EMISSIONS TEST REPORT

Report Number: 100415616BOX-001a
Project Number: G100415616

Report Issue Date: 05/31/2011

Product Designation: **RV670A01 Echo® Wireless Vibration Sensor with Raw Vibration (RV) Output**

Standards: **Industry Canada RSS-210 Issue 8 December 2010, "Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment"**
Industry Canada RSS-Gen Issue 3 December 2010 "General Requirements and Information for the Certification of Radio Apparatus"
ICES-003: Issue 4 (2004), "Technical requirements relative to the radiated and conducted radio noise emissions from digital apparatus"
CFR47 "Telecommunications" FCC Part 15 Subpart C:2010 "Intentional Radiators" 15.249 "Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHZ, and 24.0-24.25 GHz"

Tested by:
Intertek Testing Services NA, Inc.
70 Codman Hill Road
Boxborough, MA 01719

Client:
PCB Piezotronics Inc
3425 Walden Avenue
Depew, NY 14043

Report prepared by

Vathana F. Ven/Senior Project Engineer

Report reviewed by

Michael F. Murphy/EMC Staff Engineer

1 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 3.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested **complies** with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

2 Test Summary

Section	Test full name	Result
3	Client Information	
4	Description of Equipment Under Test	
5	System Setup and Method	
6	Fundamental Field Strength (IC RSS-210 A2.9(a), FCC §15.249(a),(e))	Pass
7	Transmitter Occupied Bandwidth (IC RSS-Gen Section 4.6, FCC 15.215)	Pass
8	Transmitter Radiated Spurious Emissions (IC RSS-210 A2.9; IC RSS-Gen Section 4.9, 4.10, 6.0, FCC §15.209, 15.249(a),(d))	Pass
9	AC Mains Conducted Emissions (IC RSS-Gen Section 7.2.4, FCC §15.207)	N/A*
10	Revision History	

* - EUT is battery powered

3 Client Information

This EUT was tested at the request of:

Company: PCB Piezotronics Inc
3425 Walden Avenue
Depew, NY 14043

Contact: Dave Corelli
Telephone: (716) 684-0002 EXT. 2294
Fax: (716) 684-0978
Email: DCorelli@pcb.com

4 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
RV670A01 Echo® Wireless Vibration Sensor with Raw Vibration (RV) Output	PCB Piezotronics Inc	RV670A01 Echo®	150

Receive Date:	05/24 and 05/31/2010
Received Condition:	Good
Type:	Production

Description of Equipment Under Test (provided by client)
The EUT is a Echo Vibration Sensor.

Equipment Under Test Power Configuration			
Rated Voltage	Rated Current	Rated Frequency (Hz)	Number of Phases
3.0V	N/L	N/A (DC)	N/A

Operating modes of the EUT:

No.	Descriptions of EUT Exercising
1	The EUT was activated from a fresh battery throughout testing. Testing was performed with the 916 MHz transmitter set to normal burst lengths but configured to transmit the burst repetitively to aid in testing. The EUT was also tested in idle mode.
2	

5 System Setup and Method

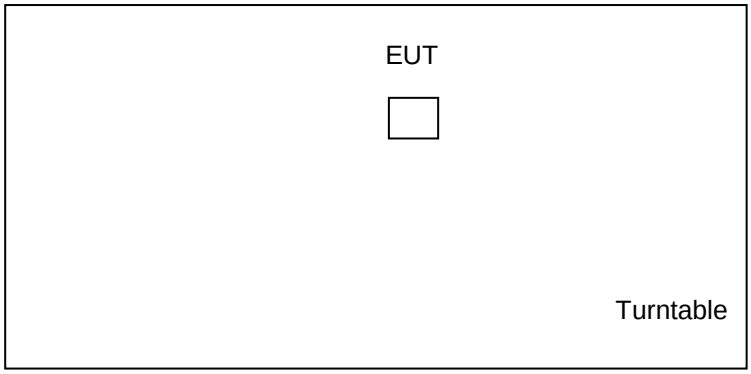
Cables					
ID	Description	Length (m)	Shielding	Ferrites	Termination
	None				

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
None			

5.1 Method:

Configuration as required by RSS-Gen Issue 3 December 2010 and ANSI C63.4:2003.

5.2 EUT Block Diagram:



6 Fundamental Field Strength

6.1 Method

Tests are performed in accordance with IC RSS-210 A2.9(a), FCC §15.249(a),(e).

TEST SITE: 10m ALSE

The 10m ALSE is 13m (Length) x 21m (Depth) x 10m (Height) with the effective size in terms of space from the tips of the absorber is 12m (Length) x 20m (Depth) x 8.5m (Height). This chamber achieves broadband performance using a unique arrangement of hybrid and ferrite tile absorber. This chamber has a built in 3m diameter turntable (Embedded type). The metal structure of the table makes electrical connection around the entire circumference of the turntable to the ground plane with a metal brush type connection. The turntable is located on one end of the chamber and the antennas are mounted 3 and 10 meters away at the other end of the chamber on the adjustable an Antenna Mast. The antenna mast is a non-conductive bore sighted type with remote control of antenna height and polarization. The Antenna Mast and the turntable can be remotely controlled through the controller located in the adjacent Control room. A wooden table 80 cm high is used for table-top equipment.

