

**COMPLIANCE WORLDWIDE INC.
TEST REPORT 578-15**

In Accordance with the Requirements of
**FCC PART 15.209, SUBPART C
INDUSTRY CANADA RSS-210, ISSUE 8**

**Low Power License-Exempt Radio Communication Devices
Intentional Radiators**

Issued to

**David Clark Company
360 Franklin Street
Worcester, MA 01604**

for the

**Digital Intercom Wireless Gateway
Model: U9120-W4**

**FCC ID: Y3J-U9120W4
IC: 9409A-U9120W4**

Report Issued on April 29, 2016

Tested by



Brian F. Breault

Reviewed by



Larry K. Stillings

This test report shall not be reproduced, except in full, without written permission from Compliance Worldwide, Inc.

Table of Contents

1 Scope	3
2 Product Details.....	3
2.1 Manufacturer	3
2.2 Model Number	3
2.3 Serial Number	3
2.4 Description	3
2.5 Power Source	3
2.6 Hardware Rev	3
2.7 Software Rev	3
2.8 EMC Modifications	3
3 Product Configuration	3
3.1 Operational Characteristics & Software	3
3.2 EUT Hardware	3
3.3 EUT Cables/Transducers.....	3
3.4 Miscellaneous EUT Items	4
3.5 Support Equipment	4
3.6 Support Equipment cables.....	4
3.7 Block Diagram.....	4
4 Measurements Parameters	5
4.1 Measurement Equipment Used to Perform Test	5
4.2 Measurement & Equipment Setup	5
4.3 Measurement Procedure	5
5 Measurement Summary	6
6 Measurement Data	7
6.1 Antenna Requirement	7
6.2 Radiated Field Strength of Fundamental	8
6.3 Emission Bandwidth.....	9
6.4 99% (Occupied) Bandwidth	10
6.5 Combined Spurious Harmonic Emissions	11
6.6 Spurious Radiated Emissions	12
6.7 Power Line Conducted Emissions	17
7 Test Setup Images.....	20
8 Test Site Description.....	25

1. Scope

This test report certifies that the David Clark Company Digital Intercom Wireless Gateway U9120-W4, as tested, meets the FCC Part 15.209, and Industry Canada RSS-Gen, Issue 4 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.

2. Product Details

- 2.1. Manufacturer:** David Clark Company
- 2.2. Model Number:** U9120-W4
- 2.3. Serial Number:** 8208-20
- 2.4. Description:** Digital Intercom Wireless Gateway. Relay for all audio interface between Wireless Belt Station users and the U9100 Master Station and connected ancillaries.
- 2.5. Power Source:** 48 VDC (Ethernet POE)
- 2.6. Hardware Rev.:** V43000G-32AY Rev 4
Assy # V43000G-32AY Rev 3
- 2.7. Software Rev.:** N/A
- 2.8. EMC Modifications:** None

3. Product Configuration

3.1. Operational Characteristics & Software

The David Clark Digital Intercom Wireless Gateway, as delivered, is configured to transmit continuously once the Link button is depressed.

During all measurements, the device was positioned with the link button facing up. The DECT antenna was also placed in the vertical position. Note that the DECT transmitter was not evaluated as part of this test report.

With considerations made to the overall design and the dedicated antenna, the device was determined not to require three orthogonal axes positioning as detailed in ANSI C63.10-2013, section 5.10.1, for a hand held or body worn device.

3.2. EUT Hardware

Manufacturer	Model/Part # / Options	Serial Number	Input Voltage	Frq (Hz)	Description/Function
David Clark	U9120-W4	8208-20	48.0 V	DC	Digital Intercom Wireless Gateway

3.3. EUT Cables/Transducers

Cable Type	Length	Shield	From	To
Ethernet	2 M	No	EUT	Power Dsine POE Injector

3. Product Configuration

3.4. Miscellaneous EUT Items

Manufacturer	Model/Part #	Qty	Description / Function
None			

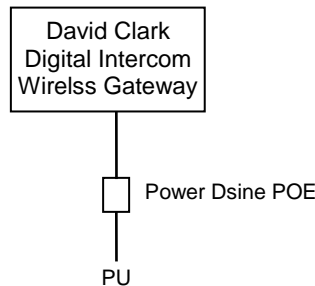
3.5. Support Equipment

Device	Manufacturer	Model	Serial No.	Comment
POE Injector	Power Dsine	3001G	R01756080008543100	Used to supply the DUT with +48 volts DC operating voltage

3.6. Support Equipment Cables

Part #	Shielded Y or N	Length	Description / Function
CAT-5	N	2 m	Standard Ethernet Cable

3.7. Block Diagram



4. Measurements Parameters

4.1 Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due	Interval
EMI Test Receiver, 9kHz - 7GHz ¹	Rohde & Schwarz	ESR7	101156	7/23/2017	2 Years
Spectrum Analyzer 20 Hz – 40 GHz ²	Rohde & Schwarz	FSV40	100899	7/23/2017	2 Years
Spectrum Analyzer, 9 kHz to 40 GHz ³	Rohde & Schwarz	FSVR40	100909	7/23/2017	2 Years
EMI Receiver, 9 kHz to 6.5 GHz	Hewlett Packard	8546A	3650A00360	6/4/2016	2 Years
Loop Antenna, 9 kHz to 30 MHz	EMCO	6512	9309-1139	9/23/2016	2 Years
Biconilog Antenna, 30 MHz to 2 GHz	Sunol Sciences Corp	JB1	25509	5/15/2016	3 Years
Horn Antenna, 960 MHz – 18 GHz	Electro-Metrics	RGA-50 / 60	2813	7/15/2016	2 Years
Horn Antenna, 18 GHz – 40 GHz	Com-Power	AH-840	3075	9/24/2016	2 Years
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B	3008A01323	7/21/2017	2 Years
LISN 50 Ω 50 μH, 9 kHz to 30 MHz	EMCO	3825/2	9109-1860	7/23/2016	1 Year
Digital Barometer	Control Company	4195	ID236	10/8/2017	2 Years
Temperature Chamber	Associated Research	E-0029	N/A	N/A	---

