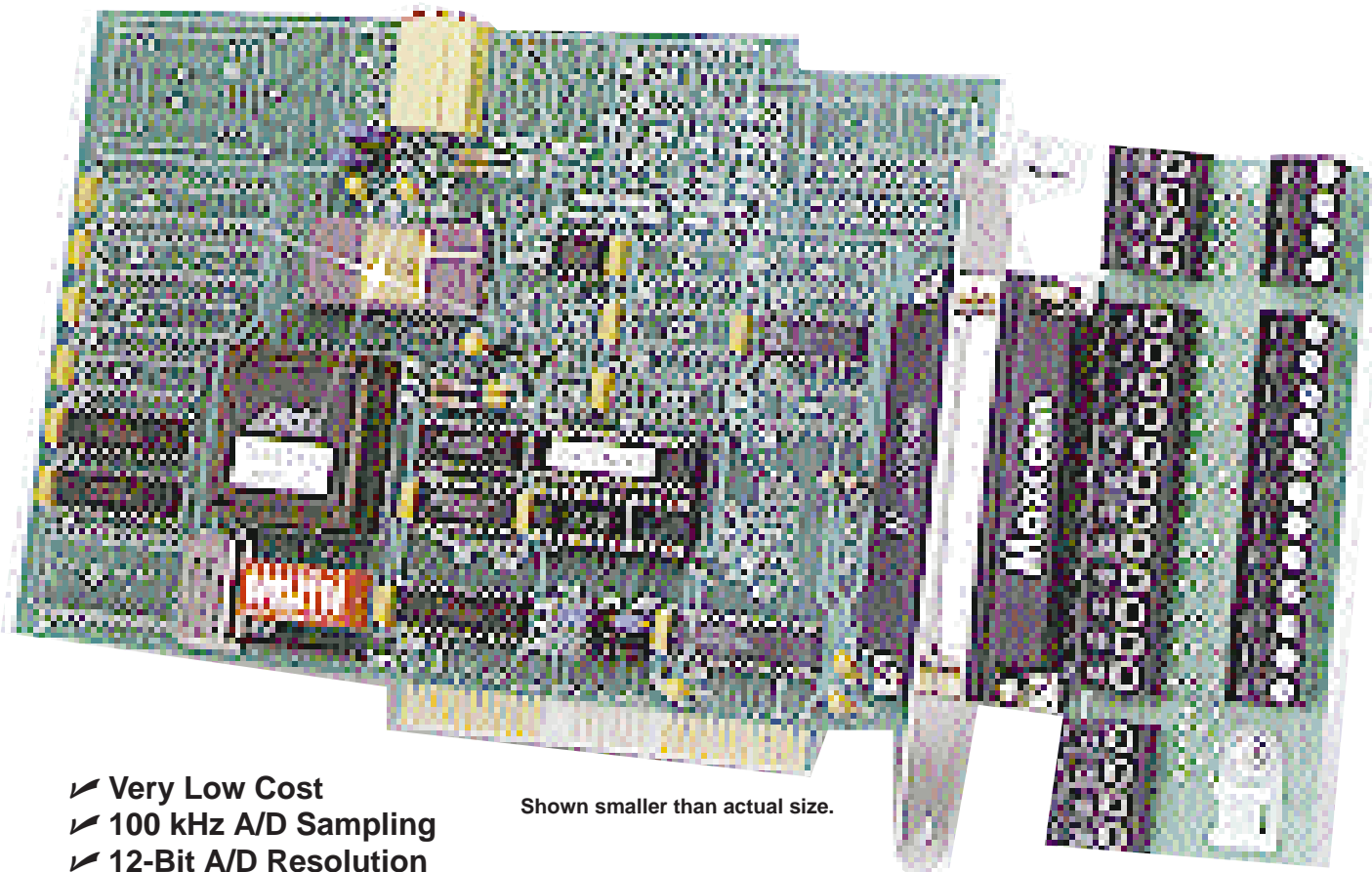




Low Cost Direct Connect Board for IBM PC and Compatibles

Model OMD-5508LC

\$245
Basic Unit



Shown smaller than actual size.

OMD-5508LC shown with optional OMD-DC-36 screw terminal panel, \$65.

- ✓ Very Low Cost
- ✓ 100 kHz A/D Sampling
- ✓ 12-Bit A/D Resolution
- ✓ 8 Analog Inputs

The OMD-5508LC is a high speed, low cost data acquisition board for the IBM PC/AT. The OMD-5508LC is a half size board with 8 single-ended high level (± 5 V) analog inputs multiplexed to a 12-bit A/D converter. Total hardware conversion time is 10 μ s.

