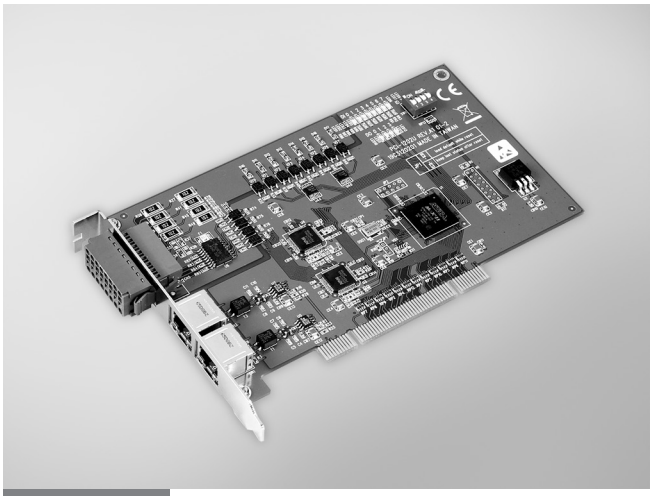
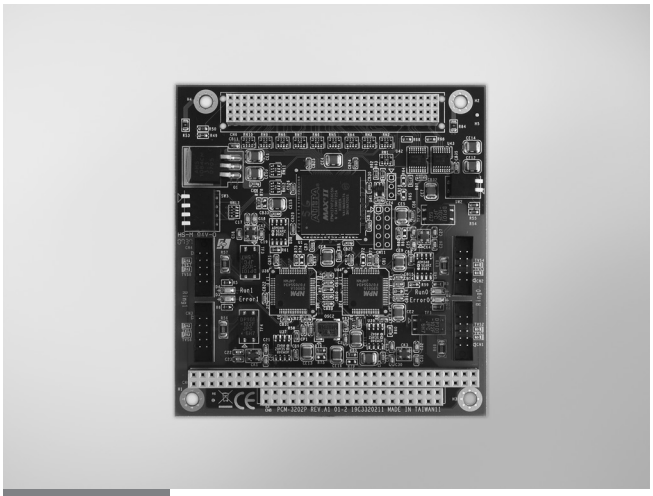
PCI-1202U
PCM-3202P

2-port AMONet RS-485 PCI Master Card
2-port AMONet RS-485 PC/104+ Master Card



PCI-1202U

RoHS COMPLIANT 2002/95/EC CE FCC



PCM-3202P

RoHS COMPLIANT 2002/95/EC CE FCC

Specifications

AMONet RS-485 Motion Control

- **AMONet RS-485** 2 rings
- **Interface** Half duplex RS-485
- **Cable Type** CAT5 UTP/STP Ethernet cable and above
- **Surge Protection** 10 kV
- **Transmission Speeds** 2.5, 5, 10, and 20 Mbps
- **Data Flow Control** Automatic
- **Communication Distance (Max.)** 100 m @ 20 Mbps w/32 slave modules
100 m @ 10 Mbps w/64 slave modules
- **Slave Module** Digital I/O, Motion Control, Analog I/O

Isolated Digital Input

- **Channels** 8
- **Input Voltage** Dry contact (need external voltage source)
- **Isolation Protection** 2,500 V_{DC}
- **Input Resistance** 2.4 kW @ 0.5 W

Isolated Digital Output

- **Channels** 4
- **Output Type** Open collector
- **Isolation Protection** 2,500 V_{DC}
- **Output Voltage** 10 ~ 30 V_{DC}
- **Sink Current** 1 ch: Max. 0.5 A
4 ch: Max. 1.1 A (total)

General

- **Bus Type** Universal PCI V2.2
- **certification** CE, FCC Class A
- **Connectors** 2 x RJ45
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** 5 V_{DC} @ 0.5 A typical
- **Humidity** 5 ~ 95% RH, non-condensing (IEC 60068-2-3)
- **Operating Temp.** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temp.** -20 ~ 85°C (-4 ~ 185°F)

Ordering Information

- **PCI-1202U-AE** 2-port AMONet RS-485 PCI Master Card

Specifications

AMONet RS-485 Motion Control

- **AMONet RS-485** 2 rings
- **Interface** Half duplex RS-485
- **Cable Type** CAT5 UTP/STP Ethernet cable
- **Surge Protection** 10 kV
- **Transmission Speeds** 2.5, 5, 10, and 20 Mbps
- **Data Flow Control** Automatic
- **Communication Distance (Max.)** 100 m @ 20 Mbps w/32 slave modules
- **Slave Module** Digital I/O, Motion Control, Analog I/O

General

- **Bus Type** PC/104+
- **Certification** CE, FCC Class A
- **Connectors** 4 x 10-pin box header
- **Dimensions (L x H)** 96 x 90 mm (3.8" x 3.5")
- **Power Consumption** 5 V_{DC} @ 0.5 A typical
- **Humidity** 5 ~ 95% RH, non-condensing (IEC 60068-2-3)
- **Operating Temp.** 0 ~ 60°C (32 ~ 140°F)
- **Storing Temp.** -20 ~ 85°C (-4 ~ 185°F)

