



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **SR0105-01** DATE: 5/14/01
Product Affected: ZBT Product Family - Refer to attached list of part #'s.
Manufacturing Location Affected: N/A
Date Effective: 10/14/01

MEANS OF DISTINGUISHING CHANGED DEVICES:
 Product Mark "X" or "W" Character on Top Mark
 Back Mark
 Date Code
 Other

Contact: Lakshmi Srinivasan
Title: Quality Engineering Supervisor
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Fax #: (831) 754-4672
E-mail: Lakshmi.Srinivasan@idt.com

Attachment:: Yes No

Samples: Available on request

DESCRIPTION AND PURPOSE OF CHANGE:

- Die Technology
 - Wafer Fabrication Process
 - Assembly Process
 - Equipment
 - Material
 - Testing
 - Manufacturing Site
 - Data Sheet
 - Other
- This change is to upgrade the technology from CMOS 10 (.28um) to CMOS 11.5 (.18um) and allow for expanded product offerings. Refer to details on pages 2 and 4.
- Previous die revision will continue to ship during the transition to the new die revision.

RELIABILITY/QUALIFICATION SUMMARY:

Qualification Testing will verify that there is no change to the product reliability.

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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PCN Summary

PCN Type: Mask/Design Change for Die Shrink

Commodity: Memory

Forecast or Execute: Execute

Planned or Unplanned: Planned

Data Sheet Change: No Change

Detail of Change

IDT's 4Mb ZBT Product Family is migrating from Cmos 10 technology to Cmos 11.5 technology. The "W" die revision is from the same mask set as the "X" step with a few changes that will allow for faster speed grades. All of the die revisions are being manufactured in IDT's 8 Inch Hillboro Wafer Fab.

	Current Die Revision		Future Die Revision	
	Z step	Y step	X step	W step
Wafer Fab Technology	Cmos 10	Cmos 10	Cmos 11.5	Cmos 11.5
# Poly Layers	3	3	1	1
# Metal Layers	2	2	3	3
Minimum Feature Size	0.28 um	0.28 um	0.18 um	0.18 um
Die Dimensions (sq mils)	96k	96k	62k	62k

Conversion schedule (Estimated)

	Sample Availability	Production Shipments
71V546	July 15, 2001	October 15, 2001
71V547	July 15, 2001	October 15, 2001
71V3548	September 15, 2001	December 15, 2001
71V2546	July 15, 2001	October 15, 2001
71V2548	September 15, 2001	December 15, 2001
71V3556	July 15, 2001	October 15, 2001
71V3557	July 15, 2001	October 15, 2001
71V3558	September 15, 2001	December 15, 2001
71V3559	September 15, 2001	December 15, 2001
71V2556	July 15, 2001	October 15, 2001
71V2557	July 15, 2001	October 15, 2001
71V2558	September 15, 2001	December 15, 2001
71V2559	September 15, 2001	December 15, 2001



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Qualification Plan

Test Vehicle	Required Sample / # Fails	Expected Completion Date	
		9/30/2001	10/30/2001
71V3556X		LOT #1	LOT #2
Operating Life Test: Dynamic @+135°C, Vcc=4V for 750 hours	116 / 0		
Bake & Ballshear Test @ 200°C / 4 ball bonds per device	5 / 0		
Temperature Cycling: (-65°C to +150°C, 500 cycles)	45 / 0		
HAST: (Biased, 100 Hrs. @+130°C, +85%RH, 3 Atm.)	45 / 0		
Autoclave:(Unbiased, 2 Atm Saturated Steam, +121°C, 168 Hrs)	45 / 0		
ESD Human Body Model	9 / 0		
ESD Charged Device Model	6 / 0		
Latch up: (Tested to 2X Vcc)	10 / 0		

Tests are completed for unshaded areas. Product release is based on qualification of initial lot.



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Product Details:

71V546Y Family of Parts						
Part Number	Old Rev	New Rev(s)	Type	Speed	Configuration	I/O Voltage
IDT71V546	Y	X	ZBT Pipelined	100 - 133MHz	128K x 36	3.3V
IDT71V547	Y	X	ZBT Flow-Through	8.0 - 10.0 ns	128K x 36	3.3V
IDT71V2546	Y	X	ZBT Pipelined	100 - 150MHz	128K x 36	2.5V
IDT71V3548	Y	X	ZBT Pipelined	100 - 133MHz	256K x 18	3.3V
IDT71V2548	Y	X	ZBT Pipelined	100 - 150MHz	256K x 18	2.5V
71V556Z Family of Parts (Pipelined 100-133MHz and Flow-Through options)						
Part Number	Old Rev	New Rev(s)	Type	Speed	Configuration	I/O Voltage
IDT71V3556	Z	X and W	ZBT Pipelined	100 - 133MHz	128K x 36	3.3V
IDT71V2556	Z	X and W	ZBT Pipelined	100 - 133MHz	128K x 36	2.5V
IDT71V3557	Z	X and W	ZBT Flow-Through	7.5 - 8.5 ns	128K x 36	3.3V
IDT71V2557	Z	X and W	ZBT Flow-Through	7.5 - 8.5 ns	128K x 36	2.5V
IDT71V3558	Z	X and W	ZBT Pipelined	100 - 133MHz	256K x 18	3.3V
IDT71V2558	Z	X and W	ZBT Pipelined	100 - 133MHz	256K x 18	2.5V
IDT71V3559	Z	X and W	ZBT Flow-Through	7.5 - 8.5 ns	256K x 18	3.3V
IDT71V2559	Z	X and W	ZBT Flow-Through	7.5 - 8.5 ns	256K x 18	2.5V
71V556Z Family of Parts (Pipelined 166-200MHz options)						
Part Number	Old Rev	New Rev(s)	Type	Speed	Configuration	I/O Voltage
IDT71V3556	Z	W	ZBT Pipelined	166 - 200MHz	128K x 36	3.3V
IDT71V2556	Z	W	ZBT Pipelined	166 - 200MHz	128K x 36	2.5V
IDT71V3558	Z	W	ZBT Pipelined	166 - 200MHz	256K x 18	3.3V
IDT71V2558	Z	W	ZBT Pipelined	166 - 200MHz	256K x 18	2.5V