



PROCESS CHANGE NOTIFICATION PCN0304 300 MM WAFER SCHEDULE

Change Description

Effective September 2003, Altera will begin manufacturing the Stratix™ and Cyclone™ product families on 300 mm wafers using 0.13μm process technology at TSMC. The existing 200 mm and new 300 mm wafer processes are the same, and identical circuit layout is used for both processes. The electrical performance and specification will remain unchanged. Full qualification is in progress, and the associated qualification reports will be made available. See the transition date section below for details.

Reason for Change

This additional supply source improves Altera's long-term ability to support customers' high volume demands and enables Altera to continually enhance quality in the future by using TSMC's latest fabrication equipment, which lowers defect density, resulting in better quality.

Products Affected and Traceability

Devices produced on 300 mm wafers can be distinguished by the third (β), fifth, and sixth ($\alpha\alpha$) characters of the Altera® date code, which is marked on the top side of the device and on the bar code labels on the packing boxes.

Date Code Format
A X β Z $\alpha\alpha$ YYWWT

Device	Base die β for 300 mm	Process code $\alpha\alpha$ for 300 mm
EP1S25	C/D	9D/9E
EP1S10	C/D	9D/9E
EP1S20	C/D	9D/9E
EP1S30	B	9D
EP1S40	B	9D
EP1S60	B	9D
EP1S80	B	9D
EP1C3	B	9H
EP1C4	B	9H
EP1C6	B	9H
EP1C12	B	9H
EP1C20	B	9H

Process code 9E and 9H represent wire-bond packages while process code 9D represents flip-chip packages.

Transition Dates**EP1S25**

Initial qualification report: June 1, 2003
 Final qualification report: August 1, 2003
 Sample availability: June 1, 2003
 1st shipment: September 1, 2003

Other Devices:

Product Family	Device	Sample Availability	Earliest Transition Date	Qualification Report Date
Stratix	EP1S10	Q3 2003	Q4 2003	August 2003
	EP1S20	Q3 2003	Q4 2003	August 2003
	EP1S30	Q4 2003	Q1 2004	August 2003
	EP1S40	Q4 2003	Q1 2004	August 2003
	EP1S60	Q3 2003	Q4 2003	November 2003
	EP1S80	Q4 2003	Q1 2004	November 2003
Cyclone	EP1C3	Q4 2003	Q1 2004	August 2003
	EP1C4	Q1 2004	Q2 2004	August 2003
	EP1C6	Q4 2003	Q1 2004	August 2003
	EP1C12	Q4 2003	Q1 2004	August 2003
	EP1C20	Q4 2003	Q1 2004	August 2003

Notes

The package offerings for these products remain unchanged. While these packages will continue to comply with Altera specifications and JEDEC outlines, dies assembled in flip-chip packages using 300 mm wafers will have an increase in overall package thickness of 0.2 mm.

Orders for samples should be placed through your local sales representative during the sample availability quarter indicated in table above. EP1S25 orders will be accepted from June 1 to August 31, 2003.

Contact

Please contact your local Altera sales representative if you require additional information regarding this notification.