MET Laboratories, Inc. ***Safety Certification - EMI - Telecom Environmental Simulation***
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September 17, 2018

Dakota Ultrasonics
1500 Green Hills Road, #107
Scotts Valley, CA 95066

Dear Mr. William Holt,

Enclosed is the EMC test report for compliance testing of the Dakota Ultrasonics, ZX family, tested to the requirements of:

Emission Tests: FCC Part 15 Subpart B (per ANSI C63.4: 2014);
Industry Canada ICES-003 Issue 6, April 2017
for a Class B Device

Thank you for using the services of MET Laboratories, Inc. If you have any questions regarding these results or if MET can be of further service to you, please feel free to contact me.

Sincerely yours,
MET LABORATORIES, INC.



Cheryl Anicete
Documentation Department

Reference: (\Dakota Ultrasonics\EMCS99693-Global)

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Electromagnetic Compatibility
Test Report

for the

Dakota Ultrasonics
ZX family

Tested under

FCC Part 15 Subpart B (per ANSI C63.4: 2014) and
Industry Canada ICES-003 Issue 6, April 2017
for a Class B Device

MET Report: EMCS99693-Global
September 17, 2018

Prepared for:
Dakota Ultrasonics
1500 Green Hills Road, #107
Scotts Valley, CA 95066

ACCREDITED
TESTING CERT #0591.02

Prepared by:
MET Laboratories, Inc.
3162 Belick St.
Santa Clara, CA 95054

Electromagnetic Compatibility
Test Report

For the

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ZX family

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FCC Part 15 Subpart B (per ANSI C63.4: 2014) and
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for a Class B Device

MET Report: EMCS99693-Global

Dan Phan
Project Engineer, Electromagnetic Compatibility Lab

Cheryl Anicete
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 applicable limits. 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 per Test Summary (Section 1.0).

John Mason
Director, Electromagnetic Compatibility Lab

Report Status Sheet

Revision	Report Date	Reason for Revision
Ø	September 17, 2018	Initial Issue.

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List of Terms and Abbreviations

AC	**A**lternating **C**urrent	**FOKI**	**F**requency **o**f **K**ey **I**nterest
µ**F**	**microf**arad	**GRP**	**G**round **R**eference **P**lane
µ**H**	**microh**enry	**H**	Magnetic Field
µ**s**	**micros**econds	**HCP**	**H**orizontal **C**oupling **P**lane
ACF	**A**ntenna **C**orrection **F**actor	**Hz**	**H**er**z**
AV	**Av**erage	**IEC**	**I**nternational **E**lectrotechnical **C**ommission
Cal	**Cal**ibration	**kHz**	**k**ilo**h**er**z**
CE	**C**onducted **E**missions	**kPa**	**k**ilo**pa**scal
CI	**C**onducted **I**mmunity	**kV**	**k**ilo**v**olt
CISPR	**C**omite **I**nternational **S**pecial des **P**erturbations **R**adioelectriques (International Special Committee on Radio Interference)	**LISN**	**L**ine **I**mpedance **S**tabilization **N**etwork
d	**M**easurement **D**istance	**MHz**	**M**ega**h**ertz
dB	**D**eci**b**els	**MI**	**M**agnetic **I**mmunity
dBµA	**D**eci**b**els above one **micro**amp	**PRF**	**P**ulse **R**epetition **F**requency
dBµA/m	**D**eci**b**els above one **micro**amp **per m**eter	**QP**	**Q**uasi **P**eak
dBµV	**D**eci**b**els above one **micro**volt	**RE**	**R**adiated **E**missions
dBµV/m	**D**eci**b**els above one **micro**volt **per m**eter	**RF**	**R**adio **F**requency
DC	**D**irect **C**urrent	**RI**	**R**adiated **I**mmunity
E	**E**lectric Field	**RMS**	**R**oot-**M**ean-**S**quare
EFT/B	**E**lectrical **F**ast **T**ransient/**B**urst	**V/m**	**V**olts **per m**eter
ESD	**E**lectro**s**tatic **D**ischarge	**VCP**	**V**ertical **C**oupling **P**lane
EUT	**E**quipment **U**nder **T**est	**VDI**	**V**oltage **D**ips **I**nterruptions
f	**F**requency	**VF**	**V**oltage **F**luctuations

