

ASUS ROG Zephyrus G14(GA402R) series

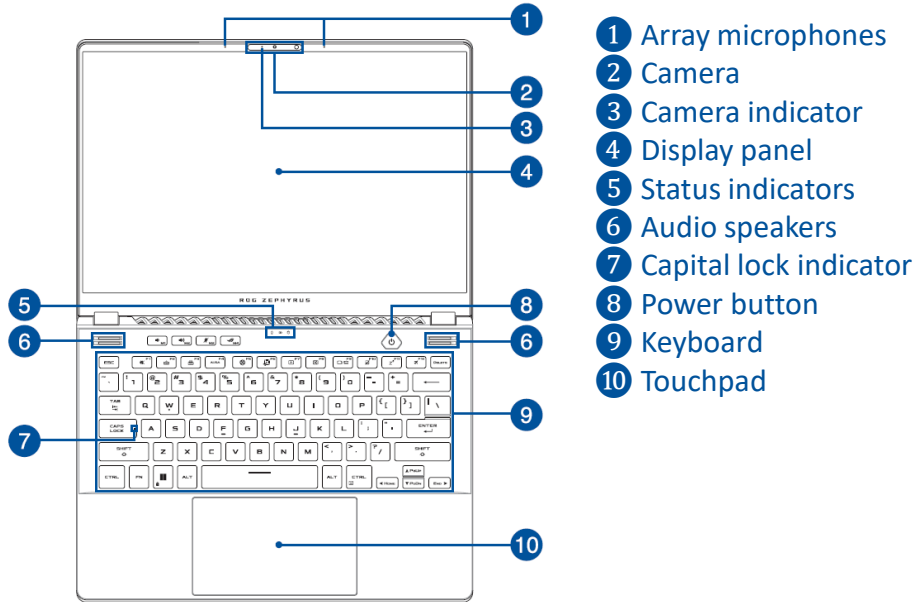
Service Guide

- [Service Overview](#)
- [ASUS ROG Zephyrus G14\(GA402R\) Overview](#)
- [Components Top View](#)
- [Components Bottom View](#)
- [Repair Overview](#)
- [Appropriate Tools](#)
- [Keyparts and Related Parts](#)
- Disassembly Steps :
 - [BOTTOM CASE](#)
 - [BATTERY and SSD](#)
 - [DDR](#)
 - [WIFI CARD](#)
 - [SPEAKER](#)
 - [FAN \(with THERMAL MODULE and MAIN BOARD\)](#)
 - [THERMAL MODULE](#)
 - [MAIN BOARD](#)
 - [BUTTON BD](#)
 - [TWEETER SPEAKER](#)
 - [KEYBOARD MODULE](#)
 - [TOUCHPAD MODULE](#)
 - [LCD BEZEL](#)
 - [LCD PANEL](#)
 - [LCD COVER MODULE](#)

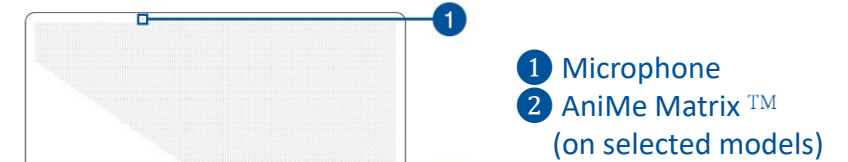
- **Carefully read through this Service Guide for a look at various components of the device before performing any service and repairs.**
- To provide the best service, we have provided the below information for technicians from distributors and resellers to perform the complete device disassembly and assembly. Before performing the procedures, please be sure to read through the overview in this service guide for component overview to avoid any unwarranted damages to the device hardware.
- The following contents include all part numbers mentioned in the service guide are **used for reference only**, if you need the exact part number for ordering, please refer to the OrderBook.
- Due to sales policy difference, the components might have different specifications on the same series product, please refer to E-manual by model.

Due to sales policy difference, the components may have different specifications on the same model. If you have any operational issues, please contact the service hotline.

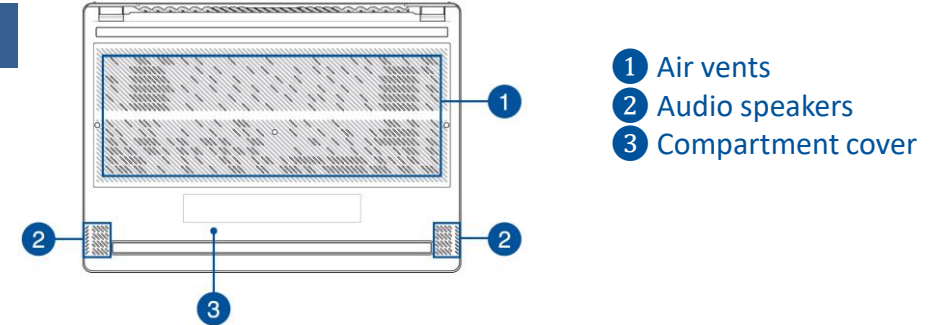
Top View



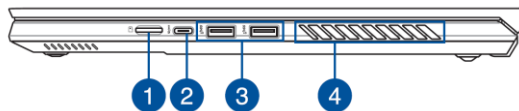
Cover View



Bottom View

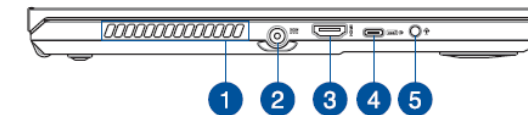


Right View



- 1 MicroSD card slot
2 USB 3.2 Gen 2 Type-C®/DisplayPort combo port
3 USB 3.2 Gen 2 port
4 Air vents

Left View



- 1 Air vents
2 Power (DC) input port
3 HDMI output port
4 USB 3.2 Gen 2 Type-C®/DisplayPort/Power Delivery combo port
5 Headphone/Headset/Microphone jack

◆ LCD COVER MODULE



◆ KEYBOARD MODULE



◆ LCD BEZEL



◆ LCD Panel(14")



◆ BASE CASE



◆ MAIN BOARD



◆ BATTERY



◆ BATTERY CABLE



◆ DDR



◆ SSD



◆ WIFI CARD



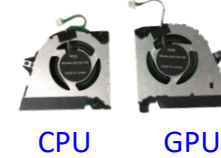
◆ TOUCHPAD



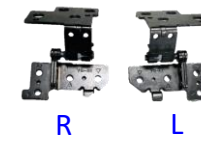
◆ THERMAL MODULE ASSY



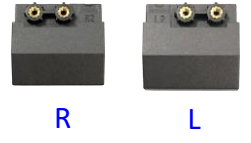
◆ FAN



◆ HINGE



◆ HINGE CAP



◆ BUTTON BD



◆ TP FFC (8P,0.5,L64.5MM)



◆ IR CAMERA FPC



◆ EDP CABLE



◆ SPEAKER



◆ TWEETER SPEAKER



◆ PW FFC (4P,0.5,L203MM)



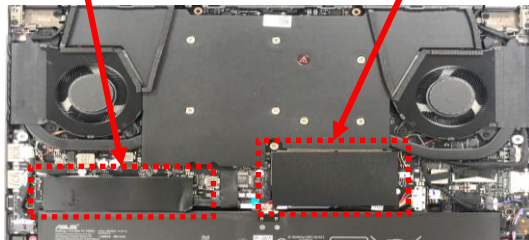
◆ HINGE DECO RUBBER



◆ SSD THERMAL PAD



◆ SSD MYLAR



◆ DIMM COVER MYLAR

◆ EDP TAPE



◆ FAN MYLAR

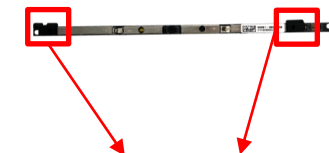


CPU FAN MYLAR
GPU FAN MYLAR

◆ TP EMI FABRIC L



◆ HD RGB/IR ARRAY MIC CR



◆ MIC RUBBER



◆ SPK SPONGE



◆ SCREW DECO RUBBER



◆ LCD COVER MODULE



LCD ADHESIVE

Without Matrix LED SKU
COLOR ID=2D/2E

LCD COVER CU FOIL

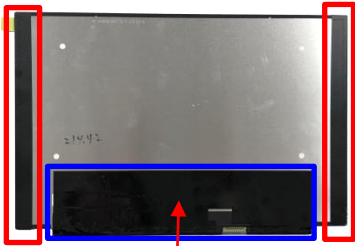


LCD ADHESIVE

With Matrix LED SKU
COLOR ID=6D/6E

◆ PANEL BACK MYLAR

Without Matrix LED SKU
COLOR ID=2D/2E
PANEL BACK MYLAR **THICK**
*2pcs

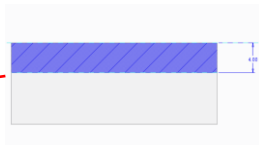


PANEL GRAPHITE

With Matrix LED SKU
COLOR ID=6D/6E
PANEL BACK MYLAR *1pcs



◆ EDP CABLE MYLAR



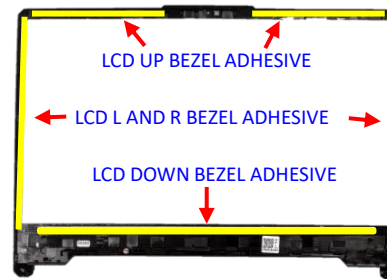
◆ LCD Panel



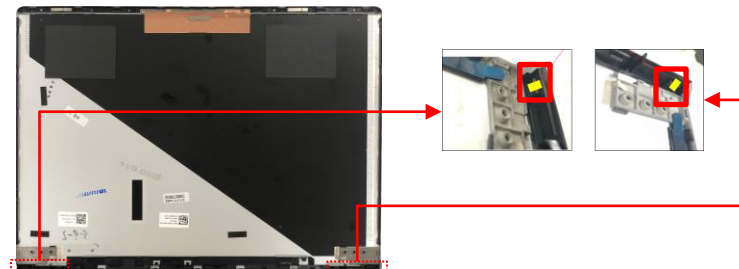
◆ THERMAL MODULE ASSY



◆ LCD BEZEL ADHESIVE



◆ LCD COVER HOOK TAPE (EN-0363649)



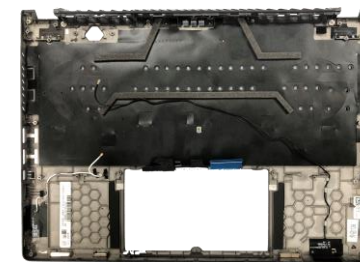
◆ BASE CASE



◆ MAIN BOARD



◆ KEYBOARD MODULE



◆ BUTTON BD



◆ PW GASKET

◆ LCD BEZEL



◆ WIFI ANTENNA



AUX

MAIN

This chapter describes disassembly and assembly (Assemble document please look up from the last page), please follow the information provided in this section to perform the complete disassembly procedure.

