



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## Certificate of Accreditation

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

### ***ST and S Testing and Analysis***

***108 Rosedale Ave. Richmond, KY 40475  
6019 Atwood Drive, Suites 1 & 2, Richmond, KY 40475***

*(Hereinafter called the Organization) and hereby declares that Organization 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 (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

### ***Failure Analysis and Evaluation of Printed Wiring Boards and Components*** *(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

*Initial Accreditation Date:*

September 12, 2011

*Issue Date:*

October 4, 2021

*Expiration Date:*

December 31, 2023

*Accreditation No.:*

68850

*Certificate No.:*

L21-597

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

*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.pjllabs.com](http://www.pjllabs.com)*



# Certificate of Accreditation: Supplement

## ST and S Testing and Analysis

108 Rosedale Ave. Richmond, KY 40475  
 6019 Atwood Drive, Suites 1 & 2, Richmond, KY 40475  
 Contact name: John O'Brien Phone: 859-353-5914

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
Mechanical <sup>F</sup>	Printed Wiring Boards and Components	Wetting forces in mN/mm	ANSI IPC J-STD 002 and ANSI IPC J-STD 003	± 5 % of normalized 0 mN/mm to 0.35 mN/mm
	Printed Wiring Board or Laminates	T <sub>260</sub> , T <sub>288</sub> , and Delta T <sub>G</sub>	IPC-TM-650 2.4.24C 2.4.24.1 2.4.24.3 2.4.24.5	± 5 % of known indium reference storage modules or CTE expansion
Electrical <sup>F</sup>	Printed Wiring Boards	SIR/MIR Testing	IPC-TM-650 2.6.3.1 2.6.3.3 2.6.3.4 2.6.3.5	1 Ω to 1 x 10 <sup>15</sup> Ω 1 x 10 <sup>8</sup> Ω to 1 x 10 <sup>14</sup> Ω
Dimensional <sup>F</sup>	Printed Wiring Boards, Components, Lead Frames	Plating Thickness	XRF IPC 4552 IPC 4553 IPC 4554 IPC 4556 IPC 6012/6018 ASTM B568 Customer Specifications	0.02 μm to 15 μm D.L. = 0.005 μm
	Printed Wiring Boards	Cross Sectioning	IPC 600 ANSI IPC 6012/6018	Visual Evaluation and Dimensional Microscopy
Mechanical/ Electrical/ Dimensional/ NDT <sup>F</sup>	Printed Wiring Boards, Components, Laminates	Failure Analysis using other Tests and Analyses on this scope	See Mechanical, Electrical, Dimensional, and NDT Tests and/or Properties on this scope	Based on tests/properties on this scope above.
Non-Destructive <sup>F</sup>	Coatings, Paints, Plating, Surface Treatments, Films	Corrosion, Blistering, Surface Imperfections, Conditions and Defects, Adhesion, Delamination Shrinkage, Undercutting, Creepage, Uniformity, Color Change and Other Attributes	ASTM D610 ASTM D714 ASTM D1654 ASTM D4587 ASTM D5894 (evaluation) ASTM B117 (evaluation) SSOC-VIS-2 Customer Specific Instructions	Qualitative/Visual Dimensional Measurements & Rating
	Printed Wiring Boards, Components	Scanning Electron Microscopy, Microscopic Evaluation	ASTM B748 ASTM E766 ASTM E1508 MIL-STD-1580	40 X to 10 000 X



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

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer<sup>F</sup> would mean that the laboratory performs this testing at its fixed location.
2. All testing activities conducted at 6019 Atwood Drive, Suites 1 & 2, Richmond, KY 40475

