



PRODUCT AND PROCESS CHANGE NOTIFICATION

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ISSUE DATE: 07-Apr-2016
NOTIFICATION: 16960
TITLE: 1.2um IDR Technology Device PLCC 44/52/68/84 Cu Wire Qualification in Amkor Technology Philippines (ATP1)
EFFECTIVE DATE: 04-Oct-2016

DEVICE(S)

MPN
MC68711E20CFNE4
MC68HC11E1VFNE3
MC68HC11E1VFNE3R
MC68HC705C8ACFNE
MC705C8ACFNER
MCHC11F1VFNE4
MCHC11F1VFNE4R
MCHSC705C8ACFNE
MCHSC705C8ACFNER
S711E20E0VFNE2
S711E20E0VFNE2R
SC705C8AE0VFNE

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AFFECTED CHANGE CATEGORIES

- ASSEMBLY SITE
- BILL OF MATERIAL CHANGE (SAME ASSEMBLY SITE)

DESCRIPTION OF CHANGE

NXP Semiconductor announces the assembly site transfer for the parts with PLCC44/52/68 packages list in this notification from the current NXP-ATKL, Kuala Lumpur, Malaysia, assembly Facility to the Subcon Amkor Technology Philippines (ATP1), Muntinlupa, Philippines Facility with Cu wire conversion

NXP Semiconductor announces the addition of Copper Wire as a wire bond material for the products with PLCC84 package that is currently assembled in Amkor Technology Philippines (ATP1)..

The summary of the changes as shown in below table.

Package Description	LPN	Mask Set	Assembly Site Original	Assembly Site New	Wire Original	Wire New	Leadframe Original(mm)	Leadframe New(mm)	Mold Compound Original	Mold Compound New	Die Attach Original	Die Attach New
PLCC44	HC705C8A	M24Z	ATKL	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 5.08 x 6.858	Solid Flag 6.35 x 6.35	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC52	HC05B6	N20B	ATKL	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 7.112 x 7.112	Solid Flag 6.35 x 6.35	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC52	HC11E0	M28Z	ATKL	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 6.55 x 7.26	Solid Flag 6.35 x 6.35	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC52	HC11E1	M28Z	ATKL	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 6.55 x 7.26	Solid Flag 6.35 x 6.35	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC52	HC11E9	M28Z	ATKL	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 6.55 x 7.26	Solid Flag 6.35 x 6.35	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC52	HC711E20	M07Z	ATKL	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 9.552 x 8.225	Solid Flag 10.03 x 8.51	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC68	HC11F1	M88Y	ATKL	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 6.985 x 8.128	Solid Flag 7.62 x 7.62	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC84	HC711K4	N78E	ATP1	No change	1.2mils Au	1.0mils Cu	Solid Flag 12.065 x 8.89	No change	SUMITOMO G600	Panasonic X8410KA-RC	ABLESTICK 8361J	No Change

REASON FOR CHANGE

Qualification of Subcon Amkor Technology Philippines (ATP1), Muntinlupa, Philippines Assembly Facility is to ensure customer supply assurance.

The conversion from Gold to Copper wire is required to mitigate against raw material cost increases and for supply assurance.

ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)

The form changes are summarized in above table. No Impact to fit or function. Reliability is equivalent or improved.

According to JEDEC Standard JESD46, lack of acknowledgement of this PCN within 30 days will be considered acceptance of change. To request further data or inquire about the notification, please enter a [Support Case](#). **Be aware that after you select this link to enter your request, you must choose the topic "Product Change Notification" once on the Salesforce page.**

For sample inquiries - please go to www.nxp.com

QUAL DATA AVAILABILITY DATE: 11-Mar-2016

QUALIFICATION STATUS: COMPLETED

QUALIFICATION PLAN:

See attached qualification results

RELIABILITY DATA SUMMARY:

See attached qualification results

ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical Distribution comparison, Gold wire in NXP-ATKL, Kuala Lumpur, Malaysia versus Copper wire in Subcon ATP1, Muntinlupa, Philippines is included in this notification. Results show no difference in Electrical Distributions.

CHANGED PART IDENTIFICATION:

There is no change to orderable part number. The Tracecode marking on the device includes assembly site and datecode. NXP will have traceability by assembly site and datecode.

For PLCC44/52/68, the current assembly site marking is (QQ) for NXP Semiconductor Kuala Lumpur assembly site and will change to (ZR) for the Subcon Amkor Technology Philippines (ATP1).

Below Cu KC parts are available for customers to order and will need 6 weeks' cycle time for delivery from customer order date.

Device	Production Part Number in ATKL	Cu Sample Part Number in ATP1	Package Description
HC711E20	MC68711E20MFNE2	KC711E20MFNE2	PLCC52
HC11F1	MCHC11F1VFNE3	KC11F1VFNE3	PLCC68

Device	Production Part Number in ATP1	Cu Sample Part Number in ATP1	Package Description
HC711K4	SC711KC4VFNE4	KC711K4VFNE4	PLCC84

SAMPLE AVAILABILITY DATE: 18-Mar-2016

ATTACHMENT(S):

External attachment(s) FOR this notification can be viewed AT:

[16960 ATP1 PLCC Transfer & Cu Conver Official Qual Report Auto.pdf](#)

[16960 ED HC711K4 Cu vs Gold PCN16960.pdf](#)

[16960 DeQuMa ATP Transfer & Cu Conversion PCN16960 3.pdf](#)

[16960 CofDC Summary \(ATP PLCC Cu Wire\) 4.pdf](#)