



## WEEE DISASSEMBLY INSTRUCTIONS

### SUPERMICRO SYS-211E-FRN2T 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

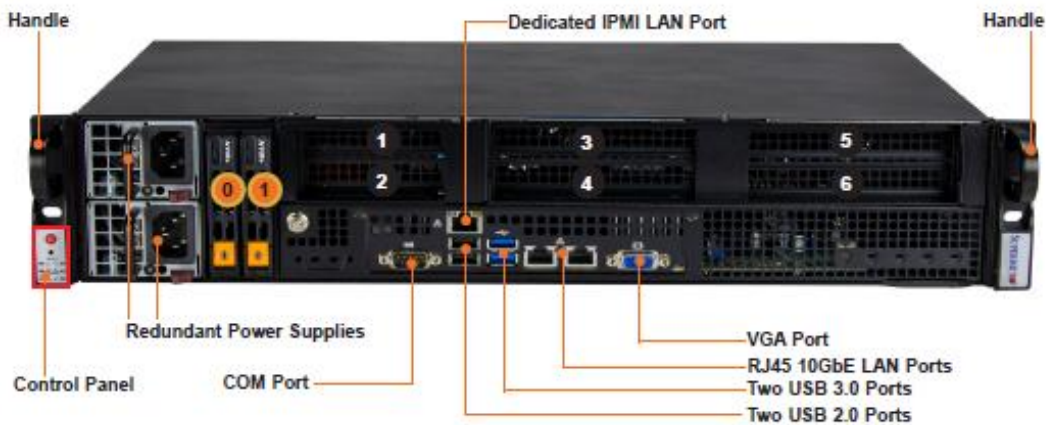
## Front view



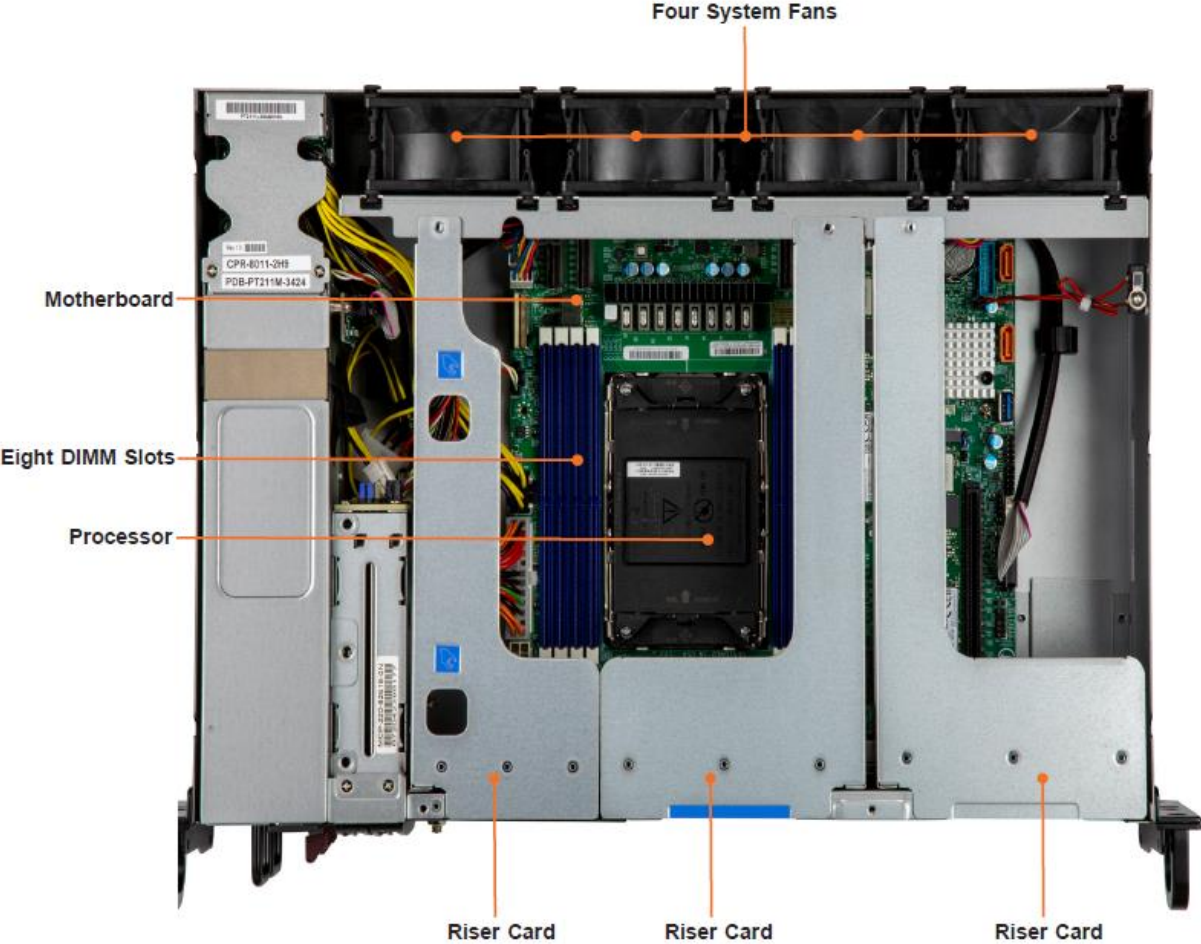
## Rear view



## Product construct view



# Main Components



## 2. Reportable Materials on SYS-221E-FRN2T

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 configuration)	2.4,3.5,4.2,5.1, 7.3, 8.2, 9.2,10.1, ,11.1	13
Batteries	All types, including standard alkaline and lithium coin or button style batteries	11.2	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.

