# United States Department of Commerce National Institute of Standards and Technology



## Certificate of Accreditation to ISO/IEC 17025:2017

**NVLAP LAB CODE: 200974-0** 

### **Shielding Integrity Services**

Colorado Springs, CO

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

### **Electromagnetic Compatibility & Telecommunications**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2024-03-12 through 2025-03-31

Effective Dates



For the National Voluntary Laboratory Accreditation Program

# National Voluntary Laboratory Accreditation Program



#### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

#### **Shielding Integrity Services**

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Email: adam.vankeuren@chambertest.com https://chambertest.com/

# ELECTROMAGNETIC COMPATIBILITY & TELECOMMUNICATIONS

#### **NVLAP LAB CODE 200974-0**

#### **Emissions**

<b>Designation</b> ETSI TR 102 273-2 V1.2.1 (2001-12)	<b>Description</b> Electromagnetic compatibility and Radio spectrum Matters (ERM); Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties; Part 2: Anechoic chamber
ETSI TR 102 273-3 v1.2.1 (2001-12),Parts 6.4.1-6.4.3 only	(ERM) - Improvement on Radiated Methods of Measurement (using test site) and evaluation of the corresponding measurement uncertainties. Part 3: Anechoic chamber with a ground plane.  Section 6.4.1 - 30 MHz - 1000 MHz Section 6.4.2 - Alternative procedure: 30 MHz to 1000 MHz Section 6.4.3 - 1 GHz to 12.75 GHz
EN 50147-1 (1997)	Anechoic chambers. Shield attenuation measurement
EN 50147-2 (1997)	Anechoic chambers. Alternative test site suitability with respect to site attenuation
ANSI C63.4 (2014)	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment - NSA Only (30MHz - 1GHz)  NSA and sVSWR Only (30 MHz - 18 GHz)
ANSI C63.4a (2017)	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 GHzAmendment 1: Test Site Validation  NSA and sVSWR Only (30 MHz – 18 GHz)

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ANSI C63.4 (2009)	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electrical Equipment - NSA only (30 MHz to 1GHz)
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ANSI C63.25.1-2018	American National Standard Validation Methods for Radiated Emission Test Sites, 1 GHz to 18 GHz
CISPR 16-1-4, Ed. 3.0 (2010-04)	Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements
	Sections 5 and 8
CISPR 16-1-4, Ed. 3.1 (2012-07)	Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements
	Sections 5 and 8
CISPR 16-1-4, Ed. 3.2 (2017-01)	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements
	Sections 5 and 8
CISPR 16-1-4, Ed. 4.0 (2019-01)	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements
	Sections 6 and 7
CISPR 16-1-4, Ed. 4.1 (2020-06)	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements
	Sections 6 and 7
CISPR 16-1-4, Ed. 4.2 (2023-04)	Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements
	Sections 5, 6 and 7
IEC/CISPR 25, Ed. 4.0 (2016-10)	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receiver - Annex J - ALSE performance validation 150 kHz to 1 GHz
IEC/CISPR 25, Ed. 5.0 (2021-12)	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receiver - Annex I (Informative) ALSE performance validation 150 kHz to 1 GHz
IEC/CISPR 25, Ed. 3.0 (2008-03)	Radio disturbance characteristics for the protection of receivers used on board vehicles, boats, and on devices - Limits and methods of measurement. NSA only. (70 MHz to 1GHz)

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## ELECTROMAGNETIC COMPATIBILITY & TELECOMMUNICATIONS

**NVLAP LAB CODE 200974-0** 

IEEE Std 149 (2021) IEEE Recommended Practice for Antenna Measurements

IEEE Std 149-1979 (R2008) VSWR/Free Space - 30 MHz to 100 GHz: Test Procedure for Antennas

IEEE Std 299-2006 (R2012) IEEE Standard Method For Measuring The Effectiveness Of Electromagnetic Shielding

Enclosures

IEEE Std 299-2006 Measuring the Effectiveness of Electromagnetic Shielding Enclosures

NSA NO. 94-106 (1994-10) Radio Frequency (RF) for Shielded Enclosures

**Immunity** 

**Designation Description** 

IEC 61000-4-3, Ed. 4.0 (2020-09) Electromagnetic compatibility (EMC) - Part 4-3: Testing measurement techniques -

Radiated, radio-frequency, electromagnetic field immunity test

IEC 61000-4-3, Ed. 3.2 (2010-04) Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques –

Radiated, radio-frequency, electromagnetic field immunity test

IEC 61000-4-21, Ed. 2.0 (2011-01) Electromagnetic compatibility (EMC) - Part 4-21: Testing and measurement techniques -

Reverberation chamber test methods

IEC 61000-4-21, Ed. 1.0 (2003-08) EMC-Part 4-21: Testing and measurement techniques Reverberation chamber test

methods

**MIL-STD** 

**Designation Description** 

MIL-STD-188-125-1 Appendix A Shielding Effectiveness (SE) Test Procedures for Fixed Facilities

MIL-STD-188-125-2 Appendix A Shielding Effectiveness (SE) Test Procedures for Transportable Ground-based Systems