

Troubleshooting Guide

- mechanical -



Xperia™ C4 & C4 Dual

E5303, E5333, E5353, E5343, E5306, E5363

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**Always firstly disconnect the Battery BtB connector to cut off power supply when diassembled.
Always finally connect the Battery BtB connector last before the Battery Cover is reassembled.**

1 Problem Areas

1.1 Power

1.1.1 Will not power on or will switch off randomly

Check:

Check whether the phone vibrates by pressing the on/off key.

Action:

1. If activation of the vibrator is detected, refer to section 1.4 'Display'.

2. If NO activation of the Vibrator is detected, check that the battery is charging when connected to a charger and do a HW master reset.

Follow 1296-6037 Test Instruction - mechanical chapter 2.3.7 (Charging via USB and Easy Charger), Diagnostic Battery / Charging status.

Check:

Inspect the on/off key.

Action:

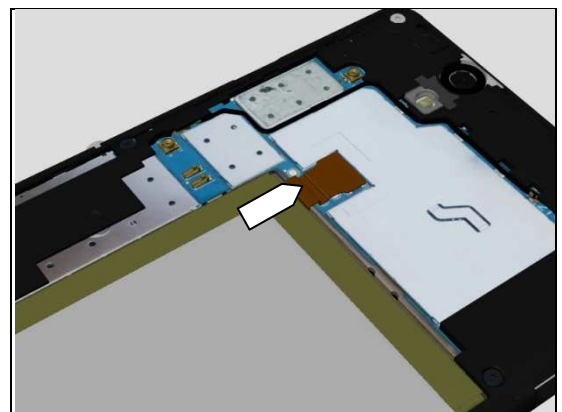
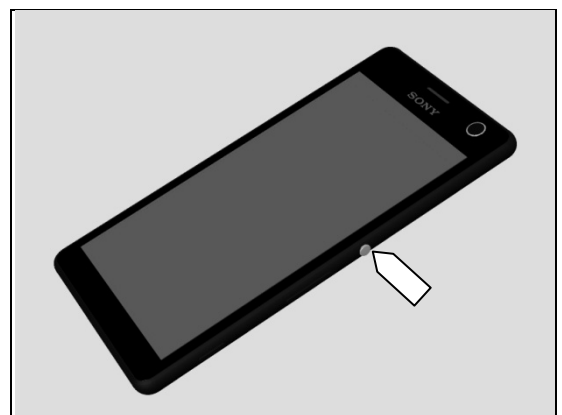
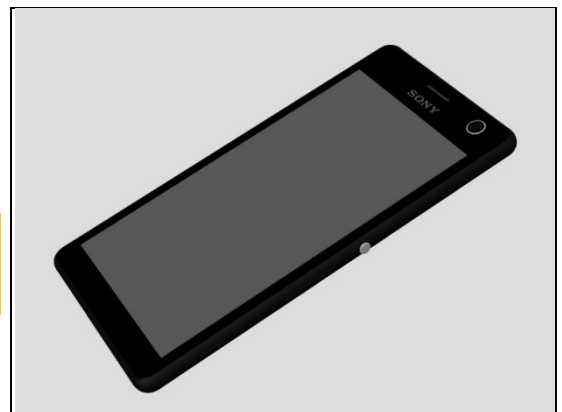
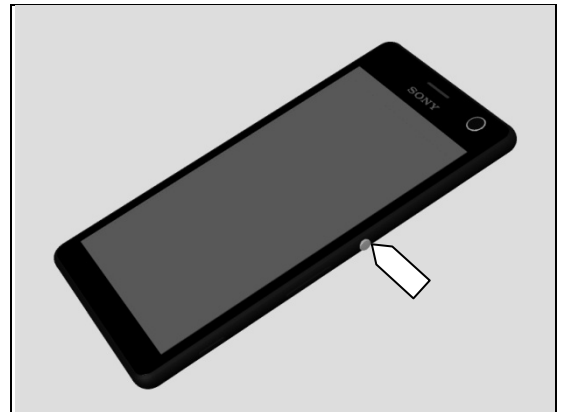
Refer to section 1.2.3 'On/Off Key'.

Check:

Inspect the BtB connector of the Battery to Main PBA.

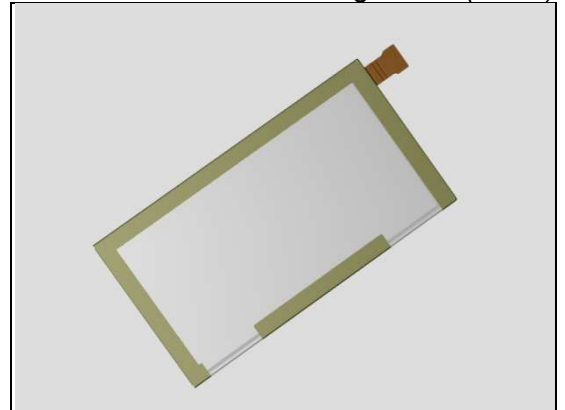
Action:

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



Problem Areas: Power

3. If the BtB connector, Battery FPC or the Battery 2600mAh is damaged – replace the Battery 2600mAh.
4. Replace Main PBA.



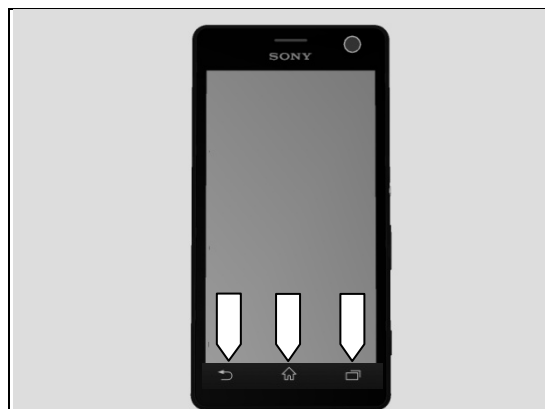
Problem Areas

1.2 Keys

1.2.1 Back, Menu, Home and Multitask Keys

Action:

1. Refer to section 1.3 'Touch Screen'.



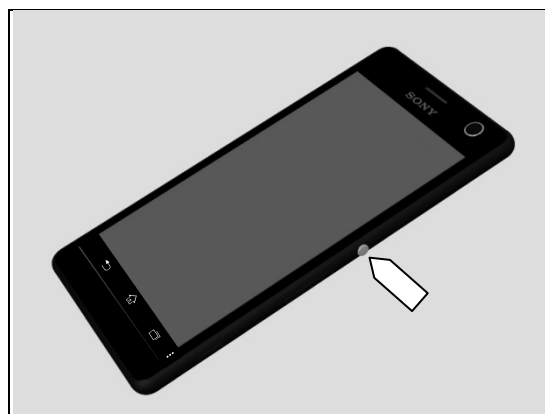
1.2.2 Volume Key

Check:

Inspect the external area of the volume key.

Action:

If dirty – clean it.

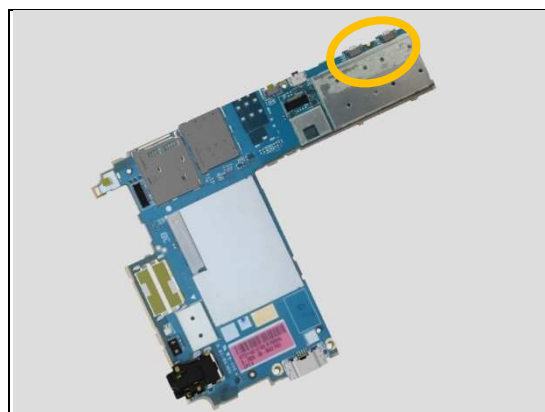


Check:

Inspect the Side Key Switches located on Main PBA.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If damaged – replace the Main PBA.



Check:

Inspect the Volume Key located on Rear Frame Ass'y

Action:

1. If dirty or oxidized – clean it.
2. If the Volume Key is damaged – replace the Rear Frame Ass'y.
3. Replace Main PBA.



Problem Areas: Keys

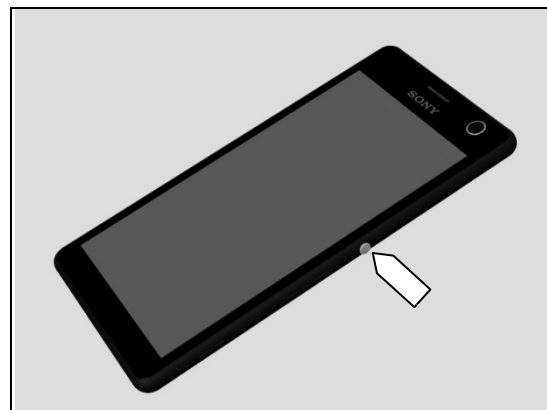
1.2.3 On/Off Key

Check:

Inspect the external area of the On/Off Key.

Action:

If dirty – clean it.

