

**TEST REPORT**

Report Number: 3116089ATL-006

May 22, 2007

**Product Designation: NetVanta Wireless Access Module ABG**

Standard: FCC 15.247 and RSS-210, Issue 6, 2005  
Frequency Hopping and Digital Modulation Systems operatin within  
the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

**Tested by:**

Intertek Testing Services NA Inc.  
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Duluth, GA 30096

**Client:**

Adtran Inc.  
901 Explorer Blvd.  
Huntsville, AL 25806  
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**Tests performed by:**



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EMC Team Leader

**Report reviewed by:**



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EMC Department Manager

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## 1.0 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 3.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complies with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

## 2.0 Test Summary

Section	Test Full Name	Test Date	Result
4.0	System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)	03/29/2007	
5.0	FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)	03/01/2007	PASS
6.0	FCC Part 15.247(b)(3) / RSS-210 A8.4(4) (Peak Output Power)	03/01/2007	PASS
7.0	FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)	03/01/2007	PASS
8.0	FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)	02/28/2006	PASS
9.0	RSS-GEN Section 4.8 and Section 6(b) (Rx Conducted Spurs)	03/30/2007	PASS
10.0	FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)	03/29/2007	PASS
11.0	FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)	05/03/2007	PASS
12.0	Revision History (Revision History)	05/22/2007	

### 3.0 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Wireless Router	Adtran, Inc.	NetVanta 1335	None

EUT receive date:	2/13/2007
EUT receive condition:	Good

#### Description of EUT provided by Client:

The NetVanta 1335 Multiservice Access Router is a performance-enhanced platform that addresses the need of multiple networking devices in a single compact platform. The NetVanta 1335 integrates a modular IP access router, 24-port Layer 3 Ethernet switch, firewall, VPN appliance, and DSU/CSU, all in one platform. In addition, the NetVanta 1335 delivers the throughput required for IP telephony, corporate connectivity and internet access, even with advance services enabled like QoS, NAT, and firewall.

#### Description of EUT exercising:

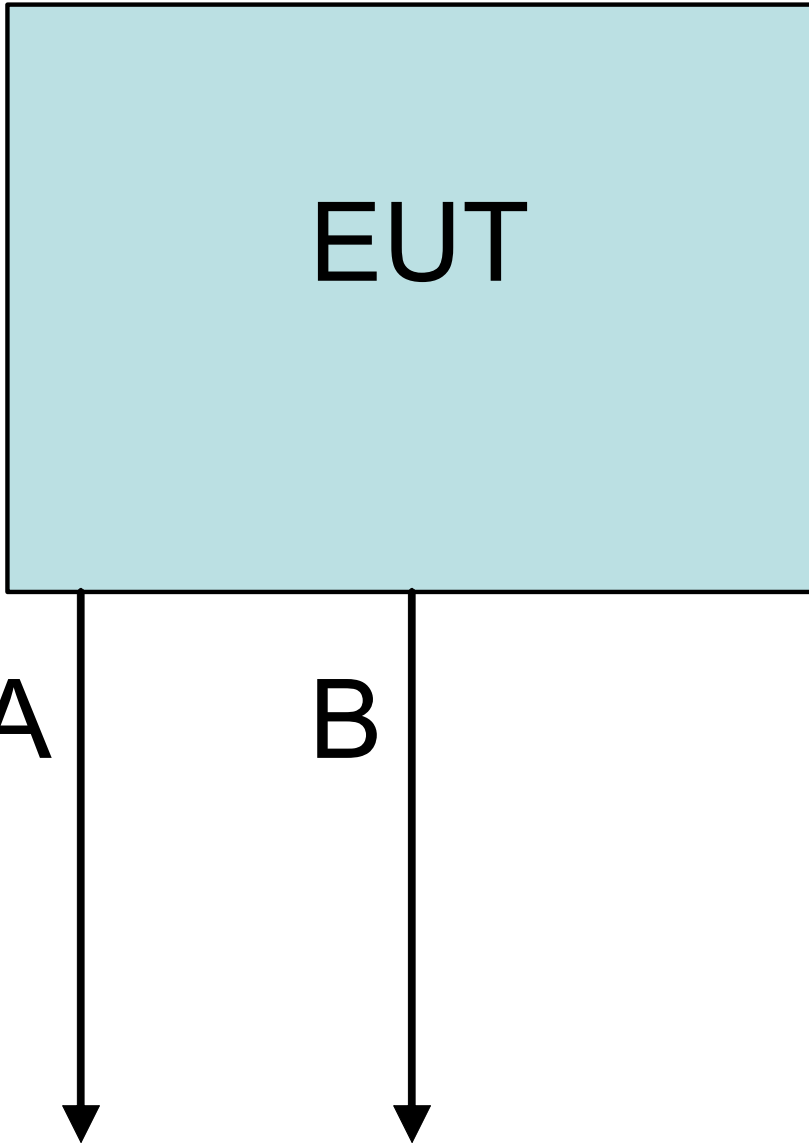
During emissions testing the EUT was configured to operate in a transmit mode various channels and data rates.

**4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)**

**Method:**

Record the details of EUTcabling, document the support equipment, and show the interconnections in a block diagram.

**Photo:**



Block Diagram of EUT

**4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)**

**Data:**

EUT Cabling						
ID	Description	Length	Shielding	Ferrites	Connection	
					From	To
A	Power Cord	2M	No	No	EUT	DC Mains
B	Ethernet	5M	No	No	EUT	Laptop

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
Laptop	Compaq	Armada 1750	None

**5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)**

**Method:**

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

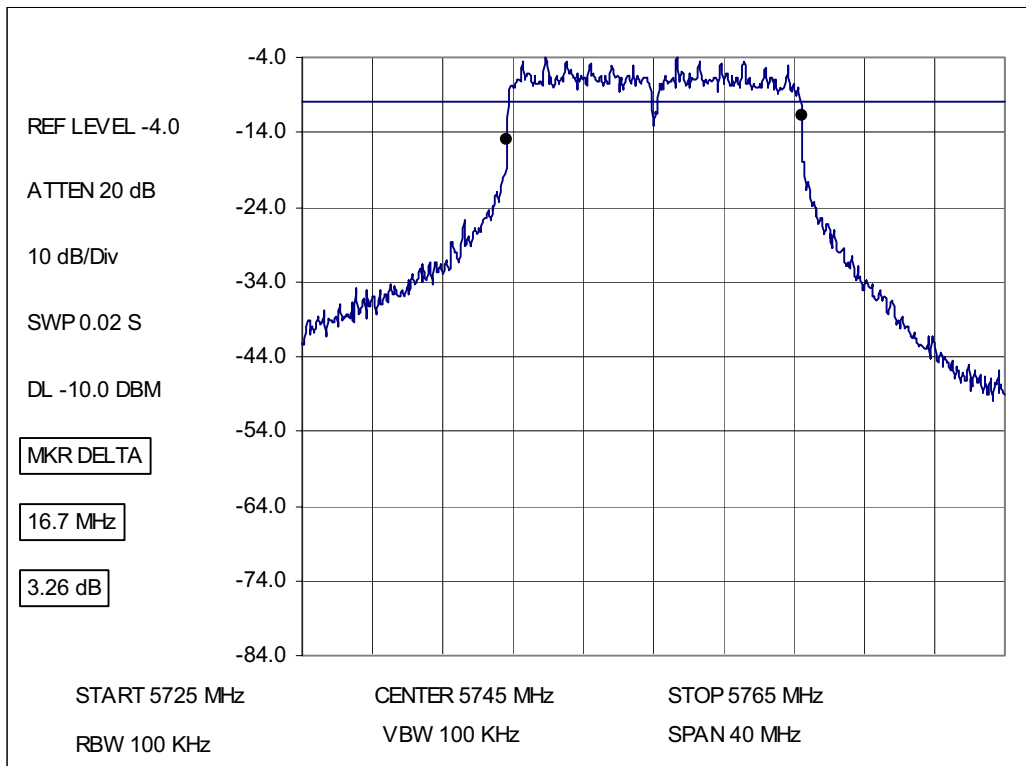
Connect the antenna port of the EUT to the input of a spectrum analyzer. Input a referency level offset into the spectrum analyzer to account for the associated cable loss. Set the analyzer resolution and video bandwidths to 100kHz and turn on the max hold function. Use the marker peak search on the resultant trace to find the peak amplitude. Positioned the markers on either side of the peak amplitude such that they were 6dB lower than the peak amplitude. The 6dB bandwidth is the frequency difference between the marker on the lower side and the marker on the higher side of the peak amplitude. The 6dB bandwidth shall be measured for the highest data rate for each possible modulation mode on the high, middle, and low channels.

**Test Equipment Used:**

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable E20 (Formerly Cable 8)	United Microwave Pro	Micropore 190 577	E20	05/12/2006	05/12/2007
Spectrum Analyzer	Hewlett Packard	8593E	213180	04/18/2006	04/18/2007

**Results: The sample tested was found to Comply.**

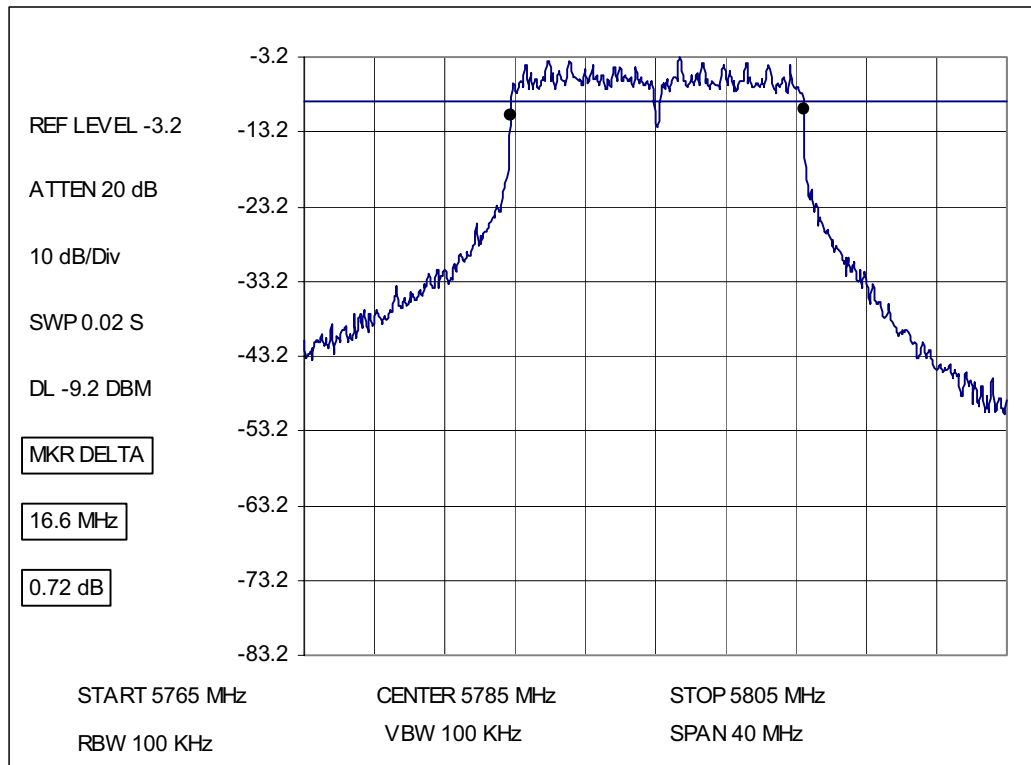
**Plot:**



Mode A, Channel 149, 6Mbit

5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

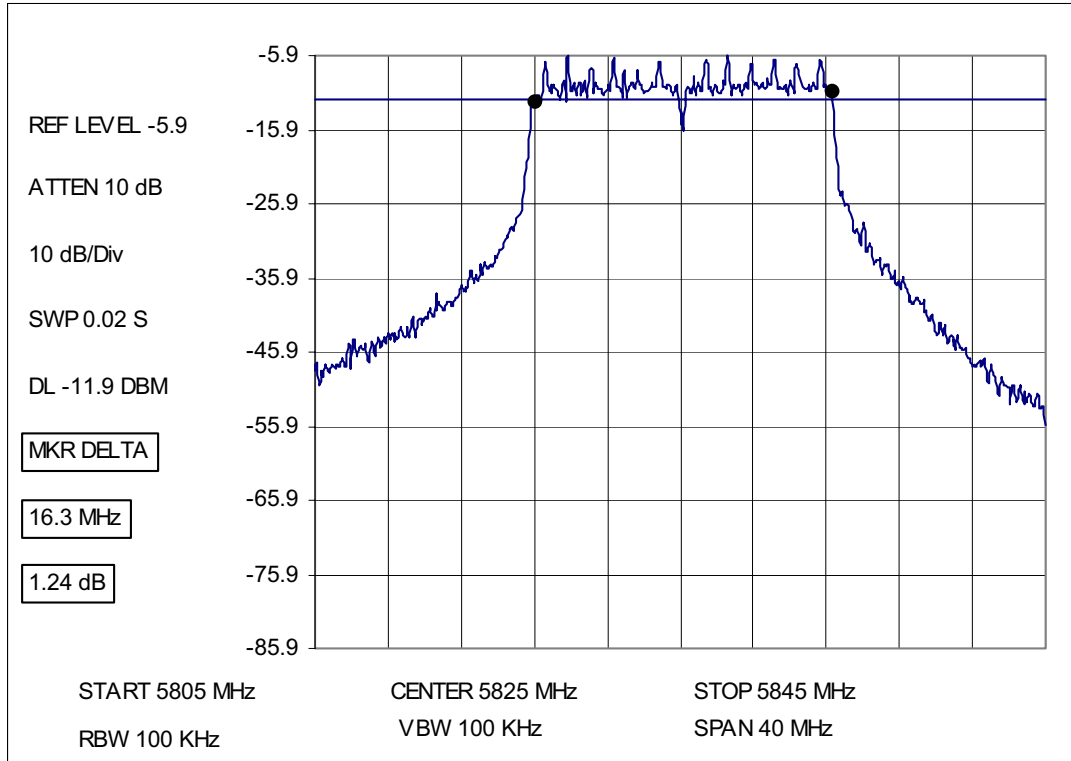
Plot:



Mode A, Channel 157, 12Mbit

5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

Plot:

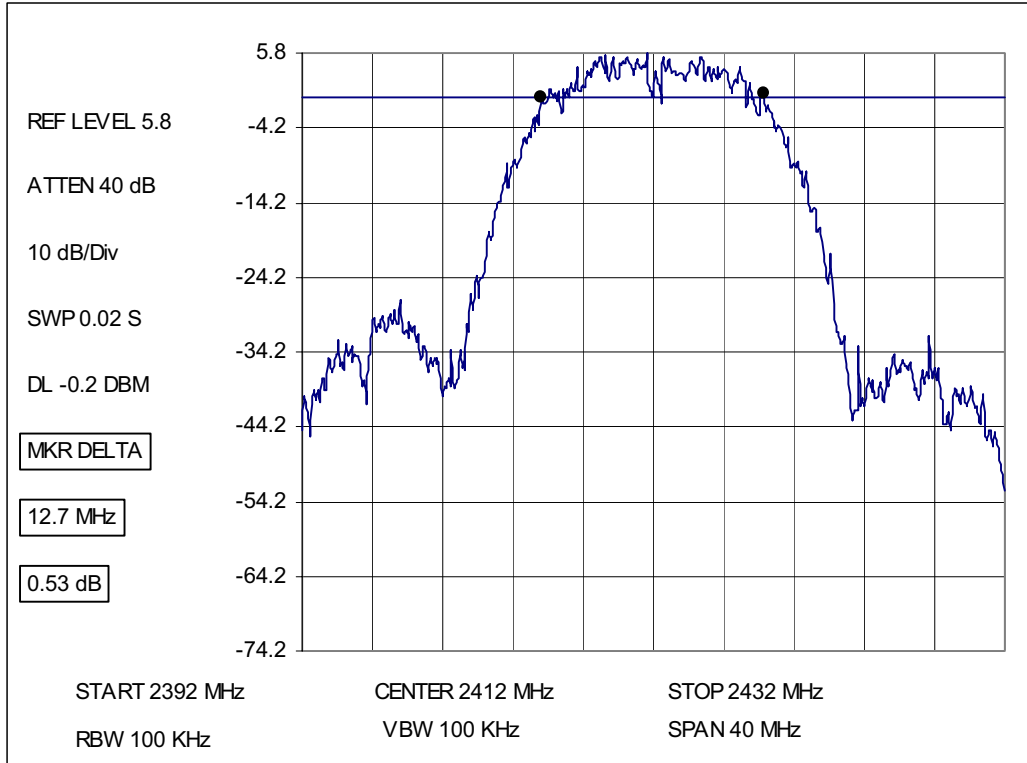


Mode A, Channel 165, 18Mbit



5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

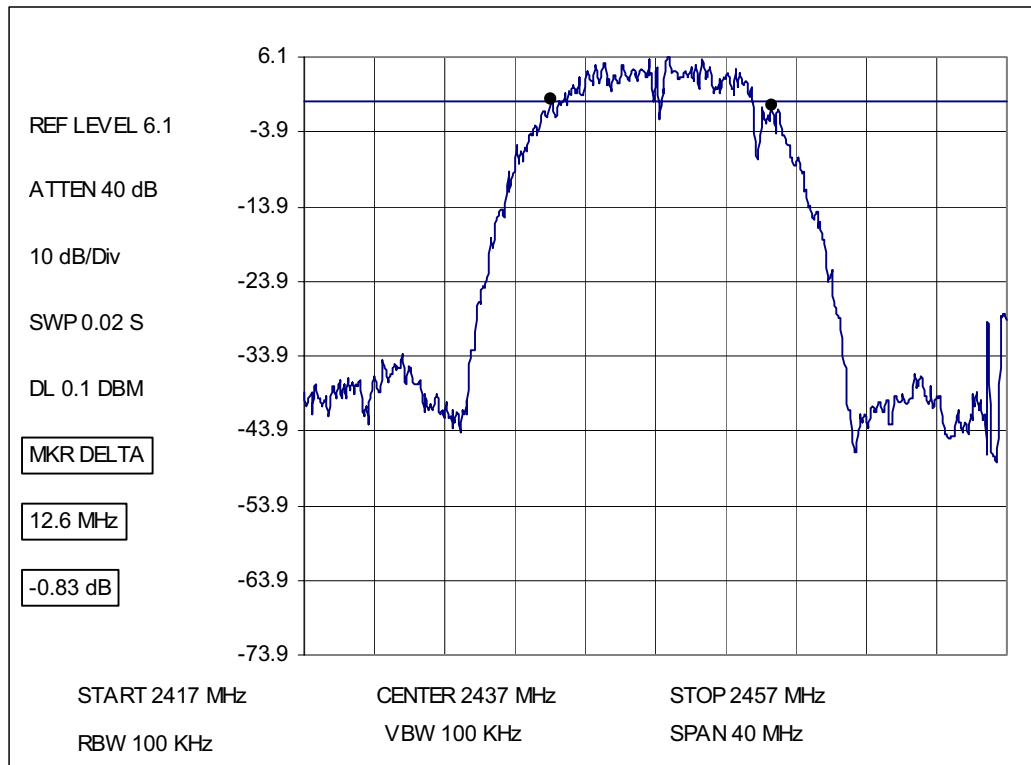
Plot:



Mode B, Channel 1, 5.5Mbit

5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

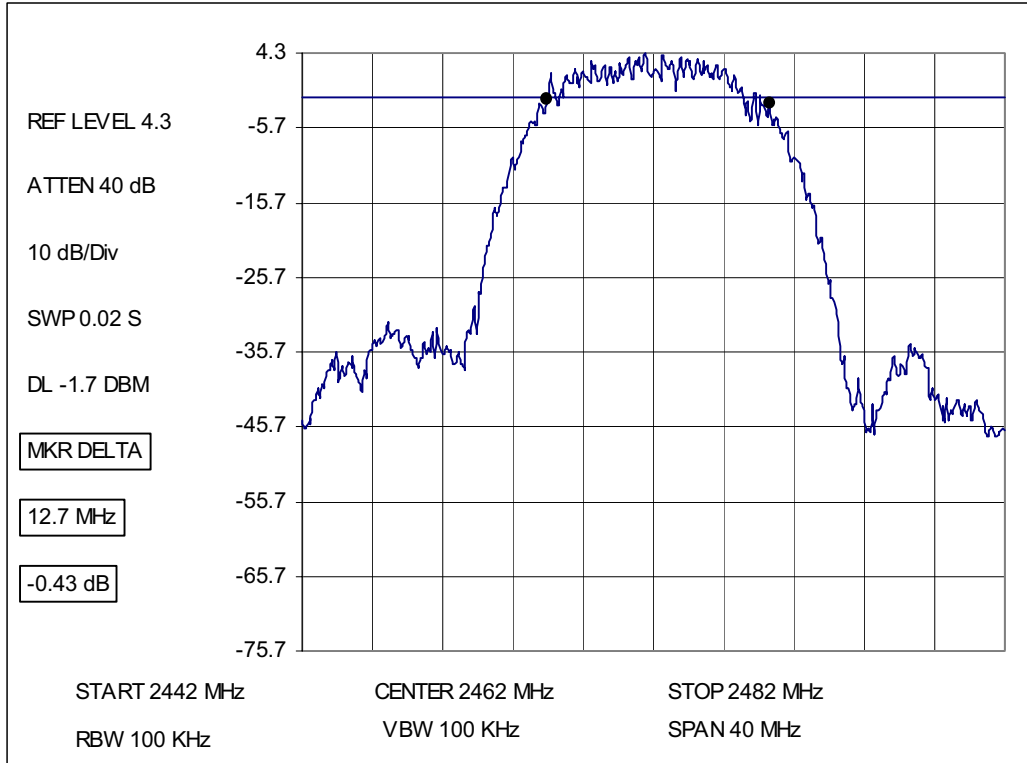
Plot:



Mode B, Channel 6, 5.5Mbit

5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

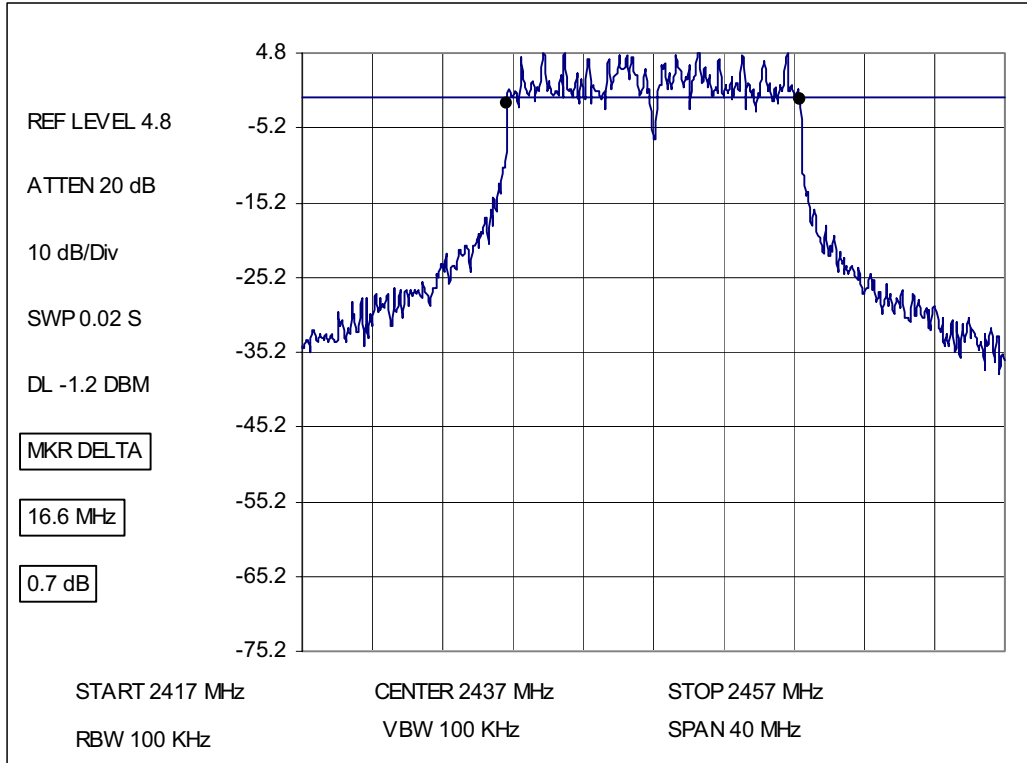
Plot:



Mode B, Channel 11, 5.5Mbit

5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

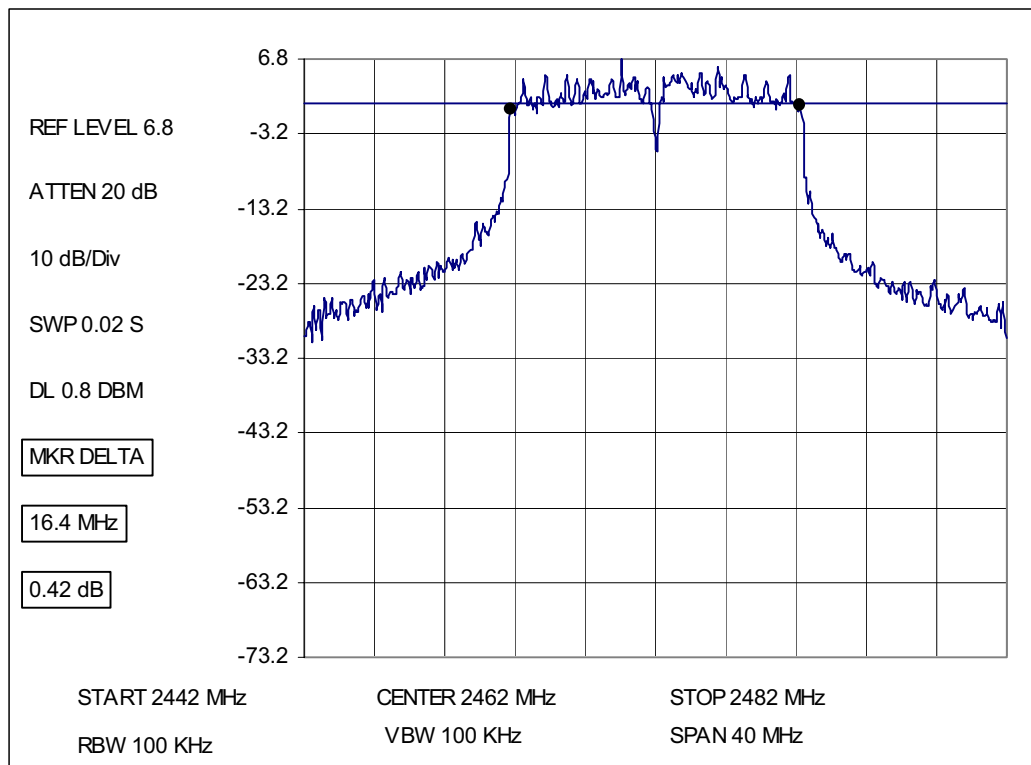
Plot:



Mode G, Channel 6, 12Mbit

5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

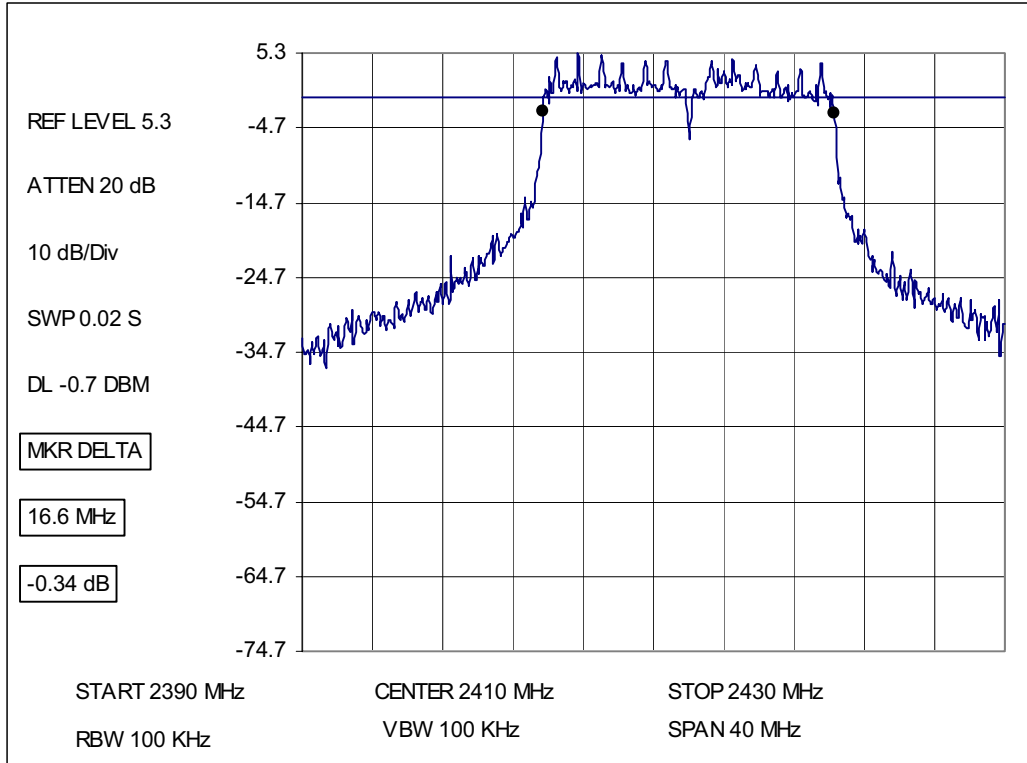
Plot:



Mode G, Channel 11, 6Mbit

5.0 FCC Part 15.247(a)(2) / RSS-210 A8.2(1) (6 dB Bandwidth)

Plot:



Mode G, Channel 1, 6Mbit

**6.0 FCC Part 15.247(b)(3) / RSS-210 A8.4(4) (Peak Output Power)****Method:**

The maximum peak conducted output power of the intentional radiator shall not exceed the following: For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.

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. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level.

If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Connect the antenna port of the EUT to the input of a peak power meter. Read the power directly from the power meter (or equivalent) that is corrected for cable loss to obtain the power at the antenna terminals. Measure the conducted power on the high, middle and low channels for all data rates and modulation modes.

**Test Equipment Used:**

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable E20 (Formerly Cable 8)	United Microwave Pro	Micropore 190 577	E20	05/12/2006	05/12/2007
Spectrum Analyzer	Hewlett Packard	8593E	213180	04/18/2006	04/18/2007

**Results: The sample tested was found to Comply.**

## 6.0 FCC Part 15.247(b)(3) / RSS-210 A8.4(4) (Peak Output Power)

Data:

Frequency MHz	Mode	Modulation	Data Rate (Mbps)	Conducted Power (dBm)	Conducted Power (mW)	Power Density (dBm)	6dB Bandwidth MHz
5826 Channel 165	802.11a	OFDM	6	10.9	12.3		16.4
		OFDM	9	13.2	20.9		16.4
		OFDM	12	13.1	20.4		16.4
		OFDM	18	13.5	22.4		16.3
		OFDM	24	13.2	20.9		16.6
		OFDM	36	12.4	17.4		16.3
		OFDM	48	13.1	20.4		16.5
		OFDM	54	9.2	8.3	-32.5	16.5
5745 Channel 149	802.11a	OFDM	6	13.3	21.4		16.7
		OFDM	9	12.4	17.4		16.7
		OFDM	12	12.7	18.6		16.7
		OFDM	18	12.5	17.8		16.7
		OFDM	24	11.5	14.1		16.7
		OFDM	36	11.4	13.8		16.7
		OFDM	48	10.8	12.0		16.7
		OFDM	54	10.5	11.2	-26.81	16.7
5785 Channel 157	802.11a	OFDM	6	13.5	22.4		16.7
		OFDM	9	14.1	25.7		16.8
		OFDM	12	13.9	24.5		16.6
		OFDM	18	12.5	17.8		16.6
		OFDM	24	13.0	20.0		16.8
		OFDM	36	12.2	16.6		16.8
		OFDM	48	11.4	13.8		16.8
		OFDM	54	11.2	13.2	-31.35	16.7

A Mode: Power / PSD / BW



**6.0 FCC Part 15.247(b)(3) / RSS-210 A8.4(4) (Peak Output Power)**

**Data:**

Frequency MHz	Mode	Modulation	Data Rate (Mbps)	Conducted Power (dBm)	Conducted Power (mW)	Power Density (dBm)	6dB Bandwidth MHz
2437 Channel 6	802.11b	BPSK	1	19.3	85.1		11.6
		QPSK	2	19.5	89.1		12.6
		CCK	5.5	19.6	91.2	-9.46	12.7
		CCK	11	18.8	75.9	-8.59	11.1
	802.11g	OFDM	6	20	100.0		16.3
		OFDM	9	20	100.0		16.3
		OFDM	12	20.1	102.3	-10.6	16.6
		OFDM	18	20.1	102.3		16.2
		OFDM	24	19.8	95.5		16.6
		OFDM	36	18.9	77.6		16.2
		OFDM	48	17.3	53.7		15.7
	OFDM	54	18	63.1	-8.85	15.1	
2412 Channel 1	802.11b	BPSK	1	19.5	89.1		11.1
		QPSK	2	19.5	89.1		12.8
		CCK	5.5	20.1	102.3	-9.55	12.6
		CCK	11	18.7	74.1	-8.33	11.8
	802.11g	OFDM	6	20.4	109.6	-12	16.6
		OFDM	9	20	100.0		16.6
		OFDM	12	20.2	104.7		16
		OFDM	18	19.1	81.3		16.5
		OFDM	24	19.5	89.1		16.6
		OFDM	36	19.3	85.1		15.7
		OFDM	48	17.5	56.2		16
	OFDM	54	17.2	52.5	-9.6	15.5	
2462 Channel 11	802.11b	BPSK	1	19.4	87.1		12.2
		QPSK	2	19.3	85.1		11.3
		CCK	5.5	19.8	95.5	-9.03	12.7
		CCK	11	18.9	77.6	-7.37	11.4
	802.11g	OFDM	6	21.9	154.9	-9.6	16.8
		OFDM	9	20.3	107.2		16.6
		OFDM	12	21	125.9		16.6
		OFDM	18	19.8	95.5		16.6
		OFDM	24	19.7	93.3		16.7
		OFDM	36	19.5	89.1		16.7
		OFDM	48	18.3	67.6		15.2
	OFDM	54	17.4	55.0	-8.34	15.3	

BG Mode: Power / PSD / BW

## 7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

### Method:

Connect the antenna port of the EUT to the input of a spectrum analyzer. Input an offset into the analyzer amplitude to account for the associated cable loss.