1.0 Testing Summary

The emissions tests specified below were performed with the following results:

Conducted Emissions (Mains)					
Frequency Range	**Specification**	**Measurement (MHz)**	**Margin (dBµV)**	**Class**	**Compliance**
0.15 – 30 MHz (120 VAC, 60 Hz)	FCC Part 15 Subpart B (per ANSI C63.4: 2014), ICES-003	**Not Applicable**			
Radiated Emissions					
30 MHz – 1 GHz	FCC Part 15 Subpart B (per ANSI C63.4: 2014), ICES-003	215.4	-9.881	B	**Compliant**

2.0 Equipment Configuration

2.1. Overview

MET Laboratories, Inc. was contracted by Dakota Ultrasonics to perform testing on the ZX family, under Dakota Ultrasonics, quote number 1DAK1206R1.

This document describes the test setups, test methods, required test equipment, and the test limit criteria used to perform compliance testing of the Dakota Ultrasonics, ZX family.

In accordance with §2.955(a) (3), the following data is presented in support of the verification of the Dakota Ultrasonics, ZX family. Dakota Ultrasonics should retain a copy of this document which should be kept on file for at least two years after the manufacturing of the ZX family has been **permanently** discontinued, as per §2.955(b).

The results obtained relate only to the item(s) tested.

Model(s) Tested:	ZX family
Model(s) Covered:	ZX family
Primary Power as Tested:	3 VDC
Equipment Emissions Class:	B
Highest frequency generated or used by the EUT:	120 MHz
Evaluated by:	Dan Phan
Report Date:	September 17, 2018

2.1.1. Test Site

All testing was performed at MET Laboratories, Inc., 3162 Belick St., Santa Clara, CA 95054. All equipment used in making physical determinations is accurate and bears recent traceability to the National Institute of Standards and Technology.

MET Laboratories is a ISO/IEC 17025 accredited site by A2LA, California #0591.02.

Radiated Emissions measurements were performed in a semi-anechoic chamber. In accordance with §2.948(a)(3), a complete site description is contained at MET Laboratories.

2.1.2. Measurement Uncertainty

Test Method	Typical Expanded Uncertainty (dB)	K	Confidence Level
Radiated Emissions, (30 MHz – 1 GHz)	±3.24	2	95%

Table 1: Uncertainty Calculations Summary

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2.2. Detailed EUT Description and Test Setup

2.2.1. Description of Test Sample

The ZX family, Equipment Under Test (EUT), consists of multiple versions of the same circuit board with various features enabled or disabled. ZX-1 and ZX-2 are the most basic versions. ZX-3 adds auto zero circuitry and firmware. ZX-5 adds beeper and alarm lights. ZX-5DL adds data logging and USB port. ZX-6 adds echo echo measurement mode (but has no data logger.) ZX-6DL adds back the data logger. PZX-7 uses delay line transducer and measures with higher precision. PZX-7DL adds data logger.

All these gauges are used to measure thickness by transit time of ultrasonic wave through the material to be tested. Thickness of piping, tanks, and bottles can be measured in various materials including steel, aluminum, glass, and some plastics.

2.2.2. Photograph(s) of Test Sample



Photograph 1. ZX family

2.2.3. Block Diagram

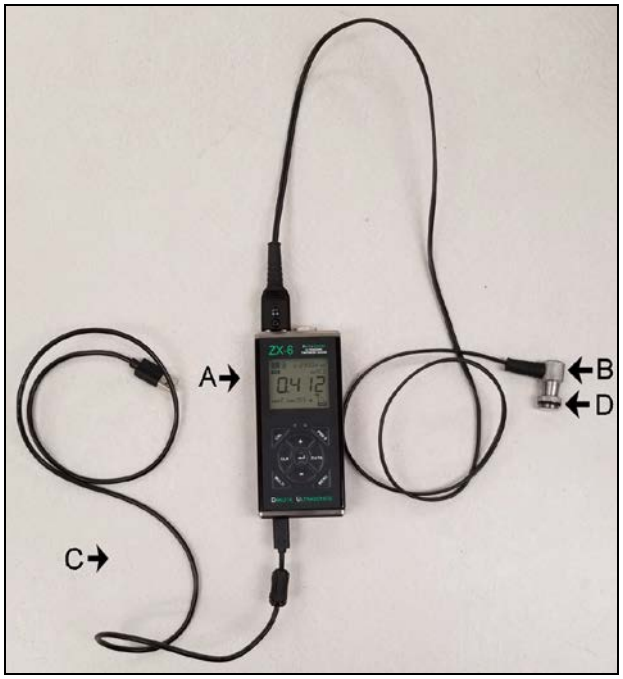


Figure 1. Block Diagram of Test Configuration

2.2.4. Equipment Configuration

The EUT was setup as outlined in Figure 1. All equipment incorporated as part of the EUT is included in the following list.

