



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: A0709-01 DATE: 16-Nov-2007 Product Affected: 14mm x 14mm TQFP-100 (Standard and Green) Refer to Attachment II for the affected part numbers Date Effective: 16-Feb-2008		MEANS OF DISTINGUISHING CHANGED DEVICES: ☐ Product Mark ☒ Back Mark Lot # will have a "L" prefix ☐ Date Code ☐ Other					
Contact: Geoffrey Cortes Title: Product Quality Assurance Attachment: ☒ Yes ☐ No Phone #: (408) 284-8321 Fax #: (408) 284-1450 Samples: Please contact your local sales representative for sample request & availability. E-mail: Geoffrey.Cortes@idt.com							
DESCRIPTION AND PURPOSE OF CHANGE: <table style="width: 100%;"><tr><td style="width: 30%; vertical-align: top;">☐ Die Technology ☐ Wafer Fabrication Process ☐ Assembly Process ☐ Equipment ☐ Material ☐ Testing ☒ Manufacturing Site ☐ Data Sheet ☐ Other</td><td style="vertical-align: top;">This notification is to advise our customers that IDT is changing the assembly of 14mm x 14mm TQFP-100 both standard and green version from AMKOR, Korea to ASAT, China. There is no change to the moisture performance of these packages. Attachment I details the qualification data for this change and Attachment II shows the affected list of part numbers.</td></tr></table>		☐ Die Technology ☐ Wafer Fabrication Process ☐ Assembly Process ☐ Equipment ☐ Material ☐ Testing ☒ Manufacturing Site ☐ Data Sheet ☐ Other	This notification is to advise our customers that IDT is changing the assembly of 14mm x 14mm TQFP-100 both standard and green version from AMKOR, Korea to ASAT, China. There is no change to the moisture performance of these packages. Attachment I details the qualification data for this change and Attachment II shows the affected list of part numbers.				
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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.							
<table style="width: 100%;"><tr><td style="width: 50%;">Customer: _____</td><td style="width: 50%;">☐ <i>Approval for shipments prior to effective date.</i></td></tr><tr><td>Name/Date: _____</td><td>E-Mail Address: _____</td></tr><tr><td>Title: _____</td><td>Phone# /Fax# : _____</td></tr></table>		Customer: _____	☐ <i>Approval for shipments prior to effective date.</i>	Name/Date: _____	E-Mail Address: _____	Title: _____	Phone# /Fax# : _____
Customer: _____	☐ <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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ATTACHMENT I - PCN # : A0709-01

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 changing the assembly of 14mm x 14mm TQFP 100 both standard and green version from AMKOR, Korea to ASAT, China. There is no change to the moisture performance of these packages using the assembly material set as listed in the tables under each group.

There is no change in the moisture sensitivity level (MSL).

Attachment II shows the affected part numbers.

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.



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Qualification Information and Qualification Data:

Affected Packages: TQFP
14mm 14mm 100L (DQ/DQG packages)

Assembly Material: See Table below

Description	Existing	Add
Assembly Location	AMKOR, Korea	ASAT, China
Assembly Materials	Die Attach: Ablestik 3230	2200
	Wire: 1.0 mil Au	1.0 mil Au
	Mold Compound: EME-G700L	G700
	Lead Frame: Copper Alloy	Copper Alloy
	Plating: Sn/Pb (standard) and matte 100% Sn (green)	Sn/Pb (standard) and matte 100% Sn (green)

Qualification Plan #: P07-09-04

Test Vehicle: 14mm x 14mm TQFP-52

Qualification Test Plan and Results:

Test Description	Test Method	Test Results (SS/Rej)
* Temperature Cycling (Cond B, 1000 cycles)	JESD22-A104	77/0
* Auto Clave (121°C, 100% RH, 96 hours)	JESD22-A102	77/0
High Temperature Stabilization Bake (150 °C, 1000 hours)	JESD22-A103	77/0

Notes: * Test requires moisture pre-conditioning sequence per JESD22-A113.



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Tin Whisker Evaluation Test Data (JESD22A121 / JESD201)

Test Vehicle: 7mm x 7mm TQFP-48 and 14mm x 20mm LQFP-100

Test Description	Test Condition	Test Duration	Spec Limits	Test Results (SS/Rej)
High Temperature / Humidity Storage	60°C / 87% RH	0, 1000, 2000, 3000 hours	< 40µm	6/0, 6/0, 6/0
Ambient Temperature / Humidity Storage	30°C / 60% RH	0, 1000, 2000, 3000 hours	< 40µm	6/0, 6/0, 6/0
Temperature Cycling	-55°C to +85°C	0, 500, 1000 cycles	< 40µm	6/0, 6/0, 6/0



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Affected Part Number

Part Number	Part Number	Part Number
IDT82V3280DQ	IDT82V3285DQ	IDT82V3380DQGI
IDT82V3280DQG	IDT82V3285DQG	IDT82V3380DQI

Notes: For T & R (shipping method) "8" suffix is added to the IDT part# respectively.