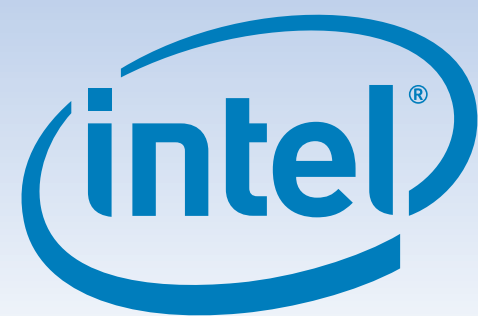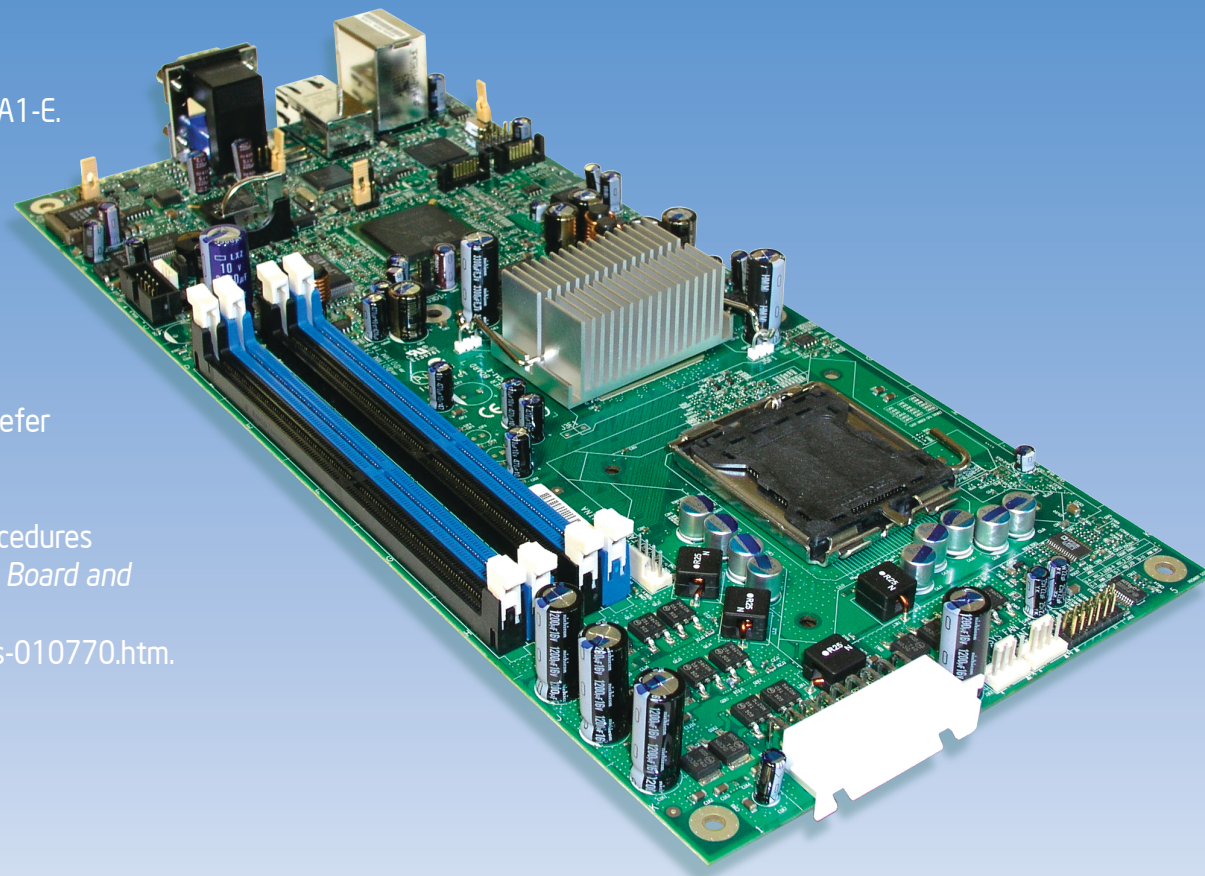# Intel® Entry Server Board SE7230CA1-E
Quick Start User's Guide

Thank you for buying an Intel® Entry Server Board SE7230CA1-E. The following information will help you integrate your new server board into a third-party chassis.

