
M5402WYA Service Manual

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Disclaimer

ASUS is not responsible for direct, indirect, intentional or unintentional damages resulting from improper installation and operation.

Safety precautions

- Before handling components, use a grounded wrist strap or touch a safely grounded object to avoid damaging them due to static electricity.
- Keep liquids or moisture away from your Notebook PC to avoid short circuits.
- Remove rings, watches, and any other metal objects from your hands.
- Hold components by the edges to avoid touching the ICs.
- Properly install all components before connecting the AC power. Do not use power adapters or batteries from other devices to reduce the risk of injury to persons due to fire or explosion. Use only certified power adapters or batteries supplied by the manufacturer or authorized retailers.
- Detach all clips or flaps before removing cables to prevent damage.
- Disconnect cables, connectors, and power plugs by pulling the plug evenly to avoid damage.
- Use the correct screw models on your Notebook PC to prevent damage.
- Confirm that the cable orientation is correct before connecting any cables.
- Fully remove all adhesive residue after removing and before installing any components.
- Photograph the appearance of cables, cable routing, connectors, and screws for later reference before proceeding with each step.

Service Overview

Please carefully read through this chapter for a look at various components of the All-in-one PCs, necessary cautions, and tools before performing any service and repairs.

To provide the best service and support for the ASUS All-in-one PCs **M5401WY** Series, we have provided the below information for technicians from distributors and resellers to perform the complete All-in-one PCs disassembly and assembly. However, before performing the procedures, please be sure to read through the overview in this chapter for component overview, cautions, and tools to avoid any unwarranted damages to the All-in-one PCs hardware.

The Following Chapter Includes:

Overview					
FRONT VIEW					
BACK VIEW					
LEFT SIDE VIEW					
Components					
TYPE	PART	Materials	TYPE	PART	Materials
BOARD	MAIN BOARD	MB	SSD	SSD MODULE	SSD
		SCREW			SCREW
LCD	LCD MODULE	LCD	CARD	WLAN CARD	WLAN CARD
					SCREW
					ANTENNA
COVER	REAR COVER ASSY	REAR COVER SCREW	SOUND EXPORT	SPEAKER	SPEAKER
	PANEL FRAME ASSY	PANEL FRAME SCREW			
	SPEAKER COVER ASSY	SPEAKER COVER SCREW			
	VESA COVER ASSY	VESA COVER			
SHIELDING	MB SHIELDING ASSY	MB SHIELDING SCREW	THERMAL	THERMAL MODULE	TH GPU SINK
	VESA BRK ASSY	VESA BRK			SYSTEM FAN
		SCREW			SCREW
HDD	HDD MODULE	HDD	STAND	STAND ASSY	STAND
		HDD BRKT			SCREW

[Top](#)

OVERVIEW

Pictures below show the All-in-one PCs' overview from front view, side view, and back view. Most parts will be discussed in this manual.

FRONT VIEW

FRONT VIEW

It refers to the following diagram to identify these components on this front of the system.

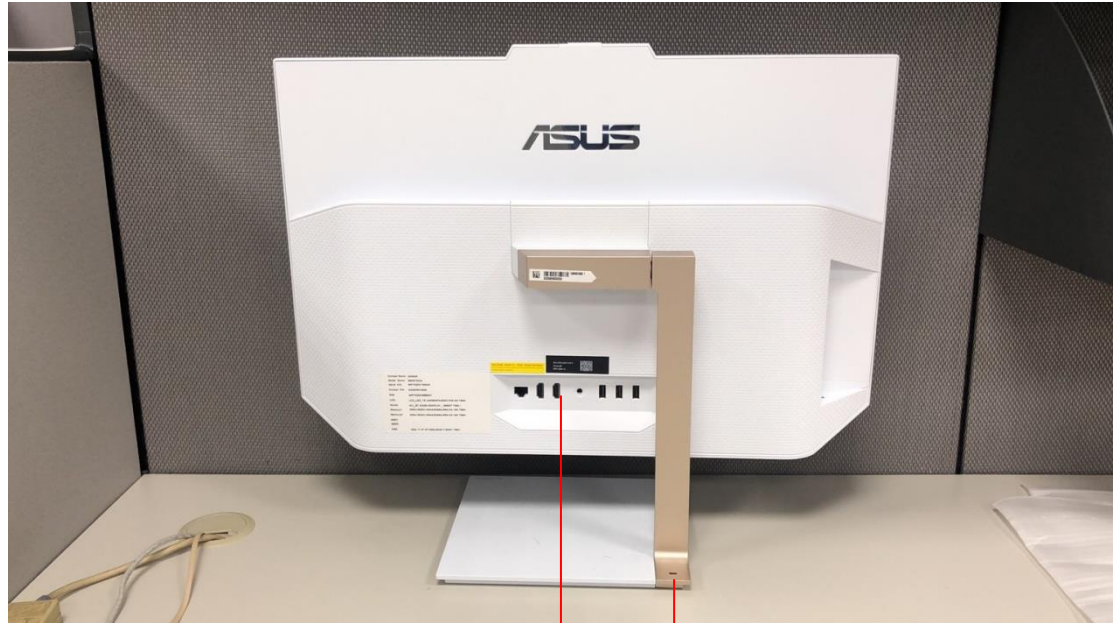


BACK VIEW

BACK VIEW

[Top](#)

Refer to the following diagram to identify the components on this back of the system.



Kensington lock

**LAN Port/ HDMI Input/HDMI Output/
DC-in Port/ USB 3.0 X3**



LEFT SIDE VIEW

LEFT SIDE VIEW[Top](#)

Refer to the following diagram to identify the components on this left side of the system.



**HDMI Button/
USB 3.0/
TYPE-C Port/
AUDIO-in Port/
POWER Button**



COMPONENTS

[Top](#)

The following illustrations show the components of the unit

MAIN BOARD

MAIN BOARD

M5401WYA MAIN_BD.UMA



Main Board Screw

SCREW M3*4L (9 PCs)



LCD

[Top](#)

LCD MODULE (1 PCs)

MV238FHM-N20-A85G FHD
 M238HCA-L3B FHD AG ES8.0
 LM238WF5-SSG2 FHD AG
 LM238WF5-SSG2
 M238HCA-L3B C3 FHD
 MV238FHM-N20-AWSK
 MV238FHM-N20-A85J



[Top](#)

COVER

REAR COVER ASSY

M5401WYA REAR COVER ASSY (1PCs)

REAR COVER
ASSY



Screw

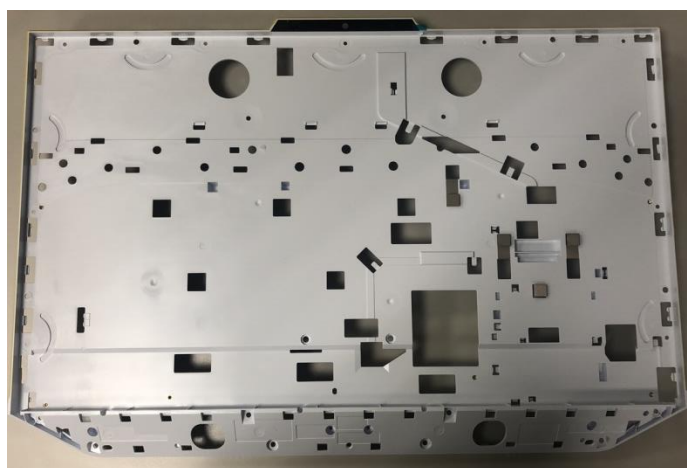
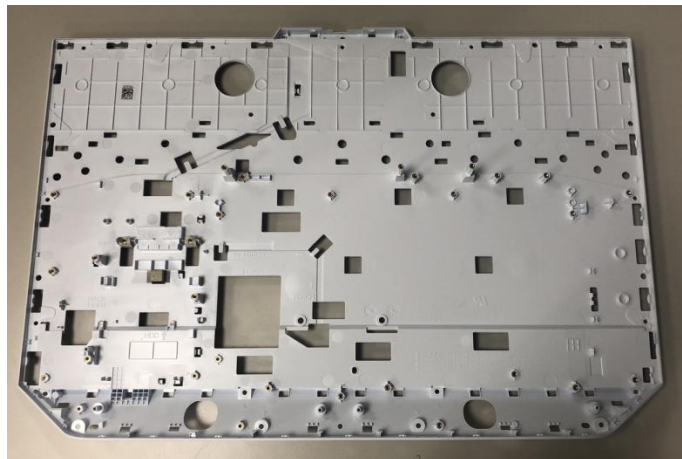
SCREW M3*5L (9 PCs)



PANEL FRAME ASSY

M5401WYA PANEL FRAME ASM

**PANEL FRAME
ASSY**



Screw

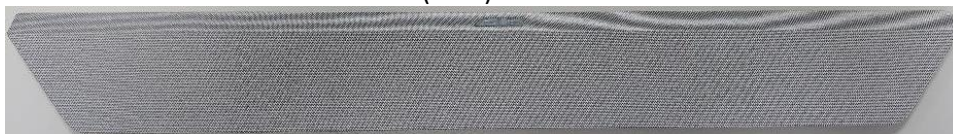
SCREW M3*3.5L (11 PCs)



