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

November 14, 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-13-025402) / CN037495 and 037496

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. The capabilities qualified for each base material and slash sheet indicated below shall be listed on Qualified Manufacturers List QML-31032. The effective date of this qualification is November 14, 2012.

MANUFACTURER	PLANT LOCATIONS	CAGE CODE: 0SX42
Advanced Circuits – Tempe Division 229 S. Clark Drive Tempe, AZ 85281-3073	Same Address as Manufacturer	PHONE #: 480-966-5894 FAX #: 480-966-5896 EMAIL: jlefebure@4pcb.com

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

Qualification Letters: VQE-12-024291, VQE-12-024631, VQE-12-025042, VQE-13-025402

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

Max. Panel Size: 18" x 24"

Max. Number of Layers: 24

Max. Board Thickness: 0.125"

Min. Hole Size: 0.010" (Mechanical) Drilled Plated-Through Hole Before Plating

0.004” (Laser) Drilled Plated-Through Hole Before Plating

Aspect Ratio: 12.5:1 Through-Hole

Min. Conductor Width/Space: 0.004 "/0.0047"

Hole Preparation: Permanganate Desmear, Plasma Desmear/Etchback

Hole Wall Conductive Coating: Electroless and Electroplated Copper

Copper Plating: Direct Current Plate

Solder Resist: Dry Film, Liquid Photoimageable

Controlled Impedance: Differential, Single-Ended

Hole Fill/Via Plug: Non-Conductive

Finish System: HASL, Immersion Silver, ENIG, Electrolytic Ni / Hard Au

Additional Fab Capabilities: Foil Lamination, Blind Vias, Buried Vias, Sequential Lamination

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

Qualification Letters: VQE-12-024291, VQE-12-024631, VQE-12-025042, VQE-13-025402

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

Max. Panel Size: 18" x 24"

Max. Number of Layers: 24

Max. Board Thickness: 0.125"

Min. Hole Size: 0.010" (Mechanical) Drilled Plated-Through Hole Before Plating

0.004” (Laser) Drilled Plated-Through Hole Before Plating

Aspect Ratio: 12.5:1 Through-Hole

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Copper Plating: Direct Current Plate

Solder Resist: Dry Film, Liquid Photoimageable

Controlled Impedance: Differential, Single-Ended

Hole Fill/Via Plug: Non-Conductive

Finish System: HASL, Immersion Silver, ENIG, Electrolytic Ni / Hard Au

Additional Fab Capabilities: Foil Lamination, Blind Vias, Buried Vias, Sequential Lamination

This qualification is based on your MIL-PRF-31032 certification and is 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.

Manufacturers are required to inform this Office immediately if a failure occurs during PCI testing, if production of this qualification is discontinued, or prior to issuance of a GIDEP Alert and/or Problem Advisory on their QML products. If you have any questions, please contact Mr. Robert Puckett, (614) 692-0625 or vqe.rp@dla.mil.

Sincerely,

/SIGNED/

JOSEPH GEMPERLINE
Chief
Sourcing and Qualification Division