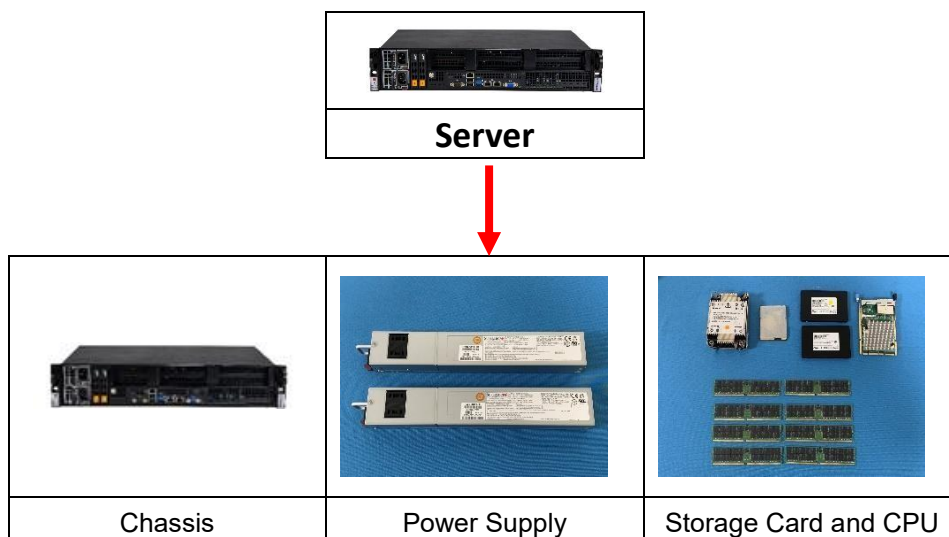
This chapter consists of three subsections:

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










#### 3.1 Recommended Disassembly Tools

<b>Disassembly tool</b>	T30-bit screwdriver	
	Cross screwdriver	
	Flathead screwdriver	

#### 3.2 Disassembled flowchart

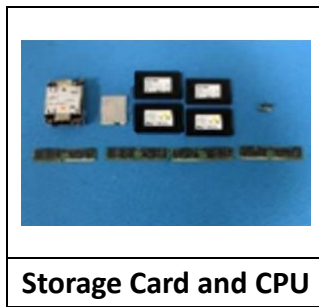




			
<p>Motherboard</p>	<p>Backplane</p>	<p>Riser Card</p>	<p>Riser Card</p>
			
<p>Screw, Stand-off</p>	<p>Cable</p>	<p>Cable</p>	<p>Fan</p>
			
<p>Battery</p>			



Power Enclosure*2	Screw and Standoff*2 Set	Power Supply Module*2	Power Distributor*1



