

Trouble Shooting Guide

- mechanical -



Xperia L2
H3311, H3321,
H4311 (Dual SIM), H4331 (Dual SIM)

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Always firstly disconnect the Battery connector to cut off power supply when the Battery Cover Assy is disassembled.

Always finally connect the Battery connector before the Battery Cover Assy is reassembled.

Note: After replacing the Main PBA & the Front Cover Assy, calibration by CS-Everest and Flashing Customize by Emma is required.

Calibration tool “CS-Everest 1309-7255” is available at Repair Information.

It is posted under the RE4251: Repair Mechanical – Tools and Equipment (including Repair Software).

Aged Battery Reset in EMMA must be performed when the Battery is replaced (installed the brand new Battery) in order to delete the battery log data.

1 Problem Areas

1.1 Power

1.1.1 Will not power on or will switch off randomly

Check:

Check if the phone vibrates by holding on/off key.

Action:

1. If activation of vibrator is detected, but no display, refer to section 1.4 'Display'.

2. If no activation of vibrator is detected and no display, by pressing the on/off key, perform force shut down, press power key and volume up key for 15 seconds and then power on the unit again.

3. If still no activation of the vibrator is detected and no display, check that the battery is charging when connected to a charger

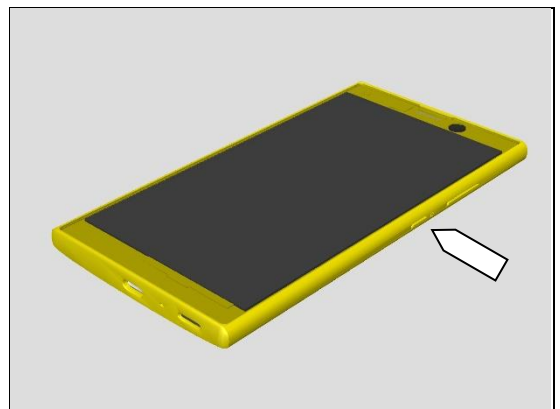
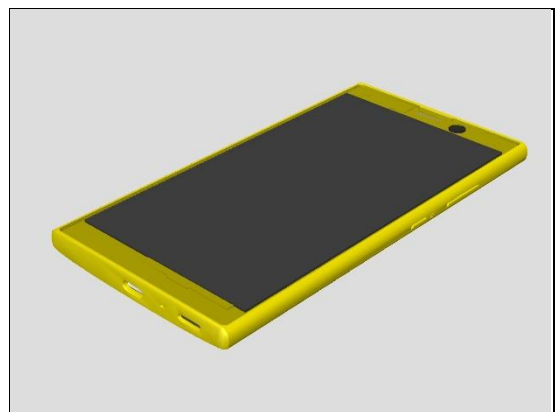
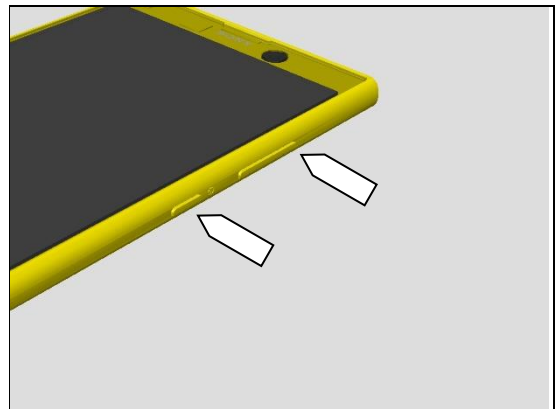
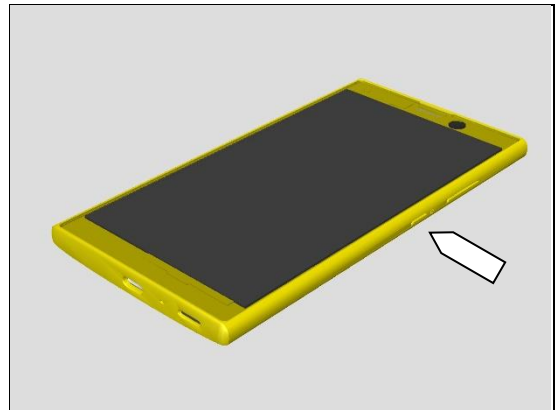
Follow Test Instruction - mechanical chapter 2.5.5 (Charging via Charger or Computer), Diagnostic Battery/Charging status.

Check:

Inspect the on/off key.

Action:

Refer to section 1.2 'Volume, On/Off Key'.



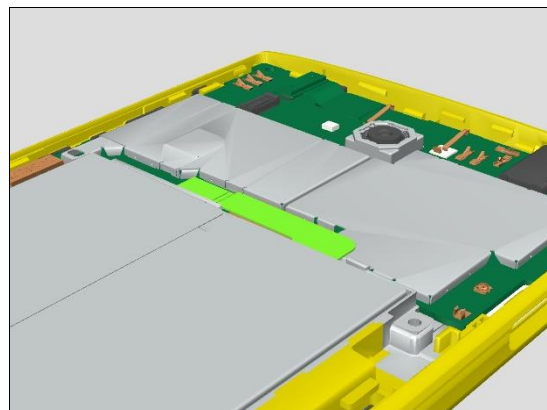
Problem Areas: Power

Check:

Inspect the Battery connector to the PBA Main.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.

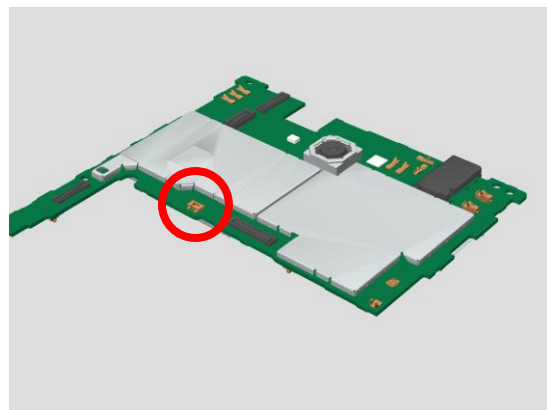


3. If the FPC of the Battery is damaged – replace the Battery.



4. If the BtB connector on the PBA Main is damaged –replace the PBA Main.

Note! SL3 and above can replace the J2101.



Problem Areas

1.2 Keys

1.2.1 Back, Menu, Home and Task Keys

Action:

1. Refer to section 1.3 'Touch Screen'.



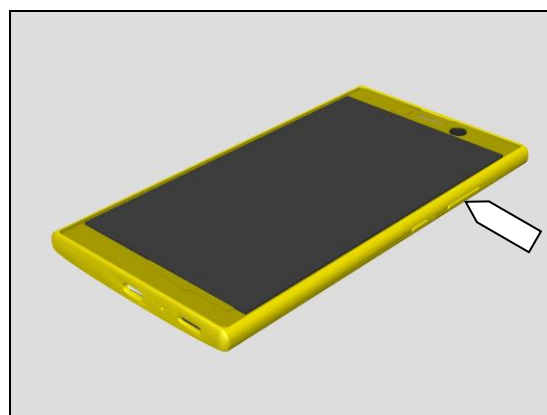
1.2.2 Volume, On/Off Key

Check:

Inspect the external area of the Volume, On/Off Key.

Action:

1. If dirty – clean it.
2. If damaged – replace the Key Power/Vol.

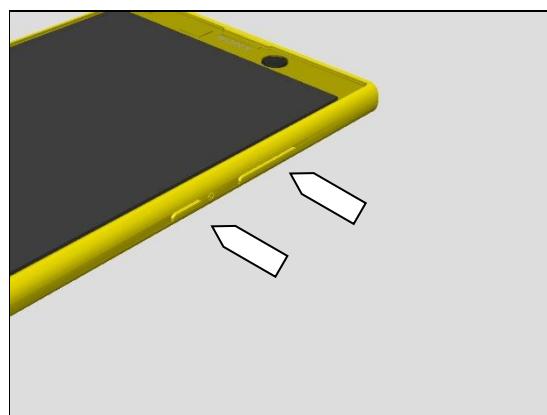


Check:

Inspect the condition of internal area of Key Power/Vol and SW on the PBA Main.

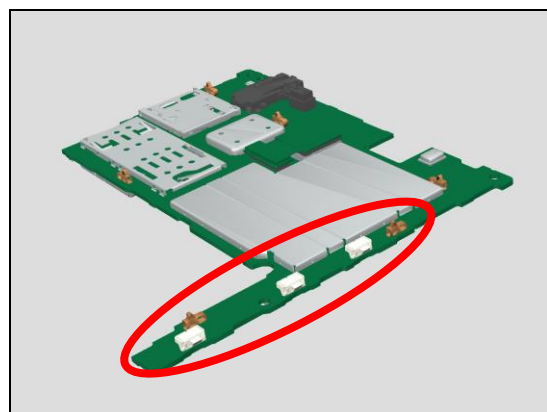
Action:

1. If dirty – clean them.
2. If the Key Power /Vol is damaged - replace the Key Power/Vol.



3. If SW on PBA Main is damaged – replace the PBA Main.

Note! SL3 and above can replace the SW6501, SW6502 and SW6503.



Problem Areas

1.3 Touch Screen

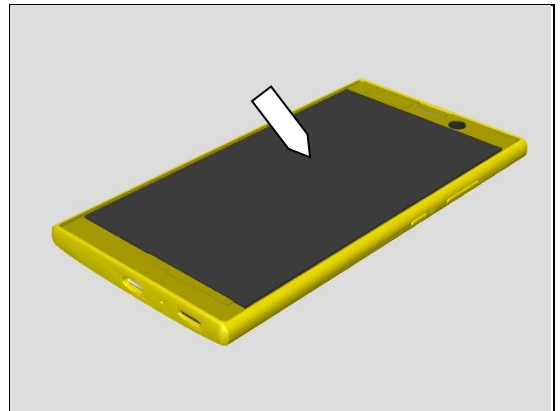
1.3.1 Touch Screen malfunction

Check:

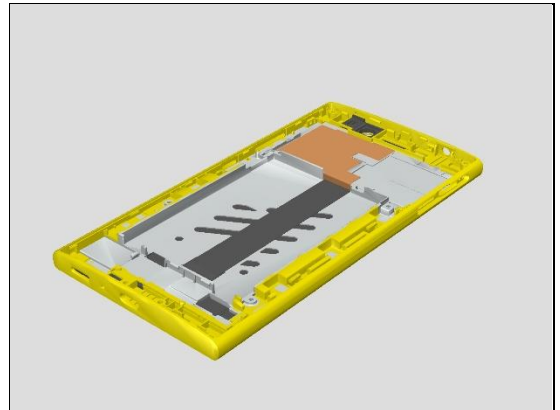
Inspect the touch screen of the Front Assy.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Front Assy.

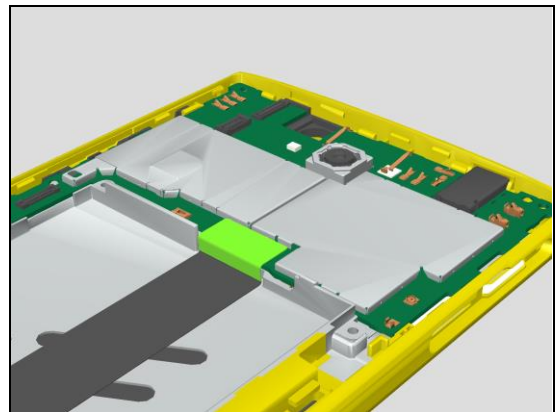


Check:

Inspect the BtB connector of the Display FPC to the Main PBA.

