FCC CFR47 PART 15 SUBPART F
CLASS 2 PERMISSIVE CHANGE TEST REPORT

FOR

WIRELESS USB MINICARD UWB MODULE

MODEL NUMBER: WQ110MC

FCC ID: TZQWQ110MC

REPORT NUMBER: 08U11647-1

ISSUE DATE: MARCH 6, 2008

PREPARED FOR
WIQUEST COMMUNICATIONS, INC.
915 ENTERPRISE BLVD., SUITE 200
ALLEN, TX 75013

PREPARED BY
COMPLIANCE CERTIFICATION SERVICES
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	03/06/08	Initial Issue	M. Heckrotte

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: WIQUEST COMMUNICATIONS, INC.
915 ENTERPRISE BLVD., SUITE 200
ALLEN, TX 75013

EUT DESCRIPTION: Wireless USB Mini Card UWB Module

MODEL: WQ110MC

SERIAL NUMBER: ADC 161994

DATE TESTED: MARCH 3- 5, 2008

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart F	No Non-Compliance Noted

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

MICHAEL HECKROTTE
DIRECTOR OF ENGINEERING
COMPLIANCE CERTIFICATION SERVICES

Tested By:

THANH NGUYEN
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2 and FCC CFR 47 Part 15.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an Ultra Wide Band transceiver module with a single antenna. The EUT is intended for handheld use. The UWB radio uses hopping and non-hopping coding and modulation rates as defined in the Theory of Operation.

The radio module is manufactured by WiQuest.

5.2. DESCRIPTION OF CHANGES

The changes filed under this Class II application are:

Change 1. Addition of a new Type of Antenna.

Change 2. Component reduction and PCB layout modification around the Receive LNA input.

Change 3. Component change and PCB layout modification around the external memory of the WiQuest Module.

5.3. OPERATING FREQUENCY RANGE

The UWB radio operates over a nominal frequency range of 3100 to 4800 MHz. The measured UWB bandwidths of all three channels lie within this range.

5.4. MAXIMUM OUTPUT POWER

The UWB transmitter has a maximum radiated output power as follows:

RMS Output Power (dBm/MHz EIRP)	RMS Output Power (uW/MHz EIRP)
-43.10	0.049

5.5. DESCRIPTION OF NEW ANTENNA TYPE

The EUT utilizes a dipole antenna, with a maximum gain of 2.32 dBi.

5.6. SOFTWARE AND FIRMWARE

The software, driver, firmware, and tools package installed in the EUT during testing was WQ_Tool V.1.3.152.0

5.7. WORST-CASE CONFIGURATION

Preliminary investigations were performed at all coding, modulation rates and channels as defined in the Theory of Operation. The worst-case mode was determined to be TFC4 at 53.3Mb/s.

5.8. OPERATING MODE

The EUT was tested in its normal operating (hopping) mode in accordance with the waiver documented in ET Docket 04-352. Test results demonstrate that the EUT does not operate within the 5030 to 5650 MHz band.

5.9. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Laptop	Toshiba	Tecra M3-S636	16061886h	DoC
AC Adapter	Toshiba	PA2521U-3ACA	G71C00058210	N/A
Mini PCI Test Board	Wiquest	ACD 85662	T3068	N/A
AC Adapter	CUI Inc.	38-161 WP12	2098	N/A

I/O CABLES

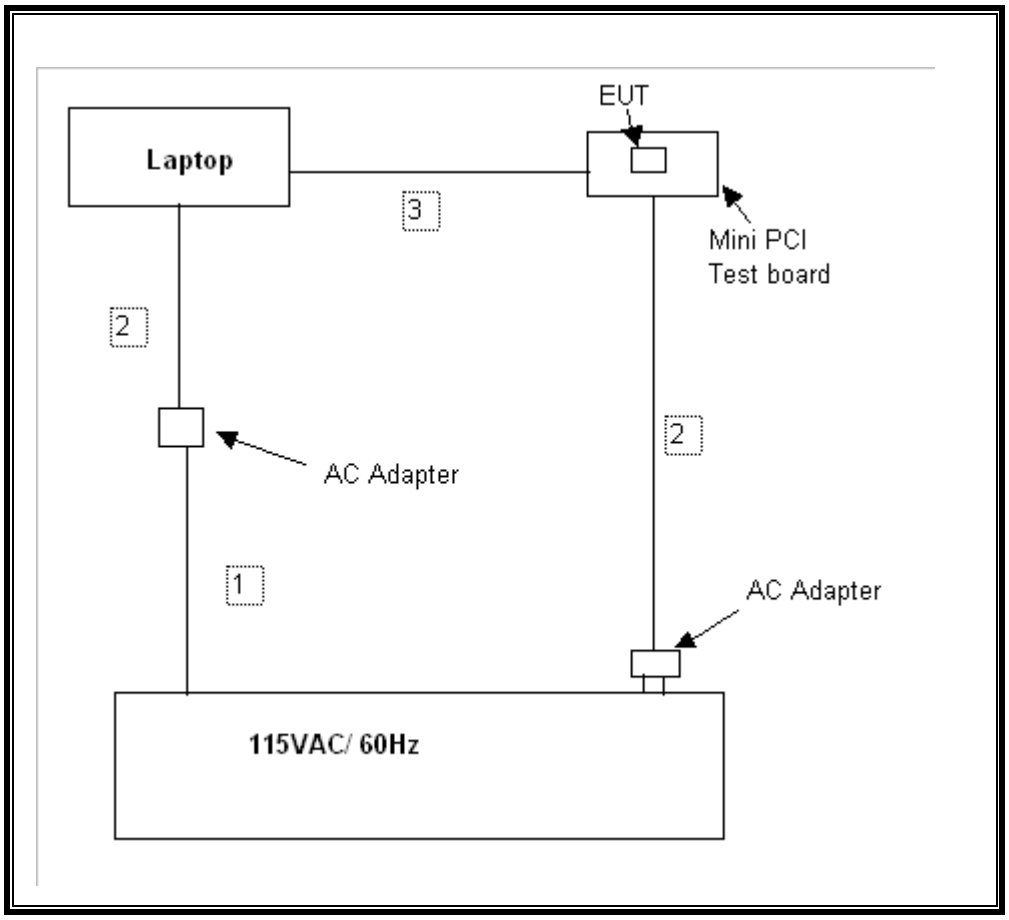
I/O CABLE LIST						
Cable No.	**Port**	**# of Identica Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	AC	1	US 115V	Un-shielded	1.5m	N/A
2	DC	2	DC Plug	Un-shielded	1.5m	Ferrite bead at each end
3	USB	1	USB	Shielded	1.5m	N/A

The ferrite beads on the power supply cable to the Mini PCI Test Board are required to reduce emissions from the Mini PCI Test Board itself, these emissions are present without the EUT installed.

TEST SETUP

The EUT is installed in a Mini PCI Test Board that is connected to a control computer during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**Cal Due**
Antenna, Bilog 30 MHz ~ 2 Ghz	Sunol Sciences	JB1	A0022704	9/28/2008
Antenna, Microwave Horn	ARA	AT4002A	322899	12/10/2008
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	6717	4/15/2008
Antenna, Horn 18 ~ 26 GHz	ARA	SWH-28	1007	9/26/2008
Antenna, Horn 26 ~ 40 GHz	ARA	MWH-2640/B	1029	4/11/2008
Preamplifier, 1300 MHz	Agilent / HP	8447D	1937A02062	5/9/2008
Preamplifier, 1 ~ 2 GHz	Miteq	AFS3-01000200	1199462	8/14/2008
Preamplifier, 1 ~ 26.5 GHz	Agilent / HP	8449B	3008A00931	8/14/2008
Preamplifier, 26 ~ 40 GHz	Miteq	NSP4000-SP2	924343	8/14/2008
Spectrum Analyzer 3 Hz ~ 44 GHz	Agilent / HP	E4446A	US42510266	10/26/2008
Spectrum Analyzer, 40 GHz	Agilent / HP	8564E	C00951	12/5/2008
LISN, 10 kHz ~ 30 MHz	FCC	LISN-50/250-25-2	2023	9/15/2008
LISN, 10 kHz ~ 30 MHz	Solar	8012-50-R-24-BNC	8379443	9/15/2008
EMI Test Receiver	R & S	ESHS 20	827129/006	6/8/2009

7. LIMITS AND RESULTS

7.1. RADIATED TEST RESULTS

7.1.1. UWB BANDWIDTH, CENTER FREQUENCY, AND FRACTIONAL BW

DEFINITIONS AND LIMITS

§15.503 Definitions.
(a) UWB Bandwidth. For the purpose of this subpart, the UWB bandwidth is the frequency band bounded by the points that are 10 dB below the highest radiated emission, as based on the complete transmission system including the antenna. The upper boundary is designated f_H and the lower boundary is designated f_L. The frequency at which the highest radiated emission occurs is designated f_M.
(b) Center frequency. The center frequency, f_C, equals $(f_H + f_L)/2$.
(c) Fractional bandwidth. The fractional bandwidth equals $2(f_H - f_L)/ (f_H + f_L)$.
(d) Ultra-wideband (UWB) transmitter. An intentional radiator that, at any point in time, has a fractional bandwidth equal to or greater than 0.20 or has a UWB bandwidth equal to or greater than 500 MHz, regardless of the fractional bandwidth.

§15.519 (b) The UWB bandwidth of a device operating under the provisions of this section must be contained between 3100 MHz and 10,600 MHz.

TEST PROCEDURE

Radiated measurements are made using the procedures described above. The detection mode is set to peak detection, the sweep time is AUTO, and the Max Hold trace function is utilized. The frequency range from 3.1 to 10.6 GHz is measured, and corrected from raw values to Peak EIRP.

The frequency at which the maximum EIRP is measured is designated as f_M. A major graticule line of the plot is adjusted to exactly equal the peak EIRP at f_M. The spectral envelope at the major graticule line that is 10 dB below the reference graticule is examined to determine the frequency band bounded by the points that are 10 dB below the highest radiated emission. The upper boundary is designated f_H and the lower boundary is designated f_L.

The center frequency, f_C, is calculated as $(f_H + f_L)/2$.

The antenna polarization that yields the highest EIRP at f_M is used to calculate the above parameters.

Calculations are made independently for each of the three channels.

LOW CHANNEL RESULTS (VERTICAL POLARIZATION)

f Max (GHz)	Reference EIRP at f Max (dBm)	10 dB down from Reference EIRP (dBm)
3.179	-28.3	-38.3

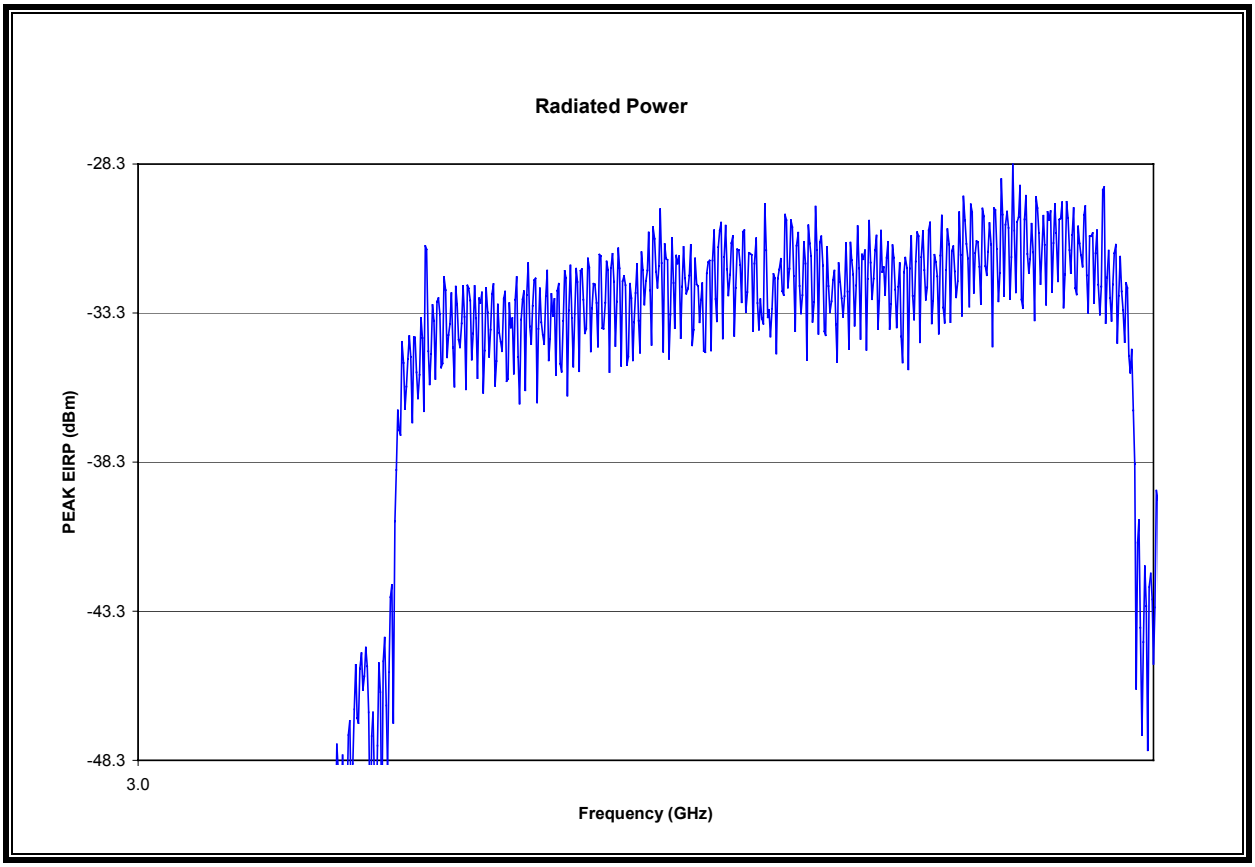
f Low (GHz)	Minimum f Low (GHz)
3.179	3.1

f High (GHz)	Maximum f High (GHz)
3.687	10.6

f Center (GHz)
3.433

UWB BW (MHz)	Minimum UWB BW (MHz)
508	500

PLOT WITH REFERENCE GRATICULE ADJUSTED FOR LOW CHANNEL F MAX



MID CHANNEL RESULTS (VERTICAL POLARIZATION)

f Max (GHz)	Reference EIRP at f Max (dBm)	10 dB down from Reference EIRP (dBm)
4.216	-29.9	-39.9

