WEEE DISASSEMBLY INSTRUCTIONS

SUPERMICRO ASG-2015S-E1CR24H ENCLOSURE

Abstract
This document provides clear guidance for end-of-life recyclers on how to identify and disassemble reportable materials in compliance with the Waste Electrical and Electronic Equipment (WEEE) directive.

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1. Product Views

Front view

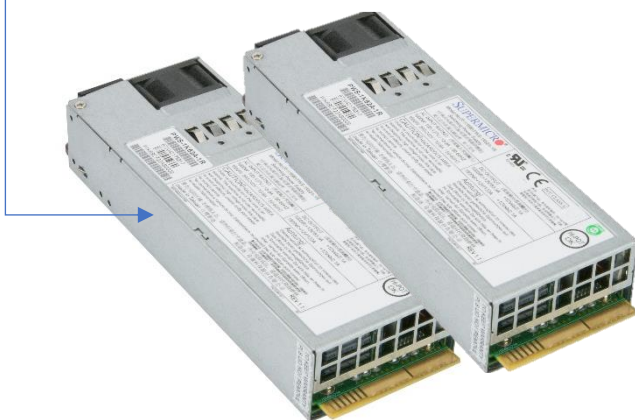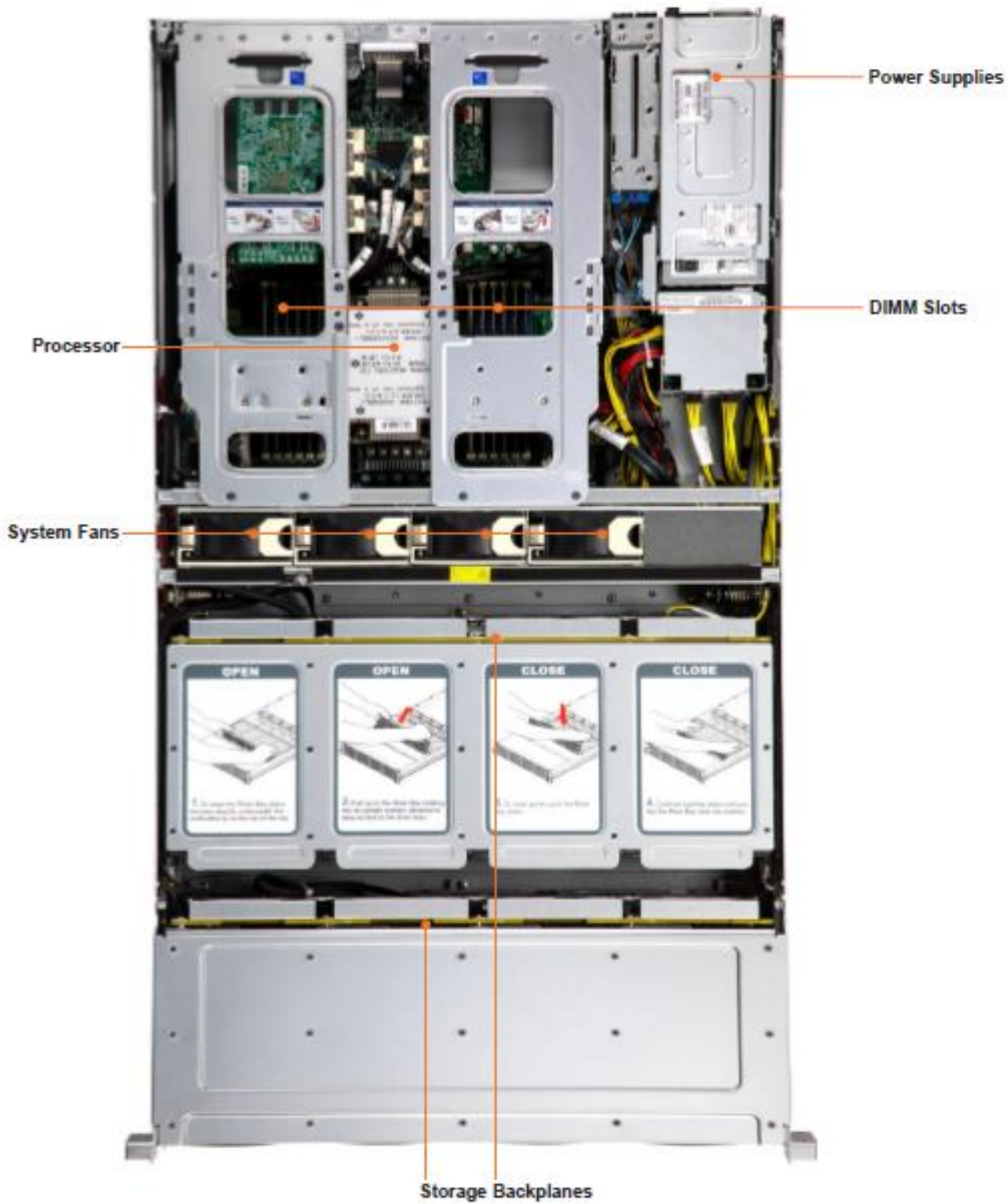## Rear View

Power Supply

Figure 1-6. Main Component Locations

2. Reportable Materials on ASG-2015S-E1CR24H

According to Article 8(2) and Annex VII of WEEE directive 2012/19/EU, below materials and components should be selectively treated.

