

Cameron Health, Inc.

SQ-RX Pulse Generator

June 26, 2008

Report No. CAME0008 Rev. 01

Report Prepared By



www.nwemc.com
1-888-EMI-CERT

© 2008 Northwest EMC, Inc

EMC Test Report



22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test
Issue Date: June 26, 2008
Cameron Health, Inc.
Model: SQ-RX Pulse Generator

Emissions			
Test Description	Specification	Test Method	Pass/Fail
Field Strength of Radiated Emissions	FCC 95I:2007	ANSI/TIA/EIA-603-C-2004	Pass
Receiver Spurious Emissions	FCC 15.209:2007	ANSI C63.4:2003	Pass
Field Strength of Fundamental	FCC 95I:2007	FCC 95I:2007	Pass
Occupied Bandwidth	FCC 95I:2007	ANSI/TIA/EIA-603-C-2004	Pass
Emission Mask	FCC 95I:2007	ANSI/TIA/EIA-603-C-2004	Pass
Frequency Stability	FCC 95I:2007	ANSI/TIA/EIA-603-C-2004	Pass

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.
41 Tesla Ave.
Irvine, CA 92618

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 (Site Filing #2834B).

Approved By:

Ethan Schoonover, Sultan Lab Manager



NVLAP Lab Code: 200676-0

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	Corrected Test Method for Field Strength of the Fundamental	2/2/09	2, 28-29
01	Revised data to include EIRP of uW	2/2/09	28-29

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 2004/108/EC, 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 (US0017). 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



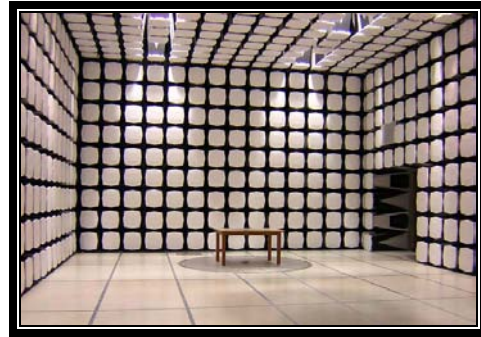
MIC: Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157)



SCOPE

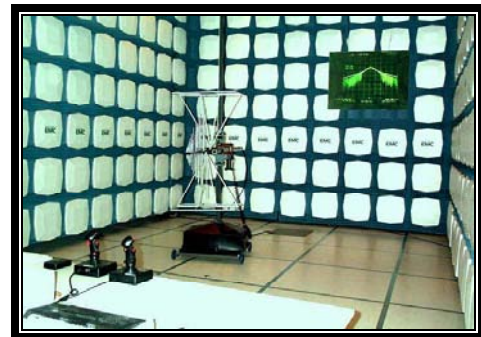
For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>



**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 339th Ave. SE Sultan, WA 98294
(888) 364-2378

Party Requesting the Test

Company Name:	Cameron Health, Inc.
Address:	229 Avenida Fabricante
City, State, Zip:	San Clemente, CA 92672
Test Requested By:	Paul Erlinger
Model:	SQ-RX Pulse Generator
First Date of Test:	June 11, 2008
Last Date of Test:	June 24, 2008
Receipt Date of Samples:	June 11, 2008
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):

Pulse Generator

Testing Objective:

These tests were selected to satisfy the EMC requirements requested by the client.

EUT Photo



CONFIGURATION 1 CAME0008

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
SQ-RX Pulse Generator	Cameron Health, Inc.	1010	1010-153-750

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Q-Tech Programmer 2020	Cameron Health, Inc	2020	2020-A100118
Power Supply	ELPAC Power Systems	MW2415	002173
Wand Antenna	Cameron Health, Inc.	4510	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Cable	No	1.7m	No	Power Supply	AC Mains
DC Cable	No	1.7m	No	Power Supply	Q-Tech Programmer 2020
Wand Antenna	No	3m	No	Q-Tech Programmer 2020	Wand Antenna
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 3 CAME0008

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
SQ-RX Pulse Generator	Cameron Health, Inc.	1010	1010-153-750

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Human Torso Test Fixture	Cameron Health, Inc.	None	None

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Q-Tech Programmer 2020	Cameron Health, Inc	2020	2020-A100118
Power Supply	ELPAC Power Systems	MW2415	002173
Wand Antenna	Cameron Health, Inc.	4510	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Electrode	No	.5m	No	SQ-RX Pulse Generator	Unterminated
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	6/11/2008	Emission Mask	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	6/11/2008	Occupied Bandwidth	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	6/12/2008	Receiver 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.
4	6/12/2008	Frequency Stability	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.
5	6/24/2008	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.
6	6/24/2008	Field Strength of Radiated 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

Receive Mode.

MODE USED FOR FINAL DATA

Receive Mode.

POWER SETTINGS INVESTIGATED

Battery

POWER SETTINGS USED FOR FINAL DATA

Battery

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	12.8 GHz
-----------------	--------	----------------	----------

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
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AOE	10/13/2006	24
Antenna, Horn	ETS	3160-07	AHR	NCR	0
OC 10 Cables a, b, c, l Cables			OCO	2/2/2008	13
Pre-Amplifier	Miteq	AMF-4D-010120-30-10P-1	AOP	2/2/2008	13
Antenna, Horn	EMCO	3115	AHB	8/31/2007	24
OC10 cables a,b,c,e,f Horn Cables			OCJ	2/2/2008	13
Antenna, Biconilog	EMCO	3142	AXJ	2/25/2008	24
OC10 cables a,b,c,d Bilog			OCH	1/7/2008	13
Pre-Amplifier	Miteq	AM-1616-1000	AOM	1/7/2008	13
Spectrum Analyzer	Agilent	E4446A	AAQ	12/14/2007	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.

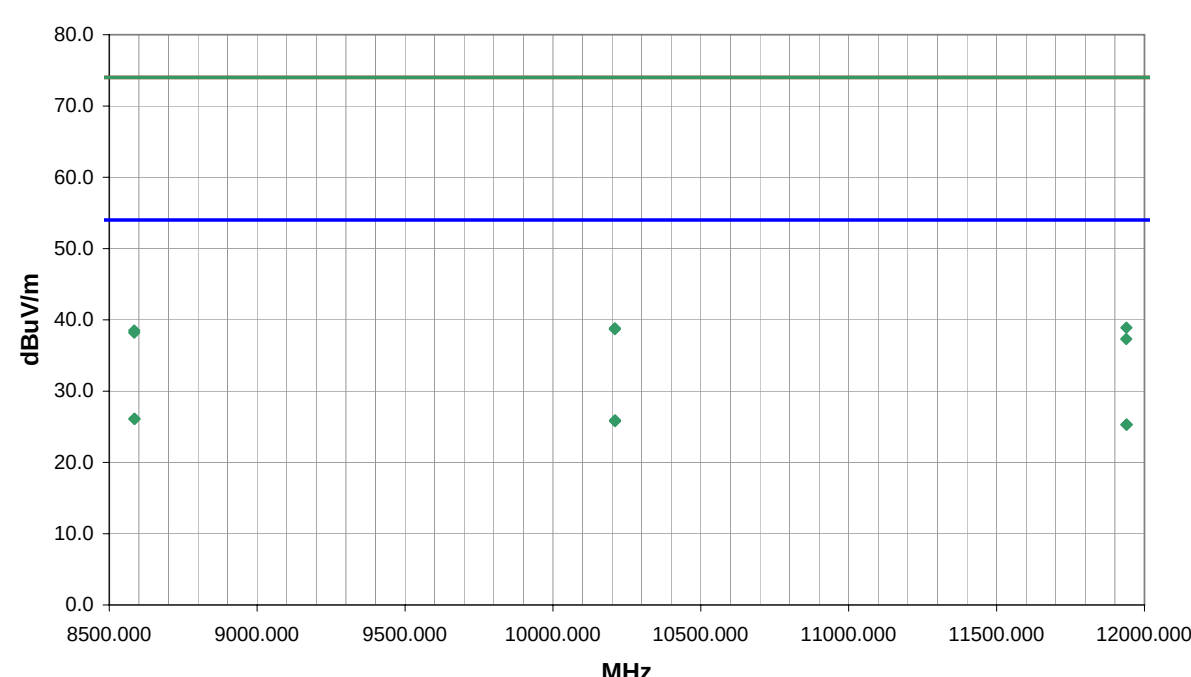
TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for mid channel receive frequency. For this configuration, the spectrum was scanned throughout the specified range. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes.

NORTHWEST		PSA 2007.05.07 EMI 2006.4.26	
EMC		RECEIVER SPURIOUS EMISSIONS DATA SHEET	
EUT: SQ-RX Pulse Generator		Work Order: CAME0008	
Serial Number: 1010-153-750		Date: 06/12/08	
Customer: Cameron Health, Inc.		Temperature: 21.43	
Attendees: Paul Erlinger		Humidity: 52%	
Project: None		Barometric Pres.: 1011	
Tested by: Jaemi Suh		Power: Battery	Job Site: 0C10
TEST SPECIFICATIONS		Test Method	
FCC 15.209:2007		ANSI C63.4:2003	
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3
COMMENTS			
None			
EUT OPERATING MODES			
Receive Mode.			
DEVIATIONS FROM TEST STANDARD			
No deviations.			
Run #	1	 Signature	
Configuration #	1		
Results	Pass		
MHz			
dBuV/m			
10.000	100.000	1000.000	

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)
841.236	21.7	9.7	0.0	2.4	3.0	0.0	V-Bilog	PK	0.0	31.4	46.0	-14.6
44.468	28.4	-4.0	159.0	1.0	3.0	0.0	V-Bilog	PK	0.0	24.4	40.0	-15.6
44.507	28.2	-4.0	244.0	1.0	3.0	0.0	H-Bilog	PK	0.0	24.2	40.0	-15.8
606.488	21.9	6.9	213.0	1.0	3.0	0.0	V-Bilog	PK	0.0	28.8	46.0	-17.2
44.500	26.5	-4.0	244.0	1.0	3.0	0.0	H-Bilog	QP	0.0	22.5	40.0	-17.5
44.495	26.2	-4.0	159.0	1.0	3.0	0.0	V-Bilog	QP	0.0	22.2	40.0	-17.8
841.647	16.5	9.7	0.0	2.4	3.0	0.0	V-Bilog	QP	0.0	26.2	46.0	-19.8
382.712	22.7	2.0	247.0	1.0	3.0	0.0	H-Bilog	PK	0.0	24.7	46.0	-21.3
606.909	16.6	6.9	213.0	1.0	3.0	0.0	V-Bilog	QP	0.0	23.5	46.0	-22.5
200.735	22.4	-4.3	254.0	2.6	3.0	0.0	H-Bilog	PK	0.0	18.1	43.5	-25.4
99.543	22.8	-6.0	233.0	1.0	3.0	0.0	H-Bilog	PK	0.0	16.8	43.5	-26.7
383.035	17.1	2.0	247.0	1.0	3.0	0.0	H-Bilog	QP	0.0	19.1	46.0	-26.9
199.830	16.7	-4.3	254.0	2.6	3.0	0.0	H-Bilog	QP	0.0	12.4	43.5	-31.1
99.643	16.8	-6.0	233.0	1.0	3.0	0.0	H-Bilog	QP	0.0	10.8	43.5	-32.7

