Product : Multi-functional Gigabit Wireless N Router
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter (802.11n MCS8 13Mbps 20M-BW)-Adapter 1 -Channel 1

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Reading Level [dBuV]	Correction Factor [dB/m]	Emission Level [dBuV/m]	Detector
Horizontal	2412	62.570	29.730	92.300	Peak
Horizontal	2412	47,851	29.736	77,587	Average
Vertical	2412	75.910	29.730	105.640	Peak
Vertical	2412	60.002	29.736	89.738	Average

Note: 1:Spectrum Analyzer setting:

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

Average detector: RBW=1MHz, VBW=30Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2389.1	92.300	40.742	51.558	Peak
Horizontal	2390	77.587	42.678	34.909	Average
Vertical	2389.1	105.640	40.742	64.898	Peak
Vertical	2390	89.738	42.678	47.060	Average

Note:

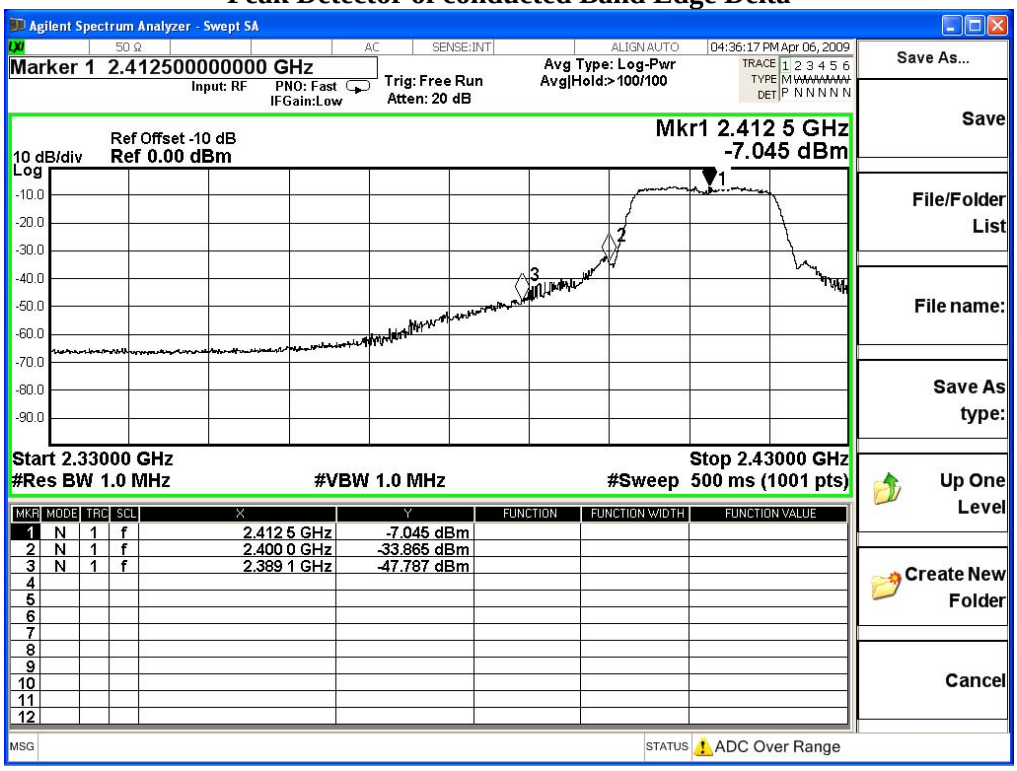
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

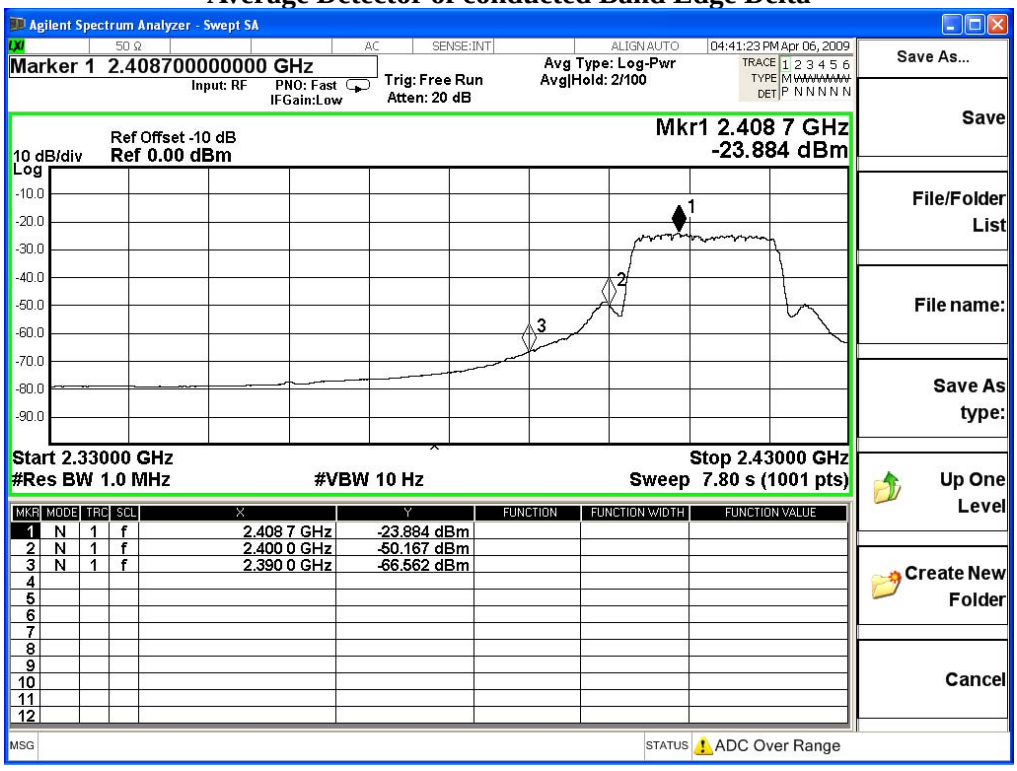
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Multi-functional Gigabit Wireless N Router
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter (802.11n MCS8 13Mbps 20M-BW)-Adapter 1 -Channel 11

