COMPLIANCE WORLDWIDE INC.
TEST REPORT 437-14R2

In Accordance with the Requirements of

Federal Communications Commission 47 CFR Part 15.519, Subpart F
Technical Requirements for Hand Held UWB Systems

Issued to

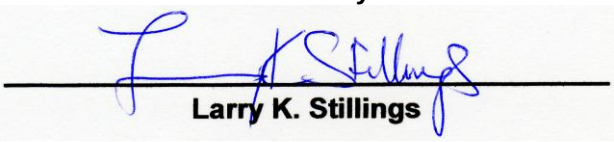
i4C Innovations, Inc.
3800 Concorde Pkwy, Suite 400
Chantilly, VA 20151 USA

For the
Voyce
Model Number: X-100

FCC ID: 2ACMJ-X100

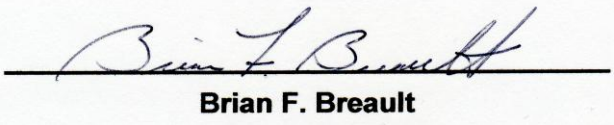
Report Issued on November 13, 2014
Revision R1 Issued on December 11, 2014
Revision R2 Issued on December 12, 2014

Tested By



Larry K. Stillings

Reviewed By



Brian F. Breault

Table of Contents

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

1. Scope

This test report certifies that the i4C Innovations, Voyce X-100 as tested, meets the FCC Part 15, Subpart F requirements. The scope of this test report is limited to the test sample provided by the client, only in as much as that sample represents other production units. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required. Revision R1 adds additional spurious emissions measurements from 7 to 40 GHz without the use of the phantom. Revision R2 provides additional information on the phantom and clarifies the measured data for the SAR test exclusion calculations in section 6.6 of this report.

2. Product Details

2.1. Manufacturer: i4C Innovations
2.2. Model Number: Voyce X-100
2.3. Serial Number: 80629350008
2.4. Description: Dog Collar with UWB transmitter
2.5. Power Source: DC 3.7 Volts lithium rechargeable battery
2.6. Hardware Revision: Revision 10
2.7. Software Revision: N/A
2.8. Modulation Type: Pulse Modulation, Frequency Hopping
2.9. Operating Frequency: 4 GHz Nominal
2.10. EMC Modifications: None

3. Product Configuration

3.1 Operational Characteristics & Software

Hardware Setup:

Press the button once to turn on, press the button twice to configure for 32 MHz PRF transmission. Hold button for 5 seconds to turn on continuous transmission.

The EUT was placed on a cylindrical phantom with a 1/4" foam spacer between the EUT and the phantom to simulate a dog's fur.

3.2. EUT Hardware

Manufacturer	Model/Part # / Options	Serial Number	Input Volts	Freq (Hz)	Description/Function
I4C Innovations	X-100	80629350008	3.7	DC	Dog Collar

3.3. Support Equipment

Manufacturer	Model/Part #	Serial Number
Speag	Dog Neck / QD DOG 001 BA	1001

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

4. Measurements Parameters

4.1. Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due	Cal Interval
Spectrum Analyzer 10 Hz to 40 GHz	Rohde & Schwarz	FSVR40	100909	5/15/2015	2 yr
Spectrum Analyzer 9 kHz to 40 GHz	Rohde & Schwarz	FSV40	100899	6/6/2015	2 yr
EMI Receiver 9 kHz to 7 GHz	Rohde & Schwarz	ESR7	101156	4/4/2015	2 yr
Bilog Antenna 30 to 2000 MHz	Sunol Sciences	JB1	A050913	5/15/2015	2 yr
Loop Antenna 9 kHz to 30 MHz	EMCO	6512	9309-1139	9/23/2016	2 yr
Preamplifier 100 MHz to 7 GHz	Miteq	AFS3-00100200-10-15P-4	988773	4/11/2015	1 yr
Preamplifier 1 to 26.5 GHz	Hewlett Packard	8449B	3008A01323	6/5/2015	2 yr
Preamplifier 18 to 40 GHz	Avantek	AWT-40039	FM22038832	11/25/2015	1 yr
Horn Antenna 1 to 18 GHz	ETS-Lindgren	3117	00143292	1/14/2015	2 yr
Horn Antenna 1 to 18 GHz	Electro-Metrics	EM-6961	6337	10/11/2015	2 yr
Horn Antenna 700 MHz to 18 GHz	Electro-Metrics	RGA 50/60	2813	11/15/2016	2 yr
Horn Antenna 18-40 GHz	Com Power	AH-840	03075	9/24/2016	2 yr
Barometer	Control Company	4195	Cal ID# 236	2/25/2015	2 yr

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

4. Measurements Parameters (continued)

4.2. Measurement & Equipment Setup

Test Dates:	11/7/2014, 11/10/2014, 11/11/2014, 11/12/2014, 11/13/2014, 12/11/2014
Test Engineers:	Brian Breault, Larry Stillings
Normal Site Temperature (15 - 35°C):	21.6
Relative Humidity (20 -75%RH):	35
Frequency Range:	32 kHz to 40 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	200 Hz – 32 kHz to 150 kHz 9 kHz – 150 kHz to 30 MHz 120 kHz - 30 MHz to 1 GHz 1 MHz - Above 1 GHz
EMI Receiver Avg Bandwidth:	300 Hz – 32 kHz 50 150 kHz 30 kHz – 150 kHz to 30 MHz 300 kHz - 30 MHz to 1 GHz 3 MHz - Above 1 GHz
Detector Function:	Peak, Quasi-Peak & Average

4.3. Measurement Procedure

Test measurements were made in accordance FCC Parts 15.209, 15.519 Subpart F.

The test methods used to generate the data is this test report is in accordance with ANSI C63.10:2009, American National Standard for Testing Unlicensed Wireless Devices.

4.4. Measurement Uncertainty

The following uncertainties are expressed for an expansion/coverage factor of K=2.

RF Frequency (out of band)	$\pm$ 1x10^{-8}
Radiated Emission of Transmitter to 100 GHz	$\pm$ 4.55 dB
Radiated Emission of Receiver	$\pm$ 4.55 dB
Temperature	$\pm$ 0.91^{o} C
Humidity	$\pm$ 5%

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

5. Measurements Summary

Test Requirement	FCC Rule Requirement	Test Report Section	Result	Comment
Antenna Requirement	15.203	6.1	Compliant	The antenna is housed within a sealed enclosure with the intentional radiator.
Operational Requirements	15.519 (a)	6.2	Compliant	
UWB Bandwidth	15.519 (b)	6.3	Compliant	
Spurious Radiated Emissions	15.519 (c) 15.209	6.4	Compliant	
Radiated Emissions in GPS Bands	15. 519 (d) 15.209			
Peak Emissions in a 50 MHz Bandwidth	15.519 (e)	6.5	Compliant	
Conducted Emissions	15.207	N/A	N/A	Battery Powered Device
Radio Frequency Exposure	FCC OET Bulletin 65	6.6	Compliant	

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data

6.1. Antenna Requirement (15.203)

Requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply

Result: The antenna utilized by the device under test is an internal, non user replaceable unit.

6.2. Operational Requirements of the Device under Test (15.519 (a))

Requirement: UWB device operating under the provisions of this section must be hand held, i.e., they are relatively small device that are primarily hand held while being operated and do not employ a fixed infrastructure. UWB devices operating under the provisions of this section may operate indoors or outdoors.