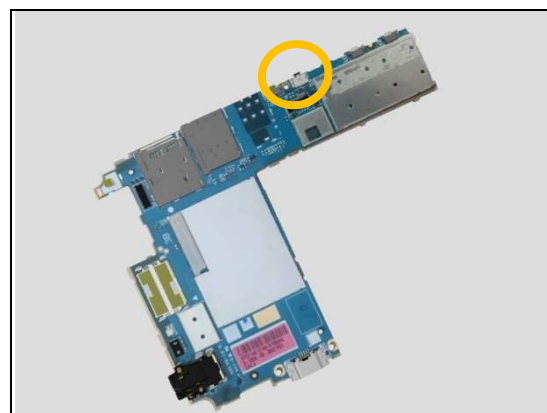


Check:

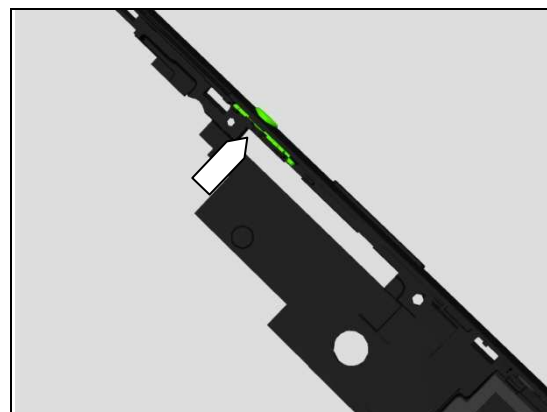
Inspect the On/Off Switch located on Main PBA.

Action:

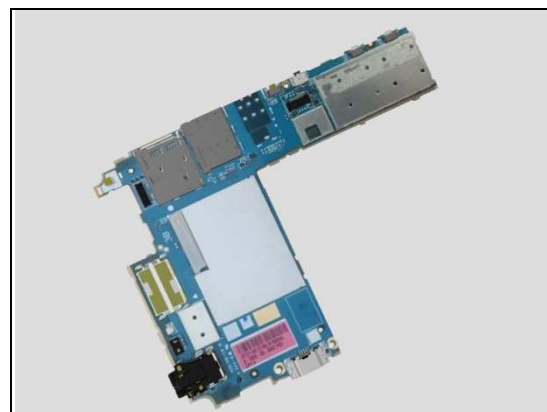
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If damaged – replace the Main PBA.



1. If the On/Off Key is damaged – replace the Rear Cover Ass'y



2. Replace Main PBA.



Problem Areas

1.3 Touch Screen

1.3.1 Touch Screen malfunction

Check:

Inspect the touch screen of the Display.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Front Cover Ass'y.



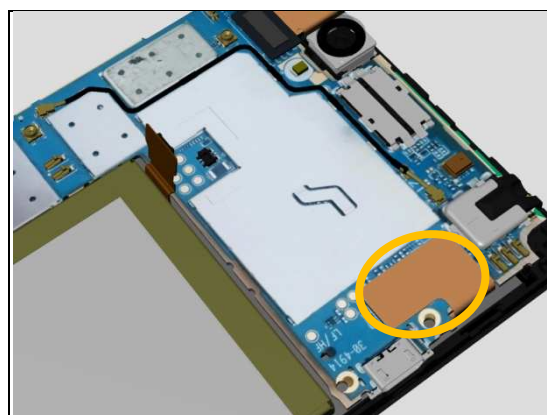
Check:

Inspect the BtB connector of LCM to Main PBA.

Action:

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

2. If dirty or oxidized – clean it.



3. If the BtB connector of LCM damaged – replace the Front Cover Assy.

4. Replace Main PBA.



Problem Areas

1.4 Display

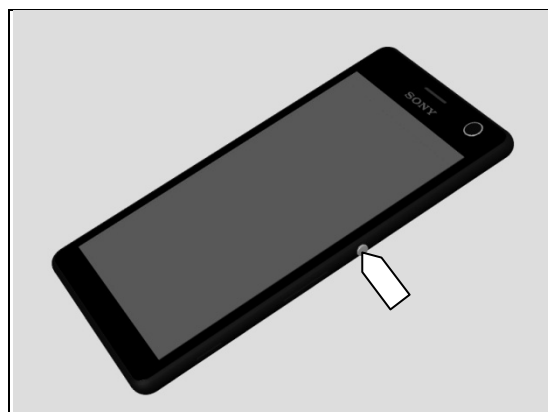
1.4.1 Graphics & Illumination

Check:

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

Action:

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

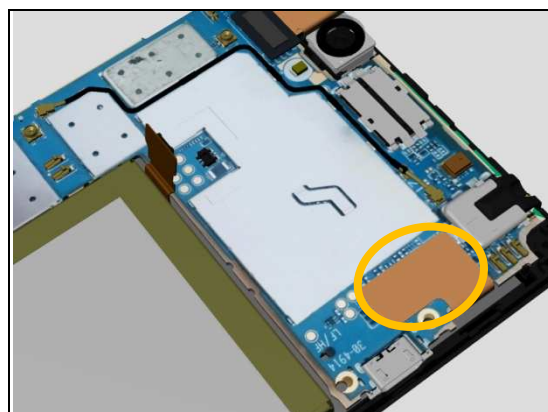


Check:

Inspect the BtB connector of LCM to Main PBA.

Action:

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



Check:

Replace the Main PBA with a known working one and test the Display.

Action:

1. If the display is still not working – Replace the Front Cover Ass'y.
2. Replace Main PBA.



Problem Areas

1.5 LED/Illumination

1.5.1 LED/Illumination

Check:

Inspect external port of LED on the Front of phone.

Action:

1. If dirty – clean it.

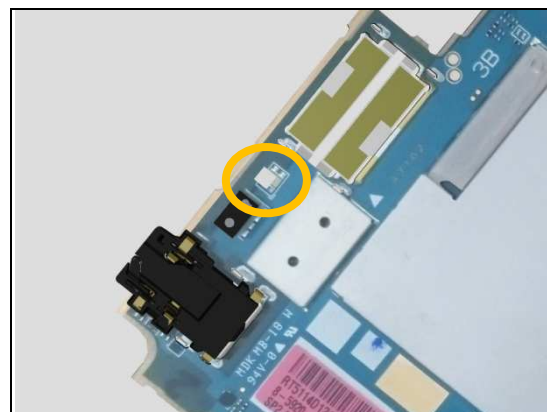


Check:

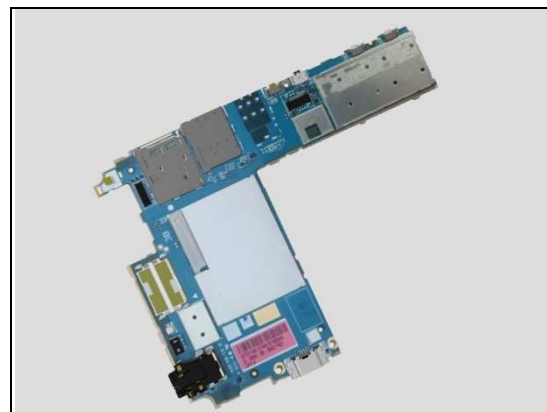
Inspect the LED located on Main PBA.

Action:

1. If dirty or oxidized – clean it.



3. Replace Main PBA.



Problem Areas

1.6 Speaker

1.6.1 Loudspeaker

Check:

Inspect the Speaker Mesh on the Battery Cover.

Action:

1. If the Speaker Mesh is clogged – clean it.
2. If the Speaker Mesh is damaged – replace the Battery Cover.

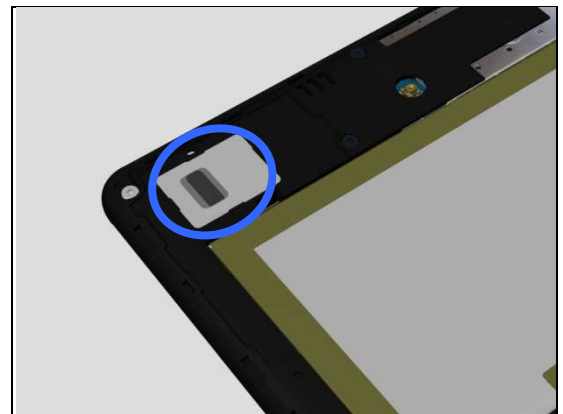


Check:

Inspect the Speaker Mesh on the Rear Cover Ass'y.