Set the span to cover the entire emission bandwidth. With a bandwidth of 100kHz or greater, set the marker to the peak emission and move that frequency to the center of the display. Set the analyzer resolution and video bandwidths to 3kHz and turn on the max hold function. Set the frequency span was set to 300kHz around the highest amplitude occurring in the peak emission envelope. The total sweep time was calculated as follows:

Sweep time (Sec.) = (Fstop – Fstart)/Resolution Bandwidth  
 Sweep time (Sec) = 300kHz / 3kHz  
 Sweep time (Sec) = 100 Seconds

Perform a peak search on the resultant trace. Record the amplitude of that peak as the maximum power density in dBm. Measure the power density for all data rates and modulation modes on the middle channel.

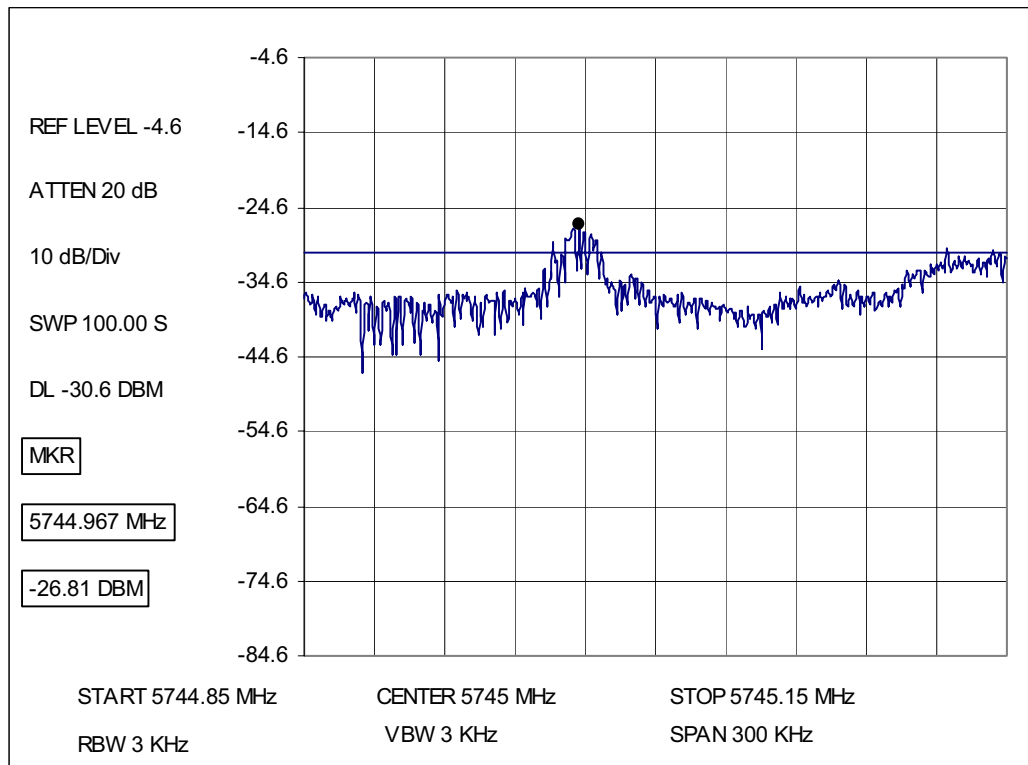
For the high and low channels, measure the power density at the data rate and modulation mode that resulted in the highest and lowest conducted power for that channel.

### Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable E20 (Formerly Cable 8)	United Microwave Pro	Micropore 190 577	E20	05/12/2006	05/12/2007
Spectrum Analyzer	Hewlett Packard	8593E	213180	04/18/2006	04/18/2007

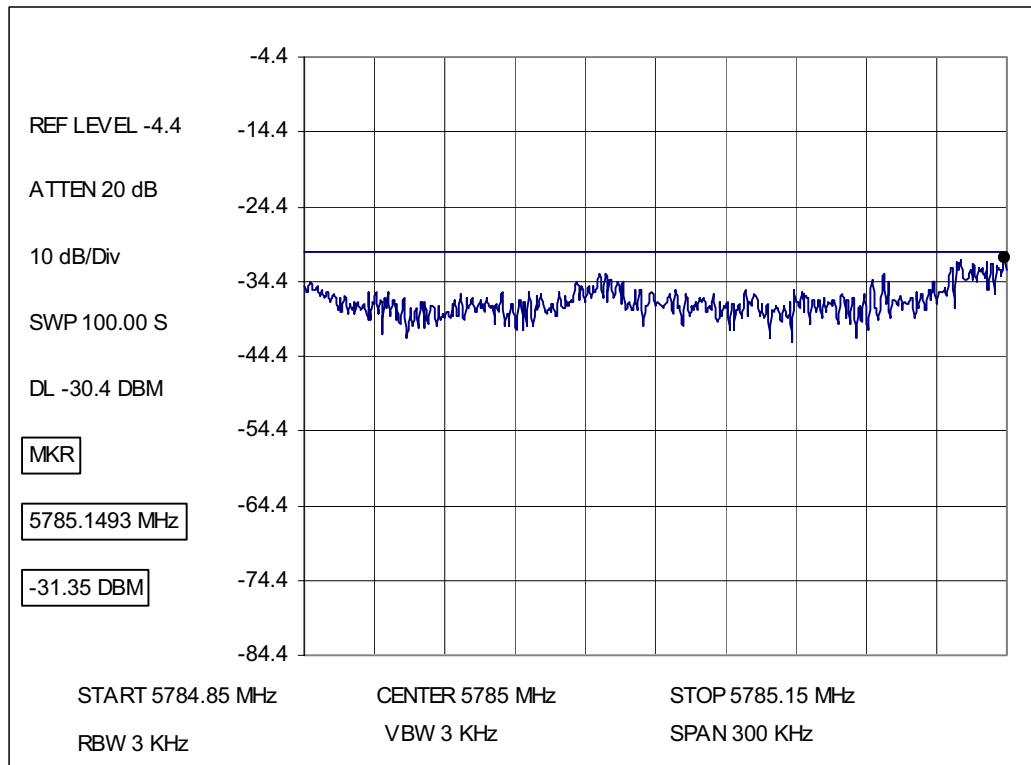
**Results: The sample tested was found to Comply.**

### Plot:



7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

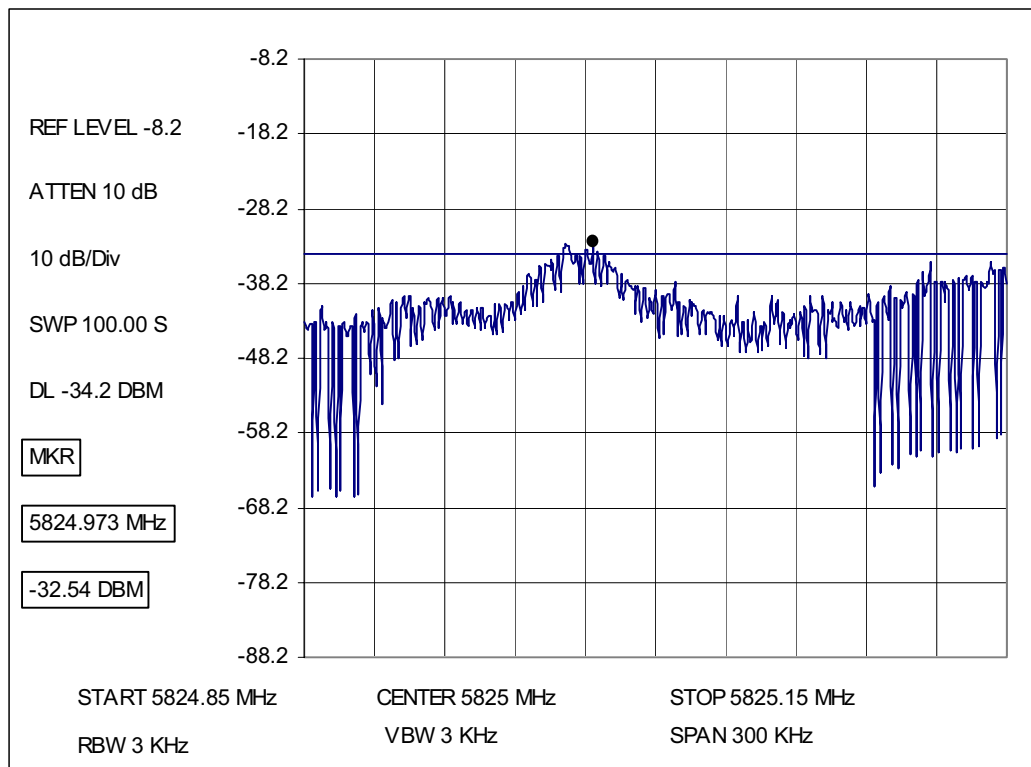
Plot:



Mode A, Channel 157, 54Mbit

7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

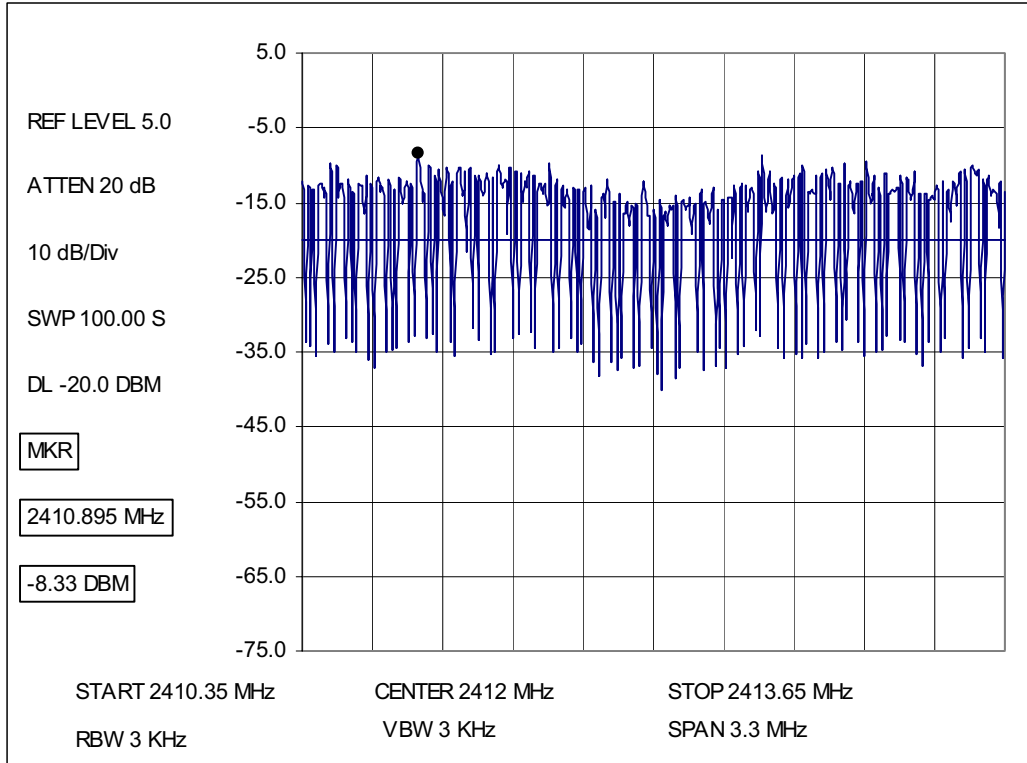
Plot:



Mode A, Channel 165, 54Mbit

7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

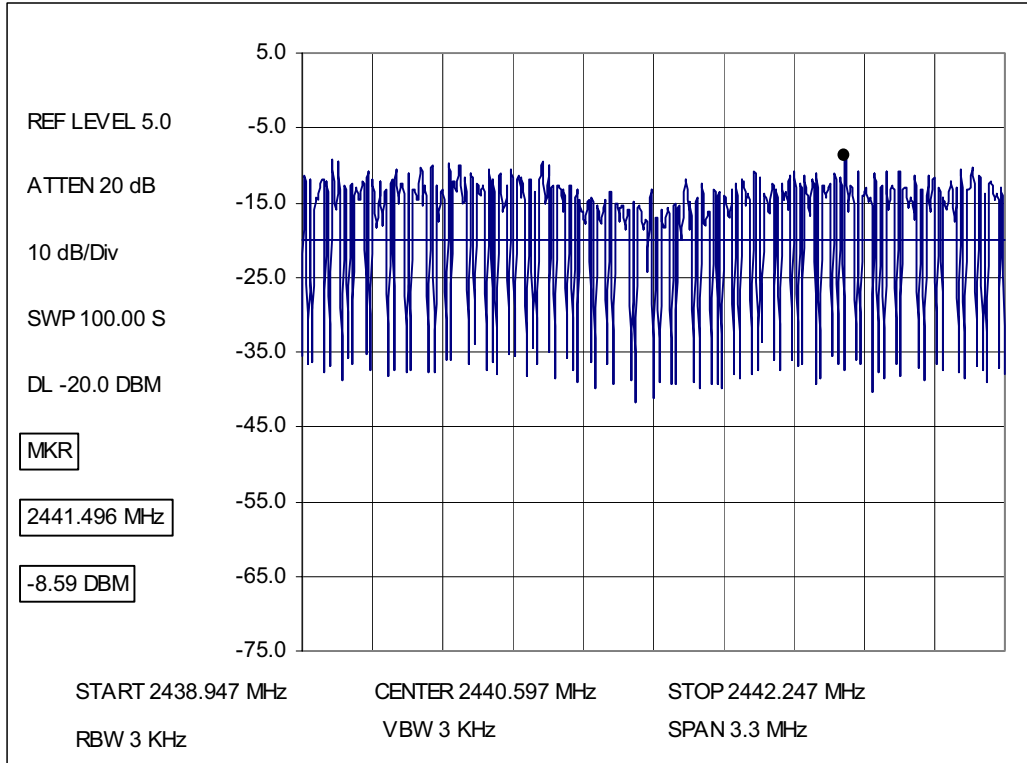
Plot:



Mode B, Channel 1, 11Mbit

7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

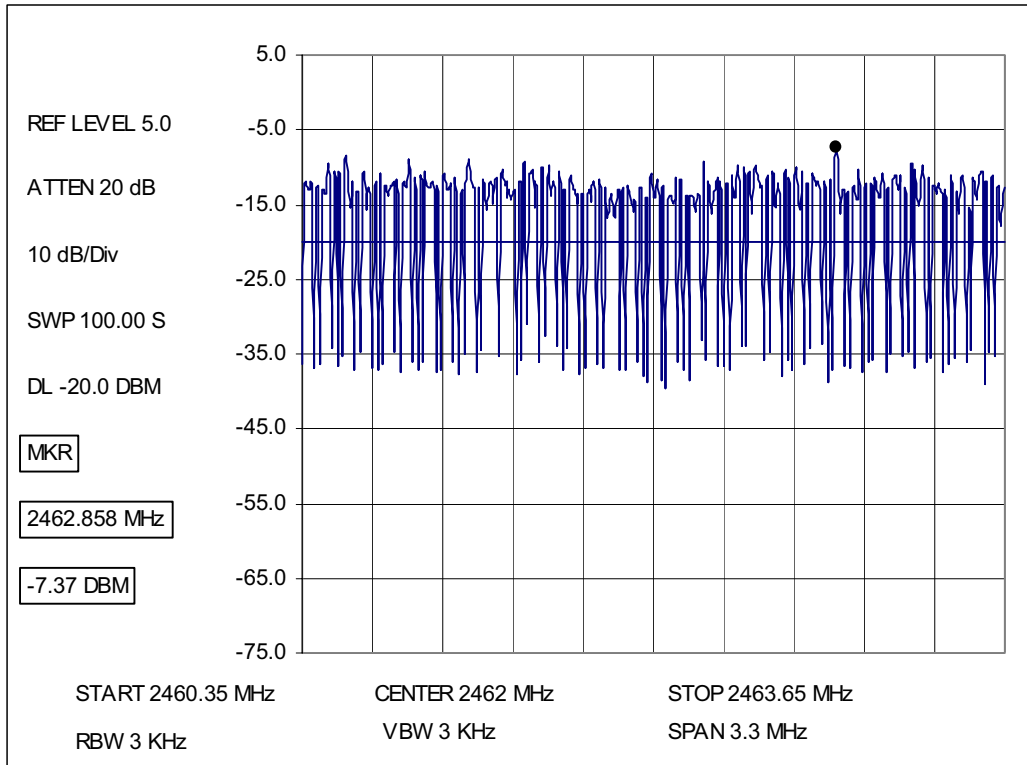
Plot:



Mode B, Channel 6, 11Mbit

7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

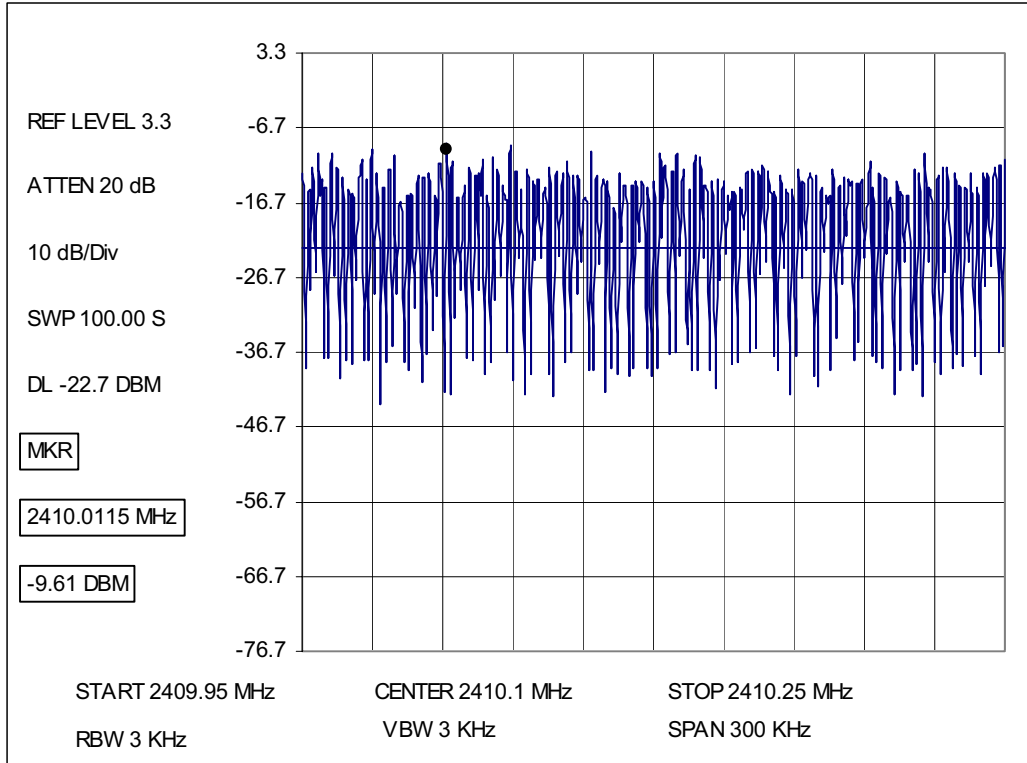
Plot:



Mode B, Channel 11, 11Mbit

7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

Plot:

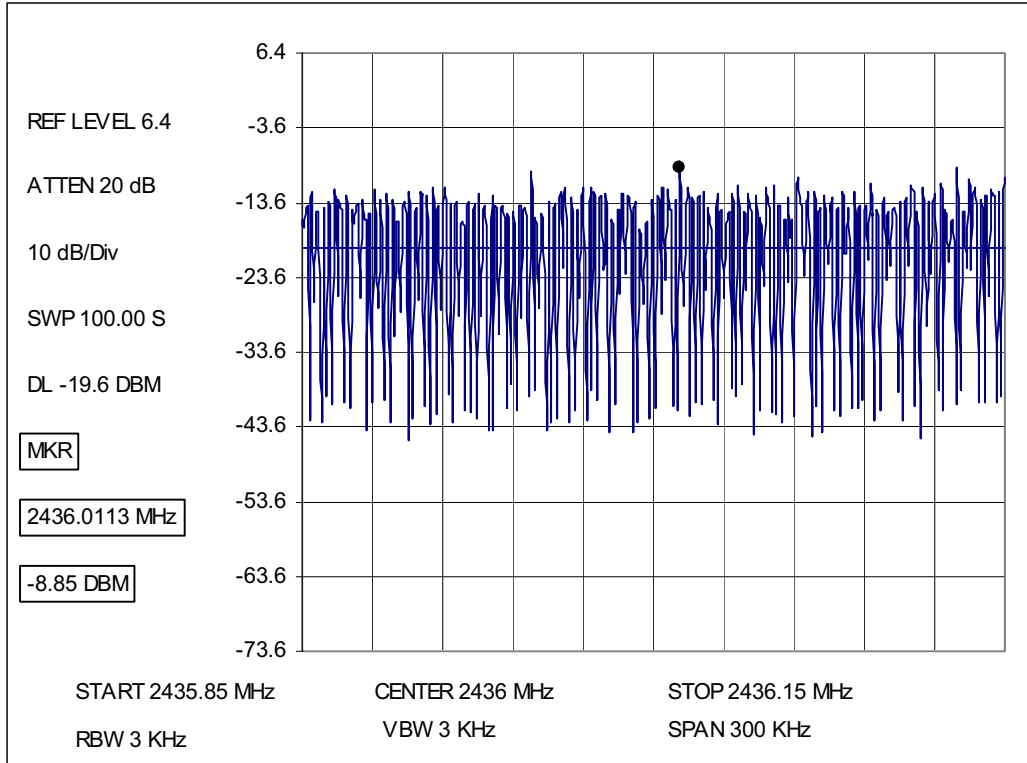


Mode G, Channel 1, 54Mbit



7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

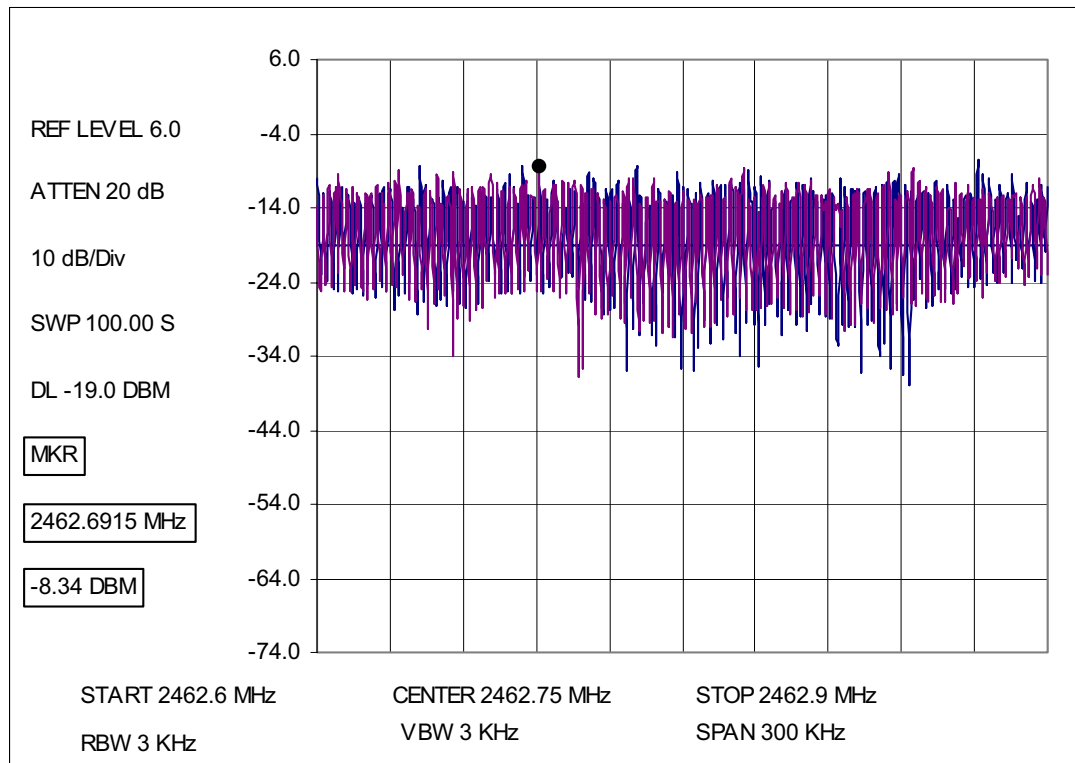
Plot:



Mode G, Channel 6, 54Mbit

7.0 FCC Part 15.247(e) / RSS-210 A8.2(2) (Power Spectral Density)

Plot:



Mode G, Channel 11, 54Mbit

## 8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

### Method:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the radio frequency power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

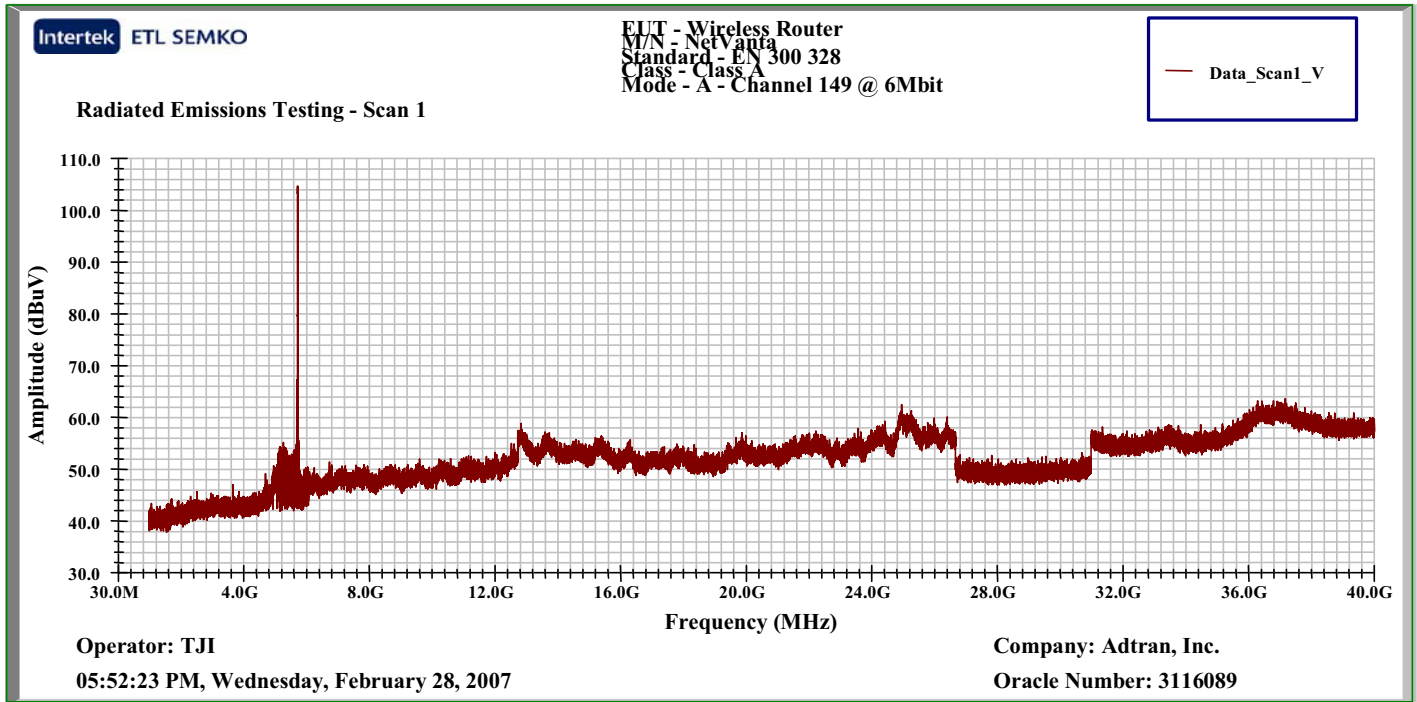
If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under section A8.4(4), the attenuation required shall be 30 dB instead of 20 dB.

### Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable E20 (Formerly Cable 8)	United Microwave Pro	Micropore 190 577	E20	05/12/2006	05/12/2007
Spectrum Analyzer	Hewlett Packard	8593E	213180	04/18/2006	04/18/2007

**Results: The sample tested was found to Comply.**

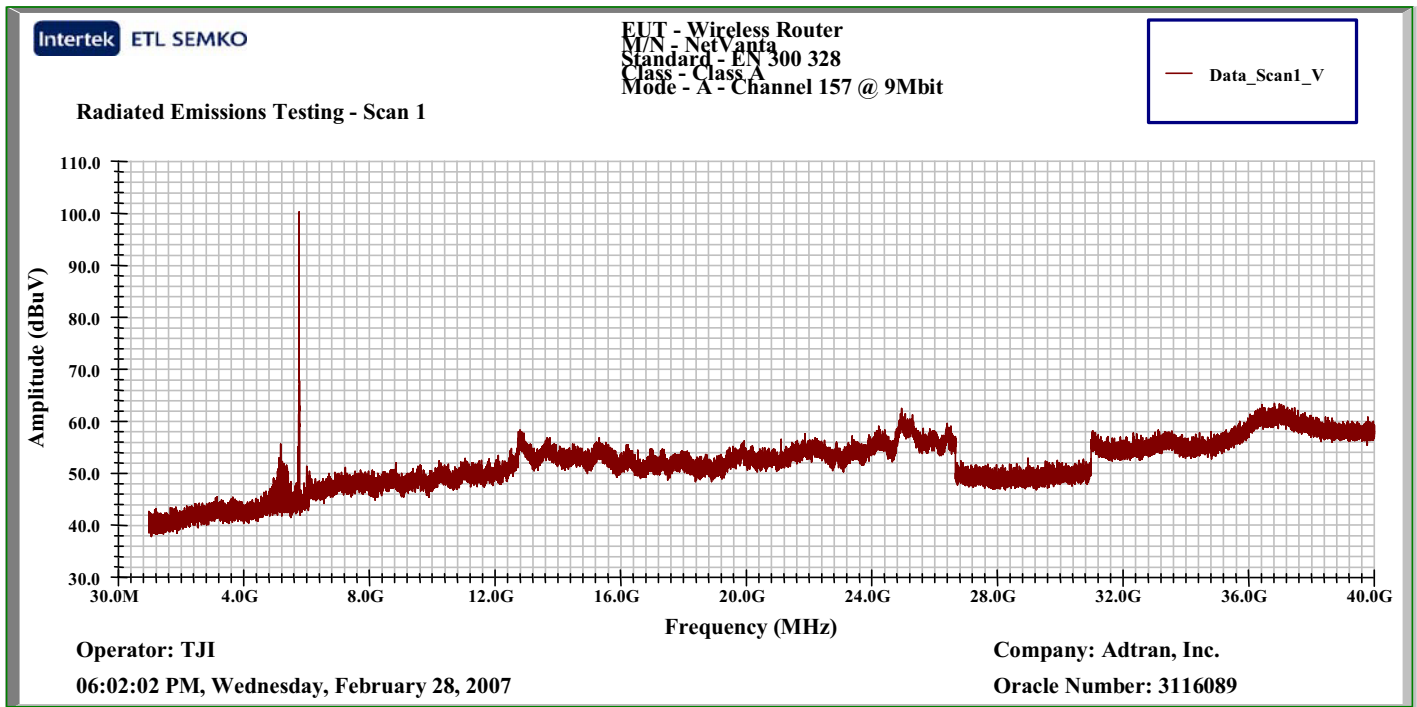
### Plot:



Mode A, Channel 149, 6Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

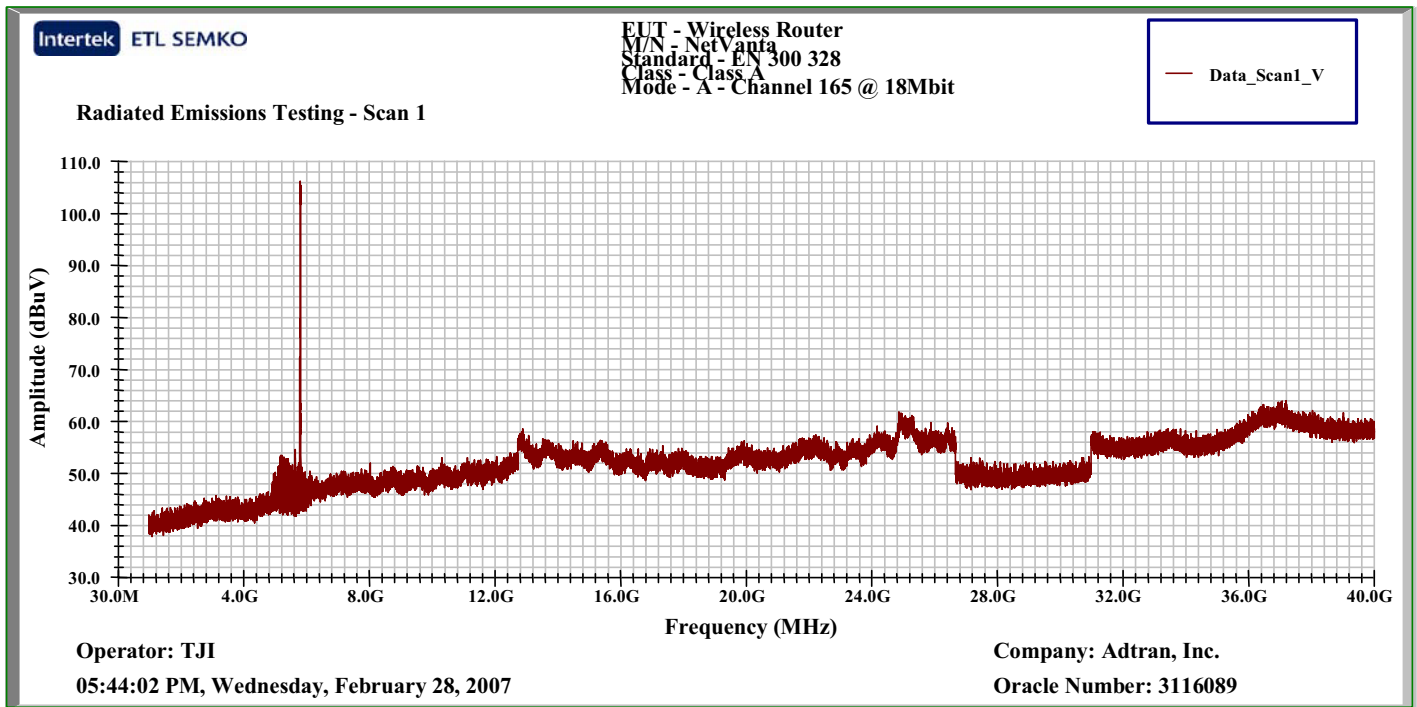
Plot:



Mode A, Channel 157, 9Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

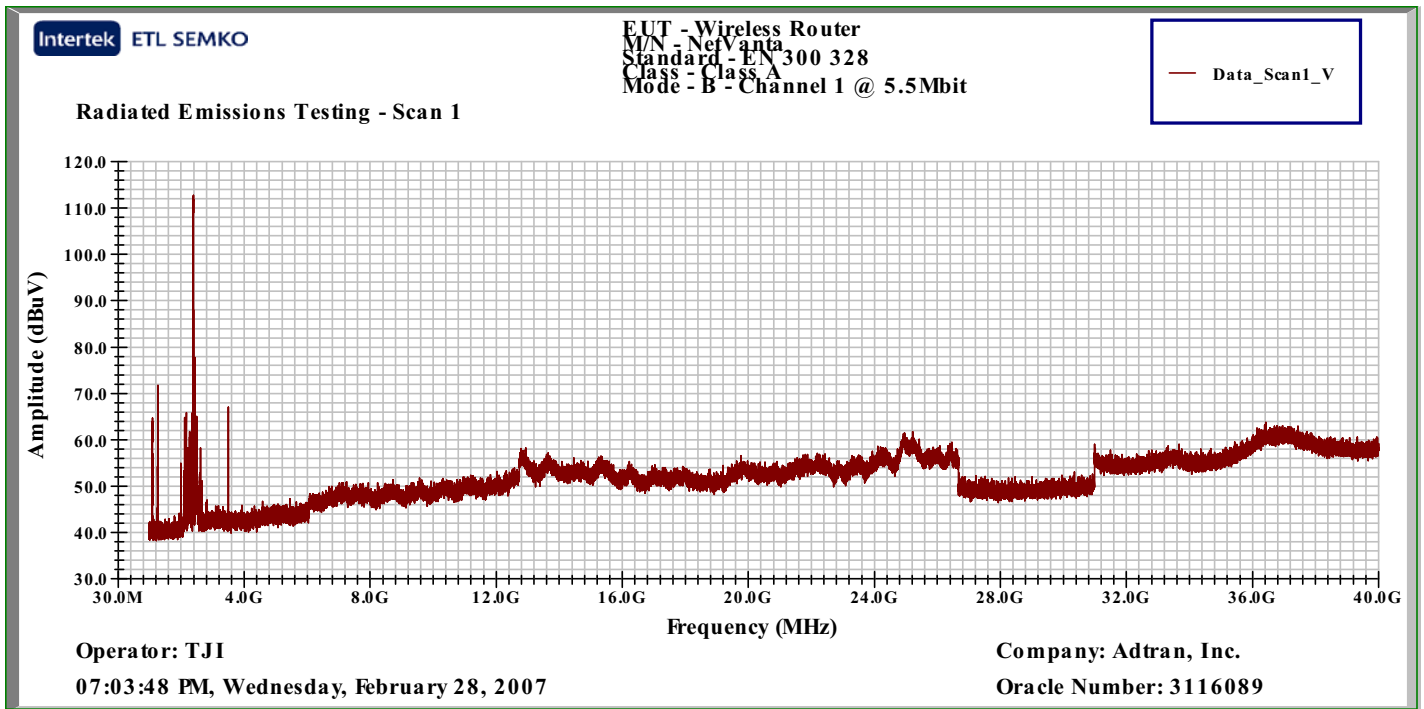
Plot:



Mode A, Channel 165, 18Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

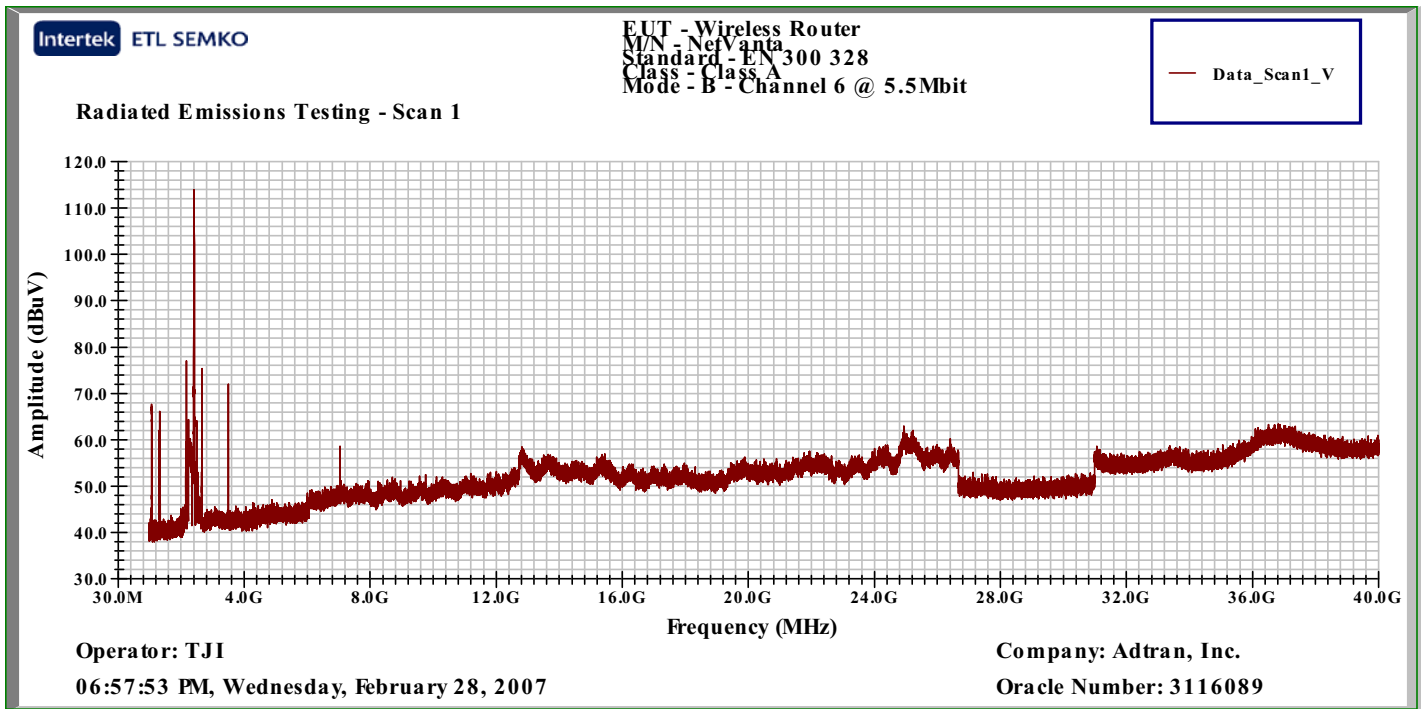
Plot:



Mode B, Channel 1, 5.5Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

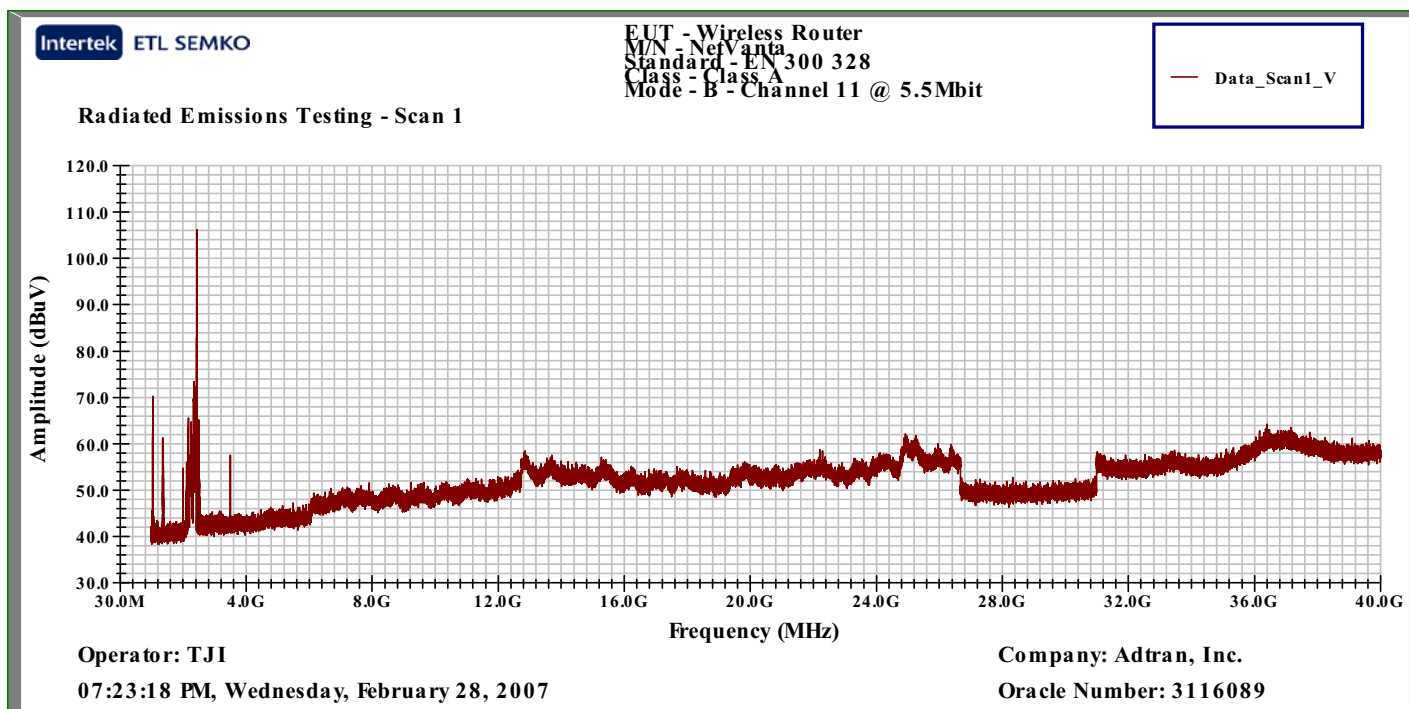
Plot:



Mode B, Channel 6, 5.5Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

Plot:

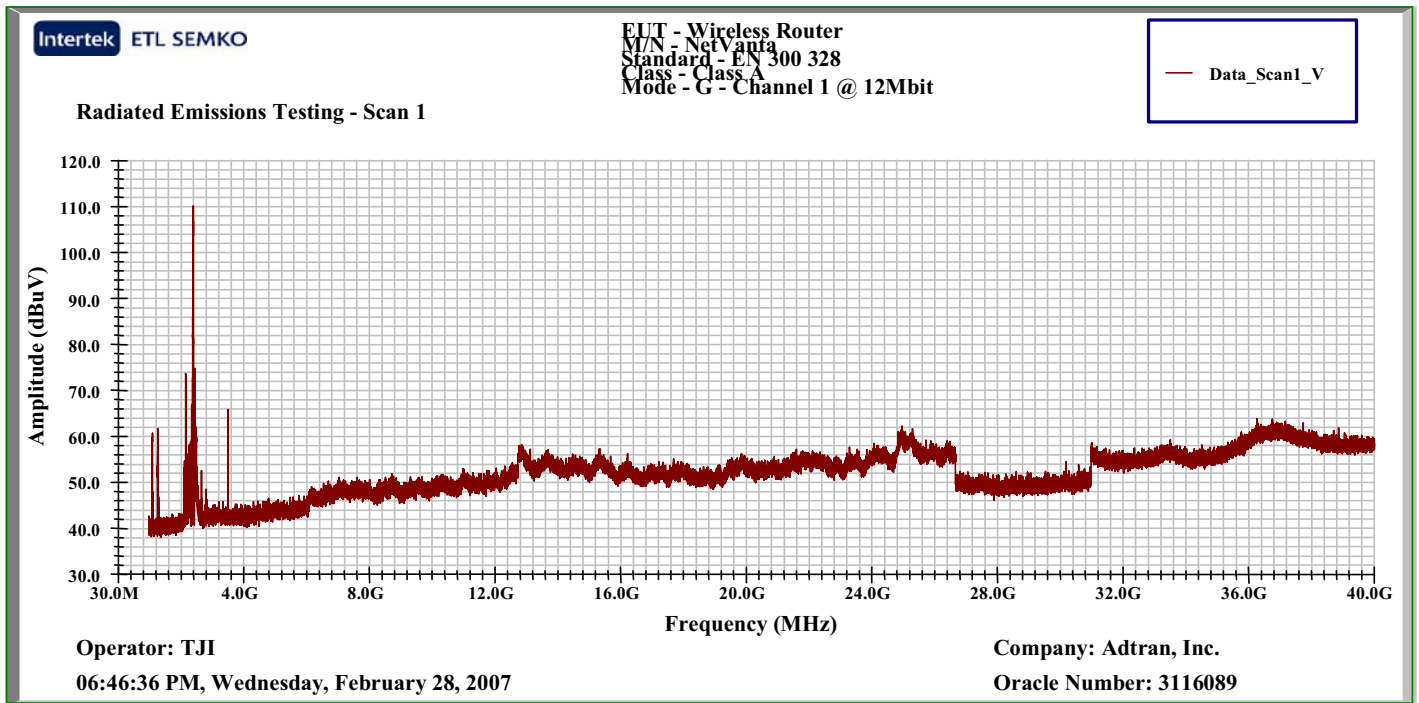


Mode B, Channel 11, 5.5Mbit



8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

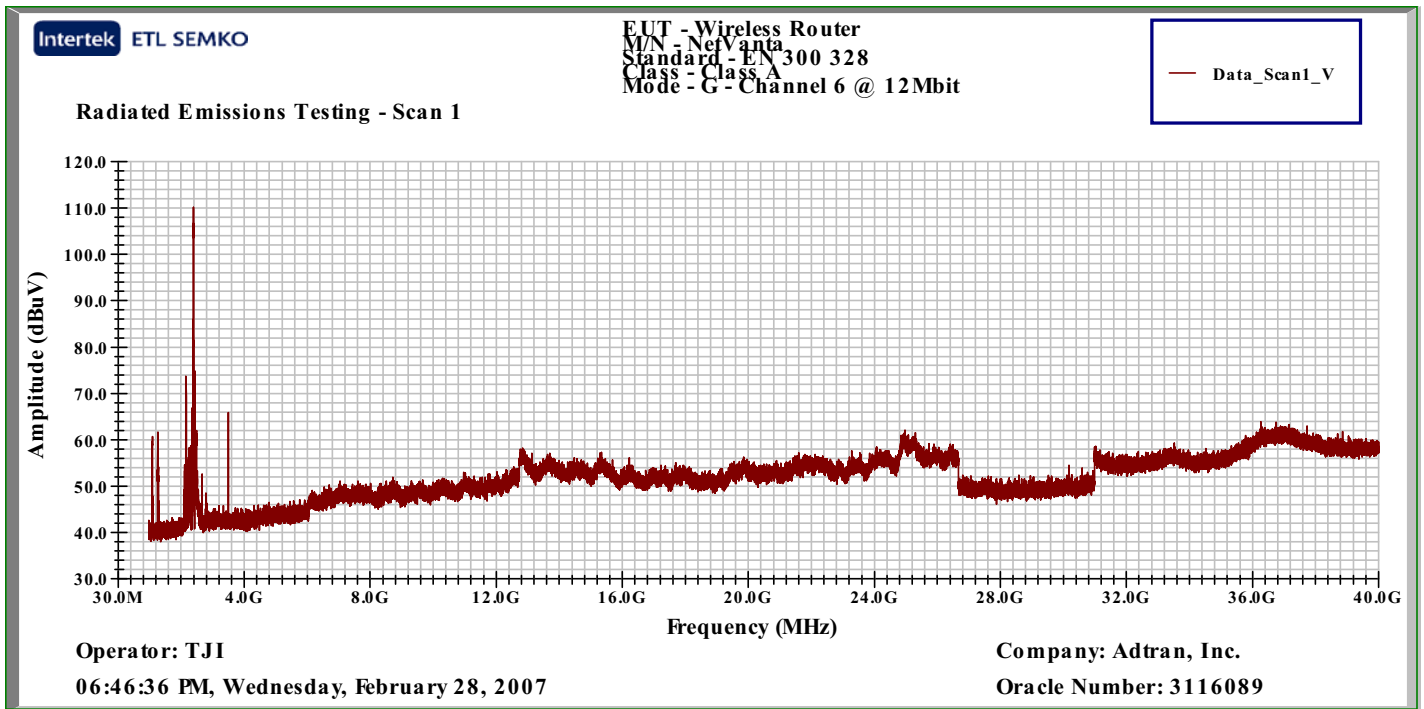
Plot:



Mode G, Channel 1, 12Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

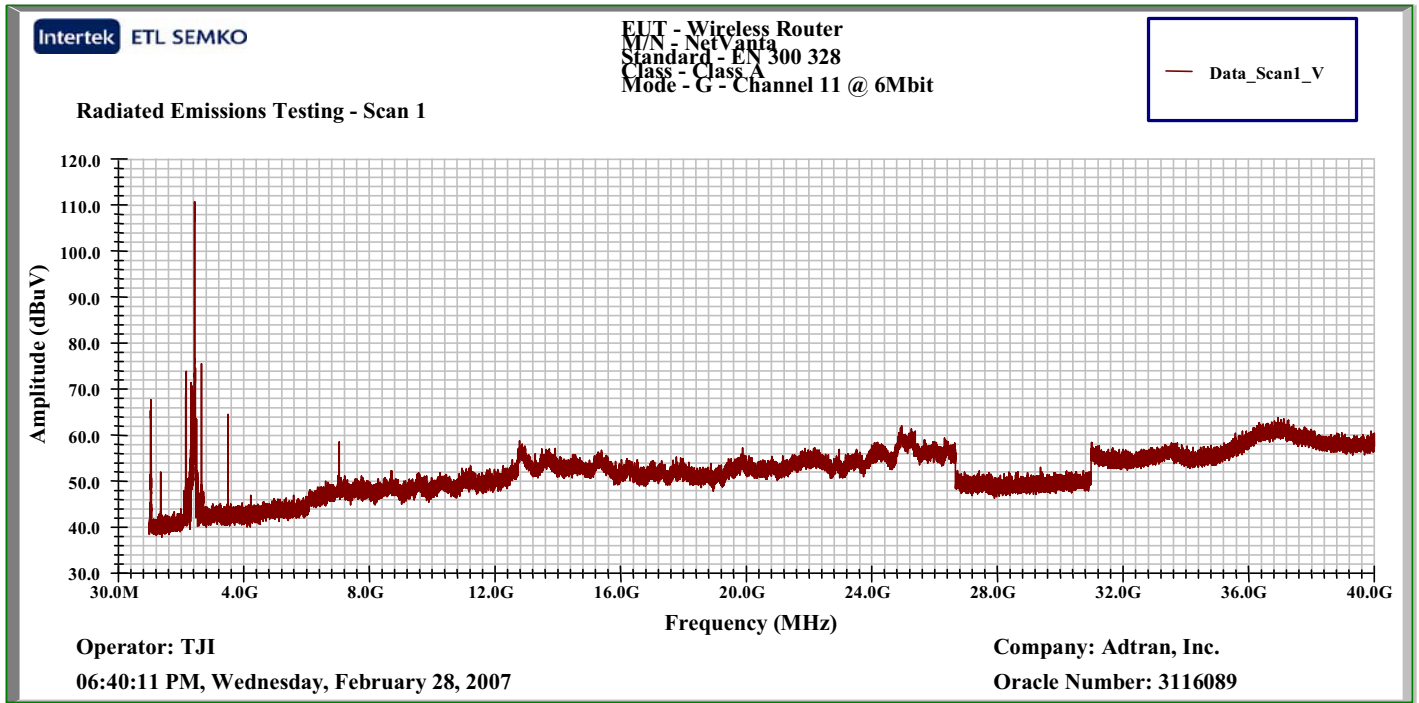
Plot:



Mode G, Channel 6, 12Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

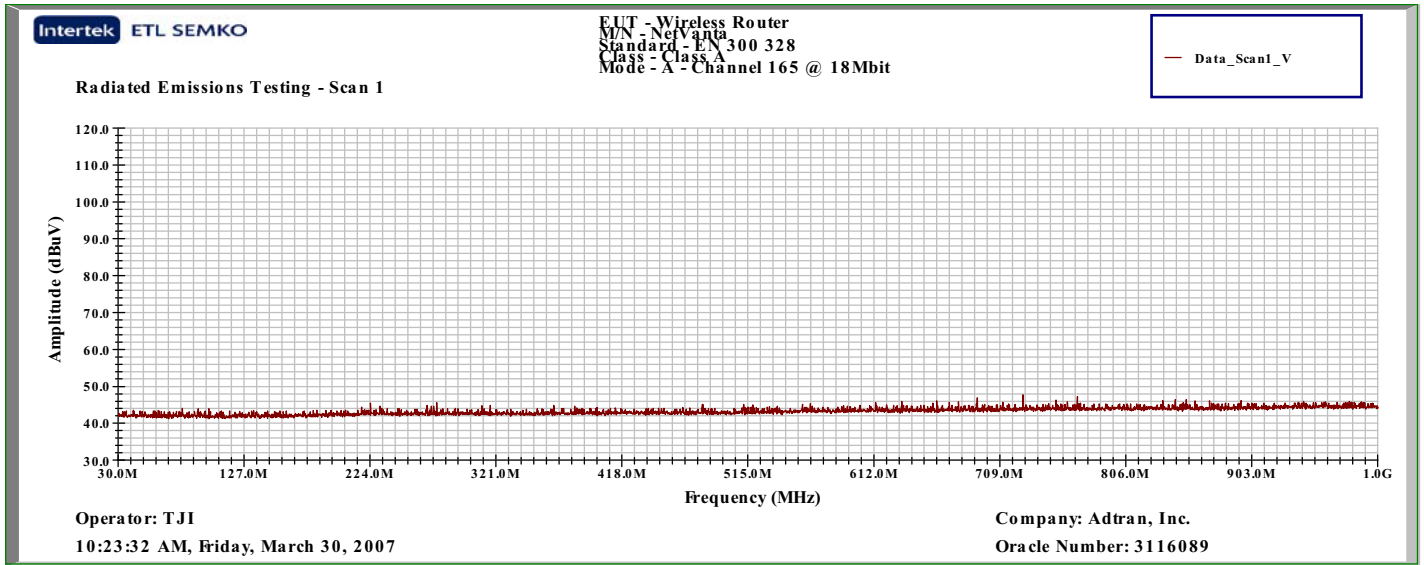
Plot:



Mode G, Channel 11, 6Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

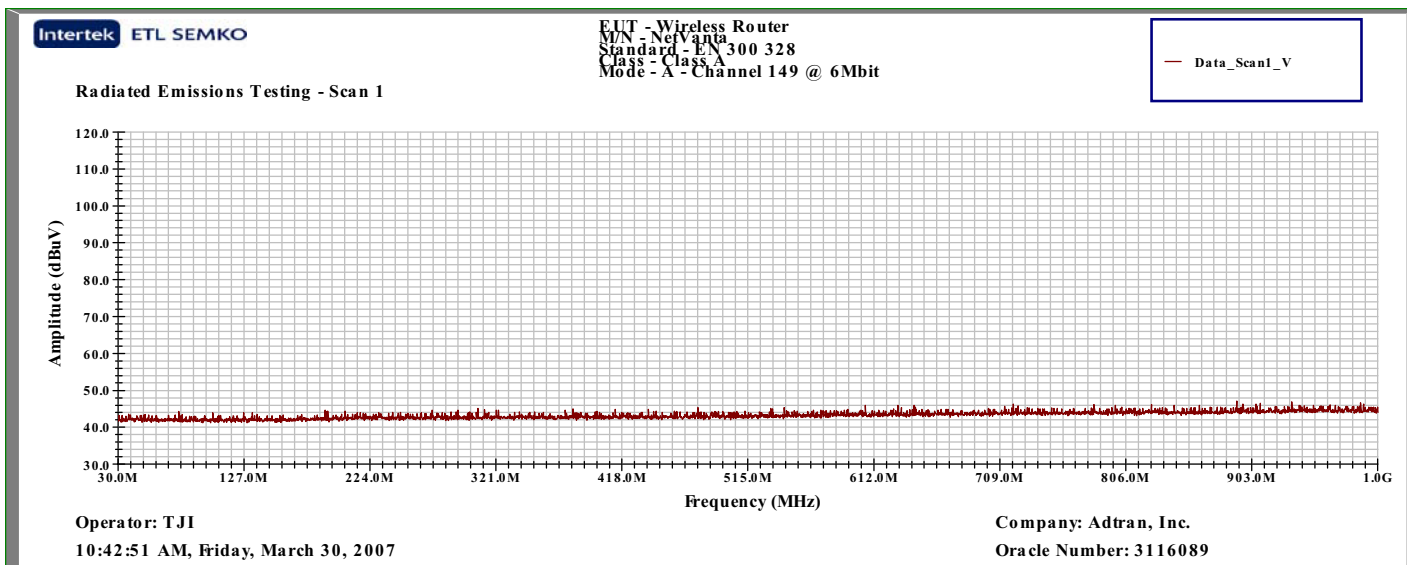
Plot:



Mode A, Channel 165, 18Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

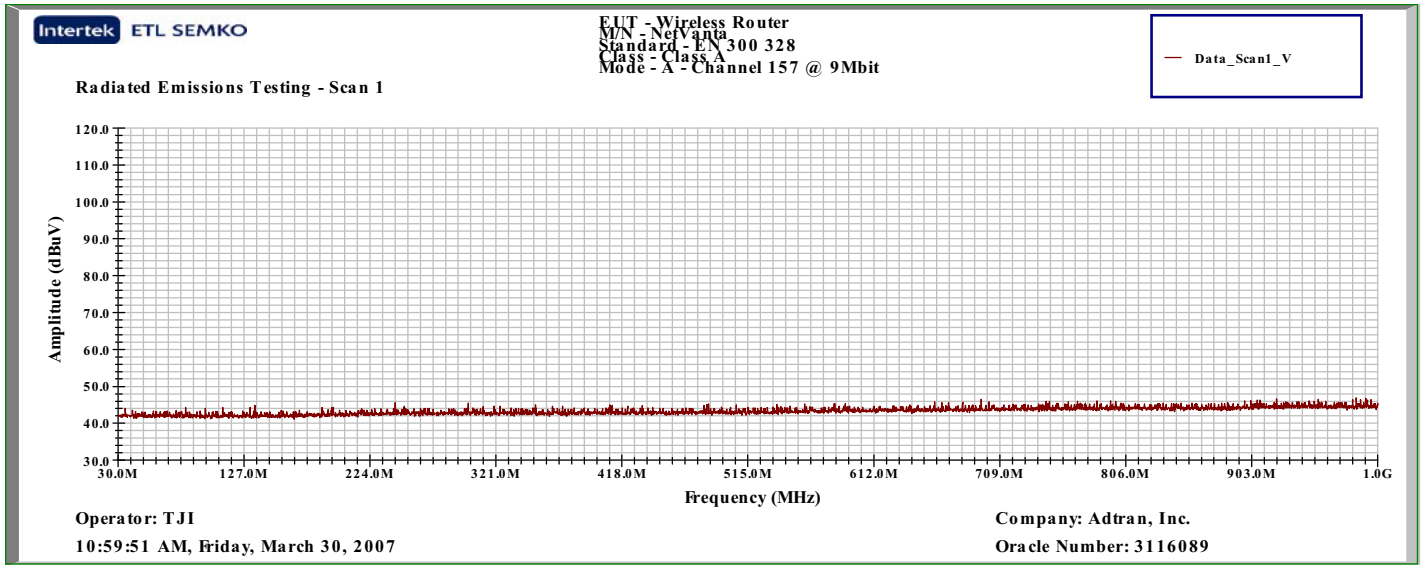
Plot:



Mode A, Channel 149, 6Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

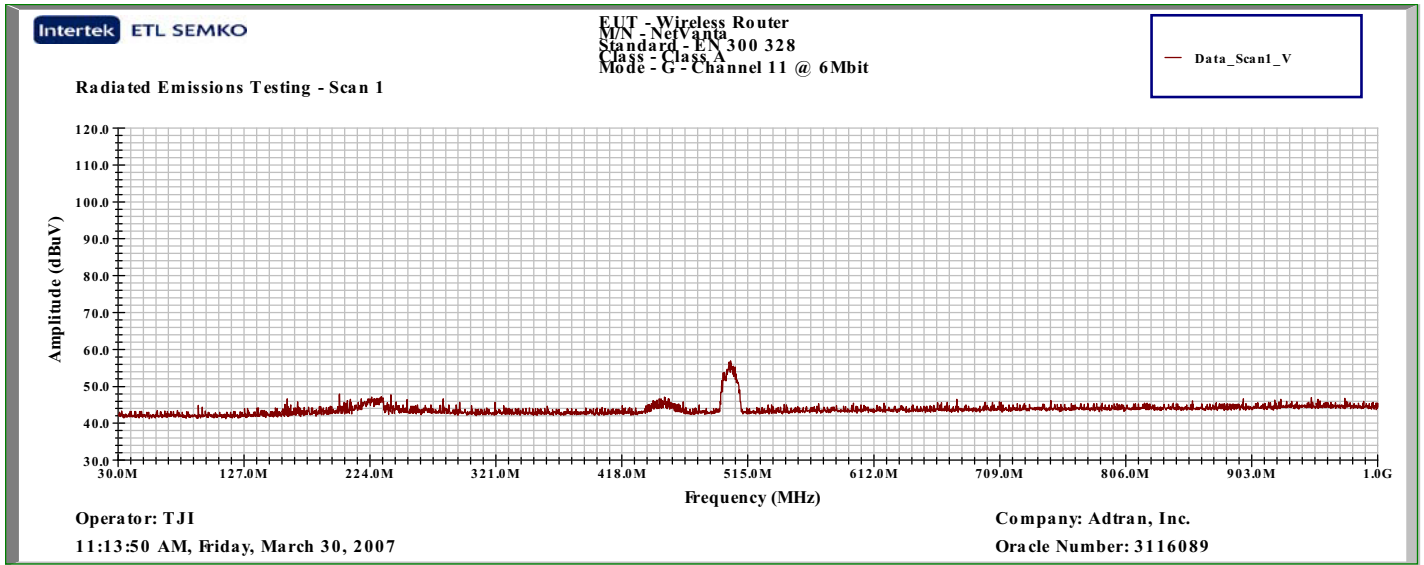
Plot:



