TEST REPORT

For

Orpyx Medical Technologies Inc.

#214-1235 26 Ave. SE
Calgary, Alberta
T2G 1R7, Canada

Date:	August 19, 2013
Report No.:	11404-1E
Revision No.:	0
Project No.:	11404
Equipment:	SurroSense Rx Lite
Model No.:	SSV1

ONE STOP GLOBAL CERTIFICATION SOLUTIONS

3133-20800 Westminster Hwy, Richmond, BC
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TEST REPORT

FCC15.247:2010 / RSS-210, Issue 8

Report reference No.....:	11404-1E
Report Revision History:	✓ Rev. 0: August 19, 2013
Tested by (printed name and signature) .....:	Jeremy Lee
Approved by (printed name and signature) .....:	Kavinder Dhillon, Eng.L
Date of issue .....:	August 19, 2013

Note: By signing this report, both the Testing Technician and the Reviewer hereby declare to abide by the applicable LabTest policies:
1.) Statement of Independence # 3014 (LabTest Employees),
2.) Independence, Impartiality, and Integrity #1039, clause 11 (Engineering Service Subcontractors), or
3.) Independence, Impartiality, and Integrity #1019, clause 3.5 (Testing Subcontractors).

Testing Laboratory Name .....:	LabTest Certification Inc.
Address .....:	3133 – 20800 Westminster Hwy, Richmond, B.C. V6V 2W3 Canada
FCC Site Registration No......:	373387
IC Site Registration No. .....:	5970A-2
Test Location Name .....:	LabTest Certification Inc.
Address .....:	3133 – 20800 Westminster Hwy, Richmond, B.C. V6V 2W3 Canada
Applicant's Name .....:	Orpyx Medical Technologies Inc.
Address .....:	#214-1235 26 Ave. SE Calgary, Alberta T2G 1R7, Canada
Manufacturer's Name .....:	Same as Applicant
Address .....:	Same as Applicant
Test specification	
Standards .....:	FCC15.247:2010 / RSS-210, Issue 8, December 2010
Testing	
Date of receipt of test item .....:	July 09, 2013
Date(s) of performance of test .....:	July 10 to Aug. 02, 2013
Test item description .....:	
Trademark .....:	**SurroSense Rx™**
Model and/or type reference .....:	SSV1 FCC ID: 2AAH8-SSV1, IC ID:10789A-SSV1
Serial numbers .....:	N/A
Electrical Rating(s) .....:	5.0VDC

Product descriptions	
Type of Emission ..... :	Digital Transmission System(DTS)
No. of Channels ..... :	70 Channels, 1 for Beacon and 69 for Data Exchange
Operating Frequency Range ..... :	2406 to 2475 MHz
Frequency Resolution ..... :	1MHz
Modulation ..... :	GFSK
Data Rates ..... :	1 Mbps on-air data rate
Dwell time ..... :	≤ 200us
Application for ..... :	2.4GHz ISM Band Data Transceiver Module
Equipment mobility ..... :	Yes.
Nominal Voltages for ..... :	_X__ stand-alone equipment ___ combined (or host) equipment __ test jig
Supply Voltage ..... :	_____ AC _____ Amps ____Hz ___5.0V___ DC ____Amps
If DC Power ..... :	____ Internal Power Supply _X__ USB ____ Battery
Size of equipment(H X D X W, inches) ..... :	
Mass of equipment (g)..... :	N/A
Operating Temperature Range ..... :	-20 °C to +55 °C
Test case verdicts	
Test case does not apply to the test object :	N/A
Test item does meet the requirement ..... :	Pass
Test item does not meet the requirement .. :	Fail

General remarks

"This report is not valid as a CB Test Report unless appended by an approved CB Testing Laboratory and appended to a CB Test Certificate.

The test result presented in this report relate only to the object(s) tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

☐ Throughout this report a comma is used as the decimal separator.

☒ Throughout this report a period is used as the decimal separator.

General product information:

The EUT is a system designed to restore feedback to those with decreased, or absent plantar pressure to help avoid associated complications such as infection, ulceration and amputation. The system collects pressure data over time from the bottom of the feet through specialized sensor-embedded insoles, wirelessly sending that information to the user via their smartphone. The SurroSense Rx mobile app alerts the user when excessive pressure is detected so that behavior can be changed to help avoid associated complications.

Frequencies

Module	Description	Frequences
Crystal	Clock	16MHz
Crystal	Clock	32.768kHz

List of ancillary and/or support equipment provided by the applicant

Model No.	Description	Manufacturer	Approvals/Standards
LFS0503100D-A8S	Travel Charger	RAV Power	FCC
N/A	Foot Sensor	Orpyx	N/A

Description of Interface Cables for Testing

Description	Cable Type	Cable length	Ferrite
Power Charging via USB Port	General USB Mini Cable	1.2meter	N/A

ARRANGEMENT OF INTERFACE CABLES: All interface cables were positioned for worst-case maximum emissions within the manner assumed to be a typical operation condition (please reference photographs).

Software and Firmware

Description	Version
SurroSense Rx	V 1.0.2

Worst-case configuration and mode of operation during testing

The worst case was described at each test description.

Modifications Required for Compliance

None.

Test Equipment Verified for function

Model #	Description	Checked Function	Results
E7405	Spectrum Analyzer	Frequency and Amplitude	Connected 50MHz and -20dBm Cal_siganl and checked OK.
PAM-0202	Pre-Amplifier, 20 to 2,000MHz	Gain at 30 and 1,000MHz	Gains are normal.
8449B	Pre-Amplifier, 1 to 26.5GHz	Gain at 1 to 4GHz	Gains were normal.
JB1	Anatenna, 30 MHz to 2 GHz	Checked structure	Normal – no damage
SAS-571	Anatenna, 1 to 18GHz	Checked structure	Normal – no damage
SAS-572	Anatenna, 18 to 26.5GHz	Checked structure	Normal – no damage
SAC-26G-3	RF Cable, SMA(m) to SMA(m)	Insertion Loss at 1 to 4GHz	Insertion Losses are normal
OC-LMR195-2	RF Cable, SMA(m) to SMA(m)	Insertion Loss at 30 MHz to 4GHz	Insertion Losses are normal
VAT-3+	Attenuator	Insertion Loss at 30 MHz to 4GHz	Insertion Losses are normal

Measurement Uncertainty

Where relevant, the folllowing measurement uncertainty levels have been estimated for tests:

Parameter	Uncertainty(dB)
Radiated Emission, 30 to 1,000MHz	4.67
Radiated Emission, 1 to 26.5GHz	4.65
Conducted Measurements	3.59

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

Markings

You should refer to the clause of FCC Part 2 Section 2.295 & 2.296 and FCC Part 15 Section 15.19 for information to be contained on the label as well as information about the label. Any other statements or labelling requirements may appear on a separate label at the option of the applicant/grantee. The label has to be including FCC IC/IC ID, Product Number and Manufacturer Info.

According to FCC Section 2.925(a),
(a) Each equipment covered in an application for equipment authorization shall bear a nameplate or label listing the following:

(1) FCC Identifier consisting of the two elements in the exact order specified in §2.926. The FCC Identifier shall be preceded by the term *FCC ID* in capital letters on a single line, and shall be a type size large enough to be legible without the aid of magnification.
Example: FCC ID XXX123. XXX-Grantee Code 123-Equipment Product Code"

According to FCC Section 15.19(a)(3),
This device shall bear the following statement in a conspicuous location on the device:
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: **Some jurisdictions in Canada require Cautions and Warnings to also be in French. It is the responsibility of the Customer to provide bilingual marking, where applicable, in accordance with the requirements of the local regulatory authorities. It is the responsibility of the Customer to determine this requirement and have bilingual wording added to the "Markings".**

Test Summary

When configured and operated as specified in this report, the product was found to comply with the requirements as indicated below.

Test Type	Regulation	Measurement Method	Result
6dB Bandwidth	15.247(a)(2) & RSS-210	KDB 558074 D01 v03r01	PASS
Maximum Peak Conducted Output Power	15.247(b)(3) & RSS-210	KDB 558074 D01 v03r01	PASS
Antenna Gain	15.247(b)(4) & RSS-210	N/A	PASS
Unwanted Emission: Antenna-port Conducted Emissions	15.247(d) & RSS-210	KDB 558074 D01 v03r01	PASS
Unwanted Emission: Radiated Emissions into Non-Restricted Frequency Bands	15.247(d) & RSS-210	KDB 558074 D01 v03r01	PASS
Unwanted Emission: Radiated Emissions into Restricted Frequency Bands	15.247(d) & RSS-210	KDB 558074 D01 v03r01	PASS
Band Edge	15.247(d) & RSS-210	KDB 558074 D01 v03r01	PASS
Power Spectral Density	15.247(e) & RSS-210	KDB 558074 D01 v03r01	PASS
AC Power Line Conducted Emission	15.207(a) RSS-Gen	ANSI C63.4:2009 & ANSI C63.10:2009	PASS

6dB Bandwidth

Temperature	26.4 °C
Relative Humidity	49.0 %
Barometric Pressure:	101.7 kPa
Test Date	July 31, 2013
Sample Number	1150940, 1150941, 1150942
Calibrated Test Equipment (ID)	266, 272
Reference Equipment (ID) (Calibration not required)	N1, N3
Tested By	Jeremy Lee

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0248

Test Limits

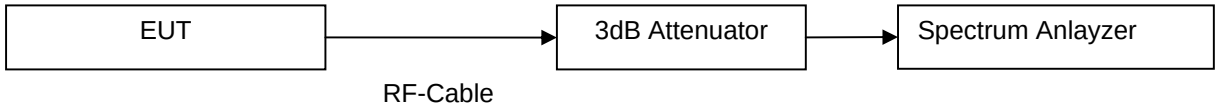
15.247(a)(2)
Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Setup

The test was performed in accordance with **FCC 15.247:2010, FCC 15.31:2010 and KDB 558074 D01 v03r01.**

- The RF output of the EUT was connected to the RF input port of the Spectrum Analyzer via attenuator.
- The EUT was measured at three differrent transmitting frequencies, low-end, middle, and high-end.
- The transmitter was set-up as its maximum power.
- The following measurements were made with
  - Set resolution bandwidth (RBW) = 1-5% or DTS BW, not to exceed 100 kHz.
  - Set the video bandwidth (VBW) ≥ 3 x RBW.
  - Detector = Peak.
  - Trace mode = max hold.
  - Sweep = auto couple.
  - Allow the trace to stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Setup Block Diagram

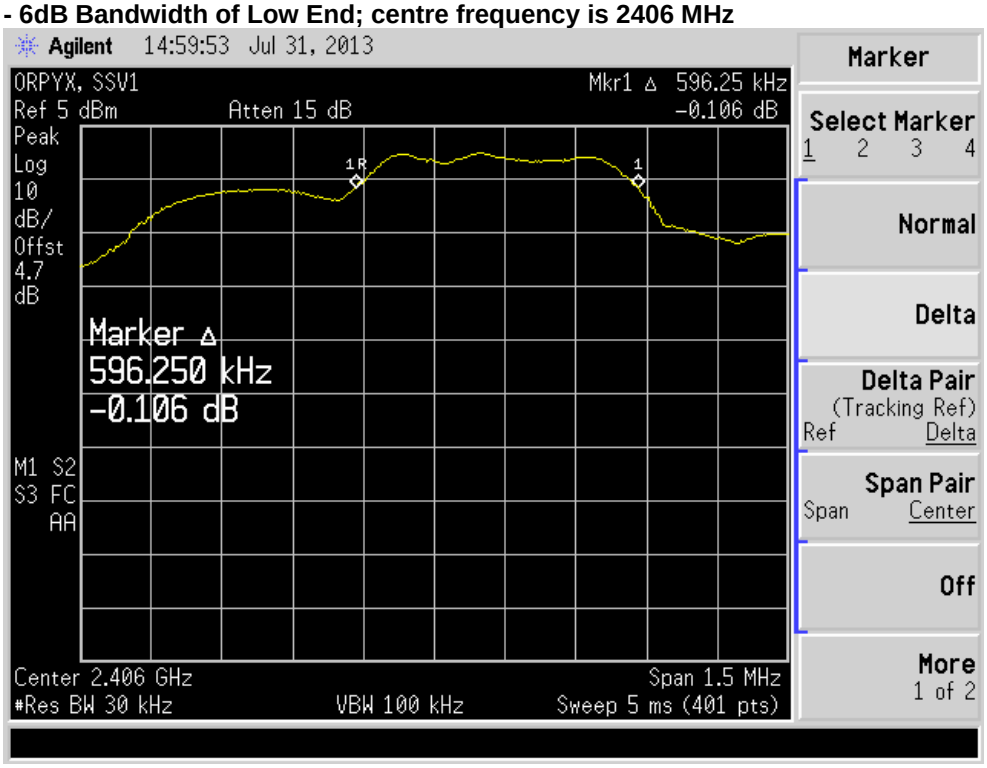


Test Results:

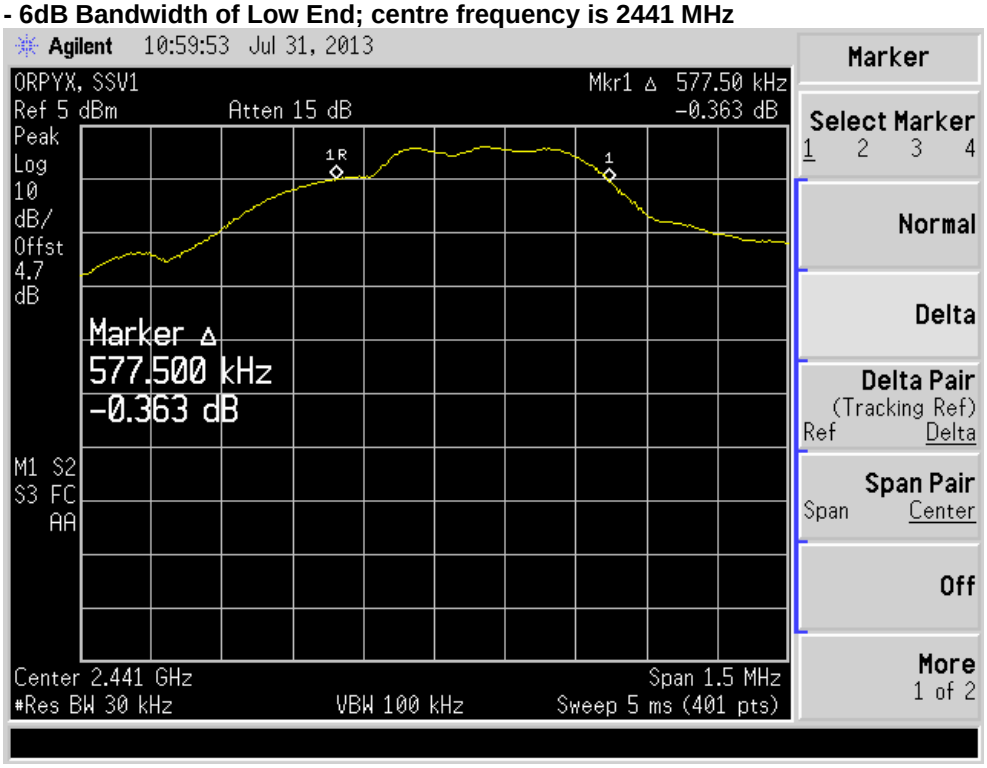
Carrier Frequency(MHz)	6dB BW(kHz)	Limit(kHz)	Pass/Fail
2406	596.25	≥ 500	Pass
2441	577.50	≥ 500	Pass
2475	513.75	≥ 500	Pass

X Pass Fail N/A

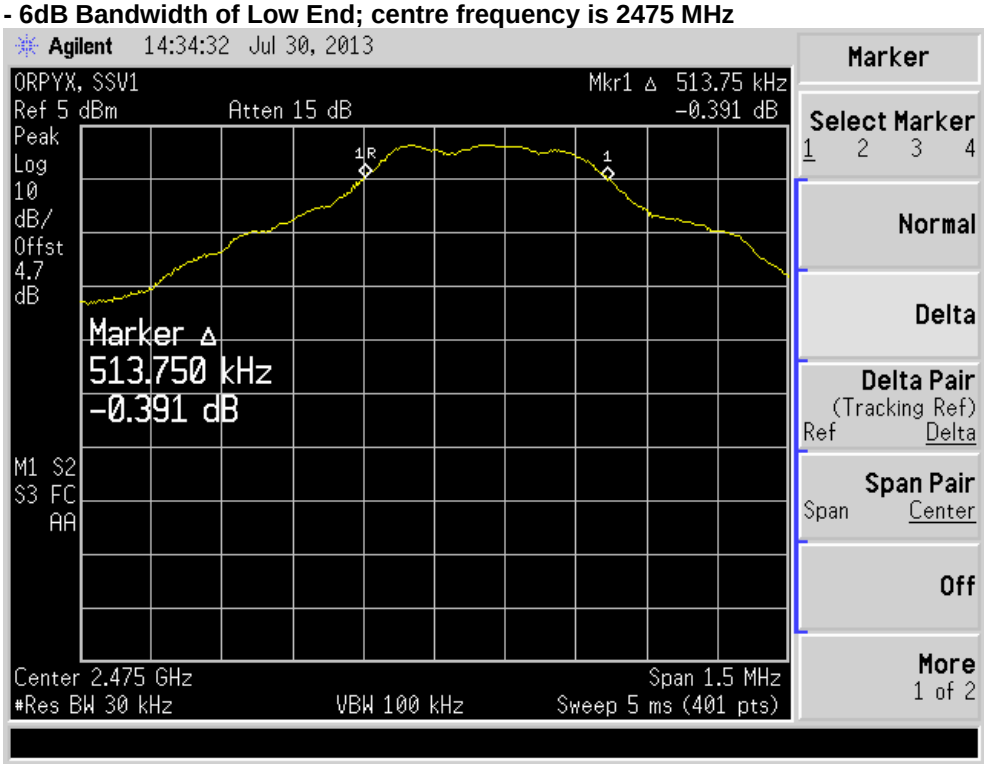
- 6dB Bandwidth of Low End; centre frequency is 2406 MHz



- 6dB Bandwidth of Low End; centre frequency is 2441 MHz



- 6dB Bandwidth of Low End; centre frequency is 2475 MHz



Maximum Peak Conducted Output Power

Temperature	26.4 °C
Relative Humidity	49.0 %
Barometric Pressure:	101.7 kPa
Test Date	July 31, 2013
Sample Number	1150940, 1150941, 1150942
Calibrated Test Equipment (ID)	266, 272
Reference Equipment (ID) (Calibration not required)	N1, N3
Tested By	Jeremy Lee

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0248

Test Limits

15.247(b)

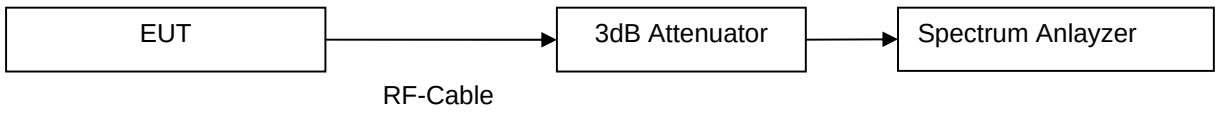
The maximum peak conducted output power of the intentional radiator shall not exceed the following:
(3) For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Test Setup

The test was performed in accordance with **FCC 15.247:2010 & FCC 15.31:2010 and KDB 558074 D01 v03r01.**

- The RF output of the EUT was connected to the RF input port of the Spectrum Analyzer via attenuator.
- The EUT was measured at three differrent transmitting frequencies, low-end, middle, and high-end.
- The transmitter was set-up as its maximum power.
- The following measurements were made with
  - Set the RBW ≥ DTS bandwidth.
  - Set VBW ≥ RBW.
  - Set span ≥ RBW.
  - Sweep time = auto couple.
  - Detector = peak.
  - Trace mode = max hold.
  - Allow trace to fully stabilize.
  - Use peak marker function to determine the peak amplitude level.
- The indicated level is the peak conductyed output power(with the addition of the cable loss).

