



Integrated Device Technology, Inc.  
6024 Silver Creek Valley Road  
San Jose, CA 96138

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>A1010-01</b> <b>DATE:</b> <b>January 5, 2011</b> <b>Product Affected:</b> 7.0mm x 7.0mm TQFP-32 (green) & 10.0mm x 10.0mm TQFP-52 (green) (Refer to Attachment 2 for affected part#)  <b>Date Effective:</b> <b>April 5, 2011</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@com">Mary.Vesey@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	
<input type="checkbox"/> Wafer Fabrication Process	This notification is to advise our customers that IDT is adding additional package types in Copper bond wire process to be built at PT Unisem, Indonesia and plans to ship products with Copper bond wire process starting April 5, 2011.
<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.
<input type="checkbox"/> Data Sheet	Attachment 1 outlines the qualification data.
<input type="checkbox"/> Other	Attachment 2 shows the affected part numbers.

**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# : _____
<b>CUSTOMER COMMENTS:</b> _____	

**IDT ACKNOWLEDGMENT OF RECEIPT:**

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



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### ATTACHMENT 1 - PCN # : A1010-01

**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 types in Copper bond wire process to be built at PT Unisem, Indonesia and plans to ship products with Copper bond wire process starting April 5, 2011. Presently, PT Unisem Indonesia is a qualified assembly location for Copper bond wire process on package VFQFN-64, VFQFN-72, TSSOP-48, TSSOP-56, TSSOP-64, SSOP-48 and SSOP-56.

There is no change to the moisture performance of these packages.

Customers may expect to receive shipments with Copper wire process no sooner than 90 days from the date of this notification, January 5, 2011. 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 and evaluation, 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 # : A1010-01**

**Assembly Material :** There is no change in the mold compound and die attach materials. The material set used in assembly is in compliance with ROHS 6 (green products) requirement.

**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: i) 7.0mm x 7.0mm TQFP-32

Qual Plan#: P09-11-07

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	<sup>1</sup> 24/0
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.

1 One unit mechanical reject due to broken leads as such unable to test on ATE



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**ATTACHMENT 1 - PCN # : A1010-01**

Qual Vehicle: ii) 10.0mm x 10.0mm TQFP-52  
 Qual Plan#: P09-11-02

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 representative product families and copper wire performance was comparable to gold wire performance.



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**PRODUCT/PROCESS CHANGE NOTICE (PCN)**

**ATTACHMENT 2 - PCN # : A1010-01**

**Affected Part Number**

Part Number	Part Number	Part Number	Part Number
5T93GL061PFGI	84021AYLFT	8432BYI-51LF	85310AYI-01LFT
5T93GL061PFGI8	84021BYLF	8432BYI-51LFT	85310AYI-01LN
5T9950APFGI	84021BYLFT	8432CY-111LF	85310AYI-01LNT
5T9950APFGI8	8402AYILF	8432CY-111LFT	85310AYI-01LNT-IBO
5T9950PFGI	8402AYILFT	8432CY-11LF	85310AYI-11LF
5T9950PFGI8	8402AYLF	8432CY-11LFT	85310AYI-11LFT
5V9351PFGI	8402AYLFT	8432DY-101LF	85310AYI-21LN
5V9351PFGI8	8427DY-02LF	8432DY-101LFT	85310AYI-21LNT
5V9352PFGI	8427DY-02LFT	8432DYI-101LF	853111AYLF
5V9352PFGI8	843020AY-01LF	8432DYI-101LFT	853111AYLFT
5V994PFGI	843020AY-01LFT	84330AY-03LF	8531AY-01LF
5V994PFGI8	8430AY-61LF	84330AY-03LFT	8531AY-01LFT
5V9950PFGI	8430AY-61LFT	84330BY-03LF	853210AYLF
5V9950PFGI8	8430AY-62LF	84330BY-03LFT	853210AYLFT
8312AYILF	8430AY-62LFT	84330BYLF	8532AY-01LF
8312AYILFT	8430AYI-61LF	84330BYLF-IBO	8532AY-01LFT
8312AYLF	8430AYI-61LFT	84330BYLFT	853S031BYILF
8312AYLFT	8430AYI-71LF	84330BYLFT-IBO	853S031BYILFT
8343AY-01LF	8430AYI-71LFT	84330BYLN	853S031CYILF
8343AY-01LFT	8430BY-71LF	84330BYLNT	853S031CYILFT
8343AYI-01LF	8430BY-71LFT	84330BYLNT-IBO	853S031DYILF
8343AYI-01LFT	8430BYI-71LF	84330CYILF	853S031DYILFT
83918AYILF	8430BYI-71LFT	84330CYLNT	853S111AYILF
83918AYILFT	8430DY-111LF	84330CYLN	853S111AYILFT
83940AY-02LF	8430DY-111LFT	84330CYLNT	853S310BYILF
83940AY-02LFT	8430EY-01LF	843S2807DYLF	853S310BYILFT
83940AYI-02LF	8430EY-01LFT	843S2807DYLFT	854110AYILF
83940AYI-02LFT	8430EY-11LF	844008BYI-15LF	854110AYILFT
83940BYLF	8430EY-11LFT	844008BYI-15LFT	854210CYLF
83940BYLFT	84314AY-02LF	8442AYILF	854210CYLFT
83940DY-01LF	84314AY-02LFT	8442AYILFT	8602BYLF
83940DY-01LFT	84314AYLF	8442AYLF	8602BYLFT
83940DYI-01LF	84314AYLFT	8442AYLFT	8624BYILF
83940DYI-01LFT	843202AYILF	851010AYLF	8624BYILFT
83940DYILF	843202AYILFT	851010AYLFT	8624BYLF
83940DYILFT	84320AY-01LN	85210AY-31LF	8624BYLFT
83940DYLF	84320AY-01LNT	85210AY-31LFT	8634BY-01LF
83940DYLFT	84320AYI-01LF	8521AYI-03LN	8634BY-01LFT
83947AYI-147LF	84320AYI-01LFT	8521AYI-03LNT	86953BYI-147LF
83947AYI-147LFT	84321AYILF	8521AYI-03LNT-IBO	86953BYI-147LFT
83947AYILN	84321AYILFT	8521BYILF	8705BYI-01LF
83947AYILNT	84321AYLF	8521BYILFT	8705BYI-01LFT
83948AYI-01LF	84321AYLFT	8521BYLF	8705BYILF
83948AYI-01LFT	84329AYLF	8521BYLFT	8705BYILFT
83948AYI-147LF	84329AYLFT	8521BYLN	8705BYLF
83948AYI-147LFT	84329BYLF	8521BYLNT	8705BYLFT



