

NETernity™ RM983RC

VME 12- or 24-Port Front I/O Managed Layer-2 Gigabit Ethernet Switch with OpenWare™ Lite Switch Management Environment

Features

- 6U VME form factor
- 12- or 24-port Gigabit Ethernet switch
- Managed Layer-2 solution
- Control and monitoring capabilities via local or remote access
- On-board management processor
- L-2 switching at wire-speed
- OpenWare™ Lite Switch Management Environment
- 12 or 24 ports routed to front I/O
- Ports can be 10/100/1000BaseT, 1000BaseLX, or 1000BaseSX, or a combination of copper and fiber interfaces in groups of four ports
- Auto address learning
- Auto address aging
- 10/100/1000BaseT auto-negotiating, supports full or half-duplex
- Support for Jumbo Frames
- Front panel Link and Activity status LEDs
- Urethane or acrylic conformal coating optional
- RoHS compliant

Key Specifications

- IEEE 802.3-2005
- IEEE 802.1Q (VLAN tagging)
- IEEE 802.1D (Spanning Tree Protocol)
- MDI/MDIX control
- RoHS 2002/95/EC compliant

NETernity™ RM983RC is a Managed Layer-2 Ethernet embedded switch offering full L2 wire speed switching and routing. The switch is available with 12 or 24 ports routed to front I/O. Switch configuration and management are provided by the exclusive OpenWare Lite switch management environment. Configuration options include port number, interface type and media, and front panels and conformal coating. Designed to meet the needs of a wide range of applications such as commercial, industrial and government systems, the 6U VME form factor RM983RC facilitates communications within a chassis as well as supporting the network outside the chassis.

All 12 or 24 ports are routed to front panel I/O and can be 10/100/1000BaseT, 1000BaseSX or 1000BaseLX. Mixing and matching of fiber and copper media in groups of four is supported. Scanbe front panel and urethane or acrylic conformal coatings are optional.

Switch Fabric Features

- Supports Layer 2 (L2) packet switching. Packets are categorized by the MAC address.
- Virtual LANs (VLANs) (IEEE 802.1Q) defines a forwarding (switching) domain; supports up to 4094 VLANs.
- Multiple Spanning Tree Protocol (MSTP) (IEEE 802.1D-2004) enables automatic and rapid determination of an optimal loop-free topology from an arbitrary network of enabled switches with duplicate and redundant connections; supports rapid reconfiguration if a link or switch fails; backward compatible with RSTP and STP.
- Port mirroring eases debug and packet pattern study. This is a method to observe on one port traffic that is flowing on another port
- Trunking or manual link aggregation
- SNMP support

OpenWare Lite Switch Management Environment

OpenWare Lite is available exclusively on selected NETernity Managed Layer-2 Ethernet switches. Configuration and monitoring functions are accessible from a serial console or via a network. Supported access methods include Telnet, SSH and SNMP.

OpenWare Lite features:

- Easy deployment
- Linux® based software allows faster implementation and easy updates to firmware.
- A familiar Linux command line interface and remote Telnet user interface support allows users to select how they interact with the switch.
- Portability across switch fabrics and processor environments.

Why choose GE Fanuc Intelligent Platforms NETernity Ethernet Switches?

GE Fanuc has a wealth of expertise in Military, Commercial and Telecommunications markets. This makes us unique in the embedded computing industry – we understand application requirements and we know communication protocols. Our line of NETernity Ethernet Switches is unmatched. Not only is our product selection extensive, but the switches themselves provide maximum flexibility, performance, and density. NETernity Ethernet Switches are available in a variety of form factors, interfaces, levels of ruggedness, port configurations, media support, and types of management.

Fully Managed switches are Layer 2/3+ switches with control and monitoring capabilities via local or remote access. Managed switches are Layer 2 switches with control and monitoring capabilities via local or remote access.

Unmanaged switches are Layer 2 switches with no operator interfacing and are designed for quick deployment in well defined applications. Call GE Fanuc Intelligent Platforms' knowledgeable sales team for help in selecting the switch that best meets your applications requirements.



