MET Laboratories, Inc. *Safety Certification - EMI - Telecom Environmental Simulation*
914 WEST PATAPSCO AVENUE ! BALTIMORE, MARYLAND 21230-3432 ! PHONE (410) 354-3300 ! FAX (410) 354-3313

July 01, 2003

Enfora, Inc
661 E. 18th Street
Plano, TX 75074

Reference: Wireless portfolio WP802b

Dear Phil Raymond,

Enclosed is the EMC Test Report for the Enfora, Inc Wireless portfolio WP802b. The Enfora, Inc Wireless portfolio WP802b was tested to the requirements of Title 47 of the CFR, Part 15, Subpart B for a Class B Digital Device.

Thank you for using the testing services of MET Laboratories. If you have any questions regarding these results or if MET can be of further assistance to you, please feel free to contact me. We appreciate your business and look forward to working with you again soon.

Kindest Regards,
MET LABORATORIES, INC.

Tiffani Sterrette
Documentation Department

Enclosures: (\Enfora, Inc\EMC13703-FCC Draft1.rpt)

DOCTEM-21 Jan 02

Electro-Magnetic Compatibility

Test Report

for the

Enfora, Inc
Wireless portfolio WP802b

Tested Under

Certified under the FCC Verification Rules
contained in
Title 47 of the CFR, Part 15, Subpart B
for a Class B Digital Device

MET REPORT: **EMC13703-FCC**

July 01, 2003

PREPARED FOR:

Enfora, Inc
661 E. 18th Street
Plano, TX 75074

PREPARED BY:

MET Laboratories, Inc.
914 West Patapsco Avenue
Baltimore, Maryland 21230-3432

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MET REPORT: **EMC13703-FCC**

Christopher R. Harvey, Director
Electromagnetic Compatibility Testing

Tiffani Sterrette
Documentation Department

Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of Part 15 of the FCC Rules under normal use and maintenance.

Liming Xu
Project Engineer

REPORT STATUS SHEET

Revision	Revision Date	Reason for Revision
∅	July 01, 2003	Initial Draft Issue.

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List of Photographs

List of Terms and Abbreviations

AC	**A**lternating **C**urrent
Cal	**Cal**ibration
d	**M**easurement **D**istance
dB	**D**eci**b**els
dBµA	**D**eci**b**els above one **micro**amp
dBµV	**D**eci**b**els above one **micro**volt
dBµA/m	**D**eci**b**els above one **micro**amp **per m**eter
dBµV/m	**D**eci**b**els above one **micro**volt **per m**eter
DC	**D**irect **C**urrent
E	**E**lectric Field
DSL	**D**igital **S**ubscriber **L**ine
ESD	**E**lectro**s**tatic **D**ischarge
EUT	**E**quipment **U**nder **T**est
f	**F**requency
FCC	**F**ederal **C**ommunications **C**ommission
CISPR	**C**omite **I**nternational **S**pecial des **P**erturbations **R**adioelectriques (International Special Committee on Radio Interference)
GRP	**G**round **R**eference **P**lane
H	Magnetic Field
HCP	**H**orizontal **C**oupling **P**lane
Hz	**H**ert**z**
IEC	**I**nternational **E**lectrotechnical **C**ommission
kHz	**k**ilo**h**ert**z**
kPa	**k**ilo**pa**scal
kV	**k**ilo**v**olt
LISN	**L**ine **I**mpedance **S**tabilization **N**etwork
MHz	**M**ega**h**ertz
µH	**microh**enry
µF	**microf**arad
µs	**micros**econds
NEBS	**N**etwork **E**quipment-**B**uilding **S**ystem
PRF	**P**ulse **R**epetition **F**requency
RF	**R**adio **F**requency
RMS	**R**oot-**M**ean-**S**quare
TWT	**T**raveling **W**ave **T**ube
V/m	**V**olts **per m**eter
VCP	**V**ertical **C**oupling **P**lane

I. Executive Summary

Executive Summary

A. Purpose of Test

An EMC evaluation to determine compliance of the Wireless portfolio WP802b with the requirements of Part 15, Subpart B was performed. (All references are to the most current version of Title 47 of the Code of Federal Regulations in effect). In accordance with §2.955(a)(3), the following data is presented in support of the verification of the Wireless portfolio WP802b. Enfora, Inc should retain a copy of this document which should be kept on file for at least two years after the manufacturing of the Wireless portfolio WP802b has been **permanently** discontinued, as per §2.955(b).

