SuperServer®
SYS-511R-W

USER'S MANUAL

Revision 1.0b

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Manual Revision 1.0b

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Preface

About this Manual

This manual is written for professional system integrators and PC technicians. It provides information for the installation and use of the server. Installation and maintenance should be performed by certified service technicians only.

Please refer to the SYS-511R-W server specifications page on our website for updates on supported memory, processors and operating systems (http://www.supermicro.com).

Notes

For your system to work properly, please follow the links below to download all necessary drivers/utilities and the user's manual for your server.

- Supermicro product manuals: http://www.supermicro.com/support/manuals/
- Product drivers and utilities: https://www.supermicro.com/wdl
- Product safety info: http://www.supermicro.com/about/policies/safety_information.cfm

If you have any questions, please contact our support team at:

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This manual may be periodically updated without notice. Please check the Supermicro website for possible updates to the manual revision level.

Secure Data Deletion

A secure data deletion tool designed to fully erase all data from storage devices can be found on our website: https://www.supermicro.com/about/policies/disclaimer.cfm?url=/wdl/utility/Lot9_Secure_Data_Deletion_Utility/

Warnings

Special attention should be given to the following symbols used in this manual.

Warning! Indicates important information given to prevent equipment/property damage or personal injury.

Warning! Indicates high voltage may be encountered when performing a procedure.

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Chapter 1

Introduction

1.1 Overview

This chapter provides a brief outline of the functions and features of the SuperServer SYS-511R-W. It is based on the X13SCW-F motherboard and the CSE-815BTS-R000WNP chassis.

The following provides an overview of the specifications and capabilities.

System Overview	
Motherboard	X13SCW-F
Chassis	CSE-815BTS-R000WNP
Processor Support	Supports an Intel® Xeon® 6300-series/E-2400 or 12th Generation Pentium® (socket V0 - LGA1700) series processor with up to eight cores
Memory	Four DIMM slots. Up to 128 GB of ECC UDIMM DDR5 memory with speeds of up to 4400 MT/s with one DIMM per channel or 4000 MT/s with two DIMMs per channel.
Drive Support	Four hot-swap 3.5" SATA (default) drive bays (four SAS3 with optional parts) One M.2 slot from CPU PCIe 4.0 x4 One M.2 slot from PCH PCIe 4.0 x4
Expansion Slots	For slots 1 and 2: One PCIe 5.0 x16 (FHFL) in slot 1 -or- One PCIe 5.0 x8 (FHFL) in slot 1 and one PCIe 5.0 x8 (FHFL) in slot 2 For slot 3: One PCIe 4.0 x4 in x16 slot (LP)
Networking	Two 1GbE Base-T LAN One dedicated BMC LAN located on the rear I/O panel
I/O Ports	One rear COM port One rear VGA port Two rear USB 2.0 ports, two front accessible USB 2.0 headers Two rear USB 3.2 Gen 2 x1 ports, one front accessible USB 3.2 Gen 1 x1 headers One USB 3.2 Gen 2 x1 Type A header
System Cooling	Four 40 x 40 x 56 mm counter rotating PWM fans plus two additional fan housing space Passive heatsink for 1U system One air shroud
Power	Single 600 W high-efficiency power supply (Titanium level, 96%) with redundant option
Form Factor	1U (WxHxD) 17.2 x 1.7 x 25.6 in (436.9 x 43.2 x 650.2 mm)

Notes: A Quick Reference Guide can be found on the product page of the Supermicro website. The following safety models associated with the SYS-511R-W have been certified as compliant with CSA or UL models: 815-R6X13, 815B-R6X13, 815-6.

1.2 System Features

The following views of the system display the main features. Refer to Appendix B for additional specifications.

Front View

Access four drive carriers at the chassis front. Each carrier has a small space on the front to place an orange or purple label to help distinguish SAS/SATA from other protocols.

Figure 1-1. Front View

Storage Drive Numbers	
Item	**Description**
0-1	(Optional) Hybrid Gen 4 NVMe drive bays
0-3	Four 3.5" hot-swap SATA/SAS drive bays

Note: SAS and NVMe support requires optional parts.

Drive Carriers

Each drive carrier has two LED indicators: an activity indicator and a status indicator. For RAID configurations using a controller, the meaning of the status indicator is described in the table below.

Drive Carrier LED Indicator			
	Color	**Blinking Pattern**	**Behavior for Device**
Activity LED	Blue	Solid On	Idle SAS/NVMe drive installed
	Blue	Blinking	I/O activity

Note: Enterprise level drives are recommended for use in Supermicro chassis and servers. For information on recommended drives, see the Supermicro website, http://www.supermicro.com/products/nfo/files/storage/SBB-HDDCompList.pdf.

Control Panel

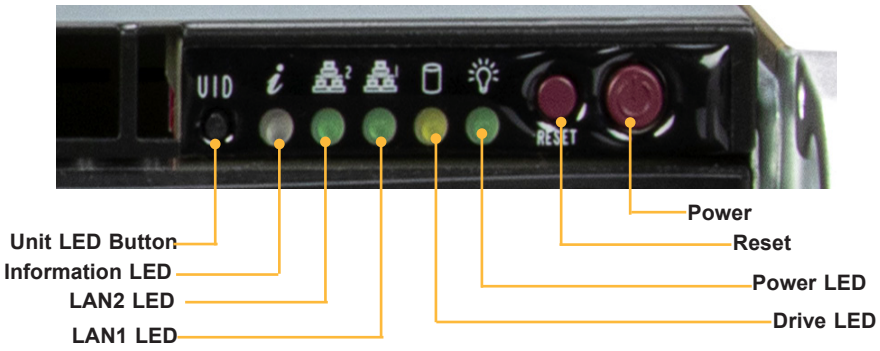


Figure 1-2. Control Panel

Control Panel Features	
Feature	**Description**
UID LED Button	Push this button to turn on the blue UID LED indicators both at the front and at the rear. This helps in identifying the unit when requiring service, especially when it is part of a large installation.
Information LED	Alerts operator to several states, as noted in the table below.
LAN2 LED	Indicates network activity on LAN port 2 when flashing.
LAN1 LED	Indicates network activity on LAN port 1 when flashing.
Drive LED	Indicates activity on the storage drives when flashing.
Power LED	Steady on – Power on Blinking at 4 Hz – Checking BIOS/BMC integrity Blinking at 4 Hz and "i" LED is blue – BIOS firmware updating Two blinks at 4 Hz, one pause 2 Hz and "i" LED blue – BMC firmware updating Blinking at 1 Hz and "i" LED red – Fault detected
Reset Button	Reboots the system
Power Button	The main power switch applies or removes primary power from the power supply to the server but maintains standby power. Hold for four seconds to force a shut down.

Information LED	
Color, Status	**Description**
Red, blinking at 1 Hz	Fan failure, check for an inoperative fan.
Red, blinking at 0.25 Hz	Power failure, check for a non-operational power supply.
Red, solid, with Power LED blinking green	Fault detected
Blue and red, blinking at 10 Hz	Recovery mode
Blue, solid	UID has been activated locally to locate the server in a rack environment.
Blue, blinking at 1 Hz	UID has been activated using the BMC to locate the server in a rack environment.
Blue, blinking at 2 Hz	BMC is resetting
Blue, blinking at 4 Hz	BMC is setting factory defaults
Blue, blinking at 10 Hz with Power LED blinking green	BMC/BIOS firmware is updating

Rear View

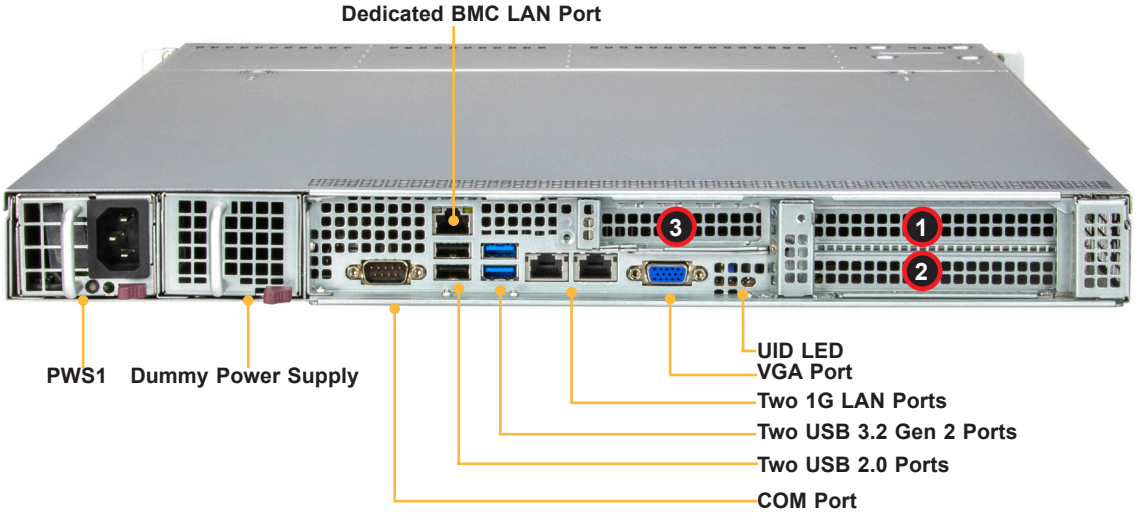


Figure 1-3. System: Rear View

System Features: Rear	
Feature	**Description**
Power Supply 1	Titanium level power supply
Dummy Power Supply	Placeholder for second power supply
COM Port	One serial port
BMC LAN Port	One dedicated BMC LAN port
USB 2.0 Ports	Two USB 2.0 ports
USB 3.2 ports	Two USB 3.2 Gen 2 ports
VGA Port	One VGA video port
LAN Ports	Two 1G LAN ports
UID LED	Unit identifier LED

Expansion Card Slots	
Item	**Description**
1 and 2	One PCIe 5.0 x16 (FHFL) in slot 1 -or- One PCIe 5.0 x8 (FHFL) in slot 1 and one PCIe 5.0 x8 (FHFL) in slot 2
3	One PCIe 4.0 x4 (in x16) low profile expansion slot

Note: Full height = 4.2", full length = 10.5", low profile = 2.5"

Power Supply Indicators		
Power Supply Condition	**Green LED**	**Amber LED**
No AC power to the power supply	OFF	OFF
Power supply critical events causing a shutdown/failure/ OCP/OVP/Fan Fail/OTP/UVP	OFF	ON
Power supply warning events where the power supply continues to operate: high temperature, over voltage, under voltage, etc.	OFF	1 Hz Blinking
AC power present and only 12 VSB ON (PS OFF)	1 Hz Blinking	OFF
Output is on and working properly	ON	OFF
AC cord unplugged and in redundant mode	OFF	ON

Top View

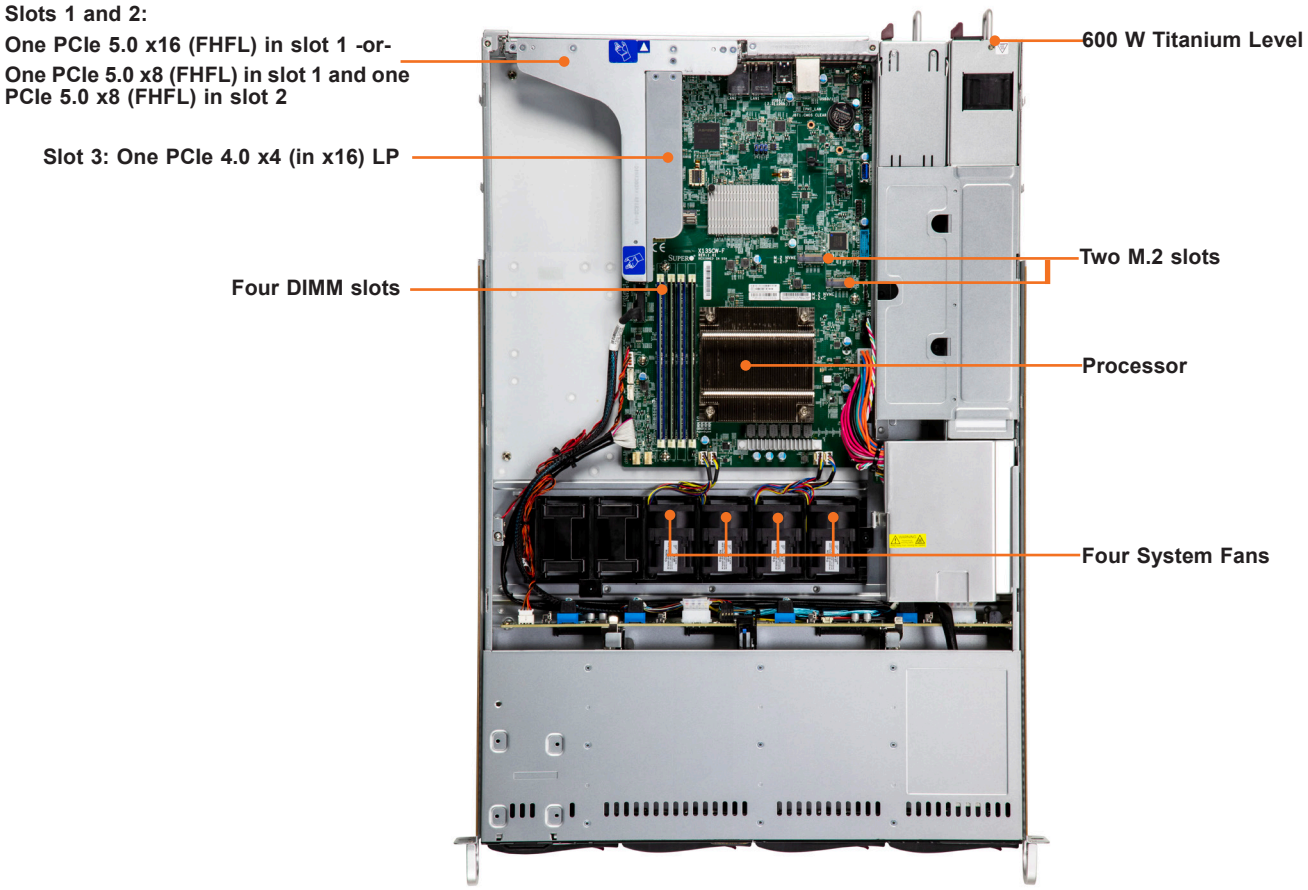


Figure 1-4. System: Top View

System Features: Top	
Feature	**Description**
Power Supply	Single 600 W high-efficiency power supply (Titanium level, 96%) with redundant option
M.2 slots	Two PCIe 4.0 x4 M-Key NVMe, one from CPU and one from PCH
DIMM slots	Four DIMM slots. Up to 128 GB of DDR5 ECC UDIMM memory with speeds of up to 4400 MT/s with one DIMM per channel or 4000 MT/s with two DIMMs per channel
Processor	Intel® Xeon® 6300-series/E-2400 or 12th Generation Pentium® (socket V0 - LGA1700) series processor with up to eight cores
Expansion Slots	For slots 1 and 2: One PCIe 5.0 x16 (FHFL) in slot 1 -or- One PCIe 5.0 x8 (FHFL) in slot 1 and one PCIe 5.0 x8 (FHFL) in slot 2 For slot 3: One PCIe 4.0 x4 in x16 slot (LP)
System fans	Four 4-cm counter-rotating fans with space for two additional fans

1.3 System Architecture

This section covers the locations of the system electrical components.

Main Components

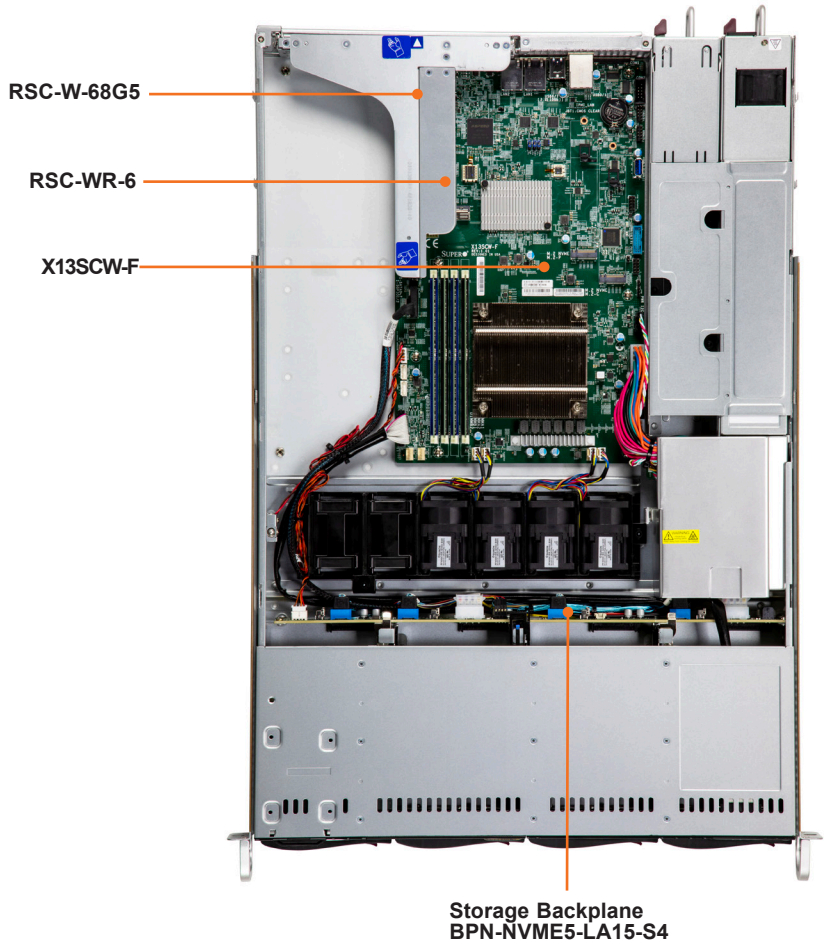


Figure 1-5. Main Components Locations

Printed Circuit Boards	
Feature	**Description**
Riser Cards	Two riser cards
Motherboard	X13SCW-F
Backplane	BPN-NVME5-LA15-S4

1.4 Motherboard Layout

Below is a layout of the X13SCW-F motherboard with jumper, connector and LED locations shown. See the table on the following page for descriptions. For detailed descriptions, pinout information and jumper settings, refer to Chapter 4 or the Motherboard Manual.

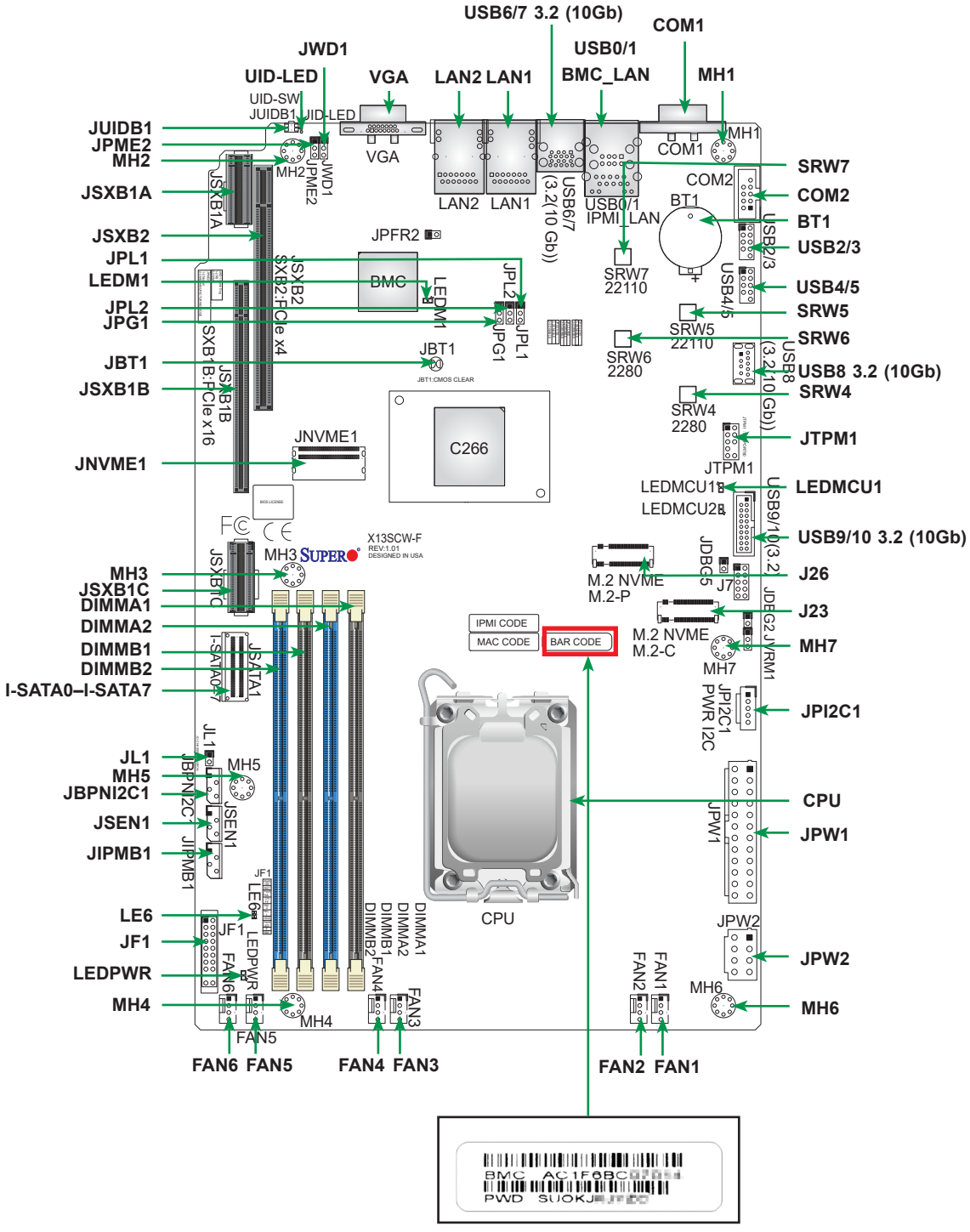


Figure 1-6. Motherboard Layout

Quick Reference Table

Jumper	Description	Default Setting
JBT1	CMOS Clear	Open (Normal)
JPG1	VGA Enable	Pins 1–2 (Enabled)
JPL1, JPL2	LAN1, LAN2 Enable	Pins 1–2 (Enabled)
JPME2	ME Manufacturing Mode	Pins 1–2 (Normal)

LED	Description	Status
LE6	Power Ready LED	Solid Amber: Standby Solid Red: Power Failed Solid Green: Power On
LEDM1	BMC Heartbeat LED	Blinking Green: BMC Normal
LEDMCU1	Micro Control Unit (MCU) Heartbeat LED	Blinking Green: MCU Normal
LEDPWR	Onboard Power LED	Solid Green: Power On
UID-LED	Unit Identifier (UID) LED	Solid Blue: Unit Identified

Connector	Description
BT1	Onboard Battery
COM1, COM2	COM Port, COM Header
FAN1–FAN6	CPU/System Fan Headers
BMC_LAN	Dedicated BMC LAN Port
I-SATA0–I-SATA7	Intel® PCH SATA 3.0 Ports (with RAID 0, 1, 5, 10)
JBPNI2C1	4-pin BMC External I²C Header (for the BPN-NVME5-LA15-S4 backplane)
JF1	Front Control Panel Header
JIPMB1	4-pin BMC External I²C Header (for an BMC card)
JL1	Chassis Intrusion Header
JNVME1	NVMe MCIO Connector x8 (two PCIe 4.0 x4 via PCH)
JPI²C1	Power I²C System Management Bus (SMB) Header
JPW1	24-pin ATX Power Supply Connector
JPW2	8-pin Power Connector
JSEN1	Inlet Sensor Header
JSXB1A, JSXB1B, JSXB1C	Supermicro Proprietary WIO_L (Left) Add-On Card Slots
JSXB2	Supermicro Proprietary WIO_R (Right) Add-On Card Slot
JTPM1	Trusted Platform Module (TPM)/Port 80 Header
JUIDB1	Unit Identifier (UID) Switch
LAN1, LAN2	1GbE LAN Ports
M.2-C	M.2 Slot from CPU PCIe 4.0 x4 (supports M-Key 2280/22110 FF)

Connector	Description
M.2-P	M.2 Slot from PCH PCIe 4.0 x4 (supports M-Key 2280/22110 FF)
SRW4–SRW7	M.2 Mounting Holes
USB0/1	Back Panel USB 2.0 Ports
USB2/3, USB4/5	Front Accessible USB 2.0 Headers
USB6/7	Back Panel USB 3.2 Gen 2 x1 Ports
USB8	USB 3.2 Gen 2 x1 Type-A Header
USB9/10	Front Accessible USB 3.2 Gen 1 x1 Header
VGA	VGA Port

Motherboard Block Diagram

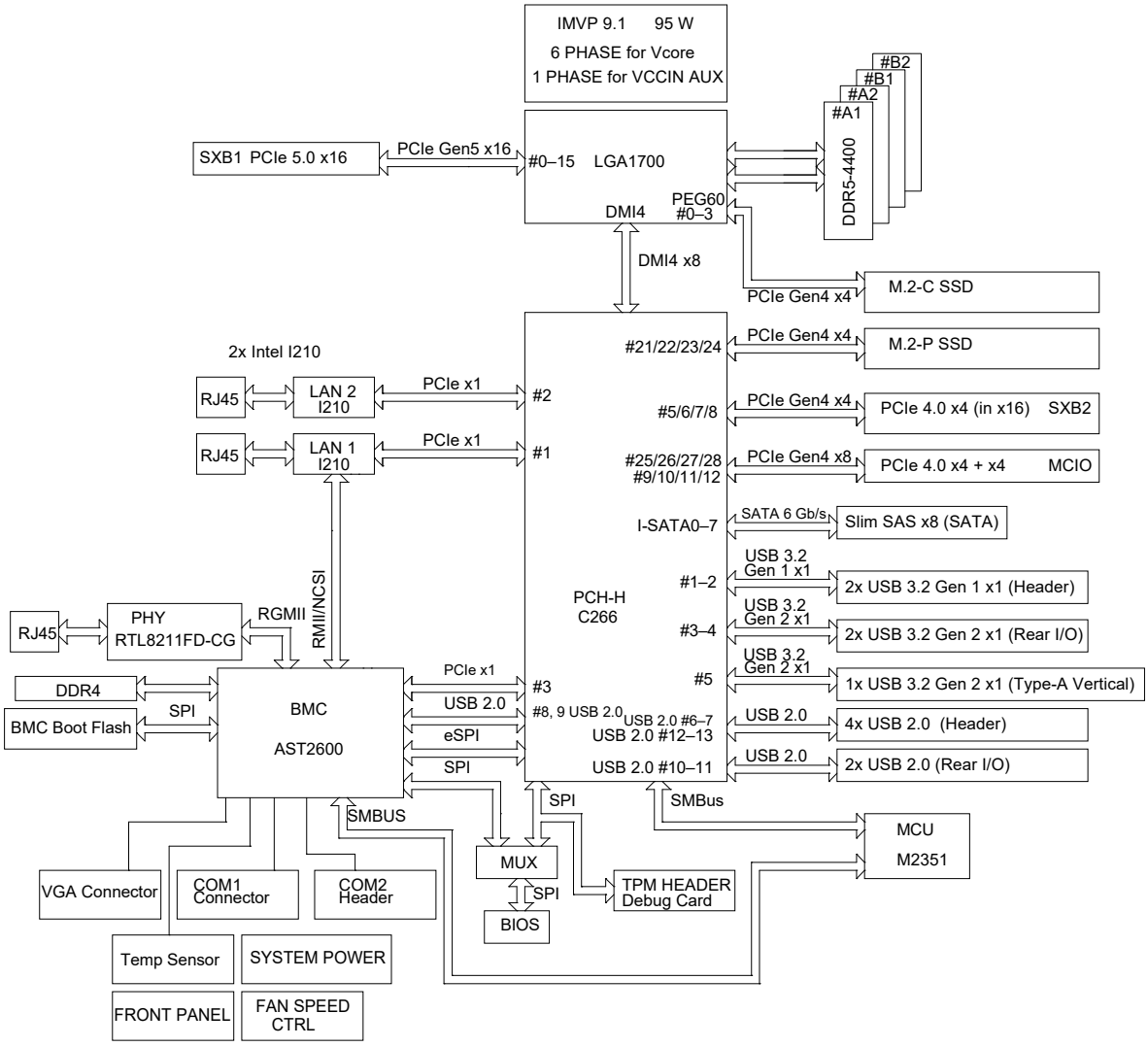


Figure 1-7. Motherboard Block Diagram

Chapter 2

Server Installation

2.1 Overview

This chapter provides advice and instructions for mounting your system in a server rack. If your system is not already fully integrated with processors, system memory etc., refer to Chapter 3 for details on installing those specific components.