Setup Block Diagram

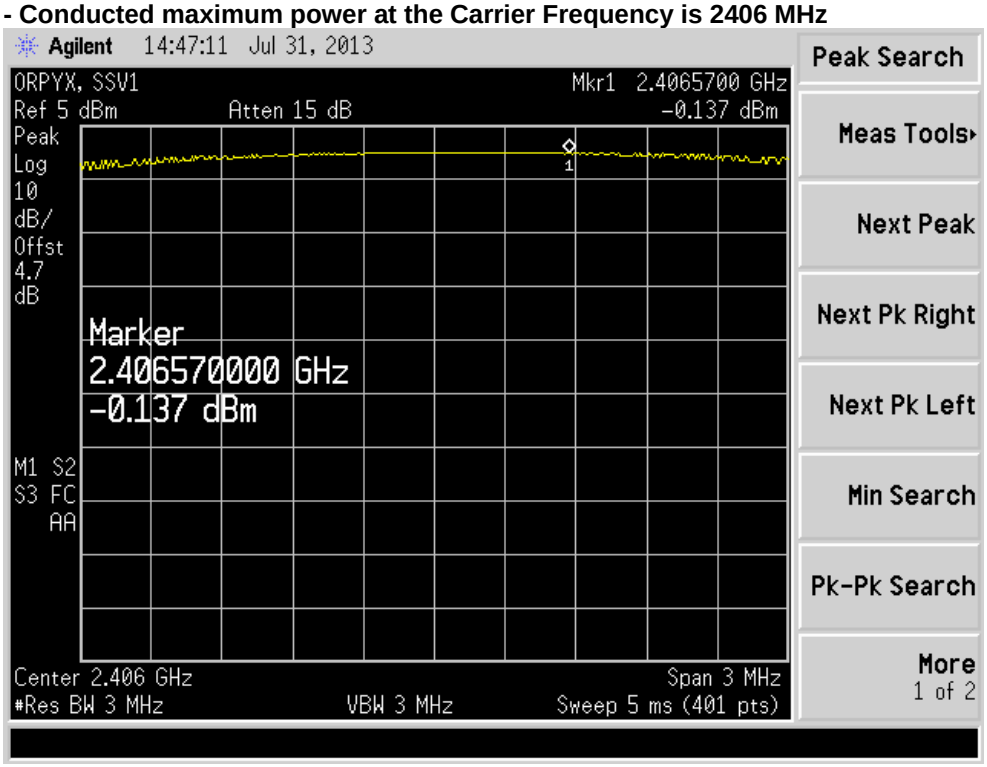


Test Results:

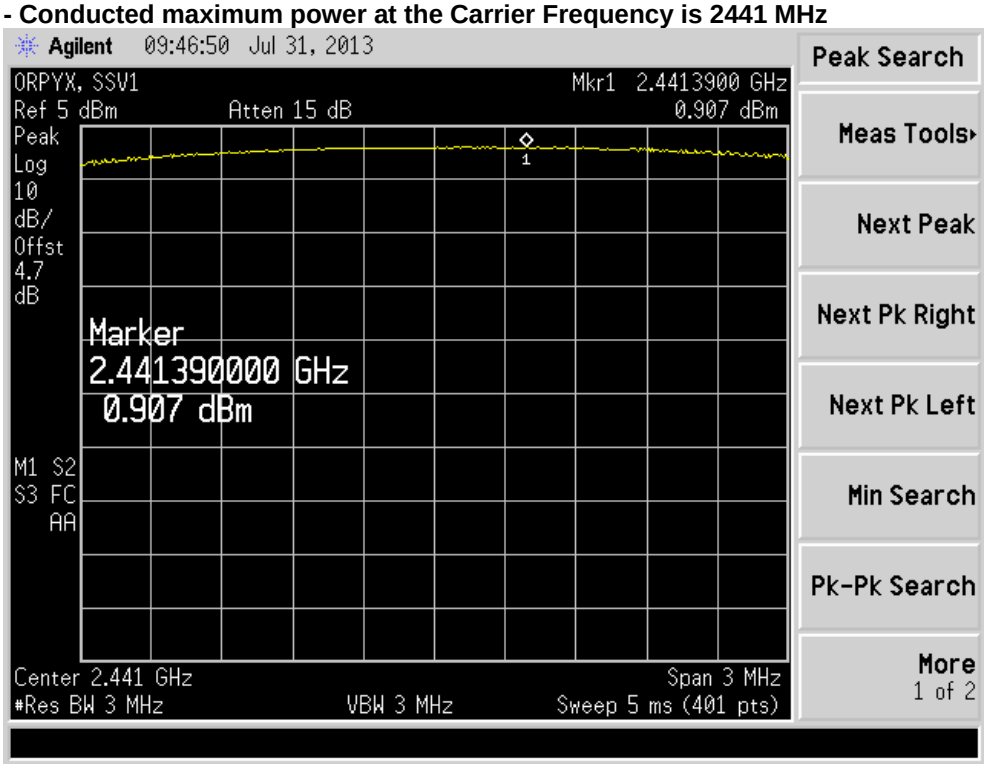
Channel Frequency(MHz)	Peak Power(dBm)	Limit(W/dBm)	Pass/Fail
2406	-0.137	≤ 1 / + 30	Pass
2441	0.907	≤ 1 / + 30	Pass
2475	1.034	≤ 1 / + 30	Pass

X Pass Fail N/A

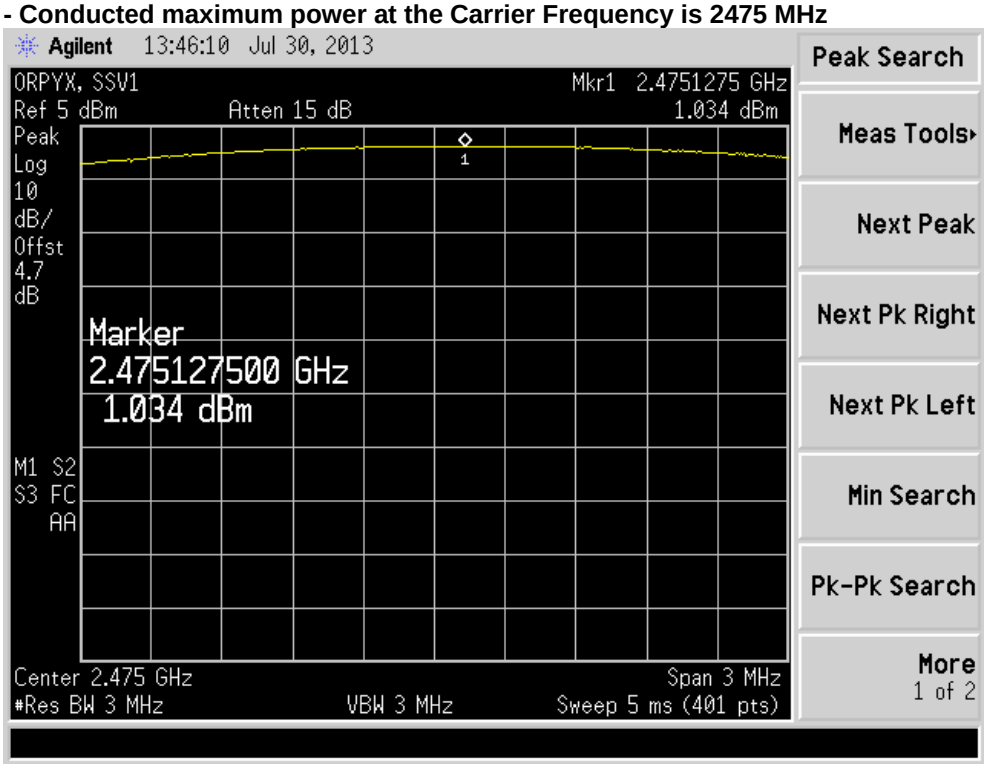
- Conducted maximum power at the Carrier Frequency is 2406 MHz



- Conducted maximum power at the Carrier Frequency is 2441 MHz



- Conducted maximum power at the Carrier Frequency is 2475 MHz



Antenna Gain

Test Date	July 31, 2013
Sample Number	1150937, 1150938, 1150939
Tested By	Jeremy Lee

Test Limits

15.247(b)
(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.

Test Results:

Antenna description	Peak Antenna Gain(dBi)	Limit(dBi)	Pass/Fail
2.4 GHz Inverted F Antenna	3.3 [1)]	≤ 6.0	Pass

Note 1) The Gain was referenced by the PDF file of Antenna Design note, DN0007 by TI.

X Pass Fail N/A

Unwanted Emission: Antenna-port Conducted Emissions

Temperature	25.9 °C
Relative Humidity	49.0 %
Barometric Pressure:	101.8 kPa
Test Date	July 31, 2013
Sample Number	1150940, 1150941, 1150942
Calibrated Test Equipment (ID)	266, 272
Reference Equipment (ID) (Calibration not required)	N1, N3
Tested By	Jeremy Lee

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0248

Test Limits

15.247(d)

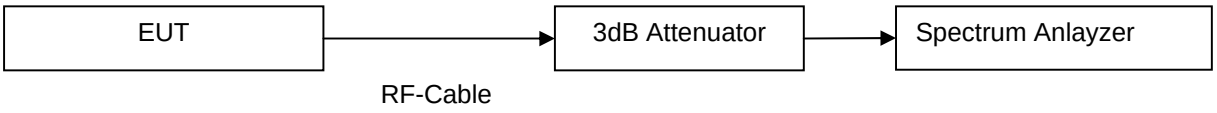
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

Test Setup

The test was performed in accordance with **FCC 15.247:2010, FCC 15.31:2010 and KDB 558074 D01 v03r01.**

- The RF output of the EUT was connected to the RF input port of the Spectrum Analyzer.
- The EUT was set-up in three different transmiting modes, low-end, middle, and high-end.
- The transmitter was set to output its maximum power.
- The following measurements were made with
  - Span = wide enough to capture the peak level of the in-band emission and all spurious emissions(e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic.
  - RBW = 100kHz up to 1GHz, 1MHz over 1GHz.
  - VBW ≥ RBW
  - Sweep = Auto
  - Detector Function = peak
  - Trace = Single trace up to capturing the whole range of signal
  - Allowed the trace to stabilize.
- Set the marker on the peak of any spurious emission recorded.

Setup Block Diagram



Test Results:

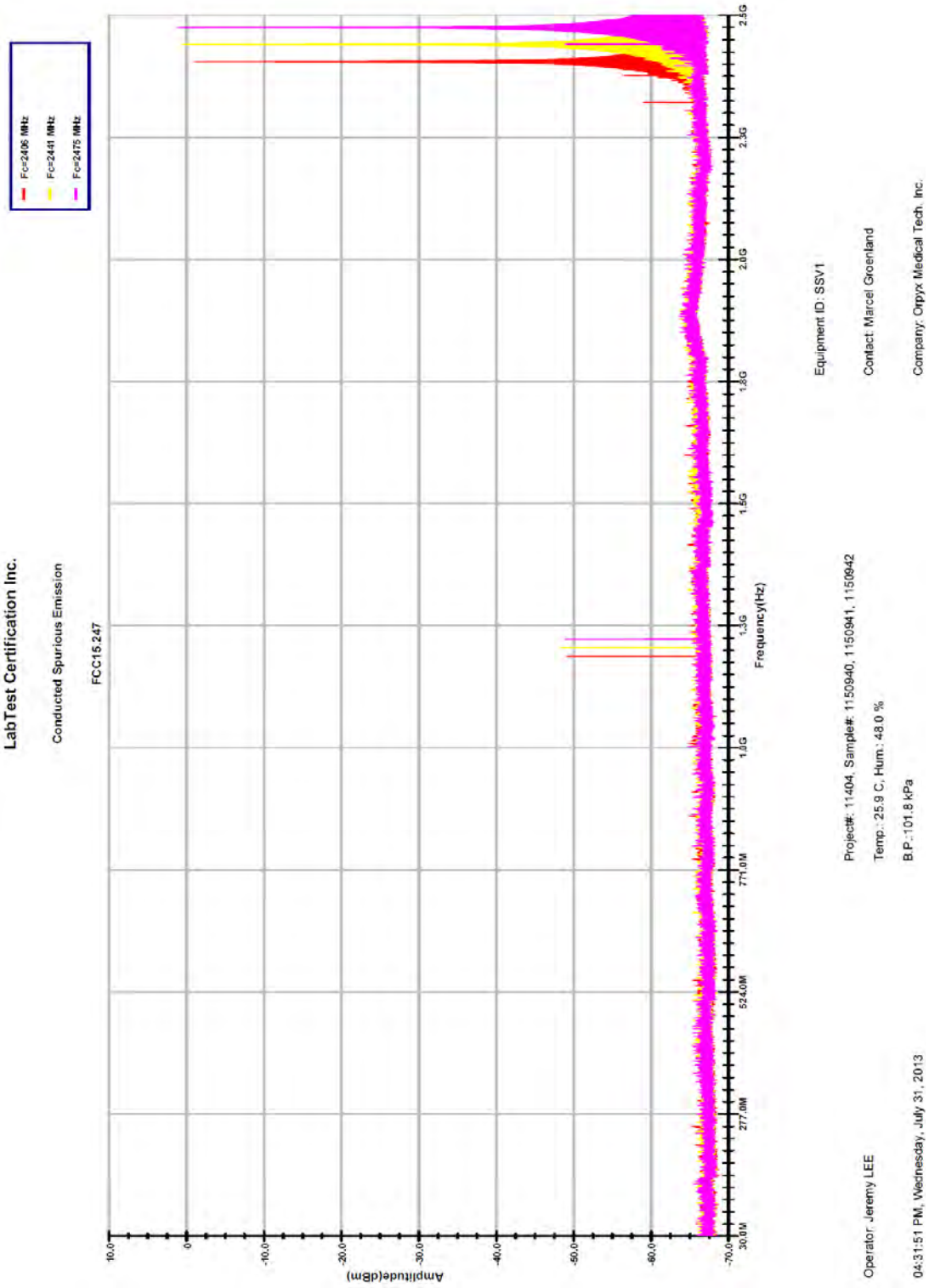
Difference(dB) = Measured Carrier Level(dBm) – Measured Spurious Level(dBm)

Description	Frequency (MHz)	Measured (dBm)	Difference (dB)	Limit (dB)	Pass/Fail
Carrier_Low End	2406	-0.32	-	-	-
Spurious	1202.95	-49.17	48.85	> 20	Pass
2nd Harmonic	4811.66	-48.07	47.75	> 20	Pass
3rd Harmonic	7218	Under noise floor	Over 40	> 20	Pass
4th Harmonic	9625.06	-49.74	49.42	> 20	Pass
5th Harmonic	12030	Under noise floor	Over 40	> 20	Pass
6th Harmonic	14436			> 20	Pass
7th Harmonic	16842			> 20	Pass
8th Harmonic	19248			> 20	Pass
9th Harmonic	21654			> 20	Pass
10th Harmonic	24060			> 20	Pass
Carrier_Middle	2441	0.83	-	-	-
Spurious	1220.68	-48.50	49.33	> 20	Pass
2nd Harmonic	4882.04	-49.35	50.18	> 20	Pass
3rd Harmonic	7323	Under noise floor	Over 40	> 20	Pass
4th Harmonic	9764.82	-51.29	52.12	> 20	Pass
5th Harmonic	12205	Under noise floor	Over 40	> 20	Pass
6th Harmonic	14646			> 20	Pass
7th Harmonic	17087			> 20	Pass
8th Harmonic	19528			> 20	Pass
9th Harmonic	21969			> 20	Pass
10th Harmonic	24410			> 20	Pass

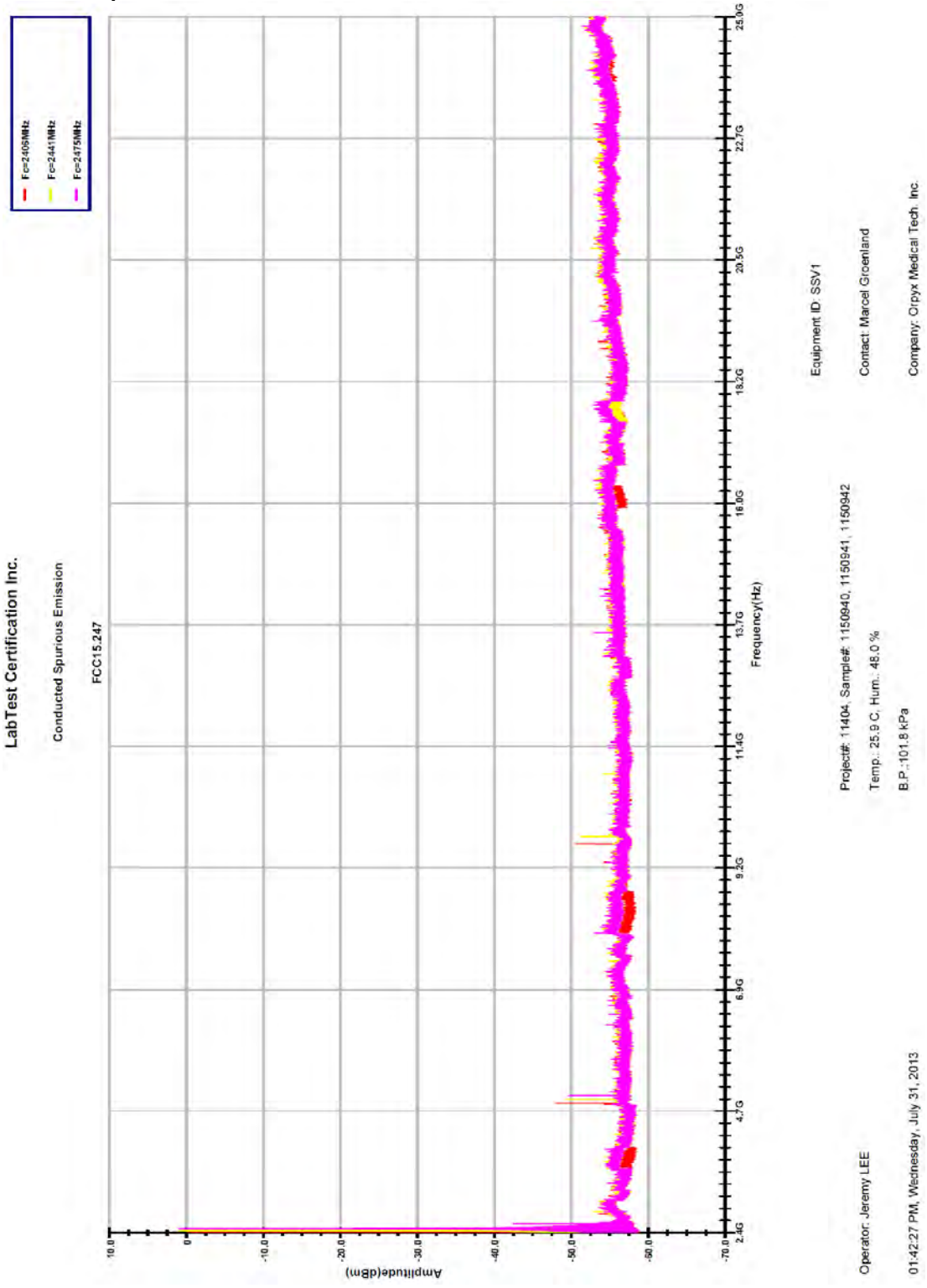
Carrier_High End	2475	0.86	-	-	-
Spurious	1237.51	-48.95	49.81	> 20	Pass
2nd Harmonic	4950.43	-49.74	50.60	> 20	Pass
3rd Harmonic	7425	Under noise floor	Over 40	> 20	Pass
4th Harmonic	9901.60	-54.91	55.77	> 20	Pass
5th Harmonic	12375	Under noise floor	Over 40	> 20	Pass
6th Harmonic	14850			> 20	Pass
7th Harmonic	17325			> 20	Pass
8th Harmonic	19800			> 20	Pass
9th Harmonic	22275			> 20	Pass
10th Harmonic	24750			> 20	Pass

X Pass Fail N/A

- Antenna-port Conducted Emissions; 30MHz to 2.5GHz.



