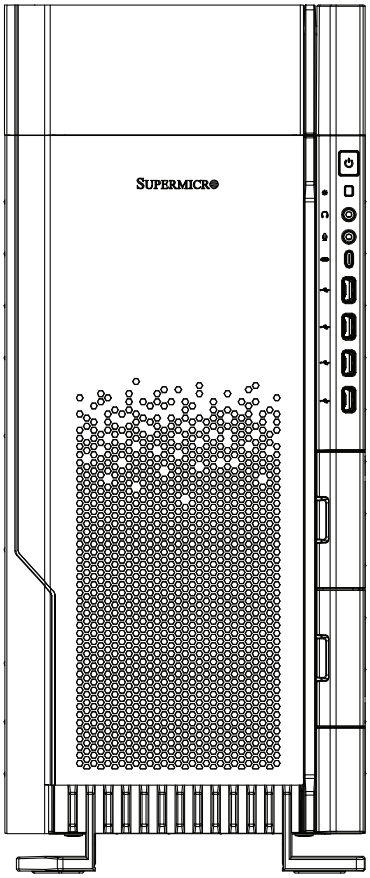
A+ Workstation
AS -5014A-TT



USER'S MANUAL

Revision 1.0a

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Manual Revision 1.0a

Release Date: December 12, 2022

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 A+ Workstation AS -5014A-TT. Installation and maintenance should be performed by experienced technicians only.

Please refer to the workstation 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
- 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 a brief outline of the functions and features of the A+ Workstation AS -5014A-TT. In addition to the M12SWA-TF motherboard and CSE-GS7A-000NBP chassis, parts included with the system are listed below.

Main Parts List		
Description	**Part Number**	**Quantity**
FAN module with 2200rpm PWM	FAN-0221L4	3
FAN module with 6400rpm PWM (optional, with three or more GPU cards installed)	FAN-0222L4	3
2000W 80PLUS Platinum PS/2 Power Supply	PWS-2K01-PQ	1
OOB Software Management License	SFT-OOB-LIC	1
High Performance CPU heatsink and fan (optional)	SNK-P0066AP4	-
Tempered Glass side panel (optional)	MCP-230-GS701-0B	-

Note: The following safety models associated with the AS -5014A-TT have been certified as compliant with CSA or UL models: GS7A-20 and GS7A-S20M12.

1.2 Unpacking the System

Inspect the box in which the workstation 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. Refer to Section 1.8 for Returned Merchandise Authorization (RMA) instructions.

Decide on a suitable location that will hold 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 Appendix A.

1.3 System Features

The following table provides you with an overview of the main features of the A+ Workstation AS -5014A-TT.

System Features
Motherboard
M12SWA-TF
Chassis
CSE-GS7A-000NBP
CPU
Supports AMD Ryzen™ Threadripper™ PRO 3000WX Series Processors in OLGA-4094 socket, up to CPU TDP 280W
Chipset
AMD WRX80 Chipset
Management Chipset
AMI 256Mb Flash EEPROM ACPI 6.2, SMBIOS 3.1.1, Plug-and-Play (PnP), RTC (Real Time Clock) wakeup, Riser Card Auto-Detection support
Memory
Up to eight DDDR4 ECC/non-ECC UDIMM/ECC RDIMM sockets, with speeds of up to 3200MHz (1DPC). Up to 256GB (UDIMM)/2TB (RDIMM) max capacity
Storage Drives
Drive Bays: Two 2.5” front drive bays, four internal 3.5” drive bays, and two 5.25” peripheral bays Onboard: Four SATA 3.0 6Gb/s connectors (support RAID 0, 1, 5, 10) Four M.2 M-key slots via PCIe 4.0 (support 2260/2280/22110, RAID 0,1,5,10) Two U.2 sockets
Expansion Slots
Six PCIe 4.0 x16 slots with metal armor protection
Security
One TPM 2.0 header
Power
One 2000W multi-output PS2/ATX PS, 80PLUS Platinum Certified power supply

Note: The System Features table continues on the next page.

System Features
Input/Output
Front: Two USB 2.0 ports Two USB 3.2 Gen 1 (5Gbps) Type A ports One USB 3.2 Gen 2 (10Gbps) Type C port One Power Button One Audio Out One Mic In One LED on/off button Rear: One 10Gb LAN port One 1Gb LAN port One USB 3.2 Gen 2x2 (20Gbps) Type C port Four USB 3.2 Gen 2x1 ports Three USB 3.2 Gen 1 ports One VGA port (for BMC interface) HD Audio 7.1 Channel connector One COM port Onboard: One USB 3.2 Gen 2 Type C header One USB 3.2 Gen 1 Type A header Ten 4-Pin fan headers One 12V power header for water cooler pumper One DOM PW connector One TPM 2.0 header
System Cooling
Two 12 cm front cooling fans Optional three 12 cm top cooling fans One 12 cm rear exhaust fan
Weight
Net weight: 37.3 lbs / 16.9 kg Gross weight: 43.5 lbs / 19.75 kg
Form Factor
5U Tower; (W x H x D) 8.7 x 21.1 x 22.6 in. or 222 x 535 x 572 mm (with stand) 8.7 x 20 x 22.6 in. or 222 x 508 x 572 mm (without stand)

1.4 Workstation Chassis Features

Control Panel

The control panel includes one power button and one LED indicator. Next to the power button and LED indicator are I/O ports including one audio out, one mic in, and five USB ports.

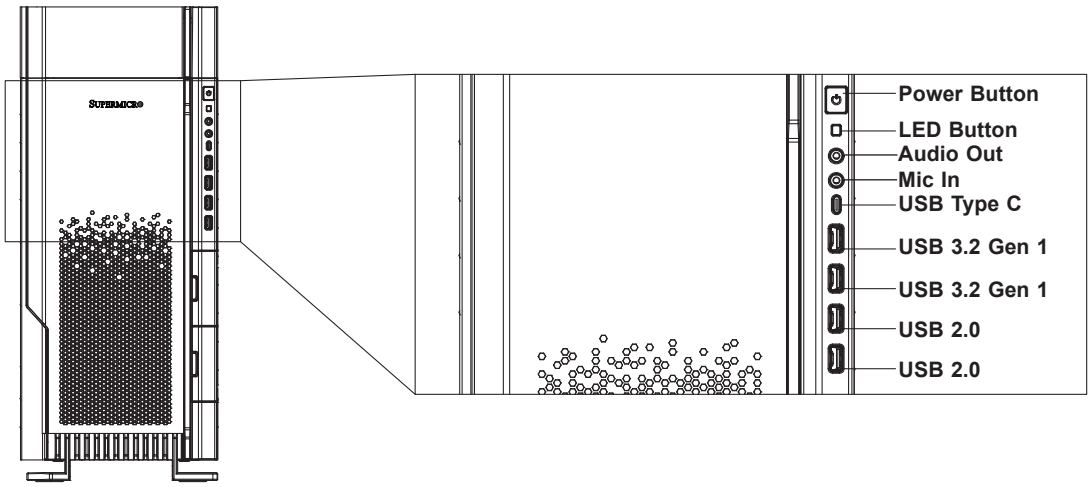


Figure 1-1. Control Panel

Control Panel Features	
Feature	**Description**
Power button	The main power switch applies or removes primary power from the power supply to the workstation but maintains standby power.
LED button	On/off button for the white colored LED strip along the edge of the chassis.
Audio Out	Audio port
Mic In	Microphone port
USB Type C	USB 3.2 Gen 2 port (supports power usage at a maximum current of 3A)
USB 2.0	USB 2.0 port (x2)
USB 3.2 Gen 1	USB 3.2 Gen 1 port (x2)

Front Features

In addition to the control panel, the front features two tool-less drive bays that open via a latch and a front bezel that can be opened to access the front fans. The workstation feet support the system in its default tower position.

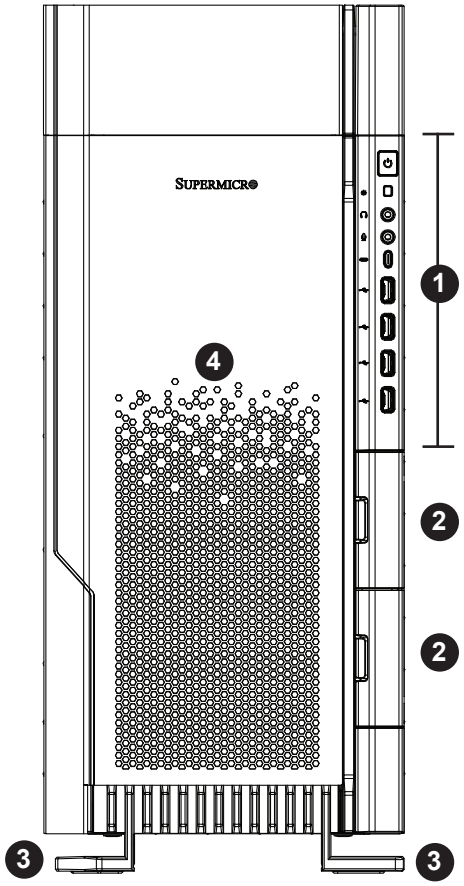


Figure 1-2. Front View

Chassis Front Features		
Item	**Features**	**Description**
1	Control Panel	See previous page for details.
2	Drive Bay Latch	Cable-based 2.5" drive bay (x2) for tool-less storage drive
3	Feet	Workstation feet
4	Front Bezel	Vented bezel with filter that opens for access to front fans

Rear Features

The illustration below shows the features included on the rear of the chassis.

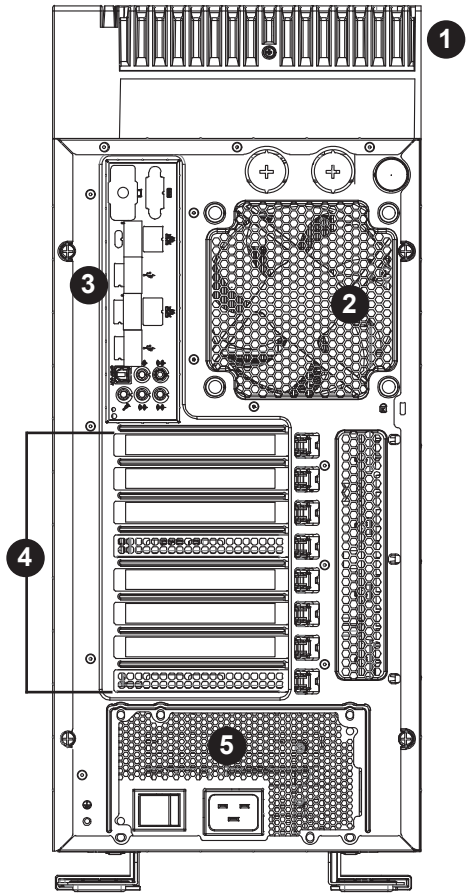


Figure 1-3. Rear View

Chassis Rear Features		
Item	**Features**	**Description**
1	Removable Chamber	Dedicated and removable chamber
2	Fan	Rear 12-cm fan
3	I/O	Rear I/O ports. See Section 4.3 Rear I/O Ports for details.
4	Expansion Slots	PCIe expansion slots (x8)
5	Power Supply	2000W 80PLUS Platinum power supply with modular cables*

1.5 System Architecture

Block Diagrams

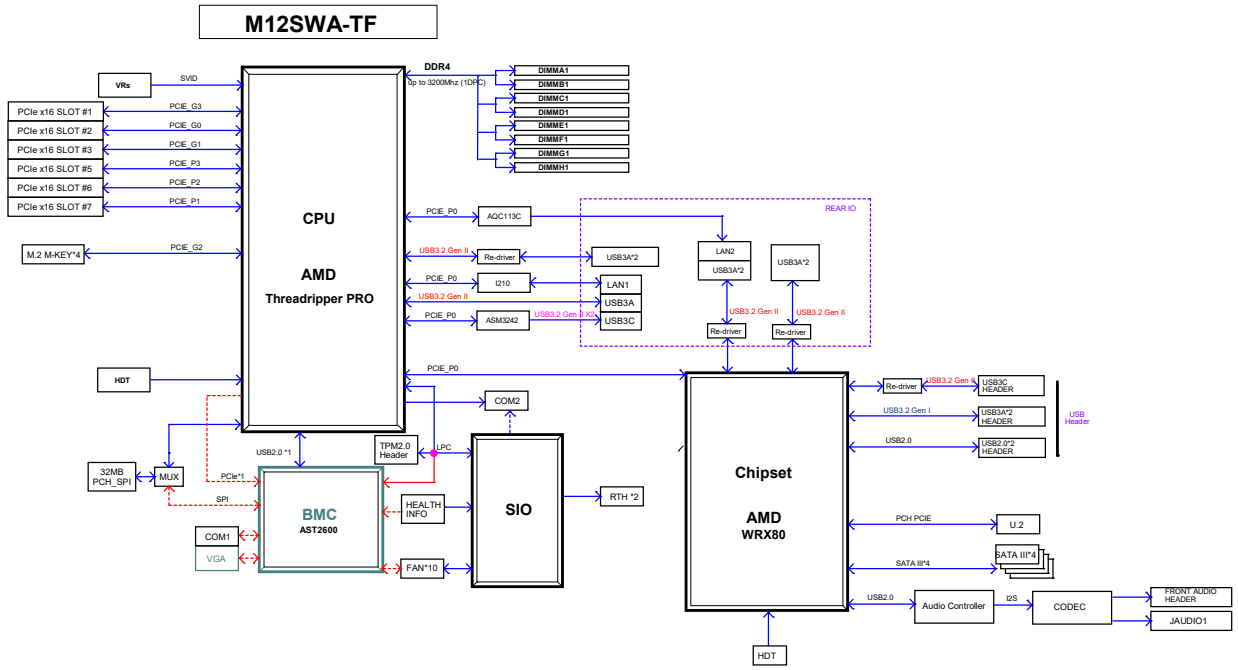


Figure 1-4. Motherboard Block Diagram

1.6 Motherboard Layout

Below is a layout of the M12SWA-TF with jumper, connector and LED locations shown. See the table on the following page for descriptions. For detailed descriptions, pinout information and jumper settings, refer to Chapter 4.

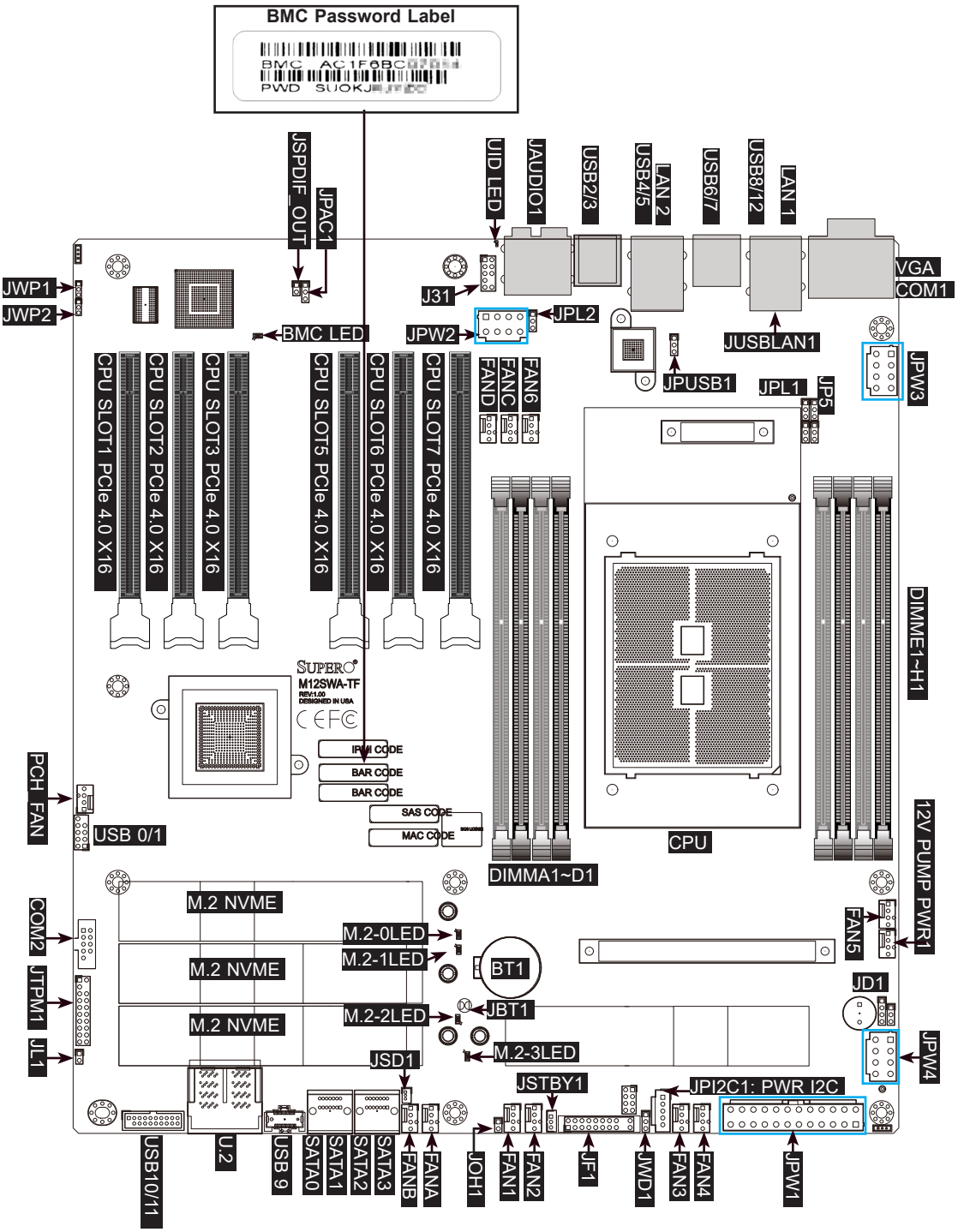


Figure 1-5. Motherboard Layout

Quick Reference Table

Jumper	Description	Default Setting
JBT1	Clear CMOS (Onboard)	Open (Normal)
JPAC1	HD Audio Enable/Disable	Pins 1-2 (Enabled)
JPL1, JPL2	LAN1/LAN2 Enable/Disable	Pins 1-2 (Enabled)
JPUSB1	USB6/7 Wake Up	Pins 1-2 (Enabled)
JWD1	Watch Dog Time Control	Pins 1-2 (Reset)
JP5	USB 12 Enable/Disable	Pins 1-2 (Enabled)

LED	Description	Status
M.2-0LED, M.2-1LED, M.2-2LED, M.2-3LED	M.2 LEDs for M.2-4/M.2-3/M.2-2/M.2-1	Green: Blinking: Device Working
BMC LED	BMC Heartbeat LED	Solid Green: BMC Normal
Power LED	Onboard Power LED	Solid Green: Power On
UID-LED	Unit Identifier (UID) LED	Blue On: Unit Identified

Connector	Description
JD1	Front Panel External Speaker
J31	Front Panel Audio FP Header
BT1	Onboard Battery
COM1	COM Port (Back Panel)
CPU SLOT1~7	PCIe 4.0 x16 Slots
FAN1 ~ FAN6	CPU Fan Headers
FANA ~ FAND	System Fan Headers
12V_PUMP_PWR1	12V 4-pin Power Connector for Liquid Cooling CPU Pump
SATA0~3	Serial ATA (SATA 3.0) Ports (6Gb/second)
JSD1	SATA DOM Power Connector
JF1	Front Control Panel Header
JL1	Chassis Intrusion Header
JOH1	Overheat LED Header
JPI2C1	Power Supply SMBus I^2C Header
JPW1	24-pin ATX Main Power Connector (Required)
JPW2, JPW3, and JPW4	+12V 8-pin Power Connectors (Required)
JSTBY1	Standby Power Header (5V)

Connector	Description
JTPM1	Trusted Platform Module (TPM)/Port 80 Header
JSPDIF In/JSPDIF Out	SPDIF (Sony/Philips Digital Interface) In/Out Headers
USB0/1	USB 2.0 Front Panel Header
USB10/11	USB 3.2 (Gen 1) Type A Front Panel Header
USB9	USB 3.2 (Gen 2) Type C Front Panel Header
VGA	VGA Port

Note:

- Jumpers in the table not described are for manufacturing testing purposes only and are not covered in this manual.

Caution: The equipment should only be operated by skilled or instructed persons. Instructed person is a term applied to a person who has been instructed and trained by a skilled person, or who is supervised by a skilled person.

Caution: It is recommended that you connect both 8-pin (JPW3) and 24-pin (JPW1) connectors to your power supply modules before powering on the motherboard.

Caution: For installing multiple GPU cards, it is required to connect both 8-pin connectors (JPW2 and JPW4). See Chapter 4 Power Connection for more details.

1.7 Where to Get Replacement Components

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

1.8 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.

Chapter 2

System Installation

2.1 Overview

This chapter provides advice and instructions for unpacking and preparing your system for setup. If your system is not already fully integrated with processors, system memory etc., refer to Chapter 3 for details on installing those specific components.

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

2.2 Unpacking the System

Inspect the box in which the SuperWorkstation AS -5014A-TT 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.

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

2.3 Preparing for Setup

Please read this section in its entirety before you begin the installation.

Choosing a Setup Location

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

Workstation 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, voltage spikes and to keep your system operating in case of a power failure.
- Allow the power supply units and components to cool before touching them.
- To maintain proper cooling, always keep all chassis panels closed when not being serviced.

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

Before performing most setup or maintenance tasks, use the following procedure to ensure that power has been removed from the system.

1. Use the operating system to power down the system, following the on-screen prompts.
2. After the system has completely shut-down, carefully grasp the head of the power cord and gently pull it out of the back of the power supply.
3. Disconnect the cord from the power strip or wall outlet.

3.2 Accessing the System

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

Left Side and Right Side Covers

Removing the Left Side Chassis Cover

Begin by powering down the system.

1. Using a screwdriver, remove the two screws at the rear of the chassis.
2. Push the release button located at the top rear of the chassis as shown below.
3. Lift the cover up to remove it from the chassis.

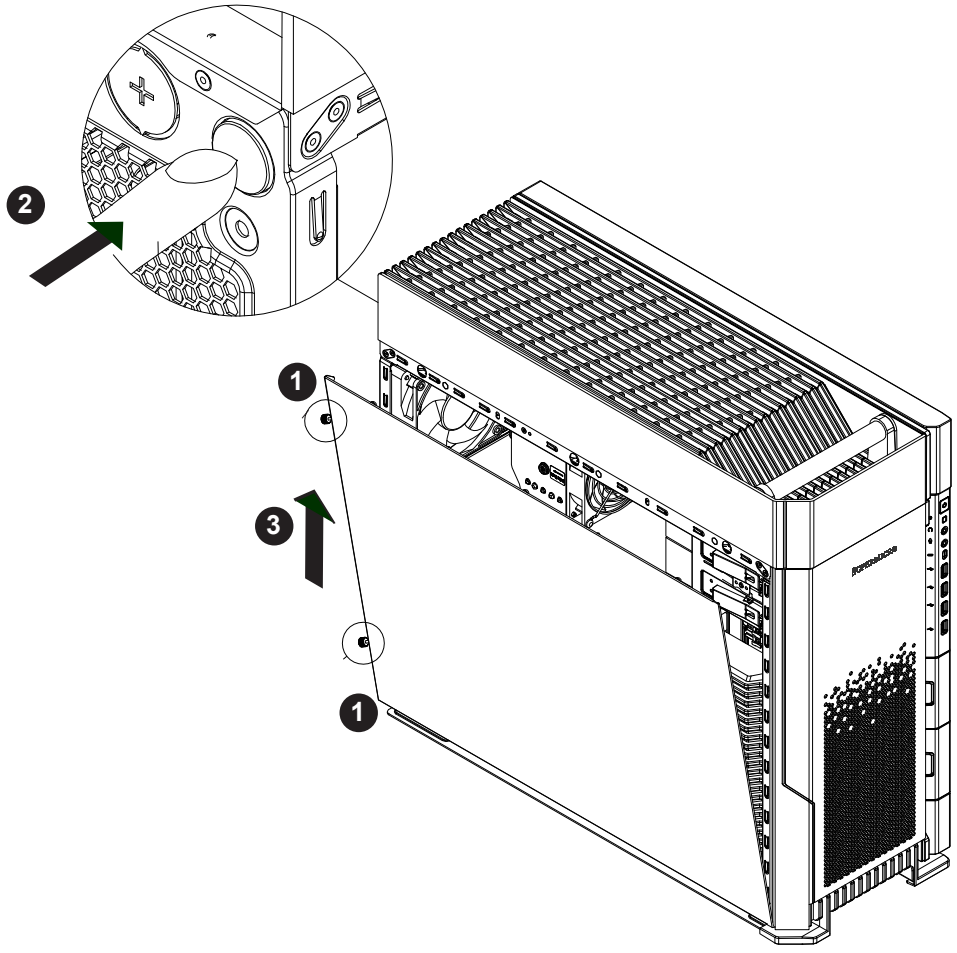


Figure 3-1. Removing the Left Side Cover

Removing the Right Side Chassis Cover

Begin by powering down the system.

