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

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.

The OMB-ADC488 has been discontinued. Please contact Engineering for a possible substitute.
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:

<table>
<thead>
<tr>
<th>RANGE</th>
<th>RESOLUTION ACCURACY (25°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>±1 Volt</td>
<td>33 µV/bit</td>
</tr>
<tr>
<td>±2 Volt</td>
<td>66 µV/bit</td>
</tr>
<tr>
<td>±5 Volt</td>
<td>166 µV/bit</td>
</tr>
<tr>
<td>±10 Volt</td>
<td>333 µV/bit</td>
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</tbody>
</table>

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

To Order (Specify Model Number)

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMB-ADC488/16</td>
<td>$2395</td>
<td>16-Channel analog-to-digital converter</td>
</tr>
<tr>
<td>OMB-ADC488/8S</td>
<td>$2795</td>
<td>8-Channel analog-to-digital converter with simultaneous sample and hold</td>
</tr>
<tr>
<td>OMB-MEMX1</td>
<td>$395</td>
<td>128K (samples) memory option</td>
</tr>
<tr>
<td>OMB-MEMX2</td>
<td>$595</td>
<td>256K (samples) memory option</td>
</tr>
<tr>
<td>OMB-PER-488</td>
<td>$395</td>
<td>IEEE-488 controller card for IBM PC and compatibles</td>
</tr>
<tr>
<td>OMBX-CA-7-3</td>
<td>$100</td>
<td>6' (1.8 m) IEEE-488 cable</td>
</tr>
</tbody>
</table>

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 and MEGACARE™ 1 year extended warranty for OMB-ADC488/8S (adds 1 year to standard 1 year warranty), $2795 + $595 + 150 = $3540.

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More than 100,000 Products Available!

- **Temperature**

- **Flow and Level**
  Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

- **pH and Conductivity**
  Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

- **Data Acquisition**

- **Pressure, Strain and Force**
  Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

- **Heaters**

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