

TEST REPORT

Report Number: 100356542DEN-002C

Project Number: G100356542

Report Issue Date: 03/25/2011

Product Designation: EN1223D

Standards: FCC title 47 CFR part 15 subpart C
RSS-210:2010 Issue 8
AS/NZS 4268:2008

Tested by:
Intertek Testing Services NA, Inc.
1795 Dogwood St. Suite 200
Louisville, CO 80027

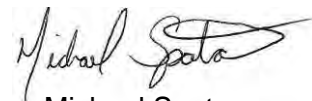
Client:
Inovonics Wireless Corp.
315 CTC Blvd.
Louisville, CO 80027

Report prepared by



Randall Thompson
Senior EMC Project Engineer

Report reviewed by



Michael Spataro
Engineering Team Leader

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

TABLE OF CONTENTS

1 Introduction and Conclusion 3

2 Test Summary 3

3 Description of Equipment Under Test..... 4

4 System setup including cable interconnection details, support equipment and simplified block diagram 5

5 Radiated Emissions – Intentional Radiators: Output Power - Fundamental & Harmonics of the Fundamental for 15.247 7

6 Radiated Emissions Unintentional & Spurious..... 14

7 Measurement Uncertainty 28

8 Revision History..... 29

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 Passed 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	Test date	Result
5	Radiated Emissions – Output power of the Fundamental & Harmonics of the Fundamental - FCC 247(b)(2) (d)/15.205 Covers RSS-210 A8.4(1)	3/16/2009	Pass
6	Radiated Emissions – Unintentional & Spurious - FCC 15.247(d) / FCC 15.209/109 Covers RSS-210 A8.5	3/30/2009	Pass
	20dB Bandwidth – FCC 15.247 (a)(1)(i) [Covers RSS-210, A8.1(c)]	----	N/A
	Number of Hopping Channels – FCC 15.247(a)(1)(i) [Covers RSS-210, A8.1(c)]	----	N/A
	Hopping Channel Carrier Separation – FCC 15.247(a)(1) [Covers RSS-210, A8.1(b)]	----	N/A
	Band Edge Measurements – FCC 15.247(d) / 15.209 [Covers RSS-210, A8.5]	----	N/A
	Duty Cycle & Duty Cycle Correction Factor	----	N/A
	AC Conducted Emissions – FCC 15.207 (not applicable – product battery-powered)	----	N/A

Notes:

- 1) Only the fundamental, harmonics of the fundamental and Spurious emissions are covered in this test report as requested by the customer.
- 2) Only the high channel of the transmitter at 927.58 MHz falls within the frequency band specified in AS/NZS 4268:2008
- 3) FCC CFR47 Part 15.31: Measurement Standards: In any case where the device is powered off a battery, a fresh battery was used during test. In cases where the device is powered off an AC supply, voltage was varied per Part 15.31 to find worst case emissions.

3 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
902-928MHz wireless transmitter.	Inovonics	EN1223D	04154729

Receive Date:	3/16/2009
Received Condition:	Good
Type:	Production

Description of Equipment Under Test (provided by client)

The Inovonics wireless, water-resistant pendant transmitters are our smallest, lightest and most versatile pendant. They come in two basic configurations: a single-button press-and-hold activation, ideal for assisted living installations, or a double-button designed to meet the specific protection needs of patrolling guards, bank employees and retail store employees.

The water-resistant pendant transmitter is available in two configurations for 868-870 Mhz Europe, or for 902-928 Mhz North America, 915-928 Mhz Australia and 922-928 Mhz New Zealand.

Equipment Under Test Power Configuration			
Rated Voltage	Rated Current	Rated Frequency	Number of Phases
3.3 VDC - Battery	-----	-----	-----

Operating modes of the EUT:

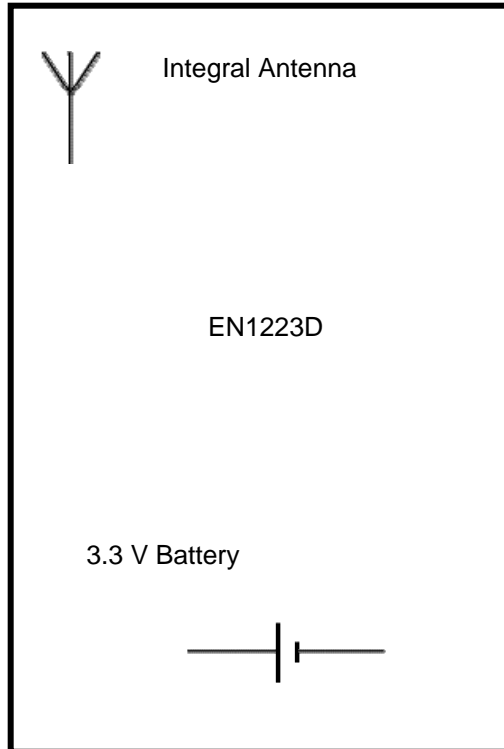
No.	Descriptions of EUT Exercising
1	For section 5 - Fundamental and Harmonics of the fundamental the EUT was configured for un-modulated, continuous wave mode.
2	For section 6 – Unintentional and Spurious emissions the EUT was configured for normal operating mode.

4 System setup including cable interconnection details, support equipment and simplified block diagram

4.1 Method:

Record the details of EUT cabling, document the support equipment, and show the interconnections in a block diagram.

4.2 EUT Block Diagram:



4.3 Support Data:

ID	Description	Length	Shielding	Ferrites

Support Equipment			
Description	Manufacturer	Model Number	Serial Number

General notes:

1. Product has no I/O or signal cables.
2. Product did not require any support equipment.

5 Radiated Emissions – Intentional Radiators: Output Power - Fundamental & Harmonics of the Fundamental for 15.247

5.1 Method

Unless otherwise stated no deviations were made from ANSI C63.10 and FCC public notice DA 00-705.

This testing was performed at Intertek Denver’s OATS site, located at 40 Meadow Rd., Pinewood Springs, CO 80540.

5.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
18882	Spectrum Analyzer	HP	8566B	2410A00154	12/10/2008	12/10/2009
18886	Horn Antenna 1-18GHz	Tensor	4105	2020	4/6/2008	4/6/2009
18900	RF Pre-Amplifier (4-8 GHz)	Avantek	AFT97-8434-10F	1007	5/2/2008	5/2/2009
18901	RF Pre-Amplifier (8-18 GHz)	Avantek	AWT-18037	1002	5/2/2008	5/2/2009
18906	Amplifier	Mini-Circuits	ZHL-42	N052792-2	5/2/2008	5/2/2009
18888	Log Periodic Antenna	EMCO	3146	9402-3775	10/21/2008	10/21/2009

5.3 Results:

The sample tested was found to Comply.

5.4 Setup Photographs:

Front View

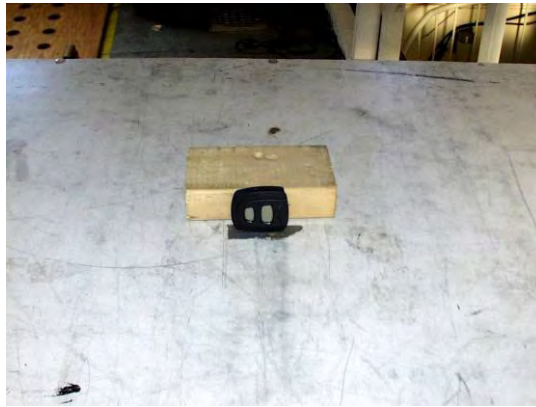


Photo:

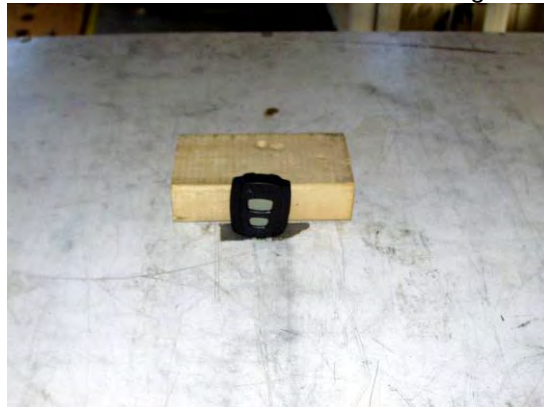
Axis 1 – EUT Flat on Table (worst-case)



Axis 2 – EUT Vertical



Axis 3 – EUT Vertical & Rotated 90 degrees



5.5 Plots: None

5.6 Test Data:

Field Strength Measurements Fundamental and Spurious of the Transmitter

Test Report #: <u>100356542DEN-002C</u>	Test Area: <u>Pinewood Site 1 (3m)</u>	Temperature: <u>23.8</u> °C
Test Method: <u>FCC 15.247</u>	Test Date: <u>16-Mar-2009</u>	Relative Humidity: <u>36.2</u> %
EUT Model #: <u>EN1223D</u>	EUT Power: <u>3.3 VDC Battery</u>	Air Pressure: <u>79.1</u> kPa
EUT Serial #: <u>04154729</u>		

Manufacturer: Inovonics

EUT Description: Pendant Transmitter

Level Key	
Pk – Peak	Nb – Narrow Band
Qp – QuasiPeak	Bb – Broad Band
Av - Average	

Notes: Product in "pulse" mode Duty Cycle 21ms

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	Duty Cycle Correction	Final Corrected	Limit	DELTA
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	(dB)	(dBuV/m)	(dBuV/m)	(dB)

The following Duty Cycle was declared by the manufacturer:

21.0%

Averaging method for pulsed signals and calculation in accordance to FCC CFR47 Part 15.35 utilized to calculate field strength emissions.