Ref. ID	Name / Description	Model Number	Part Number	Serial Number	Rev. #
A	Thickness gauge	ZX-6DL	--	50001	PCB #C
A	Thickness gauge	ZX-6DL	--	50003	PCB #C

Table 2. Equipment Configuration

2.2.5. Support Equipment

Support equipment necessary for the operation and testing of the EUT is included in the following list.

Ref. ID	Name / Description	Manufacturer	Model Number	*Customer Supplied Calibration Data
B	Transducer	Dakota Ultrasonics	--	NA
B	Transducer	Dakota Ultrasonics	--	NA
C	USB Cable	Dakota Ultrasonics	--	NA
C	USB Cable	Dakota Ultrasonics	--	NA
D	Zero Block	Dakota Ultrasonics	--	NA
D	Zero Block	Dakota Ultrasonics	--	NA

Table 3. Support Equipment

* All 'customer supplied' support equipment will include the equipments calibration data. This column will be marked as either not applicable, not available, or will contain the calibration date supplied by the customer.

2.2.6. Ports and Cabling Information

Ref. ID	Port name on EUT	Cable Description or reason for no cable	Qty	Length as tested (m)	Max Length (m)	Shielded (Y/N)	Termination Box ID & Port Name
1	Transducer	Support Equipment B	1	1	1	Yes	NA
2	USB C	Support Equipment C	1	1	1	Yes	NA

Table 4. Ports and Cabling Information

2.2.7. Mode of Operation & Method of Monitoring EUT Operation

The EUT was operated in the following manner:
ZX-6DL gauge has all the features of the family and therefore represents worst case of the family. Gauge is to be tested in normal measure mode with the transducer clamped to a test block. Backlight should be set to ON and the alarm beeper activated.

Performance of the EUT was monitored in the following manner:
A thickness reading with stability display (in upper left corner of display similar to cell phone signal strength bars) of at least 4 bars indicates proper operation. Thickness display (once calibrated to material) may vary +/- 0.002 inch. Note that temperature change in the transducer may require recalibration.

2.2.8. Modifications to EUT

No modifications were made to the EUT.

2.2.9. Test Software Used

MET Labs uses software to gather information from test instrumentation.
For Radiated Emissions testing, the current version is: Jamila RE Rev 4.0.

2.2.10. Disposition of EUT

The test sample including all support equipment (if any), submitted to the Electro-Magnetic Compatibility Lab for testing was returned to Dakota Ultrasonics upon completion of testing.

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3.0 Electromagnetic Compatibility Emission Criteria

3.1. Radiated Emission: Limits of Electromagnetic Radiation Disturbance

3.1.1. Test Method, Test Requirements, Test Procedures, and Test Results

3.1.1.1. Test Method

The following standards specified below are covered in the scope of this test report:

Standard	Region	Applicability	
		30 - 1000 MHz *Semi-anechoic test environment*	> 1 GHz *Free-Space test environment*
FCC Part 15 Subpart B, Section 15.109(a) (b) (per ANSI C63.4: 2014)	United States	Yes	No
ICES-003 Issue 6, April 2017, Employing the methods of measurement in ANSI C63.4: 2014	Canada	Yes	No

3.1.1.2. Test Requirements

For radiated emission, the EUT shall meet the Class B radiated emission limits shown in Table 5.

