



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>A0803-02</b> <b>DATE:</b> <b>19-Sep-2008</b> <b>Product Affected:</b> TSSOP-48, TSSOP-56 (Standard and Green) Refer to Attachment II for the affected part numbers <b>Date Effective:</b> <b>19-Dec-2008</b>	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input type="checkbox"/> Product Mark <input checked="" type="checkbox"/> Back Mark        Lot # will have a "P" prefix <input type="checkbox"/> Date Code <input type="checkbox"/> Other
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<b>Contact:</b> Geoffrey Cortes <b>Title:</b> Product Quality Assurance <b>Phone #:</b> (408) 284-8321 <b>Fax #:</b> (408) 284-1450 <b>E-mail:</b> <a href="mailto:Geoffrey.Cortes@idt.com">Geoffrey.Cortes@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 & availability.
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**DESCRIPTION AND PURPOSE OF CHANGE:**

<input type="checkbox"/> Die Technology <input type="checkbox"/> Wafer Fabrication Process <input type="checkbox"/> Assembly Process <input type="checkbox"/> Equipment <input type="checkbox"/> Material <input type="checkbox"/> Testing <input checked="" type="checkbox"/> Manufacturing Site <input type="checkbox"/> Data Sheet <input type="checkbox"/> Other	<p>This notification is to advise our customers that IDT is adding Amkor, Philippines as an alternate assembly facility for TSSOP-48 and TSSOP-56, both standard and green version. There is no change to the moisture performance of these packages.</p> <p>Attachment I details the qualification data for this change and Attachment II shows the affected list of part numbers.</p>
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**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"/> <b>Approval for shipments prior to effective date.</b>
Name/Date: _____	E-Mail Address: _____
Title: _____	Phone# /Fax# : _____

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

**IDT ACKNOWLEDGMENT OF RECEIPT:**

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



## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT I - PCN # : A0803-02

**PCN Type:** Manufacturing Site - Change of 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 adding Amkor, Philippines as an alternate assembly facility for TSSOP-48 and TSSOP-56, both standard and green version. There is no change to the moisture performance of these packages using the assembly material set as listed in the below table.

#### Sample Availability:

Samples for each package type are available for customer evaluation, but may not be available for all devices.

Please contact your local IDT sales representative for your sample request and availability.

#### Qualification Information and Qualification Data:

**Affected Packages:** TSSOP-48 (PA/PAG48 packages)  
TSSOP-56 (PA/PAG56 packages)

**Assembly Material:** See Table below

Description	Existing	Add
Assembly Location	OSE, Philippines & Unisem, Indonesia	Amkor, Philippines
Assembly Materials	Die Attach: 8390 / CRM1076NS	8290
	Wire: Au wire 1.0 mil	Au wire 1.0 mil
	Mold Compound: G700L / G700LX	G700K
	Lead Frame: Copper Alloy	Copper Alloy
	Plating: Sn/Pb (standard) and matte 100% Sn (green)	Sn/Pb (standard) and matte 100% Sn (green)



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### ATTACHMENT I - PCN # : A0803-02

**Test Vehicle:** TSSOP-64 (3 lots: Lot 1 & Lot 2 - Green, Lot 3 - Standard)

**Qualification Test Plan and Results:**

Test Description	Test Method (Latest specs in effect)	Test Results (SS/Rej)		
		Lot 1	Lot 2	Lot 3
Physical Dimensions	JESD22-B100	5/0	5/0	5/0
Solderability Test	JESD22-B102	5/0	5/0	5/0
Ball Shear Test	JESD22-B116	5/0	5/0	5/0
Wire Bond Pull Test	Mil-Std-883 M2001	5/0	5/0	5/0
X-Ray Examination	IDT Spec MAC-3012	45/0	45/0	45/0
External Visual Examination	JESD22-B101	25/0	25/0	25/0
* Temperature Cycling (-55°C, +125°C , 1000 cycles)	JESD22-A104	45/0	45/0	43/0
* Biased HAST (130°C, 85% RH, 100 hours)	JESD22-A110	45/0	45/0	45/0
* Auto Clave (121°C, 100% RH, 168 hours)	JESD22-A102	45/0	45/0	45/0
Moisture Sensitivity Classification (Standard: L1 / 245°C, Green: L1 / 260°C)	J-STD-020	45/0	45/0	45/0

**Note:** \* Test require moisture pre-conditioning sequence per JESD22-A113.



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### ATTACHMENT II - PCN # : A0803-02