For details on selecting a third-party chassis, please see http://www.intel.com/go/serverbuilder and http://support.intel.com/support/motherboards/server.

When installing the server board into a third-party chassis, refer to the instructions that came with the chassis.

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the *Intel® Server Board and Server Chassis Safety Information* document at http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.
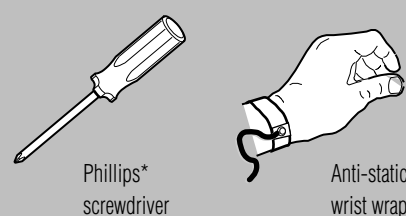
Warning

Safety information: Read all the safety and caution 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.

Caution

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

Tools Required

Phillips* screwdriver

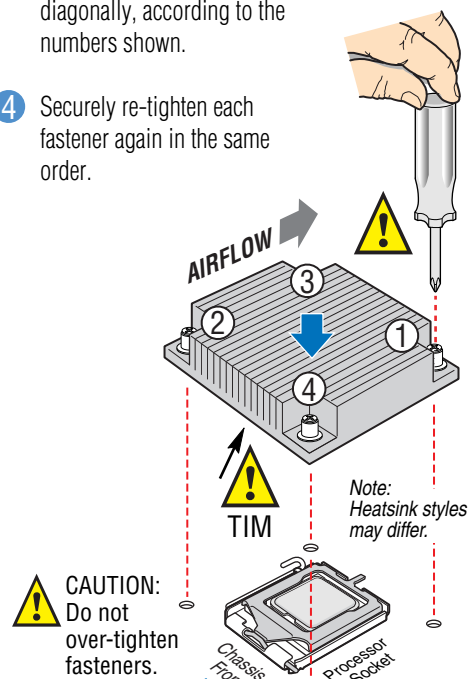Anti-static wrist wrap

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*Other names and brands may be claimed as the property of others.

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Minimum Hardware Requirements

To avoid integration difficulties and possible board damage, your system must meet the following minimum requirements:

- **Processor:** Intel® Pentium® 4 processor, minimum 2.8 GHz with chassis compatible fan / heatsink
- **Memory Type:** Minimum of one 256-MB, DDR2 400/533/667 MHz compliant unbuffered, ECC or non-ECC, SPD SDRAM 240-pin gold DIMM
- **Power:** Minimum of 300 W with 2 A of standby current, which meets the SSI EPS 12-V specification

1 Prepare Chassis

Refer to the instructions that came with your chassis for preparatory steps.

2 Install Server Board

Place the board into the chassis, making sure that back panel I/O ports and chassis or I/O shield openings align correctly. Verify that server board mounting holes align correctly with the chassis standoffs.

Place the server board into the chassis as shown below. Use the fasteners that came with your chassis to secure the server board to the chassis.

3 Install Processor

Notes and Cautions

1. When unpackaging a processor, hold it by the edges to avoid touching the pins.
2. This server board has a "zero-insertion force" socket. If processor does not drop easily into socket, make sure lever is in the fully open position.

A. Open the Socket Lever

① Push the lever handle down and away from the socket to release it.

② Pull the lever and open all the way.

B. Open the Load Plate

① Push the rear tab with your finger tip to bring the front end of the load plate up slightly.

② Open the load plate as shown.

C. Remove the Processor Protective Cover

① Take the processor out of the box and remove the protective shipping cover.

D. Install the Processor

① Orient the processor with the socket so that the processor cutout matches the socket notch.

② Install the processor as shown.

E. Remove Socket Protective Cover

① Grasp the socket protective cover tab and pull away from the load plate as shown.

② Remove the socket protective cover and store for future use.

F. Close Load Plate and Socket Lever

① Close the load plate all the way as shown.