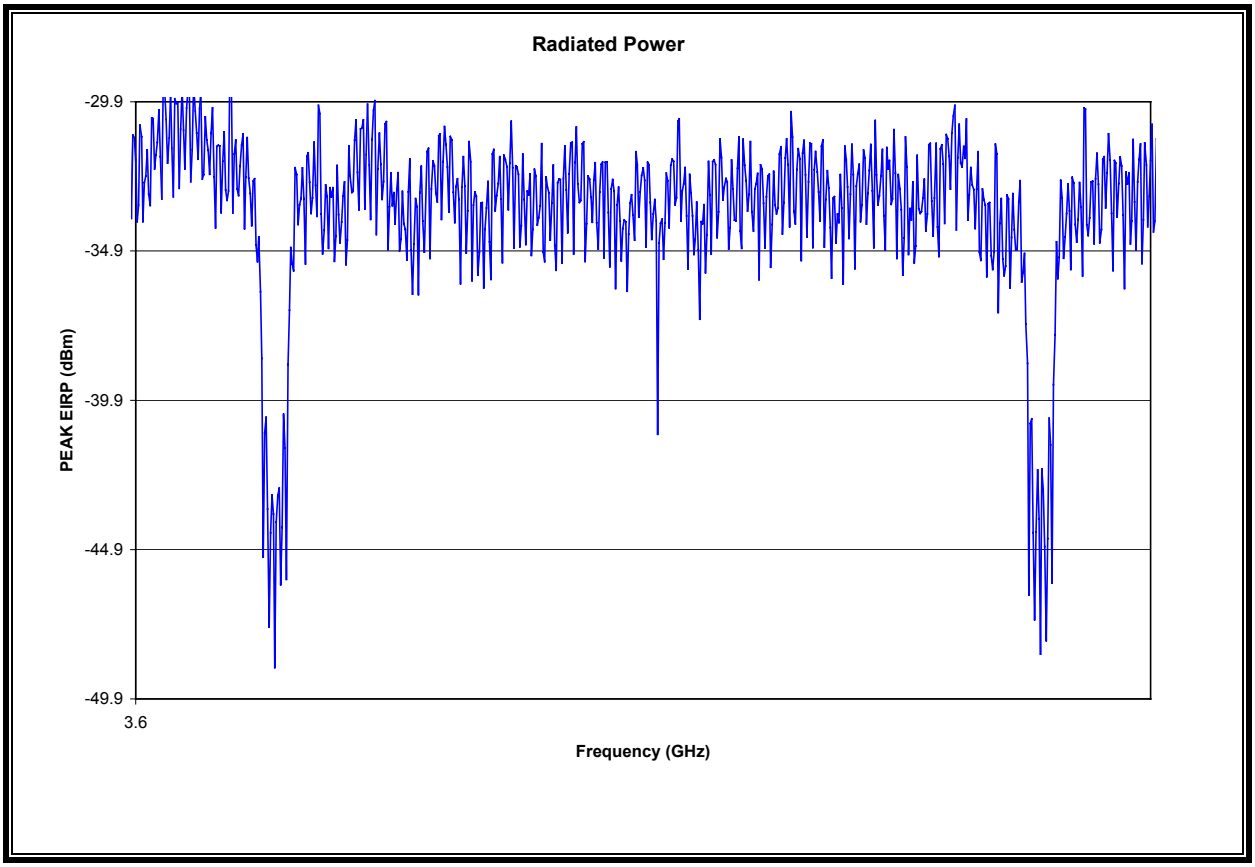
f Low (GHz)	Minimum f Low (GHz)
3.705	3.1

f High (GHz)	Maximum f High (GHz)
4.215	10.6

f Center (GHz)
3.960

UWB BW (MHz)	Minimum UWB BW (MHz)
510	500

PLOT WITH REFERENCE GRATICULE ADJUSTED FOR MID CHANNEL F MAX



HIGH CHANNEL RESULTS (VERTICAL POLARIZATION)

f Max (GHz)	Reference EIRP at f Max (dBm)	10 dB down from Reference EIRP (dBm)
4.238	-28.6	-38.6

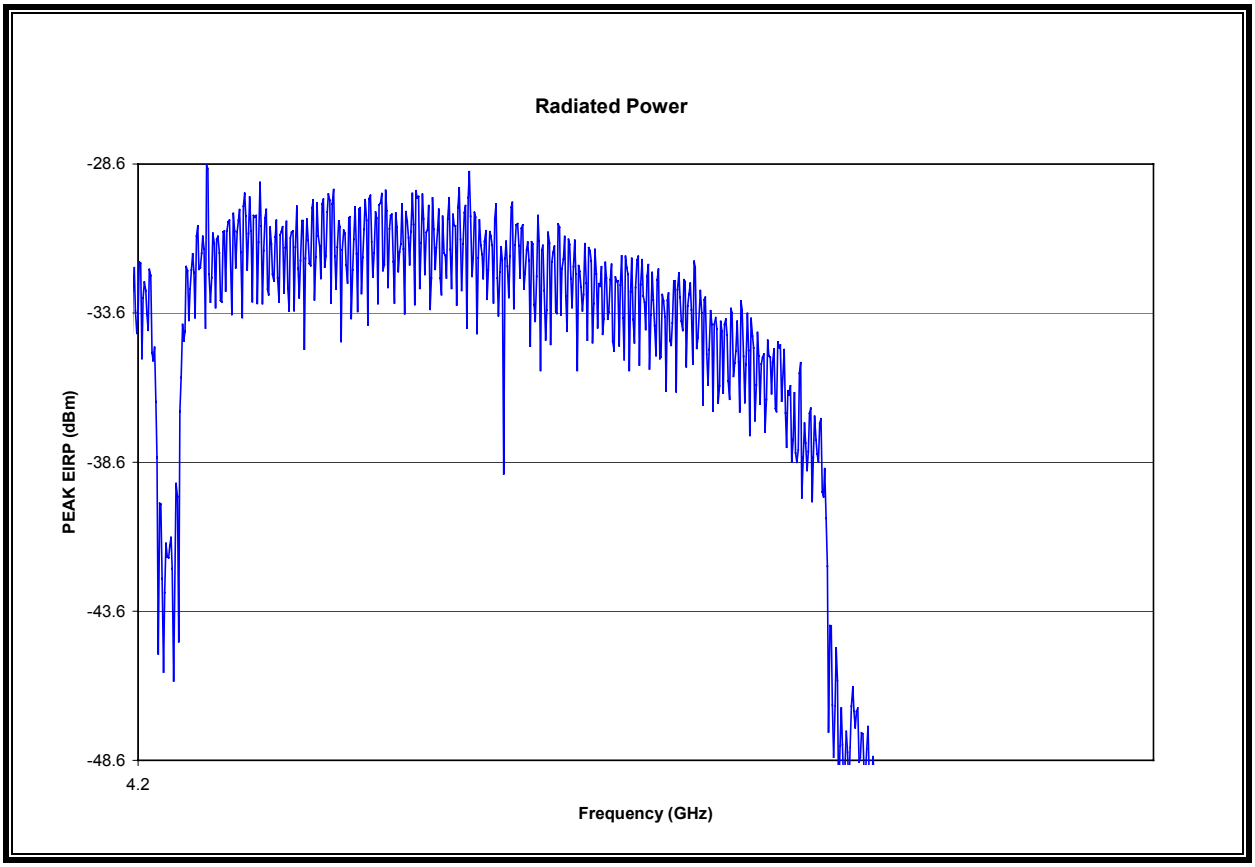
f Low (GHz)	Minimum f Low (GHz)
4.233	3.1

f High (GHz)	Maximum f High (GHz)
4.739	10.6

f Center (GHz)
4.486

UWB BW (MHz)	Minimum UWB BW (MHz)
506	500

PLOT WITH REFERENCE GRATICULE ADJUSTED FOR HIGH CHANNEL F MAX



7.1.2. PEAK POWER

LIMIT

§15.519 (e) There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, f_M. That limit is 0 dBm EIRP. It is acceptable to employ a different resolution bandwidth, and a correspondingly different peak emission limit, following the procedures described in §15.521.

§15.521 (g) When a peak measurement is required, it is acceptable to use a resolution bandwidth other than the 50 MHz specified in this subpart. This resolution bandwidth shall not be lower than 1 MHz or greater than 50 MHz, and the measurement shall be centered on the frequency at which the highest radiated emission occurs, f_M. If a resolution bandwidth other than 50 MHz is employed, the peak EIRP limit shall be 20 log (RBW/50) dBm where RBW is the resolution bandwidth in megahertz that is employed. This may be converted to a peak field strength level at 3 meters using E(dBuV/m) = P(dBm EIRP) + 95.2. If RBW is greater than 3 MHz, the application for certification filed with the Commission must contain a detailed description of the test procedure, calibration of the test setup, and the instrumentation employed in the testing.

§15.521 (e) The frequency at which the highest radiated emission occurs, f_M, must be contained within the UWB bandwidth.

TEST PROCEDURE

Radiated measurements are made using the procedures described above.

The spectrum analyzer center frequency is set to f_M. The frequency span is set to 50 MHz. The RBW and VBW are both set to 8 MHz. The detector function is set to peak.

The test procedure and the calibration of the test setup are both identical to that for which a 1 or 3 MHz RBW is specified. The instrumentation is an Agilent PSA series spectrum analyzer, model E4446A, which includes a standard RBW of 8 MHz.

RESULTS

RBW =	8	Limit =	-15.92	Distance =	3.0

Low Channel

f Max (GHz)	Reading (dBuV)	Antenna Factor (dB/m)	Cable (dB)	Preamp (dB)	Distance Factor (dB)
3.603	74.43	30.56	7.51	-36.90	0.00

Field Strength at 3 meters (dBuV/m)	EIRP Conversion Factor	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)
75.60	-95.20	-19.60	-15.92	-3.68

Mid Channel

f Max (GHz)	Reading (dBuV)	Antenna Factor (dB/m)	Cable (dB)	Preamp (dB)	Distance Factor (dB)
3.726	72.3	30.88	7.68	-36.81	0.00

Field Strength at 3 meters (dBuV/m)	EIRP Conversion Factor	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)
74.05	-95.20	-21.15	-15.92	-5.23

High Channel

f Max (GHz)	Reading (dBuV)	Antenna Factor (dB/m)	Cable (dB)	Preamp (dB)	Distance Factor (dB)
4.254	71.2	31.80	8.30	-36.60	0.00

Field Strength at 3 meters (dBuV/m)	EIRP Conversion Factor	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)
74.70	-95.20	-20.50	-15.92	-4.58

7.1.3. RADIATED EMISSIONS ABOVE 960 MHz

LIMITS

§15.519 (c) The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

Frequency in MHz	EIRP in dBm
960–1610	- 75.3
1610–1990	- 63.3
1990–3100	- 61.3
3100–10600	- 41.3
Above 10600	- 61.3

§15.519 (d) In addition to the radiated emission limits specified in the table in paragraph (c) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

Frequency in MHz	EIRP in dBm
1164–1240	- 85.3
1559–1610	- 85.3

§15.521 (d) Within the tables in §§15.509, 15.511, 15.513, 15.515, 15.517, and 15.519, the tighter emission limit applies at the band edges. Radiated emission levels above 960 MHz are based on RMS average measurements over a 1 MHz resolution bandwidth. The RMS average measurement is based on the use of a spectrum analyzer with a resolution bandwidth of 1 MHz, an RMS detector, and a 1 millisecond or less averaging time.

§15.521 (e) The frequency at which the highest radiated emission occurs, f_M, must be contained within the UWB bandwidth.

TEST PROCEDURE

Radiated measurements are made using the procedures described above. The number of points on the horizontal axis of the spectrum analyzer is set to (frequency span in MHz + 1) and the sweep time is set to (frequency span in MHz) milliseconds, the RBW is set to 1 MHz and the detector function is set to RMS average.

For the requirements of §15.519 (d), an RBW of 10 kHz is utilized, except that an RBW of 1 kHz is utilized for vertically polarized measurements in the 1.164 to 1.240 GHz frequency range.

RESULTS

The highest radiated emission at f_M is as follows:

Polarization =	Vertical	Distance =	3.0

f Max (GHz)	Reading (dBuV)	Antenna Factor (dB/m)	Cable (dB)	Preamp (dB)	Distance Factor (dB)
4.352	49.0	31.9	7.7	-36.5	0.00

Field Strength at 3 meters (dBuV/m)	EIRP Conversion Factor	EIRP (dBm/MHz)	EIRP Limit (dBm/MHz)	Margin (dB)
52.05	-95.2	-43.1	-41.3	-1.8

1.056 GHz DIGITAL CLOCK OSCILLATOR

The emission at 1.056 GHz is due to a digital clock oscillator. This emission complies with the limits of 15.209.

First, radiated emissions measurements using RMS detection were made with (a) the transmitter's antenna and (b) a 50-ohm load, connected to the transmitter RF output port. Comparing the plots shows that the radiated level of the 1.056 GHz digital clock oscillator is not significantly different under these two conditions.

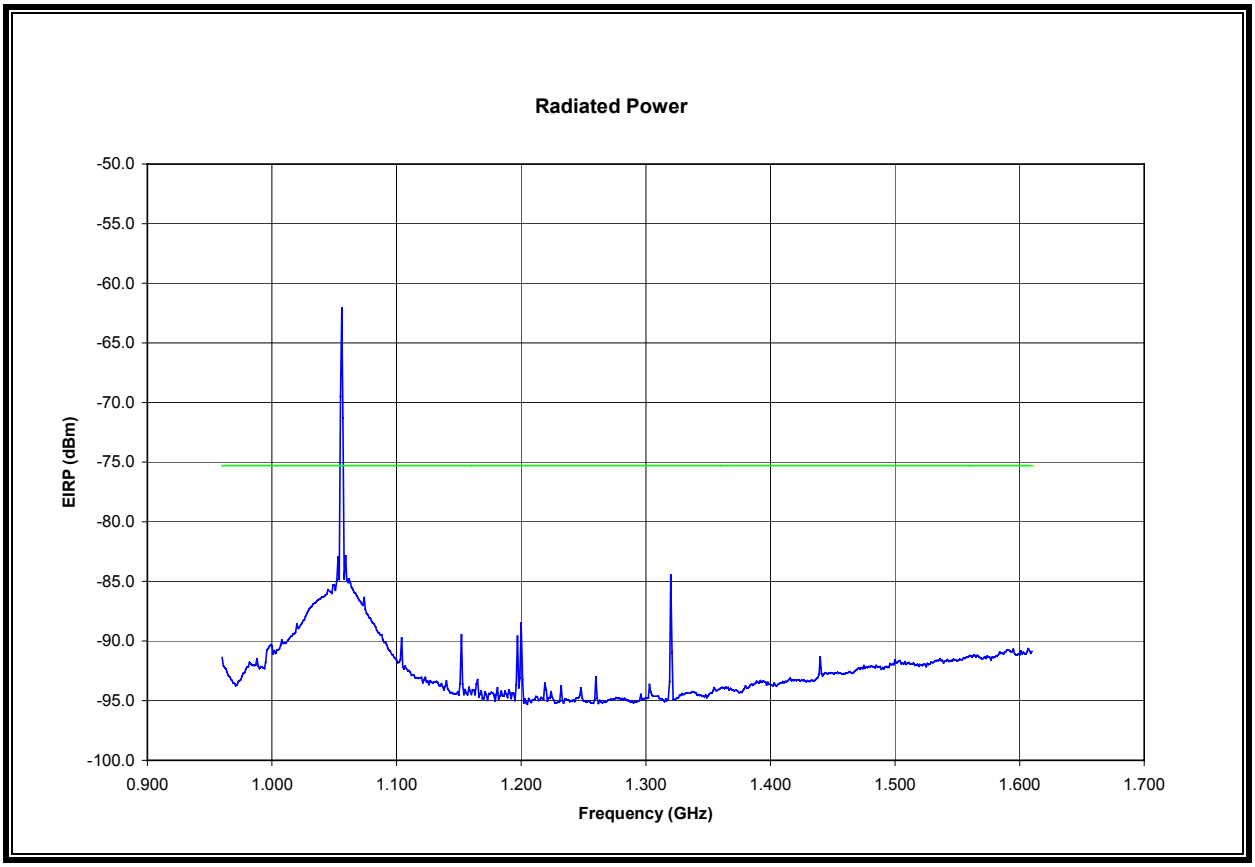
Next, a conducted power measurement was made at the transmitter RF output port.

The results described above demonstrate that this oscillator signal is radiated from the body of the device, and is not intended to be radiated from the transmitter's antenna.

Finally, based on the above determination, radiated field strength emissions measurements using peak detection were made and compared to the average limits specified in 15.209. The emissions due to this digital clock oscillator comply with the applicable 15.209 limits.