¹ ESR7 Firmware revision: V2.26, Date installed: 8/15/2014 Previous V2.17, installed 6/11/2014.
² FSV40 Firmware revision: V2.30 SP1 Date installed: 10/22/2014 Previous V2.30, installed 7/23/2014.
³ FSVR40 Firmware revision: V2.23, Date installed: 10/20/2014 Previous V1.63 SP1, installed 8/28/2013.

4.2. Measurement & Equipment Setup

Test Dates: Nov 15th 2015 – Dec 17th, 2015
 Test Engineer: Cody Merry
 Normal Site Temperature (15 - 35°C): 21.6
 Relative Humidity (20 - 75%RH): 35
 Frequency Range: 30 kHz to 1 GHz
 Measurement Distance: 3 Meters
 EMI Receiver IF/Resolution Bandwidth: 100 kHz - 30 MHz to 1 GHz
 1 MHz - Above 1 GHz
 EMI Receiver Average/Video Bandwidth: 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 with FCC Part 15.209, Radiated emission limits; general requirements and IC RSS-GEN, General Requirements and Information for the Certification of Radio Apparatus.

The test methods used to generate the data in this test report is in accordance with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

5. Measurements Summary

Test Requirement	FCC Rule Requirement	IC Rule Requirement	Report Section	Result
Antenna requirement	15.203	RSS-GEN 7.1.2	6.1	Compliant
Radiated Field Strength of Fundamental	15.209(a)	Rss-GEN Table 6	6.2	Compliant
Emission Bandwidth	15.209 Not Specified	Not Specified	6.3	Compliant
99% (Occupied) Bandwidth		RSS-GEN 4.6.1	6.4	Compliant
Combined Spurious Harmonic Emissions	15.209	RSS-210 A8.9	6.5	Compliant
Spurious Radiated Emissions	15.209	RSS-210 A8.9	6.6	Compliant
Power line conducted emissions	15.207	RSS-GEN	6.7	Compliant

6. Measurement Data

6.1. Antenna Requirement (15.203, RSS-GEN, ISSUE 4 Section 7.1.2)

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.

Status: For the 125 kHz transmitter, the device under test utilizes an internal, PCB mounted coil antenna. There is no user access to this antenna.

6.2. Radiated Field Strength of Fundamental (15.209, Section (a), Rss-GEN Tbl 6)

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

For 125 kHz: Field Strength ($\mu\text{V/m}$) = $2400/F(\text{kHz})$ at 300 meters¹.
 Field Strength ($\mu\text{V/m}$) = $2400/125$
 Field Strength ($\mu\text{V/m}$) = 19.2
 Field Strength ($\text{dB}\mu\text{V/m}$) = $20 \text{ LOG}_{10}(19.2)$
 Field Strength ($\text{dB}\mu\text{V/m}$) = 25.67 at 300 meters.

Test Notes: From 110 kHz to 490 kHz, the field strength limit employs an average detector (FCC Part 15.209(d)).

Reference ANSI C63.10-2013 sections 5.3.2 and 6.4.4.2. The following formula was used to extrapolate the measurement distance to the limit distance:

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left(\frac{d_{\text{near field}}}{d_{\text{measure}}} \right) - 20 \log \left(\frac{d_{\text{limit}}}{d_{\text{near field}}} \right) \quad \text{Equation 1}$$

FS_{limit} is the calculation of field strength at the limit distance ($\text{dB}\mu\text{V/m}$)	4.40
FS_{max} is the measured field strength, expressed in ($\text{dB}\mu\text{V/m}$) (average)	63.48
$d_{\text{near field}}$ is the $\lambda/2\pi$ distance (Meters)	381.97
d_{measure} is the distance of the measurement point from the EUT (Meters)	10.00
d_{limit} is the reference limit distance (Meters)	300.00

Since $d_{\text{near field}}$ is greater than d_{limit} , the measurement formula was simplified to:

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log (d_{\text{limit}}/d_{\text{measure}}).$$

