

COMPLIANCE WORLDWIDE INC. TEST REPORT 402-12R1

In Accordance with the Requirements of
Federal Communications Commission CFR Title 47 Part 15.249, Subpart C
Industry Canada RSS 210, Issue 8

Low Power License-Exempt Radio Communication Devices
Intentional Radiators

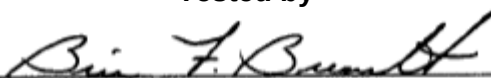
Issued to
Napco Security Technologies, Inc.
333 Bayview Ave.
Amityville, NY 11701
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for the
NAPCO IBR-ZREMOTE Module

FCC ID: AD8IBRZR1
IC: 596A-IBRZR1

Report Issued on June 6, 2013

Tested by


Brian F. Breault

Reviewed by


Larry K. Stillings

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1. Scope

This test report certifies that the IBR-ZREMOTE module, as tested, meets the FCC Part 15, Subpart C and Industry Canada RSS 210, Issue 8 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 – Page 4, Section 3: Updated the product configuration to reflect the as tested setups. This includes the support equipment, cables and block diagram.

Page 5, Section 4: Added the EMCO 6512 Loop antenna to Section 4.1, Measurement Equipment Used to Perform Test. Added calibration interval column to the list.

Page 13, Section 6: Replaced radiated spurious emissions prescan data from 30 MHz to 1 GHz to reflect the as tested configuration.

Page 21, Section 7: Updated the test setup photographs to reflect the as tested configuration.

2. Product Details

- 2.1. Manufacturer: NAPCO Security Systems, Inc.
- 2.2. Model Number: IBR-ZREMOTE
- 2.3. Serial Number: None
- 2.4. Description: Controller Module
- 2.5. Power Source: 12 VDC at approximately 120 ma.
- 2.6. Hardware Revs.: None
- 2.7. Software Rev.: None
- 2.8. EMC Modifications: None

3. Product Configuration

3.1. Support Equipment

Device	Manufacturer	Model	Serial No.	Comment
12 VDC Power Adapter	DVE	DV-1230S	N/A	
Laptop PC	Toshiba	Satellite A105	X620896Q	
Ethernet Hub	Linksys	EZXS88W	RA370K808604	

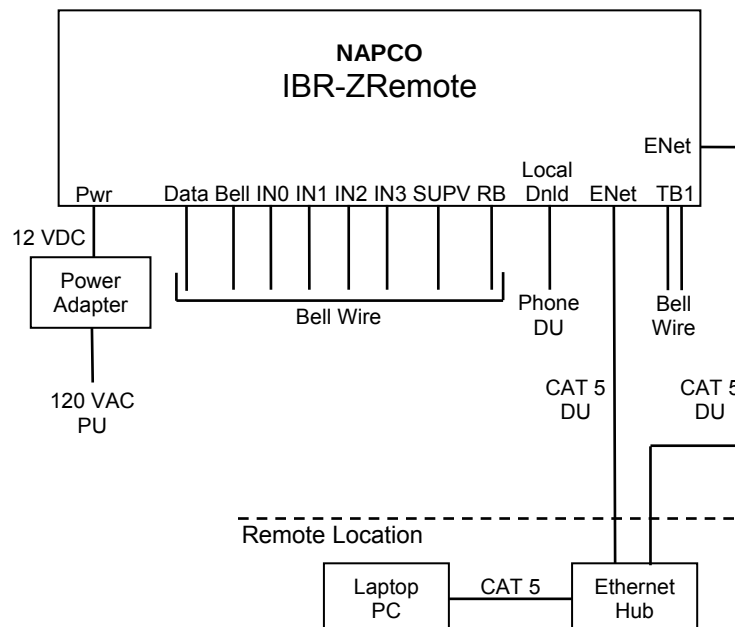
3.2. Cables

Cable Type	Length	Shield	From	To
Ethernet (CAT 5) (Qty 2)	2 Meters	No	Ethernet Port	Remotely Located Hub
Std Phone Cable (RJ12)	1 Meter	No	Local Dnld	Unterminated
Standard Bell Wire	1 Meter	No	Misc. Terminals	Unterminated

3.3. Operational Characteristics & Software

Plug the power adapter into 120 volts AC and the unit under test into the power adapter. The device is programmed to power up in the default test mode.

3.4. Block Diagram



4. Measurements Parameters

4.1. Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due	Interval
EMI Receiver 9 kHz to 6.5 GHz	Hewlett Packard	8546A	3330A00115	6/8/14	2 Yrs
Spectrum Analyzer 100 Hz to 26.5 GHz	Agilent Tech	E7405A	MY45115430	5/11/14	2 Yrs
Spectrum Analyzer 20 Hz to 40 GHz	Rohde & Schwarz	FSV40	100899	5/26/13	2 Yrs
Microwave Preamp 1 to 26.5 GHz	Hewlett Packard	8449B	3008A01323	12/1/12	2 Yrs
Loop Antenna 9 kHz - 30 MHz	EMCO	6512	9309-1139	8/28/14	2 Yrs
Bilog Antenna 30 MHz – 1 GHz	Com-Power	AC-220	25509	8/31/13	1 Yr
Horn Antenna 1 to 18 GHz	Electro-Metrics	EM-6961	6337	10/19/13	2 Yrs
Anechoic Chamber 3 Meter – Free Space	Keene Ray Proof	S-81	R-2338	Not Req'd	N/A
Barometric Pressure / Humidity / Temperature Data Logger	Extech Instruments	SD700	Q590483	5/1/13	2 Yrs

4.2. Measurement & Equipment Setup

Test Dates:	10/15/2012 – 10/26/2012
Test Engineers:	Brian Breault, Cody Merry
Normal Site Temperature (15 - 35°C):	21.2
Relative Humidity (20 -75%RH):	35
Frequency Range:	32 kHz to 10 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	120 kHz - 30 MHz to 1 GHz
	1 MHz - Above 1 GHz
EMI Receiver Average Bandwidth:	300 kHz - 30 MHz to 1 GHz
	3 MHz - Above 1 GHz
Detector Function:	Peak, Quasi-Peak & Average

4. Measurements Parameters (continued)

4.3. Measurement Procedure

Test measurements were made in accordance FCC Part 15.249, IC RSS-210 Annex II: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5875 MHz, and 24.0 - 24.25 GHz.

The test methods used to generate the data in this test report are in accordance with ANSI C63.4: 2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

4.4. Choice of Operating Frequencies

The NAPCO IBR-ZREMOTE uses a single transmit channel frequency at 908.4 MHz.