Caution: Electrostatic Discharge (ESD) can damage electronic components. To prevent such damage to PCBs (printed circuit boards), it is important to use a grounded wrist strap, handle all PCBs by their edges and keep them in anti-static bags when not in use.

2.2 Unpacking the System

Inspect the box in which the SuperServer SYS-511R-W was shipped, and note if it was damaged in any way. If any equipment appears damaged, file a damage claim with the carrier who delivered it.

Decide on a suitable location for the rack unit that will hold the server. It should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. It will also require a grounded AC power outlet nearby. Be sure to read the precautions and considerations noted in Appendix A.

2.3 Preparing for Setup

The box in which the system was shipped should include the rackmount hardware needed to install it into the rack. Please read this section in its entirety before you begin the installation.

Choosing a Setup Location

- The system should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated.
- Leave enough clearance in front of the rack so that you can open the front door completely (approximately 25 inches) and approximately 30 inches of clearance in the back of the rack to allow sufficient space for airflow and access when servicing.
- This product should be installed only in a Restricted Access Location (dedicated equipment rooms, service closets, etc.).

- This product is not suitable for use with visual display workplace devices according to §2 of the German Ordinance for Work with Visual Display Units.

Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are extended to the floor so that the full weight of the rack rests on them.
- In single rack installations, stabilizers should be attached to the rack. In multiple rack installations, the racks should be coupled together.
- Always make sure the rack is stable before extending a server or other component from the rack.
- You should extend only one server or component at a time - extending two or more simultaneously may cause the rack to become unstable.

Server Precautions

- Review the electrical and general safety precautions in Appendix A.
- Determine the placement of each component in the rack *before* you install the rails.
- Install the heaviest server components at the bottom of the rack first and then work your way up.
- Use a regulating uninterruptible power supply (UPS) to protect the server from power surges and voltage spikes and to keep your system operating in case of a power failure.
- Allow any drives and power supply modules to cool before touching them.
- When not servicing, always keep the front door of the rack and all covers/panels on the servers closed to maintain proper cooling.

Rack Mounting Considerations

Ambient Operating Temperature

If installed in a closed or multi-unit rack assembly, the ambient operating temperature of the rack environment may be greater than the room's ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer’s maximum rated ambient temperature (TMRA).

Airflow

Equipment should be mounted into a rack so that the amount of airflow required for safe operation is not compromised.

Mechanical Loading

Equipment should be mounted into a rack so that a hazardous condition does not arise due to uneven mechanical loading.

Circuit Overloading

Consideration should be given to the connection of the equipment to the power supply circuitry and the effect that any possible overloading of circuits might have on overcurrent protection and power supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable Ground

A reliable ground must be maintained at all times. To ensure this, the rack itself should be grounded. Particular attention should be given to power supply connections other than the direct connections to the branch circuit (i.e. the use of power strips, etc.).

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.
- Slide rail mounted equipment is not to be used as a shelf or a work space.

2.4 Installing the Rails

There are a variety of rack units on the market, which may require a slightly different assembly procedure. This rail set fits a rack between 25.6" and 33" deep.

The following is a basic guideline for installing the system into a rack with the rack mounting hardware provided. You should also refer to the installation instructions that came with the specific rack you are using.

Identifying the Rails

The chassis comes with two sets of rack rails, one set for the right side of the chassis and one for the left. Each set consists of an inner rail that is pre-attached to the chassis, and an outer rail that attaches to the rack.

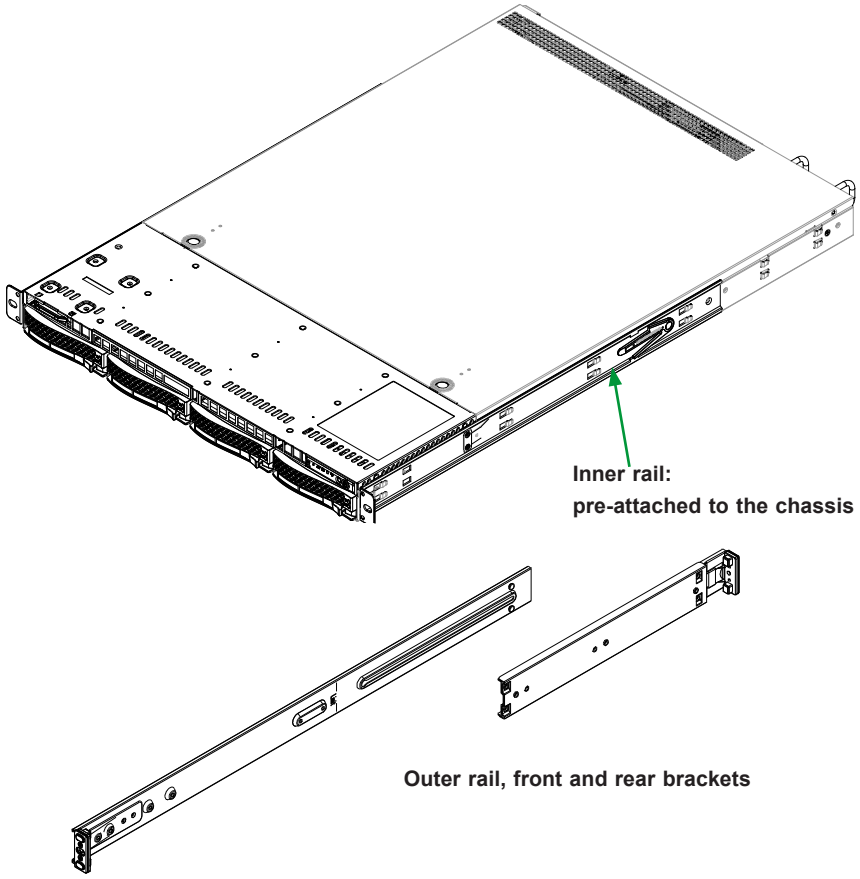


Figure 2-1. Identifying the Sections of the Rack Rails

Warning: Do not pick up the server by the front handles. They are designed to pull the system from a rack only.

Installing the Outer Rails

1. Measure the distance from the front rail of the rack to the rear rail of the rack.
2. Attach a short bracket to the rear side of the right outer rail, and a long bracket to the front side of the right outer rail as shown above on the right.
3. Adjust the short and long brackets to the proper distance so that the chassis can snugly fit into the rack.
4. Secure the rails to the cabinet with screws. Repeat steps 1-4 for the left outer rail.

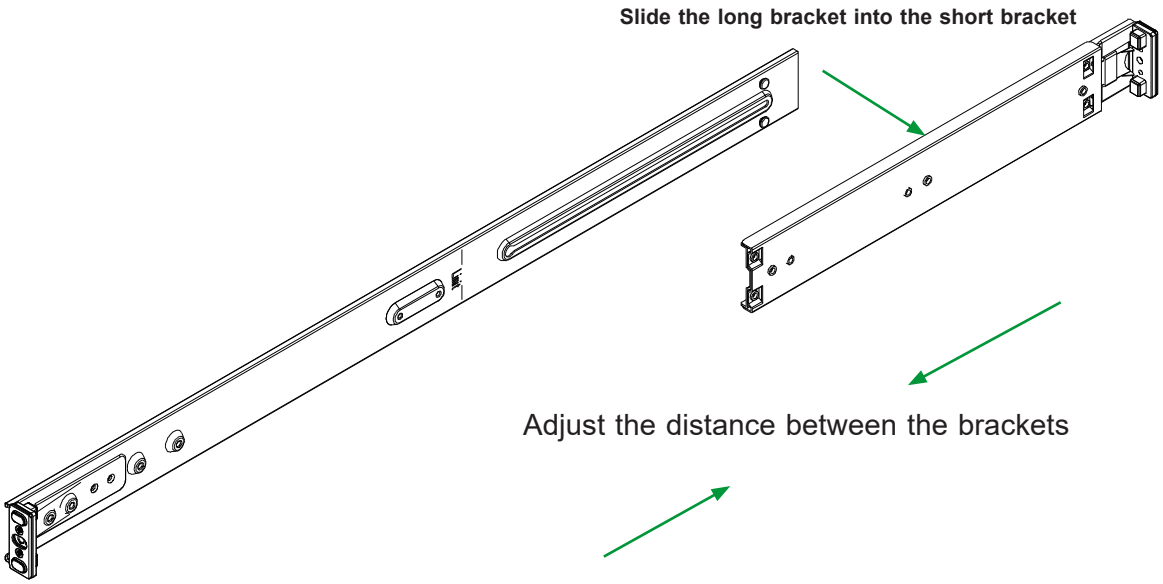


Figure 2-2. Extending and Mounting the Outer Rails

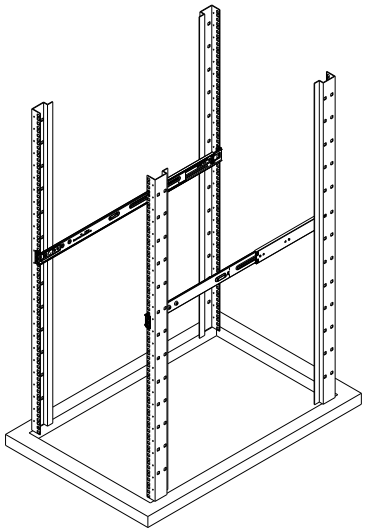


Figure 2-3. Installing the Outer Rails to the Rack

Installing the Rail Assemblies to the Rack

1. After you have installed the short and long brackets to the outer rails, you are ready to install the whole rail assemblies (outer rails with short and long brackets attached) to the rack. (See the previous page.)

2. Use M5 screws and washers to secure the rail assemblies into the rack as shown below.

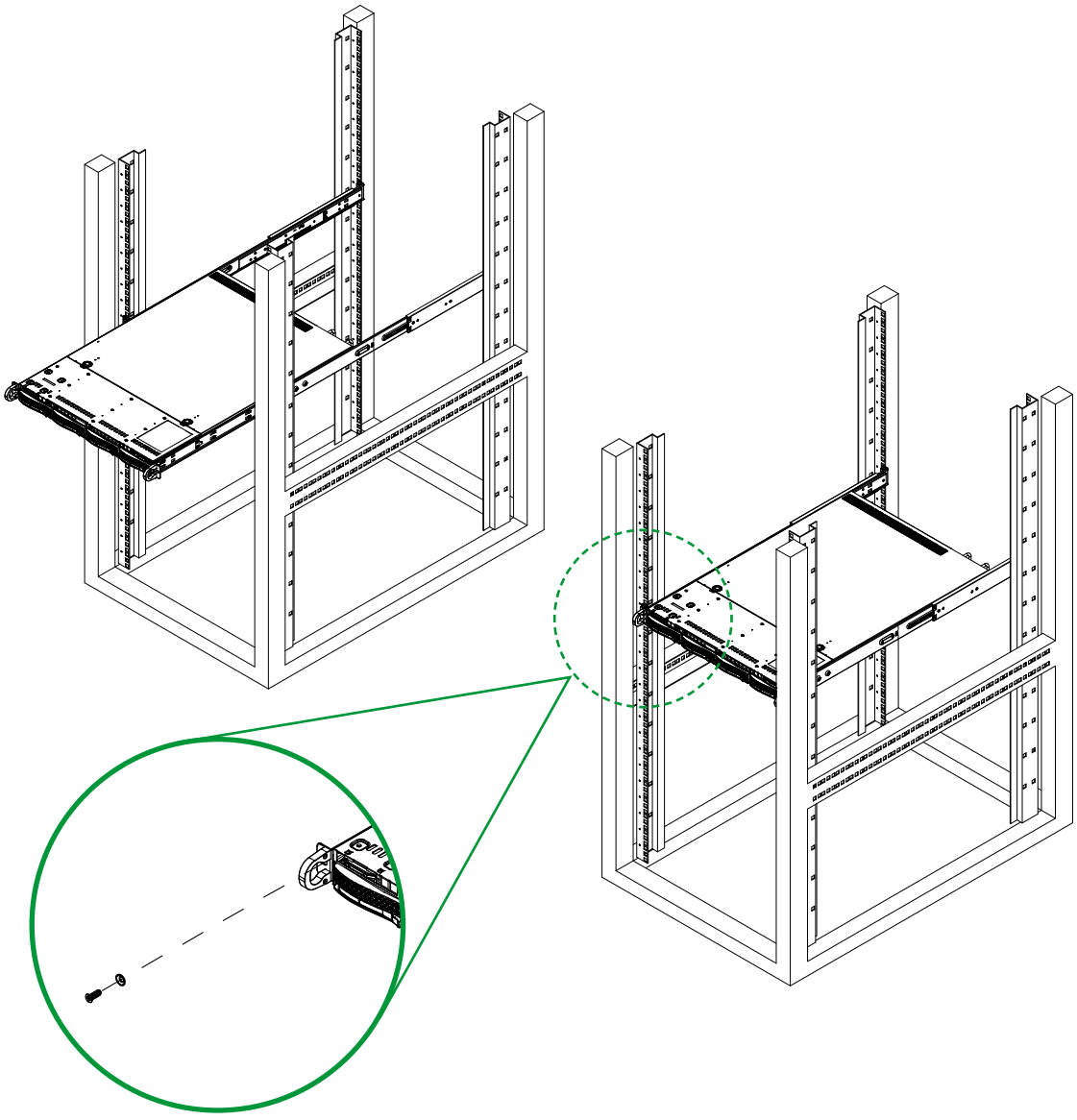


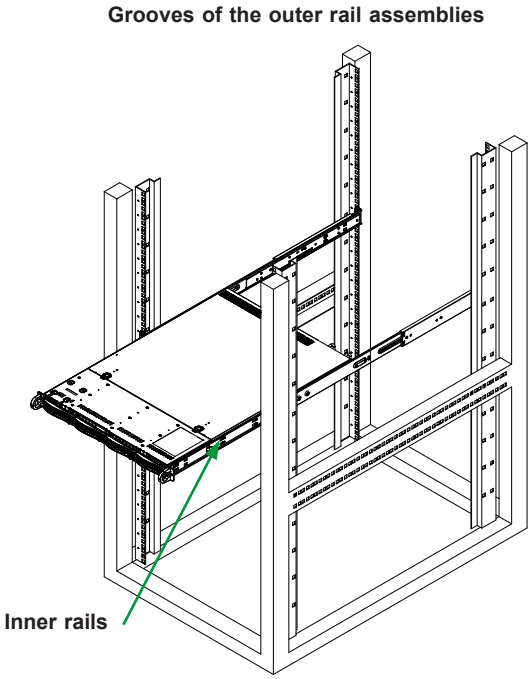
Figure 2-4. Securing the Rail Assemblies to the Rack

Note: Figure is for illustrative purposes only. Always install servers to the bottom of a rack first.

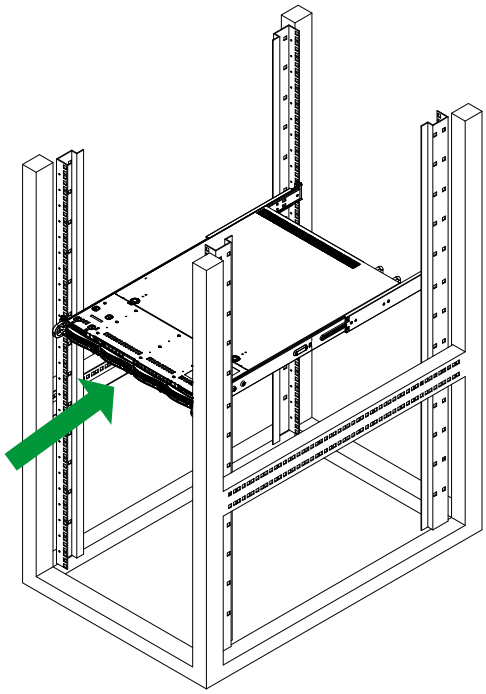
2.5 Installing the Chassis into the Rack

Once rails are attached to the chassis and the rack, the chassis is ready to be installed into a rack.

1. Push the inner slides, which are attached to the chassis, into the grooves of the outer slide assemblies that are installed in the rack as shown below.



2. Slide the chassis rails into the rack rails until the chassis is completely in the rack.



Note: Figure is for illustrative purposes only. Always install servers to the bottom of a rack first.

2.6 Removing the Chassis from the Rack

Caution! It is dangerous for a single person to off-load the heavy chassis from the rack without assistance. Be sure to have sufficient assistance supporting the chassis when removing it from the rack. Use a lift, if necessary.

1. Pull the chassis forward out the front of the rack until it stops.
2. Press the release latches on each of the inner rails downward simultaneously and continue to pull the chassis forward and out of the rack.

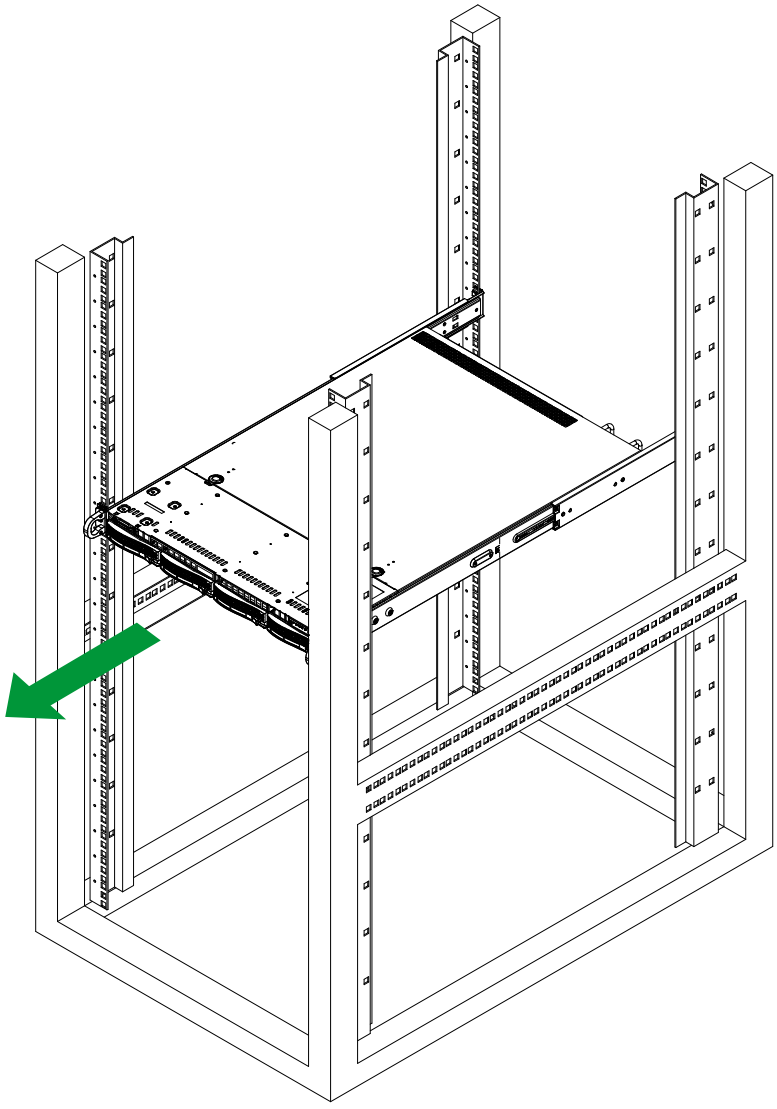


Figure 2-5. Removing the Chassis from the Rack

Chapter 3

Maintenance and Component Installation

This chapter provides instructions on installing and replacing main system components. To prevent compatibility issues, only use components that match the specifications and/or part numbers given.

Installation or replacement of most components require that power first be removed from the system. Please follow the procedures given in each section.

3.1 Removing Power

Use the following procedure to ensure that power has been removed from the system.

1. Use the operating system to power down the system.
2. After the system has completely shut-down, disconnect the AC power cords from the power strip or outlet.
3. Disconnect the power cords from the power supply modules.

3.2 Accessing the System

The chassis features a removable top cover for access to the internal components. When performing service on components inside the system, remove the system from the rack and place it on a work bench or desk. Do not service with the system extended from the rack.

Removing the Top Cover from the Chassis

Before installing any components, replacing chassis fans or accessing the motherboard, you will first need to remove the top cover from the chassis.

1. Remove the power cords from the rear of the power supplies as described in section 3.1.

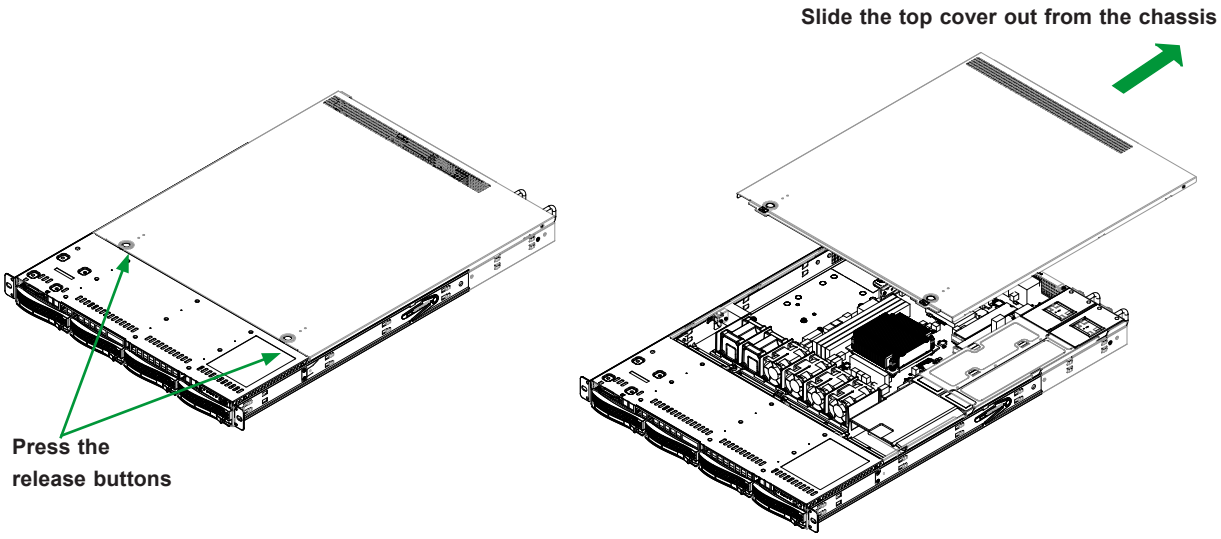


Figure 3-1. Removing Top Cover

2. Simultaneously press both the release tabs to release the top cover from its locking position.
3. Slide the cover back toward the rear of the chassis as shown below.
4. Lift the top cover upwards and off of the chassis.

Check that all ventilation openings on the top cover and the top of the chassis are clear and unobstructed.

Warning: Except for short periods of time, do NOT operate the server without the cover in place. The chassis cover must be in place to allow proper airflow and prevent overheating.

