

# Verathon Medical

## SCANPOINT REMOTE

June 22, 2007

Report No. VERA0015.1 Rev 01

Report Prepared By



[www.nwemc.com](http://www.nwemc.com)  
1-888-EMI-CERT

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EMC Test Report



22975 NW Evergreen Parkway  
Suite 400  
Hillsboro, Oregon 97124

**Certificate of Test**  
**Issue Date: June 22, 2007**  
**Verathon Medical**  
**Model: Scanpoint Remote**

Emissions				
Test Description	Specification	Test Method	Pass	Fail
AC Powerline Conducted Emissions	FCC 15.207:2006	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Field Strength of Fundamental	FCC 15.249:2006	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Radiated Emissions	FCC 15.249:2006	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Modifications made to the product**

**See the Modifications section of this report**

**Test Facility**

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.  
22975 NW Evergreen Parkway, Suite 400  
Hillsboro, OR 97124

Phone: (503) 844-4066 Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada.

**Approved By:**

*Don Facteau, IS Manager*

*This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.*

*Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested, the specific description is noted in each of the individual sections of the test report supporting this certificate of test.*

Revision Number	Description	Date	Page Number
01	Change EUT Name to Scanpoint Remote	11/14/07	1, 2, 7, 11-16, 20-23, 28-30

**FCC:** Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.



**NVLAP:** Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 89/336/EEC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.



NVLAP LAB CODE 200629-0  
NVLAP LAB CODE 200630-0  
NVLAP LAB CODE 200676-0  
NVLAP LAB CODE 200761-0

**Industry Canada:** Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS 212, Issue 1 (Provisional) and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements.



**CAB:** Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.



**TÜV Product Service:** Included in TÜV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TÜV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TÜV's current Listing of CARAT Laboratories, available from TÜV. A certificate was issued to represent that this laboratory continues to meet TÜV's CARAT Program requirements. Certificate No. USA0604C.



**TÜV Rheinland:** Authorized to carryout EMC tests by order and under supervision of TÜV Rheinland. This authorization is based on "Conditions for EMC-Subcontractors" of November 1992.



**NEMKO:** Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



**Australia/New Zealand:** The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).



**VCCI:** Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (*Registration Numbers. - Hillsboro: C-1071, R-1025, C-2687, T-289, and R-2318, Irvine: R-1943, C-2766, and T-298, Sultan: R-871, C-1784, and T-294*).



**BSMI:** Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement. License No.SL2-IN-E-1017.



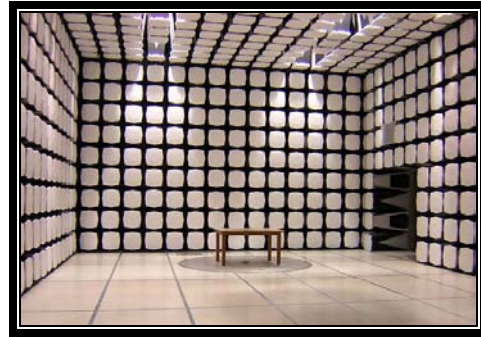
**GOST:** Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



## SCOPE

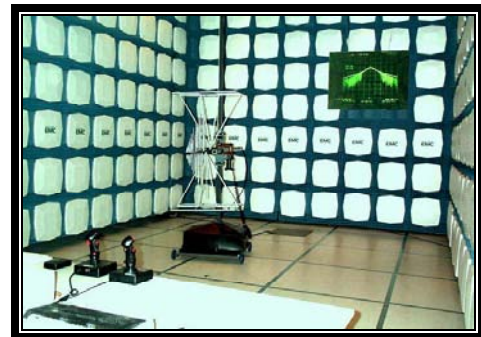
For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/scope.asp>



**California – Orange County Facility  
Labs OC01 – OC13**

41 Tesla Ave. Irvine, CA 92618  
(888) 364-2378 Fax: (503) 844-3826



**Oregon – Evergreen Facility  
Labs EV01 – EV11**

22975 NW Evergreen Pkwy. Suite 400 Hillsboro, OR 97124  
(503) 844-4066 Fax: (503) 844-3826



**Washington – Sultan Facility  
Labs SU01 – SU07**

14128 339<sup>th</sup> Ave. SE Sultan, WA 98294  
(888) 364-2378

## Party Requesting the Test

Company Name:	Verathon Medical
Address:	21222 30th Drive SE, Suite 120
City, State, Zip:	Bothell, WA 98021
Test Requested By:	Tim Chinowsky
Model:	Scanpoint Remote
First Date of Test:	May 18, 2007
Last Date of Test:	June 13, 2007
Receipt Date of Samples:	May 18, 2007
Equipment Design Stage:	Prototype
Equipment Condition:	No Damage

## Information Provided by the Party Requesting the Test

## Functional Description of the EUT (Equipment Under Test):

2.4 GHz radio transceivers. Device uses a Cypress CYWUSB6934 "Wireless USB" chip for remote control and data transmission between a handheld remote and a urine flowmeter located in a bathroom.

## Testing Objective:

Seeking TCB authorization under 15.249.

## EUT Photo



**CONFIGURATION 1 for VERA0014 and VERA0015**

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT - Handheld	Verathon Medical	ScanPoint Remote	04007-03

**CONFIGURATION 2 VERA0015**

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT - Handheld	Verathon Medical	ScanPoint Remote	04007-03

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Charging Cradle	Verathon Medical	0570-0155	None
AC Adapter	Diagnostic Ultrasound	PSU15B-1	477278

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	PA	3.6m	PA	Charging Cradle	AC Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

**CONFIGURATION 4 VERA0015**

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT - Handheld	Verathon Medical	ScanPoint Remote	070328-08

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Charging Cradle	Verathon Medical	0570-0155	None
AC Adapter	Diagnostic Ultrasound	PSU15B-1	477481

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	PA	3.6m	PA	Charging Cradle	AC Adapter
AC Power	No	1.0m	No	AC Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					



Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	6/11/2007	Field Strength of Fundamental	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	6/12/2007	Field Strength of Spurious Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	6/13/2007	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

#### MODES OF OPERATION

Transmitting high channel

Transmitting mid channel

Transmitting low channel

#### POWER SETTINGS INVESTIGATED

120V/60Hz

#### SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

#### TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwartz	ESCI	ARG	12/7/2006	13
High Pass Filter	TTE	H97-100K-50-720B	HFX	8/22/2006	13
Attenuator	Tektronix	011-0059-02	ATC	12/27/2006	13
EV07 cable d			EVG	4/17/2007	13
LISN	Solar	9252-50-R-24-BNC	LIQ	12/20/2006	13

#### MEASUREMENT BANDWIDTHS

Frequency Range	Peak Data	Quasi-Peak Data	Average Data
(MHz)	(kHz)	(kHz)	(kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

#### MEASUREMENT UNCERTAINTY

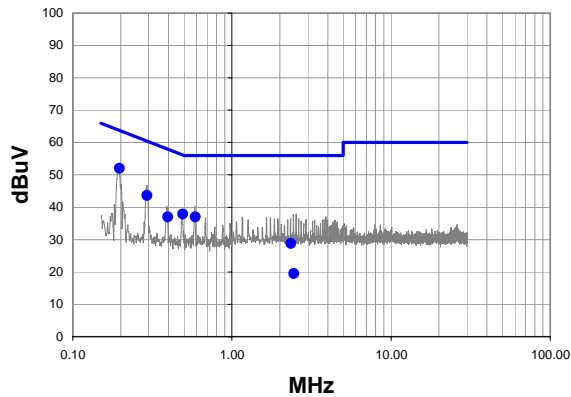
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### TEST DESCRIPTION

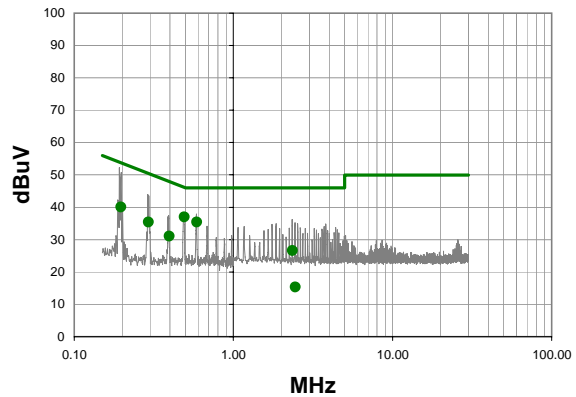
Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50  $\Omega$  measuring port is terminated by a 50  $\Omega$  EMI meter or a 50  $\Omega$  resistive load. All 50  $\Omega$  measuring ports of the LISN are terminated by 50 $\Omega$ .