5. Measurement Summary

Test Requirement	FCC Requirement	IC Requirement	Test Section	Result	Comment
Antenna Requirement	15.203	RSS-GEN 7.1.2	6.1	Compliant	Unit has an internal PCB antenna.
Radiated Field Strength of Fundamental	15.249 (a),(c)	RSS-210 A2.9	6.2	Compliant	
Radiated Field Strength of Harmonics	15.249 (a),(c)	RSS-210 A2.9	6.3	Compliant	
Fixed, Point-to-Point Operation	15.249 (b)	N/A	---	Not Required	
Band Edge Measurements	15.249 (d) 15.209	RSS GEN 4.9	6.4	Compliant	
Spurious Radiated Emissions	15.249 (d), 15.209	RSS-210 A2.9(b)	6.5	Compliant	
Occupied Bandwidth 26 dB & 99% Power Bandwidth	ANSI C63.4 § 13.1.7	RSS-GEN 4.6.1	6.6	Compliant	
AC Power Line Conducted Emissions	15.207	RSS-GEN 7.2.4	6.7	Compliant	
Public Exposure to Radio Frequency Energy Levels	1.1307 (b) (1)	RSS GEN 5.5	6.8	Compliant	

6. Measurement Data

6.1. Antenna Requirement (Section 15.203, RSS-GEN)

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 with the provisions of this Section.

Result: The unit under test employs permanent, non-user accessible printed circuit antenna.

6.2. Radiated Field Strength of Fundamental (15.249, Section (a), (c)), IC RSS-210 A2.9

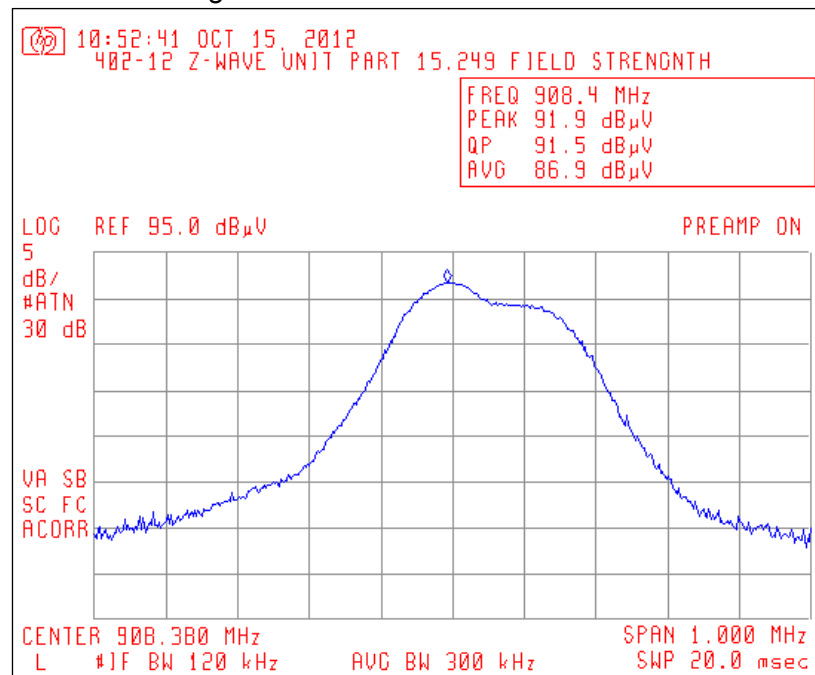
Requirement: The 3 meter field strength of the fundamental emissions from intentional radiators operating within the 902 – 928 MHz frequency band shall comply with the following requirement: 50 millivolts/meter (94 dB μ V/m) quasi-peak mode measurement and 500 millivolts/meter (114 dB μ V/m) peak mode measurement.

Frequency (MHz)	Amplitude ¹ (dB μ V/m) at 3 Meters		Limit (dB μ V/m) at 3 Meters		Margin (dB μ V/m) at 3 Meters		Ant Polarity ²	Ant Height	Turntable Azimuth	Result
	Peak	QP	Peak	QP	Peak	QP	H/V	cm	Deg	
908.4	91.70	91.50	114.00	94.00	-22.30	-2.50	H	101	160	Compliant

¹ All correction factors are included in measurement values.

² The horizontal polarity produced the highest field strength value of the two measurement antenna polarities.

6.2.1. Radiated Field Strength of Fundamental



6. Measurement Data (continued)

6.3. Radiated Field Strength of Harmonics (15.249, Section (a)), IC RSS-210 A2.9

Requirement: The 3 meter field strength of the harmonic emissions from intentional radiators operated within the 902 to 928 MHz frequency bands shall comply with the following: 500 microvolts/meter (54 dB μ V/m), average mode measurement. Peak field strength may not be greater than 20 dB above the average limit (74 dB μ V/m).

Test Results : Compliant

Note: All correction factors are included in the field strength values.

Freq. (MHz)	Field Strength (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)		Antenna Polarity (H/V)	Result
	Peak	Average	Peak	Average	Peak	Average		
1816.800	38.05	35.78	74.00	54.00	-35.95	-18.22	V	Compliant
2725.200	40.71	37.61	74.00	54.00	-33.29	-16.39	H	Compliant
3633.600	37.32	33.82	74.00	54.00	-36.68	-20.18	H	Compliant
4542.000	35.47	28.36	74.00	54.00	-38.53	-25.64	H	Compliant
5450.400	38.15	30.00	74.00	54.00	-35.85	-24.00	H	Compliant
6358.800	37.47	32.52	74.00	54.00	-36.53	-21.48	V	Compliant
7267.200	39.27	35.57	74.00	54.00	-34.73	-18.43	V	Compliant
8175.600	42.10	35.45	74.00	54.00	-31.90	-18.55	V	Compliant
9084.000	43.93	37.37	74.00	54.00	-30.07	-16.63	H	Compliant

