Q.core

High Performance Data Acquisition Server

The Q.core is Gantners high-performance streaming data platform for test & measurement with a powerfull data acquisition core, an internal 1 GigE Ethernet switch and 4 TB hard disk. Up to 6 Q.station X controllers can be connected (client) and one Ethernet port is used for communication with the network



Key Features

- **Very high data rates up to 96 channels with 100 kHz**
  Data streams of up to 6 Q.stations with 16 channels, 100 kHz each can be acquired
- **Ethernet interface for communication with Q.stations and network**
  6x 1 Gbps Ethernet ports (RJ45) on the rear for communication with Q.stations.
  1x 1 Gbps Ethernet port (RJ45) on the front for communication with computers or servers in the network.
  Configuration with GI.bench for all connected Q.stations and internal data loggers.
- **Web interface for data visualization and export**
  Internal web server with intuitive user interface to visualize all live data streams or stored data, export function for all data in multiple data formats
- **Data storage 4TB**
  Internal 4 TB SSD for storage of large data sets. Multiple data loggers can be configured for continuous or triggered storage. Data streams from multiple Q.stations and different sampling rates can be merged into a single stream or data file
- **Synchronization and time stamp of measurement values**
  The Q.core can be synchronized with an NTP time server from the network and an NTP server for all connected Q.station. Synchronization by Precision Time Protocol.



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Technical Data

Microcontroller

Type	Intel i7
RAM	16 GB
Data storage	4TB SSD
RTC	Battery buffered
OS	RTLinux

Ethernet Interface

Ports	1
Interface	RJ45 Port 1 Gigabit/s (1GigE)
Network port	8090 and 8004 WebSocket for data streaming and system configuration with GI.bench

Client Interface

Ports	6
Interface	RJ45 Port 1 Gigabit/s (1Gig-E)
Data rate	100 MB/s

USB Interface (only Q.core 102)

Ports	2
Version	USB 3.0
Function	For connecting Q.series XL boost modules or external hard drive.

HDMI Interface (only Q.core 102)

Ports	1
Version	HDMI 2.0
Function	For service purpose only

Synchronisation

Ethernet	NTP

Power Supply

Input voltage	12 VDC
Power consumption	100 W
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

Type	GI.bench with GI.data core with internal web server
Function	Data visualization with user-definable dashboards and data export
Configuration	All connected Q.stations configurable with GI.bench (1 license included)

Mechanical Information

Material	Aluminium and ABS
Type	19" standard 1U
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 for network, 6x Ethernet for Q.station X controllers)
631523 - Q.core 102	Additional 2x USB 3.0 and 1x HDMI

Ordering Information

Article number	See Version Overview | Siehe Versionsübersicht

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