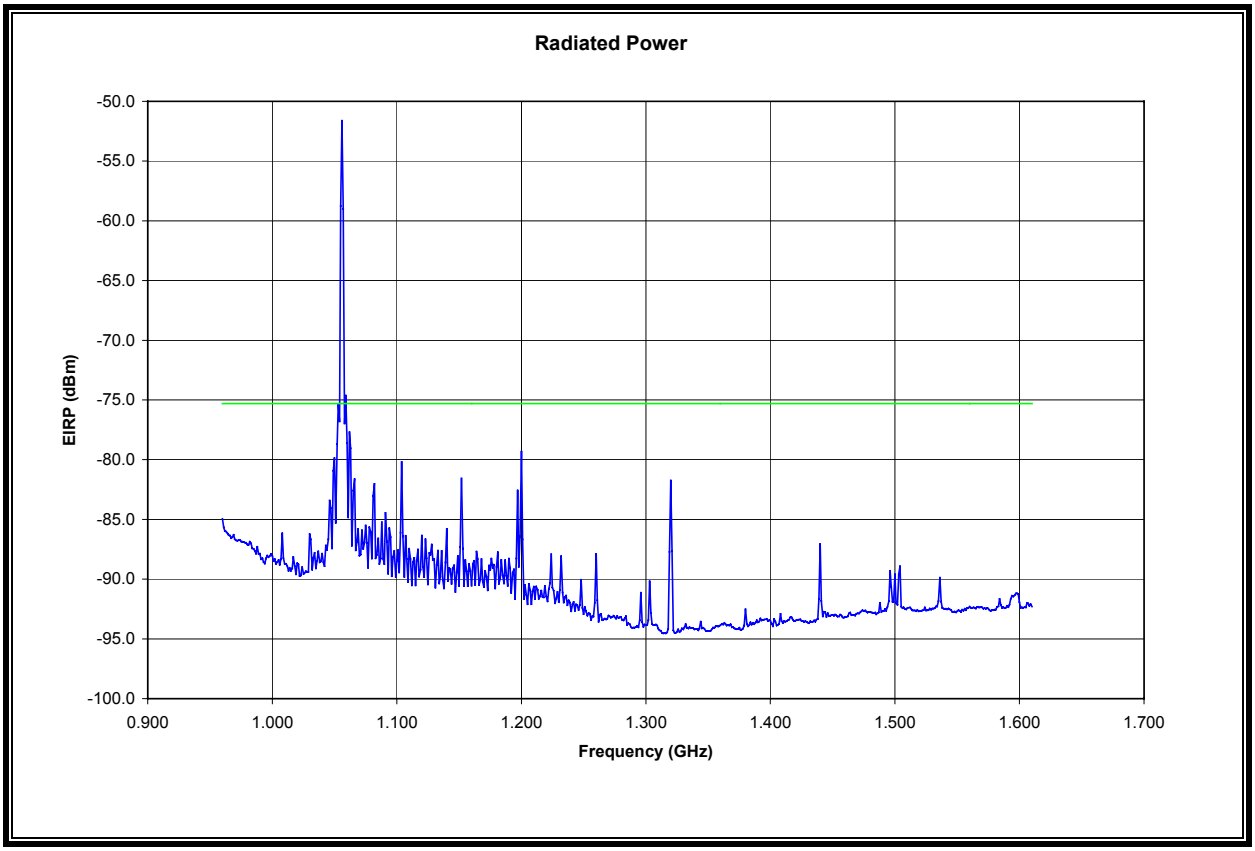
Plots of all the above measurements are presented below.

EIRP 0.960 TO 1.610 GHz, 1 MHz BW, HORIZONTAL



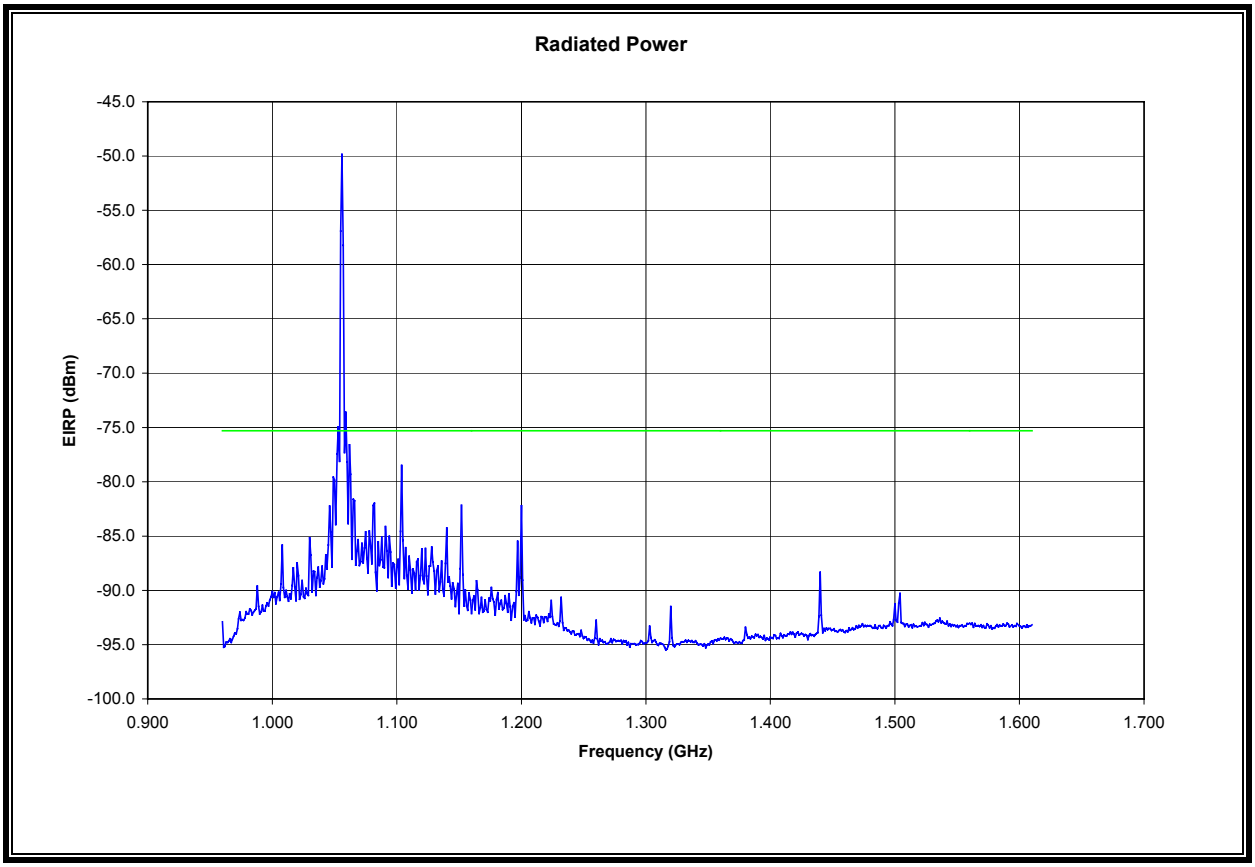
Note: The emission at 1.056 GHz is due to a digital clock oscillator.

EIRP 0.960 TO 1.610 GHz, 1 MHz BW, VERTICAL



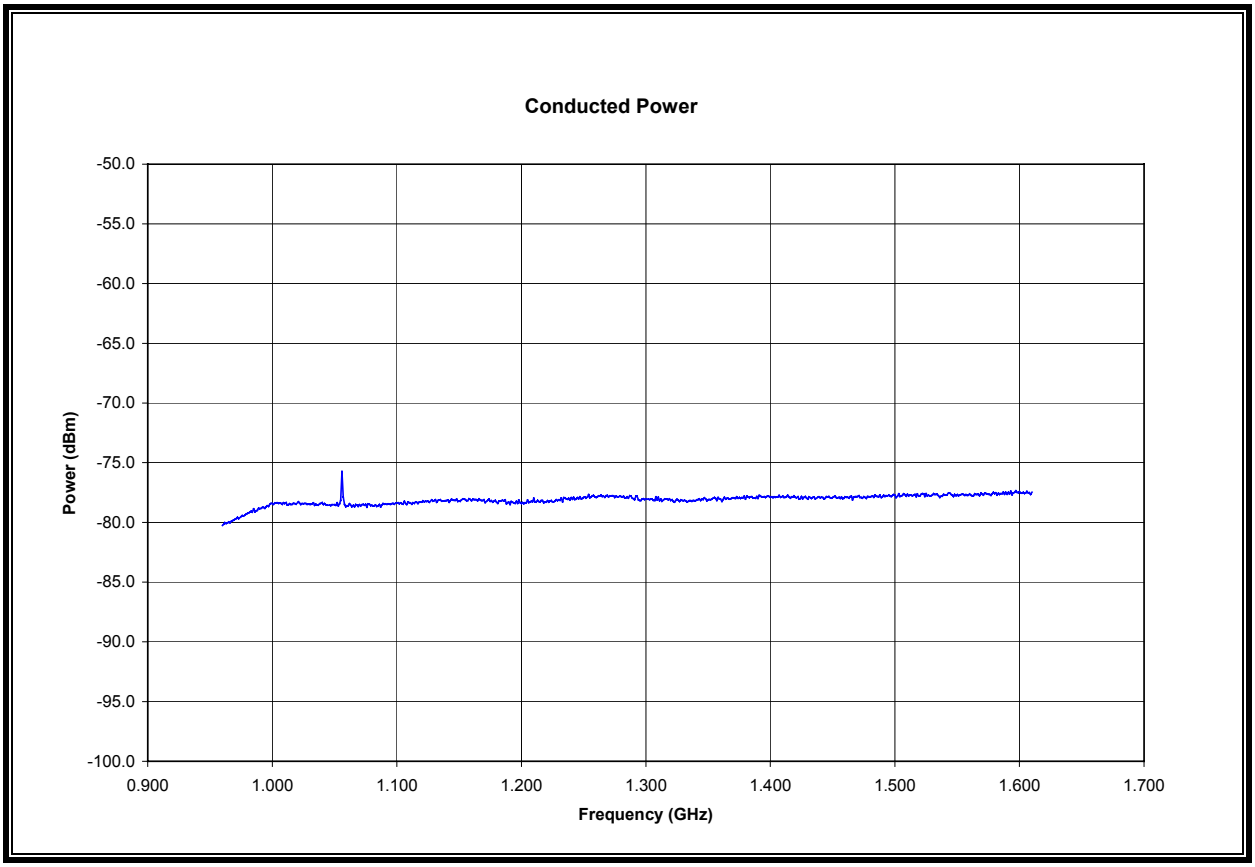
Note: The emission at 1.056 GHz is due to a digital clock oscillator.

EIRP 0.960 TO 1.610 GHz, 1 MHz BW, VERTICAL, WITH 50-OHM TERMINATION

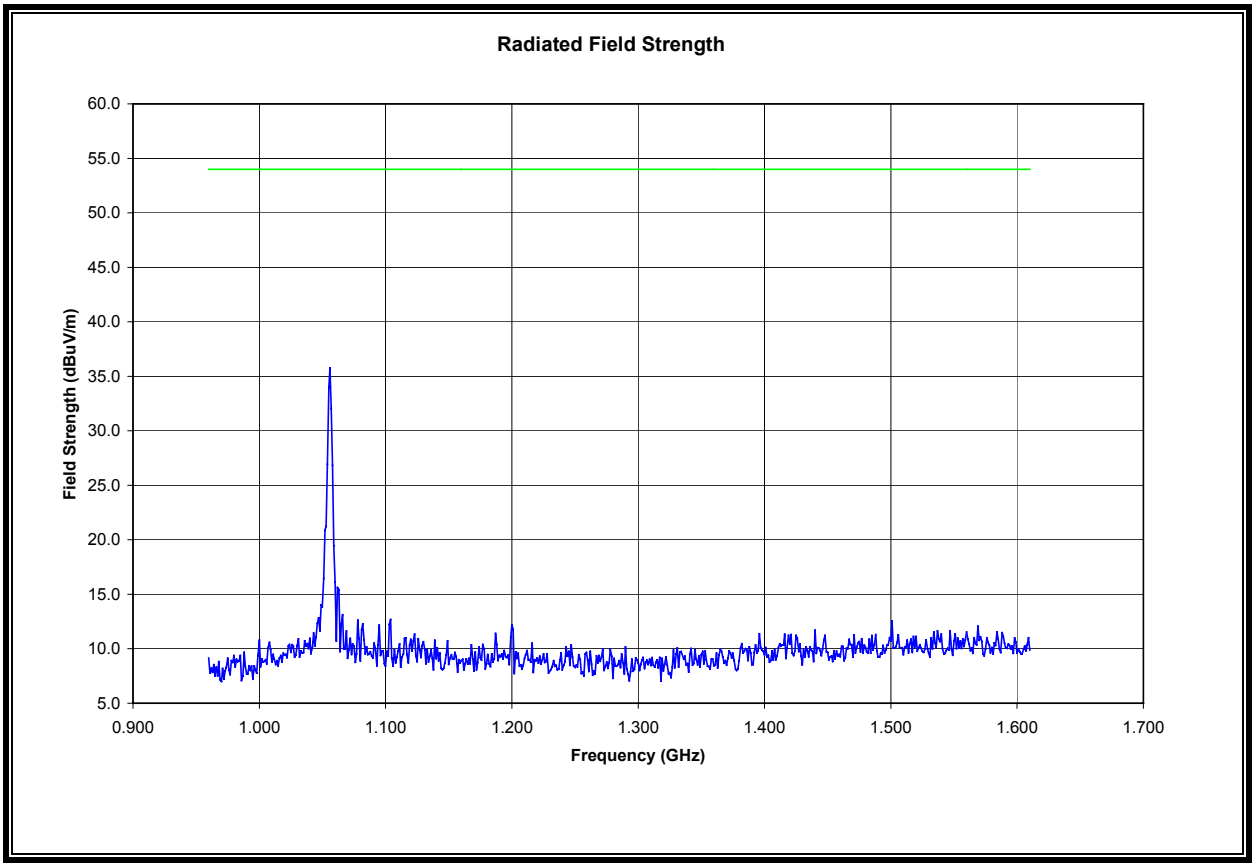


Note: The emission at 1.056 GHz is due to a digital clock oscillator.

