



WEEE DISASSEMBLY INSTRUCTIONS

SUPERMICRO SYS-621H-TN12R 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

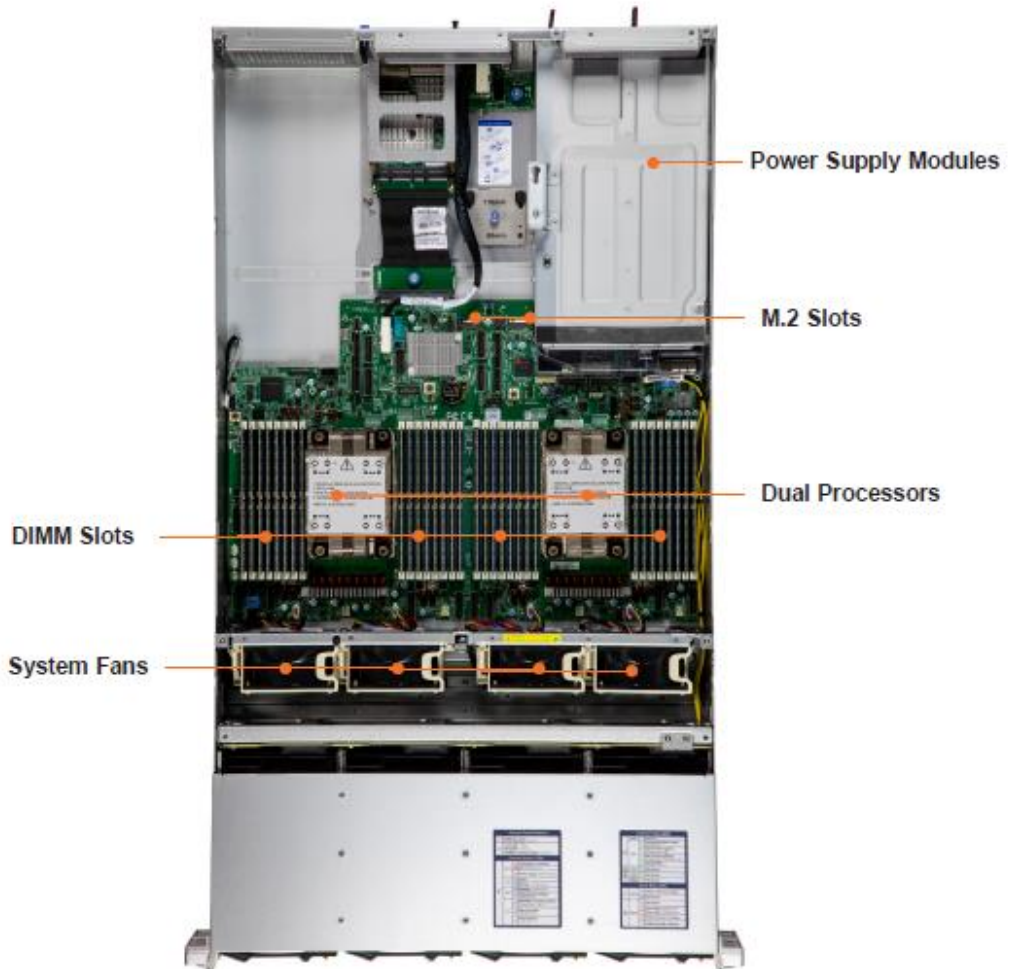
Front view



Rear view



Product construct view



2. Reportable Materials on SYS-621H-TN12R

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	2.4,3.5,4.1,6.2,7.2,8.1,9.1,10.1,10.2,10.3,11.1,12.1	22
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.

