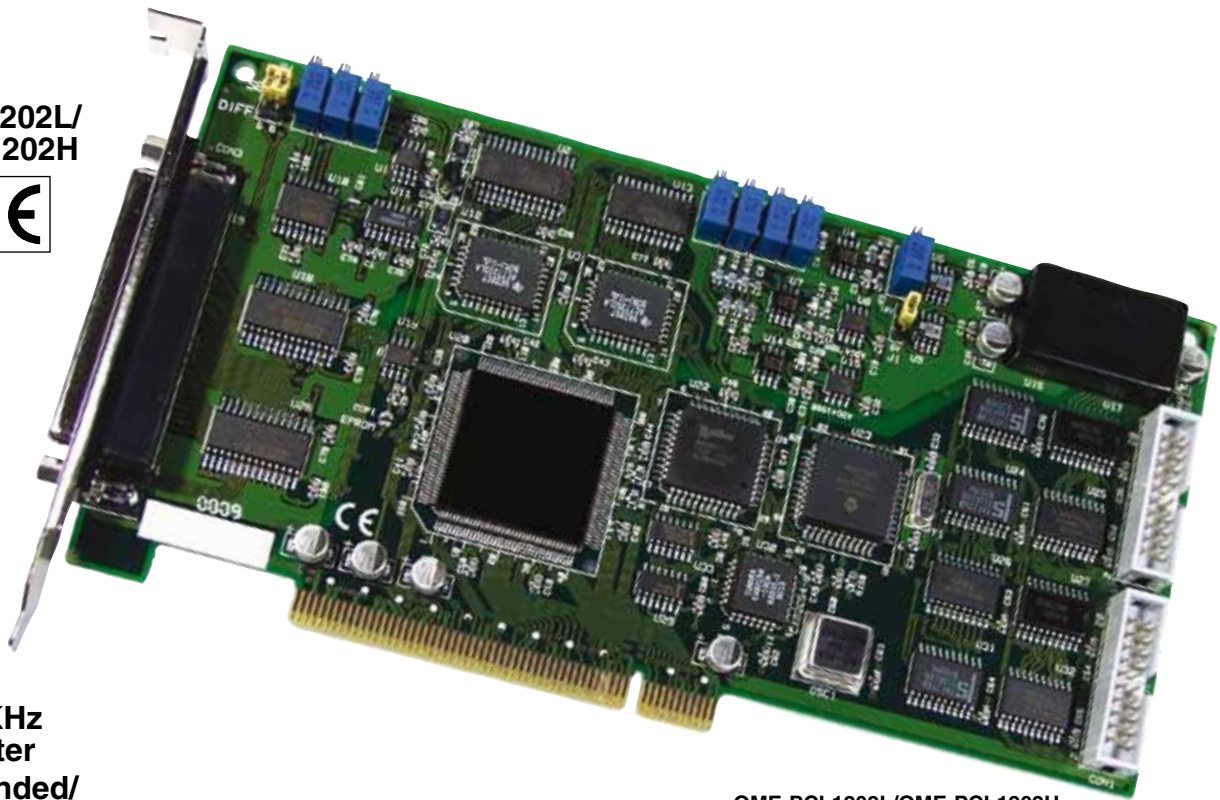
110 KS/s 12-Bit High Performance Analog and Digital I/O Boards

OME-PCI-1202L/
OME-PCI-1202H



OME-PCI-1202L/OME-PCI-1202H shown smaller than actual size.

