

CPCI-AI4

4 Analog Inputs, 16 Bits Resolution

- input voltage ± 10 V
- external trigger available
- timer-controlled sampling with up to 96 kHz (per DMA)

High End A/D-Inputs

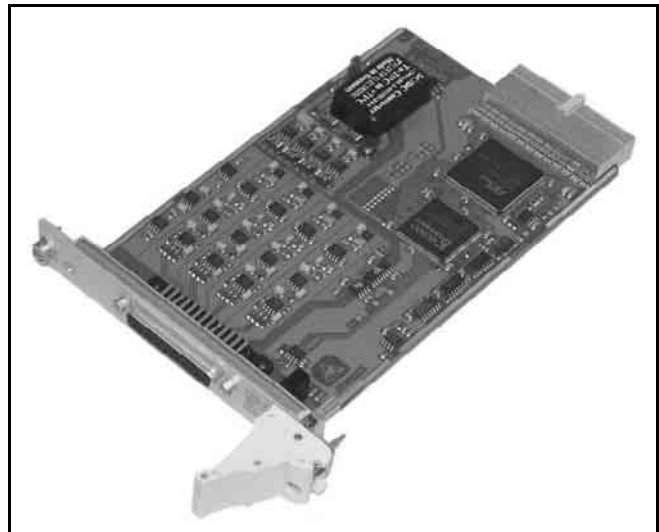
The module CPCI-AI4 is a CompactPCI board in Euro format. It has got four analog inputs with a resolution of 16 bits. The four A/D-converters are controlled via an FPGA, which is automatically initialized via the CompactPCI bus by software drivers. The inputs are connected via a 25-pole DSUB connector in the 3 HE front panel.

LEDs in the front panel display the status of the module.

Starting the A/D-Conversions

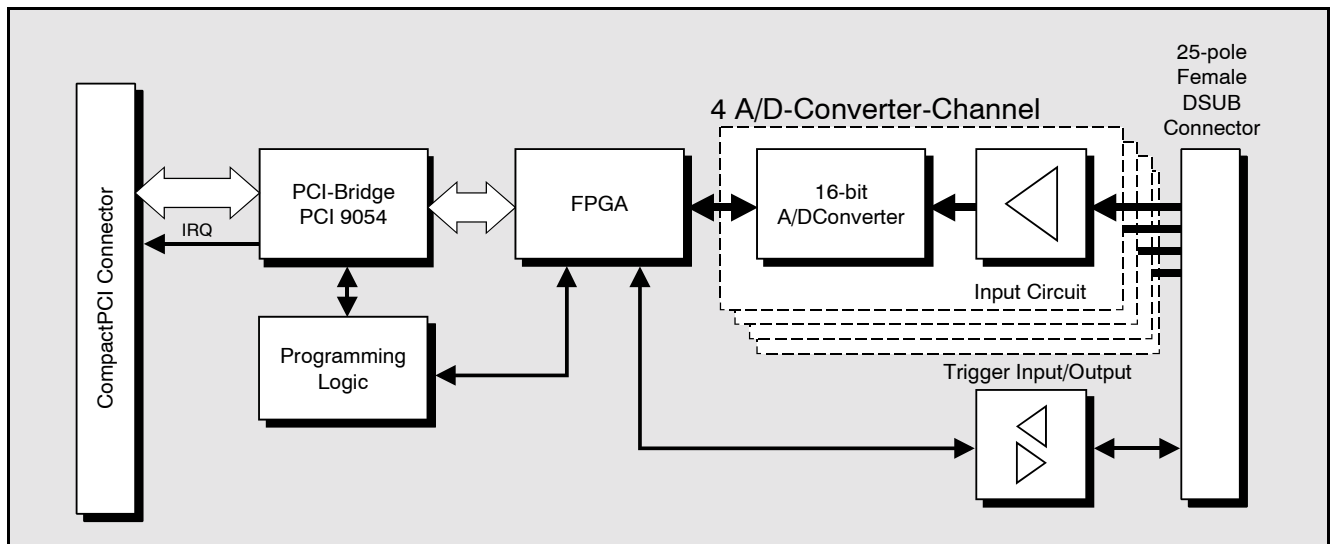
The inputs are converted continuously. The trigger is generated via a DDFS timer (Direct Digital Frequency Synthesis), which can mainly be programmed freely. Alternatively, an external trigger signal can initiate the conversions. The A/D-conversions on further CPCI-AI4 boards can be started synchronously, because the trigger port direction is bidirectionally.

The hardware allows conversion rates of up to 96000 conversions/s synchronously for all four channels.



Software Support

A driver for operating system VxWorks is available for the CPCI-AI4 module. Further drivers are available on request.



Technical Specifications:

CompactPCI interface:

Interface:	according to CPCI specification, Rev. 1.0
PCI-Bridge:	PCI9054
A/D-converter control:	FPGA

A/D-converter units:

Number of channels:	4
A/D-converter resolution:	16 bits
Input range:	± 10 V
Conversion rate:	up to 96000 conversions/s (4 channels synchronously)
Trigger In/Output:	RS-485-compatible transceiver, parallel triggering of various boards available

General:

Ambient temperature:	0...50 °C, optional -40 °C +85 °C
Humidity:	max. 90 %, non-condensing
Operating voltage:	3.3 V and 5 V
Connector:	25-pole DSUB, Female (A/D-inputs, trigger)
Status LEDs:	power, initialisation, bus access, interrupt

Order information:

Designation		Order No.
CPCI-AI4	4 analog inputs, 16 bits, 0...50 °C	1.2302.02
CPCI-AI4-T	as 1.2302.02, but -40 °C +85 °C	1.2302.03
CPCI-AI4-VxW	VxWorks drivers	1.2302.55
CPCI-AI4-ME	English manual	1.2302.21