Description	Notes	No.	Quantity
Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA)	With a surface greater than 10 sq cm (Depending on the system configuration)	2.3,3.5,4.2,5.1,6.1,8.2, 9.1,10.1 ,11.3,12.1,	54
Batteries	All types, including standard alkaline and lithium coin or button style batteries	12.2	1
Mercury-containing components	For example, mercury in lamps, display backlights, scanner lamps, switches, batteries		
Liquid Crystal Displays (LCD) with a surface greater than 100 sq cm	Includes background illuminated displays with gas discharge lamps		
Cathode Ray Tubes (CRT)			
Capacitors / condensers (Containing PCB/PCT)			
Electrolytic Capacitors / Condensers measuring greater than 2.5 cm in diameter or height	Depending on the power supply model	3.6	2
External electrical cables and cords		1.1	2
Gas Discharge Lamps			
Plastics containing Brominated Flame Retardants			
Components and parts containing toner and ink, including liquids, semi-liquids (gel/paste), and toner	Include the cartridges, print heads, tubes, vent chambers, and service stations.		
Components and waste containing asbestos			
Components, parts, and materials containing refractory ceramic fibers			
Components, parts, and materials containing radioactive substances			

3. Disassemble Instructions

The intent of this document is to provide guidance to recyclers on the presence of materials and components at the product / family level, as required by the EU WEEE Directive 2012/10/EU. This document should also help direct recyclers to proper methods for removing parts and general product disassembly instructions.
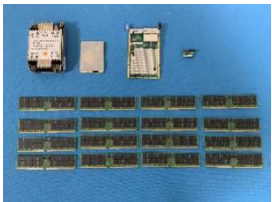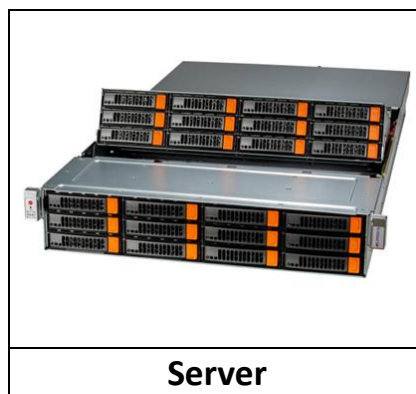
This chapter consists of three subsections:

Recommended disassembly tools, disassembled flowchart, and step-by-step disassembly instructions to direct recycler proper methods to treat.
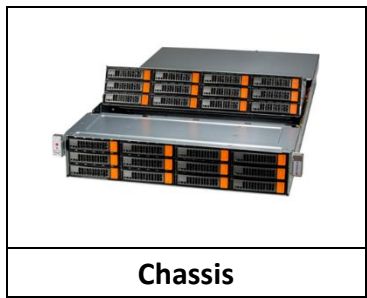
3.1 Recommended Disassembly Tools

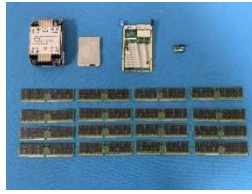|		
Disassembly tool	Cross screwdriver	
	Flathead screwdriver	

3.2 Disassembled flowchart

Server

Chassis	Power Supplies	RAM, CPU, Heatsink, AIOM Card	Power Cords

Chassis

Storage Backplane*2 set	Fans* 4set	Screws	Motherboard*1 set
Battery*1 set	Cables		

Power Supply

|		
Power Enclosure*2	Screws and Standoff*2 Set	Power Supply Module*2

Storage Card and CPU

|		
Heat Sink*1 set	Processor*1 set	SSD *2 set
M.2 *2 set	DIMM *3 set	AIOM Card *2 set
HDD *24 set		

3.3 Step-by-Step Disassembly Instructions

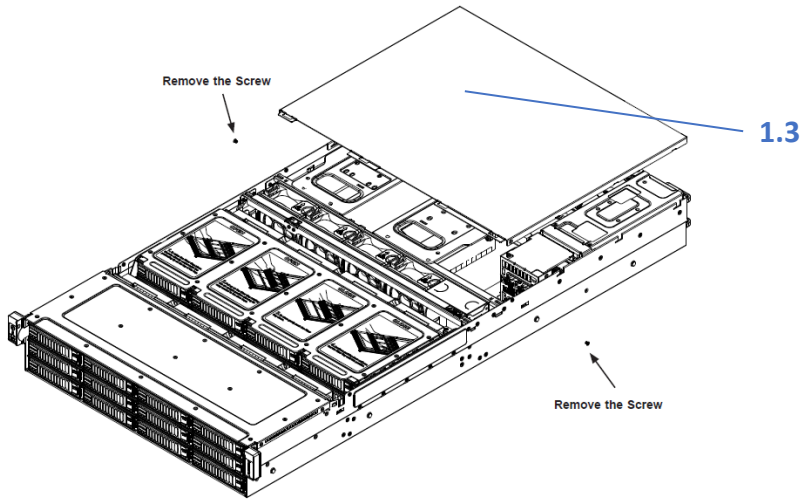### 1. Removing Cable and Chassis Cover

1. Use the operating system to power down the system.

2. After the system has completely shut-down, disconnect the power cords from the power supply modules.

3. Remove all cables/ unit from the server IO port.

Power Supplies (PSU1, PSU2)   2.5" Drives   VGA Port   IPMI Port   COM Port   USB Ports

