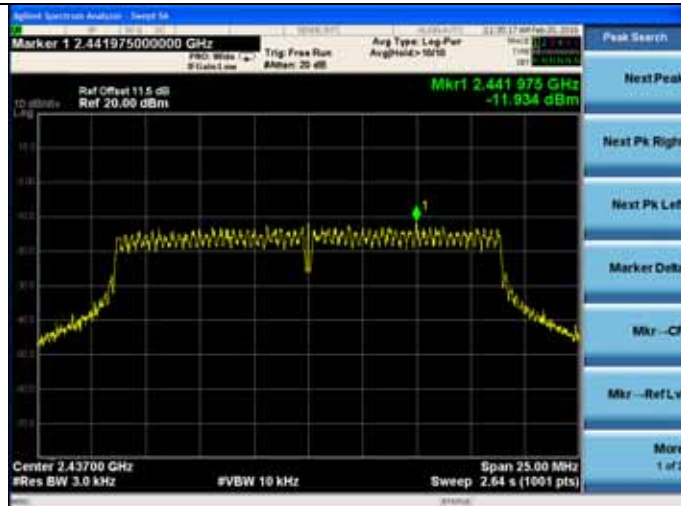
Test Mode: IEEE 802.11n HT20  
Test CH1: 2412MHz



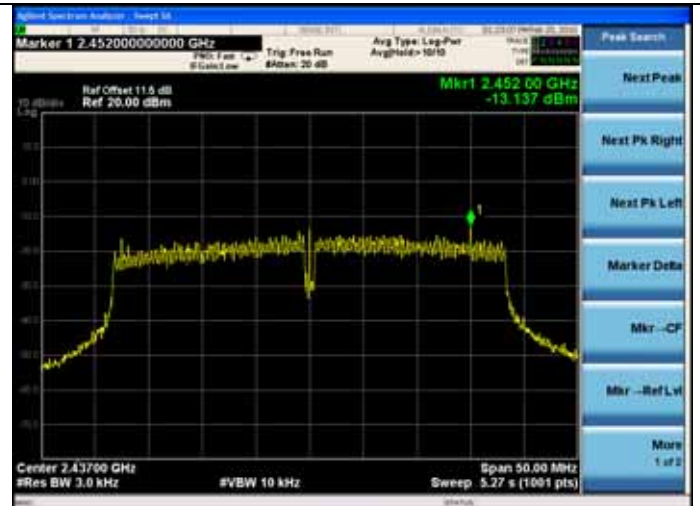
Test Mode: IEEE 802.11n HT40  
Test CH3: 2422MHz



