

PROCESS CHANGE NOTIFICATION

PCN1312

Additional Foundry Source for MAX[®] II Z Products

Change Description

This is an update to PCN1312; please see the revision history table for information specific to this update.

Altera[®] is pleased to announce the addition of TSMC Fab 11 located in Camas, Washington, USA, as a qualified wafer fabrication source for all MAX[®] II Z products (orderable part numbers EPM570Z***, EPM240Z*** and M570Z***). The list of part numbers currently open for order entry is in Table 1 of this notification.

TSMC Fab 11 is fully qualified and available for production shipments and to support additional capacity needs.

Recommended Action

Altera encourages customers to take advantage of the additional source by approving this change no later than 90 days from the date of this notification. Upon approval, Altera may ship product from either Fab 8 or Fab 11 to fulfill orders.

There are no changes to device performance, functionality, thermal or package characteristics.

Reason for Change

Altera is implementing this change to strengthen supply-chain risk-mitigation by establishing the capability to produce equivalent product from multiple qualified locations. Customers should benefit from stable lead times, and supply chain continuity during unforeseen events. TSMC Fab 11 is a fully qualified manufacturer for Altera products and is the primary source for the MAX V family, Altera's 0.18µm low cost and power CPLD product family introduced in 2010.

Products Affected

This change will apply to all part numbers in the MAX[®] II Z family (orderable part numbers EPM570Z***, EPM240Z*** and M570Z***). The part numbers currently open for order entry are listed in Table 1. Customer should use the part number in the “Ordering Part Number” column to place sample orders. Sample orders will be fulfilled from TSMC Fab 11, while all future orders following PCN approval will be fulfilled from either TSMC Fab 8 or TSMC Fab 11. Please note that samples may not be built ahead of time for all part numbers affected.

Qualified samples can be ordered starting November 1, 2013, at the URL below:

<http://www.samplecomponents.com/scripts/SampleCenter.dll?Altera>

Table 1: Affected Ordering Part Numbers

Ordering Part Number	Sample Availability Date	Estimated Production Shipment Date*
EPM570ZF256C7N	Nov 1, 2013	Feb 1, 2014
EPM570ZM100C6N	Nov 1, 2013	Feb 1, 2014
EPM570ZM100C7N	Nov 1, 2013	Feb 1, 2014
EPM570ZM100I8N	Nov 1, 2013	Feb 1, 2014
EPM570ZM144C6N	Nov 1, 2013	Feb 1, 2014
EPM570ZM144C7N	Nov 1, 2013	Feb 1, 2014
EPM570ZM144I8N	Nov 1, 2013	Feb 1, 2014
EPM570ZM256C6N	Nov 1, 2013	Feb 1, 2014
EPM570ZM256C7N	Nov 1, 2013	Feb 1, 2014
EPM570ZM256I8N	Nov 1, 2013	Feb 1, 2014

* This date may be advanced with customer consent. Please contact your local Sales Representative for details.

Table 1: Affected Ordering Part Numbers (Continued)

Ordering Part Number	Sample Availability Date	Estimated Production Shipment Date*
M570ZM6NAA	Nov 1, 2013	Feb 1, 2014
M570ZM6NCA	Nov 1, 2013	Feb 1, 2014
M570ZM6NDA	Nov 1, 2013	Feb 1, 2014
M570ZM6NFA	Nov 1, 2013	Feb 1, 2014
M570ZM6NHA	Nov 1, 2013	Feb 1, 2014
M570ZM6NJA	Nov 1, 2013	Feb 1, 2014
M570ZM6NKA	Nov 1, 2013	Feb 1, 2014
EPM240ZM100C6N	Nov 1, 2013	Feb 1, 2014
EPM240ZM100C7	Nov 1, 2013	Feb 1, 2014
EPM240ZM100C7N	Nov 1, 2013	Feb 1, 2014
EPM240ZM100I8N	Nov 1, 2013	Feb 1, 2014
EPM240ZM68C6N	Nov 1, 2013	Feb 1, 2014
EPM240ZM68C7N	Nov 1, 2013	Feb 1, 2014
EPM240ZM68I8N	Nov 1, 2013	Feb 1, 2014
EPM240ZM100C7NHT	Nov 1, 2013	Feb 1, 2014

* This date may be advanced with customer consent. Please contact your local Sales Representative for details.

Product Transition Dates and Traceability

The earliest volume shipment of product from TSMC Fab 11 is scheduled to occur on February 1, 2014, i.e., 90 days from the date of availability of qualified samples. The volume shipment date may be advanced with customer consent, if the customer qualification is completed prior to February 1, 2014.

TSMC Fab 11 material can be distinguished by the location identifier marked on the Date Code (5th and 6th characters of the Date Code, when read from left to right). See Table 2.

Table 2: Fab Site Traceability (Date Code Nomenclature = AXβ Z αα YYWWT)

Fab Location	Code (αα)
TSMC Fab 8	A6
TSMC Fab 11	AH

Note, in an effort to maintain part number marking consistency with current material, TSMC Fab 11 material will carry the same Altera standard top-mark as TSMC Fab 8. As described in Table 2, the fab location identifier in the Date Code will be the means to identify TSMC Fab 11 material.

Qualification Data

As part of the qualification process, Altera has established the FabMatch™ methodology which is employed in partnership with TSMC. This FabMatch methodology ensures that the 0.18μm process technology is duplicated, resulting in identical devices produced at multiple wafer fabs. This approach compares the process parameters, reliability, and device performance data on products from two separate facilities in order to demonstrate that the product has identical electrical, product performance characteristics, and is backward compatible.

The FabMatch report pertinent to this change is available upon request.

Contact

For more information, please contact Altera Technical Support by submitting a Service Request at Altera's [mySupport](#) website.

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

Revision History

Date	Rev	Description
10/28/2013	1.0.0	Initial Release
11/15/2013	1.1.0	Updated Table 2 to correct an error in traceability information. Fab site code ($\alpha\alpha$) identifiers are "A6" and "AH" for fab-8 and fab-11 respectively, and not as stated in rev 1.0.0. Modified the "Reason for Change" section to include the benefit of change.

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