COMPLIANCE WORLDWIDE INC.
TEST REPORT 199-06A

In Accordance with the Requirements of

FCC PART 15.249, SUBPART C

Low Power License-Exempt Radio Communication Devices
Intentional Radiators

Issued to

Philips Medical Systems
3000 Minuteman Drive
Andover, MA 01810
978-659-2800

for

M3813B Telemedicine Home Scale

FCC ID: PQCM3813B

Report Issued on July 18, 2006

Tested by

Brian F. Breault

Reviewed by

Larry K. Stillings

Table of Contents

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
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1 Scope

This test report certifies that the Philips M3813B Telemedicine Home Scale, as tested, meets the FCC Part 15.249, Subpart C requirements. The scope of this test report is limited to the test sample provided by the client, only in as much as that sample represents other production units. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required.

2 Product Details

2.1 Manufacturer: Philips Medical Systems

2.2 Model Number: M3813B Telemedicine Home Scale

2.3 Serial Number: 3813B0000004

2.4 Description: M3813B Next Generation Telemedicine Home Scale for U.S. release. It is intended for use as part of a Remote Patient Monitoring System. The device provides accurate weight measurement data that is wirelessly transmitted to the system.

The antenna built into the M3813B meets the requirements outlined in Section 15.203 of the FCC regulations.

2.5 Power Source: DC 6 volts – 4 internal AA alkaline batteries, no external charger

2.6 EMC Modifications: None

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3 Product Configuration

3.1 Operational Characteristics & Software

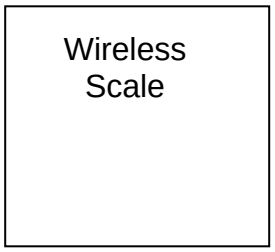
3.3.1 When scale is first powered up, the LCD will briefly display “88:8,8” followed by “Eu 10”. At this point scale is in **“t 0” mode** where manual scale measurements can be made by stepping on/off scale base. Voice commands will guide the user to step on and off the scale followed by an audible and visual weight reading.

Pressing the micro switch located at left of LCD once will cause scale display to enter **“t 1” mode**. This mode will continually weigh and transmit data at 2.0 Second intervals. For most EMC tests, a 20 kg metal disk will be applied to the scale base. For radiated emissions, radiated immunity, magnetic field immunity, and cell phone immunity, a paper stack will be used instead.

Pressing the micro switch once again will cause scale display to enter **“t 2” mode**. This mode is used for continually sending fixed data at full transmit power at (~ 1mW).

Audio Check: The computerized voice can be checked by pressing volume button located to right of LCD. Each button press advances the volume settings (1, 2, 3 off).

3.2 Block Diagram



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4 Measurements Parameters

4.1 Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Last Cal	Cal Due
EMI Receiver	Hewlett Packard	8546A	3650A00360	1/5/2005	1/5/2007
Spectrum Analyzer	Hewlett Packard	8593E	3829A03887	3/13/2006	3/13/2007
Microwave Preamp	Hewlett Packard	8449B	3008A01323	8/3/2004	8/3/2006
Biconilog Antenna	Com-Power	AC220	25509	7/11/2005	7/11/2006
Horn Antenna	Electro-Metrics	EM-6961	6337	7/30/2004	7/30/2006

4.2 Measurement & Equipment Setup

Test Date:	6/14/2006 – 6/17/2006
Test Engineer:	Brian Breault
Normal Site Temperature (15 - 35°C):	21.6
Extreme Test Temperatures (°C):	0 and +35
Relative Humidity (20 -75%RH):	25
Frequency Range:	902 - 928 MHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	Depends on measurement
EMI Receiver Avg Bandwidth:	Depends on measurement
Detector Function:	Depends on measurement

4.3 Test Procedure

Test measurements were made in accordance FCC Part 15.249: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5875 MHz, and 24.0 - 24.25 GHz.