NORTHWEST EMC										RECEIVER SPURIOUS EMISSIONS DATA SHEET					PSA 2007.05.07 EMI 2006.4.26				
EUT: SQ-RX Pulse Generator										Work Order: CAME0008									
Serial Number: 1010-153-750										Date: 06/12/08									
Customer: Cameron Health, Inc.										Temperature: 21.43									
Attendees: Paul Erlinger										Humidity: 52%									
Project: None										Barometric Pres.: 1011									
Tested by: Jaemi Suh					Power: Battery					Job Site: 0C10									
TEST SPECIFICATIONS										Test Method									
FCC 15.209:2007										ANSI C63.4:2003									
TEST PARAMETERS																			
Antenna Height(s) (m)					1 - 4					Test Distance (m)					3				
COMMENTS																			
None																			
EUT OPERATING MODES																			
Receive Mode.																			
DEVIATIONS FROM TEST STANDARD																			
No deviations.																			
Run #		2		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	Spec. (dB)	Compared to Spec. (dB)						
6960.309	25.0	16.3	187.0	1.9	3.0	0.0	H-Horn	AV	0.0	41.3	54.0	-12.7							
6960.689	25.0	16.3	16.0	1.0	3.0	0.0	V-Horn	AV	0.0	41.3	54.0	-12.7							
6958.487	37.8	16.3	16.0	1.0	3.0	0.0	V-Horn	PK	0.0	54.1	74.0	-19.9							
6958.106	37.7	16.3	187.0	1.9	3.0	0.0	H-Horn	PK	0.0	54.0	74.0	-20.0							
3612.539	24.0	8.5	51.0	1.0	3.0	0.0	H-Horn	AV	0.0	32.5	54.0	-21.5							
3612.768	24.0	8.5	147.0	3.5	3.0	0.0	V-Horn	AV	0.0	32.5	54.0	-21.5							
2020.605	24.4	5.6	276.0	2.8	3.0	0.0	H-Horn	AV	0.0	30.0	54.0	-24.0							
2021.179	24.3	5.6	160.0	1.0	3.0	0.0	V-Horn	AV	0.0	29.9	54.0	-24.1							
3612.553	36.8	8.5	147.0	3.5	3.0	0.0	V-Horn	PK	0.0	45.3	74.0	-28.7							
1318.048	25.9	-1.3	360.0	1.6	3.0	0.0	V-Horn	AV	0.0	24.6	54.0	-29.4							
1318.289	25.9	-1.3	78.0	1.0	3.0	0.0	H-Horn	AV	0.0	24.6	54.0	-29.4							
3613.527	36.1	8.5	51.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.6	74.0	-29.4							
2020.202	37.3	5.6	160.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.9	74.0	-31.1							
2019.658	36.7	5.6	276.0	2.8	3.0	0.0	H-Horn	PK	0.0	42.3	74.0	-31.7							
1319.061	38.4	-1.3	360.0	1.6	3.0	0.0	V-Horn	PK	0.0	37.1	74.0	-36.9							
1319.133	38.3	-1.3	78.0	1.0	3.0	0.0	H-Horn	PK	0.0	37.0	74.0	-37.0							

NORTHWEST EMC		RECEIVER SPURIOUS EMISSIONS DATA SHEET										PSA 2007.05.07 EMI 2006.4.26	
EUT: SQ-RX Pulse Generator										Work Order: CAME0008			
Serial Number: 1010-153-750										Date: 06/12/08			
Customer: Cameron Health, Inc.										Temperature: 21.43			
Attendees: Paul Erlinger										Humidity: 52%			
Project: None										Barometric Pres.: 1011			
Tested by: Jaemi Suh						Power: 120VAC/60Hz		Job Site: 0C10					
TEST SPECIFICATIONS										Test Method			
FCC 15.209:2007										ANSI C63.4:2003			
TEST PARAMETERS													
Antenna Height(s) (m)						1 - 4		Test Distance (m)		3			
COMMENTS													
None													
EUT OPERATING MODES													
Receive Mode.													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #		3		 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)	
8584.935	35.3	-9.2	130.0	1.0	3.0	0.0	V-Horn	AV	0.0	26.1	54.0	-27.9	
8585.534	35.3	-9.2	16.0	1.0	3.0	0.0	H-Horn	AV	0.0	26.1	54.0	-27.9	
10210.170	34.5	-8.6	266.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.9	54.0	-28.1	
10209.730	34.4	-8.6	208.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.8	54.0	-28.2	
11939.040	34.3	-9.0	305.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.3	54.0	-28.7	
11939.710	34.3	-9.0	34.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.3	54.0	-28.7	
11939.140	47.9	-9.0	305.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.9	74.0	-35.1	
10209.570	47.4	-8.6	208.0	1.0	3.0	0.0	V-Horn	PK	0.0	38.8	74.0	-35.2	
10209.280	47.3	-8.6	266.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.7	74.0	-35.3	
8584.374	47.7	-9.2	130.0	1.0	3.0	0.0	V-Horn	PK	0.0	38.5	74.0	-35.5	
8584.276	47.4	-9.2	16.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.2	74.0	-35.8	
11938.540	46.3	-9.0	34.0	1.0	3.0	0.0	V-Horn	PK	0.0	37.3	74.0	-36.7	



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.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAQ	12/14/2007	13

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

Per 47 CFR 95.635(d)(4-5) the emission mask was measured. Emissions more than 150 kHz away from the center frequency must be attenuated below the transmitter output power by at least 20 dB. In addition, emissions 250 kHz or less above and below the MICS band (402-405 MHz) must be attenuated below the maximum permitted output power by at least 20 dB.

The emission mask was measured in the same configuration as radiated spurious emissions. All emissions measurements were made with the EUT placed in the tissue substitute material. First, the EUT orientation (horizontal or vertical), the turntable azimuth and measurement antenna height, were maximized to achieve the maximum field strength of the fundamental transmit frequency.

Then, a spectrum analyzer was used to measure the emission mask. A spectrum analyzer using a peak detector with no video filtering was used with a resolution bandwidth equal to approximately 1.0 percent of the emission bandwidth of the EUT. However, various plots were made using different frequency spans and resolution bandwidths in an attempt to not only satisfy the measurement criteria, but to also show that all emissions outside of the occupied band are greatly attenuated.

EMC

EMISSION MASK

EUT: SQ-RX Pulse Generator		Work Order:	CAME0008
Serial Number:	1010-153-750	Date:	06/11/08
Customer:	Cameron Health, Inc.	Temperature:	21.43°C
Attendees:	Paul Erlinger	Humidity:	52%
Project:	None	Barometric Pres.:	1011
Tested by:	Jaemi Suh	Power:	Battery
		Job Site:	0C10

TEST SPECIFICATIONS		Test Method
FCC 951:2007		ANSI/TIA/EIA-603-C-2004

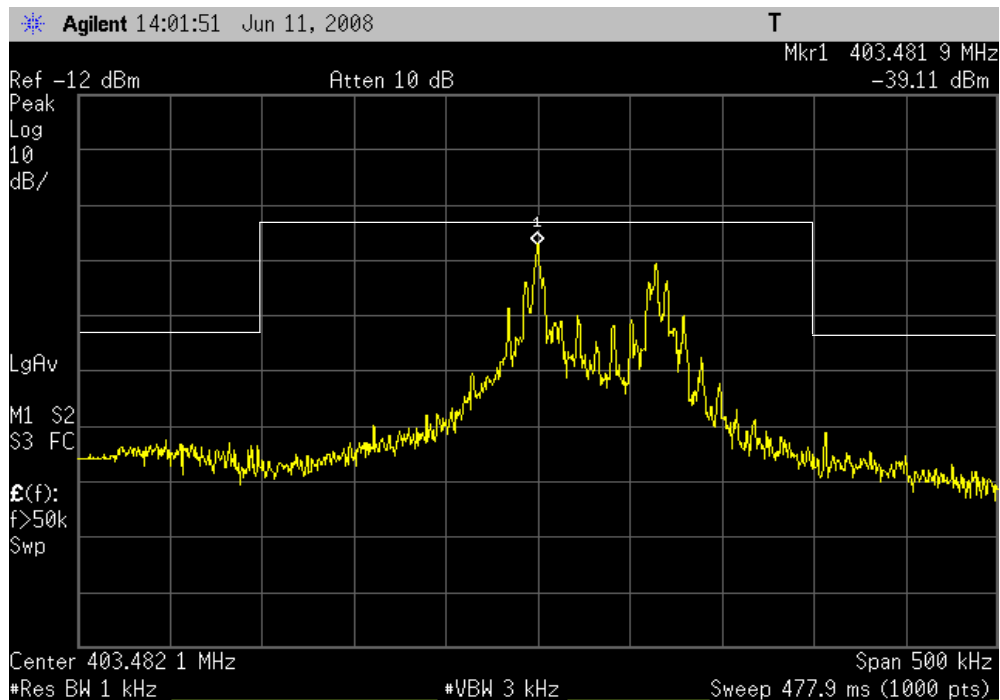
COMMENTS
None

DEVIATIONS FROM TEST STANDARD
None

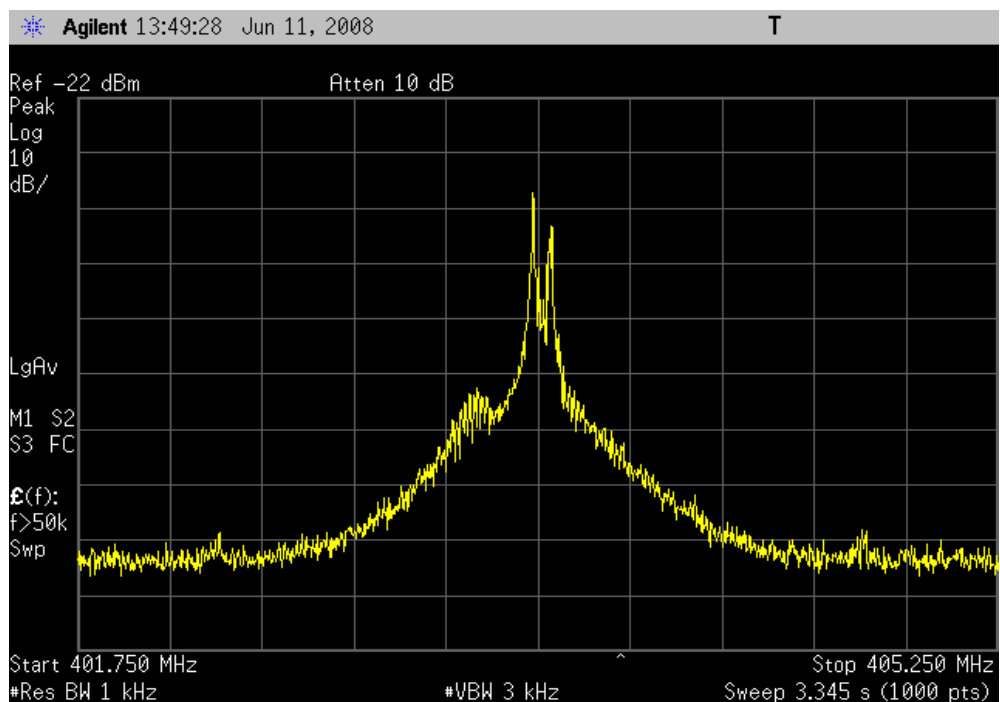
Configuration #	1	Signature 
-----------------	---	---

	Value	Limit	Results
1 kHz RBW, +150 kHz fc	≤ -20 dBc	See Graph	Pass
1 kHz RBW, +250 kHz of allowable band	≤ -20 dBc	See Graph	Pass
3 kHz RBW, +150 kHz fc	≤ -20 dBc	See Graph	Pass
3 kHz RBW, +250 kHz of allowable band	≤ -20 dBc	See Graph	Pass

