ASUS VIVOBOOK S5602Z Series

Repair Manual

COPYRIGHT INFORMATION

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTeK COMPUTER INC. ("ASUS").

ASUS PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Copyright © 2024 ASUSTeK COMPUTER INC. All Rights Reserved.

LIMITATION OF LIABILITY

Circumstances may arise where because of a default on ASUS' part or other liability, you are entitled to recover damages from ASUS. In each such instance, regardless of the basis on which you are entitled to claim damages from ASUS, ASUS is liable for no more than damages for bodily injury (including death) and damage to real property and tangible personal property; or any other actual and direct damages resulted from omission or failure of performing legal duties under this Warranty Statement, up to the listed contract price of each product.

ASUS will only be responsible for or indemnify you for loss, damages or claims based in contract, tort or infringement under this Warranty Statement.

This limit also applies to ASUS' suppliers and its reseller. It is the maximum for which ASUS, its suppliers, and your reseller are collectively responsible.

UNDER NO CIRCUMSTANCES IS ASUS LIABLE FOR ANY OF THE FOLLOWING: (1) THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES; (2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR (3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF ASUS, ITS SUPPLIERS OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY.

SERVICE AND SUPPORT

Visit our multi-language website at https://www.asus.com/support/.

MyASUS offers a variety of support features including troubleshooting, products performance optimization, ASUS software integration, and helps you to organize personal desktop and increase storage space. For more details, please visit https://www.asus.com/support/FAQ/1038301/.

Service Overview

- **ASUS is not responsible for direct, indirect, intentional o unintentional damages resulting from improper installation and operation.**
- **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.
- Due to sales policy difference, the components might have different specifications on the same series product, please refer to E-manual by model.

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 device 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.
- Use the correct screw models on your device to prevent damage.
- 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.

Pre-repair checklist

- Read the entire manual before starting any service procedures and follow all instructions.
- Back up the data on your device.
- Place your device on a clean and stable surface.
- Turn off your device.
- Disconnect all connected peripherals and cables.
- Disconnect all power cables and remove the battery pack (if applicable).

IMPORTANT!

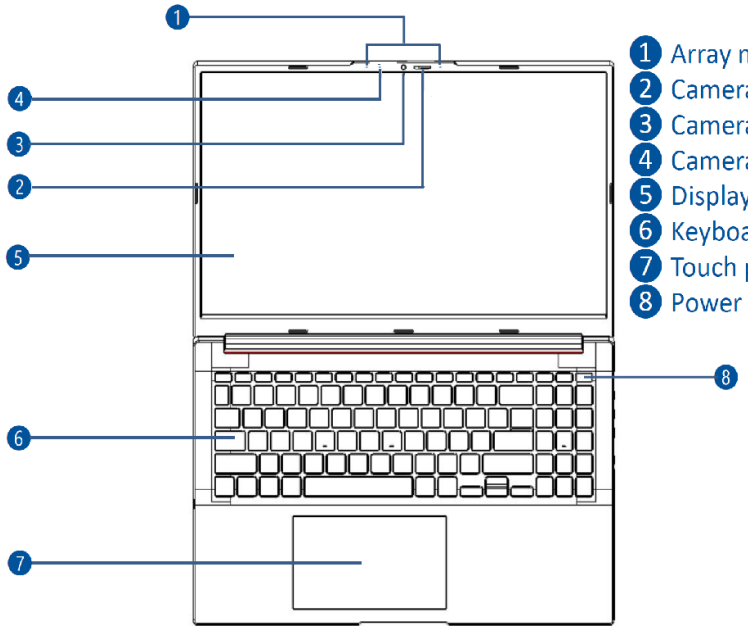
- If you are uncertain about performing the described service procedures, stop and contact an authorized service center for assistance.
- Purchase replacement components from authorized retailers of this device to ensure maximum compatibility and reliability.

NOTE

- The illustration are for reference only.
- The service procedures described in this document depend on the model configuration and may not reflect the entire servicing process.
  To service components that are not covered in this document, please visit an authorized service center for further assistance.
- Keep all adhesive tape, insulating materials, screws, and other removable items in a safe place until the service procedure is completed,
  as they may be needed during reassembling.

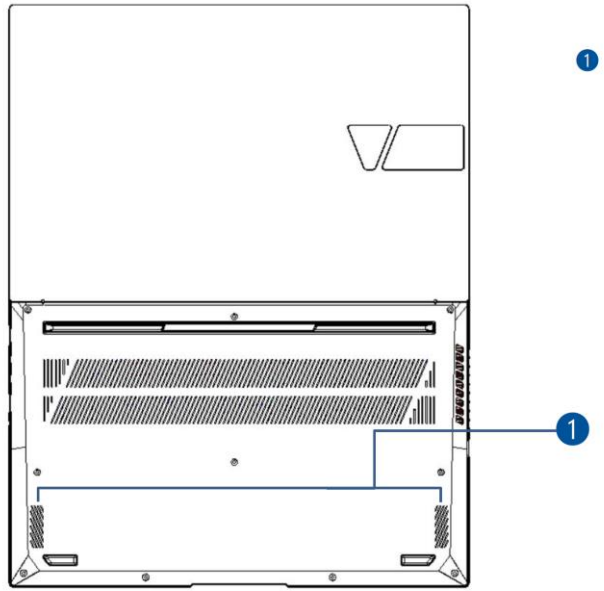
ASUS S5602Z Series Overview

Top View



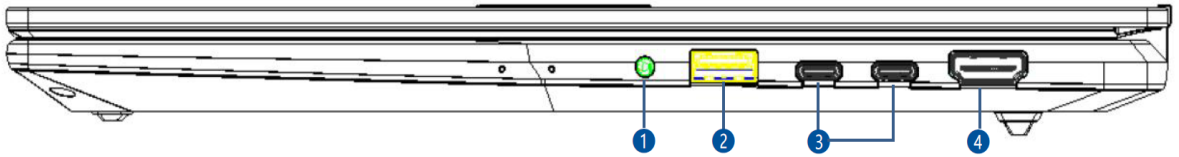
1. Array microphones
2. Camera Shutter
3. Camera
4. Camera indicator
5. Display panel
6. Keyboard
7. Touch pad
8. Power Puttom

Bottom View



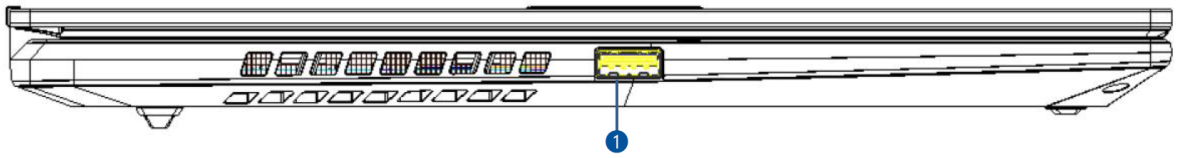
1. Audio speakers

Right View



1. Audio port
2. USB 3.0 port
3. USB 3.1 type c
4. HDMI port

Left View



1. USB 3.0 port

Components Top View

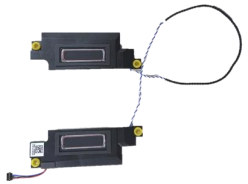
- LCD COVER ASSY



- K/B MODULE ASSY



- SPEAKER



- HINGE CAP



- CAM FPC



- SO DIMM AL MYLAR



- CP FFC



- LCD BEZEL



- MAIN BOARD



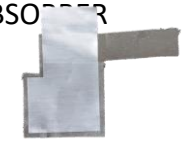
- IO FFC



- FP FFC



- USB A ABSORBER



- HINGE



Hinge L Hinge R

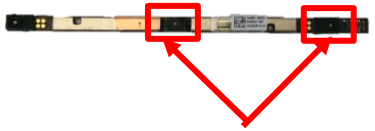
- 16.0' OLED PANEL (OLED Panel SKU Only)



- IO BOARD



- CAMERA



- MIC RUBBER



- TOUCHPAD MOD



- FAN



- ANTENNA SET



- BATTERY



- WIFI Card



- SSD



- SSD PLATE ASSY



- OL LCD FRAME ASM (OLED Panel SKU Only)



- BOTTOM CASE ASSY



- THERMAL MOD ASSY



- BATTERY Cable



- DDR



- EDP CABLE

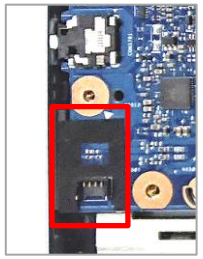


- 16.0' LCD PANEL

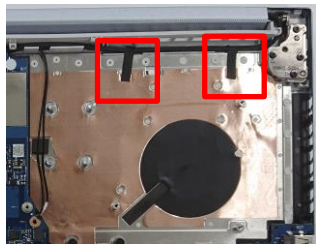


Components Top View

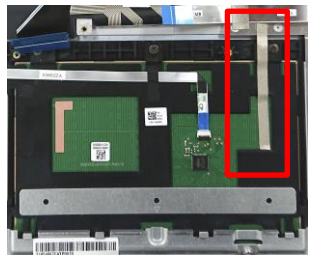
- LED MYLAR



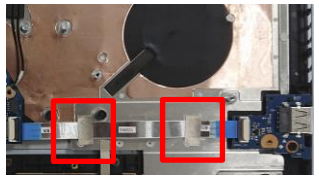
- CAMERA TAPE



- CP C-TAPE



- FFC CONDUCTIVE TAPE



Components Bottom View

- LCD COVER ASSY



- K/B MODULE ASSY



- THERMAL MOD ASSY



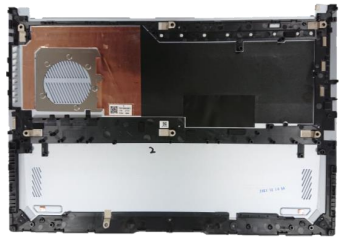
- OL LCD FRAME ASM (OLED Panel SKU only)



- LCD BEZEL



- BOTTOM CASE ASSY



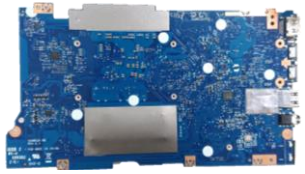
- SSD PLATE ASSY



- 16.0' OLED PANEL



- MAIN BOARD



- IO BOARD



- TOUCHPAD MOD



Repair Overview

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:

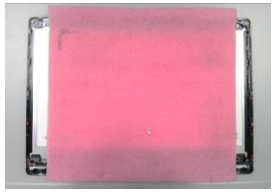
Before you perform any service or repair on the notebook, please pay special attention to the cautions prevent any damages to the notebook.

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 ℃ 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.

Appropriate Tools

Please prepare and select the appropriate tools to disassemble/assemble for the **ASUS S5602Z Series** notebook.

◆ Screwdriver

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

#1  T5  

◆ Plastic Blade



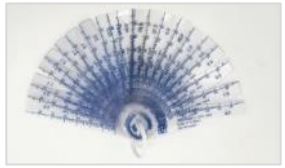
◆ Plastic Tweezers

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



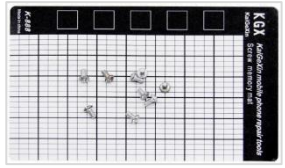
◆ Thickness Gauge

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 (0.1mm) *2pcs

Use it to align panel position.