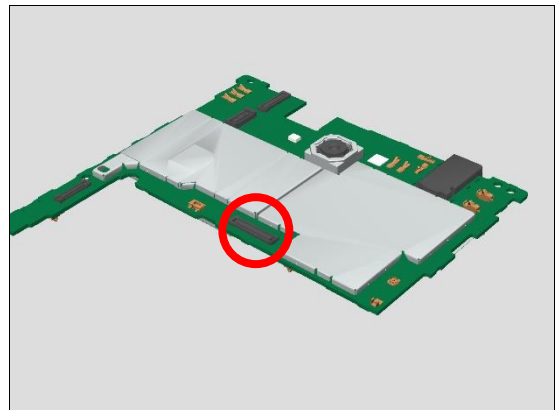
Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the Display FPC is damaged – replace the Front Assy.
4. If the BtB connector on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the J6101.



Problem Areas

1.4 Display

1.4.1 Graphics & illumination

Check:

Check whether the phone vibrates after the On/Off Key has been pressed.

Action:

1. If the activation described above is not detected, refer to section 1.1 'Power'.

2. If the Front Assy is damaged – replace it.

Check:

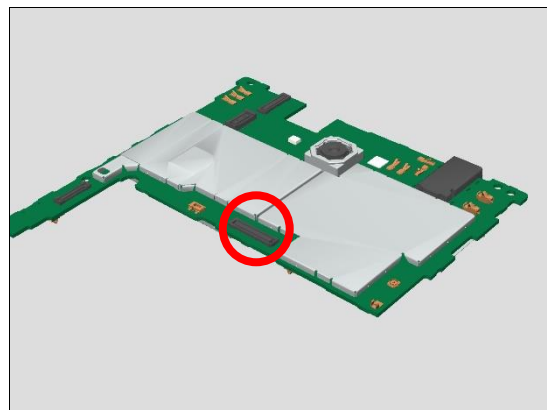
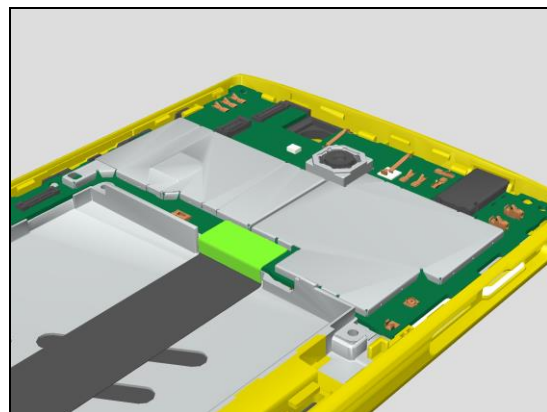
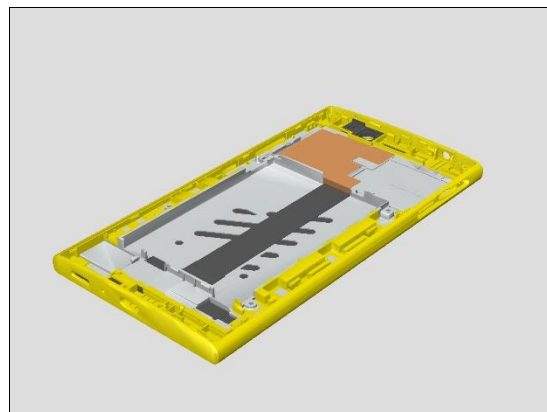
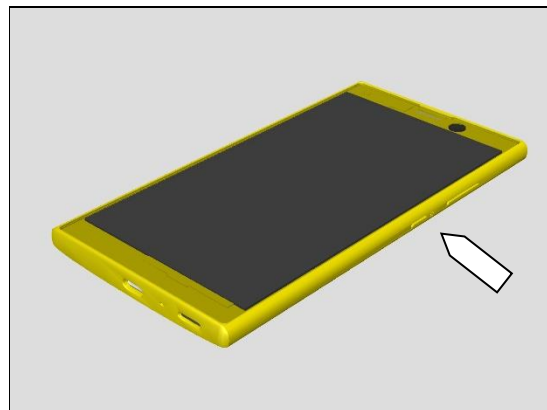
Inspect the BtB connector of Display FPC to the Main PBA.

Action:

1. If not properly connected – disconnect and replace it.
2. If dirty or oxidized – clean it.

3. If the Display FPC is damaged – replace the Front Assy.
4. If the BtB connector on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the J6101.



Problem Areas

1.5 LED/Illumination

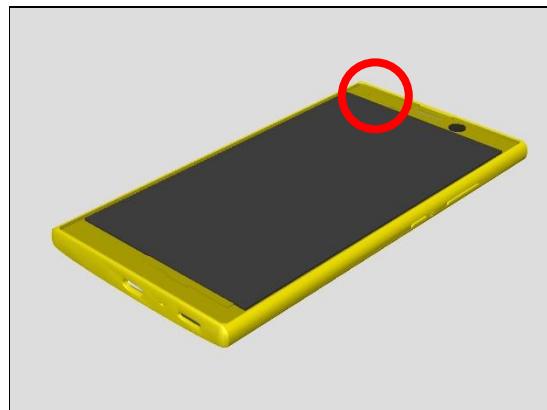
1.5.1 LED/Illumination

Check:

Inspect external window area of Notification LED on the Front Assy.

Action:

1. If dirty – clean it.

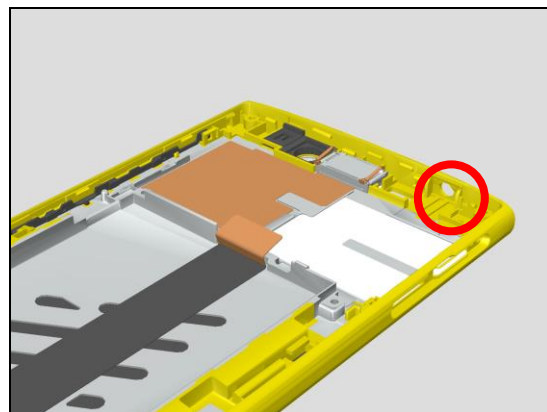


Check:

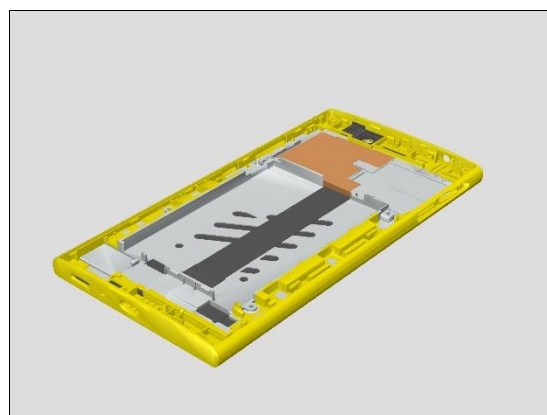
Inspect the Light Guide of Notification LED.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Front Assy.



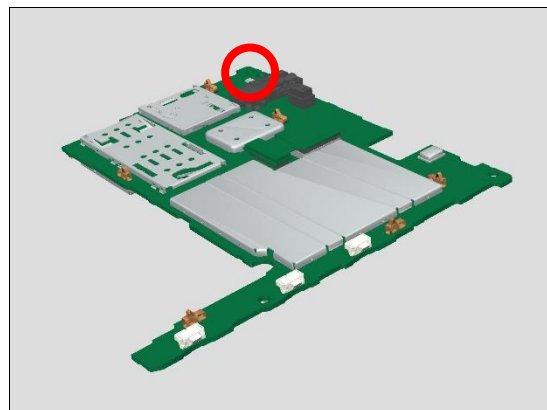
Check:

Inspect the LED on the PBA Main.

Action:

1. If dirty or oxidized – clean it.
2. If damaged – replace the PBA Main.

Note! SL3 and above can replace the LED2101.



Problem Areas

1.6 Proximity switch

1.6.1 Proximity switch malfunctions

Run Proximity sensor Calibration through Calibration tool "CS-Everest 1309-7255" firstly!

Check:

Inspect the external window area of the Proximity sensor on the Front Assy.

Action:

1. If dirty – clean it.

2. If scratched or damaged – replace the Front Assy.

Check:

Inspect the Proximity+Light Sensor rubber on the Front Assy.

Action:

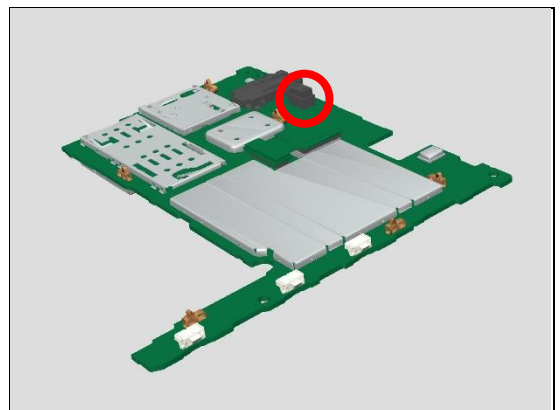
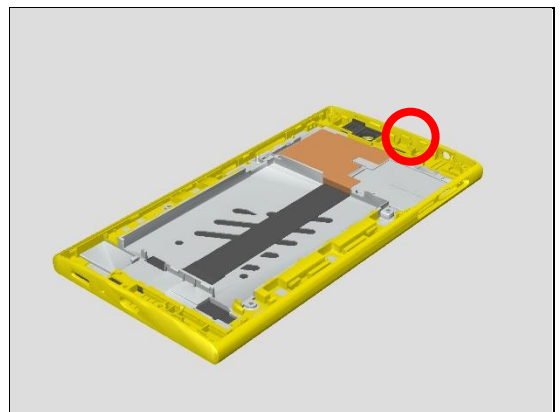
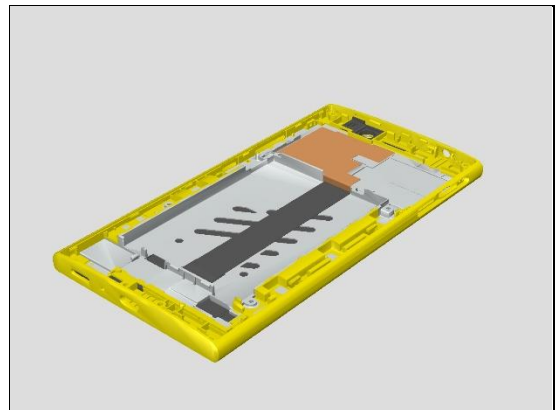
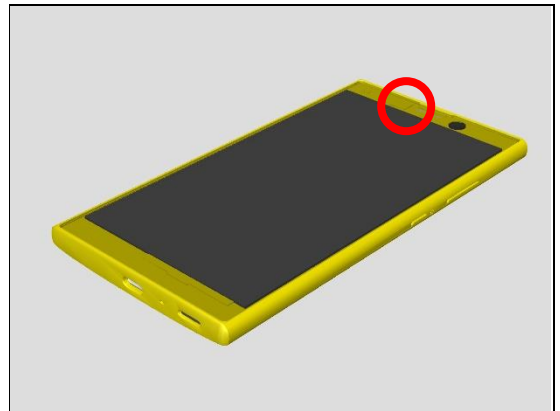
1. If dirty – clean it.
2. If damaged – replace the Front Assy.

Check:

Inspect the Proximity+Light Sensor on the PBA Main.