1. Remove the two screws at the rear of the chassis.
2. Slide the cover back to remove it from the chassis.

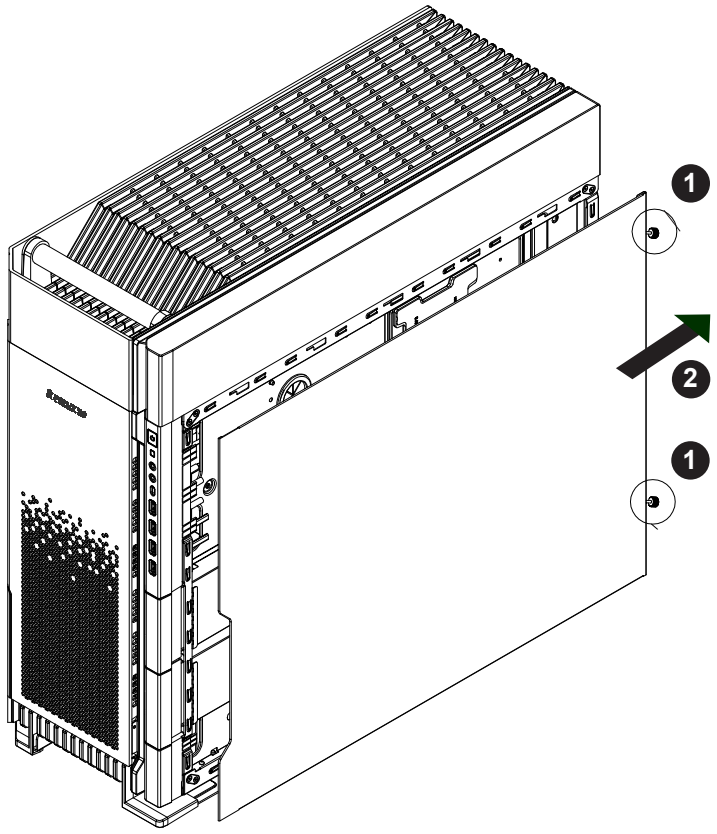


Figure 3-2. Removing the Right Side Cover

Front Bezel

Remove the front bezel by pulling the right edge out and then swinging it away from the chassis. The front door can be opened to access the fans and filter.

3.3 Processor and Heatsink Installation

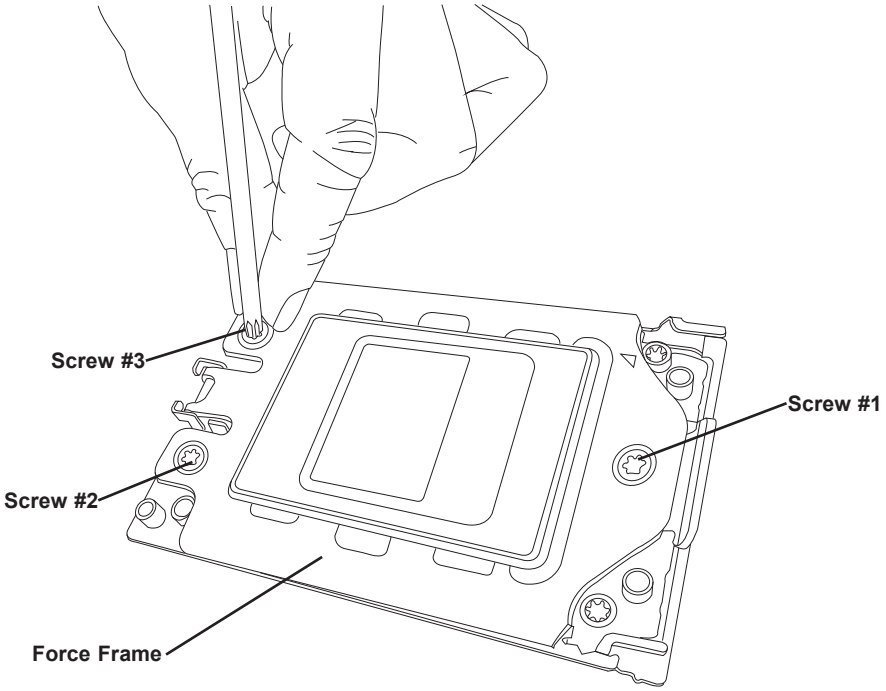
Warning: When handling the processor package, avoid placing direct pressure on the label area of the fan.

Important:

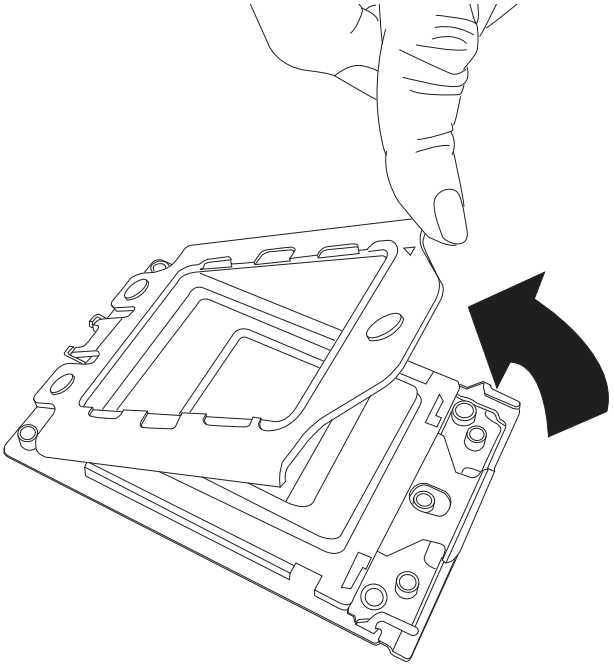
- For the Processor/Heatsink installation you need to use a T20 screwdriver when opening/closing the CPU socket.
- Always connect the power cord last, and always remove it before adding, removing or changing any hardware components. Make sure that you install the processor into the CPU socket before you install the CPU heatsink.
- If you buy a CPU separately, make sure that you use an AMD-certified multi-directional heatsink only.
- Make sure to install the motherboard into the chassis before you install the CPU heatsink.
- When receiving a motherboard without a processor pre-installed, make sure that the plastic CPU socket cap is in place and none of the socket pins are bent; otherwise, contact your retailer immediately.
- Refer to the Supermicro website for updates on CPU support.

Installing the Processor and Heatsink

1. Unscrew the screws holding down Force Frame in the sequence of 3-2-1. The screws are numbered on the Force Frame next to each screw hole.

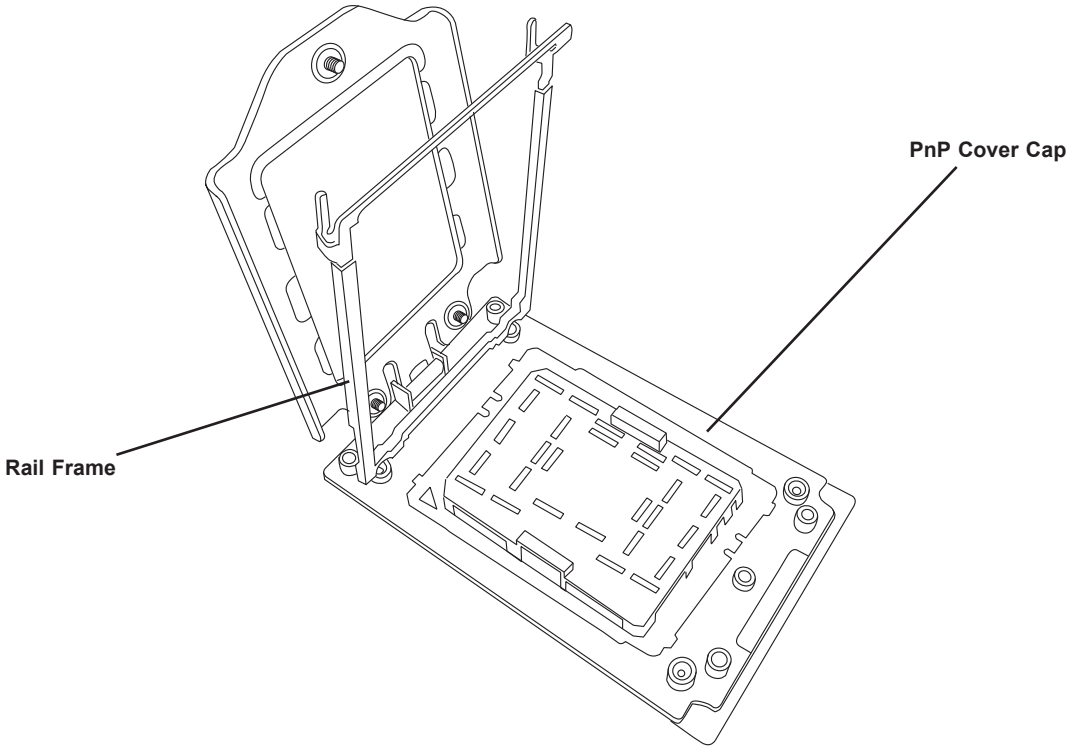


2. The spring-loaded Force Frame will raise up after the last screw securing it (#1) is removed. Gently allow it to lift up to its stopping position.

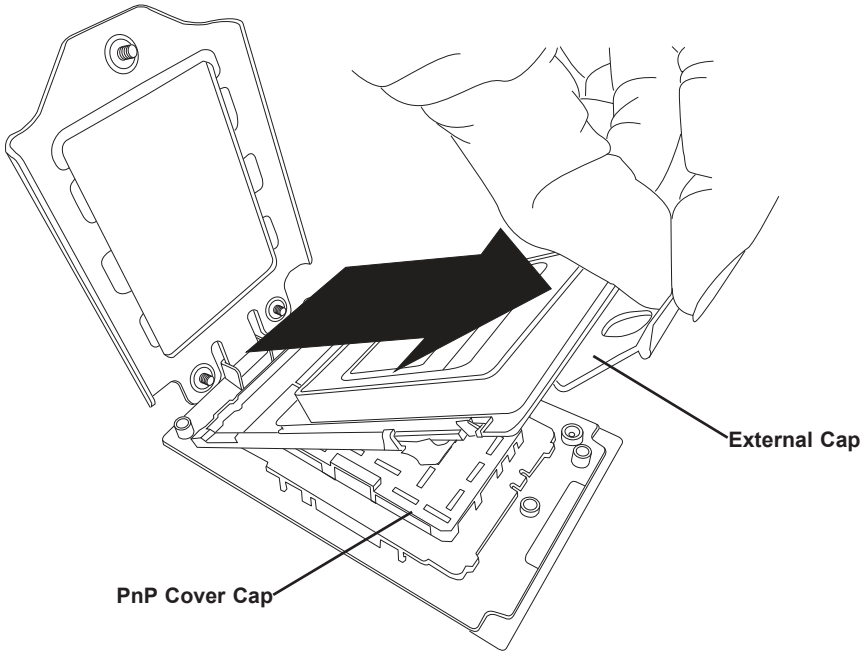


3. Lift the Rail Frame up by gripping the lift tabs near the front end of the rail frame. While keeping a secure grip of the Rail Frame, lift it to a position so you can do the next step of removing the External Cap.

4. **Note:** The Rail Frame is spring loaded, so keep a secure grip on it as you lift it so it does not snap up.

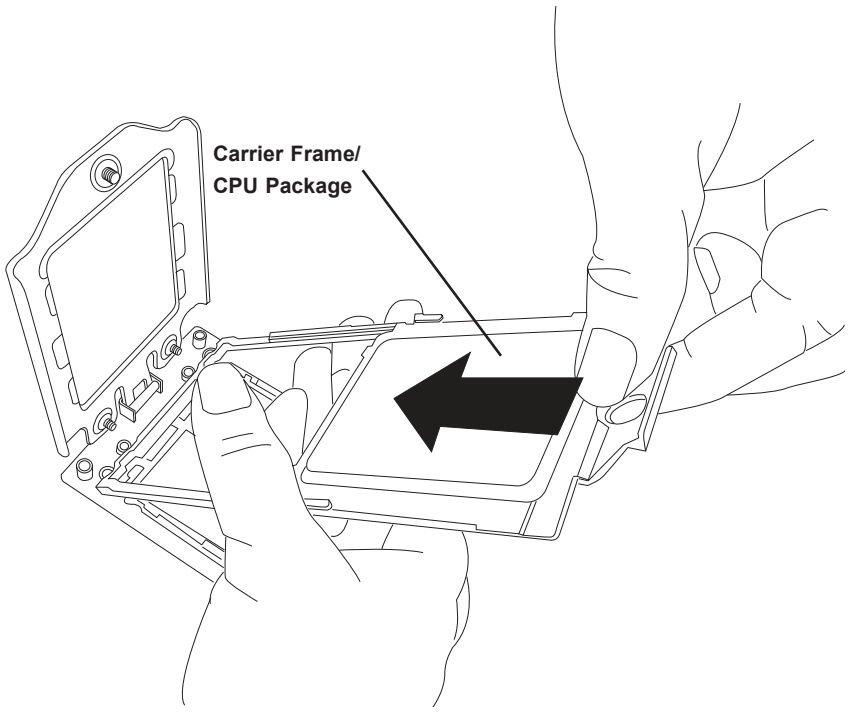


5. Remove the External Cap from the Rail Frame by pulling it upwards through the rail guides on the Rail Frame.

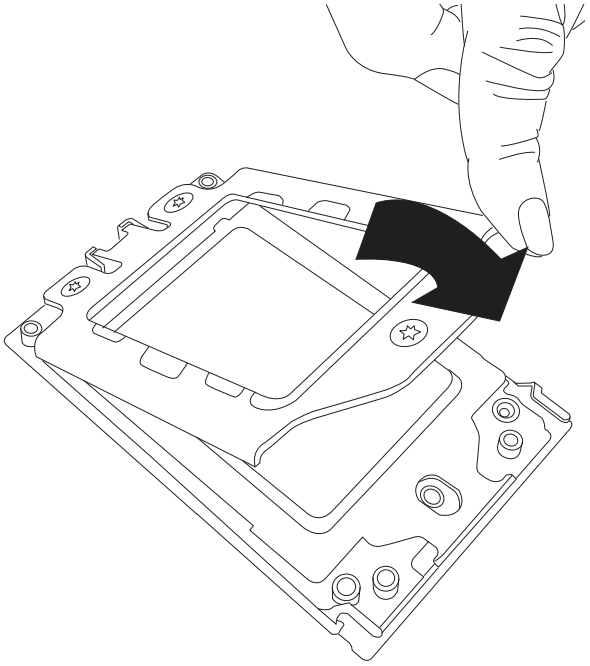


6. The CPU Package is shipped from the factory with the Carrier Frame pre-assembled. Grip the handle of the Carrier Frame/CPU Package assembly from its shipping tray, and while gripping the handle, align the flanges of the Carrier Frame onto the rails of the Rail Frame so its pins will be at the bottom when the Rail Frame is lowered later.

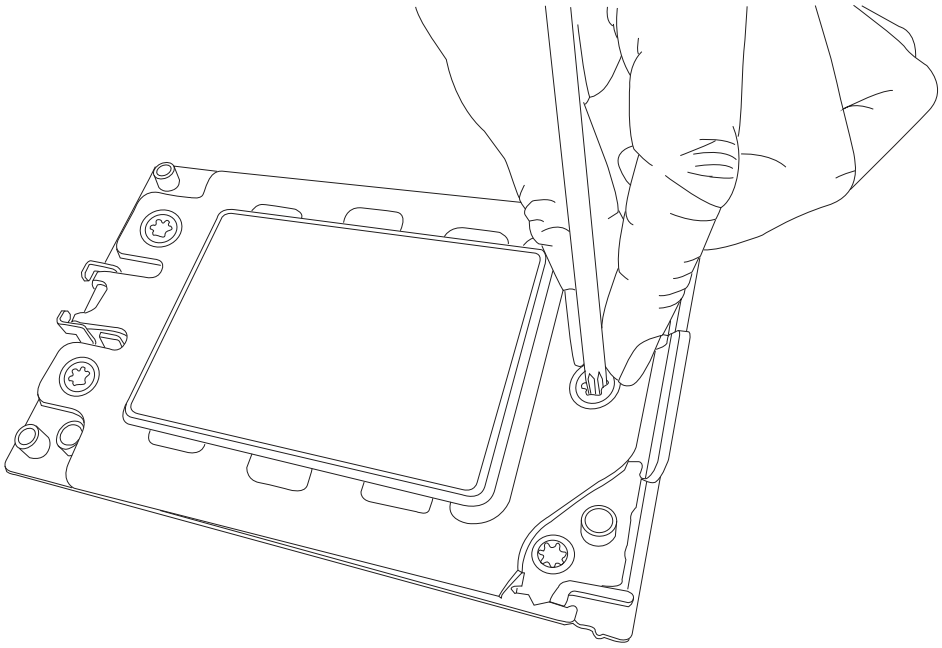
7. Slide the Carrier Frame/CPU Package downwards to the bottom of the Rail Frame. Ensure the flanges are secure on the rails as you lower it downwards.



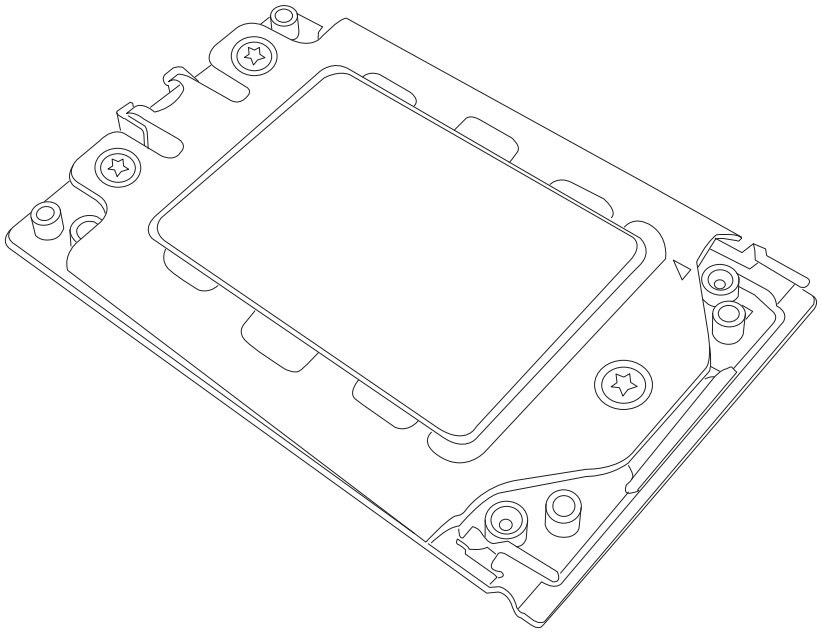
8. Gently lower the Rail Frame down onto the socket until the latches on the Rail Frame engage with the Socket housing. and it rests in place. DO NOT force it into place!



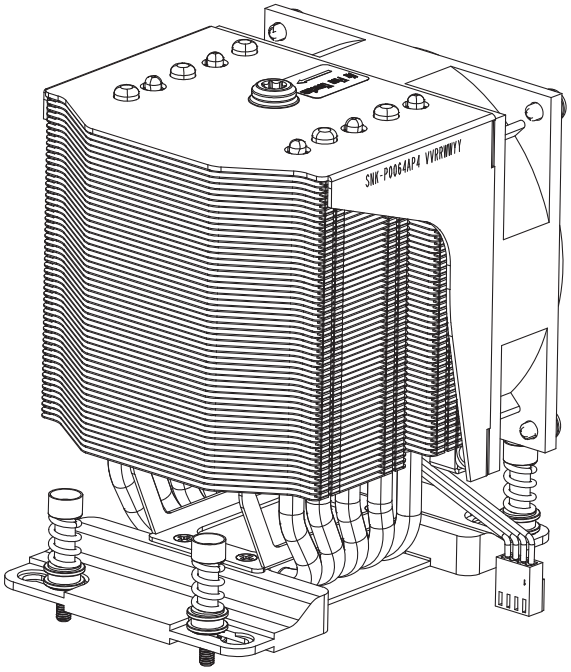
9. Gently lower the Force Frame down onto the Rail Frame and hold it in place until it is seated in the Socket housing. Note that the Force Frame is spring loaded and has to be held in place before it is secured. **Important: Use a torque screwdriver, set it at 16.1 kgf-cm (14.0 lbf-in) with a Torx T20 screw head bit, to prevent damage to the CPU.**



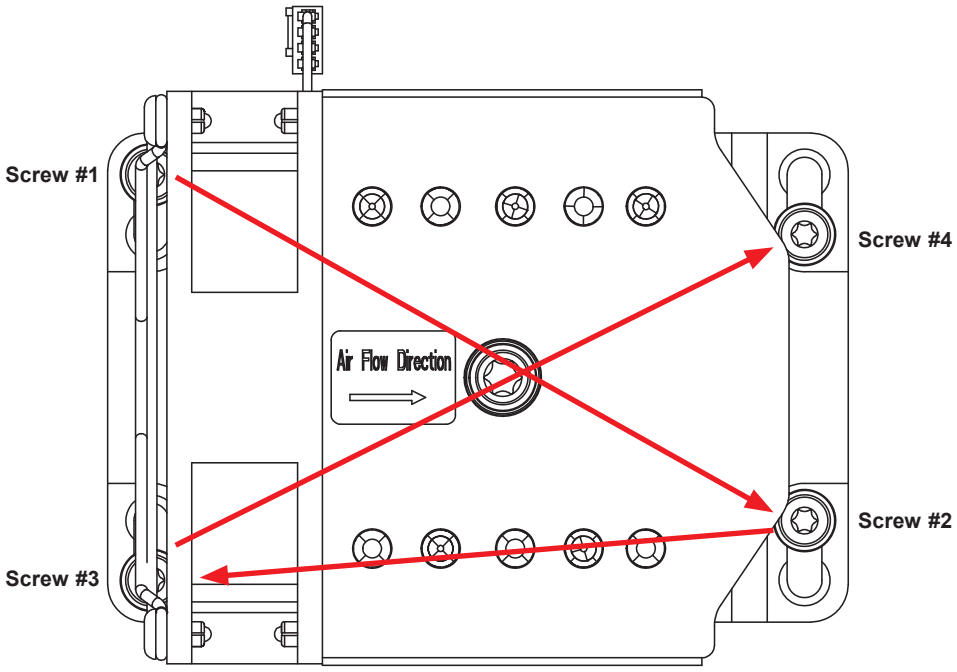
10. Place and re-screw the screws in the reverse order to the way you removed them (holes 1-2-3 in order). When finished, the Force Frame will be secure over both the Rail Frame and CPU Package.



11. 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 CPU Package on the socket frame.



12. 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. Repeat this procedure for any remaining CPU sockets on the Motherboard.



Un-installing the Processor and Heatsink

1. Remove the heatsink attached to the top of the CPU Package by reversing the installation procedure.
2. Clean the thermal grease left by the heatsink on the CPU package lid to limit the risk of it contaminating the CPU package land pads or contacts in the socket housing.
3. Reverse the procedure for installing the Force Frame onto the socket, unscrewing the plate in the 3-2-1 screw order and lift the Force Frame to the vertical position.
4. Lift the Rail Frame using the lift tabs near the front end of the Rail Frame. Note that the Rail Frame is spring loaded, so be careful lifting it up into a vertical position.
5. Grip the handle of the Carrier Frame and pull upwards to extract it from the Rail Frame. Return the Carrier Frame/CPU Package to its original shipping container.
6. Grip the handle on the External Cap and return it to the Rail Frame sliding it downwards till it rests in the frame.
7. Gripping the Rail Frame, rotate it downwards till it rests above and locks over the socket housing in its horizontal position.
8. Push and rotate down the Force Frame till it is over the External Cap and Rail Frame into a horizontal position.
9. While holding down the Force Frame, secure it back to the socket frame by securing screw 1 in place. Note that without a CPU Package in place, it is not necessary to tighten down screws 2 and 3 at this time.

Memory 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

There are eight DIMM slots on the AS -5014A-TT. Maximum capacity is up to

- 2TB of ECC RDIMM with speeds of up to 3200 MHz (1DPC)
- 256GB of ECC/non-ECC UDIMM.

When installing memory modules, the DIMM slots should be populated in the following order: DIMMC1, DIMMD1, DIMMG1, DIMMH1, DIMMA1, DIMME1, DIMMB1, DIMMF1.

- The slots closest to the CPU must be populated first.
- It is recommended that DDR4 DIMM modules of the same size, type, and speed should be installed.
- The motherboard will support odd-numbered modules (1 or 3 modules installed). However, to achieve the best memory performance, fully populate the motherboard with validated memory modules.
- Configurations with fewer than eight channels are supported, but not recommended.