3.3 Processor and Heatsink Installation

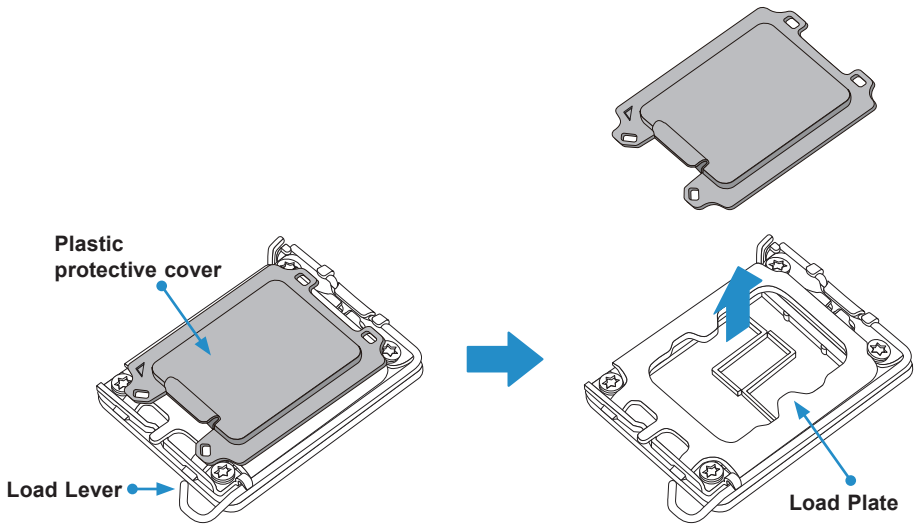
Warning: When handling the processor package, avoid placing direct pressure on the label area of the fan.

Important:

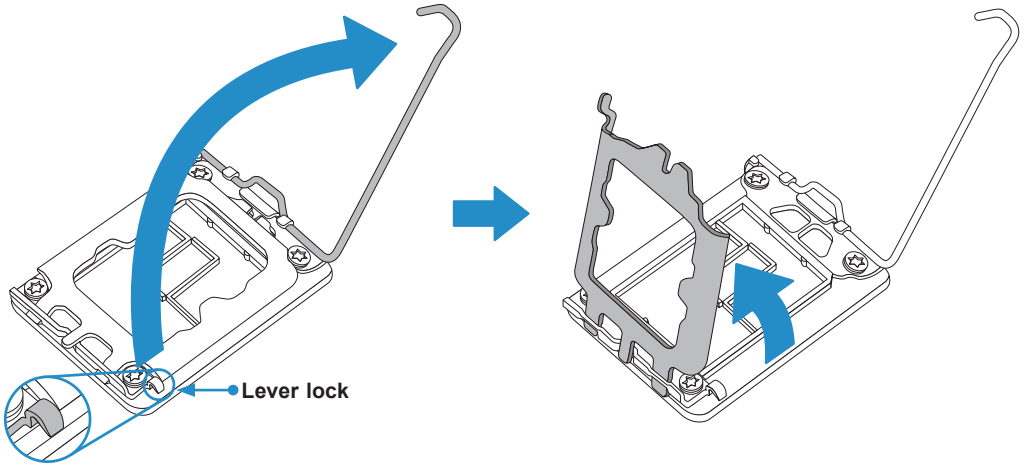
- Use ESD protection.
- Unplug the AC power cord from all power supplies after shutting down the system.
- Check that the plastic protective cover is on the CPU socket and none of the socket pins are bent. If they are, contact your retailer.
- When handling the processor, avoid touching or placing direct pressure on the LGA lands (gold contacts). Improper installation or socket misalignment can cause serious damage to the processor or CPU socket, which may require manufacturer repairs.
- If you buy a CPU separately, make sure that you use an Intel-certified multi-directional heatsink only.
- Refer to the Supermicro website for updates on processor support.
- All graphics in this manual are for illustrational purposes only. Your components may look different.

Installing the LGA 1700 Processor

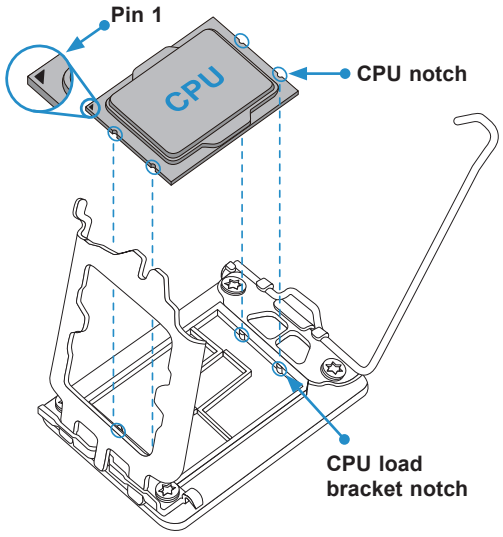
1. Remove the plastic protective cover from the load plate.



2. Gently push down the load lever to release and lift it, then lift the load plate to open it completely.



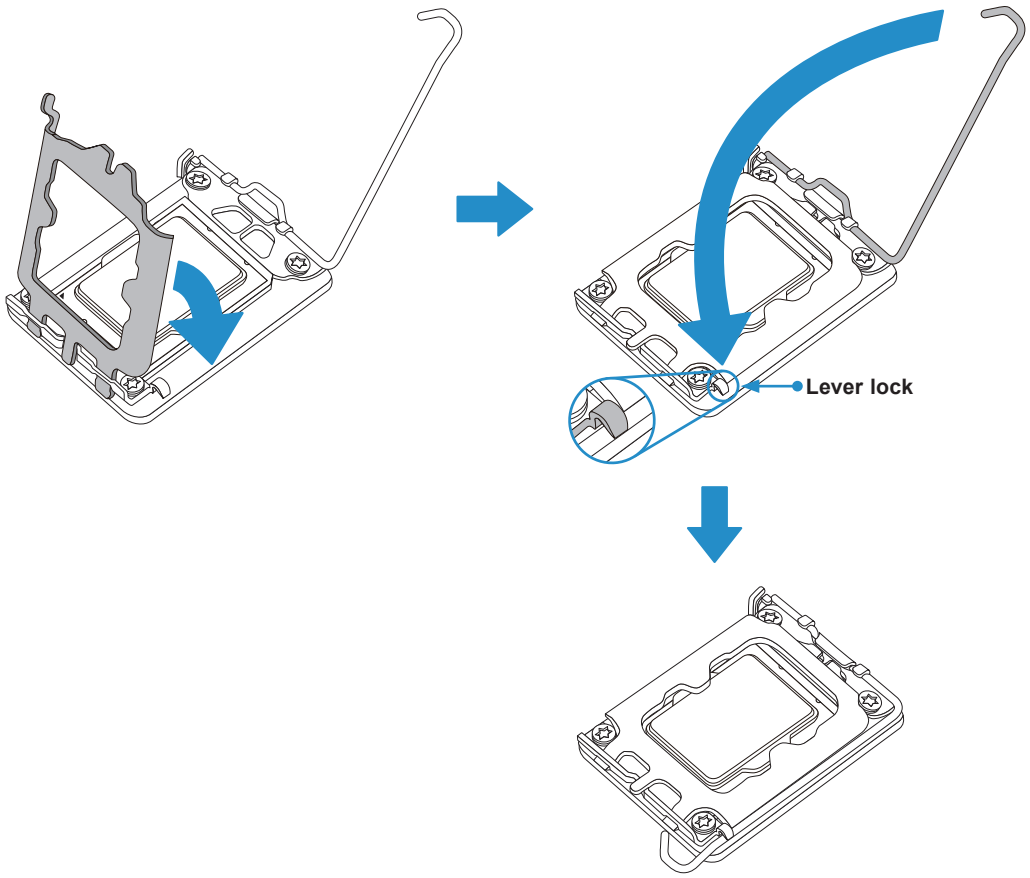
3. Use your thumb and your index finger to hold the CPU. Align the small triangle maker and notches on the CPU to the corresponding triangle maker and notches on the CPU load bracket. Once aligned, carefully lower the CPU straight down into the socket. (Do not drop the CPU on the socket, or move it horizontally or vertically.)



4. Do not rub the CPU against the surface or against any pins of the socket to avoid damaging the CPU or the socket.

5. With the CPU inside the socket, inspect all the corners to make sure it is properly installed.

6. Close the load plate with the CPU inside the socket. Gently push the load lever down until it locks under the Lever Lock latch.



! **Attention!** You can only install the CPU inside the socket in one direction. Make sure that it is properly inserted into the CPU socket before closing the load plate. If it doesn't close properly, do not force it as it may damage your CPU. Instead, open the load plate again and double-check that the CPU is aligned properly.

Installing a Heatsink

A passive type heatsink is used on the X13SCW-F motherboard.

Note: Do not apply any thermal grease to the heatsink or the CPU die; the required amount has already been applied.

1. Place the heatsink on top of the CPU so that the four mounting holes are aligned with those on the heatsink retention mechanism.

2. With a Phillips bit torque driver, gradually tighten the four screws to ensure even pressure. You can start with any screw, but make sure to tighten the screws in a diagonal pattern.

Note: Do not use a force greater than 6.0 in-lbf (0.678 N-m). Exceeding this force may over-torque the screw, causing damage to the processor, heatsink, and screw.

3. Examine all corners to ensure that the heatsink is firmly attached.

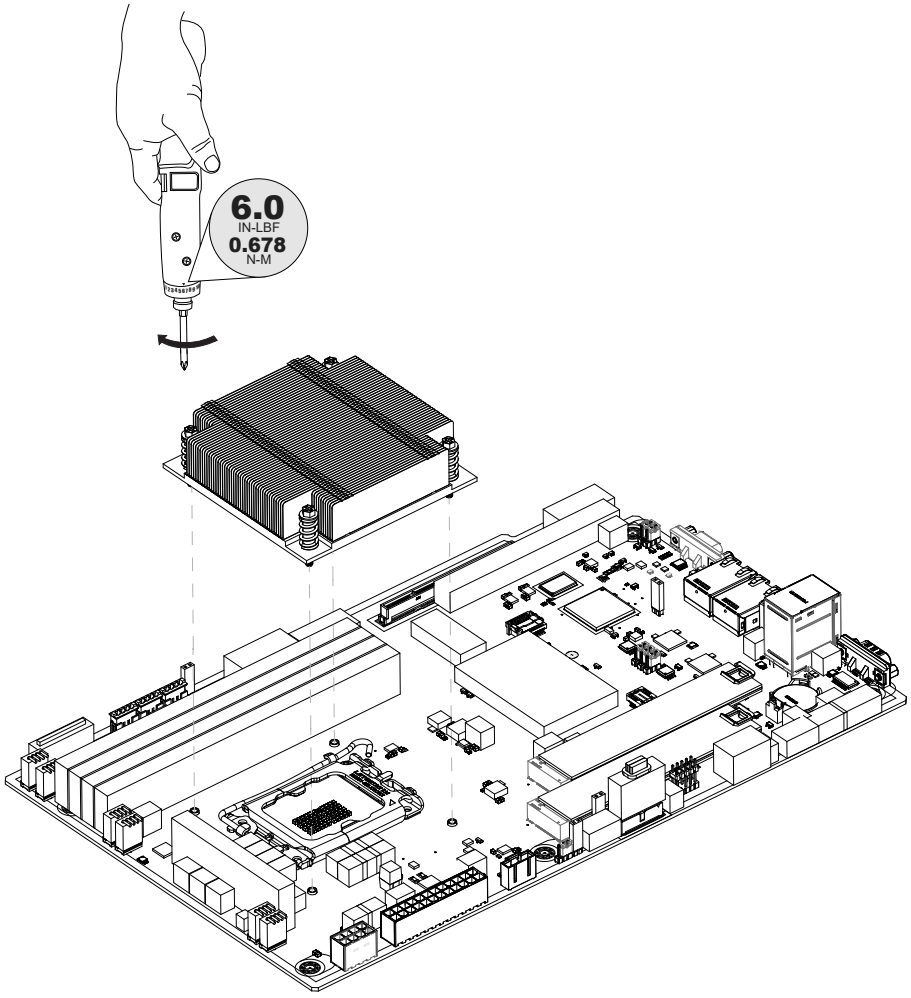


Figure 3-2. Installing the Heatsink

Removing a Heatsink

We do not recommend removing the heatsink. If necessary, please follow the instructions below to prevent damage to the CPU or the CPU socket. Wait for the heatsink to cool down before removing it.

1. Use a Phillips screwdriver or torque driver to loosen the four screws. You can start with any screw, but make sure to loosen the screws in a diagonal pattern.
2. Hold and gently pivot the heatsink back and forth to loosen it from the CPU. (Do not use excessive force when dislodging the heatsink.)
3. Once the heatsink is loose, remove it from the CPU.
4. Clean the surface of the CPU and the heatsink to get rid of the old thermal grease. Reapply the proper amount of thermal grease to the surface before you re-install the heatsink.

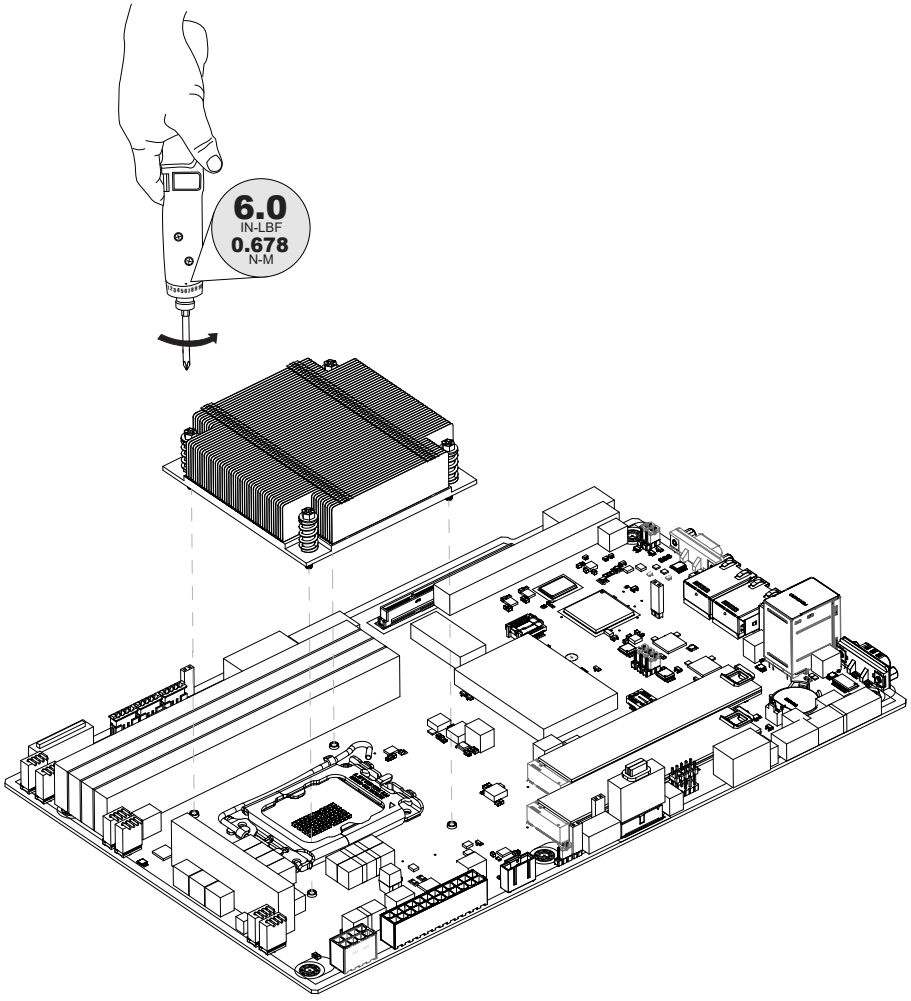


Figure 3-3. Removing the Heatsink

3.4 Memory Support and Installation

Note: Check the Supermicro website for recommended memory modules. Exercise extreme care when installing or removing DIMM modules to prevent any damage.

Memory Support

The X13SCW-F supports up to 128 GB of ECC UDIMM DDR5 memory with speeds of up to 4400 MT/s with one DIMM per channel and up to 4000 MT/s with two DIMMS per channel. Refer to the tables below for the recommended DIMM population order and additional memory information.

1 CPU, 4 DIMM Slots	
Number of DIMMs	**Memory Population Sequence**
1	DIMMB2 DIMMA2
2	DIMMB2, DIMMB1 DIMMB2, DIMMA2 DIMMA2, DIMMA1
4	DIMMB2, DIMMA2, DIMMB1, DIMMA1

Memory Support		
DIMM Type	**Speed (MT/s)**	**DIMM Slots**
1R UDIMM	4000	DIMMA1, DIMMA2, DIMMB1, DIMMB2
2R UDIMM	3600	DIMMA1, DIMMA2, DIMMB1, DIMMB2
1R or 2R UDIMM	4400	DIMMA2, DIMMB2

General Guidelines for Optimizing Memory Performance

- The blue slots must be populated first.
- It is recommended to use DDR5 memory of the same type, size, and speed.
- Mixed DIMM speeds can be installed. However, all DIMMs will run at the speed of the slowest DIMM.
- The motherboard will support an odd number amount of memory modules. However, to achieve the best memory performance, a balanced memory population is recommended.

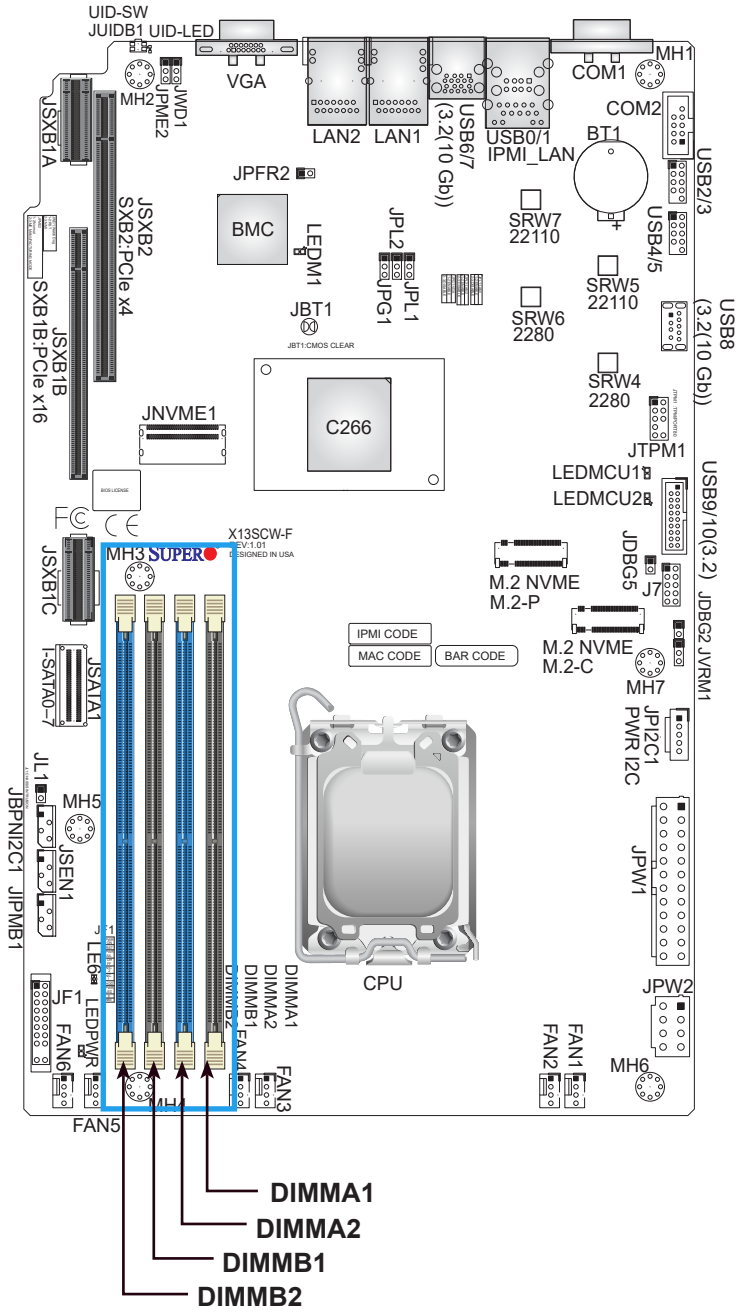
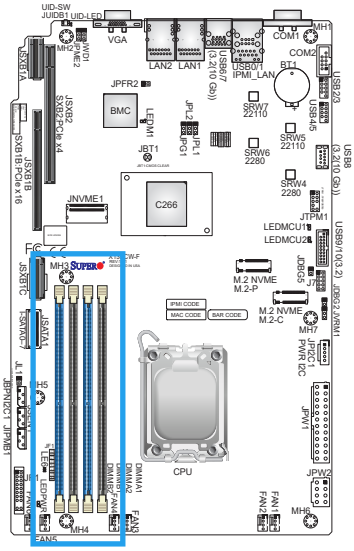
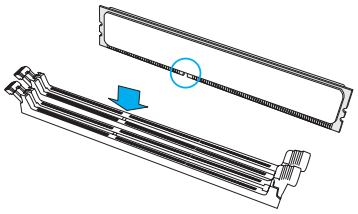


Figure 3-4. DIMM Slots

DIMM Installation

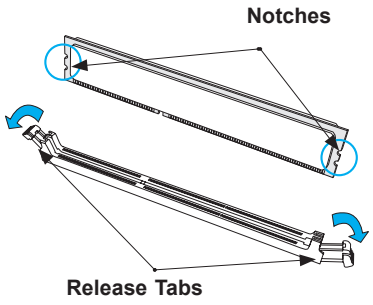
1. Insert the desired number of DIMMs into the memory slots based on the recommended DIMM population table on Section 3.4.
2. Push the release tabs outwards on both ends of the DIMM slot to unlock it.
3. Align the key of the DIMM module with the receptive point on the memory slot.
4. Align both ends of the module against the receptive points on the ends of the slot.
5. Press both ends of the module straight down into the slot until the module snaps into place.
6. Press the release tabs to the lock positions to secure the DIMM module into the slot.

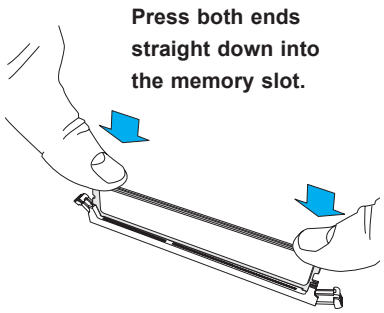




DIMM Removal

Press both release tabs on the ends of the DIMM socket to unlock it. Once the DIMM module is loosened, remove it from the memory slot.





3.5 Motherboard Battery

The motherboard uses non-volatile memory to retain system information when system power is removed. This memory is powered by a lithium battery residing on the motherboard.

Replacing the Battery

1. Begin by removing power from the system.
2. Remove the chassis top cover and the air shroud.
3. Push aside the small clamp that covers the edge of the battery. When the battery is released, lift it out of the holder.
4. To insert a new battery, slide one edge under the lip of the holder with the positive (+) side facing up. Then push the other side down until the clamp snaps over it.

Note: Handle used batteries carefully. Do not damage the battery in any way; a damaged battery may release hazardous materials into the environment. Do not discard a used battery in the garbage or a public landfill. Please comply with the regulations set up by your local hazardous waste management agency to dispose of your used battery properly.

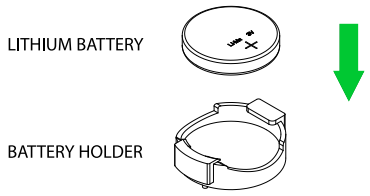


Figure 3-5. Installing the Onboard Battery

Warning: There is a danger of explosion if the onboard battery is installed upside down (which reverses its polarities). This battery must be replaced only with the same or an equivalent type recommended by the manufacturer (CR2032).

3.6 Storage Drives

This section provides instructions on installing and replacing system components. To assure compatibility, only use components that match the specifications or part numbers given.

The system supports four hot-swap 3.5" SAS/SATA storage drives in hybrid bays. An optional controller card kit is required to support SAS. Additional accessories are required to support up to two NVMe drives.

The drives are mounted in drive carriers that simplify their removal from the chassis. These carriers also help promote proper airflow. Each carrier has a small space on the front to place an orange or purple label to distinguish SAS/SATA from other protocols.

Note: Enterprise level drives are recommended for use in Supermicro servers. For compatible storage drives, see the corresponding web page.

Figure 3-6. Logical Drive Numbers

Installing Drives

Removing a Hot-Swap Drive Carrirer from the Chassis

1. Push the release button on the drive carrier, which will extend the drive bay handle.
2. Use the drive bay handle to pull the drive carrier out of the chassis.

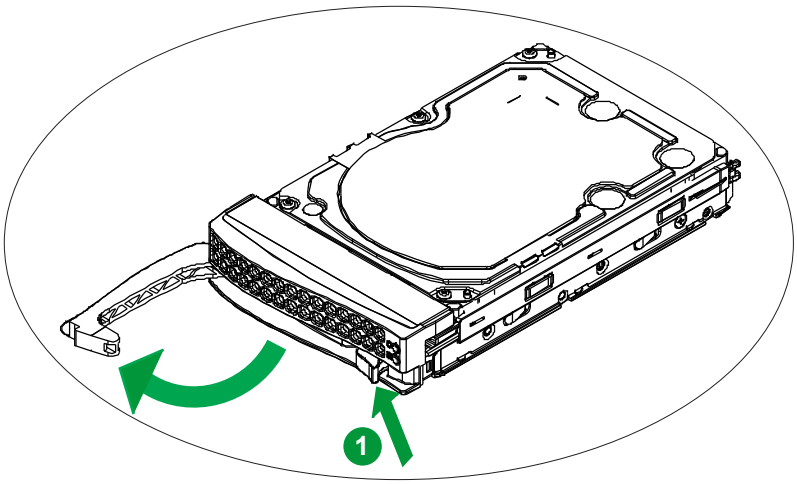


Figure 3-7. Removing a Drive Carrier

Note: Except for short periods of time while swapping drives, do not operate the chassis without the drive carriers.