Action:

1. If dirty or oxidized – clean it.
2. If damaged – replace the PBA Main.



Problem Areas

1.7 Speaker

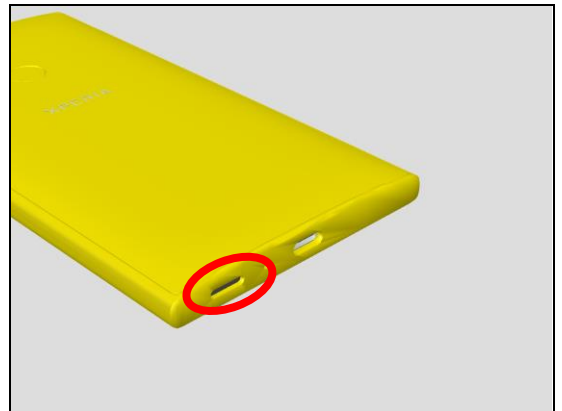
1.7.1 Loudspeaker

Check:

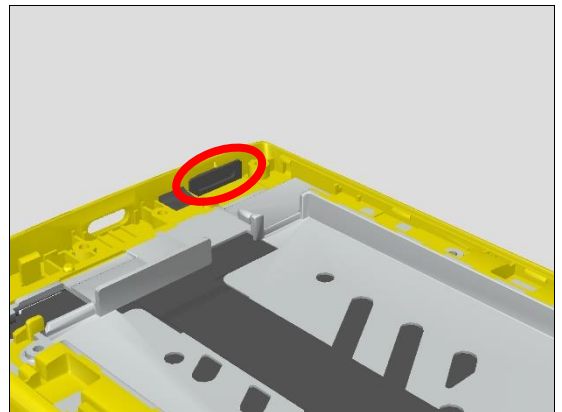
Inspect the Loudspeaker external port on the Front Assy.

Action:

1. If clogged – clean it.



2. If damaged – replace the Mesh Speaker.

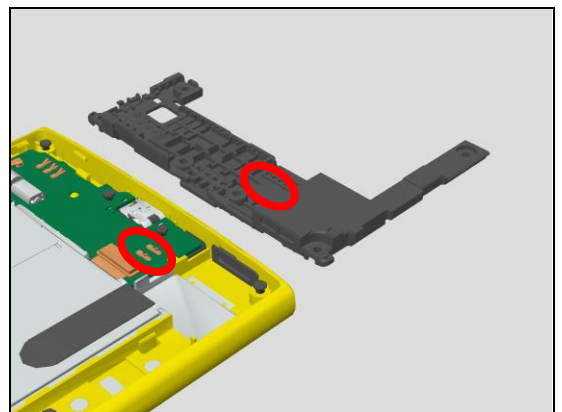


Check:

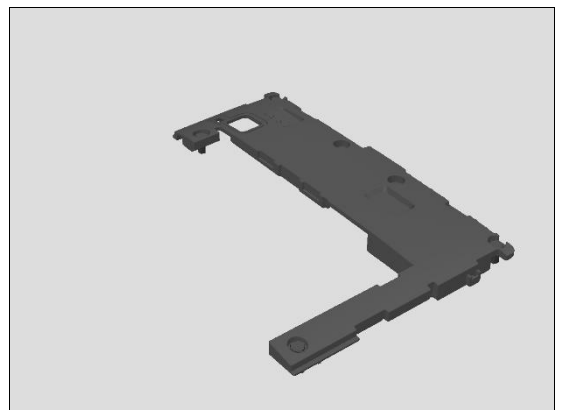
Inspect the contact pads on the Speaker Box/Main Antenna and the contact pins on the PBA Sub.

Action:

1. If pins and pads dirty – clean them.

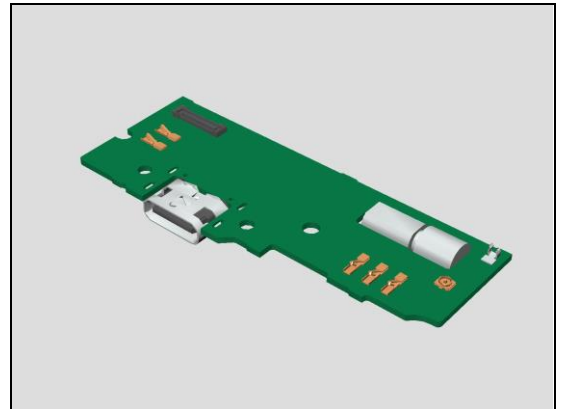


2. If contact pads or loudspeaker are damaged – replace the Speaker Box.



Problem Areas: Speaker

3. If contact pins on the PBA Sub are damaged – replace the PBA Sub.

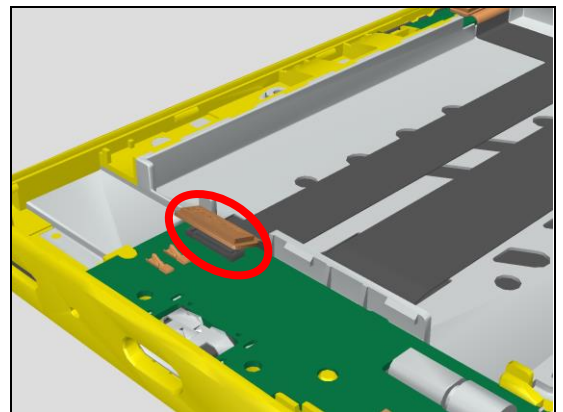


Check:

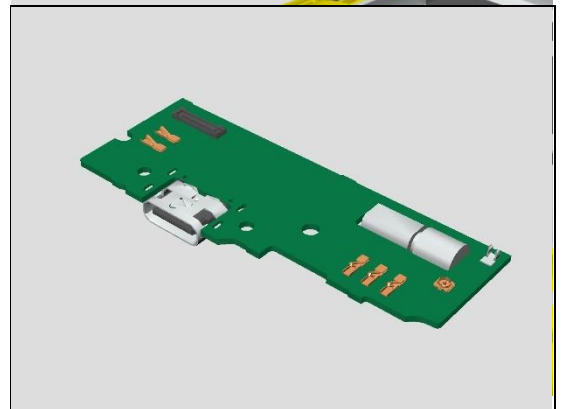
Inspect the BtB connector of the Main FPC Assy to the PBA Sub.

Action:

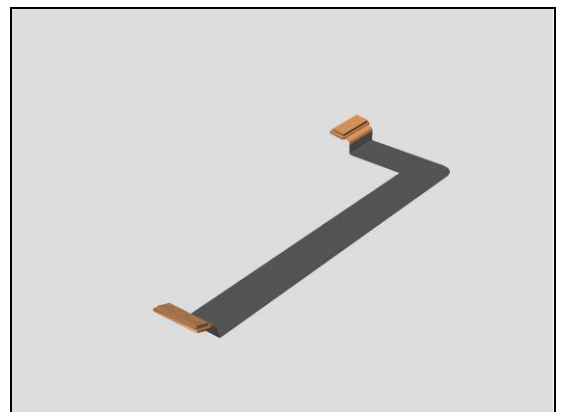
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If BtB connector on the PBA Sub is damaged – replace the PBA Sub.



4. If the connector of the Main FPC is damaged – replace the Main FPC.



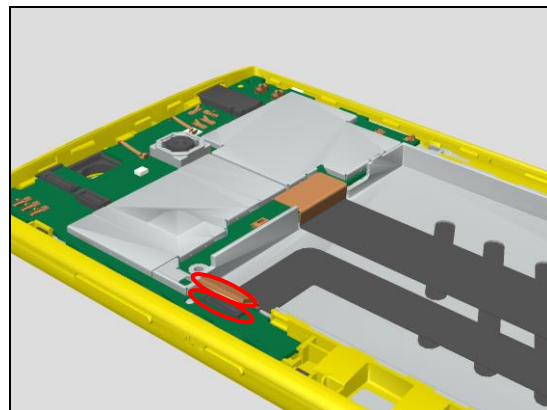
Problem Areas: Speaker

Check:

Inspect the BtB connector of Main FPC on the PBA Main.

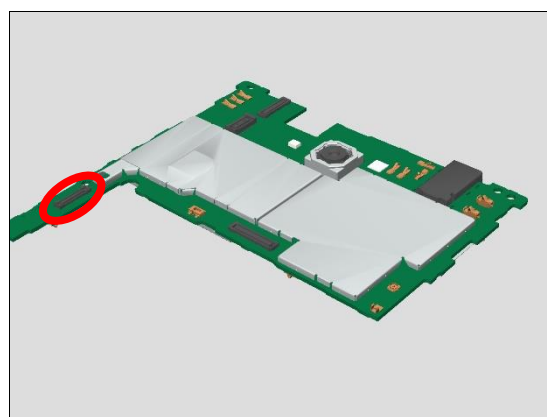
Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.

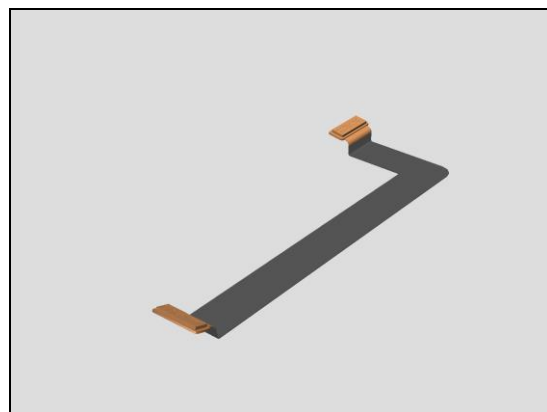


3. If the BtB connector on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the J6401.



4. If the connector of the Main FPC is damaged – replace the Main FPC.



Problem Areas

1.8 Earphone

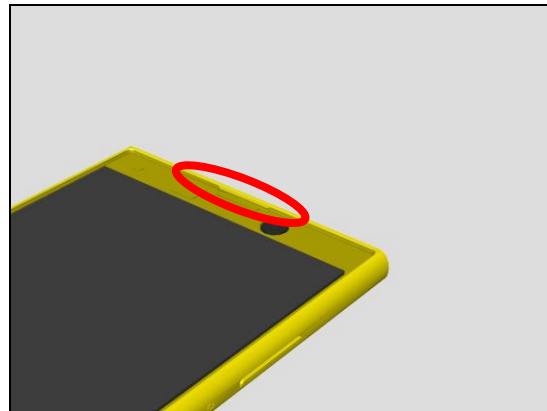
1.8.1 Ear Speaker

Check:

Inspect the external port of Ear Speaker on the Front Assy

Action:

1. If clogged – clean it.
2. If damaged – replace the PBA Main.

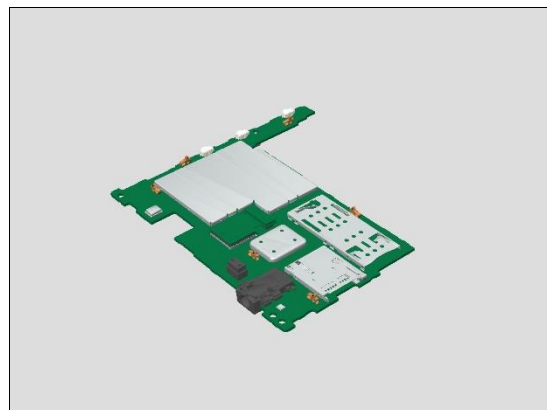
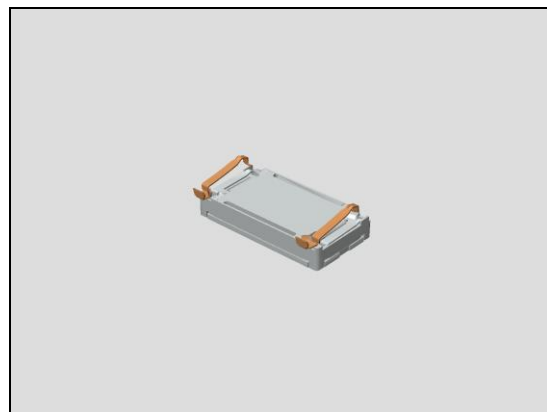
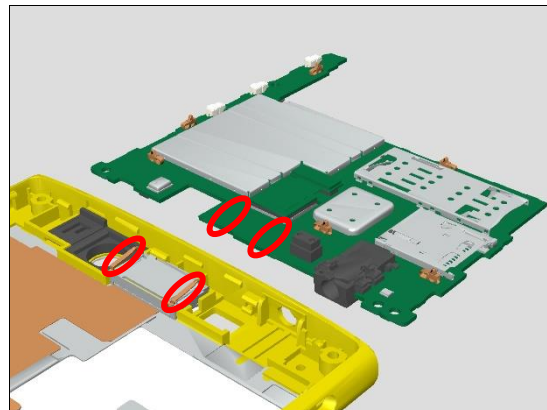


Check:

Inspect the contact pads on the Main PBA and the contact pins of the Ear Speaker.

