



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **N0905-01** DATE: **June 3, 2009**

Products Affected: IDT82V3202, IDT82V32021  
IDT82V3203A, IDT82V3203B

Refer to the attachment for affected part numbers.

Date Effective: **September 3, 2009**

### MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark  
☐ Back Mark  
☒ Date Code 0851 and Above  
☐ Other

Contact: Rodney Corpuz

Title: Product Quality Assurance

Phone #: (408) 284-8261

Fax #: (408) 284-1450

E-mail: [rcorpuz@idt.com](mailto:rcorpuz@idt.com)

Attachment: ☒ Yes ☐ No

Samples: Available now

### DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology  
☐ Wafer Fabrication Process  
☐ Assembly Process  
☐ Equipment  
☐ Material  
☐ Testing  
☐ Manufacturing Site  
☐ Data Sheet  
☒ Other

This notification is to advise our customers that IDT made a die revision on the devices listed on this PCN to be in compliant to the I<sup>2</sup>C standard. The product marking will not change.

Attachment 1 outlines the changes on the products.

Attachment 2 shows a list of the affected part numbers.

### RELIABILITY/QUALIFICATION SUMMARY:

There is no expected change to the product quality or reliability performance.

### 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 90 days of this notice it will be assumed that this change is acceptable.

Customer: \_\_\_\_\_

☐ *Approval for shipments prior to effective date.*

Name/Date: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Title: \_\_\_\_\_

Phone# /Fax# : \_\_\_\_\_

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

### IDT ACKNOWLEDGMENT OF RECEIPT:

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

DATE: \_\_\_\_\_



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT 1 - PCN # : N0905-01

**PCN Type:** Die Change

**Data Sheet Change:** Yes

#### Details Of Change:

This notification is to advise our customers that IDT made a die change on the listed devices to fix an I<sup>2</sup>C design issue. The I<sup>2</sup>C circuit of the device will not acknowledge a transaction during a write operation of I<sup>2</sup>C registers for the mismatching addresses. If the device address does not match, data will not be written to the I<sup>2</sup>C registers of the device.

According to I<sup>2</sup>C standard, only ACK (low) signal should be returned from the selected slave device in response to its address. The device responds with an acknowledge (ACK) to all addresses on the I<sup>2</sup>C bus during the address phase. This is not compliant to the I<sup>2</sup>C standard.

The die has been redesigned to fix the problem. The product marking will not change. The die fix is indicated with top mark date code of 0851 and beyond.

#### Work-around

During device discovery, software must place the device in reset so that it will not "ACK" other device addresses. When the PLL is in normal operating mode, SW should not use polling mode for device acknowledgement.

#### Verification of die change:

This die change was verified to be effective for resolving the I<sup>2</sup>C issue with validation of the device functionality and testing against the datasheet parameters

Description	Test Results
Bench Validation	PASSED
C Load Data	PASSED
Final Yield Data	NORMAL

#### Reliability:

The die revision was related to a specific application issue and product reliability is not affected.

**Affected Devices:** Refer to Attachment 2

#### Sample Availability:

Samples are now available for all affected devices.

Please contact your local IDT sales representative for your sample request.



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

### **ATTACHMENT 2 - PCN # : N0905-01**

<b>Affected Part Numbers</b>
IDT82V32021NL
IDT82V32021NLG
IDT82V3202DKG
IDT82V3202EDG
IDT82V3202NL
IDT82V3202NLG
IDT82V3203ANL
IDT82V3203ANLG
IDT82V3203BNL
IDT82V3203BNLG