6.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
~DAV004	Weather Station	Davis Instruments	7400	PE80529A61 A	06/11/2010	06/11/2011
~145128	EMI Receiver 40 GHz (20 Hz - 40 Ghz)	Rohde & Schwarz	ESI	8392831001	08/10/2010	08/10/2011
~145-410	Cables 145-400 145-406 145-407 145-405 145-403	Huber + Suhner	10m Track A Cables	multiple	08/31/2010	08/31/2011
~ 145 106	Bilog Antenna	Sunol Sciences	JB5	A111003	07/20/2010	07/20/2011
~145 003	Preamplifier (150 KHz to 1.3 GHz)	Hewlett Packard	8447D	2443A04077	09/16/2010	09/16/2011

Software Utilized:

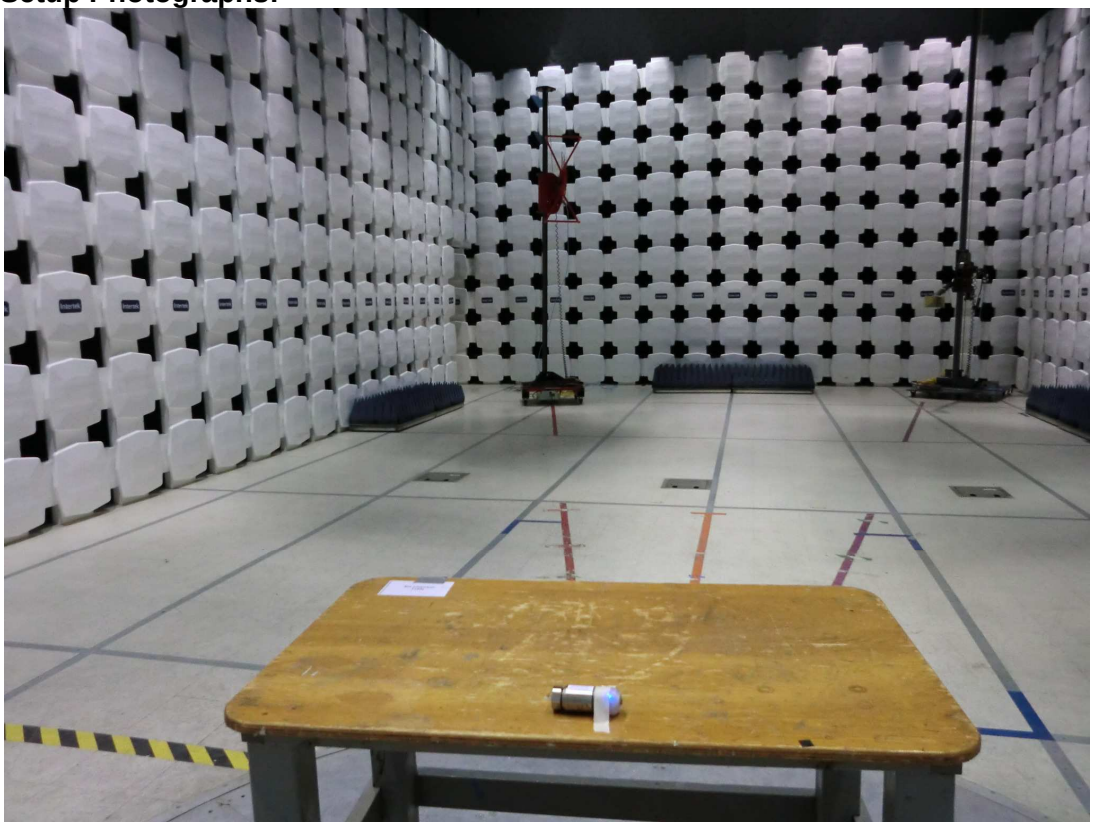
Name	Manufacturer	Version
EMI Boxborough.xls	Intertek	08/27/2010

6.3 Results:

The fundamental field strength must not exceed an average limit of 94 dBuV/m and a peak limit of 114 dBuV/m, which is 20 dB higher than the average limit.

The sample tested was found to Comply.

6.4 Setup Photographs:



6.5 Test Data:

Radiated Emissions

Company: PCB Pieztronics
Model #: RV670A01 Echo®
Serial #: 150
Engineers: Vathana Ven
Project #: G100415616
Standard: FCC Part 15 Subpart C 15.249/RSS-210
Receiver: R&S ESI (145-128) 08-10-2011
PreAmp: PRE145003 9-24-11.txt
Antenna & Cables: N
Antenna: 145-106 10M VER 07-20-11.txt
Cable(s): 10mTrackA 145-410 08-31-2011.txt
Bands: N, LF, HF, SHF
145-106 10M HOR 07-20-11.txt
NONE.
Location: 10M
Barometer: DAV004
Filter: NONE
Date(s): 05/24/11
Temp/Humidity/Pressure: 23 deg C 55% 1000mB
Limit Distance (m): 3
Test Distance (m): 10
PreAmp Used? (Y or N): Y
Voltage/Frequency: Battery powered
Frequency Range: Fundamental Freq.