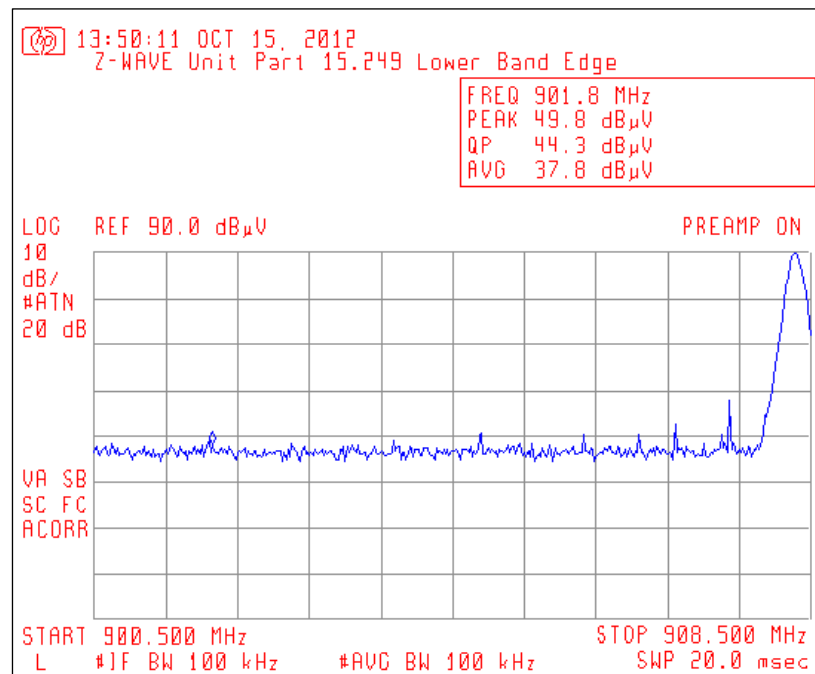
6. Measurement Data (continued)

6.4. Band Edge Measurements

Requirement: Emissions radiated outside of the specified frequency band of 902 to 928 MHz, 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 Section 15.209, whichever is the lesser attenuation.

Frequency (MHz)	Band Edge (dBμV/m)			Limit (dBμV/m)		Margin (dB)		Result
	Freq (MHz)	Peak	Quasi-Peak	Peak	Quasi-Peak	Peak	Quasi-Peak	
908.4	902	49.80	44.30	N/A	46.0	N/A	-1.70	Compliant
	928	49.50	44.70	N/A	46.0	N/A	-1.30	Compliant

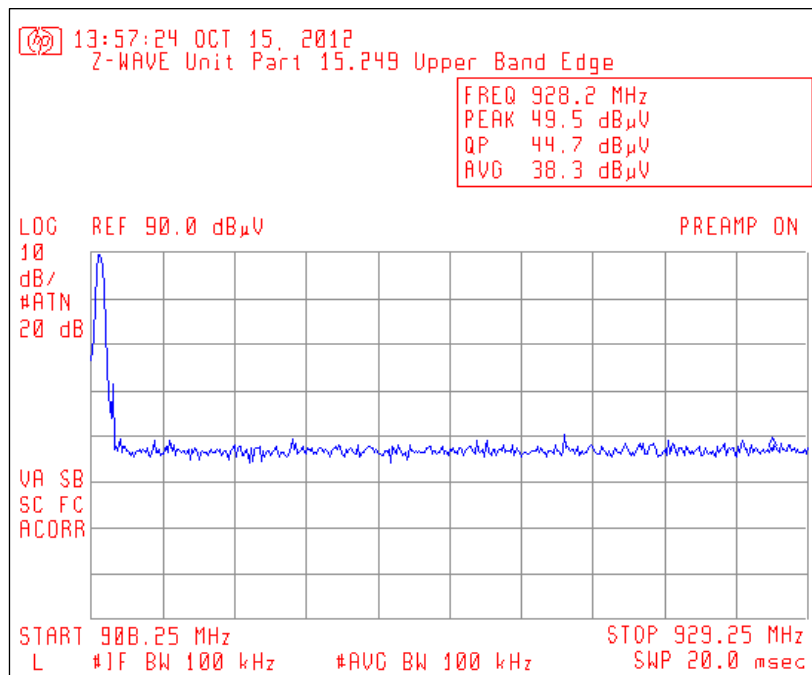
6.4.1. Band Edge Measurements - Lower Band Edge



6. Measurement Data (continued)

6.4. Band Edge Measurements (continued)

6.4.2. Band Edge Measurements - Upper Band Edge



6. Measurement Data (continued)

6.5. Spurious Radiated Emissions, 30 MHz to EUT 10th Harmonic (15.249, Section (d)), IC RSS-GEN

Requirement: 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 Section 15.209, whichever is the lesser attenuation.

6.5.1. Regulatory Limit: FCC Part 209, Quasi-Peak & Average

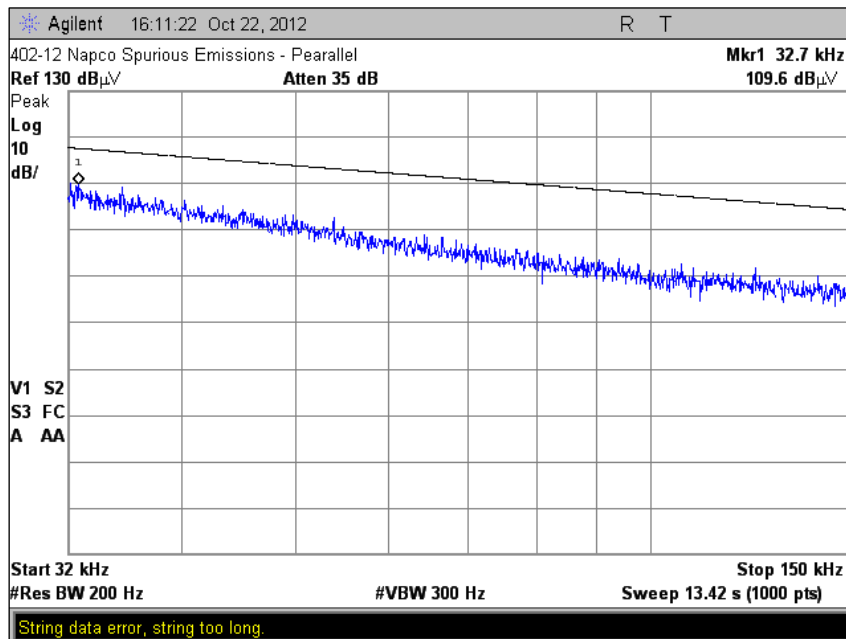
Frequency Range (MHz)	Distance (Meters)	Limit (dBμV/m)
0.009 to 0.490	3	128.5 to 93.8
0.490 to 1.705	3	73.8 to 63
1.705 to 30	3	69.5
30 to 88	3	40.0
88 to 216	3	43.5
216 to 960	3	46.0
Above 960	3	54.0

