Product End-of-Life Disassembly Instructions

Product Category: Workstation

Marketing Name / Model
[List multiple models if applicable.]

HP Z4 Rack G5 Workstation

Purpose: The document is intended for use by end-of-life recyclers or treatment facilities. It provides the basic instructions for the disassembly of HP Inc. products to remove components and materials requiring selective treatment, as defined by EU directive 2012/19/EC, Waste Electrical and Electronic Equipment (WEEE).

NOTE: Recyclers should sort plastic materials into resin streams for recycling based on the ISO 11469 plastic marking code on the plastic part. For any questions on plastic marking or identification of location of parts or components requiring selective treatment, please contact HP's Sustainability Contact.

1.0 Items Requiring Selective Treatment

1.1 Items listed below are classified as requiring selective treatment. An "X" in the list of components and parts indicates the product contains the component or part requiring selective treatment

Item Description	Components and parts requiring selective treatments	Quantity of items included in product
Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA) with a surface greater than 10 sq cm	☒ Main board (MB) PCB*1 ☒ Solid state drive (SSD) PCB*1 ☐ Wireless WAN module (WWAN) PCB ☐ Touch module PCB ☒ Power supply PCB*5 ☒ External Keyboard (KB)*1 ☒ External Mouse*1 ☒ Graphic card PCB *1, ☒ Z4G5 Rack SSR*1, ☒ Switch card*2 ☒ Z4G5 Rack DSR *1 ☒ Memory PCB*1 ☒ HDD PCB*1	16
Batteries, excluding Li-Ion batteries. This includes standard alkaline, coin or button style batteries	☒ RTC/CMOS battery ☐ Others: ______________	1
Li-Ion batteries. Includes all Li-Ion batteries if more than one is provided with the product (such as a detachable notebook keyboard battery, etc.)	Li-ion battery(ies) are attached to the product by: ☐ screws ☐ snaps ☐ adhesive ☐ other. Explain _____	0
Mercury-containing components. For example, mercury in lamps, display backlights, scanner lamps, switches, batteries		0

Item Description	Components and parts requiring selective treatments	Quantity of items included in product
Liquid Crystal Displays (LCD) with a surface greater than 100 sq cm. Includes background illuminated displays with gas discharge lamps	☐ Panel LCD	0
Cathode Ray Tubes (CRT)		0
Capacitors / condensers (Containing PCB/PCT)		0
Electrolytic Capacitors / Condensers measuring greater than 2.5 cm in diameter or height	☒ Power Supply capacitor(s) or condenser(s)	1
External electrical cables and cords	☒ AC power cord ☐ Audio, video or data cables ☐ Other: _________	1
Gas Discharge Lamps		0
Plastics containing Brominated Flame Retardants (not including external electrical cables and cords, PCBs or PCAs already listed as a separate item above)		0
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.		0
Components and waste containing asbestos		0
Components, parts and materials containing refractory ceramic fibers		0
Components, parts and materials containing radioactive substances		0
Components containing chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC)		0

2.0 Tools Required

List the type and size of the tools that would typically be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.

Tool Description	Tool Size (if applicable)
Screwdriver	Philip #0
Screwdriver	Torx T8
Bosch Power Tools	GBM350
	N/A

3.0 Product Disassembly Process

3.1 List the basic steps that should typically be followed to remove components and materials requiring selective treatment including the required steps to remove the external enclosure.

1. Remove the cover from chassis.

2. Remove the fan duct from chassis.
3. Remove the graphic card from chassis.
4. Use to PH1screwdriver to uninstall the screws.
5. Press the graphic card’s latch and remove it
6. Use to PH1 screwdriver to uninstall the screws and detailed parts of graphic card assembly.
7. Remove the memory from MB.
8. Use to PH1 screwdriver to uninstall the screws and the M2 Heatsink.
9. Remove to the SSD from SSD cage.
10. Remove the PCH Heatsink from MB
11. Remove the extender single slot from M/B.
12. Use to PH1 screwdriver to uninstall the screws of the extender single sot.
13. Remove the switch card from the extender single slot.
14. Remove the heatsink from Switch card.
15. PH1screwdriver to uninstall the screws and Z4 G5 Rack DSR..
16. Remove the PCIe Slot Cover from the bracket.
17. Use to PH1 screwdriver to uninstall the screws of the dual slot bracket.
18. Use to PH1 screwdriver to uninstall the CPU heatsink from M/B.
19. Remove to the CPU from the CPU heatsink.
20. Remove to the cable from the internal HDD cage
21. Use to PH1 screwdriver to uninstall the screws of HDD.
22. Disconnect fan cable from MB
23. Remove the S-PRESS CABLE-BRACKET
24. Remove 2 pcs fans from chassis.
25. It should be disconnected all cables from MB.
26. Removed the PSU cable from MB.
27. Removed the power supply from the chassis.
28. Remove 4 pcs fans from chassis.
29. Remove the cables from convert board
30. Remove the switch card from chassis.
31. Uninstall the screws(x2) of speaker.
32. Disconnect the speaker cable from switch card
33. Release the front panel mount cable from clip
34. Disconnect the front panel mount cable from switch card
35. Release the front panel mount cable by push out 2 pins fixed front side in switch card tray
36. Release the front panel mount cable by push out 2 pins fixed black side in switch card tray
37. Loose the 4pcs switch card PCA screws and remove the switch card PCA
38. Remove the SD card reader carrier
39. Uninstall the left side and right side of the switch card cage.
40. Loosen the 2pcs bottom side hooks of switch card panel
41. Detailed parts of switch card assembly
42. Use PH1 screwdriver to be loosed the screws.
43. Remove the screw with Bosch Power Tools GBM350.
44. Disconnect cable and remove the AC cable.
45. Use PH1 screwdriver to uninstall the screws of CPU heatsink.
46. Use to PH1 screwdriver to uninstall the screws of the AC cable holder.
47. Use PH1 screwdriver to be loosed the screws and remove the MB.
48. Remove the battery from MB
49. Disconnect AC power cord by hand pulling
50. Use tool#1 to unscrew five screws to loosen top cover
51. Slide top cover to unhook bottom chassis before top cover removal
52. Remove top cover from bottom chassis
53. Remove the Mylar from top cover by hand-pulling
54. Use tool#1 to unscrew six screws to loosen PCBA from bottom chassis
55. Disconnect fan cable connector and LED cable connector from PCBA
56. Remove PCBA away from bottom chassis

