



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

AAA Test Lab Inc.

2320 Commerce Park Drive NE, Palm Bay, FL 32905

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2005

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Chemical, Dimensional Inspection, Electrical, Mechanical, Non-Destructive, and Thermodynamic Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President/Operations Manager

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

September 20, 2016

Issue Date:

November 14, 2018

Expiration Date:

December 31, 2020

Accreditation No.:

89271

Certificate No.:

L18-531

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjilabs.com



Certificate of Accreditation: Supplement

AAA Test Lab Inc.

2320 Commerce Park Drive NE, Palm Bay, FL 32905
 Contact Name: Melissa Marmo Phone: 877-369-6547

Accreditation is granted to the facility to perform the following testing:

| FIELD OF TEST | ITEMS, MATERIALS OR PRODUCTS TESTED | SPECIFIC TESTS OR PROPERTIES MEASURED | SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED | RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT |
|--|--|---------------------------------------|---|--|
| Chemical ^F | Solvent Test for Remarketing & Resurfacing | Visual | AS6081- 4.2.6.4.3 | Visual Evaluation |
| Dimensional Inspection ^F | Inspection External/ Visual Inspection (Optically Examined at Magnification and Lighting Sufficient to Detect the Particular Feature being Examined) | Electronic Components | AS6081-4.2.6.4.2.1 & AS6081-4.2.6.4.2.2 Microscope Video Magnification | N/A |
| | Package Size | Electronic Components | Calipers AS 6081 MIL-STD-750 Micrometers AS 6081 MIL-STD-750 | 0.005 in to 6 in (0.2 mm to 150 mm) 0.000 05 in to 1 in (0.001 mm to 25 mm) |
| Electrical ^F | Propagation Delay, Memory Read/Write Speed, Timing | Logic Voltage Level | KEYSIGHT Logic Analyzer | -5 V to 5 V |
| | | Sample Clock | | 500 ps to 1 ms |
| | Bandwidth and Rise Time Analog and Digital | Amplitude | KEYSIGHT Digital Oscilloscope | 1 mV to 10 V |
| | | Band Width | | DC to 200 MHz |
| Rise Time | 20 ns | | | |
| Electrical – Multimeter 7.5 Digit ^F | Battery, Electrical Components, and Semiconductors | DC In-Circuit Current | Multimeter Keithley 2001 | 100 μ A to 12 A DC |
| | | Measure AC Current | | 1 nA to 1 A AC 20 Hz to 50 KHz |
| | | Measure AC Volts RMS Average & Peak | | 1 μ V to 700 VAC 1 Hz to 100 KHz |
| | | Measure DC Current | | 100 pA to 2 A DC |
| | | Measure DC Volts | | 50 nV to 1 000 VDC |
| | | Measure DC Volts Peak Spikes + or - | | 2 mV to 200 V DC to 1 MHz |
| | | Frequency Counter | | Frequency |
| | | Period Measurement | | 67 ns to 1 s |
| | Two-Wire and Four-Wire Ohms | Resistance Measurements | | 10 $\mu\Omega$ to 1 G Ω |



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|---|---|--|---|---|--|
| Electrical – Sourcemeter 6.5 Digit ^F | Battery, Electrical Components, and Semiconductors | Six-Wire Ω | Keithley 2420 | 0.2 Ω to 200 M Ω | |
| | | Two Wire and Four Wire Ω | | | |
| | | Source Voltage and Measure Current | | | Source Voltage: 5 μ V to 60 V |
| | | Source Current and Measure Voltage | | | Measure Current: 0.001 μ A to 3 A 10 A Pulse |
| | | | | | Source Current: 0.001 μ A to 3 A 10 A Pulse |
| Mechanical ^F | Inspection Internal Analysis-Delid / De-capsulation (Destructive) | Visual | AS6081-4.2.6.4.6 Verify that the die Markings and Internal Package or Die Construction is Consistent with a Known Authentic Part | Visual Evaluation | |
| | | | | | Non-Destructive ^F |
| Non-Destructive ^F | X-ray Spectroscopy XRF-Lead Finish Evaluation | Confirm the Elemental Composition of the Leads | AS6081-4.2.6.4.5 Spectroscopy and Reference Component | Presence/Absence | |
| | Thermodynamic ^F | Fluid & Air Temperature | Electronic Components | Thermal Forcing Unit Temperature Probes | -65 °C to 225 °C |

- The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.