Work Order:	VERA0015	Date:	06/13/07	<i>Jennifer Herrett</i>			
Project:	None	Temperature:	22				
Job Site:	EV07	Humidity:	34				
Serial Number:	070328-08	Barometric Pres.:	30.11	Tested by: Jennifer Herrett			
EUT:	Scanpoint Remote						
Configuration:	4 - ScanPoint Remote in Cradle for CE						
Customer:	Verathon Medical						
Attendees:	None						
EUT Power:	120V/60Hz						
Operating Mode:	Transmitting low channel						
Deviations:	No deviations.						
Comments:							
Test Specifications FCC 15.207:2006		Class B		Test Method ANSI C63.4:2003			
Run #	1	Line:	High Line	Ext. Attenuation:	20	Results	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

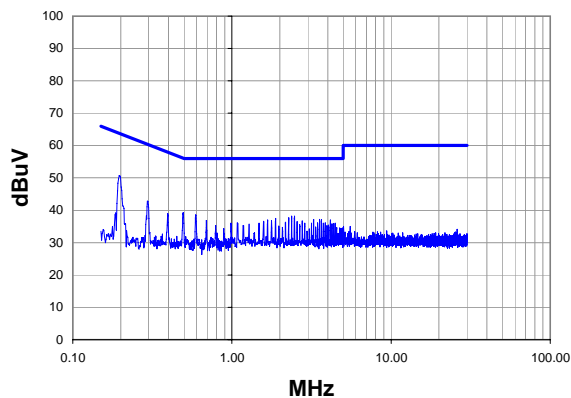
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.197	31.0	1.1	52.1	63.7	-11.7
0.293	22.7	0.9	43.6	60.4	-16.8
0.492	17.1	0.8	37.9	56.1	-18.2
0.589	16.2	0.8	37.0	56.0	-19.0
0.395	16.1	0.9	37.0	58.0	-21.0
2.356	8.3	0.5	28.8	56.0	-27.2
2.452	-1.0	0.5	19.5	56.0	-36.5

Average Data - vs - Average Limit

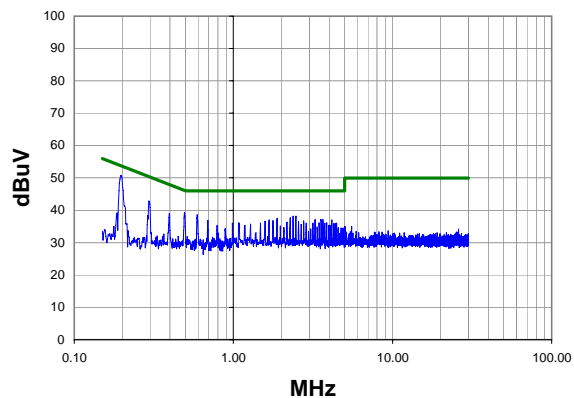
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.492	16.2	0.8	37.0	46.1	-9.1
0.589	14.7	0.8	35.5	46.0	-10.5
0.197	19.0	1.1	40.1	53.7	-13.7
0.293	14.5	0.9	35.4	50.4	-15.0
0.395	10.2	0.9	31.1	48.0	-16.9
2.356	6.1	0.5	26.6	46.0	-19.4
2.452	-5.2	0.5	15.3	46.0	-30.7

Work Order:	VERA0015	Date:	06/13/07	<i>Jennifer Herrett</i>	
Project:	None	Temperature:	22		
Job Site:	EV07	Humidity:	34		
Serial Number:	070328-08	Barometric Pres.:	30.11	Tested by: Jennifer Herrett	
EUT:	Scanpoint Remote				
Configuration:	4 - ScanPoint Remote in Cradle for CE				
Customer:	Verathon Medical				
Attendees:	None				
EUT Power:	120V/60Hz				
Operating Mode:	Transmitting low channel				
Deviations:	No deviations.				
Comments:					
Test Specifications FCC 15.207:2006			Class B		Test Method ANSI C63.4:2003
Run #	2	Line:	Neutral	Ext. Attenuation:	20
				Results	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit




Peak Data - vs - Quasi Peak Limit

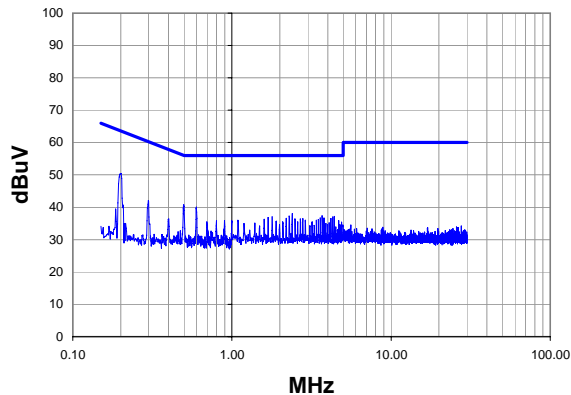
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.196	29.7	1.1	50.8	63.8	-13.0
0.493	18.5	0.8	39.3	56.1	-16.8
0.592	17.8	0.8	38.6	56.0	-17.4
0.295	21.9	0.9	42.8	60.4	-17.6
2.368	17.7	0.5	38.2	56.0	-17.8
2.472	17.7	0.5	38.2	56.0	-17.8
2.272	17.2	0.5	37.7	56.0	-18.3
1.880	17.0	0.5	37.5	56.0	-18.5
3.552	16.7	0.5	37.2	56.0	-18.8
3.264	16.6	0.5	37.1	56.0	-18.9
3.656	16.6	0.5	37.1	56.0	-18.9
0.395	18.1	0.9	39.0	58.0	-19.0
1.680	16.5	0.5	37.0	56.0	-19.0
4.152	16.5	0.5	37.0	56.0	-19.0
1.776	16.3	0.5	36.8	56.0	-19.2
0.691	16.1	0.7	36.8	56.0	-19.2
2.768	16.2	0.5	36.7	56.0	-19.3
1.576	16.1	0.5	36.6	56.0	-19.4
2.568	16.0	0.5	36.5	56.0	-19.5
2.176	15.8	0.5	36.3	56.0	-19.7

Peak Data - vs - Average Limit

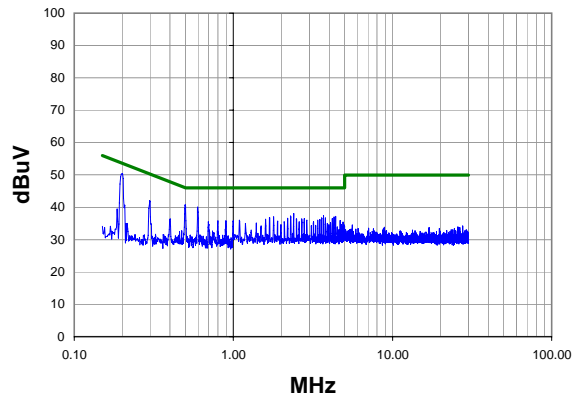
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.196	29.7	1.1	50.8	53.8	-3.0
0.493	18.5	0.8	39.3	46.1	-6.8
0.592	17.8	0.8	38.6	46.0	-7.4
0.295	21.9	0.9	42.8	50.4	-7.6
2.368	17.7	0.5	38.2	46.0	-7.8
2.472	17.7	0.5	38.2	46.0	-7.8
2.272	17.2	0.5	37.7	46.0	-8.3
1.880	17.0	0.5	37.5	46.0	-8.5
3.552	16.7	0.5	37.2	46.0	-8.8
3.264	16.6	0.5	37.1	46.0	-8.9
3.656	16.6	0.5	37.1	46.0	-8.9
0.395	18.1	0.9	39.0	48.0	-9.0
1.680	16.5	0.5	37.0	46.0	-9.0
4.152	16.5	0.5	37.0	46.0	-9.0
1.776	16.3	0.5	36.8	46.0	-9.2
0.691	16.1	0.7	36.8	46.0	-9.2
2.768	16.2	0.5	36.7	46.0	-9.3
1.576	16.1	0.5	36.6	46.0	-9.4
2.568	16.0	0.5	36.5	46.0	-9.5
2.176	15.8	0.5	36.3	46.0	-9.7

<b>Work Order:</b>	VERA0015	<b>Date:</b>	06/13/07				
<b>Project:</b>	None	<b>Temperature:</b>	22				
<b>Job Site:</b>	EV07	<b>Humidity:</b>	34				
<b>Serial Number:</b>	070328-08	<b>Barometric Pres.:</b>	30.11	<b>Tested by:</b> Jennifer Herrett			
<b>EUT:</b>	Scanpoint Remote						
<b>Configuration:</b>	4 - ScanPoint Remote in Cradle for CE						
<b>Customer:</b>	Verathon Medical						
<b>Attendees:</b>	None						
<b>EUT Power:</b>	120V/60Hz						
<b>Operating Mode:</b>	Transmitting mid channel						
<b>Deviations:</b>	No deviations.						
<b>Comments:</b>							
<b>Test Specifications</b> FCC 15.207:2006		<b>Class B</b>		<b>Test Method</b> ANSI C63.4:2003			
<b>Run #</b>	5	<b>Line:</b>	High Line	<b>Ext. Attenuation:</b>	20	<b>Results</b>	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

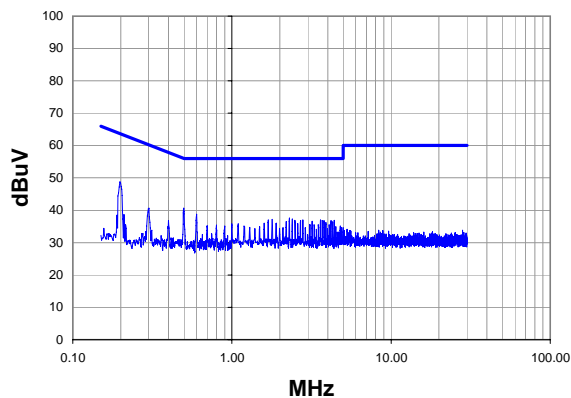
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.201	29.4	1.0	50.4	63.6	-13.2
0.499	19.9	0.8	40.7	56.0	-15.3
0.597	19.3	0.8	40.1	56.0	-15.9
2.392	17.6	0.5	38.1	56.0	-17.9
0.298	21.1	0.9	42.0	60.3	-18.3
3.688	16.9	0.5	37.4	56.0	-18.6
2.288	16.8	0.5	37.3	56.0	-18.7
4.384	16.7	0.5	37.2	56.0	-18.8
1.792	16.6	0.5	37.1	56.0	-18.9
4.288	16.5	0.5	37.0	56.0	-19.0
1.688	16.3	0.5	36.8	56.0	-19.2
3.584	16.2	0.5	36.7	56.0	-19.3
3.784	16.2	0.5	36.7	56.0	-19.3
2.192	16.1	0.5	36.6	56.0	-19.4
2.792	16.0	0.5	36.5	56.0	-19.5
4.192	16.0	0.5	36.5	56.0	-19.5
2.488	15.9	0.5	36.4	56.0	-19.6
2.688	15.9	0.5	36.4	56.0	-19.6
1.592	15.8	0.5	36.3	56.0	-19.7
3.488	15.7	0.5	36.2	56.0	-19.8

