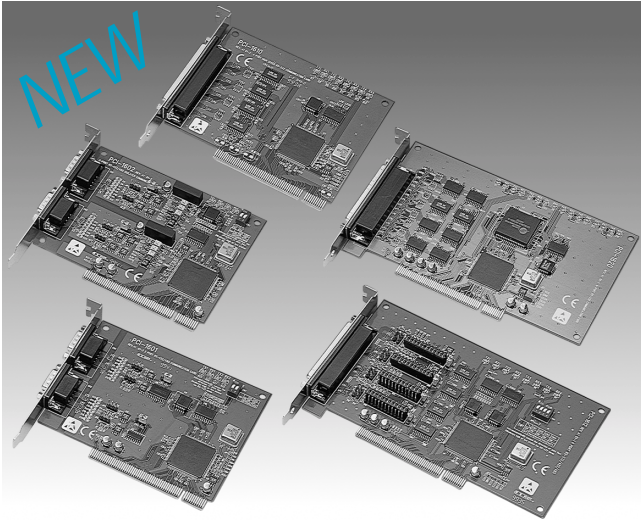


PCI Comm Card Series



Feature:

- PCI bus specification 2.1 compliant
- Speeds up to 921.6 Kbps
- 16PCI954 UARTs with 128-byte standard
- I/O address automatically assigned by PCI plug-and-play
- OS supported: Windows NT, Windows 95/98
- Optional surge protection
- Optional isolation protection for RS-422/485
- Interrupt status register for increased performance
- Space reserved for termination resistors
- Automatic RS-485 data flow control
- Utility-Icom Tools

Description

The PCI Local Bus is a high-performance bus that provides a processor-independent data path between the CPU and high-speed peripherals. PCI is a robust interconnect mechanism designed specifically to accommodate multiple high performance peripherals for series communication, SCSI, LAN, etc.

Advantech serial communication cards leverages the " Plug and Play " capability defined in the PCI 2.1 bus specification, and are available with up to 8 ports depending upon user's application. The board requires only one PCI slot within the personal computer and provides independent serial channels. All channels are addressed in a continuous 32 byte I/O block for simplified software access. And, All channels may also share one PCI interrupt. An interrupt status register is available for determining the interrupt source.

The Advantech PCI communication card comes with standard 16PCI954 UARTs containing 128 byte FIFOs which are available as an option. These upgraded FIFOs greatly reduce CPU overhead and are an ideal choice for heavy multi-tasking environments.

The Advantech PCI communication card is available with optical isolation up to 3000 V_{DC} for protecting your PC and equipment against damages from ground loops, increasing system reliability in harsh environment. To further increase reliability, the board offers surge protection technology, protecting your system from abrupt high voltage surges (up to 2500 V_{DC}), such as those caused by lightning during thunderstorms.

ICOM Tools

Easy Development Environment

The function library provides over 50 easy-to-use APIs specially designed for serial communication. The API is ready for use with benefits of saving development time and money.

Quick Troubleshooting

This utility software allows you to monitor or log data between two communicating devices and help you acquire the data within a friendly user interface. Diagnostic functions makes the installation process trouble free.

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. The 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.

16PCI954 UART

The 16PCI954 is a high performance Quad UART with an on-chip PCI interface. Targeted at PCI-based serial and parallel expansion cards, PCI-architecture computer systems and embedded applications, the 16PCI954 integrates a PCI bus interface together with four of 16C950 high performance UARTs, a bi-directional parallel port and a local bus bridge function. This single-chip solution replaces five or more integrated circuits used in today's products, giving performance, cost and size advantages to new designs.

Specification

- **Bus interface:** PCI bus spec. 2.1 compliant
- All ports use the same IRQ assigned by PCI plug-and-play
- **Data bits:** 5, 6, 7, 8
- **Stop bits:** 1, 1.5, 2
- **Parity:** none, even, odd
- **Communication controller:**
16PCI954+16C954 for PCI-1620A/B
16PCI954 for PCI-1610A/B, PCI-1612A/B
16PCI954 for PCI-1601A/B, 1602A/B
- **Speed (bps):** 50 ~ 921.6 K
- **Data signals:** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND (for RS-232)
RI (for PCI-1610/20)
TxD, RxD, RTS, CTS (RS-422/485)

Power Requirements

	Typical	Max
PCI-1620	120 mA(+12 V)	150 mA(+12 V)
	180 mA(+5 V)	220 mA(+5 V)
PCI-1610	60 mA(+12 V)	80 mA(+12 V)
	150 mA(+5 V)	180 mA(+5 V)
PCI-1601	220 mA	270 mA
PCI-1602	250 mA	300 mA
PCI-1612	60 mA(+12 V)	80 mA(+12 V)
	270 mA(+5 V)	338 mA(+5 V)

- **Dimensions:** 185mm x 100mm (for PCI-1612/1620)
123mm x 92 mm (for PCI-1601/1602/1610)
- **Operating temp:** 0 ~ 65° C (refer to IEC 68-2-1,2)
- **Operation Humidity:** 5 ~ 95 % Relative Humidity, non-condensing (refer to IEC 68-2-3)
- **Storage Temperature:** -25 ~85° C

Series	PCI-1601		PCI-1602		PCI-1610		PCI-1612		PCI-1620	
	A	B	A	B	A	B	A	B	A	B
No. of Port	2	2	2	2	4	4	4	4	8	8
Interface	RS-422/485		RS-422/485		RS-232		RS-232/422/485		RS-232	
Surge Protection	-	2500 V _{DC}	-	2500 V _{DC}	-	3000 V _{DC}	N/A	2500 V _{DC}	-	3000 V _{DC}
Isolation Protection	-	-	3000 V _{DC}	3000 V _{DC}	-	-	-	-	-	-

Ordering Information

- ❑ **PCI-1601A:** 2-port RS-422/485 PCI Comm Card
- ❑ **PCI-1601B:** 2-port RS-422/485 PCI Comm Card, w/surge protection
- ❑ **PCI-1602A:** 2-port RS-422/485 PCI Comm Card. w/ isolation protection
- ❑ **PCI-1602B:** 2-port RS-422/485 PCI Comm Card, w/isolation and surge protection
- ❑ **PCI-1610A:** 4-port RS-232 PCI Comm Card
- ❑ **PCI-1610B:** 4-port RS-232 PCI Comm Card, w/surge protection
- ❑ **PCI-1612A:** 4-port RS-232/422/485 PCI Comm Card
- ❑ **PCI-1612B:** 4-port RS-232/422/485 PCI Comm Card, w/surge protection
- ❑ **PCI-1620A:** 8-port RS-232 PCI Comm Card
- ❑ **PCI-1620B:** 8-port RS-232 PCI Comm Card, w/surge protection