◆ Precautions:

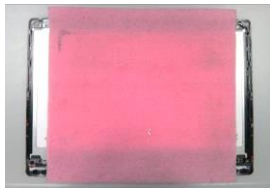
Before you perform any service or repair on the notebook, please pay special attention to the cautions prevent any damages to the notebook.

1. Be sure that the notebook is powered down.
2. Before disassembling any part, please disconnect all power source. ex: AC plug/Battery connector/Power protect screw etc.

3. Remove all rings, watches and any other metal objects from your hands.



4. Always wear a ground strap on your hand to protect the notebook from static discharge.
5. Please refer to “ANSI ESD S20.20” about ESD protection measure.
6. Put the disassembled parts in the functional PE BAG to avoid any damages of the A/B/C/D part.



7. The maintenance environment temperature is 20-30 °C and humidity is 40% - 70%.
8. To avoid scratching on the surface of machine; please use anti-static and soft materials to put on desk in repair environment as below photo.



9. Screw Appearance Criteria:

If the screws have the following damaged appearance, please do not use.

- a. Shape deformed.
- b. Damaged head – unable to drive in or the stripped screw.
- c. Damaged unable to securely tighten.
- d. Paint scratched off.
- e. Rusty



10. The following chapter includes all part numbers mentioned in service guide are used for reference only, actual part name depends on different SKU, if you need the exact part number for ordering, please refer to the Orderbook.
11. Due to sales policy difference, the components may have different specifications on the same model. Please note that all pictures and components shown on Service Guide are for disassembly/assembly description purpose only, so please refer to the actual product for disassemble/assemble.

Please prepare and select the appropriate tools to disassemble/assemble for the ASUS ROG Zephyrus G14 (GA402R) series notebook.

◆ Screwdriver

Please accord to different screw specification to choose different screwdriver and head.



◆ Plastic Blade



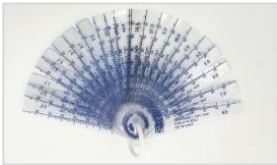
◆ Plastic Tweezers

Use a pair of tweezers to remove/insert/tidy up cables.



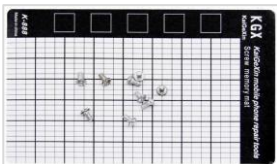
◆ Thickness Gauge

Thickness compass specification 0.05mm-1.5mm. Use it to measure the gap.



◆ Magnetism Board

Suggest local buy magnetism board to place screw, avoid mix different type screw to cause assembly damage.



◆ Alcohol 95%



◆ Glove



◆ Dust-free Cloth



◆ NB LCD MYLAR *4pcs

Use it to align panel position.

LCD MYLAR can be reused 5 to 10 times, please stick it on the plastic bag save after used, and repeatedly use until lose stickiness.



◆ Thermal Pad PTM7958



◆ PLASTIC CARD T=0.35mm



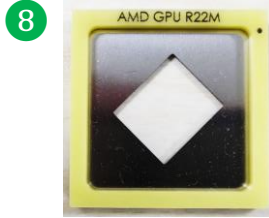
◆ FCR-AS Thermal Grease



◆ PLASTIC PICK T=0.5mm



Please prepare and select the appropriate tools to disassemble/assemble for the ASUS ROG Zephyrus G14 (GA402R) series notebook.



Item	Part Name	Memo
1	Silicone scraping pen	
2	Conductonaut 1g (Liquid Metal)	▪Please store it in the environment of 10 ~ 40 °C. ▪Please keep cover tightly closed until ready for next time use. ▪Shipping category : Dangerous Goods.
3	AMD Rembrandt steel plate	
4	Stainless steel plate (60mm*20mm*0.2t)	
5	95% alcohol	
6	Dust-free cloth	
7	Dust-free cotton swab//class 100 (100pcs)	
8	AMD GPU R22M steel plate	

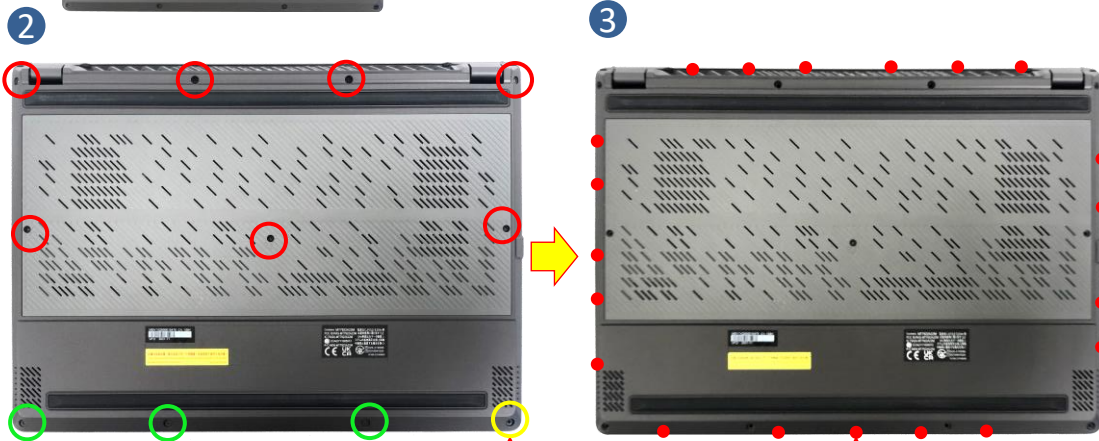
Disassembly Notice

Step 1 : Remove rubbers *3pcs.

Step 2 : Remove screws *10pcs.

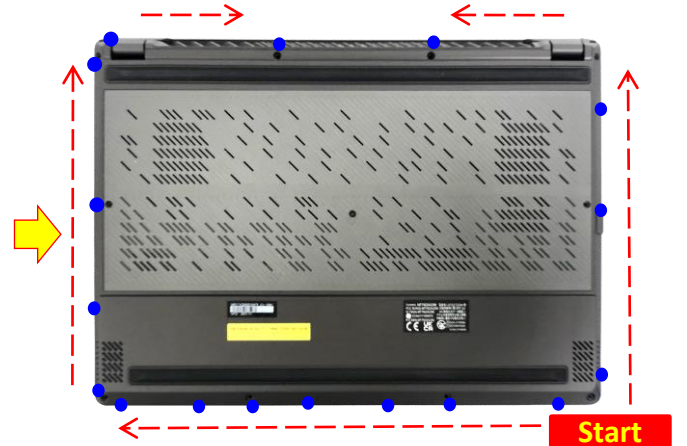
Step 3 : Use plastic blade to pry the bottom case.

Screws	QTY	Spec	Torque (kgf-cm)
	3	M2*4.5L (4.5,0.8) (K) #1	2.0±0.2
	7	M2*8.0L (4,0.8) (K) #1	2.0±0.2
	1	Retention Screw	2.0±0.2



⚠ The screw is unable to remove from bottom case, so please always loosen it last, and lock it at first.

⚠ To avoid the bottom case hook, don't insert plastic blade in each red circle.



⚠ Please follow above arrow direction with using plastic blade to pry bottom case in each blue circle location. (To avoid the bottom case hook, please prying at each blue circle location.)



Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Before disassembly battery connector, please be sure to pull out adapter and disconnect the battery more than ten seconds in order to IC damage.

Step 1 : Disconnect the battery connector.

Step 2 : Tear off the Mylar.

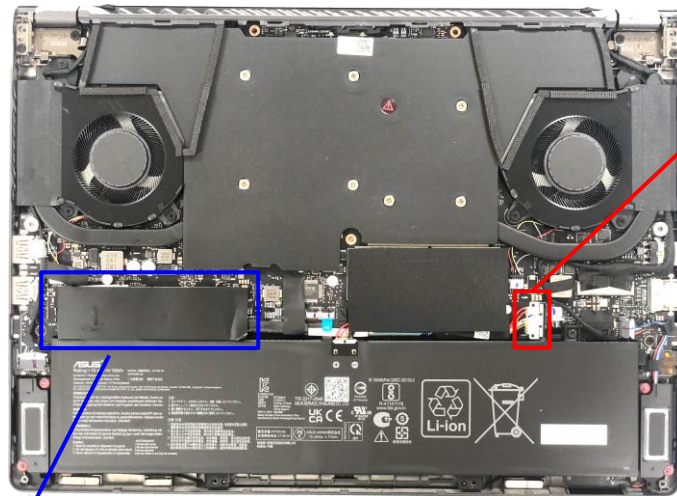
Step 3 : Remove screw *1pc.

Step 4 : Remove the SSD, then tear off ABSORBER.

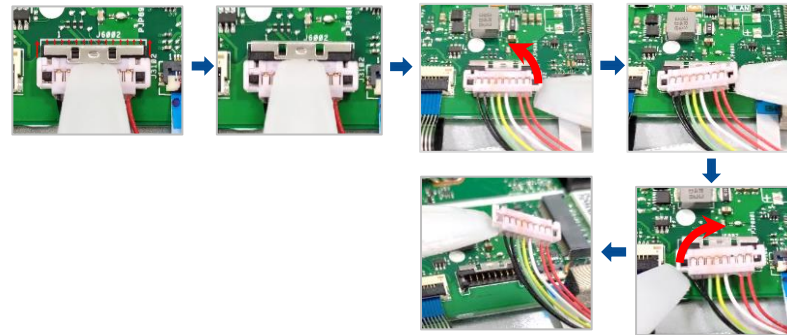
Step 5 : Remove the SSD PAD.

Step 6 : Remove screws *2pcs, then remove battery and battery cable.

Screws	QTY	Spec	Torque(kgf-cm)
	3	M2*4.5L(45,0.8)(K) #1	2.0±0.2



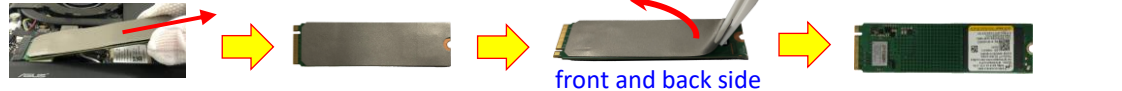
① Disconnect



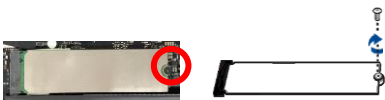
② Tear off



④ Remove and tear off



③ Unscrew



⑤ Remove

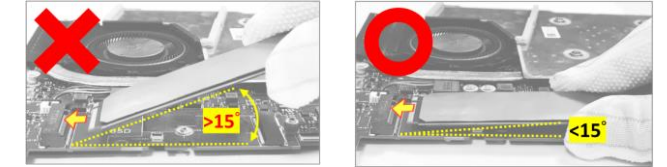


⑥ Unscrew and remove



Assembly Notice

When installing the SSD, please keep the SSD less than 15 degrees with motherboard, and then insert the SSD.



Please make sure to paste ABSORBER on the front and back side of SSD, before assembling the SSD.