Frequency (MHz)	Field Strength dB(µV/m)	
	§15.109 (b), Class A Limit dB(µV/m) @ 10m	§15.109 (a),Class B Limit dB(µV/m) @ 3m
30 – 88	39.00	40.00
88 – 216	43.50	43.50
216 – 230	46.40	46.00
230 – 960	46.40	46.00
960 – 1000	49.50	54.00
Above 1 GHz		
1000 – 3000	49.50	54.00
3000 – 6000	49.50	54.00
6000 – 40000	49.50	54.00
If the highest frequency generated or used in the device or on which the device operates or tunes is: • less than 108 MHz, the upper frequency of measurement range is 1000 MHz • between 108 MHz – 500 MHz, the upper frequency of measurement range in 2000 MHz • between 500 – 1000 MHz, the upper frequency of measurement range is 5000 MHz • above 1000 MHz, the upper frequency of measurement range is the 5th harmonic of the highest frequency or 40 GHz, whichever is lower		

Table 5. Radiated Emissions Limits calculated per FCC Part 15, §15.109 (a) (b) and ICES-003

Sample Calculation for Distance Correction factor (DCF) measurement:

$$F_d = 20*LOG_{10}(D_m/D_s)$$

where:

F_d = Distance Factor in dB

D_m = Measurement Distance in meters

D_s = Specification Distance in meters

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Sample formula for calculating the Corrected Data for the Radiated Emissions Measurements:

Frequency (MHz)	Antenna Polarity	EUT Azimuth (Degrees)	Antenna Height (cm)	Uncorrected Amplitude (dBuV)	ACF (dB/m) (+)	Pre Amp Gain (dB)(-)	CBL (dB) (+)	DCF (dB) (+)	Corrected Amplitude (dBuV/m)	Limit (dBuV/m)	Margin (dB)
249.99	V	359.9	240.7	55.46	11.4	28.335	0	0	***38.525***	47	-8.475

*Corrected Amplitude (dBµV/m) = Uncorrected Amplitude (dBµV) +ACF (dB) - Preamp Gain (dB) + CBL (dB) +DCF (dB) ** = 55.46 + 11.4 - 28.355 + 0 + 0 =* ***38.525***

3.1.1.3. Test Procedure

The EUT was placed on a non-metallic tabletop as shown in test setup pictures. Various antennas were placed near the EUT and measurements were taken of the field strengths and frequencies. For final measurements different measurement distances were used in accordance with applicable standards as listed under radiated emissions results section.

For pre-scanning, the EMI receiver scanned the desired frequency range (as listed under test results) to obtain an emission profile of the EUT. For each point of measurement, the turntable was rotated, and the antenna height was varied between 1 m and 4 m, in order to find the maximum radiated emissions. Measurements above 30 MHz were taken using this technique with the antenna in two polarizations: horizontal and vertical. Unless otherwise specified, measurements were made using a peak detector with a 120 kHz bandwidth (30 MHz – 1 GHz) and 1 MHz bandwidth (Above 1 GHz).

3.1.1.4. Test Result

The EUT was **compliant** with the Class B requirement(s) of this section. Measured emissions were below applicable limits.

Environmental Conditions for Radiated Emission	
Ambient Temperature:	26°C
Relative Humidity:	48%
Atmospheric Pressure:	100 kPa