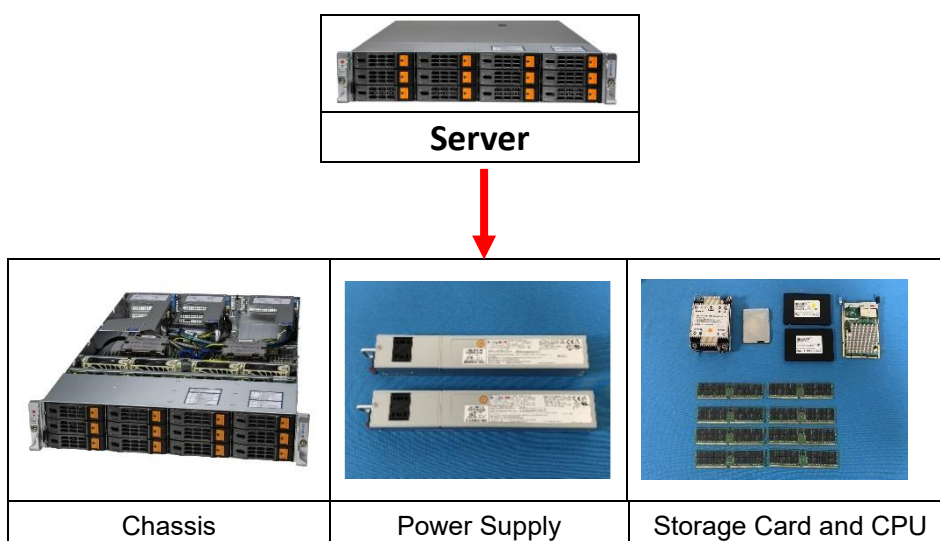
This chapter consists of three subsections:

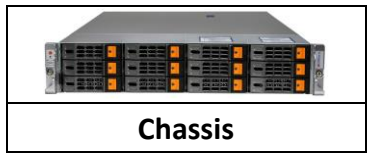
Recommended disassembly tools, disassembled flowchart, and step-by-step disassembly instructions to direct recycler proper methods to treat.

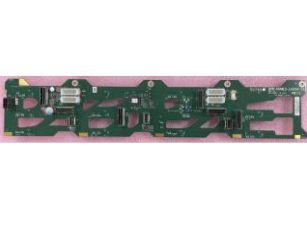

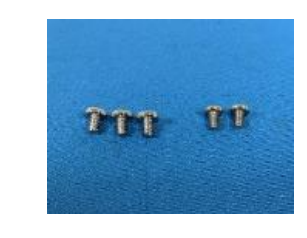


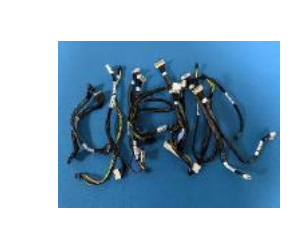

3.1 Recommended Disassembly Tools

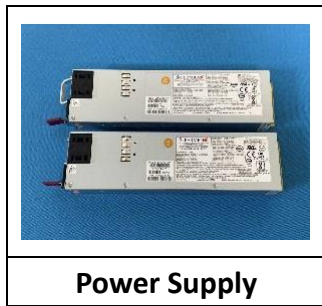
Disassembly tool	T30-bit screwdriver	
	Cross screwdriver	
	Flathead screwdriver	
	T20 screwdriver	

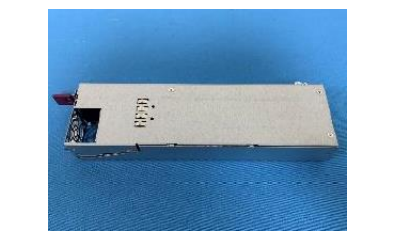

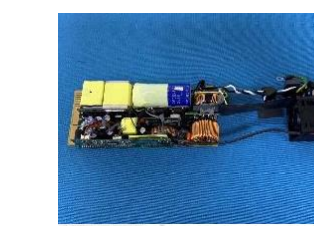
3.2 Disassembled flowchart

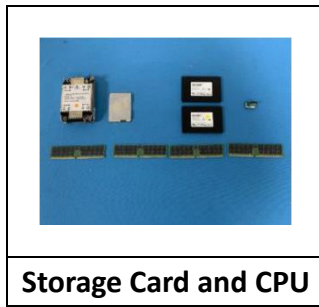




			
Backplane	Plastics Cover	Screw	Fan
			
Motherboard	Cable	Battery	



		
Power Enclosure*2	Screw *2 Set	Power Supply Module*2



Heat Sink *2	Processor *2	SSD *2set
TPM	DIMM *2set	Power Cable
M.2 *2	AIOM, Add-on Card	

