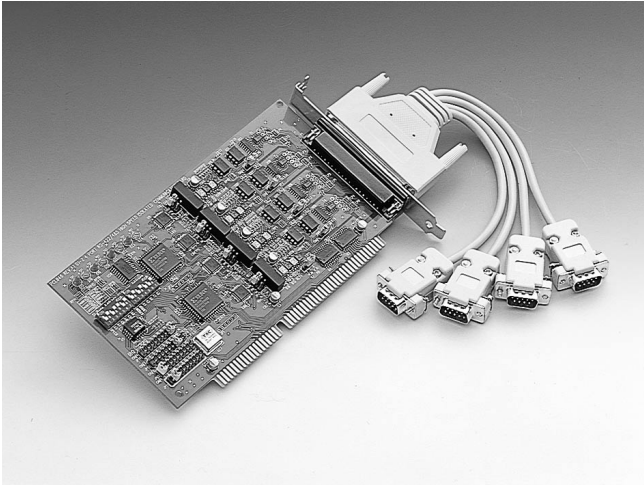


PCL-846A/B

4-port High-speed RS-422/485 Communication Cards



CE

Features

- Four independent RS-422/485 serial ports
- Transmission speeds up to 921.6 Kbps
- Independent/shared IRQ settings between each of the 4 serial ports
- Wide IRQ selection: 3, 4, 5, 6, 7, 9, 10, 11, 12 or 15
- Supports standard DOS COM1, COM2, COM3, and COM4
- Provides 1000 V_{DC} isolation
- Provides 2000 V_{DC} surge protection (PCL-846B only)
- Space reserved for termination resistors
- Supports 2 wire or 4 wire operation
- Supports Tx, Rx, RTS, and CTS signals
- Automatic RS-485 data flow control or RTS control
- Supports Windows 95/98/NT/ME/2000/XP, Linux (ICOM utility), DOS

Introduction

The PCL-846 series cards provide four independent RS-422/485 serial ports on a card. Each port has a 16C550 UART with an on-chip 16-byte FIFO buffer for reliable, high-speed serial I/O. The UART buffers data into 16-byte packets before sending it to the bus. This drastically reduces the CPU load and avoids data loss when the system is busy and cannot process the interrupt quickly. The UART is especially useful for high speed serial I/O under Windows.

The PCL-846 cards utilize onboard optical isolators to protect your PC and equipment against damage from ground loops, increasing system reliability in harsh environments. To further increase reliability, PCL-846B cards include surge protection technology, protecting your system from abrupt high voltage surges (up to 2000 V) such as those caused by lightning during thunderstorms.

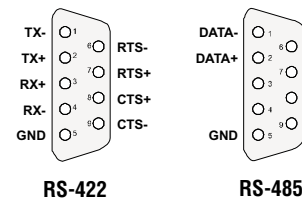
An RS-485 Network with Automatic Data Flow Control Using RS-232 Software

The RS-485 mode automatically senses the direction of incoming data and switches its transmission direction accordingly. This feature makes your network look and act just like an RS-232 network. Application software written for half duplex RS-232 can be used without modification. Moreover, you can simply and quickly build an RS-485 network with just two wires.

Specifications

- **Ports** 4
- **UART** 4 x 16C550 with 16-byte FIFO
- **Speed** 50 ~ 921.6 Kbps
- **Parity** None, even, odd
- **Signal Support** TxD+, TxD-, RxD+, RxD-, CTS+, CTS-, RTS+ and RTS-
- **I/O Address** From 200H to 3F8H
- **IRQ** 3, 4, 5, 6, 7, 9, 10, 11, 12 or 15
- **Isolation Voltage** 1000 V_{DC}
- **Surge Protection** 2000 V_{DC} (PCL-846B only)
- **Power Consumption** +5 V @ 970 mA typical, 1.2 A max.
- **Cables** 30 cm male DB-37 to four male DB-9 (DTE)
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature** -25 ~ 80°C (-13 ~ 176°F)
- **Dimensions** 185 x 100 mm (7.3" x 3.9")

Pin Assignments



Ordering Information

- **PCL-846A** 4-port RS-422/485 interface card w/isolation protection (DB-37 to 4 DB-9 cable included)
- **PCL-846B** 4-port RS-422/485 interface card w/isolation and surge protection (DB-37 to 4 DB-9 cable included)