6. Measurement Data (continued)

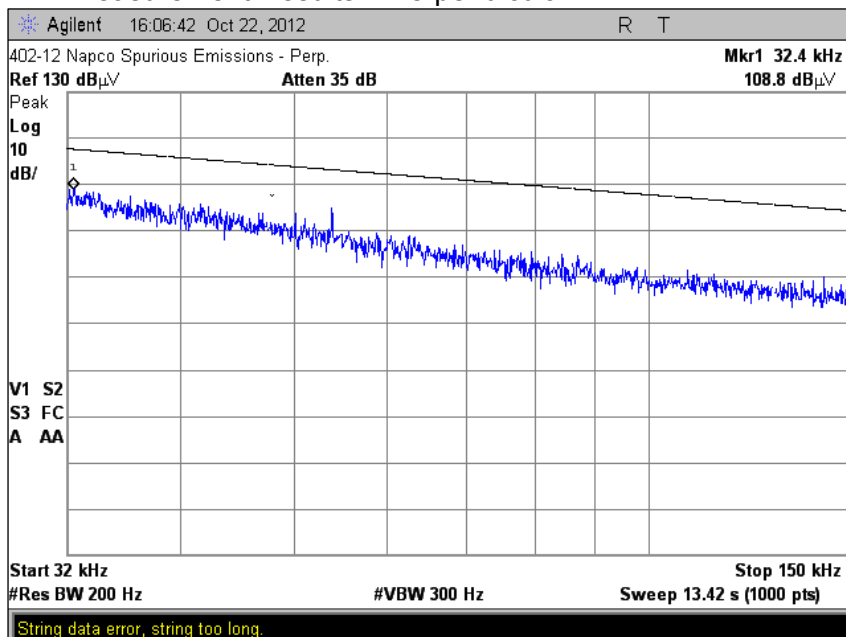
6.5. Spurious Radiated Emissions, 30 MHz to EUT 10th Harmonic (15.249, Section (d)), IC RSS-GEN (continued)

6.5.2. Spurious Radiated Emissions (32 kHz to 150 kHz) Test Results

6.5.2.1. Measurement Results – Parallel



6.5.2.2. Measurement Results – Perpendicular

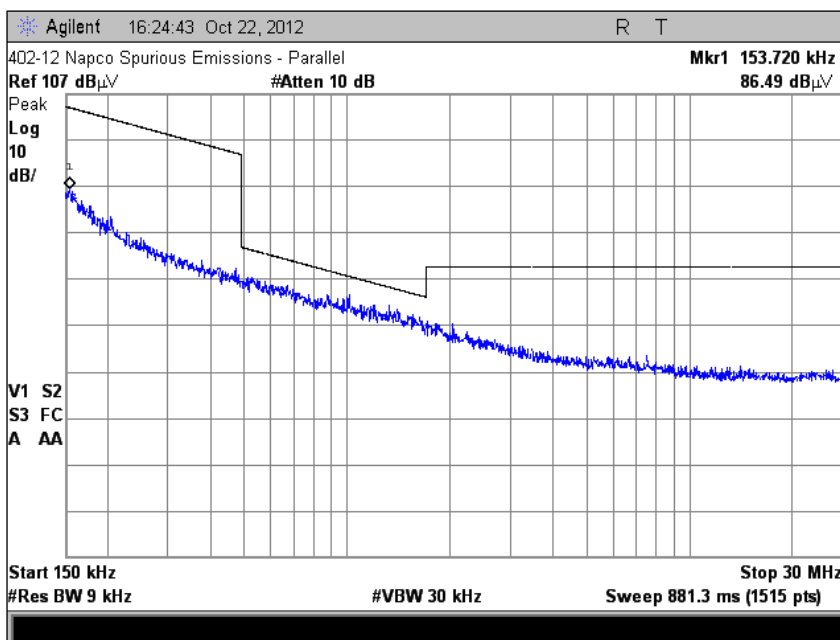


6. Measurement Data (continued)

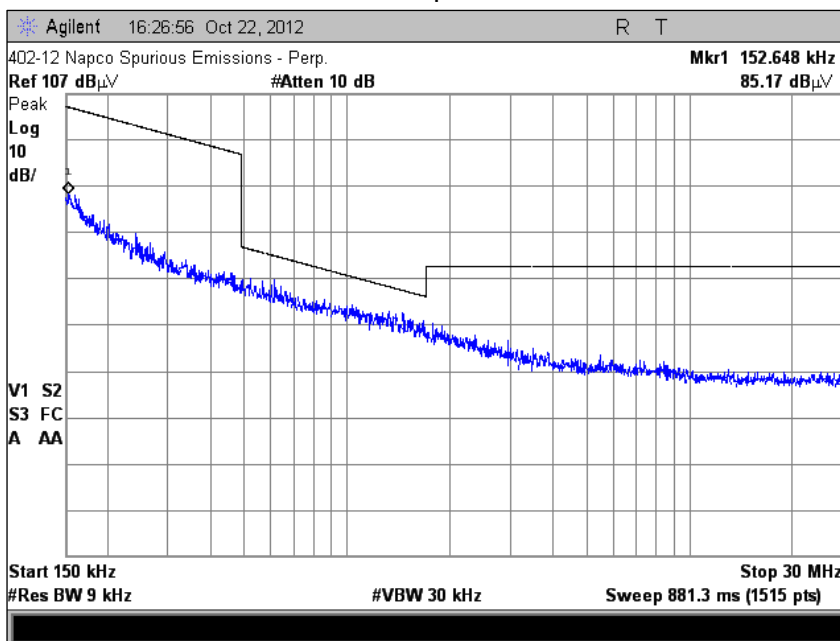
6.5. Spurious Radiated Emissions, 30 MHz to EUT 10th Harmonic (15.249, Section (d)), IC RSS-GEN (continued)

