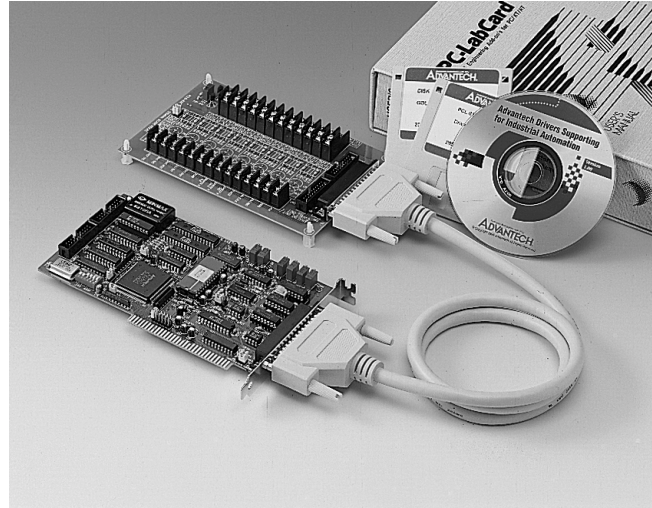
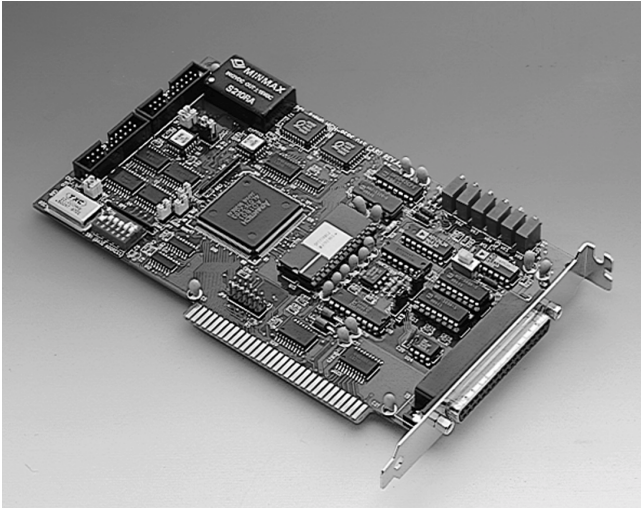


PCL-818HD/HG



PCL-818HD 100 kS/s A/D at All Input Ranges

The PCL-818HD has guaranteed 100 kHz sampling and transfer speeds at all gains (x 1, 2, 4 or 8, programmable) and input ranges. It features an on-board 1 K samples FIFO (First In First Out) buffer for faster data transfer and more predictable performance under Windows.

Specifications

Analog Input

- **Conversion time:** 8 msec.
- **Input range (V):**
Bipolar: ± 10 , ± 5 , ± 2.5 , ± 1.25 , ± 0.625
Unipolar: 0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25
- **Maximum data throughput:** 100 kHz for all input ranges
- **Accuracy:**
Gain = 0.5, 1 0.01% of FSR ± 1 LSB
Gain = 2, 4 0.02% of FSR ± 1 LSB
Gain = 8 0.04% of FSR ± 1 LSB

General

- **On-board memory:** 1K samples FIFO for A/D. Can generate an interrupt when full or half full
- **Power consumption:**
+5 V @ 500 mA max., +12 V @ 200 mA max., -12 V @ 14 mA
- **I/O ports:** 32 bytes with FIFO active or 16 bytes with FIFO disabled
- **A/D, D/A connector:** DB-37
- **Dimensions:** 185 mm (L) x 100 mm (H) (7.3" x 3.9")

PCL-818HG Direct Thermocouple Measurement

The PCL-818HG offers the same functions as the PCL-818HD, but it features a special high-gain programmable instrument amplifier for reading very low level input signals (x 0.5, 1, 5, 10, 50, 100, 500 or 1000).

The PCL-818HG package includes a special wiring board (PCLD-8115) with a DB-37 connector and CJC. This combination lets you measure low-level thermocouple signals without an external signal-conditioning board.