Peak Data - vs - Average Limit

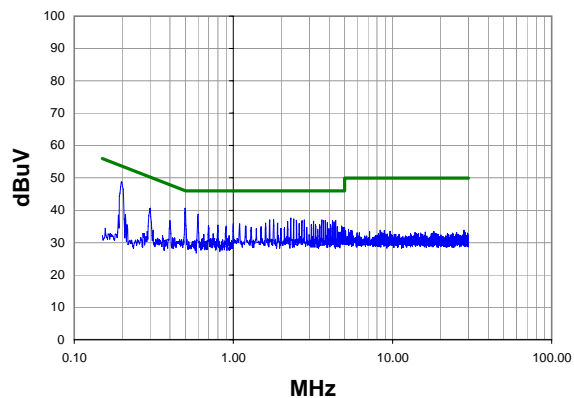
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
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0.499	19.9	0.8	40.7	46.0	-5.3
0.597	19.3	0.8	40.1	46.0	-5.9
2.392	17.6	0.5	38.1	46.0	-7.9
0.298	21.1	0.9	42.0	50.3	-8.3
3.688	16.9	0.5	37.4	46.0	-8.6
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4.288	16.5	0.5	37.0	46.0	-9.0
1.688	16.3	0.5	36.8	46.0	-9.2
3.584	16.2	0.5	36.7	46.0	-9.3
3.784	16.2	0.5	36.7	46.0	-9.3
2.192	16.1	0.5	36.6	46.0	-9.4
2.792	16.0	0.5	36.5	46.0	-9.5
4.192	16.0	0.5	36.5	46.0	-9.5
2.488	15.9	0.5	36.4	46.0	-9.6
2.688	15.9	0.5	36.4	46.0	-9.6
1.592	15.8	0.5	36.3	46.0	-9.7
3.488	15.7	0.5	36.2	46.0	-9.8

<b>Work Order:</b>	VERA0015	<b>Date:</b>	06/13/07	<i>Jennifer Herrett</i>	
<b>Project:</b>	None	<b>Temperature:</b>	22		
<b>Job Site:</b>	EV07	<b>Humidity:</b>	34		
<b>Serial Number:</b>	070328-08	<b>Barometric Pres.:</b>	30.11	<b>Tested by:</b> Jennifer Herrett	
<b>EUT:</b>	Scanpoint Remote				
<b>Configuration:</b>	4 - ScanPoint Remote in Cradle for CE				
<b>Customer:</b>	Verathon Medical				
<b>Attendees:</b>	None				
<b>EUT Power:</b>	120V/60Hz				
<b>Operating Mode:</b>	Transmitting mid channel				
<b>Deviations:</b>	No deviations.				
<b>Comments:</b>					
<b>Test Specifications</b> FCC 15.207:2006		<b>Class B</b>		<b>Test Method</b> ANSI C63.4:2003	
<b>Run #</b>	6	<b>Line:</b>	Neutral	<b>Ext. Attenuation:</b> 20	<b>Results</b> Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

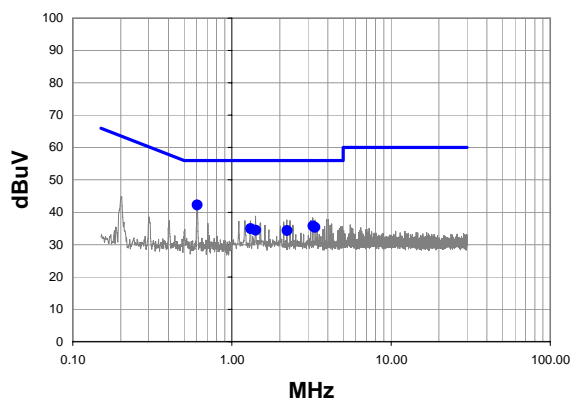
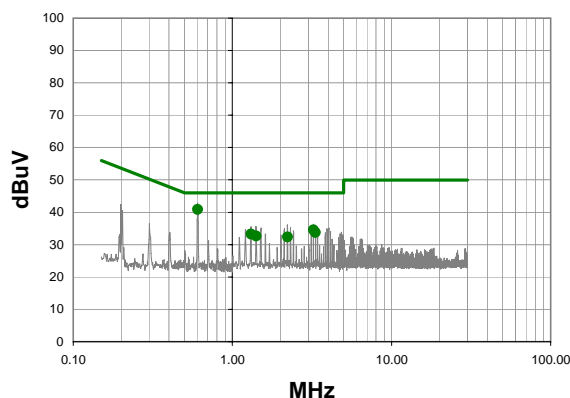
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.198	27.7	1.0	48.7	63.7	-15.0
0.499	19.8	0.8	40.6	56.0	-15.4
0.599	18.0	0.8	38.8	56.0	-17.2
2.296	17.1	0.5	37.6	56.0	-18.4
2.392	16.8	0.5	37.3	56.0	-18.7
1.792	16.7	0.5	37.2	56.0	-18.8
1.696	16.5	0.5	37.0	56.0	-19.0
2.792	16.5	0.5	37.0	56.0	-19.0
3.592	16.5	0.5	37.0	56.0	-19.0
2.488	16.4	0.5	36.9	56.0	-19.1
4.392	16.4	0.5	36.9	56.0	-19.1
2.696	16.3	0.5	36.8	56.0	-19.2
3.688	16.3	0.5	36.8	56.0	-19.2
3.792	16.3	0.5	36.8	56.0	-19.2
4.192	16.3	0.5	36.8	56.0	-19.2
3.192	16.1	0.5	36.6	56.0	-19.4
2.192	16.0	0.5	36.5	56.0	-19.5
0.301	19.7	0.9	40.6	60.2	-19.6
4.288	15.9	0.5	36.4	56.0	-19.6
3.888	15.7	0.5	36.2	56.0	-19.8

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.198	27.7	1.0	48.7	53.7	-5.0
0.499	19.8	0.8	40.6	46.0	-5.4
0.599	18.0	0.8	38.8	46.0	-7.2
2.296	17.1	0.5	37.6	46.0	-8.4
2.392	16.8	0.5	37.3	46.0	-8.7
1.792	16.7	0.5	37.2	46.0	-8.8
1.696	16.5	0.5	37.0	46.0	-9.0
2.792	16.5	0.5	37.0	46.0	-9.0
3.592	16.5	0.5	37.0	46.0	-9.0
2.488	16.4	0.5	36.9	46.0	-9.1
4.392	16.4	0.5	36.9	46.0	-9.1
2.696	16.3	0.5	36.8	46.0	-9.2
3.688	16.3	0.5	36.8	46.0	-9.2
3.792	16.3	0.5	36.8	46.0	-9.2
4.192	16.3	0.5	36.8	46.0	-9.2
3.192	16.1	0.5	36.6	46.0	-9.4
2.192	16.0	0.5	36.5	46.0	-9.5
0.301	19.7	0.9	40.6	50.2	-9.6
4.288	15.9	0.5	36.4	46.0	-9.6
3.888	15.7	0.5	36.2	46.0	-9.8

**EMC****AC POWERLINE CONDUCTED EMISSIONS**


<b>Work Order:</b>	VERA0015	<b>Date:</b>	06/13/07	<i>Jennifer Herrett</i>	
<b>Project:</b>	None	<b>Temperature:</b>	22		
<b>Job Site:</b>	EV07	<b>Humidity:</b>	34		
<b>Serial Number:</b>	070328-08	<b>Barometric Pres.:</b>	30.11	<b>Tested by:</b> Jennifer Herrett	
<b>EUT:</b>	Scanpoint Remote				
<b>Configuration:</b>	4 - ScanPoint Remote in Cradle for CE				
<b>Customer:</b>	Verathon Medical				
<b>Attendees:</b>	None				
<b>EUT Power:</b>	120V/60Hz				
<b>Operating Mode:</b>	Transmitting high channel				
<b>Deviations:</b>	No deviations.				
<b>Comments:</b>					
<b>Test Specifications</b> FCC 15.207:2006			<b>Class B</b>		<b>Test Method</b> ANSI C63.4:2003
<b>Run #</b>	7	<b>Line:</b>	Neutral	<b>Ext. Attenuation:</b>	20
				<b>Results</b>	Pass

**Quasi Peak Data - vs - Quasi Peak Limit****Average Data - vs - Average Limit****Quasi Peak Data - vs - Quasi Peak Limit**

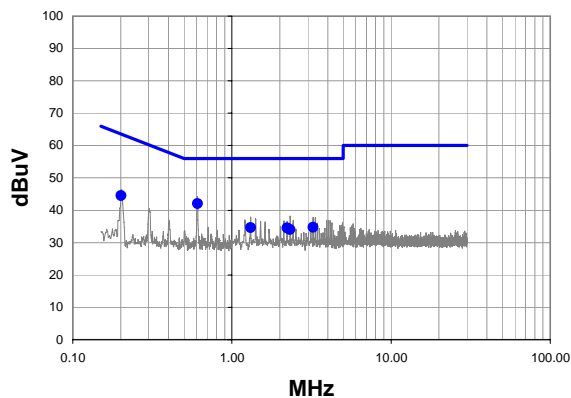
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.606	21.5	0.7	42.2	56.0	-13.8
3.232	15.2	0.5	35.7	56.0	-20.3
3.332	14.8	0.5	35.3	56.0	-20.7
1.312	14.4	0.5	34.9	56.0	-21.1
1.412	13.9	0.5	34.4	56.0	-21.6
2.220	13.8	0.5	34.3	56.0	-21.7