B. Executive Summary

As required by §15.107(a), *Conducted Emissions* measurements are made in accordance with ANSI C63.4-1992 "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz". The measurements were performed over the frequency range of 0.15 MHz to 30 MHz using a 50 Ω/50 µH LISN as the input transducer to an EMC/field intensity meter. The measurements were made with the detector set for "peak" amplitude within an IF bandwidth of 10 kHz or for "quasi-peak" within a bandwidth of 9 kHz. The tests were performed in a RF-shielded enclosure.

As required by §15.109(a), *Radiated Emissions* measurements are made in accordance with the general procedures of ANSI C63.4-1992 "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz". The measurements were performed over the frequency range of 30 MHz to 1 GHz OR 40 GHz using broadband antennas as the input transducer to an EMI receiver. The measurements were made with the detector set for "quasi-peak" within a bandwidth of 120 kHz. A preliminary RF scan was performed in a RF-shielded enclosure.

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart B. All tests were conducted using measurement procedure ANSI C63.4-1992.

Additionally, Industry Canada considers the FCC conformance proof of EUT compliance with ICES-003, provided that the procedural requirements are met. Refer to section V of this report.

C. References

Reference	Description	Compliance
Purchase Order # 4424	Enfora, Inc Purchase Order for Wireless portfolio WP802b Testing	
Title 47 of the CFR, Part 15, Subpart B, §15.107(a)	Electromagnetic Compatibility - Conducted Emissions for a Class B Digital Device	Complies
Title 47 of the CFR, Part 15, Subpart B, §15.109(a)	Electromagnetic Compatibility - Radiated Emissions for a Class B Digital Device	Complies
ICES-003	Industry Canada's Electromagnetic Compatibility - Radiated Emissions for a Class B Digital Apparatus	Complies

Table 1. References

II. General

A. Test Site

All testing was conducted at MET Laboratories, Inc., 914 West Patapsco Avenue, Baltimore, Maryland 21230-3432. Radiated Emissions measurements were performed inside of a semi-anechoic chamber. In accordance with §2.948(a)(3), a complete site description is contained at MET Laboratories. In accordance with §2.948(d), MET Laboratories has been accredited by the National Voluntary Laboratory Accreditation Program (Lab Code: 100273-0).

B. Description of Test Sample

The Wireless Portfolio WP802b is an internet appliance device designed for the wireless. Internet connection ability is via the internal 802.11b miniPCI wireless LAN card, which has previously received a Limited Modular Approval under the FCC ID: A3LSWL-2250U.

C. General Test Setup

The EUT was tested in the configuration shown on the following pages.

D. Mode of Operation

The Enfora, Inc Wireless portfolio WP802b was configured in accordance with the manufacturer's instructions and was operated as follows for all testing contained in this report unless stated otherwise:

The Wireless Portfolio WP802b was connected to the DC Power supply and a PDA. The EUT is set to communicate at its maximum level over a wireless 802.11 link on a continuous basis. There is only one mode of operation being tested for all aspects of the requested tests.

E. Modifications

No modifications were made during testing.

F. Disposition of Test Sample

The test sample including all support equipment submitted to the Electro-Magnetic Compatibility Lab for testing was returned to Enfora, Inc upon completion of testing.

III. Electromagnetic Compatibility Emission Requirements

III. Electromagnetic Compatibility Emission Requirements

A. Conducted Emissions

Requirements: The EUT shall meet the limits shown below:

Frequency range (MHz)	Class B Limits (dBμV)	
	Quasi-Peak	Average
* 0.15- 0.45	66 - 56	56 - 46
0.45 - 0.5	56	46
0.5 - 5	56	46
5 - 30	60	50

Note 1 — The lower limit shall apply at the transition frequencies.

Note 2 — The limit decreases linearly with the logarithm if the frequency in the range 0.15 MHz to 0.5 MHz.

* — The FCC issued a Recommended Opinion and Order (RO&O) 989-80 in May 2002, providing transition into the emission limits and frequency ranges shown above.

Table 2. Limits for Class B Equipment from FCC Part 15 Section 15.107(a)

Test Equipment: Test equipment for conducted emissions is in section IV of this report.

Test Conditions: The EUT was installed in a SETUP inside a shielded enclosure. The EUT was situated such that the back of the EUT was 0.4 m from one wall of the shielded enclosure, and the remaining sides of the EUT were no closer than 0.8 m from any other conductive surface. The EUT was powered from a 50 Ω/50 μH Line Impedance Stabilization Network (LISN).