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]	Detector
Horizontal	2462	60.639	29.944	90.583	Peak
Horizontal	2462	46.367	29.992	76.289	Average
Vertical	2462	68.340	29.953	98.292	Peak
Vertical	2462	53.314	29.952	83.266	Average

Note: 1:Spectrum Analyzer setting:

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

Average detector: RBW=1MHz, VBW=30Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2483.5	90.583	42.541	48.042	Peak
Horizontal	2483.5	76.289	42.868	29.421	Average
Vertical	2483.5	98.292	42.541	55.751	Peak
Vertical	2483.5	83.266	42.868	40.398	Average

Note:

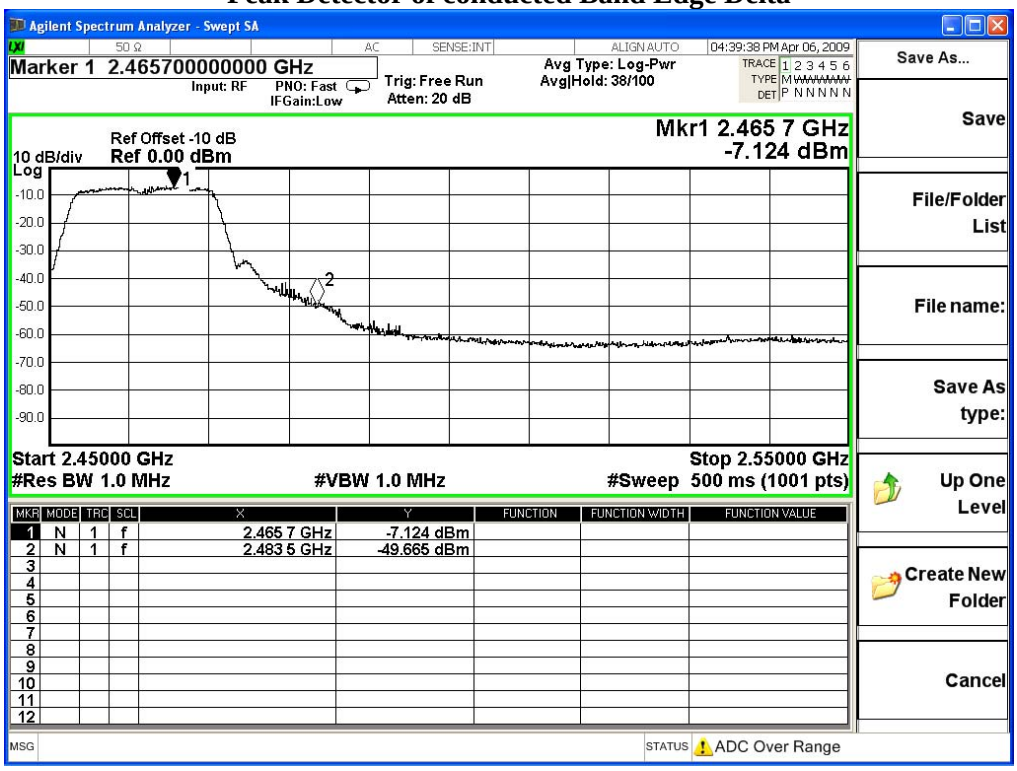
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

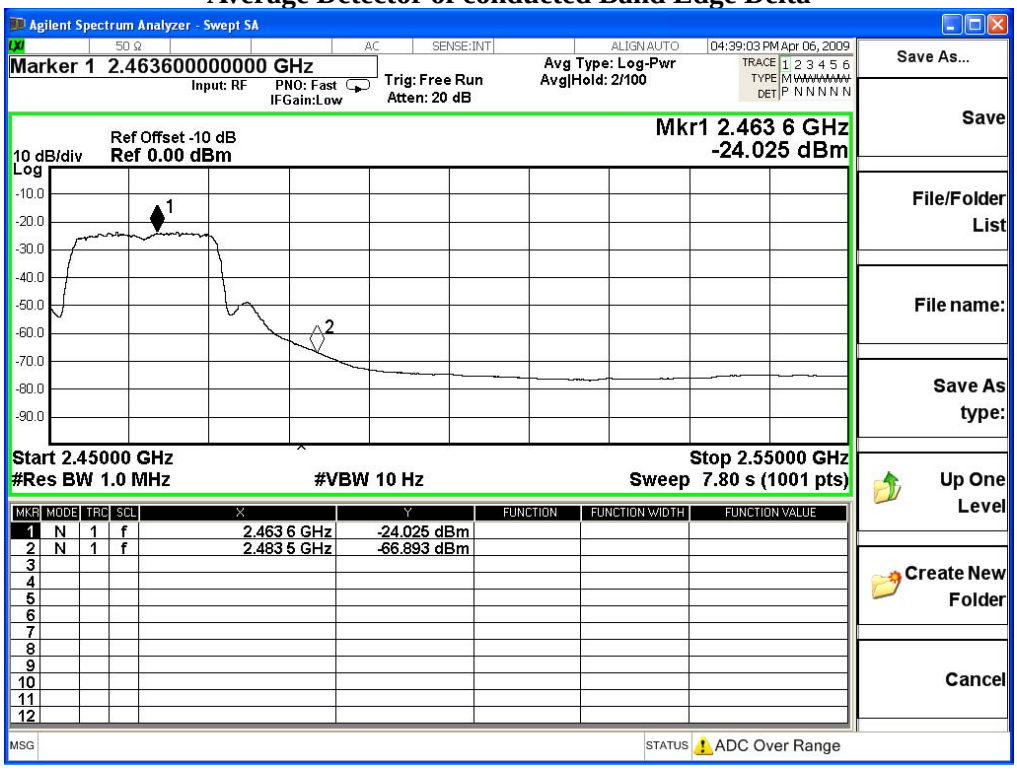
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Multi-functional Gigabit Wireless N Router
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter (802.11n MCS8 27Mbps 40M-BW)-Adapter 1 -Channel 1

