



World Class Accreditation

The American Association for Laboratory Accreditation

## *Accredited Laboratory*

A2LA has accredited

# **RADIOMETRICS MIDWEST CORPORATION**

*Romeoville, IL*

for technical competence in the field of

### **Electrical Testing**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 4th day of March 2010.



A handwritten signature in black ink, appearing to read "Peter Abney".

President & CEO  
For the Accreditation Council  
Certificate Number 1495.01  
Valid to February 28, 2012

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

SCOPE OF ACCREDITATION TO ISO/IEC 17025-2005

RADIOMETRICS MIDWEST CORPORATION

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ELECTRICAL (EMC)

Valid To: February 28, 2012

Certificate Number: 1495.01

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

<b>Technology</b>	<b>Test Method(s)</b>
Radiated Emissions Measurements (E-field 10k-18 GHz)	CFR 47, FCC Part 15 (ANSI C63.4: 2003) CFR 47 FCC Part 18 (FCC MP-5: 1986) IEC CISPR 11: 2006 IEC CISPR 22: 2006 CENELEC EN55011: 2007 CENELEC EN55022: 2006 MIL-STD-462D 1993 (Method RE102) MIL-STD 461E 1999 (Method RE102) MIL-STD 461F 2007 (Method RE102) RTCA DO160D 1997 (Section 21) RTCA DO160E 2004 (Section 21) RTCA DO160F 2007 (Section 21 Anechoic Chamber Method)
Radiated Emissions Measurements (H-field 30Hz-30 MHz)	CFR 47, FCC Part 15 (ANSI C63.4:2003) CFR 47, FCC Part 18 (FCC MP-5:1986) MIL-STD-462D 1993 (Method RE101) MIL-STD 461E 1999 (Method RE101) MIL-STD 461F 2007 (Method RE101)
Conducted Emissions Measurements (LISN 10k-400 MHz)	CFR 47, FCC Part 15 (ANSI C63.4:2003) CFR 47, FCC Part 18 (FCC MP-5:1986) IEC CISPR 11: 2006 IEC CISPR 22: 2006 CENELEC EN55011: 2007 CENELEC EN55022: 2006 MIL-STD-462D 1993 (Method CE102) MIL-STD 461E 1999 (Method CE102) MIL-STD 461F 2007 (Method CE102)

<b>Technology</b>	<b>Test Method(s)</b>
Conducted Emissions Measurements (Current probe 10Hz-1000MHz)	MIL-STD-462D 1993 (Method CE101) MIL-STD 461E 1999 (Method CE101) MIL-STD 461F 2007 (Method CE101) RTCA DO160D 1997 (Section 21) RTCA DO160E 2004 (Section 21) RTCA DO160F 2007 (Section 21)
Electrostatic Discharge Immunity	IEC 61000-4-2: 2008 RTCA DO 160D 1997 (Section 25) RTCA DO 160E 2004 (Section 25) RTCA DO 160F 2007 (Section 25)
Immunity (Radiated E-field 10kHz to 18 GHz)	IEC 61000-4-3: 2006 MIL-STD-462D 1993 (Method RS103) MIL-STD 461E 1999 (Method RS103) MIL-STD 461F 2007 (Method RS103) RTCA DO160D 1997 (Section 20) RTCA DO160E 2004 (Section 20) RTCA DO160F 2007 (Section 20)
Immunity (Radiated H-field 30 Hz to 100 kHz)	MIL-STD-462D 1993 (Method RS101) MIL-STD 461E 1999 (Method RS101) MIL-STD 461F 2007 (Method RS101) IEC 61000-4-8: 2009
Immunity (Conducted 30Hz to 400 MHz)	MIL-STD-462D 1993 (Methods CS101, CS114) MIL-STD 461E 1999 (Methods CS101, CS114) MIL-STD 461F 2007 (Methods CS101, CS114) RTCA DO160D 1997 (Section 18 and 20) RTCA DO160E 2004 (Section 18 and 20) RTCA DO160F 2007 (Section 18 and 20) IEC 61000-4-6: 2008
Voltage Dips, Short Interruptions and Voltage Variations	IEC 61000-4-11: 2004 RTCA DO160D: 1997 (Section 16 <i>DC Only</i> ) RTCA DO160E: 2004 (Section 16 <i>DC Only</i> ) RTCA DO160F: 2007 (Section 16 <i>DC Only</i> )
Electrical Fast Transient Immunity	IEC 61000-4-4: 2004
Surge Immunity & Voltage Spikes	IEC 61000-4-5: 2005 RTCA DO160D: 1997 (Section 17) RTCA DO160E: 2004 (Section 17) RTCA DO160F: 2007 (Section 17)
Harmonic Current Emissions	CENELEC EN61000-3-2:2001
Voltage Fluctuations and Flicker	CENELEC EN61000-3-3:1995

<b>Technology</b>	<b>Test Method(s)</b>
Induced Signal Susceptibility	RTCA DO160D 1997 (Section 19) RTCA DO160E 2004 (Section 19) RTCA DO160F 2007 (Section 19)
Lightning Induced Transient Susceptibility	RTCA DO160D 1997 Section 22 ( <i>Waveform Sets A to F Only</i> ) RTCA DO160E 2004 Section 22 ( <i>Waveform Sets A to F Only</i> ) RTCA DO160F 2007 Section 22 ( <i>Waveform Sets A to F Only</i> )
Vehicle level RF Immunity ( <i>Excluding parallel-plate TLS</i> )	SAE J551-11: 2000 ISO 11451-2: 2005
Vehicle RF Radiated Emissions	IEC CISPR 12: 2007
Vehicle Component RF Emissions	IEC CISPR 25: 2008 (ASLE method)
Vehicle Component Level RF Immunity	SAE J1113-21: 2005 ISO 11452-2: 2004
Vehicle Immunity to Transients ( <i>Excluding Waveform 5B</i> )	SAE J1113-11: 2007 ISO 7637-2: 2004 (12V Systems only)
Screening Attenuation Measurements by Reverberation Chamber Method	IEC 61726: 1999-11
Screening Attenuation	IEEE Std 299: 2006
Electricity Meters Code for Electricity Metering ( <i>Basic Radiation Susceptibility only</i> )	ANSI C12.1: 2008 ( <i>Section 4.7.3.12.1, Anechoic chamber method only</i> )
Product Family Standards: ISO 13766: 2006 ISO 14982: 1998 ISO 7176-21: 2009 (Anechoic Chamber Method) CENELEC EN 12184: 2009 CENELEC EN 55024: 2003 CENELEC EN 60601-1-2: 2007 CENELEC EN 61000-6-1: 2007 CENELEC EN 61000-6-2: 2005 CENELEC EN 61000-6-3: 2007 CENELEC EN 61000-6-4: 2007 CENELEC EN 61326-1: 2006 RESNA WC-2: 2009 (Section 21) ( <i>These standards use a subset of the above documents for technical reference</i> )	