1.1
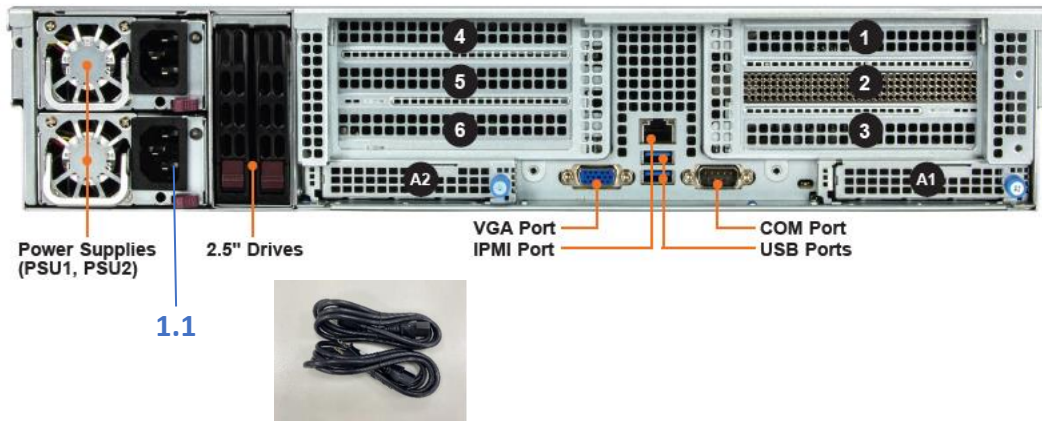
4.Remove the two screws securing each side of the cover, push in the release buttons, then lift the mid-chassis cover.

Remove Screw

Push Button

Remove Screw

Push Button

1.2
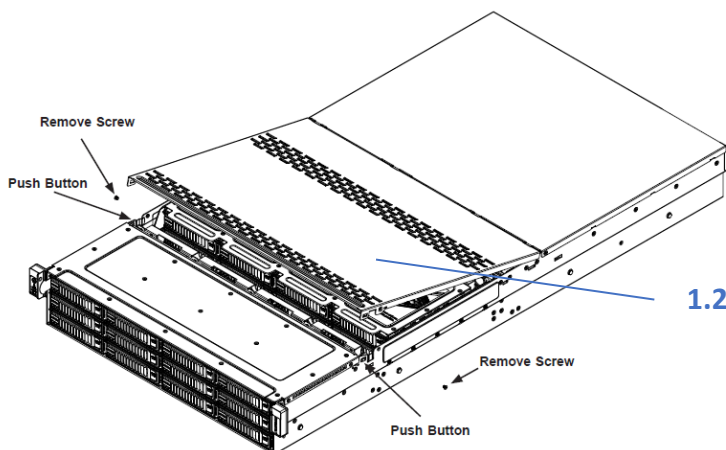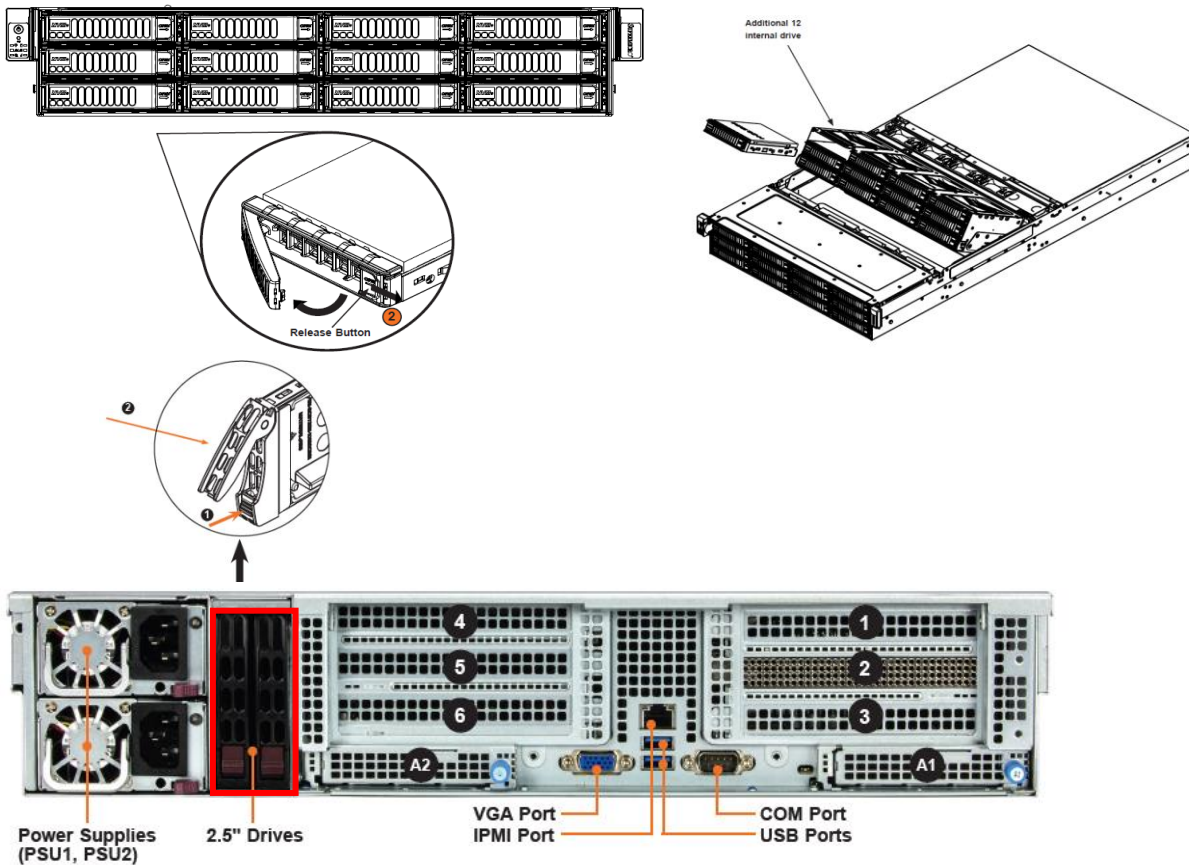
5. Remove the two screws on the side of the chassis and the thumbscrew at the rear of the chassis, then slide the cover to the rear and off.
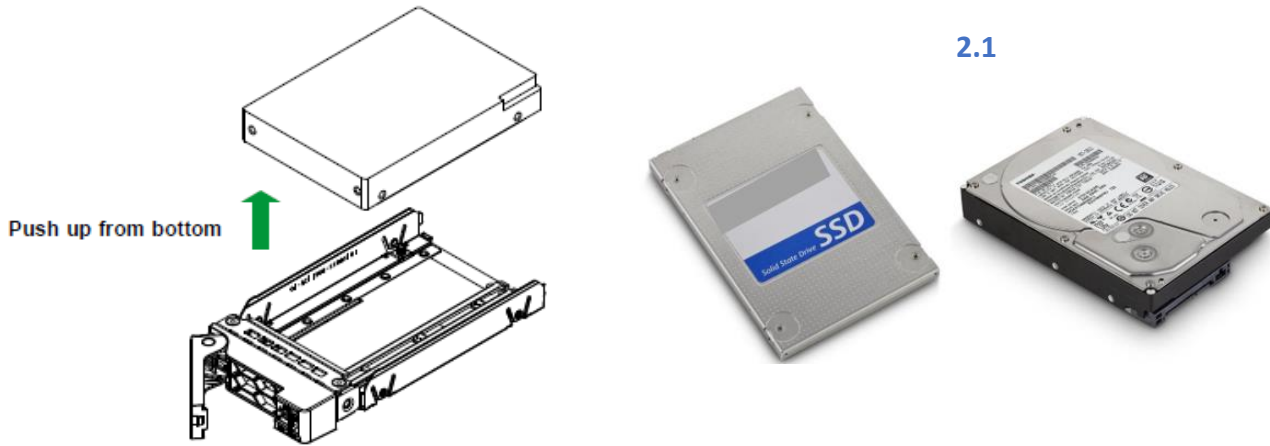
Remove the Screw