Result: Compliant,

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

6.3. UWB Bandwidth (15.519 (b))

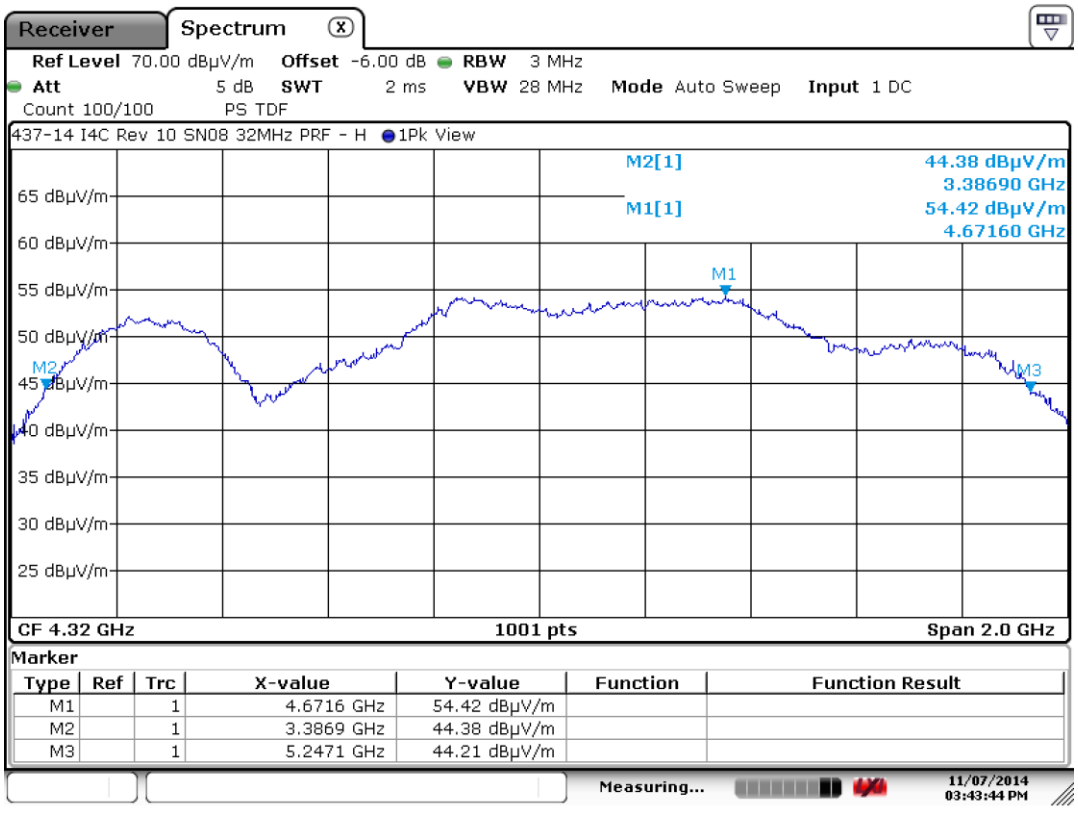
Requirement: The UWB bandwidth of a device operating under the provisions of this section shall be contained between 3,100 MHz and 10,600 MHz.

6.3.1. Measurement Data – Long Pulse Mode (Values in GHz)

f_M	The highest emission peak	4.6716
f_L	10 dB below the highest peak	3.3869
f_H	10 dB above the highest peak	5.2471
f_C	Calculated: $(f_H + f_L) / 2$	4.3170
Bandwidth	Calculated: $(f_H - f_L)$	1.8602
Fractional BW	Calculated: $2*(f_H - f_L) / (f_H + f_L)$	0.4309

Note: The Bandwidth is greater than 500 MHz and therefore the fractional bandwidth requirement does not need to be met.

6.3.2. Measurement Plot of 10 dB frequencies



Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

6.4. Spurious Radiated Emissions (15.519 (c), 15.209)

Requirement: The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in Section 15.209. The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

Frequency (MHz)	EIRP (dBm)	EIRP at 3 Meters (dBµV/m)
960 - 1610	-75.3	19.9
1610 - 1990	-63.3	31.9
1990 - 3100	-61.3	33.9
3100 - 10600	-41.3	53.9
Above 10600	-61.3	33.9

Spurious Radiated Emissions in GPS Bands (15.519 (d))

Requirement: In addition to the radiated emission limits specified in the table in paragraph (d) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

Frequency (MHz)	EIRP (dBm)	EIRP at 3 Meters (dBµV/m)
1164 - 1240	-85.3	9.9
1559 - 1610	-85.3	9.9

Radiated Emissions Field Strength Limits at 3 Meters (Section 15.209)

Frequency (MHz)	Field Strength (dBµV/m)
0.009 to 0.490	128.5 to 93.8
0.490 to 1.705	73.8 to 63
1.705 - 30	69.5
30 - 88	40
88 - 216	43.5
216 - 960	46
960 - 40,000	54

Test Notes: Refer to Section 4.1 for the test equipment used.

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

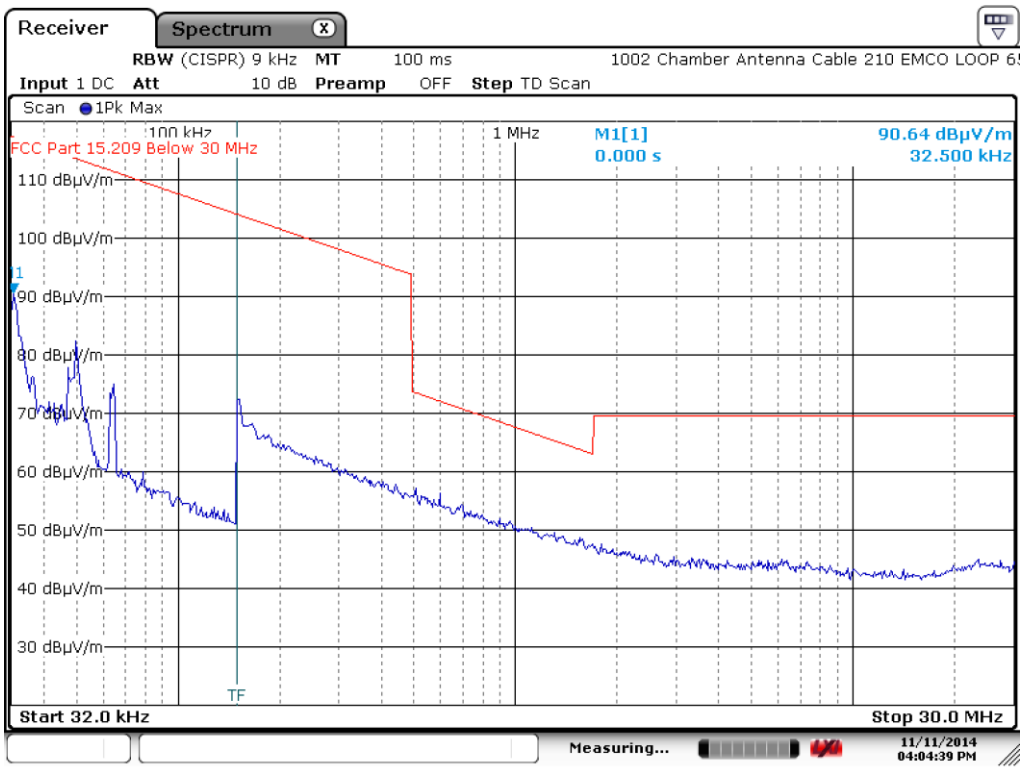
6. Measurement Data (continued)

6.4. Spurious Radiated Emissions (15.519 (c), 15.209)

6.4.1. 32 kHz to 960 MHz, measured at 3 Meters

The device was prescreened in our 3 Meter Semi-Anechoic Chamber. There were no measurable emissions below 960 MHz on our 3 Meter OATS.

6.4.1.1 Parallel Measurement Antenna – 32 kHz to 30 MHz



Date: 11.NOV.2014 16:04:40

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

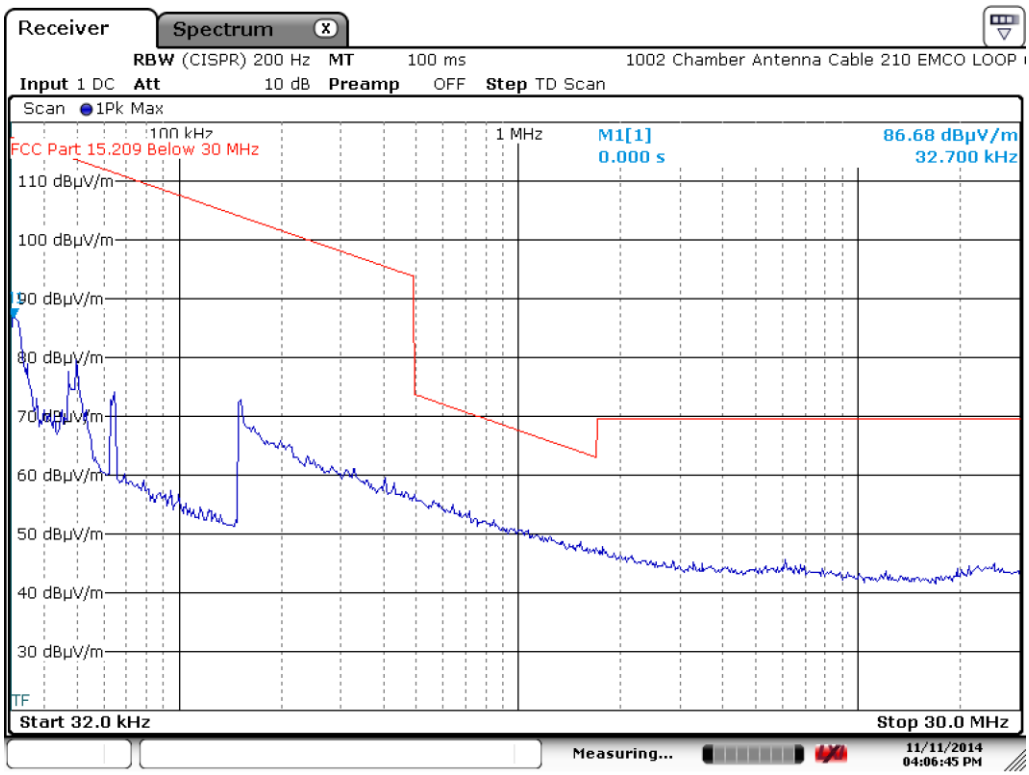
6. Measurement Data (continued)