Action:

1. If dirty – clean them.
2. If the contact pins of the Ear Speaker damaged – replace the Ear Speaker.
3. If the contact Pads on the PBA Main is damaged - replace the PBA Main.



Problem Areas

1.9 Microphone

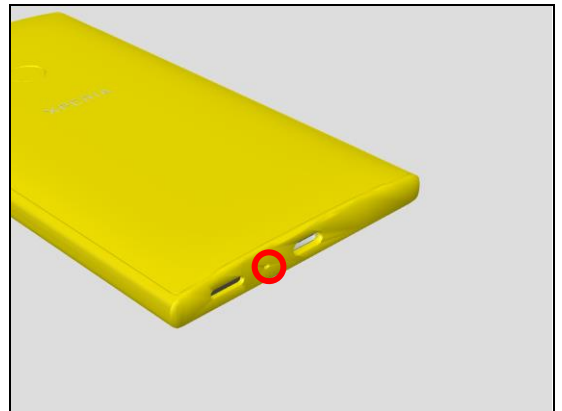
1.9.1 Primary Microphone

Check:

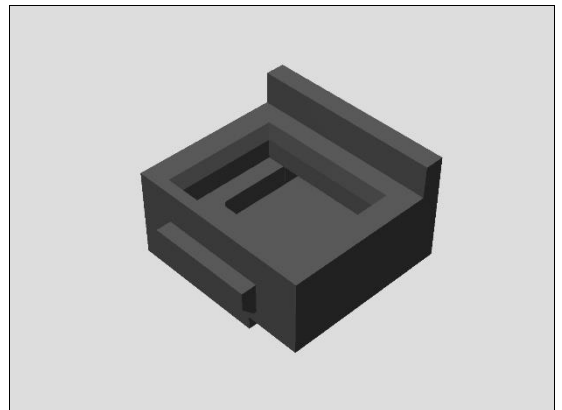
Inspect the hole of Primary Microphone port on the Front Assy.

Action:

1. If clogged – clean it.



2. If cannot be cleaned fully – replace the Rubber Main mic.

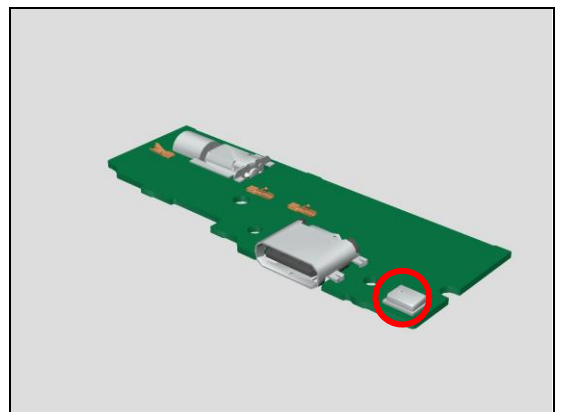


Check:

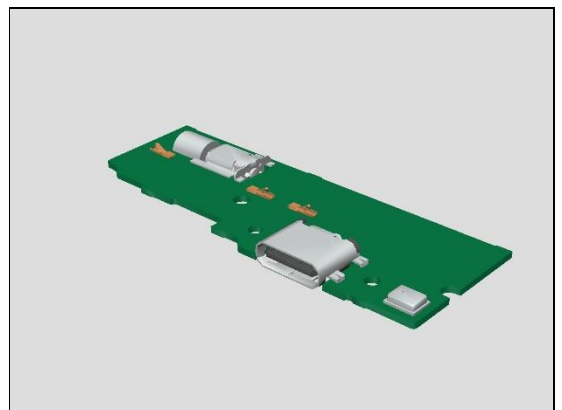
Inspect the Microphone of the PBA Sub

Action:

1. If dirty or oxidized – clean it.



2. If the Microphone of the PBA Sub is damaged – replace the PBA Sub.



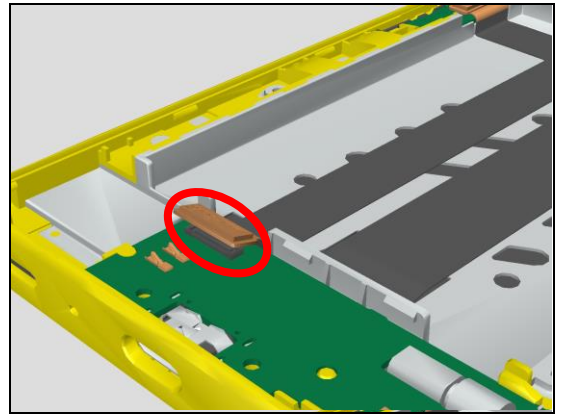
Problem Areas: Microphone

Check:

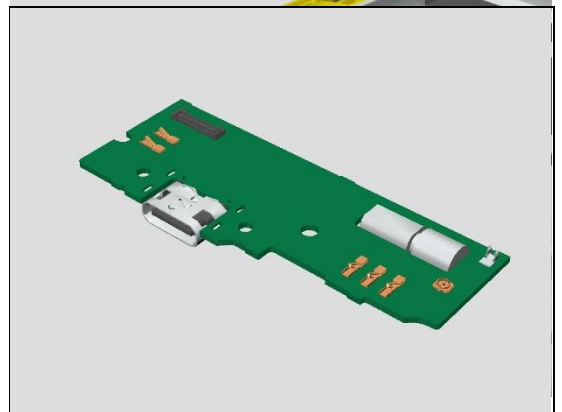
Inspect the BtB connector of the Main FPC Assy to the PBA Sub.

Action:

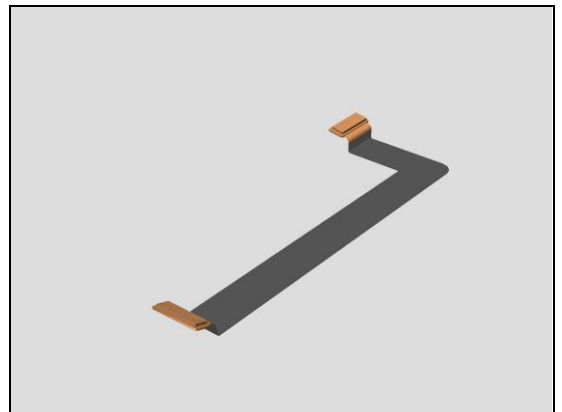
5. If not properly connected – disconnect and reconnect it.
6. If dirty or oxidized – clean it.



7. If BtB connector on the PBA Sub is damaged – replace the PBA Sub.



8. If the connector of the Main FPC is damaged – replace the Main FPC.

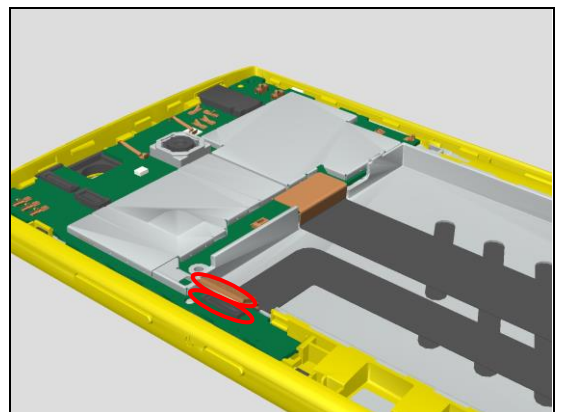


Check:

Inspect the BtB connector of Main FPC on the PBA Main.

Action:

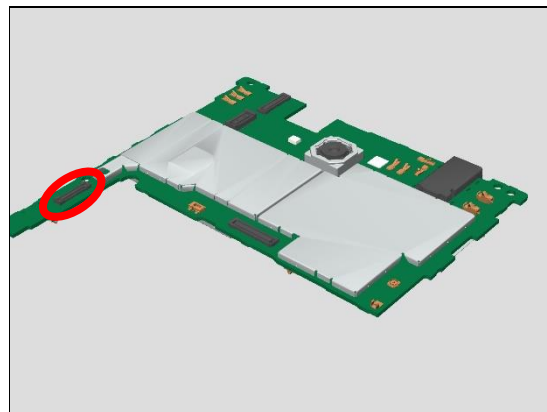
5. If not properly connected – disconnect and reconnect it.
6. If dirty or oxidized – clean it.



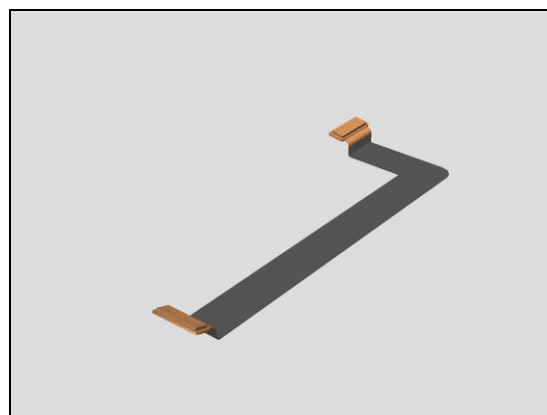
Problem Areas: Microphone

7. If the BtB connector on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the J6401.



8. If the connector of the Main FPC is damaged – replace the Main FPC.



1.9.2 Secondary Microphone

Check:

Inspect the external port of Secondary Microphone on the Front Assy.

Action:

1. If clogged – clean it

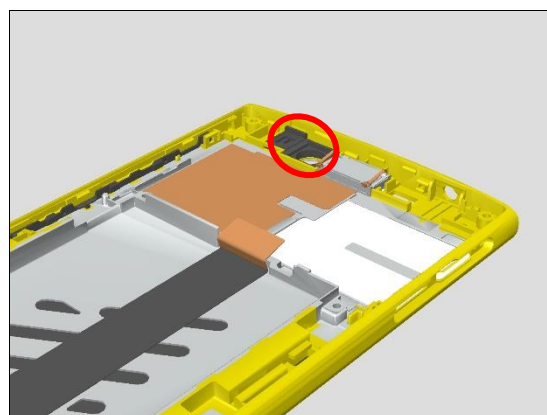


Check:

Inspect the Rubber Secondary mic on the Front Assy.

Action:

1. If clogged – clean it



Problem Areas: Microphone

-
2. If dirty – replace the Rubber Secondary mic.



