7 Install DIMM Memory Modules

DDR3 DIMM Memory Identification:

⚠ This server board supports up to 8 DDR3-800/1066/1333 ECC RDIMM and ECC or Non-ECC UDIMM.

DIMM notch and socket bump must align as shown.

DDR3

Memory Configurations and Population Order:

DIMM_E1
DIMM_E2
DIMM_D1
DIMM_D2

DIMM_B1
DIMM_B2
DIMM_A1
DIMM_A2

Server Board

Memory Type: Minimum of one 1 GB, DDR3 800/1066/1333 MHz compliant 240-pin DIMM.

Note: For additional memory configurations, see the User Guide on the Intel® Server Deployment Toolkit 3.0 CD that accompanied your Intel® Server Board S5500BC, or go to: http://support.intel.com/support/motherboards/server/s5500bc

Memory sizing and configuration is supported only for qualified DIMMs approved by Intel®. For a list of supported memory, see the tested memory list at http://support.intel.com/support/motherboards/server/s5500bc/compat.htm

To Install DIMMs:

⚠ CAUTION: Avoid touching contacts when handling or installing DIMMs.

A Open both DIMM socket levers.

B Note location of alignment notch.

C Insert DIMM making sure the connector edge of the DIMM aligns correctly into the slot.

D Push down firmly on the DIMM until it snaps into place and both levers close.

E IMPORTANT! Visually check that each latch is fully closed and correctly engaged with each DIMM edge slot.

8 Make Server Board Power Connections

A Attach the CPU power connector.

B Attach the main power connector.

C Attach the AUX power connector if you are using the Intel® Server Chassis SC5650.

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

IMPORTANT NOTE: If you are using a non-Intel server chassis with an ATX power supply, see the documentation that came with your chassis for installation information.

Server Board

Main Power Connector Detail

CPU Power Connector Detail — Latch — Tab

Auxiliary Signal Power Detail — P14

(intel)

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9 Install Optical Drive and Hard Drive(s)

See the documentation that came with your server chassis for drive installation.

10 Connect Hard Drives/Optical Drive to Server Board

Server Board

Connect SATA Data Cables to server board here.
✪ Begin cable connections at the SATA 0 location.

SATA Data Cable Connector

11 Attach Intrusion Switch Cable

Server Board

Intrusion Switch Connector

Note: For a non-Intel chassis, see your chassis documentation for intrusion switch requirements.

12 Attach Front Panel, Serial, and USB Connections

USB 0-1   USB 2-3

Serial B

Front Panel

Note: For a non-Intel chassis, see your chassis documentation for front panel features and server board connection requirements.

13 Chassis Fan Connections

Server Board

Attach fans with 4-pin connectors here.

IMPORTANT NOTE: Return to your Intel® Server Chassis Quick Start User's Guide, or your non-Intel chassis documentation to finish installation and configuration of your Intel® Server Board S5500BC.

Return to this document to finish up, including software, BIOS, drivers and operating system installation.

For a non-Intel server chassis, see the "Making Connections ... Quick Reference" section below, and the documentation accompanying your chassis for specific chassis fan connection requirements.

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14 Install Add-in Cards

See the documentation that came with your server chassis for add-in card installation.

For the Intel® Server Chassis SC5650, see the Quick Start User's Guide accompanying the chassis.

15 Finishing Up

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

See your chassis documentation for AC power and grounding requirements.

⚠ CAUTION: See your chassis documentation for AC power and grounding requirements.

Network

NIC1 10/100/1000 Mb   NIC2 10/100/1000 Mb

Serial A   Video   USB 6-7   USB 8-9

16 Software ▪ BIOS, Drivers, and Operating System Installation

A. Confirm BIOS Version: Look on the Server/System Management screen in the BIOS Setup Utility to determine the installed BIOS version. Compare this to the versions at: http://support.intel.com/support/motherboards/server/s5500bc
If new versions are available, update the BIOS on your server. See the User Guide on the Intel® Server Deployment Toolkit 3.0 CD for update instructions.

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

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

D. Install Operating System Drivers: With the operating system running, insert the Intel® Server Deployment Toolkit 3.0 CD. If using a Microsoft Windows* operating system, the Intel® Deployment Assistant 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.

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/s5500bc/

The system does not boot or show video at power-on.

- Check that the +12V CPU power connector is plugged in. Without this cable, the processors will not have any power.

- Only Intel® Xeon® processors 5500 series" with 95 W and less Thermal Design Power (TDP) are supported on this server board. Previous generation Intel® Xeon® processors are not supported. Beep code 1-5-2-1 in a system means you do not have Intel® Xeon® processors 5500 sequence installed or first processor socket is empty.

- The system generates the memory error beep code and POST diagnostic LED message (0XE0–0XEF) that means some memory errors in early POST .

