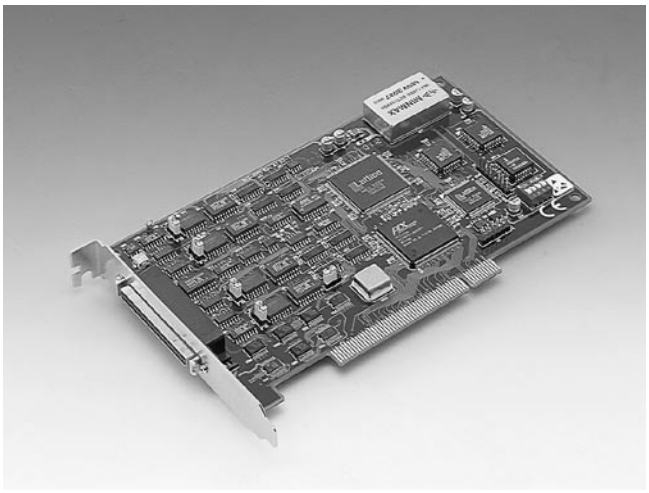
PCI-1721

12-bit, 4-ch Advanced Analog Output Card



FCC CE

Features

- 10 MHz maximum digital update rate
- PCI-bus mastering for data transfer
- Auto calibration function
- Four analog output channels with 1 K FIFO
- 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 reset
- 16-ch DI/O and one 10 MHz 16-bit resolution counter
- BoardID™ switch

Introduction

The PCI-1721 is an advanced high-speed analog output card for 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. The 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-bit
- **FIFO Size** 1 K Samples
- **Operation Mode** Single/ Continuous/ Wavefrom /Synchronized output

Output Range (Internal & External Reference)	**Using Internal Reference**	0 ~ +5 V, 0 ~ +10 V, -5 ~ +5 V, -10 ~ +10 V, 0 ~ 20 mA, 4 ~ 20 mA
	Using External Reference	0 ~ +x V @ +x V (-10 ≤ x ≤ 10) -x ~ +x V @ +x V (-10 ≤ x ≤ 10)
Accuracy	**Relative**	±1 LSB
	Differential Non-linearity	±1 LSB (monotonic)

- **Offset** <1 LSB
- **Slew Rate** 10 V/μs
- **Driving Capability** ±10 mA
- **Output Impedance** 0.1Ω max.
- **Max. Updata Rate** 10 MHz (max. for one channel)
- **Settling Time** 5 μs (to ±1/1 LSB of FSR)

External Clock Input (Max. 10 MHz)	**Low**	0.8 V max.
	High	2.0 V min.
External TTL Trigger Input	**Low**	0.8 V max.
	High	2.0 V min.

Counter/Timer

- **Channels** 1
- **Resolution** 16-bit
- **Compatibility** TTL level
- **Base Clock** 10 MHz
- **Max. Input Frequency** 10 MHz

Clock Input	**Low**	0.8 V max.
	High	2.0 V min.
Gate Input	**Low**	0.8 V max.
	High	2.0 V min.
Counter Output	**Low**	0.4 V max. @ +2.5 mA
	High	3.0 V min. @ -2.5 mA

General

I/O Connector Type	68-pin SCSI-II female	
Dimensions	175 x 100 mm (6.9" x 3.9")	
Power Consumption	**Typical**	+5 V @ 850 mA, +12 V @ 600 mA
	Max.	+5 V @ 1 A, +12 V @ 700 mA
Temperature	**Operation**	0 ~ 60° C (32 ~ 140° F) (refer to IEC 68-2-1, 2)
	Storage	-20 ~ 85° C (-4 ~ 185° F)
Relative Humidity	5 ~ 95% RH non-condensing (refer to IEC 68-2-3)	
Certifications	CE certified	

Digital Input /Output

Input Channels	16 (bi-directional)	
Number of Ports	2	
Input Voltage	**Low**	0.8 V max.
	High	2.0 V min.
Input Load	**Low**	0.5 V max.@ +24 mA (sink)
	High	2.0 V min.@ -15 mA (source)

Ordering Information

- **PCI-1721** 12-bit, 4-ch Advanced Analog Output Card, user's manual and driver CD-ROM. (cable not included)
- **PCL-10168** 68-pin SCSI-II cable with male connectors on both ends and special shielding for noise reduction, 1 and 2 m
- **ADAM-3968** 68-pin SCSI-II Wiring Terminal Board for DIN-rail Mounting