L.S. Compliance, Inc.
W66 N220 Commerce Court
Cedarburg, WI 53012
262-375-4400 Fax: 262-375-4248

COMPLIANCE TESTING OF:

Ember Net Node

PREPARED FOR:

Ember Corporation
Attn.: Mr. John Loukota
313 Congress Street
Boston, MA 02210

TEST REPORT NUMBER:

302319

TEST DATES:

June through October, 2002

Table of Contents

1. L. S. Compliance In Review

L. S. Compliance, Inc. is located in Cedarburg, Wisconsin – United States.

We may be contacted by:

Mail: L. S. Compliance, Inc.
W66 N220 Commerce Court
Cedarburg, Wisconsin 53012

Phone: 262-375-4400
Fax: 262-375-4248
E-mail: eng@lsr.com

As an EMC Testing Laboratory, our Accreditation and Assessments are recognized through the following:

A2LA – American Association for Laboratory Accreditation
Accreditation based on ISO/IEC 17025 : 2001
with Electrical (EMC) Scope of Accreditation
A2LA Certificate Number: **1255.01**

U. S. Conformity Assessment Body (CAB) Validation
Validated by the European Commission as a U. S. Conformity Assessment Body operating under the U. S. /EU, Mutual Recognition Agreement (MRA) operating under the European Union EMC Directive 89/336/EEC, Article 10.2.
Date of Validation: **January 16, 2001**

Federal Communications Commission (FCC) – USA
Listing of 3 Meter Semi-Anechoic Chamber based on 47CFR 2.948
FCC Registration Number: **90756**

Listing of 3 and 10 meter OATS based on 47CFR 2.948
FCC Registration Number: **90757**

Industry Canada
On-file, 3 Meter Semi-Anechoic Chamber based on 47CFR 2.948
File Number: **IC 3088**

On-file 3 and 10 Meter OATS based on RSS-210
File Number: **IC 3088-A**

2. A2LA Certificate of Accreditation

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

L.S. COMPLIANCE, INC.
Cedarburg, WI

for technical competence in the field of

Electrical (EMC) 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/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration Laboratories" and any additional program requirements in the identified field of testing. Testing and calibration laboratories that comply with this International Standard also operate in accordance with ISO 9001 or ISO 9002.

Presented this 26th day of June, 2001.

SEAL

President
For the Accreditation Council
Certificate Number 1255.01
Valid to January 31, 2003

For tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical (EMC) Scope of Accreditation

3. A2LA Scope of Accreditation

American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025-1999

L.S. COMPLIANCE, INC.
W66 N220 Commerce Court
Cedarburg, WI 53012
James Blaha Phone: 262 375 4400

ELECTRICAL (EMC)

Valid to: January 31, 2003 Certificate Number: 1255-01

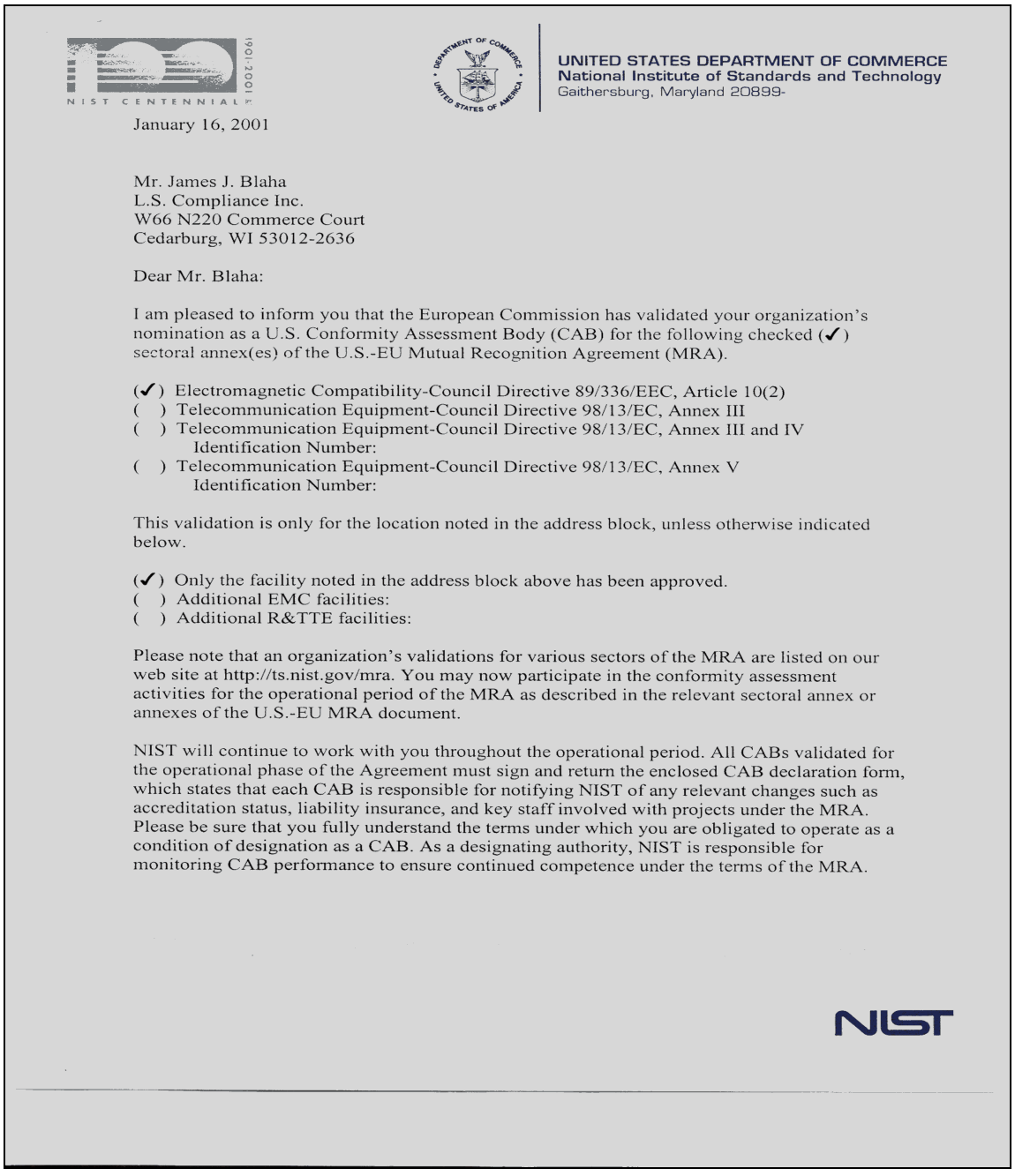
In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests:

Test	Test Method(s)
Conducted Emissions Continuous/Discontinuous	Code of Federal Regulations (CFR) 47, FCC Method Parts 15 and 18 using ANSI C63.4; EN: 55011, 55022, 55081-1, 55081-2; CISPR: 11, 22; CNS 13438
Radiated Emissions	Code of Federal Regulations (CFR) 47, FCC Method Parts 15 and 18 using ANSI C63.4; EN: 55011, 55022, 55081-1, 55081-2; CISPR: 11,22; CNS 13438
Conducted Immunity Fast Transients/Burst	IEC: 1000-4-4, 801-4; EN: 61000-4-4, 50082-1, 50082-2
Surge	IEC: 1000-4-5, 801-5; ENV 50142; EN: 61000-4-5, 50082-1, 50082-2
RF Fields	IEC: 1000-4-6, 801-6; ENV 50141; EN: 61000-4-6, 50082-1, 50082-2
Voltage Dips/Interruptions	IEC 1000-4-11; EN: 61000-4-11, 50082-1, 50082-2
Radiated Immunity RF Fields	IEC: 801-3, 1000-4-3; ENV 50140; EN: 61000-4-3, 50082-1, 50082-2
RF Fields (50 Hz)	IEC 1000-4-8; EN 61000-4-8
RF Fields (Pulse Mode)	EN: 50082-1, 50082-2; ENV 50204
Electrostatic Discharge (ESD)	IEC: 1000-4-2, 801-2; BSEN 60801-2; EN: 61000-4-2, 50082-1, 50082-2

(A2LA Cert. No. 1255.01) 06/26/01 Page 1 of 1

5301 Buckeystown Pike, Suite 350 • Frederick, MD 21704-8373 • Phone: 301-644-3248 • Fax: 301-662 2974

4. Validation Letter – U.S. Competent Body for EMC Directive 89/336/EEC



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-

January 16, 2001

Mr. James J. Blaha
L.S. Compliance Inc.
W66 N220 Commerce Court
Cedarburg, WI 53012-2636

Dear Mr. Blaha:

I am pleased to inform you that the European Commission has validated your organization's nomination as a U.S. Conformity Assessment Body (CAB) for the following checked (✓) sectoral annex(es) of the U.S.-EU Mutual Recognition Agreement (MRA).