57. Remove the Mylar from bottom chassis by hand-pulling
58. Use tool#1 to unscrew four screws to loosen fan from bottom chassis
59. Remove fan from the bottom chassis by hand-pulling upwardly
60. Use tool#2 to unscrew two screws to loosen handle-released module from bottom chassis
61. Use tool#1 to unscrew one cross screw and tool#3 to unscrew one torx screws
62. Remove metal handle away from handle-released module
63. Slide handle-released module away from bottom chassis
64. No more treatment for bottom chassis and fan bracket.
65. Identity PCBA > 10 cm2 for further treatment (main board: 135 cm2)
66. Identity PCBA > 10 cm2 for further treatment (EMI board: 63.45 cm2).
67. Identity PCBA > 10 cm2 for further treatment (DC-DC board: 33.79 cm2)
68. Identity PCBA > 10 cm2 for further treatment (AUX board:20.77 cm2).
69. Identity PCBA > 10 cm2 for further treatment (UP board: 13.64 cm2)
70. Identity electrolyte capacitor > 2.5 cm for further treatment (Length: 4 cm).

3.2 Location of components requiring selective treatment. The photos and/or graphics below identify the location of the parts or components requiring selective treatment within the main unit. For End-of-Life product disassembly instructions of external accessories including external power supply (EPS), external keyboard (KB) external mouse and external cables and cords, refer to the following URL: End-of-Life Product Disassembly Instructions (hp.com)

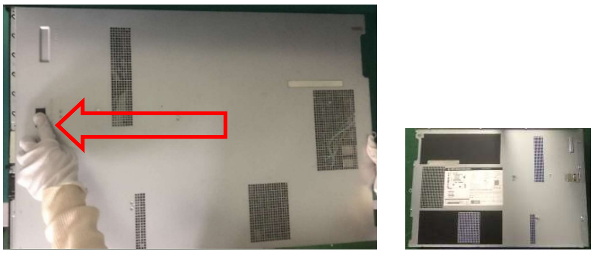
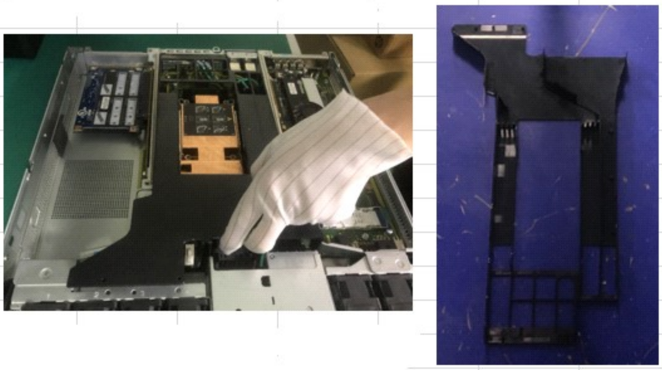
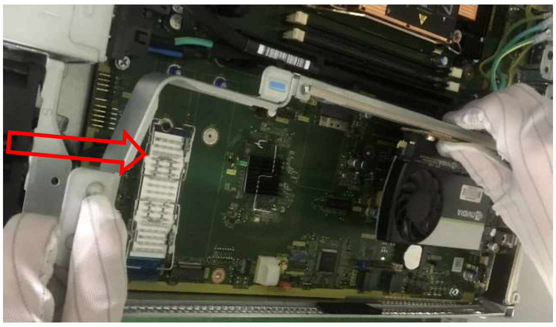
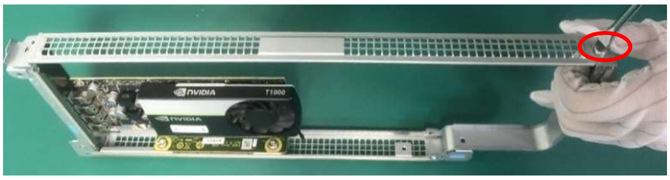
Figure1 Remove the cover from chassis. 	Figure2 Remove the Fan duct from chassis. 
Figure3 Remove the graphic card from chassis. 	Figure4 Use to PH1 screwdriver to uninstall the screws. 

