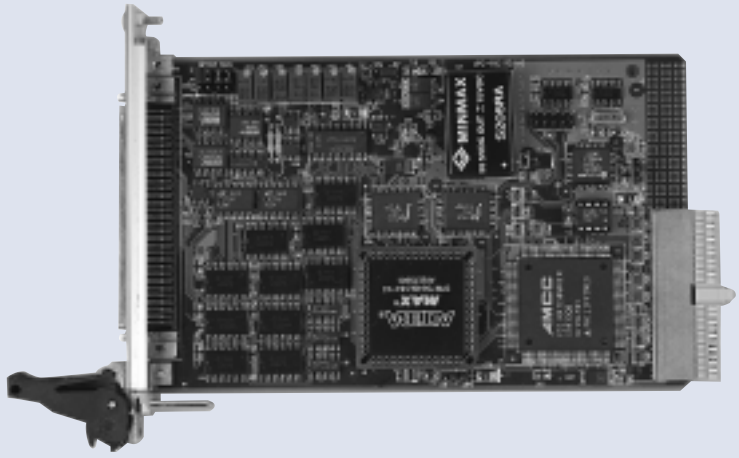
cPCI-9112

12-bit, 16-CH, 100KHz Multi-function DAS Module

Features

- 32-bit CompatPCI, PICMG 2.0 Rev 2.1
- Bus-mastering DMA
- 16 single-ended or 8 differential analog input channels with 12-bit resolution
- Up to 100 KHz A/D sampling rates
- On-board 1K words A/D FIFO memory
- Bipolar or uni-polar input signals
- Programmable gain of x0.5, x1, x2, x4, x8
- Auto-scanning channel selection
- Three A/D trigger modes: software trigger, programmable pacer trigger, and external pulse trigger
- 16-bit digital input and 16-bit digital output
- Two 12-bit monolithic multiplying analog output channels
- Rugged 100-pin SCSI-type connector



Specifications

Analog Input (A/D)

- Converter: ADS774 or equivalent, successive approximation type
- Resolution: 12-bit
- Input channels: 16 SE or 8 DI
- Input range: (programmable)
  - Bipolar: ±10V, ±5V, ±2.5V, ±1.25V
  - Unipolar: 0~10V, 0~5V, 0~2.5V, 0~1.25V
- Conversion time: 8 μ sec
- Overvoltage protection: Continuous ±35V maximum
- Accuracy :

GAIN = 1	0.01% of FSR±1 LSB
GAIN = 2,4	0.02% of FSR±1 LSB
GAIN = 8	0.04% of FSR±1 LSB

- Input impedance: 10 MΩ
- AD clock sources: software, timer pacer, and external clock
- Data transfer: polling, EOC interrupt, bus-mastering DMA

Analog output (D/A)

- Number of channels: 2
- Resolution: 12-bit
- Output range: Uni-polar
  - Internal reference: 0~5V or 0~10V
  - External reference: max. +10V or -10V
- Converter: DAC7541 or equivalent
- Settling time: 30 μ sec
- Linearity: ±1/2 bit LSB
- Output capacity: ±5mA max.

Digital I/O (DIO)

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

Programmable Counter

- Device: 8254
- A/D pacer: 32-bit timer with internal 2 MHz time base
- General-purpose counter: 16-bit

General Specifications

- Connector: 100-pin SCSI-type
- Operating temperature: 0˚ ~ 55˚C
- Storage temperature: -20˚~ 80˚C
- Humidity: 5 ~ 95%, non-condensing
- Dimension: 3U CompactPCI
- Power requirement:
  +5V @ 650mA maximum

Termination Boards

• DIN-100S

Ordering Information

cPCI-9112:

12-bit, 16-CH Multi-function DAS Module

cPCI-9112/D:

cPCI-9112 with DIN-100S

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

Pin Assignments of the 100-pin SCSI-type connector

DOUT_0	1	51	GND
DOUT_1	2	52	GND
DOUT_2	3	53	GND
DOUT_3	4	54	GND
DOUT_4	5	55	GND
DOUT_5	6	56	GND
DOUT_6	7	57	GND
DOUT_7	8	58	GND
DOUT_8	9	59	GND
DOUT_9	10	60	GND
DOUT_10	11	61	GND
DOUT_11	12	62	GND
DOUT_12	13	63	GND
DOUT_13	14	64	GND
DOUT_14	15	65	+5V out
DOUT_15	16	66	+5V out
DIN_0	17	67	GND
DIN_1	18	68	GND
DIN_2	19	69	GND
DIN_3	20	70	GND
DIN_4	21	71	GND
DIN_5	22	72	GND
DIN_6	23	73	GND
DIN_7	24	74	GND
DIN_8	25	75	GND
DIN_9	26	76	GND
DIN_10	27	77	GND
DIN_11	28	78	GND
DIN_12	29	79	GND
DIN_13	30	80	GND
DIN_14	31	81	+5V out
DIN_15	32	82	+5V out
CLK0	33	83	GND
ADTRG	34	84	GND
COUT0	35	85	COUT1
GATE0	36	86	GATE
+12VOUT	37	87	AGND
ExtVref2	38	88	AGND
ExtVref1	39	89	AGND
REFout	40	90	AGND
DA2	41	91	AGND
DA1	42	92	AGND
AIN7(H7)	43	93	AIN15(L7)
AIN6(H6)	44	94	AIN14(L6)
AIN5(H5)	45	95	AIN13(L5)
AIN4(H4)	46	96	AIN12(L4)
AIN3(H3)	47	97	AIN11(L3)
AIN2(H2)	48	98	AIN10(L2)
AIN1(H1)	49	99	AIN9(L1)
AIN0(H0)	50	100	AIN8(L0)