The test methods used to generate the data is this test report is in accordance with ANSI C63.4: 2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

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5 Measurement Summary

Test Requirement	FCC Rule Requirement	Test Report Section	Result	Comment
Antenna Requirement	15.203	N.A	Compliant	Unit has a PCB Antenna
Conducted Emissions	15.207	N.A	N/A	Unit is battery operated and does not have a charger
Radiated Field Strength of Fundamental	15.249 (a)	6.1	Compliant	
Radiated Field Strength of Harmonics	15.249 (a)	6.2	Compliant	
Occupied Bandwidth		6.3	Compliant	
Band Edge Measurements		6.4	Compliant	
Spurious Radiated Emissions	15.249 (d), 15.209	6.5	Compliant	

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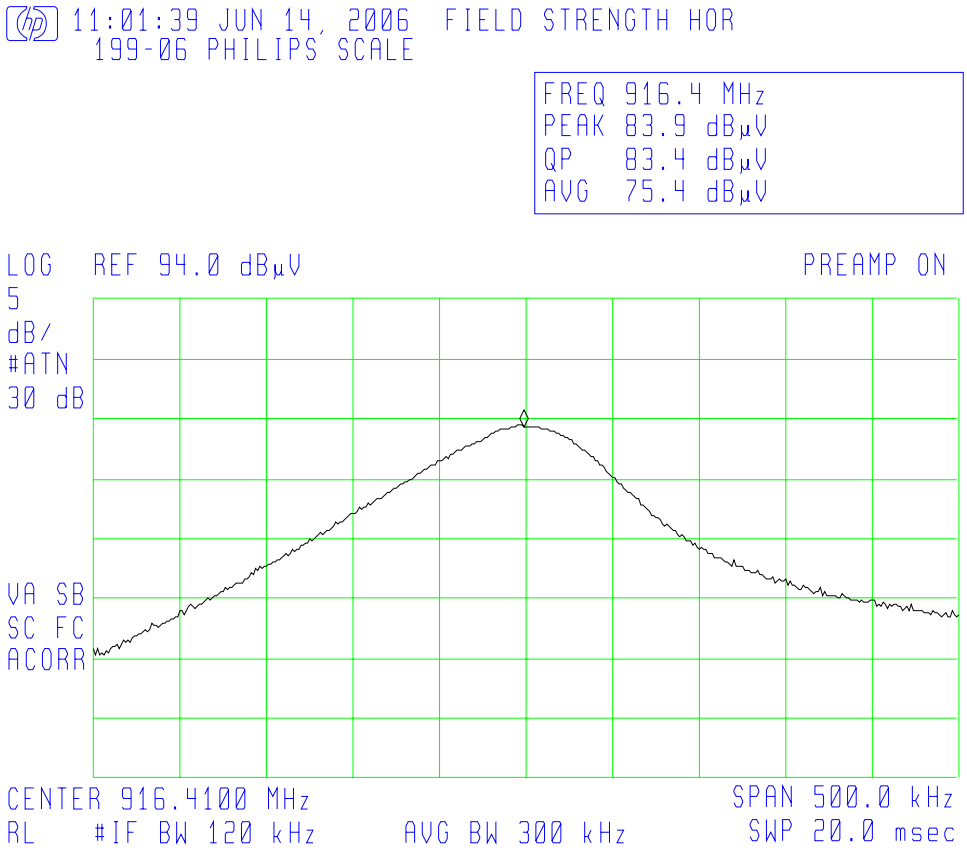
6 Measurement Data

6.1 Radiated Field Strength of Fundamental (15.249, Section (a))

Requirement: The 3 meter field strength of the fundamental emissions from intentional radiators operated within the 902-928 MHz frequency bands shall comply with the following requirement: 50 millivolts/meter (94 dBµV/m), quasi-peak mode measurement.

Frequency (MHz)	Amplitude (dBµV/m)		Q-Peak Limit	Margin (dB)	Ant Pol	Ant Ht	TT Pos	Result
	Peak	Q-Peak			H/V	cm	Deg	P/F
916.4	83.9	83.4	94.0	-10.6	H	100	354	Passed



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6 Measurement Data (continued)

6.2 Radiated Field Strength of Harmonics (15.249, Section (a))

Requirement: The 3 meter field strength of the harmonic emissions from intentional radiators operated within the 902-928 MHz frequency bands shall comply with the following: 500 microvolts/meter (54 dBµV/m), average mode measurement