Action:

1. If the Speaker Mesh is clogged – clean it.
2. If the Speaker Mesh is damaged – replace the Rear Cover Ass'y.

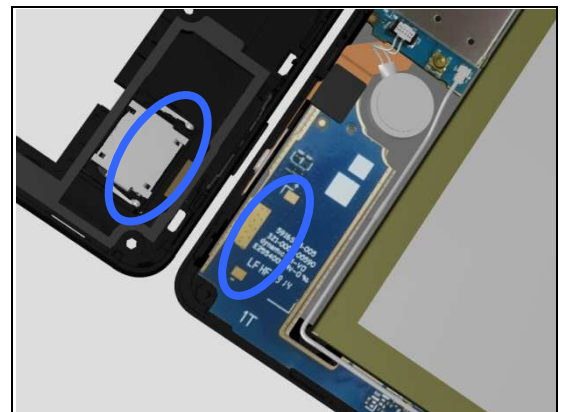


Check:

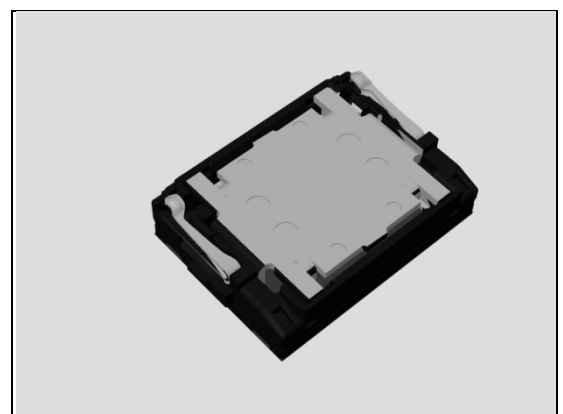
Inspect the contact pins of Loudspeaker and the contact pads on the Sub PBA.

Action:

1. If dirty – clean them.



2. If the contact pins of Loudspeaker or the Loudspeaker are damaged – replace the Loudspeaker.
3. Replace Sub PBA.



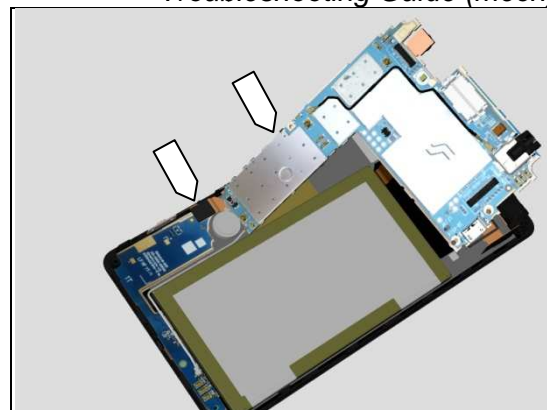
Problem Areas: Speaker

Check:

Inspect both BtB Connectors of Link FPC.

Action:

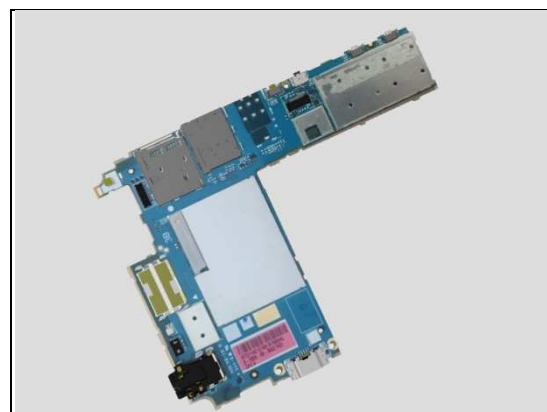
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



2. If the BtB connector of Link FPC is damaged – replace the Link FPC.



3. Replace the Main PBA.



Problem Areas

1.7 Earphone

1.7.1 Ear Speaker

Check:

Inspect the external port of Ear Speaker located on the front of phone.

Action:

1. If clogged – clean it.

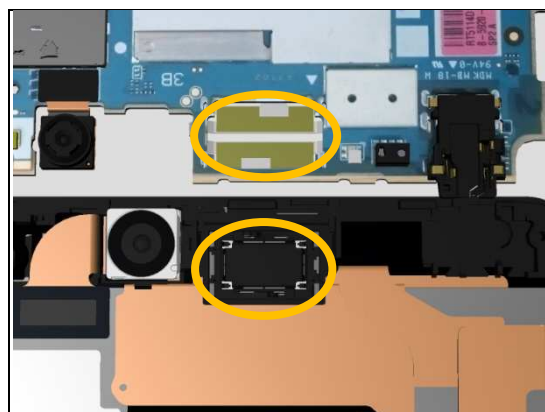


Check:

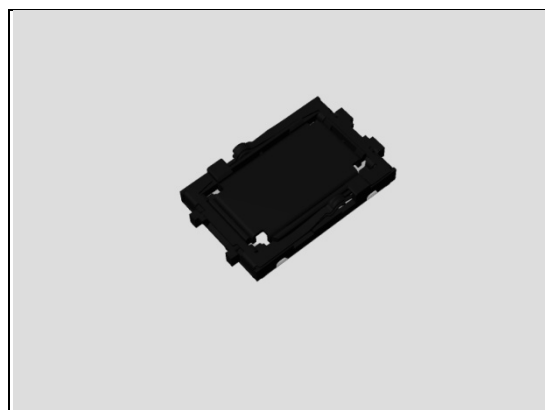
Inspect the contact pins of Receiver and the contact pads on the Main PBA.

Action:

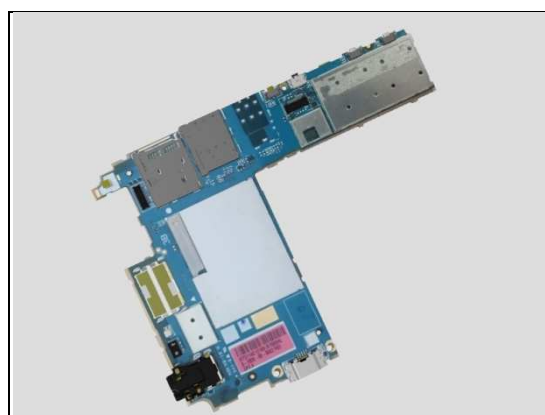
1. If dirty – clean them.



2. If the contact pins of the Receiver or if Receiver is damaged – replace the Receiver.



3. Replace Main PBA.



Problem Areas

1.8 Microphone

1.8.1 Primary Microphone

Check:

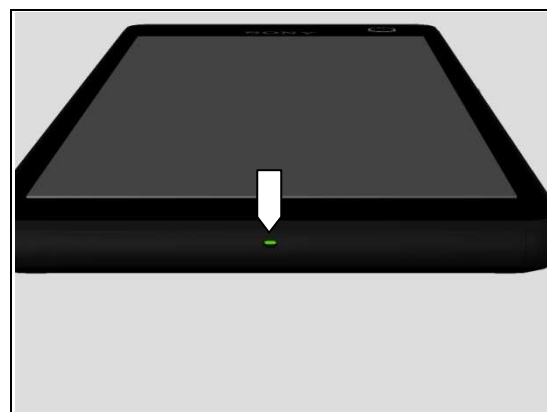
Inspect the Mic Port on the bottom of phone.

Action:

1. If clogged – clean it.



2. If the Mic Port is damaged – replace the Rear Cover Ass'y.

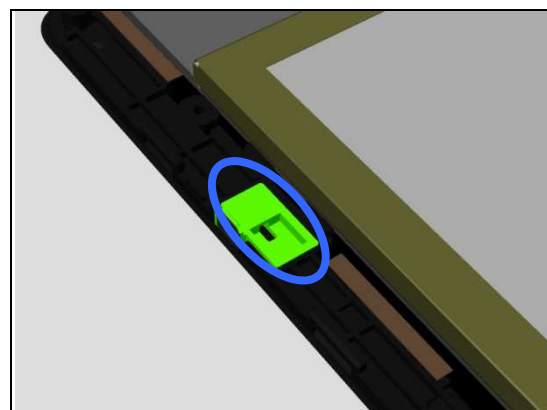


Check:

Inspect the Microphone Rubber Gasket on Front Cover Assy.

Action:

1. If dirty – clean.



2. If the Microphone Rubber Gasket is damaged – replace Front Cover Assy.



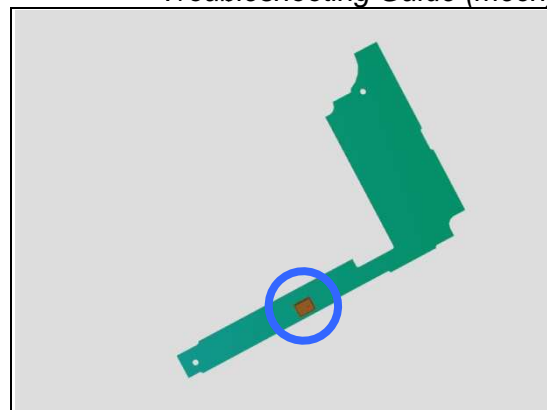
Problem Areas: Microphone

Check:

Inspect the Microphone located on the Sub PBA.