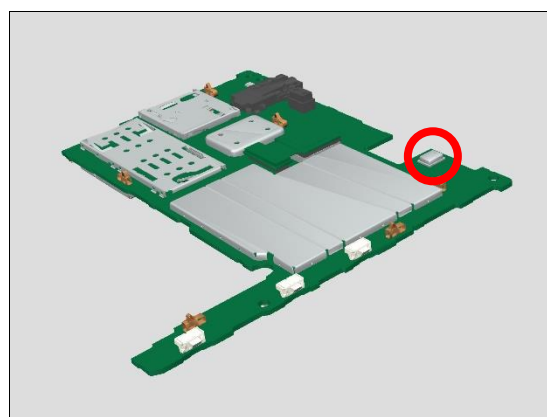
Check:

Inspect the Microphone on the PBA Main.

Action:

1. If dirty or oxidized – clean it.
2. Replace the PBA Main.

Note! SL3 and above can replace the MIC6002.



Problem Areas

1.10 Vibrator

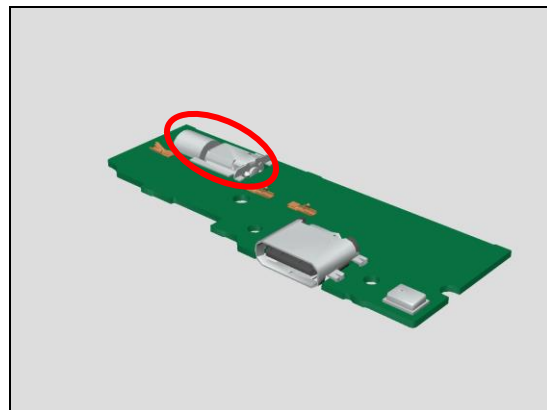
1.10.1 Vibrator not generating alerts

Check:

Inspect the Vibrator on the PBA Sub.

Action:

1. If the Vibrator is damaged – replace the PBA Sub.



Problem Areas

1.11 Camera

1.11.1 Main Camera defects

Check:

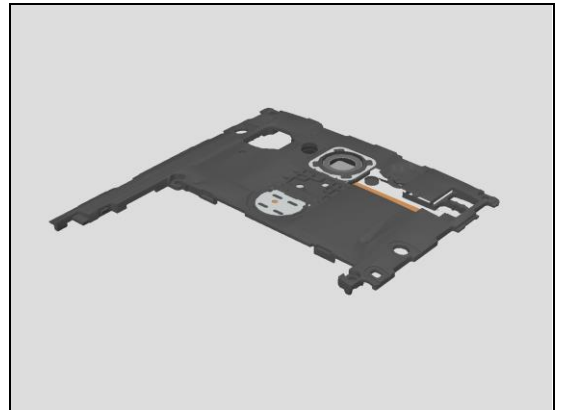
Inspect the external area of Camera window.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Antenna.

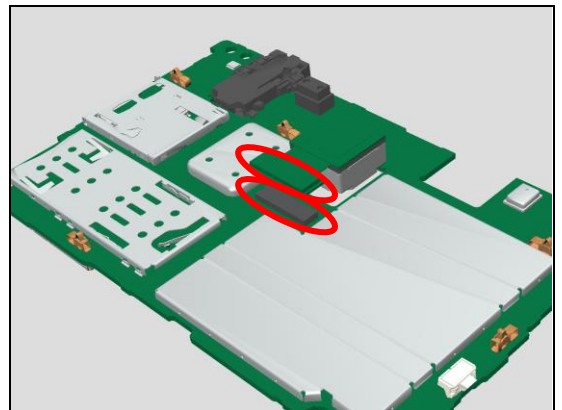


Check:

Inspect the BtB connector of the Main Camera.

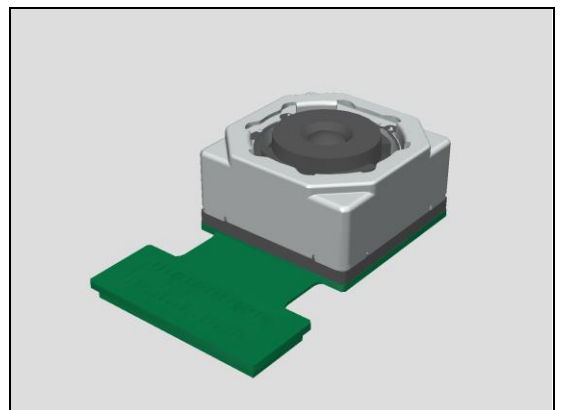
Action:

1. If not properly connected – disconnect and replace it.
2. If dirty or oxidized – clean it.



3. If the BtB connector or the Main Camera is damaged – replace the Main Camera.
4. If the BtB connector on the PBA Main is damaged – replace the PBA Main.

Note! SL3 and above can replace the J6201.



Problem Areas: Camera

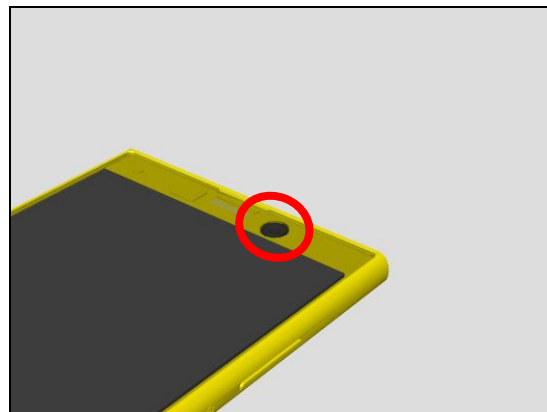
1.11.2 Front Camera defects

Check:

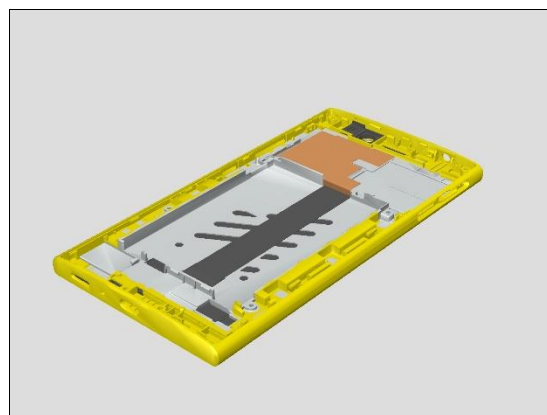
Inspect the external area of front camera window.

Action:

1. If dirty – clean it.



3. If scratched or damaged – replace the Front Assy.

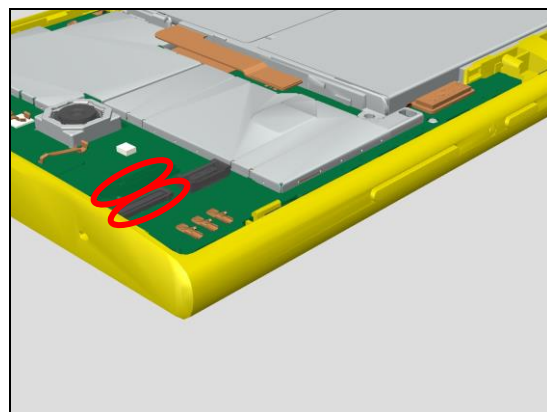


Check:

Inspect the BtB connector of the Front Camera.

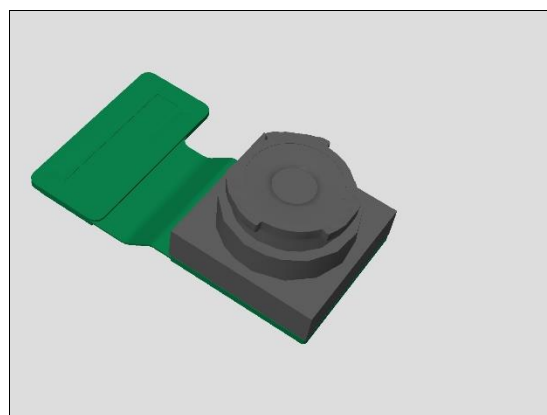
Action:

1. If not properly connected – disconnect and replace it.
2. If dirty or oxidized – clean it.



3. If the BtB connector or the Front Camera is damaged - replace the Front Camera.
4. If the BtB connector on the PBA Main is damaged – replace the PBA Main.

Note! SL3 and above can replace the J6202.



Problem Areas

1.12 Flash LED

1.12.1 Flash LED not flashing

Check:

Inspect the Flash LED lens.

Action:

1. If dirty – clean it.

2. If scratched or damaged – replace the Antenna.

Check:

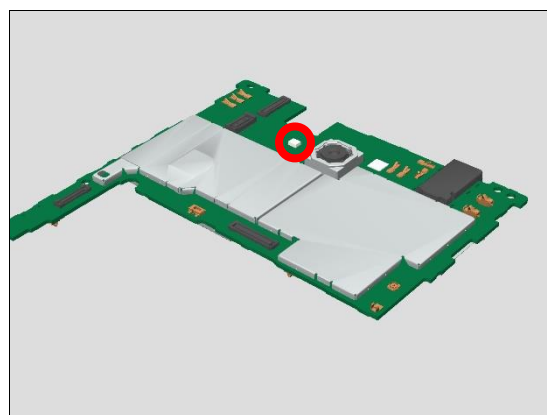
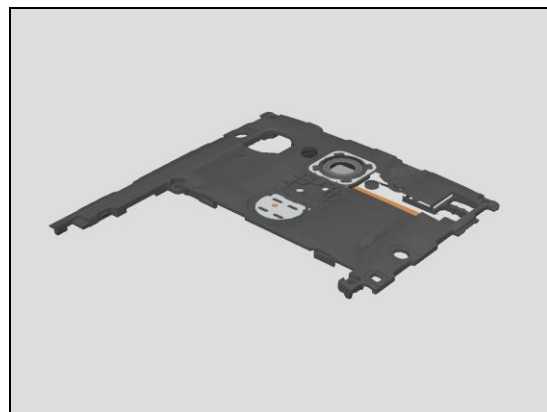
Inspect the Flash LED on the PBA Main.

Action:

1. If dirty – clean it.

2. If the Flash LED on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the LED2301.



Problem Areas

1.13 Bluetooth, WLAN, and GPS

1.13.1 Bluetooth, WLAN or GPS connection failure

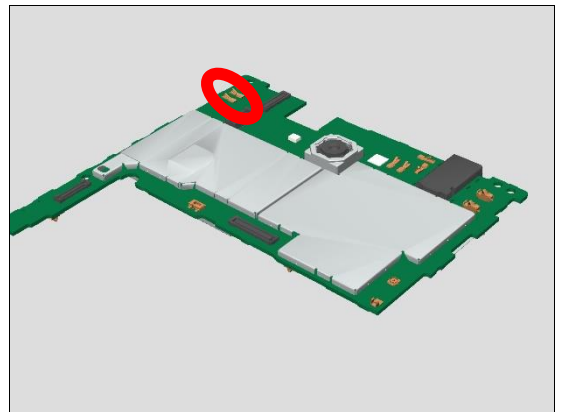
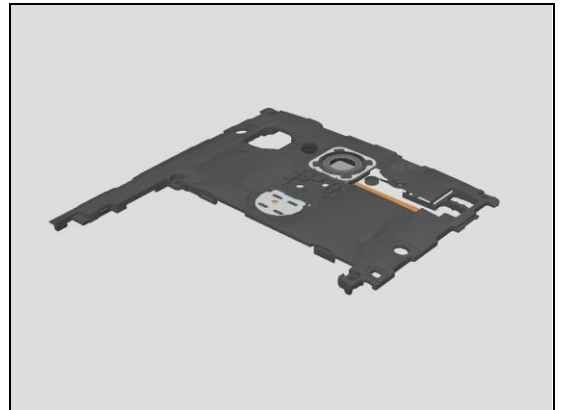
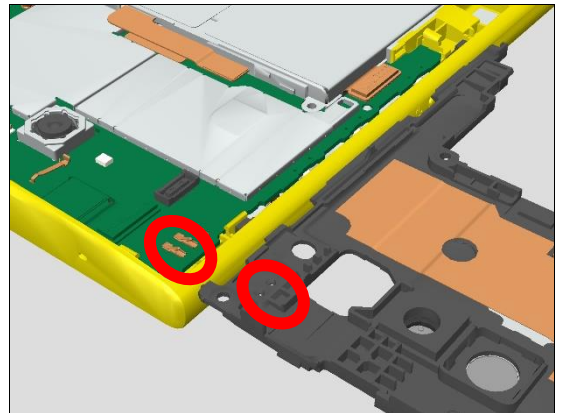
Check:

Inspect the contact pads on the Antenna and contact pins on the PBA Main.