ANTENNA PORT CONDUCTED 0.960 TO 1.610 GHz, 1 MHz BW

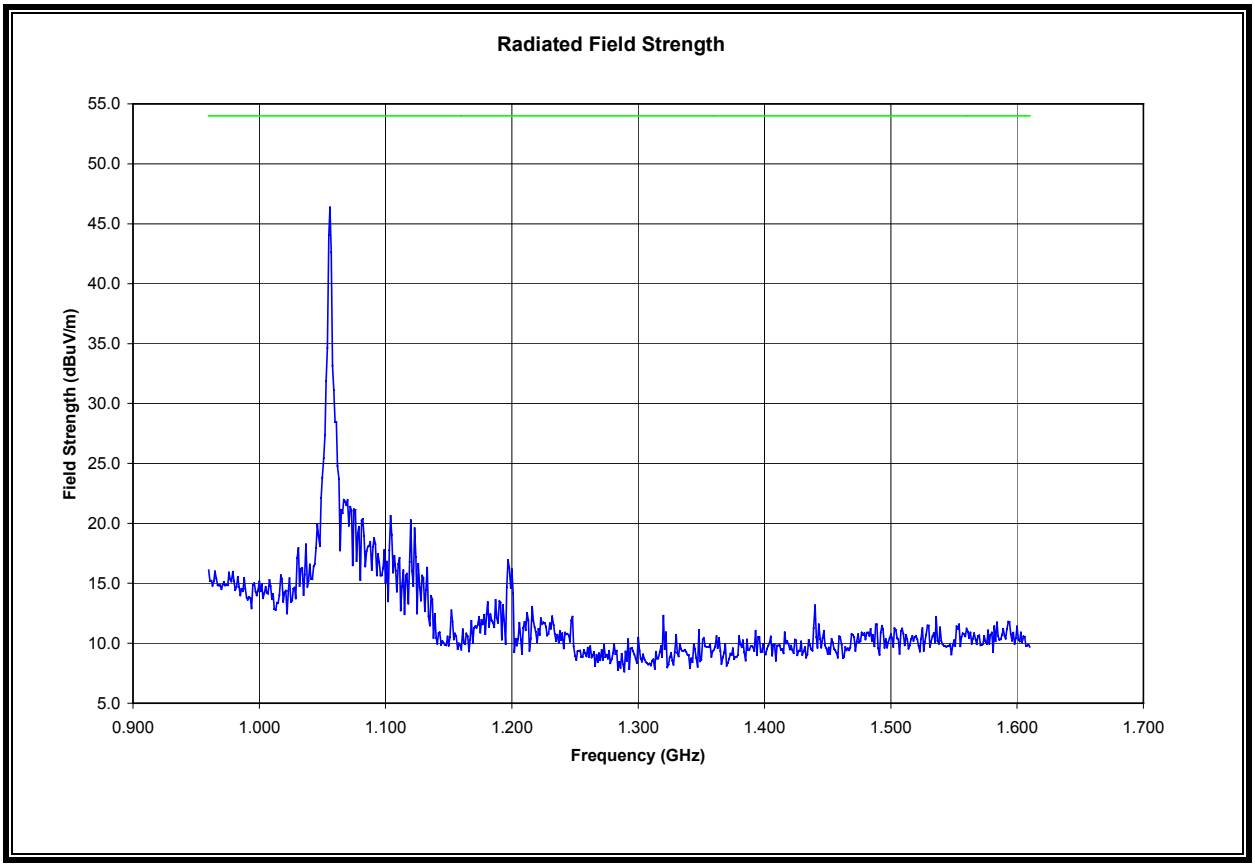


FIELD STRENGTH 0.960 TO 1.610 GHz, 1 MHz BW, PEAK DETECTION HORIZONTAL



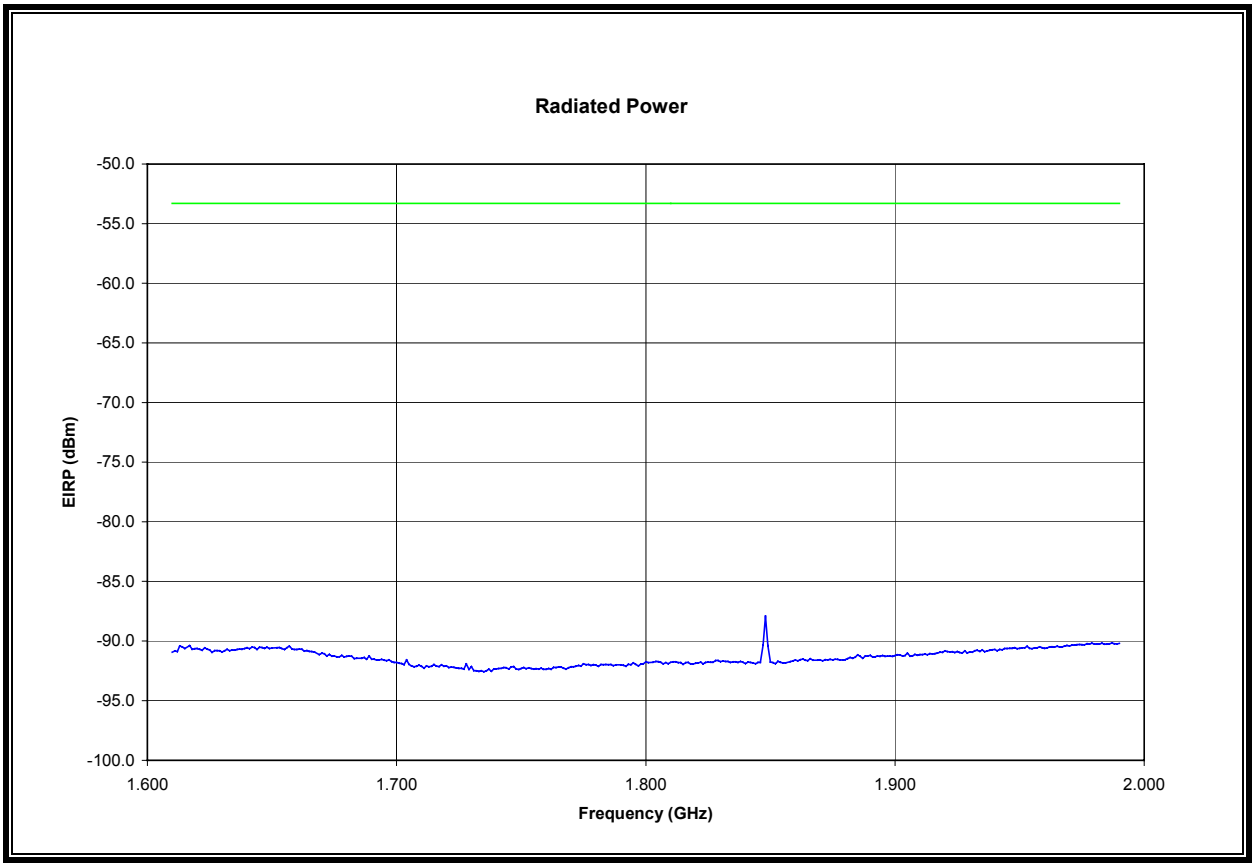
The peak measurement is compared to the average 15.209 field strength limit.

FIELD STRENGTH 0.960 TO 1.610 GHz, 1 MHz BW, PEAK DETECTION VERTICAL

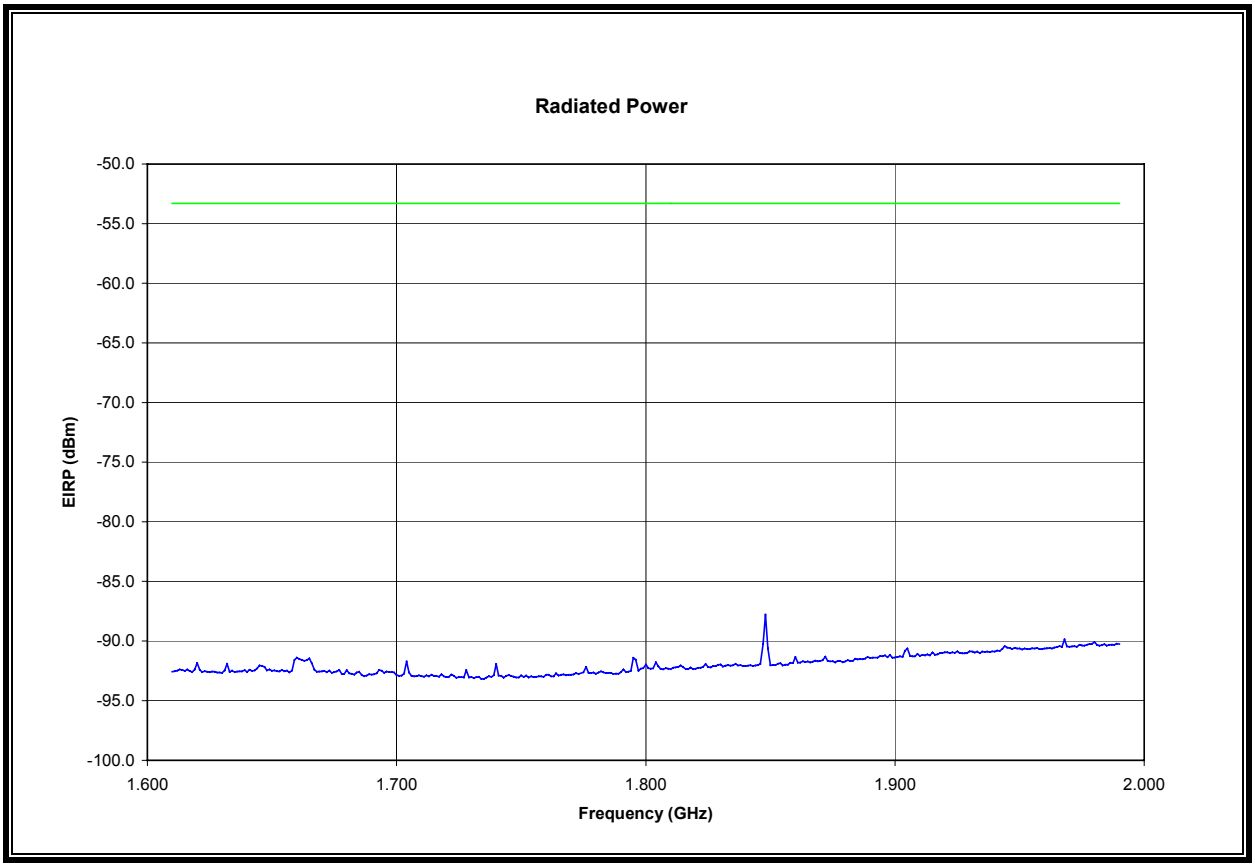


The peak measurement is compared to the average 15.209 field strength limit.

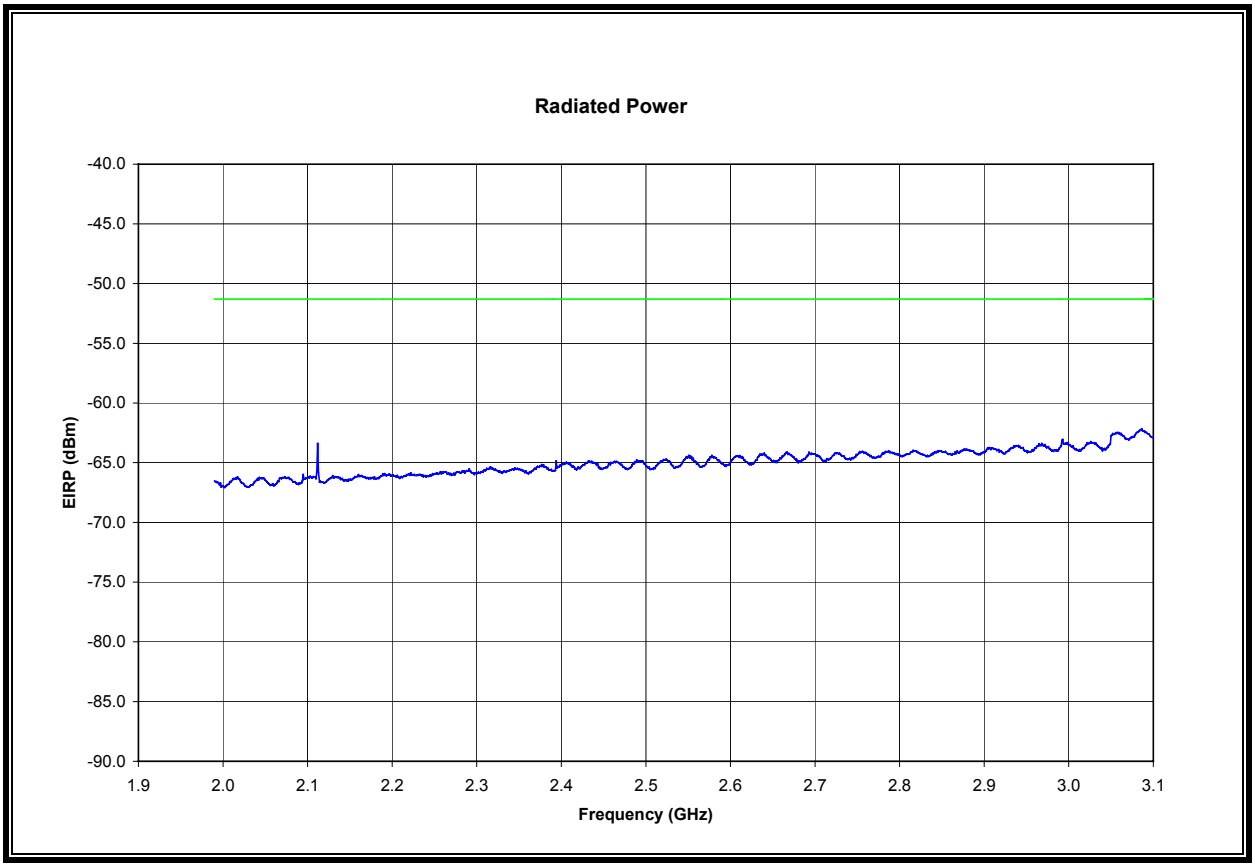
EIRP 1.610 TO 1.990 GHz, 1 MHz BW, HORIZONTAL



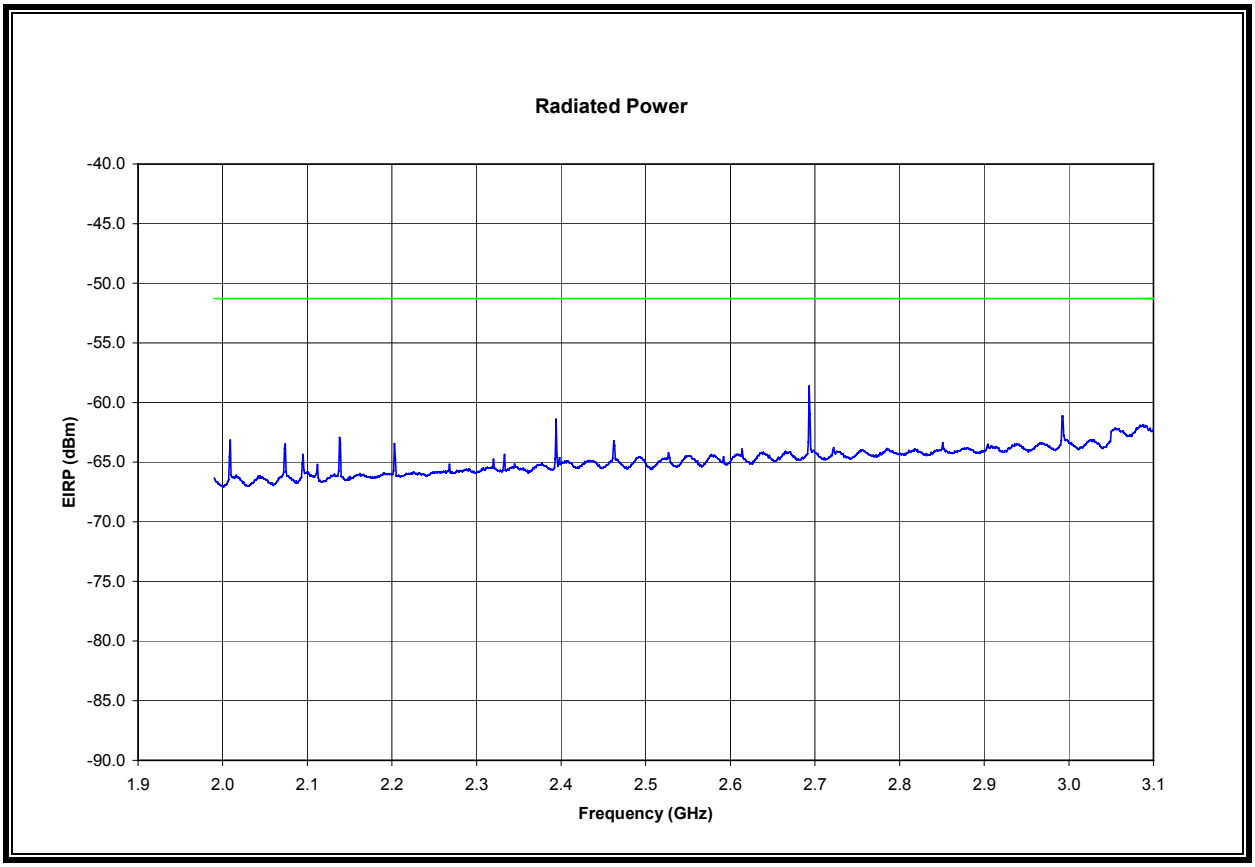
EIRP 1.610 TO 1.990 GHz, 1 MHz BW, VERTICAL



