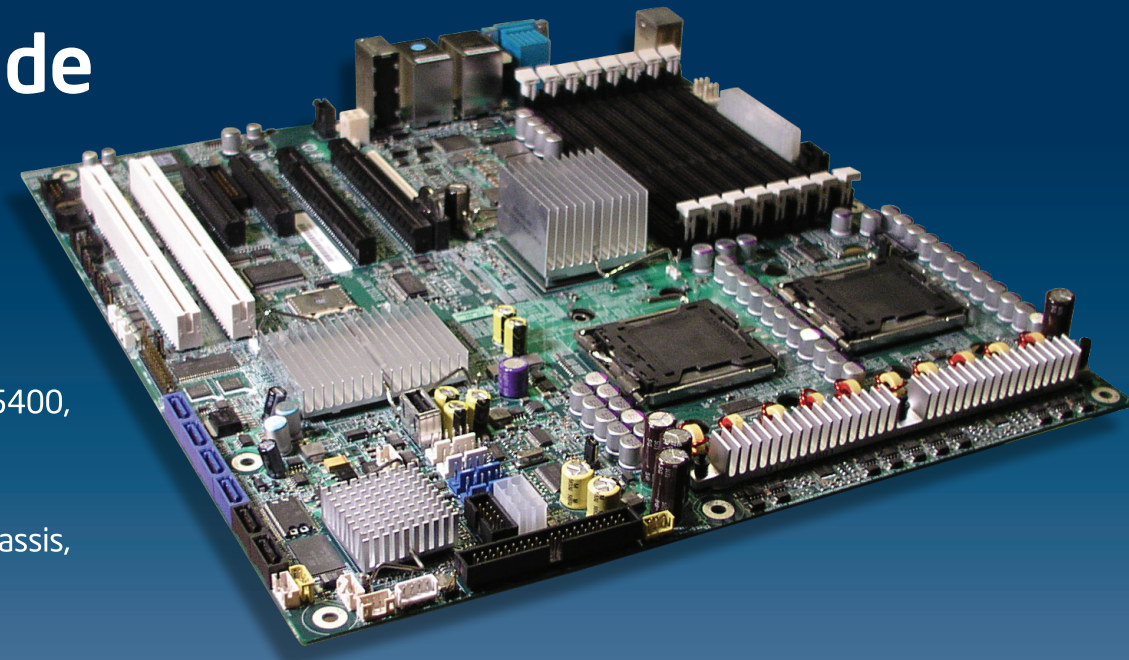


Intel® Server Board S5000PSL Quick Start User's Guide



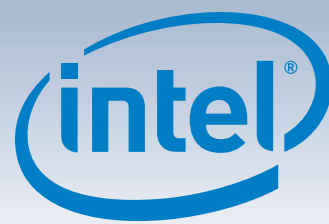
Thank you for buying the Intel® Server Board S5000PSL. The following information will help you integrate your new server board into a server chassis. The Intel® Server Board S5000PSL is designed for use with all versions of the Intel® Server Chassis SC5400, and the BP and BRP versions of the Intel® Entry Server Chassis SC5299-E.

For details on these chassis or to select a third-party chassis, please visit <http://www.intel.com/go/serverbuilder> and <http://support.intel.com/support/motherboards/server>.

When installing the server board into a reference chassis, refer to the reference chassis instructions.

User Guides are also available on the CD that accompanied your Intel® Server Board S5000PSL.

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the *Intel® Server Board S5000PSL User Guide*, available on the CD or at <http://support.intel.com/support/motherboards/server/s5000psl/manual.htm>.



Minimum Hardware Requirements

To avoid integration difficulties and possible damage to your system, make sure you have components from each category below.

- Processor(s):**
 - Minimum of one Dual Core Intel® Xeon® Processor 5000 sequence.
- Heatsink(s):**
 - Minimum of one 2U passive heatsink for the Intel® Server Chassis SC5400.
 - Minimum of one 2U active heatsink for the Intel® Entry Server Chassis SC5299-E BP or BRP.
- Memory:**
 - Minimum of one 512-MB, 240-pin, DDR2 533/667 MHz FB DIMM.
- AC Power:**
 - Minimum of 620 Watt with 3 Amps of standby current, which meets the SSI EPS 12V specification.

1 Prepare the Chassis

When using an Intel® Server Chassis, begin with the Quick Start User's Guide that came with your chassis. Return to this document when directed by the server chassis Quick Start User's Guide.