Action:

1. If clogged – clean it.
2. If the Microphone is damaged – replace the Sub PBA.

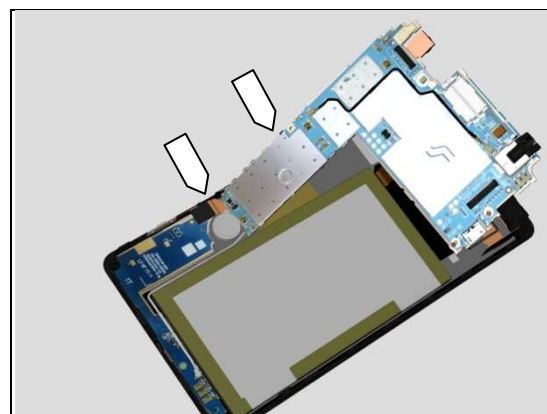


Check:

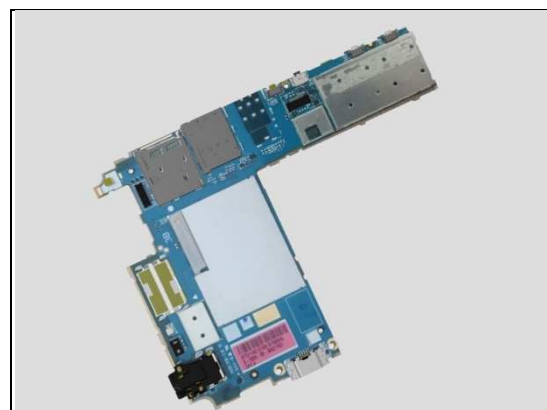
Inspect both BtB Connectors of Link FPC.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If the Link FPC is damaged – replace the Link FPC.



4. Replace Main PBA.



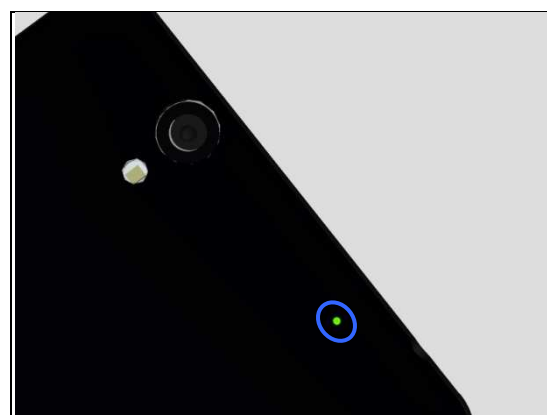
1.8.2 Secondary Microphone

Check:

Inspect the external port of secondary microphone on the Battery Cover.

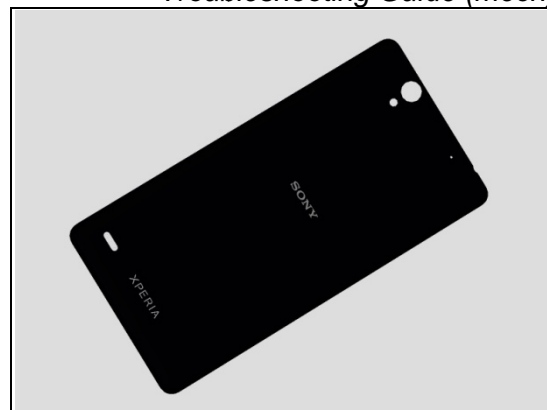
Action:

1. If clogged – clean it.



Problem Areas: Microphone

2. If Battery Cover damaged – Replace Battery Cover.

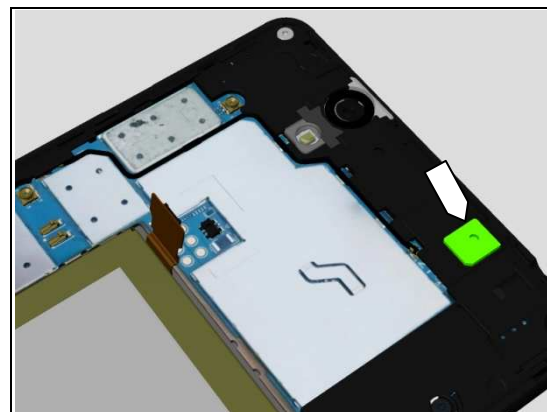


Check:

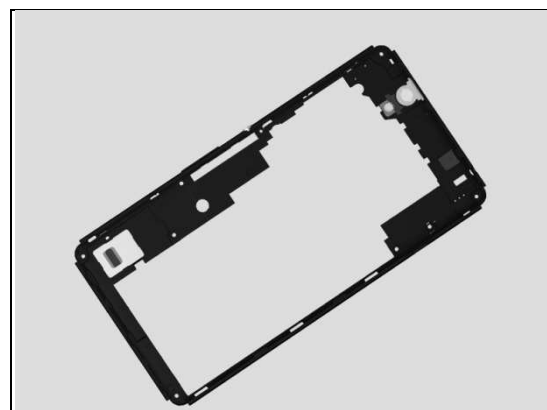
Inspect the external port of secondary microphone on the Rear Cover Ass'y.

Action:

1. If clogged – clean it.



2. If Rear Cover Ass'y is damaged – Replace Rear Cover Ass'y.

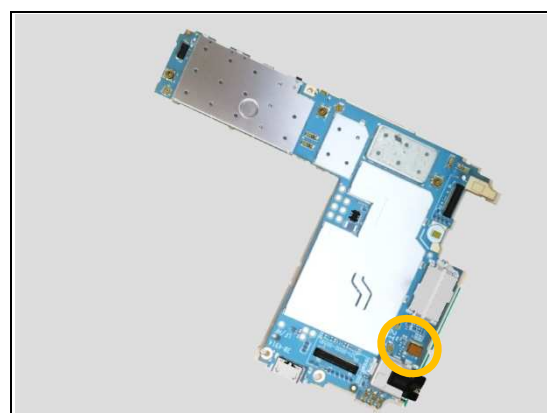


Check:

Inspect the Microphone on Main PBA.

Action:

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



Problem Areas

1.9 Vibrator

1.9.1 Vibrator not generating alerts

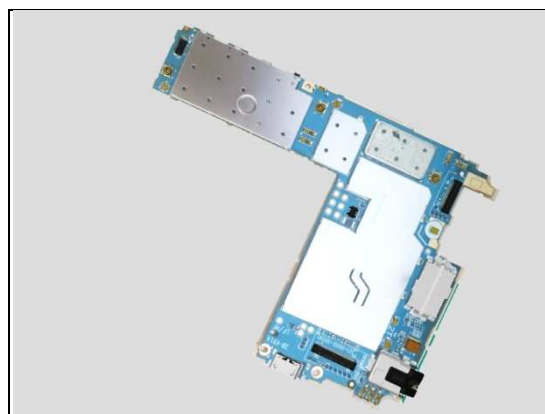
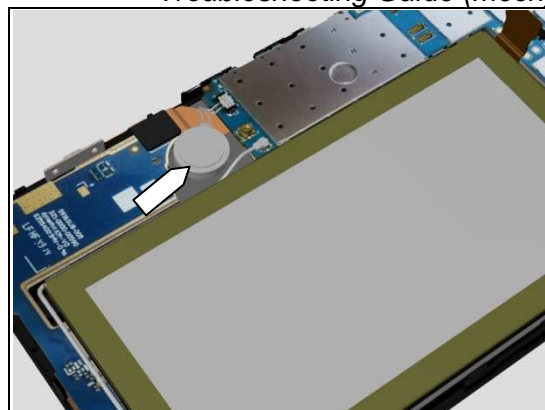
Check:

Inspect the Vibrator on Front Cover Ass'y.

Action:

1. If dirty or oxidized – clean it.
2. If not properly connected – disconnect and reconnect it.
3. If Vibrator is damaged – Replace Vibrator.

4. Replace Main PBA.



Problem Areas

1.10 Camera

1.10.1 Main Camera

Check:

Inspect the external area of camera window.

Action:

1. If dirty – clean it.

2. If scratched or damaged – replace the Rear Cover Ass'y.

Check:

Inspect the BtB connector of Main Camera to Main PBA.

