A+ Workstation
AS -531AW-TC

USER'S MANUAL

Revision 1.0a

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Manual Revision 1.0a

Release Date: August 11, 2025

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 AS -531AW-TC workstation. Installation and maintenance should be performed by certified service technicians only.

Please refer to the AS -531AW-TC 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 workstation.

- Supermicro product manuals: http://www.supermicro.com/support/manuals/
- Product drivers and utilities: https://www.supermicro.com/wdl/driver
- 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.

Contents

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Chapter 1

Introduction

1.1 Overview

This chapter provides an outline of the functions and features of the AS -531AW-TC SuperWorkstation. The following provides an overview of the specifications and capabilities.

System Overview	
Motherboard	H13SRA-TF
Chassis	GS3A-000NBP
Processor	Supports single AMD Ryzen™ Threadripper™ PRO 9000 WX and 9000 Series and AMD Ryzen™ Threadripper™ 7000 WX and 7000 Series processors up to 350 W TDP in an sTR5 socket
Memory	Supports up to 512 GB of ECC Registered RDIMM/3DS RDIMM, DDR5-5200 MT/s in four DIMM slots (up to DDR5-6400 with 9000 WX and 9000 series CPUs)
Storage	Two 3.5” internal drive bays Six 2.5” internal drive bays Two M.2 PCIe 4.0 x4 NVMe (M-key, 2280/22110) One PCIe 4.0 x8 MCIO connector to support two NVMe 2.5" SSDs
Expansion Slots	Two PCIe 5.0 x16 slots Two PCIe 5.0 x8 slots
I/O Ports	Four USB3.2 Gen2 Type-A ports (rear, 10 Gb) One USB3.2 Gen2 Type-C port (rear, 20 Gb) Two USB3.2 Gen1 Type-A ports (front, 5 Gb) One USB3.2 Gen2 Type-C port (front, 10 Gb) Two 10 GbE and one 1 GbE (Dedicated IPMI) LAN ports One VGA port and one COM port HD Audio 7.1 audio ports
System Cooling	Four 12-cm heavy duty fans (one rear, three front) with optimal fan speed control One active CPU heatsink (air-cooled or liquid-cooled options)
Power	One 1000 W, 1300 W, or 2000 W 80Plus power supply (three options)
Form Factor	Mid Tower; (W x H x D) 8.07 x 17.72 x 18.5" (205 x 450 x 470 mm)

A Quick Reference Guide can be found on the product page of the Supermicro website.

The following safety models associated with the AS -531AW-TC have been certified as compliant with UL or CSA: GS3A-10, GS3A-S10H13, GS3A-13, GS3A-S13H13, GS3A-20, GS3A-S20H13.

1.2 System Features

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

Front View

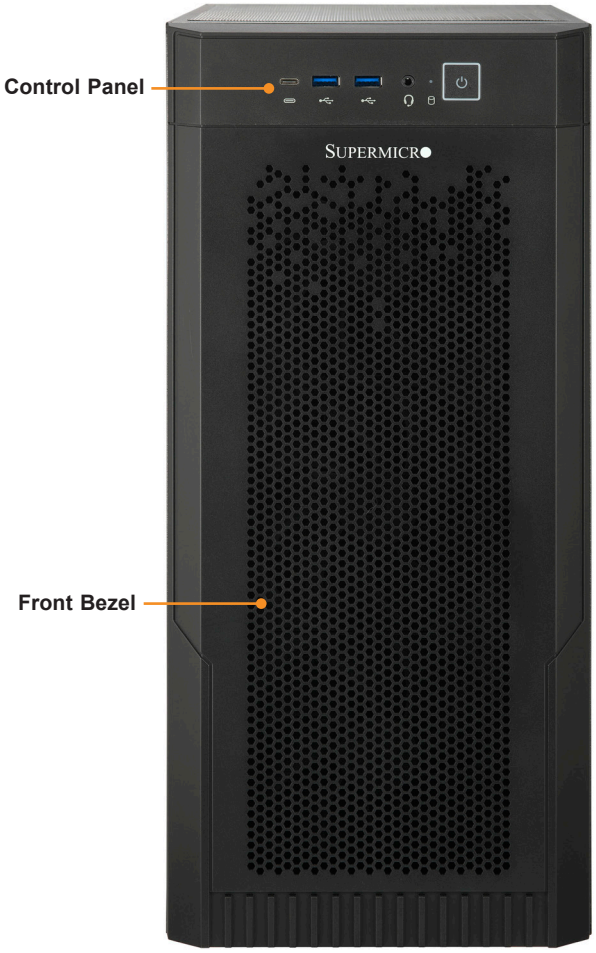


Figure 1-1. System Front View

Front View Features	
Item	**Description**
Control Panel	See the following page for details.
Front Bezel	Vented with optional filter, opens for access to front fans

Control Panel

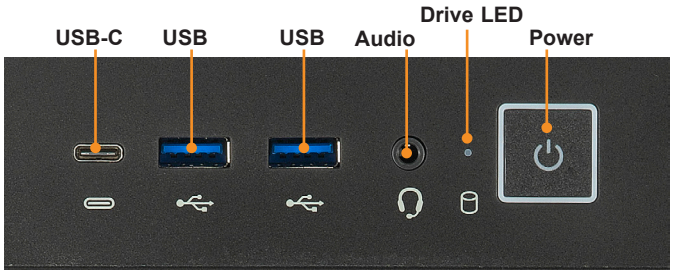


Figure 1-2. Control Panel

Control Panel Features	
Features	**Description**
Power	The main power switch applies or removes primary power from the power supply to the workstation but maintains standby power.
Drive LED	Indicates storage drive activity
Audio	3.5 mm combo microphone input/audio output port
USB	Two USB 3.2 Gen1 Type A 5G ports
USB-C	USB 3.2 Gen2 Type C 10G port (supports power usage at a maximum current of 1.5A)

Rear View

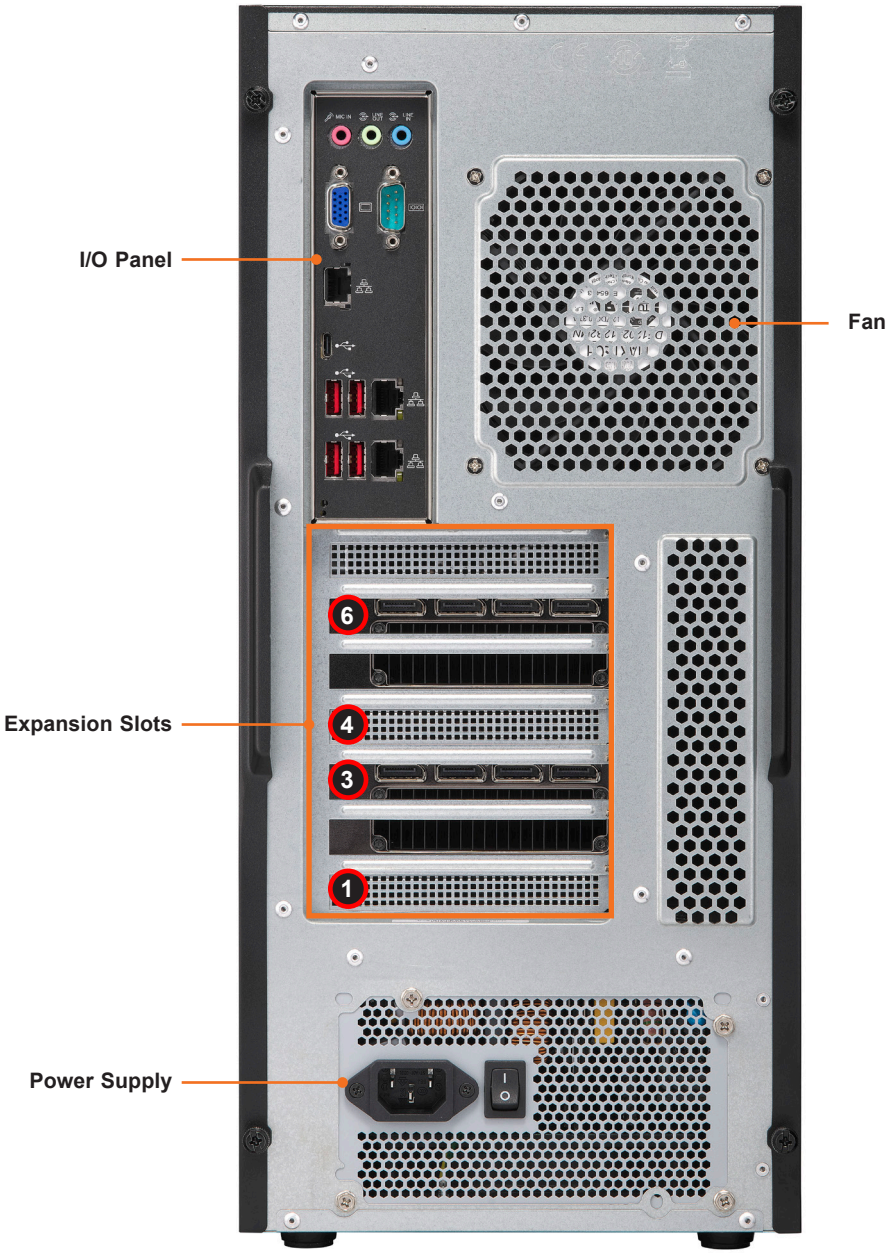


Figure 1-3. System Rear View

System Features: Rear	
Feature	**Description**
I/O Panel	See Chapter 3 for details
Fan	12-cm exhaust fan
Expansion Slots	Four PCIe 5.0 slots; two x16 and two x8; see the following table
Power Supply	One 1000 W, 1300 W, or 2000 W multi-output power supply options

Expansion Slot Locations	
Item	**Description**
6	PCIe 5.0 x16 full-height full-length slot
4	PCIe 5.0 x8 full-height full-length slot
3	PCIe 5.0 x16 full-height full-length slot
1	PCIe 5.0 x8 full-height full-length slot

Side Views

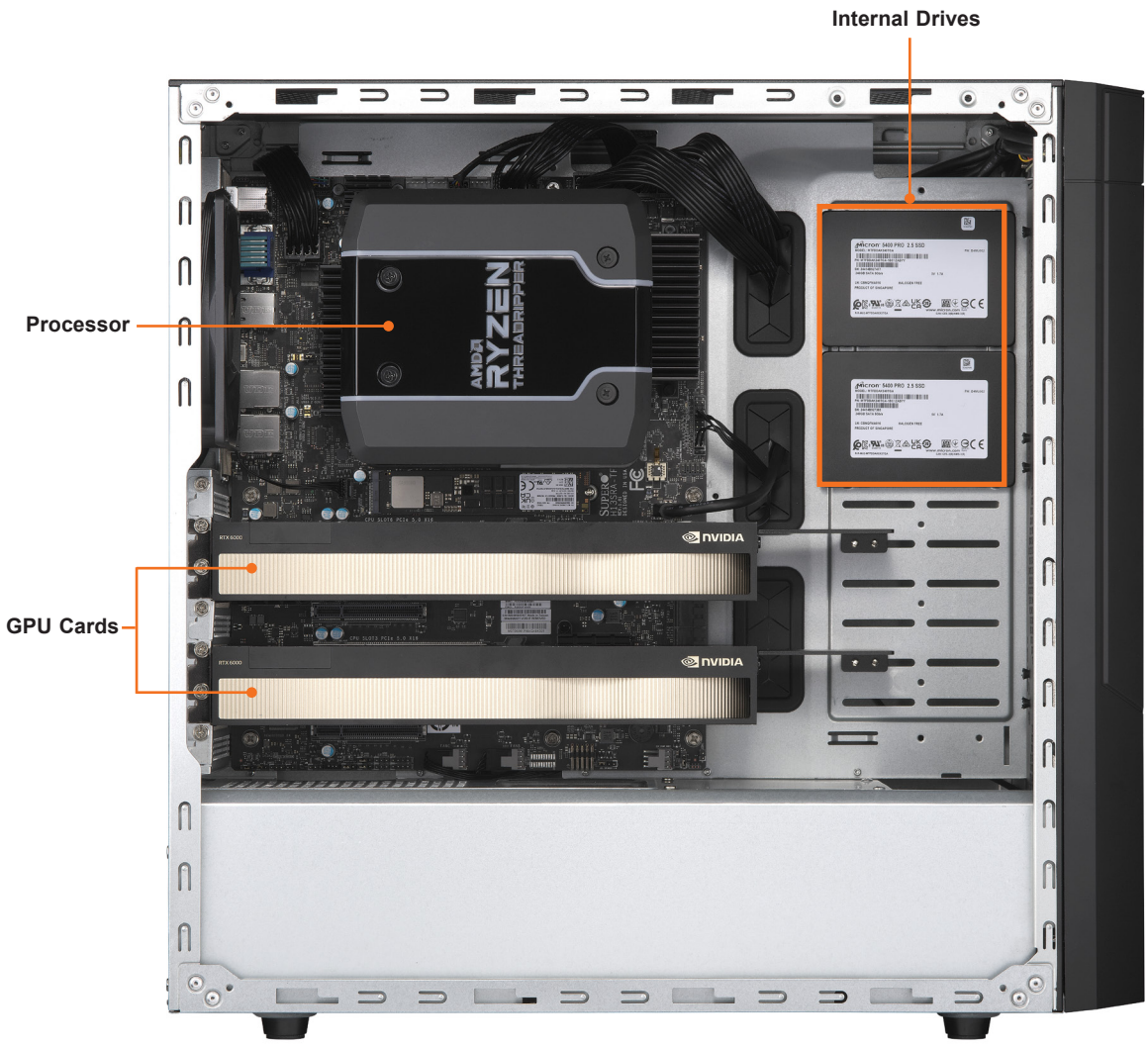


Figure 1-4. System: Front Side View

System Features: Front Side	
Feature	**Description**
Internal Drives	Two fixed internal 2.5" NVMe/SATA SSD drives
Processor	Supports AMD Ryzen™ Threadripper™ PRO 9000 WX and 9000 Series and AMD Ryzen™ Threadripper™ 7000 WX and 7000 Series processor with active heatsink
GPU Cards	Supports up to two double-width active GPUs or one triple/quad-width GPU

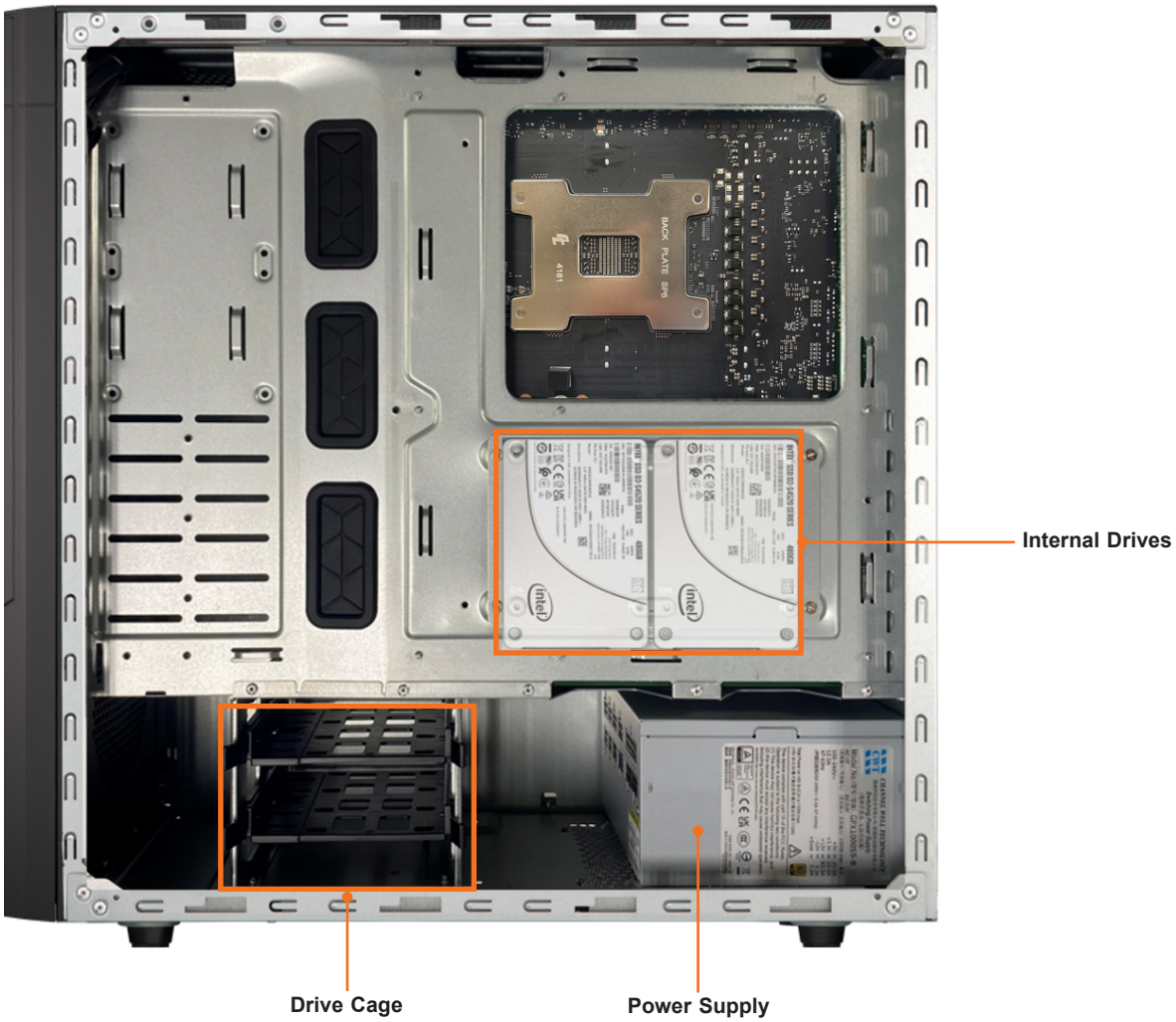


Figure 1-5. System: Back Side View

System Features: Back Side	
Feature	**Description**
Internal Fixed Drives	Two fixed internal 2.5" NVMe/SATA SSD drives
Drive Cage	Drive cage to house two 3.5" and two 2.5" storage drives
Power Supply	One 1000 W, 1300 W, or 2000 W 80Plus power supply

1.3 Motherboard Layout

Below is a layout of the H13SRA-TF motherboard with jumper, connector and LED locations shown. See the following page for descriptions. For detailed descriptions, pinout information and jumper settings, refer to Chapter 4 or the Motherboard Manual.

