

Intel® SC5000 Server Chassis

For Highly Reliable e-Business Solutions

Product Brief

- Allows for dual Intel® Pentium® III processor performance
- Pedestal or rack form factor
- Reliable
- Scalable
- 3-year limited warranty

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Intel® SC5000 Server Chassis

Dependable servers are the critical foundation of any successful e-Business. For high server availability, utilize Intel® server building blocks, including the new Intel® SC5000 server chassis. Available in three configurations, the SC5000 allows for a dual Intel® Pentium® III processor-based solution that is flexible, scalable, and built to keep your server up and running.

Versatility for the e-Business Economy

The Intel® SC5000 server chassis provides leading technology and flexibility for a variety of computing environments. The *Base Configuration* is excellent for an entry-level Internet, email, or print/file server.

The *Hot-Swap Configuration*, with hot-swap hard drive capabilities, is perfect for work-group and Internet server applications.

The *Redundant Power Configuration*, with hot-swap hard drive capabilities and a redundant power supply, is ideal for high-availability databases and rapidly growing e-Business needs. All configurations are capable of housing multiple hard drives and other peripherals needed to grow your server with your business.

Designed Specifically for Intel® Server Boards¹

To ensure top performance of all system components combine the SC5000 server chassis with a validated Intel® server board and Intel® Pentium® III processors. The SC5000 was designed such that Intel® server boards can be installed quickly and easily inside the chassis without the inconvenience of removing drive bays or power supplies.

Scalable Storage Capacity with Upgrade Kits

Two hot-swap drive bay upgrade kits are available for the SC5000. The first (product code AXXHSDRVUG) enables a Base chassis to be upgraded to a Hot-Swap chassis. The second (product code AHD2HSDRVUG) adds five hot-swap drive bays to a Redundant Power chassis for a total of ten hot-swap bays.

Features

Specifically designed and validated with Intel® server boards

Single 300-watt or 1+1 350-watt redundant power supply configuration

Advanced cooling system with up to four fans optimally placed to cool key server components

The Base chassis includes five fixed hard drive bays with Ultra160 SCSI and 10K RPM support

Both the Hot-Swap and Redundant Power chassis include five 1" Ultra160 SCSI hot-swap bays and two fixed drive bays

The Redundant Power chassis is upgradeable to include ten 1" Ultra160 hot-swap bays by using the AHD2HSDRVUG kit

Three 5.25" peripheral drive bays

Pedestal or rack configuration with single chassis

Extensive international safety and EMC regulatory approvals

Physical access protection and support of Intel® Server Control (ISC) software

Benefits

Supports Intel® Pentium® III processors; high reliability; quick and simple integration.

Ample power for full system integration and the option of added uptime protection

Actively monitored cooling supports full configuration of latest technology

Large storage capacity with room to grow your server with your business

Hot-swap drives make it possible to minimize or eliminate downtime when replacing a hard disk

Over 180 GB storage capacity

Greater flexibility in system configuration

Provides installation flexibility

Speeds time-to-market and lowers development investment expense

Designed-in security features and availability with automatic health monitoring, proactive messaging and post issue diagnostics

Installs in both Pedestal and Rack Form Factors

To meet space and physical location constraints, the SC5000 server chassis installs as either a standalone pedestal server or a member of a server rack. In the 5U rack form factor, the three peripheral bays are rotated 90 degrees to retain a convenient horizontal orientation. For solutions requiring a more compact server, the Intel® SR2000 2U rack server chassis (product code KB2HS) offers an excellent high-density option.

Offers Peace of Mind with Service and Support from Intel Dealers

Intel has obtained a multitude of international regulatory approvals for the SC5000 server chassis when integrated as specified.¹ Intel offers a three-year limited warranty, next-business-day replacement of parts on Intel server building blocks, and an optional SC5000 server spares kit to enable same-day service. In addition, Intel provides a dedicated support Web site, the SMaRT Tool, and technical support center access.



1. The Intel® L440GX+ Server Board is the first board validated for the SC5000. Please see <http://support.intel.com/support/motherboards/server/> for additional validations and integration guides.

