



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

April 4, 2019

Mr. Dana Beall  
 FTG Circuits, Inc.  
 20750 Marilla Street  
 Chatsworth, CA 91311

Dear Mr. Beall:

RE: Notification of Qualification, MIL-PRF-31032C, FSC 5998; CN066822, VQE-19-033706

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 and MIL-PRF-31032/2. The capabilities indicated below shall be listed on Qualified Manufacturers List QML-31032. The effective date of this qualification is April 4, 2019.

<b>MANUFACTURER NAME &amp; ADDRESS</b>  FTG Circuits, Inc. 20750 Marilla Street Chatsworth, CA 91311	<b>PLANT LOCATION</b>  Same	<b>CAGE Code: 30803</b>  Phone: 818-407-4024 Fax: 818-407-4034 Email: info@ftgcorp.com
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**CAPABILITIES BY TECHNOLOGY / ASSOCIATED SPECIFICATION:**

Specification: MIL-PRF-31032/1, MIL-PRF-31032/2  
 Qualification Letters: VQE-19-033706  
 Rigid Base Material: GI: Glass Base, Woven, Polyimide Resin, Heat Resistant  
 Max. Panel Size: 18" x 24"  
 Max. Number of Layers: 32  
 Max. Board Thickness: .201"  
 Min. Hole Size: .005" Laser Ablated Plated Hole Size Before Plating\*, .010" Drilled Plated-Through Hole Before Plating  
 Aspect Ratio: 1:1 Microvia\*, 11.3:1 Through-Hole  
 Min. Conductor Width/Space: .004"/.004"  
 Hole Preparation: Plasma Etchback, Plasma Desmear  
 Hole Wall Conductive Coating: Electroless Copper  
 Copper Plating: Direct Current Plate  
 Hole Fill/Via Plug: Non-Conductive\*  
 Solder Resist: Liquid Photoimageable  
 Finish System: ENIG\*, Electrolytic Ni / Soft Au\*, HASL\*, Hot Oil Reflow of Plated Sn/Pb, Ni/Pd/Au\*  
 Additional Fab Capabilities: Foil Lamination, Blind Vias, Buried Vias, Sequential Lamination, Metal Core  
 Controlled Impedance: Differential, Single-Ended

\* Denotes contracted services

Test report number 31032-5423-19 has been assigned to your test data for the GI base material qualification. Your first biennial CVI report for this initial qualification shall cover the period from **April 1, 2019 through March 31, 2021**, and is due to this office by **May 1, 2021**. 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](mailto:vqe.ls@dla.mil).

Sincerely,

RAYMOND L KOLONCHUK  
Chief  
Electronic Devices Branch