



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

September 22, 2015

Mr. Steve Smith
 Teledyne Printed Circuit Technology
 110 Lowell Road
 Hudson, NH 03051

Dear Mr. Smith:

RE: Notification of Qualification, MIL-PRF-31032B, FSC 5998; CN047839/048103,
 VQ (VQE-15-029796)

Qualification of your products is granted under the current issue of the specification as a result of successful qualification testing to Department of Defense Performance Specification MIL-PRF-31032, Printed Circuit Board/Printed Wiring Board, and associated specifications MIL-PRF-31032/3 and MIL-PRF-31032/4. The capabilities indicated below shall be listed on Qualified Manufacturers List QML-31032. The effective date of this qualification is September 22, 2015.

MANUFACTURER NAME & ADDRESS Teledyne Printed Circuit Technology 110 Lowell Road Hudson, NH 03051	PLANT LOCATION Same	CAGE Code: 22958 Phone: 603-889-6191 Email: pctsales@teledyne.com
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CAPABILITIES BY TECHNOLOGY / ASSOCIATED SPECIFICATION:

Specification: MIL-PRF-31032/3, MIL-PRF-31032/4
 Qualification Letters: VQE-15-029796
 Rigid Base Material: GF: Woven E-Glass, Epoxy Resin, Flame Resistant; GI: Glass Base, Woven, Polyimide Resin, Heat Resistant
 Flex Base Material: Copper Clad Polyimide with Acrylic Adhesive
 Max. Panel Size: 18" x 24"
 Max. Number of Layers: 30
 Max. Board Thickness: .225"
 Min. Hole Size: 0.0295" Drilled Plated-Through Hole Before Plating
 Aspect Ratio: 7.5:1 Through-Hole
 Min. Conductor Width/Space: .004"/.005"
 Hole Preparation: Plasma Desmear, Plasma Etchback
 Hole Wall Conductive Coating: Electroless Copper
 Copper Plating: Direct Current Plate
 Solder Resist: Liquid Photoimageable
 Finish System: HASL, Hot Oil Reflow of Plated Sn/Pb, ENIG
 Controlled Impedance: Differential, Single-Ended
 Flex Usage: Use A (Flex During Installation)

CAPABILITIES BY TECHNOLOGY / ASSOCIATED SPECIFICATION:

<p>Specification: MIL-PRF-31032/3, MIL-PRF-31032/4 Qualification Letters: VQE-15-029796 Rigid Base Material: GI: Glass Base, Woven, Polyimide Resin, Heat Resistant Flex Base Material: Copper Clad Adhesiveless Polyimide Max. Panel Size: 24" x 30" Max. Number of Layers: 7 Max. Board Thickness: .060" Min. Hole Size: 0.035" Drilled Plated-Through Hole Before Plating Aspect Ratio: 1.8:1 Through-Hole Min. Conductor Width/Space: .004"/.005" Hole Preparation: Plasma Desmear, Plasma Etchback Hole Wall Conductive Coating: Electroless Copper Copper Plating: Direct Current Plate Solder Resist: Liquid Photoimageable Finish System: HASL, Hot Oil Reflow of Plated Sn/Pb, ENIG Additional Fab Capabilities: Sequential Lamination Controlled Impedance: Differential, Single-Ended Flex Usage: Use A (Flex During Installation)</p>
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Test report number 31032-4406-15 has been assigned to your test data for the adhesive construction qualification and test report number 31032-4407-15 has been assigned to your test data for the adhesiveless construction qualification. These qualifications are based on your MIL-PRF-31032 certification and are subject to the conditions stated below:

1. A listing on the Qualified Manufacturers List (QML) does not guarantee acceptance of the product(s) in any future purchase.
2. QML listing does not constitute a waiver of any requirements of the specification or of the provisions of any contract.
3. Advertising of qualification information is permitted. Permission to use such information for advertising or publicity purposes is granted provided that such publicity or advertising does not state or imply that the product(s) is the only product of that type qualified or that the Department of Defense in any way recommends or endorses the manufacturer's product.
4. The listing applies only to products produced in the plant(s) specified in this letter of notification of qualification and applies to future amendments or revisions of the specification, unless otherwise notified.
5. The listing applies only to materials and manufacturing construction techniques identical to or covered by that (those) qualified. The qualifying activity must be advised in advance of any change to the materials and manufacturing construction techniques. Failure to notify the qualifying activity of any change to the materials and manufacturing construction techniques is cause for removal from the QML.

Because we are held responsible for the accuracy and currency of this QML, please let us know if your company discontinues production utilizing these materials or processes. If you have any questions, please contact Mr. Lowell Sherman, (614) 692-0627 or vqe.ls@dla.mil.

Sincerely,

JOSEPH GEMPERLINE
Chief
Sourcing and Qualifications Division