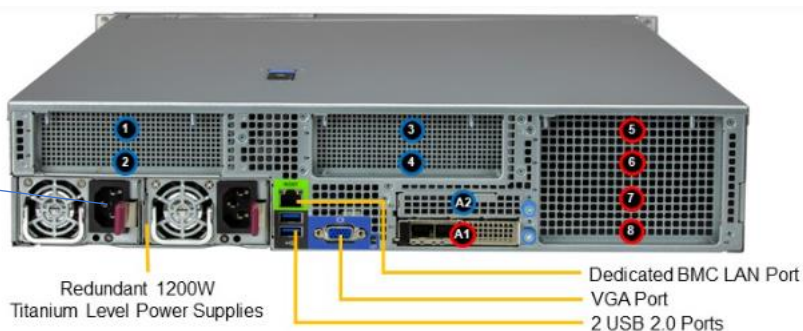
3.3 Step-by-Step Disassembly Instructions

1. Removing Cable and Chassis Top Cover

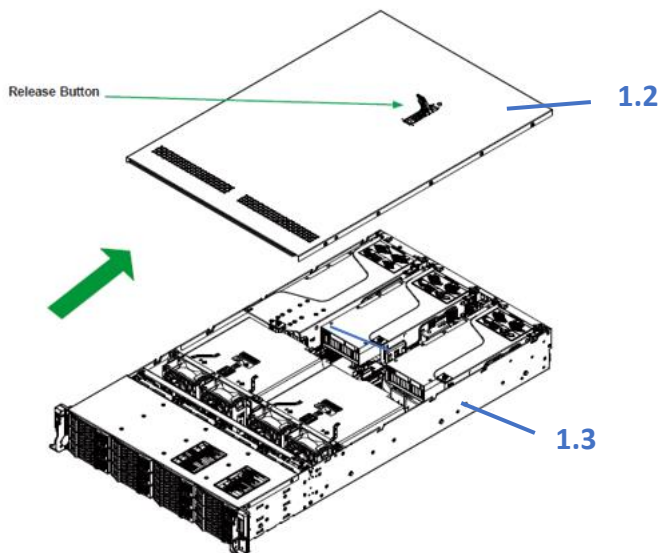
1. Use the operating system to power down the system.
2. After the system has completely shut-down, disconnect the power cords from the power supply modules.
3. Remove all cables/ unit from the server IO port.



1.1



4. The chassis top cover can be lifted off after pressing down on release buttons and sliding the cover off.



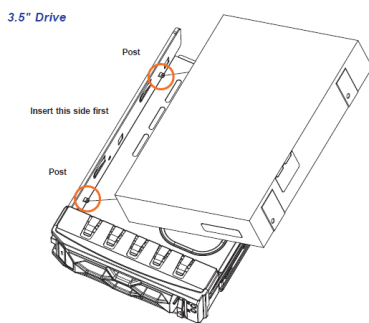
No.	Description
1.1	Power Cable
1.2	Top Cover
1.3	Chassis

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

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



3. Remove the drive from the two post by hand.



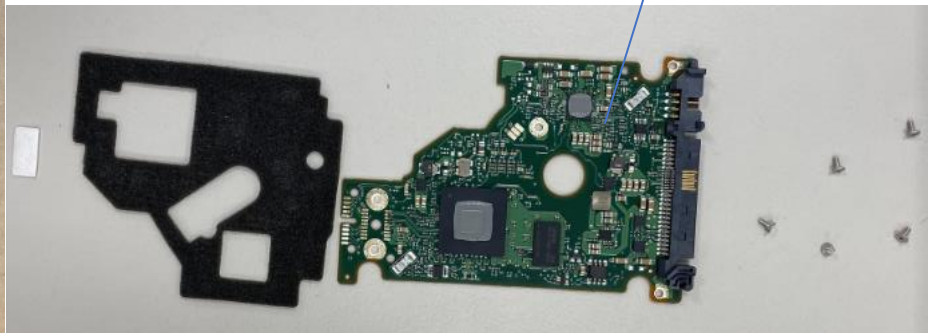
4. Remove screw then pick up the drive.