1.3

Remove the Screw

No.	Description
1.1	Power Cable
1.2	Mid-Chassis Cover
1.3	Rear Cover

## 2. Removing Hard Disk Drive (HDD) / Solid State Drive (SDD)

1. Press the release button to extend the drive carrier handle.

2. Use the drive carrier handle to pull the drive out of the chassis.

Additional 12 internal drive

Release Button

Power Supplies (PSU1, PSU2)   2.5" Drives

VGA Port
IPMI Port
COM Port
USB Ports

3. Push up from the bottom of the SSD as shown below to remove it from the drive tray.

2.1

2.2

5. Use a cross screwdriver to remove drive enclosure

2.3
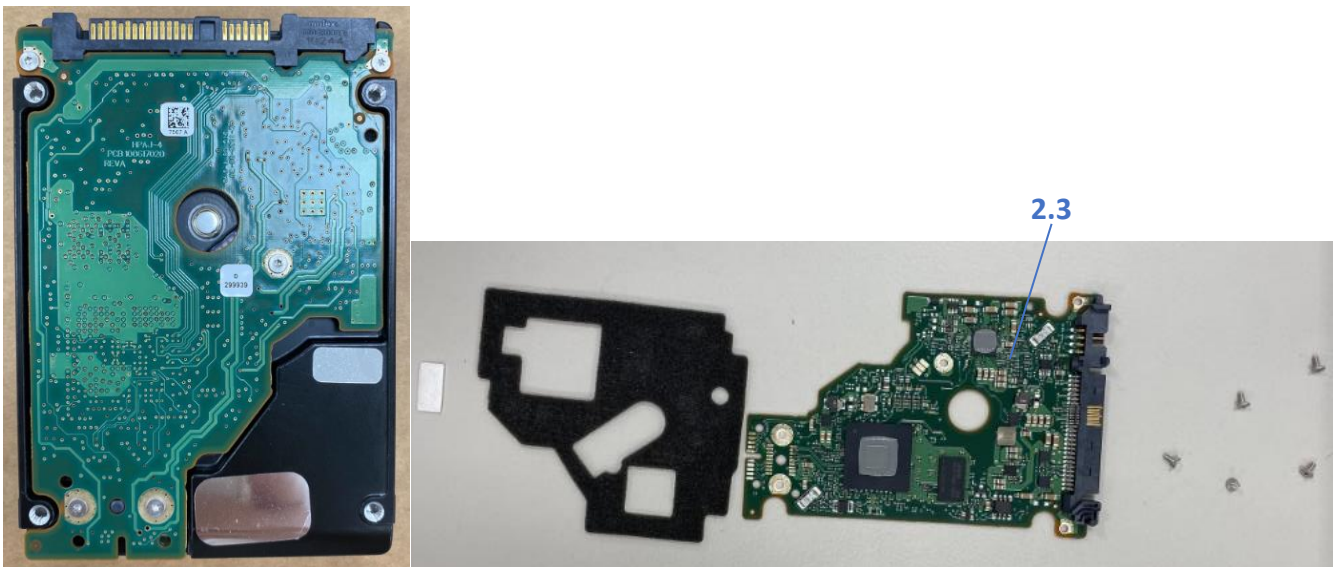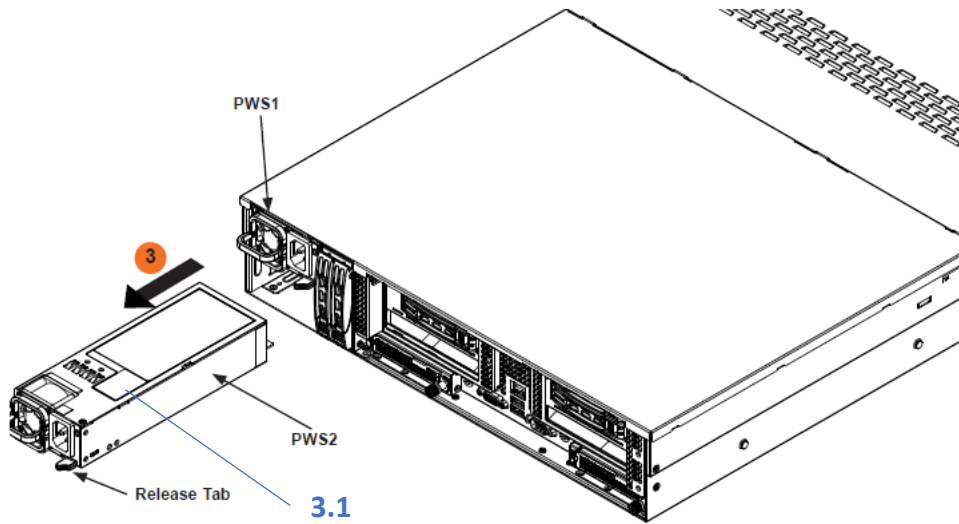
6. Use a cross screwdriver to remove screws and lift off the PCB