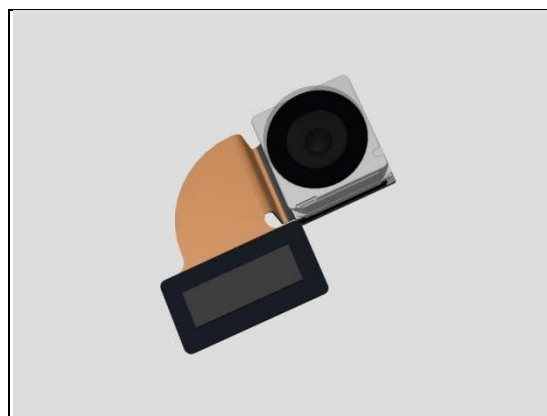
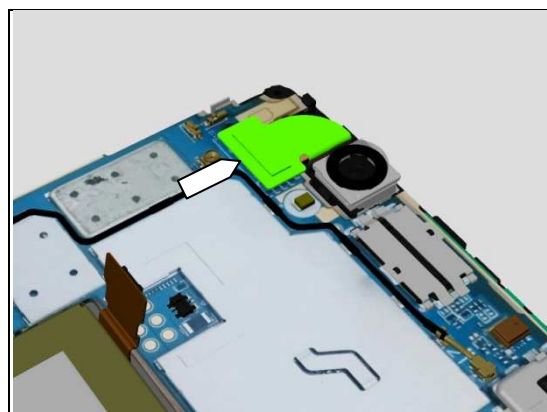
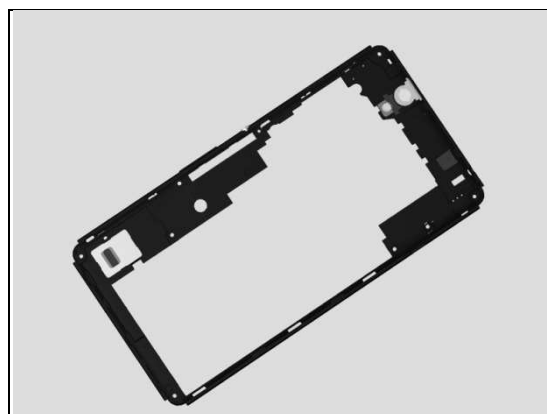
Action:

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

2. If dirty or oxidized – clean it.

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

4. Replace Main PBA.



Problem Areas: Camera

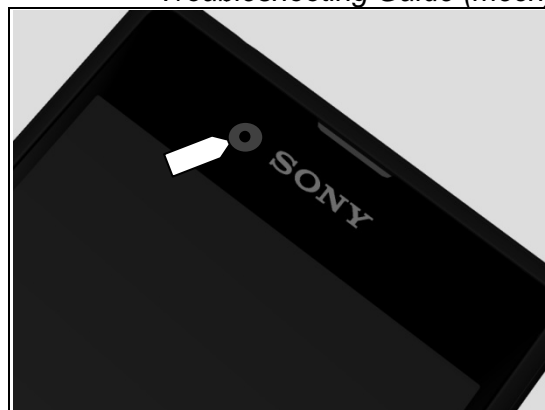
1.10.2 Video Call Camera defects

Check:

Inspect the external area of the Camera Chat window.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Front Cover Ass'y.

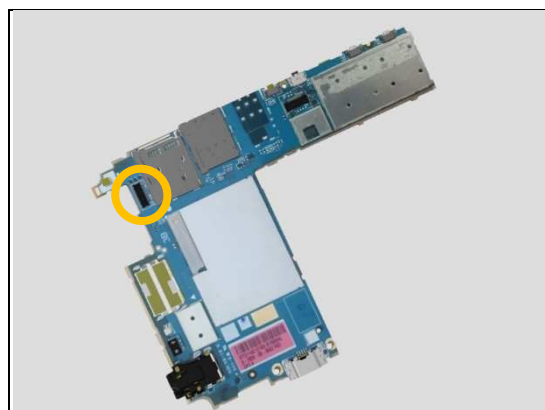


Check:

Inspect the BtB connector of Chat Camera on the Main PBA.

Action:

1. If dirty or oxidized – clean Main PBA.
2. Replace Chat Camera.
3. Replace Main PBA.



Problem Areas

1.11 Flash LED (Rear)

1.11.1 Flash LED not flashing

Check:

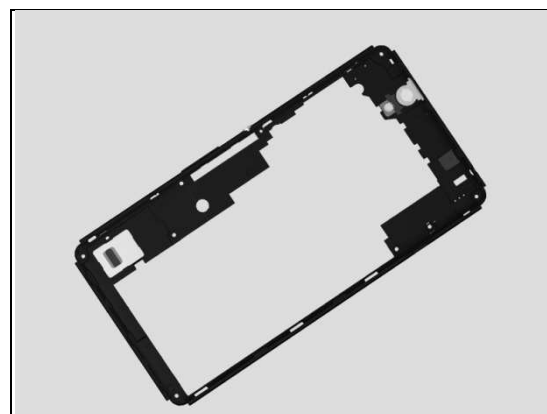
Inspect the external area of the flash LED window.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Rear Cover Ass'y.

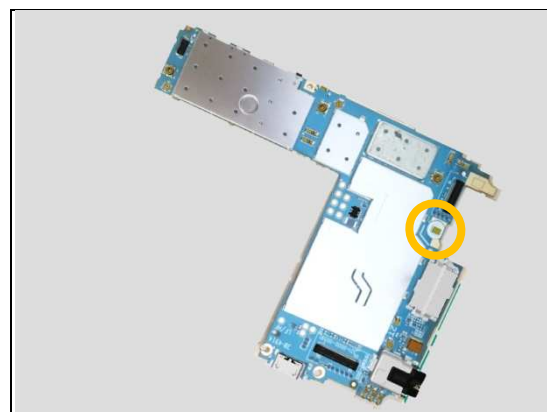


Check:

Inspect the flash LED on the Main PBA.

Action:

1. If dirty – clean it.
2. Replace Main PBA.



Problem Areas

1.12 Flash LED (Front)

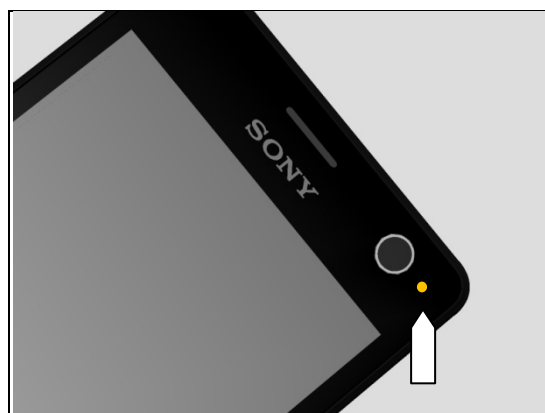
1.12.1 Flash LED not flashing

Check:

Inspect the external area of the flash LED window.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Front Cover Ass'y.



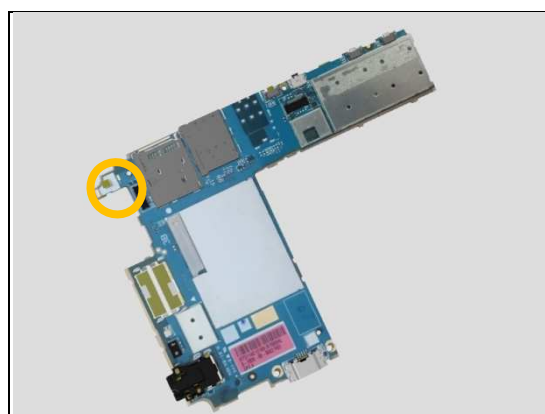
Check:

Inspect the flash LED on the Main PBA.

Action:

3. If dirty – clean it.

4. Replace Main PBA.



Problem Areas

1.13 Bluetooth and WLAN

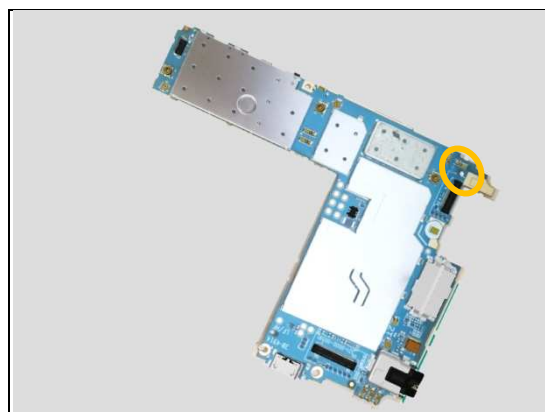
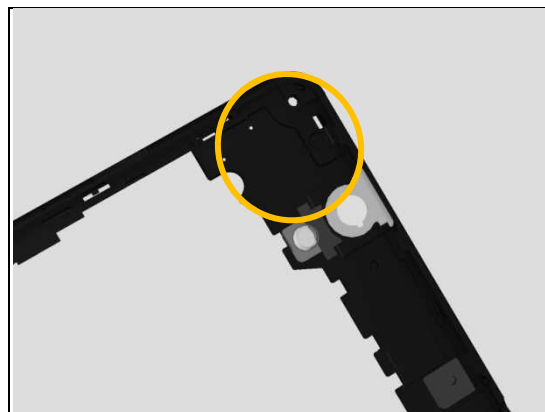
1.13.1 Bluetooth or WLAN connection failure

Check:

Inspect the Antenna BT + WLAN contact pins on Main PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.
2. Antenna BT + WLAN contact pads Rear Cover Ass'y.
3. If the antenna is damaged – replace the Rear Cover Ass'y.
3. If the contact pin on Main PBA is damaged – replace Main PBA.



