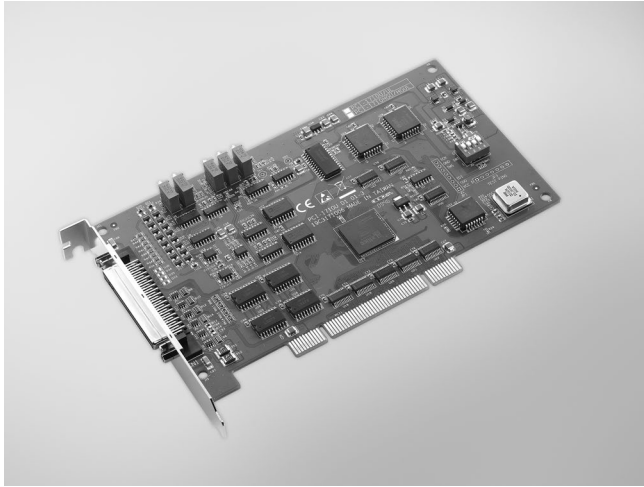


PCI-1710U/UL

PCI-1710HGU

100 kS/s, 12-bit, 16-ch Universal PCI Multifunction DAQ Card

100 kS/s, 12-bit, 16-ch Universal PCI Multifunction DAQ Card with High Gain



FCC CE RoHS

Specifications

Analog Input

- Channels: 16 single-ended/ 8 differential (software programmable)
- Resolution: 12 bits
- FIFO Size: 4,096 samples
- Overvoltage Protection: 30Vp-p
- Input Impedance: 1 GΩ
- Sampling Modes: Software, onboard programmable pacer and external
- Input Range (V, software programmable) & Absolute Accuracy

| PCI-1710U/UL | | | | | |
|-------------------------------|-----|--------|-------|---------|----------|
| Gain | 0.5 | 1 | 2 | 4 | 8 |
| Bipolar | ±10 | ±5 | ±2.5 | ±1.25 | ±0.625 |
| Unipolar | N/A | 0 ~ 10 | 0 ~ 5 | 0 ~ 2.5 | 0 ~ 1.25 |
| Absolute Accuracy (% of FSR)* | 0.1 | 0.1 | 0.2 | 0.2 | 0.4 |

| PCI-1710HGU | | | | | | | | |
|-------------------------------|-----|--------|-----|-------|------|---------|-------|----------|
| Gain | 0.5 | 1 | 5 | 10 | 50 | 100 | 500 | 1000 |
| Bipolar | ±10 | ±5 | ±1 | ±0.5 | ±0.1 | ±0.05 | ±0.01 | ±0.005 |
| Unipolar | N/A | 0 ~ 10 | N/A | 0 ~ 1 | N/A | 0 ~ 0.1 | N/A | 0 ~ 0.01 |
| Absolute Accuracy (% of FSR)* | 0.1 | 0.1 | 0.2 | 0.2 | 0.4 | 0.4 | 0.8 | 0.8 |

* ±1 LSB is added as the derivative for absolute accuracy

Maximum Sampling Rate

| Model | Gain | Max. Sampling Rate |
|--------------|-----------------|--------------------|
| PCI-1710U/UL | 0.5, 1, 2, 4, 8 | 100 kS/s |
| PCI-1710HGU | 0.5, 1 | 100 kS/s |
| | 5, 10 | 35 kS/s |
| | 20, 100 | 7 kS/s |
| | 500, 1000 | 770 S/s |

Note: The sampling rate for each channels will be affected by used channel number. For example, if 4 channels of PCI-1710U are used, the sampling rate is 100k/4 = 25 kS/s per channel.

Analog Output (PCI-1710U/HGU only)

- Channels: 2
- Resolution: 12 bits
- Output Rate: Static update
- Output Range: (Software programmable)

| Internal Reference | Unipolar | 0 ~ 5 V 0 ~ 10 V |
|--------------------|----------|--------------------------------|
| External Reference | | 0 ~ +x V @ -x V (-10 ≤ x ≤ 10) |

- Slew Rate: 10 V/μs
- Driving Capability: 3 mA
- Operation Mode: Static update
- Accuracy: INLE: ±1 LSB, DNLE: ±1 LSB

Features

- 16-ch single-ended or 8-ch differential or a combination of analog input
- 12-bit A/D converter, with up to 100 kHz sampling rate
- Programmable gain
- Automatic channel/gain scanning
- Onboard FIFO memory (4,096 samples)
- Two 12-bit analog output channels (PCI-1710U/HGU only)
- 16-ch digital input and 16-ch digital output
- Onboard programmable counter
- BoardID™ switch

Digital Input

- Channels: 16
- Compatibility: 5 V/TTL
- Input Voltage: Logic 0: 0.8 V max.
Logic 1: 2.0 V min.

Digital Output

- Channels: 16
- Compatibility: 5 V/TTL
- Output Voltage: Logic 0: 0.4 V max.
Logic 1: 2.4 V min.
Sink: 8.0 mA @ 0.8 V
Source: 0.4 mA @ 2.0 V
- Output Capability

Pacer/Counter

- Channels: 1
- Resolution: 16 bits
- Compatibility: 5 V/TTL
- Max. Input Frequency: 1 MHz

General

- Bus Type: Universal PCI V2.2
- I/O Connector: 1 x 68-pin SCSI female connector
- Dimensions (L x H): 175 x 100 mm (6.9" x 3.9")
- Power Consumption: Typical: 5 V @ 850 mA
Max.: 5 V @ 1.0 A
- Operating Temperature: 0 ~ 60°C (32 ~ 140°F)
- Storage Temperature: -20 ~ 70°C (-4 ~ 158°F)
- Storage Humidity: 5 ~ 95% RH non-condensing

Ordering Information

- PCI-1710U: 100 kS/s, 12-bit Multifunction Card
- PCI-1710UL: 100 kS/s, 12-bit Multifunction Card w/o AO
- PCI-1710HGU: 100 kS/s, 12-bit High-gain Multifunction Card

Accessories

- PCLD-8710: DIN-rail Wiring Board w/ CJC
- 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



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