



Flom Test Lab
EMI, EMC, RF Testing Experts Since 1963

toll-free: (866) 311-3268

fax: (480) 926-3598

www.flomlabs.com

info@flomlabs.com

Date: April 22, 2009

Applicant: Coencorp Consultant Inc
8 Place du Commerce
Bureau 100
Brossard, Quebec, J4W 3H2
Canada

Attention of: Ahmad Tavassili
Ph 450-672-4222
Fax 560-672-6038
Email: ahmad@coencorp.com

Equipment: FGD-01043, FGD-00582-03, MOD-01011-02

FCC Rules: Part 15.207, 15.209

Gentlemen:

Enclosed please find your copy of the Test Data Report for the referenced equipment.

Please keep the original on record for submission to the FCC, **but only if and when they request it.**

In the event the FCC ever requests this submission, please complete all the documentation requirements, (as per the LIST OF EXHIBITS) before sending.

Should you have any questions, please do not hesitate to call.

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director



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Date: April 22, 2009

Federal Communications Commission
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Coencorp Consultant Inc
Equipment: FGD-01043, FGD-00582-03, MOD-01011-02
FCC ID: VY3-VDUL5NA
FCC Rules: 15.207, 15.209

Gentlemen:

On behalf of the Applicant, enclosed please find Application Form 731, Engineering Test Report and all pertinent documentation, the whole for approval of the referenced equipment as shown.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

Hoosamuddin S. Bandukwala, Lab Director

List Of Exhibits

(FCC **Certification** (Transmitters) - Revised 9/28/98)

Applicant: Coencorp Consultant Inc

FCC ID: VY3-VDUL5NA

By Applicant:

1. Letter Of Authorization
2. Identification Drawings
 - Id Label
 - Location Info
 - Attestation Statement (S)
 - Location of Compliance Statement
3. Documentation: 2.1033(B)
 - (3) User Manual (S)
 - (4) Operational Description
 - (5) Block Diagram
 - (5) Schematic Diagram
 - (7) External Photographs
 - Internal Photographs
 - Parts List
 - Active Devices

By F.T.L. Inc.

- A. Testimonial & Statement of Certification
- B. Statement of Qualifications



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Test Report

for

FCC ID: VY3-VDUL5NA

Model: FGD-01043, FGD-00582-03, MOD-01011-02

to

Federal Communications Commission

Rule Part(s) 15.207, 15.209

Date Of Report: April 22, 2009

On the Behalf of the Applicant: Coencorp Consultant Inc
8 Place du Commerce
Bureau 100
Brossard, Quebec, J4W 3H2
Canada

Attention of: Ahmad Tavassili
Ph 450-672-4222
Fax 560-672-6038
Email: ahmad@coencorp.com

Supervised By:

Hoosamuddin S. Bandukwala, Lab Director

Test Report Revision History

Revision	Date	Revised By	Reason for revision
1.0	April 22, 2009	J Erhard	Original Document
2.0	May 28, 2009	J Erhard	Add stand-alone test data and antenna connection information
3.0	June 2, 2009	J Erhard	Add additional information regarding radiated test measurements

The applicant has been cautioned as to the following:

15.21 Information to User.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.27(a) Special Accessories.

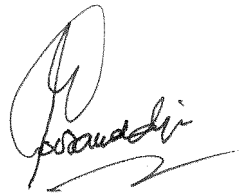
Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

Testimonial And Statement Of Certification

This is to certify that:

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
2. **That** the technical data supplied with the application was taken under my direction and supervision.
3. **That** the data was obtained on representative units, randomly selected.
4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.



Certifying Engineer:

Hoosamuddin S. Bandukwala, Lab Director

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Required information per ISO 17025-2005, paragraph 5.10.2:

a) **Test Report**

b) Laboratory: Flom Test Lab, Inc.
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107
(Canada: IC 2044A-1) Chandler, AZ 85225

c) Report Number: d0940014

d) Client: Coencorp Consultant Inc

e) Identification: Model: FGD-01043, FGD-00582-03, MOD-01011-02
FCC ID: VY3-VDUL5NA; IC ID: 7522A-VDUL5NA

Description: RF Data Collector

f) EUT Condition: Not required unless specified in individual tests.

