Integrated Device Technology, Inc.
6024 Silver Creek Valley Road, San Jose, CA - 95138

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1506-01** DATE: **18-Aug-2015**

Product Affected: VFQFPN-100
Refer to Attachment II for the affected part numbers

Date Effective: **18-Nov-2015**

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark
- ■ Back Mark
- ☐ Date Code
- ☐ Other

Lot # will have:
"U" prefix for UTAC, Thailand

Contact: IDT PCN DESK

E-mail: pcndesk@idt.com

Attachment: ■ Yes ☐ No

Samples: Please contact your local sales representative for sample request.

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
- ☐ Wafer Fabrication Process
- ☐ Assembly Process
- ☐ Equipment
- ☐ Material
- ☐ Testing
- ■ Manufacturing Site
- ☐ Data Sheet
- ☐ Other

This notification is to advise our customers that IDT is transferring the affected products assembled at Amkor, Korea (ATK) to UTAC, Thailand (UTL) as ATK will discontinue their assembly tooling for these products.

There is no change to the moisture performance.

Attachment I details the qualification results and
Attachment II shows the affected list of part numbers.

RELIABILITY/QUALIFICATION SUMMARY:

Refer to qualification data shown in Attachment I.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.
IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: ____________________ ☐ ***Approval for shipments prior to effective date.***

Name/Date: ____________________ E-Mail Address: ____________________

Title: ____________________ Phone# /Fax# : ____________________

CUSTOMER COMMENTS: ____________________

IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: ____________________ DATE: ____________________

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ATTACHMENT I - PCN # : A1506-01

PCN Type: Manufacturing Site - Transfer Assembly Location

Data Sheet Change: None

No change in moisture sensitivity level (MSL)

Detail Of Change:

This notification is to advise our customers that IDT is transferring the affected products assembled at Amkor, Korea (ATK) to UTAC, Thailand (UTL) as ATK will discontinue their assembly tooling for these products.

The material set details of the current and new assembly location is as shown in Table 1. The die attach and mold compound used at the new assembly are qualified IDT materials. There is no change from the existing qualified lead frame material, lead finish, and wire for the new assembly location.

There is no change to the moisture performance.

Table 1: Assembly Material Sets for The Existing and New Assembly Location

	Existing Assembly (ATK, Korea)	**New Assembly (UTL, Thailand)**
Die Attach	CRM1085A	8600
Wire	Cu wire	Cu wire
Mold Compound	G700	G770HCD

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ATTACHMENT I - PCN # : A1506-01

Qualification Information and Qualification Data:

Affected Packages: VFQFPN-100

Assembly Material: The affected package type is using UTL standard materials shown on page 2 of this attachment.

Qual Plan & Results: Tests are in accordance with JEDEC47 recommended tests.

Qualification Vehicle: VFQFPN-100

Test Description	Test Method	Test Results (Rej / SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/30	0/30	0/30
* HAST - biased (130 °C/85% RH, 264 Hrs)	JESD22-A110	0/30	0/30	0/30
High Temperature Storage Bake (150°C, 1000 Hrs)	JESD22-A103	0/30	0/30	0/30

* Tests were subjected to Preconditioning per JESD22-A113 prior to stress test

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PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT II - PCN # : A1506-01

Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
8C54916NLGI	8V54816ANLG	8V54816ANLGI	8V54816NLG
8C54916NLGI8	8V54816ANLG8	8V54816ANLGI8	8V54816NLG8

Attachment III- Package Comparizons

	Pkg and Si Attribute	Current Site ATK, Korea	New Site UTL, Thailand
Pkg	Pkg type	NLG100 (Punch version)	NLG100 (Sawn version)
	Pkg x & y (mm)	12 X 12	12 X 12
	Pkg z (mm)	min - 0.80; max - 0.90	min - 0.80; max - 0.90
	Max Voltage	NA	NA
	Capacitors	NA	NA
Silicon & FLI	Si Process	No change	No change same wafer
	Wafer Size	No change	No change same wafer
	Die size (mm2)	No change	No change same wafer
	Die Aspect Ratio	No change	No change same wafer
	Die thickness (mils)	No change	No change same wafer
	Polyimide (Y/N)	No change	No change same wafer
	Silicon Metal Layers	No change	No change same wafer
	Scribe Width (um)	No change	No change same wafer
	UBM source	No change	No change same wafer
	Silicon UBM Stack-up	No change	No change same wafer
	Bump source	No change	No change same wafer
	Bump pitch I/O & Core (um)	No change	No change same wafer
	Total Bump count	No change	No change same wafer
	Bump Diameter	No change	No change same wafer
	Bump Height	No change	No change same wafer
	Bump Metallurgy	No change	No change same wafer
	Wafer Bump Flux	No change	No change same wafer
	CAM Flux	No change	No change same wafer
	Underfill Material	No change	No change same wafer
	Silicon UBM/SRO	No change	No change same wafer
Substrate	Halogen Free ?	NA	NA
	Substrate Layers	NA	NA
	Substrate thickness	NA	NA
	Core thickness (um)	NA	NA
	Core Material	NA	NA
	Outer layer Lines/space (um)	NA	NA
	Bump Pre-solder (SOP)	NA	NA
	Bump presolder (SOP) height/diameter	NA	NA
	Bump Capture Pad/SRO IO (um)	NA	NA
	Substrate Ball Capture Pad/SRO (um)	NA	NA
	Number of PTH/M1-M2 uVias	NA	NA
	Core PTH/Capture pad (um)	NA	NA
	Substrate Design Rule & BOM	NA	NA
	Substrate Supplier	NA	NA
	Build up layer (thickness)	NA	NA
	Solder mask (thickness)	NA	NA
	C1 & C4 thickness (plate)	NA	NA
	C2 & C3 thickness (foil + plate)	NA	NA
	Surface finish (thickness)	NA	NA
SLI	2nd level Ball count	NA	NA
	2nd level BA Flux	NA	NA
	2nd Ball Dia (mm)	NA	NA
	2nd level metallurgy	NA	NA
	2nd level ball pitch (mm)	NA	NA