◆ Thermal Pad (Substitute:G500 Thermal Grease)

G500 Thermal Grease



Back

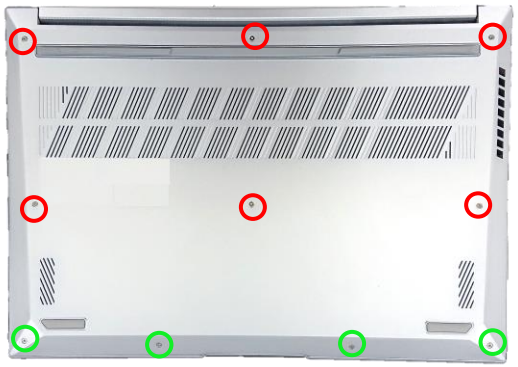
BOTTOM CASE

Disassembly Notice

Step 1 : Remove screws *10pcs.
Step 2 : Use plastic blade to pry the Bottom Case.

Screws	QTY	Spec	Torque (kgf-cm)
	6	SCREW M2*8.5L+0.5 K W-NI T5	2.0±0.2
	4	SCREW M2*4L+0.5 K W-NI T5	2.0±0.2

1



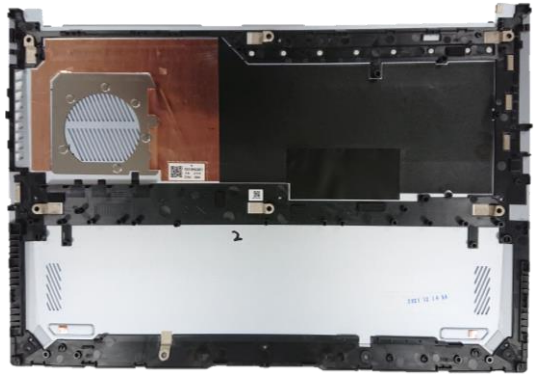
2



⚠ 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.)





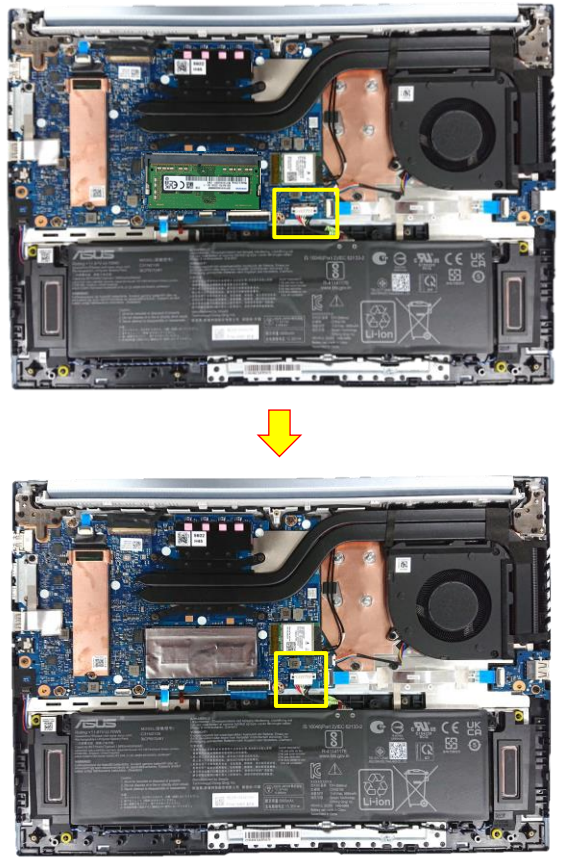
DISCONNECT BATTERY CONNECTOR

Disassembly Notice

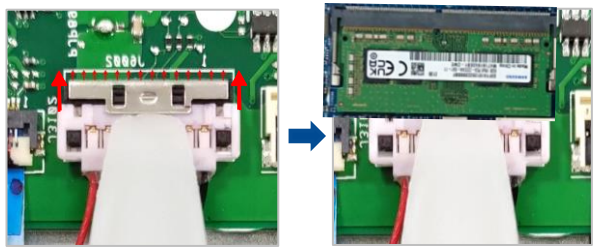
Please be sure to pull out adapter and disconnect the battery.

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

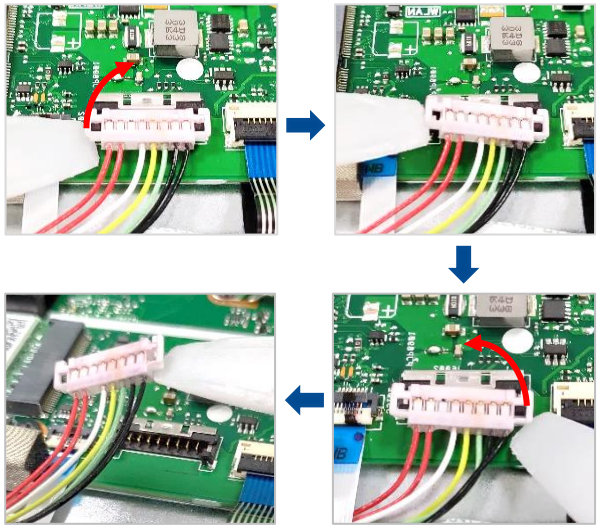
Step 1 : Use the non-conductive pry tool to push iron sheet.
Step 2 : Use the non-conductive pry tool to disconnect battery connector.
Note : Please disconnect the red cable side first.



1



2 Please disconnect the red cable side first!

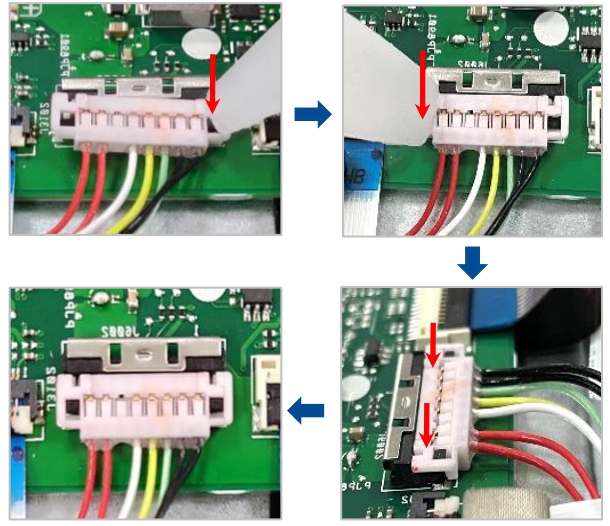


Assembly Notice

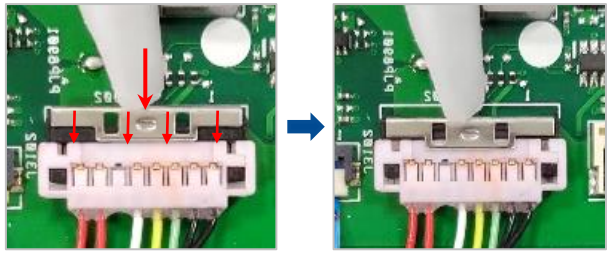
⚠ To prevent getting a short circuit or an electric shock accident, please follow steps below to connect the battery connector.

Step 1 : Use the non-conductive pry tool to connect the black cable side first, then connect the red cable side.
Step 2 : Use the non-conductive pry tool to push the iron sheet.

1



2



SSD

Disassembly Notice

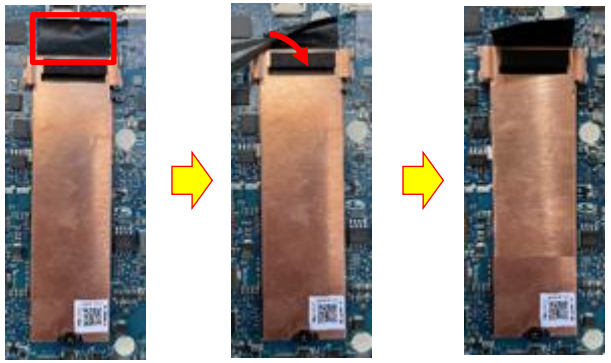
Please be sure to pull out adapter and disconnect the battery.

Step 1 : Release the Black Mylar from motherboard.
Step 2 : Remove the screw *1pc.
Step 3 : Take away the SSD PLATE ASSY (with Black Mylar and Thermal Pad).
Step 4 : Remove the SSD.

Screws	QTY	Spec	Torque (kgf-cm)
	1	SCREW M2*3L K B-NI #1 NY	2.0±0.2



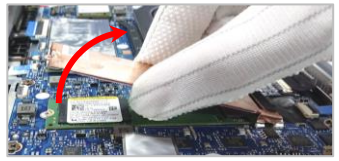
1 Release

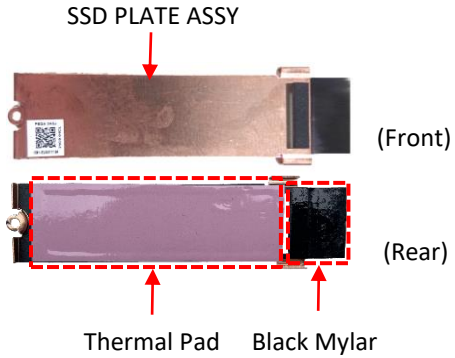


2 Unscrew



3 Remove





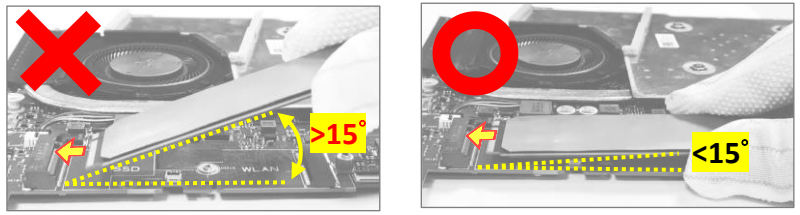
4 Remove





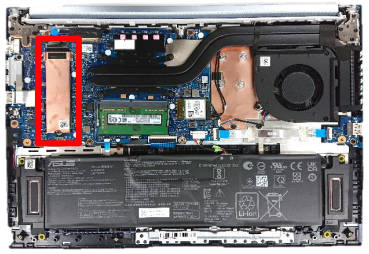
Assembly Notice Please be sure to pull out adapter and disconnect the battery.

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

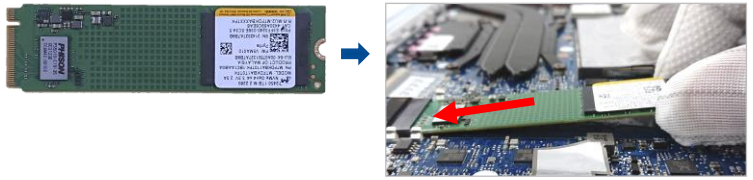


B When installing SSD, please follow the steps below.

