



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

| | |
|---|---|
| PCN #: A0803-02 DATE: 19-Sep-2008 Product Affected: TSSOP-48, TSSOP-56 (Standard and Green) Refer to Attachment II for the affected part numbers Date Effective: 19-Dec-2008 | MEANS OF DISTINGUISHING CHANGED DEVICES: <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 |
|---|---|

| | |
|---|---|
| Contact: Geoffrey Cortes Title: Product Quality Assurance Phone #: (408) 284-8321 Fax #: (408) 284-1450 E-mail: Geoffrey.Cortes@idt.com | Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Samples: Please contact your local sales representative for sample request & availability. |
|---|---|

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> |
|--|---|

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: _____



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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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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Affected Part Number

| 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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Affected Part Number

| 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 | |