

Microsemi Corporation

December 15, 2016

Product/Process Change Notification No: 157043

Change Classification: Minor

Subject: Conversion to Alternate Qualified Epoxy for PoE PD70xxx Products Assembled at Carsem Suzhou

Description of Change:

Microsemi is converting to an alternate qualified epoxy for the PD70xxx product family at Carsem, Suzhou. Carsem is currently a qualified assembly site for Microsemi.

The BOM changes are listed in the table below.

	Current BOM	New BOM
Mold Compound	G770HCD	No change
Die Attach	2700HT	QMI519
Wire	PdCu/Au	No change
Lead Finish	Matte-Tin/PPF	No change

The Moisture Sensitivity Level (MSL) requirement for the products in this package will also be changing from MSL1 to MSL3. Packaging for the associated part numbers will change to dry pack with desiccant, and slightly larger boxes will be used to accommodate this new packing material.

Reason for Change:

Due to manufacturability concerns around the use of 2700HT high thermal epoxy, Microsemi is standardizing to QMI519 epoxy for Carsem QFN/DFN packages. QMI519 epoxy at Carsem is qualified and has been running in high volume production on Microsemi products for body sizes 1.5x1.5 up to 8x8 QFN for over 8 years.

Changing to MSL3 is being done to align with standardized backend packing procedures for QFN/DFN packages across the product group. It will also increase package robustness in reflow.

Application Impact:

There is no impact to the customers' applications since there are no changes to form, fit, function, or product reliability as a result of the change. Receiving departments should be informed that the new boxes may have a slight difference in dimensions, and the material will require MSL3 handling. Datasheets will be updated accordingly.

Method of Identifying Changed Product:

This change will be controlled by date code for each individual product. Please contact your sales representative for implementation date code inquiries.

Products Affected by this Change:

Package	Body Size	Pin Count	Ordering Part number
DFN	4x3	12	PD70100ILD-TR
DFN	4x3	12	PD70200ILD-TR
DFN	4x5	16	PD70210AILD-TR
DFN	4x5	16	PD70210ILD-TR
QFN	5x5	32	PD70101ILQ-TR
QFN	5x5	32	PD70201ILQ-TR
QFN	6x6	36	PD70211ILQ-TR
QFN	6x8	40	PD70224ILQ-TR

Note: This is a list of Ordering Part Numbers (OPNs) as are found in product datasheets. Customers may track additional part number variants in their systems, so please consider this a base part list.



Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
E-mail: sales.support@microsemi.com
www.microsemi.com

©2016 Microsemi Corporation. All rights reserved.
Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.

About Microsemi

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions; security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

MSC-F-0003 Rev 4

Do Not Distribute Outside Microsemi Without Written Permission

Page 2 of 4

Production Shipment Schedule:

To enable a continuous supply of material, product assembled with the new material BOM is planned to ship beginning January 1, 2017.

During a transition period, customers may see shipments of product with either BOM while any existing inventory of parts is depleted.

Qualification Data:

Qualification Reports will be available in December 2016.

Samples Availability:

Samples are available upon request.

Please contact your local Microsemi representative to place sample orders.

Contact Information:

Communications Products Group

CMPG.quality@microsemi.com

Regards,

Microsemi Corporation

Any projected dates in this PCN are based on the most current product information at the time this PCN is being issued, but they may change due to unforeseen circumstances. For the latest schedule and any other information, please contact your local Microsemi Sales Office, the factory contact shown above, or your local distributor.

This Product/Process Change Notification is confidential and proprietary information of Microsemi and is intended only for distribution by Microsemi to its customers, for customers' use only. It must not be copied or provided to any third party without Microsemi's prior written consent.

CHANGE APPROVAL SUPPLEMENT

Customer Acknowledgement / Approval for Product/Process Change Notification No: 157043

Microsemi Corporation intends to implement this change 90 days after this notification. Acknowledgement of your company's acceptance of this change is requested per contractual agreement. Response within 30 days is required.

Accepted

Rejected

Signature

Date

Name

Title

Please enter rationale for rejection, if applicable: _____



Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
E-mail: sales.support@microsemi.com
www.microsemi.com

©2016 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.

About Microsemi

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions; security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

MSC-F-0003 Rev 4

Do Not Distribute Outside Microsemi Without Written Permission

Page 4 of 4