② With your finger, push down on the load plate as shown.

③ Close the socket lever and ensure that the load plate tab engages under the socket level when fully closed.

4 Install Passive Heatsink

CAUTION: The heatsink may have thermal interface material (TIM) on the underside of it. Use caution so that you do not damage the TIM. *Use gloves to avoid sharp edges.*
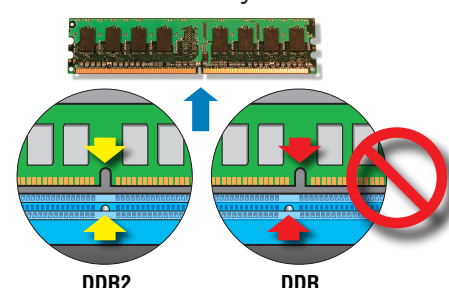
① If present, remove the protective film on the TIM. If no TIM is present, evenly coat the heatsink with a thermal compound.

② Align heatsink fins to the front and back of the chassis for correct airflow.

Each heatsink has four captive fasteners and should be tightened using the following procedure:

③ Lightly tighten each fastener diagonally, according to the numbers shown.

④ Securely re-tighten each fastener again in the same order.

AIRFLOW

Note: Heatsink styles may differ.

TIM

CAUTION: Do not over-tighten fasteners.

Chassis Front

Processor Socket

5 Install DIMM Memory

This server board does not support DDR memory. You must use DDR2 DIMMs to avoid possible damage to server board DIMM sockets.

DDR2 DIMM Memory Identification

DDR2   DDR

DIMM notch and socket bump must align as shown.

