# **ClearCount Medical Solutions**

# **SmartSponge Flex**

February 16th, 2012

Report Number: 1106-039E Rev. C

Report Prepared By:



# **EMC Test Report**

www.keystonecompliance.com 724-657-9940

Keystone Compliance, LLC.



Performed By: Keystone Compliance, LLC.

2861 W. State Street New Castle, PA 16101

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Tech. Writer: Date: February 16th, 2012

Reviewed By: Date: February 16th, 2012

Reviewed By: Date: February 16th, 2012

Reviewed By: Coa Mahvell Date: February 16th, 2012

Fva Maxwell, Quality Manager

Approved By: \_\_\_\_\_\_ Date: \_February 16th, 2012



### Revisions

Revision:	Description:				
Α	Revised to incorporate customer comments on initial issue, as follows:				
	Corrected Customer Name Spelling				
	Added Wand Part Number and Serial Number to Peripheral Table for Configuration 1				
	Changed Conducted Emissions Comments to reflect the correct installation and removal of				
	$50\Omega$ loads				
	Added "Per FCC publication 174176" as Deviation from Test Standard for Conducted Emissions				
Corrected Operating Mode Information on Test Data Sheets					
	Added notation for peak frequency of 13.56MHz on Conducted Emissions Plots				
	Added Quasi Peak Radiated Emissions plot (page 63) for Wand Mode				
В	Revised to incorporate additional customer comments, as follows:				
	Amended customer name to use complete form				
	Changed configuration table to include Part Number and Serial Number of the EUT				
	Test Data Sheets equipment lists updated.				
С	Revised to incorporate FCC submittal review comments, as follows:				
	Sample calculations and their application to the computed data has been illustrated				
	Antenna factors have been added				
	Field strength of intentional transmitter has been stated on datasheets, where applicable				
	The results of frequency stability measurements required by 15.225(e)				



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#### Party Requesting the Test

Company Name:	ClearCount Medical Solutions
Address:	101 Bellevue Rd.
City, State, Zip:	Pittsburgh, PA 15229
Test Requested By:	Jeff Gibala
Description:	SmartSponge Flex
Model:	SmartSponge Flex
First Date of Test:	11/10/2011
Last Date of Test:	11/11/2011
Receipt Date of Samples:	11/10/2011
Equipment Condition:	No Damage

#### Information Provided by the Party Requesting the Test

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

SmartSponge Flex

#### Testing Objective:

To perform testing and evaluation to the customer's requirements to demonstrate compliance to the current FCC standard CFR 47, Part 15.207, Part 15.209, Part 15.225

### EUT Photo(s)



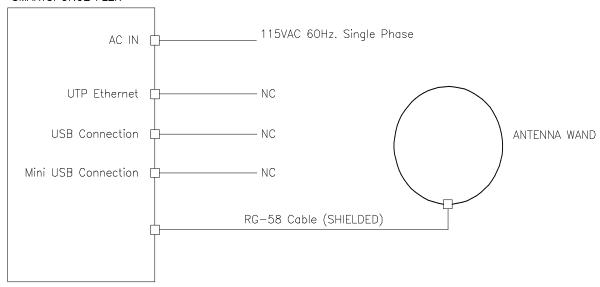


## Configuration 1

EUT						
Description	Manufacturer	Part Number	Model Number	Serial		
				Number		
SmartSponge Flex	ClearCount Medical Solutions	101517	A04	ENG002		

Peripherals						
Description	Manufacturer	Part Number	Model Number	Serial		
				Number		
Wand	ClearCount Medical Solutions	101714	N/A	CAT002		

#### SMARTSPONGE FLEX



# **SMARTSPONGE FLEX Test Configuration**





Execut	Executive Summary					
Test S <sub>l</sub>	pecification(s): FCC Part	15				
Item	Test	Modification(s)	Note(s)	Disposition of EUT	Test Result	
1.	Conducted Emissions FCC Part 15.207	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Upon completion of testing, the items were returned to the customer for further evaluation	Compliant	
2.	Radiated Emissions FCC Part 15.209 FCC Part 15.225	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Upon completion of testing, the items were returned to the customer for further evaluation	Compliant	



## **Acronyms and Abbreviations**

•
<b>AM</b> – Amplitude Modulation
<b>cm</b> - Centimeter
dB - Decibel
dBuV/m – Decibel microvolts per meter
deg - Degree
EMC – Electromagnetic Compatibility
EMI – Electromagnetic Interference
<b>EUT</b> – Equipment Under Test
<b>GHz</b> - Gigahertz
<b>H/V</b> – Horizontal or Vertical Polarity
<b>Hz</b> - Hertz
kHz - Kilohertz
<b>kV</b> - Kilovolt
m - Meters
MHz - Megahertz
NIST – National Institute of Standards and Technology
<b>pF</b> - Picofarad
<b>QP</b> – Quasi-Peak
<b>S/N</b> – Serial Number
<b>Vac</b> – Voltage Alternating Current
<b>UWCE</b> – Used With Calibrated Equipment
V/m – Volts per meter

 $\Omega$  - Ohm

# FCC Part 15



## **EMC Test Report**

www.keystonecompliance.com 724-657-9940

Keystone Compliance, LLC.



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.

#### Reference Specification

FCC Part 15.207

#### **Modes Of Operation**

Normal

#### Power Setting(s)

120Vac/60Hz

#### Sample Calculation

Conducted Emissions: Displayed Level = Measured Raw Data + LISN Factor + Cable Attenuation Factor + External Attenuator Factor

Test Equipment						
Asset No.	Description	Manufacturer	Model	Serial No.	Cal. Due	
EB005	Quasi-Peak Adapter	Hewlett Packard	85650A	2521A01043	6/16/2012	
EB002	Spectrum Analyzer	Hewlett Packard	85662A	2648A14885	6/16/2012	
	Display					
EB003	Spectrum Analyzer	Hewlett Packard	8568B	2415A00496	6/16/2012	
EK001	LISN (50uH)	EMCO	3825/2	9212-2024	4/7/2012	
EN012	Attenuator, 10dB,	Texscan	HFP50/10	None	9/9/2012	
	10W					
None	Terminator 50Ω	HP	11593A	None	UWCE	
EC028	Digital Mutlimeter	Fluke	17B	15031403	3/11/2012	

Measurement Bandwidths						
Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (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			

#### **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 specifications.



#### Test Description

Using the mode of operation and configuration noted within this report, Conducted Emissions tests were performed to FCC Part 15.207. 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 150kHz-30MHz 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  $\Omega$ .



Conducted Emissions Data Sheet						
EUT:	SmartSpong	e Flex		Job Number:	1106-039E	
S/N:	ENG002			Date:	11/11/2011	
Customer:	ClearCount I	Medical Solutions		Temperature:	67 F	
Attendees:	None			Humidity:	44%	
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96	
Tester:	R. Hague Power: 120Vac		120Vac/60Hz	Job Site:	Keystone Compliance	
Test Specificat	tions					
Test Spec:	FCC Part 15.	207		Test Limit:	Class B	
Ref. Spec:	FCC Part 15.207			Method:	LISN	
Test Parameters						
Run#: 1	Line:	Line 1	Ext. Attn:	10dB		
Comments						

Antennas disconnected and replaced with  $50\Omega$  Loads

**EUT Operating Modes** 

Count In

**Deviations From Test Standard** 

Per FCC publication 174176

Results

#### Compliant

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 1 Peak Data

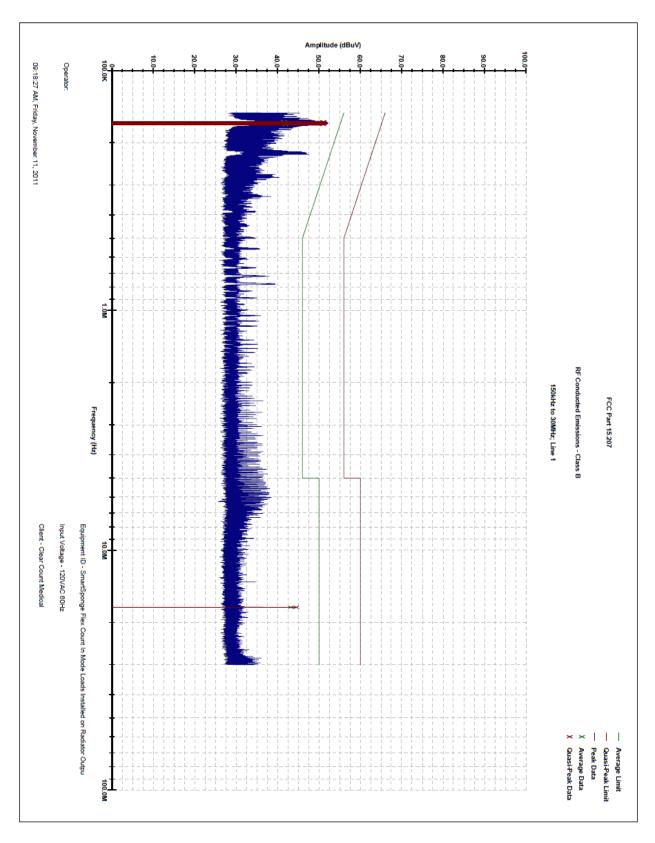
Frequency Peak Data QP Limit QP Data QP Delta AVG Limit AVG Data MHz (dBuV) (D163747 48.69 65.61 51.07 -14.53 55.61 41.58 0.164733 51.94 65.58 51.10 -14.48 55.58 41.46 0.165811 52.08 65.55 51.01 -14.54 55.55 41.80 0.166956 47.69 65.52 51.00 -14.52 55.52 41.87 0.167974 51.57 65.49 51.01 -14.47 55.49 41.85	(dB) -14.03 -14.12 -13.75 -13.64 -13.63
17.2813 43.67 60.00 44.52 -15.48 50.00 43.26	-6.74

SmartSponge Flex Count In Mode Loads Installed on Radiator Outputs 120VAC 60Hz Clear Count Medical

Calculation Verifications (Quasi-Peak Data)					
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)
0.163747	51.07	0.15	0.10	9.53	41.29
0.163473	51.10	0.15	0.10	9.53	41.32
0.165811	51.01	0.15	0.10	9.53	41.23
0.166956	51.00	0.15	0.10	9.53	41.22
0.167974	51.01	0.15	0.10	9.54	41.22
17.283	44.52	0.44	0.72	9.57	33.79









Conducted Emissions Data Sheet								
EUT:	SmartSpong	e Flex	(		Job Number:	1106-039E		
S/N:	ENG002				Date:	11/11/2011		
Customer:	ClearCount	Medic	al Solutions		Temperature:	67 F		
Attendees:	None				Humidity:	44%		
Project:	n/a		Config. #:	1	Barometric Pres.:	29.96		
Tester:	R. Hague		Power:	120Vac/60Hz	Job Site:	Keystone Compliance		
Test Specifica	tions							
Test Spec:	FCC Part 15.	207			Test Limit:	Class B		
Ref. Spec:	FCC Part 15.207				Method:	LISN		
Test Parameters								
Run#: 2	Line:	Line	2	Ext. Attn:	10dB			

Antennas disconnected and replaced with  $50\Omega$  Loads

**EUT Operating Modes** 

Count In

**Deviations From Test Standard** 

Per FCC publication 174176

Results

#### Compliant

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 2 Peak Data

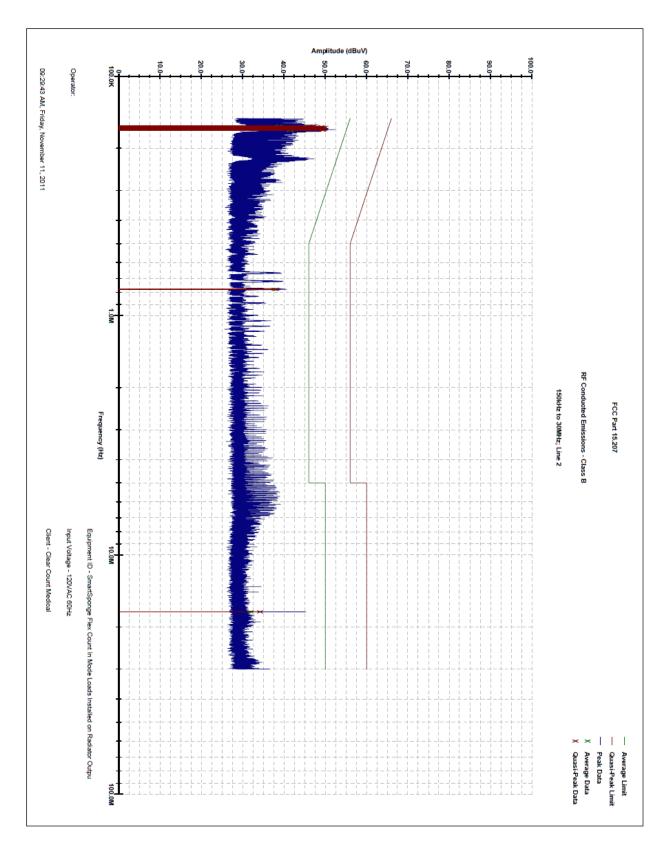
Frequency MHz	Peak Data (dBuV)	QP Limit (dBuV)	QP Data (dBuV)	QP Delta (dB)	AVG Limit (dBuV)	AVG Data (dBuV)	AVG Delta (dB)
0.161724 MHz	43.441	65.665	47.207	-18.458	55.665	38.797	-16.868
0.162747 MHz	49.526	65.636	49.085	-16.551	55.636	40.995	-14.641
0.163819 MHz	50.060	65.605	49.552	-16.053	55.605	41.642	-13.963
0.16493 MHz	47.291	65.573	49.590	-15.983	55.573	41.660	-13.913
0.16591 MHz	50.582	65.545	49.578	-15.967	55.545	41.681	-13.865
0.167095 MHz	41.205	65.512	49.576	-15.936	55.512	41.503	-14.008
0.16816 MHz	46.471	65.481	49.404	-16.077	55.481	41.511	-13.970
0.777091 MHz	40.595	56.000	38.160	-17.840	46.000	37.688	-8.313
17.2845 MHz	45.272	60.000	34.193	-25.807	50.000	31.903	-18.097

