



Is there a better alternative to desktop-class motherboards for entry-level server applications and appliances?

The Intel® Entry Server Board S875WP1-E delivers essential server features.

• Intel® Entry Server Board S875WP1-E Product Brief



The Intel® Entry Server Board S875WP1-E accommodates an Intel® Pentium® 4 processor with Hyper-Threading Technology¹, Error-Correcting Code memory, and two Serial ATA ports with an option for four more supporting RAID 0, 1, and 10.

Intel® Entry Server Board S875WP1-E

Business productivity is significantly influenced by server performance, availability, and scalability, even in the most basic applications. This means that businesses need a server-level system, especially when it comes to essential components such as the motherboard, if they are to accommodate multiple simultaneous users, perform intensive calculations, and protect critical data. To meet such requirements, Intel offers the Intel® Entry Server Board S875WP1-E.

Delivers the Essentials

The Intel Entry Server Board S875WP1-E delivers essential features for entry-level server applications, such as 4GB Error-Correcting Code (ECC) DDR memory capacity, Serial ATA RAID, and dual Intel server network connections. It also supports one Intel® Pentium® 4 processor with Hyper-Threading Technology¹ and contains Server System Infrastructure (SSI) components for power, reliability, and flexibility.



The Entry Server Board S875WP1-E is ideal for entry-level pedestal and rack server solutions, including Web hosting, Domain Name Server, file (storage) and printer sharing, firewall, proxy, and Virtual Private Network.

The Intel Entry Server Board S875WP1-E offers power and versatility to businesses running entry-level server applications.



Features

Support for one Intel® Pentium® 4 processor with a system bus of up to 800 MHz and Hyper-Threading Technology²

Intel® 875P chipset with Intel® Performance Acceleration Technology

Two integrated server network connections (one Intel® PRO/100+ Server Network Connection and one Intel® PRO/1000 XT Server Network Connection)

Multiple data buses including a Communication Streaming Architecture (CSA)

Support for up to 4 GB of Error-Correcting (ECC) DDR266/333/400 memory through four DIMM sockets

Two integrated Serial ATA ports with support for RAID levels 0 and 1³

Option for four additional Serial ATA ports with support for RAID levels 0, 1, and 10

Three 32-bit/33MHz PCI slots

Integrated ATI RAGE® XL SVGA PCI video controller and AGP 8X slot

Heceta® management controller and LANDesk® Client Manager-based management solution⁴

Three-year limited warranty

Benefits

Excellent processing performance for entry-level server applications

Reduced latency for quick response

Added reliability with options for separate subnets, teaming, and fail-over

Provides a dedicated link to the Intel PRO/1000 XT Server Network Connection for rapid network communication

High availability and data integrity through ECC, memory capacity to support demanding applications

Advanced data protection with up to 150 MB/sec throughput per drive using Serial ATA hard drives

Striping performance without sacrificing mirroring data protection (through RAID level 10)

Expansion flexibility

High-quality video without the need for a video adapter card, or AGP video with an AGP card