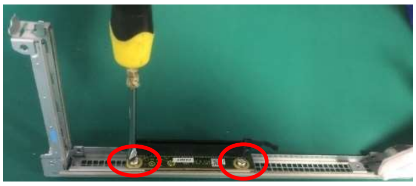
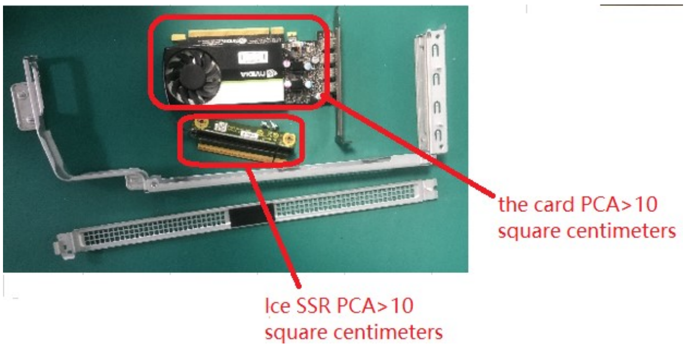
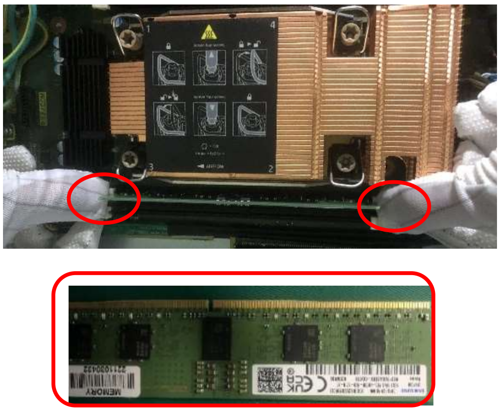
Figure5 Press the graphic card's latch and remove it. 	Figure6 Use to PH1 screwdriver to uninstall the screws and detailed parts of graphic card assembly.  

Figure7 Remove the memory from MB.



Memory PCB>10 square centimeters.

Figure8 Use to PH1 screwdriver to uninstall the screws and the M2 Heatsink.

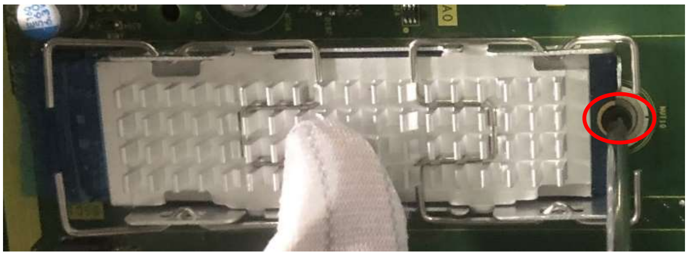
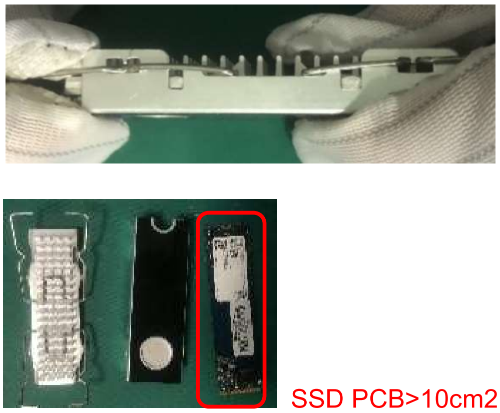


Figure9 Remove the SSD from SSD cage.



SSD PCB>10cm2

Figure10 Remove the PCH Heatsink from MB.

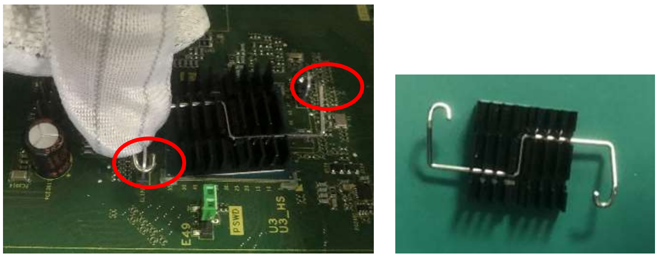


Figure11 Remove the extender single slot from M/B.

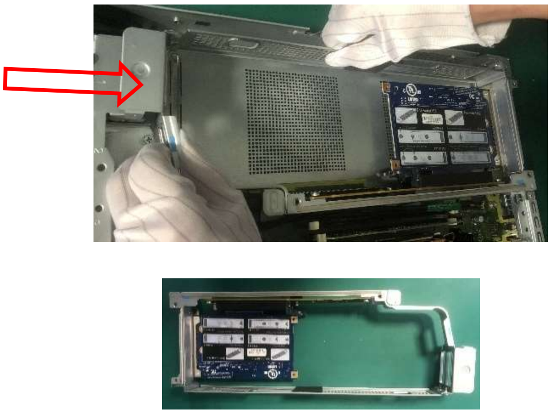


Figure12 Use to PH1 screwdriver to uninstall the screws of extender single slot.

