



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

September 6, 2012

Mr. Joe Lefebure
Advanced Circuits – Tempe Division
229 S. Clark Drive
Tempe, AZ 85281-3073

Dear Mr. Lefebure:

RE: Notification of Add-On Qualification, MIL-PRF-31032, FSC 5998, CAGE Code 6RJS1;
VQ (VQE-12-025042) / CN037138

Qualification of your products is granted under the current issue of the specification as a result of successful add-on qualification testing to Military Performance Specification MIL-PRF-31032, Printed Circuit Board/Printed Wiring Board, and associated specification MIL-PRF-31032/1 and /2. These add-on qualifications are based on your technical review board (TRB) review and approval of the material and classification indicated below. Your add-on qualifications expanded the following capabilities.

MIL-PRF-31032/1, /2 GF and GI Material Types	Addition
Final Surface Finish:	ImmAg, ENIG
Test report number 31032-3637-12	

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. Robert Puckett at vqe.rp@dla.mil or 614-692-0625.

Sincerely,

/SIGNED/

JOSEPH GEMPERLINE
Chief
Sourcing and Qualifications Division

**SECTION I
LIST OF MANUFACTURERS' QUALIFIED CAPABILITIES FOR EACH TECHNOLOGY**

MANUFACTURER INFORMATION:

Advanced Circuits - Tempe Division
229 S. Clark Drive, Tempe, AZ, 85281-3073

CAGE Code: 6RJS1

Phone: 480-966-5894

Fax: 480-966-5896

E-Mail: tempesales@4pcb.com

CAPABILITIES BY TECHNOLOGY/ASSOCIATED SPECIFICATION

Specification: MIL-PRF-31032/1, MIL-PRF-31032/2

Qualification Letters: VQE-12-024291, VQE-12-024631

Rigid Base Material: GI: Glass Base, Woven, Polyimide Resin, Heat Resistant

Max. Panel Size: 18" x 24"

Max. Number of Layers: 10

Max. Board Thickness: .1"

Min. Hole Size: .02" Drilled Plated-Through Hole Before Plating

Aspect Ratio: 5:1 Through-Hole

Min. Conductor Width/Space: .01"/.01"

Hole Preparation: Permanganate Desmear, Plasma Desmear, Plasma Etchback

Hole Wall Conductive Coating: Electroless Copper

Copper Plating: Direct Current Plate

Solder Resist: Dry Film, Liquid Photoimageable

Finish System: ENIG, Electrolytic Ni / Hard Au, HASL, ImmAg

Additional Fab Capabilities: Foli Lamination

Controlled Impedance: Differential, Single-Ended

CAPABILITIES BY TECHNOLOGY/ASSOCIATED SPECIFICATION

Specification: MIL-PRF-31032/1, MIL-PRF-31032/2

Qualification Letters: VQE-12-024291, VQE-12-024631

Rigid Base Material: GF: Woven E-Glass, Epoxy Resin, Flame Resistant

Max. Panel Size: 18" x 24"

Max. Number of Layers: 10

Max. Board Thickness: .1"

Min. Hole Size: .02" Drilled Plated-Through Hole Before Plating

Aspect Ratio: 5:1 Through-Hole

Min. Conductor Width/Space: .01"/.01"

Hole Preparation: Permanganate Desmear, Plasma Desmear, Plasma Etchback

Hole Wall Conductive Coating: Electroless Copper

Copper Plating: Direct Current Plate

Solder Resist: Dry Film, Liquid Photoimageable

Finish System: ENIG, Electrolytic Ni / Hard Au, HASL, ImmAg

Additional Fab Capabilities: Foli Lamination

Controlled Impedance: Differential, Single-Ended