Installing a Drive

To install a drive into the chassis, first remove the drive carrier from the chassis.

1. Press the release tab to release the drive carrier from its locking position.
2. Pull the drive carrier out from the chassis as shown below:

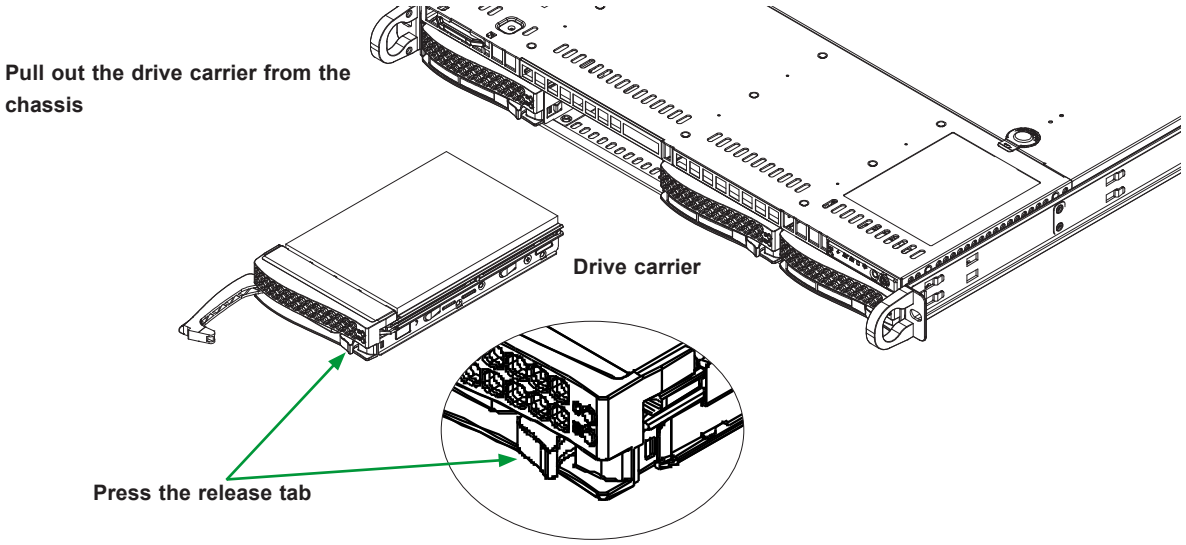


Figure 3-8. Removing Front Drive

3. Remove the dummy tray insert by first removing two screws, then pull out the dummy tray as shown in the illustration below.

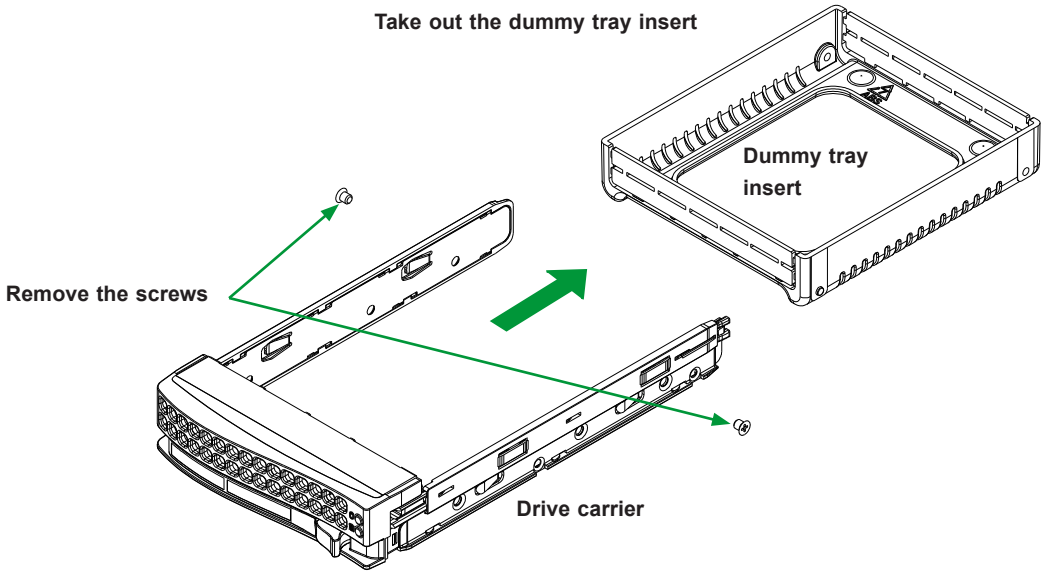


Figure 3-9. Removing Dummy Tray

4. Slide a drive into the drive carrier, and secure the drive to the drive carrier with two screws on each side of the carrier as shown below.

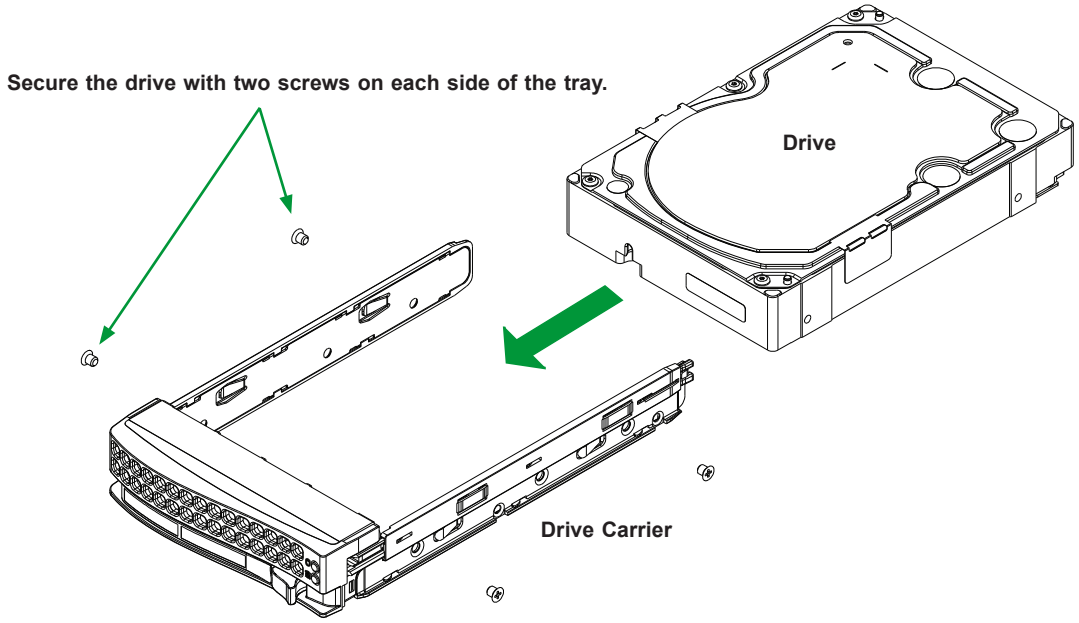


Figure 3-10. Installing a Drive into the Drive Carrier

5. Once the drive is securely placed into the drive carrier, you may install the drive carrier with the drive back into the chassis.

M.2 Solid State Drives

The motherboard supports two M.2 M-Key PCIe 4.0 x4 solid state drives in the 2280 and 22110 form factors.

Installing an M.2 SSD

Caution: Use industry-standard anti-static equipment, such as gloves or wrist strap, and follow precautions to avoid damage caused by ESD.

Locate the sockets M.2-C and M.2-P. Use SRW4, SRW5, SRW6, and SRW7 as needed to relocate the plastic holder. SRW4 and SRW6 are for 2280 M.2, while SRW5 and SRW7 are for 22110 M.2. Insert the M.2 SSD into M.2-C or M.2-P and secure with a black plastic cap at one of the SRW locations.

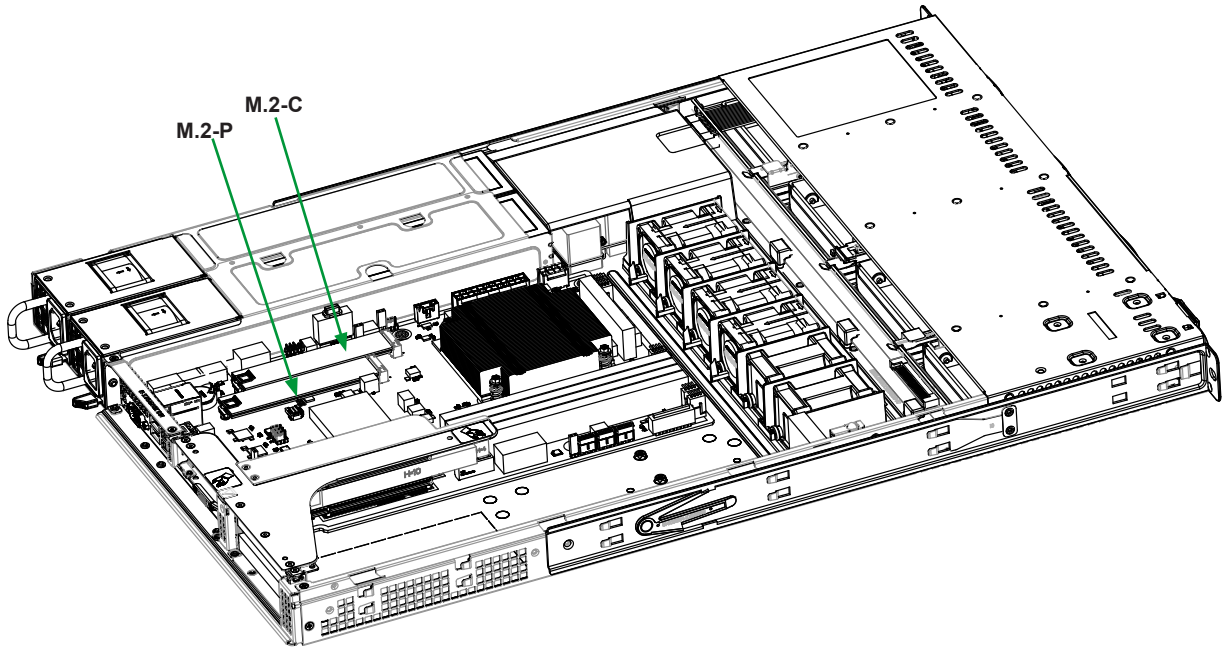


Figure 3-11. M.2 SSD Location

3.7 PCIe Expansion Cards

The system accepts one low-profile and two full-height full-length expansion cards, mounted on riser cards and brackets.

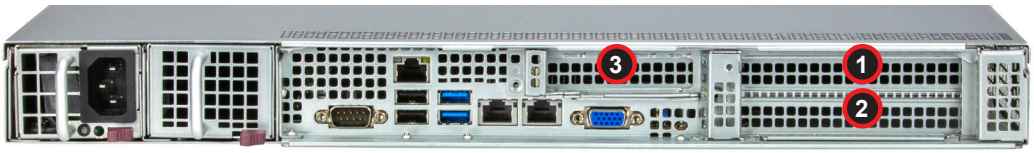


Figure 3-12. Expansion Card Slots in the Chassis

Expansion Card Slots	
Item	**Description**
1 and 2	One PCIe 5.0 x16 (FHFL) in slot 1 -or- One PCIe 5.0 x8 (FHFL) in slot 1 and one PCIe 5.0 x8 (FHFL) in slot 2
3	One PCIe 4.0 x4 (in x16) low profile expansion slot

Installing an Expansion Card

1. Power down the system as described in section 3.1. Remove the chassis from the rack and seat it on a work bench (safety area). Then open the chassis cover as described in section 3.2.
2. Evenly pull the top load riser bracket up and out from the system.
3. Install the add-on expansion cards into their slots on the riser cards, in the riser bracket. Screws are not necessary.
4. Insert the expansion card into slot(s) on the riser card while aligning the expansion card backplate with the open slot in the rear of the chassis. Flip the small metal lever to secure the add-on card.

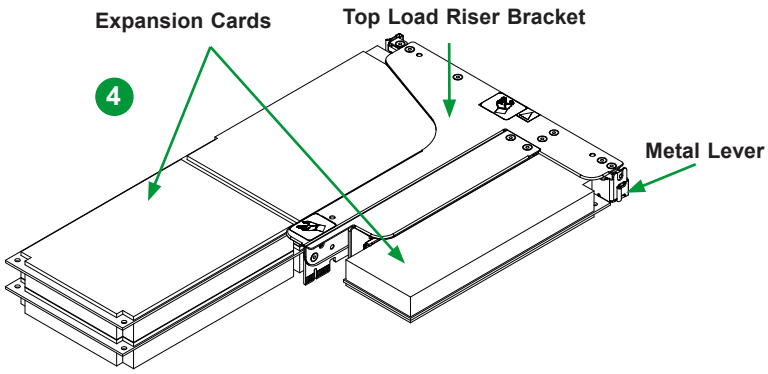


Figure 3-13. Top Load Riser Bracket

5. Connect cables to the expansion card as necessary.

6. Replace the chassis cover, plug the power cords into the rear of the power supply modules and power up the system.

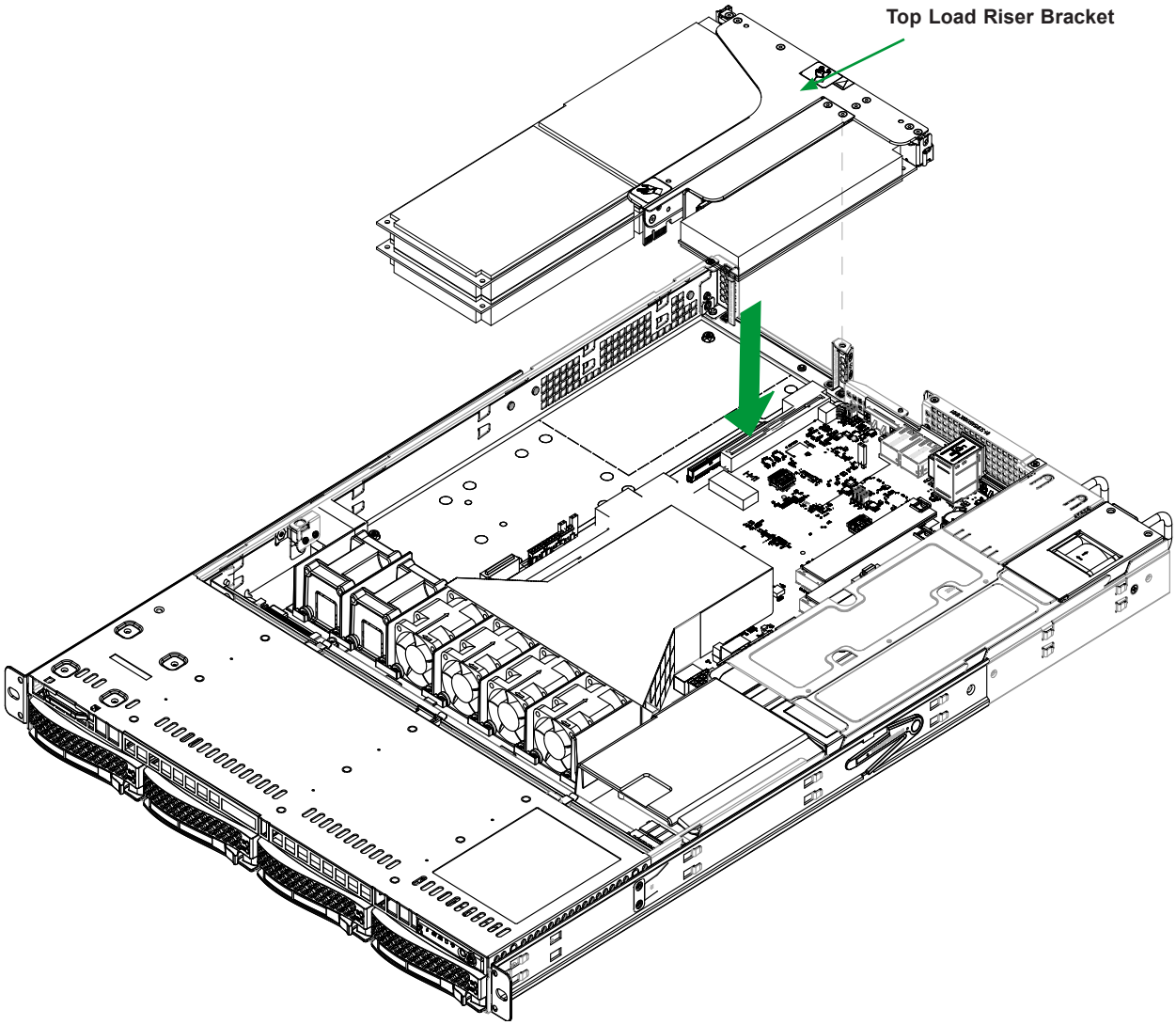


Figure 3-14. Installing Top Load Riser Bracket into Chassis

Warning: Please lift up the riser bracket by using an even amount of force.

3.8 System Cooling

Fans

Four 4-cm counter-rotating fans provide the cooling for the system. Each fan unit is actually made up of two fans joined back-to-back, which rotate in opposite directions. This counter-rotating action generates exceptional airflow and works to dampen vibration levels.

Make sure the chassis top cover makes a good seal so air circulates properly through the chassis.

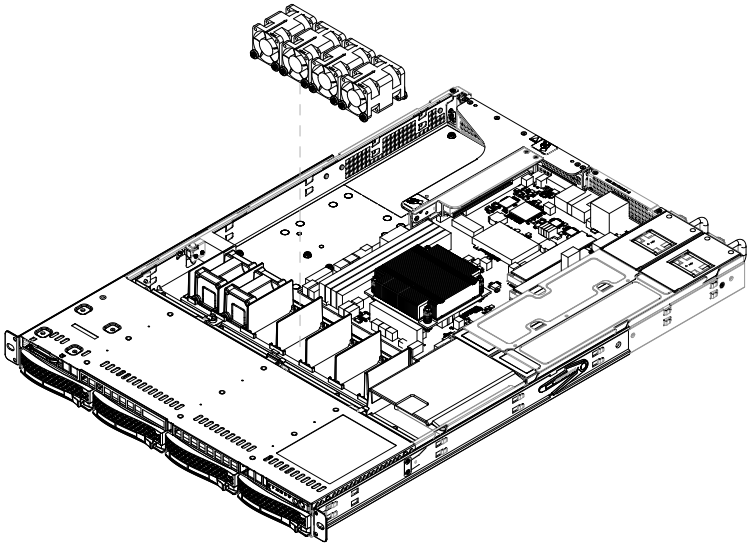


Figure 3-15. Fan Positions

Changing a System Fan

1. Determine which fan is failing. If possible, use the Baseboard Management Controller (BMC), see your motherboard manual. Remove the chassis cover to examine the fans.
2. Power down the system and remove both cables from both power supplies. Remove the chassis from the rack and seat it on a work bench (safety area). Then open the chassis cover as described in section 3.2.
3. Remove the power cable of the failed fan from the motherboard.
4. Hold down the fan housing with one hand and use the other hand to lift up the failed fan from the housing and out of the chassis.
5. Place the replacement fan into the vacant space in the housing while checking proper orientation. Ensure the mounting pins are secured in the housing.
6. Connect the fan power cable to the motherboard.
7. Power up the system and confirm the fans are working properly before closing the chassis cover.

Installing or Removing Air Shroud

The air shroud directs airflow to maximize cooling efficiency and comes pre-installed with the system. In the rare event that the air shroud needs to be removed or installed follow the procedure below.

Installing or Removing Air Shroud

1. Remove power from the system.
2. Remove the chassis cover.
3. To install the air shroud, place it over the CPU heatsink and align the wide end of the air shroud with the fans. To remove the air shroud, lift it out of the chassis.

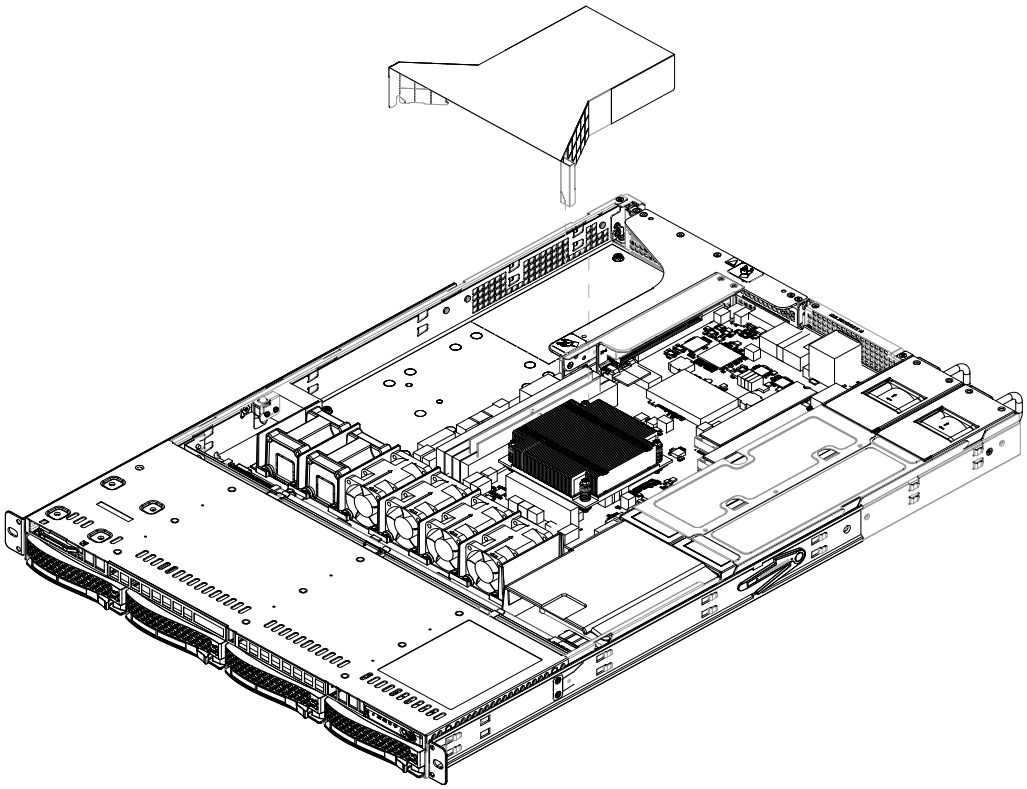


Figure 3-16. Installing or Removing the Air Shroud

3.9 Power

The SYS-511R-W comes with one power supply unit by default. An additional power supply can be added to make the system redundant. A redundant power supply configuration is hot-swappable, meaning the power supplies can be changed without powering down the system. New units can be ordered directly from Supermicro or authorized distributors.

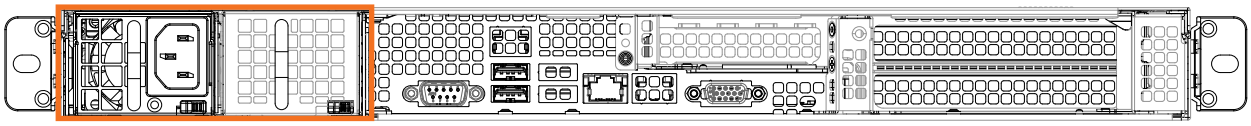


Figure 3-17. Power Supply Location

Power Supply LEDs

On the rear of the power supply module, an LED displays the status.

- **Solid Green:** When illuminated, indicates that the power supply is on.
- **Blinking Green:** When blinking, indicates that the power supply is plugged in and turned off by the system.
- **Blinking Amber:** When blinking, indicates that the power supply has a warning condition and continues to operate.
- **Solid Amber:** When illuminated, indicates that the power supply is plugged in, and is in an abnormal state. The system might need service. Please contact Supermicro technical support.

Replacing Power Supply Modules

The steps to replace the power supply modules depends on the system and the number of modules that have failed. Hot-swap is only possible on a system with two power supplies and only when one power supply has failed.

Replacing One Power Supply on Non-Redundant System

1. To replace the single power supply on a non-redundant system, remove power as described in Section 3.1.
2. Push the release tab (see the figure below), then pull the power supply out using the handle provided.
3. Push the new power supply module into the power bay until you hear a click (replace with the same model: p/n PWS-601A-1R).
4. Reconnect the power cord to the power supply inlet.
5. Reconnect the power cord to the power strip or outlet.
6. Power on the system and check the power supply's status using remote management or the LEDs.

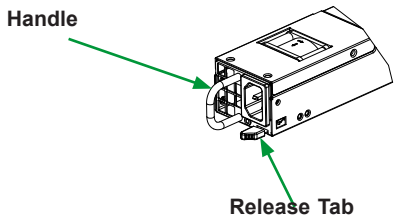


Figure 3-18. Release Tab and Handle Locations

Replacing One Power Supply on a Redundant System

1. Use remote management or check the power supply LEDs to determine which power supply module has failed.
2. Push the release tab (see the figure on the previous page), then pull the power supply out using the handle provided.
3. Push the new power supply module into the power bay until you hear a click (replace with the same model: p/n PWS-601A-1R).
4. Reconnect the power cord to the power supply inlet.
5. Reconnect the power cord to the power strip or outlet.
6. Check the power supply status by using remote management or the power supply's LEDs.

Replacing Two Power Supplies on a Redundant System

1. Remove power from the system as described in Section 3.1
2. Push the release tab (see the figure on the previous page), then pull the power supply out using the handle provided.
3. Push the new power supply module into the power bay until you hear a click (replace with the same model: p/n PWS-601A-1R).
4. Reconnect the power cord to the power supply inlet.
5. Reconnect the power cord to the power strip or outlet.
6. Repeat steps 2-5 for the second power supply.
7. Power on the system.
8. Check the power supply status by using remote management or the power supply's LEDs.