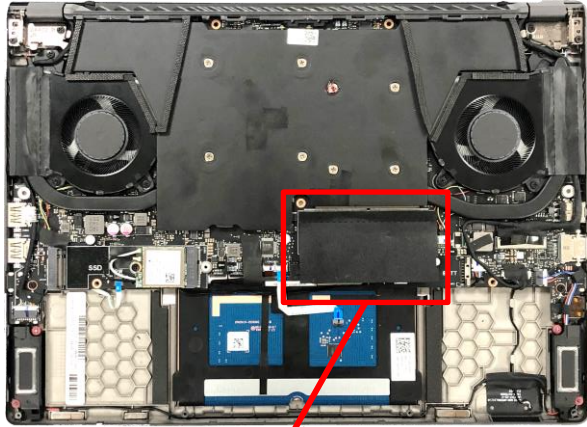
Disassembly Notice

Please be sure to pull out adapter and disconnect the battery. 

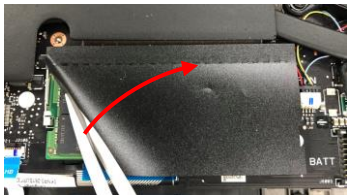
Step 1 : Remove the Mylar.

Step 2 : Unlock and remove the DDR.

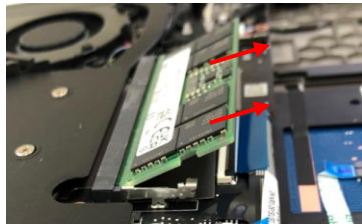
Step 3 : Tear off the ABSORBER.



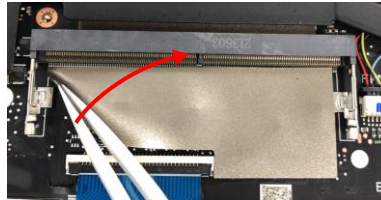
① Tear off



② Unlock

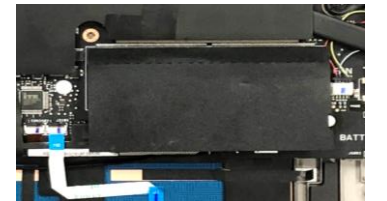


③ Tear off



Assembly Notice

 Please make sure to paste mylar on DDR slot.



Disassembly Notice

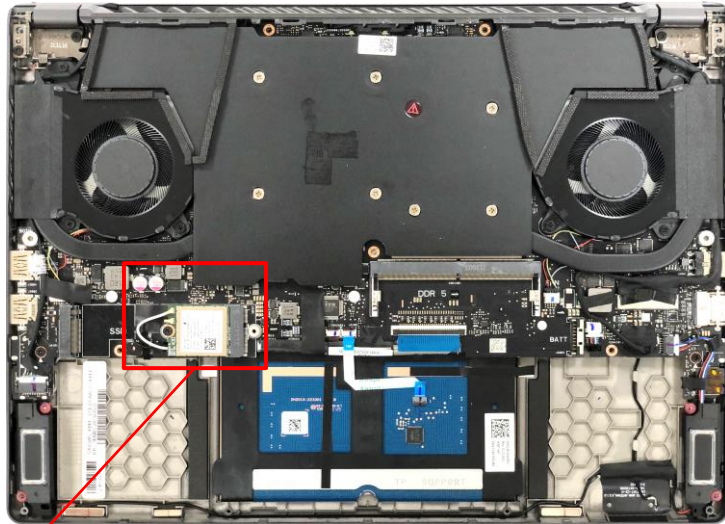
Please be sure to pull out adapter and disconnect the battery. 

Step 1 : Disconnect the RF CABLE connectors *2pcs.

Step 2 : Remove the screw *1pc.

Step 3 : Remove WIFI CARD.

Screws	QTY	Spec	Torque (kgf-cm)
	1	M2*2.5L (5,0.5) (K) #1	2.0±0.2



① Disconnect



② Unscrew

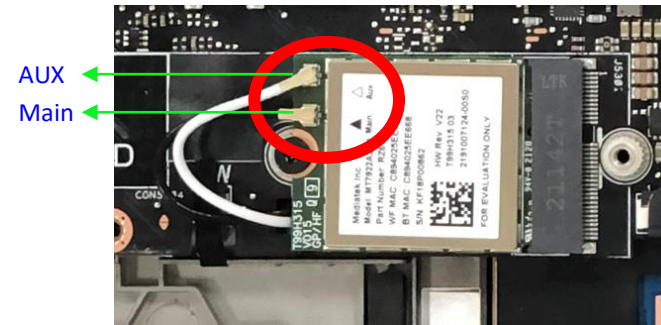


③ Remove



Assembly Notice

 Please according to below image to assemble RF cable.

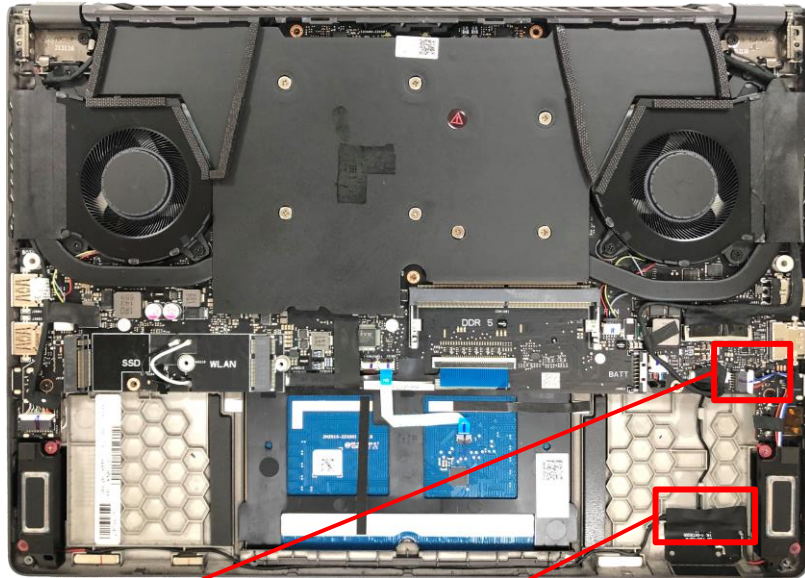


Disassembly Notice

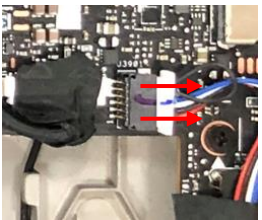
Please be sure to pull out adapter and disconnect the battery. 

Step 1 : Disconnect the SPEAKER connector.

Step 2 : Release tape and remove the SPEAKER.



1 Disconnect

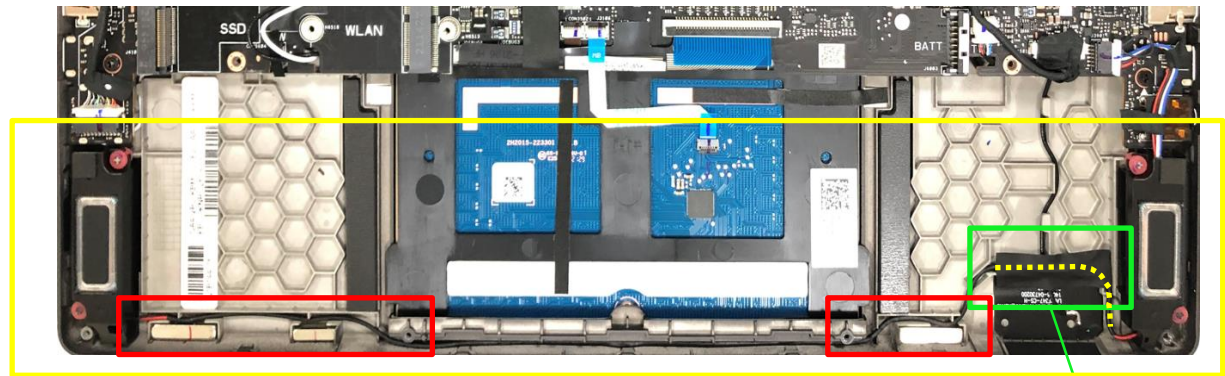


2 Release tape and remove



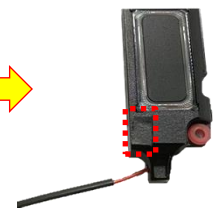
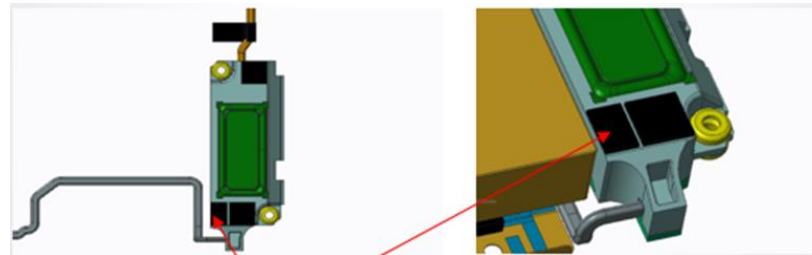
Assembly Notice

 For Speaker assembly,
please follow the mark below to tidy up cable and tape.



SPK CABLE TAPE

 For Speaker assembly,
please follow the mark below to paste the SPK SPONGE. (EN-0363310)



Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Step 1 : Release tapes then disconnect connectors. (yellow mark)

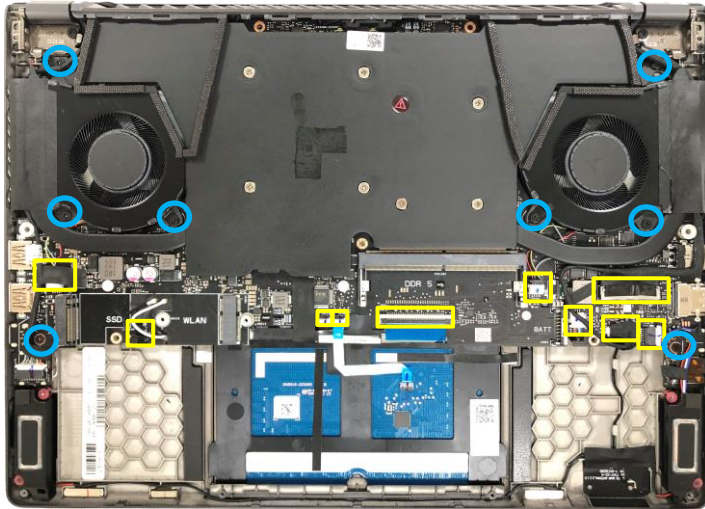
Step 2 : Remove screws *8pcs. (blue mark)

Step 3 : Remove MB with Thermal and FAN module.

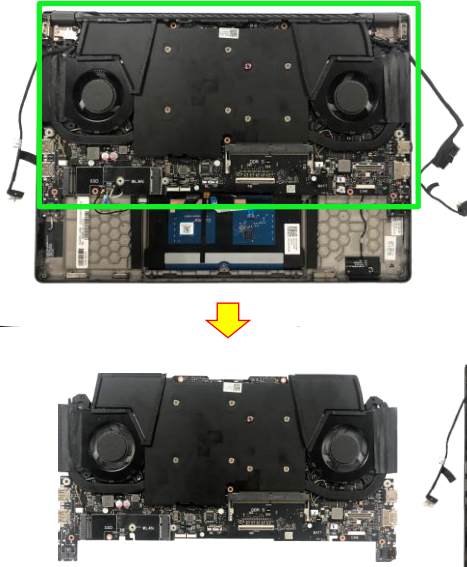
Step 4 : Remove FAN *2pcs.