SmartSponge Flex Count In Mode Loads Installed on Radiator Outputs 120VAC 60Hz Clear Count Medical

Calculation Vo	Calculation Verifications (Quasi-Peak Data)								
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data				
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)				
0.161724	47.207	0.17	0.10	9.52	37.417				
0.162747	49.085	0.17	0.10	9.53	39.285				
0.163819	49.553	0.17	0.10	9.53	39.753				
0.16493	49.590	0.17	0.10	9.53	39.79				
0.16591	49.578	0.16	0.10	9.53	39.788				
0.167095	49.576	0.16	0.10	9.53	39.786				
0.16816	49.404	0.16	0.10	9.54	39.604				
0.777091	38.160	0.09	0.27	9.50	28.3				
17.2845	34.193	0.34	0.72	9.57	23.563				









	Conducted Emissions Data Sheet								
EUT:	SmartSponge Fle	<		Job Number:	1106-039E				
S/N:	ENG002			Date:	11/11/2011				
Customer:	ClearCount Medi	cal Solutions		Temperature:	67 F				
Attendees:	None			Humidity:	44%				
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96				
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance				
Test Specificat	Test Specifications								
Test Spec:	FCC Part 15.207			Test Limit:	Class B				
Ref. Spec:	FCC Part 15.207			Method:	LISN				
Test Paramete	ers								
Run#: 1	Line: Line	1	Ext. Attn:	10dB					
Comments									
50Ω Loads ren	noved and Antenna	s connected							
EUT Operating	g Modes								
Count In	Count In								
Deviations Fro	Deviations From Test Standard								
N/A									

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 1 Peak Data

Compliant

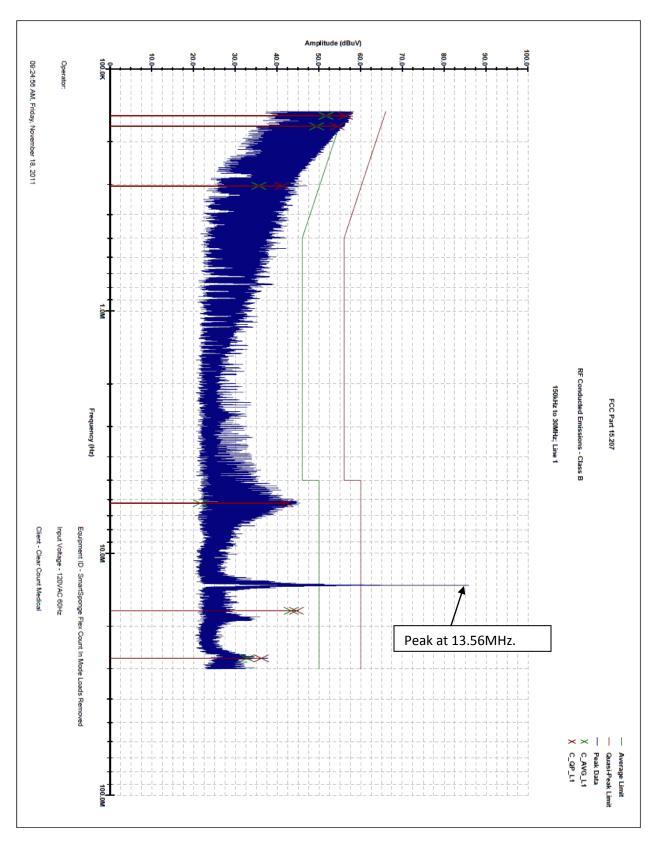
Frequency MHz	Peak Data (dBuV)	QP Limit (dBuV)	QP Data (dBuV)	QP Delta (dB)	AVG Limit (dBuV)	AVG Data (dBuV)	AVG Delta (dB)
0.156331	55.09	65.82	56.35	-9.47	55.82	51.70	-4.12
0.172721	53.02	65.35	54.37	-10.98	55.35	49.44	-5.91
0.304145	46.77	61.60	41.20	-20.40	51.60	35.63	-15.97
6.21256	45.41	60.00	42.12	-17.88	50.00	21.61	-28.39
17.2779	44.89	60.00	44.63	-15.37	50.00	43.36	-6.64
27.1161	37.21	60.00	36.21	-23.79	50.00	32.77	-17.23

SmartSponge Flex Count In Mode Loads Removed 120VAC 60Hz Clear Count Medical

Calculation Ve	Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data			
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)			
0.156331	56.35	0.15	0.06	9.51	46.63			
0.172721	54.37	0.14	0.10	9.55	44.58			
0.304145	41.20	0.10	0.10	9.60	31.40			
6.21256	42.12	0.19	0.58	9.50	31.85			
17.2779	44.63	0.44	0.72	9.57	33.90			
27.1161	36.21	0.55	0.94	9.60	25.12			









Conducted Emissions Data Sheet								
EUT:	SmartSponge Flex	(		Job Number:	1106-039E			
S/N:	ENG002			Date:	11/11/2011			
Customer:	ClearCount Medic	cal Solutions		Temperature:	67 F			
Attendees:	None			Humidity:	44%			
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96			
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance			
Test Specificat	ions							
Test Spec:	FCC Part 15.207			Test Limit:	Class B			
Ref. Spec:	FCC Part 15.207			Method:	LISN			
Test Paramete	ers							
Run#: 2	Line: Line	2	Ext. Attn:	10dB				
Comments								
50Ω Loads ren	noved and Antenna	s connected						
EUT Operating	Modes							
Count In								
Deviations Fro	m Test Standard							
N/A								
Results								
Compliant								

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 2 Peak Data

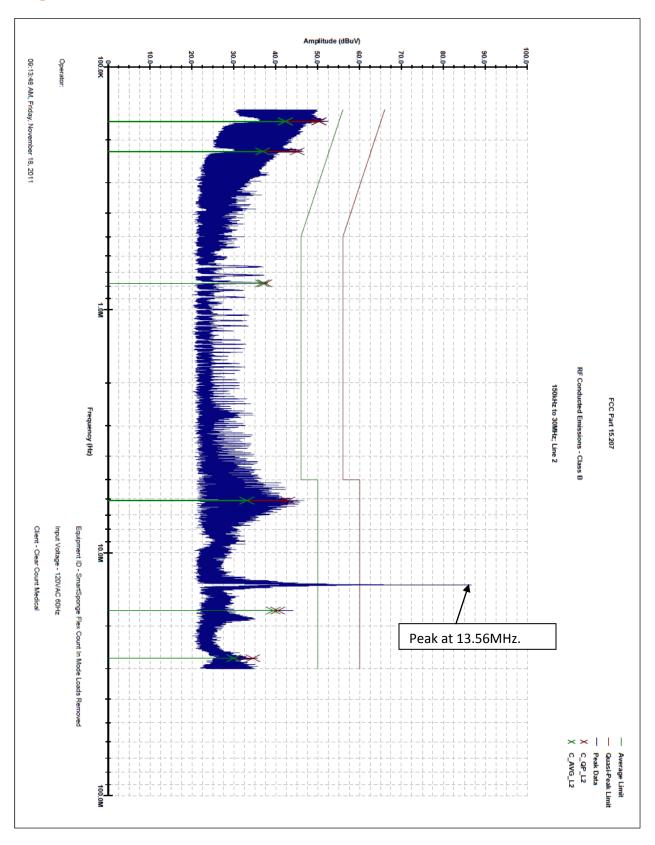
Frequency	Peak Data	QP Limit	QP Data	QP Delta	AVG Limit	AVG Data	AVG Delta
MHz	(dBuV)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
0.167763 MHz	41.672	65.492	50.304	-15.188	55.492	42.279	-13.213
0.222844 MHz	41.400	63.919	45.120	-18.799	53.919	36.835	-17.084
0.777592 MHz	37.241	56.000	37.410	-18.590	46.000	36.790	-9.210
6.09219 MHz	44.802	60.000	42.866	-17.134	50.000	33.106	-16.894
17.2826 MHz	43.001	60.000	40.453	-19.547	50.000	39.430	-10.570
27.1228 MHz	35.597	60.000	34.532	-25.468	50.000	29.970	-20.030

SmartSponge Flex Count In Mode Loads Removed 120VAC 60Hz Clear Count Medical

Calculation Ve	Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data			
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)			
0.167763	50.304	0.16	0.10	9.54	40.504			
0.222844	45.120	0.13	0.07	9.60	35.320			
0.777592	37.410	0.09	0.28	9.50	27.540			
6.09219	42.866	0.17	0.59	9.50	32.606			
17.2826	40.453	0.34	0.72	9.57	29.823			
27.1228	34.532	0.48	0.94	9.60	23.512			





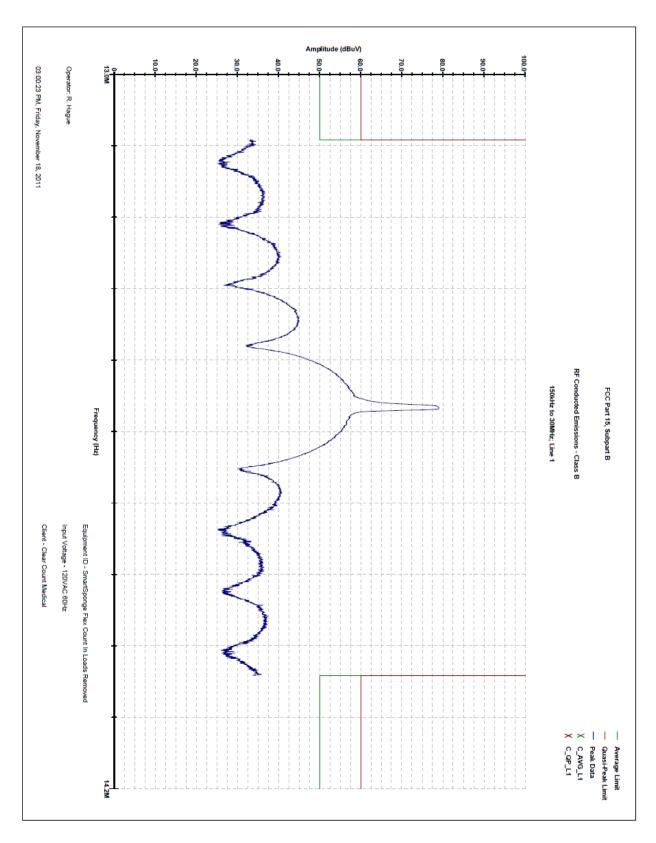




	Conducted Emissions Data Sheet								
CUT.	CmartCnanga Fla	· · ·		Joh Number	1106-039E				
EUT:	SmartSponge Fle	ex .		Job Number:					
S/N:	ENG002			Date:	11/11/2011				
Customer:	ClearCount Med	ical Solutions		Temperature:	67 F				
Attendees:	None			Humidity:	44%				
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96				
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance				
Test Specificat	ions								
Test Spec:	FCC Part 15.207			Test Limit:	Class B				
Ref. Spec:	FCC Part 15.207			Method:	LISN				
Test Paramete	rs								
Run#: 1	Line: Lin	e 1	Ext. Attn:	10dB					
Comments									
50Ω Loads ren	noved and Antenr	as connected	, zoom in on 13-:	14.2 MHz					
EUT Operating	Modes								
Count In									
Deviations Fro	m Test Standard								
N/A									
Results									
Compliant									





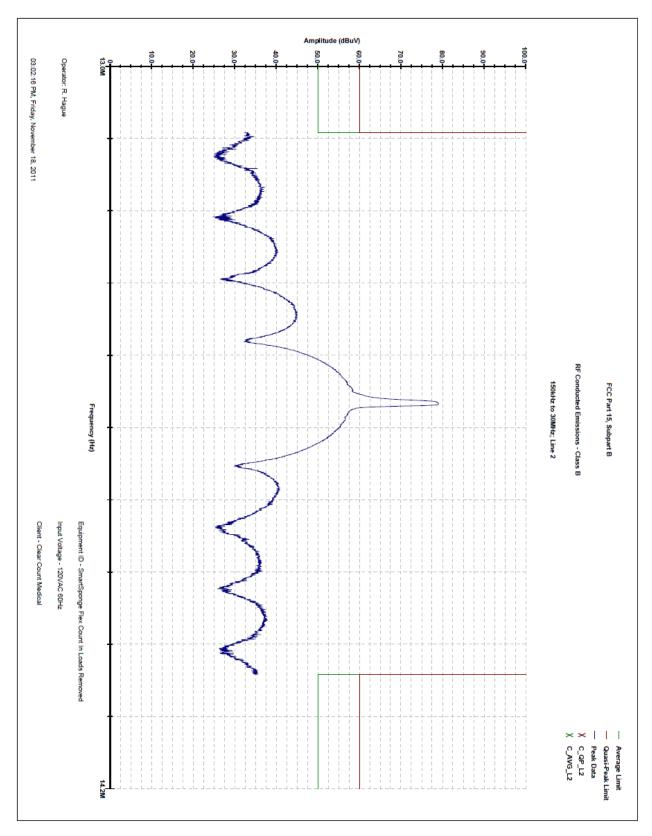




Conducted Emissions Data Sheet								
EUT:	SmartSponge Flex	(		Job Number:	1106-039E			
S/N:	ENG002			Date:	11/11/2011			
Customer:	ClearCount Medic	cal Solutions		Temperature:	67 F			
Attendees:	None			Humidity:	44%			
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96			
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance			
Test Specificat	ions							
Test Spec:	FCC Part 15.207			Test Limit:	Class B			
Ref. Spec:	FCC Part 15.207			Method:	LISN			
Test Paramete	ers							
Run#: 2	Line: Line	2	Ext. Attn:	10dB				
Comments								
50Ω Loads ren	noved and Antenna	s connected	, zoom in on 13-:	14.2 MHz				
EUT Operating	Modes							
Count In								
Deviations Fro	m Test Standard							
N/A								
Results								
Compliant								