2.3

5. Use a cross screwdriver to remove drive enclosure



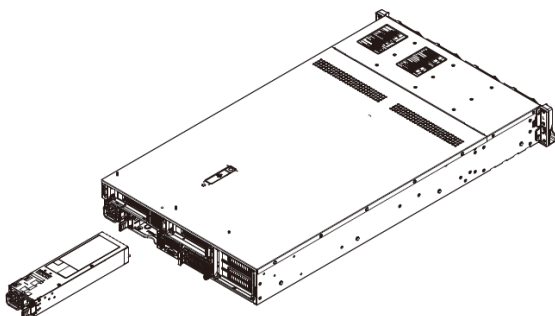
2.4

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

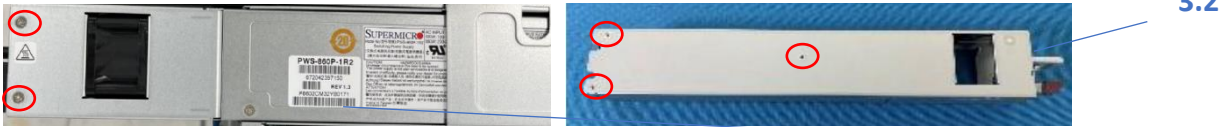
No.	Description
2.1	Dummy Tray
2.2	HDD/ SSD
2.3	Hard Drive Enclosure
2.4	Hard Drive PCB

3. Removing Power Supply

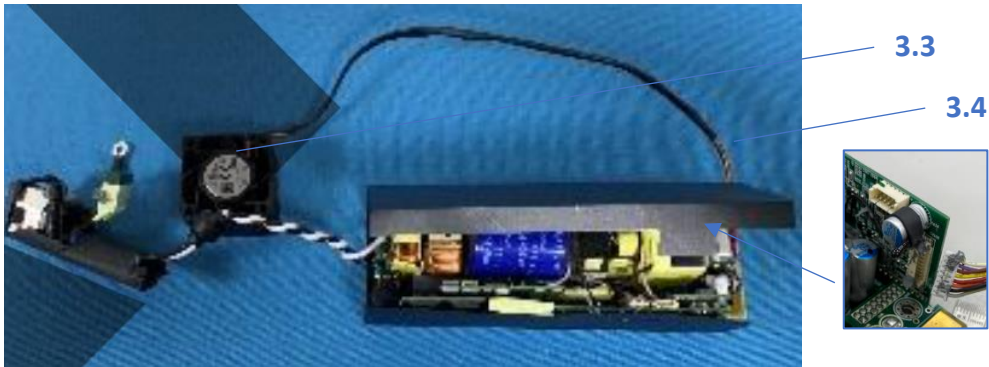
1. Press the release tab on the power supply.
2. Use the handle to gently slide the power supply out the back of the chassis.



4. Remove the screw from the enclosure



5. Disconnected to the fan and lift the main board from the chassis by hand



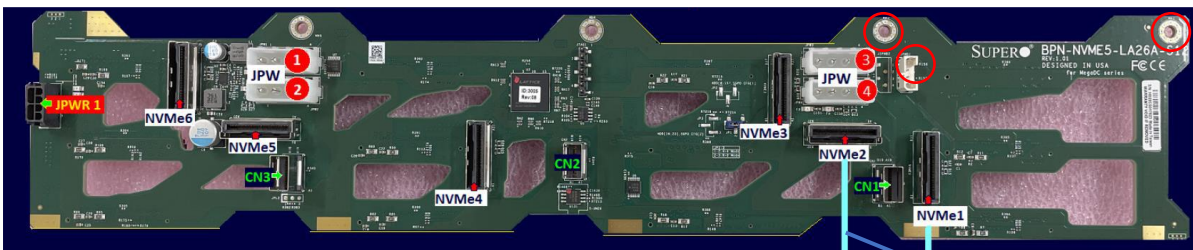
5. Use a flathead screwdriver to cut the capacitor adhesive and pin solder.