Results: Compliant

6. Measurement Data (continued)

6.2. Radiated Field Strength of Fundamental (15.209, Section (a), Rss-GEN Tbl 6)

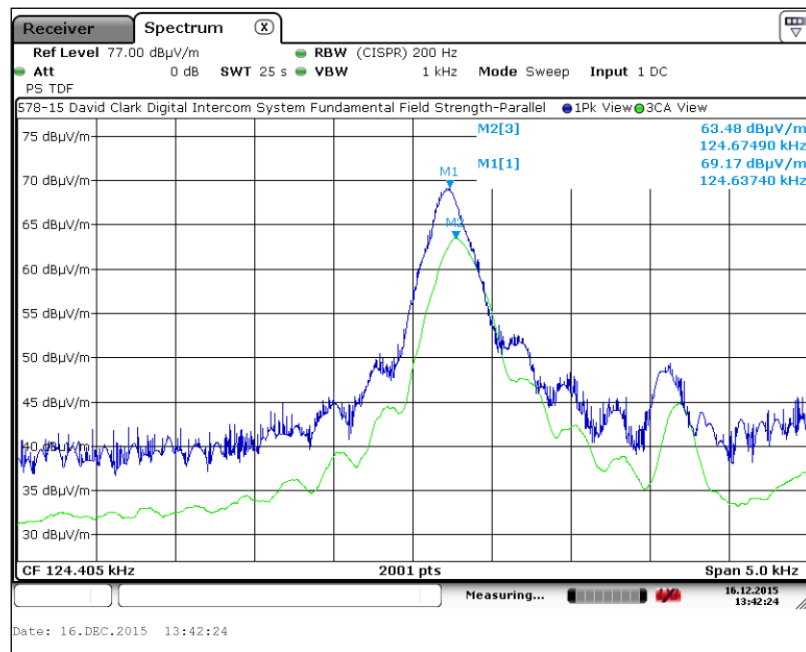
6.2.1. Worst Case Radiated Field Strength of Fundamental

Freq. (MHz)	Amplitude ¹ (dBµV/m)	Duty Cycle Correction ²	Corr. Ampl. ² (dBµV/m)	FCC 15.209 Limit (dBµV/m)	Margin (dB)	Ant Position	Ant Height	Turntable Azimuth	Result
	Average	dB	Average	(Average)		Par/Per	cm	Deg	
0.1247	4.40	0.00	0.00	25.67	-21.27	Par	100	170	Compliant

¹ Measurement has been extrapolated from 10 meters to 300 meters using Equation 1 on the previous page.

² The test signal was transmitting at close to a 100% duty cycle. Therefore, a correction factor to the peak field strength as not necessary.

6.2.2. Worst Case Radiated Field Strength of Fundamental



6. Measurement Data (continued)

6.3. Emission Bandwidth (FCC Sections 15.209, IC RSS-210 Section A2.3)

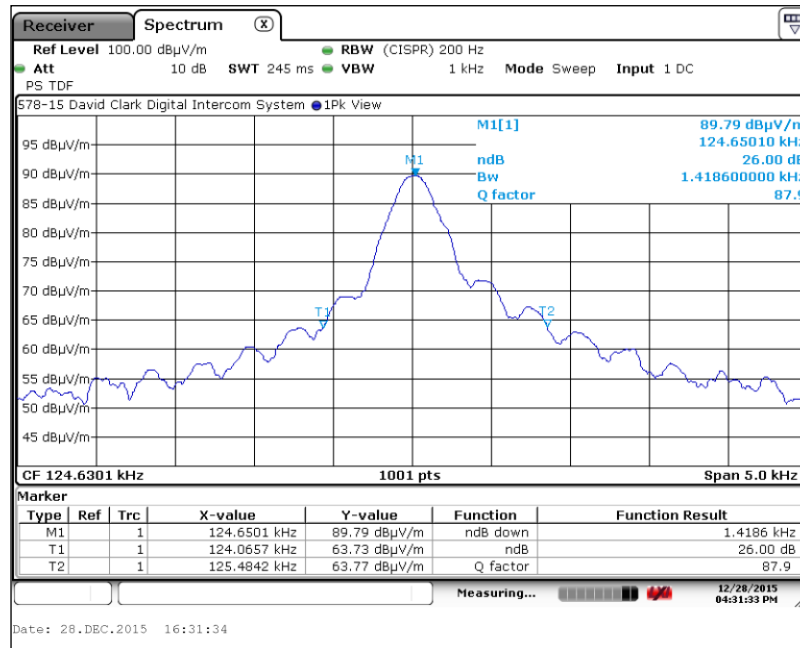
Requirement: For FCC Part 15.209, the bandwidth requirement is not specified. The 26 dB bandwidth has been included as part of this test report.

Test Note: Reference ANSI C63.10-2013, Section 6.9.1. for the bandwidth measurement method.

6.3.1. -26 dB Bandwidth of the Fundamental Frequency

Fundamental Frequency	-26 dB Bandwidth	Required Bandwidth	Result
(MHz)	(kHz)	(kHz)	
0.125	124.65	Not Specified	N/A

6.3.2. Emission Bandwidth Measurement Results



6. Measurement Data (continued)

6.4. 99% (Occupied) Bandwidth

Requirement: The requirement for the occupied bandwidth is not specified for intentional radiators in this part of the frequency spectrum.