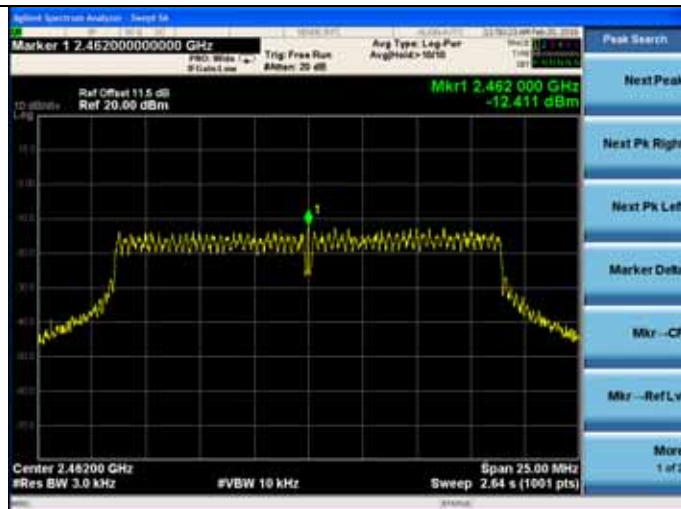
Test CH6: 2437MHz



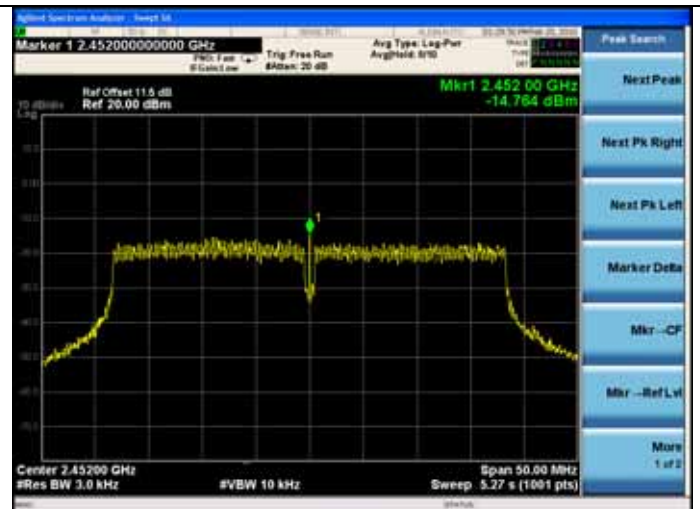
Test CH6: 2437MHz



Test CH11: 2462MHz



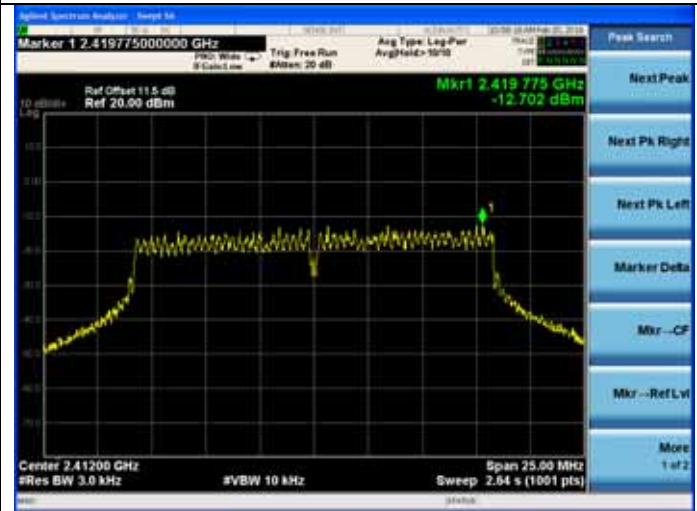
Test CH9: 2452MHz



**ANT2:**

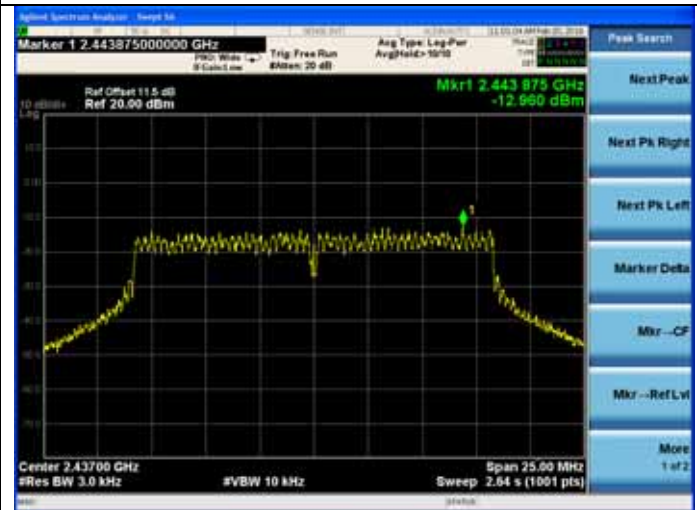
Test Mode: IEEE 802.11b  
Test CH1: 2412MHz