6.2.1 Channel (916.4 MHz)

Frequency (MHz)	Amplitude (dBµV)		Corr. Fact. (dB)	Amplitude (dBµV/m)		Average Limit	Margin (dB)	Ant Pol	Ant Ht	TT Pos	Result
	Peak	Avg		Peak	Avg			H/V	cm	Deg	
1832.800	61.16	44.20	-5.55	55.61	38.65	54	-15.35	V	106	105	Passed
2749.200[1]	51.96	37.20	-2.47	49.49	34.73	54	-19.27	V	100	190	Passed
3665.600[1]	50.17	37.10	1.52	51.69	38.62	54	-15.38	V	122	230	Passed
4582.000[1]	43.20	32.00	2.36	45.56	34.36	54	-19.64	V	124	45	Passed
5498.400	41.60	21.60	5.51	47.11	27.11	54	-26.89	Noise Floor			Passed
6414.800	41.95	21.95	7.95	49.90	29.90	54	-24.10	Noise Floor			Passed
7331.200[1]	41.87	21.87	4.37	46.24	26.24	54	-27.76	Noise Floor			Passed
8247.600[1]	43.57	23.57	5.57	49.14	29.14	54	-24.86	Noise Floor			Passed
9164.000[1]	42.76	22.76	6.13	48.89	28.89	54	-25.11	Noise Floor			Passed

[1] Frequency falls within the Restricted Bands of Operation. See FCC Part 15, Section 15.205 for additional information.

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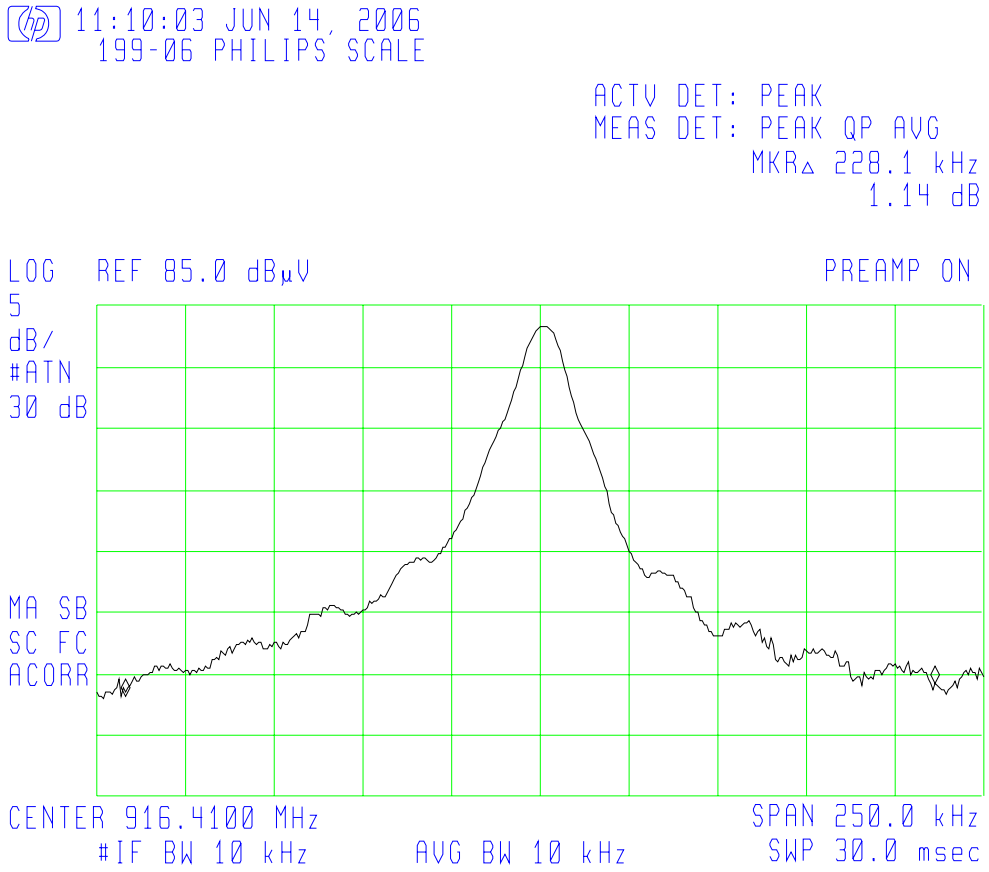
6 Measurement Data (continued)