#### Affected Part Number

Part Number	Part Number	Part Number	Part Number
IDT5T9070PAGI	IDT7281L12PAG	IDT7284L15PA	IDT72V84L15PA8
IDT5T9070PAGI8	IDT7281L12PAG8	IDT7284L15PA8	IDT72V84L15PAG
IDT5T9070PAI	IDT7281L15PA	IDT7284L15PAGI	IDT72V84L15PAG8
IDT5T9070PAI8	IDT7281L15PA8	IDT7284L15PAGI8	IDT72V84L20PA
IDT5T907PAGI	IDT7281L15PAGI	IDT7284L15PAI	IDT72V84L20PA8
IDT5T907PAGI8	IDT7281L15PAGI8	IDT7284L15PAI8	IDT72V85L15PA
IDT5T907PAI	IDT7281L15PAI	IDT7284L20PA	IDT72V85L15PA8
IDT5T907PAI8	IDT7281L15PAI8	IDT7284L20PA8	IDT72V85L15PAG
IDT5T915PAGI	IDT7281L20PA	IDT7285L12PA	IDT72V85L15PAG8
IDT5T915PAGI8	IDT7281L20PA8	IDT7285L12PA8	IDT72V85L20PA
IDT5T915PAI	IDT7281L20PAI	IDT7285L12PAG	IDT72V85L20PA8
IDT5T915PAI8	IDT7281L20PAI8	IDT7285L12PAG8	IDT72V85L20PAGI
IDT6V40045APAG	IDT7282L12PA	IDT7285L15PA	IDT72V85L20PAGI8
IDT6V40045APAG8	IDT7282L12PA8	IDT7285L15PA8	IDT74ALVC162244PAG
IDT6V49003APAI	IDT7282L12PAG	IDT7285L15PAGI	IDT74ALVC162244PAG8
IDT6V49003APAI8	IDT7282L12PAG8	IDT7285L15PAGI8	IDT74ALVC162245PAG
IDT6V49003BPAI	IDT7282L15PA	IDT7285L15PAI	IDT74ALVC162245PAG8
IDT6V49003BPAI8	IDT7282L15PA8	IDT7285L15PAI8	IDT74ALVC162334PAG
IDT6V49004APAI	IDT7282L15PAGI	IDT7285L20PA	IDT74ALVC162334PAG8
IDT6V49004APAI8	IDT7282L15PAGI8	IDT7285L20PA8	IDT74ALVC16244APAG
IDT6V49004BPAI	IDT7282L15PAI	IDT7285L20PAI	IDT74ALVC16244APAG8
IDT6V49004BPAI8	IDT7282L15PAI8	IDT7285L20PAI8	IDT74ALVC16245PA
IDT6V49010APAG	IDT7282L20PA	IDT72V81L15PA	IDT74ALVC16245PA8
IDT6V49010APAG8	IDT7282L20PA8	IDT72V81L15PA8	IDT74ALVC16245PAG
IDT6V49011BPAG	IDT7282L20PAG	IDT72V81L15PAG	IDT74ALVC16245PAG8
IDT6V49011BPAG8	IDT7282L20PAG8	IDT72V81L15PAG8	IDT74ALVC164245PAG
IDT6V49053PAGI	IDT7282L20PAI	IDT72V81L20PA	IDT74ALVC164245PAG8
IDT6V49053PAGI8	IDT7282L20PAI8	IDT72V81L20PA8	IDT74ALVCH162244PAG
IDT6V49053PAI	IDT7283L12PA	IDT72V81L20PAG8	IDT74ALVCH162244PAG8
IDT6V49053PAI8	IDT7283L12PA8	IDT72V81L20PAI	IDT74ALVCH162245PAG
IDT7280L12PA	IDT7283L12PAG	IDT72V81L20PAI8	IDT74ALVCH162245PAG8
IDT7280L12PA8	IDT7283L12PAG8	IDT72V82L15PA	IDT74ALVCH162373PAG
IDT7280L12PAG	IDT7283L15PA	IDT72V82L15PA/6280	IDT74ALVCH162373PAG8
IDT7280L12PAG8	IDT7283L15PA8	IDT72V82L15PA8	IDT74ALVCH162374PAG
IDT7280L15PA	IDT7283L15PAGI	IDT72V82L15PAG	IDT74ALVCH162374PAG8
IDT7280L15PA8	IDT7283L15PAGI8	IDT72V82L20PA	IDT74ALVCH16244PAG
IDT7280L15PAI	IDT7283L15PAI	IDT72V82L20PA8	IDT74ALVCH16244PAG8
IDT7280L15PAI8	IDT7283L15PAI8	IDT72V83L15PA	IDT74ALVCH16245PAG
IDT7280L20PA	IDT7283L20PA	IDT72V83L15PA8	IDT74ALVCH16245PAG8
IDT7280L20PA8	IDT7283L20PA8	IDT72V83L15PAG	IDT74ALVCH16260PAG
IDT7280L20PAI	IDT7284L12PA	IDT72V83L15PAG8	IDT74ALVCH16260PAG8
IDT7280L20PAI8	IDT7284L12PA8	IDT72V83L20PA	IDT74ALVCH162820PAG
IDT7281L12PA	IDT7284L12PAG	IDT72V83L20PA8	IDT74ALVCH162820PAG8
IDT7281L12PA8	IDT7284L12PAG8	IDT72V84L15PA	IDT74ALVCH16501PAG