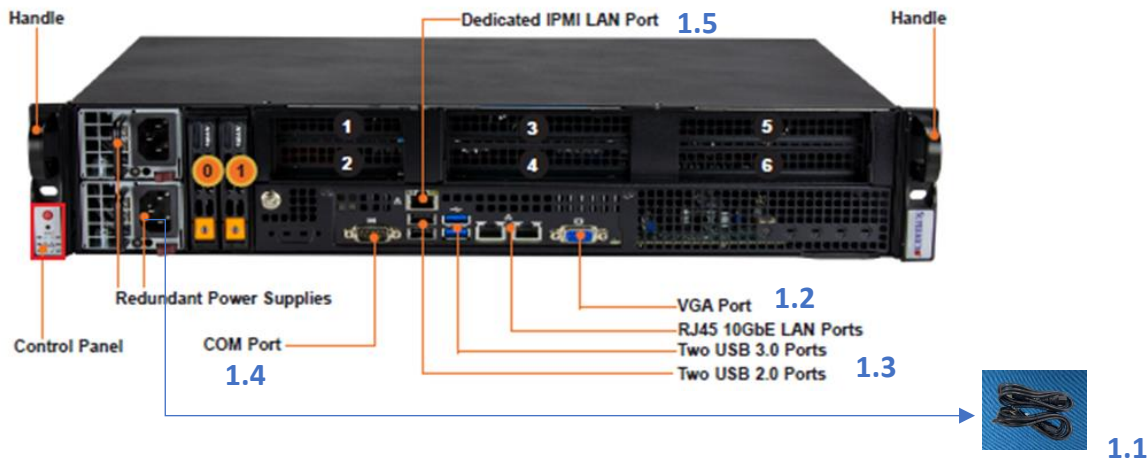
Heat Sink	Processor	SSD * 2
GPU	Power Cable	



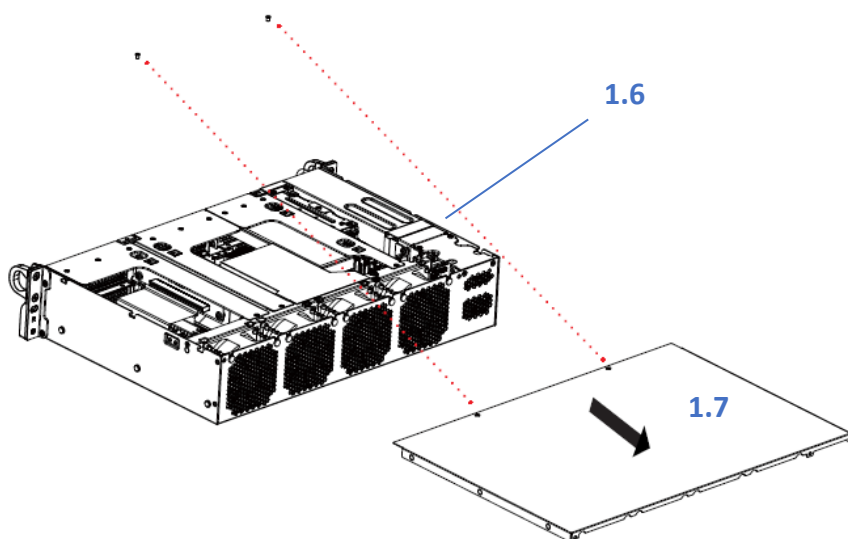
### 3.3 Step-by-Step Disassembly Instructions

#### 1. Removing Cable and Chassis Top Cover

1. Use the operating system to power down the system.
2. After the system has completely shutdown, disconnect the power cords from the power supply modules.
3. Remove all cables/ unit from the server IO port.



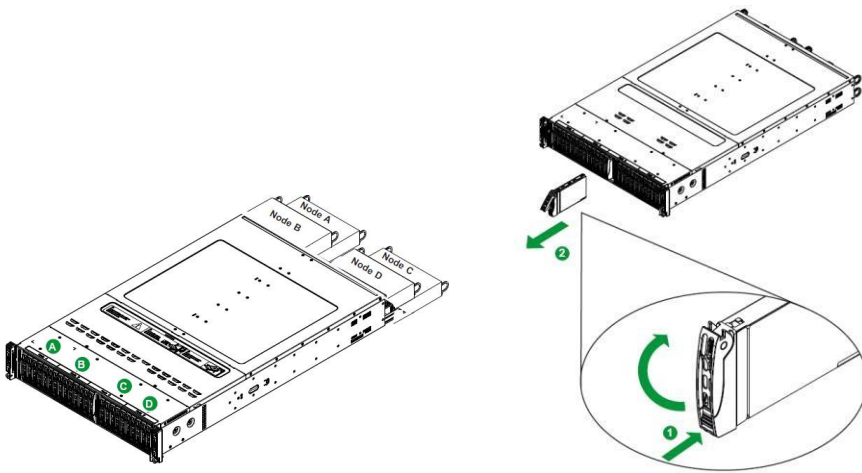
4. The chassis top cover can be lifted off after removing two screws.