Net = Reading (dBuV/m) + Antenna Factor (dB1/m) + Cable Loss (dB) - Preamp Factor (dB) - Distance Factor (dB)

Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC	IC	Harmonic?
EUT sits straight up														
PK	H	916.405	70.24	22.20	5.20	28.03	-10.46	80.07	94.00	-13.93	120/300 kHz			
AVG	H	916.405	70.20	22.20	5.20	28.03	-10.46	80.03	94.00	-13.97	120/300 kHz			
PK	V	916.405	82.20	22.53	5.20	28.03	-10.46	92.36	94.00	-1.64	120/300 kHz			
AVG	V	916.405	82.20	22.53	5.20	28.03	-10.46	92.36	94.00	-1.64	120/300 kHz			
EUT on its side														
PK	H	916.405	83.32	22.20	5.20	28.03	-10.46	93.15	94.00	-0.85	120/300 kHz			
AVG	H	916.405	83.32	22.20	5.20	28.03	-10.46	93.15	94.00	-0.85	120/300 kHz			
PK	V	916.405	72.03	22.53	5.20	28.03	-10.46	82.19	94.00	-11.81	120/300 kHz			
AVG	V	916.405	71.93	22.53	5.20	28.03	-10.46	82.09	94.00	-11.91	120/300 kHz			

Note: Peak readings passed Average limits

Test Personnel: Vathana Ven VJV
Product Standard: IC RSS-210 A2.9(a), FCC §15.249(a),(e)
Input Voltage: Fresh Battery
Pretest Verification w/ BB Source: **Ambient**

Test Date: 05/24/2011
Test Levels: Below specified limit
Ambient Temperature: 23 ºC
Relative Humidity: 55 %
Atmospheric Pressure: 1000 mbars

Deviations, Additions, or Exclusions: None

7 Transmitter Occupied Bandwidth

7.1 Method

Tests are performed in accordance with IC RSS-Gen Section 4.6, FCC 15.215.

TEST SITE: 10m ALSE

The 10m ALSE is 13m (Length) x 21m (Depth) x 10m (Height) with the effective size in terms of space from the tips of the absorber is 12m (Length) x 20m (Depth) x 8.5m (Height). This chamber achieves broadband performance using a unique arrangement of hybrid and ferrite tile absorber. This chamber has a built in 3m diameter turntable (Embedded type). The metal structure of the table makes electrical connection around the entire circumference of the turntable to the ground plane with a metal brush type connection. The turntable is located on one end of the chamber and the antennas are mounted 3 and 10 meters away at the other end of the chamber on the adjustable an Antenna Mast. The antenna mast is a non-conductive bore sighted type with remote control of antenna height and polarization. The Antenna Mast and the turntable can be remotely controlled through the controller located in the adjacent Control room. A wooden table 80 cm high is used for table-top equipment.

7.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
~DAV004	Weather Station	Davis Instruments	7400	PE80529A61 A	06/11/2010	06/11/2011
~ROS002	9kHz to 3GHz EMI Test Receiver	Rohde & Schwartz	ESCI 1166.5950K0 3	100067	04/15/2011	04/15/2012
~CBLBNC61	Cables 145-400 145-408 145-402 145-404	Huber + Suhner	3m Track B cables	multiple	08/31/2010	08/31/2011

Software Utilized:

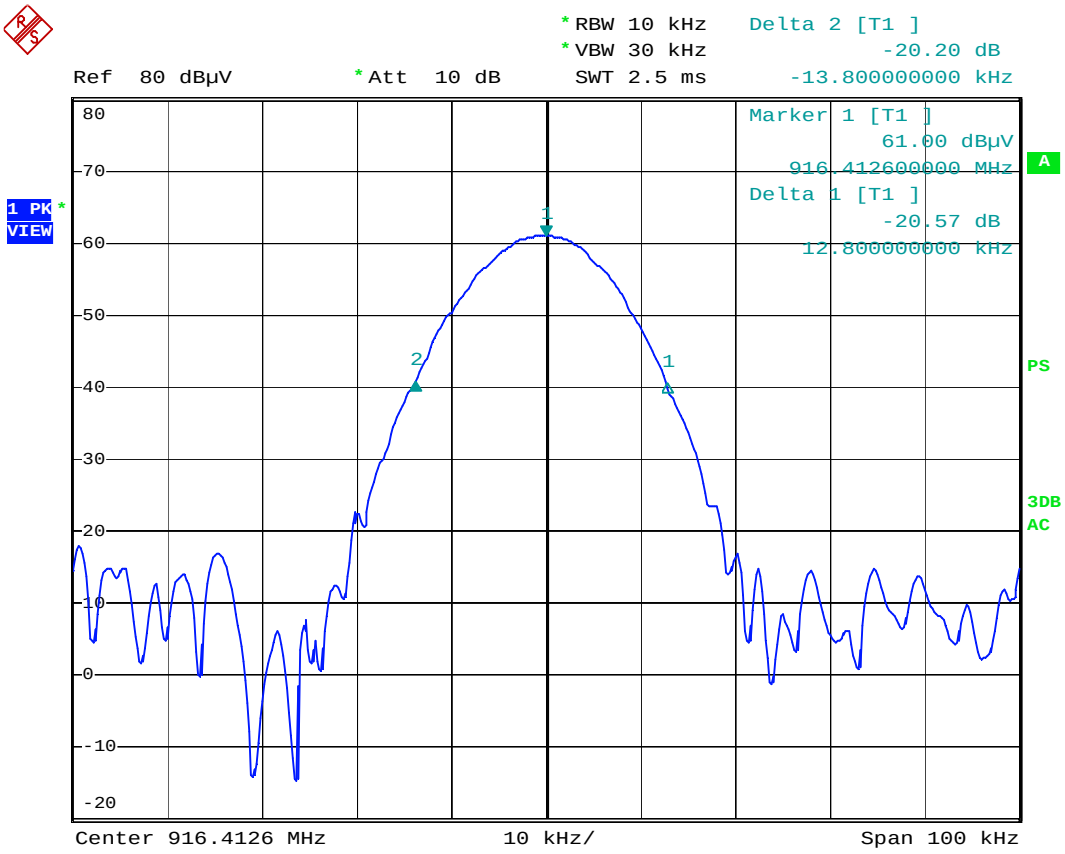
Name	Manufacturer	Version
None (Receiver Firmware)		

