



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

October 16, 2014

Mr. Marwan Rahal
Holaday Circuits
11126 Bren Road West
Minnetonka, Minnesota 55343

RE: Notification of Qualification, GF and GI Base Materials; MIL-PRF-31032/1, /2; FSC 5998;
CAGE Code 59554; VQ(VQE-15-028707); CN044529

Dear Mr. Rahal:

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. The capabilities qualified for the base material and slash sheet indicated below shall be listed on Qualified Manufacturers List QML-31032. The effective date of this qualification is October 16, 2014.

<p>MANUFACTURER</p> <p>Holaday Circuits 11126 Bren Road West Minnetonka, Minnesota 55343</p>	<p>PLANT LOCATIONS</p> <p>Same Address as Manufacturer</p>	<p>CAGE CODE: 59554</p> <p>PHONE #: 952-988-8059 EMAIL:MarwanR@Holaday.com</p>
<p>Specification: MIL-PRF-31032/1, MIL-PRF-31032/2 Qualification Letter(s): VQ(VQE-15-028707) Rigid Base Material: GF: Woven E-Glass, Epoxy Resin, Flame Resistant Max. Panel Size: 18" x 24" Max. Number of Layers: 16 Max. Board Thickness: .110" Min. Hole Size: .008" Drilled Plated-Through Hole Before Plating Aspect Ratio: 7.8:1 Through-Hole Min. Conductor Width/Space: .003 "/.0037" Hole Preparation: Plasma Etchback, Permanganate Desmear Hole Wall Conductive Coating: Electroless Copper Copper Plating: Direct Current Plate, Pulse Plate Hole Fill / Via Plug: Non-Conductive Solder Resist: Liquid Photoimageable Finish System: ENIG, HASL, OSP, ImAg</p>		



Controlled Impedance: Differential, Single Ended
Additional Capabilities: Foil Lamination, Sequential Lamination, Blind Vias, Buried Vias

MANUFACTURER Holaday Circuits 11126 Bren Road West Minnetonka, Minnesota 55343	PLANT LOCATIONS Same Address as Manufacturer	CAGE CODE: 59554 PHONE #: 952-988-8059 EMAIL: MarwanR@Holaday.com
<p>Specification: MIL-PRF-31032/1, MIL-PRF-31032/2 Qualification Letter(s): VQ(VQE-15-028707) Rigid Base Material: GI: Glass Base, Woven, Polyimide Resin, Heat Resistant Max. Panel Size: 18" x 24" Max. Number of Layers: 14 Max. Board Thickness: .110" Min. Hole Size: .016" Drilled Plated-Through Hole Before Plating Aspect Ratio: 6.66:1 Through-Hole Min. Conductor Width/Space: .007 "/.005" Hole Preparation: Plasma Desmear Hole Wall Conductive Coating: Electroless Copper Copper Plating: Direct Current Plate, Pulse Plate Solder Resist: Liquid Photoimageable Finish System: ENIG, HASL, OSP, ImAg Additional Capabilities: Foil Lamination</p>		

Test report number 31032-4275-14 has been assigned to your test GF material data and 31032-4276-14 has been assigned to your GI material test data. 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. Keith Powell at vqe.kp@dla.mil or 614-692-9508.

DLA Land and Maritime-VQ requests that all correspondences be submitted in electronic format. Examples of this include requests for technical evaluations, qualification and status reports, retention test data and requests for testing authorization (including test plans). In the event that a specific report or document is of very large size (>5 MB) please submit the information via digital media, e.g., cd or dvd. Electronic documents are a more efficient format and will help our office evaluate your questions or testing data in a more efficient and expeditious manner.

Sincerely,

/SIGNED/

JOSEPH GEMPERLINE
Chief
Sourcing and Qualifications Division