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Control No. PCN-18011

January 31, 2018

**PRODUCT/PROCESS CHANGE NOTIFICATION**

**TYPE OF CHANGE:**     Design             Manufacturing             Other

This notification is provided in accordance with Power Integrations policy of major change notification. If you have any questions or need further assistance, please contact your regional Power Integrations sales office.

**DESCRIPTION OF CHANGE**

Tongfu Microelectronics Company Limited (TFME), previously known as Nantong-Fujitsu Microelectronics (NFME), located in Nantong, China will be added for the assembly and testing of the QSpeed products in TO-220-3R (Y) and TO-220-2S (T) packages listed in the table below. As part of the assembly location addition, soft solder paste Heraeus Sn5Pb85Sb10 will be changed to Heraeus Sn10Pb88Ag2 for die attach operation at TFME. TFME is a qualified assembly and test site for other products in TO-220 and TO-263 packages with excellent quality records.

There is no change to the data sheet.

**REASON FOR CHANGE**

Improve manufacturing flexibility and diversification of manufacturing sites.

**PRODUCTS AFFECTED**

Package	Ordering Part Number
TO-220-3R (Y)	LQA03TC600, LQA05TC600, LQA08TC600
TO-220-2S (T)	QH03TZ600, QH05TZ600, QH08TZ600, QH12TZ600

**QUALIFICATION STATUS**

Refer to Appendix 1 for the qualification data.

**EFFECT ON CUSTOMER**

No adverse impact is expected in manufacturers' applications. The product will be guaranteed to meet the datasheet limits.

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The information in this report contains confidential and proprietary information of Power Integrations and its manufacturing partners. By receiving this report, the customer agrees to use this information for the sole purpose of addressing the issues reviewed in this report and to keep the contents confidential. If it becomes necessary for the customer to disclose this information to a third party, a non-disclosure agreement, which provides reasonable and customary protection for the disclosed information, must be executed.

**EFFECTIVE DATE**

May 1, 2018

**SAMPLE AVAILABILITY**

Samples will be available 8 weeks from the date of request. Please send requests for samples within two weeks after receipt of this notification to the local Power Integrations sales office. For manufacturers that request samples, an accommodation will be made in order to allow time of customer's qualification in a case-specific manner.

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Appendix 1  
Reliability Engineering  
Qualification Report

Qualification Project: E174118

**Project Title: Qspeed TO-220-3 (Y) and TO-220-2S (T) TFME Assembly Site Qualification**
**Qual Summary:**

Reliability testing was performed on Qspeed products in the TO-220-3R (Y) and TO-220-2S (T) packages to qualify TFME for assembly of these packages. All required reliability tests were completed on three qualification lots with passing results. Yield analysis and assembly-level testing were completed with acceptable results. Based on these results, TFME is approved for assembly of Qspeed TO-220-3R (Y) and TO-220-2S (T) packaged products.

Qualification Vehicles: LQA05TC600, QH08TZ600, LQA08TC600

**Reliability Test Descriptions and Conditions**

Test Name	Conditions	Reference Specification
HTRB (High Temperature Reverse Bias)	Tj=150°C, Vr=480V	EIA/JESD22-A108
H3TRB (High Humidity High Temp Reverse Bias)	Ta=85°C, RH = 85%, Vr=100V	EIA/JESD22-A101
TMCL (Temperature Cycle, Air to Air)	-65°C to +150°C, air to air, unbiased	EIA/JESD22-A104
PRCL (Power Cycling)	Delta(Tj) = 100C	EIA/JESD22-A105

**HTRB (High Temperature Reverse Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LQA05TC600	M5Y203E	TO-220-3 (Y)	1000 hours	0/47
QH08TZ600	M6B116B	TO-220-2S (T)	1000 hours	0/47
LQA08TC600	M5X206F	TO-220-3 (Y)	1000 hours	0/47

**H3TRB (High Humidity High Temp Reverse Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LQA05TC600	M5Y203E	TO-220-3 (Y)	1000 hours	0/47
QH08TZ600	M6B116B	TO-220-2S (T)	1000 hours	0/47
LQA08TC600	M5X206F	TO-220-3 (Y)	1000 hours	0/47

**TMCL (Temperature Cycling)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LQA05TC600	M5Y203E	TO-220-3 (Y)	1000 cycles	0/47
QH08TZ600	M6B116B	TO-220-2S (T)	1000 cycles	0/47
LQA08TC600	M5X206F	TO-220-3 (Y)	1000 cycles	0/47

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**PRCL (Power Cycling)**

<b>Product</b>	<b>Lot #</b>	<b>Package</b>	<b>Test Duration</b>	<b>No. Failures/Sample Size</b>
LQA05TC600	M5Y203E	TO-220-3 (Y)	10000 cycles	0/47
QH08TZ600	M6B116B	TO-220-2S (T)	10000 cycles	0/47
LQA08TC600	M5X206F	TO-220-3 (Y)	10000 cycles	0/47

**Conclusion:** Based on acceptable results, TFME is approved for assembly of Qspeed TO-220-3R (Y) and TO-220-2S (T) packaged products.

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**CUSTOMER ACKNOWLEDGEMENT**

Power Integrations requests you acknowledge the receipt of the above-mentioned PCN. If no acknowledgment is received within 30 days of this notification, Power Integrations will assume the change is acceptable. Lack of any additional response within 90 days of this notification further constitutes acceptance of the change.

Power Integrations reserves the right to ship either version manufactured after the effective date until the inventory of the earlier version has been depleted.

If you have any questions or need further assistance, please contact your regional Power Integrations sales office. Otherwise, please check the box below, acknowledging the receipt of the PCN.

The indicated Product/Process Change Notification was received by the undersigned authority.

Name/Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Email Address/Phone#: \_\_\_\_\_

Company/Location: \_\_\_\_\_

**CUSTOMER COMMENTS**

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Please email this signed form to [pcn@power.com](mailto:pcn@power.com) specifying the PCN# in the subject.

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