6.3 Occupied Bandwidth

26 Bandwidth = 228.1 kHz



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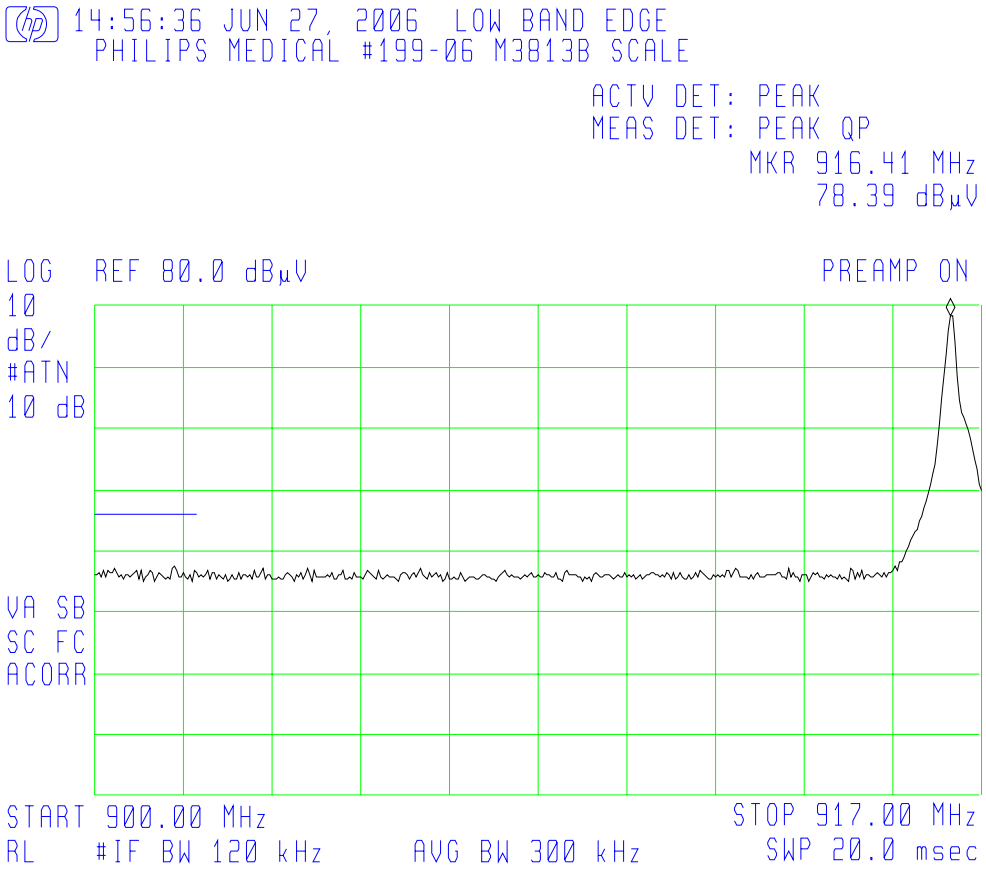
6 Measurement Data (continued)

6.4 Band Edge Measurements

6.4.1 Measurement Results – Lower Band Edge



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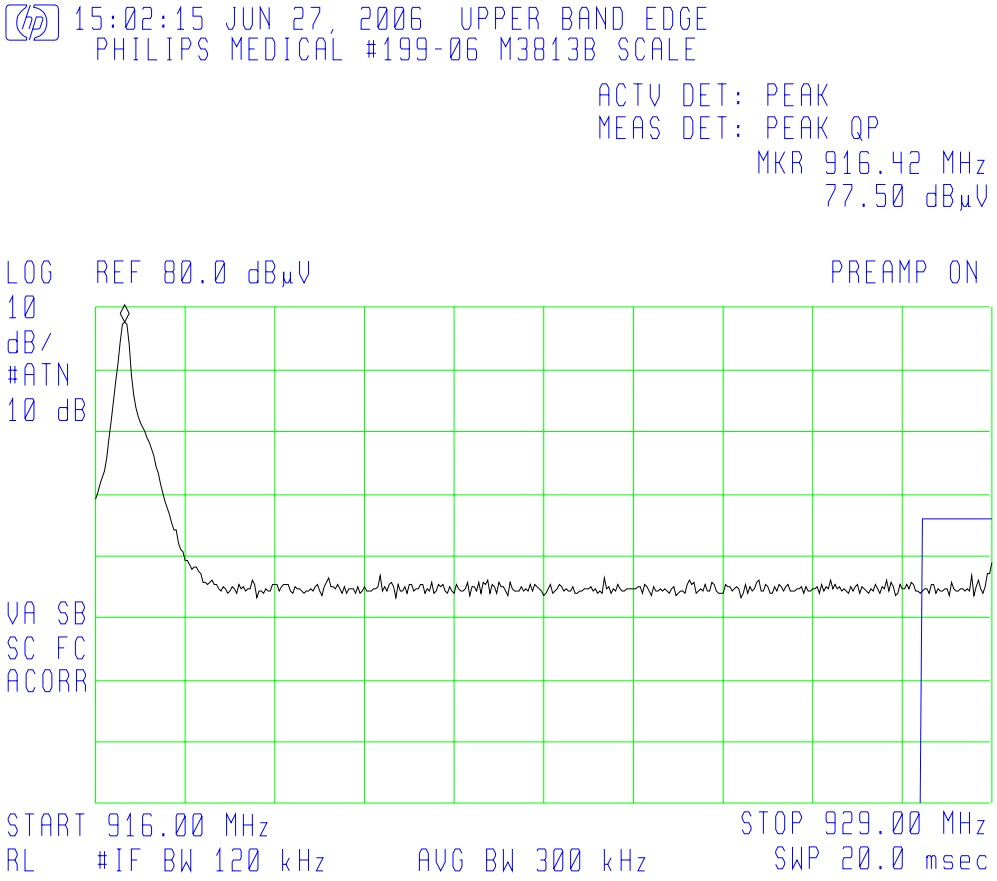
6 Measurement Data (continued)