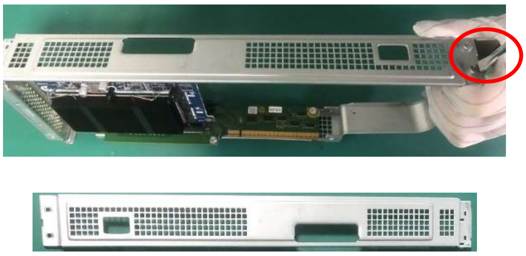


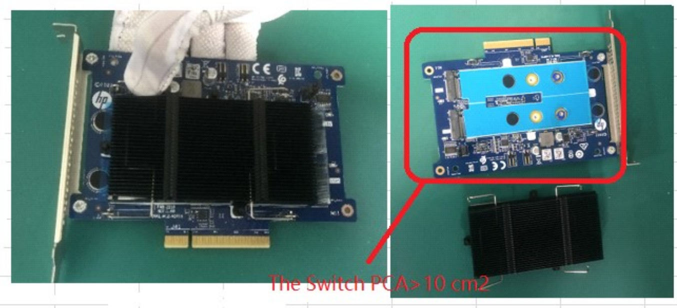
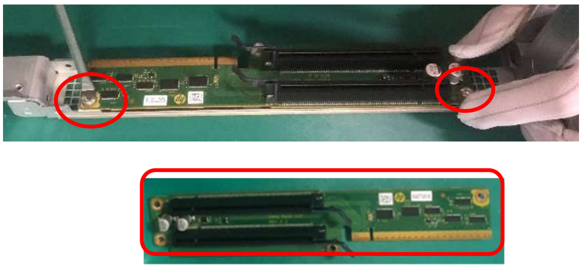
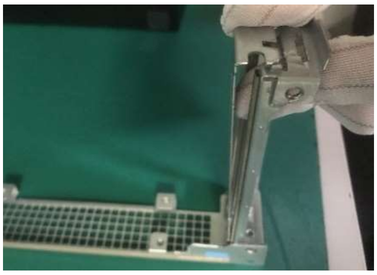
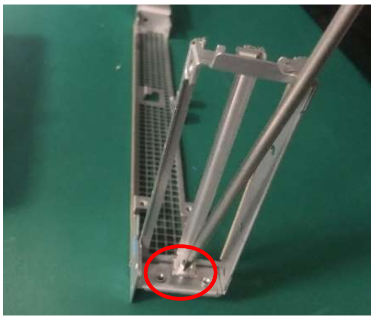
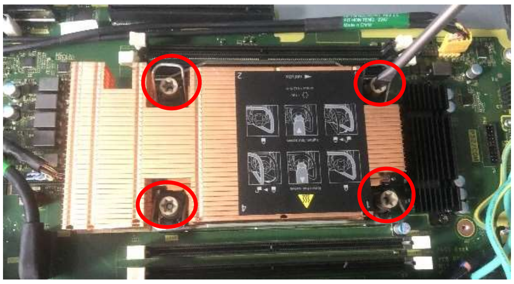
Figure13. Remove the switch card from the extender single slot. 	Figure14 Remove the heatsink from Switch card. 
Figure15 Use PH1 screwdriver to uninstall the screws and Z4 G5 Rack DSR.  	Figure16 Remove the PCIe Slot Cover from the bracket. 
Figure17 Use to PH1 screwdriver to uninstall the screws of the dual slot bracket. 	Figure18 Use to PH1 screwdriver to uninstall the CPU heatsink from M/B. 

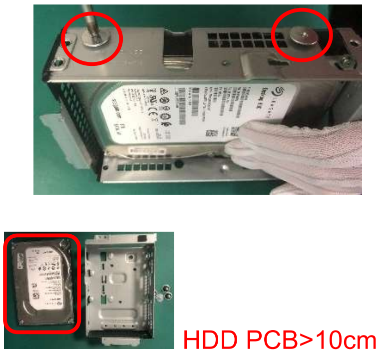
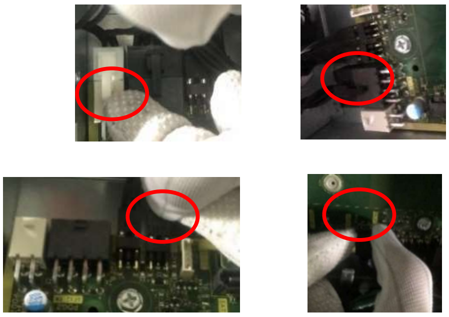
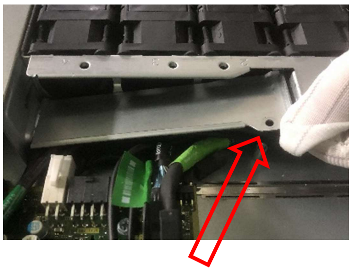
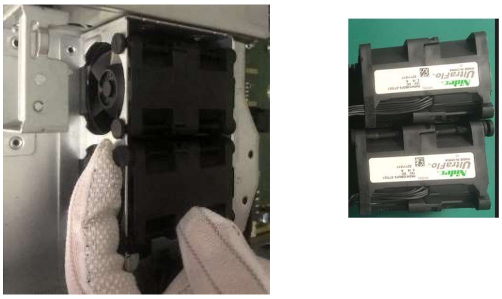
Figure19 Remove to the CPU from the CPU heatsink. 	Figure20 Remove to the cable from the internal HDD cage. 
Figure21 Use to PH1 screwdriver to uninstall the screws of HDD.  HDD PCB>10cm2	Figure22 Disconnect fan cable from MB 
Figure23 Remove the S-PRESS-CABLE-BRACKET. 	Figure24 Remove 2 pcs fans from chassis. 