**Average Data - vs - Average Limit**

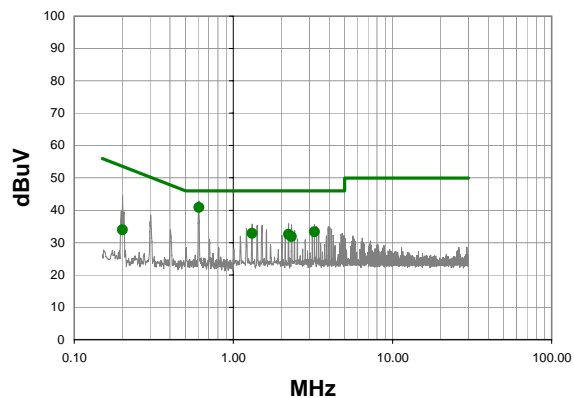
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.606	20.1	0.7	40.8	46.0	-5.2
3.232	14.0	0.5	34.5	46.0	-11.5
3.332	13.2	0.5	33.7	46.0	-12.3
1.312	12.7	0.5	33.2	46.0	-12.8
1.412	12.1	0.5	32.6	46.0	-13.4
2.220	11.8	0.5	32.3	46.0	-13.7

<b>Work Order:</b>	VERA0015	<b>Date:</b>	06/13/07				
<b>Project:</b>	None	<b>Temperature:</b>	22				
<b>Job Site:</b>	EV07	<b>Humidity:</b>	34				
<b>Serial Number:</b>	070328-08	<b>Barometric Pres.:</b>	30.11	<b>Tested by:</b> Jennifer Herrett			
<b>EUT:</b>	Scanpoint Remote						
<b>Configuration:</b>	4 - ScanPoint Remote in Cradle for CE						
<b>Customer:</b>	Verathon Medical						
<b>Attendees:</b>	None						
<b>EUT Power:</b>	120V/60Hz						
<b>Operating Mode:</b>	Transmitting high channel						
<b>Deviations:</b>	No deviations.						
<b>Comments:</b>							
<b>Test Specifications</b> FCC 15.207:2006		<b>Class B</b>		<b>Test Method</b> ANSI C63.4:2003			
<b>Run #</b>	8	<b>Line:</b>	High Line	<b>Ext. Attenuation:</b>	20	<b>Results</b>	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

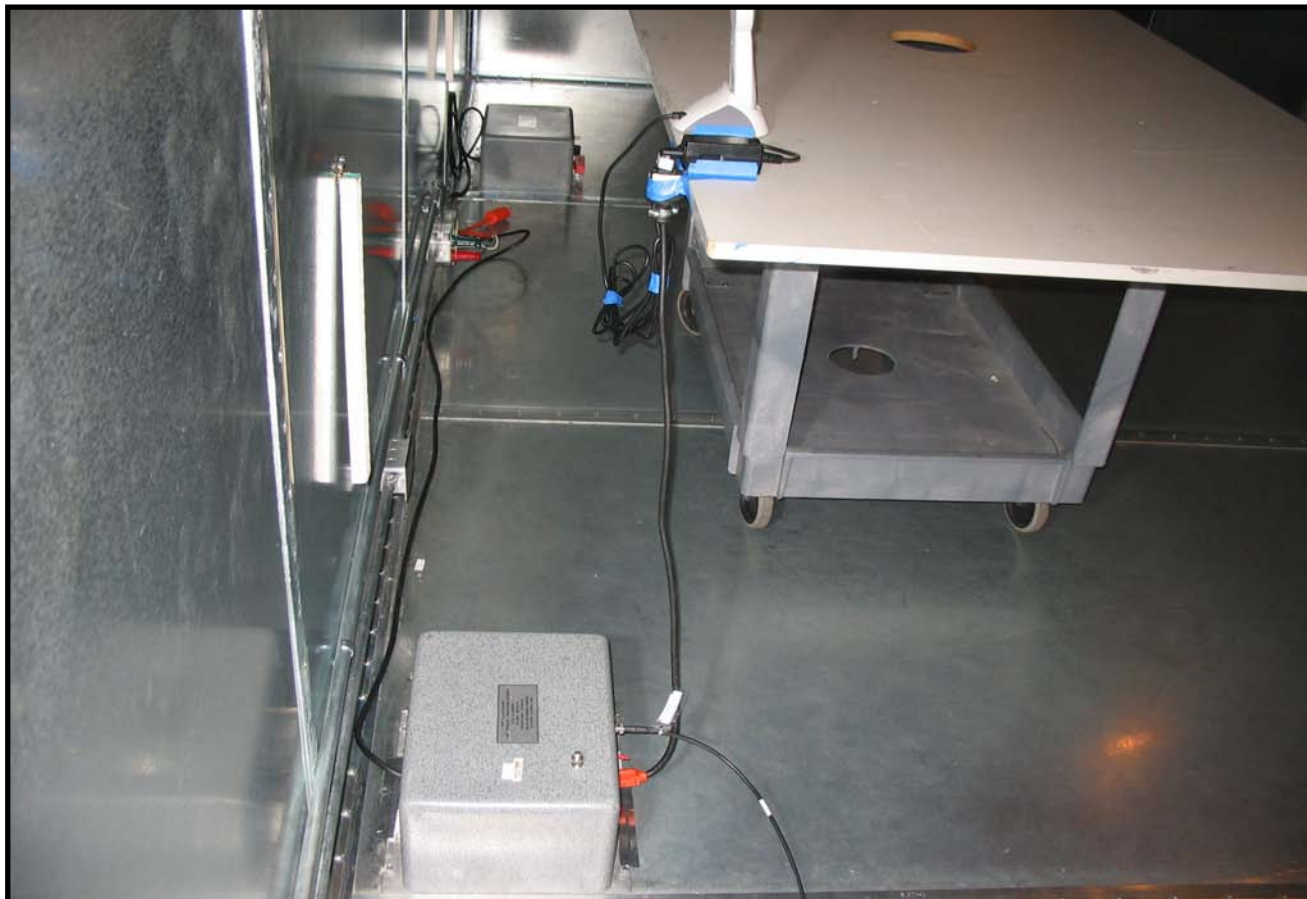
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.607	21.3	0.7	42.0	56.0	-14.0
0.201	23.5	1.0	44.5	63.6	-19.1
3.232	14.2	0.5	34.7	56.0	-21.3
1.312	14.1	0.5	34.6	56.0	-21.4
2.220	14.0	0.5	34.5	56.0	-21.5
2.324	13.5	0.5	34.0	56.0	-22.0

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.607	20.1	0.7	40.8	46.0	-5.2
3.232	12.8	0.5	33.3	46.0	-12.7
1.312	12.3	0.5	32.8	46.0	-13.2
2.220	12.0	0.5	32.5	46.0	-13.5
2.324	11.4	0.5	31.9	46.0	-14.1
0.201	12.9	1.0	33.9	53.6	-19.7







Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

#### MODES OF OPERATION

Transmitting with modulation mid channel  
 Transmitting with modulation low channel  
 Transmitting with modulation high channel

#### POWER SETTINGS INVESTIGATED

Battery  
 120VAC/60Hz

#### FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 25 GHz

#### CLOCKS AND OSCILLATORS

#### SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

#### TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2006	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	12/29/2006	13
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	LFD	12/29/2006	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	12/29/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	5/10/2007	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	12
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	5/10/2007	13
Antenna, Horn	EMCO	3160-08	AHK	NCR	0
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	3/23/2006	17
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
EV01 cables c,g, h			EVA	12/29/2006	13
EV01 cables g,h,j			EVB	5/10/2007	13
EV01 Cable D			EVD	3/30/2006	15
EV01 cables g,h,i			EVF	5/10/2007	13

#### MEASUREMENT BANDWIDTHS

Frequency Range	Peak Data	Quasi-Peak Data	Average Data
(MHz)	(kHz)	(kHz)	(kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

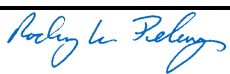
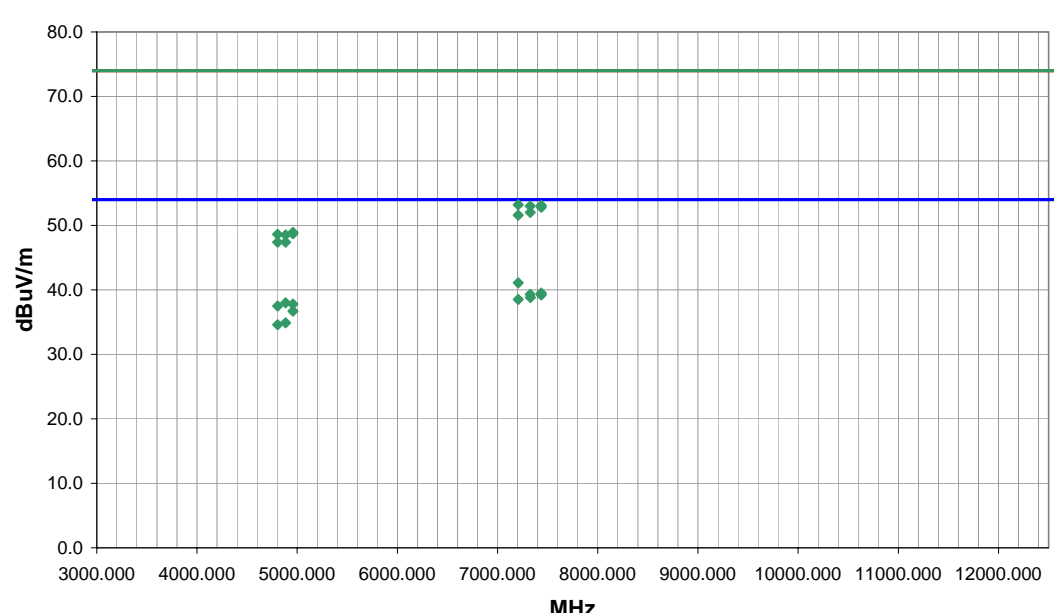
Measurements were made using the bandwidths and detectors specified. No video filter was used.