Mode A, Channel 157, 9Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

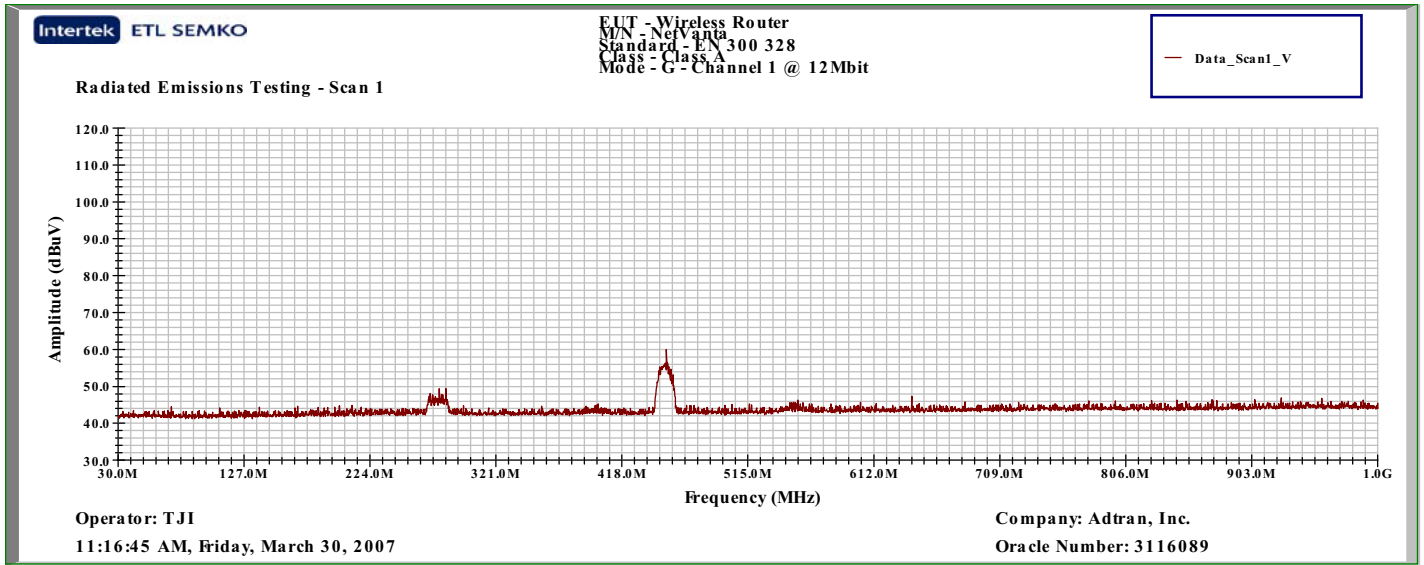
Plot:



Mode G, Channel 11, 6Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

Plot:

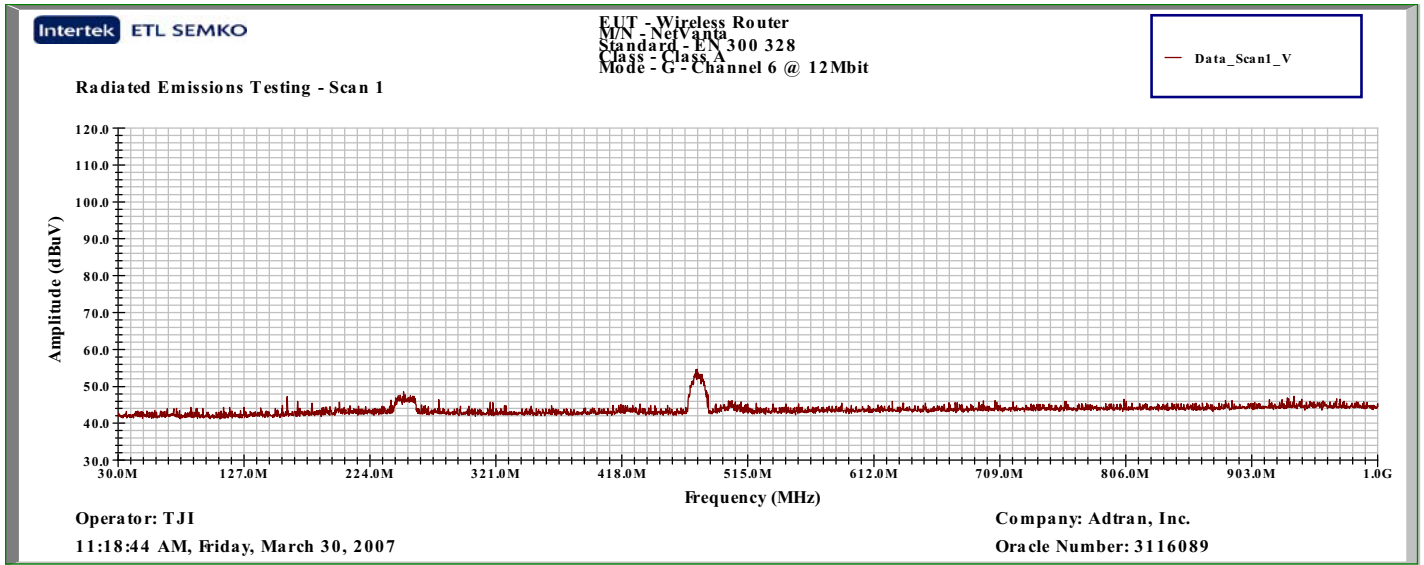


Mode G, Channel 1, 12Mbit



8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

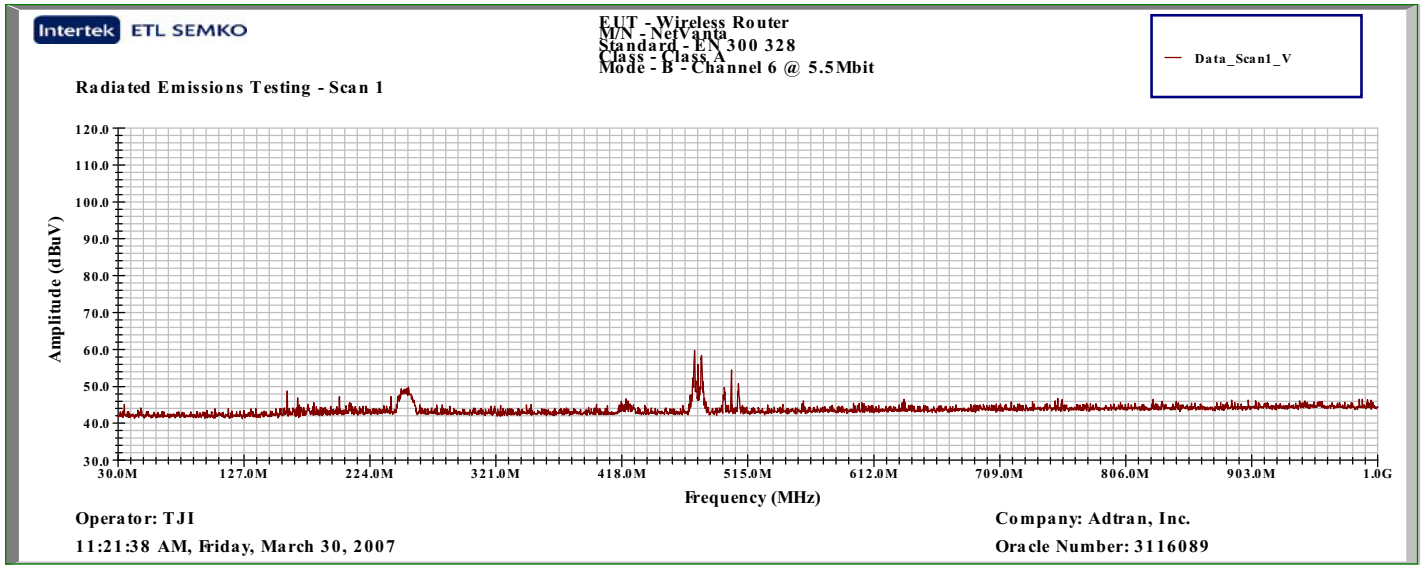
Plot:



Mode G, Channel 6, 12Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

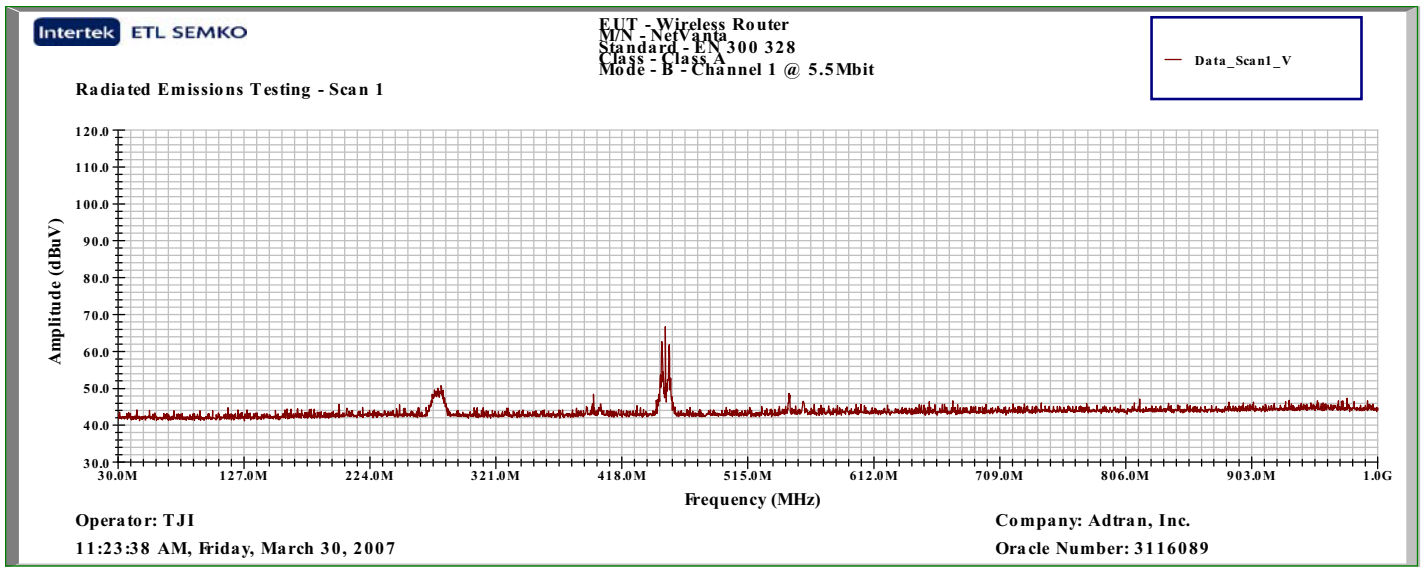
Plot:



Mode B, Channel 6, 5.5Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

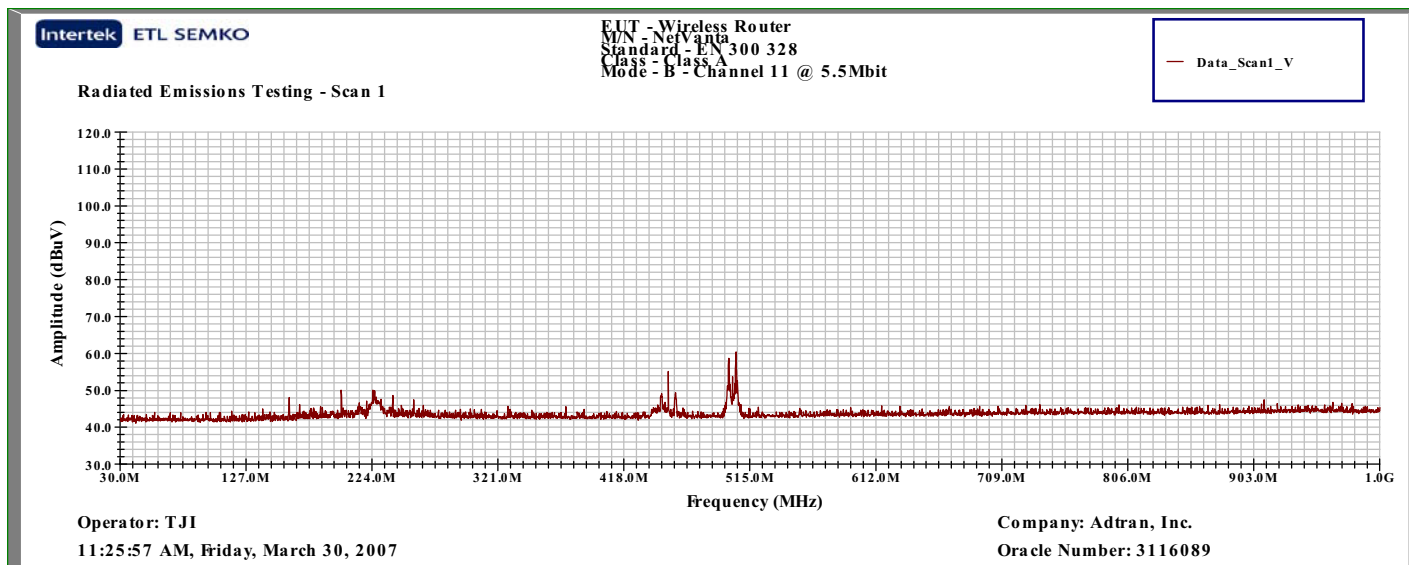
Plot:



Mode B, Channel 1, 5.5Mbit

8.0 FCC Part 15.247(d) / RSS-210 A8.5 - Conducted (Conducted Spurious Emissions)

Plot:



Mode B, Channel 11, 5.5Mbit

## 9.0 RSS-GEN Section 4.8 and Section 6(b) (Rx Conducted Spurs)

### Method:

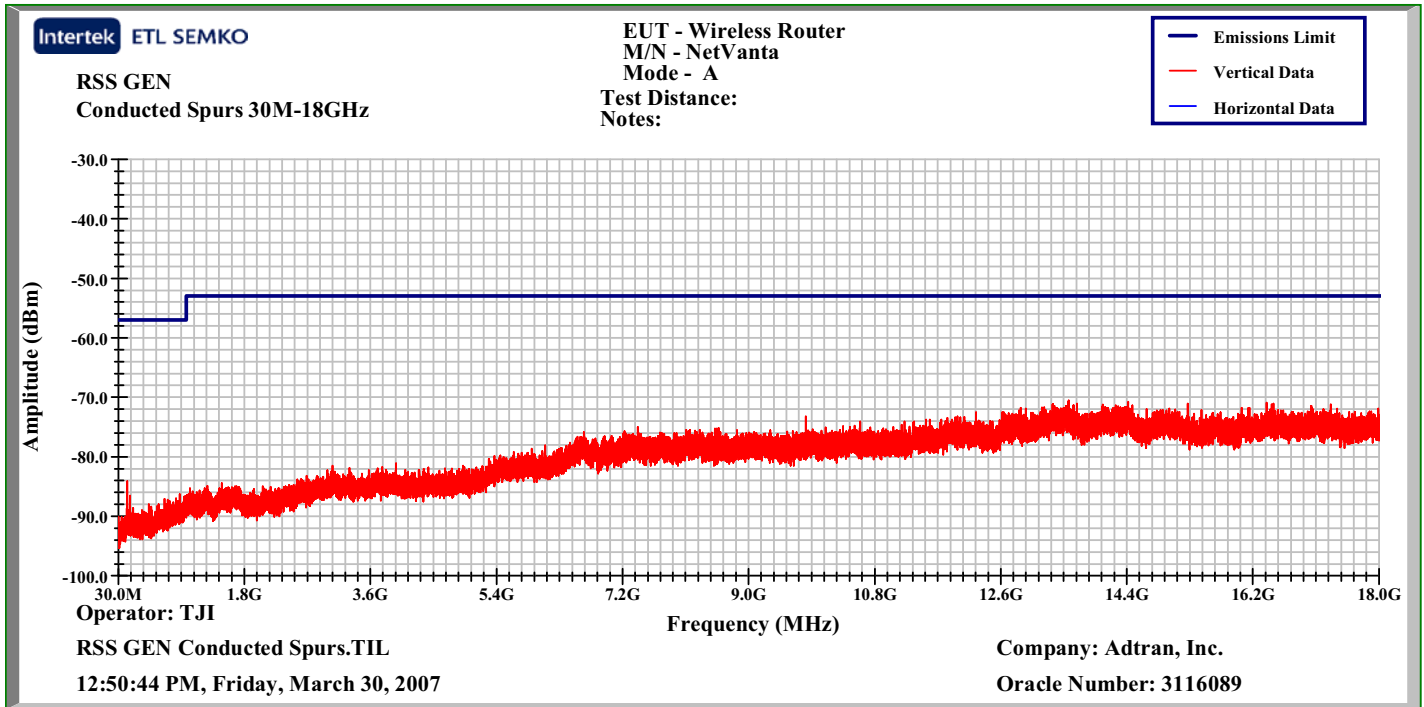
No spurious output signals appearing at the antenna terminals shall exceed 2 nanowatts per any 4 kHz spurious frequency in the band 30-1000 MHz, or 5 nanowatts above 1 GHz.

### Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable E11 (Formerly HS 7000 N-SMA)	Huber-Suhner	Sucoflex 104PEA	E11 211266	05/11/2006	05/11/2007
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

**Results: The sample tested was found to Comply.**

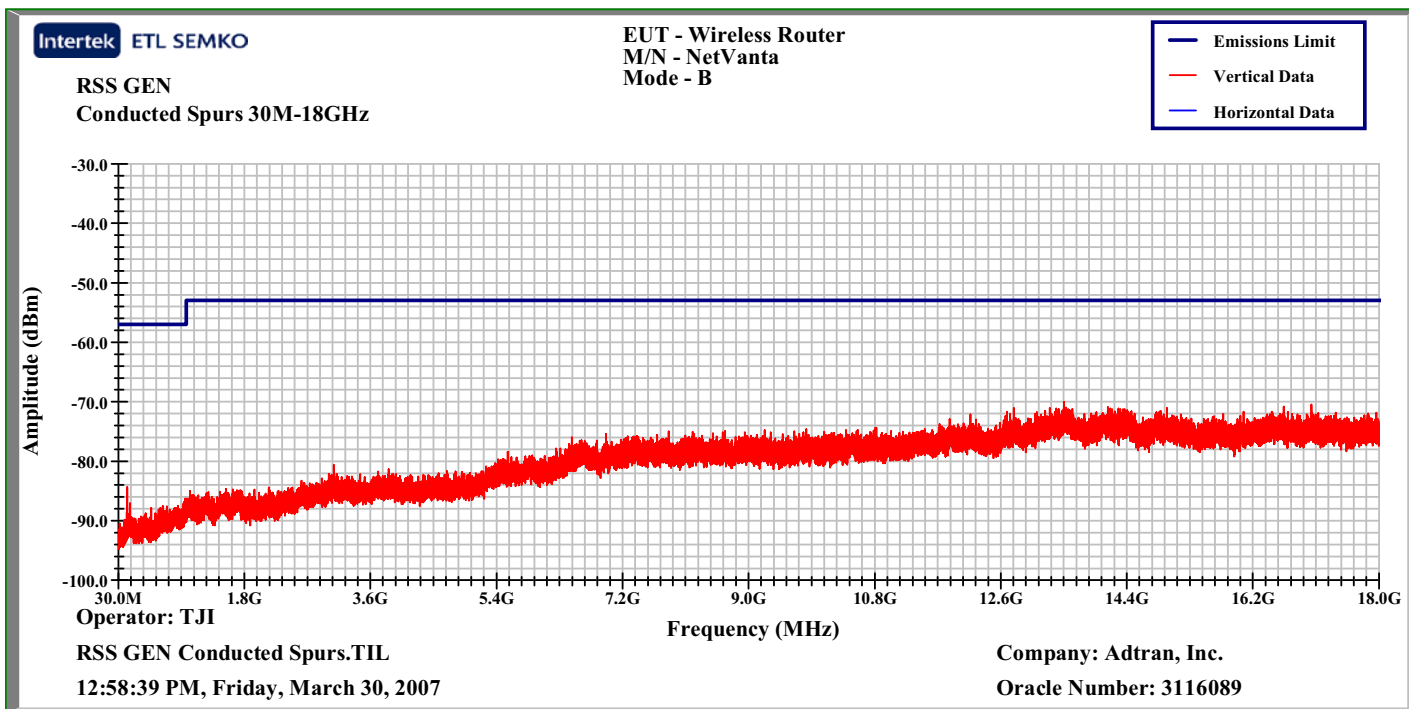
### Plot:



Mode A

9.0 RSS-GEN Section 4.8 and Section 6(b) (Rx Conducted Spurs)

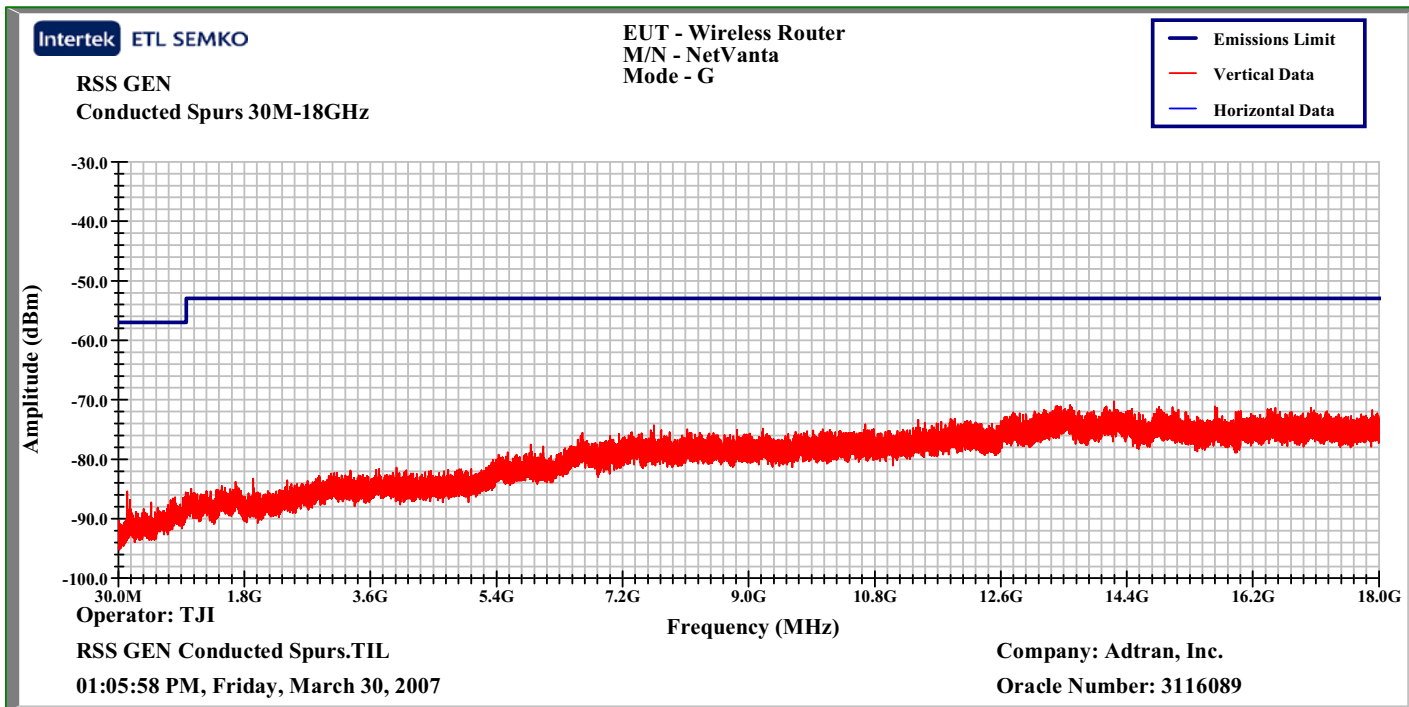
Plot:



Mode B

9.0 RSS-GEN Section 4.8 and Section 6(b) (Rx Conducted Spurs)

Plot:



Mode G

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Method:**

Unwanted emissions falling into restricted bands shall meet the general field strength limits. It should also be noted that unwanted emissions falling in non-restricted bands do not need to be suppressed to a level lower than the general field strength limits.

Specifically, at the restricted band frequency nearest the lowest and highest channel of each available band, the field strength shall meet the general field strength limits.

**Test Equipment Used:**

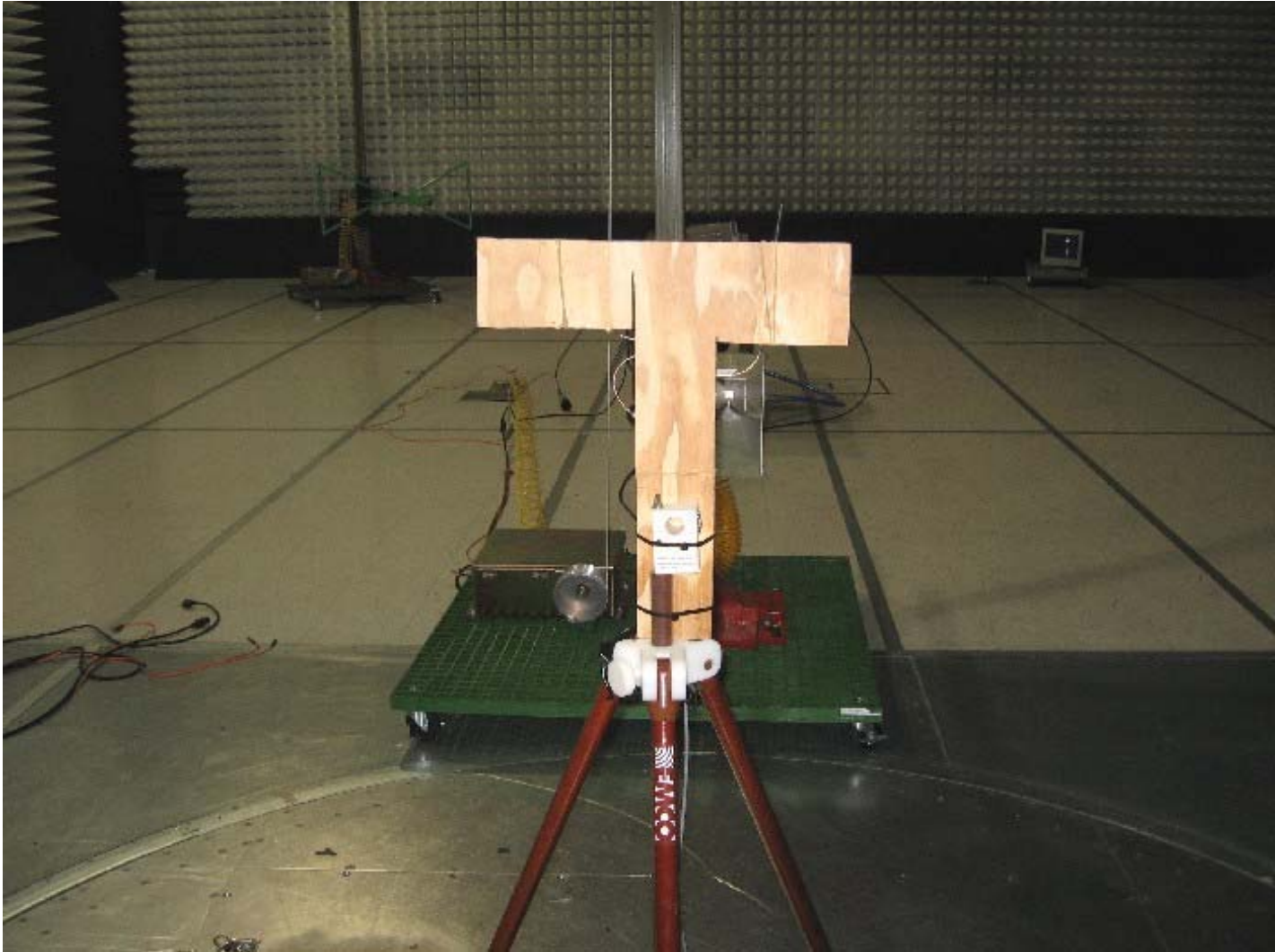
Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable E20 (Formerly Cable 8)	United Microwave Pro	Micropore 190 577	E20	05/12/2006	05/12/2007
Cable, 18 GHz, N, 394 inches	Megaphase	G919-NKNK-394	MP3	05/11/2006	05/11/2007
Coaxial Cable, 7m, N-N, 18 GHz	Storm Products Co.	PR90-206-7MTR	ST1	01/11/2007	01/11/2008
EMI Receiver	Hewlett Packard	8546A	211388	08/04/2006	08/04/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	211389	08/04/2006	08/04/2007

**Results: The sample tested was found to Comply.**



10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

Photo:



Test Setup

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

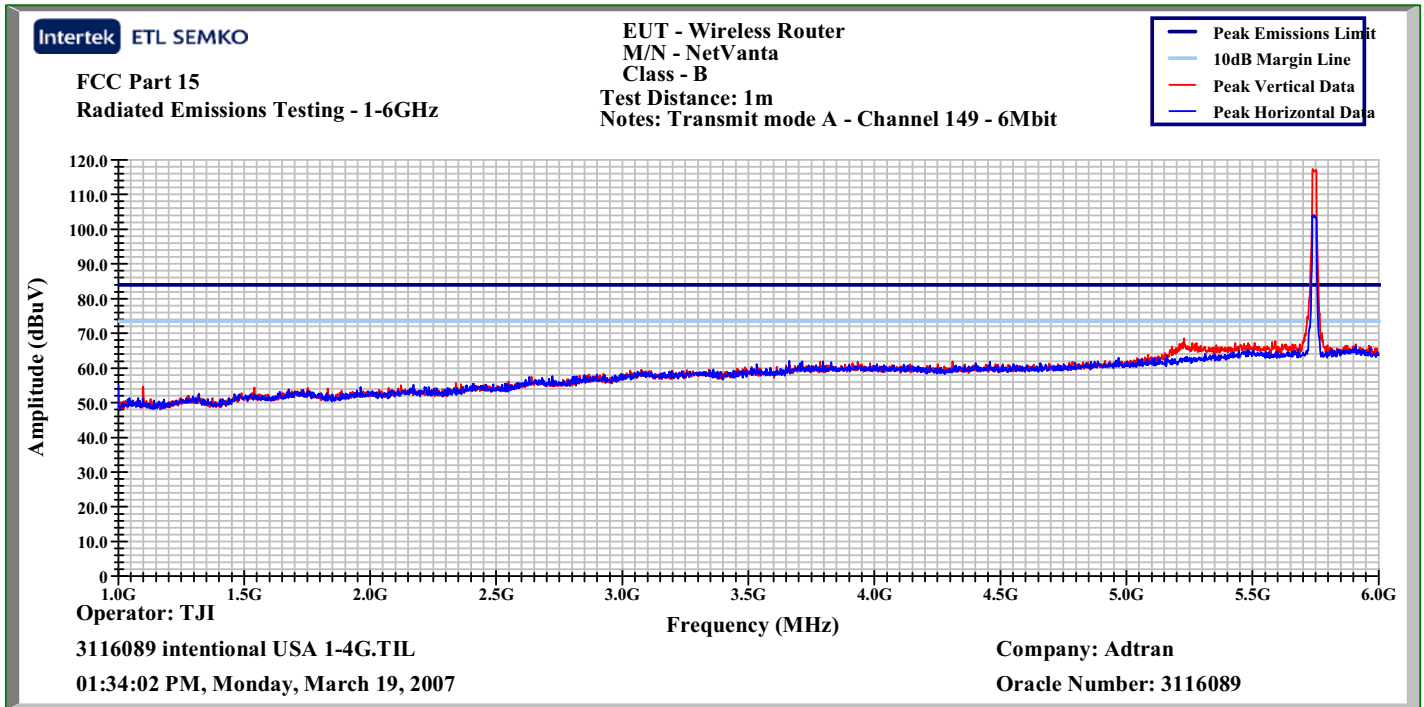
Photo:



Test Setup

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

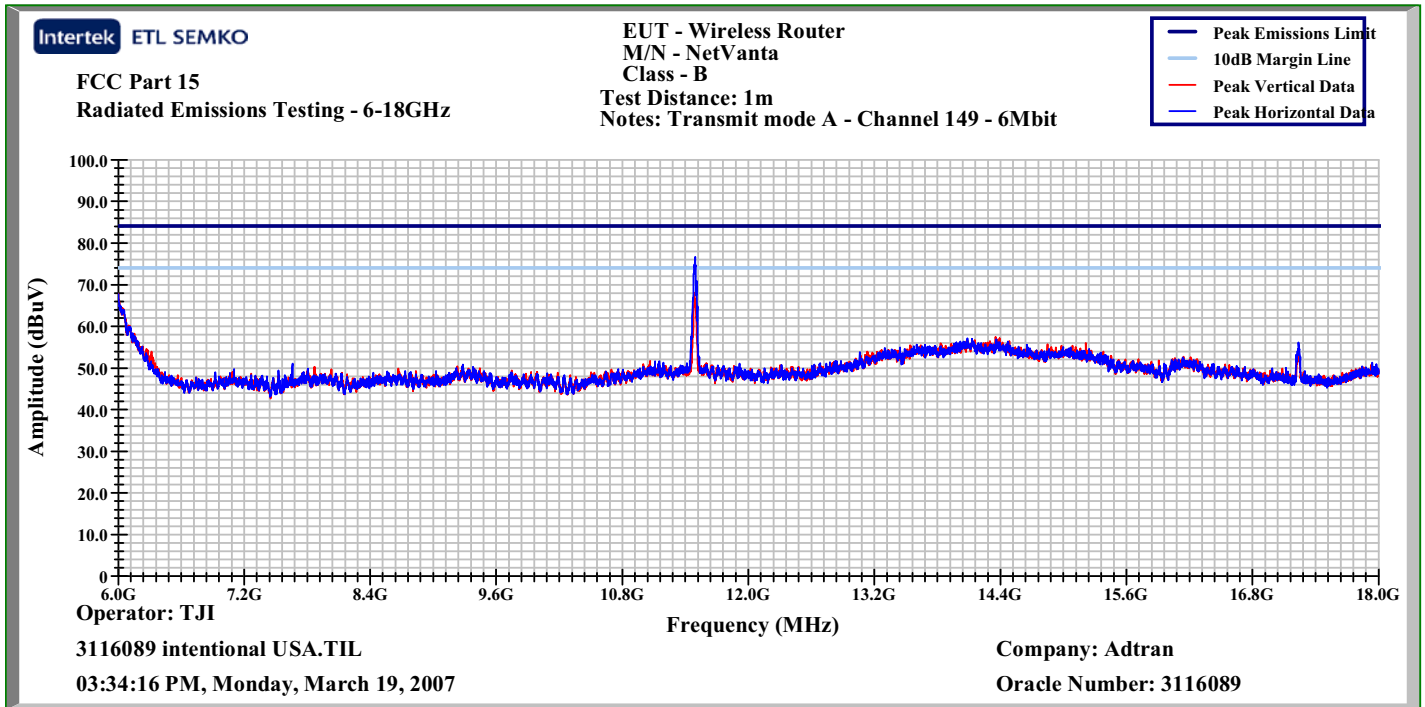
Plot:



Mode A, P02, Channel 149, 6Mbit, 1 to 6GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

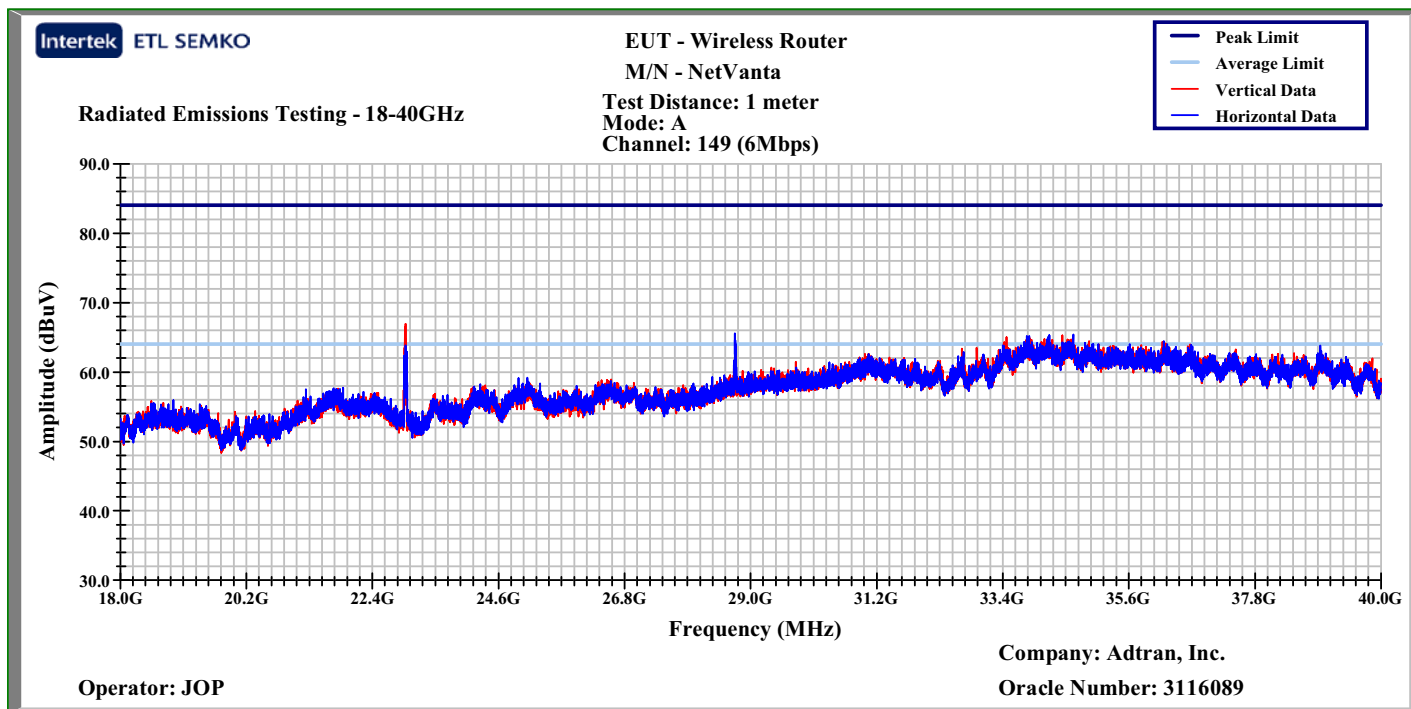
Plot:



Mode A, P03, Channel 149, 6Mbit, 6 to 18GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

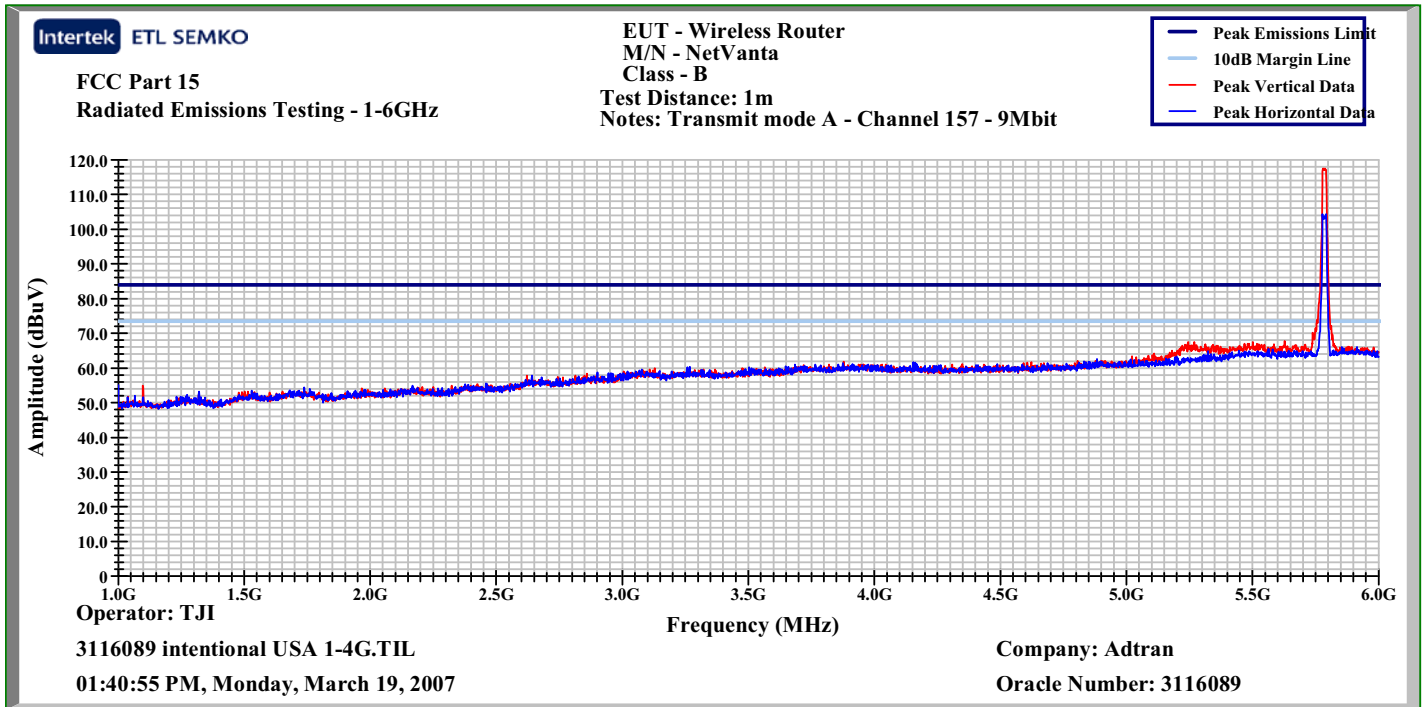
Plot:



Mode A, P04, Channel 149, 6Mbit, 18 to 40GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

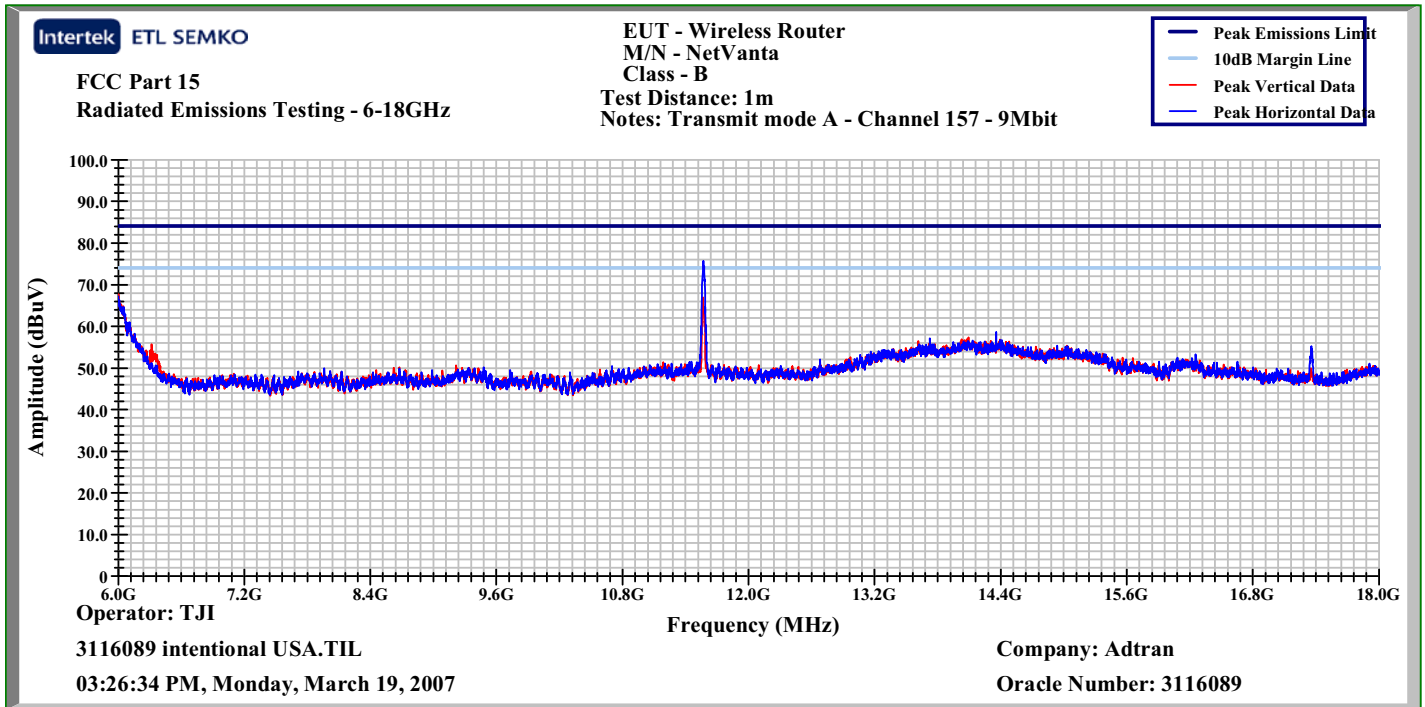
Plot:



Mode A, P06, Channel 157, 9Mbit, 1 to 6GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

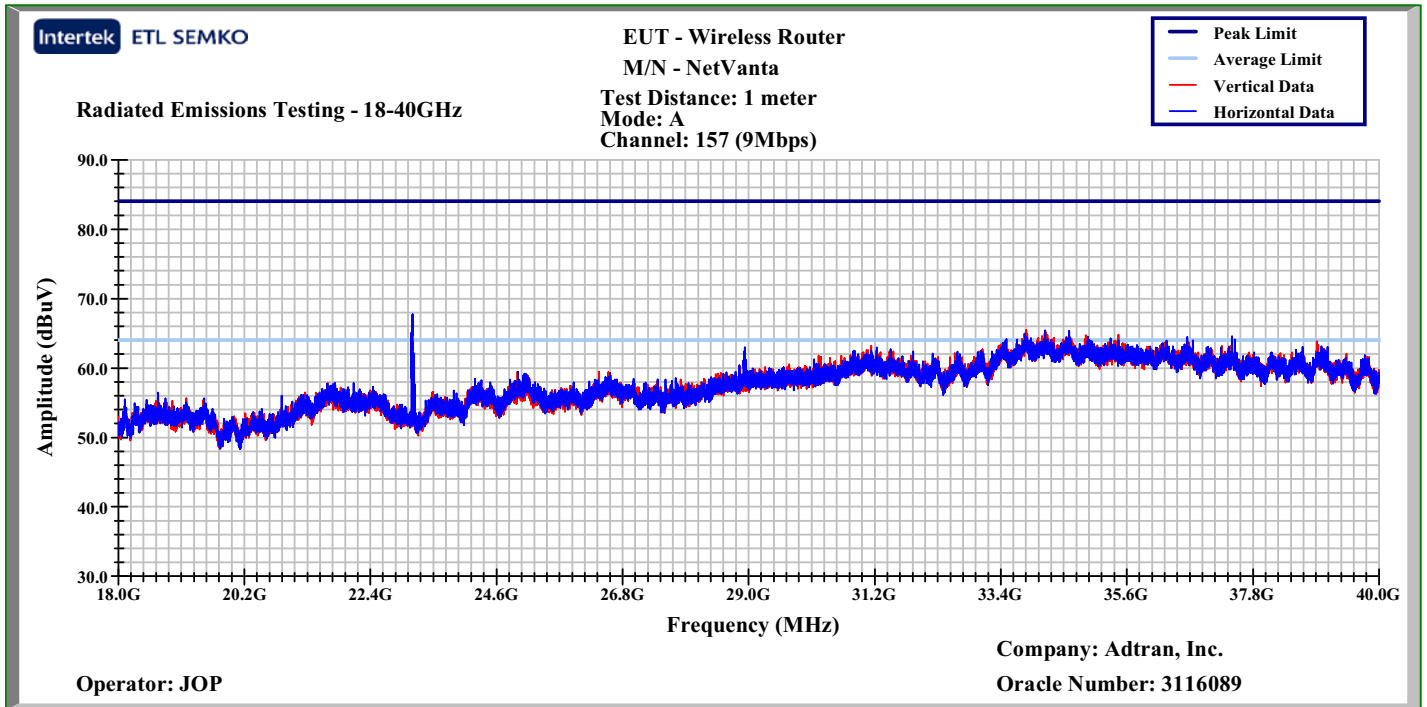
Plot:



Mode A, P07, Channel 157, 9Mbit, 6 to 18GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

Plot:

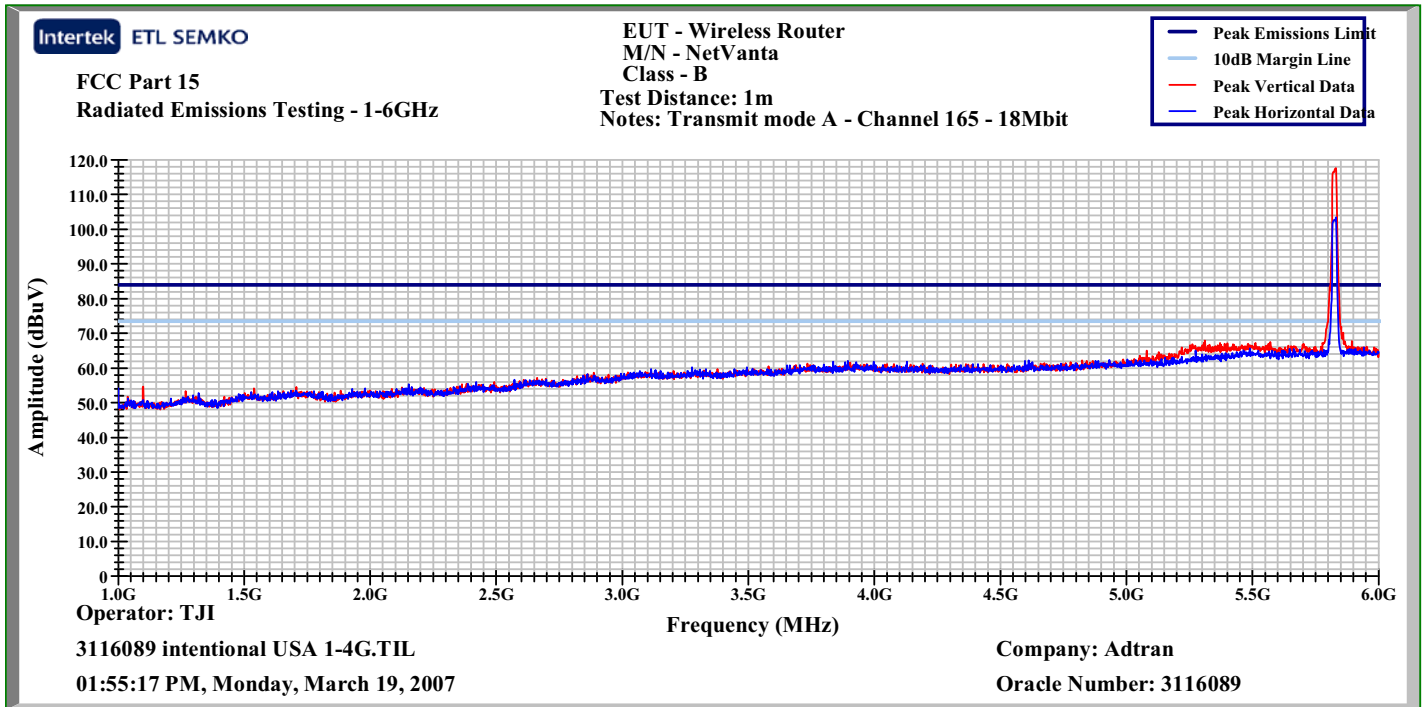


Mode A, P08, Channel 157, 9Mbit, 18 to 40GHz



10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

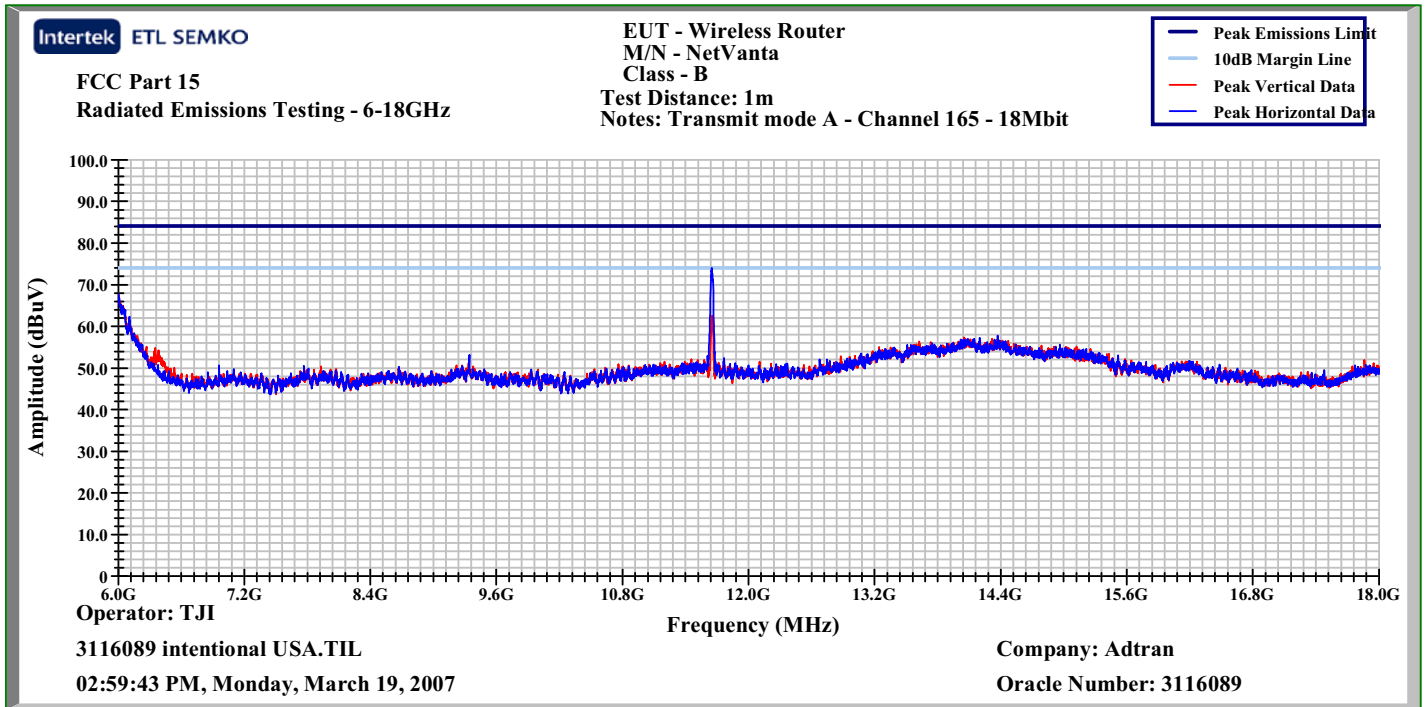
Plot:



Mode A, P10, Channel 165, 18Mbit, 1 to 6GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

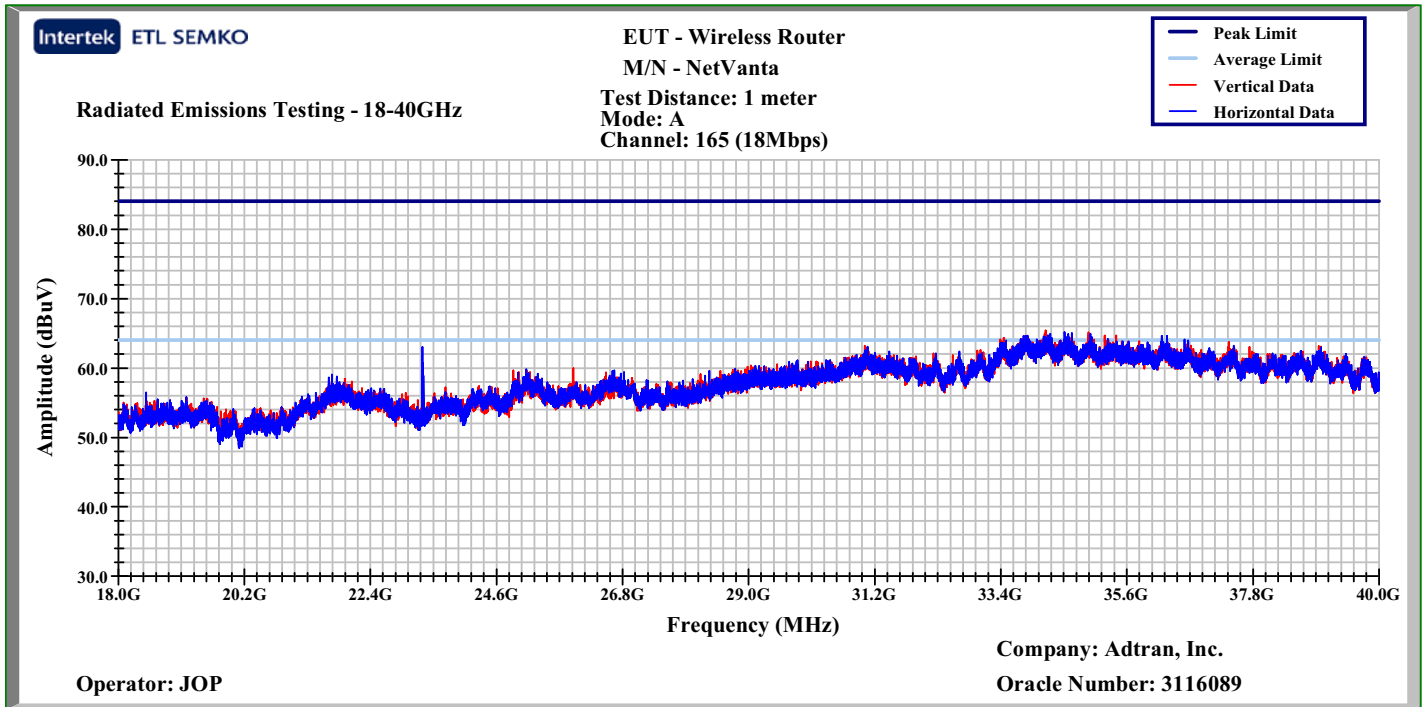
Plot:



Mode A, P11, Channel 165, 18Mbit, 6 to 18GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

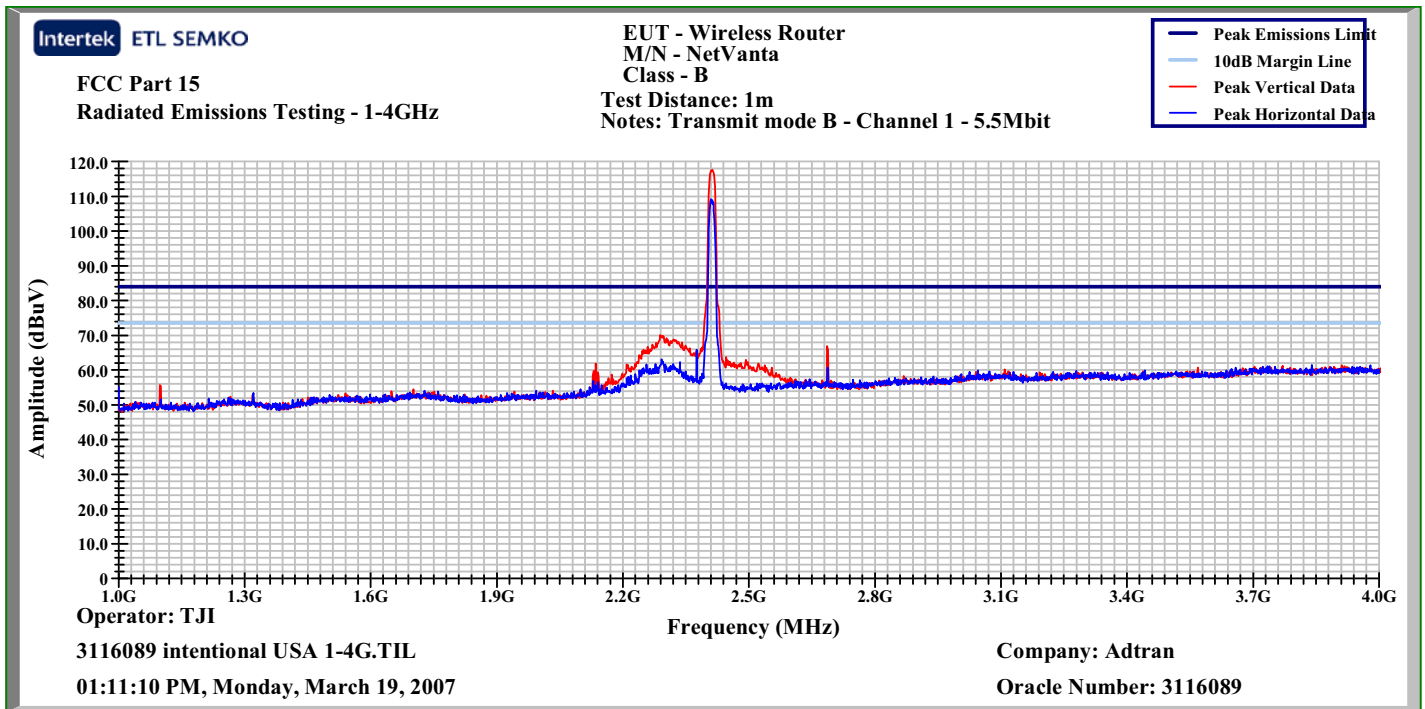
Plot:



Mode A, P12, Channel 165, 18Mbit, 18 to 40GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

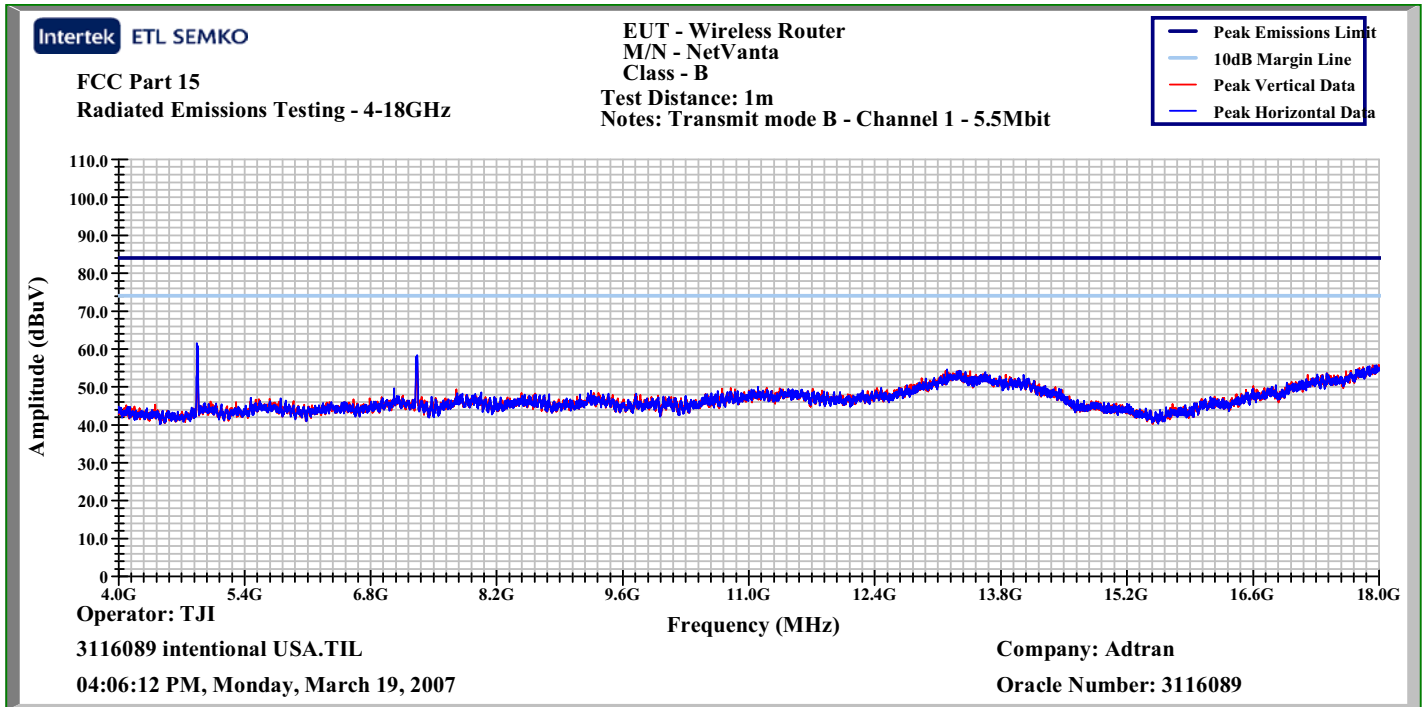
Plot:



Mode B, P02, Channel 01, 5.5Mbit, 1 to 4GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

