

LINDY®

COMPUTER CONNECTION TECHNOLOGY

CardBus/PCMCIA 2 Serial Ports

User Manual

English



LINDY No. 70918

www.LINDY.com



Introduction

Thank you for purchasing the RS-232 asynchronous serial PCMCIA card, an ideal solution for adding additional ports to a wide variety of portable systems. This Card Bus is your best solution to utilize the peripheral with serial port in an easy-to-use environment such as plug-n-play and hot-swapping function.

For high performance is heavy multitasking environments, this Card Bus is implemented with 16950 UART containing 128-byte FIFO. It provides ideal connections to Modems, PDA, Digital Camera, Label printer, ISDN terminal adapters, and barcode scanner via Notebook or any portable systems.

1.0 Features

- Supports 32-bit Card Bus or PCMCIA Type II slot.
- Plug-n-Play and Hot-swapping compatibility.
- IRQ and I/O address assigned by BIOS.
- Fast 16C950 Oxford CF950 high performance UART chipset.
- 128 byte receiver and transmitter FIFO.
- High speed serial ports support baud rates up to 115Kbps.
- Add two independent RS-232 serial ports on your laptop.
- Provide maximum performance while taking up minimal system resources.
- Automatic clock speed detection.
- Memory-mapped operation for efficient throughput.

2.0 System Requirements

- Pentium II or equivalent Notebook or PC computer.
- One available PCMCIA Type II 32-bit Card Bus slot.
- CD-ROM / DVD-ROM drive installed.
- Driver support Microsoft Windows 95 / 98 / NT / 2000 / XP.

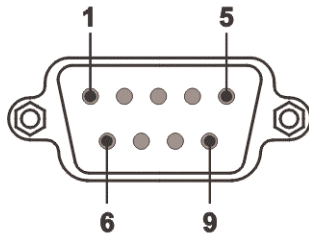
3.0 Packing List

Please check if the following items are present and in good condition upon opening your package. Contract your vendor if any items are damaged or missing.

- Hardware:
 - Card: PCMCIA Type II 32-bit Serial Card Bus x 1
 - Cable: 44 Pin male connector to 2 Serial ports DB9 male x 1
 - CD Driver x 1
 - User Manual x 1
-

4.0 Pin Assignment

DB9 Male



PIN	Signal
1	DCD
2	RD
3	TD
4	DTR
5	GROUND
6	DSR
7	RTS
8	CTS
9	RI

5.0 Driver Installation

◆ Windows NT4.0

1. Power up the system.
2. After inserting the Serial Card Bus into PCMCIA Type II slot successfully, please follow the instructions as below:
3. Please run the “**Install_Serial.exe**” program locate within folder of the attached driver CD :