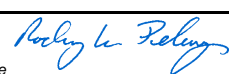
#### MEASUREMENT UNCERTAINTY

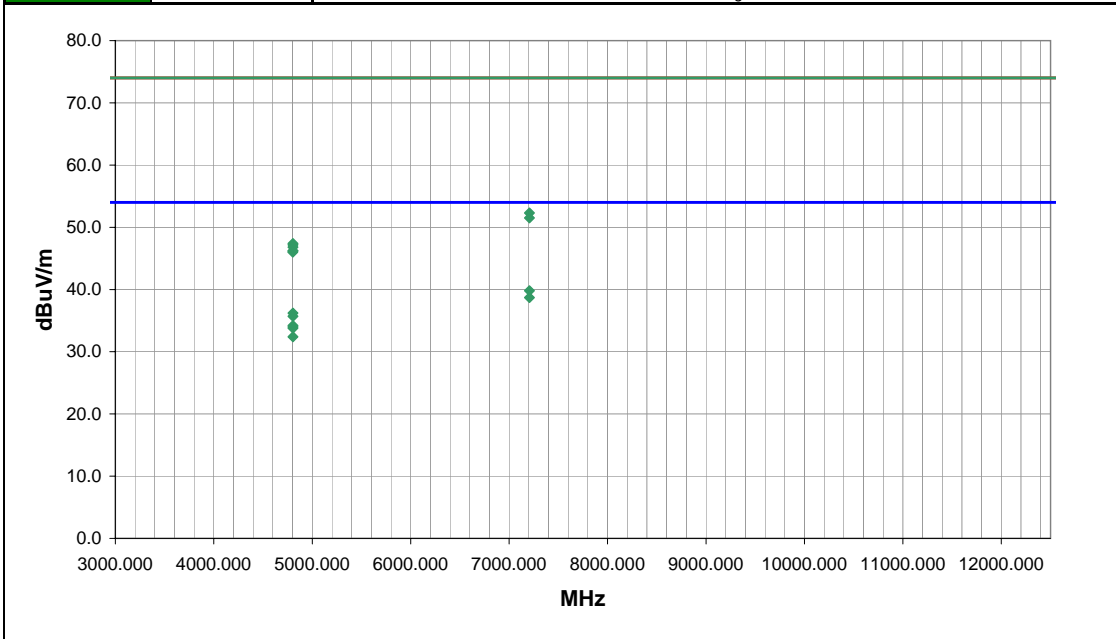
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### TEST DESCRIPTION

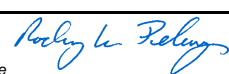
The antennas to be used with the EUT were tested. The EUT was transmitting and receiving while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

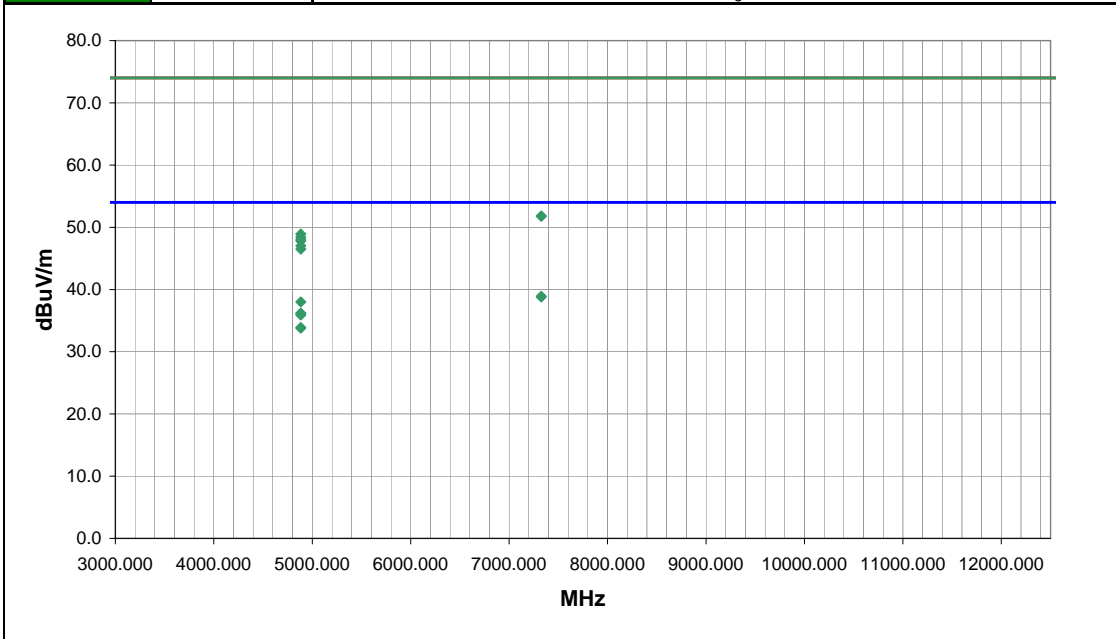
NORTHWEST EMC		SPURIOUS RADIATED EMISSIONS		PSA 2007.05.07 EMI 2006.12.20									
EUT: Scanpoint Remote			Work Order: VERA0015										
Serial Number: 04007-03 (Test TX 1)			Date: 06/11/07										
Customer: Verathon Medical			Temperature: 22										
Attendees: None			Humidity: 34%										
Project: None			Barometric Pres.: 30.11										
Tested by: Rod Peloquin		Power: 120VAC/60Hz		Job Site: EV01									
TEST SPECIFICATIONS			Test Method										
FCC 15.249:2006			ANSI C63.4:2003										
TEST PARAMETERS													
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3									
COMMENTS													
Docking Cradle													
EUT OPERATING MODES													
Transmitting with modulation													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #		4		 Signature									
Configuration #		2											
Results		Pass											
													
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
7206.617	27.9	13.2	103.0	1.1	3.0	0.0	V-Horn	AV	0.0	41.1	54.0	-12.9	Low channel
7436.520	25.0	14.5	220.0	1.5	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5	High channel
7326.407	25.3	14.0	117.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.3	54.0	-14.7	Mid channel
7436.860	24.7	14.5	50.0	1.2	3.0	0.0	V-Horn	AV	0.0	39.2	54.0	-14.8	High channel
7327.477	24.8	14.0	20.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.8	54.0	-15.2	Mid channel
7206.887	25.3	13.2	115.0	1.3	3.0	0.0	H-Horn	AV	0.0	38.5	54.0	-15.5	Low channel
4884.027	30.3	7.7	167.0	1.3	3.0	0.0	H-Horn	AV	0.0	38.0	54.0	-16.0	Mid channel
4958.043	29.8	8.0	192.0	1.2	3.0	0.0	H-Horn	AV	0.0	37.8	54.0	-16.2	High channel
4803.990	30.1	7.4	165.0	1.1	3.0	0.0	H-Horn	AV	0.0	37.5	54.0	-16.5	Low channel
4958.053	28.7	8.0	210.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.7	54.0	-17.3	High channel
4884.040	27.2	7.7	212.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.9	54.0	-19.1	Mid channel
4803.997	27.2	7.4	221.0	1.1	3.0	0.0	V-Horn	AV	0.0	34.6	54.0	-19.4	Low channel
7205.780	40.0	13.2	103.0	1.1	3.0	0.0	V-Horn	PK	0.0	53.2	74.0	-20.8	Low channel
7436.010	38.6	14.5	50.0	1.2	3.0	0.0	V-Horn	PK	0.0	53.1	74.0	-20.9	High channel
7326.797	39.0	14.0	117.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.0	74.0	-21.0	Mid channel
7436.353	38.3	14.5	220.0	1.5	3.0	0.0	H-Horn	PK	0.0	52.8	74.0	-21.2	High channel
7326.377	38.0	14.0	20.0	1.0	3.0	0.0	H-Horn	PK	0.0	52.0	74.0	-22.0	Mid channel
7206.207	38.4	13.2	115.0	1.3	3.0	0.0	H-Horn	PK	0.0	51.6	74.0	-22.4	Low channel
4957.727	40.9	8.0	210.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.9	74.0	-25.1	High channel
4957.993	40.7	8.0	192.0	1.2	3.0	0.0	H-Horn	PK	0.0	48.7	74.0	-25.3	High channel

NORTHWEST		<b>SPURIOUS RADIATED EMISSIONS</b>		PSA 2007.05.07 EMI 2006.12.20	
<b>EMC</b>					
EUT: Scanpoint Remote				Work Order: VERA0015	
Serial Number: 04007-03 (Test TX 1)				Date: 06/12/07	
Customer: Verathon Medical				Temperature: 22	
Attendees: None				Humidity: 34%	
Project: None				Barometric Pres.: 30.11	
Tested by: Rod Peloquin				Power: Battery	
				Job Site: EV01	
TEST SPECIFICATIONS			Test Method		
FCC 15.249:2006			ANSI C63.4:2003		
TEST PARAMETERS					
Antenna Height(s) (m)		1 - 4		Test Distance (m)	
				3	
COMMENTS					
EUT OPERATING MODES					
Transmitting with modulation low channel					
DEVIATIONS FROM TEST STANDARD					
No deviations.					
Run #		6		 Signature	
Configuration #		1			
Results		Pass			

