

# Disassembly Instructions

## STYLISTIC M532

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# Notes on installing and removing boards and components

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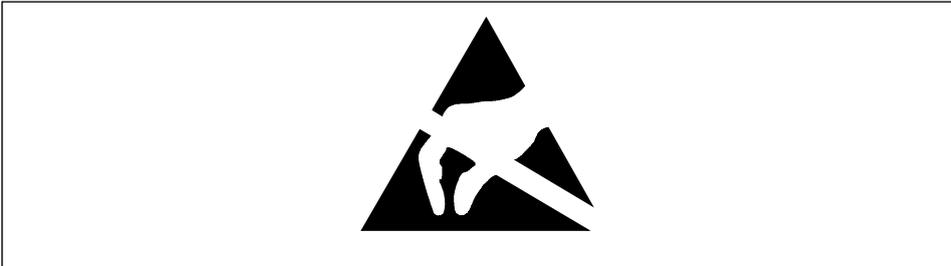
Before removing any individual modules, always switch the computer off first and disconnect it from the mains supply and remove all cables. After the main power cable has been disconnected, discharge the remaining voltage by pressing the power on button.

The workplace must be designed in accordance with the [guidelines of the European Federation of Trade Unions](#).

Only professional quality tools must be used.

- Switch the computer off and pull the power plug out of the mains socket.
- Remove the cables.
- After the main power cable has been disconnected, discharge the remaining voltage by pressing the power on button.
- Never use sharp objects such as screwdrivers, scissors or knives as leverage to remove covers.

Boards with electrostatic sensitive devices (ESD) are marked with the label shown.



When you handle boards fitted with ESDs, you must, under all circumstances, observe the following points:

- You must statically discharge yourself before working with boards (e.g. by touching a grounded object).
- The equipment and tools you use must be free of static charges.
- Remove the power plug from the mains supply before inserting or removing boards containing ESDs.
- Always hold boards with ESDs by their edges.
- Never touch pins or conductors on boards fitted with ESDs.

For more information about ESD please refer to the Computer based Training "ESD in electronics" (<http://docs.ts.fujitsu.com/dl.aspx?id=b09289e9-65b3-401b-ac1f-c87d05f02d92>).

Keep in mind [SB-PC-11009](#):

The current available ESD (EGB) regulations must be obeyed.

It is not allowed to connect or disconnect any cables or components within a system, while the main power cable is plugged. After the main power cable has been disconnected, please discharge the remaining voltage by pressing the power on button. After that it is safe to work on the internal components.

# Mandatory Support Bulletins

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[SB-M-10030](#)

Minimum requirements for proper finalization of a hardware repair on Mobile systems

# List of the used Screws in these Disassembly Instructions

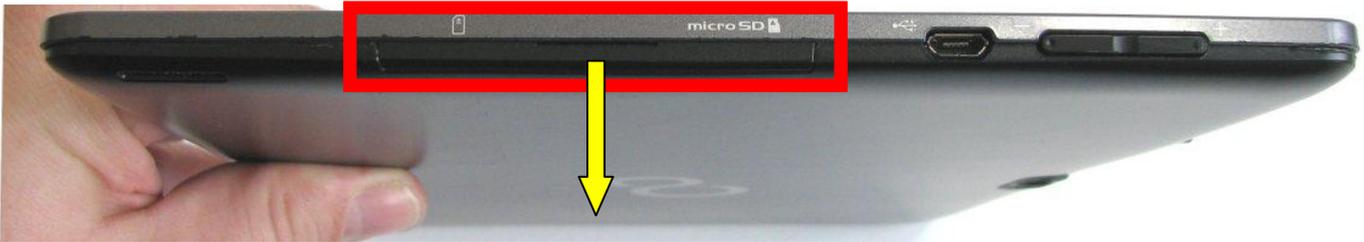
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- ▶ Please see Spare Parts Database and Explosion Drawings for more details and aspects not covered by these Disassembly Instructions.

| <b>Explosion Drawing No.:</b> | <b>Spare Parts Order Number:</b> | <b>Description:</b> | <b>Amount (not representative for the complete system!):</b> |
|-------------------------------|----------------------------------|---------------------|--|
| 46                            | 38020741                         | SCREW M1.2XL3       | 1  |
| 47                            | 38020742                         | SCREW M1.4XL2       | 2  |
| 48                            | 38020743                         | SCREW M1.4XL2.4     | 6  |
| 49                            | 38020744                         | SCREW M1.4XL3.3     | 6  |

## Opening the Housing (removing the Lower Assy)

- ▶ To shut down the system, press the Power ON/OFF button until the following message appears "Power off: Would you like to shut down?". Select "OK".
- ▶ Unplug the mains adapter from the mains socket.
- ▶ Disconnect all cables connected to the system and take it out of the cradle.



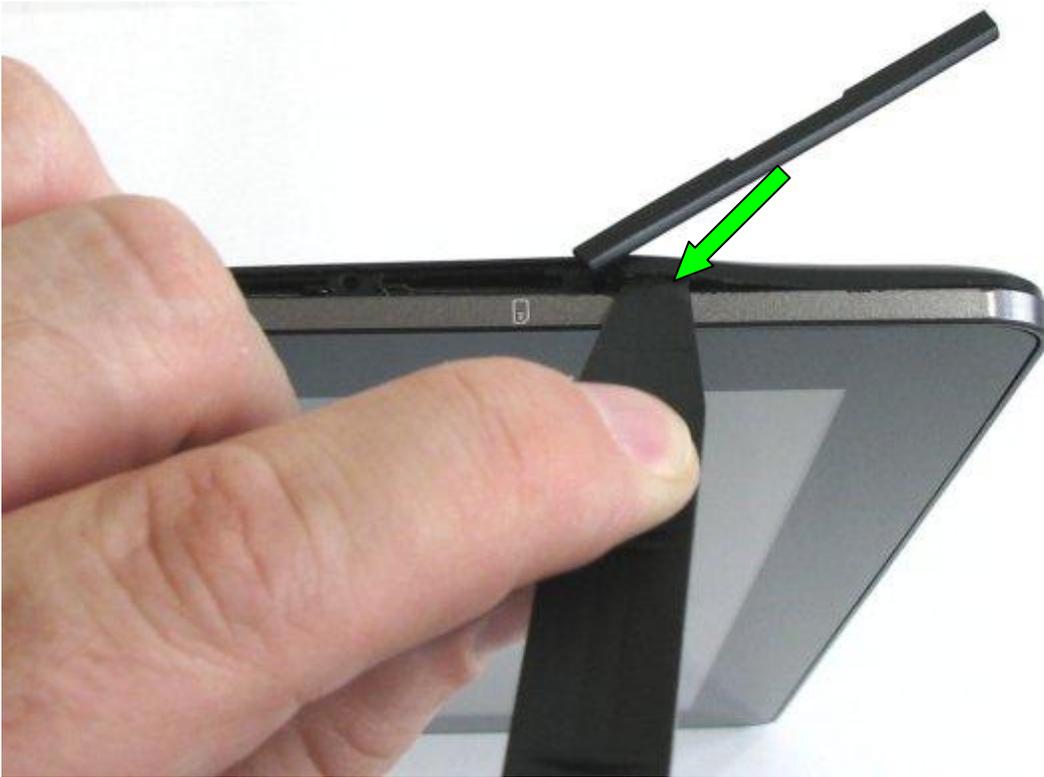
- ▶ Carefully open the Micro-SD and SIM-Card cover (red box).



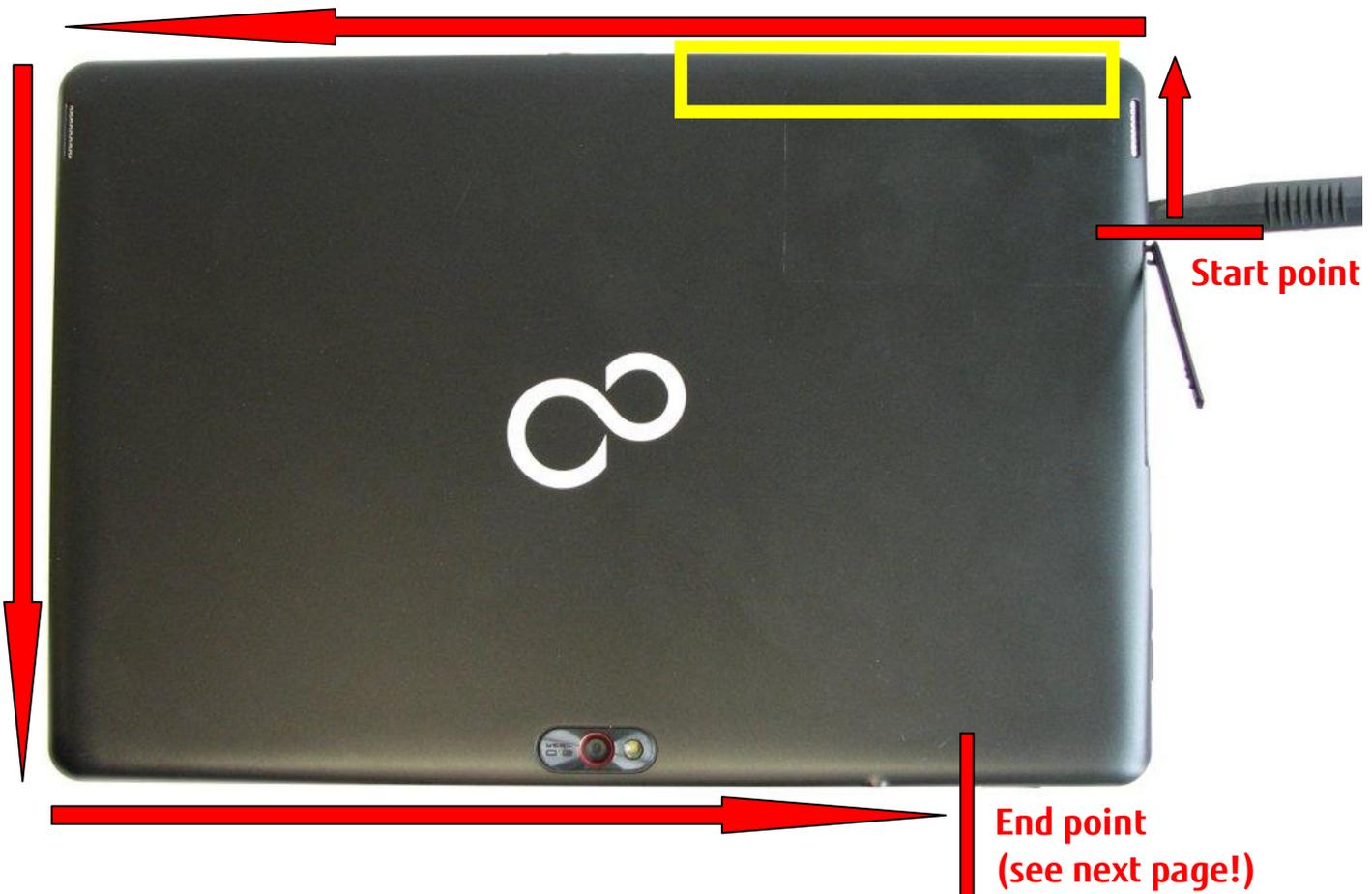
- ▶ Remove the M1.2xL3 screw [38020741] (yellow circle).



- ▶ To open the housing please use a plastic tool similar to the one shown above to prevent scratching the housing.  
Note: The following pictures show a different, but also usable plastic tool.



- ▶ Carefully insert the plastic tool at the position shown in the picture above (green arrow) and loosen the plastic noses inside following the path as shown in the picture below (red arrows) from start point to end point.  
**Note:** Please be take extra care not to insert the plastic tool too deeply, especially around the area marked with the yellow box, to ensure that circuit boards and antennas near the margins of the housing are not damaged.

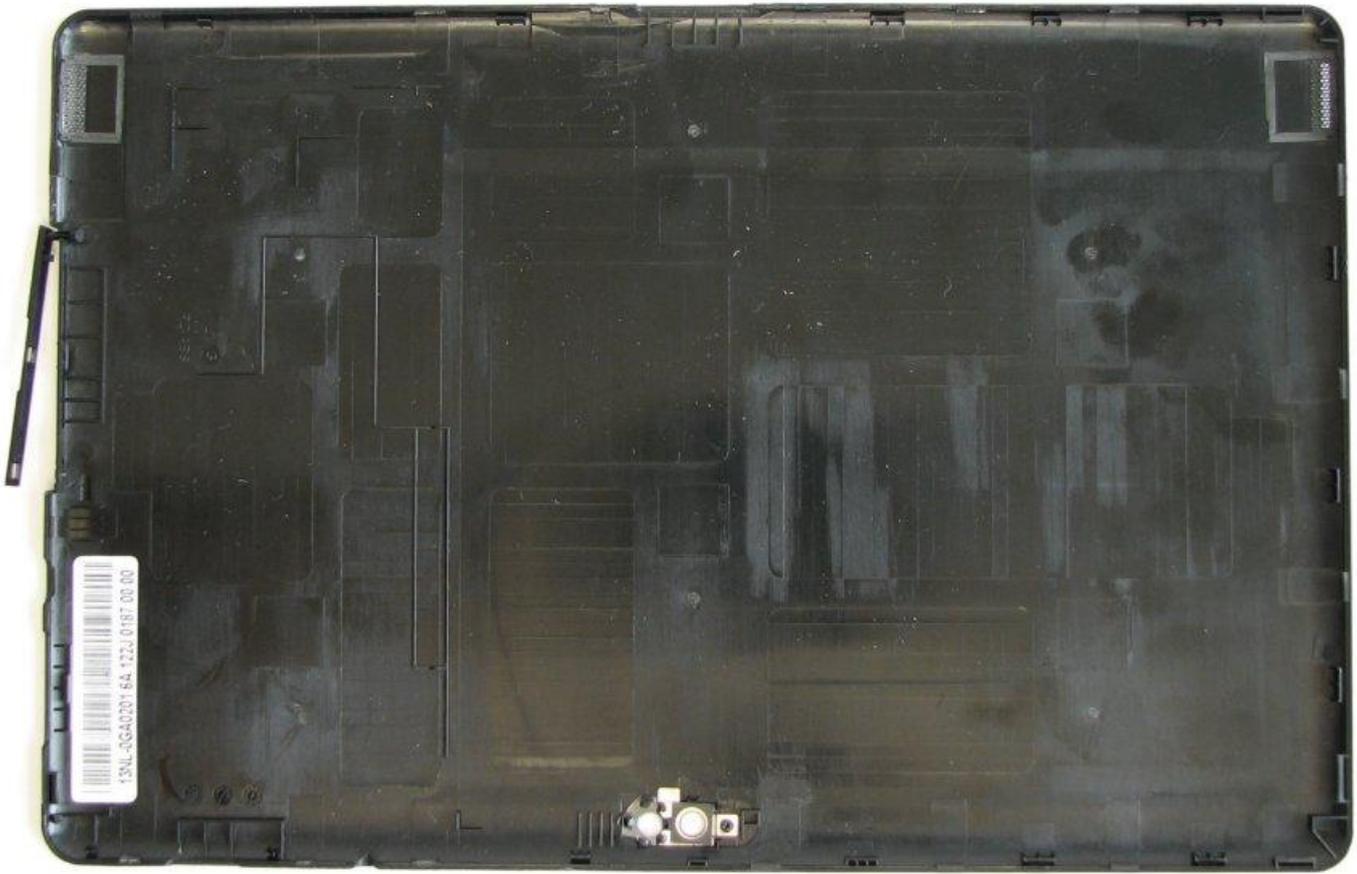


End point when disassembling the Lower Assy (green arrow):



- ▶ Carefully swing the Lower Assy to loosen the latch on the remaining area (red circle) and then remove the Lower Assy.

Lower Assy [38020704]:



## Removing the Cover for Card Slots

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Preliminary steps required:

- Opening the Housing (removing the Lower Assy)



- ▶ Carefully remove the Cover for the Card Slots from the Lower Assy (see yellow arrow).