① Disconnect (Yellow mark)

② Remove screw*8pcs (Blue mark)



③ Remove module (MB+Thermal+FAN)



Assembly Notice

Please use the correct technique to take fans off to avoid getting out of shape.

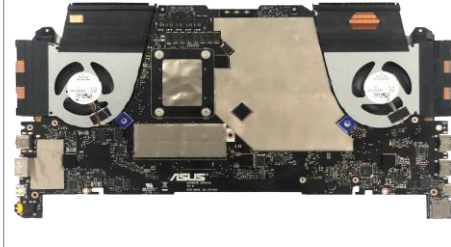


④ Remove FAN

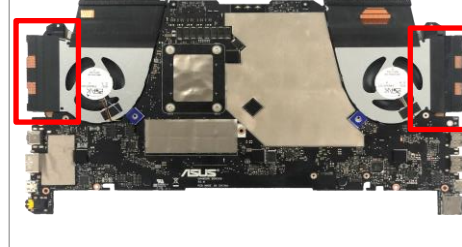
4-1 Tear off



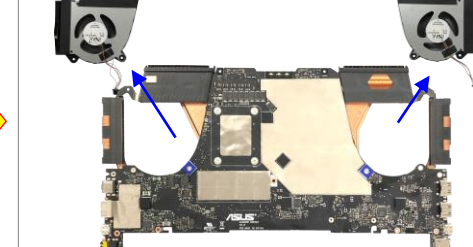
4-2 Turn to back side



4-3 Tear off



4-4 Remove



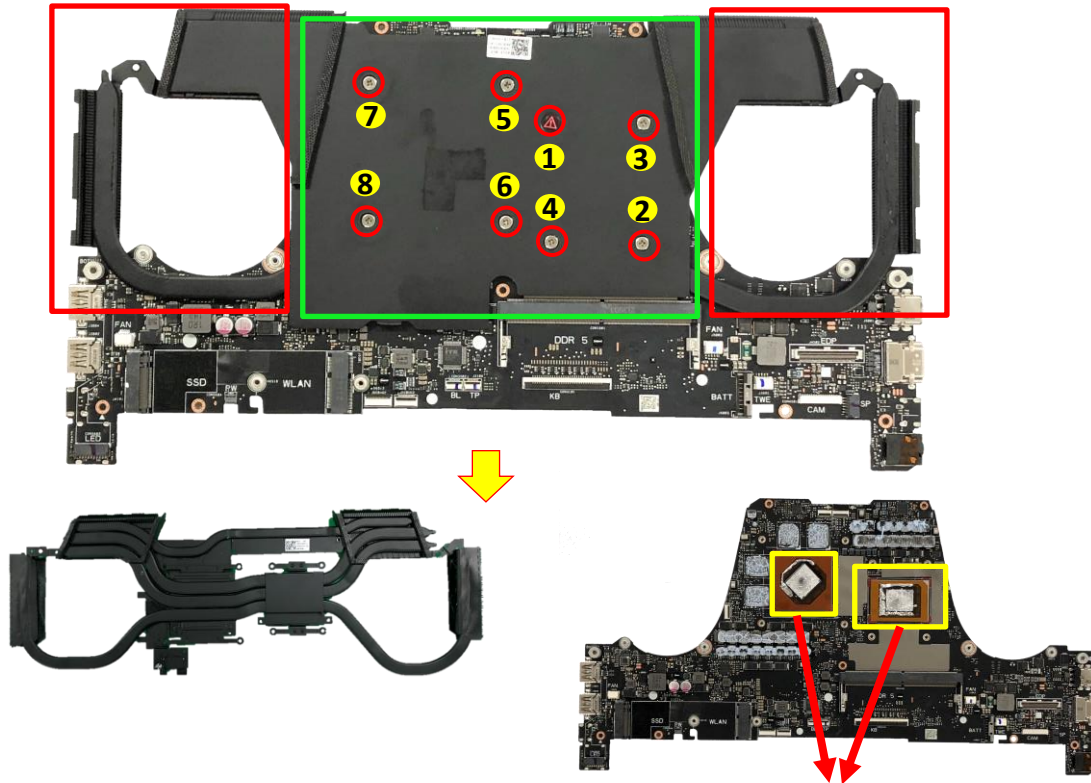
Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Step 1 : Please follow the reverse screws numbers to remove screws *8pcs.

Step 2 : Remove the THERMAL MODULE from MB.

Recommend that the force point is at green block, and pull up thermal module to take it out. Do not pull up at red block and also notice the thermal pipe should not have deformation.



Please refer Repair Notice SOP for Liquid metal rework.

Screws	QTY	Spec	Torque (kgf-cm)
	8	Retention Screw	2.0±0.2

Assembly Notice



① Please refer to **Repair Notice SOP** for thermal grease rework before reassembling the thermal module.

▪ THERMAL MODULE Location : [VRAM/CHOKE/MOS]
Material: FCR-AS Grease

② Please refer **Repair Notice SOP** to rework GA402RJ/RK CPU/GPU die **Liquid metal** before reassembling the thermal module.

IMPORTANT! Thermal paste, thermal pads, liquid metal, or other thermal interface materials must be thoroughly removed and replaced if this component is removed. Ensure that replacement materials are available before proceeding, or contact an authorized service center for assistance.

WARNING! The heat sink contains liquid metal and should only be removed by authorized service personnel. Significant damage may occur to motherboard components if the heat sink is improperly removed.

Assembly Notice Please be sure to pull out adapter and disconnect the battery.



Assembly Main Board, FAN, Thermal module Steps :

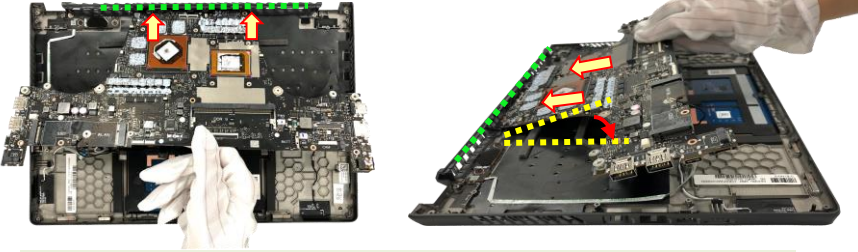
Step 1 : Align upper side put the Main Board.

Step 2 : Assembly the FAN *2pcs.

Step 3 : Lock Screws *4pcs and connect FAN connector.

Step 4 : Align upper side put the Thermal module, then follow the screws numbers to lock screws *8pcs.

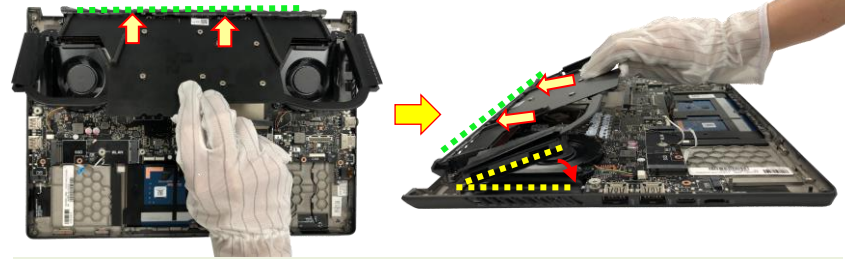
Step 1



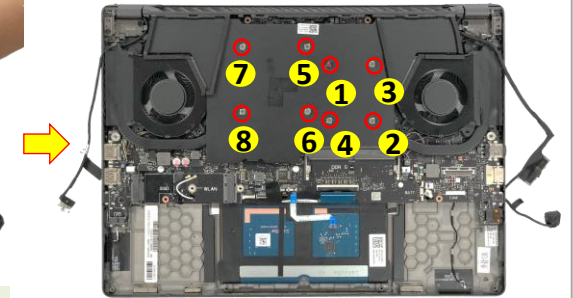
Align the MB to the upper side of the KB module. (Green align line)

Step 4

Put into the Thermal module and lock screw.

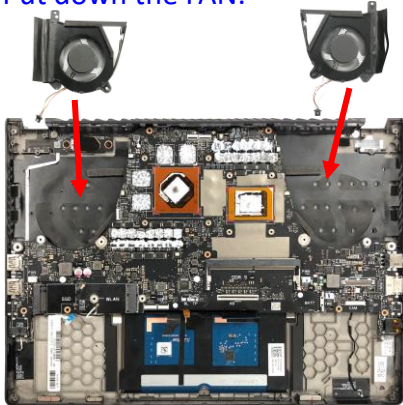


Align the Thermal to the upper side of the KB module. (Green align line)



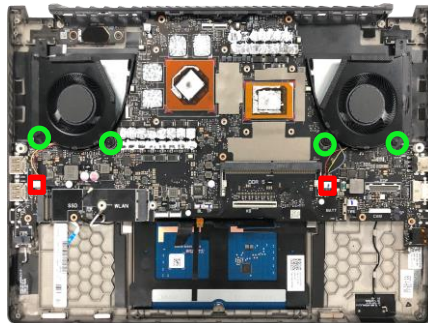
Step 2

Put down the FAN.