The testing performed in accordance to FCC CFR47 Part 15.205 (restricted bands of operation) and 15.247 emissions and delta limits were calculated as follows:

Final Corrected Peak Measurement – Duty Cycle Correction Factor* = Final Calculated Emission

The Final Calculated Emission was then compared to the Limits in CFR47 Part 15.209 and 15.247 and the emission/limit delta was calculated. the DTCF is calculated as follows $20 * \log_{10}(\text{duty cycle in 100ms})$ "not to exceed 20dB"

Part 15.247 and 15.205 Respectively

Fundamental Measurements

Low Channel Axis 1 - EUT is Flat on the table.

902.4	77.8 Pk	3.6 / 22.0 / 0.0	103.4	V / 1.0 / 12.0	0.0	103.4	119.2	-15.8
902.4	88.5 Pk	3.6 / 22.0 / 0.0	114.1	H / 1.2 / 110.0	0.0	114.1	119.2	-5.1

Axis 2 - EUT is Vertical on the table.

902.4	79.8 Pk	3.6 / 22.0 / 0.0	105.4	H / 1.9 / 348.0	0.0	105.4	119.2	-13.8
902.4	88.3 Pk	3.6 / 22.0 / 0.0	113.9	V / 1.2 / 64.0	0.0	113.9	119.2	-5.3

Axis 3 - EUT is Vertical on the table & Rotated 90 Deg.

902.4	81.0 Pk	3.6 / 22.0 / 0.0	106.6	V / 2.1 / 254.0	0.0	106.6	119.2	-12.6
902.4	86.5 Pk	3.6 / 22.0 / 0.0	112.1	H / 1.5 / 254.0	0.0	112.1	119.2	-7.1

Mid Channel Axis 1

914.8	87.8 Pk	3.6 / 22.4 / 0.0	113.8	H / 1.1 / 352.0	0.0	113.8	119.2	-5.4
914.8	78.3 Pk	3.6 / 22.4 / 0.0	104.3	V / 1.6 / 23.0	0.0	104.3	119.2	-14.9

Axis 2

914.8	87.4 Pk	3.6 / 22.4 / 0.0	113.4	V / 1.2 / 252.0	0.0	113.4	119.2	-5.8
914.8	80.5 Pk	3.6 / 22.4 / 0.0	106.6	H / 1.2 / 43.0	0.0	106.6	119.2	-12.6

Axis 3

914.8	82.8 Pk	3.6 / 22.4 / 0.0	108.9	H / 1.5 / 178.0	0.0	108.9	119.2	-10.3
-------	---------	------------------	-------	-----------------	-----	-------	-------	-------

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	Duty Cycle Correction	Final Corrected	Limit	DELTA
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
914.8	85.7 Pk	3.6 / 22.4 / 0.0	111.7	V / 1.2 / 256.0	0.0	111.7	119.2	-7.5
High Channel Axis 1								
927.6	77.7 Pk	3.6 / 22.1 / 0.0	103.5	V / 1.6 / 22.0	0.0	103.5	119.2	-15.7
927.6	85.2 Pk	3.6 / 22.1 / 0.0	111	H / 1.2 / 274.0	0.0	111.0	119.2	-8.2
Axis 2								
927.6	79.0 Pk	3.6 / 22.1 / 0.0	104.7	H / 1.6 / 348.0	0.0	104.7	119.2	-14.5
927.6	85.5 Pk	3.6 / 22.1 / 0.0	111.3	V / 1.1 / 122.0	0.0	111.3	119.2	-7.9
Axis 3								
927.6	81.8 Pk	3.6 / 22.1 / 0.0	107.6	V / 1.2 / 110.0	0.0	107.6	119.2	-11.6
927.6	80.4 Pk	3.6 / 22.1 / 0.0	106.2	H / 1.2 / 110.0	0.0	106.2	119.2	-13.0
Axis 1 was determined to be the worst case axis								
All Harmonics will be measured in Axis 1 – Harmonics in Restricted Bands are Highlighted in Yellow								
Harmonics - Low Channel								
1804.8	69.0 Pk	2.8 / 26.5 / 37.1	61.2	H / 1.1 / 110.0	-13.6	47.6	94.1	-46.5
1804.8	66.9 Pk	2.8 / 26.5 / 37.1	59.1	V / 1.1 / 12.0	-13.6	45.5	94.1	-48.6
2707.2	55.6 Pk	3.5 / 28.3 / 37.6	49.8	H / 1.2 / 110.0	-13.6	36.2	54.0	-17.8
2707.2	55.0 Pk	3.5 / 28.3 / 37.6	49.1	V / 1.3 / 12.0	-13.6	35.5	54.0	-18.5
3609.6	58.8 Pk	4.5 / 31.0 / 38.4	55.8	H / 1.6 / 12.0	-13.6	42.2	54.0	-11.8
3609.6	64.5 Pk	4.5 / 31.0 / 38.4	61.6	V / 1.8 / 12.0	-13.6	48.0	54.0	-6.0
4512	66.8 Pk	5.3 / 31.3 / 40.7	62.7	V / 1.3 / 12.0	-13.6	49.1	54.0	-4.9
4512	66.2 Pk	5.3 / 31.3 / 40.7	62.1	H / 2.1 / 12.0	-13.6	48.5	54.0	-5.5
5414.4	53.0 Pk	6.0 / 33.3 / 39.9	52.4	V / 1.7 / 12.0	-13.6	38.8	54.0	-15.2
5414.4	54.0 Pk	6.0 / 33.3 / 39.9	53.4	H / 1.8 / 12.0	-13.6	39.8	54.0	-14.2
6316.8	49.1 Pk	6.6 / 33.8 / 40.4	49.1	V / 1.5 / 12.0	-13.6	35.5	94.1	-58.6
6316.8	48.5 Pk	6.6 / 33.8 / 40.4	48.4	H / 1.8 / 12.0	-13.6	34.8	94.1	-59.3
7219.2	48.4 Pk	7.3 / 35.9 / 39.9	51.7	V / 1.8 / 12.0	-13.6	38.1	94.1	-56.0
7219.2	47.9 Pk	7.3 / 35.9 / 39.9	51.2	H / 1.8 / 12.0	-13.6	37.6	94.1	-56.5
8121.6	56.0 Pk	7.7 / 36.3 / 47.5	52.5	H / 1.7 / 12.0	-13.6	38.9	54.0	-15.1
8121.6	53.1 Pk	7.7 / 36.3 / 47.5	49.7	V / 1.7 / 12.0	-13.6	36.1	54.0	-17.9
9024	59.9 Pk	8.4 / 36.7 / 48.5	56.4	H / 1.7 / 12.0	-13.6	42.8	54.0	-11.2
9024	54.9 Pk	8.4 / 36.7 / 48.5	51.4	V / 1.7 / 12.0	-13.6	37.8	54.0	-16.2
Harmonics - Mid Channel								
1829.6	68.2 Pk	2.8 / 26.6 / 37.1	60.5	V / 1.1 / 12.0	-13.6	46.9	93.8	-46.9
1829.6	68.2 Pk	2.8 / 26.6 / 37.1	60.5	H / 1.1 / 12.0	-13.6	46.9	93.8	-46.9
2744.4	55.8 Pk	3.5 / 28.2 / 37.6	49.9	V / 1.6 / 12.0	-13.6	36.3	54.0	-17.7
2744.4	51.6 Pk	3.5 / 28.2 / 37.6	45.7	H / 1.3 / 12.0	-13.6	32.1	54.0	-21.9
3659.2	58.8 Pk	4.5 / 30.8 / 38.4	55.8	V / 1.6 / 12.0	-13.6	42.2	54.0	-11.8
3659.2	54.4 Pk	4.5 / 30.8 / 38.4	51.3	H / 1.5 / 12.0	-13.6	37.7	54.0	-16.3
4574	64.7 Pk	5.3 / 31.3 / 40.7	60.5	H / 2.1 / 12.0	-13.6	46.9	54.0	-7.1
4574	65.2 Pk	5.3 / 31.3 / 40.7	61	V / 1.7 / 12.0	-13.6	47.4	54.0	-6.6
5488.8	45.0 Pk	6.1 / 33.3 / 40.1	44.3	H / 2.1 / 12.0	-13.6	30.7	93.8	-63.1
5488.8	44.5 Pk	6.1 / 33.3 / 40.1	43.8	V / 1.6 / 12.0	-13.6	30.2	93.8	-63.6
6403.6	53.8 Pk	6.7 / 34.0 / 40.5	54	H / 2.1 / 12.0	-13.6	40.4	93.8	-53.4
6403.6	51.2 Pk	6.7 / 34.0 / 40.5	51.5	V / 2.1 / 12.0	-13.6	37.9	93.8	-55.9