Memory Module Configurations									
Number of DIMMs	D1	C1	B1	A1	CPU Socket	E1	F1	G1	H1
1		V							
2	V	V							
4	V	V						V	V
6	V	V		V		V		V	V
8	V	V	V	V		V	V	V	V

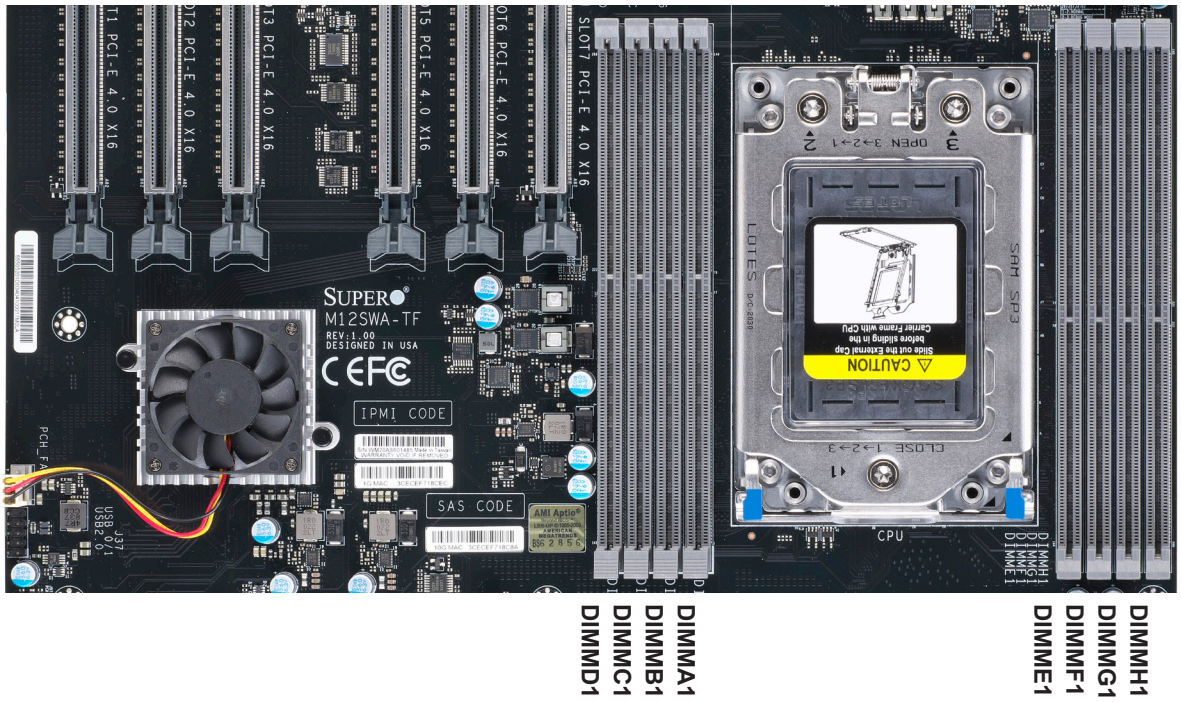
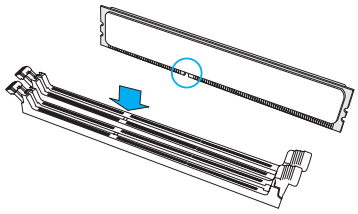
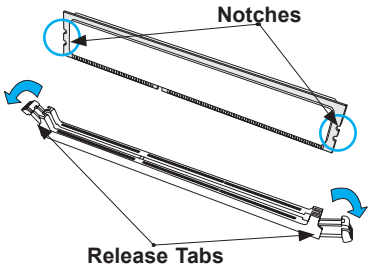


Figure 3-3. DIMM Numbering

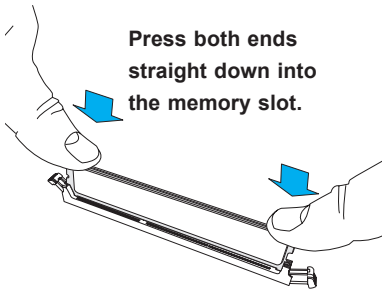
DIMM Installation



1. Insert the desired number of DIMMs into the memory slots, starting with DIMMC1, DIMMD1, DIMMG1, DIMMH1, DIMMA1, DIMME1, DIMMB1, DIMMF1. For best performance, please use the memory modules of the same type and speed.
2. Push the release tabs outwards on both ends of the DIMM slot to unlock it.
3. Align the key of the DIMM module with the receptive point on the memory slot.



4. Align the notches on both ends of the module against the receptive points on the ends of the slot.
5. Press both ends of the module straight down into the slot until the module snaps into place.



6. Press the release tabs to the lock positions to secure the DIMM module into the slot.

DIMM Removal

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

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 as described in section 3.1.

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.

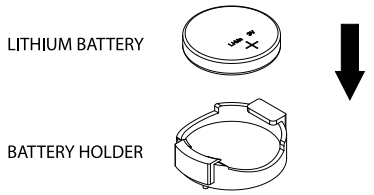


Figure 3-4. Installing the Onboard Battery

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

3.4 Chassis Components

Drive Cage

The removable drive cage is accessed by removing the left chassis cover. These drives are not hot-swappable. Power must be removed from the system before removing or installing drives. The cage can house up to four drives of either 3.5" or 2.5" (2.5" drives require an optional bracket: MCP-220-73102-0N).

Removing the Drive Cage

Begin by powering down the system and removing the left cover as previously described.

1. Use a Phillips-head screwdriver to remove the two screws at the top of the cage that secure it to the side of the chassis.
2. The drive cage is hooked onto the chassis floor. Slide the drive cage forward so that the holding studs move into the large release holes.
3. Lift the cage up and out of the chassis.
4. Install or remove drives as described on the next page.

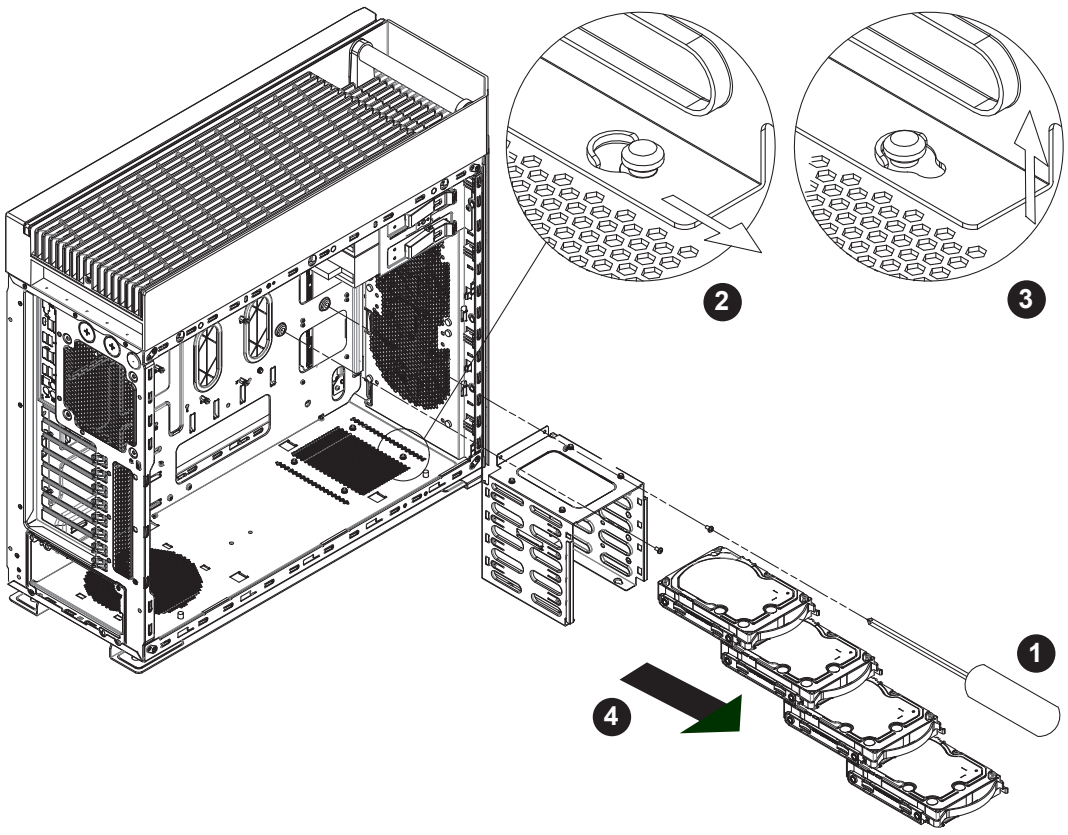


Figure 3-5. Removing the Drive Cage

Installing or Removing Drives

Installing Drive and Drive Tray

1. Using a tray that is compatible with the cage, install the drive onto the tray.
2. Install the drive and drive tray into the cage.

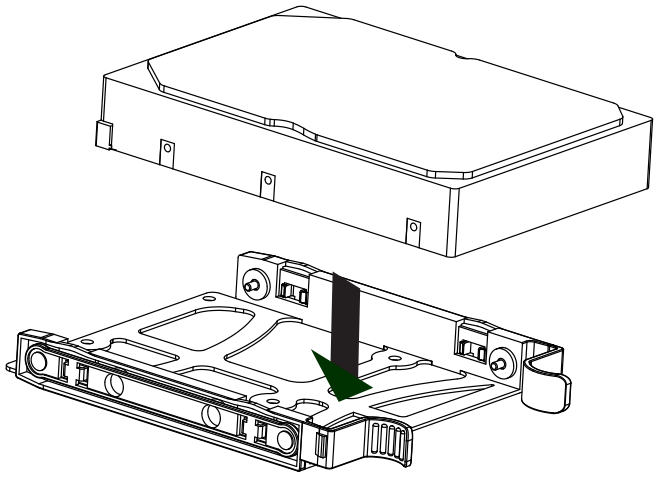


Figure 3-6. Installing Drive onto Tray

Removing Drive and Drive Tray

1. Using the handles, remove the drive tray from the cage.
2. Remove the drive from the drive tray.

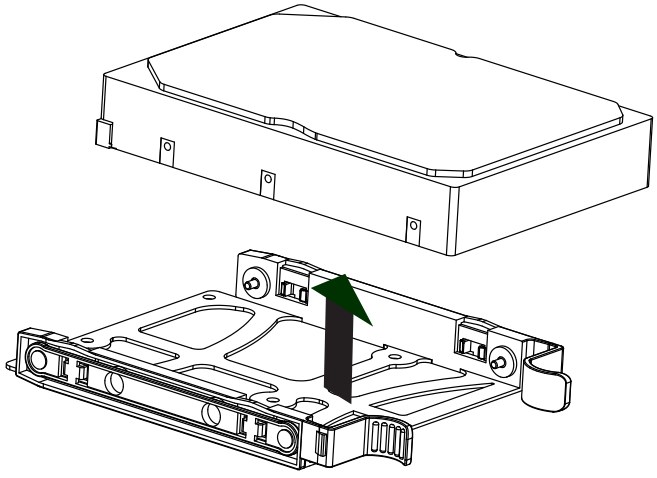


Figure 3-7. Removing Drive from Tray

Top Front Peripheral Drive Bays

Two 5.25" peripheral tool-less drive bays are located at the top front of the chassis. It can support the mobile rack for more storage drives requirement.

Installing/Removing the Top Front Drive Bays

Begin by powering down the system and removing the left chassis cover as previously described.

1. Open the front bezel, then use a flat-head screwdriver to bend and remove the 5.25" drive bay plate as shown below.
2. Install drives as needed into one or both bays and attach the wiring. Do not reattach the cover plate.
3. To remove drives from these bays, disconnect their wiring then depress the two release latches to unlock the drives and slide them out of the chassis.

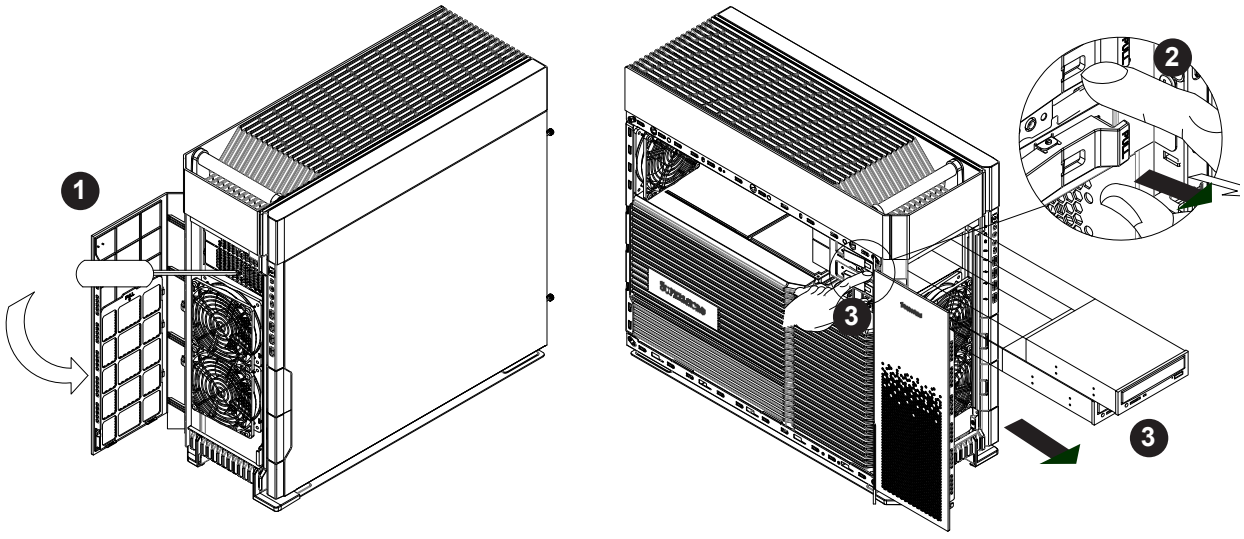


Figure 3-8. Installing Top Peripheral Drives

Front Side Drive Bays

Two 2.5" drive bays are included along the front right side of the chassis. These drives are not hot-swap, power must be removed from the system before removing or installing drives.

Installing/Removing the Front Side Drive Bays

Begin by powering down the system.

1. Push the release tab on either of the two drive bays so that the drive tray pops out from the chassis.
2. Pull the drive tray out and install drives as needed. See the next section.
3. Push the drive tray and drive back into the bay and attach the wiring.
4. To remove drives from these bays, disconnect their wiring before pulling the tray from the chassis.

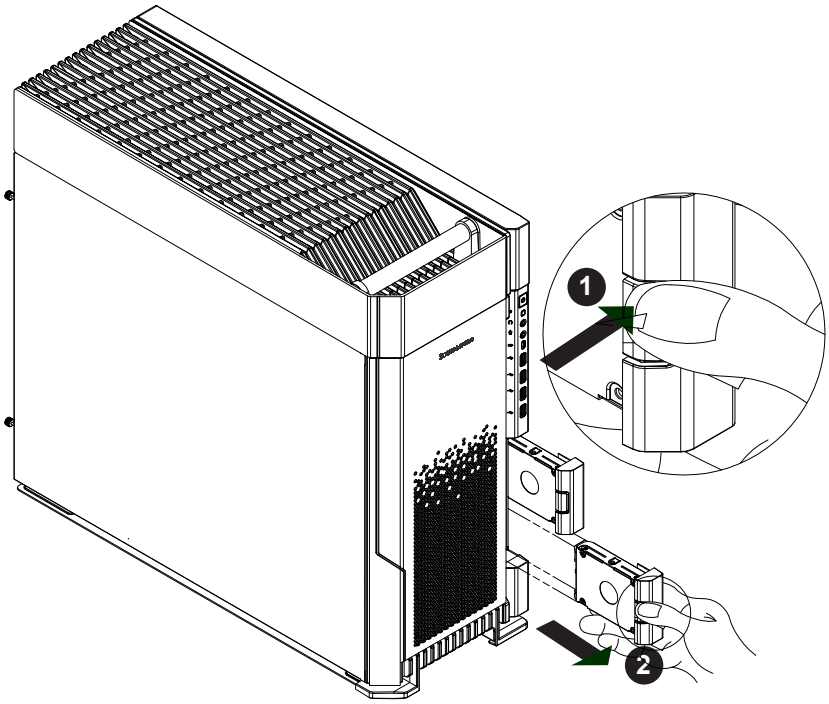


Figure 3-9. Installing Front Side Drives

Installing and Removing Drives from Trays

The drives must be inserted into tool-less drive trays before being installed in the system.

Installing a Drive into a Drive Tray

1. Pull out the two securing tabs on the tray as illustrated below.
2. With the tabs retracted, insert the drive sideways and at an angle. Make sure the tabs are in the drive screw holes or the tray will not insert correctly into the chassis. Then push it into the tray until it locks into place.

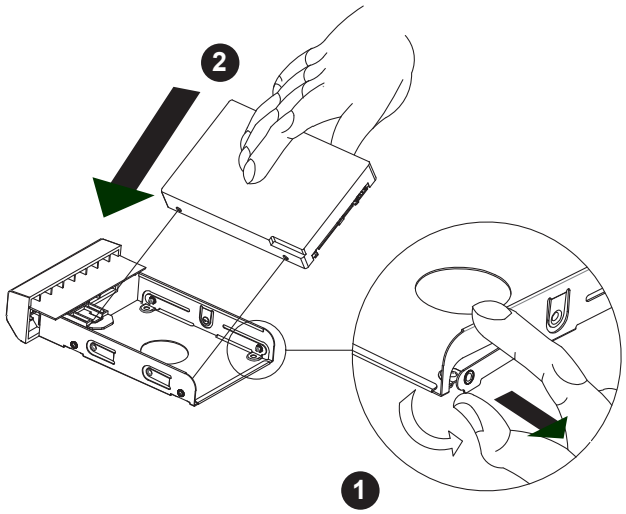


Figure 3-10. Installing a Drive into a Tray

Removing a Drive from a Drive Tray

1. Pull out the two securing tabs on the tray as illustrated below.
2. With the tabs retracted, use your finger to push the drive up and out of the tray through the hole in the tray bottom.
3. Remove the drive.

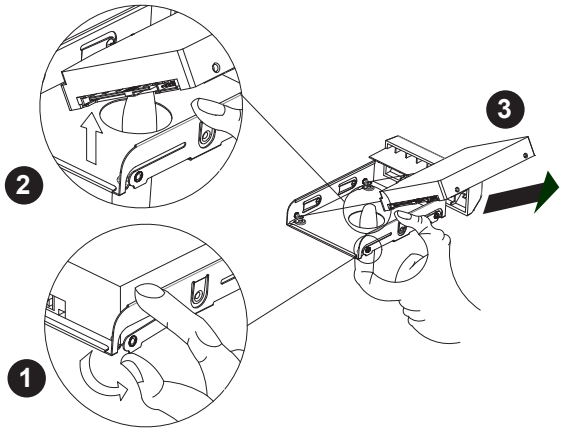


Figure 3-11. Removing a Drive from a Tray

Installing an M.2 Solid State Drive

The AS -5014A-TT can accommodate four M.2 solid state drives (SSDs). Each M.2 socket supports NVMe PCIe 4.0 x4 in the 2280, 22110, and 2260 form factors. Please use the appropriate standoffs and screws included in the accessory box.

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

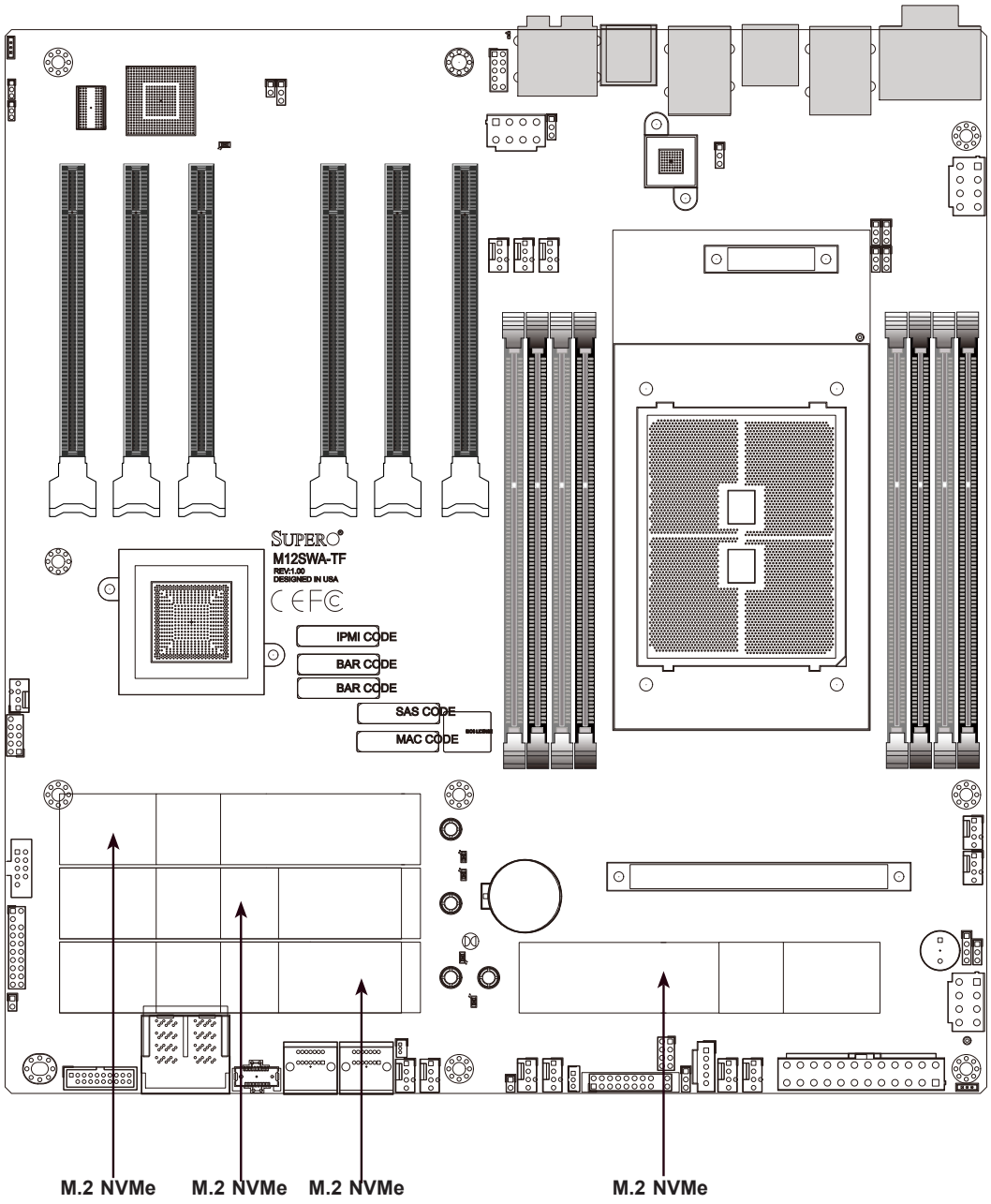


Figure 3-12. M.2 Slot Locations

Installing an M.2 Device

1. Power down the system and remove the motherboard from the chassis.
2. Remove any component blocking the M.2 sockets.
3. Place the standoff in the mounting hole that matches to your M.2 device. Then to install the module, insert it into the slot at a 30 degree angle and press down.
4. With the cutoff circle at the end of the module aligned with the standoff, tighten the screw to secure the module.

GPUs

Installing a GPU with Bracket and Holder

1. Align the screw holes of the GPU with the bracket by standing the gold finger on the surface.
2. Tighten two screws to secure the GPU to the bracket.

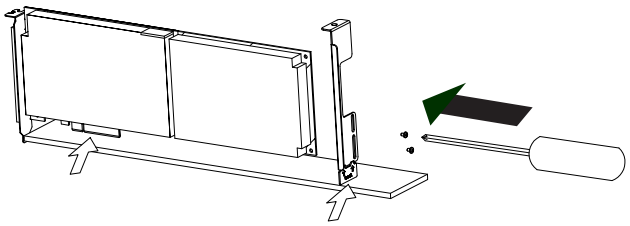


Figure 3-13. Securing the GPU to the Bracket

3. Bend and break the end of the bracket before plugging the GPU into the system, as shown below.

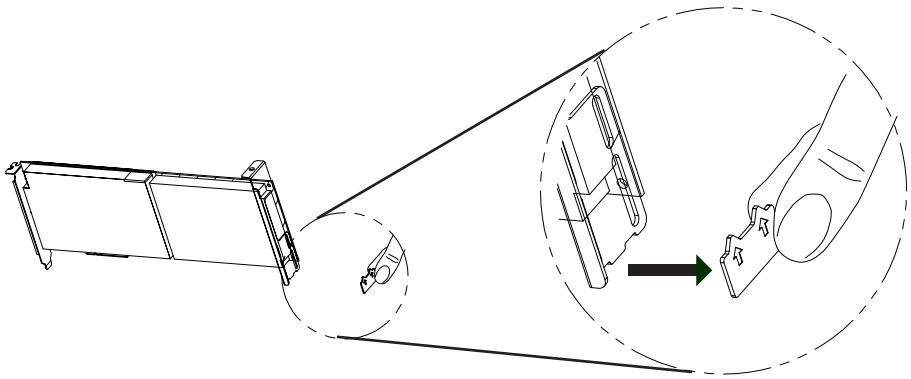


Figure 3-14. Breaking Off the End of the Bracket

4. Remove the PCIe bracket on the chassis.
5. Install the GPU to the motherboard.
6. Align the bracket to the GPU holder and secure it with a screw.