7.3 Results:

The 20 dB bandwidth of the fundamental must remain inside the band of operation, 902-928 MHz.

The sample tested was found to Comply.

7.4 Test Data:



Date: 27.MAY.2011 17:05:46

Test Personnel:	Vathana Ven VV	Test Date:	05/27/2011
Product Standard:	IC RSS-210 A2.9(a), FCC §15.249(a),(e)	Test Levels:	Below specified limit
Input Voltage:	Fresh Battery		
Pretest Verification w/ BB Source:	**Ambient**	Ambient Temperature:	23 ºC
		Relative Humidity:	55 %
		Atmospheric Pressure:	1000 mbars

Deviations, Additions, or Exclusions: None

8 Transmitter Radiated Spurious Emissions

8.1 Method

Tests are performed in accordance with IC RSS-210 A2.9; IC RSS-Gen Section 4.9, 4.10, 6.0, FCC §15.209, 15.249(a),(d).

TEST SITE: 10m ALSE

The 10m ALSE is 13m (Length) x 21m (Depth) x 10m (Height) with the effective size in terms of space from the tips of the absorber is 12m (Length) x 20m (Depth) x 8.5m (Height). This chamber achieves broadband performance using a unique arrangement of hybrid and ferrite tile absorber. This chamber has a built in 3m diameter turntable (Embedded type). The metal structure of the table makes electrical connection around the entire circumference of the turntable to the ground plane with a metal brush type connection. The turntable is located on one end of the chamber and the antennas are mounted 3 and 10 meters away at the other end of the chamber on the adjustable an Antenna Mast. The antenna mast is a non-conductive bore sighted type with remote control of antenna height and polarization. The Antenna Mast and the turntable can be remotely controlled through the controller located in the adjacent Control room. A wooden table 80 cm high is used for table-top equipment.

Measurement Uncertainty

For radiated emissions, U_{lab} (3.5 dB at 3m and 3.5 dB at 10m below 1 GHz, and 4.2 dB at 3m above 1 GHz) < U_{CISPR} (5.2 dB), which is the reference value in CISPR 16-4-2 Table 1, hence the compliance of the product is only based on the measured value, and no measurement uncertainty correction is required, based on CISPR 22 and CISPR 11 (for 2006 and later revisions) Clause 11.

Sample Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF - AG
Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows.

Assume a receiver reading of 52.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 52.0 dBμV
AF = 7.4 dB/m
CF = 1.6 dB
AG = 29.0 dB
FS = 32 dBμV/m

To convert from dBμV to μV or mV the following was used:

$UF = 10^{(NF / 20)}$ where UF = Net Reading in μV
NF = Net Reading in dBμV

Example:

FS = RA + AF + CF – AG = 52.0 + 7.4 + 1.6 – 29.0 = 32.0
$UF = 10^{(32\ dB\mu V / 20)}$ = 39.8 μV/m

8.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
~DAV004	Weather Station	Davis Instruments	7400	PE80529A61 A	06/11/2010	06/11/2011
~145-410	Cables 145-400 145-406 145-407 145-405 145-403	Huber + Suhner	10m Track A Cables	multiple	08/31/2010	08/31/2011
~145106	Bilog Antenna (30MHz - 5GHz)	Sunol Sciences	JB5	A111003	07/20/2010	07/20/2011
~145003	Preamplifier (150 KHz to 1.3 GHz)	Hewlett Packard	8447D	2443A04077	09/24/2010	09/24/2011
~145128	EMI Receiver 40 GHz (20 Hz - 40 Ghz)	Rohde & Schwarz	ESI	8392831001	08/10/2010	08/10/2011
~HORN2	HORN ANTENNA	EMCO	3115	9602-4675	10/08/2010	10/08/2011
~145-416	Cables 145-400 145-408 145-402 145-404	Huber + Suhner	3m Track B cables	multiple	08/31/2010	08/31/2011
~REA003	1GHz High Pass Filter	Reactel, Inc	7HS-1G/10G-S11	06-1	12/06/2010	12/06/2011
~145 014	Preamplifier (1 GHz to 26.5 GHz)	Hewlett Packard	8449B	3008A00232	12/28/2010	12/28/2011

Software Utilized:

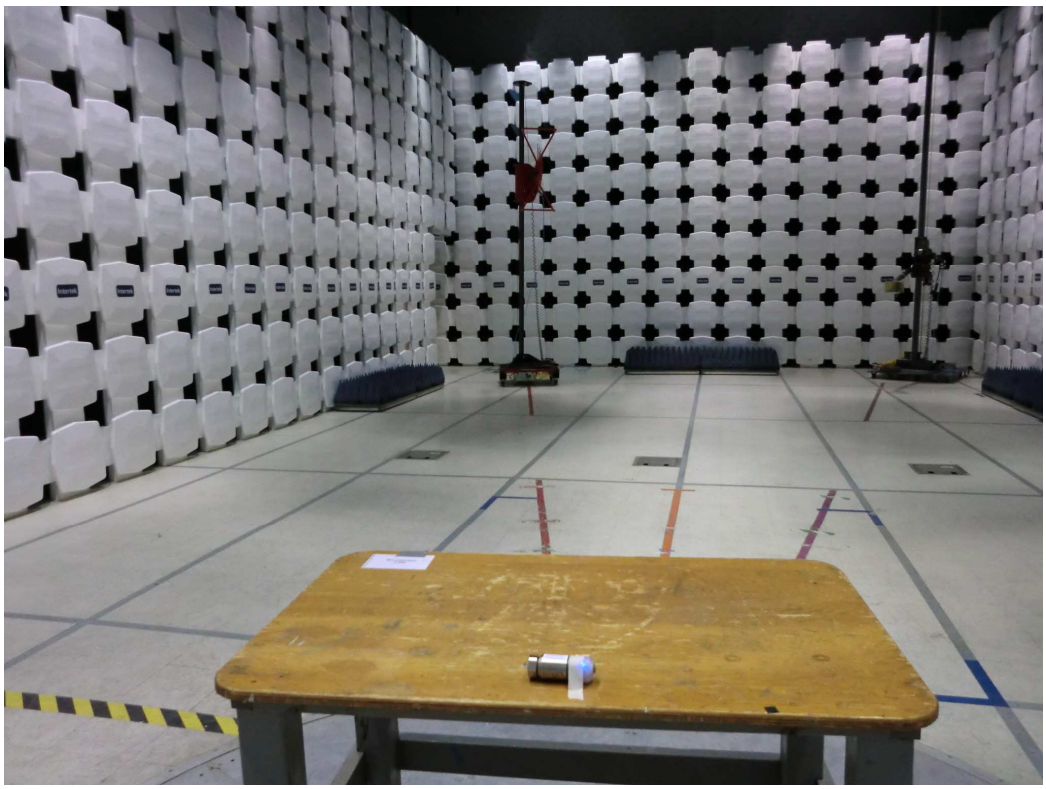
Name	Manufacturer	Version
C5	Teseq	Build 5.26.00.3
EMI Boxborough.xls	Intertek	08/27/2010

8.3 Results:

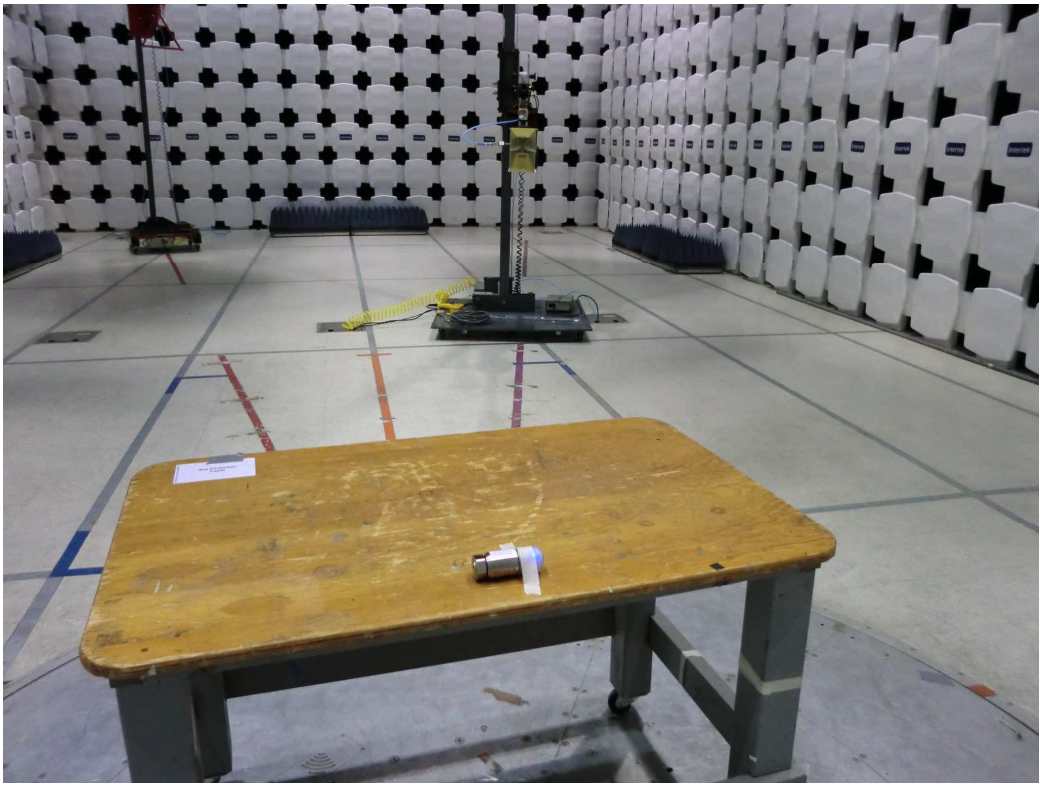
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209 and RSS-Gen Table 1, whichever is the lesser attenuation. Harmonic emissions must not exceed an average limit of 54 dBuV/m and a peak limit of 74 dBuV/m.