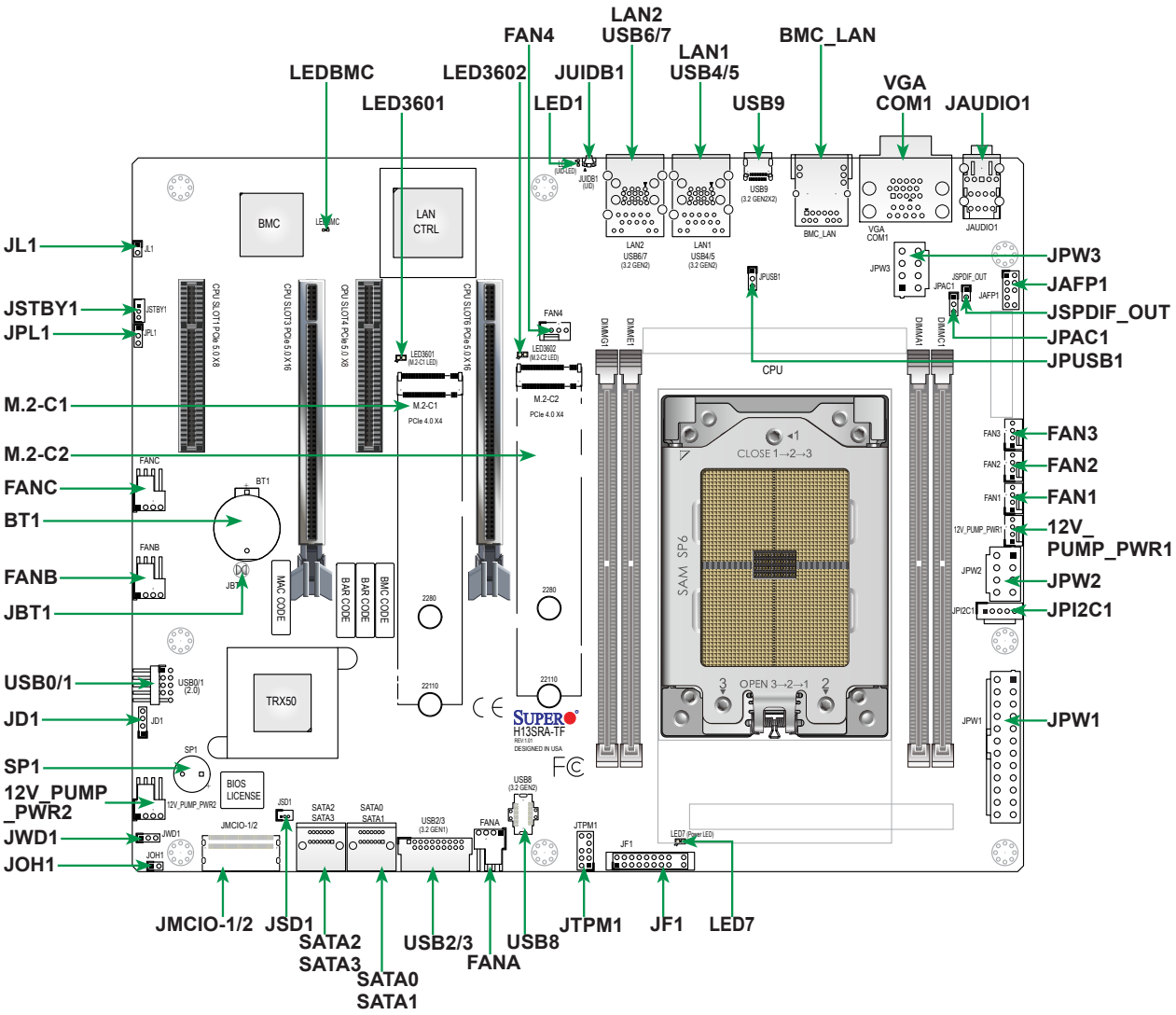


Figure 1-6. Motherboard Layout

Notes:

- See Chapter 4 for detailed information on jumpers and connections.
- " ■ " indicates the location of pin 1.
- Jumpers/LED indicators not indicated are used for testing only.
- Use only the correct type of onboard CMOS battery as specified by the manufacturer. To avoid possible explosion, do not install the onboard battery upside down.

Quick Reference Table

Jumper	Description	Default Setting
JBT1	Clear CMOS (Onboard)	Short Pads to Clear CMOS
JPAC1	HD Audio Enable/Disable	Pins 1-2 (Normal)
JPL1	LAN1/LAN2 Enable/Disable	Pins 1-2 (Enabled)
JPUSB1	USB4/5 Wake Up	Pins 1-2 (Enabled)
JWD1	Watchdog Function Enable	Pins 1-2 (Reset)

LED	Description	Status
LED1	Unit Identifier (UID) LED	Blue On: Unit Identified
LED3601, LED3602	M.2 LEDs for M.2-C1 and M.2-C2	Blinking Green: Device Working
LED7	Onboard Power LED	Solid Green: Power On
LEDBMC	BMC Heartbeat LED	Blinking Green: BMC Normal

Connector	Description
12V_PUMP_PWR1	12 V 4-pin Power Connector (for CPU liquid cooling pump)
12V_PUMP_PWR2	12 V 4-pin Power Connector (for GPU liquid cooling pump)
BMC_LAN	Dedicated BMC LAN Port (RJ45)
BT1	Onboard Battery
COM1	COM Port (Back Panel)
CPU SLOT1/4	PCIe 5.0 x8 Slots
CPU SLOT3/6	PCIe 5.0 x16 Slots
FAN1 – FAN4	CPU Fan Headers
FANA, FANB, FANC	System Fan Headers
JAFP1	Front Panel Audio Header
JAUDIO1	Back Panel High Definition Audio Ports
JD1	Speaker/Buzzer Header
JF1	Front Control Panel Header
JL1	Chassis Intrusion Header
JMCIO-1/2	PCIe 4.0 x8 MCIO Connector with support of two NVMe 2.5" SSDs (NOT hot-swappable, supported by TRX50)
JOH1	Overheat LED Header
JPI2C1	Power Supply SMBus I^2C Header
JPW1	24-pin ATX Main Power Connector (Required)
JPW2, JPW3	12 V 8-pin CPU Power Connectors (Required)
JSD1	SATA Disk-On-Module (DOM) Power Connector
JSPDIF_OUT	Sony/Philips Digital Interface (S/PDIF) Out Header
JSTBY1	Standby Power Header (5 V)
JTPM1	Trusted Platform Module (TPM)/Port 80 Header

Connector	Description
JUIDB1	Unit Identifier (UID) Switch / BMC Reset Button
LAN1, LAN2	RJ45 1 GbE LAN Ports (H13SRA-F only); RJ45 10 GbE LAN Ports (H13SRA-TF only)
M.2-C1, M.2-C2	PCIe 4.0 x4 M.2 M-key Slots (Support 22110/2280 form factors and RAID 0/1)
SATA0 – SATA3	SATA 3.0 Ports (6 Gb/second, support RAID 0/1/5/10)
SP1	Internal Speaker/Buzzer
USB0/1	Front Access USB 2.0 Header
USB2/3	Front Access USB 3.2 Gen. 1 Header (5 Gb, Type-A)
USB4, USB5, USB6, USB7	Back Panel USB 3.2 Gen. 2 Ports (10 Gb, Type-A)
USB8	Front Access USB 3.2 Gen. 2 Header (10 Gb, Type-C)
USB9	Back Panel USB 3.2 Gen. 2x2 Port (20 Gb, Type-C)
VGA	VGA Port (supported by BMC)

Motherboard Block Diagram

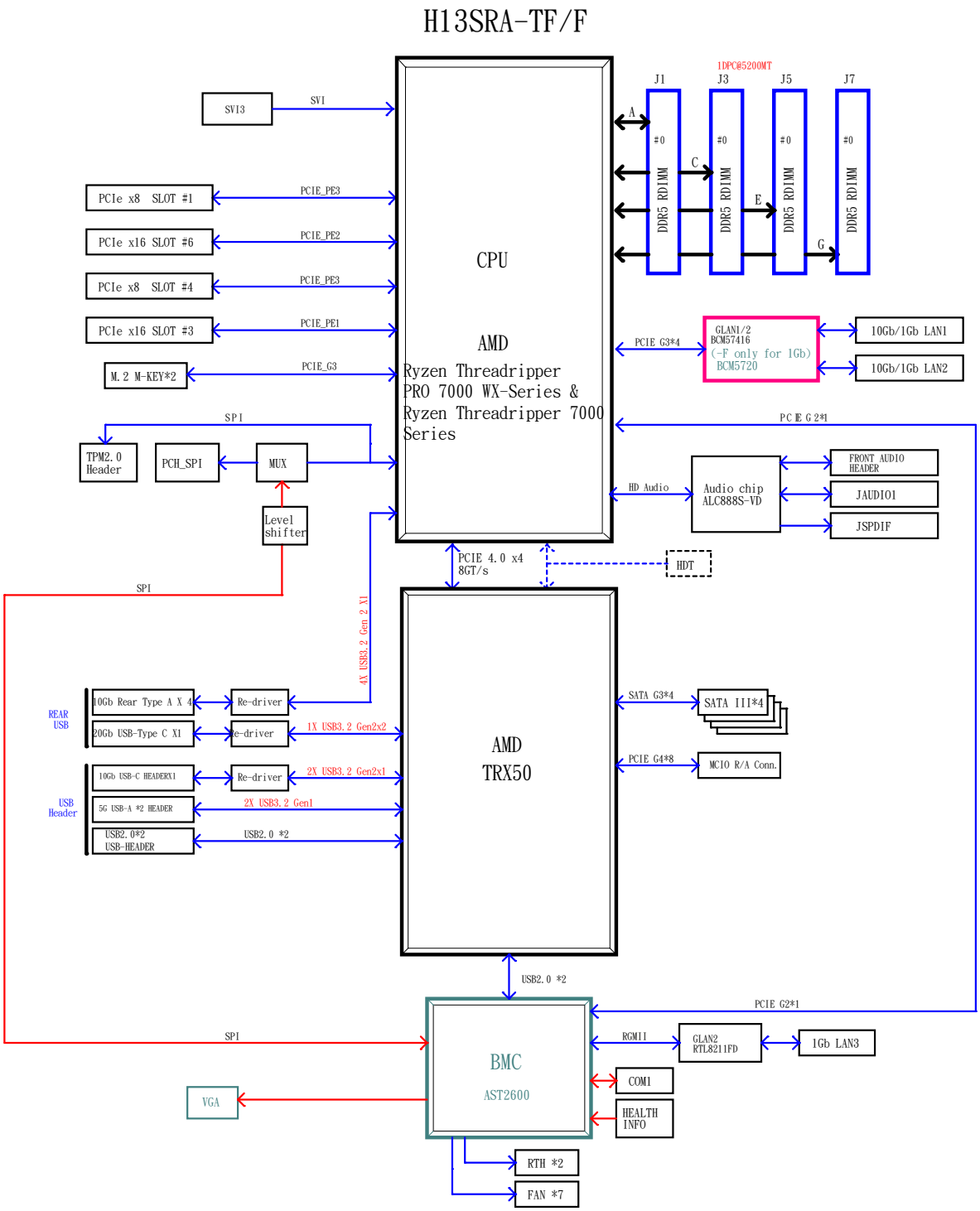


Figure 1-7. Motherboard Block Diagram

Note: This is a general block diagram and may not exactly represent the features on your motherboard. See the previous pages for the actual specifications of your motherboard.

Chapter 2

Workstation Installation

2.1 Overview

This chapter provides advice and instructions for workstation installation. If your workstation is not already fully integrated with processors, system memory, etc., refer to “Maintenance and Component Installation” for details on installing those specific components

Inportant: 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 AS -531AW-TC 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 workstation. 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 “Standardized Warning Statements for AC Systems”.

2.3 Preparing for Setup

The box in which the system was shipped should include installation information. Please read this section in its entirety before you begin the installation.

Choosing a Setup Location

- The workstation should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated.
- 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.

System Precautions

- Review the electrical and general safety precautions in Appendix A.

- Use a regulating uninterruptible power supply (UPS) to protect the workstation 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.

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. This is necessary when removing or installing non hot-swap components or when replacing a non-redundant power supply.

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

3.2 Accessing the System

Except for short periods of time, do not operate the workstation without the cover in place. The allows for proper airflow and prevents overheating.

Removing the Side Cover

1. Begin by removing power from the system by following the process described in *3.1 Removing Power*.
2. Remove the two thumb screws on the rear of the chassis.
3. Slide the cover toward the rear of the chassis.
4. Remove the cover from the chassis.

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

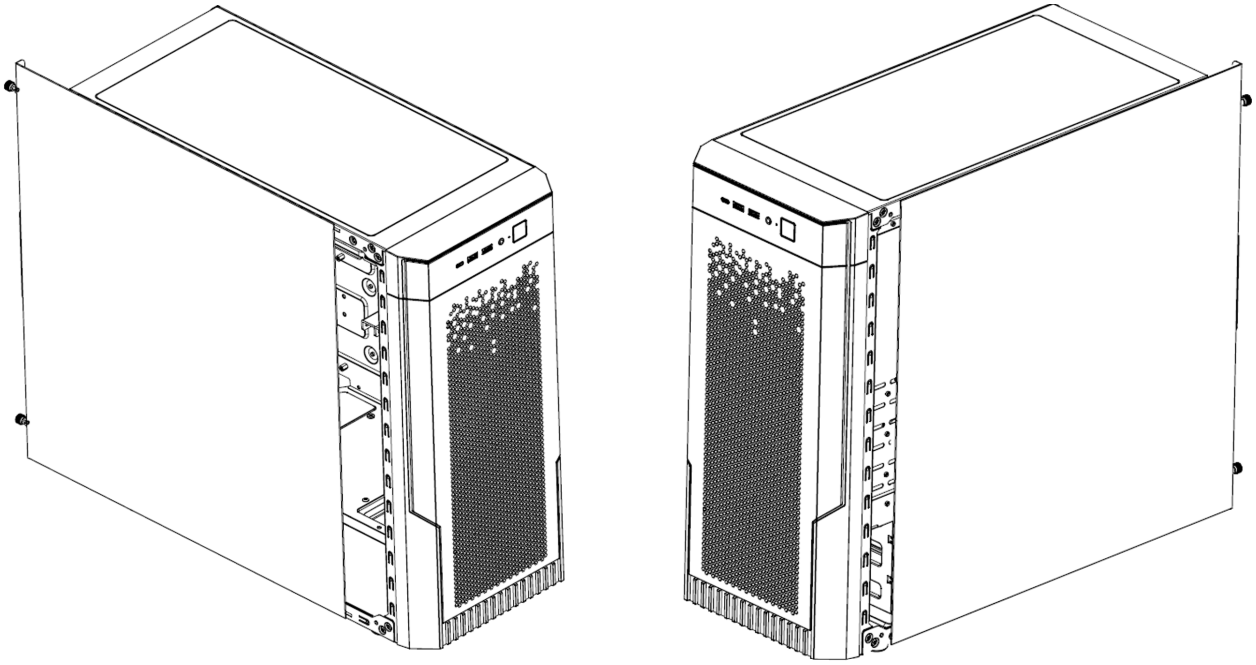


Figure 3-1. Removing the Side Cover

Removing the Front Bezel

Remove the front bezel by pulling out the bottom first. Generally, this is only necessary when replacing the front fans.

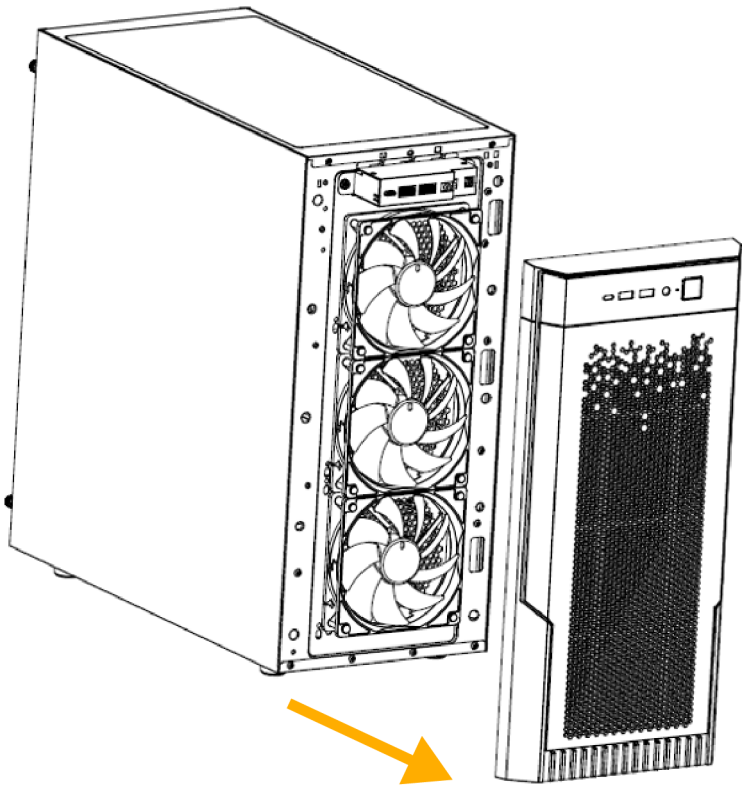


Figure 3-2. Removing the Front Bezel

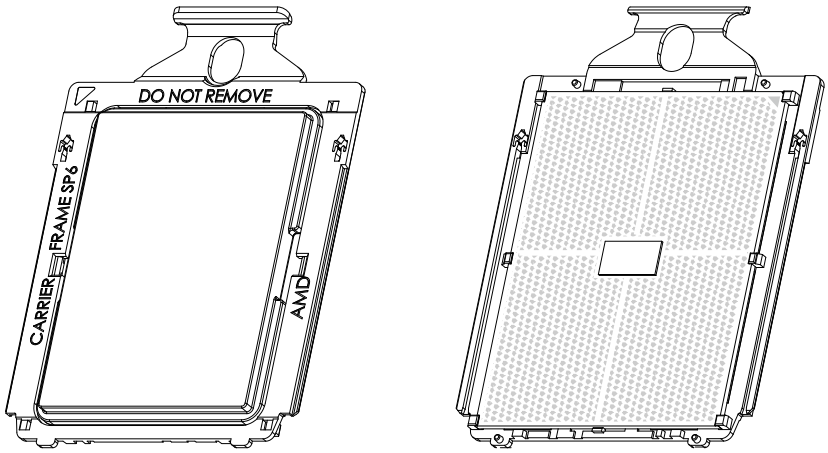
3.3 Processor and Heatsink Installation

Notes:

- Use ESD protection.
- Shut down the system and then unplug the AC power cord from all power supplies.
- Check that the plastic protective cover is on the processor 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 socket, which may require manufacturer repairs.
- Thermal grease is pre-applied on a new heatsink. No additional thermal grease is needed.
- Refer to the Supermicro website for updates on processor support.
- All graphics in this manual are for illustrative purposes only. Your components may look different.
- When securing the Force Frame, ensure a torque driver set to the correct force is used for each screw.
- Installing the processor does not require a screwdriver. Do not unscrew the processor socket.
- Installing the heatsink requires a Phillips #1 screwdriver.

AMD Ryzen™ Threadripper™ PRO 9000 WX and 9000 Series and PRO 7000 WX-Series and Ryzen Threadripper 7000 Series Processor

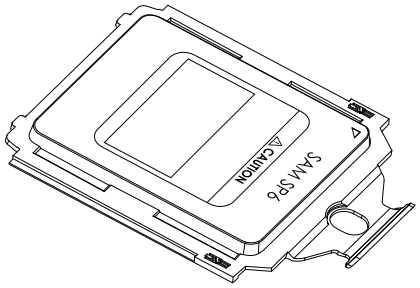
Note: The processor is shipped from the factory with the Carrier Frame pre-assembled.



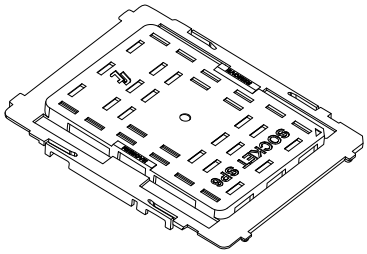
Overview of the Processor Socket

The processor socket is protected by a Pick-and-Place (PnP) Cover Cap and pre-installed with an External Cap.