Conducted Emissions Data Sheet									
EUT:	SmartSponge	Flex		Job Number:	1106-039E				
S/N:	ENG002			Date:	11/11/2011				
Customer:	ClearCount M	1edical Solutions		Temperature:	67 F				
Attendees:	None			Humidity:	44%				
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96				
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance				
Test Specificat	ions								
Test Spec:	FCC Part 15.2	07		Test Limit:	Class B				
Ref. Spec:	FCC Part 15.2	07		Method:	LISN				
Test Paramete	rs								
Run#: 1	Line:	Line 1	Ext. Attn:	10dB					
Comments									
Antennas disco	Antennas disconnected and replaced with $50\Omega$ loads								
EUT Operating	EUT Operating Modes								

**Count Out** 

**Deviations From Test Standard** 

Tested per FCC publication 174716

Results

#### Compliant

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 1 Peak Data

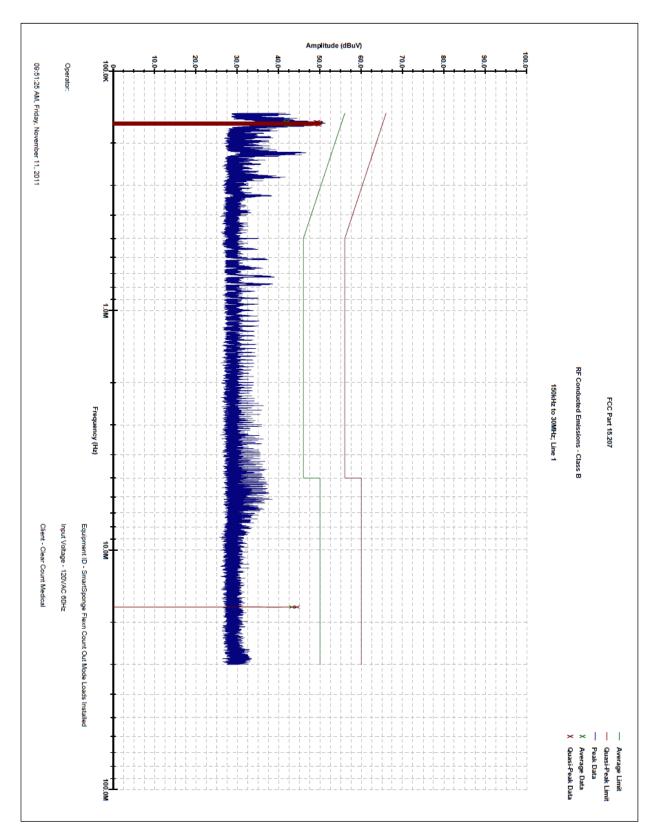
Frequency MHz	Peak Data (dBuV)	QP Limit (dBuV)	QP Data (dBuV)	QP Delta (dB)	AVG Limit (dBuV)	AVG Data (dBuV)	AVG Delta (dB)
0.162926	50.60	65.63	49.30	-16.33	55.63	41.92	-13.71
0.163974	50.67	65.60	49.74	-15.86	55.60	41.86	-13.74
0.165055	51.08	65.57	49.81	-15.76	55.57	42.47	-13.10
0.166136	49.16	65.54	49.74	-15.80	55.54	42.40	-13.14
0.167213	49.47	65.51	48.76	-16.75	55.51	42.15	-13.36
0.168322	49.17	65.48	49.70	-15.77	55.48	42.20	-13.28
17.2813	44.27	60.00	44.43	-15.57	50.00	43.26	-6.74

SmartSponge Flexn Count Out Mode Loads Installed 120VAC 60Hz Clear Count Medical

Calculation Ve	Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data			
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)			
0.162926	49.30	0.15	0.10	9.53	39.52			
0.163974	49.74	0.15	0.10	9.53	39.96			
0.165055	49.81	0.15	0.10	9.53	40.03			
0.166136	49.74	0.15	0.10	9.53	39.96			
0.167213	48.76	0.15	0.10	9.53	38.98			
0.168322	49.70	0.15	0.10	9.54	39.91			
17.2813	44.43	0.44	0.72	9.57	33.70			









Conducted Emissions Data Sheet							
EUT:	SmartSponge	e Flex		Job Number:	1106-039E		
S/N:	ENG002			Date:	11/11/2011		
Customer:	ClearCount N	Medical Solutions		Temperature:	67 F		
Attendees:	None			Humidity:	44%		
Project:	n/a Config. #:		1	Barometric Pres.:	29.96		
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance		
Test Specificat	ions						
Test Spec:	FCC Part 15.2	207		Test Limit:	Class B		
Ref. Spec:	FCC Part 15.2	207		Method:	LISN		
Test Paramete	ers						
Run#: 2	Line: Line 2 Ext. Attn:			10dB			
Commonts							

Comments

Antennas disconnected and replaced with  $50\Omega$  loads

**EUT Operating Modes** 

**Count Out** 

**Deviations From Test Standard** 

Tested per FCC publication 174716

Results

#### Compliant

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 2 Peak Data

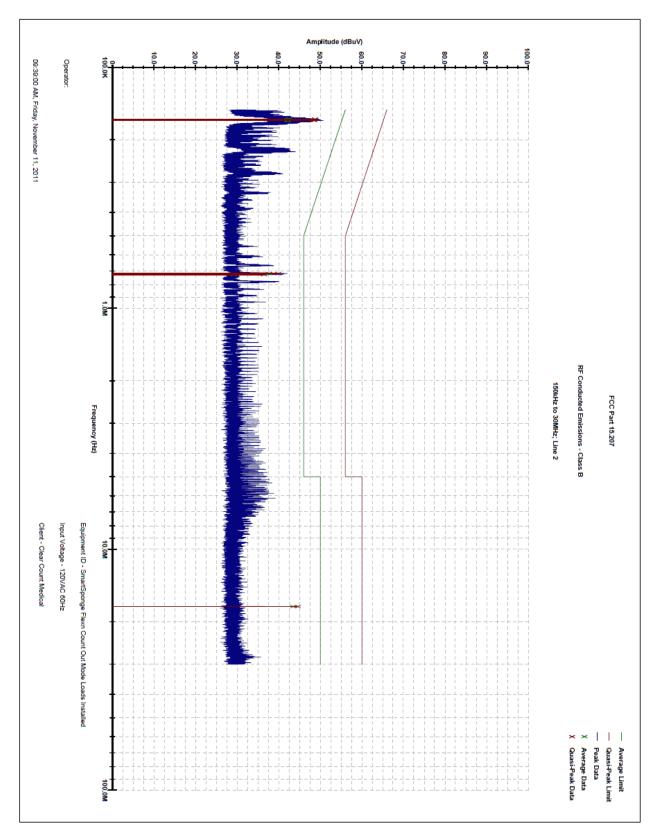
Frequency	Peak Data	QP Limit	QP Data	QP Delta	AVG Limit	AVG Data	AVG Delta
MHz	(dBuV)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
0.164232 MHz	49.344	65.593	48.762	-16.832	55.593	42.449	-13.144
0.16537 MHz	45.778	65.561	48.499	-17.062	55.561	42.034	-13.527
0.166452 MHz	44.299	65.530	48.517	-17.013	55.530	42.222	-13.308
0.717384 MHz	41.348	56.000	39.870	-16.130	46.000	37.657	-8.343
0.724831 MHz	39.512	56.000	36.450	-19.550	46.000	29.180	-16.820
17.2813 MHz	44.070	60.000	44.633	-15.367	50.000	43.438	-6.562

SmartSponge Flexn Count Out Mode Loads Installed 120VAC 60Hz Clear Count Medical

Calculation Ve	Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data			
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)			
0.164232	48.762	0.17	0.10	9.53	38.962			
0.16537	48.499	0.16	0.10	9.53	38.709			
0.166452	48.517	0.16	0.10	9.53	38.727			
0.717384	39.870	0.09	0.13	9.50	30.150			
0.724831	36.450	0.09	0.10	9.50	26.760			
17.2813	44.633	0.34	0.72	9.57	34.003			









	Conducted Emissions Data Sheet							
EUT:	SmartSponge Flex	(		Job Number:	1106-039E			
S/N:	ENG002			Date:	11/11/2011			
Customer:	ClearCount Medic	cal Solutions		Temperature:	67 F			
Attendees:	None			Humidity:	44%			
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96			
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance			
Test Specificat	tions							
Test Spec:	FCC Part 15.207			Test Limit:	Class B			
Ref. Spec:	FCC Part 15.207			Method:	LISN			
Test Paramete	ers							
Run#: 1	Line: Line	1	Ext. Attn:	10dB				
Comments								
50Ω Loads rer	noved and Antenna	s connected						
EUT Operating	g Modes							
Count Out								
Deviations Fro	om Test Standard							
N/A								

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 1 Peak Data

Results

Compliant

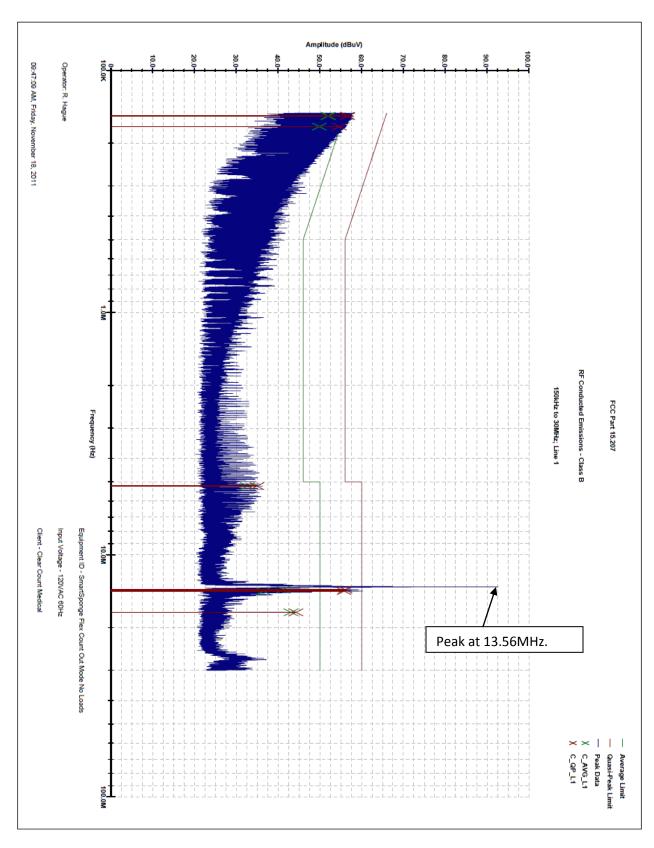
Frequency MHz	Peak Data (dBuV)	QP Limit (dBuV)	QP Data (dBuV)	QP Delta (dB)	AVG Limit (dBuV)	AVG Data (dBuV)	AVG Delta (dB)
0.154293	55.15	65.88	56.61	-9.27	55.88	51.98	-3.90
0.170666	53.94	65.41	54.71	-10.70	55.41	49.86	-5.55
5.20594	36.28	60.00	34.92	-25.08	50.00	32.67	-17.33
13.9314	59.33	60.00	56.03	-3.97	50.00	41.26	-8.74
14.1203	60.16	60.00	55.79	-4.21	50.00	36.44	-13.56
17.2784	43.45	60.00	44.26	-15.74	50.00	43.11	-6.89

SmartSponge Flex Count Out Mode No Loads 120VAC 60Hz Clear Count Medical

Calculation Ve	Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data			
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)			
0.154293	56.61	0.16	0.04	9.51	46.90			
0.170666	54.71	0.14	0.10	9.54	44.93			
5.20594	34.92	0.16	0.44	9.50	24.82			
13.9314	56.03	0.38	0.62	9.54	45.49			
14.1203	55.79	0.39	0.62	9.54	45.24			
17.2784	44.26	0.44	0.72	9.57	33.53			









Conducted Emissions Data Sheet							
EUT:	SmartSponge Flex	(		Job Number:	1106-039E		
S/N:	ENG002			Date:	11/11/2011		
Customer:	ClearCount Medic	cal Solutions		Temperature:	67 F		
Attendees:	None			Humidity:	44%		
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96		
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance		
Test Specificat	ions						
Test Spec:	FCC Part 15.207			Test Limit:	Class B		
Ref. Spec:	FCC Part 15.207			Method:	LISN		
Test Paramete	rs						
Run#: 2	Line: Line	2	Ext. Attn:	10dB			
Comments							
50Ω Loads ren	noved and Antenna	s connected					
EUT Operating	Modes						
Count Out							
Deviations Fro	m Test Standard						
N/A			_				
Results							
Compliant							