(✓) Electromagnetic Compatibility-Council Directive 89/336/EEC, Article 10(2)
( ) Telecommunication Equipment-Council Directive 98/13/EC, Annex III
( ) Telecommunication Equipment-Council Directive 98/13/EC, Annex III and IV
Identification Number:
( ) Telecommunication Equipment-Council Directive 98/13/EC, Annex V
Identification Number:

This validation is only for the location noted in the address block, unless otherwise indicated below.

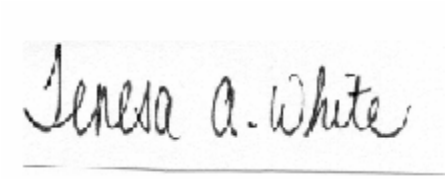
(✓) Only the facility noted in the address block above has been approved.
( ) Additional EMC facilities:
( ) Additional R&TTE facilities:

Please note that an organization's validations for various sectors of the MRA are listed on our web site at http://ts.nist.gov/mra. You may now participate in the conformity assessment activities for the operational period of the MRA as described in the relevant sectoral annex or annexes of the U.S.-EU MRA document.

NIST will continue to work with you throughout the operational period. All CABs validated for the operational phase of the Agreement must sign and return the enclosed CAB declaration form, which states that each CAB is responsible for notifying NIST of any relevant changes such as accreditation status, liability insurance, and key staff involved with projects under the MRA. Please be sure that you fully understand the terms under which you are obligated to operate as a condition of designation as a CAB. As a designating authority, NIST is responsible for monitoring CAB performance to ensure continued competence under the terms of the MRA.

NIST

5. Signature Page



Prepared By: **November 15, 2002**

Teresa A. White, Document Coordinator **Date**

Tested By: **November 15, 2002**

Abtin Spantman, EMC Engineer **Date**

Approved By: **November 15, 2002**

Kenneth L. Boston, EMC Lab Manager **Date**
PE #31926 Licensed Professional Engineer
Registered in the State of Wisconsin, United States

6. Product and General Information

Manufacturer:	Ember Corporation
Model No.:	Ember Net Node
Serial No.:	0010234-0312-01-B2 plus 7-18-02-EM01-B1
Description:	900 MHz 12 Channel Direct Sequence Spread Spectrum Transceiver

7. Product Description

The Ember Net Node Modular Transceiver Module is a DSSS Transceiver for data communication in the 900 MHz I.S.M. Band. It runs a nominal 100 milliwatt output into a small monopole antenna. Typical use of this module is as a small wireless modem to be used in relatively low speed data transfer via an RS 232 or RS 485 data structure, with a maximum chipping rate of 1.5 MCPS. The Ember Net Node is supplied as a modular transceiver, which uses a pair of multi-pin headers (24 and 32 pin) to interface with the host device. RF to a small monopole is coupled via a reverse-sex SMA connector.

8. Test Requirements

The above mentioned tests were performed in order to determine the compliance of the Ember Net Node with limits contained in various provisions of Title 47 CFR, FCC Part 15, including:

15.207	15.247b(3)	15.109
15.205	15.247c	
15.247a2	15.247d	

All radiated emissions tests were performed to measure the emissions in the frequency bands described by the above sections, and to determine whether said emissions are below the limits established by the above sections. These tests were performed in accordance with the procedure described in the 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 (ANSI C63.4-1992). Another document used as reference for the EMI receiver specification was the International Special Committee on Radio Interference CISPR 16-1 (1999). Measurement technique guidelines found in Appendix C to FCC 97-114 were also consulted. During all tests a representative data stream was used to modulate the transceiver at a 19,200 Baud Rate. The test software used was supplied by Ember Corporation, and was the Tera Term Pro 2.3 Version.

9. Summary of Test Report

DECLARATION OF CONFORMITY

The Ember Net Node was found to **MEET** the requirements as described within the specification of Title 47 CFR FCC, Part 15.247, Subpart c; and I.C. RSS-210, Section 7 for an intentional radiator.

10. Introduction

During June, July, September and October of 2002, a series of Radiated and Conducted Emission tests were performed on two samples of the Ember Net Node. These two samples were both pre-production samples, identical except for minor firmware changes to accommodate performance issues. Both were identical for RF performance and modulation characteristics. These tests were performed using the procedures outlined in ANSI C63.4-2001 for intentional radiators, and in accordance with the limits set forth in FCC Part 15.247 (Industry Canada RSS-210) for a low power transmitter. These tests were performed by Abtin Spantman, EMC Engineer of L.S. Compliance, Inc.

11. Purpose

All Radiated and Conducted Emission tests upon the EUT were performed to measure the emissions in the frequency bands described in title 47 CFR, FCC Part 15, including 15.35, 15.247, 15.109a and Industry Canada RSS-210 to determine whether these emissions are below the limits expressed within the standards. These tests were performed in accordance with the procedure described in the 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 (ANSI C63.4-2001). Another document used as a reference for the EMI Receiver specification was the Comite International Special Des Perturbations Radioelelectriques CISPR 16-1, 1999.

12. Radiated Emissions Test [15.247(c), Radiated Signals in the 15.205 Bands]

Test Setup

The test setup was assembled in accordance with Title 47, CRF FCC Part 15 and ANSI C63.4-2001. The EUT was placed on an 80cm high non-conductive pedestal centered on a flush mounted 2-meter diameter turntable inside the 3 Meter Semi-Anechoic, FCC listed Chamber located at L. S. Compliance, Inc., Cedarburg, Wisconsin. The EUT was operated in automatic mode, using DC power of 5 VDC as provided by a small power supply. The applicable limits apply at a 3 meter distance, and are found on Page 12. Measurements above 5 GHz were also performed at a 1 meter separation distance, and the calculation can also be found on Page 12. The applicable limits, as given, are meant to be measured at a 3-meter separation distance. The calculations to determine these limits are detailed in the following pages. Please refer to Appendix A for a list of the test equipment. The test sample was operated on one of three (3) standard channels: 1 (904 MHz), 7 (916 MHz) and 12 (926 MHz) to comply with FCC Part 15.35.

Test Procedure

Radiated Emission measurements were performed on the EUT in the 3 Meter Semi-Anechoic, FCC listed Chamber, located at L. S. Compliance, Inc. in Cedarburg, Wisconsin. The frequency range from 30 MHz to 9000 MHz was scanned, and levels were manually noted at the various fixed degree settings of azimuth on the turntable and antenna height. The EUT was placed on the non-conductive pedestal in the 3 Meter Semi-Anechoic Chamber, with the antenna mast placed such that the antenna was 3 meters from the test object. A Biconical Antenna was used to measure emissions from 30 MHz to 300 MHz, and a Log Periodic Antenna was used to measure emissions from 300 MHz to 1000 MHz. A Double Ridged Waveguide Horn Antenna was used from 1 GHz to 9 GHz. The maximum radiated emissions were found by raising and lowering the antenna between 1 and 4 meters in height, using both horizontal and vertical antenna polarities.

Test Equipment Utilized

A list of the test equipment and antennas utilized for the Radiated Emissions test can be found in Appendix A. This list includes calibration information and equipment descriptions. All equipment is calibrated and used according to the operation manuals supplied by the manufacturers. All calibrations of the antennas used were performed at an N.I.S.T. traceable site. In addition, the Connecting Cables were measured for losses using a calibrated Signal Generator and a HP 8546A EMI Receiver. The resulting correction factors and the cable loss factors from these calibrations were entered into the HP 8546A EMI Receiver database. As a result, the data taken from the HP 8546A EMI Receiver accounts for the antenna correction factor as well as cable loss or other corrections, and can therefore be entered into the database as a corrected meter reading. The HP 8546A EMI Receiver was operated with a bandwidth of 120 kHz for measurements below 1 GHz, and a bandwidth of 1 MHz above 1 GHz. Both the Peak and Quasi-Peak Detector functions were utilized. From 5 GHz to 9 GHz, an HP E4407 Spectrum Analyzer and an EMCO Horn Antenna were used.

Test Results

The EUT was found to MEET the Radiated Emissions requirements of Title 47 CFR, FCC Parts 15.247(c) and 15.205 for a low power transmitter (Canada RSS-210). The frequencies with significant signals were recorded and plotted as shown in the Data Charts and Graphs.

Notes:

CALCULATION OF RADIATED EMISSIONS LIMITS (15.205 and 15.209)

The following table depicts the Radiated Emission levels for low power transmitters. These limits are obtained from Title 47 CFR, Part 15.209, for radiated emissions measurements.

Frequency (MHz)	3 m Limit μV/m	3 m Limit dBμV/m
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
960-10,000	500	54.0

Sample conversion from field strength μV/m to dBμV/m:

$dB\mu V/m = 20 \log_{10}$ (3m limit)

from 30 -88 MHz for example: $dB\mu V/m = 20 \log_{10}$ (100)

$40.0\ dB\mu V/m = 20 \log_{10}$ (100)

Sample conversion of limits between 3 meters to 1 meter:

3m limit (dBμV/m) + $20 \log_{10}$ (1m/3m) = 1 meter limit (dBμV/m)

from 960-10,000 MHz for example: 3m limit (dBμV/m) = 54.0 dBμV/m + 9.5 dB

1 meter limit = 63.5 dBμV/m

Summary of Results and Conclusions

Based on the procedures outlined in this report, and the test results, it can be determined that the EUT does **MEET** the emission requirements of Title 47 CFR, FCC Part 15, (Industry Canada RSS-210) for a low power transmitter.

