PhyCORE-Vybrid Linux BSP-PD13.0.2 Release Notes

Operating System	Linux
BSP Release Status	RELEASED
Release Date	
Repository	
Binaries	
Source Archive	
Release Notes	Click Here

Introduction

This BSP provides a basis for development, deployment and execution of Linux based applications on the phyCORE-Vybrid 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
MQX	VYBRID-MQX-PD13.1.0
Linux Kernel	3.0
Barebox	2011.12

This Release is compatible with the following hardware:

BSP Release Version	BSP Release Date	SOM PCB Version	CB PCB Version
PD13.0.2	4/3/2013	1374.0	1375.2

BSP Download

Release PD13.0.2 can be downloaded from the links below:

- PD13.0.2

LinuxLink | PHYTEC FTP

- PD13.0.2 Theatre - requires LCD

LinuxLink | PHYTEC FTP

New U-Boot:

Due to new Vybrid silicon from Freescale, please use the updated bootloader, u-boot.imx.

Quickstart

Release PD13.0.2 should be used in conjunction with Quickstart version QS1.0:

- PhyCORE-Vybrid_Quickstart-QS1.0

What's Supported

This BSP Release supports the following components:

- Linux Kernel: 3.0
- UART: RS-232 via SCI_1
- USB: USB_0 in Host Mode; USB_1 in Host Mode
- SD/MMC: MMC via MCU_PTA24-29 signals
- Ethernet: RMII0
- RTC: Internal RTC
- I2C driver: I2C_2 enabled
    - EEPROM: at24 on I2C_2
    - TSC: STMPE811 on I2C_2
- Audio: Freescale Codec SGTL5000 connected to I2S (I2C_2)
- Display: Prime View PM070WL4 LVDS (LCD-017-070W)
- MCC: Cortex-A5 (Linux) and Cortex-M4 (MQX)

What's Not Supported

This BSP Release does not support the following components:

- NAND Flash
- SPI NOR Flash
- UART: RS-232 via SCI_2
- Ethernet: RMII1
- SPI: SPI_A; SPI_B
- CAN: CAN_0; CAN_1
- Light sensor: on I2C_2
- RTC: RV-4162-C7 on I2C_2
- Timer: Watchdog; High Speed
- Power Management: Suspend to RAM

Fixed in this Release

N/A

New in this Release

- USB_0-OTG enabled for Host Mode: Mass storage and Keyboard
- USB_1-OTG enabled for Host Mode: Mass storage and Keyboard
- Audio: Line-in, Line-out, MIC in, headphone out
- Multi-Core Communication enabled for Linux (Cortex-A5) and MQX (Cortex-M4)

Known Issues

- During a cold boot, the system will sometimes hang after DDR initialization

Workaround: Press the RESET button (button S2; labeled RST on the carrier board PCB) to issue a warm reset, and the system will then boot successfully.

- First boot requires display connection (Theatre Images)

Due to ts_calibrate being part of the initial board startup, the LCD-017-070 display must be connected to the Carrier Board during the first boot. Workaround (if there is no display available): Use the host machine to remove the following startup scripts from the filesystem:/etc/init.d/S70-calibrate-touchscreen/etc/init.d/S70-detect-mouse/etc/init.d/S98-timesys-theatre/etc/init.d/K02-timesys-theatre/etc/init.d/K30-calibrate-touchscreen/etc/init.d/K30-detect-mouse

- Touch on the display may be unresponsive after closing the timesys-theatre-demo.

Workaround: Reboot the system.

- Audio may fail to work correctly after closing an audio file while it is playing.

Workaround: Reboot the system.

Upgrade and Compatibility Information

This software release is compatible with Vybrid processor silicon 0N02G.

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.

Technical Support

For further support please visit PHYTEC's Support Portal