

Product Change Notification PCN.2012.05.25.1

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1. Introduction

This document announces the migration of the Toradex Colibri PXA270 (312/520MHz) from V2.2B to V2.4A.

Detailed information about the affected product numbers, the transition schedule and the replacement products is provided.

2. Affected Toradex Product Numbers

EOL Products		Replacement Products	
Part Number	Product Name	Part Number	Product Name
00082201	Colibri PXA270 312MHz V2.2B	00082400	Colibri PXA270 312MHz V2.4A
00092201	Colibri PXA270 520MHz V2.2B	00092400	Colibri PXA270 520MHz V2.4A

3. Product Phase out / Phase in Schedule

Supplies of the discontinued PXA270 processor are limited. All orders will be filled on a first-come, first-served basis until further supplies cannot be sourced and our inventory is depleted. **Thereafter no orders for the discontinued V2.2B products will be accepted, even if this occurs before the estimated last time buy date.**

EOL Products		Replacement Products	
Part Number	Estimated Schedule	Part Number	Estimated Schedule
00082201	LTB (Last Time Buy): Dec 31 st , 2012; non-cancellable and non-returnable LTS (Last Time Ship): Mar 31 st , 2013	00082400	Samples Available Now (single units) Volume Production: June 25 th , 2012
00092201	LTB (Last Time Buy): Dec 31 st , 2012; non-cancellable and non-returnable LTS (Last Time Ship): Mar 31 st , 2013	00092400	Samples Available Now (single units) Volume Production: June 25 th , 2012



4. Description of Changes

From 00082201 to 00082400 (V2.2B to V2.4A):

From 00092201 to 00092400 (V2.2B to V2.4A):

- The Marvell PXA270 (stepping C5) processor has been replaced by its successor, the die-shrunked PXA270M (stepping A1) processor.
For more detail please refer to the following documents provided by Marvell:
www.marvell.com/application-processors/pxa-family/assets/pxa_27x_emts.pdf
www.marvell.com/application-processors/pxa-family/assets/pxa_27x_spec_update.pdf
- The power-up circuit has been optimized to provide a shorter reset time.

5. Customer Impact

Customers are strongly encouraged to convert their designs to the replacement parts listed above. Toradex also advises customers to carefully validate the new Colibri modules before their production release.

5.1. Hardware Design

- According to the PXA270M related PCN by Marvell the output drive characteristic of the PXA270M pins might be slightly different compared to the PXA270 C5 processor.
- Compared to the PXA270 processor some pins of the PXA270M processor exhibit a different behaviour when configured as a floating input. This is not an issue if such pins have either an external pull-up to the supply voltage or an external pull-down to ground (according to best design practice floating inputs are to be avoided).
For example: In the standard Toradex Windows CE image, SODIMM pin 131 is configured as USB_OC (over current detect, input). If this SODIMM input is left open on the carrier board, the USB interface works correctly on the current Colibri PXA270 module due to the fact that, by default, this pin floats to logic "high" state. This configuration will not work correctly with the new Colibri module, V2.4, using the PXA270M processor. On the new module the pin defaults to float to logic "low" state, hence triggering an over-current condition in the USB driver.

5.2. Software

- There is no software change needed because the new version of the Colibri module is completely software compatible with the previous version.

6. Definitions

LTB: Last Time Buy

LTS: Last Time Ship

EOL: End Of Life