

OMB-DBK45

4-Channel Simultaneous Sample and Hold Card with Low-Pass Filter

Model OMB-DBK45

\$839



- ✓ **User-Configurable Low-Pass Filter from DC to 50 kHz Cutoff**
- ✓ **Convenient BNC Input Connectors**

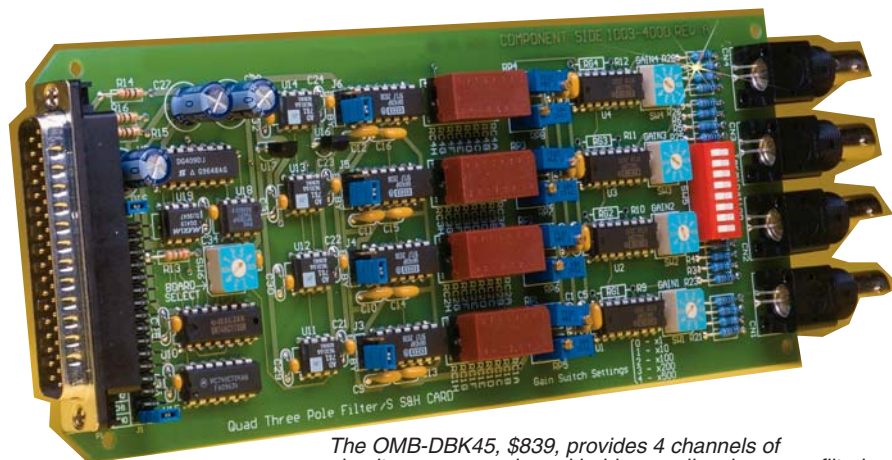
The OMB-DBK45 card provides OMEGA's OMB-LOGBOOK and OMB-DAQBOARD-2000 Series data acquisition systems with four differential analog input channels equipped with low-pass filters and simultaneous sample-and-hold.

The OMB-DBK45 provides a wide selection of full scale inputs. Each channel features its own instrumentation amplifier with gain ranges of x1, x10, x100, x200, and x500, as well as individually configurable low-pass filters. This lets you maximize your signal via the OMB-DBK45's input ranges, low-pass filter the output, and simultaneously sample and hold all channels before digitizing with the OMB-LOGBOOK and OMB-DAQBOARD-2000 Series.

Up to sixty-four OMB-DBK45 cards can be attached to one OMB-LOGBOOK and OMB-DAQBOARD-2000 Series, for a total of 256 differential inputs.

Low-Pass Filters

Each OMB-DBK45 channel is equipped with a low-pass filter that is user configured for cut-off frequencies from DC to 50 kHz, and for Butterworth, Chebyshev, or Bessel characteristics. The OMB-DBK45's frequency determining resistor and capacitor locations are on machined-pin IC sockets for maximum flexibility. The card is provided with blank plug-in headers for each channel, to which you can add passive components for particular frequencies.



The OMB-DBK45, \$839, provides 4 channels of simultaneous sample and hold, as well as low-pass filtering

Preconfigured plug-in headers for several preselected cutoff frequencies are optionally available.

Specifications

Connector: DB37 male, mates with P1 pinout on the OMB-LOGBOOK, OMB-DAQBOOK or DAQBOARD data acquisition systems; BNC connectors for signal inputs

Number of Channels: 4
Number of Cards Addressable: 64
Input Type: Differential
Voltage Input Ranges:

- 0 to ±5 Vdc
- 0 to ±500 mVdc
- 0 to ± 50 mVdc
- 0 to ±25 mVdc
- 0 to ±10 mVdc

Number of Poles/Filter: 3
Types of Filters: Bessel, Butterworth, & Chebyshev
Frequency Range: 0.1 Hz to 50 kHz; the frequency is set by installation of 4 to 6 resistors and/or capacitors in the provided socket locations
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, & 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 (without 100 K bias resistors enabled)
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

Dimensions: 82 x 209 x 19 mm
 (3.25 x 8.25 x 0.75")

Cables:

Use OMB-CA-37-x with OMB-LOGBOOK and OMB-DAQBOARD-2000 Series

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model Number	Price	Description
OMB-DBK45	\$839	4-Channel Simultaneous Sample and Hold Card with Low-Pass Filter

Ordering Example: OMB-DBK45 is a 4-channel simultaneous sample and hold card with low-pass filter, \$839.

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