- Antenna-port Conducted Emissions: 2.4 to 25 GHz.



Unwanted Emission: Radiated Emissions into Non-Restricted Frequency Bands

Temperature	28.8 to 29.1 °C
Relative Humidity	34.3 to 34.6 %
Barometric Pressure:	101.0 kPa
Test Date	July 16, 2013
Sample Number	1150935
Calibrated Test Equipment (ID)	241, 266, 272, 371
Reference Equipment (ID) (Calibration not required)	374
Tested By	Jeremy Lee

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0284

Test Limits

15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

15.209(a)

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100 **	3
88–216	150 **	3
216–960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54–72 MHz, 76–88 MHz, 174–216 MHz or 470–806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

Test Setup

The test was performed in accordance with **FCC 15.247:2010, 15.209:2010, FCC 15.31:2010, FCC 15.33:2010, FCC 15.35:2010, and KDB 558074 D01 v03r01.**

Test procedure is based on the FCC15.31(a)(3) – Other intentional and unintentional radiators are to be measured for compliance using the following procedure excluding sections 4.1.5.2, 5.7, 9 and 14: ANSI C63.4–2009: “Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz” (incorporated by reference, see § 15.38). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51.

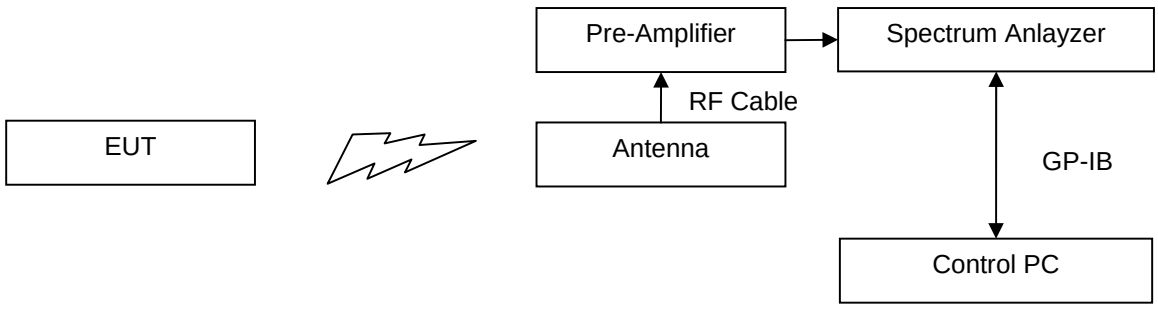
NOTE to Paragraph (a)(3): Digital devices tested to show compliance with the provisions of §§ 15.107(e) and 15.109(g) must be tested following the ANSI C63.4 procedure described in paragraph (a)(3) of this section.[As stated in the adopting R&O, ANSI C63.4 is not used for measurements below 30 MHz.]

The EUT was placed on a 1 meter by 1.5 meters wide and 0.8-meter high nonconductive table that was placed directly onto a flush mounted turntable. The EUT was connected to its support equipment with any excess I/O cabling bundled to approximately 1 meter. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna supporter. It is measured with a receiver – the spectrum analyzer, was software controlled. The antennas were balanced dipoles. For frequencies of 80 MHz or above, the antennas were resonant in length, and for frequencies below 80 MHz it had a length equal to the 80 MHz resonant length.

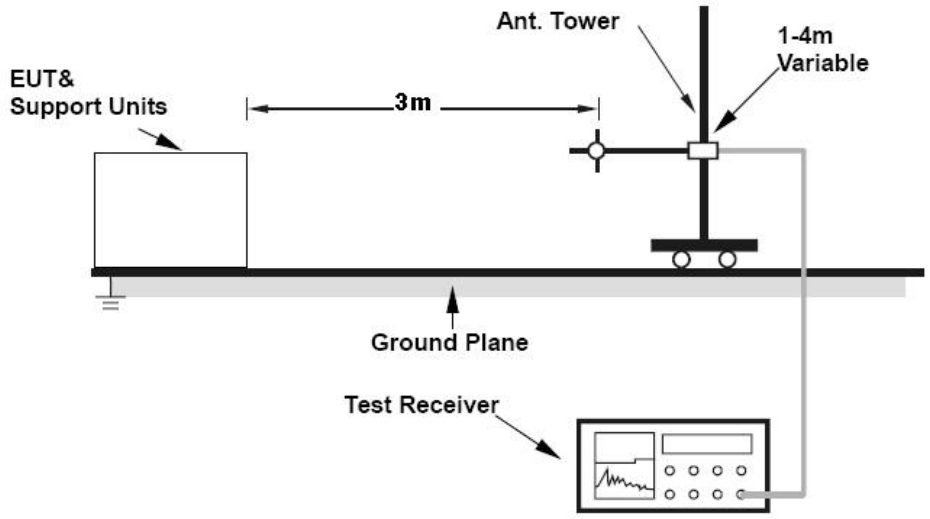
Tests were performed to determine the emissions with Transmit mode, Hopping mode. Antenna was connected to output port. The EUT was positioned emissions from the unit were maximized by manipulating the cables, and by adjusting the polarization and height of the receive antenna and rotating the EUT on the turntable.

- The EUT was set-up Normal Beacon mode.
- The transmitter was set-up as its maximum power with Antenna.
- The following measurements were made with
  - Span = wide enough to fully capture the emission being measured.
  - RBW = 9kHz & 120 kHz
  - VBW ≥ RBW
  - Sweep = Auto
  - Detector Function = Peak an QP, there was no strong signal in range to use the Averaging detector
  - Trace = Single trace up to capturing the whole range of signal

Setup Block Diagram



Test Setup in Chamber

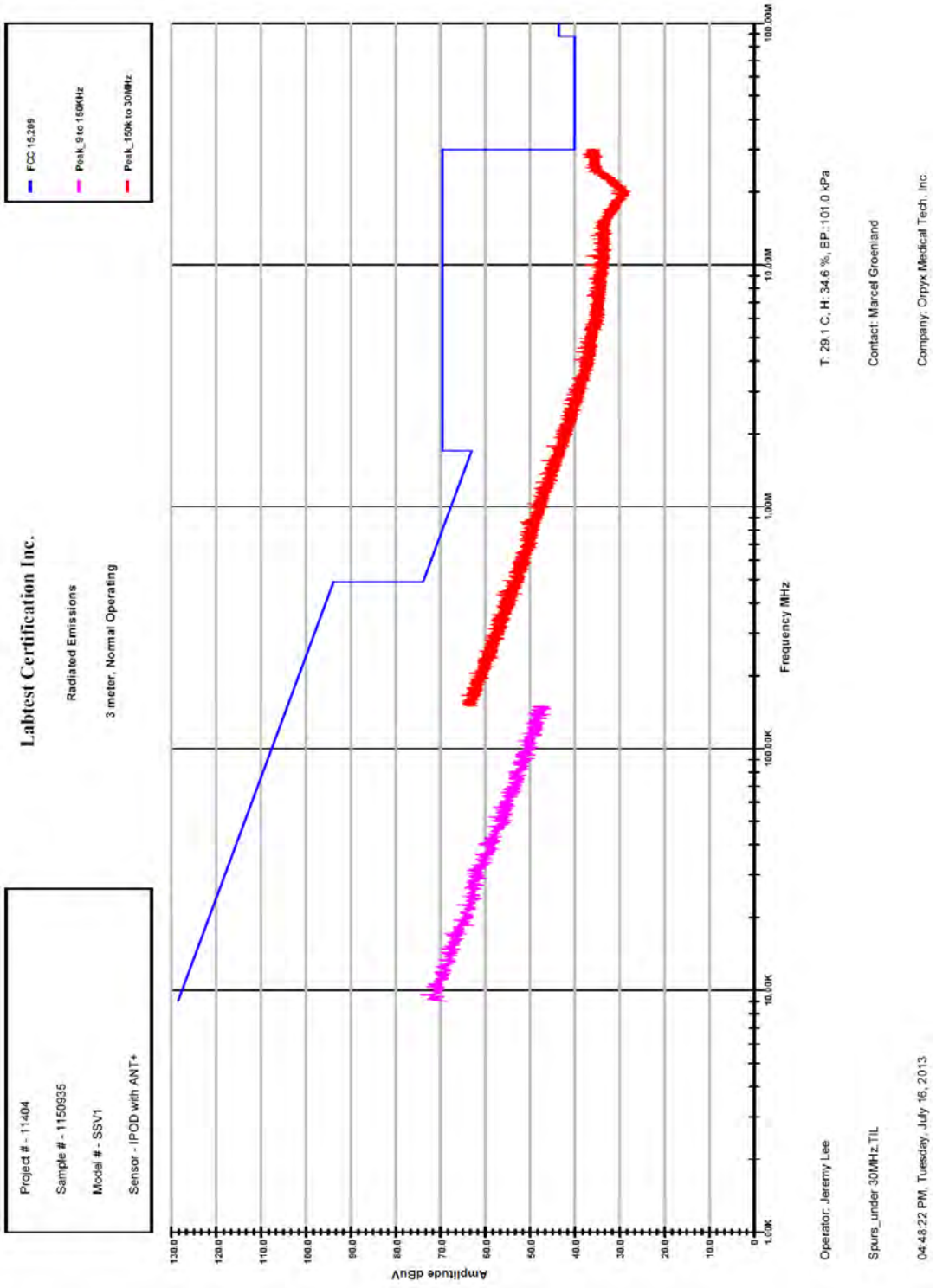


Test Result

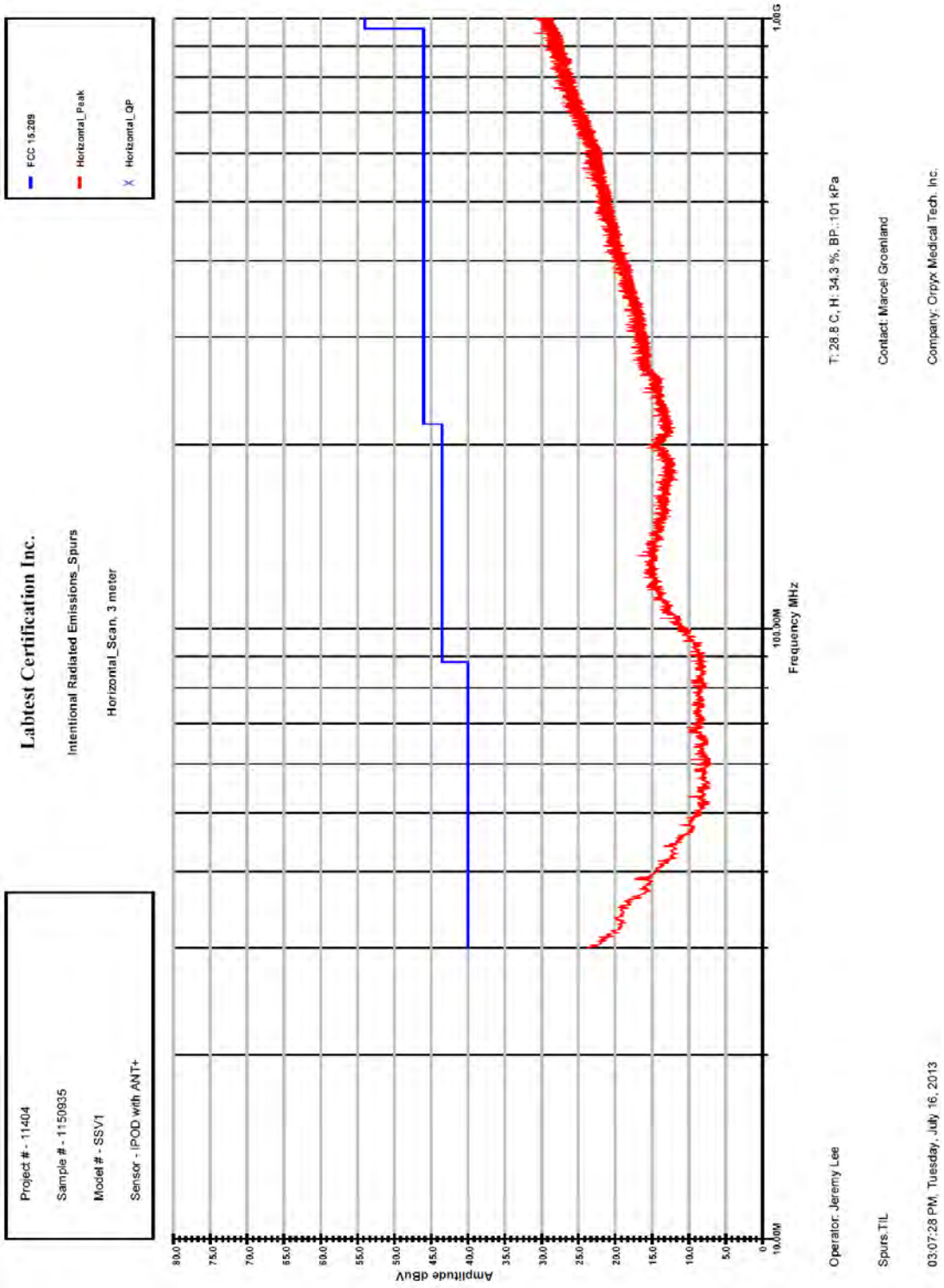
Radiated Emission (dBuV/m) = Measured Emission (dBuV) + Antenna Factor(1/m) + Cable Loss(dB)– Pre-Amplifier Gain(dB)

X Pass **Fail** **N/A**

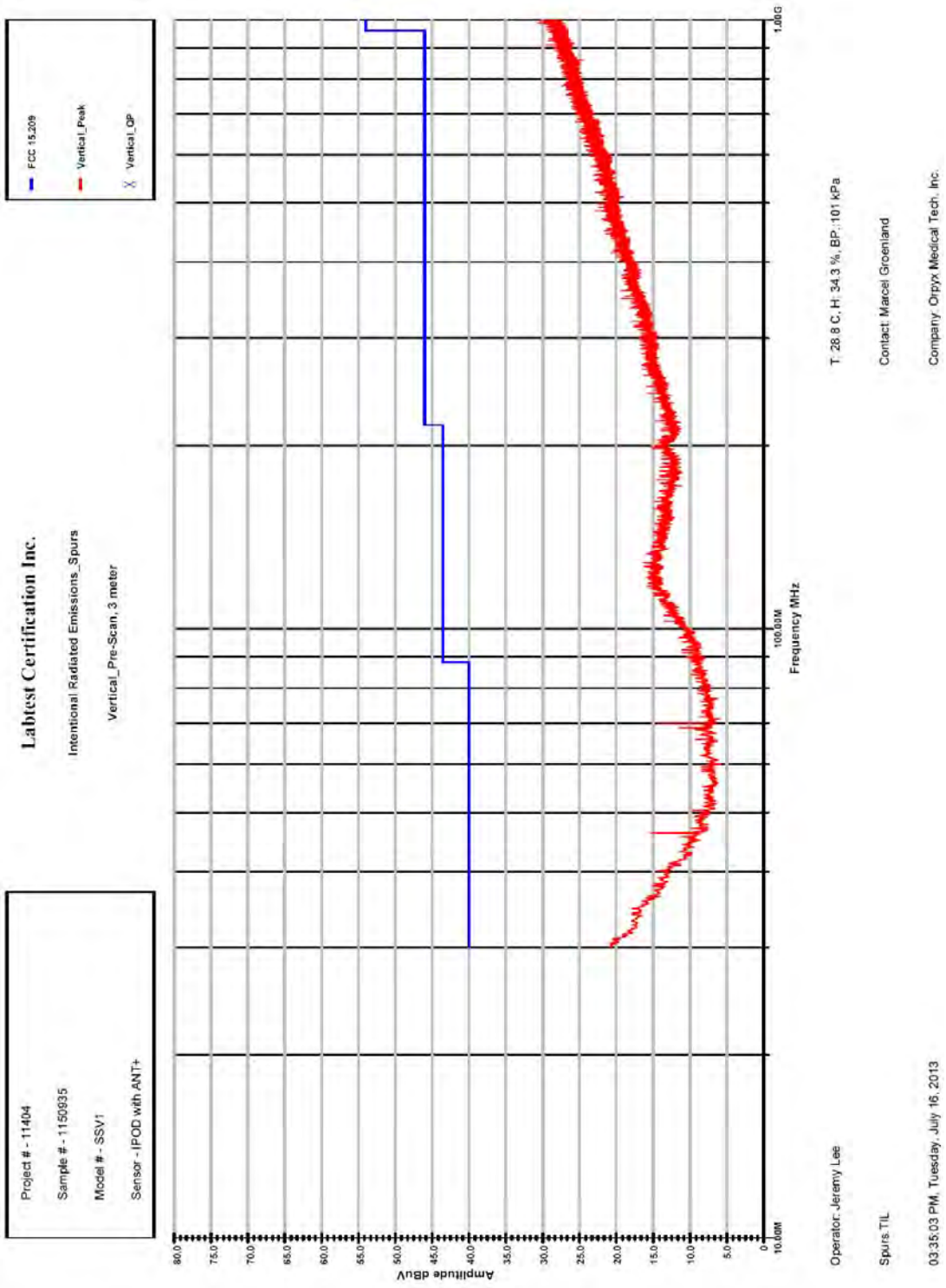
- Graph of Radiated Emissions, Beacon Mode: 9kHz to 30MHz, Peak Detecting, Antenna was used AL-160.