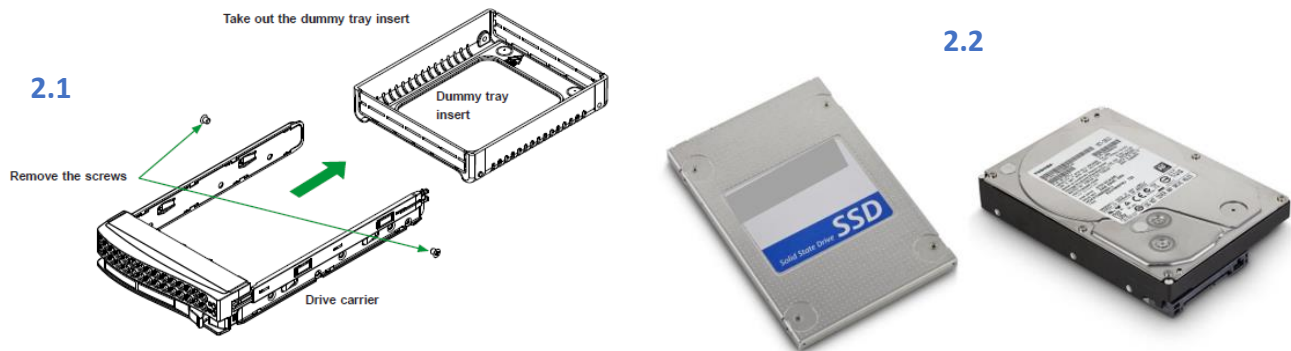
No.	Description	No.	Description
<a href="#">1.1</a>	Power Cable	1.6	Chassis
1.2	VGA Port	1.7	Top Cover
1.3	USB Port		
1.4	COM LAN		
1.5	LAN Port		

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

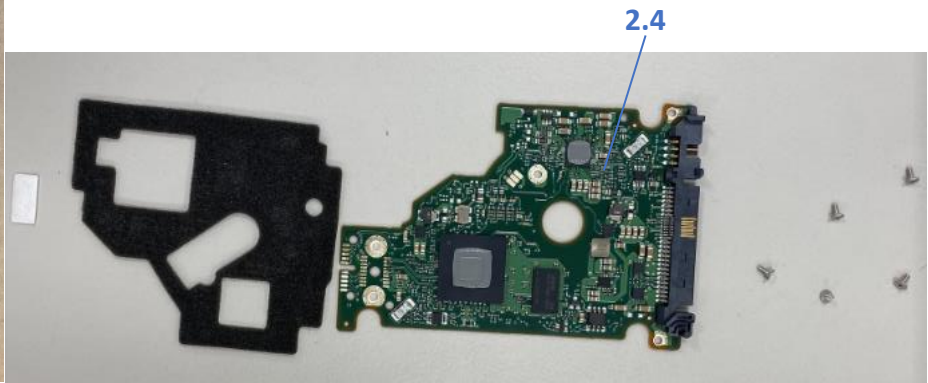
1. Push the release button on the drive carrier, which will extend the drive bay handle
2. Use the drive bay handle to pull the drive carrier out of the chassis