The sample tested was found to Comply.

8.4 Setup Photographs:



30-1000 MHz



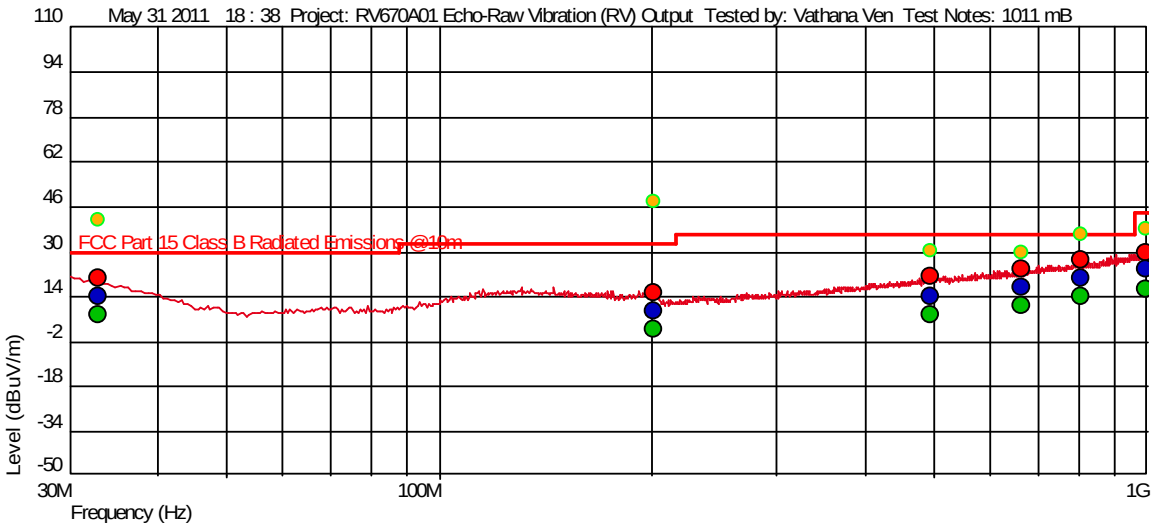
1-10 GHz

Test Data:

IC RSS-210 A2.9(a), FCC §15.249(a),(e), ICES003

Test Information

Test Details	User Input
Project:	RV670A01 Echo® Wireless Vibration Sensor with Raw Vibration (RV) Output
Test Notes:	1011 mB, Idle mode
Temperature:	23 deg C
Humidity:	48 %
Tested by:	Vathana Ven
Test Started:	May 31 2011 18 : 38



- Measured Peak Value
- Measured Quasi Peak Value
- Measured Average Value
- Maximum Value of Mast and Turntable

Level (dBuV/m) = AF + CL + PA + Raw

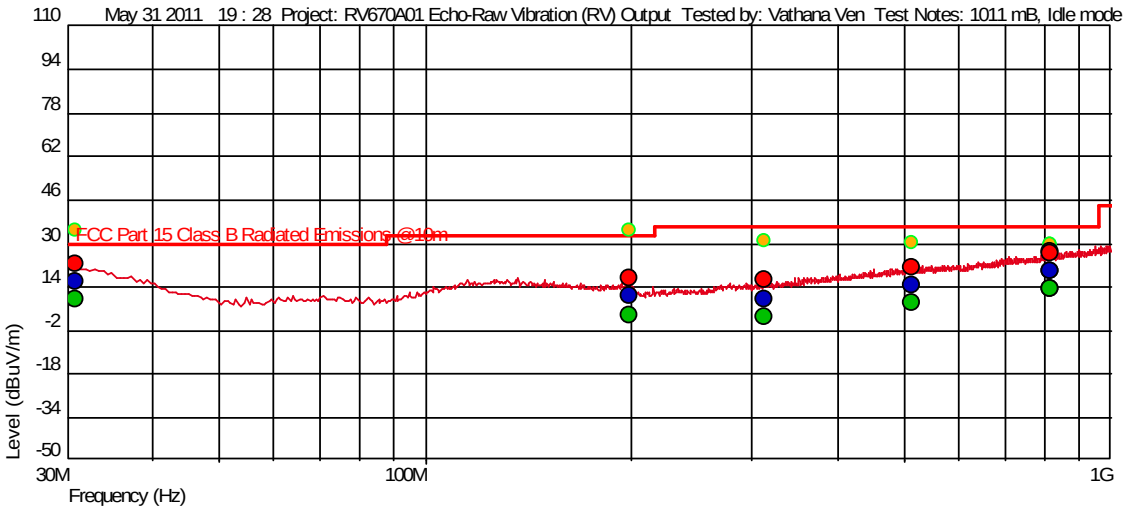
AF = Antenna Factor
CL = Cable Losses
PA = Pre-Amplifier
Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: QP

Frequency (Hz)	Level (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dB)	Ver (|)	Angle (Deg)	Mast Height (m)	RBW (Hz)
32.962146445 M	13.90	18.623	-26.539	30.00	-16.10	|	26	2.43	120 k
200.260966435 M	8.69	13.027	-24.900	33.00	-24.31	|	246	1.90	120 k
494.720396259 M	14.39	17.706	-24.529	36.00	-21.61	|	88	2.30	120 k
666.091249178 M	17.09	19.800	-24.289	36.00	-18.91	|	225	3.02	120 k
809.14876406 M	20.35	21.683	-23.385	36.00	-15.65	|	215	1.88	120 k
994.895724884 M	23.51	23.300	-22.707	44.00	-20.49	|	161	2.97	120 k