III. Electromagnetic Compatibility Emission Requirements

Photograph:

Photograph 1. FCC Class B Conducted Emissions Test Setup Photo

Procedure: The EMC receiver scanned the frequency range from 150 kHz to 30 MHz. Conducted Emissions measurements were made in accordance with ANSI C63.4-1992 "Methods and Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz". The measurements were performed over the frequency range of 0.15 MHz to 30 MHz using a 50Ω/50µH LISN as the input transducer to an EMC/field intensity meter. The tests were conducted in a RF-shielded enclosure.

III. Electromagnetic Compatibility Emission Requirements

Subject: Conducted Emissions - Voltage, Data Plot

Port: AC Power Phase Line

Specification: FCC Part 15 Subpart B, Section 15.107(a)

Results: Equipment meets the specifications of Section 15.107(a). Plot appears on following page.

SUMMARY - Worst Case Emissions (AC Power Phase Line)

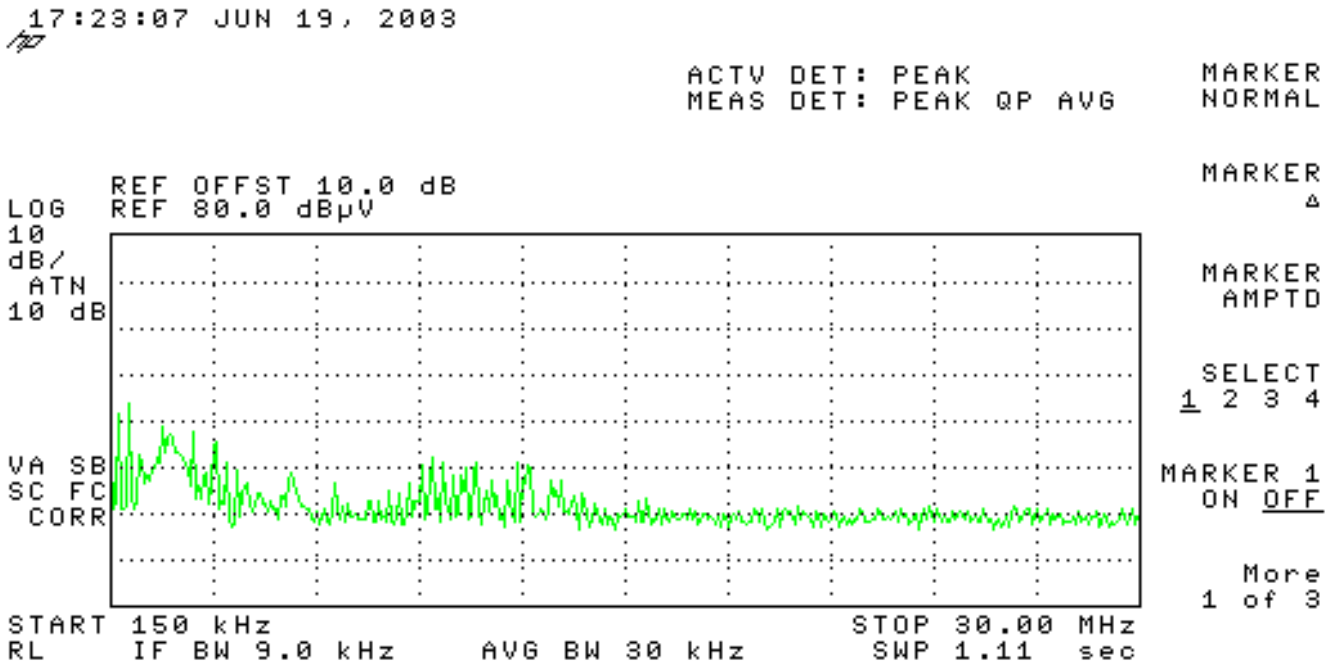
Frequency (MHz)	Quasi-Peak Level (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average Level (dBuV)	Average Limit (dBuV)	Average Margin (dB)
0.348	46.5	59.01	-12.51	41	49.01	-8.01
0.456	45.5	56.77	-11.27	41.8	46.77	-4.97
0.6	46.3	56	-9.7	39.1	46	-6.9
1.816	40	56	-16	38.1	46	-7.9
9.415	29.8	60	-30.2	16.7	50	-33.3
12.634	26.1	60	-33.9	13.2	50	-36.8

Test Engineer: Liming Xu

Test Date: 05/08/03

Remarks: EUT meets the specifications of Section 15.107(a)for Class B

III. Electromagnetic Compatibility Emission Requirements



FCC Class B Conducted Emissions — Phase Line Plot

III. Electromagnetic Compatibility Emission Requirements

Subject: Conducted Emissions - Voltage, Data Plot

Port: AC Power Neutral Line

Specification: FCC Part 15 Subpart B, Section 15.107(a)

Results: Equipment meets the specifications of Section 15.107(a). Plot appears on following page.

