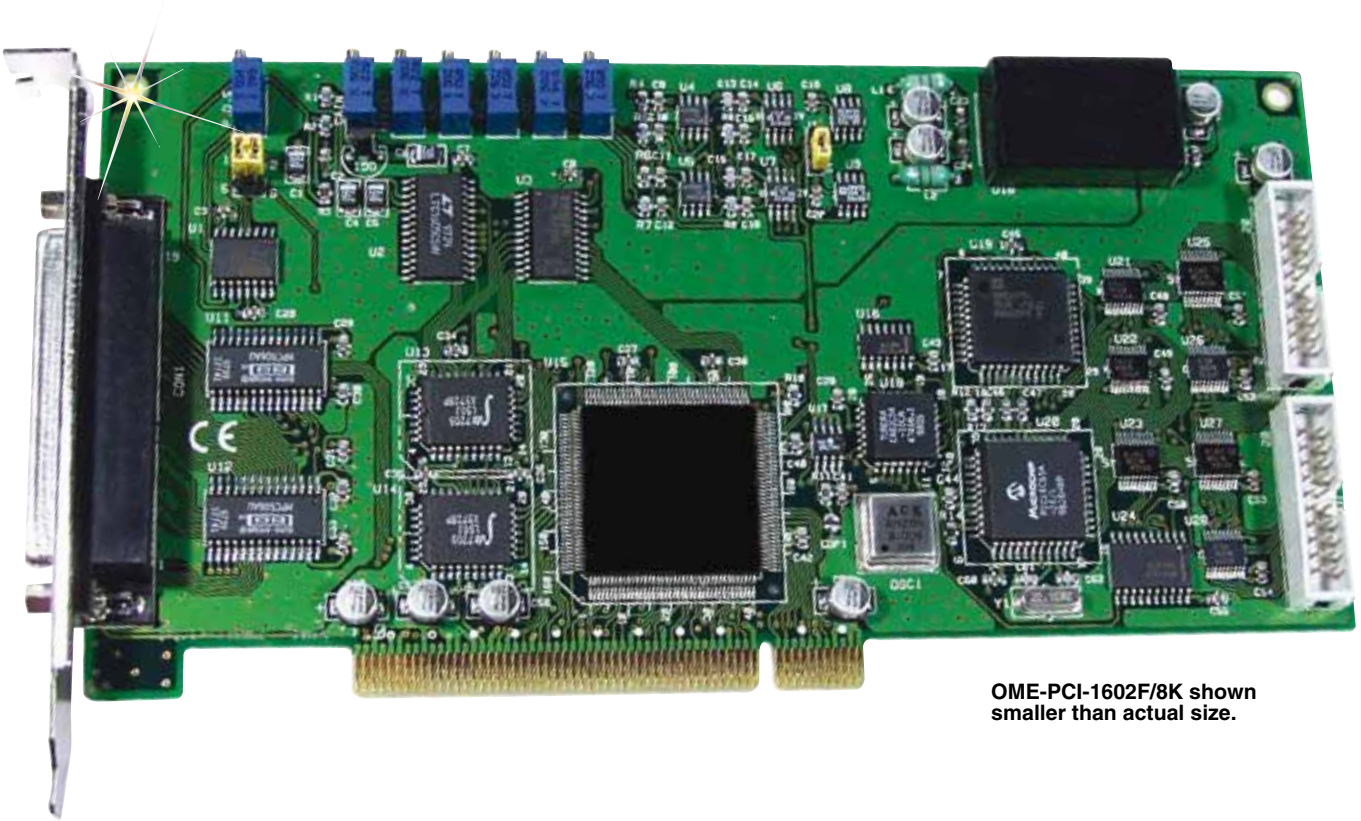
# 100 KS/s and 200 KS/s 16-Bit High Performance Analog and Digital I/O Boards



OME-PCI-1602F/8K shown smaller than actual size.

