CompactRIO Integrated Systems with Real-Time Controller and Reconfigurable Chassis

NI cRIO-9073, NI cRIO-9074

- Support for CompactRIO scan mode rapid development programming
- Integrated CompactRIO systems with a reconfigurable FPGA chassis and embedded real-time controller
- Lower-cost systems for high-volume OEM applications
- 2M gate reconfigurable FPGA
- 8 slots for C Series I/O modules
- Up to 400 MHz real-time processor
- Up to 128 MB DRAM memory, 256 MB of nonvolatile storage
- Up to two 10/100BASE-TX Ethernet ports with built-in FTP/HTTP servers and LabVIEW remote panel Web server
- RS232 serial port for peripheral devices
- Low power consumption with single 19 to 30 VDC power supply inputs
- -20 to 55 °C operating temperature range

LabVIEW Development Software

- LabVIEW Real-Time (VxWorks)
- LabVIEW FPGA

Driver Software

- NI-RIO for reconfigurable embedded systems

>> For complete specifications, see the *CompactRIO cRIO-9072/3/4 Operating Instructions* manual at **ni.com/manuals**.

Product	Processor Speed (MHz)	FPGA Size (Gates)	Module Slots	DRAM Memory (MB)	Internal Nonvolatile Storage (MB)	10/100BASE-TX Ethernet Port	RS232 Serial Port	Power Supply Input Range	Remote Panel Web and FTP Servers
cRIO-9073	266	2 M	8	64	128	✓	✓	19 to 30 VDC	✓
cRIO-9074	400	2 M	8	128	256	✓ (Dual)	✓	19 to 30 VDC	✓

Table 1. cRIO-907x Selection Guide

Overview and Applications

NI cRIO-907x integrated systems combine an industrial real-time controller and reconfigurable field-programmable gate array (FPGA) chassis for high-volume and industrial machine control and monitoring applications.

The new NI cRIO-9073 integrated system features an industrial 266 MHz real-time processor and an 8-slot chassis with an embedded, reconfigurable 2M gate FPGA chip. The NI cRIO-9074 integrated system contains a 400 MHz real-time processor and an 8-slot chassis with an embedded, reconfigurable 2M gate FPGA chip. Both systems feature built-in nonvolatile memory and a fault-tolerant file system that deliver increased reliability for data-logging applications.

Both systems also accept up to eight NI C Series I/O modules. A variety of I/O modules are available including voltage, current, thermocouple, RTD, accelerometer, and strain gage inputs; up to ±60 V simultaneous sampling analog I/O; 12, 24, and 48 V industrial digital I/O; 5 V/TTL digital I/O; counter/timers; pulse generation; and high voltage/current relays.

The 10/100 Mb/s Ethernet port allows for programmatic communication over the network and built-in Web (HTTP) and file (FTP) servers. The cRIO-9074 features dual Ethernet ports, so you can use one port for network communication to a host PC or enterprise system and the other port for expansion I/O (easily connect another CompactRIO system, NI 9144 expansion I/O chassis, or another Ethernet-based device for additional I/O).

Embedded Software

You can quickly program a cRIO-907x with easy-to-use CompactRIO scan mode programming and the NI LabVIEW Real-Time Module. The LabVIEW Real-Time Module includes built-in function blocks for floating-point control, processing, analysis, data logging, and communication for programming the embedded real-time processor. LabVIEW Real-Time also has function blocks to program data transfer between the real-time processor and the FPGA.

For even higher flexibility and performance, you can program the reconfigurable FPGA within a cRIO-907x using the LabVIEW FPGA Module for custom and high-speed control, I/O timing, and signal processing.

Ordering Information

NI cRIO-9073 780471-01
NI cRIO-9074 779999-01

OEM Pricing Available!

Aggressive discounts are available for high-volume customers.

BUY NOW!

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

NATIONAL INSTRUMENTS™

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**.

Training and Certification

NI training is the fastest, most certain route to productivity with our products. NI training can shorten your learning curve, save development time, and reduce maintenance costs over the application life cycle. We schedule instructor-led courses in cities worldwide, or we can hold a course at your facility. We also offer a professional certification program that identifies individuals who have high levels of skill and knowledge on using NI products. Visit **ni.com/training**.

Professional Services

Our NI Professional Services team is composed of NI applications and systems engineers and a worldwide National Instruments Alliance Partner program of more than 600 independent consultants and integrators. Services range from start-up assistance to turnkey system integration. Visit **ni.com/alliance**.

NATIONAL INSTRUMENTS™
Certified Alliance Partner

OEM Support

We offer design-in consulting and product integration assistance if you want to use our products for OEM applications. For information about special pricing and services for OEM customers, visit **ni.com/oem**.

Local Sales and Technical Support

In offices worldwide, our staff is local to the country, giving you access to engineers who speak your language. NI delivers industry-leading technical support through online knowledge bases, our applications engineers, and access to 14,000 measurement and automation professionals within NI Developer Exchange forums. Find immediate answers to your questions at **ni.com/support**.

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

System Assurance Programs

NI system assurance programs are designed to make it even easier for you to own an NI system. These programs include configuration and deployment services for your NI PXI, CompactRIO, or Compact FieldPoint system. The NI Basic System Assurance Program provides a simple integration test and ensures that your system is delivered completely assembled in one box. When you configure your system with the NI Standard System Assurance Program, you can select from available NI system driver sets and application development environments to create customized, reorderable software configurations. Your system arrives fully assembled and tested in one box with your software preinstalled. When you order your system with the standard program, you also receive system-specific documentation including a bill of materials, an integration test report, a recommended maintenance plan, and frequently asked question documents. Finally, the standard program reduces the total cost of owning an NI system by providing three years of warranty coverage and calibration service. Use the online product advisors at **ni.com/advisor** to find a system assurance program to meet your needs.

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**.

NATIONAL INSTRUMENTS™

ni.com • 800 813 3693
National Instruments • info@ni.com

351504B-01 2008-10370-161-101-D