SUMMARY - Worst Case Emissions (AC Power Neutral Line)

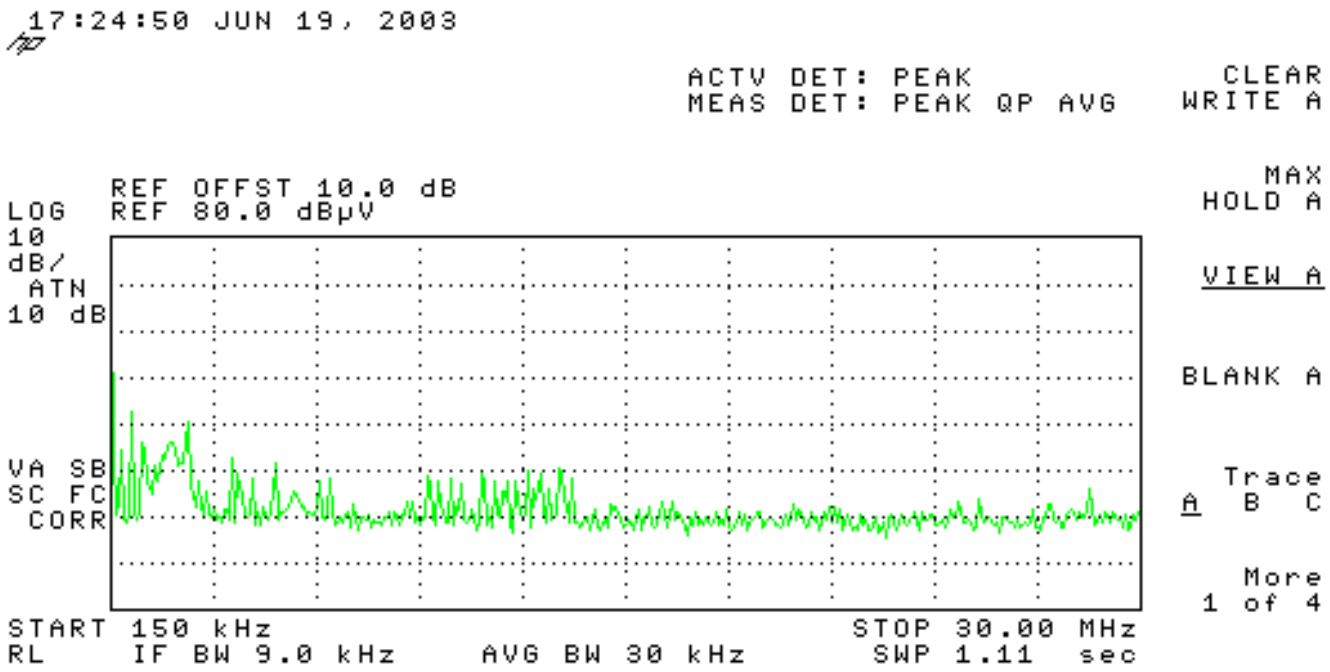
Frequency (MHz)	Quasi-Peak Level (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average Level (dBuV)	Average Limit (dBuV)	Average Margin (dB)
0.343	35.6	59.13	-23.53	26.5	49.13	-22.63
0.56	22	56	-34	18.1	46	-27.9
0.687	44.9	56	-11.1	36.7	46	-9.3
0.978	44.2	56	-11.8	34.1	46	-11.9
3.618	35.6	56	-20.4	19.1	46	-26.9
12.002	28.2	60	-31.8	15.6	50	-34.4

Test Engineer: Liming Xu

Test Date: 05/08/03

Remarks: EUT meets the specifications of Section 15.107(a) for Class B.