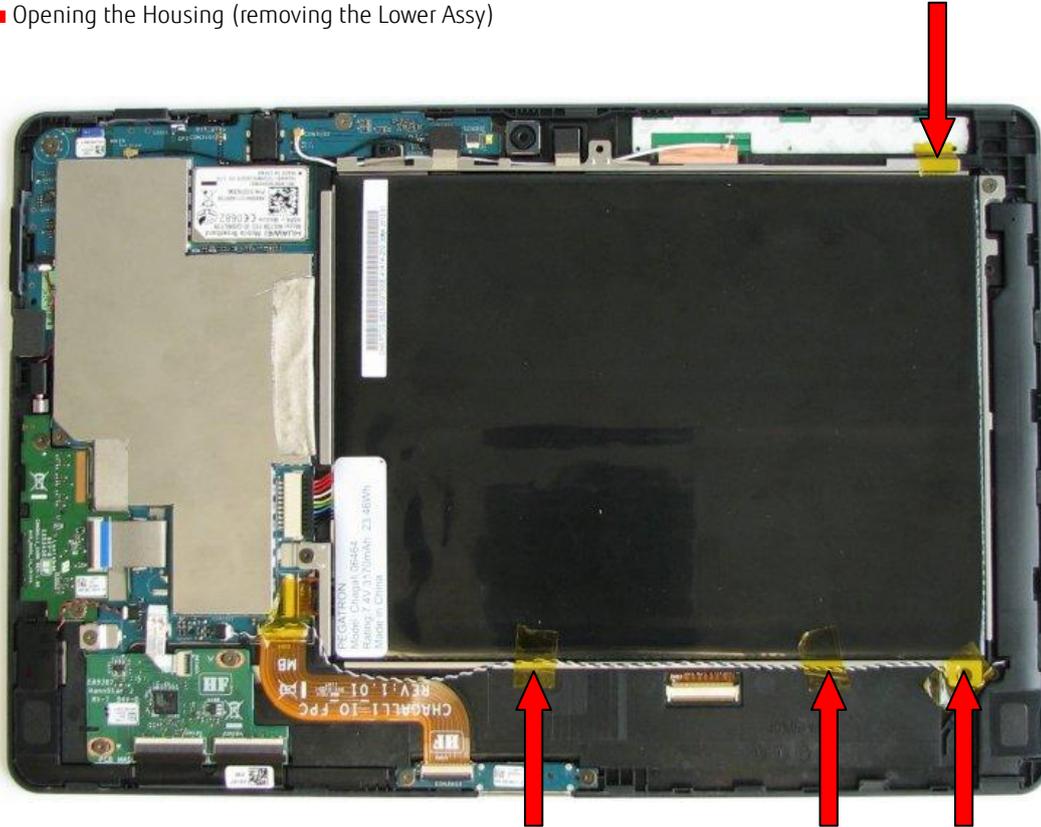
Cover for Card Slots [38020732]:



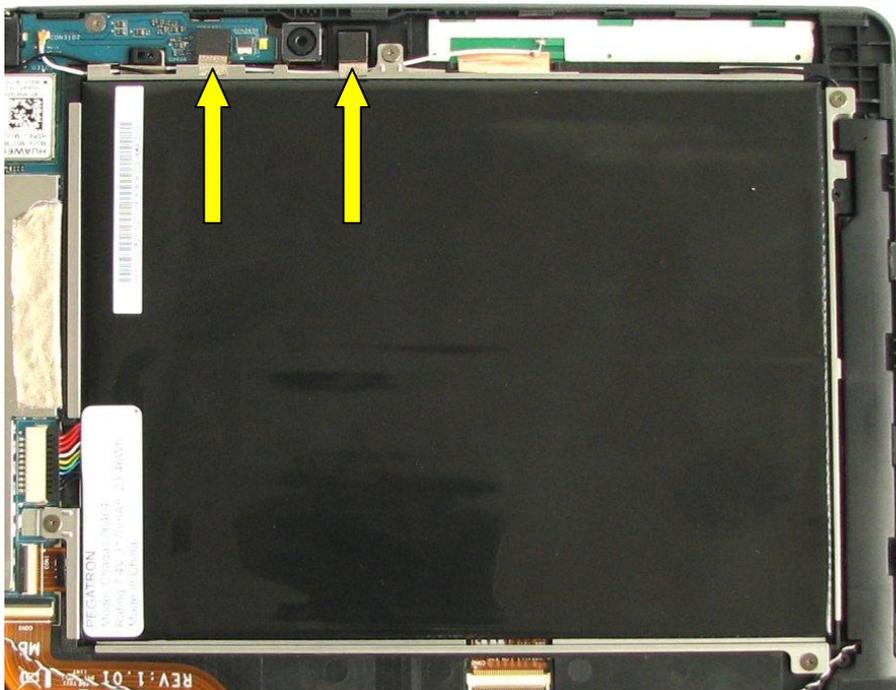
# Removing the Battery

Preliminary steps required:

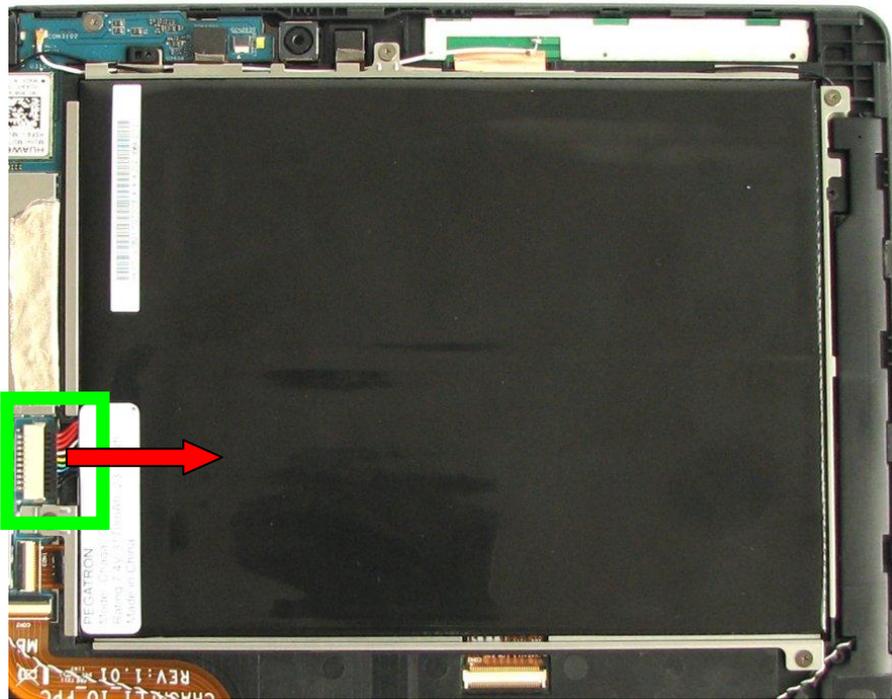
- Opening the Housing (removing the Lower Assy)



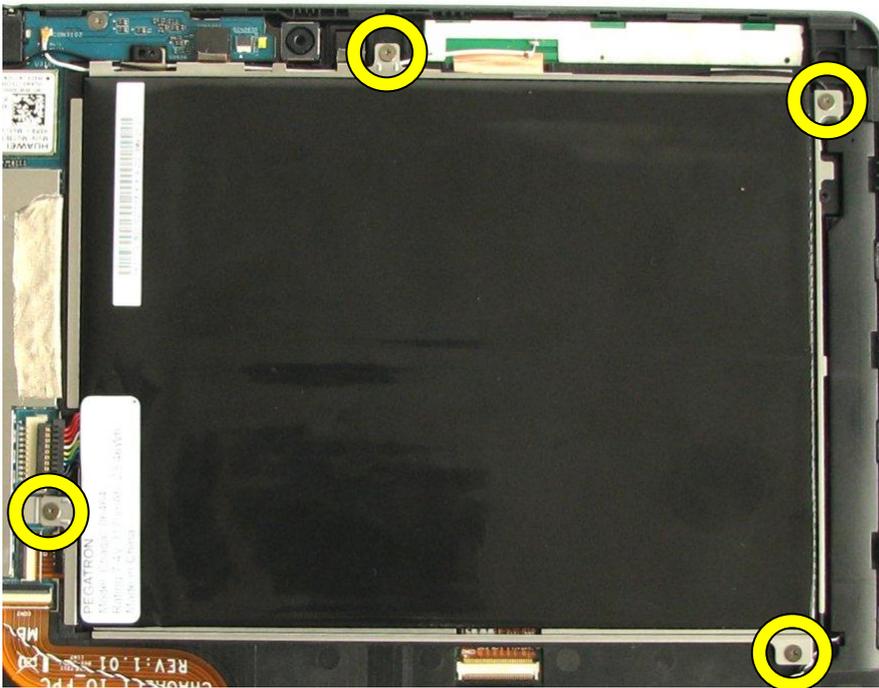
- ▶ Carefully remove the tapes fixing the antenna and speaker cables (see red arrows).



- ▶ Carefully loosen then two tapes fixing the Front Camera Module (2M) to the Metal Battery Frame (yellow arrows).



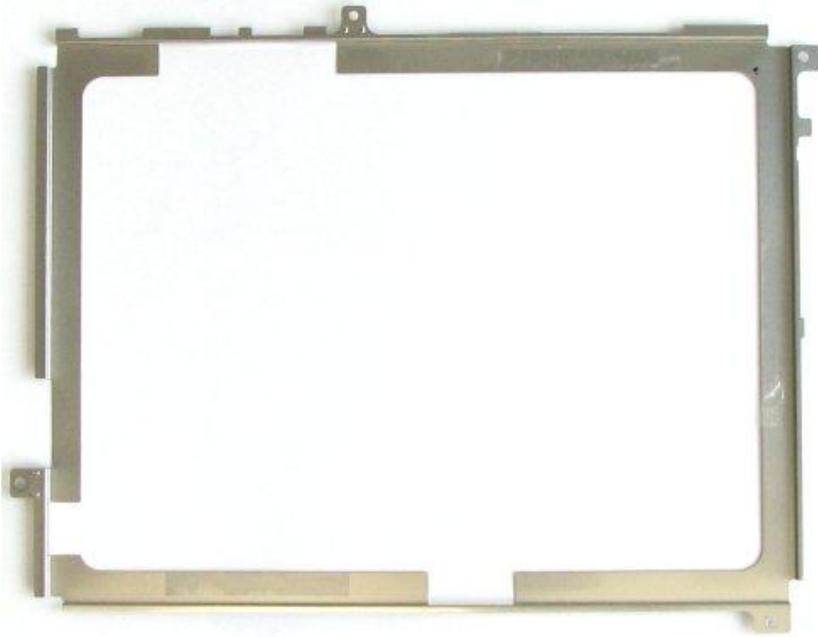
- ▶ Disconnect the battery cable (green box) in the direction of the red arrow.



- ▶ Remove the four M1.4xL2.4 screws [38020743] (yellow circles).



Battery Frame [38020721]:



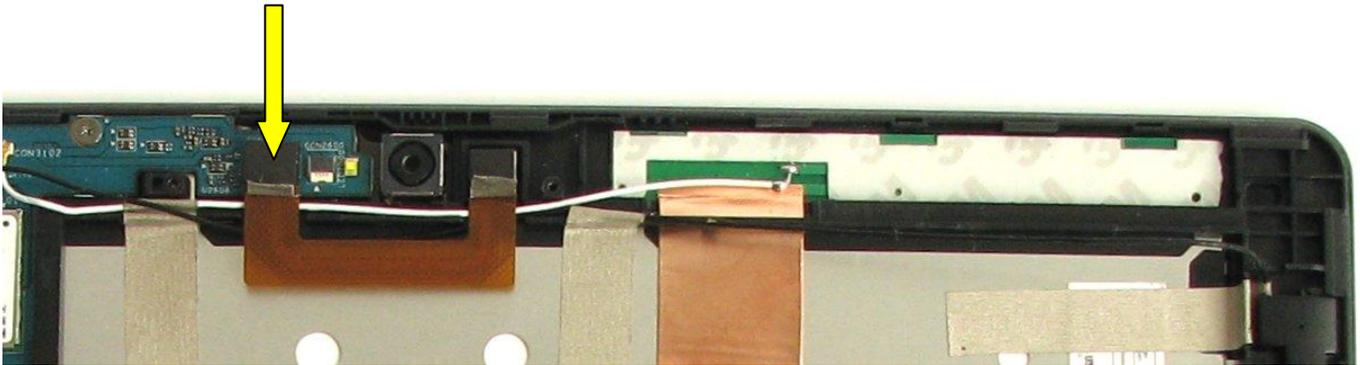
-BT-1ST BATTERY (2 CELLS) 3170MAH [38020705]:



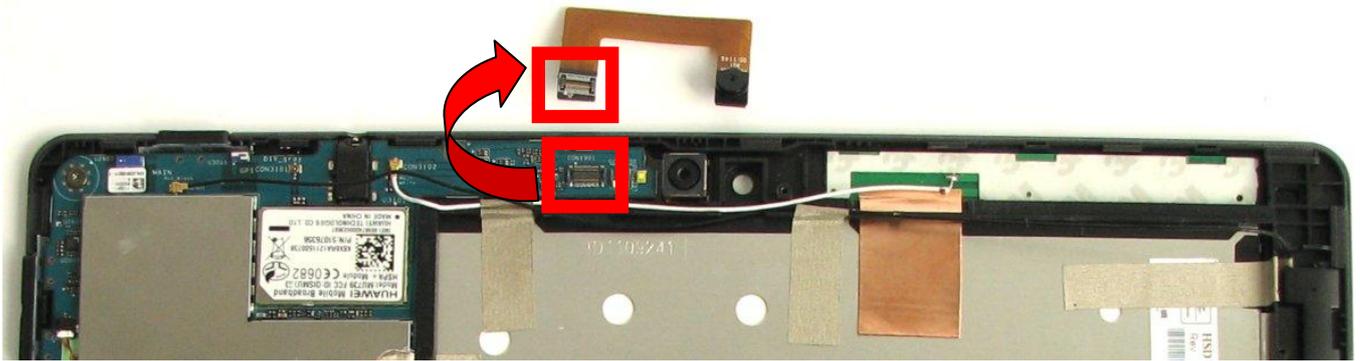
# Removing the Front Camera Module (2M)

Preliminary steps required:

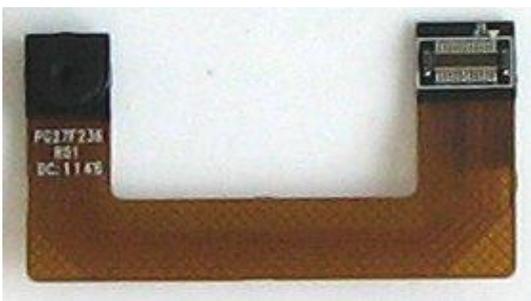
- Opening the Housing (removing the Lower Assy)
- Removing the Battery



- ▶ Carefully disconnect the Front Camera Module from its connector on the mainboard (yellow arrow). See picture below for clarification.



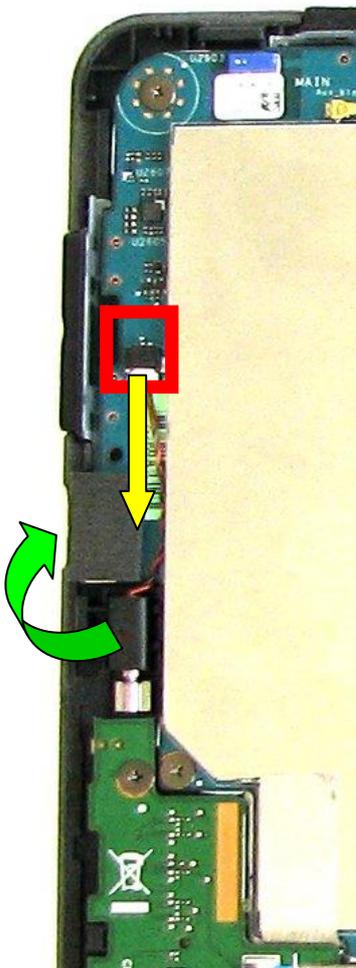
Front Camera Module (2M) [38020711]:



# Removing the Vibrator

Preliminary steps required:

- Opening the Housing (removing the Lower Assy)
- Removing the Battery



- ▶ Carefully disconnect the Vibrator from its connector on the mainboard (red box) in the direction of the yellow arrow.
- ▶ Then lift the Vibrator out of the housing (green arrow).