Figure25 It should be disconnected all cables from MB.

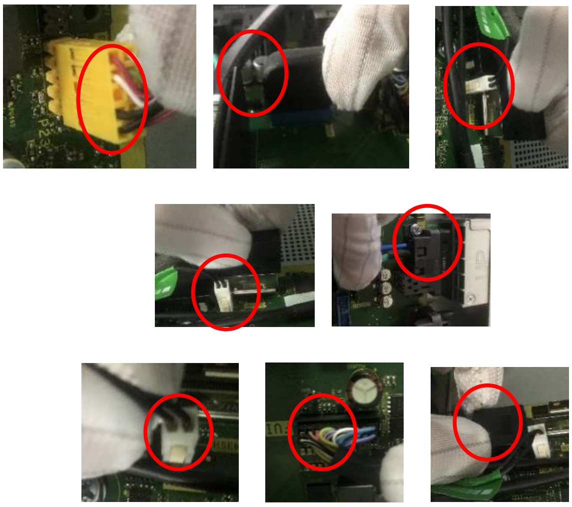


Figure26 Removed the PSU cable from MB.

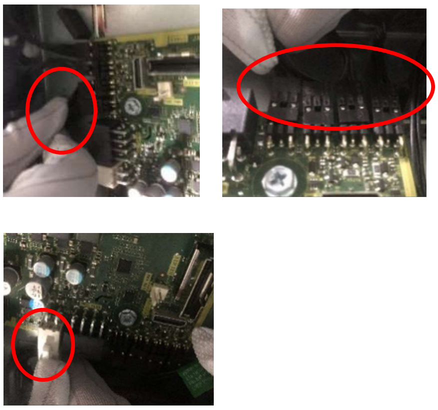


Figure27 Removed the power supply from chassis.

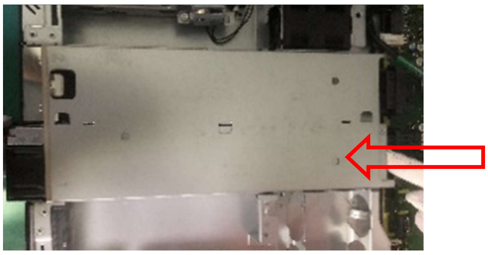


Figure28 Remove 4 pcs fans from chassis.

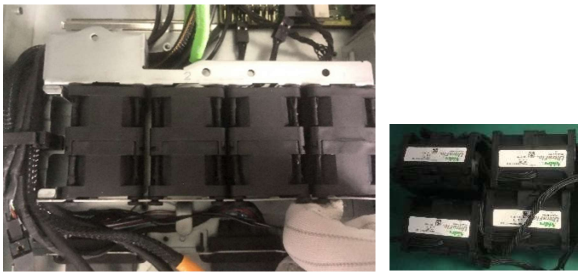


Figure29 Remove the cables from convert board.

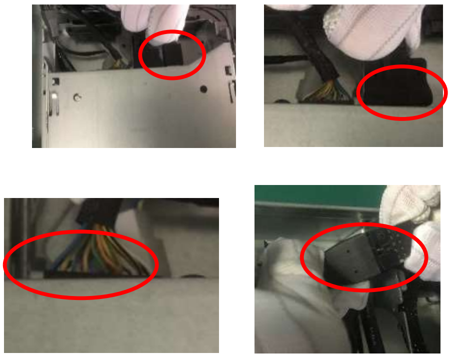


Figure30 Remove the switch card from chassis.

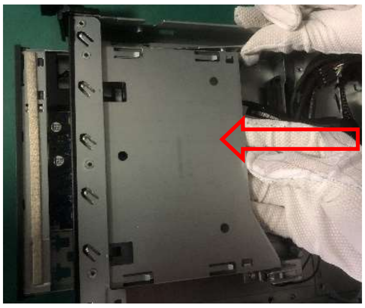


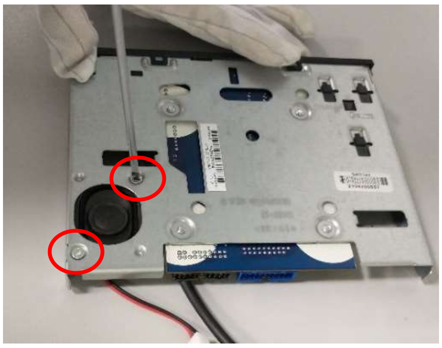
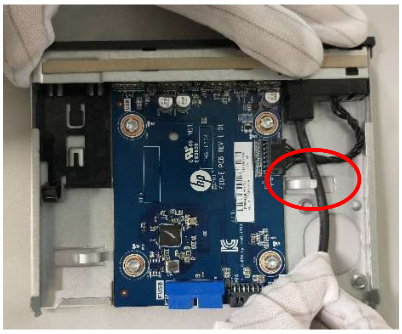
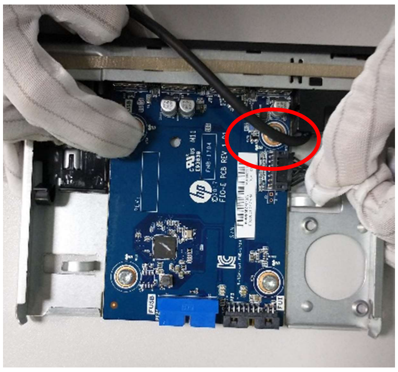
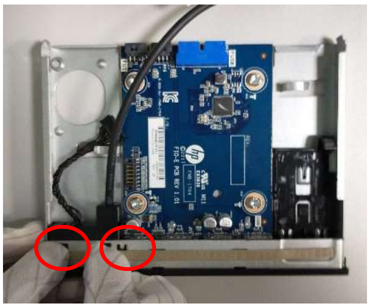
Figure31 Uninstall the screws(x2) of speaker 	Figure32 Disconnect the speaker cable from switch card 
Figure33 Release the front panel mount cable from clip 	Figure34 Disconnect the front panel mount cable from switch card. 
Figure35 Release the front panel mount cable by push out 2 pins fixed front side in switch card tray. 	Figure36 Release the front panel mount cable by push out 2 pins fixed black side in switch card tray. 