The enclosed test results pertain to the samples of the test item listed, and only for the tests performed per the data sheets. Any subsequent modification or changes to the test items could invalidate the data contained herein, and could therefore invalidate the findings of this report.

Measurement of Electromagnetic Radiated Emissions Within the 3 Meter FCC Listed Chamber

Frequency Range Inspected: 30 MHz - 10,000 MHz

Manufacturer: Ember Corporation
Date of Test: June, July, September and October, 2002
Model No.: Ember Net Node
Serial No.: 0010234-0312-01-B2 plus 7-18-02-EM01-B1
Test Requirements: **15.205 and 15.209**

Distance: 3 Meters, 1 Meter	**Frequency Range Inspected:** 30 to 10,000 MHz
Configuration: Continuous Data Transmit, 19,200 Baud	

Test Equipment Used:

EMI Receiver: HP 8546A, E4407	Biconical Antenna: EMCO 3110
Double-Ridged Wave Guide/Horn Antenna: EMCO 3115	Log Periodic Antenna: EMCO 43146A

Detector(s) Used:	**v**	Peak	**v**	Quasi-Peak	v	Average

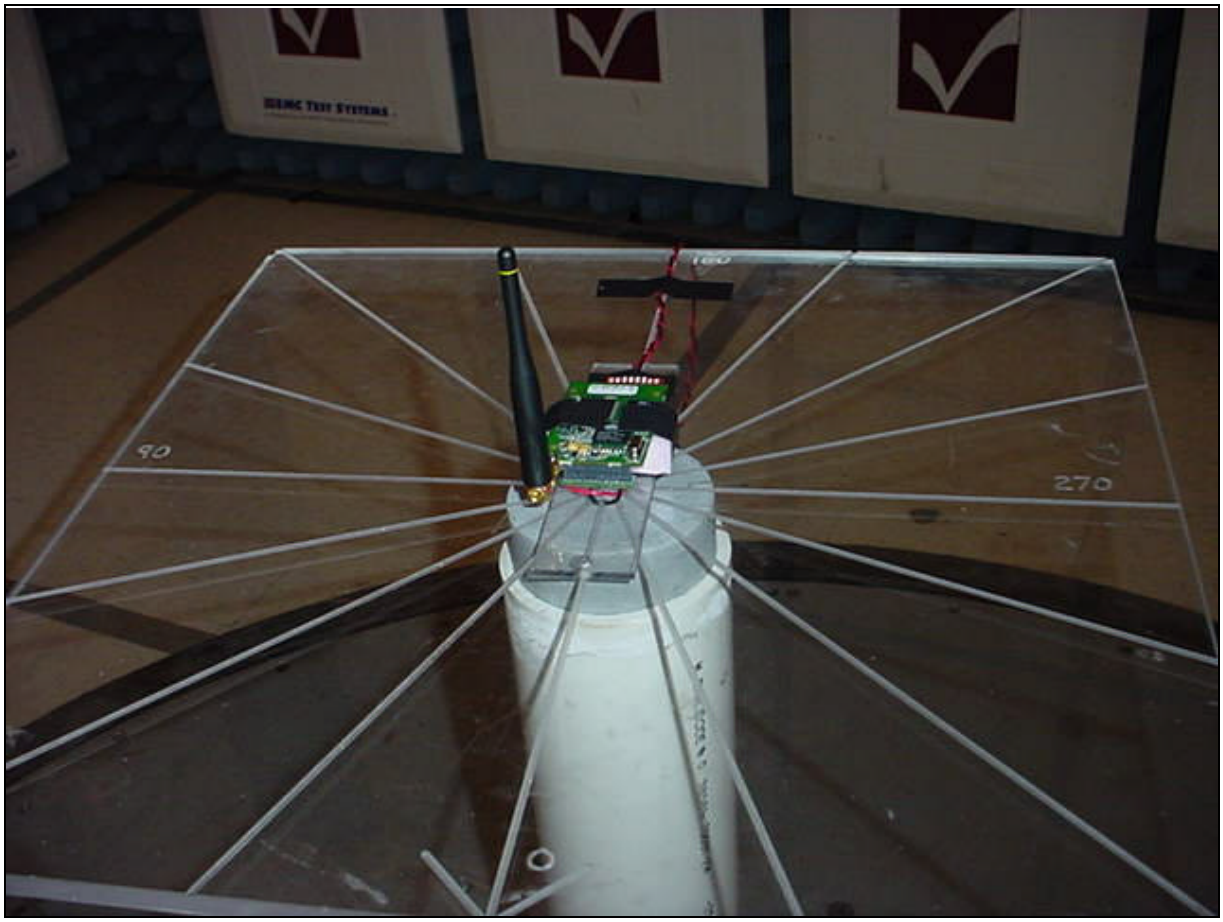
The following table depicts the level of significant radiated emissions found:

Frequency (MHz)	Antenna Polarity	Channel	Height (meters)	Azimuth (0° - 360°)	EMI Meter Reading (dBmV/m)	15.209 Limit (dBmV/m)	Margin (dB)
172.0	V	01	1.0	250	34.4	43.5	9.1
282.6	H	01	1.3	90	35.9	46.0	10.1
989.6	V	01	1.8	110	35.2	54.0	18.8
1135.0	V	12	1.0	115	45.6	54.0	8.4
2710.0	V	01	1.0	250	41.5	54.0	12.5
2747.0	V	07	1.0	210	37.8	54.0	16.2
3617.0	V	01	1.0	215	53.6	54.0	0.4
3666.0	V	07	1.0	200	49.9	54.0	4.1
3707.0	V	12	1.0	115	49.9	54.0	4.1

Note: A Quasi-Peak Detector was used in measurements below 1 GHz. Both a Peak and an Average Detector were used in measurements above 1 GHz. Peak levels were seen to be about 4 to 6 dB above the average levels reported above, and therefore were 15 dB or greater below the limit.

Photos Taken During Radiated Emission Testing

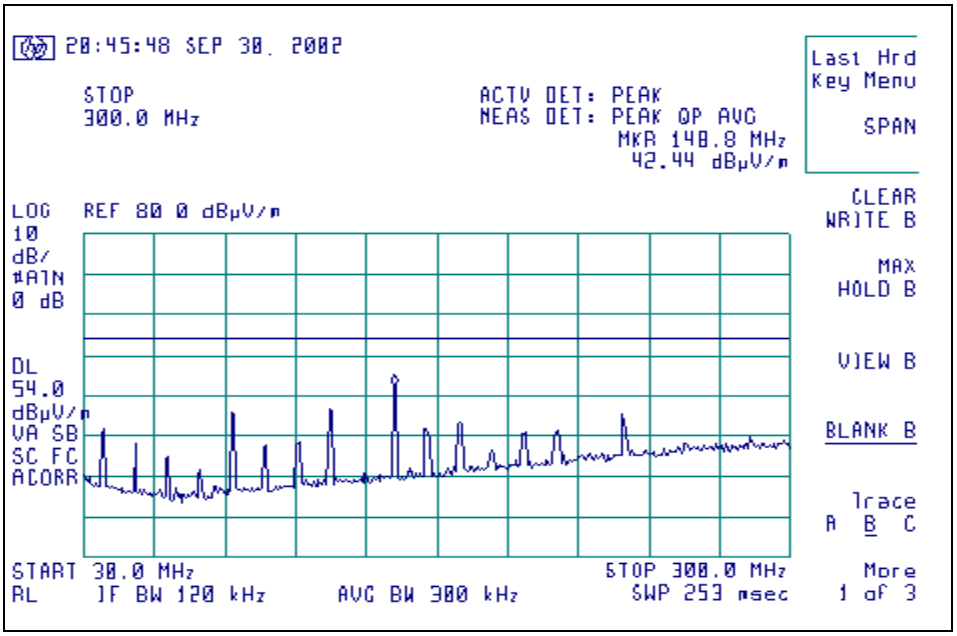
Setup for the Radiated Emissions Test



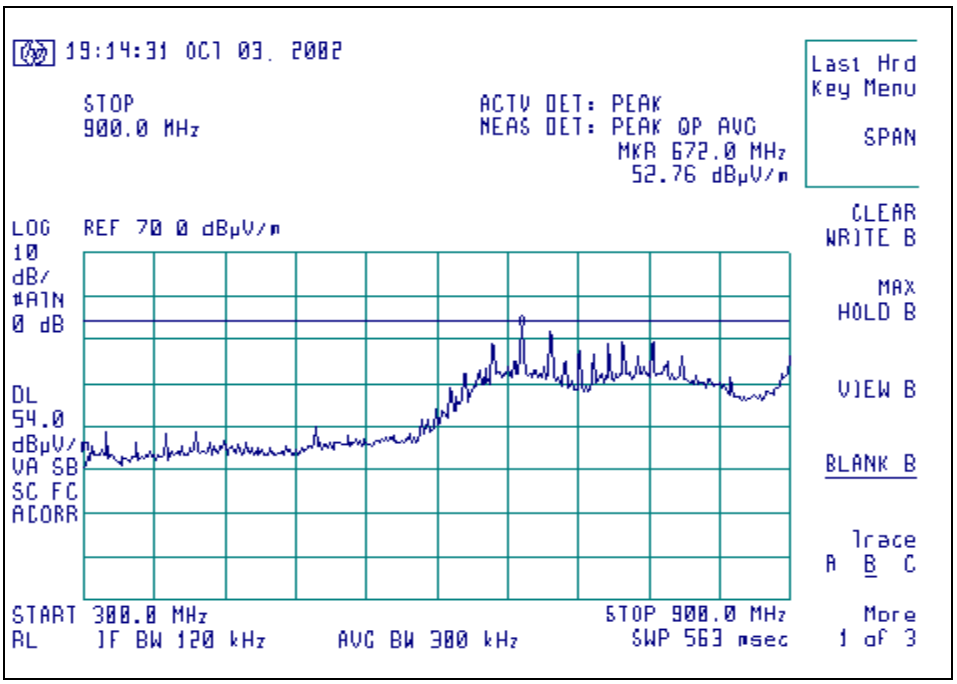
View of the EUT during Radiated Emission Testing in the 3 Meter FCC Listed Chamber