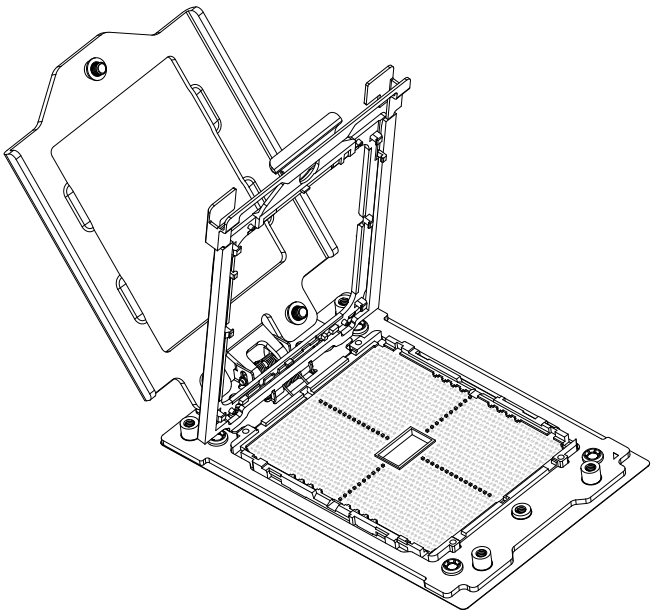
1. External Cap



2. PnP Cover Cap

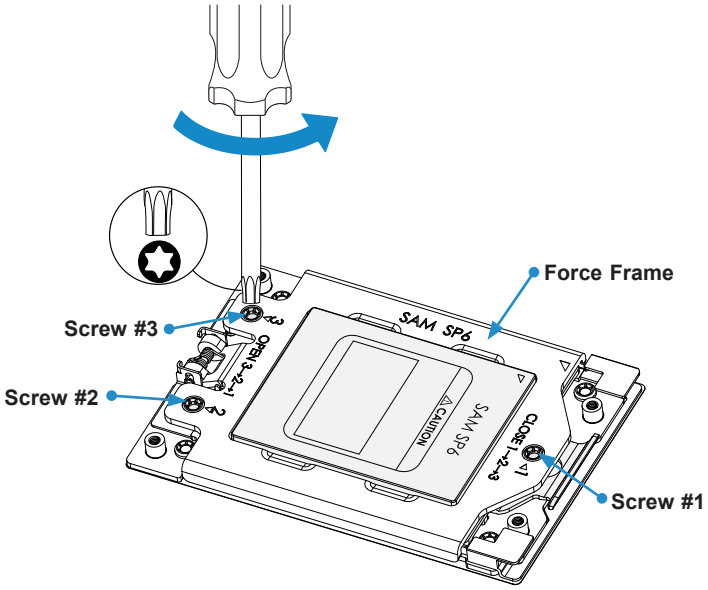


3. Socket sTR5

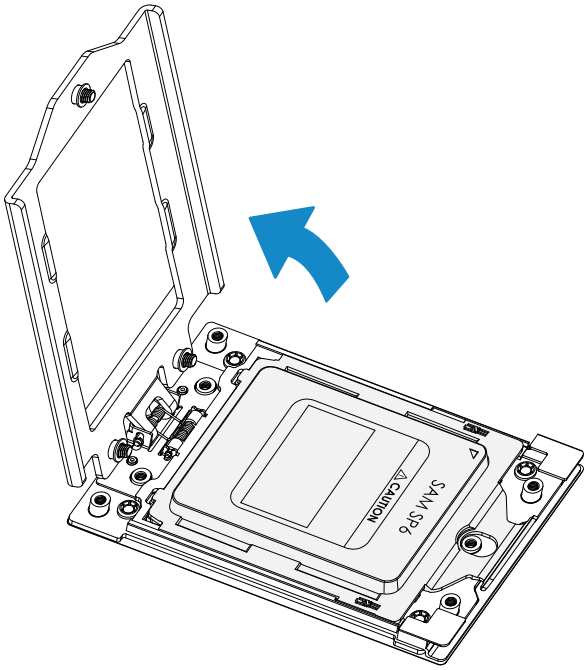


Installing the Processor

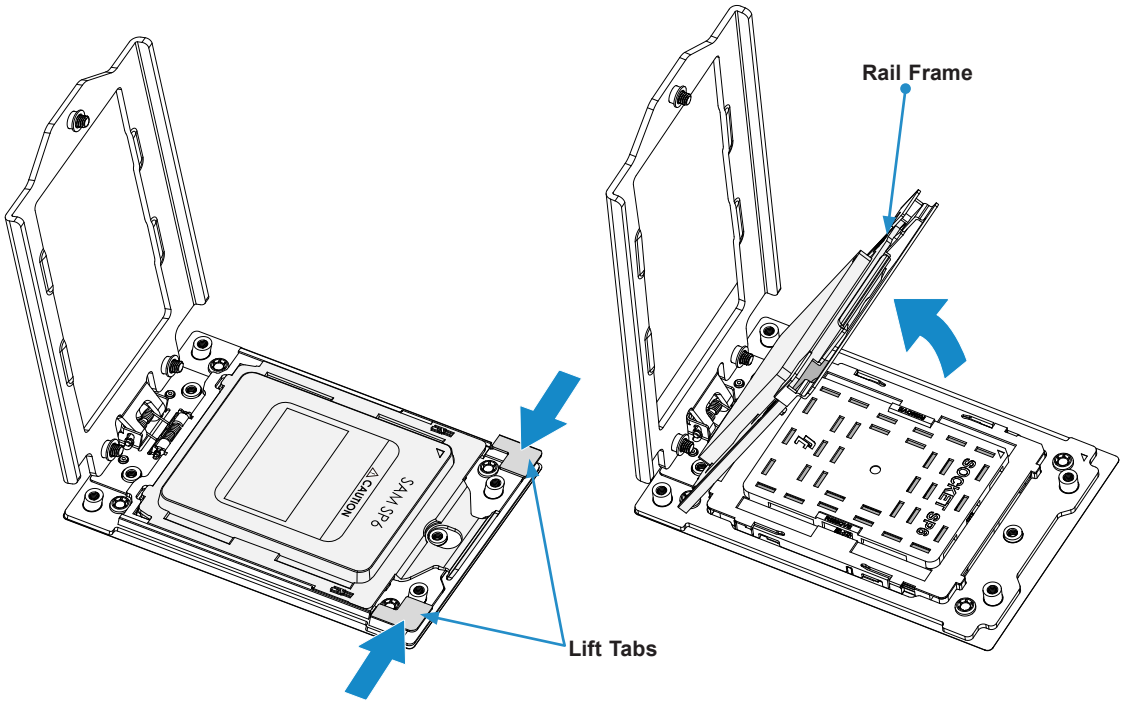
1. With a T20 Torx-bit screwdriver, unscrew the screws holding down the Force Frame in the sequence of 3-2-1. The screws are numbered on the Force Frame next to each screw hole.



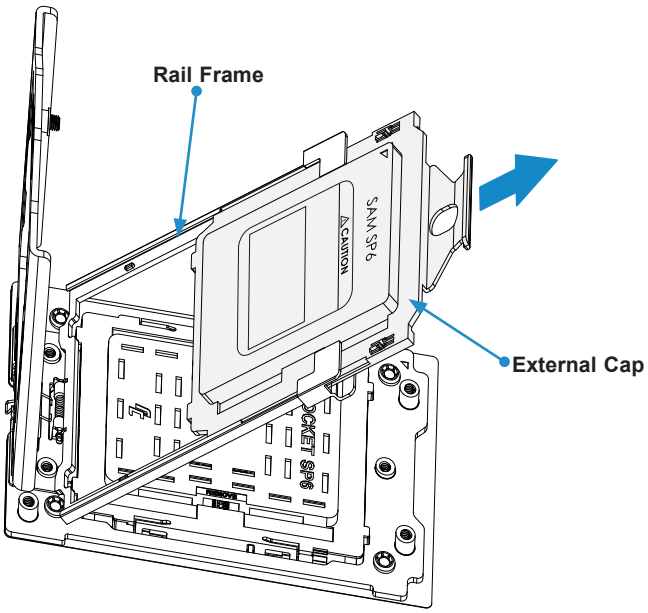
2. The spring-loaded Force Frame will raise up after the last screw (#1) securing it is removed. Gently lift it up to its stopping position.



3. Grip the two finger lift tabs of the Rail Frame and lift it up to open it.

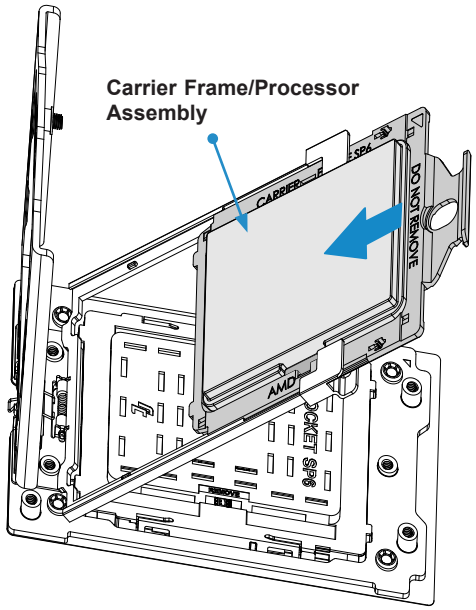


4. Remove the External Cap from the Rail Frame by pulling it out of the rail guides on the Rail Frame.



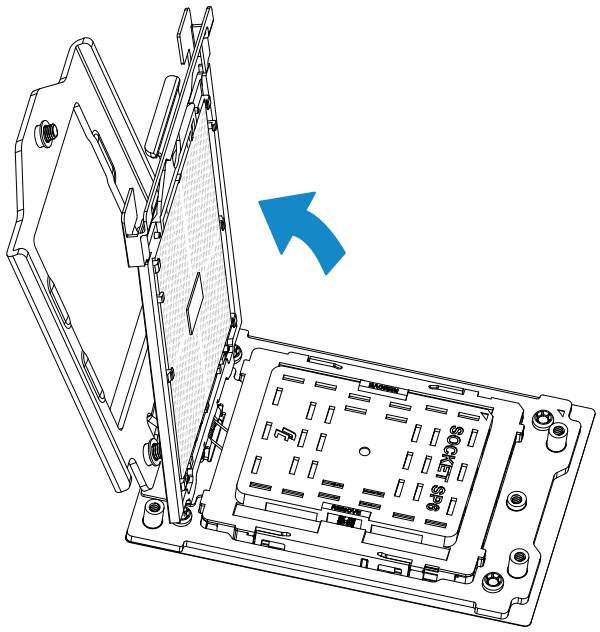
5. Grip the handle of the Carrier Frame/Processor Assembly from its shipping tray, and while gripping the handle, align the flanges of the Carrier Frame onto the rails of the Rail Frame so its pins will be at the bottom when the Rail Frame is lowered later.

6. Hold the two finger lift tabs of the Rail Frame, and slide the Carrier Frame/Processor Assembly downwards to the bottom of the Rail Frame. Ensure the flanges are secure on the rails as you lower it downwards.

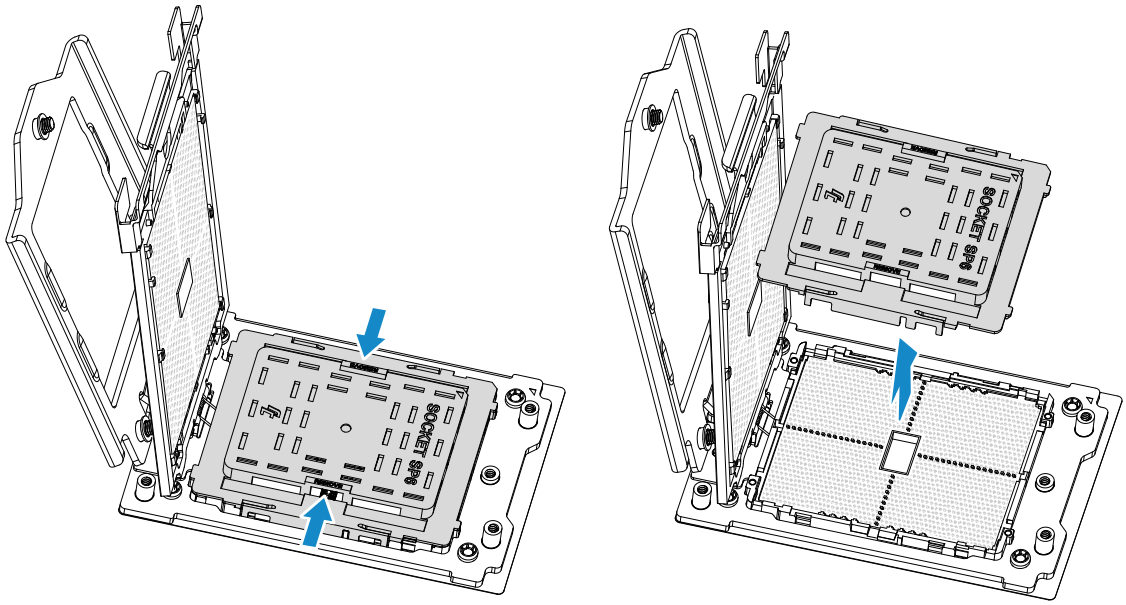


Note: You can only slide the Carrier Frame/Processor Assembly in one direction with the handle at the top. Make sure that it is properly inserted.

7. Lift up the Rail Frame till it securely rests in upright position. Be careful not to touch the processor pad.

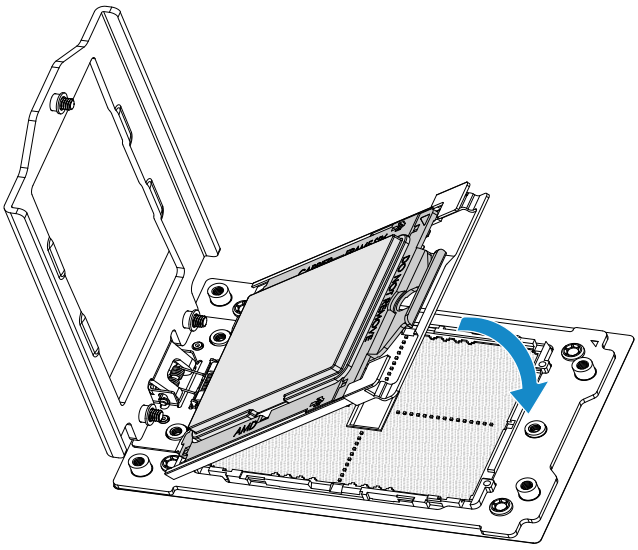


8. Remove the PnP Cover Cap from the socket.

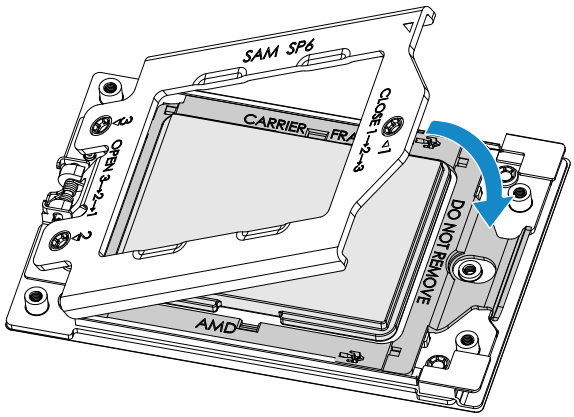


Important! The exposed socket contacts are extremely vulnerable and can be damaged easily. Do not touch or drop objects onto the contacts, and be careful removing the PnP Cover Cap and when placing the Rail Frame over the socket.

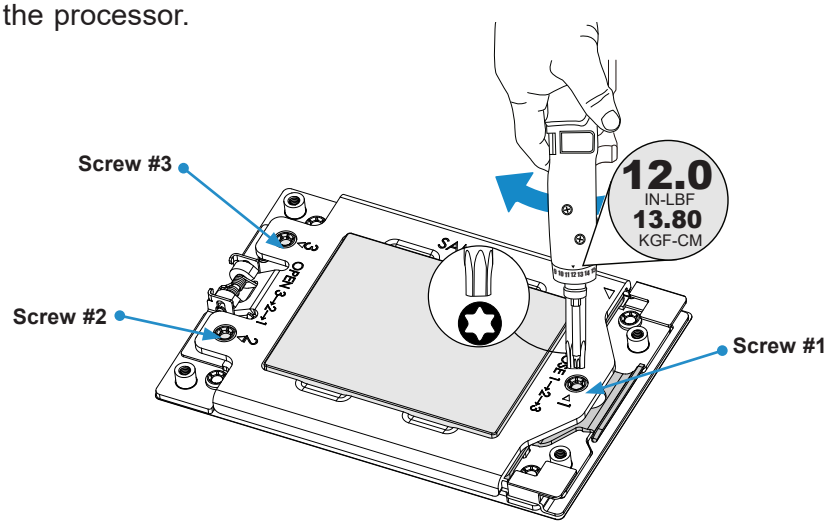
9. Gently lower the Rail Frame down onto the socket until it clicks into place. If it doesn't close properly, do not force it as it may damage your processor. Instead, open the Rail Frame again, and double-check that the processor is aligned properly.



10. Gently lower the Force Frame down onto the Rail Frame and hold it in place until it is seated in the socket housing. Note that the Force Frame is spring loaded and has to be held in place before it is secured.



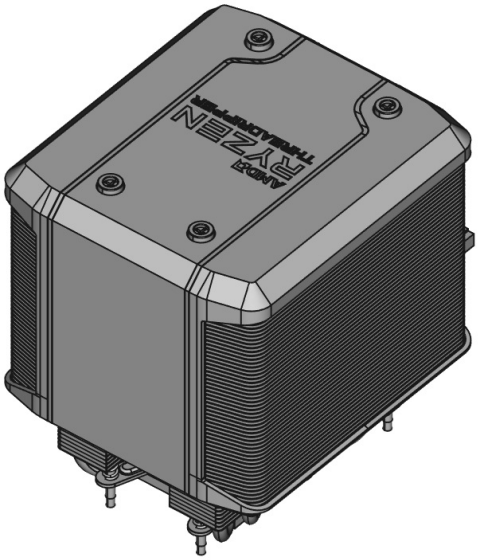
11. Re-screw the screws in the sequence of 1-2-3. When finished, the socket Force Frame will secure the processor.



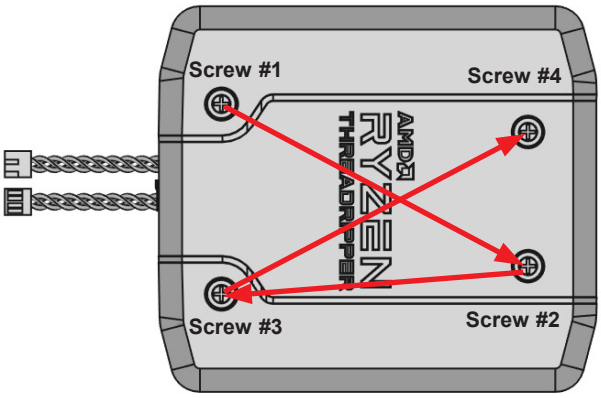
Important: Use a T20 Torx-bit screwdriver with a torque of 13.8±1.3 kg-f-cm (12.0±1.2 lb-f-in) to prevent damage to the processor.