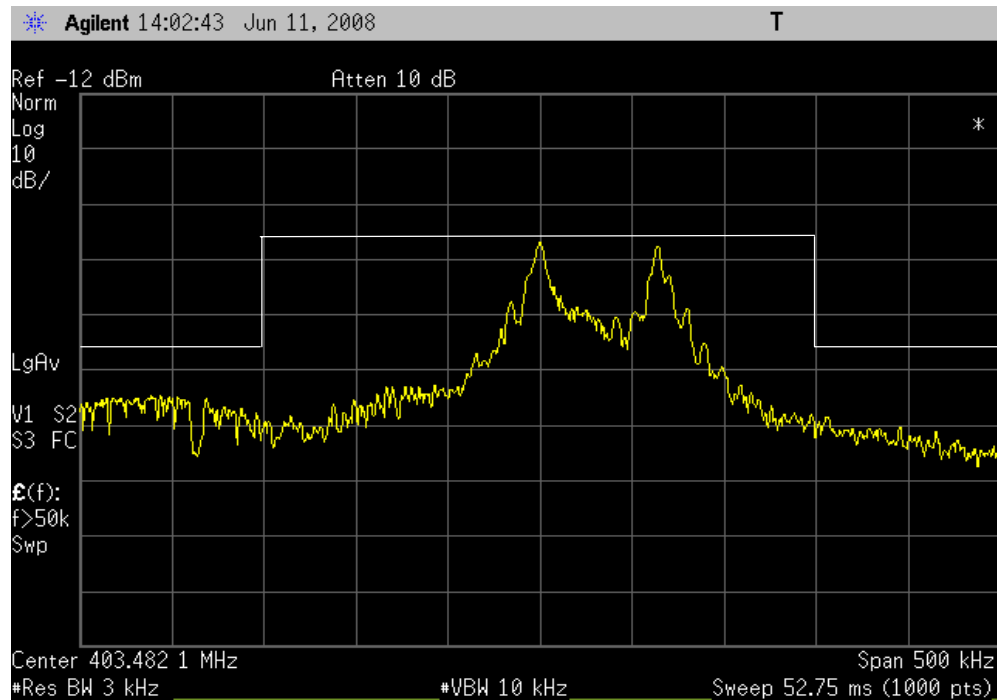
1 kHz RBW, ± 150 kHz fc		
Result: Pass	Value: ≤ -20 dBc	Limit: See Graph



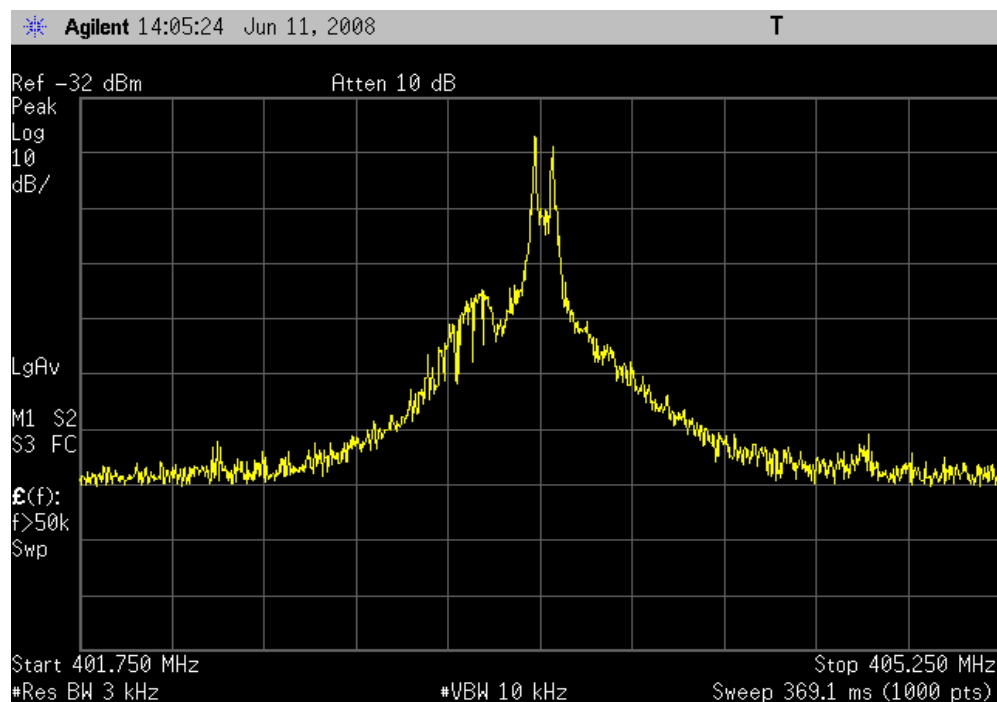
1 kHz RBW, ± 250 kHz of allowable band		
Result: Pass	Value: ≤ -20 dBc	Limit: See Graph

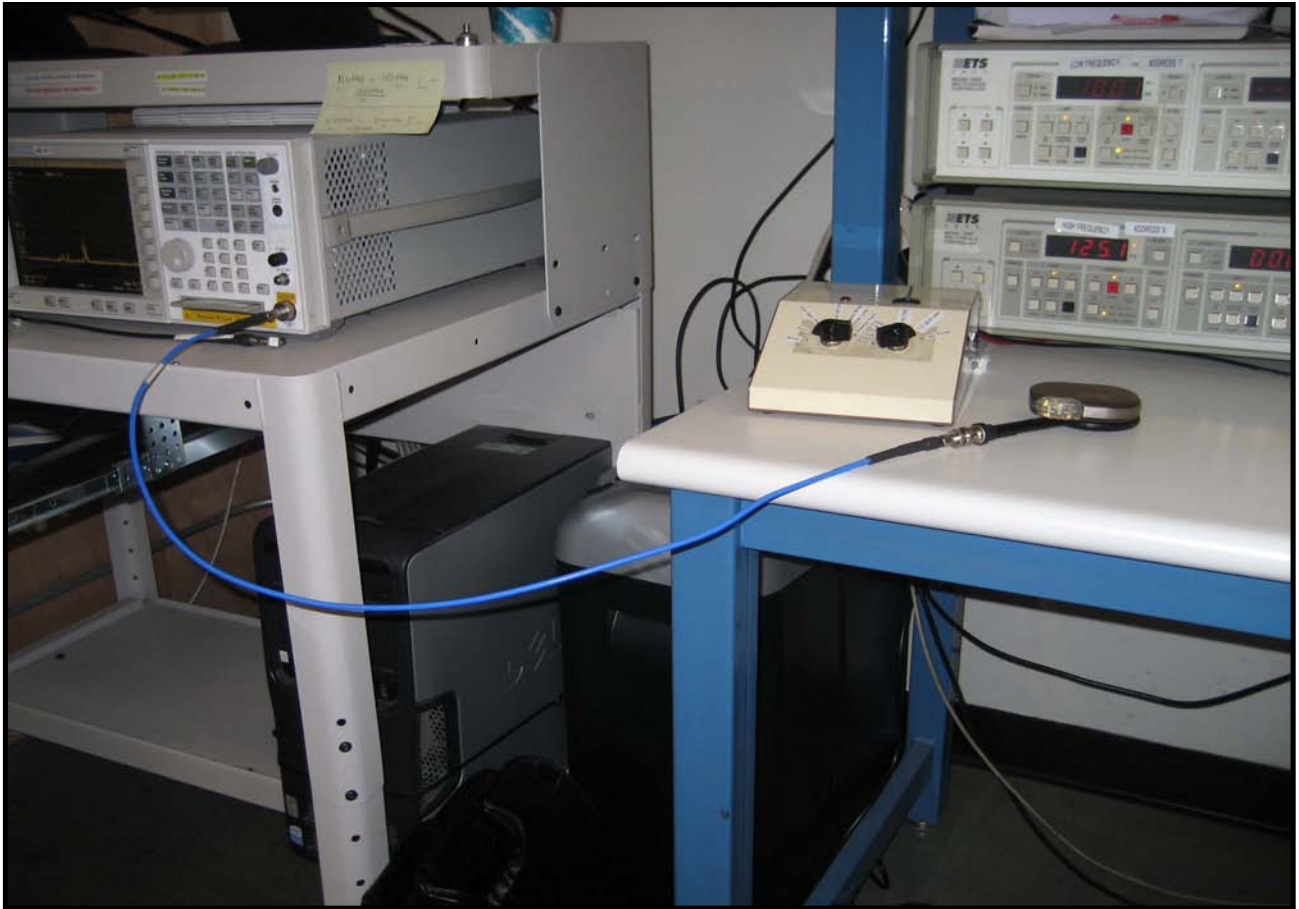


3 kHz RBW, ± 150 kHz fc		
Result: Pass	Value: ≤ -20 dBc	Limit: See Graph



3 kHz RBW, ± 250 kHz of allowable band		
Result: Pass	Value: ≤ -20 dBc	Limit: See Graph





FIELD STRENGTH OF RADIATED EMISSIONS

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

Transmit at 403.5 MHz.

MODE USED FOR FINAL DATA

Transmit at 403.5 MHz.

POWER SETTINGS INVESTIGATED

Battery

POWER SETTINGS USED FOR FINAL DATA

Battery

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	8000 MHz
-----------------	--------	----------------	----------

CLOCKS AND OSCILLATORS

403.5 MHz

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
Pre-Amplifier	Miteq	AMF-4D-010120-30-10P-1	AOP	2/2/2008	13
Antenna, Horn	EMCO	3115	AHB	8/31/2007	24
OC10 cables a,b,c,e,f Horn Cables			OCJ	2/2/2008	13
Antenna, Biconilog	EMCO	3142	AXJ	2/25/2008	24
OC10 cables a,b,c,d Bilog			OCH	1/7/2008	13
Pre-Amplifier	Miteq	AM-1616-1000	AOM	1/7/2008	13
Spectrum Analyzer	Agilent	E4446A	AAQ	12/14/2007	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.