Graphs made during Radiated Emission Testing; Highest Emission Cases Shown

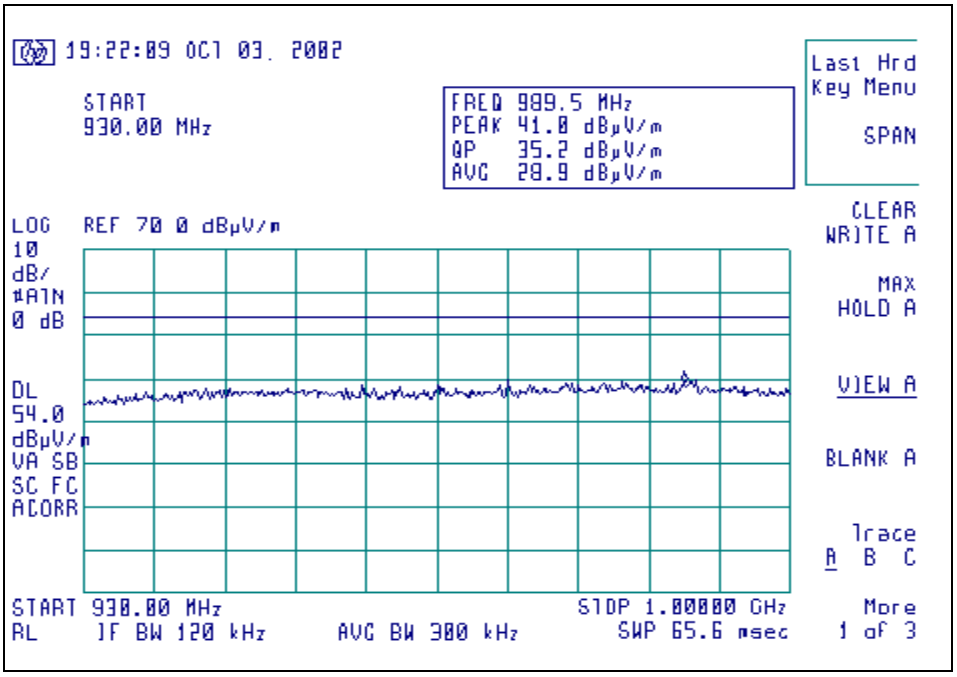
Signature Scan of Radiated Emissions, Channel 7, Vertical Polarity



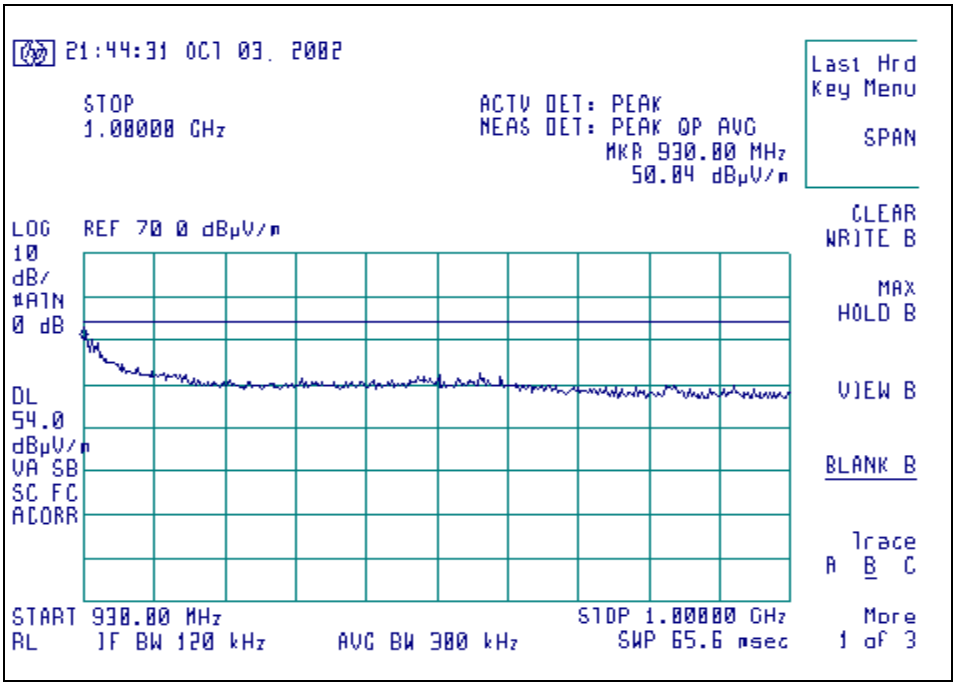
Signature Scan of Radiated Emissions, Channel 1, Vertical Polarity



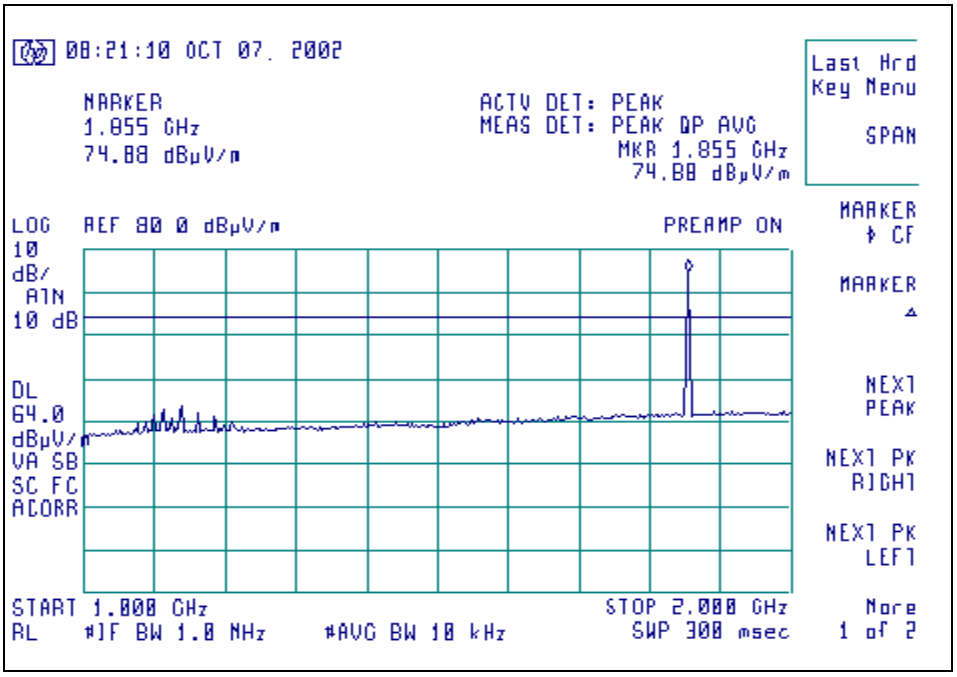
Signature Scan of Radiated Emissions, Channel 1, Vertical Polarity



