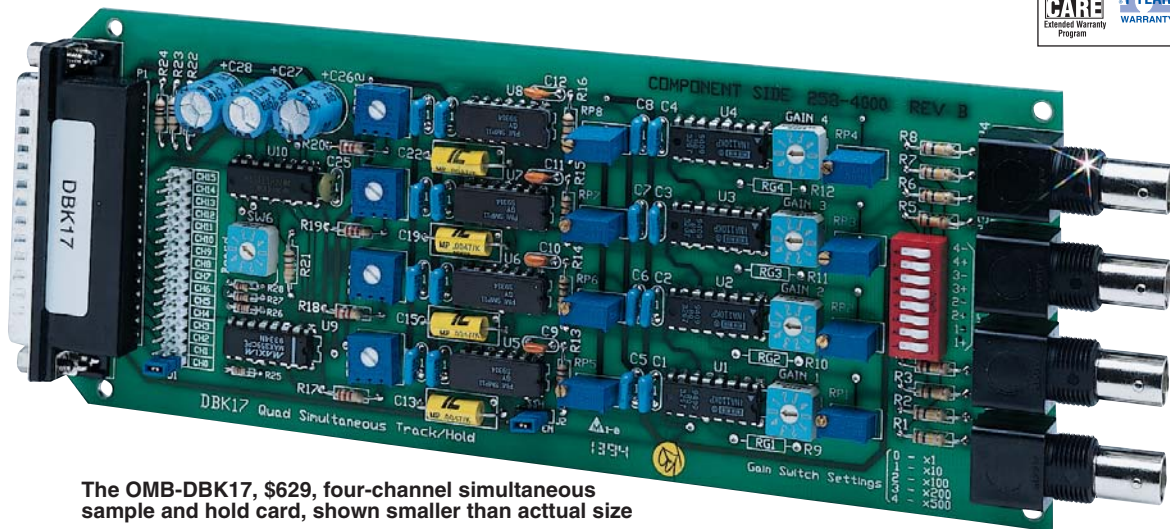


OMB-DBK17

4-Channel Simultaneous Sample and Hold Card for Use with the OMB-DAQBOARD-2000 Series and OMB-LOGBOOK

Model OMB-DBK17

\$629



The OMB-DBK17, \$629, four-channel simultaneous sample and hold card, shown smaller than actual size

- **Separate Instrumentation Amplifier & Input Stage for Each Channel**
- **One System Accepts up to 64 OMB-DBK17 Cards for a Total of 256 Simultaneously Sampled Inputs**

The OMB-DBK17 simultaneous sample and hold card allows OMEGA's OMB-LOGBOOK and OMB-DAQBOARD-2000 Series data acquisition systems to capture multiple input channels concurrently in order to eliminate channel-to-channel time skewing. Each OMB-DBK17 provides four channels of differential voltage input to an OMB-LOGBOOK or OMB-DAQBOARD-2000 Series. The sixteen analog input channels of the above data acquisition systems can each accept four OMB-DBK17 cards, for a total of 256 analog input channels with simultaneous sampling. When multiple OMB-DBK17 cards are in use, all channels on all cards are sampled at the same instant.

Each of the OMB-DBK17's four channels features an instrumentation amplifier with switch-selectable gains of x1, 10, 100, 200, and 500.

Each channel is also equipped with a location for a user-selected gain resistor, allowing you to select a custom gain up to x500. Each of the instrumentation amplifier input stages is followed by separate sample-and-hold stages whose outputs are connected to an output multiplexer stage. You can connect up to four OMB-DBK17's to one analog input channel on an OMB-LOGBOOK or OMB-DAQBOARD-2000 Series.

The OMB-DBK17 is equipped with BNC input connectors. Its differential inputs are equipped with switchable 100 K bias resistors referenced to analog common.

Specifications

Connector: DB37 male, mates with P1 pinout on the OMB-LOGBOOK, OMB-DAQBOARD-2000 Series; BNC connectors provided for signal inputs

Number of Channels: 4

Input Type: Differential

Voltage Input Ranges:

- 0 to ±5 Vdc
- 0 to ±500 mVdc
- 0 to ±25 mVdc
- 0 to ±10 mVdc

For Custom Gains:

$$R_{\text{user}} = \frac{40,000}{\text{Gain}-1} - 80 \text{ (Ohms)}$$

Input Amplifier Slew Rate:

12 V/μs min

Acquisition Time:

0.6 μs (10 V excursion to 0.1%);
0.7 μs (10 V excursion to 0.01%)

Channel-to-Channel Aperture

Uncertainty: 50 ns

Output Droop Rate: 0.1 μV/μs

Input Gains: x1, 10, 100, 200, 500,

and user determined up to 500

Input Offset Voltage:

[500 + 5000/G] μV max (nullable)

Input Offset Drift:

[±5 + 100/G] μV/°C max

Input Bias Current: 100 pA max

Input Offset Current: 50 pA max

Input Impedance: 5 x 10¹² Ohms parallel with 6 pF

Switchable Bias Resistors:

100 K each to analog common

Gain Errors:

x1	0.04% max
x10	0.1% max
x100	0.2% max
x200	0.4% max
x500	1.0% max

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model Number	Price	Description
OMB-DBK17	\$629	4-Channel Simultaneous Sample and Hold Card

Ordering Example: OMB-DBK17 is a 4-channel simultaneous sample and hold card, \$629.



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