**S P E A K E R C O V E R
A S S Y**

SPEAKER COVER ASSY

M5401WYA SPEAKER COVER ASSY (1PCs)

[Top](#)

Screw

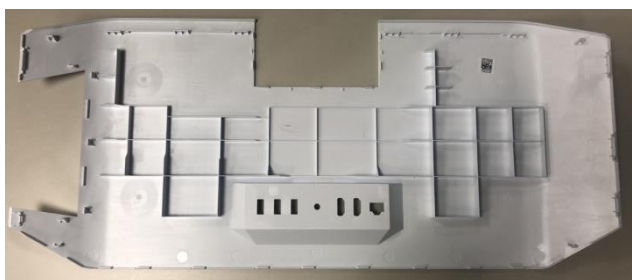
SCREW M3*5L (8 PCs)



**V E S A C O V E R
A S S Y**

VESA COVER ASSY

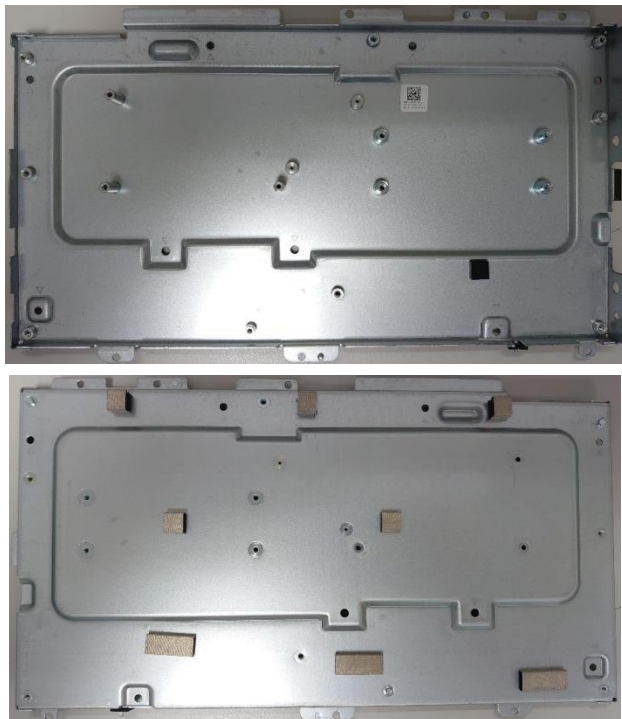
M5401WYA VESA COVER ASSY (1PCs)



**MB SHIELDING
ASSY**

SHIELDING[Top](#)**MB SHIELDING ASSY**

M5401WYA MB SHIELDING (1PCs)

**Screw**

SCREW M3*5L (8 PCs)



VESA BRK ASSY

VESA BRK ASSY

M5401WYA VESA BRK(1PCs)

[Top](#)

Screw

SCREW M3*5L (9 PCs)



HDD

[Top](#)

HDD MODULE

HDD MODULE

SATA3 HDD 1TB 5400R 2.5'

SATA3 ROSEWOOD REFRESH 1TB5

SATA3 ROSEWOOD REFRESH 2TB5

SATA3 BARRA CUDA 1TB7

According to sales request with different specification.



HDD BRKT

M5401WYA HDD BREAKET (1PCs)



SSD MODULE

SSD

SSD

SSD P3X2 128GB M2 2280 NVME

SSD P3X2 256GB M2 2280 NVME

SSD P3X4 512G M2 2280 NVME

SSD P3X4(VAL) 1TB M2 2280 NVME

According to sales request with different specification.



Screw

SCREW M3*4L (1 PCs)



S P E A K E R

SOUND EXPORT
SPEAKER[Top](#)

M5401WYA SPEAKER ASSY (1PCs)



CARD

WLAN Card

[Top](#)

WLAN CARD

802.11AC+BT4.2(2*2)M.2 2230 INTEL/8265.NGWMG.S 951075
 WIFI6 AX+BT5.0(2*2)M.2 2230 INTEL/AX200.NGWG.NV 985927
 WIFI5 AC+BT5.0(2*2)M.2 2230 LITEON/WCBN810L-AD RTL8822CE
 WIFI6 AX+BT5.2(2*2)M.2 2230 AZWAVE/AW-XB468NF MT7921L



WLAN Card Screw

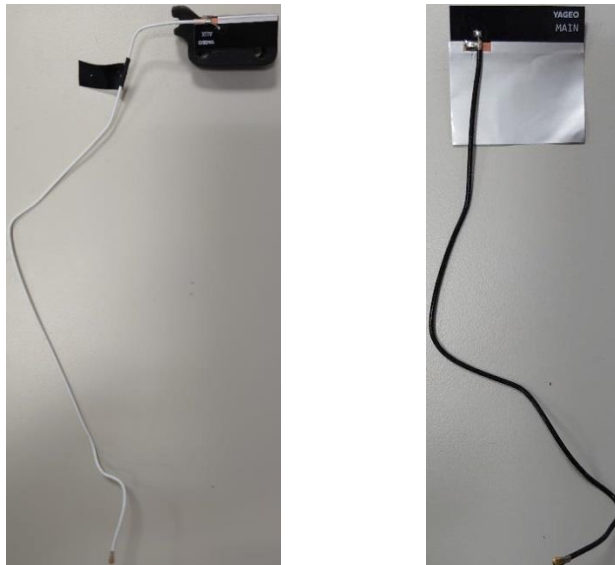
SCREW M3*5L (1 PCs)



ANTENNA

M5401WYA_WIFI_MAIN_ANTENNA//ACON

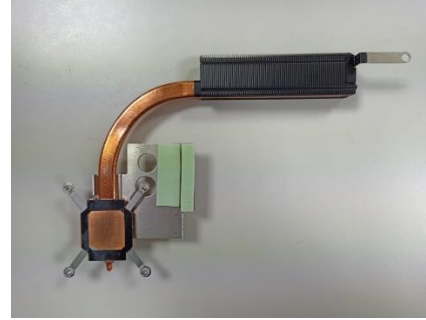
M5401WYA_WIFI_AUX_ANTENNA//ACON



T H E R M A L
M O D U L E

THERMAL THERMAL MODULE

M5401WYA TH GPU SINK ASSY (1 PCs)

[Top](#)


System Fan

M5401WYA TH FAN//DELTA (1 PCs)



Screw

SCREW M3*4L (3 PCs)

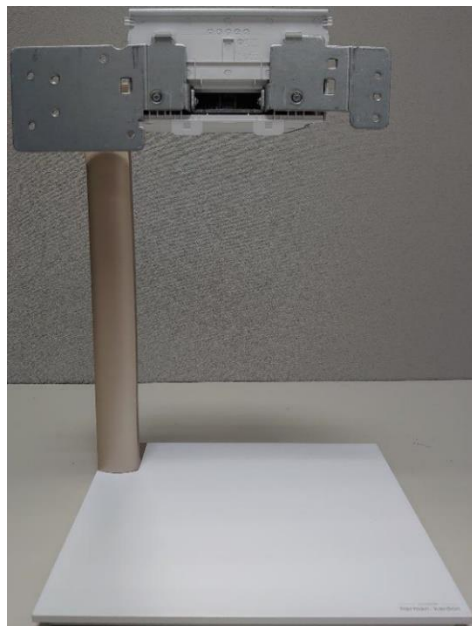


STAND ASSY

STAND

STAND ASSY

M5401WYA STAND ASSY (1 PCs)



Screw

SCREW M4*8L (6 PCs)



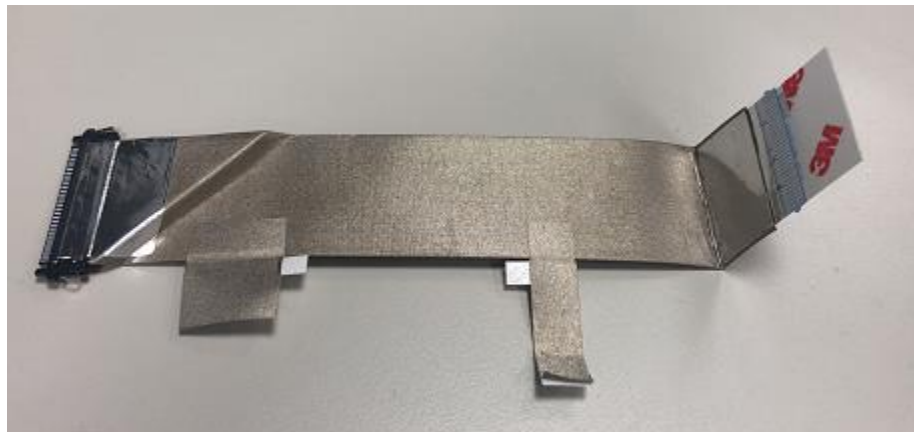
CABLE TYPE

Cable

Camera

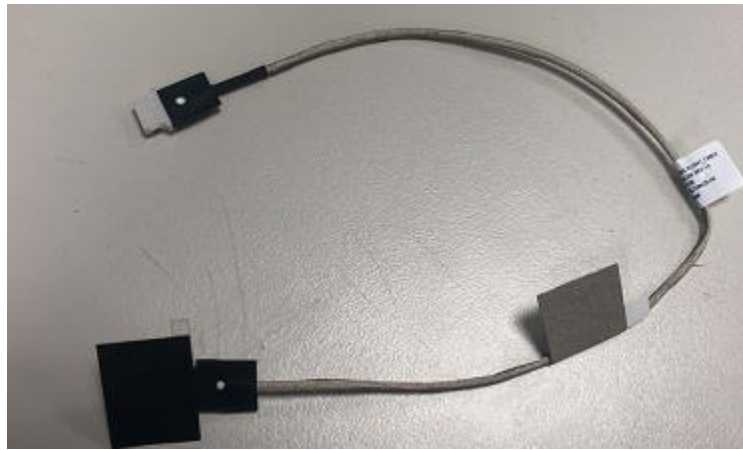


LVDS



Touch



Backlight**HDD**

Disassembly and Assembly

Please follow the information which provided in this section to perform the complete disassembly procedure of the All-in-one PCs. Be sure to use proper tools as described below.

