2 Ports RS-232 Card Bus

Introduction
Thank you for purchasing the RS-232 asynchronous serial PCMCIA card, an ideal solution for adding additional ports to varieties 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 16C850 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.

Features
1. Supports 32-bit Card Bus or PCMCIA Type II slot.
2. Plug-n-Play and Hot-swapping compatibility.
3. IRQ and I/O address assigned by BIOS.
5. Provides 128 byte receiver and transmitter FIFO.
6. High speed serial ports support baud rates up to 115Kbps.
7. Add two independent RS-232 serial ports on your laptop.
8. Provide maximum performance while taking up minimal system resources.
10. Memory-mapped operation for efficient throughput.

Packaging Content
Please check if following items are present and in good condition upon opening your package. Contract your vendor if any items are damaged or missing.
1. PCMCIA Type II 32-bit Serial Card Bus
2. 44 Pin male connector to 2 Serial ports DB9 male Cable
3. CD Driver

System Requirements
1. Pentium II or equivalent Notebook or PC computer.
2. One available PCMCIA Type II 32-bit Card Bus slot.
3. CD-ROM / DVD-ROM drive installed.

Specification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>2 ports RS-232 Serial Card Bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>32-bit PCMCIA Type II Card Bus</td>
</tr>
<tr>
<td>Controller</td>
<td>Oxford CF850 16C850 compatible UART</td>
</tr>
<tr>
<td>IRQ &amp; Address</td>
<td>Assigned by BIOS</td>
</tr>
<tr>
<td>I/O ports</td>
<td>One 44 Pin Female connector on Card Bus</td>
</tr>
<tr>
<td></td>
<td>Two serial DB 9 pin male ports through cable</td>
</tr>
<tr>
<td>FIFO</td>
<td>128byte FIFO</td>
</tr>
<tr>
<td>Transfer rate</td>
<td>Support data transfer rate 50bps–115Kbps</td>
</tr>
<tr>
<td>Power supply</td>
<td>Supply by PCMCIA BUS</td>
</tr>
<tr>
<td>OS support</td>
<td>Microsoft Windows 95/98/NT/2000/XP</td>
</tr>
<tr>
<td>Dimenion</td>
<td>132x58x21MM (LxWxH)</td>
</tr>
<tr>
<td>Certification</td>
<td>CE, FCC</td>
</tr>
<tr>
<td>Environment</td>
<td>Operation Temperature: 0°C–57°C</td>
</tr>
<tr>
<td></td>
<td>Storage Temperature: -10°C–80°C</td>
</tr>
<tr>
<td></td>
<td>Humidity: 5%–95% RH</td>
</tr>
</tbody>
</table>

Pin Assignment

<table>
<thead>
<tr>
<th>RS-232 DB9 Male</th>
<th>PIN</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DCD</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>RxD</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TxD</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>DTR</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>DSR</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>RTS</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>CTS</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>RI</td>
<td></td>
</tr>
</tbody>
</table>

Hardware Installation
1. Please plug the cable into the Serial Card Bus DB9F port, and lock it!!
2. Please insert the Serial Card Bus into your portable system or Notebook PCMCIA Type II 32-bit slot.

Driver Installation

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.
   Please insert the CD driver in your CD/DVD ROM.
   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:
   [PCMCIAIIOI\CBS2000X] 4. System will search the "PCCard OX16CF950” driver and show 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:
The "Add New Hardware Wizard" windows will show up and re-install driver several times until you finish setting up each serial port.
2 Ports RS-232 Serial Card Bus

Driver Installation
- **Window 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 insert the CD driver in your CD/DVD ROM.
  4. Please run the "Install_Serial.exe" program located within the folder of the attached driver CD: 
     `\PCMCIA\ID1GBS2000\WinNT4\Install_Serial.exe`
  5. When the installation application starts, click "Next" to continue.
  6. Ensure "Install" is selected, then click "Next".
  7. Click "OK" to accept the license agreement.
  8. The system will install the driver and start it.
    The ports are immediately ready for use.

Verifying installation on your system
In order to make sure your Serial Card Bus installation completely, please click 
Start > Settings > Control Panel > System > Hardware > Device Manager

Multifunction adapters
- PIC Card OX16CF950
  Ports (COM & LPT)
  - Communications Port (COM1)
  - Communications Port (COM2)
  - ECP Printer Port (LP1)
  - High Speed Communications Port (COM3)
  - High Speed Communications Port (COM4)

NOTE: If there is a yellow exclamation mark on "PIC Card OX16CF950" or "COM port", please remove this item from the Device Manager by clicking the Uninstall button and click Refresh to reinstall this driver again.

Configure COM Port
1. Select the COM Port which you want to configure, for example COM4.
2. Right click the mouse, and select the "Properties".
3. You can configure different operating settings through selecting the "High Speed Communications Port" properties pages.
4. Please select "Settings" to configure standard Baud rate, Data bits, Parity, Stop bits and Flow control options.
5. Select "Advanced Setting" to choose COM port number as picture shown.

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

Configure COM Port
- Use RXD/DXI: FIFO Interrupt trigger level
  - Use TXD/RXI: FIFO Interrupt trigger level
  - Baud rate: 9600
  - Data bits: 8
  - Stop bits: 1
  - Flow control: Hardware

4. You can select "FIFOs" changing 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 auto 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 the FIFO and FIFO modes. These are described as:
   - Transmitter FIFO interrupt trigger level
   - Receiver FIFO interrupt trigger level
   - Flow On flow control level
   - Flow Off flow control level

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

5. 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 "Select crystal frequency" to adjust 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 baud rate option will multiply the input baud rate by 4 by utilizing the 82C54 Times clock register (TCCR). The driver can multiply this baud rate, or divide it using the Clock Prescaler register (CPRT).
   - The clock pre-divider is used to divide the input clock prior to baud rate generation. The output clock is divided by 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, or 4096. The baud rate divisor can be adjusted to generate standard baud rates. (In this case, 50/27 125 = 18433 MHz, which will emulate a 18433 MHz crystal with less than 0.01 bit rate error). Alternatively, the pre-divider could be switched off to allow data rates up to 12.95 Mbps to be generated.