\\PCMCIA\IO\CBS2000X\WinNT4\Install_Serial.exe

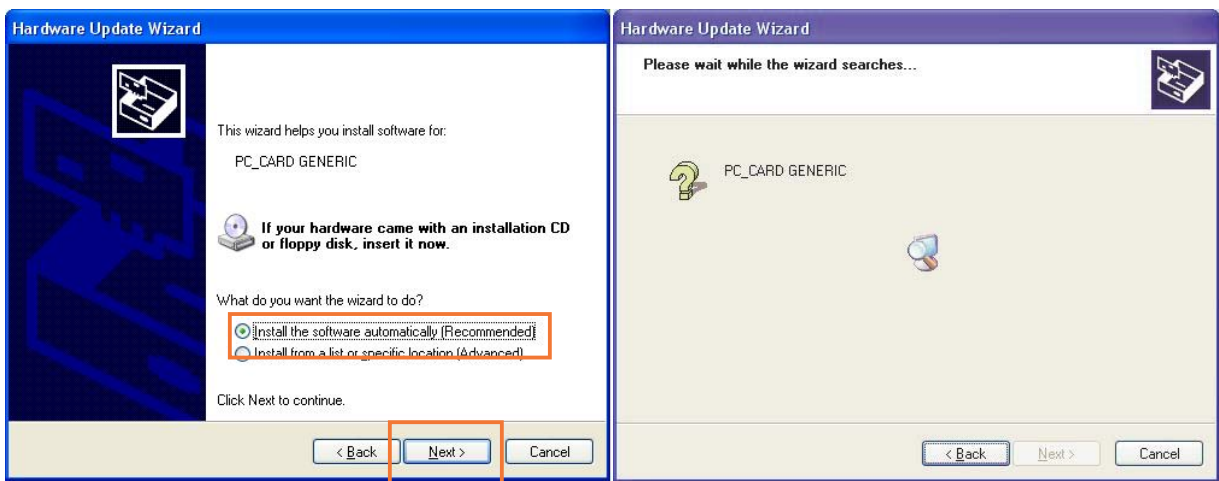


4. When the installation application starts, click “**Next**” to continue,
5. Ensure “**Install**” is selected, then click “**Next**”.
6. Click “**OK**” to accept the license agreement.
7. The system will install the driver and start it.
The ports are immediately ready for using.

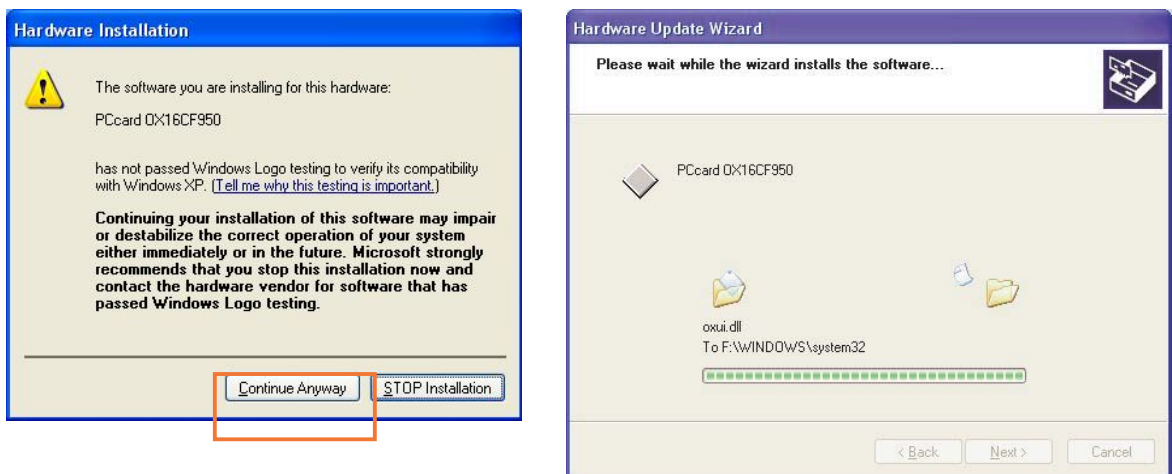
◆ Windows 9x/2000/XP

1. Power up the system.
2. After inserting the Serial Card Bus into PCMCIA Type II slot successfully, please follow the instructions as below:
3. System will show the “Found New Hardware Wizard” windows.
 - a. You can select “**Install the software automatically**”.
Let system searching and installing the appropriate driver automatically.
 - b. You can select “**Install from a list or specific location**”.
Please specify the driver locate within folder of the attached driver CD :