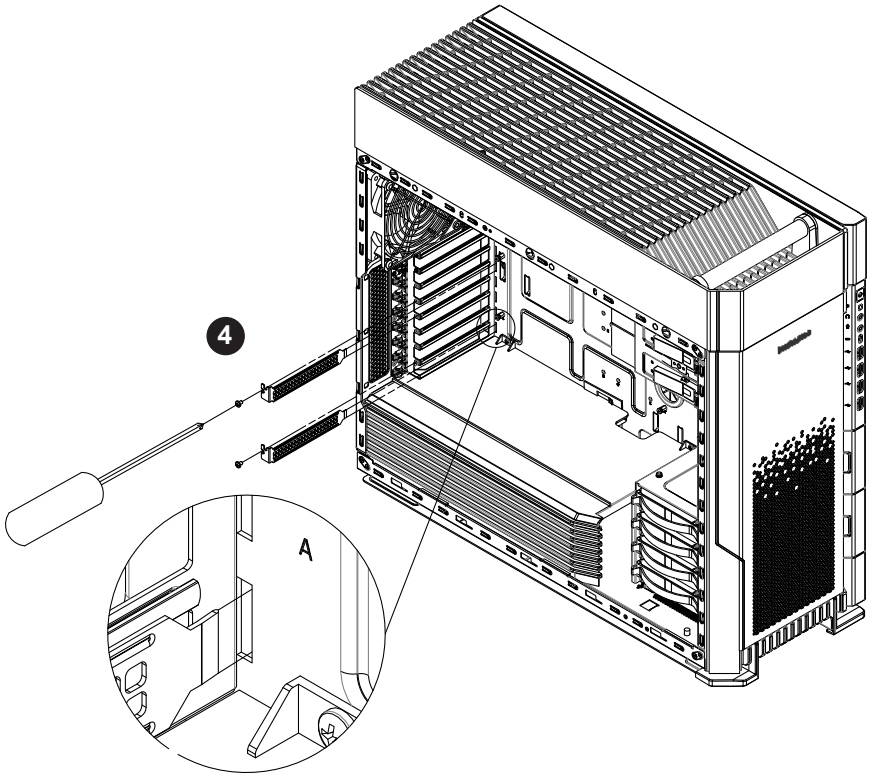


Figure 3-15. Remove the PCIe Bracket

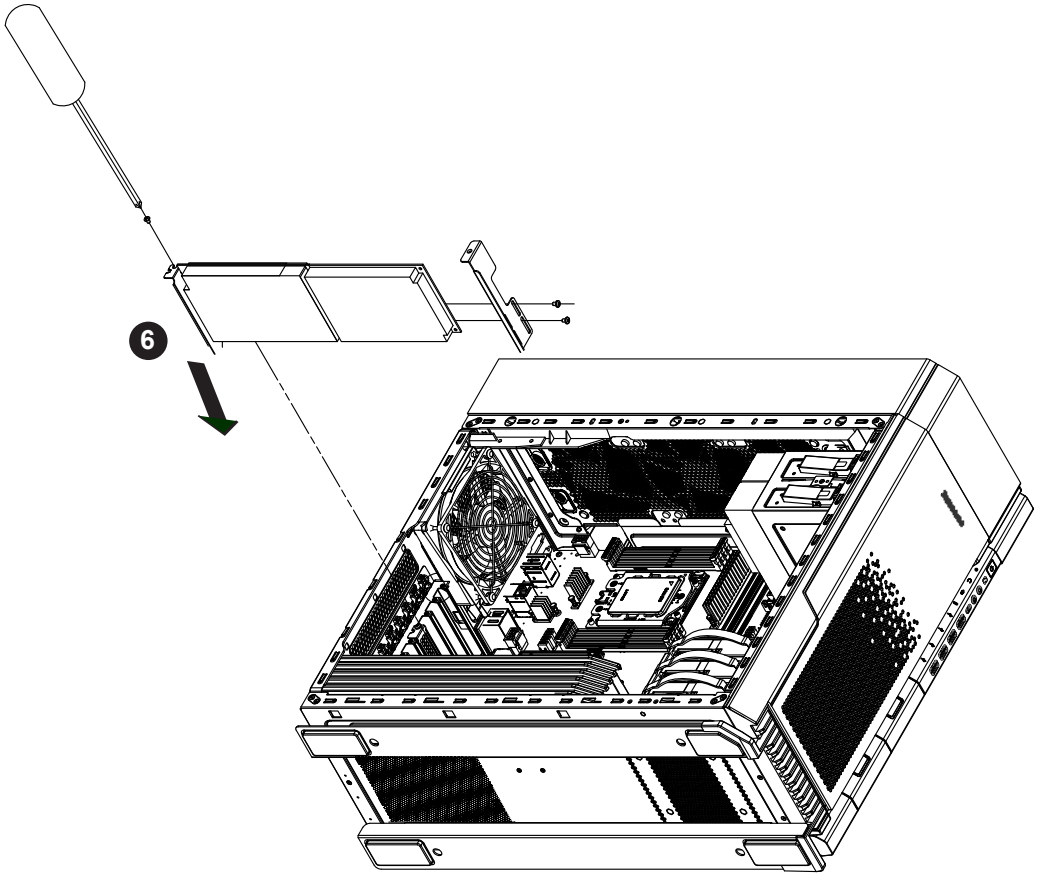


Figure 3-16. Installing the GPU to the Motherboard

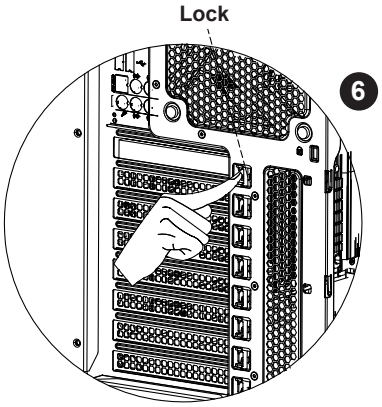


Figure 3-17. Locking the GPU

7. Lock the GPU in place at the chassis rear.

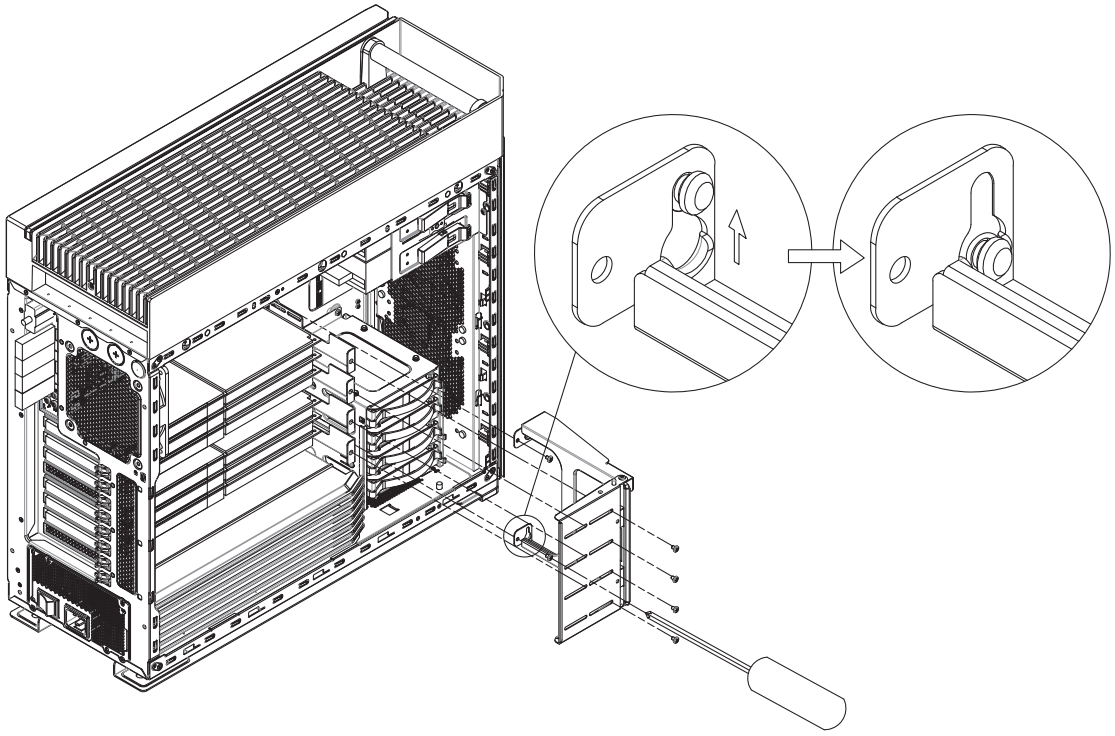


Figure 3-18. Installing the GPU Holder

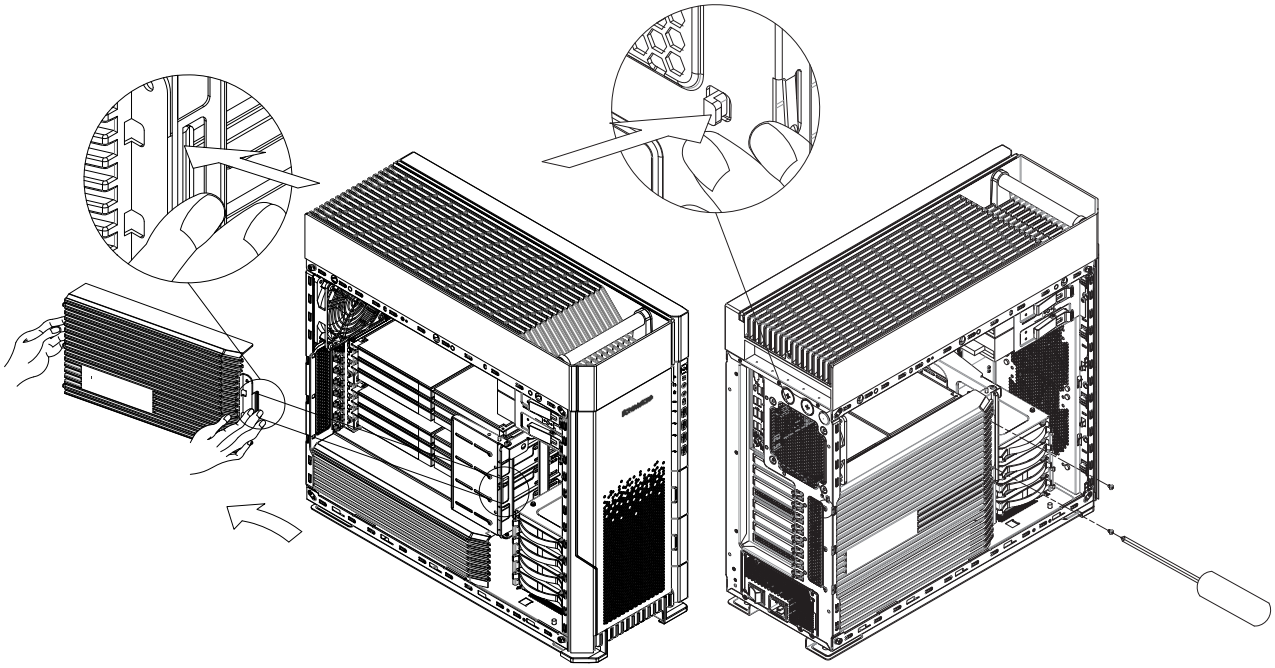


Figure 3-19. Installing the GPU Plastic Cover

8. Install the GPU plastic cover and the left side cover.

Fans and Cooling

The chassis includes two front intake fans and one rear exhaust fan. The top of the chassis can accommodate up to three optional 12-cm fans for three more GPU cards installation or an optional liquid cooling unit.

Air Flow

Make sure cables do not obstruct the cooling airflow.

Dust Filters

The chassis features a dust filter in the front of the front fans and the another on the bottom of the chassis. They can be removed and washed to improve system air flow circulation.

Installing Top Fans

A total of three fans (all optional parts) may be added to the top chassis section.

1. Begin by removing the screw from the top chassis cover.
2. Once the screw has been removed, slide the cover toward the back of the chassis.
3. Lift the cover up and away from the chassis for full top access.

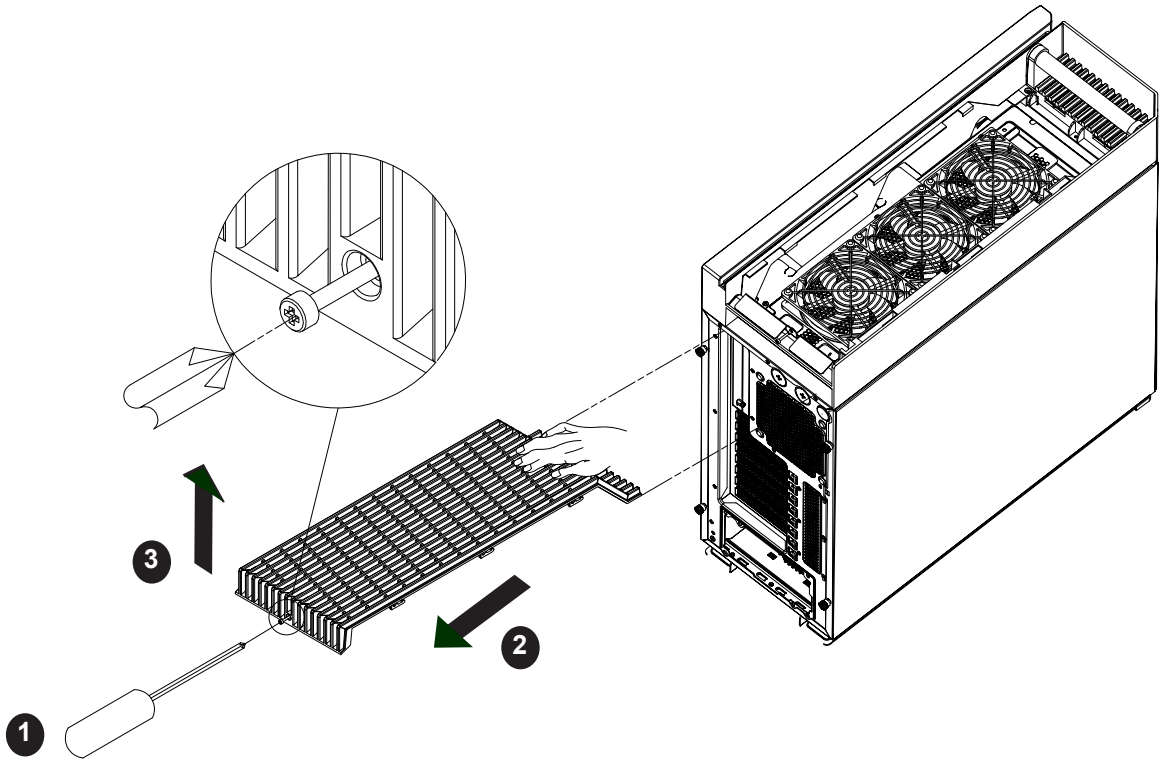


Figure 3-20. Removing the Top Cover

4. With the cover removed, remove all screws that secure the top panel to the chassis. Lift the top panel up and out of the chassis.
5. If necessary, disconnect the wiring of the failed fan, then replace it with a new fan and reconnect the wiring.
6. Proceed with the above steps in reverse order to re-install the top panel back onto the chassis.

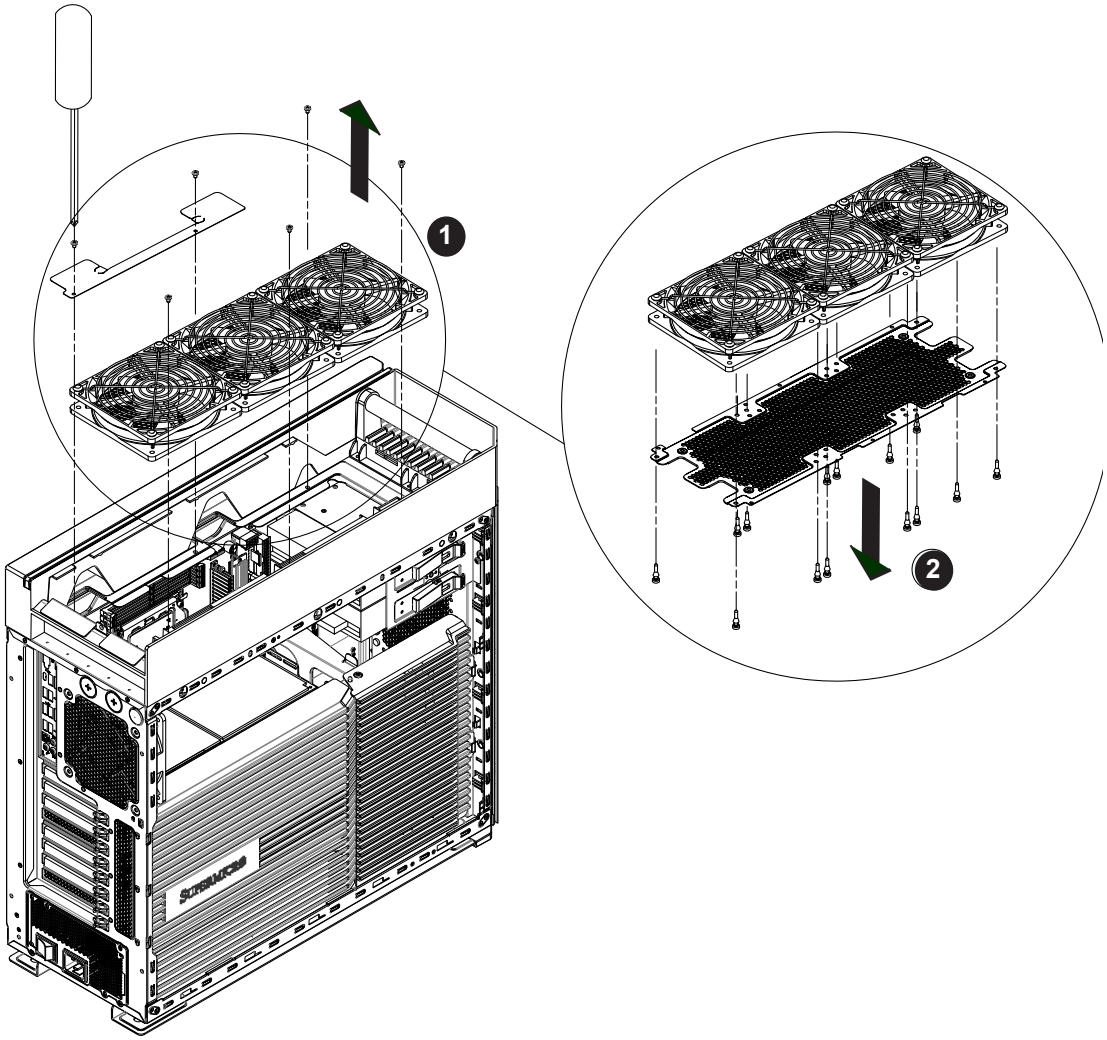


Figure 3-21. Installing the Top Fans

Replacing Front Fans

1. Open the front bezel to access the front fan area.
2. Disconnect the fan wiring.
3. If existing fans are mounted with rubber pins, pull the fans toward you. If the fans are mounted by screws, unscrew the fans.
4. Install new fans with rubber pins or screws.

Note: The chassis includes rubber mounting stands for these fans. Place the rubber mount in the fan mounting holes, and then align it to the proper holes in the front panel. Once aligned, pull the rubber mount to secure it in place.

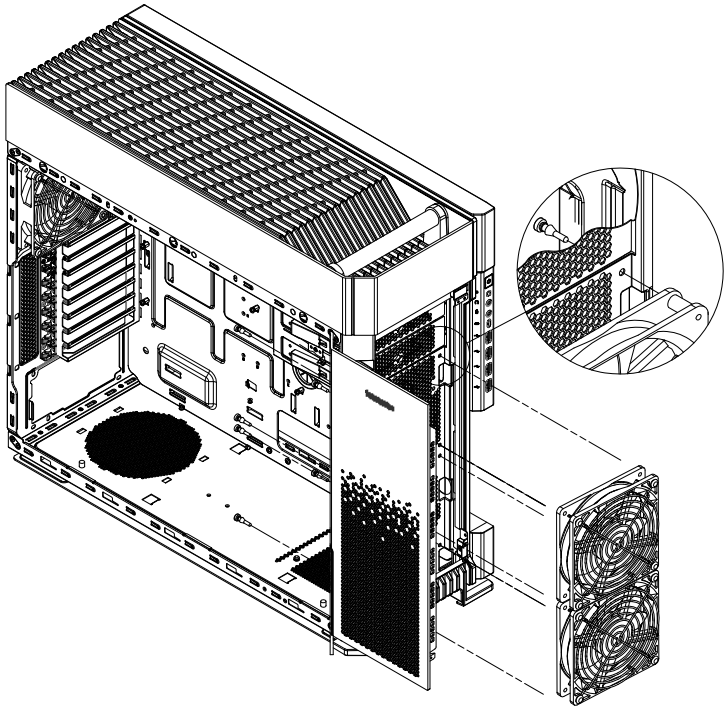


Figure 3-22. Installing the Front Fans

Replacing the Rear Fan

1. Open the left side cover for access to the rear fan.
2. Remove the screws at the top back of the chassis that secure the fan to the chassis.
3. Pull the fan out through the open space inside the chassis.
4. Replace the failed fan, then proceed with the above steps in reverse order to install the fan back into the chassis.

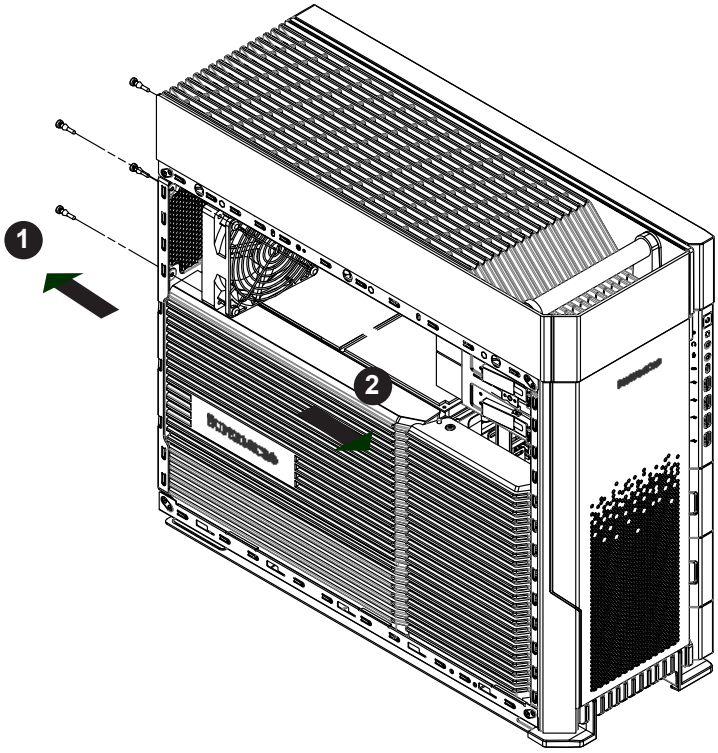


Figure 3-23. Installing the Rear Fan

Power Supply

The AS -5014A-TT chassis supports a power supply on the rear floor of the chassis. It is recommended that the power requirements of installed components in the system total no more than 80% of the power supply rating.

The 2000W power supply that comes standard with the AS -5014A-TT is a modular type power supply that allows you to connect only the wiring you need for your system's configuration. Attach all required wiring to the power supply then to your system as needed.

Installing Power Supply Cables

1. Power down the system as described in Section 3.1 and open the left side chassis cover.
2. The power supply is isolated from the rest of the system with a cover. Remove the two screws at the top of this cover as shown below.
3. Push in the release tabs along the bottom of the power supply cover to detach it.
4. Lift the cover up and out of the chassis.

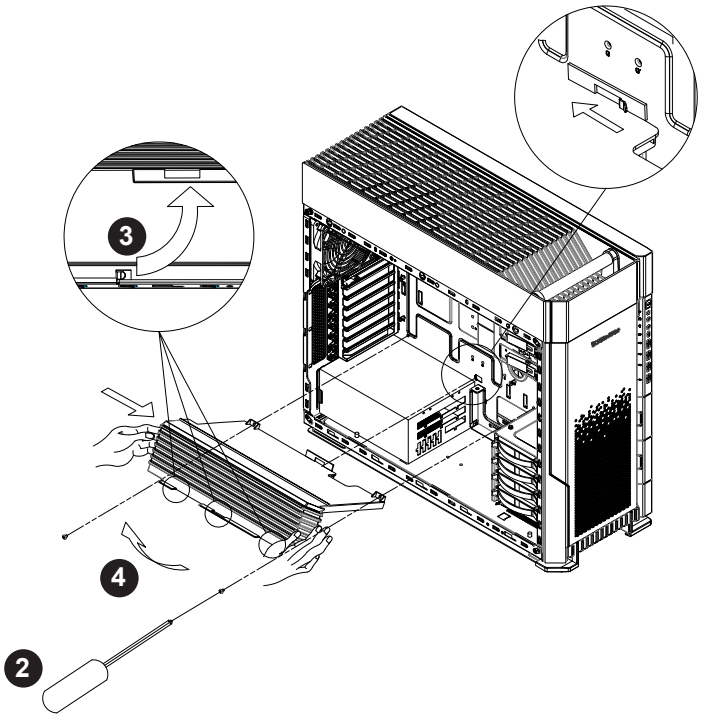


Figure 3-24. Removing the Power Supply Cover

5. With access to the power supply, install the power supply cables.
6. Replace the power supply cover then the left chassis cover before restoring power to the system.