Ordering Information

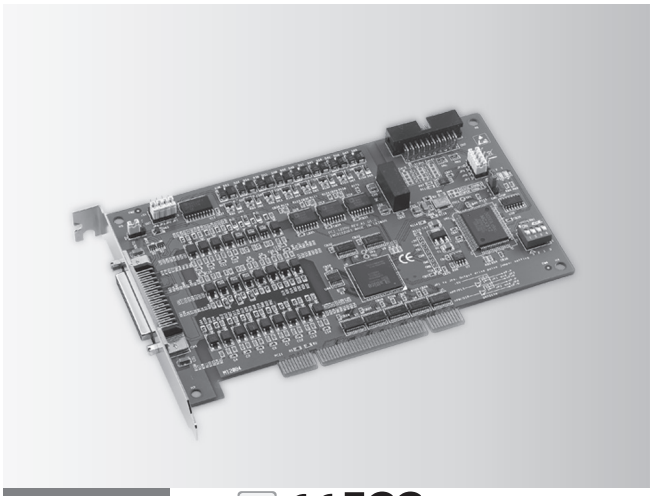
- **PCM-3202P-AE** 2-port PC/104+ AMONet RS-485 Master Card

Last updated : 27-Jul-2016

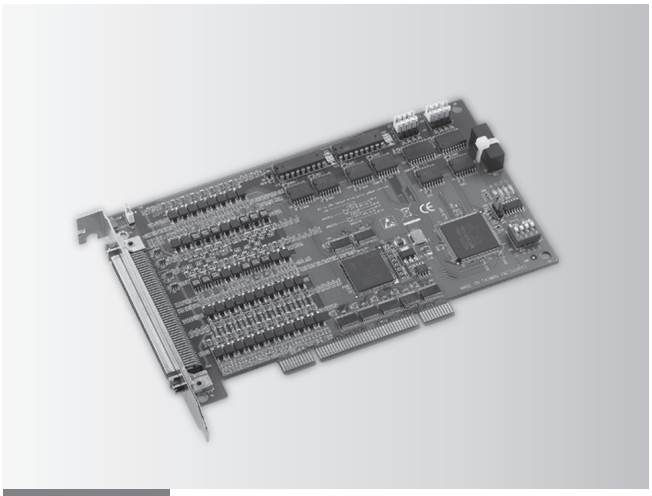
PCI-1220U
PCI-1240U

2-Axis Stepping and Servo Motor Control Universal PCI Card

4-Axis Stepping and Servo Motor Control Universal PCI Card



PCI-1220U



PCI-1240U

Specifications

Pulse-Type Motion Control

Motor Driver Support	Pulse-type servo/stepping
Number of Axis	4
Interpolation	2-axis linear, 2-axis circular
Max. Output Speed	4 Mpps
Step Count Range	±2, 147, 483, 646 (32-bit)
Pulse Output Type	Pulse/direction (1-pulse, 1-direction type), or CW/CCW (2-pulse type)
Position Counters	Range of command and actual position
Velocity Profiles	T-Curve, S-Curve
Local I/O	Machine Interfaces: LMT+, LMT-, ORG Servo Driver Interfaces: ALM, RDY, SVON, INP Position Compare I/O: CMP General Digital I/O: 12-ch DI, 16-ch DO

Encoder Interface

Input Type	Quadrature (A/B phase or up/down)
Counts /Enc. Cycle	x1, x2, x4 (A/B phase only)
Input Range	5 ~ 25 V
Isolation Protection	2,500 V_{DC}
Max. Input Freq.	1 MHz

General

Bus Type	PC/104
Certification	CE, FCC Class A
Connectors	2 x IDC 50-pin male connector
Dimensions (L x H)	96 x 90 mm (3.8" x 3.5")
Power Consumption	Typical: 5 V @ 850 mA Max.: 5 V @ 1 A
Humidity	5 ~ 95% RH, non-condensing (IEC 60068-2-3)
Operating Temp.	0 ~ 60°C (32 ~ 140°F)
Storage Temp.	-20 ~ 85°C (-4 ~ 185°F)

Ordering Information

PCI-1220U-AE	2-axis Stepping and Servo Motor Control Universal PCI Card

Accessories

ADAM-3952-AE	50-pin DIN-rail SCSI and Box Header Board
PCL-10150-1.2E	IDC-50 Flat Cable, 1.2m (PCM-3240 only)
PCL-10152-1E/3E	50-pin SCSI M-M Shielded Cable, 1m/3m
PCL-20153PA5-S2E	50-pin Cable to Panasonic A4/A5 Servo, 2 m
PCL-20153YS5-S2E	50-pin Cable to Yaskawa Sigma V/7 Servo, 2 m
PCL-20153MJ3-S2E	50-pin Cable to Mitsubishi J3/J4 Servo, 2 m
PCL-20153DA2-S2E	50-pin Cable to Delta A2 Servo, 2 m

Specifications

Pulse-Type Motion Control

Motor Driver Support	Pulse-type servo/stepping
Number of Axis	4
Interpolation	2-axis linear, 3-axis linear, 2-axis circular
Max. Output Speed	4 Mpps
Step Count Range	±2, 147, 483, 646 (32-bit)
Pulse Output Type	Pulse/direction (1-pulse, 1-direction type), or CW/CCW (2-pulse type)
Position Counters	Range of command and actual position
Velocity Profiles	T-Curve, S-Curve
Local I/O	Machine Interfaces: LMT+, LMT-, ORG Servo Driver Interfaces: ALM, RDY, SVON, INP Position Compare I/O: CMP General Digital I/O: 12-ch DI, 16-ch DO