6.4. Spurious Radiated Emissions (15.519 (c), 15.209)

6.4.1. 32 kHz to 960 MHz, measured at 3 Meters

The device was prescreened in our 3 Meter Semi-Anechoic Chamber. There were no measurable emissions below 960 MHz on our 3 Meter OATS.

6.4.1.2 Perpendicular Measurement Antenna – 32 kHz to 30 MHz



Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

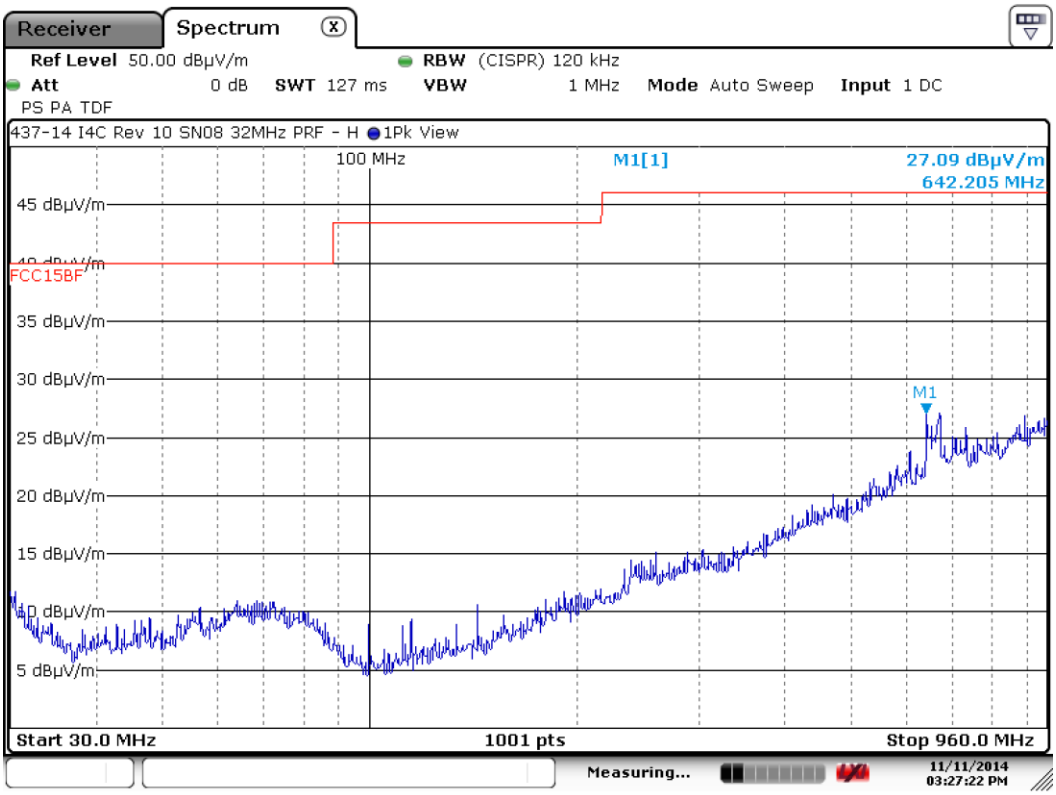
6. Measurement Data (continued)

6.4. Spurious Radiated Emissions (15.519 (c), 15.209)

6.4.1. 32 kHz to 960 MHz, measured at 3 Meters

The device was prescreened in our 3 Meter Semi-Anechoic Chamber. There were no measurable emissions below 960 MHz on our 3 Meter OATS.

6.4.1.3 Horizontal Polarity – 30 to 960 MHz



Date: 11.NOV.2014 15:27:22

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

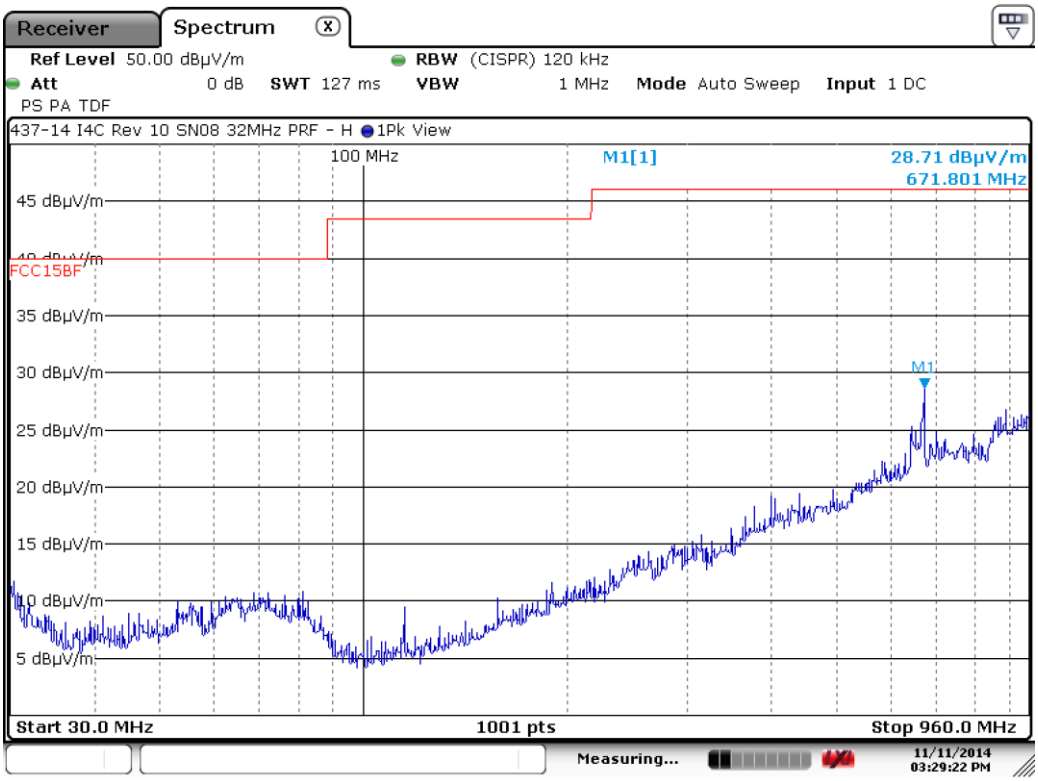
6. Measurement Data (continued)

6.4. Spurious Radiated Emissions (15.519 (c), 15.209)

6.4.1. 32 kHz to 960 MHz, measured at 3 Meters

The device was prescreened in our 3 Meter Semi-Anechoic Chamber. There were no measurable emissions below 960 MHz on our 3 Meter OATS.