1. Single or Redundant Power Supply.

The SC5000 has two power supply options sized and placed for system optimization. The first provides a powerful single 300-watt PFC supply. The second provides a 1+1 350-watt hot-swap, redundant PFC supply. With the redundant power option, the system has the ability to remain in operation during a failed voltage condition and remain online during replacement of one power module.

2. Robust Security and Server Management Capabilities.

The SC5000 server chassis protects access to internal server components using two locks and two intrusion sensors. A front panel lock protects all of the storage peripherals and the server's front panel. A padlock loop locks the side cover. The Intel® Server Control (ISC) software can be used to monitor sensors at both access points.

3. Excellent Cooling System.

Two optimally placed system fans cool the processors, hard drives, and other key electronics bay components. RPM sensors allow the fan speed to be monitored by Intel® Server Control (ISC). Specialized packaging, known as E-pack, holds the fans and channels airflow. Up to two additional fans are dedicated to the power supply.

4. Enhanced Front Panel.

The front panel includes a power button, a system reset button, an ACPI sleep switch, and a tool-activated NMI switch. LEDs on the panel provide power, hard drive activity, network activity, and general system fault information. Special functions, such as the ability to disable the power and reset buttons via software, provide enhanced security.

5. Managed Hot-Swap Hard Drives.

The SC5000's Hot Swap and Redundant Power configurations come with one hot-swap SCSI backplane and five hot-swap bays allowing removal and replacement of hard drives without powering down the server. Circuitry in the backplane enables managed hard drives via SAF-TE technology. Drive maintenance is simple with slide out drive trays that are easily accessible by opening the locking front bezel door.

6. Ten Hot-Swap Drive Bay Upgrade Kit.

An upgrade kit (product code AHD2HSDRVUG) enables a second SCSI backplane and five additional hot-swap bays to be installed within the Redundant Power chassis for a total of ten hot-swap bays.



Intel SC5000 Server Platform Options

Intel® Chassis Name	SC5000 Base	SC5000 Hot-Swap	SC5000 Redundant Power	SR2000 ²
Product code	KHDBASEU	KHDHSU	KHDHSRPU	KB2HS
Rack Kit Code	AHDRACK	AHDRACK	AHDRACK	Included
Spares kit code	FHDSPRS	FHDSPRS	FHDSPRS	FB2SPRS
Form Factor	Pedestal or Rack (5U)	Pedestal or Rack (5U)	Pedestal or Rack (5U)	Rack (2U)
Boards Supported ³	L440GX+ ³	L440GX+ ³	L440GX+ ³	L440GX+ ³
275 W PFC Power Supply				✓
300 W PFC Power Supply	✓	✓		
350 W PFC 1+1 Redundant Power Supply			✓	
Hot-Swap, Ultra160 SCSI Drive Bays ⁴	0	5	5 ⁵	4
Ultra160 SCSI or IDE Drive Bays (No Hot-Swap)	5	2	2	0
Peripheral Bays	3 @ 5.25" 1 @ 3.5"	3 @ 5.25" 1 @ 3.5"	3 @ 5.25" 1 @ 3.5"	1 @ 3.5" Slim-line CD ROM included

2. The Intel® SR2000 server chassis provides a high density, rack solution. For additional details, see the SR2000 product brief.

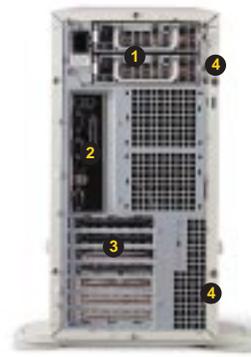
3. Please see <http://support.intel.com/support/motherboards/server/> for additional boards supported by the chassis.

4. The Ultra160 SCSI drives bays are compatible with Ultra2 SCSI.

5. Ten hot-swap Ultra2 or Ultra160 SCSI drive bays (and zero IDE bays) are possible with the AHD2HSDRVUG upgrade kit.



The SC5000 was designed specifically for Intel® server boards such as the Intel® L440GX+ Server Board (shown).