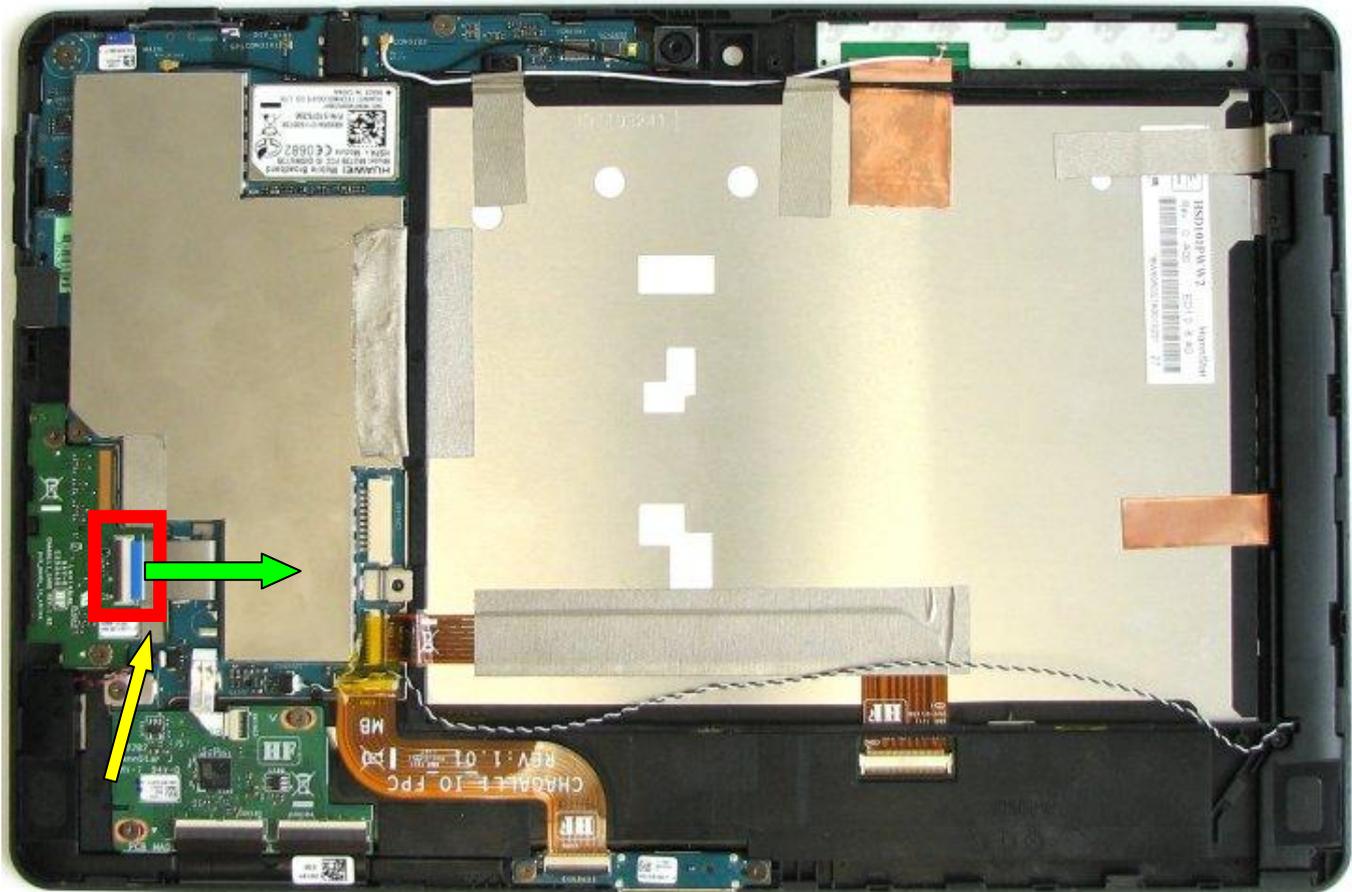
Vibrator incl. Cable [38020719]:



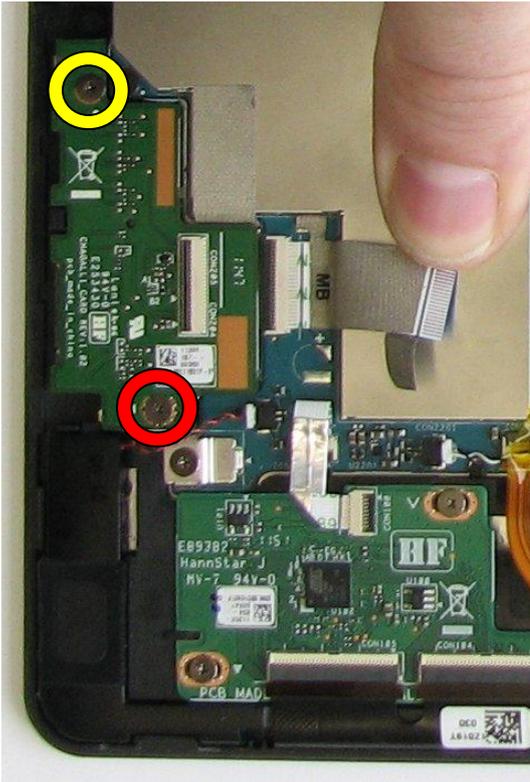
## Removing the Card Reader Sub-Board

Preliminary steps required:

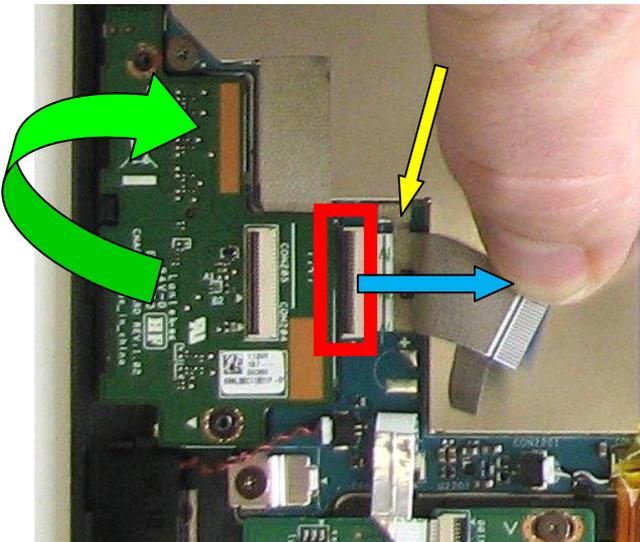
- Opening the Housing (removing the Lower Assy)
- Removing the Battery



- ▶ Carefully open the lock of the connector on the sub-board (red box) and disconnect the cable in the direction of the green arrow. Then loosen the tape attached to the cable holding it in place (yellow arrow).

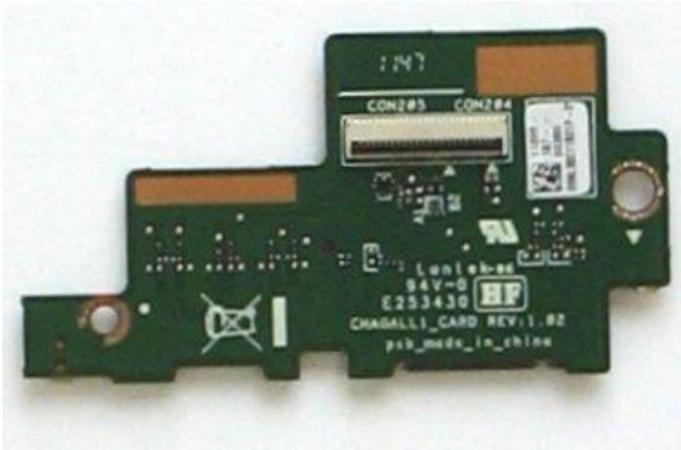


- ▶ Remove the M1.4L3.3 screw [38020744] (yellow circle) and the M1.4L2 screw [38020742] (red circle).

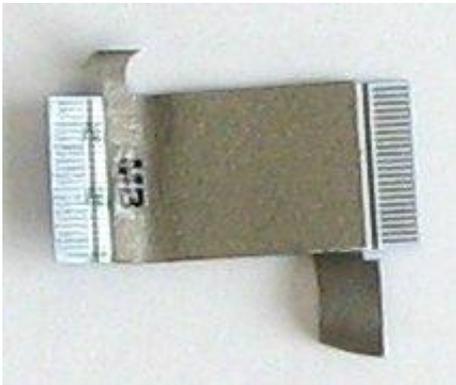


- ▶ You can now lift the Card Reader Sub-Board out of the housing (green arrow).
- ▶ In case you wish to remove/replace the Card Reader Cable also, please carefully open the lock of the connector on the mainboard (red box) and disconnect the cable in the direction of the blue arrow. Then loosen the tape attached to the cable holding it in place (yellow arrow).

Card Reader Sub-Board [38020708]:



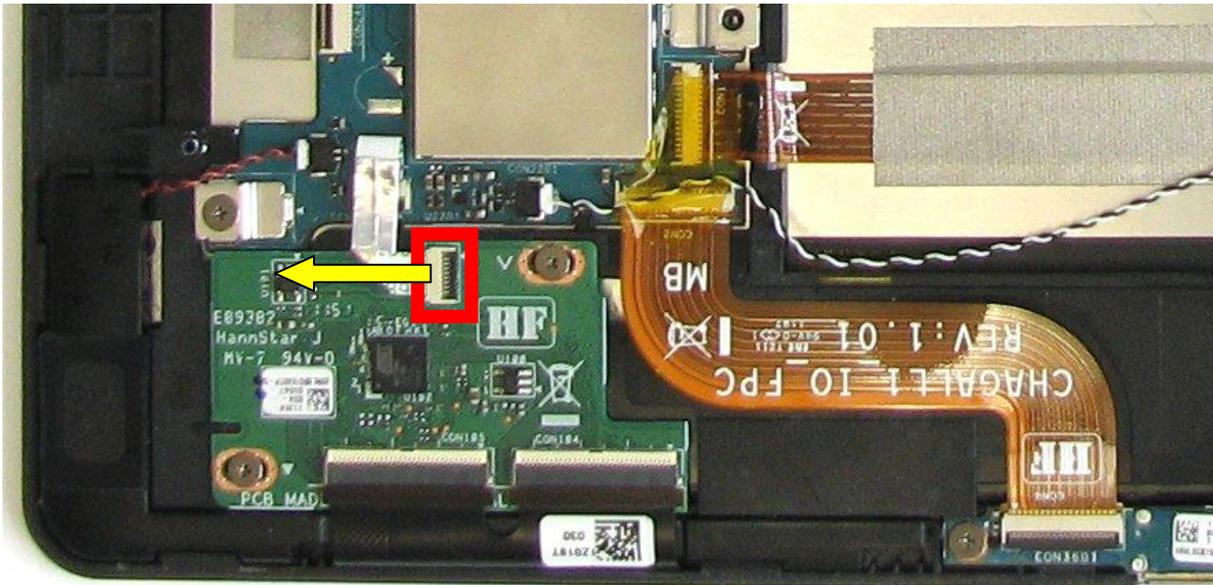
Card Reader Cable [38020729]:



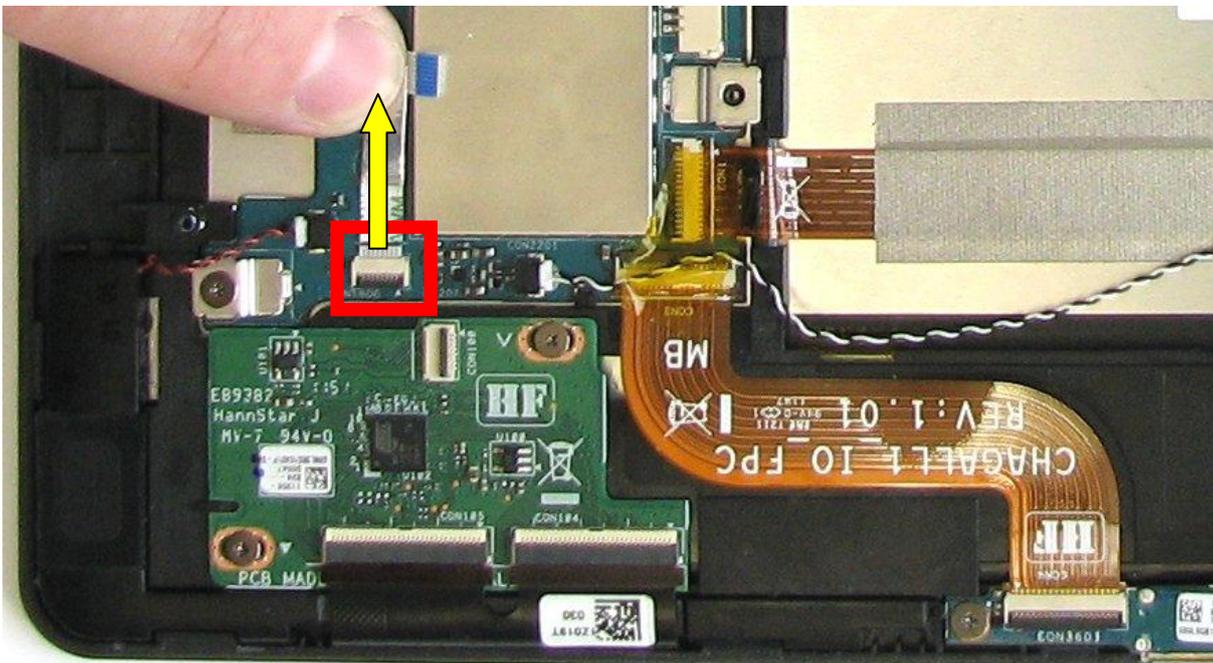
# Removing the Touch Panel Sub-Board

Preliminary steps required:

- Opening the Housing (removing the Lower Assy)
- Removing the Battery

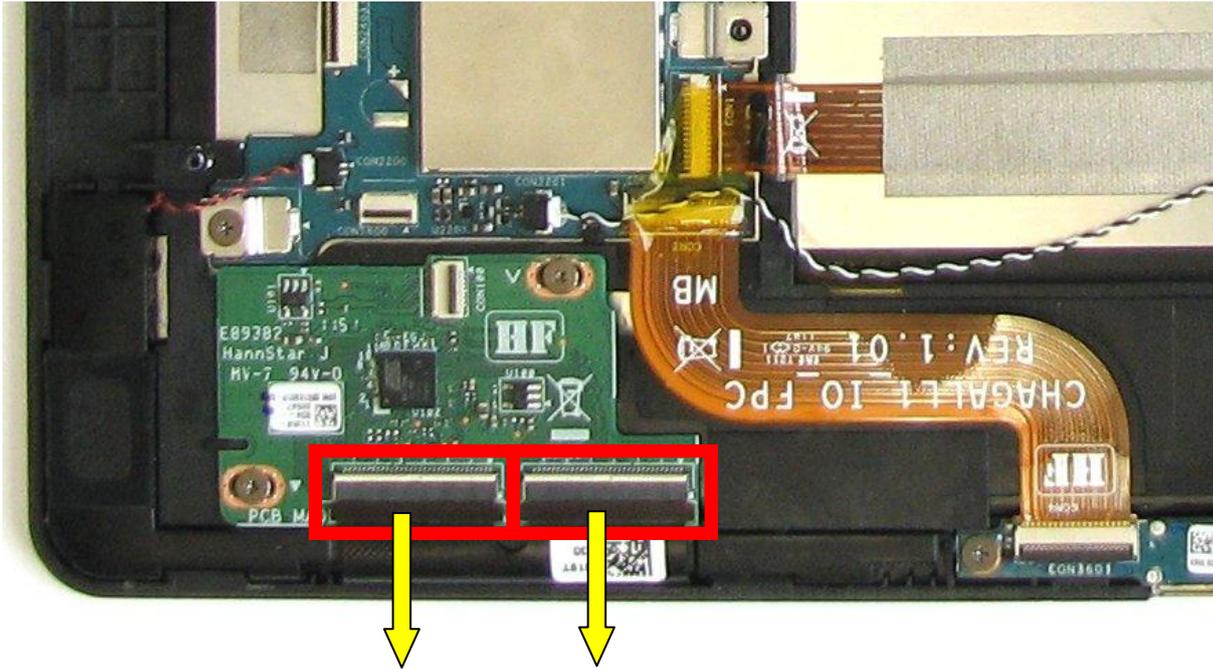


- ▶ Carefully open the lock of the connector on the sub-board (red box) and disconnect the cable in the direction of the yellow arrow.

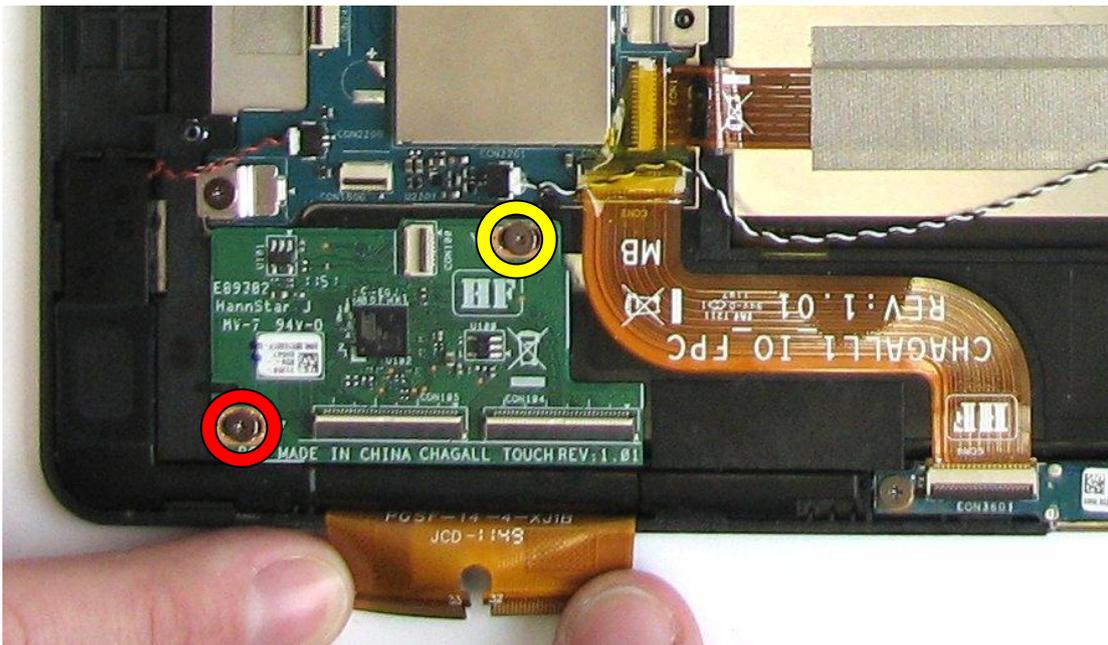


- ▶ In case you wish to remove/replace the Touch Panel Cable also, carefully turn the cable, but please be aware of the fact that it is still connected to the mainboard.
- ▶ Carefully open the lock of the connector on the sub-board (red box) and disconnect the cable in the direction of the yellow arrow.

Touch Panel Cable [38020730]:



- ▶ Carefully open the lock of the connector on the sub-board (red box) and disconnect the cable in the direction of the yellow arrow.



- ▶ Remove the M1.4L2.4 screw [38020743] (yellow circle) and the M1.4L2 screw [38020742] (red circle). Now you can lift the Touch Panel Sub-Board out of the housing.