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	Duty Cycle Correction	Final Corrected	Limit	DELTA
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
7318.4	41.1 Pk	7.4 / 36.2 / 40.3	44.3	H / 2.1 / 12.0	-13.6	30.7	54.0	-23.3
7318.4	42.2 Pk	7.4 / 36.2 / 40.3	45.5	V / 2.1 / 12.0	-13.6	31.9	54.0	-22.1
8233.2	48.1 Pk	7.9 / 36.1 / 47.7	44.5	V / 1.7 / 12.0	-13.6	30.9	54.0	-23.1
8233.2	51.5 Pk	7.9 / 36.1 / 47.7	47.8	H / 1.7 / 12.0	-13.6	34.2	54.0	-19.8
9148	50.2 Pk	8.5 / 36.6 / 48.6	46.7	V / 1.7 / 12.0	-13.6	33.1	54.0	-20.9
9148	53.3 Pk	8.5 / 36.6 / 48.6	49.8	H / 1.7 / 12.0	-13.6	36.2	54.0	-17.8
Harmonics - High Channel								
1855.2	59.5 Pk	2.9 / 26.6 / 37.1	51.8	H / 1.1 / 12.0	-13.6	38.2	91.0	-52.8
1855.2	57.8 Pk	2.9 / 26.6 / 37.1	50.1	V / 1.3 / 12.0	-13.6	36.5	91.0	-54.5
2782.8	62.6 Pk	3.5 / 28.5 / 37.6	57.1	H / 1.1 / 12.0	-13.6	43.5	54.0	-10.5
2782.8	62.5 Pk	3.5 / 28.5 / 37.6	57	V / 1.7 / 12.0	-13.6	43.4	54.0	-10.6
3710.4	61.8 Pk	4.5 / 31.0 / 38.2	59.1	H / 1.1 / 12.0	-13.6	45.5	54.0	-8.5
3710.4	64.4 Pk	4.5 / 31.0 / 38.2	61.7	V / 1.7 / 12.0	-13.6	48.1	54.0	-5.9
4638	60.4 Pk	5.4 / 31.5 / 40.5	56.7	V / 1.7 / 12.0	-13.6	43.1	54.0	-10.9
4638.0	59.5 Pk	5.4 / 31.5 / 40.5	55.9	H / 1.9 / 12.0	-13.6	42.3	54.0	-11.7
5565.6	52.8 Pk	6.1 / 33.4 / 39.8	52.5	V / 1.7 / 12.0	-13.6	38.9	91.0	-52.1
5565.6	53.8 Pk	6.1 / 33.4 / 39.8	53.5	H / 1.9 / 12.0	-13.6	39.9	91.0	-51.1
6493.2	51.6 Pk	6.8 / 33.8 / 40.2	52	V / 1.7 / 12.0	-13.6	38.4	91.0	-52.6
6493.2	53.1 Pk	6.8 / 33.8 / 40.2	53.5	H / 1.9 / 12.0	-13.6	39.9	91.0	-51.1
7420.8	52.2 Pk	7.4 / 36.2 / 39.8	56	V / 1.7 / 12.0	-13.6	42.4	54.0	-11.6
7420.8	49.9 Pk	7.4 / 36.2 / 39.8	53.7	H / 1.9 / 12.0	-13.6	40.1	54.0	-13.9
8348.4	57.6 Pk	8.0 / 36.0 / 47.9	53.8	H / 1.7 / 12.0	-13.6	40.2	54.0	-13.8
8348.4	57.1 Pk	8.0 / 36.0 / 47.9	53.3	V / 1.7 / 12.0	-13.6	39.7	54.0	-14.3
9276	50.2 Pk	8.5 / 36.8 / 48.5	46.9	H / 1.7 / 12.0	-13.6	33.3	91.0	-57.7
9276	46.3 Pk	8.5 / 36.8 / 48.5	43	V / 1.7 / 12.0	-13.6	29.4	91.0	-61.6

Example calculation for Intentional Radiated Emissions:

Measured Level	+	Transducer, Cable Loss Pre-Amplifier	=	Corrected Reading	-	Duty Cycle Correction	=	FINAL Measurement	-	Specification Limit	=	Delta from Specification Limit
(dB μ V)		(dB)		(dB μ V/m)		(dB μ V/m)		(dB μ V/m)		(dB μ V/m)		
24.0		14.9		38.9		10.0		28.9		40.0		-11.1

Electric Field to Power Conversion

From DA 00-705 – Alternative Test Procedures.

If antenna conducted tests cannot be performed on this device, radiated tests to show compliance with the peak output power limit specified in Section 15.247(b) and the spurious RF conducted emission limit specified in Section 15.247(c) are acceptable. As stated previously, a pre-amp, and, in the latter case, a high pass filter, are required for the following measurements.

1) Calculate the transmitter's peak power using the following equation:

$$E = \frac{\sqrt{30PG}}{d}$$

Where: E is the measured maximum fundamental field strength in V/m, utilizing a RBW \geq the 20 dB bandwidth of the emission, VBW > RBW, peak detector function. Follow the procedures in C63.4-1992 with respect to maximizing the emission.

G is the numeric gain of the transmitting antenna with reference to an isotropic radiator.

d is the distance in meters from which the field strength was measured.

P is the power in watts for which you are solving:

$$P = \frac{(E*d)^2}{30G}$$

In this case:

E = 114.1 dB/uV (from above low channel axis 1) = 0.507V/m

D = 3 meters

G = 4 unknown

P = 0.0193 W

Limit from 15.247(b)(2) = .25W

Delta = 0.0193 - .25 = -0.2307W

6 Radiated Emissions Unintentional & Spurious

6.1 Method

Unless otherwise stated no deviations were made from ANSI C63.10 and FCC public notice DA 00-705.

This testing was performed at Intertek Denver's OATS site, located at 40 Meadow Rd. Pinewoods Springs, CO 80540.

6.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
18882	Spectrum Analyzer	HP	8566B	2410A00154	12/10/2008	12/10/2009
18880	Q.P Adapter	HP	85650A	2811A01300	12/11/2008	12/11/2009
18912	9 kHz- 1.3GHz Pre Amp	HP	8447F	3113A05545	5/2/2008	5/2/2009
18906	RF Pre-Amplifier (1-4 GHz)	Mini-Circuits L	ZHL-42	N052792-2	5/2/2008	5/2/2009
18900	RF Pre-Amplifier (4-8 GHz)	Avantek	AFT97-8434-10F	1007	5/2/2008	5/2/2009
18901	RF Pre-Amplifier (8-18 GHz)	Avantek	AWT-18037	1002	5/2/2008	5/2/2009
19937	Bilog Antenna 30MHz - 6GHz	Sunol	JB6	A050707-2	11/7/2008	11/7/2009
18886	Horn Antenna 1-18GHz	TENSOR	4105	2020	4/6/2008	4/6/2009

6.3 Results:

The sample tested was found to Comply.

6.4 Setup Photographs:

Front View



Rear View



Photo:



Left-to-Right: EN1262 EN1223D

6.5 Plots: None

6.6 Data:

Radiated Electromagnetic Emissions

Test Report #: 100356542DEN-002C	Test Area: Pinewood Site 1 (10m)	Temperature: 25.9 °C
Test Method: FCC Part 15.209	Test Date: 30-Mar-2009	Relative Humidity: 32.4 %
EUT Model #: EN1223D	EUT Power: 3.3 VDC Battery	Air Pressure: 79 kPa
EUT Serial #: 4154725		

Manufacturer: Inovonics

EUT Description: Pendant Transmitter

Notes:

Level Key	
Pk – Peak	Nb – Narrow Band
Qp – QuasiPeak	Bb – Broad Band
Av - Average	

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	N/A
30-1000MHz Vertical 0 degrees						
37.49	33.5 Qp	1.8 / 15.9 / 28.3	22.9	V / 1.0 / 0.0	-6.6	N/A
48.00	39.6 Qp	1.8 / 9.3 / 28.2	22.6	V / 1.0 / 0.0	-6.9	N/A
50.00	35.4 Qp	1.8 / 8.6 / 28.2	17.6	V / 1.0 / 0.0	-11.9	N/A
70.00	37.9 Qp	2.2 / 8.0 / 28.2	20.0	V / 1.0 / 0.0	-9.5	N/A
80.00	37.4 Qp	2.4 / 7.8 / 28.1	19.5	V / 1.0 / 0.0	-10.0	N/A
160.00	28.4 Qp	3.3 / 12.4 / 27.7	16.4	V / 1.0 / 0.0	-16.7	N/A
250.00	26.9 Qp	4.2 / 11.7 / 27.2	15.6	V / 1.0 / 0.0	-20.0	N/A
48.00	39.1 Qp	1.8 / 9.3 / 28.2	22.1	V / 1.0 / 0.0	-7.4	N/A
72.00	37.3 Qp	2.3 / 8.0 / 28.1	19.4	V / 1.0 / 0.0	-10.1	N/A
75.86	40.5 Qp	2.3 / 8.0 / 28.1	22.7	V / 1.0 / 0.0	-6.8	N/A
172.06	30.9 Qp	3.5 / 11.8 / 27.6	18.6	V / 1.0 / 0.0	-14.5	N/A
267.53	25.9 Qp	4.4 / 13.1 / 27.2	16.2	V / 1.0 / 0.0	-19.4	N/A
280.64	23.1 Qp	4.5 / 13.5 / 27.0	14.1	V / 1.0 / 0.0	-21.5	N/A
312.95	29.1 Qp	4.8 / 14.0 / 27.1	20.7	V / 1.0 / 0.0	-14.9	N/A
548.28	24.4 Qp	6.5 / 18.2 / 28.4	20.8	V / 1.0 / 0.0	-14.8	N/A
687.24	28.4 Qp	7.5 / 19.9 / 28.1	27.7	V / 1.0 / 0.0	-7.9	N/A
30-1000 MHz Vertical 90 degrees						
37.49	32.6 Qp	1.8 / 15.9 / 28.3	22.0	V / 1.0 / 90.0	-7.5	N/A
50.00	36.4 Qp	1.8 / 8.6 / 28.2	18.6	V / 1.0 / 90.0	-10.9	N/A
70.00	38.1 Qp	2.2 / 8.0 / 28.2	20.2	V / 1.0 / 90.0	-9.3	N/A
160.00	27.6 Qp	3.3 / 12.4 / 27.7	15.6	V / 1.0 / 90.0	-17.5	N/A
267.53	25.1 Qp	4.4 / 13.1 / 27.2	15.5	V / 1.0 / 90.0	-20.1	N/A
30-1000MHz Vertical 180 degrees						
No higher signals found: 180 degrees						
30-1000MHz Vertical 270 degrees						

