

CUSTOMER ADVISORY ADV1104

ADDITIONAL FOUNDRY SOURCE QUALIFICATION FOR THE MAX II / G AND MAX II Z DEVICES

Change Description

This is an update to ADV1104, please see the revision history table for information specific to this update.

Altera has qualified TSMC Fab 11 (Camas, Washington) as an additional source for the MAX[®] II / G and MAX II Z devices. Altera will continue to use Fab 8 (Hsinchu, Taiwan) as the primary location. To support additional capacity needs, Fab 11 is fully qualified and available for production shipments.

Recommended Action

For customers who would like to take immediate advantage of selected Fab 11 material, Altera has generated two new ordering part numbers to accommodate shipments; refer to table 1. The use of the new part number provides Altera with the flexibility to ship units from either Fab 8 or Fab 11. The ability to accept units from both locations will help reduce the overall lead time for product availability.

Table 1: New Ordering Part Numbers

Standard OPN	New OPN
EPM1270F256C5N	EPM1270F256C5NAB
EPM240T100C5N	EPM240T100C5NAH

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. Adding an additional source Fab site provides supply chain continuity and protection against unforeseen events. TSMC Fab 11 is a fully qualified manufacturer for Altera products and is the primary source for the MAX V device family.

Products Affected

The product lines supported by this additional source qualification are listed in Table 2. Appendix 1 contains a list of the current ordering codes.

Table 2: Affected Product Lines

Product Family	Product Line	Pin Count	Package
MAX II Family	EPM240 / G	100	TQFP
			FBGA
			MBGA
	EPM570 / G	100	TQFP
			FBGA
			MBGA
		144	TQFP
			FBGA
			MBGA
	EPM1270 / G	144	TQFP
		256	FBGA
			MBGA
	EPM2210 / G	256	FBGA
		324	FBGA
	EPM240Z	68	MBGA
100		MBGA	
EPM570Z	256	FBGA	
	100	MBGA	
	144	MBGA	
	256	MBGA	

Product Traceability

The wafer fabrication location can be identified by the topside marking; refer to Figure 1 and Table 3.

Figure 1: Date-code marking

Altera Date-code Marking Format
A XβZαα1119T

Table 3: Wafer Fab Traceability

Product Family	Date Code Example	5 th and 6 th Character Process Code “αα”	Fab Location
<i>MAX II / G</i>	A XβZαα1119T	9M	Fab 8
		AJ	Fab 11
<i>MAX II Z</i>	A XβZαα1119T	A6	Fab 8
		AH	Fab 11

Qualification Data

Qualification data has been collected to ensure that products continue to meet or exceed Altera’s quality and reliability requirements. Data is summarized in Table 4.

Table 4: Summary of Qualification data

Product Family	Qualification Test	Readout	Results
<i>MAX II / G</i>	High Temp Bake 150°C	1000 hrs	0/ 231
	Lifetest @ 125°C	1000 hrs	0/ 231
<i>MAX II Z</i>	High Temp Bake 150°C	1000 hrs	0/ 230
	Lifetest @ 125°C	1000 hrs	0/ 231

Contact

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

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Revision History

Date	Rev	Description
03/23/2011	1.0.0	Initial Release
09/21/2011	1.1.0	Updated qualification data in Table 3
05/16/2012	1.2.0	Added two new ordering part numbers

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Appendix 1: Affected Ordering Part Numbers

