



Compliance Testing, LLC

Previously Flom Test Lab

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FCC CFR47 Part 15.225 Test Report

Prepared for: ECotality North America (eTec)

Model: RFID Board Version 1.4

In Final Packaging

Model: DCFC

Description: DC Level 2 Electric Vehicle Charging Station

To

Federal Communications Commission

Rule Part(s) 15.225

Date of Issue: June 6, 2011

On the behalf of the applicant:

**ECotality North America (eTec)
430 S 2nd Ave
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Attention of:

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Project No: p1150002**

John Erhard

Project Test Engineer

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All results of this test report relate only to the item(s) there were tested



Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	6/6/11	John Erhard	Original Document



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ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)

The tests results contained within this test report all fall within our scope of accreditation, unless noted in the table below

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.

Testing Certificate Number: **2152.01**



FCC OATS Reg, #933597

IC Reg. #2044A-1

Non-accredited tests contained in this report:

N/A



The applicant has been cautioned as to the following:

15.21 Information to User

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

15.27(a) Special Accessories

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

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



Standard Test Conditions Engineering Practices

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

In accordance with ANSI C63.10-2009 and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104°F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated the humidity levels were in the range of 10% to 90% relative humidity.

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

EUT Description

RFID module contained in an automobile charging station

EUT Operation during Tests

Normal Operating condition



Test Results Summary

Specification	Test Name	Pass, Fail, N/A	Comments
15.225(a)	Fundamental Field Strength	Pass	

15.203: Antenna Requirement:

- ☒ The antenna is permanently attached to the EUT
- ☐ The antenna uses a unique coupling
- ☐ The EUT must be professionally installed
- ☐ The antenna requirement does not apply



Field Strength

Name of Test: Field Strength

Specification: 15.225(a)(b)(c)

Engineer: John Erhard

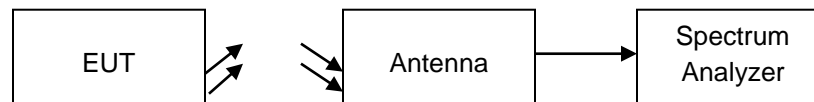
Test Equipment Utilized: i00379, i00326

Test date: 6/3/2011

Test Procedure

The EUT was tested on site at a distance of 1 meter from the receiving loop antenna. A spectrum analyzer was used to verify that the EUT met the requirements for Fundamental Field Strength. The antenna correction and distance correction factors were summed with the quasi-peak measurement to ensure accurate readings were obtained. The following table indicates the highest emission in each of the indicated bands.

Test Setup



Field Strength

Frequency Band (MHz)	Measured Frequency (MHz)	Monitored Level (dBuV/m)	Distance CF (dB)	Antenna CF (dB)	Corrected Measurement (dBuV/m)	Limit (dBuV/m)	Result
13.110-13.410	13.284	32.35	59.1	17.8	-44.55	40.51	Pass
13.410-13.553	13.553	37.35	59.1	17.8	-39.55	50.47	Pass
13.553-13.567	13.558	47.28	59.1	17.8	-29.62	84.00	Pass
13.567-13.710	13.567	30.93	59.1	17.8	-45.97	50.47	Pass
13.710-14.010	13.764	7.136	59.1	17.8	-69.764	40.51	Pass

*Note. Cable correction factors are not included in this measurement as the low loss of the high quality TWINAX cable at low frequencies is practically non-existent.

Harmonics and out of band emissions to 10 times the fundamental frequency were investigated and no out of band emission were detected.



Test Equipment Utilized

Description	MFG	Model Number	CT Asset Number	Last Cal Date	Cal Due Date
Spectrum Analyzer	Agilent	7405A	i00379	11/22/2010	11/22/2011
Active Loop Antenna	EMCO	6507	i00326	4/29/2011	4/29/2013

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

END OF TEST REPORT