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	N/A
50.00	35.8 Qp	1.8 / 8.6 / 28.2	18.0	V / 1.0 / 270.0	-11.5	N/A
80.00	33.5 Qp	2.4 / 7.8 / 28.1	15.6	V / 1.0 / 270.0	-13.9	N/A
Following signals maximized between 30 & 1000 MHz Vertical						
37.49	32.1 Qp	1.8 / 15.9 / 28.3	21.5	V / 1.0 / 348.0	-8.0	N/A
48.00	38.2 Qp	1.8 / 9.3 / 28.2	21.3	V / 1.0 / 128.0	-8.2	N/A
70.00	37.7 Qp	2.2 / 8.0 / 28.2	19.8	V / 1.0 / 128.0	-9.7	N/A
30-1000MHz Horizontal 0 degrees						
37.49	25.4 Qp	1.8 / 15.9 / 28.3	14.7	H / 2.0 / 0.0	-14.8	N/A
48.00	31.4 Qp	1.8 / 9.3 / 28.2	14.4	H / 2.0 / 0.0	-15.1	N/A
70.00	35.0 Qp	2.2 / 8.0 / 28.2	17.1	H / 2.0 / 0.0	-12.4	N/A
687.24	23.3 Qp	7.5 / 19.9 / 28.1	22.6	H / 2.0 / 0.0	-13.0	N/A
50.00	26.6 Qp	1.8 / 8.6 / 28.2	8.8	H / 2.0 / 0.0	-20.7	N/A
72.00	32.1 Qp	2.3 / 8.0 / 28.1	14.3	H / 2.0 / 0.0	-15.2	N/A
75.86	30.8 Qp	2.3 / 8.0 / 28.1	13.0	H / 2.0 / 0.0	-16.5	N/A
80.00	28.2 Qp	2.4 / 7.8 / 28.1	10.3	H / 2.0 / 0.0	-19.2	N/A
160.00	26.3 Qp	3.3 / 12.4 / 27.7	14.3	H / 2.0 / 0.0	-18.8	N/A
172.06	25.8 Qp	3.5 / 11.8 / 27.6	13.5	H / 2.0 / 0.0	-19.6	N/A
250.00	25.1 Qp	4.2 / 11.7 / 27.2	13.8	H / 2.0 / 0.0	-21.8	N/A
267.53	23.9 Qp	4.4 / 13.1 / 27.2	14.3	H / 2.0 / 0.0	-21.3	N/A
280.64	22.1 Qp	4.5 / 13.5 / 27.0	13.0	H / 2.0 / 0.0	-22.6	N/A
312.95	22.7 Qp	4.8 / 14.0 / 27.1	14.3	H / 2.0 / 0.0	-21.3	N/A
548.28	22.1 Qp	6.5 / 18.2 / 28.4	18.4	H / 2.0 / 0.0	-17.2	N/A
30-1000MHz Horizontal 90 degrees						
50.00	27.1 Qp	1.8 / 8.6 / 28.2	9.2	H / 2.0 / 90.0	-20.3	N/A
267.53	22.8 Qp	4.4 / 13.1 / 27.2	13.1	H / 2.0 / 90.0	-22.5	N/A
30-1000MHz Horizontal 180 degrees						
No higher signals found: 180 & 270 degrees						
Following signals maximized between 30 & 1000MHz Horizontal						
37.49	28.6 Qp	1.8 / 15.9 / 28.3	18.0	H / 2.8 / 188.0	-11.5	N/A

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	N/A
***** Measurement Summary *****						
37.49	33.5 Qp	1.8 / 15.9 / 28.3	22.9	V / 1.0 / 0.0	-6.6	N/A
75.86	40.5 Qp	2.3 / 8.0 / 28.1	22.7	V / 1.0 / 0.0	-6.8	N/A
48.00	39.6 Qp	1.8 / 9.3 / 28.2	22.6	V / 1.0 / 0.0	-6.9	N/A
687.24	28.4 Qp	7.5 / 19.9 / 28.1	27.7	V / 1.0 / 0.0	-7.9	N/A
70.00	38.1 Qp	2.2 / 8.0 / 28.2	20.2	V / 1.0 / 90.0	-9.3	N/A
80.00	37.4 Qp	2.4 / 7.8 / 28.1	19.5	V / 1.0 / 0.0	-10.0	N/A
72.00	37.3 Qp	2.3 / 8.0 / 28.1	19.4	V / 1.0 / 0.0	-10.1	N/A
50.00	36.4 Qp	1.8 / 8.6 / 28.2	18.6	V / 1.0 / 90.0	-10.9	N/A
172.06	30.9 Qp	3.5 / 11.8 / 27.6	18.6	V / 1.0 / 0.0	-14.5	N/A
548.28	24.4 Qp	6.5 / 18.2 / 28.4	20.8	V / 1.0 / 0.0	-14.8	N/A
312.95	29.1 Qp	4.8 / 14.0 / 27.1	20.7	V / 1.0 / 0.0	-14.9	N/A
160.00	28.4 Qp	3.3 / 12.4 / 27.7	16.4	V / 1.0 / 0.0	-16.7	N/A
267.53	25.9 Qp	4.4 / 13.1 / 27.2	16.2	V / 1.0 / 0.0	-19.4	N/A
250.00	26.9 Qp	4.2 / 11.7 / 27.2	15.6	V / 1.0 / 0.0	-20.0	N/A
280.64	23.1 Qp	4.5 / 13.5 / 27.0	14.1	V / 1.0 / 0.0	-21.5	N/A

Radiated Electromagnetic Emissions

Test Report #: 100356542DEN-002C	Test Area: Pinewood Site 1 (3m)	Temperature: 23.6 °C
Test Method: FCC Part 15.209	Test Date: 30-Mar-2009	Relative Humidity: 33.9 %
EUT Model #: EN1223D	EUT Power: 3.3 VDC	Air Pressure: 79.2 kPa
EUT Serial #: 4154725		

Manufacturer: Inovonics

EUT Description: Pendant Transmitter

Notes: _____

Level Key	
Pk – Peak	Nb – Narrow Band
Qp – QuasiPeak	Bb – Broad Band
Av - Average	

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
1-4 GHz Vertical 0 degrees						
1066.38	58.0 Av	2.1 / 23.9 / 38.3	45.5	V / 1.0 / 0.0	-8.5	N/A
1599.60	55.2 Av	2.6 / 24.7 / 37.4	45.1	V / 1.0 / 0.0	-8.9	N/A
2132.79	38.9 Av	3.1 / 26.8 / 38.2	30.5	V / 1.0 / 0.0	-23.5	N/A
2665.98	36.5 Av	3.4 / 28.3 / 38.1	30.0	V / 1.0 / 0.0	-24.0	N/A
3199.17	35.0 Av	4.0 / 30.5 / 38.2	31.3	V / 1.0 / 0.0	-22.7	N/A
3732.36	35.7 Av	4.6 / 31.1 / 38.4	33.0	V / 1.0 / 0.0	-21.0	N/A
1008.11	40.9 Av	2.0 / 23.3 / 38.2	28.0	V / 1.0 / 0.0	-26.0	N/A
1016.03	39.7 Av	2.0 / 23.4 / 38.2	26.9	V / 1.0 / 0.0	-27.1	N/A
1033.07	50.1 Av	2.0 / 23.6 / 38.2	37.5	V / 1.0 / 0.0	-16.5	N/A
1044.25	37.6 Av	2.0 / 23.7 / 38.2	25.2	V / 1.0 / 0.0	-28.8	N/A
1049.90	42.0 Av	2.0 / 23.8 / 38.2	29.6	V / 1.0 / 0.0	-24.4	N/A
1056.14	41.3 Av	2.1 / 23.8 / 38.3	28.9	V / 1.0 / 0.0	-25.1	N/A
1058.37	38.5 Av	2.1 / 23.8 / 38.3	26.1	V / 1.0 / 0.0	-27.9	N/A
1061.35	43.5 Av	2.1 / 23.8 / 38.3	31.1	V / 1.0 / 0.0	-22.9	N/A
1071.49	44.5 Av	2.1 / 23.9 / 38.4	32.0	V / 1.0 / 0.0	-22.0	N/A
1076.17	39.6 Av	2.1 / 23.9 / 38.4	27.2	V / 1.0 / 0.0	-26.8	N/A
1076.53	39.7 Av	2.1 / 23.9 / 38.4	27.3	V / 1.0 / 0.0	-26.7	N/A
1099.74	53.2 Av	2.1 / 24.0 / 38.4	40.9	V / 1.0 / 0.0	-13.1	N/A
1104.15	44.0 Av	2.1 / 24.0 / 38.3	31.7	V / 1.0 / 0.0	-22.3	N/A
1124.90	41.4 Av	2.1 / 23.8 / 38.3	29.0	V / 1.0 / 0.0	-25.0	N/A
1128.94	38.6 Av	2.1 / 23.7 / 38.3	26.2	V / 1.0 / 0.0	-27.8	N/A
1133.05	48.4 Av	2.1 / 23.7 / 38.3	35.9	V / 1.0 / 0.0	-18.1	N/A
1149.91	38.8 Av	2.1 / 23.5 / 38.3	26.1	V / 1.0 / 0.0	-27.9	N/A
1152.13	39.0 Av	2.2 / 23.5 / 38.3	26.4	V / 1.0 / 0.0	-27.6	N/A
1166.39	49.2 Av	2.2 / 23.7 / 38.3	36.8	V / 1.0 / 0.0	-17.2	N/A
1233.03	43.6 Av	2.2 / 24.2 / 38.1	32.0	V / 1.0 / 0.0	-22.0	N/A
1248.15	40.0 Av	2.2 / 24.3 / 38.1	28.5	V / 1.0 / 0.0	-25.5	N/A
1249.90	36.8 Av	2.2 / 24.3 / 38.1	25.3	V / 1.0 / 0.0	-28.7	N/A
1266.36	39.1 Av	2.3 / 24.3 / 38.0	27.7	V / 1.0 / 0.0	-26.3	N/A
1274.87	39.0 Av	2.3 / 24.3 / 37.9	27.6	V / 1.0 / 0.0	-26.4	N/A
1299.70	38.4 Av	2.3 / 24.2 / 37.9	27.0	V / 1.0 / 0.0	-27.0	N/A

