



**INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #20419**

Generic Copy

**Issue Date:** 05-Apr-2014

**TITLE:** Punch QFN transfer to Amkor Philippines (P1) due to Amkor Korea (K1) Closure

**PROPOSED FIRST SHIP DATE:** between 3/1/2015 and 6/1/2015, depending on body size. More accurate date will be referenced in FPCN

**AFFECTED CHANGE CATEGORY(S):** Product/Package Transfer to an existing Mfg site WITH not yet qualified technology

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office

**NOTIFICATION TYPE:**

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change.

**DESCRIPTION AND PURPOSE:**

Amkor is closing the Korea K1 Plant per type of package according to the following plan. Assembly manufacturing operations for all Leadframe products now assembled in K1 will need to move to Philippines, P1 Plant.

Package	Body size	FPCN Release (forecast)	ATK Shutdown date
Punch QFN	10x10	14wk46	15wk48
	7x7	14wk46	15wk48
	5x5	14wk50	15wk48
	6x6	14wk56	15wk48



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K1 bill of materials and process will be supported in P1.

Summarize on the table below are the packages for transfer and its equivalent bill of materials:

<b>BOM for Matte Tin Lead finish</b>	<b>ATK1</b>	<b>ATP1</b>	<b>Remarks</b>
<b>Leadframe</b>	CuAg	CuAg	No Change
<b>Epoxy</b>	CRM1085A/ 8200NC	CRM1085A/ 8200NC	No Change
<b>Mold compound</b>	G700	G700	No Change

<b>BOM for NiPdAu Lead Finish</b>	<b>ATK1</b>	<b>ATP1</b>	<b>Remarks</b>
<b>Leadframe</b>	PPF	PPF	No Change
<b>Epoxy</b>	8200NC	8200NC	No Change
<b>Mold compound</b>	G700	G700	No Change



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**QUALIFICATION PLAN:**

The qualification is performed per type of package.

The principle of similarity will be applied: 1 qualification on 1 representative product will serve for all products qualified.

A set of equipment from ATK1 will be transferred to ATP1 to perform the qualification.

Estimated Date for Qualification Completion: 2014wk42

Samples should be available after completion of Qualification at FPCN release.

TEST	CONDITIONS	CHECKPOINTS
Moisture Preconditioning <ul style="list-style-type: none"> <li>• Bake</li> <li>• Humidity Soak</li> <li>• Reflow</li> </ul>	125°C 30°C / 60% RH 260°C	24 hrs 192 hrs 3 cycles
Scanning Acoustic Microscopy	J-STD-020	Pre and Post MSL
Temperature Cycling (TC)	- 65°C to 150°C	500 cycles
High Temperature Storage (HTS)	150°	500, 1000 hrs
Preconditioning TC	- 55°C to 125°C	100 cycles
Unbiased Highly Accelerated Stress Test (UHAST)	130°C / 85% RH or 110°C / 85% RH	96 hrs 264 hrs
Physical Dimensions (PD)	JESD22-B100 JESD22-B108	Standard
Wire Bond Pull (WBP)	MIL- STD883 Method 2011 Cond. C or D. Minimum pull strength after temperature cycle = 3 grams	Standard
Wire Bond Shear (WBS)	AEC-Q100-001	Standard
Solderability (SD)	JESD22-B102	Standard
X-Ray	Mil STD 883 D meth 2012 & Mil STD 883 D meth 2030	Standard



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**List of affected General Parts:**

ADP4100JCPZ-REEL  
ADP4101JCPZ-REEL  
ADT7462ACPZ-REEL  
AMIS-49250-XTD  
NCV53480MN1G  
NCV53480MN1R2G  
NCV7518MWTXG