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Reading Level [dBuV]	Correction Factor [dB/m]	Emission Level [dBuV/m]	Detector
Horizontal	2422	64.045	29.752	93.797	Peak
Horizontal	2422	46.663	29.789	76.452	Average
Vertical	2422	72.335	29.774	102.109	Peak
Vertical	2422	52.263	29.784	82.047	Average

Note: 1:Spectrum Analyzer setting:

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

Average detector: RBW=1MHz, VBW=30Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2390	93.797	36.178	57.619	Peak
Horizontal	2390	76.452	32.02	44.432	Average
Vertical	2390	102.109	36.178	65.931	Peak
Vertical	2390	82.047	32.02	50.027	Average

Note:

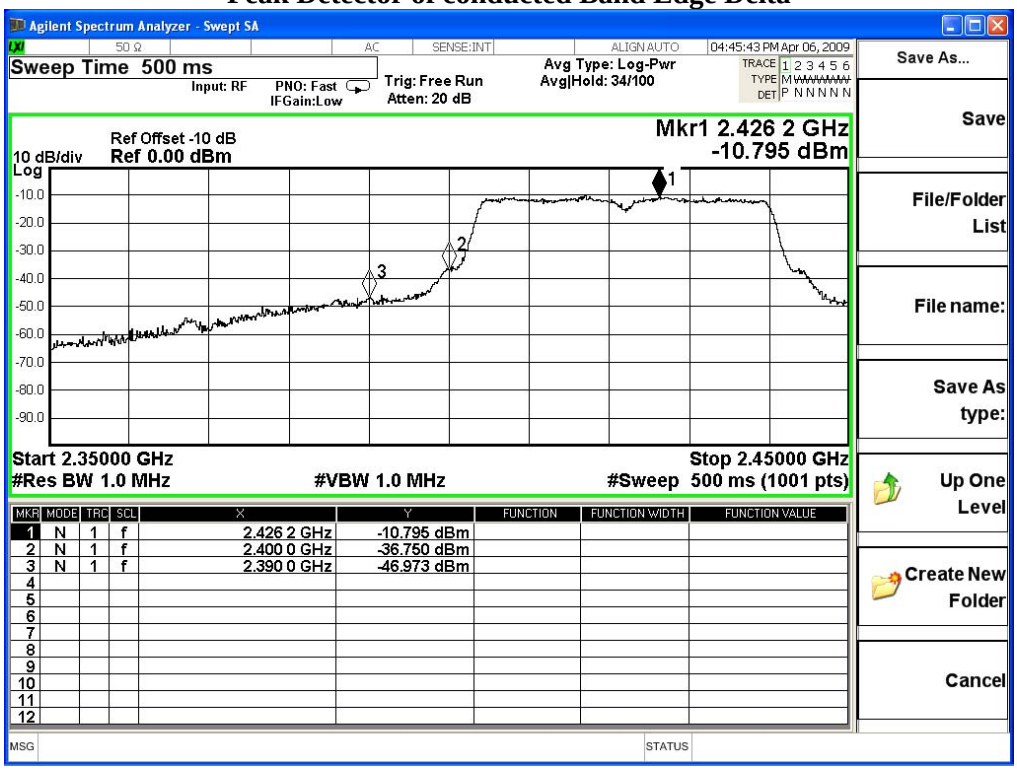
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

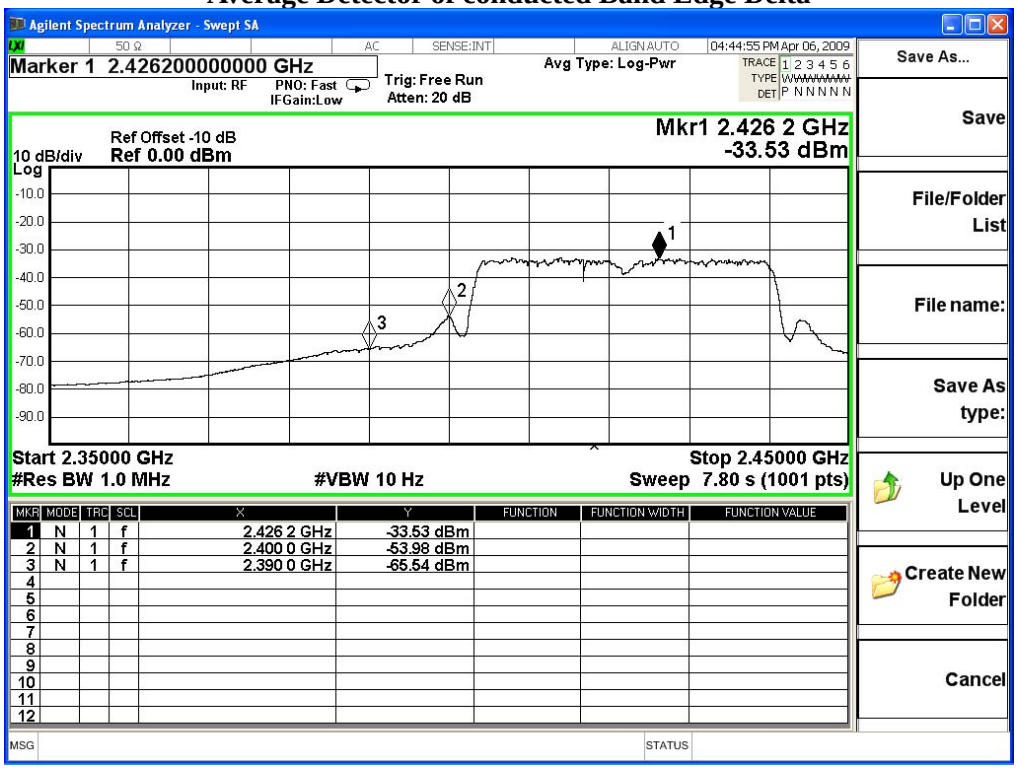
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Multi-functional Gigabit Wireless N Router
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter (802.11n MCS8 27Mbps 40M-BW)-Adapter 1 -Channel 7