Chapter 4

Motherboard Connections

This section describes the connections on the motherboard and provides pinout definitions. Note that depending on how the system is configured, not all connections are required. The LEDs on the motherboard are also described here. A motherboard layout indicating component locations may be found in Chapter 1. More detail can be found in the Motherboard Manual.

Please review the Safety Precautions in Appendix A before installing or removing components.

4.1 Power Connections

ATX Power Supply Connector

The primary 24-pin power supply connector (JPW1) meets the ATX SSI EPS 12 V specification. An 8-pin (JPW2) processor power connector must also be connected to your power supply.

ATX Power 24-pin Connector Pin Definitions

Pin#	Definition	Pin#	Definition
13	+3.3 V	1	+3.3 V
14	NC	2	+3.3 V
15	GND	3	GND
16	PS_ON	4	+5 V
17	GND	5	GND
18	GND	6	+5 V
19	GND	7	GND
20	Res (NC)	8	PWR_OK
21	+5 V	9	5 VSB
22	+5 V	10	+12 V
23	+5 V	11	+12 V
24	GND	12	+3.3 V

8-Pin CPU Power Connector

JPW2 is an 8-pin 12 V DC power input for the CPU that must be connected to the power supply. Refer to the table below for pin definitions.

12 V 8-pin Power Pin Definitions	
Pin#	**Definition**
1–4	GND
5–8	+12 V

Important: To provide adequate power supply to the motherboard, be sure to connect the 24-pin ATX power and the 8-pin power connectors to the power supply. Failure to do so may void the manufacturer warranty on your power supply and motherboard.

4.2 Headers and Connectors

4-pin BMC External I²C Header

A System Management Bus header for IPMI 2.0 is located at JIPMB1. Connect the appropriate cable here to use the IPMB I²C connection on your system. Refer to the table below for pin definitions. JBPNI2C1 is used to update the CPLD of the BPN-NVME5-LA15-S4 backplane.

Note: The cables for JIPMB1 and JBPNI2C1 must be equal to or shorter than 30 cm.

External I²C Header Pin Definitions

Pin#	Definition
1	Data
2	GND
3	Clock
4	NC

NC = No Connection

Chassis Intrusion

A Chassis Intrusion header is located at JL1 on the motherboard. Attach the appropriate cable from the chassis to inform you of a chassis intrusion when the chassis is opened. Refer to the table below for pin definitions.

Chassis Intrusion Pin Definitions

Pin#	Definition
1	Intrusion Input
2	GND

Fan Headers

There are six 4-pin fan headers (FAN1–FAN6) on the motherboard. All these 4-pin fan headers are backwards compatible with the traditional 3-pin fans. However, fan speed control is available for 4-pin fans only by Thermal Management via the IPMI 2.0 interface. Refer to the table below for pin definitions.

Fan Header Pin Definitions

Pin#	Definition
1	GND (Black)
2	+12 V (Red)
3	Tachometer
4	PWM Control

Inlet Temperature Sensor

JSEN1 is the system front inlet temperature sensor. It represents the ambient air temperature entering the system. The equivalent temperature sensor retrievable by the onboard BMC is RT0.

Inlet Sensor Header Pin Definitions

Pin#	Definition
1	Data
2	GND
3	CLK
4	P3V3_STBY

M.2 Slots

The X13SCW-F motherboard has two M.2 slots. M.2 was formerly known as Next Generation Form Factor (NGFF) and serves to replace mini PCIe. M.2 allows for a variety of card sizes, increased functionality, and spatial efficiency. M.2-C supports PCIe 4.0 x4 for the CPU while M.2-P supports PCIe 4.0 x4 for the PCH. Both M.2 slots support M-Keys in the 2280/22110 form factor.

MCIO Connector

JNVME1 is a connector that supports two PCIe 4.0 x4 via PCH.

Power SMB (I²C) Header

The Power System Management Bus (I²C) connector (JPI²C1) monitors the power supply, fan, and system temperatures. Refer to the table below for pin definitions.

Power SMBus Header Pin Definitions	
Pin#	**Definition**
1	Clock
2	Data
3	PMBUS_Alert
4	GND
5	+3.3 V

SlimSAS Connector

The X13SCW-F has eight SATA 3.0 ports via one SlimSAS connector (I-SATA0–I-SATA7) supported by the Intel PCH chipset. These SATA ports support RAID 0, 1, 5, and 10.

TPM/Port 80 Header

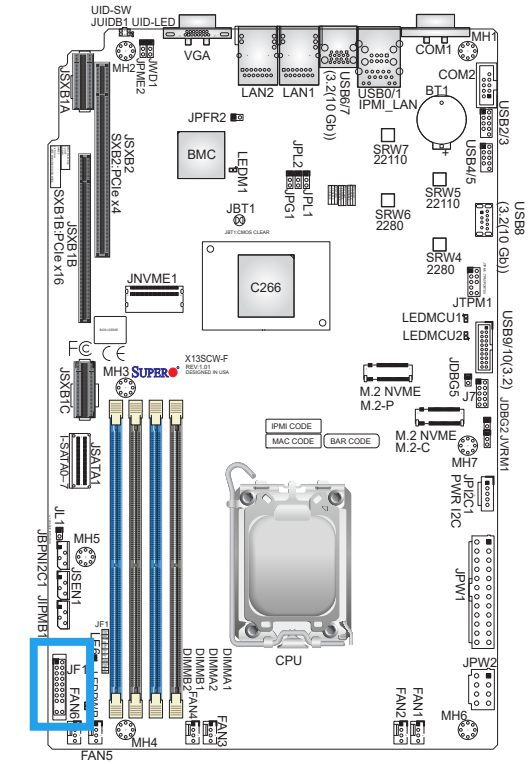
A Trusted Platform Module (TPM)/Port 80 header is located at JTPM1 to provide TPM support and Port 80 connection. Use this header to enhance system performance and data security. Refer to the table below for pin definitions. Go to the following link for more information on the TPM: http://www.supermicro.com/manuals/other/TPM.pdf.

Trusted Platform Module Header Pin Definitions			
Pin#	**Definition**	**Pin#**	**Definition**
1	+3.3 V	2	SPI_CS#
3	RESET#	4	SPI_MISO
5	SPI_CLK	6	GND
7	SPI_MOSI	8	NC
9	+3.3 VStdby	10	SPI_IRQ#

NC = No Connection

Front Control Panel

The front control panel header (JF1) contains header pins for various buttons and indicators that are normally located on a control panel at the front of the chassis. These connectors are designed specifically for use with Supermicro chassis. See the figure below for the descriptions of the front control panel buttons and LED indicators.



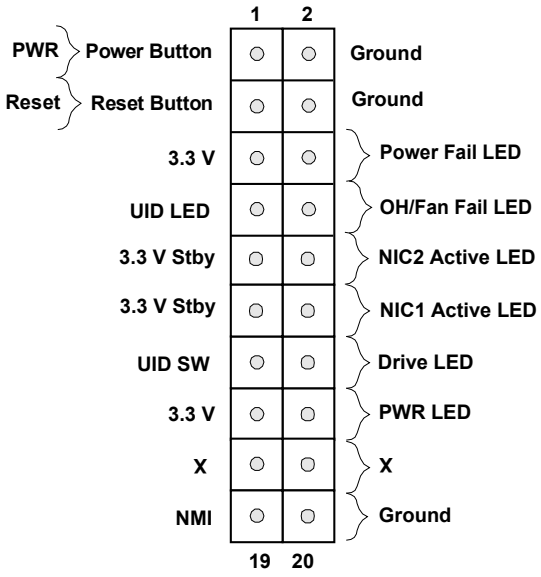


Figure 4-1. JF1 Control Panel Pins

Power Button

The Power Button connection is located on pins 1 and 2 of JF1. Momentarily contacting both pins will power on and off the system. This button can also be configured to function as a suspend button (with a setting in the BIOS). To turn off the power when the system is in suspend mode, press the button for four seconds or longer. Refer to the table below for pin definitions.

Power Button Pin Definitions (JF1)	
Pin#	**Definition**
1	Signal
2	GND

Reset Button

The Reset Button connection is located on pins 3 and 4 of JF1. Attach it to a hardware reset switch on the computer case to reset the system. Refer to the table below for pin definitions.

Reset Button Pin Definitions (JF1)	
Pin#	**Definition**
3	Reset
4	GND

Power Fail LED

The Power Fail LED connection is located on pins 5 and 6 of JF1. Refer to the table below for pin definitions.

Power Fail LED Pin Definitions (JF1)	
Pin#	**Definition**
5	3.3 V
6	PWR Supply Fail

Ovearheat/Fan Fail and UID LED

Connect an LED cable to pins 7 and 8 of the Front Control Panel to use the Overheat/Fan Fail LED connections. The LED on pin 8 provides warnings of overheat or fan failure. Refer to the tables below for pin definitions.

OH/Fan Fail Indicator Status	
State	**Definition**
Off	Normal
On	Overheat
Flashing	Fan Fail

OH/Fan Fail LED Pin Definitions (JF1)	
Pin#	**Definition**
7	UID LED (Blue)
8	OH/FAN Fail LED

NIC1/NIC2 (LAN1/LAN2)

The Network Interface Controller (NIC) LED connection for LAN port 1 is located on pins 11 and 12 of JF1, and LAN port 2 is on pins 9 and 10. Attach the NIC LED cables here to display network activity. Refer to the table below for pin definitions.

LAN1/LAN2 LED Pin Definitions (JF1)

Pins	Definition
9	VCC
10	NIC2 Link/Active LED
11	VCC
12	NIC1 Link/Active LED

Drive LED/UID Switch

The Drive LED/UID Switch connection is located on pins 13 and 14 of JF1. Attach a cable to pin 14 to show drive activity status. Attach a cable to pin 13 to use the UID switch. Refer to the table below for pin definitions.

Drive LED/UID Switch Pin Definitions (JF1)

Pin#	Definition
13	3.3 V Stdby/UID SW
14	Drive Active

Power LED

The Power LED connection is located on pins 15 and 16 of JF1. Refer to the table below for pin definitions.

Power LED Pin Definitions (JF1)

Pin#	Definition
15	3.3 V
16	PWR LED

NMI Button

The non-maskable interrupt (NMI) button header is located on pins 19 and 20 of JF1. Refer to the table below for pin definitions.

NMI Button Pin Definitions (JF1)

Pin#	Definition
19	Control
20	GND

4.3 Input/Output Ports

Rear I/O Ports

See the figure below for the locations and descriptions of the I/O ports on the rear of the motherboard.

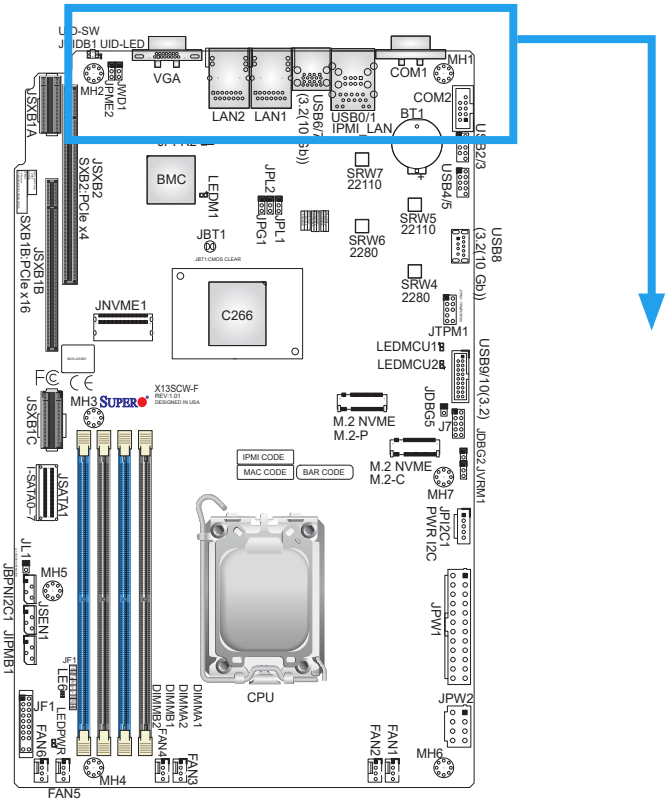
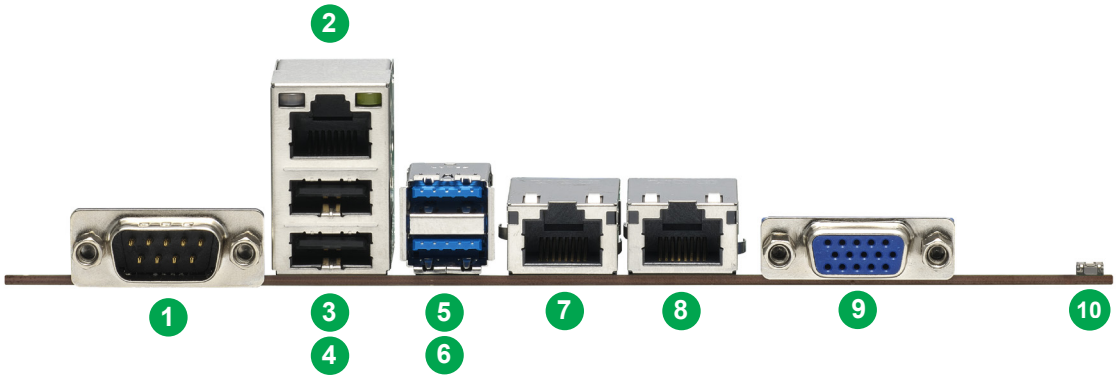


Figure 4-2. I/O Port Locations and Definitions



Rear I/O Ports			
#	Description	#	Description
1	COM1	6	USB6 (USB 3.2 Gen 2)
2	Dedicated BMC LAN	7	LAN1
3	USB1 (USB 2.0)	8	LAN2
4	USB0 (USB 2.0)	9	VGA Port
5	USB7 (USB 3.2 Gen 2)	10	UID Switch

COM Port

There is one COM port (COM1) on the back I/O panel and one COM header (COM2) on the motherboard. The COM port and header provide serial communication support.

COM Port Pin Definitions

Pin#	Definition	Pin#	Definition
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI
5	GND	10	N/A

VGA Port

The onboard VGA port is located next to LAN2 on the back I/O panel. Use this connection for VGA display.

LAN Ports

Two Gigabit Ethernet ports (LAN1, LAN2) are located on the back I/O panel. In addition, a dedicated BMC LAN is located above USB0/1. All of these ports accept RJ45 cables. Refer to the LED Indicator section for LAN LED information.

LAN Ports Pin Definition

Pin#	Definition	Pin#	Definition
1	TRD1+	13	IET+
2	TRD1-	14	IET-
3	TRCT1	15	L1-GRE-
4	TRD2+	16	L1-GRE+
5	TRD2-	17	L2-YEL-
6	TRCT2	18	COMMON
7	TRD3+	19	L2-GRE-
8	TRD3-	20	CG1
9	TRCT3	21	CG2
10	TRD4+		
11	TRD4-		
12	TRCT4		

BMC LAN Pin Definition

Pin#	Definition	Pin#	Definition
9	VCC	19	YEL-
10	TX1+	20	YEL+
11	TX1-	21	ORG+/GRN-
12	TX2+	22	ORG-/GRN+
13	TX2-	23	SGND
14	TX3+	24	SGND
15	TX3-	25	SGND
16	TX4+	26	SGND
17	TX4-		
18	GND		

Unit Identifier Switch (UID-SW): One button with two functions

A Unit Identifier (UID) switch and two LED Indicators are located on the motherboard. The UID switch is located next to the VGA port on the back panel.

Function	User Input	Behavior	LED Activity
UID LED Indicator	Push Once	Turns on the UID LED	UID LED turns solid blue
	Push Again	Turns off the UID LED	UID LED turns off
BMC Reset	Push and hold for 6 seconds	BMC will do a cold boot	BMC Hearbeat LED turns solid green
	Push and hold for 12 seconds	BMC will reset to factory default	BMC Hearbeat LED turns solid green

Note: After pushing and holding the UID-SW for 12 seconds, all BMC settings including username and password will revert back to the factory default. The factory default password is the unique password that is located on the system asset tag. Only the network settings and FRU are retained.

UID Switch Pin Definitions	
Pin#	**Definition**
1	GND
2	GND
3	Button In
4	Button In

UID LED Indicator State	
LED Color	**Definition**
Blue Solid	Unit Identified

Universal Serial Bus (USB) Ports

There are two USB 2.0 ports (USB0/1) and two USB 3.2 Gen 2 x1 ports (USB6/7) located on the back I/O panel. The motherboard also has two front access USB 2.0 headers (USB2/3, USB4/5) and one front access USB 3.2 Gen 1 x1 header (USB9/10). The USB8 header is USB 3.2 Gen 2 x1 Type A. The onboard headers can be used to provide front side USB access with a cable (not included).

Rear Port USB0/1 (2.0) Pin Definitions

Pin#	Definition	Pin#	Definition
1	+5 V	5	+5 V
2	USB_N	6	USB_N
3	USB_P	7	USB_P
4	GND	8	GND

Front Header USB2/3, USB4/5 (2.0) Pin Definitions

Pin#	Definition	Pin#	Definition
1	+5 V	2	+5 V
3	USB_N	4	USB_N
5	USB_P	6	USB_P
7	GND	8	GND
9	Key	10	NC

Rear Port USB6/7 (USB 3.2 Gen 2 x1) Pin Definitions

Pin#	Definition	Pin#	Definition
A1	VBUS	B1	VBUS
A2	USB_N	B2	USB_N
A3	USB_P	B3	USB_P
A4	GND	B4	GND
A5	Stda_SSRX-	B5	Stda_SSRX-
A6	Stda_SSRX+	B6	Stda_SSRX+
A7	GND	B7	GND
A8	Stda_SSTX-	B8	Stda_SSTX-
A9	Stda_SSTX+	B9	Stda_SSTX+

Front Header USB8 (USB 3.2 Gen 2 x1 Type-A) Pin Definitions

Pin#	Definition	Pin#	Definition
1	VBUS	5	SSRX-
2	USB_N	6	SSRX+
3	USB_P	7	GND
4	GND	8	SSTX-
		9	SSTX+

Front Header USB9/10 (USB 3.2 Gen 1 x1) Pin Definitions

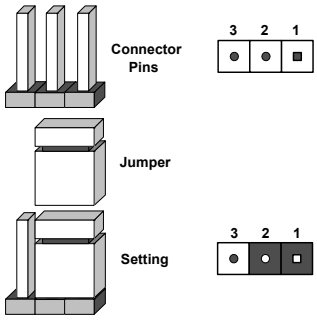
Pin#	Definition	Pin#	Definition
1	VBUS	11	USB_P
2	Stda_SSTX-	12	USB_N
3	Stda_SSTX+	13	GND
4	GND	14	Stda_SSTX+
5	Stda_SSRX-	15	Stda_SSRX-
6	Stda_SSRX+	16	GND
7	GND	17	Stda_SSTX+
8	USB_N	18	Stda_SSTX-
9	USB_P	19	VBUS
10	GND		

4.4 Jumper Settings

How Jumpers Work

To modify the operation of the motherboard, jumpers can be used to choose between optional settings. Jumpers create shorts between two pins to change the function of the connector. Pin 1 is identified with a square solder pad on the printed circuit board. See the diagram below for an example of jumping pins 1 and 2. Refer to the motherboard layout page for jumper locations.

Note: On two-pin jumpers, "Closed" means the jumper is on and "Open" means the jumper is off the pins.



CMOS Clear

JBT1 is used to clear CMOS, which will also clear any passwords. Instead of pins, this jumper consists of contact pads to prevent accidentally clearing the contents of CMOS.

To Clear CMOS

1. First power down the system and unplug the power cord(s).
2. Remove the cover of the chassis to access the motherboard.
3. Remove the onboard battery from the motherboard.
4. Short the CMOS pads with a metal object such as a small screwdriver for at least four seconds.
5. Remove the screwdriver (or shorting device).
6. Replace the cover, reconnect the power cord(s), and power on the system.

Note: Clearing CMOS will also clear all passwords.

Do not use the PW_ON connector to clear CMOS.

LAN Port Enable/Disable

Change the setting of jumpers JPL1 for LAN1 and JPL2 for LAN2 to enable or disable the LAN ports. The default setting is Enabled.

LAN Port Enable/Disable Jumper Settings	
Jumper Setting	**Definition**
Pins 1–2	Enabled
Pins 2–3	Disabled

ME Manufacturing Mode

Close pins 2–3 of jumper JPME2 to bypass SPI flash security and force the system to operate in the manufacturing mode, which will allow you to flash the system firmware from a host server for system setting modifications. Refer to the table below for jumper settings. The default setting is Normal.

ME Manufacturing Mode Jumper Settings	
Jumper Setting	**Definition**
Pins 1–2	Normal
Pins 2–3	Manufacturing Mode

VGA Enable

Jumper JPG1 allows you to enable the onboard VGA connector. The default setting is pins 1–2 to enable the connection. Refer to the table below for jumper settings.

VGA Enable/Disable Jumper Settings	
Jumper Setting	**Definition**
Pins 1–2	Enabled
Pins 2–3	Disabled

4.5 LED Indicators

BMC Heartbeat LED

A BMC Heartbeat LED is located at LEDM1 on the motherboard. When LEDM1 is blinking, the BMC is functioning normally. Refer to the table below for more information.

BMC Heartbeat LED Indicator	
LED Color	**Definition**
Green: Blinking	BMC Normal

BMC LAN LED

A BMC LAN is located on the I/O back panel. The amber LED on the right indicates activity, while the LED on the left indicates the speed of the connection. Refer to the table below for more information.

BMC LAN LEDs		
	Color/State	**Definition**
Link (left)	Green: Solid Amber: Solid	100 Mbps 1 Gbps
Activity (Right)	Amber: Blinking	Active

LAN Port LEDs

There are two LAN ports (LAN1 and LAN2) on the I/O back panel of the motherboard. Each Ethernet LAN port has two LEDs. The yellow LED indicates activity, while the other LED may be green, amber, or off to indicate the speed of the connection.

LAN Link LED (Left) LED State	
Color	**Definition**
Off	No Connection
Amber	1 Gbps
Green	100 Mbps

LAN Activity LED (Right) LED State		
LED Color	**Status**	**Definition**
Green	Flashing	Active

Onboard Power LED

The Onboard Power LED is located at LEDPWR on the motherboard. When this LED is on, the system is on. Be sure to turn off the system and unplug the power cord before removing or installing components. Refer to the table below for more information.

Onboard Power LED Indicator	
LED Color	**Definition**
Off	System Off (power cable not connected)
Green	System On

Power Ready LED

A Power Ready LED is located at LE6 on the motherboard. When this LED is green, all onboard power VRMs are normal. See the table below for more information.

Power Ready LED Indicator	
LED Color	**Definition**
Green	All onboard PWR VRMs are normal
Red	One or more PWR VRMs has failed
Amber	System in standby mode

Chapter 5

Software

After the hardware has been installed, you can install the Operating System (OS), configure RAID settings and install the drivers.

5.1 Microsoft Windows OS Installation

If you will be using RAID, you must configure RAID settings before installing the Windows OS and the RAID driver. Refer to the RAID Configuration User Guides posted on our website at www.supermicro.com/support/manuals.

Installing the OS

1. Create a method to access the MS Windows installation ISO file. That might be a USB flash or media drive.

2. Boot from a bootable device with Windows OS installation. You can see a bootable device list by pressing **F11** during the system startup.

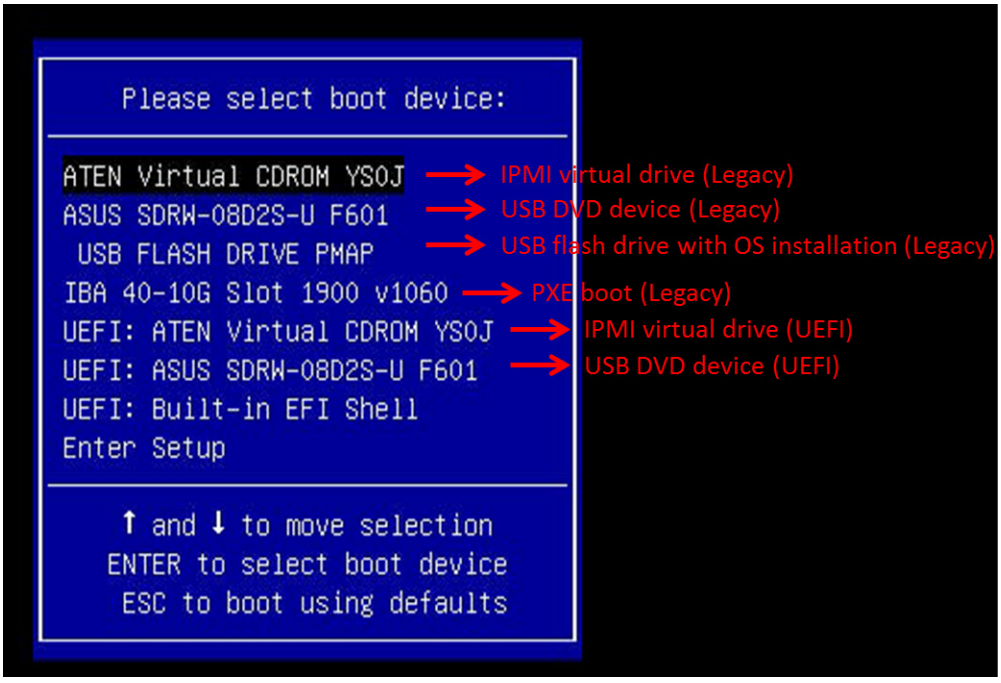


Figure 5-1. Select Boot Device

3. During Windows Setup, continue to the dialog where you select the drives on which to install Windows. If the disk you want to use is not listed, click on “Load driver” link at the bottom left corner.