Installing the Heatsink

1. After the Force Frame is secured and the CPU Package is in place, now you must install the heatsink to the frame. Lower the heatsink down till it rests securely over the four screw holes on the CPU Package on the socket frame.



2. As illustrated, tighten the four screws down on the heatsink in a diagonal pattern till it is secured. The heatsink will now be secured and you have finished installing the processor and heatsink onto the motherboard.



3.4 Memory Support and Installation

Note: Check the Supermicro website for recommended memory modules.

Important: Exercise extreme care when installing or removing DIMM modules to prevent any possible damage.

Memory Support

This motherboard supports up to 512 GB ECC RDIMM/3DS RDIMM memory with speeds of up to 5200 MT/s (1DPC) or higher (up to DDR5-6400 with 9000 WX and 9000 series CPUs) with overclocking support in four ECC DDR5 (288-pin) DIMM slots.

Notes:

The memory speed and capacity support depend on the processor on your motherboard.

Memory addressing up to 512 GB/channel is subject to AMD Infrastructure Roadmap for sTR5 socket processors.

Recommended Memory Population (1DPC)

Recommended Memory Population					
	DIMMG1	DIMME1	CPU	DIMMA1	DIMMC1
1 DIMM				DDR5	
2 DIMMs		DDR5		DDR5	
4 DIMMs	DDR5	DDR5		DDR5	DDR5

General Guidelines for Optimizing Memory Performance

- It is recommended to use DDR5 memory of the same type, size, and speed.
- To achieve the best memory performance, a balanced memory population is recommended.

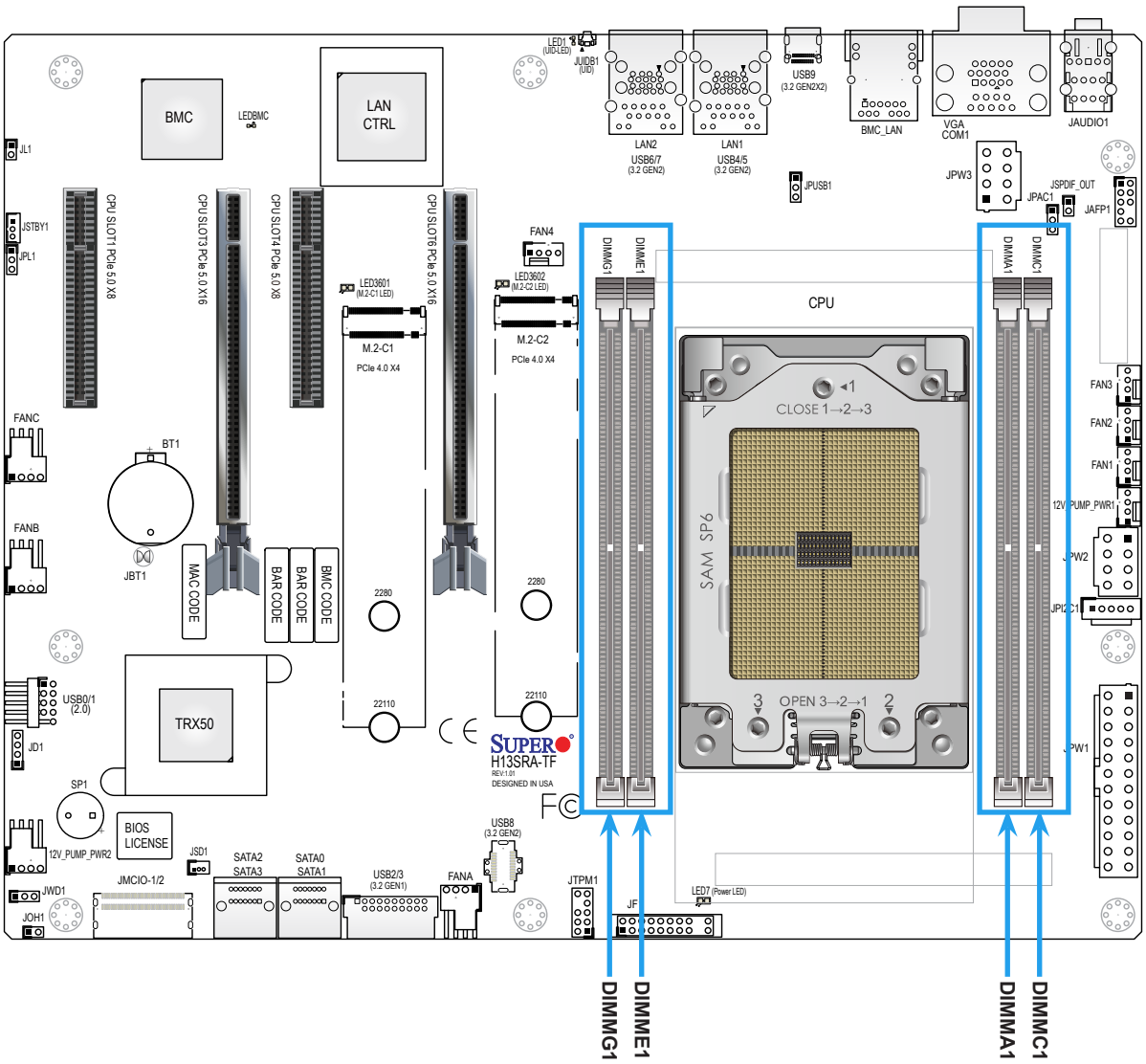


Figure 3-3. DIMM Slot Locations

Installing Memory

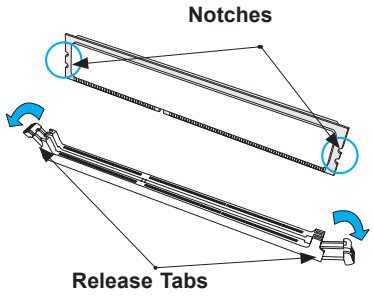
Electrostatic Discharge (ESD) can damage electronic components including memory modules. To avoid damaging DIMM modules, it is important to handle them carefully. The following measures are generally sufficient.

- Use a grounded wrist strap designed to prevent static discharge.
- Handle the memory module by its edges only.
- Put the memory modules into the antistatic bags when not in use.

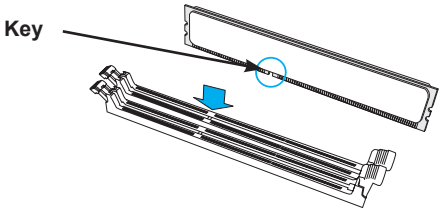
Installing Memory

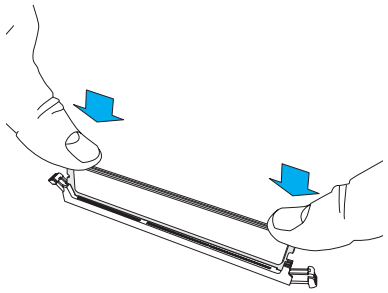
Begin by removing power from the system as described in Section 3.1. Follow the memory population sequence in the table above.

1. Push the release tabs outwards on both ends of the DIMM slot to unlock it.



2. Align the key of the DIMM with the receptive point on the memory slot and with your thumbs on both ends of the module, press it straight down into the slot until the module snaps into place.





3. Press the release tabs to the locked position to secure the DIMM module into the slot.

Important: Exercise extreme caution when installing or removing memory modules to prevent damage to the DIMMs or slots.

Removing Memory

To remove a DIMM, unlock the release tabs then pull the DIMM 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

Begin by removing power from the system by following the process described in *3.1 Removing Power*.

1. Push aside the small clamp that covers the edge of the battery. When the battery is released, lift it out of the holder.
2. 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.

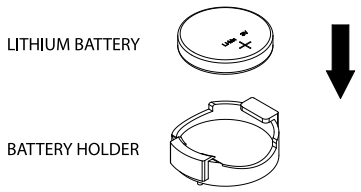


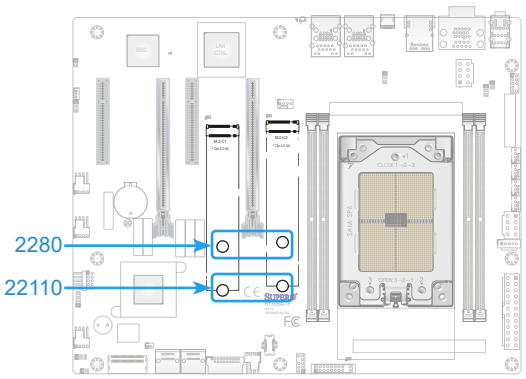
Figure 3-4. Installing the Onboard Battery

Important: 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 (BR2032).

3.6 M.2 Installation

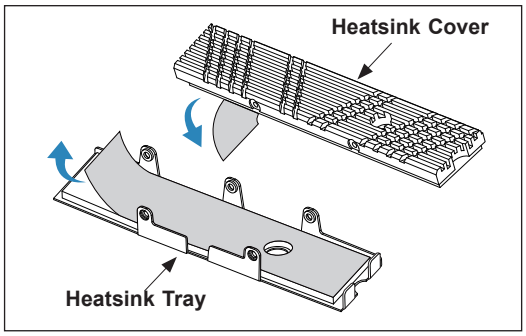
This motherboard has two M.2 M-key slots that support the 2280 and 22110 M.2 devices. One standoff is pre-installed into the position of 22110 mounting hole. Refer to the illustration on the right for the locations of M.2 slots and mounting holes. Follow the steps below to install the M.2 device.

Note: It is strongly recommended that you install an optional Supermicro M.2 heatsink (p/n SNK-C0156L) on the M.2 device.

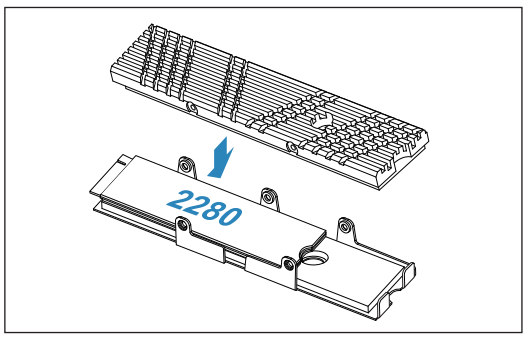


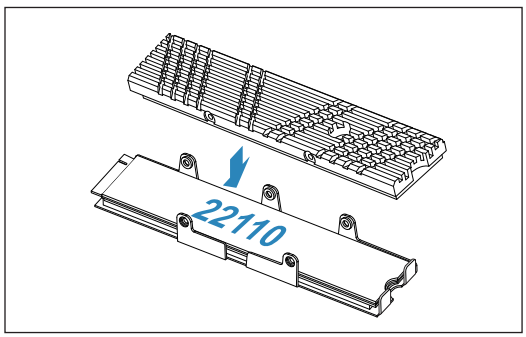
M.2 Heatsink Installation (Optional)

1. Remove the thermal pad protective films from the cover and the tray of the M.2 heatsink.

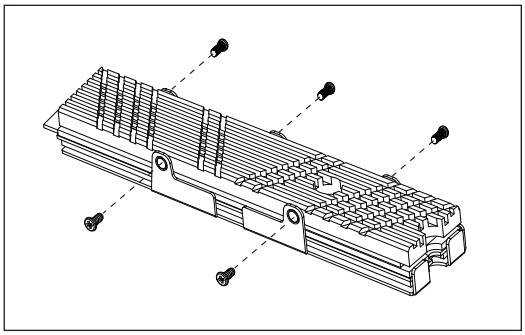


2. Place the M.2 device into the tray, then put the heatsink cover in place. Be careful to align the holes on the tray with the holes on the cover.



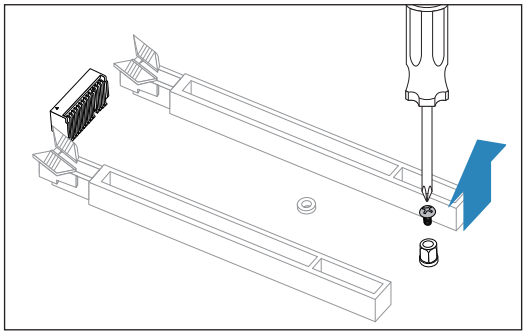


3. Tighten the screws to secure the heatsink assembly.

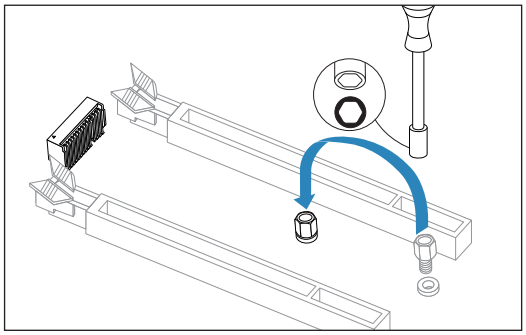


2280 M.2 Device Installation

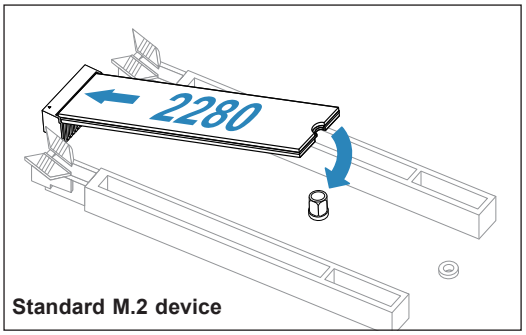
1. Locate the pre-installed standoff on the 22110 mounting hole. Remove the standoff screw and set it aside.



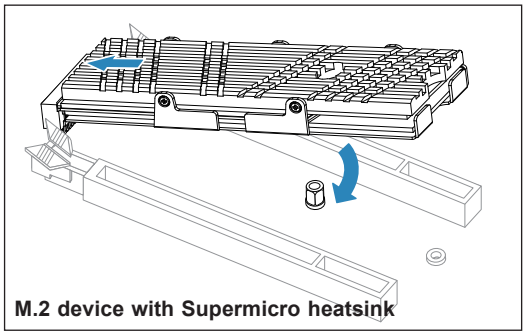
2. Using a hex socket screwdriver, remove and then reinstall the standoff to the position of the 2280 mounting hole.



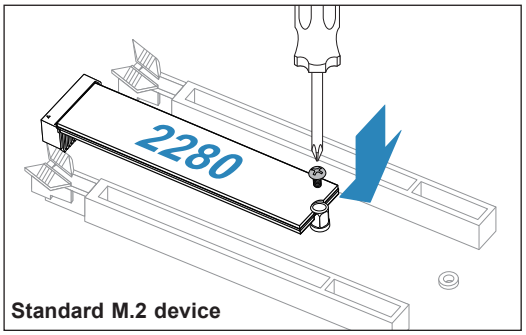
3. Insert the M.2 device or the heatsink assembly into the M.2 socket at a 30-degree angle and press it down.



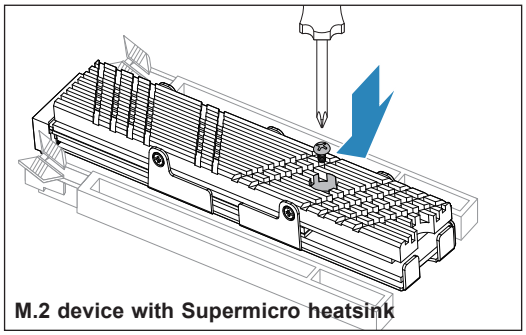
Standard M.2 device


M.2 device with Supermicro heatsink

4. Tighten the standoff screw to secure the M.2 device or the heatsink assembly into place. Do not overtighten so as to avoid damaging the M.2 device.

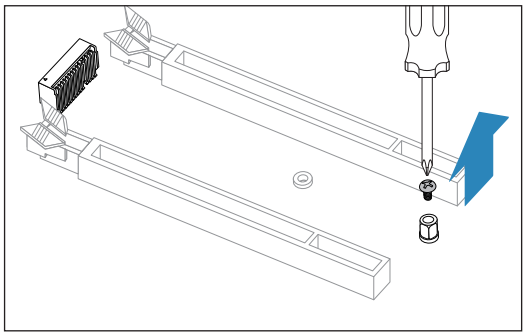


Standard M.2 device

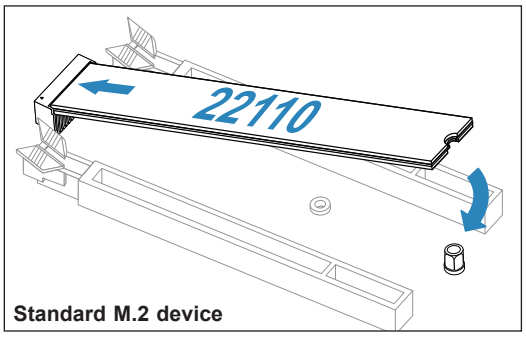

M.2 device with Supermicro heatsink

22110 M.2 Device Installation

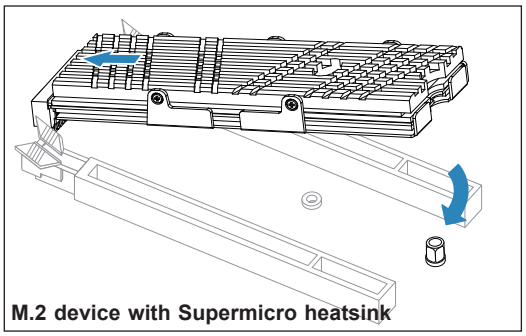
1. Locate the pre-installed standoff. Remove the standoff screw and set it aside.



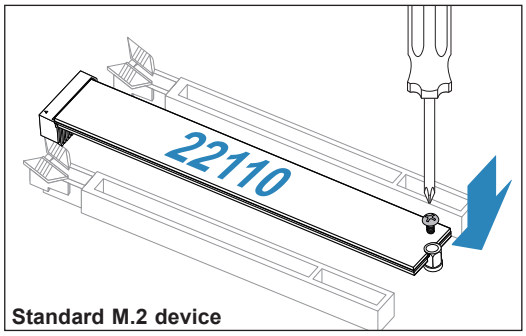
2. Insert the M.2 device or the heatsink assembly into the M.2 socket at a 30-degree angle and press it down.



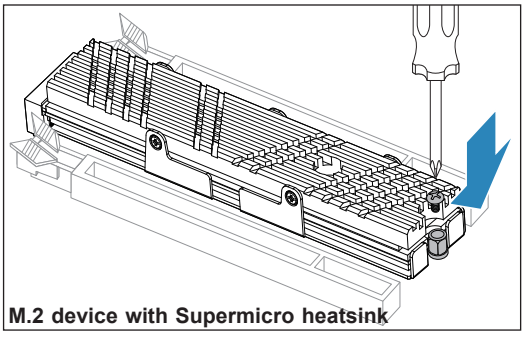
Standard M.2 device


M.2 device with Supermicro heatsink

3. Tighten the standoff screw to secure the M.2 device or the heatsink assembly into place. Do not overtighten so as to avoid damaging the M.2 device.



Standard M.2 device


M.2 device with Supermicro heatsink

3.7 Storage Drives

The chassis can accommodate up to six 2.5” storage drives and two 3.5" storage drives. The installation location for the 2.5" storage drives has a thickness limitation of 9.5-mm.