Action:

1. If dirty or oxidized – clean the pads and pins.
2. If the contact pads on the Antenna are damaged – replace the Antenna.
3. If the contact pins on the PBA Main are damaged – replace the PBA Main.

Note! SL3 and above can replace the Z9702 and Z9703.



Problem Areas

1.14 Compass

1.14.1 Compass test fails

Action:

Perform the calibration by “CS-Everest 1309-7255”, which is in the article “RE4251: Repair- Mechanical - Tools and Equipment (including Repair Software)” in the “Repair Information”.

Problem Areas

1.15 Accelerometer

1.15.1 Accelerometer test fails

Action:

Perform the calibration by “CS-Everest 1309-7255”, which is in the article “RE4251: Repair- Mechanical - Tools and Equipment (including Repair Software)” in the “Repair Information”.

Problem Areas

1.16 Ambient Light Sensor

1.16.1 Light Sensor malfunctions

Run Light sensor calibration through Calibration tool "CS-Everest 1309-7255" firstly!

Check:

Inspect the external window area of the Light Sensor on the Front Assy.

Action:

1. If dirty- clean it.

2. If scratched or damaged – replace the Front Assy.

Check:

Inspect the Proximity+Light Sensor rubber on Front Assy.

Action:

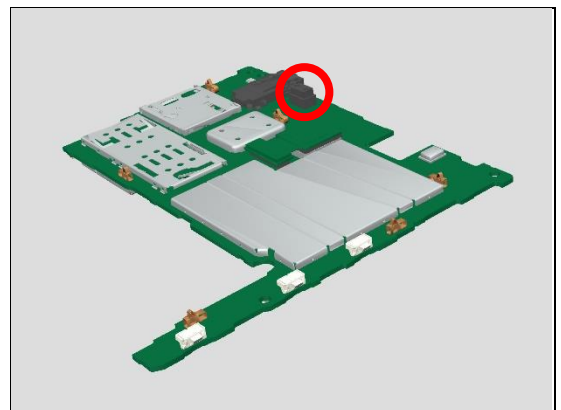
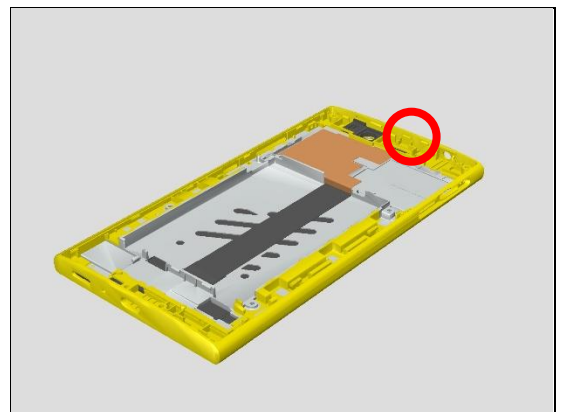
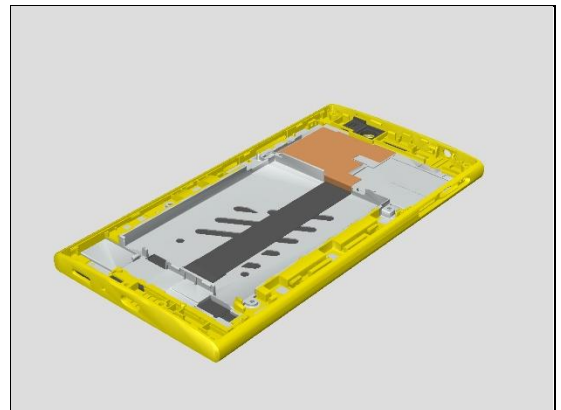
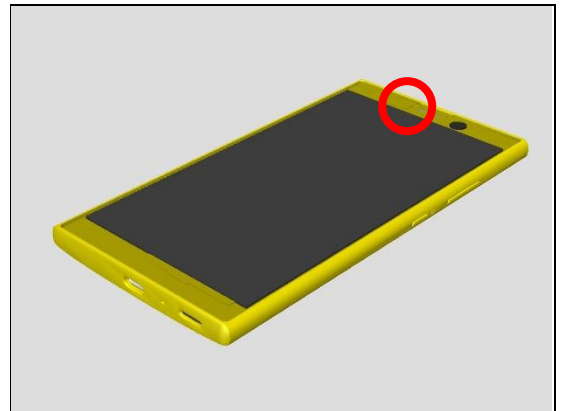
1. If dirty – clean it.
2. If damaged – replace the Front Assy.

Check:

Inspect the Proximity+Light Sensor on the PBA Main.

Action:

1. If dirty or oxidized – clean it.
2. If damaged – replace the PBA Main.



Problem Areas

1.17 Real time clock

1.17.1 Real time clock test fails

Action:

Replace the PBA Main.

Problem Areas

1.18 External Memory

1.18.1 Memory Card not detected

Check:

Inspect the external port of the memory card holder.

Action:

If dirty or clogged – clean it.



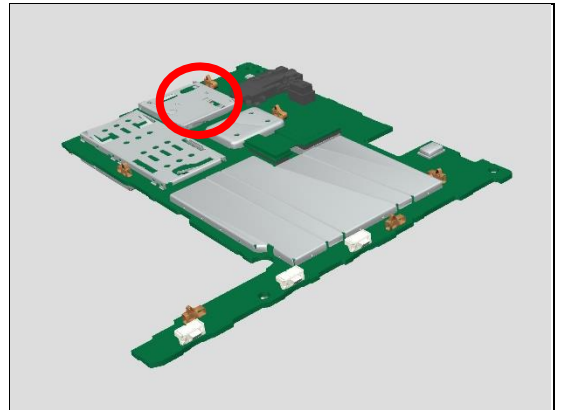
Check:

Inspect the memory card holder on the Main PBA.

Action:

1. If dirty or clogged – clean the holder.
2. Replace the PBA Main.

Note! SL3 and above can replace the J4002.



Problem Areas

1.19 FM Radio

1.19.1 No/poor FM Radio reception

Check:

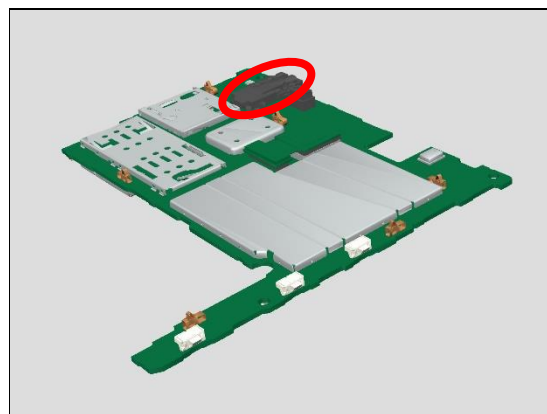
Inspect the external port of the Audio Jack.

Action:

1. If clogged – clean it

3. If damaged – replace the PBA Main.

Note! SL3 and above can replace the J6005.



Problem Areas

1.20 SIM

1.20.1 Sim not detected

Check:

Inspect the external port of the SIM card holder.

Action:

If dirty or clogged – clean it

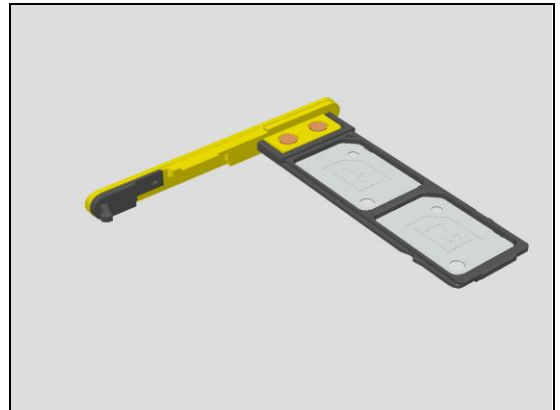


Check:

Check if SIM Tray door is properly mounted into the SIM Slot.

Action:

1. If not properly assembled – reassemble it.
2. If the SIM Tray door is damaged – replace it.

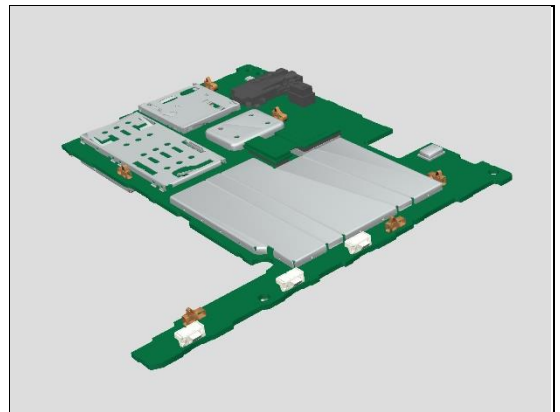


Check:

Inspect the SIM card holder on the PBA Main.

Action:

1. If dirty or clogged – clean it.
2. Replace the PBA Main.



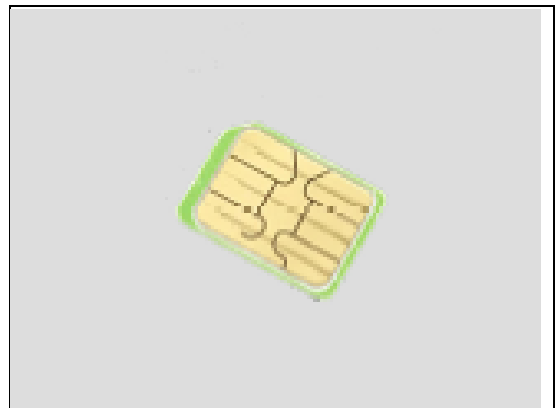
1.20.2 Incorrect Nano SIM indicated

Check:

Check whether the phone is locked to a particular operator and whether the correct operator Nano SIM is being used.

Action:

1. Use a proper operator Nano SIM or test Nano SIM..



Problem Areas

1.21 Charging

1.21.1 Battery will not be charged via USB connector

Check:

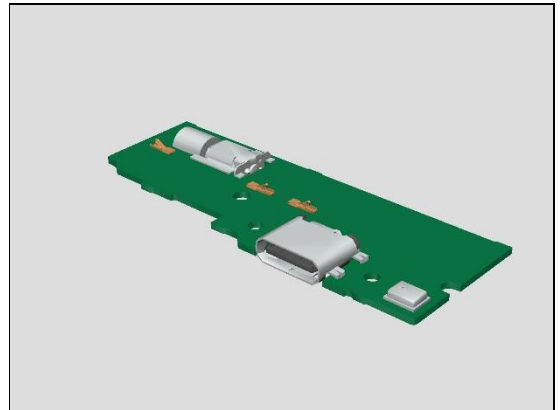
Inspect the USB connector.

