Product Change Notification (PCN)

Transition from Colibri iMX6DL 512MB V1.0A to Colibri iMX6DL 512MB V1.1A

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1. Toradex Product Numbers Affected

EOL Product		Replacement Product	
Part Number	Product Name	Part Number	Product Name
00151000	Colibri iMX6DL 512MB V1.0A	00151100	Colibri iMX6DL 512MB V1.1A

2. Product Phase in / Phase out Schedule

EOL Product		Replacement Product	
Part Number	Estimated Schedule	Part Number	Estimated Schedule
00151000	Limited stock available (on allocation). Please provide us with your desired quantities by June 16th 2017.	00151100	Sample Production: May 2017 Volume Production: July 2017

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

3. Description of Changes

From 00151000 Colibri iMX6DL 512MB V1.0A to 00151100 Colibri iMX6DL 512MB V1.1A:

– Replaced eMMC 4GB Toshiba THGBMBG5D1KBAIT (EOL) with
  4GB Micron MTFC4GACAJCN-1M-WT.

– i.MX 6 SoC and eMMC are irrevocably configured (fused) for "fast boot mode" in the new version.

– The pre-installed software changes from "embedded Linux" to "Toradex Easy Installer".

– Resolved start-up issue when VBATT is supplied and the module was shut-down by software (Note, our BSPs didn't use the shut-down feature).

– Resolved microphone lock-up issue when plugging-in microphones.

– nRESET_OUT (SODIMM pin 87) can now be toggled through software. This could be used when doing a software reset of the module in order to also reset external components.

– Improved internal reset timing for Micrel Ethernet PHY.

– Changed internal eMMC voltage from 3.3V to 1.8V.

– Added JTAG_MOD feature to SODIMM pin 180. Pulling down this pin at start-up will set JTAG into normal JTAG mode which allows using JTAG for debugging. Pulling it up (default) will set JTAG into boundary scan mode.

– Added option to use SD UHS-I 1.8V mode.

– **UPDATE:** The recovery feature announced in the PCN version published on 2017-05-02 won't be implemented in order to increase compatibility with the previous product version. If recovering a

module is necessary, it can be done by using our new Toradex Easy Installer:
http://developer.toradex.com/software/toradex-easy-installer

4. Customer Impact

4.1. Hardware Design

– No impact on custom carrier board designs is expected when the designs were done similar to Toradex carrier board designs. However, please check carefully if any of the above-mentioned changes has an impact on your current carrier board design.

– In order to make use of the 3.3V/1.8V IO voltage switch on the SD interface, the external 3.3V pull-up resistors for the SD card signals on the carrier board need to be removed. No change is needed if normal 3.3V IO voltage is used as it was done on the previous version.

4.2. Software

– eMMC changes usually do not affect customer software.

– The i.MX 6 SoC and the eMMC will be fused in "fast boot mode". More details about this can be found here: http://developer.toradex.com/knowledge-base/linux-booting#eMMC_Fast_Boot_Mode_ApalisColibri_iMX6

The new eMMC and the "fast boot mode" are supported in the latest stable or beta BSP/image versions. However, it should be supported starting with the following older BSP/image versions (final verification tests are still pending at the time of publication of this PCN):
- Windows Embedded Compact 7/2013: V1.1
- Embedded Linux: V2.6 beta 1
In case your current setup still relies on an even older embedded Linux BSP/image version you may be able to just update to a later U-Boot version, selectively patching the Linux kernel and leaving the root file system part as is. Please contact our technical support if you have any questions, see contact details below.

– The pre-installed software on the new product version changes from "embedded Linux" to "Toradex Easy Installer". The Toradex Easy Installer is a Linux-based tool which improves the out-of-the-box experience for new customers as well as the production programming features for customers in volume production.

Customers who rely on the pre-installed embedded Linux image might be affected by this change. However, since the Toradex Easy Installer is based on U-Boot and embedded Linux, we expect most customer setups will continue working as-is. We strongly recommend checking this in detail. We provide the full Toradex Easy Installer package on our developer website in order to allow customers to download and install the tool and test their setup. The Toradex Easy Installer package is compatible with older Colibri iMX6 modules and can be used for verification immediately. However, flashing any image with the "Toradex Easy Installer" will irrevocably configure the i.MX 6 SoC and eMMC for "fast boot mode".

Find the details about "Toradex Easy Installer", downloads, and installation instructions on our developer website: http://developer.toradex.com/software/toradex-easy-installer

– The new nRESET_OUT feature will be supported in future BSP/image releases. With older BSPs w/o support for this new hardware feature the behaviour of nRESET_OUT doesn't change compared to the old product version.

5. Definitions

EOL: End Of Life

6. Contact

Please contact Toradex if you have any questions.

For commercial and sales questions please contact shop@toradex.com

For technical questions please contact support.arm@toradex.com