3. Remove the dummy tray insert by first removing two screws, then pull out the dummy tray



5. Use a cross screwdriver to remove drive enclosure

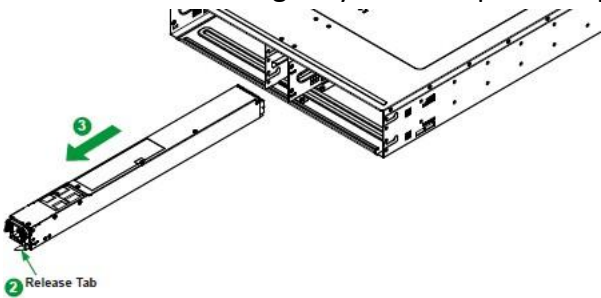


6. Use a cross screwdriver to remove screws and lift off the PCB

No.	Description
2.1	Dummy Tray
2.2	HDD/ SSD
2.3	Hard Drive Enclosure
<a href="#">2.4</a>	Hard Drive PCB

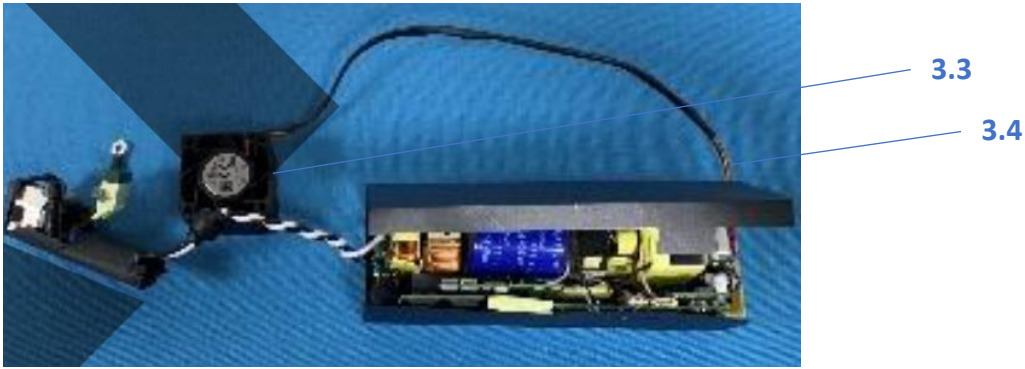
### 3. Removing Power Supply

1. Press the release tab on the failed power supply.
2. Use the handle to gently slide the power supply out the back of the chassis.



3. Remove the screw from the enclosure





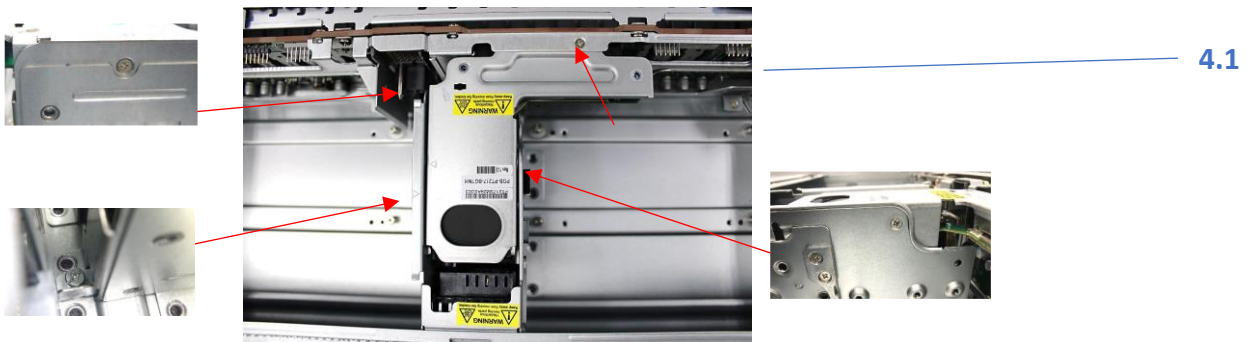
4. Cut the power leads connected to the fan and lift the main board from the chassis

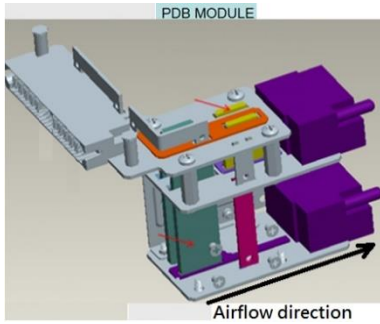


No.	Description
3.1	Power Supply
3.2	Power Enclosure
3.3	Fan
3.4	Fan Cable
<a href="#">3.5</a>	Power Module PCB
<a href="#">3.6</a>	Capacitor

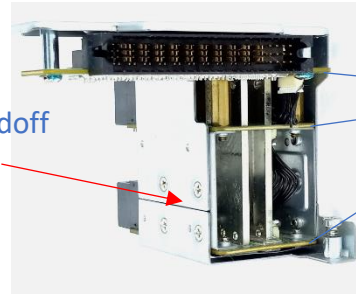
#### 4. Removing Power Distributor

1. Disconnect the power cords from the power supply modules.
2. Remove 4 screws and lift out the power distributor from the chassis
3. Remove power distributor screw and standoff then take PCB from the power distributor.