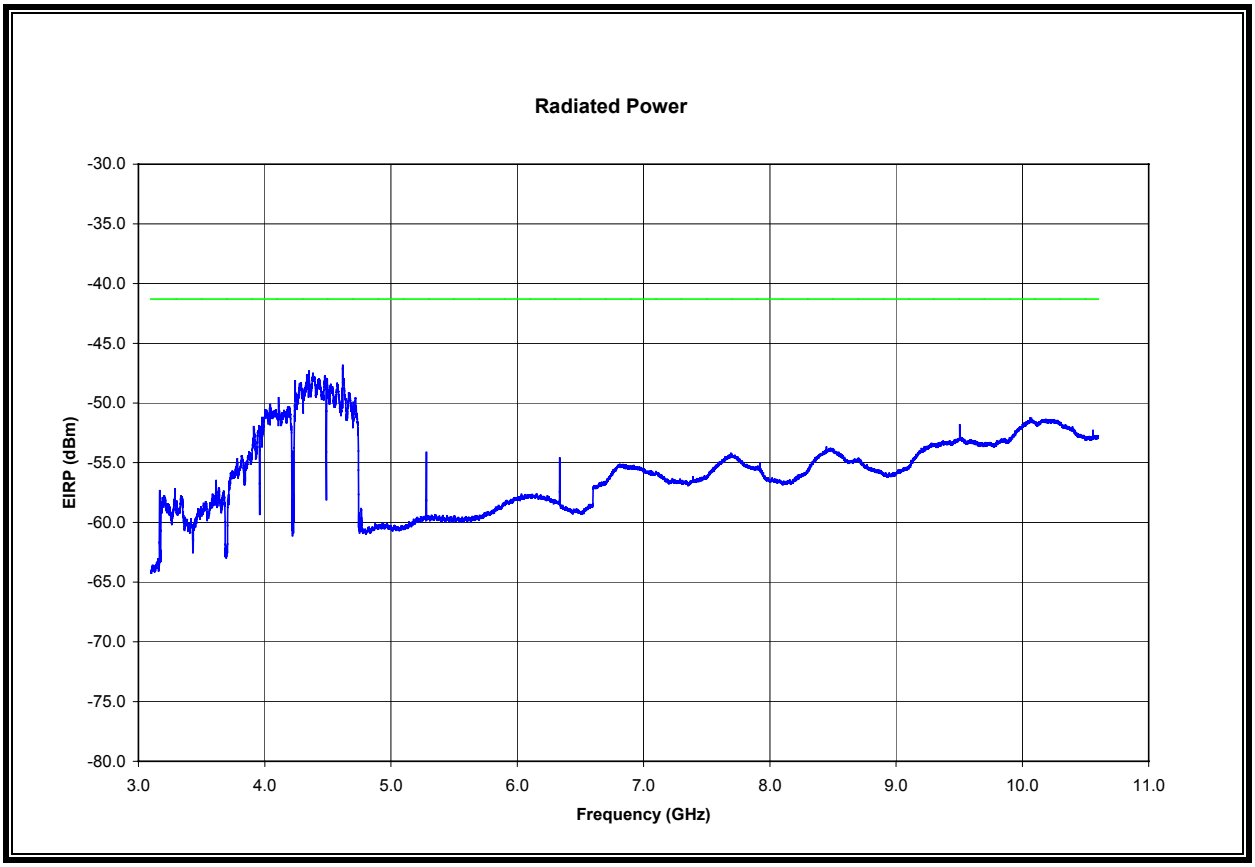
EIRP 1.990 TO 3.100 GHz, 1 MHz BW, HORIZONTAL



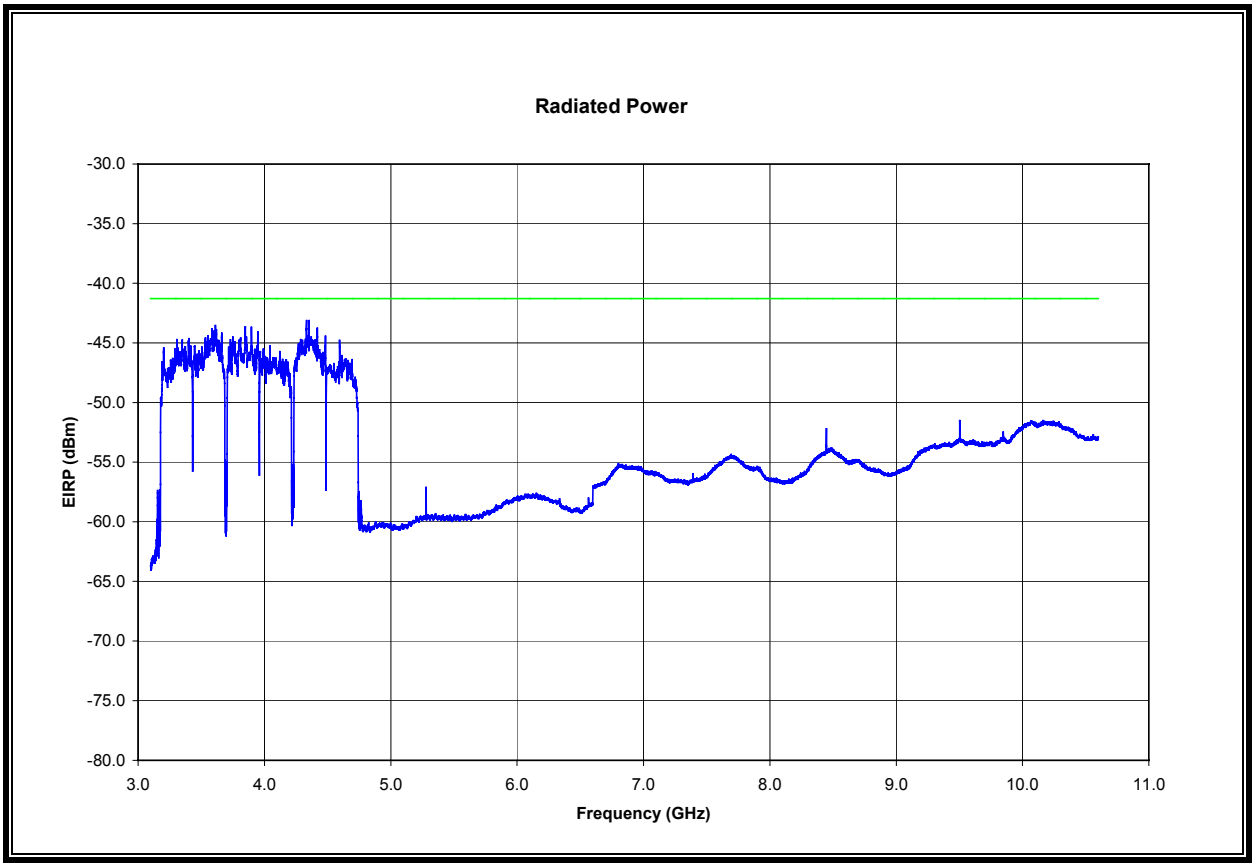
EIRP 1.990 TO 3.100 GHz, 1 MHz BW, VERTICAL



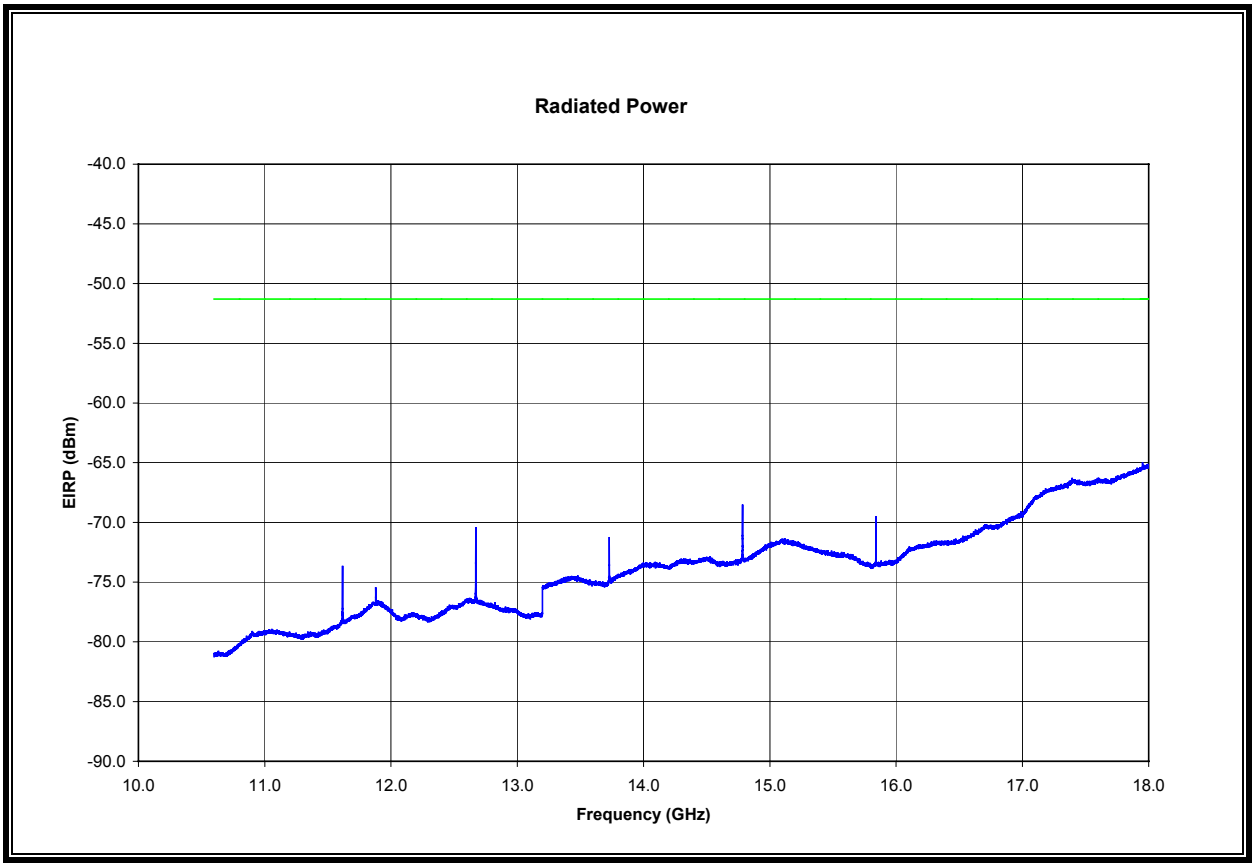
EIRP 3.1 TO 10.6 GHz, 1 MHz BW, HORIZONTAL



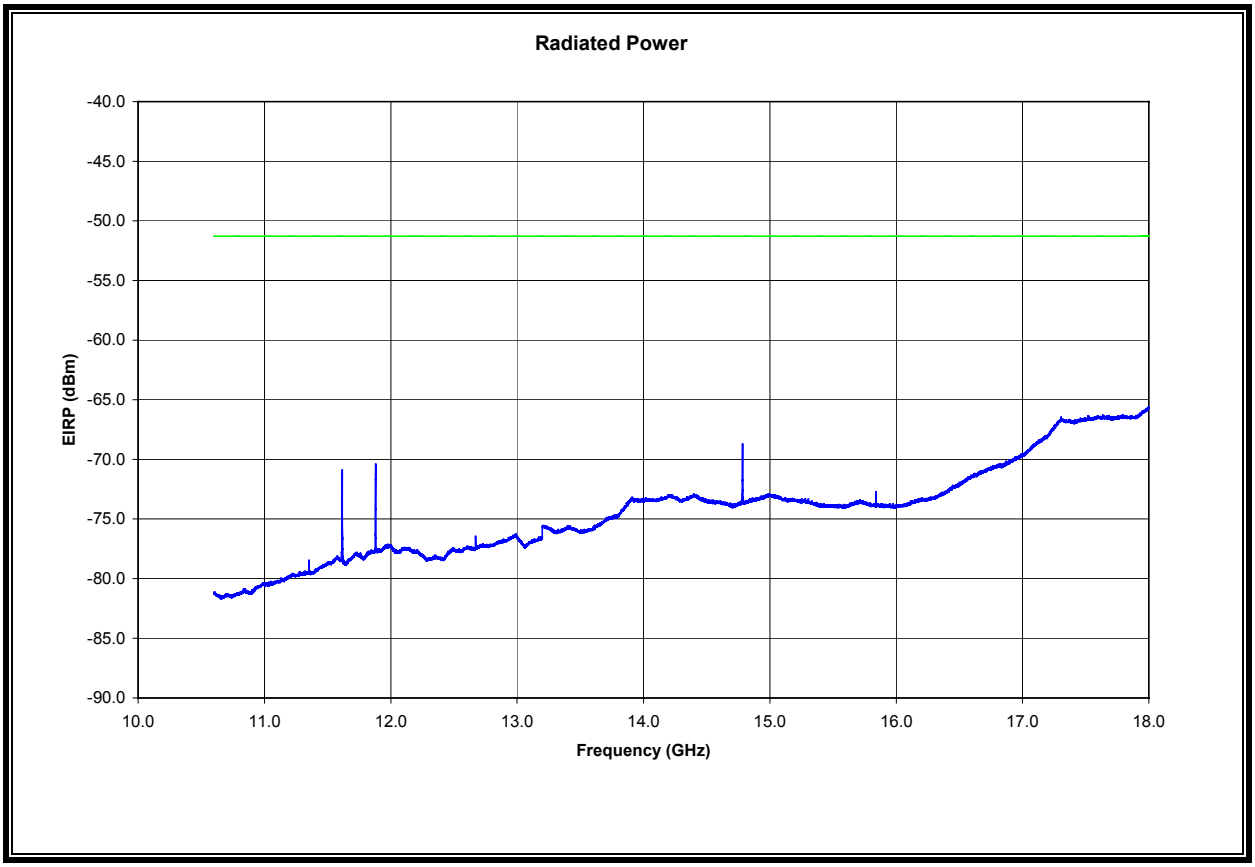
EIRP 3.1 TO 10.6 GHz, 1 MHz BW, VERTICAL



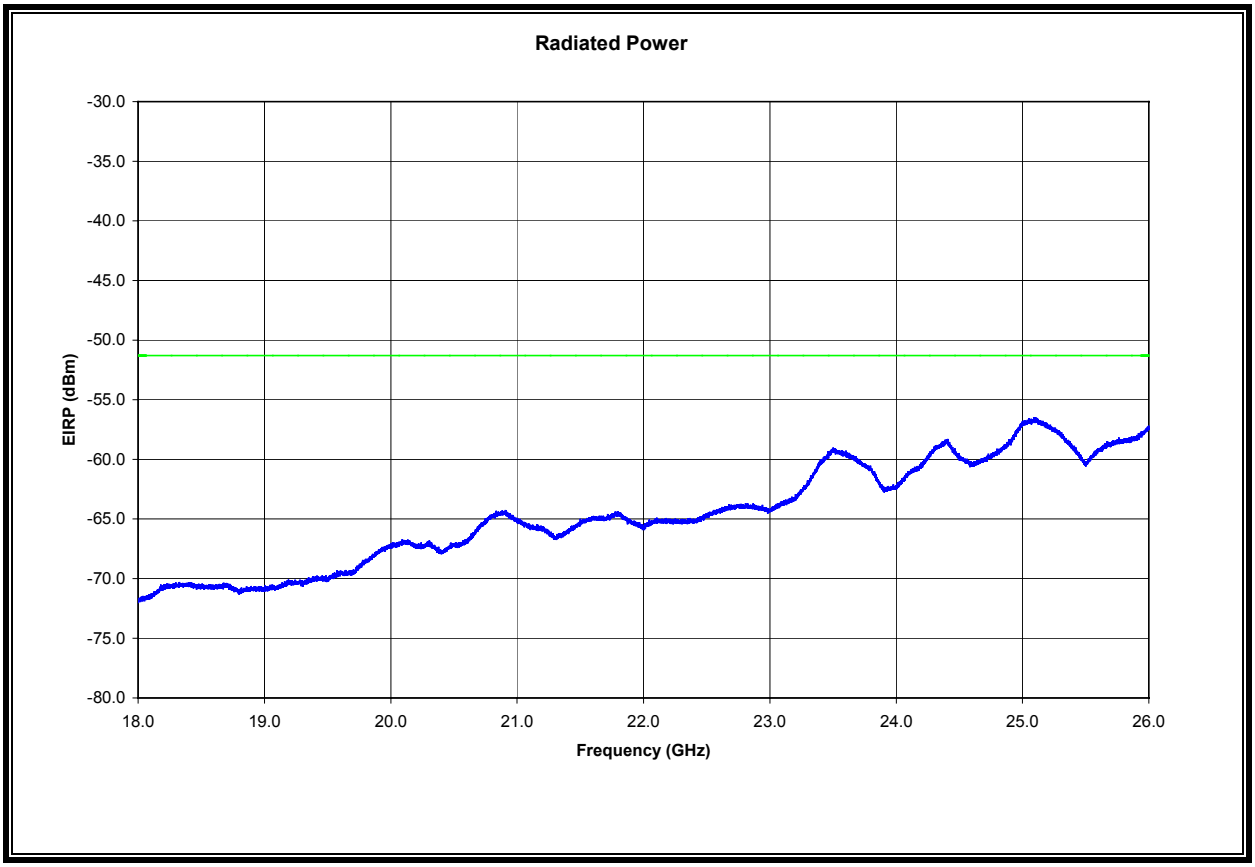
EIRP 10.6 TO 18 GHz, 1 MHz BW, HORIZONTAL