The hard drives are mounted in drive carriers to simplify their installation and removal from the chassis.

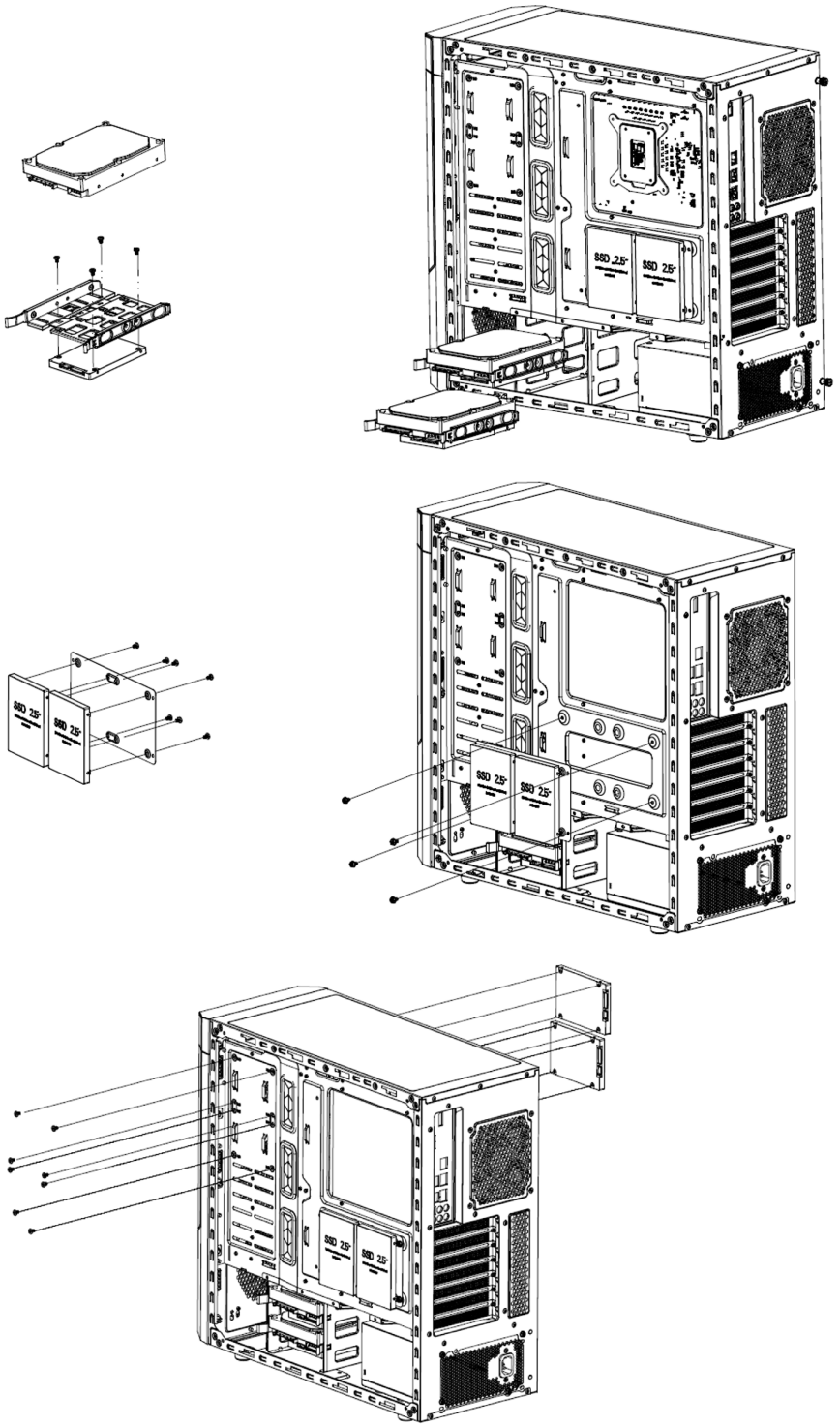


Figure 3-5. Installing Drives and Mounting Brackets into the Cage

3.8 System Cooling

Refer to the following sections for information about the cooling capabilities of the AS -531AW-TC workstation.

Fans

The chassis includes three 120-mm PWM fans in the front and one 120-mm PWM fan in the rear. Other fan mounts and configurations are possible.

- Two front fans can be upgraded to 140-mm.
- Three fans can be mounted on the chassis top, 120-mm or 140-mm.

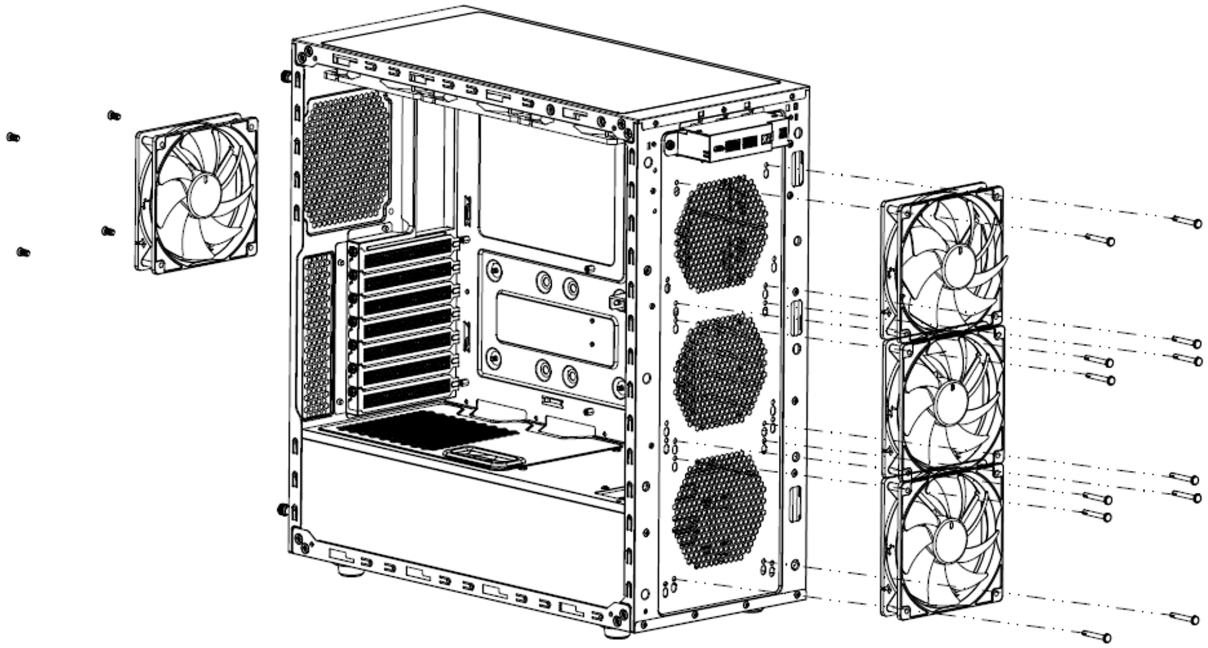


Figure 3-6. Standard Fan Placement

Important: Verify that cables do not obstruct the cooling airflow.

Replacing the Rear Fan

1. Begin by removing power from the system (see "Removing Power") and removing the cover (see "Accessing the System").
2. Loosen and remove the screws used to secure the rear fan to the chassis. Save the screws for later use.
3. Remove the fan cable from the motherboard.
4. Prepare the new fan for placement into the chassis.
5. Insert the screws through the mounting holes in the rear of the chassis and the fan.
6. Connect the fan cable to the motherboard.

Replacing the Front Fan

1. Begin by removing power from the system (see "Removing Power") and removing the cover (see "Accessing the System").
2. Remove the plastic push pins from the fan's mounting holes.
3. Raise the failed fan out of the chassis and prepare the new fan for placement.
4. Lower the new fan into the chassis, so the holes at the top of the front fan bracket align with the holes in the chassis.
5. Insert the four plastic push pins through the front fan bracket and into the mounting holes of the new front fan.
6. Pull the pins through the mounting holes of the system fan to secure the fan to the chassis.

Dust Filter

The chassis has one magnetic dust filter on the top and a dust filter that covers the front fans. This dust filter can be removed and cleaned to improve system air flow circulation.

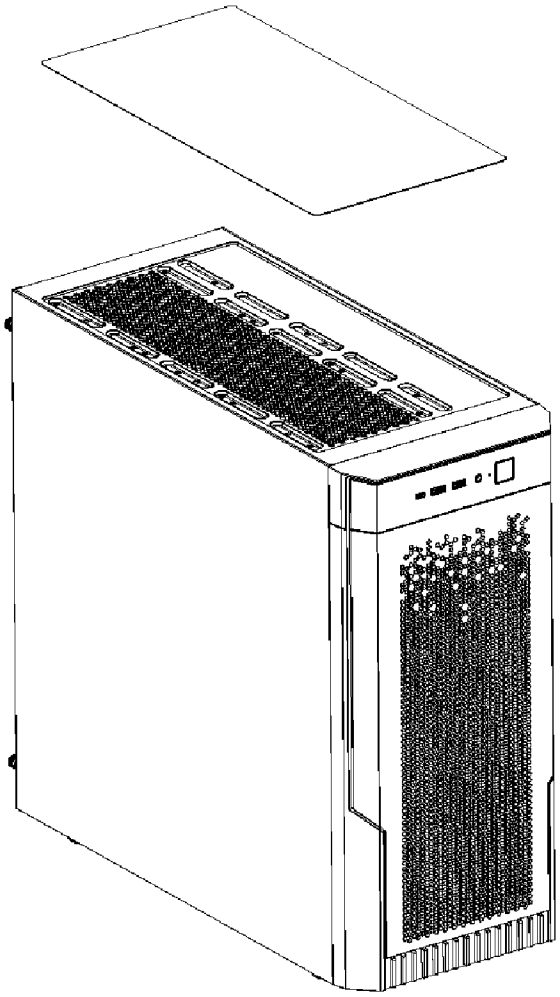


Figure 3-7. Top Dust Filter

3.9 Expansion Cards

The AS -531AW-TC can accommodate up to two double-width GPU cards or one triple-width GPU card.

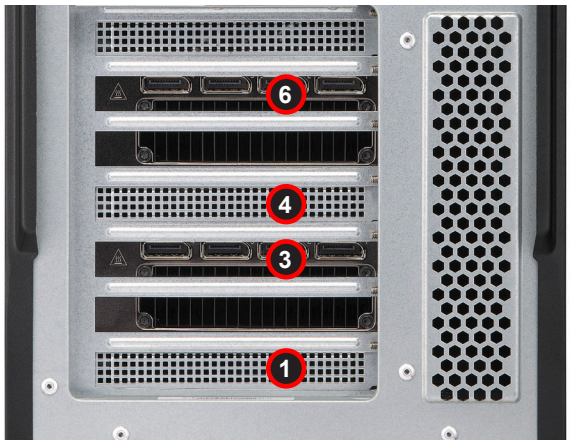


Figure 3-8. Expansion Card Chassis Slots

Expansion Slot Locations	
Item	**Description**
6	PCIe 5.0 x16 full-height full-length slot
4	PCIe 5.0 x8 full-height full-length slot
3	PCIe 5.0 x16 full-height full-length slot
1	PCIe 5.0 x8 full-height full-length slot

Installing PCIe Cards

Before installing a PCI expansion card, make sure it is supported by the card slot on the motherboard.

1. Begin by removing power from the system by following the process described in *3.1 Removing Power*.
2. Remove the chassis side cover to access the inside of the system.
3. Determine which expansion slot is to be populated and remove the PCI slot protective bracket by releasing the locking tab.
4. Insert the expansion card into the appropriate PCI slot on the motherboard.
5. Secure the card with the locking tab.
6. Make any power and data cable connections to the card if necessary.
7. Finish by replacing the chassis cover and restoring power to the system.

3.10 Power Supply

The AS -531AW-TC supports the standard PS/2 form factor power supply up to 160 mm in length. The AS -531AW-TC may be configured with either one 1000 W, one 1300 W, or one 2000 W multi-output power supply.

Replacing the Power Supply

1. Begin by removing power from the system by following the process described in *3.1 Removing Power* and removing the left chassis cover (*3.2 Accessing the System*).
2. Disconnect the cables from the motherboard to the power supply.
3. Remove the screws securing the power supply to the chassis, which are located on the rear of the chassis. Save the screws for later use.
4. Lift the power supply out of the chassis.
5. Replace the failed power supply with an identical power supply model. Orient the unit so the power outlet faces the rear of the chassis.
6. Secure the new power supply using the screws previously saved.
7. Plug the AC power cord back into the module and power-up the system.Replace the power supply cover then the left chassis cover before restoring power to the system.

Note: the 3.5"/2.5" drive cage needs to be removed when a 2000 W power supply is installed.

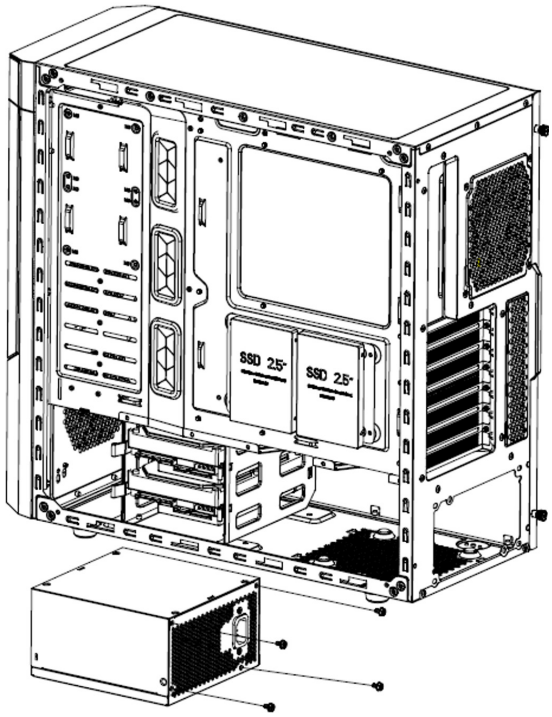


Figure 3-9. Replacing the Power Supply

Chapter 4

Motherboard Connections

This section describes the jumpers, connections and LEDs on the motherboard and provides pinout definitions. Some connections might not be used in this system. A motherboard layout indicating component locations may be found in Chapter 1. More detail can be found in the Motherboard Manual.

4.1 Power Connection

ATX Power Supply Connector

The 24-pin power supply connector (JPW1) meets the ATX SSI EPS 12V specification. If required, you also need to connect the 8-pin 12V DC power connectors (JPW2 and JPW3) to the power supply to provide adequate power to your system.

ATX Power 24-pin Connector Pin Definitions (Required Connection)

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

12V 8-pin Power Pin Definitions (Required Connection)

Pin#	Definition
1 - 4	Ground
5 - 8	+12V

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

(continued on next page)

When installing multiple GPU cards, it is recommended that you connect the power supplies to the 24-pin ATX power connector and both 8-pin power connectors (JPW2 and JPW3) to the power supply.

GPU Cards and the Required Power Connectors				
Type of GPU	Number of GPU Cards	JPW1	JPW2	JPW3
Single-Width	One	V	V	V
	Two	V	V	V
Double-Width	One	V	V	V
	Two	V	V	V
Triple-Width	One	V	V	V
	Two	V	V	V

Note 1 : When using heavy loading devices, it is strongly recommended that you connect the power supplies to the 24-pin ATX power connector and both 8-pin power connectors.

Note 2: To use the CPU overclocking feature, be sure to connect the power supplies to the 24-pin ATX power connector and both 8-pin power connectors.

Note 3: To avoid possible system overheating, provide adequate airflow to your system.

SATA Disk-On-Module Power Connector

The SATA Disk-On-Module (DOM) power connector at JSD1 provides 5V power to a solid-state DOM storage devices connected to one of the SATA ports. Refer to the table below for pin definitions.

DOM Power Pin Definitions	
Pin#	Definition
1	5V
2	Ground
3	Ground

CPU/GPU Pump Power Connectors

The motherboard has two 12 V 4-pin power connectors (12V_PUMP_PWR1 and 12V_PUMP_PWR2) for optional CPU/GPU liquid cooling systems. When using a liquid cooling system, attach the pump power cable to the pump power connector.

Pump Power Header Pin Definitions	
Pin#	Definition
1	Ground (Black)
2	2A/+12V (Red)
3	N/A
4	N/A

4.2 Headers and Connectors

Fan Headers

There are seven 4-pin fan headers (FAN1 – FAN4, FANA, FANB, FANC) 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 BMC. Refer to the table below for pin definitions.

Fan Header Pin Definitions

Pin#	Definition
1	Ground
2	2.5A/+12V
3	Tachometer
4	PWM_Control

MCIO NVMe Connectors

One PCIe 4.0 x8 MCIO connector, located at JMCIO-1/2, provide connections of two NVMe 2.5" SSDs (NOT hot-swappable, supported by TRX50) on the motherboard. Use these MCIO connectors to support high-speed PCIe NVMe storage devices.

Speaker/Buzzer Header

On the JD1 header, pins 1-4 are for the speaker and pins 3-4 are for the buzzer. If you wish to use an external speaker, connect its cable to pins 1-4.

Speaker Connector Pin Definitions

Pin#	Signal
1-4	Speaker
3-4	Buzzer (Default)

Front Panel Audio Header

A 10-pin audio header (JAFP1) located on the motherboard allows you to use the onboard sound chip (ALC888S) for audio function. Connect an audio cable to this header to use this feature. Refer to the table below for pin definitions

HD Front Panel Audio Pin Definitions

Pin#	Definition	Pin#	Definition
1	Microphone_Left	2	Audio_Ground
3	Microphone_Right	4	Audio_Detect
5	Line_2_Right	6	Ground
7	Jack_Detect	8	Key
9	Line_2_Left	10	Ground

Chassis Intrusion

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

Chassis Intrusion Pin Definitions

Pin#	Definition
1	Intrusion Input
2	Ground

Overheat/Fan Fail LED Header

JOH1 is used to connect to an LED indicator to provide warnings of chassis overheating and fan failure. This LED will blink when a fan failure occurs. Refer to the tables below for pin definitions.

Overheat LED Header Status

State	Definition
Solid	Overheat
Blinking	Fan Fail

Overheat LED Header Pin Definitions

Pin#	Signal
1	Pull high to +3.3V power through 330-ohm resistor
2	OH Active

Power SMB (I^2C) Header

The Power System Management Bus (I^2C) header (JPI2C1) monitors the power supply, fan, and system temperatures. Refer to the table below for pin definitions.

Power SMB Header Pin Definitions

Pin#	Definition
1	Clock
2	Data
3	PMBUS_Alert
4	Ground
5	+3.3V

SPDIF Out Header

The Sony/Philips Digital Interface (S/PDIF) Out header (JSPDIF_OUT) is used for digital audio output. You will also need the appropriate cable to use these features.

S/PDIF OUT Pin Definitions

Pin#	Definition
1	S/PDIF_OUT
2	Ground

TPM/Port 80 Header

JTPM1 is used to connect a Trusted Platform Module (TPM)/Port 80, which is available from Supermicro (optional). A TPM/Port 80 header is a security device that supports encryption and authentication in hard drives. It allows the motherboard to deny access if the TPM associated with the hard drive is not installed in the system. Refer to the layout below for the location of the TPM header. Please go to the following link for more information on the TPM: https://www.supermicro.com/manuals/other/AOM-TPM-9670V_9670H.pdf.