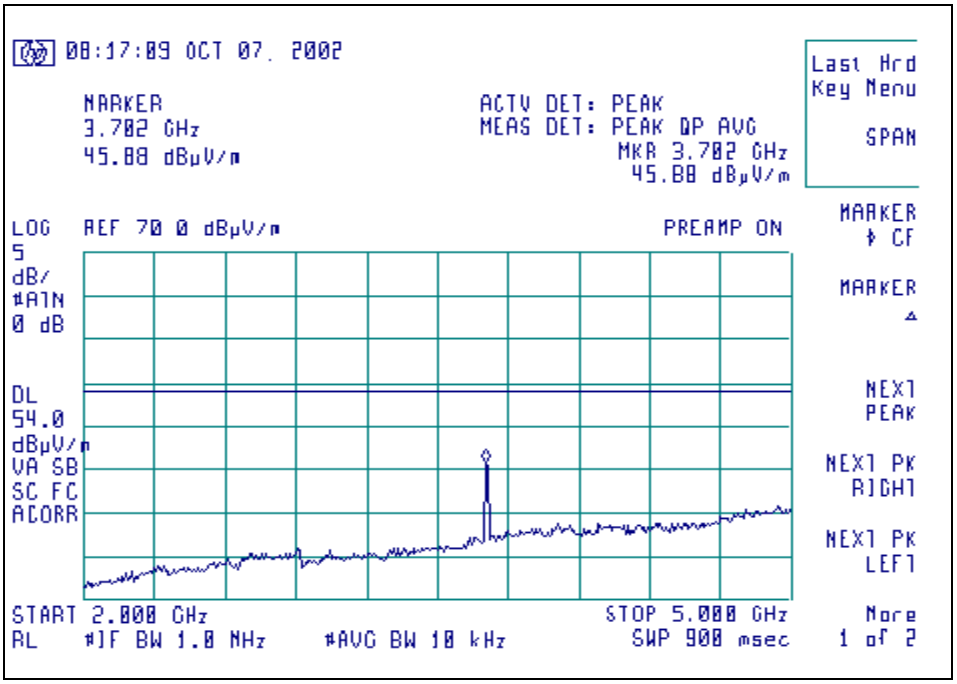
Signature Scan of Radiated Emissions, Channel 12, Vertical Polarity



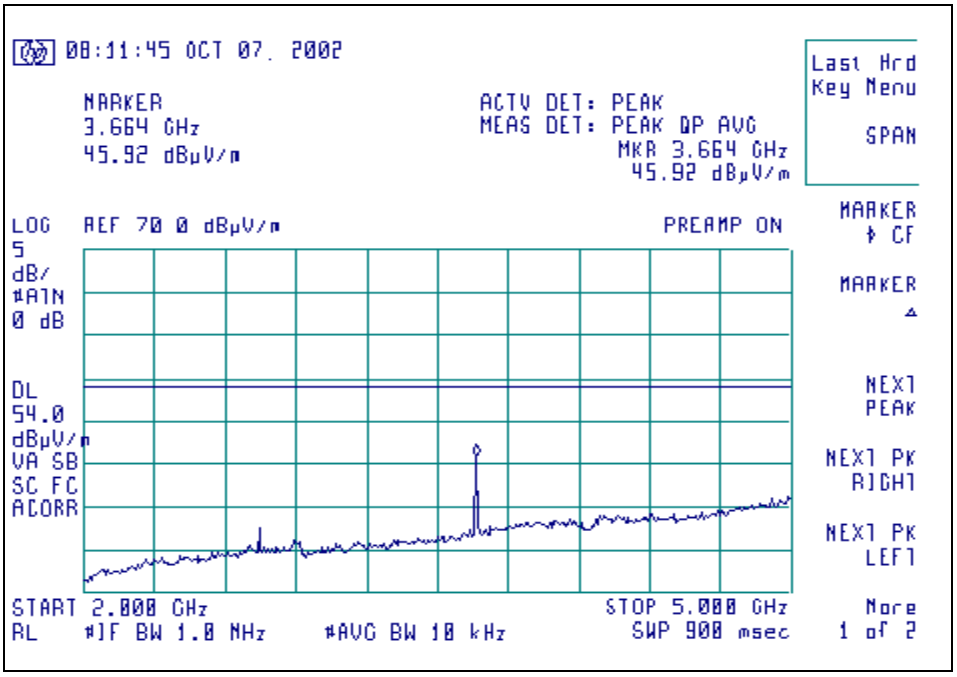
Signature Scan of Radiated Emissions, Channel 12, Vertical Polarity



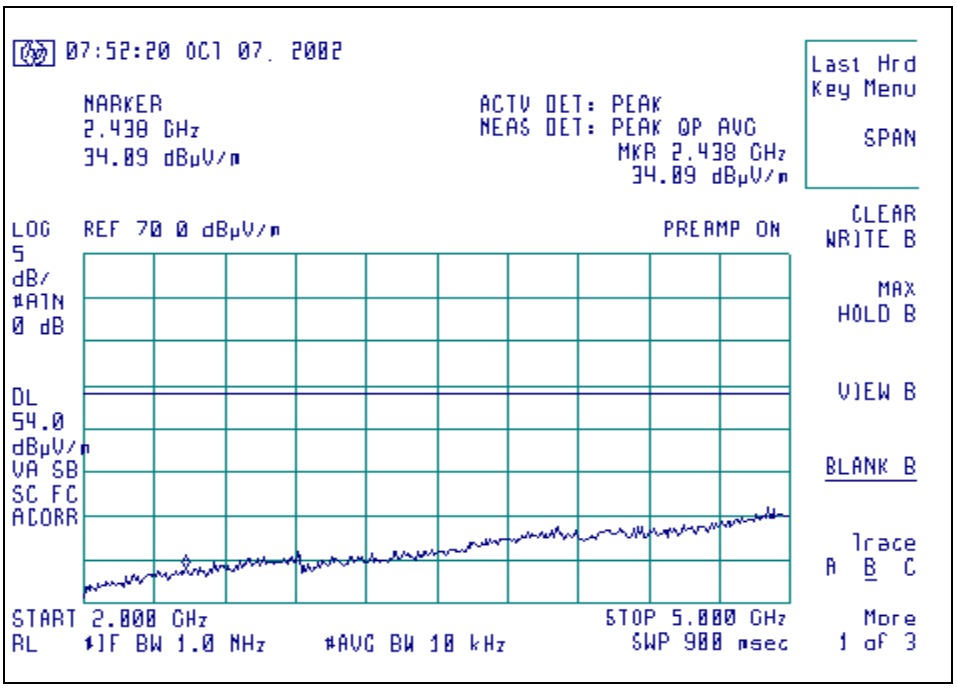
Signature Scan of Radiated Emissions, Channel 12, Vertical Polarity



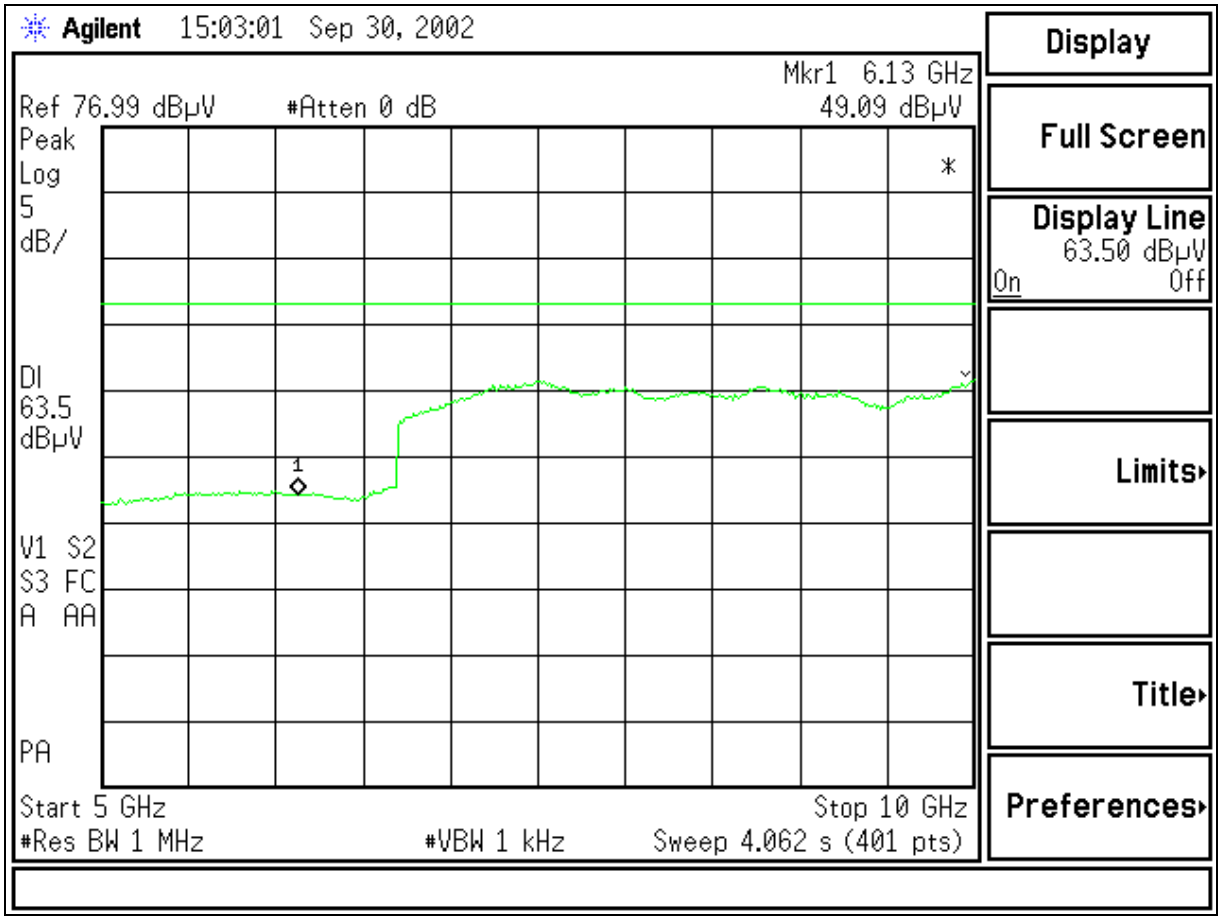
Signature Scan of Radiated Emissions, Channel 7, Vertical Polarity