6.5.3. Spurious Radiated Emissions (150 kHz to 30 MHz) Test Results

6.5.3.1. Measurement Results – Parallel



6.5.3.1. Measurement Results – Perpendicular



6. Measurement Data (continued)

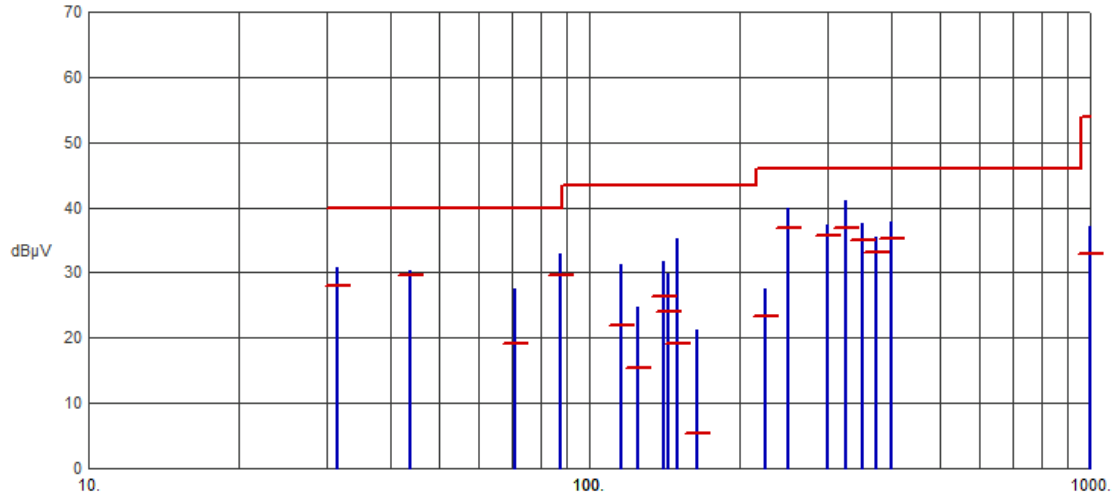
6.5. Spurious Radiated Emissions, 30 MHz to EUT 10th Harmonic (15.249, Section (d)), IC RSS-GEN (continued)

6.5.4. Spurious Radiated Emissions (30 MHz to 1 GHz) Test Results

6.5.4.1. Measurement Results – Horizontal

Test No.: 402-12, Radiated Emissions - Horizontal Polarity

FCC, Class B



Frequency (MHz)	Pk Amp (dBμV/m)	QP Amp (dBμV/m)	QP Limit (dBμV/m)	Margin (dB)	Ant Ht (cm)	Table (Deg)	Comments
31.3895	30.83	27.92	40.00	-12.08	N/A	N/A	
43.7993	30.31	29.64	40.00	-10.36	N/A	N/A	
70.8230	27.61	19.11	40.00	-20.89	N/A	N/A	
87.6119	32.94	29.64	40.00	-10.36	N/A	N/A	
115.6131	31.30	22.01	43.50	-21.49	N/A	N/A	
124.9952	24.68	15.51	43.50	-27.99	N/A	N/A	
141.2006	31.78	26.45	43.50	-17.05	N/A	N/A	
143.2759	29.79	24.08	43.50	-19.42	N/A	N/A	
149.9804	35.27	19.09	43.50	-24.41	N/A	N/A	
163.9431	21.19	5.29	43.50	-38.21	N/A	N/A	
225.0075	27.49	23.43	46.00	-22.57	N/A	N/A	
249.9994	40.00	36.75	46.00	-9.25	N/A	N/A	
299.9795	37.44	35.64	46.00	-10.36	N/A	N/A	
324.9688	41.01	36.89	46.00	-9.11	N/A	N/A	
349.9933	37.64	35.05	46.00	-10.95	N/A	N/A	
375.0213	35.36	33.02	46.00	-12.98	N/A	N/A	
399.9854	37.70	35.17	46.00	-10.83	N/A	N/A	
1000.0000	37.14	32.93	54.00	-21.07	N/A	N/A	

6. Measurement Data (continued)

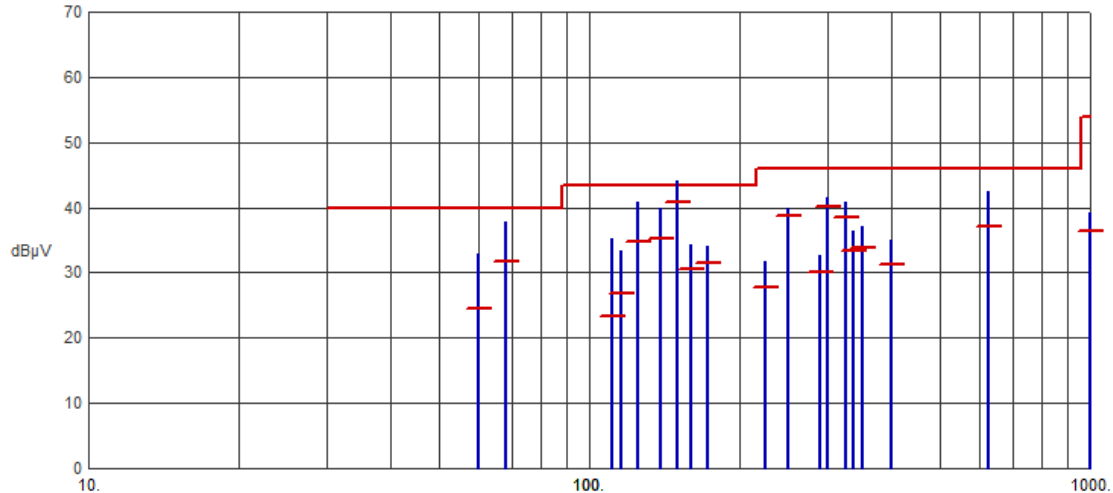
6.5. Spurious Radiated Emissions, 30 MHz to EUT 10th Harmonic (15.249, Section (d)), IC RSS-GEN (continued)

