AM335x-PSP 04.06.00.11 Release Notes

Linux PSP

AM335x PSP 04.06.00.11

Release Notes

Release Date: July, 2012

Introduction

This is Release 04.06.00.11 of AM335x [1] Linux PSP. This release supports:

- BeagleBoard Bone [2] (version A3 and above)
- Beaglebone Black. No support for HDMI
- AM335x Evaluation Module [3] (version 1.1A and above)
- AM335x Evaluation Module-StarterKit (version 1.2B and above)

The Linux PSP serves to provide a fundamental software platform for development, deployment and execution of Linux based applications on Texas Instruments silicon.

The Linux kernel and U-Boot software in this release are based on the following open source repositories:

Component	Version	Base Repository	Base Tag (or commit id)
Linux Kernel	v3.2	[4]	d5720d33bc7c434f9a023dbb62c795538f976b7a
U-Boot	2013.01	[5]	v2013.01

The code base for Linux kernel, U-Boot and power management firmware included in this release is hosted at the following repositories:

Component	Repository & Branch	Release Tag/Commit Id
Linux Kernel	[6] (The kernel obtained directly from the above repository needs PM firmware to build when building using default configuration. Link to PM firmware repository containing the firmware binary is available below in this table. Copy the firmware binary .bin file into the firmware/ folder of the kernel sources)	d5720d33bc7c434f9a023dbb62c795538f976b7a
U-Boot	[7]	540aa6fbb0c9274bda598f7e8819ed28259cad6b
Power Management Firmware	[8]	**AM335xPSP_04.06.00.11**

Dependencies

Tool/Component	Description	Release Version	Required for
Code Composer Studio (CCS)	IDE and ARM compiler	5.3.0.00090	Building CCS based flash writers
Linaro Toolchain [9]	GCC ARM cross compiler	2013.03 (GCC 4.7)	Building Linux kernel, U-Boot, Linux examples. (For non ARM9 devices only)
Arago Toolchain	GCC ARM cross compiler	2011.09 (GCC 4.5.3)	Building Linux kernel, U-Boot, Linux examples. (For ARM9 devices only)
Filesystem	Target filesystem	NA	Linux boot

What's Supported:

The 04.06.00.11 release is a minor release. Refer to the AM335x-PSP 04.06.00.10 Release Notes [10].

New in this Release:

- Support for PG 2.1 and PG 2.1 EVMS
- Support for Beaglebone Blackl. HDMI support not included.

Kernel:

- PM
  - Enable RTC wakeup for standby on PG 2.1 silicon

U-boot:

- NOR support

Fixed in this Release

Kernel:

Fix for Advisory 1.0.15 [11] "ARM Cortex-A8: OPP50 Operation on MPU Domain Not Supported"

Fix for Errata i103 "Delay needed to read some GP timer, WD timer and sync timer registers after wakeup (OMAP3/4)"

USB:

- musb: gadget: rxdma fix when data rcvd before usb request queued
- cppi41: g_multi gadget fixes in dma mode

U-boot:

Fix for Advisory 1.0.24 [11] "Boot: System Boot is Not Reliable if Reset is Asserted While Operating in OPP50"

Known Issues:

- ADC: No trigger method supported.
- PM: Standby:
  - USB connect/Disconnect wakeup will not work, since we only support GPIO based wakeup and use MPU_WAKE patch and connect/disconnect goes via different patch through PHY_WAKE to CM3.
  - Ethernet wakeup is not tested, since ETH PHY wakeup signal is not connected to GPIO.
- PM: Smart Reflex:
  - Harmless warning message "smartreflex smartreflex: get_errvolt: SR 1: Same AvgError for 2 s"
- SDOCM00100099 [12] DUT does not go into suspend state if USB DMA is enabled
- SDOCM00099909 [13] There is a mismatch between Uboot and kernel regarding SPi partition table
- SDOCM00099830 [14] suspend/resume long hour stress test failed
- SDOCM00099624 [15] Resume fails when dual_emac option is not enabled in config
- SDOCM00099622 [16] Audio/Video capture test results in uvcvideo: Failed to resubmit video URB (-1).
- SDOCM00099621 [17] USB reset events seen with simultaneous data and control traffic in PIO mode
- SDOCM00099444 [18] Internal ADC clock division check not required
- SDOCM00099314 [19] AM335X: USB: minor audio glitch/noise observed when new device inserted to one usbport while playing audio through other port
- SDOCM00100316 [20] USB Mouse HID event stops being a wakeup source if preceded by Mouse disconnect/connect wakeup source
- SDOCM00100303 [21] DUT does not go into suspend state when it is acting as USB MSC device

Documentation

The User's Guide [22] provides instructions on how to use the PSP Release package.

A new AM335x Features and Performance Guide can be found here [23].

Upgrade and Compatibility Information

There are no known incompatibilities from previous release.

Technical Support and Product Updates

For further information or to report any problems, contact http://community.ti.com or http://support.ti.com.

OMAP Linux Mailing List: http://vger.kernel.org/vger-lists.html#linux-omap

References

[1] http://www.ti.com/am335x

[2] http://beagleboard.org/bone

[3] http://www.ti.com/tool/tmdxevm3358

[4] http://arago-project.org/git/projects/?p=linux-am33x.git;a=summary

[5] http://git.denx.de/?p=u-boot.git;a=summary

[6] http://arago-project.org/git/projects/?p=linux-am33x.git;a=shortlog;h=refs/heads/v3.2-staging

[7] https://git.ti.com/ti-u-boot/ti-u-boot/trees/ti-u-boot-2013.01.01-amsdk-06.00.00.00

[8] http://arago-project.org/git/projects/?p=am33x-cm3.git;a=shortlog;h=refs/heads/master

[9] https://launchpad.net/linaro-toolchain-binaries/trunk/2013.03/+download/gcc-linaro-arm-linux-gnueabihf-4.7-2013.
03-20130313_linux.tar.bz2

[10] http://processors.wiki.ti.com/index.php/AM335x-PSP_04.06.00.10_Release_Notes

[11] http://www.ti.com/litv/pdf/sprz360e

[12] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00100099&entityDefName=IncidentReport&username=readonly&password=readonly

[13] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00099909&entityDefName=IncidentReport&username=readonly&password=readonly

[14] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00099830&entityDefName=IncidentReport&username=readonly&password=readonly

[15] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00099624&entityDefName=IncidentReport&username=readonly&password=readonly

[16] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00099622&entityDefName=IncidentReport&username=readonly&password=readonly

[17] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00099621&entityDefName=IncidentReport&username=readonly&password=readonly

[18] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00099444&entityDefName=IncidentReport&username=readonly&password=readonly

[19] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00099314&entityDefName=IncidentReport&username=readonly&password=readonly

[20] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00100316&entityDefName=IncidentReport&username=readonly&password=readonly

[21] https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&
entityID=SDOCM00100303&entityDefName=IncidentReport&username=readonly&password=readonly

[22] http://processors.wiki.ti.com/index.php/AM335x_PSP_User%27s_Guide

[23] http://processors.wiki.ti.com/index.php/AM335x-PSP_04.06.00.11_Features_and_Performance_Guide

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