110 KS/s 12-Bit Low-Cost A/D Boards

OME-PCI-1002L/ OME-PCI-1002H
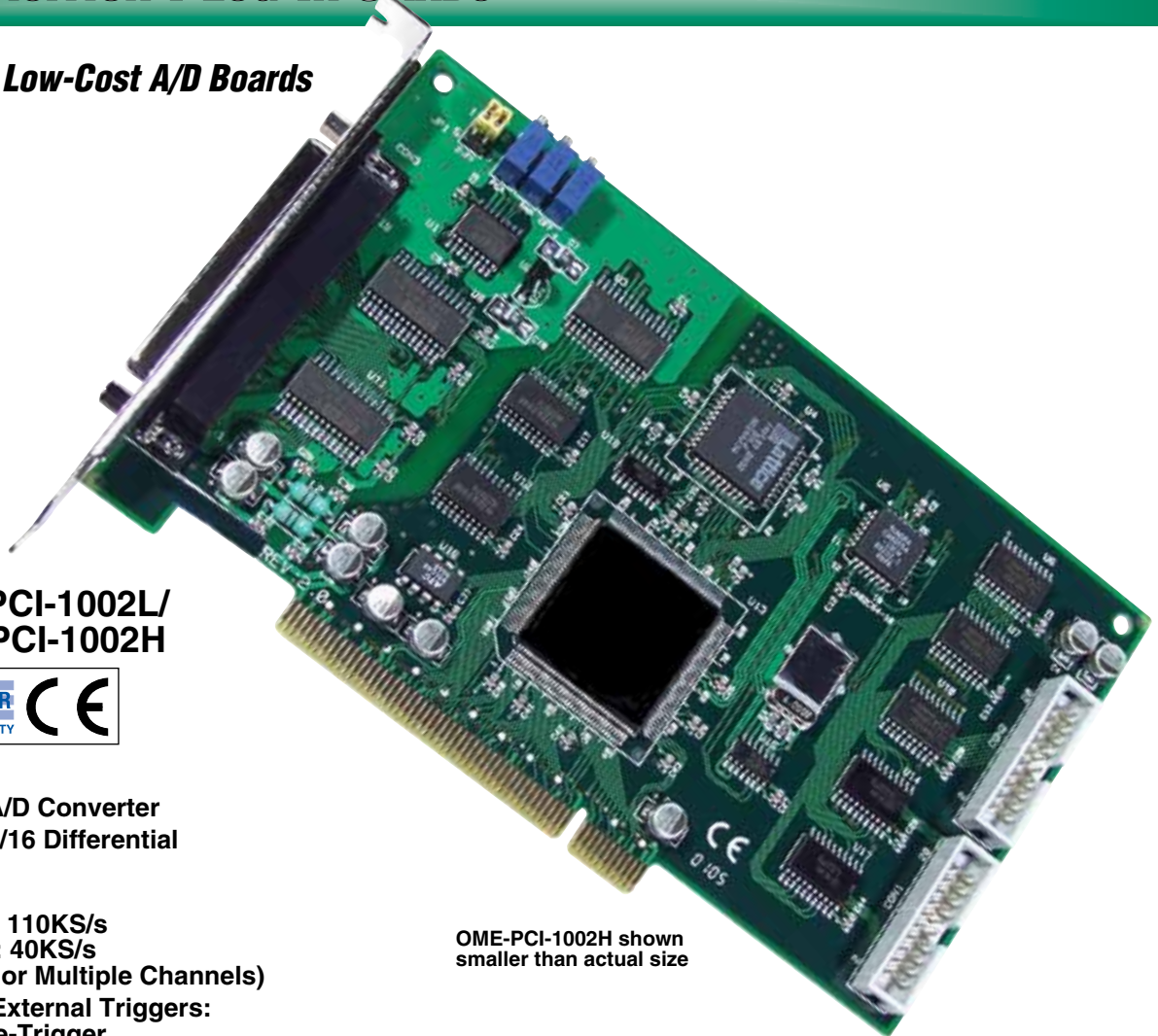
1 YEAR WARRANTY **CE**

- ✔ **PCI Bus**
- ✔ **12-Bit 110 KHz A/D Converter**
- ✔ **32 Single-Ended/16 Differential Analog Inputs**
- ✔ **Sampling Rate: OME-PCI-1002L: 110KS/s OME-PCI-1002H: 40KS/s (Single Channel or Multiple Channels)**
- ✔ **Three Different External Triggers: Post-Trigger, Pre-Trigger, External Pacer Trigger**
- ✔ **16 Digital Input and 16 Digital Output Channels**
- ✔ **OME-PCI-1002L: Programmable Low Gain: 1, 2, 4, 8**
- ✔ **OME-PCI-1002H: Programmable High Gain: 1, 10, 100, 1000**
- ✔ **Half-Size Board**
- ✔ **Includes Software Development Kit**

OME-PCI-1002H shown smaller than actual size

The OME-PCI-1002 Series is a family of PCI bus A/D boards. They feature 110 KHz data acquisition under DOS and Windows. The boards provide 32 single-ended or 16 differential inputs, 16 digital input and 16 digital output channels.