III. Electromagnetic Compatibility Emission Requirements



FCC Class B Conducted Emissions — Neutral Line Plot

III. Electromagnetic Compatibility Emission Requirements

B. Radiated Emissions

Requirements: The EUT shall meet the limits shown below:

Frequency (MHz)	Class B Limit (dBμV) @ 3 m
30 - 88	40
88 - 216	43.5
216 - 230	46
230 - 960	46
960 - 1000	54

Table 3. Limits for Class B Equipment from FCC Part 15 Section 15.109(a)

Test Equipment: Test equipment for Radiated Emissions is in section IV of this report.

Test Conditions: The EUT was placed on a 0.8 m - high wooden table inside a semi-anechoic chamber. The frequencies and amplitudes of field strengths were recorded for reference during final measurements. Final radiated measurements were made in the semi-anechoic chamber. Unless otherwise specified, measurements were made using a quasi-peak detector with a 120 kHz bandwidth.

III. Electromagnetic Compatibility Emission Requirements

Photograph:

Photograph 2. FCC Class B Radiated Emissions Test Setup Photo

Procedure: For pre-scanning, the EMI receiver scanned the frequency range from 30 MHz to 1000 MHz to obtain an emission profile of the EUT. For each point of measurement, the turntable was rotated, the positions of the interface cables were varied, and the antenna height was varied between 1 m and 4 m, in order to find the maximum radiated emissions. Measurements were taken using this technique with the antenna in two polarizations: horizontal and vertical.

Results: The EUT complied with the Radiated Emissions limits of Section 15.109(a).

Test Engineer: Liming Xu

Test Date: 05/16/03

III. Electromagnetic Compatibility Emission Requirements

Subject: Radiated Emissions - Electric Field Test Results

Specification: FCC Part 15 Subpart B, 15.109(a)

FCC Class B Radiated Emissions Test Results

Frequency (MHz)	Azimuth (degrees)	Antenna		Amplitude (dBµV) @ 3 m	Ant. Cor. Factor (dB) (+)	Cable Loss (dB) (-)	Corrected Amplitude (dBµV/m) @ 3 m	Limit (dBµV/m) @ 3 m	Margin (dB)
		Polarity	Height (m)						
47.307	0	H	1	8.6	9.48	1.55	19.63	40	-20.37
47.307	0	V	1	21.81	8.43	1.55	31.79	40	-8.21
110.6	320	H	1	8.2	7.10	2.37	17.67	43.5	-25.83
110.6	320	V	1	15.21	7.56	2.37	25.14	43.5	-18.36
155.1	0	H	1	9.1	8.01	2.68	19.79	43.5	-23.71
155.1	0	V	1	11.53	8.11	2.68	22.32	43.5	-21.18
564	0	H	1	8.71	18.52	4.86	32.09	46	-13.91
564	0	V	1	10.49	18.58	4.86	33.93	46	-12.07
738	0	H	1	4.1	21.14	5.34	30.58	46	-15.42
738	0	V	1	3.28	21.00	5.34	29.62	46	-16.38
980	0	H	1	2.1	24.10	6.21	32.41	54	-21.59
980	0	V	1	2.7	23.80	6.21	32.71	54	-21.29

Remarks: Equipment meets the specifications of Section 15.109(a).

IV. Test Equipment

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ANSI/NCSL Z540-1-1994 and ANSI/ISO/IEC 17025:2000.

Test Name: Conducted Emissions			Test Date(s): 05/08/03		
MET #	**Nomenclature**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Date**
1T4300	Shield Room 1	EMC Test Systems	None Listed	08/21/02	08/21/03
1T4222	Spectrum Analyzer	Hewlett Packard	8591E	10/31/02	10/31/03
1T4295	Transient Limiter	Hewlett Packard	11947A	See Note.	
1T4212	LISN	Solar Electronics	9252-50-R-24-BNC	10/03/02	10/03/03
Test Name: Radiated Emissions			**Test Date(s): 05/16/03**		
MET #	**Nomenclature**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Due**
1T4300	Shield Room 1	EMC Test Systems	None Listed	08/21/02	08/21/03
1T4303	Antenna; Bilog	Schafner - Chase EMC	CBL6140A	04/09/03	04/09/04
1T4302	Emi Receiver	Hewlett Packard	8546A	09/17/02	09/17/03

Table 4. Test Equipment

Note: Functionally verified test equipment is verified at the time of testing.

V.Verification Label & User's Manual Information

A. Verification Information

The following is extracted from Title 47 of the Code of Federal Regulations, Part 2, Subpart I — Marketing of Radio frequency devices:

§ 2.801 Radio-frequency device defined.