Encoder Interface

Input Type	Quadrature (A/B phase or up/down)
Counts /Enc. Cycle	x1, x2, x4 (A/B phase only)
Input Range	5 ~ 25 V
Isolation Protection	2,500 V_{DC}
Max. Input Freq.	1 MHz

General

Bus Type	PC/104
Certification	CE, FCC Class A
Connectors	2 x IDC 50-pin male connector
Dimensions (L x H)	96 x 90 mm (3.8" x 3.5")
Power Consumption	Typical: 5 V @ 850 mA Max.: 5 V @ 1 A
Humidity	5 ~ 95% RH, non-condensing (IEC 60068-2-3)
Operating Temp.	0 ~ 60°C (32 ~ 140°F)
Storage Temp.	-20 ~ 85°C (-4 ~ 185°F)

Ordering Information

PCI-1240U-B2E	4-axis Stepping and Servo Motor Control Universal PCI Card

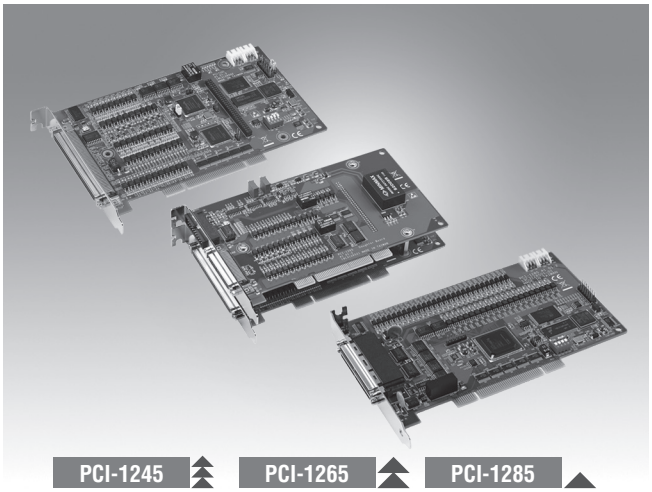
Accessories

ADAM-3956-AE	100-pin DIN-rail SCSI 4-axis Motion Wiring Board
ADAM-3955-AE	50-pin DIN-rail SCSI 2-axis Motion Wiring Board
ADAM-3952-AE	50-pin DIN-rail SCSI and Box Header Board
PCL-101100M-1E/2E/3E	100-pin SCSI Cable, 1m/2m/3m
PCL-10251-1E/2E/3E	100-pin SCSI to Two 50-pin SCSI Cable, 1m/2m/3m
PCL-20153PA5-S2E	50-pin Cable to Panasonic A4/A5 Servo, 2 m
PCL-20153YS5-S2E	50-pin Cable to Yaskawa Sigma V/7 Servo, 2 m
PCL-20153MJ3-S2E	50-pin Cable to Mitsubishi J3/J4 Servo, 2 m
PCL-20153DA2-S2E	50-pin Cable to Delta A2 Servo, 2 m

Last updated: 9-Dec-2019

PCI-1245
PCI-1265
PCI-1285

DSP-Based 4/6/8-Axis Stepping and Servo Motor Control Universal PCI Card



Features

- Encoder input is 10 MHz for 4xAB mode, 2.5 MHz for CW/CCW mode
- Pulse output up to 5 Mpps
- Memory buffer (up to 10K points) for trajectory planning which is designed in DSP
- Supports E-Gear, and helical interpolation
- Supports E-CAM providing 256 points to describe the CAM profiles which buffers located in DSP
- Hardware emergency input
- Watchdog timer
- Position latch
- Position compare triggering up to 100 KHz, and memory buffer is up to 100 K points in DSP
- Programmable interrupt
- Supports gantry mode by semi-closed loop pulse train control
- RDY/LTC-dedicated input channels & SVON/CMP/CAM-DO/ERC-dedicated output channels are switchable for general input and output purposes

Introduction

PCI-1245/65/85 is a 4/6/8-axis universal PCI (supporting both 3.3 V and 5 V signal slot) stepping/pulse-type servo motor control card designed for applications which need to control interpolation, synchronization among multiple axes, continuous contouring, and high speed triggering. PCI-1245/65/85 utilizes high-performance DSP and FPGA to calculate motion trajectories, synchronization timing control for multiple axes, and input/output handling to offer functionality, such as up to 4/6 -axis linear interpolation, 2- axis circular interpolation, helical interpolation, T/S-curve acceleration/deceleration rates and so on. In addition, Advantech supplies a Common Motion API library, graphical utility, and user-friendly examples to help decrease programming workloads.

Specifications

Pulse Type Motion Control

- **Motor Driver Support**: Pulse-type servo/stepping
- **Number of Axes**: PCI-1245: 4
PCI-1265: 6
PCI-1285: 8
- **Interpolation**: Linear, 2/3-axis circular interpolation, 3-axis helical interpolation
- **Max. Output Speed**: 5 Mpps
- **Step Count Range**: ±2, 147, 483, 646
- **Pulse Output Type**: Pulse/direction (1-pulse, 1-direction type) or CW/CCW (2-pulse type)
- **Position Counters**: Range of command and actual position
- **Velocity Profiles**: T-Curve, S-Curve
- **Local I/O**
  - Machine Interfaces: LMT+, LMT-, ORG
  - Servo Driver Interfaces: ALM, INP
  - Position Compare I/O: CMP
  - General Digital I/O: PCI-1245:16-ch DI, 16-ch DO (RDY/LTC pin can be switchable to general-purpose input and CAM-DO/ CMP/SVON/ ERC pin to general-purpose output)
PCI-1265: 32-ch DI, 32-ch DO (RDY/LTC pin can be switchable to general-purpose input and CAM-DO/ CMP/SVON/ ERC pin to general-purpose output)
PCI-1285: 32-ch DI, 32-ch DO (RDY/LTC pin can be switchable to general-purpose input and CAM-DO/ CMP/SVON/ ERC pin to general-purpose output)
- **Analog Input**: PCI - 1265: 2