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]	Detector
Horizontal	2452	58.534	29.914	88.449	Peak
Horizontal	2452	40.629	29.876	70.050	Average
Vertical	2452	71.968	29.917	101.884	Peak
Vertical	2452	52.016	29.950	81.996	Average

Note: 1:Spectrum Analyzer setting:

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

Average detector: RBW=1MHz, VBW=30Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2483.5	88.449	37.951	50.498	Peak
Horizontal	2483.5	70.050	30.540	39.510	Average
Vertical	2483.5	101.884	37.951	63.933	Peak
Vertical	2483.5	81.996	30.540	51.456	Average

Note:

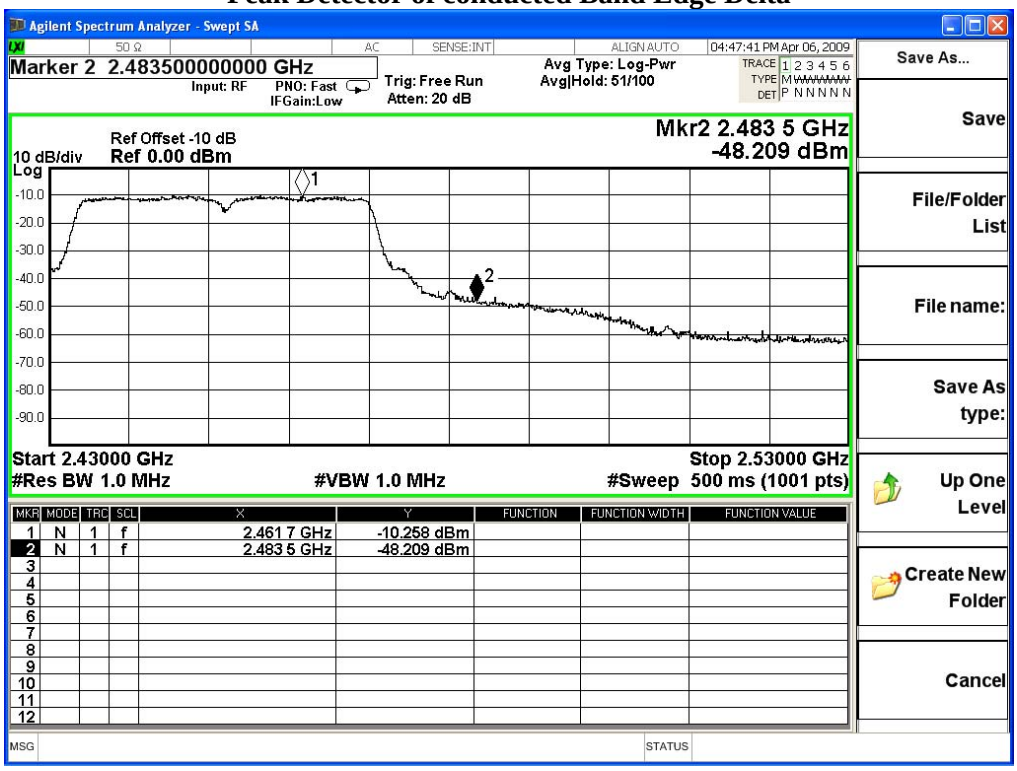
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

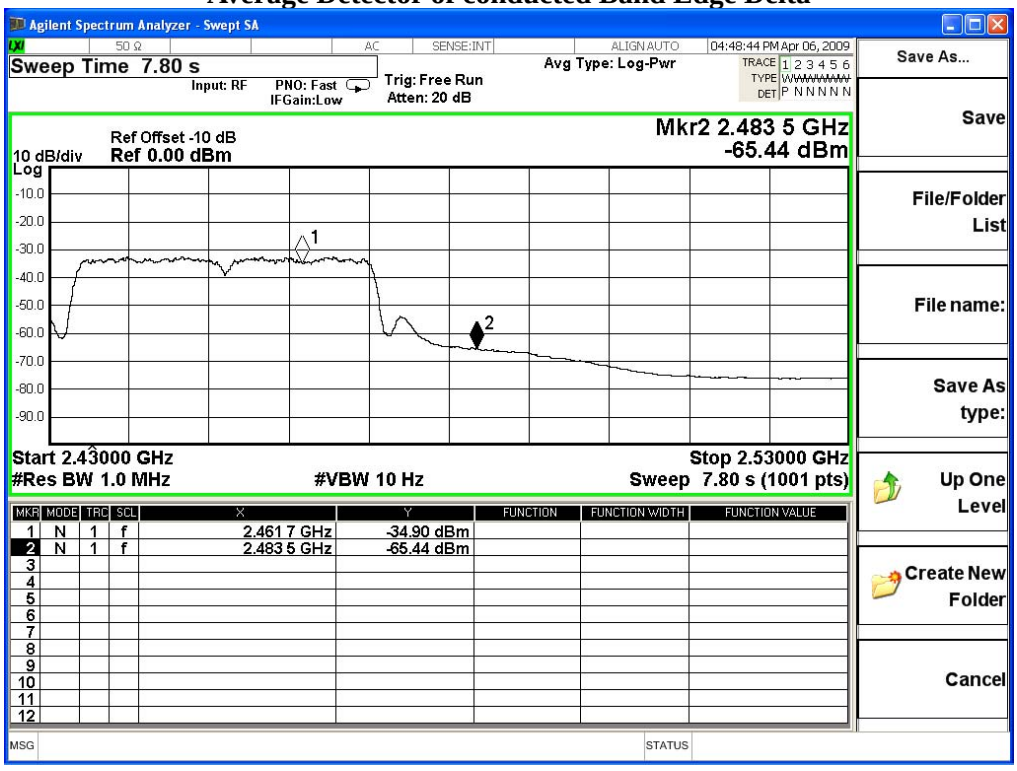
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