As used in this part, a radio-frequency device is any device which in its operation is capable of Emitting radio-frequency energy by radiation, conduction, or other means. Radio- frequency devices include, but are not limited to:

(a) The various types of radio communication transmitting devices described throughout this chapter.

(b) The incidental, unintentional and intentional radiators defined in Part 15 of this chapter.

(c) The industrial, scientific, and medical equipment described in Part 18 of this chapter.

(d) Any part or component thereof which in use emits radio-frequency energy by radiation, conduction, or other means.

§ 2.803 Marketing of radio frequency devices prior to equipment authorization.

(a) Except as provided elsewhere in this chapter, no person shall sell or lease, or offer for sale or lease (including advertising for sale or lease), or import, ship or distribute for the purpose of selling or leasing or offering for sale or lease, any radio frequency device unless:

(1) In the case of a device subject to certification, such device has been authorized by the Commission in accordance with the rules in this chapter and is properly identified and labeled as required by §2.925 and other relevant sections in this chapter; or

(2) In the case of a device that is not required to have a grant of equipment authorization issued by the Commission, but which must comply with the specified technical standards prior to use, such device also complies with all applicable administrative (including verification of the equipment or authorization under a Declaration of Conformity, where required), technical, labeling and identification requirements specified in this chapter.

(d) Notwithstanding the provisions of paragraph (a) of this section, the offer for sale solely to business, commercial, industrial, scientific or medical users (but not an offer for sale to other parties or to end users located in a residential environment) of a radio frequency device that is in the conceptual, developmental, design or pre-production stage is permitted prior to equipment authorization or, for devices not subject to the equipment authorization requirements, prior to a determination of compliance with the applicable technical requirements *provided* that the prospective buyer is advised in writing at the time of the offer for sale that the equipment is subject to the FCC rules and that the equipment will comply with the appropriate rules before delivery to the buyer or to centers of distribution.

(e)(1) Notwithstanding the provisions of paragraph (a) of this section, prior to equipment authorization or determination of compliance with the applicable technical requirements any radio frequency device may be operated, but not marketed, for the following purposes and under the following conditions:

(i) Compliance testing;

(ii) Demonstrations at a trade show provided the notice contained in paragraph (c) of this section is displayed in a conspicuous location on, or immediately adjacent to, the device;

(iii) Demonstrations at an exhibition conducted at a business, commercial, industrial, scientific or medical location, but excluding locations in a residential environment, provided the notice contained in paragraphs (c) or (d) of this section, as appropriate, is displayed in a conspicuous location on, or immediately adjacent to, the device;

(iv) Evaluation of product performance and determination of customer acceptability, provided such operation takes place at the manufacturer's facilities during developmental, design or pre-production states; or

(v) Evaluation of product performance and determination of customer acceptability where customer acceptability of a radio frequency device cannot be determined at the manufacturer's facilities because of size or unique capability of the device, provided the device is operated at a business, commercial, industrial, scientific or medical user's site, but not at a residential site, during the development, design or pre-production stages.

(e)(2) For the purpose of paragraphs (e)(1)(iv) and (e)(1)(v) of this section, the term *manufacturer's facilities* includes the facilities of the party responsible for compliance with the regulations and the manufacturer's premises, as well as the facilities of other entities working under the authorization of the responsible party in connection with the development and manufacture, but not the marketing, of the equipment.

(f) For radio frequency devices subject to verification and sold solely to business, commercial, industrial, scientific and medical users (excluding products sold to other parties or for operation in a residential environment), parties responsible for verification of the devices shall have the option of ensuring compliance with the applicable technical specifications of this chapter at each end user's location after installation, provided that the purchase or lease agreement includes a proviso that such a determination of compliance be made and is the responsibility of the party responsible for verification of the equipment.

The following is extracted from Title 47 of the Code of Federal Regulations, Part 2, Subpart J — Equipment Authorization Procedures:

§ 2.901 Basis and Purpose

(a) In order to carry out its responsibilities under the Communications Act and the various treaties and international regulations, and in order to promote efficient use of the radio spectrum, the Commission has developed technical standards for radio frequency equipment and parts or components thereof. The technical standards applicable to individual types of equipment are found in that part of the rules governing the service wherein the equipment is to be operated.[1] *In addition to the technical standards provided, the rules governing the service may require that such equipment be verified by the manufacturer or importer,* be authorized under a Declaration of Conformity, or receive an equipment authorization from the Commission by one of the following procedures: certification or registration.

