# NETernity™ RM984RC

## VME 8-Port Unmanaged Air and Conduction Cooled Layer-2 10/100TX Ethernet Switch

NETernity™ RM984RC is an economical 6U VME unmanaged Layer-2 10/100BaseTX Ethernet switch designed to meet the needs of a wide range of applications such as mil/ aero, commercial, and industrial systems. The RM984RC facilitates communications within a chassis as well as supporting the network outside the system.

The RM984RC delivers full wire-speed 10/100BaseTX  Ethernet Layer-2 switching on all ports. It is available in three models including air cooled commercial temperature, rugged air cooled industrial temperature, and conduction cooled.

A serial port is available on the air cooled models to support setting of several features: port speeds, port duplex, port mirroring and port disable.  An eight port transition module is available to support applications needing external connections to the switch.

Polyurethane or acrylic conformal coating is included for rugged air cooled and conduction cooled boards and available as an option for the air cooled commercial temperature board.

**Why choose Abaco Systems Neternity Ethernet Switches?**

Abaco Systems 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. Layer 2 managed switches are  switches with control and monitoring capabilities, but with the management limited to layer 2 capabilities. These are also accessed locally or remotely. Unmanaged switches are Layer-2 switches with no operator interfacing and are designed for quick deployment in simpler applications.

Call Abaco Systems knowledgeable sales team for help in selecting the switch that best meets your applications requirements.

## FEATURES:

- 6U VME form factor
- 8 10/100TX Ethernet switch rear I/O ports
- L-2 switching at wire-speed
- Rear ports are 10/100BaseTX
- Air Cooled Commercial Temperature, Rugged Air Cooled Industrial Temperature and Conduction Cooled variants
- Auto address learning
- Auto address aging
- Auto MDI/MDIX support
- 10/100BaseTX auto-negotiating, supports full or half-duplex
- Support for Jumbo Frames
- Front panel Link and Activity status LEDs
- RoHS compliant
- Polyurethane or acrylic conformal coating standard for Rugged Air Cooled and Conduction Cooled boards; optional for Air Cooled Commercial Temperature
- Serial port allows setting port speed, port duplex, port mirroring, and port disable
- Rear Transition Module Available

## KEY SPECIFICATIONS

- MDI/MDIX control
- RoHS 2002/95/EC compliant

## abaco
S Y S T E M S

## NETernity™ RM984RC *VME 8-Port Unmanaged Air and Conduction Cooled Layer-2 10/100TX Ethernet Switch*

## Specifications

### Physical Interface
- 8 10/100BaseTX ports
- RJ-45 Serial Port on Front Panel
- RJ-45 connectors

### Dimensions
- Switch is 6U single slot VME form factor
- Rear Transition Module is 6U single slot VME form factor

### Weight
- RM984RC-010    .605 pounds
- RM984RC-030    .605 pounds
- RM984RC-050   1.454 pounds

### Power Requirements
- 8 copper ports: 6 Watts (max)

### Environmentals
- Air Cooled Commercial Temperature
  - Operating Temperature: 0°C to +55°C with 300 LFM airflow
  - Storage Temperature: -40°C to +100°C
  - Shock: 20g peak Sawtooth, 11mS
  - Vibration: 0.002g/Hz from 10 to 2000Hz random and 2g sinusoidal from 5 to 500Hz
  - Humidity: Up to 95% RH with 300 LFM airflow
- Rugged  Air Cooled Industrial Temperature
  - Operating Temperature: -40°C to +85°C with 600 LFM airflow
  - Storage Temperature: -40°C to +100°C
  - Shock: 20g peak Sawtooth, 11mS
  - Vibration: 0.04g2/HZ 20 to 2000Hz with a flat response to 1000Hz, 6dB/octave roll-off from 1000-2000Hz
  - Humidity: Up to 95% RH with varying temperature, 10 cycles, 240 hours
- Conduction Cooled
  - Operating Temperature:  -40°C to +85°C
  - Storage Temperature: -40°C to +100°C
  - Shock: 40g peak Sawtooth, 11mS
  - Vibration: Random 0.01g2/Hz from 15 to 2000Hz per MIL-STD-810E figure 514.4-8 for high performance aircraft ~ 12g RMS
  - Humidity: Up to 95% RH with varying temperature, 10 cycles, 240 hours

### MTBF
- RM984RC-010 - 1,151,010 hours calculated at 40°C, Ground Benign, Controlled
- RM984RC-030 - 1,124,159 hours calculated at 40°C, Ground Benign, Controlled
- RM984RC-050 - 1,275,455 hours calculated at 40°C, Ground Benign, Controlled

### Regulatory Compliance
- European Union (CE Mark) - EN55024:1998/A1:2001/A2:2003 ITE immunity characteristics
- European Union (CE Mark) - EN55022: 2006/A1:2007 Class A ITE emmissions requirements

## Block diagram
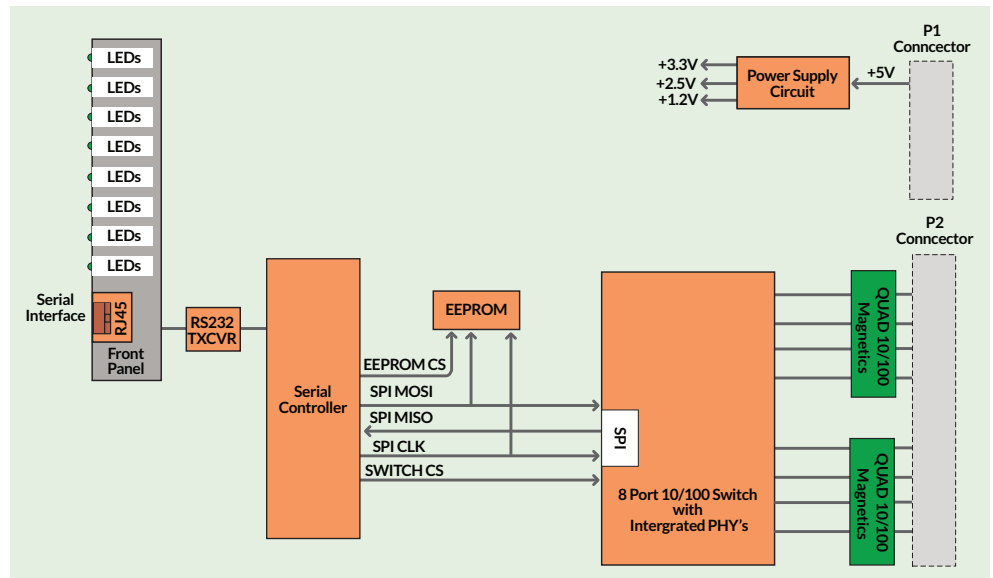


- United States - FCC 47 FR Part 15, Class A emissions
- Canada - ICES-003, issue 4
- Japan - VCCI Class A ITE emissions
- Australia - AS/NZS CISPR 22:2006 Class ITE emissions requirements

### Safety
- UL60950-1 (Second Edition); CSA C22.2 No. 60950-1-07; EN60950-1 :2006 Low Voltage
- EN300 386v1.4.1 EMC requirements for Telecom equipment

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