

MSC-104B / MSC-104B-SI

Installation Guide

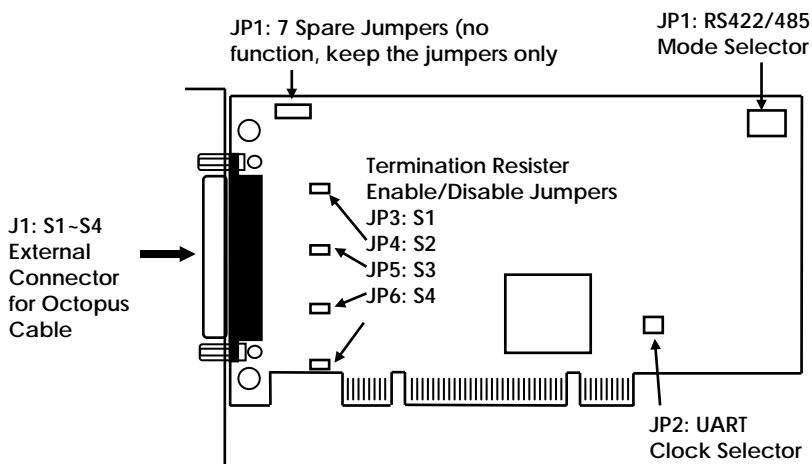
1. Introduction

Thank you for purchasing this Multi-port R-S422/485 serial PCI Card. It is a high performance serial port adapter that is specially designed to connect RS-422(4-wire) or RS-485(2-wire) serial devices to any computer with PCI slots. It supports all enhanced features with its 16C950 UARTs that defined by serial port specifications.

Features:

- ✓ Fully PCI Bus Specifications 2.2 compliant
- ✓ 16C950 UART, built-in 128-byte on-chip FIFO
- ✓ Up to 921.6 Kbps baud rate, over 700 Kbps data throughput
- ✓ Precise RS485 ATTA™ (Auto Transceiver Turn Around) feature to disable the line driver by hardware
- ✓ Optional 15KV ESD surge and optical isolation protection models are available
- ✓ Supports Windows 98SE, 2000 and XP, 2003, Vista





2. Connector and Jumper Layout



3. Jumper Settings

- **RS-485 User:** Since the factory jumper settings are initially set at 2-wire RS-485 mode. There is no need to change any jumper settings from the default settings.
- **RS-422 User:** Change the mode jumper away from the "485" position. Keep the other settings unchanged.

1. Mode Jumpers:

422		485
S1L		S1H
NO ECHO		NO ECHO
S2L		S2H

Mode Settings for all S1~S4 Ports (JP1):

Jumper Name	Jumper Positions	Mode and Termination Resistor Setting
422/485	422	4-wire RS-422 mode
	485 (Default)	2-wire RS-485 mode
S1L/S1H	S1L (Default)	Reserved for Future Use. Please do NOT change it.
NO ECHO/ECHO	NO ECHO (Default)	No echo data
	ECHO	Transmitting data will be echoed back
S2L/S2H	S2L (Default)	Reserved for Future Use. Please do NOT change it.

- Please note that if the mode were set at "422" mode, the ECHO settings will take no effect.
- The Echo mode is useful for the application program to detect if the RS-485 bus were in a collision. If the echoed data was not equal to the transmitted data, then the bus was in a collision.

2. S1~S4 Termination Resistor Enable/Disable Jumpers (JP3~6):



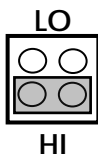
RS-485 TXD Termination Resistor
Enable/Disable

Terminator Settings (JP3 for S1, JP4 for S2, JP5 for S3, JP6 for S4):

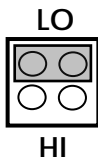
Jumper Name	Jumper Settings	Termination Resistor Setting
S1 TERM (S2 TERM)	IN	TXD (DATA- and DATA+) Termination Resistor Enabled
(S3 TERM) (S4 TERM)	OUT (Default)	TXD (DATA- and DATA+) Termination Resistor Disabled

Note: IN : Jumper Installed
OUT : Jumper Not Installed

3. JP2: UART Input Clock Speed Selector



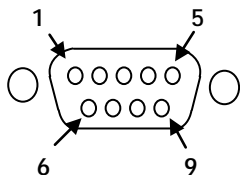
UART Input Clock Speed = 14.7456MHZ,
the maximum baud rate is 926.1Kbps.
(Default)



UART Input Clock Speed = 1.8432MHZ,
the maximum baud rate is 115.2Kbps.

4. S1~S4 Connector Pin Assignments

The RS-422/485 signals are connected by a DB37 octopus cable to 4 DB9-male connectors, the DB9-male pin assignment as follows:



<u>9 Pins</u>	<u>Signal</u>
1	TXD- (DATA-) (A)
2	TXD+ (DATA+) (B)
3	RXD+
4	RXD-
5	GND
6	RTS-
7	RTS+
8	CTS+
9	CTS-

4. Driver Installation for Win2000, XP and Vista



Note:

1. The drivers for Windows are shipped in the following folder (**E:\IO\OXFORD\RS422_485**) of the driver CD. The files are in ZIP format (e.g. V6515_RS422_485.ZIP). Please copy the file to your hard drive C: or what folder you want, unzip it before proceeding with your installations. We assumed you copy the file to your hard drive C: root directory, and the unzipped folder is V6515_RS422_485. Please do NOT use the drivers in its parent directory, E:\IO\OXFORD, since they are used for RS232 instead of RS422/485.

2. **PLEASE DO NOT LET WINDOWS AUTO SEARCH THE DRIVERS AMONG THE FOLDERS**, it will cause problems because the INF files will be conflict in this case. Instead, please browse to the correct location (folder) manually to make sure the correct drivers are chosen and installed correctly.