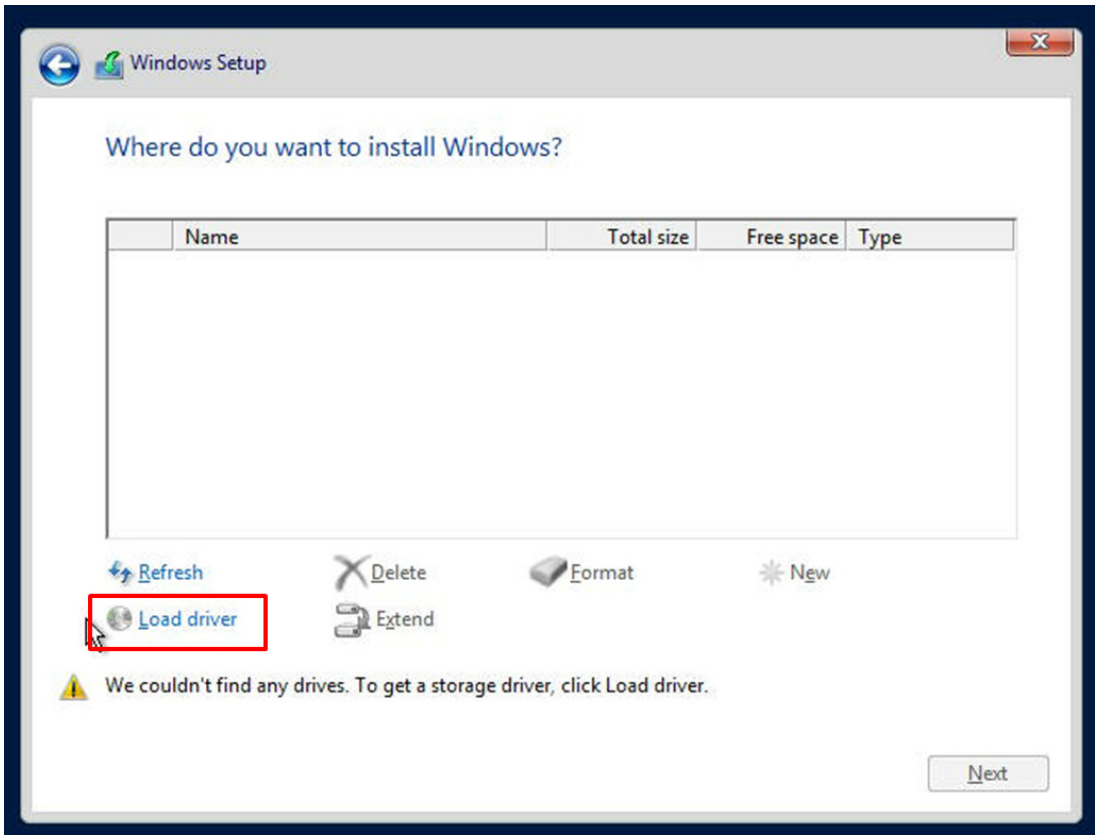


Figure 5-2. Load Driver Link

To load the driver, browse the USB flash drive for the proper driver files.

- For RAID, choose the SATA/sSATA RAID driver indicated then choose the storage drive on which you want to install it.
- For non-RAID, choose the SATA/sSATA AHCI driver indicated then choose the storage drive on which you want to install it.

4. Once all devices are specified, continue with the installation.
5. After the Windows OS installation has completed, the system will automatically reboot multiple times.

5.2 Driver Installation

The Supermicro website contains drivers and utilities for your system at https://www.supermicro.com/wdl/driver. Some of these must be installed, such as the chipset driver.

After accessing the website, go into the CDR_Images (in the parent directory of the above link) and locate the ISO file for your motherboard. Download this file to a USB flash or media drive. (You may also use a utility to extract the ISO file if preferred.)

Another option is to go to the Supermicro website at http://www.supermicro.com/products/. Find the product page for your motherboard, and "Download the Latest Drivers and Utilities".

Insert the flash drive or disk and the screenshot shown below should appear.

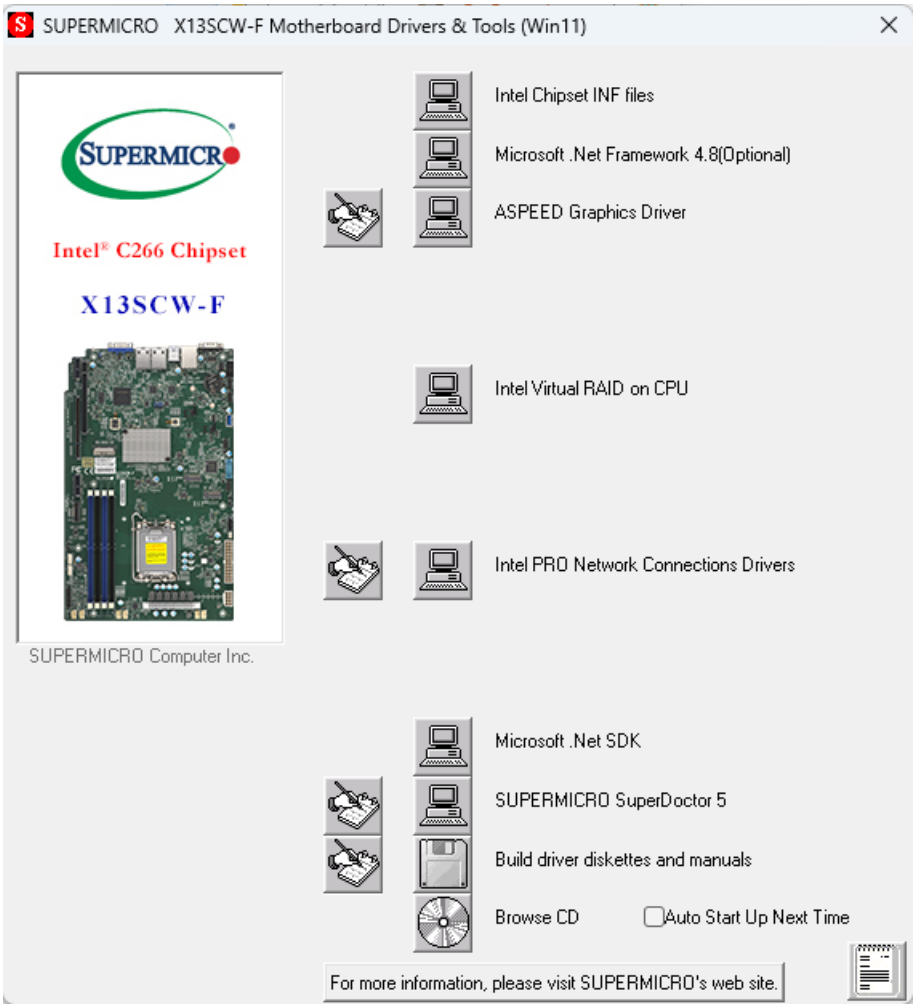


Figure 5-3. Driver & Tool Installation Screen

Note: Click the icons showing a hand writing on paper to view the readme files for each item. Click the computer icons to the right of these items to install each item (from top to the bottom) one at a time. **After installing each item, you must re-boot the system before moving on to the next item on the list.** The bottom icon with a CD on it allows you to view the entire contents.

5.3 SuperDoctor® 5

The Supermicro SuperDoctor 5 is a program that functions in a command-line or web-based interface for Windows and Linux operating systems. The program monitors such system health information as CPU temperature, system voltages, system power consumption, fan speed, and provides alerts via email or Simple Network Management Protocol (SNMP).

SuperDoctor 5 comes in local and remote management versions and can be used with Nagios to maximize your system monitoring needs. With SuperDoctor 5 Management Server (SSM Server), you can remotely control power on/off and reset chassis intrusion for multiple systems with SuperDoctor 5 or BMC. SuperDoctor 5 Management Server monitors HTTP, FTP, and SMTP services to optimize the efficiency of your operation.

SuperDoctor® Manual and Resources

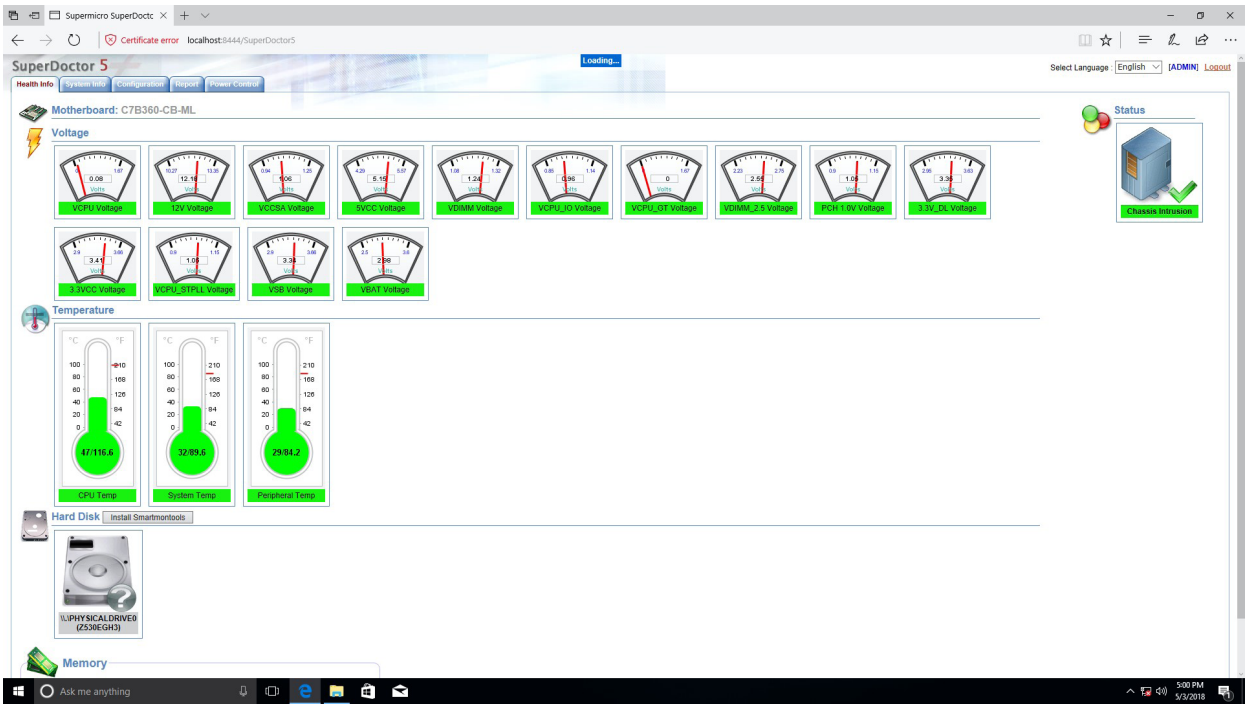


Figure 5-4. SuperDoctor 5 Interface Display Screen (Health Information)

5.4 BMC

The motherboard provides remote access, monitoring and management through the baseboard management controller (BMC) and other management controllers distributed among different system modules. There are several BIOS settings that are related to BMC. For general documentation and information on BMC, visit our website at:

www.supermicro.com/en/solutions/management-software/bmc-resources

BMC ADMIN User Password

For security, each system is assigned a unique default BMC password for the ADMIN user. This can be found on a sticker on the chassis and a sticker on the motherboard. The sticker also displays the BMC MAC address.

Figure 5-5. BMC Password Label

See Chapter 1 for the label location.

Chapter 6

Optional Components

This chapter describes alternate configurations and optional system components.

Optional Parts
Storage drive options
Storage Control Cards
TPM security module

6.1 Storage Drive Options

The storage drive bays can support SATA and SAS in any combination. To enable SAS, additional hardware is required.

SATA – The system can support up to four SATA drives from the onboard Intel PCH SATA controller.

SAS - The system can support up to four SAS drives from add-on storage controller cards. *Additional storage controller cards required.

NVMe - The system can support up to two PCIe 4.0 U.2 NVMe drives. *Additional cables required.

6.2 Storage Control Cards

Storage Control Card Options	
AOC SKU	**Description**
AOC-S3908L-H8iR-16DD	SAS RAID Adapter (RAID 0, 1, 5, 6, 10, 50, 60), eight internal SAS3 ports, Supports up to 16 physical devices with expander, One SlimSAS and eight black (100-Ohm) connector
AOC-S3808L-L8iT	SAS Host Bus Adapter (IT mode), eight internal SAS3 ports, Supports up to 122 physical devices with expander, One SlimSAS and eight black (100-Ohm) connectors

6.3 TPM Security Module

SPI capable TPM 2.0 with Infineon 9670 controller, vertical form factor

The JTPM1 header is used to connect a Trusted Platform Module (TPM). A TPM is a security device that supports encryption and authentication in drives. It enables the motherboard to deny access if the TPM associated with the drive is not installed in the system.

Details and installation procedures are at:

http://www.supermicro.com/manuals/other/TPM.pdf.

- AOM-TPM-9670V

Chapter 7

Troubleshooting and Support

7.1 Information Resources

Website

A great deal of information is available on the Supermicro website, supermicro.com.

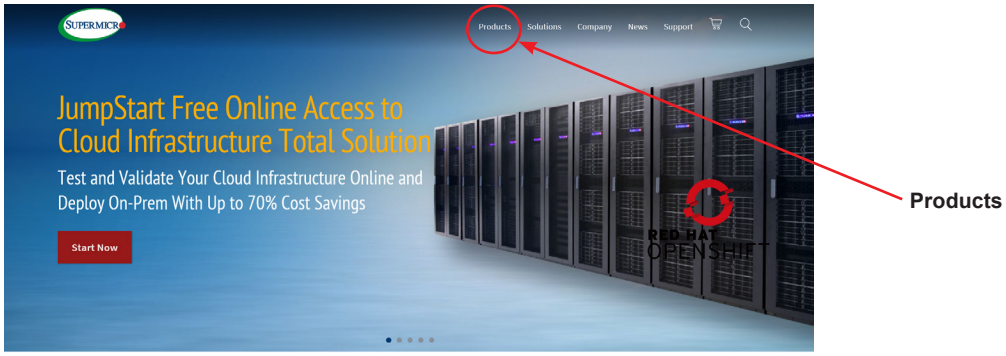


Figure 7-1. Supermicro Website

- Specifications for servers and other hardware are available by the **Products** option.

Direct Links for the SYS-511R-W System

SYS-511R-W specifications page

X13SCW-F motherboard page for links to the Quick Reference Guide, User Manual, validated storage drives, etc.

BPN-SAS3-815TQ Backplane Manual

Direct Links for General Support and Information

Frequently Asked Questions

Add-on card descriptions

TPM User Guide

BMC User Guide

SuperDoctor5 Large Deployment Guide

For validated memory, use our Product Resources page

Product Matrices page for links to tables summarizing specs for systems, motherboards, power supplies, riser cards, add-on cards, etc.

Direct Links (continued)

Security Center for recent security notices

Supermicro Phone and Addresses

7.2 Baseboard Management Controller (BMC)

The system supports the Baseboard Management Controller (BMC). BMC is used to provide remote access, monitoring and management. There are several BIOS settings that are related to BMC.

For general documentation and information on BMC, please visit our website at: https://www.supermicro.com/manuals/other/BMC_IPMI_X13_H13.pdf.

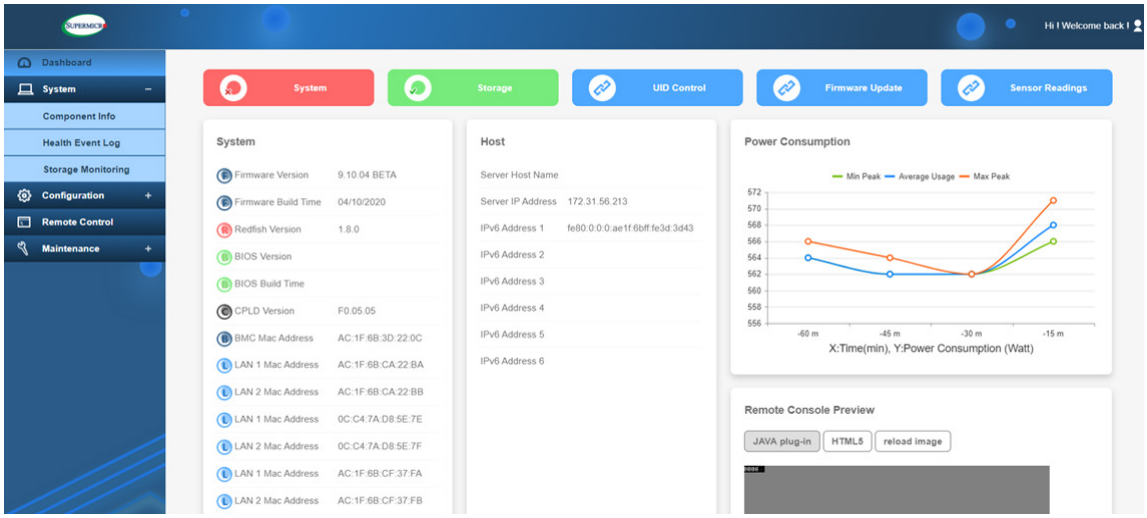


Figure 7-2. BMC Sample

7.3 Troubleshooting Procedures

Use the following procedures to troubleshoot your system. If you have followed all of the procedures below and still need assistance, refer to the Technical Support Procedures or Returning Merchandise for Service section(s) in this chapter. Power down the system before changing any non hot-swap hardware components.

General Technique

If you experience unstable operation or get no boot response, try:

1. With power off, remove all but one DIMM and other added components, such as add-on cards, from the motherboard. Make sure the motherboard is not shorted to the chassis.
2. Set all jumpers to their default positions.
3. Power up. If the system boots, check for memory errors and add-on card problems.

No Power

- Check that the power LED on the motherboard is on.

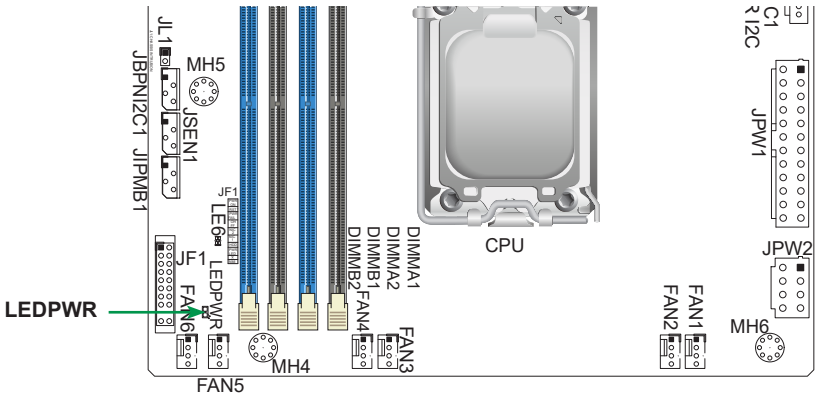


Figure 7-3. Location of the MB Power LED

- Make sure that the power connector is connected to the power supply.
- Check that the motherboard battery still supplies approximately 3 VDC. If it does not, replace it.
- Check that the system input voltage is 100-120 VAC or 180-240 VAC.
- Turn the power switch on and off to test the system

No Video

If the power is on but you have no video, remove all add-on cards and cables.

System Boot Failure

If the system does not display Power-On-Self-Test (POST) or does not respond after the power is turned on, try the following:

- Turn on the system with only one DIMM module installed. If the system boots, check for bad DIMM modules or slots by following the Memory Errors Troubleshooting procedure below.

Memory Errors

- Make sure that the DIMM modules are properly and fully installed.
- Confirm that you are using the correct memory. Also, it is recommended that you use the same memory type and speed for all DIMMs in the system. See Section 3.4 for memory details.
- Check for bad DIMM modules or slots by swapping modules between slots and noting the results.

Losing the System Setup Configuration

- Always replace power supplies with the exact same model that came with the system. A poor quality power supply may cause the system to lose the CMOS setup configuration.
- Check that the motherboard battery still supplies approximately 3 VDC. If it does not, replace it.

If the above steps do not fix the setup configuration problem, contact your vendor for repairs.

When the System Becomes Unstable

If the system becomes unstable during or after OS installation, check the following:

- CPU/BIOS support: Make sure that your CPU is supported and that you have the latest BIOS installed in your system.
- Memory: Make sure that the memory modules are supported. Refer to the product page on our website at www.supermicro.com. Test the modules using **memtest86** or a similar utility.
- Storage drives: Make sure that all drives work properly. Replace if necessary.

- System cooling: Check that all heatsink fans and system fans work properly. Check the hardware monitoring settings in the BMC to make sure that the CPU and system temperatures are within the normal range. Also check the Control panel Overheat LED.
- Adequate power supply: Make sure that the power supply provides adequate power to the system. Make sure that all power connectors are connected. Refer to the Supermicro website for the minimum power requirements.
- Proper software support: Make sure that the correct drivers are used.

If the system becomes unstable before or during OS installation, check the following:

- Source of installation: Make sure that the devices used for installation are working properly, including boot devices.
- Cable connection: Check to make sure that all cables are connected and working properly.
- Use the minimum configuration for troubleshooting: Remove all unnecessary components (starting with add-on cards first), and use the minimum configuration (but with a CPU and a memory module installed) to identify the trouble areas.
- Identify a bad component by isolating it. Check and change one component at a time.
  - Remove a component in question from the chassis, and test it in isolation. Replace it if necessary.
  - Or swap in a new component for the suspect one.
  - Or install the possibly defective component into a known good system. If the new system works, the component is likely not the cause or the problem.

7.4 Crash Dump Using BMC

In the event of a processor internal error (IERR) that crashes your system, you may want to provide information to support staff. You can download a crash dump of status information using BMC. The BMC manual is available at https://www.supermicro.com/en/solutions/management-software/bmc-resources.

Check BMC Error Log

1. Access the BMC web interface.
2. Click the **Server Health** tab, then **Event Log** to verify an IERR error.

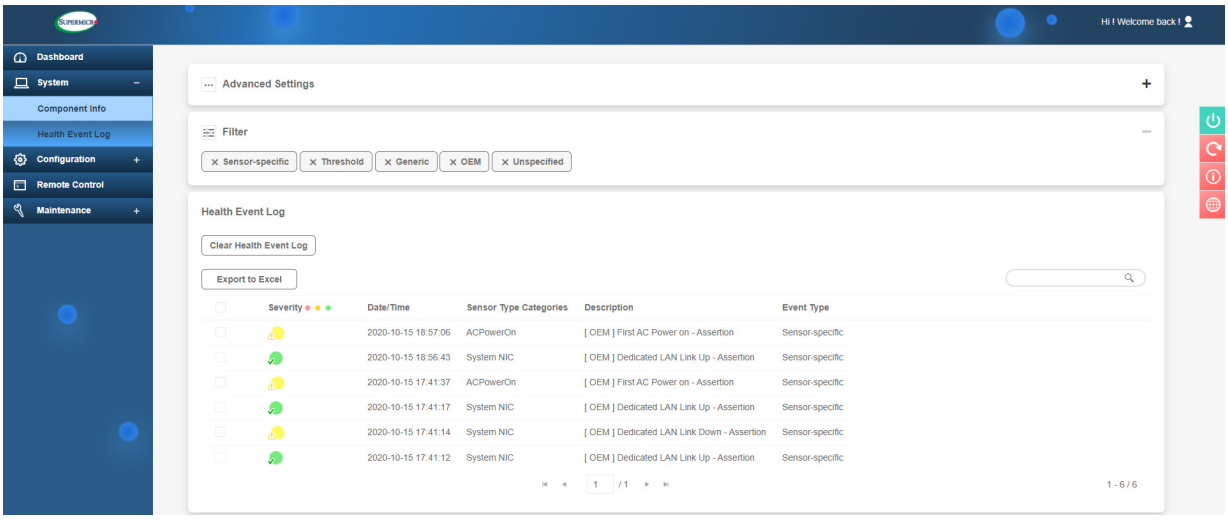


Figure 7-4. BMC Event Log

In the event of an IERR, the BMC executes a crash dump. You must download the crash dump and save it.

7.5 UEFI BIOS Recovery

Warning: Do not upgrade the BIOS unless your system has a BIOS-related issue. Flashing the wrong BIOS can cause irreparable damage to the system. In no event shall Supermicro be liable for direct, indirect, special, incidental, or consequential damages arising from a BIOS update. If you do update the BIOS, do not shut down or reset the system while the BIOS is updating to avoid possible boot failure.

Overview

The Unified Extensible Firmware Interface (UEFI) provides a software-based interface between the operating system and the platform firmware in the pre-boot environment. The UEFI specification supports an architecture-independent mechanism that will allow the UEFI OS loader stored in an add-on card to boot the system. The UEFI offers clean, hands-off management to a computer during system boot.

Recovering the UEFI BIOS Image

A UEFI BIOS flash chip consists of a recovery BIOS block and a main BIOS block (a main BIOS image). The recovery block contains critical BIOS codes, including memory detection and recovery codes for the user to flash a healthy BIOS image if the original main BIOS image is corrupted. When the system power is turned on, the recovery block codes execute first. Once this process is complete, the main BIOS code will continue with system initialization and the remaining POST (Power-On Self-Test) routines.

Note 1: Follow the BIOS recovery instructions below for BIOS recovery when the main BIOS block crashes.

Note 2: When the BIOS recovery block crashes, you will need to follow the procedures to make a Returned Merchandise Authorization (RMA) request. Also, you may use the Supermicro Update Manager (SUM) Out-of-Band (https://www.supermicro.com.tw/products/nfo/SMS_SUM.cfm) to reflash the BIOS.

Recovering the Main BIOS Block with a USB Device

This feature allows the user to recover the main BIOS image using a USB-attached device without additional utilities used. A USB flash device device can be used for this purpose.