Problem Areas

1.14 NFC

1.14.1 NFC malfunctions

Check:

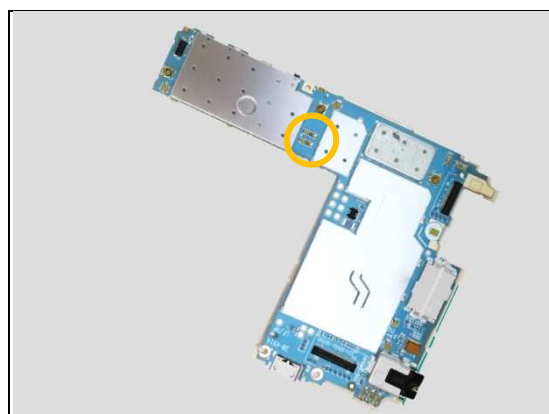
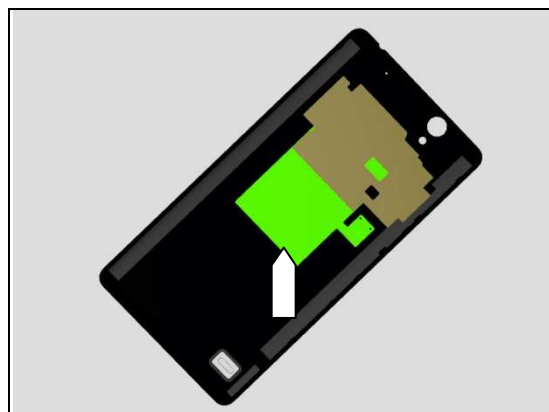
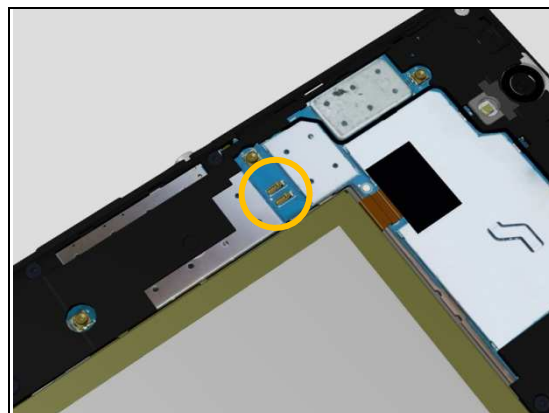
Inspect the Antenna NFC contact pads on Battery Cover and the contact pins on Main PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.

2. If the Antenna NFC contact pads are damaged – replace the Battery Cover

3. If the Main PBA contact pins are damaged - Replace the Main PBA.



Problem Areas

1.15 GPS

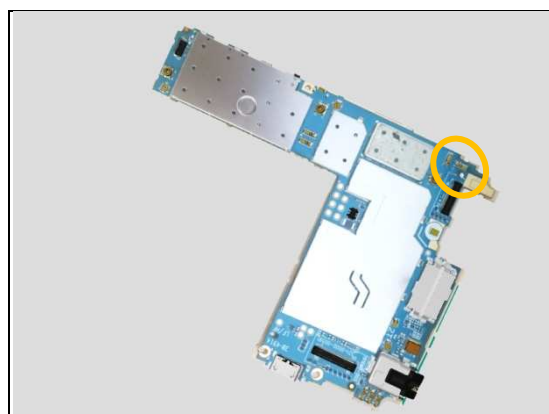
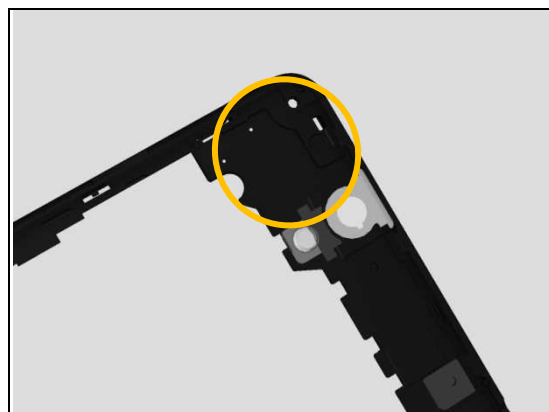
1.15.1 GPS malfunctions

Check:

Inspect the Antenna GPS contact pins on Main PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.
2. Antenna GPS contact pads Rear Cover Assy.
3. If the antenna is damaged – replace the Rear Cover Assy.
4. Replace the Main PBA.



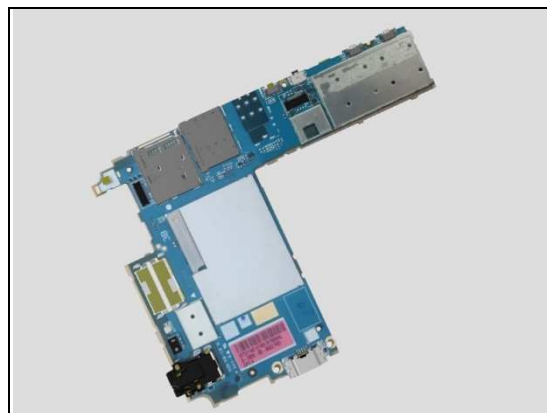
Problem Areas

1.16 Compass

1.16.1 Compass fails

Action:

Replace Main PBA.

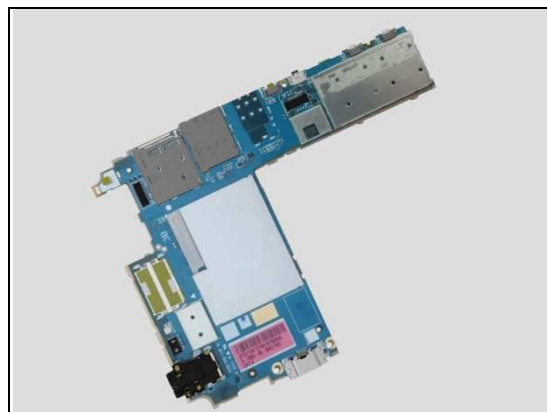


1.17 Accelerometer

1.17.1 Accelerometer test fails

Action:

Replace Main PBA.



Problem Areas

1.18 Ambient Light Sensor

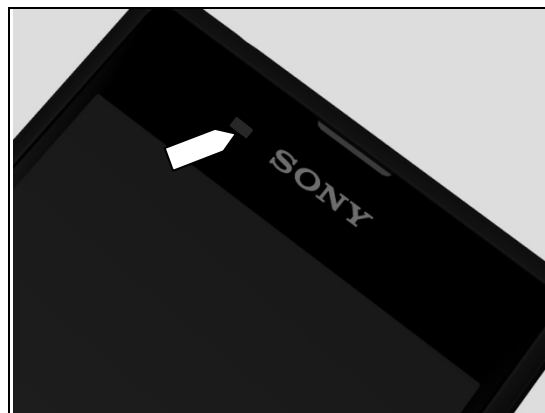
1.18.1 Light Sensor malfunctions

Check:

Inspect the external window area of light sensor located on the front of phone.

Action:

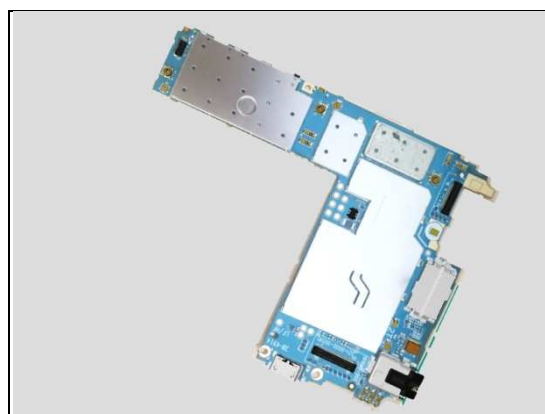
1. If dirty – clean it.



2. If scratched or damaged – replace the Front Cover Ass'y.



3. Replace Main PBA.



Problem Areas

1.19 Proximity Switch

1.19.1 Proximity switch malfunctions

Check:

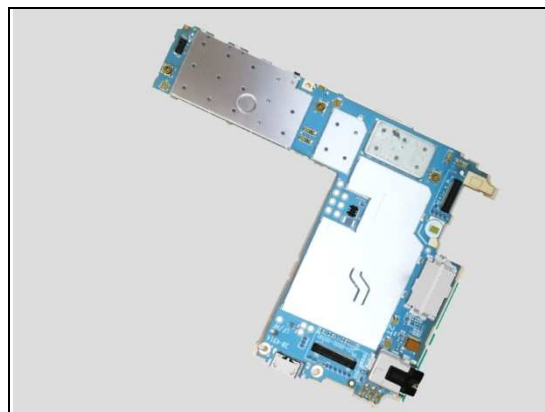
Inspect the external window area of light sensor located on the front of the phone.

Action:

1. If dirty – clean it.

2. If scratched or damaged – replace the Cover Front Ass'y.

3. Replace Main PBA



Problem Areas

1.20 Pressure Sensor

1.20.1 Pressure Sensor test fails

N/A. No Pressure sensor in the phone.

1.21 Water Resistance

1.21.1 Water Resistance fails

N/A. Not Water Resistant phone.