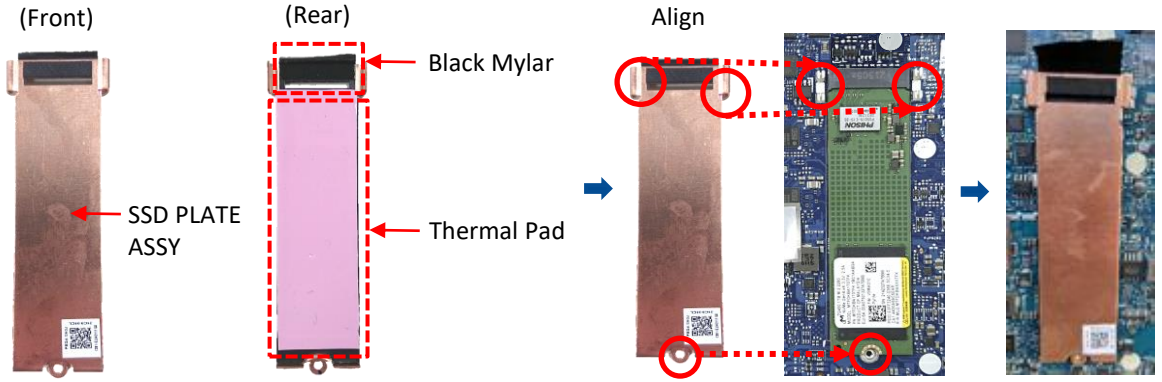
1. Align and insert the new M.2 card into the module slot.
2. Align the screw hole and metal hook on the motherboard, assembly SSD PLATE ASSY (contain Black Mylar and Thermal Pad) on the motherboard.
3. Tighten the one screw.
4. Paste the Black Mylar on the motherboard.



1



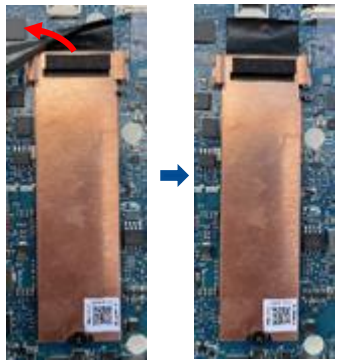
2



3

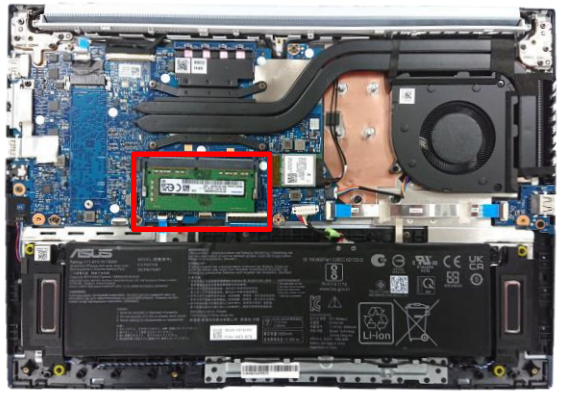


4



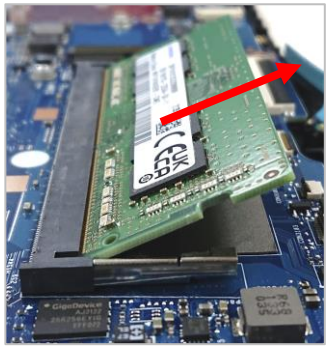
Disassembly Notice Please be sure to pull out adapter and disconnect the battery.

Step 1 : Unlock and remove the RAM module.



1 Remove







(Front)



(Rear)

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

⚠When assemble RAM, please follow below step.

Paste DIMM ABSORBER on front and rear side of RAM Module.

Step 1 : When absorber is fitted, follow the red line in the figure below to indicate the location.

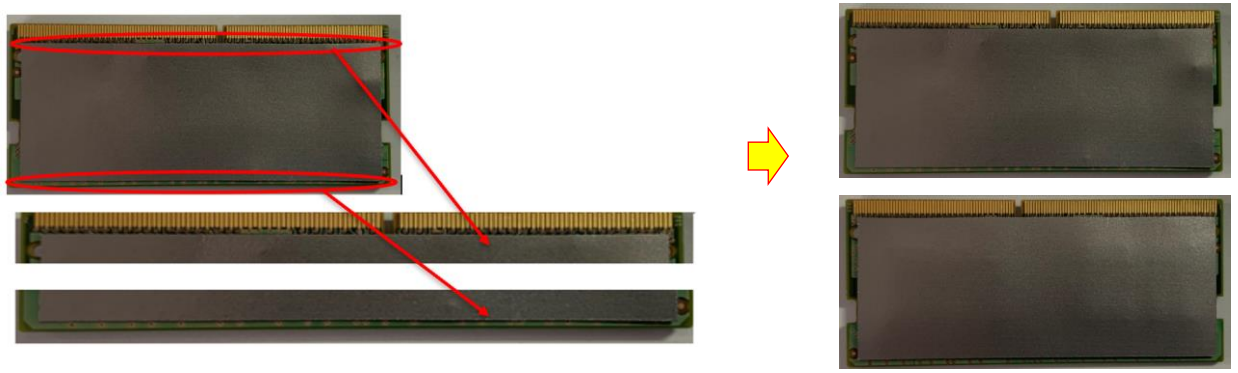
Step 2 : The up and down alignment can take Via as the positioning line, refer to the following figure, pay attention to the near PIN can not exceed the red circle Via to avoid short circuit.

Step 3 : Align and insert RAM Module at 30° into the memory slot. After inserted properly, push down the RAM Module until it clicks in place.

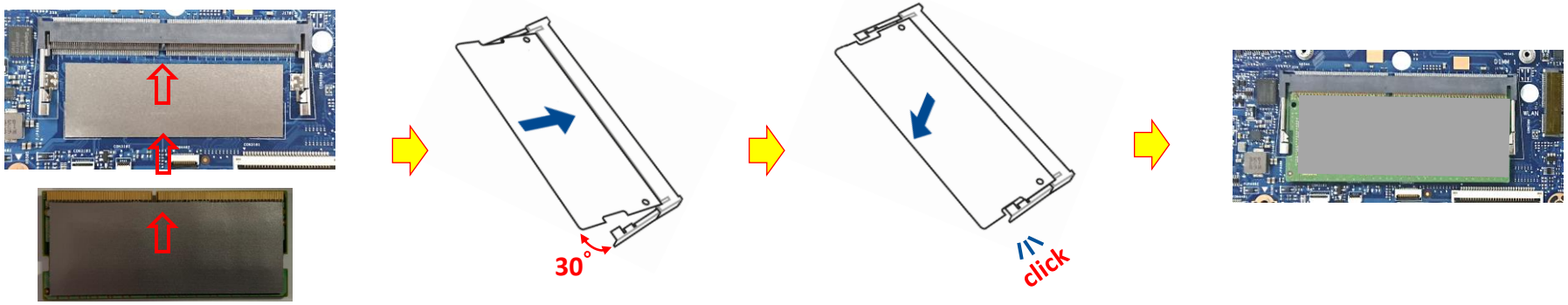
1



2



3



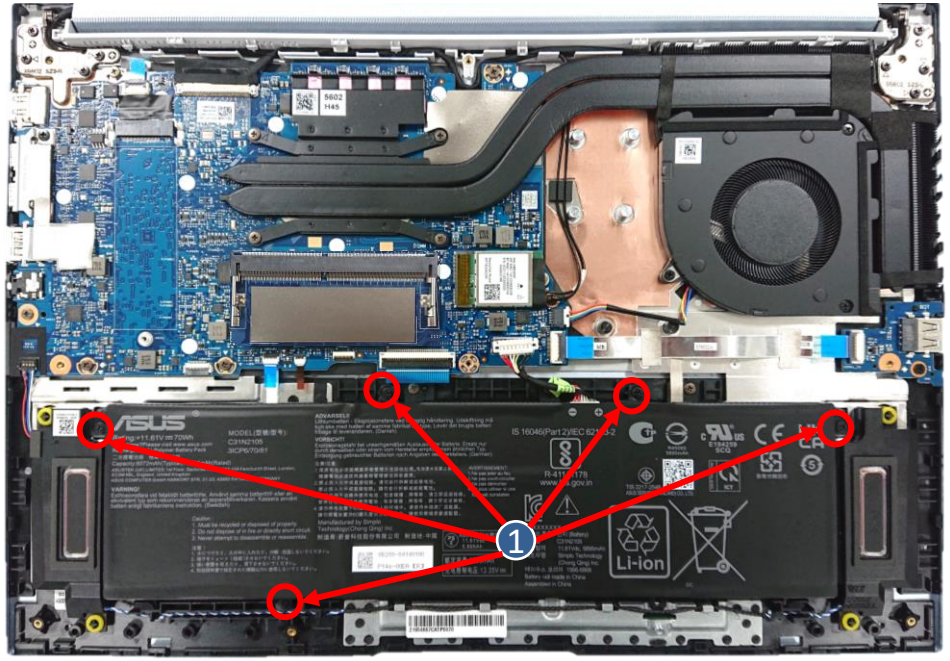
BATTERY

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

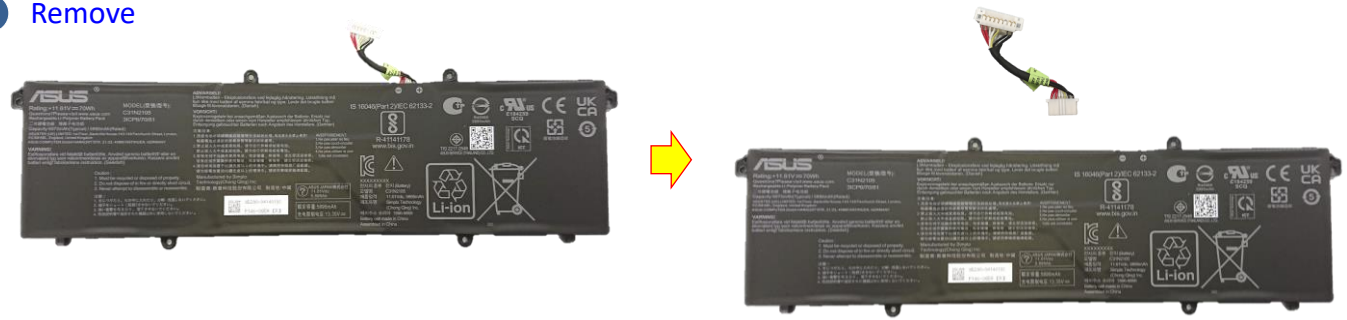
⚠ Before disassembly battery connector, please be sure to pull out adapter and disconnect the battery more than ten seconds in order to IC damage.

