CPCI-AI4
4 Analog Inputs, 16 Bits Resolution

esd gmbh

- *input voltage ±10 V*
- *external trigger available*
- *timer-controlled sampling with up to 96 kHz (per DMA)*
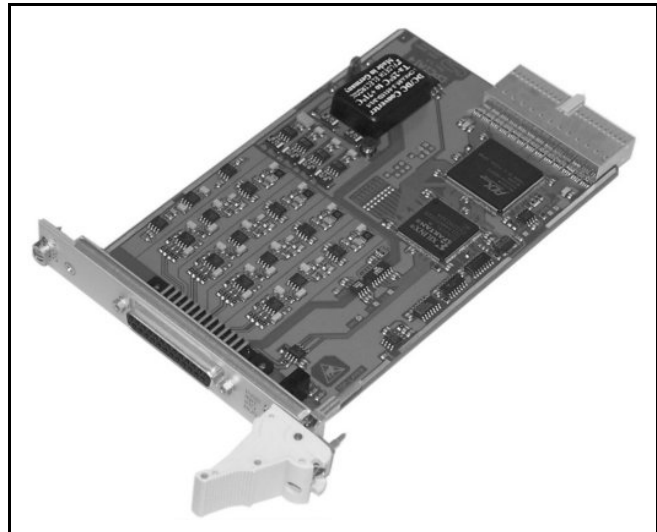
High End A/D-Inputs

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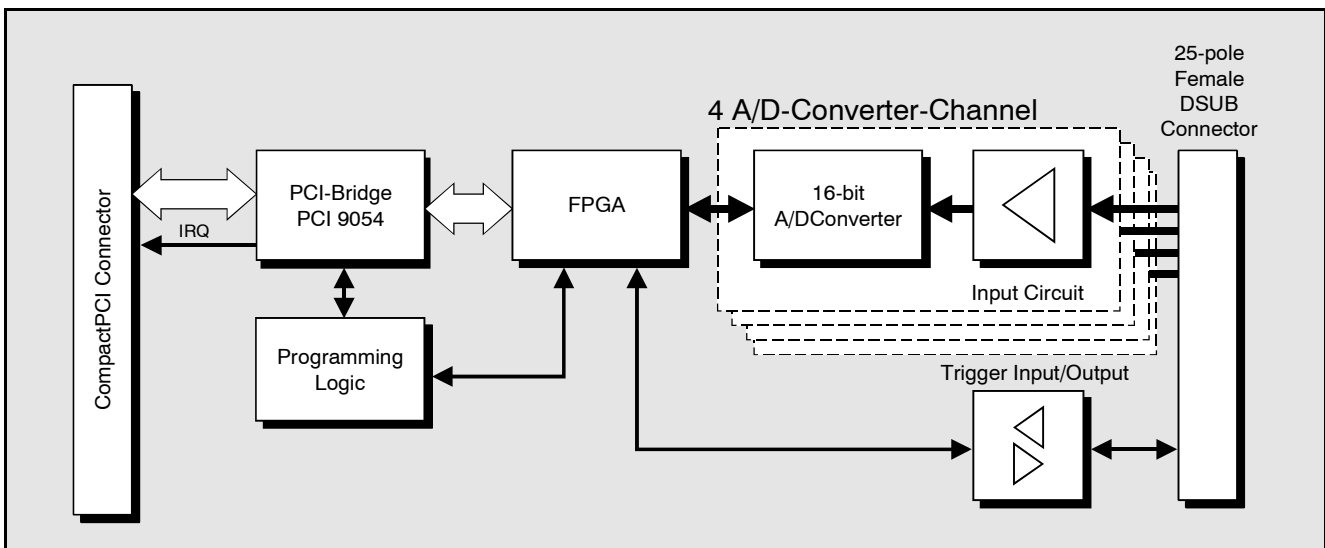The hardware allows conversion rates of up to 96000 conversions/s synchronously for all four channels.

Software Support

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

(This product is in life cycle stage end-of-life.)

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	I.2302.02
CPCI-AI4-T	as I.2302.02, but -40 /C .... +85 /C	I.2302.03
CPCI-AI4-VxW	VxWorks drivers	I.2302.55
CPCI-AI4-ME	English manual	I.2302.21