6.4.1.4 Vertical Polarity – 30 to 960 MHz



Date: 11.NOV.2014 15:29:23

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

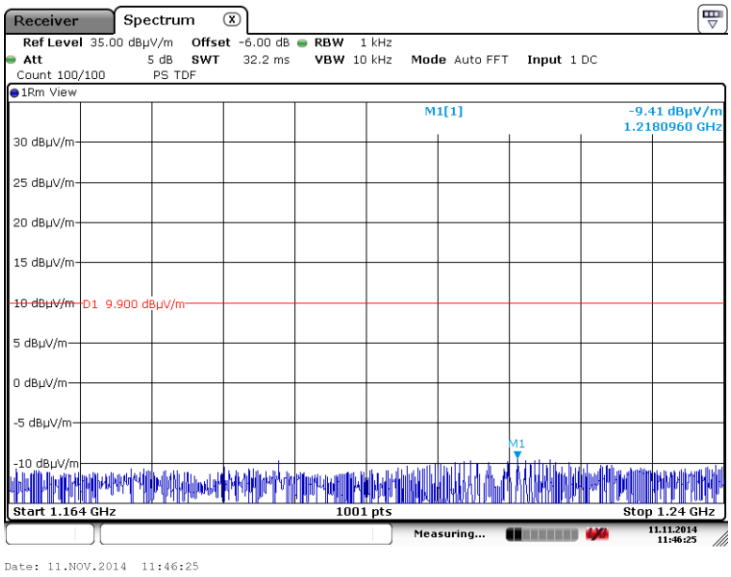
6. Measurement Data (continued)

6.4. Spurious Radiated Emissions in GPS Bands (15.519 (d), 15.209)

6.4.2 1164 to 1240 MHz & 1559 to 1610 MHz

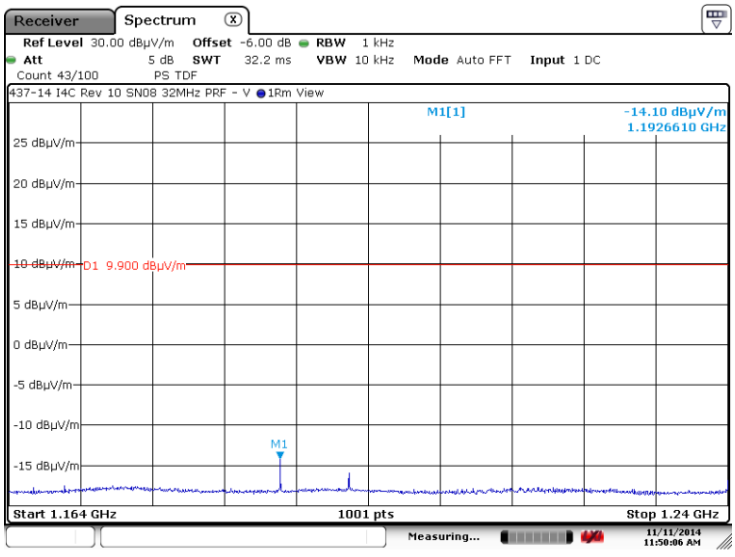
There were no broadband emissions related to the UWB transmitter. Measured signals were narrowband and related to the microprocessor / clocks and do not fall under the requirements of this section. Measurements were made at 1.5 Meters using a 6 dB distance offset and the -85.3 dBm limit was converted to a field strength limit of 9.9 dBuV/m.

6.4.2.1 Horizontal Measurement Polarity 1164 to 1240 MHz



Date: 11.NOV.2014 11:46:25

6.4.2.2 Vertical Measurement Polarity 1164 to 1240 MHz



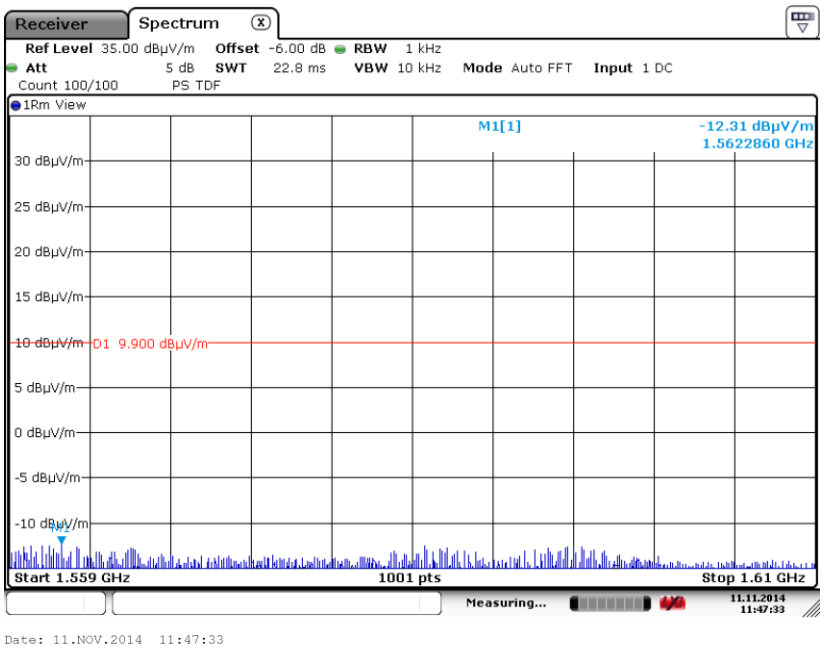
Date: 11.NOV.2014 11:50:06

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

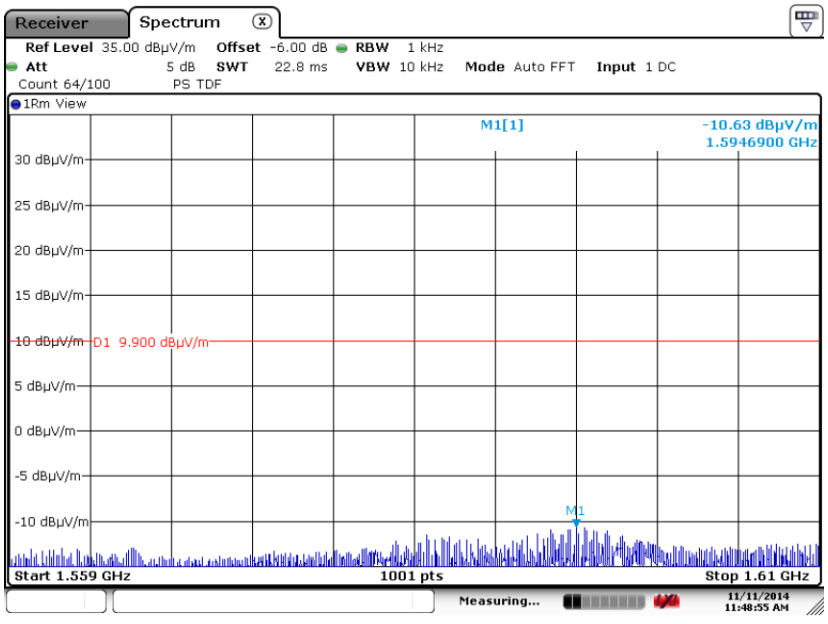
6.4. Spurious Radiated Emissions in GPS Bands (15.519 (d), 15.209)

