



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> A1010-03 <b>Product Affected:</b> TSI310A-133CE TSI310A-133CEY  <b>Date Effective:</b> 28-Jan-2011	<b>DATE:</b> 28-Oct-2010	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input type="checkbox"/> Product Mark <input type="checkbox"/> Back Mark <input type="checkbox"/> Date Code <input checked="" type="checkbox"/> Other      Heatslug aligns with corners
------------------------------------------------------------------------------------------------------------------------------	--------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Contact:</b> PS Tow <b>Title:</b> Director, Corporate Quality & Reliability <b>Phone #:</b> (408) 284-8206 <b>Fax #:</b> (408) 284-1450 <b>E-mail:</b> <a href="mailto:PStow@idt.com">PStow@idt.com</a>	<b>Attachment:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <b>Samples:</b> N/A
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------

**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 checked="" type="checkbox"/> Material <input type="checkbox"/> Testing <input type="checkbox"/> Manufacturing Site <input type="checkbox"/> Data Sheet <input type="checkbox"/> Other - Packaging	<p>This notification is to advise our customers that IDT is switching to PPT laminate substrate from Ibiden laminate substrate for TSI310 as a result of discontinuance of HPBGA laminate by Ibiden.</p> <p>Attachment I details the qualification results for this change.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**RELIABILITY/QUALIFICATION SUMMARY:**

There is no impact with regards to the package performance or reliability.

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



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT I - PCN #: A1010-03

**PCN Type:** Assembly Material Change

**Data Sheet Change:** None

**Detail of Change:** This notification is to advise our customers that IDT is switching to PPT laminate substrate from Ibsiden laminate substrate for TSI310 as a result of discontinuance of HPBGA laminate by Ibsiden.

Table 1 outlines the comparizon between the existing Ibsiden laminate versus the new PPT laminate.

Description	Ibsiden (Existing Vendor)	PPT (New Vendor)
Corners	One large chamfer, three small chamfers	-
Thickness (not including solder balls)	1140 um	1040 um
VIAs	-	Additional GND connection
Layers:		
Solder mask	AUS5	AUS8
Core	E679FB	HL832EX
Spreader thickness	500 um	400 um
Spreader appearance	Inset, edge inside laminate outline	No inset, edge even with laminate



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT I - PCN #: A1010-03

**Test Vehicle:** 31mm HPBGA

**Qualification Test Plan and Result:**

Description	Method	Result (# of Reject / SS)
* Temperature Cycle (-55 degree C to 125 degree C @ 1000 cycle)	JESD22-A104D	0/45
* High Accelerated Stress Test (Unbiased, 130 °C/85% RH, 96 Hrs)	JESD22-A118	0/45

Note:

\* Test requires moisture pre-conditioning sequence per JESD22-A113 and will use the existing moisture sensitivity level that has been qualified for this material set.