Step 1 : Remove the screws *5pcs.
Step 2 : Take out Battery and then remove the Battery cable

Screws	QTY	Spec	Torque(kgf-cm)
T ○	5	SCREW M2*4L (K) B-ZN #1	2±0.2



2 Remove



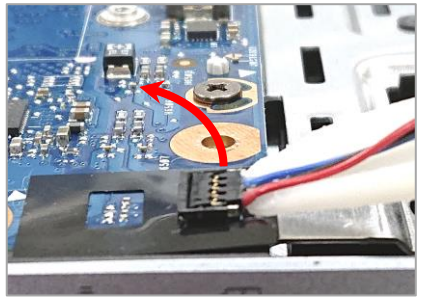
SPEAKER

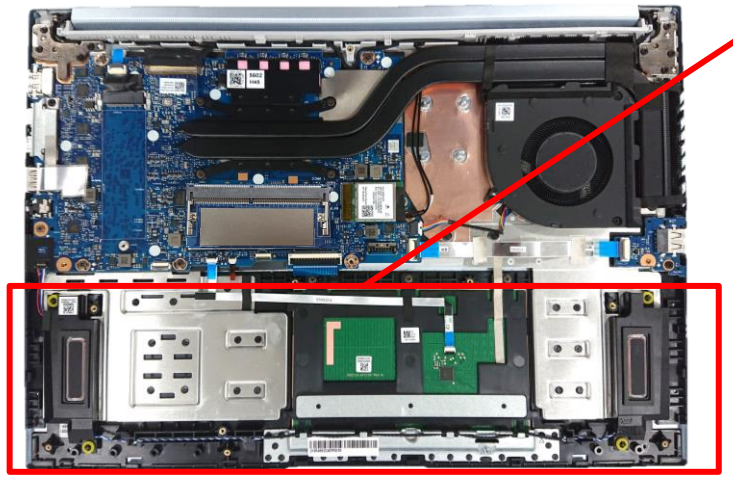
Disassembly Notice Please be sure to pull out adapter and disconnect the battery.

Step 1 : Disconnect the SPEAKER connector.
Step 2 : Remove SPEAKER.

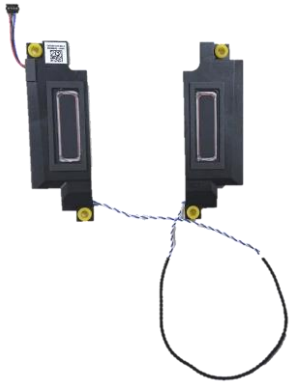


1 Disconnect



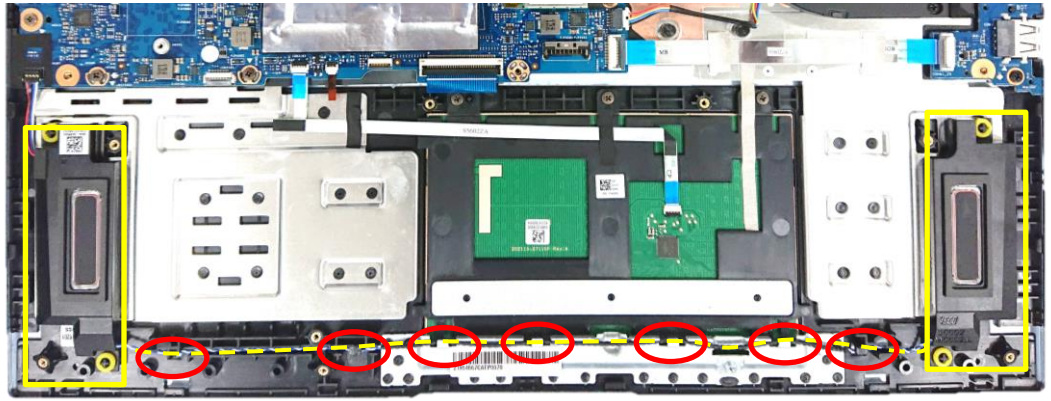


2 Remove

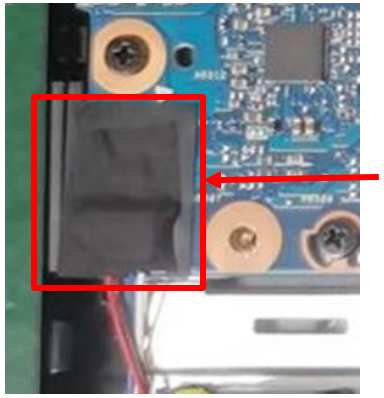


Assembly Notice

⚠ For Speaker assembly, please follow the layout below to tidy up cable.



⚠ For Speaker assembly, please follow the layout below to paste new acetate tape on speaker connector.



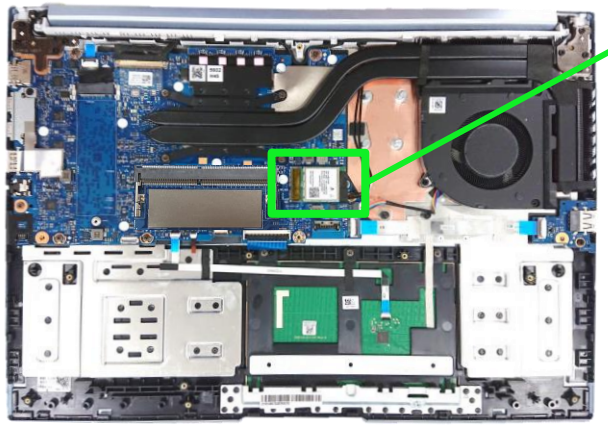
WIFI CARD

Disassembly Notice

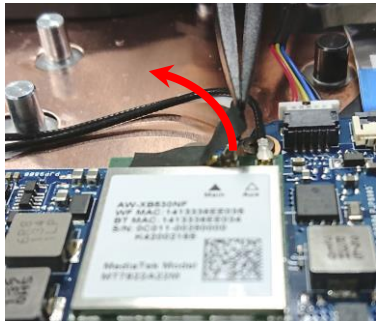
Please be sure to pull out adapter and disconnect the battery.

Step 1 : Tear off the Tape.
Step 2 : Disconnect the WIFI Card RF Cables *2pcs.
Step 3 : Remove screw *1pc (Red circle) and WIFI Card.

Screws	QTY	Spec	Torque (kgf-cm)
	1	SCREW M2*3L K B-NI #1 NY	2.0±0.2



1 Tear off

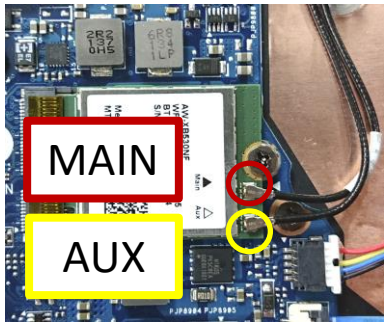


2 Disconnect



Assembly Notice

⚠ When WIFI Card assembly, please follow the image below to connect cable.



3 Unscrew



Remove





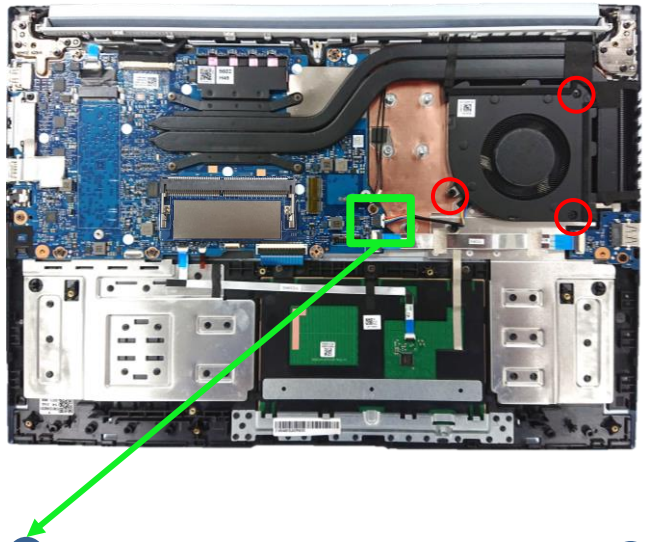
FAN

Disassembly Notice

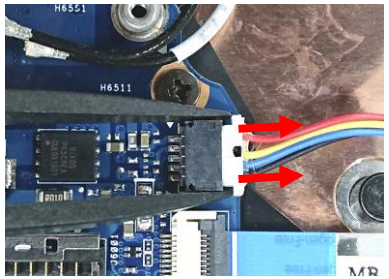
Please be sure to pull out adapter and disconnect the battery.

Step 1 : Disconnect Fan connector *1pc.
Step 2 : Remove screw *3pcs (Red circle).
Step 3 : Remove the Fan.

Screws	QTY	Spec	Torque (kgf-cm)
T ○	3	SCREW M2*4L (K) B-ZN #1	2.0±0.2



1 Disconnect



2 Unscrew (Red circle)

3 Remove



Assembly Notice

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





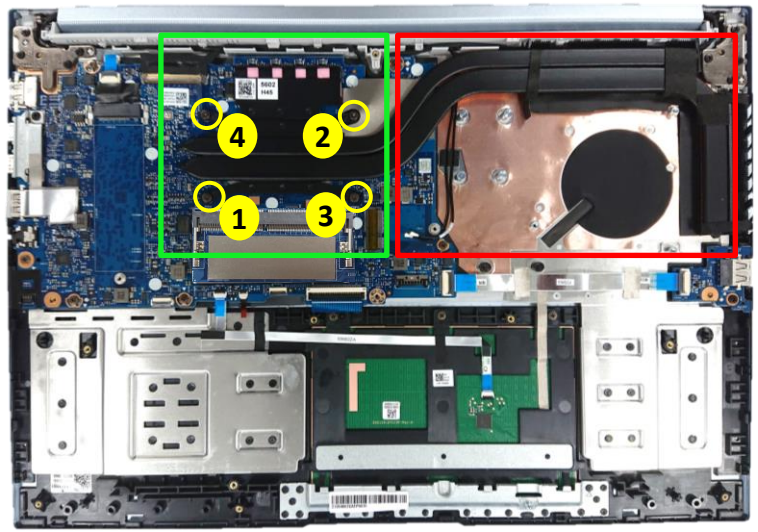
THERMAL MODULE

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

Step 1 : Remove screws *4pcs (Yellow circle).
Step 2 : Remove the THERMAL Module.

Screws	QTY	Spec	Torque (kgf-cm)
	4	SCREW M2*3L K B-NI #1 NY	2.0±0.2

⚠ 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.