[1]In this case, the equipment is subject to the rules of Part 15. More specifically, the equipment falls under Subpart B (of Part 15), which deals with unintentional radiators.

(b) The following sections describe the verification procedure, the procedure for a Declaration of Conformity, and the procedures to be followed in obtaining certification from the Commission and the conditions attendant to such a grant.

§ 2.902 Verification.

(a) *Verification is a procedure where the manufacturer*[2] makes measurements or *takes the necessary steps to insure that the equipment complies with the appropriate technical standards*. Submission of a sample unit or representative data to the Commission demonstrating compliance is not required unless specifically requested by the Commission pursuant to § 2.957, of this part.

(b) Verification attaches to all items subsequently marketed by the manufacturer or importer which are identical as defined in § 2.908 to the sample tested and found acceptable by the manufacturer.

§ 2.948 Description of measurement facilities.

(a) Each party making measurements of equipment that is subject to an equipment authorization under Part 15 or Part 18 of this chapter, regardless of whether the measurements are filed with the Commission or kept on file by the party responsible for compliance of equipment marketed within the U.S. or its possessions, shall compile a description of the measurement facilities employed.

(1) If the measured equipment is subject to the verification procedure, the description of the measurement facilities shall be retained by the party responsible for verification of the equipment.

(i) If the equipment is verified through measurements performed by an independent laboratory, it is acceptable for the party responsible for verification of the equipment to rely upon the description of the measurement facilities retained by or placed on file with the Commission by that laboratory. In this situation, the party responsible for the verification of the equipment is not required to retain a duplicate copy of the description of the measurement facilities.

(ii) If the equipment is verified based on measurements performed at the installation site of the equipment, no specific site calibration data is required. It is acceptable to retain the description of the measurement facilities at the site at which the measurements were performed.

(2) If the equipment is to be authorized by the Commission under the certification procedure, the description of the measurement facilities shall be filed with the Commission's Laboratory in Columbia, Maryland. The data describing the measurement facilities need only be filed once but must be updated as changes are made to the measurement facilities or as otherwise described in this section. At least every three years, the organization responsible for filing the data with the Commission shall certify that the data on file is current.

[2]In this case, MET Laboratories, Inc. is acting as an agent of the manufacturer.

§ 2.952 Limitation on verification.

(a) Verification signifies that the manufacturer or importer has determined that the equipment has been shown to be

capable of compliance with the applicable technical standards if no unauthorized change is made in the equipment and if the equipment is properly maintained and operated. Compliance with these standards shall not be construed to be a finding by the manufacturer or importer with respect to matters not encompassed by the Commission's rules.

(b) Verification of the equipment by the manufacturer or importer is effective until a termination date is otherwise established by the Commission.

(c) No person shall, in any advertising matter, brochure, etc., use or make reference to a verification in a deceptive or misleading manner or convey the impression that such verification reflects more than a determination by the manufacturer or importer that the device or product has been shown to be capable of compliance with the applicable technical standards of the Commission's rules.

§ 2.953 Responsibility for compliance.

(a) In verifying compliance, the responsible party, as defined in §2.909 warrants that each unit of equipment marketed under the verification procedure will be identical to the unit tested and found acceptable with the standards and that the records maintained by the responsible party continue to reflect the equipment being produced under such verification within the variation that can be expected due to quantity production and testing on a statistical basis.

(b) The importer of equipment subject to verification may upon receiving a written statement from the manufacturer that the equipment complies with the appropriate technical standards rely on the manufacturer or independent testing agency to verify compliance. The test records required by §2.955 however should be in the English language and made available to the Commission upon a reasonable request, in accordance with §2.956.

(c) In the case of transfer of control of equipment, as in the case of sale or merger of the grantee, the new manufacturer or importer shall bear the responsibility of continued compliance of the equipment.

(d) Verified equipment shall be re-verified if any modification or change adversely affects the emanation characteristics of the modified equipment. The party designated in §2.909 bears responsibility for continued compliance of subsequently produced equipment.

§ 2.954 Identification.

Devices subject only to verification shall be uniquely identified by the person responsible for marketing or importing the equipment within the United States. However, the identification shall not be of a format which could be confused with the FCC Identifier required on certified, notified or type accepted equipment. The importer or manufacturer shall maintain adequate identification records to facilitate positive identification for each verified device.