6.4 Band Edge Measurements (continued)

6.4.2 Measurement Results – Upper Band Edge



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6.5 Spurious Radiated Emissions, 30 MHz to 1 GHz (15.249, Section (d))

Requirement: Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

6.5.1 Spurious Radiated Emissions, 30 MHz to 1 GHz Test Setup

6.5.1.1. Regulatory Limit: FCC Part 209, Quasi-Peak

Frequency Range (MHz)	Distance (Meters)	Limit (dBµV/m)
30 to 88	3	40.0
88 to 216	3	43.5
216 to 960	3	46.0
960 to 1000	3	54.0

6.5.1.2 Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due
EMI Receiver	Hewlett Packard	8546A	3650A00360	1/5/2007
Biconilog Antenna	Com-Power	AC220	25509	7/11/2006

6.5.1.3 Measurement & Equipment Setup

Test Date:	06/14/2006
Test Engineer:	Michael Desmarais
Site Temperature (°C):	21.0
Relative Humidity (%RH):	36
Frequency Range:	30 MHz to 1 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	120 kHz
EMI Receiver Avg Bandwidth:	300 kHz
Detector Functions:	Peak and Quasi-Peak.
Antenna Height:	1 to 4 meters

6.5.1.4 Test Procedure

Test measurements were made in accordance with ANSI C63.4-2003, Standard Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronics Equipment in the Range of 9 kHz to 40 GHz.

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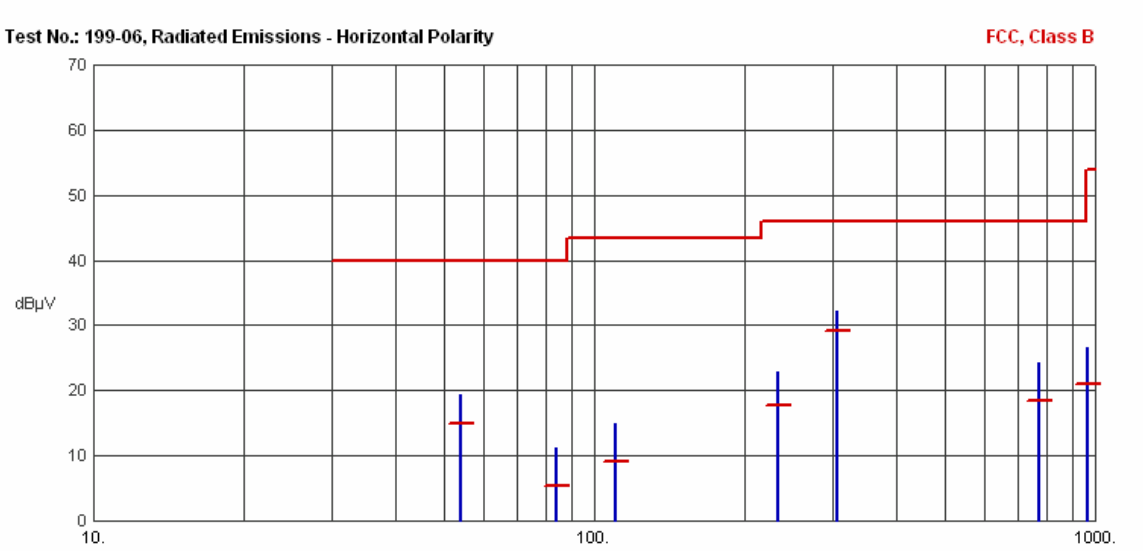
6.5 Spurious Radiated Emissions (30 MHz to 1 GHz) Test Results (continued)

