

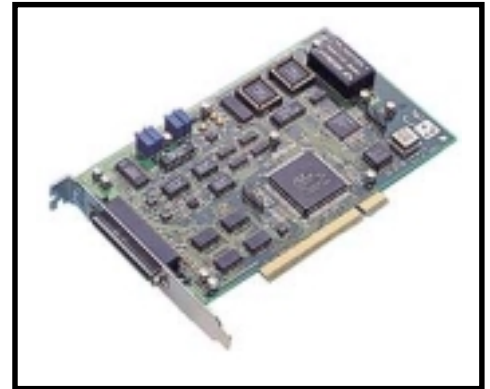
PCI-Bus Multi-Function Data Acquisition Card CE **Model PCI-1711**

The PCI-1711 is a multi-function data acquisition card for the PCI bus. The advanced circuitry allows the user to utilize measurement and control functions such as 12-bit A/D conversion, D/A conversion, digital input, digital output, and counter/timer.

The card features an automatic channel/gain scanning circuit. This circuit (rather than your software) controls multiplexer switching during sampling. The on-board SRAM stores different gain values and configurations for each channel. This design lets you perform multi-channel high-speed sampling (up to 100 kHz) with different gains for each channel.

The PCI-1711 has an on-board FIFO buffer which can store up to 1 k A/D samples. The user can either enable or disable the interrupt request feature of the FIFO buffer. While the interrupt request for FIFO is enabled, the user can specify whether the interrupt request will be sent whenever one sampling takes place or when the FIFO buffer is half full. This enables a continuous high-speed data transfer with more predictable performance on Windows systems

The PCI-1711 is equipped with a programmable counter that can serve as a pacer trigger for A/D conversion. The counter chip is an 82C54 or equivalent, which includes three 16-bit counters on a 10 MHz clock. One counter is used as an event counter for counting events coming from the input channels. The other two are cascaded together to make a 32-bit timer for a pacer trigger.



Applications:

Process monitoring and control
Transducer and sensor measurement
Multi-channel DC voltage measurement

Specifications:

Analog Input

Channels:	16 single-ended
Resolution:	12-bit
On-board FIFO:	1K samples
Conversion Time:	10 μ s
Input Range:	± 10 V, ± 5 V, ± 2.5 V, ± 1.25 V, 0.625 V
Maximum Input Over Voltage:	± 15 V
Maximum Sampling Rate:	100 kHz
DC Accuracy:	
INLE:	± 0.5 LSB
Monotonicity:	12 bits
Offset error:	Adjustable to zero
Gain error:	0.005% FSR (Gain = 1)
AC Accuracy:	
SNR:	68 dB
ENOB:	11 bits
Input Protect:	30 Vp-p
Input Impedance:	2M ohm, 5pF
Trigger Mode:	Software, on-board programmable pacer or external

B&B Electronics -- September 2001

B&B Electronics Mfg. Co.

707 Dayton Road - P.O. Box 1040 - Ottawa, IL 61350 USA
Phone: (815) 433-5100 - Fax: (815) 433-5105
Home Page: www.bb-elec.com
Sales e-mail: orders@bb-elec.com - Fax: (815) 433-5109
Technical Support e-mail: support@bb-elec.com - Fax: (815) 433-5104

B&B Electronics Ltd

Westlink Commercial Park - Oranmore, Co. Galway - Ireland
Phone: +353 91 792444 - Fax: +353 91 792445
Home Page: www.bb-europe.com
Sales e-mail: orders@bb-europe.com
Technical Support e-mail: support@bb-europe.com

Analog Output

Channels: 2
Resolution: 12-bit
Accuracy: $\pm 1/2$ LSB
Gain error: Adjustable to zero
Throughput: 38 kHz (min.)
Slew Rate: 11 V/ μ s
Drift: 40 ppm/ $^{\circ}$ C
Output Impedance: 0.81 ohms
Settling Time: 26 μ s (to $\pm 1/2$ LSB of FSR)
Output Range: Software programmable
 Internal reference: 0 ~ 5 V and 0 ~ 10 V
 External reference: 0 ~ +x V @ -x V ($-10 \leq x \leq 10$)
Driving Capability: 3 mA

Digital Input

Channels: 16
Input voltage: Low: 0.8 V max.
High: 2.0 V min.

Digital Output

Channels: 16
Output Voltage: Low: 0.8 V max. @ 8.0 mA (sink)
High: 2.0 V min. @ -0.4 mA (source)

Programmable Timer/Counter

Channels: 1
Counters: 16 bits
Compatibility: TTL level
Base Clock: 10 MHz
Max. Input Frequency: 10 MHz

General

I/O Connector: 68-pin SCSI-II female connector
Operating Temperature: 32 to 140 $^{\circ}$ F (0 to 60 $^{\circ}$ C)
Storage Temperature: -4 to 158 $^{\circ}$ F (-20 to 70 $^{\circ}$ C)
Humidity: 5 to 95% (RH non-condensing)
Power: 5 V @ 850 mA (typical)
5 V @ 1 A (max.)
Dimensions: 6.9 x 3.9 in (17.5 x 10 cm)
Compliances: CE

Accessory Items:

PCL-10168-2 68-pin SCSI-II Shielded Cable, 2m
ADAM-3968 68-pin SCSI-II Wiring Terminal Board, DIN Rail Mount

B&B Electronics -- September 2001

B&B Electronics Mfg. Co.

707 Dayton Road - P.O. Box 1040 - Ottawa, IL 61350 USA
Phone: (815) 433-5100 - Fax: (815) 433-5105
Home Page: www.bb-elec.com
Sales e-mail: orders@bb-elec.com - Fax: (815) 433-5109
Technical Support e-mail: support@bb-elec.com - Fax: (815) 433-5104

B&B Electronics Ltd

Westlink Commercial Park - Oranmore, Co. Galway - Ireland
Phone: +353 91 792444 - Fax: +353 91 792445
Home Page: www.bb-europe.com
Sales e-mail: orders@bb-europe.com
Technical Support e-mail: support@bb-europe.com