Lab to Factory

DIRECT CONNECT flexibility provides the perfect solution for both small channel I/O applications in the laboratory and large scale I/O systems for process control. Over one hundred analog and digital DIRECT CONNECT boards can be interfaced to a single PC to create a

laboratory or industrial I/O system completely contained on the industry standard PC/AT bus.

Signal Connections

The OMD-5508LC board can be purchased with the OMD-DC-36 mating screw termination panel to accept field wiring directly. The OMD-DC-36 connects directly to the OMD-5508LC eliminating the need for additional cables. For portable applications, a user may purchase additional termination panels to provide a quick connection mechanism between the computer and signals at multiple remote locations.

For users writing their own programs, the optional ADLIBPC driver software provides high level callable routines which may be used to access the input functions of the board. The driver supports the following DOS languages: Microsoft's Fortran Pascal, GWBasic, Quick Basic, C and Quick C, Borland's Turbo C, C++ and Turbo Pascal.

DirectView for Windows is provided, which allows easy setup, as well as datalogging and display of all inputs. The OMD-5508LC is also supported by Labtech Notebook and Labtech Control software.

Specifications

GENERAL

Function: High speed, 8 channel multiplexed analog to digital converter with sample and hold and DMA. Half-size for the IBM PC/AT/386/486 (or compatible) series of computers

Bus Interface: 8-bit ISA interface

A/D CONVERTER

Input Channels: 8, Multiplexed

Resolution: 12-bit (2.4 mV/bit on ± 5 V or 0-9 V range)

Maximum Acquisition Rate:

Single Channel 100 kHz; Hardware Channel Sequencing (0-n): 100 kHz aggregate; Software Control of Channel: 66 kHz aggregate

Full Scale Input Ranges: ± 5 V, 0-9 V (Jumper selectable)

Linearity: $\pm 1/2$ LSB

Gain Error: Adjustable to zero

Gain Drift: ± 3 LSB over temperature

Zero Error (Offset): Adjustable to zero

Zero Drift: ± 1 LSB over temperature

Multiplexer Settling Time: 10 μ s

Data Coding: Unipolar: right justified, true binary; Bipolar: two's complement, or offset binary

Signal to Noise and Distortion (S/N+D): 70 dB

Total Harmonic Distortion (THD): -82 dB

Full Linear Bandwidth: 500 kHz

A/D TRIGGER

Source: Software or external trigger. *Note:* External trigger is required for DMA operation.