A SUS All-in-one PCs **M5401WY** Series consists of various modules. This chapter describes the procedures for the complete All-in-one PCs disassembly. In addition, the disassembly detail procedure of individual modules will be provided for your service needs.

Step:

A. Disassembly Caution

B. Appropriate Tools

C. Dismantling and assembly steps 1~18

1. VESA COVER
2. STAND BASE
3. STAND
4. VESA BKT
5. HDD
6. CAMERA
7. SYSTEM FAN
8. THERMAL MODULE
9. SPEAKER
10. MEMORY
11. WLAN CARD
12. SSD
13. MB
14. MB SHIELDING
15. FFC & CABLES
16. SPEAKER COVER
17. REAR COVER
18. LCD MODULE

(Assemble process
please look up from the
bottom of this guide to

END

Disassembly Caution

ASUS hereby provides a basic instruction for the disassembly of ASUS products, i.e. to remove components and materials that require selective treatments, which are defined by Annex II of the European Union (EU) Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC. This instruction is intended for the use of end-of-life recyclers or treatment facilities. Following is the list of Annex II of EU WEEE Directive 2002/96/EC.

- polychlorinated biphenyls (PCB) containing capacitors in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT),
- mercury containing components, such as switches or backlighting lamps,
- batteries,
- printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres,
- toner cartridges, liquid and pasty, as well as colour toner,
- plastic containing brominated flame retardants,
- asbestos waste and components which contain asbestos,
- cathode ray tubes,
- chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC),
- gas discharge lamps,
- liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimeters and all those back-lighted with gas discharge lamps,
- external electric cables,
- components containing refractory ceramic fibres as described in Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress Council Directive 67/548/EEC relating to the classification, packaging and labelling of dangerous substances,
- components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 of and Annex I to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation,
- electrolyte capacitors containing substances of concern (height > 25 mm, diameter > 25 mm or proportionately similar volume)

Appropriate Tools

The illustrations below show the appropriate tools that should be used for the Desktop service and repair.

Automatic Screwdriver

Screwdriver Model	Torque	Torque adjustment	Apply screw size
0#	2~10 kgf/cm	±0.5 kgf/cm	1.8~2.0mm
1#			2.0~2.6mm
2#			3.0~4.0mm



Plastic Blade. Go back to [Ch.1-2](#)



Antistatic Gloves



Plastic tweezers

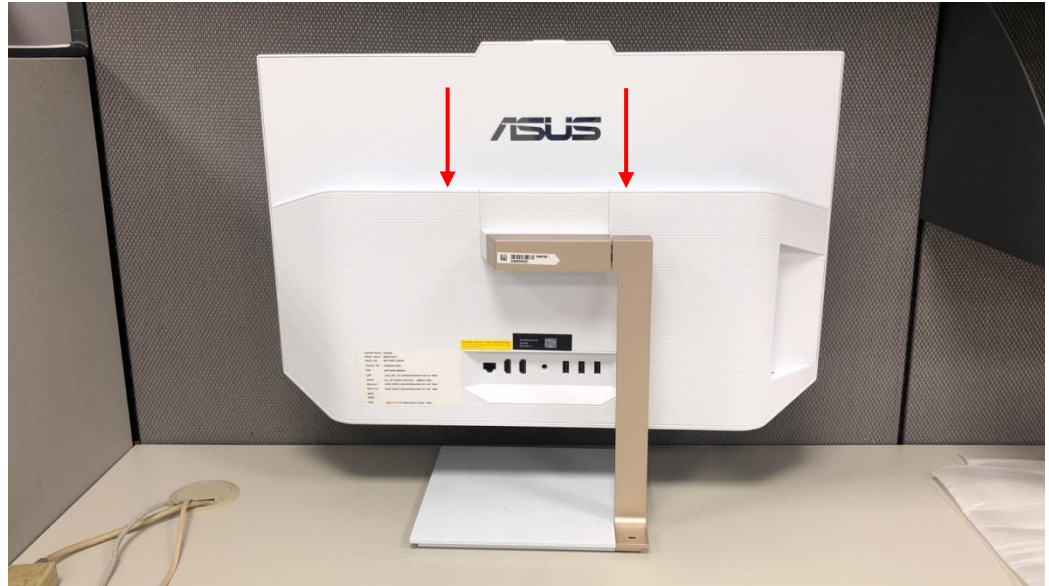


1. VESA COVER

The illustrations below show how to remove VESA COVER of the All-in-one PC.

[Top](#)

- 1-1 Pull the VESA COVER up and out slowly in the direction indicated by the Arrow



- 1-2 Remove the VESA COVER.

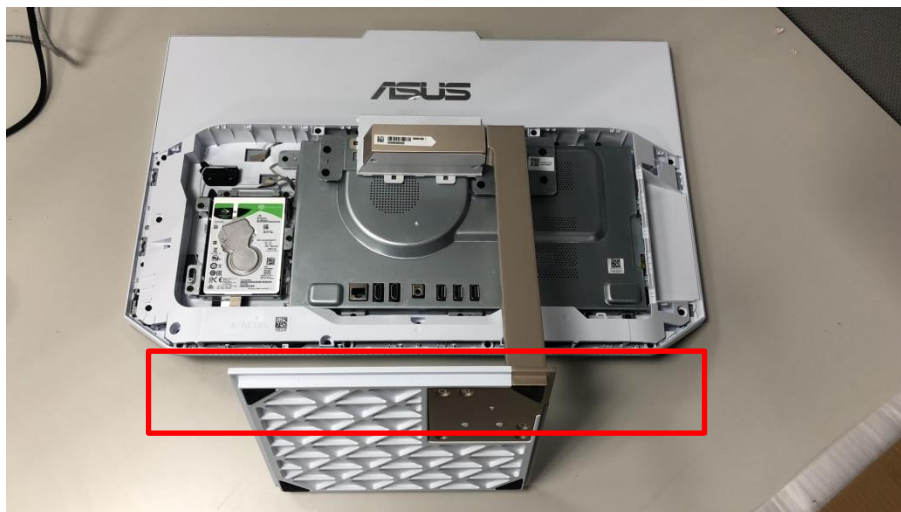


2. STAND BASE

[Top](#)

The illustrations below show how to remove STAND BASE of the All-in-one PC.

2-1 Remove 5 screws.



Here is the STAND BASE



STAND BASE bottom

2-2



Screw information:
SCRW M4*5L
7.0~8.0 kgf – cm

2-3 The STAND BASE.

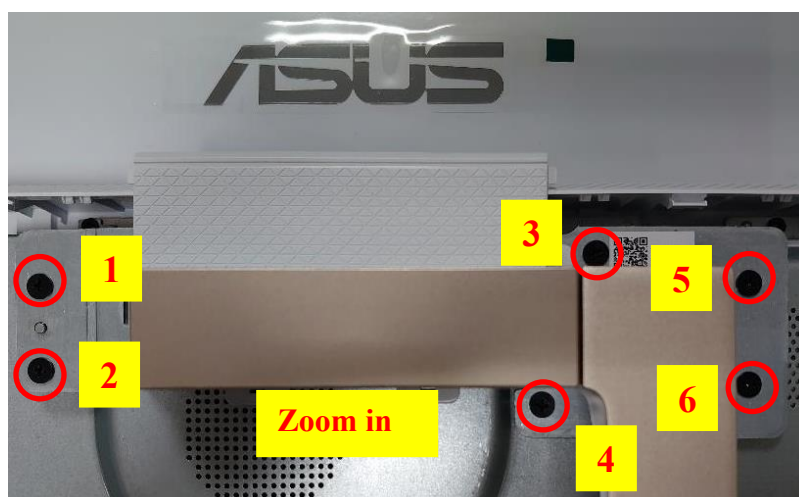


3. STAND

[Top](#)

The illustrations below show how to remove STAND of the All-in-one PC.