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 Backplane

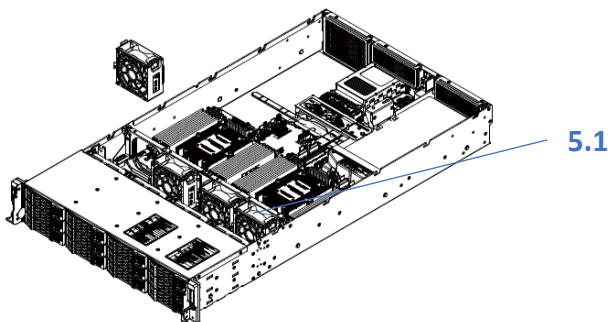
1. Remove the backplane's 2 screws from the chassis and then remove backplane from chassis.



No.	Description
4.1	Backplane

5. Removing Fan

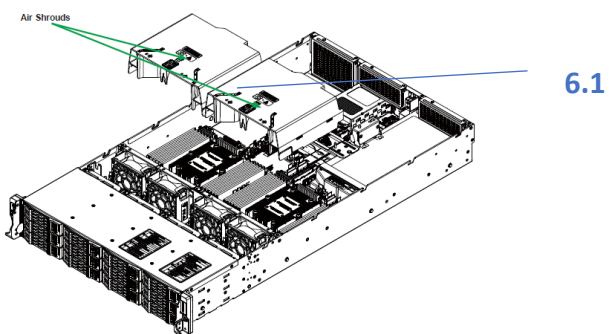
1. Disconnect the chassis fan from the motherboard fan connectors and lift fans out of chassis.



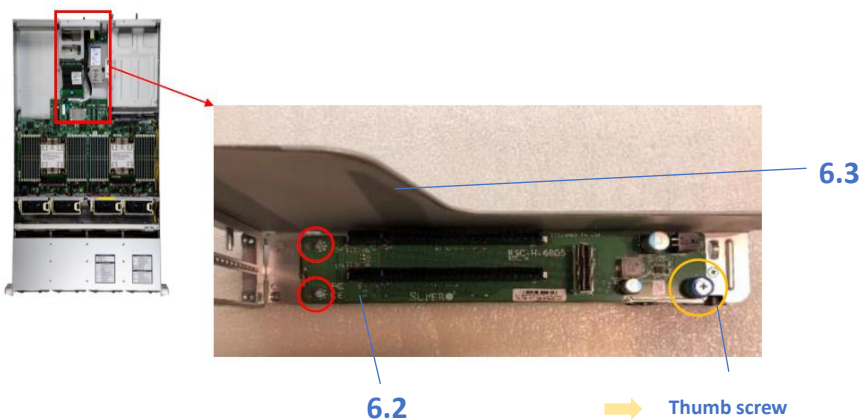
No.	Description
5.1	Cooling Fans

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

1. Lift the air shroud out of the chassis by hand



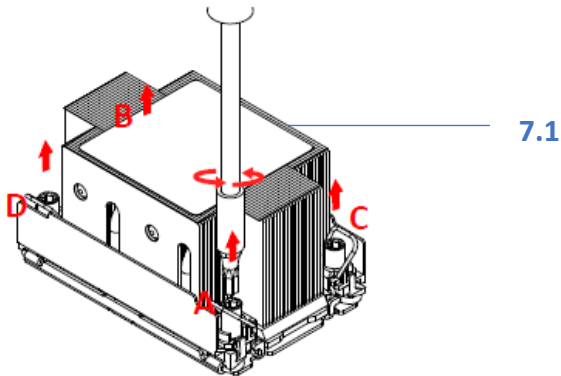
2. Remove screw and lift the riser bracket, release the thumb screw and push the riser card then lift it



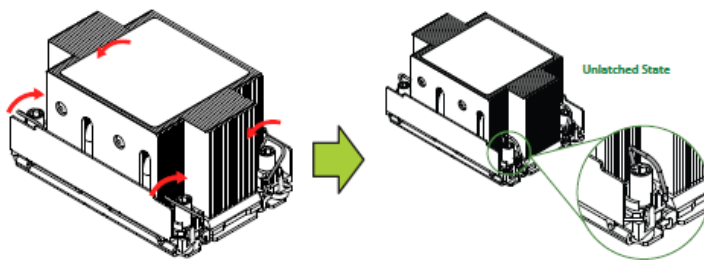
No.	Description
6.1	Air shroud
6.2	Riser Cards