Warning: Each power cord shall be connected to a socket outlet with earthing connection.

Chapter 4

Motherboard Connections

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

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

4.1 Power Connections

ATX Power Supply Connector

The 24-pin power supply connector (JPW1) meets the ATX SSI EPS 12V specification. You must also connect the 8-pin (JPW2~JPW4) CPU power connectors to the power supply.

ATX Power 24-pin Connector Pin Definitions

Pin#	Definition	Pin#	Definition
13	+3.3V	1	+3.3V
14	-12V	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

Required Connection

8-Pin Power Connectors

JPW2~JPW4 are 8-pin 12V DC power input for the CPU that must be connected to the power supply. Refer to the table below for pin definitions.

8-pin Power Connectors Pin Definitions	
Pin#	**Definition**
1 - 4	Ground
5 - 8	+12V

Required Connection

Important:

- To provide adequate power supply to the motherboard, be sure to connect the 24-pin ATX PWR and the 8-pin PWR connectors (JPW2, JPW3 and JPW4) to the power supply. Failure to do so may void the manufacturer warranty on your power supply and motherboard.
- For installing multiple GPU cards, it is required to connect the 8-pin connectors (JPW2, JPW3 and JPW4) to the power supply. Please refer to the tables below.

GPU Cards and the Required Connectors					
Type of GPU	**Number of GPU Cards**	**JPW1**	**JPW2**	**JPW3**	**JPW4**
Single-Width	**GPU X 1**	V		V	V
	GPU X 2	V		V	V
	GPU X 3	V		V	V
	GPU X 4 or more	V	V	V	V

Type of GPU	**Number of GPU Cards**	**JPW1**	**JPW2**	**JPW3**	**JPW4**
Double-Width	**GPU X 1**	V		V	V
	GPU X 2	V		V	V
	GPU X 3	V	V	V	V
	GPU X 4 or more	V	V	V	V

Type of GPU	**Number of GPU Cards**	**JPW1**	**JPW2**	**JPW3**	**JPW4**
Triple-Width	**GPU X 1**	V		V	V
	GPU X 2	V	V	V	V

4.2 Headers and Connectors

Front Panel External Speaker (JD1)

If you wish to use an external speaker, attach an external speaker to pins 6~7. See the table below for pin definitions.

Speaker Connector Pin Definitions	
Pins#	**Definition**
1~2	Power LED
6~7	External Speaker

Front Panel Audio FP Speaker (J31)

A 10-pin front panel audio header (J31) located on the motherboard allows you to use the onboard sound for audio playback. Connect an audio cable to the header to use this feature. Refer to the table below for pin definitions.

Front Panel Audio FP Speaker Pin Definitions			
Pin#	**Definition**	**Pin#**	**Definition**
1	LCLK	2	GND
3	3.3V_STBY	16	SERIRQ
17	GND	18	NC
19	NC	20	NC

COM Port

One COM connection (COM1) is located on the motherboard. COM1 is located on the I/O back panel.

COM Port Pin Definitions			
Pin#	**Definition**	**Pin#**	**Definition**
1	LCLK	2	GND
15	3.3V_STBY	16	SERIRQ
17	GND	18	NC
19	NC	20	NC

SATA (SATA0~SATA3)

The M12SWA-TF has four available SATA 3.0 ports (SATA0~SATA3). These are standard SATA 3.0 ports.

SATA Connctors Pin Definitions	
Pin#	**Definition**
1	Ground
2	SATA_TXP
3	SATA_TXP
4	Ground
5	SATA_RXN
6	SATA_RXP
7	Ground

Standby Power Header

The Standby Power header is located at JSTBY1 on the motherboard.

Standby Power Pin Definitions	
Pin#	**Definition**
1	+5V Standby
2	Ground
3	Wake-up

FAN Headers

There are four system fan headers (FANA~FAND) and six CPU fan headers (FAN1~FAN6) on this motherboard. These are 4-pin fan headers; pins 1-3 are backward compatible with traditional 3-pin fans. The onboard fan speeds are controlled by Thermal Management (via Hardware Monitoring) in the BMC. When using Thermal Management setting, please use all 4-pin fans.

Sysem Fan Headers Pin Definitions	
Pin#	**Definition**
1	Ground
2	+12V (Red)
3	Tachometer
4	PWM Control

SPDIF (Sony/Philips Digital Interface) Out Header

The SPDIF Out (JSPDIF_OUT) is used for digital audio output. Please choose the appropriate cable to use these features.

SPDIF_OUT Pin Definitions

Pin#	Definitions
1	S/PDIF_Out
2	Ground

Universal Serial Bus (USB)

Two Universal Serial Bus 2.0 ports (USB0/1) are located on the front panel of the M12SWA-TF. In addition, two Type A USB 3.2 headers (USB10/11) and one Type C USB 3.2 header (USB9) are located on on the front panel of the M12SWA-TF. See the tables below for pin definitions.

Front Panel USB 3.0 Pin Definitions

Pin#	Definition	Pin#	Definition
1	VBUS	11	USB_P
2	Stda_SSRX-	12	USB_N
3	Stda_SSRX+	13	GND
4	GND	14	USB3_TP
5	Stda_SSTX-	15	USB3_TN
6	Stda_SSTX+	16	GND
7	GND	17	USB3_RP
8	D-	18	USB3_RN
9	D+	19	Power
10		x	

Front Panel USB 3.2 Pin Definitions

Pin#	Definition	Pin#	Definition
1	VBUS	11	USB_P
2	Stda_SSRX-	12	USB_N
3	Stda_SSRX+	13	GND
4	GND	14	USB3_TP
5	Stda_SSTX-	15	USB3_TN
6	Stda_SSTX+	16	GND
7	GND	17	USB3_RP
8	D-	18	USB3_RN
9	D+	19	Power
10		x	

Overheat LED Header

The JOH1 header is used to connect an LED to provide warnings of chassis overheat. This LED will also blink to indicate a fan failure. Refer to the table below for pin definitions.

Overheat LED Header Pin Definitions

Pin#	Definitions
1	Intrusion Input+
2	Intrusion Input-

Power Supply SMBus I²C Header

The Power System Management Bus (I²C) header at JPI2C monitors the power supply input/ output voltages, fans, temperatures, and status. Refer to the table below for pin definitions.

Power SMBus Header Pin Definitions

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

SATA DOM Power Connector (JSD1)

One power connecctor for SATA DOM (Disk On Module) device is located at JSD1. Connect an appropriate cable here to provide power support for your DOM device.

SATA DOM PWR Pin Definitions

Pin#	Definition
1	+5V
2	Ground
3	Ground
19	NC

TPM Header/Port 80 Connector

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

Please go to the following link for more information on TPM: http://www.supermicro.com/manuals/other/TPM.pdf.

Trusted Platform Module Header Pin Definitions

Pin#	Definition	Pin#	Definition
1	LCLK	2	GND
3	LFRAME#	4	
5	LRESET#	6	NC
7	LAD3	8	LAD2
9	3.3V	10	LAD1
11	LAD0	12	GND
13	NC	14	NC
15	3.3V_STBY	16	SERIRQ
17	GND	18	NC
19	NC	20	NC

4.3 Rear I/O Ports

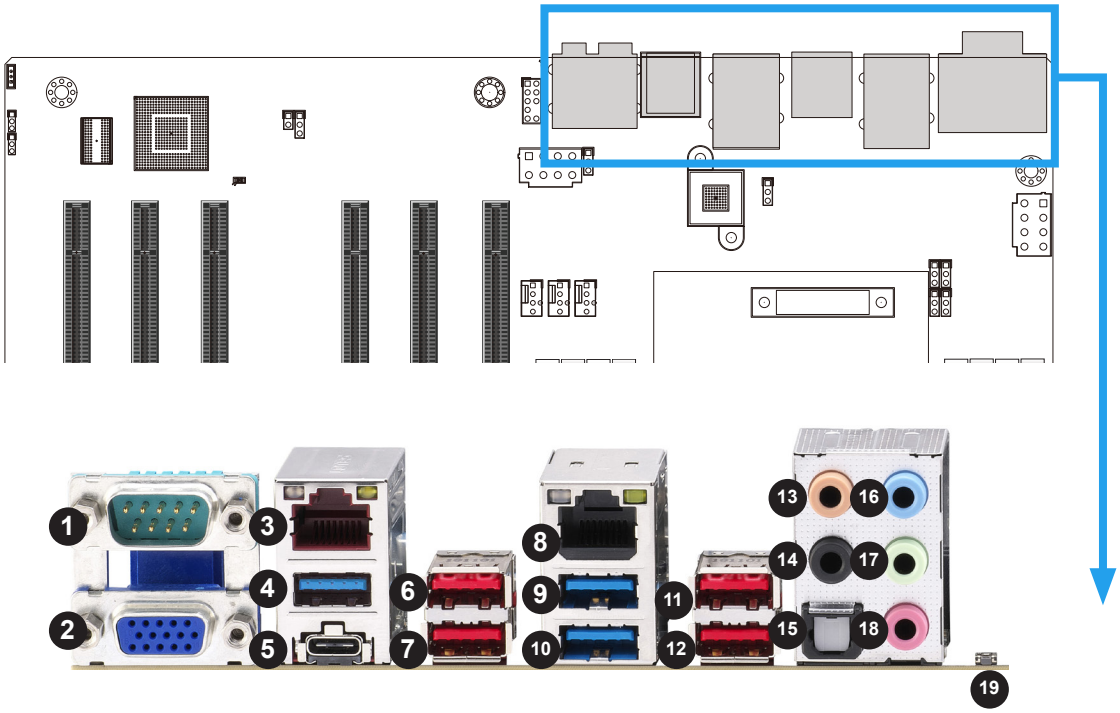


Figure 4-1. I/O Port Locations and Definitions

Rear I/O Ports							
#	Description	#	Description	#	Description	#	Description
1.	COM1	6.	USB6: USB 3.2 Gen 2 (Type A, 10Gb/s)	11.	USB2: USB 3.2 Gen 2 (Type A, 10Gb/s)	16.	Line In
2.	VGA Port	7.	USB7: USB 3.2 Gen 2 (Type A, 10Gb/s)	12.	USB3: USB 3.2 Gen 2 (Type A, 10Gb/s)	17.	Line Out
3.	1Gb LAN Port (i210)	8.	10Gb LAN Port (AQC113C)	13.	Center/LFE Out	18.	Mic In
4.	USB12: USB 3.2 Gen 1 (Type A, 5Gb/s)	9.	USB4: USB 3.2 Gen 1 (Type A, 5Gb/s)	14.	Surround Out	19.	UID Switch
5.	USB8: USB 3.2 Gen 2x2 (Type C, 20Gb/s) (supports power usage at a maximum current of 3A)	10.	USB5: USB 3.2 Gen 1 (Type A, 5Gb/s)	15.	S/PDIF Out		

1. COM Port

There is one serial communications port (COM1) on the rear I/O panel.

2. VGA Port

There is one VGA port on the rear I/O panel

3. 1Gb LAN Port (i210)

There is one 1Gb LAN port located on the I/O back panel.

4. USB 12: USB 3.2 Gen 1 (Type A, 5Gb)

There is one USB 3.2 port on the I/O back panel. It supports the type A connector.

5. USB 8: USB 3.2 Gen 2x2 (Type C, 20Gb)

There is one USB 3.2 port on the I/O back panel. It supports the type C connector.

6~7. USB 6 and USB 7: USB 3.2 Gen 2 (Type A, 10Gb)

These two USB 3.2 ports on the I/O back panel support the type A connector.

8. 10Gb LAN Port (AQC113C)

There is one 10Gb LAN port located on the I/O back panel.

9~10. USB 4 and USB 5: USB 3.2 Gen 1 (Type A, 5Gb)

These two USB 3.2 ports on the I/O back panel support the type A connector.

11~12. USB 2 and USB 3: USB 3.2 Gen 2 (Type A, 10Gb)

These two USB 3.2 ports on the I/O back panel support the type A connector.

13~14. Center/LFE Out and Surround Out

This motherboard features a 7.1+2 Channel High Definition Audio (HDA) codec that provides 10 DAC channels. The HD Audio connections simultaneously supports multiple-streaming 7.1 sound playback with two 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.

CEN/LFE is the audio output for the center channel and low frequency channel.

15. S/PDIF Out

This is a fibre optic audio output for a TOSLINK connector and cable.

16. Line In

This type of connector attaches audio devices.

17. Line Out

This is a headphone jack.

18. Mic In

This is a microphone jack.

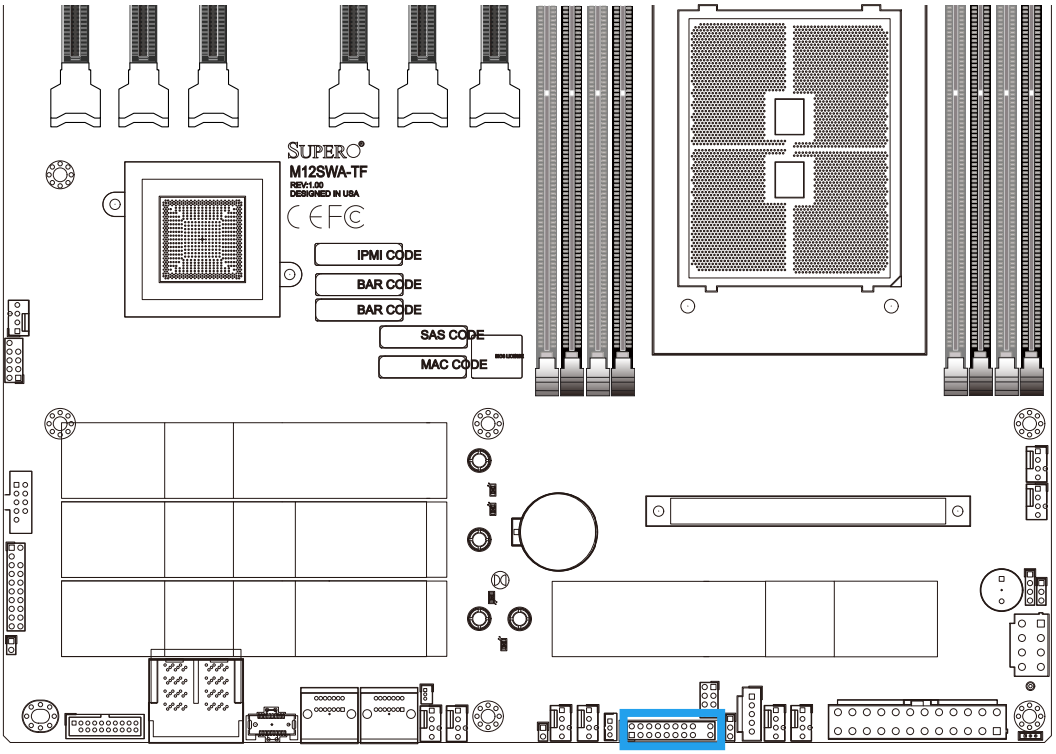
19. UID Switch

A Unit Identifier (UID) switch is located on the I/O backpanel. The rear UID LED is located next to the UID switch. When you press the UID switch, both rear and front UID LED indicators will turn on. Press the UID switch again to turn off the LED indicators. The UID Indicator provides easy identification of a system that may be in need of service.

Note: UID can also be triggered via IPMI on the serverboard. For more information on IPMI, please refer to the IPMI User's Guide posted on our website at http://www.supermicro.com

4.4 Front Control Panel

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



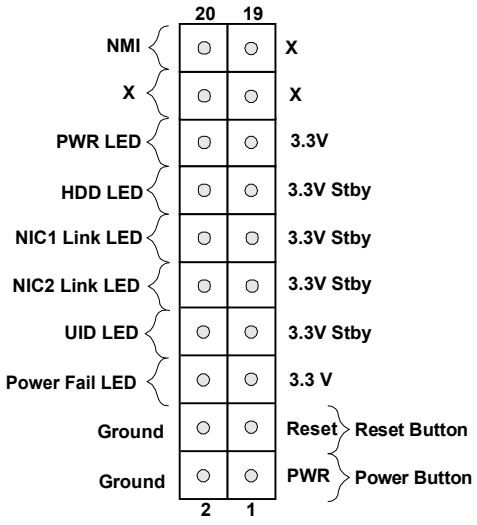


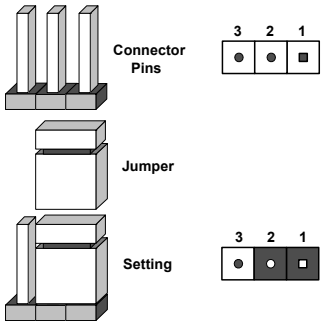
Figure 4-2. JF1 Pin Definitions

4.5 Jumpers

How Jumpers Work

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

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



CMOS Clear

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

To Clear CMOS

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

Note: Clearing CMOS will also clear all passwords.


JBT1 contact pads

HD Audio Enable/Disable

JPAC1 enables or disables Audio Controlleron the motherboard. See the table below for jumper settings. The default setting is Enabled

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

LAN1/LAN2 Enable/Disable

Use JPL1 and JPL2 to enable or disable LAN ports 1 and 2 respectively on the motherboard. Refer to the table below for jumper settings. The default setting is Enabled.

LAN1/LAN2 Enable/Disable Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Reset (Default)
Pins 2-3	Disabled

USB6/7 Wake Up

Use the jumper JPUSB1 to "wake-up"your system by pressing a key on a USB keyboard or clicking the USB mouse connected to the backpanel USB ports 6/7. JPUSB1 is used together with a USB Wake-Up feature in the BIOS. Enable this jumper and the USB support in the BIOS to wake upyour system via USB devices.

JPUSB1 Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Enabled (Default)
Pins 2-3	Disabled

Watch Dog

JWD1 controls the Watch Dog function. Watch Dog is a monitor that can reboot the system when a software application hangs. Jumping pins 1-2 will cause Watch Dog to reset the system if an application hangs. Jumping pins 2-3 will generate a non-maskable interrupt (NMI) signal for the application that hangs. Watch Dog must also be enabled in BIOS. The default setting is Reset.

Note: When Watch Dog is enabled, the user needs to write their own application software to disable it.

Watch Dog Jumper Settings

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

USB12 Enable/Disable

JP5 jumper enables or disables USB12.

USB12 Jumper Settings

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

4.6 LED Indicators

M.2-0LED, M.2-1LED, M.2-2LED, M.2-3LED

Three M.2 indicators blinks green when they are functioning normally.

Onboard Power LED Indicator	
LED Color	**Definition**
Blinking Green	Device working

BMC Heartbeat LED

A BMC Heartbeat LED is located at LEDM1 on the serverboard. When LEDM1 is blinking, BMC functions normally. See the table below for more information.

BMC Heartbeat LED States		
Color	**State**	**Definition**
Green	Solid On	BMC is not ready.
Green	Blinking	BMC Normal
Green	Fast Blinking	BMC: Initializing

Onboard Power LED

When this LED is lit, it means system is in power-on state, and the onboard power status is ok. Turn off the system and unplug the power cord before removing or installing components.

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

UID LED

The UID LED (LE) is located next to the UID switch. When you press the UID switch, the UID LED will be turned on. Press the UID switch again to turn off the LED indicator. The UID Indicator provides easy identification of a system unit that may be in need of service.

UID LED	
LED Color	**Definition**
Blue On	Unit Identified

Chapter 5

Software

After the hardware has been installed, you can install the Operating System (OS), configure RAID settings and install the drivers. Note that RAID settings are only available on these operating systems: Microsoft Windows 10 and Red Hat Linux.

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 AMD-RAID Drivers during a Windows OS Installation

1. Create a method to access the MS Windows installation ISO file. That might be a DVD, perhaps using an external USB/SATA DVD drive, or a USB flash drive, or the IPMI KVM console.
2. Boot the system and allow it to access the Microsoft Windows operating system CD-ROM or DVD.
3. In the Windows setup window, select the language, time and keyboard options.
4. Select **Next**, and select **Install Now**.
5. If prompted, select the desired operating system, and then select **Next**.
6. Insert the device with the AMD-RAID drivers, select **Browse**, navigate to the directory containing the saved AMD-RAID drivers and select **OK**.

   Note: If the installation has multiple controllers, there will be two or more rcbottom.inf's listed.

7. Select the first **AMD-RAID Bottom Device (rcbottom.inf) driver** in the list and select **Next**.
8. Select **OK** in the Load Driver Warning message:
9. At the Select the Driver window, select **Browse** to navigate to the directory containing the saved AMD-RAID drivers, and select **OK**.
10. Select the **AMD-RAID Controller (rcraid.inf) driver** in the list, and select **Next**.

11. Select **(Check Mark) I Accept the License Terms**, and select **Next**.
12. Select **Custom: Install Windows Only (advanced).** Once both drivers have been loaded, a valid Virtual Disk appears. Select Load Drivers.
13. Select **Browse** to navigate to the directory containing the saved AMD-RAID drivers, and select **OK**.
14. Select the **AMD-RAID Config Device (rccfg.inf) driver** from the list and select **Next**.
15. In the Where do you want to install Windows window, select **Next**.
16. Follow the on-screen instructions to complete the installation of the Windows operating system.
17. After the OS is installed, open Device Manager and verify the following:
    - Expand Storage Controllers: there is an entry listed as **AMD-RAID Bottom Device**.
    - Expand Storage Controllers: there is an entry listed as **AMD-RAID Controller**.
    - Expand System Devices: there is an entry listed as **AMD-RAID Config Device**.
18. Remove the storage medium and Microsoft Windows OS CD-ROM or DVD from the applicable drive(s) or port.

5.2 Red Hat Linux OS Installation

Installing the AMD-RAID Drivers during a Red Hat Linux Installation

Note: When installing Red Hat Linux, use the Linux dd installation mode instead of the Linux expert mode.

1. Create a method to access the Red Hat Linux installation ISO file. That might be a DVD, perhaps using an external USB/SATA DVD drive, or a USB flash drive, or the IPMI KVM console.
2. Boot the system and allow it to access the Red Hat Linux operating system CD-ROM or DVD.
3. At the Red Hat Enterprise Linux Welcome window, press the **<Up>** arrow key, select Install Red Hat Enterprise Linux 8.x, and press the **<E>** key.
4. Press the **<Down>** arrow key twice, select the **linuxefi /images** string, and press the **<END>** key.
5. Add **"inst.dd modprobe.blacklist=ahci modprobe.blacklist=nvme"** to the end of the string, and press **<Ctrl> <X>**.

- (Example) linuxefi /images……..quiet inst.dd modprobe.blacklist=ahci modprobe.blacklist=nvme

Note: If the shell does not appear (the screen is black), reset and try with the settings below.

6. Add **"inst.dd modprobe.blacklist=ahci modprobe.blacklist=nvme nomodeset"** to the end of the string, and press **<Ctrl> <X>**.

   - (Example) linuxefi /images……..quiet inst.dd modprobe.blacklist=ahci modprobe.blacklist=nvme nomodeset

7. In the Driver Disk Device Selection, insert the USB drive (which contains the AMD-RAID dd-rcraid….x86_64.iso) into the USB port.

- Press the **<r>** key, and press **<Enter>** to refresh.
- Press the number key **<2>**, the number of the USB flash drive inserted above, and press **<Enter>**.

8. In the Choose Driver Disk ISO file, press the number key **<1>** (the number of the dd-rcraid-RHEL….el8.x86_64.iso entry), and press **<Enter>**.
9. In the Select Drivers to Install, press the number key **<1>** (the number of the /media/DD/…..x86_64.rpm entry), and press **<Enter>**.
10. The /media/DD/… is now selected and should look like [X] /media/DD/……x86_64.rpm. Press the **<C>** key and press **<Enter>**.
11. In the Driver Disk Device Selection, press the **<C>** key, press **<Enter>** key, and remove the USB flash drive.
12. In the Welcome to Red Hat Enterprise Linux Screen, select the desired Language, select the desired Country, and click **Continue** in the bottom right corner.
13. At the Installation Summary Screen, configure the following:

- Under Localization, select these items to review the settings and make any necessary changes:
  - **Keyboard**
  - **Language Support**
  - **Time and Date**
- Under Software, select **Software Selection**.
- Under Base Environments, select **Server with GUI**, and click **Done** in the upper left corner.

- Under System, select **Installation Destination**.
- Under Local Standard Disks, select **AMD-RAID Array 01**.
- Under Storage Configuration, select **Custom**, click **Done** in the upper left corner, and click the **Click here to create them automatically** link.
- Under Installation:
  - Select **DATA/home,** change File System from xfs to **ext4**, select **SYSTEM/rhel-root**, change File System from xfs to **ext4**, select **SYSTEM/boot**, change File System from xfs to **ext4**, and click **Done** in the upper left corner.
  - In the Summary of Changes window, click **Accept Changes**.
- Under Network and Hostname:
  - In the bottom left corner, enter a valid Hostname, and click the **Apply** button.
  - Select an Ethernet Port, and click **Configure** in the bottom right corner.
  - Enter valid entries, and click **Save**.
- Under Ethernet, click the **ON** button and click **Done** In the upper left corner.