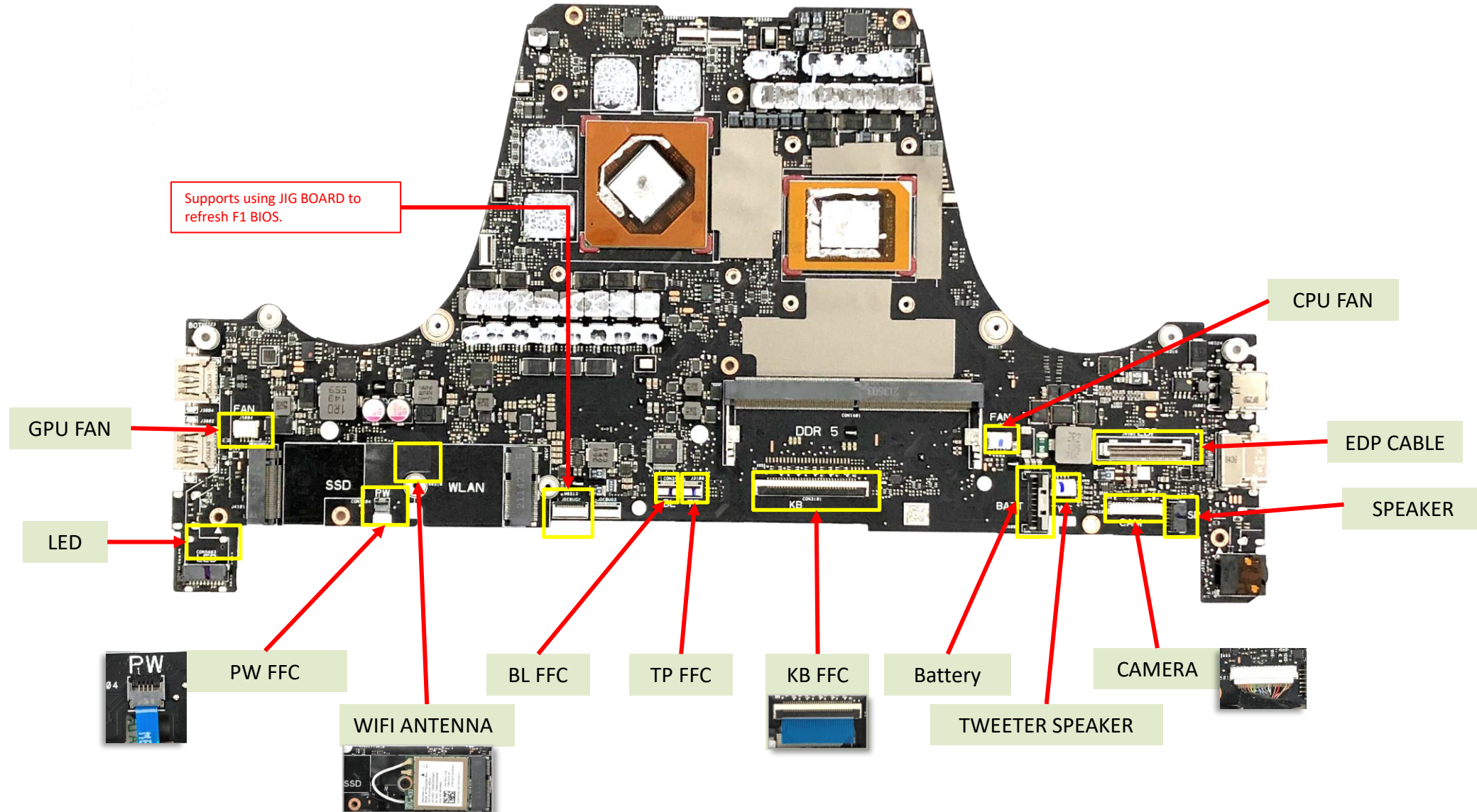


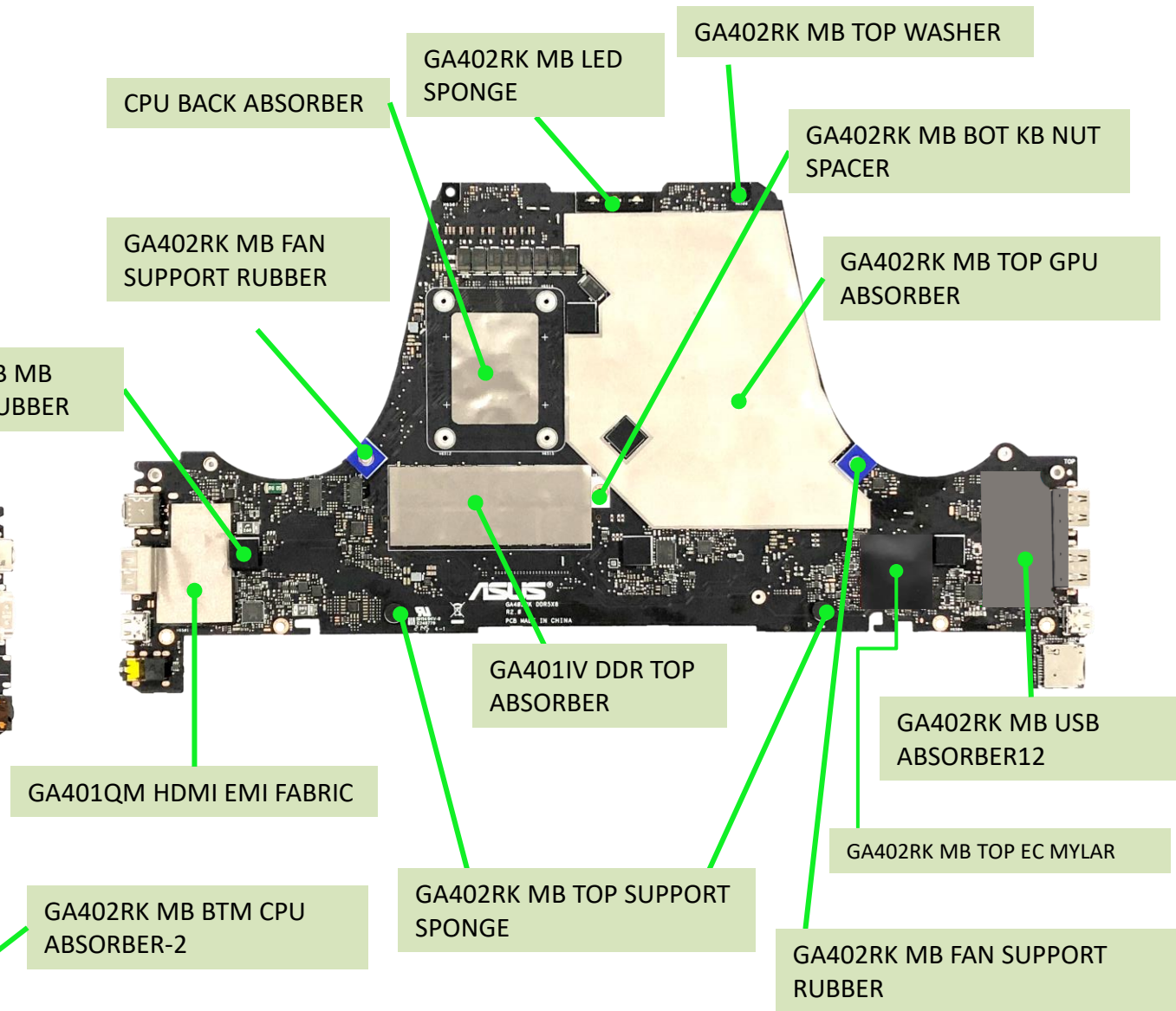
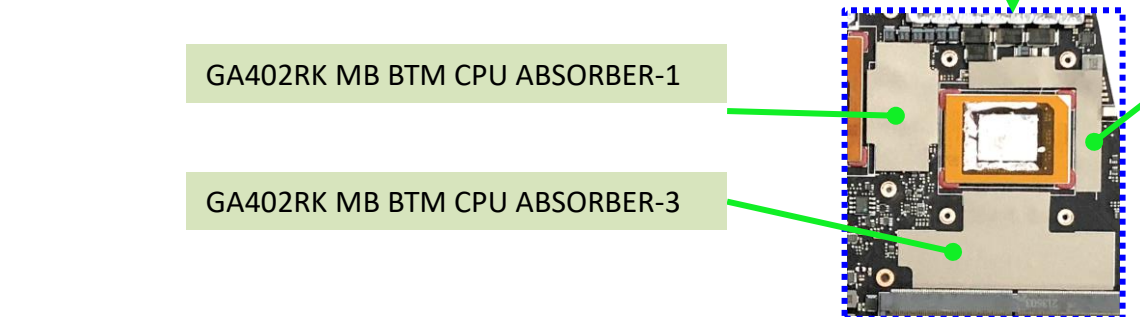
Step 3

Lock screws *4pcs and connect FAN connector.



Mainboard connector placement





Disassembly Notice

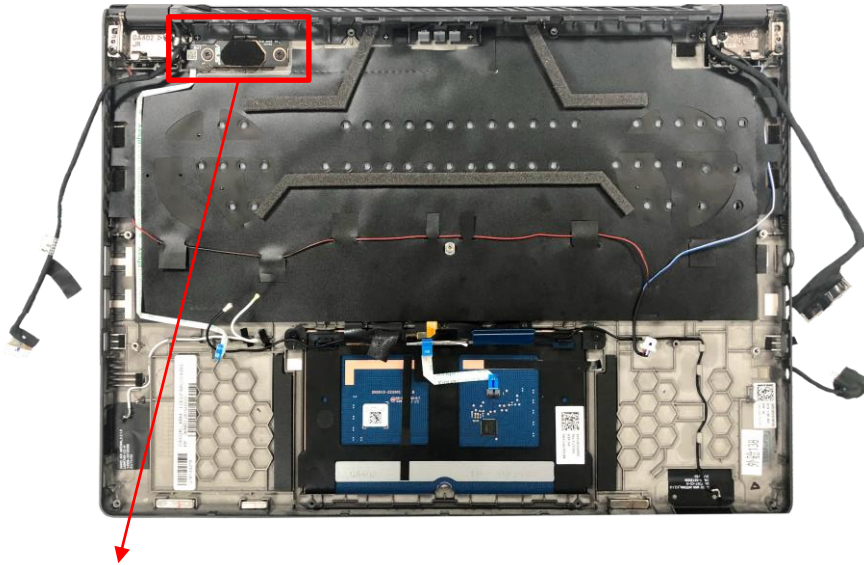
Please be sure to pull out adapter and disconnect the battery.

Step 1 : Remove screws *2pcs, then remove BUTTON BD with FFC.

Step 2 : Disconnect FP connector and remove FFC.

Step 3 : Remove the PW holder.

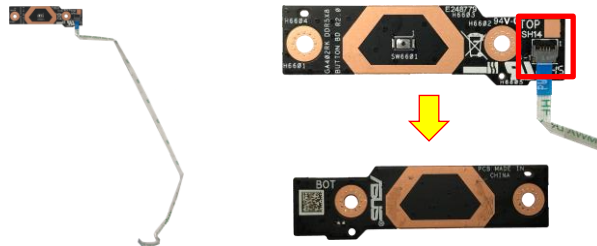
Screws	QTY	Spec	Torque (kgf-cm)
	2	M2*2.5L (5,0.5) (K) #1	2.0±0.2



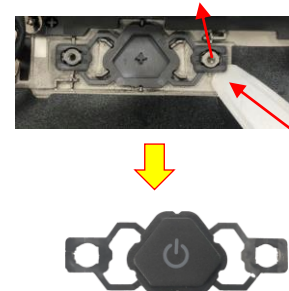
① Remove



② Disconnect



③ Remove



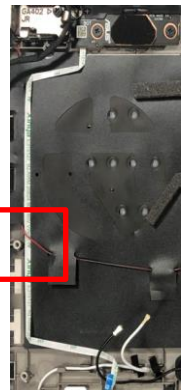
Assembly Notice

If FFC is damage during disassembly, please replace new one. Here are some samples of FFC damage:



For BUTTON BD assembly, please follow the mark below to tidy up cable.