Signature Scan of Radiated Emissions, Channel 1, Horizontal Polarity



Signature Scan of Radiated Emissions, Channel 12, Vertical Polarity



13. Conducted Emissions Test (AC Line)

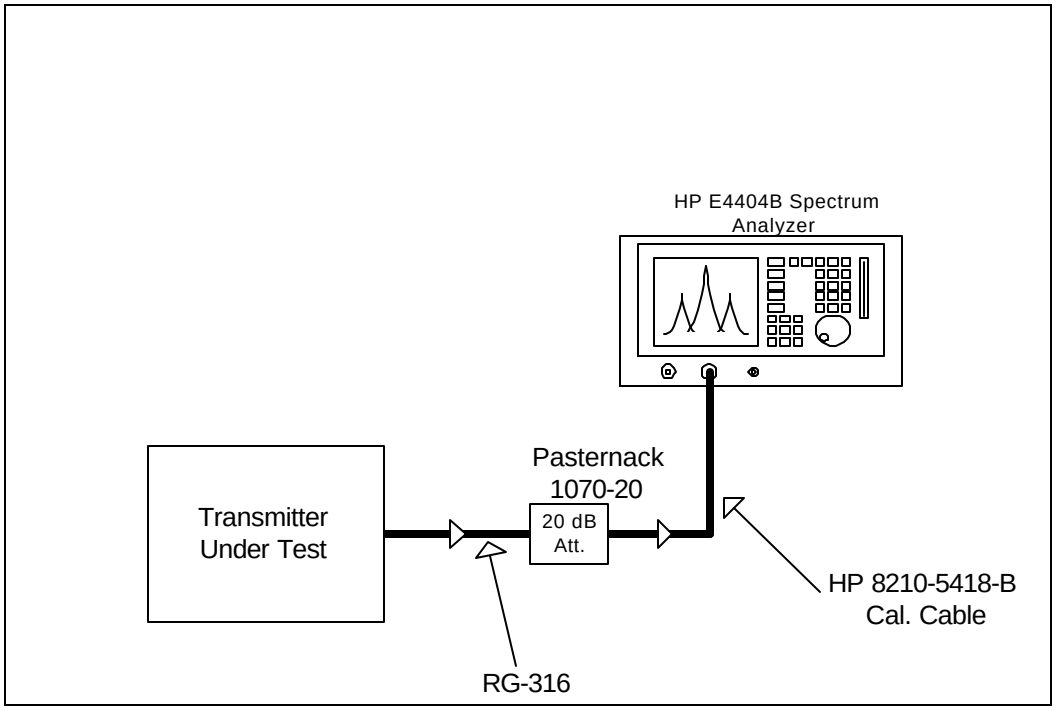
Note: No Conducted Emissions Test on the AC line is required, since the device operates from a 5 VDC source from the host device.

14. Power Output Test Performed

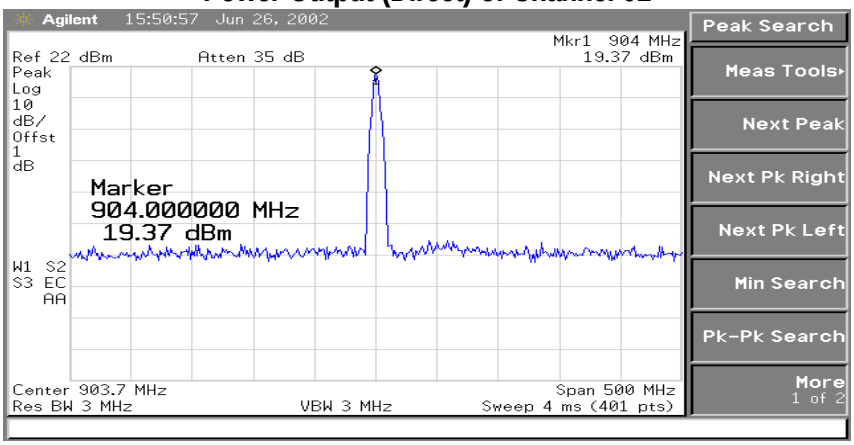
For the FCC Part 15.247b measurement, the output of the Ember Net Node Serial Number 0010234-0312-01-B2 plus 7-18-02-EM01-B1 was connected via a short jumper cable created only for this measurement, into the input of the HP E4407B Spectrum Analyzer. The unit was configured to run in a normal transmit mode, while being supplied with a test program as a modulation source. The HP receiver was set to a 3 MHz Bandwidth, and the transmit signal was then stored, with the peak signal level stored. This power level was collected for all three channels and can be seen in the chart presented below.

CHANNEL	CENTER FREQ (MHz)	LIMIT (dBm)	MEASURED POWER (dBm)	MARGIN (dB)
1	904.0	30 dBm	19.4	10.6
7	916.0	30 dBm	20.0	10.0
12	926.0	30 dBm	20.9	9.1

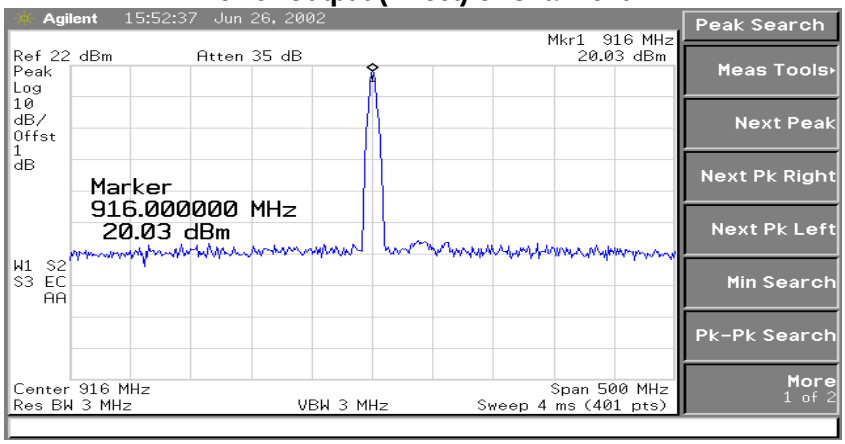
Power output was also evaluated when the 5.0 VDC supply was varied from 4.25 VDC to 5.75 VDC to show compliance with 15.31(e). No variation of power output was seen.



