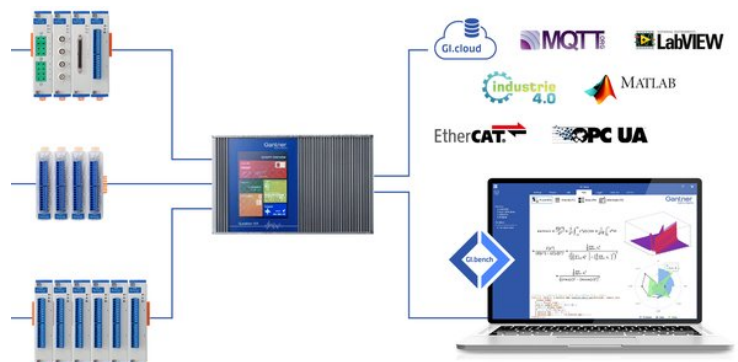


The Q.core is a 19" slimline Rack (1HU) with a powerful data acquisition core and an inbuilt 1GB Ethernet Switch. Up to 6 Q.station can be connected (client) and one Ethernet port is used for communication with the network. With the GI.data core it act like a master Q.station and can acquire data streams from all connected Q.stations.



Key Features

- **Very high data rates up to 96 channel with 100 kHz**
Data streams of up to 6 Q.stations with 16 channel, 100 kHz each can be acquired
- **Ethernet Interface for communication with Q.stations and Network**
6 Gbit Ethernet Ports (RJ45) on rear for communication with Q.stations.
1 Gbit Ethernet Port (RJ45) on front for communication with computers or servers in the network.
Configuration with GI.bench for all connected Q.stations and internal data loggers.
- **Web Front End for data visualization and export**
Inbuilt web server with comfortable front end to visualize all live data streams or stored data, export function for all data in multiple data formats
- **Data storage 1TB**
Inbuilt 1 TB SSD for storage of large data sets. Multiple data loggers can be configured for continuous or triggered storage. Data stream from multiple Q.stations and different sampling rates can be merged to single stream or data file
- **Synchronization and time stamp of measurement values**
The Q.core can be synchronized by NTP from the network and is NTP server for all onnected Q.station. Synchronization by Precision Time Protocol PTP optional. The Q.station are additionally synced by Q.sync (hardwired) in NTP



Technical Data

Micro Controller

Type	Intel i7
RAM	16 GB
Data storage	1TB SSD extendable by NAS
RTC	Battery buffered
OS	RT Linux

Ethernet Interface

Channels	1 for network connection
Interface	RJ45 Port 1 Gigabit/s (1Gig-E)
Port	8090 and 8004 Websocket for Data stream and system configuration with GI.bench

Client Interface

Channels	6 for communication with Q.station
Interface	RJ45 Port 1 Gigabit/s (1Gig-E)
Data rate	on each port one Q.station with 16 variables each with 100 kHz

USB Interface (only Q.core 102)

Channels	2
Version	USB 3.0
Function	for additional storage of measurement values

HDMI Interface (only Q.core 102)

Channels	1
Version	HDMI 2.0
Function	For service purpose only

Synchronisation

Ethernet	NTP from network
Clients	Q.station by NTP from Q.core Additional hardwired Q.sync between Q.stations necessary
PTP	Optional

Power Supply

Input voltage	12 VDC with supplied table top power brick
Power consumption	100 W
Power-supply-socket	Lemo EGJ.1B.302.CLA

Electromagnetic Compabiliy

According to	EN 61000-4 and EN 55011
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Environmental

Operating temperature	0°C to +40°C
Storage temperature	-20°C to +60°C
Relative humidity	5 % to 95 % at 50°C, non-condensing

Software Add-On

Type	Gl.data core with Inbuild web server
Function	Providing of dashboards for data Visualization, user definded dashboards, export function
Configuration	All connected Q.stations configurable with Gl.bench (1 computer license included)

Plug-ins

OPC-UA	OPC-UA Server provides all variables to OPC clients
Rainflow	Cycle counting algorithm Rainflow HCM according to Colormann Seeger with matrix in .scv format
FFT	Frequency analysis with selectable window type, frequency range and channels of bins (resolution) with output in .scv format

Mechanical Information

Material	Aluminum and ABS
Type	19" standard 1HU
Measurements (W x H x D)	444 x 44 x 260 mm
Weight	approx. 2500 g

Version Overview

631422 - Q.core 101	Base version (1x Ethernet Front, 6x Ethernet Back)
631523 - Q.core 102	Additional ports for user interface (2x USB3.0, 1x HDMI)

Ordering Information

Article number	See Version Overview Siehe Versionsübersicht
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