daqNet
Acoustic Data Conversion System

Features

- Fully integrated acoustic server in a compact rack-mount 1U chassis
- Up to 192 channels of acoustic I/O or 240 channels of digital I/O
- Dual Gigabit Ethernet interfaces for data I/O and control
- Choice of up to 4 analog input, analog output and digital I/O modules
- Precise sampling synchronization across multiple servers
- User configurable digital I/O module with immediate, external signal or time-based trigger
- Software Development Kit for host (PC or other Intel® platform) running on Windows® or Linux®

The daqNet is a revolutionary new concept intended for sonar, vibration analysis, and test and measurement applications. An autonomous high speed acoustic data conversion solution ideal for today's network-centric environment, the daqNet provides data connections and control capabilities by means of dual Gigabit Ethernet interfaces within a 1U form factor. With its plug and play capabilities, the daqNet can be connected to the network, configured with the sample application provided and the connection tested through hardware-implemented ADC/DAC test channels.

The daqNet has been optimized to provide high performance, high-speed signal conversion for up to 192 channels of analog I/O or 240 channels of digital I/O. The redundant dual Gigabit Ethernet is easily configurable utilizing SNMP protocol and is available in traditional network protocols. The daqNet is customizable using any combination of up to four I/O modules - analog input, analog output or digital I/O. Each digital I/O module provides immediate external signal and time-based trigger capabilities.

An unlimited number of daqNet servers and channels can be synchronized using GE Intelligent Platforms Sensor Processing's time stamping technology. Each daqNet supports master/slave configuration for redundancy in the event of a failure. The system can be optionally provided with an external A/D sampling clock, sync and trigger for enabling A/Ds and digital I/Os.

A Software Development Kit (SDK) included with the product provides a host API and sample applications intended to run on a PC or other Intel platform. It is compiled to run under either Windows XP or Linux and includes full source code in 'C' language.

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Specifications

I/O specifications
- Front panel dual Gigabit Ethernet (1000 Base-T) SNMP-configurable and network protocol compliant (mod jack)
- Front panel external clock, trigger, sync and ADC/DAC test channels (BNC)
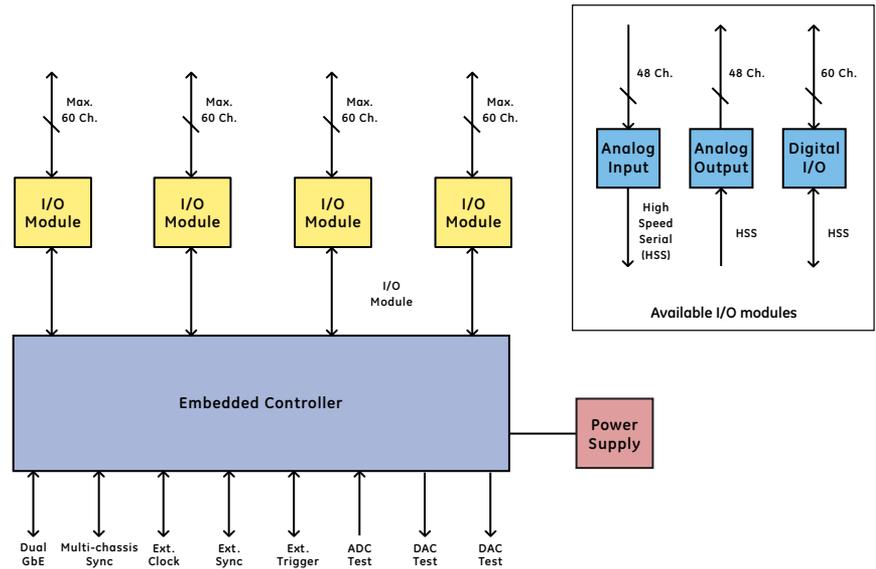- Four rear panel AI/AO/DIO modules supporting up to 240 channels (D-Submin)

Environmental
- 0° to +50° Celsius operating temperature

General Specifications
- Compact rack-mount 1U chassis
- Forced air cooled
- Application code and flexible API provided for user configuration
- Multiple chassis sampling and trigger synchronization (D-Submin)
- Front panel LED indicator and rocker type power switch
- Software Development Kit (SDK) for host (PC or other Intel platform) running under Windows or Linux

Block Diagram

Ordering Information

daqNet-100	Acoustic Data Conversion System, 192-channel analog input
daqNet-101	Acoustic Data Conversion System, 192-channel analog output
daqNet-102	Acoustic Data Conversion System, 96-channel analog output, 120-channels of digital I/O
daqNet-103	Acoustic Data Conversion System, 144-channel analog input
daqNet-104	Acoustic Data Conversion System, 144-channel analog output
daqNet-105	Acoustic Data Conversion System, 96-channel analog input
daqNet-106	Acoustic Data Conversion System, 96-channel analog output
daqNet-107	Acoustic Data Conversion System, 48-channel analog input
daqNet-108	Acoustic Data Conversion System, 48-channel analog output
daqNet-109	Acoustic Data Conversion System, 96-channel analog input, 96-channel analog output

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

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