

Product : Wireless Thin Client (WebPad)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

#### Fundamental Filed Strength

| Antenna Pole | Frequency [MHz] | Correction Factor [dB/m] | Reading Level [dBuV] | Emission Level [dBuV/m] | Detector |
|--------------|-----------------|--------------------------|----------------------|-------------------------|----------|
| Horizontal   | 2452            | 31.944                   | 53.89                | 85.834                  | Peak     |
| Horizontal   | 2452            | 31.944                   | 37.18                | 69.124                  | Average  |
| Vertical     | 2452            | 31.222                   | 54.84                | 86.062                  | Peak     |
| Vertical     | 2452            | 31.222                   | 36.9                 | 68.122                  | Average  |

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

#### Band Edge Test Data

| Antenna Pole | Test Frequency (MHz) | Fundamental (dBuV/m) | $\Delta$ (dB) | Band Edge Field Strength (dBuV/m) | Detector |
|--------------|----------------------|----------------------|---------------|-----------------------------------|----------|
| Horizontal   | 2484.7               | 85.834               | 27.724        | 58.11                             | Peak     |
| Horizontal   | 2483.5               | 69.124               | 48.244        | 20.88                             | Average  |
| Vertical     | 2484.7               | 86.062               | 27.724        | 58.338                            | Peak     |
| Vertical     | 2483.5               | 68.122               | 48.244        | 19.878                            | Average  |

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

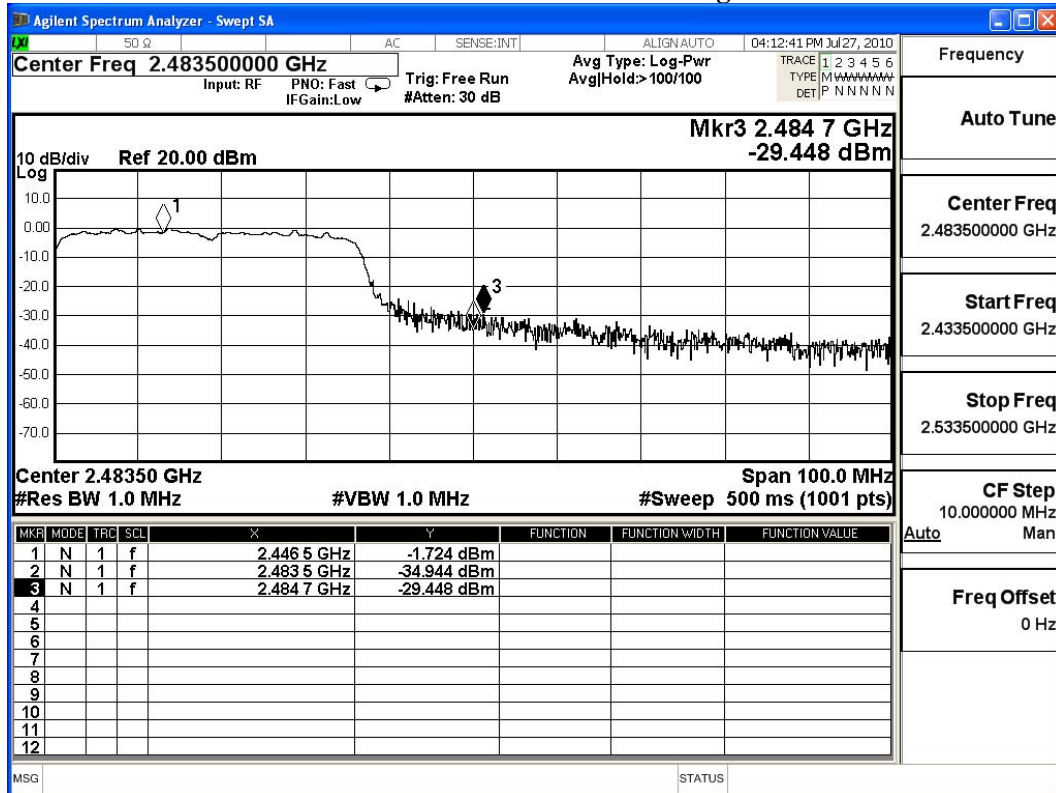
Band Edge field Strength = F -  $\Delta$

F = Fundamental field Strength (Peak or Average)

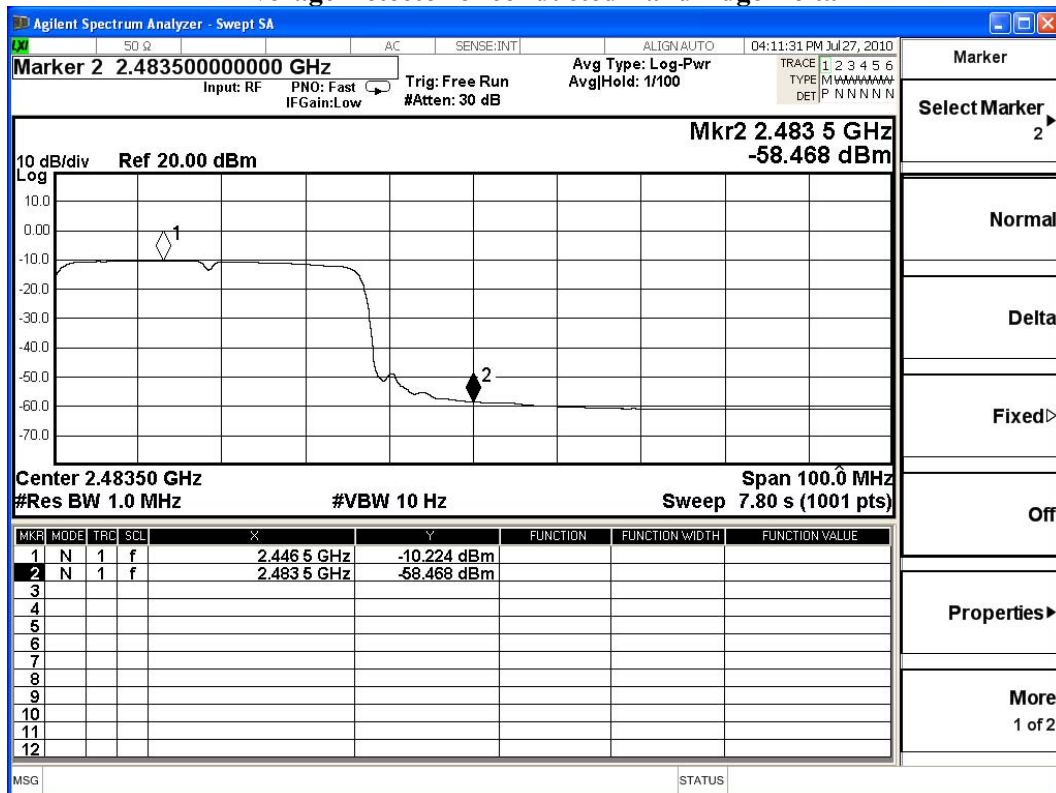
$\Delta$  = Conducted Band Edge Delta (Peak or Average)

Peak limit = 74dBuV/m, Average limit = 54dBuV/m

### Peak Detector of conducted Band Edge Delta



### Average Detector of conducted Band Edge Delta



## 7. Occupied Bandwidth

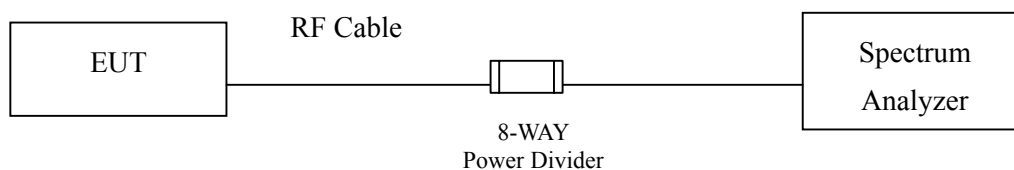
### 7.1. Test Equipment

|   | Equipment           | Manufacturer | Model No./Serial No.   | Last Cal.  |
|---|---------------------|--------------|------------------------|------------|
|   | Spectrum Analyzer   | R&S          | FSP40 / 100170         | Jun, 2010  |
|   | Spectrum Analyzer   | Agilent      | E4407B / US39440758    | Jun, 2010  |
| X | Spectrum Analyzer   | Agilent      | N9010A / MY48030495    | Apr.,2010  |
|   | 8-WAY Power Divider | JFW          | 50PD-647 / 526770 0916 | Apr., 2010 |

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.
3. The power combiner is used for measure 11n mode.