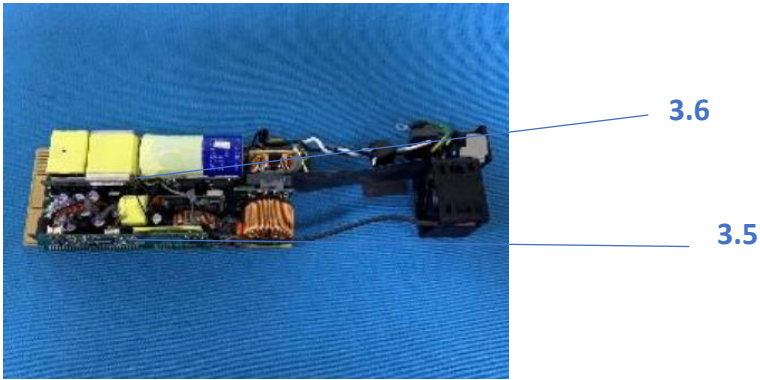| No.	Description
2.1	HDD/ SSD
2.2	Hard Drive Enclosure
2.3	Hard/ SSD Drive PCB

3. Removing Power Supply

1. Ensure the system is unplugged and powered down.
2. Release the locking clip to unlock the power supply module.
3. Pull out the locking lever and remove the unit.

PWS1

3

PWS2

Release Tab

3.1

4. Remove the screw from the enclosure

3.2

3.3

3.4

4. Cut the power leads connected to the fan and lift the main board from the chassis

3.6

3.5

5. Use a flathead screwdriver to cut the capacitor adhesive and pin solder.

Pin

Adhesive

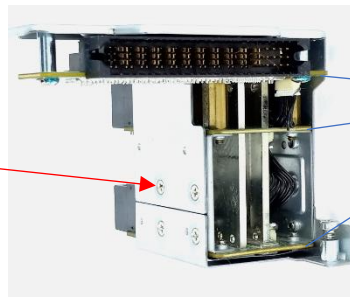| No.	Description
3.1	Power Supply
3.2	Power Enclosure
3.3	Fan
3.4	Fan Cable
3.5	Power Module PCB
3.6	Capacitor

4. Removing Power Distributor

1. Disconnect the power cords from the power supply modules.
2. Unplug the power distributor from the motherboard and backplane.
3. Remove 4 screws and lift out the power distributor from the chassis
4. Remove power distributor screw and standoffs then take three PCBs from the power distributor.

4.1
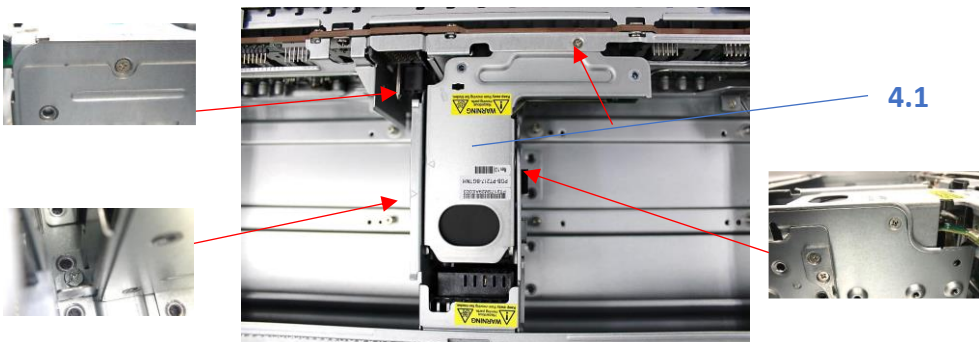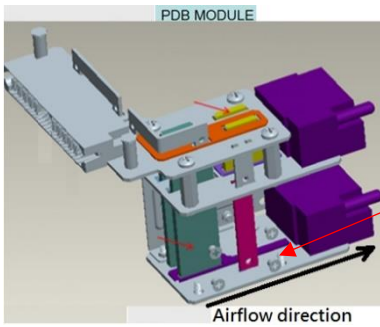
Remove screws and standoff

