



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>A1107-02</b> <b>DATE:</b> <b>December 5, 2011</b> <b>Product Affected:</b> 14.0mm x 14.0mm TQFP-100 (standard & green) (Refer to Attachment 2 for affected part#)  <b>Date Effective:</b> <b>March 5, 2012</b>	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input type="checkbox"/> Product Mark <input checked="" type="checkbox"/> Back Mark      Lot # will have a "Y" suffix <input type="checkbox"/> Date Code <input type="checkbox"/> Other
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<b>Contact:</b> Mary Vesey <b>Title:</b> Director, Product Assurance <b>Phone #:</b> (408) 284-4565 <b>Fax #:</b> (408) 284-1450 <b>E-mail:</b> <a href="mailto:Mary.Vesey@idt.com">Mary.Vesey@idt.com</a>	<b>Attachment:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <b>Samples:</b> Contact your local IDT sales representative for sample requests.
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**DESCRIPTION AND PURPOSE OF CHANGE:**

<input type="checkbox"/> Die Technology	This notification is to advise our customers that IDT is adding additional package type, 14.0mm x 14.0mm TQFP-100 (standard & green) converting to Copper bond wire process at PTU, Indonesia and plans to ship products with Copper bond wire process starting March 5, 2012.
<input type="checkbox"/> Wafer Fabrication Process	
<input type="checkbox"/> Assembly Process	
<input type="checkbox"/> Equipment	
<input checked="" type="checkbox"/> Material	There is no change to the moisture performance of these packages.
<input type="checkbox"/> Testing	
<input type="checkbox"/> Manufacturing Site	Please refer to the following attachments for additional information. Attachment 1 outlines the qualification data. Attachment 2 shows the affected part numbers.
<input type="checkbox"/> Data Sheet	
<input type="checkbox"/> Other	

**RELIABILITY/QUALIFICATION SUMMARY:**  
There is no expected change to the product quality or reliability performance.

**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:** \_\_\_\_\_

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**IDT ACKNOWLEDGMENT OF RECEIPT:**

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



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT 1 - PCN # : A1107-02

**PCN Type:** Assembly Material Change - Gold wire to Copper wire

**Data Sheet Change:** None

**Detail Of Change:**

This notification is to advise our customers that IDT is adding additional package type, 14.0mm x 14.0mm TQFP-100 (standard & green) converting to Copper bond wire process at PTU, Indonesia and plans to ship products with Copper bond wire process starting March 5, 2012.

Presently, PTU, Indonesia is a qualified assembly location for Copper bond wire process on the following packages:

SOIC 14, 16  
VFQFPN 64, 72  
TSSOP 48, 56, 64  
SSOP 48, 56

Customers may expect to receive shipments with Copper bond wire process no sooner than 90 days from the issue date of this notification. Product assembled with Gold and Copper wire will be shipped during the transition period or until the Gold wire inventory has been depleted. However please note that product assembled with Gold and Copper wire will not be mixed in one tray stack, or tape and reel.

We request you to acknowledge receipt of this notification within 30 days of the date of this PCN notification. If you require samples to conduct evaluations, please make your sample request within 30 days as samples are not built ahead of the change for all device options. You may contact your local sales representative to acknowledge this PCN and request samples.



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### ATTACHMENT 1 - PCN # : A1107-02

**Assembly Material:** 0.9 mil Copper wire. There is no change in the mold compound and die attach materials. The material set used in assembly is in compliance with RoHS 5 (standard products) and ROHS 6 (green products) requirement. There is no change in the moisture sensitivity performance.

**Sample Availability:** Samples are not built ahead of the change for all device types and may not be available for all affected device types.  
Please contact your local IDT sales representative for your sample request and availability.

#### Qualification Test Result:

##### 1. Copper Bond Wire Qual Results

Qual Vehicle: 14.0mm x 14.0mm TQFP-100 (PNG100 green), 3 lots

Qual Plan#: P10-12-08

Test Description	Test Method	Test Results (SS / Rej)		
		Lot1	Lot2	Lot3
* High Accelerated Stress Test (Biased, 130 °C/85% RH, 100 Hrs)	JESD22-A110	25/0	25/0	25/0
* Temperature Cycle / Condition B (-55 °C to +125 °C, 1000 Cyc)	JESD22-A104	25/0	25/0	25/0
High Temp. Storage Test (150 °C, 1000 Hrs)	JESD22-A103	25/0	25/0	25/0
Ball Shear Test	JESD22-B116	5/0	5/0	5/0
Wire Bond Pull Test	IDT Spec MAC-3010	5/0	5/0	5/0
X-ray Examination	IDT Spec MAC-3012	45/0	45/0	45/0

Note:

\* Test requires moisture pre-conditioning sequence per JESD22-A113C and will use the existing moisture sensitivity level that has been qualified for this material set.

##### 2. Product Electrical Characterization

Product electrical characterization has been successfully completed on the representative product in the family and copper wire performance was comparable to gold wire performance.



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT 2 - PCN # : A1107-02

#### Affected Part Number

Part Number	Part Number	Part Number	Part Number
7290820PF	77301L12PFI8	77V107L25PFI9	82V3380PF8
7290820PF8	77301L12PFI9	82V3280APFG	82V3380PFG
7290820PF9	77301L15PF	82V3280APFG8	82V3380PFG8
72V70200PF	77301L15PF8	82V3280HPF	82V3380PFGI
72V70200PF8	77301L15PF9	82V3280HPF8	82V3380PFGI8
72V70200PF9	77305L12PF	82V3280HPFG	82V3380PFI
72V70200PFG	77305L12PF8	82V3280HPFG8	82V3380PFI8
72V70200PFG8	77305L12PF9	82V3280PF	82V3385APFG
72V70820PF	77305L12PFI	82V3280PF8	82V3385APFG8
72V70820PF8	77305L12PFI8	82V3280PFG	82V3385PFG
72V70820PF9	77305L12PFI9	82V3280PFG8	82V3385PFG8
72V90823APFG	77305L15PF	82V3281PF	82V3385PFGI
72V90823APFG8	77305L15PF8	82V3281PF8	82V3385PFGI8
72V90823PF	77305L15PF9	82V3283PF	82V5097APFG
72V90823PF8	77305L15PFI	82V3283PF8	82V5097APFG8
72V90823PF9	77305L15PFI8	82V3283PFG	82V5097BPFG
72V90823PFG	77305L15PFI9	82V3283PFG8	82V5097BPFG8
72V90823PFG8	77V107L25PF	82V3285APFG	82V5097PFG
77301L12PF	77V107L25PF8	82V3285APFG8	82V5097PFG8
77301L12PF8	77V107L25PF9	82V3380APFG	
77301L12PF9	77V107L25PFI	82V3380APFG8	
77301L12PFI	77V107L25PFI8	82V3380PF	