### 7.2. Test Setup



### 7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

### 7.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

### 7.5. Uncertainty

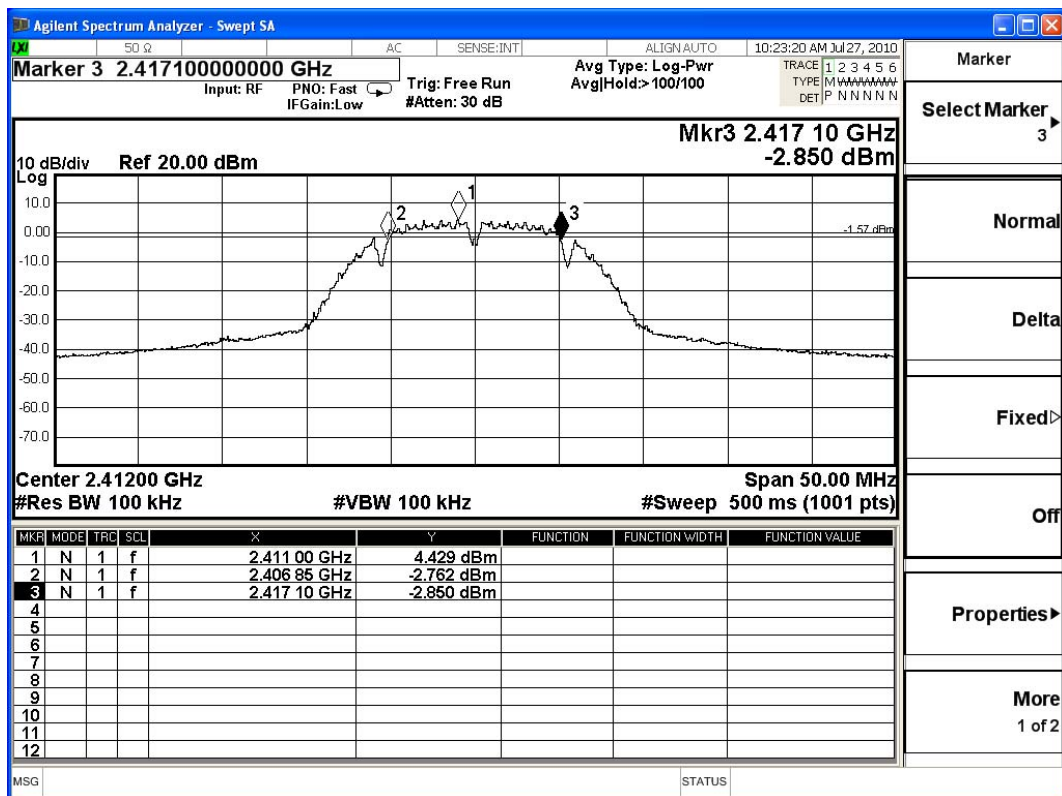
$\pm 150\text{Hz}$

## 7.6. Test Result of Occupied Bandwidth

Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 1           | 2412.00         | 10250                   | >500                 | Pass   |

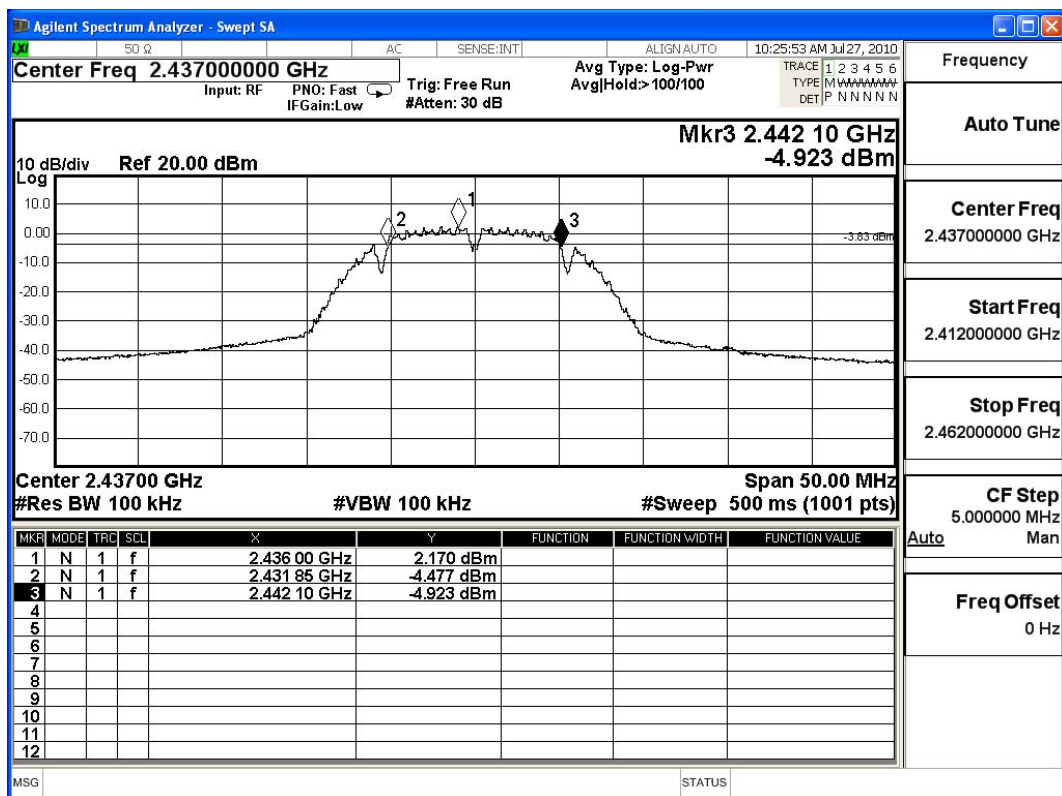
Figure Channel 1:



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 6           | 2437.00         | 10250                   | >500                 | Pass   |

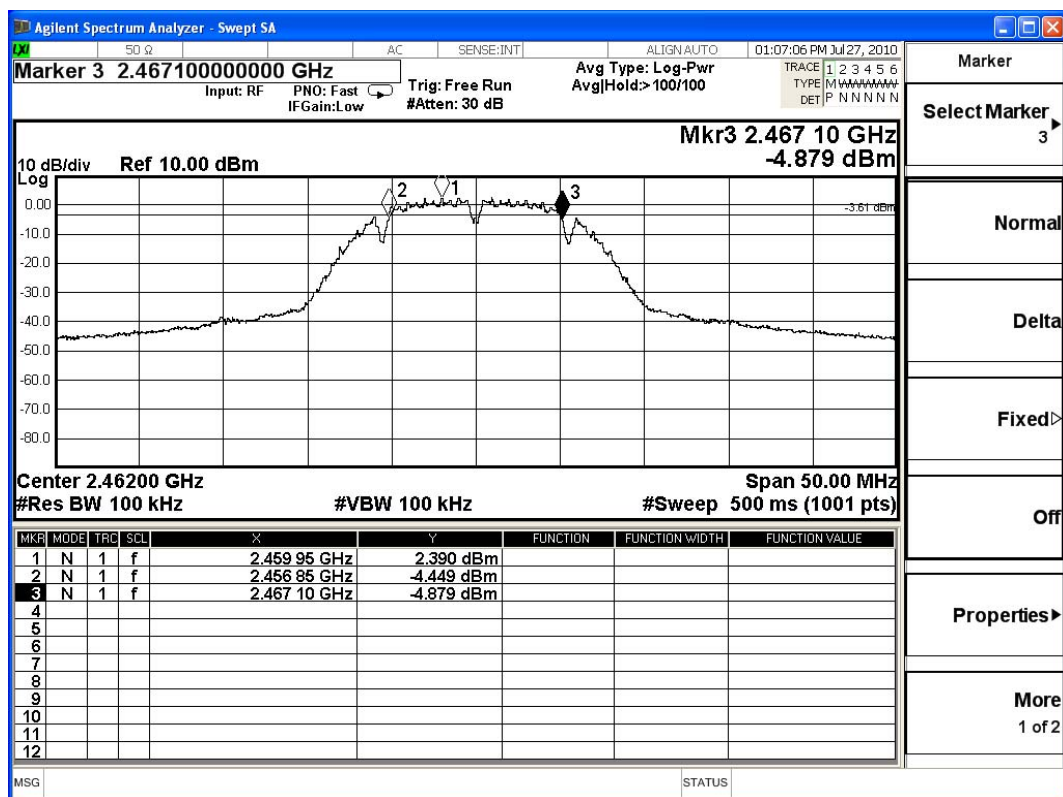
Figure Channel 6:



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 11          | 2462.00         | 10250                   | >500                 | Pass   |

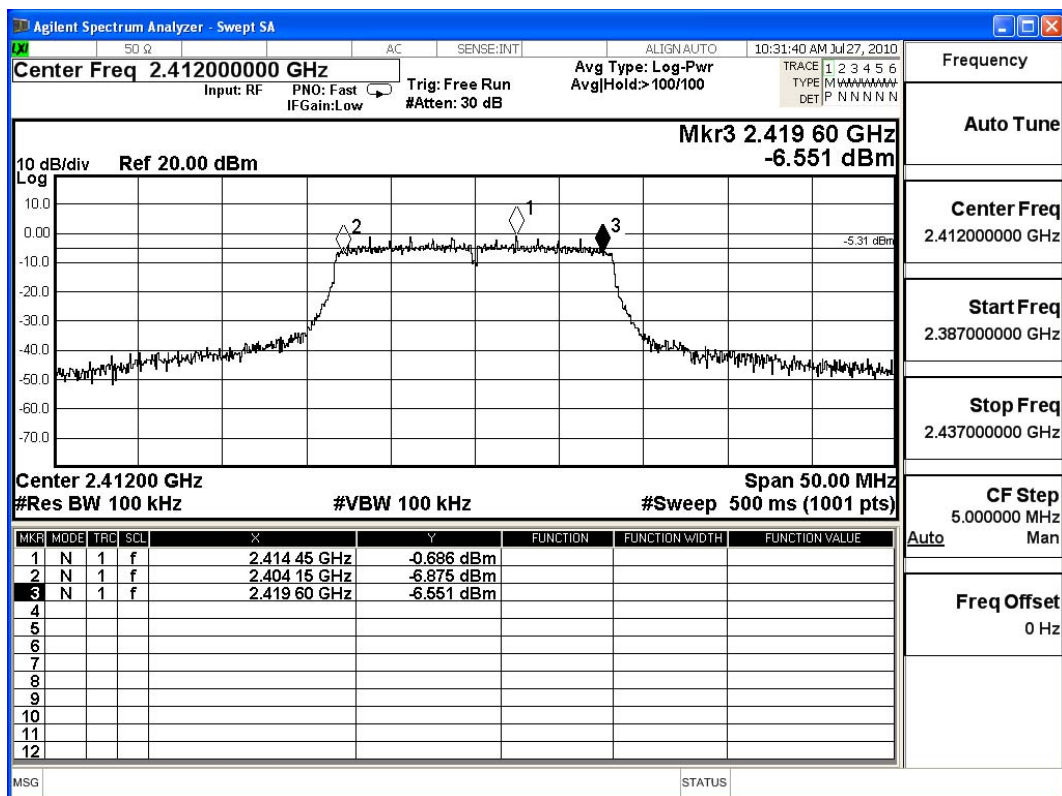
**Figure Channel 11:**



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 1           | 2412.00         | 15450                   | >500                 | Pass   |