- Graph of Radiated Emissions, Beacon Mode: 30 to1000MHz, Peak Detecting, Antenna was used JB1, the polarization of Antenna was Horizontal.



- Graph of Radiated Emissions, Beacon Mode: 30 to1000MHz, Peak Detecting, Antenna was used JB1, the polarization of Antenna was Vertical.



Unwanted Emission: Radiated Emissions into Restricted Frequency Bands

Temperature	24.2 to 24.3 °C
Relative Humidity	41.0 %
Barometric Pressure:	101.7 kPa
Test Date	Aug. 02, 2013
Sample Number	1150937, 1150938, 1150939
Calibrated Test Equipment (ID)	227-3, 227-4, 266, 272, 273
Reference Equipment (ID) (Calibration not required)	374, N1, N2
Tested By	Jeremy Lee

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0284

Test Limits

15.247(d)

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

15.205(a)

Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090–0.110	16.42–16.423	399.9–410	4.5–5.15
[1] 0.495–0.505	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225	123–138	2200–2300	14.47–14.5
8.291–8.294	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675	156.7–156.9	2690–2900	22.01–23.12
8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025	240–285	3345.8–3358	36.43–36.5
12.57675–12.57725	322–335.4	3600–4400	([2])
13.36–13.41.			

[1] Until February 1, 1999, this restricted band shall be 0.490–0.510 MHz.
[2] Above 38.6

15.209(a)

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100 **	3
88–216	150 **	3
216–960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54–72 MHz, 76–88 MHz, 174–216 MHz or 470–806 MHz. However, operation within these frequency bands is permltted under other sections of this part, e.g., §§ 15.231 and 15.241.

Test Setup

The test was performed in accordance with **FCC 15.247:2010, FCC 15.31:2010, FCC 15.33:2010, FCC 15.35:2010, and KDB 558074 D01 v03r01.**

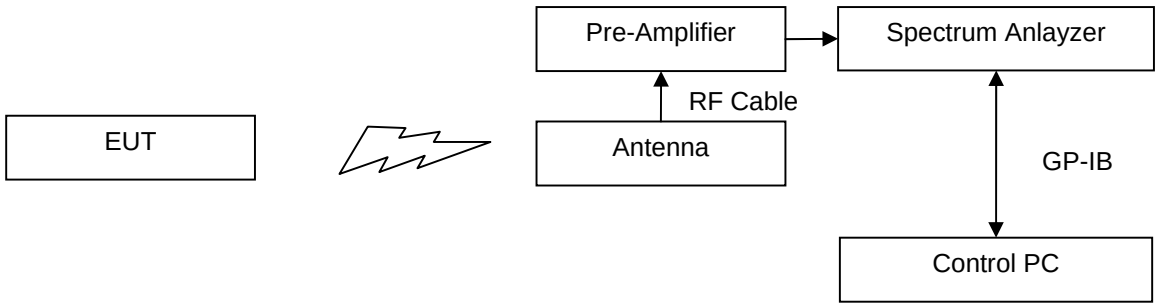
Test procedure is based on the FCC15.31(a)(3) – Other intentional and unintentional radiators are to be measured for compliance using the following procedure excluding sections 4.1.5.2, 5.7, 9 and 14: ANSI C63.4–2003: "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" (incorporated by reference, see § 15.38). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51.
NOTE to Paragraph (a)(3): Digital devices tested to show compliance with the provisions of §§ 15.107(e) and 15.109(g) must be tested following the ANSI C63.4 procedure described in paragraph (a)(3) of this section.[As stated in the adopting R&O, ANSI C63.4 is not used for measurements below 30 MHz.]

The EUT was placed on a 1 meter by 1.5 meters wide and 0.8-meter high nonconductive table that was placed directly onto a flush mounted turntable. The EUT was connected to its support equipment with any excess I/O cabling bundled to approximately 1 meter. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna supporter. It is measured with a receiver – spectrum analyzer, was software controlled. The antennas were Horn Antennas.

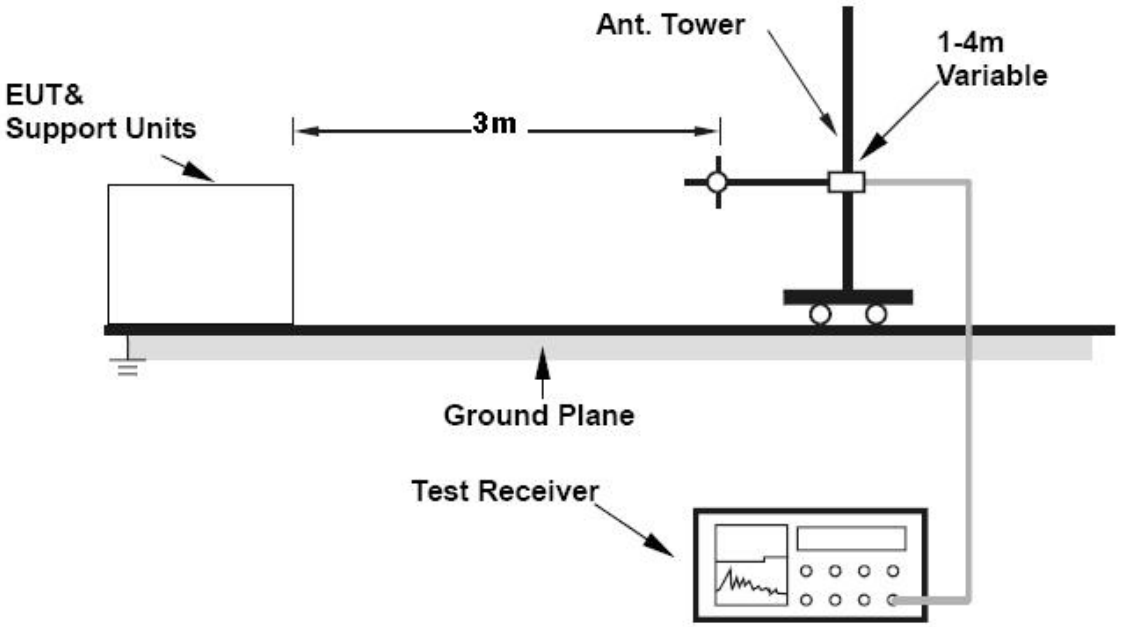
The tests were performed to determine the "worst-case" orientation of the EUT. With the EUT positioned in the "worst case" orientation, emissions from the unit were maximized, and by adjusting the polarization and height of the receive antenna and rotating the EUT on the turntable.

- The EUT was measured in three diferrent transmiting frequencies, low-end, middle, and high-end.
- The transmitter was set-up as its maximum power.
- The following measurements were made with
  - Span = wide enough to fully capture the emission being measured.
  - RBW = 1MHz
  - VBW ≥ RBW
  - Sweep = Auto
  - Detector Function = Averaging and Peak
  - Trace = Single trace up to capturing the whole range of signal
- Test was repeated with three different Orthogonals.

Setup Block Diagram



Test Setup in Chamber



Test Result

Radiated Emission (dBuV/m) = Measured Emission (dBuV) + Antenna Factor(1/m) + Cable Loss(dB)– Pre-Amplifier Gain(dB)

Frequency (GHz)	Radiated Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Orthogonal (X/Y/Z)	Detector (AVG/PK)	Pol(H/V)	Results
Low End, Fc: 2406 MHz							
4812	55.98	73.98	18.00	Y	PK	V	Pass
12030	41.71	53.98	12.27	X	AVG	H	Pass
19248	41.51		12.47	Y	AVG	V	Pass
Middle, Fc: 2441 MHz							
4882	34.62	53.98	19.36	X	AVG	V	Pass
7323	39.07		14.91	X	AVG	V	Pass
12205	41.75		12.23	X	AVG	V	Pass
19528	41.81		12.17	Y	AVG	V	Pass
High End, Fc: 2475 MHz							
4950	34.47	53.98	19.51	Y	AVG	V	Pass
7425	38.97		15.01	X	AVG	V	Pass
12375	42.51		11.47	X	AVG	V	Pass
19800	41.75		12.23	X	AVG	H	Pass
22275	44.13		9.85	X	AVG	H	Pass

X Pass Fail N/A

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2406MHz, Orthogonal X, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Low End_Orthogonal X_Horizontal

Operator: Jeremy Lee
11:06:46 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	47.38	33.00	-28.14	52.24	73.98	21.74	204.5	201.9	H
12.030 GHz	41.18	39.59	-26.59	54.17	73.98	19.81	204.5	201.9	H
19.248 GHz	42.63	37.60	-25.80	54.43	73.98	19.55	204.5	201.9	H

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Low End_Orthogonal X_Vertical

Operator: Jeremy Lee
11:06:46 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	48.38	33.18	-28.14	53.42	73.98	20.56	76.5	180.0	V
12.030 GHz	41.40	39.67	-26.59	54.47	73.98	19.51	76.5	180.0	V
19.248 GHz	41.94	37.60	-25.80	53.74	73.98	20.24	76.5	180.0	V

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_Low End_Orthogonal X_Horizontal

Operator: Jeremy Lee
11:06:46 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	29.48	33.00	-28.14	34.34	53.98	19.64	204.5	201.9	H
12.030 GHz	28.72	39.59	-26.59	41.71	53.98	12.27	204.5	201.9	H
19.248 GHz	29.65	37.60	-25.80	41.45	53.98	12.53	204.5	201.9	H

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_Low End_Orthogonal X_Vertical

Operator: Jeremy Lee
11:06:46 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured+AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	29.53	33.18	-28.14	34.57	53.98	19.41	76.5	180.0	V
12.030 GHz	28.59	39.67	-26.59	41.66	53.98	12.32	76.5	180.0	V
19.248 GHz	29.56	37.60	-25.80	41.36	53.98	12.62	76.5	180.0	V

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2406MHz, Orthogonal Y, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Low End_Orthogonal Y_Horizontal

Operator: Jeremy Lee
11:09:56 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	51.02	33.00	-28.14	55.88	73.98	18.10	28.5	120.0	H
12.030 GHz	41.37	39.59	-26.59	54.36	73.98	19.62	28.5	120.0	H
19.248 GHz	41.37	37.60	-25.80	53.17	73.98	20.81	28.5	120.0	H

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Low End_Orthogonal Y_Vertical

Operator: Jeremy Lee
11:09:56 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	50.94	33.18	-28.14	55.98	73.98	18.00	360.0	180.0	V
12.030 GHz	40.76	39.67	-26.59	53.85	73.98	20.13	360.0	180.0	V
19.248 GHz	42.74	37.60	-25.80	54.54	73.98	19.44	360.0	180.0	V

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_Low End_Orthogonal Y_Horizontal

Operator: Jeremy Lee
11:09:56 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	29.85	33.00	-28.14	34.71	53.98	19.27	28.5	120.0	H
12.030 GHz	28.64	39.59	-26.59	41.63	53.98	12.35	28.5	120.0	H
19.248 GHz	29.58	37.60	-25.80	41.38	53.98	12.60	28.5	120.0	H

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_Low End_Orthogonal Y_Vertical

Operator: Jeremy Lee
11:09:56 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured+AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	29.71	33.18	-28.14	34.75	53.98	19.23	360.0	180.0	V
12.030 GHz	28.61	39.67	-26.59	41.68	53.98	12.30	360.0	180.0	V
19.248 GHz	29.71	37.60	-25.80	41.51	53.98	12.47	360.0	180.0	V

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2406MHz, Orthogonal Z, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Low End_Orthogonal Z_Horizontal

Operator: Jeremy Lee
11:12:45 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	48.26	33.00	-28.14	53.12	73.98	20.86	279.0	180.0	H
12.030 GHz	41.97	39.59	-26.59	54.96	73.98	19.02	279.0	180.0	H
19.248 GHz	41.51	37.60	-25.80	53.31	73.98	20.67	279.0	180.0	H

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Low End_Orthogonal Z_Vertical

Operator: Jeremy Lee
11:12:45 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	48.88	33.18	-28.14	53.92	73.98	20.06	148.0	180.0	V
12.030 GHz	41.09	39.67	-26.59	54.16	73.98	19.82	148.0	180.0	V
19.248 GHz	42.43	37.60	-25.80	54.23	73.98	19.75	148.0	180.0	V

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_Low End_Orthogonal Z_Horizontal

Operator: Jeremy Lee
11:12:45 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	29.39	33.00	-28.14	34.25	53.98	19.73	279.0	180.0	H
12.030 GHz	28.53	39.59	-26.59	41.52	53.98	12.46	279.0	180.0	H
19.248 GHz	29.69	37.60	-25.80	41.49	53.98	12.49	279.0	180.0	H

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_Low End_Orthogonal Z_Vertical

Operator: Jeremy Lee
11:12:45 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured+AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.812 GHz	29.33	33.18	-28.14	34.37	53.98	19.61	148.0	180.0	V
12.030 GHz	28.64	39.67	-26.59	41.71	53.98	12.27	148.0	180.0	V
19.248 GHz	29.56	37.60	-25.80	41.36	53.98	12.62	148.0	180.0	V

Project # : 11404, Sample #: 1150937
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2441MHz, Orthogonal X, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Middle_Orthogonal X_Horizontal

Operator: Jeremy Lee
11:25:22 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	42.03	33.22	-28.12	47.12	73.98	26.86	170.0	110.0	H
7.323 GHz	41.63	37.44	-27.64	51.43	73.98	22.55	170.0	110.0	H
12.205 GHz	40.38	40.43	-26.56	54.25	73.98	19.73	170.0	110.0	H
19.528 GHz	42.82	37.36	-25.79	54.39	73.98	19.59	170.0	110.0	H

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Middle_Orthogonal X_Vertical

Operator: Jeremy Lee
11:25:22 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	42.29	33.26	-28.12	47.42	73.98	26.56	330.0	110.0	V
7.323 GHz	41.18	37.48	-27.64	51.03	73.98	22.95	330.0	110.0	V
12.205 GHz	40.41	40.51	-26.56	54.36	73.98	19.62	330.0	110.0	V
19.528 GHz	43.82	37.36	-25.79	55.39	73.98	18.59	330.0	110.0	V

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_Middle_Orthogonal X_Horizontal

Operator: Jeremy Lee
11:25:22 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	29.39	33.22	-28.12	34.48	53.98	19.50	170.0	110.0	H
7.323 GHz	29.08	37.44	-27.64	38.88	53.98	15.10	170.0	110.0	H
12.205 GHz	27.39	40.43	-26.56	41.26	53.98	12.72	170.0	110.0	H
19.528 GHz	30.12	37.36	-25.79	41.69	53.98	12.29	170.0	110.0	H

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_Middle_Orthogonal X_Vertical

Operator: Jeremy Lee
11:25:22 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured+AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	29.49	33.26	-28.12	34.62	53.98	19.36	330.0	110.0	V
7.323 GHz	29.22	37.48	-27.64	39.07	53.98	14.91	330.0	110.0	V
12.205 GHz	27.80	40.51	-26.56	41.75	53.98	12.23	330.0	110.0	V
19.528 GHz	30.12	37.36	-25.79	41.69	53.98	12.29	330.0	110.0	V

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.: 101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2441MHz, Orthogonal Y, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Middle_Orthogonal Y_Horizontal

Operator: Jeremy Lee
11:25:51 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured_PK dBuV	AntFactor dB/m	PathLoss dB	Emission_PK dBuV/m	Limit_PK dBuV/m	Margin_PK dB	T/T Degree	Tower cm	POL
4.882 GHz	42.46	33.22	-28.12	47.55	73.98	26.43	0.0	110.0	H
7.323 GHz	41.67	37.44	-27.64	51.47	73.98	22.51	0.0	110.0	H
12.205 GHz	40.36	40.43	-26.56	54.23	73.98	19.75	0.0	110.0	H
19.528 GHz	42.42	37.36	-25.79	53.99	73.98	19.99	0.0	110.0	H

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Middle_Orthogonal Y_Vertical

Operator: Jeremy Lee
11:25:51 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured_PK dBuV	AntFactor dB/m	PathLoss dB	Emission_PK dBuV/m	Limit_PK dBuV/m	Margin_PK dB	T/T Degree	Tower cm	POL
4.882 GHz	41.95	33.26	-28.12	47.08	73.98	26.90	145.0	110.0	V
7.323 GHz	41.78	37.48	-27.64	51.63	73.98	22.35	145.0	110.0	V
12.205 GHz	40.00	40.51	-26.56	53.95	73.98	20.03	145.0	110.0	V
19.528 GHz	42.63	37.36	-25.79	54.20	73.98	19.78	145.0	110.0	V

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_Middle_Orthogonal Y_Horizontal

Operator: Jeremy Lee
11:25:51 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured_AVG dBuV	AntFactor dB/m	PathLoss dB	Emission_AVG dBuV/m	Limit_AVG dBuV/m	Margin_AVG dB	T/T Degree	Tower cm	POL
4.882 GHz	29.38	33.22	-28.12	34.47	53.98	19.51	0.0	110.0	H
7.323 GHz	29.07	37.44	-27.64	38.87	53.98	15.11	0.0	110.0	H
12.205 GHz	27.42	40.43	-26.56	41.29	53.98	12.69	0.0	110.0	H
19.528 GHz	30.23	37.36	-25.79	41.80	53.98	12.18	0.0	110.0	H

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_Middle_Orthogonal Y_Vertical

Operator: Jeremy Lee
11:25:51 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured+AVG dBuV	AntFactor dB/m	PathLoss dB	Emission_AVG dBuV/m	Limit_AVG dBuV/m	Margin_AVG dB	T/T Degree	Tower cm	POL
4.882 GHz	29.46	33.26	-28.12	34.59	53.98	19.39	145.0	110.0	V
7.323 GHz	29.00	37.48	-27.64	38.85	53.98	15.13	145.0	110.0	V
12.205 GHz	27.64	40.51	-26.56	41.59	53.98	12.39	145.0	110.0	V
19.528 GHz	30.24	37.36	-25.79	41.81	53.98	12.17	145.0	110.0	V

