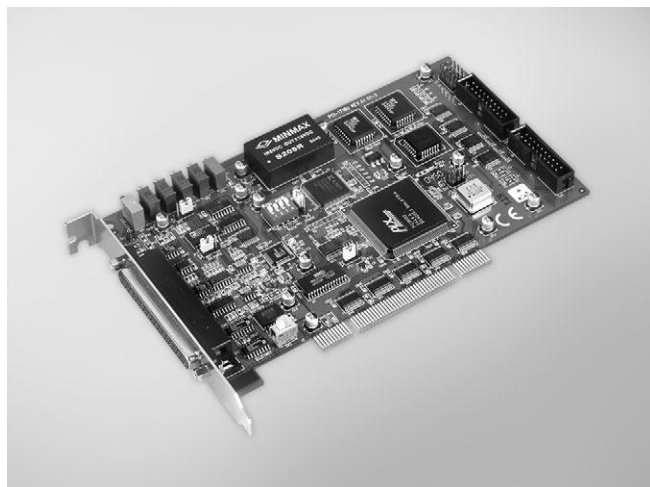# PCI-1718HDU

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

Features

- ISA-Compatible with PCL-818HD
- 16-ch single-ended or 8-ch differential analog input
- 12-bit A/D converter, with up to 100 kHz sampling rate
- Programmable gain
- Automatic channel/gain scanning
- Onboard FIFO memory (1,024 samples)
- One 12-bit analog output channel
- 16-ch digital input and 16-ch digital output
- Universal PCI bus (support 3.3 V or 5 V PCI bus signal)
- BoardID™ switch

RoHS
COMPLIANT
2002/95/EC

Specifications

Analog Input

- **Channels** 16 single-ended/8 differential (software programmable)
- **Resolution** 12 bits
- **Max. Sampling Rate** 100 kS/s
- **FIFO Size** 1,024 samples
- **Overvoltage Protection** 30 Vp-p
- **Input Impedance** 100 MΩ
- **Sampling Modes** Software, onboard or external programmable pacer
- **Input Range**

		N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
	Unipolar	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
	Bipolar	±10	±5	±2.5	±1.25	±0.625
PCI-1718HDU	Accuracy (% of FSR ±1LSB)	0.1	0.1	0.2	0.2	0.4

Analog Output

- **Channels** 1
- **Resolution** 12 bits
- **Output Rate** Static update
- **Output Range** (V, software programmable)

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

- **Slew Rate** 10 V/µs
- **Driving Capability** 10 mA
- **Output Impedance** 0.1 W max.
- **Operation Mode** Software polling
- **Accuracy** INLE: ±1LSB

Digital Input

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max., Logic 1: 2 V min.

Digital Output

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

Counter/Timer

- **Channels** 1
- **Resolution** 16 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 10 MHz
- **Reference Clock** Internal: 10 MHz
  External Clock Frequency: 10 MHz

General

- **Bus Type** Universal PCI V2.2
- **I/O Connector** 1 x DB37 female connector
  2 x 20-pin box header
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- **Power Consumption** Typical: 5 V @ 850 mA
  Max.: 5 V @ 1 A
- **Operating Temperature** 0 ~ 60 °C (32 ~ 140 °F)
- **Storage Temperature** -20 ~ 70 °C (-4 ~ 158 °F)
- **Operating Humidity** 5 ~ 85% RH non-condensing (refer to IEC 68-1, -2, -3)
- **Storage Humidity** 5 ~ 95% RH non-condensing (refer to IEC 68-1, -2, -3)

Ordering Information

- **PCI-1718HDU** 100 kS/s, 12-bit, 16-ch Univ. PCI Multi. Card

Accessories

- **PCL-10120-1** 20-pin Flat Cable, 1 m
- **PCL-10120-2** 20-pin Flat Cable, 2 m
- **PCL-10137-1** DB37 Cable, 1 m
- **PCL-10137-2** DB37 Cable, 2 m
- **PCL-10137-3** DB37 Cable, 3 m
- **ADAM-3920** 20-Pin Flat Cable Terminal, DIN-rail Mount
- **ADAM-3937** DB37 DIN-rail Wiring Board