



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **10401-06**

DATE: January 15, 2004

Product Affected:

IDT79RC32K438

Date Effective: April 15, 2004

MEANS OF DISTINGUISHING CHANGED DEVICES:

☐ Product Mark

☐ Back Mark

☒ Date Code

☐ Other

Prefix change from ZA to ZC

Contact: Bimla Paul

Title: Product Assurance Manager

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Attachment::

☒ Yes

☐ No

Samples:

Available upon request

### DESCRIPTION AND PURPOSE OF CHANGE:

☐ Die Technology

☐ Wafer Fabrication Process

☐ Assembly Process

☐ Equipment

☐ Material

☐ Testing

☐ Manufacturing Site

☐ Data Sheet

☒ Other

Die Revision change from "ZA"(CMOS 0.13 $\mu$ m) to "ZC"(CMOS 0.13 $\mu$ m) to enhance the device performance.

There is no change in die technology/process

### RELIABILITY/QUALIFICATION SUMMARY:

Qualification data is attached.

### 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: \_\_\_\_\_

☐ *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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### ATTACHMENT - PCN #: I0401-06

**PCN Type:** Die Revision

**Data Sheet Change** N/A

**Detail of Change** The new die revision will address the known errata items as follows:  
(URL [www.idt.com/docs/RC32438\\_ER\\_32698.pdf](http://www.idt.com/docs/RC32438_ER_32698.pdf))

1. Item # 17," DDR data strobe circuit calibration".
2. Item # 3, "Interrupt generated from Compare Register".
3. Item # 19, "VccPll Pin Failure at 500V CDM".
4. Item # 10, "Ethernet Rx packets not DMAing correctly".
5. Item # 29, "Ethernet Receive FIFO Overrun May Halt Ethernet Receive Interface".
6. Item # 11, "Ethernet Tx sends extra package".
7. Item # 4, "Ethernet TX FIFO Underflow Resulting in Lockup".

There is no change in die technology/process.

#### Conversion schedule (Estimated)

Base Device	Sample Availability	Production Shipments
IDT79RC32K438	Available	April 15, 2004



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT - PCN #: I0401-06

**Qualification Plan: QI-03-05**

**Test Vehicle: 79RC32K438**

	Required sample/# fails	Test Data
Operating Life Test (Dynamic) JESD22-A108 (1000 Hrs @125°C, Vcc = 1.4V)	77/0	77/0
Temperature cycling (JESD22-A104) (-55°C to +125°C, 1000cyc)	45/0	45/0
Autoclave (EIA/JESD22-A102, 168 hr@ 2 ATM Saturated Steam @ 121°C	45/0	45/0
Ball Shear Test (EIA/JESD22-B116, 24 hours bake @ 200°C	5/0	5/0
ESD: Human Body Model Mil-Std 883, Method 3015	3/0	3/0
ESD: Charge Device Model JESD22-C101	3/0	3/0
Latch-up, JESD 78	10/0	10/0

Note: For Autoclave and Temperature cycle, samples have been subjected to pre-conditioning per JESD22-A113 Level 3 flow.