Encoder Interface

- **Input Type**: Quadrature (A/B phase) or up/down
- **Counts per Enc. Cycle**: x1, x2, x4 (A/B phase only)
- **Input Range**: 0~10V
- **Isolation Protection**: 2,500 V_{DC}
- **Max. Input Frequency**: 10 MHz under 4xAB mode

General

- **Bus Type**: Universal PCI V2.2
- **Connectors**: PCI-1245: 1 x 100-pin SCSI female connector
PCI-1265: 1 x 100-pin SCSI female connector & 1 x 50-pin SCSI female connector
PCI-1285: 2 x 100-pin mini-SCSI female connector
- **Dimensions (L x H)**: 175 x 100 mm (6.9" x 3.9")
- **Power Consumption**: PCI-1245/1265:
Typical: 5 V @ 850 mA
Max.: 5 V @ 1 A
PCI-1285:
Typical: 5 V @ 300 mA
3.3 V @ 1.2 A
Max.: 5 V @ 400 mA
3.3 V @ 1.5 A
- **Humidity**: 5 ~ 95% RH, non-condensing (IEC 60068-2-3)
- **Operating Temperature**: 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature**: -20 ~ 85°C (-4 ~ 185°F)

Ordering Information

- **PCI-1245-AE**: 4-axis Stepping/Servo Control Universal PCI Card
- **PCI-1265 AE**: 6-axis Stepping/Servo Control Universal PCI Card
- **PCI-1285-AE**: 8-axis Stepping/Servo Control Universal PCI Card

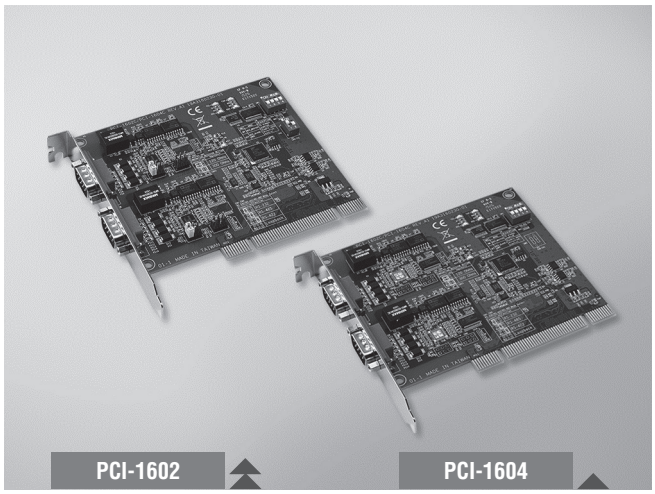
Accessories

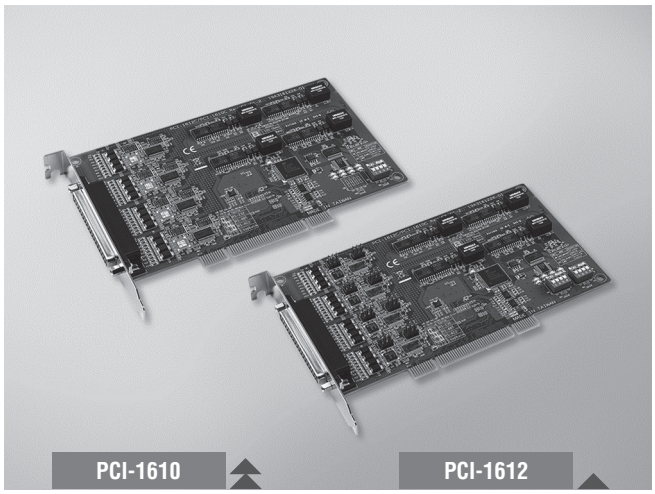
- **ADAM-3956-AE**: 100-pin DIN-rail SCSI 4-axis Motion Wiring Board
- **ADAM-3955-AE**: 50-pin DIN-rail SCSI 2-axis Motion Wiring Board
- **ADAM-3952-AE**: 50-pin DIN-rail SCSI and Box Header Board
- **ADAM-3920-AE**: 20-pin DIN-rail Flat Cable Wiring Board
- **PCL-10120-1E/2E**: IDC-20 Flat Cable, 1m/2m
- **PCL-101100M-1E/2E/3E**: 100-pin SCSI Cable, 1m/2m/3m (for PCI-1245/65)
- **PCL-10251-1E/2E/3E**: 100-pin SCSI to Two 50-pin SCSI Cable, 1m/2m/3m (for PCI-1245/65 only)
- **PCL-101100SB-1E/2E/3E**: Mini-SCSI-100 Shielded Cable, 1m/2m/3m (for PCI-1285)
- **PCL-20153PA5-S2E**: 50-pin Cable to Panasonic A4/A5 Servo, 2 m
- **PCL-20153YS5-S2E**: 50-pin Cable to Yaskawa Sigma V/7 Servo, 2 m
- **PCL-20153MJ3-S2E**: 50-pin Cable to Mitsubishi J3/J4 Servo, 2 m
- **PCL-20153DA2-S2E**: 50-pin Cable to Delta A2 Servo, 2 m

