



element14

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[PCI-1716-AE](#)

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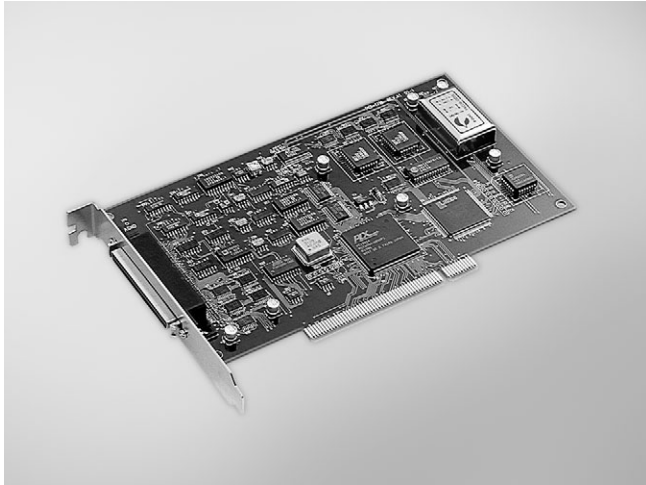
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# PCI-1716/L

250 kS/s, 16-bit, 16-ch PCI  
Multifunction Card



RoHS  
COMPLIANT  
2005/618/EC

FCC CE

## Specifications

### Analog Input

- Channels 16 single-ended/ 8 differential (software programmable)
- Resolution 16 bits
- Max. Sampling Rate 250 kS/s
- FIFO Size 1,024 samples
- Overvoltage Protection 30 Vp-p
- Input Impedance 100 M $\Omega$ /10 pF (off), 100 M $\Omega$ /100 pF (on)
- Sampling Modes Software, onboard programmable pacer and external
- Input Range (V, software programmable)

Unipolar	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
Bipolar	$\pm 10$	$\pm 5$	$\pm 2.5$	$\pm 1.25$	$\pm 0.625$
Accuracy (% of FSR $\pm 1$ LSB)	0.05	0.03	0.03	0.05	0.1

### Analog Output (PCI-1716 only)

- Channels 2
- Resolution 16 bits
- Output Rate Static update
- Output Range (V, software programmable)

Internal Reference	Unipolar	0 ~ 5, 0 ~ 10
	Bipolar	$\pm 5, \pm 10$
External Reference	0 ~ +x V @ +x V (-10 $\leq$ x $\leq$ 10) -x ~ +x V @ +x V (-10 $\leq$ x $\leq$ 10)	

- Slew Rate 20 V/ $\mu$ s
- Driving Capability 20 mA
- Output Impedance 0.1 W max.
- Operation Mode Software polling
- Accuracy INLE:  $\pm 1$  LSB

### Digital Input

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

## Features

- 16 single-ended or 8 differential or a combination of analog inputs
- 16-bit A/D converter, with up to 250 kHz sampling rate
- Onboard FIFO memory (1,024 samples)
- Auto-calibration
- PCI-Bus mastering data transfer
- 2 analog output channels (PCI-1716 only)
- 16-ch digital input and 16-ch digital output
- Onboard programmable counter
- BoardID™ switch

### Digital Output

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

### Pacer/Counter

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

### General

- Bus Type 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, 12 V @ 600 mA  
Max.: 5 V @ 1 A, 12 V @ 700 mA
- Operating Temperature 0 ~ 70° C (32 ~ 158° F) (refer to IEC 68-2-1, 2)
- Storage Temperature -20 ~ 85° C (-4 ~ 185° 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-1716 250 kS/s, 16-bit High-resolution Multi. Card
- PCI-1716L 250 kS/s, 16-bit High-res. Multi. Card w/o AO

### Accessories

- PCLD-8710 DIN-rail Wiring Board w/ CJC
- PCL-10168-1 68-pin SCSI Shielded Cable, 1 m
- PCL-10168-2 68-pin SCSI Shielded Cable, 2 m
- ADAM-3968 68-pin DIN-rail SCSI Wiring Board



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