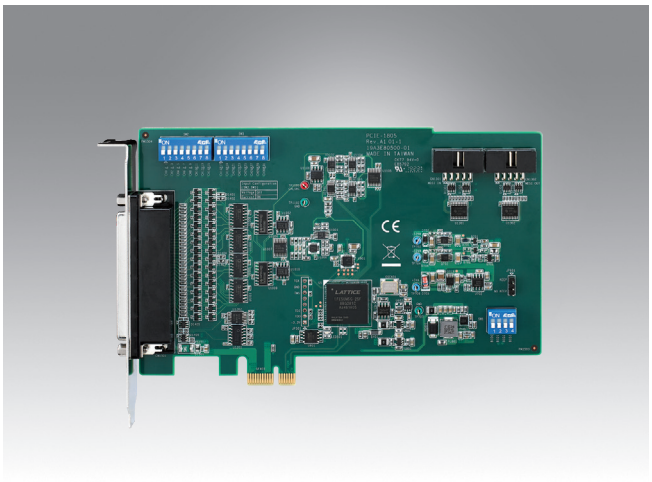
PCIE-1805

1MS/s, 16bit, 32-ch Analog Input PCIE Card



Features

- 32-ch single-ended or 16-ch differential or a combination of analog input
- 16-bit A/D converter, with up to 1MHz sampling rate
- Auto calibration
- Current measurement (0-20mA or 4-20mA)
- Support digital and analog triggers
- Multi-card synchronization

Introduction

PCIE-1805 is a high-resolution, high-channel-count analog input PCIE card. It provides 32 channels of multiplexed voltage/current measurement, up to 1 MS/s sample rate, 16-bit resolution analog input with low distortion and noise performance. The card features a variety of input ranges and covers both voltage and current measurement. It can easily be applied to most of the industrial applications.

Specifications

Analog Input

- **Channels** 32 single-ended, 16 differential, or combination
- **Resolution** 16 bits
- **Max. Sampling Rate** 1MS/s, shared by all enabled channels
- **Overvoltage Protection** 30 Vp-p
- **Input Impedance** AI+ to AGND (Single Ended): >1000 GΩ in parallel with 9 pF
  AI+ to AI- (Differential): >1000 GΩ in parallel with 6 pF
- **Sampling Modes** Software and onboard programmable pacer
- **Input Range** ±10 V/±5 V/±2 V/±1 V/0 ~ 20 mA/4 ~ 20 mA
- **Offset error** < ±0.5 mV (Voltage Mode);
  < ±2.5 μA (Current Mode)
- **Gain error** < ±0.01 % (Voltage Mode);
  < ±0.05 % (Current Mode)
- **RMS Noise** 0.1mV
- **Auto calibration** Yes
- **Multi-card synchronization** Yes

Trigger & Clock Input

- **Trigger mode** Start, delay to start, stop, delay to stop
- **Trigger source** 2 external digital triggers and 2 analog triggers from AI channels
- **Clock input** 2 digital trigger inputs, and 1 conversion clock input
- **Trigger Input voltage** Logic 0: 0.8 V max. (0 V min.)
  Logic 1: 2.0 V min. (5 V max.)

Trigger and Clock Output

- **Channels** 2 multi-function outputs
- **Output capability** Logic 0: 0.8 V max. @ 10 mA
  Logic 1: 2.0 V min. @ -10 mA

General

- **Bus Type** PCI Express x1
- **I/O Connector** 1 x DB62 female connector
- **Dimensions (L x H)** 168 x 98 mm (6.6" x 3.9")
- **Power Consumption** +3.3 V 300 mA typ./320mA max.
  +12 V 70mA typ. / 90mA max.
- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F) (refer to IEC 68-2-1, 2)
- **Storage Temperature** -20 ~ 70° C (-4 ~ 158° F)
- **Storage Humidity** 5 ~ 95% RH, non-condensing (refer to IEC 68-2-3)

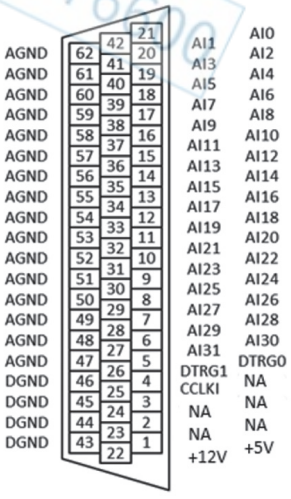
Ordering Information

- **PCIE-1805-AE** 1MS/s, 16bit, 32-ch Analog Input PCIE Card

Accessories

- **ADAM-3962-AE** DB-62 Wiring Terminal, DIN-rail Mount
- **PCL-10162-1E** DB-62 Shielded Cable, 1m
- **PCL-10162-3E** DB-62 Shielded Cable, 3m
- **1700030423-01** 10 pin Flat Cable, 10cm

Pin Assignments



All product specifications are subject to change without notice.

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