7. Occupied Bandwidth

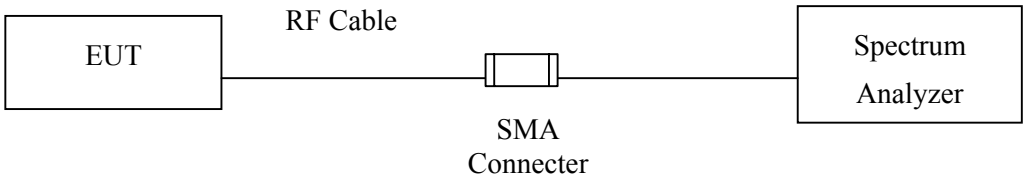
7.1. Test Equipment

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr, 2009

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

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

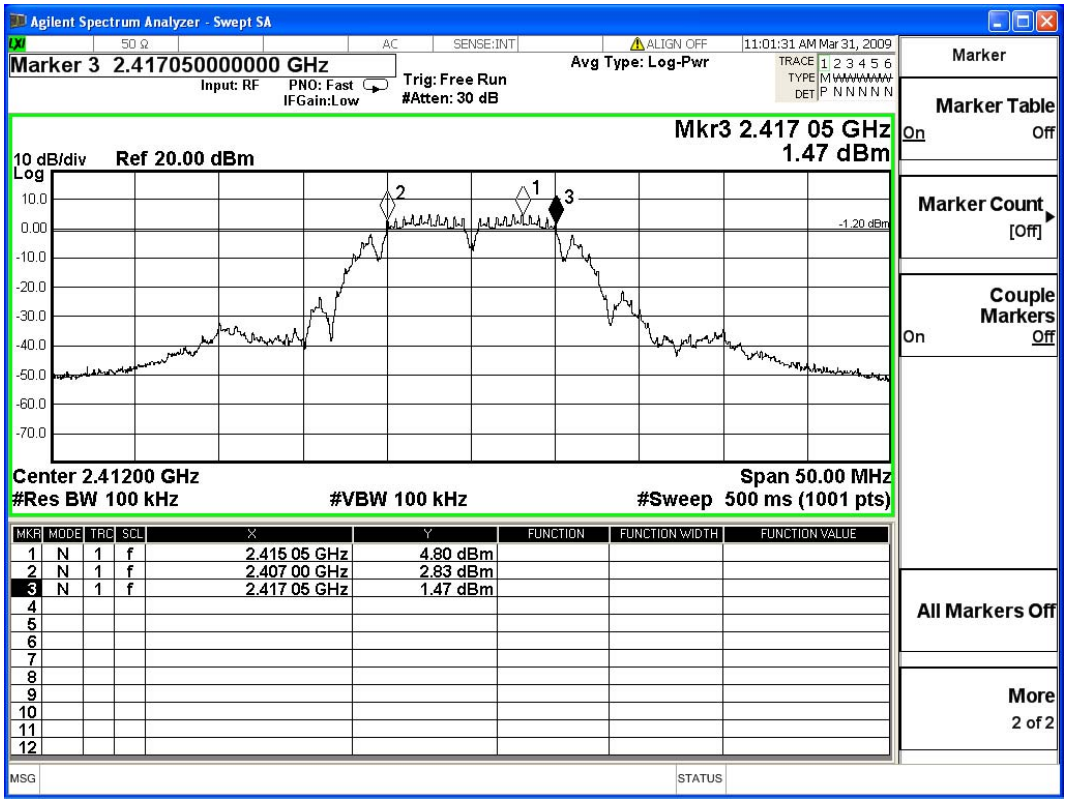
± 150Hz

7.6. Test Result of Occupied Bandwidth

Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 1Mbps)-Adapter 1 (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	10050	>500	Pass

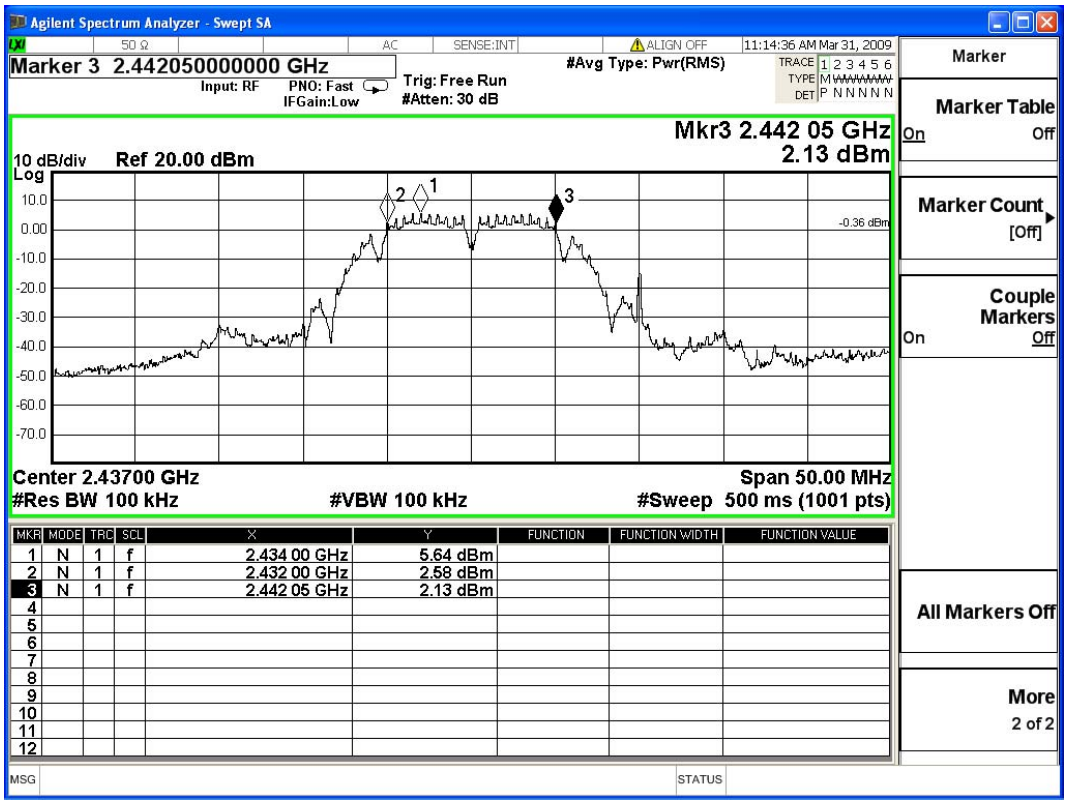
Figure Channel 1:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 1Mbps)-Adapter 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	10050	>500	Pass