7. Removing Processor

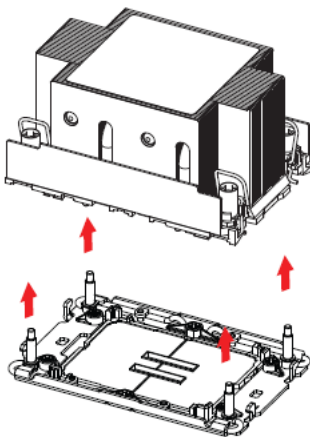
1. Shut down the system and unplug the AC power cord from all power supplies.
2. Use a T30-bit screwdriver to loosen the four PEEK nuts on the heatsink in the sequence of A, B, C, and D.



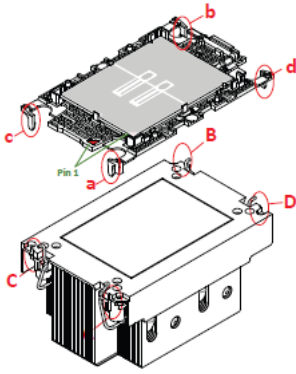
3. Press the rotating wires inward to unlatch the PHM from the socket as shown below



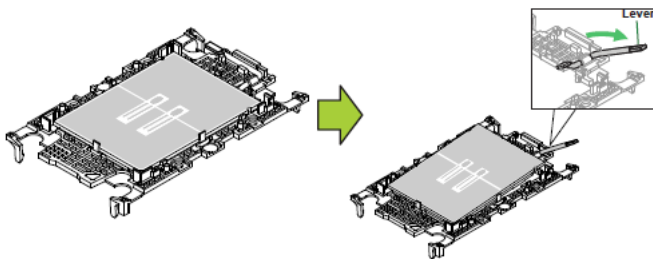
4. Gently lift the PHM upward to remove it from the CPU socket



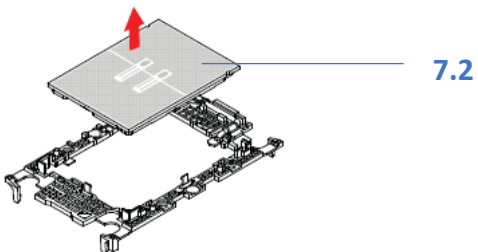
5. Detach the four plastic clips (marked a, b, c, d) on the processor carrier assembly from the four corners of the heatsink (marked A, B, C, D) as shown below, when all plastic clips have been detached from the heatsink, remove the processor carrier assembly from the heatsink



6. Unlock the lever from its locked position and push it upwards to disengage the processor from the processor carrier as shown below right.



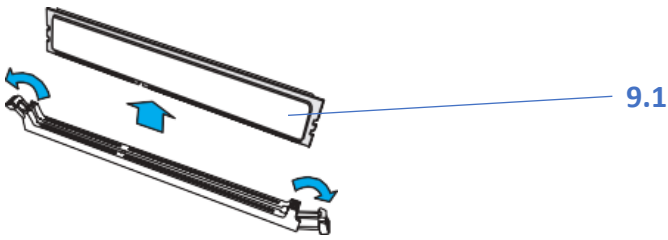
7. Once the processor has been loosened from the carrier, carefully remove the processor from the carrier.