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
1327.93	39.1 Av	2.3 / 24.1 / 37.8	27.8	V / 1.0 / 0.0	-26.2	N/A
1333.01	47.8 Av	2.3 / 24.1 / 37.8	36.5	V / 1.0 / 0.0	-17.5	N/A
1338.10	38.0 Av	2.3 / 24.1 / 37.8	26.7	V / 1.0 / 0.0	-27.3	N/A
1340.60	36.1 Av	2.3 / 24.1 / 37.7	24.9	V / 1.0 / 0.0	-29.1	N/A
1366.34	41.5 Av	2.4 / 24.3 / 37.7	30.5	V / 1.0 / 0.0	-23.5	N/A
1392.16	35.7 Av	2.4 / 24.5 / 37.5	25.1	V / 1.0 / 0.0	-28.9	N/A
1399.68	41.8 Av	2.4 / 24.6 / 37.5	31.3	V / 1.0 / 0.0	-22.7	N/A
1433.00	40.5 Av	2.4 / 24.6 / 37.4	30.1	V / 1.0 / 0.0	-23.9	N/A
1466.33	42.0 Av	2.5 / 24.5 / 37.4	31.6	V / 1.0 / 0.0	-22.4	N/A
1488.18	36.5 Av	2.5 / 24.4 / 37.4	26.0	V / 1.0 / 0.0	-28.0	N/A
1499.64	38.2 Av	2.5 / 24.3 / 37.4	27.7	V / 1.0 / 0.0	-26.3	N/A
1532.99	36.5 Av	2.5 / 24.4 / 37.3	26.0	V / 1.0 / 0.0	-28.0	N/A
1536.20	38.7 Av	2.5 / 24.4 / 37.3	28.3	V / 1.0 / 0.0	-25.7	N/A
1566.28	42.5 Av	2.6 / 24.5 / 37.3	32.2	V / 1.0 / 0.0	-21.8	N/A
1574.87	36.0 Av	2.6 / 24.5 / 37.3	25.7	V / 1.0 / 0.0	-28.3	N/A
1584.19	39.0 Av	2.6 / 24.6 / 37.4	28.8	V / 1.0 / 0.0	-25.2	N/A
1589.84	42.6 Av	2.6 / 24.6 / 37.4	32.5	V / 1.0 / 0.0	-21.5	N/A
1594.55	46.3 Av	2.6 / 24.7 / 37.4	36.2	V / 1.0 / 0.0	-17.8	N/A
1599.64	55.1 Av	2.6 / 24.7 / 37.4	45.0	V / 1.0 / 0.0	-9.0	N/A
1604.67	47.0 Av	2.6 / 24.7 / 37.4	37.0	V / 1.0 / 0.0	-17.0	N/A
1609.38	43.9 Av	2.6 / 24.8 / 37.4	33.9	V / 1.0 / 0.0	-20.1	N/A
1632.21	41.0 Av	2.6 / 25.0 / 37.5	31.2	V / 1.0 / 0.0	-22.8	N/A
1632.94	42.6 Av	2.6 / 25.0 / 37.5	32.8	V / 1.0 / 0.0	-21.2	N/A
1649.86	37.9 Av	2.6 / 25.2 / 37.5	28.2	V / 1.0 / 0.0	-25.8	N/A
1666.25	40.5 Av	2.7 / 25.3 / 37.5	31.0	V / 1.0 / 0.0	-23.0	N/A
1680.22	43.2 Av	2.7 / 25.4 / 37.5	33.8	V / 1.0 / 0.0	-20.2	N/A
1699.61	40.4 Av	2.7 / 25.5 / 37.6	31.0	V / 1.0 / 0.0	-23.0	N/A
1728.22	42.4 Av	2.7 / 26.0 / 37.8	33.3	V / 1.0 / 0.0	-20.7	N/A
1766.26	39.3 Av	2.8 / 26.4 / 37.9	30.5	V / 1.0 / 0.0	-23.5	N/A
1776.23	43.0 Av	2.8 / 26.4 / 38.0	34.2	V / 1.0 / 0.0	-19.8	N/A
1799.59	45.4 Av	2.8 / 26.5 / 38.1	36.6	V / 1.0 / 0.0	-17.4	N/A
1832.93	39.5 Av	2.8 / 26.6 / 38.0	30.9	V / 1.0 / 0.0	-23.1	N/A
1861.17	42.5 Av	2.9 / 26.6 / 38.1	33.9	V / 1.0 / 0.0	-20.1	N/A
1866.25	48.5 Av	2.9 / 26.7 / 38.1	40.0	V / 1.0 / 0.0	-14.0	N/A
1874.84	39.0 Av	2.9 / 26.7 / 38.1	30.4	V / 1.0 / 0.0	-23.6	N/A
1999.52	40.1 Av	3.0 / 26.9 / 38.1	31.9	V / 1.0 / 0.0	-22.1	N/A
2132.84	38.8 Av	3.1 / 26.8 / 38.2	30.4	V / 1.0 / 0.0	-23.6	N/A
3338.86	35.4 Av	4.2 / 30.7 / 37.7	32.5	V / 1.0 / 0.0	-21.5	N/A
3955.73	34.1 Av	4.7 / 31.8 / 37.2	33.4	V / 1.0 / 0.0	-20.6	N/A
1-4 GHz Vertical 90 degrees						
1008.11	37.0 Av	2.0 / 23.3 / 38.2	24.1	V / 1.0 / 90.0	-29.9	N/A
1033.07	44.8 Av	2.0 / 23.6 / 38.2	32.2	V / 1.0 / 90.0	-21.8	N/A
1056.28	42.5 Av	2.1 / 23.8 / 38.3	30.0	V / 1.0 / 90.0	-24.0	N/A
1058.37	39.1 Av	2.1 / 23.8 / 38.3	26.7	V / 1.0 / 90.0	-27.3	N/A
1061.31	45.9 Av	2.1 / 23.8 / 38.3	33.4	V / 1.0 / 90.0	-20.6	N/A
1066.40	60.1 Av	2.1 / 23.9 / 38.3	47.7	V / 1.0 / 90.0	-6.3	N/A