- **PCI Bus**
- **12-Bit 110 KHz A/D Converter**
- **32 Single-Ended/ 16 Differential Inputs**
- **2 K Word FIFO Buffer**
- **110 KS/s Maximum Sampling Rate: OME-PCI-1202H-40KS/s; OME-PCI-1202L-110KS/s (Single Channel or Multiple Channels)**
- **Trigger Methods: Software Trigger, Pacer Trigger, External Trigger**
- **External Triggers: Post-Trigger, Pre-Trigger, External Pacer Trigger**
- **16 Digital Input/16 Digital Output Channels**
- **OME-PCI-1202L Provides Programmable Low Gain: 0.5, 1, 2, 4, 8**
- **OME-PCI-1202H Provides Programmable High Gain: 0.5, 1, 5, 10, 50, 100, 500, 1000**
- **Two 12-Bit Independent Programmable DACs**
- **2.7 M Word/High Speed Data Transfer Rate**

The OME-PCI-1202 series is a family of high performance data acquisition boards for the PCI bus. They feature a continuous, 110 KHz, gap-free data acquisition under DOS and Windows. The OME-PCI-1202 provides 32 single-ended or 16 differential analog inputs.

Both the OME-PCI-1202L and OME-PCI-1202H provide software programable input ranges. The OME-PCI-1202L offers low gain settings of 0.5/1/2/4/8. The OME-PCI-1202H offers high gain ranges of 0.5/1/5/10/50/100/500/1000. The OME-PCI-1202 contains two 12-bit D/A converts that can generate output voltages in the range of ±5 or ±10V. Sixteen channels of digital input and 16 channels of digital output are also available.

Software Development Kit

All data acquisition boards are supplied with a standard software development kit for Windows XP/Vista/7. The software development kit includes DLL files for programming in C, C++ or other high level languages and OCX files for Visual Basic or Active X programming. LabView drivers are also included.

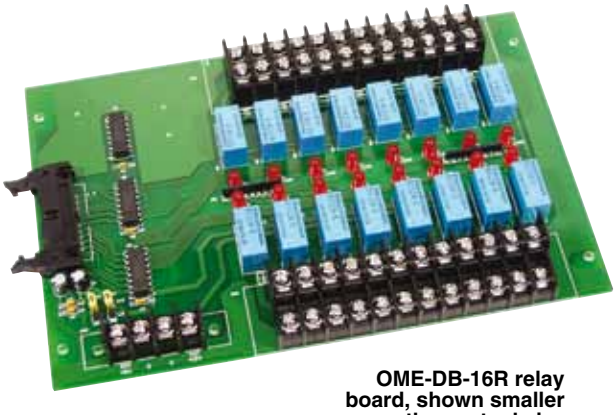
Specifications

ANALOG INPUT SPECIFICATIONS FOR OME-PCI-1202L AND OME-PCI-1202H

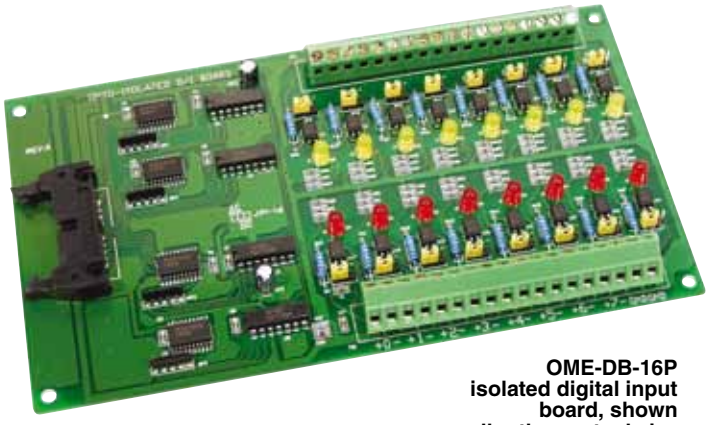
Input Channels:
32 S.E./16 Diff (jumper setting)
Input Ranges:
See range table on next page
Resolution: 12-bits
Max Conversion Rate:
OME-PCI-1202L: 110 KS/s
OME-PCI-1202H: 40 KS/s
Input Impedance:
10,000M Ω // 6pf
Overvoltage Protection: ±35V
Linearity: ±1 bit
On Board FIFO: 2 K
Programable Gain:
0.5/1/2/4/8 (OME-PCI-1202L);
0.5/1/5/10/50/100/500/1000 (OME-PCI-1202H)