Trusted Platform Module Header Pin Definitions

Pin#	Definition	Pin#	Definition
1	+3.3V	2	SPI_CS#
3	RESET#	4	SPI_MISO
5	SPI_CLK	6	GND
7	SPI_MOSI	8	NC
9	+3.3V Stdby	10	SPI_IRQ#

Standby Power

The Standby Power header is located at JSTBY1 on the motherboard. You must have a card with a Standby Power connector and a cable to use this feature. Refer to the table below for pin definitions.

Standby Power Pin Definitions

Pin#	Definition
1	+5V Standby
2	Ground
3	No Connection

PCIe 4.0 x4 M.2 Slots

The motherboard has two PCIe 4.0 x4 M.2 M-key slots (M.2-C1 and M.2-C2). M.2 allows for a variety of card sizes, increased functionality, and spatial efficiency. The M.2 slots on the motherboard support NVMe SSDs in the 2280 and 22110 form factors and RAID 0/1.

SATA 3.0 Connections

Four SATA 3.0 ports (SATA0 – SATA3) are located on the motherboard, which are supported by the AMD TRX50 chipset. These SATA ports support RAID 0/1/5/10.

Internal Speaker/Buzzer

The Internal Speaker/Buzzer (SP1) is used to provide audible indications for various beep codes. Refer to the table below for pin definitions.

Internal Buzzer Pin Definitions		
Pin#	**Definition**	
1	Pos (+)	Beep In
2	Neg (-)	Alarm Speaker

Control Panel

JF1 contains header pins for the front control panel connections. All JF1 wires have been bundled into a single cable to simplify this connection. Make sure the red wire plugs into pin 1 as marked on the motherboard. The other end connects to the control panel PCB board. Note that several of the headers are not used on the GS3A-000NBP chassis.

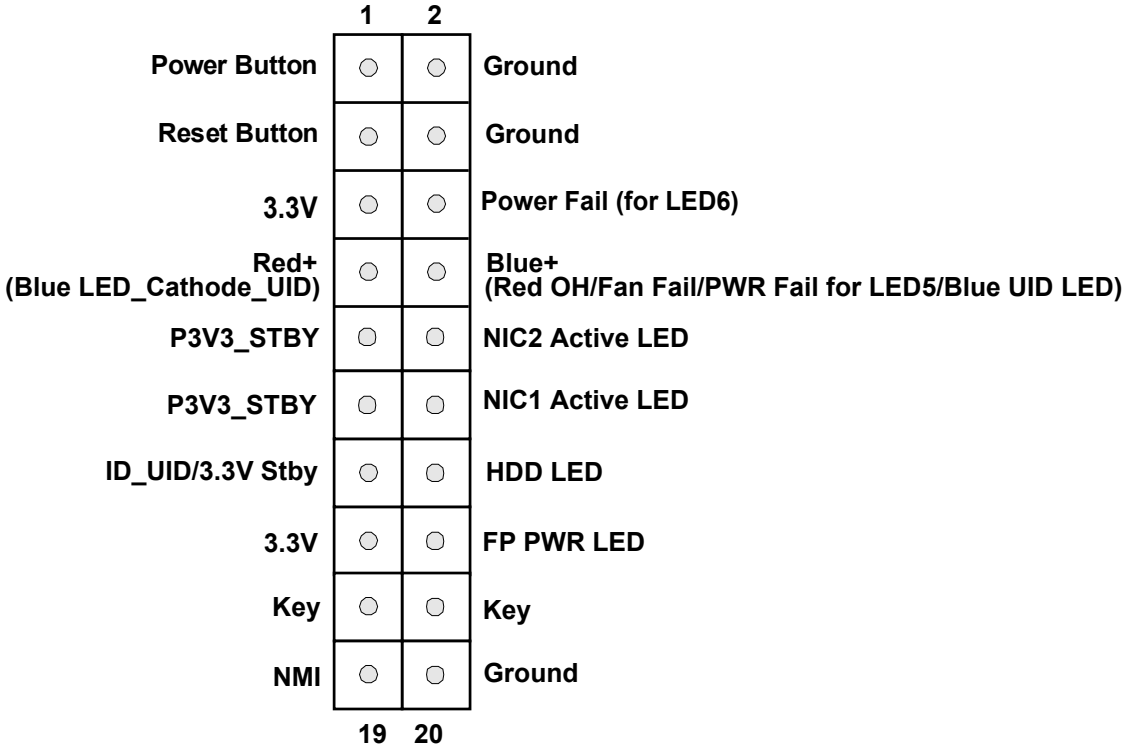


Figure 4-1. JF1 Control Panel Pins

Front Control Panel (JF1) LED Indicators			
Event	**Power (LED1)**	**HDD (LED2)**	**UID (LED5)**
Power On	Solid On		
HDD Activity		Blinking	
NIC Activity			
Overheat			
Fan Fail			
Power Fail			
Local UID On			Solid On
Remote UID On			Blinking 1 Hz
Checking	BMC/BIOS Blinking at 4 HZ		
Recovering/Updating	BMC Blinking at 4 HZ BMC 2 Blinks at 4 Hz, 1 Pause at 2 Hz (on-on-off-off)		BIOS/BMC Blinking at 10 Hz
Flash Not Detected or Golden Image Check Failed	BMC/BIOS Blinking at 1 HZ		
CPLD Recovery Mode			Blinking at 10 Hz (MB UID LED)

Power On Button

The Power On button is located on pins 1 and 2 of JF1. Momentarily contacting both pins will power on/off the system. The power on LED (LED1) will be illuminated when the system power is on. Refer to the table below for more information.

Power Button & BIOS/BMC Status LED Indicator Pin Definitions (JF1)	
Pin#	**Definition**
1	Signal
2	Ground

ID_UID Switch/HDD LED

The UID Switch/HDD LED connection is located on pins 13 and 14 of JF1. The UID switch is used for a chassis that supports a front UID switch. The front UID switch functions in the same way as the rear UID switch; both are for input only and cannot be used for output.

When this LED is blinking green, it indicates HDD is active. Attach a cable to pins 13 and 14 to show ID_UID status and hard drive activity. Refer to the tables below for pin definitions.

ID_UID/HDD LED Pin Definitions (JF1)

Pins	Definition
13	ID_UID/3.3V Stdby
14	HDD Activity

ID_UID/HDD LED Pin Definitions (JF1)

Color	State
Blinking Green	HDD Active

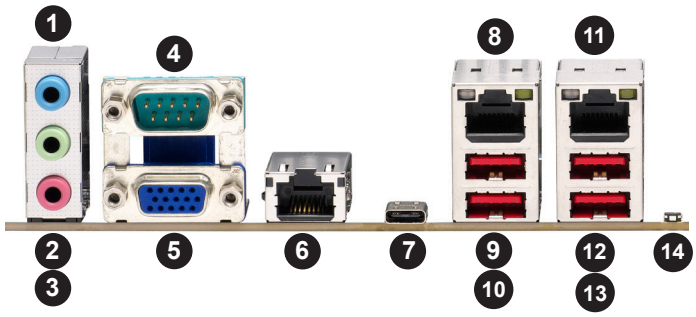
FP Power LED

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

FP Power LED Pin Definitions (JF1)

Pins	Definition
15	3.3V
16	FP PWR LED

4.3 I/O Ports



I/O Ports					
#	Description	#	Description	#	Description
1	Line In (default)	6	Dedicated BMC LAN Port	11	LAN2: RJ45 10 GbE LAN Port
2	Line Out (default)	7	USB9: USB 3.2 Gen. 2x2 Port	12	USB6: USB 3.2 Gen. 2 Port
3	Mic In (default)	8	LAN1: RJ45 10 GbE LAN Port	13	USB7: USB 3.2 Gen. 2 Port
4	COM1 Port	9	USB4: USB 3.2 Gen. 2 Port	14	UID Switch / BMC Reset Button
5	VGA Port	10	USB5: USB 3.2 Gen. 2 Port		

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

Back Panel High Definition Audio (HD Audio)

This motherboard features a 7.1+2 Channel High Definition Audio (HDA) codec that provides 10 DAC channels. The HD Audio connections simultaneously support multiple-streaming 7.1 sound playback with 2 channels of independent stereo output through the front panel stereo out for front, rear, center, and subwoofer speakers. To enable this function, download the advanced software for this motherboard.

Recommended Audio Configuration					
		2 Channel	4 Channel	5.1 Channel	7.1 Channel
Audio ports on the rear I/O panel of the motherboard					
1	Blue ("Line In" by default)	*	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out
2	Green ("Line Out" by default)	Front Speaker Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
3	Pink ("Mic In" by default)	*	*	Center/Subwoofer Speaker Out	Center/Subwoofer Speaker Out
Audio ports on the front panel of the Supermicro system					
	(Front Panel) Green	*	*	*	*
	(Front Panel) Pink	*	*	*	Side Speaker Out

* Function depends on the driver and configuration.

COM Port

One COM port (COM1) that supports serial link interface is located on the I/O panel.

VGA Connection (Supported by BMC)

One VGA port (VGA) is located on the I/O panel. The VGA connection provides analog interface support between the computer and the video displays.

LAN Ports

Two Ethernet LAN ports (LAN1, LAN2) and a dedicated BMC LAN port (BMC_LAN) are located on the I/O panel. The H13SRA-TF supports dual 10 GbE LAN ports (Broadcom BCM57416)

The dedicated BMC LAN port (BMC_LAN) provides LAN support for the Baseboard Management Controller (BMC). All of these LAN ports accept RJ45 cables. Please refer to the LED Indicator section for LAN LED information.

Universal Serial Bus (USB) Ports and Headers

The motherboard provides the following USB ports on the I/O panel:

- Four USB 3.2 Gen. 2 ports (USB4/USB5/USB6/USB7; 10 GbE, Type-A)
- One USB 3.2 Gen. 2x2 port (USB9; 20 GbE, Type-C)

The motherboard also provides the following headers for front accessible USB connections with a cable (not provided):

- One USB 2.0 header (USB0/1) for two Type-A connections
- One USB 3.2 Gen. 1 header (USB2/3) for two Type-A connections (5 GbE)
- One USB 3.2 Gen. 2 header (USB8) for one Type-C connection (10 GbE)

UID (Unit Identifier)/BMC Reset Switch and UID/BMC Reset LED Indicators

A UID / BMC Reset switch (JUIDB1) is located on the rear side of the motherboard. This switch has dual functions. It can be used to identify a system unit that is in need of service, and it can also be used to reset the BMC settings.

When functioning as a BMC reset switch, JUIDB1 will trigger a cold reboot when you press and hold the switch for six seconds. It will also restore the BMC to the manufacturer's default when you press and hold the switch for 12 seconds.

When functioning as a UID LED switch, JUIDB1 will turn both rear UID LED (LED1) and front UID LED (pins 7/8 on JF1) on and off when you press the switch on/off.

To achieve these dual purposes, the UID LED/BMC Reset switch works in conjunction with the BMC Heartbeat LED (LEDBMC) and front/rear UID LEDs. Please note that UID can also be triggered via BMC on the motherboard. For more details on the UID LEDs and BMC LEDs, refer to the tables below. Also, refer to the BMC User's Guide posted on our website at https://www.supermicro.com for more information on BMC.

UID/BMC Reset Switch (JUIDB1)
Features & Settings

When Used as a UID LED Switch			When Used as a BMC Reset Switch		
Work w/ Rear UID LED (LED1) & Front UID LED (JF1: Pin7/ Pin8)			**Work with BMC Heartbeat LED (LEDBMC)**		
Rear UID LED	LED1	Blue: Unit identified	BMC Heartbeat LED	LEDBMC	Green Blinking: BMC Normal
Front UID LED	Pin7/Pin8 (JF1)	Blue: Unit identified	BMC Reset: Press & hold the switch (JUIDB1) for six seconds	LEDBMC: Solid green: during reboot	
Press the switch (JUIDB1) to turn on and off both rear and front UID LED indicators.				Triggering a cold reboot; LED: solid green on during cold reboot	
			BMC Reset: Press & hold the switch (JUIDB1) for 12 seconds	LEDBMC: Solid green: during BMC reset	
				BMC: Reset to the manufacturer's default; LED solid on during BMC Reset	

UID/BMC Reset Switch (JUIDB1)
Pin Definitions

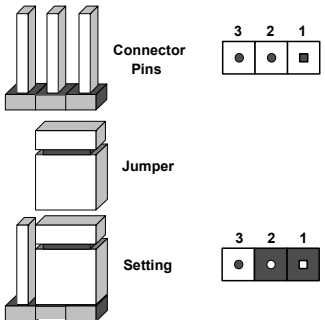
Pin#	Definition
1	Ground
2	Ground
3	Button In
4	Button In

4.4 Jumpers

Explanation of Jumpers

To modify the operation of the motherboard, jumpers are used to choose between optional settings. Jumpers create shorts between two pins to change the function associated with it. Pin 1 is identified with a square solder pad on the printed circuit board. See the motherboard layout page for jumper locations.

Note: On a two-pin jumper, "Closed" means the jumper is on both pins and "Open" indicates the jumper is either on only one pin or has been completely removed.



CMOS Clear

JBT1 is used to clear CMOS, which will also clear any passwords. Instead of pins, the JBT1 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 and remove the battery from the motherboard.
3. To clear CMOS via JBT1: short the CMOS pads with a metal object such as a small screwdriver for at least four seconds. Then remove the screwdriver (or shorting device).
4. Replace the cover, reconnect the power cord(s), and power on the system.

Note: Clearing CMOS will also clear all passwords.

HD Audio Enable

JPAC1 allows you to enable or disable the onboard high definition audio support. The default position is on pins 1-2 to enable onboard audio connections. Refer to the table below for jumper settings.

Audio Enable/Disable Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Normal (Default)
Pins 2-3	Disabled

LAN Ports Enable/Disable

JPL1 allows you to enable the onboard LAN ports (LAN1 and LAN2). The default setting is pins 1-2 to enable the connections. Refer to the table below for jumper settings.

LAN Enable/Disable Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Enabled (Default)
Pins 2-3	Disable

USB4/5 Standby Power Wake Up

JPUSB1 allows you to enable or disable the USB4/5 power in S4 Hibernate mode. The default is on pins 1-2 to enable USB4/5 power in S4 Hibernate mode. Refer to the table below for jumper settings.

USB4/5 Standby Power Enable/Disable Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Enabled (Default)
Pins 2-3	Disable

Watchdog

Watchdog (JWD1) is a system monitor that can reboot the system when a software application hangs. Close pins 1-2 to reset the system if an application hangs. Close pins 2-3 to generate a non-maskable interrupt (NMI) signal for the application that hangs. Refer to the table below for jumper settings. For this function to work properly, please also enable the Watchdog setting in the BIOS.

Watchdog Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Reset (Default)
Pins 2-3	NMI
Open	Disabled

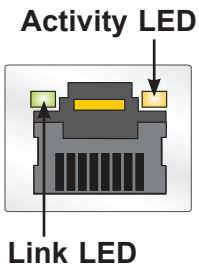
4.5 LED Indicators

LAN1/LAN2 LEDs

Two Ethernet LAN ports (LAN1 and LAN2) are located on the rear I/O panel of the motherboard. The Activity LED is yellow and indicates connection/activity. The Link LED may be green or orange to indicate the speed of the connection. Refer to the tables below for more information.

Link LED, Connection Link, Speed Indicator	
LED Color	**Definition**
Orange	1 Gb/s
Green	10 Gb/s

Activity LED		
LED Color	**State**	**Definition**
None	No Connection	
None	Off	Link
Yellow	Flashing	Active



BMC LAN LEDs

A dedicated BMC LAN connection is provided on the rear I/O panel of the motherboard. The LED on the right indicates activity, and 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

M.2 LEDs

Two M.2 LEDs are located at LED3601 and LED3602 on the motherboard. When the M.2 LED is blinking, M.2 device functions normally. Refer to the table below for more information.

M.2 LED State	
LED Color	**Definition**
Green: Blinking	Device Working

Onboard Power LED

The Onboard Power LED is located at LED7 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 any component. 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

Unit ID LED

The rear UID LED indicator is located at LED1. This UID indicator provides easy identification of a system that may need service.

UID LED LED Indicator	
LED Color	**Definition**
Blue: On	System Identified

BMC Heartbeat LED

A BMC Heartbeat LED is located at LEDBMC on the motherboard. When LEDBMC is blinking green, the BMC is functioning normally. Refer to the layout below for the location of LEDBMC.

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

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 can be a USB flash or media drive.
2. Retrieve the proper RST/RSTe driver. Go to the Supermicro web page for your motherboard and click on "Download the Latest Drivers and Utilities", select the proper driver, and copy it to a USB flash drive.
3. Boot from a bootable device with Windows OS installation. You can see a bootable device list by pressing **F11** during the system startup.

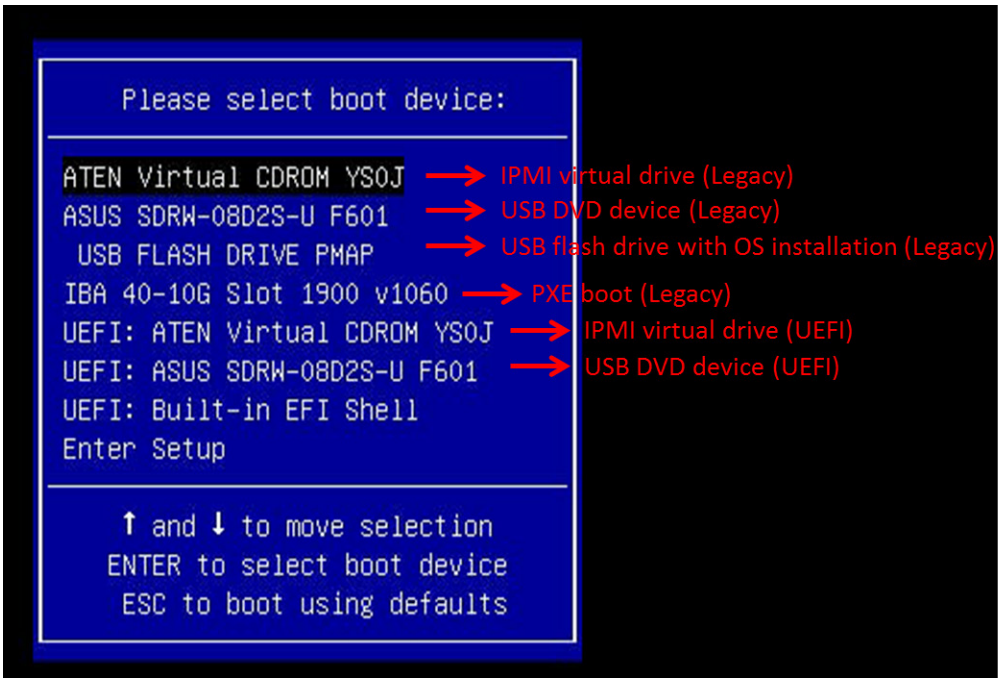


Figure 5-1. Select Boot Device

4. 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.