Proactive monitoring and remote server management for maximum availability

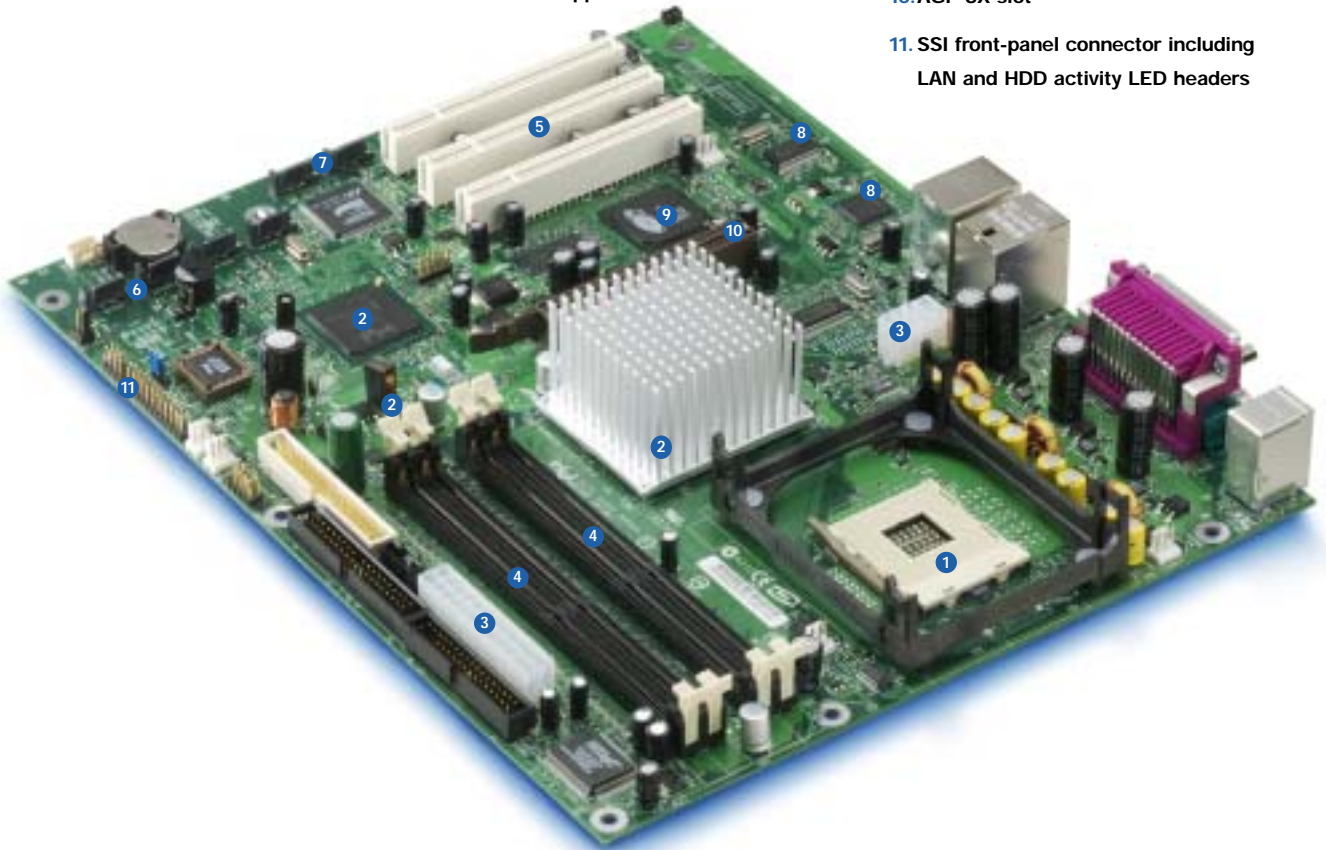
Peace of mind

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Intel® Entry Server Board S875WP1-E

Meticulous design, thorough validation, and extensive testing mean less development work, higher quality, and faster time-to-market.

1. Support for one Intel® Pentium® 4 processor with a system bus of up to 800 MHz
2. Intel® 875P chipset with Intel® Performance Acceleration Technology
3. SSI power connectors for an EPS12V or ATX12V power supply
4. Up to 4 GB of ECC DDR266/333/400 unbuffered SDRAM
5. Three 32-bit/33MHz PCI slots
6. Two Serial ATA ports with RAID 0 and 1 support²
7. Optional four Serial ATA ports with RAID 0, 1, and 10 support
 - Promise® Technology PDC20319 controller
8. Two server network connections:
 - Intel® PRO/100+ Server Network Connection
 - Intel® PRO/1000 XT Server Network Connection
9. Integrated graphics
 - ATI® RAGE® XL SVGA video controller with 8 MB of memory
10. AGP 8X slot
11. SSI front-panel connector including LAN and HDD activity LED headers



The Intel Pentium 4 processor supporting Hyper-Threading Technology provides exceptional performance for diverse entry-level server applications.



The Boxed Intel® Entry Server Board S875WP1-E

The hardware, software, and documentation you need to build entry-level servers quickly.

Included for easy integration:

1. One Intel® Entry Server Board S875WP1-E
2. Quick Start User Guide
3. CD-ROM with LANDesk® Client Manager software, software drivers, configuration tools, and technical product information
4. Two Serial ATA cables (four Serial ATA cables with the S875WP1LX model)
5. One floppy-drive cable
6. One ATA/66/100 hard-drive cable
7. ATX 2.01-compliant I/O shield
8. Configuration label, stickers, and back-panel label



Deliver industry-leading server technology and world-class customer support. With Intel, you can.



Technology leadership. Take advantage of Intel's 20 years of experience designing and engineering industry-leading server building blocks such as the Intel Pentium 4 processor.

Unsurpassed quality. Intel spends 10,000+ hours testing and validating every piece of an Intel server stack. Uncompromising quality standards translate into higher reliability, fewer repairs, and greater customer satisfaction.