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Part Number	Part Number	Part Number	Part Number
IDT74ALVCH16501PAG8	IDT74FCT162374CTPAG8	IDT74FCT163344CPAG8	IDT74FST163245PAG8
IDT74ALVCH16721PAG	IDT74FCT162374ETPAG	IDT74FCT163373APAG	IDT74FST1632861PAG
IDT74ALVCH16721PAG8	IDT74FCT162374ETPAG8	IDT74FCT163373APAG8	IDT74FST1632861PAG8
IDT74ALVCH16823PAG	IDT74FCT16244ATPAG	IDT74FCT163373CPAG	IDT74FST32XL2384PAG
IDT74ALVCH16823PAG8	IDT74FCT16244ATPAG8	IDT74FCT163373CPAG8	IDT74FST32XL2384PAG8
IDT74ALVCH16863PAG	IDT74FCT16244CTPAG	IDT74FCT163374APAG	IDT74FST32XL384PAG
IDT74ALVCH16863PAG8	IDT74FCT16244CTPAG8	IDT74FCT163374APAG8	IDT74FST32XL384PAG8
IDT74ALVCH16903PAG	IDT74FCT16245ATPAG	IDT74FCT163374CPAG	IDT74LVC162244APAG
IDT74ALVCH16903PAG8	IDT74FCT16245ATPAG8	IDT74FCT163374CPAG8	IDT74LVC162244APAG8
IDT74ALVCHR162245PAG	IDT74FCT16245CTPAG	IDT74FCT16373ATPAG	IDT74LVC162245APAG
IDT74ALVCHR162245PAG8	IDT74FCT16245CTPAG8	IDT74FCT16373ATPAG8	IDT74LVC162245APAG8
IDT74ALVCHR16601PAG	IDT74FCT16245ETPAG	IDT74FCT16373CTPAG	IDT74LVC16244APAG
IDT74ALVCHR16601PAG8	IDT74FCT16245ETPAG8	IDT74FCT16373CTPAG8	IDT74LVC16244APAG8
IDT74CBTLV16210PAG	IDT74FCT162501ATPAG	IDT74FCT16374ATPAG	IDT74LVC16245APAG
IDT74CBTLV16210PAG8	IDT74FCT162501ATPAG8	IDT74FCT16374ATPAG8	IDT74LVC16245APAG8
IDT74CBTLV16211PAG	IDT74FCT162501CTPAG	IDT74FCT16374CTPAG	IDT74LVC16344APAG
IDT74CBTLV16211PAG8	IDT74FCT162501CTPAG8	IDT74FCT16374CTPAG8	IDT74LVC16344APAG8
IDT74CBTLV16212PAG	IDT74FCT162511ATPAG	IDT74FCT16374ETPAG	IDT74LVC16373APAG
IDT74CBTLV16212PAG8	IDT74FCT162511ATPAG8	IDT74FCT16374ETPAG8	IDT74LVC16373APAG8
IDT74CBTLV16245PAG	IDT74FCT162511CTPAG	IDT74FCT163827APAG	IDT74LVC16374APAG
IDT74CBTLV16245PAG8	IDT74FCT162511CTPAG8	IDT74FCT163827APAG8	IDT74LVC16374APAG8
IDT74CBTLV16292PAG	IDT74FCT162823ATPAG	IDT74FCT163827CPAG	IDT74LVC16501APAG
IDT74CBTLV16292PAG8	IDT74FCT162823ATPAG8	IDT74FCT163827CPAG8	IDT74LVC16501APAG8
IDT74CBTLV16800PAG	IDT74FCT162823CTPAG	IDT74FCT164245TPAG	IDT74LVC16601APAG
IDT74CBTLV16800PAG8	IDT74FCT162823CTPAG8	IDT74FCT164245TPAG8	IDT74LVC16601APAG8
IDT74FCT162244ATPAG	IDT74FCT162827ATPAG	IDT74FCT16501ATPAG	IDT74LVC16823APAG