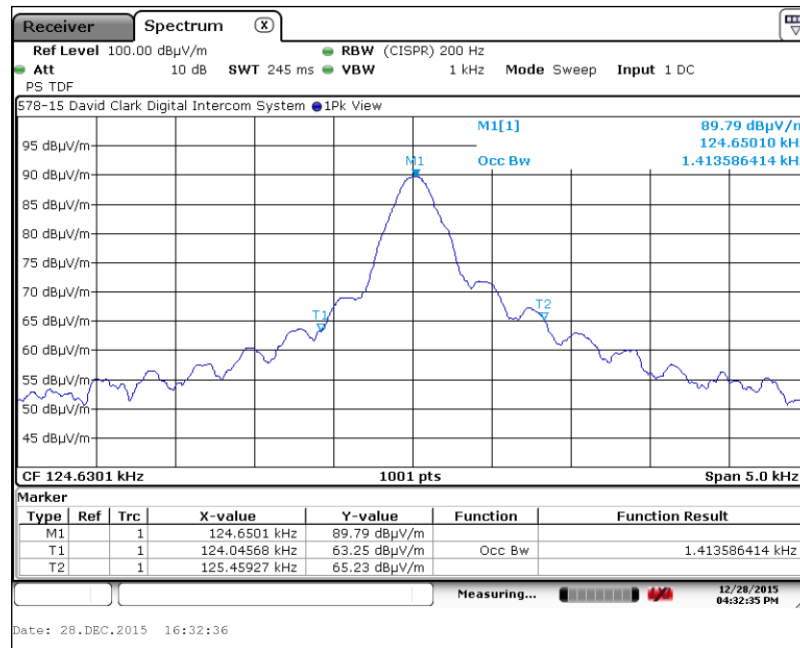
Test Note: RSS-Gen states that the transmitter shall be operated at its maximum carrier power measured under normal test conditions. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. However the resolution and video bandwidths were not able to meet these criteria due to the low measurement frequency and limitations of the measurement receiver. To perform this measurement, the following settings were used:

Resolution Bandwidth : 200 Hz
Video Bandwidth : 1 kHz

6.4.1. 99% (Occupied) Bandwidth of the Fundamental Frequency

Frequency (MHz)	99% Power Bandwidth (kHz)
0.125	1.414

6.4.2. 99% Power Bandwidth Measurement Results



6. Measurement Data (continued)

6.5. Combined Spurious Harmonic Emissions (FCC Part 15.209, RSS-210 A8.9)

Requirement: Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Test Note: The following table represents the worst case measurement of each harmonic emission.

Resolution Bandwidth : 9 kHz
Video Bandwidth : 30 kHz

Results: Compliant

Freq. (MHz)	Measured Field Strength (dBµV/m)		Limit (dBµV/m) ¹		Margin (dBµV/m)		Antenna Position (Par/Per)	Result
	Peak	Quasi-Pk	Peak	Quasi-Pk	Peak	Quasi-Pk		
0.250	52.76	42.32	119.64	99.64	-66.88	-57.32	Par	Compliant
0.375	49.12	37.36	116.12	96.12	-67.00	-58.76	Par	Compliant
0.500	47.84	40.51	93.63	73.63	-45.79	-33.12	Per	Compliant
0.625	47.43	39.32	91.69	71.69	-44.26	-32.37	Par	Compliant
0.750	42.05	39.37	90.11	70.11	-48.06	-30.74	Par	Compliant
0.875	44.67	39.34	88.78	68.78	-44.11	-29.44	Par	Compliant
1.000	43.66	39.35	87.62	67.62	-43.96	-28.27	Par	Compliant
1.125	48.42	42.37	86.60	66.60	-38.18	-24.23	Par	Compliant
1.250	43.43	38.93	85.69	65.69	-42.26	-26.76	Per	Compliant

¹ The measurement made at 250 kHz utilized a CISPR average detector. All other measurements utilized a Quasi-Peak detector.

6. Measurement Data (continued)

6.6. Spurious Radiated Emissions (15.209), RSS-GEN 8.9

Requirement: Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Regulatory Limits: FCC Part 15.209

Frequency Range (MHz)	Distance (Meters)	Limit (dBµV/m) ¹
0.009 to 0.490	3	128.5 to 93.8
0.490 to 1.705	3	73.8 to 63.0
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
>960	3	54.0

¹ Measurements in the 9 to 90 kHz, 110 to 490 kHz and above 1000 MHz ranges employ an average detector. Otherwise a quasi-peak detector is used.

Procedure: Test measurements were made in accordance with ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices.

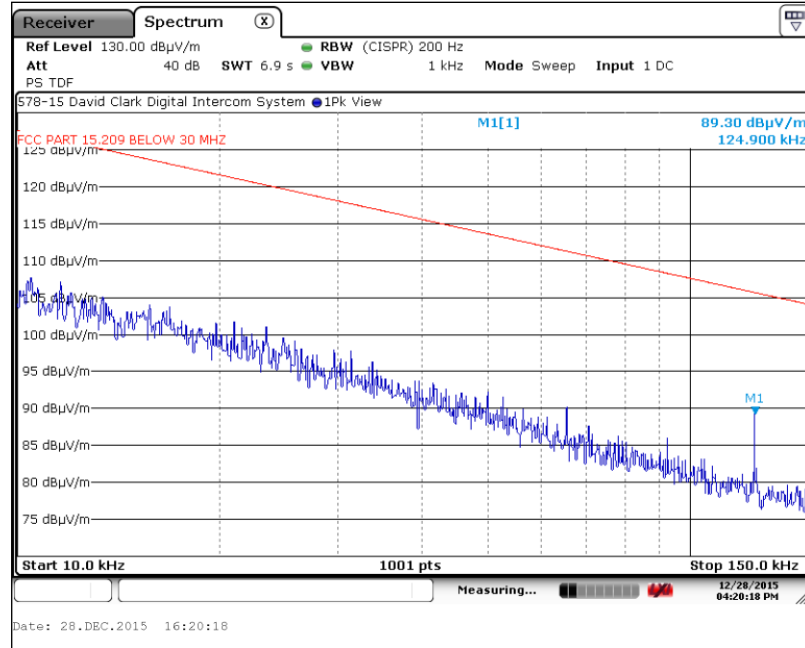
Results: Compliant. The device under test met the spurious radiated emissions requirements.

