Data Recorder mcdRec

High-Performance Multipurpose Device for Data Acquisition as a Part of the Acoustic Camera

The mcdRec is a multi-channel data recorder with Ethernet-CPU and 9 cPCI slots. With 48 to 168 differential microphone channels and the possiblity to connect hundreds of different sensors, the mcdRec is a powerful and reliable data acquisition system. All channels are recorded synchronously at highest sampling rates.

The mcdRec was developed especially for use within the Acoustic Camera. It offers high sampling rates and processes high channel counts. The data recorder features a scalable microphone channel count simply dependent on the number of microphone measurement cards.

In addition to acoustic signals, other signals such as rotational speed, torque, angle of rotation and other parameters can be recorded via the digital channels interface (sampling rate: 6.14 MHz). Ethernet cameras can also be connected to the mcdRec via an Ethernet switch.

The mcdRec is part of the Acoustic Camera Pro system, which also includes a microphone array, and a notebook or workstation with the NoiseImage analysis software.

BENEFITS

- Customizable to your needs
- Low noise: no masking of sound sources by the measuring system
- Extremely high sampling rate for recording transient processes as well as exact sound source localization
- Extensive EMI shielding
- Upgradable card interface system (analog/digital)
- Plug-and-play interface for peripheral devices
- Gbit LAN for fast data transfer
- Syncronization of up to 6 data recorders

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SIZE AND WEIGHT	
Dimensions	42 x 31 x 20 cm (W x H x L)
Weight	10 kg
OPERATING CONDITIONS	
Ingress protection code	IP20
Cable length to array **Cable length to notebook**	up to 20 m (on request: 50 m) 50 m for 1 Gbit Ethernet
Power supply	90 – 240 V
Operating environment	0 °C – 45 °C, up to 80 % RH
FEATURES	
Microphone channels	up to 168 time-synchronized, analog channels (7 cards with 24 channels each)
Sampling rate	48 – 192 kS/s (32 bit)
Interface	1 Gbit Ethernet PC interface streaming capabilities
Max. recording time (with 48 kHz)	approx. 349 s
Max. recording time (with 192 kHz)	approx. 87 s
MEASUREMENT CARDS (OPTIONAL)	
ADC114MLN	24 analog inputs
ADC102A10B	12 analog inputs
DDC102RC	12 digital inputs
ICDC101	4 analog BNC-channels
CAN bus	Support of CAN bus data in NoiseImage

Measurement cards for individual configuration

Adapter box ADCA100 (additional accessories)

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