7 Make Server Board Power Connections

Note the location of the latch on each power cable connector and align it with the matching tab on each server board socket.

CPU Power Detail

Latch
Tab

Server Board

Main Power Detail

1 Attach the main power connector to the server board.

2 Attach the CPU power connector as shown.

8 Install a Fixed Hard Drive

Install Hard Drive(s) to Cage: Intel® Server Chassis SC5250-E

Metal tabs

Airflow baffle (one at top, one at bottom)

HDD Cage Fan Connector

1 Position the hard drive cage with the metal tabs at the front of the drive bay pointing up.

2 Insert the hard drive into the cage, component side down.

3 Use two screws on each side of the cage to secure the drive in the cage.

Notes:
• Leave the plastic airflow baffles in place unless more than four hard drives are installed. *See the Intel® Server Chassis SC5250-E Product Guide for additional information.*
• The fixed hard drive cage contains a cooling fan. *Make sure the fan power cable exits below the bottom airflow baffle as shown.*

Install Hard Drive Cage to Chassis: Intel® Server Chassis SC5250-E

Attach SATA power cable here.

Rear View of SATA Hard Drive

Attach SATA data cable here.

Rear View of Serial ATA Hard Drive

1 Slide the hard drive cage into the chassis with the arrow at the upper right corner of the cage pointing upward.

2 Attach cage with two screws at the top front and two screws at the left side.

3 Connect the power and signal cables to the hard drive(s).

9 CD-ROM/Floppy/Front Panel Cable Routing

Route cables as shown below according to the following legend:

■ Front Panel Ribbon Cable
■ CD-ROM/Floppy Cables
■ SATA Hard Disk Drive Cables

• Use care to avoid blocking fans or add-in cards.

Use Cable-ties as necessary

Server Board

Drive Cage

10 Connect Drives/Front Control Panel to Server Board

1 Connect Floppy Cable here.

2 Connect CD-ROM Cable here.

3 Connect SATA Data Cables to server board here.

4 Connect Front Control Panel Cable here.

Server Board

11 Intrusion Switch

Intel® Server Chassis SC5250-E

Server Board

For a reference chassis, see your chassis documentation for intrusion switch requirements.

12 Chassis Fan Connections

Intel® Server Chassis SC5250-E

Rear Chassis Fan

HDD Cage Fan

For a reference chassis, see your chassis documentation for fan connection requirements.

13 Install Add-in Card(s)

1 Remove the screw and filler panel from the back panel that matches the slot for your add-in card.

2 Install the add-in card and replace the screw.

Note: If you remove an add-in card, the filler panel must be replaced to ensure proper system cooling.

14 Remove Filler Panels

Remove the bezel filler panels for each drive you have installed. Release plastic tabs located at back side of bezel and pull out filler panels from the front.

15 Install the Bezel

1 Engage three clips at the right edge of the chassis.

2 Rotate the left side of the bezel assembly toward the chassis.

3 Snap two bezel tabs into corresponding recesses at the left edge of the chassis front panel.

16 Closing the System

Attach the server board configuration label to the inside cover of your chassis.

1 Replace the cover.

2 Slide the two thumb latches to the CLOSED position.

3 Replace shipping screws (optional).

⚠ CAUTION: This chassis must be operated with the SIDE COVER installed to ensure proper cooling.

17 Finishing Up

Before installing your operating system, you must finish your chassis installation, make I/O connections and plug in AC power.

1. See your chassis documentation to complete rack or pedestal installation.

2. Connect your keyboard, mouse, video, and other I/O cables as shown.

3. Connect the AC power cable last.

Intel® Server Chassis SC5250-E Back Panel

Mouse
Serial A
Network
NIC2 10/100/1000 Mb
NIC1 10/100/1000 Mb
AC Power
Keyboard
Video
USB 1-2
Serial B (optional)

18 Software • Drivers, Firmware, and Operating System Installation

A. Confirm BIOS and FRU/SDR Versions: Look on the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS and FRU/SDR versions. Compare these to the versions at: http://support.intel.com/support/motherboards/server/SE7221BK1-E/ If new versions are available, update the BIOS and FRU/SDR on your server. See the User Guide on the Intel® Server Deployment Toolkit CD for update instructions.

B. Configure your Server with the Server Configuration Wizard: Boot to the Server Board SE7221BK1-E Intel® Server Deployment Toolkit CD. Select the Server Configuration Wizard to configure your server for remote server management. Unless you have downloaded a newer version of the FRU/SDR from the Web, use the Server Configuration Wizard also to load the FRU/SDR.

C. Configure your RAID Controller: Use the instructions provided with the RAID controller.

D. Install your Operating System: Use the instructions provided with the RAID controller and with the operating system.

E. Install Operating System Drivers: With the operating system running, insert the Intel® Server Deployment Toolkit CD. If using a Microsoft* Windows* operating system, the Express Installer will autorun and allow you to select the appropriate drivers to install. On other operating systems, browse the CD folders to locate and install the driver files.

F. Install Intel® Server Management 8 (optional): With the operating system running, insert the Intel® Server Management 8 CD that came with your server board. On a Windows* operating system, the Setup program will auto-run. Follow the on-screen instructions. For installation details, see Getting Started with Intel® Server Manager 8, located on the ISM CD.