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 2 Peak Data

Frequency MHz	Peak Data (dBuV)	QP Limit (dBuV)	QP Data (dBuV)	QP Delta (dB)	AVG Limit (dBuV)	AVG Data (dBuV)	AVG Delta (dB)
0.16703 MHz	42.190	65.513	48.046	-17.467	55.513	40.958	-14.555
0.718077 MHz	36.859	56.000	37.420	-18.580	46.000	34.930	-11.070
5.86943 MHz	36.863	60.000	35.815	-24.185	50.000	33.590	-16.410
13.9263 MHz	59.418	60.000	56.789	-3.211	50.000	40.089	-9.911
14.0178 MHz	61.245	60.000	57.580	-2.420	50.000	39.580	-10.420
14.0438 MHz	58.275	60.000	54.940	-5.060	50.000	36.640	-13.360
14.0986 MHz	58.100	60.000	54.291	-5.709	50.000	35.421	-14.579
14.1281 MHz	49.444	60.000	55.791	-4.209	50.000	37.861	-12.139
14.2296 MHz	45.777	60.000	49.852	-10.148	50.000	31.510	-18.490
17.2826 MHz	43.378	60.000	40.463	-19.537	50.000	39.403	-10.597

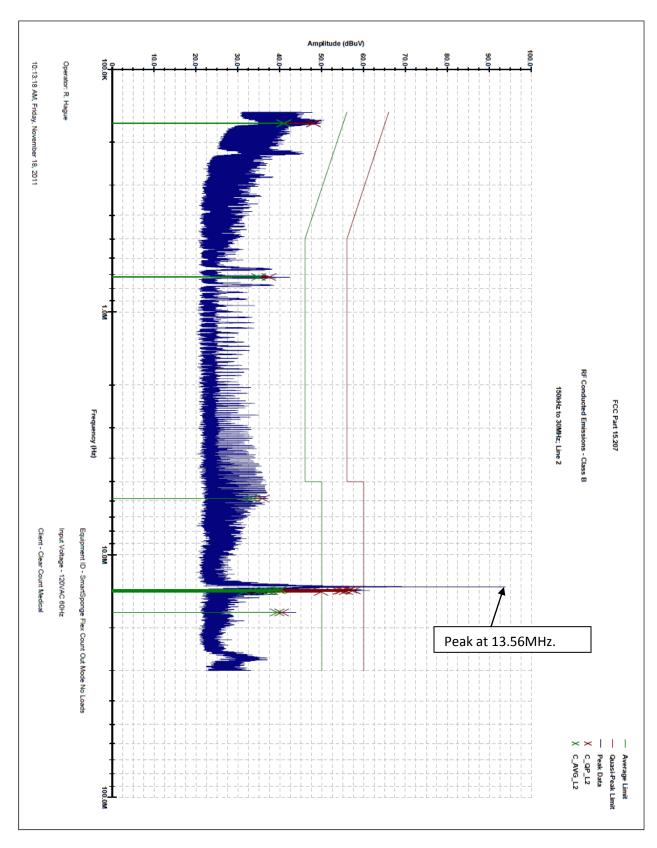
SmartSponge Flex Count Out Mode No Loads 120VAC 60Hz Clear Count Medical



Calculation Ve	Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data			
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)			
0.16703	48.046	0.16	0.10	9.53	38.256			
0.718077	37.420	0.09	0.12	9.50	27.710			
5.86943	35.815	0.17	0.57	9.50	25.575			
13.9263	56.789	0.31	0.62	9.54	46.319			
14.0178	57.580	0.31	0.62	9.54	47.110			
14.0438	54.940	0.31	0.62	9.54	44.470			
14.0986	54.291	0.31	0.62	9.54	43.821			
14.1281	55.791	0.31	0.62	9.54	45.321			
14.2296	49.852	0.31	0.63	9.54	39.372			
17.2826	40.463	0.34	0.72	9.57	29.833			









Conducted Emissions Data Sheet							
EUT:	SmartSponge Fle	х		Job Number:	1106-039E		
S/N:	ENG002			Date:	11/11/2011		
Customer:	ClearCount Med	cal Solutions		Temperature:	67 F		
Attendees:	None			Humidity:	44%		
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96		
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance		
Test Specificat	tions						
Test Spec:	FCC Part 15.207			Test Limit:	Class B		
Ref. Spec:	FCC Part 15.207			Method:	LISN		
Test Paramete	ers						
Run#: 1	Line: Lin	e 1	Ext. Attn:	10dB			
Comments							
50Ω Loads rer	50Ω Loads removed and Antennas connected, zoom in on 13-14.4 MHz						
FUT Operating	Modes						

EUT Operating Modes

Count Out

**Deviations From Test Standard** 

N/A

Results

#### Compliant

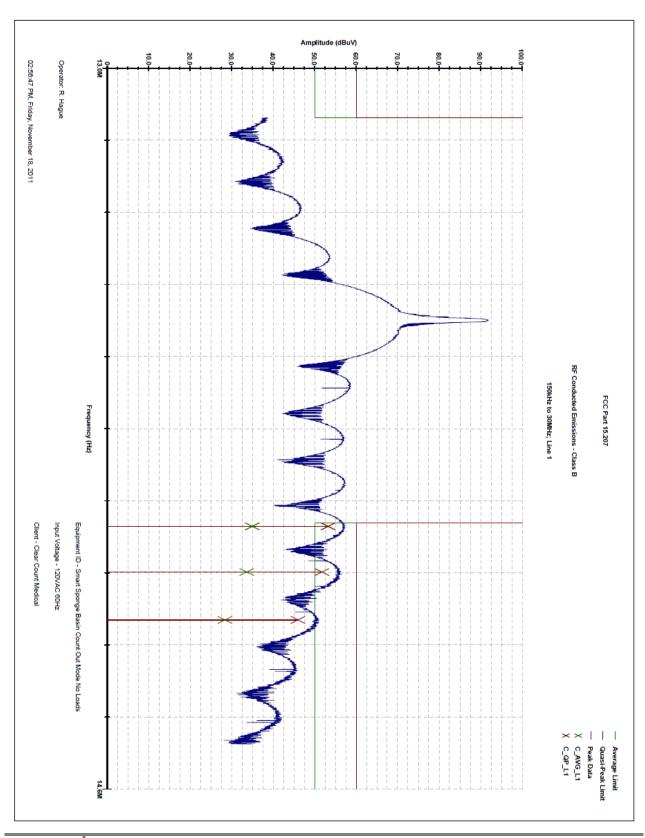
FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 1 Peak Data

Frequency	Peak Data	QP Limit	QP Data	QP Delta	AVG Limit	AVG Data	AVG Delta
MHz	(dBuV)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
14.0169	57.04	60.00	53.26	-6.74	50.00	34.96	-15.04
14.1183	55.44	60.00	51.76	-8.24	50.00	33.64	-16.36
14.2245	50.83	60.00	45.97	-14.03	50.00	28.36	-21.64

SmartSponge Flex Count Out Mode No Loads Zoom 13.0 to 14.2 120VAC 60Hz Clear Count Medical

Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data		
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)		
14.0169	53.26	0.38	0.62	9.54	42.72		
14.1183	51.76	0.39	0.62	9.54	41.21		
14.2245	45.97	0.39	0.63	9.54	35.41		







Conducted Emissions Data Sheet								
EUT	: SmartSpon	ge Flex	(		Job Number:	1106-039E		
S/N	: ENG002				Date:	11/11/2011		
Custome	: ClearCount	Medio	cal Solutions		Temperature:	67 F		
Attendees	:: None	None				44%		
Project	:: n/a	n/a		1	Barometric Pres.:	29.96		
Teste	: R. Hague	R. Hague		120Vac/60Hz	Job Site:	Keystone Compliance		
Test Specific	Test Specifications							
Test Spec	c: FCC Part 15.207 Test Limit:					Class B		
Ref. Spec	:: FCC Part 15	5.207			Method:	LISN		
Test Parameters								
Run#: 2	Line:	Line: Line 2		Ext. Attn:	10dB			
Comments								
50Ω Loads removed and Antennas connected, zoom in on 13-14.4 MHz								

**EUT Operating Modes** 

Count Out

**Deviations From Test Standard** 

N/A

Results

#### Compliant

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 2 Peak Data

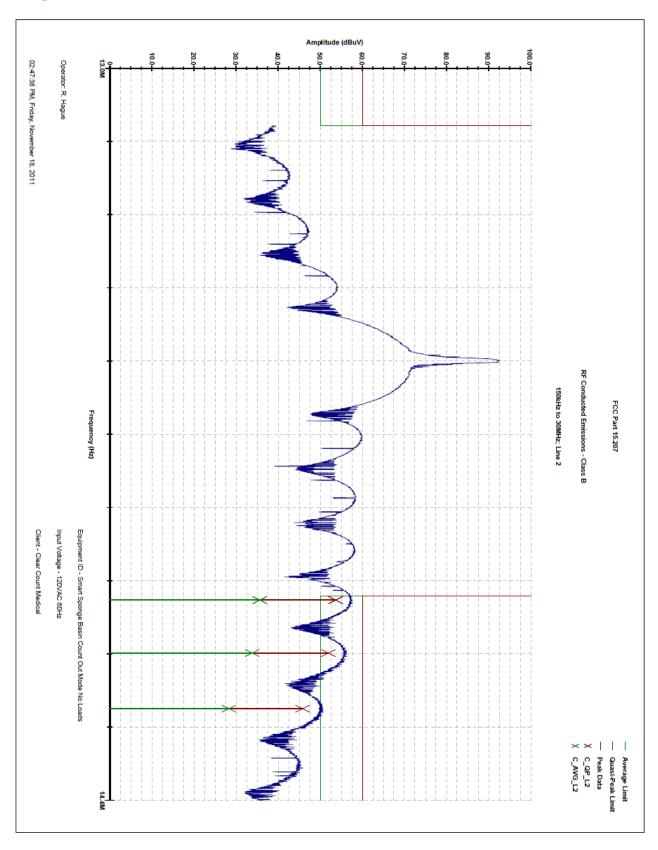
Frequency	Peak Data	QP Limit	QP Data	QP Delta	AVG Limit	AVG Data	AVG Delta
MHz	(dBuV)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
14.0172 MHz	57.373	60.000	53.630	-6.370	50.000	35.600	-14.400
14.1184 MHz	55.629	60.000	51.901	-8.099	50.000	33.816	-16.184
14.2249 MHz	50.513	60.000	45.792	-14.208	50.000	28.262	-21.738

Smart Sponge Basin Count Out Mode No Loads 120VAC 60Hz Clear Count Medical

Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data		
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)		
14.0172	53.630	0.31	0.62	9.54	43.160		
14.1184	51.901	0.31	0.62	9.54	41.431		
14.2249	45.792	0.31	0.63	9.54	35.312		









	Conducted Emissions Data Sheet								
EUT	: SmartSpong	e Flex	(		Job Number:	1106-039E			
S/N	: ENG002				Date:	11/11/2011			
Customer	: ClearCount	Medio	cal Solutions		Temperature:	67 F			
Attendees	: None				Humidity:	44%			
Project	: n/a		Config. #:	1	Barometric Pres.:	29.96			
Tester	: R. Hague		Power:	120Vac/60Hz	Job Site:	Keystone Compliance			
Test Specific	Test Specifications								
Test Spec	: FCC Part 15.	FCC Part 15.207				Class B			
Ref. Spec	: FCC Part 15.	207			Method:	LISN			
Test Parame	ters								
Run#: 1	Line:	Line	1	Ext. Attn:	10dB				
Comments									
Antennas di	sconnected and	50Ω	loads installe	ed					
EUT Operati	ng Modes								
Wand	_			_					
Deviations F	rom Test Standa	ard							
Per FCC pub	Per FCC publication 174176								
Results									

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 1 Peak Data

Frequency MHz	Peak Data (dBuV)	QP Limit (dBuV)	QP Data (dBuV)	QP Delta (dB)	AVG Limit (dBuV)	AVG Data (dBuV)	AVG Delta (dB)
0.162671	47.37	65.64	50.19	-15.44	55.64	40.82	-14.82
0.163684	51.02	65.61	50.61	-15.00	55.61	41.42	-14.19
0.164825	48.63	65.58	50.81	-14.77	55.58	41.48	-14.09
0.165817	51.47	65.55	50.73	-14.82	55.55	41.79	-13.76
0.166895	51.47	65.52	50.72	-14.80	55.52	41.57	-13.95
0.168065	47.18	65.48	50.73	-14.75	55.48	41.49	-13.99
0.169116	50.77	65.45	48.76	-16.69	55.45	39.36	-16.10
17.2813	46.87	60.00	46.35	-13.65	50.00	44.94	-5.06

SmartSponge Flex Wand Mode Loads installed on Radiator Output 120VAC 60Hz Clear Count Medical