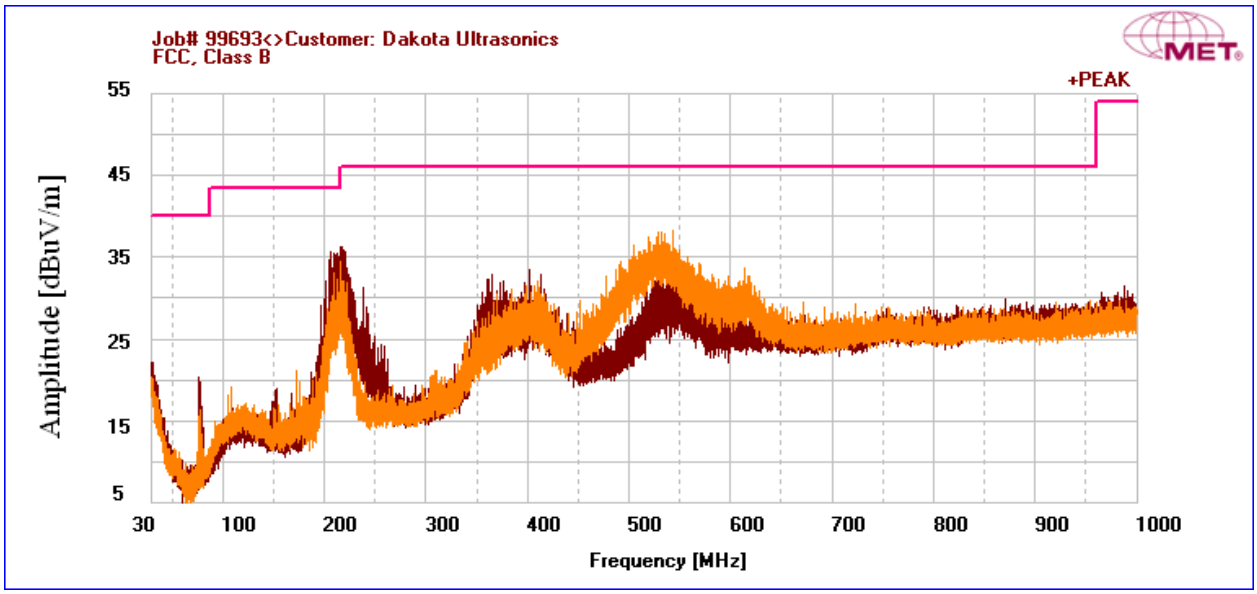
Test Engineer(s): Dan Phan

Test Date(s): 08/06/2018

Frequency (MHz)	POL[2]	Azi[3] (Deg)	Antenna Height (cm)	Raw[1] (dBuV)	ACF (dB/m)	Pre Amp Gain (dB)	CBL (dB)	DCF (dB)	Corrected Amplitude (dBuV)	Limit (dBuV)	Margin (dB)
215.4	H	273	152.76	21.3	10.224	0	2.095	0	33.619	43.5	-9.881
215.96	V	211	115.82	16.9	10.438	0	2.098	0	29.436	43.5	-14.064
396.52	V	34	132.94	10.9	16.022	0	2.599	0	29.521	46	-16.479
360.08	H	134	100	10.5	15.702	0	2.51	0	28.712	46	-17.288
522.52	H	274	205.47	7.6	18.001	0	2.927	0	28.528	46	-17.472
518.44	V	244	100	12.7	17.869	0	2.92	0	33.489	46	-12.511

Table 6. RE - (30 MHz – 1 GHz) Test Results

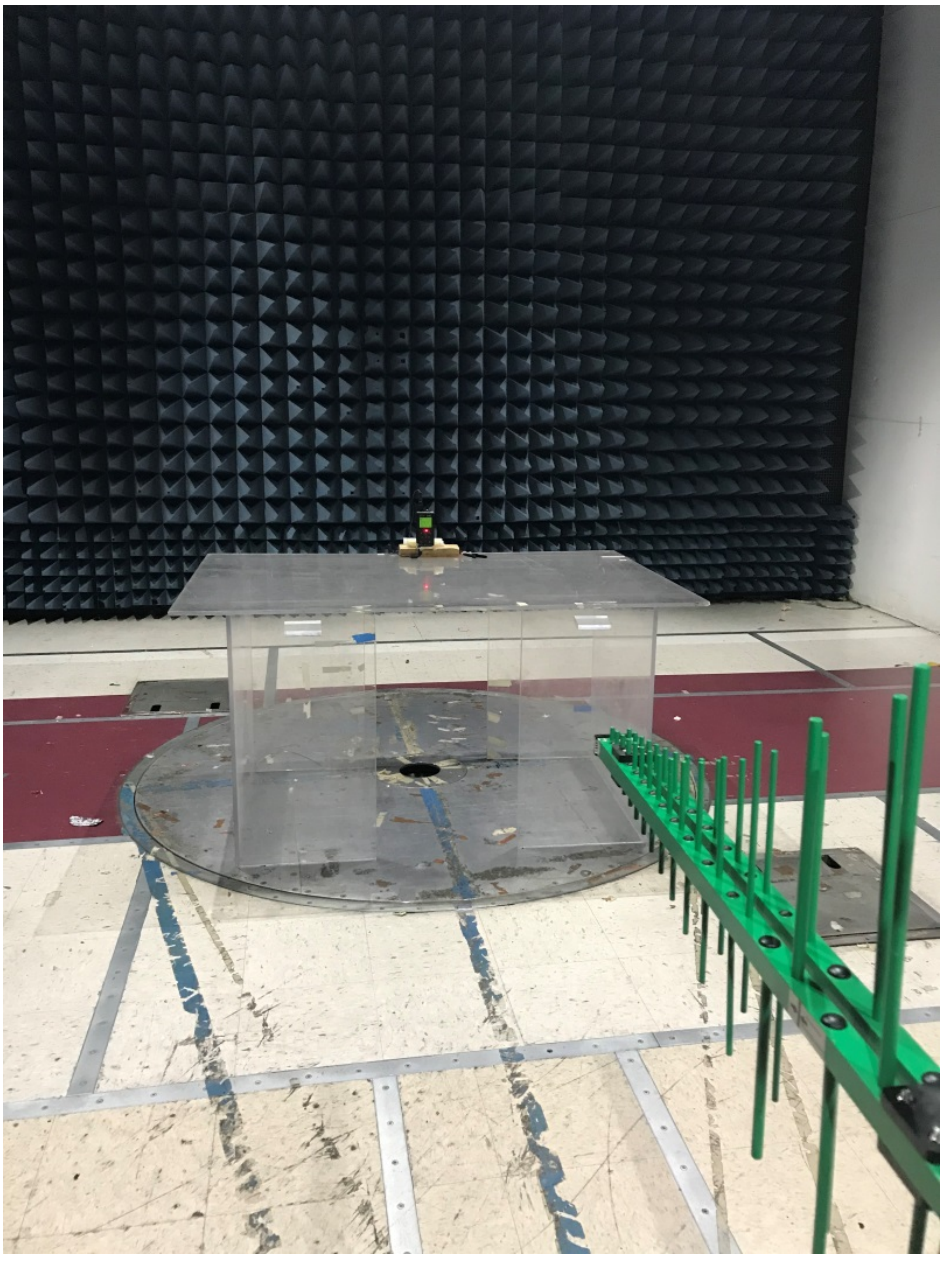
Note(s): 1: Uncorrected Amplitude, 2: Antenna Polarity, 3: Azi: EUT Azimuth



