



Product Change Notification

ENP-PCN-2010-02 Rev 01
Jan 5, 2011

PCN Overview

PCN Original Issue Date:	April 12, 2010
Type of Change Notification:	Assembly material change
Qualification Complete:	Dec 15, 2010
Sample Availability:	Jan 5, 2011
Expected First Ship Date:	Feb 15, 2011
Last Date to Buy Pre-Change Product:	N/A
Products Affected:	EN5337QI, EN5327QI, EA101BCM, EN109INT, EX3AV
Reference Documents:	JEDEC Standard JESD46C Prod Mark Spec OP-L01a

PCN Revision History:

Revision Date: April 12, 2010	Revision Number: 00	Reason: initial issue
Revision Date: Jan 5, 2011	Revision Number: 01	Reason: qualification complete

Description of Change

Enpirion is converting to copper wire as a qualified wire bond material for QFN devices.

Enpirion reserves the right to ship devices with either gold or copper wire bonds.

Customer Impact of Change and Recommended Action

There is no customer impact since there is no change in form, fit, function, reliability, quality and safety of the products.

Reason for Change

Copper wire is increasingly becoming the material of choice for wire bonding in the semi-conductor industry due to the spiraling cost of gold. Addition of copper wire as a qualified material for assembly is an integral part of Enpirion's cost containment strategy while enabling manufacturing flexibility and ensuring long term continuity of supply.

Product Identification

Products with copper wire will be easily identifiable by the letter C at the end of the Lot Number on the second row of the device marking.

Copper Wire

○ EN5337QI
XXXXXC
XYWWW

Gold Wire

○ EN5337QI
XXXXX
XYWWW

Product Qualification Data

Devices manufactured with copper wire bonds.

Item	Reliability Test	Test Condition & Standard	Test Results (Qty: Pass/Fail)		
			Lot #1	Lot #2	Lot #3
1	High Temperature Operating Life (HTOL)	JESD22-A108 (125°C, Vin-max, 1000 hours)	27/0	27/0	27/0
2	High Temperature Storage (HTS)	JESD22-A-103-C (150°C, 1000 hours, Condition B)	80/0	80/0	80/0
3	Pre-Conditioning	JESD22-A-113 and J-STD-020	240/0	160/0	160/0
4	Temperature Humidity Bias with Pre-Conditioned Devices from Item 3	JESD22-A101 (85°C/85%RH, Vin-max, 1000 hours)	80/0	—	—
5	Autoclave with Pre-Conditioned Devices from Item 3	JESD22-A102C (100%RH, 121°C, 96 hours, Condition C)	80/0	80/0	80/0
6	Temperature Cycle with Pre-Conditioned Devices from Item 3	-65°C to +150°C / 500 cycles JESD22-A104, Condition C, Soak Mode 5	80/0	80/0	80/0

Product characterization data and product samples will be available on request.

Customer Acknowledgement

Customers are requested to acknowledge this notification within 30 days of its issue date. Lack of response within 30 days of PCN release will constitute an acceptance of the change.

Please contact Enpirion at customerservice@enpirion.com, your manufacturers' representative, or distributor if you have any issues with this PCN or require additional information.

Customer: _____ Name: _____
 Title: _____ Phone: _____ Email: _____
 Customer Comments: _____
 Customer Signature: _____ Date: _____

Contact Information

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To locate your area Representative or Distributor visit the Enpirion Website: www.enpirion.com

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