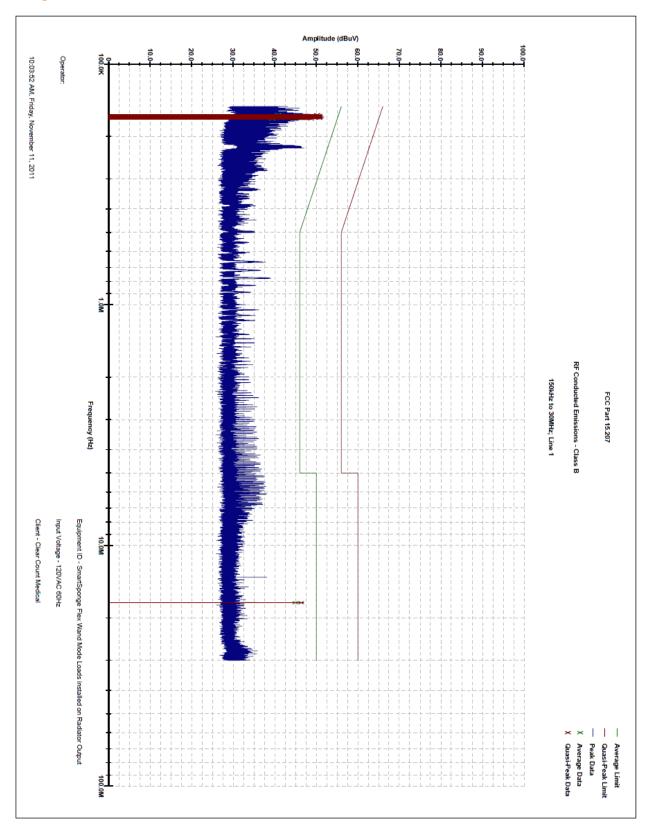
Compliant



Calculation Ve	Calculation Verifications (Quasi-Peak Data)									
Frequency (MHz)	Displayed Data (dBuV)	LISN Factor (dB)	Cable Factor (dB)	Attenuator Factor (dB)	Raw Data (dBuV)					
0.162671	50.19	0.15	0.10	9.53	40.41					
0.163684	50.61	0.15	0.10	9.53	40.83					
0.164825	50.81	0.15	0.10	9.53	41.03					
0.165817	50.73	0.15	0.10	9.53	40.95					
0.166895	50.72	0.15	0.10	9.53	40.94					
0.168065	50.73	0.15	0.10	9.54	40.94					
0.169116	48.76	0.14	0.10	9.54	38.98					
17.2813	46.35	0.44	0.72	9.57	35.62					









Conducted Emissions Data Sheet									
EUT:	SmartSponge Fl	ex		Job Number:	1106-039E				
S/N:	ENG002			Date:	11/11/2011				
Customer:	ClearCount Med	ical Solutions		Temperature:	67 F				
Attendees:	None			Humidity:	44%				
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96				
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance				
Test Specificat	tions								
Test Spec:	FCC Part 15.207			Test Limit:	Class B				
Ref. Spec:	FCC Part 15.207			Method:	LISN				
Test Paramete	ers								
Run#: 2	Line: Lin	e 2	Ext. Attn:	10dB					
Comments	Comments								
Antennas disc	Antennas disconnected and $50\Omega$ loads installed								
EUT Operating	Modes								

Wand

**Deviations From Test Standard** 

Per FCC publication 174176

Results

#### Compliant

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 2 Peak Data

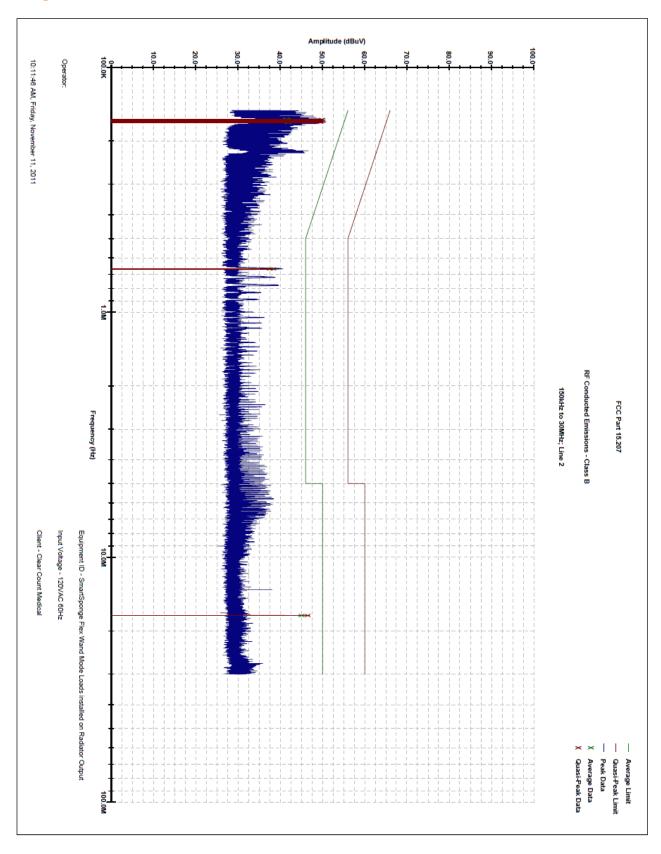
Frequency MHz	Peak Data (dBuV)	QP Limit (dBuV)	QP Data (dBuV)	QP Delta (dB)	AVG Limit (dBuV)	AVG Data (dBuV)	AVG Delta (dB)
0.163525 MHz	47.557	65.614	49.853	-15.761	55.614	41.480	-14.133
0.164583 MHz	49.749	65.583	49.361	-16.223	55.583	41.698	-13.885
0.165594 MHz	50.069	65.554	49.419	-16.136	55.554	41.791	-13.763
0.166769 MHz	44.410	65.521	49.486	-16.034	55.521	41.829	-13.692
0.167854 MHz	42.823	65.490	49.544	-15.946	55.490	41.869	-13.621
0.665483 MHz	40.594	56.000	38.310	-17.690	46.000	37.545	-8.455
17.2813 MHz	46.869	60.000	46.453	-13.547	50.000	44.988	-5.012

SmartSponge Flex Wand Mode Loads installed on Radiator Output 120VAC 60Hz Clear Count Medical

Calculation Ve	Calculation Verifications (Quasi-Peak Data)									
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data					
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)					
0.163525	49.853	0.17	0.10	9.53	40.053					
0.164583	49.361	0.17	0.10	9.53	39.561					
0.165594	49.419	0.16	0.10	9.53	39.629					
0.166769	49.486	0.16	0.10	9.53	39.696					
0.167854	49.544	0.16	0.10	9.54	39.744					
0.665483	38.310	0.09	0.20	9.50	28.520					
17.2813	46.453	0.34	0.72	9.57	35.823					









Conducted Emissions Data Sheet							
E	UT:	SmartSpong	e Flex	(		Job Number:	1106-039E
S	S/N:	ENG002				Date:	11/11/2011
Custon	ner:	ClearCount I	Medio	al Solutions		Temperature:	67 F
Attende	ees:	None				Humidity:	44%
Proj	ect:	n/a		Config. #:	1	Barometric Pres.:	29.96
Tes	ter:	R. Hague		Power:	120Vac/60Hz	Job Site:	Keystone Compliance
Test Specifications							
Test Sp	pec:	FCC Part 15.207				Test Limit:	Class B
Ref. Sp	pec:	FCC Part 15.	207			Method:	LISN
Test Para	mete	rs					
Run#:	1	Line:	Line	1	Ext. Attn:	10dB	
Comment	ts						
50Ω Load	ls ren	noved and An	tenna	s connected			
EUT Oper	rating	Modes					
Wand							
Deviations From Test Standard							
N/A							
Results							

FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 1 Peak Data

Frequency	Peak Data	QP Limit	QP Data	QP Delta	AVG Limit	AVG Data	AVG Delta
MHz	(dBuV)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
0.150984	37.71	65.97	57.26	-8.71	55.97	52.61	-3.36
0.167704	56.25	65.49	55.22	-10.27	55.49	51.20	-4.29
7.81618	40.85	60.00	19.60	-40.40	50.00	13.70	-36.30
9.55885	42.22	60.00	18.54	-41.46	50.00	14.16	-35.84
17.2778	42.29	60.00	43.62	-16.38	50.00	42.51	-7.49
27.6655	38.55	60.00	34.67	-25.33	50.00	28.35	-21.65

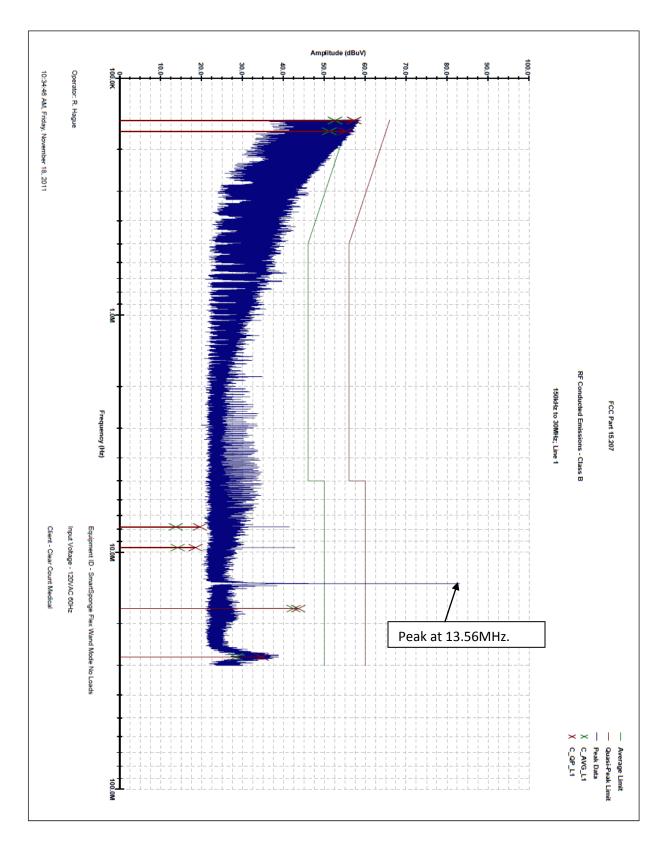
SmartSponge Flex Wand Mode No Loads 120VAC 60Hz Clear Count Medical

Compliant

Calculation Verifications (Quasi-Peak Data)									
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data				
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)				
0.150984	57.26	0.16	0.01	9.50	47.59				
0.167704	55.22	0.15	0.10	9.54	45.43				
7.81618	19.60	0.23	0.50	9.50	9.37				
9.55885	18.54	0.30	0.50	9.54	8.20				
17.2778	43.62	0.44	0.72	9.57	32.89				
27.6655	34.67	0.56	0.95	9.60	23.56				









Conducted Emissions Data Sheet								
EUT:	SmartSponge Flex	<u> </u>		Job Number:	1106-039E			
S/N:	ENG002	•		Date:	11/11/2011			
Customer:	ClearCount Medic	al Solutions		Temperature:	67 F			
Attendees:	None			Humidity:	44%			
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96			
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance			
Test Specificat	ions							
Test Spec:	FCC Part 15.207				Class B			
Ref. Spec:	FCC Part 15.207			Method:	LISN			
Test Paramete	ers							
Run#: 2	Line: Line	2	Ext. Attn:	10dB				
Comments								
50Ω Loads ren	noved and Antenna	s connected						
EUT Operating	g Modes							
Wand								
Deviations Fro	m Test Standard							
N/A								
Results	Results							
Compliant	Compliant							

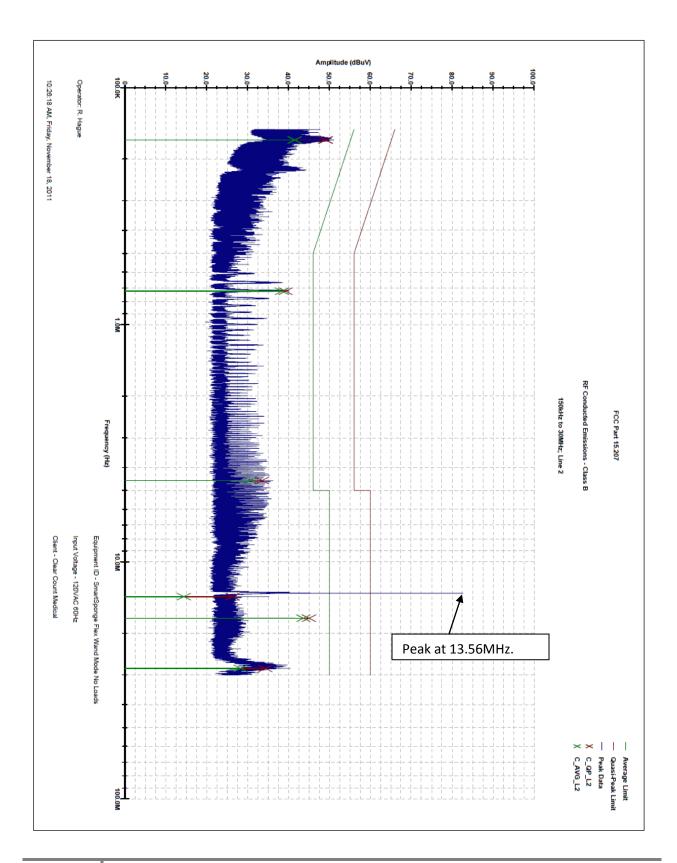
FCC Part 15.207 RF Conducted Emissions - Class B 150kHz to 30MHz; Line 2 Peak Data

Frequency	Peak Data	QP Limit	QP Data	QP Delta	AVG Limit	AVG Data	AVG Delta
MHz	(dBuV)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
0.166285 MHz	49.417	65.535	49.057	-16.477	55.535	41.555	-13.980
0.721744 MHz	39.792	56.000	39.260	-16.740	46.000	38.415	-7.585
4.53753 MHz	35.879	56.000	33.480	-22.520	46.000	30.760	-15.240
14.0124 MHz	34.762	60.000	26.320	-33.680	50.000	14.450	-35.550
17.2813 MHz	42.872	60.000	45.003	-14.997	50.000	43.613	-6.387
28.1245 MHz	40.066	60.000	34.322	-25.678	50.000	28.270	-21.730

