

PCI-9112



Analog Input

111K S/s at 12-bit (16 SE, 8 Diff.)



Analog Output

two 12-bit channels



Digital I/O

16-bit TTL



Timer/Counter

16-bit



110 KHz A/D Multifunction Card Analog I/O, Digital I/O and Programmable Counter

Analog Input (A/D)

Converter

B.B. ADS774 or equivalent, successive approximation type

Input Channel

16 single-ended or 8 differential

Resolution

12-bit

Input Range

software controlled

Bipolar -> $\pm 10V$, $\pm 5V$, $\pm 2.5V$, $\pm 1.25V$, $\pm 0.625V$

Unipolar -> $0\sim 10V$, $0\sim 5V$, $0\sim 2.5V$, $0\sim 1.25V$

Conversion Time

8 μ sec

Overvoltage Protection

continuous $\pm 35V$ max

Accuracy

GAIN	Accuracy
0.5 or 1	0.01 % of FSR ± 1 LSB
2 or 4	0.02 % of FSR ± 1 LSB
8	0.04 % of FSR ± 1 LSB

Input Impedance

10 M Ω

Trigger Mode

software, timer pacer and external trigger

Data Transfer

program control, interrupt, bus mastering

Programmable Counter

Device

8254

A/D Pacer

32-bit timer (two 16-bit counter cascaded together) with a 2 MHz time base

Counter

one 16-bit counter

Analog Output (D/A)

Output Channel

two

Resolution

12-bit

Output Range

internal ref. unipolar $0\sim 5V$ or $0\sim 10V$

external ref. unipolar max. $+10V$ or $-10V$

Converter

AD DAC7541 or equivalent, monolithic multiplexer

Settling Time

30 μ sec

Linearity

$\pm 1/2$ bit LSB

Output Driving

$\pm 5mA$ max.

Digital I/O (DIO)

Channel

16 TTL compatible inputs and outputs

Physical / Environmental

Connector

37-pin D-type connector

Operating Temperature

$0\sim 60^{\circ}C$

Storage Temperature

$-20\sim 80^{\circ}C$

Humidity

5~95%, non-condensing

Power Consumption

$+5V @ 460mA$ max.

$+12V @ 110mA$ max.

Dimensions

173 (L) x 102 (H) mm

Termination Boards

ACLD-9881 : General Purpose Termination Board with 32-CH Signal Conditioning (includes ACL-10137-1)

ACLD-8125 : Termination Board with Cold-Junction Temperature Sensor

ACLD-9137 : Screw Termination Board with male DB-37 Connector

ACLD-9188 : Industrial Termination Board

Pin Assignment

AI0	1		AI8
AI1	2		AI9
AI2	3		AI10
AI3	4		AI11
AI4	5		AI12
AI5	6		AI13
AI6	7		AI14
AI7	8		AI15
A.GND	9		A.GND
A.GND	10		A.GND
Vref	11		DA1
ExtRef2	12		ExtRef1
+12 V	13		DA2
A.GND	14		GATE0
D.GND	15		GATE1
Cout0	16		Cout1
ExtTrg	17		NC
NC	18		ExtClk
+5 V	19		

Ordering Information

PCI-9112

Advanced Data Acquisition Card

PCI-9112/25

PCI Advanced Data Acquisition Card with ACLD-8125 and 1 meter 37-pin cable

PCI-9112/37

PCI Advanced Data Acquisition Card with ACLD-9137

PCI-9112/38

PCI Advanced Data Acquisition Card with ACLD-9138 and 1 meter 37-pin cable