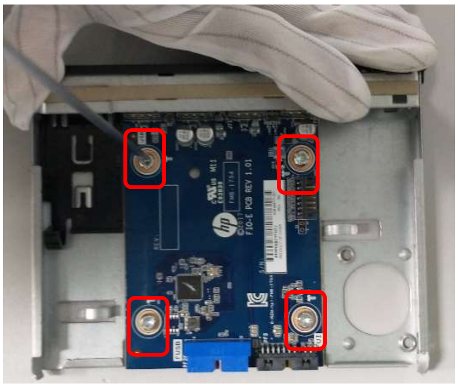
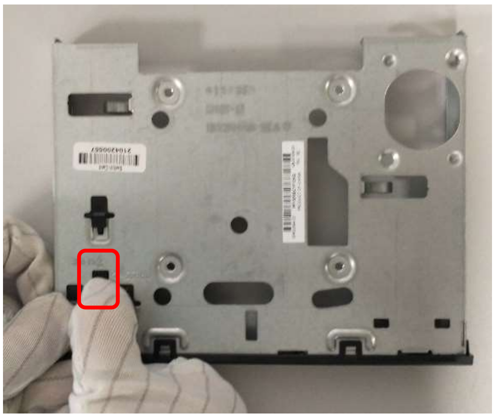
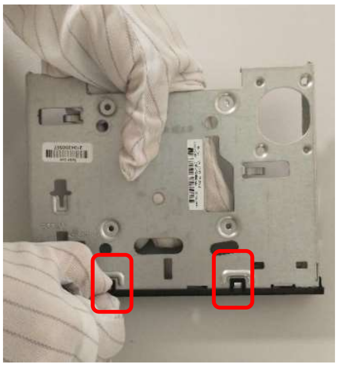
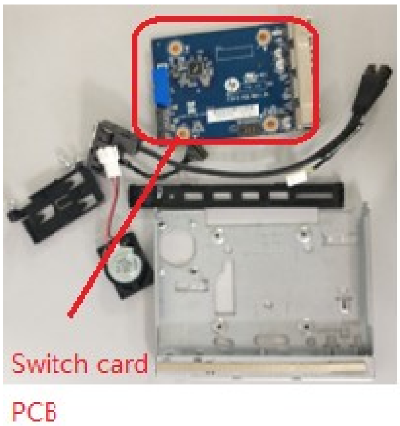
Figure37 Loose the 4pcs switch card PCA screws and remove the switch card PCA 	Figure38 Remove the SD card reader carrier 
Figure39 Uninstall the left side and right side of the switch card cage. 	Figure40 Loosen the 2pcs bottom side hooks of switch card panel 
Figure41 Detailed parts of switch card assembly  	Figure42 Use PH1 screwdriver to loose the screws. 

Figure43 Remove the screw with Bosch Power Tools GBM350.

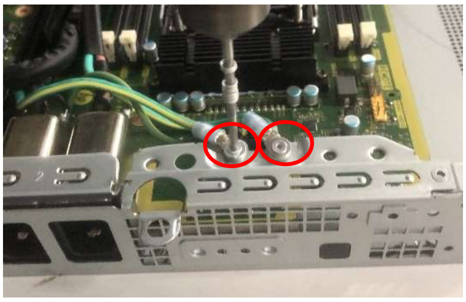


Figure44 Disconnect cable and remove the AC cable.

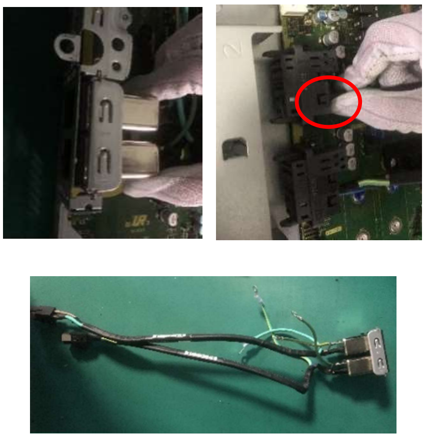


Figure45 Use PH1 screwdriver to uninstall the screws of CPU Heatsink.