**OME-PCI-1602/**
**OME-PCI-1602F**

1 YEAR WARRANTY

- **PCI Bus**
- **OME-PCI-1602 16-Bit 100 KHz A/D Converter**
- **OME-PCI-1602F 16-Bit 200 KHz A/D Converter**
- **32 Single-Ended/ 16 Differential Inputs 8 K Word FIFO Buffer**
- **Trigger Methods: Software Trigger, Pacer Trigger, External Triggers**
- **External Triggers: Post-Trigger, Pre-Trigger, External Pacer Trigger**
- **16 Digital Input/16 Digital Output Channels**
- **Programmable Low Gain: 0.5, 1, 2, 4, 8**
- **Internal/External Trigger**
- **Two 12-Bit Independent Programmable DAC's; 2 MHz Throughput per Channel (max)**
- **2.7 M Word/High Speed Data Transfer Rate**

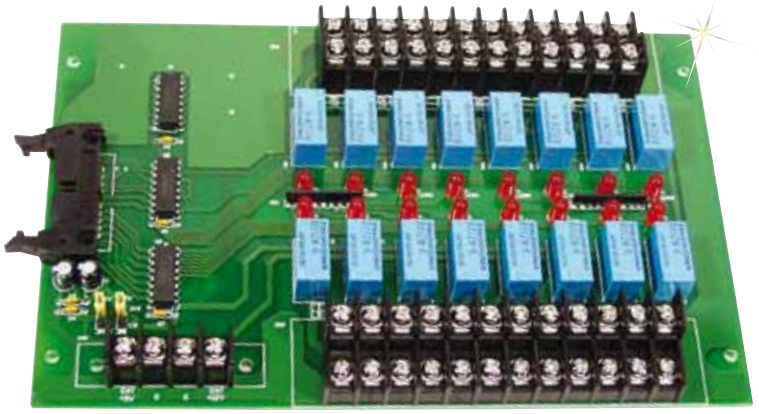
The OME-PCI-1602/1602F series is a family of high performance and high resolution data acquisition board for the PCI bus. They feature a continuous, 100/200 KHz, gap-free data acquisition under DOS and Windows. The OME-PCI-1602 Series provides 32-channel single-ended or 16-channel differential analog inputs, two analog outputs, 16 digital input and 16 digital output channels.

## 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. OME-PCI Series data acquisition boards are also compatible with the Dasylab Windows software.

## Specifications

**ANALOG INPUT SPECIFICATIONS**
**Input Channel:** 32 S.E./16 Diff
**Resolution:** 16-bits
**Conversion Rate:**
**OME-PCI-1602:** 100 KS/s max.
**OME-PCI-1602F:** 200 KS/s max.
**Range:** ±10V, ±5V, ±2.5V, ±1.25V, ±0.625V
**Input Impedance:** 10,000 M Ω // 6pf
**ON Board FIFO:** 8K



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

**D/A OUTPUTS**
**Channels:** 2
**Type:** 12 bit double buffers
**Linearity:** 0.06% FS
**Settling Time:** 0.4 mS
**Output Range:** ±5V or ±10V
**Output Driving:** ±5 mA

**DIGITAL I/O**
**Inputs:** 16-channels; TLL levels
**Input Low:**
$V_{IL}$ low = 0.8V max,
$I_{IL}$ low = 4 mA
**Input High:**
$V_{IH}$ high = 2.0V min,
$I_{IH}$ high = -20 µA max
**Outputs:** 16-channels; TLL levels
**Output Low:**
$V_{OL}$ = 0.33V max,
$I_{OL}$ = 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
**Power Requirements:**
+5V @ 350 mA (max)
**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:**
190 L x 105 mm H
(7.5 x 4.1")
**Overvoltage Protection:** ±35V
**Linearity:** ± 1.5 LSB
**Programable Gain:**
0.5, 1, 2, 4, 8

**OME-DB-16P shown smaller than actual size.**

*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.*

## To Order

| Model No. | Description |
|---|---|
| **OME-PCI-1602/8K** | 100 KS/s 32-channel 16-bit A/D board |
| **OME-PCI-1602F/8K** | 200 KS/s 32 channel 16-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 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 (3.3') cable |
| **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 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-1602 and OME-PCI-1602F come complete with operator's manual on CD ROM, and software development kit.*
***Ordering Example: OME-PCI-1602/8K** 100 KS/s 32-channel data acquisition board, **OME-DB-1825/1** screw terminal board and **OCW-1,** OMEGACARE℠ 1 year extended warranty for **OME-PCI-1602/8K** (adds 1 year to standard 1 year warranty).*