

Control No. PCN-17271

July 17, 2017

PRODUCT/PROCESS CHANGE NOTIFICATION

TYPE OF CHANGE: Design Manufacturing Other

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

DESCRIPTION OF CHANGE

The eeSIP assembly process of the HiperLCS family is being modified to add copper wire bonding as an alternative process. Currently, the affected products are assembled with gold wire bonds only.

REASON FOR CHANGE

Improvement in the manufacturing capacity and flexibility. The copper wire bonding process has been widely adopted by the IC packaging industry in recent years. This change will provide Power Integrations access to additional bonding equipment at its contract manufacturing assembly facilities.

PRODUCTS AFFECTED

LCS700HG, LCS700HG0186, LCS701HG, LCS702HG, LCS702HG0103, LCS703HG, LCS705HG, LCS708HG
LCS700LG, LCS701LG

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.

EFFECTIVE DATE

October 17, 2017. This date is subject to change.

SAMPLE AVAILABILITY

Samples are available upon request.

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Appendix 1
Reliability Engineering
Qualification Report

Qualification Project: E172008

Project Title: HiperLCS Cu Wire Bonding qualification
<p>Summary:</p> <p>HiperLCS products were subjected to reliability stress testing to qualify Cu wire bonding and all required tests were completed with passing results. TMCL was conducted on one lot each of LCS703HG and LCS708HG with both lots passing 1700 cycles (2X the JEDEC requirement). Assembly-level data including bond pull, ball shear and stitch pull were conducted with passing results. Yield analysis was performed with acceptable results obtained.</p> <p>Based on these results, all HiperLCS products in eeSIP packages are now approved for assembly with Cu wire.</p>

Reliability Test Descriptions and Conditions

Test Name	Conditions	Reference Specification
TMCL (Temperature Cycle, Air to Air)	-40°C to +125°C, air-to=air	EIA/JESD22-A104D

TMCL (Temperature Cycling)

Product	Lot	Package	Test Duration	Failures/Sample Size
LCS703HG	M4L845H	eeSIP (eSIP-16J)	1700 cycles	0/47
LCS708HG	M4L845G	eeSIP (eSIP-16J)	1700 cycles	0/47

Conclusion: Based on the above qualification results, HiperLCS products in eeSIP packages (eSIP-16J and eSIP-16K) are now approved for assembly with Cu wire.

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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

Please email this signed form to pcn@power.com specifying the PCN# in the subject.

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