



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

IEC Electronics Analysis & Testing Laboratory
1450 Mission Avenue, Albuquerque, NM 87107

*(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):

***Testing, failure analysis, counterfeit avoidance, and screening of electronic
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/Operations Manager

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

Initial Accreditation Date:

August 16, 2018

Issue Date:

November 10, 2019

Expiration Date:

February 28, 2022

Accreditation No.:

102178

Certificate No.:

L19-564

*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*



Certificate of Accreditation: Supplement

IEC Electronics Analysis & Testing Laboratory (IATL)

1450 Mission Avenue, Albuquerque, NM 87107
 Contact Name: John Petty Phone: 505-345-5591

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
Acoustical ^F	Electrical, Electronic and Electromechanical (EEE) Components	Acoustic Microscopy (CSAM) Examination/ Inspection	IPC/JEDEC J-STD-035	15 MHz to 75 MHz
	Suspect/Counterfeit EEE Part Detection	Acoustic Microscopy (CSAM) Examination/ Inspection	SAE AS6171/6	15 MHz to 75 MHz
Chemical ^F	Suspect/Counterfeit EEE Part Detection	Remarking/Resurfacing	SAE AS6171/2	Visual Evaluation
		De-capsulation and Die Verification	SAE AS6171/4 Chemical De-capsulation, Mechanical Disassembly Plasma, Reactive Ion Etching	
Environmental ^F	Electrical, Electronic and Electromechanical (EEE) Components	Exposure/Temperature Cycling	MIL-STD-883, TM 1010 MIL-STD-750, TM 1051	Low: -75 °C (-103 °F) High: 175 °C (347 °F)
Mechanical ^F	Polymers, Non-volatile Residue, Material Electrical, Electronic and Electromechanical (EEE) Components	Material Characterization	ASTM E334	48 Hz to 63 Hz
		Thermogravimetric Analysis	ASTM E1131	Ambient to 1 000 °C
	Suspect/Counterfeit EEE Parts Detection	Thermogravimetric Analysis	SAE AS6171/10	Ambient to 1 000 °C
		SEM Examination Internal/External Visual	SAE AS6171/2	Low Mag 30 x to 2 000 x High Mag 100 x to 800 000 x
		Material Characterization	SAE AS6171/9	48 Hz to 63 Hz
	Electrical, Electronic and Electromechanical (EEE) Components	Fine Leak Testing Leak Rate	MIL-STD-883, Method 1014 Condition A ¹ MIL-STD-750, Method 1071 Condition H ¹ MIL-STD-202, Method 112 Condition C, Procedure IIIa	D.L. = 10 ⁻⁸ mbar
	Electrical, Electronic and Electromechanical (EEE) Components	SEM Examination/Inspection	MIL-STD-750, Method 2077 MIL-STD-883, Method 2018	Low Mag 30 x to 2 000 x High Mag 100 x to 800 000 x



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1450 Mission Avenue, Albuquerque, NM 87107

Contact Name: Christine Glomski Phone: 505-345-5591 Ext 3045

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Mechanical ^F	Electrical, Electronic and Electromechanical (EEE) Components	Particle Impact Noise Detection (PIND)	MIL-STD-883, Method 2020 MIL-STD-750, Method 2052	Vibration 0.1 g in to 25.5 g in amplitude; 27 Hz to 250 Hz Freq displacement of 0.25" Shock 200 g to 2 000 g w/ pulse width of 100 ms
		Die Shear Grams and Force	MIL-STD-883, Method 2019 MIL-STD-750, Method 2037	Up to 5 kgf
		Wire Pull	MIL-STD-883, Method 2011 MIL-STD-750, Method 2037	Up to 100 gf
		Gross Leak Testing Examination/Inspection	MIL-STD-883, Method 1014, Condition D MIL-STD-750, Method 1071, Condition C & D MIL-STD-202, Method 112, Condition E	Visual Evaluation
		Internal Examination/Inspection	MIL-STD-883, Method 2010, 2013, 2017, and 2032 MIL-STD-750, Method 2069, 2070, 2072 and 2074	Z20 x 20 to Z100 x 1000



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Non-Destructive ^F	Electrical, Electronic and Electromechanical (EEE) Components	Elemental content by XRF, EDS (Lead, tin, etc.)	JESD213 ASTM B586	Presence/Absence
		Elemental thickness XRF (ENIG)	IPC-4552	
		Radiographic Examination/Inspection	MIL-STD-883, Method 2012 (Digital only) MIL-STD-750, Method 2076 (excluding sections 2.1, 3.1) MIL-STD-202, Method 209 (excluding sections 3.2, 4.2, 4.4, 5.1.2, & 5.2.2)	
	Suspect/Counterfeit EEE Part Detection	Elemental content by XRF, EDS	SAE AS6171/3	
		Radiographic Examination/Inspection	SAE AS6171/5	

1. 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.