Under the Tweeter speaker cable



Disassembly Notice

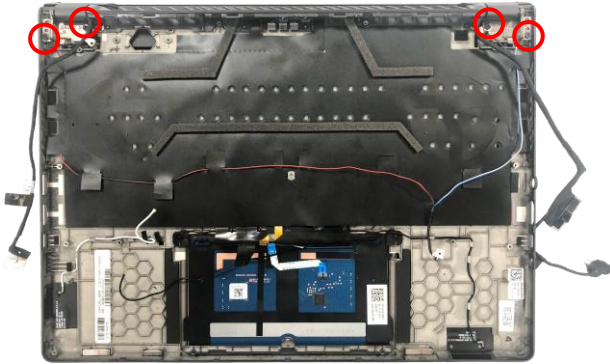
Please be sure to pull out adapter and disconnect the battery.

Step 1 : Remove Screw *4pcs.

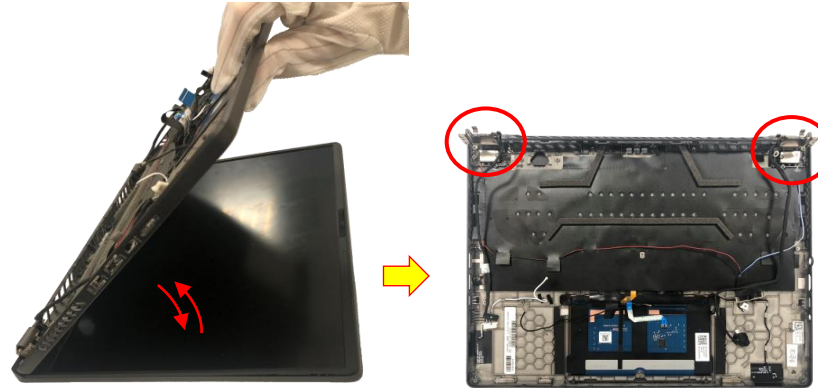
Step 2 : Flip up and put down the KB module to release HINGE.

Step 3 : Release MYLAR then remove Tweeter speaker.

1 Unscrew

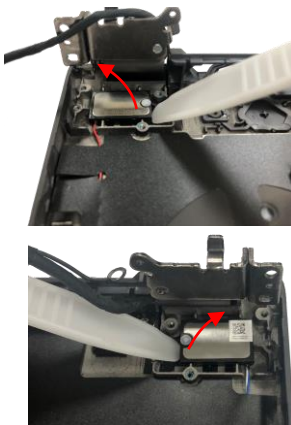


2 Flip up and put down

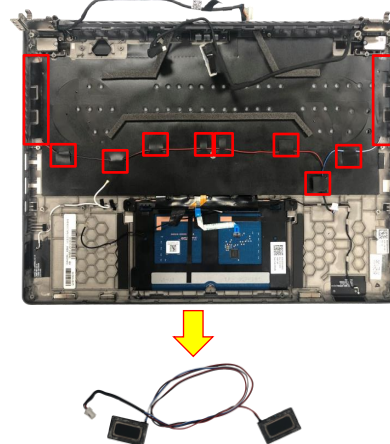


3

3-1 Remove



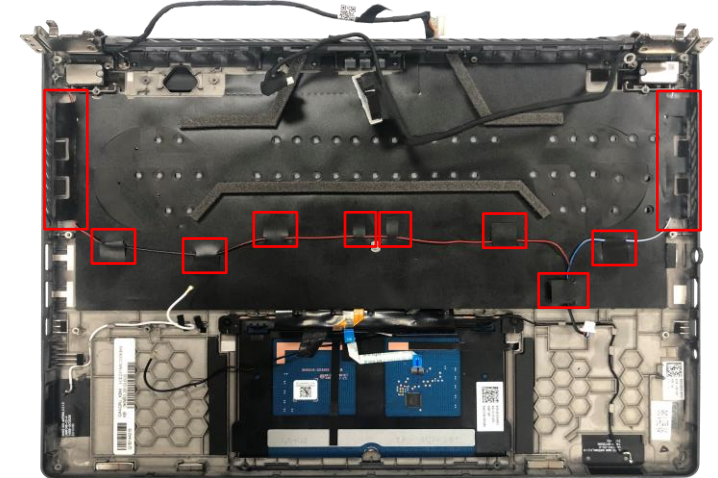
3-2 Release MYLAR and remove



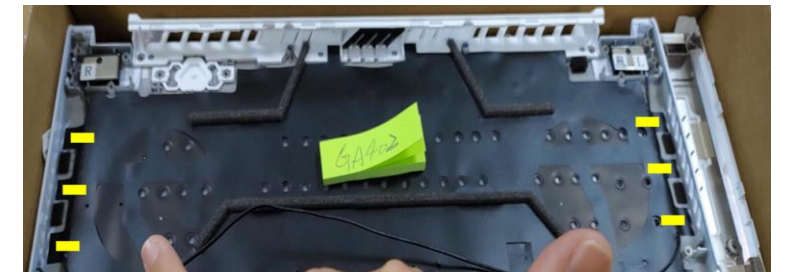
Screws	QTY	Spec	Torque (kgf-cm)
	4	M2*4.5L(45,0.8)(K) #1	2.0±0.2

Assembly Notice

When reassembly Tweeter Speaker, please follow the mark below to tidy up cable.



If KB MYLAR damaged, please use GA402RK CABLE TAPE*6pcs to fix cable. (Yellow mark)

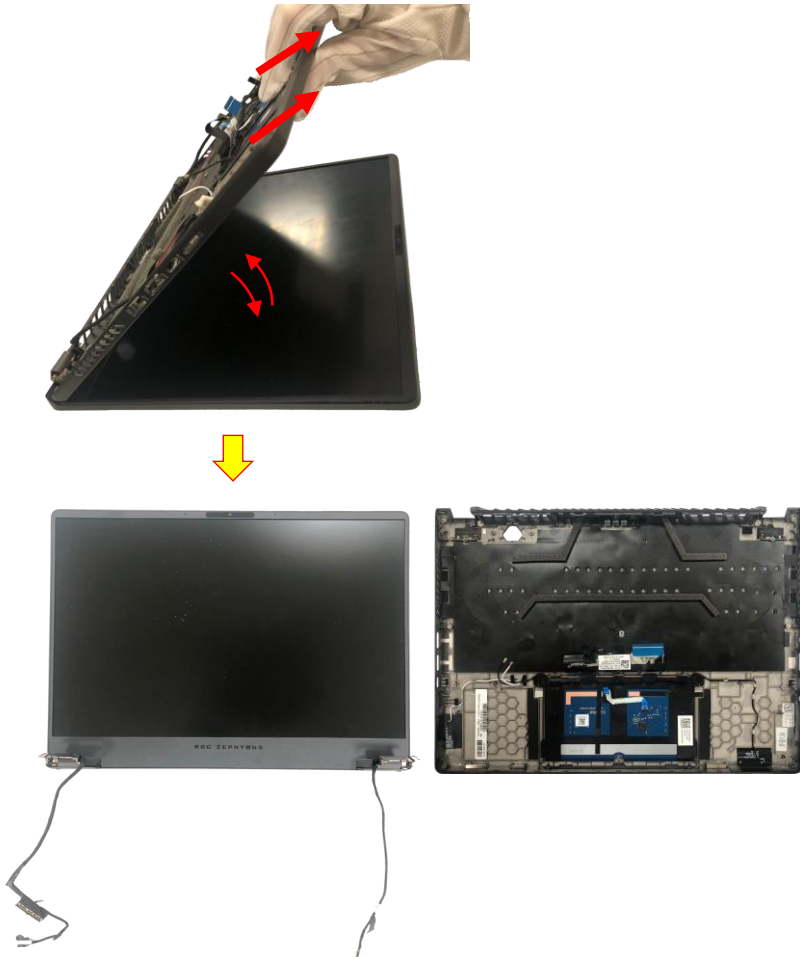


Disassembly Notice

Please be sure to pull out adapter and disconnect the battery. 

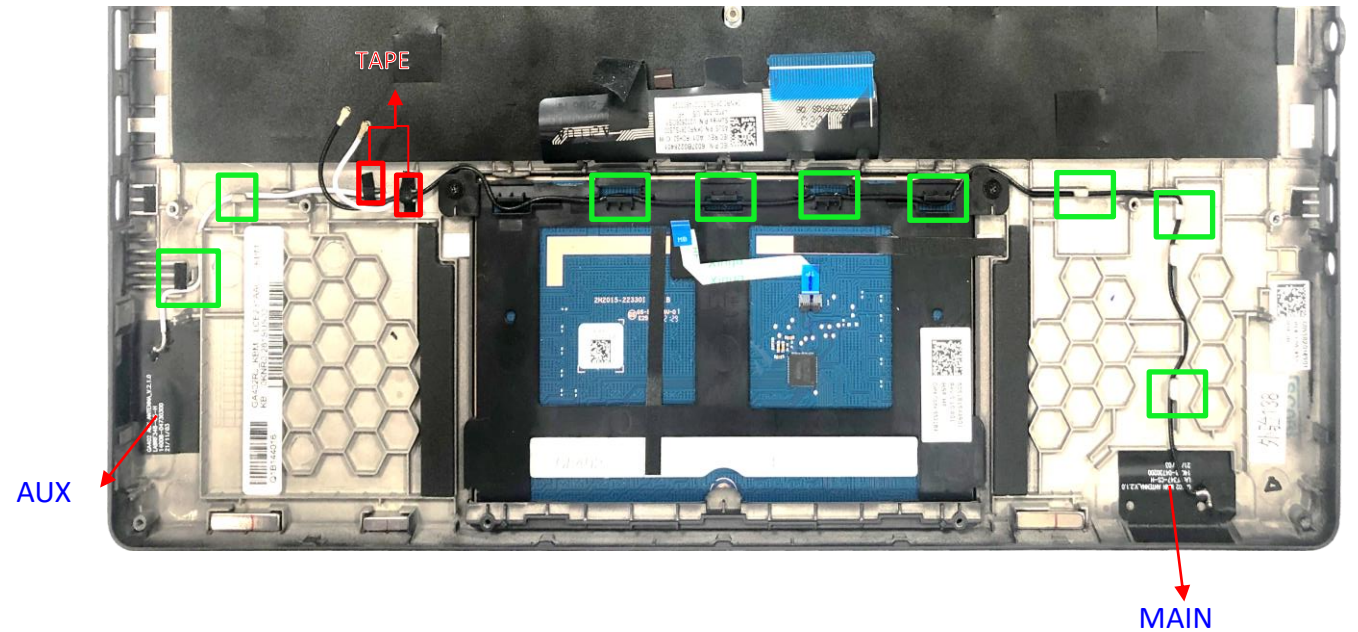
Step 1 : Remove KB module.

① Remove



Assembly Notice

 For ANTENNA assembly, please follow the mark below to tidy up cable and paste tape.