Plot 1. RE - (30 MHz – 1 GHz), Plot

= Vertical Polarization
= Horizontal Polarization

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Photograph 2. RE Test Setup

 © 2018, MET Laboratories, Inc.

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2005.

Test Name: RE			**Test Date(s):** 08/06/2018		
MET Asset #	**Equipment**	**Manufacturer**	**Model**	**Last Cal Date**	**Cal Due Date**
1S2482	5 Meter Chamber (NSA)	Panashield	5 Meter Semi-Anechoic Chamber	See Note	See Note
1S2501	EMI Test Receiver 20 Hz-40 GHz	Rohde & Schwarz	ESU40	02/16/2018	02/16/2019
1S2399	Turntable Controller	SUNOL SCIENCE	SC99V	See Note	See Note
1S2600	Bilog Antenna	Teseq	CBL6112D	11/28/2016	11/28/2018
Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.					

Table 7. RE Test Equipment List

4.0 FCC Part 15 Subpart B Compliance Information

4.1. 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 provision 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.

(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.

[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.

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

§ 2.952 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.

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.

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(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 A 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 A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at own expense.

(b) 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 theFCC 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 instructions, 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 off and on, 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.

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5.0 ICES-003 Procedural & Labeling Requirements

The manufacturer, importer or supplier shall meet the labelling requirements set out in this section and in Notice 2014‑DRS1003 for electronic labelling for every unit:

i. prior to marketing in Canada, for ITE manufactured in Canada and
ii. prior to importation into Canada, for imported ITE.

Each unit of an ITE model shall bear a label (see below) that represents the manufacturer's or the importer's SDoC with Innovation, Science and Economic Development Canada's ICES-003. This label shall be permanently affixed to the ITE or displayed electronically and its text must be clearly legible. If the dimensions of the device are too small or if it is not practical to place the label on the ITE and electronic labelling has not been implemented, the label shall be, upon agreement with Innovation, Science and Economic Development Canada, placed in a prominent location in the user manual supplied with the ITE. The user manual may be in an electronic format and must be readily available.

Innovation, Science and Economic Development Canada ICES-003 Compliance Label:

CAN ICES-3 (*)/NMB-3(*)

* Insert either "A" or "B" but not both to identify the applicable Class of ITE.

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