SC5000 Server Chassis, rear view

1. 350 Watt 1+1 PFC power supply
2. ATX compatible cutout for I/O shield installation
3. Expansion card access panels
4. Hand screws for easy, tool-free side panel removal

Intel® SC5000 Server Chassis Specifications

Form Factor

Pedestal or rack server chassis validated with Intel® L440GX+ Server Board and additional boards listed within the SC5000 section of <http://support.intel.com/support/motherboards/server>

Dimensions	Height	Width	Depth
Pedestal	17.5"	8.6" (12.6" w/ base)	26.9"
Rack	8.6"	16.9"	24.9" (25.6" w/ handles)
Color	Dusty Beige (Intel Color Standard 513505)		

Hard Drive Bay

Base Configuration Supports five Ultra2 or Ultra160 SCSI drives (1" height)

Hot-Swap Configuration Supports five Ultra2 or Ultra160 SCSI 1" hot-swap and two fixed 1" hard drives

Redundant Power Configuration (Optional AHD2HSDRVUG kit) Supports five (or ten) total 1" Ultra2 or Ultra160 SCSI hot-swap drives and two (or zero) 1" fixed drives

SCSI Backplane LVD

External Peripheral Bays

3 @ 5.25" (1" height); 1 @ 3.5" (floppy)

System Cooling

Up to four fans Two 92mm fans instrumented to provide RPM data for fan failure prediction and detection. One or two 80mm fans (in power supply)

Power Supply

DC Power Supply 300 W PFC 350 W PFC; Redundant

AC Voltage 4.6 amp at 115 V 6 amp at 115 V
2.3 amp at 220 V 3 amp at 220 V

+5V 26 amp max 32 amp max
+5V standby 800mA max 2000mA max
+12V 10 amp sustained 12 amp sustained
+3.3V 16 amp max 26 amp max
-12V 0.5 amp max 0.5 amp max

Front Panel

DC Power Supplies Power On/Off button (momentary), System reset button, ACPI Sleep Switch and tool activated NMI switch.

LEDs Power, hard drive activity, network activity, and general system fault

Security

The chassis includes a mechanical lock on the front bezel, and a removeable padlock loop for the system access cover. The chassis also includes two intrusion switches that can be monitored by ISC software.

Serviceability

The following are the suggested times needed for a trained service technician to perform maintenance procedures, after diagnosis of the system condition:

Remove cover	2 min
Remove and replace disk drive	1 min
Remove and replace power supply	3 min
Remove and replace fan	5 min
Remove and replace expansion board	2 min
Remove and replace front panel board	10 min
Remove and replace power share board	10 min
Remove and replace SCSI backplane	10 min
Remove and replace server board	15 min

Environment

Ambient Temperature
Operating +10°C to +35°C
Non-operating -40°C to +70°C ambient

Relative Humidity
Non-operating 95% @ 30°C non-condensing

Acoustics <50 dBA in an idle state in an normal office environment (65 - 75°F)

Electrostatic Discharge 15kV per Intel test specification

Regulations

When integrated with a validated Intel® server board and configured as outlined in the SC5000 Chassis Subassembly Installation Guide, the SC5000 Chassis complies with the following Safety and EMC regulations:

Safety

U.S., Canada UL1950 - CSA 950 (UL and cUL)
Europe, CE Mark EN60950 (Complies with 73/23/EEC)
International IEC60950 (CB Report and Certificate)
Nordic Countries NEMKO/EMKO-TSE (74-SEC) 207/94
Australia, New Zealand AS/NZS 3260 (covered by CB Report)

Electromagnetic Capability (EMC)

U.S. FCC, Part 15, Class B
Canada ICES-003, Class B
Europe, CE Mark EN55022 & EN55024 (Complies with 89/336/EEC)
International CISPR 22, Class B
Japan VCCI, Class B
Australia, New Zealand AS/NZS 3548 (Based on CISPR 22)

Product Ordering Codes

SC5000 Base:	KHDBASEU
SC5000 Hot-Swap:	KHDHSU
SC5000 Redundant Power:	KHDHSRP
Rack Kit:	AHDRACK
Spares Kit:	FHDSPRSU
5 Hot-Swap Drive Bay Kit:	AXXHSDRVUG
10 Hot-Swap Drive Bay Kit:	AHD2HSDRVUG

For the most current product information on all of Intel's server building blocks, visit the web site at:

www.intel.com/go/serverbuilder

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