Note: **Handle the processor with care**

No.	Description
7.1	Heat Sink
7.2	Processor

8. Removing DIMM

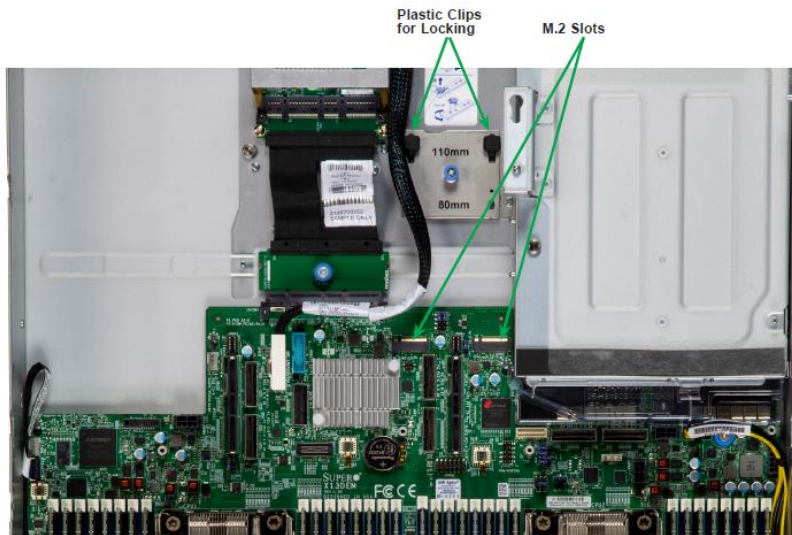


1. Hand press both release tabs on the ends of the DIMM module to unlock it
2. Once the DIMM module is loose, remove it from the memory slot

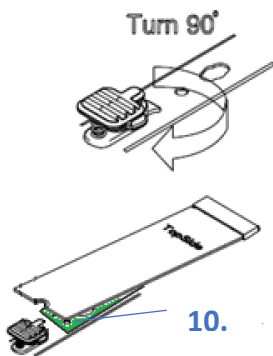
No.	Description
8.1	DIMM

9. Removing M.2

1. Refer to its layout image and locate the M.2 slot, remove the plastic clip from the hole the M.2 slot form the motherboard



2. Turn the plastic clip by 90° degrees, pick the M.2 up from the connector



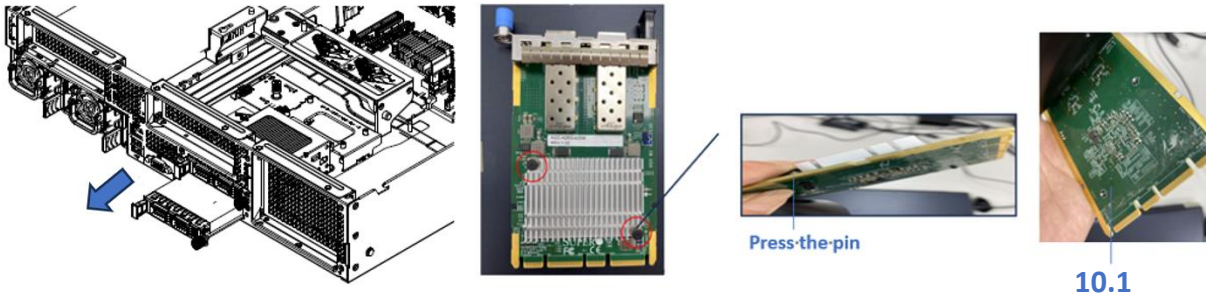
No.	Description
9.1	M.2

10. Removing AIOM Card, Add-On Card and TPM

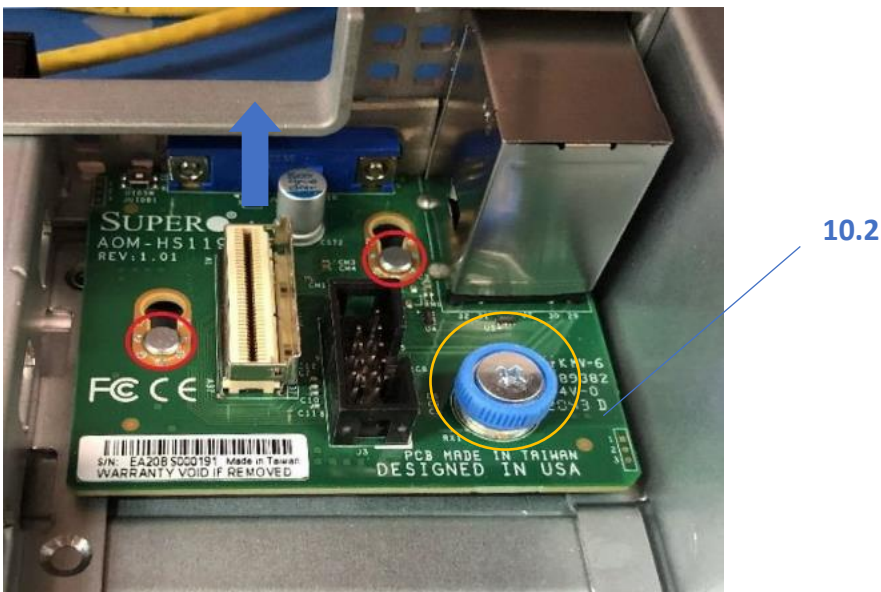
1. Remove the blank cover plate(A1), unscrewing the thumbscrew