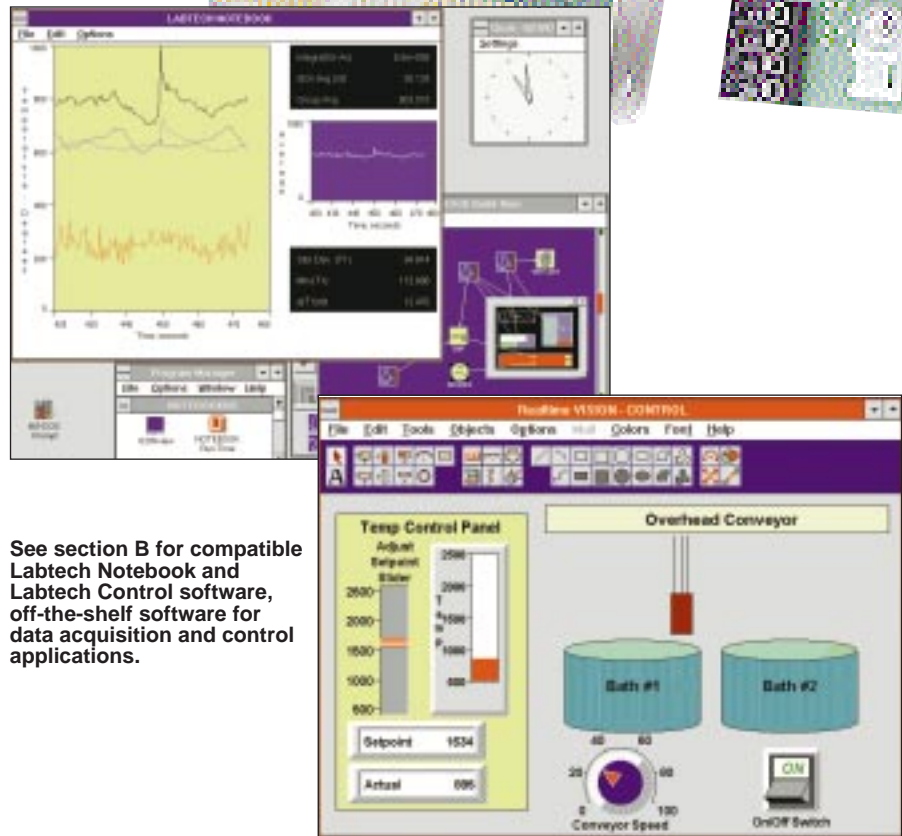
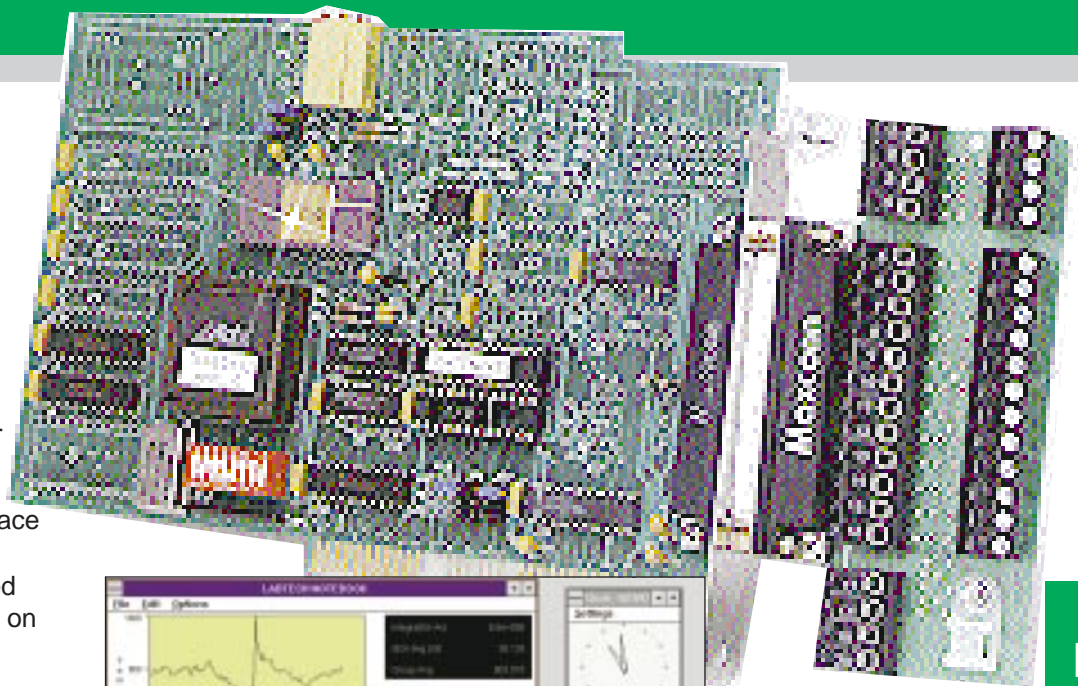
Mode: Continuous; software trigger caused on conversion for each trigger. Multiplexer can be set for single channel or auto-increments of 2-8 channels.

PHYSICAL & ENVIRONMENTAL

Size: 12.19 x 18.29 cm (4.8" x 7.2")

Temperature Range of Operation: 0° to 55°C (32 to 131°F)

Connector: 37 pin standard "D" subminiature socket brought to outside of PC. Mates with ITT/Cannon DC-37P series or equivalent on DC-36 screw terminal panel.



See section B for compatible Labtech Notebook and Labtech Control software, off-the-shelf software for data acquisition and control applications.

Screw Terminations: OMD-DC-36 2.5" x 4.25" (6.35 cm x 10.8 cm) PC board with 36 clamping terminals to accept 14-22 AWG wire

Power Consumption (Typ.): +5 V @ 600 mA; +12 V @ 25 mA; -12 V @ 25 mA

To Order (*Specify Model Number*)

Model Number	Price	Description
OMD-5508LC	\$245	Very low cost A/D board with 8 analog inputs, 12 bit resolution, 100 kHz max throughput; standard interface (includes DirectView software)
ADLIPC-3.5	50	Software drivers for the following DOS based languages: Microsoft FORTRAN, Pascal, GW-BASIC, Quick BASIC, C and Quick C, IBM BASICA, Borland Turbo C, C++, Turbo Pascal (provided on 3.5" disk)
OMD-DC-36	65	Screw terminal panel for voltage inputs

Each unit supplied with complete operator's manual, and DirectView for Windows software. OMD-DC-36 terminal panel must be ordered separately.

Ordering Example: OMD-5508LC I card, OMD-DC-36 terminal panel, \$245 + 65 = \$310.