D/A OUTPUTS

Channels: 2
Type: 12 bit double buffers
Linearity: 0.06% FS
Settling Time: 0.4 mS
Output Range: ±5 or ±10V
Output Current: ±5 mA



OME-DB-16R relay board, shown smaller than actual size



OME-DB-16P isolated digital input board, shown smaller than actual size

DIGITAL I/O

Input: 16 channels; TTL levels
Input Low:
V_{IL} = 0.8V max,
I_{IL} low = 4 mA
Input High:
V_{IH} = 2.0 V min,
I_{IH} = -20 µA max
Output: 16 channels; TTL levels
Output Low:
V_{OL} low = 0.33V max,
I_{OL} low = 4 mA max
Output High:
V_{OH} = 3.84V min,
I_{OH} = -400 µA max

TIMER

Internal Pacer Timer: 16-bit, 8 MHz input
External Pacer Timer: 16-bit, 8 MHz input
Machine Independent Timer: 16-bit, 8 MHz input

GENERAL ENVIRONMENTAL

Operating Temperature: 0 to 50°C (32 to 122°F)
Storage Temperature: -20 to 70°C (-4 to 158°F)
Humidity: 0 to 90% RH non-condensing
Dimensions: 200 L x 105 mm H (7.9 x 4.1")

OMEGA CARE℠ Extended Warranty Program

OMEGACARE℠ extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE℠ covers parts, labor and equivalent loaners.

OME-PCI-1202L Analog Input Ranges			
Gains:	**Bipolar(V):**	**Unipolar(V):**	**Throughput:**
0.5	±10V	0 to 10V	110 KS/s
1	±5V	0 to 10V	110 KS/s
2	±2.5V	0 to 5V	110 KS/s
4	±1.25V	0 to 2.5V	110 KS/s
8	±0.625V	0 to 1.25V	110 KS/s

OME-PCI-1202H Analog Input Ranges			
Gains:	**Bipolar(V):**	**Unipolar(V):**	**Throughput:**
0.5	±10V	0 to 10V	40 KS/s
1	±5V	0 to 10V	40 KS/s
5	±1V	0 to 1V	40 KS/s
10	±0.5V	0 to 1V	40 KS/s
50	±0.1V	0 to 0.1V	10 KS/s
100	±0.05V	0 to 0.1V	10 KS/s
500	±0.01V	0 to 0.01V	1 KS/s
1000	±0.005V	0 to 0.01V	1 KS/s

To Order

Model No.	Description
OME-PCI-1202H	32-channel high gain 12-bit A/D board
OME-PCI-1202L	32-channel low gain 12-bit A/D board
OME-DB-1825/1	Screw terminal board for analog input channels with 1 m (3.3') 37-pin D-Sub cable
OME-DB-1825/2	Screw terminal board for analog input channels with 2 m (6.6') 37-pin D-Sub cable
OME-DB-8025	Screw terminal board for digital I/O, includes two 1 m (3.3') cables
OME-DB-16P	16-channel isolated digital input board, includes 1 m (3.3') cable
OME-DB-16R	16-channel SPDT relay board, includes 1 m cable
OME-ADP-20/PCI	20-pin extender extender (extends the dual 20-pin digital I/O flat cable connectors on the board to the PC slot window, includes two 20-pin cables)
OME-DN-20	20-pin DIN rail mount I/O connector board (two 20-pin headers) for digital I/O, includes two 1 m (3.3') cables
OME-DN-37	37-pin D-sub DIN rail mount I/O connector board (two 37-pin D sub connectors, one for expansion) for analog inputs, includes one 1 m (3.3') cable

OME-PCI-1202H and OME-PCI-1202L data acquisition board comes complete with operator's manual on CD ROM and software development kit.

***Ordering Example: OME-PCI-1202H** 40 KS/s 32-channel high gain data acquisition board, **OME-DB-8025** screw terminal board and **OCW-1,** OMEGACARE℠ 1 year extended warranty for **OME-PCI-1202H** (adds 1 year to standard 1 year warranty).*