Specifications

Analog Input

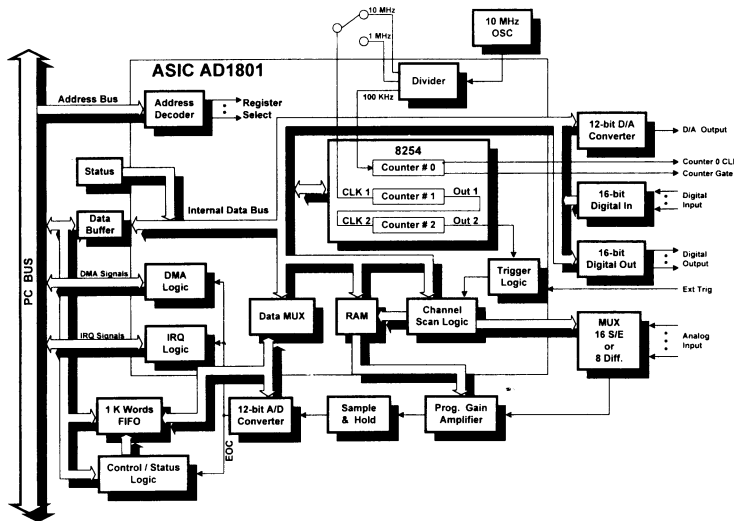
- **Conversion time:** 8 μ sec.
- **Input range (V):**
Bipolar: ± 10 , ± 5 , ± 1 , ± 0.5 , ± 0.1 , ± 0.05 , ± 0.01 , ± 0.005
Unipolar: 0 ~ 10, 0 ~ 1, 0 ~ 0.1, 0 ~ 0.01
- **Maximum data throughput:**
(depends on input amplifier settling time and slew rate)

Gain	Speed	Channels
0.5, 1	100 kHz	Single (input signal ≤ 3 V p-p)
0.5, 1, 5, 10	35 kHz	Multiple
50, 100	7 kHz	Multiple
500, 1000	1 kHz	Multiple
- **Accuracy:**
Gain = 0.5, 1 0.01% of FSR ± 1 LSB
Gain = 5, 10 0.02% of FSR ± 1 LSB
Gain = 50, 100 0.04% of FSR ± 1 LSB
Gain = 500, 1000 0.08% of FSR ± 1 LSB

General

See PCL-818HD

Block Diagram (PCL-818HG)



Ordering Information

- PCL-818L:** Low-cost high-performance half-size DAS card, user's manual and utility diskette with DOS/Windows drivers.
- PCL-818LS:** PCL-818L with PCLD-8115 and DB-37 cable assembly (PCL-10137)
- PCL-818HG:** High-performance high-gain half-size DAS card, PCLD-8115, DB-37 cable assembly (PCL-10137), user's manual and utility diskette with DOS/Windows drivers.
- PCL-818HD:** High-performance half-size DAS card with DB-37 connector. Includes user's manual and utility diskette with DOS/Windows drivers.
- PCL-818H:** High-performance half-size DAS card with 20-pin flat-cable connectors. Manual and utility disk with DOS/Windows drivers included.
- PCLS-OCX:** ActiveX Control for data acquisition and control.
- PCL-10120-1:** 20-pin flat cable, 1 meter
- PCL-10120-2:** 20-pin flat cable, 2 meter
- PCL-10137:** DB-37 cable assembly, 1 meter
- PCLD-8115:** Industrial wiring terminal board with CJC circuit

PCL-818 Series Quick-reference Table

Model	A/D speed	Unipolar input (V)	Bipolar input (V)	On-board memory	D/A chan.	Connector	Size	On-board DC/DC	Power consumption
PCL-818L	40 kHz	-	$\pm 10, \pm 5, \pm 2.5, \pm 1.25, \pm 0.625$	-	1	DB-37	155 x 100 mm	-	< 1.4 W
PCL-818HD	100 kHz	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	$\pm 10, \pm 5, \pm 2.5, \pm 1.25, \pm 0.625$	1 K samples FIFO	1	DB-37	185 x 100 mm	Yes	< 3.0 W
PCL-818HG	100 kHz	0 ~ 10, 0 ~ 1, 0 ~ 0.1, 0 ~ 0.01	$\pm 10, \pm 5, \pm 1, \pm 0.5, \pm 0.1, \pm 0.05, \pm 0.01, \pm 0.005$	1 K samples FIFO	1	DB-37	185 x 100 mm	Yes	< 2.8 W
PCL-818H	100 kHz	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	$\pm 10, \pm 5, \pm 2.5, \pm 1.25, \pm 0.625$	-	1	20-pin flat cable	185 x 100 mm	Yes	< 2.8 W