6.4.2.3 Horizontal Measurement Polarity 1559 to 1610 MHz



Date: 11.NOV.2014 11:47:33

6.4.2.4 Vertical Measurement Polarity 1559 to 1610 MHz



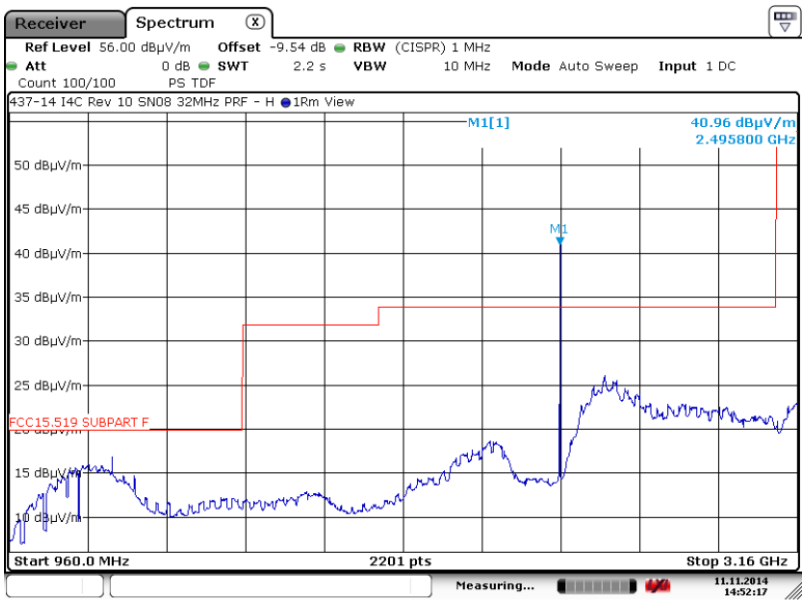
Date: 11.NOV.2014 11:48:55

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

6.4. Spurious Radiated Emissions (15.515 (d), 15.209)

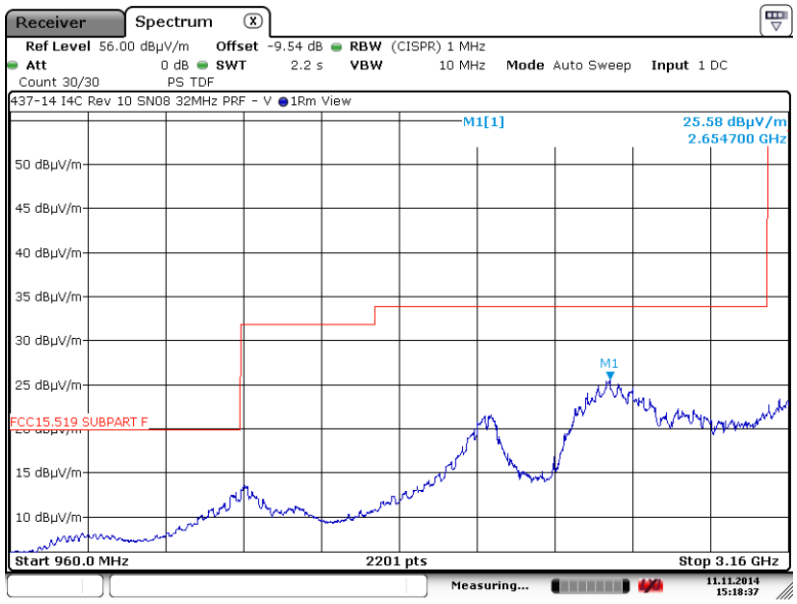
6.4.3. 960 MHz to 3.16 GHz Horizontal



Date: 11.NOV.2014 14:52:17

Note: Signal at 2.4958 GHz is the LO and is not intended to be transmitted out the antenna.

6.4.4. 960 MHz to 3.16 GHz Vertical



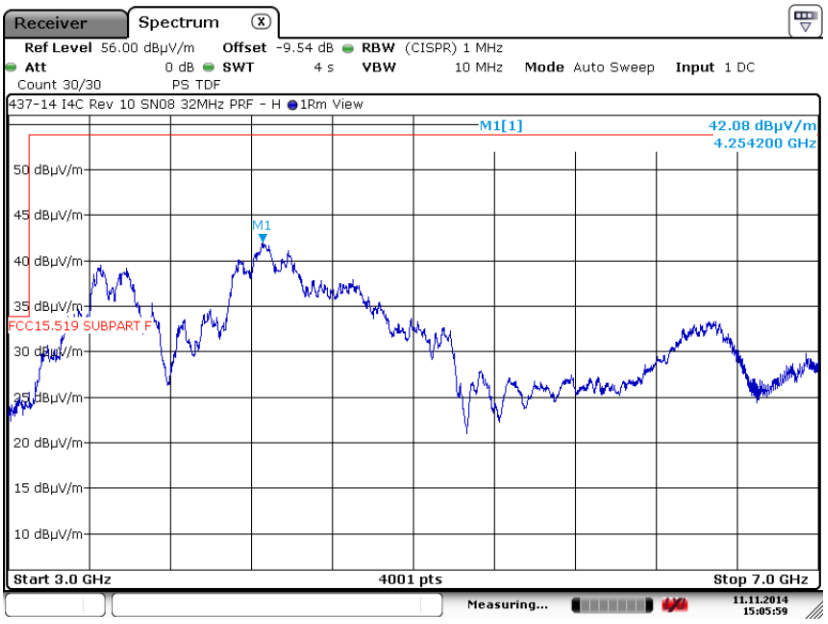
Date: 11.NOV.2014 15:18:37

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

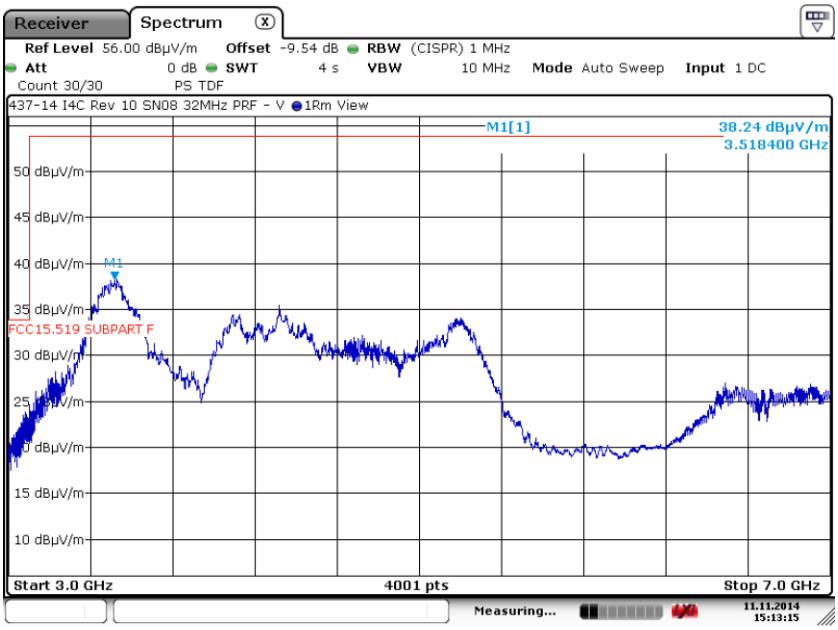
6.4. Spurious Radiated Emissions (15.515 (d), 15.209)

6.4.5. 3 to 7 GHz Horizontal



Date: 11.NOV.2014 15:05:59

6.4.6. 3 to 7 GHz Vertical



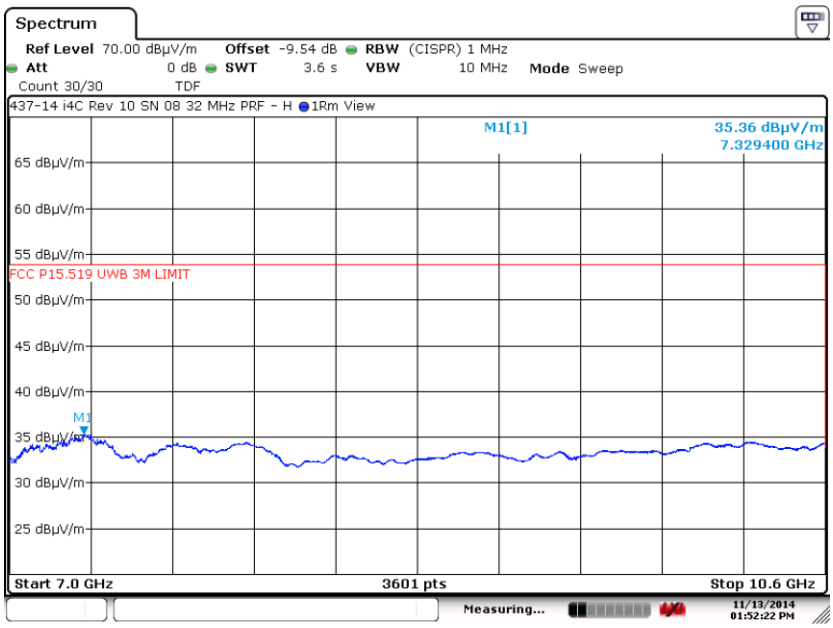
Date: 11.NOV.2014 15:13:16

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

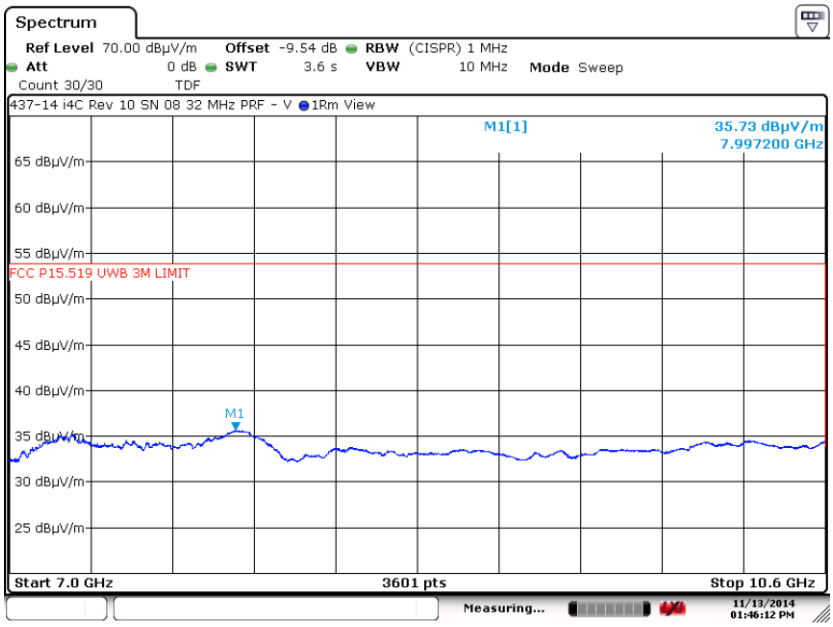
6.4. Spurious Radiated Emissions (15.515 (d), 15.209)

