

Intel® NetStructure™ ZT 5524

High-Performance System Master Processor Board

Product Overview

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 5524 board is PICMG* 2.16-compliant and offers configurable high availability, I/O expansion, and 66MHz CompactPCI* bridging features. A generous set of on-board 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.

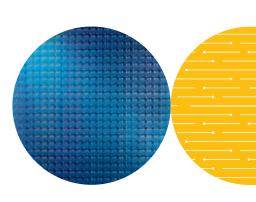
An optional expansion mezzanine card provides dual PMC slots, CompactPCI bus-segment bridging at 33MHz or 66MHz, and dual Fibre Channel interfaces. With the addition of the Intel® NetStructure™ ZT 4901 I/O Mezzanine Expansion Card, the ZT 5524 system master processor board supports high-availability redundant-host operation in the Intel® NetStructure™ ZT 5085 12U Redundant Host Packet Switched Platform. The ZT 5524/ZT 4901 board combination also supports 66MHz CompactPCI bus-segment bridging in the Intel® NetStructure™ ZT 5088 12U General Purpose Packet Switched Platform.

The single-slot ZT 5524 board is designed to interoperate with the entire Intel® NetStructure™ family of packet switched backplane products, and with third-party building blocks meeting the PICMG 2.16 specification.



Product Highlights

- Single 933MHz and Dual 933MHz Intel®
 Pentium® III processors support symmetric multiprocessing in a single CompactPCI slot
- Integrated 512KB L2 cache
- ServerWorks* LE chipset
- 33/66MHz, 64-bit CompactPCI system bus interface
- Single 168-pin, right-angle DIMM module socket supports up to 1GB PC133 SDRAM memory
- 16MB on-board flash memory contains field-upgradeable bios and provides space for user programs
- Dual 10/100/1000 Mb/s Ethernet interfaces (front panel and backplane)
- Accepts 2.5" low-profile, board-mounted
 EIDE hard drive or optional CompactFlash*
 Type II drive carrier

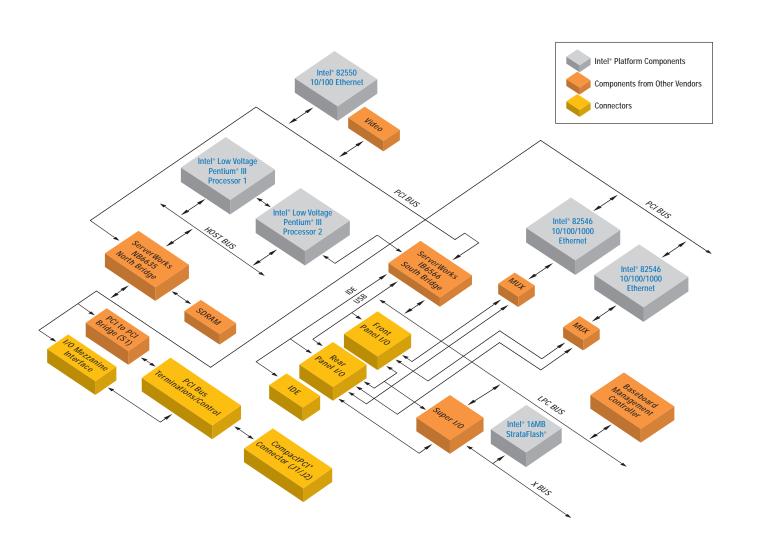


Intel in Communications

Product Highlights (continued)

- Dual-stage watchdog timer; failure to strobe within a programmable time period (from .25s to 256s) can generate a non-maskable interrupt (NMI), followed by a hardware reset
- Baseboard Management Controller (BMC) monitors, controls and performs diagnostic functions using the Intelligent Platform Management Interface (IPMI)
- An embedded BIOS, user-configurable to load an operating system from a variety of boot devices, is loaded in on-board flash memory
- Support for major operating systems including Windows* 2000, Linux*, and VxWorks*
- Built-in PCI video controller for display and graphics support

Block Diagram



Specifications

The most current product specifications and order options are posted on the Web version of this product brief (developer.intel.com/design/network/products/cbp/linecard.htm).

Specifications – The ZT 5524 board 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 933M		GB SDRAM	Single 933MHz, 1GB SDRAM	
= Voltage (VDC) = 5.00 V, +5%, -3% = 3.30 V, +5%, -3% = 12.0 V, ±10% 0.3	Current (A) Typical 5.1 5.0 10mA	Max. 7.2 7.0 100mA	Current (A) Typical 3.1 5.0 10mA	Max. 3.5 7.0 100m
Environmental				
 Required airflow Operating temperature Storage temperature Non-condensing relative humidity Peripherals & I/O Interfaces	250 linear feet per minute (LFM) 0° C to 55° C -40° C to +85° C less than 95% at 40° C			
	I/O Interface	Front Panel	Rear Panel	Compatibility
	GB Ethernet (2X) 10/100 Ethernet COM 1 COM 2 PCI Video Keyboard Mouse Floppy EIDE USB	RJ-45 RJ-45 RJ-45 N/A D-Sub 15-Pin 6-Pin mini-DIN† 6-Pin mini-DIN† N/A N/A 4-pin USB, port 0	J3 N/A J5 J5 J5 J5 J5 J5 J5	82546 82550 16C550-compatible 16C550-compatible 69000 PS/2-compatible PS/2-compatible

[†] Combination PS/2 mini-DIN connector

Ordering Information

The Intel® NetStructure™ ZT 5524 High-Performance System Master Processor Board may be ordered in the following configurations:

ZT 5524A-1A: Dual 933MHz Intel® Pentium® III processors

ZT 5524A-1B: Single 933MHz Intel Pentium III processor The ZT 5524 processor board is designed to interoperate with the following Intel NetStructure building blocks (please see individual product briefs for details):

Platforms

ZT 5085: 12U Redundant Host Packet Switched Platform with 18 node slots, two fabric slots, PICMG 2.16-compliant midplane, two chassis management modules

ZT 5088: 12U General Purpose Packet Switched Platform with 18 node slots, two fabric slots, PICMG 2.16-compliant midplane, two chassis management modules

ZT 5090: 4U General Purpose Packet Switched Platform with seven node slots, one fabric slot, one chassis management module

Ethernet Switch

ZT 8101: 10/100 24-Port Ethernet managed Layer 2/3 Switch with 2Gbps uplinks

ZT 8102: 16 port Layer 2/3 Gigabit Ethernet Switch

ZT 8102HA: 16 port Layer 2/3 Gigabit Ethernet Switch

with high availability management software

Management

ZT 7102: IPMI-based chassis management module

Components

ZT 4807: Rear-Panel Transition Board

ZT 4901A-1A: I/O Mezzanine Extension Card with two PMC slots, dual Fibre Channel interfaces, CompactPCI bridging, and redundant-host operation in ZT 5085 platform

Intel Access

Developer's Site:

Networking and Communications Design Components:

Other Intel Support:

developer.intel.com

developer.intel.com/design/network

Intel Literature Center developer.intel.com/design/litcentr/ (800) 548-4725 7 a.m. to 7 p.m. CST (U.S. and Canada)

International locations please contact your local sales office.

(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST

General Information Hotline:

For more information, visit the Intel Web site at: developer.intel.com

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