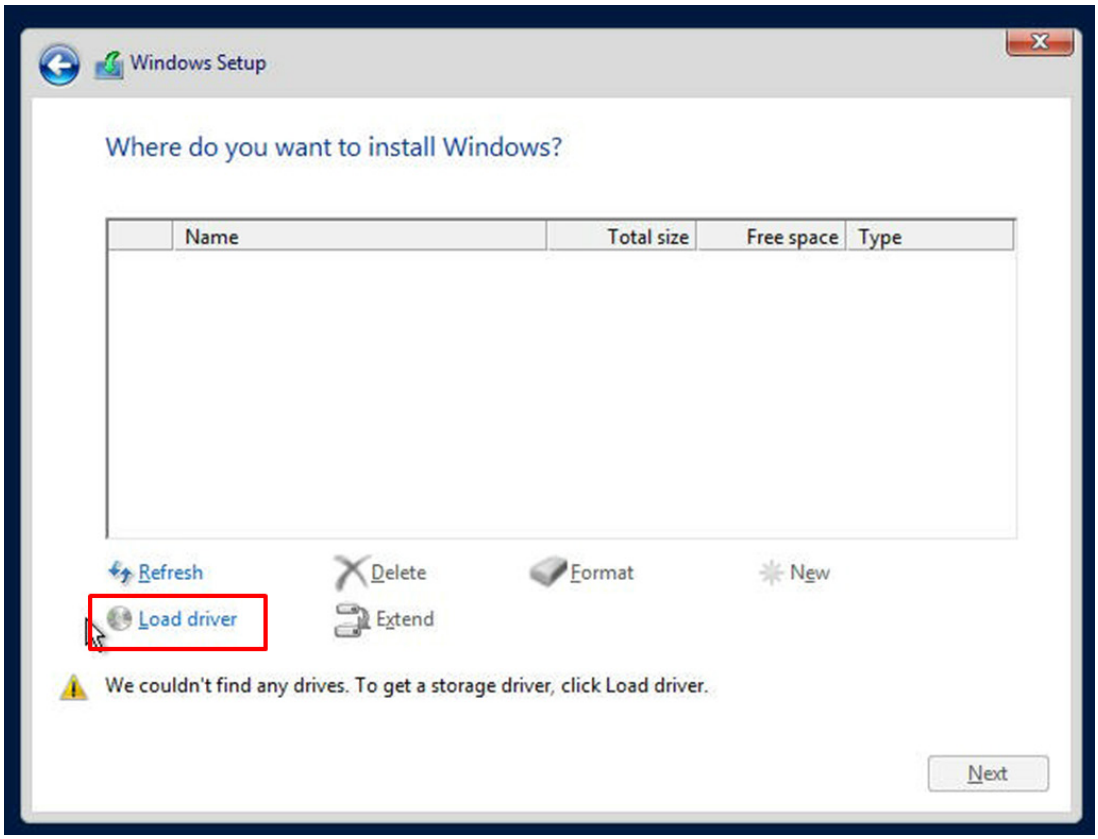


Figure 5-2. Load Driver Link

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.

5. Once all devices are specified, continue with the installation.
6. 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 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.

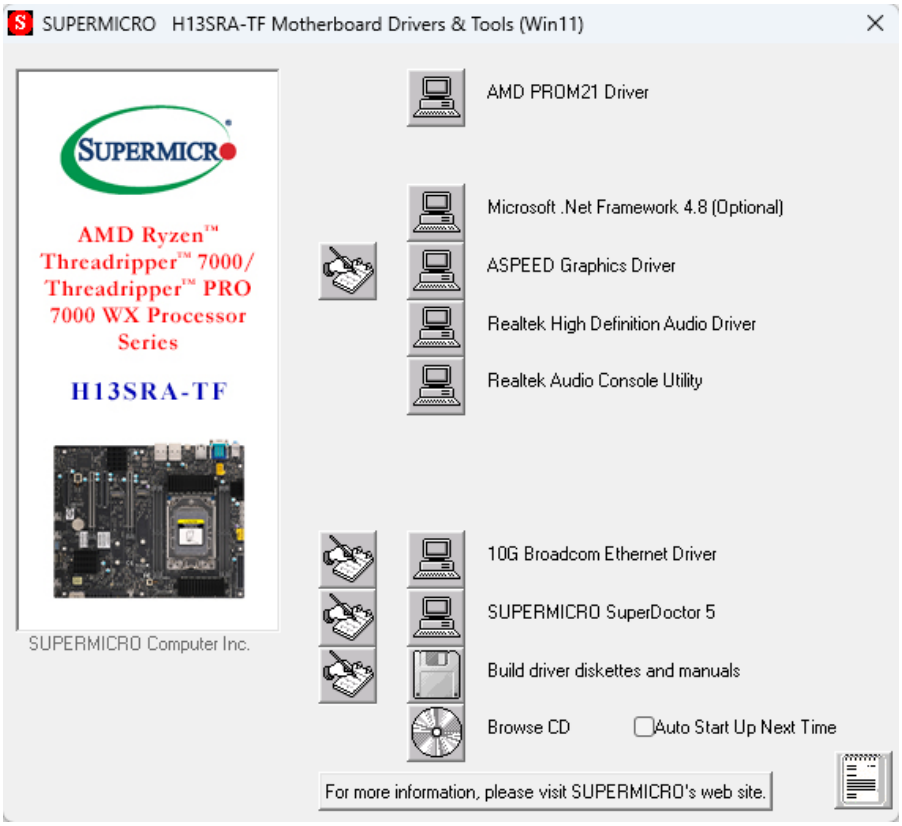


Figure 5-3. Driver & Tool Installation Screen

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 the BMC. SuperDoctor 5 Management Server monitors HTTP, FTP, and SMTP services to optimize the efficiency of your operation.

SuperDoctor® Manual and Resources

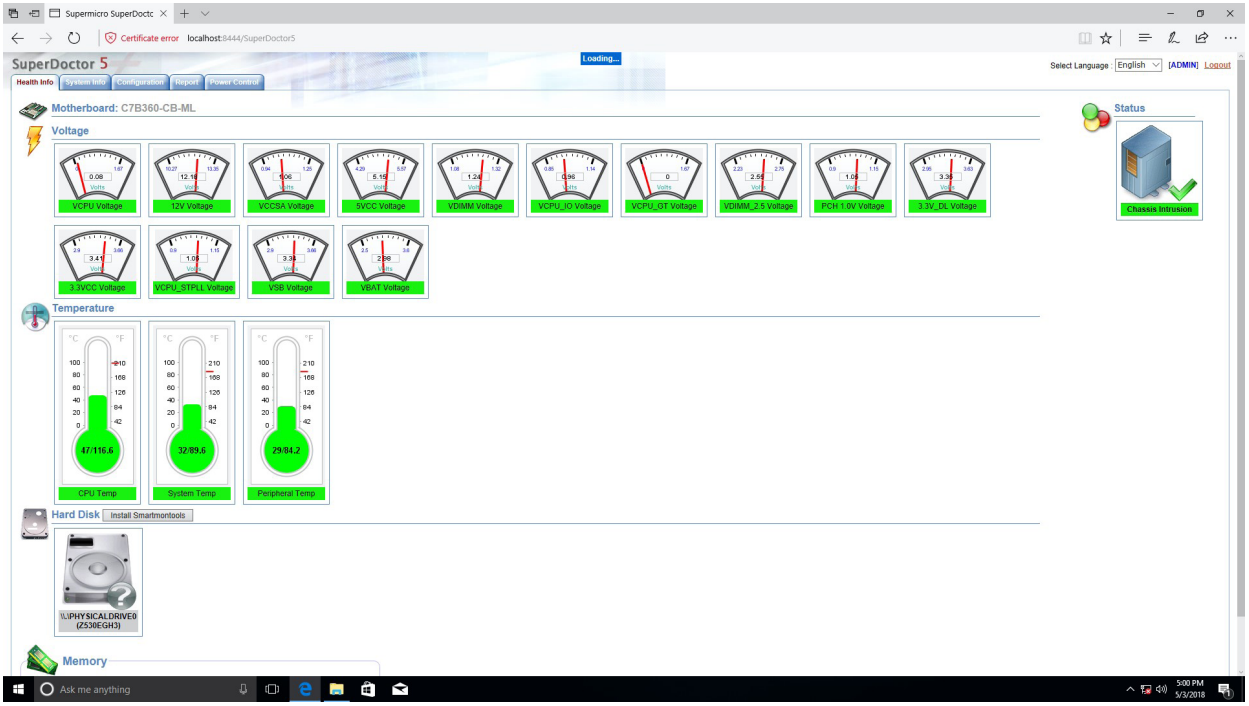


Figure 5-4. SuperDoctor 5 Interface Display Screen (Health Information)

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. If necessary, the password can be reset using the Supermicro IPMICFG tool.

Figure 5-5. BMC Password Label

The sticker can be found on the pull-out service tag at the front of the chassis. See Chapter 1 for the location.

Chapter 6

Optional Components

This chapter describes alternate configurations and optional system components.

6.1 Power Supplies

Power Supply Options	
Part Number	**Description**
PWS-1K01-PQ	PS2 1000 W multi-output power supply with full modular cable set
PWS-2K01-PQ	PS2 2000 W multi-output power supply with full modular cable set
PWS-1K31-PQ	PS2 1300 W multi-output power supply with full modular cable set

6.2 Cooling

Cooling Options	
Part Number	**Description**
SNK-P3045A4	1U closed-loop liquid cooling module
SNK-P0066AP4	4U active CPU heatsink for AMD Threadripper

6.3 GPU Extenders

GPU Extender Options	
Part Number	**Description**
MCP-120-GS301-0N	GS3 GPU extender bracket (GPU length 270-320 mm)
MCP-120-GS302-0N	GS3 GPU extender bracket (GPU length 320-390 mm)
MCP-120-GS303-0N	GS3 GPU extender bracket for PNY RTX Pro 6000, PNY 5070, and PNY 5070Ti

6.4 Cables

Cable Options	
Part Number	**Description**
CBL-MCIO-1240U2Y-E	MCIO x8 to 2x SFF-8639/U.2+Pwr, 40 cm

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 clicking the **Products** option.
- The **Support** option offers downloads (manuals, BIOS/BMC, drivers, etc.), FAQs, RMA, warranty, and other service extensions.

Direct Links for the AS -531AW-TC System

Web AS -531AW-TC specifications page

H13SRA-TF motherboard page for links to the Quick Reference Guide, User Manual, validated storage drives, etc.

Direct Links for General Support and Information

Frequently Asked Questions

TPM User Guide

General Memory Configuration Guide

BMC User Guide

SuperDoctor5 Large Deployment Guide

For validated memory, use our Product Resources page

Direct Links (continued)

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

Security Center for recent security notices

Supermicro Phone and Addresses

7.2 BMC Interface

The system supports a Baseboard Management Controller (BMC) interface. It provides remote access, monitoring and management. There are several BIOS settings related to the BMC.

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

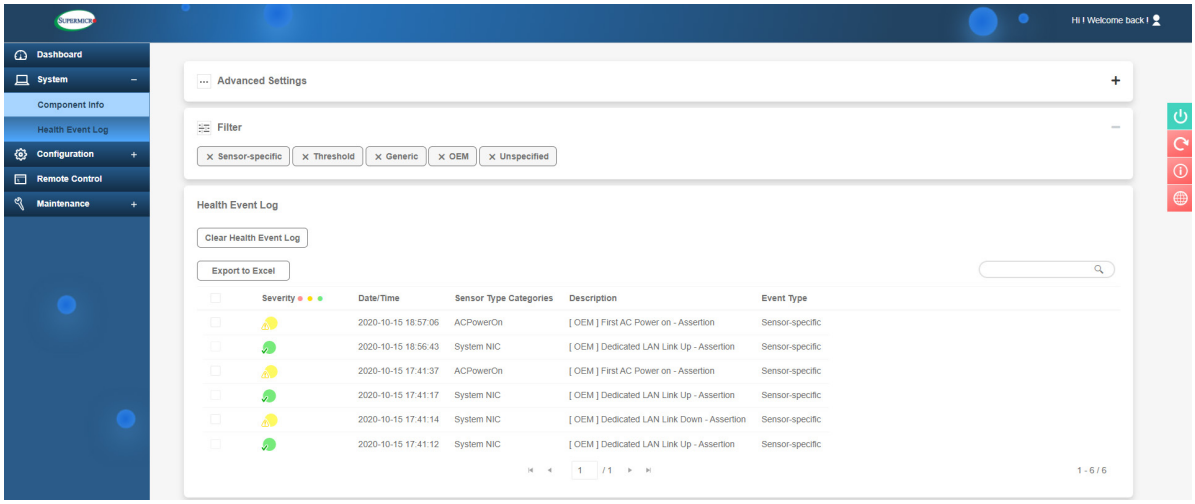


Figure 7-2. BMC Dashboard Sample

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 sections 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.

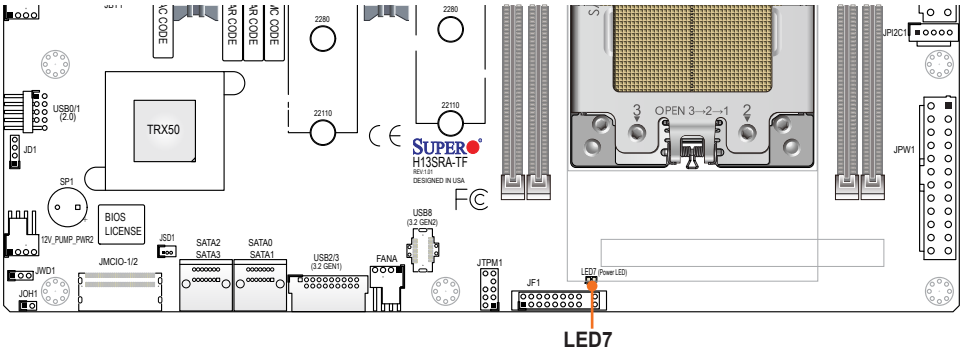


Figure 7-3. Location of the MB Power LED

No Power

- Check that the power LED on the motherboard is on.
- Make sure that the power connector is connected to the power supply.
- Check that the motherboard battery still supplies approximately 3VDC. If it does not, replace it.
- Check that the system input voltage is 100-120v or 180-240v.
- 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 3.3 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 3VDC. If it does not, replace it.

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

If 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 POST Codes

The AMI UEFI BIOS supplies checkpoint codes, which are documented online at http://www.supermicro.com/support/manuals/ ("*AMI BIOS POST Codes User's Guide*").

When BIOS performs the Power On Self Test, it writes checkpoint codes to I/O port 0080h. If the computer cannot complete the boot process, the POST codes can be viewed from the BMC using the Post Snooping function.

For information on AMI updates, please refer to http://www.ami.com/products/.

7.5 Crash Dump Using the BMC Dashboard

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 the BMC Dashboard. The BMC manual is available at https://www.supermicro.com/manuals/other/BMC_IPMI_X13_H13.pdf.

Check Error Log

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

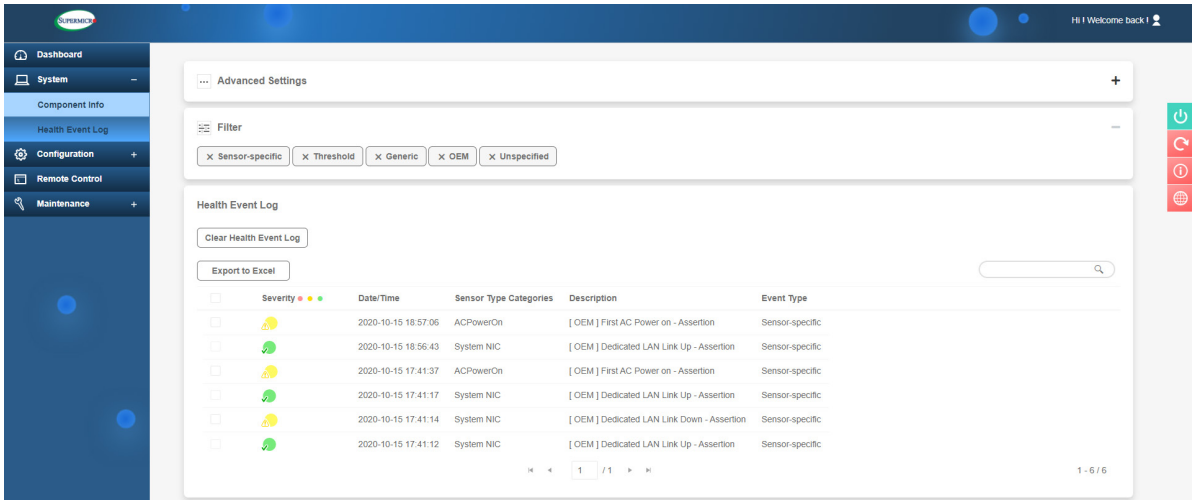


Figure 7-4. BMC Event Log

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

7.6 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 such as a USB Flash Drive, or a USB CD/DVD ROM/RW device can be used for this purpose. However, a USB Hard Disk drive cannot be used for BIOS recovery at this time.

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 device or a writable CD/DVD.

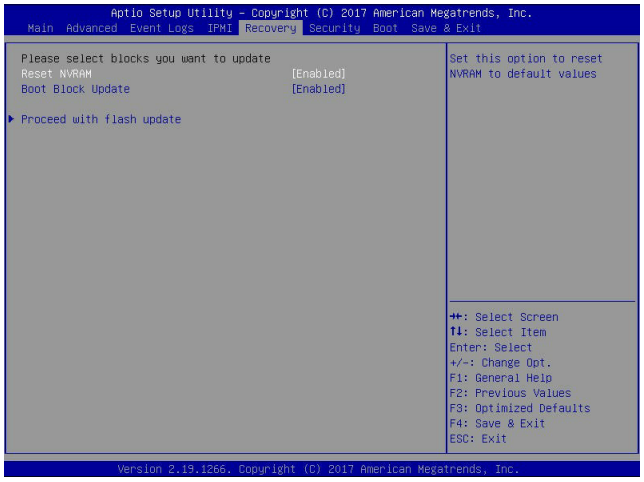
   Note 1: If you cannot locate the "Super.ROM" file in your drive disk, visit our website at www.supermicro.com to download the BIOS package. Extract the BIOS binary image into a USB flash device and rename it "Super.ROM" for the BIOS recovery use.

   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.

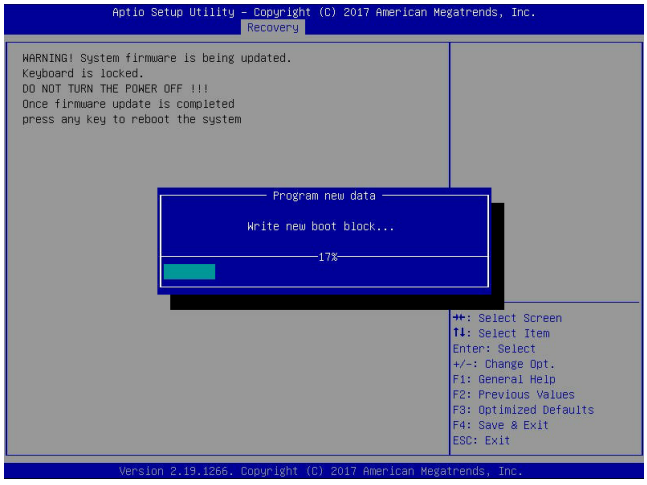


4. When the screen as shown above displays, use the arrow keys to select the item "Proceed with flash update" and press the <Enter> key. You will see the BIOS recovery progress as shown in the screen below.

