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# ADVANTECH 16-bit ,32/16-ch Analog Output PCI Express Card Instructions

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**ADVANTECH 16-bit ,32/16-ch Analog Output PCI Express Card**



## Introduction

PCIE-1824 is a high-density multiple channel analog card for the PCIE bus, where each analog output channel is equipped with a 16-bit DAC. It features optional voltages, current output and a Board ID switch. PCIE-1824 is an ideal solution for industrial applications where multiple analog output channels are required.

## Features

- 32/16 high-density analog output channels
- Flexible Output Range:  $\pm 10$  V, 0 ~ 20 mA and 4 ~ 20 mA
- Synchronized output function
- Keep output values when hot system reset
- High ESD protection (2,000 VDC)
- Board ID switch

## Specifications

### Analog Output

- Channels 32/16
- Resolution 16 bits
- Output configuration Single-ended
- Output range  $\pm 10$  V, 0 ~ 20 mA, 4 ~ 20 mA (sink)
- Voltage output error Offset <  $\pm 1$  mV, Gain <  $\pm 0.01$  %\*
- Current output error Offset <  $\pm 2.5$   $\mu$ A , Gain <  $\pm 0.05$  %
- Voltage output Load > 1 k $\Omega$
- Current output external power < 30 V
- Voltage output noise 0.2 mVRMS
- Slew rate 0.7 V/ $\mu$ s
- Settling time 100  $\mu$ s (to  $\pm 0.01$ % of FSR)

- Auto-calibration Yes

#### General

- I/O Connector type 1 x DB62 female connector
- Dimensions 167 x 100 mm (6.6" x 3.9")
- Power consumption Typical: 3.3V @350mA, 12V @350mA Max: 3.3V@ 370mA, 12V @ 1000mA
- Operating temperature 0 ~ 60°C (32 ~ 140°F)
- Storage temperature -40 ~ 70°C (-40 ~ 158°F)
- Storage humidity 5 ~ 95% RH (non-condensing)
- Certifications CE/FCC

### Ordering Information

- PCIE-1824-AE 16-bit ,32-ch Analog Output PCI Express Card
- PCIE-1824L-AE (by request) 16-bit ,16-ch Analog Output PCI Express Card


#### Accessories

- PCL-10162-1E DB62 Shielded Cable, 1 m
- PCL-10162-3E DB62 Shielded Cable, 3 m
- ADAM-3962-AE DB62 DIN-rail Wiring Board

This number is measured at load resistance larger than 1 MΩ. For smaller load resistance, the measured voltage may be reduced due to the voltage divider formed by the conductor resistance of the cable, the wiring board, and the load resistance, which as a result may exceed the error specification. See the user's manual for more detailed explanation.



### Documents / Resources

 A small image of a green PCI Express card with a DB62 connector.	<p><a href="#">ADVANTECH 16-bit ,32/16-ch Analog Output PCI Express Card</a> [pdf] Instructions 16-bit 32 16-ch Analog Output PCI Express Card, PCIE-1824 L</p>
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