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2441MHz, Orthogonal Z, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Middle_Orthogonal Z_Horizontal

Operator: Jeremy Lee
11:26:11 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	42.09	33.22	-28.12	47.18	73.98	26.80	180.0	110.0	H
7.323 GHz	41.24	37.44	-27.64	51.04	73.98	22.94	180.0	110.0	H
12.205 GHz	40.09	40.43	-26.56	53.96	73.98	20.02	180.0	110.0	H
19.528 GHz	42.67	37.36	-25.79	54.24	73.98	19.74	180.0	110.0	H

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_Middle_Orthogonal Z_Vertical

Operator: Jeremy Lee
11:26:11 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	41.35	33.26	-28.12	46.48	73.98	27.50	240.0	110.0	V
7.323 GHz	41.62	37.48	-27.64	51.47	73.98	22.51	240.0	110.0	V
12.205 GHz	40.10	40.51	-26.56	54.05	73.98	19.93	240.0	110.0	V
19.528 GHz	42.38	37.36	-25.79	53.95	73.98	20.03	240.0	110.0	V

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_Middle_Orthogonal Z_Horizontal

Operator: Jeremy Lee
11:26:11 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	29.29	33.22	-28.12	34.38	53.98	19.60	180.0	110.0	H
7.323 GHz	29.09	37.44	-27.64	38.89	53.98	15.09	180.0	110.0	H
12.205 GHz	27.56	40.43	-26.56	41.43	53.98	12.55	180.0	110.0	H
19.528 GHz	30.08	37.36	-25.79	41.65	53.98	12.33	180.0	110.0	H

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_Middle_Orthogonal Z_Vertical

Operator: Jeremy Lee
11:26:11 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured+AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.882 GHz	29.27	33.26	-28.12	34.40	53.98	19.58	240.0	110.0	V
7.323 GHz	28.94	37.48	-27.64	38.79	53.98	15.19	240.0	110.0	V
12.205 GHz	27.48	40.51	-26.56	41.43	53.98	12.55	240.0	110.0	V
19.528 GHz	30.22	37.36	-25.79	41.79	53.98	12.19	240.0	110.0	V

Project # : 11404, Sample #: 1150938
Temp.: 24.3 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2475MHz, Orthogonal X, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_High End_Orthogonal_X_Horizontal

Operator: Jeremy Lee
11:17:17 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	47.20	33.37	-28.11	52.46	73.98	21.52	205.0	189.0	H
7.425 GHz	41.84	37.19	-27.61	51.41	73.98	22.57	205.0	189.0	H
12.375 GHz	40.27	40.80	-26.52	54.55	73.98	19.43	205.0	189.0	H
19.800 GHz	42.75	37.20	-25.74	54.21	73.98	19.77	205.0	189.0	H
22.275 GHz	43.42	37.61	-25.45	55.59	73.98	18.39	205.0	189.0	H

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_High End_Orthogonal_X_Vertical

Operator: Jeremy Lee
11:17:17 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	43.52	33.39	-28.11	48.80	73.98	25.18	0.0	100.0	V
7.425 GHz	41.87	37.22	-27.61	51.47	73.98	22.51	0.0	100.0	V
12.375 GHz	40.78	40.89	-26.52	55.15	73.98	18.83	0.0	100.0	V
19.800 GHz	42.76	37.20	-25.74	54.22	73.98	19.76	0.0	100.0	V
22.275 GHz	44.24	37.61	-25.45	56.41	73.98	17.58	0.0	100.0	V

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

Lablest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_High End_Orthogonal_X_Horizontal

Operator: Jeremy Lee
11:17:17 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured_AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	29.12	33.37	-28.11	34.38	53.98	19.60	205.0	189.0	H
7.425 GHz	29.19	37.19	-27.61	38.76	53.98	15.22	205.0	189.0	H
12.375 GHz	27.99	40.80	-26.52	42.27	53.98	11.71	205.0	189.0	H
19.800 GHz	30.29	37.20	-25.74	41.75	53.98	12.23	205.0	189.0	H
22.275 GHz	31.96	37.61	-25.45	44.13	53.98	9.85	205.0	189.0	H

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

Lablest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_High End_Orthogonal_X_Vertical

Operator: Jeremy Lee
11:17:17 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency	Measured+AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	29.08	33.39	-28.11	34.36	53.98	19.62	0.0	100.0	V
7.425 GHz	29.37	37.22	-27.61	38.97	53.98	15.01	0.0	100.0	V
12.375 GHz	28.14	40.89	-26.52	42.51	53.98	11.47	0.0	100.0	V
19.800 GHz	30.08	37.20	-25.74	41.54	53.98	12.44	0.0	100.0	V
22.275 GHz	31.78	37.61	-25.45	43.95	53.98	10.03	0.0	100.0	V

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2475MHz, Orthogonal Y, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_High End_Orthogonal_Y_Horizontal

Operator: Jeremy Lee
11:20:41 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured_PK dBuV	AntFactor dB/m	PathLoss dB	Emission_PK dBuV/m	Limit_PK dBuV/m	Margin_PK dB	T/T Degree	Tower cm	POL
4.950 GHz	48.10	33.37	-28.11	53.36	73.98	20.62	0.0	117.0	H
7.425 GHz	41.89	37.19	-27.61	51.46	73.98	22.52	0.0	117.0	H
12.375 GHz	40.20	40.80	-26.52	54.48	73.98	19.50	0.0	117.0	H
19.800 GHz	42.63	37.20	-25.74	54.09	73.98	19.89	0.0	117.0	H
22.275 GHz	43.80	37.61	-25.45	55.97	73.98	18.02	0.0	117.0	H

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_High End_Orthogonal_Y_Vertical

Operator: Jeremy Lee
11:20:41 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured_PK dBuV	AntFactor dB/m	PathLoss dB	Emission_PK dBuV/m	Limit_PK dBuV/m	Margin_PK dB	T/T Degree	Tower cm	POL
4.950 GHz	47.14	33.39	-28.11	52.42	73.98	21.56	0.0	185.0	V
7.425 GHz	41.42	37.22	-27.61	51.02	73.98	22.96	0.0	185.0	V
12.375 GHz	41.67	40.89	-26.52	56.04	73.98	17.94	0.0	185.0	V
19.800 GHz	42.61	37.20	-25.74	54.07	73.98	19.91	0.0	185.0	V
22.275 GHz	44.36	37.61	-25.45	56.53	73.98	17.45	0.0	185.0	V

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_High End_Orthogonal_Y_Horizontal

Operator: Jeremy Lee
11:20:41 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured_AVG dBuV	AntFactor dB/m	PathLoss dB	Emission_AVG dBuV/m	Limit_AVG dBuV/m	Margin_AVG dB	T/T Degree	Tower cm	POL
4.950 GHz	29.16	33.37	-28.11	34.42	53.98	19.56	0.0	117.0	H
7.425 GHz	29.14	37.19	-27.61	38.71	53.98	15.27	0.0	117.0	H
12.375 GHz	28.07	40.80	-26.52	42.35	53.98	11.63	0.0	117.0	H
19.800 GHz	30.17	37.20	-25.74	41.63	53.98	12.35	0.0	117.0	H
22.275 GHz	31.93	37.61	-25.45	44.09	53.98	9.88	0.0	117.0	H

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_High End_Orthogonal_Y_Vertical

Operator: Jeremy Lee
11:20:41 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency Hz	Measured+AVG dBuV	AntFactor dB/m	PathLoss dB	Emission_AVG dBuV/m	Limit_AVG dBuV/m	Margin_AVG dB	T/T Degree	Tower cm	POL
4.950 GHz	29.19	33.39	-28.11	34.47	53.98	19.51	0.0	185.0	V
7.425 GHz	29.33	37.22	-27.61	38.93	53.98	15.05	0.0	185.0	V
12.375 GHz	28.12	40.89	-26.52	42.49	53.98	11.49	0.0	185.0	V
19.800 GHz	30.17	37.20	-25.74	41.63	53.98	12.35	0.0	185.0	V
22.275 GHz	31.83	37.61	-25.45	44.00	53.98	9.98	0.0	185.0	V

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

- Table of Radiated Harmonic Emissions of LowEnd, Fc=2475MHz, Orthogonal Z, Antenna was used SAS-571 & SAS-572.

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_High End_Orthogonal_Z_Horizontal

Operator: Jeremy Lee

11:24:53 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech, Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	44.41	33.37	-28.11	49.67	73.98	24.31	0.0	100.0	H
7.425 GHz	41.62	37.19	-27.61	51.19	73.98	22.79	0.0	100.0	H
12.375 GHz	40.30	40.80	-26.52	54.58	73.98	19.40	0.0	100.0	H
19.800 GHz	42.45	37.20	-25.74	53.91	73.98	20.07	0.0	100.0	H
22.275 GHz	43.92	37.61	-25.45	56.09	73.98	17.89	0.0	100.0	H

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

Lablest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Peak Detector_High End_Orthogonal_Z_Vertical

Operator: Jeremy Lee

11:24:53 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech, Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	47.19	33.39	-28.11	52.47	73.98	21.51	330.0	170.0	V
7.425 GHz	41.18	37.22	-27.61	50.78	73.98	23.20	330.0	170.0	V
12.375 GHz	40.15	40.89	-26.52	54.52	73.98	19.46	330.0	170.0	V
19.800 GHz	42.90	37.20	-25.74	54.36	73.98	19.62	330.0	170.0	V
22.275 GHz	43.15	37.61	-25.45	55.31	73.98	18.67	330.0	170.0	V

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meter, Averaging Detector_High End_Orthogonal_Z_Horizontal

Operator: Jeremy Lee

11:24:53 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech, Inc.

Frequency	Measured_AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	29.06	33.37	-28.11	34.32	53.98	19.66	0.0	100.0	H
7.425 GHz	29.28	37.19	-27.61	38.85	53.98	15.13	0.0	100.0	H
12.375 GHz	28.07	40.80	-26.52	42.35	53.98	11.63	0.0	100.0	H
19.800 GHz	30.17	37.20	-25.74	41.63	53.98	12.35	0.0	100.0	H
22.275 GHz	31.80	37.61	-25.45	43.97	53.98	10.01	0.0	100.0	H

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

LabTest Certification Inc.
Intentional Radiated Emission-Harmonics
FCC15.247, 205 & 209, 3 meters, Averaging Detector_High End_Orthogonal_Z_Vertical

Operator: Jeremy Lee

11:24:53 PM, Friday, August 02, 2013

Model #: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech, Inc.

Frequency	Measured+AVG	AntFactor	PathLoss	Emission_AVG	Limit_AVG	Margin_AVG	T/T	Tower	POL
Hz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
4.950 GHz	29.16	33.39	-28.11	34.44	53.98	19.54	330.0	170.0	V
7.425 GHz	29.18	37.22	-27.61	38.78	53.98	15.20	330.0	170.0	V
12.375 GHz	28.08	40.89	-26.52	42.45	53.98	11.53	330.0	170.0	V
19.800 GHz	30.16	37.20	-25.74	41.62	53.98	12.36	330.0	170.0	V
22.275 GHz	31.82	37.61	-25.45	43.98	53.98	9.99	330.0	170.0	V

Project # : 11404, Sample #: 1150939
Temp.: 24.2 C, Hum.: 41.0 %
Barometer Pres.:101.7 kPa

Band-Edge Compliance

Temperature	25.9 °C
Relative Humidity	48.0 %
Barometric Pressure:	101.9 kPa
Test Date	July 30, 2013
Sample Number	1150940, 1150941, 1150942
Calibrated Test Equipment (ID)	266, 272
Reference Equipment (ID) (Calibration not required)	N1, N3
Tested By	Jeremy Lee

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0284

Test Limits

15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

Test Setup

The test was performed in accordance with **FCC 15.247:2010, FCC 15.31:2010 and KDB 558074 D01 v03r01.**

This procedure is applicable for determining compliance at authorized band edges, but not at restricted band edges.

- The RF output of the EUT was connected to the RF input port of the Spectrum Analyzer via attenuator.
- The transmitter was transmitting at its maximum power.
- The following measurements were made with
  - Span = wide enough to capture the peak level of the emission operating on the channel closest to the band-edge, as well as any modulation products which fall outside of the authorized band of operation.
  - RBW ≥ 1% of spectrum analyzer display span
  - VBW ≥ RBW
  - Sweep = Auto
  - Detector Function = peak
  - Trace = Max Hold
  - Allowed the trace to stabilize.
- Set the marker on the emission at the bandedge, or on the highest modulation product outside of band, if this level is greater than that at the band edge.
- Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission.

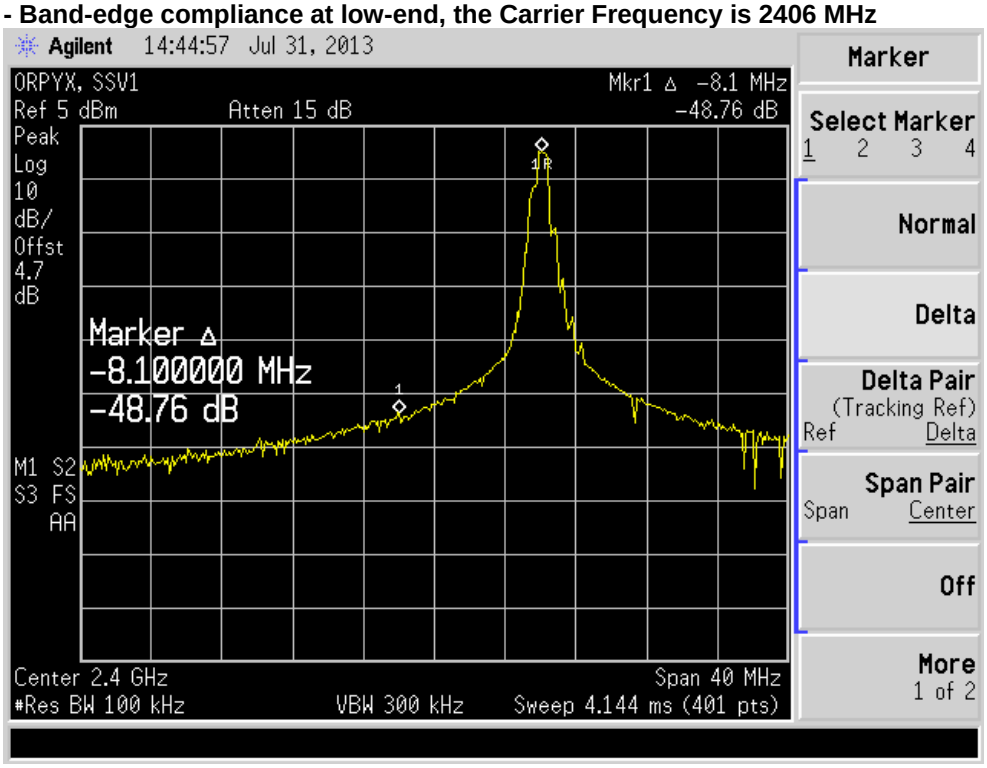
Setup Block Diagram

Test Results:

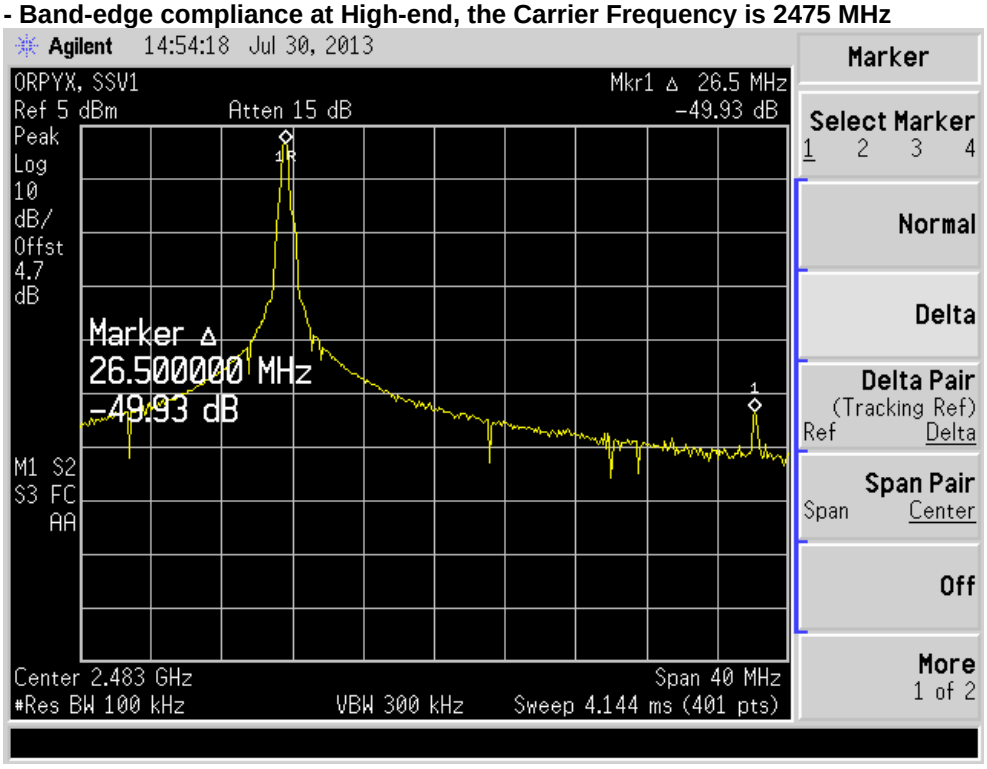
X Pass Fail N/A

Channel Frequency(MHz)	Band-edge(dB)	Limit(dB)	Pass/Fail
Low end	48.76	≥ 20	Pass
High end	49.93	≥ 20	Pass

- Band-edge compliance at low-end, the Carrier Frequency is 2406 MHz



- Band-edge compliance at High-end, the Carrier Frequency is 2475 MHz



Power Spectral Density

Temperature	26.4 °C
Relative Humidity	49.0 %
Barometric Pressure:	101.7 kPa
Test Date	July 31, 2013
Sample Number	1150940, 1150941, 1150942
Calibrated Test Equipment (ID)	266, 272
Reference Equipment (ID) (Calibration not required)	N1, N3
Tested By	Jeremy Lee

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0248

Test Limits

15.247(e)

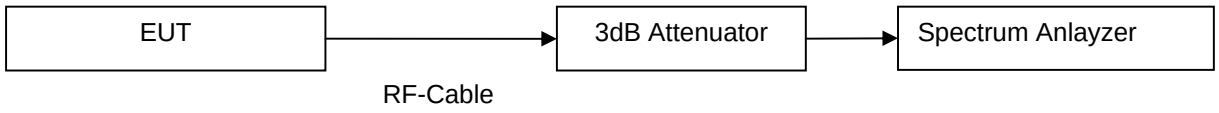
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Setup