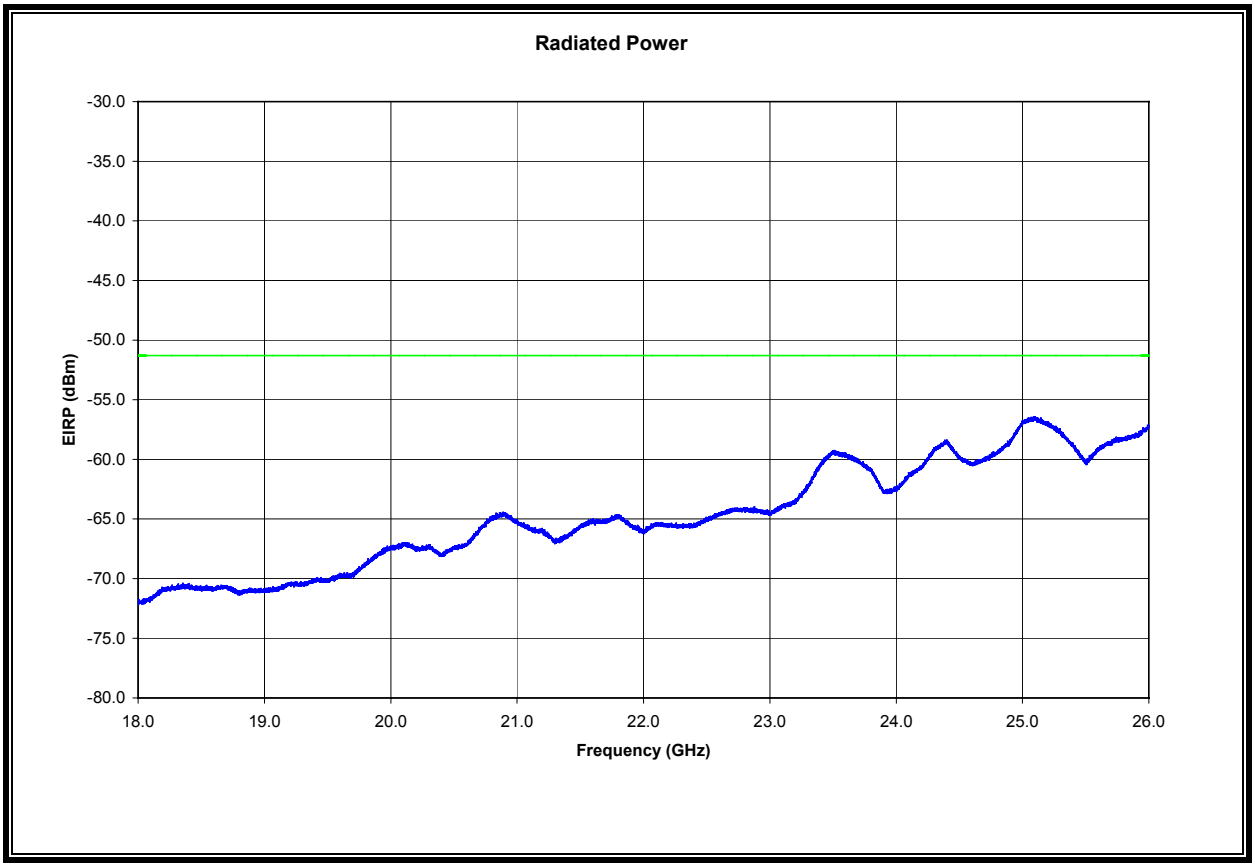
EIRP 10.6 TO 18 GHz, 1 MHz BW, VERTICAL



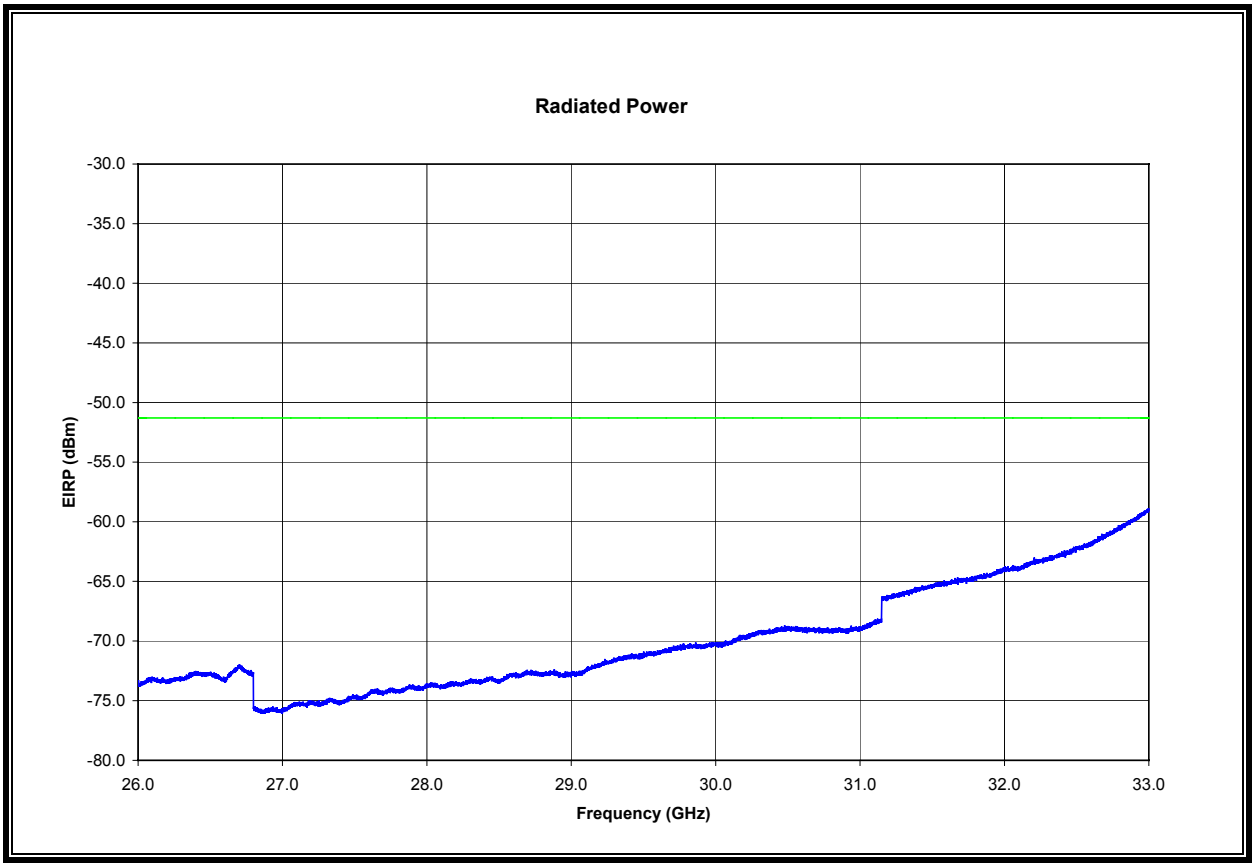
EIRP 18 TO 26 GHz, 1 MHz BW, HORIZONTAL



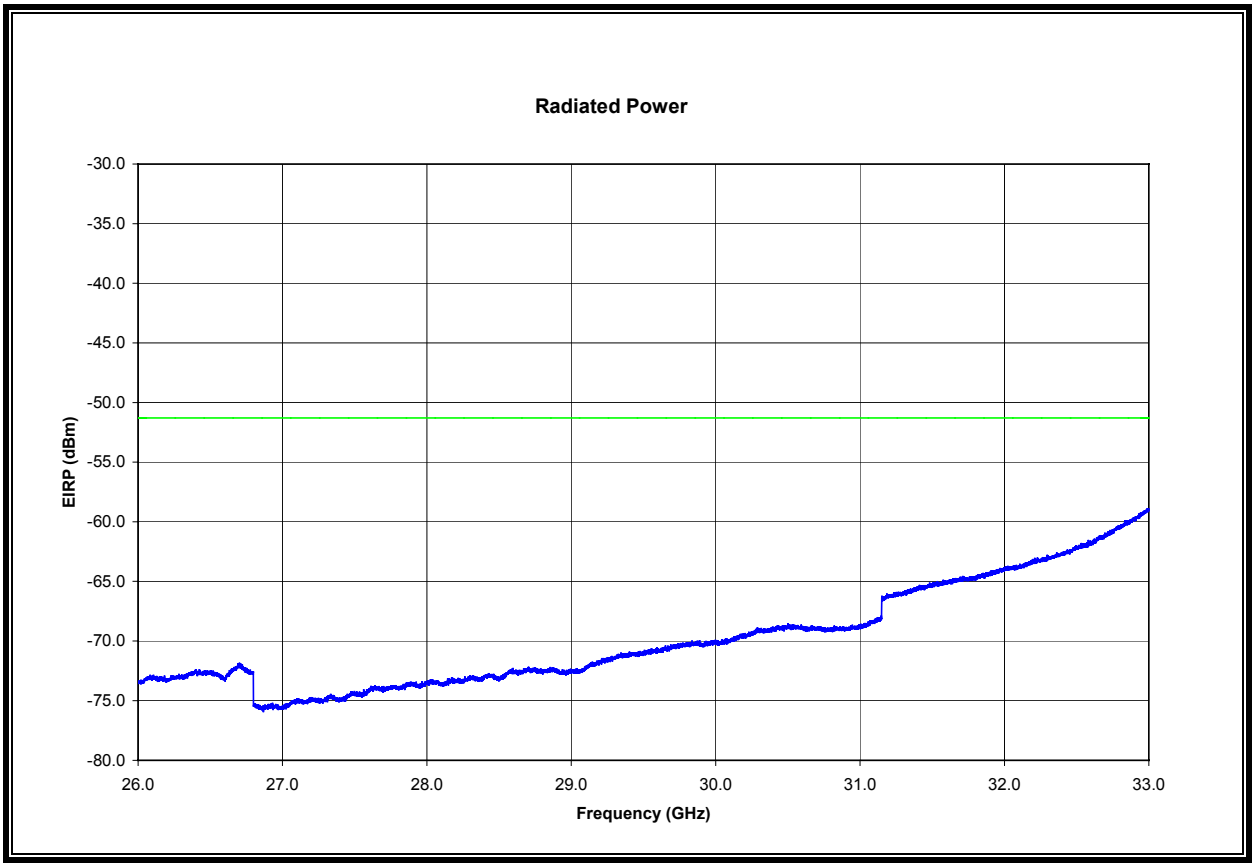
EIRP 18 TO 26 GHz, 1 MHz BW, VERTICAL



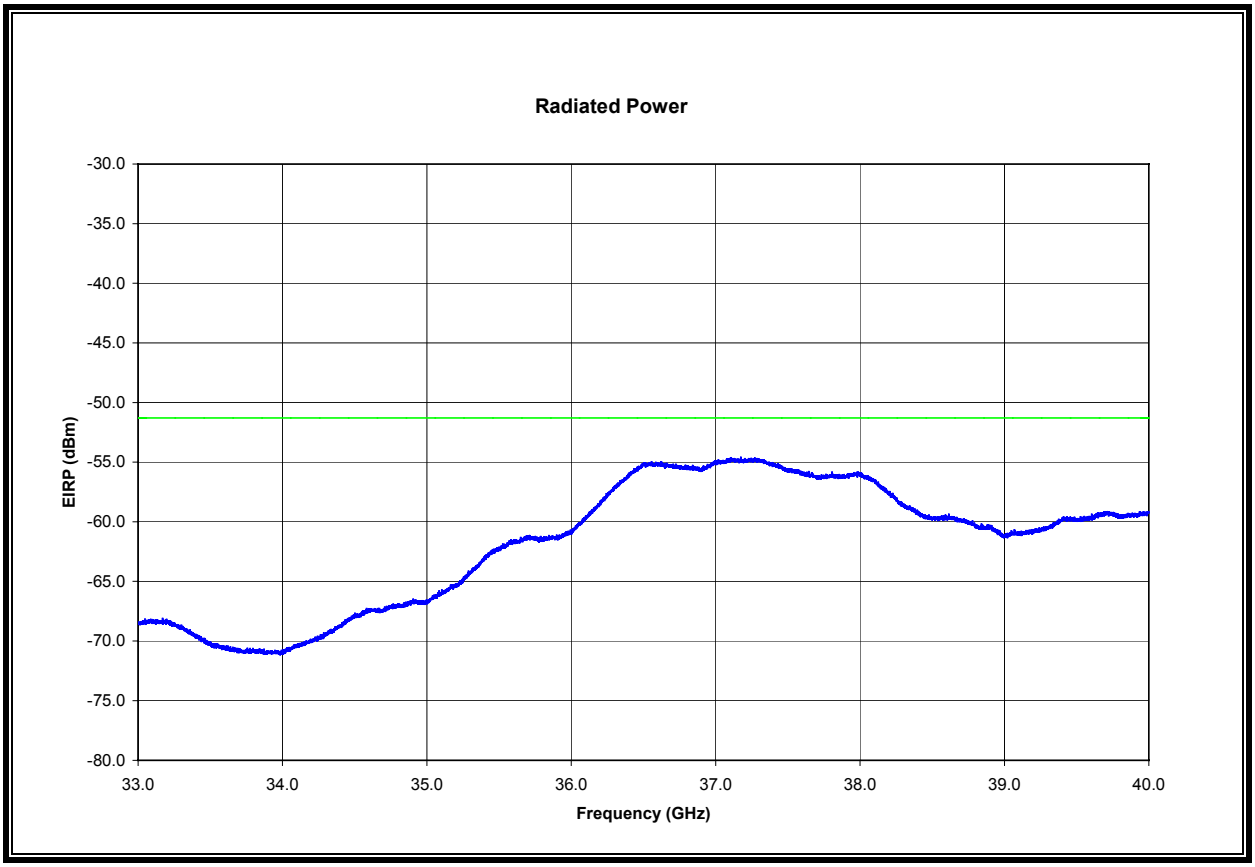
EIRP 26 TO 33 GHz, 1 MHz BW, HORIZONTAL



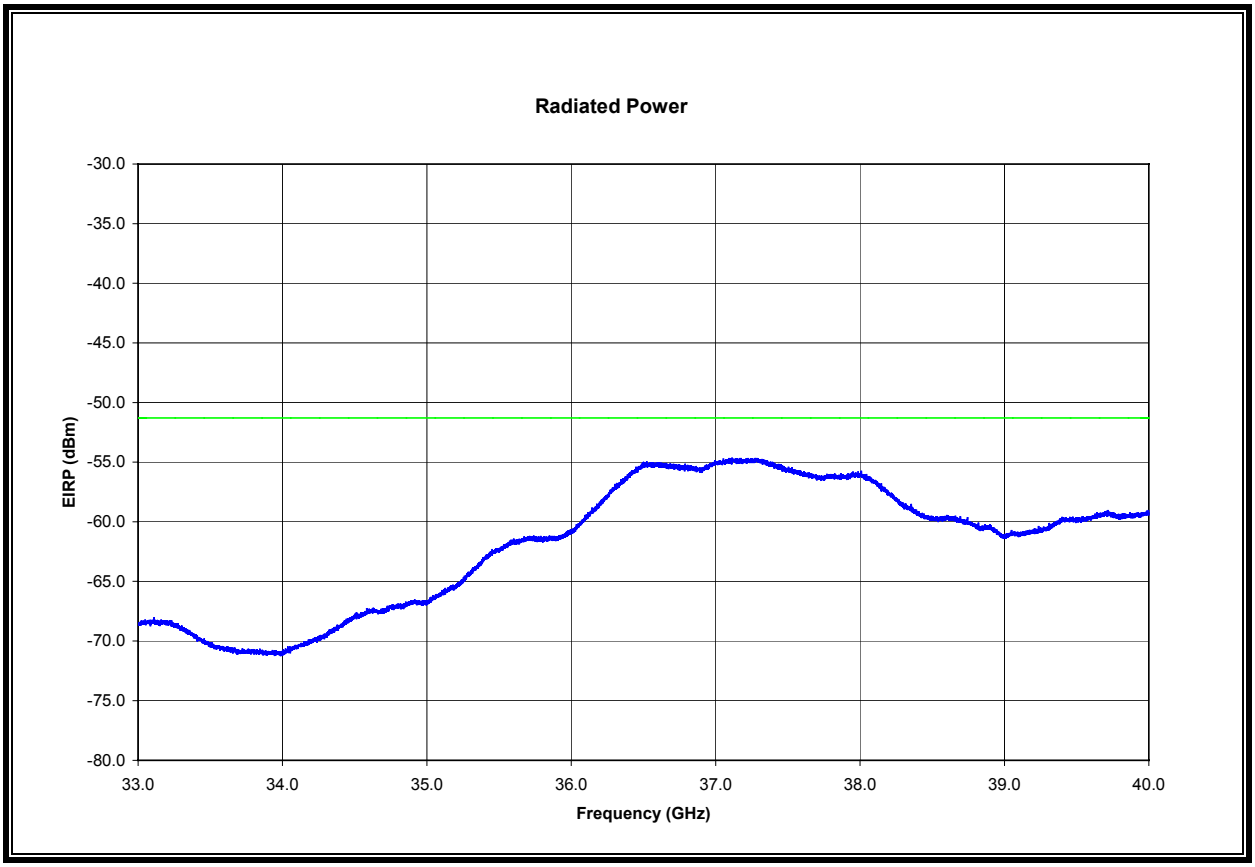
