

PhyCORE-OMAP44xx Linux BSP-PD13.1.0 Release Notes

Operating System	Linux
BSP Release Status	RELEASED
Release Date	
Repository	
Binaries	ftp://ftp.phytec.com/products/PCM-049_phyCORE-OMAP44xx/Linux/PD13.1.0/ Use the link below for WiFi enabled images. ftp://ftp.phytec.com/products/PCM-049_phyCORE-OMAP44xx/Linux/PD13.1.0/wifi/
Source Archive	
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Introduction

This BSP provides a basis for development, deployment and execution of Linux based applications on the phyCORE-OMAP44XX System on Module (SOM). For detailed information on the various software components included in the release and how to use them, please refer to the [Quickstart](#).

Versioning

Component	Version
Linux Kernel	3.4.1
Barebox	2013.03.0
PTX Distribution	2013.01.0
OSELAS Toolchain	2011.11.0

This Release is compatible with the following hardware:

BSP Release Version	BSP Release Date	SOM PCB Version	CB PCB Version
PD13.1.0	August 6th, 2013	1347.3	1348.2
		1347.2 ^[1]	

1347.1 [2]

[1] Does not contain PMIC Errata fix[2] Does not contain PMIC Errata fix; OMAP4430 variant (not fully tested with release)

BSP Download

Release PD13.1.0 can be downloaded from the link below.

ftp://ftp.phytec.com/products/PCM-049_phyCORE-OMAP44xx/Linux/PD13.1.0/

Use the link below for WiFi enabled images.

ftp://ftp.phytec.com/products/PCM-049_phyCORE-OMAP44xx/Linux/PD13.1.0/wifi/

Quickstart

Release PD13.1.0 should be used in conjunction with Quickstart version PD13.1.0:

- [PhyCORE-OMAP44xx Linux Quickstart-PD13.1.0](#)

What's Supported

This BSP Release supports the following components:

- **OMAP4460:** Linux kernel 3.4.41
- NAND Flash: Barebox, Kernel, UBIFS Filesystem
- NOR Flash: Barebox, Kernel, UBIFS Filesystem
- LPDDR2
- UART: RS-232 on UART_3
- Ethernet: 10/100 Mbit - LAN92211 over GPMC
- SD/MMC : SDMMC_1; SDMMC_5 used with WiFi; all other SDMMC not tested
- WiFi: TiWi R2 on SDMMC_5 with OMAP4 TiWi Adapter Board (requires software patch)^[1]
- USB Host: USBB1 - Keyboard, Mouse, Memory Device
- USB-OTG: USB_OTG
- SPI driver
- I2C driver
- EEPROM: at24 on I2C_1 @ 0x50
- PMIC: TWL6030 on I2C_1
- TSC

Resistive: STMPE811 on I2C_4 @ 0x41 (device on carrier board)Capacitive: FocalTech FT5306

- Display:

Prime View PM070WL4 LVDS (LCD-017-070W)Prime View PD104SLF LVDS (LCD-017-104S)EDT ETM0700G0DH6 TTL (LCD-018-070-KAP)

- DVI
- Barebox splashscreen
- Audio: Mixer, Line in, Line out, MIC in
- Thermal shutdown if RAM gets too hot

What's Not Supported

This BSP Release does not support the following components:

- This release does not have OpenGL support^[2]
- Codecs: MPEG, DivX, H.264, JPEG
- Camera Interface: MT9M001, MT9V022 - Available upon request
- Video Encoder: Streaming, TV - Available upon request
- 1 wire: Available upon request
- Power Management: Suspend to RAM - Available upon request

Fixed in this Release

- Touch sometimes gets wrong samples
- OMAP4460 1.5 GHz and 1.2 GHz support

New in this Release

- Updated Barebox, Linux kernel, PTXdist, and OSELAS.Toolchain
- Barebox splashscreen

- spidev interface
- SW support for industrial grade RAMs
- Thermal shutdown if RAM gets too hot

Refer to the following for additional information: Important thermal shutdown management feature in new BSP release

Known Issues

- ^[1] wl1271_sdio read or write errors when the WiFi interface goes down

Workaround: Apply the software patch, 0001-pcm049-wl12xx-use-set_power-to-control-WL_EN.patch, to the Linux source directory before enabling WiFi.

- WiFi requires an inserted SD Card at SDMMC1 (X11)
- ^[2] Compile errors when attempting to build the OpenGL DDK
- Display and DVI does not work when used parallel
- Dual Display only for X
- Nameserver configuration wrong
- USB camera doesn't start after resume
- Network issue if network cable is hotplugged after reboot
- BSP fails to build due to wrong Linux kernel MD5SUM for linux-3.4.tar.xz source

Workaround: See Update the Linux kernel MD5SUM in the Quickstart

- Dead links for PTXdist BSP source files

Workaround: See Images Building Images in the Quickstart. Use the alternative download link for the files listed below, download the file, place it in phyCORE-OMAP4-PD13.1.0/src directory in its compressed form, and restart the build process by calling ptxdist go again.qt-everywhere-opensource-src-4.8.4.tar.gz --- Download linkorc-0.4.16.tar.gz --- Download Linku-boot-2011.12.tar.bz2 --- Download Link

Upgrade and Compatibility Information

To upgrade to a new BSP release, simply delete the old release and extract the new release in its place.

Dependencies

N/A

Validation Information

Drivers have been tested with in-house test cases. Primarily tested with OMAP4460.

Technical Support

For further support please visit [PHYTEC's Support Portal](#)