Action:

1. If dirty or oxidized – clean it.



3. If the USB connector of the PBA Sub is damaged – replace the PBA Sub.

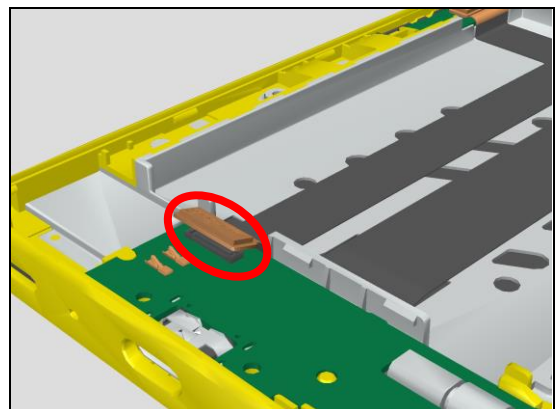


Check:

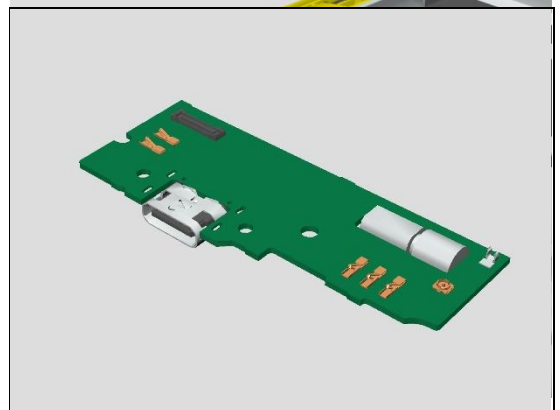
Inspect the BtB connector of the Main FPC Assy to the PBA Sub.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If BtB connector on the PBA Sub is damaged – replace PBA Sub.



Problem Areas: Charging

4. If the connector of the Main FPC is damaged – replace the Main FPC.

Check:

Inspect the BtB connector of Main FPC on the PBA Main.

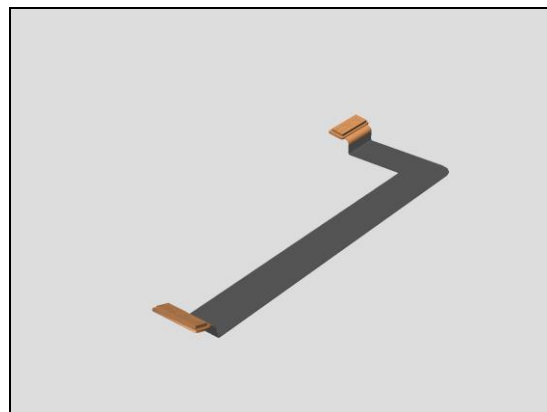
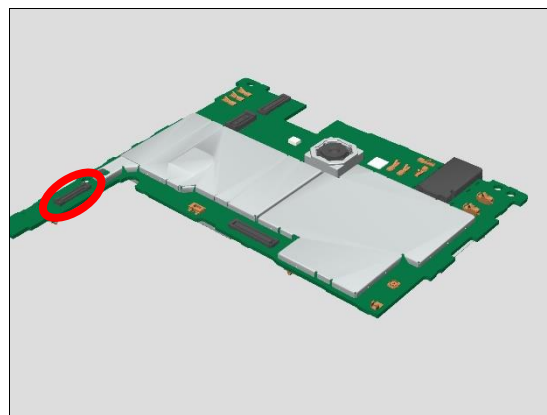
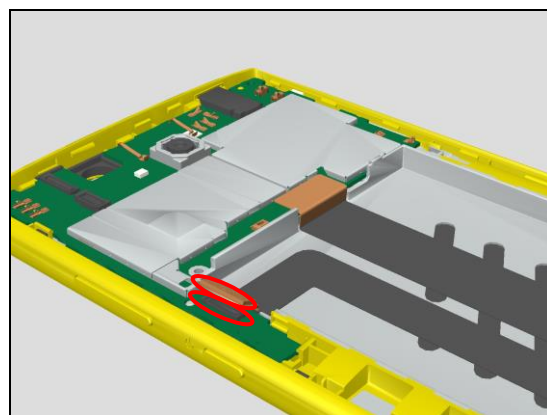
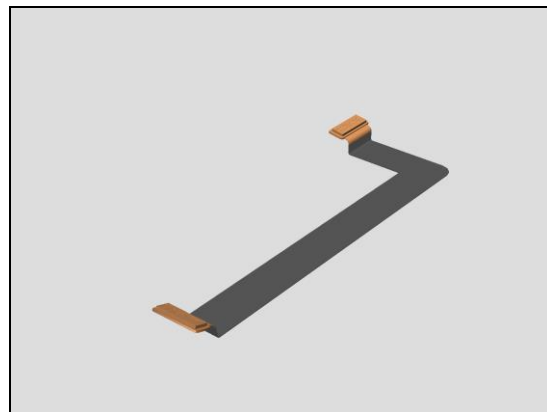
Action:

9. If not properly connected – disconnect and reconnect it.
10. If dirty or oxidized – clean it.

11. If the BtB connector on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the J6401.

12. If the connector of the Main FPC is damaged – replace the Main FPC.



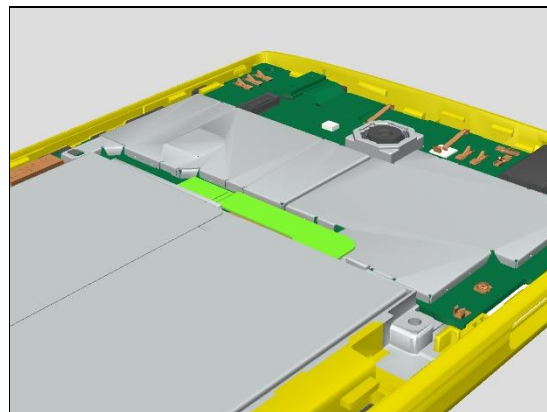
Problem Areas: Charging

Check:

Inspect the Battery connector to the PBA Main.

Action:

5. If not properly connected – disconnect and reconnect it.
6. If dirty or oxidized – clean the both sides of the BtB connector.

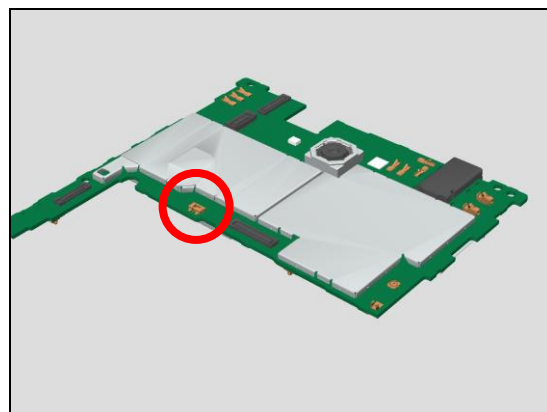


7. If the FPC of the Battery is damaged – replace the Battery.



8. If the BtB connector on the PBA Main is damaged –replace the PBA Main.

Note! SL3 and above can replace the J2101.



Problem Areas

1.22 Hall Sensor

1.22.1 Hall Sensor test fails

Action:

Replace the PBA Main.

Problem Areas

1.23 NFC

1.23.1 NFC malfunctions

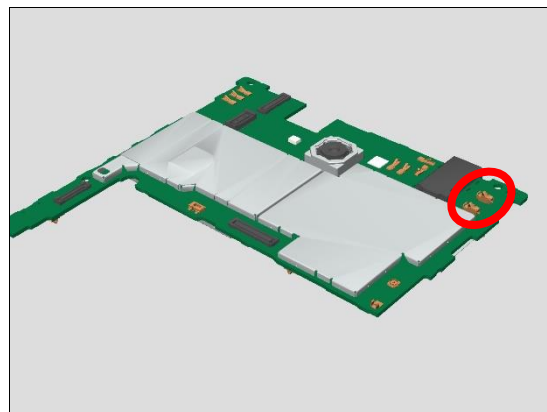
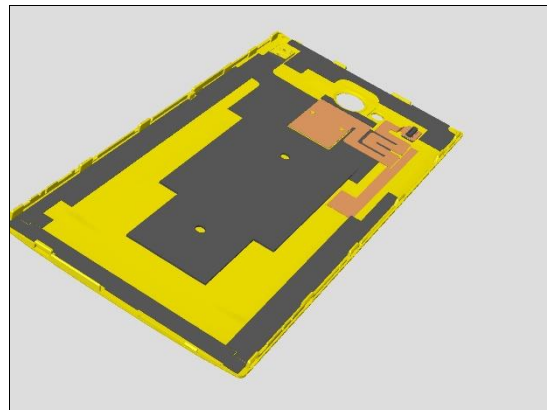
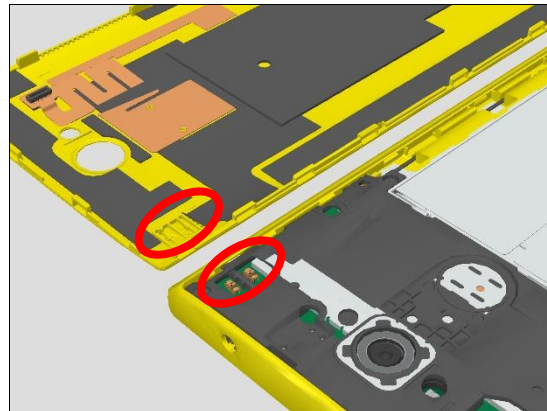
Check:

Inspect the NFC antenna contact pads on the Battery Cover Assy and the contact pins on the PBA Main.

Action:

1. If dirty or oxidized – clean the pads and pins.
2. If the NFC antenna contact pads are damaged – replace the Battery Cover Assy.
3. If the contact pins on the PBA Main are damaged – replace the PBA Main.

Note! SL3 and above can replace the Z9800 and Z9803.



Problem Areas

1.24 Fingerprint Sensor

1.24.1 Fingerprint Sensor test fails / Fingerprint Sensor function test fails

Check:

Inspect the FP Sensor.

Action:

1. If dirty or oxidized – clean it.
2. If the FP Sensor is damaged – replace the Battery Cover Assy.



Problem Areas

1.25 Audio Jack

1.25.1 Connection to headset fails

Check:

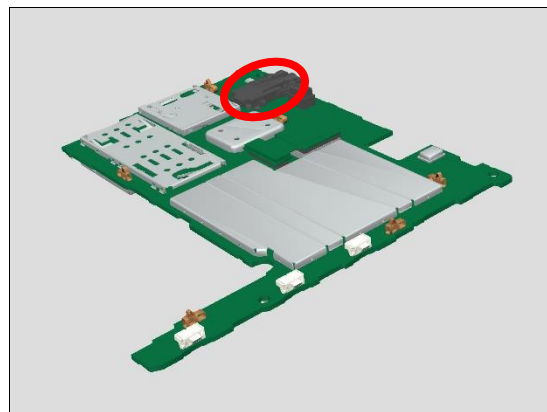
Inspect the external port of the Audio Jack.

Action:

2. If clogged – clean it

4. If damaged – replace the PBA Main.

Note! SL3 and above can replace the J6005.