1 Unscrew (Yellow circle)

2 Remove



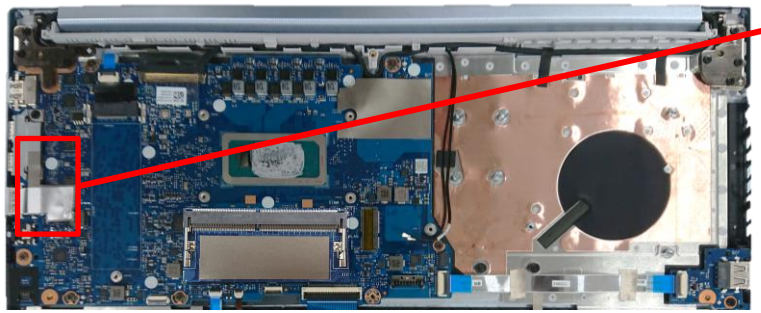
MAIN BOARD

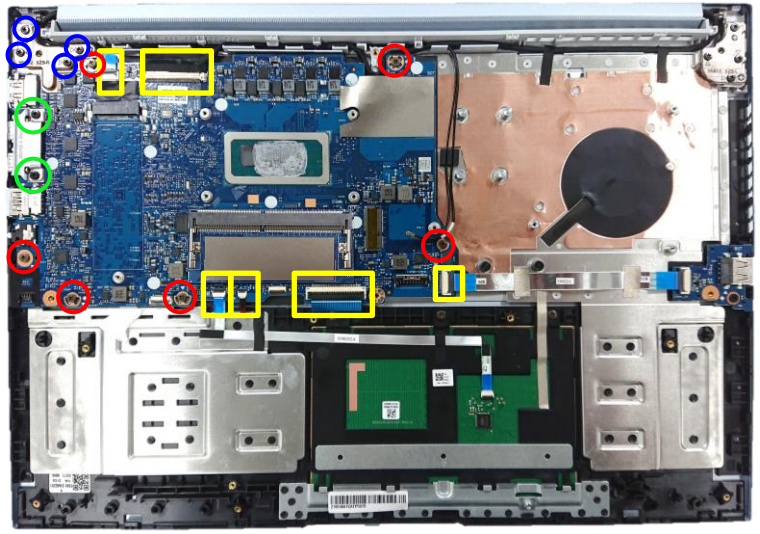
Disassembly Notice

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

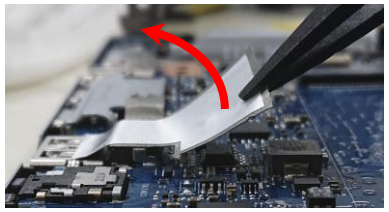
Step 1 : Tear off the USB A ABSORBER.
Step 2 : Disconnect connector *6pcs (Yellow mark) .
Step 3 : Remove screws *12pcs. (All Circle mark)
Step 4 : Remove MB.

Screws	QTY	Spec	Torque (kgf-cm)
T ○	6	SCREW M2*3L K B-NI #1 NY	2.0±0.2
T ○	2	SCREW M2*4L (K) B-ZN #1	2.0±0.2
T ○	4	SCREW M2*5L K B-ZN #1 NY	2.5±0.2



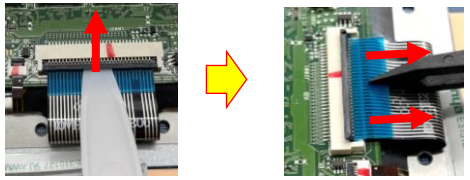


1 Tear off



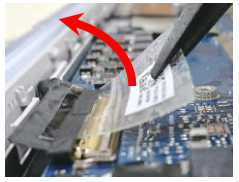
2 Disconnect (Yellow mark)

FFC connector

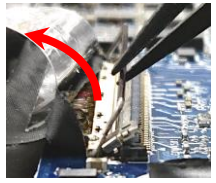


EDP cable connector

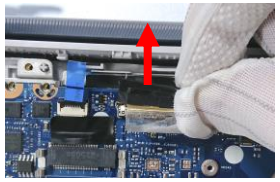
Release



Pull up

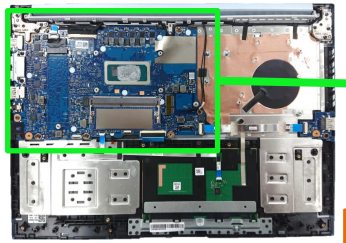


Remove



3 Unscrew (All circle mark)

4 Remove MB





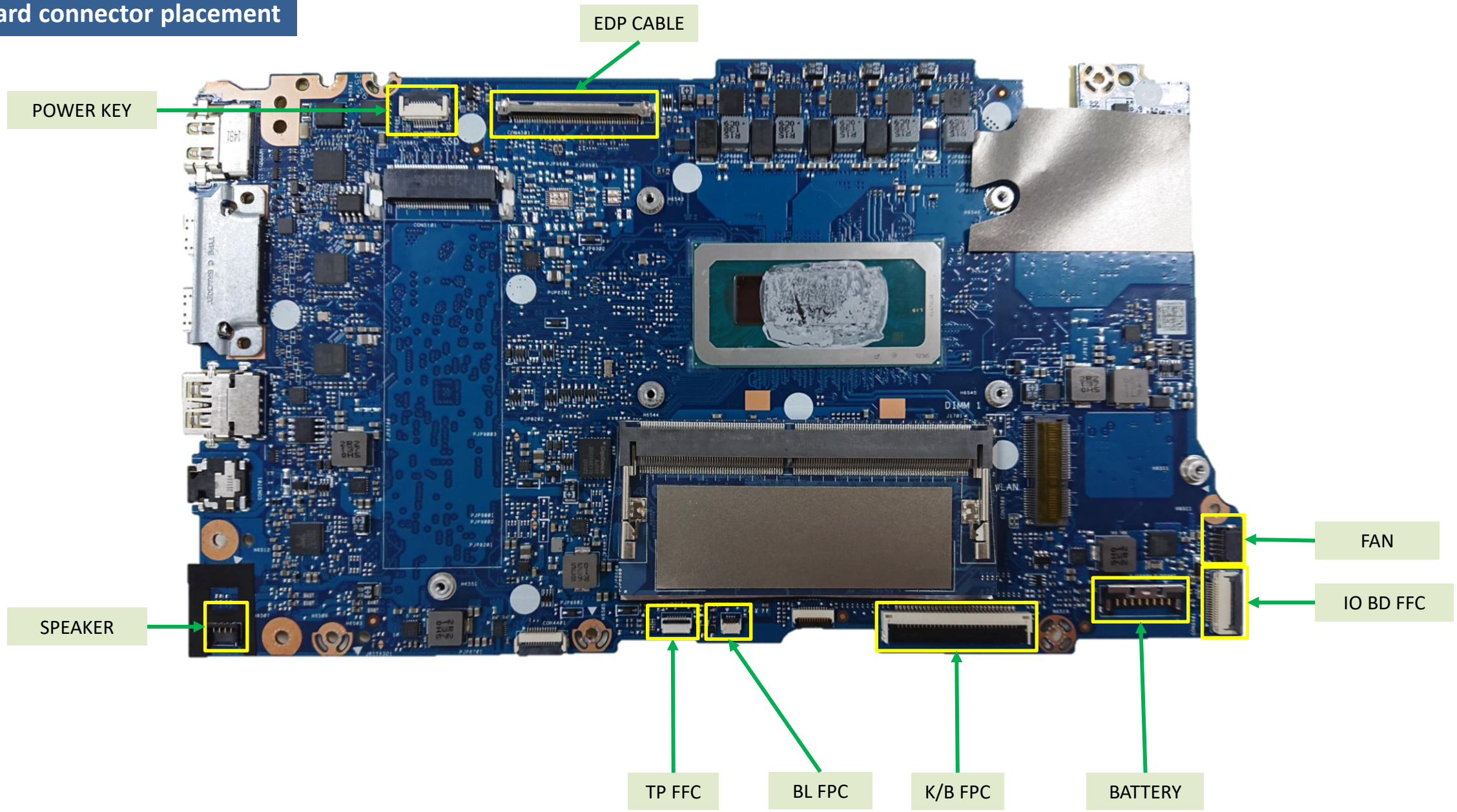
Assembly Notice

⚠ When LCD Cable assembly, please follow the image below to paste new acetate tape on LCD Connector.