14. Click **Beginning Installation** in the bottom right corner.
15. In the Configuration Window:

- Click **Root Password**, enter an applicable root password, re-enter the root password, and click **Done** in the upper left corner.
- Click **User Creation**, enter a Full Name, a Username, enter an applicable password, re-enter the user password, and click **Done** in the upper right corner.
- When the message “Red Hat Enterprise Linux is now successfully installed and ready for you to use! Go ahead and reboot to start using it!” appears, click **Reboot** in the bottom right corner, and remove the installation device.

16. In the Initial Setup Window, click **License Information** under Licensing, review the EULA, select **(Check Mark) I accept the License Agreement** and click **Done** in the upper left corner.

- Under System, configure Subscription Manager in the bottom right corner, and click **Finish Configuration**.

17. Login to the system, select a user, and enter a password.

18. In the Welcome window, select the desired Language, and click **Next**.
19. In Typing Window, select the desired Language, and click **Next**.
20. If desired, Configure Privacy, and click **Next**.
21. In the Connect your Online Accounts, you can configure or click **Skip**.
22. Click **Start using Red Hat Enterprise Linux Server**.

5.3 Driver Installation

The Supermicro website contains drivers and utilities for your system at https://www.supermicro.com/wdl/. 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 drive or a DVD. (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.

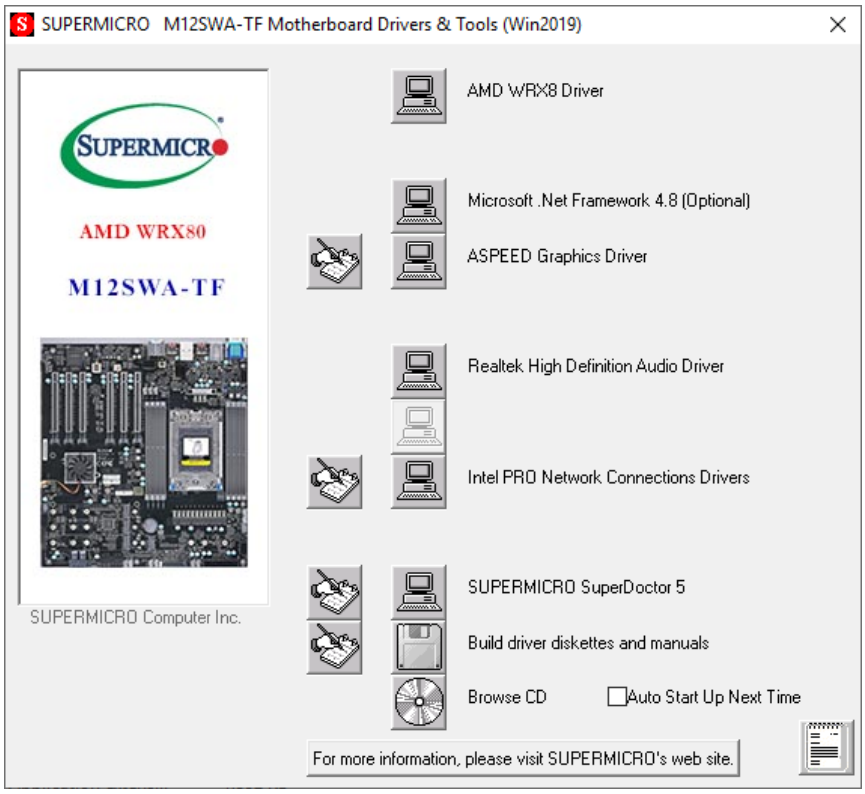


Figure 5-1. Driver & Tool Installation Screen

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.

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

Figure 5-2. SuperDoctor 5 Interface Display Screen (Health Information)

5.5 IPMI

The M12SWA-TF supports the Intelligent Platform Management Interface (IPMI). IPMI 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 IPMI. For general documentation and information on IPMI, visit our website at: http://www.supermicro.com/products/nfo/IPMI.cfm.

BMC ADMIN User Password

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

Figure 5-3. BMC Password Label

See the motherboard layout in Chapter 1 for the location of the label.

Chapter 6

UEFI BIOS

6.1 Introduction

This chapter describes the AMIBIOS™ setup utility for the M12SWA-TF motherboard. The BIOS is stored on a chip and can be easily upgraded using a flash program.

Note: Due to periodic changes to the BIOS, some settings may have been added or deleted and might not yet be recorded in this manual. Please refer to the Manual Download area of our website for any changes to the BIOS that may not be reflected in this manual.

Starting the Setup Utility

To enter the BIOS setup utility, press the <Delete> key while the system is booting-up. (In most cases, the <Delete> key is used to invoke the BIOS setup screen. There are a few cases when other keys are used, such as <F1>, <F2>, etc.) Each main BIOS menu option is described in this manual.

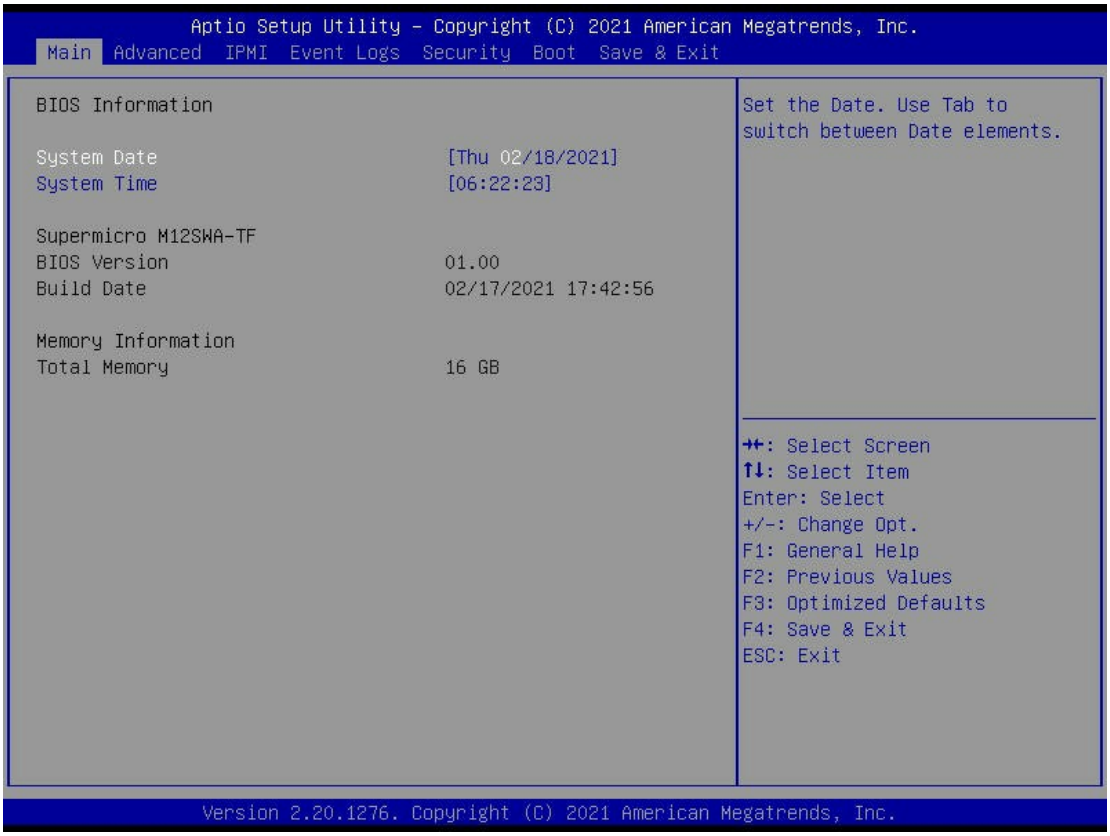
The Main BIOS screen has two main frames. The left frame displays all the options that can be configured. “Grayed-out” options cannot be configured. The right frame displays the key legend. Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white. Often a text message will accompany it. (Note that BIOS has default text messages built in. We retain the option to include, omit, or change any of these text messages.) Settings printed in **Bold** are the default values.

A "▶" indicates a submenu. Highlighting such an item and pressing the <Enter> key will open the list of settings within that submenu.

The BIOS setup utility uses a key-based navigation system called hot keys. Most of these hot keys (<F1>, <F2>, <F3>, <F4>, <Enter>, <ESC>, <Arrow> keys, etc.) can be used at any time during the setup navigation process.

6.2 Main Setup

When you first enter the AMI BIOS setup utility, you will see the Main setup screen. You can always return to the Main setup screen by selecting the Main tab on the top of the screen. The Main BIOS setup screen is shown below.



System Date/System Time

Use this item to change the system date and time. Highlight *System Date* or *System Time* using the arrow keys. Enter new values using the keyboard. Press the <Tab> key or the arrow keys to move between fields. The date must be entered in Day MM/DD/YYYY format. The time is entered in HH:MM:SS format.

Note: The time is in the 24-hour format. For example, 5:30 P.M. appears as 17:30:00. The date's default value is the BIOS build date after the RTC (Real Time Clock) reset.

Supermicro M12SWA-TF

BIOS Version

This feature displays the version of the BIOS ROM used in the system.

Build Date

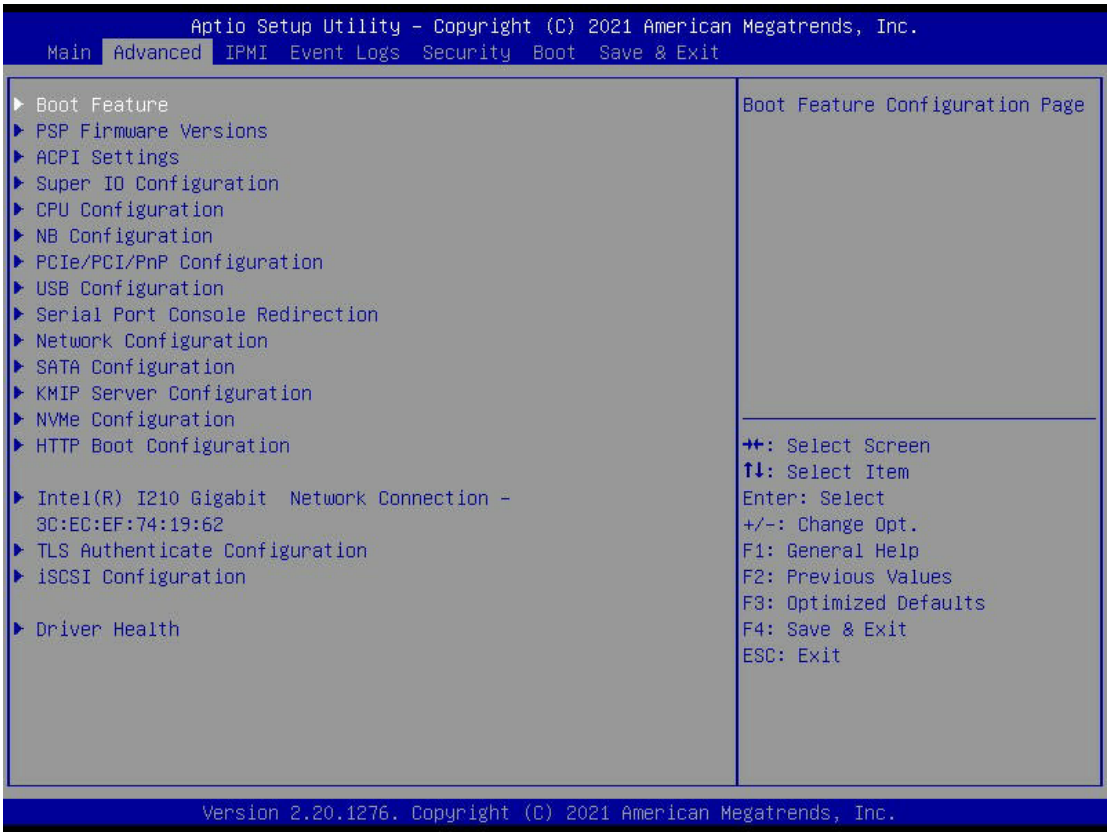
This feature displays the date when the version of the BIOS ROM used in the system was built.

Memory Information

Total Memory

This feature displays the total size of memory available in the system.

6.3 Advanced



Warning: Take caution when changing the Advanced settings. An incorrect value, a very high DRAM frequency, or an incorrect DRAM timing setting may make the system unstable. When this occurs, revert to the default to the manufacture default settings.

▶Boot Feature

Quiet Boot

Use this feature to select the screen display between the POST messages and the OEM logo upon bootup. Select Disabled to display the POST messages. Select Enabled to display the OEM logo instead of the normal POST messages. The options are Disabled and **Enabled**.

Option ROM Messages

Use this feature to set the display mode for the Option ROM. Select Keep Current to display the current AddOn ROM setting. Select Force BIOS to use the Option ROM display set by the system BIOS. The options are **Force BIOS** and Keep Current.

Bootup NumLock State

Use this feature to set the Power on state for the <Numlock> key. The options are **On** and Off.

Wait For "F1" If Error

Use this feature to force the system to wait until the 'F1' key is pressed if an error occurs. The options are Disabled and **Enabled**.

Re-try Boot

If this item is enabled, the BIOS will automatically reboot the system from a specified boot device after its initial boot failure. The options are **Disabled**, Legacy Boot, and EFI Boot.

Power Configuration

Watch Dog Function

If enabled, the Watch Dog Timer will allow the system to reset or generate NMI based on jumper settings when it is expired for more than 5 minutes. The options are **Disabled** and Enabled.

Restore on AC Power Loss

Use this feature to set the power state after a power outage. Select Stay-Off for the system power to remain off after a power loss. Select Power-On for the system power to be turned on after a power loss. Select Last State to allow the system to resume its last power state before a power loss. The options are Stay Off, Power On, and **Last State**.

Power Button Function

This feature controls how the system shuts down when the power button is pressed. Select 4 Seconds Override for the user to power off the system after pressing and holding the power button for 4 seconds or longer. Select Instant Off to instantly power off the system as soon as the user presses the power button. The options are **Instant Off** and 4 Seconds Override.

Wake On Lan Enable

This feature enables integrated LAN to wake the system. The options are Disabled and **Enabled**.

Deep S5 Power Policy

Use this feature to configure the Deep S5 Mode configurations. The options are Disabled and **Enabled**.

▶PSP Firmware Versions

This section displays the Platform Security Processor (PSP) firmware versions.

- PSP Bootloader Version

- SMU FW Version
- ABL Version
- X570/590 Chipset PSP Version
- X570/590 Chipset SMU Version

▶ACPI Settings

PCI AER Support

Use this feature to enable or disable ACPI OS to natively manage PCI Advanced Error Reporting. The options are **Disabled** and Enabled.

High Precision Event Timer

The High Precision Event Timer (HPET) can produce periodic interrupts and is used to synchronize multimedia streams, providing smooth playback and reducing the need to use other timestamp calculations. The options are Disabled and **Enabled**.

NUMA Node Per Socket

This feature specifies the number of desired Non-Uniform Memory Access (NUMA) nodes per socket. Setting this to zero will attempt to interleave the two sockets together. The options are NPS0, NPS1, NPS2, NPS4 and **Auto**.

ACPI SRAT L3 Cache As NUMA Domain

Use this setting to enabe/disable ACPI SRAT L3 Cache As NUMA Domain. The options are Disabled, Enabled and **Auto**.

▶Super IO Configuration

The following Super IO information will display:

Super IO Chip AST2600

▶Serial Port 1 Configuration

Serial Port

Select Enabled to enable the selected onboard serial port. The options are Disabled and **Enabled**.

Device Settings

This item displays the status of a serial part specified by the user.

Change Settings

This feature specifies the base I/O port address and the Interrupt Request address of a serial port specified by the user. Select Auto to allow the BIOS to automatically assign the base I/O and IRQ address. The options are **Auto**, IO=3F8h; IRQ=4, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12, IO=2F8h; IRQ=4, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12, IO=3E8h; IRQ=4, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12, and IO=2E8h; IRQ=4, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12.

▶SOL Configuraiton

Serial Port

Select Enabled to enable the selected onboard serial port. The options are Disabled and **Enabled**.

Device Settings

This item displays the status of a serial part specified by the user.

Change Settings

This feature specifies the base I/O port address and the Interrupt Request address of a serial port specified by the user. Select Auto to allow the BIOS to automatically assign the base I/O and IRQ address. The options are **Auto,** IO=2F8h; IRQ=3, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12, IO=2F8h; IRQ=4, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12, IO=3E8h; IRQ=4, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12, and IO=2E8h; IRQ=4, IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12.

Serial Port 2 Attribute

Use this setting to select the serial port 2 mode. The options are **SOL** and COM.

▶CPU Configuration

SMT Control

Use this setting to specify Simultaneous Multithreading. Options include Disabled for 1T single thread and **Auto** for 2T two-thread if your system is capable of it.

Core Performance Boost

This setting is used to configure for Core Performance Boost. Options include Disabled and **Auto**.

Global C-state Control

This setting is used to configure for Global C-state Control. Options include Disabled, Enabled and **Auto**.

Local APIC Mode

Use this setting to adjust local APIC mode. Options include xAPIC, x2APIC and **Auto**.

L1 Stream HW Prefetcher / L2 Stream HW Prefetcher

This setting is used to enable or disable the L1/L2 Stream Hardware Prefetcher. The options are Disabled, Enabled and **Auto**.

SVM Mode

This setting Disables or **Enables** CPU Virtualization.

SEV ASID Count

Use this setting to specify the maximum valid ASID. Options include 253 ASIDs, 509 ASIDs and **Auto**.

SEV-ES ASID Space Limit Control

The SEV VMs using ASIDs below the SEV-ES ASID Space Limit must enable the SEVES feature. The valid values for this field are from 0x1 (1) to 0x10 (16). Default is 1.Options include **Auto** and Manual.

▶CPU Information

These sections are for informational purposes. They will display some details about the detected CPUs on the motherboard, such as:

- CPU Version
- Number of Cores Running
- Processor Family
- Processor Model
- Processor Stepping
- Microcode Patch Level
- L1 Instruction Cache (Size/Method)
- L1 Data Cache (Size/Method)
- L2 Data Cache (Size/Method)
- L3 Cache per Scoket (Size/Method)

▶NB Configuration

Determinism Control

Use this setting to configure the Determinism Control. Options include Manual and **Auto**.

cTDP Control

Use this setting to configure the cTDP Control. Options include Manual and **Auto**.

IOMMU

Use this setting to enable or disable IOMMU. Options include **Disabled**, Enabled, and Auto.

ACS Enable

Use this setting to enableor disable ACS. Options include Enabled, Disabled and **Auto**.

Package Power Limit Control

Use this setting for Package Power Limit Control. Options include Manual and **Auto**.

APBDIS

Use this setting to set APBDIS. Options include 0, 1 and **Auto**.

DF Cstates

Use this setting to enable/disable DF Cstates. Options include Disabled, Enabled, and **Auto**.

Preferred IO

Use this setting for Preferred IO. Options include Manual and **Auto**.

▶Memory Configuration

Memory Clock

This setting allows you to select different memory clock speed. The options are **Auto**, 2666MHz, 2933MHz and 3200MHz.

Memory Interleaving

This setting controls fabric level memory interleaving. Note that the channel, die and socket have requirements on memory populations and it will be ignored if the memory doesn't support the selected option. The options are Disabled and **Auto**.

Memory Interleaving size

This setting controls the memory interleaving size. This determines the starting address of the interleave (bit 8, 9, 10 or 11). The options are 256 Bytes, 512 Bytes, 1 KB, 2 KB and **Auto**.

Chipselect Interleaving

This setting controls interleave memory blocks across the DRAM chip for node 0. The options are Disabled and **Auto**.

BankGroupSwap

This setting controls the Bank Group Swap. The options are Enabled, Disabled and **Auto**.

DRAM Scrub Time

This setting provides a value that is the number of hours to scrub memory. The options are Disabled, 1 hour, 4 hours, 8 hours, 16 hours, 24 hours, 48 hours and **Auto**.

▶CPU1 Memory Configuration

These sections are for informational purposes. They will display some details about the detected memory according to each CPU on the motherboard, such as:

- Detected Size (per slot, in MB)
- Current Speed (MT/s)

▶PCIe/PCI/PnP Configuration

This menu provides PCIe/PCI/PnP configuration settings and information.

PCI Bus Driver Version

PCI Devices Common Settings:

Above 4G Decoding

This setting Disables or **Enables** 64-bit capable devices ability to be decoded in above 4G address space (only if the system supports 64-bit PCI decoding).

SR-IOV Support

If the system has SR-IOV capable PCIe devices, this setting will **Disable** or Enable the Single Root IO Virtualization Support for the system.

BME DMA Mitigation

Re-enable Bus Master Attribute is disabled during Pci enumeration for PCI Bridges after SMM Locked. The options are **Disabled** and Enabled.

PCIe Spread Spectrum

Use this setting to enable or disable PCIe Spread Spectrum for your system. The options are Enabled and **Disabled**.

PCIe ARI Support

Use this setting to control the Alternative Routing-ID Interpretation. The options are Disable, Enable and **Auto**.

VGA Priority

Use this setting to select between onboard or offboard VGA support. The options are **Onboard** and Offboard.

NVMe Firmware Source

Use this setting to select between the AMI Native firmware support or the device vendor-defined firmware support. The options are **Vendor Defined Firmware** and AMI Native Support.

M.2 (AHCI) Firmware Source

The options are **Vendor Defined Firmware** and AMI Native Support.

Maximum Read Request

Use this setting to set maximum read request size of PCI Express device or allow system BIOS to select the value. The options are **Auto**, 128 Bytes, 256 Bytes, 512 Bytes, 1024 Bytes, 2048 Bytes, and 4096 Bytes.

PCI Devices Option Rom Setting

Onboard NVME 0 OPROM

Use this setting to enable or disable the Onboard NVME OPROM function. The options include Disabled and **EFI**.

Onboard NVME 1 OPROM

Use this setting to enable or disable the Onboard NVME OPROM function. The options include Disabled and **EFI**.

Onboard NVME 2 OPROM

Use this setting to enable or disable the Onboard NVME OPROM function. The options include Disabled and **EFI**.

Onboard NVME 3 OPROM

Use this setting to enable or disable the Onboard NVME OPROM function. The options include Disabled and **EFI**.

CPU1 SLOT 1 PCIe 4.0 x16 OPROM

This setting enables or disables the listed PCI/PCIX/PCIe Slot OPROM option. The options include Disabled and **EFI**.

CPU1 SLOT 2 PCIe 4.0 x16 OPROM

This setting enables or disables the listed PCI/PCIX/PCIe Slot OPROM option. The options include Disabled and **EFI**.

CPU1 SLOT 3 PCIe 4.0 x16 OPROM

This setting enables or disables the listed PCI/PCIX/PCIe Slot OPROM option. The options include Disabled and **EFI**.

CPU1 SLOT 5 PCIe 4.0 x16 OPROM

This setting enables or disables the listed PCI/PCIX/PCIe Slot OPROM option. The options include Disabled and **EFI**.

CPU1 SLOT 6 PCIe 4.0 x16 OPROM

This setting enables or disables the listed PCI/PCIX/PCIe Slot OPROM option. The options include Disabled and **EFI**.

CPU1 SLOT 7 PCIe 4.0 x16 OPROM

This setting enables or disables the listed PCI/PCIX/PCIe Slot OPROM option. The options include Disabled and **EFI**.

Onboard 10G LAN Enable

This setting enables or disables onboard 10G LAN. The options include Disabled and **Enabled**.

Onboard LAN1 OPROM

This setting enables or disables the onboard LAN 1 Option ROM. The options include Disabled and **EFI**.

Onboard LAN 2 OPROM

This setting enables or disables the onboard LAN 2 Option ROM. The options include Disabled and **EFI**.

▶Network Stack Configuration

Network Stack

This setting allows you to enable or disable the UEFI Network Stack. The options are Disabled and **Enabled**.

IPv4 PXE Support

This setting allows you to enable or disable IPv4 PXE boot support. If disabled, IPv4 PXE boot support will not be available. The options are Disabled and **Enabled**.

IPv4 HTTP Support

This setting allows you to enable or disable IPv4 HTTP boot support. If disabled, IPv4 HTTP boot support will not be available. The options are **Disabled** and Enabled.

IPv6 PXE Support

This setting allows you to enable or disable IPv6 PXE boot support. If disabled, IPv6 PXE boot support will not be available. The options are Disabled and **Enabled**.

IPv6 HTTP Support

This setting allows you to enable or disable IPv6 HTTP boot support. If disabled, IPv6 HTTP boot support will not be available. The options are **Disabled** and Enabled.

PXE boot wait time

This setting allows you to set in a number field the wait time to press <ESC> to abort the PXE boot. The default value is **0**.

Media detect count

This setting allows you set in a number field the number of times presence of media will be checked. The default value is **1**.