The test was performed in accordance with **FCC 15.247:2010, FCC 15.31:2010 and KDB 558074 D01 v03r01.**

- The RF output of the EUT was connected to the RF input port of the Spectrum Analyzer via attenuator.
- The EUT was measured at three differrent transmitting frequencies, low-end, middle, and high-end.
- The transmitter was set-up as its maximum power.
- The following measurements were made with
  - Set analyzer center frequency to DTS channel center frequency.
  - Set the span to 20MHz.
  - Set the RBW ≥ 3 kHz.
  - Set the VBW ≥ 3 x RBW.
  - Detector = peak.
  - Sweep time = auto couple.
  - Trace mode = max hold.
  - Allow trace to fully stabilize.
  - Use the peak marker function to determine the maximum amplitude level.
  - If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Setup Block Diagram

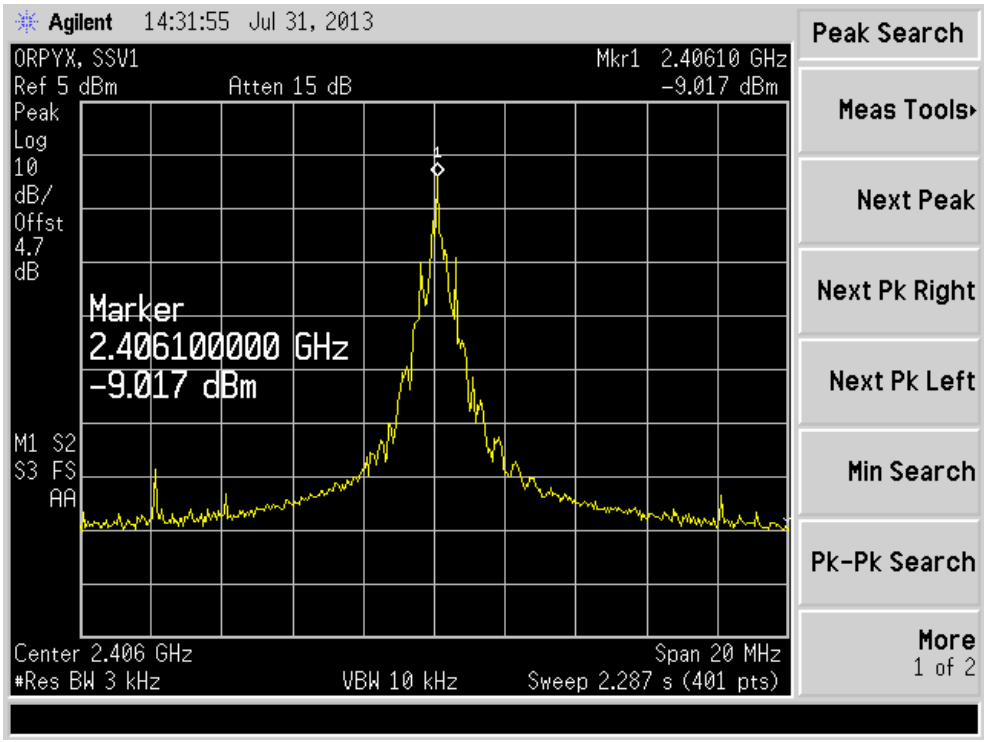


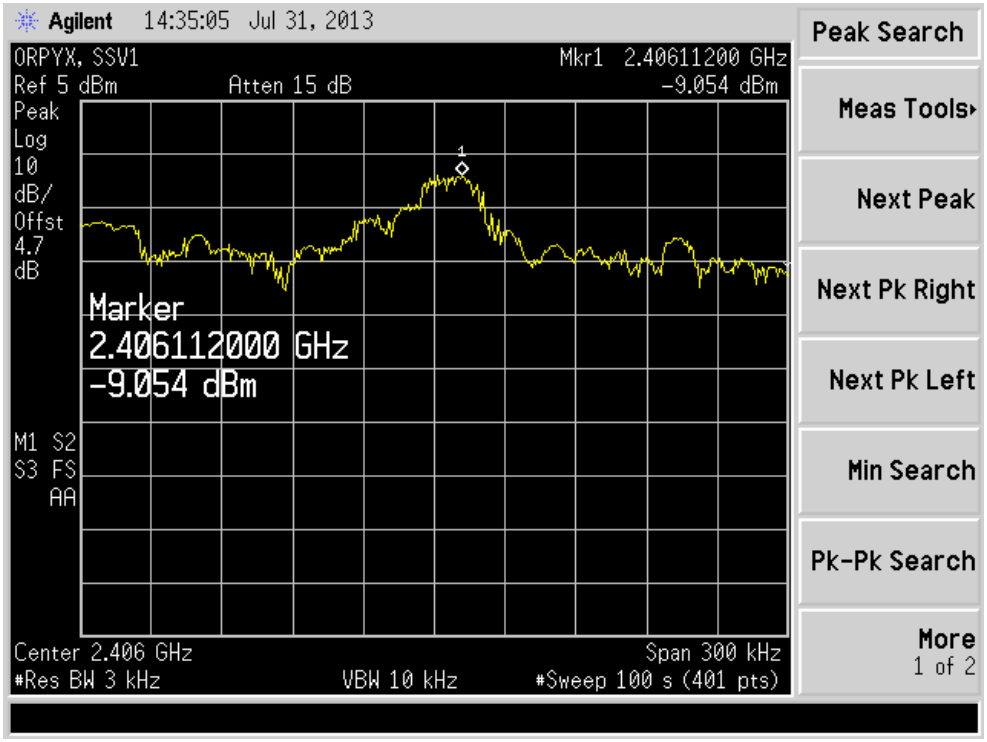
Test Results:

Centre Frequency(MHz)	Power Spectral Density (dBm)	Limit(dBm)	Pass/Fail
2406	- 9.054	≤ 8	Pass
2441	- 6.949	≤ 8	Pass
2475	- 6.628	≤ 8	Pass

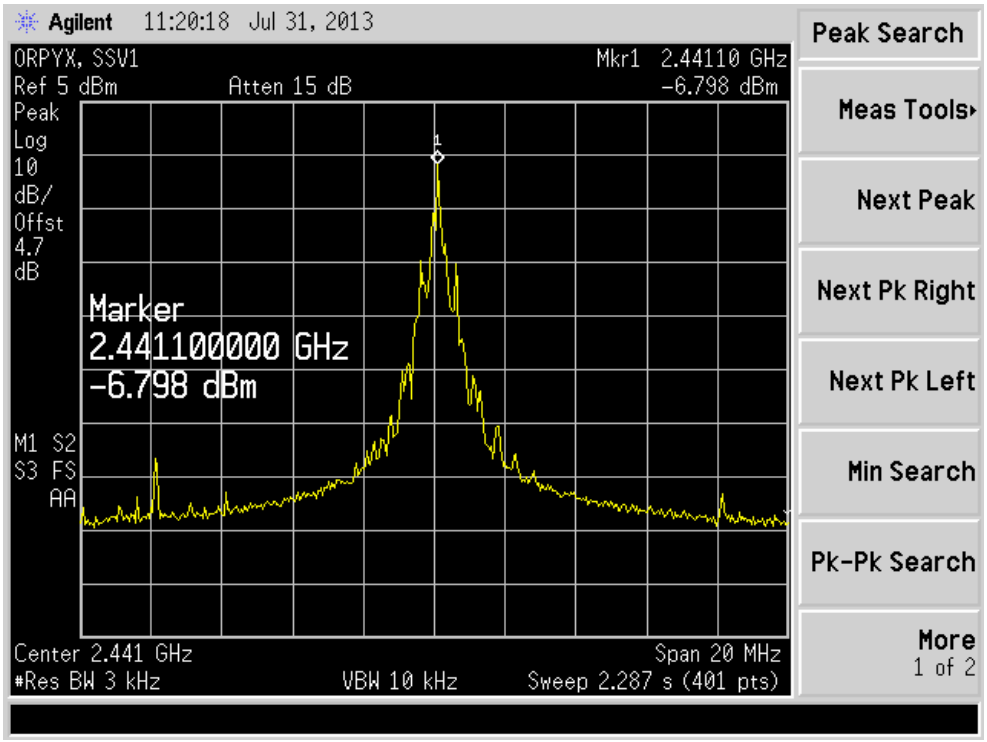
X Pass Fail N/A

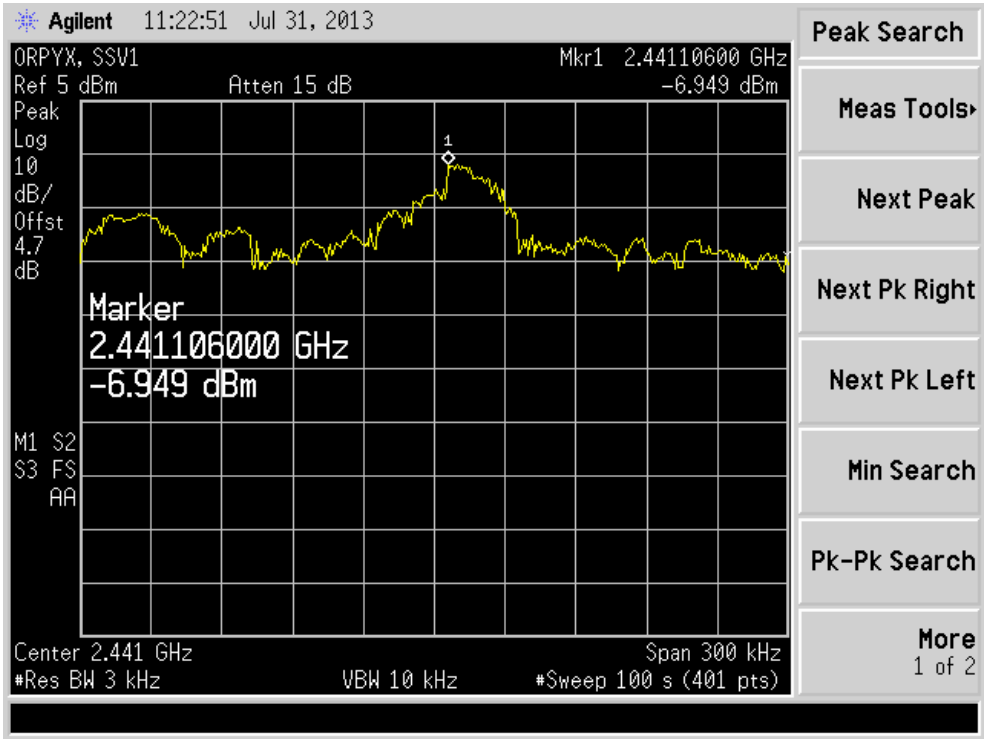
- Power Spectral Density; centre frequency is 2406 MHz.



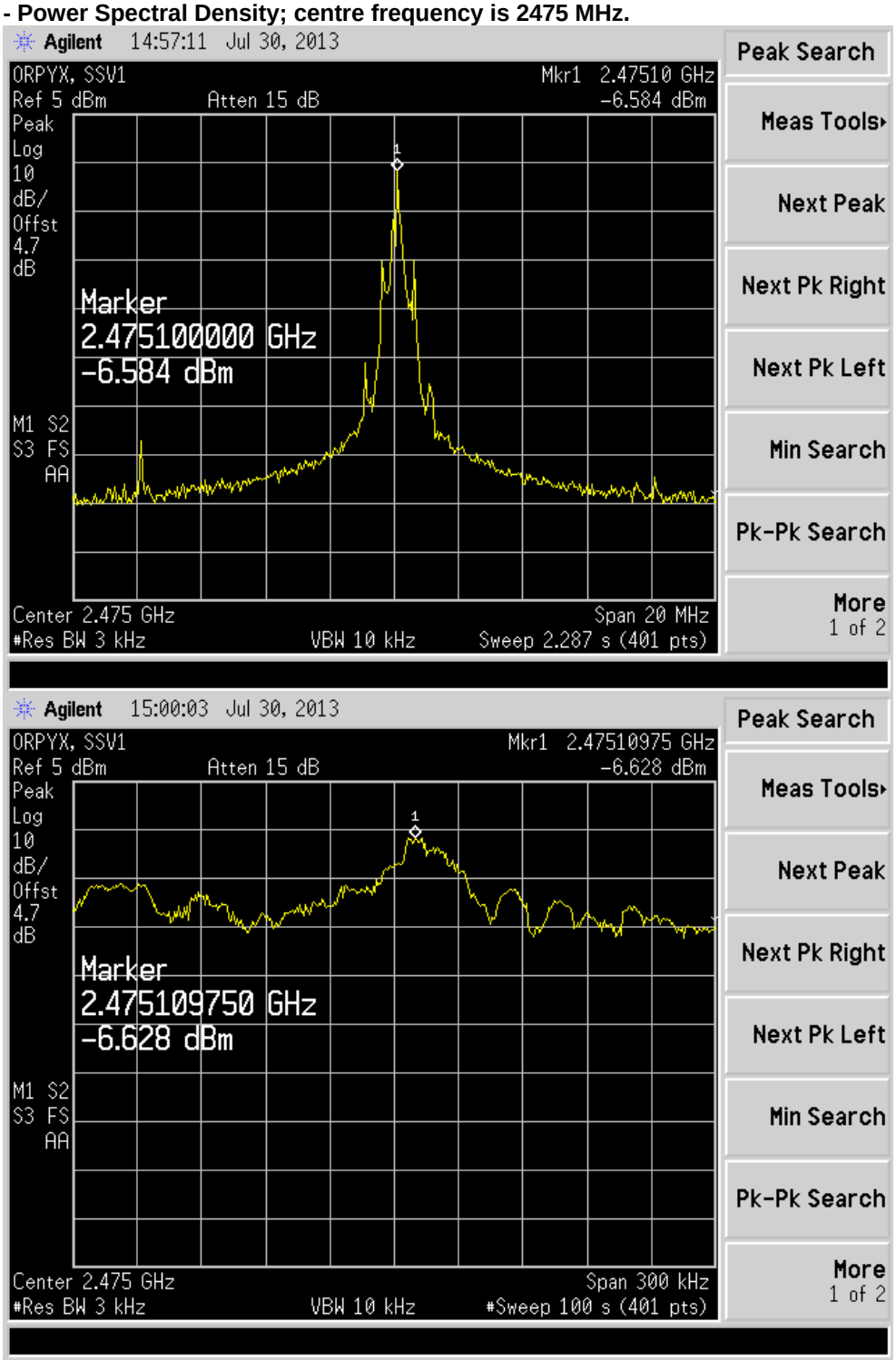


- Power Spectral Density; centre frequency is 2441 MHz.





- Power Spectral Density; centre frequency is 2475 MHz.



Conducted Emission

Temperature	25.5 °C
Relative Humidity	49.0 %
Barometric Pressure:	101.2 kPa
Test Date	July 16, 2013
Sample Number	1150935
Calibrated Test Equipment (ID)	127, 128, 266, 272
Reference Equipment (ID) (Calibration not required)	059, 215
Tested Voltages	110VAC, 60Hz, Single Phase
Tested By	Jeremy LEE

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0248

Test Limits

FCC 15.207(a):
Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

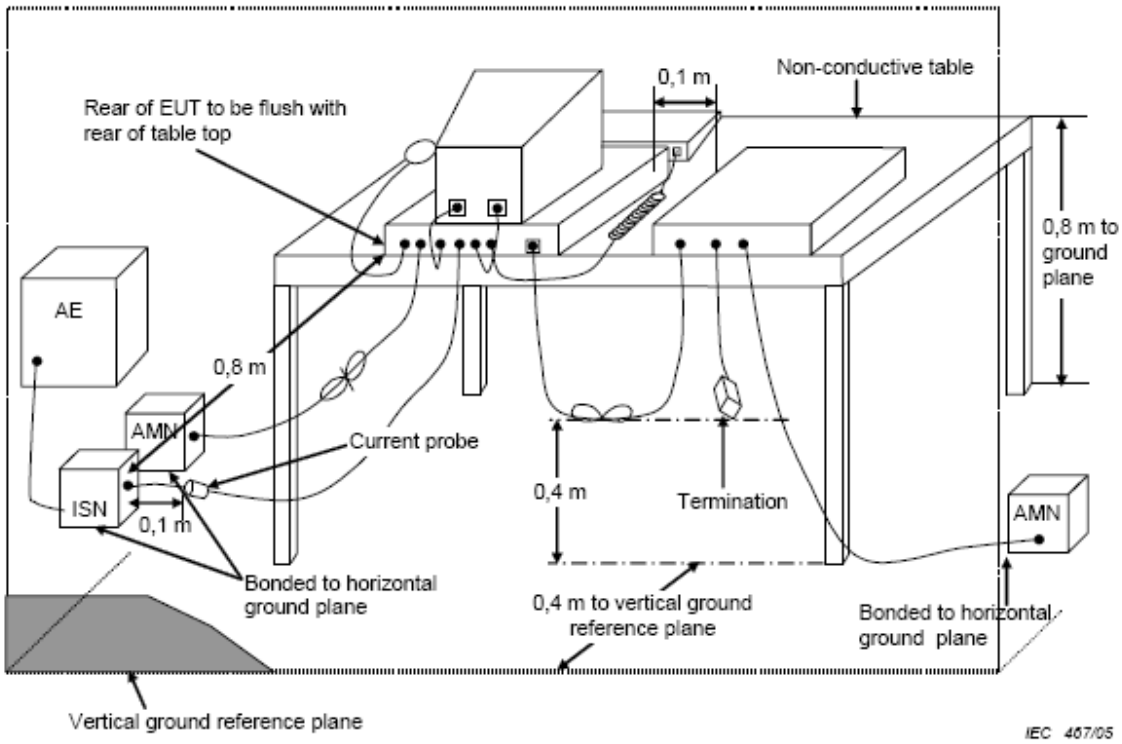
The test was performed in accordance with **FCC 15.107:2010 and ANSI C63.4, 2009.**

The EUT was placed on the table, referenced by ANSI C63.4, shown in Figure-1, and 0.4 meters from the conducting wall with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

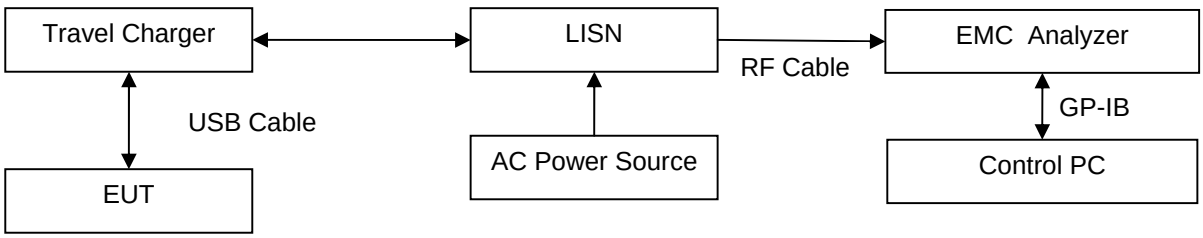
The EUT was set up as per the test configuration to simulate typical actual usage per the user's manual. The AC power line of EUT was connected to LISN for maximum conducted interference.
The EUT was set on the maximum operating; the EUT was setup to continuing operating as a worst case.