EIRP 26 TO 33 GHz, 1 MHz BW, VERTICAL



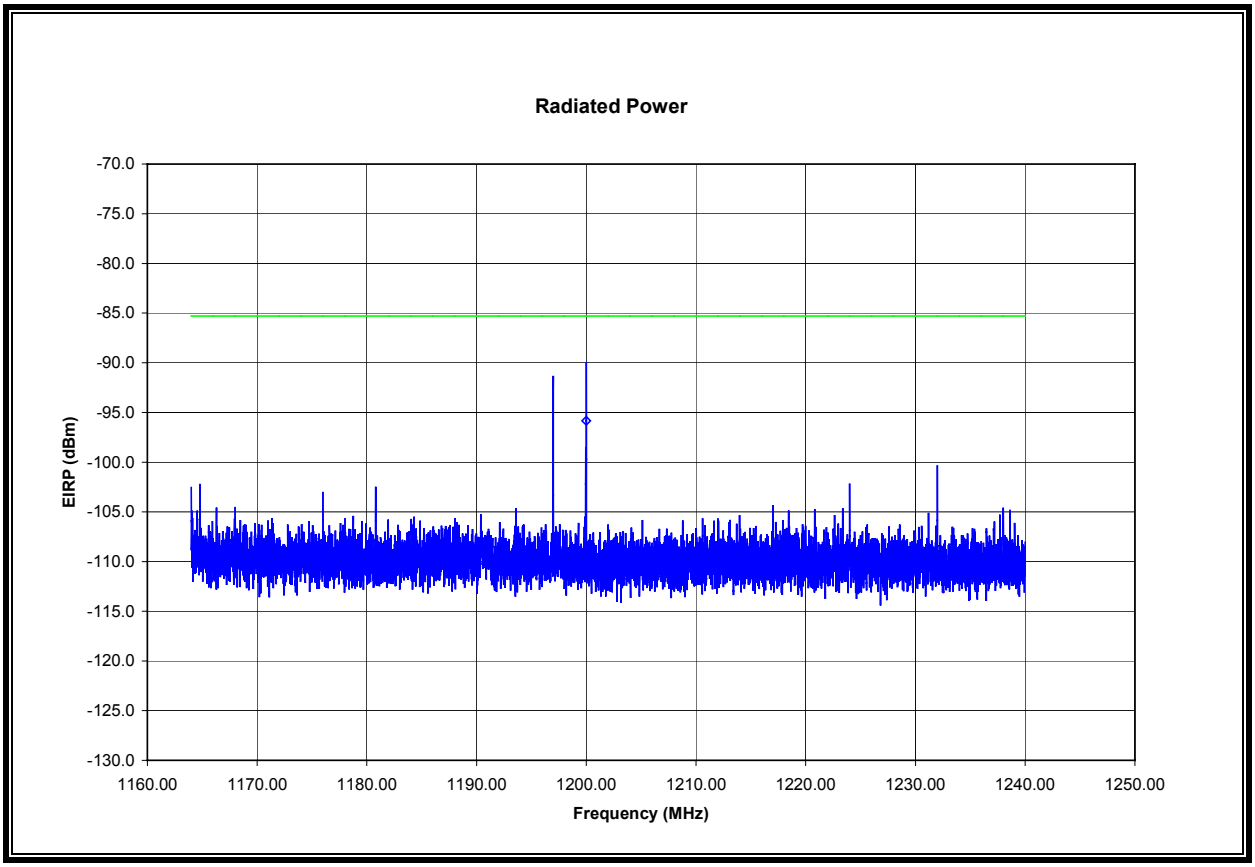
EIRP 33 TO 40 GHz, 1 MHz BW, HORIZONTAL



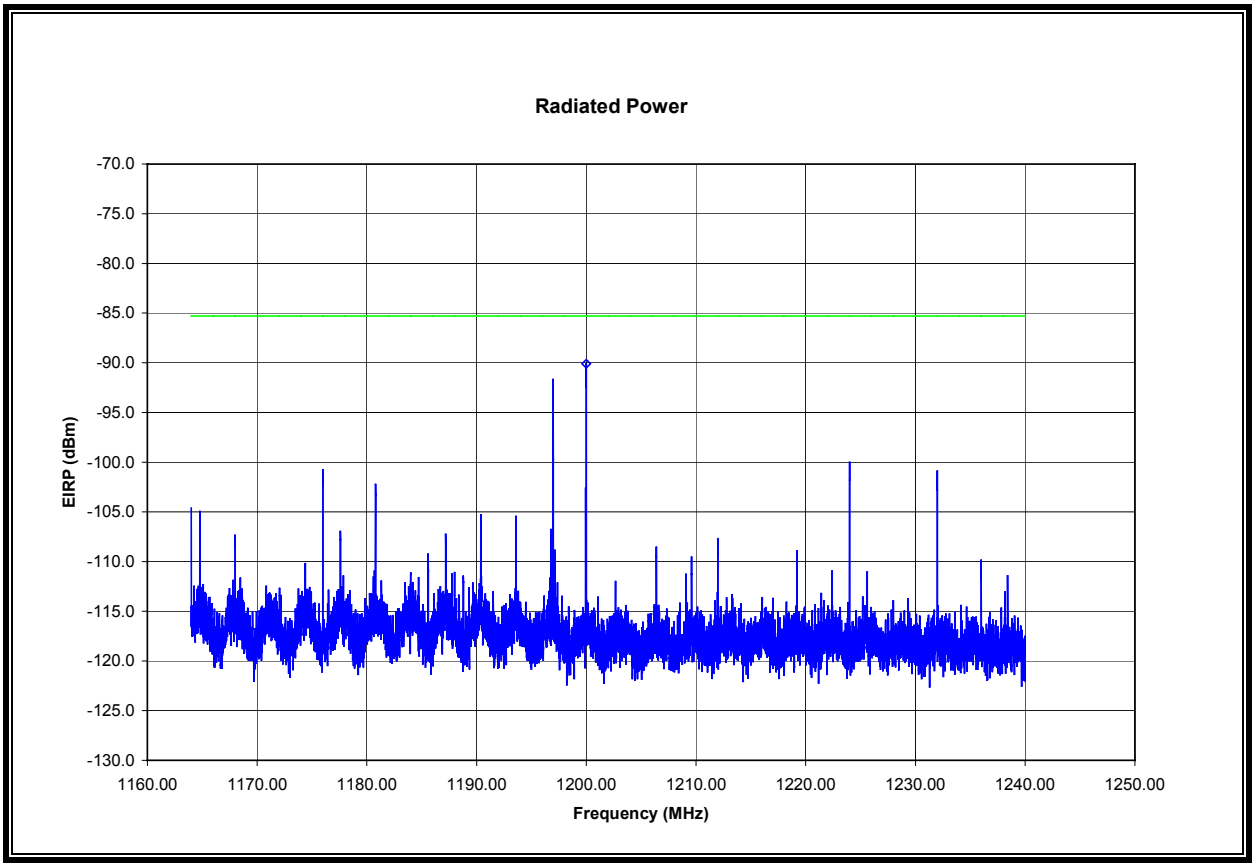
EIRP 33 TO 40 GHz, 1 MHz BW, VERTICAL



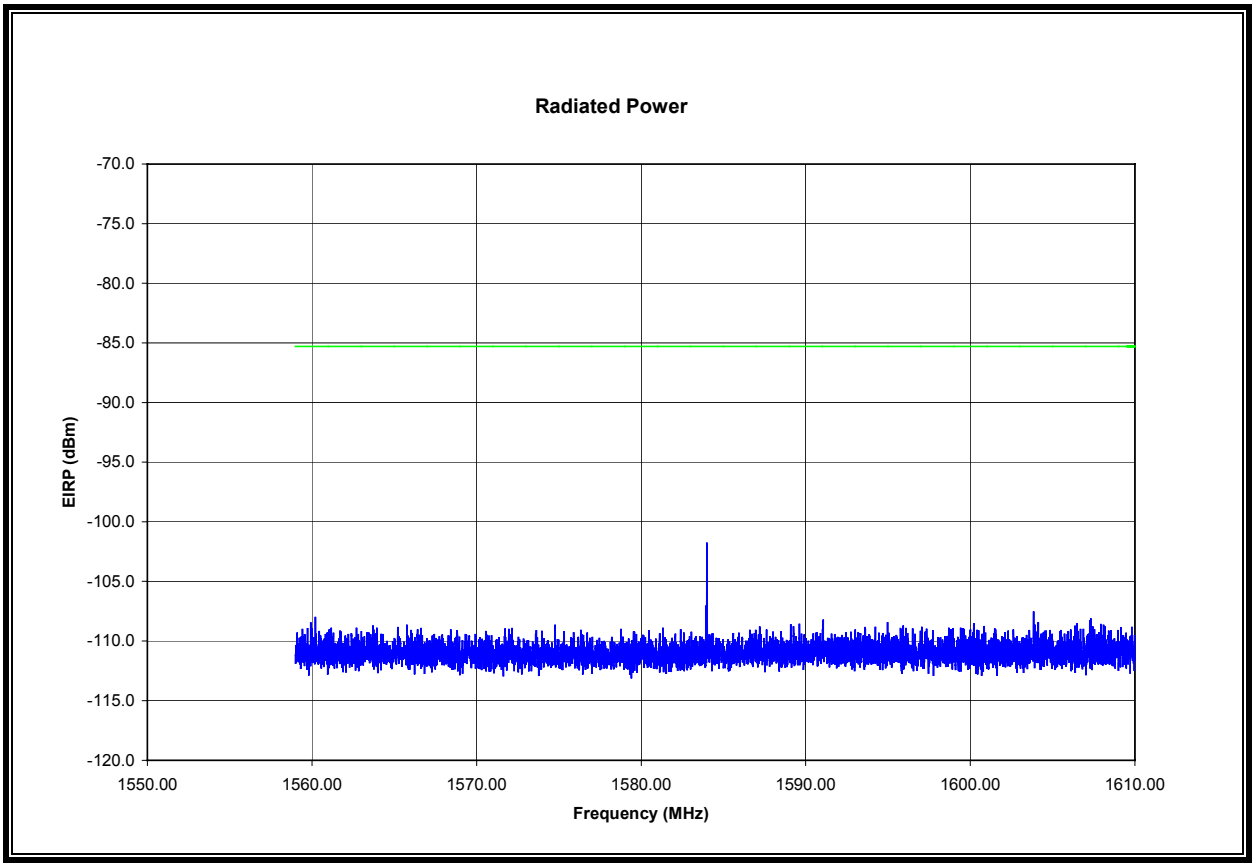
EIRP 1.164 TO 1.240 GHz, 1 kHz BW, HORIZONTAL



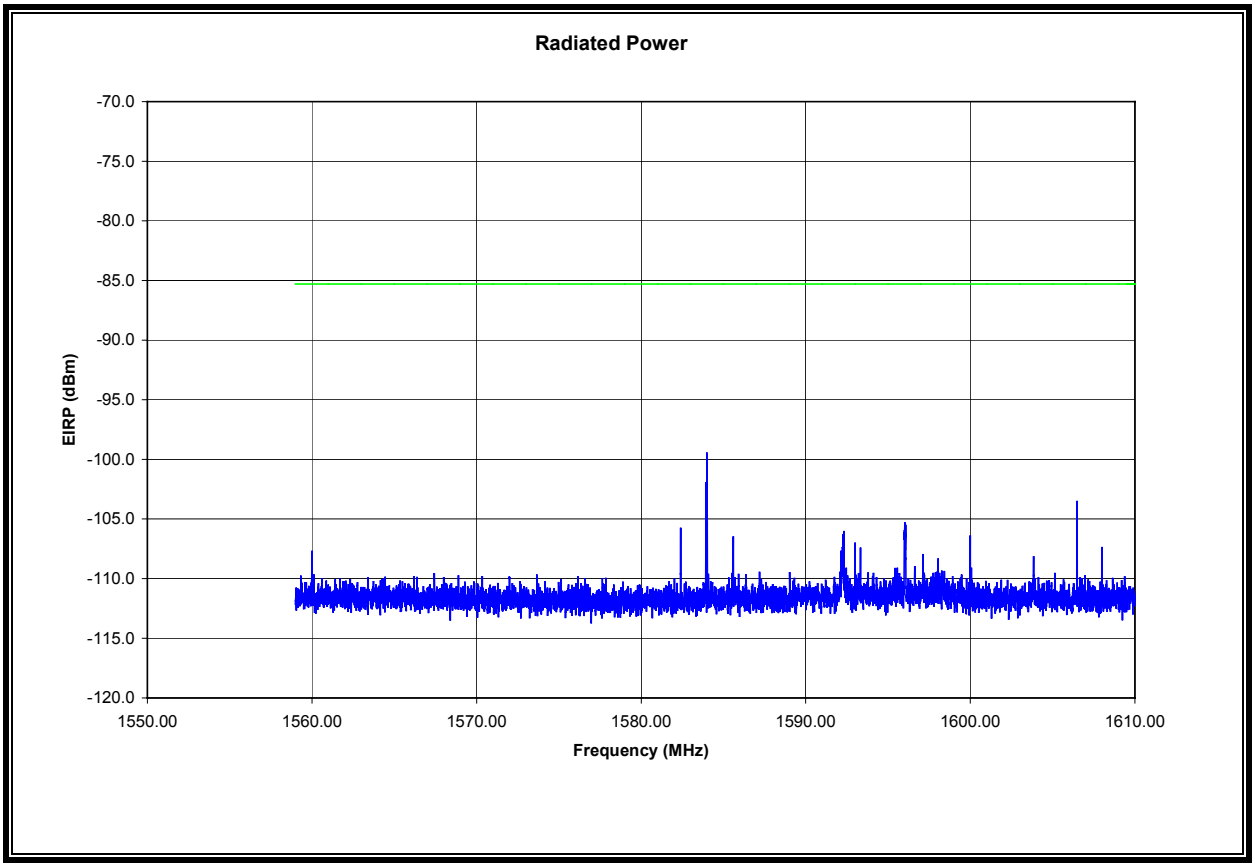
EIRP 1.164 TO 1.240 GHz, 1 kHz BW, VERTICAL