6.4.7. 7 to 10.6 GHz Horizontal (on Phantom)



Date: 13.NOV.2014 13:52:22

6.4.8. 7 to 10.6 GHz Vertical (on Phantom)



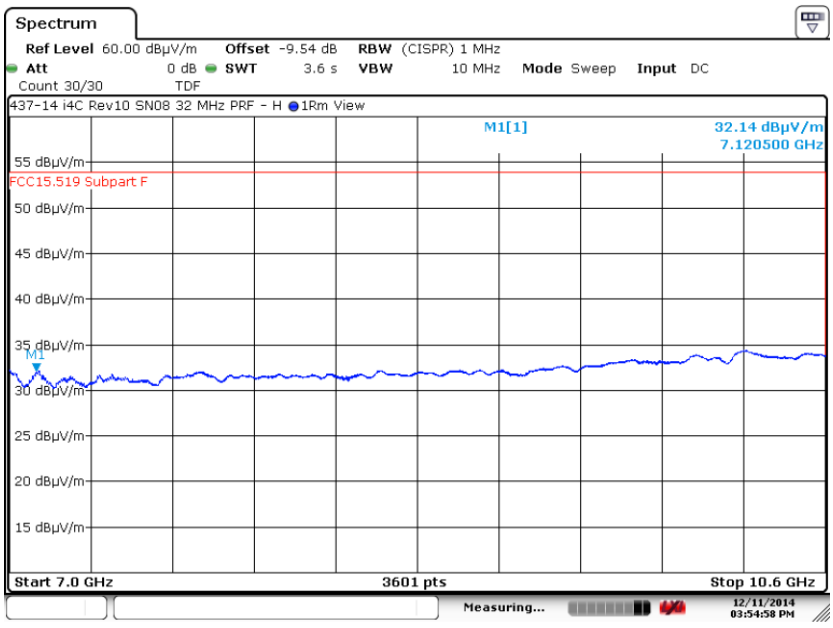
Date: 13.NOV.2014 13:46:12

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

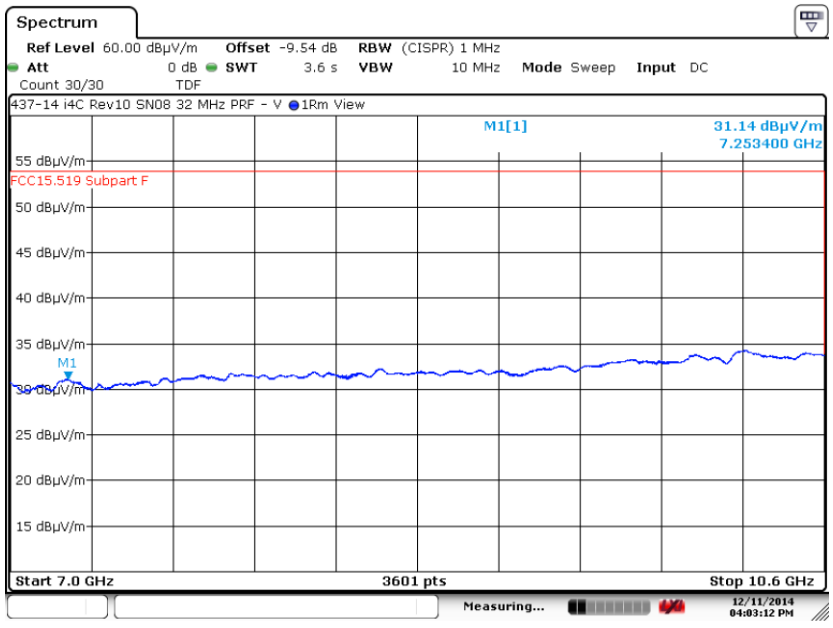
6.4. Spurious Radiated Emissions (15.515 (d), 15.209)

6.4.9. 7 to 10.6 GHz Horizontal (free space) at 1 meter



Date: 11.DEC.2014 15:54:58

6.4.10. 7 to 10.6 GHz Vertical (free space) at 1 meter



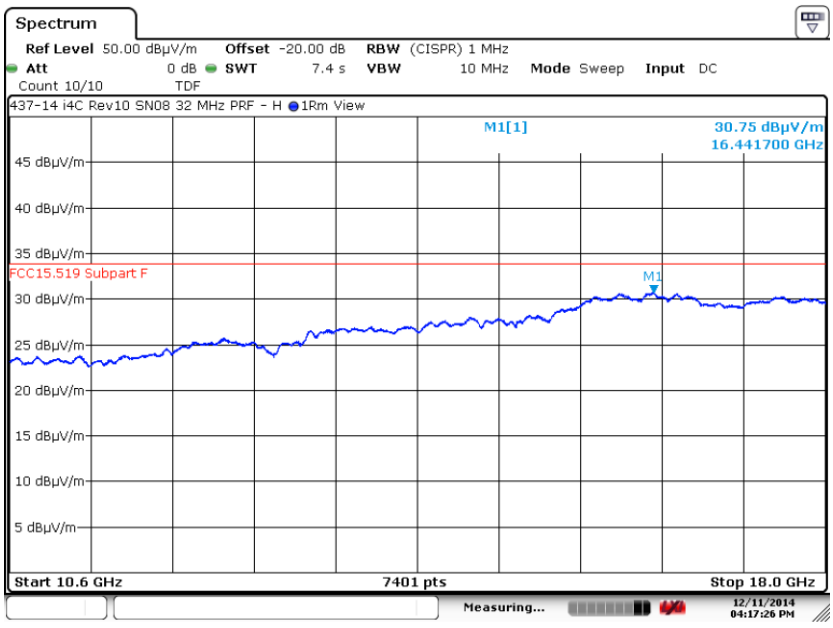
Date: 11.DEC.2014 16:03:12

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

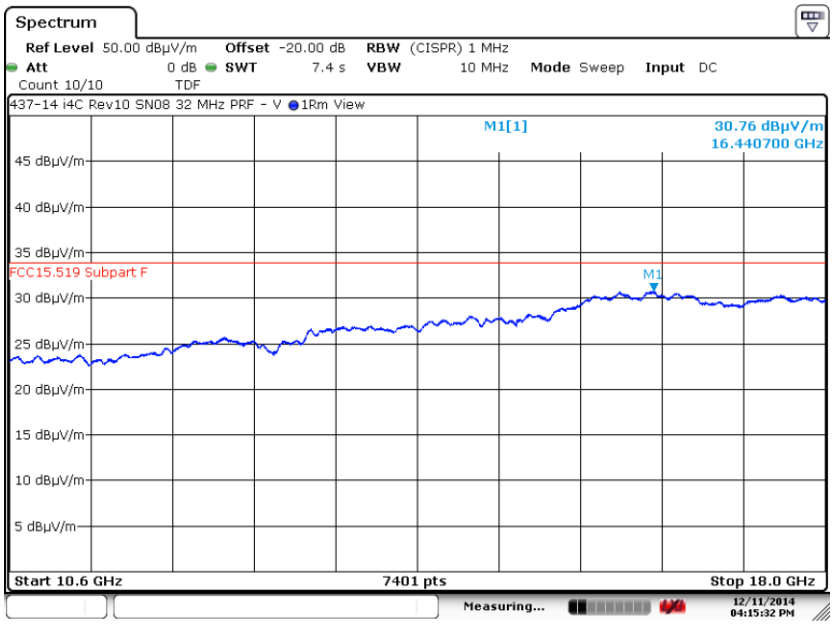
6.4. Spurious Radiated Emissions (15.515 (d), 15.209)