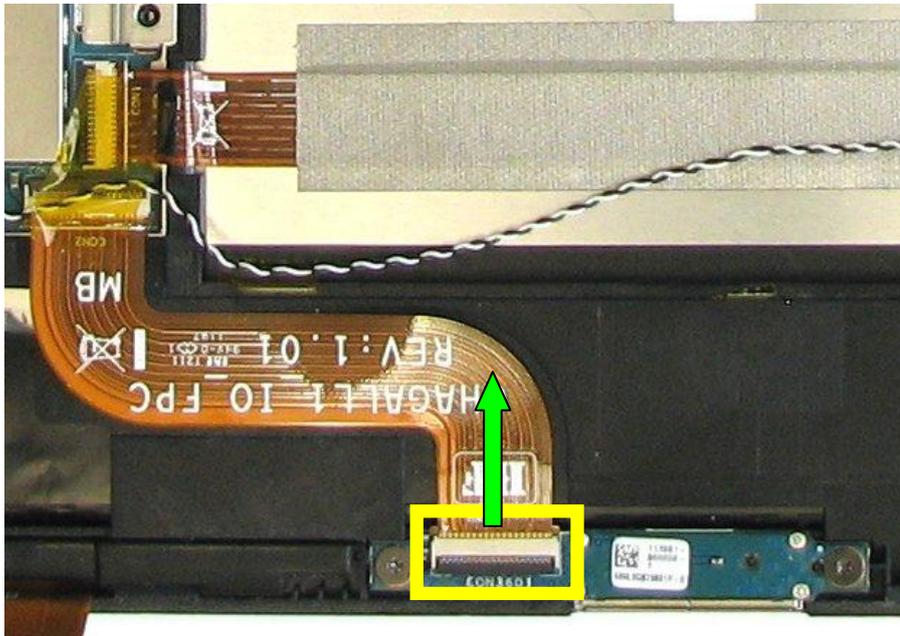
Touch Panel Sub-Board [38020710]:



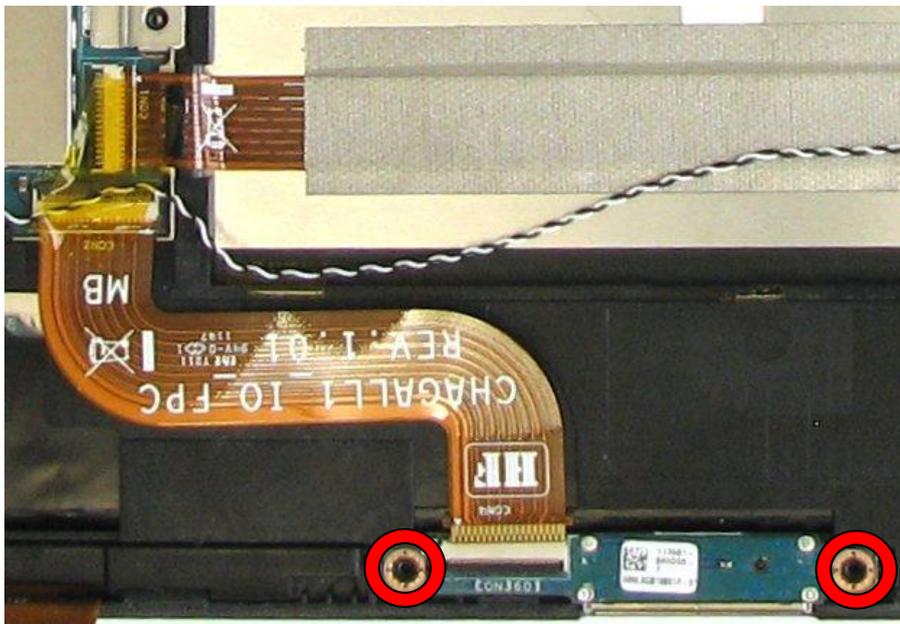
## Removing the Docking Connector Sub-Board

Preliminary steps required:

- Opening the Housing (removing the Lower Assy)
- Removing the Battery

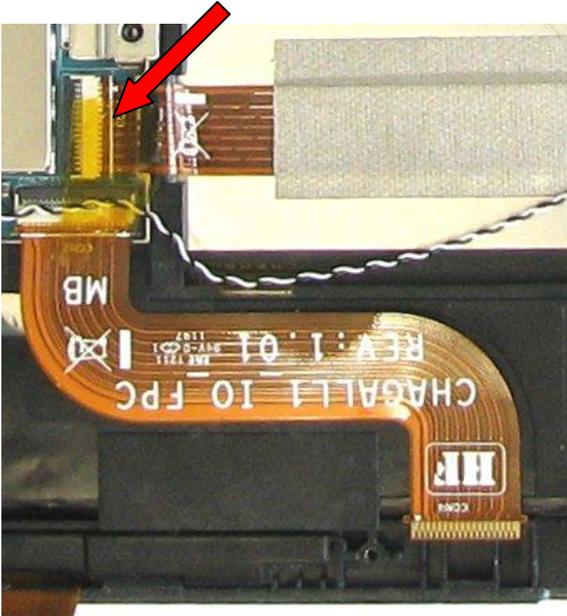


- ▶ Carefully open the lock of the connector on the sub-board (yellow box) and disconnect the cable in the direction of the green arrow.

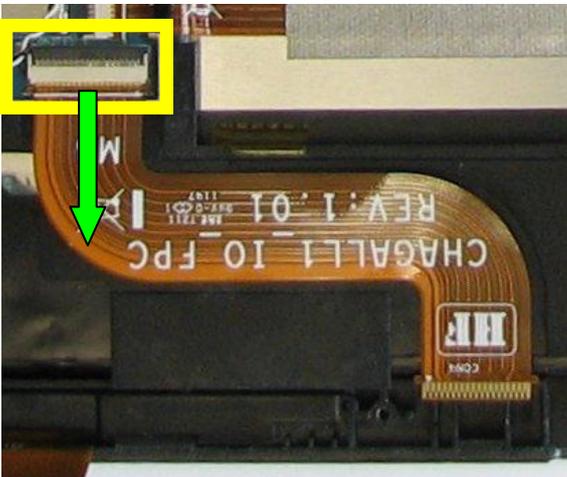


- ▶ Remove the two M1.4L3.3 screws [38020744] (red circles). Now you can lift the Docking Connector Sub-Board out of the housing.

Docking Connector Sub-Board [38020709]:

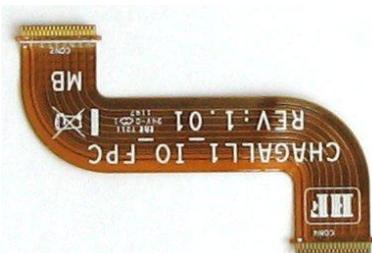


- ▶ In case you need to remove/replace the Docking Connector Cable please remove the tape fixing the speaker cable (red arrow).



- ▶ Then carefully open the lock of the connector on the mainboard (yellow box) and disconnect the cable in the direction of the green arrow.

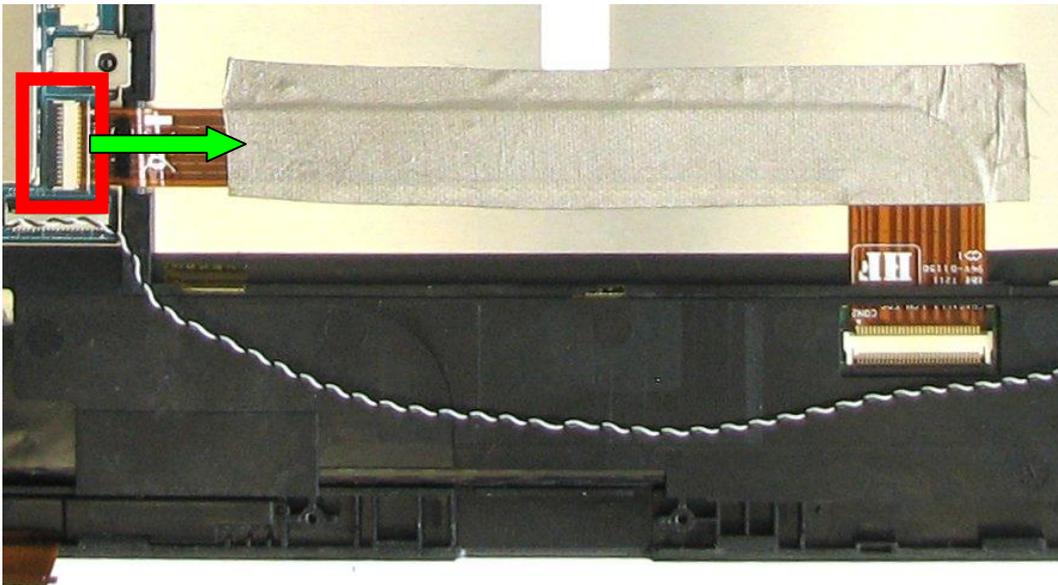
Docking Connector Cable [38020726]:



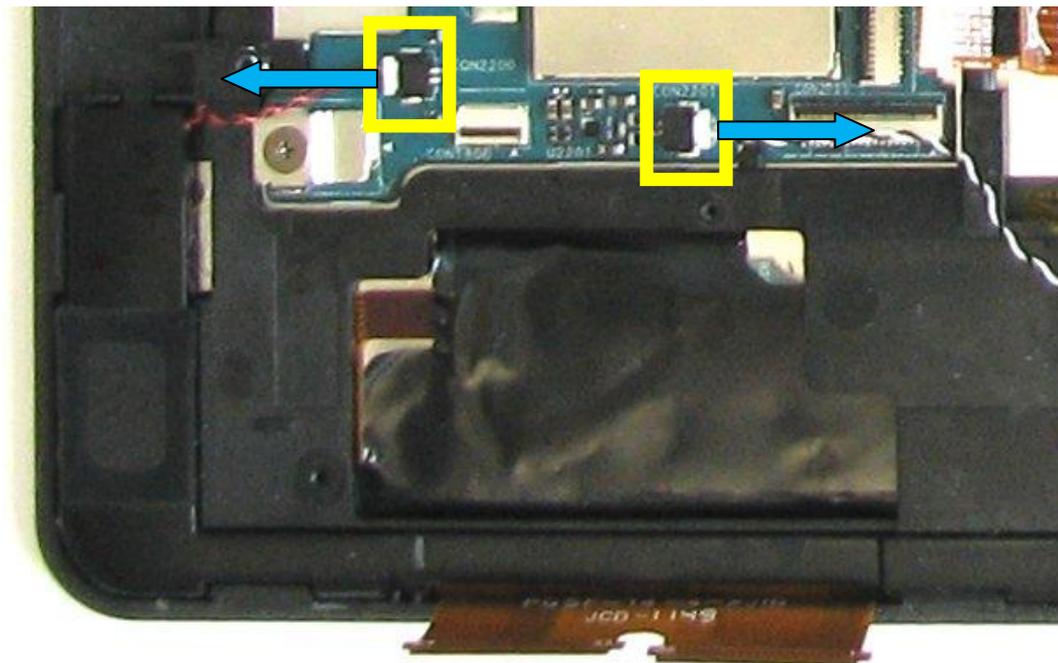
# Removing the LCD Assy

Preliminary steps required:

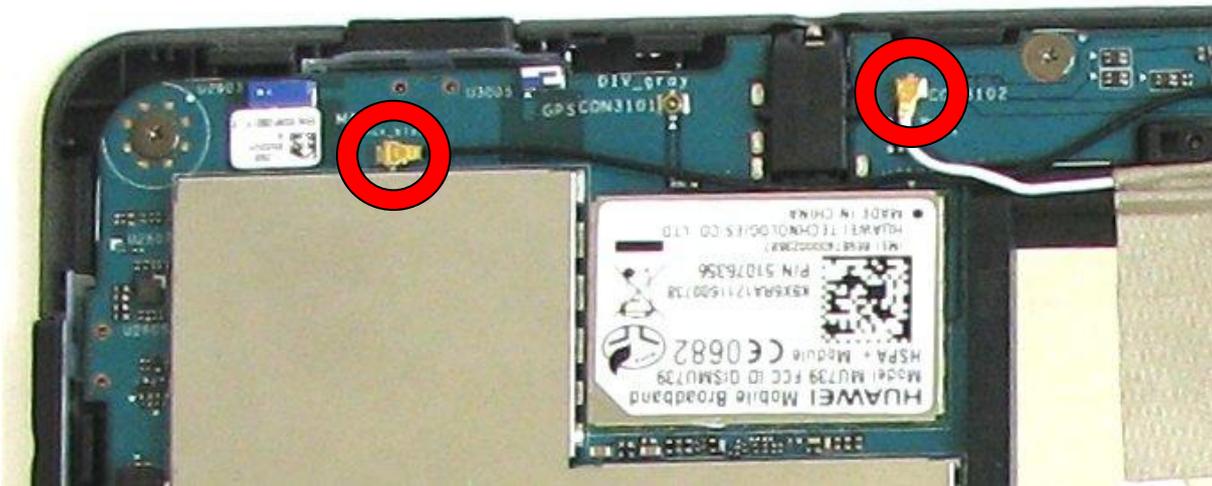
- Opening the Housing (removing the Lower Assy)
- Removing the Battery
- Removing the Front Camera Module (2M)
- Removing the Vibrator
- Removing the Card Reader Sub-Board
- Removing the Touch Panel Sub-Board
- Removing the Docking Connector Sub-Board



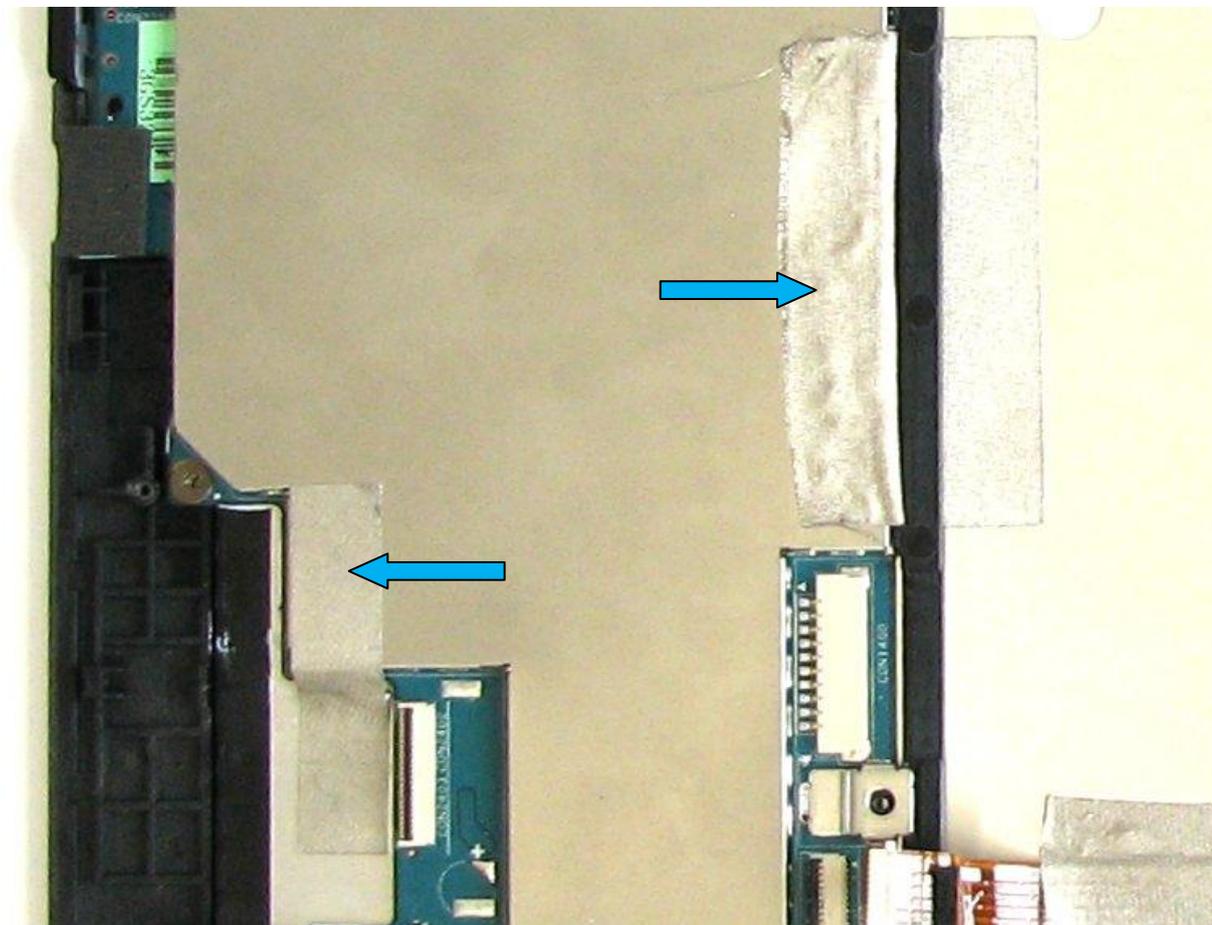
- ▶ Carefully open the lock of the connector on the sub-board (red box) and disconnect the cable in the direction of the green arrow.