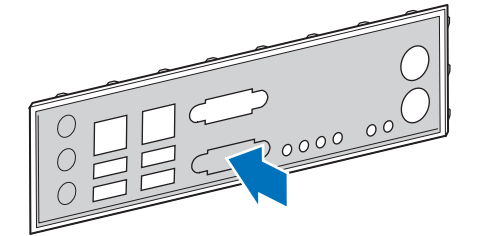
If using a non-Intel server chassis, refer to the documentation that came with your chassis for preparatory steps.

Observe ESD (Electrostatic discharge) procedures. Place the chassis on a flat, anti-static surface and touch the chassis frame before reaching inside.

2 Attach I/O Shield Label and Install the I/O Shield

Prepare the I/O Shield

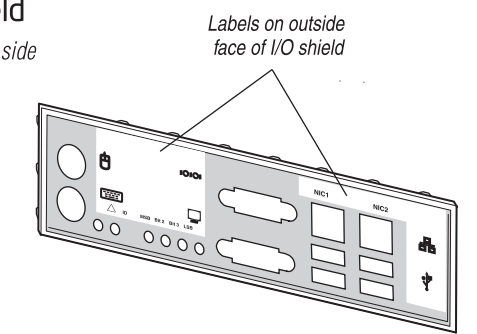
You must remove the sheet metal knock-out for the video connector before installing the I/O shield. Use a flat-blade screwdriver if necessary to pry the knock-out from the shield. Use caution so you do not deform the shield.



Attach the Labels to the I/O Shield

Note: Make sure you install the labels on the correct side of the I/O shield. Note the orientation of the cutouts in the drawing before attaching your labels.

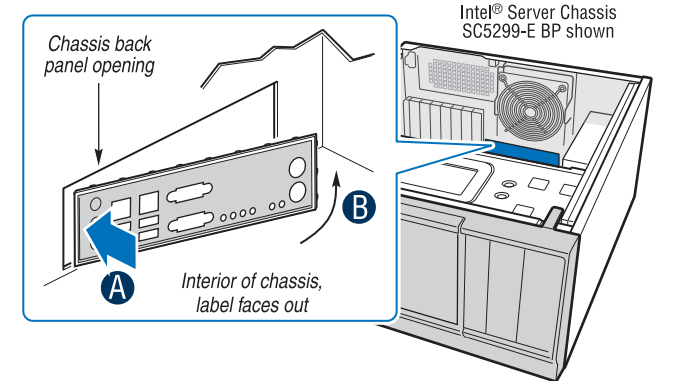
- Remove the backing from one of the two I/O shield labels included with your server board.
- Press the label onto the I/O shield as shown.
- Repeat steps to install the second I/O shield label.



Install the I/O Shield

Shield installs from **inside** of chassis. The labels should be visible from the outside of the chassis.

- Insert one side edge of shield as shown.
- Push shield firmly into chassis opening until it clicks into place.



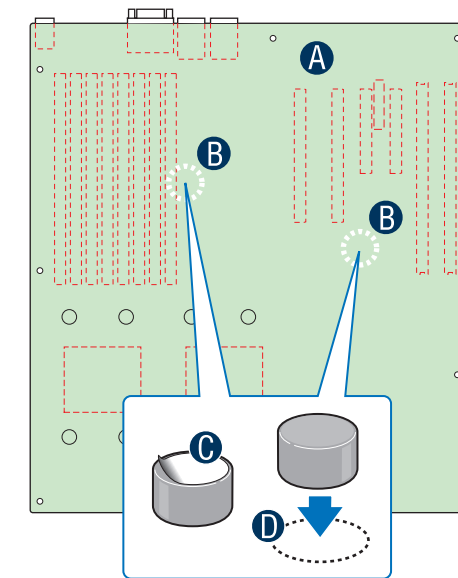
3 Install Server Board Bumpers

Note: If you are using a non-Intel server chassis, see your chassis documentation for preparatory steps before installing server board.

- Rotate board to show underside and hold upright as shown.

CAUTION: To avoid damage to the board, do not set board down on hard surface with the component side down.

- Locate the two dark circles as shown.
- Remove the backing from each bumper.
- Press a bumper firmly onto each dark circle.



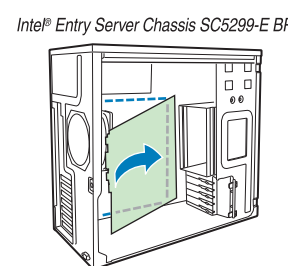
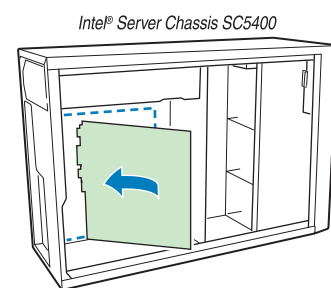
4 Install the Server Board

Note: If you are using a non-Intel server chassis, see your chassis documentation for preparatory steps prior to server board installation.