6. Measurement Data (continued)

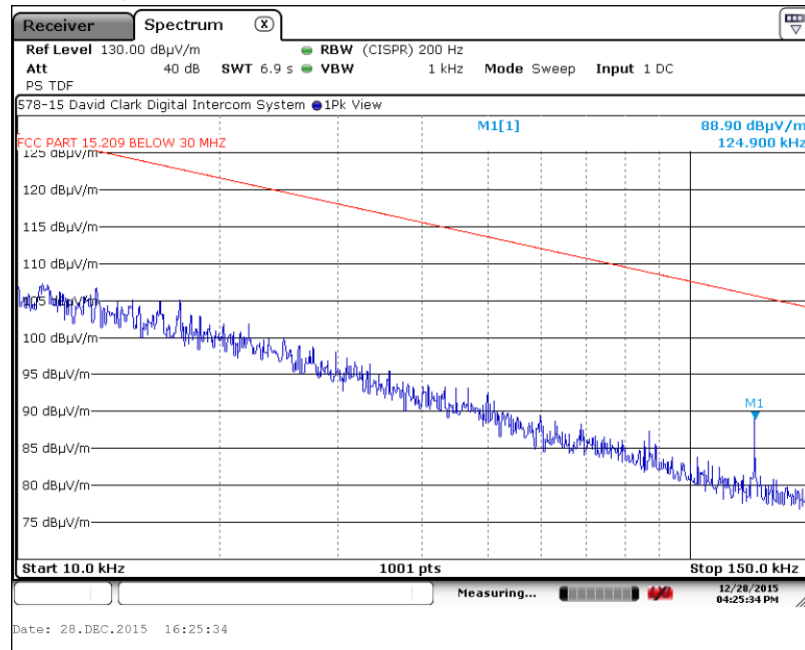
6.6. Spurious Radiated Emissions Test Results (15.209), RSS-GEN 8.9 (continued)

6.6.1. 10 kHz to 150 kHz

6.6.1.1. Parallel Receive Antenna Orientation



6.6.1.2. Perpendicular Receive Antenna Orientation

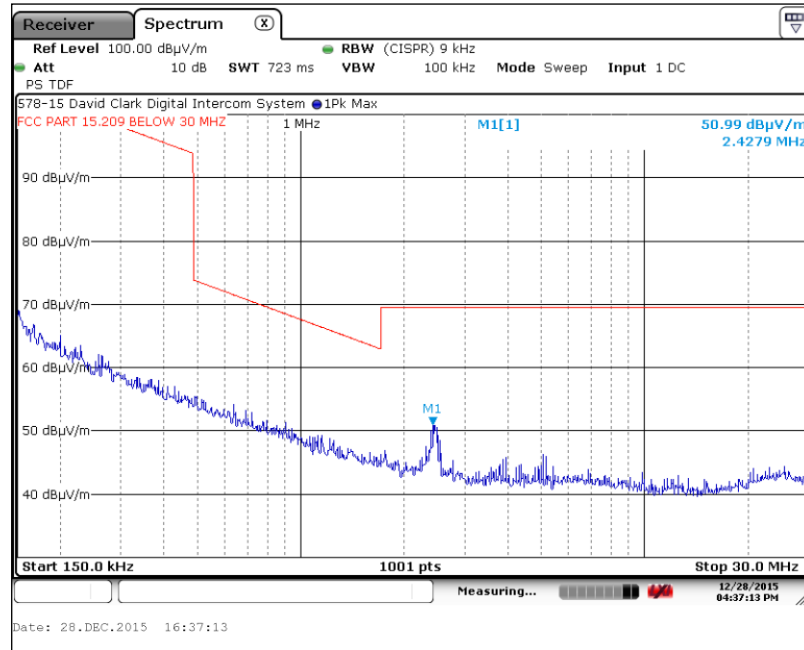


6. Measurement Data (continued)

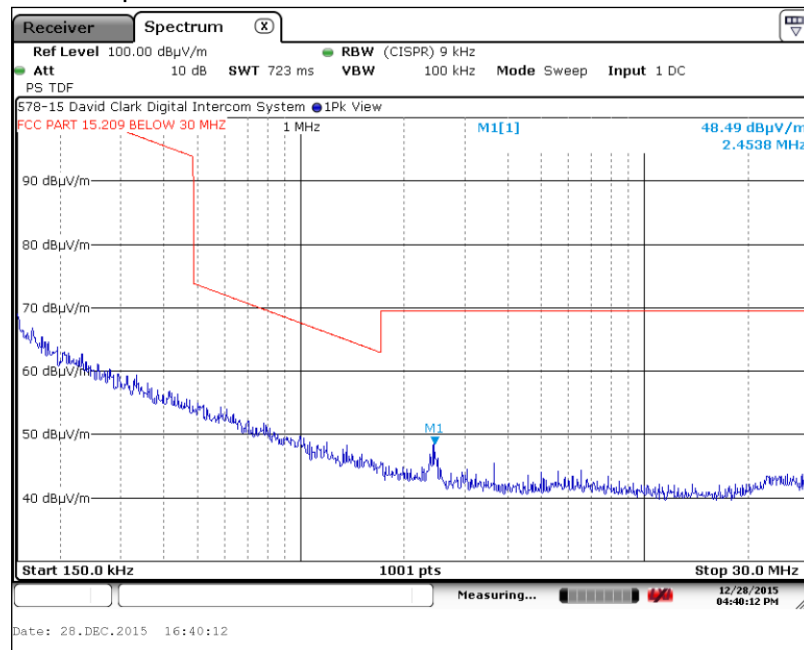
6.6. Spurious Radiated Emissions Test Results (15.209), RSS-GEN 8.9 (continued)