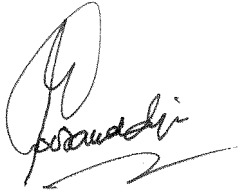
g) Report Date: April 22, 2009

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with FTL internal quality manual.

m) Supervised by:



Hoosamuddin S. Bandukwala, Lab Director

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

List Of General Information Required For Certification

In Accordance with FCC Rules and Regulations,
Volume II, Part 2 and to 15.231

Sub-Part 2.1033

(c)(1):

Name and Address of Applicant: Coencorp Consultant Inc

(c)(2): **FCC ID:** VY3-VDUL5NA

Model Number: FGD-01043, FGD-00582-03, MOD-01011-02

(c)(3): **Instruction Manual(s):**

Please See Attached Exhibits

(c)(4): **Type of Emission:** CW Unmodulated

(c)(5): **FREQUENCY RANGE, KHz:** 125.4 KHz

(c)(6): **Power Rating, dBm:** -132.0
_____ Switchable _____ Variable X N/A

(c)(7): **Maximum Power Rating, dBm:** -88.0

15.203: Antenna Requirement:

_____	The antenna is permanently attached to the EUT
<u> X </u>	The antenna uses a unique coupling
_____	The EUT must be professionally installed
_____	The antenna requirement does not apply

Subpart 2.1033 (continued)**(c)(8): Circuit Diagram/Circuit Description:**

Including description of circuitry & devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation and limiting power.

Please See Attached Exhibits

(c)(9): Label Information:

Please See Attached Exhibits

(c)(10): Photographs:

Please See Attached Exhibits

(c)(11): Digital Modulation Description:

☐ Attached Exhibits

☒ N/A

(c)(12): Test And Measurement Data:

Follows

Sub-part
2.1033(b):

Test And Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2 and the following individual Parts: 15.107, 15.109; Unintentional Radiators

Standard Test Conditions and Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with ANSI C63.4-2004, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst-case measurements.

A2LA

"A2LA has accredited Flom Test Labs, Inc. Chandler, AZ for technical competence in the field of Electrical testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO 17025:2005 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Please refer to www.a2la.org for current scope of accreditation.

Certificate number: 2152.01



FCC OATS Reg. #933597

IC O.A.T.S. Number: 2044A-1

Test Results Summary

Specification	Test Name	Pass, Fail, N/A	Comments
15.209	Radiated Emissions	Pass	
15.207	Powerline Conducted Emissions	Pass	
RSS-210	99% occupied Bandwidth	Pass	

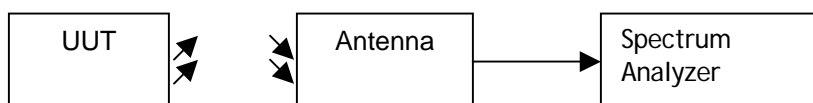
Name of Test: Radiated Emissions
Specification: 15.209
Test Equipment Utilized i00033, i00326

Engineer: J Erhard
Test Date: 4/21/2009

Test Procedure

The UUT was set 1m from the receiving antenna. A spectrum analyzer was used to verify that the UUT met the requirements for Radiated Emissions. The UUT was tested by rotating it 360° with the receiving antenna in the X, Y, and Z-axis to ensure the signal levels were maximized. All emissions from the fundamental to the 10th harmonic were examined. All limits were calculated using the limit table in 15.209 then converted to dBuV. The correction factor is the summation of the antenna, cable and distance correction factors (40 log D1/D2). All correction factors were subtracted from the measured values to obtain corrected readings and compared to the limit.