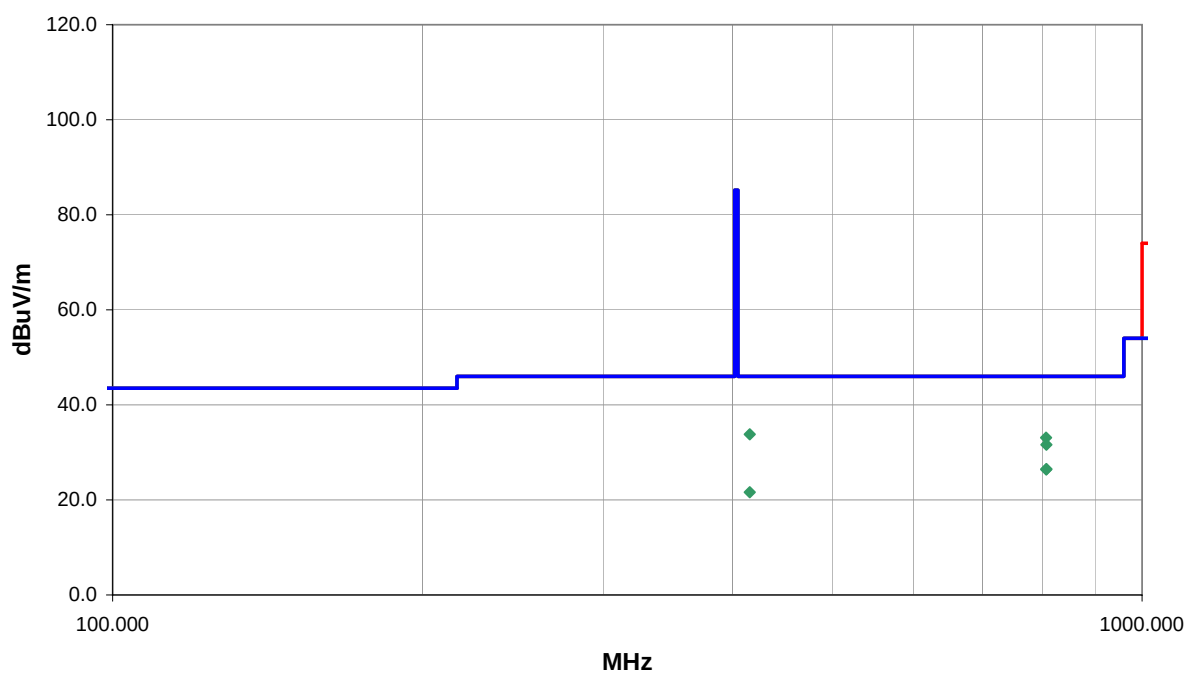
TEST DESCRIPTION

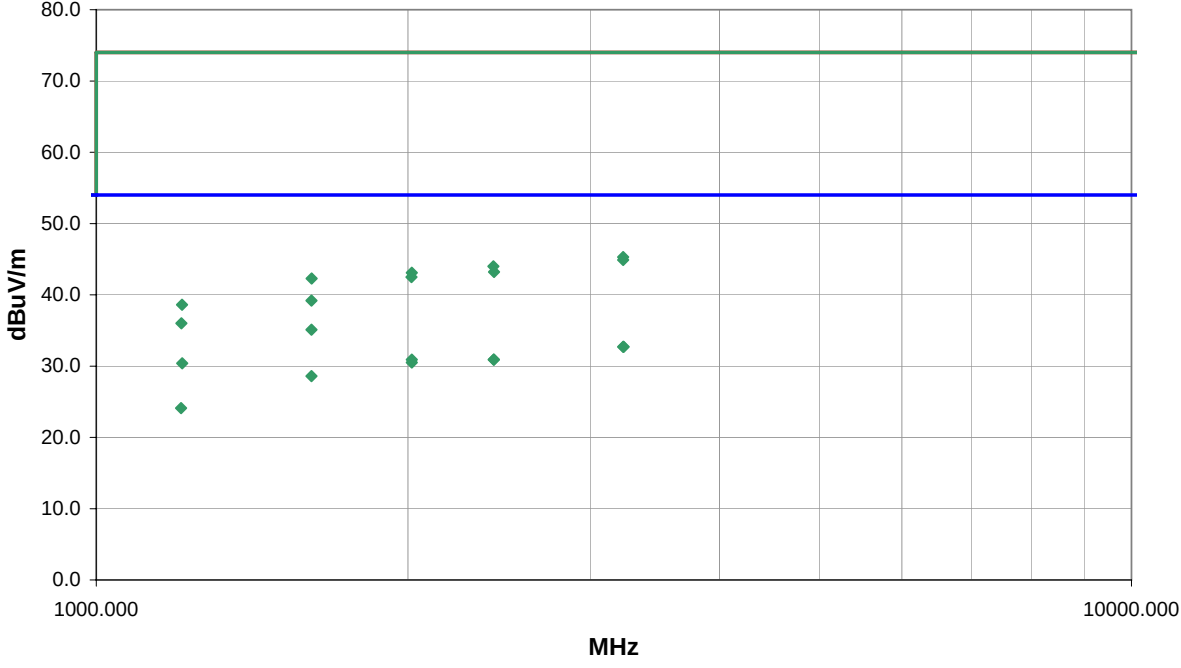
The Field Strength of Radiated Emissions were measured in the far-field at an FCC Listed Semi-anechoic Chamber. Spectrum analyzer and linearly polarized antennas were used to measure the unwanted radiated harmonics and spurious emissions.

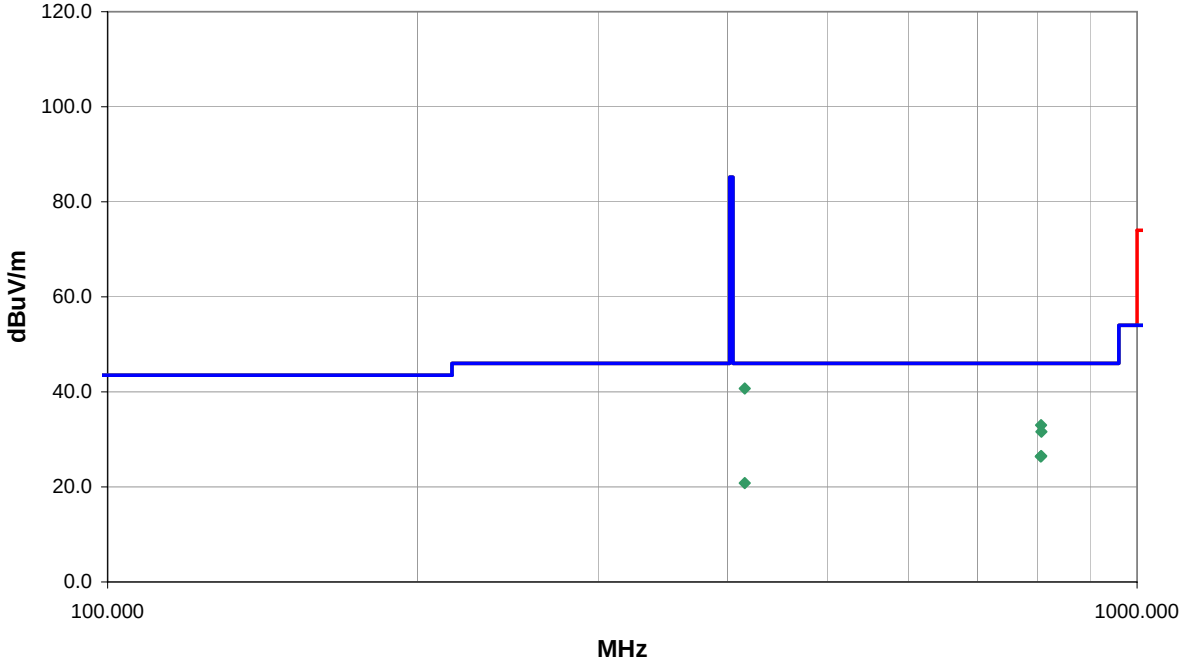
The orientation of the EUT and measurement antenna were manipulated to maximize the level of emissions.

The EUT was configured to transmit in a fixture that simulates the human torso. The dimensions of the test fixture and the characteristics of the tissue substitute material met the requirements of 95.639(f)(2)(iii). The dielectric and conductivity properties of the tissue substitute material were verified the morning of the test (see client data for tissue substitute material), and the temperature was measured before and after the test to verify compliance with 95.639(f)(2)(i). At the start of the test, the tissue substitute material was 23.5 degrees centigrade. At the conclusion of testing, it was 23.2 degrees centigrade.

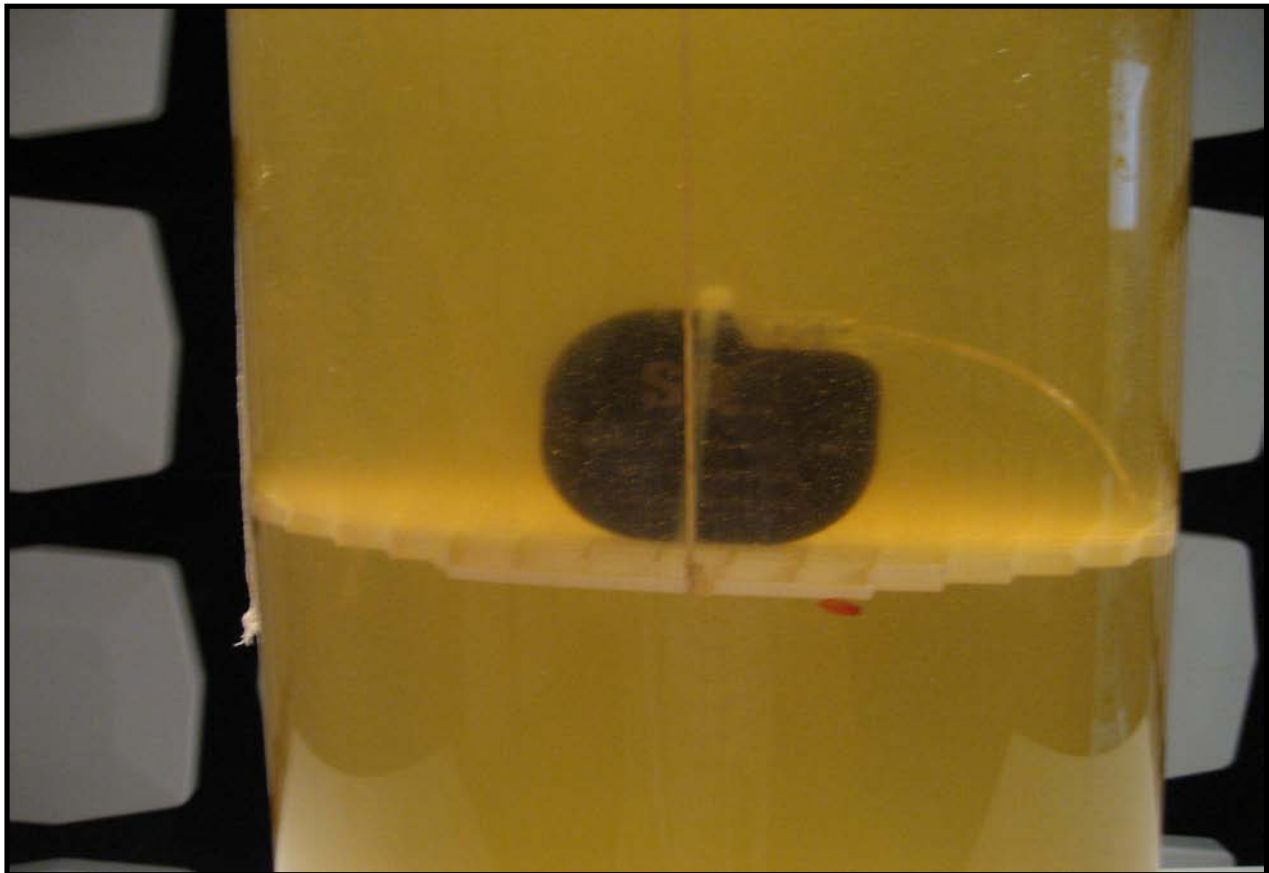
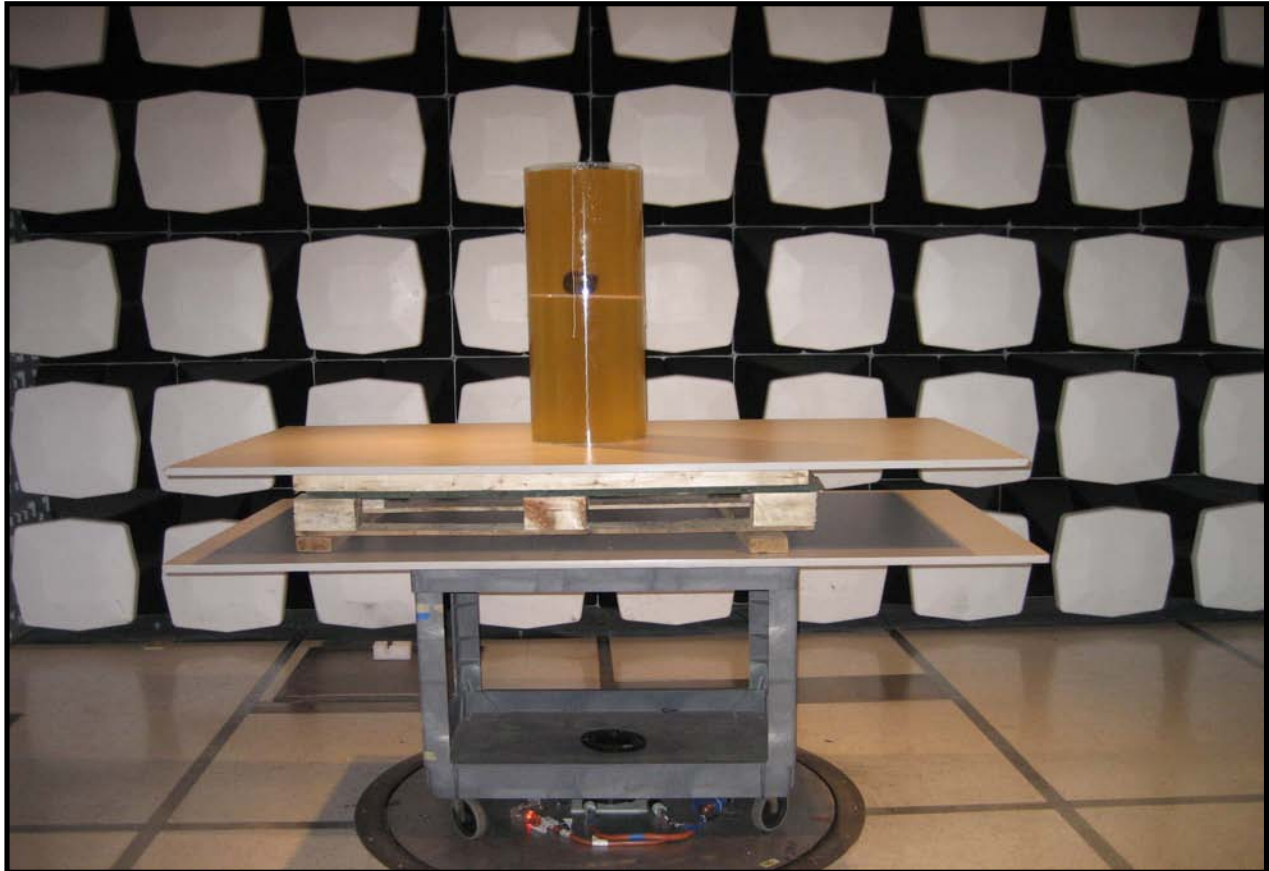
At an approved test site, the transmitter was placed in the human torso test fixture located on a remotely controlled turntable, and the measurement antenna was placed 3 meters from the transmitter. The height of the transmitter was 1.5-meter above the reference ground plane. The turntable azimuth was varied to maximize the level of radiated emissions. The height of the measurement antenna was also varied from 1 to 4 meters. The amplitude and frequency of the emissions were noted.