MAX II and MAX II G

EPM240F100C4N	EPM570GF100I5N	EPM570T100I5*	EPM1270T144C4N
EPM240F100C5N	EPM570GF256C3	EPM570T100I5N	EPM1270T144C5*
EPM240F100I5	EPM570GF256C3N	EPM570T144C3*	EPM1270T144C5N*
EPM240F100I5N	EPM570GF256C4	EPM570T144C3N*	EPM1270T144I5
EPM240GF100C5N	EPM570GF256C4N	EPM570T144C4	EPM1270T144I5N
EPM240GF100I5N	EPM570GF256C5*	EPM570T144C4N	
EPM240GM100C5N	EPM570GF256C5N	EPM570T144C5*	EPM2210F256C3
EPM240GM100I5N	EPM570GF256I5	EPM570T144C5N*	EPM2210F256C3N
EPM240GT100C3*	EPM570GF256I5N	EPM570T144I5*	EPM2210F256C4*
EPM240GT100C3N	EPM570GM100C5N	EPM570T144I5N	EPM2210F256C4N
EPM240GT100C4*	EPM570GM100I5N		EPM2210F256C5*
EPM240GT100C4N	EPM570GM100I8N	EPM1270F256C3	EPM2210F256C5N
EPM240GT100C5*	EPM570GM256C5N	EPM1270F256C3N	EPM2210F256I5
EPM240GT100C5N	EPM570GM256I5N	EPM1270F256C4	EPM2210F256I5N
EPM240GT100I5*	EPM570GT100C3	EPM1270F256C4N*	EPM2210F324C3
EPM240GT100I5N*	EPM570GT100C3N	EPM1270F256C5*	EPM2210F324C3N
EPM240M100C4N	EPM570GT100C4	EPM1270F256C5N*	EPM2210F324C4*
EPM240M100C5N*	EPM570GT100C4N	EPM1270F256I5*	EPM2210F324C4N
EPM240M100I5N	EPM570GT100C5*	EPM1270F256I5N*	EPM2210F324C5
EPM240T100C3	EPM570GT100C5N	EPM1270GF256C3	EPM2210F324C5N*
EPM240T100C3N*	EPM570GT100I5*	EPM1270GF256C3N	EPM2210F324I5
EPM240T100C4*	EPM570GT100I5N*	EPM1270GF256C4	EPM2210F324I5N
EPM240T100C4N*	EPM570GT144C3	EPM1270GF256C4N	EPM2210GF256C3
EPM240T100C5*	EPM570GT144C3N	EPM1270GF256C5	EPM2210GF256C3N
EPM240T100C5N*	EPM570GT144C4	EPM1270GF256C5N*	EPM2210GF256C4
EPM240T100I5*	EPM570GT144C4N	EPM1270GF256I5	EPM2210GF256C4N
EPM240T100I5N*	EPM570GT144C5*	EPM1270GF256I5N	EPM2210GF256C5*
	EPM570GT144C5N	EPM1270GM256C5N	EPM2210GF256C5N
EPM570F100C4N	EPM570GT144I5	EPM1270GM256I5N	EPM2210GF256I5
EPM570F100C5N*	EPM570GT144I5N	EPM1270GT144C3	EPM2210GF256I5N
EPM570F100I5	EPM570M100C4N	EPM1270GT144C3N	EPM2210GF324C3
EPM570F100I5N	EPM570M100C5N*	EPM1270GT144C4	EPM2210GF324C3N
EPM570F256C3	EPM570M100I5	EPM1270GT144C4N	EPM2210GF324C4
EPM570F256C3N	EPM570M100I5N	EPM1270GT144C5	EPM2210GF324C4N
EPM570F256C4	EPM570M256C4N	EPM1270GT144C5N	EPM2210GF324C5
EPM570F256C4N	EPM570M256C5N	EPM1270GT144I5	EPM2210GF324C5N
EPM570F256C5*	EPM570M256I5N	EPM1270GT144I5N	EPM2210GF324I5
EPM570F256C5N*	EPM570T100C3	EPM1270M256C4N	EPM2210GF324I5N
EPM570F256I5	EPM570T100C3N	EPM1270M256C5N*	
EPM570F256I5N	EPM570T100C4	EPM1270M256I5N	
EPM570GF100C5N	EPM570T100C4N	EPM1270T144C3*	
	EPM570T100C5*	EPM1270T144C3N	
	EPM570T100C5N*	EPM1270T144C4	

Appendix 1: Affected Ordering Part Numbers (Continued)

MAX II Z

EPM240ZM100C6N	EPM240ZM68C6N	EPM570ZM100C6N	EPM570ZM144I8N
EPM240ZM100C7	EPM240ZM68C7N	EPM570ZM100C7N	EPM570ZM256C6N
EPM240ZM100C7N *	EPM240ZM68I8N	EPM570ZM100I8N	EPM570ZM256C7N
EPM240ZM100I8N	EPM570ZF256C7N	EPM570ZM144C6N	EPM570ZM256I8N
		EPM570ZM144C7N	

*Note: * Also include part numbers which contain a suffix.*