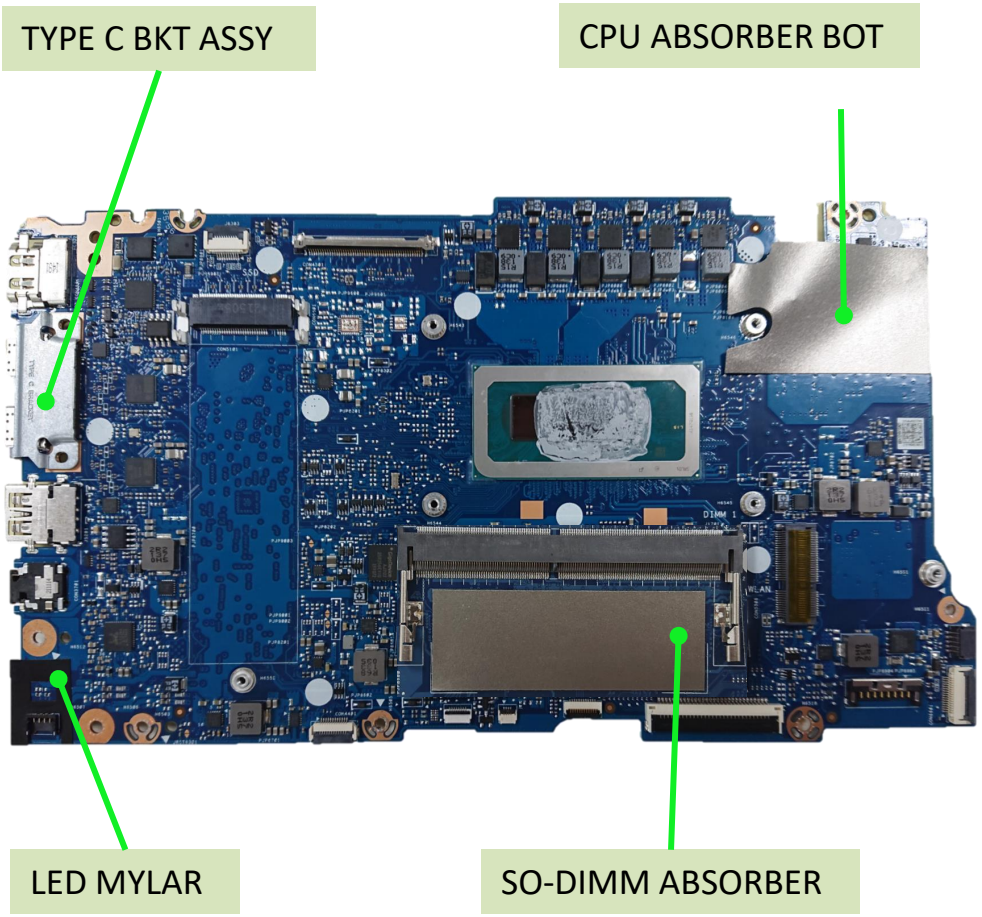
MAIN BOARD

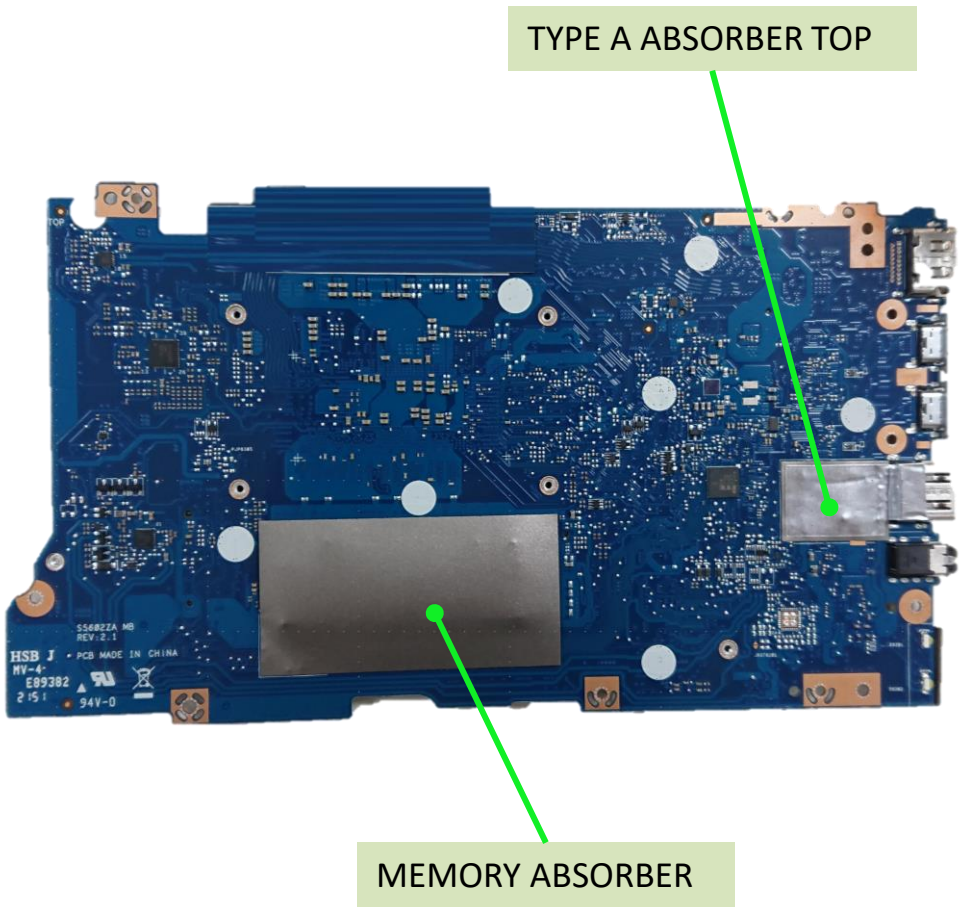
Mainboard connector placement



MAIN BOARD

Materials on mainboard





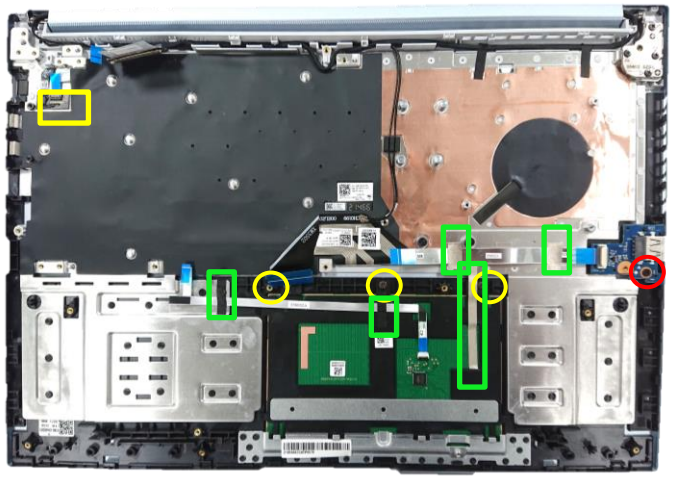
IO BOARD and TOUCHPAD

Disassembly Notice

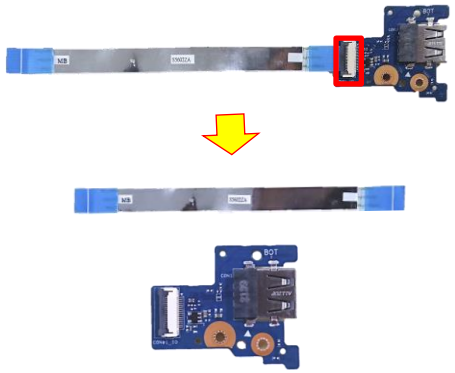
Please be sure to pull out adapter and disconnect the battery.

Step 1 : Remove Tapes *5pcs (Green mark).
Step 2 : Remove screws *1pc (Red circle).
Step 3 : Remove IO BOARD with FFC and then disconnect FFC cable (Red mark).
Step 4 : Remove screws *3pcs (Yellow circle).
Step 5 : Remove TOUCHPAD module with TP FFC and then disconnect TP FFC cable (Red mark).

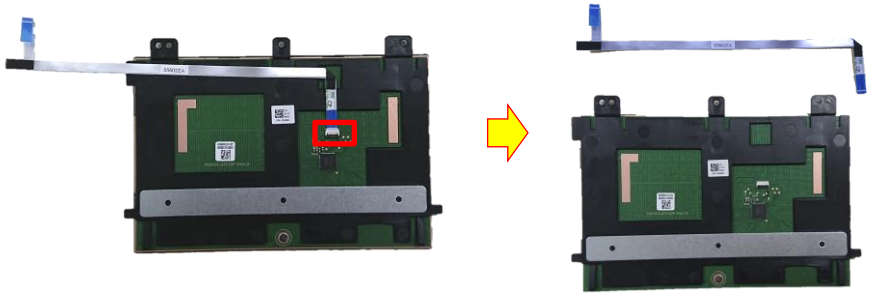
Screws	QTY	Spec	Torque (kgf-cm)
	1	SCREW M2*4L (K) B-ZN #1	2.0±0.2
	3	SCREW M2*3L K B-NI #1 NY	2.0±0.2



1. Tear off (Green mark)
2. Unscrew (Red circle)
3. Remove and disconnect (Red mark)



4. Unscrew (Yellow circle)
5. Remove and disconnect (Red mark)

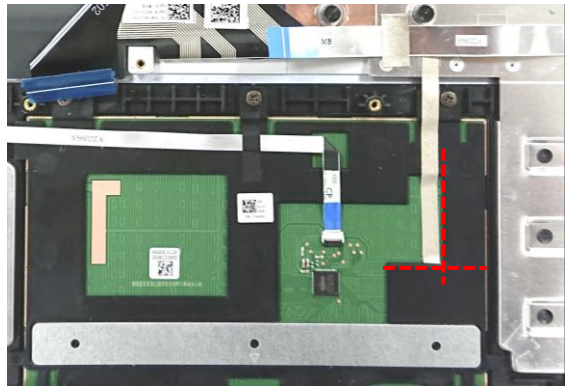


Assembly Notice

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



⚠ When TOUCHPAD assembly, please follow the location below to paste new CP C-TAPE.

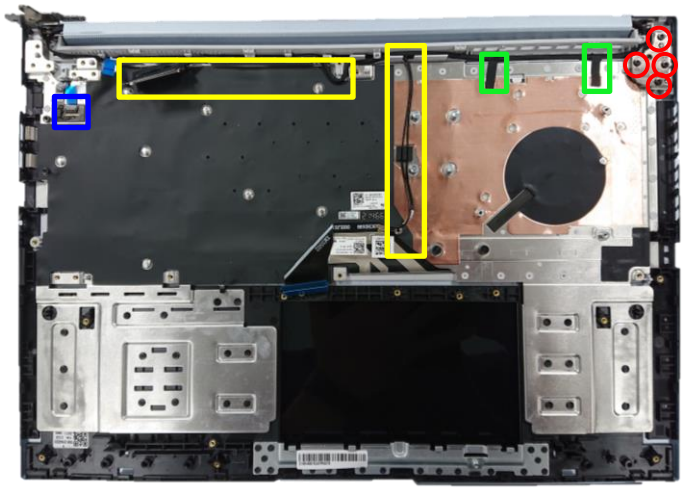


KEYBOARD MODULE

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

Step 1 : Remove CAMERA Tape *2pcs (Green mark).
Step 2 : Disconnect and remove FP FFC *1pc (Blue mark).
Step 3 : Remove screws *4pcs.
Step 4 : Unfix EDP cable and WIFI Cables.
Step 5 : Flip up the Keyboard Module and remove it.

Screws	QTY	Spec	Torque (kgf-cm)
	4	SCREW M2*5L K B-ZN #1 NY	2.5±0.2



1 Tear off (Green mark)

2 Disconnect and remove (Blue mark)



3 Unscrew (Red circle)

4 Unfix (Yellow mark)

5 Flip up and Remove

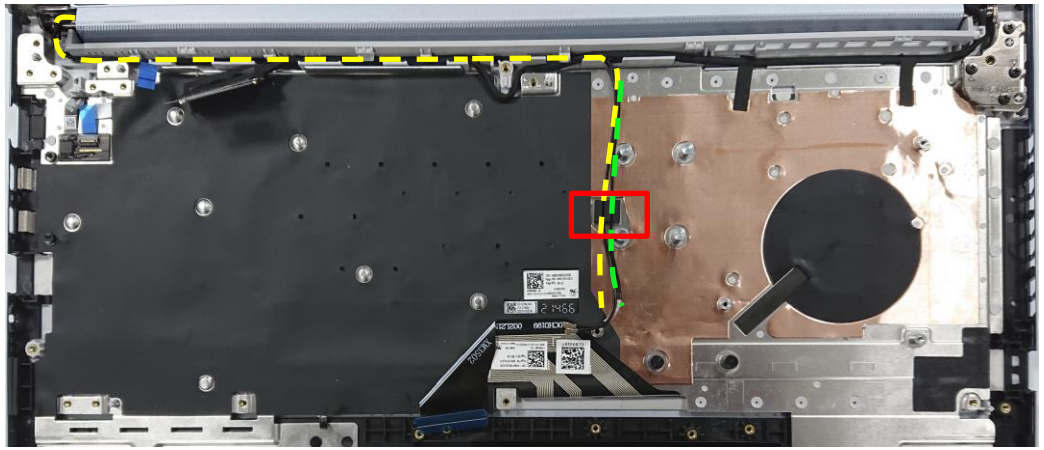




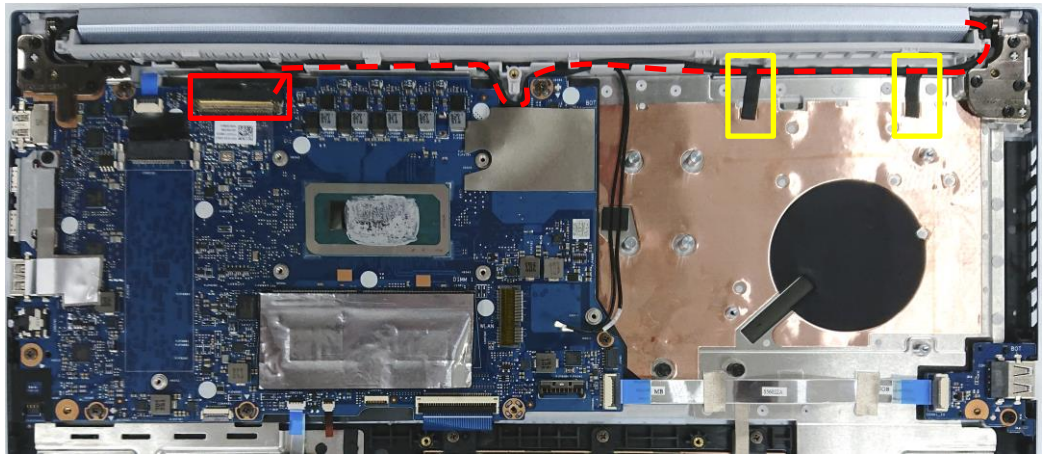
KEYBOARD MODULE

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

⚠ When assembly KEYBOARD Module, please follow the location below to tidy up Antenna cables.



⚠ When assembly the KEYBOARD Module, please follow the image below to tidy up EDP cable and paste Tapes.



