



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>A1504-04</b> <b>DATE:</b> <b>3-Jul-2015</b> <b>Product Affected:</b> SSOP-48, 56 and TVSOP-48 Refer to Attachment II for the affected part numbers  <b>Date Effective:</b> <b>3-Oct-2015</b>	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input type="checkbox"/> Product Mark                      Lot # will have: <input checked="" type="checkbox"/> Back Mark                            "A" prefix for OSET, Taiwan <input type="checkbox"/> Date Code <input type="checkbox"/> Other
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<b>Contact:</b> IDT PCN DESK  <b>E-mail:</b> <a href="mailto:pcndesk@idt.com">pcndesk@idt.com</a>	<b>Attachment:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <b>Samples:</b> Please contact your local sales representative for sample request.
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**DESCRIPTION AND PURPOSE OF CHANGE:**

<input type="checkbox"/> Die Technology	This notification is to advise our customers that IDT is transferring the affected products assembled at Amkor, Philippines (ATP) to OSET, Taiwan (OSET) as ATP will discontinue their assembly tooling for this product.
<input type="checkbox"/> Wafer Fabrication Process	
<input type="checkbox"/> Assembly Process	There is no change to the moisture performance.
<input type="checkbox"/> Equipment	
<input type="checkbox"/> Material	
<input type="checkbox"/> Testing	Attachment I details the qualification results and Attachment II shows the affected list of part numbers.
<input checked="" type="checkbox"/> Manufacturing Site	
<input type="checkbox"/> Data Sheet	
<input type="checkbox"/> Other	

**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: _____	<input type="checkbox"/> <i>Approval for shipments prior to effective date.</i>
Name/Date: _____	E-Mail Address: _____
Title: _____	Phone# /Fax# : _____

**CUSTOMER COMMENTS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**IDT ACKNOWLEDGMENT OF RECEIPT:**

RECD. BY: \_\_\_\_\_                      DATE: \_\_\_\_\_



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT I - PCN # : A1504-04

**PCN Type:** Manufacturing Site - Transfer Assembly Location

**Data Sheet Change:** None

**Detail Of Change:**

This notification is to advise our customers that IDT is transferring the affected products assembled at Amkor, Philippines (ATP) to OSET, Taiwan (OSET) as ATP will discontinue their assembly tooling for this product. Presently, OSET is a qualified IDT Subcontractor.

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 Locations

	Existing Assembly: ATP	New Assembly: OSET
Die Attach	Ablestik 8290	EN4900GC
Wire	Au wire	Au wire
Mold Compound	EME G600	CEL- 9220HF, CEL-9200HF



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### ATTACHMENT I - PCN # : A1504-04

#### Qualification Information and Qualification Data:

**Affected Packages:** SSOP-48, SSOP-56 and TVSOP-48

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

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

**Qualification Vehicle:** SSOP-28, SSOP-48, SSOP-56

Test Description	Test Method	Test Results (Rej / SS)		
		SSOP-28	SSOP-48	SSOP-56
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/25	0/24 <sup>#</sup>	0/25
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/25	0/25	0/24 <sup>#</sup>
High Temperature Storage Test (150 °C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25

