

PCI-Express model



78pin D-Sub female connector



Adapter cable with mounting bracket for 16 TTL digital I/Os

ADQ-210 series

Multi I/O board with 16 analog inputs up to 500 kHz, 32 digital I/Os, 3 x 16 bit counter

Universal measuring board for analog data acquisition with TTL I/Os and counter

The PC plug-in boards of the ALLDAQ ADQ-210 series are **universal multi I/O boards for standard measuring and control tasks in laboratory, test bay and quality assurance**. Currently the models for CompactPCI bus are available. The boards offer either 16 single-ended (ADQ-211) or 16 differential (ADQ-212, ADQ-215) analog inputs with a sample rate of up to 500 kHz at 16 bit resolution. You can choose between the input voltage ranges $\pm 10V$ (ADQ-211), $\pm 20V$ (ADQ-212) and $\pm 50V$ (ADQ-215).

Overall the ADQ-210 series comes with **32 bi-directional digital I/Os** whose direction can be programmed by port (8 bit). Therefrom 16 digital I/Os are provided by the 78-pin D-Sub female connector at the mounting bracket of the board and further 16 digital I/Os can be used by an additional mounting bracket (included). The voltage level of all digital I/Os can be switched between +3.3V and +5V in common by software. Each output can drive up to 20 mA.

As a counter the established **standard counter chip of type 8254 with three 16 bit counter** is used. Each counter can be programmed separately. Cascading can be realized by an appropriate external wiring, e.g. for output of a signal with a variable duty cycle. As a clock source an external rectangular signal with max. 10 MHz must be provided.

* Depending on model.

Technical Data

Element	Specification			
PC interface	CompactPCI bus (32 bit, 33 MHz) Rev. 2.2			
Analog inputs		ADQ-211	ADQ-212	ADQ-215
	Channels	16 single-ended	16 differential	16 differential
	Resolution	16 bit	16 bit	16 bit
	Sample rate	max. 500 kHz	max. 500 kHz	max. 500 kHz
	Input range	$\pm 10V$	$\pm 20V$	$\pm 50V$
	Input impedance	min. 300 M Ω , typ. 600 M Ω	20 M Ω	80 M Ω
	Programmable channel list: max. 16 entries CHAN timer: adjustable in steps of 30.30 ns from 2 μ s to ~130 s A/D value FIFO: 8192 values Trigger: software, timer, ext. digital trigger (rising/falling edge)			
TTL digital I/Os	32 bi-directional TTL-I/Os (direction configurable per 8 bit port) 3.3V or 5V level switchable by software for all ports in common Input level: U_{IL} at $V_{CC} = 5V$, max. 0.8V, U_{IH} at $V_{CC} = 5V$ min. 2V Output level: U_{OL} at 20 mA max. 0.5V, U_{OH} at -20 mA min. 2.4V			
Counter	3 x 16 bit counter (1 x counter chip of type 8254), TTL-I/O level, external clock source required, max. 10 MHz Operation modes programmable by software: <ul style="list-style-type: none"> • Mode 0: Change state at zero • Mode 1: Retriggerable „One Shot“ • Mode 2: Asymmetric divider • Mode 3: Symmetric divider • Mode 4: Counter start by software trigger • Mode 5: Counter start by hardware trigger 			
+5V supply	+5V supply of the board via Molex connector for connection with PC power supply (only for PCI Express boards)			
Environment	Operating temperature: 0..70 °C Operating humidity: 20%..55% (not condensing) Storage temperature: -40..100 °C Storage humidity: 5%..90% (not condensing)			
Certifications	EMC Directive 2004/108/EG, Emission EN 55022, Noise immunity EN 50082-2, RoHS			
Dimensions (without mounting bracket and connector)	ADQ-21x-PCle: 158 mm x 111.15 mm (B x H) ADQ-21x-cPCI: 3 U CompactPCI board			
Connectors	ADQ-21x-PCle: 78-pin D-Sub female connector + Molex connector (+5V) ADQ-21x-cPCI: 78-pin D-Sub female connector			
Manufacturer warranty	36 months			

Errors and technical modifications excepted.



Software Support

A wide software support enables you the simple integration of the ALLDAQ boards in your preferred software environment.

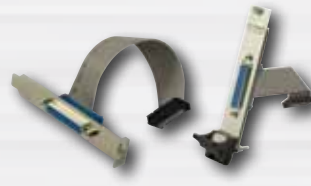
Package content



ADQ-211-cPCI (Art.-Nr. 112575)
ADQ-212-cPCI (Art.-Nr. 112577)
ADQ-215-cPCI (Art.-Nr. 112578)



25-pin D-Sub male connector (Art.-Nr. 112353)
78-pin D-Sub male connector (Art.-Nr. 112355)



Adapter cable with mounting bracket
from 20-pin IDC connector to
25-pin D-Sub female connector
ADQ-AP-D25F-cPCI (Art.-Nr. 111755) or
ADQ-AP-D25F-PCle (Art.-Nr. 111756)



Documentation
and driver software

Accessories (optional):

ADQ-CR-D25M-D25F-x

Shielded round cable from 25-pin D-Sub male connector to 25-pin D-Sub female connector, different length
(length: 1.8 m, Art.-Nr. 111752)

ADQ-CR-D78M-D78F-x

Shielded round cable from 78-pin D-Sub male connector to 78-pin D-Sub female connector, different length
(length: 1.8 m, Art.-Nr. 111754)



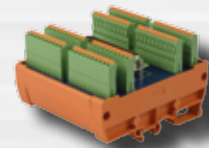
Figure similar

ADQ-TB-D25M-HUT

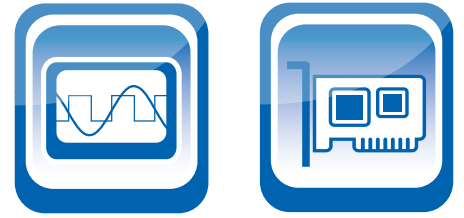
25-pin connector block for mounting on DIN rail, 25-pin D-Sub male connector to clamps of type „Phoenix“
(Art.-Nr. 111749)

ADQ-TB-D78M-HUT

78-pin connector block for mounting on DIN rail, 78-pin D-Sub male connector to clamps of type „Phoenix“
(Art.-Nr. 111751)



Art.-Nr. 111751



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