Initially a scan was made with an EMC Analyzer from 150 kHz to 30 MHz on each phase with the receiver in the peak mode. The measuring bandwidth was set up 9 kHz. Measurements were then made using CISPR16-1 quasi peak and averaging detectors when the peak readings were within 20dB of the Quasi-peak limit line.

Test Setup on Table



Setup Block Diagram



Test Result

Conducted Emission (dBuV) = Measured Emission (dBuV) + Cable Loss(dB)+LISN(dB)

X Pass Fail N/A

- Table of Conducted Emissions: Hot Line

LabTest Certification Inc.
Conducted Emission
FCC15.207, AVG_Hot_110Vac/60

Operator: Jeremy LEE

12:30:28 PM, Tuesday, July 16, 2013

Model Number: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

Frequency MHz	Measured_AVG dBuV	CableLoss dB	LISN dB	Emission_AVG dBuV	Limit_AVG dBuV	Margin_AVG dB
164.279 KHz	20.54	0.01	2.55	32.99	55.59	22.60
199.827 KHz	21.97	0.01	2.28	34.15	54.58	20.43
216.670 KHz	22.17	0.01	2.16	34.25	54.10	19.85
234.922 KHz	22.51	0.01	2.03	34.45	53.57	19.12
545.926 KHz	24.92	0.01	0.39	35.23	46.00	10.77
642.335 KHz	27.25	0.03	0.33	37.51	46.00	8.49

Project#: 11404, Sample#: 1150935
Temp.: 25.5 C, Hum.: 49.0 %
B.P.: 101.2 kPa

- Table of Conducted Emissions: Neutral Line

LabTest Certification Inc.
Conducted Emission
FCC15.207, AVG_Neutral_110Vac/60Hz

Operator: Jeremy LEE

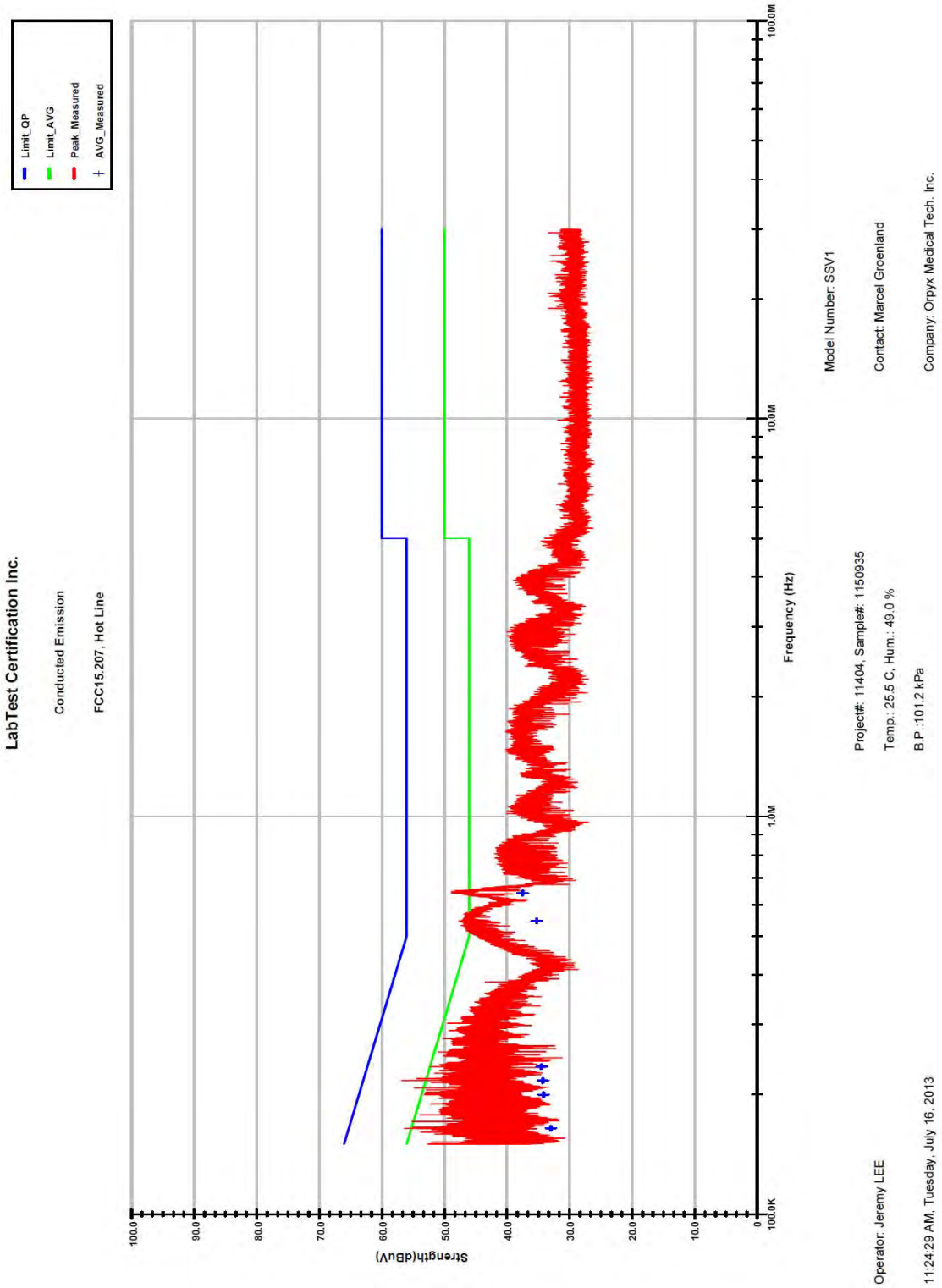
12:30:28 PM, Tuesday, July 16, 2013

Model Number: SSV1
Contact: Marcel Groenland
Company: Orpyx Medical Tech. Inc.

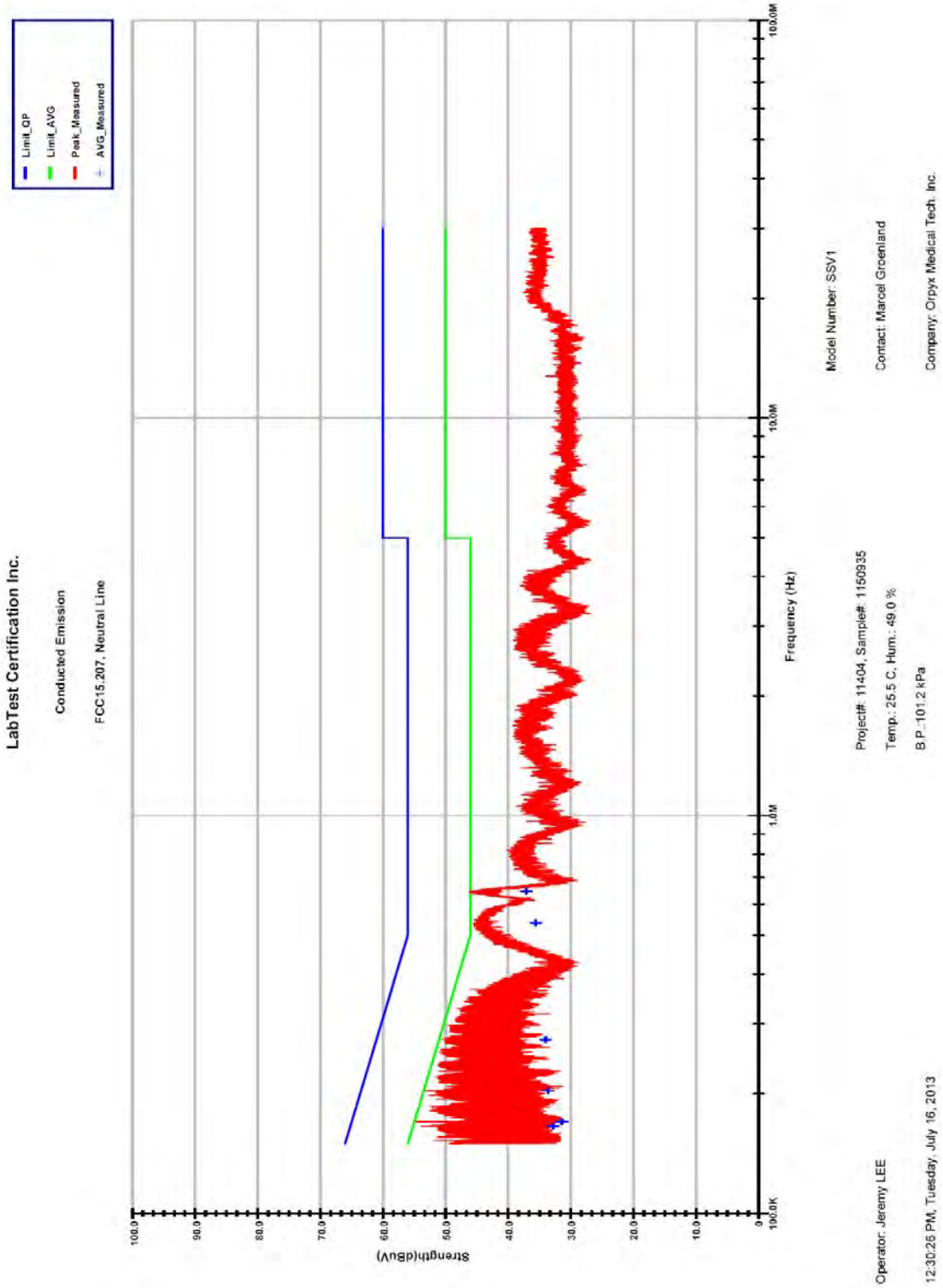
Frequency MHz	Measured_AVG dBuV	CableLoss dB	LISN dB	Emission_AVG dBuV	Limit_AVG dBuV	Margin_AVG dB
165.672 KHz	20.49	0.01	2.38	32.78	55.55	22.77
170.315 KHz	19.16	0.01	2.35	31.43	55.42	23.99
204.131 KHz	21.55	0.01	2.12	33.57	54.45	20.88
273.967 KHz	22.43	0.02	1.64	34.00	52.46	18.46
537.666 KHz	25.29	0.01	0.39	35.60	46.00	10.40
645.762 KHz	26.81	0.03	0.33	37.07	46.00	8.93

Project#: 11404, Sample#: 1150935
Temp.: 25.5 C, Hum.: 49.0 %
B.P.: 101.2 kPa

- Graph of Conducted Emissions: Hot Line



- Graph of Conducted Emissions: Neutral Line



APPENDIX A: Test Equipment Used

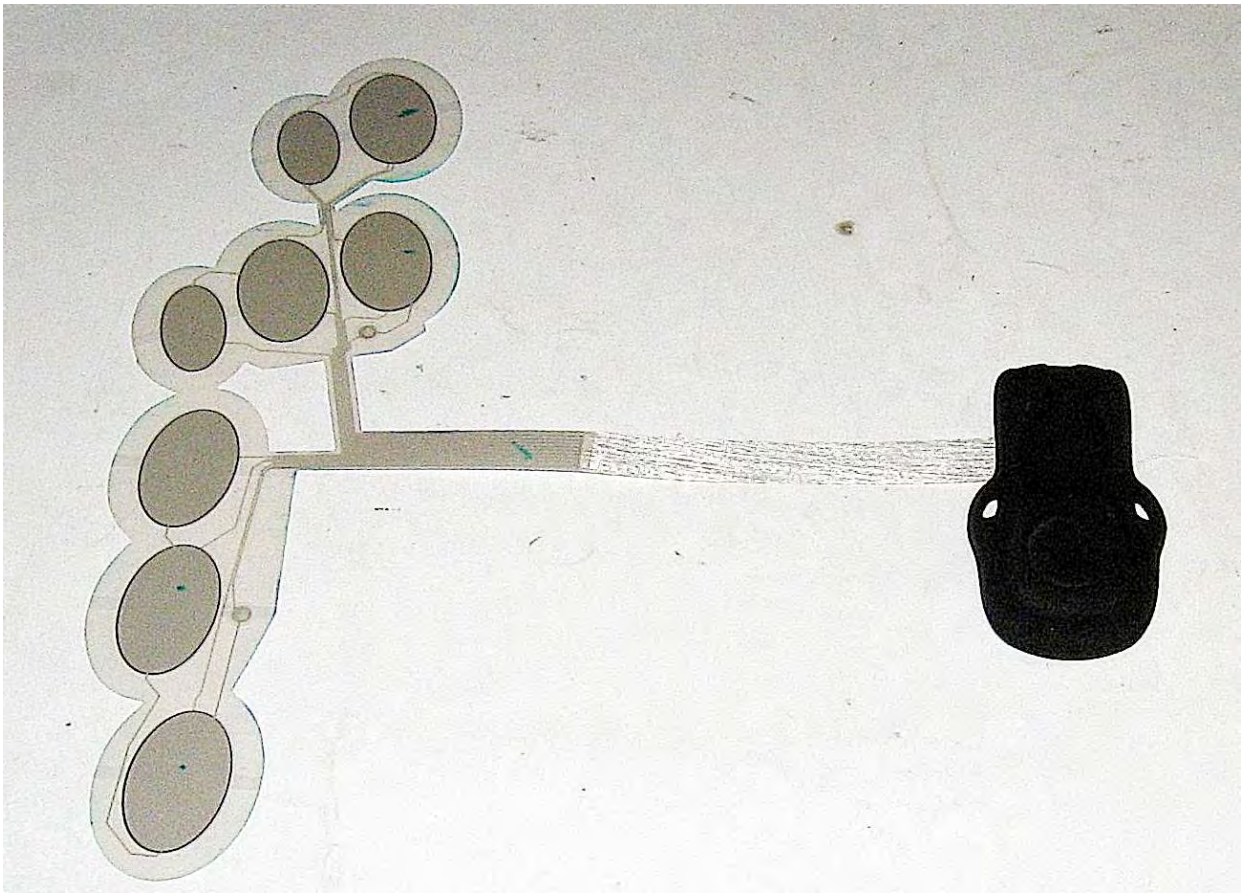
ID No.	Description	Manufacturer	Model	Serial No.	Calibration Date	Calibration Due Date	Calibration Certificate No:	Calibration Laboratory
059	AC Power Source	California Instrument	5000i	HK51870	N/A	N/A	N/A	N/A
127	LISN	Com-Power	LI-200	12054	28-Nov-2012	28-Nov-2013	2008120226399	Micro Precision
128	LISN	Com-Power	LI-200	12216	28-Nov-2012	28-Nov-2013	2008120226344	Micro Precision
227-3	Horn Antenna	A.H. Systems	SAS-571	936	12-Jul-2012	12-Jul-2014	2012062215	Liberty Labs
227-4	Horn Antenna	A.H. Systems	SAS-572	233	12-Jul-2012	12-Jul-2014	2012062215	Liberty Labs
241	Active Loop Antenna	AL-130	Com-Power	17075	01-Nov-2011	01-Nov-2013	071075A	Com-Power
266	Humidity/ Temperature Logger	Onset HOBO	U14-001	2436907	02-Jan-2013	02-Jan-2014	345135	Wescan
272	EMC Analyzer	Agilent	E7405A	US41110263	06-May-2013	06-May-2014	1-5114979997-1	Agilent
273	RF Preamplifier	Agilent	8449B	3008A02264	01-May-2013	01-May-2014	2200812126698	Micro Precision
371	EMC Broadband Antenna	Sunol	JB1	A022012	07-Mar-2012	07-Mar-2014	2012022808	Liberty Labs
374	EMC Shielded Enclosure	USC	USC-26	111811	N/A	N/A	N/A	N/A
N1	Coaxial RF Cable	Belden	OC-LMR195-2	N/A	N/A	N/A	N/A	N/A
N2	Coaxial RF Cable	A.H. Systems	SAC-26G-3	N/A	N/A	N/A	N/A	N/A
N3	3dB Attenuator	Mini-circuits	VAT-3+	N/A	N/A	N/A	N/A	N/A

