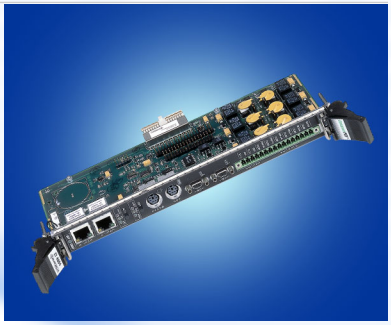
PERFORMANCE TECHNOLOGIES

ZT4804

Rear Panel Transition Board



Highlights

- >> Dual RJ-45 Ethernet A and B Channels
- >> Dual (MDSM) DB-9 Serial Connectors
- >> Two Jumper-Selectable User Inputs
- >> Host Hot-Swap Activation via Bottom Ejector Latch Circuitry
- >> Internal Floppy and IDE Interfaces
- >> Rear Panel Switches for Alarming, Reset and Hot-Swap Initiate

This 6U, single-slot, rear panel transition board with alarm outputs provides rear panel access to the I/O functions of a number of Performance Technologies single board computers (SBC), specifically the ZT 5503 and ZT 5551. It is designed to function in the rear panel slot of several Performance Technologies 6U CompactPCI® systems and enclosures, providing interfaces for two user inputs and six alarm relay outputs.

The ZT 4804 allows for efficient troubleshooting and servicing of a system without disruption of the CPU board. All cabling is managed via the transition board, thus enhancing the reliability and availability of the system while running diagnostics or conducting maintenance.

Key Design Elements

Ethernet

The ZT 4804 transitions an SBC's Ethernet channels A and B for rear panel access. Both 10 Mbit/s and 100 Mbit/s Ethernet protocols are provided through each of two RJ-45 rear panel connectors. (Note: Ethernet channel B is not accessible to the rear panel in a high availability system due to the fact that it is bused to the redundant processor board, through backplane connector J5, as an inter-processor communications channel.)

SMBus

Access to alarm and system monitoring functions is provided by incorporating an SMBus interface to the processor board, providing isolation of the local SMBus from the processor board, however, during hot-swap cycles. All SMBus devices are accessed via a unique device driver. SMBus implementation provides two 8-bit registers for I/O and control functions.

Input/Output

Two optically-isolated debounced inputs are provided for application use. The inputs must be biased from an external source and are configurable through jumpers to sense either 0-5VDC or 0-60VDC input levels. Reverse polarity and overvoltage protection are provided.

These inputs are available as rear panel inputs only; no provision is made for front panel connections. The ZT 4804 provides six alarm relay outputs, allowing configuration of the output pin pair as either a normally-open or normally-closed pole, through jumpers.

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Two serial port connectors, J2 and J4, provide an alternative means of accessing COM1 and COM2 serial ports, respectively. Additionally, the ZT 4804 provides access to a processor board's secondary EIDE channel and floppy controller through internal connectors. A PS/2-style keyboard connector can be used in lieu of the connector on the host SBC. The ZT 4804 also supports a PS/2-style mouse port.

Alarm Cut Off (ACO) and reset push-button switches are provided, along with an ejector-sense mechanism for triggering a hot-swap event. LEDs indicate floppy access, IDE access, ACO, Alarm Conditions (critical, major, minor) and hot-swap removal of the ZT 4804.

Warranty

One year

Contact Information

Performance Technologies
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www.pt.com

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Ordering Information

>> **To discuss specific requirements and/or pricing, contact sales@pt.com.**

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Specifications

Power Req.	Min.	Typ.	Max.
Supply Voltage, Vcc	4.75V	5.00V	5.25V
Supply Current, Vcc=5.0V	0mA	-	500mA

Each ZT 4804 relay output offers a normally-open and normally-closed pole position, and has the following maximum contact ratings:

- Rated Resistive Load: 0.4 A @ 125 VAC, 2.0 A @ 30 VDC
- Rated Inductive Load: 0.2 A @ 125 VAC, 1.0 A @ 30 VDC
- Operating Voltage: 250 VAC, 220 VDC
- Operating Current: 3.0 A (AC resistive), 3.0 A (DC resistive), 1.5 A (AC inductive), 1.5 A (DC inductive)
- Switching Capacity: 50 VA, 60 W (resistive), 25 AV, 30 W (inductive)
- Minimum Load: 10 uA at 10 mVDC

Mechanical

- Measures: 9.2" x 3.2" (233.35mm x 80mm)
- Width: 0.8" (1 slot - 4HP)
- Weight: 236 grams (8.0 oz)
- Connector: IEC-1076-4-101 (J1-J5)

Environmental

- Operating Temperature: 0 to +65 C
- Storage Temperature: -40 to +85 C
- Relative Humidity: < 95% at 40 C, non-condensing

Peripherals and I/O interfaces

The ZT 4804 transitions I/O signals from the CPU board for rear panel use via the J3, 95-pin, 2 mm x 2 mm, female connector.

I/O Interface Rear Panel	Compatibility
User Input/Alarm Relay Output Conn.	16-pin
COM1 Serial Port	9-pin, MDSM
COM2 Serial Port	9-pin, MDSM
PS/2 Keyboard Connector	6-pin, DIN, PS/2
PS/2 Mouse Port Connector	6-pin, DIN, PS/2
Ethernet Connector A	8-pin, RJ-45
Ethernet Connector B	8-pin, RJ-45
Internal I/O Interface	**Compatibility**
EIDE Connector	40-pin
Floppy Drive Connector	34-pin

Note: To provide proper cooling to the ZT 4804, 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

Designed for NEBS/ETSI

CE Certification

The ZT 4804 meets intent of Directive 89/336/EEC for Electromagnetic Compatibility & 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