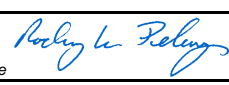


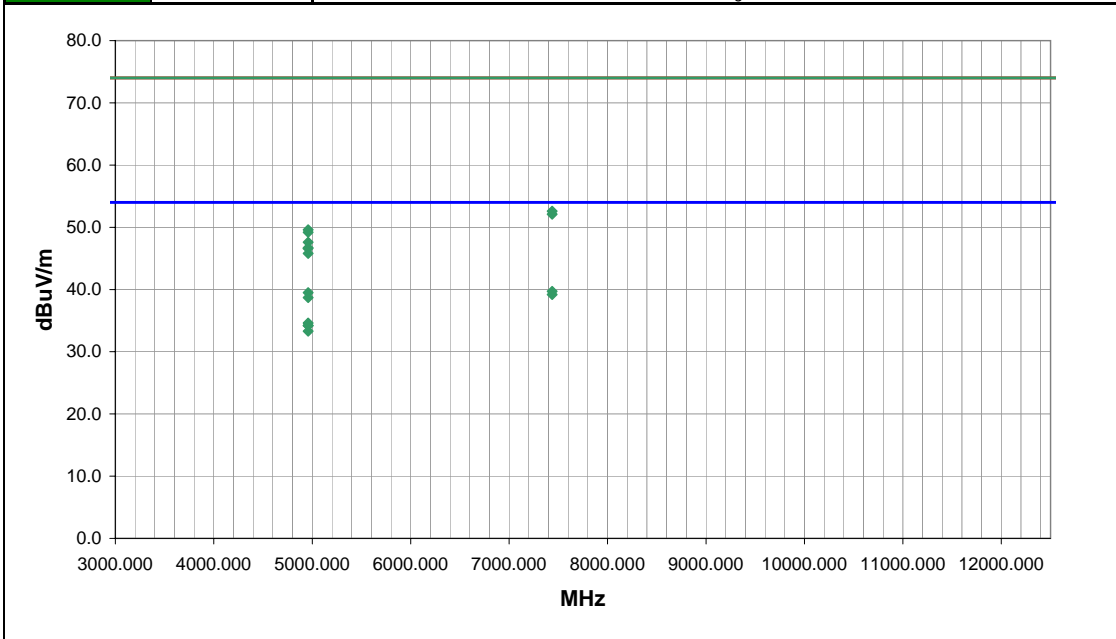
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
7206.613	26.6	13.2	162.0	1.1	3.0	0.0	V-Horn	AV	0.0	39.8	54.0	-14.2	EUT on side
7206.687	25.5	13.2	257.0	1.3	3.0	0.0	H-Horn	AV	0.0	38.7	54.0	-15.3	EUT vertical
4804.033	28.8	7.4	277.0	1.2	3.0	0.0	V-Horn	AV	0.0	36.2	54.0	-17.8	EUT on side
4804.027	28.3	7.4	175.0	1.9	3.0	0.0	H-Horn	AV	0.0	35.7	54.0	-18.3	EUT vertical
4804.067	26.8	7.4	250.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.2	54.0	-19.8	EUT vertical
4804.037	26.6	7.4	106.0	1.3	3.0	0.0	H-Horn	AV	0.0	34.0	54.0	-20.0	EUT horizontal
4804.013	26.4	7.4	331.0	1.2	3.0	0.0	V-Horn	AV	0.0	33.8	54.0	-20.2	EUT horizontal
4803.960	25.0	7.4	11.0	1.9	3.0	0.0	H-Horn	AV	0.0	32.4	54.0	-21.6	EUT on side
7206.817	39.1	13.2	162.0	1.1	3.0	0.0	V-Horn	PK	0.0	52.3	74.0	-21.7	EUT on side
7206.110	38.3	13.2	257.0	1.3	3.0	0.0	H-Horn	PK	0.0	51.5	74.0	-22.5	EUT vertical
4803.873	40.0	7.4	106.0	1.3	3.0	0.0	H-Horn	PK	0.0	47.4	74.0	-26.6	EUT horizontal
4803.743	39.8	7.4	277.0	1.2	3.0	0.0	V-Horn	PK	0.0	47.2	74.0	-26.8	EUT on side
4803.673	39.4	7.4	175.0	1.9	3.0	0.0	H-Horn	PK	0.0	46.8	74.0	-27.2	EUT vertical
4803.870	38.8	7.4	250.0	1.2	3.0	0.0	V-Horn	PK	0.0	46.2	74.0	-27.8	EUT vertical
4803.960	38.8	7.4	331.0	1.2	3.0	0.0	V-Horn	PK	0.0	46.2	74.0	-27.8	EUT horizontal
4803.000	38.6	7.4	11.0	1.9	3.0	0.0	H-Horn	PK	0.0	46.0	74.0	-28.0	EUT on side

NORTHWEST		<b>SPURIOUS RADIATED EMISSIONS</b>		PSA 2007.05.07	
<b>EMC</b>				EMI 2006.12.20	
EUT: Scanpoint Remote				Work Order: VERA0015	
Serial Number: 04007-03 (Test TX 1)				Date: 06/12/07	
Customer: Verathon Medical				Temperature: 22	
Attendees: None				Humidity: 34%	
Project: None				Barometric Pres.: 30.11	
Tested by: Rod Peloquin				Power: Battery	
				Job Site: EV01	
TEST SPECIFICATIONS			Test Method		
FCC 15.249:2006			ANSI C63.4:2003		
TEST PARAMETERS					
Antenna Height(s) (m)		1 - 4		Test Distance (m)	
				3	
COMMENTS					
EUT OPERATING MODES					
Transmitting with modulation mid channel					
DEVIATIONS FROM TEST STANDARD					
No deviations.					
Run #		7		 Signature	
Configuration #		1			
Results		Pass			



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
7326.273	24.9	14.0	5.0	1.2	3.0	0.0	H-Horn	AV	0.0	38.9	54.0	-15.1	EUT vertical
7326.823	24.8	14.0	240.0	1.0	3.0	0.0	V-Horn	AV	0.0	38.8	54.0	-15.2	EUT on side
4884.013	30.3	7.7	186.0	1.3	3.0	0.0	H-Horn	AV	0.0	38.0	54.0	-16.0	EUT vertical
4884.023	28.5	7.7	68.0	1.1	3.0	0.0	V-Horn	AV	0.0	36.2	54.0	-17.8	EUT on side
4884.133	28.4	7.7	32.0	1.2	3.0	0.0	H-Horn	AV	0.0	36.1	54.0	-17.9	EUT horizontal
4884.100	28.2	7.7	208.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.9	54.0	-18.1	EUT vertical
4884.083	26.2	7.7	166.0	1.1	3.0	0.0	V-Horn	AV	0.0	33.9	54.0	-20.1	EUT horizontal
4884.013	26.1	7.7	112.0	1.3	3.0	0.0	H-Horn	AV	0.0	33.8	54.0	-20.2	EUT on side
7326.570	37.8	14.0	240.0	1.0	3.0	0.0	V-Horn	PK	0.0	51.8	74.0	-22.2	EUT on side
7326.630	37.8	14.0	5.0	1.2	3.0	0.0	H-Horn	PK	0.0	51.8	74.0	-22.2	EUT vertical
4884.017	41.2	7.7	186.0	1.3	3.0	0.0	H-Horn	PK	0.0	48.9	74.0	-25.1	EUT vertical
4884.420	40.7	7.7	208.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.4	74.0	-25.6	EUT vertical
4884.100	40.3	7.7	32.0	1.2	3.0	0.0	H-Horn	PK	0.0	48.0	74.0	-26.0	EUT horizontal
4883.370	40.1	7.7	68.0	1.1	3.0	0.0	V-Horn	PK	0.0	47.8	74.0	-26.2	EUT on side
4883.820	39.3	7.7	166.0	1.1	3.0	0.0	V-Horn	PK	0.0	47.0	74.0	-27.0	EUT horizontal
4883.847	38.8	7.7	112.0	1.3	3.0	0.0	H-Horn	PK	0.0	46.5	74.0	-27.5	EUT on side

NORTHWEST		<b>SPURIOUS RADIATED EMISSIONS</b>		PSA 2007.05.07 EMI 2006.12.20	
<b>EMC</b>					
EUT: Scanpoint Remote				Work Order: VERA0015	
Serial Number: 04007-03 (Test TX 1)				Date: 06/12/07	
Customer: Verathon Medical				Temperature: 22	
Attendees: None				Humidity: 34%	
Project: None				Barometric Pres.: 30.11	
Tested by: Rod Peloquin				Power: Battery	
				Job Site: EV01	
TEST SPECIFICATIONS			Test Method		
FCC 15.249:2006			ANSI C63.4:2003		
TEST PARAMETERS					
Antenna Height(s) (m)		1 - 4		Test Distance (m)	
				3	
COMMENTS					
EUT OPERATING MODES					
Transmitting with modulation high channel					
DEVIATIONS FROM TEST STANDARD					
No deviations.					
Run #		8		 Signature	
Configuration #		1			
Results		Pass			



