



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>N1308-01</b> <b>DATE:</b> <b>September 20, 2013</b> <b>Product Affected:</b> 8442AYLF, 8442AYLFT 8442AYILF, 8442AYILFT  <b>Date Effective:</b> <b>December 20, 2013</b>	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input checked="" type="checkbox"/> <b>Product Mark</b> Change of Orderable Part#. Refer to Attachment I. <input type="checkbox"/> <b>Back Mark</b> <input type="checkbox"/> <b>Date Code</b> <input type="checkbox"/> <b>Other</b>
<b>Contact:</b> TSD Clock Team  <b>E-mail:</b> <a href="mailto:clocks@idt.com">clocks@idt.com</a>	<b>Attachment:</b> <input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>  <b>Samples:</b> Contact your local sales representative for sample and datasheet requests.

**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 type="checkbox"/> Manufacturing Site <input checked="" type="checkbox"/> Data Sheet <input checked="" type="checkbox"/> Other - Die Revision	<p>This notification is to advise our customers of a silicon die revision. The current die revision A will be changed to revision B.</p> <p>IDT requests customers to use "B" revision in their newer design/projects and switch existing design/projects to "B" revision as soon as possible. Last time buy for revision A will be on 12/20/2013.</p> <p>The Data Sheet parameter for Maximum I<sub>DD</sub> will be increased from the original 155mA to 182mA and the Maximum I<sub>DDA</sub> will be reduced from 20mA to 16mA to more accurately account for a yield enhancement at cold temperature.</p>
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**RELIABILITY/QUALIFICATION SUMMARY:**

Characterization tests will verify that 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.

Customer: _____	<input type="checkbox"/> <b><i>Approval for shipments prior to effective date.</i></b>
Name/Date: _____	E-Mail Address: _____
Title: _____	Phone# /Fax# : _____

**CUSTOMER COMMENTS:** \_\_\_\_\_

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**IDT ACKNOWLEDGMENT OF RECEIPT:**

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



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### ATTACHMENT I - PCN # : N1308-01

**PCN Type:** Data Sheet & Die Revision

**Data Sheet Change:** Yes

**Details Of Change:**

This notification is to advise our customers of a silicon die revision. The current die revision A will be changed to revision B.

IDT requests customers to use "B" revision in their newer design/projects and switch existing design/projects to "B" revision as soon as possible. Last time buy for revision A will be on 12/20/2013.

Revision B has the following improvements and design enhancements/features:

- 1) Replaced the ripple counter, srip9bit04, with srip9bit08.
- 2) TEST\_CLK was changed from a CIN02L translator to a sbf20m with a voltage divider on the inb input of the buffer.
- 3) Control logic (3102c001\_configlogic01) changed to (3102c001\_configlogic02).

The Data Sheet parameter for Maximum  $I_{DD}$  will be increased from the original 155mA to 182mA and the Maximum  $I_{DDA}$  will be reduced from 20mA to 16mA to more accurately account for a yield enhancement at cold temperature. Refer to Table 1 for details of the data sheet change.

There will be a change in ordering part number and device top mark. Refer to Table 2.

There is no change to thermal and MSL specification due to this die revision.

There is no change to device process or technology.



## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT I - PCN # : N1308-01

Table 1: Datasheet Changes

From:

**TABLE 4A. POWER SUPPLY DC CHARACTERISTICS,  $V_{DD} = V_{DDA} = 3.3V \pm 5\%$ ,  $T_A = 0^\circ C$  TO  $85^\circ C$**

Symbol	Parameter	Test Conditions	Minimum	Typical	Maximum	Units
$V_{DD}$	Core Supply Voltage		3.135	3.3	3.465	V
$V_{DDA}$	Analog Supply Voltage		3.135	3.3	3.465	V
$I_{DD}$	Power Supply Current				155	mA
$I_{DDA}$	Analog Supply Current				20	mA

To:

**TABLE 4A. POWER SUPPLY DC CHARACTERISTICS,  $V_{DD} = V_{DDA} = 3.3V \pm 5\%$ ,  $T_A = 0^\circ C$  TO  $85^\circ C$**

Symbol	Parameter	Test Conditions	Minimum	Typical	Maximum	Units
$V_{DD}$	Core Supply Voltage		3.135	3.3	3.465	V
$V_{DDA}$	Analog Supply Voltage		3.135	3.3	3.465	V
$I_{DD}$	Power Supply Current				182	mA
$I_{DDA}$	Analog Supply Current				16	mA

Table 2: Ordering Part# Changes

Old Ordering Part Number	New Ordering Part Number
8442AYLF	8442BYLF
8442AYLFT	8442BYLFT
8442AYILF	8442BYILF
8442AYILFT	8442BYILFT