Test Information

Test Details	User Input
Project:	RV670A RV670A01 Echo® Wireless Vibration Sensor with Raw Vibration (RV) Output
Test Notes:	1011 mB, Idle mode
Temperature:	23 deg C
Humidity:	48 %
Tested by:	Vathana Ven
Test Started:	May 31 2011 19 : 28



- Measured Peak Value
- Measured Quasi Peak Value
- Measured Average Value
- Maximum Value of Mast and Turntable

Level (dBuV/m) = AF + CL + PA + Raw

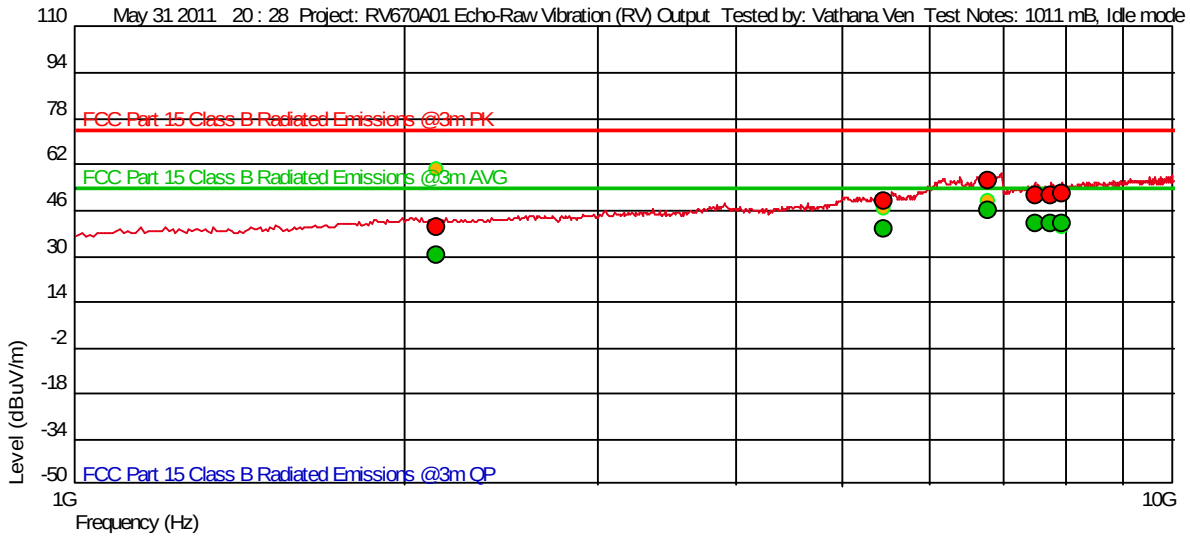
AF = Antenna Factor
CL = Cable Losses
PA = Pre-Amplifier
Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: QP

Frequency (Hz)	Level (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dB)	Hor (--)	Angle (Deg)	Mast Height (m)	RBW (Hz)
30.782453794 M	15.99	20.496	-26.553	30.00	-14.01	--	71	2.94	120 k
198.774170527 M	10.51	12.604	-24.910	33.00	-22.49	--	245	2.21	120 k
312.495235058 M	9.57	14.000	-24.571	36.00	-26.43	--	71	1.89	120 k
513.790425331 M	14.80	17.876	-24.537	36.00	-21.20	--	9	3.48	120 k
816.854798515 M	20.19	21.400	-23.372	36.00	-15.81	--	315	1.78	120 k
818.205967561 M	20.08	21.400	-23.370	36.00	-15.92	--	204	1.40	120 k

Test Information

Test Details	User Input
Project:	RV670A01 Echo® Wireless Vibration Sensor with Raw Vibration (RV) Output
Test Notes:	1011 mB, Idle mode
Temperature:	23 deg C
Humidity:	48 %
Tested by:	Vathana Ven
Test Started:	May 31 2011 20 : 28



- Measured Peak Value
- Measured Quasi Peak Value
- Measured Average Value
- Maximum Value of Mast and Turntable

Level (dBuV/m) = AF + CL + PA + Raw

AF = Antenna Factor
CL = Cable Losses
PA = Pre-Amplifier
Raw = Raw Instrument Reading (Not listed on Spot Tables)

Measured: PEAK

Frequency (Hz)	Level (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dBuV/m)	Hor (--) Ver (|)	Angle (Deg)	Mast Height (m)	RBW (Hz)
2.140513471 G	40.40	27.517	-28.515	74.00	-33.60	|	66	1.78	1 M
5.468541527 G	49.15	34.079	-25.930	74.00	-24.85	|	152	1.19	1 M
6.777665108 G	56.15	34.918	-25.526	74.00	-17.85	|	36	2.57	1 M
7.488809174 G	51.15	36.314	-24.945	74.00	-22.85	--	8	1.45	1 M
7.74437809 G	51.30	36.227	-24.891	74.00	-22.70	--	249	2.53	1 M
7.937151637 G	51.79	36.539	-24.852	74.00	-22.21	--	164	3.38	1 M