IDT74FCT162244ATPAG8	IDT74FCT162827ATPAG8	IDT74FCT16501ATPAG8	IDT74LVC16823APAG8
IDT74FCT162244CTPAG	IDT74FCT162827CTPAG	IDT74FCT16501CTPAG	IDT74LVC16827APAG
IDT74FCT162244CTPAG8	IDT74FCT162827CTPAG8	IDT74FCT16501CTPAG8	IDT74LVC16827APAG8
IDT74FCT162244ETPAG	IDT74FCT162H245ATPAG	IDT74FCT16543ATPAG	IDT74LVCH162244APAG
IDT74FCT162244ETPAG8	IDT74FCT162H245ATPAG8	IDT74FCT16543ATPAG8	IDT74LVCH162244APAG8
IDT74FCT162245ATPAG	IDT74FCT162H245CTPAG	IDT74FCT16543CTPAG	IDT74LVCH162245APAG
IDT74FCT162245ATPAG8	IDT74FCT162H245CTPAG8	IDT74FCT16543CTPAG8	IDT74LVCH162245APAG8
IDT74FCT162245CTPAG	IDT74FCT163244APAG	IDT74FCT16543ETPAG	IDT74LVCH162373APAG
IDT74FCT162245CTPAG8	IDT74FCT163244APAG8	IDT74FCT16543ETPAG8	IDT74LVCH162373APAG8
IDT74FCT162373ATPAG	IDT74FCT163244CPAG	IDT74FCT16952ATPAG	IDT74LVCH162374APAG
IDT74FCT162373ATPAG8	IDT74FCT163244CPAG8	IDT74FCT16952ATPAG8	IDT74LVCH162374APAG8
IDT74FCT162373CTPAG	IDT74FCT163245APAG	IDT74FCT16952CTPAG	IDT74LVCH16244APAG
IDT74FCT162373CTPAG8	IDT74FCT163245APAG8	IDT74FCT16952CTPAG8	IDT74LVCH16244APAG8
IDT74FCT162373ETPAG	IDT74FCT163245CPAG	IDT74FCT16952ETPAG	IDT74LVCH16245APAG
IDT74FCT162373ETPAG8	IDT74FCT163245CPAG8	IDT74FCT16952ETPAG8	IDT74LVCH16245APAG8
IDT74FCT162374ATPAG	IDT74FCT163344APAG	IDT74FST163244PAG	IDT74LVCH16373APAG
IDT74FCT162374ATPAG8	IDT74FCT163344APAG8	IDT74FST163244PAG8	IDT74LVCH16373APAG8
IDT74FCT162374CTPAG	IDT74FCT163344CPAG	IDT74FST163245PAG	IDT74LVCH16374APAG



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Part Number	Part Number	Part Number	Part Number
IDT74LVCH16374APAG8	IDT74LVCHR16646APAG8	IDTQS3VH16212PAG8	IDTQS3VH16800PAG8
IDT74LVCH16543APAG	IDT74LVCR162245APAG	IDTQS3VH16233PAG	IDTQS3VH16861PAG
IDT74LVCH16543APAG8	IDT74LVCR162245APAG8	IDTQS3VH16233PAG8	IDTQS3VH16861PAG8
IDT74LVCH16646APAG	IDTQS3VH16210PAG	IDTQS3VH16244PAG	IDTQS3VH16862PAG
IDT74LVCH16646APAG8	IDTQS3VH16210PAG8	IDTQS3VH16244PAG8	IDTQS3VH16862PAG8
IDT74LVCHR162245APAG	IDTQS3VH16211PAG	IDTQS3VH16245PAG	IDTVP386PAG
IDT74LVCHR162245APAG8	IDTQS3VH16211PAG8	IDTQS3VH16245PAG8	IDTVP386PAG8
IDT74LVCHR16646APAG	IDTQS3VH16212PAG	IDTQS3VH16800PAG	