6.4.11. 10.6 to 18 GHz Horizontal (free space) at 0.3 meters



Date: 11.DEC.2014 16:17:26

6.4.12. 10.6 to 18 GHz Vertical (free space) at 0.3 meters



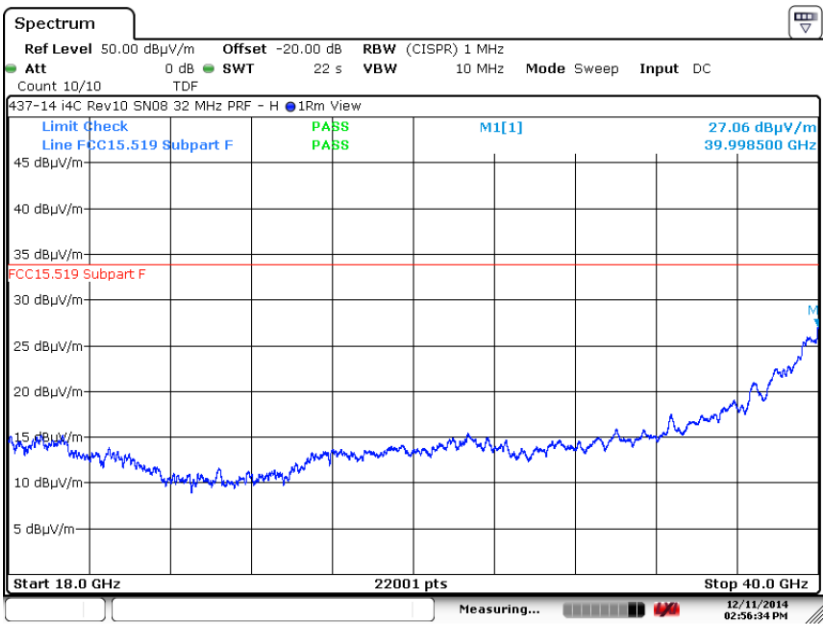
Date: 11.DEC.2014 16:15:32

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

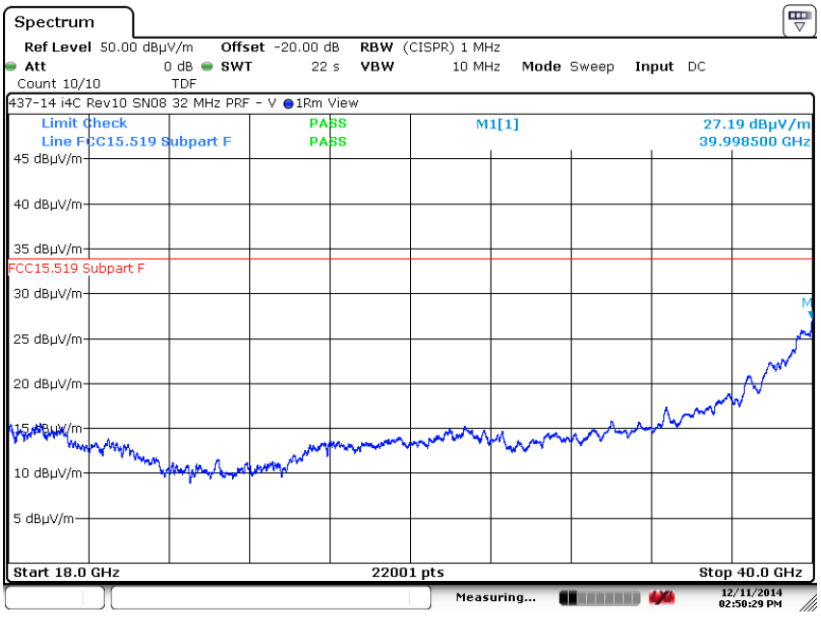
6.4. Spurious Radiated Emissions (15.515 (d), 15.209)

6.4.13. 18 to 40 GHz Horizontal (free space) at 0.3 meters



Date: 11.DEC.2014 14:56:34

6.4.14. 18 to 40 GHz Vertical (free space) at 0.3 meters



Date: 11.DEC.2014 14:50:28

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

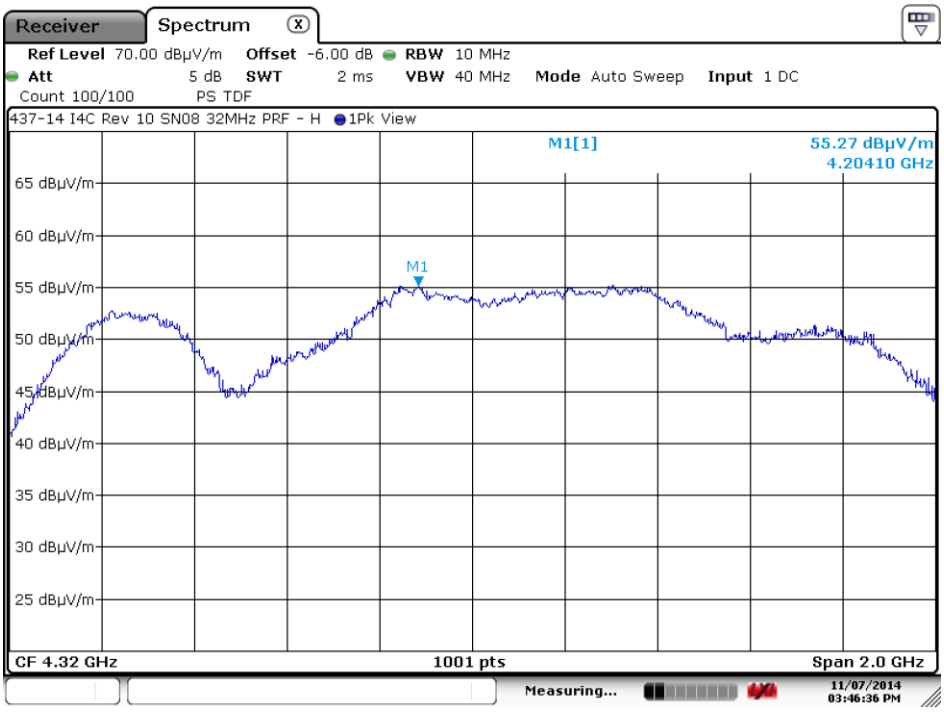
6.5. Peak Emissions in a 50 MHz Bandwidth (15.519 (e))

Requirement: There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, f_M. That limit is 0 dBm EIRP. It is acceptable to employ a different resolution bandwidth, and a correspondingly different peak emission limit, following the procedures described in Section 15.521.

Refer to the measurement data in Section 6.3. The resolution bandwidth used to perform the measurements was 10 MHz and the limit was adjusted to -13.98 dBm at 3 meters.

Highest emission peak (f_M) GHz:	4.2041
Adjusted limit based on a 10 MHz bandwidth dBm:	-13.98
Adjusted limit based on a 10 MHz bandwidth dBµV/m:	81.22
Measured value adjusted for 3 Meter distance in 10 MHz	55.27
Margin dB:	25.95

6.5.1 Plot of Peak Power on Phantom at 1.5 Meters using 6 dB distance offset



Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

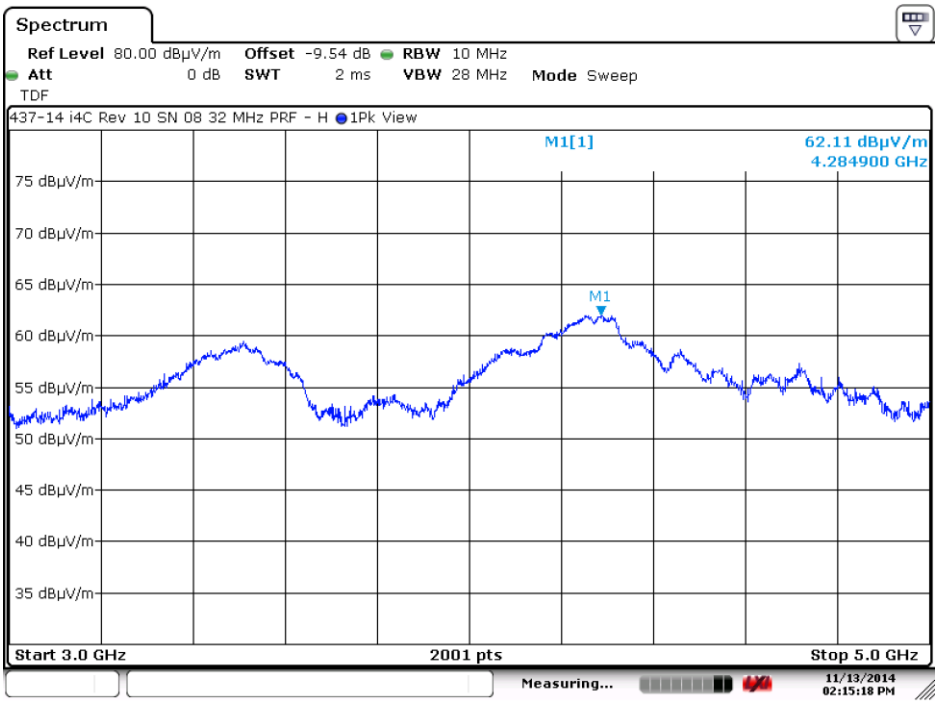
6.5. Peak Emissions in a 50 MHz Bandwidth (15.519 (e)) cont.