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
1071.49	46.6 Av	2.1 / 23.9 / 38.4	34.2	V / 1.0 / 90.0	-19.8	N/A
1076.53	41.5 Av	2.1 / 23.9 / 38.4	29.1	V / 1.0 / 90.0	-24.9	N/A
1166.39	44.6 Av	2.2 / 23.7 / 38.3	32.2	V / 1.0 / 90.0	-21.8	N/A
1233.03	43.3 Av	2.2 / 24.2 / 38.1	31.6	V / 1.0 / 90.0	-22.4	N/A
1266.36	39.0 Av	2.3 / 24.3 / 38.0	27.6	V / 1.0 / 90.0	-26.4	N/A
1299.70	43.7 Av	2.3 / 24.2 / 37.9	32.3	V / 1.0 / 90.0	-21.7	N/A
1333.01	47.9 Av	2.3 / 24.1 / 37.8	36.5	V / 1.0 / 90.0	-17.5	N/A
1338.10	39.2 Av	2.3 / 24.1 / 37.8	28.0	V / 1.0 / 90.0	-26.0	N/A
1366.34	44.6 Av	2.4 / 24.3 / 37.7	33.6	V / 1.0 / 90.0	-20.4	N/A
1399.68	41.5 Av	2.4 / 24.6 / 37.5	30.9	V / 1.0 / 90.0	-23.1	N/A
1433.00	43.5 Av	2.4 / 24.6 / 37.4	33.1	V / 1.0 / 90.0	-20.9	N/A
1466.33	46.4 Av	2.5 / 24.5 / 37.4	35.9	V / 1.0 / 90.0	-18.1	N/A
1499.64	41.4 Av	2.5 / 24.3 / 37.4	30.8	V / 1.0 / 90.0	-23.2	N/A
1532.99	38.5 Av	2.5 / 24.4 / 37.3	28.1	V / 1.0 / 90.0	-25.9	N/A
1566.28	42.0 Av	2.6 / 24.5 / 37.3	31.7	V / 1.0 / 90.0	-22.3	N/A
1599.60	53.4 Av	2.6 / 24.7 / 37.4	43.3	V / 1.0 / 90.0	-10.7	N/A
1604.67	47.5 Av	2.6 / 24.7 / 37.4	37.5	V / 1.0 / 90.0	-16.5	N/A
1649.86	40.5 Av	2.6 / 25.2 / 37.5	30.8	V / 1.0 / 90.0	-23.2	N/A
1866.25	51.7 Av	2.9 / 26.7 / 38.1	43.2	V / 1.0 / 90.0	-10.8	N/A
2132.79	46.5 Av	3.1 / 26.8 / 38.2	38.1	V / 1.0 / 90.0	-15.9	N/A
1-4 GHz Vertical 180 degrees						
1016.03	39.9 Av	2.0 / 23.4 / 38.2	27.1	V / 1.0 / 180.0	-26.9	N/A
1033.07	49.5 Av	2.0 / 23.6 / 38.2	36.9	V / 1.0 / 180.0	-17.1	N/A
1044.25	38.0 Av	2.0 / 23.7 / 38.2	25.6	V / 1.0 / 180.0	-28.4	N/A
1061.31	44.3 Av	2.1 / 23.8 / 38.3	31.9	V / 1.0 / 180.0	-22.1	N/A
1066.40	57.0 Av	2.1 / 23.9 / 38.3	44.5	V / 1.0 / 180.0	-9.5	N/A
1071.49	45.5 Av	2.1 / 23.9 / 38.4	33.1	V / 1.0 / 180.0	-20.9	N/A
1099.74	51.3 Av	2.1 / 24.0 / 38.4	39.0	V / 1.0 / 180.0	-15.0	N/A
1124.90	39.8 Av	2.1 / 23.8 / 38.3	27.4	V / 1.0 / 180.0	-26.6	N/A
1128.94	39.6 Av	2.1 / 23.7 / 38.3	27.2	V / 1.0 / 180.0	-26.8	N/A
1166.39	50.9 Av	2.2 / 23.7 / 38.3	38.5	V / 1.0 / 180.0	-15.5	N/A
1233.03	48.6 Av	2.2 / 24.2 / 38.1	37.0	V / 1.0 / 180.0	-17.0	N/A
1248.15	40.9 Av	2.2 / 24.3 / 38.1	29.3	V / 1.0 / 180.0	-24.7	N/A
1249.90	37.1 Av	2.2 / 24.3 / 38.1	25.6	V / 1.0 / 180.0	-28.4	N/A
1266.36	42.5 Av	2.3 / 24.3 / 38.0	31.0	V / 1.0 / 180.0	-23.0	N/A
1274.87	38.6 Av	2.3 / 24.3 / 37.9	27.2	V / 1.0 / 180.0	-26.8	N/A
1299.70	49.9 Av	2.3 / 24.2 / 37.9	38.5	V / 1.0 / 180.0	-15.5	N/A
1488.18	37.8 Av	2.5 / 24.4 / 37.4	27.3	V / 1.0 / 180.0	-26.7	N/A
1499.64	42.6 Av	2.5 / 24.3 / 37.4	32.1	V / 1.0 / 180.0	-21.9	N/A
1536.20	40.0 Av	2.5 / 24.4 / 37.3	29.7	V / 1.0 / 180.0	-24.3	N/A
1584.19	41.5 Av	2.6 / 24.6 / 37.4	31.3	V / 1.0 / 180.0	-22.7	N/A
1599.60	51.0 Av	2.6 / 24.7 / 37.4	40.8	V / 1.0 / 180.0	-13.2	N/A
1632.21	41.4 Av	2.6 / 25.0 / 37.5	31.5	V / 1.0 / 180.0	-22.5	N/A
1832.93	42.5 Av	2.8 / 26.6 / 38.0	33.8	V / 1.0 / 180.0	-20.2	N/A
1999.52	45.0 Av	3.0 / 26.9 / 38.1	36.8	V / 1.0 / 180.0	-17.2	N/A

Intertek

Report Number: 100356542DEN-002C

Issued: 03/25/2011

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
1-4 GHz Vertical 270 degrees						
1058.37	39.9 Av	2.1 / 23.8 / 38.3	27.4	V / 1.0 / 270.0	-26.6	N/A
1166.39	49.8 Av	2.2 / 23.7 / 38.3	37.3	V / 1.0 / 270.0	-16.7	N/A
1266.36	43.9 Av	2.3 / 24.3 / 38.0	32.4	V / 1.0 / 270.0	-21.6	N/A
1333.01	51.0 Av	2.3 / 24.1 / 37.8	39.7	V / 1.0 / 270.0	-14.3	N/A
1340.60	39.0 Av	2.3 / 24.1 / 37.7	27.7	V / 1.0 / 270.0	-26.3	N/A
1366.34	47.4 Av	2.4 / 24.3 / 37.7	36.3	V / 1.0 / 270.0	-17.7	N/A
1399.68	45.1 Av	2.4 / 24.6 / 37.5	34.6	V / 1.0 / 270.0	-19.4	N/A
1433.00	44.0 Av	2.4 / 24.6 / 37.4	33.6	V / 1.0 / 270.0	-20.4	N/A
1874.84	40.4 Av	2.9 / 26.7 / 38.1	31.9	V / 1.0 / 270.0	-22.1	N/A
Following signals maximized between 1 & 4 GHz Vertical						
1066.40	61.3 Av	2.1 / 23.9 / 38.3	48.9	V / 1.0 / 148.0	-5.1	N/A
1099.74	54.4 Av	2.1 / 24.0 / 38.4	42.1	V / 1.0 / 348.0	-11.9	N/A
1166.39	51.8 Av	2.2 / 23.7 / 38.3	39.3	V / 1.0 / 168.0	-14.7	N/A
1333.01	51.9 Av	2.3 / 24.1 / 37.8	40.5	V / 1.2 / 286.0	-13.5	N/A
1599.60	59.0 Av	2.6 / 24.7 / 37.4	48.8	V / 1.1 / 24.0	-5.2	N/A
1866.25	53.8 Av	2.9 / 26.7 / 38.1	45.2	V / 1.1 / 88.0	-8.8	N/A
1-4 GHz Horizontal 0 degrees						
1008.11	35.9 Av	2.0 / 23.3 / 38.2	23.0	H / 1.6 / 0.0	-31.0	N/A
1016.03	36.1 Av	2.0 / 23.4 / 38.2	23.4	H / 1.6 / 0.0	-30.6	N/A
1033.07	44.0 Av	2.0 / 23.6 / 38.2	31.4	H / 1.6 / 0.0	-22.6	N/A
1044.25	36.4 Av	2.0 / 23.7 / 38.2	23.9	H / 1.6 / 0.0	-30.1	N/A
1049.90	35.6 Av	2.0 / 23.8 / 38.2	23.2	H / 1.6 / 0.0	-30.8	N/A
1058.37	39.0 Av	2.1 / 23.8 / 38.3	26.5	H / 1.6 / 0.0	-27.5	N/A
1061.31	38.0 Av	2.1 / 23.8 / 38.3	25.5	H / 1.6 / 0.0	-28.5	N/A
1066.40	45.3 Av	2.1 / 23.9 / 38.3	32.9	H / 1.6 / 0.0	-21.1	N/A
1071.49	38.0 Av	2.1 / 23.9 / 38.4	25.6	H / 1.6 / 0.0	-28.4	N/A
1099.74	48.2 Av	2.1 / 24.0 / 38.4	35.9	H / 1.6 / 0.0	-18.1	N/A
1104.15	36.5 Av	2.1 / 24.0 / 38.3	24.2	H / 1.6 / 0.0	-29.8	N/A
1128.94	38.9 Av	2.1 / 23.7 / 38.3	26.4	H / 1.6 / 0.0	-27.6	N/A
1133.05	42.9 Av	2.1 / 23.7 / 38.3	30.4	H / 1.6 / 0.0	-23.6	N/A
1166.39	40.5 Av	2.2 / 23.7 / 38.3	28.1	H / 1.6 / 0.0	-25.9	N/A
1233.03	37.2 Av	2.2 / 24.2 / 38.1	25.6	H / 1.6 / 0.0	-28.4	N/A
1266.36	37.3 Av	2.3 / 24.3 / 38.0	25.9	H / 1.6 / 0.0	-28.1	N/A
1299.70	41.0 Av	2.3 / 24.2 / 37.9	29.7	H / 1.6 / 0.0	-24.3	N/A
1333.01	37.6 Av	2.3 / 24.1 / 37.8	26.3	H / 1.6 / 0.0	-27.7	N/A
1366.34	38.0 Av	2.4 / 24.3 / 37.7	26.9	H / 1.6 / 0.0	-27.1	N/A
1433.00	37.0 Av	2.4 / 24.6 / 37.4	26.6	H / 1.6 / 0.0	-27.4	N/A
1466.33	37.0 Av	2.5 / 24.5 / 37.4	26.6	H / 1.6 / 0.0	-27.4	N/A
1499.64	35.9 Av	2.5 / 24.3 / 37.4	25.4	H / 1.6 / 0.0	-28.6	N/A
1599.60	41.3 Av	2.6 / 24.7 / 37.4	31.2	H / 1.6 / 0.0	-22.8	N/A
1604.67	36.9 Av	2.6 / 24.7 / 37.4	26.8	H / 1.6 / 0.0	-27.2	N/A
1632.21	36.9 Av	2.6 / 25.0 / 37.5	27.0	H / 1.6 / 0.0	-27.0	N/A
1632.94	37.2 Av	2.6 / 25.0 / 37.5	27.4	H / 1.6 / 0.0	-26.6	N/A
1680.22	35.8 Av	2.7 / 25.4 / 37.5	26.4	H / 1.6 / 0.0	-27.6	N/A

