RTM4808

PERFORMANCE TECHNOLOGIES

Highlights

>> **PICMG® 2.16-Compliant**

>> **Rear Panel Interfaces Include:**
  • **Ethernet Channels A + B**
  • **Ethernet Link and Activity Status LEDs**
  • **Two Serial Ports**
  • **Keyboard/Mouse- Combination PS/2 Connector**
  • **VGA**
  • **Two USB Connectors**

>> **Internal Floppy and IDE Interfaces**

>> **Rear Panel Reset and NMI Switches**

>> **Rear Panel LEDs (Hot-Swap and IDE Activity)**

>> **Internal CompactFlash® Interface**

This single-slot, 6U board provides rear panel access to the I/O functions of an IPnexus™ single board computer (SBC) with RPIO-pin compatibility, such as the IPnexus ZT 5504e System Master Processor Board. It is also designed to function with other third-party PICMG® 2.16-compliant SBCs. The IPnexus RTM4808 easily snaps into the rear panel slot of a 6U PICMG 2.16-compliant CompactPCI® system such as the IPnexus ZT 5091e 4U Packet-Switched Platform.

The RTM4808 routes all cabling out the back of a system and provides access to a secondary IDE channel, Com1 and 2 serial ports and a floppy disk drive. It allows for trouble shooting and servicing of a system without disruption of the processor board, thus enhancing the reliability and availability of the system, particularly while running diagnostics or conducting maintenance.

Key Design Elements

Ethernet
The RTM4808 provides two rear panel RJ-45 Ethernet connectors that connect to the host SBC through the RPIO connector J3.

Input/Output
The RTM4808 provides two RS-232 serial port connectors and a PS/2-style keyboard/mouse port (requires a 'Y' splitter cable). Rear panel access is provided to the VGA video and USB signals on the host SBC.

Internal Interfaces
An internal IDE channel supports two IDE devices simultaneously or one IDE device when a Type I/II CompactFlash® expansion card is installed. A special 40-pin, 80-conductor cable is necessary for IDE device connection. Power for the IDE device can be drawn from an on-board power connector at J8 when supplemental power is supplied to power connector J9. Two LEDs on the front plate indicate hot-swap and IDE device activity. The hot-swap LED receives information from the baseboard management controller (BMC) on the SBC indicating when it is safe to remove the rear panel board. The second LED indicates activity on the IDE interface and/or the Compact-Flash expansion card.

The CompactFlash is selectable as a master or slave, using an on-board switch. A floppy drive connector and 4-pin floppy power connector (J8) for external media are available on the internal portion of the board. For cable information, please see "Accessories" in the ordering information section.

Switch Options

The RTM4808 features two push-button switches on the face plate - one to reset the host SBC and one to issue a non-maskable interrupt (NMI). A hot-swap ejector switch is incorporated into the lower ejector mechanism to notify the SBC of the necessity to shut down, should the RTM4808 need to be removed.

Warranty

One year

Contact Information

Performance Technologies
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Rochester, NY 14626
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Fax: 585-256-0791
E-mail: sales@pt.com

www.pt.com

Ordering Information

>> **A single version of the RTM4808 is available (RTM4808eA)**

>> **Accessories:**
- ZT 90251: 20" IDE Floppy Power Cable
- ZT 90252: 14" IDE Power Cable

>> **The RTM4808 is compatible with the following products:**

SBC Compatibility
- ZT 5504eA
- ZT 5524eA

Chassis Compatibility
- ZT 5088eA
- ZT 5085eA
- ZT 5091eA

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Specifications

- CompactPCI® core specification, PICMG® 2.0 R3.0
- CompactPCI hot-swap specification, PICMG 2.1 R2.0
- CompactPCI system management, PICMG 2.9 R1.0
- CompactPCI packet switching backplane specification, PICMG 2.16 R1.0
- Designed to be NEBS-compliant

Power Req.	Min.	Typ.	Max.
Supply Voltage, VCC	4.75V	5.00V	5.25V
Supply Current, VCC = 5.0V	0mA	—	2A†
VCC3	3.135V	3.3V	3.465
Current	0mA		200mA
12 VDC in on J8	11.4V	12.0V	12.6V
Current	—	6A‡	—

† (Spin up on two 2.5" hard drives simultaneously)
‡ fuse protected

Mechanical
- Measures: 9.2" x 3.2" (233.35 mm x 80 mm)
- Width: 0.8" (1 slot - 4HP)
- Weight: 202 grams (7.13 oz)
- Connector: IEC-1076-4-101 (J5)

Environmental
- Operating Temperature: 0 to +55 C
- Storage Temperature: -40 to +85 C
- Relative Humidity: < 95% at 40 C, non-condensing

Peripherals and I/O interfaces
The RTM4808 transitions I/O signals from the processor board for rear panel use via the J5, 95-pin, 2 mm x 2 mm, female connector.

I/O Interface	Compatibility
COM1 Serial Port	9-Pin D-shell, 16550
COM2 Serial Port	9-pin D-shell, 16550
PS/2 Keyboard/Mouse Connector	6-pin, DIN, PS/2
Ethernet Connector A	8-pin, RJ-45, with integral LEDs
Ethernet Connector B	8-pin, RJ-45, with integral LEDs
VGA	15-pin D-shell
USB 0	4-pin USB, Type A
USB 1	4-pin USB, Type A
Internal I/O Interface	
CompactFlash	Type I/II expansion cards
Secondary IDE Interface	40-pin Ultra DMA/33

Note: To provide proper cooling to the RTM4808, each unused slot in the chassis should be populated with an air management blade. All rear slots should be populated with a rear filler panel. See the list below for orderable components:

- To cover a single rear panel slot, use a filler panel that is 6U x 4HP (horizontal pitch=0.2") (Performance Technologies PN 18299).
- To cover six rear panel slots, use a filler plate that is 6U x 24HP (Performance Technologies PN 20434).
- To fill a front slot, use an air management blade that is 6U x 4HP (Performance Technologies PN 20456).
- To fill a power supply bay, use an air management blade that is 3U X 8HP (Performance Technologies PN 20455).
- To fill an SM slot, use a filler panel that is 3U X 4HP (Performance Technologies PN 18309).

Regulatory Compliance

CE Certification
The RTM4808 Rear Panel Transition Board meets intent of Directive 89/336/EEC for Electromagnetic Compatibility and Low-Voltage Directive 73/23/EEC for Product Safety. Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Communities:

Safety
- UL/cUL 60950 Safety for Information Technology Equipment
- EN/IEC 60950 Safety for Information Technology Equipment
- CB Report Scheme CB Certificate and Report

Emissions Test Regulations
- FCC Part 15, Subpart B
- EN 55022
- CISPR 22
- Bellcore GR-1089

EN 50081-1 Emissions
- GR-1089-CORE Sections 2 and 3
- EN 55022 Class A Radiated
- EN 55022 Power Line Conducted Emissions
- EN 61000-3-2 Power Line Harmonic Emissions
- EN 61000-3-3 Power line Fluctuation and Flicker

EN 55024 Immunity
- GR-1089-CORE Sections 2 and 3
- EN 61000 4-2 Electro-static Discharge (ESD)
- EN 61000 4-3 Radiated Susceptibility
- EN 61000 4-4 Electrical Fast Transient Burst
- EN 61000 4-5 Power Line Surge
- EN 61000 4-6 Frequency Magnetic Fields
- EN 61000 4-11 Voltage dips, Variations & Short Interruptions