Requirement: There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, f_M. That limit is 0 dBm EIRP. It is acceptable to employ a different resolution bandwidth, and a correspondingly different peak emission limit, following the procedures described in Section 15.521.

Refer to the measurement data in Section 6.3. The resolution bandwidth used to perform the measurements was 10 MHz and the limit was adjusted to -13.98 dBm at 3 meters.

Highest emission peak (f_M) GHz:	4.2849
Adjusted limit based on a 10 MHz bandwidth dBm:	-13.98
Adjusted limit based on a 10 MHz bandwidth dBµV/m:	81.22
Measured value adjusted for 3 Meter distance in 10 MHz	62.11
Margin dB:	19.11

6.5.2 Plot of Peak Power off of Phantom at 1 Meter using 9.54 dB distance offset



Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

6.6. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1))

6.6.1. SAR Test Exclusion Calculation

Requirement: Portable devices as defined in § 2.1093 of this chapter operating under Part 15 are subject to radio frequency radiation exposure requirements as specified in §§ 1.1307(b) and 2.1093 of this chapter.

For a 1-g SAR, the test exclusion result must be ≤ 3.0.

Test Notes: The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by the following formula:

$$\text{SAR Test Exclusion} = \frac{P_{MAX}}{d_{MIN}} \times \sqrt{f_{(GHz)}} \quad (1)$$

P_{MAX}	mW	Maximum power of channel, including tune-up tolerance
d_{MIN}	mm	Minimum test separation distance, mm (≤ 50 mm)
$f_{(GHz)}$	GHz	$f_{(GHz)}$ is the RF channel transmit frequency in GHz (>100 MHz and <6 GHz)

(1) FCC OET 447498 - Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

Result: The device under test meets the exclusion requirement detailed in FCC OET 447498.

		Phantom Data	Without Phantom Data
Input:	P_{MAX}[1] (mW)	0.0001	0.0004
	d_{MIN} (mm)	5.00	5.00
	$f_{(GHz)}$	4.204	4.285
Test Exclusion:		**0.00003**	**0.0002**
Limit Exemption:		**3.00**	**3.00**

[1] Taken from the peak data in Section 6.5 of this test report (converted to mW).

The device does not exceed the test limit exemption and therefore a routine SAR Evaluation is not required

Note: Phantom Data consisted of using a Speag cylinder, Model: Dog Neck, PN: QD DOG 001 BA, Serial # 1001. The Speag cylinder has a length of 30 cm, a diameter of 15 cm (representative of an average neck size for a medium to large dog). The Gel is SPEAG head gel (closest match to neck tissue) and ¼" foam spacing was used on the phantom to approximate the dog's fur.

Specifications for the Speag cylinder may be found on the next pages.

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

6.6. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1)) (cont.)

Measured data of Head Gel Material

f(MHz)	eps.R	sigma(S/m)	loss tangent	f(MHz)	eps.R	sigma(S/m)	loss tangent
1000	43.71	1.06	0.43	2550	40.30	2.01	0.35
1050	43.51	1.08	0.42	2600	40.17	2.06	0.35
1100	43.39	1.11	0.42	2650	40.04	2.10	0.36
1150	43.25	1.12	0.41	2700	39.97	2.15	0.36
1200	43.10	1.16	0.40	2750	39.82	2.18	0.36
1250	42.98	1.18	0.40	2800	39.74	2.23	0.36
1300	42.84	1.20	0.39	2850	39.66	2.27	0.36
1350	42.67	1.24	0.39	2900	39.54	2.32	0.36
1400	42.59	1.26	0.38	2950	39.45	2.36	0.36
1450	42.42	1.28	0.38	3000	39.34	2.40	0.37
1500	42.32	1.31	0.37	3050	39.22	2.45	0.37
1550	42.20	1.34	0.37	3100	39.14	2.48	0.37
1600	42.05	1.37	0.36	3150	39.01	2.53	0.37
1650	41.95	1.39	0.36	3200	38.94	2.57	0.37
1700	41.81	1.42	0.36	3250	38.83	2.61	0.37
1750	41.73	1.46	0.36	3300	38.71	2.65	0.37
1800	41.64	1.49	0.36	3350	38.66	2.70	0.37
1850	41.55	1.52	0.36	3400	38.53	2.74	0.38
1900	41.45	1.55	0.35	3450	38.46	2.79	0.38
1950	41.37	1.58	0.35	3500	38.39	2.83	0.38
2000	41.27	1.62	0.35	3550	38.28	2.88	0.38
2050	41.23	1.65	0.35	3600	38.24	2.93	0.38
2100	41.10	1.68	0.35	3650	38.12	2.97	0.38
2150	41.01	1.72	0.35	3700	38.05	3.02	0.39
2200	40.92	1.76	0.35	3750	37.99	3.06	0.39
2250	40.82	1.80	0.35	3800	37.86	3.11	0.39
2300	40.75	1.83	0.35	3850	37.82	3.16	0.39
2350	40.66	1.87	0.35	3900	37.71	3.21	0.39
2400	40.55	1.91	0.35	3950	37.64	3.26	0.39
2450	40.49	1.94	0.35	4000	37.59	3.30	0.39
2500	40.37	1.98	0.35	4050	37.46	3.36	0.40

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

6. Measurement Data (continued)

6.6. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1)) (cont.)

Measured data of Head Gel Material

f(MHz)	eps. R	sigma(S/m)	loss tangent	f(MHz)	eps.R	sigma(S/m)	loss tangent
4100	37.42	3.41	0.40	5650	34.63	5.06	0.46
4150	37.33	3.45	0.40	5700	34.59	5.11	0.47
4200	37.25	3.51	0.40	5750	34.47	5.16	0.47
4250	37.20	3.55	0.40	5800	34.39	5.22	0.47
4300	37.08	3.60	0.41	5850	34.33	5.28	0.47
4350	37.00	3.66	0.41	5900	34.21	5.33	0.47
4400	36.92	3.71	0.41	5950	34.17	5.39	0.48
4450	36.80	3.77	0.41	6000	34.06	5.43	0.48
4500	36.74	3.82	0.42	6250	33.63	5.71	0.49
4550	36.64	3.87	0.42	6500	33.24	5.98	0.50
4600	36.54	3.93	0.42	6750	32.76	6.25	0.51
4650	36.45	3.99	0.42	7000	32.35	6.53	0.52
4700	36.36	4.05	0.43	7250	31.87	6.85	0.53
4750	36.30	4.10	0.43	7500	31.47	7.15	0.54
4800	36.19	4.15	0.43	7750	31.06	7.44	0.56
4850	36.10	4.21	0.43	8000	30.69	7.73	0.57
4900	36.02	4.26	0.43				
4950	35.92	4.32	0.44				
5000	35.84	4.37	0.44				
5050	35.73	4.42	0.44				
5100	35.63	4.49	0.44				
5150	35.55	4.54	0.45				
5200	35.48	4.59	0.45				
5250	35.38	4.64	0.45				
5300	35.31	4.69	0.45				
5350	35.23	4.74	0.45				
5400	35.13	4.79	0.45				
5450	35.06	4.84	0.46				
5500	34.94	4.88	0.46				
5550	34.83	4.94	0.46				
5600	34.75	5.00	0.46				

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com

8. Test Site Description

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with Federal Communications Commission (FCC) and Industry Canada standards. A description of the test sites is on file with the FCC (registration number **96392**) and Industry Canada (file number **IC 3023A-1)**.

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

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

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

Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax 887 6445
http://www.cw-inc.com