3-1 Remove 6 screws.



Screw information:
SCRW M4*8L
7.0~8.0 kgf – cm

3-2 Remove the STAND.

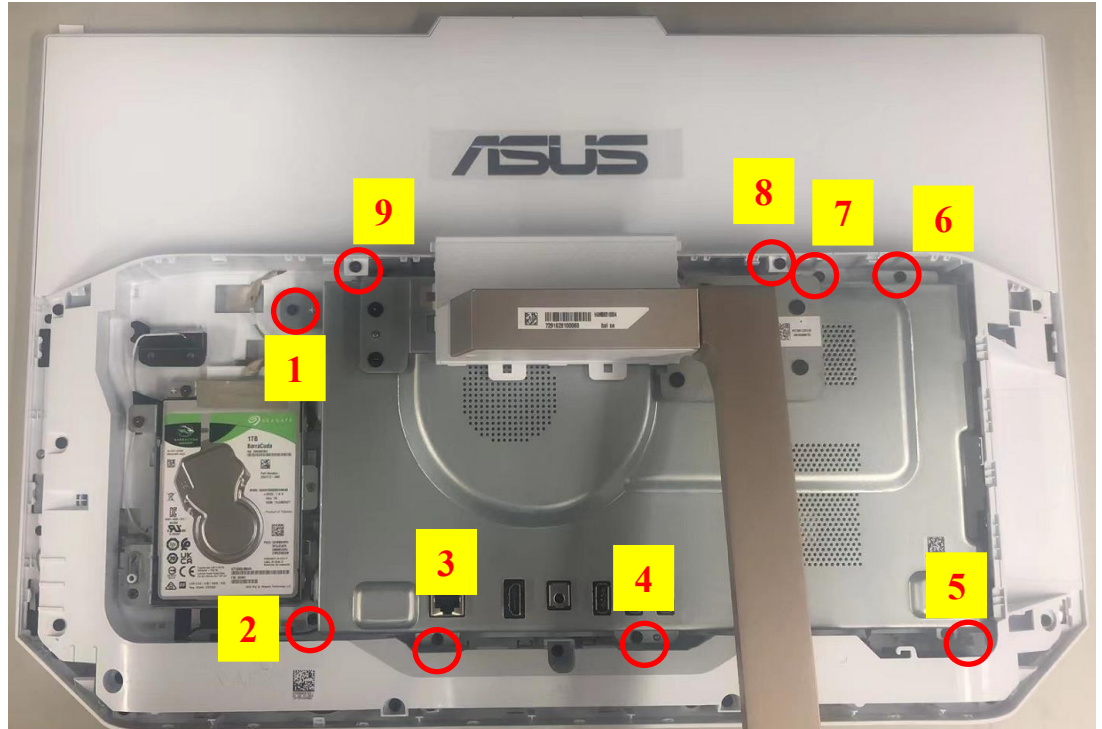


4. VESA BRK

The illustrations below show how to remove VESA BRK of the All-in-one PC.

[Top](#)

4-1 Remove 9 screws.

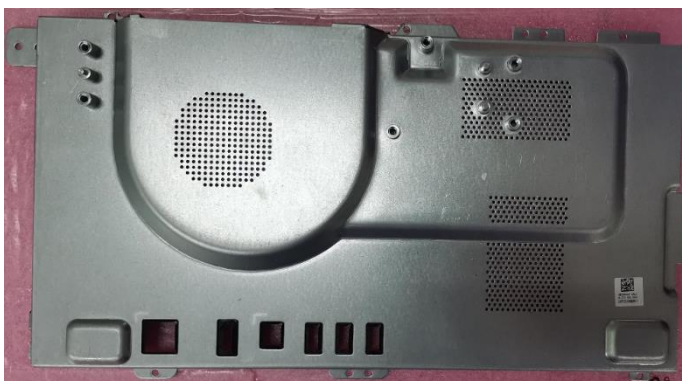


Screw information:
SCRW M3*5L
3.0~3.5 kgf – cm

4-2 Remove the VESA BRK by pulling it up from the Arrow and slowly removing the VESA BRK



4-3 VESA BRK

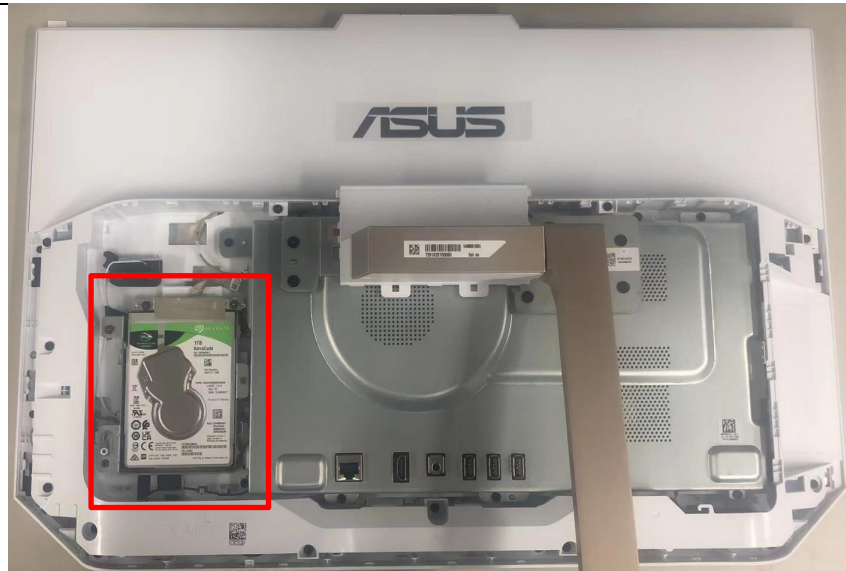


5. HDD MODULE

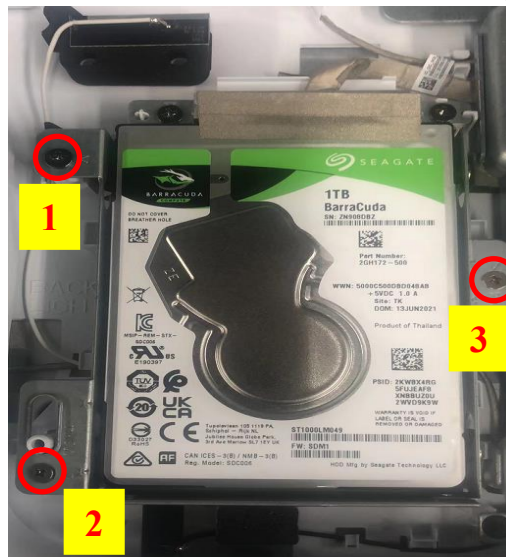
The illustrations below show how to remove HDD MODULE of the All-in-one PC.

[Top](#)

5-1 Location of HDD



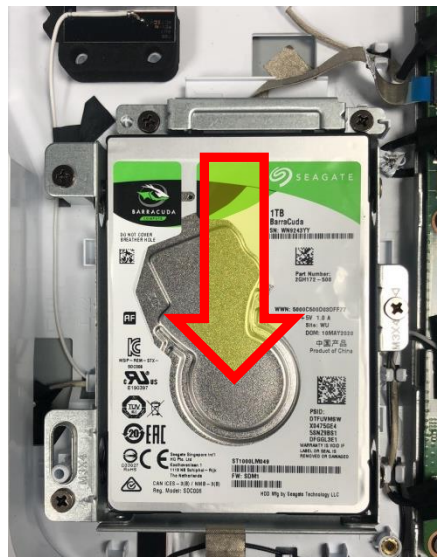
5-2 Remove three screws & conductive tape.



Screw information:
SCRW M3*4L
3.0~3.5 kgf – cm



5-3 Slide HDD and take it off.



5-4 Remove 4 screws fastened on HDD.



The HDD iron shell



5-5 The HDD.



5-6 Remove 2 screws and take off the HDD BRK and HDD FFC.