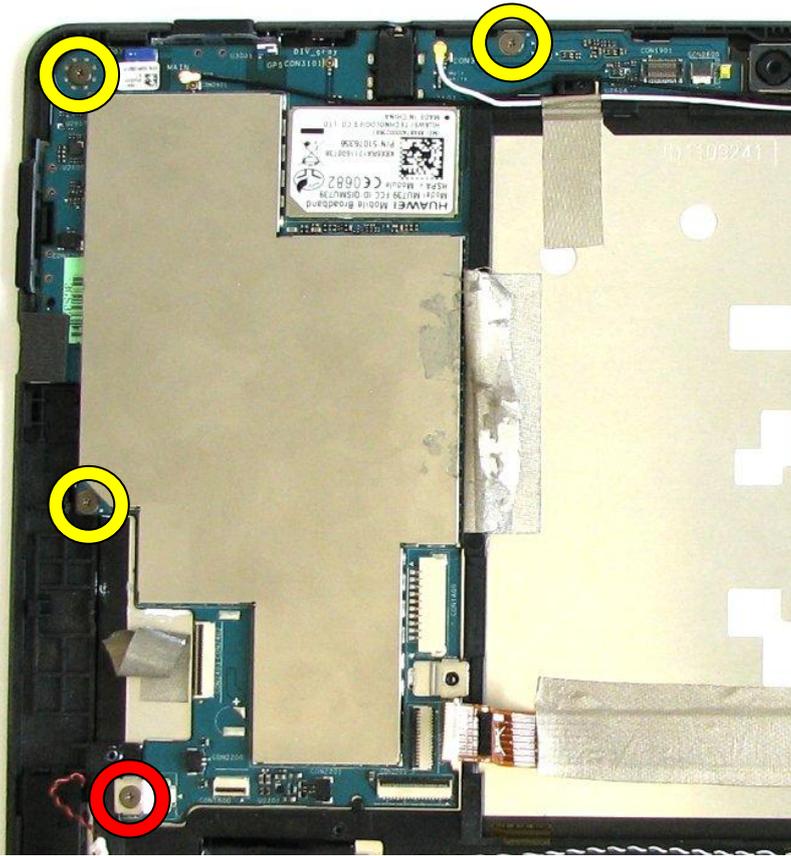
- ▶ Carefully disconnect the right and left speaker cables (yellow boxes) in the direction of the blue arrows.



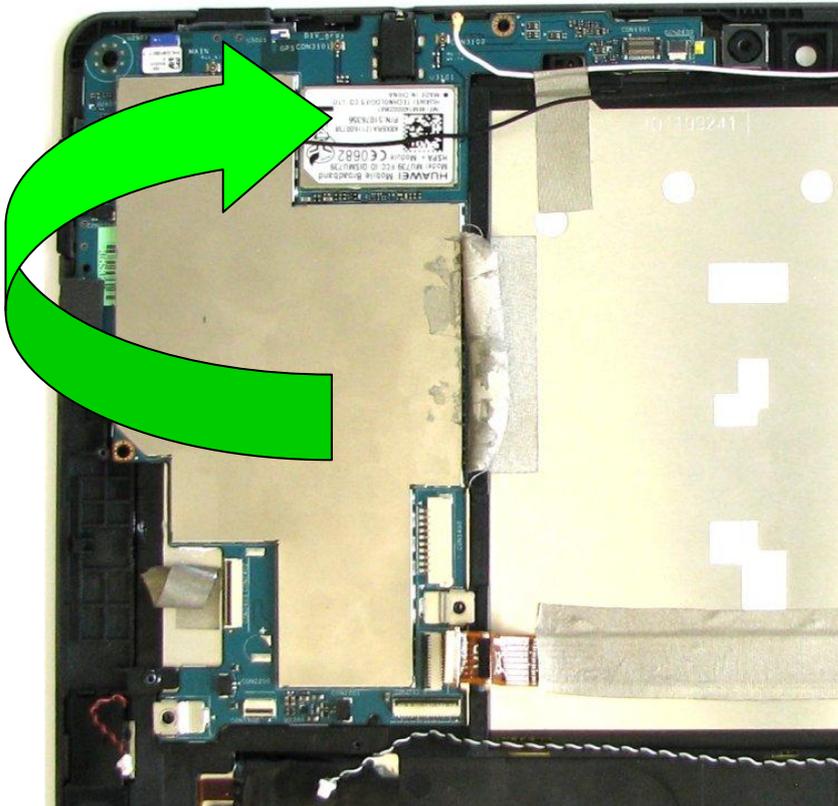
▶ Disconnect the two antenna cables (red circles) from the mainboard.



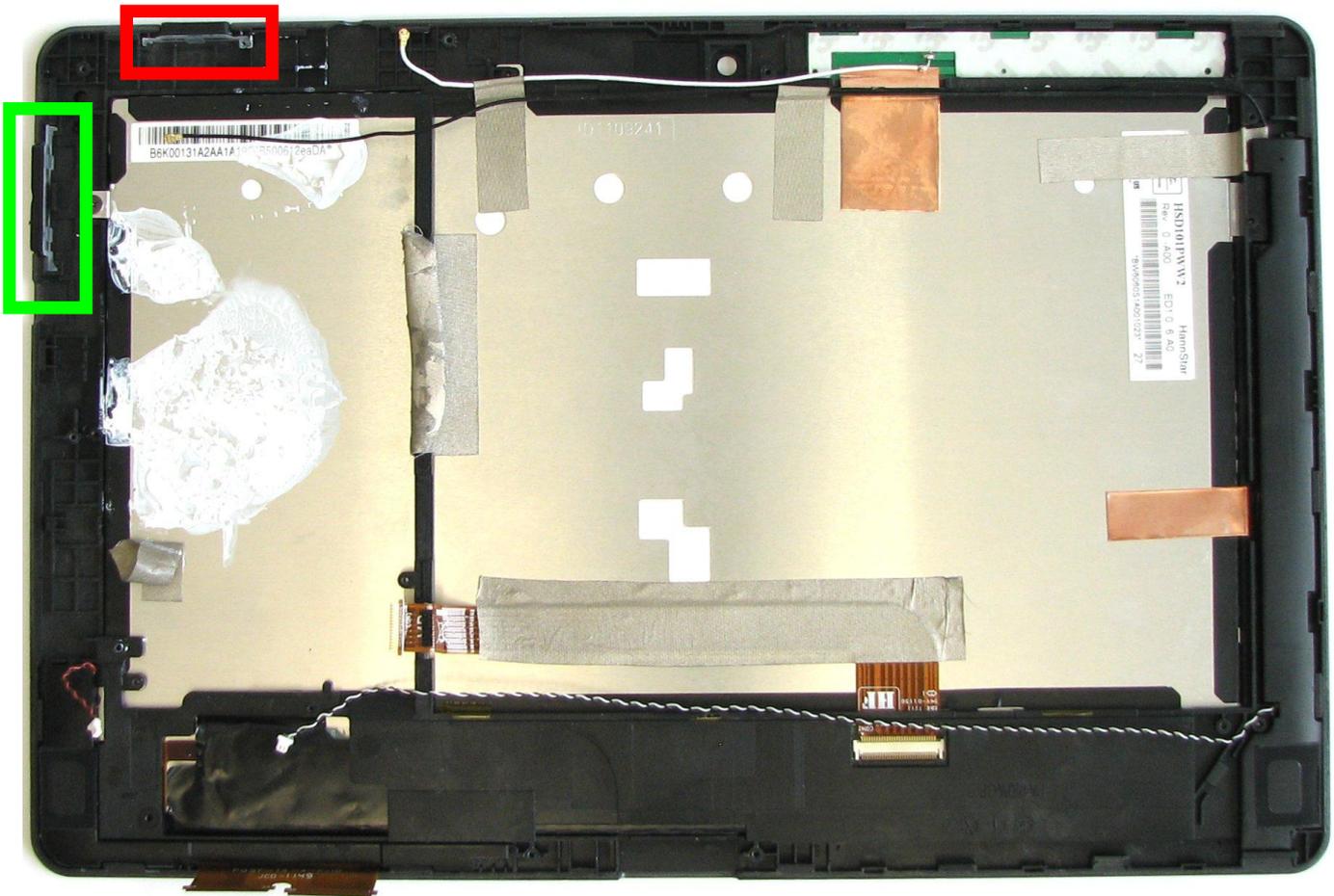
▶ Loosen the two tapes where they are fixed to the mainboard to the LCD Assy (blue arrows).



- ▶ Remove the three M1.4L3.3 screws [38020744] (yellow circles) and the M1.4L2.4 screw [38020743] (red circle).



- ▶ Now you can lift the mainboard including the Back Camera Module (8M) out of the housing, but please take extra care not to damage any of the other components and cables still inside the housing. Also, please note that the bottom of the mainboard is sticking to the LCD Assy due to Thermal Grease [38020746].



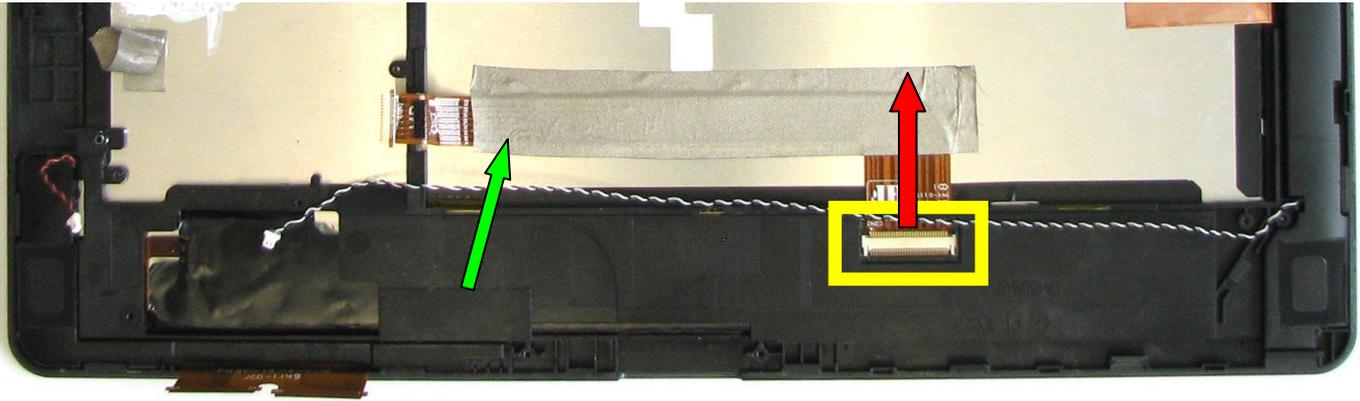
- ▶ Please note that the Volume UP/DOWN button (green box) and the Power ON/OFF button (red box) are assembled inside the LCD Assy and can easily be lost.

Volume UP/DOWN button [38020722]:



Power ON/OFF button [38020723]:



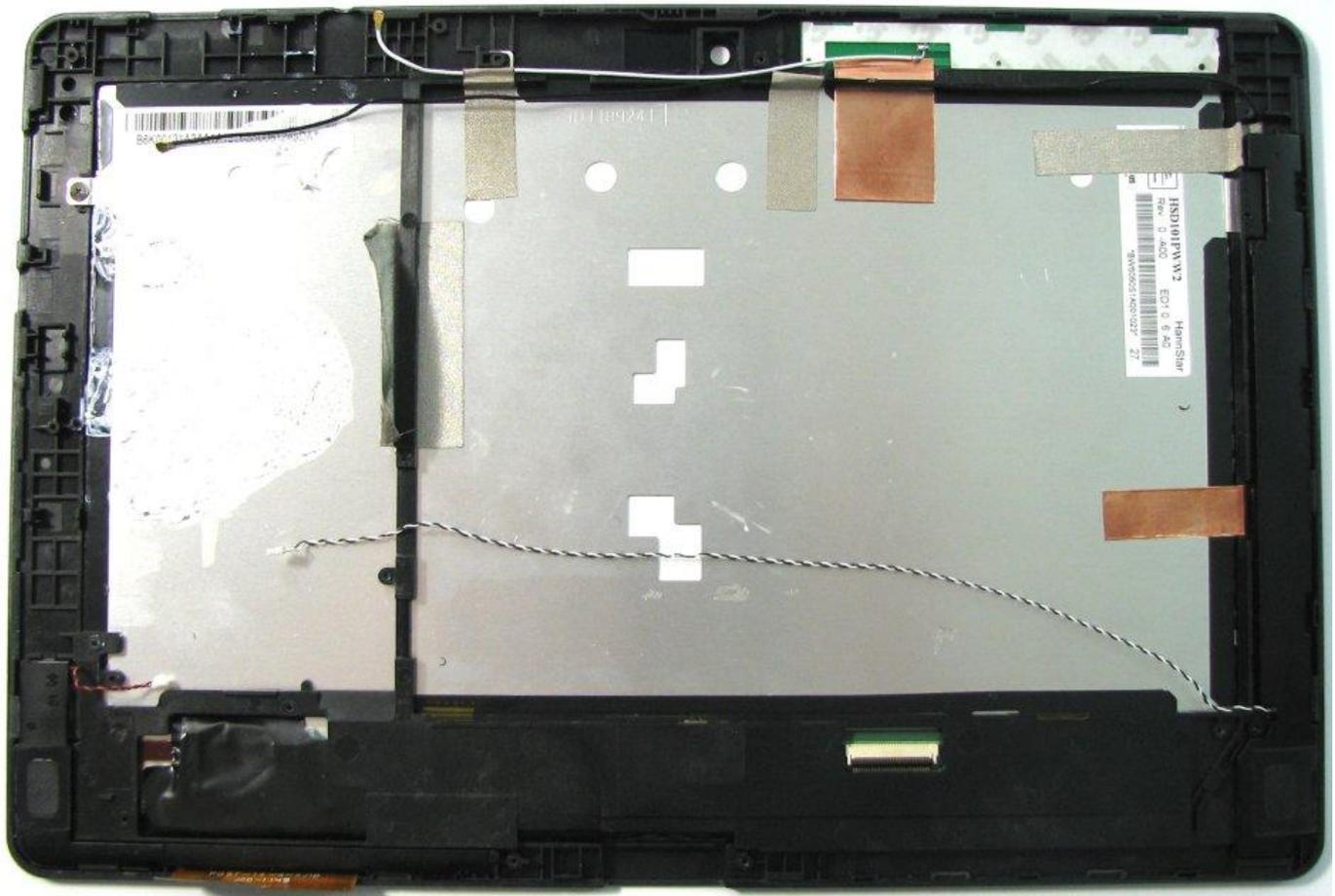


- ▶ Remove the tape (green arrow), carefully open the lock of the connector on the sub-board (yellow box) and then disconnect the cable in the direction of the red arrow.

LCD Cable [38020727]:



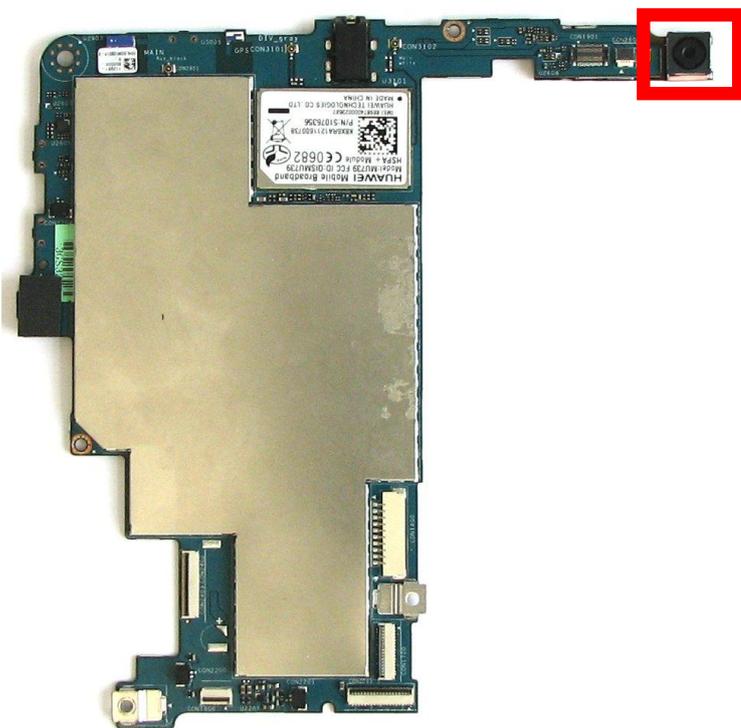
LCD Assy [38020703]:



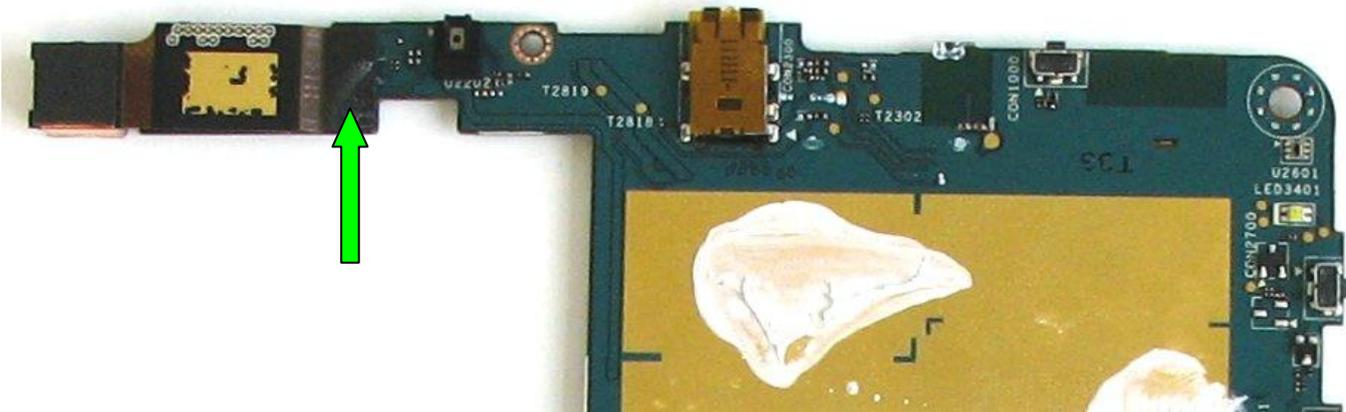
## Removing the Back Camera Module (8M)