Test Mode: IEEE 802.11g  
Test CH1: 2412MHz



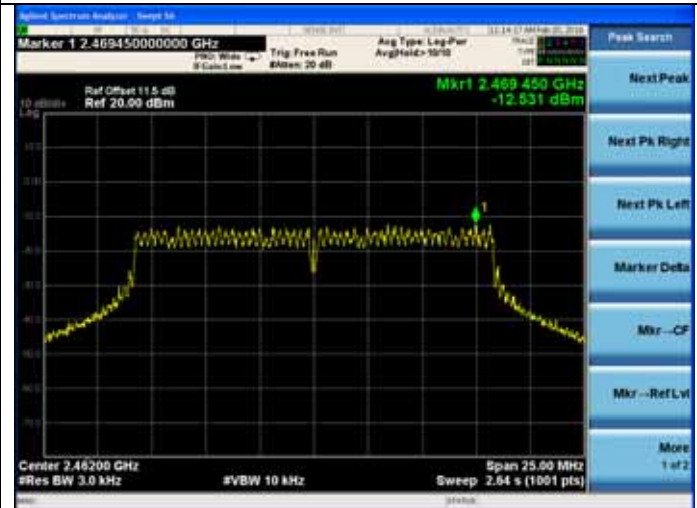
Test CH6: 2437MHz

Test CH6: 2437MHz



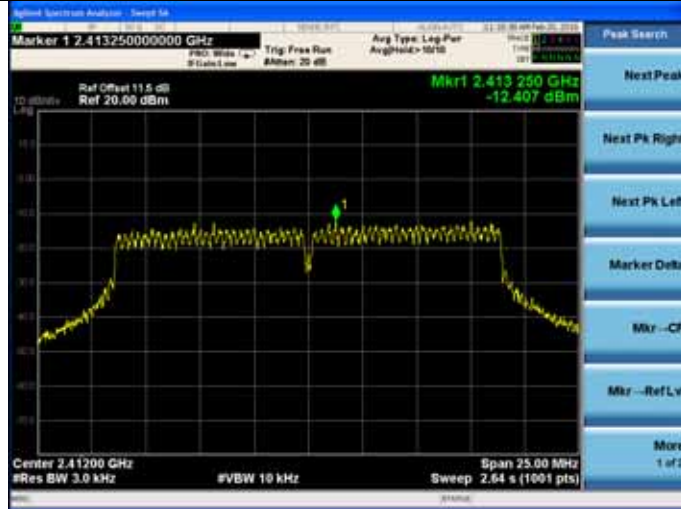
Test CH11: 2462MHz

Test CH11: 2462MHz



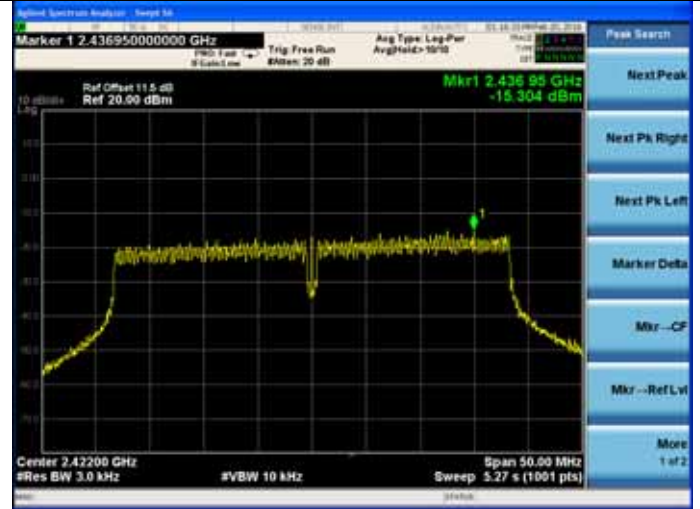
Test Mode: IEEE 802.11n HT20

Test CH1: 2412MHz

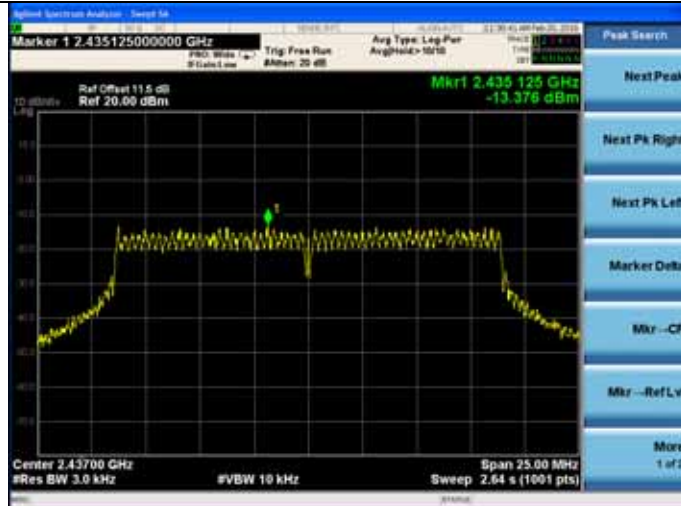


Test Mode: IEEE 802.11n HT40

Test CH3: 2422MHz



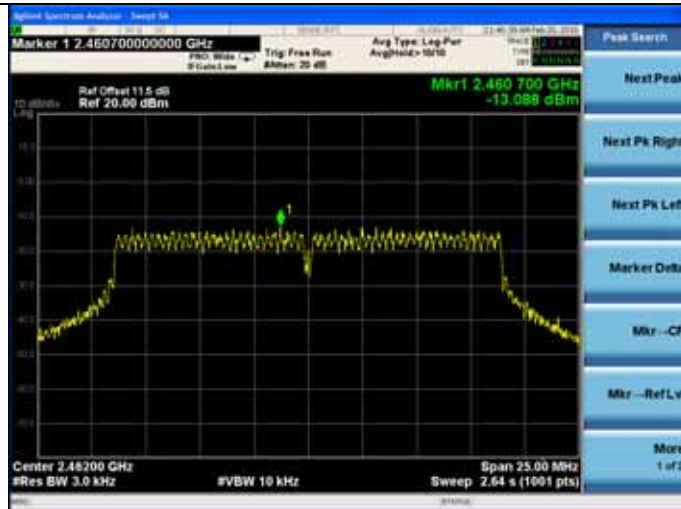
Test CH6: 2437MHz



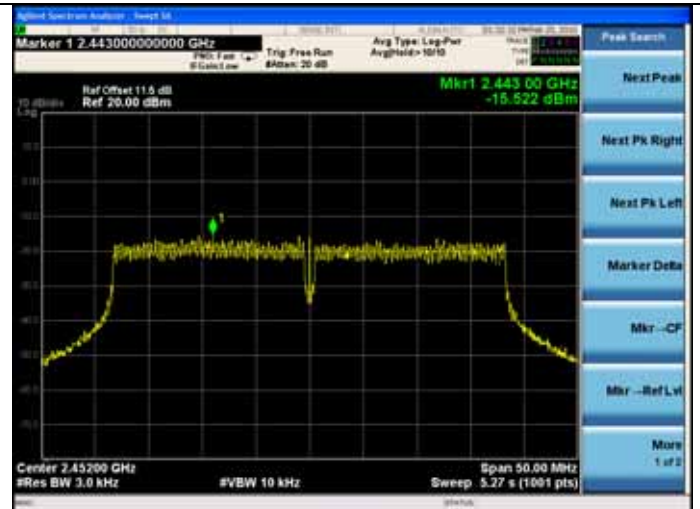
Test CH6: 2437MHz



Test CH11: 2462MHz



Test CH9: 2452MHz



## 10.MPE ESTIMATION

### 10.1.Limit for General Population/ Uncontrolled Exposures

| Frequency        | Power density (mW/ cm <sup>2</sup> ) | Averaging time(minutes) |
|------------------|--------------------------------------|-------------------------|
| 300MHz----1.5GHz | F/1500                               | 30                      |
| 1.5GHz---100GHz  | 1.0                                  | 30                      |

| Frequency(MHz) | Power density (mW/ cm <sup>2</sup> ) | Averaging time(minutes) |
|----------------|--------------------------------------|-------------------------|
| 2412           | 1                                    | 30                      |
| 2437           | 1                                    | 30                      |
| 2462           | 1                                    | 30                      |

Note: F= Frequency in MHz

## 10.2. Estimation Result

|                                              |                        |                         |
|----------------------------------------------|------------------------|-------------------------|
| EUT: Altai A8in (ac) Super WiFi Base Station |                        |                         |
| M/N: WA8011NAC-H                             |                        |                         |
| Test date: 2016-02-25                        | Pressure: 101.4±1.0kPa | Humidity: 50.3±3.0%     |
| Tested by: Donjon_Huang                      | Test site: RF site     | Temperature:20.2±0.6 °C |

| Test Mode | CH   | Frequency (MHz) | Peak Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Linear) | MPE    |
