

### **Linux Installation Procedures:**

For Linux Kernel 2.4.18 and above (including RedHat V8.0), IO-104 serial ports can be automatically detected and installed. The following descriptions show the necessary steps to double check that the IO-104 serial ports has been configured correctly by the Linux platform:

1. Plug in the IO-104 card and start the system. After bootup, log in as supervisor, or use 'su' as shown below:

```
[test@lnx test]$ su
Password:
```

2. Then check the PCI device status:

```
[root@lnx test]# lspci -v
....

00:0d.0 Serial controller: Oxford Semiconductor Ltd OX16PCI954 (Quad 16950 UART
function 0 (prog-if 06 [16950])
Subsystem: Oxford Semiconductor Ltd: Unknown device 0000
Flags: medium devsel, IRQ 9
I/O ports at c400 [size=32]
Memory at dfffc000 (32-bit, non-prefetchable) [size=4K]
I/O ports at c000 [size=32]
Memory at dfffb000 (32-bit, non-prefetchable) [size=4K]
Capabilities: [40] Power Management version 2
....
```

If output of the `lspci -v` shows something like above, your PCI IO-104 card has been correctly detected by the system.

3. Next we will check the available serial ports reside in the system:

```
[root@lnx test]# more /proc/tty/driver/serial
serinfo:1.0 driver revision:
0: uart:16550A port:000003F8 irq:4 tx:0 rx:0
1: uart:16550A port:000002F8 irq:3 tx:0 rx:0
2: uart:16450 port:0000CC00 irq:9 tx:0 rx:0
3: uart:16450 port:0000CC08 irq:9 tx:0 rx:0
4: uart:16C950/954 port:0000C400 irq:9 tx:0 rx:0
5: uart:16C950/954 port:0000C408 irq:9 tx:0 rx:0
6: uart:16C950/954 port:0000C410 irq:9 tx:0 rx:0
7: uart:16C950/954 port:0000C418 irq:9 tx:0 rx:0
[root@lnx test]#
```

Listed as the UART 4~7 now are the serial ports from IO-104, and are assigned as ttyS4 ~ ttyS7. The number may vary depending upon how many serial ports you have originally installed.

The four IO-104 UARTs are now ready to use.