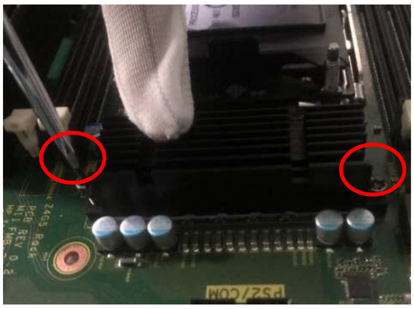


Figure46 Use to PH1 screwdriver to uninstall the screws of the AC cable holder.

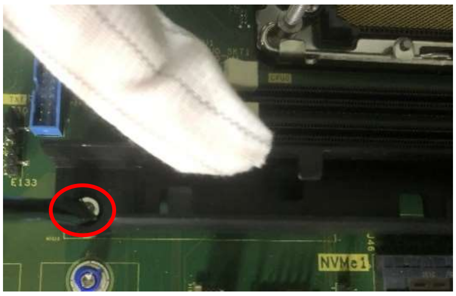
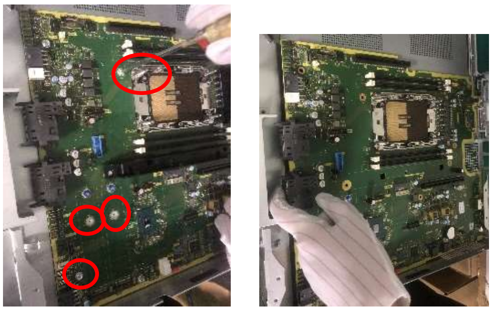


Figure47 Use PH1 screwdriver to loose the screws and remove the MB.



Main board PCB>10cm2

Figure48 Remove the battery from MB

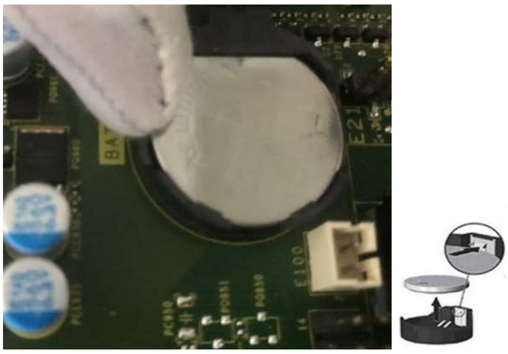


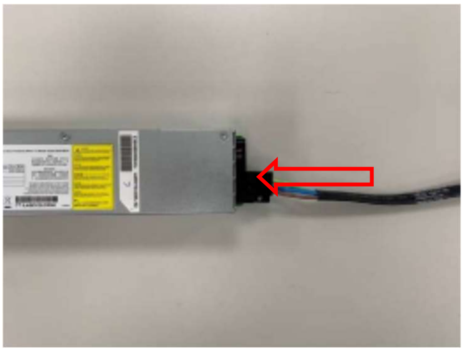
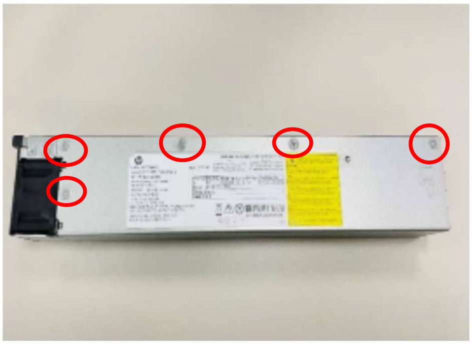
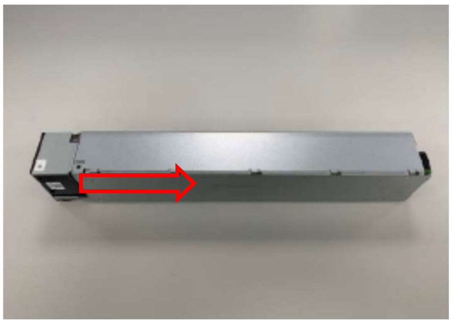
Figure49 Disconnect AC power cord by hand pulling 	Figure50 Use tool#1 to unscrew five screws to loosen top cover 
Figure51 Slide top cover to unhook bottom chassis before top cover removal. 	Figure52 Remove top cover from bottom chassis 
Figure53 Remove the Mylar from top cover by hand-pulling 	Figure54 Use tool#1 to unscrew six screws to loosen PCBA from bottom chassis 

