

# OMB-DBK207 and OMB-DBK207/CJC

## 16-Channel Isolated Analog Signal Conditioning Card

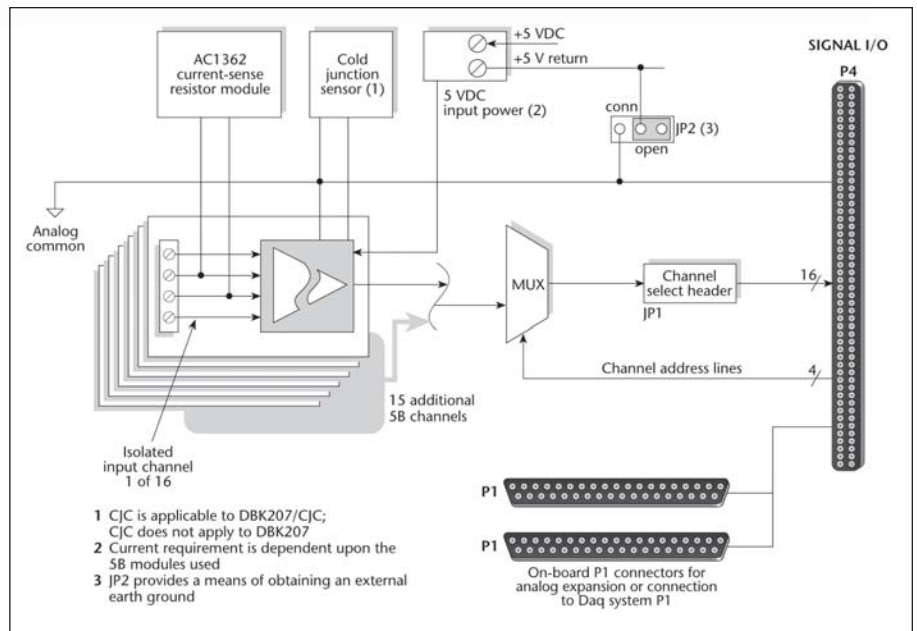
### For OMB-LOGBOOK-300, OMB-DAQBOARD-2000 Series and OMB-DAQSCAN-2000 Series

**\$249**  
Basic Unit



OMB-DBK207, \$249, with rack mount kit, shown smaller than actual size.

- ✓ Accepts Up to 16 OM5 (5B Compatible) Isolated Analog Input Modules
- ✓ 500 Vdc Channel-to-Channel and Channel-to-System Isolation
- ✓ Modules Can be Mixed in Any Combination to Measure Temperature, Strain, Volts, Current, and Frequency
- ✓ Per-Channel Screw Terminals (14-22 AWG) for Easy Signal Connection, Cold-Junction Sensors for Thermocouple Applications (OMB-DBK207/CJC), and Socket for Current Resistors
- ✓ Up to 16 OMB-DBK207 and/or OMB-DBK207/CJC Boards Can be Daisy-Chain'd, Supporting Expansion to 256 Isolated Analog Inputs
- ✓ Requires 5 Vdc Power Supply
- ✓ Optional Rack Mount Kit



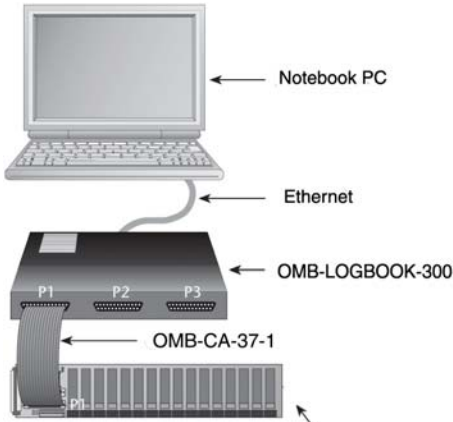
### ✓ Easily Configured with DaqView Software (No Programming Required)

The OMB-DBK207 and OMB-DBK207/CJC signal conditioning and expansion boards can be configured, on a per-channel basis, with up to 16 isolated OM5 (5B) analog input modules. Both boards feature screw terminals per

channel for the convenient connection of field signals as well as sockets for current conversion resistors (supplied with OM5 (5B) current I/O modules, sold separately). The OMB-DBK207/CJC also includes per-channel cold-junction compensation. This allows OM5 (5B) thermocouple modules to output linearized and compensated values eliminating the need for any components apart from a user-supplied thermocouple.



**OMB-DBK207, \$249, shown smaller than actual size.**



OMB-DBK207 and/or OMB-DBK207/CJC signal conditioning and expansion board for 5B-compatible I/O modules; analog and digital expansion

Each user-configurable OM5 (5B) signal conditioning module offers 500 V isolation from the system and from other channels. A wide variety of analog input modules are available for measuring temperature (thermocouple and RTD), strain, volts, current, and frequency.