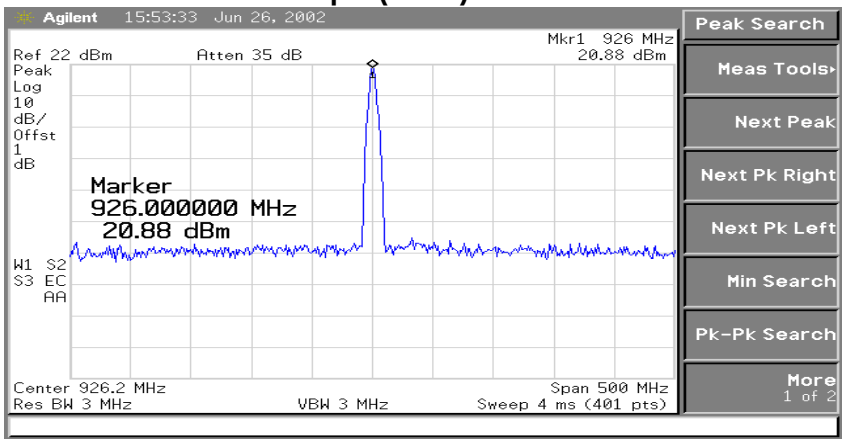
Power Output (Direct) of Channel 01



Power Output (Direct) of Channel 07



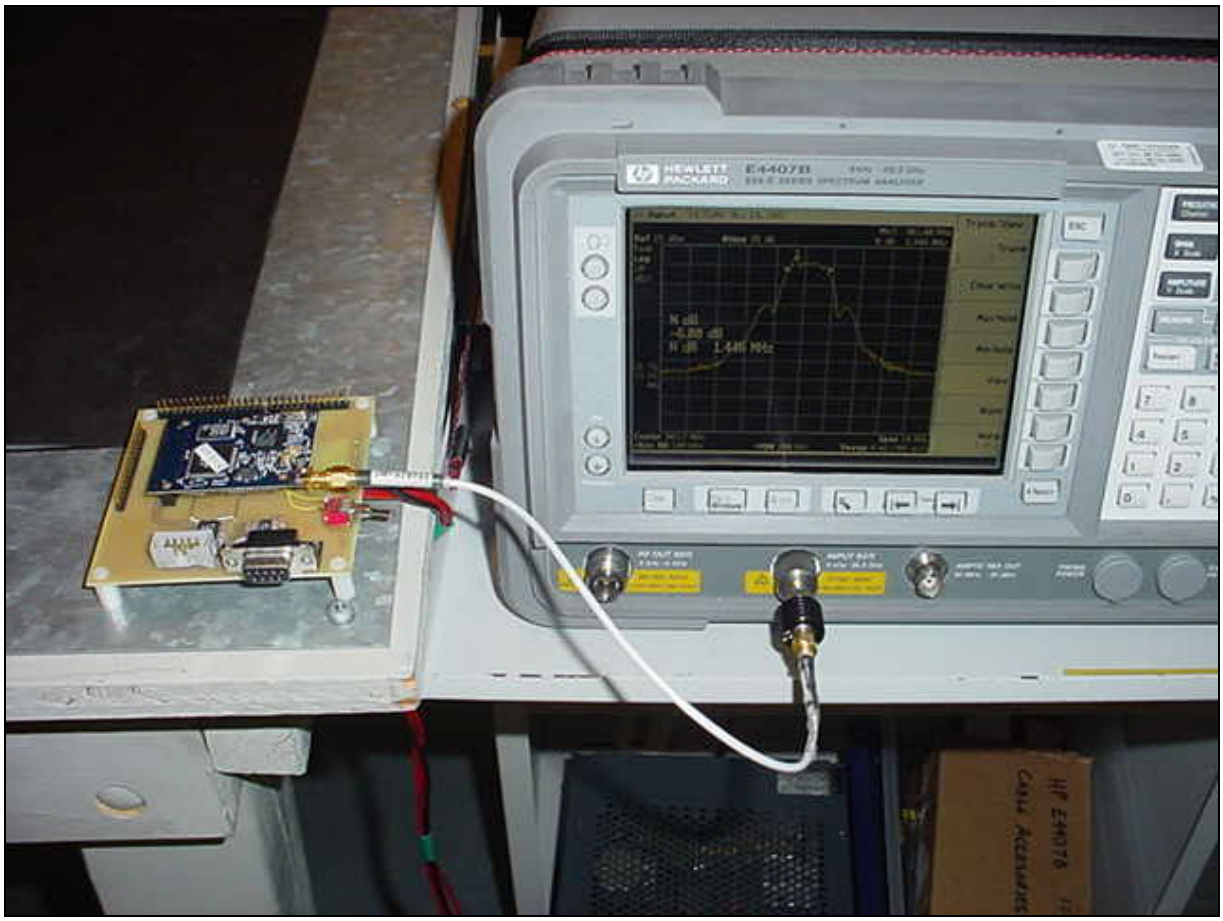
Power Output (Direct) of Channel 12



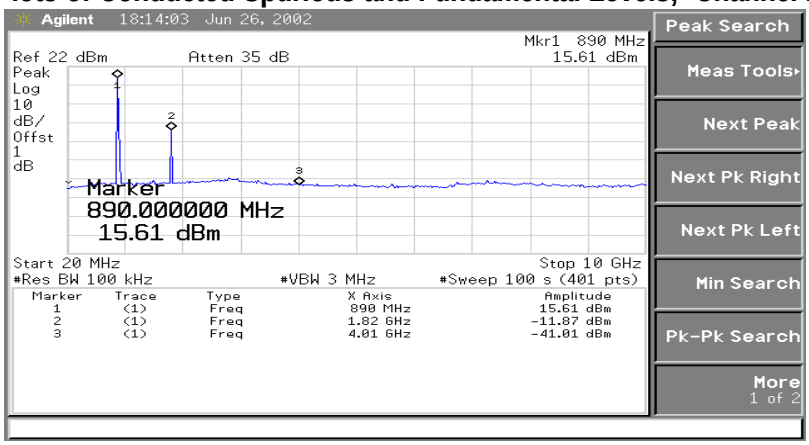
15. Conducted RF Test Setup and Measurements

FCC Part 15.247 (c) requires an antenna conducted measurement of conducted harmonic and spurious levels, as reference to the carrier frequency in a 100 kHz bandwidth. For this test, the Ember Net Node module was directly connected to the HP E4407B Spectrum Analyzer, through a very short Coaxial Cable and a 10 DB Attenuator. Plots were then taken, with any noticeable spurious or harmonic signals identified. No significant levels at any spurious products could be found within -20 dBc of the fundamental of the transmitters, as measured in a 100 kHz bandwidth.

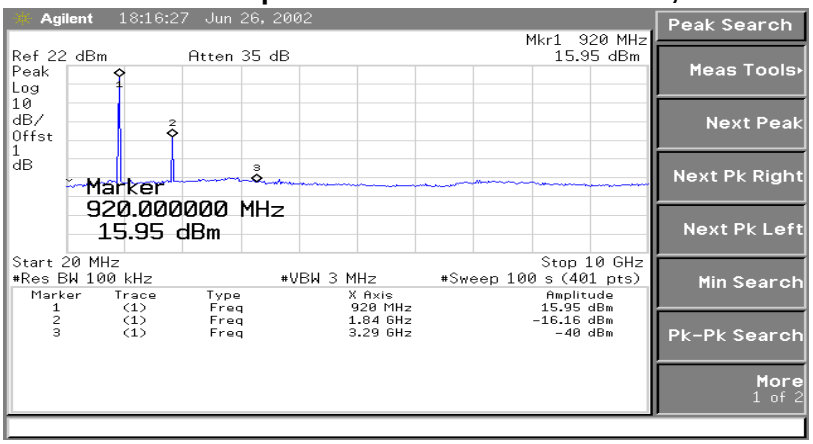
Photo of Test Setup for all Conducted RF Tests
(Section 14 to Section 17)



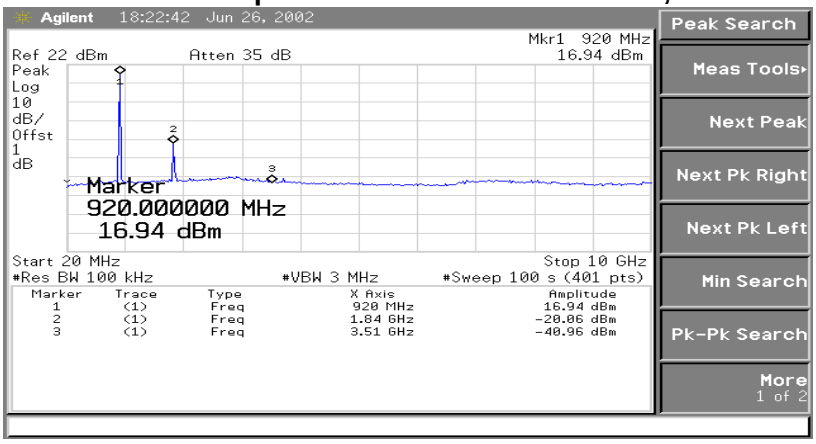
Plots of Conducted Spurious and Fundamental Levels; Channel 1



Plots of Conducted Spurious and Fundamental Levels; Channel 7



Plots of Conducted Spurious and Fundamental Levels; Channel 12

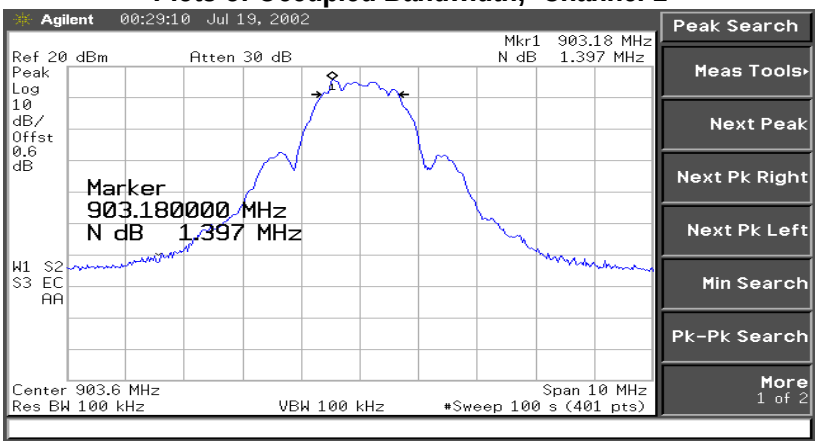


16. Occupied Bandwidth Measurements

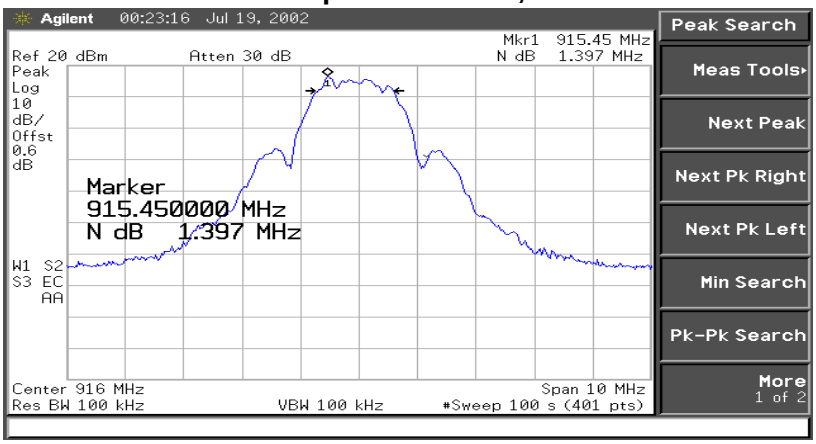
The 6 dB bandwidth requirement found in FCC Part 15.247.a.2 is a minimum of 500 kHz. Direct measurement of the transmitted signal, via a direct cabled connection to the HP E4407B Analyzer, was then used to determine the signal bandwidth. For each of the representative channels, refer to the graphs which follow. From this data, the bandwidth of Channel 1, which is the closest data to the specification limit, is 1.4 MHz, which is above the minimum of 500 kHz.