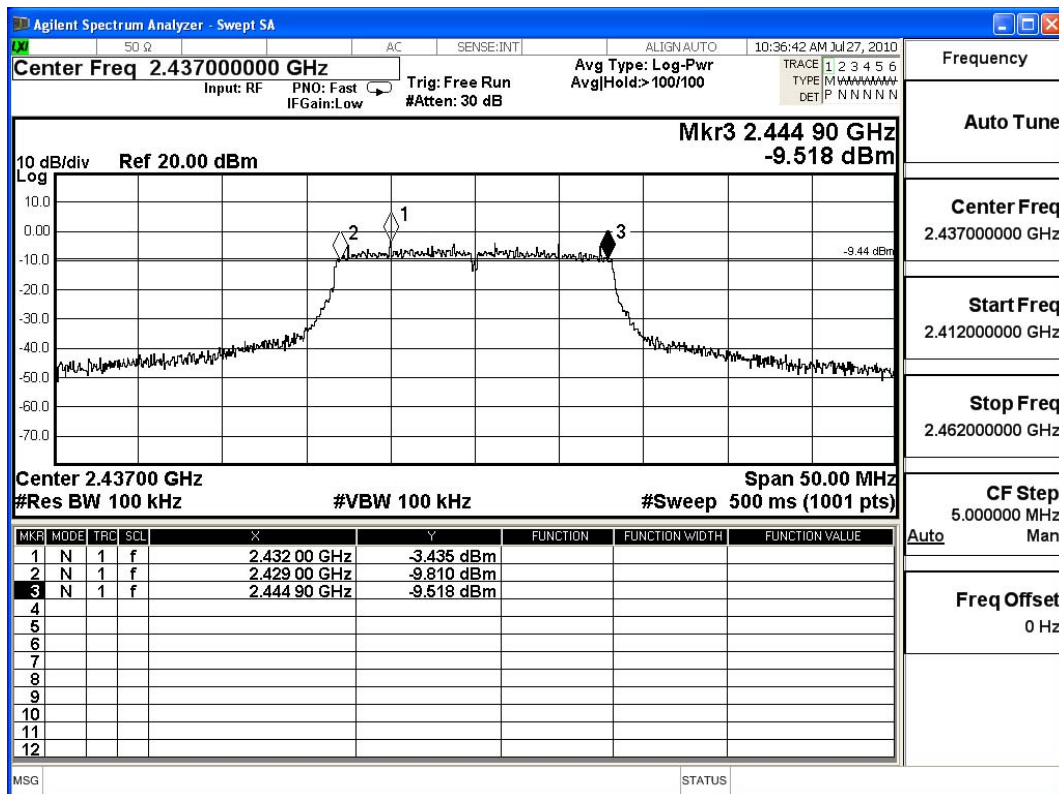
Figure Channel 1:



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

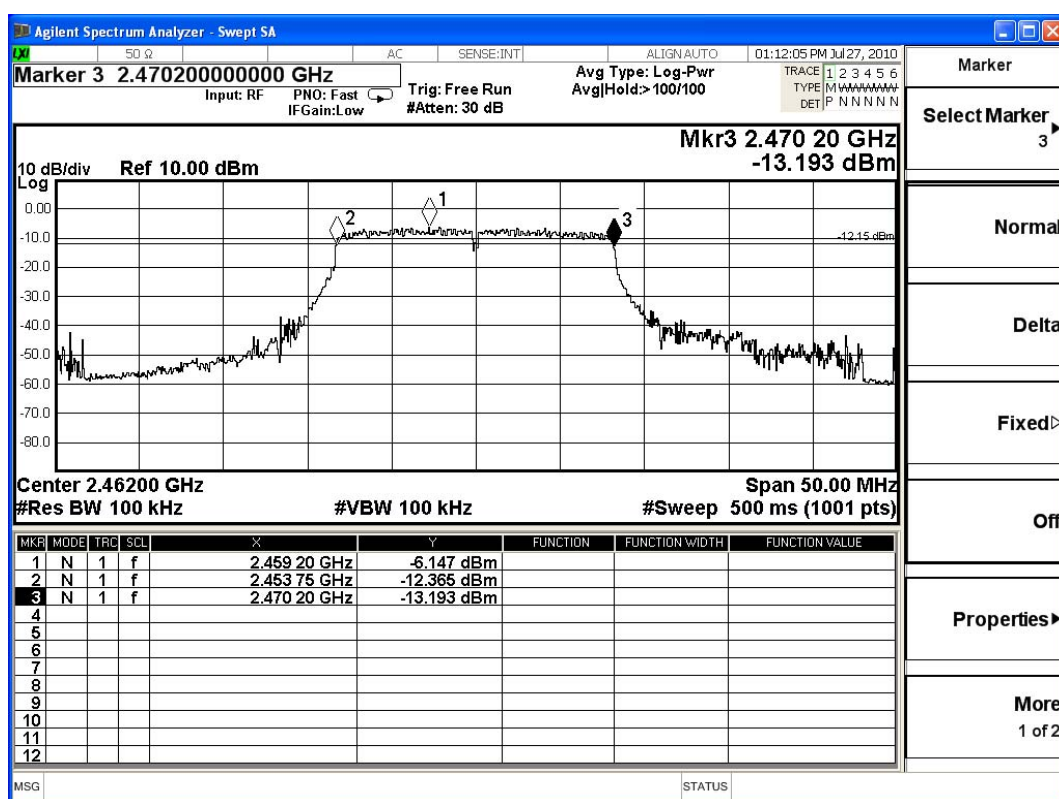
| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 6           | 2437.00         | 15900                   | >500                 | Pass   |

Figure Channel 6:



| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 11          | 2462.00         | 16450                   | >500                 | Pass   |

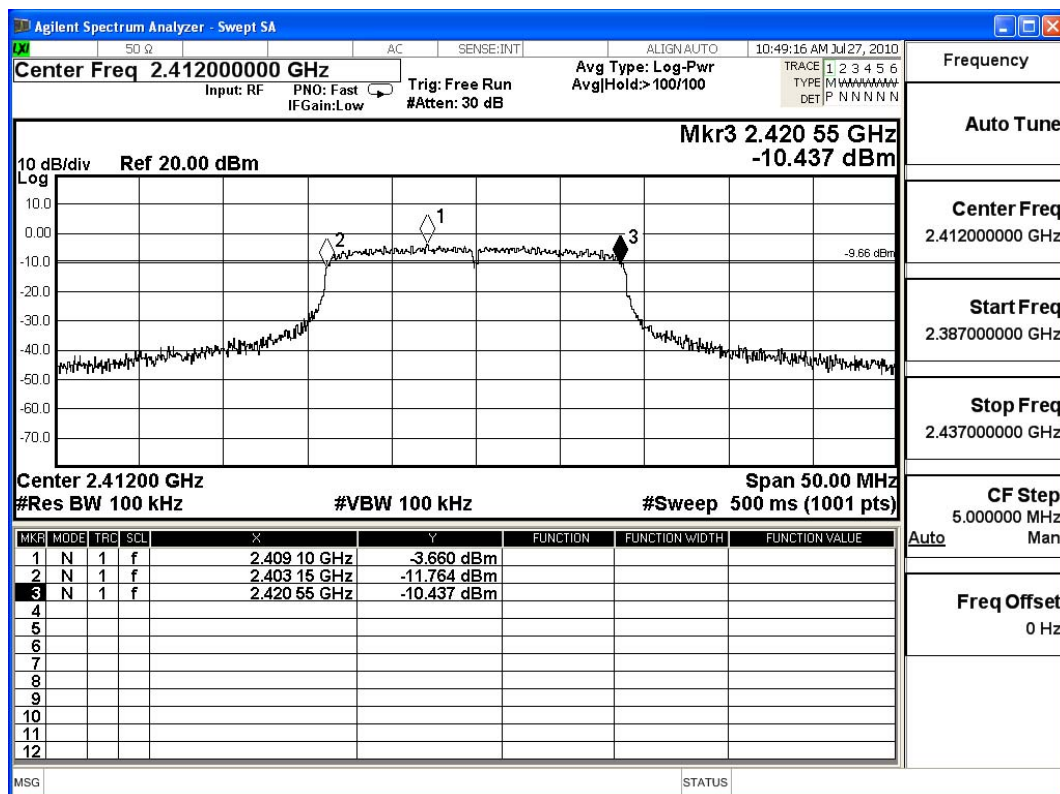
**Figure Channel 11:**



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 1           | 2412.00         | 17400                   | >500                 | Pass   |