Last updated: 9-Dec-2019

PCI-1602
PCI-1604
PCI-1610
PCI-1612

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





Features

- Universal PCI v2.2
- Speeds up to 921.6 kbps for extremely fast data transmission
- Supports any baud rate setting
- 2 x RS-232 or RS- 232/422/485 ports
- Supported operating systems: Windows 7/8/10, and Linux.
- XR17V352 UART with 256-byte FIFOs

Specifications

General

- **Bus Type** Universal PCI v2.2
- **Certification** CE, FCC class A
- **Connectors** 2x male DB9
- **Dimensions (L x W)** 119.91 x 106.67 mm (4.72" x 4.2")
- **Power Consumption** 260 mA @ +3.3 V (typ.)

Communications

- **Comm. Controller** XR17V352
- **Data Bits** 5, 6, 7, 8
- **FIFO** 256 bytes
- **Parity** None, Odd, Even, Mark and Space
- **Speed** 50 bps ~ 921.6 kbps
- **Stop Bits** 1, 1.5, 2

Software

- **Bundled Software** ICOM Tools
- **OS Support** Windows 7/8/10, and Linux. (You can reference the SW release note to know the supported OS version.)

Environment

- **Operating Humidity** 5 ~ 95 % RH, non-condensing
- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature** -25 ~ 85°C (-13 ~ 185°F)

Protection

Model Name	ESD Protection	EFT Protection	Surge Protection	Isolation Protection
PCI-1602B	15KV (air), 8KV (contact)	1000 V	1000 V	
PCI-1602C	15KV (air), 8KV (contact)	1000 V	1000 V	3000 VDC
PCI-1604C	15KV (air), 8KV (contact)	1000 V	1000 V	3000 VDC

Ordering Information

- **PCI-1602B-CE** 2-port RS-232/422/485 PCI Comm. Card w/Surge
- **PCI-1602C-AE** 2-port RS-232/422/485 PCI Comm. Card w/Surge & Isolation
- **PCI-1604C-AE** 2-port RS-232 PCI Comm. Card w/Surge & Isolation

Accessories

- **OPT1-DB9E-AE** DB9 to 10-pin wiring board

Features

- Universal PCI v2.2
- Speeds up to 921.6 kbps for extremely fast data transmission
- Supports any baud rate setting
- 4 x RS-232 or RS- 232/422/485 ports
- Supported operating systems: Windows 7/8/10, and Linux.
- XR17V354 UART with 256-byte FIFOs

Specifications

General

- **Bus Type** Universal PCI v2.2
- **Certification** CE, FCC class A
- **Connectors** 1x Female DB37
- **Dimensions (L x W)** 174.65 x 106.67 mm (6.88"x 4.2")
- **Power Consumption** 260 mA @ +3.3 V (typ.)

Communications

- **Comm. Controller** XR17V354
- **Data Bits** 5, 6, 7, 8
- **FIFO** 256 bytes
- **Parity** None, Odd, Even, Mark and Space
- **Speed** 50 bps ~ 921.6 kbps
- **Stop Bits** 1, 1.5, 2

Software

- **Bundled Software** ICOM Tools
- **OS Support** Windows 7/8/10, and Linux. (You can reference the SW release note to know the supported OS version.)

Environment

- **Operating Humidity** 5 ~ 95 % RH, non-condensing
- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature** -25 ~ 85°C (-13 ~ 185°F)

Protection

Model Name	ESD Protection	EFT Protection	Surge Protection	Isolation Protection
PCI-1610B	15KV (air), 8KV (contact)	1000 V	1000 V	
PCI-1610C	15KV (air), 8KV (contact)	1000 V	1000 V	3000 VDC
PCI-1612B	15KV (air), 8KV (contact)	1000 V	1000 V	
PCI-1612C	15KV (air), 8KV (contact)	1000 V	1000 V	3000 VDC

Ordering Information

- **PCI-1610B-DE** 4-port RS-232 PCI Comm. Card w/Surge
- **PCI-1610C-CE** 4-port RS-232PCI Comm. Card w/ Surge & Isolation Protection
- **PCI-1612B-DE** 4-port RS-232/422/485 PCI Comm. Card w/Surge
- **PCI-1612C-CE** 4-port RS-232/422/485 PCI Comm. Card w/Surge & Isolation

Note: this series includes cable OPT4A.