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
1699.61	36.8 Av	2.7 / 25.5 / 37.6	27.4	H / 1.6 / 0.0	-26.6	N/A
1728.22	36.9 Av	2.7 / 26.0 / 37.8	27.8	H / 1.6 / 0.0	-26.2	N/A
1766.26	35.8 Av	2.8 / 26.4 / 37.9	27.0	H / 1.6 / 0.0	-27.0	N/A
1776.23	35.9 Av	2.8 / 26.4 / 38.0	27.1	H / 1.6 / 0.0	-26.9	N/A
1866.25	40.5 Av	2.9 / 26.7 / 38.1	32.0	H / 1.6 / 0.0	-22.0	N/A
1-4 GHz Horizontal 90 degrees						
1016.03	36.3 Av	2.0 / 23.4 / 38.2	23.5	H / 1.6 / 90.0	-30.5	N/A
1066.40	42.5 Av	2.1 / 23.9 / 38.3	30.1	H / 1.6 / 90.0	-23.9	N/A
1128.94	36.0 Av	2.1 / 23.7 / 38.3	23.5	H / 1.6 / 90.0	-30.5	N/A
1133.05	37.5 Av	2.1 / 23.7 / 38.3	25.0	H / 1.6 / 90.0	-29.0	N/A
1166.39	38.3 Av	2.2 / 23.7 / 38.3	25.9	H / 1.6 / 90.0	-28.1	N/A
1233.03	39.7 Av	2.2 / 24.2 / 38.1	28.0	H / 1.6 / 90.0	-26.0	N/A
1299.70	41.2 Av	2.3 / 24.2 / 37.9	29.8	H / 1.6 / 90.0	-24.2	N/A
1333.01	42.6 Av	2.3 / 24.1 / 37.8	31.3	H / 1.6 / 90.0	-22.7	N/A
1366.34	39.5 Av	2.4 / 24.3 / 37.7	28.5	H / 1.6 / 90.0	-25.5	N/A
1466.33	39.4 Av	2.5 / 24.5 / 37.4	29.0	H / 1.6 / 90.0	-25.0	N/A
1728.22	37.9 Av	2.7 / 26.0 / 37.8	28.7	H / 1.6 / 90.0	-25.3	N/A
1766.26	36.5 Av	2.8 / 26.4 / 37.9	27.7	H / 1.6 / 90.0	-26.3	N/A
1776.23	38.1 Av	2.8 / 26.4 / 38.0	29.4	H / 1.6 / 90.0	-24.6	N/A
1799.59	39.2 Av	2.8 / 26.5 / 38.1	30.4	H / 1.6 / 90.0	-23.6	N/A
1832.93	39.1 Av	2.8 / 26.6 / 38.0	30.5	H / 1.6 / 90.0	-23.5	N/A
1866.25	44.4 Av	2.9 / 26.7 / 38.1	35.9	H / 1.6 / 90.0	-18.1	N/A
3338.86	35.6 Av	4.2 / 30.7 / 37.7	32.8	H / 1.6 / 90.0	-21.2	N/A
1-4 GHz Horizontal 180 degrees						
1016.03	40.0 Av	2.0 / 23.4 / 38.2	27.2	H / 1.6 / 180.0	-26.8	N/A
1033.07	44.6 Av	2.0 / 23.6 / 38.2	32.0	H / 1.6 / 180.0	-22.0	N/A
1044.25	37.1 Av	2.0 / 23.7 / 38.2	24.7	H / 1.6 / 180.0	-29.3	N/A
1066.40	43.4 Av	2.1 / 23.9 / 38.3	31.0	H / 1.6 / 180.0	-23.0	N/A
1099.74	44.0 Av	2.1 / 24.0 / 38.4	31.7	H / 1.6 / 180.0	-22.3	N/A
1128.94	36.5 Av	2.1 / 23.7 / 38.3	24.0	H / 1.6 / 180.0	-30.0	N/A
1133.05	42.1 Av	2.1 / 23.7 / 38.3	29.7	H / 1.6 / 180.0	-24.3	N/A
1233.03	40.3 Av	2.2 / 24.2 / 38.1	28.6	H / 1.6 / 180.0	-25.4	N/A
1299.70	42.0 Av	2.3 / 24.2 / 37.9	30.6	H / 1.6 / 180.0	-23.4	N/A
1333.01	45.5 Av	2.3 / 24.1 / 37.8	34.2	H / 1.6 / 180.0	-19.8	N/A
1366.34	41.9 Av	2.4 / 24.3 / 37.7	30.8	H / 1.6 / 180.0	-23.2	N/A
1599.60	44.3 Av	2.6 / 24.7 / 37.4	34.2	H / 1.6 / 180.0	-19.8	N/A

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
1728.22	38.1 Av	2.7 / 26.0 / 37.8	29.0	H / 1.6 / 180.0	-25.0	N/A
1866.25	42.2 Av	2.9 / 26.7 / 38.1	33.7	H / 1.6 / 180.0	-20.3	N/A
3338.86	36.2 Av	4.2 / 30.7 / 37.7	33.4	H / 1.6 / 180.0	-20.6	N/A
Following signals maximized between 1 & 4 GHz Horizontal						
1066.40	51.0 Av	2.1 / 23.9 / 38.3	38.6	H / 1.6 / 180.0	-15.4	N/A
1099.74	52.1 Av	2.1 / 24.0 / 38.4	39.9	H / 1.4 / 54.0	-14.1	N/A
1333.01	48.9 Av	2.3 / 24.1 / 37.8	37.5	H / 2.1 / 54.0	-16.5	N/A
1599.60	49.9 Av	2.6 / 24.7 / 37.4	39.8	H / 2.1 / 38.0	-14.2	N/A
1866.25	48.9 Av	2.9 / 26.7 / 38.1	40.3	H / 1.9 / 348.0	-13.7	N/A
4-5 GHz Vertical 0 degrees						
No signals found: 4-5 GHz Vertical - Noisefloor						
4100.00	34.1 Av	4.8 / 31.4 / 40.4	30.0	V / 1.0 / 0.0	-24.0	N/A
4510.00	34.1 Av	5.3 / 31.3 / 40.7	30.0	V / 1.0 / 0.0	-24.0	N/A
4980.00	33.4 Av	5.7 / 32.5 / 40.2	31.3	V / 1.0 / 0.0	-22.7	N/A
No signals found: 4-5 GHz Horizontal - Noisefloor						
4120.00	34.1 Av	4.9 / 31.4 / 40.5	29.9	H / 1.6 / 0.0	-24.1	N/A
4500.00	34.9 Av	5.2 / 31.3 / 40.7	30.7	H / 1.6 / 0.0	-23.3	N/A
4990.00	34.4 Av	5.7 / 32.5 / 40.2	32.4	H / 1.6 / 0.0	-21.6	N/A

