PERFORMANCE TECHNOLOGIES

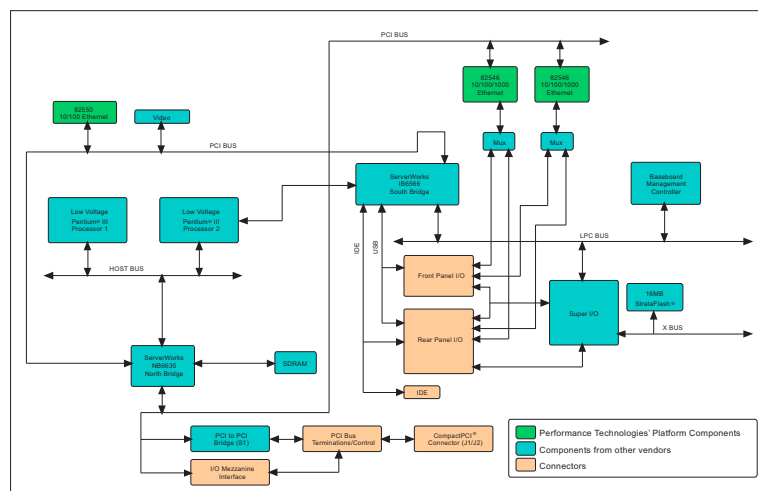# ZT 5524e

Single Board Computer

Highlights

>> **Single or Dual 1GHz Intel® Pentium® III Processors Support Symmetric Multiprocessing in a Single CompactPCI® Slot**

>> **Integrated 512KB Layer2 Cache**

>> **ServerWorks® LE Chipset**

>> **33/66MHz, 64-bit CompactPCI System Bus Interface**

>> **Supports up to 4GB, PC133 SDRAM Memory**

>> **16MB Onboard Flash Memory Contains Field-Upgradeable Bios and Provides Space for User Programs**

>> **Single 10/100 Mb/s Ethernet Interface (Front Panel Only)**

>> **Dual 10/100/1000 Mb/s Ethernet Interfaces (Front Panel and Backplane)**

This high-performance, standards-based building block is designed for carrier-grade telecom and Internet applications requiring exceptional processing power and high availability. The dual-processor/Redundant Host ZT 5524e board is PICMG® 2.16-compliant and offers configurable high availability, I/O expansion and 66MHz CompactPCI® bridging features. A generous set of onboard embedded features and reliable, off-the-shelf architecture address the integration and reliability requirements of OEM systems builders. Support for major operating systems, including real-time software, speeds application development.

An optional mezzanine/bridge card, the ZT 4901e provides dual 64/66MHz PMC slots, CompactPCI bus-segment bridging at 33MHz or 66MHz, and dual Fibre Channel interfaces. With the addition of the mezzanine/bridge card, the ZT 5524e Single Board Computer supports high availability Redundant Host operation in the ZT 5085e 12U Redundant Host Packet-Switched Platform. The ZT 5524e coupled with the mezzanine/bridge card also supports 66MHz CompactPCI bus-segment bridging in the ZT 5088e 12U General Purpose Packet-Switched Platform.

The single-slot ZT 5524e board is part of our IPnexus family of embedded packet products and is also designed to interoperate with any third-party PICMG 2.16-compatible boards.

Highlights

>> **Accepts 2.5" Low-Profile, Board Mounted EIDE Hard Drive or Optional CompactFlash® Type II Drive Carrier**

>> **Standard Memory and Hard Drive**

>> **Optional ZT 4901e Mezzanine/Bridge Card Provides Dual 64/66MHz PMC Slots, CompactPCI Bus-Segment Bridging at 33 or 66MHz and Dual Fibre Channel Interfaces**

Product Interoperability

The ZT 5524e processor board is designed to interoperate with the following building blocks (see individual product briefs for details):