The file system supported by the recovery block is FAT (including FAT12, FAT16, and FAT32) which is installed on a bootable or non-bootable USB-attached device. However, the BIOS might need several minutes to locate the SUPER.ROM file if the media size becomes too large due to the huge volumes of folders and files stored in the device.

To perform UEFI BIOS recovery using a USB-attached device, follow the instructions below.

1. Using a different machine, copy the "Super.ROM" binary image file into the Root "\" directory of a USB flash or media drive.

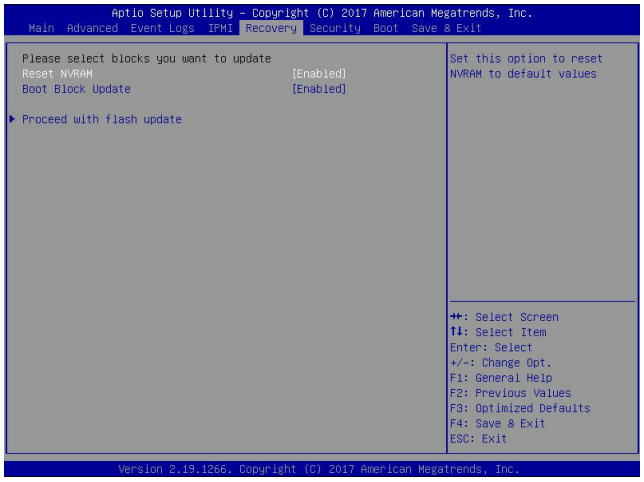
   Note 1: If you cannot locate the "Super.ROM" file in your drive disk, visit our website at www.supermicro.com to download the BIOS package. Extract the BIOS binary image into a USB flash device and rename it "Super.ROM" for the BIOS recovery use.

   Note 2: Before recovering the main BIOS image, confirm that the "Super.ROM" binary image file you download is the same version or a close version meant for your motherboard.

2. Insert the USB device that contains the new BIOS image ("Super.ROM") into your USB drive and reset the system when the following screen appears.

3. After locating the healthy BIOS binary image, the system will enter the BIOS Recovery menu as shown below.

Note: At this point, you may decide if you want to start the BIOS recovery. If you decide to proceed with BIOS recovery, follow the procedures below.

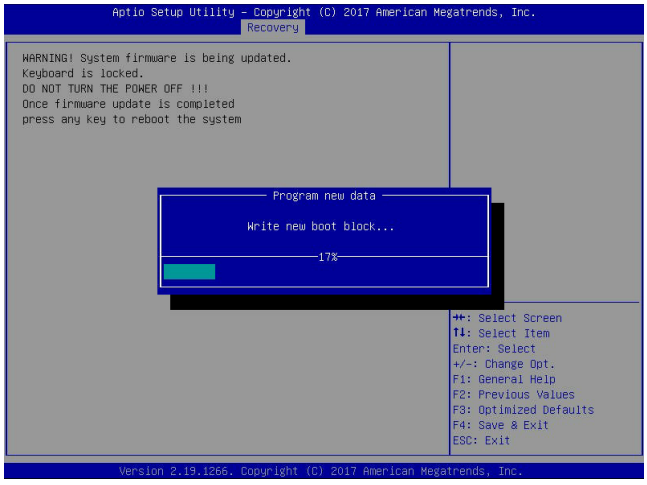


4. When the screen as shown above displays, use the arrow keys to select the item "Proceed with flash update" and press the <Enter> key. You will see the BIOS recovery progress as shown in the screen below.

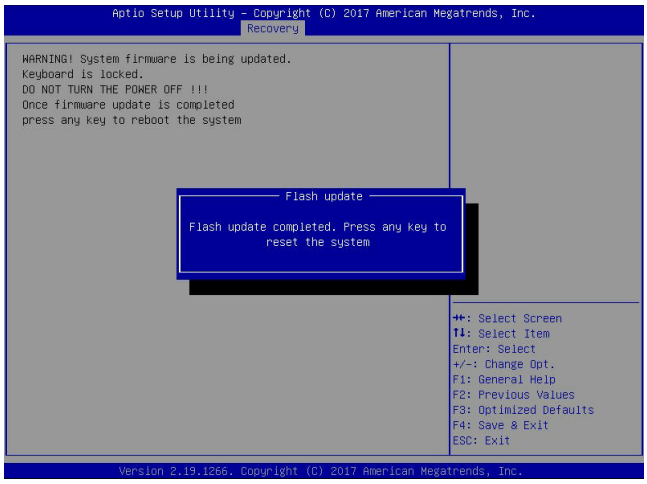
   Note: *Do not interrupt the BIOS flashing process until it has completed*.

5. After the BIOS recovery process is complete, press any key to reboot the system.

6. Using a different system, extract the BIOS package into a USB flash drive.

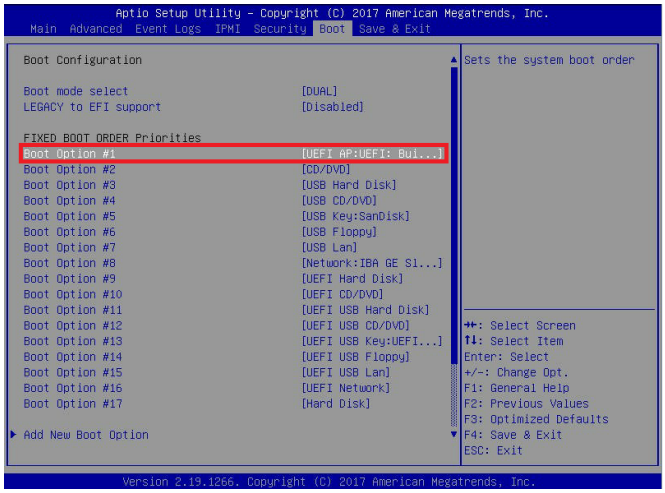


7. Press <Del> continuously during system boot to enter the BIOS Setup utility. From the top of the tool bar, select Boot to enter the submenu. From the submenu list, select Boot

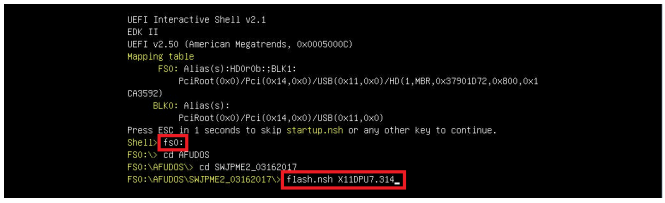


Option #1 as shown below. Then, set Boot Option #1 to [UEFI AP:UEFI: Built-in EFI Shell]. Press <F4> to save the settings and exit the BIOS Setup utility.

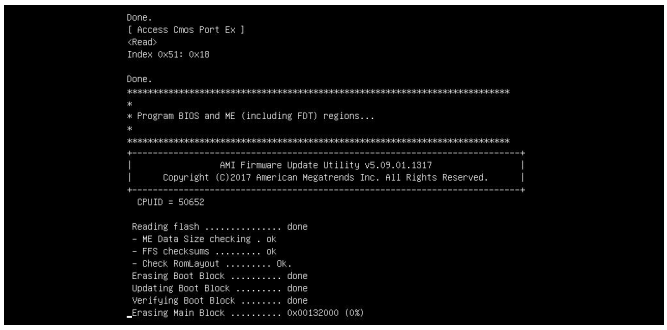
8. When the UEFI Shell prompt appears, type fs# to change the device directory path. Go to the directory that contains the BIOS package you extracted earlier from Step 6. Enter flash.nsh BIOSname.### at the prompt to start the BIOS update process.



Note: *Do not interrupt this process* until the BIOS flashing is complete.

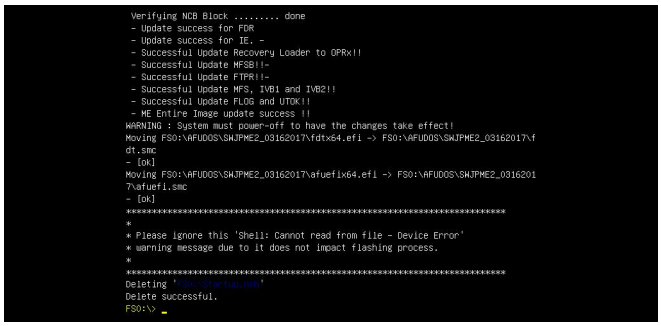


9. The screen above indicates that the BIOS update process is complete. When you see the screen above, unplug the AC power cable from the power supply, clear CMOS, and plug



the AC power cable in the power supply again to power on the system.

10. Press <Del> continuously to enter the BIOS Setup utility.



11. Press <F3> to load the default settings.

12. After loading the default settings, press <F4> to save the settings and exit the BIOS Setup utility.

7.6 CMOS Clear

JBT1 is used to clear CMOS, which will also clear any passwords. Instead of pins, this jumper consists of contact pads to prevent accidentally clearing the contents of CMOS.

To Clear CMOS

1. First power down the system completely.
2. Remove chassis cover to access the motherboard.
3. Remove the onboard battery from the motherboard.
4. Short the CMOS pads with a metal object such as a small screwdriver for at least four seconds.
5. Remove the screwdriver or shorting device.
6. Re-install the battery.
7. Replace the cover, reconnect the power cords and power on the system.

Notes: Clearing CMOS will also clear all passwords.

Do not use the PW_ON connector to clear CMOS.

JBT1 contact pads

7.7 Where to Get Replacement Components

If you need replacement parts for your system, to ensure the highest level of professional service and technical support, purchase exclusively from our Supermicro Authorized Distributors/System Integrators/Resellers. A list can be found at: http://www.supermicro.com. Click the "Where to Buy" tab.

7.8 BMC Reset

The BMC can be reset using the button on the front control panel or on the chassis rear.

- Reset—Press and hold the button. After six seconds, the LED blinks at 2 Hz. The BMC resets and the reset duration is approximately 250 ms. Then the BMC starts to boot.
- Restore factory default configuration—Hold the button for twelve seconds. The LED blinks at 4 Hz while defaults are configured.
- Firmware update—the UID LED blinks at 10Hz during a firmware update.

BMC Reset Options	
Event	**LED (Green)**
Reset	Blinks at 2 Hz
Restore Defaults	Blinks at 4 Hz
Update	Blinks at 10 Hz

7.9 Reporting an Issue

Technical Support Procedures

Before contacting Technical Support, please take the following steps. If your system was purchased through a distributor or reseller, please contact them for troubleshooting services. They have the best knowledge of your specific system configuration.

1. Please review the Troubleshooting Procedures in this manual and Frequently Asked Questions on our website before contacting Technical Support.
2. BIOS upgrades can be downloaded from our website. **Note**: Not all BIOS can be flashed depending on the modifications to the boot block code.
3. If you still cannot resolve the problem, include the following information when contacting us for technical support:
   - System, motherboard, and chassis model numbers and PCB revision number
   - BIOS release date/version (this can be seen on the initial display when your system first boots up)
   - System configuration

An example of a Technical Support form is posted on our website. Distributors: For immediate assistance, please have your account number ready when contacting our technical support department by email.

Returning Merchandise for Service

A receipt or copy of your invoice marked with the date of purchase is required before any warranty service will be rendered. You can obtain service by calling your vendor for a Returned Merchandise Authorization (RMA) number. When returning to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton, and mailed prepaid or hand-carried. Shipping and handling charges will be applied for all orders that must be mailed when service is complete.

For faster service, RMA authorizations may be requested online (http://www.supermicro.com/support/rma/).

Whenever possible, repack the chassis in the original Supermicro carton, using the original packaging material. If these are no longer available, be sure to pack the chassis securely, using packaging material to surround the chassis so that it does not shift within the carton and become damaged during shipping.

This warranty only covers normal consumer use and does not cover damages incurred in shipping or from failure due to the alteration, misuse, abuse or improper maintenance of products.

During the warranty period, contact your distributor first for any product problems.

Vendor Support Filing System

For issues related to Intel, use the Intel IPS filing system:

https://www.intel.com/content/www/us/en/design/support/ips/training/welcome.html

For issues related to Red Hat Enterprise Linux, since it is a subscription based OS, contact your account representative.

7.10 Feedback

Supermicro values your feedback as we strive to improve our customer experience in all facets of our business. Please email us at techwriterteam@supermicro.com to provide feedback on our manuals.

Appendix A

Standardized Warning Statements for AC Systems

About Standardized Warning Statements

The following statements are industry standard warnings, provided to warn the user of situations which have the potential for bodily injury. Should you have questions or experience difficulty, contact Supermicro's Technical Support department for assistance. Only certified technicians should attempt to install or configure components.

Read this appendix in its entirety before installing or configuring components in the Supermicro chassis.

These warnings may also be found on our website at http://www.supermicro.com/about/policies/safety_information.cfm.

Warning Definition

Warning! This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

警告の定義

この警告サインは危険を意味します。

人身事故につながる可能性がありますので、いずれの機器でも動作させる前に、

電気回路に含まれる危険性に注意して、標準的な事故防止策に精通して下さい。

此警告符号代表危险。

您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾的声明号码找到此设备的安全性警告说明的翻译文本。

此警告符號代表危險。

您正處於可能身體可能會受損傷的工作環境中。在您使用任何設備之前，請注意觸電的危險，並且要熟悉預防事故發生的標準工作程序。請依照每一注意事項後的號碼找到相關的翻譯說明內容。

Warnung

WICHTIGE SICHERHEITSHINWEISE

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

BEWAHREN SIE DIESE HINWEISE GUT AUF.

INSTRUCCIONES IMPORTANTES DE SEGURIDAD

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

GUARDE ESTAS INSTRUCCIONES.

IMPORTANTES INFORMATIONS DE SÉCURITÉ

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

CONSERVEZ CES INFORMATIONS.

תקנון הצהרות אזהרה

הצהרות הבאות הן אזהרות על פי תקני התעשייה, על מנת להזהיר את המשתמש מפני חבלה פיזית אפשרית. במידה ויש שאלות או היתקלות בבעיה כלשהי, יש ליצור קשר עם מחלקת תמיכה טכנית של סופרמיקרו. טכנאים מוסמכים בלבד רשאים להתקין או להגדיר את הרכיבים.

יש לקרוא את הנספח במלואו לפני התקנת או הגדרת הרכיבים במארזי סופרמיקרו.

ا كً ف حالة وٌكي أى تتسبب ف اصابة جسذ ةٌ هذا الزهز عٌ خطز !تحذ زٌ .
قبل أى تعول على أي هعذات،كي على علن بالوخاطز ال ٌأجوة عي الذوائز
الكهزبائ ةٍ
وكي على درا ةٌ بالووارسات البقائ ةٍ لو عٌ وقع أي حادث
استخذم رقن الب إٍى الو صٌص ف هًا ةٌ كل تحذ زٌ للعشر تزجوتها

안전을 위한 주의사항

경고!

이 경고 기호는 위험이 있음을 알려 줍니다. 작업자의 신체에 부상을 야기 할 수 있는 상태에 있게 됩니다. 모든 장비에 대한 작업을 수행하기 전에 전기회로와 관련된 위험요소들을 확인하시고 사전에 사고를 방지할 수 있도록 표준 작업절차를 준수해 주시기 바랍니다.

해당 번역문을 찾기 위해 각 경고의 마지막 부분에 제공된 경고문 번호를 참조하십시오

BELANGRIJKE VEILIGHEIDSINSTRUCTIES

Dit waarschuwings symbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij een elektrische installatie betrokken risico's en dient u op de hoogte te zijn van de standaard procedures om ongelukken te voorkomen. Gebruik de nummers aan het eind van elke waarschuwing om deze te herleiden naar de desbetreffende locatie.

BEWAAR DEZE INSTRUCTIES

Installation Instructions

Warning! Read the installation instructions before connecting the system to the power source.

設置手順書

システムを電源に接続する前に、設置手順書をお読み下さい。

警告

将此系统连接电源前,请先阅读安装说明。

警告

將系統與電源連接前，請先閱讀安裝說明。

Warnung

Vor dem Anschließen des Systems an die Stromquelle die Installationsanweisungen lesen.

¡Advertencia!

Lea las instrucciones de instalación antes de conectar el sistema a la red de alimentación.

Attention

Avant de brancher le système sur la source d'alimentation, consulter les directives d'installation.

יש לקרוא את הוראות התקנה לפני חיבור המערכת למקור מתח.

اقر إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

시스템을 전원에 연결하기 전에 설치 안내를 읽어주십시오.

Waarschuwing

Raadpleeg de installatie-instructies voordat u het systeem op de voedingsbron aansluit.

Circuit Breaker

Warning! This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 20 A.

サーキット・ブレーカー

この製品は、短絡（過電流）保護装置がある建物での設置を前提としています。

保護装置の定格が250 V、20 Aを超えないことを確認下さい。

警告

此产品的短路(过载电流)保护由建筑物的供电系统提供,确保短路保护设备的额定电流不大于250V,20A。

警告

此產品的短路(過載電流)保護由建築物的供電系統提供,確保短路保護設備的額定電流不大於250V,20A。

Warnung

Dieses Produkt ist darauf angewiesen, dass im Gebäude ein Kurzschluss- bzw. Überstromschutz installiert ist. Stellen Sie sicher, dass der Nennwert der Schutzvorrichtung nicht mehr als: 250 V, 20 A beträgt.

¡Advertencia!

Este equipo utiliza el sistema de protección contra cortocircuitos (o sobrecorrientes) del edificio. Asegúrese de que el dispositivo de protección no sea superior a: 250 V, 20 A.

Attention

Pour ce qui est de la protection contre les courts-circuits (surtension), ce produit dépend de l'installation électrique du local. Vérifiez que le courant nominal du dispositif de protection n'est pas supérieur à :250 V, 20 A.

מוצר זה מסתמך על הגנה המותקנת במבנים למניעת קצר חשמלי. יש לוודא כי
המכשיר המגן מפני הקצר החשמלי הוא לא יותר מ-250VDC, 20A

هذا المنتج يعتمد على معداث الحمايت مه الدوائرالقصيرة التي تم تثبيتها في
المبنى
تأكد من أن تقييم الجهاز الوقائي ليس أكثر من : 20A, 250V

경고!

이 제품은 전원의 단락(과전류)방지에 대해서 전적으로 건물의 관련 설비에 의존합니다.
보호장치의 정격이 반드시 250V(볼트), 20A(암페어)를 초과하지 않도록 해야 합니다.

Waarschuwing

Dit product is afhankelijk van de kortsluitbeveiliging (overspanning) van uw electrische installatie. Controleer of het beveiligde aparaat niet groter gedimensioneerd is dan 250V, 20A.

Power Disconnection Warning

Warning! The system must be disconnected from all sources of power and the power cord removed from the power supply module(s) before accessing the chassis interior to install or remove system components (except for hot-swap components).

電源切断の警告

システムコンポーネントの取り付けまたは取り外しのために、シャーシー内部にアクセスするには、

システムの電源はすべてのソースから切断され、電源コードは電源モジュールから取り外す必要があります。

警告

在你打开机箱并安装或移除内部器件前,必须将系统完全断电,并移除电源线。

警告

在您打開機殼安裝或移除內部元件前，必須將系統完全斷電，並移除電源線。

Warnung

Das System muss von allen Quellen der Energie und vom Netzanschlusskabel getrennt sein, das von den Spg.Versorgungsteilmodulen entfernt wird, bevor es auf den Chassisinnenraum zurückgreift, um Systemsbestandteile anzubringen oder zu entfernen.

¡Advertencia!

El sistema debe ser disconnected de todas las fuentes de energía y del cable eléctrico quitado de los módulos de fuente de alimentación antes de tener acceso el interior del chasis para instalar o para quitar componentes de sistema.

Attention

Le système doit être débranché de toutes les sources de puissance ainsi que de son cordon d'alimentation secteur avant d'accéder à l'intérieur du chassis pour installer ou enlever des composants de systéme.

אזהרה מפני ניתוק חשמלי

!אזהרה

יש לנתק את המערכת מכל מקורות החשמל ויש להסיר את כבל החשמלי מהספק לפני גישה לחלק הפנימי של המארז לצורך התקנת או הסרת רכיבים.

يجب فصم اننظاو من جميع مصادر انطاقت وإزانت سهك انكهرباء من وحدة امداد انطاقت قبم

انصل إنى اننناطق انداخهيت نههيكم نتثبيج أو إزانت مكناث الجهاز

경고!

시스템에 부품들을 장착하거나 제거하기 위해서는 섀시 내부에 접근하기 전에 반드시 전원 공급장치로부터 연결되어있는 모든 전원과 전기코드를 분리해주어야 합니다.

Waarschuwing

Voordat u toegang neemt tot het binnenwerk van de behuizing voor het installeren of verwijderen van systeem onderdelen, dient u alle spanningsbronnen en alle stroomkabels aangesloten op de voeding(en) van de behuizing te verwijderen

Equipment Installation

Warning! Only authorized personnel and qualified service persons should be allowed to install, replace, or service this equipment.

機器の設置

トレーニングを受け認定された人だけがこの装置の設置、交換、またはサービスを許可されています。

警告

只有经过培训且具有资格的人员才能进行此设备的安装、更换和维修。

警告

只有經過受訓且具資格人員才可安裝、更換與維修此設備。

Warnung

Nur autorisiertes Personal und qualifizierte Servicetechniker dürfen dieses Gerät installieren, austauschen oder warten..

¡Advertencia!

Sólo el personal autorizado y el personal de servicio calificado deben poder instalar, reemplazar o dar servicio a este equipo.

Attention

Seul le personnel autorisé et le personnel de maintenance qualifié doivent être autorisés à installer, remplacer ou entretenir cet équipement..

אזהרה!

יש לאפשר רק צוות מורשה ואנשי שירות מוסמכים להתקין, להחליף או לטפל בציוד זה.

ينبغي السماح فقط للموظفين المعتمدين وأفراد الخدمة المؤهلين بتركيب هذا الجهاز أو استبداله أو صيانته.

경고!

승인된 직원과 자격을 갖춘 서비스 담당자만이 이 장비를 설치, 교체 또는 서비스할 수 있습니다.

Waarschuwing

Alleen geautoriseerd personeel en gekwalificeerd onderhoudspersoneel mag deze apparatuur installeren, vervangen of onderhouden..

Restricted Area

Warning! This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security. (This warning does not apply to workstations).

アクセス制限区域

このユニットは、アクセス制限区域に設置されることを想定しています。

アクセス制限区域は、特別なツール、鍵と錠前、その他のセキュリティの手段を用いてのみ出入りが可能です。

警告

此部件应安装在限制进出的场所，限制进出的场所指只能通过使用特殊工具、锁和钥匙或其它安全手段进出的场所。

警告

此裝置僅限安裝於進出管制區域，進出管制區域係指僅能以特殊工具、鎖頭及鑰匙或其他安全方式才能進入的區域。

Warnung

Diese Einheit ist zur Installation in Bereichen mit beschränktem Zutritt vorgesehen. Der Zutritt zu derartigen Bereichen ist nur mit einem Spezialwerkzeug, Schloss und Schlüssel oder einer sonstigen Sicherheitsvorkehrung möglich.

¡Advertencia!

Esta unidad ha sido diseñada para instalación en áreas de acceso restringido. Sólo puede obtenerse acceso a una de estas áreas mediante la utilización de una herramienta especial, cerradura con llave u otro medio de seguridad.

Attention

Cet appareil doit être installée dans des zones d'accès réservés. L'accès à une zone d'accès réservé n'est possible qu'en utilisant un outil spécial, un mécanisme de verrouillage et une clé, ou tout autre moyen de sécurité.

אזור עם גישה מוגבלת

אזהרה!

יש להתקין את היחידה באזורים שיש בהם הגבלת גישה. הגישה ניתנת בעזרת
'כלי אבטחה בלבד)מפתח, מנעול וכד.)

تخصيص هذه انحذة نترك بُها ف مناطق محظورة تم .
،مَكن انصبل إن منطقت محظورة فقط من خلال استخذاو أداة خاصت
أو أ وس هُت أخري نلالأمما قفم ومفتاح

경고!

이 장치는 접근이 제한된 구역에 설치하도록 되어있습니다. 특수도구, 잠금 장치 및 키, 또는 기타 보안 수단을 통해서만 접근 제한 구역에 들어갈 수 있습니다.

Waarschuwing

Dit apparaat is bedoeld voor installatie in gebieden met een beperkte toegang. Toegang tot dergelijke gebieden kunnen alleen verkregen worden door gebruik te maken van speciaal gereedschap, slot en sleutel of andere veiligheidsmaatregelen.

Battery Handling

CAUTION: There is risk of explosion if the battery is replaced by an incorrect type. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions

電池の取り扱い

バッテリーを間違ったタイプに交換すると爆発の危険があります。交換する電池はメーカーが推奨する型、または同等のものを使用下さい。使用済電池は製造元の指示に従って処分して下さい。

警告

如果更换的电池类型不正确，则存在爆炸危险。请只使用同类电池或制造商推荐的功能相当的电池更换原有电池。请按制造商的说明处理废旧电池。

警告

如果更換的電池類型不正確，則有爆炸危險。請使用製造商建議之相同或功能相當的電池更換原有電池。請按照製造商的說明指示處理廢棄舊電池。

WARNUNG

Es besteht Explosionsgefahr, wenn die Batterie durch einen falschen Typ ersetzt wird. Ersetzen Sie die Batterie nur durch den gleichen oder vom Hersteller empfohlenen Batterietyp. Entsorgen Sie die benutzten Batterien nach den Anweisungen des Herstellers.

ATTENTION

Il existe un risque d'explosion si la batterie est remplacée par un type incorrect. Ne la remplacer que par une pile de type semblable ou équivalent, recommandée par le fabricant. Jeter les piles usagées conformément aux instructions du fabricant.

