PCI-1712/L

1 MS/s, 12-bit, 16-ch PCI **Multifunction DAO Card**



Features

- 16 single-ended or 8 differential or a combination of analog inputs
- 12-bit A/D converter, with up to 1 MHz sampling rate
- Programmable gain
- Automatic channel/gain scanning
- Onboard FIFO memory (AI: 1,024 samples AO: 32,768 samples)
- Two 12-bit analog output channels with continuous waveform output function (PCI-1712 only)
- 16-ch digital input or output (programmable)
- Three 16-bit programmable multifunction counter/timers on 10 MHz
- Auto-calibration (AI/AO)
- PCI-Bus mastering data transfer
- Pre-, post-, about- and delay-trigger data acquisition modes for analog input channels
- Flexible triggering and clocking capabilities

Specifications

Analog Input

- Channels Resolution
- 16 single-ended/ 8 differential (software programmable) 12 bits
- Max. Sampling Rate
- Multi-channel, single gain: 1 MS/s Multi-channel, multi gain: 600 kS/s

Multi-channel, multi gain, unipolar/bipolar: 400 kS/s 1,024 samples

FIFO Size

Note: The sampling rate for each channels will be affected by used channel number. For example, if 4 channels are used, the sampling rate is 600k/4 = 125 kS/s per channel. (multi gain, without unipolar/bipolar mixed)

- Overvoltage Protection 30 Vp-p
- Input Impedance 100 Μ̈́Ω/10 pF (Off), 100 ΜΩ/100 pF (On)
- Sampling Modes Trigger Modes Software, onboard programmable pacer and external Pre-trigger, post-trigger, delay-trigger and about-
- trigger

Input Range (V, software programmable) & Absolute Accuracy

Unipolar	N/A	0 ~ 10	0~5	0 ~ 2.5	0~1.25
Bipolar	±10	±5	±2.5	±1.25	±0.625
Absolute Accuracy (% of FSR)*	0.1	0.1	0.2	0.2	0.4
	0.1	0.1	0.2	0.2	0.11

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

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Analog Output (PCI-1712 only)

Channels

Resolution	12 bits
Output Rate	1 MS/s max.
FIFO Size	32.768 sample

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•	Output Range	(Software programmable)

Internal Reference	Bipolar	±5 V, ±10 V
	Unipolar	0 ~ 5 V, 0 ~ 10 V
External Reference		$0 \sim +x \lor @+x \lor (-10 \le x \le 10)$
External Helefende		$-x \sim +x \lor @ +x \lor (-10 \le x \le 10)$
Slew Rate	20 V/µs	
 Driving Capability 	10 mÁ	

Static update, waveform generation

0.1 Ω max.

INLE: ±1 LSB

DNLE: ±1 LSB

- **Driving Capability**
- **Output Impedance**
- Operation Mode
- Accuracy

- Dimensions (L x H) **Power Consumption Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- Storage Temperature
 - 5 ~ 95% RH non-condensing

Ordering Information

- PCI-1712L
- Accessories
- PCLD-8712
- PCL-10168-1E
- PCL-10168-2E
 - ADAM-3968

DIN-rail Wiring Board for PCI-1712/L 68-pin SCSI Shielded Cable, 1 m 68-pin SCSI Shielded Cable, 2 m

1 MS/s, 12-bit High-speed Multifunction PCI Card

1 MS/s, 12-bit High-speed Multi. PCI Card w/o AO

AD\ANTECH **Data Acquisition Boards**

All product specifications are subject to change without notice

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

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16 bits

5 V/TTL

PCI V 2.2

Pacer/Counter

- Channels
- Resolution
- Compatibility
- Max. Input Frequency 10 MHz
- **Reference Clock** Internal: 10 MHz, 1 MHz, 100 kHz, 10 kHz External Frequency: 10 MHz max.

1 x 68-pin SCSI female connector

Typical: 5 V @ 850 mA, 12 V @ 600 mA

175 x 100 mm (6.9" x 3.9")

General Bus Type

- I/O Connector
 - Max.: 5 V @ 1.0 A, 12 V @ 700 mA
 - -20~85°C (-4~185°F)
 - **Storage Humidity**

PCI-1712