Modular, flexible data acquisition system

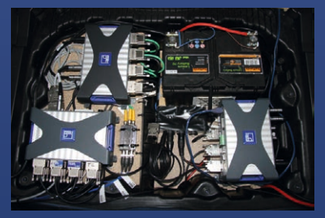
HBM – Over 60 years of experience in measurement technology

QUANTUMX

New functions for mobile testing

Benefit from:

- ___ Online calculation: Algebra, Time at Level, rainflow, FFT, virtual signals, etc.
- ___ WiFi access, GPS positioning
- ___ Connection of Kistler IGeL measurement wheels via Ethernet
- ___ Synchronization of measurements and video data
- ___ CAN, CCP, XCP-on-CAN support
- ___ Integration of measurement modules in CANape



Ready for mobile testing: compact, distributable and powerful

Easy to operate: individual displays, ready for touch-screen operation

www.hbm.com/quantumx

HBM Test and Measurement

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measure and predict with confidence

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QUANTUMX NEWS

NEW MODULES

QUANTUMX

Powerful new modules extend and enhance your DAQ capability

Benefit from the fascinating, new opportunities in the world of data acquisition with QuantumX.

MX471
4-channel CANbus module

Inputs/outputs

CAN	4 x High speed CANbus (ISO 11898) (max. 128 signals per connector: read only, up to 200 signals per connector: send)
CCP/XCP	4 x CAN Calibration Protocol (CCP) Extended Calibration Protocol on CAN (XCP), parameterization via CAN database (e.g. CANape by Vector Informatik)
Connector	9-pin D-Sub (male)

Functions

- Easy parameterization via software: CAN database (dbc)
- Terminate CANbus via software
- Acquire signals via CCP or XCP-over-CAN
- Gateway: Send measured values to CAN and generate dbc file

Typical applications

Mobile testing or test benches:
- Synchronous acquisition of bus signals in the CAN network or, for example, of sensor signals from a specific controller via protocols such as CCP or XCP
- Integration of QuantumX data via CANbus

MX879
Multi-I/O module

Inputs/outputs

	32 x digital input or output
U	8 x scalable output
Connector	8-pole push-in terminal

Real-time mathematics (measurement and system signals)

- Direct analog output
- Digital limit value switching
- Adding, subtracting, multiplying
- Matrix calculation (multi-component transducers)
- Peak values (Peak)
- Root mean square values (RMS)
- Output or forwarding of computed signals (EtherCAT: CX27, CANbus: MX471)

Signal generator mode

- Constant, harmonic (sine, rectangle, triangle)
- Individual profiles/replay (start, stop, load - double buffer each with 10,000 signal values)

PC/Online functions (catmanEASY, LabVIEW™*)

- Start/Stop trigger, limit value switching
- Output of analog values

Typical applications

Laboratory or test bench environments

*) LabVIEW is a trademark of National Instruments Corporation

MX1609-T
16-channel type T thermocouple amplifier

Sampling rate:
max. 300 Hz per channel
up to 15 Hz bandwidth

Transducer technologies

	16 x thermocouple (type T: Co - CoNi)
Connector	Type T mini thermocouple socket

Functions

- Contactless transmission of the measuring point identification (RFID: 1-THERMO-MINI-T)
- Storage of thermal calibration data in the plug to increase absolute measurement accuracy

Typical applications

Distributed, highly precise, dynamic temperature measurement in mobile tests, in the laboratory or test bench

MX1615
16-channel strain gauge bridge amplifier

Sampling rate:
max. 19.2 kHz per channel
up to 3.2 kHz bandwidth
(500 Hz with CF)

Transducer technologies

	16 x strain gauge full or half bridge circuit (4-, 5- or 6-wire connection) 16 x strain gauge quarter bridge circuit (120 Ω / 350 Ω, internal completion, 2-, 3- or 4-wire connection) Bridge excitation: DC or carrier frequency (1200 Hz)
	16 x resistance thermometers (PT100)
	16 x voltage (± 10 V differential, 0 ... 30 V unipolar) No active sensor supply
Connector	8-pole push-in terminal

Benefits

- DC bridge excitation for maximum bandwidth
- Carrier-frequency excitation for noise immunity
- Cyclic auto-adjustment (can be deactivated for long-term stability)
- TEDS / T-ID (zero- or one-wire for automatic sensor recognition)

Typical applications

Laboratory, test bench or in the field:
- Load data acquisition
- Mechanical strain analysis/stress analysis
- Fatigue testing for durability analysis
- Long-term monitoring

More about QuantumX at: www.hbm.com/quantumx >>