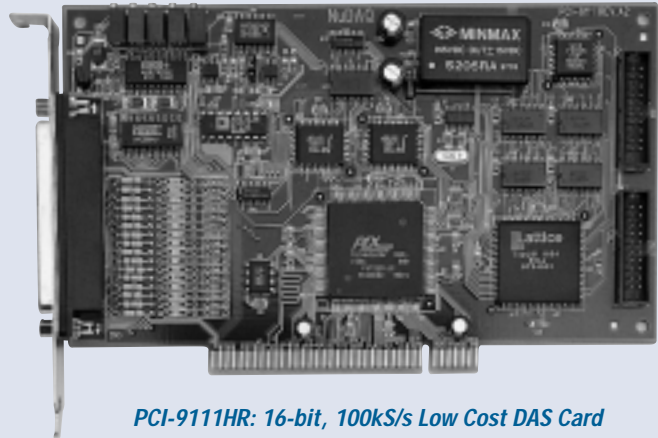


PCI-9111 Series

100KHz Low Cost
Multi-function DAS Cards

Features

- 32-bit PCI Bus, Plug and Play
- 12-bit/16-bit analog input resolution
- 16-CH single-ended analog inputs
- On-board A/D 1024 samples FIFO memory
- Auto-scan channel selection
- Sampling rate up to 100KHz
- Programmable gain of 1,2,4,8,16
- Bipolar analog input ranges
- Three trigger modes: software trigger, timer pacer and external trigger
- One 12-bit multiplying DA converter
- 16-CH digital inputs and 16-CH digital outputs
- 4 extension DIO bits can be used to select external channel multiplexer
- Rugged DB-37 connector, compact size
- On-board low-pass filters for signal conditioning



PCI-9111HR: 16-bit, 100kS/s Low Cost DAS Card
PCI-9111DG: 12-bit, 100kS/s Low Cost DAS Card

Specifications

Analog Input (A/D)

- Converter and resolution:
 - 16-bit ADS7805 or equivalent for PCI-9111HR
 - 12-bit ADS7804 or equivalent for PCI-9111DG
- Input channels: 16 single-ended
- Analog signal input range: (programmable)
 - Bipolar: $\pm 10V$, $\pm 5V$, $\pm 2.5V$, $\pm 1.25V$, $\pm 0.625V$
- Conversion time: 8μ sec
- Overvoltage protection: Continuous $\pm 35V$ maximum
- Accuracy:

GAIN = 1, 2, 4	0.01% of FSR ± 1 LSB
GAIN = 8, 16	0.02% of FSR ± 1 LSB

- Input impedance: 10 M Ω
- Trigger mode: Software, pacer, external trigger
- Data transfer: Polling, Interrupt, FIFO half-full interrupt, FIFO polling
- Sampling rate: 100 KHz (maximum)
- FIFO depth: 1024 samples

Analog Output (D/A)

- Number of channel: 1 channel
- Resolution: 12-bit
- Output range: (jumper selectable)
 - Unipolar: 0~10V
 - Bipolar: -10V~+10V
- Converter: AD DAC7541 or equivalent, monolithic multiplying
- Settling time: 30 μ sec
- Output driving capability: ± 5 mA max.

Digital I/O (DIO)

- Number of channels: 16DI/16DO
- Signal type: TTL compatible

Extended Digital I/O (EDIO)

- Number of channels: 4 inputs and 4 outputs (with status read back)
- Signal type: TTL compatible

Programmable Counter

- Device: 8254
- A/D pacer: 32-bit timer with a 2 MHz time base
- Pacer output: 0.00046 Hz ~ 100 KHz
- Pre-trigger counter: One 16-bit counter for AD conversion pulse

General Specifications

- Connector: 37-pin D-type connector
- Operating temperature: $0^{\circ} \sim 60^{\circ}C$
- Storage temperature: $-20^{\circ} \sim 80^{\circ}C$
- Humidity: 5 ~ 95%, non-condensing
- Power requirement: +5 V @ 570 mA typical
- Dimension: 173 mm x 102 mm

Termination Boards

- ACLD-9137
- ACLD-9138
- ACLD-9178
- DIN-37D
- DIN-20P
- ACLD-8125
- ACLD-9188
- ACLD-9182A
- ACLD-9185

Ordering Information

PCI-9111DG

100 KHz Low Cost 12-bit DAS Card

PCI-9111HR

100 KHz Low Cost 16-bit DAS Card

Note: The above products are shipped with software development kit for DOS/Win-95/98/NT/2000, PCIS-LVIEW, PCIS-VEE and ADQ Creator.

Pin Assignments for the DB-37 Connector of PCI-9111

AI0 (1)	○	(20) AI8
AI1 (2)	○	(21) AI9
AI2 (3)	○	(22) AI10
AI3 (4)	○	(23) AI11
AI4 (5)	○	(24) AI12
AI5 (6)	○	(25) AI13
AI6 (7)	○	(26) AI14
AI7 (8)	○	(27) AI15
A.GND (9)	○	(28) A.GND
A.GND (10)	○	(29) A.GND
N.C. (11)	○	(30) DA Out
PreTrg (12)	○	(31) EDIO
+12V (13)	○	(32) EDI1
D.GND (14)	○	(33) EDI2
D.GND (15)	○	(34) EDI3
ExtTrg (16)	○	(35) EDO0
EDO1 (17)	○	(36) EDO2
EDO3 (18)	○	(37) N.C.
+5V (19)	○	