4.2

Airflow direction

No.	Description
4.1	Power Distributor
4.2	Power Distributor PCBs

5. Removing Advanced I/O (AIOM) Network Card

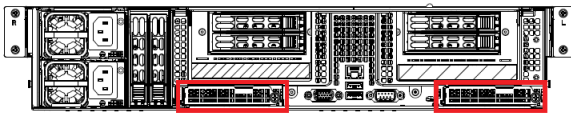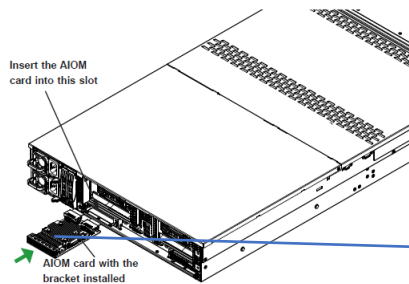1. Loosen the thumbscrew using your hand.
2. Slide the AIOM out of the opening.
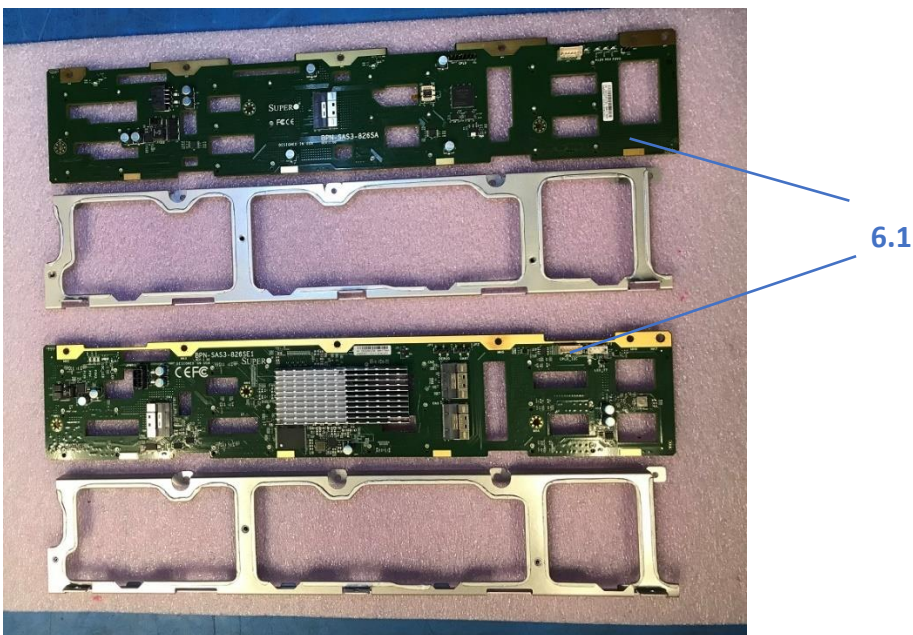

Figure 3-23. AIOM Card Position on Chassis Rear

Insert the AIOM card into this slot

AIOM card with the bracket installed

5.1

No.	Description
5.1	AIOM Network Card

6. Removing Backplane

1. Unscrew the screws (circled in red) holding the Power Distributor (PDB) bracket from the chassis.
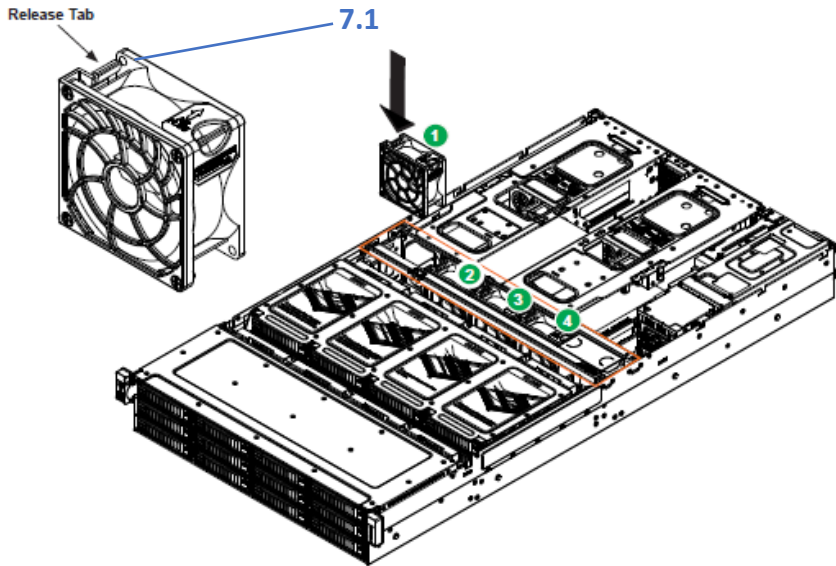
2. Unscrew the PDB backplane from the bracket as shown below.

6.1

| No.	Description
6.1	Power Distributor Backplane

7. Removing Fan

1. Press the fan release tab to lift the failed fan from the chassis and pull it completely out of the chassis.

Release Tab

7.1

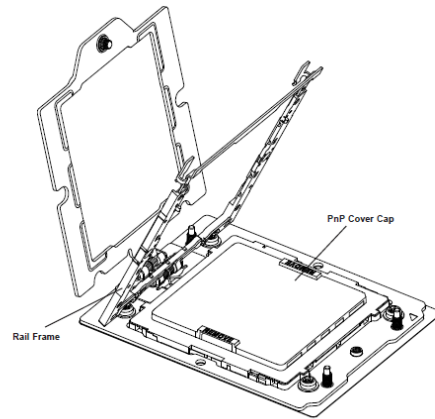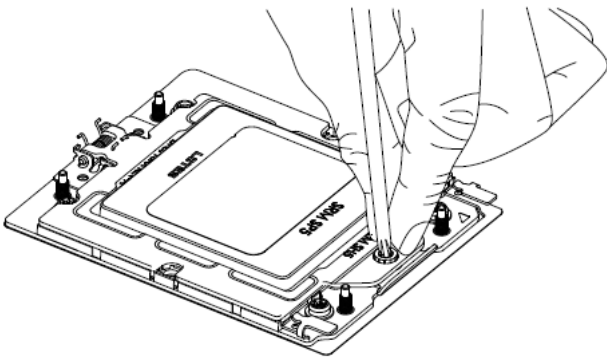| No.	Description
7.1	Cooling Fans