\PCMCIA\IO\CBS2000X



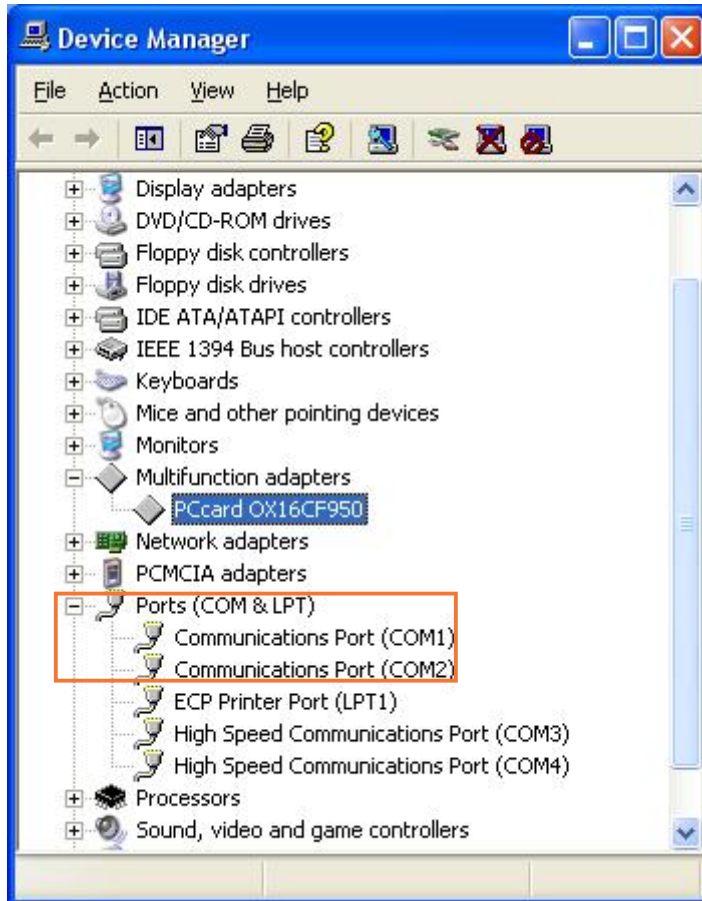
4. System will search the “**PCcard OX16CF950**” driver and show the software installation warning windows. Select “**Continue Anyway**” to install driver.



5. After installing driver successfully, please select “**Finish**” to complete the driver installation steps.

Note:

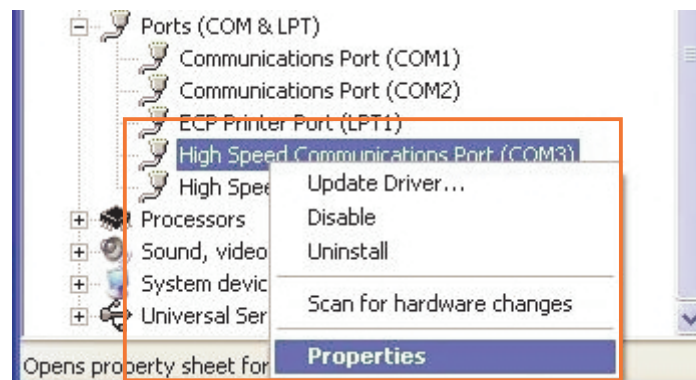
- 5 The “Add New Hardware Wizard” windows will show up and re-install driver several times until you finish setting up each serial port.
Please right click my Computer , select Properties , and Hardware , then “**Device Manager**” to verify the driver installation completed.



If there is any yellow exclamation mark on "PCcard OX16CF950", please remove this item from the Device Manager by clicking the Uninstall button and click Refresh to reinstall this driver again.