▶USB Configuration

USB Module Version

USB Devices

Legacy Support

Select Enabled to support onboard legacy USB devices. Select Auto to disable legacy support if there are no legacy USB devices present. Select Disable to have all USB devices available for EFI applications only. The options include **Enabled**, Disabled and Auto.

XHCI Hand-off

This is a work-around solution for operating systems that do not support XHCI (Extensible Host Controller Interface) hand-off. The XHCI ownership change should be claimed by the XHCI driver. The options include **Enabled** and Disabled.

Port 60/64 Emulation

Select Enabled for I/O port 60h/64h emulation support, which in turn, will provide complete legacy USB keyboard support for the operating systems that do not support legacy USB devices.The options include Disabled and **Enabled**.

▶Serial Port Console Redirection

COM1

Console Redirection

Select Enabled to enable console redirection support for a serial port specified by the user. The options are **Disabled** and Enabled.

If the item above set to Enabled, the following items will become available for user's configuration:

▶Console Redirection Settings

Terminal Type

This feature allows the user to select the target terminal emulation type for Console Redirection. Select VT100 to use the ASCII Character set. Select VT100+ to add color and function key support. Select ANSI to use the Extended ASCII Character Set. Select VT-UTF8 to use UTF8 encoding to map Unicode characters into one or more bytes. The options are VT100, **VT100+**, VT-UTF8, and ANSI.

Bits per second

Use this feature to set the transmission speed for a serial port used in Console Redirection. Make sure that the same speed is used in the host computer and the client computer. A lower transmission speed may be required for long and busy lines. The options are 9600, 19200, 38400, 57600 and **115200** (bits per second).

Data Bits

Use this feature to set the data transmission size for Console Redirection. The options are 7 and **8**.

Parity

A parity bit can be sent along with regular data bits to detect data transmission errors. Select Even if the parity bit is set to 0, and the number of 1's in data bits is even. Select Odd if the parity bit is set to 0, and the number of 1's in data bits is odd. Select None if you do not want to send a parity bit with your data bits in transmission. Select Mark to add a mark as a parity bit to be sent along with the data bits. Select Space to add a Space as a parity bit to be sent with your data bits. The options are **None**, Even, Odd, Mark, and Space.

Stop Bits

A stop bit indicates the end of a serial data packet. Select 1 Stop Bit for standard serial data communication. Select 2 Stop Bits if slower devices are used. The options are **1** and 2.

Flow Control

Use this feature to set the flow control for Console Redirection to prevent data loss caused by buffer overflow. Send a "Stop" signal to stop sending data when the receiving buffer is full. Send a "Start" signal to start sending data when the receiving buffer is empty. The options are **None** and Hardware RTS/CTS.

VT-UTF8 Combo Key Support

Select Enabled to enable VT-UTF8 Combination Key support for ANSI/VT100 terminals. The options are Disabled and **Enabled**.

Recorder Mode

Select Enabled to capture the data displayed on a terminal and send it as text messages to a remote server. The options are **Disabled** and Enabled.

Resolution 100x31

Select Enabled for extended-terminal resolution support. The options are Disabled and **Enabled**.

Putty KeyPad

This feature selects the settings for Function Keys and KeyPad used for Putty, which is a terminal emulator designed for the Windows OS. The options are **VT100**, LINUX, XTERMR6, SC0, ESCN, and VT400.

SOL

Console Redirection

Select Enabled to enable SOL console redirection support for a serial port specified by the user. The options are **Enabled** and Disabled.

If the item above is set to Enabled, the following items will become available for user's configuration:

▶Console Redirection Settings

Terminal Type

This feature allows the user to select the target terminal emulation type for Console Redirection. Select VT100 to use the ASCII Character set. Select VT100+ to add color and function key support. Select ANSI to use the Extended ASCII Character Set. Select VT-UTF8 to use UTF8 encoding to map Unicode characters into one or more bytes. The options are VT100, **VT100+**, VT-UTF8, and ANSI.

Bits per second

Use this feature to set the transmission speed for a serial port used in Console Redirection. Make sure that the same speed is used in the host computer and the client computer. A lower transmission speed may be required for long and busy lines. The options are 9600, 19200, 38400, 57600 and **115200** (bits per second).

Data Bits

Use this feature to set the data transmission size for Console Redirection. The options are 7 and **8**.

Parity

A parity bit can be sent along with regular data bits to detect data transmission errors. Select Even if the parity bit is set to 0, and the number of 1's in data bits is even. Select Odd if the parity bit is set to 0, and the number of 1's in data bits is odd. Select None if you do not want to send a parity bit with your data bits in transmission. Select Mark to add a mark as a parity bit to be sent along with the data bits. Select Space to add a Space as a parity bit to be sent with your data bits. The options are **None**, Even, Odd, Mark, and Space.

Stop Bits

A stop bit indicates the end of a serial data packet. Select 1 Stop Bit for standard serial data communication. Select 2 Stop Bits if slower devices are used. The options are **1** and 2.

Flow Control

Use this feature to set the flow control for Console Redirection to prevent data loss caused by buffer overflow. Send a "Stop" signal to stop sending data when the receiving buffer is full. Send a "Start" signal to start sending data when the receiving buffer is empty. The options are **None** and Hardware RTS/CTS.

VT-UTF8 Combo Key Support

Select Enabled to enable VT-UTF8 Combination Key support for ANSI/VT100 terminals. The options are Disabled and **Enabled**.

Recorder Mode

Select Enabled to capture the data displayed on a terminal and send it as text messages to a remote server. The options are **Disabled** and Enabled.

Resolution 100x31

Select Enabled for extended-terminal resolution support. The options are Disabled and **Enabled**.

Legacy Console Redirection Resolution

For Legacy OS systems, use this setting to specify the number of Rows and Columns supported for redirection.The options are 80x24 and **80x25**.

Putty KeyPad

This feature selects the settings for Function Keys and KeyPad used for Putty, which is a terminal emulator designed for the Windows OS. The options are **VT100**, LINUX, XTERMR6, SC0, ESCN, and VT400.

Redirection After BIOS POST

For this setting, when the Bootloader is selected, then the Legacy Console Redirection is disabled before booting to the legacy OS. If you select Always Enable, then the Legacy Console Redirection is enabled for legacy OS systems. The options are **Always Enable** and BootLoader.

Legacy Console Redirection

Legacy Serial Redirection Port

For this setting, select a COM port to display redirection of Legacy OS and Legacy OPROM messages. Options include **COM1**.

Serial Port for Out-of-Band Management/Windows Emergency Management Services (EMS)

Console Redirection

Select Enabled to enable EMS console redirection support for a serial port specified by the user. The options are **Enabled** and Disabled.

If the item above is set to Enabled, the following items will become available for user's configuration:

▶Console Redirection Settings

Out-of-Band Mgmt Port

The feature selects a serial port in a client server to be used by the Microsoft Windows Emergency Management Services (EMS) to communicate with a remote host server. The options are **COM1**, COM2 (Disabled), and AMT SOL.

Terminal Type

Use this feature to select the target terminal emulation type for Console Redirection. Select VT100 to use the ASCII character set. Select VT100+ to add color and function key support. Select ANSI to use the extended ASCII character set. Select VT-UTF8 to use UTF8 encoding to map Unicode characters into one or more bytes. The options are VT100, VT100+, **VT-UTF8**, and ANSI.

Bits per Second

This item sets the transmission speed for a serial port used in Console Redirection. Make sure that the same speed is used in the host computer and the client computer. A lower transmission speed may be required for long and busy lines. The options are 9600, 19200, 57600, and **115200** (bits per second).

Flow Control

Use this item to set the flow control for Console Redirection to prevent data loss caused by buffer overflow. Send a "Stop" signal to stop sending data when the receiving buffer is full. Send a "Start" signal to start sending data when the receiving buffer is empty. The options are **None**, Hardware RTS/CTS, and Software Xon/Xoff.

Data Bits EMS

Parity EMS

Stop Bits EMS

▶Network Configuration

(Available when EFI is selected in LAN OPROM after reboot)

▶VLAN Configuration (MAC: 3CECEF741952)

▶Enter Configuration Menu

Create New VLAN

VLAN ID

This option is an input field used to enter a unique numeric VLAN ID. The valid range is from 0~4096.

Priority

This option is an input field used to enter a unique numeric VLAN 802.1Q priority. The valid range is from 0~7.

Add VLAN

Use this option to create a new VLAN or update an existing VLAN.

Configured VLAN List

Remove VLAN

Use this option to remove an existing VLAN.

▶IPv4 Network Configuration

Configured

Select Enabled to activate IPv4 network configuration. The options include **Disabled** and Enabled.

If the item above is set to Enabled, the following item will become available for configuration:

Enable DHCP

This feature allows the user to select the source of the IP address for this computer. If Disabled is selected, you will need to know the local IP address of this computer and enter it to the system manually in the field. If Enabled is selected, the system will search for a DHCP (Dynamic Host Configuration Protocol) server in the network that it is attached to and request the next available IP address for this computer. The options include **Disabled** and Enabled.

If the item above is set to Disabled, the following items will become available for configuration:

Local IP Address

This item sets and displays the Local IP address for this computer. This should be in decimal and in dotted quad form.

Local NetMask

This item sets the sub-network that this computer belongs to. The value of each three-digit number separated by dots should not exceed 255.

Local Gateway

This item sets the Gateway IP address for this computer. This should be in decimal and in dotted quad form (i.e., 172.31.0.1).

Local DNS Servers

This item sets the address for the local DNS servers for this computer. This should be in decimal and in dotted quad form (i.e., 172.31.0.1).

Save Changes and Exit

Use this item to save the changes above and exit.

▶IPv6 Network Configuration

▶Enter Configuration Menu

Enable DHCP

Interface ID

The 64 bit alternative interface ID for the device. .

DAD Transmit Count

The number of consecutive Neighbor Solicitating messages sent while performing Duplicate Address Detection on a tentative address. A value of zero indicates that Duplicate Address Detection is not performed. .

Policy

Options include **automatic** and manual.

Save Changes and Exit

Use this item to save the changes above and exit.

▶SATA Configuration

This section displays the detected SATA devices installed on the system.

SATA Enable

This setting enables or disables the on chip SATA controller. The options are Disabled, Enabled, and **Auto**.

▶SATA Information

This section displays information on the detected SATA devices.

▶KMIP Server Configuration

KMIP Server IP address

Enter IP4 address in dotted-decimal notation.

KMIP TCP Port number

Enter KMIP TCP Port number 100 to 9999. The default value is **5696**.

TimeZone

Enter current timezone GMT+? The default value is GMT+8 Taiwan time.

Client UserName

Enter Client identity: user name, name length is 0 to 63 characters.

Client Password

Enter Client identity: password, password length is 0 to 31 characters.

KMS TLS Certificate

▶CA Certificate

The options include **Update**, Delete, Export

▶Client Certificate

The options include **Update**, Delete, Export

▶Client Private Key

The options include **Update**, Delete, Export

▶NVMe Configuration

NVMe Information

NVMe RAID mode

Use the setting to set the NVMe RAID mode. Options include **Disabled** and Enabled.

▶NVMe Information

NVMe Configuration

▶HTTP Boot Configuration

HTTP Boot Configuration

HTTP Boot Policy

Options include Apply to all LANs, **Apply to each LAN** and Boot Priority #1 instantly.

Priority of HTTP Boot

Instance of Priority 1

Rank targeted port

Select IPv4 or IPv6

Targeted LAN port is boot from IPv4 or IPv6. Options include **IPv4** and IPv6t.

Boot Description

This item must be filled out, otherwise boot option for the URI will not be created. Length of descrption isn't more than 75.

Boot URI

A new IPv4/IPv6 Boot Option will be created according to this Boot URI. Only supported on Dual or EFI Mode. Length of URI isn't more than 128.

▶Intel(R) I210 Gigabit Network Connection

PORT CONFIGURATION MENU

▶NIC Configuration

Link Speed

Use the setting to specify the port speed used for the selected boot protocol. Options include **Auto Negotiated**, 10 Mbps Half, 10 Mbps Full, 100 Mbps Half, and 100 Mbps Full.

Wake On Lan

Use the setting to enable or disable the server to be powered on using an in-band magic packet. Option inclue Diabled and **Enabled**.

Blink LEDs

Use the setting to identify the physical netowrk port by blinking the associated LED.

PORT CONFIGURATION INFORMATION

UEFI Driver

This item displays the UEFI Driver model.

Adapter PBA

This item displays the Adapter PBA.

Chip Type

This item displays the Chip Type.

PCI Device ID

This item displays the PCI Device ID.

PCI Address

This item displays the PCI Address.

Link Status

This item displays Link Status.

MAC Address

This item displays the MAC Address.

Virtual MAC Address

This option displays the programmatically assignable MAC address for port.

▶TLS Authentication Configuration

This submenu allows the user to configure Transport Layer Security (TLS) settings.

▶Server CA Configuration

This feature allows the user to configure the client certificate that is to be used by the server.

▶Enroll Certification

This feature allows the user to enroll the certificate in the system.

▶Enroll Certification Using File

Use this feature to enroll certification from a file.

Certification GUID

Use this feature to enroll to input the certification GUID.

▶Commit Changes and Exit

Use this feature to save all changes and exit TLS settings.

▶Discard Changes and Exit

Use this feature to enroll to discard all changes and exit TLS settings.

▶Delete Certification

Use this feature to delete certification.

▶iSCSI Configuration

iSCSI Initiator Name

This feature allows the user to enter the unique name of the iSCSI Initiator in IQN format. Once the name of the iSCSI Initiator is entered into the system, configure the proper settings for the following items.

▶Add an Attempt

Use this setting to add an attempt.

▶Delete Attempts

Use this setting to delete one or more attempts.

▶Change Attempt Order

Use this setting to change the order of attempts.

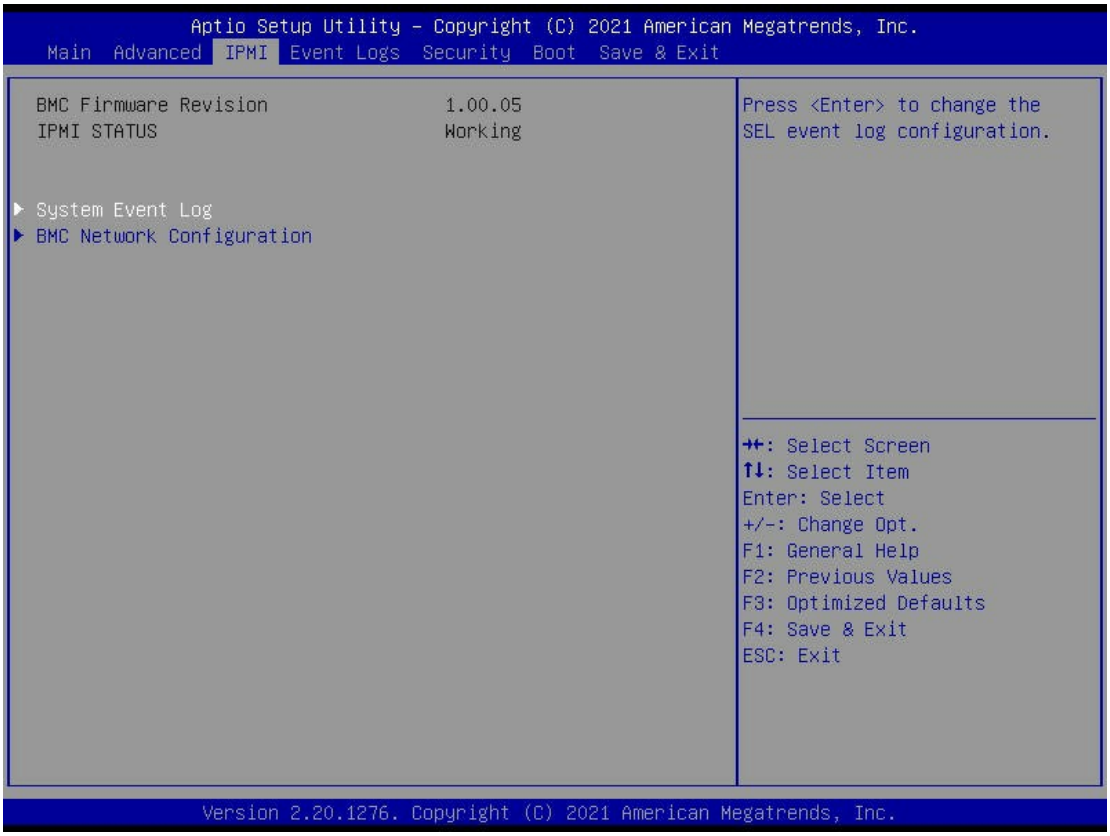
▶Driver Health

▶Intel (R) PR0/1000 6.1.16 PCIe Healthy

This item displays the information/status of driver installed in the system.

6.4 IPMI

Use this feature to configure Intelligent Platform Management Interface (IPMI) settings.



▶System Event Log

SEL Components

Select Enabled for all system event logging at bootup. The options include Disabled and **Enabled**.

Erashing Settings

Erase SEL

Select Yes, On next reset to erase all system event logs upon next system reboot. Select Yes, On every reset to erase all system event logs upon each system reboot. Select No to keep all system event logs after each system reboot. The options include **No**, Yes, On next reset, and Yes, On every reset.

When SEL is Full

This feature allows the user to decide what the BIOS should do when the system event log is full. Select Erase Immediately to erase all events in the log when the system event log is full. The options include **Do Nothing** and Erase Immediately.

▶BMC Network Configuration

Update IPMI LAN Configuration

Select Yes for the BIOS to implement all IP/MAC address changes at the next system boot. The options include **No** and Yes.

If the item above is set to Yes, the following item will become available for user's configuration:

Configuration Address Source

This feature allows the user to select the source of the IP address for this computer. If Static is selected, you will need to know the IP address of this computer and enter it to the system manually in the field. If DHCP is selected, the BIOS will search for a DHCP (Dynamic Host Configuration Protocol) server in the network that is attached to and request the next available IP address for this computer. The options include Static and **DHCP**.

VLAN

This item configures the virtual LAN settings. The options include **Disabled** and Enabled.

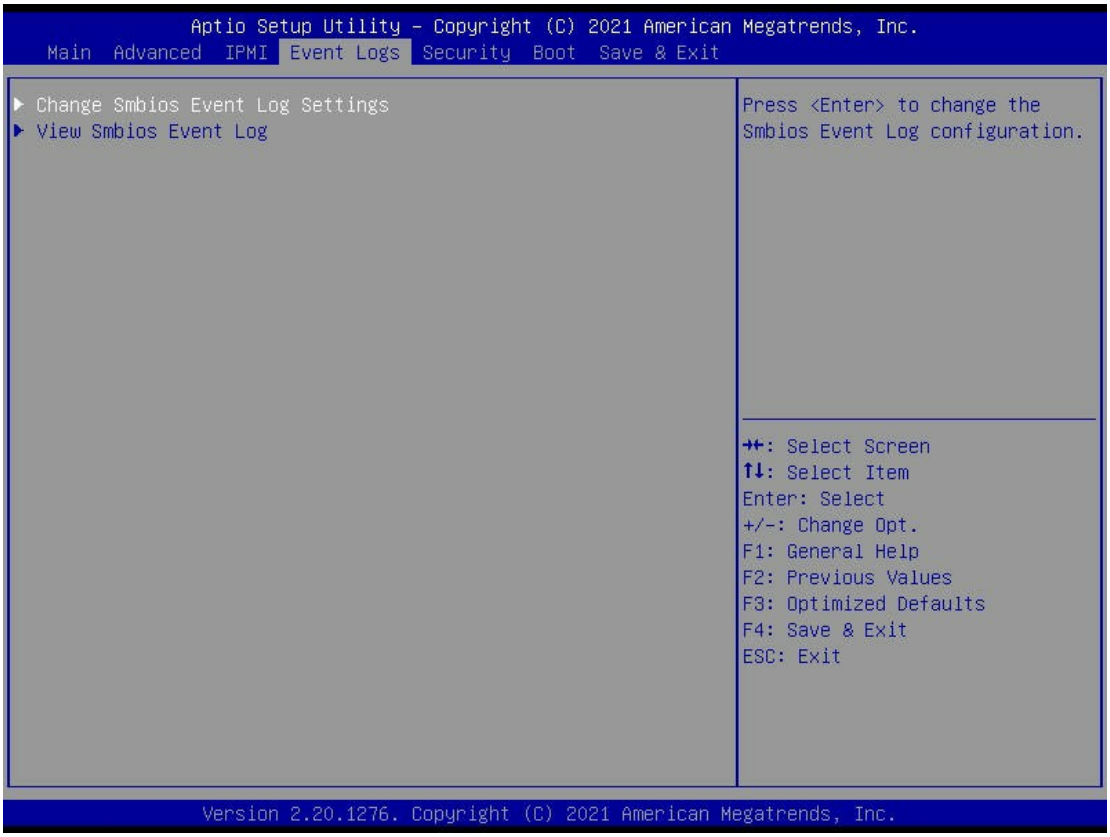
IPv6 Support

Use this feature to enable IPv6 support. The options include Enabled and **Disabled**.

6.5 Event Logs

Use this feature to configure Event Log settings.

Note: After you've made a change on a setting below, please be sure to reboot the system for the change to take effect.



▶Change SMBIOS Event Log Settings

Enabling/Disabling Options

SMBIOS Event Log

Select Enabled to enable SMBIOS (System Management BIOS) Event Logging during system boot. The options are Disabled and **Enabled**.

Erasing Settings

Erase Event Log

The options are **No**, Yes, Next reset, and Yes, Every reset.

Select No to keep the event log without erasing it upon next system bootup. Select Yes, Next Reset to erase the event log upon next system reboot. The options are **No**, Yes, Next reset, and Yes, Every eset.

When Log is Full

Select Erase Immediately to immediately erase all errors in the SMBIOS event log when the event log is full. Select Do Nothing for the system to do nothing when the SMBIOS event log is full. The options are **Do Nothing** and Erase Immediately.

SMBIOS Event Log Standard Settings

Log System Boot Event

Select Enabled to log system boot events. The options are Enabled and **Disabled**.

MECI (Multiple Event Count Increment)

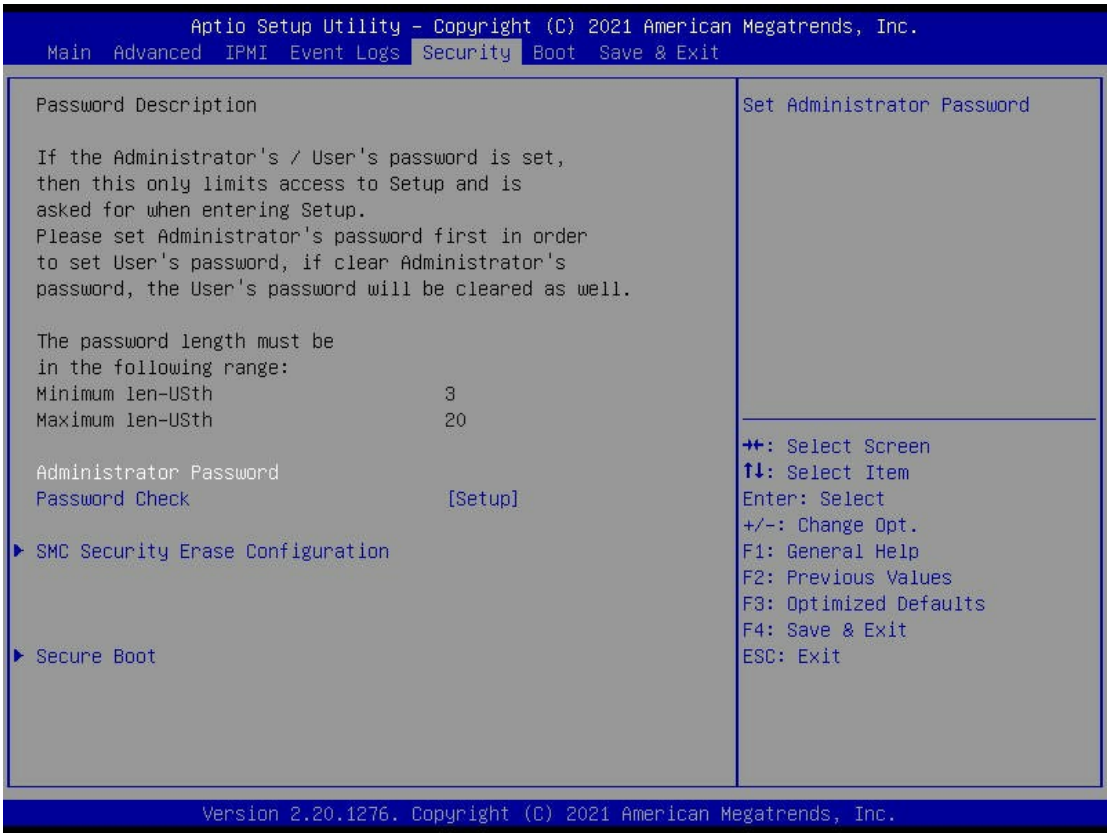
Enter the increment value for the multiple event counter. Enter a number between 1 to 255. The default setting is **1**.