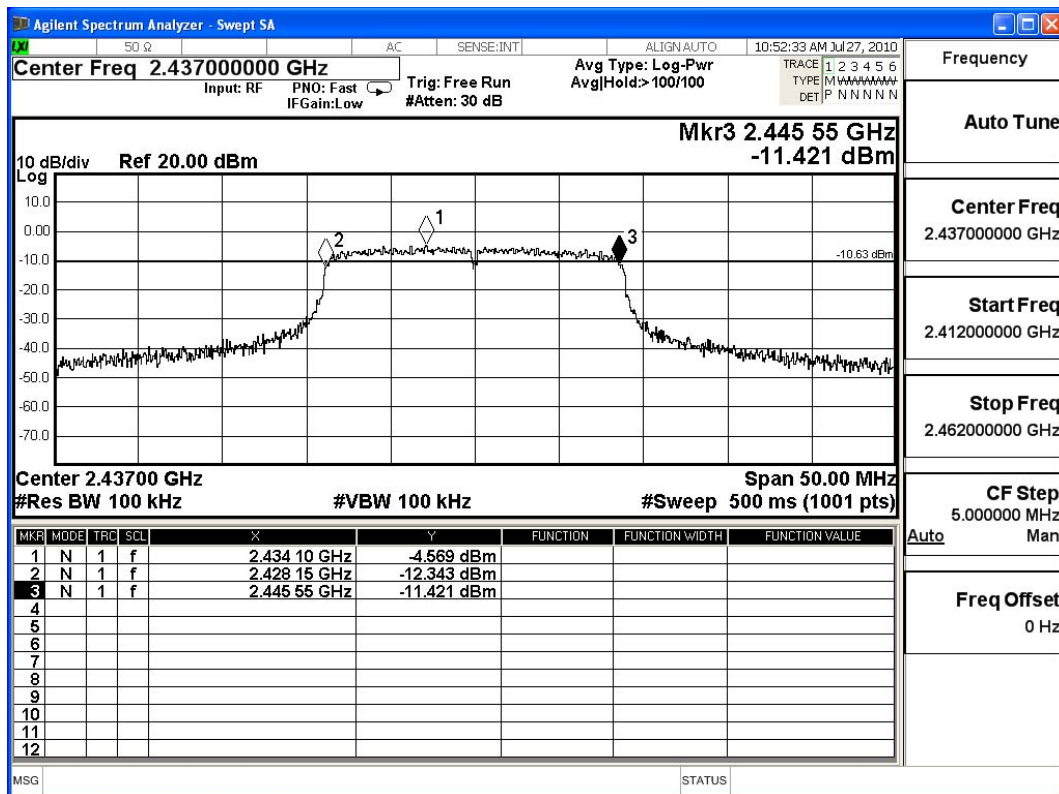
Figure Channel 1:



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 6           | 2437.00         | 17400                   | >500                 | Pass   |

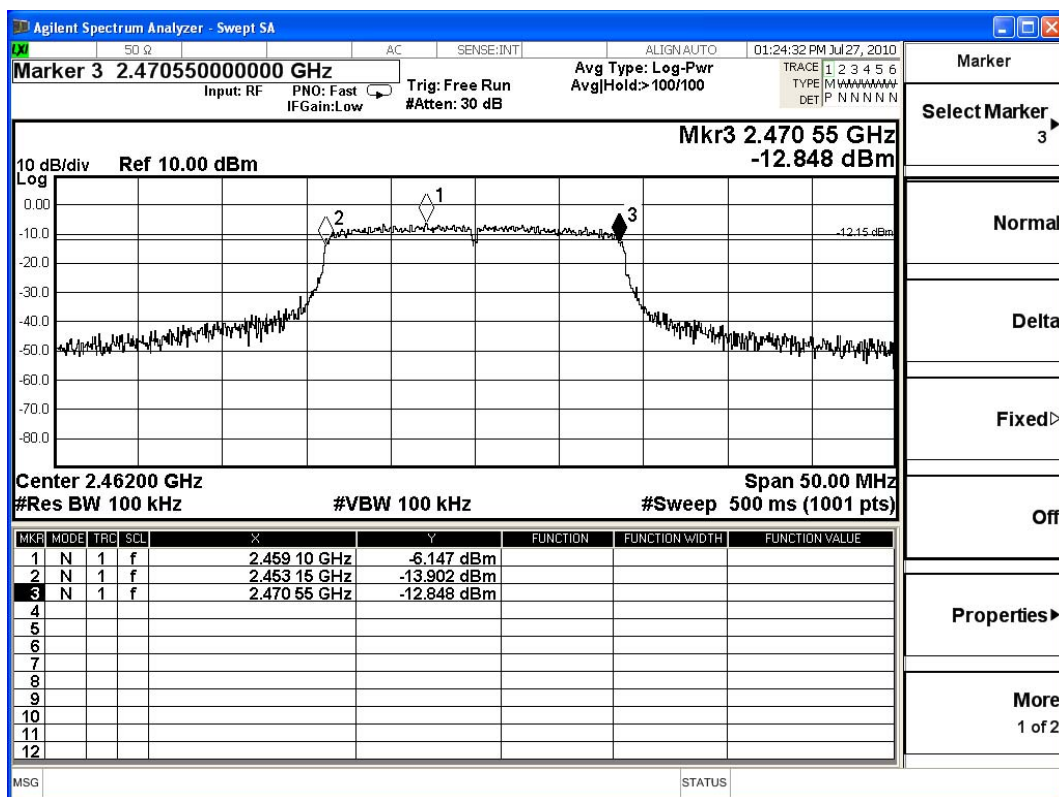
Figure Channel 6:



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 11          | 2462.00         | 17400                   | >500                 | Pass   |

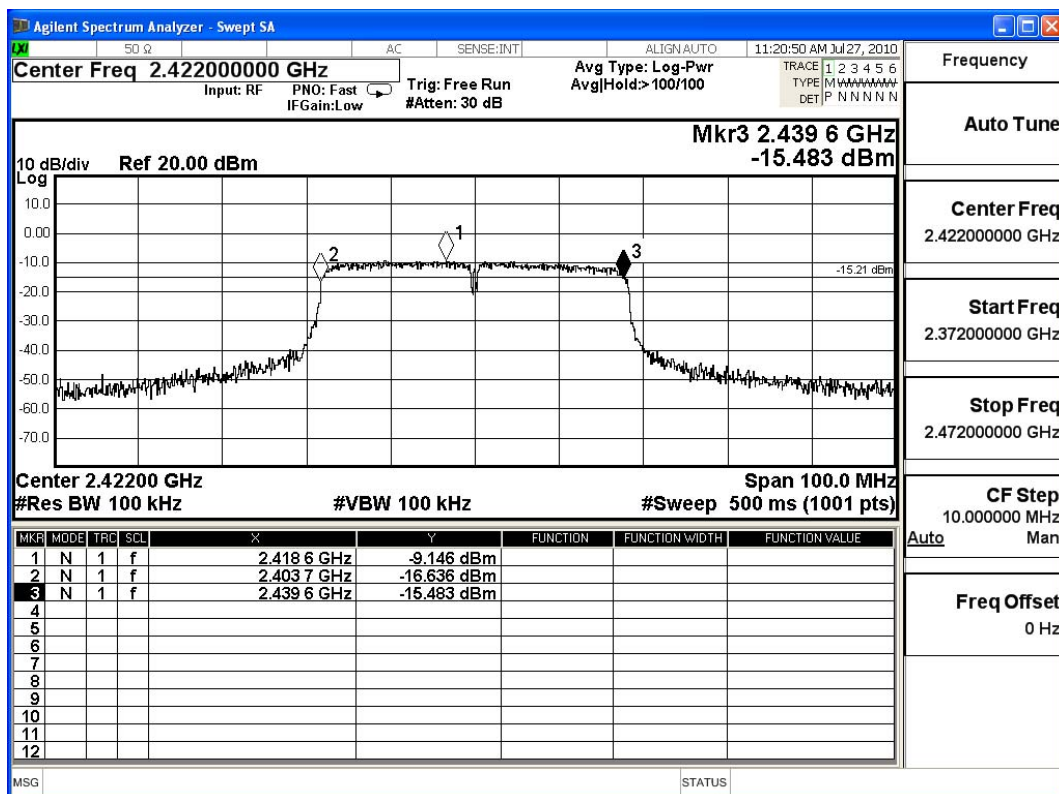
**Figure Channel 11:**



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 1           | 2422.00         | 35900                   | >500                 | Pass   |

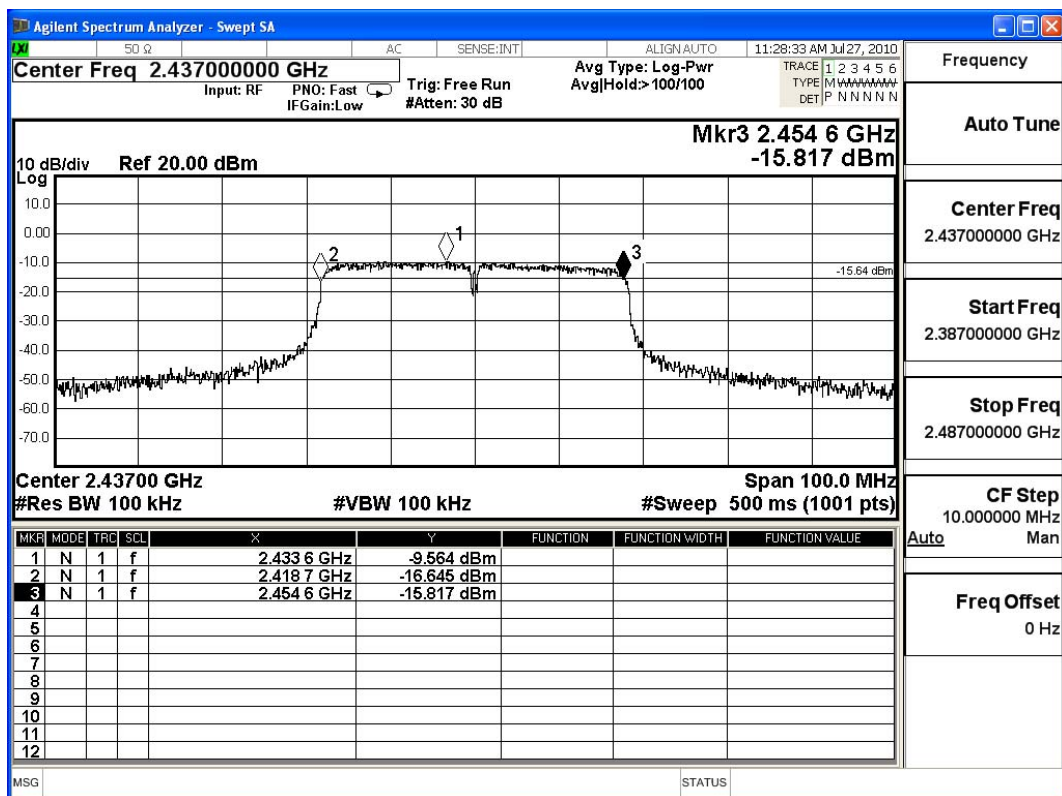
Figure Channel 1:



