

QNX 6.0 built-in driver installation guide for PCIPORT card

1. To use PCIPORT card in QNX system we will use the built-in driver in QNX system.
2. The built-in driver for serial port in QNX system is "devc-ser8250". Please check the manual of "devc-ser8250" for more information about usage.
3. Because our PCIPORT card is PCI card and "devc-ser8250" driver need to know the I/O address and IRQ vector in each serial port. So we need to know such information in PCIPORT card. And "pci" command in QNX system will offer such information. Please check the manual of "pci" for more information about usage.
4. Following is the procedure to install driver for PCIPORT card in QNX.
 - a) Please run "pci" command to get information of PCI device in your system.

```
pci -v > pci.inf
```

- b) From above "pci.inf" file we can get information for our PCIPORT card. We have two vendor ID for PCIPORT card. In P584/P588/P584U/P588U card we have vendor ID "10B5". In P514/P518 card we have vendor ID "144A". Please search vendor ID "10B5" or "144A" in "pci.inf" file to find our PCIPORT card's information. You may have similar information as following structure.

```
Class           = Communication (Serial Controller)
Vendor ID       = 10B5h or 144Ah
Device ID       = 9050h
PCI index       = 0h
Class Codes     = 070080h
Revision ID     = 1h
Bus number      = 0
Device number   = 7
Function num    = 0
PCI I/O Address = C800h length 128 enabled
PCI I/O Address = C400h length 64 enabled <=====I/O base for PCIPORT
PCI I/O Address = C000h length 8 enabled
Max Lat        = 0ns
Min Gnt        = 0ns
PCI Int Pin     = INT A
Interrupt line   = 10 <=====IRQ value for PCIPORT
```

- c) From above example we can know the I/O base address for PCIPORT card is "c400" and IRQ value for PCIPORT card is "10".
 - d) So we can use such information to install serial port driver in following I/O address
c400, c408, c410, c418, c420, c428, c430, c438 for 8 serial port in P588 card. Each serial port need 8 byte I/O map.
 - e) We need to run following command line under QNX to install driver:
devc-ser8250 -u3 c400,10 -u4 c408,10 -u5 c410,10 -u6 c418,10
-u7 c420,10 -u8 c428,10 -u9 c430,10 -u10 c438,10
 - f) So you have PCIPORT card with device name as /dev/ser3----/dev/ser10
5. For more information you can check manual for "pci" and "devc-ser8250" command to know more option about QNX standard device driver usage.