



Integrated Device Technology, Inc.  
2975 Stender Way, Santa Clara, CA - 95054

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<p>PCN #: <b>A-0310-01</b>                      DATE: 10/10/2003</p> <p>Product Affected: <b>Not Applicable</b> <b>(New Product Offering)</b></p> <p>Date Effective: 10/10/2003</p>	<p>MEANS OF DISTINGUISHING CHANGED DEVICES:</p> <p><input checked="" type="checkbox"/> Product Mark     "G" character in the package code (New ordering Part # for Green Parts)</p> <p><input type="checkbox"/> Back Mark</p> <p><input type="checkbox"/> Date Code</p> <p><input type="checkbox"/> Other</p>
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<p>Contact: Geoffrey Cortes</p> <p>Title: Corporate QA / Reliability Manager</p> <p>Phone #: (408) 492- 8321</p> <p>Fax #: (408) 727-2328</p> <p>E-mail: <a href="mailto:Geoffrey.Cortes@idt.com">Geoffrey.Cortes@idt.com</a></p>	<p>Attachment::            <input checked="" type="checkbox"/> Yes            <input type="checkbox"/> No</p> <p>Samples:                      See attachment</p>
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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	<p>In order to support customer's lead free applications, IDT has been proactively developing and qualifying Green Products. Green products are in compliance with industry standard for lead, halogen and antimony contents. Green parts can be identified by the package code that is marked on the part. The package code will incorporate an extra "G" character.</p>
<input type="checkbox"/> Equipment	
<input type="checkbox"/> Material	
<input type="checkbox"/> Testing	
<input type="checkbox"/> Manufacturing Site	
<input type="checkbox"/> Data Sheet	
<input checked="" type="checkbox"/> Other	Please see attachment for additional details.

**RELIABILITY/QUALIFICATION SUMMARY:**

Reliability test data is available upon request.

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



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### ATTACHMENT - PCN #: A-0310-01

**PCN Type:** Green product offering

**Detail of Change:** In order to support customer's lead free applications, IDT will be offering Green products in phases. Green parts are in compliance with industry standard for lead, halogen, and antimony contents. Initially, samples and low volume production will be offered for selective devices/packages.

Green products will have different ordering part numbers. Green parts can be identified by the package code that is marked on the part. The package code will incorporate an extra "G" character. For example: PY20 is the package code for SSOP20 products. PYG20 is the package code for Green SSOP product. Hence the ordering part number for conventional device type IDT74FCT3244PY is changed to IDT74FCT3244PYG for green part.

Green Parts are assembled using material sets that are selected for their superior properties and low moisture absorption. Green parts are qualified using JEDEC-Std-020B for moisture sensitivity classification with peak reflow temperature of 260°C. Please see below the recommended 260°C reflow profile. Reliability tests include Auto Clave, HAST, Temperature Cycle, Solderability, Storage tests, and tin whisker inspection.

Reliability test data is available upon request.

For the solder finish/material, IDT uses pure matte tin plating finish for the leaded and MLF packages and Sn/Ag/Cu solder balls for the array packages. These materials are industry preferred materials and are chosen for their reliability, availability and lower cost.

IDT has a comprehensive infrastructure in place and will continue to support the existing conventional product offerings (leads/balls containing lead) as long as demand supports the manufacturing infrastructure.

Please contact your local sales representative for sample and production availability.



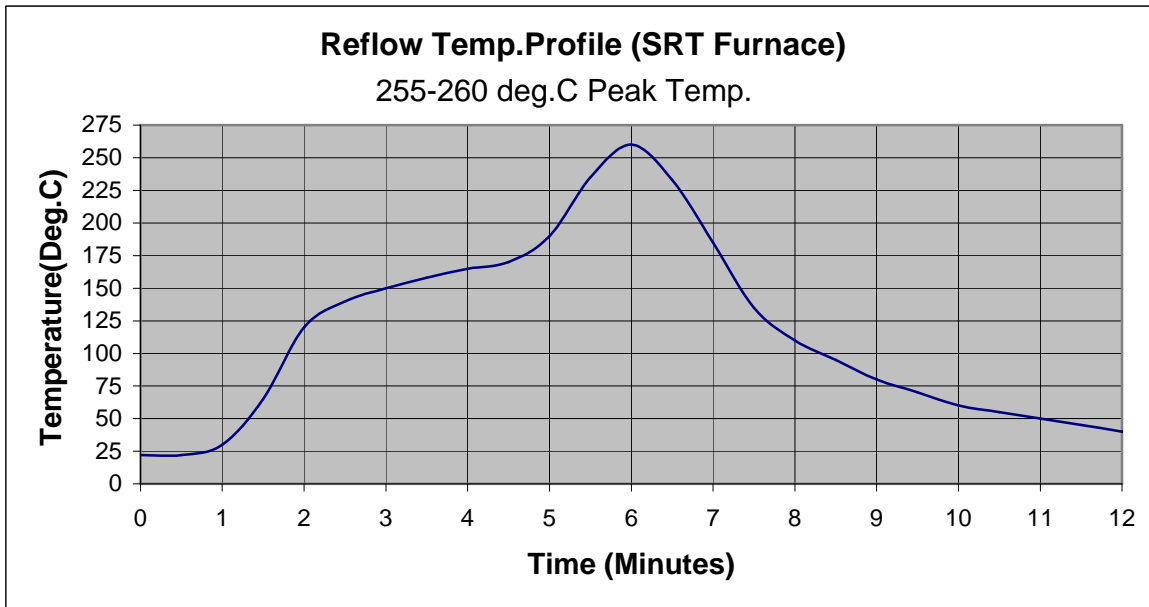
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# IDT 260°C Reflow Profile

Parameter	Value
Max. Ramp-up Rate (200°C to Peak)	3°C/second
Preheat Time (175°C ± 25°C)	60-180 seconds
Time Maintained Above 217°C	60-150 seconds
Time within 5°C of actual Peak Temp	20-40 seconds
Peak Temperature	255°C +5/-0°C
Max. Ramp-Down Rate	6°C/second
Time 25°C to Peak Temperature	8 minutes max.



**NEMI recommendation**