6.6.2. 150 kHz to 30 MHz

6.6.2.1. Parallel Receive Antenna Orientation



6.6.2.2. Perpendicular Receive Antenna Orientation



6. Measurement Data (continued)

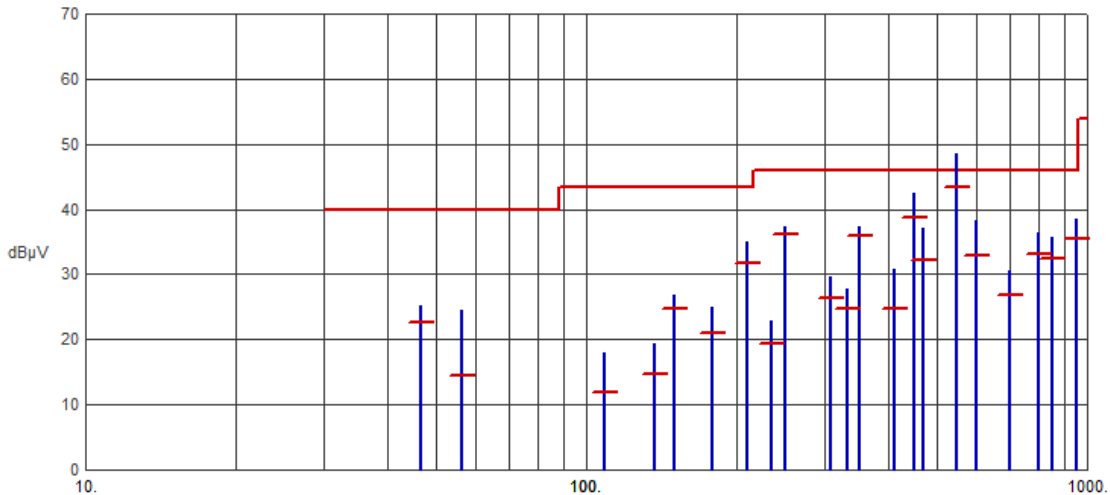
6.6. Spurious Radiated Emissions Test Results (15.209), RSS-GEN 8.9 (continued)

6.6.3. 30 MHz to 1 GHz

6.6.3.1. Horizontal Polarity

Test No.: 578-15, 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
46.8608	25.14	22.59	40.00	-17.41	N/A	N/A	
56.3339	24.51	14.48	40.00	-25.52	N/A	N/A	
108.8018	17.93	11.98	43.50	-31.52	N/A	N/A	
137.2461	19.27	14.59	43.50	-28.91	N/A	N/A	
149.9953	26.87	24.67	43.50	-18.83	N/A	N/A	
177.9575	24.89	21.10	43.50	-22.40	N/A	N/A	
208.8937	34.94	31.76	43.50	-11.74	N/A	N/A	
233.4716	22.95	19.30	46.00	-26.70	N/A	N/A	
250.0004	37.40	36.23	46.00	-9.77	N/A	N/A	
307.1837	29.64	26.42	46.00	-19.58	N/A	N/A	
331.7774	27.69	24.80	46.00	-21.20	N/A	N/A	
349.9871	37.22	35.85	46.00	-10.15	N/A	N/A	
411.7149	30.79	24.62	46.00	-21.38	N/A	N/A	
450.0024	42.37	38.78	46.00	-7.22	N/A	N/A	
470.1751	37.10	32.24	46.00	-13.76	N/A	N/A	
549.9936	48.57	43.42	46.00	-2.58	N/A	N/A	
599.9831	38.20	32.87	46.00	-13.13	N/A	N/A	
700.4181	30.68	26.88	46.00	-19.12	N/A	N/A	
799.9703	36.36	33.16	46.00	-12.84	N/A	N/A	
849.9811	35.78	32.43	46.00	-13.57	N/A	N/A	
949.9967	38.47	35.44	46.00	-10.56	N/A	N/A	

6. Measurement Data (continued)

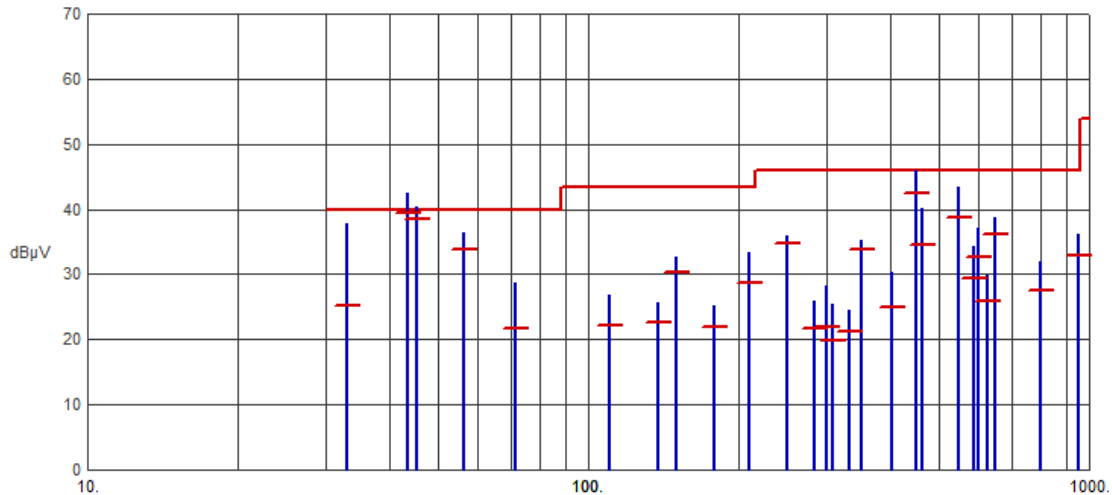
6.6. Spurious Radiated Emissions Test Results (15.209), RSS-GEN 8.9 (continued)