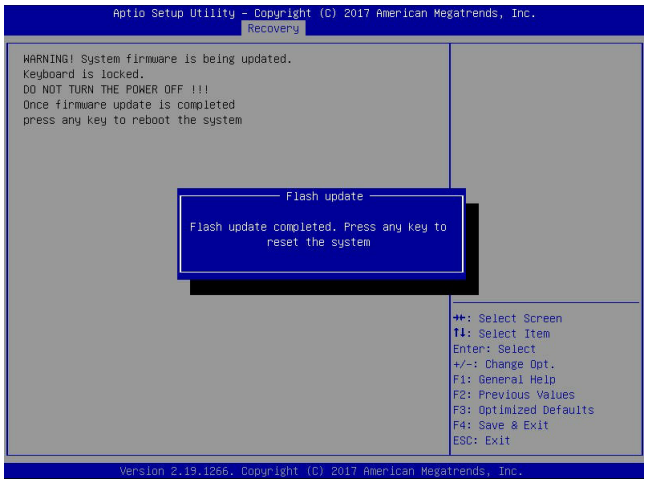
   Note: *Do not interrupt the BIOS flashing process until it has completed*.

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.

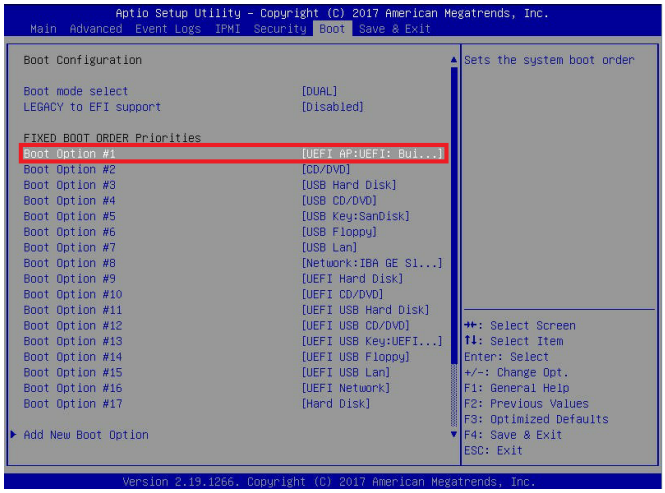


7. Press <Del> continuously during system boot to enter the BIOS Setup utility. From the top of the tool bar, select Boot to enter the submenu. From the submenu list, select Boot

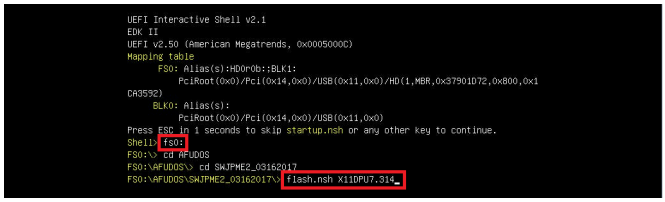


Option #1 as shown below. Then, set Boot Option #1 to [UEFI AP:UEFI: Built-in EFI Shell]. Press <F4> to save the settings and exit the BIOS Setup utility.

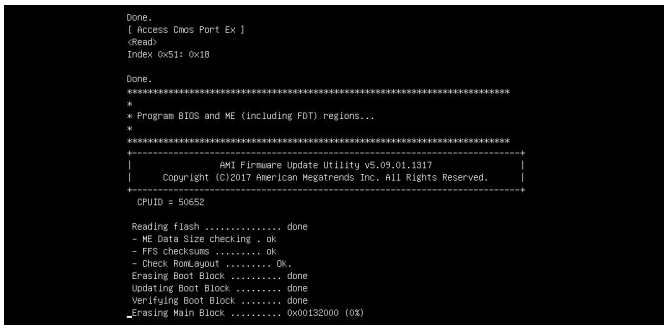
8. When the UEFI Shell prompt appears, type fs# to change the device directory path. Go to the directory that contains the BIOS package you extracted earlier from Step 6. Enter flash.nsh BIOSname.### at the prompt to start the BIOS update process.



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

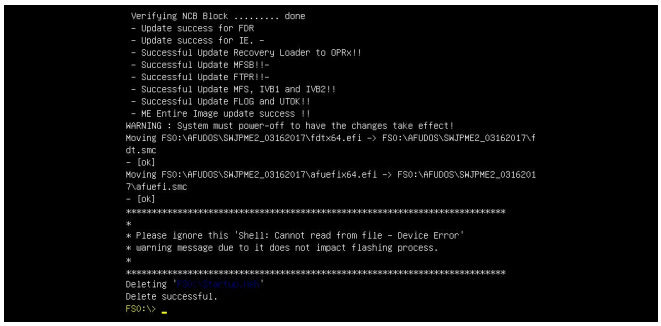


9. The screen above indicates that the BIOS update process is complete. When you see the screen above, unplug the AC power cable from the power supply, clear CMOS, and plug



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.

7.7 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 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.

JBT1 contact pads

5. Remove the screwdriver or shorting device.
6. 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.

7.8 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.

7.9 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. To provide feedback on our manuals, please email us at techwriterteam@supermicro.com.

7.11 Contacting Supermicro

Headquarters

Address:	Super Micro Computer, Inc. 980 Rock Ave. San Jose, CA 95131 U.S.A.
Tel:	+1 (408) 503-8000
Fax:	+1 (408) 503-8008
Email:	marketing@supermicro.com (General Information) Sales-USA@supermicro.com (Sales Inquiries) Government_Sales-USA@supermicro.com (Gov. Sales Inquiries) support@supermicro.com (Technical Support) RMA@supermicro.com (RMA Support) Webmaster@supermicro.com (Webmaster)
Website:	www.supermicro.com

Europe

Address:	Super Micro Computer B.V. Het Sterrenbeeld 28, 5215 ML 's-Hertogenbosch, The Netherlands
Tel:	+31 (0) 73-6400390
Fax:	+31 (0) 73-6416525
Email:	Sales_Europe@supermicro.com (Sales Inquiries) Support_Europe@supermicro.com (Technical Support) RMA_Europe@supermicro.com (RMA Support)
Website:	www.supermicro.nl

Asia-Pacific

Address:	Super Micro Computer, Inc. 3F, No. 150, Jian 1st Rd. Zhonghe Dist., New Taipei City 235 Taiwan (R.O.C)
Tel:	+886-(2) 8226-3990
Fax:	+886-(2) 8226-3992
Email:	Sales-Asia@supermicro.com.tw (Sales Inquiries) Support@supermicro.com.tw (Technical Support) RMA@supermicro.com.tw (RMA Support)
Website:	www.supermicro.com.tw

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.

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。

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 إٍ الو صٌص ف هًا ةٌ كل تحذ زٌ للعشر تزجوتها

안전을 위한 주의사항

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.

警告!

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.

אזהרה!

יש לקרוא את הוראות התקנה לפני חיבור המערכת למקור מתח.

تحذير!

اقر إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

경고!

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.

警告!

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250 V, 20 A。

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250 V, 20 A。

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.

אזהרה!

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

!تحذير

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

경고!

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

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).

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!

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

تحذير!

يجب فصم انتظاو من جميع مصادر انطاقت وإزانت سهك انكهرباء من وحدة امداد
انطاقت قبم
انصل إنى انمناطق 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.

警告!

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.

تحذير!

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..

Rack Stability Hazard

Warning! Stability hazard. The rack may tip over causing serious personal injury. Before extending the rack to the installation position, read the installation instructions.

警告!

安定性に危険があります。ラックが転倒して、重大な人身事故を引き起こす可能性があります。ラックを設置位置まで伸ばす前に、設置手順をお読みください。設置位置にあるスライド レールに取り付けられた機器に負荷をかけないでください。スライド レールに取り付けられた機器を設置位置に放置しないでください。

警告

稳定性危险。机架可能会翻倒，造成严重的人身伤害。在将机架延伸到安装位置之前，请阅读安装说明。请勿在安装位置对滑轨安装的设备施加任何负载。请勿将滑轨安装的设备留在安装位置。

警告

穩定性危險。機架可能會翻倒，造成嚴重的人身傷害。將機架延伸至安裝位置前，請先閱讀安裝說明。請勿在安裝位置的滑軌安裝設備上放置任何負載。請勿將滑軌安裝設備留在安裝位置。

Warnung

Gefahr der Instabilität. Das Rack kann umkippen und schwere Verletzungen verursachen. Lesen Sie die Installationsanweisungen, bevor Sie das Rack in die Einbauposition ausfahren. Belasten Sie die auf den Gleitschienen montierten Geräte nicht in der Einbauposition. Lassen Sie die auf den Gleitschienen montierten Geräte nicht in der Einbauposition.

¡Advertencia!

Peligro de inestabilidad. El rack podría volcarse y causar lesiones personales graves. Antes de extender el rack a la posición de instalación, lea las instrucciones de instalación. No coloque ninguna carga sobre el equipo montado sobre rieles deslizantes en la posición de instalación. No deje el equipo montado sobre rieles deslizantes en la posición de instalación

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

Avertissement!

Danger d'instabilité. Le rack peut basculer et provoquer des blessures corporelles graves. Avant d'étendre le rack en position d'installation, lire les instructions d'installation. Ne pas charger l'équipement monté sur rail de glissière en position d'installation. Ne pas laisser l'équipement monté sur rail de glissière en position d'installation.

אזהרה!

סכנת חוסר יציבות

המתלה עלול להתהפך ולגרום לפציעה חמורה

לפני הארכת המתלה למצב ההתקנה, קרא את הוראות ההתקנה

אין להעמיס כל עומס על הציוד המותקן על מסילת ההחלקה במצב ההתקנה

אל תשאיר את הציוד המותקן על מסילת ההחלקה במצב ההתקנה

!تحذير

تحذير.خطر عدم الاستقرار.قد ينقلب الرف مسبباً إصابات جسدية خطيرة.قبل تمديد الرف إلى موضع التركيب،! اقرأ تعليمات التركيب.لا تضع أي حمولة على الجهاز المثبت على سكة الانزلاق في موضع التركيب.لا تترك الجهاز .المثبت على سكة الانزلاق في موضع التركيب

경고!

안정성 위험. 랙이 넘어져 심각한 개인 부상을 입을 수 있습니다. 랙을 설치 위치까지 확장하기 전에 설치 지침을 읽으십시오. 설치 위치에서 슬라이드 레일 장착 장비에 하중을 가하지 마십시오. 슬라이드 레일 장착 장비를 설치 위치에 두지 마십시오.

Waarschuwing

Gevaar voor instabiliteit. Het rek kan kantelen en ernstig persoonlijk letsel veroorzaken. Lees de installatie-instructies voordat u het rek uitschuift naar de installatiepositie. Plaats geen last op de op de glijrail gemonteerde apparatuur in de installatiepositie. Laat de op de glijrail gemonteerde apparatuur niet in de installatiepositie staan.

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).

警告!

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.

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

!تحذير
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

警告!

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.

تحذير!

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.

警告!

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.

אזהרה!

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

!تحذير

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.

警告!

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.

אזהרה!

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

העבודה.

تحذير!
هناك خطر مه التيار الكهزبائي أوالطاقة المجدة 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.

警告!
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.

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

تحذير!
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.

警告!
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.

אזהרה!

סילוק המוצר

אזהרה!

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

تحذير!

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.

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

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.

警告!

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.

!הרהזא

רזוצל ומאתוה וא ושכרנ רשא AC מימאתמו מיקפס ,מילבכב שמתשהל שי ,רצומה תא מיניקתמ רשאכ לכב שומיש . עקתהו לבכה לש הנוכנ הדימ ללוכ ,תוימוקמה תוחיטבה תושירדל ומאתוה רשאו ,הנקתהה למשחה יריש כמב שומישה יקוחל מאתהב .ילמשח רצק וא הלקתל מורגל לולע ,רחא גוסמ מאתמ וא לבכ לש דוק מהילע עיפומ רשאכ) CSA-ב וא UL -ב מיכמסומה מילבכב שמתשהל רוסיא מייק ,תוחיטבה יקוחו .דבלב Supermicro י"ע מאתוה רשא רצומב קר אלא ,רחא ילמשח רצומ לכ רובע UL/CSA)

!تحذير

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 والتي تحمل علامة (UL/CSA) مع أي معدات أخرى غير المنتجات المعينة والمحددة من قبل Supermicro.

경고!

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.

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

Supports single sTR5 socket AMD Ryzen™ Threadripper™ PRO 9000 WX and 9000 Series and AMD Ryzen™ Threadripper™ 7000 WX and 7000 Series processors up to 350 W TDP

Chipset

AMD TRX50

BIOS

32 MB SPI Flash EEPROM

Memory

Supports up to 512 GB of ECC Registered RDIMM/3DS RDIMM, DDR5-5200 MT/s (up to DDR5-6400 with 9000 WX and 9000 series CPUs) in four DIMM slots

Storage Drives

Two 3.5” internal drive bays
Six 2.5” internal drive bays,
Two M.2 PCIe 4.0 x4 NVMe (M-key, 2280/22110)
One PCIe 4.0 x8 MCIO connector to support two NVMe 2.5" SSDs

PCI Expansion Slots

Two PCIe 5.0 x16 slots
Two PCIe 5.0 x8 slots

Input/Output

Four USB3.2 Gen2 Type-A ports (rear, 10 Gb)
One USB3.2 Gen2 Type-C port (rear, 20 Gb)
Two USB3.2 Gen1 Type-A ports (front, 5 Gb)
One USB3.2 Gen2 Type-C port (front, 10 Gb)
Two 10 GbE and one 1 GbE (Dedicated IPMI) LAN ports
One VGA port and one COM port
HD Audio 7.1 audio ports

Motherboard

H13SRA-TF: ATX 12" (L) x 9.6" (W) (305 mm x 243.8 mm)

Chassis

GS3A-000NBP; Mid Tower; (W x H x D)
8.07 x 17.72 x 18.5" (205 x 450 x 470 mm)

System Cooling

Four 12-cm fans (one rear, three front) with optimal fan speed control
One active CPU heatsink (air-cooled or liquid-cooled options)

Power Supply

Model: PWS-1K01-PQ, 1000 W multi-output, 80Plus Gold level
AC Input: 1000 W: 100-240 Vac / 7 A-14 A / 50-60 Hz

Model: PWS-1K31-PQ, 1300 W multi-output, 80Plus Platinum level
AC Input: 1300 W: 100-240 Vac / 8 A-15 A / 50-60 Hz

Model: PWS-2K01-PQ, 2000 W multi-output, 80Plus Platinum level
2000W: 100-264 Vac / 15 A-12 A / 50-60 Hz

Operating Environment

Operating Temperature: 10º to 30º C (50º to 86º F)
Non-operating Temperature: -40º to 60º C (-40º to 140º F)
Operating Relative Humidity: 8% to 90% (non-condensing)
Non-operating Relative Humidity: 5% to 95% (non-condensing)
Note: High TDP CPUs and specific components may be supported under specific conditions. Contact Technical Support for details

Regulatory Compliance

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

Certified Safety Models

Compliant with UL and CSA: GS3A-10, GS3A-S10H13, GS3A-13, GS3A-S13H13, GS3A-20, GS3A-S20H13

Applied Directives, Standards

Directives:
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
CISPR 32
CISPR 35
BS/EN 61000-3-2
BS/EN 61000-3-3
BS/EN 61000-4-2
EN/BS 61000-4-3
EN/BS 61000-4-4
EN/BS 61000-4-5
EN/BS 61000-4-6
EN/BS 61000-4-8
EN/BS 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)
UL/CSA 62368-1 (USA and Canada)
Electrical Equipment (Safety) Regulations 2016
IEC/BS/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”

Appendix C

Energy Star Certification

ENERGY STAR qualified products save you money by reducing energy costs and protecting the environment without sacrificing features or performance. Supermicro is proud to offer our customers products with the ENERGY STAR mark.

About ENERGY STAR

Products that are ENERGY STAR qualified use less energy and prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency. Supermicro is committed to offering products and services worldwide that help customers save money, conserve energy, and improve the quality of our environment. The more energy we can save through higher energy efficiency, the more we reduce greenhouse gases and the risks of climate change. Supermicro products marked with the ENERGY STAR logo are following the ENERGY STAR specification established by the US Environmental Protection Agency, and the product power management function has been turned on. In addition, our equipment automatically goes into "display sleep" within 10 minutes of inactivity. The user can wake up the computer by pressing any key. Additional information about the energy and cost savings that power management features can provide can be found on the EPA ENERGY STAR Power Management website at:

https://www.energystar.gov/products/tools_resources/product-retrospective-computer-power-management

Additional information about the ENERGY STAR program and its environmental benefits can be found on the EPA ENERGY STAR website at:

http://www.energystar.gov

Power Management Settings

The figure below shows the power management settings of this computer enabled by default. The settings can be changed using the drop down menus.

Note: The default power management settings are compliant with ENERGY STAR and are recommended by the ENERGY STAR program for optimal energy savings.

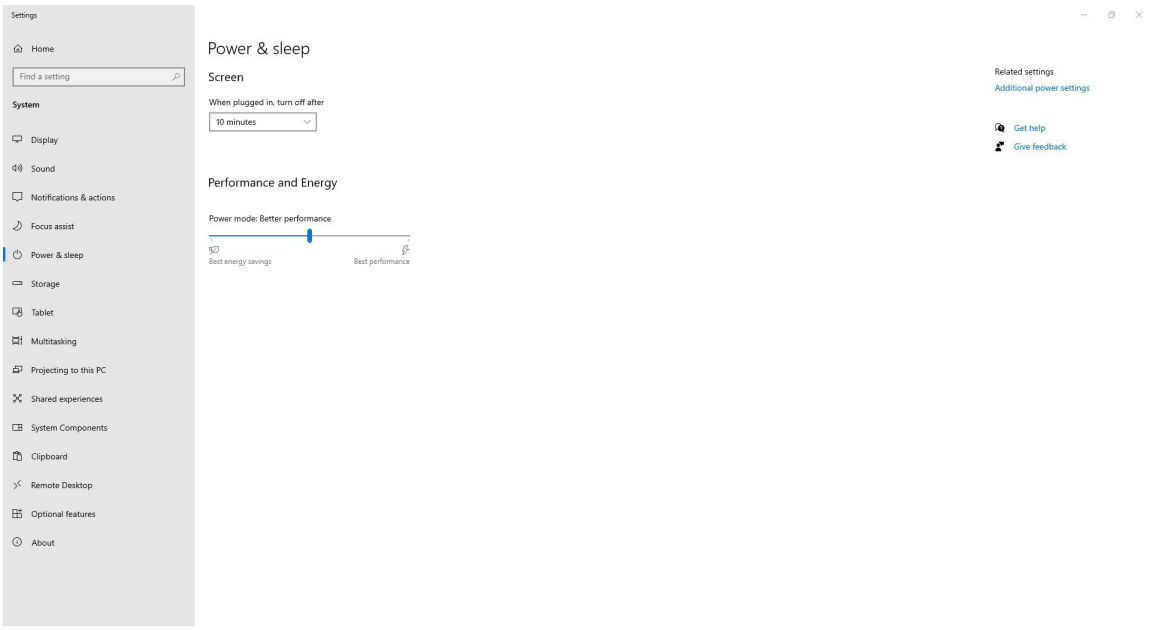


Figure C-1. Default Power Management Settings

When the screen turns off or the computer goes into sleep mode, you can move your mouse, click your keyboard, or press the power button to wake it.