Memory Type: Minimum of one 256-MB, DDR2 400/533/667 compliant unbuffered, ECC or non-ECC, SPD SDRAM 240-pin gold DIMM.
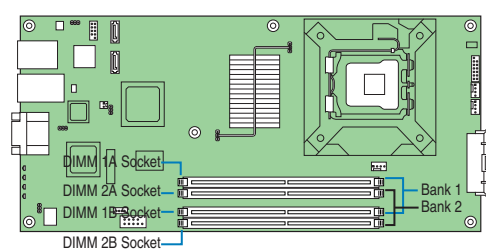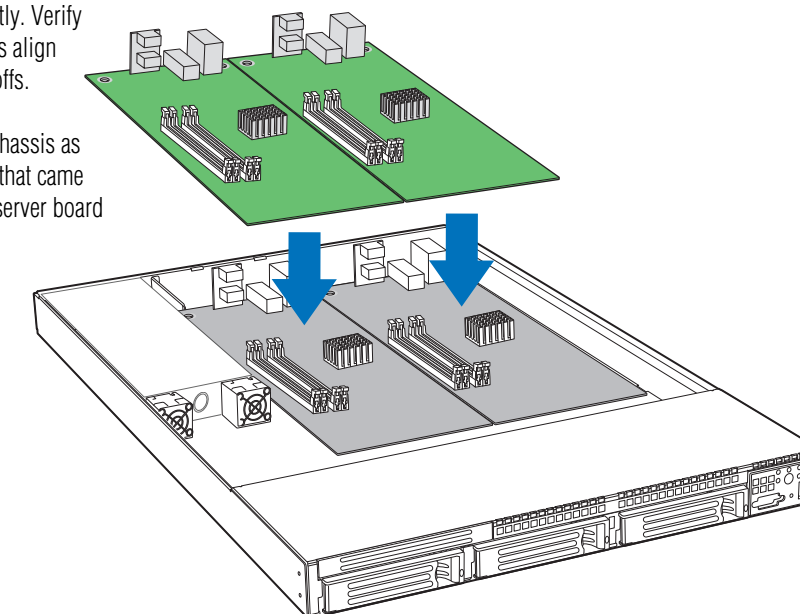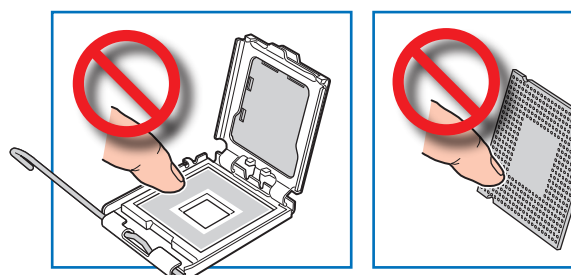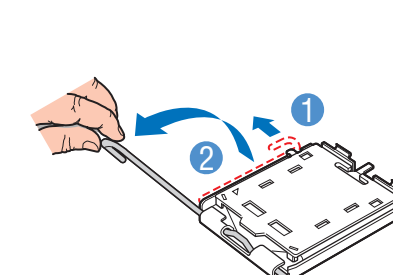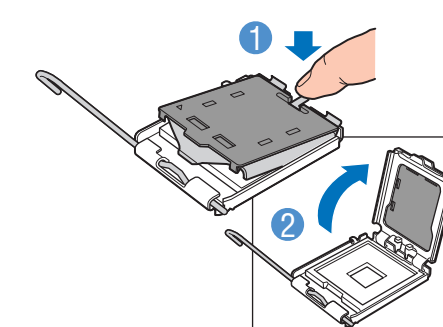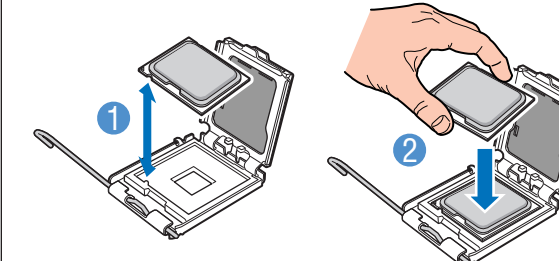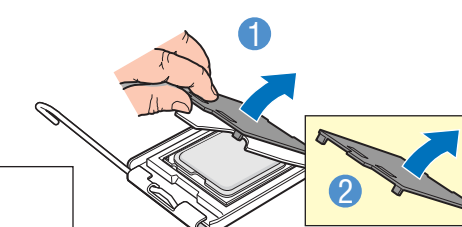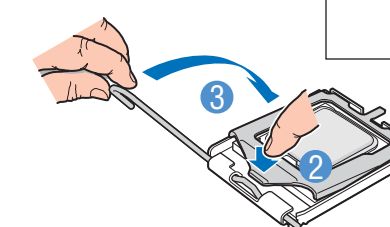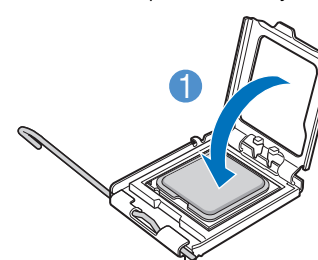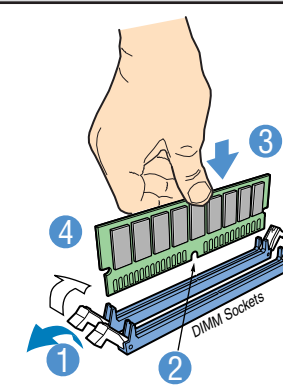
Notes and Cautions:

Populate DIMMs in the order of: 1A, 1B, 2A, 2B

The DIMM size, speed, and vendor must be the same within a bank. However, the DIMM size can vary between banks. For example, Bank 1 can use two 2560MB DIMMs and Bank 2 can use two 512-MB DIMMs.

For additional memory configurations, go to: http://support.intel.com/support/motherboards/server

Memory sizing and configuration is guaranteed only for qualified DIMMs approved by Intel.

DIMM 1A Socket
DIMM 2A Socket — Bank 1
DIMM 1B Socket — Bank 2
DIMM 2B Socket

To Install DIMMs:

① Open both DIMM socket levers.

② Note location of alignment notch.

③ Insert DIMM, making sure the connector edge of the DIMM aligns correctly with the slot.

④ Push down firmly on the DIMM until it snaps into place and both levers close.

 Avoid touching gold contacts when handling or installing DIMMs.

DIMM Sockets

Go to Side 2.