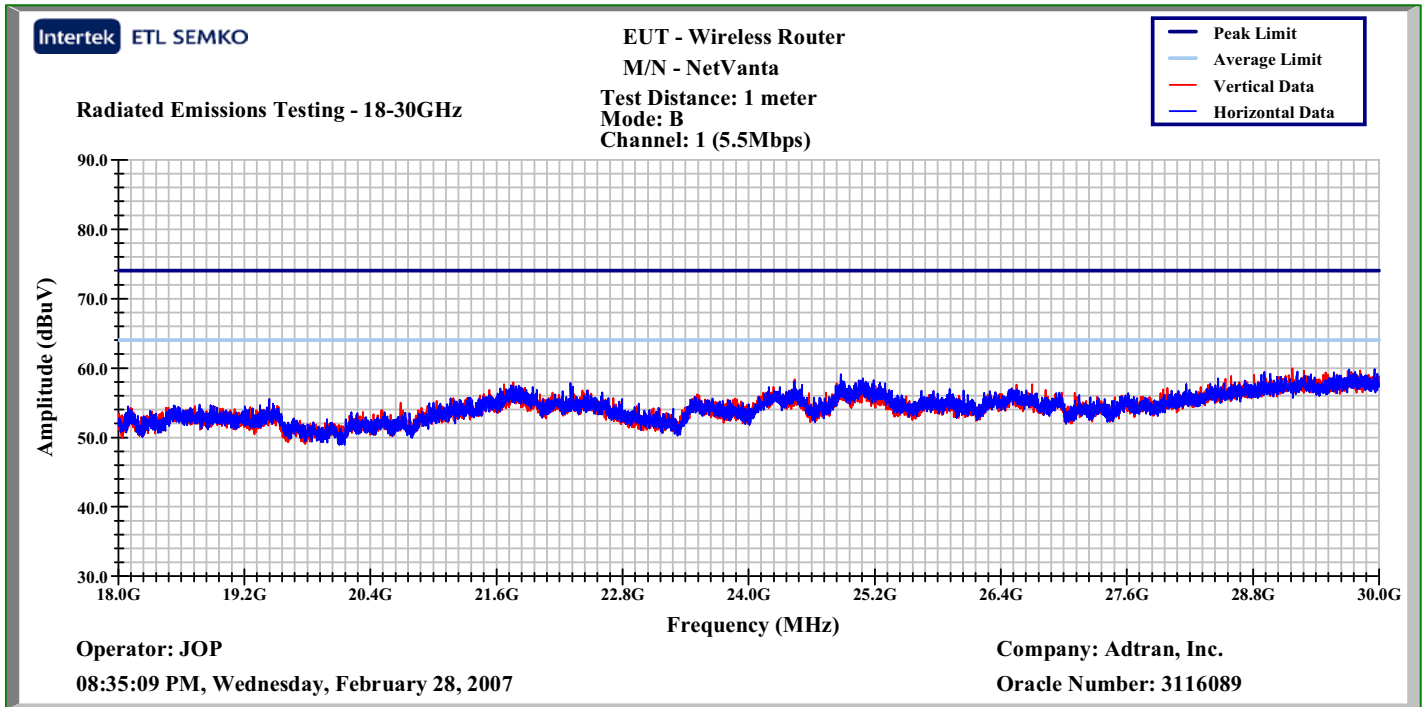
Plot:



Mode B, P03, Channel 01, 5.5Mbit, 4 to 18 GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

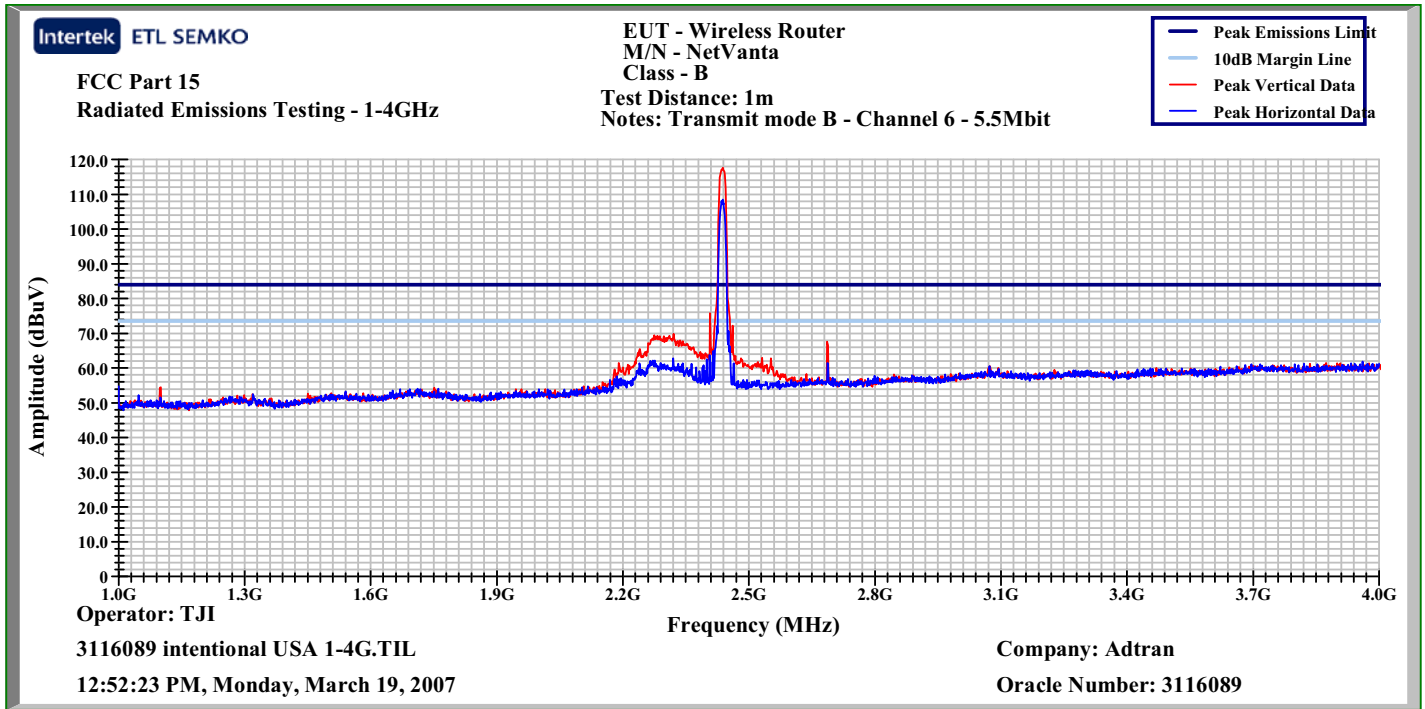
Plot:



Mode B, P04, Channel 01, 5.5Mbit, 18 to 30MHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

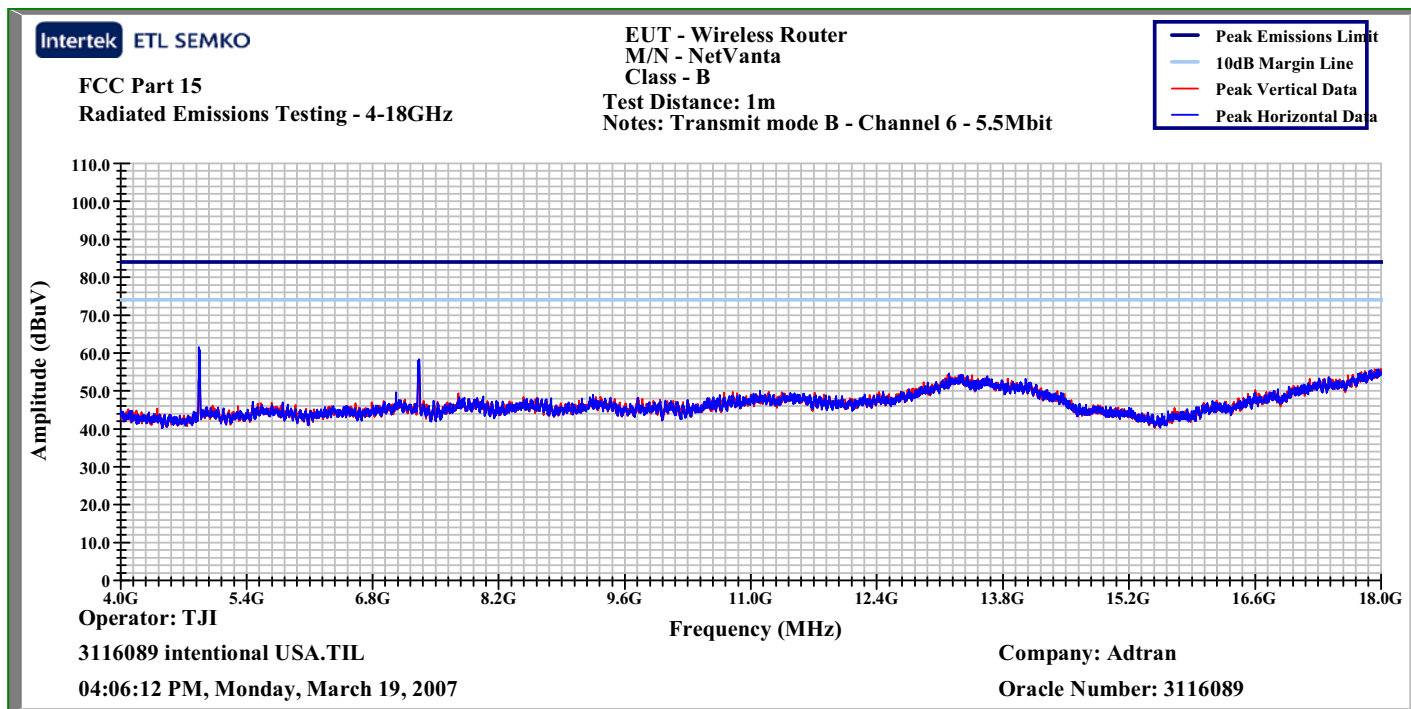
Plot:



Mode B, P06, Channel 06, 5.5Mbit, 1 to 4GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

Plot:

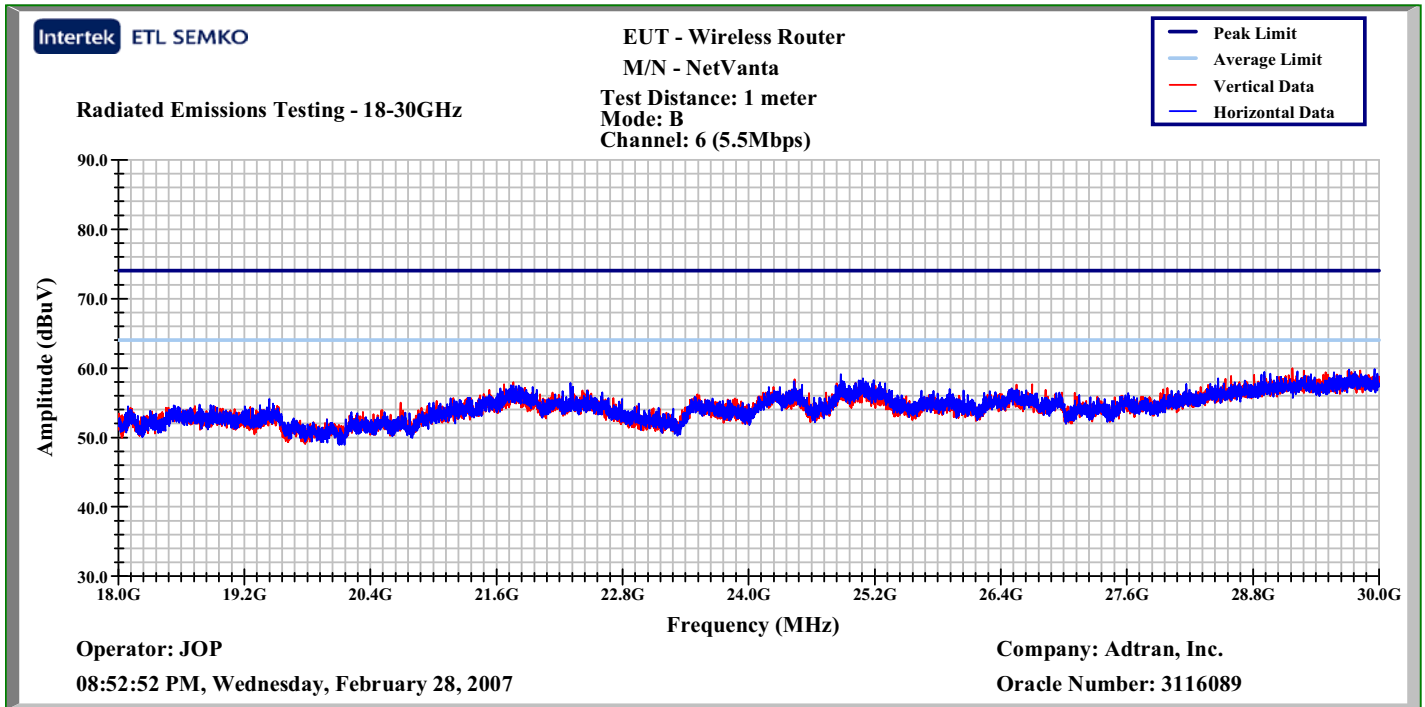


Mode B, P07, Channel 06, 5.5Mbit, 4 to 18 GHz



10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

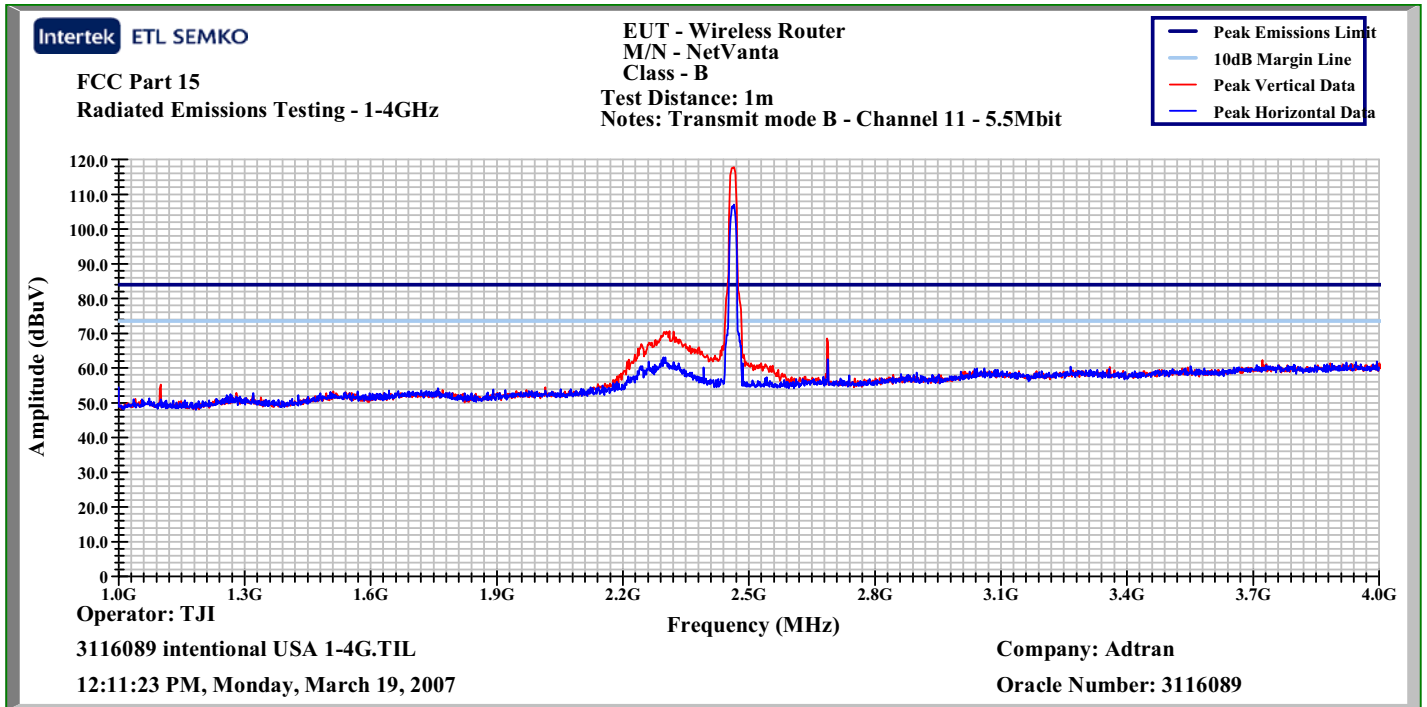
Plot:



Mode B, P08, Channel 06, 5.5Mbit, 18 to 30MHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

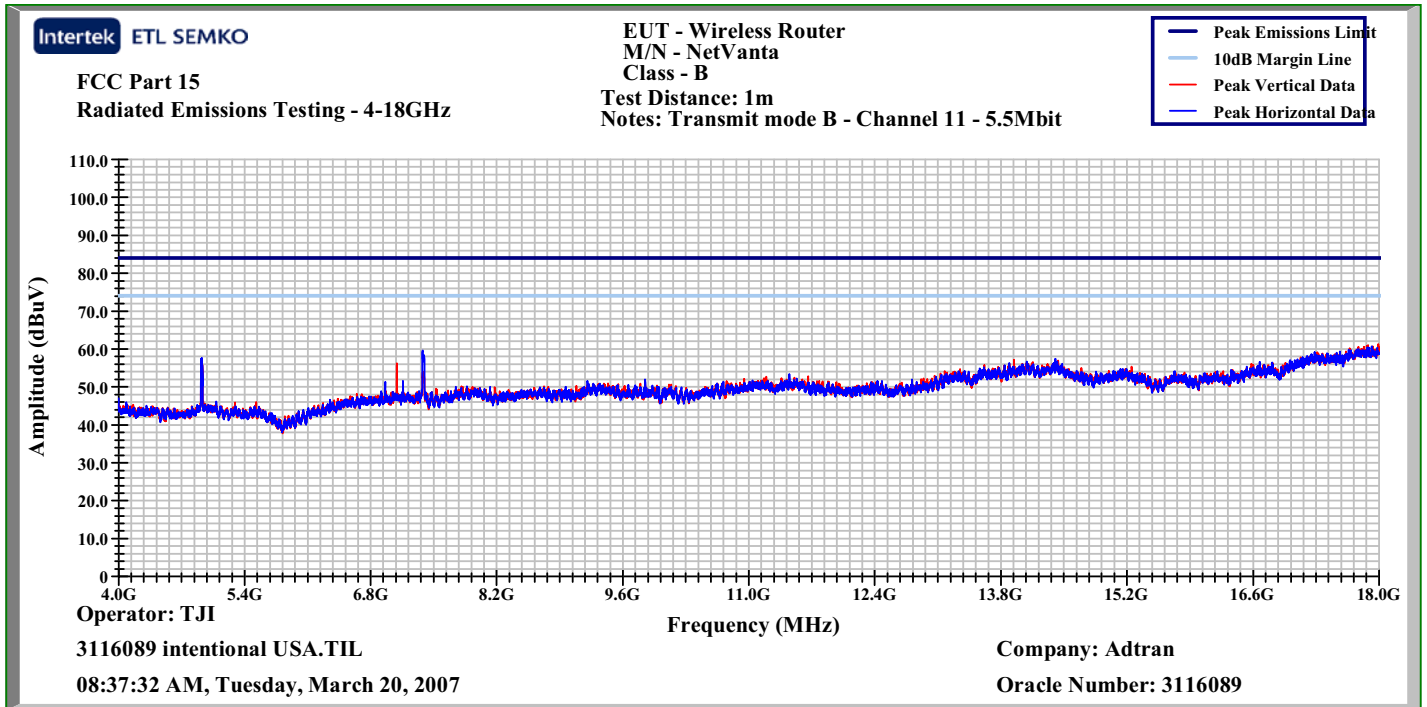
Plot:



Mode B, P10, Channel 11, 5.5Mbit, 1 to 4GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

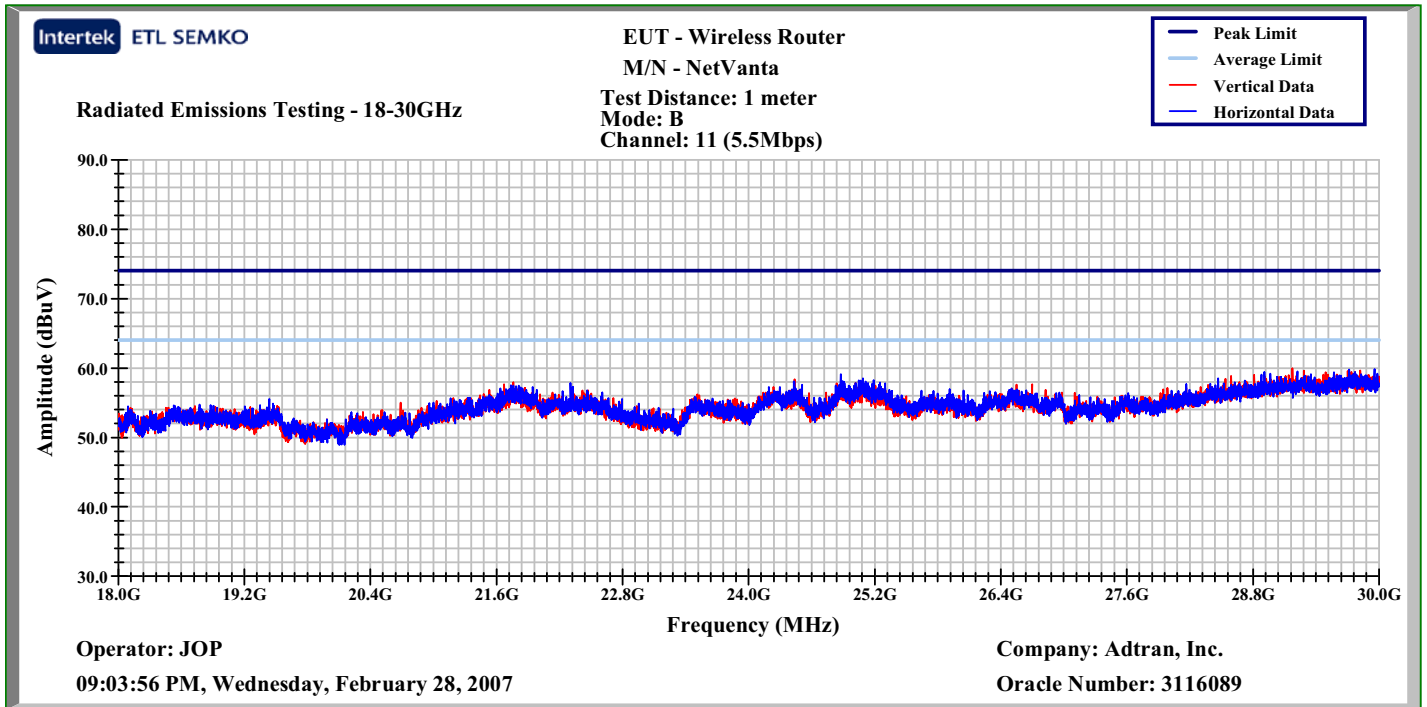
Plot:



Mode B, P11, Channel 11, 5.5Mbit, 4 to 18 GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

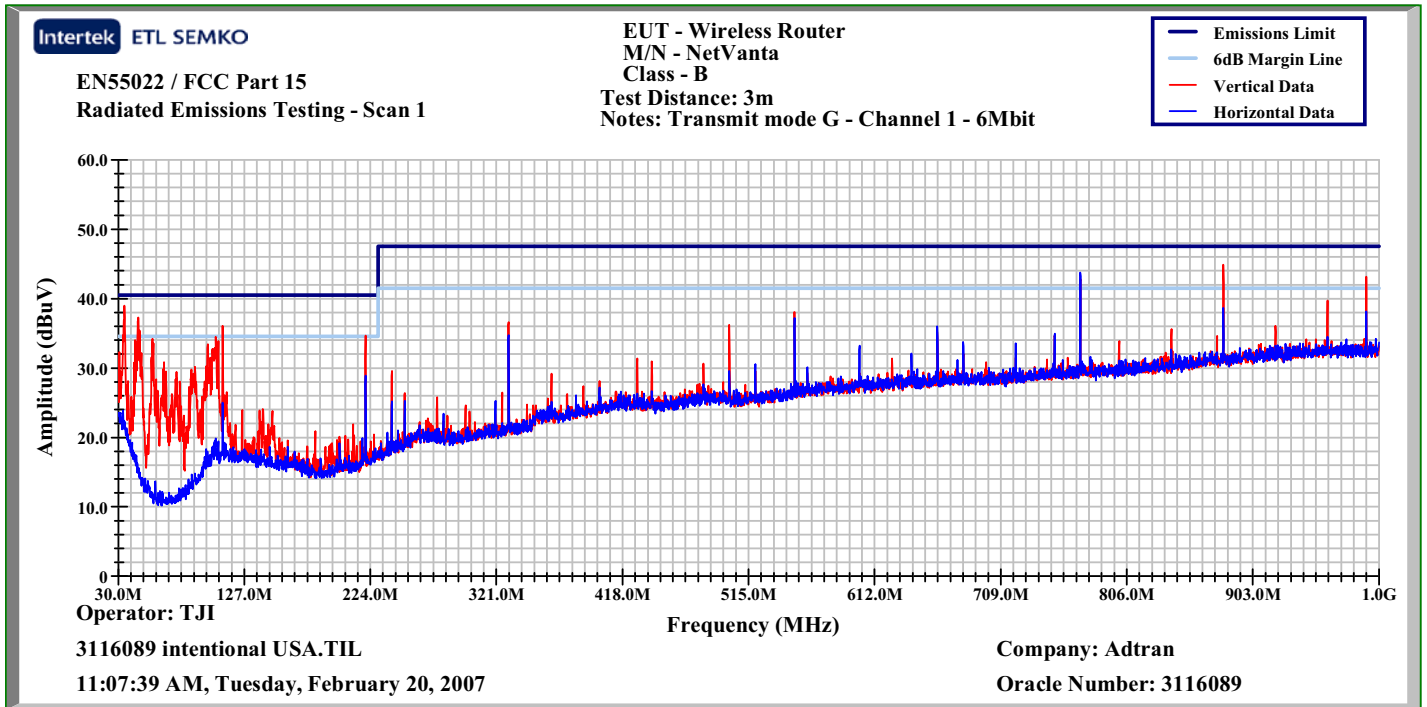
Plot:



Mode B, P12, Channel 11, 5.5Mbit, 18 to 30MHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

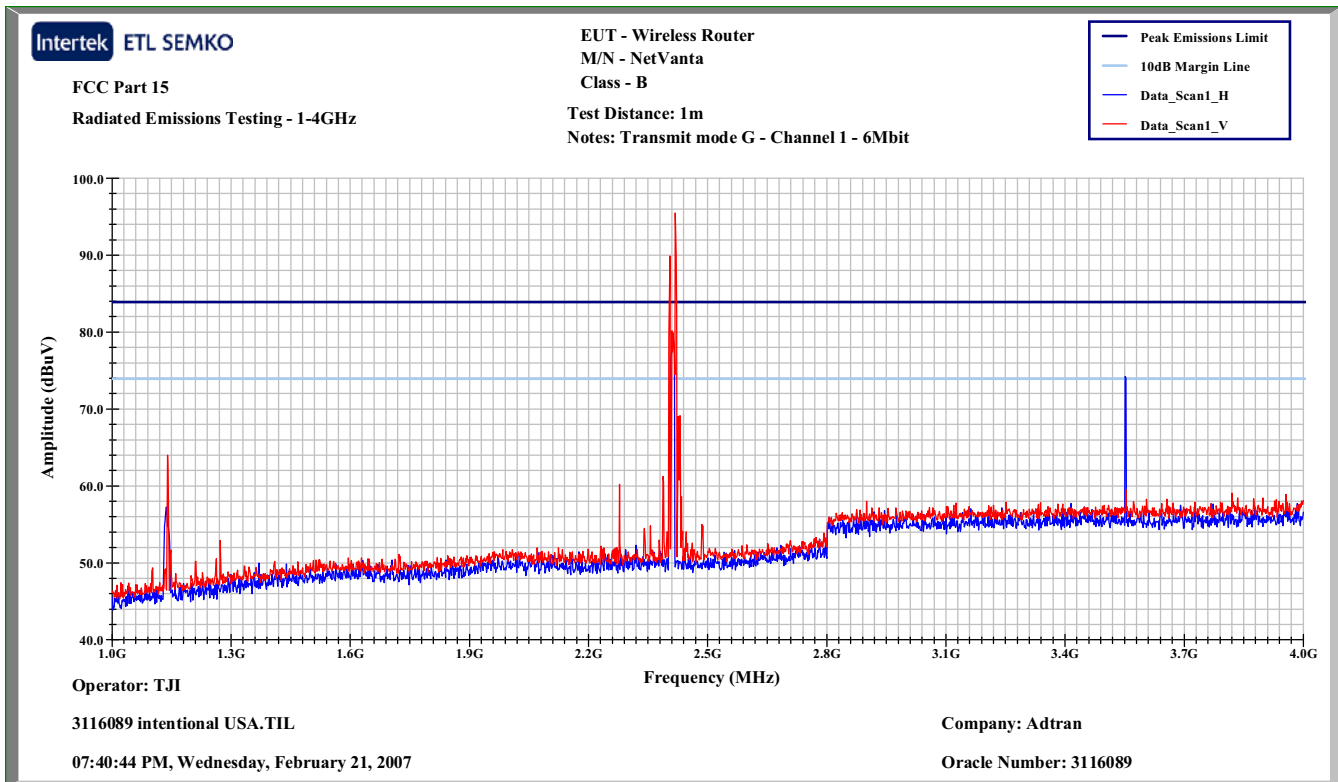
Plot:



Mode G, P01, Channel 01, 6Mbit, 30MHz to 1GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

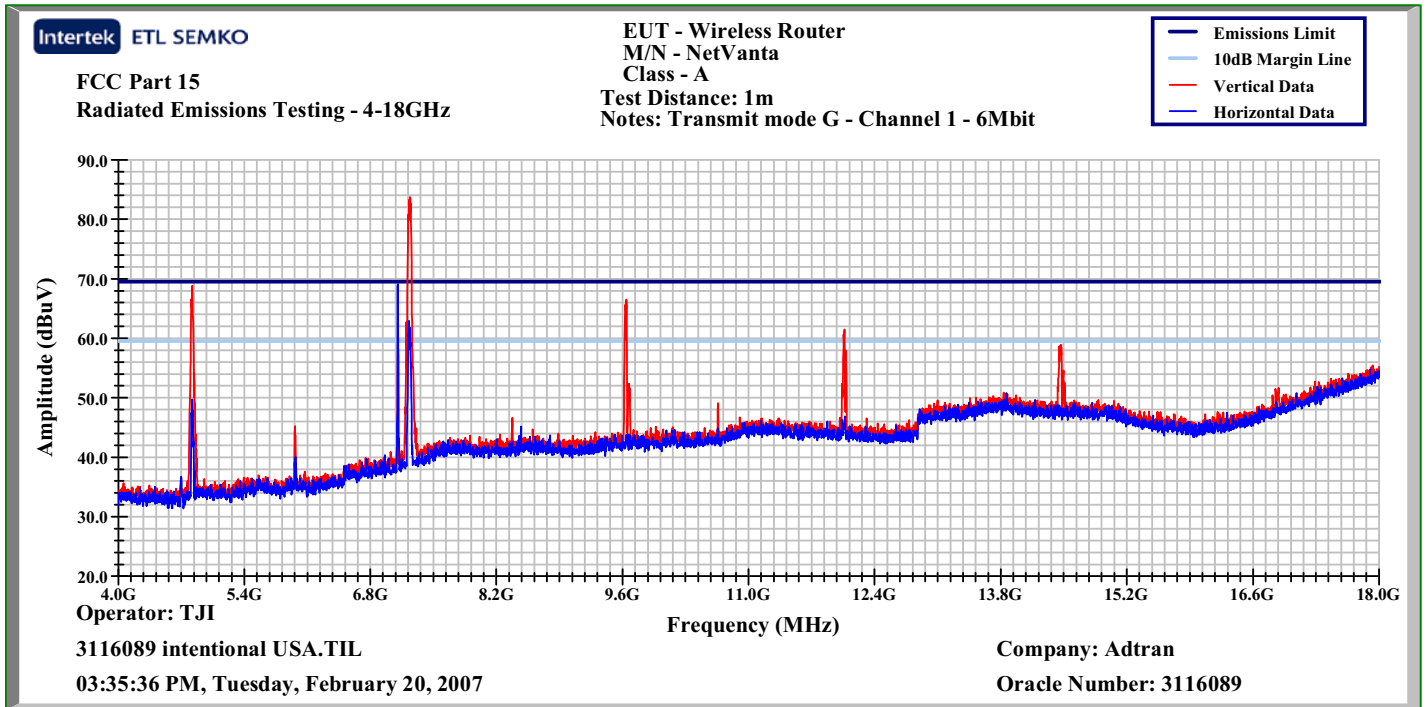
Plot:



Mode G, P02, Channel 01, 6Mbit, 1 to 4GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