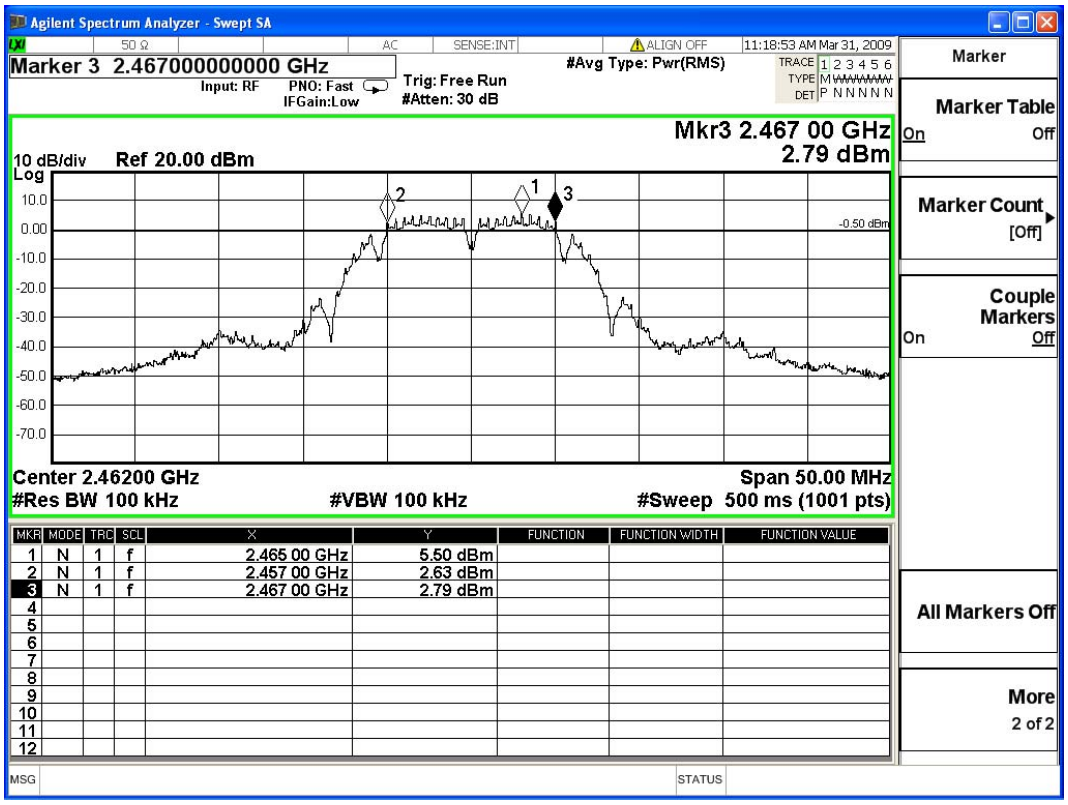
Figure Channel 6:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 1Mbps)-Adapter 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	10000	>500	Pass

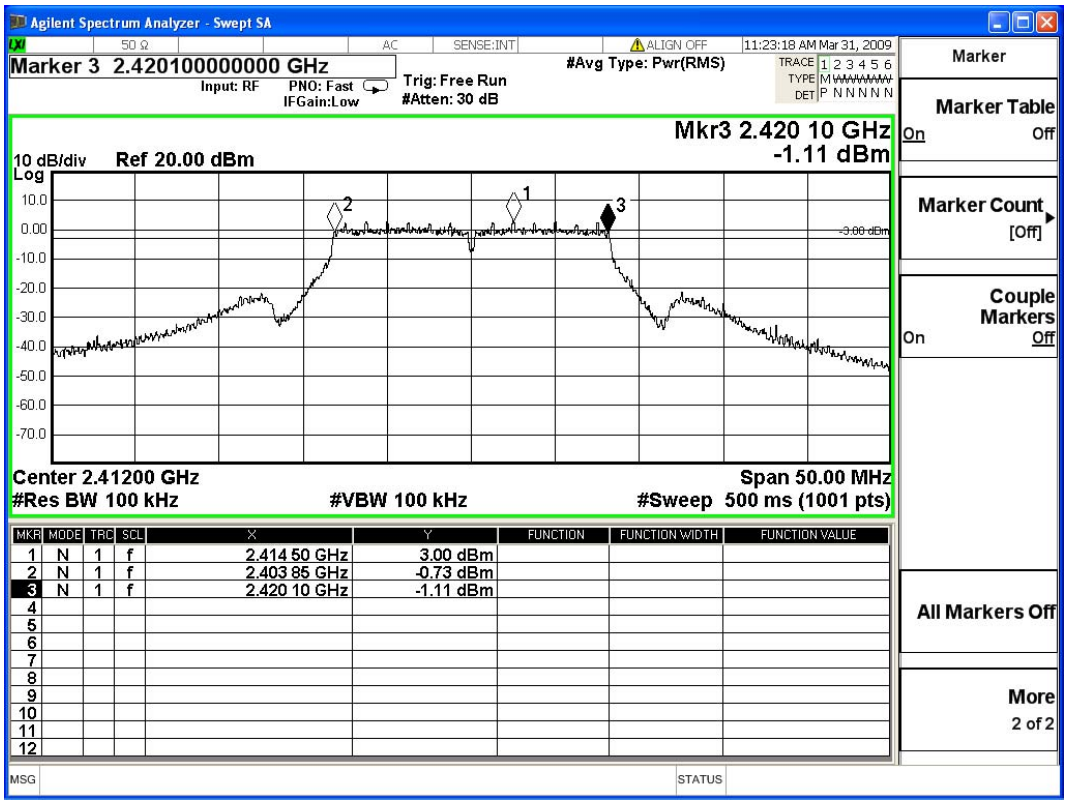
Figure Channel 11:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)-Adapter 1 (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	16250	>500	Pass