SmartSponge Flex Wand Mode No Loads 120VAC 60Hz Clear Count Medical

Calculation Verifications (Quasi-Peak Data)									
Frequency	Displayed Data	LISN Factor	Cable Factor	Attenuator	Raw Data				
(MHz)	(dBuV)	(dB)	(dB)	Factor (dB)	(dBuV)				
0.166285	49.057	0.16	0.10	9.53	39.267				
0.71744	39.260	0.09	0.13	9.50	29.540				
4.53753	33.480	0.13	0.35	9.55	23.450				
14.0124	26.320	0.31	0.62	9.54	15.850				
17.2813	45.003	0.34	0.72	9.57	34.373				
28.1245	34.322	0.50	0.96	9.60	23.262				



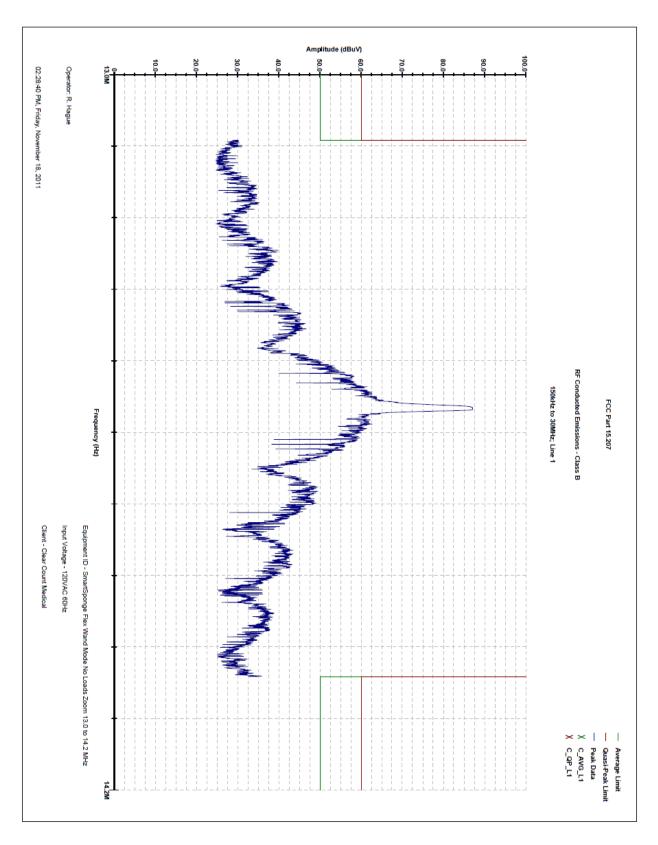




Conducted Emissions Data Sheet								
EUT:	SmartSponge Fle	X		Job Number:	1106-039E			
S/N:	ENG002			Date:	11/11/2011			
Customer:	ClearCount Med	cal Solutions		Temperature:	67 F			
Attendees:	None			Humidity:	44%			
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96			
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance			
Test Specificat	ions							
Test Spec:	FCC Part 15.207			Test Limit:	Class B			
Ref. Spec:	FCC Part 15.207			Method:	LISN			
Test Paramete	rs							
Run#: 1	Line: Lin	e 1	Ext. Attn:	10dB				
Comments								
50Ω Loads ren	noved and Antenn	as connected	, zoom in on 13-:	14.2 MHz				
EUT Operating	Modes							
Wand								
Deviations Fro	m Test Standard							
N/A								
Results								
Compliant								





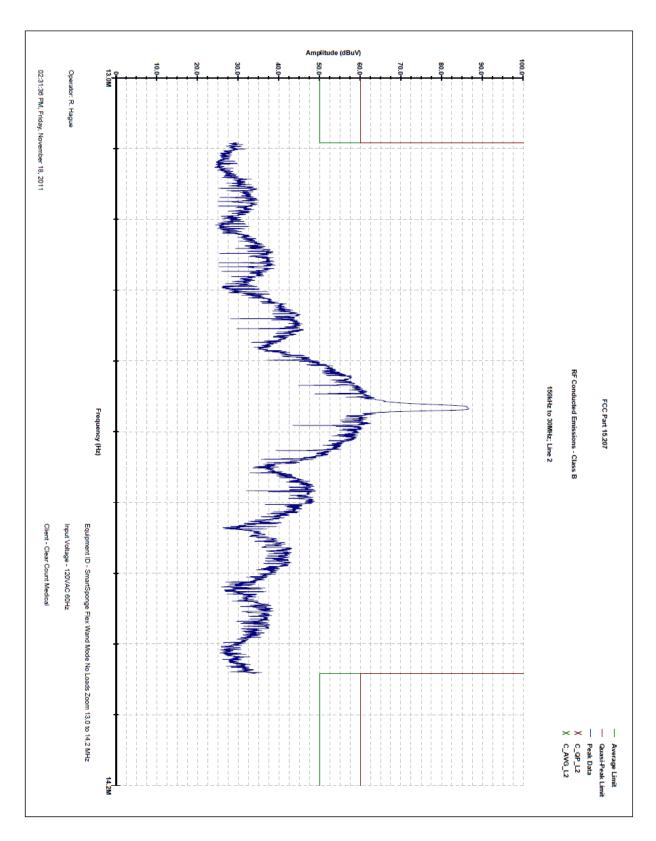




Conducted Emissions Data Sheet									
EUT:	SmartSponge Flex	(		Job Number:	1106-039E				
S/N:	ENG002			Date:	11/11/2011				
Customer:	ClearCount Medic	cal Solutions		Temperature:	67 F				
Attendees:	None			Humidity:	44%				
Project:	n/a	Config. #:	1	Barometric Pres.:	29.96				
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance				
Test Specificat	ions								
Test Spec:	FCC Part 15.207			Test Limit:	Class B				
Ref. Spec:	FCC Part 15.207			Method:	LISN				
Test Paramete	ers								
Run#: 2	Line: Line	2	Ext. Attn:	10dB					
Comments									
50Ω Loads ren	noved and Antenna	s connected	, zoom in on 13-:	14.2 MHz					
EUT Operating	Modes								
Wand									
Deviations Fro	m Test Standard								
N/A									
Results									
Compliant									









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.

#### **Reference Specification**

FCC Part 15.209:2009, FCC Part 15.225:2009

#### **Modes Of Operation**

Normal

#### Power Setting(s)

120Vac/60Hz

Frequency Range Investigate	ed		
Start Frequency:	30MHz	Stop Frequency:	1000MHz

#### Sample Calculation

Radiated Emissions: Displayed Data = Raw Data + Antenna Factor + Cable Factor - Amplifier Gain Factor

Test Equipmer	nt				
Asset No.	Description	Manufacturer	Model	Serial No.	Cal. Due
EG005	Pre-Amplifier	Hewlett Packard	8447F	3113A05772	1/26/2012
EB031	Quasi-Peak Adapter	Hewlett Packard	85650A	3303A01819	6/16/2012
EB014	Spectrum Analyzer Display	Hewlett Packard	85662A	3552A22016	12/30/2011
EB013	Spectrum Analyzer	Hewlett Packard	8566B	3638A08571	12/30/2011
EI001	Positioning Controller	EMCO	1060	None	UWCE
E1000	Positioning Controller	EMCO	1050	None	UWCE
EE004	Bilog Antenna	Schaffner	CBL6112B	2604	10/18/2013
EE015	Active Magnetic Loop	EMCO	6502/1	9902-3260	10/18/2013

Measurement Bandwidths									
Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (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						





#### **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 specifications.

#### **Test Description**

Using the mode of operation and configuration noted within this report, a final radiated emissions tests were performed to FCC Part 15.225. The frequency range investigated (scanned) is also noted in this report.

#### **Antenna Correction Factors Summary**

Magneti (A/N: E		Bilo (A/N: E	
Frequency	Factor	Frequency	Factor
(MHz)	(dB)	(MHz)	(dB)
0.01	15.8	30	19.7
0.02	13.2	40	13.7
0.04	13.1	50	8.9
0.05	12.7	60	6.3
0.06	12.8	80	7.6
0.08	13.1	100	11.2
0.1	13.3	150	11.3
0.2	15.7	200	10.7
0.4	19.9	250	12.9
0.5	21.8	300	13.9
0.6	23.3	350	15.4
0.8	25.6	400	16.6
1	27.4	450	17
2	33.8	500	17.7
4	40.4	550	18.7
5	41.7	600	19.2
6	41.3	650	19.7
8	39.1	700	19.5
10	36.8	750	20.3
15	32.5	800	20.7
20	29.7	850	21.3
25	26.4	900	21.6
30	25.1	950	22
=	=	1000	22.2



Radiated Emissions Data Sheet										
EUT:	SmartSponge Flex	(		Job Number:	1106-039E					
S/N:	ENG002			Date:	11/10/2011					
Customer:	ClearCount Medic	al Solutions		Temperature:	67 F					
Attendees:	None			Humidity:	44%					
Project:	n/a	Config. #:	1	Barometric Pres.:	30.00 in.					
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance					
<b>Test Specificat</b>	ions									
Test Spec:	FCC Part 15.209			Test Limit:	Class B					
Ref. Spec:	FCC Part 15.209			Method:	Antenna					
Test Paramete	ers									
Antenna Heigl	ht(s) (m): 1-4			Test Distance (m):	3					
Comments										
N/A										
EUT Operating	Modes									
Count In										
Deviations Fro	m Test Standard									
N/A										
Results										
Compliant										

FCC Part 15.209 RF Radiated Emissions - Class B 30MHz to 1GHz; Quasi-Peak Frequencies

Frequency MHz	QP Limit (dBuV/m)	Peak Data (dBuV/m)	Peak Delta (dB)	QP Data (dBuV/m)	QP Delta (dB)	Height (cm)	Azimuth (deg)	Polarity (H/V)
80.7259	40.000	26.555	-13.445	25.865	-14.135	101.000	222.000	V
300.648	46.030	26.905	-19.125	23.815	-22.215	201.000	155.000	V
348.758	46.030	17.900	-28.130	31.260	-14.770	102.000	156.000	H
398.934	46.030	24.626	-21.404	28.866	-17.164	198.000	178.000	H
416.176	46.030	20.838	-25.192	26.488	-19.542	201.000	155.000	H
968.577	53.980	28.111	-25.869	22.071	-31.909	100.000	223.000	H

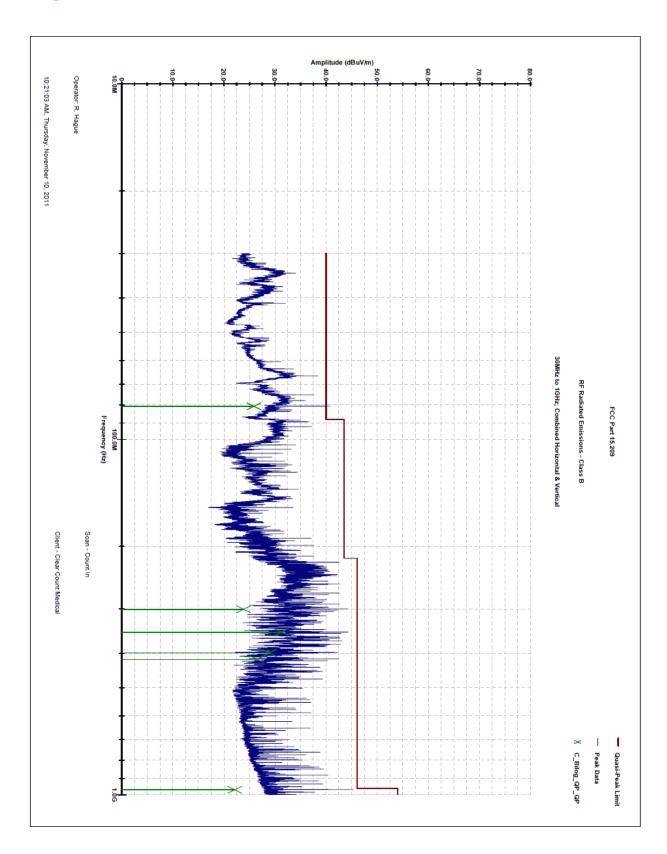
Scan - Count In

Client - Clear Count Medical

Calculation Verifications (Quasi-Peak Data)										
Frequency	Displayed	Antenna Factor	Cable Factor	Preamplifier	Raw Data					
(MHz)	(dBuV/m)	(dB)	(dB)	Factor (dB)	(dBuV/m)					
80.7259	25.865	7.69	1.71	-33.12	49.585					
300.648	23.815	13.94	3.50	-33.20	39.575					
348.758	31.260	15.30	3.72	-33.05	45.290					
398.934	28.866	16.54	4.18	-32.90	41.046					
416.176	26.488	17.12	4.26	-32.90	38.008					
968.577	22.071	22.13	7.00	-31.39	24.331					









			r. le · ·						
Radiated Emissions Data Sheet									
EUT:	SmartSponge Flex	(		Job Number:	1106-039E				
S/N:	ENG002			Date:	11/10/2011				
Customer:	ClearCount Medic	cal Solutions		Temperature:	67 F				
Attendees:	None			Humidity:	44%				
Project:	n/a	Config. #:	1	Barometric Pres.:	30.00 in.				
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance				
Test Specificat	ions								
Test Spec:	FCC Part 15.209			Test Limit:	Class B				
Ref. Spec:	FCC Part 15.209			Method:	Antenna				
Test Paramete	rs								
Antenna Heigh	nt(s) (m): 1-4			Test Distance (m):	3				
Comments									
N/A									
EUT Operating	Modes								
Count Out									
Deviations Fro	m Test Standard								
N/A									
Results									
Compliant									