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 4           | 2437.00         | 35900                   | >500                 | Pass   |

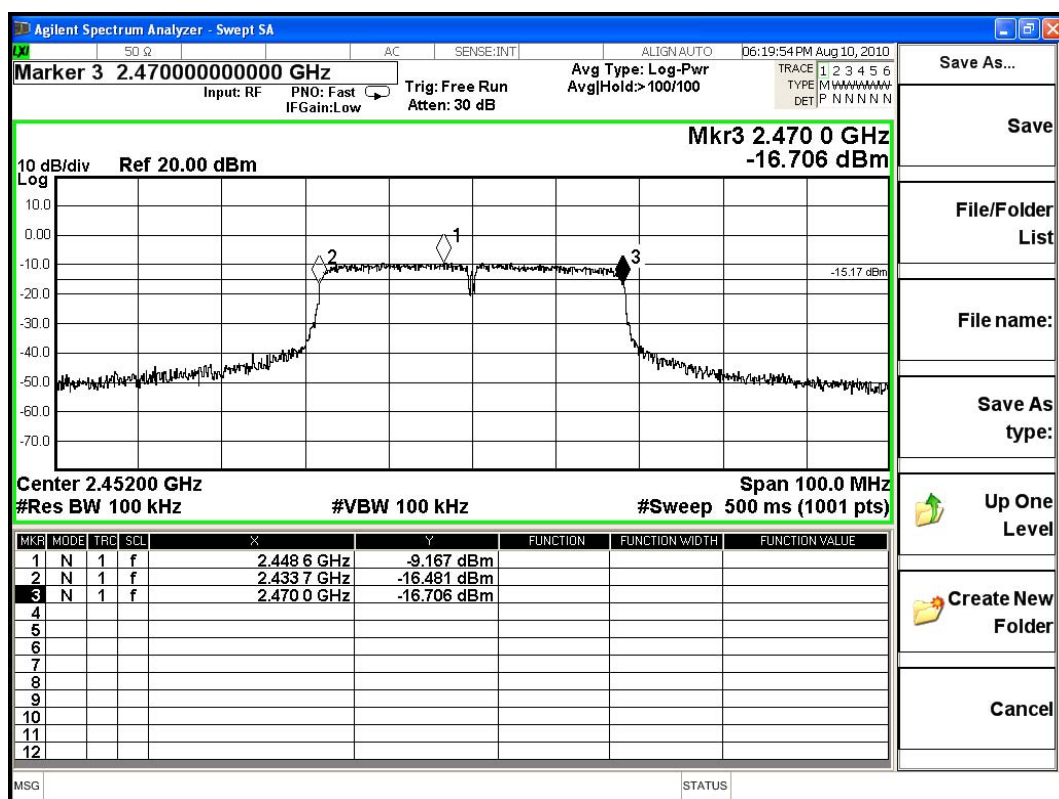
Figure Channel 4:



Product : Wireless Thin Client (WebPad)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

| Channel No. | Frequency (MHz) | Measurement Level (kHz) | Required Limit (kHz) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 7           | 2452.00         | 36000                   | >500                 | Pass   |

**Figure Channel 7:**



## 8. Power Density

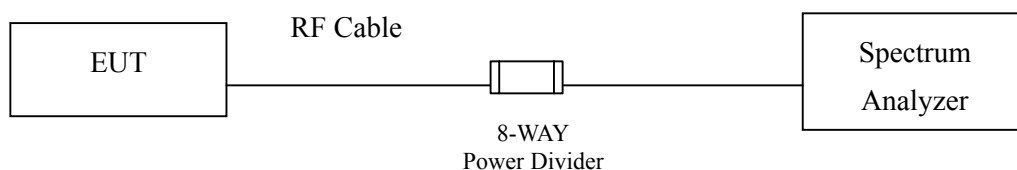
### 8.1. Test Equipment

|   | Equipment           | Manufacturer | Model No./Serial No.   | Last Cal.  |
|---|---------------------|--------------|------------------------|------------|
|   | Spectrum Analyzer   | R&S          | FSP40 / 100170         | Jun, 2010  |
|   | Spectrum Analyzer   | Agilent      | E4407B / US39440758    | Jun, 2010  |
| X | Spectrum Analyzer   | Agilent      | N9010A / MY48030495    | Apr.,2010  |
|   | 8-WAY Power Divider | JFW          | 50PD-647 / 526770 0916 | Apr., 2010 |

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.
3. The power combiner is used for measure 11n mode.

### 8.2. Test Setup



### 8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

#### 8.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, VBW=10KHz, Sweep time=(SPAN/3KHz), detector=Peak detector

#### 8.5. Uncertainty

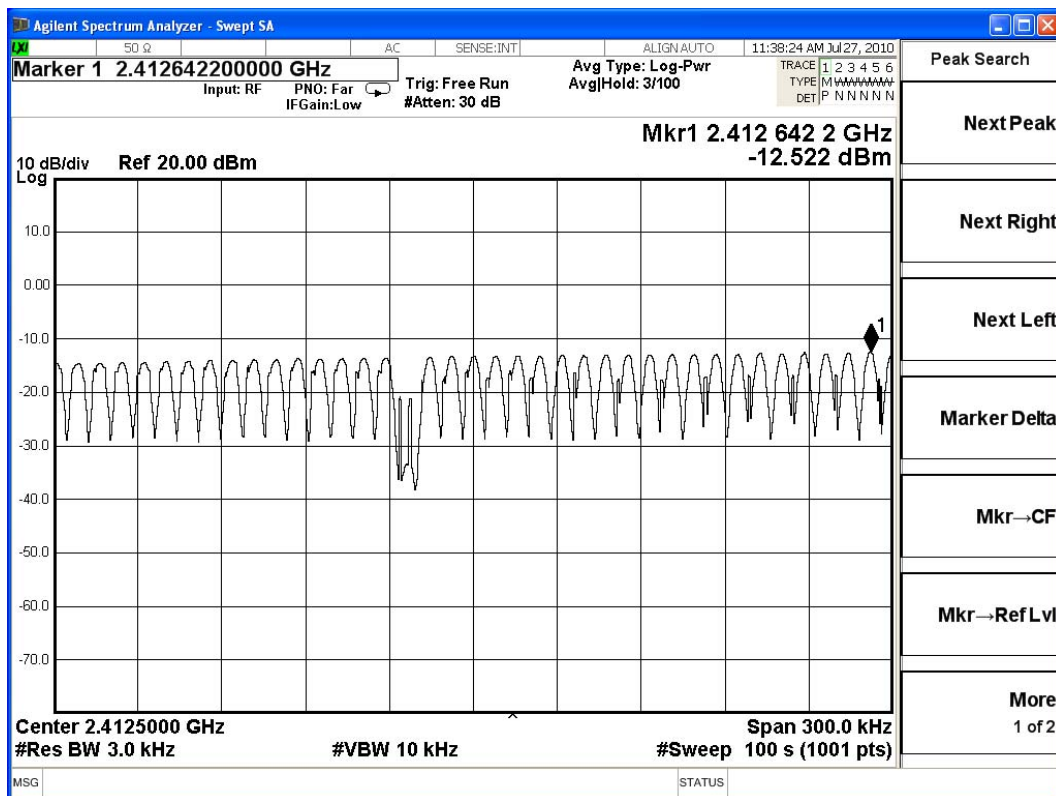
$\pm 1.27$  dB

## 8.6. Test Result of Power Density

Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|-------------|--------|
| 1           | 2412.00         | -12.522             | < 8dBm      | Pass   |

Figure Channel 1:



| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 6           | 2437.000        | -14.084                 | < 8dBm               | Pass   |

Agilent Spectrum Analyzer - Swept SA

50  $\Omega$  AC SENSE:INT ALIGN: AUTO 11:44:06 AM Jul 27, 2010

Marker 1 2.436310900000 GHz Avg Type: Log-Pwr  
Input: RF PNO: Far Trig: Free Run Avg/Hold: 2/100  
IF Gain: Low #Atten: 30 dB

TRACE 1 2 3 4 5 6  
TYPE M W W W W W  
DET P N N N N N

10 dB/div Ref 20.00 dBm  
Log

Mkr1 2.436 310.9 GHz  
-14.084 dBm

The spectrum analyzer displays a swept signal across a frequency range from 2.436 GHz to 2.437 GHz. The vertical axis represents power in dBm, ranging from -70.0 to 10.0. A peak marker labeled '1' is positioned at 2.4363109 GHz with a power level of -14.084 dBm. The signal shows a periodic waveform with some noise and a significant drop in power around 2.4366 GHz. The display includes various settings such as 50  $\Omega$  impedance, AC coupling, and a 30 dB attenuation.