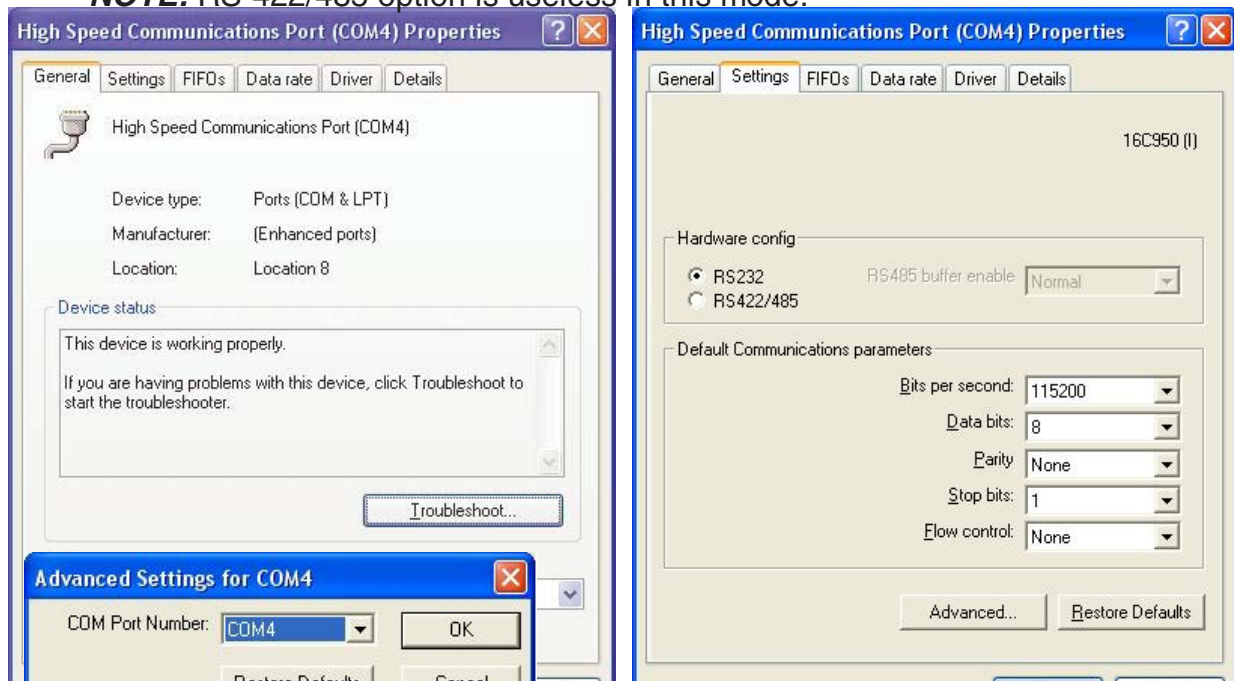
6.0 Configure COM Port

1. Select the COM Port which you want to configure, for example COM4.
Right click the mouse, and select the **“Properties”**.



2. You can configure different operating settings through selecting the **“High Speed Communications Port”** properties pages.
3. Please select **“Settings”** to configure standard Baud rate, Data bits, Parity, Stop bits and Flow control options, then select **“Advanced Setting”** to choose COM port number as picture shown.

NOTE: RS-422/485 option is useless in this mode.

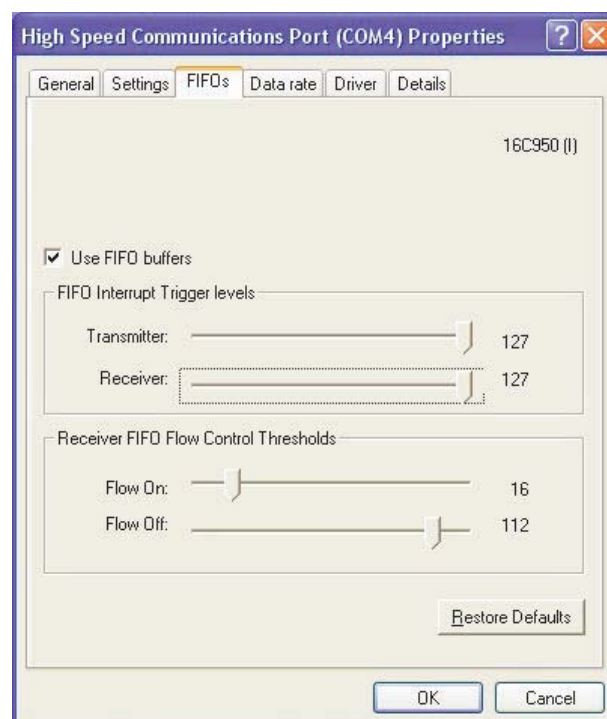


3. You can select “FIFOs” change the length of receiver and transmitter FIFO.

This page is used to configure the FIFO trigger levels, i.e. at what fill levels the device will generate an interrupt, or apply automatic flow control. In addition, the FIFO can be completely disabled; although this is not recommended for normal operation. The four sliders allow adjustment of the various trigger levels in 550 and 950 modes. These are described below:

- ⌚ Transmitter FIFO interrupt trigger level - When the level of data in the transmit FIFO falls below this value, a transmitter interrupt is triggered. Setting this value to zero will not trigger an interrupt until the transmitter is completely idle.
- ⌚ Receiver FIFO interrupt trigger level - When the level of data in the receiver FIFO reaches this value, a receiver data interrupt is triggered.
- ⌚ Flow On flow-control limit - When the level of data in the receiver FIFO reaches this value as data is read from the FIFO, a handshake is triggered to instruct the remote transmitter that it is free to transmit data (E.g. Transmit an XON character to the remote machine).
- ⌚ Flow Off flow-control limit - When the level of data in the receiver FIFO reaches this value as it fills up, a handshake is triggered to instruct the remote transmitter to stop sending data as the FIFO is becoming full. (E.g. Transmit an XOFF character to the remote machine).

The FIFO trigger levels can be fine tuned to gain optimum performance, depending on system performance, baud rate used, levels of serial traffic etc.

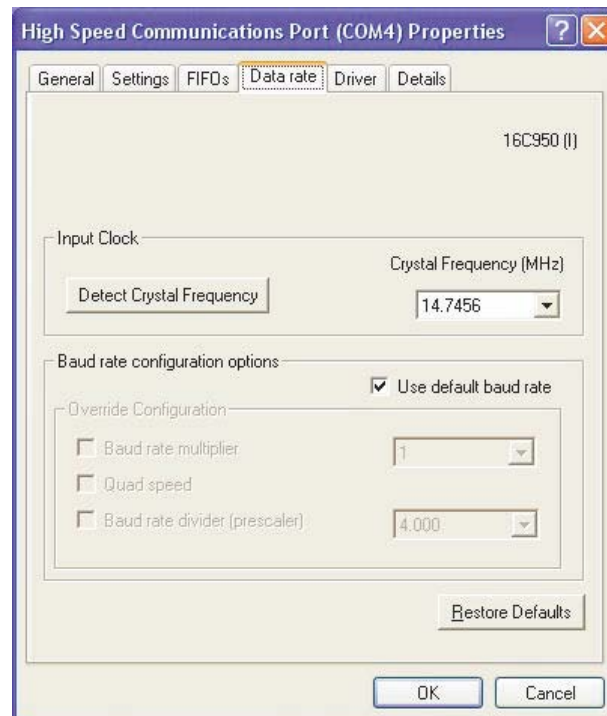


4. You can select “Data Rate” change the crystal Frequency of input clock.

This page provides a list of common crystal values used with COM ports. Select “Detect crystal frequency” to detect the input clock frequency to the UART. (This requires that the port is not currently in use by another application).

The baud rate can optionally be adjusted according to the data rate required. To enable the advanced baud rate configuration options, deselect the “Use default baud rate” box. In normal operation, the driver will generate the desired baud rate from the crystal frequency. The quad speed option will multiply all application selected baud rates by 4 by utilising the OX16C95x Times clock register (TCR). The driver can multiply this baud rate, or divide it using the Clock Prescaler register (CPR).

The clock pre-divisor is used to divide the input clock prior to baud rate generation. This means a high speed crystal (e.g. 50MHz) can be pre-divided to generate standard baud rates (In this case $50 / 27.125 = 1.8433$ MHz, which will emulate a 1.8432 MHz crystal with less than 0.01% bit rate error). Alternatively, the pre-divisor could be switched off to allow data rates up to 12.5Mbps to be generated.





This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operations.