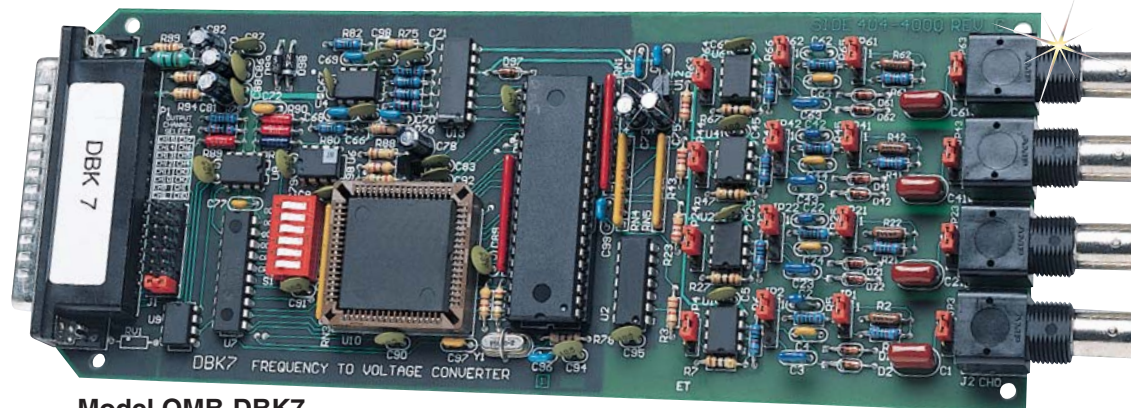


# OMB-DBK7

## 4-Channel Frequency-Input Card for OMB-DAQBOARD-2000 Series and OMB-LOGBOOK



OMB-DBK7, 749, frequency-input card, shown smaller than actual size

Model OMB-DBK7

**\$749**

- ✓ Programmable from 1 Hz to 950 kHz Per Channel
- ✓ Frequency Resolution to 0.00025 Hz
- ✓ Provides Per-Channel, User-Configurable Low-Pass Filters

The OMB-DBK7 frequency-input card provides OMB-LOGBOOK and OMB-DAQBOARD-2000 Series data acquisition systems with four channels of frequency-measurement capability. The card measures the input signal's frequency and converts the frequency to a voltage, which can then be measured by the data acquisition system. The OMB-DBK7's output is read by the data acquisition system along with any other analog channels included in the analog scan group, allowing easy correlation of readings from the OMB-DBK7 with other test parameters. As many as sixty-four OMB-DBK7's can be connected to one OMB-LOGBOOK and OMB-DAQBOARD-2000 series acquisition system, for a total of up to 256 channels.

### Analog Inputs

The OMB-DBK7 accepts AC-coupled analog inputs up to 80 V p-p. Each of its channels is equipped with a low-pass input filter that is jumper selectable for 100 kHz, 300 Hz, or 30 Hz.

The card can accommodate 1 Hz to 100 kHz measurement of signals from 50 mV to 80 V p-p.

### Digital Inputs

The OMB-DBK7's digital inputs, which can measure signals from 0.001 Hz to 950 kHz, feature TTL Schmitt-trigger levels and can accept DC-coupled signals from -15 V to +15 V. The OMB-DBK7's digital inputs are equipped with pull-up resistors for use with relays or switches.

### Frequency Range

The OMB-DBK7 provides 12-bit resolution at any frequency from 1 Hz to 950 kHz.

### Update Rates

For ranges from 1 Hz to the user-defined maximum upper range boundary, the voltage conversion update will occur every 2 to 4 ms or the period of the input frequency, whichever is greater. With a range of 0 to 10 kHz, the OMB-DBK7 will update every 2 to 4 ms. If the range is 0 to 60 Hz, the output will update every cycle or 16.6 ms.

### Specifications

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

**Number of Channels per Card:** 4

**Maximum Cards per System:** 64

**Frequency-to-Voltage Ranges:**

Programmable from 1 Hz to 950 kHz

**Accuracy:** 0.1%

**Low-Pass Filters:** 300 Hz & 30 Hz

**Debouncing:** off 0.6, 2.5, & 10 ms

### Input Characteristics

#### Low-Level Analog Signals

**Minimum:** 100 mV guaranteed

**Maximum:** 80 V p-p sine wave

**Minimum Slew:** 5 V/s

**Hysteresis:** 15 mV

**Impedance:** AC-coupled (0.33  $\mu$ F), in series with 20 K $\Omega$  to ground

#### High-Level Analog Signals

**Minimum:** 1.25 V guaranteed

**Maximum:** 80 V p-p sine wave

**Minimum Slew:** 50 V/s

**Hysteresis:** 250 mV

**Impedance:** AC-coupled (0.33  $\mu$ F), in series with 20 K $\Omega$  to ground

#### Digital Signals

**Input Voltage:** -15 V to +15 V

**Threshold Voltage (low):**

0.8 V typ, 0.5 V min

**Threshold Voltage (high):**

1.6 V typ, 2.1 V max

**Hysteresis:** 400 mV min

**Pulse Width:** 520 ns min

**Input Impedance:** 27 K $\Omega$  pull-up to +5 V in parallel with 50 pF

**Power Consumption:** 420 mW

**AVAILABLE FOR FAST DELIVERY!**

To Order (Specify Model Number)		
Model Number	Price	Description
OMB-DBK7	\$749	4-Channel Frequency-Input Card

Ordering Example: OMB-DBK7 4-channel frequency-input card, \$749.



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