



P&E Drivers for Linux

Installation Guide, v.1.00

Using P&E hardware via the USB port within the development environment requires the USB drivers. Use the following steps to install P&E's USB drivers correctly onto the Linux operating system.

1 Installing P&E's LibUSB drivers

LibUSB relies on a version of LibUSB to be present on the Linux machine. The shared object P&E's libraries rely on libusb-0.1.so.4. This must either be an actual library or a symlink to the appropriate LibUSB library. The following steps demonstrate how to install the necessary resources on CentOS/RHEL 6.4 (64-bit) and Ubuntu 14.04 (64-bit).

•CentOS/RHEL 6.4 (64-bit), Ubuntu 14.04 (64-bit)

1. Open a console (terminal) window.
2. Change to the directory containing the P&E drivers [somedirectory]/libusb_64_32.
3. Run the setup.sh shell script with super user privilege. This can be done after entering the superuser (su) account with the following command : `sh ./setup.sh` while in the same directory as the shell script. Alternately, if the sudo command is valid for your login, the `sudo sh ./setup.sh` command may be used.

2 Default Ethernet firewall configuration for CentOS/RHEL 6.4

The default configuration of CentOS/RHEL 6.4 may block two separate ports which are used by the GDB server: (1) Cyclone Programmer UDP packets, and (2) GDB server TCP packets if configured for external access. Assuming that the GDB server would be configured to run on port 7224, the following commands (run in the superuser account) will unblock both ports:

```
iptables -I INPUT 1 -p udp --dport 4468 -j ACCEPT
iptables -I INPUT 1 -p tcp --dport 7224 -j ACCEPT
```



These changes to the firewall configuration are temporary and will disappear at the next reboot. These settings can be made persistent as well.