



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: <b>10401-06</b> Product Affected: IDT79RC32K438  Date Effective: April 15,2004	DATE: January 15, 2004	MEANS OF DISTINGUISHING CHANGED DEVICES: <input type="checkbox"/> Product Mark <input type="checkbox"/> Back Mark <input checked="" type="checkbox"/> Date Code      Prefix change from ZA to ZC <input type="checkbox"/> Other
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Contact: Bimla Paul Title: Product Assurance Manager Phone #: 408-654-6419 Fax #: 408-492-8362 E-mail: <a href="mailto:bimla.paul@idt.com">bimla.paul@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:**

Die Technology  
 Wafer Fabrication Process  
 Assembly Process  
 Equipment                      Die Revision change from "ZA"(CMOS 0.13µm) to "ZC"(CMOS 0.13µm) to enhance the device performance.  
 Material  
 Testing  
 Manufacturing Site              There is no change in die technology/process  
 Data Sheet  
 Other

**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: _____	<input type="checkbox"/> <b><i>Approval for shipments prior to effective date.</i></b>
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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### 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.