Test Setup



Radiated Emissions (in chassis)

Emission Freq (kHz)	Measured Value (dBuV/m)	Correction Factor (dB)	Corrected Value (dBuV/m)	Limit (dBuV/m)	Margin dB
125.369	107.0	115.48	-8.48	25.64	-34.12
250.739	84.0	114.98	-30.98	19.62	-50.60
376.109	84.8	114.98	-30.18	16.10	-46.28
501.479	72.1	114.98	-42.88	33.60	-76.48
626.849	77.4	114.98	-37.58	31.66	-69.24
752.219	70.2	114.88	-44.68	30.08	-74.76
877.589	71.6	115.18	-43.58	28.74	-72.32
1002.959	67.5	114.78	-47.28	27.58	-74.86
1125.329	65.0	114.78	-49.78	26.56	-76.34
1253.699	64.2	114.78	-50.58	25.64	-76.22

Radiated Emissions (stand alone)

Emission Freq (kHz)	Measured Value (dBuV/m)	Correction Factor (dB)	Corrected Value (dBuV/m)	Limit (dBuV/m)	Margin dB
125.375	110.78	115.48	-4.70	25.64	-30.34
250.750	90.26	114.98	-24.72	19.62	-44.34
376.125	87.66	114.98	-27.32	16.10	-43.42
501.500	82.37	114.98	-32.61	33.60	-66.21
626.875	79.96	114.98	-35.02	31.66	-66.68
752.250	75.75	114.88	-39.13	30.08	-69.21
877.625	73.58	115.18	-41.60	28.74	-70.34
1003.000	69.57	114.78	-45.21	27.58	-72.79
1128.375	66.18	114.78	-48.60	26.56	-75.16
1253.750	61.50	114.78	-53.28	25.64	-78.92

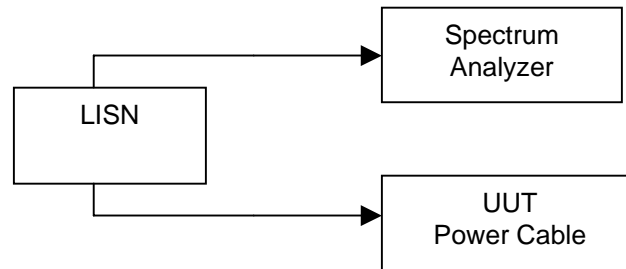
Name of Test: Powerline Conducted Emissions
Specification: 15.207
Test Equipment Utilized i00033, i00270

Engineer: J Erhard
Test Date: 4/21/2009

Test Procedure

The UUT power cable connected to a LISN and the monitored output of the LISN was connected directly to a spectrum analyzer. The conducted emissions from 150 kHz to 30 MHz were monitored and compared to the specification limits. The supply voltage was 120 VAC at 60 Hz.

Test Setup



Line 1 Test Results (In Chassis)

Emission Frequency	Detector	Monitored Level (dBuV/m)	LISN Factor (dB)	Attenuation (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
174.21 KHz	Quasi-Peak	49.89	0.2	10	60.1	65.31	-5.2
171.99 KHz	Quasi-Peak	50.08	0.2	10	60.3	65.37	-5.07
170.76 KHz	Quasi-Peak	51.39	0.2	10	61.61	65.41	-3.8
168.14 KHz	Quasi-Peak	50.29	0.2	10	60.51	65.48	-4.97
151.38 KHz	Quasi-Peak	51.69	0.29	10	62.02	65.96	-3.94
150.09 KHz	Quasi-Peak	52.85	0.3	10	63.19	66	-2.8

Line 2 Test Results (In Chassis)

Emission Frequency	Detector	Monitored Level (dBuV/m)	LISN Factor (dB)	Attenuation (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
168.75 KHz	Quasi-Peak	50.15	0.2	10	60.37	65.46	-5.09
165.88 KHz	Quasi-Peak	49.78	0.2	10	60.01	65.55	-5.54
151.8 KHz	Quasi-Peak	50.69	0.28	10	61.01	65.95	-4.94
151.67 KHz	Quasi-Peak	50.55	0.28	10	60.87	65.95	-5.08
150.63 KHz	Quasi-Peak	50.91	0.29	10	61.24	65.98	-4.74
150.26 KHz	Quasi-Peak	51.67	0.3	10	62.01	65.99	-3.99

All Average measurements were greater than -20 dB below the limit.