Preliminary steps required:

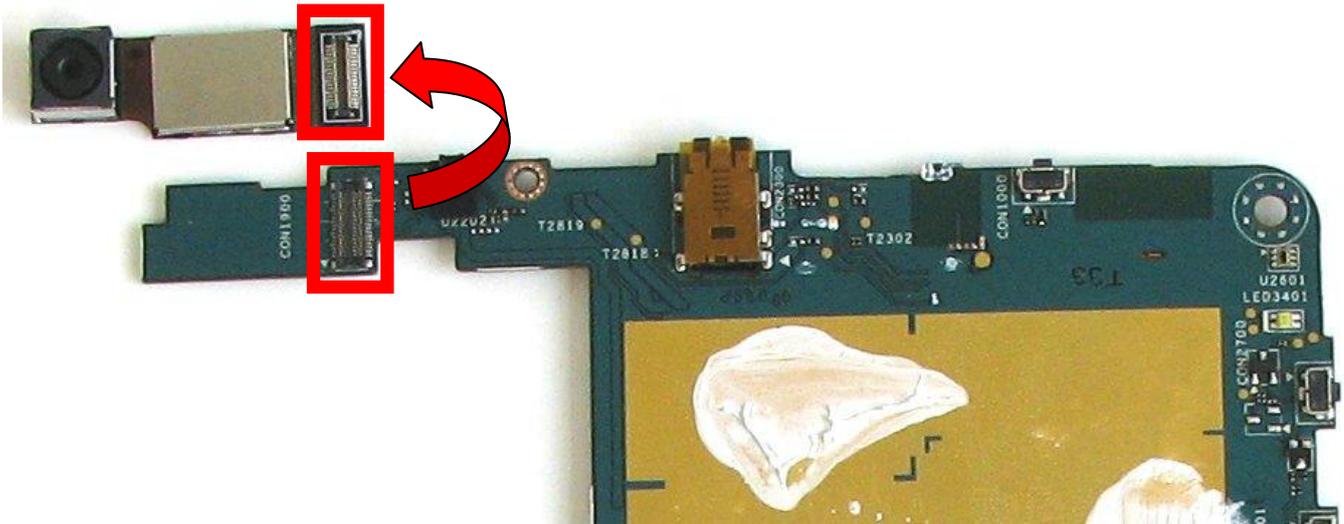
- Opening the Housing (removing the Lower Assy)
- Removing the Battery
- Removing the Front Camera Module (2M)
- Removing the Vibrator
- Removing the Card Reader Sub-Board
- Removing the Touch Panel Sub-Board
- Removing the Docking Connector Sub-Board
- Removing the LCD Assy



- ▶ To disconnect the Back Camera Module (8M) from the Mainboard (red box), turn the mainboard to bottom side.



- ▶ Carefully disconnect the Back Camera Module from its connector on the mainboard (green arrow). See picture on next page for clarification.



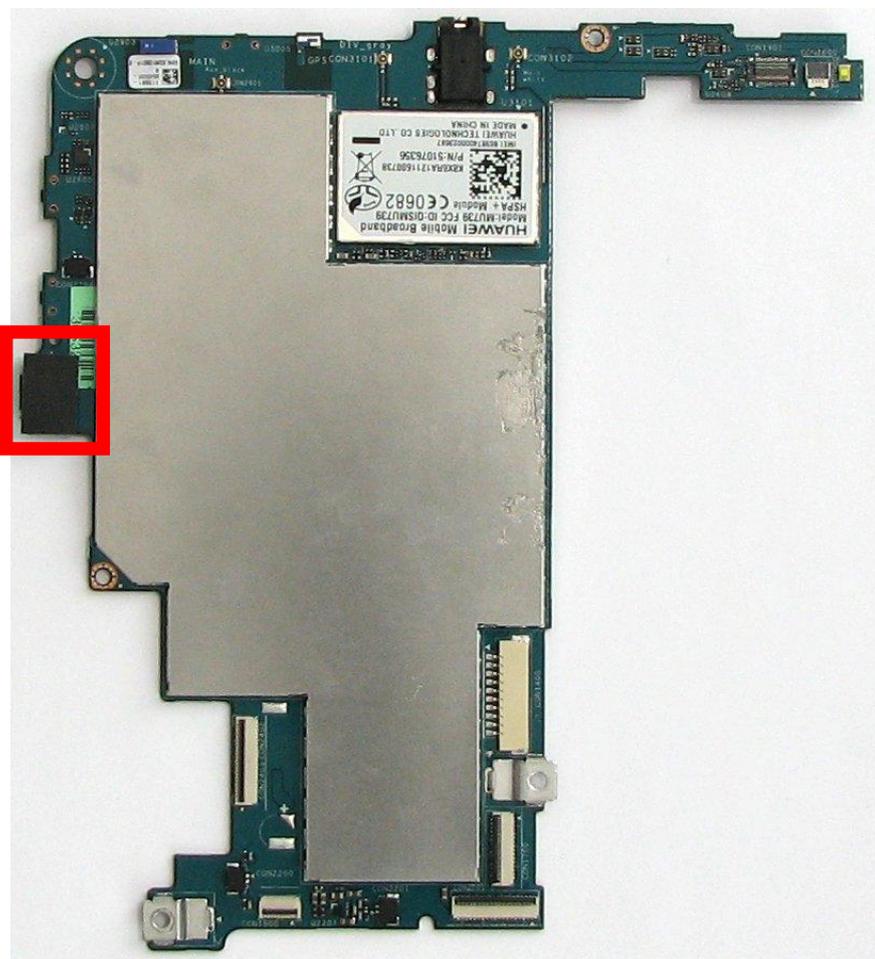
Back Camera Module (8M) [38020712]:



# Removing the Mainboard

Preliminary steps required:

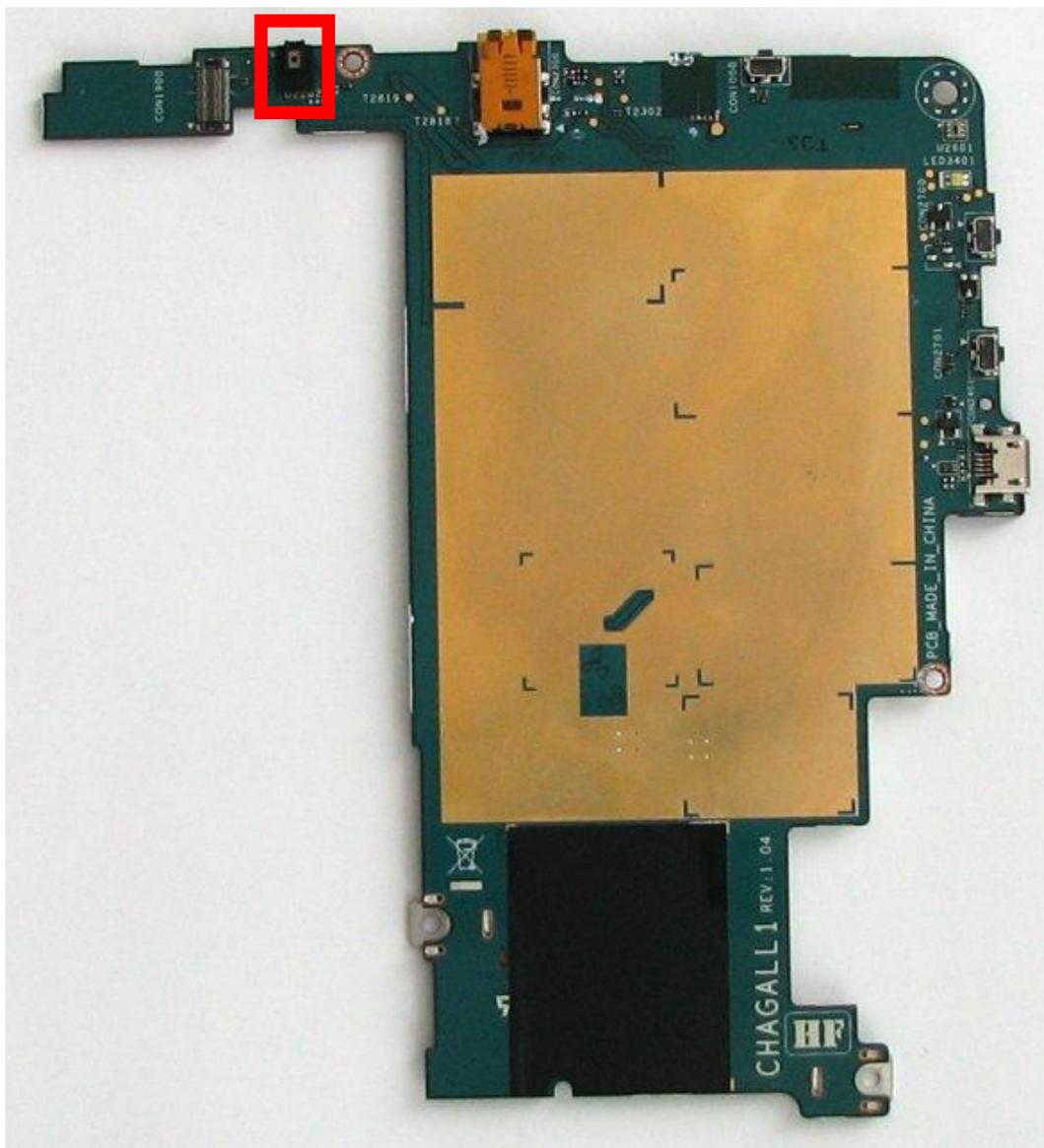
- Opening the Housing (removing the Lower Assy)
- Removing the Battery
- Removing the Front Camera Module (2M)
- Removing the Vibrator
- Removing the Card Reader Sub-Board
- Removing the Touch Panel Sub-Board
- Removing the Docking Connector Sub-Board
- Removing the LCD Assy
- Removing the Back Camera Module (8M)



- ▶ Carefully loosen the USB Rubber Cushion (red box) which is sticking to the mainboard with a tape.

USB Rubber Cushion [38020733]:



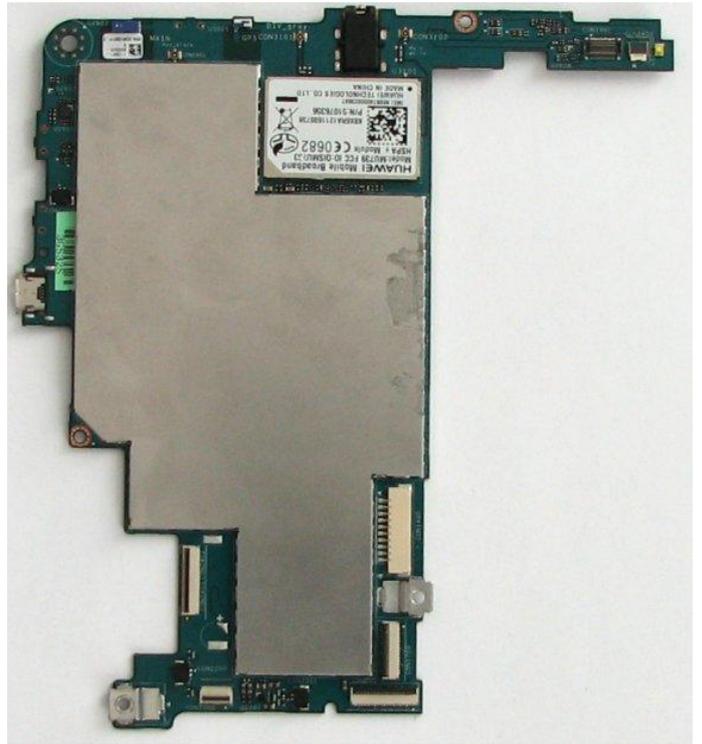
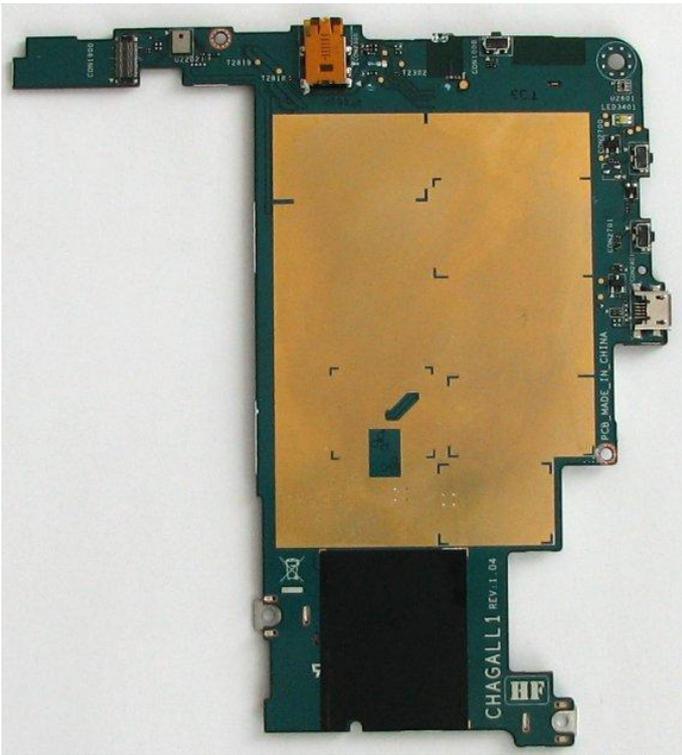


- ▶ Turn the mainboard to the other side and loosen the Microphone Rubber (red box).

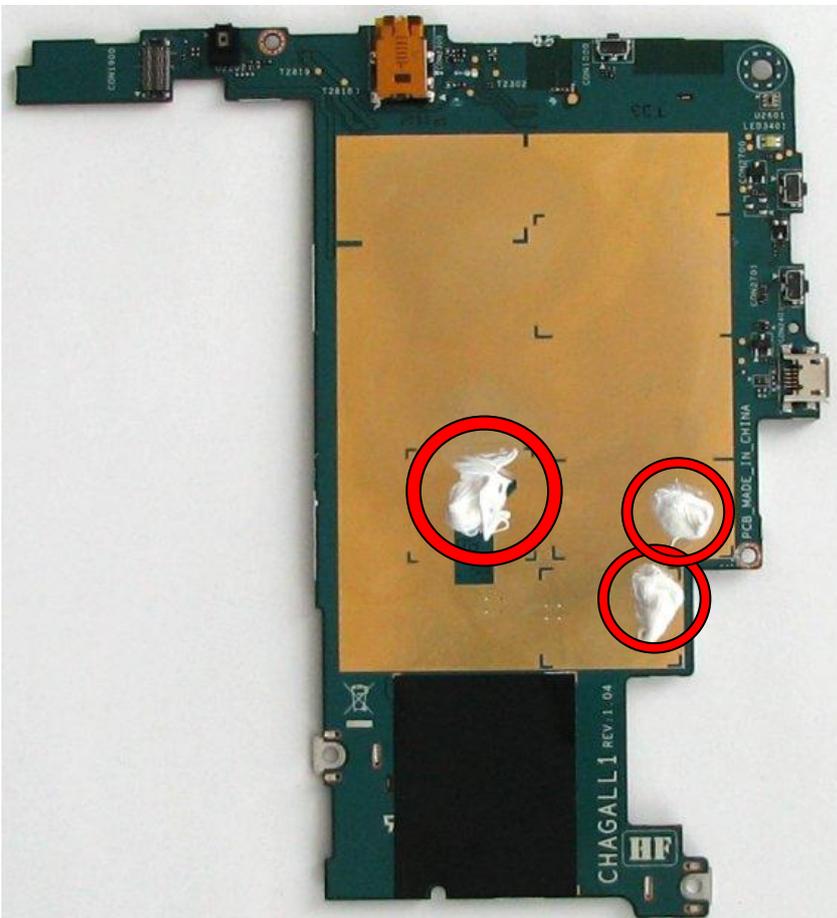
Microphone Rubber [38020724]:



Mainboard [38020706/38020707]:



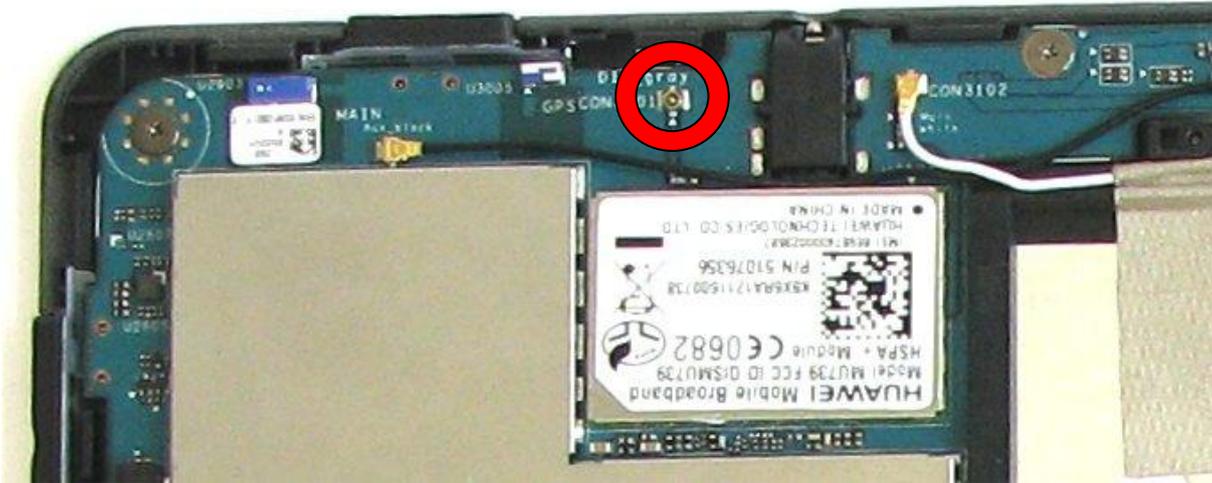
Please see the following picture as reference for re-assembly regarding attachment of Thermal Grease [38020746] (red circles):