6.5.4. Spurious Radiated Emissions (30 MHz to 1 GHz) Test Results

6.5.4.2. Measurement Results – Vertical

Test No.: 402-12, Radiated Emissions - Vertical Polarity

FCC, Class B



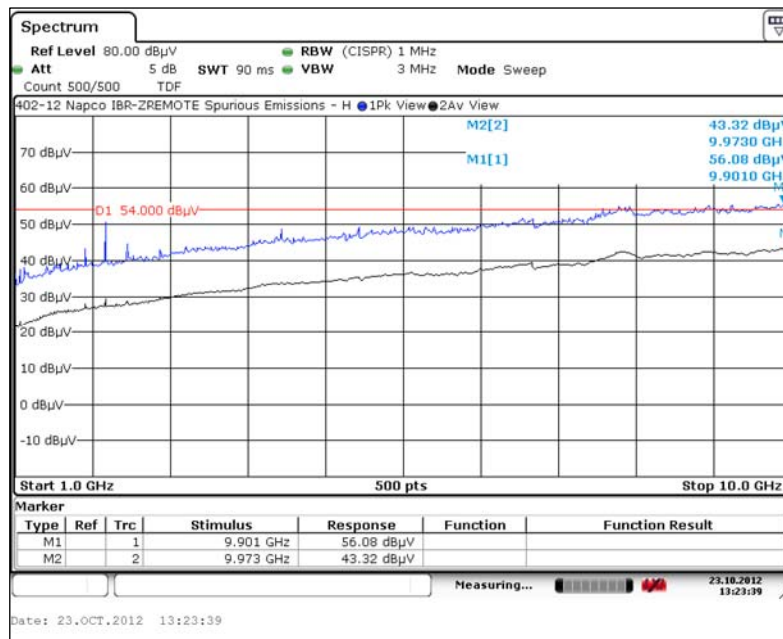
Frequency (MHz)	Pk Amp (dBμV/m)	QP Amp (dBμV/m)	QP Limit (dBμV/m)	Margin (dB)	Ant Ht (cm)	Table (Deg)	Comments
60.2439	32.82	24.58	40.00	-15.42	N/A	N/A	
68.3087	37.83	31.78	40.00	-8.22	N/A	N/A	
110.7609	35.21	23.35	43.50	-20.15	N/A	N/A	
115.5937	33.34	26.78	43.50	-16.72	N/A	N/A	
124.9845	40.88	34.84	43.50	-8.66	N/A	N/A	
138.3890	39.98	35.28	43.50	-8.22	N/A	N/A	
149.9192	44.15	40.81	43.50	-2.69	N/A	N/A	
159.5862	34.34	30.49	43.50	-13.01	N/A	N/A	
172.7975	34.14	31.42	43.50	-12.08	N/A	N/A	
224.9848	31.81	27.70	46.00	-18.30	N/A	N/A	
249.9777	39.94	38.63	46.00	-7.37	N/A	N/A	
288.0021	32.66	30.06	46.00	-15.94	N/A	N/A	
299.9706	41.58	40.19	46.00	-5.81	N/A	N/A	
324.9825	40.73	38.54	46.00	-7.46	N/A	N/A	
336.0279	36.50	33.36	46.00	-12.64	N/A	N/A	
349.9859	37.02	33.80	46.00	-12.20	N/A	N/A	
400.0005	34.97	31.27	46.00	-14.73	N/A	N/A	
625.0300	42.49	37.02	46.00	-8.98	N/A	N/A	
1000.0000	39.15	36.44	54.00	-17.56	N/A	N/A	

6. Measurement Data (continued)

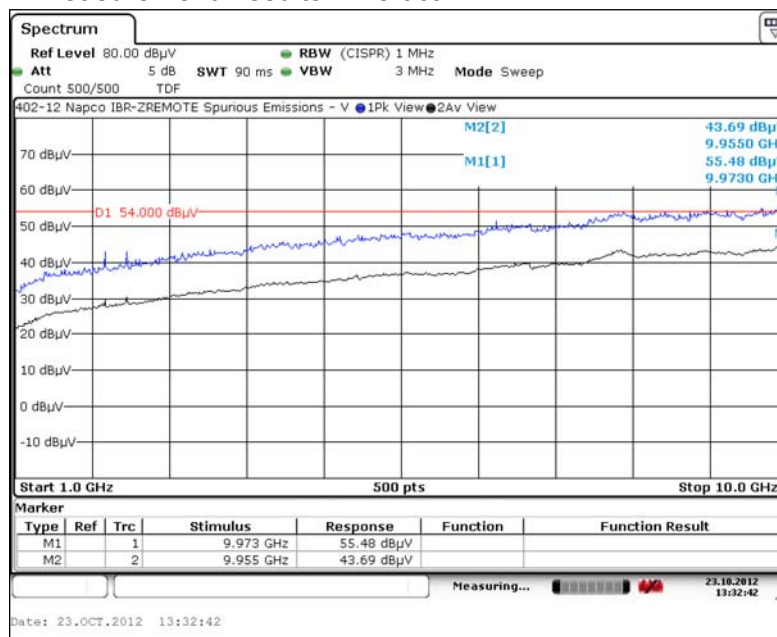
6.5. Spurious Radiated Emissions, 30 MHz to EUT 10th Harmonic (15.249, Section (d)), IC RSS-GEN (continued)

6.5.5. Spurious Radiated Emissions (1 GHz to 10 GHz)

6.5.5.1. Measurement Results – Horizontal



6.5.5.2. Measurement Results – Vertical



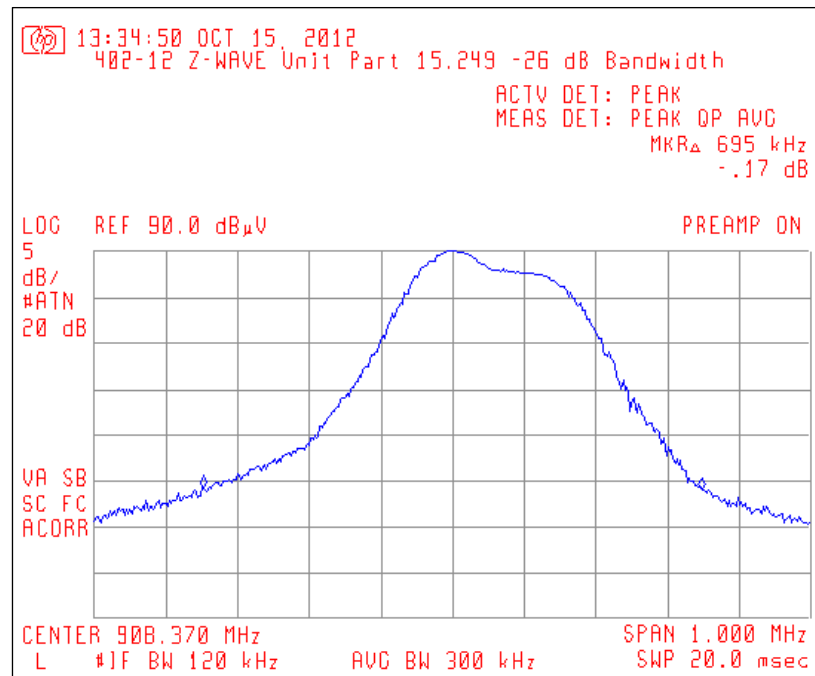
6. Measurement Data (continued)

6.6 Occupied Bandwidth (ANSI C63.4, Section 13.1.7 & IC RSS-GEN)

Requirement: The occupied bandwidth measurements on an intentional radiator shall be made in accordance with the requirements outlined in ANSI C63.4-2003, Section 13.1.7. If no bandwidth requirement is specified by the procuring or regulatory agency, measure the bandwidth at -26 dB with respect to the reference level.