Line 1 Test Results (Stand Alone)

Emission Frequency	Detector	Monitored Level (dBuV/m)	LISN Factor (dB)	Attenuation (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
205.99 KHz	Quasi-Peak	46.72	0.2	10	46.95	64.56	-7.61
186.6 KHz	Quasi-Peak	48.24	0.2	10	48.44	64.95	-6.51
169.75 KHz	Quasi-Peak	46.78	0.2	10	47.00	65.44	-8.44
200.4 KHz	Quasi-Peak	54.2	0.2	10	61.42	64.56	-3.14
169.99 KHz	Quasi-Peak	46.67	0.2	10	56.89	65.44	-8.54
164.08 KHz	Quasi-Peak	50.04	0.2	10	60.27	65.6	-5.33

Line 2 Test Results (Stand Alone)

Emission Frequency	Detector	Monitored Level (dBuV/m)	LISN Factor (dB)	Attenuation (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
226.47 KHz	Quasi-Peak	43.67	0.19	10	53.92	63.82	-9.9
203.15 KHz	Quasi-Peak	49.49	0.2	10	59.71	64.48	-4.77
199.72 KHz	Quasi-Peak	50.69	0.2	10	60.91	64.58	-3.67
196.35 KHz	Quasi-Peak	50.57	0.2	10	60.78	64.68	-3.89
178.87 KHz	Quasi-Peak	51.14	0.2	10	61.35	65.18	-4.17
178.25 KHz	Quasi-Peak	50.27	0.2	10	60.48	65.19	5.29

All Average measurements were greater than -20 dB below the limit.

Name of Test:
Specification:
Test Equipment Utilized

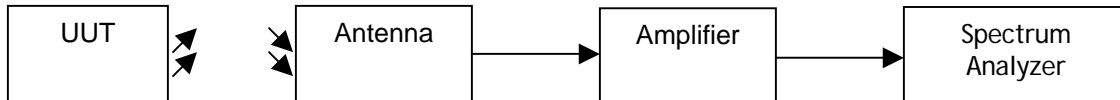
99% Occupied Bandwidth
 RSS 210 Industry Canada Only
 i00033, i00326