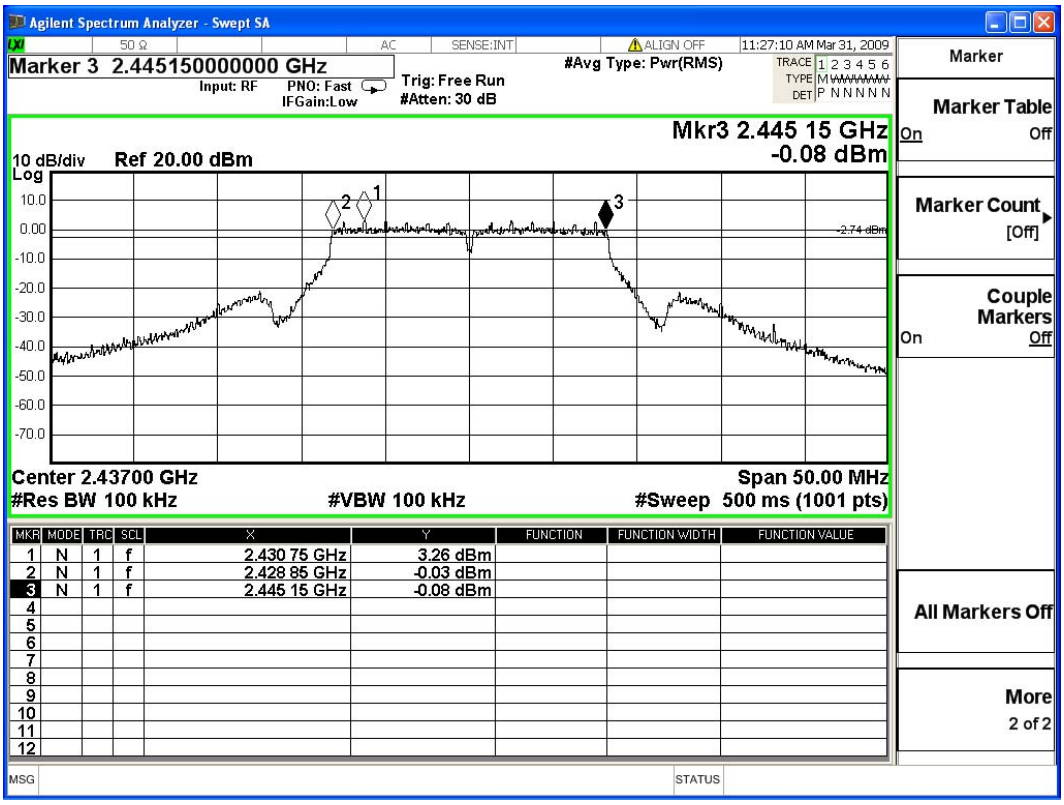
Figure Channel 1:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)-Adapter 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	16300	>500	Pass

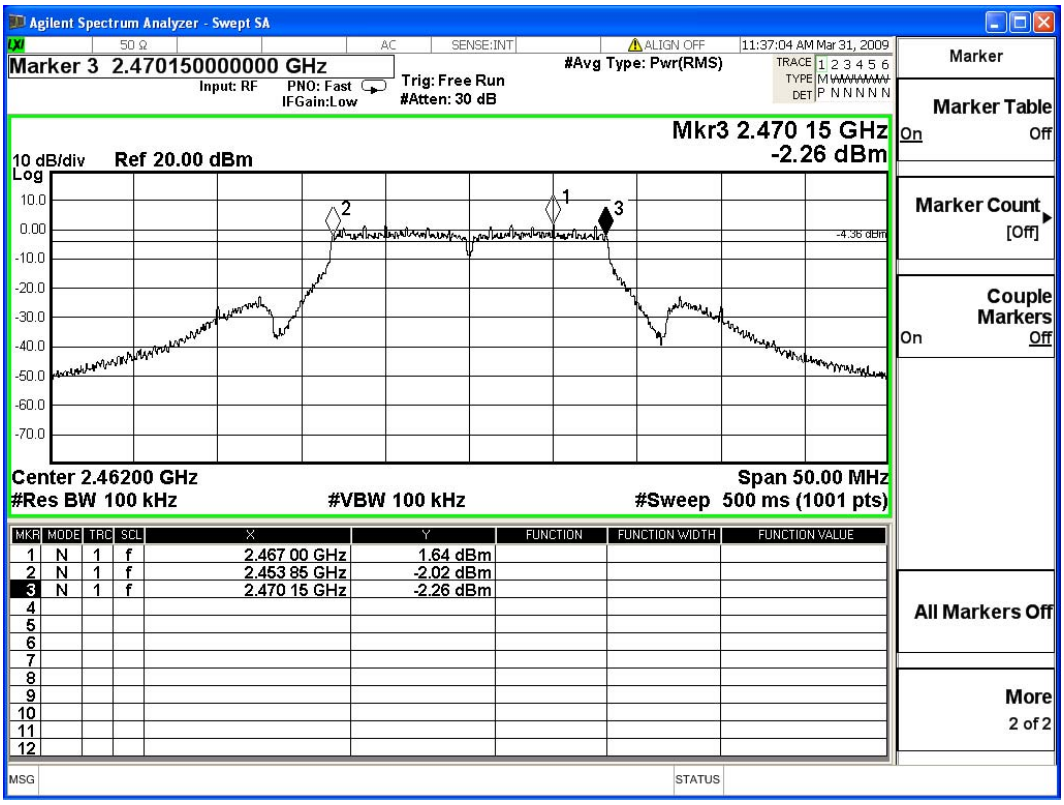
Figure Channel 6:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)-Adapter 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	16300	>500	Pass