The suffix "H" denotes a high-gain model and the suffix "L" denotes a low-gain model. The OME-PCI-1002 Series provides three flexible external trigger modes: post-trigger, pre-trigger, middle trigger.

Software Development Kit
All boards are supplied with a standard software development kit for Windows 98/NT/2000/XP. The software kit includes DLL files for programming in C, C++, or other high-level languages, and OCX files for Visual Basic or Active X programming. DASYLab and LabVIEW drivers are also included.

The OME-PCI-1002 includes 16-channels of digital input and 16-channels of digital output. An OME-DB-8025 screw terminal panel can be used to connect to the digital I/O lines. The OME-DB-16P isolated digital input board and OME-DB-16R relay board can be used to connect the digital I/O on the OME-PCI-1002 to real-world signals.

OME-PCI-1002H Input Ranges (High Gain)

Gain	Bipolar	Sampling Rate (Maximum)
1	±10V	44 KS/s
10	±1V	36 KS/s
100	±0.10V	7 Ks/s
1000	±0.01V	0.8 Ks/s

OME-PCI-1002L Input Ranges (Low Gain)

Gain	Bipolar	Sampling Rate (Maximum)
1	±10V	110 KS/s
2	±5V	110 KS/s
4	±2.5V	110 KS/s
8	±1.25V	110 KS/s

Specifications

ANALOG INPUT SPECIFICATIONS
Channels: OME-PCI-1002H, OME-PCI-1002L:
32 single-ended/16 differential
Resolution: 12-bits
Maximum Conversion Rate:
  OME-PCI-1002H: 40 KS/s
  OME-PCI-1002L: 110 KS/s
Input Impedance: 10,000 MΩ/6pF
Overvoltage Protection: ±35V
Accuracy: 0.01% of reading ±1-bit
Linearity: ±1-bit

DIGITAL I/O
Inputs: 16 channels; TTL levels
Input Low:
  V_{IL} = 0.8V maximum
  I_{IL} = 4 mA
Input High:
  V_{IH} = 2V minimum
  I_{IH} = -20 µA maximum
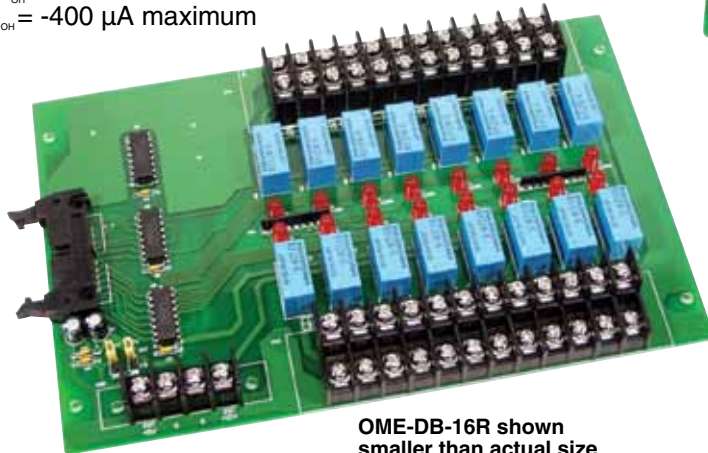**Outputs:** 16 channels; TTL levels
Output Low:
  V_{OL} = 0.33V maximum
  I_{OL} = 4 mA maximum
Output High:
V_{OH} = 3.83V minimum
I_{OH} = -400 µA maximum

TIMER COUNTER
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: 175 L x 105 mm H (6.9 x 4.1")
Power Requirements: 5V @ 350 mA (maximum)

OME-DB-16P shown smaller than actual size

**OME-DB-16R shown
smaller than actual size**

To Order

Model Number	Description
OME-PCI-1002H	40 KS/s high gain, 12-bit analog and digital I/O board
OME-PCI-1002L	110 KS/s low gain, 12-bit analog and digital I/O board
OME-DB-1825/1	Screw terminal board for analog input channels with 1 m 37-pin D-Sub cable
OME-DB-1825/2	Screw terminal board for analog input channels with 2 m 37-pin D-Sub cable
OME-DB-8025	Screw terminal board for digital I/O, includes two 1 m 20-pin flat cable
OME-DB-16P	16-channel isolated digital input board, includes 1 m 20-pin flat cable
OME-DB-16R	16-channel SPDT relay board, includes 1 m 20-pin flat cables
OME-ADP-20/PCI	20-pin extender (extends the dual 20-pin digital I/O flat cable connectors on the board to the PC slot window), includes two 20-pin flat cables

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