Frequency (MHz)	-26 dB Bandwidth (kHz)	99% Power Bandwidth (kHz)	Result
908.4	695.0	470.0	Compliant

6.6.1. -26 dB Bandwidth



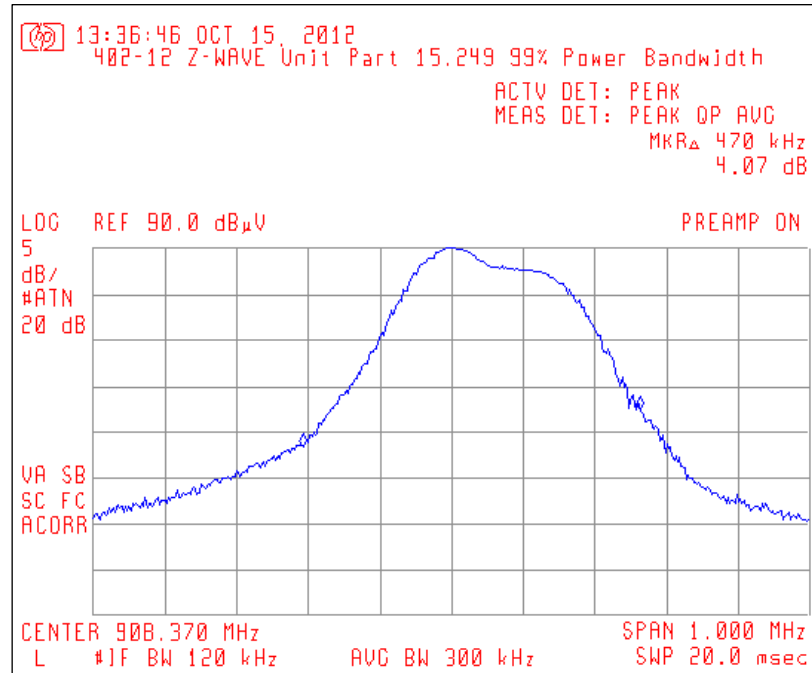
Test Number: 402-12R1

Issue Date: 6/6/2013

6. Measurement Data (continued)

6.6 Occupied Bandwidth (ANSI C63.4, Section 13.1.7 & IC RSS-GEN) (continued)

6.6.2. Occupied Bandwidth



6. Measurement Data (continued)

6.7. Conducted Emissions (15.207)

6.7.1. Conducted Emissions Regulatory Limit: FCC P15.207

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56 ¹	56 to 46 ¹
0.50 to 5.0	56	46
5.0 to 30	60	50

¹ The limit decreases linearly with the logarithm of the frequency.

6.7.2. Measurement Equipment and Software Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due
LISN	EMCO	3825/2	9109-1860	07/02/2013
EMI Receiver	Hewlett Packard	8546A	3330A00115	06/08/2014
Manufacturer	Software Description		Title/Model #	Rev.
Compliance Worldwide	Test Report Generation Software		Test Report Generator	1.0

6.7.3. Measurement & Equipment Setup

Test Date:	10/24/2012
Test Engineer:	Brian Breault
Site Temperature (°C):	21.5
Relative Humidity (%RH):	27.0
Frequency Range:	0.15 MHz to 30 MHz
EMI Receiver IF Bandwidth:	9 kHz
EMI Receiver Avg Bandwidth:	30 kHz
Detector Functions:	Peak, Quasi-Peak. & Average

6.7.4. Test Procedure

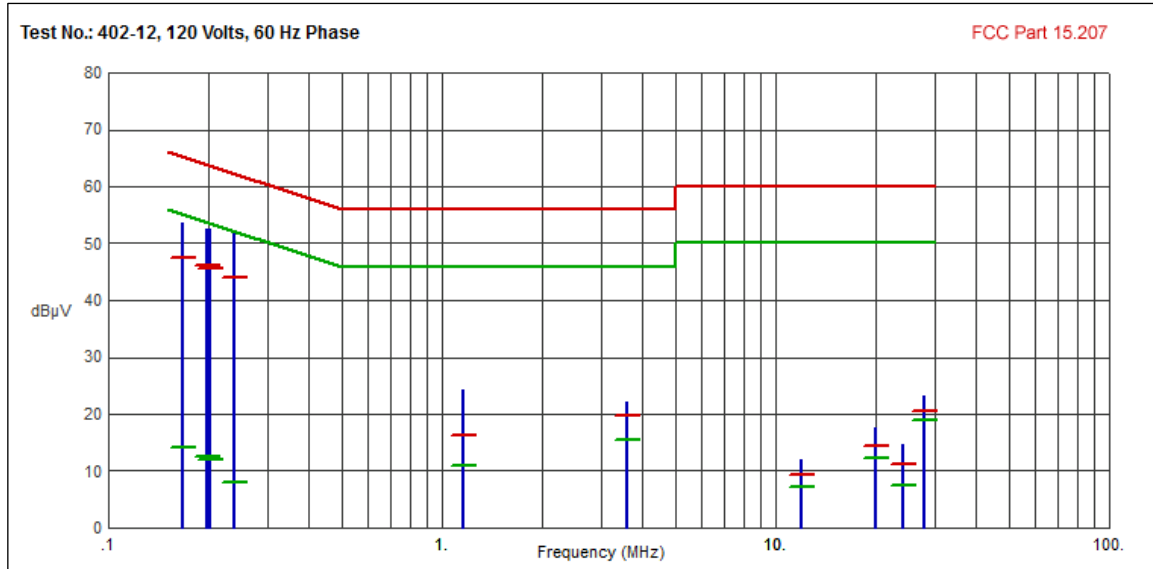
Test measurements were made in accordance with ANSI C63.10-2009, American National Standard for Testing Unlicensed Wireless Devices.

6. Measurement Data (continued)

6.7. AC Power Line Conducted Emissions (15.207)

Test Note: A DVE model DV-1230S AC adapter with a 120 Volts AC, 60 Hz input and 12 Volts DC, 300 mA output was used to power the device under test.