8. Removing Processor

1. Remove the heatsink attached to the top of the CPU package by reversing the installation procedure.

Screw #5

Screw #3

Screw #2

Screw #4
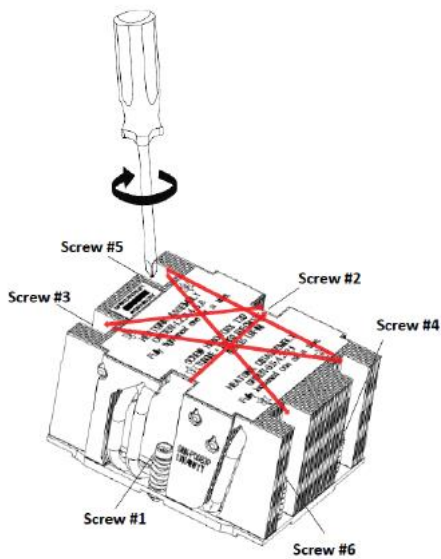
Screw #1

Screw #6

2. Clean the thermal grease left by the heatsink on the CPU package lid to limit the risk of it is contaminating the CPU package land pads or contacts in the socket housing.

8.1
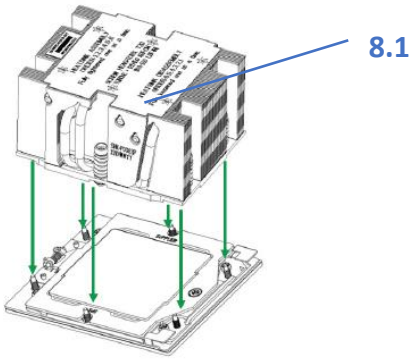
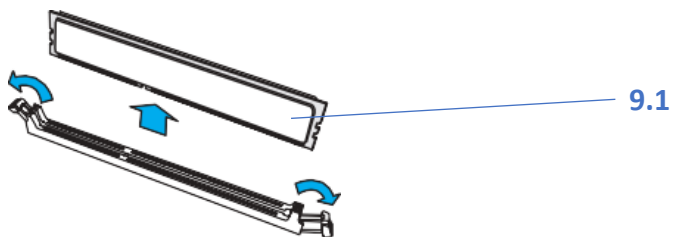3. Remove the CPU socket screw and lift the rail frame, PnP cover cap

PnP Cover Cap

Rail Frame

4. Pull upwards CPU to extract it from the rail frame.

Carrier Frame / CPU Package

8.2
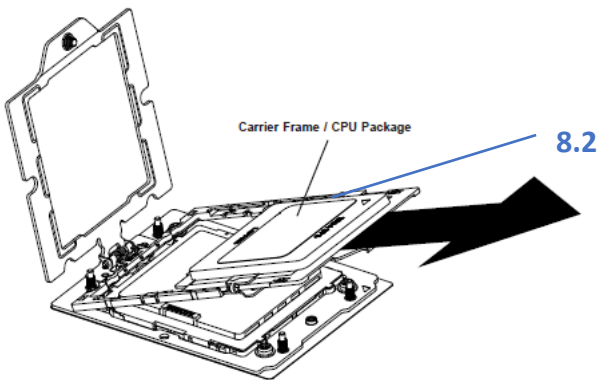
Note: Please handle the processor with care to avoid damaging it or its pins

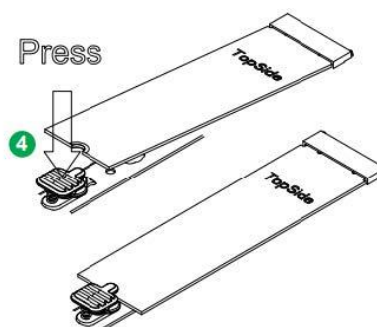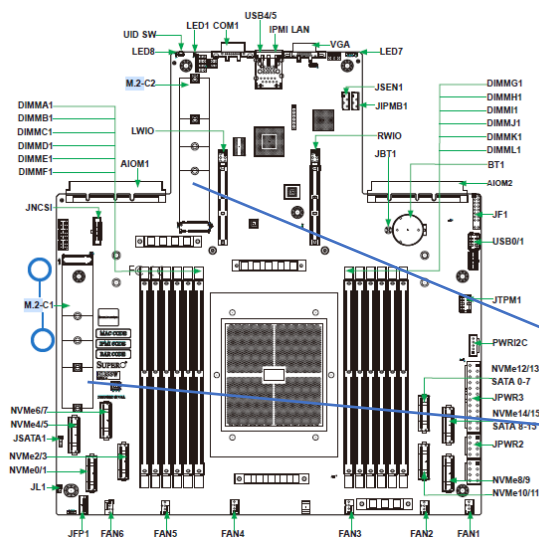| No.	Description
8.1	Heat Sink
8.2	Processor

9. Removing DIMM

9.1

1. Hand press both release tabs on the ends of the DIMM module to unlock it
2. Once the DIMM module is loose, remove it from the memory slot