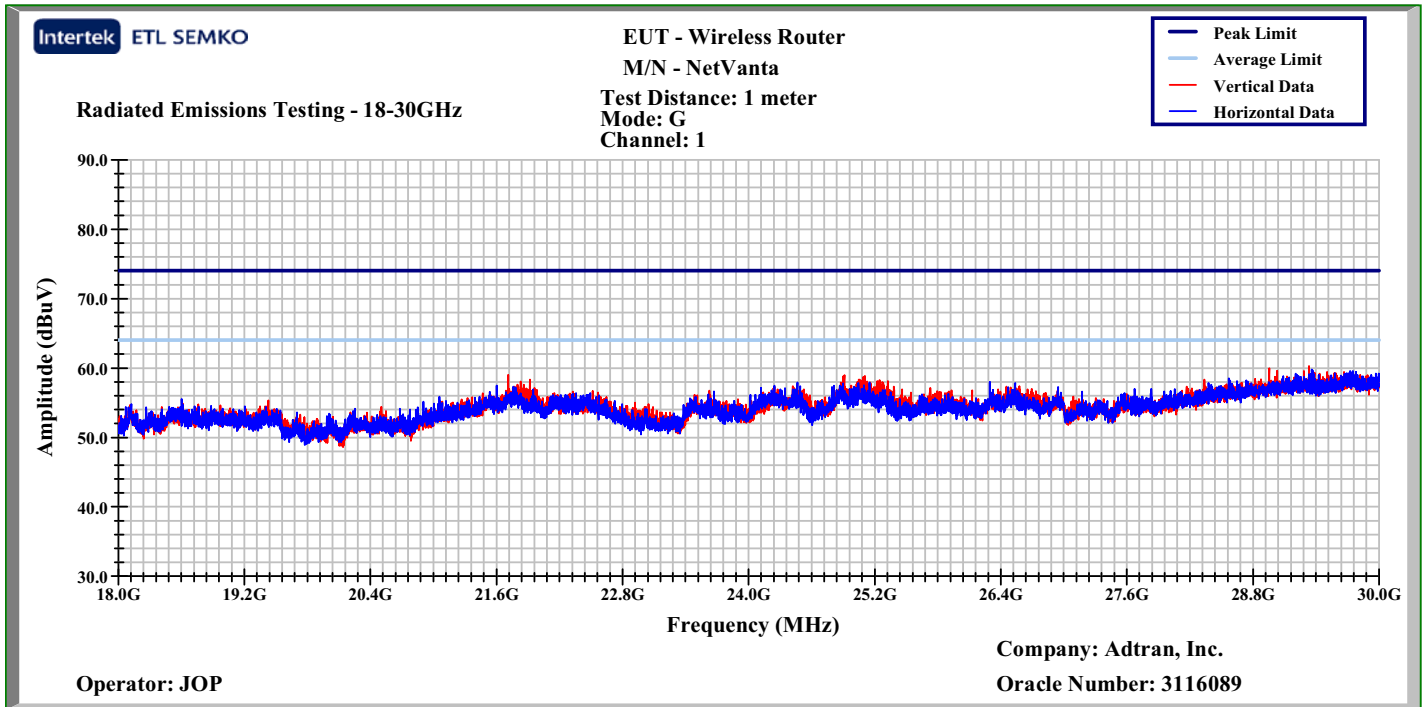
Plot:



Mode G, P03, Channel 01, 6Mbit, 4 to 18GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

Plot:

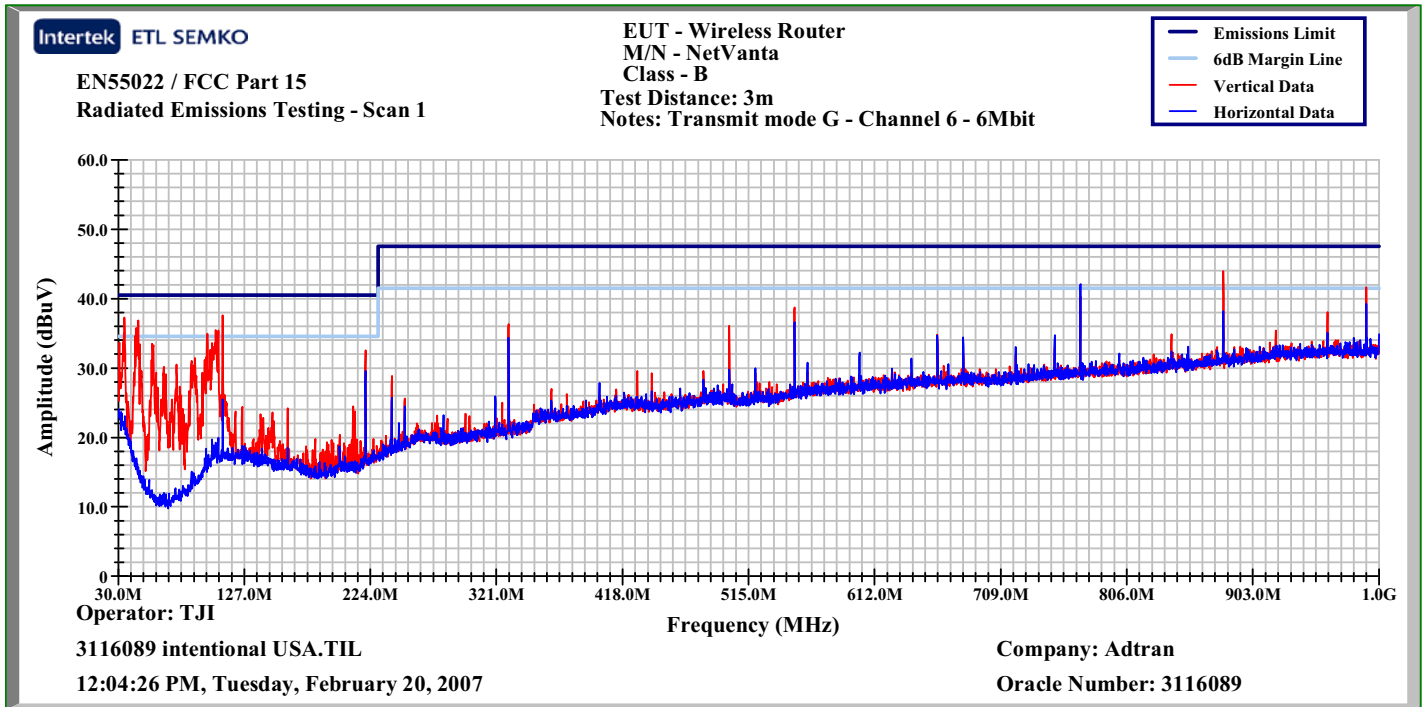


Mode G, P04, Channel 01, 6Mbit, 18 to 30MHz



10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

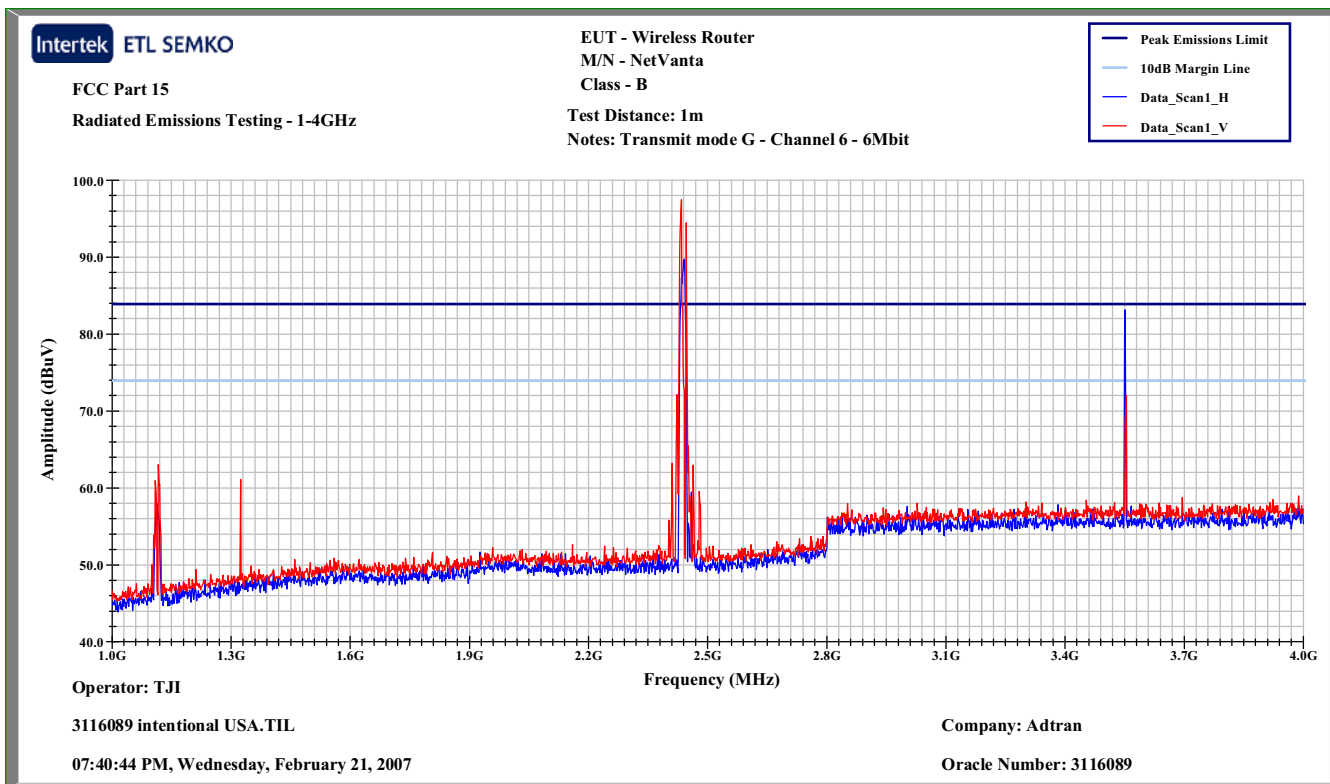
Plot:



Mode G, P05, Channel 06, 6Mbit, 30MHz to 1GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

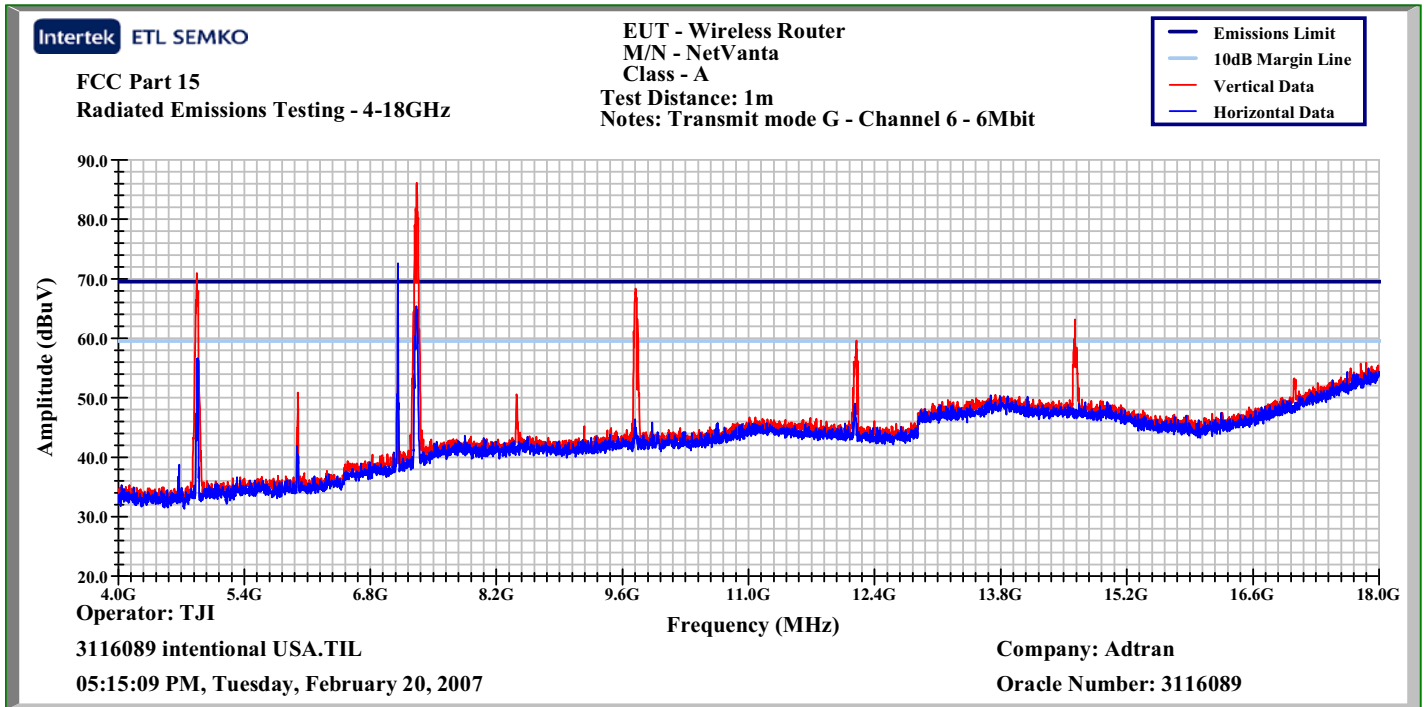
Plot:



Mode G, P06, Channel 06, 6Mbit, 1 to 4GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

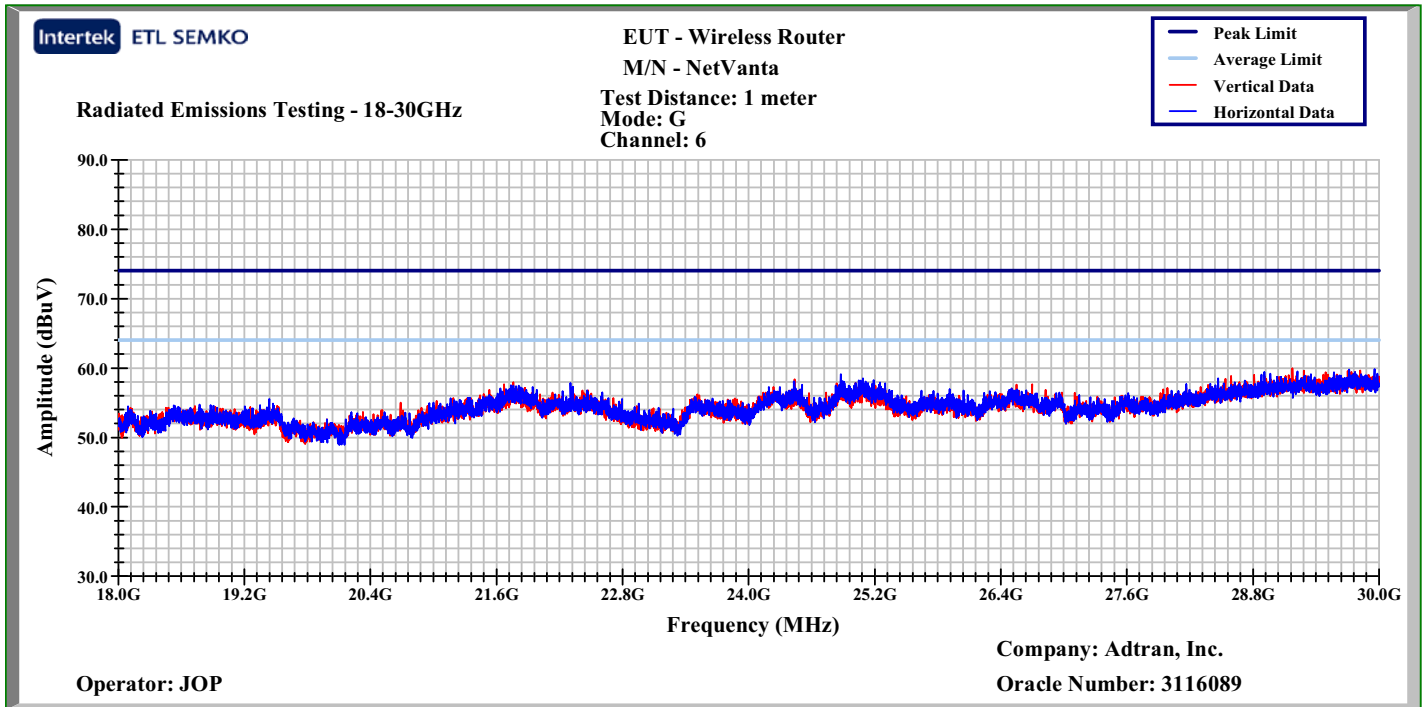
Plot:



Mode G, P07, Channel 06, 6Mbit, 4 to 18GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

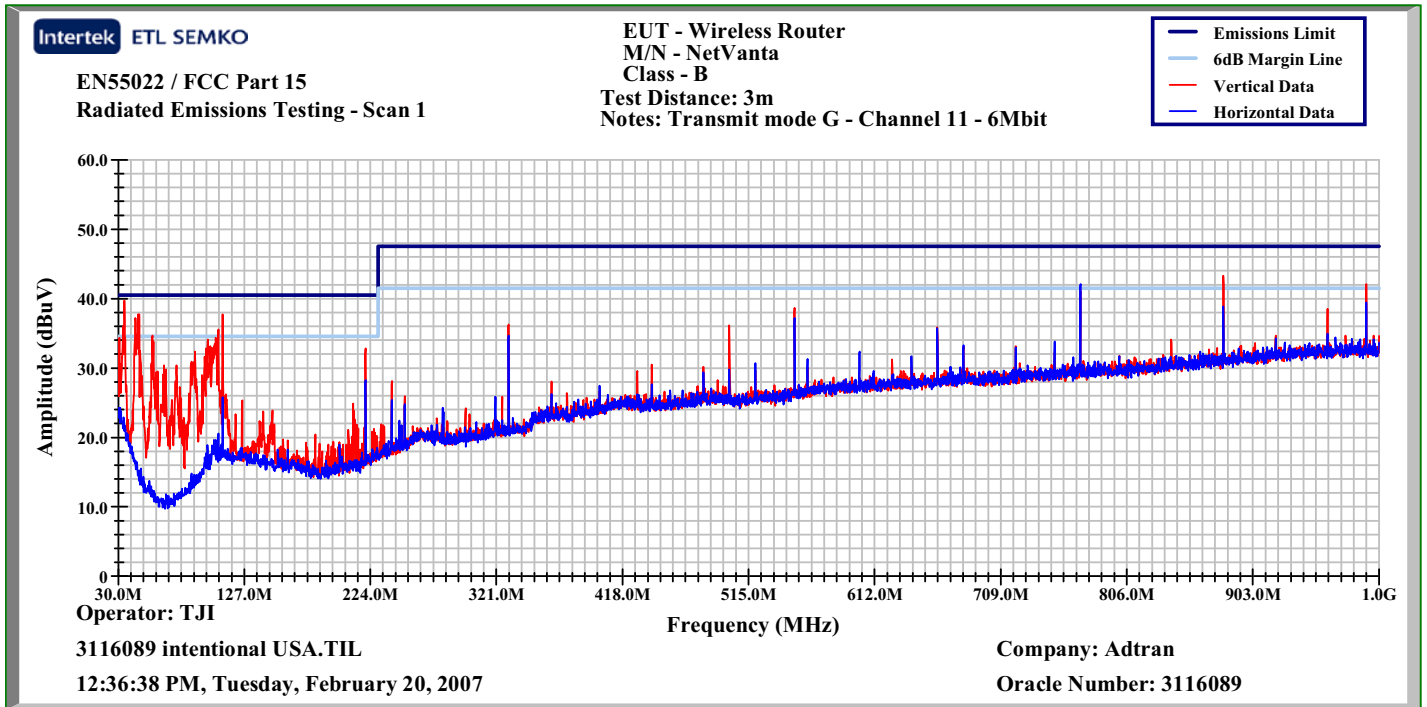
Plot:



Mode G, P08, Channel 06, 6Mbit, 18 to 30MHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

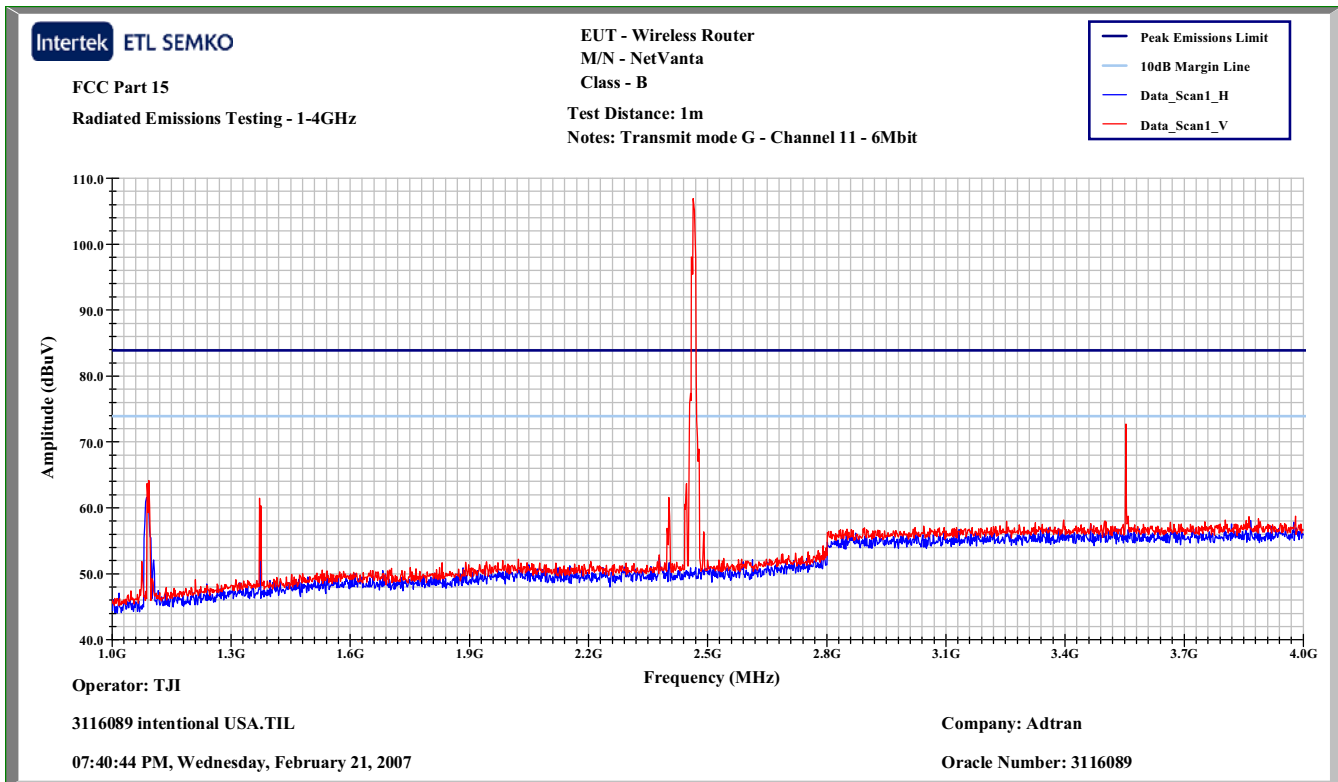
Plot:



Mode G, P09, Channel 11, 6Mbit, 30MHz to 1GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

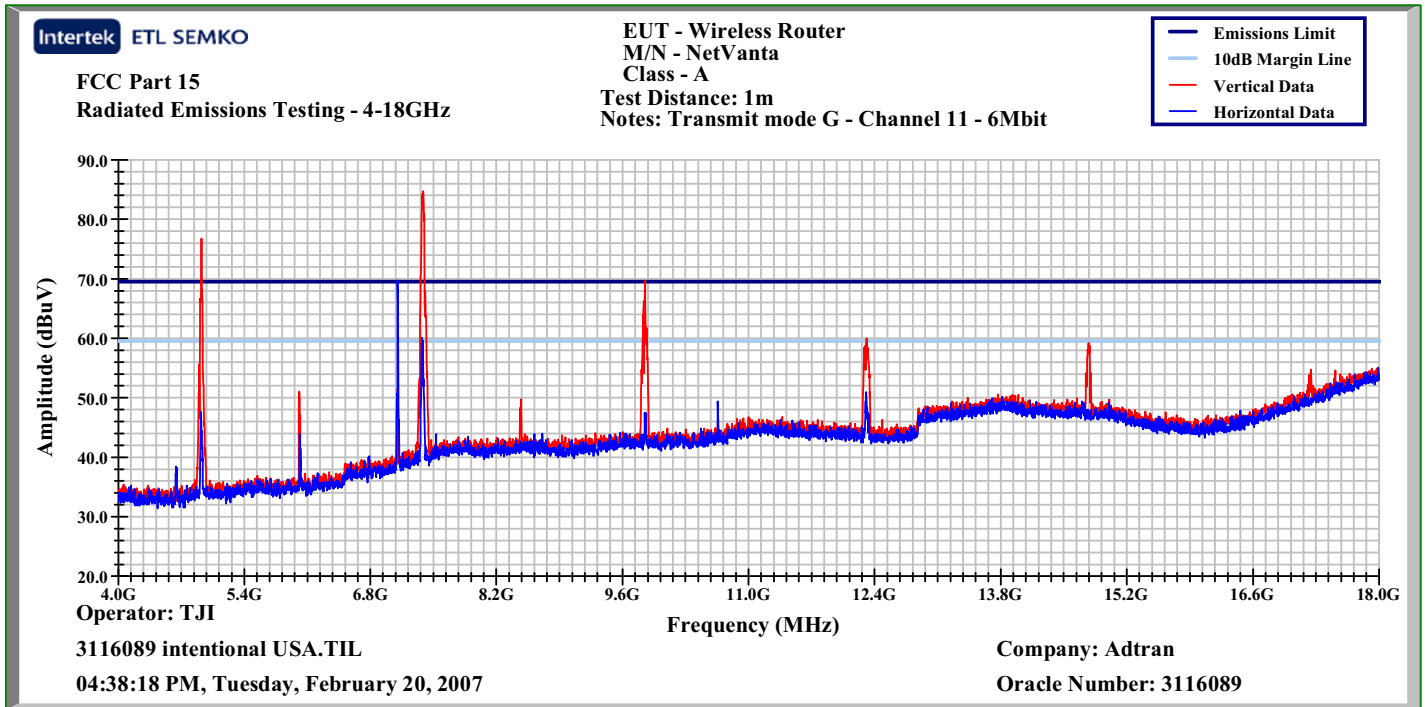
Plot:



Mode G, P10, Channel 11, 6Mbit, 1 to 4GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

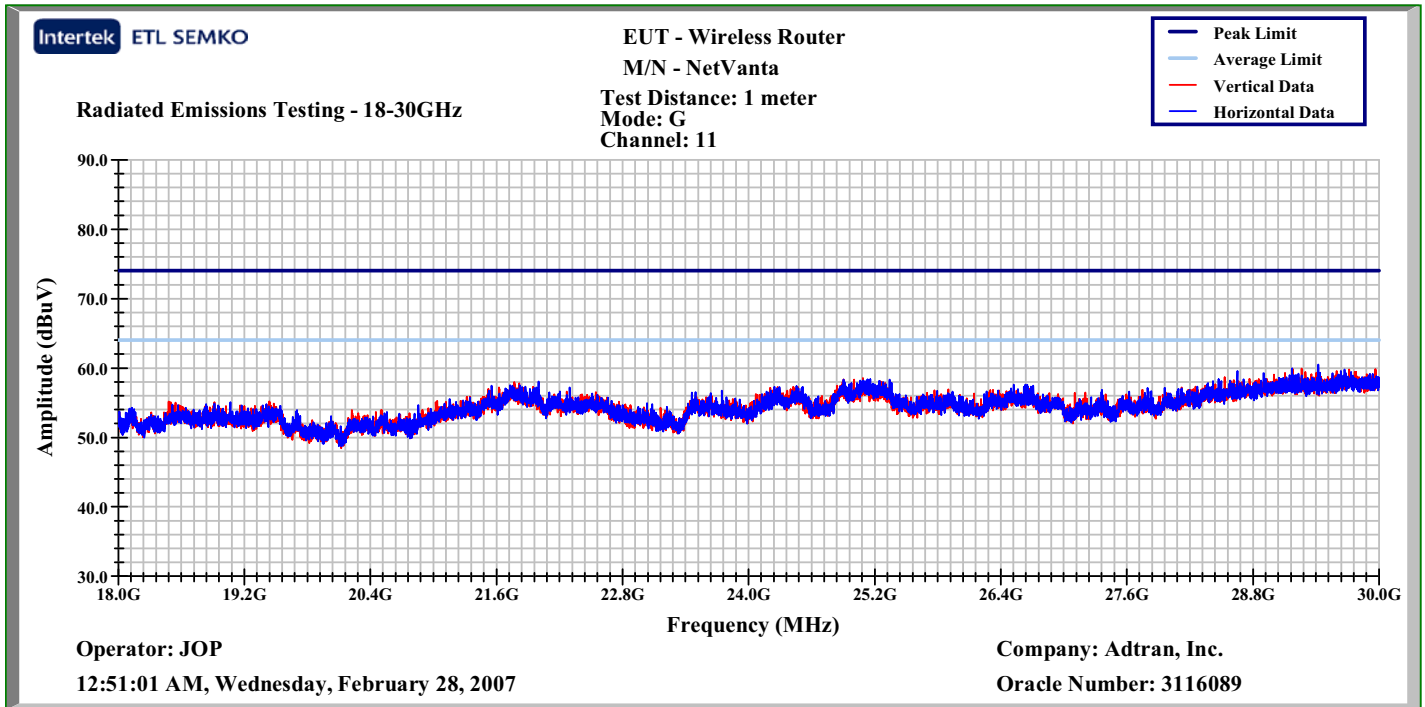
Plot:



Mode G, P11, Channel 11, 6Mbit, 4 to 18GHz

10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

Plot:



Mode G, P12, Channel 11, 6Mbit, 18 to 30MHz



**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran, Inc.  
**Model Number:** Wireless NetVanta  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 3/20/2007

**Receiver:**  
**Antenna:** EMCO 3115  
**Cables:** ST1+E20  
**Preamp:** 8449B LEX2062

**Frequency Range (MHz):** 4000-18000  
**Input power:** 5VDC

**Test Distance (m):** 1  
**Limit:**

**Modifications for compliance (y/n):**

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>Mode A, Channel 149, Speed 6Mbit</b>									
h	6000.555	20.2	35.8	4.1	33.6	26.4	64.0	-37.6	AVG/1M/1Hz
h	11489.000	50.3	39.1	6.8	34.0	62.3	64.0	-1.7	AVG/1M/1Hz
h	17234.000	38.6	42.3	8.8	33.8	55.9	64.0	-8.1	AVG/1M/1Hz
<b>Mode A, Channel 157, Speed 9Mbit</b>									
h	6004.899	19.9	35.8	4.1	33.6	26.1	64.0	-37.9	AVG/1M/1Hz
h	11569.000	50.2	39.5	6.8	34.1	62.4	64.0	-1.6	AVG/1M/1Hz
h	17356.000	39.7	42.3	8.8	33.9	56.9	64.0	-7.1	AVG/1M/1Hz
<b>Mode A, Channel 165, Speed 18Mbit</b>									
h	6003.827	20.0	35.8	4.1	33.6	26.2	64.0	-37.8	AVG/1M/1Hz
h	11650.000	50.1	39.5	6.8	34.1	62.3	64.0	-1.7	AVG/1M/1Hz
h	17475.000	30.6	42.3	8.8	33.9	47.8	64.0	-16.2	AVG/1M/1Hz
<b>Calculations</b>		G=C+D+E-F		I=G-H					

Mode A, D04, 6 to 18GHz, Average

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

Frequency Range (MHz): 18000-40000

Test Distance (m): 1

Input power: 5VDC

Limit:

Modifications for compliance (y/n):

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>A-Mode - Channel 149 @ 6Mbit</b>									
v	23000.000	77.3	45.1	10.4	54.8	78.0	84.0	-6.0	P/1M/3M
v	23000.000	53.1	45.1	10.4	54.8	53.8	64.0	-10.2	AVG/1M/10Hz
h	28725.000	76.8	46.8	8.8	55.5	76.9	84.0	-7.1	P/1M/3M
h	28725.000	49.3	46.8	8.8	55.5	49.4	64.0	-14.6	AVG/1M/10Hz
h	33835.000	59.8	49.5	10.6	57.0	62.9	84.0	-21.1	P/1M/3M
h	33835.000	45.3	49.5	10.6	57.0	48.4	64.0	-15.6	AVG/1M/10Hz
h	34595.000	61.6	49.3	12.1	57.6	65.3	84.0	-18.7	P/1M/3M
h	34595.000	46.6	49.3	12.1	57.6	50.3	64.0	-13.7	AVG/1M/10Hz
<b>Calculations</b>		G=C+D+E-F			I=G-H				

Mode A, D05, Channel 149, 6Mbit, 18 to 40GHz

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

Frequency Range (MHz): 18000-40000

Test Distance (m): 1

Input power: 5VDC

Limit:

**Modifications for compliance (y/n):**

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>A-Mode - Channel 157 @ 9Mbit</b>									
h	23140.000	79.2	45.2	8.9	54.8	78.5	84.0	-5.5	P/1M/3M
h	23140.000	51.9	45.2	8.9	54.8	51.2	64.0	-12.8	AVG/1M/10Hz
h	28924.000	76.2	46.8	8.8	55.5	76.3	84.0	-7.7	P/1M/3M
h	28924.000	46.9	46.8	8.8	55.5	47.0	64.0	-17.0	AVG/1M/10Hz
h	34141.000	60.2	49.6	10.6	57.0	63.4	84.0	-20.6	P/1M/3M
h	34141.000	45.1	49.6	10.6	57.0	48.3	64.0	-15.7	AVG/1M/10Hz
h	34610.000	61.1	49.3	12.1	57.6	64.8	84.0	-19.2	P/1M/3M
h	34610.000	46.9	49.3	12.1	57.6	50.6	64.0	-13.4	AVG/1M/10Hz
<b>Calculations</b>		G=C+D+E-F			I=G-H				

Mode A, D06, Channel 157, 9Mbit, 18 to 40GHz

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

Frequency Range (MHz): 18000-40000

Test Distance (m): 1

Input power: 5VDC

Limit:

**Modifications for compliance (y/n):**

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>A-Mode - Channel 165 @ 18Mbit</b>									
h	23298.000	74.7	45.2	8.9	54.9	73.9	84.0	-10.1	P/1M/3M
h	23982.000	46.6	45.3	8.9	55.0	45.8	64.0	-18.2	AVG/1M/10Hz
v	34187.000	60.2	49.5	10.6	57.0	63.3	84.0	-20.7	P/1M/3M
v	34187.000	47.8	49.5	10.6	57.0	50.9	64.0	-13.1	AVG/1M/10Hz
v	34956.000	59.4	49.2	12.1	57.6	63.0	84.0	-21.0	P/1M/3M
v	34965.000	47.9	49.2	12.1	57.6	51.5	64.0	-12.5	AVG/1M/10Hz
<b>Calculations</b>		G=C+D+E-F			I=G-H				

