# Intel® SC5000 Server Chassis

## For Highly Reliable e-Business Solutions

**Product Brief**

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

# 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 an 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 workgroup 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 Boards[1]

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. Intel® components are the fast, easy way to build a reliable e-Business server.

| Features | Benefits |
|---|---|
| **Specifically designed and validated with Intel® server boards** | Supports Intel® Pentium® III processors; high reliability; quick and simple integration. |
| **Single 300-watt or 1+1 350-watt redundant power supply configuration** | Ample power for full system integration and the option of added uptime protection |
| **Advanced cooling system with up to four fans optimally placed to cool key server components** | Actively monitored cooling supports full configuration of latest technology |
| **Five hard drive bays with Ultra160 SCSI and 10K RPM support (Compatible with Ultra2 SCSI)** | Over 126 GB of storage capacity |
| **Hot-swap hard drive configuration supports five 1" SCSI hot-swap drives and two fixed drives** | Minimize or eliminate downtime to replace failing hard disk; maximize internal storage capacity |
| **Three 5.25" peripheral drive bays** | Greater flexibility in system configuration |
| **Pedestal or rack configuration with single chassis** | Provides installation flexibility |
| **Extensive international safety and EMC regulatory approvals** | Speeds time-to-market and lowers development investment expense |
| **Physical access protection and support of Intel® Server Control (ISC) software** | 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 high-density rack server, the SR2000 server chassis (product code KB2HS) offers a 2U solution.

## 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 fans cool the processors, hard drives, and other key electronics bay components. RPM sensors allow the fan speed to be monitored and adjusted by Intel® Server Control (ISC) software. Specialized packaging, known as E-pack, holds the fans and channels airflow.

**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.

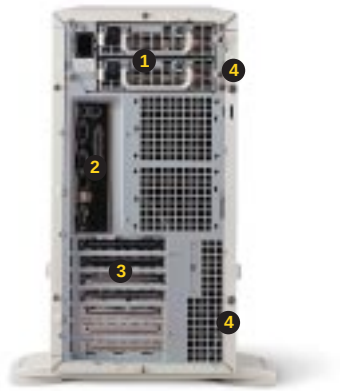
**5. Managed Hot-Swap Hard Drives.** Two of the SC5000 server chassis configurations feature a hot-swap SCSI backplane that allows failing hard disks to be replaced without powering down the server. The hot swap drive bay is conveniently located behind the front bezel door enabling visibility of drive status and maintenance access without moving the server. Circuitry in the backplane allows managed hard drives via SAF-TE technology.


## Intel SC5000 Server Platform Options

| Intel® Chassis Name | SC5000 Base | SC5000 Hot-Swap | SC5000 Redundant Power | SR2000[2] |
|---|---|---|---|---|
| Product code | KHDBASE | KHDHS | KHDHSRP | 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 | 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.

**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 Option** | Supports five Ultra2 or Ultra160 SCSI drives (1" height) |
| **Hot-Swap Option** | Supports five Ultra2 or Ultra160 SCSI 1" hot-swap and two fixed 1" hard 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<br>2.3 amp at 220 V | 6 amp at 115 V<br>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** | <47 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:** | **KHDBASE** |
| **SC5000 Hot-Swap:** | **KHDHS** |
| **SC5000 Redundant Power:** | **KHDRPS** |
| **Rack Kit:** | **AHDRACK** |
| **Spares Kit:** | **FHDSPRS** |

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

**www.intel.com/go/serverbuilder**


0200/DMW/MD/PP/20K

Intel Literature Center: 1-800-548-4725
ORDER NUMBER 283263-001