Platforms
- ZT 4901e: Mezzanine card providing CompactPCI bus-segment bridging at 33 or 66 MHz, dual PMC slots and dual Fibre Channel interface
- ZT 5085e: 12U Redundant Host Packet-Switched Platform with 18 node slots, two fabric slots, PICMG 2.16-compliant midplane, two chassis management modules
- ZT 5088e: 12U General Purpose Packet-Switched Platform with 18 node slots, two fabric slots, PICMG 2.16-compliant midplane, two chassis management modules
- ZT 5091e: 4U Packet-Switched Platform with seven node slots, one dedicated fabric slot, eight rear transition modules slots, one chassis management module

Ethernet Switches
- IPnexus switches: 10/100/1000 switches capable of fulfilling the promise of the PICMG 2.16 standard

Management
- CPC7301: Intelligent shelf manager (ISM)

Components
- ZT 4807eA: Rear panel transition board
- RTM4808A: Rear panel transition board
- ZT 90231: PS/2 to XT keyboard adapter

Contact Information

Performance Technologies
205 Indigo Creek Dr.
Rochester, NY 14626
Tel: 585-256-0200
Fax: 585-256-0791
E-mail: sales@pt.com

www.pt.com

Ordering Information

The ZT 5524e Single Board Computer may be ordered with the following options:

>> **Base Board**
B1: Single 1GHz Intel®
Pentium® III processor, IPMI, AGP
B2: Dual 1GHz Intel Pentium III processor, IPMI, AGP

>> **Memory**
M1: 512MB PC133 SDRAM with ECC
M2: 1GB PC133 SDRAM with ECC

>> **Hard Drive/**
CompactFlash® Carrier
H0: No hard drive or CompactFlash carrier
H1: EIDE hard drive
H2: CompactFlash carrier

>> **I/O Expansion Mezzanine**
(requires second slot)
X0: No mezzanine
X1: Dual PMC with Fibre Channel

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Specifications

The ZT 5524e is compliant with the following specifications:

- Compliant with PICMG 2.0 R3.0 (CompactPCI) and PICMG 2.1 R2.0 (Hot-Swap) Specifications
- Compliant with PICMG 2.16 (Packet-Switched Backplane) and 2.9 (CompactPCI System Management)
- Designed for NEBS Level 3 and ETSI installations
- Compliant with the standard IPMI v1.5 specification

Power

	Dual 1GHz		Single 1GHz	
	1GB SDRAM		1GB SDRAM	
Voltage (VDC)	Typical	Max.	Typical	Max.
5.00 V, +5%, -3%	5.1	7.2	3.1	3.5
3.30 V, +5%, -3%	5.0	7.0	5.0	7.0
12.0 V, ±10% 0.3	10mA	100mA	10mA	100m

Environmental
- Required airflow: 250 linear feet per minute (LFM)
- Operating temperature: 0° C to 45° C
- Storage temperature: -40° C to +85° C
- Non-condensing relative humidity: less than 95% at 40° C

Peripherals & I/O Interfaces

I/O Interface	Front Panel	Rear Panel	Compat.
GB Ethernet (2X)	RJ-45	J3	82546
10/100 Ethernet	RJ-45	N/A	82550
COM 1	RJ-45	J5	16C550-compatible
COM 2	N/A	J5	16C550-compatible
PCI Video	D-Sub 15-Pin	J5	SMI 712 PCI
Keyboard	6-Pin mini-DIN†	J5	PS/2-compatible
Mouse	6-Pin mini-DIN†	J5	PS/2-compatible
Floppy	N/A	J5	ATA-100
EIDE	N/A	J5	
USB	4-pin USB, port 0	J5	

† Combination PS/2 mini-DIN connector

Note: To provide proper cooling to the ZT 5524e, 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") (PN 18299).
- To cover six rear panel slots, use a filler plate that is 6U x 24HP (PN 20434).
- To fill a front slot, use an air management blade that is 6U X 4HP (PN 20456).
- To fill a power supply bay, use an air management blade that is 3U X 8HP (PN 20455).
- To fill an SM slot, use a filler panel that is 3U X 4HP (PN 18309).