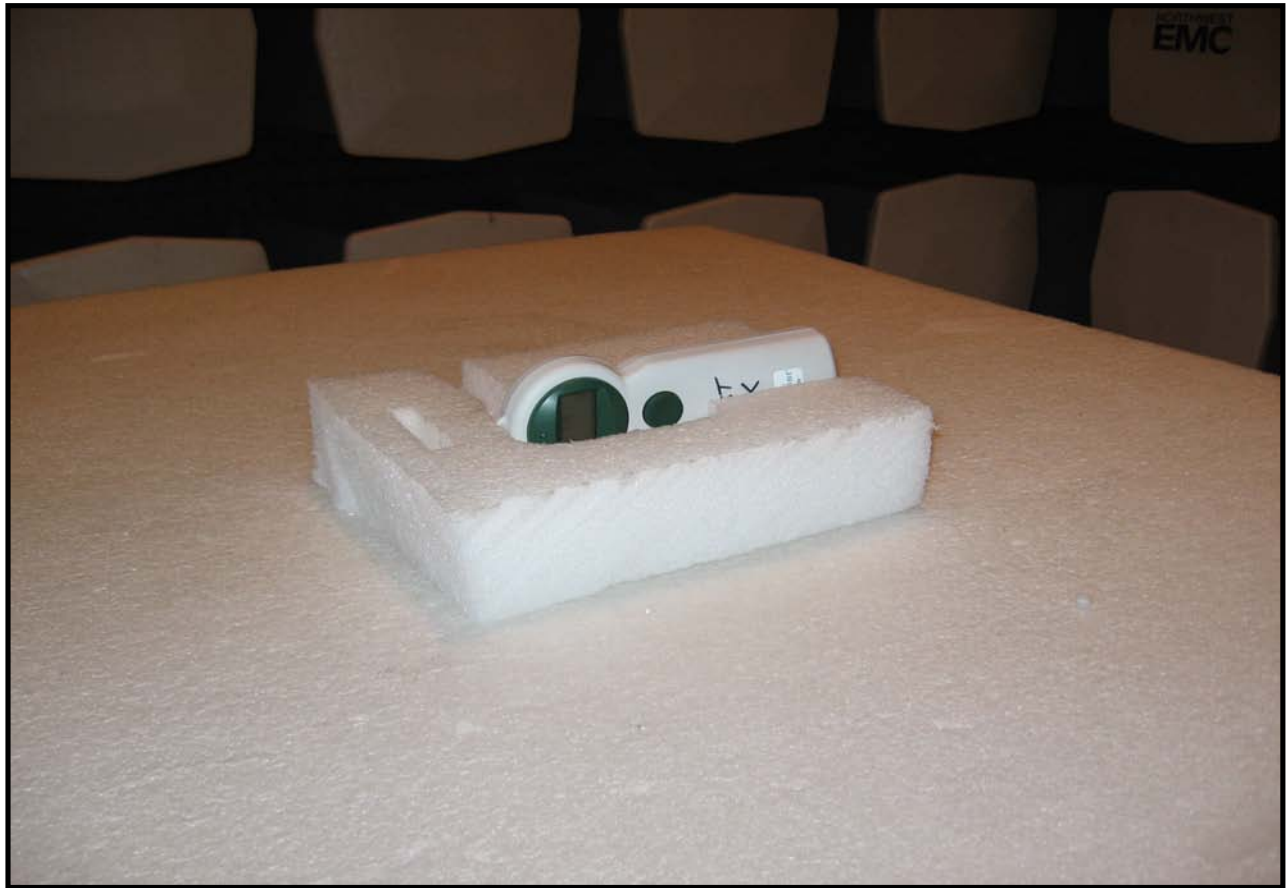
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
7437.003	25.2	14.5	136.0	1.1	3.0	0.0	V-Horn	AV	0.0	39.7	54.0	-14.3	EUT vertical
4957.997	31.5	8.0	196.0	1.1	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5	EUT vertical
7436.740	24.7	14.5	222.0	1.3	3.0	0.0	H-Horn	AV	0.0	39.2	54.0	-14.8	EUT vertical
4958.073	30.7	8.0	275.0	1.1	3.0	0.0	V-Horn	AV	0.0	38.7	54.0	-15.3	EUT on side
4958.090	26.6	8.0	125.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.6	54.0	-19.4	EUT vertical
4957.870	26.2	8.0	160.0	1.1	3.0	0.0	V-Horn	AV	0.0	34.2	54.0	-19.8	EUT horizontal
4958.033	26.2	8.0	199.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.2	54.0	-19.8	EUT on side
4958.080	25.3	8.0	350.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.3	54.0	-20.7	EUT horizontal
7437.493	38.1	14.5	136.0	1.1	3.0	0.0	V-Horn	PK	0.0	52.6	74.0	-21.4	EUT vertical
7437.787	37.6	14.5	222.0	1.3	3.0	0.0	H-Horn	PK	0.0	52.1	74.0	-21.9	EUT vertical
4958.457	41.6	8.0	275.0	1.1	3.0	0.0	V-Horn	PK	0.0	49.6	74.0	-24.4	EUT on side
4958.067	41.2	8.0	196.0	1.1	3.0	0.0	H-Horn	PK	0.0	49.2	74.0	-24.8	EUT vertical
4958.067	39.6	8.0	125.0	1.2	3.0	0.0	V-Horn	PK	0.0	47.6	74.0	-26.4	EUT vertical
4957.903	38.7	8.0	199.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3	EUT on side
4957.257	38.6	8.0	160.0	1.1	3.0	0.0	V-Horn	PK	0.0	46.6	74.0	-27.4	EUT horizontal
4958.623	37.8	8.0	350.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.8	74.0	-28.2	EUT horizontal











Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

#### MODES OF OPERATION

Transmitting with modulation

#### POWER SETTINGS INVESTIGATED

120VAC/60Hz

Battery

#### FREQUENCY RANGE INVESTIGATED

Start Frequency	2400 MHz	Stop Frequency	2483.5 MHz
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#### SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

#### TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Antenna, Horn	EMCO	3160-07	AHP	NCR	0
SU07 cables a,h,c			SUB	2/14/2007	13
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	12/7/2006	13
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQA	12/7/2006	13
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2006	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	12
EV01 cables g,h,j			EVB	5/10/2007	13

#### MEASUREMENT BANDWIDTHS

	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0


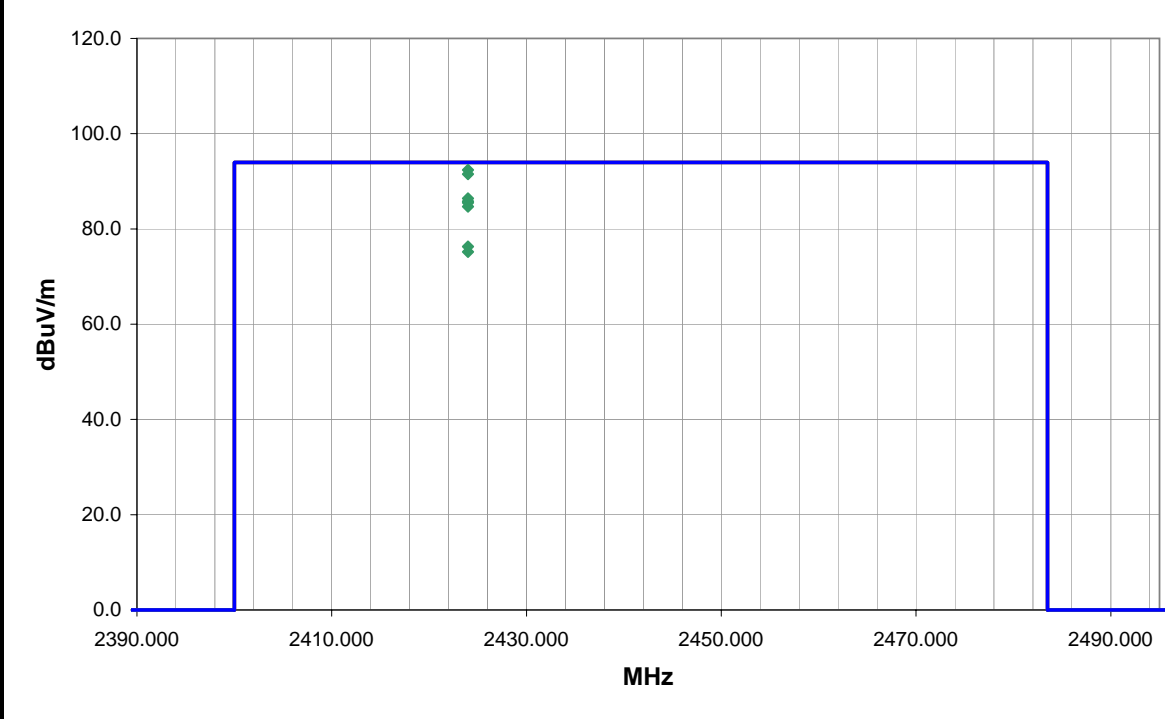
Measurements were made using the bandwidths and detectors specified. No video filter was used.