NETernity™ RM983RC VME 12- or 24-port Managed Layer-2 Gigabit Ethernet Switch

Specifications

Physical Interface

- 12 or 24 Gigabit Ethernet ports routed to front
- 10/100/1000BaseT, 1000BaseLX or 1000BaseSX
- RJ-45 connectors (10/100/1000BaseT); LC connectors (1000BaseLX and 1000BaseSX)

Dimensions

- 6U single slot VME form factor (12-port)
- 6U dual slot VME form factor (24-port)

Weight

- Single slot: 0.86 lbs (0.39 Kg)
- Dual slot: 1.66 lbs (0.75 Kg)

Power Requirements

- 12 copper ports: 20.5W (max)
- 12 fiber ports: 26W (max)
- 24 copper ports: 32.2W (max)
- 24 fiber ports: 44W (max)

MTBF

- 567,214 hours per Ground Benign, Controlled at 40°C

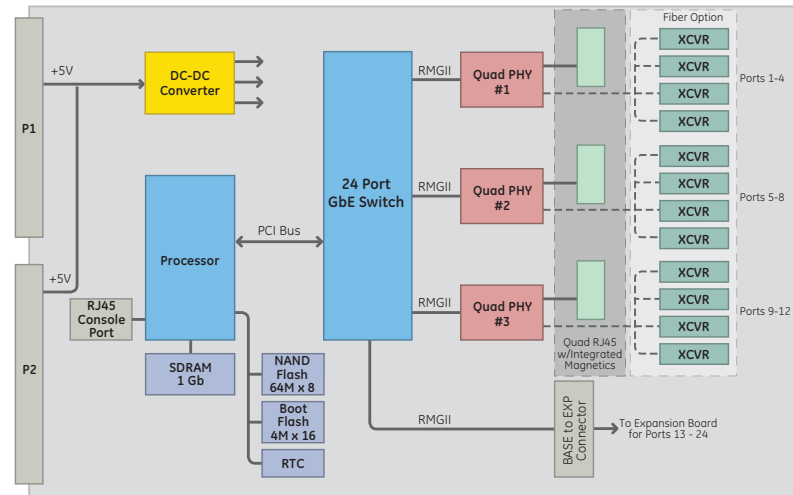
Environmental

- Operating temperature: 0° to +65 °C
- Storage temperature: -40° to +125 °C
- Relative humidity: 5% to 95%, noncondensing

Regulatory Compliance

- European Union (CE Mark)
 - EN55022 Radiated Emissions Class A
 - EN55022 Conducted Emissions Class A
- United States
 - FCC 47 Part 15, Class A
- Safety:
 - UL60950-1
 - CSA C22.2, No. 60950-1
 - EN60950-1 (Low Voltage)
- RoHS 6/6: European Community Directive 2002/95/EC

Block Diagram



Ordering Information

Base Part Number	# of Copper Ports AA	# of Fiber 1000SX Ports BB	# of Fiber 1000LX Ports CC	Faceplate Style E
				0=1101.01 with ejector handle
				1=flat VMEbus w/Scanbe handle
RM983RC-				
Example 1	8 (08)	4 (04)	0 (00)	0
Example 2	4 (04)	0 (00)	4 (04)	1

NOTE: Only allowable combinations are all copper, all fiber, or mix of copper and fiber ports in increments of four. RM983RC supports either 12 ports (single slot) or 24 ports (dual slots).

Suffix -CC to model number to indicate urethane conformal coated boards
-CCA to model number to indicate acrylic conformal coated boards

Example 1: Order RM983RC-0804000 (RM983RC with 8 copper & 4 fiber 1000BaseSX ports and standard faceplate

Example 2: Order RM983RC-0416041-CC (RM983RC with 4 copper, 16 1000BaseSX, and 4 1000BaseLX ports, flat VMEbus faceplate with Scanbe handle, and urethane conformal coating

About GE Fanuc Intelligent Platforms

GE Fanuc Intelligent Platforms is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is headquartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you're looking for one of our standard products or a fully custom solution, GE Fanuc Intelligent Platforms has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanuc.com.

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Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

www.gefanuc.com