APPENDIX B: EUT photos

- EUT: Top View

- EUT: Bottom View

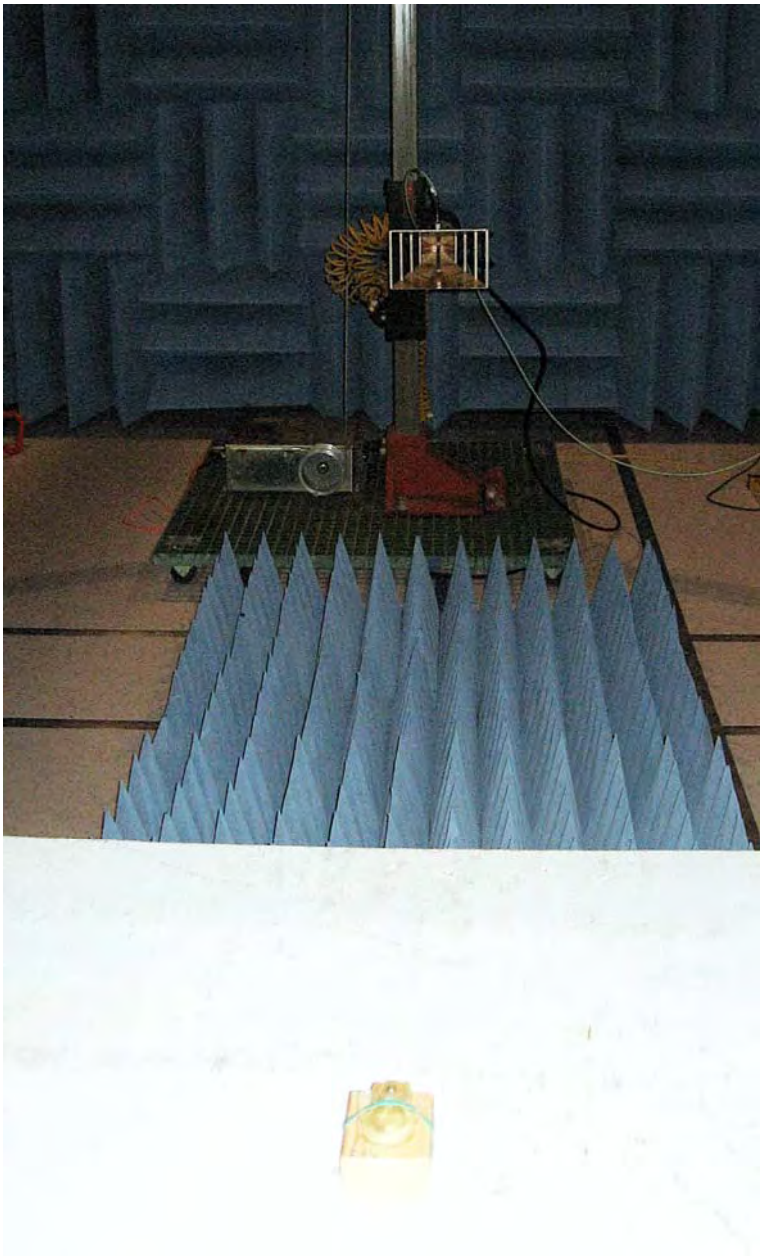
- EUT with Foot Sensor



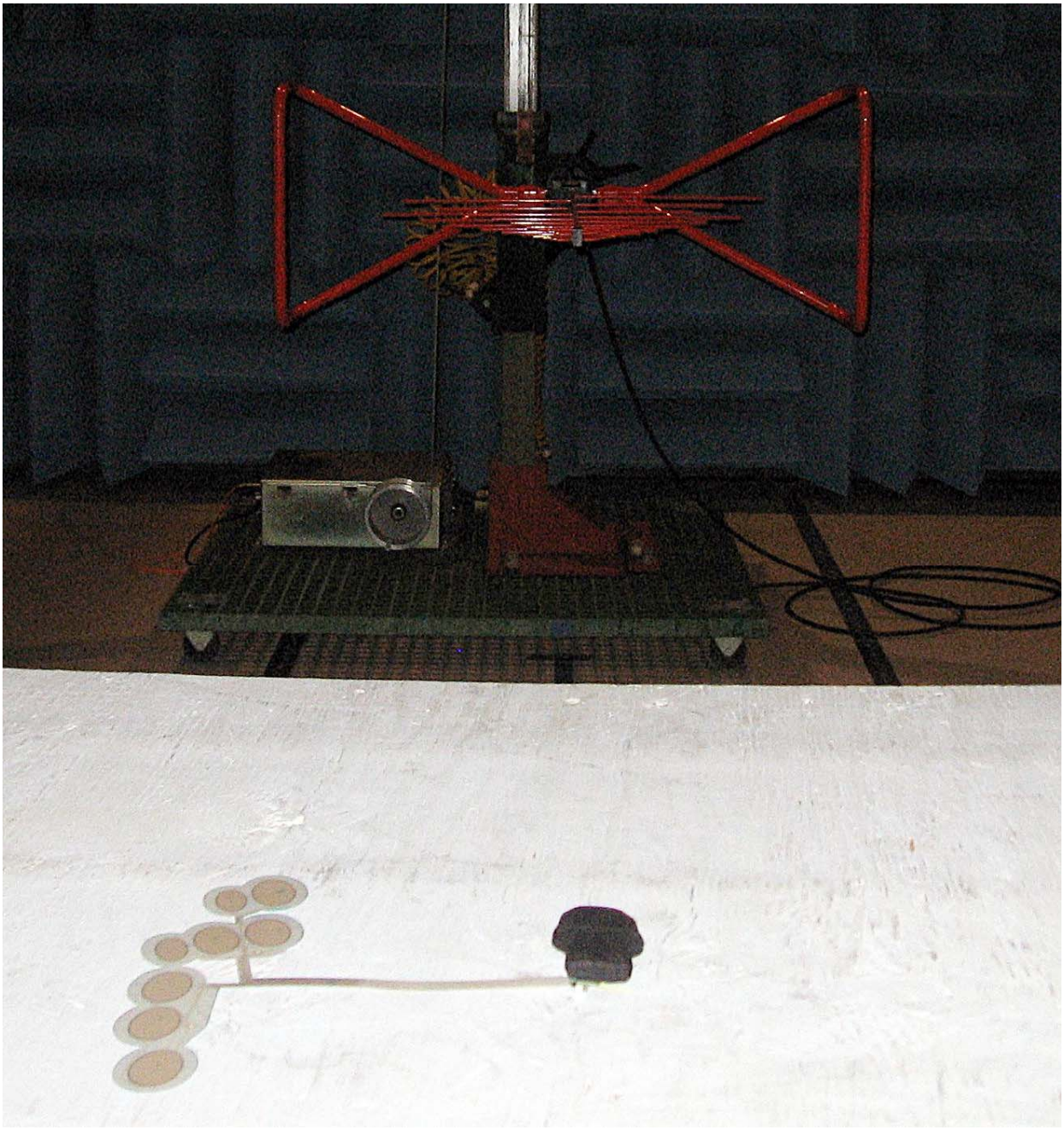
APPENDIX C: Test setup photos

- Test configuration for Conducted measurement

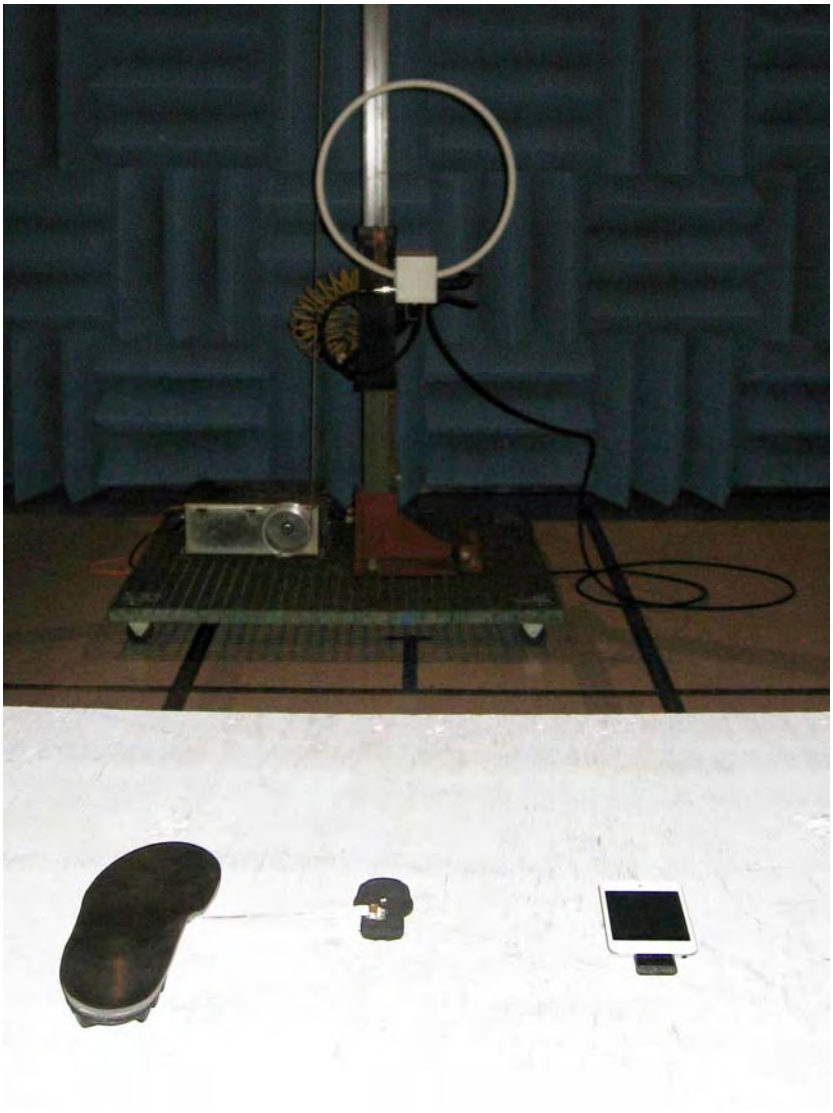
- Test configuration for Radiated measurement, over 1 GHz for Harmonics



- Test configuration for Radiated measurement, 30 MHz to1 GHz for Spurious and Receive Mode



- Test configuration for Radiated measurement, under 30MHz for Intentional Emissions



- Table setup for Radiated measurement, Orthogonal X

- Table setup for Radiated measurement, Orthogonal Y

- Table setup for Radiated measurement, Orthogonal Z

APPENDIX D: ISO 17025:2005 Accreditation Certificate

International Accreditation Service

CERTIFICATE OF ACCREDITATION

This is to signify that

LABTEST CERTIFICATION, INC.
3133-20800 WESTMINSTER HIGHWAY
RICHMOND, BRITISH COLUMBIA V6V 2W3
CANADA

Testing Laboratory TL-367
(Revised March 21, 2013)

has met the requirements of the IAS Accreditation Criteria for Testing Laboratories (AC89), has demonstrated compliance with ISO/IEC Standard 17025:2005, *General requirements for the competence of testing and calibration laboratories*, and has been accredited, commencing May 5, 2011, for the test methods listed in the approved scope of accreditation.

Patrick V. McCullen
Vice President

C. P. Ramani, P.E.
President

ilac-MRA

ACCREDITED

(see attached scope of accreditation for fields of testing and accredited test methods)

Page 1 of 5

Print Date: 04/25/2013

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation.
See the IAS Accreditation Listings on the web at www.iasonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

11-0457

International Accreditation Service

SCOPE OF ACCREDITATION

LabTest Certification, Inc. TL-367
(Revised March 21, 2013

LabTest Certification, Inc.
3133-20800 Westminster Hwy.
Richmond, British Columbia V6V 2W3
Canada

Kavinder Dhillon
QMS Manager
(604) 247-0444

FIELDS OF TESTING	ACCREDITED TEST METHODS
Gas and Plumbing	ANSI Standards Z21.1, Z21.8, Z21.10.1, Z21.13/CSA 4.9, Z21.15, Z21.17/CSA 2.7, Z21.19/1.6, Z21.20/C22.2 NO. 199, Z21.42, Z21 50, Z21.57, Z21.58,Z21.63/CSA 11.3, Z21.72/CSA 11.2, Z21.76, Z21.86/CSA 2.32, Z21.91, Z21.97 and Z21.89/CGA1.18, Z83.7/CSA 2.14, Z83.11/CSA 1.8, Z83.26/CSA 2.37; CAN1-1.1, CAN1-2.15, CAN1-2.21, CSA Standards B45 Series, B125, B140.0, B140.1, B140.2.1, B140.2.2, B140.3, B140.4, B140.7-05, B140.8, B140.9.3, B140.9.4-10, B140.12-03, B212-00, B366.1-11, B415.1-10; CGA 1.3,CGA 1.16, CGA 2.17; CSA/CGA-3.4; AS 4551/Ag101, AS 4553/AG 103, AS 4563 and AS 2658; EN Standards 30-1-1, 30-1-2, 30-1-3, 30-1-4, 30-2-1 and 30-2-2, ASME A112 Series; UL Standards 296, 372, and 795
Electrical, EMC and Electro-mechanical	AS 4268.1, 4268.2; AS/NZS 1044, 1053, 2064, 3548, 3652, 4051, 4251.1, 4251.2, 62040.2; 60335.1; AS/NZS 60598.1, AS/NZS 60950.1, AS/NZS 60745.1, AS/NZS 60730.1; CISPR 11 / EN55011; CISPR 14 / EN55014, CISPR 15 / EN55015, CISPR 22 / EN55022, CISPR 24 / EN55024, EN 12895, 301 489, 300 386, 50083-2, 50090-2-2, 50091-2, 50121-1, 50121-2,

May 5, 2011
Commencement Date

ACCREDITED

C. P. Ramani, P.E.
President

Print Date: 04/25/2013

Page 2 of 5

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11-04680

International Accreditation Service

SCOPE OF ACCREDITATION

LabTest Certification, Inc. TL-367
(Revised March 21, 2013

FIELDS OF TESTING	ACCREDITED TEST METHODS
Electrical, EMC and Electro-mechanical (continued)	50121-3-1, 50121-3-2, 50121-4, 50121-5, 50130-4, 50263, 50270, 50293, 50295, 50370-1, 50370-2, 50428, 50470-1, 55012, 55013, 55103-1, 55103-1, 55103-2, 55103-2, 60204-31, 60439-1, 60669-2-1, 60669-2-1, 60669-2-2, 60669-2-3, 60730-1, 60730-2-11, 60730-2-13, 60730-2-14, 60730-2-18, 60730-2-5, 60730-2-6, 60730-2-7, 60730-2-8, 60730-2-9, 60870-2-1, 60945, 61204-3, 61326, 61347-1 Part 1, 61543, 61547, 61547, 617:2001, 618, 619, 620 and 62040-2; FCC Part 15, 18; GB 13837 (CISPR 13); GB 4943, 9254, 7000.1, 7000.10, 7000.11, 7000.12, 2313, 8898, 15143, 14045, 17743, 13836 and 13837; GB/T 9383; GB/T 17618; GB 17625.1, 2; GB/T 17626.2 and 17626.4 and 17626.5; GB/T 176262.6, 176262.8, 176262.11; GB 4343.1 (CISPR 14.1), 4343.2 (CISPR 14.2), GB 4824; HKTA 1001, 1005, 1007 and 1022; ICES-001, 003; JIS T 0601-1-2; IEC/EN/AS/KN: 60601-1-2; IEC/EN/AS/KN/JIS C: 61000-3-2, 61000-3-3, 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-9, 61000-4-11, 61000-4-12, 61000-4-13, 61000-6-1, 61000-6-2, 61000-6-3 and 61000-6-4; IEC/EN/AS/KN: 61326; RSS-130, 136, 138, 182, 187, 210, 213, 215, 243 and 310; MIL-STD-461E; MIL-STD-462D; KN60601-1-2; KN301 489; KN22, 24; YD 1032; YD/T 965, 968, 993, 1103; CSA Standards C22.2 No. 0, .1, .17, .4, 6, 8, 9, 10, 12, 14, 15, 18, 24, 29, 33, 36, 37, 40, 43, 53, 61, 66-1-06, 63, 64, 66.1, 66.2, 66.3, 68, 71.1, 71.2, 72, 73, 81, 85, 88, 89, 94, 99, 100, 101, 103, 104, 105, 107.1, 107.2, 107.3, 108, 109, 110, 112, 113, 114, 115, 117, 122, 125,

May 5, 2011
Commencement Date

ACCREDITED

C. P. Ramani, P.E.
President

Print Date: 04/25/2013

Page 3 of 5

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11-04680

International Accreditation Service

SCOPE OF ACCREDITATION

LabTest Certification, Inc. TL-367
(Revised March 21, 2013

FIELDS OF TESTING	ACCREDITED TEST METHODS
Electrical, EMC and Electro-mechanical (continued)	139, 141, 147, 148, 149, 150, 156, 157, 158, 164, 165, 166, 167, 168, 169, 173, 177, 183.1, 183.2, 184, 187, 191, 195, 205, 207, 213, 217, 218.1, 218.2, 223, 224, 225, 231, 234, 236, 243, 247, 250, 60065, 60947-1; 60947-4-1, 60950-22, 60950-23, 62368-1, E60335-1, -2, E60730-1, -2, E60745-1, -2, E61010-1, -2, E742, Z240 RV Series 08; IEC/EN Standards 60335-1, -2, 60730-1, -2, 60745-1, -2, 61010-1, -2, 60601-1, -2, 60065, 60079-0, -6, -11, -15 and 60950-1, -2; IEC/EN 60529; 60945, 60598-1, -2, 61347-1; UL Standards 48, 50, 73, 197, 499, 507, 508, 508A, 676, 745-1, 751, 763, 778, 858, 867, 875, 924, 935, 982, 987, 998, 1004, 1012, 1026, 1261, 1310, 1431, 1472, 5085-2_1; 5085-3; 1563, 1564, 1585, 1598, 1647, 1795, 1993, 1995, UL/CSA 5085-16500, 8750, 2388; 60335-1, 60335-2, 60601-1, 60601-2, 60730-1, 60730-2, 60745-1, 60745-2, 60950-1, 61010-1 and 61010-2; ISO EN Standards 60601-1-2 Part 1-2, 61000-3-2 (Equipment input current less than or equal to 16 Amps/Phase) and 61000-4-3; ANSI Standards C63.4 and C63.7 (only to 26.5GHz); UL Standards 1778, 60947-1, 60947-4-1, 60950-22, 60950-23, and 62368-1
Environmental and Energy	IEC/EN Standards 60068-2-1, 2-2, 2-6, 2-30, 2-27, 2-14, 2-64, 60092-101, 60695-2-2; MIL-STD-810: Method 500.4, 501.4, 502.4, 503.4, 506.4, 507.4, 510.4, 512.4 and 514.5; RTCA-DO-160E: Section 4, 5, 6, 7.2, 8, 10, 12, 16, 17 and 25; CSA Standard P4; CAN/CSA Standards C-300 and C-814;; ISO Standards 9806-1, 9806-2 and 9806-3; SRCC 100-08, SRCC TM-1, SRCC-150; CSA Standards F378 and F379, EN Standards 12975-1 and 12975-2

May 5, 2011
Commencement Date

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C. P. Ramani, P.E.
President

Print Date: 04/25/2013

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11-04680

International Accreditation Service

SCOPE OF ACCREDITATION

LabTest Certification, Inc. TL-367
(Revised March 21, 2013

FIELDS OF TESTING	ACCREDITED TEST METHODS
ENERGY STAR Program Requirements	Product Specification for Water Coolers Eligibility Criteria
Maritime	ABYC Standards A-3, A-7, A-26, A-27, A-28, A-30, A-31, E-2, E-11, H-2, P-14, P-17, P-18, P-21, P-22, P-24 and P-27; EN Standards 28846, 28848, 28849, 29775, 60092-507; EN ISO 10133, 12216, 13297, 13929, 14895, 15083, 7840, 8847, 8849, 10239, 10240, 10592: 1995/A1, 11105, 11192 and 9097:1994/A1; IACS E1 – E21; 21005; DNV 2.4; BV: Rules for Classification of Steel Ships – Part C, Chapter 3, Section 6.2 Type Approval; ABS Part 4, Chapter 9, Section 7, Lloyds Type Approval Systems – Test Specification Number 1; GL VI-Part 7 Section 3 – Section – B Test Requirements, Chapter 2
Lighting	CAN/CSA C22.2 NO. 1993/UL 1993/NMX-J-578/1-ANCE), C22.2 NO. 206, C22.2 NO. 250.7, C22.2 NO. 256/UL 1786), C22.2 NO. 250.13,E61347-1, E61347-2-3
Hazardous Locations	CAN/CSA C22.2 NO. 25, 30, 137, 157, 213; CAN/CSA C22.2, EN, IEC and UL 60079-0, 60079-1, 60079-2, 60079-6, 60079-11, 60079-15, 60079-18, 60079-31; IEC/EN 13463-1, 13463-3, 13463-5, 13463-8; ISA 12.12.01; UL 913

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END OF REPORT