FCC Part 15.209 RF Radiated Emissions - Class B 30MHz to 1GHz; Quasi-Peak Frequencies

Frequency MHz	QP Limit (dBuV/m)	Peak Data (dBuV/m)	Peak Delta (dB)	QP Data (dBuV/m)	QP Delta (dB)	Height (cm)	Azimuth (deg)	Polarity (H/V)
34.2891	40.000	20.314	-19.686	25.214	-14.786	101.000	156.000	V
66.5103	40.000	28.705	-11.295	26.505	-13.495	101.000	88.000	V
248.13	46.030	32.485	-13.545	28.565	-17.465	101.000	246.000	H
308.27	46.030	25.298	-20.732	26.738	-19.292	101.000	317.000	H
352.338	46.030	24.115	-21.915	22.905	-23.125	101.000	201.000	V
968.963	53.980	25.621	-28.359	22.271	-31.709	101.000	223.000	H

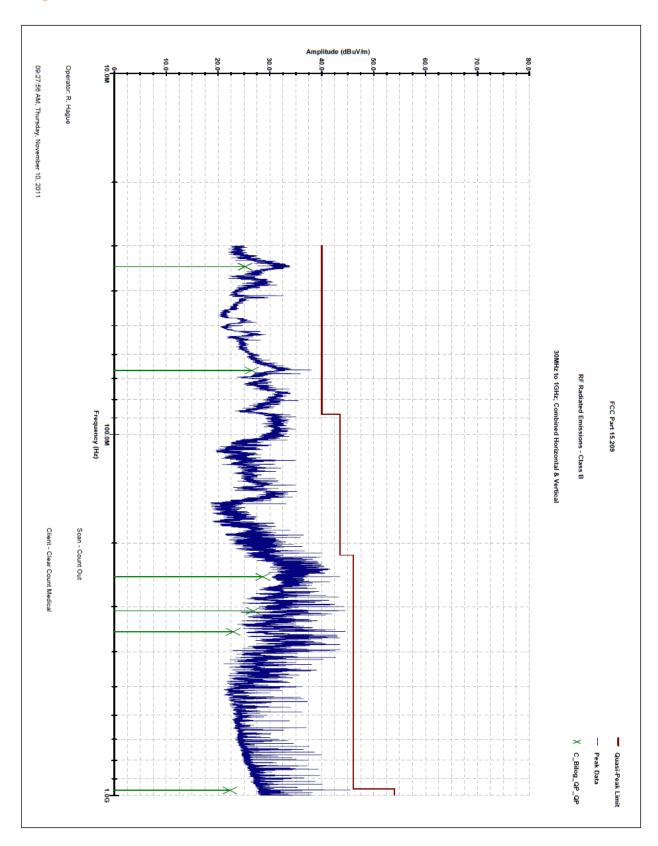
Scan - Count Out

Client - Clear Count Medical

Calculation Verifications (Quasi-Peak Data)										
Frequency	Displayed	Antenna Factor	Cable Factor	Preamplifier	Raw Data					
(MHz)	(dBuV/m)	(dB)	(dB)	Factor (dB)	(dBuV/m)					
34.2891	25.214	17.21	1.09	-32.67	39.584					
66.5103	26.505	6.19	1.53	-33.27	52.055					
248.13	28.565	12.79	3.08	-33.30	45.995					
308.27	26.738	14.20	3.50	-33.18	42.218					
352.338	22.905	15.49	3.75	-33.04	36.705					
968.963	22.271	22.12	7.00	-31.39	24.541					









Radiated Emissions Data Sheet						
EUT:	SmartSponge Flex	(		Job Number:	1106-039E	
S/N:	ENG002			Date:	11/10/2011	
Customer:	ClearCount Medic	cal Solutions		Temperature:	67 F	
Attendees:	None			Humidity:	44%	
Project:	n/a	Config. #:	1	Barometric Pres.:	30.00 in.	
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance	
Test Specificat	ions					
Test Spec:	FCC Part 15.209			Test Limit:	Class B	
Ref. Spec:	FCC Part 15.209			Method:	Antenna	
Test Paramete	Test Parameters					
Antenna Height(s) (m): 1-4 Test Distance (m): 3					3	
Comments						
N/A	N/A					
EUT Operating	Modes					
Wand						
<b>Deviations Fro</b>	Deviations From Test Standard					
N/A						
Results	Results					
Compliant	Compliant					

FCC Part 15.209 RF Radiated Emissions - Class B 30MHz to 1GHz; Quasi-Peak Frequencies

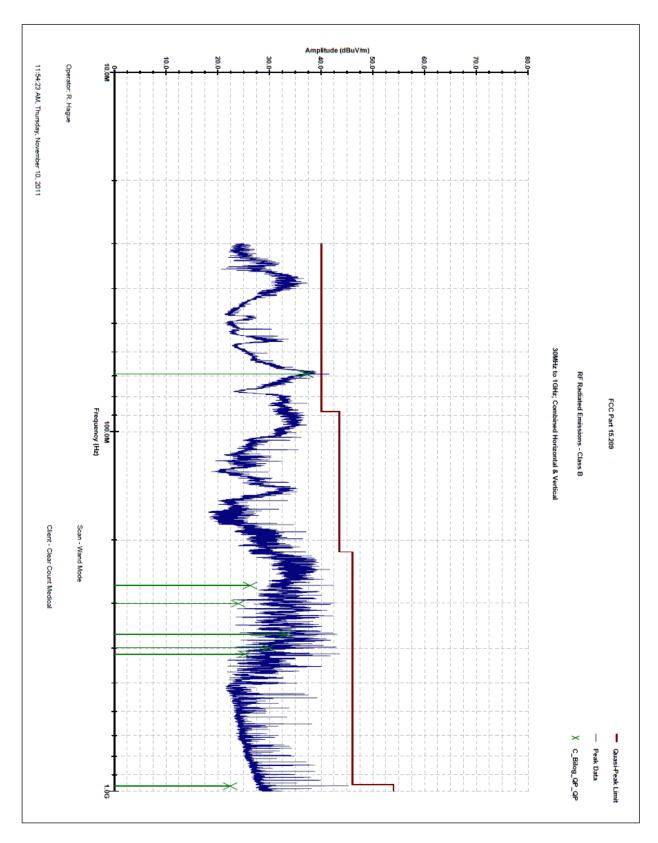
Frequency MHz	QP Limit (dBuV/m)	Peak Data (dBuV/m)	Peak Delta (dB)	QP Data (dBuV/m)	QP Delta (dB)	Height (cm)	Azimuth (deg)	Polarity (H/V)
69.1828	40.000	39.530	-0.470	37.110	-2.890	103.000	155.000	V
267.99	46.030	28.749	-17.281	26.229	-19.801	100.000	66.000	H
300.815	46.030	26.513	-19.517	23.973	-22.057	298.000	88.000	H
366.065	46.030	19.804	-26.226	33.264	-12.766	101.000	178.000	V
399.045	46.030	32.133	-13.897	29.793	-16.237	201.000	110.000	H
416.017	46.030	23.741	-22.289	25.251	-20.779	201.000	111.000	H
968.539	53.980	26.810	-27.170	22.410	-31.570	100.000	156.000	H

Scan - Wand Mode Client - Clear Count Medical

Calculation Verifications (Quasi-Peak Data)							
Frequency	Displayed	Antenna Factor	Cable Factor	Preamplifier	Raw Data		
(MHz)	(dBuV/m)	(dB)	(dB)	Factor (dB)	(dBuV/m)		
69.1828	37.110	6.35	1.58	-33.22	62.400		
267.99	26.229	14.00	3.16	-33.26	42.329		
300.815	23.973	13.95	3.50	-33.20	39.723		
366.065	33.264	15.60	4.02	-33.00	46.644		
399.045	29.793	16.54	4.18	-32.90	41.973		
416.017	25.251	17.12	4.26	-32.90	36.771		
968.539	22.410	22.13	7.00	-31.39	24.670		





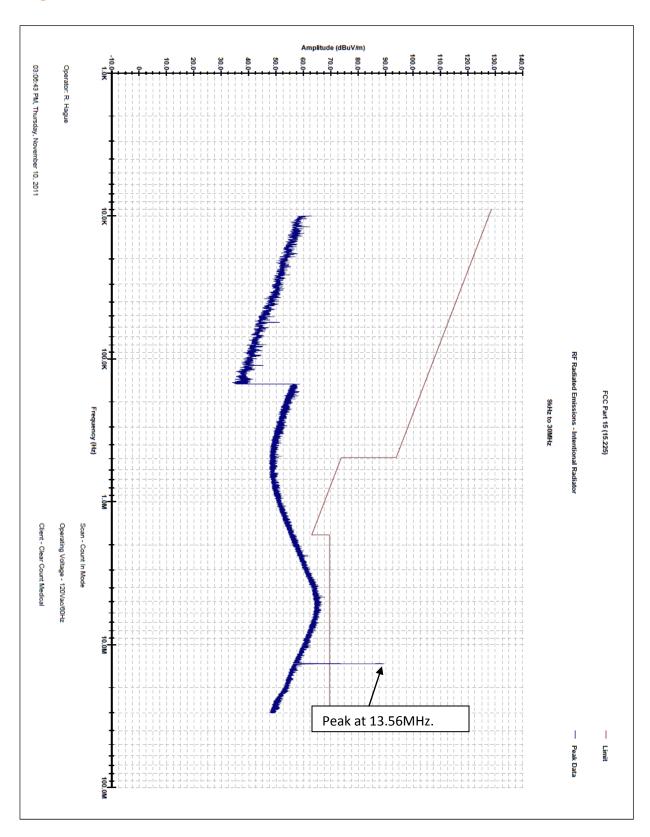




		Rac	liated Emissions	Data Sheet			
EUT:	SmartSponge Flex	<u> </u>		Job Number:	1106-039E		
S/N:	ENG002			Date:	11/10/2011		
Customer:	ClearCount Medical Solutions			Temperature:	67 F		
Attendees:	None			Humidity:	44%		
Project:	n/a	Config. #:	1	Barometric Pres.:	30.00 in.		
Tester:	R. Hague	Power:	120Vac/60Hz	Job Site:	Keystone Compliance		
Test Specificat	Test Specifications						
Test Spec:	FCC Part 15.209, FCC Part 15.225			Test Limit:	Class B		
Ref. Spec:	FCC Part 15.209, F	CC Part 15.2	225	Method:	Antenna		
Test Paramete	Test Parameters						
Antenna Height(s) (m): 1-2 Test Distance (m): 3							
Comments							
Fundamental F	Fundamental Field Strength Measured to be 88 dBuV/m						
EUT Operating	EUT Operating Modes						
Count In							
Deviations From Test Standard							
N/A							
Results	Results						
Compliant	Compliant						

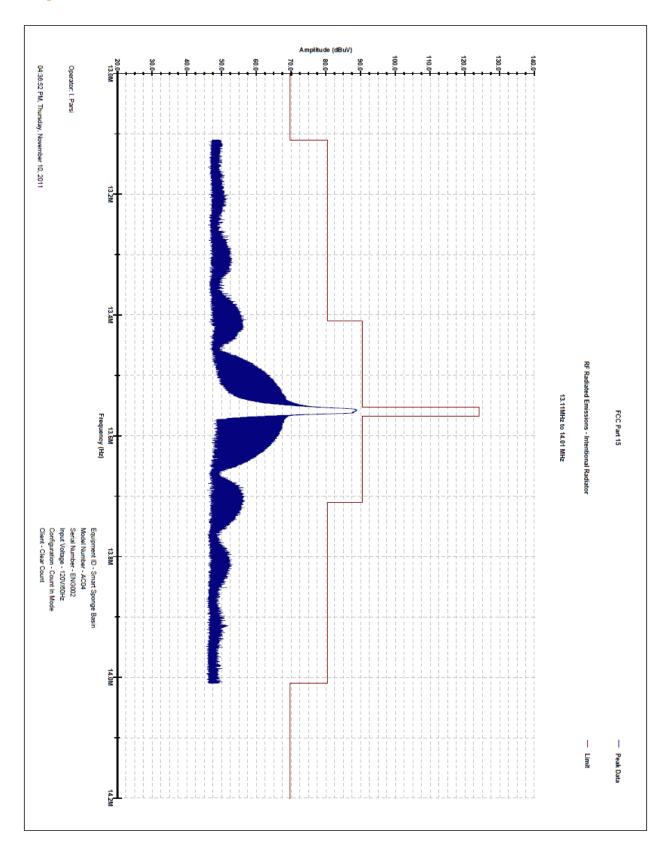










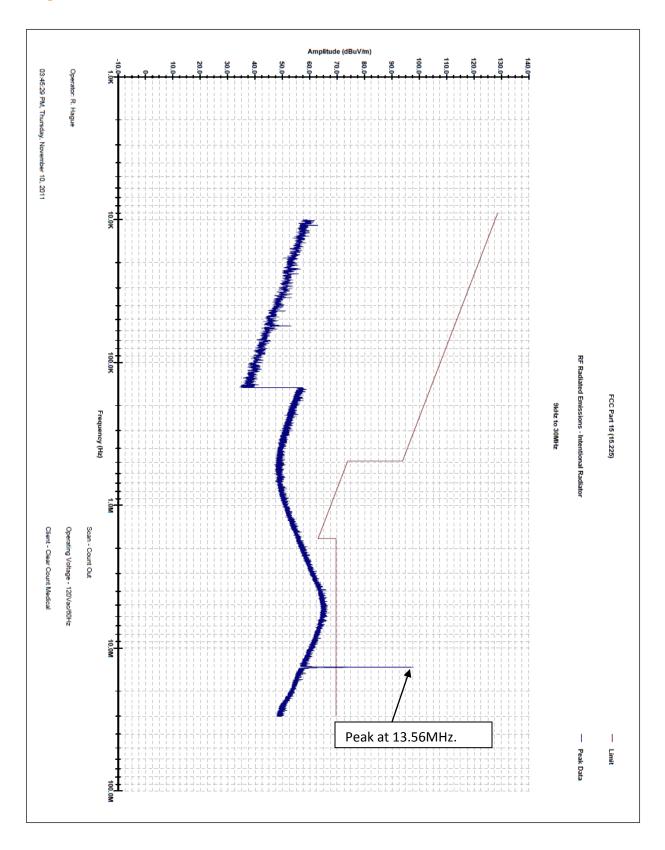




		Rac	liated Emissions	Data Sheet		
EUT:	SmartSponge Flex	<u> </u>		Job Number:	1106-039E	
S/N:	ENG002			Date:	11/10/2011	
Customer:	ClearCount Medic	al Solutions		Temperature:	67 F	
Attendees:	None			Humidity:	44%	
Project:	n/a	Config. #:	1	Barometric Pres.:	30.00 in.	
Tester:	R. Hague Power: 120Vac/60Hz			Job Site:	Keystone Compliance	
Test Specificat	Test Specifications					
Test Spec:	FCC Part 15.209, FCC Part 15.225			Test Limit:	Class B	
Ref. Spec:	FCC Part 15.209, I	CC Part 15.2	225	Method:	Antenna	
Test Paramete	Test Parameters					
Antenna Height(s) (m): 1-4 Test Distance (m): 3						
Comments						
Fundamental I	Fundamental Field Strength Measured to be 98dBuV/m					
EUT Operating	EUT Operating Modes					
Count Out						
Deviations From Test Standard						
N/A						
Results	Results					
Compliant	Compliant					