Mode A, D07, Channel 165, 18Mbit, 18 to 40GHz

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran, Inc.  
**Model Number:** NetVanta Wireless  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 3/19/2007

**Receiver:**  
**Antenna:** EMCO 3115  
**Cables:** ST1  
**Preamp:**

**Frequency Range (MHz):** 1000-4000  
**Input power:** 5VDC

**Test Distance (m):** 1  
**Limit:**

**Modifications for compliance (y/n):**

A	B	C	D	E	F	G	H	I	J	
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW	
<b>Mode B - Channel 11 - 5.5Mbit</b>										
v	1100.005	21.1	24.5	1.4	0.0	47.0	64.0	-17.0	AVG/1MHz/1Hz	
v	2302.000	23.2	28.5	1.7	0.0	53.4	64.0	-10.6	AVG/1MHz/1Hz	
v	2688.000	29.4	29.3	1.7	0.0	60.4	64.0	-3.6	AVG/1MHz/1Hz	
<b>Mode B - Channel 6 - 5.5Mbit</b>										
v	1100.002	21.4	24.5	1.4	0.0	47.3	64.0	-16.7	AVG/1MHz/1Hz	
v	2320.500	21.8	28.5	1.7	0.0	52.0	64.0	-12.0	AVG/1MHz/1Hz	
v	2687.975	31.1	29.3	1.7	0.0	62.1	64.0	-1.9	AVG/1MHz/1Hz	
<b>Mode B - Channel 1 - 5.5Mbit</b>										
v	1100.040	21.2	24.5	1.4	0.0	47.1	64.0	-16.9	AVG/1MHz/1Hz	
v	2130.675	16.5	28.5	1.7	0.0	46.7	64.0	-17.3	AVG/1MHz/1Hz	
v	2293.000	23.0	28.5	1.7	0.0	53.2	64.0	-10.8	AVG/1MHz/1Hz	
v	2687.975	32.1	29.3	1.7	0.0	63.1	64.0	-0.9	AVG/1MHz/1Hz	
<b>Calculations</b>		G=C+D+E-F			I=G-H					

Mode B, D04, 1 to 4GHz, Average

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran, Inc.  
**Model Number:** Wireless NetVanta  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 3/20/2007

**Receiver:**  
**Antenna:** EMCO 3115  
**Cables:** ST1+E20  
**Preamp:** 8449B LEX2062

**Frequency Range (MHz):** 4000-18000  
**Input power:** 5VDC

**Test Distance (m):** 1  
**Limit:**

**Modifications for compliance (y/n):**

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>Mode B, Channel 11, Speed 5.5Mbit</b>									
h	4918.437	46.7	33.4	3.7	33.8	50.1	64.0	-13.9	AVG/1M/1Hz
v	7078.180	27.1	36.6	5.0	33.9	34.8	64.0	-29.2	AVG/1M/1Hz
h	7377.625	42.6	36.8	5.0	33.9	50.5	64.0	-13.5	AVG/1M/1Hz
<b>Mode B, Channel 6, Speed 5.5Mbit</b>									
h	4868.427	49.6	33.4	3.7	33.8	53.0	64.0	-11.0	AVG/1M/1Hz
h	7302.548	48.2	36.8	5.0	33.9	56.1	64.0	-7.9	AVG/1M/1Hz
<b>Mode B, Channel 1, Speed 5.5Mbit</b>									
h	4918.399	46.5	33.4	3.7	33.8	49.9	64.0	-14.1	AVG/1M/1Hz
h	7377.297	43.4	36.8	5.0	33.9	51.3	64.0	-12.7	AVG/1M/1Hz
<b>Calculations</b>		G=C+D+E-F		I=G-H					

Mode B, D05, 4 to 18 GHz, Average

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran  
**Model Number:** Wireless NetVanta  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 2/20/2007

**Receiver:** HP 8546A  
**Antenna:** Chase 2622  
**Cables:** E01+MP3+E201  
**Preamp:**

**Frequency Range (MHz):** 30-1000  
**Input power:** 5VDC

**Test Distance (m):** 3  
**Limit:** CISPR Class B-3m

**Modifications for compliance (y/n):** n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>Radio mode G - channel 1 - 6Mbit</b>									
v	34.650	16.3	15.7	1.5	0.0	33.5	40.5	-7.0	QP/120k/300k
v	45.270	17.5	10.1	1.6	0.0	29.2	40.5	-11.4	QP/120k/300k
v	110.006	23.3	13.1	1.7	0.0	38.1	40.5	-2.4	QP/120k/300k
v	220.007	19.7	10.7	2.6	0.0	33.0	40.5	-7.5	QP/120k/300k
h	770.008	18.5	20.6	4.8	0.0	43.9	47.5	-3.6	QP/120k/300k
v	880.012	18.0	20.7	5.3	0.0	44.0	47.5	-3.5	QP/120k/300k
v	990.013	15.9	21.1	5.8	0.0	42.8	47.5	-4.7	QP/120k/300k
<b>Calculations</b>		G=C+D+E-F			I=G-H				

Mode G, D01, Channel 01, 6Mbit, 30MHz to 1GHz

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran  
**Model Number:** Wireless NetVanta  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 2/20/2007

**Receiver:** HP 8546A  
**Antenna:** Chase 2622  
**Cables:** E01+MP3+E201  
**Preamp:**

**Frequency Range (MHz):** 30-1000  
**Input power:** 5VDC

**Test Distance (m):** 3  
**Limit:** CISPR Class B-3m

**Modifications for compliance (y/n):** n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>Radio mode G - channel 6 - 6Mbit</b>									
v	34.665	18.2	15.7	1.5	0.0	35.4	40.5	-5.1	QP/120k/300k
v	45.270	20.0	10.1	1.6	0.0	31.7	40.5	-8.9	QP/120k/300k
v	110.012	23.6	13.1	1.7	0.0	38.4	40.5	-2.1	QP/120k/300k
v	220.010	20.7	10.7	2.6	0.0	34.0	40.5	-6.5	QP/120k/300k
h	770.010	17.7	20.6	4.8	0.0	43.1	47.5	-4.4	QP/120k/300k
v	880.014	15.6	20.7	5.3	0.0	41.6	47.5	-5.9	QP/120k/300k
v	990.010	13.7	21.1	5.8	0.0	40.6	47.5	-6.9	QP/120k/300k
<b>Calculations</b>		G=C+D+E-F			I=G-H				

Mode G, D02, Channel 06, 6Mbit, 30MHz to 1GHz



**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran  
**Model Number:** Wireless NetVanta  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 2/20/2007

**Receiver:** HP 8546A  
**Antenna:** Chase 2622  
**Cables:** E01+MP3+E201  
**Preamp:**

**Frequency Range (MHz):** 30-1000  
**Input power:** 5VDC

**Test Distance (m):** 3  
**Limit:** CISPR Class B-3m

**Modifications for compliance (y/n):** n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>Radio mode G - channel 11 - 6Mbit</b>									
v	34.645	17.9	15.7	1.5	0.0	35.1	40.5	-5.4	QP/120k/300k
v	45.270	20.0	10.1	1.6	0.0	31.7	40.5	-8.9	QP/120k/300k
v	110.010	23.5	13.1	1.7	0.0	38.3	40.5	-2.2	QP/120k/300k
v	220.011	20.8	10.7	2.6	0.0	34.1	40.5	-6.4	QP/120k/300k
h	770.013	17.4	20.6	4.8	0.0	42.8	47.5	-4.7	QP/120k/300k
v	880.013	15.8	20.7	5.3	0.0	41.8	47.5	-5.7	QP/120k/300k
v	990.008	13.4	21.1	5.8	0.0	40.3	47.5	-7.2	QP/120k/300k
<b>Calculations</b>		G=C+D+E-F			I=G-H				

Mode G, D03, Channel 11, 6Mbit, 30MHz to 1GHz

**10.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran  
**Model Number:** Wireless NetVanta  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 2/20/2007

**Receiver:** HP 8546A  
**Antenna:** EMCO 3115  
**Cables:** ST1  
**Preamp:**

**Frequency Range (MHz):** 1000-4000  
**Input power:** 5VDC

**Test Distance (m):** 1  
**Limit:** FCC15 Class A-1m

**Modifications for compliance (y/n):**

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	1m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
<b>Radio mode G - channel 6 - 6Mbit</b>									
v	1117.000	11.8	24.5	1.4	0.0	37.7	63.5	-25.8	AVG/1M/1Hz
v	1324.000	9.6	24.5	1.4	0.0	35.5	63.5	-28.0	AVG/1M/1Hz
h	3551.000	19.8	32.6	2.2	0.0	54.6	63.5	-9.0	AVG/1M/1Hz
<b>Radio mode G - channel 11 - 6Mbit</b>									
v	1100.013	20.4	24.5	1.4	0.0	46.3	63.5	-17.2	AVG/1M/1Hz
v	1372.375	12.6	24.5	1.4	0.0	38.5	63.5	-25.0	AVG/1M/1Hz
v	3553.000	19.8	32.3	2.2	0.0	54.3	63.5	-9.3	AVG/1M/1Hz
<b>Radio mode G - channel 1 - 6Mbit</b>									
v	1138.300	12.5	24.5	1.4	0.0	38.4	63.5	-25.1	AVG/1M/1Hz
v	2279.875	12.6	28.5	1.7	0.0	42.8	63.5	-20.7	AVG/1M/1Hz
h	3553.000	19.7	32.6	2.2	0.0	54.5	63.5	-9.1	AVG/1M/1Hz
<b>Calculations</b>		G=C+D+E-F			I=G-H				

Mode G, D04, 1 to 4GHz, Average

**11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)****Method:**

Unwanted emissions falling into restricted bands shall meet the general field strength limits. It should also be noted that unwanted emissions falling in non-restricted bands do not need to be suppressed to a level lower than the general field strength limits.

Specifically, at the restricted band frequency nearest the lowest and highest channel of each available band, the field strength shall meet the general field strength limits.

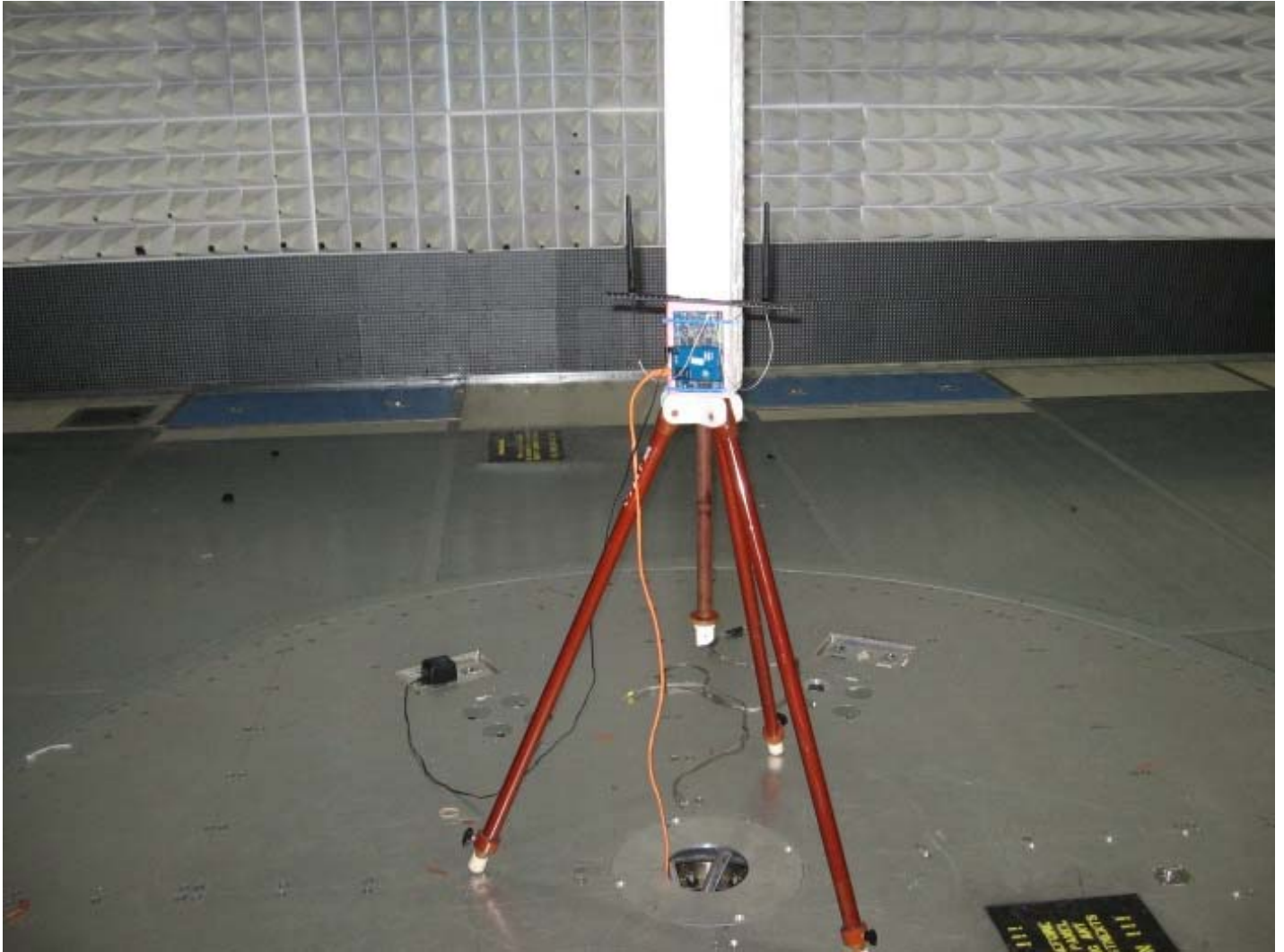
**Test Equipment Used:**

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Antenna, Bilog (20MHz to 2GHz)	Chase	CBL6112B	211386	08/29/2006	08/29/2007
Cable E01, <18GHz	Pasternack	RG214/U	E01	05/11/2006	05/11/2007
Cable E05, <18GHz	Huber-Suhner	Sucoflex 104PEA	E05	05/11/2006	05/11/2007
Cable E20 (Formerly Cable 8)	United Microwave Pro	Micropore 190 577	E20	05/12/2006	05/12/2007
Cable, 18 GHz, N, 394 inches	Megaphase	G919-NKNK-394	MP3	05/11/2006	05/11/2007
Cable, 18 GHz, N, 3m	Megaphase	TM18 NKNK 118	E201	01/15/2007	01/15/2008
Coaxial Cable, 7m, N-N, 18 GHz	Storm Products Co.	PR90-206-7MTR	ST1	01/11/2007	01/11/2008
EMI Receiver	Hewlett Packard	8546A	211388	08/04/2006	08/04/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	211389	08/04/2006	08/04/2007
Preamplifier, 10 MHz to 2000 MHz, 27 dB gain	Mini-Circuits	ZKL-2	200074	02/08/2007	02/08/2008

**Results: The sample tested was found to Comply.**

11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

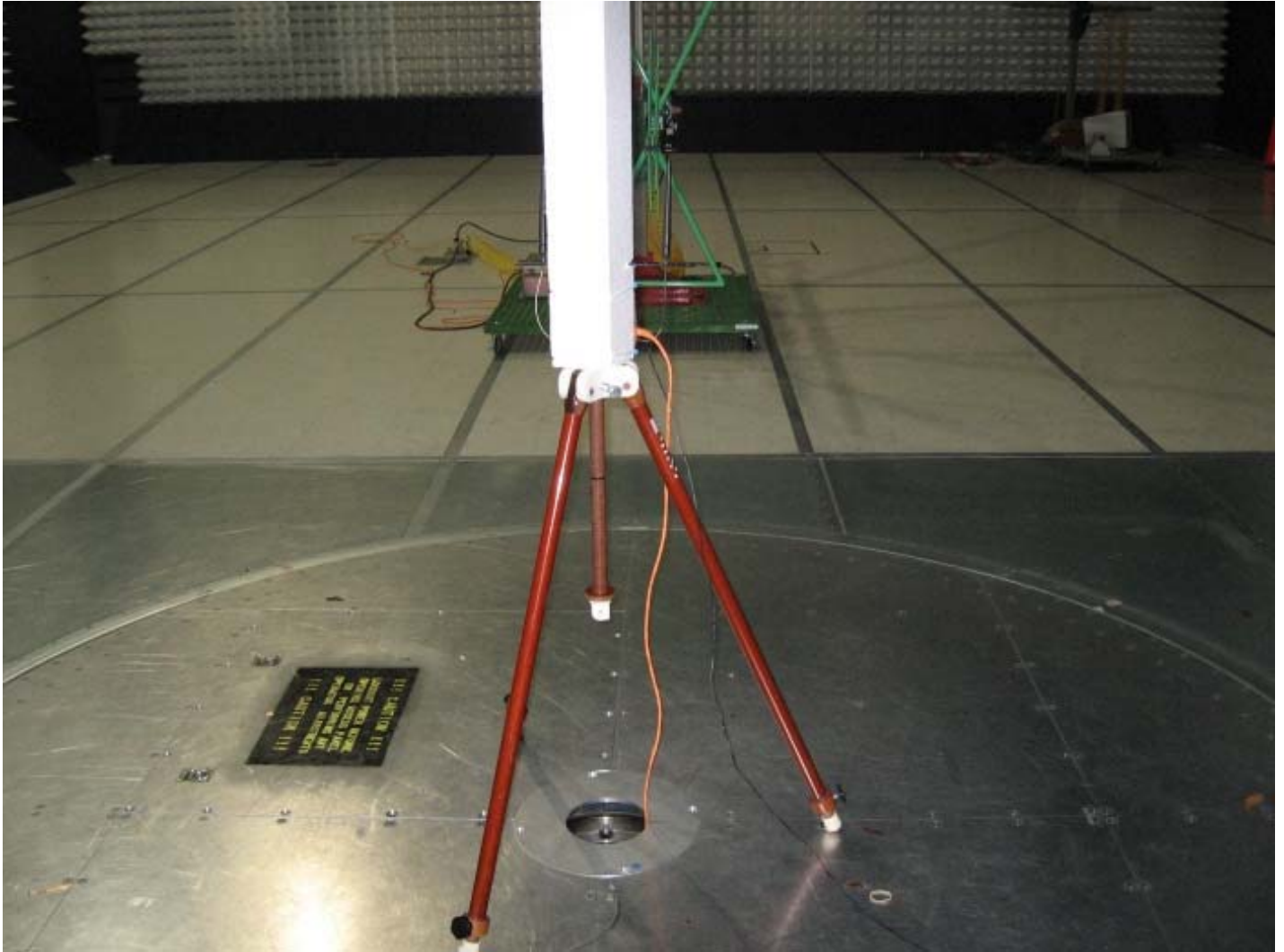
Photo:



Test Setup

11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

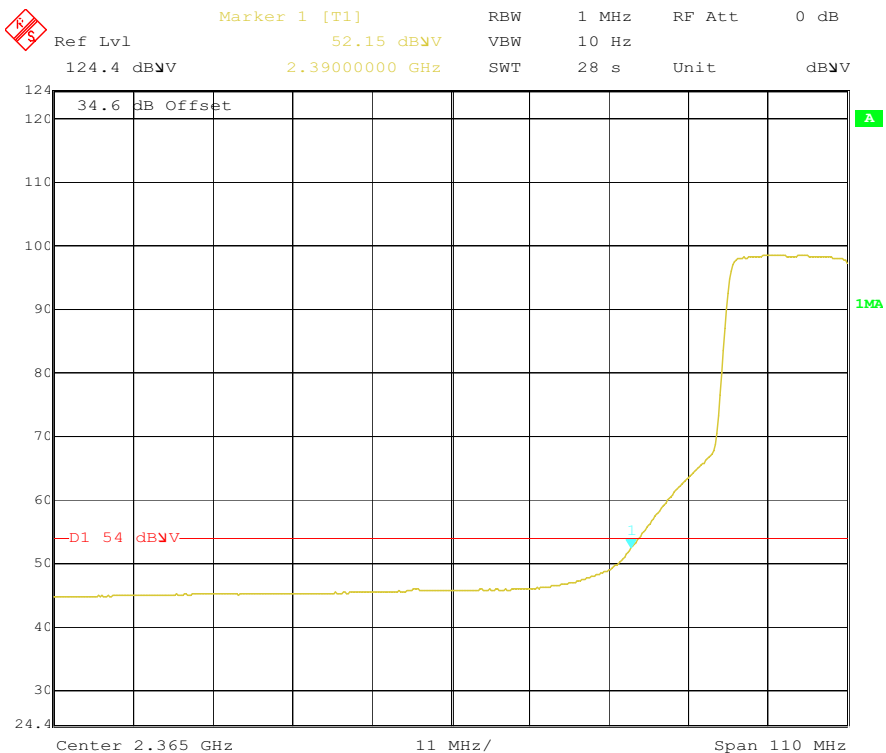
Photo:



Test Setup

### 11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

**Plot:**

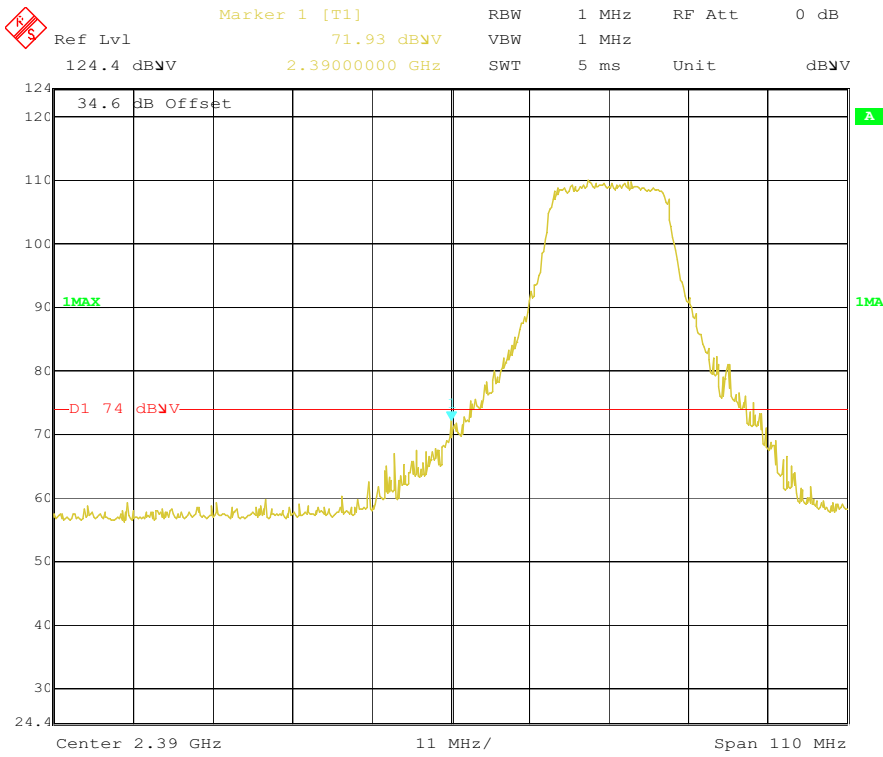


Date: 3.MAY.2007 21:19:35

Band Edge Plot

11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

Plot:

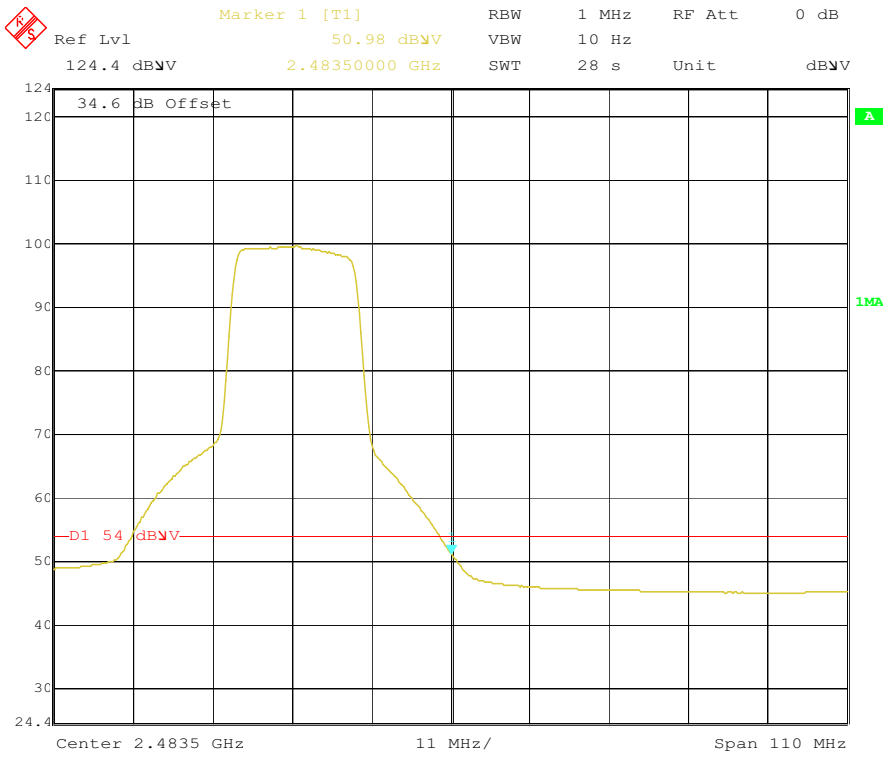


Date: 3.MAY.2007 21:14:55

Band Edge Plot

### 11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

**Plot:**



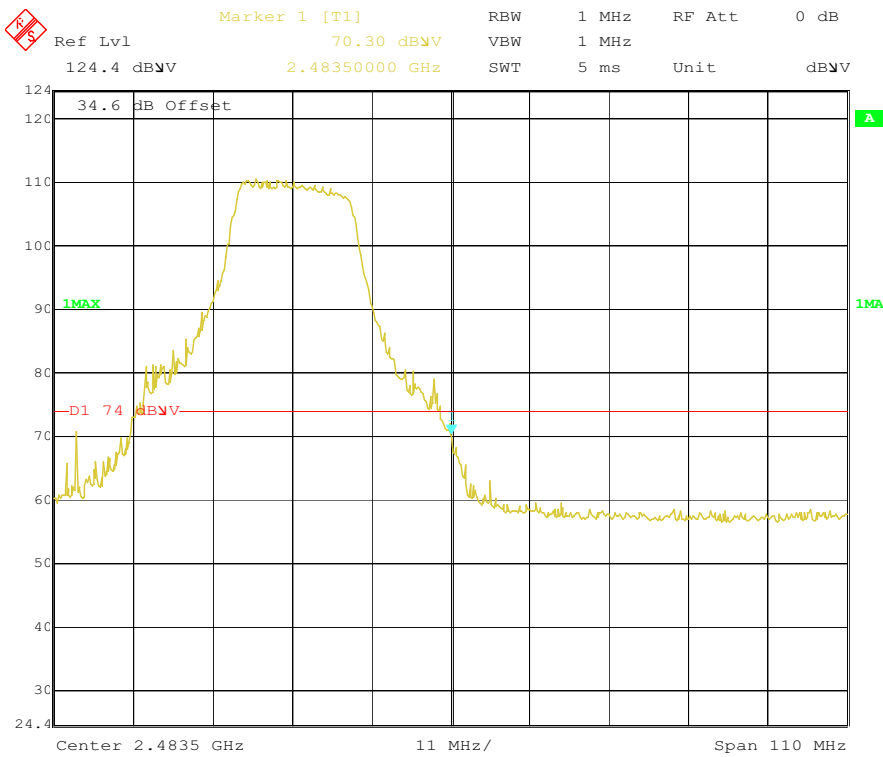
Date: 3.MAY.2007 21:21:14

Band Edge Plot



### 11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

**Plot:**

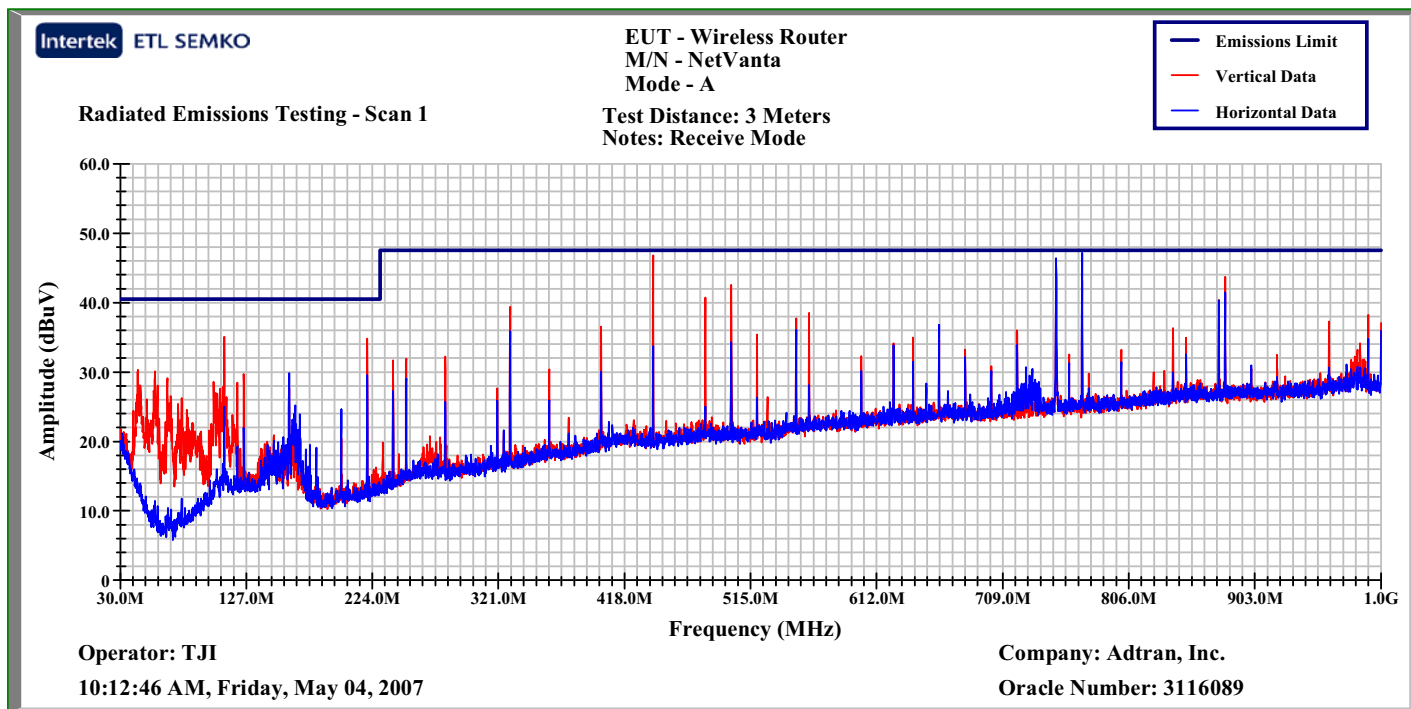


Date: 3.MAY.2007 21:23:11

Band Edge Plot

11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)

Plot:



Receive Mode Plot

**11.0 FCC Part 15.205 / RSS-210 2.2 (Radiated Band Edge)**

**Data:**

**Client:** Adtran, Inc.  
**Model Number:** AP50DA / Wireless router  
**Project Number:** 3116089  
**Tested By:** TJI  
**Date:** 5/4/2007

**Receiver:** HP 8546A  
**Antenna:** Chase 2622  
**Cables:** E01+E05+E201+MP3  
**Preamp:** ZKL-2 D052005

**Frequency Range (MHz):** 30-1000  
**Input power:** 12VDC

**Test Distance (m):** 3  
**Limit:** CISPR Class B-3m

**Modifications for compliance (y/n):** n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
v	110.003	48.8	13.1	1.9	27.7	36.1	40.5	-4.4	QP/120k/300k
v	220.004	49.4	10.7	2.8	27.6	35.3	40.5	-5.2	QP/120k/300k
v	440.300	53.3	16.8	4.1	27.5	46.7	47.5	-0.8	QP/120k/300k
v	500.019	47.3	17.8	4.1	27.5	41.7	47.5	-5.8	QP/120k/300k
h	750.075	47.2	20.5	5.2	27.2	45.7	47.5	-1.8	QP/120k/300k
h	770.005	48.5	20.6	5.2	27.2	47.1	47.5	-0.4	QP/120k/300k
h	875.083	41.4	21.6	5.7	27.1	41.6	47.5	-5.9	QP/120k/300k
v	880.004	42.6	20.7	5.7	27.1	41.9	47.5	-5.6	QP/120k/300k
<b>Calculations</b>		G=C+D+E-F		I=G-H					

Receive Mode Data

**12.0 Revision History (Revision History)**

**Method:**

Document the history of the report.

**Data:**

Revision Level	Date	Report Number	Notes
Original issue	March 30, 2007	3116089ATL-006	--
1	May 22, 2007	3116089ATL-001	Retest of band edge