6.5.2 Horizontal Polarity



Frequency (MHz)	Pk Amp (dBµV/m)	QP Amp (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Ant Ht (cm)	Table (Deg)	Comments
53.9807	19.41	15.00	40.00	-25.00	N/A	N/A	
84.1380	11.10	5.28	40.00	-34.72	N/A	N/A	
110.5151	14.92	9.08	43.50	-34.42	N/A	N/A	
233.1196	22.97	17.85	46.00	-28.15	N/A	N/A	
306.3223	32.13	29.07	46.00	-16.93	N/A	N/A	
773.5944	24.19	18.50	46.00	-27.50	N/A	N/A	
966.7953	26.59	20.97	54.00	-33.03	N/A	N/A	

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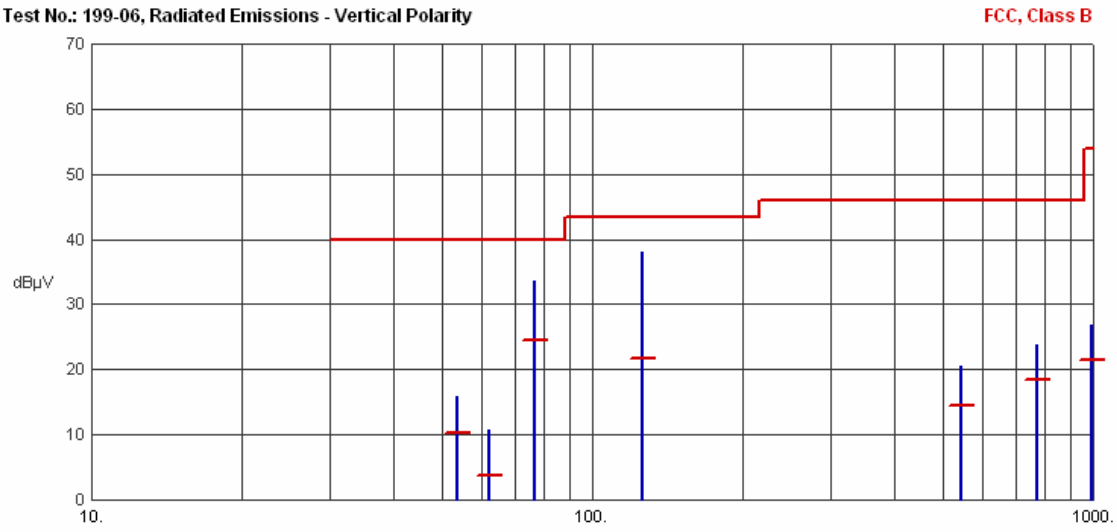
6.5 Spurious Radiated Emissions (30 MHz to 1 GHz) Test Results (continued)

6.5.3 Vertical Polarity



Frequency (MHz)	Pk Amp (dBµV/m)	QP Amp (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Ant Ht (cm)	Table (Deg)	Comments
53.8795	15.87	10.38	40.00	-29.62	N/A	N/A	
62.3274	10.69	3.84	40.00	-36.16	N/A	N/A	
76.6278	33.66	24.53	40.00	-15.47	N/A	N/A	
125.6646	37.96	21.69	43.50	-21.81	N/A	N/A	
543.3617	20.44	14.46	46.00	-31.54	N/A	N/A	
772.3355	23.83	18.43	46.00	-27.57	N/A	N/A	
991.0240	26.90	21.48	54.00	-32.52	N/A	N/A	

6.6 Spurious Radiated Emissions (1 – 9.2 GHz) Test Results

There were no spurious emissions above 1 GHz other than the harmonics previously reported.

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7 Test Site Description

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with Federal Communications Commission (FCC) and Industry Canada standards. A description of the test sites is on file with the FCC (registration number **96392**) and Industry Canada (file number **IC 3023)**.

The radiated emissions test site is a 3 and 10 meter enclosed open area test site (OATS). Personnel, support equipment and test equipment are located in the basement beneath the OATS ground plane.

The conducted emissions site is part of a 16' x 20' x 12' ferrite tile chamber and uses one of the walls for the vertical ground plane required by EN 55022.

Both sites are designed to test products or systems 1.5 meter W x 1.5 meter L x 2.0 meter H, floor standing or table top.

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