Problem Areas

1.26 Data Communication

1.26.1 Data Transfer via USB connector fails

Check:

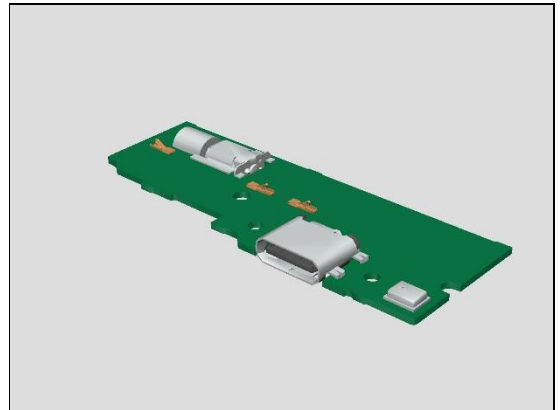
Inspect the USB connector.

Action:

2. If dirty or oxidized – clean it.



4. If the USB connector of the PBA Sub is damaged – replace the PBA Sub.



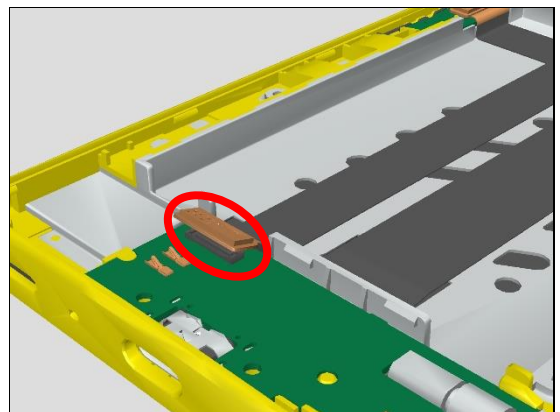
Check:

Inspect the BtB connector of the Main FPC Assy to the PBA Sub.

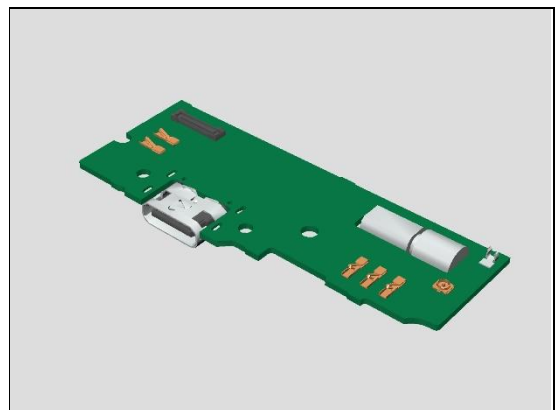
Action:

5. If not properly connected – disconnect and reconnect it.

6. If dirty or oxidized – clean it.

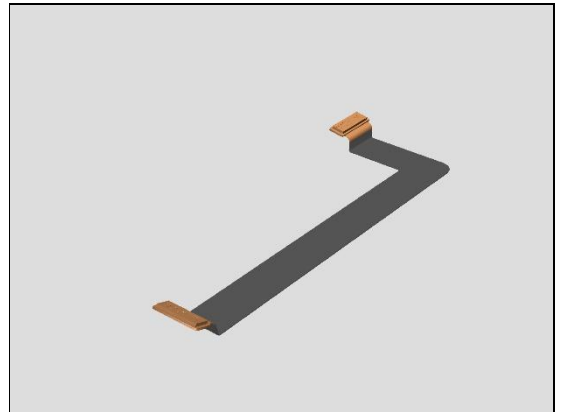


7. If BtB connector on the PBA Sub is damaged – replace the PBA Sub.



Problem Areas: Data Communication

8. If the connector of the Main FPC is damaged – replace the Main FPC.

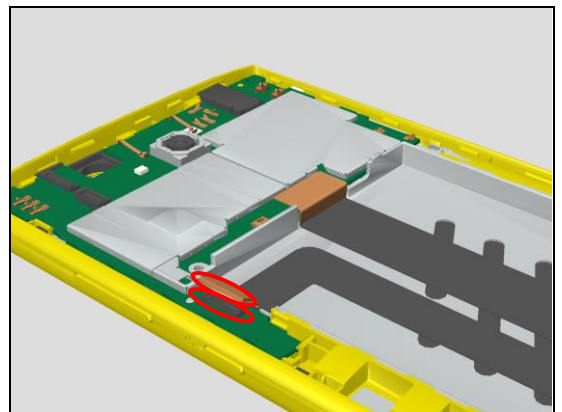


Check:

Inspect the BtB connector of Main FPC on the PBA Main.

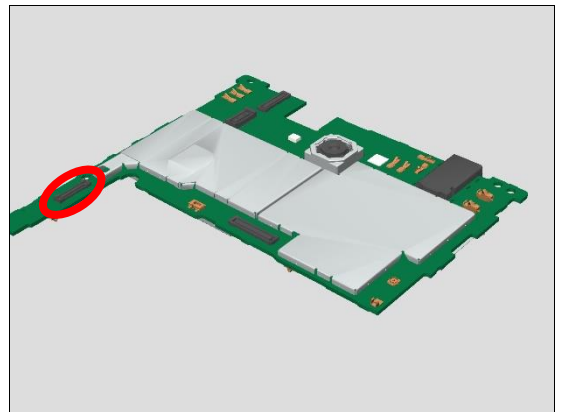
Action:

13. If not properly connected – disconnect and reconnect it.
14. If dirty or oxidized – clean it.

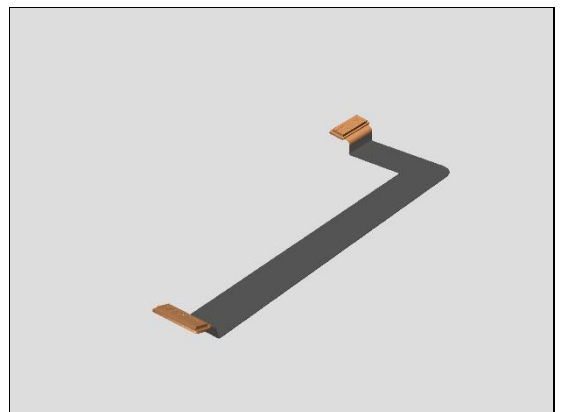


15. If the BtB connector on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the J6401.



16. If the connector of the Main FPC is damaged – replace the Main FPC.



Problem Areas

1.27 Network & Signal

1.27.1 No/poor signal

Check:

Inspect the contact pins on the PBA Sub and contact pads on the Speaker Box.

Action:

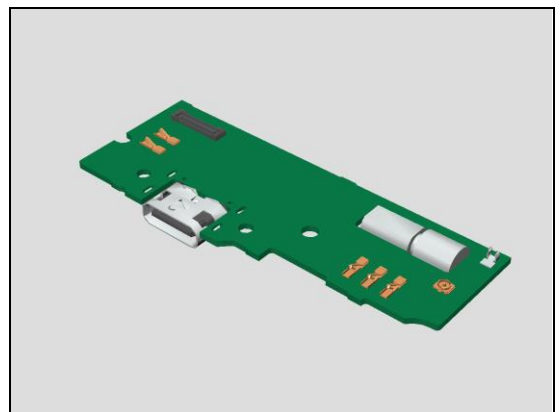
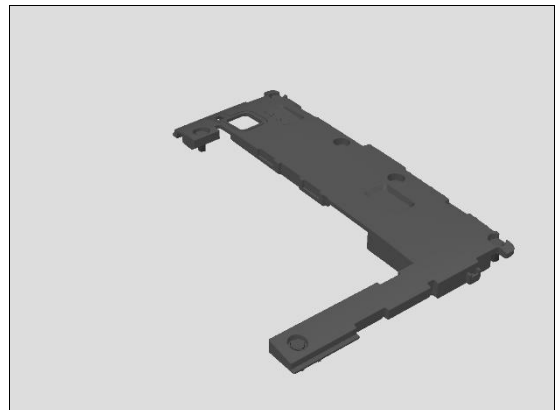
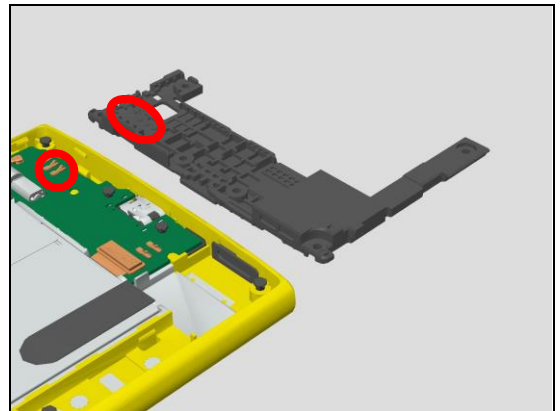
1. If dirty or oxidized – clean them.
2. If contact pads or loudspeaker are damaged – replace the Speaker Box.
3. If contact pins on the PBA Sub are damaged – replace the PBA Sub.

Check:

Inspect the RF connectors of RF Cables to the PBA Main and the PBA Sub.

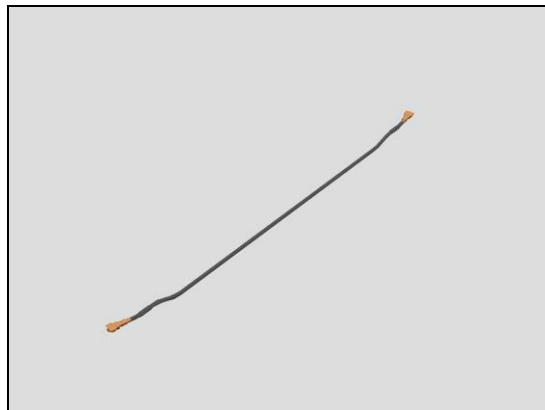
Action:

1. If not properly connected – disconnect and reconnect them.
2. If dirty or oxidized – clean them.

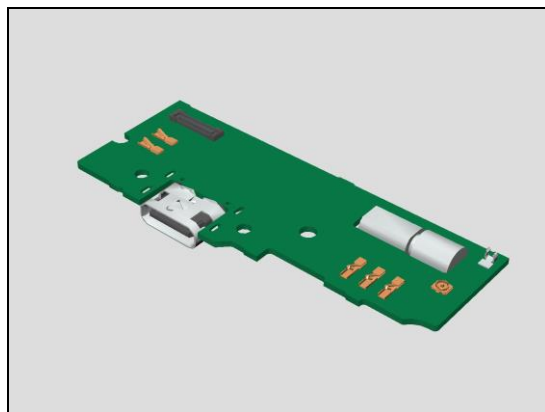


Problem Areas: Network & Signal

3. If the RF Cable is damaged- replace it.

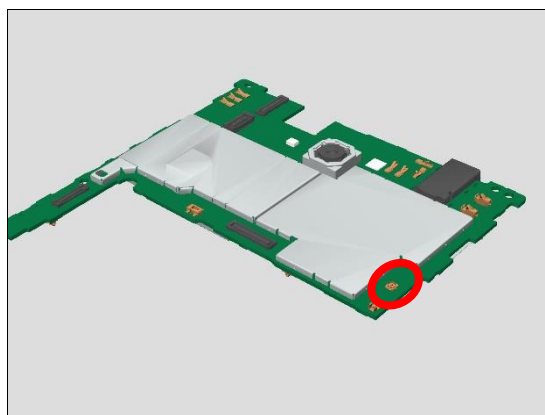


4. If the RF connector on the PBA Sub are damaged – replace the PBA Sub.



5. If the RF connector on the PBA Main is damaged - replace the PBA Main.

Note! SL3 and above can replace the J9500.



2 Revision History

Rev.	Date	Changes / Comments
1	2018-Jan-12	Initial release