

Ethernet Data Acquisition

NI ENET-9211, NI ENET-9215, NI ENET-9215 BNC NI ENET-9219, NI ENET-9234, NI ENET-9237 **NEW!**

- 10/100 BASE-T/X Ethernet port
- Up to 100 m cabling distance per segment
- Streaming measurements at more than 50 kS/s with 24-bit resolution
- C Series signal conditioning for thermocouples, RTDs, accelerometers, microphones, strain gages, current, and more
- Two digital PFI lines for triggering and sample clock import/export
- 0 to 55 °C temperature range
- 9 to 30 VDC power supply
- Panel and DIN-rail mounting kits available

Operating Systems

- Windows Vista/XP/2000

Software Support

- LabVIEW
- LabWindows™/CVI
- Measurement Studio
- ANSI C/C++
- C# and Visual Basic .NET
- Visual Basic 6.0

Measurement Services Software (included)

- NI-DAQmx driver software
- Measurement & Automation Explorer configuration utility
- LabVIEW SignalExpress LE data-logging software



Model	Signal Conditioning	Channels	Rate	Connectivity
ENET-9211	Thermocouple, 24-bit	4	14 S/s	Screw terminal
ENET-9215	Simultaneous sampling, 16-bit	4	100 kS/s/ch	Screw terminal or BNC
ENET-9219	Universal (11 modes)	4	100 S/s/ch	Spring terminal
ENET-9234	IEPE (sound and vibration), 24-bit	4	51.2 kS/s/ch	BNC
ENET-9237	Bridge completion, 24-bit	4	50 kS/s/ch	RJ50

NI Ethernet Data Acquisition Devices

Simple, Secure Ethernet Data Acquisition

Ethernet data acquisition is an extension of PC-based data acquisition to measurement applications distributed over a large area or network. NI Ethernet data acquisition (DAQ) devices combine industry-standard Ethernet communication; direct sensor connectivity; and the flexibility of NI LabVIEW software for remote monitoring of electrical, physical, mechanical, and acoustical signals. NI Ethernet DAQ devices can stream data on each channel at more than 50 kS/s with 24 bits of resolution. With the flexibility of LabVIEW graphical programming and the ubiquity of Ethernet networking infrastructure, NI Ethernet DAQ makes it easy to incorporate remote connectivity into new or existing PC-based measurement or control systems.

NI ENET-9163 and C Series Hardware

Each National Instruments Ethernet DAQ device is a combination of an NI ENET-9163 wireless carrier and an NI C Series measurement module. The ENET-9163 provides IEEE 802.3 Ethernet connectivity back to a host PC. You can synchronize an ENET-9163 with other devices by using two onboard individually programmable digital trigger lines to export or import sample clocks, start triggers, pause triggers, and reference triggers.

C Series modules provide direct sensor connectivity and built-in signal conditioning for a variety of measurements, including temperature, strain, acceleration, current, voltage, and more. In addition to the ENET-9163, they may be used interchangeably for measurement and control applications with different chassis, including NI CompactDAQ and CompactRIO, and the NI carriers.

You may purchase ENET-9163 carriers and select C Series modules separately or together in a kit as ENET-9xxx devices. See the table for a list of compatible devices.

Recommended Software

NI Ethernet DAQ devices use the same NI-DAQmx API as hundreds of other NI PCI, PXI, and USB DAQ devices, so incorporating an NI Ethernet DAQ device into a new or existing measurement system is easy. National Instruments measurement services software, built around NI-DAQmx driver software, includes intuitive application programming interfaces, configuration tools, I/O assistants, and other tools designed to reduce system setup, configuration, and development time. National Instruments recommends using the latest version of NI-DAQmx driver software for application development in NI LabVIEW,

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LabVIEW SignalExpress, LabWindows/CVI, and Measurement Studio software. To obtain the latest version of NI-DAQmx, visit

ni.com/support/daq/versions.

NI measurement services software speeds up your development with features including the following:

- A configuration-based interface to create fast and accurate measurements with no programming using the DAQ Assistant
- Automatic code generation to create your application in LabVIEW; LabWindows/CVI; LabVIEW SignalExpress; and C#, Visual Studio .NET, ANSI C/C++, or Visual Basic using Measurement Studio

- Multithreaded streaming technology for 1,000 times performance improvements
- More than 3,000 free software downloads that are available at ni.com/zone to jump-start your project
- A single programming interface for hundreds of PCI, PXI, USB, Wi-Fi, and Ethernet data acquisition hardware devices

NI Ethernet DAQ devices are compatible with the following versions (or later) of NI application software: LabVIEW 7.1, LabWindows/CVI 7.x, and Measurement Studio 7.x. They are also compatible with ANSI C/C++, C#, Visual Basic .NET, and Visual Basic 6.0.

Ordering Information

NI ENET-9163 carrier only 780501-01

Combined NI ENET-9163 and C Series Module Kits

NI ENET-9211 780502-01
NI ENET-9215 780503-01
NI ENET-9215 BNC 780504-01
NI ENET-9219 780505-01
NI ENET-9234 780508-01
NI ENET-9237 780506-01

Power Cord (Required)

U.S., 120 VAC 763000-01
North America, 240 VAC 763068-01
UK, 240 VAC 763064-01
Australia, 240 VAC 763066-01
Europe, 240 VAC 763067-01
Switzerland, 220 VAC 763065-01
Japan, 100 VAC 763634-01

Industrial Ethernet Switches (Optional)

NI UES-3880, unmanaged 780038-01
NI MES-3980, managed 780039-01

BUY NOW!

For complete product specifications, pricing, and accessory information, call 800 813 3693 (U.S.) or go to ni.com/wifi.

NI Services and Support



NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance. We offer services and service levels to meet customer requirements in research, design, validation, and manufacturing. Visit ni.com/services.

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integrators. Services range from start-up assistance to turnkey system integration. Visit ni.com/alliance.



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We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit ni.com/ssp.

Hardware Services

NI Factory Installation Services

NI Factory Installation Services (FIS) is the fastest and easiest way to use your PXI or PXI/SCXI combination systems right out of the box. Trained NI technicians install the software and hardware and configure the system to your specifications. NI extends the standard warranty by one year on hardware components (controllers, chassis, modules) purchased with FIS. To use FIS, simply configure your system online with ni.com/pxiadvisor.

Calibration Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit ni.com/calibration.

Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit ni.com/services.



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