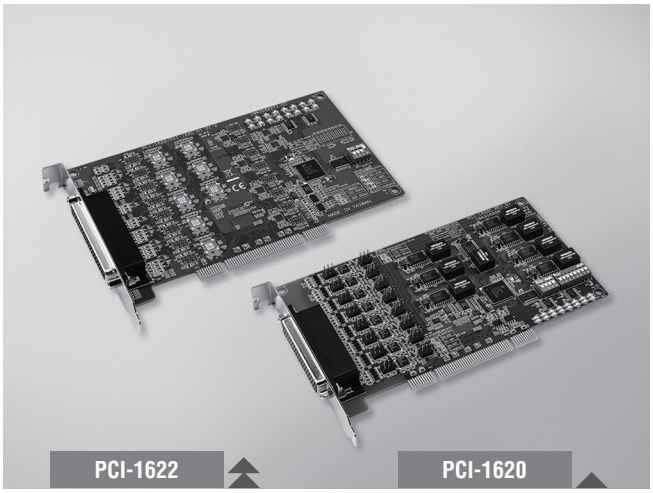
Accessories

- **OPT4A-AE** DB37 x1 to DB9 x4 Cable, 30cm
- **OPT1-DB9E-AE** DB9 to 10-pin wiring board

PCI-1620
PCI-1622

8-port RS-232 PCI Communication Card

8-port RS-232/422/485 PCI Communication Card



Features

- PCI bus 2.2 compliant
- Speeds up to 921.6 kbps for extremely fast data transmission
- Supports any baud rate setting
- 8 x RS-232 or RS-232/422/485 ports
- XR17V358 UART with 256-byte FIFOs
- Supported operating systems: Windows XP/7/8/10, and Linux

Introduction

The PCI-1620 is an 8-port RS-232, and the PCI-1622 is an 8-port RS-232/422/485 PCI communication cards that are compatible with the PCI 2.2 bus specification. The cards provide eight EFT protected ports up to 1,000 V, and have many functions such as high transmission speed of 921.6 kbps; The cards utilize high-performance XR17V358 UARTs with 256-byte FIFOs to reduce CPU load. Thus, the PCI-1620 and PCI-1622 are especially suitable for making reliable systems in multitasking environments.

Specifications

General

- **Bus Type** Universal PCI v2.2
- **Certification** CE, FCC class A
- **Connectors** 1x Female DB62 (PCI-1620A/22A/22B)
  1x Female DB78 (PCI-1622C)
- **Dimensions (L x W)** 174.65 x 106.67 mm (6.88"x 4.2")
- **Power Consumption** 260 mA @ +3.3 V (typ.)

Communications

- **Comm. Controller** XR17V358
- **Data Bits** 5, 6, 7, 8
- **Data Signals** RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD (PCI-1620A/22A/22B) TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI (PCI-1622C)
  RS-422: Tx+, Tx-, Rx+, Rx- (PCI-1620A/22A/22B)
  CTS+, CTS-, RTS+, RTS-, Tx+, Tx-, Rx+, Rx- (PCI-1622C)
  RS-485: Data+, Data- (PCI-1620A/22B/22C)
- **FIFO** 256 bytes
- **Flow Control** DTR/DSR, RTS/CTS, Xon/Xoff
- **Parity** None, Odd, Even, Mark, or Space
- **Speed** 50 bps ~ 921.6 kbps
- **Stop Bits** 1, 1.5, 2

Protection

Model Name	ESD Protection	EFT Protection	Surge Protection	Isolation Protection
PCI-1620A	15KV (air), 8KV (contact)	1000 V		
PCI-1620B	15KV (air), 8KV (contact)	1000 V	1000V	
PCI-1622B	15KV (air), 8KV (contact)	1000 V	1000 V	
PCI-1622C	15KV (air), 8KV (contact)	1000 V	1000 V	3000 V_{DC}

Software

- **Bundled Software** ICOM Tools
- **OS Support** Windows XP/7/8/10, and Linux (You can reference the SW release note to know the supported OS version.)

Environment

- **Operating Humidity** 5 ~ 95 % RH, non-condensing
- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature** -25 ~ 85°C (-13 ~ 185°F)

Ordering Information

- **PCI-1620A-DE** 8-port RS-232 PCI Comm. Card
- **PCI-1620B-DE** 8-port RS-232 PCI Comm. Card w/ Surge Protection
- **PCI-1622B-DE** 8-port RS-232/422/485 PCI Comm. Card w/ Surge Protection
- **PCI-1622C-DE** 8-port RS-232/422/485 PCI Comm. Card w/ Surge & Isolation Protection

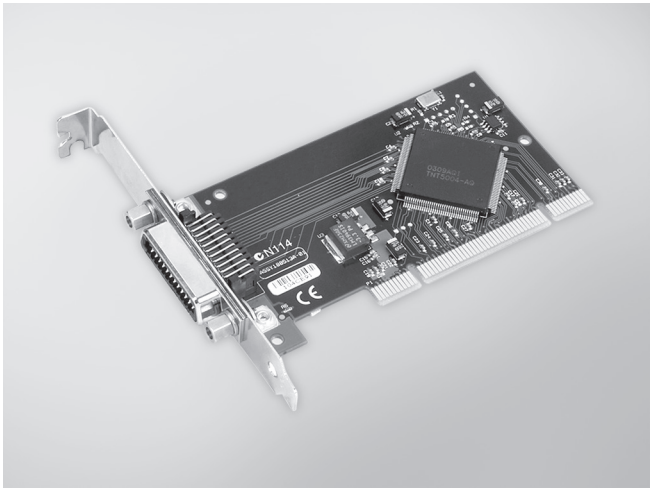
Accessories

- **OPT8C-AE** DB62 x1 to DB25 x8 Cable, 1m for PCI-1620A-DE and PCI-1622B-DE
- **OPT8H-AE** DB62 x1 to DB9 x8 Cable, 1m for PCI-1620A-DE and PCI-1622B-DE
- **OPT8J-AE** DB78 x1 to DB9 x8 Cable, 1m for PCI-1622C-DE
- **OPT1-DB9E-AE** DB9 to 10-pin wiring board