## Information about GPS functionality

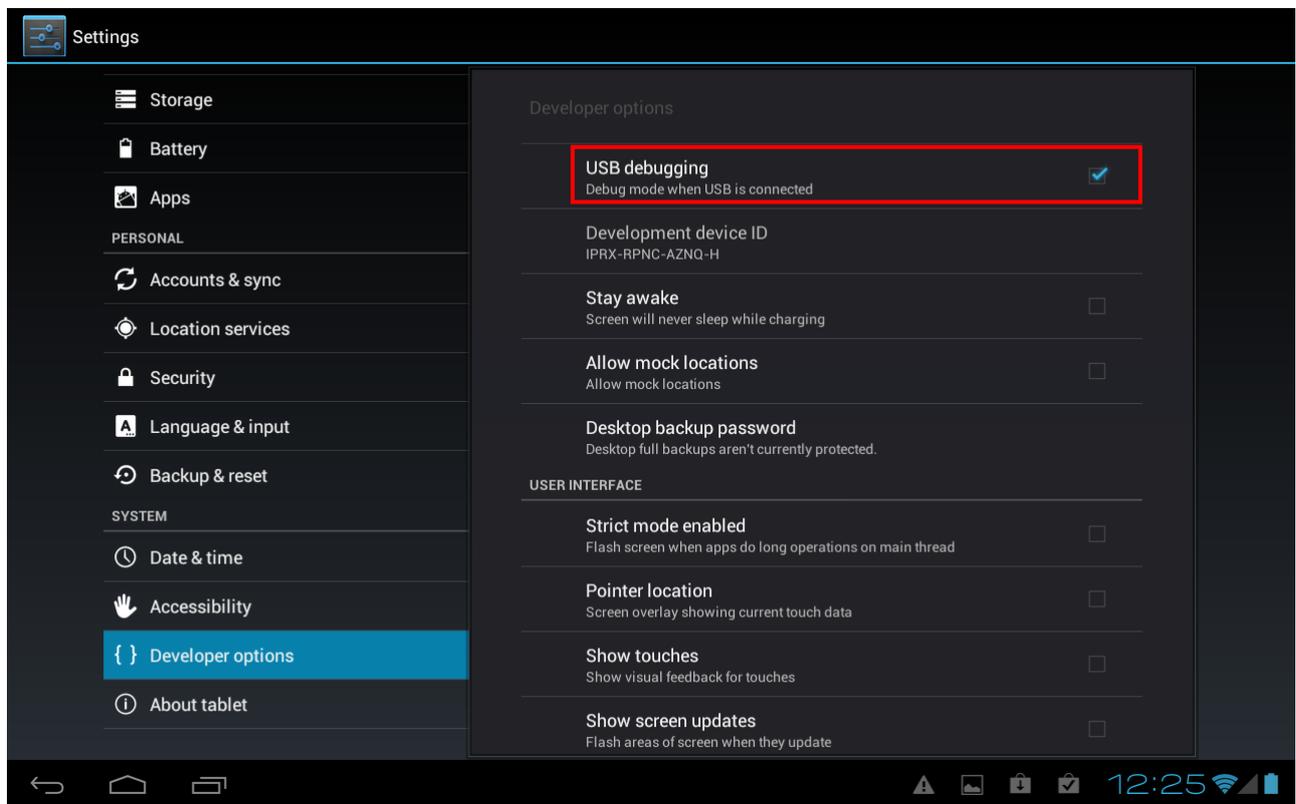
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- ▶ Please note that there is no separate GPS antenna cable or GPS module available as spare part.
- ▶ GPS is implemented as chip antenna on the mainboard (see image and red circle below) and there is no antenna cable attached to it.
- ▶ If you suspect that GPS does not work because of a hardware defect, it is necessary to replace the mainboard.



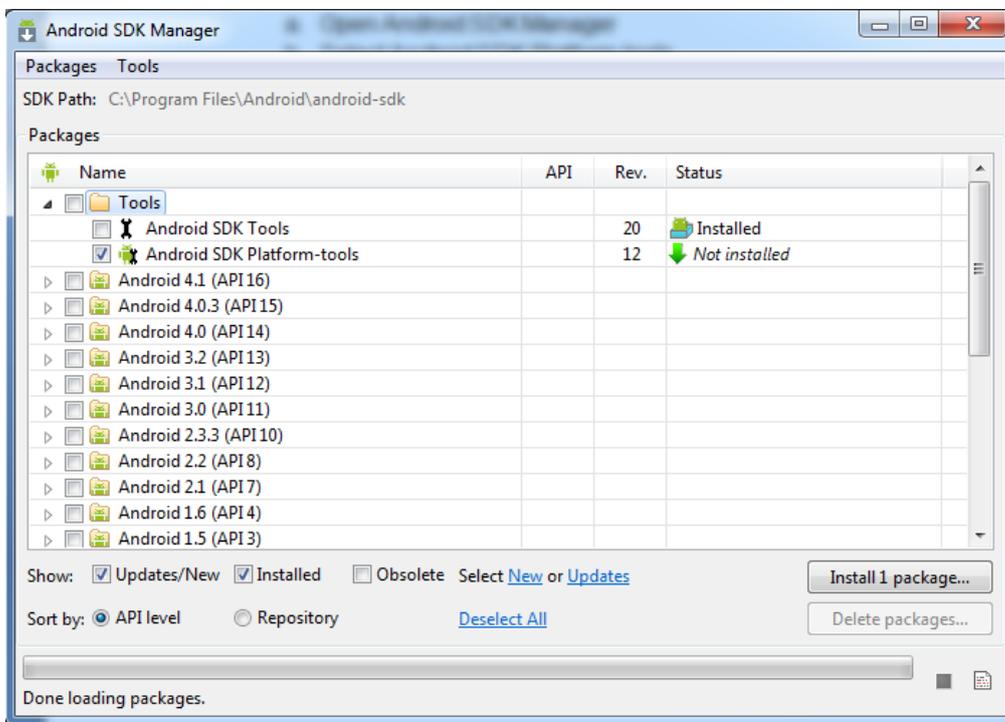
# Flashing the Serial Number

- ▶ After each mainboard replacement it is necessary to flash the serial number.
- ▶ Please download the required WriteSNTool.exe via the following web link:  
<http://docs.ts.fujitsu.com/dl.aspx?id=ce40166b-92cb-4050-aa6b-10a082a4e315>
- ▶ This section describes how to set up a work place for the flash procedure.
- ▶ It is recommended to install necessary software packages and perform the flash procedure on a system with MS Windows® 7 including latest updates and unrestricted Internet access.
- ▶ First make sure, that "USB debugging" is enabled under "Settings" → "Developer options". Otherwise the STYLISTIC M532 is not detected correctly when connected to the computer via USB.

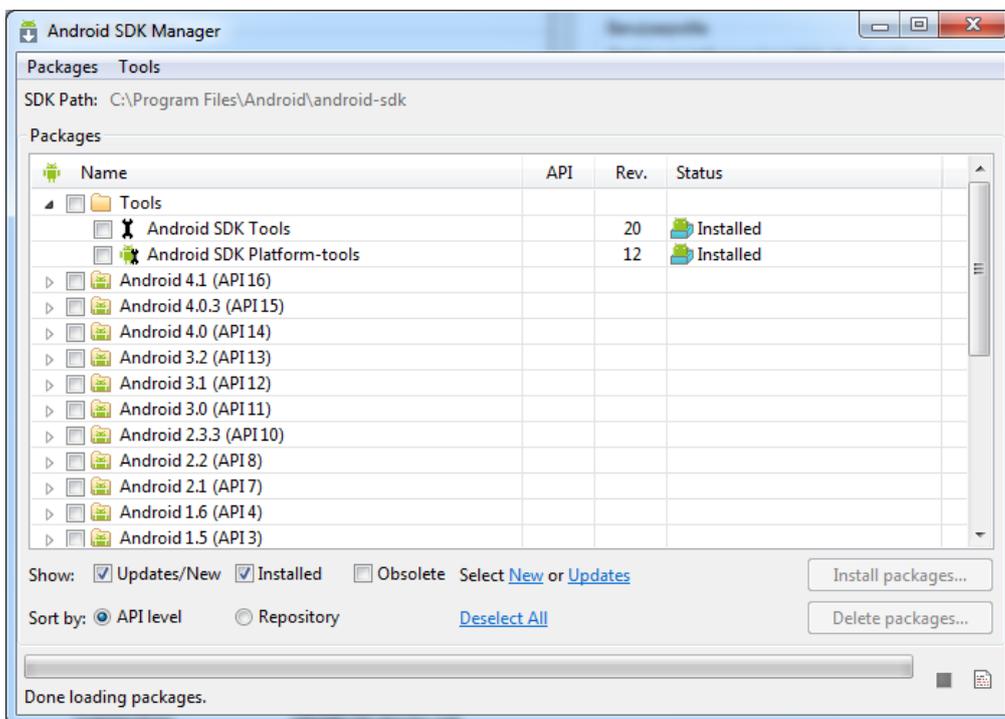


- ▶ Install Android SDK Tools from: <http://developer.android.com/sdk/index.html>  
Note: Android SDK Tools require Java Development Kit (Oracle). In case this software is missing, the Setup program will ask you to download and install JDK from a link. Without JDK the Android SDK Tools installation cannot be continued.

- ▶ Install Android SDK Platform-tools:
    - Open Android SDK Manager.
    - Select Android SDK Platform-tools and click on "Install 1 package...".
- Note: Other packages (for example "Android 4.1 (API 16)" and "Google USB Driver") are pre-selected, but not necessary. Therefore they can be deselected and do not need to be installed.

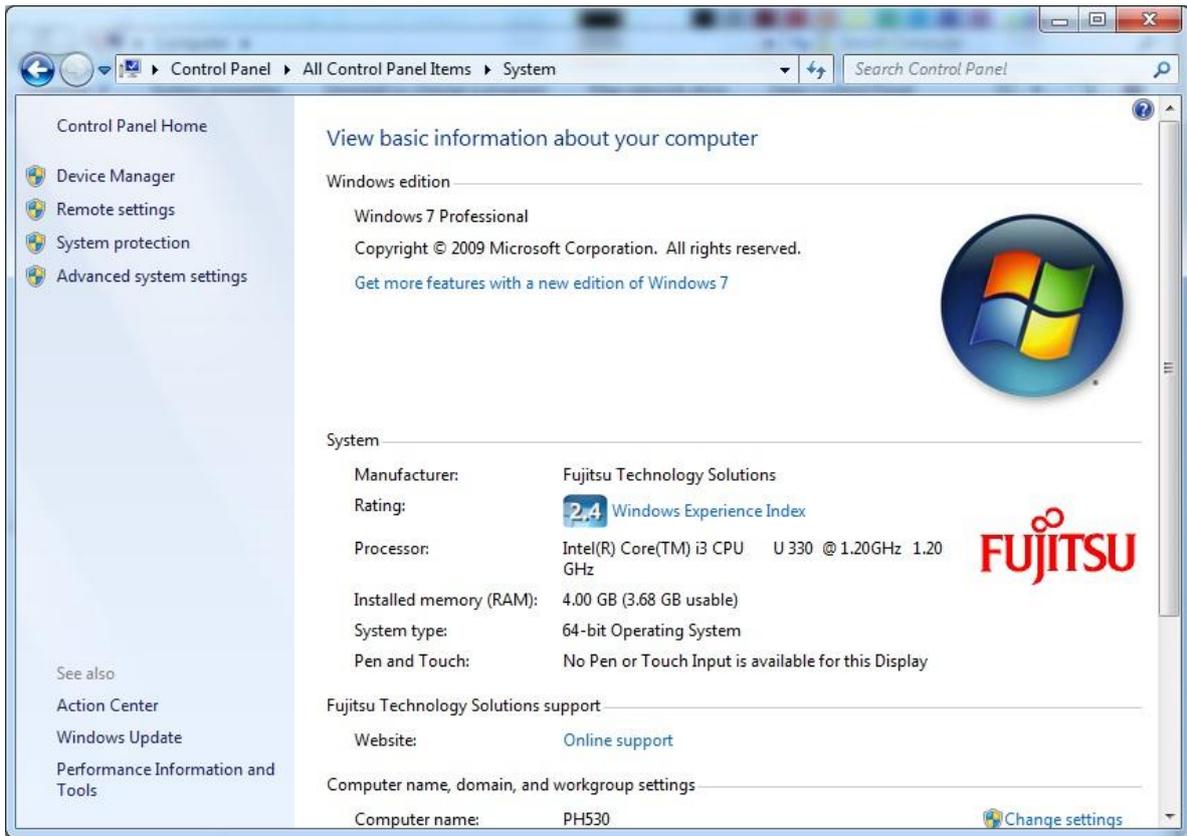


Installation ready:

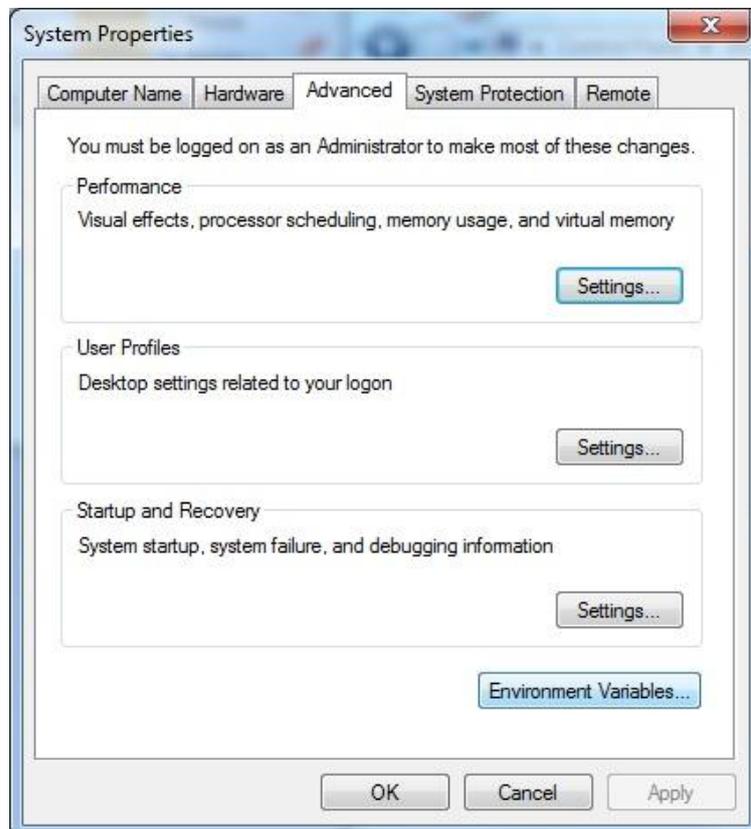


- Hint: If the additional Tools like Platform-tools are not displayed, your proxy settings might block this content!

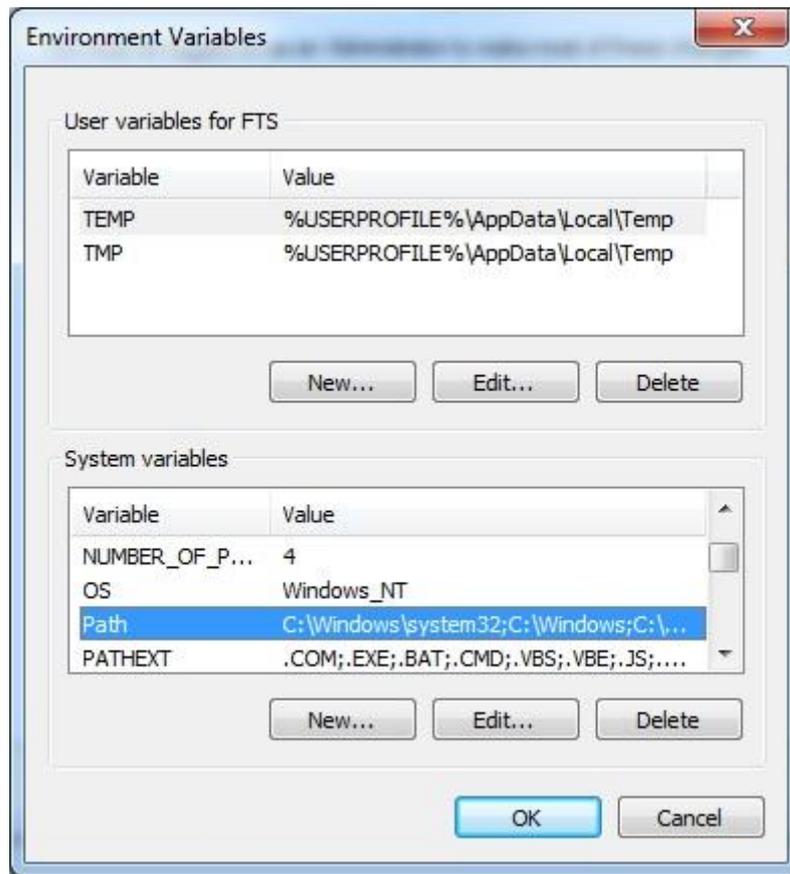
- ▶ Add the installation path of SDK Platform-tools to "Control Panel" → "System" → "Advanced system settings".



