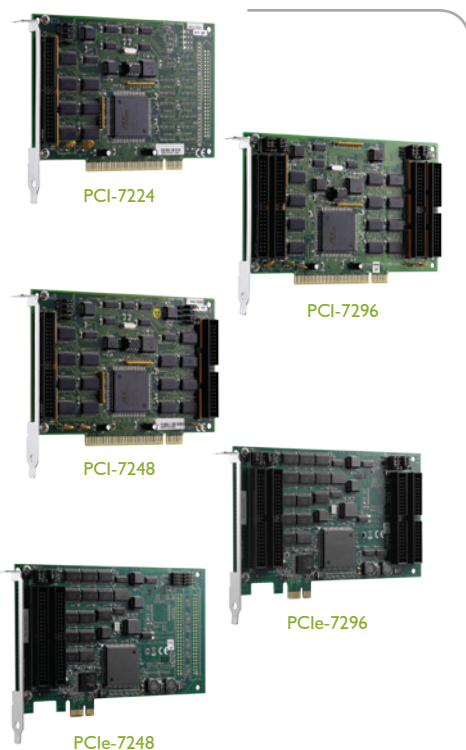


# PCI/PCIe-7296/7248, PCI-7224

## 96/48/24-CH Opto-22 Compatible DIO Cards



### Specifications

#### Digital I/O

- Number of channels
  - 96 inputs/outputs (PCI/PCIe-7296)
  - 48 inputs/outputs (PCI/PCIe-7248)
  - 24 inputs/outputs (PCI-7224)
- Compatibility: 5 V/TTL
- Digital logic levels
  - Input high voltage: 2-5.25 V
  - Input low voltage: 0-0.8 V
  - Output high voltage: 2.4 V minimum
  - Output low voltage: 0.5 V maximum
- Output driving capacity
  - Source current: 2.6 mA for port A & B, and 15 mA for port C.
  - Sink current: 24 mA
- Data transfers: programmed I/O

#### General Specifications

- I/O connector
  - 50-pin ribbon male x 1 (PCI-7224)
  - 50-pin ribbon male x 2 (PCI/PCIe-7248)
  - 50-pin ribbon male x 4 (PCI/PCIe-7296)
- Operating temperature: 0°C to 60°C (32°F to 140°F)
- Storage temperature: -20°C to 80°C (-4°F to 176°F)
- Relative humidity: 5% to 95%, non-condensing
- Power requirements

| Device    | Power Consumption        |
|-----------|--------------------------|
| PCI-7296  | 860 mA @ 5 VDC Typical   |
| PCI-7248  | 500 mA @ 5 VDC Typical   |
| PCI-7224  | 330 mA @ 5 VDC Typical   |
| PCIe-7248 | 350 mA @ 12 VDC Typical  |
|           | 280 mA @ 3.3 VDC Typical |
| PCIe-7296 | 590 mA @ 12 VDC Typical  |
|           | 280 mA @ 3.3 VDC Typical |

- Dimensions (not including connectors)
  - 148 mm x 102 mm (5.77" x 3.97") (PCI-7248 and PCI-7224)
  - 166 mm x 102 mm (6.55" x 3.97") (PCI-7296)
  - 168 mm x 112 mm (6.55" x 4.36") (PCIe-7248/7296)

### Terminal Boards

- **TB-24R-01\***  
Terminal Board with 24-CH Relay Outputs
- **TB-24P-01\***  
Terminal Board with 24-CH Isolated Digital Inputs
- **TB-16P8R-01\***  
Terminal Board with 16-CH Isolated DI & 8-CH Relay Outputs
- **DIN-24R-01\***  
Terminal Board with 24-CH Relay Outputs
- **DIN-24P-01\***  
Terminal Board with 24-CH Isolated Digital Inputs and DIN-Rail Mounting

\* For more information on mating cables, please refer to P3-48/49.

### Ordering Information

- **PCI-7296**  
96-CH Opto-22 Compatible DIO Card
- **PCI-7248**  
48-CH Opto-22 Compatible DIO Card
- **PCI-7224**  
24-CH Opto-22 Compatible DIO Card
- **PCIe-7248**  
48-CH Opto-22 Compliant PCIe DIO Card
- **PCIe-7296**  
96-CH Opto-22 Compliant PCIe DIO Card

**Note:**  
The PCI-7224 is the 24-CH version of the PCI-7248. The software drivers of the PCI-7224 are exactly the same as those of the PCI-7248

### Features

- Supports a 32-Bit 5 V PCI bus (PCI-7224/7248/7296)
- x1 PCI Express® interface (PCIe-7248/7296)
- 96-CH digital TTL/DTL inputs/outputs (PCI/PCIe-7296)
- 48-CH digital TTL/DTL inputs/outputs (PCI/PCIe-7248)
- 24-CH digital TTL/DTL inputs/outputs (PCI-7224)
- Emulates 4/2/1 industry standard 8255 PPI (mode 0)
- Direct interface with OPTO-22 compatible I/O modules
- Output status read back
- Onboard 8254 timer/counter chip
- One 32-Bit timer for timed interrupt generation
- One 16-Bit event counter to generate event interrupt
- Programmable interrupt sources
- +12 V and +5 V power available on OPTO-22 connectors
- Onboard resettable fuses for power output protection
- Compact, half-size PCB
- **Supported Operating System**
  - Windows 2008 R2, 7/8 x64/x86, Linux
- **Driver and SDK**
  - LabVIEW, MATLAB, C/C++, Visual Basic, Visual Studio, NET
- **Software Utility**
  - AD-Logger, DSA Utility