

DEFENSE LOGISTICS AGENCY

LAND AND MARITIME POST OFFICE BOX 3990 COLUMBUS, OH 43218-3990

July 19, 2024

Mr. Seth Maitlen TTM Technologies, Inc. (Stafford) 4 Old Monson Rd. Stafford, CT 06075

Dear Mr. Maitlen:

RE: Laboratory Suitability Status, MIL-PRF-31032, MIL-PRF-55110, MIL-PRF-50884; CAGE Code 65337; VQE-24-038892

This office has received your correspondences that address corrective actions taken regarding the concerns from your most recent on-site facilities audit. Based on this information and the sample audit on August 1 through August 3, 2023, your facility is considered suitably equipped to perform qualification, lot conformance, and periodic conformance inspection to Department of Defense Performance Specifications MIL-PRF-55110, MIL-PRF-50884 and MIL-PRF-31032/1-/4 and /custom for the following test methods:

IPC-TM-650 Test Methods Manual:

(per TTM Technologies – Stafford Division procedures MP4-430.W1, QL1.427.W1, QL2-427.W1, QL2-427.W3, QL2-427.W4, QL2-427.W5, QL2-427.W6, QL2-427.W4, QL2-427.W8, QL2-427.W10, QL2-427.W12; test optimizations approved for LCI sampling, Solder Resist Adhesion, Resistance to Solvents, and Rework Simulation)

Method 2.1.1	Microsectioning, Manual and Semi or Automatic Method
Method 2.1.8	Workmanship
Method 2.2.1	Mechanical Dimensional Verification
Method 2.2.2	Optical Dimensional Verification
Method 2.2.5	Dimensional Inspections Using Microsections
Method 2.2.6	Hole Size Measurement, Drilled
Method 2.2.7	Hole Size Measurement, Plated
Method 2.3.4	Chemical Resistance, Marking Paints and Inks
Method 2.3.15	Purity, Copper Foil or Plating
Method 2.4.1	Adhesion, Tape Testing [for Plating Adhesion Testing]
Method 2.4.3	Flexural Endurance, Flexible Printed Wiring Materials
Method 2.4.3.1	Flexural Fatigue and Ductility, Flexible Printed Wiring
Method 2.4.8	Peel Strength of Metallic Clad Laminates
Method 2.4.18.1	Tensile Strength and Elongation, In-House Plating
Method 2.4.22	Bow and Twist (Percentage)
Method 2.4.28.1	Solder Mask Adhesion – Tape Test Method
Method 2.4.36	Rework Simulation, Plated-Through Holes for Leaded Components
Method 2.5.7	Dielectric Withstanding Voltage
Method 2.6.3	Moisture and Insulation Resistance
Method 2.6.8	Thermal Stress, Plated-Through Holes
Method 2.6.27	Thermal Stress, Convection Reflow Assembly Simulation

MIL-PRF-31032/1-/4 Resistance to Soldering Heat (Solder Float thermal in accordance with condition A of appendix F of MIL-PRF-31032C)

(per TTM Technologies - Stafford Division procedures QL2-427.W2, QL2-427.W4)

MIL-PRF-31032/1-/4 Marking Adhesion

(per TTM Technologies - Stafford Division procedure QL2-427.W6)

MIL-PRF-31032/1-/4 Soldermask Adhesion (Test Optimization)

(per TTM Technologies – Stafford Division procedure MP9-430.W15.RD1)

MIL-PRF-31032/1-/4 Electrical Test Methods (bed of nails and probe testing)

(per TTM Technologies - Stafford Division procedures MP8-427.W1, MP8-427.W16)

Paragraph 4.7.5.1, Continuity Paragraph 4.7.5.2, Isolation

MIL-PRF-31032/1-/4 Solder Float Solderability in accordance with appendix H of MIL-PRF-31032C (per TTM Technologies – Stafford Division procedure QL2-427.W6)

J-STD-003 Solderability Tests for Printed Boards (including Durability Solderability Testing) (per TTM Technologies – Stafford Division procedure QL2-427.W6)

Auto Optical Inspection (AOI) of Inner Layers

(per TTM Technologies – Stafford Division procedure ML3-430.W8 and equipment manufacturer's operating procedures)

Ionizable Detection of Surface Contamination – alternative method using Omega Meter 600MD (per TTM Technologies – Stafford Division procedures MP9-430.W16 and MP4-430.W7 and equipment manufacturer's operating procedures)

Nondestructive Thickness Testing for Conductor Plating and Finish (X-Ray Fluorescence Analyzer)

(per TTM Technologies – Stafford Division procedure MP3-430.W14 and equipment manufacturer's operating procedures)

Controlled Impedance Testing (Polar CITS 500s)

(per TTM Technologies – Stafford Division procedure QL2-427.W14 and equipment manufacturer's operating procedures)

Hi-Pot Testing

(per TTM Technologies – Stafford Division procedure ML3-427.W10 and equipment manufacturer's operating procedures)

Folding Flexibility (as described in MIL-PRF-50884, MIL-PRF-31032/3, /4)

Any additional and/or alternative test methods implemented shall be approved by the Technical Review Board (TRB) and reported to the qualifying activity in your status report. Please contact Mr. Zachary Chen, DLA Land and Maritime-VQE, at (614) 692-9554 or vqe.zc@dla.mil with any questions concerning this laboratory suitability.

Sincerely,

KOLONCHUK.RAYMOND.L Digitally signed by KOLONCHUK.RAYM Date: 2024.07.26 10

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RAYMOND L KOLONCHUK Chief Electronic Devices Branch