



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

COMPLIANCE MANAGEMENT GROUP (CMG) <sup>1</sup>

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ELECTRICAL (EMC)

Valid to: May 31, 2019

Certificate Number: 2316.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory at the location listed above, *as well as the satellite laboratory location listed below*, to perform the following electromagnetic compatibility, product safety, and acoustics tests:

**Test Technology:**

**Test Method(s) <sup>2,3</sup>:**

***Automotive EMC***

Electrostatic Discharge (ESD)

ISO 10605;  
SAE J1113-13;  
GMW 3097 Section 3.6;  
ES-XW7T-1A278-AB (CI-280);  
DC-10614; LP388C-42;  
DC-11224 (2007/06) Sections 10.1 and 10.2

Absorption Chamber

*(Up to 2 GHz, Level 1 (50 V/m) only)*

ISO 11452-2;  
SAE J1113-21;  
ES-XW7T-1A278-AB (RI 114)

Bulk Current Injection (BCI),

*(Closed Loop & Substitution Methods)*

ISO 11452-4;  
SAE J1113-4;  
GM 3097 Section 3.4.1 *(Substitution Method)*;  
DC-10614 Section 6.5; LP 388C-65;  
ES-XW7T-1A278-AB/AC (RI 112);  
DC-11224 (2007/06) Section 7.2

Conducted Transient Disturbances

Power lines

ISO 7637-2;  
SAE J1113-11

Conducted Transient Disturbances

Other than Supply Lines

ISO 7637-3;  
SAE J1113-12

**Test Technology:**

**Test Method(s)<sup>2,3</sup>:**

***Emissions***

Harmonics and Flicker

EN 61000-3-2; IEC 61000-3-2; AS/NZS 61000.3.2;  
EN 61000-3-3; IEC 61000-3-3; AS/NZS 61000.3.3

Conducted

CFR 47, FCC Method Parts 15 B  
(using ANSI C63.4:2014);  
CISPR 22; EN 55022; AS/NZS CISPR 22;  
CISPR 32; EN 55032;  
CISPR 11; EN 55011; AS/NZS CISPR 11;  
CNS 13803;  
EN55014-1 (*excluding Measurements of Clicks*);  
ICES-003;  
IEC 61800-3;  
EN61000-6-3; EN61000-6-4;  
KN 32;  
RRA Public Notification 2015-9 (Apr 24, 2015);  
RRA Announce 2014-91 (Dec 29, 2014);  
CNS 13438;  
VCCI V-2, V-3, V-4;  
TCVN 7189;  
EN 60947-5-2 (Section 7.2.6.3); EN 61326-3-1

***Immunity***

KN 35;  
RRA Public Notification 2015-8 (April 24, 2015);  
RRA Announce 2014-92 (Dec 29, 2014)

Electrostatic Discharge (ESD)

IEC 61000-4-2; EN 61000-4-2;  
AS/NZS 61000.4.2; KN 61000-4-2

Radiated Immunity

IEC 61000-4-3; EN 61000-4-3; AS/NZS 61000.4.3;  
KN 61000-4-3

Electrical Fast Transient (EFT)

IEC 61000-4-4; EN 61000-4-4;  
KN 61000-4-4; AS/NZS 61000.4.4

Surge Immunity

IEC 61000-4-5; EN 61000-4-5;  
AS/NZS 61000.4.5; KN 61000-4-5

Conducted Immunity

IEC 61000-4-6; EN 61000-4-6;  
KN 61000-4-6; AS/NZS 61000.4.6

Magnetic Field Immunity

IEC 61000-4-8; EN 61000-4-8;  
AS/NZS 61000.4.8; KN 61000-4-8

Voltage Dips & Interrupts

IEC 61000-4-11; EN 61000-4-11;  
KN 61000-4-11; AS/NZS 61000.4.11;  
EN 300 132-2



**Test Technology:**

**Test Method(s)<sup>2,3:</sup>**

**Immunity (cont)**

Generic/Specific

EN 50091-2; EN 55103-2; EN 61547;  
EN 61000-6-1; IEC 61000-6-1; EN 61000-6-2;  
IEC 61000-6-2; EN 55024; CISPR 24;  
AS/NZS CISPR 24; IEC 61800-3; EN 62040-2;  
AS/NZS 61000.6.1; AS/NZS 61000.6.2;  
ETSI EN 300 386 V1.3.3; EN 55014-2;  
CISPR 14-2; EN 61326;  
IEC 61326; EN 60601-1-2; KN 24;  
KN 60601-1-2 (Annex 2-2);  
EN 60947-5-2 (Section 7.2.6.2);  
EN 60947-5-3 (Table 1); EN 61326-3-1

***Acoustics***

ISO 7779; ETS 300-753; ISO 9614-2; GR-63-CORE

<sup>1</sup> This accreditation covers testing performed at the main laboratory listed above, and at the satellite laboratory listed below:

Compliance Management Group (CMG)  
37-1 Ayer Road  
Littleton, MA 01460

**Test Technology:**

**Test Method(s)<sup>3:</sup>**

***Emissions***

Radiated and Conducted  
(up to 26.5 GHz)

CFR 47, FCC Method Parts 15 B  
(using ANSI C63.4: 2014);  
CISPR 22; EN 55022; AS/NZS CISPR 22;  
CISPR 32; EN 55032; (All up to 6 GHz);  
CISPR 11; EN 55011; AS/NZS CISPR 11;  
CNS 13803;  
EN55014-1 (excluding Measurements of Clicks);  
ICES-003;  
IEC 61800-3;  
EN61000-6-3; EN61000-6-4;  
KN22; KN 32 (up to 6 GHz);  
CNS 13438 (up to 6 GHz);  
VCCI V-2, V-3, V-4 (up to 6 GHz);  
TCVN 7189: 2009 (up to 6 GHz);  
EN 60947-5-2 (Section 7.2.6.3); EN 61326-3-1

***Environmental Simulation Tests***

Altitude

IEC 60068-2-13

Change of Temperature / Cold / Dry Heat /  
Damp Heat-Cyclic / Damp Heat-Steady State

IEC 60068-2-14; IEC 60068-2-1;  
IEC 60068-2-2; IEC 60068-2-30; IEC 60068-2-78



**Test Technology:**

**Test Method(s)<sup>3</sup>:**

Mechanical Shock

IEC 60068-2-27

Vibration, Sinusoidal / Random

IEC 60068-2-6; IEC 60068-2-64

Packaging Tests

ISTA Procedures 1A, 1B, 1C, 1D, 1E, 1G, 2A, 2B, 2C, 2D, 2E, 3A, 3C, 3D, 3E, 3F, 6-FEDEX-A, 6-FEDEX-B

<sup>2</sup> When the date, revision or edition of a test method standard is not identified on the scope of accreditation, the laboratory is required to be using the current version within one year of the date of publication, per part C., Section 1 of A2LA R101 - *General Requirements- Accreditation of ISO-IEC 17025 Laboratories*.

<sup>3</sup>The laboratory is only accredited for testing activities outlined within the test methods listed above. Reference to any other activity within these standards, such as risk management or risk assessment, does not fall within the laboratory's accredited capabilities.

**On the following products or types of products:**

Light Industrial, Commercial, Residential, Heavy Industrial, Scientific, Medical, Portable Test and Measurement Equipment, Information Technology Equipment, Telecom and other Electrical and Electronic Equipment

Testing Activities Performed in Support of FCC Declaration of Conformity and Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1:

<b>Rule Subpart/Technology</b>	<b>Test Method</b>	<b>Maximum Frequency</b>
Unintentional Radiators Part 15B	ANSI C63.4:2014	18 GHz





## Accredited Laboratory

A2LA has accredited

# COMPLIANCE MANAGEMENT GROUP (CMG)

Marlborough, MA

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 8<sup>th</sup> day of May 2017.

A handwritten signature in black ink, appearing to read "L. Sen", written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 2316.01  
Valid to May 31, 2019

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