6.6.3. 30 MHz to 1 GHz

6.6.3.2. Vertical Polarity

Test No.: 578-15, 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
32.9016	37.86	25.20	40.00	-14.80	N/A	N/A	
43.7181	42.49	39.53	40.00	-0.47	N/A	N/A	
45.5903	40.27	38.45	40.00	-1.55	N/A	N/A	
56.3324	36.39	33.75	40.00	-6.25	N/A	N/A	
71.3148	28.64	21.68	40.00	-18.32	N/A	N/A	
110.0128	26.77	22.23	43.50	-21.27	N/A	N/A	
137.5206	25.75	22.63	43.50	-20.87	N/A	N/A	
149.9988	32.77	30.35	43.50	-13.15	N/A	N/A	
178.4433	25.21	21.91	43.50	-21.59	N/A	N/A	
208.8985	33.28	28.67	43.50	-14.83	N/A	N/A	
249.9900	35.94	34.78	46.00	-11.22	N/A	N/A	
282.6083	25.95	21.80	46.00	-24.20	N/A	N/A	
300.0002	28.16	22.02	46.00	-23.98	N/A	N/A	
307.3748	25.44	19.73	46.00	-26.27	N/A	N/A	
331.7814	24.44	21.31	46.00	-24.69	N/A	N/A	
349.9943	35.22	33.72	46.00	-12.28	N/A	N/A	
402.5666	30.28	25.03	46.00	-20.97	N/A	N/A	
449.9832	45.89	42.54	46.00	-3.46	N/A	N/A	
465.4587	40.06	34.55	46.00	-11.45	N/A	N/A	
550.0032	43.48	38.71	46.00	-7.29	N/A	N/A	
589.8071	34.41	29.50	46.00	-16.50	N/A	N/A	
599.9851	37.03	32.59	46.00	-13.41	N/A	N/A	
626.6759	29.80	25.88	46.00	-20.12	N/A	N/A	
649.9878	38.63	36.12	46.00	-9.88	N/A	N/A	
799.9985	31.96	27.49	46.00	-18.51	N/A	N/A	
949.9874	36.20	32.96	46.00	-13.04	N/A	N/A	

6. Measurement Data (continued)

6.7. Power Line Conducted Emissions (15.207), RSS-GEN

Requirement: An intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges. (FCC Part 15,207(a).

Regulatory Limits: FCC Part 15.207

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5.0	56	46
5.0 to 30.0	60	50

* Decreases with the logarithm of the frequency.

Procedure: Test measurements were made in accordance with ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices.

Test Note: A Power Dsine 3001G POE adapter was used to connect the DUT to the test LISN.

Results: Compliant. The device under test met the AC power line conducted emissions requirements.

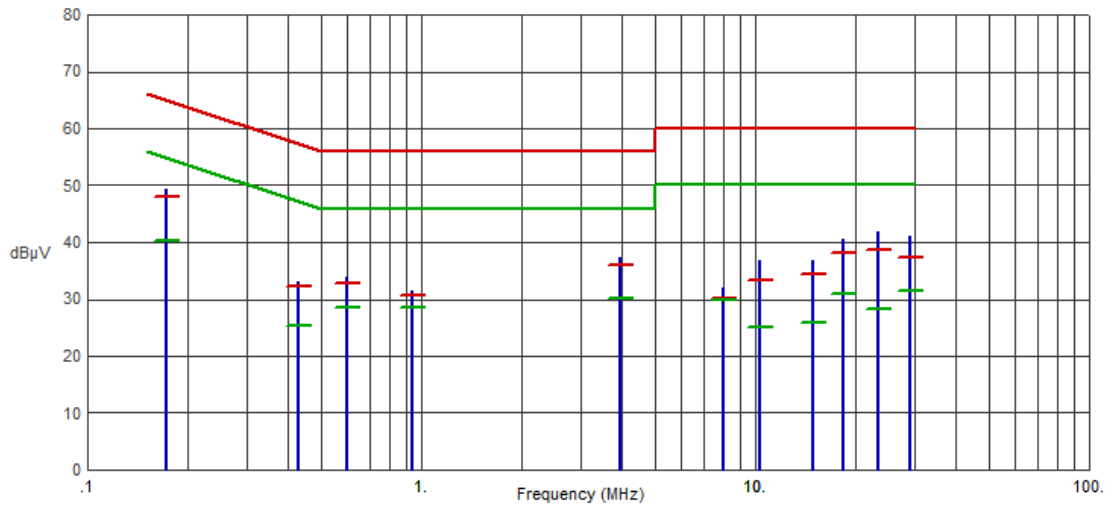
6. Measurement Data (continued)