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83948AYILF	84329BYLFT	853031AYLF	8725AY-01LF
83948AYILFT	8432BY-51LF	853031AYLFT	8725AY-01LFT
84021AYLF	8432BY-51LFT	85310AYI-01LF	8725AYI-01LF

### ATTACHMENT 2 - PCN # : A1010-01

#### Affected Part Number

Part Number	Part Number	Part Number	Part Number
8725AYI-01LF-TLBS	87946AYI-147LF	MC100ES8111AC	MPC9447ACR2
8725AYI-01LFT	87946AYI-147LFT	MC100ES8111ACR2	MPC9448AC
8725BY-01LF	87946AYILF	MC68160AEB	MPC9448ACR2
8725BY-01LFT	87946AYILFT	MC68160AEBR2	MPC9449AE
87322BYILF	87949AYI-147LF	MC68160BAE	MPC9449AER2
87322BYILFT	87949AYI-147LFT	MC68160BAER2	MPC9456AC
8732AY-01LF	87949AYILF	MPC9109AC	MPC9456ACR2
8732AY-01LFT	87949AYILFT	MPC9109ACR2	MPC9608AC
8732AYI-01LF	87950BYILF	MPC9229AC	MPC9608ACR2
8732AYI-01LFT	87950BYILFT	MPC9229ACR2	MPC961CAC
8733BY-01LF	87951AYI-147LF	MPC9230AC	MPC961CACR2
8733BY-01LFT	87951AYI-147LFT	MPC9230ACR2	MPC961PAC
8735AY-01LF	87951AYILF	MPC9239AC	MPC961PACR2
8735AY-01LFT	87951AYILFT	MPC9239ACR2	MPC9653AAC
8735AY-200LF	87952AY-147LF	MPC92429AC	MPC9653AAC/W
8735AY-200LFT	87952AY-147LFT	MPC92429ACR2	MPC9653AACR2
8735AY-31LF	87952AYI-147LF	MPC92439AC	MPC9658AC
8735AY-31LFT	87952AYI-147LFT	MPC92439ACR2	MPC9658ACR2
8735AYI-01LF	87952AYI-149LF	MPC92469AC	MPC9772AE
8735AYI-01LFT	87952AYI-149LFT	MPC92469ACR2	MPC9772AER2
8735AYI-200LF	87972DYI-147LF	MPC9315AC	MPC9773AE
8735AYI-200LFT	87972DYI-147LFT	MPC9315ACR2	MPC9773AER2
873990AYLF	87972DYILF	MPC9330AC	MPC9774AE
873990AYLFT	87972DYILFT	MPC9330ACR2	MPC9774AER2
873991AY-147LF	87973DYI-147LF	MPC9331AC	MPC97H73AE
873991AY-147LFT	87973DYI-147LFT	MPC9331ACR2	MPC97H73AER2
873991AYLF	87973DYILF	MPC9350AC	MPC97H74AE
873991AYLFT	87973DYILFT	MPC9350ACR2	MPC97H74AER2
8745BYILF	87974BYILN	MPC9351AC	MPC9824AC
8745BYILFT	87974BYILNT	MPC9351ACR2	MPC9824ACR2
8745BYLF	87974CYILF	MPC9352AC	MPC9992AC
8745BYLFT	87974CYILFT	MPC9352ACR2	MPC9992ACR2
8752CYILF	87993AYILF	MPC93H51AC	MPC9993AC
8752CYILFT	87993AYILFT	MPC93H51ACR2	MPC9993ACR2
8752CYLF	8N3QX01XEYLF	MPC93H52AC	MPC99J93AC
8752CYLFT	8N3QX01XEYLFT	MPC93H52ACR2	MPC99J93ACR2
8752DYILF	8N3QX01XFYLF	MPC93R51AC	SC97H73XAE
8752DYILFT	8N3QX01XFYLFT	MPC93R51ACR2	SC97H73XAER2
87608AYILF	8N3SXXXXAYLF	MPC93R52AC	
87608AYILFT	8N3SXXXXAYLFT	MPC93R52ACR2	
87608AYILFT-IBO	MC100ES6111AC	MPC940LAC	
87608BYILF	MC100ES6111AC/W	MPC940LACR2	
87608BYILFT	MC100ES6111ACR2	MPC942CAC	
87931AYI-147LF	MC100ES6210AC	MPC942CACR2	
87931AYI-147LFT	MC100ES6210ACR2	MPC942PAC	



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87931BYILF	MC100ES6226AC	MPC942PACR2	
87931BYILFT	MC100ES6226ACR2	MPC9446AC	
87946AYI-01LF	MC100ES6254AC	MPC9446ACR2	
87946AYI-01LFT	MC100ES6254ACR2	MPC9447AC	