Measured: AVERAGE

Frequency (Hz)	Level (dBuV/m)	AF	PA+CL	Limit (dBuV/m)	Margin (dB)	Hor (--) Ver (|)	Angle (Deg)	Mast Height (m)	RBW (Hz)
2.140513471 G	30.58	27.517	-28.515	54.00	-23.42	|	66	1.78	1 M
5.468541527 G	39.61	34.079	-25.930	54.00	-14.39	|	152	1.19	1 M
6.777665108 G	45.97	34.918	-25.526	54.00	-8.03	|	36	2.57	1 M
7.488809174 G	41.37	36.314	-24.945	54.00	-12.63	--	8	1.45	1 M
7.74437809 G	41.62	36.227	-24.891	54.00	-12.38	--	249	2.53	1 M
7.937151637 G	41.68	36.539	-24.852	54.00	-12.32	--	164	3.38	1 M

Special Radiated Emissions

Company: PCB Piezotronics
Model #: RV670A01 Echo®
Serial #: 150
Engineers: Vathana Ven
Project #: 100415616
Standard: FCC Part 15 Subpart C 15.249/RSS-210
Receiver: R&S ESI (145-128) 08-10-2011
PreAmp: PRE_145014_12-28-2011.txt

Location: 10M
Date(s): 05/24/11
Limit Distance (m): 3
Test Distance (m): 3

Antenna & Cables: HF
Antenna: HORN2 V3m 10-08-2011.txt
Cable(s): 3mTrackB 145-416 08-31-2011.txt
Barometer: DAV004
Temp/Humidity/Pressure: 23 deg C

Bands: N, LF, HF, SHF
HORN2 H3m 10-08-2011.txt
NONE.
Filter: REA003
55% 1000mB

PreAmp Used? (Y or N): Y
Voltage/Frequency: Battery powered
Frequency Range: 1-10GHz

Net = Reading (dBuV/m) + Antenna Factor (dB1/m) + Cable Loss (dB) - Preamp Factor (dB) - Distance Factor (dB)
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC	IC	Harmonic?
PK	H	1832.885	54.10	27.27	4.97	33.64	0.00	52.70	54.00	-1.30	120/300 kHz			
AVG	H	1832.885	51.41	27.27	4.97	33.64	0.00	50.01	54.00	-3.99	120/300 kHz			
PK	H	2749.155	51.25	28.73	6.20	34.03	0.00	52.15	54.00	-1.85	120/300 kHz	RB	RB	
AVG	H	2749.155	46.57	28.73	6.20	34.03	0.00	47.47	54.00	-6.53	120/300 kHz	RB	RB	
PK	H	3665.620	45.15	31.80	7.23	34.92	0.00	49.26	54.00	-4.74	120/300 kHz	RB	RB	
AVG	H	3665.620	37.35	31.80	7.23	34.92	0.00	41.46	54.00	-12.54	120/300 kHz	RB	RB	
PK	H	4582.025	42.28	32.25	8.25	34.99	0.00	47.79	54.00	-6.21	120/300 kHz	RB	RB	
AVG	H	4582.025	29.17	32.25	8.25	34.99	0.00	34.68	54.00	-19.32	120/300 kHz	RB	RB	
PK	H	5498.430	44.17	34.12	9.00	34.90	0.00	52.39	54.00	-1.61	120/300 kHz			
AVG	H	5498.430	30.52	34.12	9.00	34.90	0.00	38.74	54.00	-15.26	120/300 kHz			
PK	H	6414.835	47.88	34.21	9.84	35.52	0.00	56.41	74.00	-17.59	120/300 kHz			Noise Floor
AVG	H	6414.835	35.29	34.21	9.84	35.52	0.00	43.82	54.00	-10.18	120/300 kHz			Noise Floor
PK	V	7331.240	43.38	36.32	10.59	35.63	0.00	54.65	74.00	-19.35	120/300 kHz	RB	RB	Noise Floor
AVG	V	7331.240	30.10	36.32	10.59	35.63	0.00	41.37	54.00	-12.63	120/300 kHz	RB	RB	Noise Floor
PK	V	8247.645	42.85	36.90	11.30	35.80	0.00	55.25	74.00	-18.75	120/300 kHz	RB	RB	Noise Floor
AVG	V	8247.645	30.43	36.90	11.30	35.80	0.00	42.83	54.00	-11.17	120/300 kHz	RB	RB	Noise Floor
PK	V	9164.050	42.51	37.78	12.04	35.94	0.00	56.38	74.00	-17.62	120/300 kHz	RB	RB	Noise Floor
AVG	V	9164.050	30.00	37.78	12.04	35.94	0.00	43.87	54.00	-10.13	120/300 kHz	RB	RB	Noise Floor

Test Personnel: Vathana Ven VJV
Product Standard: IC RSS-210 A2.9(a), FCC §15.249(a),(e), ICES003
Input Voltage: Fresh Battery
Pretest Verification w/ BB Source: **Ambient**

Test Date: 05/24 and 05/31/2011
Test Levels: Below specified limit

Ambient Temperature: 23 ºC
Relative Humidity: 55 %
Atmospheric Pressure: 1000 mbars

Deviations, Additions, or Exclusions: None

9 Revision History

Revision Level	Date	Report Number	Notes
0	05/31/2011	100415616BOX-001	Original Issue
1	07/15/2011	100415616BOX-001a	Model correction