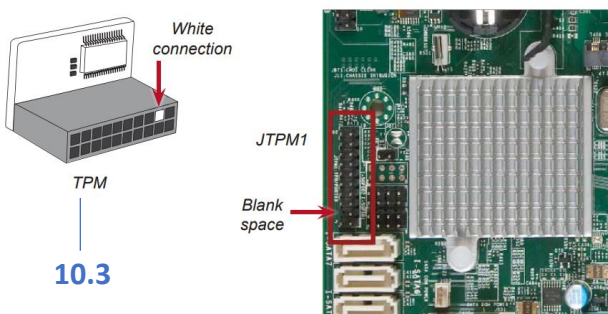
2. Press the pin and remove the pin and take off the PCB from AIOM



3. Remove add on module sliding into keyhole standoffs *2 (red), unscrew with thumbscrew (yellow).



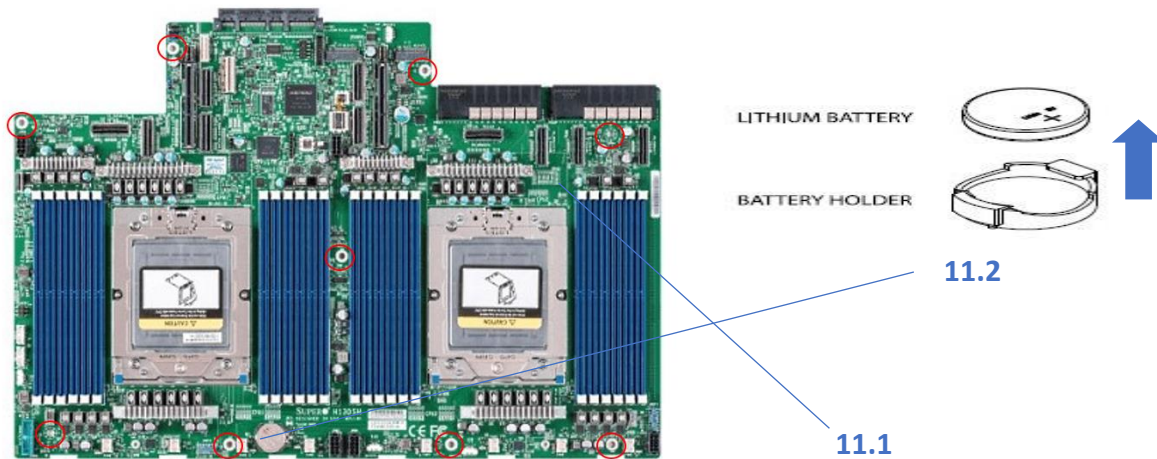
4. Find the motherboard JTPM1 connector and pull up the TPM



No.	Description
10.1	AIOM PCB
10.2	Add-On Module
10.3	TPM

11. Removing Motherboard

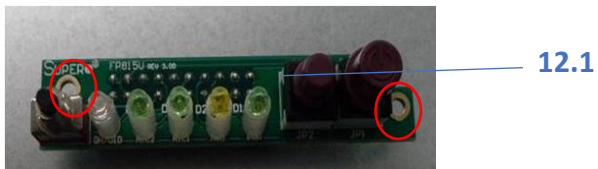
1. Remove screws, lift out motherboard
2. Push aside the small clamp that covers the edge of the battery. When the battery is released, lift it out of the holder.
3. When the motherboard is removed, the node enclosure can be recycled



No.	Description
11.1	Motherboard
11.2	Battery

12. Removing Control Board

1. Remove control board screws then lift the control board



No.	Description
12.1	Control Board