Remove screw and standoff



No.	Description
4.1	Power Distributor
<a href="#">4.2</a>	Power Distributor PCB

## 5. Removing Backplane

1. Remove the backplane 8 screws from the chassis

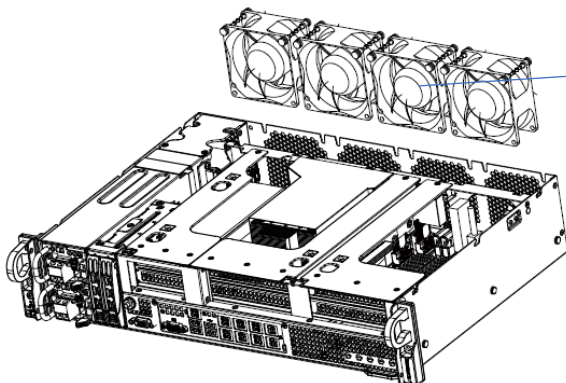


5.1

No.	Description
<a href="#">5.1</a>	Backplane

## 6. Removing Fan

1. Remove the AIOM and expansion card brackets to access the failed fan's power cable.
2. Lift the fan housing up and out of the chassis.
3. Push the fan up from the bottom and out of the top of the housing.

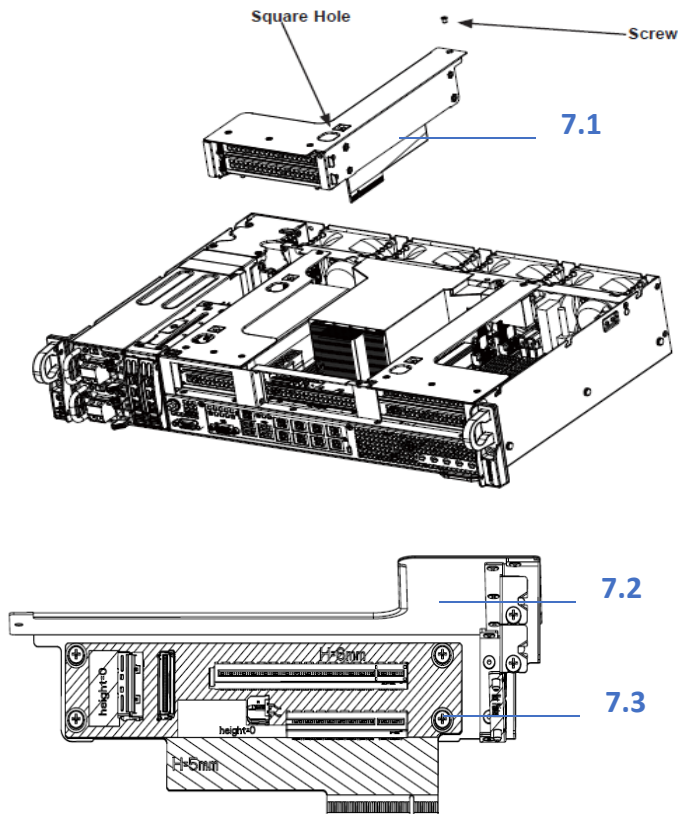


6.1

No.	Description
6.1	Cooling Fan

## 7. Removing Expansion Card

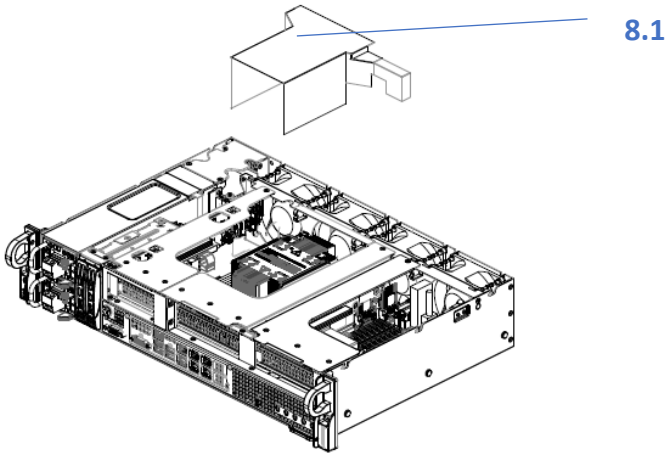
1. Remove the top cover.
2. Remove the screw as shown below.
3. Remove the bracket from the chassis using the square hole at the top of the bracket.