World-class technical support. Intel offers 24x7 phone and Web-based technical support, Advanced Warranty Replacement, a three-year limited warranty, spares kits, and extensive technical training. Integrators also have access to a wealth of sales and marketing support in the form of sales tools, videos, and high-quality images for advertising. For more information on Intel's added-value server offerings please visit:

www.intel.com/go/serverbuilder

With Intel, you can give your customers access to the latest server technologies, exceptional quality, and highly responsive technical support.

Complete Your Intel® Entry Server Board S875WP1-E with Intel® Server Building Blocks

Add the following Intel building blocks to your Intel® Entry Server Board S875WP1-E to help ensure a highly reliable, available, and scalable server:

Intel® Entry Server Chassis SC5250-E is designed for easy integration with the Server Board S875WP1-E. This pedestal form-factor server chassis delivers:

- Four one-inch fixed-drive bays
- Three peripheral bays
- 450W PFC power supply
- SSI-compliant front panel



Intel® Server Chassis SC5200 (base redundant power configuration) provides a highly scalable pedestal or 5U rack chassis with redundant-power capability.



Intel® Pentium® 4 Processors, with a system bus of up to 800 MHz and Hyper-Threading Technology², are designed to provide superior performance for demanding applications and environments.



Intel® RAID Controllers help to protect data, applications, and the server operating system from disk failures and are part of an affordable, high-performance line of Intel RAID products, all of them tested and validated for easy integration.



Intel® PRO Server Adapters, including Gigabit Ethernet server adapters, help to reduce bottlenecks and boost availability with industry-leading performance and advanced server features.



Intel® Entry Server Chassis SC5250-E

Intel server building blocks are validated to work together, helping to save R&D, validation, and support expenses —and speed your time to market.

Use the Intel Entry Server Board S875WP1-E to build the right solution for your customers. The Intel Server Chassis SC5200 and Server Chassis SC5250-E are designed to support the Entry Server Board S875WP1-E and provide you with the flexibility, performance, quality, and reliability you expect from Intel.



Intel® Entry Server Board S875WP1-E Specifications

Processor
Intel® Pentium® 4 processors with a system bus of up to 800 MHz and Hyper-Threading Technology²; for the latest processor support information, visit <http://support.intel.com/support/motherboards/server>

System Memory
Memory Capacity Four DIMM sockets for up to 4 GB of unbuffered ECC DDR 266/333/400 memory
Memory Type Unbuffered ECC DDR266/333/400 SDRAM 72-bit, 184-pin gold-plated DIMMs
DIMM Sizes 128MB, 256MB, 512MB, 1GB
Memory Voltage 2.5 V only
Error Detection Corrects single-bit errors, detects double-bit errors (using ECC memory)

Integrated On-Board
Chipset Intel® 875P with Intel® Performance Acceleration Technology
Optional 4-Port Serial ATA RAID Controller On-board Promise® Technology SATA150TX4 4-Port Serial ATA RAID controller (PDC20319) configurable to RAID level 0, 1, or 10
Dual Network Connections One Intel® PRO/100+ Server Network Connection (Intel® 82562ET Controller) and one Intel® PRO/1000 XT Server Network Connection (Intel® 82547EI Controller)

Graphics ATI® RAGE® XL SVGA PCI video controller with 8 MB of video memory
Super I/O Controller SMSC® LPC47M172 I/O controller

Input/Output
CSA Port Communication Streaming Architecture port providing a dedicated link to the Intel PRO/1000 XT Server Network Connection for rapid network communication
PCI Three 32-bit/33MHz PCI slots
Serial ATA Two ports supporting RAID levels 0 and 1 with an option for an additional four ports supporting RAID levels 0, 1, and 10
IDE Two EIDE channels for a total of four IDE devices
USB Two stacked USB connectors for a total of four at the rear panel, one internal front-panel USB header to provide two USB ports
Serial Ports Two serial ports: one asynchronous 9-pin RS-232C, one via 10-pin internal header
Floppy Controller 1.44MB and 2.88MB, 3-mode support
Keyboard/Mouse PS/2, 8240A-compatible

Management Solution⁴
Hardware Heceta® management controller
Software LANDesk® Client Manager 6.3
Remote Management LAN access to system status, logs, configuration data, and utilities, without the need for a remote-management card
Server Monitoring To monitor temperatures, voltages, and fans
Server Troubleshooting Event filtering and proactive alerting via LAN

Validated Operating Systems
Microsoft® Windows® 2000 Server, Microsoft Windows Server® 2003, Microsoft Windows XP, Red Hat® Linux® 8.0

