



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

April 1, 2019

Mr. Don Angulo
 Cirexx International, Inc.
 791 Nuttman Street
 Santa Clara, CA 95054

Dear Mr. Angulo:

RE: Notification of Qualification, MIL-PRF-31032C, FSC 5998; CN066373, VQE-19-033722

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-31032/1, MIL-PRF-31032/2, MIL-PRF-31032/5, and MIL-PRF-31032/6. The capabilities indicated below shall be listed on Qualified Manufacturers List QML-31032. The effective date of this qualification is April 1, 2019.

MANUFACTURER NAME & ADDRESS Cirexx International, Inc. 791 Nuttman Street Santa Clara, CA 95054	PLANT LOCATION Same	CAGE Code: 4MEG7 Phone: 408-988-3980 Fax: 408-988-4534 Email: sales@cirexx.com
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CAPABILITIES BY TECHNOLOGY / ASSOCIATED SPECIFICATION:

Specification: MIL-PRF-31032/1, MIL-PRF-31032/2, MIL-PRF-31032/5, MIL-PRF-31032/6
 Qualification Letters: VQE-19-033722
 Composition: M - Mixed based material printed boards; S - Homogenous thermosetting base material printed boards (Woven Glass Reinforced, Hydrocarbon Resin with Ceramic Fill)
 Rigid Base Material: GF: Woven E-Glass, Epoxy Resin, Flame Resistant; Woven Glass Reinforced, Hydrocarbon Resin with Ceramic Fill
 Max. Panel Size: 18" x 24"
 Max. Number of Layers: 18
 Max. Board Thickness: .175"
 Min. Hole Size: .0145" Drilled Plated-Through Hole Before Plating
 Aspect Ratio: 12.14:1 Through-Hole
 Min. Conductor Width/Space: .005"/.006"
 Hole Preparation: Plasma Etchback, Plasma Desmear, Permanganate Desmear
 Hole Wall Conductive Coating: Electroless Copper
 Copper Plating: Direct Current Plate
 Hole Fill/Via Plug: Non-Conductive, Conductive
 Solder Resist: Liquid Photoimageable
 Finish System: ENIG, Electrolytic Ni / Hard Au, HASL*, Ni/Pd/Au (ENEPIG)*
 Additional Fab Capabilities: Foil Lamination, Blind Vias, Buried Vias, Sequential Lamination
 Controlled Impedance: Differential, Single-Ended

* Denotes contracted services

Test report number 31032-4878-17 has been assigned to your test data for the Hydrocarbon Ceramic/GF mixed base material qualification and Hydrocarbon Ceramic homogenous base material qualification. Your first biennial CVI report for this initial qualification shall cover the period from **April 1, 2019 through December 31, 2019**, and is due to this office by **March 1, 2020** (though the next PCI/thermal shock testing for CVI purposes will not be due until the end of 2020 for the Hydrocarbon Ceramic/GF mixed base material qualification). This qualification is 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,

KOLONCHUK,
RAYMOND.L.J.
R.1230207093

Digitally signed by
RAYMOND L J KOLONCHUK, DN: cn=RAYMOND L J KOLONCHUK, o=DLA, ou=Electronic Devices Branch, email=RAYMOND.L.J.KOLONCHUK@DLA.MIL, c=US
Date: 2019.04.02 09:53:27 -0400

RAYMOND L KOLONCHUK
Chief
Electronic Devices Branch