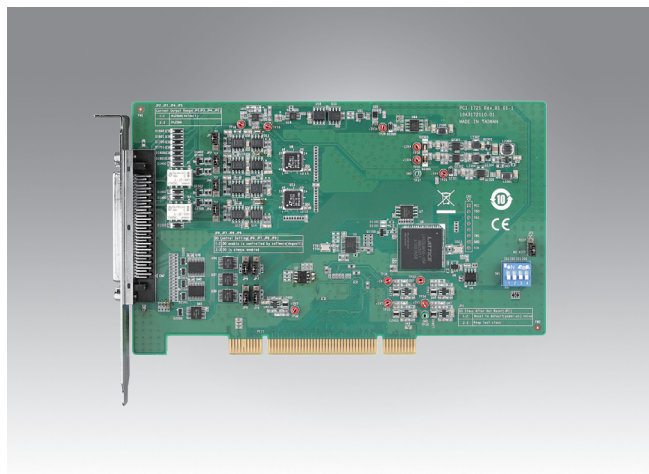


# PCI-1721

## 12-bit, 4-ch Analog Output PCI Card with 16-ch Digital I/O



CE FCC

RoHS  
COMPLIANT  
2002/95/EC

## Features

- 10 MHz maximum digital update rate
- Auto calibration function
- Four analog output channels with 8,192 samples FIFO buffer
- A 12-bit DAC is equipped for each of analog output channels
- Real-time waveform output function with internal/external pacer
- Synchronized output function
- Flexible output types and range settings
- Keeps the output settings and values after system hot reset
- 16-ch DI/O and one 10 MHz 32-bit resolution counter
- BoardID™ switch

## Introduction

PCI-1721 is an advanced high-speed analog output card for the PCI bus, and each of analog output channels are equipped with a 12-bit, double-buffered DAC. It features many powerful and unique functions, like a waveform output function with 10 MHz maximum update rate, auto-calibration and a BoardID switch. PCI-1721 is an ideal solution for industrial applications where high-speed continuous analog output or real-time waveform output functions are required.

## Specifications

## Analog Output

- **Channels** 4
- **Resolution** 12 bits
- **FIFO Size** 8,192 samples
- **Output Rate** 10 MHz or static update
- **Reference Clock** Internal: 10 MHz  
External Clock Frequency: 10 MHz max.  
External Voltage Range: 0.8 V max., 2 V min.

- **Output Range**

Internal Reference	Unipolar	0 ~ 5 V, 0 ~ 10 V,
	Bipolar	±5 V, ±10 V
	Current Load	0 ~ 20 mA, 4 ~ 20 mA (software programmable)
External Reference		0 ~ +x V @ +x V (-10 ≤ x ≤ 10)
		-x ~ -x V @ +x V (-10 < x < 10)

- **Slew Rate** 20 V/ $\mu$ s
- **Driving Capability** 20 mA
- **Output Impedance** 0.1  $\Omega$  max.
- **Operation Modes** Single/continuous/waveform/synchronized output
- **Accuracy** Relative:  $\pm 1$  LSB  
Differential Non-linearity:  $\pm 1$  LSB (monotonic)

## Digital Input/Output

- **Channels** 16 (shared by input/output)
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.4 V max.  
Logic 1: 4.0 V min.
- **Output Capability** Sink: 0.4 V @ 2 mA  
Source: One Channel: 4.0V @ 8mA max.  
Per port summed: 4.0V @ 20mA max.

## Counter/Timer

- **Channels** 1
- **Resolution** 32 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 10 MHz
- **Reference Clock** Internal: 10 MHz  
External Clock Frequency: 10 MHz max.  
External Voltage Range: 0.8 V max. 2.0 V min.

## General

- |                                |  |
|--------------------------------|--|
| ▪ <b>Bus Type</b>              | PCI V2.2   |
| ▪ <b>I/O Connectors</b>        | 1 x 68-pin SCSI female connector   |
| ▪ <b>Dimensions (L x H)</b>    | 175 x 100 mm (6.9" x 3.9")   |
| ▪ <b>Power Consumption</b>     | Typical: 5 V @ 250 mA, 12 V @ 150 mA<br>Max.: 5 V @ 400 A, 12 V @ 400 mA |
| ▪ <b>Operating Temperature</b> | 0 ~ 60°C (32 ~ 140°F)  |
| ▪ <b>Storage Temperature</b>   | -20 ~ 85°C (-4 ~ 185°F)  |
| ▪ <b>Storage Humidity</b>      | 5 ~ 95% RH, non-condensing   |

## Ordering Information

- **PCI-1721-BE** 12-bit, 4-ch Advanced PCI Analog Output Card

## Accessories

- **PCL-10168-1E** 68-pin SCSI Shielded Cable, 1 m
- **PCL-10168-2E** 68-pin SCSI Shielded Cable, 2 m
- **ADAM-3968** 68-pin DIN-rail SCSI Wiring Board