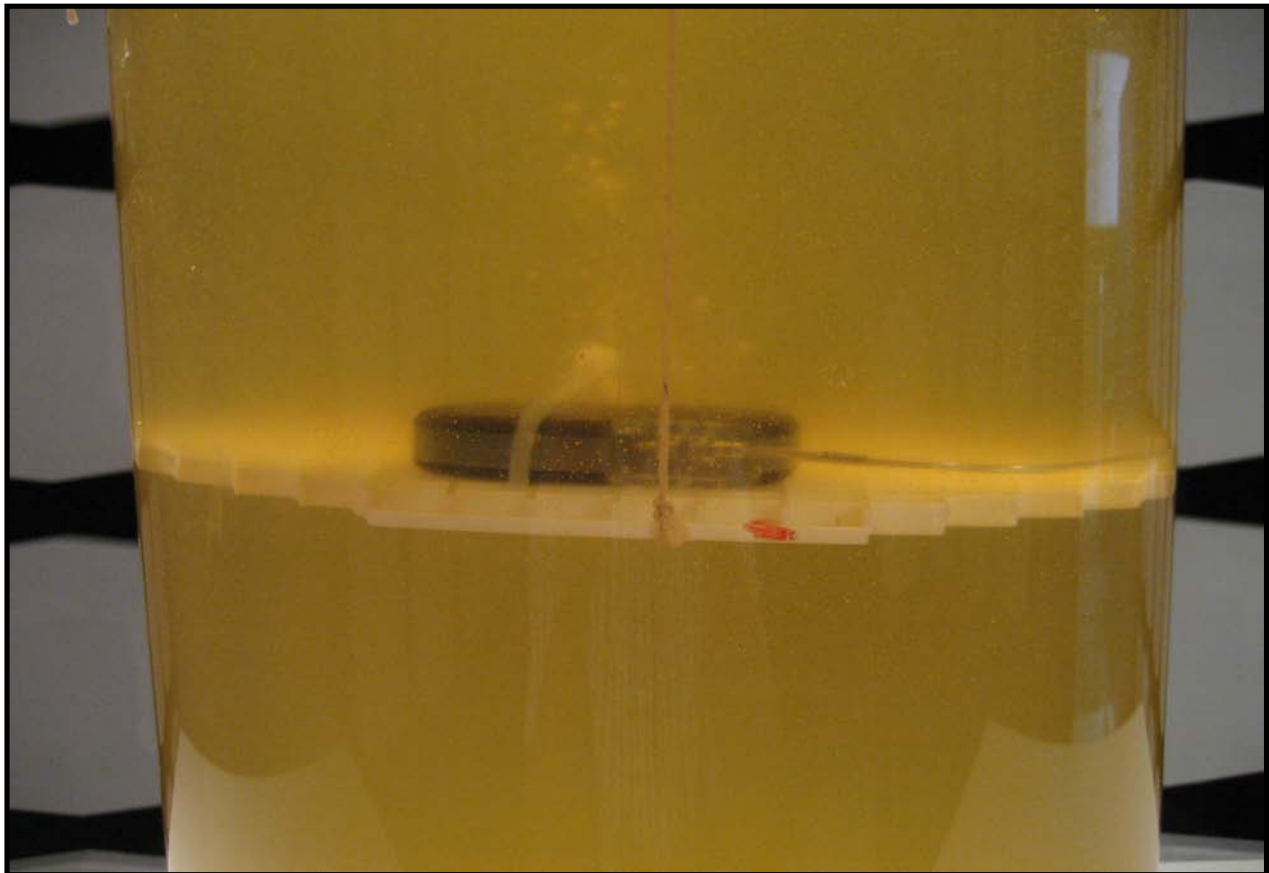
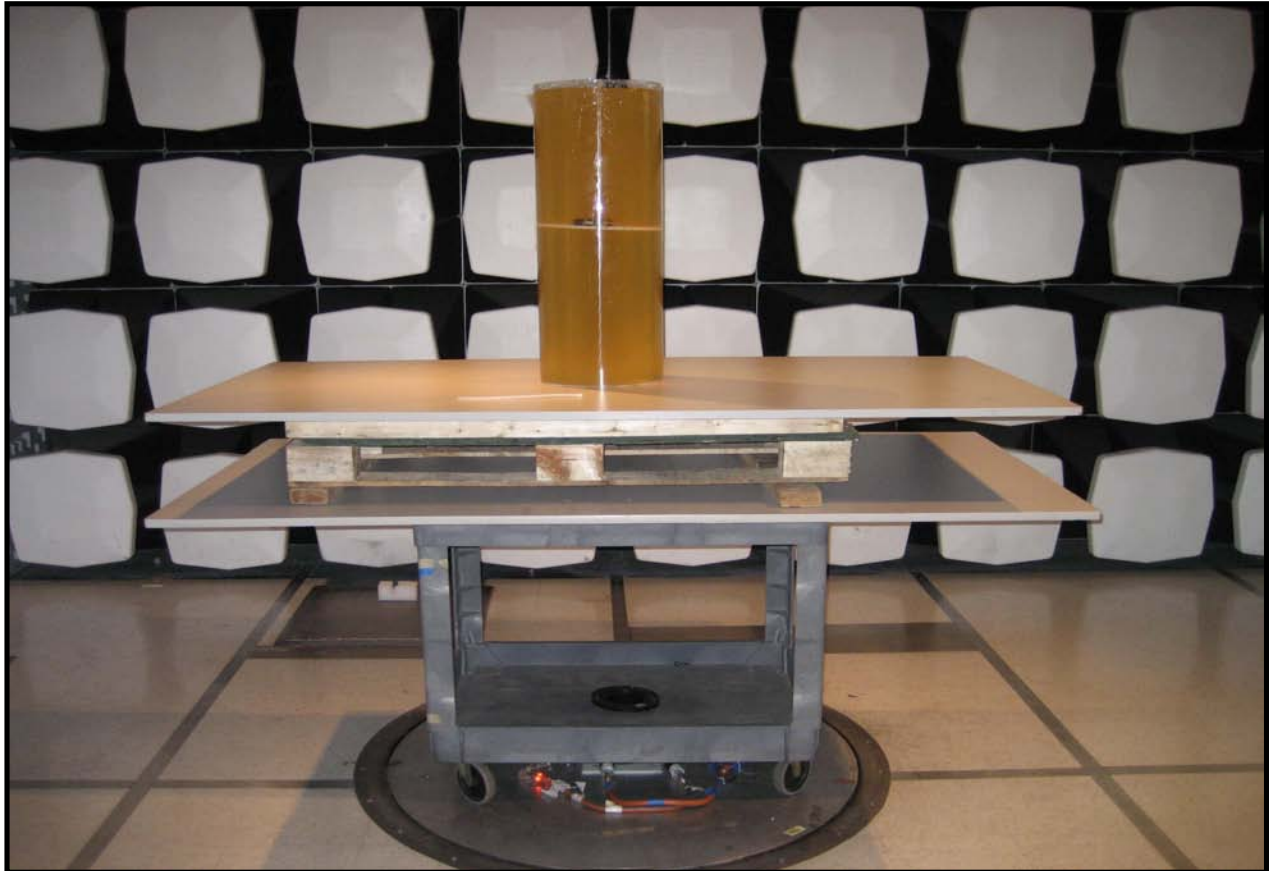
NORTHWEST EMC						FIELD STRENGTH OF RADIATED EMISSIONS						PSA 2007.05.07 EMI 2006.4.26	
EUT: SQ-RX Pulse Generator						Work Order: CAME0008							
Serial Number: 1010-153-750						Date: 06/24/08							
Customer: Cameron Health, Inc.						Temperature: 24C							
Attendees: Paul Erlinger						Humidity: 42%							
Project: None						Barometric Pres.: 1019							
Tested by: Jaemi Suh				Power: Battery		Job Site: OC10							
TEST SPECIFICATIONS						Test Method							
FCC 95I:2007						ANSI/TIA/EIA-603-C-2004							
TEST PARAMETERS													
Antenna Height(s) (m)				1 - 4		Test Distance (m)				3			
COMMENTS													
EUT Vertical. Transmitting at 403.5 MHz.													
EUT OPERATING MODES													
Transmit at 403.5 MHz.													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #		11		Signature 									
Configuration #		3											
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)	
415.845	31.2	2.6	359.0	3.4	3.0	0.0	V-Bilog	QP	0.0	33.8	46.0	-12.2	
806.822	23.3	9.8	82.0	2.9	3.0	0.0	H-Bilog	PK	0.0	33.1	46.0	-12.9	
807.362	21.8	9.8	359.0	3.4	3.0	0.0	V-Bilog	PK	0.0	31.6	46.0	-14.4	
807.282	16.7	9.8	359.0	3.4	3.0	0.0	V-Bilog	QP	0.0	26.5	46.0	-19.5	
806.917	16.6	9.8	82.0	2.9	3.0	0.0	H-Bilog	QP	0.0	26.4	46.0	-19.6	
415.845	19.0	2.6	359.0	3.4	3.0	0.0	V-Bilog	QP	0.0	21.6	46.0	-24.4	