Up to 16 OMB-DBK207 and/or OMB-DBK207/CJC boards can be daisy-chained (via multiple OMB-CA-37-x cables) providing expansion for up to 256 analog input channels. For applications with both analog and digital I/O channel expansion requirements, the OMB-DBK208 and OMB-DBK210 expansion boards are available. All OMB-DBK signal conditioning and expansion boards are scanned at 5  $\mu$ s/channel.

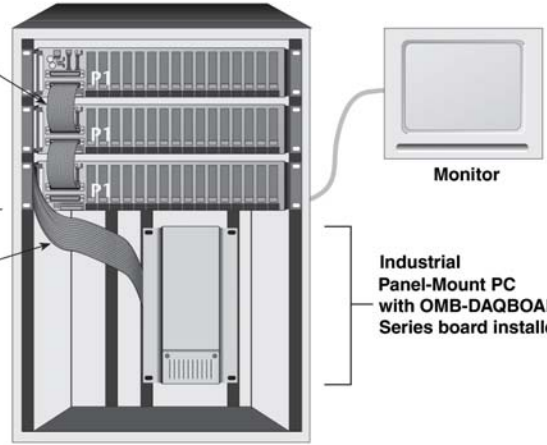
The OMB-DBK207 and OMB-DBK207/CJC ship with panel-mount hardware but they can also be rack-mounted with the optional rack mounting kit. The OMB-DBK209 and OMB-DBK206 adapter boards are used to convert the 100-pin (P4) connector from the OMB-DAQBOARD-2000 series boards to three expansion ports P1, P2, and P3).

## Specifications

**Module Capacity:** 16, input only, OM5 (5B) compatible modules  
**Cable:** OMB-CA-37-x and OMB-CA-195

OMB-CA-37-1 (2)  
 OMB-DBK207 and/or OMB-DBK207/CJC (3) signal conditioning and expansion board for 5B-compatible analog I/O modules; analog input expansion; mounted using Rack3

OMB-CA-195



NEMA Enclosure

Industrial Panel-Mount PC with OMB-DAQBOARD-2000 Series board installed

**DC Input Fuse:** 3 A, reset type

**Power Requirement:** 5 Vdc, regulated

**Operating Environment:** 0 to 70°C (32 to 158°F)

**Relative Humidity:** 95% RH non-condensing

### Connectors:

- P4:** 100-pin connector for connection to OMB-DAQBOARD-2000 Series P4 connector via an OMB-CA-195 cable
- P1:** 2 P1 (DB37) connectors provide connection to Daq system P1, and analog expansion via single OMB-CA-37-x cable or multiple OMB-CA-37-1 cables

**Screw Terminals:** 16 sets of 4-conductor blocks

**ISOLATION (DC OR AC PEAK)**

**Signal Inputs to Daq**

**Device:** 500 V

**Input Channel-to-Channel:** 500 V

**CJC:** Cold-junction compensation, applicable to OMB-DBK207/CJC board only

**AVAILABLE FOR FAST DELIVERY!**

## To Order (Specify Model Number)

Model No.	Price	Description
<b>OMB-DBK207</b>	<b>\$249</b>	16-channel isolated analog signal conditioning card
<b>OMB-DBK207/CJC</b>	<b>399</b>	16-channel isolated analog signal conditioning card with on-board CJC (cold junction compensation) for thermocouple measurements
<b>OMB-RACK3</b>	<b>41</b>	Rack mount kit for OMB-DBK207 and OMB-DBK207/CJC
<b>OM5-LTC-J1-C</b>	<b>205</b>	Type J thermocouple input module, 0 to 760°C input range, 0 to 5 Vdc output
<b>OM5-LTC-K1-C</b>	<b>205</b>	Type K thermocouple input module, 0 to 1000°C input range, 0 to 5 Vdc output
<b>OM5-IP-200-C</b>	<b>150</b>	100 Ohm Pt RTD input module, 0 to 200°C input range, 0 to 5 Vdc output
<b>OM5-IMV-100B-C</b>	<b>150</b>	Isolated millivolt input module, $\pm$ 100 mV input range, 0 to 5 Vdc output
<b>OM5-IMV-10B-C</b>	<b>150</b>	Isolated voltage input module, $\pm$ 10 Vdc input range, 0 to 5 Vdc output
<b>OMB-CA-195</b>	<b>79</b>	100-conductor expansion cable for OMB-DAQBOARD-2000, 0.9 m (3') long
<b>OMB-CA-37-1</b>	<b>51</b>	37-pin single option expansion cable for OMB-DAQSCAN-2000 and OMB-LOGBOOK-300, 18 cm (7") long

See [omega.com](http://omega.com) for details on all of the OM5 Series modules available for use with the OMB-DBK207 and OMB-DBK207/CJC cards.

**Ordering Example:** **OMB-DBK207/CJC**, 16-channel isolated analog signal conditioning card with on-board CJC (cold junction compensation) for thermocouple measurements and **OMEGACARE** 1-year extended warranty for **OMB-DBK-207/CJC** (adds 1 year to standard 1-year warranty), \$399 + 39 = **\$438**.



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

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0800-8266342

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