Engineer: J Erhard
Test Date: 5/20/2009

Test Procedure

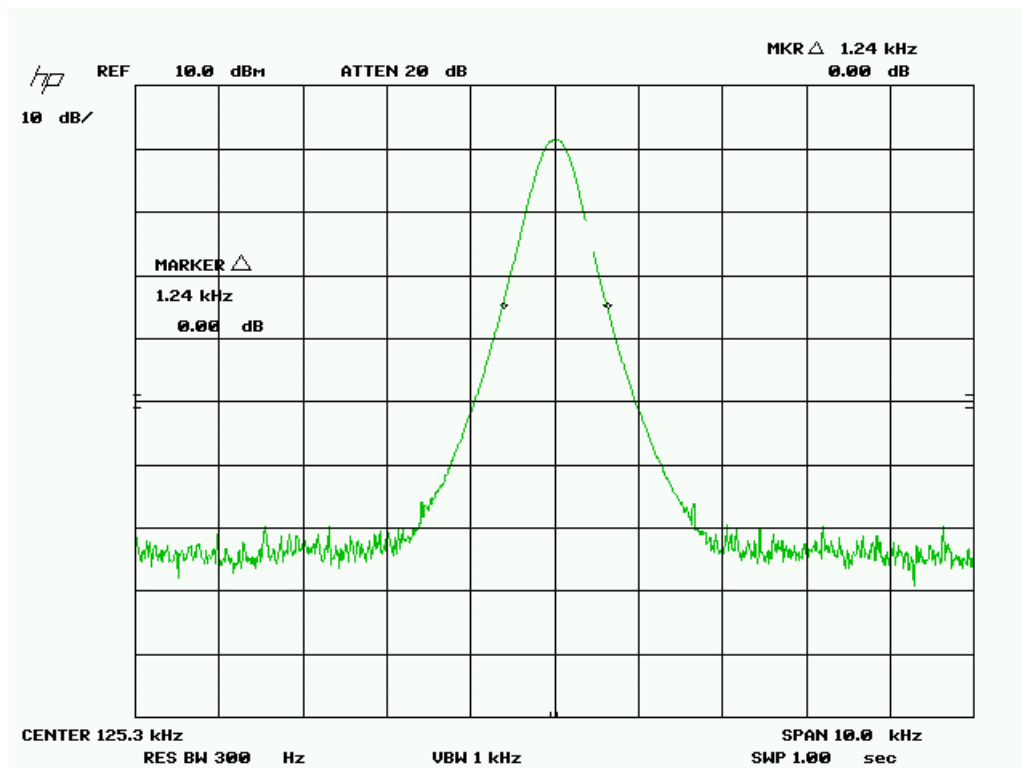
The UUT was tested at a distance of 1 meter from the receiving antenna. The Span was set wide enough to capture the entire transmit spectrum and the resolution bandwidth was set to at least 1% of the span. The analyzer was set to max hold the 99% bandwidth was measured.

Test Setup



Occupied Bandwidth Summary

Frequency KHz	Recorded Measurement	Result
125.3	1.24 kHz	Pass



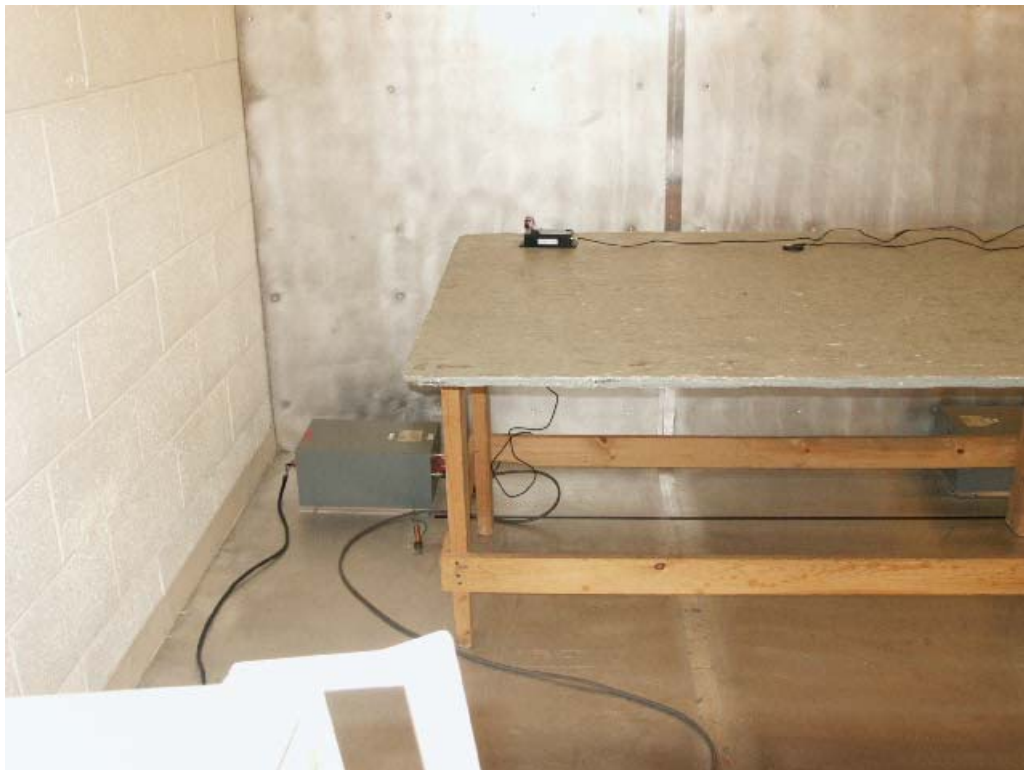
Radiated Emissions Test Setup Photos (In Chassis)