Center 2.4364000 GHz Span 300.0 kHz  
#Res BW 3.0 kHz #VBW 10 kHz #Sweep 100 s (1001 pts)

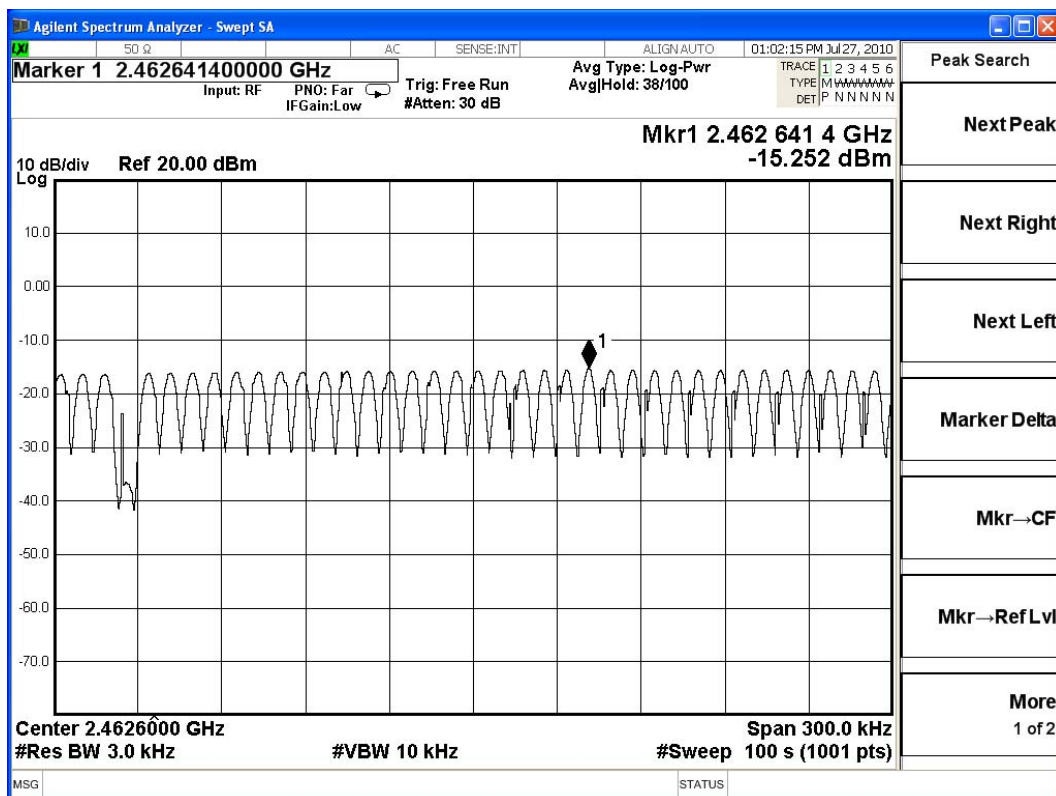
MSG STATUS

Peak Search  
Next Peak  
Next Right  
Next Left  
Marker Delta  
Mkr→CF  
Mkr→Ref Lvl  
More  
1 of 2

Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 11          | 2462.00         | -15.252                 | < 8dBm               | Pass   |

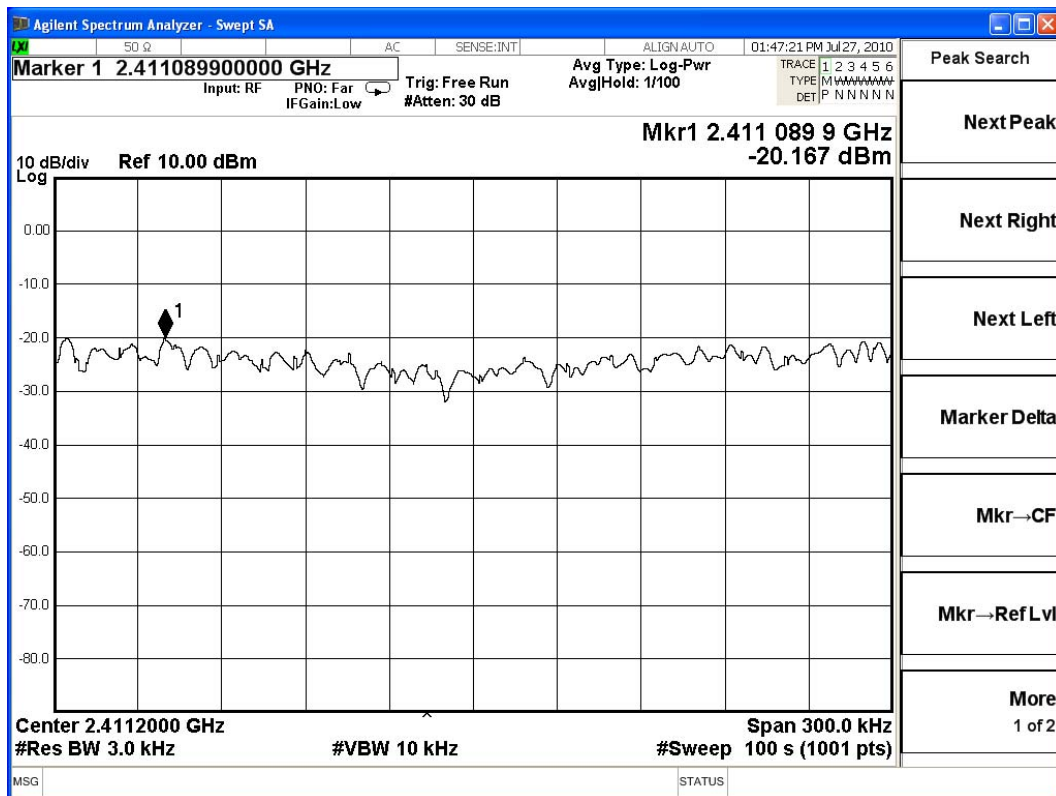
Figure Channel 11:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|-------------|--------|
| 1           | 2412.00         | -20.167             | < 8dBm      | Pass   |

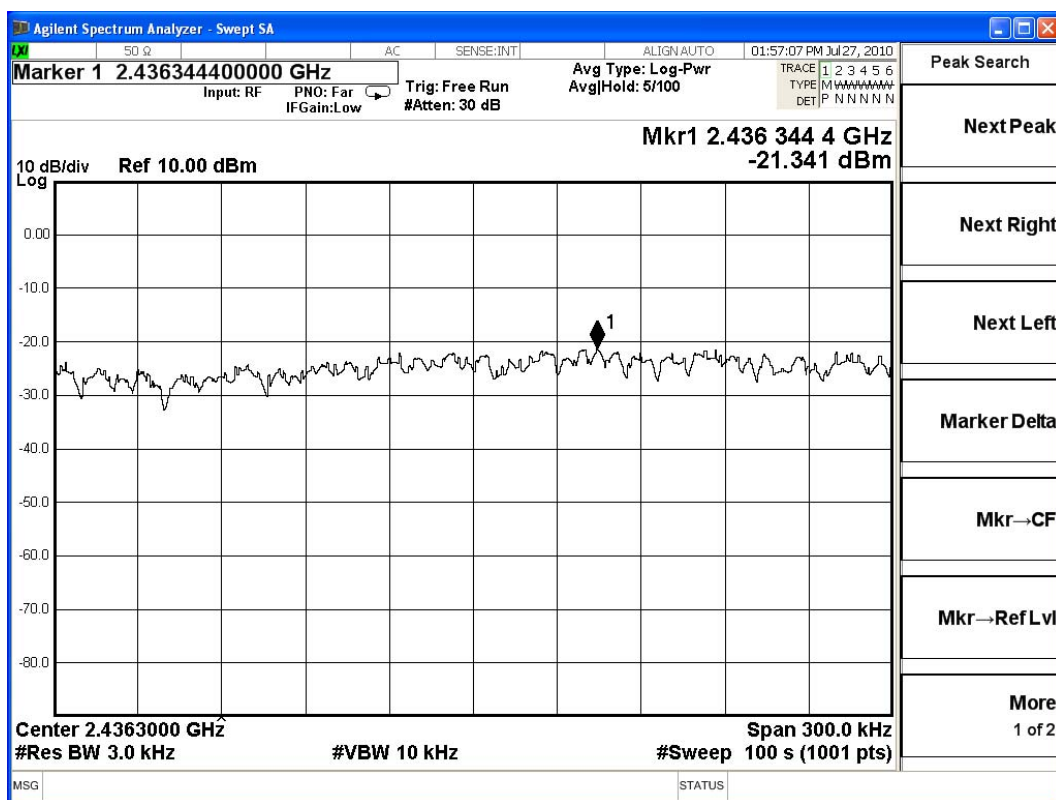
Figure Channel 1:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 6           | 2437.000        | -21.341                 | < 8dBm               | Pass   |