NORTHWEST		FIELD STRENGTH OF RADIATED EMISSIONS		PSA 2007.05.07								
EMC				EMI 2006.4.26								
EUT: SQ-RX Pulse Generator			Work Order: CAME0008									
Serial Number: 1010-153-750			Date: 06/10/08									
Customer: Cameron Health, Inc.			Temperature: 21.43									
Attendees: Paul Erlinger			Humidity: 52%									
Project: None			Barometric Pres.: 1011									
Tested by: Jaemi Suh		Power: Battery		Job Site: 0C10								
TEST SPECIFICATIONS			Test Method									
FCC 951:2007			ANSI/TIA/EIA-603-C-2004									
TEST PARAMETERS												
Antenna Height(s) (m)		1 - 4		Test Distance (m)								
				3								
COMMENTS												
EUT Vertical. Transmitting at 403.5 MHz.												
EUT OPERATING MODES												
Transmit at 403.5 MHz.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #		3		Signature 								
Configuration #		3										
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)
1614.099	33.9	1.2	67.0	1.0	0.0	0.0	H-Horn	AV	0.0	35.1	54.0	-18.9
3228.023	25.3	7.4	1.0	1.7	0.0	0.0	V-Horn	AV	0.0	32.7	54.0	-21.3
3231.982	25.3	7.4	184.0	1.0	0.0	0.0	H-Horn	AV	0.0	32.7	54.0	-21.3
2017.709	25.3	5.6	6.0	2.3	0.0	0.0	V-Horn	AV	0.0	30.9	54.0	-23.1
2420.947	25.4	5.5	244.0	1.9	0.0	0.0	H-Horn	AV	0.0	30.9	54.0	-23.1
2421.078	25.4	5.5	360.0	2.2	0.0	0.0	V-Horn	AV	0.0	30.9	54.0	-23.1
2017.460	24.9	5.6	201.0	1.0	0.0	0.0	H-Horn	AV	0.0	30.5	54.0	-23.5
1210.573	32.4	-2.0	320.0	1.4	0.0	0.0	H-Horn	AV	0.0	30.4	54.0	-23.6
1614.075	27.4	1.2	202.0	1.0	0.0	0.0	V-Horn	AV	0.0	28.6	54.0	-25.4
3227.872	37.9	7.4	184.0	1.0	0.0	0.0	H-Horn	PK	0.0	45.3	74.0	-28.7
3228.503	37.5	7.4	1.0	1.7	0.0	0.0	V-Horn	PK	0.0	44.9	74.0	-29.1
1207.616	26.1	-2.0	67.0	1.0	0.0	0.0	V-Horn	AV	0.0	24.1	54.0	-29.9
2418.668	38.5	5.5	360.0	2.2	0.0	0.0	V-Horn	PK	0.0	44.0	74.0	-30.0
2422.529	37.7	5.5	244.0	1.9	0.0	0.0	H-Horn	PK	0.0	43.2	74.0	-30.8
2017.643	37.5	5.6	201.0	1.0	0.0	0.0	H-Horn	PK	0.0	43.1	74.0	-30.9
2015.930	36.9	5.6	6.0	2.3	0.0	0.0	V-Horn	PK	0.0	42.5	74.0	-31.5
1614.232	41.1	1.2	67.0	1.0	0.0	0.0	H-Horn	PK	0.0	42.3	74.0	-31.7
1614.144	38.0	1.2	202.0	1.0	0.0	0.0	V-Horn	PK	0.0	39.2	74.0	-34.8
1210.292	40.6	-2.0	320.0	1.4	0.0	0.0	H-Horn	PK	0.0	38.6	74.0	-35.4
1208.556	38.0	-2.0	67.0	1.0	0.0	0.0	V-Horn	PK	0.0	36.0	74.0	-38.0

NORTHWEST EMC		FIELD STRENGTH OF RADIATED EMISSIONS		PSA 2007.05.07 EMI 2006.4.26								
EUT: SQ-RX Pulse Generator			Work Order: CAME0008									
Serial Number: 1010-153-750			Date: 06/24/08									
Customer: Cameron Health, Inc.			Temperature: 24C									
Attendees: Paul Erlinger			Humidity: 42%									
Project: None			Barometric Pres.: 1019									
Tested by: Jaemi Suh		Power: Battery		Job Site: OC10								
TEST SPECIFICATIONS			Test Method									
FCC 95I:2007			ANSI/TIA/EIA-603-C-2004									
TEST PARAMETERS												
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3								
COMMENTS												
EUT Horizontal. Transmitting at 403.5 MHz.												
EUT OPERATING MODES												
Transmit at 403.5 MHz.												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #		13		 Signature								
Configuration #		3										
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)
415.845	38.1	2.6	0.0	1.0	3.0	0.0	H-Bilog	QP	0.0	40.7	46.0	-5.3
806.769	23.2	9.8	30.0	1.0	3.0	0.0	V-Bilog	PK	0.0	33.0	46.0	-13.0
807.384	21.8	9.8	93.0	1.0	3.0	0.0	H-Bilog	PK	0.0	31.6	46.0	-14.4
806.918	16.7	9.8	30.0	1.0	3.0	0.0	V-Bilog	QP	0.0	26.5	46.0	-19.5
806.249	16.6	9.8	93.0	1.0	3.0	0.0	H-Bilog	QP	0.0	26.4	46.0	-19.6
415.845	18.2	2.6	49.0	1.7	3.0	0.0	V-Bilog	QP	0.0	20.8	46.0	-25.2

NORTHWEST										PSA 2007.05.07 EMI 2006.4.26			
EMC FIELD STRENGTH OF RADIATED EMISSIONS													
EUT: SQ-RX Pulse Generator								Work Order: CAME0008					
Serial Number: 1010-153-750								Date: 06/10/08					
Customer: Cameron Health, Inc.								Temperature: 21.43					
Attendees: Paul Erlinger								Humidity: 52%					
Project: None								Barometric Pres.: 1011					
Tested by: Jaemi Suh				Power: Battery				Job Site: 0C10					
TEST SPECIFICATIONS								Test Method					
FCC 95I:2007								ANSI/TIA/EIA-603-C-2004					
TEST PARAMETERS													
Antenna Height(s) (m)				1 - 4				Test Distance (m)				3	
COMMENTS													
EUT Horizontal. Transmitting at 403.5 MHz.													
EUT OPERATING MODES													
Transmit at 403.5 MHz.													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #		4		Signature									
Configuration #		3											
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)	
1614.092	36.3	1.2	146.0	1.0	0.0	0.0	H-Horn	AV	0.0	37.5	54.0	-16.5	
3232.834	25.3	7.4	108.0	1.0	0.0	0.0	H-Horn	AV	0.0	32.7	54.0	-21.3	
3230.077	25.2	7.4	188.0	1.0	0.0	0.0	V-Horn	AV	0.0	32.6	54.0	-21.4	
2017.622	26.5	5.6	103.0	2.6	0.0	0.0	H-Horn	AV	0.0	32.1	54.0	-21.9	
2017.495	25.3	5.6	239.0	2.2	0.0	0.0	V-Horn	AV	0.0	30.9	54.0	-23.1	
2417.046	25.4	5.5	190.0	3.5	0.0	0.0	H-Horn	AV	0.0	30.9	54.0	-23.1	
2421.316	25.4	5.5	263.0	3.1	0.0	0.0	V-Horn	AV	0.0	30.9	54.0	-23.1	
1614.070	29.2	1.2	188.0	1.0	0.0	0.0	V-Horn	AV	0.0	30.4	54.0	-23.6	
1210.466	27.4	-2.0	343.0	1.0	0.0	0.0	V-Horn	AV	0.0	25.4	54.0	-28.6	
3227.034	37.5	7.4	188.0	1.0	0.0	0.0	V-Horn	PK	0.0	44.9	74.0	-29.1	
1210.542	26.7	-2.0	157.0	1.4	0.0	0.0	H-Horn	AV	0.0	24.7	54.0	-29.3	
1613.801	43.0	1.2	146.0	1.0	0.0	0.0	H-Horn	PK	0.0	44.2	74.0	-29.8	
2419.782	38.4	5.5	190.0	3.5	0.0	0.0	H-Horn	PK	0.0	43.9	74.0	-30.1	
3229.695	36.5	7.4	108.0	1.0	0.0	0.0	H-Horn	PK	0.0	43.9	74.0	-30.1	
2017.005	37.7	5.6	239.0	2.2	0.0	0.0	V-Horn	PK	0.0	43.3	74.0	-30.7	
2017.757	37.7	5.6	103.0	2.6	0.0	0.0	H-Horn	PK	0.0	43.3	74.0	-30.7	
2421.749	37.5	5.5	263.0	3.1	0.0	0.0	V-Horn	PK	0.0	43.0	74.0	-31.0	
1614.041	39.0	1.2	188.0	1.0	0.0	0.0	V-Horn	PK	0.0	40.2	74.0	-33.8	
1211.209	38.9	-2.0	343.0	1.0	0.0	0.0	V-Horn	PK	0.0	36.9	74.0	-37.1	
1208.892	38.4	-2.0	157.0	1.4	0.0	0.0	H-Horn	PK	0.0	36.4	74.0	-37.6	





Field Strength of Fundamental

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

Transmit at 403.5 MHz.

MODE USED FOR FINAL DATA

Transmit at 403.5 MHz.

POWER SETTINGS INVESTIGATED

Battery Powered

POWER SETTINGS USED FOR FINAL DATA

Battery Powered

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	1000
-----------------	--------	----------------	------

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, Biconilog	EMCO	3142	AXJ	2/25/2008	24
OC10 cables a,b,c,d Bilog			OCH	1/7/2008	13
Pre-Amplifier	Miteq	AM-1616-1000	AOM	1/7/2008	13
Spectrum Analyzer	Agilent	E4446A	AAQ	12/14/2007	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

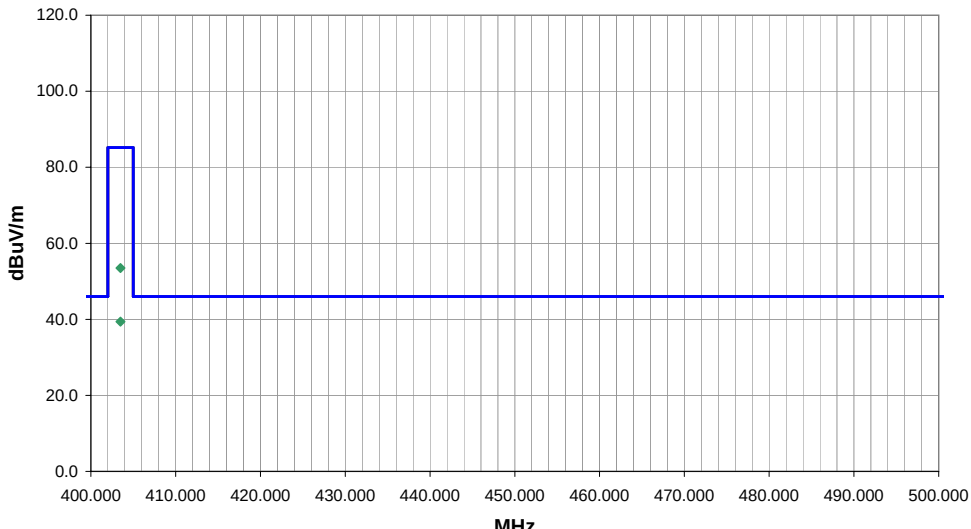
Per 95.635(b), the maximum EIRP for a MICS transmitter is 25uW. This is equivalent to a radiated field strength 85.2 dBuV/m at 3 meters when measured over a reference ground plane.