CHANNEL	CENTER FREQ (MHz)	MEASURED 6 dB BW (kHz)	MINIMUM LIMIT (kHz)
1	904.0	1.397	500
7	916.0	1.397	500
12	926.0	1.521	500

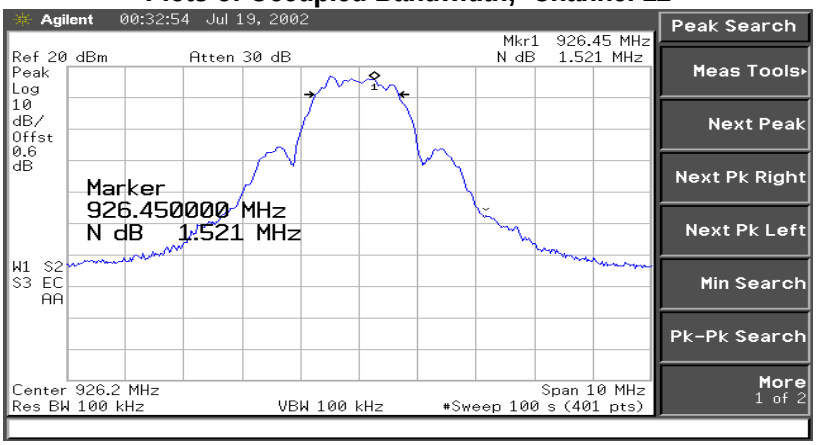
Plots of Occupied Bandwidth; Channel 1



Plots of Occupied Bandwidth; Channel 7



Plots of Occupied Bandwidth; Channel 12

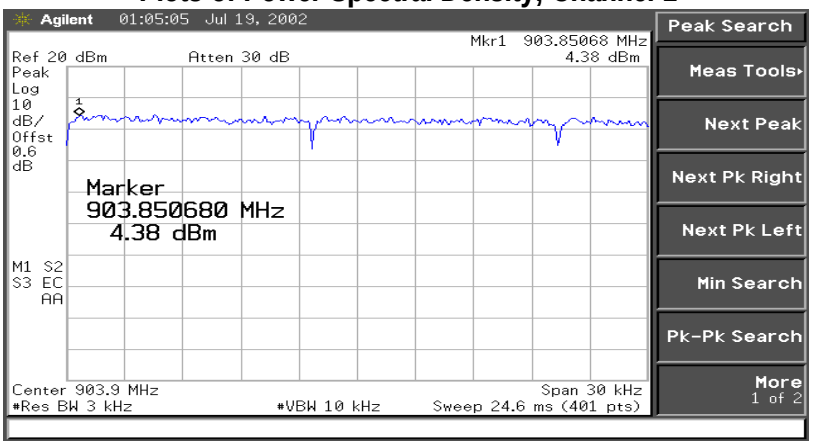


17. Power Spectral Density

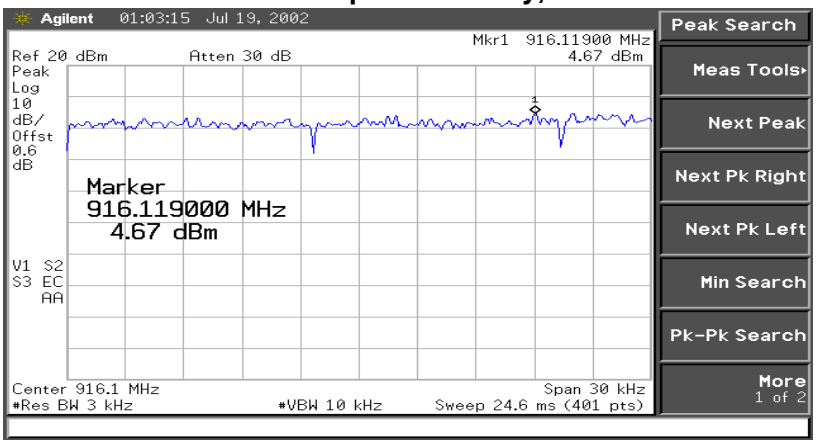
In accordance with FCC Part 15.247(d), the peak power spectral density should not exceed +8 dBm in any 3 kHz band. This measurement was performed along with the conducted power output readings performed by a direct measurement on the HP Analyzer. The peak output frequency for each representative frequency was scanned, with a narrow bandwidth, and reduced sweep, and a power density measurement was performed by direct measurement in a 3 kHz bandwidth. The resultant density can be determined by inspection of the graphs found on the following pages. The highest density was found to be no greater than 5.1 dBm, which is under the allowable limit by 2.9 dB.

CHANNEL	CENTER FREQ	MEASURED P	SPEC	MARGIN
1	904.0	4.4 dBm	+8.0dBm	3.6 dB
7	916.0	4.7 dBm	+8.0dBm	3.3 dB
12	926.0	5.1 dBm	+8.0dBm	2.9 dB

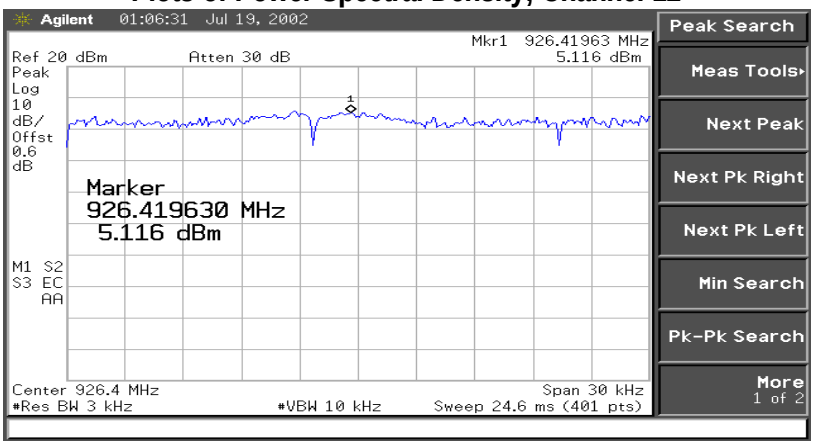
Plots of Power Spectral Density; Channel 1



Plots of Power Spectral Density; Channel 7



Plots of Power Spectral Density; Channel 12



Appendix A

Test Equipment List

Asset #	Manufacturer	Model #	Serial #	Description	Calibration Information	
					Date	Due Date
AA960005	EMCO	3110B	9601-2280	Biconical Antenna	09-19-02	09-19-03
AA960007	EMCO	3115	99111-4198	Double Ridge Horn Antenna **	08-21-01	08-21-02
AA960078	EMCO	93146	9701-4855	Log-Periodic Antenna	09-19-02	09-19-03
CC000221	HP	E4407b	Us39160256	26.5 GHz Spectrum Analyzer	10-28-02	10-28-03
EE960004	EMCO	2090	9607-1164	Device Controller	N/A	N/A
EE960013	HP	8546A	3617A00320	Receiver RF Section	09-20-02	09-20-03
EE960014	HP	85460A	3448A00296	Receiver Pre-Selector	09-20-02	09-20-03
N/A	LSC	Cable	0011	3 meter ½" Armored Cable	12-07-01	12-07-02
N/A	LSC	Cable	0038	1 meter RG 214 Cable	12-07-01	12-07-02
N/A	LSC	Cable	0050	10 meter RG 214 Cable	12-07-01	12-07-02
N/A	LSC	Attenuator		10 db Attenuator		N/A

** - Horn Antenna sent to Liberty Labs on November 10, 2002 for calibration, and found to be in tolerance.

Table of Expanded Uncertainty Values, (K=2) for Specified Measurements

Measurement Type	Particular Configuration	Uncertainty Values
Radiated Emissions	3 Meter Chamber, Biconical Antenna	4.24 dB
Radiated Emissions	3 Meter Chamber, Log Periodic Antenna	4.80 dB
Radiated Emissions	10 Meter OATS, Biconical Antenna	4.18 dB
Radiated Emissions	10 Meter OATS, Log Periodic Antenna	3.92 dB
Conducted Emissions	Shielded Room/EMCO LISN	1.60 dB
Radiated Immunity	3 Meter Chamber, 3 Volts/Meter	1.128 Volts/Meter
Conducted Immunity	3 Volt level	1.0 V