


# PhyFLEX-i.MX6 Linux BSP-PD13.2.3 Release Notes

<b>Operating System</b>	Linux
<b>BSP Release Status</b>	<b>RELEASED</b>
<b>Release Date</b>	28 Feb 2014
<b>Repository</b>	
<b>Binaries</b>	<a href="ftp://ftp.phytec.com/products/PFL-A-02_phyFLEX-iMX6/Linux/PD13.2.3/">ftp://ftp.phytec.com/products/PFL-A-02_phyFLEX-iMX6/Linux/PD13.2.3/</a> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;">  <a href="#">Click here for specific hardware Note</a> </div>
<b>Source Archive</b>	
<b>Release Notes</b>	<a href="#">Click Here</a>

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## Introduction

This BSP provides a basis for development, deployment and execution of Linux based applications on the phyFLEX-i.MX6 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	3.0.35
Barebox	2013.08.0
PTX Distribution	2012.03.0
OSELAS Toolchain	2011.11.1

This Release is compatible with the following hardware:

BSP Release Version	BSP Release Date	SOM PCB Version	FLEX Mapper Board Version	FLEX Baseboard Version
PD13.2.3	February 28th, 2014	1362.2	1367.3	1364.4
		1362.1	1367.2 <sup>[A]</sup>	1364.3 <sup>[B]</sup>
			1367.1 <sup>[B]</sup>	1364.2 <sup>[A]</sup>

[A] Does not fully support PCIe. FLEX Mapper board does not include nPCIe0\_PERST. FLEX Baseboard missing 100 termination resistor on PCIe clock and reset for an extra PCIe.[B] Hardware interface does not support Camera0 interface extension and full 18-bit Camera0 (missing J6 and J7 for CSIO\_DAT3 and CSIO\_DAT2 signal multiplexing). Different reset out circuitry for Camera0 and Camera1. JP12 does not exist (X\_CAMERA1\_CLK & X\_CAMERA0\_CLK).

## BSP Download

Release PD13.2.3 can be downloaded from the link below.

[ftp://ftp.phytec.com/products/PFL-A-02\\_phyFLEX-iMX6/Linux/PD13.2.3/](ftp://ftp.phytec.com/products/PFL-A-02_phyFLEX-iMX6/Linux/PD13.2.3/)

### Note:

Due to the wide variety of configurations (Quad/DualLite/Solo, RAM sizes, and WiFi) for the i.MX6 SOM please note that there are different versions of software. Use the list below for a description of the images to be used for specific configurations:

i.MX6 Quad1 GB RAM (default) - bootloader: barebox-phytec-pbab01-1gib.img1 GB, 1 bank RAM - bootloader: barebox-phytec-pbab01-1gib\_1bank.img4 GB RAM - bootloader: barebox-phytec-pbab01-4gib.img; kernel: 4GB\_RAM\_LINUX/uImage-pfla02\_4GB

i.MX6 DualLite1 GB RAM - bootloader: barebox-phytec-pbab01dl-1gib.img

i.MX6 Solo512 MB RAM - bootloader: barebox-phytec-pbab01s-512mb.img; kernel: 512MB\_RAM\_LINUX/uImage-pfla02\_512MB

## Quickstart

Release PD13.2.3 should be used in conjunction with Quickstart version PD13.2.0:

- [PhyFLEX-i.MX6 Linux Quickstart-PD13.2.0](#)

## What's Supported

This BSP Release supports the following components:

- **i.MX6:** Quad, DualLite, Solo
- NAND Flash
- NOR Flash
- RAM: MT41J128M16HA-15E IT DDR3

Quad: 1GB, 1GB\_1bank, 4GB[1]DualLite: 1GBSolo: 512MB

- UART: UART0; UART1
- USB: USB0 HS OTG; USB1 HS Host
- Ethernet: 10/100/1000 Mbit/s – ETH0 from RGMII
- CAN: CAN0
- SD/MMC: SD2; SD3
- WiFi: TiWi-BLE 2.4 GHz IEEE 802.11 b/g/n WiFi on SD3
- PCIe (card limited with Baseboard hardware revision 1364.2 and 1364.3)
- SATA
- I2C driver: I2C0, I2C1 enabled
- EEPROM: at24 on I2C1
- PMIC: DA9063 on I2C1
- RTC: RTC-8564 Real-Time Clock on I2C0 (device on Baseboard)
- Touch

Resistive: STMPE811 on I2C0 (device on Baseboard)Capacitive: FocalTech FT5306 on I2C0

- Display

Prime View PD050VL1 LVDS (LCD-017-050V)Prime View PM070WL4 LVDS (LCD-017-070W)Prime View PD104SLF LVDS (LCD-017-104S)EDT ETM0700G0DH6 TTL (LCD-018-070-KAP)DVI / HDMI

- Camera:

VM-006-BWVM-009VM-010-BWVM-011-BW (phyCAM-P)VM-011-COL (phyCAM-S)USB-CAM-003H (with UVC Firmware update)USB-CAM-103H (with UVC Firmware update) (without trigger)USB-CAM-051H (with UVC Firmware update)USB-CAM-151H (with UVC Firmware update) (without trigger)

- Audio: Line in, Line out, Mixer, Mic in<sup>[2]</sup>
- Video decoding
- Graphics: OpenGL
- DVFS

*Note: Signal names may change between processor and PCBs. Please refer to phyFLEX-i.MX6 Hardware Manual for signal name mapping.*

## What's Not Supported

This BSP Release does not support the following components:

- Video encoder: Streaming, TV

## Fixed in this Release

N/A

## New in this Release

- DualLite and Solo RAM values verified
- 4 GB RAM modules

## Known Issues

- <sup>[1]</sup> i.MX6 Quad is only tested with 1 GB RAM values
- WLAN does not operate in multirole mode
- CAN will not work correct with 1 Mbit/s
- Using Barebox to flash Barebox to NAND does not work
- Saving default environment to SD Card does not work
- <sup>[2]</sup> Hset\_OUT makes problems with some MONO audio files
- OpenCV is disabled, for more information see "Info\_to\_openCV" in the BSP folder

## Upgrade and Compatibility Information

This BSP is not backwards compatible and has no workaround for 1362.0 SOM and 1364.1 Baseboard due to a change in PCB pinout, see [Modification of the pinout for the phyFLEX-i.MX6 \(PLF-A-XL1\)](#).

## 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](#)