

# CardBus Serial Card

2 Port RS-422/485 Serial CardBus Card

CB2S485

Instruction Manual

**StarTech.com**

The Professionals' Source for Hard-to-Find Computer Parts



## **FCC Compliance Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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## Introduction

Thank you for purchasing a StarTech.com CB2S485 2 port CardBus RS-422/485 Serial card. This product allows you to add two high speed serial ports to your notebook computer in a compact form factor using easy Plug and Play setup.

## Features

- Adds two RS-422/485-compatible serial ports to your notebook computer
- Supports Plug and Play installation
- Maximum data transfer rate of 115 Kbits/sec.
- Backed by StarTech.com's lifetime warranty

## Before You Begin

### System Requirements

- An IBM compatible notebook computer with an available CardBus slot
- Minimum Operating System Requirements: Windows 95/98/ME/2000/XP/2003
- A CD-ROM or other optical drive (for driver installation)

### Contents

This package should contain:

- 1 x CB2S485 CardBus card
- 1 x Installation CD
- 1 x 2 port DB9 connector dongle
- 1 x Instruction Manual

## Installation

This section will guide you through the installation of your card and the related software. Please read through the instructions carefully and complete each step in the order listed. Do not insert the card into the computer before Windows has loaded.

### Windows 2000/XP

1. Once Windows has started, insert the CB2S485 into an available CardBus slot.
2. Windows will detect that new hardware has been added and start the **Add New Hardware Wizard**. Click **Next**.
3. Insert the installation CD that came with the card into your notebook's CD-ROM or other compatible optical drive. Choose **Search for a suitable driver....** Click **Next**.

4. It may take several moments for Windows to search your drives for the driver files. If you have previously installed a similar product on this computer, the wizard may open a dialog box that says **Please select the best match for your hardware from the list below**. If this occurs, choose the option with the location of x:\PCMCIA\IO\CBS2000X (where "x:" is the letter assigned to your CD-ROM drive) and click **Next**. If the dialog box does not appear, Windows will automatically copy the needed files without prompting you.
5. You may receive a warning that the driver file has not been digitally signed. When prompted, choose **Yes** or **Continue Anyway** to continue the driver installation.
6. Choose **Yes** if you are asked to restart the computer.

#### Windows 95/98/ME

1. Windows will detect that new hardware is installed and launch the Add New Hardware Wizard. Click **Next** and choose the **Search for the best driver for your device (Recommended)** option. Click **Next**.
2. On the next screen select only **Specify a location**. Choose **Browse**.
3. In the file selection box, double click **CD-ROM Drive (X:)** and double click folders in the following order: **PCMCIA > IO > CBS2000X** and click **OK**. (Note that the letter and name of the drive where the CD is located will depend on your system configuration.)
4. The file location box under **Specify a location** will now contain the path to the files. Click **Next**.
5. The Wizard will inform you that "Windows is now ready to install the best driver for this device..." Click **Next**. The Wizard will complete the installation. Click **Finish**.

#### To Verify Installation

##### Windows 95/98/ME

1. Go to **Start > Settings > Control Panel**.
2. Double click **System**.
3. Click the **Hardware** tab.
4. If the card does not appear with a red **x** or yellow exclamation point (!) next to it, Windows has not detected a problem with the installation and the card should function normally.

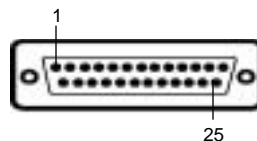
##### Windows 2000/XP

1. Go to **Start > Settings > Control Panel**.
2. Double click **System**.
3. Click the **Hardware** tab and choose **Device Manager**.
4. If the card does not appear with a red **x** or yellow exclamation point (!) next to it, Windows has not detected a problem with the installation and the card should function normally.

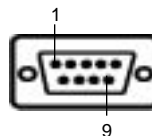
You may now connect the dongle to the card (provided) and connect your serial devices.

## Specifications

Form Factor/Interface	CardBus, 32-bit, Type II
UART Chipset	Oxford CF950, 16C950 compatible
Max. Data Transfer Rate	115 Kbits/sec
Operating Tolerance	32°~135°F (0°~57°C), 5~95% R.H.
Connectors/Signal Types	2 x DB9 male (RS-422 or RS-485)
Supported Operating Systems	Win. 95/98/ME/NT/2000/XP, DOS
Regulatory Certifications	FCC Class B, CE



DB25



DB9

### Pin Assignments

#### RS-422 (DB25)

Function	RxD+	TxD+	RTS+	CTS+	RTS-	GND	TXD-	RxD-	CTS-
Pin	2	3	4	5	6	7	8	20	22

#### RS-422 (DB9)

Function	RxD+	TxD+	RTS+	CTS+	RTS-	GND	TXD-	RxD-	CTS-
Pin	3	2	7	8	6	5	1	4	9

#### RS-485 (DB25)

Function	Data+	RTS+	CTS+	RTS-	GND	Data-	CTS-		
Pin	3	4	5	6	7	8	22		

#### RS-485 (DB9)

Function	Data+	RTS+	CTS+	RTS-	GND	Data-	CTS-		
Pin	2	7	8	6	5	1	9		

## Safely Removing the CB2S485

While the CB2S485 can be removed with the computer running and Windows started (a process commonly referred to as “hot-plugging”), Windows does offer a “safe removal” feature that ensures that the card is inactive before it is removed from the CardBus slot. It is strongly recommended that you follow this procedure when removing the card from a computer to avoid data loss or equipment damage.

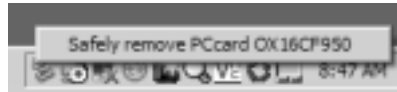
### To use the safe removal feature:

1. Locate the hardware ejection icon in the System Tray (next to the clock).
2. Left click the icon once to activate the device menu.



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3. Highlight **PCcard OX16CF950** from the list and click it once.
4. After a momentary pause, Windows will display a message informing you the card can be safely removed.
5. You can now physically remove the card from the slot.



## Accessory Products from StarTech.com

Contact your local StarTech.com dealer or visit [www.startech.com](http://www.startech.com) for cables or other accessories that will help you get the best performance out of your new product.

3 ft. AT Modem Cable DB9F-DB25M  
**MC3MF**

6 ft. AT Modem Cable (male to female)  
**MC6MF**

6 ft. 9-pin Straight Through Cable (male to female)  
**MXT100**

25 ft. 9-pin Straight Through Cable (male to female)  
**MXT100\_25**

Adapter DB9F to DB25F  
**AT925FF**

Adapter DB9F to DB25M  
**AT925FM**

Slimline Adapter DB9F to DB25M  
**AT925SFM**

10 ft. Cross Wired Serial/Null Modem Cable DB9F to DB25M  
**SCNM925FM**

10 ft. Cross Wired Serial/Null Modem Cable DB9 F/F  
**SCNM9FF**

25 ft. Cross Wired Serial/Null Modem Cable DB9 F/F  
**SCNM9FF25**

10 ft. Cross Wired Serial/Null Modem Cable DB9 F/M  
**SCNM9FM**

6 ft. Modem Cable DB9F-DB9F  
**MXT100FF**



## Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit [www.startech.com/support](http://www.startech.com/support) and access our comprehensive selection of online tools, documentation, and downloads.

## Warranty Information

This product is backed by a lifetime warranty. In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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