ADVERTENCIA

Existe riesgo de explosión si la batería se reemplaza por un tipo incorrecto. Reemplazar la batería exclusivamente con el mismo tipo o el equivalente recomendado por el fabricante. Desechar las baterías gastadas según las instrucciones del fabricante.

!אזהרה

קיימת סכנת פיצוץ אם הסוללה תוחלף בסוג שגוי. יש להחליף

את הסוללה בסוג התואם מחברת יצרן מומלצת.

סילוק הסוללות המשומשות יש לבצע לפי הוראות היצרן.

هناك خطر الانفجار إذا تم استبدال البطارية بنوع غير صحيح.
اسحبذال البطارية
فقط بنفس النع أو ما يعادلها مما أوصث به الشرمة المصنعة
جخلص من البطاريات المسحعملة وفقا لحعليمات الشرمة الصانعة

경고!

배터리를 잘못된 종류로 교체하면 폭발의 위험이 있습니다. 기존 배터리와 동일하거나 제조사에서 권장하는 동등한 종류의 배터리로만 교체해야 합니다. 제조사의 안내에 따라 사용된 배터리를 처리하여 주십시오.

WAARSCHUWING

Er bestaat explosiegevaar als de batterij wordt vervangen door een verkeerd type. Vervang de batterij slechts met hetzelfde of een equivalent type die door de fabrikant aanbevolen wordt. Gebruikte batterijen dienen overeenkomstig fabrieksvoorschriften afgevoerd te worden.

Redundant Power Supplies

Warning! This unit might have more than one power supply connection. All connections must be removed to de-energize the unit.

冗長電源装置

このユニットは複数の電源装置が接続されている場合があります。

ユニットの電源を切るためには、すべての接続を取り外さなければなりません。

警告

此部件连接的电源可能不止一个，必须将所有电源断开才能停止给该部件供电。

警告

此裝置連接的電源可能不只一個，必須切斷所有電源才能停止對該裝置的供電。

Warnung

Dieses Gerät kann mehr als eine Stromzufuhr haben. Um sicherzustellen, dass der Einheit kein trom zugeführt wird, müssen alle Verbindungen entfernt werden.

¡Advertencia!

Puede que esta unidad tenga más de una conexión para fuentes de alimentación. Para cortar por completo el suministro de energía, deben desconectarse todas las conexiones.

Attention

Cette unité peut avoir plus d'une connexion d'alimentation. Pour supprimer toute tension et tout courant électrique de l'unité, toutes les connexions d'alimentation doivent être débranchées.

אם קיים יותר מספק אחד

אזהרה!

ליחדה יש יותר מחיבור אחד של ספק. יש להסיר את כל החיבורים על מנת לרוקן את היחידה.

قد يكون لهذا الجهاز عدة اتصالات بوحدات امداد الطاقة .

يجب إزالة كافة الاتصالات لعسل الوحدة عن الكهرباء

경고!

이 장치에는 한 개 이상의 전원 공급 단자가 연결되어 있을 수 있습니다. 이 장치에 전원을 차단하기 위해서는 모든 연결 단자를 제거해야만 합니다.

Waarschuwing

Deze eenheid kan meer dan één stroomtoevoeraansluiting bevatten. Alle aansluitingen dienen verwijderd te worden om het apparaat stroomloos te maken.

Backplane Voltage

Warning! Hazardous voltage or energy is present on the backplane when the system is operating. Use caution when servicing.

バックプレーンの電圧

システムの稼働中は危険な電圧または電力が、バックプレーン上にかかっています。

修理する際には注意ください。

警告

当系统正在进行时，背板上有很危险的电压或能量，进行维修时务必小心。

警告

當系統正在進行時，背板上有危險的電壓或能量，進行維修時務必小心。

Warnung

Wenn das System in Betrieb ist, treten auf der Rückwandplatine gefährliche Spannungen oder Energien auf. Vorsicht bei der Wartung.

¡Advertencia!

Cuando el sistema está en funcionamiento, el voltaje del plano trasero es peligroso. Tenga cuidado cuando lo revise.

Attention

Lorsque le système est en fonctionnement, des tensions électriques circulent sur le fond de panier. Prendre des précautions lors de la maintenance.

מתח בפנל האחורי

אזהרה!

קיימת סכנת מתח בפנל האחורי בזמן תפעול המערכת. יש להיזהר במהלך העבודה.

هناك خطر مه التيار الكهزبائي أوالطاقة المجبدة على اللحة
عندما يكن النظام يعمل كه حذرا عند خدمة هذا الجهاس

경고!
시스템이 동작 중일 때 후면판 (Backplane)에는 위험한 전압이나 에너지가 발생 합니다. 서비스 작업 시 주의하십시오.

Waarschuwing
Een gevaarlijke spanning of energie is aanwezig op de backplane wanneer het systeem in gebruik is. Voorzichtigheid is geboden tijdens het onderhoud.

Comply with Local and National Electrical Codes

Warning! Installation of the equipment must comply with local and national electrical codes.

地方および国の電気規格に準拠
機器の取り付けはその地方および国の電気規格に準拠する必要があります。

警告
设备安装必须符合本地与本国电气法规。

警告
設備安裝必須符合本地與本國電氣法規。

Warnung
Die Installation der Geräte muss den Sicherheitsstandards entsprechen.

¡Advertencia!
La instalacion del equipo debe cumplir con las normas de electricidad locales y nacionales.

Attention
L'équipement doit être installé conformément aux normes électriques nationales et locales.

תיאום חוקי החשמל הארצי
אזהרה!
התקנת הציוד חייבת להיות תואמת לחוקי החשמל המקומיים והארציים.

تركيب المعدات الكهربائية يجب أن يمتثل للقاويه المحلية والبطية المتعلقة
بالكهرباء

경고!
현 지역 및 국가의 전기 규정에 따라 장비를 설치해야 합니다.

Waarschuwing
Bij installatie van de apparatuur moet worden voldaan aan de lokale en nationale elektriciteitsvoorschriften.

Product Disposal

Warning! Ultimate disposal of this product should be handled according to all national laws and regulations.

製品の廃棄
この製品を廃棄処分する場合、国の関係する全ての法律・条例に従い処理する必要があります。

警告
本产品的废弃处理应根据所有国家的法律和规章进行。

警告
本產品的廢棄處理應根據所有國家的法律和規章進行。

Warnung
Die Entsorgung dieses Produkts sollte gemäß allen Bestimmungen und Gesetzen des Landes erfolgen.

¡Advertencia!
Al deshacerse por completo de este producto debe seguir todas las leyes y reglamentos nacionales.

Attention

La mise au rebut ou le recyclage de ce produit sont généralement soumis à des lois et/ou directives de respect de l'environnement. Renseignez-vous auprès de l'organisme compétent.

סילוק המוצר

אזהרה!

סילוק סופי של מוצר זה חייב להיות בהתאם להנחיות וחוקי המדינה.

التخلص النهائي من هذا المنتج ينبغي التعامل معه وفقا لجميع القانين واللائح البطنية عند

경고!

이 제품은 해당 국가의 관련 법규 및 규정에 따라 폐기되어야 합니다.

Waarschuwing

De uiteindelijke verwijdering van dit product dient te geschieden in overeenstemming met alle nationale wetten en reglementen.

Fan Warning

Warning! Hazardous moving parts. Keep away from moving fan blades. The fans might still be turning when you remove the fan assembly from the chassis. Keep fingers, screwdrivers, and other objects away from the openings in the fan assembly's housing.

ファンの警告

警告!回転部品に注意。運転中は回転部(羽根)に触れないでください。シャーシから冷却ファン装置を取り外した際、ファンがまだ回転している可能性があります。ファンの開口部に、指、ドライバー、およびその他のものを近づけないで下さい。

警告!

警告！危险的可移动性零件。请务必与转动的风扇叶片保持距离。 当您从机架移除风扇装置，风扇可能仍在转动。小心不要将手指、螺丝起子和其他物品太靠近风扇

警告

危險的可移動性零件。請務必與轉動的風扇葉片保持距離。 當您從機架移除風扇裝置，風扇可能仍在轉動。小心不要將手指、螺絲起子和其他物品太靠近風扇。

Warnung

Gefährlich Bewegende Teile. Von den bewegenden Lüfterblätter fern halten. Die Lüfter drehen sich u. U. noch, wenn die Lüfterbaugruppe aus dem Chassis genommen wird. Halten Sie Finger, Schraubendreher und andere Gegenstände von den Öffnungen des Lüftergehäuses entfernt.

¡Advertencia!

Riesgo de piezas móviles. Mantener alejado de las aspas del ventilador. Los ventiladores podran dar vuelta cuando usted quite ell montaje del ventilador del chasis. Mandtenga los dedos, los destornilladores y todos los objetos lejos de las aberturas del ventilador

Attention

Pieces mobiles dangereuses. Se tenir a l'ecart des lames du ventilateur Il est possible que les ventilateurs soient toujours en rotation lorsque vous retirerez le bloc ventilateur du châssis. Prenez garde à ce que doigts, tournevis et autres objets soient éloignés du logement du bloc ventilateur.

אזהרה!

חלקים נעים מסוכנים. התרחק מלהבי המאוורר בפעולהכאשר מסירים את חלקי
המאוורר מהמארז, יתכן והמאוררים עדיין עובדים. יש להרחיק למרחק בטוח את
האצבעות וכלי עבודה שונים מהפתחים בתוך המאוורר

تحذير! أجزاء متحركة خطرة. ابتعد عن شفرات المروحة المتحركة.من الممكن أن
المراوح لا تزال تدورعند إزالة كتلة المروحة من الهيكل يجب إبقاء الأصابع
.ومفكات البراغي وغيرها من الأشياء بعيدا عن الفتحات في كتلة المروحة

경고!

움직이는 위험한 부품. 회전하는 송풍 날개에 접근하지 마세요. 섀시로부터 팬 조립품을 제거할 때 팬은 여전히 회전하고 있을 수 있습니다. 팬 조림품 외관의 열려있는 부분들로부터 손가락 및 스크류드라이버, 다른 물체들이 가까이 하지 않도록 배치해 주십시오.

Waarschuwing

Gevaarlijk bewegende onderdelen. Houd voldoende afstand tot de bewegende ventilatorbladen. Het is mogelijk dat de ventilator nog draait tijdens het verwijderen van het ventilatorsamenstel uit het chassis. Houd uw vingers, schroevendraaiers en eventuele andere voorwerpen uit de buurt van de openingen in de ventilatorbehuizing.

Power Cable and AC Adapter

Warning! When installing the product, use the provided or designated connection cables, power cables and AC adaptors. Using any other cables and adaptors could cause a malfunction or a fire. Electrical Appliance and Material Safety Law prohibits the use of UL or CSA -certified cables (that have UL/CSA shown on the cord) for any other electrical devices than products designated by Supermicro only.

電源コードとACアダプター

製品を設置する場合、提供または指定および購入された接続ケーブル、電源コードとACアダプターを 該当する地域の条例や安全基準に適合するコードサイズやプラグと共に使用下さい。他のケーブルやアダプタを使用すると故障や火災の原因になることがあります。

電気用品安全法は、ULまたはCSA認定のケーブル(UL/CSAマークがコードに表記)を Supermicroが指定する製品以外に使用することを禁止しています。

警告

安装此产品时,请使用本身提供的或指定的或采购的连接线,电源线和电源适配器，包含遵照当地法规和安全要求的合规的电源线尺寸和插头.使用其它线材或适配器可能会引起故障或火灾。除了Supermicro所指定的产品,电气用品和材料安全法律规定禁止
使用未经UL或CSA认证的线材。(线材上会显示UL/CSA符号)。

警告

安裝此產品時,請使用本身提供的或指定的或採購的連接線,電源線和電源適配器，包含遵照當地法規和安全要求的合規的電源線尺寸和插頭.使用其它線材或適配器可能會引起故障或火災。除了Supermicro所指定的產品,電氣用品和材料安全法律規定禁止
使用未經UL或CSA認證的線材。 (線材上會顯示UL/CSA符號)。

Warnung

Nutzen Sie beim Installieren des Produkts ausschließlich die von uns zur Verfügung gestellten Verbindungskabeln, Stromkabeln und/oder Adapater, die Ihre örtlichen Sicherheitsstandards einhalten. Der Gebrauch von anderen Kabeln und Adapter können Fehlfunktionen oder Feuer verursachen. Die Richtlinien untersagen das Nutzen von UL oder CAS zertifizierten Kabeln (mit UL/CSA gekennzeichnet), an Geräten oder Produkten die nicht mit Supermicro gekennzeichnet sind.

¡Advertencia!

Cuando instale el producto, utilice la conexión provista o designada o procure cables, Cables de alimentación y adaptadores de CA que cumplan con los códigos locales y los requisitos de seguridad, incluyendo el tamaño adecuado del cable y el enchufe. El uso de otros cables y adaptadores podría causar un mal funcionamiento o un incendio. La Ley de Seguridad de Aparatos Eléctricos y de Materiales prohíbe El uso de cables certificados por UL o CSA (que tienen el certificado UL / CSA en el código) para cualquier otros dispositivos eléctricos que los productos designados únicamente por Supermicro.

Attention

Lors de l'installation du produit, utilisez les cables de connection fournis ou désigné ou achetez des cables, cables de puissance et adaptateurs respectant les normes locales et les conditions de securite y compris les tailles de cables et les prises electriques appropries. L'utilisation d'autres cables et adaptateurs peut provoquer un dysfonctionnement ou un incendie. Appareils électroménagers et la Loi sur la Sécurité Matériel interdit l'utilisation de câbles certifies- UL ou CSA (qui ont UL ou CSA indiqué sur le code) pour tous les autres appareils électriques sauf les produits désignés par Supermicro seulement.

AC ימאתמו סיילמשח סילבכ

!הרהזא

ךרוצל ומאתוה וא ושכרנ רשא AC סימאתמו סיקפס ,סילבכב שמתשהל שי ,רצומה תא סיניקתמ רשאכ לכב שומיש . עקתהו לבכה לש הנוכנ הדימ ללוכ ,תוימוקמה תוחיטבה תושירדל ומאתוה רשאו ,הנקתהה למשחה יריש כמב שומישה יקוחל סאתהב .ילמשח רצק וא הלקתל סורגל לולע ,רחא גוסמ סאתמ וא לבכ לש דוק סהילע עיפומ רשאכ) CSA-ב וא UL -ב סיכמסומה סילבכב שמתשהל רוסיא סייק ,תוחיטבה יקוחו .דבלב Supermicro י"ע סאתוה רשא רצומב קר אלא ,רחא ילמשח רצומ לכ רובע UL/CSA)

عند تركيب المنتج، قم باستخدام التوصيلات المتوفرة أو المحددة أو قم بشراء الكابلات الكهربائية ومحولات التيار المتردد مع الالتزام بقوانين ومتطلبات السلامة المحلية بما في ذلك حجم الموصل والقابس السليم. استخدام أي كابلات ومحولات أخرى قد يتسبب في عطل أو حريق. يحظر قانون السلامة للأجهزة الكهربائية والمعدات استخدام الكابلات المعتمدة من قبل UL أو CSA لأي منتجات المعينة والمحددة من قبل Supermicro. والتي تحمل علامة (UL/CSA) مع أي معدات أخرى غير

전원 케이블 및 AC 어댑터

경고! 제품을 설치할 때 현지 코드 및 적절한 굵기의 코드와 플러그를 포함한 안전 요구 사항을 준수하여 제공되거나 지정된 연결 혹은 구매 케이블, 전원 케이블 및 AC 어댑터를 사용하십시오.

다른 케이블이나 어댑터를 사용하면 오작동이나 화재가 발생할 수 있습니다. 전기 용품 안전법은 UL 또는 CSA 인증 케이블 (코드에 UL / CSA가 표시된 케이블)을 Supermicro 가 지정한 제품 이외의 전기 장치에 사용하는 것을 금지합니다.

Stroomkabel en AC-Adapter

Waarschuwing! Bij het aansluiten van het Product uitsluitend gebruik maken van de geleverde Kabels of een andere geschikte aan te schaffen Aansluitmethode, deze moet altijd voldoen aan de lokale voorschriften en veiligheidsnormen, inclusief de juiste kabeldikte en stekker. Het gebruik van niet geschikte Kabels en/of Adapters kan een storing of brand veroorzaken. Wetgeving voor Elektrische apparatuur en Materiaalveiligheid verbied het gebruik van UL of CSA -gecertificeerde Kabels (met UL/CSA in de code) voor elke andere toepassing dan de door Supermicro hiervoor beoogde Producten.

Appendix B
System Specifications

Processors

One Intel® Xeon® 6300-series/E-2400 or 12th Generation Pentium® (socket V0 - LGA1700) series processor with up to eight cores
Note: Refer to the motherboard specifications pages on our website for updates to supported processors.

Chipset

Intel C266

BIOS

256 Mb AMI BIOS® SPI Flash BIOS
ACPI 6.0 or later, PCI F/W 3.0 or later, Plug and Play (PnP), SPI dual speed support, riser card auto detection support, SMBIOS 2.7 or later, real time clock (RTC) wakeup

Memory

Four DIMM slots. Up to 128 GB of ECC UDIMM DDR5 memory with speeds of up to 4400 MT/s with one DIMM per channel or 4000 MT/s with two DIMMs per channel

Storage Drives

Four hot-swap 3.5" SATA (default) drive bays (two U.2 NVMe or four SAS3 with optional parts)
One M.2 slot from CPU PCIe 4.0 x4
One M.2 slot from PCH PCIe 4.0 x4

PCI Expansion Slots

For slots 1 and 2:
One PCIe 5.0 x16 (FHFL) in slot 1 -or-
One PCIe 5.0 x8 (FHFL) in slot 1 and one PCIe 5.0 x8 (FHFL) in slot 2
For slot 3:
One PCIe 4.0 x4 in x16 slot (LP)

Networking

Dual 1GbE LAN
One dedicated BMC LAN located on the rear I/O panel

Input/Output

One rear COM port
One rear VGA port
Two rear USB 2.0 ports, two front accessible USB 2.0 headers
Two rear USB 3.2 Gen 2 x1 ports, one front accessible USB 3.2 Gen 1 x1 headers
One USB 3.2 Gen 2 x1 Type-A header

Motherboard

X13SCW-F; (WxL) 8 x 13 in (203.2 x 330.2 mm)

Chassis

CSE-815BTS-R000WNP; 1U (WxHxD) 17.2 x 1.7 x 25.6 in

System Cooling

Four 40 x 40 x 56 mm counter rotating PWM fans plus two additional fan housing space
One CPU heatsink
One air shroud

Power Supply

Model: PWS-601A-1R, 600 W redundant module, 80Plus Titanium level
AC Input Voltages: 100-240 VAC
Rated Input Current:
600 W: 100-127 Vac
600 W: 200-240 Vac
600 W: 240 Vdc (for CCC only)
Rated Input Frequency: 50-60 Hz
Rated Output Power: +12 V
Standby +12 Vsb: Max: 71.67 A / Min: 0 A

Operating Environment

Operating Temperature: 10º to 35 ºC (50º to 95 ºF)
Non-operating Temperature: -40º to 60 ºC (-40º to 140 ºF)
Operating Relative Humidity: 8% to 90% (non-condensing)
Non-operating Relative Humidity: 5% to 95% (non-condensing)

Regulatory Compliance

FCC, ICES, CE, VCCI, RCM, UKCA, NRTL, CB

Applied Directives, Standards

EMC/EMI: 2014/30/EU (EMC Directive)
Electromagnetic Compatibility Regulations 2016
FCC Part 15 Subpart B
ICES-003
VCCI-CISPR 32
AS/NZS CISPR 32
BS/EN55032
BS/EN55035
BS/EN 61000-3-2
BS/EN 61000-3-3
BS/EN 61000-4-2
BS/EN 61000-4-3
BS/EN 61000-4-4
BS/EN 61000-4-5
BS/EN 61000-4-6
BS/EN 61000-4-8
BS/EN 61000-4-11

Environment:
Delegated Directive (EU) 2015/863
Directive 2011/65/EU (RoHS)
REACH Regulation EC 1907/2006
WEEE Directive 2012/19/EU
California Proposition 65

Product Safety: 2014/35/EU (LVD Directive)
Electrical Equipment (Safety) Regulations 2016
UL/CSA 62368-1 (USA and Canada)
BS/IEC/EN 62368-1

Perchlorate Warning

California Best Management Practices Regulations for Perchlorate Materials: This Perchlorate warning applies only to products containing CR (Manganese Dioxide) Lithium coin cells. “Perchlorate Material-special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate”

この装置は、クラスＡ機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI ー A

BSMI/RoHS

限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

設備名稱: 伺服器 / Server
Equipment name

型號（型式）：815-R6X13 (系列型號:815-6, SYS-511R-W)
Type designation (Type)

單元Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr^{+6})	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
機殼 (Chassis)	○	○	○	○	○	○
機殼風扇 (Chassis Fan)	-	○	○	○	○	○
線材 (Cable)	○	○	○	○	○	○
主機板 (Motherboard)	-	○	○	○	○	○
電源供應器 (Power Supply)	-	○	○	○	○	○
電源背板 (PDB)	-	○	○	○	○	○
硬碟 (HDD, SSD)	-	○	○	○	○	○
附加卡 (Add-on card)	-	○	○	○	○	○
光碟機 (選配) (DVD-ROM, Optional)	-	○	○	○	○	○

備考1.〝超出0.1 wt %〞及〝超出0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值。

Note 1：“Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

Note 2：“○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考2.〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。

Note 3：The “–” indicates that the restricted substance corresponds to the exemption.

備考3.〝-〞係指該項限用物質為排除項目。

警告: 為避免電磁干擾, 本產品不應安裝或使用於住宅環境。

輸入額定:

100-127V ~, 60-50Hz, 7.0-5.5A (x2)
200-240V ~, 60-50Hz, 3.3-2.7A (x2)

*使用者不能任意拆除或替換內部配備

*報驗義務人之姓名或名稱：美超微電腦股份有限公司

*報驗義務人之地址：新北市中和區建一路 150 號 3 樓

經 濟 部 標 準 檢 驗 局

BUREAU OF STANDARDS,METROLOGY AND INSPECTION, MINISTRY OF ECONOMIC AFFAIRS

商 品 驗 證 登 錄 證 書

CERTIFICATE OF THE REGISTRATION OF PRODUCT CERTIFICATION

證書號碼： CI363061993656 號 00
Certificate No.

茲據 美超微電腦股份有限公司 申請驗證登錄，經審查結果符合規定，准予登錄並使用商品安全標章 及識別號碼： R36199 。其登錄事項如下：
The application made by SUPER MICRO COMPUTER, INC. TAIWAN for Registration of Product Certification has been reviewed and found to be in compliance with related regulations. Therefore, registration is granted with the Product Safety Mark and the Identification No. R36199 . Details of the registration are follows :

申 請 人 ： 美超微電腦股份有限公司 統一編號： 12729477
Applicant Uniform No.

地 址 ： 新北市中和區建一路150號3樓
Address

生產廠場 ： 詳如附表
Factory

廠 址 ： 詳如附表
Factory Address

商品種類名稱：
Type/name of product

商品分類號列： 8471.49.00.00.7
C.C.C Code

中文名稱 ： 伺服器
Chinese name

英文名稱 ：
English name

型 式： 815-R6X13
Type

系列型式 ： 815-6,815B-R6X13,M-300,SYS-511R-W(以下空白)
Series of the type

依據標準 ： CNS15598-1（109年06月）、CNS15936（105年09月）、符合CNS 15663第5節「含有標示」規定 102年7月
Standards

標準檢驗局發證（發證地址：100臺北市中正區濟南路1段4號）
This certificate is issued by the BSMI. (No.4, Sec. 1, Jinan Rd., Zhongzheng Dist., Taipei City 100, Taiwan)

本證書以電子文件行之，所載內容若有不符之處，以標準檢驗局系統登錄資料為主，查詢證書資料網址:https://civil.bsmi.gov.tw

登錄日期：中華民國	114	年	01	月	03	日
Registration Date	2025	(year)	01	(month)	03	(day)
本證書有效期限至	117	年	01	月	02	日
Expiration Date	2028	(year)	01	(month)	02	(day)
發證日期：中華民國	114	年	01	月	03	日
Date of issue	2025	(year)	01	(month)	03	(day)

經濟部 標準檢驗局 BSMI

註1：持本證書進口驗證登錄商品時，進口人須與本證書名義人相同。
註2：次年度商品驗證登錄年費繳納期限為當年11月30日，逾期未繳納者，經限期繳納屆期未繳納，即依商品檢驗法第42條第7款規定廢止驗證登錄，並自次年度1月1日起生效。
註3：本證書僅代表完成檢驗程序，不作為其他(如產地)證明。

列印序號:3326211909133016045 第1頁 ， 共2頁

經 濟 部 標 準 檢 驗 局
BUREAU OF STANDARDS,METROLOGY AND INSPECTION,
MINISTRY OF ECONOMIC AFFAIRS

商 品 驗 證 登 錄 證 書
CERTIFICATE OF THE REGISTRATION OF PRODUCT CERTIFICATION

證書號碼： CI363061993656 號 00
Certificate No.

生產廠場： 1. SUPER MICRO COMPUTER, INC.
Factory： 782 Ridder Park Drive, San Jose, CA95131, USA

2. SUPER MICRO COMPUTER B.V.
Het Sterrenbeeld 12-16, 5215 ML 'S-Hertogenbosch, The Netherlands

3. Compuware Technology Inc.
3F., No. 306, Changan St., Bade District, Taoyuan City 33463, Taiwan

4. SUPER MICRO COMPUTER, INC.
980 Rock Ave, San Jose, CA95131, USA

5. SUPER MICRO COMPUTER, INC. TAIWAN
No.1899, Xingfeng Road, Da An Vil, Bade District, Taoyuan City 33463, Taiwan

（以下空白）

經濟部 標準檢驗局 BSMI

列印序號:3326211909133016045 第2頁 ， 共2頁