Screw information:
SCRW M3*5L
3.0~3.5 kgf – cm

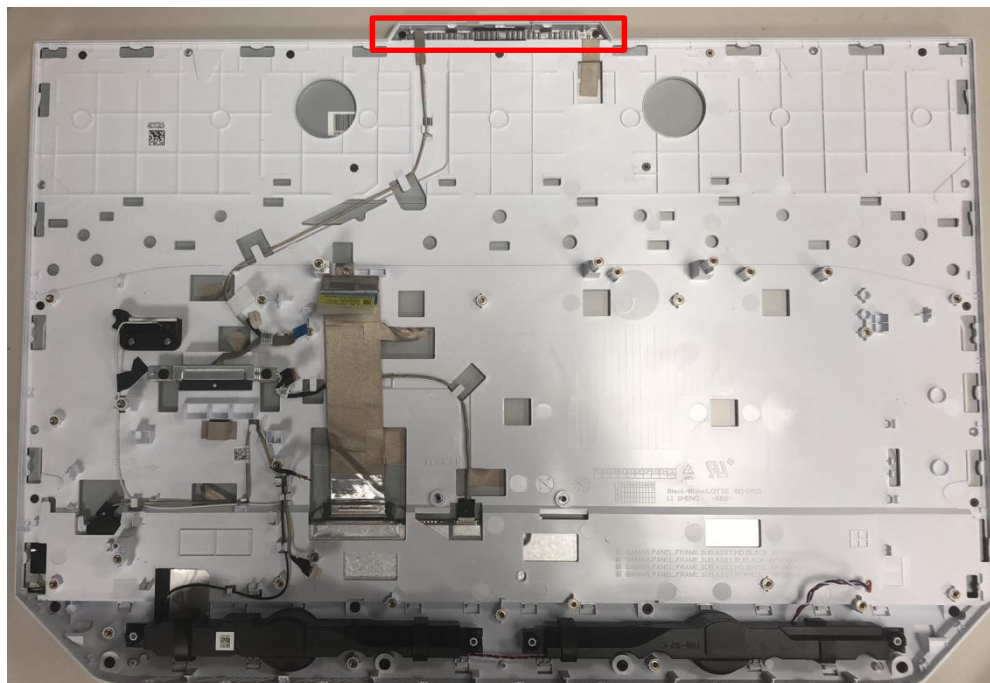
5-7 HDD BRK and HDD FFC



6. CAMERA MODULE

The illustrations below show how to remove camera module of the All-in-one PC.

6-1 Location of HDD



6-2 Remove 2 screws.



Screw information:
SCRW M2.0*4L
2.0 ~3.0 kgf – cm

6-3 Remove camera and microphone rubber.(either one).

HD SKU



IR SKU



6-4 Camera BKT .(either one).

HD SKU



IR SKU



6-5 Camera module

HD SKU



IR SKU

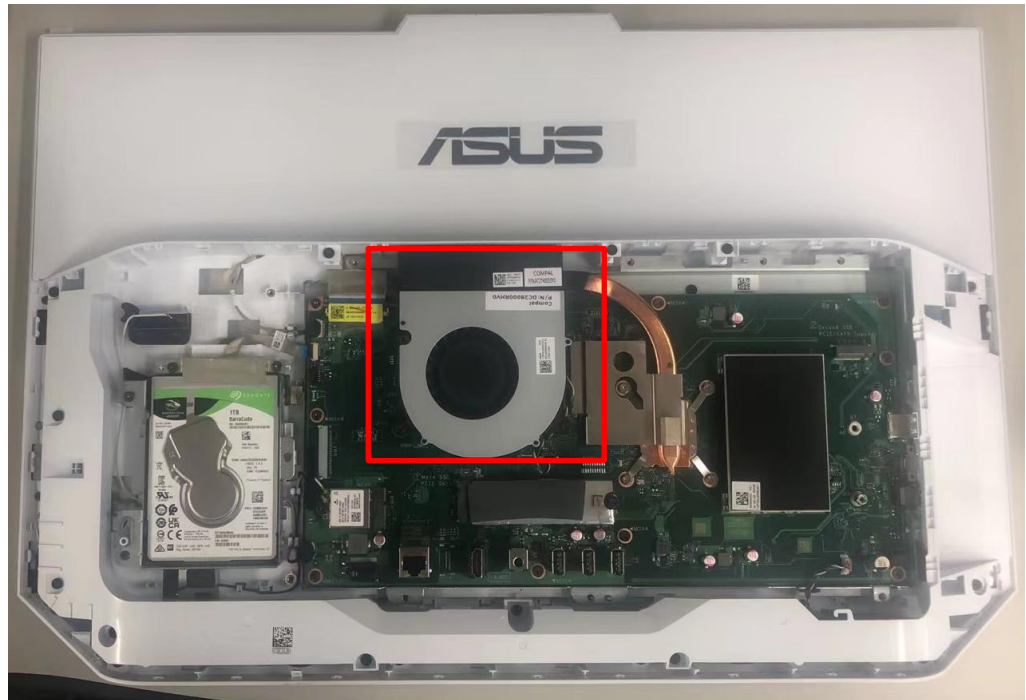


7. SYSTEM FAN

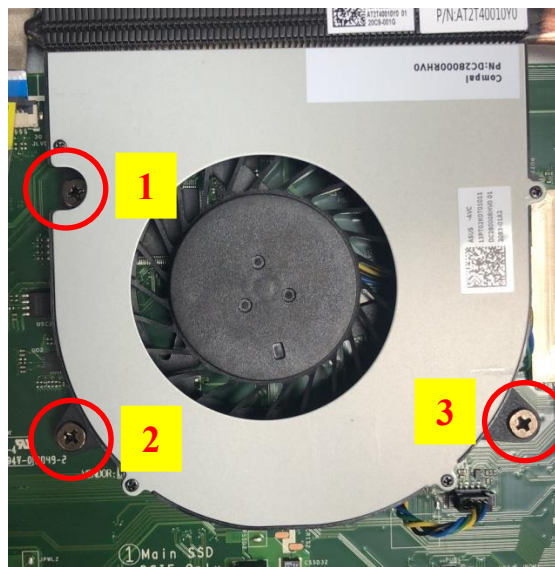
The illustrations below show how to remove SYSTEM FAN of the All-in-one PC.

[Top](#)

7-1 Location of SYSTEM FAN.



7-2 Remove three screws.



Screw information:
SCRW M3*4L
3.0~3.5 kgf – cm

7-3 Disconnect FAN's cable.



7-4 SYSTEM FAN.

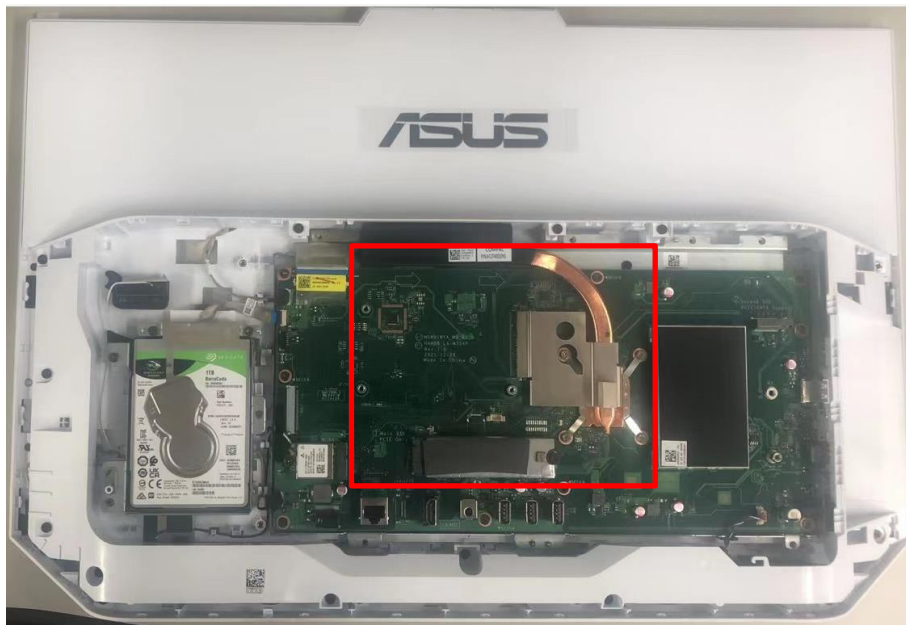


8. THERMAL MODULE

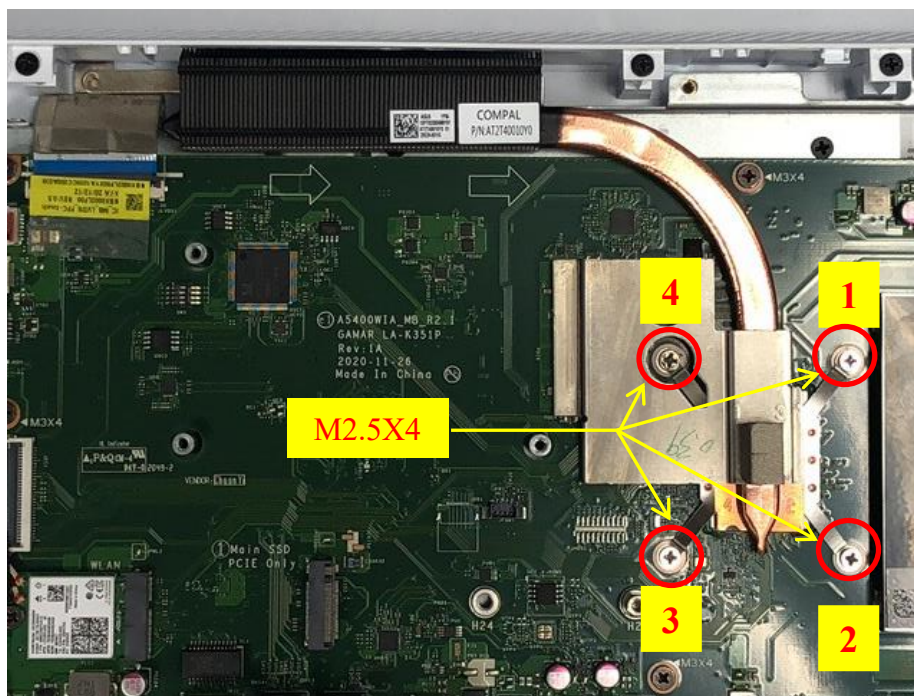
The illustrations below show how to remove THERMAL MODULE of the All-in-one PC.

