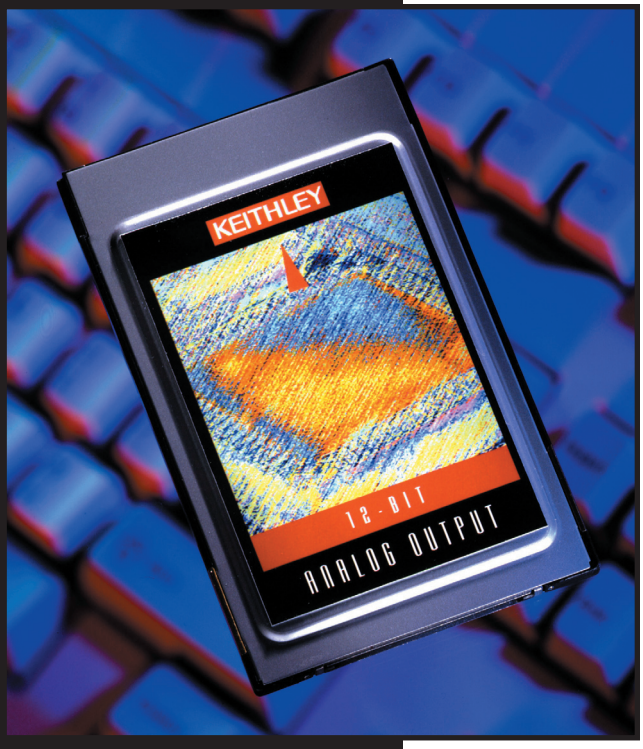
Programmable output voltage for control applications

PCI/ISA/PCMCIA

KPCMCIA-8AO Series

8-Channel, 12-Bit Bipolar or Unipolar Analog Output Boards



- 8 independent analog output channels
- Unipolar or bipolar 5V output available
- 12-bit resolution
- Simultaneous output of multiple channels
- 8 digital I/O lines
- Onboard event timer
- Hot swapping supported
- PCMCIA Type II cards
- Compatible with Keithley accessories
- 32-bit DriverLINX drivers plus a suite of bundled software including ExceLINX, VisualSCOPE, TestPoint, and LabVIEW drivers

up & running software

The KPCMCIA-8AOU and -8AOB are 12-bit, 8-channel analog output PCMCIA cards for use with notebook and other PCs equipped with a PCMCIA port. These cards are capable of updating multiple outputs simultaneously under software control or with an external event.

These cards are designed to support control applications that require a programmable output voltage, such as dynamic calibration, driving x-y tables, driving strip chart recorders, controlling pressure valves, etc.

Both cards feature two 4-channel D/A converters (quad DACs) and 12-bit resolution, and they can deliver up to 1mA per channel of output current. The cards offer eight TTL-compatible digital I/O channels.

The cards provide external interrupt inputs to the PC's CPU. They also provide an onboard event timer to interrupt the CPU at software programmable time intervals, allowing the cards to be used as arbitrary waveform synthesizers. The interrupt latency under Windows could limit the waveform update rate. The maximum update rate allowed by the hardware is 100kHz. Use of multiple channels will reduce the maximum rate.

The KPCMCIA-8AOB provides eight ±5V bipolar outputs, while the KPCMCIA-8AOU provides eight 0 to 5V unipolar outputs.

ACCESSORIES AVAILABLE

C1800	Cable to connect to STA-MB backplane
STA-MB	Universal Screw Terminal Card with sockets for 4 MB-Series signal conditioning modules
STP-37/F	Screw Terminal Panel with CJC sensor and female 37-pin D connector
STP-37F/C	STP-37/F with DIN mountable case
TESTPOINT	TestPoint Application Software

APPLICATIONS

- Portable voltage source
- Servo control
- Function generator
- Product testing
- Parallel communication
- Field service

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A GREATER MEASURE OF CONFIDENCE

KPCMCIA-8AO Series

8-Channel, 12-Bit Bipolar or Unipolar Analog Output Boards

Ordering Information

KPCMCIA-8AOB-C
8-channel +5V analog output PCMCIA card (bipolar)

KPCMCIA-8AOU-C
8-channel 0-5V analog output PCMCIA card (unipolar)

Accessories Supplied

Interface cable with software and user's manual on CD-ROM

Specifications

	KPCMCIA-8AOU	KPCMCIA-8AOB
Bus Type	PCMCIA	PCMCIA
Number of Channels	8	8
Resolution	12-bit	12-bit
Update Rate	Up to 100 kS/s [2]	Up to 100 kS/s [2]
Output Range	0–5V	±5V
Output Load Current	1 mA/ channel, 12 mA/card	1 mA/ channel, 12 mA/card
Relative Accuracy	±1 count max	±1 count max
Offset Error	±5 count max	±6 count max
Full-Scale Error[1]	±6 count max	±6 count max
Settling Time to ±½ LSB		
Pos. FS Change	3 μs typ., 10 μs max	3 μs typ., 10 μs max
Neg. FS Change	5 μs typ., 10 μs max	5 μs typ., 10 μs max
Glitch Impulse	30 nV-sec typ	30 nV-sec typ
Digital Feedthrough	10 nV-sec typ	10 nV-sec typ
Digital Crosstalk	10 nV-sec typ	10 nV-sec typ
Environmental		
Operating Voltage	5V	5V
Operating Temperature	0°C to 50°C	0°C to 50°C
Storage Temperature	0°C to 70°C	0°C to 70°C
Humidity	0 to 95% non-condensing	0 to 95% non-condensing
Card Size	Standard PCMCIA Type II	Standard PCMCIA Type II
Weight	1.5 oz	1.5 oz

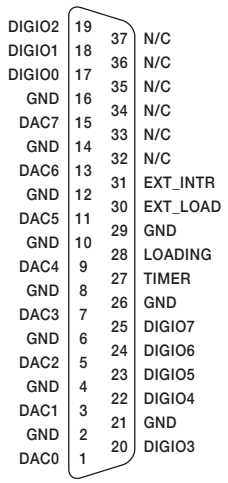
[1] Full-Scale Error includes Offset Error.

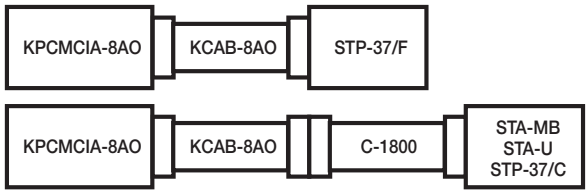
[2] Varies with interrupt latency and channel count. (Typical sustained rate under Windows is 35kHz.)

EMC: Conforms to European Union Directive 89/336/EEC.

SAFETY: Meets EN61010-1/IEC 1010.

Connector Pin Assignments



KPCMCIA-8AOU, -8AOB
37-Pin Male D Type
Output Connector

Configuration Guide