System BIOS
BIOS Type 8Mb Flash EEPROM with AMI® BIOS, Multiboot BBS (BIOS Boot Specification) 1.4-compliant
Special Features Serial console redirection, Plug and Play, IDE drive autoconfigure, SMBIOS 2.3.1, ECC/Parity support, multilingual support

Jumpers and Front-Panel Connectors
Jumpers BIOS configuration
Front-Panel Connectors SSI-compliant connector with power LED, NIC activity LEDs, power on/off switch, reset switch

Mechanical
Server Board Style ATX
Server Board Size 12" x 9.6"

Power Requirements
Power Supply ATX 12V- or EPS 12V-capable
+5V 7.06 A maximum continuous current
+5V Standby 1.5 A minimum continuous current
+12V 5.0 A maximum continuous current
+3.3V 12.0 A maximum continuous current
-5V 0.00 A maximum continuous current
-12V 0.25 A maximum continuous current

Environment
Ambient Temperature⁵ Operating (system): 10°C to 35°C; non-operating/storage (system): -40°C to +70°C
Relative Humidity Non-operating: 95%, non-condensing at 30°C

Safety Compliance
Canada UL/CUL 950-CSA 950 (UL Recognition Mark)
Europe EN60950: CE Mark-EU Directive 73/23/EEC
International IEC60950
Russia GOST-R 50377-92 (GOST-R Mark)
United States UL/CUL 950-CSA 950 (UL Recognition Mark)

EMI Verification
Based on a board configured in a compatible⁶ Intel host system
Australia/New Zealand Verified to AS/NZS 3548, Class A (C-tick Mark)
Canada Verified to ICES-003, Class A
Europe Verified to EN55022, Class A, and EN55024 (CE Mark-EU Directive 89/336/EEC)
International/Japan Verified to CISPR-22/VCCI, Class A
Korea RRL Certification to MIC Notices 1997-41 & 1997-42
Russia Verified to GOST-R 29216-91, GOST-R 50628-95 (GOST-R Mark)
Taiwan Verified to BSMI 13438, Class A (DOC)
United States Verified to FCC, Class A



Recommended Configurations and Order Codes

The table below provides several suggested configurations for pedestal and 2U form factors using the Intel® Entry Server Board S875WP1-E. Please see <http://www.intel.com/go/serverbuilder> for the most recent product updates.

Item	Pedestal Form Factor with 2-Port SATA RAID 0, 1 ³	Pedestal Form Factor with 2+4 Port SATA RAID 0, 1, 10	2U Form Factor with 2+4 Port SATA RAID 0, 1, 10
Intel® Entry Server Board S875WP1-E	S875WP1	S875WP1LX	S875WP1LX
Intel® Server Chassis Options			
Intel® Entry Server Chassis SC5250-E	KPTBASE450BLK	KPTBASE450BLK	2U requires a reference chassis ⁷
Hot-Swap SATA Drive Bay Upgrade (four bays) for Entry Server Chassis SC5250-E	ASATAHSDB	ASATAHSDB	—
Intel® Server Chassis SC5200 (base redundant power configuration)	KHD3RP450	KHD3RP450	2U requires a reference chassis ⁷
5U Rack Kit for Server Chassis SC5200	AHD2RACK ⁸	AHD2RACK ⁸	—

¹ HYPER-THREADING TECHNOLOGY (HT Technology): Using HT Technology with this product requires a Pentium 4 processor that supports this feature and an HT Technology-enabled chipset, BIOS and operating system. See <http://support.intel.com/support/motherboards/server/> for more information, including details on which processors and operating systems support this feature.
² Hyper-Threading Technology requires an Intel® Pentium® 4 processor that supports this feature.
³ Although the two SATA ports are designed to support SATA RAID 0 and 1 technology, the necessary software drivers were not available as of April 2003. SATA RAID 0 and 1 will not function without the drivers. Please visit <http://support.intel.com> for driver-availability information.
⁴ Use of LANDesk® Client Manager software is dependent on operating system. See LANDesk® documentation for details.
⁵ Environmental ambient temperature is the system-intake measurement for an Intel® Entry Server Board S875WP1-E installed in an Intel® Entry Server Chassis SC5250-E.
⁶ Compatible host system denotes the system(s) with which Intel tested the board and found it compliant.
⁷ Please see <http://support.intel.com> for a complete list of third-party reference chassis.
⁸ Intel® Server Chassis SC5200 (base redundant power configuration) is also compatible with AHD3RACK.

For the most current product information on Intel server building blocks, visit: www.intel.com/go/serverbuilder

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