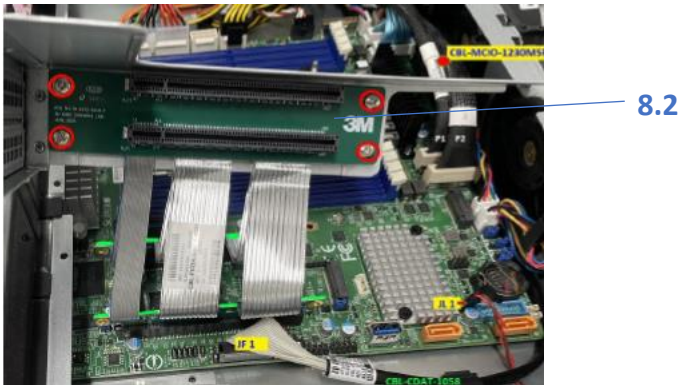
No.	Description
7.1	Expansion Card
7.2	Expansion Bracket
<a href="#">7.3</a>	Expansion PCB

## 8. Removing the Air shroud, Riser, and the Riser Bracket

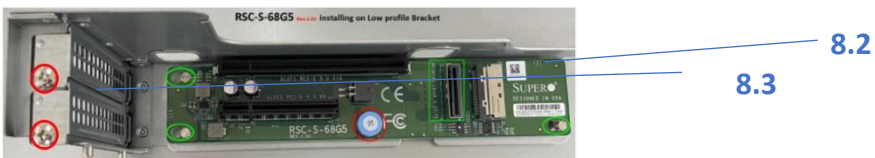
1. Take air shroud away from the chassis.



2. Removing the screw from riser card, take away riser card (in red).



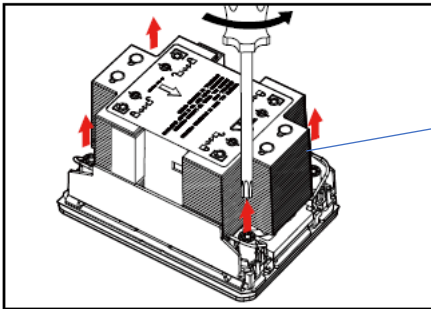
3. Removing the screw from riser bracket and lift riser card.



No.	Description
8.1	Air shroud
<a href="#">8.2</a>	Riser Card
8.3	Riser Bracket

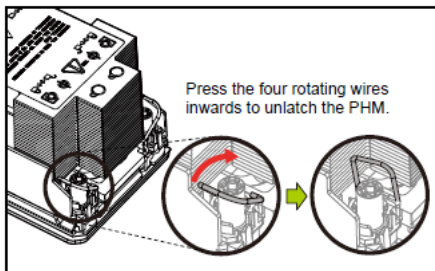
## 9. Removing Processor

1. Use a T30 Torx-bit screwdriver to loosen the four screws. You can start with any screw, but make sure to loosen the screws in a diagonal pattern.

