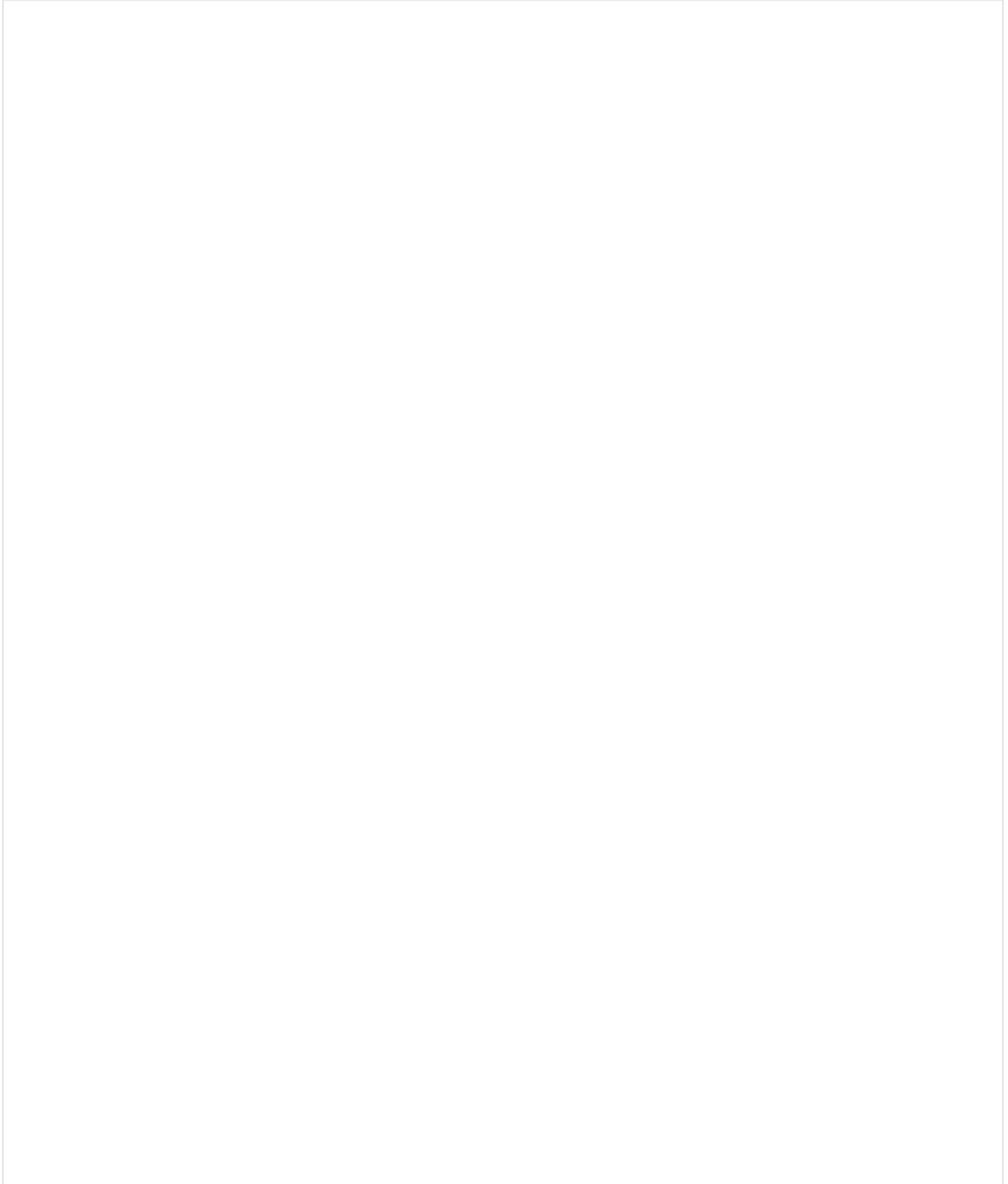


Board does not Boot Fully, Continually Reboots

Problem

I've received the phyBoard-WEGA-AM335x (1405,1) and tried to flash a new BSP. After I flashed my MLO, barebox-image, linuximage and root.ubi and restarted, phyBoard keeps resetting and fails to boot. I've tried various images and get the same result:



barebox 2013.11.0-PD14.1.0 phyBOARD-WEGA MLO #1 Fri Feb 21 11:16:36 CET 2014

```
Board: Phyttec phyBOARD-WEGA-AM335x
omap-hsmmc omap4-hsmmc0: registered as omap4-hsmmc0
mci0: registered disk0
probe buswidth
nand: ONFI param page 0 valid
nand: ONFI flash detected
nand: NAND device: Manufacturer ID: 0x2c, Chip ID: 0xf1 (Micron MT29F1G08ABADAH4), 128MiB, page size: 2048, OOB
size: 64
booting from NAND
```

barebox 2013.11.0-PD14.1.0 phyBOARD-WEGA #1 Fri Feb 21 11:39:59 CET 2014

```
Board: Phyttec phyBOARD-WEGA-AM335x
omap-hsmmc omap4-hsmmc0: registered as omap4-hsmmc0
mci0: registered disk0
cpsw cpsw0: detected phy mask 0x3
mdio_bus: miibus0: probed
eth0: got preset MAC address: D0:FF:50:E6:AA:D5
i2c-omap i2c-am33xx0: bus 0 rev0.11 at 100 kHz
probe buswidth
nand: ONFI param page 0 valid
nand: ONFI flash detected
nand: NAND device: Manufacturer ID: 0x2c, Chip ID: 0xf1 (Micron MT29F1G08ABADAH4), 128MiB, page size: 2048, OOB
size: 64
malloc space: 0x83ff4000 -> 0x87ff3fff (size 64 MiB)
running /env/bin/init...
```

Hit m for menu or any other key to stop autoboot: 0

booting nand...

```
Image Name:   Linux-3.2.0-PD14.1.0
OS:           Linux
Architecture: ARM
Type:         Kernel Image
Compression:  uncompressed
Data Size:    3095992 Bytes = 3 MiB
Load Address: 80008000
Entry Point:  80008000
```

Loading OS U-Boot uImage '/dev/nand0.kernel.bb'

```
commandline: console=tty00,115200 ip=dhcp root=ubi0:root ubi.mtd=nand0.root,2048 rootfstype=ubifs da8xx_fb.
panel_name=DVI_XGA mtdparts=omap2-nand.0:128k(nand0.xload),128k(nand0.xload_backup1),128k(nand0.xload_backup2),
128k(nand0.xload_backup3),512k(nand0.barebox)ro,128k(nand0.bareboxenv),8M(nand0.kernel),-(nand0.root)
arch_number: 4144
```

Uncompressing Linux... done, booting the kernel.

```
[ 0.000000] Linux version 3.2.0-PD14.1.0 (gamez@numalfix) (gcc version 4.7.3 20121106 (prerelease) (OSELAS.
Toolchain-2012.12.1 linaro-4.7-2012.11) ) #1 Fri Feb 21 11:12:19 CET 2014
[ 0.000000] CPU: ARMv7 Processor [413fc082] revision 2 (ARMv7), cr=10c53c7d
[ 0.000000] CPU: PIPT / VIPT nonaliasing data cache, VIPT
```

barebox 2013.11.0-PD14.1.0 phyBOARD-WEGA MLO #1 Fri Feb 21 11:16:36 CET 2014

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barebox 2013.11.0-PD14.1.0 phyBOARD-WEGA #1 Fri Feb 21 11:39:59 CET 2014

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eth0: got preset MAC address: D0:FF:50:E6:AA:D5
i2c-omap i2c-am33xx0: bus 0 rev0.11 at 100 kHz
probe buswidth
nand: ONFI param page 0 valid
nand: ONFI flash detected
nand: NAND device: Manufacturer ID: 0x2c, Chip ID: 0xf1 (Micron MT29F1G08ABADAH4), 128MiB, page size: 2048, OOB
size: 64
malloc space: 0x83ff4000 -> 0x87ff3fff (size 64 MiB)
running /env/bin/init...
```

Hit m for menu or any other key to stop autoboot: 1

Solution

The issue you are seeing is likely the result of using a power supply that is too weak. The boot log demonstrates that the system reboots shortly after decompressing the kernel image, which puts a greater load on the CPU. Please verify that you are using the power supply provided with the kit, or otherwise consult the hardware manual for the appropriate ratings.

The phyBOARD-Wega-AM335x will require either an AC adapter supplying 5 VDC/ min. 3 A (if using the phoenix connector variant which connects directly to the phyBOARD-WEGA) or 12/24V adapter (if using PEB-POW-01 power adapter).

Related articles