|-----------|------|-----------------|-------------------------|-------------------|--------------------|-----------------------|--------|
| 11b       | CH1  | 2412            | 21.27                   | 133.97            | 14                 | 25.12                 | 0.6698 |
|           | CH6  | 2437            | 21.08                   | 128.23            | 14                 | 25.12                 | 0.6411 |
|           | CH11 | 2462            | 21.08                   | 128.23            | 14                 | 25.12                 | 0.6411 |
| 11g       | CH1  | 2412            | 21.28                   | 134.28            | 14                 | 25.12                 | 0.6714 |
|           | CH6  | 2437            | 21.28                   | 134.28            | 14                 | 25.12                 | 0.6714 |
|           | CH11 | 2462            | 21.32                   | 135.52            | 14                 | 25.12                 | 0.6776 |
| 11n HT20  | CH1  | 2412            | 21.42                   | 138.68            | 14                 | 25.12                 | 0.6933 |
|           | CH6  | 2437            | 21.34                   | 136.14            | 14                 | 25.12                 | 0.6807 |
|           | CH11 | 2462            | 21.48                   | 140.60            | 14                 | 25.12                 | 0.7030 |
| 11n HT40  | CH3  | 2422            | 21.21                   | 132.13            | 14                 | 25.12                 | 0.6606 |
|           | CH6  | 2437            | 21.33                   | 135.83            | 14                 | 25.12                 | 0.6791 |
|           | CH9  | 2452            | 21.42                   | 138.68            | 14                 | 25.12                 | 0.6933 |

$$MPE = \frac{PG}{4\pi R^2} \quad (R=20cm)$$

## 11. ANTENNA REQUIREMENT

### 11.1. Standard Applicable

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

### 11.2. Antenna Connected Construction

The antennas used for this product are Sector antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 14dBi.

## 12.DEVIATION TO TEST SPECIFICATIONS

[ NONE]