G. Install Intel® SMaRT Tool (optional): With the operating system running, insert the Intel® Server Deployment Toolkit CD. The Express Installerwill autorun. Click Intel® SMaRT Tool at the left side of the screen. Follow the on-screen instructions. For information about Intel® SMaRT Tool, see http://developer.intel.com/design/servers/smarttool/index.htm.
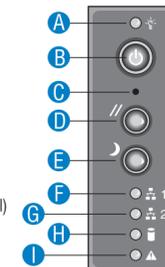
Reference

Accessories and Order Codes

Single RJ45 I/O Shield	ABKIO
Dual RJ45 I/O Shield	ABKIO2

A complete list of accessories and spares can be found at: www.intel.com/go/serverbuilder

Front Panel Controls and Indicators

Note: For a reference chassis, see your chassis documentation for information on front panel controls and functions.

Intel® Server Chassis SC5250-E

A. Power/Sleep
B. Power
C. Tool-activated NMI
D. Reset
E. Sleep
F. Network - NIC1
G. Network - NIC2 (optional)
H. Hard Drive Activity
I. System Status

Making Connections to the Server Board ... *Quick Reference*

Required Connections for Selected Chassis — SC5250-E

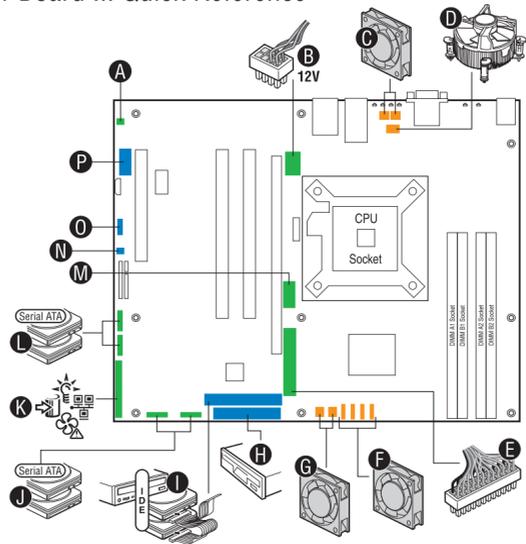|	
A. Chassis Intrusion	■
B. +12V CPU Power Connector	■
E. Main Power Connector	■
J. SATA Connectors (left...SATA3, right...SATA4)	■
K. Front Panel Connector	■
L. SATA Connectors (top...SATA1, bottom...SATA2)	■
M. Front Panel USB	■

■ = Make this connection

CPU/System Fan Connections for Selected Chassis — SC5250-E

C. System Fan Connectors (left...#1, right...#2)	■
D. CPU Fan Connector	■
F. System Fan Module Connectors	
G. System Fan Connectors (left...#3, right...#4)	■

■ = Make this connection

Optional Connections for Selected Chassis — SC5250-E

H. Floppy Drive Connector	■
I. Primary IDE Connector	■
N. HDD LED Header	■
O. HSBP Header	
P. Serial B Header	■

■ = Make this connection

Note: Not all optional connections are shown in this diagram. Refer to your Intel® Server Board SE7221BK1-E User Guide, and your server chassis documentation for additional connection information.

Common Problems and Solutions

For a list of hardware components that have been tested with this system, see: http://support.intel.com/support/motherboards/server/se7221BK1-E

The system does not boot or show video at power-on.
• Check that +12V CPU power connector is plugged in. Without this cable the processor will not have any power.
• Beep code 4-3-3-2-1 in a system using an Intel® Pentium® 4 Processor (minimum of 2.8 GHz) means you have unrecognized or bad memory.
• Remove and replace DIMMs one bank at a time to isolate which one is causing problems.
• Remember, all DIMMs must be:
  • DDR2 400/533 compliant unbuffered, ECC or non-ECC, SPD SDRAM 240-pin gold DIMMs.
  • The same speed.
  • From the same manufacturer.
  • Installed beginning with DIMM 1A.
• Your power supply must provide a minimum of 450W with 2A standby current, which complies with the SSI EPS 12V specification.

The system sometimes works, but is exhibiting erratic behavior.
• This is typically the result of using an under-rated power supply. Make sure you are using at least a 450W power supply.

Server Board SE7221BK1-E Component Layout

A: Chassis Intrusion Header
B: PCI Slot
C: PCI-X 100 Slot
D: PCI-X 100 Slot
E: PCI-Express or riser card slot
F: +12V CPU Power
G: System Fan #1 (optional)
H: Back Panel I/O Connectors
I: System Fan #2 (optional)
J: CPU Fan (optional)
K: CPU Socket
L: DIMM Sockets (two -- from left to right: DIMM 1B, DIMM 2B,)
M: DIMM Sockets (two -- from left to right: DIMM 1A, DIMM 2A,)
N: Front USB Header (optional)
O: System Fan Headers (for Intel® Server Board SR1425BK1-E)

P: System Fan #4 (optional)
Q: System Fan #3 (optional)
R: Main Power Connector
S: Floppy Connector
T: IDE Connector
U: SATA 4 Connector
V: SATA 3 Connector
W: 34-pin Front Panel Connector
X: SATA 2 Connector
Y: SATA 1 Connector
Z: BIOS Contol
AA: BIOS Select
BB: HDD LED Header
CC: HSBP Header
DD: Battery
EE: Serial B Header

CPU Socket