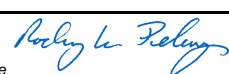
#### MEASUREMENT UNCERTAINTY

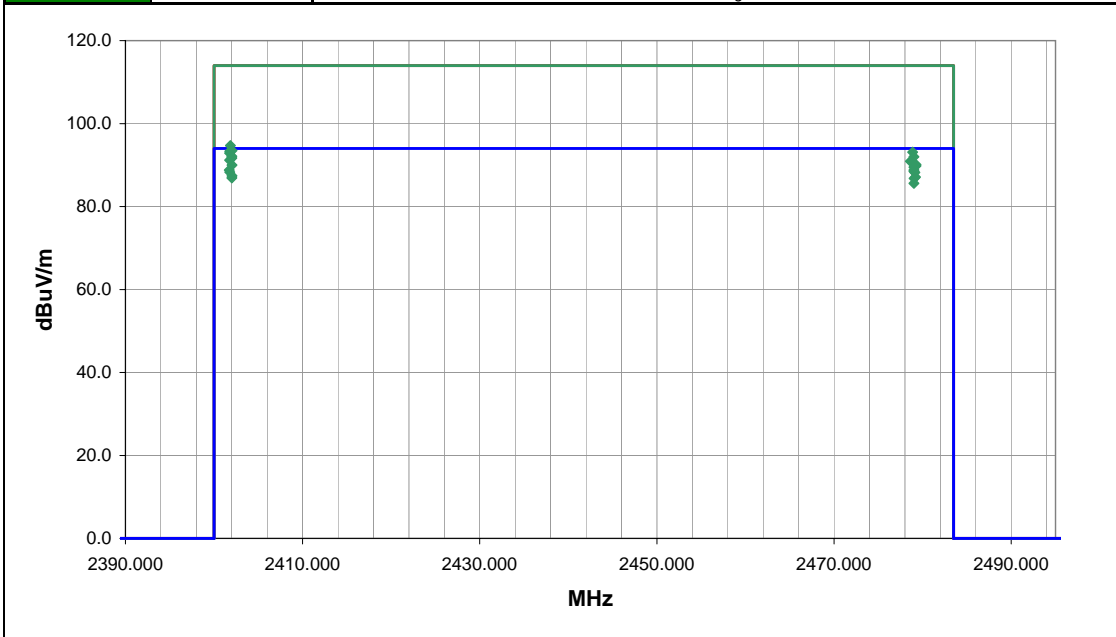
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### TEST DESCRIPTION

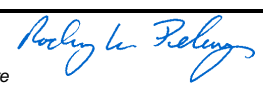
The antennas to be used with the EUT were tested. The EUT was transmitting and/or receiving while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003).

NORTHWEST		<b>FIELD STRENGTH OF FUNDAMENTAL</b>				ACQ 2007.05.07 EMI 2006.12.04						
<b>EMC</b>												
EUT: Scanpoint Remote				Work Order: VERA0014								
Serial Number: None				Date: 05/18/07								
Customer: Verathon Medical				Temperature: 19 C								
Attendees: Tim Chinowsky				Humidity: 40%								
Project: None				Barometric Pres.: 30.03								
Tested by: Chris Searls		Power: Battery		Job Site: SU07								
<b>TEST SPECIFICATIONS</b>				<b>Test Method</b>								
FCC 15.249:2006				ANSI C63.4:2003								
<b>TEST PARAMETERS</b>												
Antenna Height(s) (m)		1 - 4		Test Distance (m)								
<b>COMMENTS</b>												
None												
<b>EUT OPERATING MODES</b>												
Transmitting												
<b>DEVIATIONS FROM TEST STANDARD</b>												
No deviations.												
Run #	1		 Signature									
Configuration #	1											
Results	Pass											
 <p>The graph displays the field strength in dBuV/m on the y-axis (0.0 to 120.0) against frequency in MHz on the x-axis (2390.000 to 2490.000). A blue limit line is set at approximately 94.0 dBuV/m. Four green data points are plotted at 2424.000 MHz, with values ranging from 75.2 to 92.4 dBuV/m, all well below the limit.</p>												
<b>Freq (MHz)</b>	<b>Amplitude (dBuV)</b>	<b>Factor (dB)</b>	<b>Azimuth (degrees)</b>	<b>Height (meters)</b>	<b>Distance (meters)</b>	<b>External Attenuation (dB)</b>	<b>Polarity</b>	<b>Detector</b>	<b>Distance Adjustment (dB)</b>	<b>Adjusted dBuV/m</b>	<b>Spec. Limit dBuV/m</b>	<b>Compared to Spec. (dB)</b>
2424.000	84.9	-2.5	142.0	2.0	3.0	10.0	H-Horn	PK	0.0	92.4	94.0	-1.6
2424.000	84.0	-2.5	142.0	2.0	3.0	10.0	H-Horn	AV	0.0	91.5	94.0	-2.5
2424.000	78.9	-2.5	347.0	1.5	3.0	10.0	H-Horn	PK	0.0	86.4	94.0	-7.6
2424.000	78.3	-2.5	142.0	2.2	3.0	10.0	V-Horn	PK	0.0	85.8	94.0	-8.2
2424.000	78.0	-2.5	347.0	1.5	3.0	10.0	H-Horn	AV	0.0	85.5	94.0	-8.5
2424.000	77.2	-2.5	142.0	2.2	3.0	10.0	V-Horn	AV	0.0	84.7	94.0	-9.3
2424.000	68.8	-2.5	347.0	1.2	3.0	10.0	V-Horn	PK	0.0	76.3	94.0	-17.7
2424.000	67.7	-2.5	347.0	1.2	3.0	10.0	V-Horn	AV	0.0	75.2	94.0	-18.8

NORTHWEST		PSA 2007.05.07	
<b>EMC</b>		<b>FIELD STRENGTH OF FUNDAMENTAL</b>	
EMI 2006.12.20			
EUT: Scanpoint Remote		Work Order: VERA0015	
Serial Number: 04007-03 (Test TX 1)		Date: 06/11/07	
Customer: Verathon Medical		Temperature: 22	
Attendees: None		Humidity: 34%	
Project: None		Barometric Pres.: 30.11	
Tested by: Rod Peloquin		Power: Battery	
		Job Site: EV01	
TEST SPECIFICATIONS		Test Method	
FCC 15.249:2006		ANSI C63.4:2003	
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3
COMMENTS			
EUT OPERATING MODES			
Transmitting with modulation			
DEVIATIONS FROM TEST STANDARD			
No deviations.			
Run #	1	 Signature	
Configuration #	1		
Results	Pass		



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
2402.023	60.4	33.1	323.0	1.2	0.0	0.0	H-Horn	AV	0.0	93.5	94.0	-0.5	EUT horizontal
2402.017	59.0	33.1	180.0	1.1	0.0	0.0	H-Horn	AV	0.0	92.1	94.0	-1.9	EUT vertical
2479.017	58.6	33.4	321.0	1.2	0.0	0.0	H-Horn	AV	0.0	92.0	94.0	-2.0	EUT horizontal
2402.013	58.6	33.1	138.0	1.2	0.0	0.0	H-Horn	AV	0.0	91.7	94.0	-2.3	EUT on Side
2402.023	56.9	33.1	12.0	1.3	0.0	0.0	V-Horn	AV	0.0	90.0	94.0	-4.0	EUT on Side
2479.023	56.1	33.4	265.0	1.0	0.0	0.0	V-Horn	AV	0.0	89.5	94.0	-4.5	EUT on side
2479.020	55.4	33.4	25.0	1.1	0.0	0.0	V-Horn	AV	0.0	88.8	94.0	-5.2	EUT vertical
2479.023	55.1	33.4	351.0	1.0	0.0	0.0	H-Horn	AV	0.0	88.5	94.0	-5.5	EUT vertical
2402.023	54.3	33.1	164.0	1.3	0.0	0.0	V-Horn	AV	0.0	87.4	94.0	-6.6	EUT horizontal
2402.020	53.8	33.1	159.0	1.0	0.0	0.0	V-Horn	AV	0.0	86.9	94.0	-7.1	EUT vertical
2479.027	53.4	33.4	211.0	1.1	0.0	0.0	H-Horn	AV	0.0	86.8	94.0	-7.2	EUT on side
2479.017	52.2	33.4	166.0	1.6	0.0	0.0	V-Horn	AV	0.0	85.6	94.0	-8.4	EUT horizontal
2401.857	61.6	33.1	323.0	1.2	0.0	0.0	H-Horn	PK	0.0	94.7	114.0	-19.3	EUT horizontal
2401.777	60.2	33.1	180.0	1.1	0.0	0.0	H-Horn	PK	0.0	93.3	114.0	-20.7	EUT vertical
2478.877	59.7	33.4	321.0	1.2	0.0	0.0	H-Horn	PK	0.0	93.1	114.0	-20.9	EUT horizontal
2401.757	59.8	33.1	138.0	1.2	0.0	0.0	H-Horn	PK	0.0	92.9	114.0	-21.1	EUT on Side
2401.760	58.1	33.1	12.0	1.3	0.0	0.0	V-Horn	PK	0.0	91.2	114.0	-22.8	EUT on Side
2478.610	57.5	33.4	265.0	1.0	0.0	0.0	V-Horn	PK	0.0	90.9	114.0	-23.1	EUT on side
2479.243	56.7	33.4	25.0	1.1	0.0	0.0	V-Horn	PK	0.0	90.1	114.0	-23.9	EUT vertical
2479.253	56.4	33.4	351.0	1.0	0.0	0.0	H-Horn	PK	0.0	89.8	114.0	-24.2	EUT vertical

NORTHWEST		PSA 2007.05.07 EMI 2006.12.20	
<b>EMC</b>		<b>FIELD STRENGTH OF FUNDAMENTAL</b>	
EUT: Scanpoint Remote		Work Order: VERA0015	
Serial Number: 04007-03 (Test TX 1)		Date: 06/11/07	
Customer: Verathon Medical		Temperature: 22	
Attendees: None		Humidity: 34%	
Project: None		Barometric Pres.: 30.11	
Tested by: Rod Peloquin		Power: 120VAC/60Hz	Job Site: EV01
TEST SPECIFICATIONS		Test Method	
FCC 15.249:2006		ANSI C63.4:2003	
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3
COMMENTS			
In charging cradle			
EUT OPERATING MODES			
Transmitting with modulation			
DEVIATIONS FROM TEST STANDARD			
No deviations.			
Run #	3	 Signature	
Configuration #	2		
Results	Pass		