Last updated: 22-Aug-2019

PCI-1671UP

IEEE-488.2 Interface Low Profile Universal PCI Card



Features

- IEEE 488.2 Standard interface
- Complete Talker/Listener/Controller
- Industry standard 32-bit PCI bus
- Data transfer rates over 1.5 MB/s
- 1,024-word FIFO buffer
- High-Speed State Machine Bus Manager
- 7 Interrupt lines, shared interrupt capability
- Transparent interrupt enabling/disabling
- Includes GPIB-Library software
- Low profile MD1 size
- Support industrial standard VISA

Introduction

The PCI-1671UP IEEE-488 interface converts any PCI bus personal computer into an instrumentation control and data acquisition system. Connect up to 14 instruments using standard IEEE-488 cables such as the PCL-10488-2, 2 meter IEEE-488 interface cable. The PCI-1671UP transfers data over the GPIB at rates in excess of 1.5 million bytes per second using the maximum IEEE-488 specification cable length (2 meters times the # of devices). A 1,024-word FIFO buffer and the advanced REP-INSW ISR data transfer method provide the horsepower required to then transfer the data between the GPIB board and the host computer. The high-speed state machine also provides byte-to-word packing and unpacking, and because words carry twice the information that bytes do, packed data requires fewer bus cycles to transfer the same GPIB information.

The PCI-1671UP adheres to ANSI/IEEE Standard 488-1978. Often referred to as the IEEE-488.2 bus, GPIB bus or HP-IB bus, the GPIB (General Purpose Interface Bus) is a standard for instrumentation communication and control for instruments from manufacturers the world over. The GPIB provides handshaking and interface communications over an 8-bit data bus employing 5 control and 3 handshake signals. Equipped with PCI-1671UP, a personal computer can control GPIB instruments, gather data from GPIB test equipment, or become a data acquisition station in a GPIB system.

Specifications

GPIB

- **Compatibility** IEEE 488.1, 488.2
- **GPIB Transfer Rate** 1.5 MB/s
- **OS Support** Windows 2000/XP/Vista/7/10
- **Library Support** Visual C++, Visual C#, Visual Basic, Visual Basic .NET, Delphi, LabView
- **Max. GPIB Connections** 15 (14 Listener)

General

- **Bus Type** Universal PCI V2.2
- **I/O Connectors** 1 x 24-pin IEEE 488
- **Dimensions (L x H)** 120 x 64 mm (Low profile MD1)
- **Power Consumption** 5 V_{DC} @ 375 mA
- **Operating Temperature** 0 ~ 60°C (32 ~ 158°F) @ 0-90% RH
- **Storage Temperature** -40 ~ 100°C (-40 ~ 212°F) @ 5-90% RH
- **Operating Humidity** 0 ~ 90% RH, non-condensing

Ordering Information

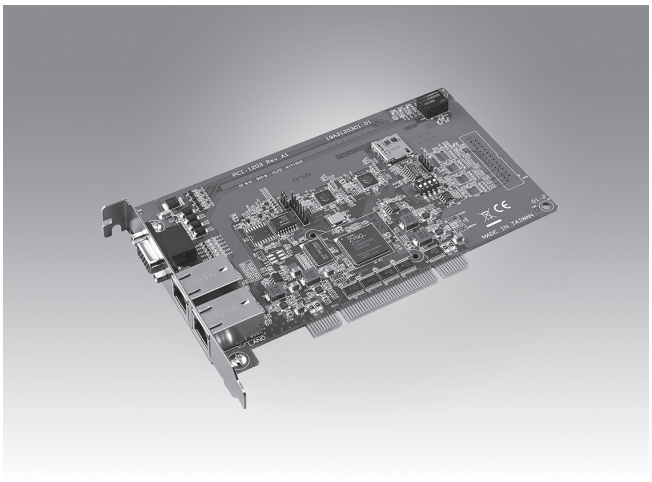
- **PCI-1671UP** High-perform. IEEE-488.2 Interface PCI Card

Accessories

- **PCL-10488-2E** IEEE-488 Cable, 2 m

PCI-1203

2-Port EtherCAT Universal PCI Master Card



Features

- 650MHz dual-core ARM processor
- 2 x EtherCAT ports for high-performance of motion and I/O applications
- Supports common motion SDK for rapid application development
- Up to 32 axes support for motion control
- Supports a maximum of 6 motion groups and 8 axes per group
- Supports on board 8-CH isolated DI and 4-CH isolated DO
- Diagnostics for fast error handling can trace command and error message

Introduction

The PCI-1203 is a 2-port EtherCAT PCI Universal card. It is a ready-to-use EtherCAT development platform for all PC-based industrial automation. The EtherCAT protocol stack is executed autonomously on the PCI card. It allows the host to handle up to two EtherCAT networks with extremely short cycle time for Motion and pure I/O applictions. For EtherCAT motion port, communication cycle time is no more than 500 µs for connecting 32 axes of servo motors and for fast I/O ports the cycle time is no more than 200us in a high speed I/O system.. There are 4 - channel isolated digital outputs and 8 - channel isolated inputs on the PCI-1203 to meet the extra high speed I/O requirements. Real-time and high-precision capability are features of PCI-1203. In addition, all Advantech motion controllers use the "Common Motion API" architecture which is a unified user programming interface and graphical utility. This architecture saves application maintenance and upgrades. Programmers can benefit from using any Advantech SoftMotion controller without changing large amounts of the application code. User-friendly examples decrease programming load, helping users complete configuration and diagnosis easily.