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
***** Measurement Summary *****						
1066.40	61.3 Av	2.1 / 23.9 / 38.3	48.9	V / 1.0 / 148.0	-5.1	N/A
1599.60	59.0 Av	2.6 / 24.7 / 37.4	48.8	V / 1.1 / 24.0	-5.2	N/A
1866.25	53.8 Av	2.9 / 26.7 / 38.1	45.2	V / 1.1 / 88.0	-8.8	N/A
1099.74	54.4 Av	2.1 / 24.0 / 38.4	42.1	V / 1.0 / 348.0	-11.9	N/A
1333.01	51.9 Av	2.3 / 24.1 / 37.8	40.5	V / 1.2 / 286.0	-13.5	N/A
1166.39	51.8 Av	2.2 / 23.7 / 38.3	39.3	V / 1.0 / 168.0	-14.7	N/A
1299.70	49.9 Av	2.3 / 24.2 / 37.9	38.5	V / 1.0 / 180.0	-15.5	N/A
2132.79	46.5 Av	3.1 / 26.8 / 38.2	38.1	V / 1.0 / 90.0	-15.9	N/A
1033.07	50.1 Av	2.0 / 23.6 / 38.2	37.5	V / 1.0 / 0.0	-16.5	N/A
1604.67	47.5 Av	2.6 / 24.7 / 37.4	37.5	V / 1.0 / 90.0	-16.5	N/A
1233.03	48.6 Av	2.2 / 24.2 / 38.1	37.0	V / 1.0 / 180.0	-17.0	N/A
1999.52	45.0 Av	3.0 / 26.9 / 38.1	36.8	V / 1.0 / 180.0	-17.2	N/A
1799.59	45.4 Av	2.8 / 26.5 / 38.1	36.6	V / 1.0 / 0.0	-17.4	N/A
1366.34	47.4 Av	2.4 / 24.3 / 37.7	36.3	V / 1.0 / 270.0	-17.7	N/A
1594.55	46.3 Av	2.6 / 24.7 / 37.4	36.2	V / 1.0 / 0.0	-17.8	N/A
1133.05	48.4 Av	2.1 / 23.7 / 38.3	35.9	V / 1.0 / 0.0	-18.1	N/A
1466.33	46.4 Av	2.5 / 24.5 / 37.4	35.9	V / 1.0 / 90.0	-18.1	N/A
1399.68	45.1 Av	2.4 / 24.6 / 37.5	34.6	V / 1.0 / 270.0	-19.4	N/A
1071.49	46.6 Av	2.1 / 23.9 / 38.4	34.2	V / 1.0 / 90.0	-19.8	N/A
1776.23	43.0 Av	2.8 / 26.4 / 38.0	34.2	V / 1.0 / 0.0	-19.8	N/A
1609.38	43.9 Av	2.6 / 24.8 / 37.4	33.9	V / 1.0 / 0.0	-20.1	N/A
1861.17	42.5 Av	2.9 / 26.6 / 38.1	33.9	V / 1.0 / 0.0	-20.1	N/A
1680.22	43.2 Av	2.7 / 25.4 / 37.5	33.8	V / 1.0 / 0.0	-20.2	N/A
1832.93	42.5 Av	2.8 / 26.6 / 38.0	33.8	V / 1.0 / 180.0	-20.2	N/A
1433.00	44.0 Av	2.4 / 24.6 / 37.4	33.6	V / 1.0 / 270.0	-20.4	N/A
1061.31	45.9 Av	2.1 / 23.8 / 38.3	33.4	V / 1.0 / 90.0	-20.6	N/A
3338.86	36.2 Av	4.2 / 30.7 / 37.7	33.4	H / 1.6 / 180.0	-20.6	N/A
3955.73	34.1 Av	4.7 / 31.8 / 37.2	33.4	V / 1.0 / 0.0	-20.6	N/A
1728.22	42.4 Av	2.7 / 26.0 / 37.8	33.3	V / 1.0 / 0.0	-20.7	N/A
3732.36	35.7 Av	4.6 / 31.1 / 38.4	33.0	V / 1.0 / 0.0	-21.0	N/A
1632.94	42.6 Av	2.6 / 25.0 / 37.5	32.8	V / 1.0 / 0.0	-21.2	N/A
1589.84	42.6 Av	2.6 / 24.6 / 37.4	32.5	V / 1.0 / 0.0	-21.5	N/A
1266.36	43.9 Av	2.3 / 24.3 / 38.0	32.4	V / 1.0 / 270.0	-21.6	N/A
4990.00	34.4 Av	5.7 / 32.5 / 40.2	32.4	H / 1.6 / 0.0	-21.6	N/A
1566.28	42.5 Av	2.6 / 24.5 / 37.3	32.2	V / 1.0 / 0.0	-21.8	N/A
1499.64	42.6 Av	2.5 / 24.3 / 37.4	32.1	V / 1.0 / 180.0	-21.9	N/A
1874.84	40.4 Av	2.9 / 26.7 / 38.1	31.9	V / 1.0 / 270.0	-22.1	N/A
1104.15	44.0 Av	2.1 / 24.0 / 38.3	31.7	V / 1.0 / 0.0	-22.3	N/A
1632.21	41.4 Av	2.6 / 25.0 / 37.5	31.5	V / 1.0 / 180.0	-22.5	N/A
1584.19	41.5 Av	2.6 / 24.6 / 37.4	31.3	V / 1.0 / 180.0	-22.7	N/A
3199.17	35.0 Av	4.0 / 30.5 / 38.2	31.3	V / 1.0 / 0.0	-22.7	N/A
4980.00	33.4 Av	5.7 / 32.5 / 40.2	31.3	V / 1.0 / 0.0	-22.7	N/A
1666.25	40.5 Av	2.7 / 25.3 / 37.5	31.0	V / 1.0 / 0.0	-23.0	N/A
1699.61	40.4 Av	2.7 / 25.5 / 37.6	31.0	V / 1.0 / 0.0	-23.0	N/A

Intertek

Report Number: 100356542DEN-002C

Issued: 03/25/2011

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dBm) (dB)	(dBuV)	(m) (DEG)	15.209 >1GHz	N/A
1649.86	40.5 Av	2.6 / 25.2 / 37.5	30.8	V / 1.0 / 90.0	-23.2	N/A
4500.00	34.9 Av	5.2 / 31.3 / 40.7	30.7	H / 1.6 / 0.0	-23.3	N/A
1766.26	39.3 Av	2.8 / 26.4 / 37.9	30.5	V / 1.0 / 0.0	-23.5	N/A
1056.28	42.5 Av	2.1 / 23.8 / 38.3	30.0	V / 1.0 / 90.0	-24.0	N/A
2665.98	36.5 Av	3.4 / 28.3 / 38.1	30.0	V / 1.0 / 0.0	-24.0	N/A
4100.00	34.1 Av	4.8 / 31.4 / 40.4	30.0	V / 1.0 / 0.0	-24.0	N/A
4510.00	34.1 Av	5.3 / 31.3 / 40.7	30.0	V / 1.0 / 0.0	-24.0	N/A
4120.00	34.1 Av	4.9 / 31.4 / 40.5	29.9	H / 1.6 / 0.0	-24.1	N/A
1536.20	40.0 Av	2.5 / 24.4 / 37.3	29.7	V / 1.0 / 180.0	-24.3	N/A
1049.90	42.0 Av	2.0 / 23.8 / 38.2	29.6	V / 1.0 / 0.0	-24.4	N/A
1248.15	40.9 Av	2.2 / 24.3 / 38.1	29.3	V / 1.0 / 180.0	-24.7	N/A
1076.53	41.5 Av	2.1 / 23.9 / 38.4	29.1	V / 1.0 / 90.0	-24.9	N/A
1124.90	41.4 Av	2.1 / 23.8 / 38.3	29.0	V / 1.0 / 0.0	-25.0	N/A
1532.99	38.5 Av	2.5 / 24.4 / 37.3	28.1	V / 1.0 / 90.0	-25.9	N/A
1008.11	40.9 Av	2.0 / 23.3 / 38.2	28.0	V / 1.0 / 0.0	-26.0	N/A
1338.10	39.2 Av	2.3 / 24.1 / 37.8	28.0	V / 1.0 / 90.0	-26.0	N/A
1327.93	39.1 Av	2.3 / 24.1 / 37.8	27.8	V / 1.0 / 0.0	-26.2	N/A
1340.60	39.0 Av	2.3 / 24.1 / 37.7	27.7	V / 1.0 / 270.0	-26.3	N/A
1274.87	39.0 Av	2.3 / 24.3 / 37.9	27.6	V / 1.0 / 0.0	-26.4	N/A
1058.37	39.9 Av	2.1 / 23.8 / 38.3	27.4	V / 1.0 / 270.0	-26.6	N/A
1488.18	37.8 Av	2.5 / 24.4 / 37.4	27.3	V / 1.0 / 180.0	-26.7	N/A
1016.03	40.0 Av	2.0 / 23.4 / 38.2	27.2	H / 1.6 / 180.0	-26.8	N/A
1128.94	39.6 Av	2.1 / 23.7 / 38.3	27.2	V / 1.0 / 180.0	-26.8	N/A
1152.13	39.0 Av	2.2 / 23.5 / 38.3	26.4	V / 1.0 / 0.0	-27.6	N/A
1149.91	38.8 Av	2.1 / 23.5 / 38.3	26.1	V / 1.0 / 0.0	-27.9	N/A
1574.87	36.0 Av	2.6 / 24.5 / 37.3	25.7	V / 1.0 / 0.0	-28.3	N/A
1044.25	38.0 Av	2.0 / 23.7 / 38.2	25.6	V / 1.0 / 180.0	-28.4	N/A
1249.90	37.1 Av	2.2 / 24.3 / 38.1	25.6	V / 1.0 / 180.0	-28.4	N/A
1392.16	35.7 Av	2.4 / 24.5 / 37.5	25.1	V / 1.0 / 0.0	-28.9	N/A

Example calculation for Unintentional Radiated Emissions:

Measured Level	+	Transducer, Cable Loss & Amplifier corrections	=	Corrected Reading	Specification Limit	-	Corrected Reading	=	Delta Specification
(dB μ V)		(dB)		(dB μ V/m)	(dB μ V/m)		(dB μ V/m)		
14.0		14.9		28.9	40.0		28.9		-11.1

Deviations, Additions, or Exclusions: None

7 Measurement Uncertainty

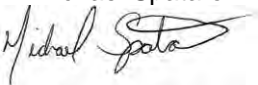
The measured value related to the corresponding limit will be used to decide whether the equipment meets the requirements.

The measurement uncertainty figures were calculated and correspond to a coverage factor of $k = 2$, providing a confidence level of respectively 95.45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian).

Measurement uncertainty Table

Parameter	Uncertainty \pm	Notes
Radiated emissions, 10kHz to 1000 MHz	4.8 dB	
Radiated emissions, 1 to 18 GHz	4.9 dB	
AC mains Conducted emissions, 150kHz to 30 MHz	3.14 dB	
Disturbance Power 30 to 1000 MHz	3.3 dB	
Telecom Port Conducted emissions, Voltage 150 kHz to 30 MHz	TBD	In Process
Harmonics	-	Meets the requirements specified by the standard.
Flicker	-	Meets the requirements specified by the standard.
ESD	4.4 %	
Radiated RF field immunity 80MHz to 2.7GHz	2.2 dB	
EFT	4.3 %	
Surge	4.3 %	
Conducted RF immunity	2.1 dB	
Power frequency magnetic field immunity	2.3 dB	
Voltage dips / interruptions immunity	0.3 mV	

8 Revision History

Revision Level	Date	Report Number	Notes
1	03/25/2011	10035654DEN-002C	<p>This report is an update of report numbers: 3175935DEN-004 and 3175935DEN-005</p> <p>No additional testing was performed, the two reports are combined into one and a validation for the latest version of RSS-210 was performed.</p> <p>Michael Spataro </p>