PCI Bus 14-Bit 16/8/4 Channel Analog Output Boards

OME-PIO-DA16U/ OME-PIO-DA8U/ OME-PIO-DA4U

1 YEAR WARRANTY

OME-PIO-DA16U shown smaller than actual size.

- **PCI Bus**
- **16/8/4 Channels, 14-Bits Analog Output**
- **Unipolar or Bipolar Outputs Available**
- **Output Type (Unipolar or Bipolar) and Output Range (0-5 V, ±5 V, 0-10 V, ±10 V) are Software Programmable**
- **4 to 20 mA or 0 to 20 mA Current Sink to Ground for Each Channel**
- **Two Pacer Timer Interrupt Sources**
- **Double-Buffered D/A Latches**
- **Software Calibration**
- **16 Digital Inputs**
- **16 Digital Outputs**
- **One 37-Pin D-Sub Connector for Analog Outputs**
- **Two 20-Pin Flat Cable Connectors for Digital I/O**
- **Connects Directly to OME-DB-16P, OME-DB-16R, OME-DB-24C, OME-DB-24PR and OME-DB-24POR**
- **Automatically Detected by Windows XP/VISTA/7**
- **No base Address or IRQ Jumper to Set**

The OME-PIO-DA16U, OME-PIO-DA8U and OME-PIO-DA4U are multi-channel D/A boards for the PCI bus for IBM or compatible PC.

The OME-PIO-DA16U/8U/4U offer 16/8/4 channels of double-buffered analog output. The outputs may be configured in different ranges: ±10 V, ±5 V, 0 to 10 V, 0 to 5 V voltage output or 4 to 20 mA, 0 to 20 mA current loop sink. The innovative design improves several drawbacks of conventional D/A boards.

For example: 1. No jumper or trim-pots on the board. **2.** The calibration is performed under software control eliminating manual trim-pot adjustments. The calibration data is stored in EEPROM. **3.** Each channel can be selected as voltage or current output. **4.** High channel count output can be implemented in a half size card.

Note: This card needs ±12 V power supply. This can be found in regular or Industrial PC's.

Software Development Kit

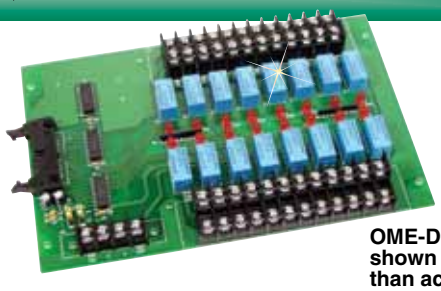
All boards are supplied with a standard software development kit for Windows XP/VISTA/7 (32-bit). The software development kit includes dll files for programming in C, C++ or other high level languages and OCX files for Visual Basic or Active X programming. LabView drivers are also included.

Specifications

PCI BUS TYPE
3.3 V/5V universal
DIGITAL INPUTS/OUTPUTS (TTL COMPATIBLE)
Logic High Voltage VIH: 2.4 V (min)
Logic Low Voltage VIL: 0.8 V (max)
Sink Current IOL: 8 mA max
Source Current IOH: 0.4 mA max

ANALOG OUTPUTS
D/A Converter: Quad 14 bits MDAC
Channels: 16/8/4 independent
Resolution: 14-bits
Type: Double-buffered, multiplying
Integral Linearity: 0.006% FSR (typical)
Differential Linearity: 0.006% FSR (typical)

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

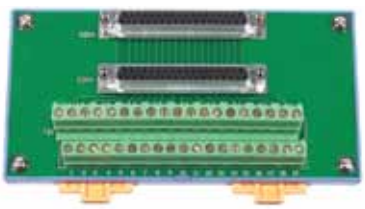


OME-DB-16R shown smaller than actual size.

VOLTAGE OUTPUT RANGE
Unipolar: 0 to 5 V or 0 to10 V
Bipolar: ±10 V or ±5 V
Current Drive: ±5 mA
Absolute Accuracy:
0.01% FSR (typical)
Current Output Range:
0 to 20 mA or 4 to 20 mA
Absolute Accuracy:
0.1% FSR (typical)
Excitation Voltage Range: +7 V to +40 V

ENVIRONMENTAL
Operating Temperature:
0 to 60°C (32 to 140°F)
Storage Temperature:
-20 to 80°C (-4 to 176°F)
Humidity: 0 to 90% RH non-condensing
Dimensions: 115 H x 180 mm W (4.5 x 7.1")
Connector: Analog outputs, 37-pin D-Sub; digital I/O, two 20-pin headers)

POWER CONSUMPTION
OME-PIO-DA4U:
+5 Vdc @ 600 mA
OME-PIO-DA8U:
+5 Vdc @ 800 mA
OME-PIO-DA16U:
+5 Vdc @ 1400 mA



OME-DN-37 shown smaller than actual size.

OME-ADP-20/PCI shown smaller than actual size.

OME-DB-37 shown smaller than actual size.

To Order

Model No.	Description
OME-PIO-DA16U	16-channel PCI bus (3.3V/5V) D/A board with 16 digital inputs and 16 digital outputs
OME-PIO-DA8U	8-channel PCI bus (3.3V/5V) D/A board with 16 digital inputs and 16 digital outputs
OME-PIO-DA4U	4-channel PCI bus (3.3V/5V) D/A board with 16 digital inputs and 16 digital outputs
OME-PIO-DA16U/S	OME-PIO-DA16U 16-channel PCI board plus OME-DN-37 terminal panel
OME-PIO-DA8U/S	OME-PIO-DA8U 8-channel PCI board plus OME-DN-37 terminal panel
OME-PIO-DA4U/S	OME-PIO-DA4U 4-channel PCI board plus OME-DN-37 terminal panel
Accessories	
OME-DN-37	DIN-rail mount I/O connector block with 37-pin D-sub connector, includes 1 m (3') cable (OME-CA-3710)
OME-DB-37	Direct connect 37-pin terminal board
OME-DB-16P	16-channel isolated digital input board, includes 1 m (3') cable (OME-CA-2010)
OME-DB-16R	16-channel SPDT relay board, includes 1 m (3') cable (OME-CA-2010)
OME-DB-24PR/12	24-channel power relay board, 12 V (only 16-channels used), includes 1.5 m (5') 50-pin cable (OME-CA-5015)
OME-DB-24POR	24-channel Photo Mos relay output board, includes 1.5 m (5') 50-pin flat cable (only 16-channels used) (OME-CA-5015)
OME-DB-24C	24-channel open-collector output board, includes 1.5 m (5') 50-pin flat cable (only 16-channel used) (OME-CA-5015)
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-CA-2002))