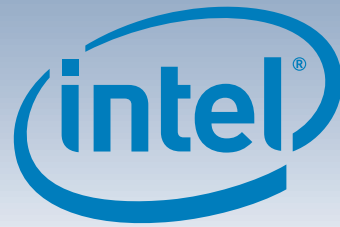# Intel® Workstation System SC5650SCWS
Quick Start User's Guide

Thank you for buying the Intel® Workstation System SC5650SCWS. The following information will help you to assemble your Intel® Workstation System SC5650SCWS and install components.

These guides and other supporting documents are located on the web at http://support.intel.com/support/motherboards/server/SC5520SC/

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, please see the Intel® Workstation System SC5650SCWS service guide, available on the Intel® Server Deployment Toolkit or at http://support.intel.com/support/motherboards/server/SC5520SC/

Please boot to the Intel® Server Deployment Toolkit CD first for BIOS and firmware configuration and updates.

Read all cautions and warnings before starting your workstation system integration.

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Minimum Hardware Requirements

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

- **Processor:** Minimum of one Intel® Xeon® Processor 5500 Series. Maximum 130-W processor or Minimum of one Intel Xeon Processor 5600 Series. Maximum 130-W processor.
- **Heatsink(s):** Minimum of one active heat sink.
- **Memory Type:** Minimum of one 1 GB, 240-pin, RDIMM or UDIMM, DDR3-800, DDR3-1066, or DDR3-1333.
- **Hard Disk Drive:** SATA/SAS SAS Hard Disk Drive requires SAS add-in card or SAS module card

⚠ CAUTION:	Intel® Workstation System SC5650SCWS
Supported Processor	Maximum 130 watt processor
Supported Graphics Card	ONE maximum 300 watt graphics card in PCI Express* Slot 6 or TWO maximum 150 watt graphics cards. Empty PCI Express* Slot 3 when a graphics card is installed in PCI Express* slot 4.

NOTE: Graphics cards with power greater than 75W must be self-cooled with exhaust out the back of the chassis.

For a complete list of compatible processors, heatsinks, and memory, see:
http://support.intel.com/support/ motherboards/ server/S5520SC/

1 Preparing the Chassis

Observe normal ESD (Electrostatic Discharge) procedures.

Place your Intel® Server Chassis on a flat anti-static surface to perform the following integration procedures. Observe ESD procedures before reaching inside to make server board connections or install components.

2 Remove Side Cover

1. Remove two screws.
2. Push in latch.
3. Slide side cover rearward and remove.

3 Remove Front Bezel Assembly

1. Lift outward two bezel tabs on left side of bezel assembly to detach bezel assembly from `the chassis.
2. Rotate left side of front bezel assembly outward slightly.
3. Disengage three bezel clips that attach the right side of the bezel to the right side of the chassis and remove.

4 Remove Tool-less Hard Drive Cage

1. Loosen thumb screw. Apply pressure to right side of EMI shield to release EMI shield from hard drive cage.
2. Push blue plastic release mechanism upward to unlatch hard drive cage.
3. Once released, pull hard drive cage out of chassis.

Tools Required
Hex nut driver (0.25 in or 6 mm)
#2 Phillips* screwdriver
Anti-static wrist strap

E81423-002

5 Install Tool-less CD-ROM or DVD-ROM Drive

1. Remove EMI shield from 5.25-inch device drive bay.
2. Make sure latch is in "unlock" position.
3. Insert CD-ROM or DVD-ROM drive into device drive bay.
4. Line up holes in CD-ROM or DVD-ROM drive with holes in chassis.
5. Move latch to "lock" position.
6. Connect power (P5 or P6 for DP/BRP/WS; P3 or P4 for UP) cables and data cables to rear of the CD-ROM or DVD-ROM drive.

An additional 4-pin IDE male-to-SATA 15 pin power cable adapter may be needed if the CD-ROM or DVD-ROM does not have a 4-pin power connector.

Data cables are included with the Intel® Workstation System.

6 Remove Fan Duct

1. Remove fan duct assembly as shown.

7a Install the Processor(s)

Cautions:
⚠ 1. When opening a socket, DO NOT TOUCH the gold socket wires.
⚠ 2. When unpacking a processor, hold by the edges only to avoid touching the gold contact wires.

A. Open the Socket Lever
A. Push the lever handle down and away from the socket to release it.
B. Rotate the lever open all the way.

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

C. Remove Socket Protective Cover
A. Grasp the socket protective cover by the two tabs and carefully lift straight up as shown.
⚠ To avoid damage, DO NOT DROP the cover onto the socket wires or components.
Save the protective cover.

D. Remove the Processor Protective Cover
A. Take the processor out of the box and remove the protective shipping cover.

7b Install the Processor(s) ... *continued*

E. Install the Processor
⚠ CAUTION: The underside of the processor has components that may damage the socket wires if installed improperly.
A. Orient the processor with the socket so that the orientation notches on the processor align with the two orientation posts on the socket. *Install the processor as shown.*

Orientation Notches

Components
Processor must align correctly with the socket opening before installation.
DO NOT DROP processor into the socket!

Orientation Posts

F. Close Load Plate and Socket Lever
A. Close the load plate all the way as shown.
B. With your finger, push down on the load plate as shown.
C. Close the socket lever and ensure that the load plate tab engages under the socket lever when fully closed.

8 Install DIMM Memory Modules

DDR3 DIMM Memory Identification:
⚠ The Intel® Workstation System SC5650SCWS supports upto 12 DDR3-800/1066/1333 RDIMMs or UDIMMs.

DIMM notch and socket bump must align as shown.

DDR3

Memory Configurations and Population Order:
- Minimum of one 1 GB DDR3-800/1066/1333 RDIMM or UDIMM.
- Install from first slot of each channel (A1, B1, C1, D1, E1, or F1).
- Install Quad-Rank DIMM from first slot of each channel.
- Channel D, E, and F are not available when CPU 2 socket is empty.
- Mixing of RDIMMs and UDIMMs is not supported.

DIMM A2
DIMM A1
DIMM B2
DIMM B1
DIMM C2
DIMM C1

DIMM D2
DIMM D1
DIMM E2
DIMM E1
DIMM F2
DIMM F1

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 with 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.