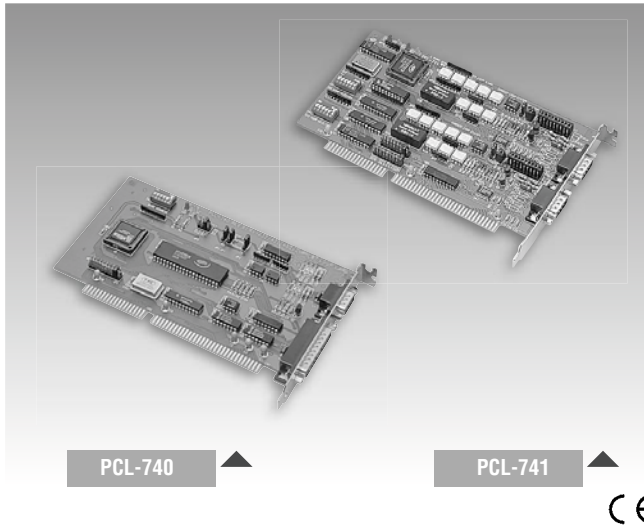# PCL-740
PCL-741
PCL-743/745
PCL-746+

RS-232/422/485, Current-loop Communiaction Card

2-port RS-232, Current-loop Communication Card

2-port RS-422/485 Communication Card

4-port RS-232/422/485 Communication Card

PCL-740 ▲   PCL-741 ▲

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Features

- RS-232, RS-422, RS-485 or current-loop interface
- 16C550 UART with 16-byte FIFO
- Transmission speeds up to 921.6 kbps
- Flexible I/O address and IRQ selection
- IRQ: 3, 4, 5, 6, 7, 9, 10, 11, 12 or 15
- Complete RS-232 modem control signals
- Supports 4-wire or 2-wire operation for RS-422/485
- Automatic RS-485 data flow control
- Space reserved for termination resistors
- Supports Windows® 98/ME/2000/XP, Linux®
- Powerful and easy-to-use utility (ICOM Tools)

Introduction

The PCL-740 offers a versatile range of high speed interfacing options. You can switch its single port between the popular RS-232, long distance RS-422, multi-drop RS-485, or noise-resistant current-loop. The card's 16C550 UART has an on-chip 16-byte FIFO buffer for faster and more reliable communication, especially under Windows.

The PCL-741 provides two isolated RS-232 or current-loop serial ports. You can configure each port individually to RS-232 or current-loop using on-board jumpers.

The card has two 16C550 UARTs with on-chip 16-byte FIFO buffers. The UARTs buffer data into 16-byte packets before sending it to the bus. This drastically reduces CPU load and avoids data loss when the system is busy and cannot process the interrupt quickly. These FIFO buffers make the PCL-741 especially suitable for high speed serial I/O under Windows. Onboard optical isolators protect your PC and equipment against damage from ground loops, increasing system reliability in harsh environments.

Specifications

General

- **Card Interface**   ISA
- **Certifications**   CE
- **Connectors**   PCL-740: 1 x DB9-M, 1 x DB25-M
  PCL-741, PCL-743, PCL-745: 2 x DB9-M
  PCL-746+: 1 x DB37-F
- **Dimensions**   185 x 100 mm (7.3" x 3.9")
- **Power Consumption**   PCL-740: +5 V @ 180 mA max., ±12 V @ 20 mA max.
  PCL-741: +5 V @ 300 mA (typical), +5 V @ 1.1 A max.
  PCL-743,PCL-745:+5V@400 mA typical, 950 mA max.
  PCL-746+: +5 V @ 800 mA typical, 1.5 A max.
                 ±12 V @ 60 mA typical, 120 mA max.
- **Weight (Gross)**   PCL-740,PCL-741, PCL-743, PCL-745: 0.6 kg (1.3 lb)
  PCL-746+: 1.1 kg (2.4 lb) (including cable)

Communications

- **Data Bits**   5, 6, 7, 8
- **Data Signals**
  RS-232:   Tx, Rx, CTS, RTS, DTR, DSR, DCD, GND, RI
  Current loop: Tx+, Tx-, Rx+, Rx-
  RS-422:   Tx+, Tx-, Rx+, Rx-, GND, CTS+, CTS-, RTS+, RTS-
  RS-485:   Data+, Data-, GND
- **I/O Address**   From 200H to 3F8H (for PCL-740/741/743/745)
  From 000h to 3F8H (for PCL-746+)
- **IRQ**   3, 4, 5, 6, 7, 9, 10, 11, 12 or 15
- **Ports**   PCL-740: 1, PCL-741: 2
  PCL-743, PCL-745: 2
  PCL-746+: 4
- **Parity**   None, even, odd
- **Protocols**   PCI-740: RS-232/422/485, current-loop
  PCI-741: RS232, current-loop
  PCI-743, 745: RS-422/485
  PCI-746+: RS-232/422/485

- **Speed**   PCL-740, PCL-741: 50 bps ~115.2 kbps
  (for RS-232/422/485)
  50 bps~57.6 kbps (current-loop)
  PCL-743, PCL-745: 50 bps ~ 921.6 kbps
  PCL-746+: 50 bps ~ 115.2 kbps
- **Stop Bits**   1, 1.5, 2
- **UART**   PCL-743, PCL-745: 2 x 16C550 with 16-byte FIFO
  PCL-746+: 4 x 16C550 16-byte FIFO
  PCL-740: 1 x 16C550 with 16-byte FIFO
  PCL-741: 2 x 16C550 with 16-byte FIFO

Protection

- **Isolation Protection**   2500 V_{DC} (PCL-741), 3000 V_{DC} (PCL-745B/745S)
- **Surge Protection**   2500 V_{DC} (PCL-743S/745S)

Software

- **Bundled Software**   ICOM Tools
- **Driver Support**   Windows 98/ME/2000/XP, Linux

Environment

- **Operating Temperature**   PCL-740,PCL-741,PCL-746+: 0 ~ 50° C (32 ~ 122° F)
  PCL-743, PCL-745: 0 ~ 65° C (32 ~ 149° F)

Ordering Information

- **PCL-740**   RS-232/RS-422/RS-485/current-loop serial interface card
- **PCL-741**   Isolated dual-port RS-232/current-loop interface card.
- **PCL-743B**   2-port RS-422/485 communication card
- **PCL-743S**   2-port RS-422/485 communication card with surge protection
- **PCL-745B**   2-port RS-422/485 communication card with isolation protection
- **PCL-745S**   2-port RS-422/485 communication card with isolation and surge protection
- **PCL-746+**   4-port RS-232/422/485 communication card (30cm DB37 to 4 DB25 cable included)
- **PCL-746+/9**   4-port RS-232/422/485 communication card (30cm DB37 to 4 DB9 cable included)

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