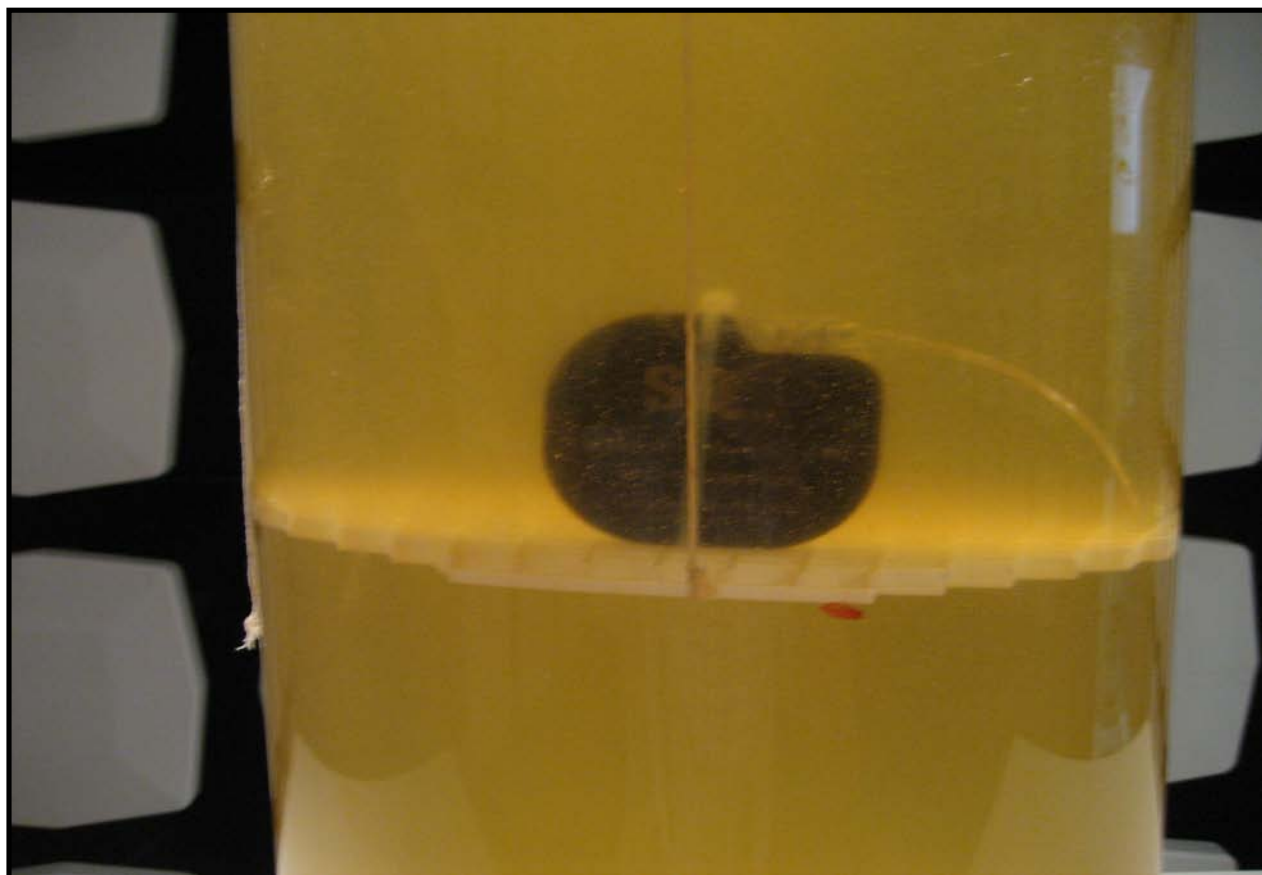
The Field Strength of the Fundamental was measured in the far-field at an FCC Listed Semi-anechoic Chamber. Spectrum analyzer and linearly polarized antennas were used to measure the effective radiated power (EIRP) of the fundamental.

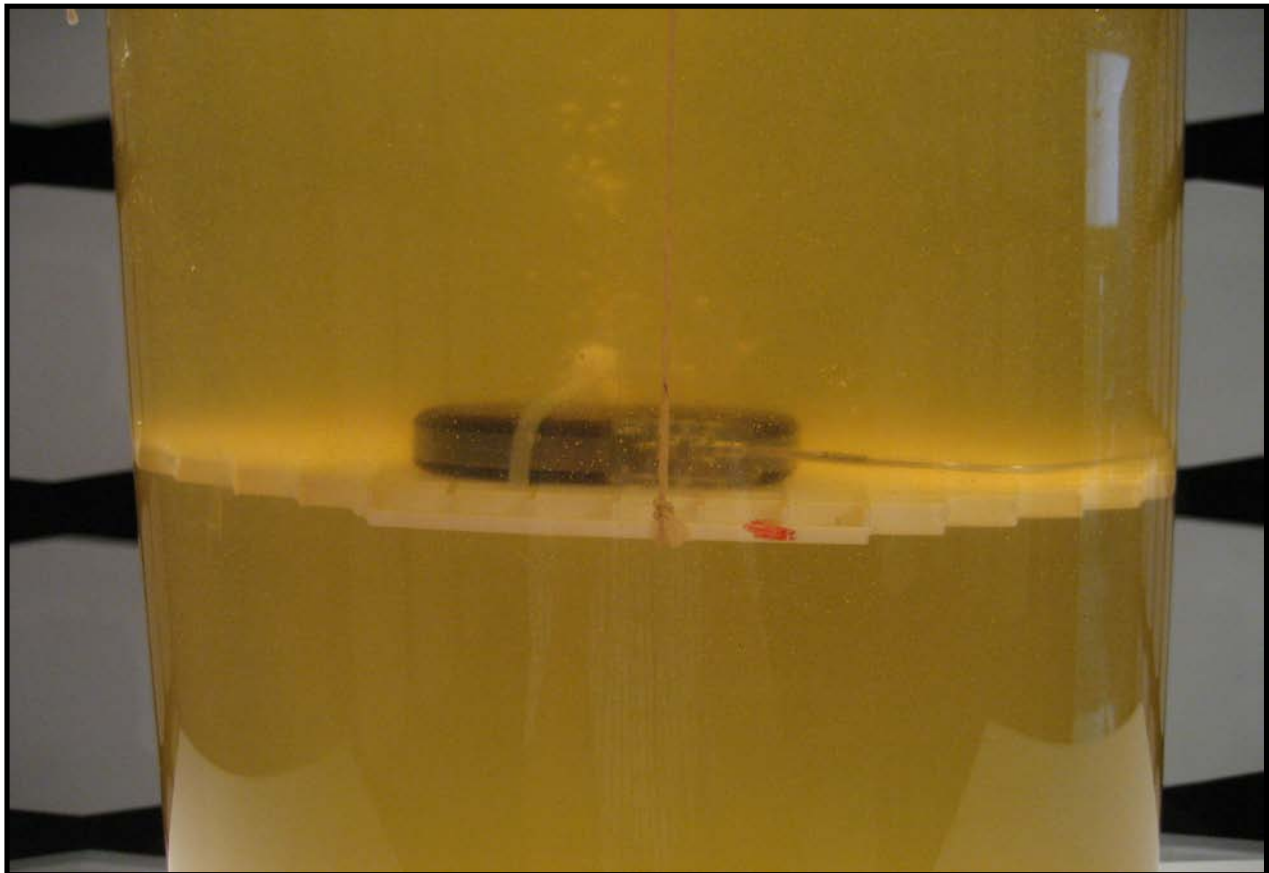
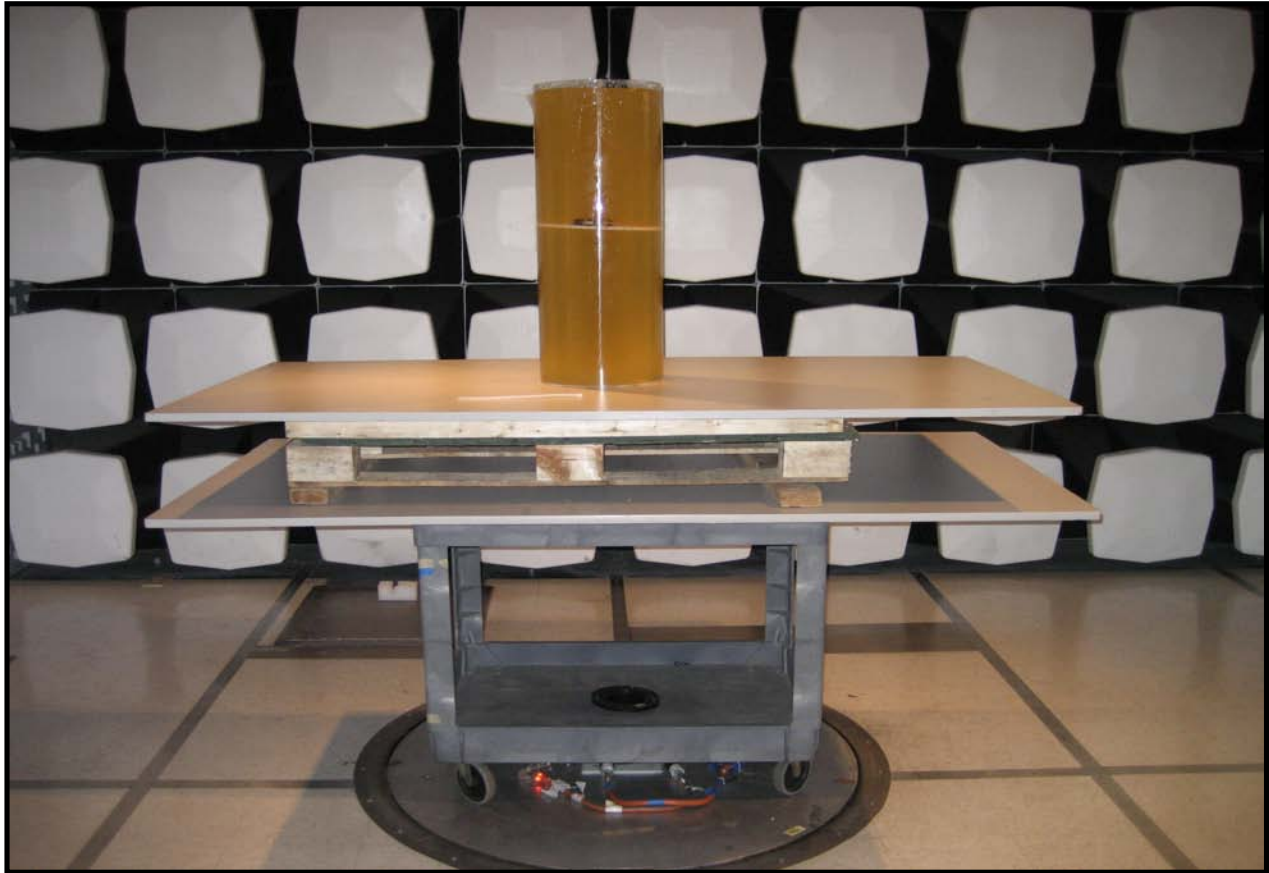
The orientation of the EUT and measurement antenna were manipulated to maximize the level of emissions. . The turntable azimuth was varied to maximize the level of radiated emissions. The height of the measurement antenna was also varied from 1 to 4 meters. The amplitude and frequency of the emissions were noted.