[Top](#)

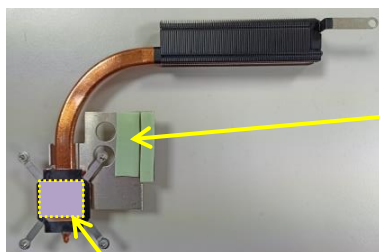
8-1 Location of THERMAL MODULE.



8-2 Remove 4 screws .



8-3 THERMAL MODULE.



T-Flex360 THM PAD

Location: [GPU/CPU]

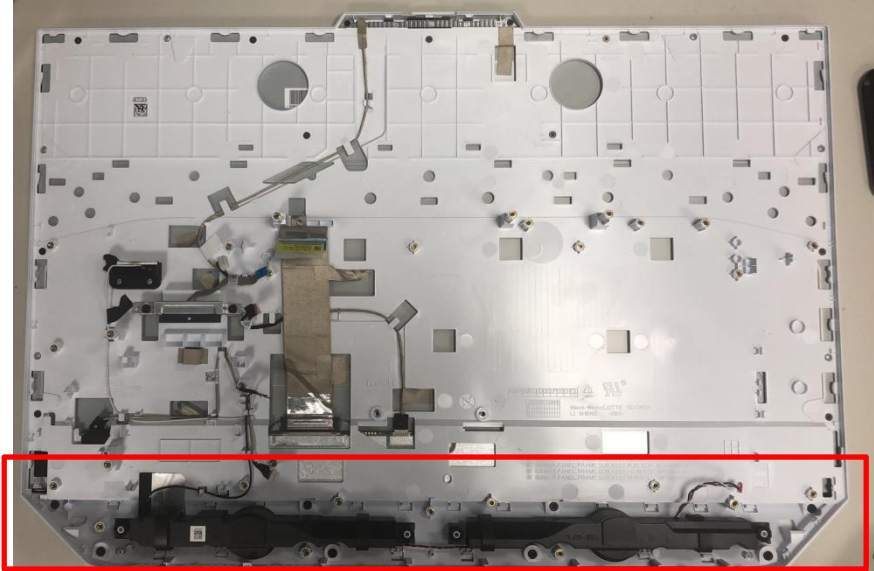
Thermal material:
thickness about 0.2~0.3mm

9. SPEAKER

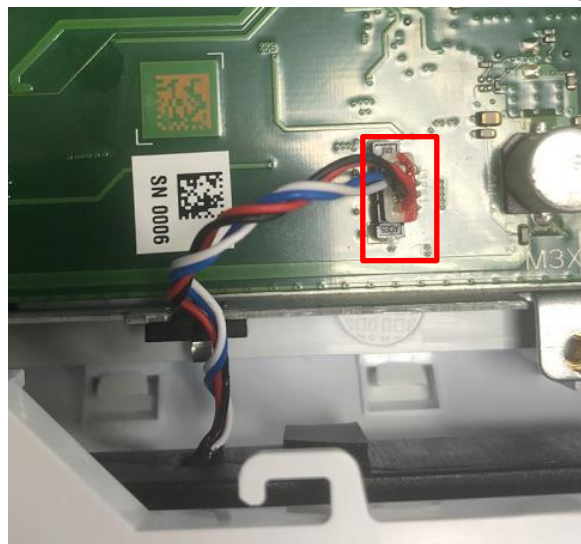
[Top](#)

The illustrations below show how to remove SPEAKER of the All-in-one PC.

9-1 Location of SPEAKER.



9-2 Disconnect the SPEAKER's cable and pull away the SPEAKER.



9-3 SPEAKER.

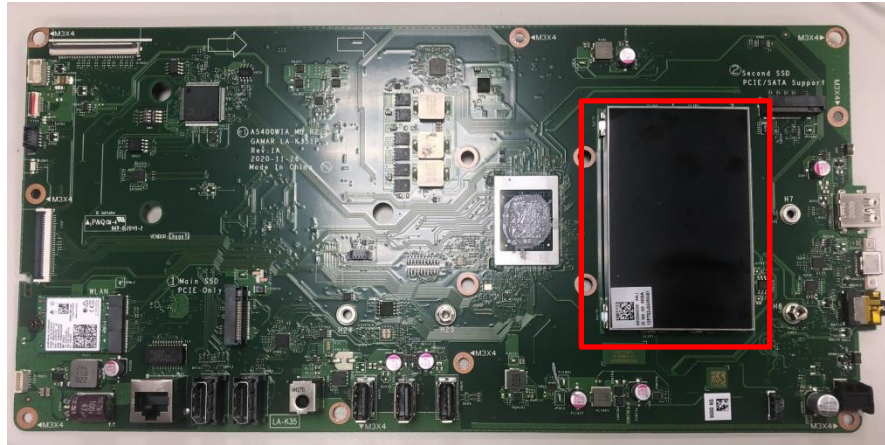


10. MEMORY & MEMORY SHIELDING

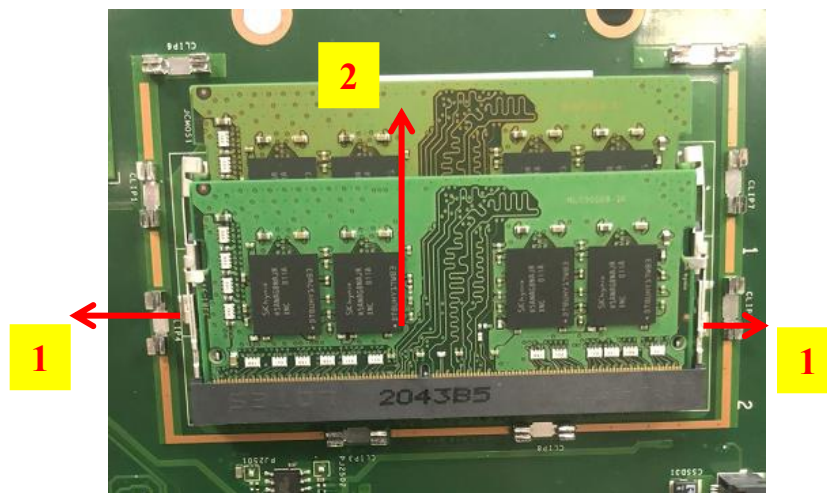
[Top](#)

The illustrations below show how to remove MEMORY & MEMORY SHIELDING of the All-in-one PC.

10-1 Location of the MEMORY & MEMORY SHIELDING.



10-2 Follow the sequence of number below to remove the MEMORY.



10-3 The MEMORY & MEMORY SHIELDING.



Front



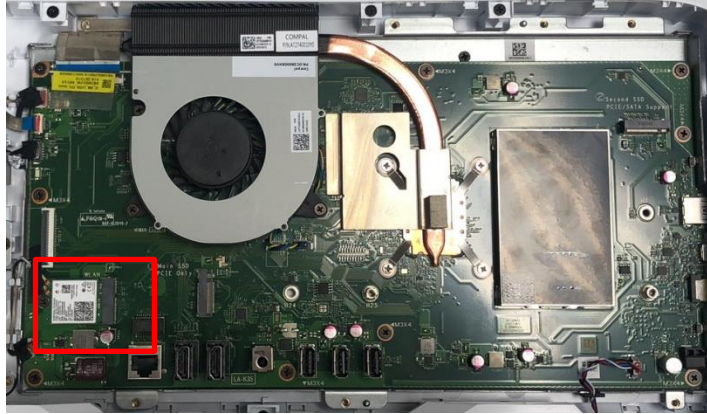
Back

11. WLAN CARD

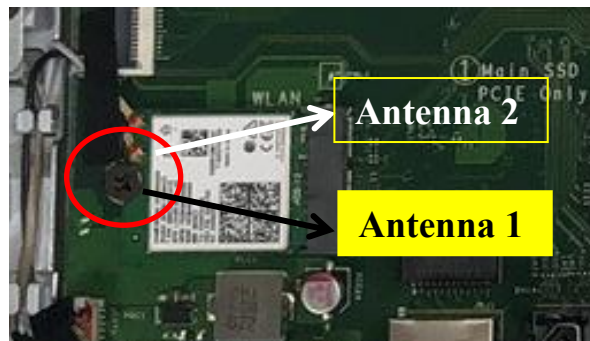
[Top](#)

The illustrations below show how to remove WLAN CARD of the All-in-one PC.

11-1 Location of WLAN CARD.



11-2 Remove 1 screw fastened on CARD and disconnect two antennas.



Screw information:
SCRW M3*5L
2.0~2.5 kgf – cm



11-3 The WLAN CARD.

