

IEEE-488 High-Speed, High-Resolution A/D Converter



OMB-ADC488 Series

\$2195

Basic Unit

- ✓ 16-Bit Resolution
- ✓ Up to 100,000 Samples/Sec Conversions
- ✓ 16 Single-Ended or Eight Differential Inputs with Model OMB-ADC488/16
- ✓ Eight Differential Simultaneous Sample/Hold Inputs with Model OMB-ADC488/8S
- ✓ ± 1 , ± 2 , ± 5 and ± 10 V Programmable Input Ranges
- ✓ On-Board Memory Expansion to 512K
- ✓ Eight TTL Compatible Digital Inputs and Eight Compatible Digital Outputs
- ✓ 500 VCM Isolation

The OMB-ADC488 Series enables high-speed, high-resolution analog voltage measurements via the IEEE bus. These converters provide functions typically associated with expensive waveform recorders and digital storage oscilloscopes.

The OMB-ADC488/16 provides 16 channels of analog input with 16-bit resolution and 100 kHz sampling rate. For maximum flexibility the input provides a variety of trigger sources including analog input level, external TTL input and IEEE bus commands. Each OMB-ADC488 is equipped as standard with 2K memory for on-board data storage. One hundred percent of the memory may also be used for storing pre-trigger data. The memory may be expanded to 256K with the OMB-MEMX2 option.

If more than 16 channels are required, up to four OMB-ADC488/16 boards may function as slaves to a single master unit. This provides up to 80 single-ended or 40 differential signals. Once the master is triggered, all slaves acquire data within 250 nsec of the time event, ensuring precise time correlation.

The OMB-ADC488/8S is an eight-channel version offering simultaneous sampling on all eight channels. The simultaneous sample/hold architecture virtually eliminates time skew and phase shift between channels.



Specifications

ANALOG INPUTS

Number of Channels: 16 Single-ended/8 differential (OMB-ADC488/16), 8 simultaneous sample and hold (OMB-ADC488/8S)

Conversion Rate: 100 kHz, 16-bit successive approximation A/D

Range Resolution and Accuracy:

RANGE	RESOLUTION	ACCURACY(25°C)
±1 Volt	33 µV/bit	±0.05%
±2 Volt	66 µV/bit	±0.03%
±5 Volt	166 µV/bit	±0.04%
±10 Volt	333 µV/bit	±0.03%

Maximum Allowable Input: 25 V peak-to-peak max.

Sample/Hold Aperture Uncertainty (OMB-ADC488/8S only): 40 nsec typical

Channel-to-Channel Aperture Uncertainty (OMB-ADC488/8S only): 40 nsec typical

Common Mode Rejection: >70 dB from DC to 100 Hz

Common Mode Input Voltage (between channel high and channel common): 13 V max.

Channel to Digital Low Isolation (between channel high and chassis ground): 500 V max.

