



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

July 26, 2013

Mr. Bo Rains
International Rectifier
2520 Junction Avenue
San Jose, CA 95134

Dear Mr. Rains:

Re: Notification of Qualification, Hybrid Microcircuits MIL-PRF-38534, FSC 5962, VQ (VQH-13-026800), Control Number 039867

Qualification of your processes and materials is granted effective April 19, 2013 under the current issue of the Performance Specification MIL-PRF-38534, Hybrid Microcircuits, FSC 5962. This action is a result of successful qualification in accordance with test report number 38534-3840-13.

The hybrid qualified by this report is identified in International Rectifier VQH-42H Form 6122 rev A, dated 11/2/2011. The primary purpose of this effort was to qualify your new automated epoxy-dispense and component-placement equipment/process for auto-component attach. Your Qualified Manufacturers List (QML) listing will appear as in Enclosure 1 and is subject to the conditions printed in Enclosure 2.

To maintain this listing, you are required to provide a retention report every twelve months. The standard reporting period is from July 1 through June 30 and your next report is due on July 31, 2013. This report need not include the processes and materials from this qualification. For additional information regarding the retention of qualification report, please see the DLA Land and Maritime-VQH published booklet Certification and Qualification Procedures for MIL-PRF-38534 Hybrid and MCM Microcircuits.

QML manufacturers shall notify the qualifying activity immediately after learning of a potential issuance of a GIDEP alert, problem advisory or major quality/reliability problem affecting QML products. Failure to provide prior notification may be grounds for removal from QML 38534.

Because we are held responsible for the accuracy and currency of this QML, please let us know if your company discontinues production utilizing this process.

If you have any questions concerning this letter, please contact Miss Schneider at (614) 692-0585.

Sincerely,

/SIGNED/

JOSEPH GEMPERLINE

Chief

Sourcing and Qualifications Division

Enclosures

International Rectifier Aerospace & Defense (CA) (CAGE Code: 52467)

2520 Junction Avenue, San Jose, CA 95134-1902, US

Company Contact: Mr. Granville 'Bo' Rains, Phone: 408-434-5086, Fax: 408-434-5220, E-mail: grains1@irf.com

DSCC Contact: Ms. Jonnie Schneider, Phone: 614-692-0585, Fax: 614-692-6942, E-mail: vqh.jms@dla.mil

Quality Management (QM) Program: Non-TRB

Periodic Inspection System: Options 1 and 2

Technologies: DC/DC Converters

Advanced Semiconductor Engrg Inc, Nantou Branch

Qualification Letters: VQ(VQH-02-1624), VQ(VQH-05-009379)

Class Level Information: See Note 6/

Class H, Class E

Substrate Fabrication Information: See Note 1/

Substrate Fabrication Flows: N/A

Substrate Fabrication: N/A

Assembly Information: See Note 1/

Assembly Flows: 8002-0044

Substrate Attach: Conductive Epoxy, Nonconductive Epoxy, Solder

Element Attach: Conductive Epoxy, Nonconductive Epoxy, Solder

Add-on Elements: Unpackaged Die, Chip Capacitors, Tantalum Capacitors, Tabs, Chip Resistors, Transformers

Wire Bonding: Gold, Aluminum, Copper

Package Information: See Notes 1/ 2/ 3/

Package Information: Metal Package, Axial Leads, Seam Weld, 6.58 Inch Seal Perimeter, 10 Leads, Gold/Solder Lead Finish

Santa Clara Facility

Qualification Letters: EQ(EQC-89-065), EQ(EQC-90-652), EQ(EQC-92-103), EQ(EQC-93-204), EQ(EQC-93-403), EQ(EQC-93-553), EQ(EQC-93-658), ELS(ELSH-94-0173), ELS(ELSH-94-0211), ELS(ELSH-94-0212), ELS(ELSH-94-0272), ELS(ELSH-94-0482), ELS(ELSH-94-0483), VQ(VQH-98-0100), VQ(VQH-98-0231), VQ(VQH-03-003517), VQ(VQH-05-9326), VQ(VQH-06-011051), VQ(VQH-07-013935), VQ(VQH-08-015552), VQ(VQH-12-023788), VQ(VQH-13-026800)

Class Level Information: See Note 6/

Class K, Class H, Class E

Substrate Fabrication Information: See Note 1/

Substrate Fabrication Flows: 8002-0044

Substrate Fabrication: Thick Film on Alumina, 5 Conductor Level(s), Resistors; Thick Film on Beryllia, 4 Conductor Level(s), Resistors; Purchased Direct Bonded Copper

Assembly Information: See Note 1/

Assembly Flows: 8002-0044

Substrate Attach: Conductive Epoxy, Nonconductive Epoxy, Solder

Element Attach: Conductive Epoxy, Nonconductive Epoxy, Solder, RTV, Elastomer

Add-on Elements: Unpackaged Die, Chip Capacitors, Tantalum Capacitors, Tabs, Chip Resistors, Transformers, Inductors, Wires, Terminals

Wire Bonding: Gold, Aluminum, Copper

Package Information: See Notes 1/ 2/ 3/

Package Information: Ceramic Package, Dual-in-line, Seam Weld, 3.69 Inch Seal Perimeter, 24 Leads, Gold/Solder Lead Finish, Getter Qualified; Metal Package, Axial Leads, Seam Weld, 6.58 Inch Seal Perimeter, 10 Leads, Gold/Solder Lead Finish, Getter Qualified; Metal Package, Peripheral Leads, Seam Weld, 10.10 Inch Seal Perimeter, 58 Leads, Gold/Solder Lead Finish, Getter Qualified; Metal Package, Peripheral Leads, Seam Weld, 8.00 Inch Seal Perimeter, 12 Leads, Gold/Solder Lead Finish, Getter Qualified; Metal Package, Peripheral Leads, Seam Weld, 11.00 Inch Seal Perimeter, 13 Leads, Gold/Solder Lead Finish, Getter Qualified

Notes:

1/ The QML listing can be expanded provided appropriate qualification testing is performed and passed. Therefore the manufacturer may accept an order for compliant product not covered by his QML listing, but shall not ship the compliant product until the testing has been successfully completed.

2/ Package seal perimeter is listed by largest perimeter successfully tested in inches.

3/ Package lead counts are listed by maximum number of leads covered by qualification.

4/ Caution. Do not use this number for item acquisition. Item acquired to this number may not satisfy the performance requirements of the listed SMD.

5/ Inactive for new design, no longer available from manufacturer.

6/ Class E devices are devices, which meet all of the requirements of one of the other classes (K, H, or G), with some exceptions taken. Therefore any manufacturer qualified to G, H or K is eligible to produce and mark product as compliant to class E.

CONDITIONS REGARDING QUALIFICATION APPROVAL

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 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.
6. Continued qualification listing is dependent upon the manufacturer's compliance with the retention of qualification, verification of qualification, to which his products are qualified.