12. SSD

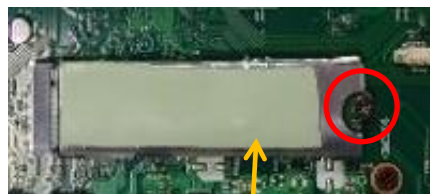
The illustrations below show how to remove SSD of the All-in-one PC.

[Top](#)

12-1 Location of SSD.



12-2 Disconnect the SSD after removing 1 screw.



SSD PAD



Screw information:
SCRW M3*4L
3.0~3.5 kgf – cm

12-3 Take out SSD foil from SSD module.

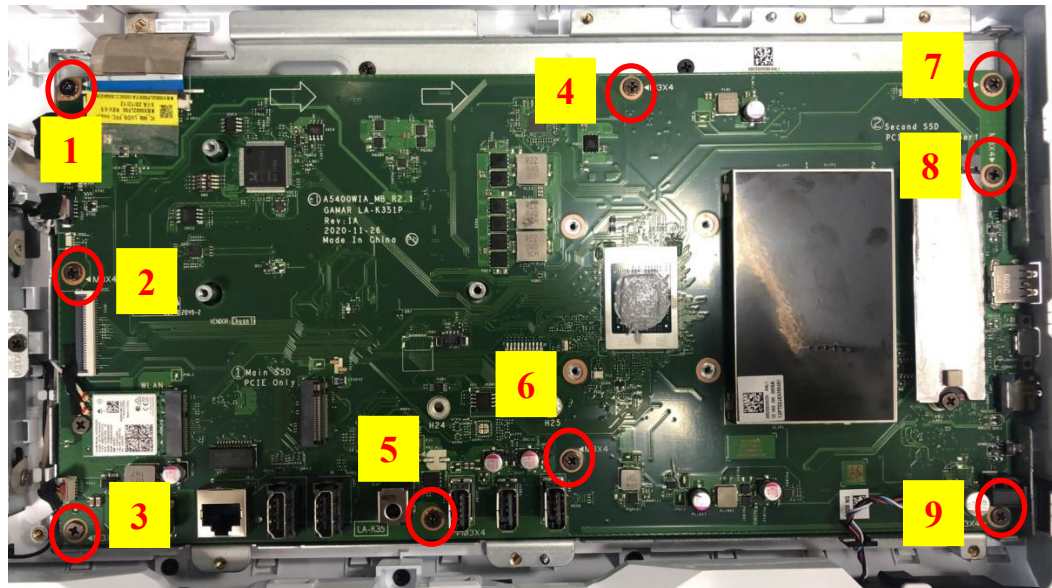


13. MB

[Top](#)

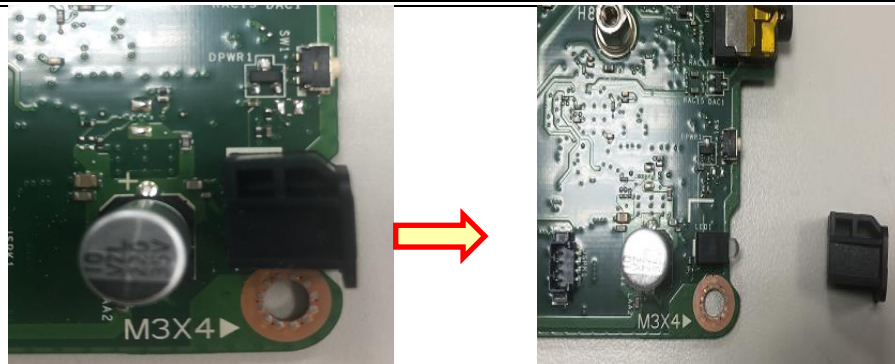
The illustrations below show how to remove MB of the All-in-one PC.

13-1 Remove 9 screws.



Screw information:
SCRW M3*4L
3.0~3.5 kgf – cm

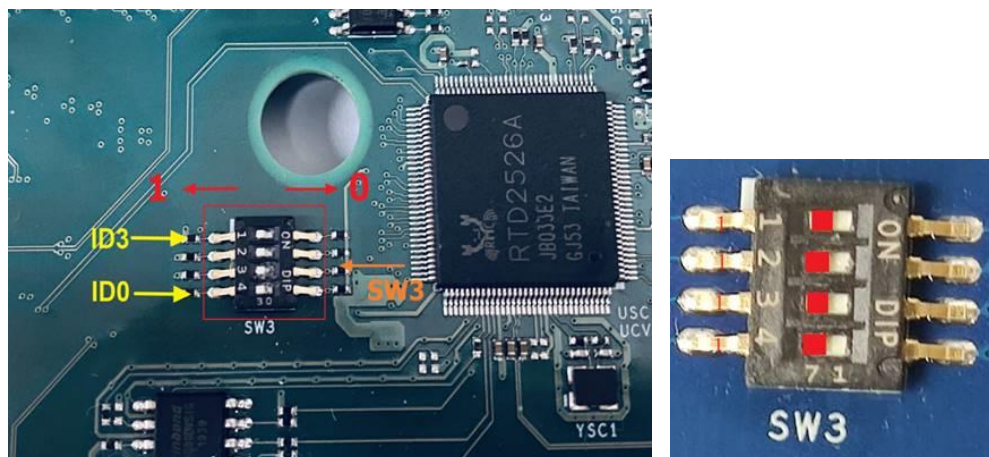
13-2 Remove the LED rubber from the MB terminal.



13-3 The MB.



Notice: Refer the below picture to set Panel switch matching
 1:UP
 0:DOWN



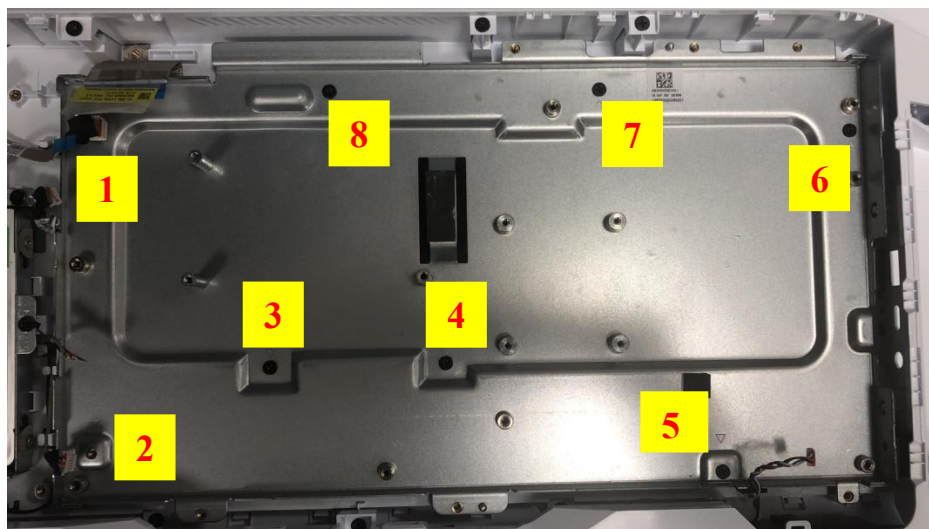
HAMBB SW3				
ID3	ID2	ID1	ID0	LCD Type
0	0	0	0	
0	0	0	1	
0	0	1	0	
0	0	1	1	
0	1	0	0	
0	1	0	1	
0	1	1	0	
0	1	1	1	LG_LM238WF5-SSG2
1	0	0	1	INNOLUX/M238HCA-L3B C2(ES8.0) INNOLUX/M238HCA-L3B C3(ES8.0)
1	0	1	0	
1	0	1	1	MV238FHM-N20-A85J
1	1	0	0	MV238FHM-N20-AWSK
1	1	0	1	
1	1	1	0	
1	1	1	1	Defual

14. MB SHIELDING

[Top](#)

The illustrations below show how to remove MB SHIELDING of the All-in-one PC.

14-1 Remove 8 screws.



Screw information:
SCRW M3*5L
3.0~3.5 kgf – cm

14-2 MB SHIELDING.

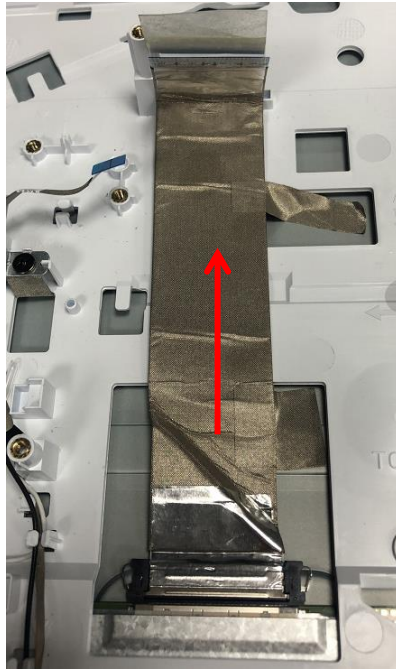


15. FFC & CABLEs

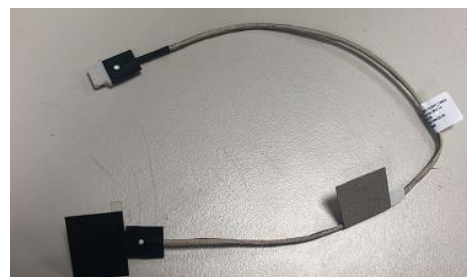
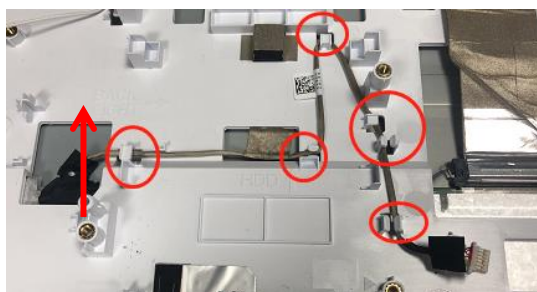
[Top](#)

The illustrations below show how to remove FFC & CABLEs of the All-in-one PC.

