

Product Change Notification PCN.2010.09.30.1

Transition from:

Colibri XScale® PXA320 806MHz V1.2f to Colibri XScale® PXA320 806MHz V2.0b
Colibri XScale® PXA320IT 806MHz V1.2c to Colibri XScale® PXA320IT 806MHz V2.0b

Colibri XScale® PXA320 806MHz V2.0a to Colibri XScale® PXA320 806MHz V2.0b
Colibri XScale® PXA320IT 806MHz V2.0a to Colibri XScale® PXA320IT 806MHz V2.0b

Date of Publication: September 30, 2010

1. Toradex Product Numbers Affected

Production Module EOL		Replacement	
Part Number	Product Name	Part Number	Product Name
00031205	Colibri XScale PXA320 806MHz V1.2f	00032001	Colibri XScale PXA320 806MHz V2.0b
00061202	Colibri XScale PXA320IT 806MHz V1.2c	00062001	Colibri XScale PXA320IT 806MHz V2.0b

Sample Module EOL		Replacement	
Part Number	Product Name	Part Number	Product Name
00032000	Colibri XScale PXA320 806MHz V2.0a	00032001	Colibri XScale PXA320 806MHz V2.0b
00062000	Colibri XScale PXA320IT 806MHz V2.0a	00062001	Colibri XScale PXA320IT 806MHz V2.0b

2. Product Phase in / Phase out Schedule

Production Module EOL		Replacement	
Part Number	Estimated Schedule	Part Number	Estimated Schedule
00031205 / 00061202	LTB (Last Time Buy): December 31, 2010 non-cancellable and non-returnable LTS (Last Time Ship): April 30, 2011	00032001 / 00062001	Volume Production: November 30, 2010

Production Module EOL		Replacement	
Part Number	Estimated Schedule	Part Number	Estimated Schedule
00032000 / 00062000	LTB/LTS: No longer available	00032001 / 00062001	Volume Production: November 30, 2010

Customers using the EOL products in their designs are advised to migrate to use the replacement products listed above. Customers are furthermore strongly encouraged to carefully validate the replacement parts in existing designs prior to committing them to production.



3. Description of Changes

From 00031205 to 00032001 (version 1.2f to 2.0b):

From 00061202 to 00062001 (version 1.2c to 2.0b):

- National LP3972SQ is deployed as PMIC (Power Management IC), replacing MAX8661
- Audio and touch controller: Wolfson WM9715L supersedes NXP UCB1400 (which is EOL).
- DF_ALE_nWE (nPWE) signal on SODIMM pin 99 can now be disabled by Software (default state during Reset: disabled)
- A new revision of the Ethernet controller (AX88796C) is assembled, providing reduced power consumption.
- Samsung 8Gbit NAND Flash die revision (from K9K8G08U0B to K9K8G08U0D)

From 00032000 to 00032001 (version 2.0a to 2.0b):

From 00062000 to 00062001 (version 2.0a to 2.0b):

- Samsung 8Gbit NAND Flash die revision (from K9K8G08U0B to K9K8G08U0D)

4. Customer Impact

4.1. Hardware Design

- If supplied by VDD_BATT only, the Colibri PXA320 V2.0 module is no longer in a Reset state. This enables the use of the deep-sleep functionality without resetting the internal RTC.
- During the boot process, the pins on the new Colibri PXA320 V2.0 module show a different behaviour compared to the previous module version. Toradex AG strongly advises to carefully validate the power-up and power-down sequence of the new Colibri PXA320 V2.0b module. The newest Toradex BSP provides software workarounds for some of the potential issues on custom baseboards. Please contact colibri@toradex.com for more detailed information.
- Whilst the general functionality remains the same, the new audio codec on the Colibri PXA320 V2.0 alters some of the signal characteristics for the following SODIMM pins: 1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18 and 20. For example the input voltage range of one of the analogue input pins is changed.
The new audio codec makes it possible to interface to a 5-wire touch screen.
For more details please refer to the Wolfson WM9715L datasheet:
www.wolfsonmicro.com/uploads/documents/en/WM9715L.pdf



4.2. Software

- In order to support the new PXA320 V2.0 modules, customers using Windows CE need to upgrade their Toradex BSP to the latest version which provides support for the new devices.
- In case the DF_ALE_nWE signal on SODIMM pin 99 is used, its functionality must be enabled (which the CF-card driver of the newest Toradex BSP does automatically).
If DF_ALE_nWE is disabled, the GPIO93 functionality is available on the same SODIMM pin. The newest BSP will provide a new kernel IOControl to enable or disable the functionality of the DF_ALE_nWE signal.
- The Wolfson codec has a different register set than the NXP UCB1400 device. If your software is controlling any of the NXP registers directly, you have to modify this code in order to support the Wolfson register set.
- Users of Linux and any other operating systems need to include the respective drivers in order to support the new devices.

5. Definitions

LTB: Last Time Buy

LTS: Last Time Ship

EOL: End Of Life