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

# Mechanical reject



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT II - PCN # : A1504-04

#### Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
74FCT16373ATPVG8	74LVCH16245APVG	74FCT162373ATPVG8	74FCT163244APFG
74FCT16952ETPVG	952906BFLFT	74FCT162373CTPVG	74FCT163244APFG8
74FCT16952ETPVG8	952911BFLF	74FCT162373CTPVG8	74FCT163244APVG
74LVC162244APFG	952911BFLFT	74FCT162374ATPVG	74FCT163244APVG8
74LVC162244APFG8	954119DFLF	74FCT162374ATPVG8	74FCT163244CPFG
74LVC162245APFG	954119DFLFT	74FCT162374CTPVG	74FCT163244CPFG8
74LVC162245APFG8	960013BFLF	74FCT162374CTPVG8	74FCT163244CPVG
74LVC162245APVG	960013BFLFT	74FCT162374ETPVG	74FCT163244CPVG8
74LVC162245APVG8	9FG830AFILF	74FCT162374ETPVG8	74FCT163245APVG
74LVC16244APVG	9FG830AFILFT	74FCT16244ATPVG	74FCT163245APVG8
74LVC16244APVG8	9FG830AFLF	74FCT16244ATPVG8	74FCT163245CPVG
74LVC16373APVG	9FG830AFLFT	74FCT16244CTPVG	74FCT163245CPVG8
74LVC16373APVG8	9LP505-2HFLF	74FCT16244CTPVG8	74FCT163374APVG
74LVC16374APVG	9LP505-2HFLFT	74FCT16245ATPVG	74FCT163374APVG8
74LVC16374APVG8	9P960AFLF	74FCT16245ATPVG8	74FCT163374CPVG
74LVC16601APVG	9P960AFLFT	74FCT16245CTPVG	74FCT163374CPVG8
74LVC16601APVG8	LDS6120PVG I	74FCT162373ATPVG	74FCT162H245ATPVG8
74FCT16952CTPVG8	952906BFLF	74FCT162260CTPVG8	74FCT162H245ATPVG
74FCT16952CTPVG	952906AFLFT	1893BFILFT	74FCT162500ATPVG
74FCT16373CTPVG	74LVCH16245APVG8	1893BFLF	74FCT162500ATPVG8
74FCT16373CTPVG8	74LVCH16374APVG	1893BFLFT	74FCT162500CTPVG
74FCT16374ATPVG	74LVCH16374APVG8	74ALVC164245PVG	74FCT162500CTPVG8
74FCT16374ATPVG8	9248DF-39LF	74ALVC164245PVG8	74FCT162501ATPVG
74FCT16374CTPVG	9248DF-39LFT	74FCT162244ATPVG	74FCT162501ATPVG8
74FCT16374CTPVG8	9250BF-27LF	74FCT162244ATPVG8	74FCT162501CTPVG
74FCT16543ATPVG	9250BF-27LFT	74FCT162244CTPVG	74FCT162501CTPVG8
74FCT16543ATPVG8	950201AFLF	74FCT162244CTPVG8	74FCT162511ATPVG
74FCT16543CTPVG	950201AFLFT	74FCT162244ETPVG	74FCT162511ATPVG8
74FCT16543CTPVG8	950201AFLFT-IN0	74FCT162244ETPVG8	74FCT162511CTPVG
74FCT166244ATPVG	950908BFLF	74FCT162245ATPVG	74FCT162511CTPVG8
74FCT166244ATPVG8	950908BFLFT	74FCT162245ATPVG8	74FCT162827ATPVG
74FCT166244CTPVG	952601EFLF	74FCT162245CTPVG	74FCT162827ATPVG8
74FCT166244CTPVG8	952601EFLFT	74FCT162245CTPVG8	74FCT162827CTPVG
74FCT16952ATPVG	952601EFLFT-IN0	74FCT162260CTPVG	74FCT162827CTPVG8
74FCT16952ATPVG8	952906AFLF	74FCT16245CTPVG8	74FCT16373ATPVG
74LVCH162373APVG	LDS6120PVG I8	74FCT16245ETPVG	
74LVCH162373APVG8	1893BFILF	74FCT16245ETPVG8	

Package Comparison

		Current Site	New Site
	Pkg and Si Attribute	ATP	OSET
Pkg	Pkg type	PVG56/48; PFG48	PVG56/48; PFG48
	Pkg x & y (mm)	295 x 625 /295 x 725 /4.4 x 9.7 mm	295 x 625 /295 x 725 /4.4 x 9.7 mm
	Pkg z (mm)	"90 / 90 /1.0 mm	"90 / 90 /1.0 mm
	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 (mm <sup>2</sup> )	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	No change	No change same wafer
	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	