No.	Description
9.1	DIMM

10. Removing the M.2 from the Motherboard

1. Locate the M.2 on the motherboard near the JMD1 and JMD2 connections and press down on the clip holding the M.2 in place.
2. Turn the clip and release the M.2.
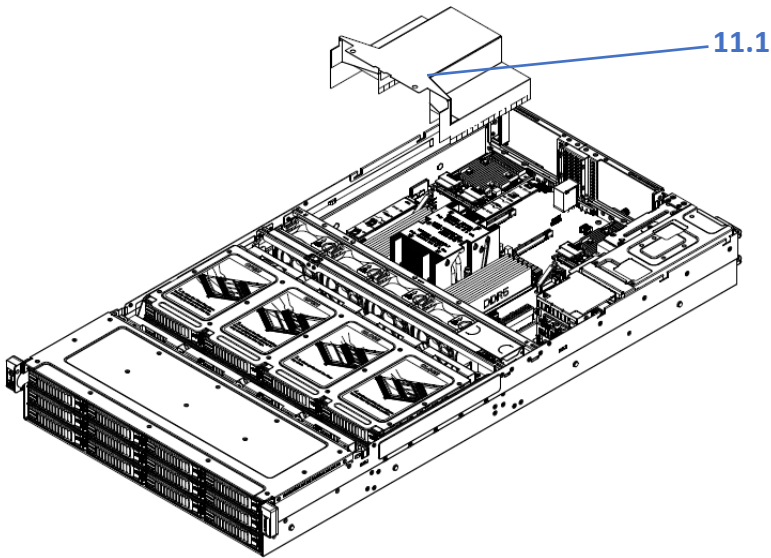3. Gently pull the M.2 out of the socket.

10.1

No.	Description
10.1	M.2

11. Removing the Air shroud, Riser, and the Riser Bracket

1. Remove the Cable protector and tall standoffs from the node using a screwdriver as shown below.

2. Lift and remove the air shroud from the node.

3. Unscrew the two screws holding each riser card to remove riser cards from bracket.

No.	Description
11.1	Air Shroud
11.2	Riser Backet
11.3	Riser Card

12. Removing Motherboard

1. Unscrew the screws (circled in red) on the motherboard and lift the motherboard out of the chassis.

2. Push aside the small clamp that covers the edge of the battery. When the battery is released, lift it out of the holder.
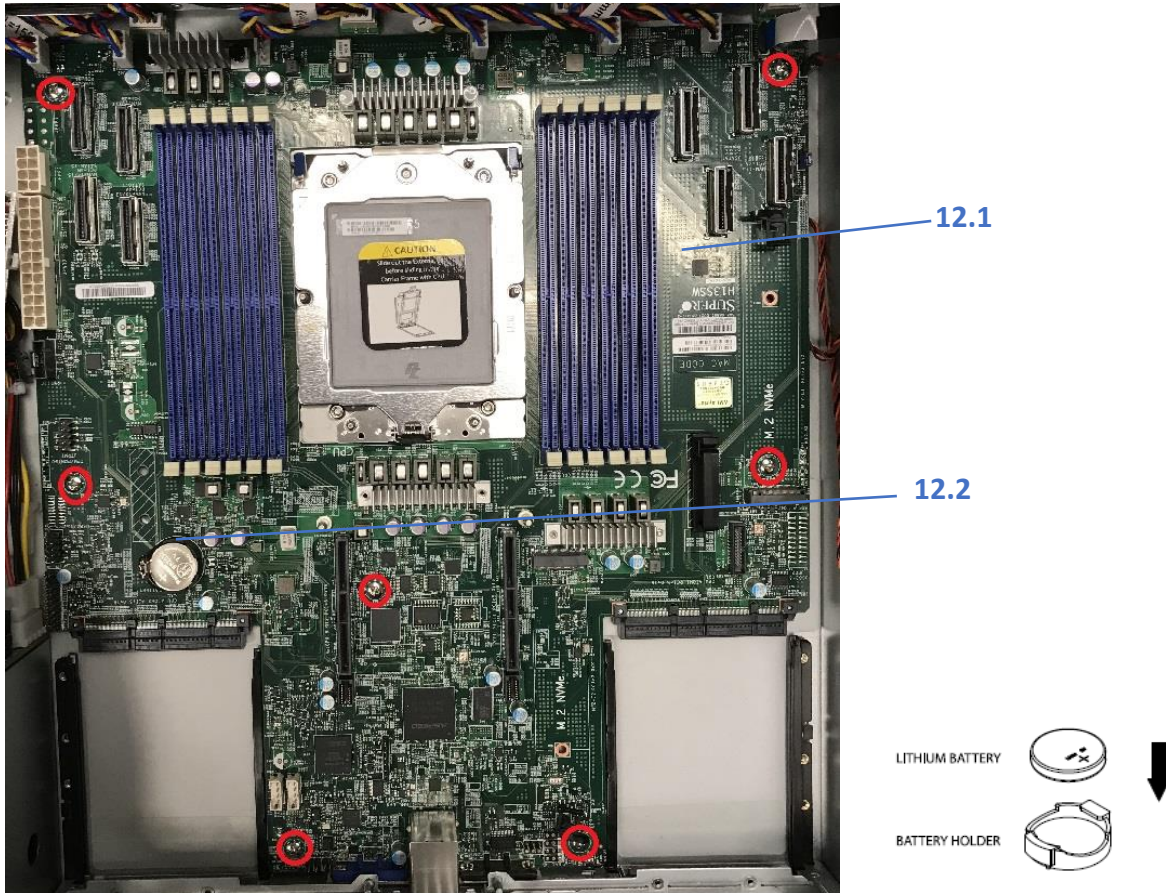
No.	Description
12.1	Motherboard
12.2	Battery

When the all the steps are complete, the chassis enclosure can be recycled.