SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY BURTON
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ACOUSTICS & VIBRATION

Valid To: July 31, 2024 Certificate Number: 1123.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following vibration tests using the parameters and methods listed below:

On the following products or types of products:
Automotive, Aerospace, Military and Electrical/Electronic/Mechanical components and assemblies.

Test Type	Test Parameters	Test Method/Standard
Random Vibration[1] Single Axis Vibration Testing. Electro-dynamic vibration tables. Controllers using client methods within the following parameters:	Displacement: up to 2.5in pk-to-pk Force: Up to 15,000 force-lbs Frequency: 5 Hz to 2,500 Hz Temperature: (-50 to +150) °C. Ramp rate 20 °C/min max. Humidity: 30% to 95% RH Maximum Acceleration: 140gRMS	Including but not limited to the following: TL-6172 TL-6550 Ford CETP:00.00-E-412 ASTM D4728 FCA CS.00056 GMW 3172[2] GMW 3191 Hyundai/KIA ES95400-10 IEC 60068-2-27 IEC 60068-2-64 ISO 16750-3 JDQ 53.3 JIS D 1601 MIL-STD-202(G,H) methods 201,214 MIL-STD-810(G,H) method 514 Nissan 28401NDS01 SAE J 1455 TSC 7000G USCAR-2 USCAR-21

Test Type	Test Parameters	Test Method/Standard
Sine Vibration[1] Single Axis Vibration Testing. Electro-dynamic vibration tables. Controllers using client methods within the following parameters:	Displacement: up to 2.5in pk-to-pk Force: Up to 15,000 force-lbs Frequency: 5 Hz to 2,500 Hz Temperature: (-50 to +150) °C. Ramp rate 20 °C/min max. Humidity: 30% to 95% RH Velocity Continuous: 71 inches/second	Including but not limited to the following: TL-6172 TL-6550 Ford CETP:00.00-E-412 ASTM D4728 FCA CS.00056 GMW 3172[2] GMW 3191 Hyundai/KIA ES95400-10 IEC 60068-2-27 IEC 60068-2-64 ISO 16750-3 JDQ 53.3 JIS D 1601 MIL-STD-202(G,H) methods 204 MIL-STD-810(G,H) method 514 Nissan 28401NDS01 SAE J 1455 TSC 7000G USCAR-2 USCAR-21
Mechanical Shock[1] Electro-dynamic vibration tables with mechanical shock controller using client methods within the following parameters:	Displacement: Up to 2.5 in pk-to-pk Force: Up to 40,000 lbf (half-sine) Acceleration: Up to 1500g (depending on product and fixture design, mass, and pulse duration) Temperature: (-50 to +150) °C Ramp rate 20°C/m max. Humidity: 30% to 95% RH Up to 100g (electrodynamic) (depending on product and fixture design, mass, and pulse duration) Up to 1500g (shock amplifier-pneumatic) (depending on product and fixture design, mass, and pulse duration)	Including but not limited to the following: Ford CETP:00.00-E-412 ASTM D4728 FCA CS.00056 GMW 3172[2] GMW 3191 Hyundai/KIA ES95400-10 IEC 60068-2-27 IEC 60068-2-64 ISO 16750-3 JDQ 53.3 JIS D 1601 MIL-STD-202(G,H) methods 203, 213 MIL-STD-810(G,H) methods 516 Nissan 28401NDS01 SAE J 1455 TSC 7000G USCAR-2 USCAR-21
Vibration Test Fixture[1]Transmissibility	Frequency: 5 Hz to 2,500 Hz	GMW 3172[2]
Free Fall, Handling Drop		GMW3172[2] USCAR-2 ISO 16750-3 IEC 60068-2-32, Procedure 1 CS00056 section 5.4.6

[1] Also using customer-specified methods based on the parameters listed above.

[2] This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn including but not limited to GMW 3172 (2008, 2010, 2012, 2015,2018)

Accredited Laboratory

A2LA has accredited

ELEMENT MATERIALS TECHNOLOGY BURTON

Burton, MI

for technical competence in the field of

Acoustics and Vibration Testing

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

Presented this 3rd day of May 2022.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1123.01
Valid to July 31, 2024
Revised May 20, 2024

For the types of tests to which this accreditation applies, please refer to the laboratory's Acoustics and Vibration Scope of Accreditation.