

# PROCESS CHANGE NOTIFICATION

## PCN0803

### PACKAGE-LID STIFFENER CHANGE FOR THE STRATIX FLIP-CHIP FAMILY

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#### Change Description

Altera is introducing a dimension change to the package-lid stiffener for the Stratix<sup>®</sup> FPGA flip-chip package. This effectively reduces the overall package height by approximately 0.2mm. This change does not affect the current moisture sensitivity rating levels (per JEDEC J-STD-020C).

#### Reason for Change

Altera is introducing this change as part of the continuous product-improvement process.

#### Products Affected

Table 1 lists the products affected by this change. A list of ordering part numbers is available upon request.

**Table 1: Affected Product Lines**

Stratix Product Line	Pin Count	Package Type	Product Transition Time Frame
EP1S10	484	FBGA	May 2008
	780		May 2008
EP1S20	484	FBGA	May 2008
	780		May 2008
EP1S25	780	FBGA	May 2008
	1020		May 2008
EP1S30	956	BGA	May 2008
	780	FBGA	May 2008
	1020		May 2008
EP1S40	956	BGA	May 2008
	780	FBGA	May 2008
	1020		May 2008
	1508		May 2008
EP1S60	956	BGA	May 2008
	1020	FBGA	May 2008
	1508		May 2008
EP1S80	956	BGA	May 2008
	1020	FBGA	May 2008
	1508		May 2008

**Product Traceability and Transition Dates**

Customers may receive products with this change beginning with a date code marking of 08**13** on the top of the package. See Figure 1. The products listed in Table 1 will transition to the new stiffener size as existing inventories are consumed.

**Figure 1. Date Code Marking**

Altera Date Code Marking Format
A XβZαα <b>0813</b> T

## Qualification Data

Qualification data is summarized in Table 2.

**Table 2: Summary of the Qualification Data**

Representative Packages	Qualification Test	Read Out	Results
FC1020	PCL 3 + Temp Cycle "B" (-55°C to 125°C)	1000 cycle	0 /75
	High Temp Bake @ 150° C	1000 hrs	0 /75
	PCL 3 + Unbiased HAST (130°C/85%RH)	96 hrs	0 /75
FC1508	PCL 3 + Temp Cycle "B" (-55°C to 125°C)	1000 cycle	0 /75
	High Temp Bake @ 150° C	1000 hrs	0 /74
	PCL 3 + Unbiased HAST (130°C/85%RH)	96 hrs	0 /24

## Contact

For more information, please contact your local Altera sales representative or Altera Customer Quality Engineering at [customer-quality@altera.com](mailto:customer-quality@altera.com).

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*In accordance with JESD46-C, this change is deemed acceptable to the customer if no acknowledgement is received within 30 days from this notification.*

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## Revision History

Date	Rev	Description
03/03/2008	1.0.0	Initial Release