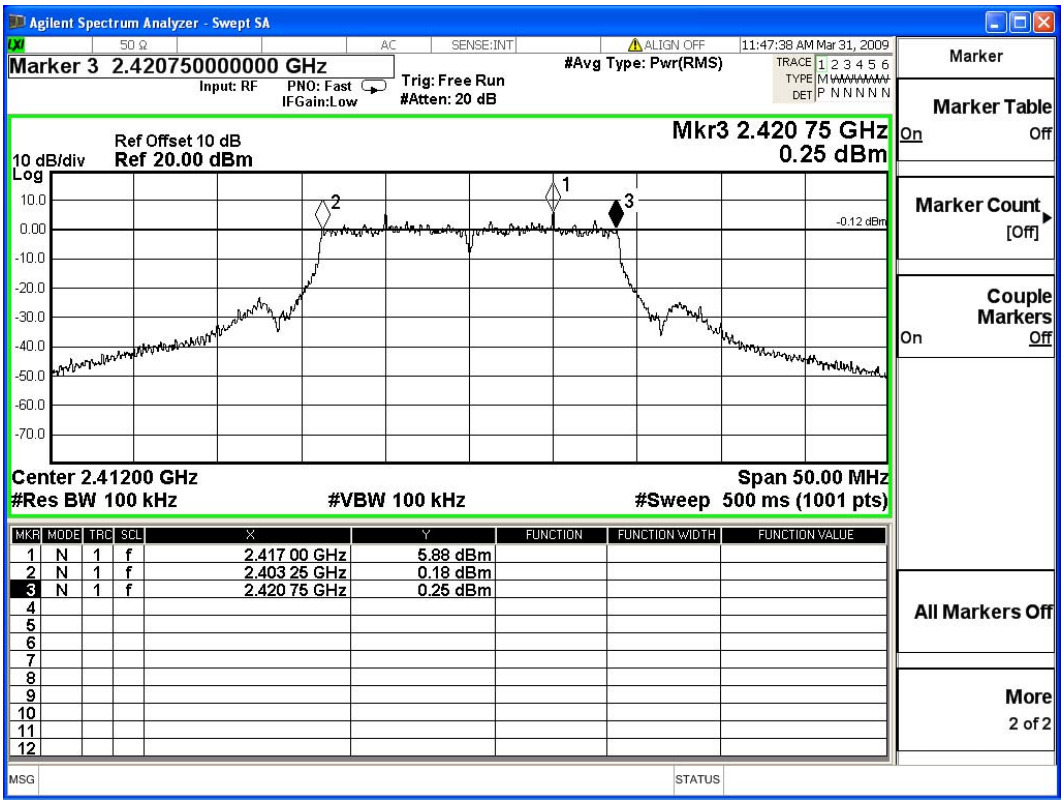
Figure Channel 11:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter (802.11n MCS8 13Mbps 20M-BW)-Adapter 1 (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	17500	>500	Pass

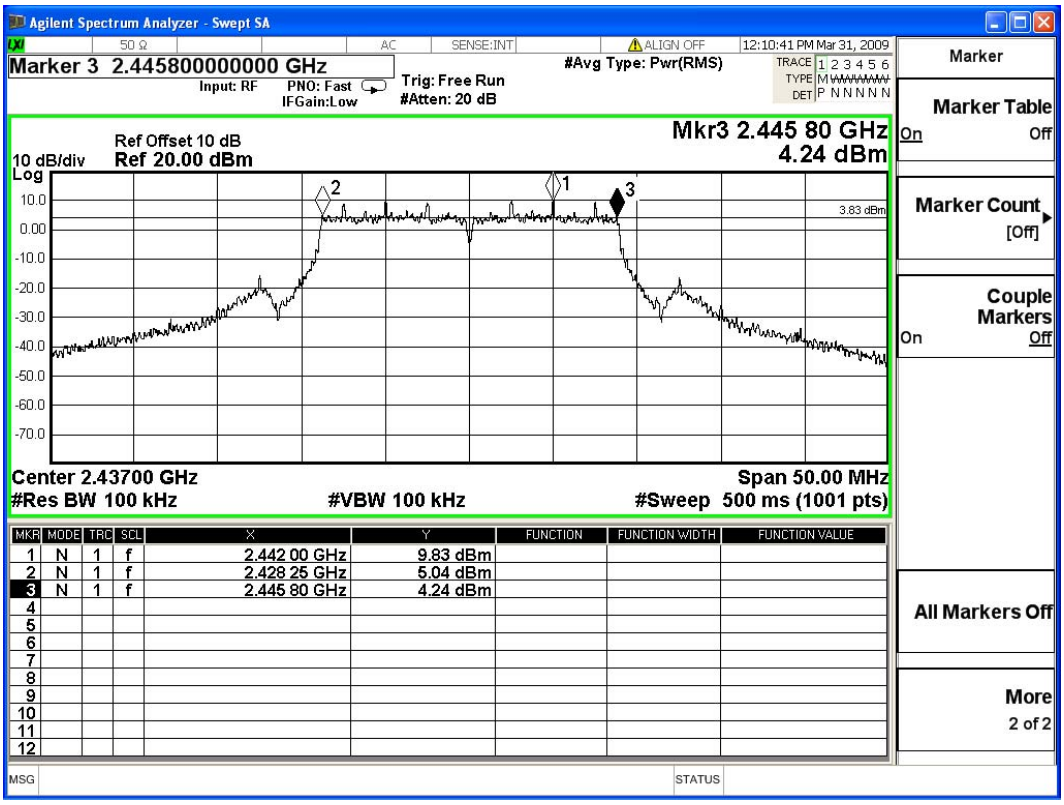
Figure Channel 1:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter (802.11n MCS8 13Mbps 20M-BW)-Adapter 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	17500	>500	Pass

Figure Channel 6:



Product : Multi-functional Gigabit Wireless N Router
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter (802.11n MCS8 13Mbps 20M-BW)-Adapter 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	17450	>500	Pass

Figure Channel 11: