



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY KOKOMO

1815 Touby Pike

Kokomo, IN 46901

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ELECTRICAL

Valid To: May 31, 2026

Certificate Number: 1123.06

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following electronics testing:<sup>3</sup>

**On the following types of materials or products:** Consumer based, Automotive Components; Electrical Devices; Circuit Boards; and Electrical Components

| Test Type                          | Test Parameters                                     |
|------------------------------------|-----------------------------------------------------|
| <b>Voltage</b>                     |                                                     |
| AC – Measure <sup>1</sup>          | 10 $\mu$ V to 1 kV, 1 Hz to 2 MHz                   |
| AC – Generate <sup>1</sup>         | 1 mV to 10 V, 1 Hz to 1.3 MHz                       |
| DC – Measure <sup>1</sup>          | 1 $\mu$ V to 1000 V                                 |
| DC – Generate <sup>1</sup>         | 1 $\mu$ V to 3,000 V                                |
| <b>Current</b>                     |                                                     |
| AC/DC Current Measure <sup>1</sup> | 10 $\mu$ A to 600 A                                 |
| DC – Generate <sup>1</sup>         | 10 $\mu$ A to 600 A                                 |
| <b>Resistance Measure</b>          |                                                     |
| Measure <sup>1</sup>               | 100 $\mu$ ohms to $1.6 \times 10^9$ ohms            |
| Generate <sup>1</sup>              | 100 $\mu$ ohms to $1.6 \times 10^{10} \Omega$       |
| <b>Dielectric Testing</b>          |                                                     |
| AC <sup>1</sup>                    | (100 to 4,000) V                                    |
| DC <sup>1</sup>                    | (100 to 1,100) V                                    |
| <b>Frequency</b>                   |                                                     |
| Measure <sup>1</sup>               | 1 Hz to 200 MHz                                     |
| Generate <sup>1</sup>              | 1 Hz to 80 MHz                                      |
| <b>Capacitance<sup>1</sup></b>     | 100 pF to 10 $\mu$ F                                |
| <b>Resistivity<sup>1</sup></b>     | $1 \times 10^6 \Omega$ to $1 \times 10^{10} \Omega$ |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |
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| <b><u>Electrical Tests Based on GMW 3172:</u></b> <ul style="list-style-type: none"> <li>- Jump Start</li> <li>- Reverse Polarity</li> <li>- Over Voltage</li> <li>- State Change Waveform Characterization</li> <li>- Ground Path Inductance Sensitivity</li> <li>- Parasitic Current</li> <li>- Power Supply Interruptions</li> <li>- Battery Voltage Dropout</li> <li>- Sinusoidal Superimposed Voltage</li> <li>- Pulsed Superimposed Voltage</li> <li>- Intermittent Short Circuit to Battery/Ground</li> <li>- Continuous Short Circuit to Battery/Ground</li> <li>- Multiple Power and Multiple Ground Short Circuit Including Pass Through</li> <li>- Open Circuit Single Line</li> <li>- Open Circuit Multiple Lines</li> <li>- Ground Offset</li> <li>- Power Offset</li> <li>- Overload – All Circuits</li> <li>- Overload – Fuse Protected Circuits</li> <li>- Insulation Resistance</li> <li>- Crank Pulse Capability and Durability</li> <li>- Switched Battery Line</li> <li>- Fretting Corrosion Degradation</li> </ul> | GMW 3172 <sup>2</sup> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|

**Test Name**

**Test Method**

|                                       |                          |
|---------------------------------------|--------------------------|
| Dielectric Withstanding Voltage       | MIL-STD-202G, Method 301 |
| Insulation Resistance                 | MIL-STD-202G, Method 302 |
| DC Resistance                         | MIL-STD-202G, Method 303 |
| Resistance Temperature Characteristic | MIL-STD-202G, Method 304 |

**Electrical Tests Based on USCAR-2:**

|                        |         |
|------------------------|---------|
| Dry Circuit Resistance | USCAR-2 |
| Voltage Drop           | USCAR-2 |
| Insulation Resistance  | USCAR-2 |

<sup>1</sup>Also using customer specifications directly related to the types of tests and parameters listed.

<sup>2</sup>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)<sup>2</sup>

<sup>3</sup> This scope meets A2LA's P112 Flexible Scope Policy.





## Accredited Laboratory

A2LA has accredited

### ELEMENT MATERIALS TECHNOLOGY KOKOMO

Kokomo, IN

for technical competence in the field of

### Electrical 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 23<sup>rd</sup> day of July 2024.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 1123.06  
Valid to May 31, 2026

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