

# Getting Started Instructions



## ZedBoard™

### GETTING STARTED

1. Connect 12 V power to barrel jack (J20).
2. Connect the UART port of ZedBoard (J14) to a PC using the MicroUSB cable.
3. Insert the included SD Card into J12.
4. Turn power switch (SW8) to ON. Board will power on. Green Power Good LED (LD13) should illuminate.
5. Wait approximately 15 seconds. The blue Done LED (LD12) should illuminate, and a default image will be displayed on the OLED (DISP1).
6. If the amber USB-Link Status (LD11) does not flicker to indicate activity, instructions for downloading the CY7C64225 USB-to-UART driver can be found on the website listed below.
7. Use Device Manager to determine the COM Port. Open a Terminal Program, configure to 115200/8/n/1/n.
8. Cycle power by turning the power switch (SW8) from ON to OFF and then back ON.
9. In the Terminal Window, a simple Linux image should boot with functionality that demonstrates the basic capabilities of ZedBoard.
10. When you are done using Linux, run the command "poweroff" and then switch off ZedBoard.

### FEATURES

**USB-OTG:** To use USB peripheral devices with ZedBoard, install jumpers JP2 and JP3. To connect 2 or more devices, first connect a USB hub to the USB-OTG port.

**ETHERNET:** After boot-up a dropbear ssh server, ftpd FTP server, and a httpd HTTP server will run. Refer to the documentation on these servers if you are interested in using them. A default website is hosted on the httpd server that can be reached at the static IP: 192.168.1.10.

**VGA:** A test pattern is driven on the VGA connector by the programmable logic.

**SWITCHES/LEDs:** Scripts are included for writing to the LEDs and reading the state of the switches, run the command: "read\_sw." Control the LEDs with command: "write\_led <8-bit value>". To turn all 8 LEDs on, use command: "write\_led 0xFF".

**OLED DISPLAY:** A default image should be displayed on the OLED after Linux has finished booting. In order to prolong the life of the OLED display, the manufacturer suggests that a specific powerdown sequence be used. Running the poweroff command before switching ZedBoard off will ensure that this procedure is correctly followed.

```
COM6:115200baud - ZedBoard UART VT
File Edit Setup Control Window KanyCode Help
[ 1.310000] EXT4-fs (ram0): mounted filesystem without journal. Opts: (null)
[ 1.310000] VFS: Mounted root (ext4 filesystem) on device 1:0.
[ 1.320000] Freeing init memory: 152K
Starting rcS...
++ Mounting filesystem
++ Setting up mddev
++ Configure static IP 192.168.1.10
[ 1.500000] GEM: lp->tx_bd ffdfb000 lp->tx_bd_dma 18fca000 lp->tx_skb d807028
D
[ 1.510000] GEM: lp->rx_bd ffdfe000 lp->rx_bd_dma 18fcb000 lp->rx_skb d807038
D
[ 1.510000] GEM: MAC 0x00350a00, 0x00002201, 00:0a:35:00:01:22
[ 1.520000] GEM: phydev d8b73400, phydev->phy_id 0x1410dd1, phydev->addr 0x0
[ 1.520000] eth0, phy_addr 0x0, phy_id 0x1410dd1
[ 1.530000] eth0, attach [Marvell 88E1510] phy driver
++ Starting telnet daemon
++ Starting http daemon
++ Starting dropbear (ssh) daemon
++ Starting OLED Display
[ 1.570000] pmodled-gpio-spi [zed_oled] SPI Probing
++ Exporting LEDs & SWs
rcS Complete
zynq>
```

```
COM6:115200baud - ZedBoard UART VT
File Edit Setup Control Window KanyCode Help
[ 1.530000] eth0, attach [Marvell 88E1510] phy driver
++ Starting telnet daemon
++ Starting http daemon
++ Starting ftp daemon
++ Starting dropbear (ssh) daemon
++ Starting OLED Display
[ 1.570000] pmodled-gpio-spi [zed_oled] SPI Probing
++ Exporting LEDs & SWs
rcS Complete
zynq> read_sw
0xa5 105
zynq> write_led 0xFF
zynq> poweroff
zynq> Starting rcK...
++ Stopping OLED Display
[ 138.380000] pmodled-gpio-spi [zed_oled] spi_remove: Device Removed
++ Unmounting filesystem
rcK Complete
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system poweroff
[ 140.510000] System halted.
```

Please visit [www.zedboard.org](http://www.zedboard.org) → Support → Documentation for the complete Getting Started Guide with detailed setup instructions and numerous example designs.

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