LCD BEZEL and HINGE CAP

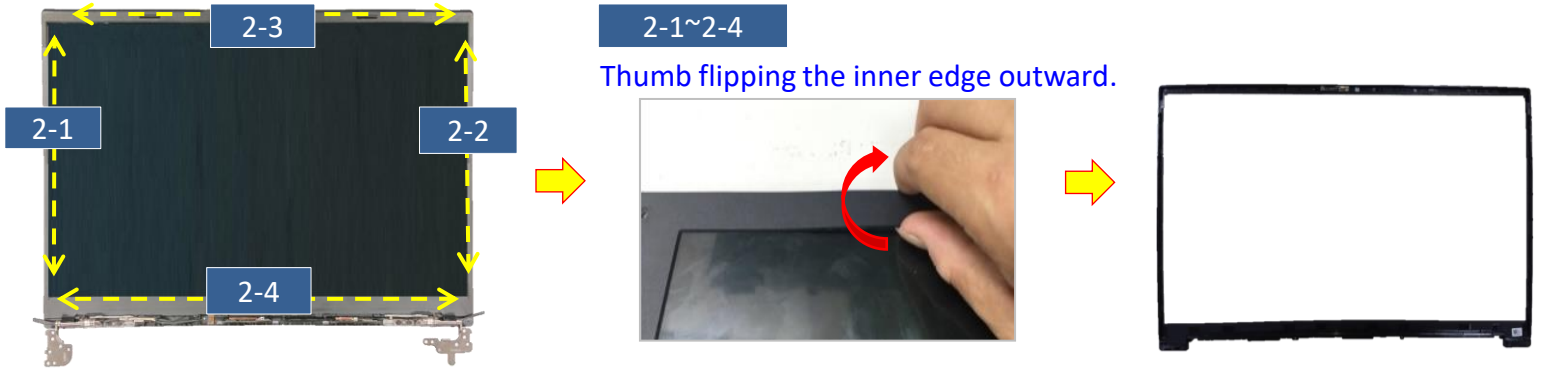
Disassembly Notice Please be sure to pull out adapter and disconnect the battery.

Step 1 : Use the plastic blade to pry HINGE CAP.
Step 2 : Remove LCD BEZEL.



2

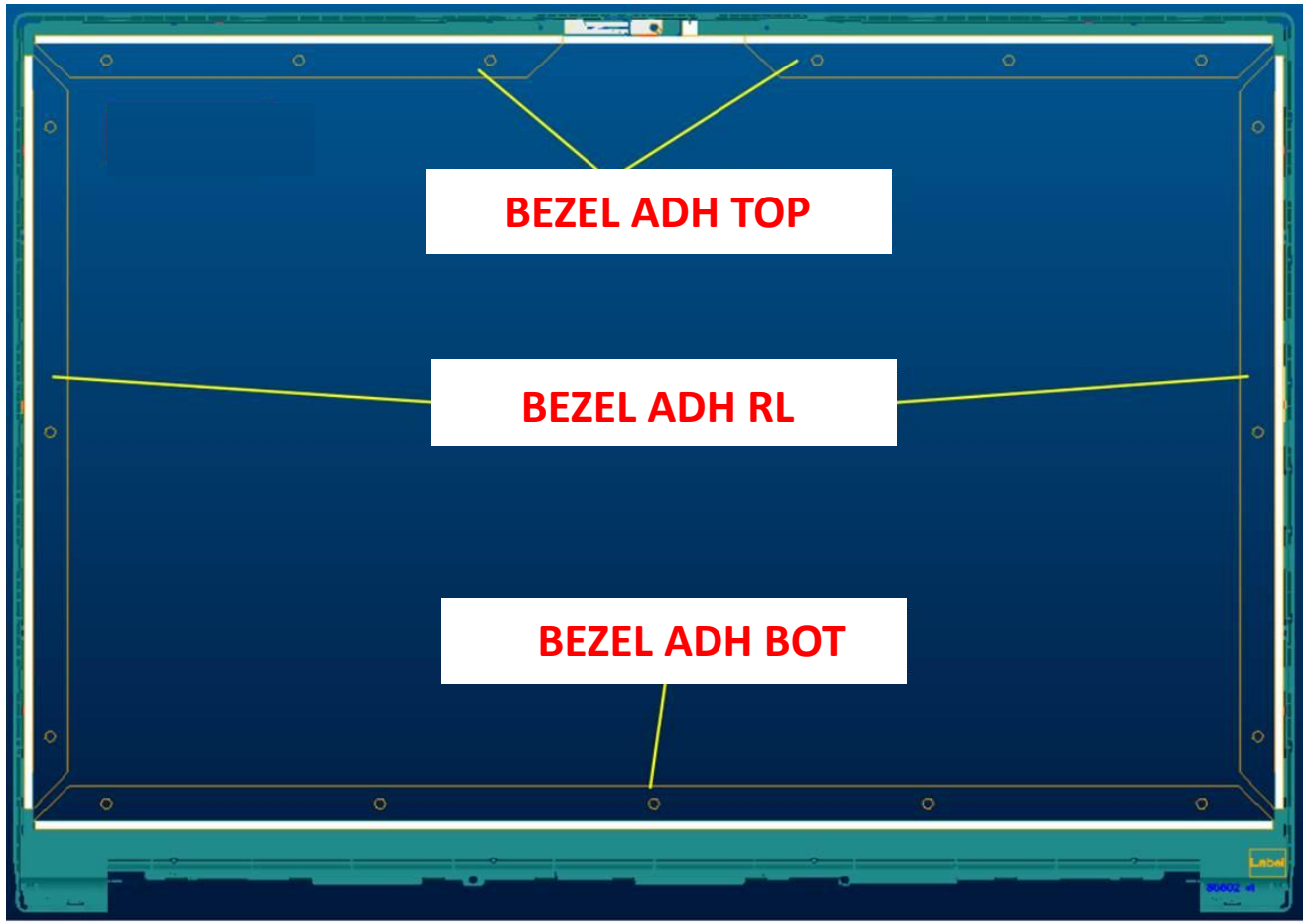
Step 2-1~2-4, Start from the middle area of each side of bezel,
Using the forefinger to hold the outer edge firmly and the thumb flipping the bezel inner edge outward to release the hooks as indicated in the diagram shown.
(It can be helpful, if holding the bezel outer edge firmly with forefinger.)



LCD BEZEL

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

When assembly the BEZEL, please follow below paste new BEZEL ADH



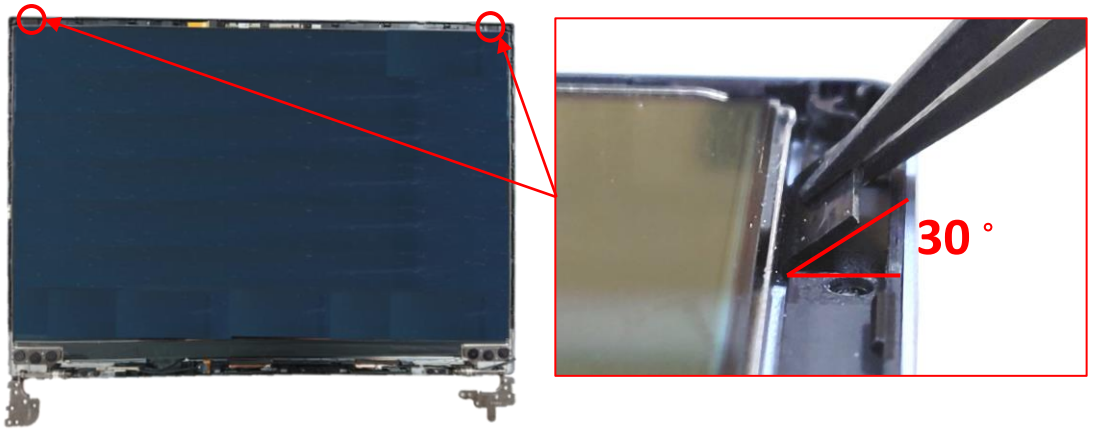
LCD PANEL

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

Step 1 : Pull out PANEL ADH SERV *2pcs.
Step 2 : Remove the screws *10pcs and then remove two hinges.
Step 3 : Remove LCD Panel.

Screws	QTY	Spec	Torque (kgf-cm)
	6	SCREW M2.5*2.5L K B-ZN #1 NY	2.5±0.2
	4	SCREW M2*4L (K) B-ZN #1	2.0±0.2

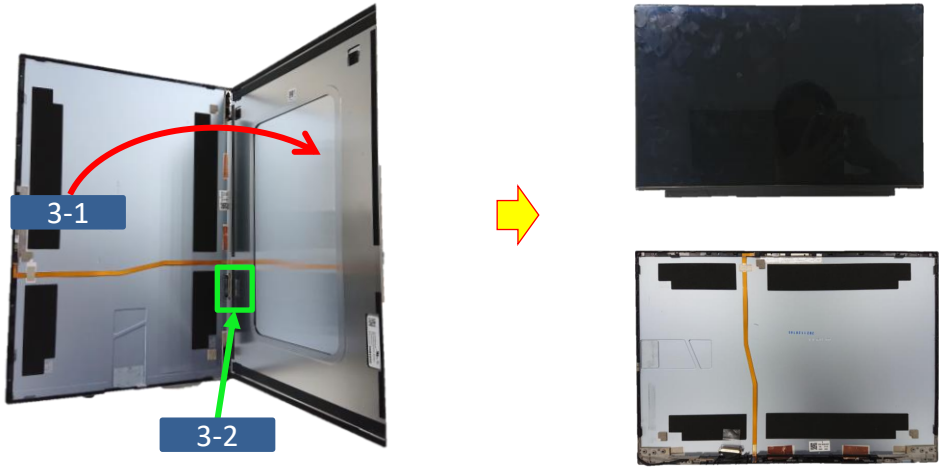
1 ⚠ **Please pull the adhesive up about 30 degree slowly, and don't pull out the tape in vertical direction!**



2 Remove



3 Flip up the panel, and disconnect the EDP Cable to remove LCD Panel.

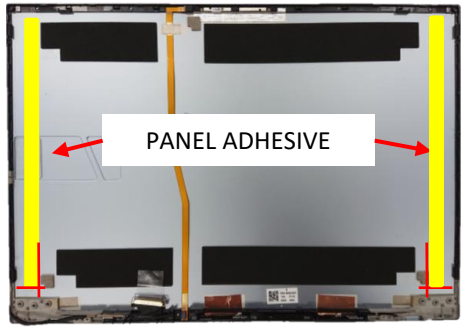


LCD PANEL

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

A **When reuse the LCD COVER:**

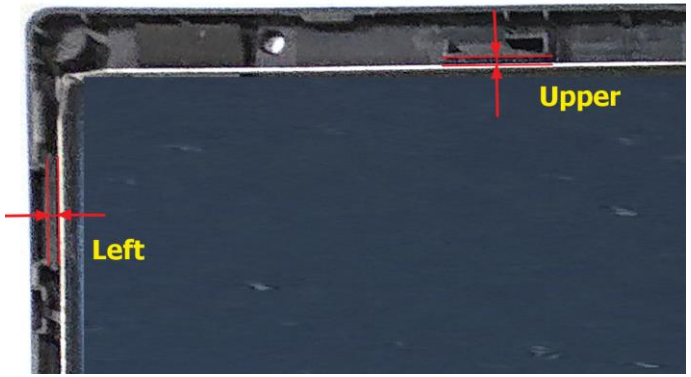
Please paste new PANEL ADH SERV*2pcs.
(New LCD COVER already contains PANEL ADHESIVE SERV *2pcs)



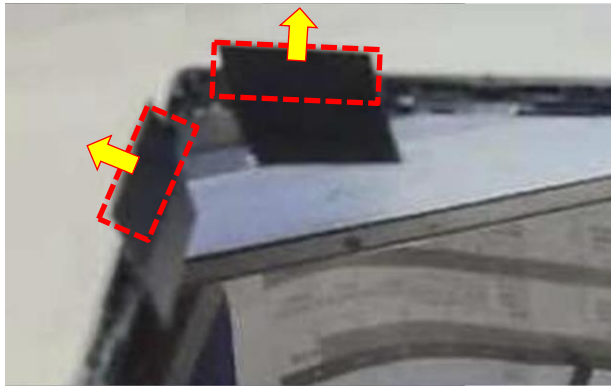
B **When assembly the LCD PANEL:**

Step 1 : Use the Mylar to reserve gap for upper and left side.
For **OLED**& **IPS Panel**, Upper Gap: **0.1mm** (Mylar *1pc) Left Gap: **0.1mm** (Mylar *1pc)
Step 2 : Align the upper left to assembly the panel.
Step 3 : Pull out Mylar.