6.7. Power Line Conducted Emissions (15.207), RSS-GEN (continued)

6.7.1. Phase (L1)

Test No.: 578-15, 120 Volts, 60 Hz Phase

FCC, Class B



Frequency (MHz)	Pk Amp (dBµV)	QP Amp (dBµV)	QP Limit (dBµV)	QP Margin (dB)	Avg Amp (dBµV)	Avg Limit (dBµV)	Avg Margin (dB)	Comments
.1715	49.36	47.90	64.89	-16.99	40.17	54.89	-14.72	
.4283	33.11	32.36	57.29	-24.93	25.31	47.29	-21.98	
.5995	33.96	32.86	56.00	-23.14	28.42	46.00	-17.58	
.9424	31.51	30.61	56.00	-25.39	28.52	46.00	-17.48	
3.9388	37.35	36.02	56.00	-19.98	30.12	46.00	-15.88	
8.0412	32.03	30.18	60.00	-29.82	30.00	50.00	-20.00	
10.2826	36.79	33.33	60.00	-26.67	25.03	50.00	-24.97	
14.9027	36.91	34.46	60.00	-25.54	25.78	50.00	-24.22	
18.4318	40.66	38.06	60.00	-21.94	30.95	50.00	-19.05	
23.2346	41.75	38.69	60.00	-21.31	28.14	50.00	-21.86	
28.9660	41.17	37.37	60.00	-22.63	31.38	50.00	-18.62	

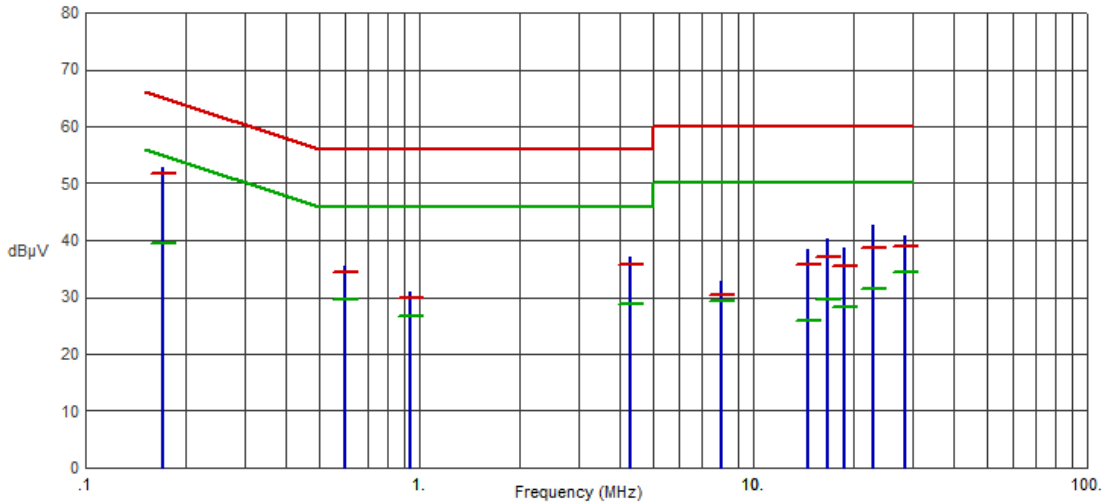
6. Measurement Data (continued)

6.7. Power Line Conducted Emissions (15.207), RSS-GEN (continued)

6.7.2. Neutral

Test No.: 578-15, 120 Volts, 60 Hz Neutral

FCC, Class B



Frequency (MHz)	Pk Amp (dBµV)	QP Amp (dBµV)	QP Limit (dBµV)	QP Margin (dB)	Avg Amp (dBµV)	Avg Limit (dBµV)	Avg Margin (dB)	Comments
.1711	52.86	51.68	64.91	-13.23	39.44	54.91	-15.47	
.5987	35.47	34.32	56.00	-21.68	29.57	46.00	-16.43	
.9421	30.98	29.97	56.00	-26.03	26.64	46.00	-19.36	
4.2812	37.07	35.77	56.00	-20.23	28.90	46.00	-17.10	
8.0424	32.81	30.39	60.00	-29.61	29.34	50.00	-20.66	
14.5616	38.45	35.79	60.00	-24.21	25.97	50.00	-24.03	
16.7720	40.35	37.03	60.00	-22.97	29.73	50.00	-20.27	
18.8244	38.56	35.39	60.00	-24.61	28.37	50.00	-21.63	
22.9400	42.58	38.69	60.00	-21.31	31.38	50.00	-18.62	
28.5141	40.86	38.88	60.00	-21.12	34.53	50.00	-15.47	

7. Test Setup Images

7.1. Radiated Emissions – Front View



7. Test Setup Images

7.2. Radiated Emissions – Rear View Below 30 MHz



7. Test Setup Images

7.3. Radiated Emissions – Rear View 30 MHz to 1 GHz



Test Number: 578-15

Issue Date: 4/29/2016

7. Test Setup Images

7.4. Conducted Emissions – Front View



7. Test Setup Images

7.5. 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 US1091), Industry Canada (file number IC 3023A-1), and VCCI (Member number 3168), Registration numbers C-3673, G-167, R-3305, T-1809 and A-0208.

Compliance Worldwide is also designated as a Phase 1 CAB under APEC-MRA (US0132) for Australia/New Zealand AS/NZS CISPR 22, Chinese-Taipei (Taiwan) BSMI CNS 13438 and Korea (RRA) KN 22.

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.