- ▶ "Advanced" → "Environment Variables...":



- ▶ "System variables" → "Path" → "Edit...":



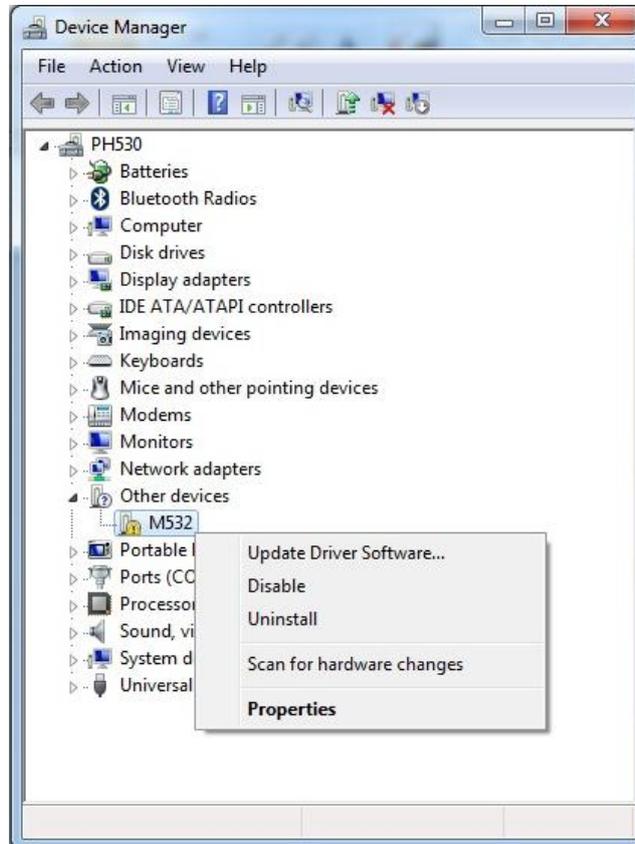
- ▶ Go to the end of Variable value, type a semicolon (;) and add the installation path of Android SDK Platform-tools (e.g. C:\Program Files\Android\android-sdk\platform-tools).  
Note: Do not add any space after the last path or after the semicolon. Otherwise the S/N tool will not detect the connected STYLISTIC M532.



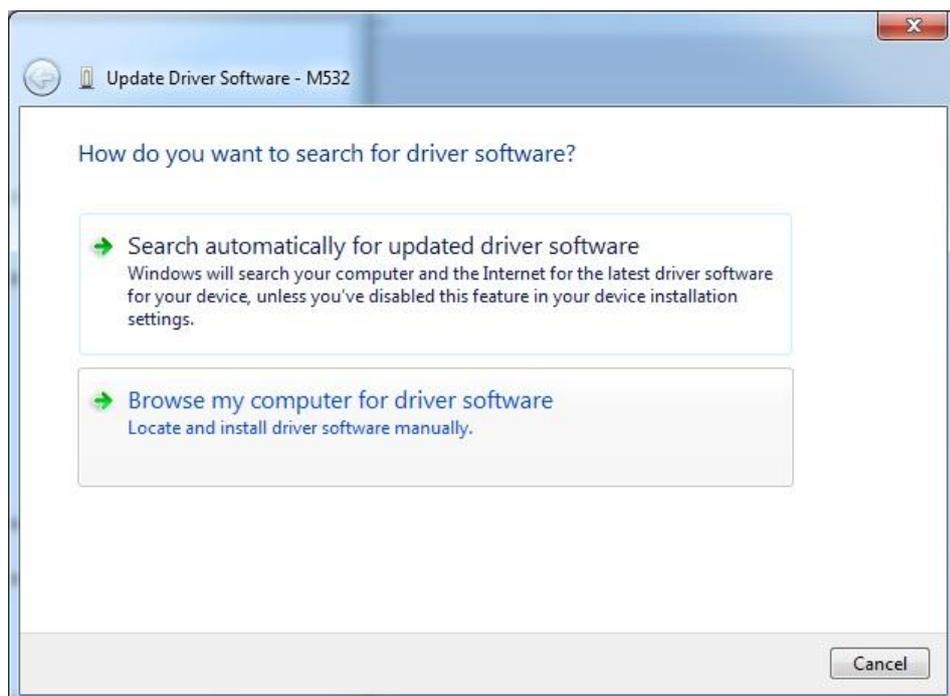
- ▶ Install .NET Framework 4.5 (Beta) from: <http://www.microsoft.com/en-us/download/details.aspx?id=28978>
- ▶ Connect the STYLISTIC M532 via USB to the computer using the USB Sync Cable.

- ▶ Install the driver for M532 from:  
<http://support.ts.fujitsu.com/download/Showdescription.asp?SoftwareGUID=EA34643B-37EA-4F7D-B897-EF094BF9E811>
- Because the M532 is already recognized in the Device Manager, the driver has to be updated.

Right mouse click to "M532" → "Update Driver Software...":



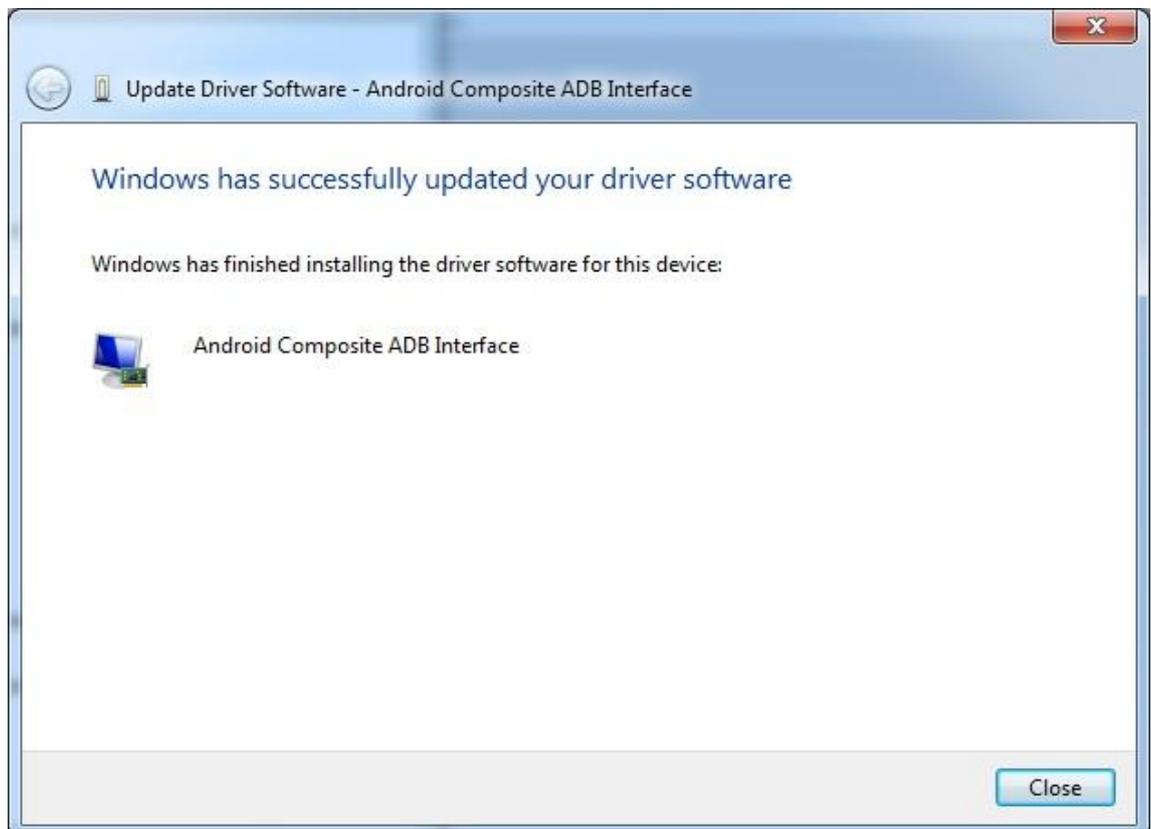
- "Browse my computer for driver software".



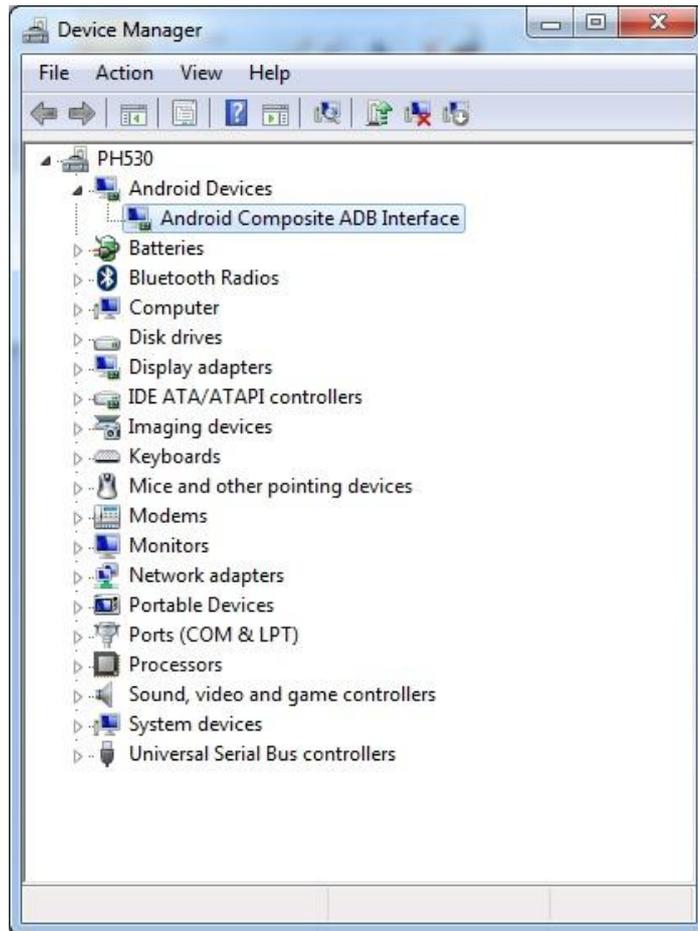
- Browse for the path where you unzipped the downloaded driver → "Next".



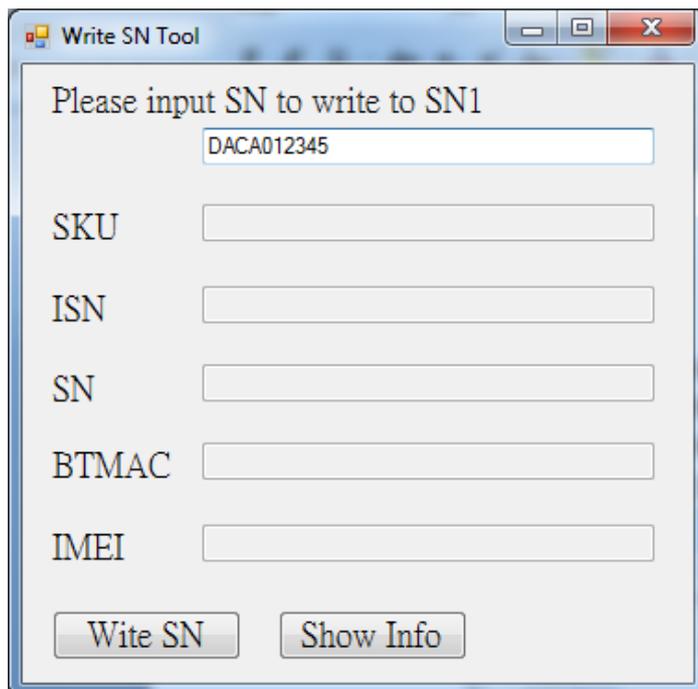
- "Close":



- Installation successful:



- ▶ Start WriteSNTTool.exe input serial number and click "Write SN".



- ▶ **Note:** After successfully writing the serial number the STYLISTIC M532 will restart automatically which will take about 30 seconds.
- ▶ If necessary, please disable "USB debugging" under "Settings" → "Developer options" again, if it had been disabled originally.

# Flashing the Software image to another SKU

- ▶ The STYLISTIC M532 is shipped in several variants depending on the country/region (SKU). Currently, there are three different SKUs of the STYLISTIC M532: UK, France and rest of EMEA. As the mainboard of the system includes the flash memory with the software image (Android operating system and additional software depending on the country/region), it might be necessary to change the pre-installed software image of a new or refurbished mainboard to another software image for a different SKU.
- ▶ This section describes how to flash the software image of a STYLISTIC M532 to the version of a different country/region (SKU) using the "Recovery Mode" of the STYLISTIC M532.
- ▶ Download the required software package via the following web link:  
<http://docs.ts.fujitsu.com/dl.aspx?id=a8d8bdc9-59d0-4342-9810-809b095f8882>
- ▶ To perform the flash procedure you need a computer with SD-Card Reader, a MicroSD-Card and if necessary a MicroSD-to-SD-Card adapter to access the MicroSD-Card on the computer.
- ▶ **Note:** Performing the flash procedure will delete all data on the STYLISTIC M532!
- ▶ Download the ZIP file mentioned on the previous page and extract its contents to a directory on your hard disk.
- ▶ Download the software image of the desired SKU from <http://support.ts.fujitsu.com/Download/>:
  - Select product line: **Mobile Devices**
  - Select product group: **STYLISTIC**
  - Select product family: **STYLISTIC M532**
  - Pre-selected operating system is already: **Google Android 4 (IceCreamSandwich)**
  - Open category: **Other**
  - Open section: **Software**
  - Download the software image of the desired SKU.
- ▶ First, it is necessary to downflash the STYLISTIC M532 to a specific software image making it possible to flash a software image for a different SKU in an additional step.
- ▶ Use the computer to delete all contents of your MicroSD-Card for example by formatting it to make sure that other files do not interfere during the flash procedure.
- ▶ Copy the file "update\_cv\_FFFFF.pkg" to the root directory of the MicroSD-Card.
- ▶ Copy the file of the software image of the desired SKU (e.g. "CHAGALLF06005.pkg") to the root directory of the MicroSD-Card.
- ▶ Connect the STYLISTIC M532 to its power adapter. It is **not** recommended to perform the Flash procedure while being in battery mode!
- ▶ Turn on the STYLISTIC M532 and press the Power Button for approximately two seconds. A message will appear: **Power off: Would you like to shut down?** Select **OK**. It will take a few seconds until the STYLISTIC M532 is turned off.
- ▶ Insert the MicroSD-Card with the software image files into the card slot of the STYLISTIC M532.
- ▶ Press the Power Button to turn the system on again. When you see the Droid logo on the screen (see below), press and hold the Power Button and then press the Volume Up Button for approximately two seconds and then release them together to enter the Recovery menu which will take several seconds.
 

**Note:** If you do not see the Recovery menu, but the Fujitsu logo instead, it means that entering the Recovery menu failed and you need to reboot the system again and repeat the procedure.



- ▶ Use the Volume Up/Down keys to go to **wipe data/factory reset** and the Power Button to select it.
- ▶ Use the Volume Up/Down keys to go to **Yes – delete all user data** and the Power Button to select it.
- ▶ It will take several minutes until factory reset is finished.
- ▶ Finally, you will see the Recovery menu again.
- ▶ Use the Volume Up/Down keys to go to **apply update from external storage** and the Power Button to select it.
- ▶ Use the Volume Up/Down keys to go to **update\_cv\_FFFFF.pkg** and the Power Button to select it.
- ▶ After the Flash procedure you will see the Recovery menu again.
- ▶ Use the Volume Up/Down keys to go to **reboot system now** and the Power Button to select it.

- ▶ Please let the system reboot and enter Android operating system again, which will take several minutes and includes another reboot.
  - ▶ Wait until everything is finished and you are asked to select the desired language. Then press the Power Button for approximately two seconds. A message will appear: **Power off: Would you like to shut down?** Select **OK**. It will take a few seconds until the STYLISTIC M532 is turned off.
  - ▶ Now it is possible to flash the software image of the desired SKU.
  - ▶ Press the Power Button to turn the system on again. When you see the Droid logo on the screen (see below), press and hold the Power Button and then press the Volume Up Button for approximately two seconds and then release them together to enter the Recovery menu which will take several seconds.
- Note:** If you do not see the Recovery menu, but the Fujitsu logo instead, it means that entering the Recovery menu failed and you need to reboot the system again and repeat the procedure.



- ▶ Use the Volume Up/Down keys to go to **apply update from external storage** and the Power Button to select it.
- ▶ Use the Volume Up/Down keys to go to the file of the software image of the desired SKU (e.g. **CHAGALLF06005.pkg**) and the Power Button to select it.
- ▶ It will take several minutes until the Flash procedure is finished and finally you will see the Recovery menu again.
- ▶ Use the Volume Up/Down keys to go to **reboot system now** and the Power Button to select it.
- ▶ Please let the system reboot and enter Android operating system again, which will take several minutes and includes another reboot.
- ▶ Wait until everything is finished and you are asked to select the desired language. Then press the Power Button for approximately two seconds. A message will appear: **Power off: Would you like to shut down?** Select **OK**. It will take a few seconds until the STYLISTIC M532 is turned off.
- ▶ Now the software image of the desired SKU has been installed successfully on the STYLISTIC M532.