EIRP 1.559 TO 1.610 GHz, 1 kHz BW, HORIZONTAL



EIRP 1.559 TO 1.610 GHz, 1 kHz BW, VERTICAL

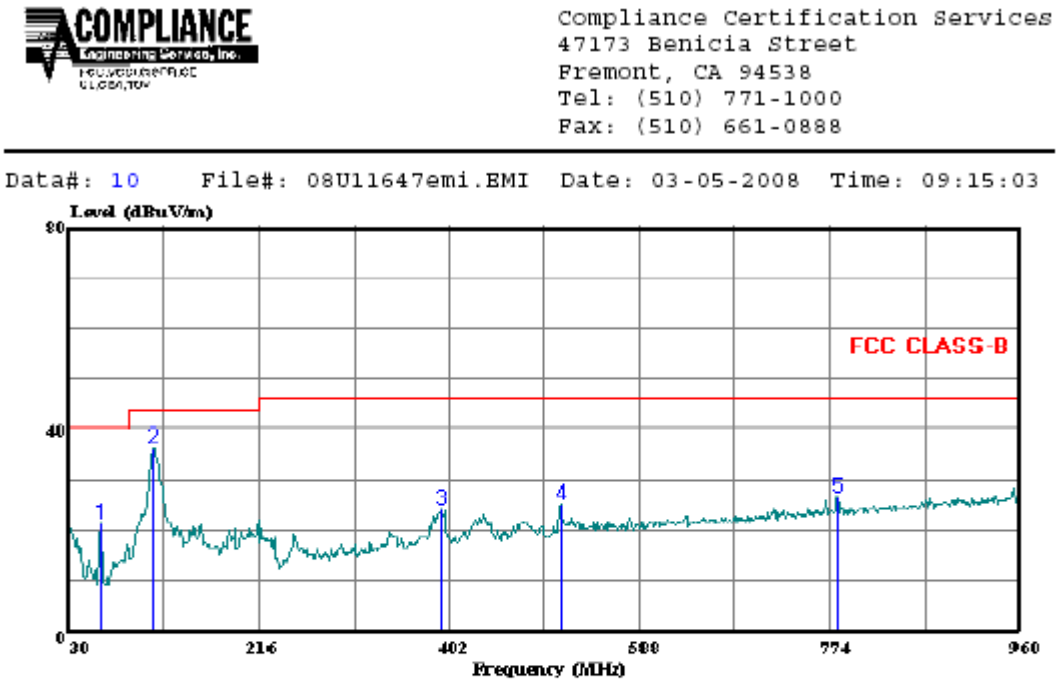


7.1.4. RADIATED EMISSIONS BELOW 960 MHz

§15.519 (c) The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in §15.209.

SPURIOUS EMISSIONS 30 TO 960 MHz (HORIZONTAL)

HORIZONTAL PLOT



HORIZONTAL DATA

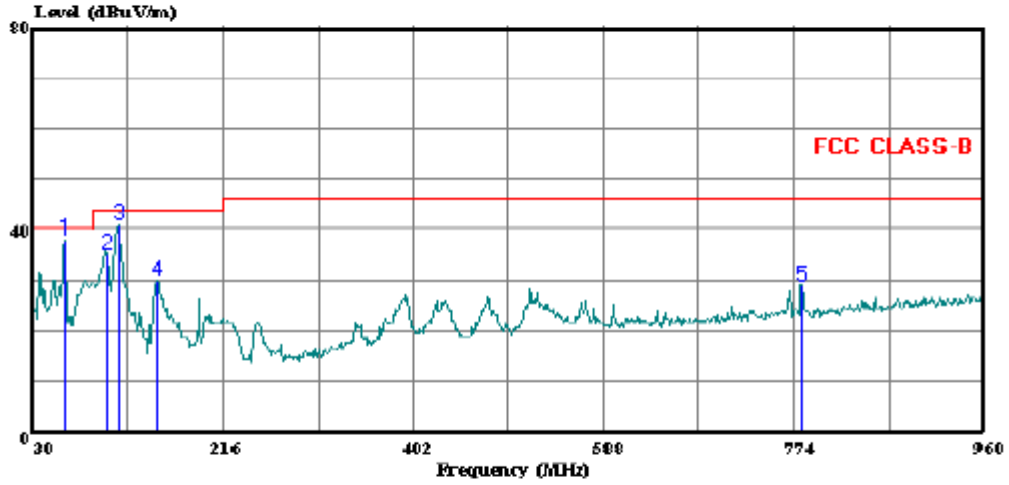
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	62.550	44.33	-22.95	21.39	40.00	-18.61	Peak
2	112.770	54.33	-18.08	36.25	43.50	-7.25	Peak
3	393.630	37.83	-13.62	24.21	46.00	-21.79	Peak
4	511.740	36.50	-11.33	25.17	46.00	-20.83	Peak
5	781.440	33.83	-7.33	26.51	46.00	-19.49	Peak

SPURIOUS EMISSIONS 30 TO 960 MHz (VERTICAL)

VERTICAL PLOT

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 8 File#: 08U11647emi.EMI Date: 03-05-2008 Time: 09:10:56



Trace: 7 Ref Trace:

Condition: FCC CLASS-B VERTICAL
Test Operator: Thanh Nguyen
Project # : 08U11647
Company : WiQuest
Config : EUT, Mini PCI card, laptop
Mode : Normal transmit
Target : FCC Class B
: Laptop inside EMI box, ferrite on PWR
: cable of test card

VERTICAL DATA

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	62.550	61.00	-22.95	38.05	40.00	-1.95	Peak
2	101.610	55.50	-20.26	35.24	43.50	-8.26	Peak
3	113.700	58.84	-18.08	40.75	43.50	-2.75	Peak
4	150.900	47.50	-17.48	30.02	43.50	-13.48	Peak
5	780.510	36.42	-7.34	29.08	46.00	-16.92	Peak

7.2. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

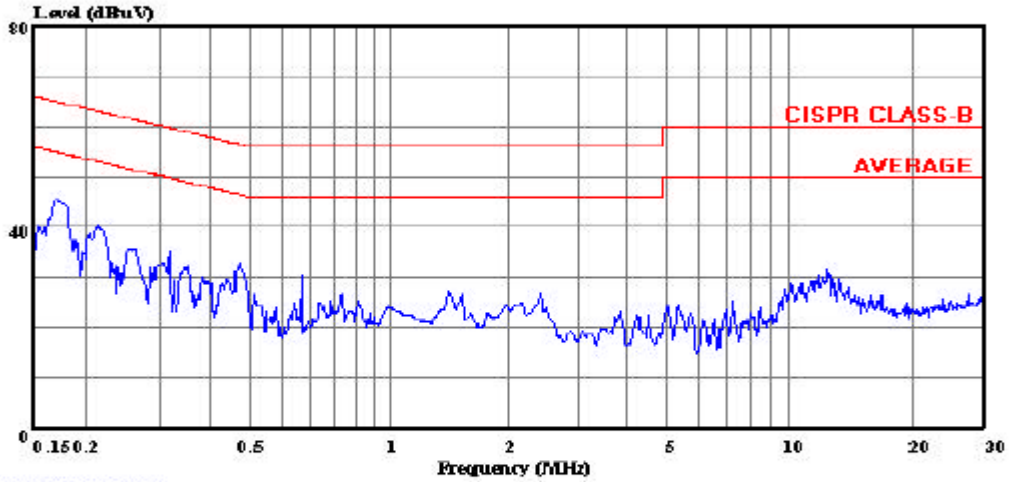
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit		Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.17	45.20	--	--	0.00	64.91	54.91	-19.71	-9.71	L1
0.67	30.62	--	--	0.00	56.00	46.00	-25.38	-15.38	L1
12.45	31.63	--	--	0.00	60.00	50.00	-28.37	-18.37	L1
0.17	43.90	--	--	0.00	64.91	54.91	-21.01	-11.01	L2
0.44	32.78	--	--	0.00	57.06	47.06	-24.28	-14.28	L2
12.19	34.25	--	--	0.00	60.00	50.00	-25.75	-15.75	L2
6 Worst Data									

LINE 1 RESULTS

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 14 File#: Wi LC.EMI Date: 03-05-2008 Time: 10:06:38



(Line Conduction)

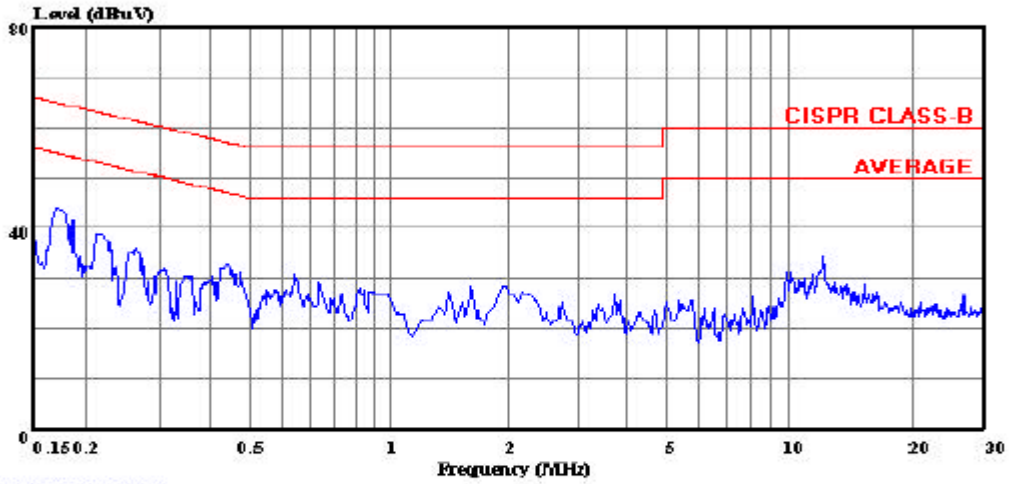
Trace: Ref Trace:

Condition: CISPR CLASS-B
Test Operator:: Thanh Nguyen
Project #: : 08J11647
Company: : Wi Quest
Configuration:: EUT,Extend. card,,AC Adapter, Laptop
Mode: : Transmit normal
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: Line 1: Peak (Blue);

LINE 2 RESULTS

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 28 File#: Wi LC.EMI Date: 03-05-2008 Time: 10:23:20



(Line Conduction)

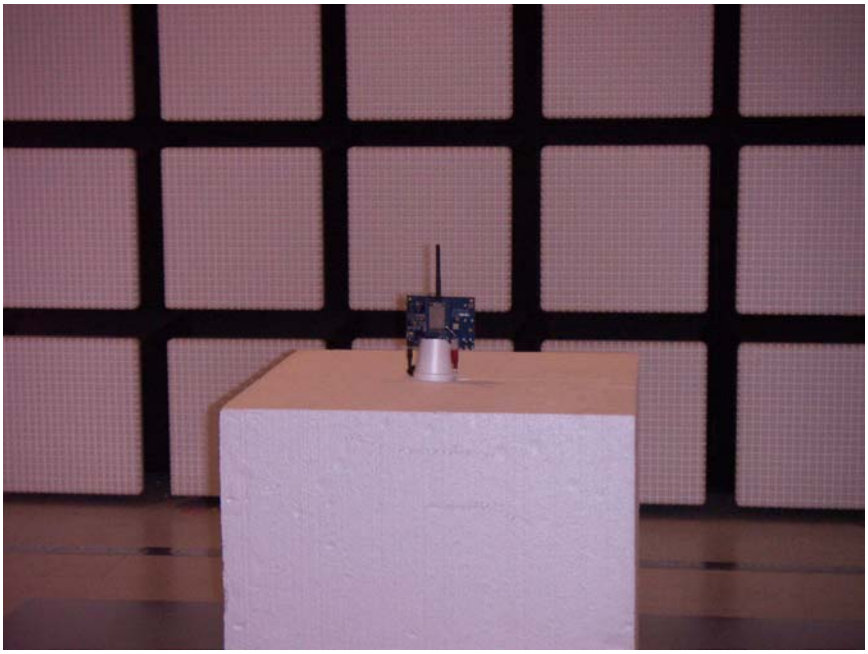
Trace: Ref Trace:

Condition: CISPR CLASS-B
Test Operator:: Thanh Nguyen
Project #: : 08J11647
Company: : Wi Quest
Configuration:: EUT,Extend. card,,AC Adapter, Laptop
Mode: : Transmit normal
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: Line 2: Peak (Blue);

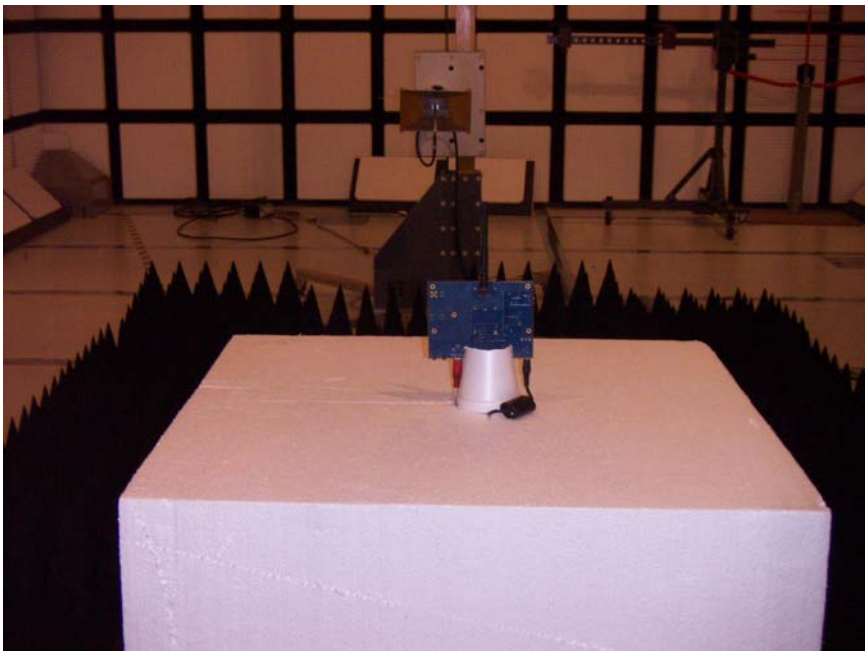
8. SETUP PHOTOS

RADIATED RF MEASUREMENT SETUP

RADIATED FRONT PHOTO



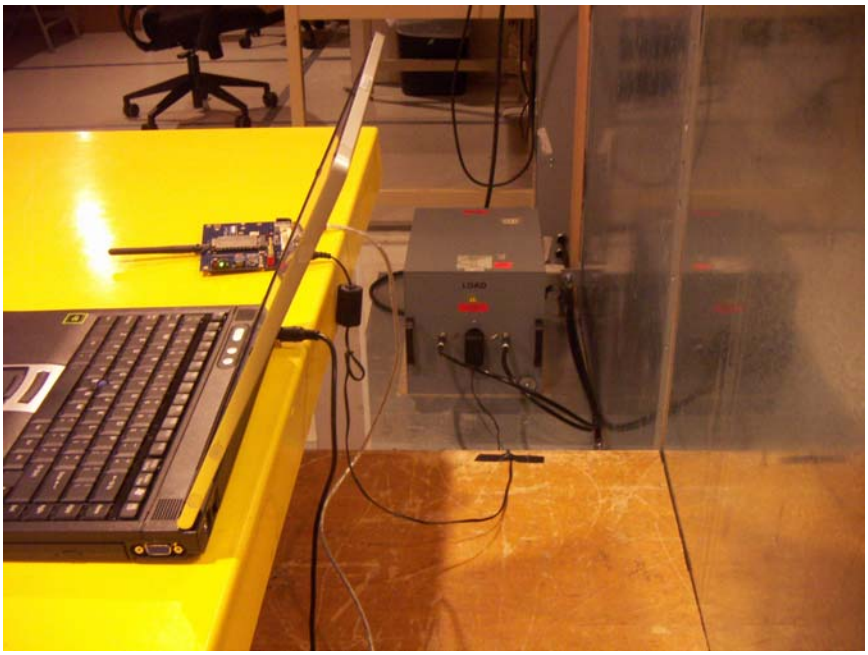
RADIATED BACK PHOTO



POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP

LINE CONDUCTED FRONT PHOTO

LINE CONDUCTED BACK PHOTO



END OF REPORT