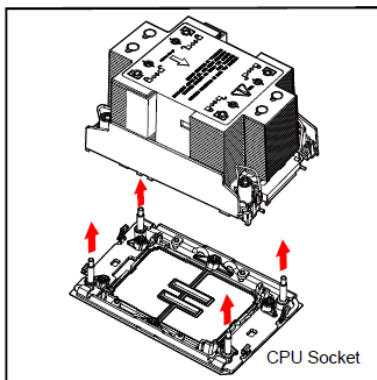


9.1

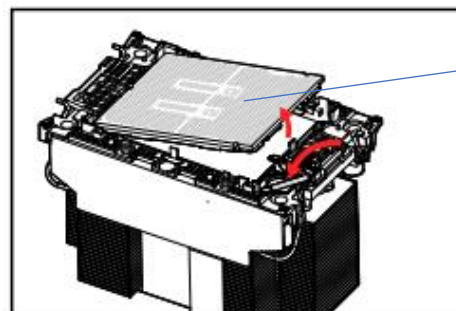
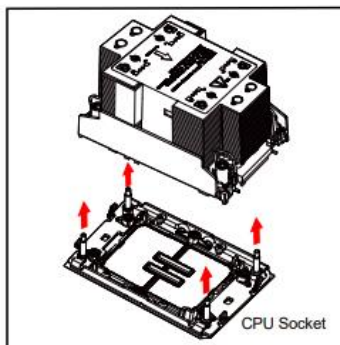
2. Press the four rotating wires inwards to unlatch the PHM from the socket.



3. Gently lift the PHM upwards to remove it from the socket.



4. . To remove the CPU, move the lever to its unlocked position and gently remove the CPU.

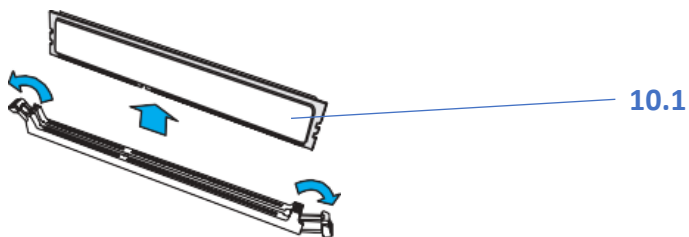


9.2

No.	Description
9.1	Heat Sink
<a href="#">9.2</a>	Processor



## 10. Removing DIMM

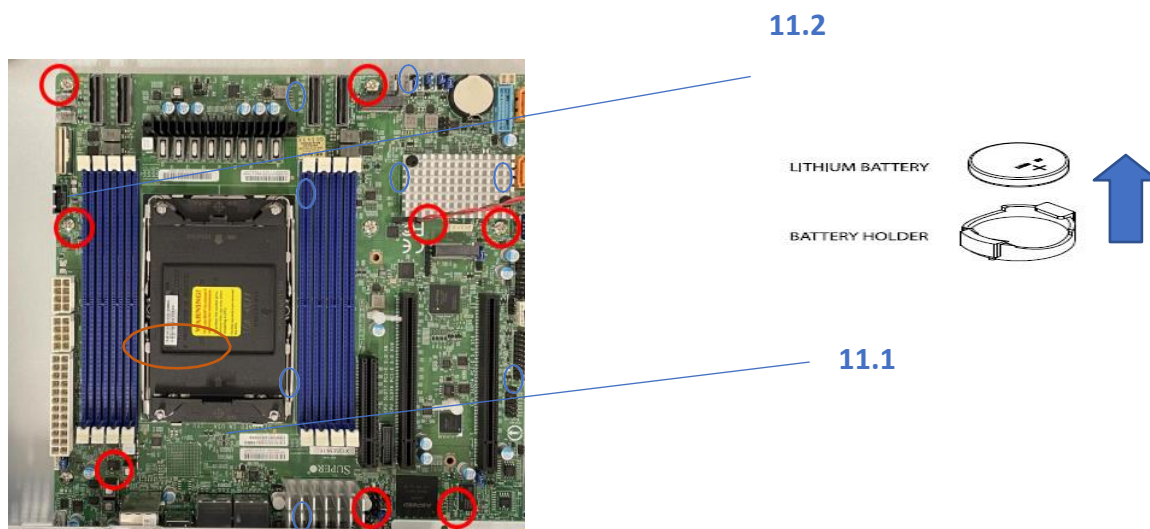


1. Hand press both release tabs on the ends of the DIMM module to unlock it
2. Once the DIMM module is loose, remove it from the memory slot

No.	Description
<a href="#">10.1</a>	DIMM

## 11. Removing Motherboard

1. Remove screws, lift out motherboard
2. Push aside the small clamp that covers the edge of the battery. When the battery is released, lift it out of the holder
3. When the motherboard is removed, the enclosure can be recycled



No.	Description
<a href="#">11.1</a>	Motherboard
<a href="#">11.2</a>	Battery