



PROCESS CHANGE NOTIFICATION PCN0514 (REV 2) MANUFACTURING CHANGES ON EPCS FAMILY

Change Description:

This is a revision to PCN0514, which was released in September 2005.

The serial configuration device family will undergo manufacturing changes relating to process geometry and adding fabrication and assembly sites, as shown in Table 1.

Table 1: Summary of EPCS Family Manufacturing Changes

Part Number	Fab		Geometry (μm)		Assembly Site	
	Current	Addition	Current	New	Current	Addition
EPCS1SI8 and EPCS1SI8N	Catania	none	0.18	0.15	Muar (Malaysia)	Bouskoura (Morocco)
EPCS4SI8 and EPCS4SI8N	Catania	none	0.18	0.15	Muar (Malaysia)	Bouskoura (Morocco)
EPCS16SI16N	Rousset	Catania	0.15	no change	Muar (Malaysia)	Philippines
EPCS64SI16N	Agrate	Catania	0.13	no change	Muar (Malaysia)	Philippines

None of these changes affects the form, fit, or function of the devices.

Reason for Change:

The process geometry changes and additional manufacturing and assembly sites will enable Altera to better support the increase in the demand for these products.

Products Affected:

The devices affected by this manufacturing change are listed in Table 2.

Table 2: Devices Affected By This Manufacturing Change

EPCS1SI8	EPCS1SI8N
EPCS4SI8	EPCS4SI8N
	EPCS16SI16N
	EPCS64SI16N

Product Traceability and Transition Date:

The process geometry and additional assembly site can be identified using Figure 1.

EPCS1 and EPCS4 – Process geometry and assembly sites:

The first line of the top-side marking is the product code.

The second line is marked “AYWWD”, where

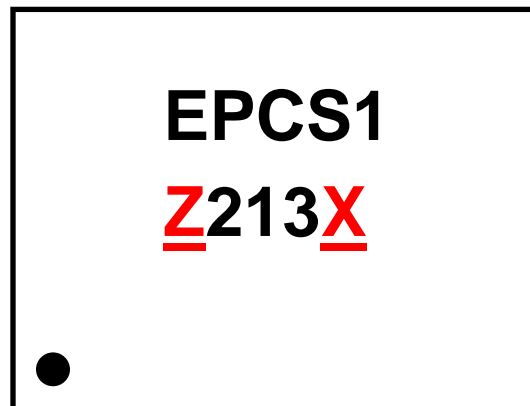
(A)= assembly location; “**9**” for Muar and “**Z**” for Bouskoura

(Y) = last digit of the year of assembly

(WW) = assembly work week

(D) = Fab Code; “**B**” for CMOS 0.18 μm and “**X**” for CMOS 0.15 μm

Figure 1: Process Geometry and Assembly Site Identifier



The addition of new fabrication facility can be identified using Figure 2.

EPCS16 and EPCS64 – Additional fabrication facility

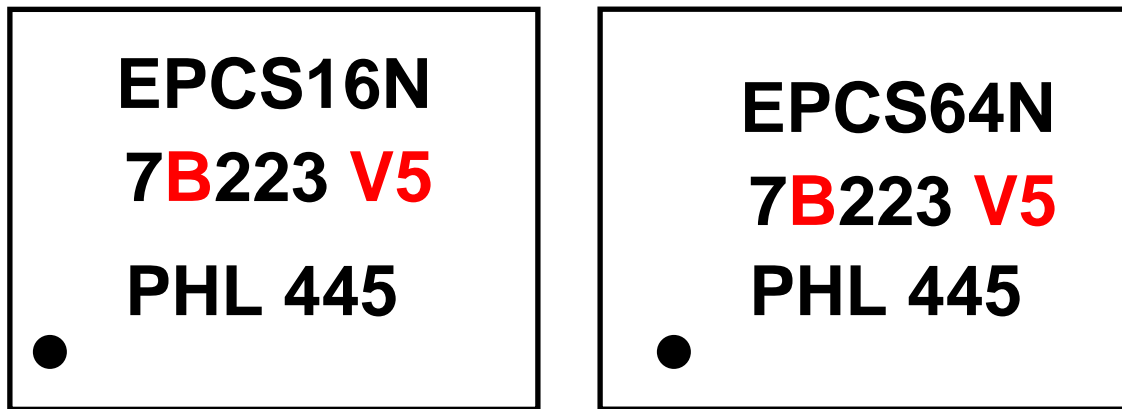
The first line of the top-side marking is the product code.

The second line will be marked with a “V5” for parts manufactured at Catania, Italy. The valid fabrication codes are:

- VA for Agrate;
- VG for Rousset; and
- V5 for Catania

Parts assembled at AMKOR Philippines will be marked with **B** on the second line.

Figure 2: Additional Fab Identifier



Transition Date:

Table 3: Transition Date for Devices Affected by this Manufacturing Change

Part Number	Changes		Assembly Site	First Ship Date
	Current	Addition / New		
EPCS1SI8 and EPCS1SI8N	0.18 um	0.15 um	Bouskoura (Morocco)	no earlier than 20 Dec 2005
EPCS4SI8 and EPCS4SI8N	0.18 um	0.15 um	Bouskoura (Morocco)	20 Dec 2005
EPCS16SI16N	Rousset	Catania	-N/A-	20 Dec 2005
EPCS64SI16N	Agrate	Catania	-N/A-	20 Dec 2005
EPCS16SI16N	Rousset	Catania	Philippines	31 Jan 2006
EPCS64SI16N	Agrate	Catania	Philippines	31 Jan 2006

Qualification data is available and can be obtained from customer-quality@altera.com.

Contact:

For more information, please contact your local Altera sales representative or customer-quality@altera.com.

Table 4: Revision History

Date	Rev	Description
09/16/2005	1	Initial Release
10/11/2005	2	Update to include additional assembly site, AMKOR Philippines, for EPCS16SI16N and EPCS64SI16N. Added transition date table.