



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: <b>W1503-02</b> DATE: <b>April 13, 2015</b> Product Affected: 74CBTLV3244QG, 74CBTLV3244QG8, 74CBTLV3244PGG, 74CBTLV3244PGG8  Date Effective: <b>July 13, 2015</b>	MEANS OF DISTINGUISHING CHANGED DEVICES: <input type="checkbox"/> Product Mark <input type="checkbox"/> Back Mark <input checked="" type="checkbox"/> Date Code      Prefix SA5 before datecode <input type="checkbox"/> Other
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Contact: IDT PCN DESK  E-mail: <a href="mailto:pcndesk@idt.com">pcndesk@idt.com</a>	Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Samples: Available upon request
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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 <input type="checkbox"/> Equipment <input type="checkbox"/> Material <input type="checkbox"/> Testing <input checked="" type="checkbox"/> Manufacturing Site <input type="checkbox"/> Data Sheet <input type="checkbox"/> Other	<p>This notification is to advise our customers that IDT has successfully completed the transfer of the above part numbers wafer fab production from IDT Hillsboro, Oregon (Fab 4) to Taiwan Semiconductor Manufacturing Corporation (TSMC).</p> <p>There is no expected change to the data sheet, package or backend manufacturing process.</p> <p>There is no change to ordering part number and device top mark.</p>
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**RELIABILITY/QUALIFICATION SUMMARY:**

Based on wafer and component level qualification and characterization tests, there is no change to the performance or reliability of the product.

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

### **ATTACHMENT I - PCN # : W1503-02**

**PCN Type:** Wafer Fab Manufacturing Site Change - IDT Fab 4 to TSMC

**Data Sheet Change:** No

**Detail Of Change:**

This notification is to advise our customers that IDT has successfully completed the transfer of the above part numbers wafer fab production from IDT Hillsboro, Oregon (Fab 4) to Taiwan Semiconductor Manufacturing Corporation (TSMC).

TSMC has closely matched the IDT Fab 4 process for this transferred part, using the same design rules of the existing product.

There is no expected change to the data sheet, package or backend manufacturing process. Characterization data of material manufactured at TSMC is comparable to material manufactured at IDT Fab 4, Hillsboro.

There is no change to ordering part number and device top mark.

Please contact your local IDT sales representative to request samples or additional information.



### TSMC Transfer Qualification Test Result Summary

Technology Information: 0.5 μm, 3.3 V

Fab Location: TSMC Fab 3

#### Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Logic Vehicle: 40V024SA5
	Sample Size/ Rejects/ each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	79 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

#### Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Logic Vehicle: 40V024SA5
	Sample Size/ Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0
Autoclave EIA/JESD22-A102C, 168hrs @ 2 ATM, Saturated Steam @ 121°C	45 / 0

Note: For HAST, Autoclave and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A113