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Find the *Measurement Computing / IOtech DBK12* at our website: *Click HERE*

DBK12™ & DBK13™

16-Channel Programmable Low- & High-Gain Analog Input Cards

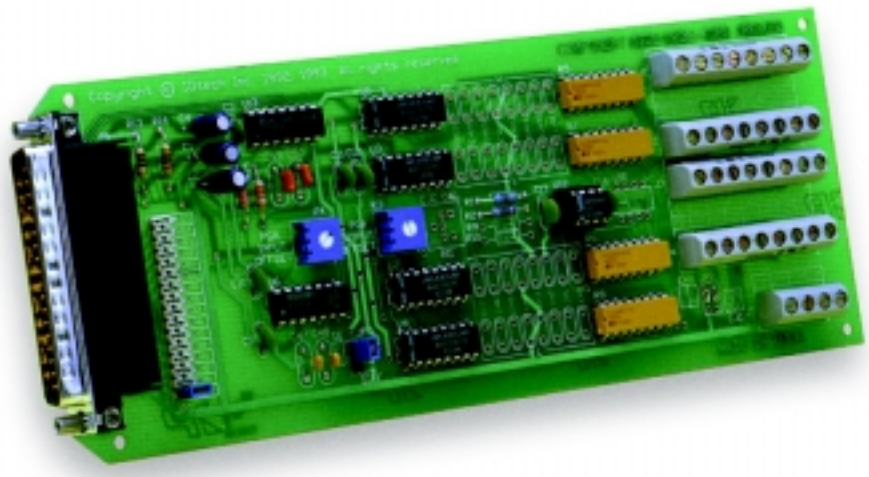
Features

- **Provide 16 differential inputs**
- **DBK12 offers x1, 2, 4, or 8 programmable gain**
- **DBK13 offers x1, 10, 100, or 1000 programmable gain**

The DBK12™ and DBK13™ provide IOtech's LogBook, DaqBook, DaqBoard, and Daq PC-Card data acquisition systems with 16 differential analog inputs. The DBK12's programmable gain amplifier offers x1, 2, 4, or 8 gain. The DBK13's programmable gain amplifier offers x1, 10, 100, or 1000 gain. The ranges of both cards can be combined with the on-board ranges of the LogBooks, DaqBooks, DaqBoards, or Daq PC-Cards for a wide selection of full scale inputs.

The cards provide DB37 connection to the data acquisition system and offer screw-terminal connections for analog signal input. Up to 16 DBK12 or DBK13 cards can be attached to one LogBook, DaqBook, DaqBoard, or Daq PC-Card, for a total of 256 differential inputs.

For applications that require a module, the DBK53™ provides identical functionality to the DBK12, and the DBK54™ provides identical functionality to the DBK13.



The DBK12 and DBK13 analog multiplexing cards provide programmable gain

Specifications

Connector: DB37 male, mates with P1 pinout on a LogBook, DaqBook, DaqBoard*, or Daq PC-Card; screw-terminals for signal connection

Gain Ranges
- **DBK12:** x1, 2, 4, 8
- **DBK13:** x1, 10, 100, 1000

Inputs: 16 differential or single-ended (switch selectable as a group)

Maximum Voltage Range: 0 to +10, ±5 VDC

Input Impedance: 100M Ohm in parallel with switched 120 pF capacitor

Gain Accuracy
- **DBK12:** ±0.05% typ; ±0.25% max
- **DBK13:** ±0.05% typ @ G <1000
  ±0.25% max @ G <1000
  ±0.10% typ @ G = 1000
  ±1% max @ G = 1000

Maximum Input Voltage (without damage): ±35 VDC

Slew Rate: 20V/µs typ; 10V/µs min

Settling Time
- **DBK12:** 2 µs to 0.01%
- **DBK13:** 2 µs to 0.01% @ G <1000
  10 µs to 0.01% @ G = 1000

CMRR
- **DBK12:** 80 dB min @ DC to 60 Hz
- **DBK13:** 80 dB @ G=1 min @ DC to 60 Hz
  86 dB @ G=10 min @ DC to 60 Hz
  92 dB @ G=100 min @ DC to 60 Hz
  94 dB @ G=1000 min @ DC to 60 Hz

Non-Linearity
- **DBK12:** 0.002% typ; 0.015% max
- **DBK13:** 0.002% typ @ G <1000
  0.015% max @ G <1000
  0.02% typ @ G = 1000
  0.06% max @ G = 1000

Bias Current: 150 pA typ
0.2 µA @ 25˚C max

Offset Voltage: ±(0.5 + 5/G) mV @ 25˚C typ
±(2.0 + 24/G) mV @ 25˚C max

Offset Drift: ±(3 + 50/G) µV/˚C typ
±(12 + 240/G) µV/˚C max

Ordering Information

Description	Part No.
16-channel programmable low-gain analog input card	DBK12
16-channel programmable high-gain analog input card	DBK13

Expansion Cables
Use cabling specifications for the DBK10 (see p. 127), CDK10 (see p. 104), or DBK41 (see p. 150) expansion chassis

Related Products

LogBooks	p. 58
DaqBooks	p. 71
DaqBoard/2000	p. 82
ISA DaqBoards	p. 92
Daq PC-Cards	p. 101
DBK53	p. 163
DBK54	p. 163

QUICK FIND

For up-to-date information on products, and to order online, visit the IOtech Web site and enter the corresponding page number in the QUICK FIND field.

SHOP ON LINE

* Attachment to the DaqBoard/2000 requires a DBK200, DBK201, DBK202, or DBK203 adapter

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