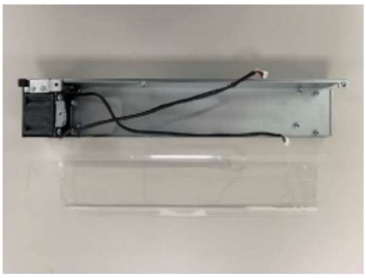
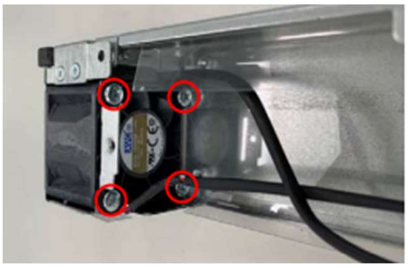
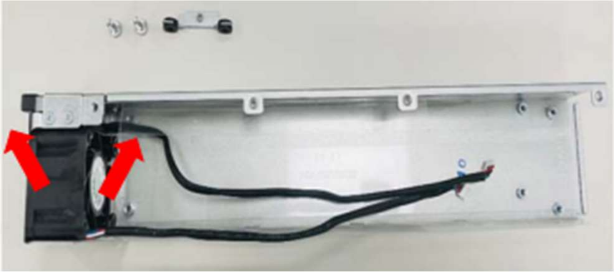
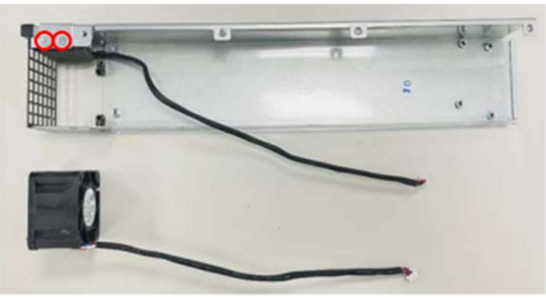
Figure55 Disconnect fan cable connector and LED cable connector from PCBA 	Figure56 Remove PCBA away from bottom chassis 
Figure57 Remove the Mylar from bottom chassis by hand-pulling. 	Figure58 Use tool#1 to unscrew four screws to loosen fan from bottom chassis 
Figure59 Remove fan from the bottom chassis by hand-pulling upwardly 	Figure60 Use tool#2 to unscrew two screws to loosen handle-released module from bottom chassis. 

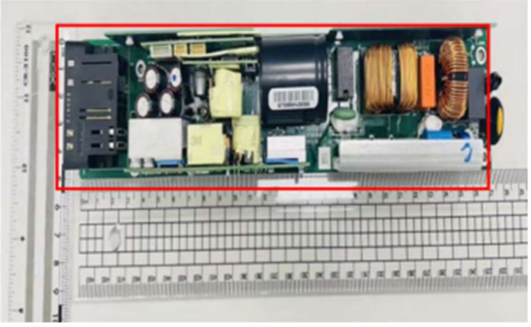
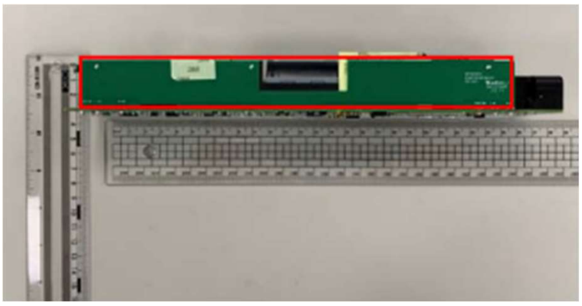
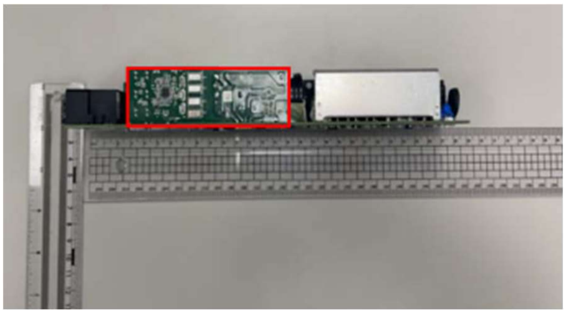
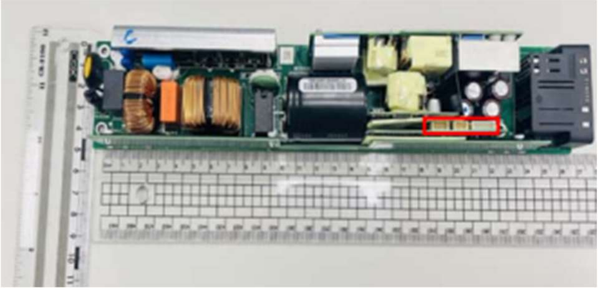
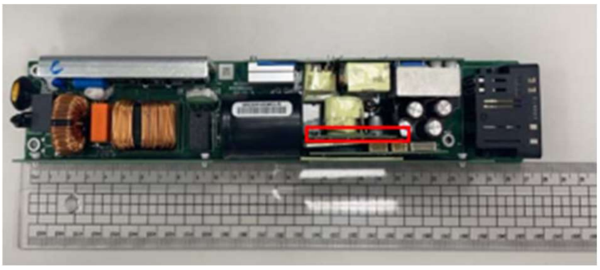
Figure61 Use tool#1 to unscrew one cross screw and tool#3 to unscrew one torx screw. 	Figure62 Remove metal handle away from handle-released module. 
Figure63 Slide handle-released module away from bottom chassis. 	Figure64 No more treatment for bottom chassis and fan bracket. 
Figure65 Identity PCBA > 10 cm2 for further treatment (main board: 135 cm2) 	Figure66 Identity PCBA > 10 cm2 for further treatment (EMI board: 63.45 cm2). 

Figure67 Identity PCBA > 10 cm2 for further treatment (DC-DC board: 33.79 cm2) 	Figure68 Identity PCBA > 10 cm2 for further treatment (AUX board:20.77 cm2). 
Figure69 Identity PCBA > 10 cm2 for further treatment (UP board: 13.64 cm2) 	Figure70 Identity electrolyte capacitor > 2.5 cm for further treatment (Length: 4 cm).