Step1& 2



Step 3

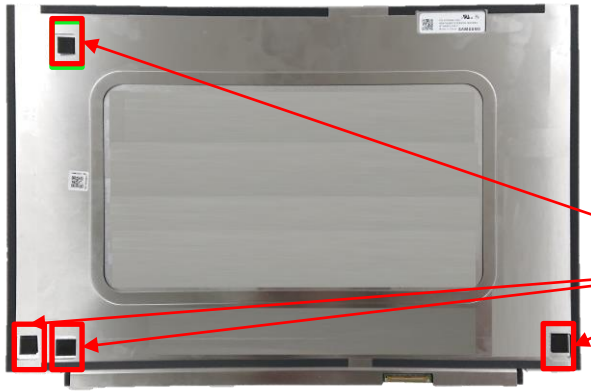


OL LCD FRAME (For OLED Panel)

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

Step 1 : Release Mylar *2pcs (Blue mark).
Step 2 : Pull out OL BKT Adhesive *4pcs (Red mark) slowly, and then separate panel.



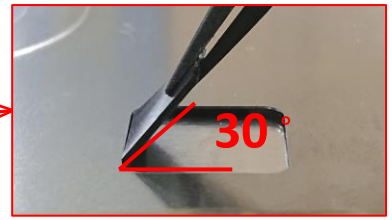


1 Release



⚠ Please be careful during releasing OL BKT Adhesive to avoid OLED Panel broken.

2 Remove (Slowly)

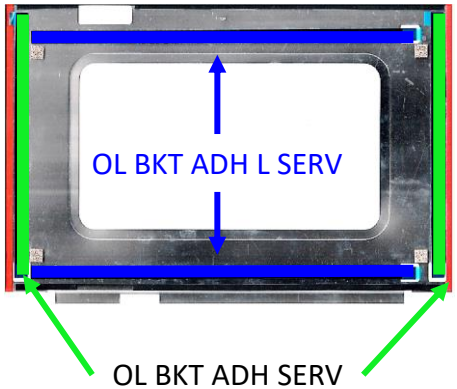




OL LCD FRAME (For OLED Panel)

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

⚠ When OL LCD FRAME assembly, please paste new OL BKT ADHESIVE before assembly panel.



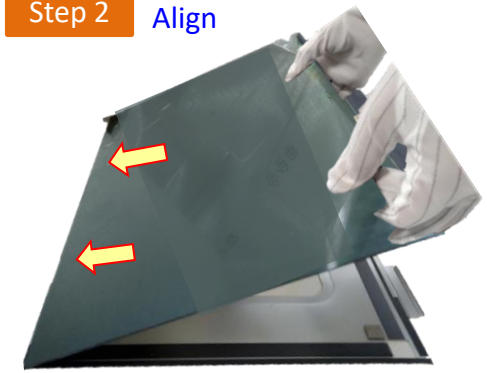
⚠ **When assembly OL LCD FRAME :**

Step 1 : Remove release paper of BKT ADHESIVE *4pcs.
Step 2 : Assembly and align the LCD panel to the upper side of OL LCD FRAME.

Step 1 Remove



Step 2 Align



⚠ **Clean the Panel Mylar:**

Before assembling the OLED panel, use a dust-free cloth and a small amount of alcohol to clean the OL LCD FRAME back side.

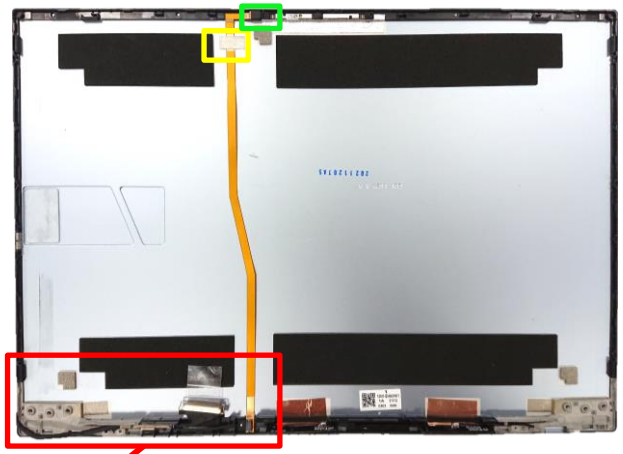




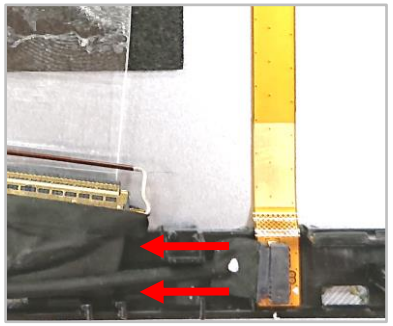
LCD COVER (with CAMERA& ANTENNA)

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

Step 1 : Disconnect EDP Cable.
Step 2 : Release Conductive Tape (Yellow mark) then lift up Camera, and release Tape then disconnect FFC (Green mark).
Step 3 : Remove CAM FPC.
Step 4 : Remove Antenna Set and LCD Cover.

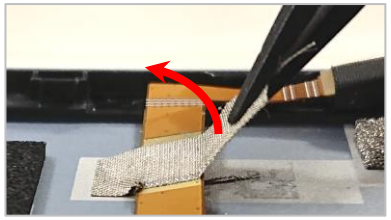


1 Disconnect

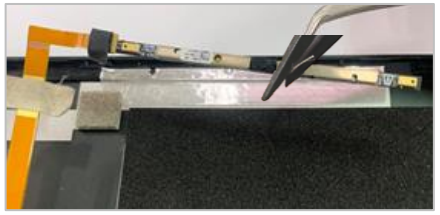




2 Release

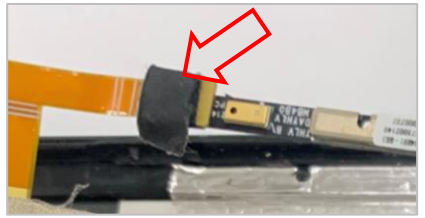


Lift up

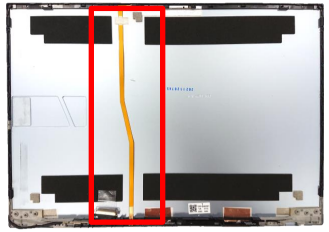


⚠ Please be careful during releasing Tape to avoid CAMERA broken.

Release Tape and disconnect

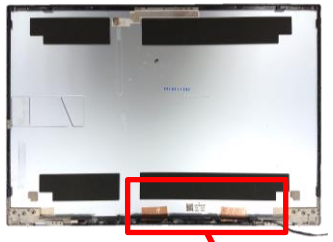


3 Remove





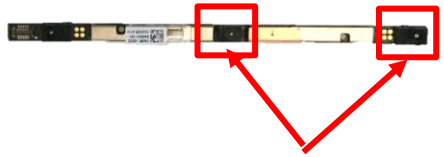
4 Remove







⚠ Please be careful during removing CAMERA to avoid broken..

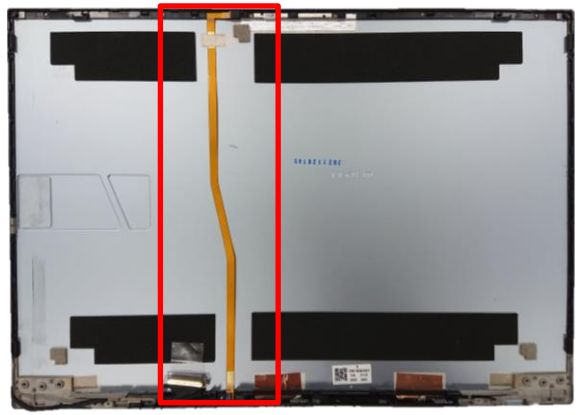


MIC RUBBER *2pcs

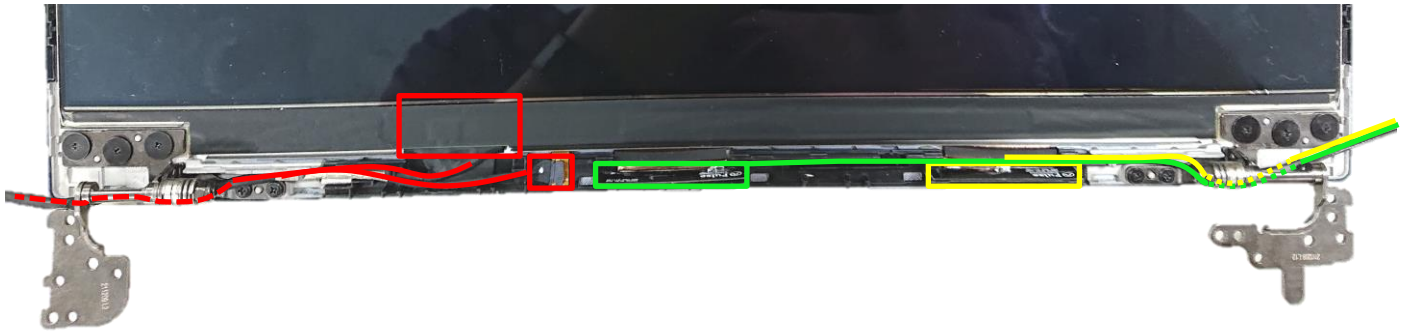
LCD COVER (with CAMERA& ANTENNA)

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

⚠ When CAM FPC assembly, please follow the location below to tidy up FPC.



⚠ For FDP Cable and ANTENNA Cables assembly, please follow the mark below to tidy up cables.



⚠ When ANTENNA SET assembly, please follow the location below to assemble AUX& MAIN ANTENNA.

