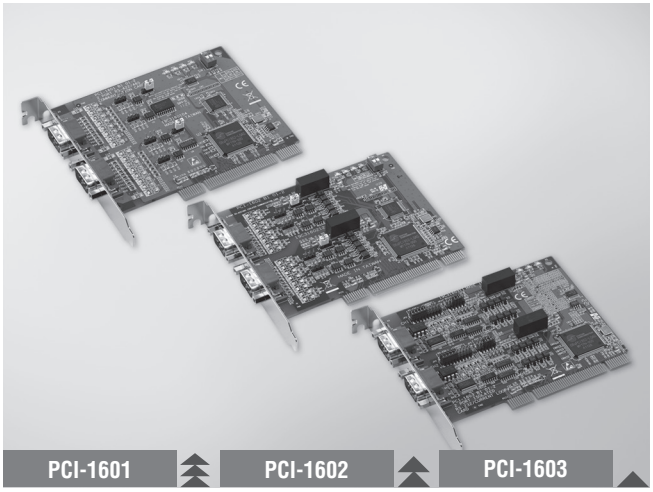
PCI-1601
PCI-1602
PCI-1603

2-port RS-422/485 Universal PCI Communication Card
2-port RS-422/485 Universal PCI Communication Card with Isolation Protection
2-port RS-232/Current-loop Universal PCI Communication Card with Isolation Protection



Features

- PCI bus 2.2 compliant
- Supports serial speed up to 921.6 kbps, and any baud rate setting
- 2-port RS-422/485 interface (PCI-1601/PCI-1602)
- 2 independent RS-232 or Current-loop serial ports (PCI-1603)
- I/O address automatically assigned by PCI Plug & Play
- OS supported: Windows 2K/XP/Vista/7, Windows CE 5.0/6.0, Linux, and QNX
- Interrupt status register for increased performance

Introduction

The PCI-1601 and PCI-1602 are two RS-422/485 PCI communication cards that are compatible with the PCI 2.2 bus specification. Both cards provide EFT protected RS-422/485 ports, and come with features such as: high transmission speed of 921.6 kbps, optional isolation protection, windows utility software and more. The cards also come with high-performance OXuPCI952 UART with a 128-byte FIFO to reduce CPU load. This makes the PCI-1601 and PCI-1602 especially suitable for multitasking environments.

The PCI-1603 offers a versatile range of high-speed interfacing options. You can switch its ports between the popular RS-232 or noise-resistant current-loop. The card utilizes OXuPCI952 UART with 128-byte FIFO buffer for faster and more reliable communication, especially under multi-tasking environments such as Windows operating systems. The card utilizes OXuPCI952 UART that buffers data into packets before sending it to the bus. This drastically reduces CPU load and avoids data loss when the system is busy and cannot process an interrupt quickly. These FIFO buffers make the PCI-1603 especially suitable for high speed serial I/O under Windows.

Specifications

General

- **Bus Type** Universal PCI v2.2
- **Certification** CE, FCC class A
- **Connectors** 2 x Male DB9
- **Dimensions (L x W)** 123 x 92 mm (4.8" x 3.6")
- **Power Consumption** 300 mA @ +5V

Current-loop Interface (PCI-1603)

- **Baud-rate** 50 ~ 57600 bps
- **Current Value** 20 mA (Standard)
- **Mode** Asynchronous, full duplex
- **Signal Driver/Receiver** 6N136
- **Signals** TxD+, TxD-, RxD+, RxD-
- **Transmission Distance** 1,000 m (RS-422/485 mode only)

Communications

- **Communications Controller** OXuPCI952
- **Data Bits** 5, 6, 7, 8
- **Data Signals** RS-422: Tx+, Tx-, Rx+, Rx-, RTS+, RTS-, CTS+, CTS-, GND
  RS-485: Data+, Data-, GND
  RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
- **FIFO** 128 bytes
- **Flow Control** RTS/CTS. Xon/Xoff
- **IRQ** Assigned by Plug & Play
- **Parity** None, Even, Odd, Mark and Space
- **Speed** 50 bps ~ 921.6 kbps, any baud rate setting
  230.4 kbps (PCI-1601B, PCI-1602 and PCI-1603 in Current-loop mode only)
- **Stop Bits** 1, 1.5, 2

Protection

- **ESD Protection** 8 KV (air), 4 KV (contact)
- **EFT Protection** 1 KV

Model Name	Surge Protection	Isolation Protection
PCI-1601A	-	-
PCI-1601B	1000 V_{DC}	-
PCI-1602	1000 V_{DC}	2500 V_{DC}
PCI-1603	1000 V_{DC}	2500 V_{DC}

Software

- **Bundled Software** ICOM Tools
- **OS Support** 32-bit/64-bit Windows 2000/XP/Vista/7, Windows CE 5.0/6.0, Linux, and QNX

Environment

- **Humidity (Operating)** 5 ~ 95 % RH, non-condensing
- **Operating Temperature** -10 ~ 60°C (14 ~ 144°F)
- **Storage Temperature** -25 ~ 85°C (-13 ~ 185°F)

Regulatory Approvals

- **EMC** EN 55011: 2009 + A1:2010, Group 1, Class A
  EN 55022: 2010, Class A
  EN 61000-6-4: 2007
  EN 55024: 2010
  EN 61000-6-2: 2005
  IEC 61000-4-2: 2008
  IEC 61000-4-3: 2006 +A1: 2007 +A2: 2010
  IEC 61000-4-4: 2010
  IEC 61000-4-6: 2008
  IEC 61000-4-8: 2009
  FCC 47 CFR Part 15 Subpart B (Class B),
  IC ICES-003 (2004)

Ordering Information

- **PCI-1601A** 2-port RS-422/485 PCI Comm. Card
- **PCI-1601B** 2-port RS-422/485 PCI Comm. Card w/Surge
- **PCI-1602** 2-port RS-422/485 PCI Comm. Card w/Surge+Iso
- **PCI-1603** 2-port RS-232/Current Loop PCI Comm. Card w/Surge+Iso

Last updated : 19-Mar-2014