A. Insert the Server Board

Place the board into the chassis, making sure that back panel I/O shield openings and chassis standoffs align correctly.

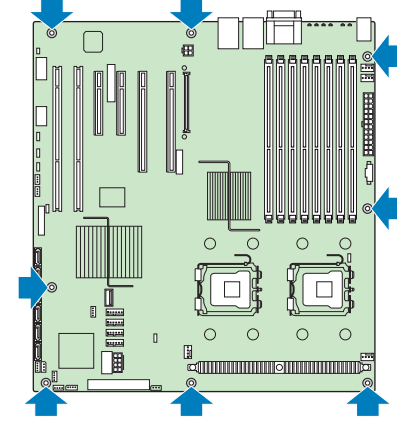
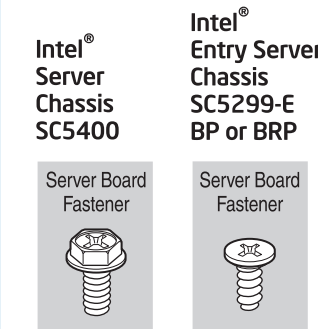
- When using the Intel® Server Chassis SC5400, insert the I/O connector side (back) of the board first.
- When using the Intel® Entry Server Chassis SC5299-E BP or BRP, insert the front of the board first, then slide the board back so the I/O connectors fit through the I/O shield.



B. Attach the Server Board

The Intel® Server Chassis SC5400 and the Intel® Entry Server Chassis SC5299-E BP or BRP use different screws to attach the server board to the chassis. Use the screws indicated for your chassis. For a non-Intel server chassis, use the fasteners that came with your chassis.

Attach the board to the chassis at the 8 locations indicated by the solid blue arrows in the figure.

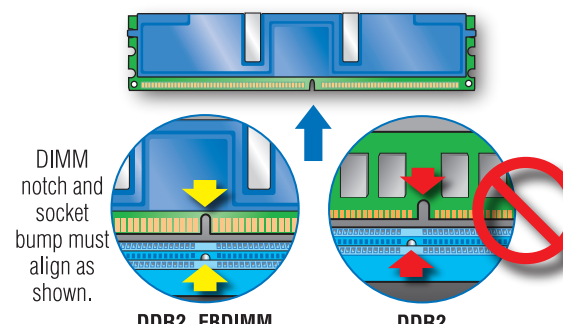


5 Install Memory DIMMs

DDR2 FB DIMM Memory Identification

This server board supports up to eight DDR2-533 or DDR2-667 Fully Buffered DIMMs (FB DIMM memory). DDR2 DIMMs that are not FB DIMM memory are not supported on this server board.

FB DIMM DDR2 memory varies in height. DO NOT MIX different DIMM heights and types.



Memory Configurations and Population Order

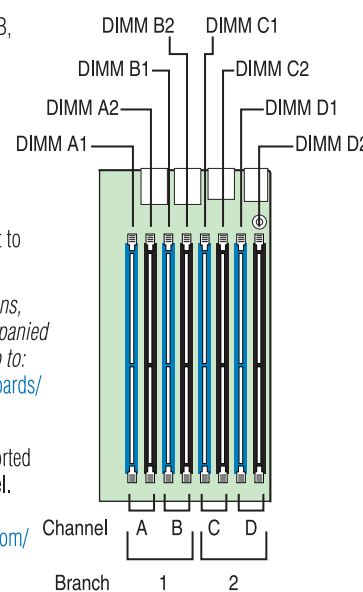
Memory Type: Minimum of one 512-MB, DDR2 FB DIMM 533/667-MHz compliant 240-pin gold DIMM.

Populate DDR2 FB DIMMs in the order of A1, B1, C1, and D1 and A2, B2, C2, and D2.

DIMM pairs must be identical with respect to size, speed, and organization.

Note: For additional memory configurations, see the User Guide on the CD that accompanied your Intel® Server Board S5000PSL, or go to: <http://support.intel.com/support/motherboards/server/s5000psl>

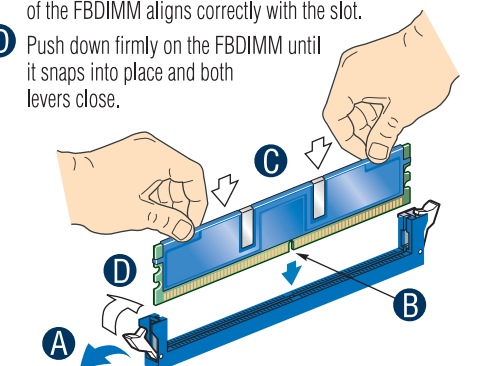
Memory sizing and configuration is supported only for qualified DIMMs approved by Intel. For a list of supported memory, see the tested memory list at <http://support.intel.com/support/motherboards/server/s5000psl/compat.htm>



To Install DIMMs

Avoid touching gold contacts when handling or installing DIMMs.