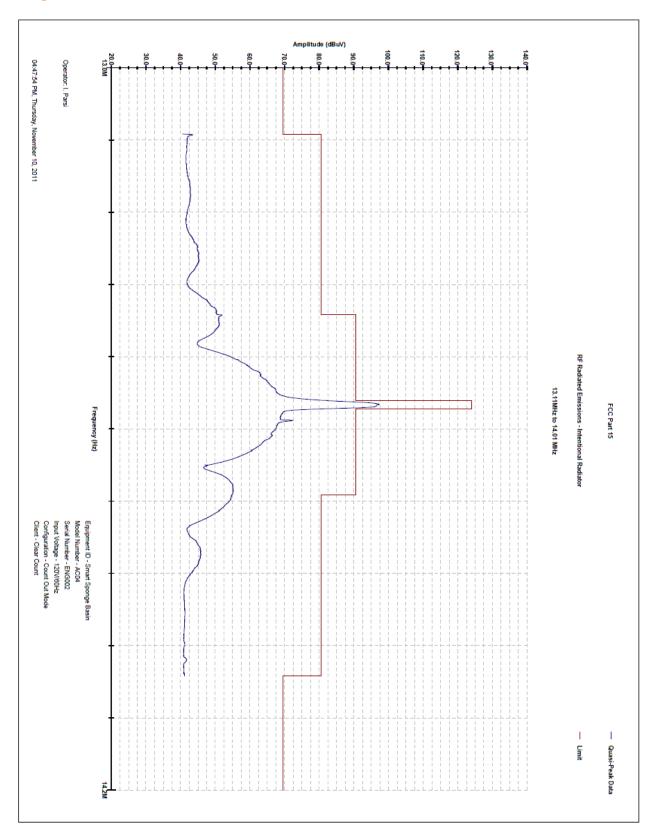










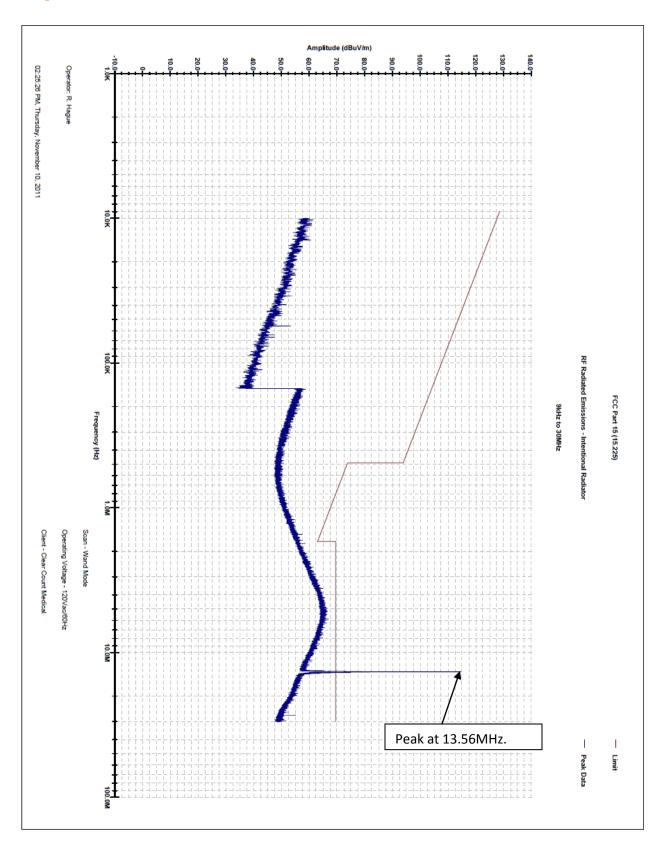




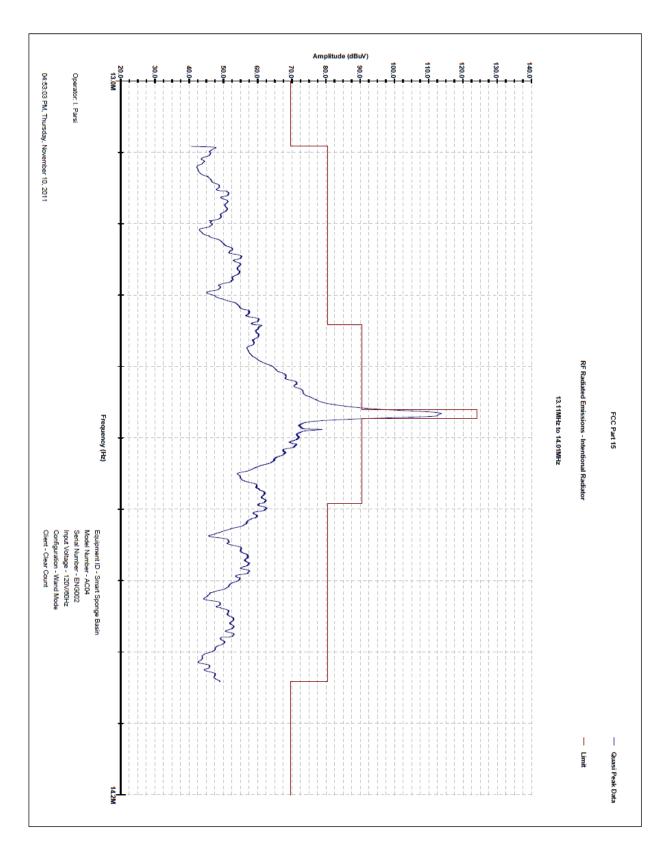
		Rac	diated Emissions	Data Sheet		
EUT:	SmartSponge Fle	<b>x</b>		Job Number:	1106-039E	
S/N:	ENG002	<u> </u>		Date:	11/10/2011	
Customer:	ClearCount Medical Solutions			Temperature:	67 F	
Attendees:	None	car sorations		Humidity:	44%	
Project:	n/a	Config. #:	1	Barometric Pres.:	· · · · · · · · · · · · · · · · · · ·	
Tester:	R. Hague				Keystone Compliance	
Test Specificat	_		,		,	
Test Spec:	FCC Part 15.209, FCC Part 15.225			Test Limit:	Class B	
Ref. Spec:	FCC Part 15.209,	FCC Part 15.	225	Method:	Antenna	
Test Paramete	Test Parameters					
Antenna Height(s) (m): 1-4 Test Distance (m): 3					3	
Comments						
1 kHz RBW use	1 kHz RBW used for measurement at frequencies +/- 25kHz from carrier					
Fundamental I	Fundamental Field Strength measured to be 113.5 dBuV/m					
EUT Operating Modes						
Wand						
Deviations From Test Standard						
Marker Delta Method Used						
Results						
Compliant	Compliant					



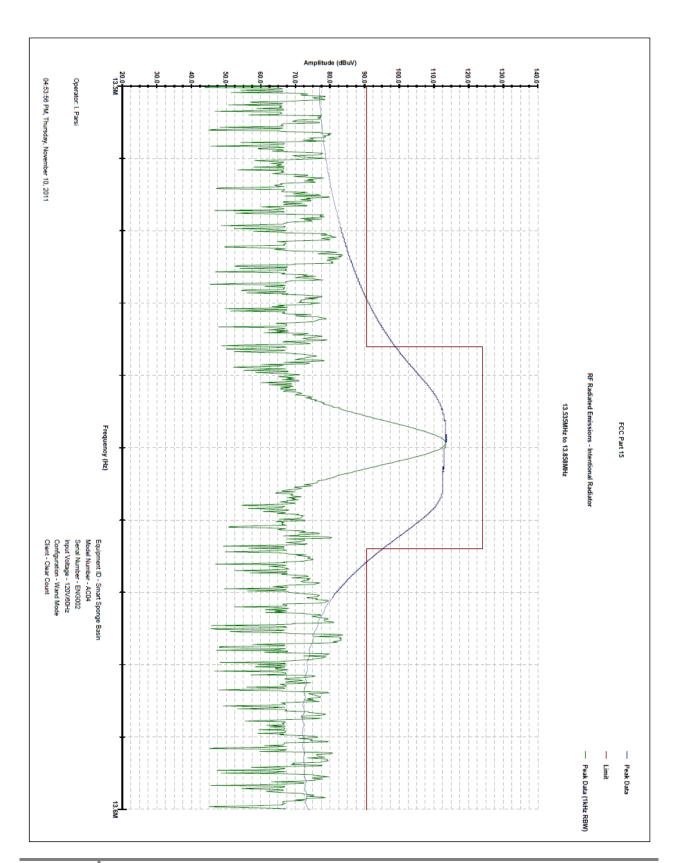
















Testing was performed using the mode(s) of operation and configuration(s) noted within the report. Testing was not performed by Keystone Compliance, and the results are summarized here by reference to facilitate the approval submittal.

#### **Reference Specification**

FCC Part 15.209:2009, FCC Part 15.225:2009

#### **Requirement Description**

15.225(e) The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

#### Test Procedure

Measurements are in accordance with Part 2. 1055. The EUT was placed in the Environmental Chamber and allowed to reach desired temperature. A spectrum analyzer was used to measure the frequency drift. The EUT was set to transmit in the operating frequency range. Frequency drift was investigated by setting the chamber temperature to -20, 20 and 50°C and measuring the output frequency, while also varying the supply voltage ± 15%.

#### **Test Results**

Please refer to FCC ID: QHKMEDIOL40. See pages 16 and 17 of 74 of the Test Report Exhibit for FCC ID: QHKMEDIOL40 for complete test results, which remained within the required specifications of 15.225(e).



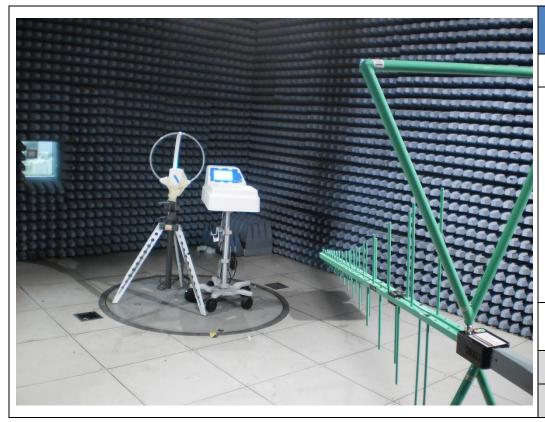
# **APPENDIX A EUT & Test Photos**





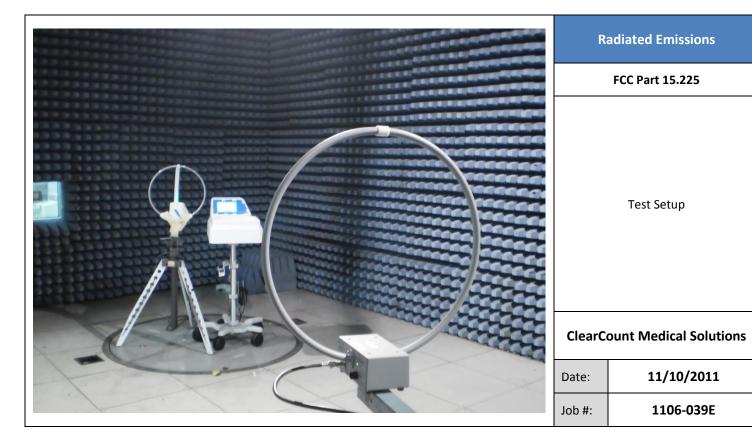
Co	nducted Emissions	
	FCC Part 15.207	
	Test Setup	
ClearCount Medical Solutions		
Date:	11/11/2011	

1106-039E



Radiated Emissions						
FCC Part 15.209						
	Test Setup					
ClearCount Medical Solutions						
Date:	11/10/2011					
Job #:	1106-039E					







# **End of Report**