- Remember, all DIMMs must be:
  - DDR3 800/1066/1333 MT/s ECC Registered DIMM and ECC or Non-ECC unbuffered DIMM.
  - From the same manufacturer.
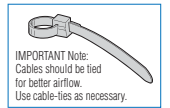 - Installed beginning with DIMM A1.

The system sometimes works, but is exhibiting erratic behavior.

Reference

Making Connections to the Server Board ... Quick Reference

IMPORTANT Note: Cables should be tied for better airflow. Use cable-ties as necessary.

Notes: Not all optional connections are shown in this diagram. Refer to the Reference section of this Quick Start User's Guide, your Intel® Server Board S5500BC User's Guide, and your server chassis documentation for additional connection information.

Required Connections — Intel® Server Chassis SC5650

A. +12V CPU Power Connector	■
N. Main Power Connector	■
O. Auxiliary Power Connector	■
P. Front Panel Header	■

CPU/System Fan Connections — Intel® Server Chassis SC5650

B. System Fan 1 Header	■
C. System Fan 2 Header	■
D. System Fan 3 Header	■
Q. CPU1 Fan Header	■
R. CPU2 Fan Header	■

Optional Connections — Intel® Server Chassis SC5650

L. HSBP_A	■
I. SATA RAID Key	■
G. USB 0-1	■
H. USB 2-3	■
F. SATA connectors	■
M. Serial B	■
J. Chassis Intrusion Header	■
K. IPMB	■
E. SATA SGPIO	■

Note: For a non-Intel Chassis, see your chassis documentation for server board connection information.

Front USB
0-1   2-3
SATA RAID Key
Serial ATA
Intrusion
HSBP_A
Serial B
SATA SGPIO
Main Power
Aux. Power
Front Panel
CPU 1 Socket
CPU 2 Socket
System Fan
CPU Fan
12V CPU Power

Intel® Server Board S5500BC Component Layout
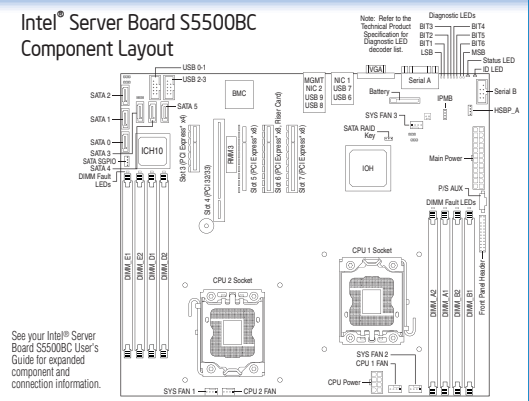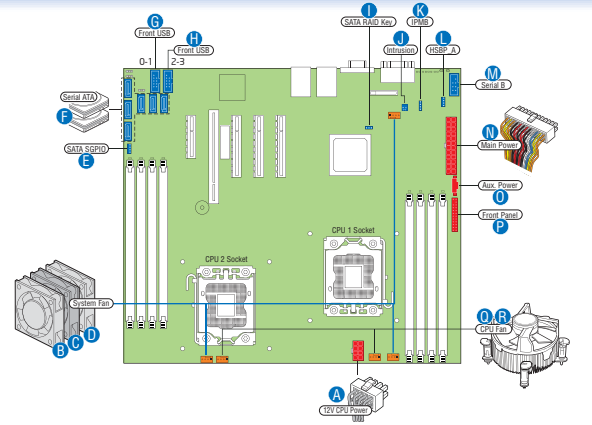
Note: Refer to the Technical Product Specification for Diagnostic LED decoder list.

Diagnostic LEDs: BIT3, BIT4, BIT6, BIT7, BIT1, BIT0, MSB, LSB, Status LED

USB 0-1, USB 2-3, SATA 5, SATA 2, SATA 1, SATA 0, SATA SGPIO, SATA 4, DIMM Fault LEDs, ICH10, RMII3, Slot 2 (PCI Express x4), Slot 3 (PCI Express x8), Slot 4 (PCI1333), Slot 5 (PCI Express x8), Slot 6 (PCI Express x8), Slot 7 (PCI Express x8), IOH, CPU 2 Socket, SYS FAN 1, CPU 1 FAN, CPU 2 FAN, SYS FAN 2

MGMT NIC 2, USB 7, USB 8, USB 6, NIC 1, USB 1, USB 2, Serial A, Battery, BMC, SYS FAN 3, IPMB, Serial B, HSBP_A, SATA RAID Key, Main Power, CPU 1 Socket, P/S AUX, DIMM Fault LEDs, DIMM_E1, DIMM_E2, DIMM_D1, DIMM_D2, DIMM_B2, DIMM_B1, DIMM_A1, DIMM_A2, Front Panel Header, CPU Fan, SYS FAN 1

See your Intel® Server Board S5500BC User's Guide for expanded component and connection information.