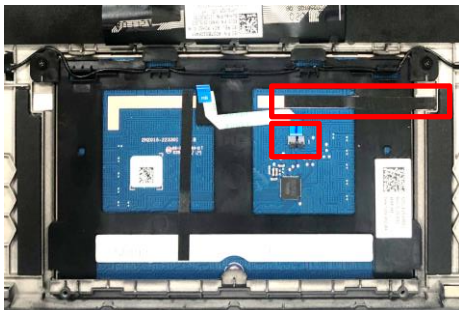
Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

- Step 1 : Disconnect TP FFC and tear off TP EMI FABRIC.
 Step 2 : Release the RF cable and remove screws *2pcs.
 Step 3 : Remove TOUCHPAD module.

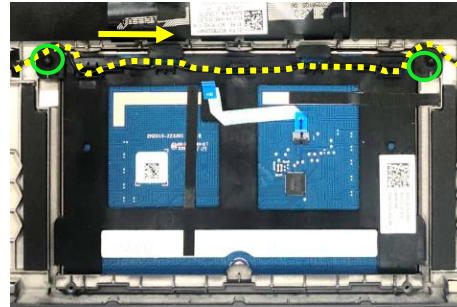


1 Disconnect and Tear off

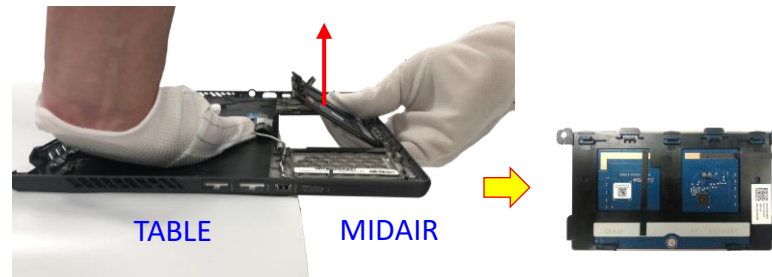


Screws	QTY	Spec	Torque (kgf-cm)
	2	M2*2.5L (5,0.5) (K) #1	2.0±0.2

2 Release (yellow line) and unscrew

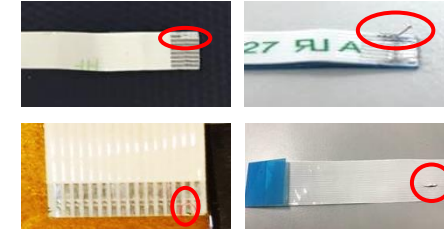


3 Remove

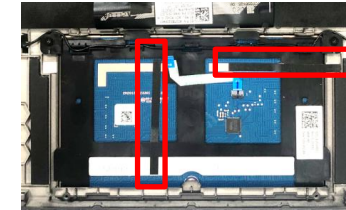


Assembly Notice

- If FFC is damage during disassembly, please replace new one. Here are some samples of FFC damage:

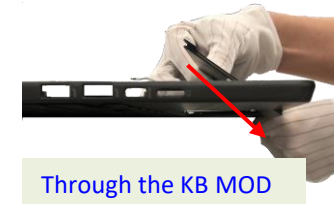


- Please according to below image to paste TP EMI FABRIC.



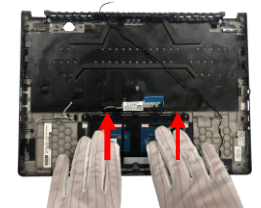
- Please make sure to follow the Steps below to assemble.

Step 1 Put in



Through the KB MOD

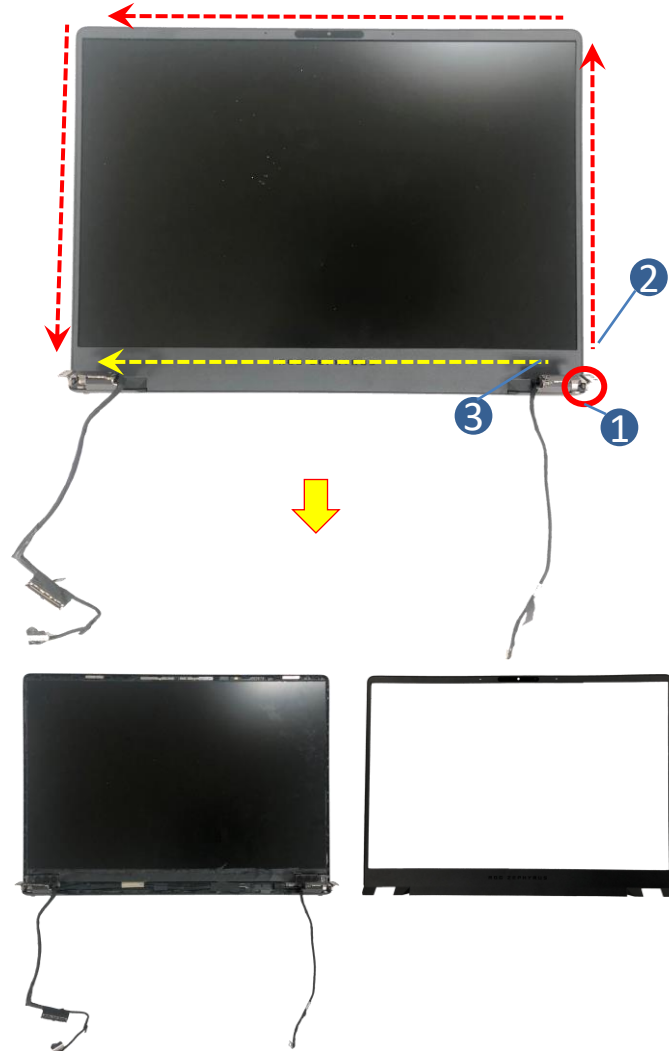
Step 2 Push down



Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

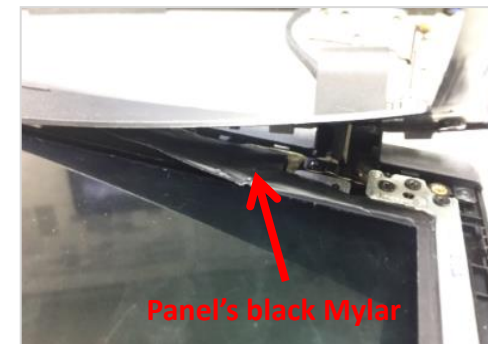
Remove LCD BEZEL.



Start from the bottom right corner of the bezel, using the Plastic Blade to pry open bezel.

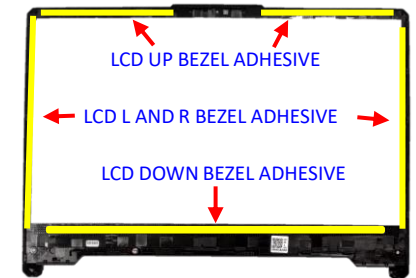


Due to tapes behind the lower edge of bezel, **please follow the direction shown in the red arrow, peel the bezel away slowly.** While peeling, please move the Plastic Blade slowly in the parallel direction to the panel and **pressing the panel's black Mylar downward (As mark in green)** to ensure the black Mylar and the tape behind the bezel are well separated.



Assembly Notice

When reuse the LCD BEZEL:
Please paste new LCD BEZEL ADHESIVE before assembly BEZEL.
(New LCD BEZEL already contains LCD BEZEL ADHESIVE *5pcs)



Due to tapes behind the lower edge of bezel, **please follow the direction shown in the yellow arrow, peel the bezel away slowly.** While peeling, please move the Plastic Blade slowly in the parallel direction to the panel and **pressing the panel's black Mylar downward (As mark in green)** to ensure the black Mylar and the tape behind the bezel are well separated.

Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

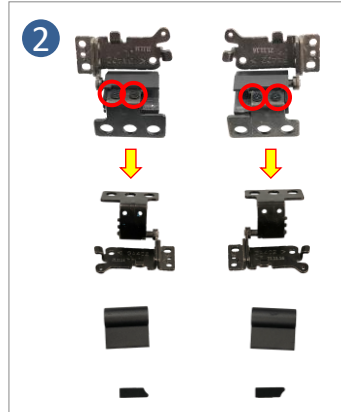
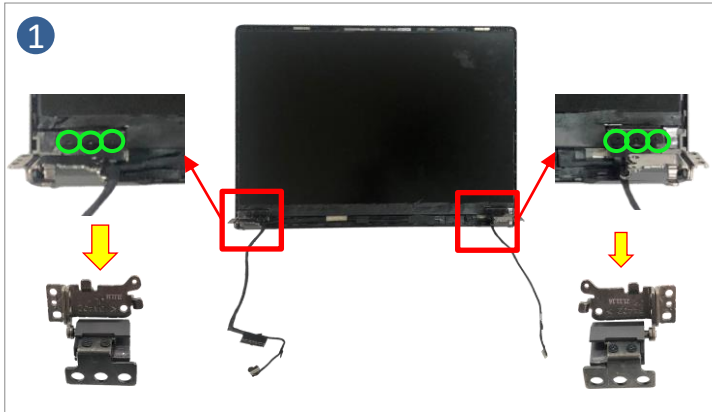
Step 1 : Remove screws *6pcs, and remove Hinge*2pcs.

Step 2 : Remove screws *4pcs, and remove hinge cap *2pcs & hinge DECO rubber *2pcs.

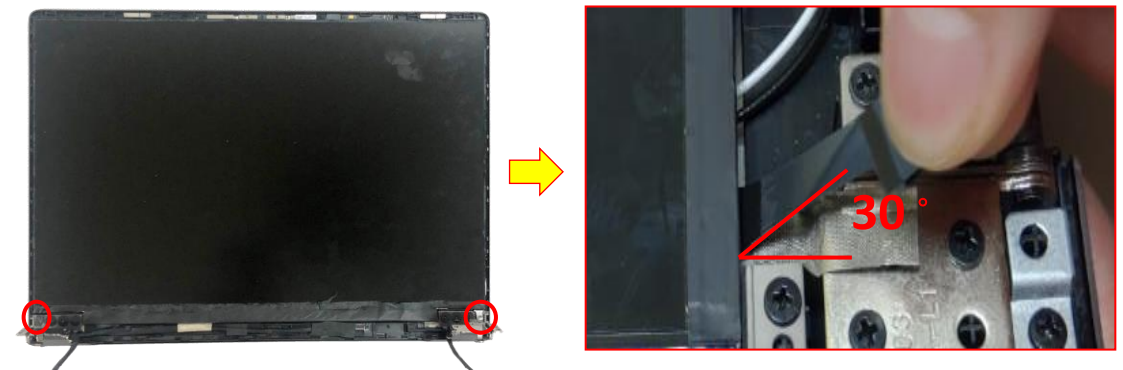
Step 3 : Pull out LCD adhesive *2pcs.

Step 4 : Remove LCD PANEL.