METW (Multiple Event Count Time Window)

This feature is used to determine how long (in minutes) should the multiple event counter wait before generating a new event log. Enter a number between 0 to 99. The default setting is **60**.

6.6 Security Settings

This menu allows the user to configure the following security settings for the system.



Administrator Password

Use this feature to set the administrator password which is required to enter the BIOS setup utility. The length of the password should be from 3 characters to 20 characters long.

Password Check

Select Setup for the system to check for a password at Setup. Select Always for the system to check for a password at system boot and upon entering the BIOS Setup utility. The options are **Setup** and Always.

▶SMC Security Erase Configuration

▶Secure Boot

When you select this submenu and press the <Enter> key, the following items will display:

System Mode

Secure Boot

Select Enabled to use Secure Boot settings. The options are Disabled and **Enabled**.

Secure Boot Mode

Use this feature to select the desired secure boot mode for the system. The options are **Standard** and Custom.

If the item above is set to Custom, the following items become avilable for confiuration:

▶Restore Factory Keys

Select Yes to restore manufacturer default keys used to ensure system security. The options are **Yes** and No.

▶Reset to Setup Mode

Select Yes to reset the system to the Setup Mode. The options are **Yes** and No.

▶Key Management

Factory Key Provision

The options are Disabled and **Enabled**.

▶Restore Factory defaults

Select Yes to restore database variables to the manufacturer default settings. The options are **Yes** and No.

▶Reset To Setup Mode

Select Yes to delete all Secure Boot key databases and force the system to Setup Mode. The options are Yes and No.

▶Export Secure Boot Variables

Use this feature to copy the NVRAM contents of the secure boot variables to a file.

▶Enroll Efi Image

This feature allows the image to run in Secure Boot mode.

Device Guard Ready

▶Remove 'UEFI CA' from DB

Use this feature to remove the Microsoft UEFI CA certificate from the database. The options are Yes and No.

▶Restore DB defaults

Select Yes to restore all DBs to the default settings. The options are Yes and No.

Secure Boot variable | Size | Keys# | Key Source

▶Platform Key (PK)

This feature allows the user to enter and configure a set of values to be used as platform firmware keys for the system. The sizes, keys numbers, and key sources of the platform keys will be indicated as well. Select Update to update the platform key.

▶Key Exchange Keys

This feature allows the user to enter and configure a set of values to be used as Key-Exchange-Keys for the system. The sizes, keys numbers, and key sources of the Key-Exchange-Keys will be indicated as well. Select Update to update your "Key Exchange Keys". Select Append to append your "Key Exchange Keys".

▶Authorized Signatures

This feature allows the user to enter and configure a set of values to be used as Authorized Signatures for the system. These values also indicate the sizes, keys numbers, and the sources of the authorized signatures. Select Update to update your "Authorized Signatures". Select Append to append your "Authorized Signatures". The settings are **Details**, Export, Update, Append and Delete.

▶Forbidden Signatures

This feature allows the user to enter and configure a set of values to be used as Forbidden Signatures for the system. These values also indicate sizes, keys numbers, and key sources of the forbidden signatures. Select Update to update your "Forbidden Signatures". Select Append to append your "Forbidden Signatures". The settings are **Details**, Export, Update, Append and Delete.

▶Authorized TimeStamps

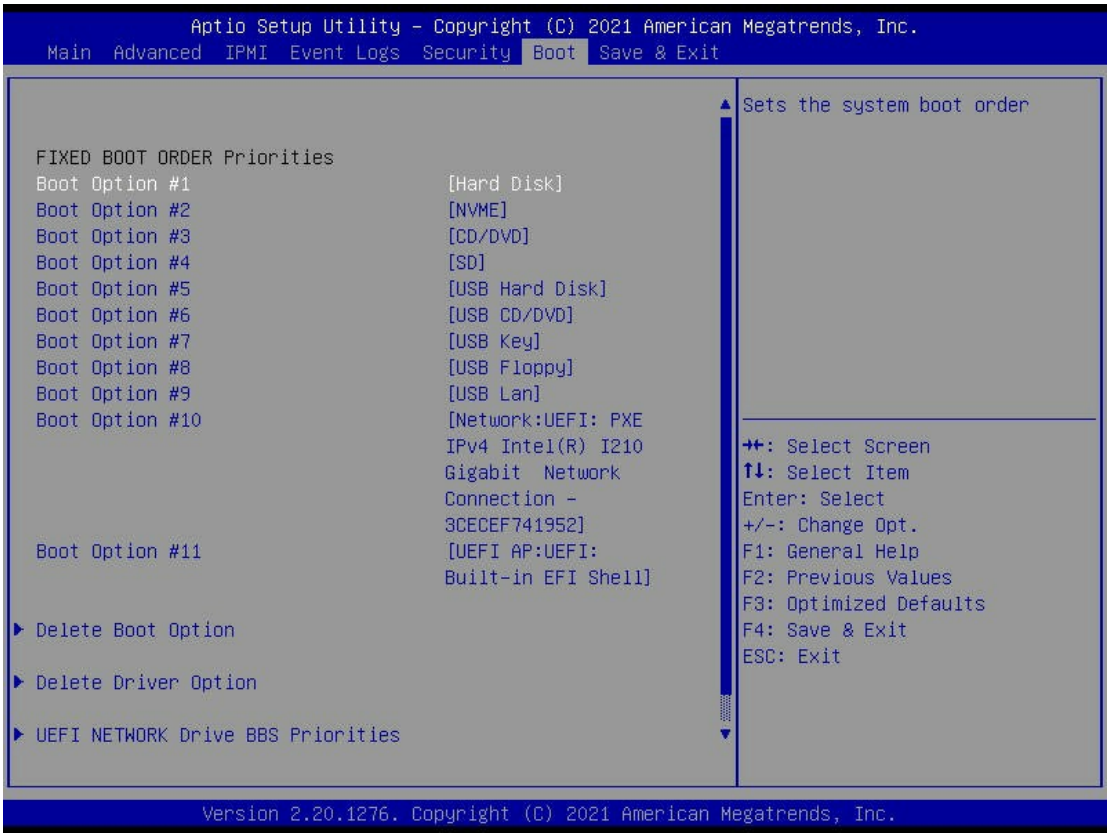
This feature allows the user to set and save the timestamps for the authorized signatures which will indicate the time when these signatures are entered into the system. Select Update to update your "Authorized TimeStamps". Select Append to append your "Authorized TimeStamps". The settings are **Update**, and Append.

▶Os Recovery Signatures

This feature allows the user to set and save the authorized signatures used for OS recovery. Select Update to update your "OS Recovery Signatures". Select Append to append your "OS Recovery Signatures". The settings are **Update**, and Append.

6.7 Boot Settings

Use this feature to configure Boot Settings:



FIXED BOOT ORDER Priorities

This feature prioritizes the order of a bootable device from which the system will boot. Press <Enter> on each item sequentially to select devices.

- Boot Option #1
- Boot Option #2
- Boot Option #3
- Boot Option #4
- Boot Option #5
- Boot Option #6

- Boot Option #7
- Boot Option #8
- Boot Option #9
- Boot Option #10
- Boot Option #11

▶Delete Boot Option

Use this feature to select a boot device to delete from the boot priority list.

Delete Boot Option

Use this feature to remove an EFI boot option from the boot priority list.

▶Delete Driver Option

Use this feature to remove an EFI Driver option from the drive order.

Delete Driver Option

Use this feature to remove an EFI boot option from the boot priority list.

▶UEFI NETWORK Drive BBS Priorities

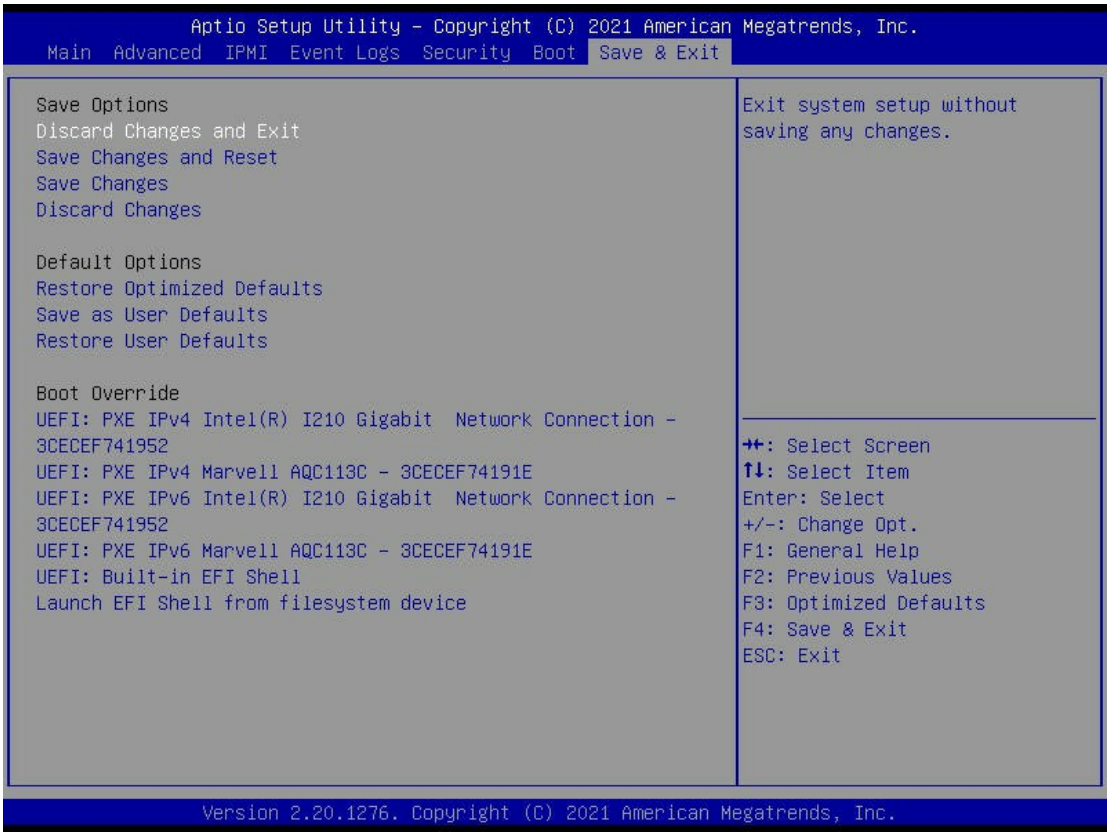
Use this feature to set the system boot order.

▶UEFI Application Boot Priorities

Use this feature to specify the Boot Device Priority sequence from available UEFI Application.

6.8 Save & Exit

Select the Save & Exit menu from the BIOS setup screen to configure the settings below.



Save Options

Discard Changes and Exit

Select this option to exit from the BIOS setup utility without making any permanent changes to the system configuration and reboot the computer.

Save Changes and Reset

When you have completed the system configuration changes, select this option to leave the BIOS setup utility and reboot the computer for the new system configuration parameters to become effective.

Save Changes

When you have completed the system configuration changes, select this option to save all changes made. This will not reset (reboot) the system.

Discard Changes

Select this option and press <Enter> to discard all the changes you've made and return to the AMI BIOS setup utility.

Default Options

Restore Optimized Defaults

To set this feature, select Restore Defaults from the Exit menu and press <Enter> to load manufacturer default settings which are intended for maximum system performance but not for maximum stability.

Save as User Defaults

To set this feature, select Save as User Defaults from the Exit menu and press <Enter>. This enables the user to save all changes to the BIOS setup for future use.

Restore User Defaults

To set this feature, select Restore User Defaults from the Exit menu and press <Enter>. Use this feature to retrieve user-defined default settings that were saved previously.

Boot Override

This feature allows the user to override the Boot priorities sequence in the Boot menu, and immediately boot the system with a device specified by the user instead of the one specified in the boot list. This is a one-time override.

Launch EFI Shell from filesystem device

This feature attempts to launch EFI Shell application (Shell.efi) from one of the avilable filesystem devices.

Appendix A

Standardized Warning Statements for AC Systems

A.1 About Standardized Warning Statements

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

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

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

Warning Definition

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

警告の定義

この警告サインは危険を意味します。

人身事故につながる可能性がありますので、いずれの機器でも動作させる前に、

電気回路に含まれる危険性に注意して、標準的な事故防止策に精通して下さい。

此警告符号代表危险。

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

此警告符號代表危險。

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

Warnung

WICHTIGE SICHERHEITSHINWEISE

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

BEWAHREN SIE DIESE HINWEISE GUT AUF.

INSTRUCCIONES IMPORTANTES DE SEGURIDAD

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

GUARDE ESTAS INSTRUCCIONES.

IMPORTANTES INFORMATIONS DE SÉCURITÉ

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

CONSERVEZ CES INFORMATIONS.

תקנון הצהרות אזהרה

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

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

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

안전을 위한 주의사항

경고!

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

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

BELANGRIJKE VEILIGHEIDSINSTRUCTIES

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

BEWAAR DEZE INSTRUCTIES

Installation Instructions

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

設置手順書

システムを電源に接続する前に、設置手順書をお読み下さい。

警告

将此系统连接电源前,请先阅读安装说明。

警告

將系統與電源連接前，請先閱讀安裝說明。

Warnung

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

¡Advertencia!

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

Attention

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

יש לקרוא את הוראות התקנה לפני חיבור המערכת למקור מתח.

اقر إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

시스템을 전원에 연결하기 전에 설치 안내를 읽어주십시오.

Waarschuwing

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

Circuit Breaker

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

サーキット・ブレーカー

この製品は、短絡（過電流）保護装置がある建物での設置を前提としています。

保護装置の定格が250 V、20 Aを超えないことを確認下さい。

警告

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

警告

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

Warnung

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

¡Advertencia!

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

Attention

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

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

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

경고!

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

Waarschuwing

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

Power Disconnection Warning

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

電源切断の警告

システムコンポーネントの取り付けまたは取り外しのために、シャーシー内部にアクセスするには、システムの電源はすべてのソースから切断され、電源コードは電源モジュールから取り外す必要があります。

警告

在你打开机箱并安装或移除内部器件前,必须将系统完全断电,并移除电源线。

警告

在您打開機殼安裝或移除內部元件前，必須將系統完全斷電，並移除電源線。

Warnung

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

¡Advertencia!

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

Attention

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

אזהרה מפני ניתוק חשמלי

!אזהרה

יש לנתק את המערכת מכל מקורות החשמל ויש להסיר את כבל החשמלי מהספק

.לפני גישה לחלק הפנימי של המארז לצורך התקנת או הסרת רכיבים

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

انطاقت قبم

انصل إنى 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 trained and qualified personnel should be allowed to install, replace, or service this equipment.

機器の設置

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

警告

只有经过培训且具有资格的人员才能进行此设备的安装、更换和维修。

警告

只有經過受訓且具資格人員才可安裝、更換與維修此設備。

Warnung

Das Installieren, Ersetzen oder Bedienen dieser Ausrüstung sollte nur geschultem, qualifiziertem Personal gestattet werden.

¡Advertencia!

Solamente el personal calificado debe instalar, reemplazar o utilizar este equipo.

Attention

Il est vivement recommandé de confier l'installation, le remplacement et la maintenance de ces équipements à des personnels qualifiés et expérimentés.

אזהרה!

צוות מוסמך בלבד רשאי להתקין, להחליף את הציוד או לתת שירות עבור הציוד.

والمدربيه لتزكيب واستبدال أو خدمة هذا الجهاس يجب أن يسمح فقط للمظفيه المؤهليه

경고!

훈련을 받고 공인된 기술자만이 이 장비의 설치, 교체 또는 서비스를 수행할 수 있습니다.

Waarschuwing

Deze apparatuur mag alleen worden geïnstalleerd, vervangen of hersteld door geschoold en gekwalificeerd personeel.

Restricted Area

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

アクセス制限区域

このユニットは、アクセス制限区域に設置されることを想定しています。

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

警告

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

警告

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

Warnung

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

¡Advertencia!

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

Attention

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

אזור עם גישה מוגבלת

אזהרה!

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

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

경고!

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

Waarschuwing

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

Battery Handling

Warning! There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions

電池の取り扱い

電池交換が正しく行われなかった場合、破裂の危険性があります。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

电池更换不当会有爆炸危险。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

電池更換不當會有爆炸危險。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

Bei Einsetzen einer falschen Batterie besteht Explosionsgefahr. Ersetzen Sie die Batterie nur durch den gleichen oder vom Hersteller empfohlenen Batterietyp. Entsorgen Sie die benutzten Batterien nach den Anweisungen des Herstellers.

Attention

Danger d'explosion si la pile n'est pas remplacée correctement. 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 peligro de explosión si la batería se reemplaza de manera incorrecta. 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 של הסוללה במידה והוחלפה בדרך לא תקינה. יש להחליף
את הסוללה בסוג התואם מחברת יצרן מומלצת.
סילוק הסוללות המשומשות יש לבצע לפי הוראות היצרן.

هناك خطر من انفجار في حالة اسحبذال البطارية بطريقة غير صحيحة فعليل
اسحبذال البطارية
فقط بنفس النبع أو ما يعادلها مما أوصث به الشرمة المصنعة
جخلص من البطاريات المسحعملة وفقا لحعليمات الشرمة الصانعة

경고!

배터리가 올바르게 교체되지 않으면 폭발의 위험이 있습니다. 기존 배터리와 동일하거나 제조사에서 권장하는 동등한 종류의 배터리로만 교체해야 합니다. 제조사의 안내에 따라 사용된 배터리를 처리하여 주십시오.

Waarschuwing

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

Redundant Power Supplies

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

冗長電源装置

このユニットは複数の電源装置が接続されている場合があります。

ユニットの電源を切るためには、すべての接続を取り外さなければなりません。

警告
此部件连接的电源可能不止一个，必须将所有电源断开才能停止给该部件供电。

警告
此裝置連接的電源可能不只一個，必須切斷所有電源才能停止對該裝置的供電。

Warnung

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

¡Advertencia!

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

Attention

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

אם קיים יותר מספק אחד

אזהרה!

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

قد يكون لهذا الجهاز عدة اتصالات بوحدات امداد الطاقة .

يجب إزالة كافة الاتصالات لعسل الوحدة عن الكهرباء

경고!

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

Waarschuwing

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

Backplane Voltage

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

バックプレーンの電圧

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

修理する際には注意ください。

警告

当系统正在进行时，背板上有很危险的电压或能量，进行维修时务必小心。

警告

當系統正在進行時，背板上有危險的電壓或能量，進行維修時務必小心。

Warnung

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

¡Advertencia!

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

Attention

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

מתח בפנל האחורי

אזהרה!

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

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

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

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

Comply with Local and National Electrical Codes

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

地方および国の電気規格に準拠

機器の取り付けはその地方および国の電気規格に準拠する必要があります。

警告
设备安装必须符合本地与本国电气法规。

警告
設備安裝必須符合本地與本國電氣法規。

Warnung
Die Installation der Geräte muss den Sicherheitsstandards entsprechen.

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

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

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

تركيب المعدات الكهربائية يجب أن يمتثل للقاويه المحلية والبطية المتعلقة
بالكهرباء

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

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

Product Disposal

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

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

警告
本产品的废弃处理应根据所有国家的法律和规章进行。

警告
本產品的廢棄處理應根據所有國家的法律和規章進行。

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

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

Attention

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

סילוק המוצר

אזהרה!

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

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

경고!

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

Waarschuwing

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

Hot Swap Fan Warning

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

ファン・ホットスワップの警告

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

警告!

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

警告

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

Warnung

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

¡Advertencia!

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

Attention

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

אזהרה!

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

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

경고!

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

Waarschuwing

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

Power Cable and AC Adapter

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

電源コードとACアダプター

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

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

警告

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

警告

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

Warnung

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

¡Advertencia!

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

Attention

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

AC כבלים חשמליים ומתאמי

!אזהרה

אשר נרכשו או הותאמו לצורך ההתקנה, ואשר הותאמו לדרישות AC כאשר מתקינים את המוצר, יש להשתמש בכבלים, ספקים ומתאמים הבטיחות המקומיות, כולל מידה נכונה של הכבל והתקע . שימוש בכל כבל או מתאם מסוג אחר, עלול לגרום לתקלה או קצר חשמלי. בהתאם כאשר מופיע עליהם קוד) CSA-או ב UL -לחוקי השימוש במכשירי החשמל וחוקי הבטיחות, קיים איסור להשתמש בכבלים המוסמכים ב .בלבד Supermicro עבור כל מוצר חשמלי אחר, אלא רק במוצר אשר הותאם ע"י UL/CSA) של

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

전원 케이블 및 AC 어댑터

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

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

Stroomkabel en AC-Adapter

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

Appendix B

System Specifications

Processors

Support AMD Ryzen™ Threadripper™ PRO 3000WX Series Processors in OLGA-4094 socket, up to CPU TDP 280W

BIOS

AMI 256Mb Flash EEPROM
ACPI 6.2, SMBIOS 3.1.1, Plug-and-Play (PnP), RTC (Real Time Clock) wakeup, Riser Card Auto-Detection support

Motherboard

M12SWA-TF 12" x 13" (304.8mm x 330.2mm)

Chassis

CSE-GS7A-000NBP (WxHxD)
with stand: 8.7 x 21.1 x 22.6 in. (222 x 535 x 572 mm)
without stand: 8.7 x 20 x 22.6 in. (222 x 508 x 572 mm)

Memory

Up to eight DDDR4 ECC/non-ECC UDIMM/ECC RDIMM sockets, with speeds of up to 3200MHz (1DPC).
Up to 256GB (UDIMM)/2TB (RDIMM) max capacity

Storage Drives

Drive Bays:
- Two 2.5” front drive bays, four internal 3.5” drive bays, and two 5.25” peripheral bays

Onboard:
- Four SATA 3.0 6Gb/s connectors (support RAID 0,1,10)
- Four M.2 M-key via PCIe 4.0 (support 2260/2280/22110, RAID 0,1,5,10)
- Two U.2 sockets

PCI Expansion Slots

Six PCIe 4.0 x16 slots with metal armor protection

Input/Output

Front:
- Two USB 2.0 ports
- Two USB 3.2 Gen 1 (5Gbps) Type A ports
- One USB 3.2 Gen 2 (10Gbps) Type C port
- One Power Button
- One Audio Out and one Mic In
- One LED on/off button

Rear:
- One 10Gb LAN
- One 1Gb LAN
- One USB 3.2 Gen 2x2 (20Gbps) Type C port
- Four USB 3.2 Gen 2x1 ports
- Three USB 3.2 Gen 1 ports
- One VGA port (for BMC interface)
- HD Audio 7.1 Channel connector
- One COM port

Onboard:
- One USB 3.2 Gen 2 Type C header
- One USB 3.2 Gen 1 Type A header
- Ten 4-Pin fan headers
- One 12V power header for water cooler pumper
- One DOM PW connector
- One TPM 2.0 header

Weight

Net weight: 37.3 lbs / 16.9 kg
Gross weight: 43.5 lbs / 19.75 kg

System Cooling

Two 12 cm front cooling fans
Optional three 12 cm top cooling fans
One 12 cm rear exhaust fan
Optional 360 mm closed loop CPU liquid cooling

Power Supply

Model: PWS-2K01-PQ; 80Plus Platinum level (92%+)
Total Output Power:
  1200W at 100-115Vac
  1500W at 115-200Vac
  2000W at 200-264Vac
Input:
  100-240Vac/ 15-12A/ 50-60Hz
Regulation:
  +3.3V, +5V, +12V, +5Vsb: +/-5%
  -12V: +/-10%

Operating Environment

Operating Temperature: 10º to 35º C (50º to 95º 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)

Regulatory Compliance

FCC, ICES, CE, VCCI, CSA/UL, CB

Applied Directives, Standards

EMC/EMI: 2014/30/EU (EMC Directive)
Electromagnetic Compatibility Regulations 2016
FCC Part 15 Subpart B
ICES-003
VCCI-CISPR 32
AS/NZS CISPR 32
BS/EN 55032
BS/EN 55035
CISPR 32
CISPR 24/CISPR 35
BS/EN 61000-3-2
BS/EN 61000-3-3
BS/EN 61000-4-2
BS/EN 61000-4-3
BS/EN 61000-4-4
BS/EN 61000-4-5
BS/EN 61000-4-6
BS/EN 61000-4-8
BS/EN 61000-4-11

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

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

Perchlorate Warning

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

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

VCCI ー A

Appendix C

Energy Star

ENERGY STAR qualified products save your money by reducing energy cost 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 go into "display sleep" within 10 minutes of inactivity respectively. 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:

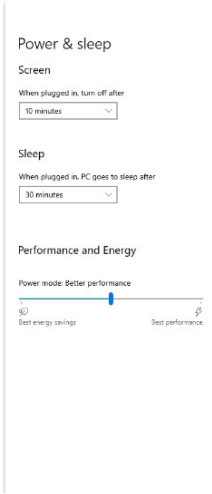
http://www.energystar.gov/powermanagement.

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.

The picture as below showed that the power management settings of this computer have been enabled by default.
Note: The preset default power management settings are compliance with ENERGY STAR and are recommended by the ENERGY STAR program for optimal energy savings.

The timing settings can be changed to other power management plan through selecting other time option:



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