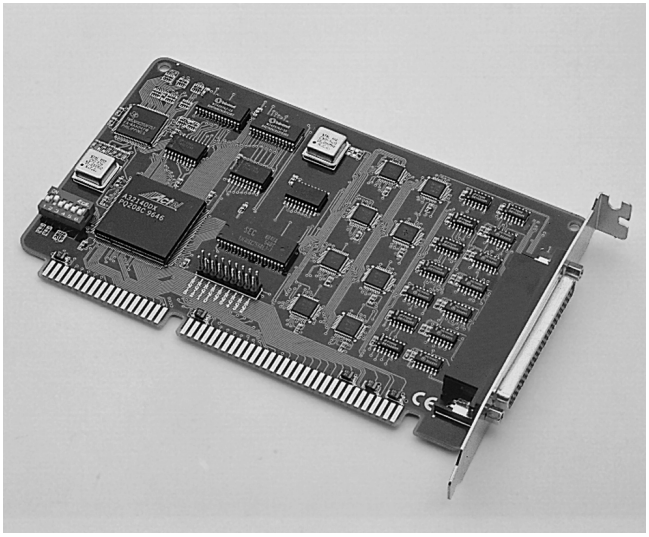
PCL-844+

8-port Intelligent RS-232/422 ISA Communication Card



Features

- RISC Processor (TMS 320)
- 512 KB dual-port RAM
- Transmission speed up to 921.6 Kbps with eight ports on-line
- Complete RS-232 modem control signals
- Maps to just 16 KB of system memory. Choose one of six addresses from C8000 to DC000.
- Many IRQ options: 2, 3, 4, 5, 7, 10, 11, 12 or 15
- Easy-to-use menu driven installation program
- LEDs on connection box let you monitor the TxD/RxD status of any port
- Links to peripherals up to 1200 m (4000 ft) from controller (RS-422)
- Surge protection: 2500 V_{ESD}, 2000 V_{EFT} (Optional)

Introduction

We designed the intelligent PCL-844+ 8-port RS-232 or RS-422 interface card for lab and industrial applications where a PC needs to communicate with terminals, modems, or other instruments. RS-422 applications use the optional Opt-8F/8Z 8-port RS-232 to RS-422 converter, shown on the following page. You can install up to four PCL-844+ cards for a total of 32 ports in any AT/ISA bus-based PC.

The PCL-844+ card has an on-board RISC processor that takes over the communications load from the host PC. When you are processing large amounts of data from multiple ports, servicing the interrupts alone consumes a large percentage of the capacity of your computer's CPU. The PCL-844+ serves as a high speed, dedicated interrupt processor. Its CPU directly controls the board's CD180 RISC-based UART, guaranteeing 921.6 Kbps performance of over eight high speed data ports.

The PCL-844+ is virtually a self contained computer in its own right. It contains 512 KB of dual-port RAM which you can use to store and run programs. The dual-port RAM maps into the host system's address space to give you the fastest possible data transfers between the PCL-844+ and the PC memory.

When the PCL-844+ initializes, it downloads the driver software (which functions like a PC's BIOS) into on-board SRAM. This improves performance and makes version upgrading easy, with no hardware redundancy.

Specifications

Board

- **Number of Ports:** 8
- **Processor:** RISC, TI TMS320C203-57
- **Dual-ported RAM:** 512 KB
- **SRAM:** 16 KB
- **UART:** RISC-based CD180
- **Interrupt:** 2, 3, 4, 5, 7, 10, 11, 12 or 15
- **Maximum Ports in One System:** 32
- **Operating Temperature:** 0 ~ 55° C (32 ~ 131° F)
- **Power Consumption:** +5 V @ 155 mA, +12 V @ 110 mA, -12 V @ 160 mA
- **Weight:** 0.8 kg (1.8 lbs)

RS-232 Interface

- **Signals:** TxD, RxD, RTS, CTS, DTR, DSR, DCD and GND
- **Mode:** Asynchronous full duplex
- **Communication Speed:** 50 ~ 921.6 Kbps
- **Data Bits:** 5, 6, 7, 8
- **Stop Bits:** 1, 1.5, 2
- **Parity:** even, odd or none

Ordering Information

- ❑ **PCL-844+**
  8-port Intelligent RS-232/422 Card, with ISA bus
- ❑ **Opt8A**
  8-port RS-232 (DCE) connection box with female DB-25 connectors
- ❑ **Op8B**
  8-port RS-232 (DTE) connection box with male DB-25 connectors
- ❑ **Opt8C**
  8-port RS-232 connection cable with male DB-25 connectors
- ❑ **Opt8H**
  8-port RS-232 connector cable with male DB-9 connector (1 m length)
- ❑ **Opt8Z/110**
  8-port RS-422 converter with 1.5-meter DB-62 to DB-62 cable and external power adapter (110 V_{AC} input)
- ❑ **Opt8Z/220**
  8-port RS-422 converter with 1.5-meter DB-62 to DB-62 cable and external power adapter (220 V_{AC} input)
- ❑ **Opt8F/110**
  Isolated 8-port RS-422 converter with 1.5-meter DB-62 to DB-62 cable and external power adapter (110 V_{AC} input)
- ❑ **Opt8F/220**
  Isolated 8-port RS-422 converter with 1.5-meter DB-62 to DB-62 cable and external power adapter (220 V_{AC} input)
- ❑ **Opt8S**
  8-port RS-232 connection box with female DB-25 connectors and surge protectors