Connector: Dual terminal block with screw connections, mating connector supplied

DIGITAL I/O

Number of Inputs: 8 bits TTL level compatible

Number of Outputs: 8 bits TTL level compatible

Connector: 20-pin card edge, mating connector supplied

GENERAL

Storage: 2K reading buffer standard, with 128K and 256K reading buffers optional

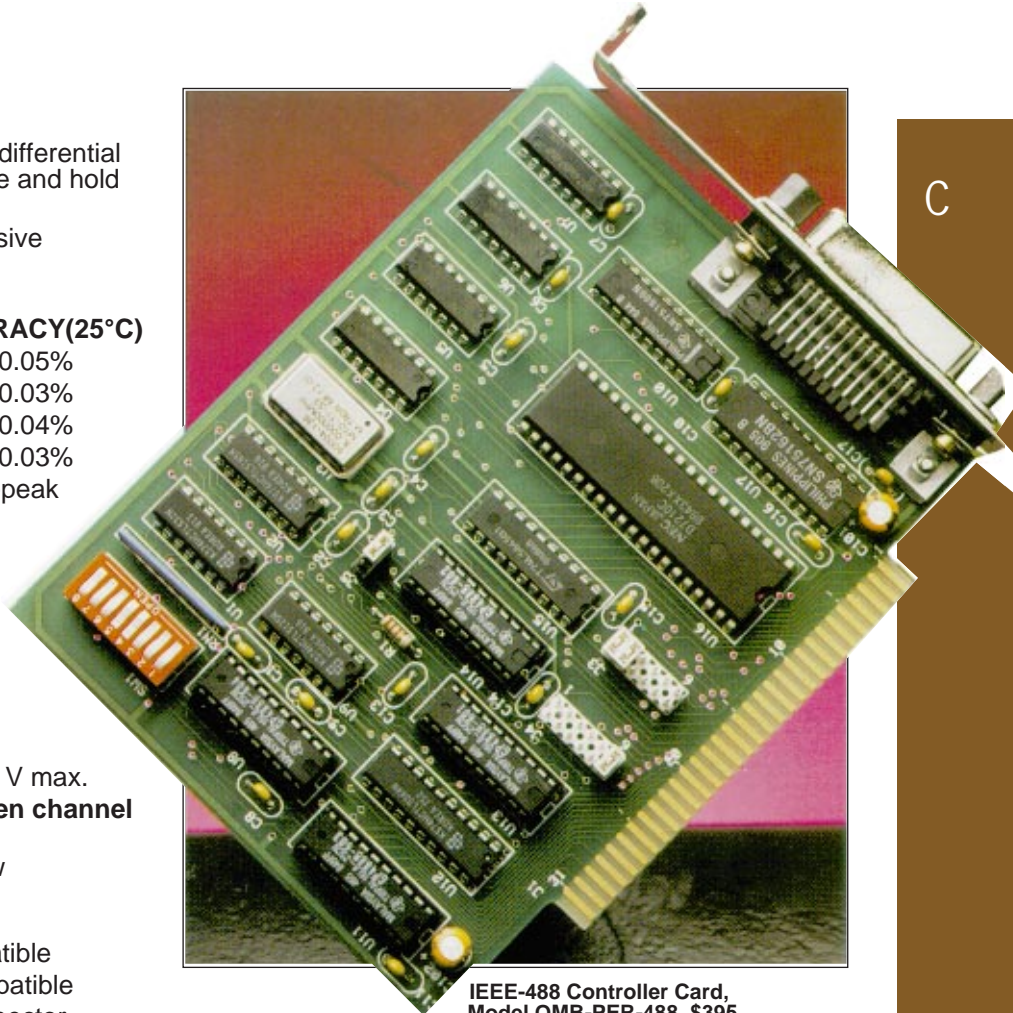
Power: 105-124 Vac or 210 to 250 Vac, 50/60 Hz; 20 VA max.

Environment: 32 to 122°F (0 to 50°C); 0 to 70% RH to 94°F (35°C); linearly derate 3% RH/°C from 94 to 122°F (35 to 50°C)

Dimensions: 16.75" H x 8" W x 1.75" D (425 x 203 x 45 mm)

Weight: 7 lb (3.2 kg)

IEEE Connector: Standard IEEE-488 connector with metric studs



IEEE-488 Controller Card, Model OMB-PER-488, \$395

To Order (Specify Model Number)

Model No.	Price	Description
OMB-ADC488/16	\$2195	16-Channel analog-to-digital converter
OMB-ADC488/8S	2595	8-Channel analog-to-digital converter with simultaneous sample and hold
OMB-MEMX1	395	128K (samples) memory option
OMB-MEMX2	595	256K (samples) memory option
OMB-PER-488	395	IEEE-488 controller card for IBM PC and compatibles
OMBX-CA-7-3	100	6' (1.8 m) IEEE-488 cable

Comes with two analog input connectors, one digital I/O connector, rackmount and complete operator's manual.

Ordering Example: OMB-ADC488/8S 8-channel A/D converter with simultaneous sample and hold plus OMB-MEMX2 256K memory option, \$2595 + 595 = \$3190.

U.S. AND CANADA

For sales and service, call:

1-800-828-8888

1-800-7C-8888

For technical assistance, call:

1-800-827-0888

1-800-828-1888