- Open both FB DIMM socket levers.
- Note location of alignment notch.
- Insert FB DIMM making sure the connector edge of the FB DIMM aligns correctly with the slot.
- Push down firmly on the FB DIMM until it snaps into place and both levers close.



Warning

Read all caution and safety statements in this document before performing any of the instructions. Also see the *Intel® Server Board and Server Chassis Safety Information* document at: <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm> for complete safety information.

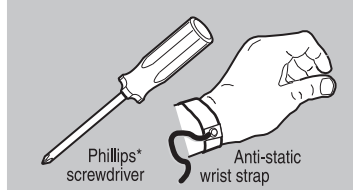
Warning

Installation and service of this product to be performed only by qualified service personnel to avoid risk of injury from electrical shock or energy hazard.

Caution

Observe normal ESD (Electrostatic Discharge) procedures during system integration to avoid possible damage to server board and/or other components.

Tools Required



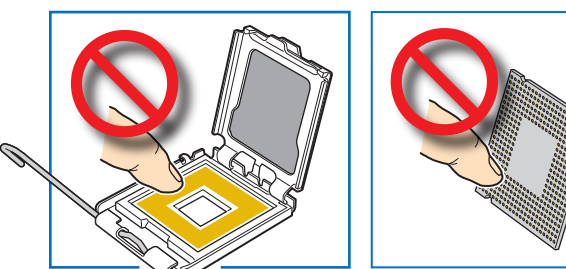
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6 Install the Processor(s)

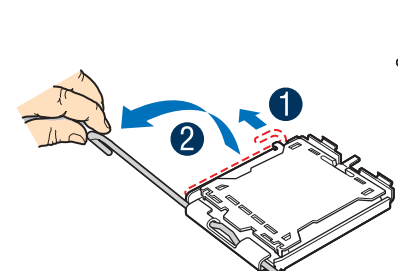
Notes and Cautions:

- When unpacking a processor, hold it only by the edges. Never touch the underside of the processor.
- This server board has a "zero-insertion force" socket. If processor does not drop easily into socket, make sure lever is in the full-open position.



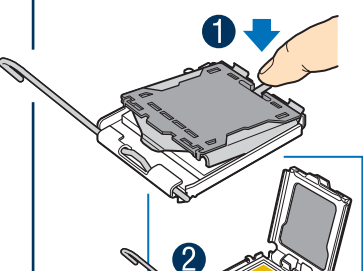
A. Open the Socket Lever

- Push the lever handle down and away from the socket to release it.
- Pull the lever and open all the way.



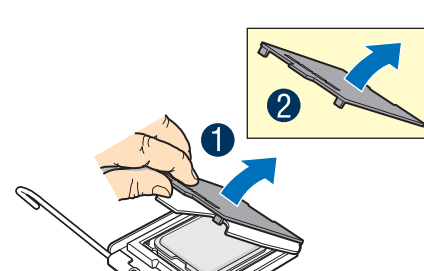
B. Open the Load Plate

- Push the rear tab with your finger tip to bring the front end of the load plate up slightly.
- Open the load plate as shown.



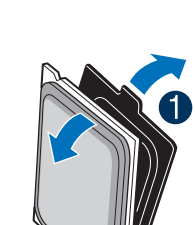
C. Remove Socket Protective Cover

- Grasp the socket protective cover tab and pull away from the load plate as shown.
- Remove the socket protective cover and store for future use.



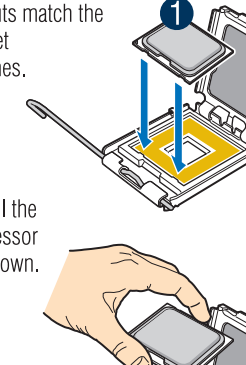
D. Remove the Processor Protective Cover

- Take the processor out of the box and remove the protective shipping cover.



E. Install the Processor

- Orient the processor with the socket so that the processor cutouts match the socket notches.
- Install the processor as shown.



F. Close Load Plate and Socket Lever

- Close the load plate all the way as shown.
- With your finger, hold down the load plate as shown.
- While holding down the load plate, close the socket lever. Ensure that the load plate tab engages under the socket lever when fully closed.