§ 2.955 Retention of records.

(a) For each equipment subject to verification, the responsible party, as shown in §2.909 shall maintain the records listed as follows:

(1) A record of the original design drawings and specifications and all changes that have been made that may affect compliance with the requirements of §2.953.

(2) A record of the procedures used for production inspection and testing (if tests were performed) to insure the conformance required by §2.953. (Statistical production line Emission testing is not required.)

(b) The records listed in paragraph (a) of this section shall be retained for two years after the manufacture of said equipment item has been permanently discontinued, or until the conclusion of an investigation or a proceeding if the manufacturer or importer is officially notified that an investigation or any other administrative proceeding involving his equipment has been instituted.

§ 2.956 FCC inspection and submission of equipment for testing.

(a) Each responsible party shall upon receipt of reasonable request:

(1) Submit to the Commission the records required by §2.955.

(2) Submit one or more sample units for measurements at the Commission's Laboratory.

(i) Shipping costs to the Commission’s Laboratory and return shall be borne by the responsible party.

(ii) In the event the responsible party believes that shipment of the sample to the Commission's Laboratory is impractical because of the size or weight of the equipment, or the power requirement or for any other reason, the responsible party may submit a written explanation why such shipment is impractical and should not be required.

B. Label and User's Manual Information

The following is extracted from Title 47 of the Code of Federal Regulations, Part 15, Subpart A — General:

§ 15.19 Labeling requirements.

(a) In addition to the requirements in Part 2 of this chapter, a device subject to certification or verification shall be labeled as follows:

(1) Receivers associated with the operation of a licensed radio service, e.g., FM broadcast under Part 73 of this chapter, land mobile operation under Part 90, etc., shall bear the following statement in a conspicuous location on the device:

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

(2) A stand-alone cable input selector switch, shall bear the following statement in a conspicuous location on the device:

This device is verified to comply with Part 15 of the FCC Rules for use with cable television service.

(3) All other devices shall bear the following statement in a conspicuous location on the device:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(4) Where a device is constructed in two or more sections connected by wires and marketed together, the statement specified under paragraph (a) of this section is required to be affixed only to the main control unit.

(5) When the device is so small or for such use that it is not practicable to place the statement specified under paragraph (a) of this section on it, the information required by this paragraph shall be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed. However, the FCC identifier or the unique identifier, as appropriate, must be displayed on the device.

§ 15.21 Information to user.

The users manual or instruction manual for an intentional or unintentional 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.

The following is extracted from Title 47 of the Code of Federal Regulations, Part 15, Subpart B — Unintentional Radiators:

§ 15.105 Information to the user.

(a) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

C. ICES-003 Procedural & Labeling Requirements

From the Industry Canada Electromagnetic Compatibility Advisory Bulletin entitled, "Implementation and Interpretation of the Interference-Causing Equipment Standard for Digital Apparatus, ICES-003" (EMCAB-3, Issue 2, July 1995):

"At present, FCC and ICES technical requirements are essentially equivalent. Therefore, if you have FCC approval (either by meeting Part 15 of the FCC Rules or CISPR Publication 22), the only additional requirements are: to attach a note to the report of the test results for FCC compliance, indicating that these results are deemed satisfactory evidence of compliance with ICES-003 of the Canadian Interference-Causing Equipment Regulations; to maintain these records on file for the requisite five year period; and to provide the device with a notice of compliance in accordance with ICES-003."

Procedural Requirements

According to Industry Canada's Interference Causing Equipment Standard for Digital Apparatus ICES-003 Issue 3, November 22, 1997:

Section 6.1

A record of the measurements and results, showing the date that the measurements were completed, shall be retained by the manufacturer or importer for a period of at least five years from the date shown in the record and made available for examination on the request of the Minister.

Section 6.2

A written notice indicating compliance must accompany each unit of digital apparatus to the end user. The notice shall be in the form of a label that is affixed to the apparatus. Where because of insufficient space or other constraints it is not feasible to affix a label to the apparatus, the notice may be in the form of a statement in the user's manual.

The suggested text for the notice, in English and in French, is provided below, from the Annex. of ICES-003:

Labeling Requirements

Suggested text for the notice indicating compliance with this Standard:

This Class [*] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [*] est conforme à la norme NMB-003 du Canada.

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[*] Insert either "A" or "B" but not both as appropriate for the equipment requirements.

END OF REPORT