15-1 Remove LVDS FFC.

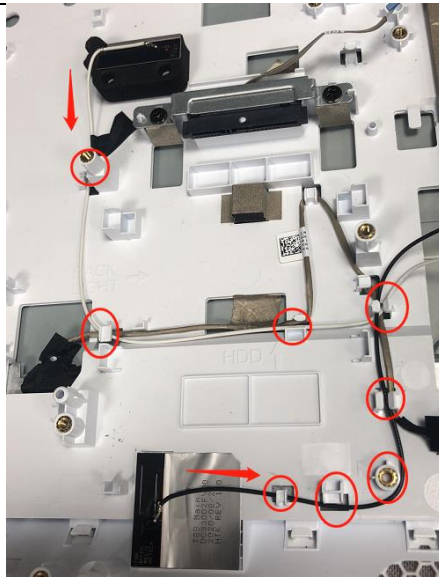


15-2 Remove BACKLIGHT CABLE.

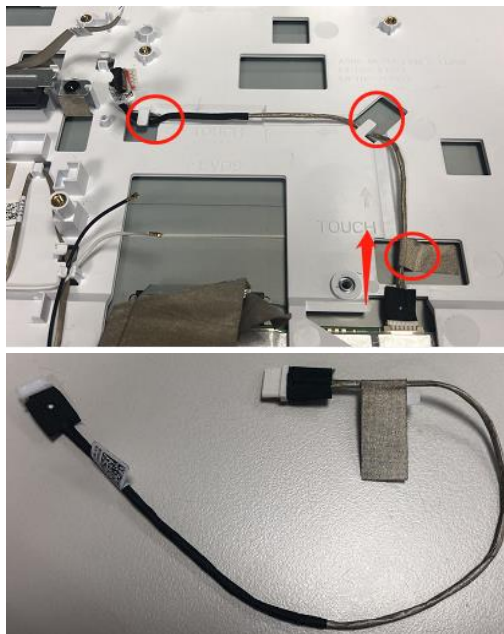


15-3 Remove ANTENNA CABLE.





15-4 Remove TOUCH CABLE

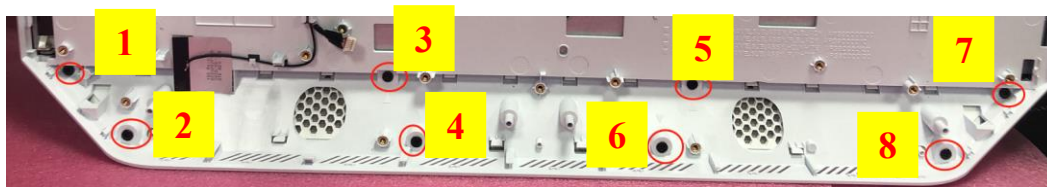


16. SPEAKER COVER

[Top](#)

The illustrations below show how to remove SPEAKER COVER of the All-in-one PC.

16-1 Remove 8 screws.



Screw information:
SCRW M3*5L
3.0~3.5 kgf – cm

16-2 SPEAKER COVER.

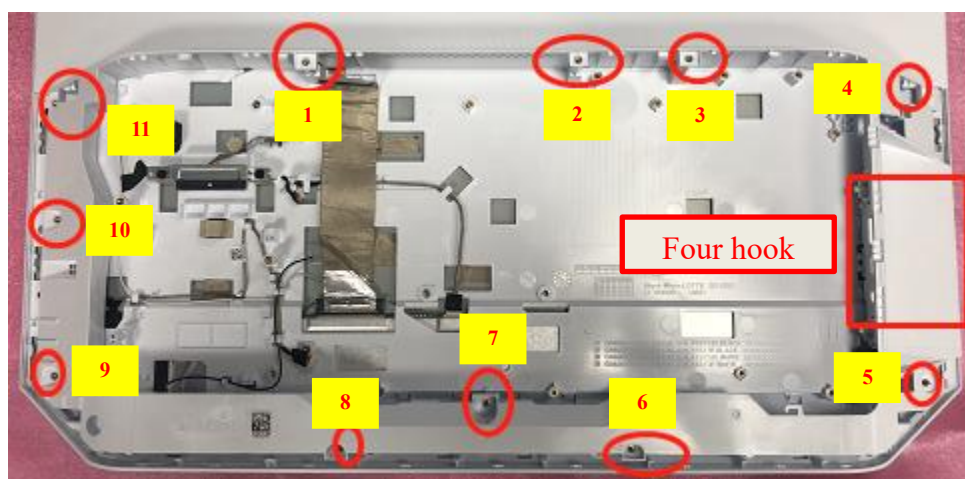


17. REAR COVER

[Top](#)

The illustrations below show how to remove REAR COVER of the All-in-one PC.

17-1 Remove 11 screws.



Screw information:
SCRW M3*5L
3.0~3.5 kgf – cm

17-2 REAR COVER.

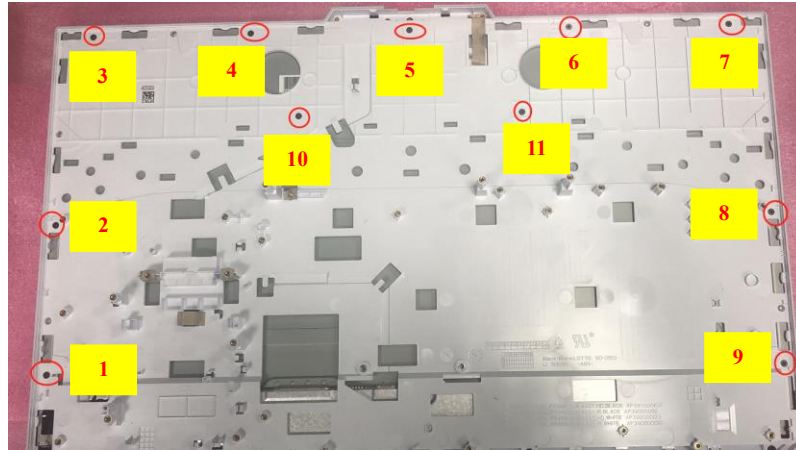


18. LCD MODULE

[Top](#)

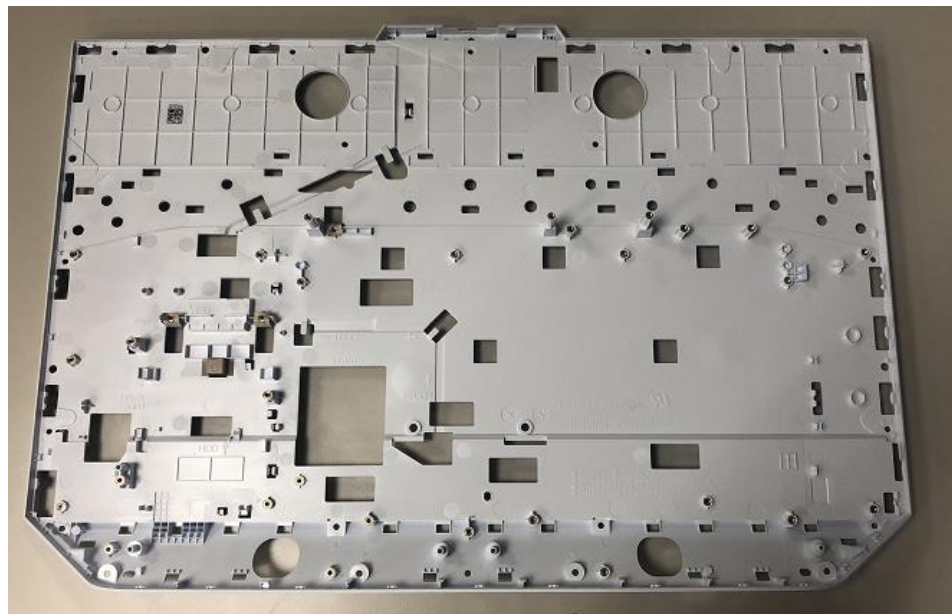
The illustrations below show how to remove LCD MODULE of the All-in-one PC.

18-1 Remove 11 screws from panel frame to LCD module.



Screw information:
SCRW M3*5L
3.0~3.5 kgf – cm

18-2 Panel frame.



18-3 LCD MODULE.