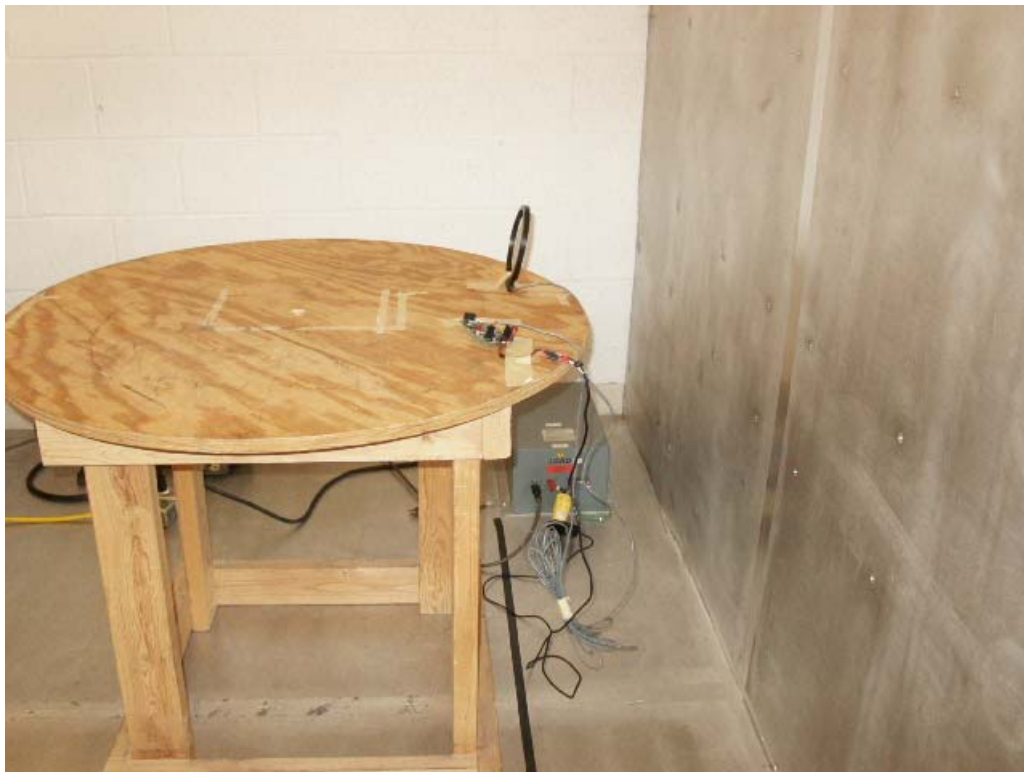
Radiated Emissions Test Setup Photos (Stand Alone)



Conducted Emissions Test Setup Photos (In Chassis)



Conducted Emissions Test Setup Photos (Stand Alone)



Test Equipment Utilized

Description	MFG	Model Number	FTL Asset Number	Last Cal Date	Cal Due Date
Spectrum Analyzer	HP	85462A	i00033	10/14/2008	10/14/2009
LISN	FCC	FCC-LISN-50-32-2-01	i00270	9/17/2008	9/17/2010
Loop Antenna	EMCO	6507	i00326	4/1/2009	4/1/2010

In addition to the above listed equipment standard RF connectors and cables were utilized in the testing of the described equipment. Prior to testing these components were tested to verify proper operation.

END OF TEST REPORT