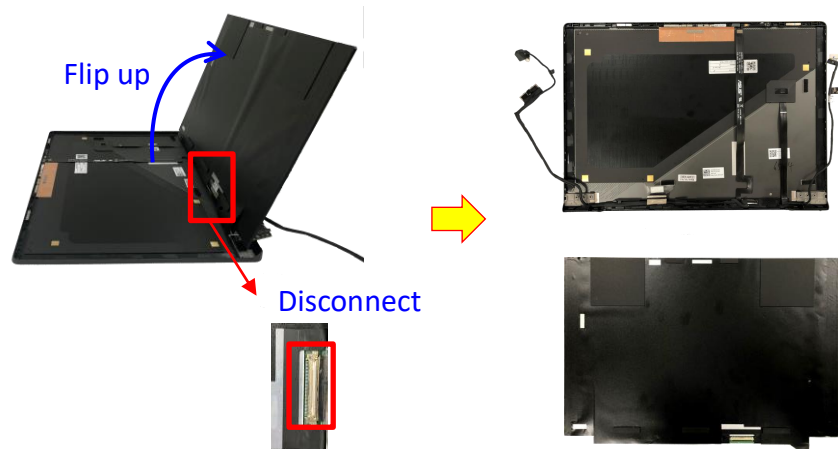
Screws	QTY	Spec	Torque (kgf-cm)
	6	M2.5*2.3L (7.5,0.6) (K)#1	2.5±0.2 kgf-cm
	4	M1.6*3L (3.5,0.5) (K)#1	1.5±0.2 kgf-cm



3 Please pull the adhesive up about 30 degree slowly, and don't pull out the tape in vertical direction!



4 Flip up the panel, and disconnect the EDP cable.

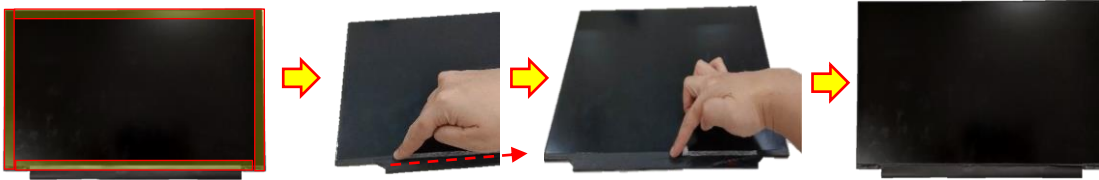


Assembly Notice

Please be sure to pull out adapter and disconnect the battery.

**A When reuse the LCD PANEL or BEZEL:**

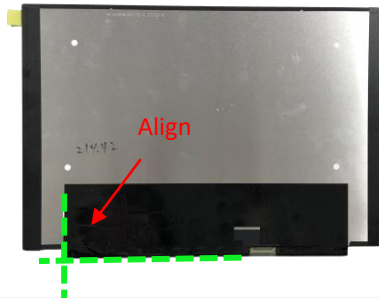
Please use the fingertip to clean the residual glue on PANEL or BEZEL.

**B When use new PANEL, please paste below materials follow the Steps:**

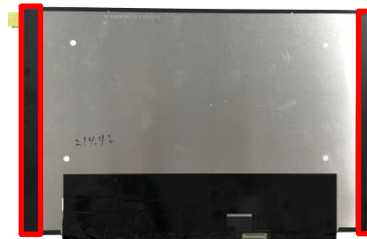
B-1 Paste the transparent tape (to protect the Panel Label) according to the following marked positions.



B-2 Paste the GRAPHITE.



B-3 Paste the back mylar.

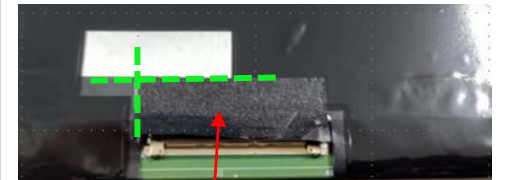


Without Matrix LED SKU
COLOR ID=2D/2E
PANEL BACK MYLAR **THICK***2pcs



With Matrix LED SKU
COLOR ID=6D/6E
PANEL BACK MYLAR *1pcs

B-4 Paste the EDP CABLE mylar.



ADHESIVE area

Assembly Notice

Please be sure to pull out adapter and disconnect the battery.


C When assembly the LCD PANEL: (The following is an operation example)

Step 1~2 : Paste NB LCD MYLAR *4pcs on LCD COVER.
(Positions are as below)

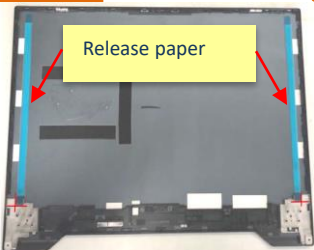
C-1 Upper Left Corner : Mylar *2pcs

C-2 Upper Right Corner : Mylar *2pcs


Step 3 : Remove release paper of LCD Adhesive *2pcs.

Step 4 : Assembly and align the LCD to the upper side of the LCD Cover.

Step 5 : Remove Mylar *4pcs and complete the Panel assembly.

C-3 Remove

C-4 Align

C-5 Pull out Mylar *4pcs.

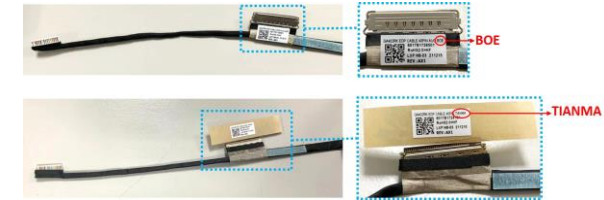
D When assembly the LCD PANEL and EDP cable:

(The following is an operation example)

Please note that PANEL and EDP cable repair parts have compatibility, must select EDP cable according to the PANEL vendor.



Vender(供應商)



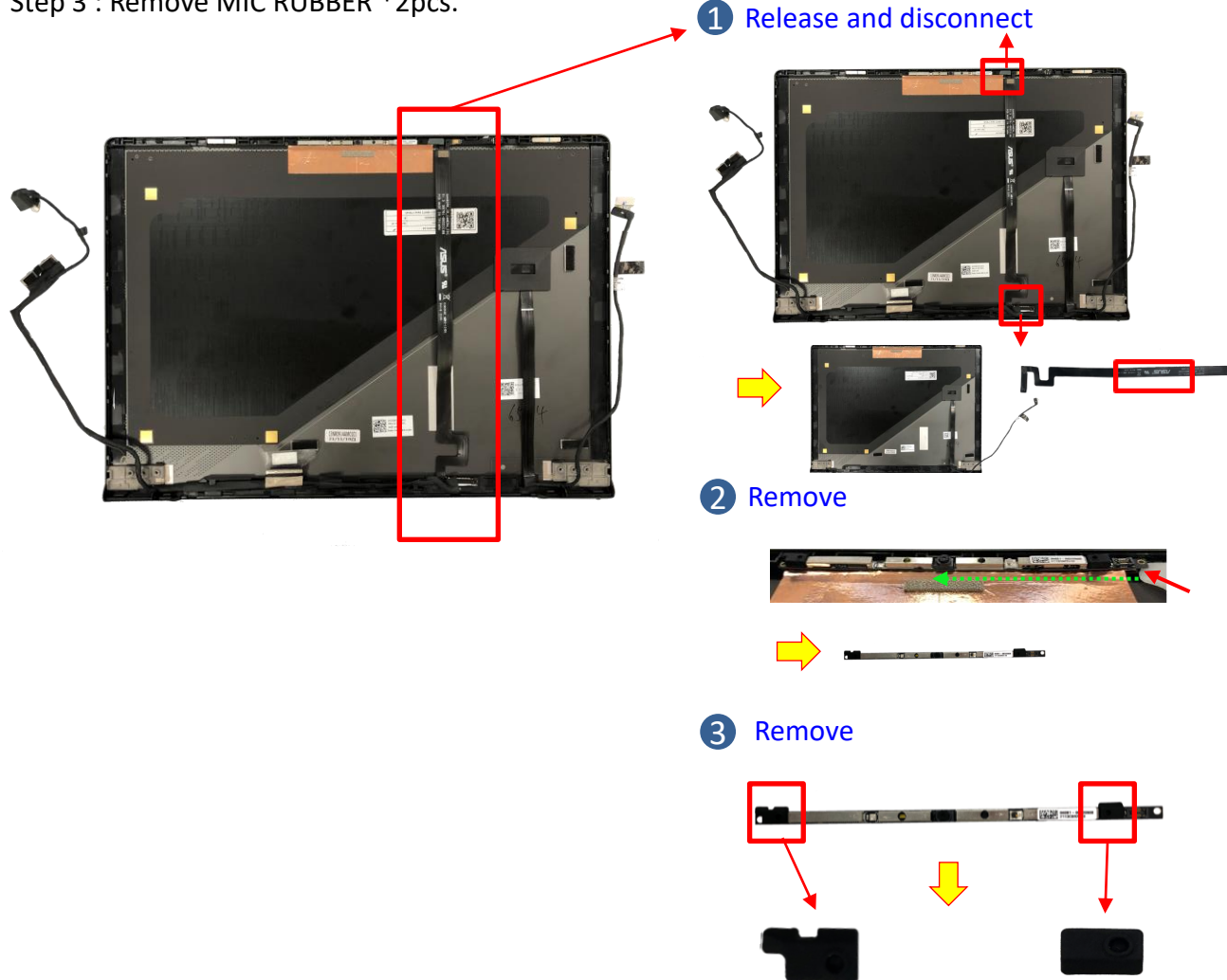
Disassembly Notice

Please be sure to pull out adapter and disconnect the battery.

Step 1 : Release and disconnect MIC FPC connector *2pcs.

Step 2 : Remove CAMERA.

Step 3 : Remove MIC RUBBER *2pcs.



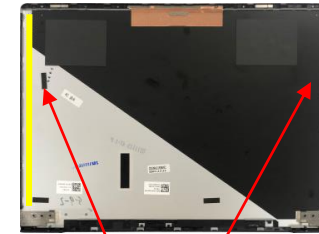
Assembly Notice



A

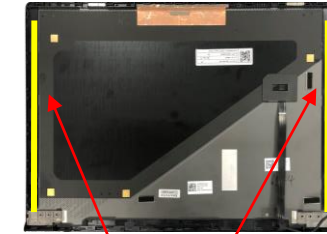
When reuse the LCD COVER:

Please paste new PANEL ADHESIVE *2pcs.
(New LCD COVER already contains PANEL ADHESIVE *2pcs)



LCD ADHESIVE

Without Matrix LED SKU
COLOR ID=2D/2E

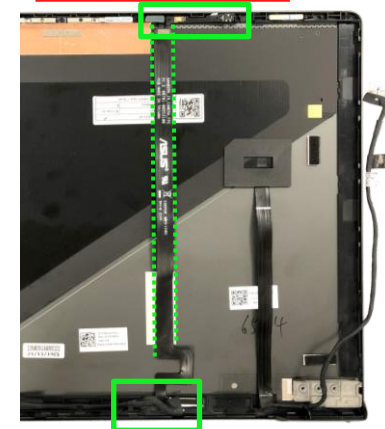


LCD ADHESIVE

With Matrix LED SKU
COLOR ID=6D/6E

B

Please follow the green mark to tidy up MIC FPC.



C

When reuse the LCD COVER:

Be sure to paste the LCD COVER HOOK TAPE *2pcs on the hook of the LCD Cover.

(EN-0363649)