Specifications

EtherCAT

- **Number of Rings** 2 (Motion x 1, I/O x 1)
- **Cable Type** CAT5 UTP/STP Ethernet cable and above
- **Cycle Time** Motion: 500 us
I/O: 200 us
- **Communication Motion Slave** 32 Servo Drive Max.(eq. Panasonic A5B)
- **Communication IO Slave** 1024-CH DI and 1024-CH DO
128-CH AI and 128-CH AO

Isolated Digital Input

- **Channels** 8
- **Input Voltage** Logic 0: 5 V max.
Logic 1: 6 V min. (24V max.)
Needs 24V_{DC} external power
- **Isolation Protection** 1,000 V_{DC}
- **Input Resistance** 8.4 k Ω

Isolated Digital Output

- **Channels** 4
- **Output Type** Sink
- **Isolation Protection** 1,000 V_{DC}
- **Output Voltage** 12 ~ 24 V_{DC}
- **Sink Current** Max: 300 mA CH

General

- **Bus Type** Universal PCI V2.2
- **Certification** CE, FCC Class A
- **Connectors** 2 x RJ45, 1 x D-sub 15
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** 5 V_{DC} @ 0.5 A typical
- **Humidity** 5 ~ 95% RH, non-condensing (IEC 60068-2-3)
- **Operating Temp.** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temp.** -20 ~ 85°C (-4 ~ 185°F)

Ordering Information

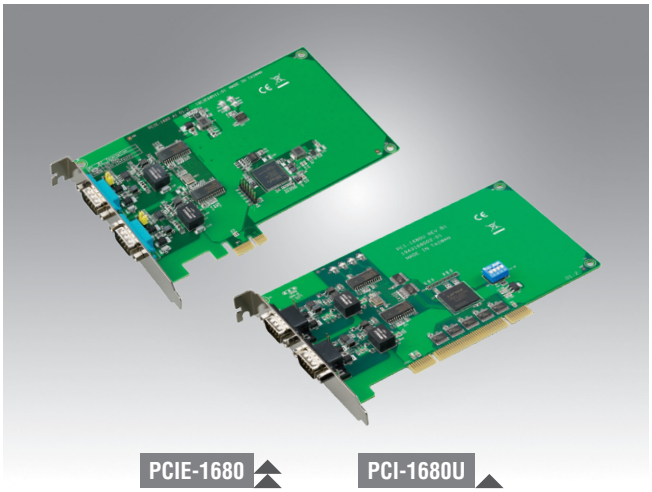
- **PCI-1203-06AE** 2-port EtherCAT 6-axis Universal PCI Master Card
- **PCI-1203-10AE** 2-port EtherCAT 10-axis Universal PCI Master Card
- **PCI-1203-16AE** 2-port EtherCAT 16-axis Universal PCI Master Card
- **PCI-1203-32AE** 2-port EtherCAT 32-axis Universal PCI Master Card

Last updated: 27-Jun-2018

PCIE-1680
PCI-1680U

2-Port CAN Bus PCIE Card with Isolation Protection

2-Port CAN Bus Universal PCI Card with Isolation Protection



FCC CE

Features

- PCIe bus specification 1.1 compliant
- 2 x Independent CAN ports
- Up to 1 Mbps transmission speeds
- 16 MHz CAN controller frequency
- Optical isolation protection of 2,500 V_{DC}
- Transmit/Receive status LED indicators
- Windows DLL library and examples included
- Supports latest Windows system
- Supports Linux SocketCAN

Introduction

PCI-1680 and PCIE-1680 are purpose-built communication cards that ensure CAN connectivity. With 2 independent CAN controllers built in, PCI-1680 and PCIE-1680 enable bus arbitration and error detection with automatic transmission repetition, drastically reducing data loss and ensuring system reliability. Additionally, both PCI-1680 and PCIE-1680 operate at baud rates of up to 1 Mbps.

Specifications

General

- **Bus Type** PCI Express V1.0/Universal PCI
- **Certification** CE, FCC
- **Connectors** 2 x DB9, male
- **Ports** 2
- **Power Consumption** 3.3 V @ 600 mA (typical)

Communication

- **CAN Controller** NXP SJA-1000
- **CAN Transceiver** NXP TJA1051T
- **Signal Support** CAN_H, CAN_L
- **Protocol** CAN 2.0 A/B
- **Data Transfer Rate** Programmable up to 1 Mbps
- **CAN Frequency** 16MHz

Protection

- **Isolation Protection** 2,500 V_{DC}

Mechanical and Environmental

- **Operating Temperature** 0 ~ 70 °C (32 ~ 158 °F) (refer to IEC 60068-2-1, 2)
- **Storage Temperature** -40 ~ 85 °C (-40 ~ 185 °F)
- **Operating Humidity** 5 ~ 95% relative humidity, non-condensing
- **Dimensions (L x H)** 168 x 111 mm (6.6" x 4.4")

Ordering Information

- **PCIE-1680-B** 2-port CAN bus PCIE card with isolation protection
- **PCI-1680U-BE** 2-port CAN bus PCI card with isolation protection

Accessories

- **OPT1-DB9E-AE** DB9 to 10-pin wiring board

Last updated: 11-Nov-2022