The EUT was configured to transmit in a fixture that simulates the human torso. The dimensions of the test fixture and the characteristics of the tissue substitute material met the requirements of 95.639(f)(2)(iii). The dielectric and conductivity properties of the tissue substitute material were verified the morning of the test (see client data for tissue substitute material), and the

NORTHWEST		PSA 2007.05.07 EMI 2006.4.26																																																	
EMC Field Strength of Fundamental																																																			
EUT: SQ-RX Pulse Generator		Work Order: CAME0008																																																	
Serial Number: 1010-153-750		Date: 06/24/08																																																	
Customer: Cameron Health, Inc.		Temperature: 24C																																																	
Attendees: Paul Erlinger		Humidity: 41%																																																	
Project: None		Barometric Pres.: 1018 mb																																																	
Tested by: Jaemi Suh		Power: Battery	Job Site: OC10																																																
TEST SPECIFICATIONS		Test Method																																																	
FCC 951:2007		FCC 951:2007																																																	
TEST PARAMETERS																																																			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3																																																
COMMENTS																																																			
Vertical Axis. Transmitting at 403.5 MHz. One minute interval for each transmission.																																																			
EUT OPERATING MODES																																																			
Transmit at 403.5 MHz.																																																			
DEVIATIONS FROM TEST STANDARD																																																			
No deviations.																																																			
Run #	10	<i>Signature</i>																																																	
Configuration #	3																																																		
Results	Pass																																																		
<table border="1" style="width:100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th>Freq (MHz)</th> <th>Amplitude (dBuV)</th> <th>Factor (dB)</th> <th>Azimuth (degrees)</th> <th>Height (meters)</th> <th>Distance (meters)</th> <th>External Attenuation (dB)</th> <th>Polarity</th> <th>Detector</th> <th>Distance Adjustment (dB)</th> <th>Adjusted dBuV/m</th> <th>Spec. Limit dBuV/m</th> <th>Compared to Spec. (dB)</th> <th>Adjusted uW EIRP</th> <th>Spec. Limit uW EIRP</th> <th>Compared to Spec. (uW)</th> </tr> </thead> <tbody> <tr> <td>403.500</td> <td>43.8</td> <td>2.5</td> <td>0.0</td> <td>2.1</td> <td>0.0</td> <td>0.0</td> <td>H-Bilog</td> <td>PK</td> <td>0.0</td> <td>46.3</td> <td>85.2</td> <td>-38.9</td> <td>0.0128</td> <td>25.0</td> <td>-24.9872</td> </tr> <tr> <td>403.500</td> <td>43.2</td> <td>2.5</td> <td>360.0</td> <td>1.4</td> <td>0.0</td> <td>0.0</td> <td>V-Bilog</td> <td>PK</td> <td>0.0</td> <td>45.7</td> <td>85.2</td> <td>-39.5</td> <td>0.0111</td> <td>25.0</td> <td>-24.9889</td> </tr> </tbody> </table>				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)	Adjusted uW EIRP	Spec. Limit uW EIRP	Compared to Spec. (uW)	403.500	43.8	2.5	0.0	2.1	0.0	0.0	H-Bilog	PK	0.0	46.3	85.2	-38.9	0.0128	25.0	-24.9872	403.500	43.2	2.5	360.0	1.4	0.0	0.0	V-Bilog	PK	0.0	45.7	85.2	-39.5	0.0111	25.0	-24.9889
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)	Adjusted uW EIRP	Spec. Limit uW EIRP	Compared to Spec. (uW)																																				
403.500	43.8	2.5	0.0	2.1	0.0	0.0	H-Bilog	PK	0.0	46.3	85.2	-38.9	0.0128	25.0	-24.9872																																				
403.500	43.2	2.5	360.0	1.4	0.0	0.0	V-Bilog	PK	0.0	45.7	85.2	-39.5	0.0111	25.0	-24.9889																																				

EMC										Field Strength of Fundamental										PSA 2007.05.07 EMI 2006.4.26	
EUT: SQ-RX Pulse Generator										Work Order: CAME0008											
Serial Number: 1010-153-750										Date: 06/24/08											
Customer: Cameron Health, Inc.										Temperature: 24C											
Attendees: Paul Erlinger										Humidity: 41%											
Project: None										Barometric Pres.: 1018 mb											
Tested by: Jaemi Suh					Power: Battery					Job Site: OC10											
TEST SPECIFICATIONS										Test Method											
FCC 951:2007										FCC 951:2007											
TEST PARAMETERS																					
Antenna Height(s) (m)					1 - 4					Test Distance (m)					3						
COMMENTS																					
Horizontal Axis. Transmitting at 403.5 MHz. One minute interval for each transmission.																					
EUT OPERATING MODES																					
Transmit at 403.5 MHz.																					
DEVIATIONS FROM TEST STANDARD																					
No deviations.																					
Run #		12		Signature 																	
Configuration #		3																			
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)	Adjusted uW EIRP	Spec. Limit uW EIRP	Compared to Spec. (uW)						
403.500	51.0	2.5	23.0	1.0	0.0	0.0	H-Bilog	PK	0.0	53.5	85.2	-31.7	0.0672	25.0	-24.9328						
403.500	36.9	2.5	3.0	1.4	0.0	0.0	V-Bilog	PK	0.0	39.4	85.2	-45.8	0.0026	25.0	-24.9974						





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.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Hewlett Packard	8593E	AAP	12/14/2007	13
Chamber, Temperature/Humidity	Cincinnati Sub Zero (CSZ)	ZPHS-32-3.5-SCT/AC	TBE	5/22/2008	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. 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 Frequency Stability was measured using a near-field probe and a spectrum analyzer. The spectrum analyzer is configured with a precision frequency reference that exceeds the stability requirement of the transmitter.

The EUT was placed inside a temperature / humidity chamber. The near-field probe was placed near the transmitter. A low-loss coaxial cable connected the near-field probe to the spectrum analyzer outside of the chamber.

The transmit frequency was recorded at the extremes of the specified temperature range (25° to +45° C) and at 10°C intervals.

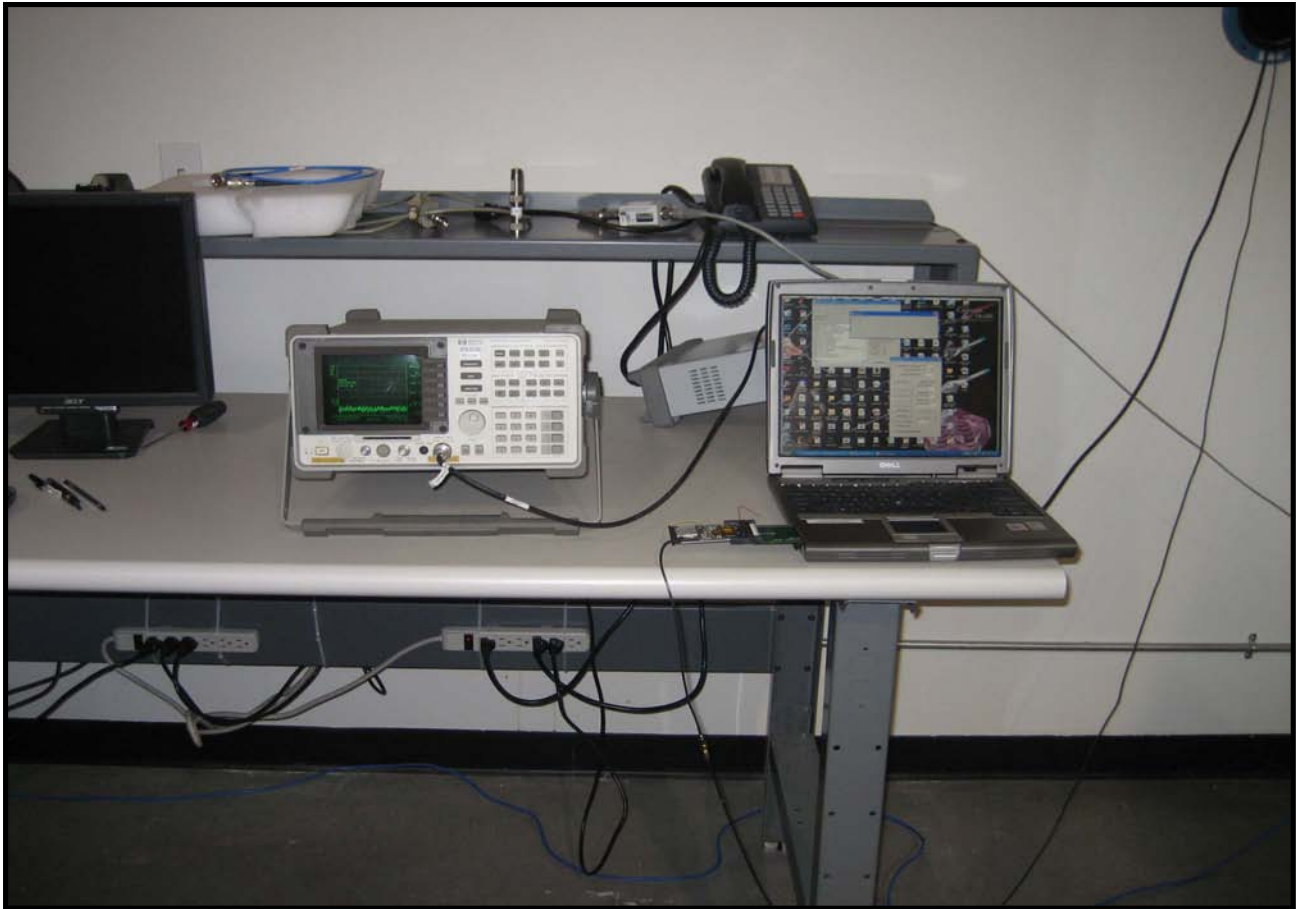
EMC

FREQUENCY STABILITY

EUT: SQ-RX Pulse Generator		Work Order: CAME0008
Serial Number: 1010-153-750	Date: 06/12/08	
Customer: Cameron Health, Inc.	Temperature: 21.43°C	
Attendees: Paul Erlinger	Humidity: 52%	
Project: None	Barometric Pres.: 1011	
Tested by: Jaemi Suh	Power: Battery	Job Site: 0C13
TEST SPECIFICATIONS		Test Method
FCC 951:2007		ANSI/TIA/EIA-603-C-2004
COMMENTS		
None		
DEVIATIONS FROM TEST STANDARD		
None		
Configuration #	1	Signature 

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Result (ppm)	Specification (ppm)
25	403.510800	403.512150	3.35	100
35	403.510800	403.513150	5.82	100
45	403.510800	403.513850	7.56	100





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.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAQ	12/14/2007	13

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

Per 47 CFR 95.633(e)(3), the emission bandwidth was determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 20 dB down relative to the maximum level of the modulated carrier. A spectrum analyzer using a peak detector with no video filtering was used with a resolution bandwidth equal to approximately 1.0 percent of the emission bandwidth of the EUT.

An emission bandwidth measurement was made using a 3 kHz resolution bandwidth (no video filtering) and a peak detector. This most closely satisfied the specified measurement criteria. It is important to use a RBW that is sufficiently narrow to plot the actual bandwidth of the signal and not the filter response curve of the spectrum analyzer.

EMC

OCCUPIED BANDWIDTH

EUT: SQ-RX Pulse Generator		Work Order: CAME0008	
Serial Number: 1010-153-750		Date: 06/11/08	
Customer: Cameron Health, Inc.		Temperature: 21.43°C	
Attendees: Paul Erlinger		Humidity: 52%	
Project: None		Barometric Pres.: 1011	
Tested by: Jaemi Suh		Power: Battery	Job Site: 0C10
TEST SPECIFICATIONS		Test Method	
FCC 951:2007		ANSI/TIA/EIA-603-C-2004	
COMMENTS			
None			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	1	Signature 	
		Value	Limit
3 kHz RBW		107.0 kHz	300 kHz
			Results
			Pass

3 kHz RBW

Result: Pass

Value: 107.0 kHz

Limit: 300 kHz