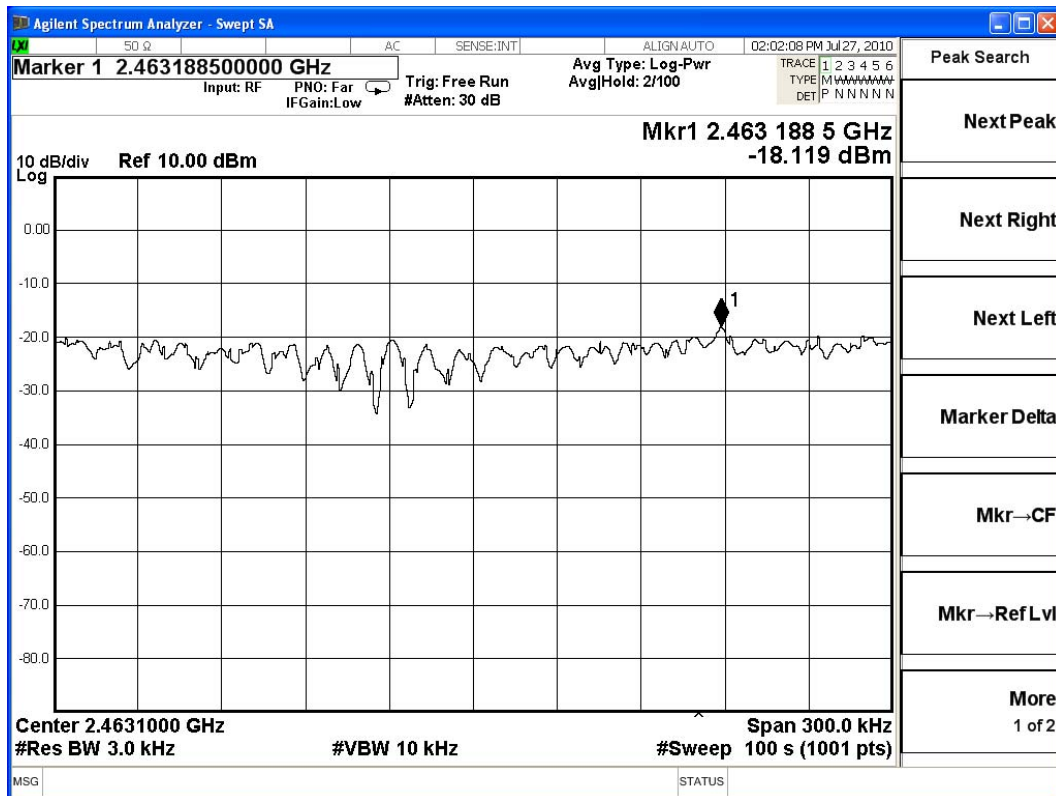
Figure Channel 6:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 11          | 2462.00         | -18.119                 | < 8dBm               | Pass   |

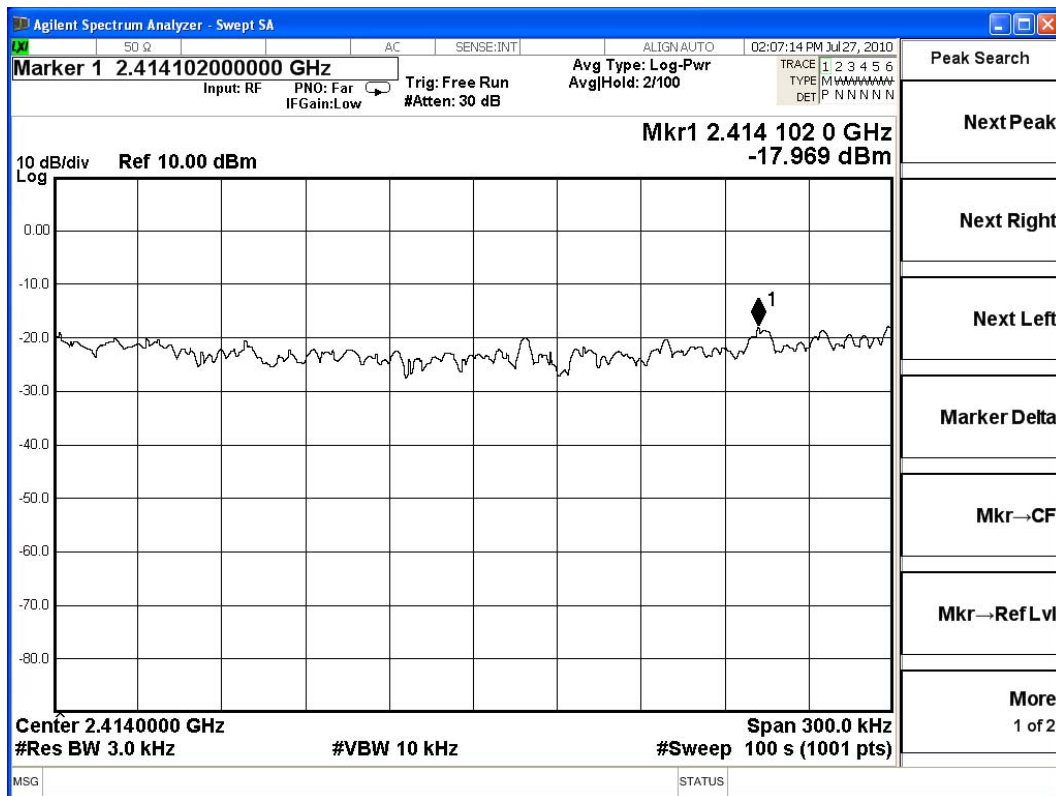
Figure Channel 11:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|-------------|--------|
| 1           | 2412.00         | -17.969             | < 8dBm      | Pass   |

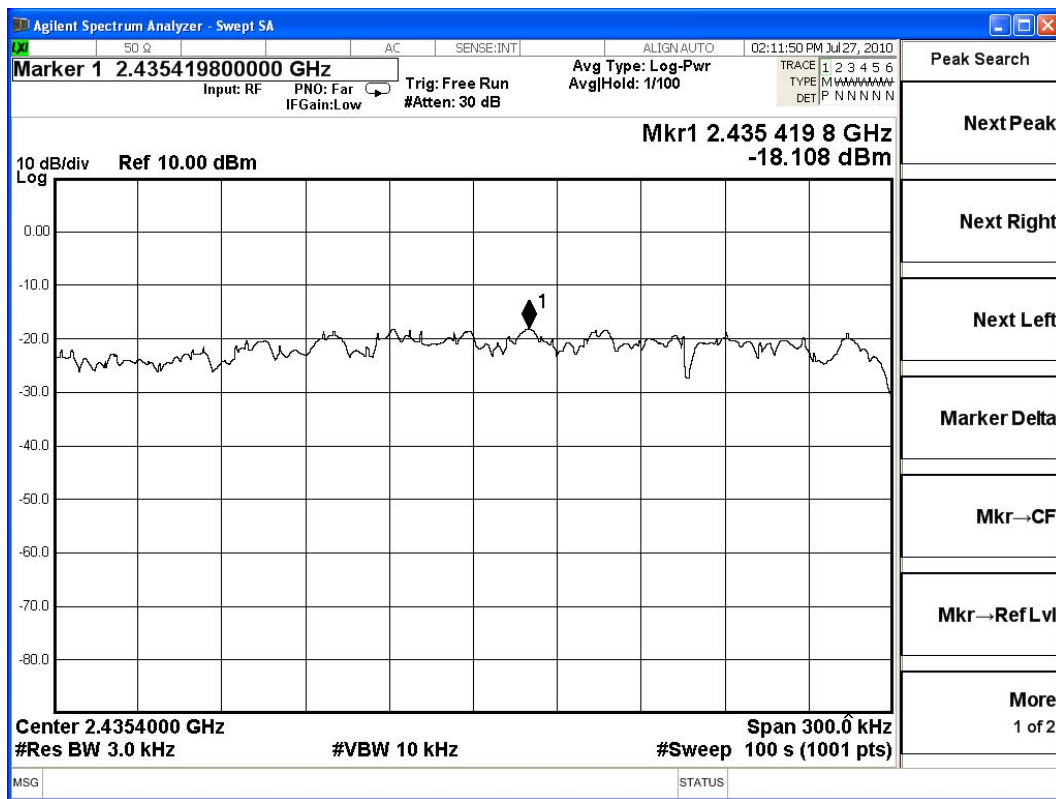
Figure Channel 1:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3OATS  
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 6           | 2437.000        | -18.108                 | < 8dBm               | Pass   |

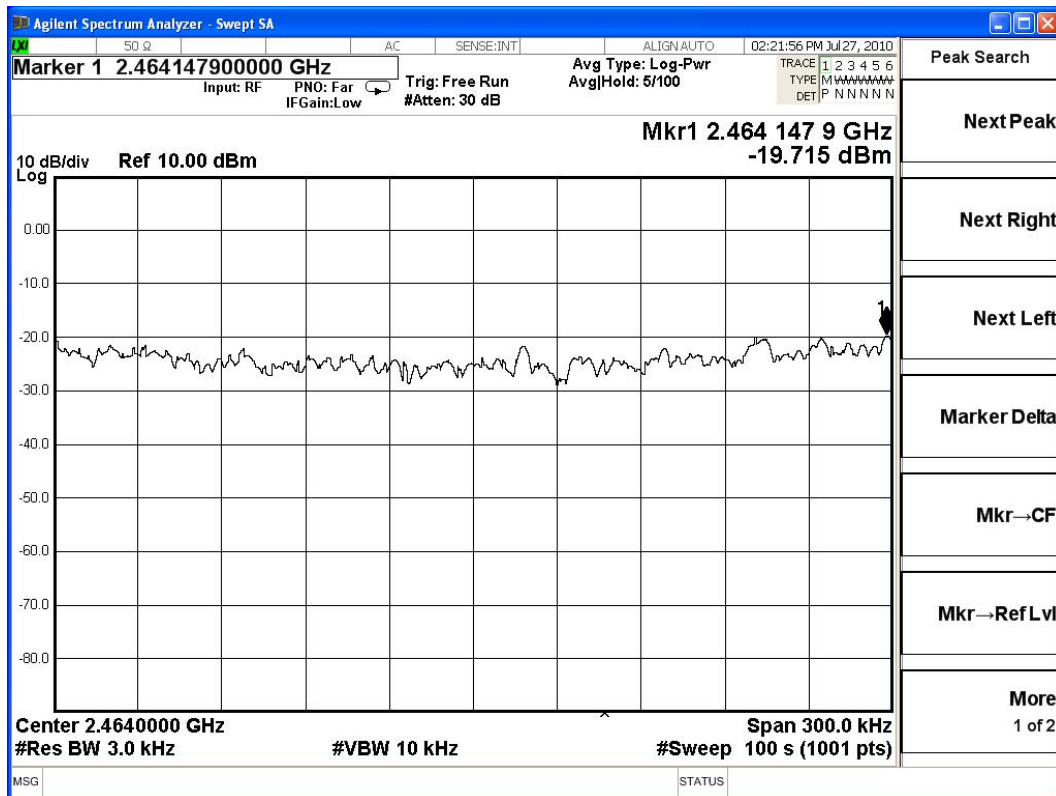
Figure Channel 6:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 11          | 2462.00         | -19.715                 | < 8dBm               | Pass   |