6.7.5. 120 Volts, 60 Hz Phase

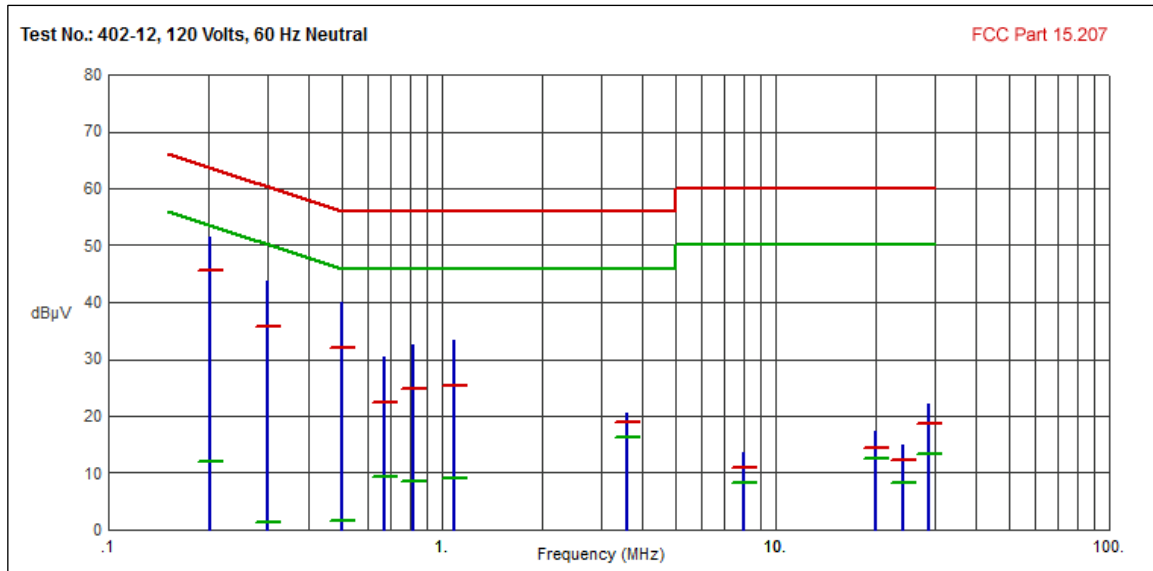


Frequency (MHz)	Pk Amp (dBμV)	QP Amp (dBμV)	QP Limit (dBμV)	QP Margin (dB)	Avg Amp (dBμV)	Avg Limit (dBμV)	Avg Margin (dB)	Comments
.1663	53.69	47.58	65.14	-17.56	14.13	55.14	-41.01	
.1975	52.65	46.11	63.72	-17.61	12.64	53.72	-41.08	
.2017	52.47	45.58	63.54	-17.96	11.96	53.54	-41.58	
.2389	51.67	43.87	62.13	-18.26	7.89	52.13	-44.24	
1.1557	24.17	16.16	56.00	-39.84	10.98	46.00	-35.02	
3.5796	22.15	19.80	56.00	-36.20	15.38	46.00	-30.62	
12.0001	12.12	9.45	60.00	-50.55	7.28	50.00	-42.72	
20.0005	17.48	14.43	60.00	-45.57	12.24	50.00	-37.76	
23.9989	14.76	11.20	60.00	-48.80	7.36	50.00	-42.64	
28.0003	23.22	20.44	60.00	-39.56	18.92	50.00	-31.08	

6. Measurement Data (continued)

6.7. AC Power Line Conducted Emissions (15.207)

6.7.6. 120 Volts, 60 Hz Neutral



Frequency (MHz)	Pk Amp (dBμV)	QP Amp (dBμV)	QP Limit (dBμV)	QP Margin (dB)	Avg Amp (dBμV)	Avg Limit (dBμV)	Avg Margin (dB)	Comments
.2010	51.44	45.51	63.57	-18.06	12.11	53.57	-41.46	
.3007	43.82	35.64	60.22	-24.58	1.29	50.22	-48.93	
.5013	40.09	32.08	56.00	-23.92	1.48	46.00	-44.52	
.6687	30.32	22.31	56.00	-33.69	9.46	46.00	-36.54	
.6687	30.32	22.31	56.00	-33.69	9.46	46.00	-36.54	
.8201	32.60	24.67	56.00	-31.33	8.60	46.00	-37.40	
1.0843	33.24	25.29	56.00	-30.71	9.06	46.00	-36.94	
3.5786	20.50	18.99	56.00	-37.01	16.39	46.00	-29.61	
7.9982	13.66	11.05	60.00	-48.95	8.14	50.00	-41.86	
19.9997	17.23	14.49	60.00	-45.51	12.44	50.00	-37.56	
24.0005	14.90	12.24	60.00	-47.76	8.26	50.00	-41.74	
28.7354	22.08	18.66	60.00	-41.34	13.30	50.00	-36.70	

6. Measurement Data (continued)

6.8. Public Exposure to Radio Frequency Energy Levels (15.247(i) (1.1307 (b)(1)) RSS-GEN 5.5, RSS 102

Note: To determine the DUT output power from the measured field strength, the following formula was used and the results are displayed in the first table:

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

- P = the power in Watts.
- E = the measured maximum field in V/m
- G = the numeric gain of the transmitting antenna over an isotropic radiator.
- d = the distance in meters of the field strength measurement.

Frequency	Peak Field Strength	Distance	Antenna Gain ¹	Measured Output Power
(MHz)	(dBμV/m)	(m)	(dBi)	(mW)
908.4	91.70	3.0	4.00	0.1766531

Channel Frequency (MHz)	MPE Distance (cm)	DUT Output Power (dBm)	DUT Antenna Gain (dBi)	Power Density		Limit (mW/cm ²)	Result
				(mW/cm ²)	(W/m ²)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
908.4	20	-7.53	4.00	0.0000883	0.0008828	1	Compliant

$$PD = \frac{OP + AG}{(4 \times \pi \times d^2)}$$

- PD = Power Density (mW/cm²)
- OP = DUT Output Power (dBm)
- AG = DUT Antenna Gain (dBi)
- d = MPE Distance (cm)

1. Reference CFR 2.1093(b): For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 2.5 centimeters of the body of the user.
2. Section 6.2 of this test report. Field strength was converted to power using the method described above.
3. Data supplied by the client. Antenna specification data of worst case antenna used by the DUT.
4. Power density is calculated from field strength measurement and antenna gain.
5. Reference CFR 1.1310, Table 1: Limits for Maximum Permissible Exposure (MPE), Section (B): Limits for General Population/Uncontrolled Exposure.

7. Test Setup Photographs

7.1 Radiated Emissions, Front View



7. Test Setup Photographs

7.2 Radiated Emissions, Rear View (32 kHz to 30 MHz)



7. Test Setup Photographs

7.3 Radiated Emissions, Rear View (30 MHz to 1 GHz)



7. Test Setup Photographs

7.4 Radiated Emissions, Rear View (1 to 10 GHz)



7. Test Setup Photographs

7.5. Conducted Emissions, Front View



7. Test Setup Photographs

7.6. Conducted Emissions, Rear View



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), Industry Canada, and Voluntary Control Council Interference (VCCI) standards. A description of the test sites is on file with the FCC (registration number 96392), Industry Canada (file number IC 3023A-1), and VCCI (Member number 3168), Registration numbers C-3673, G-167, R-3305 & T-1809.

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 meters W x 1.5 meters L x 2.0 meters H, floor standing or table top.