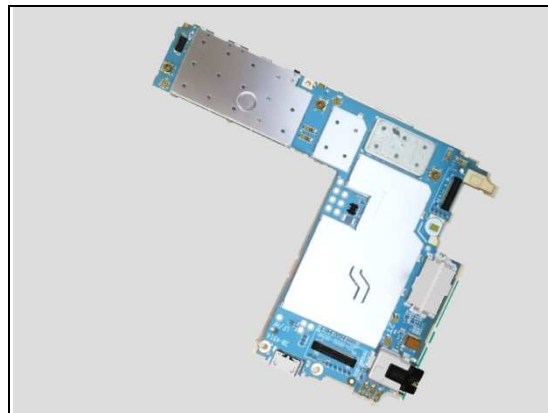
Problem Areas

1.22 Real Time Clock

1.22.1 Real time clock test fails

Action:

Replace Main PBA.

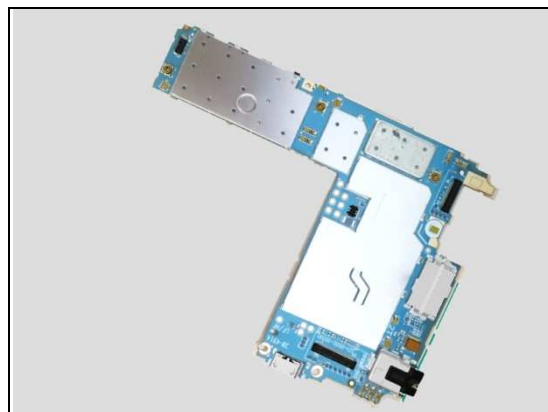


1.23 Total call time

1.23.1 Total call time fails

Action:

Replace Main PBA.



Problem Areas

1.24 External

1.24.1 Memory Card not detected

Check:

Inspect that if a memory card is properly inserted.

Action:

If not properly inserted – insert the memory card correctly.

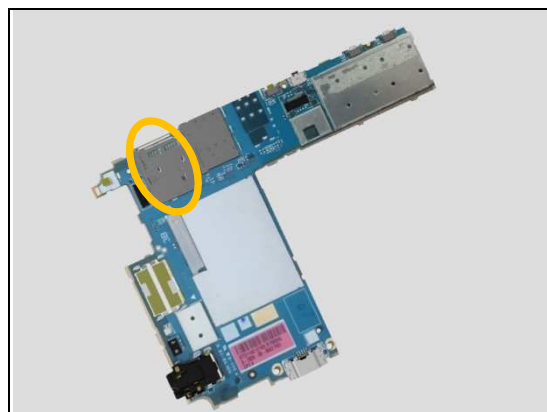


Check:

Inspect the memory card holder on Main PBA.

Action:

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

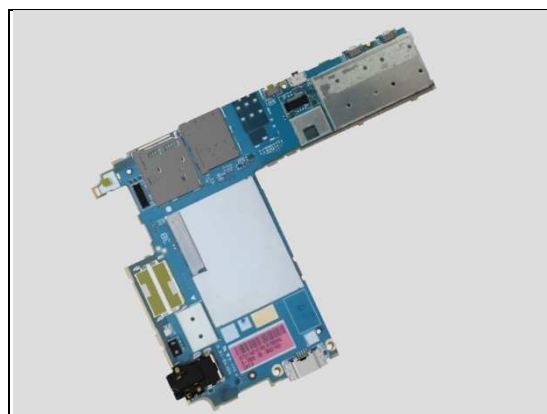


1.25 Security

1.25.1 Security fails

Action:

Replace Main PBA.



Problem Areas

1.26 FM Radio

1.26.1 No/Poor FM Radio reception

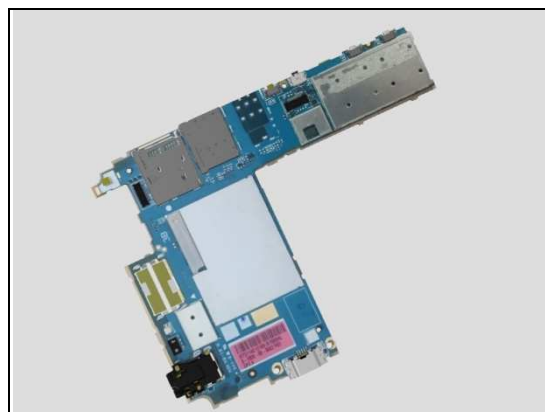
Check:

Inspect the external port of the Audio Jack.

Action:

1. If dirty or oxidized – clean it.

2. Replace Main PBA.



Problem Areas

1.27 Battery Health test

1.27.1 Battery Health test fails

N/A.

1.28 Flip Slider Counter

1.28.1 Flip Slider Counter fails

N/A. Not slider phone.

1.29 Verify Certificates

1.29.1 Verify Certificates fails

Action:

N/A.

1.30 IrDA Test

1.30.1 IrDA test fails

N/A. No IrDA functionality in the phone.

Problem Areas

1.31 TV-Out Test

1.31.1 TV-Out test fails

N/A. No TV Out functionality in this phone.

Problem Areas

1.32 Network & Signal

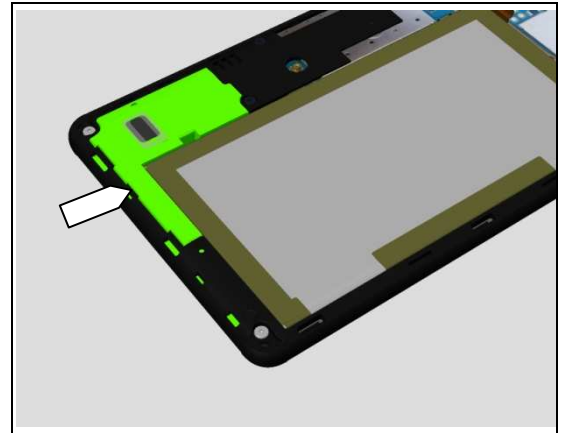
1.32.1 No/Poor signal

Check:

Inspect the Antenna Main RF attached to Rear Cover Ass'y is assembled correctly.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the pads and pins.
3. If the Antenna Main RF is damaged – replace the Rear Cover Ass'y

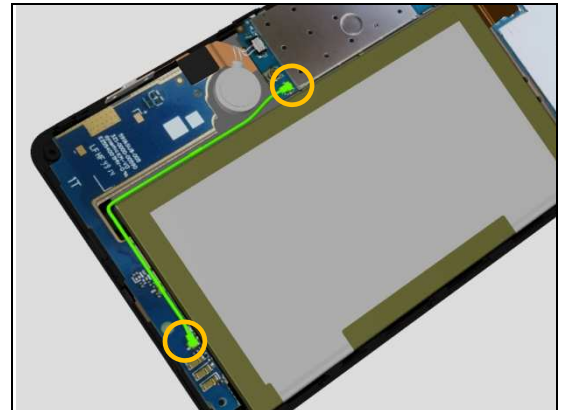


Check:

Inspect the Coaxial Cable assembly.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the Coaxial Cable connectors
3. If the Coaxial Cable is damaged – replace the Coaxial cable.



Check:

Inspect the Sub PBA assembly.

Action:

1. If dirty or oxidized – clean the contact pins.
2. If the Sub PBA is damaged – replace the Sub PBA.

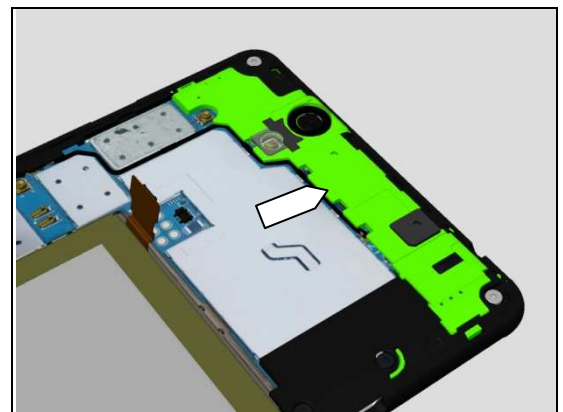


Check:

Inspect the Diversity Antenna on Rear Cover Ass'y is assembled correctly.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the pads and pins.
3. If the Diversity Antenna is damaged – replace the Rear Cover Ass'y.



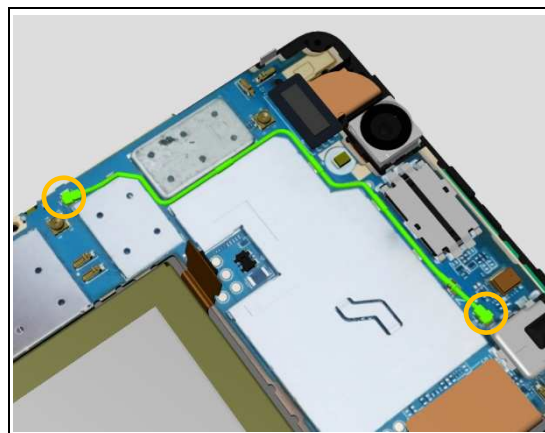
Problem Areas

Check:

Inspect the Low Loss Coaxial Cable assembly.

Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the Low Loss Coaxial Cable connectors
3. If the Low Loss Coaxial Cable is damaged – replace the Low Loss Coaxial cable.

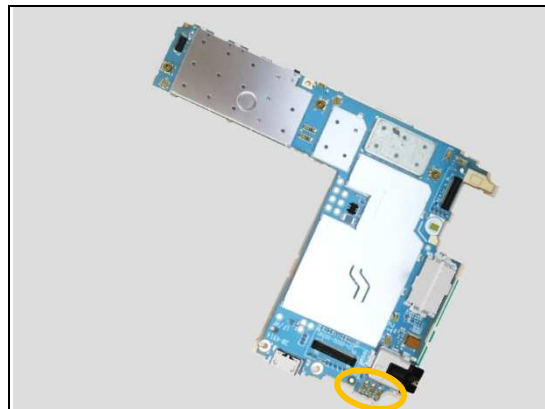


Check:

Inspect the Main PBA assembly.

Action:

1. If dirty or oxidized – clean the contact pins.
2. If the Main PBA is damaged – replace the Main PBA.



Problem Areas

1.33 SIM

1.33.1 SIM not detected

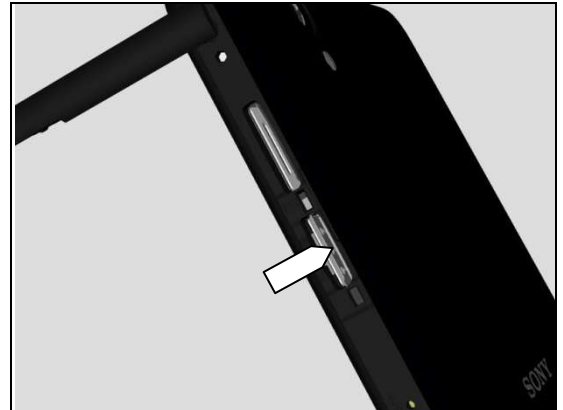
Check:

Inspect the external port of the SIM card holder and check if a SIM card can be properly inserted.

(Picture illustration shown Single SIM variant)

Action:

If dirty or clogged – clean the external port.



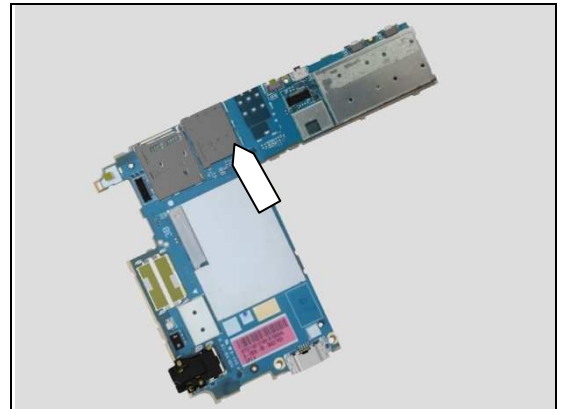
Check:

Inspect the SIM card holder on Main PBA.

(Picture illustration shown Single SIM variant)

Action:

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



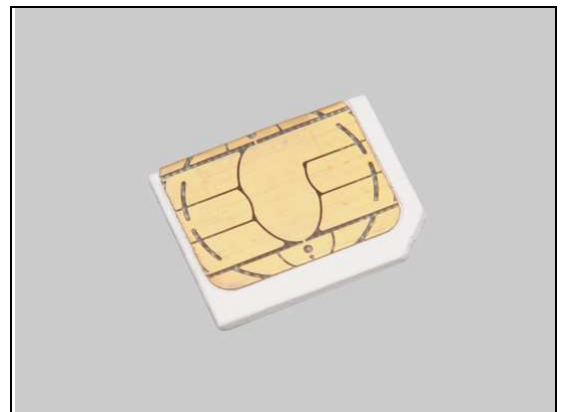
1.33.2 Incorrect UIM or SIM indicated

Check:

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

Action:

1. Use a proper operator UIM/SIM or test UIM/SIM.
2. Customize in Emma to the correct SI according label.
3. Replace Main PBA.



Problem Areas

1.34 Charging

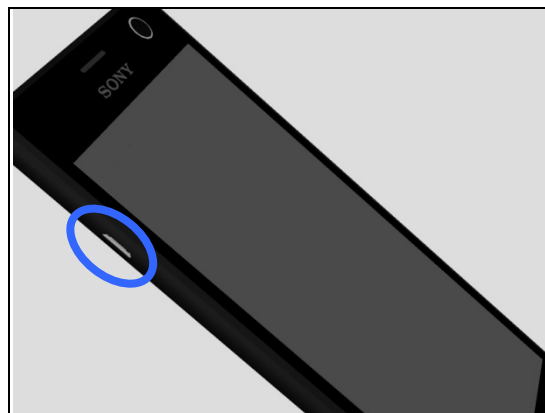
1.34.1 Battery will not charge by USB connector

Check:

Inspect the USB connector.

Action:

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

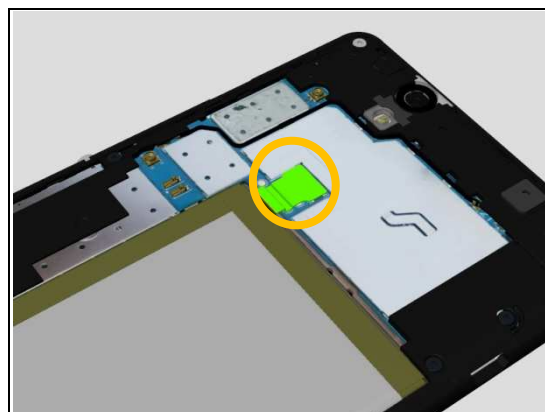


Check:

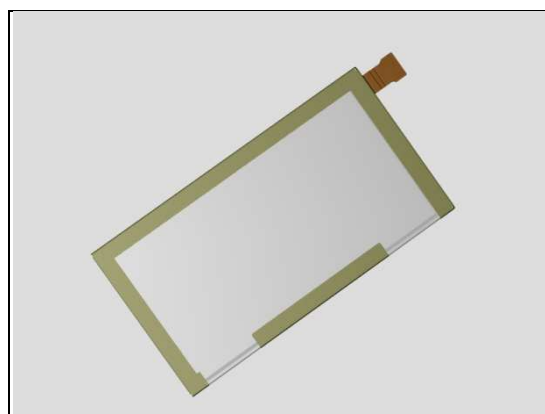
Inspect the BtB Connector of the Battery to Main PBA.

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 BtB connector on Battery 2600mAh is damaged – replace the Battery 2600mAh.
4. Replace Main PBA.



Problem Areas

1.35 Hands-Free by Wire

1.35.1 Connection to portable Hands-free fails

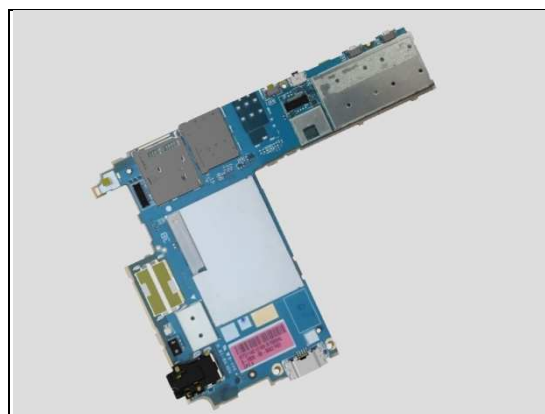
Check:

Inspect the external port of the Audio Jack.

Action:

1. If dirty or oxidized – clean it.

2. Replace Main PBA.



Problem Areas

1.36 Data Communication

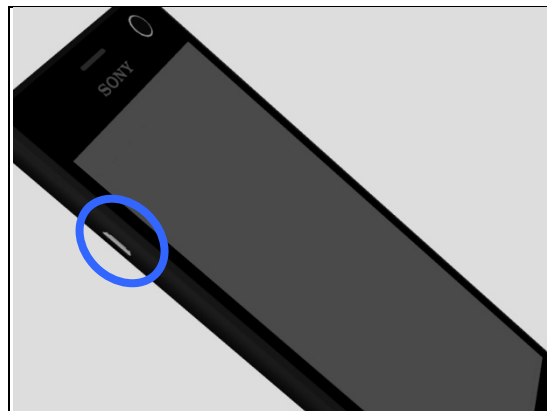
1.36.1 Data transfer via System Connector fails

Check:

Inspect the USB connector.

Action:

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



2 Revision History

| Rev. | Date | Changes / Comments |
|------|-------------|-----------------------------|
| 1 | 2015-May-18 | Released |
| 2 | 2015-May-28 | Make.Believe Header removed |