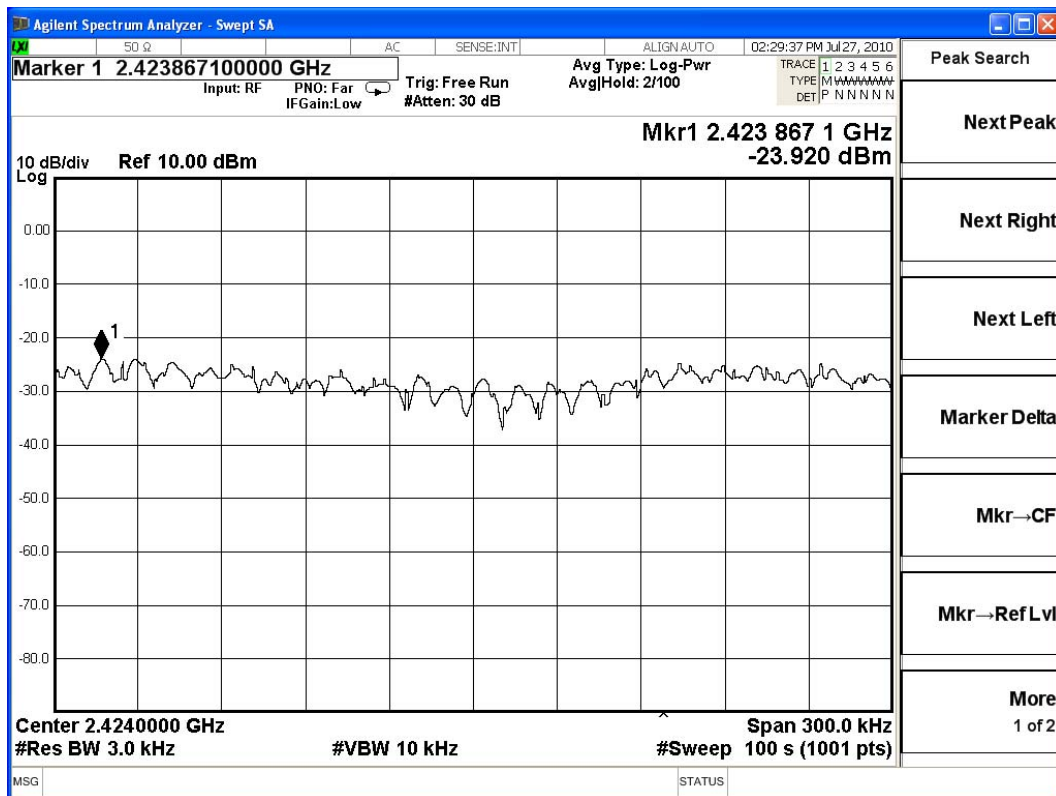
Figure Channel 11:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

| Channel No. | Frequency (MHz) | Measure Level (dBm) | Limit (dBm) | Result |
|-------------|-----------------|---------------------|-------------|--------|
| 1           | 2422.00         | -23.920             | < 8dBm      | Pass   |

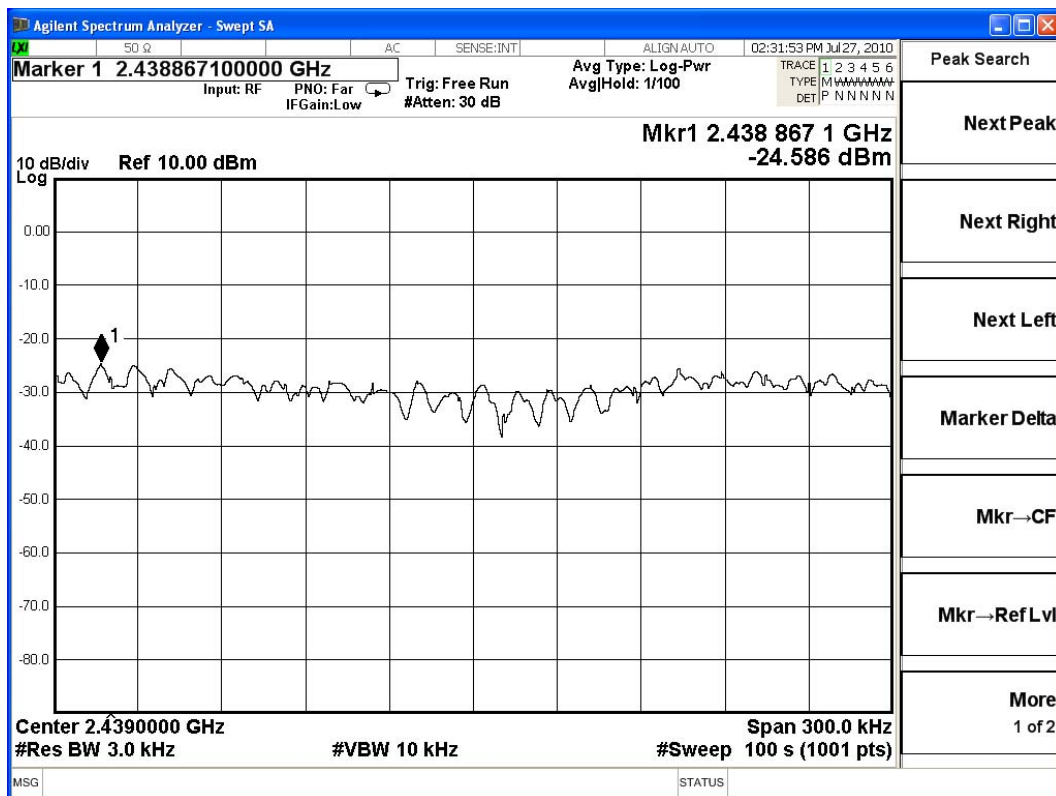
Figure Channel 1:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3OATS  
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 4           | 2437.000        | -24.586                 | < 8dBm               | Pass   |

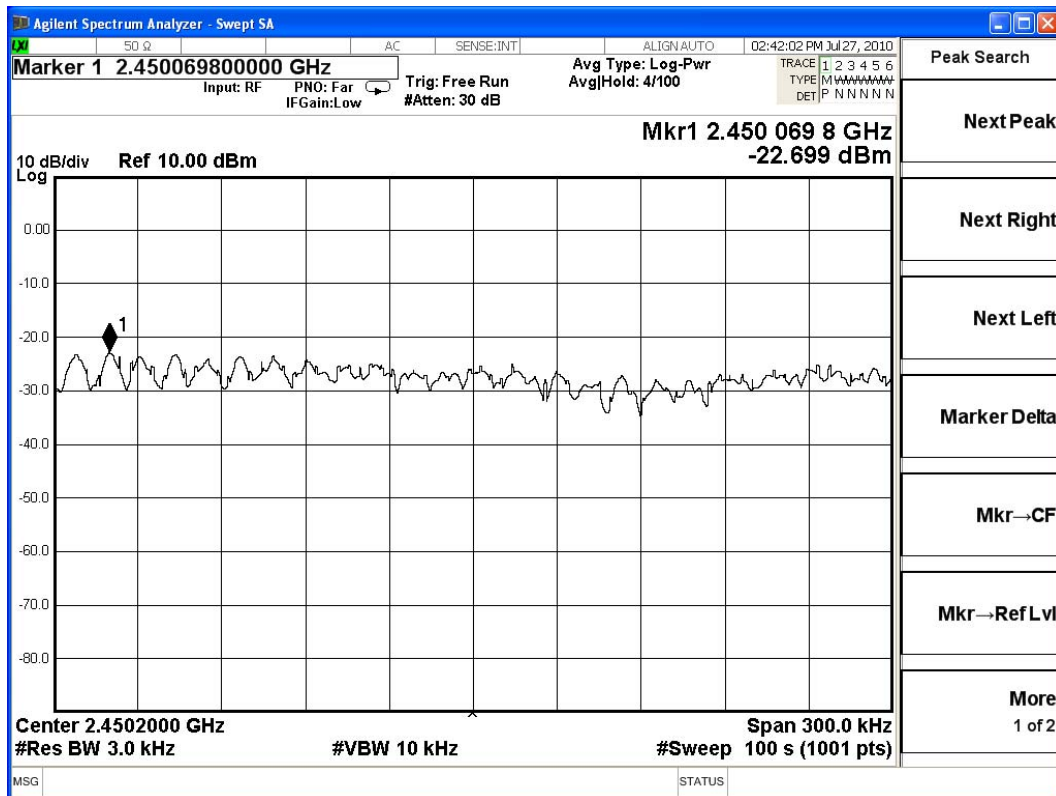
Figure Channel 4:



Product : Wireless Thin Client (WebPad)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

| Channel No. | Frequency (MHz) | Measurement Level (dBm) | Required Limit (dBm) | Result |
|-------------|-----------------|-------------------------|----------------------|--------|
| 7           | 2452.00         | -22.699                 | < 8dBm               | Pass   |

Figure Channel 7:



## **9. EMI Reduction Method During Compliance Testing**

No modification was made during testing.