

Troubleshooting Guide

- mechanical -

Sony Xperia Ion



LT28i, LT28h



LT28at

CONTENTS

1	Problem Areas	4
1.1	Power	4
1.1.1	Will not power on or will switch off randomly.....	4
1.2	Keys	6
1.2.1	Menu, Home, Back and Search Keys	6
1.2.2	Key Camera.....	6
1.2.3	Key Volume	7
1.2.4	Key On/Off	8
1.3	Touch Screen	10
1.3.1	Touch Screen malfunction.....	10
1.4	Display	12
1.4.1	Graphics & Illumination	12
1.5	LED/Illumination	14
1.5.1	LED/Illumination	14
1.5.2	Menu, Home, Back, and Search keys Illumination	15
1.6	Speaker	17
1.6.1	Loudspeaker	17
1.7	Earphone	19
1.7.1	Earphone	19
1.8	Microphone.....	21
1.8.1	Microphone	21
1.8.2	Secondary Microphone	23
1.9	Vibrator	26
1.9.1	Vibrator not generating alerts	26
1.10	Camera.....	27
1.10.1	Camera defects.....	27
1.10.2	Video Call Camera defects.....	28
1.11	Flash LED	29
1.11.1	Flash LED not flashing.....	29
1.12	Bluetooth and WLAN	31
1.12.1	Bluetooth or WLAN connection failure.....	31
1.13	NFC	32
1.13.1	NFC malfunctions	32
1.14	GPS	34
1.14.1	GPS malfunctions.....	34
1.15	Compass.....	35
1.15.1	Compass fails	35
1.16	Accelerometer	36
1.16.1	Accelerometer test fails	36
1.17	Gyroscope	37
1.17.1	Gyroscope test fails	37
1.18	Ambient Light Sensor	38

1.18.1	Light Sensor malfunctions	38
1.19	Proximity Switch	39
1.19.1	Proximity switch malfunctions.....	39
1.20	Pressure Sensor.....	40
1.20.1	Pressure Sensor test fails.....	40
1.21	Water Proof.....	41
1.21.1	Water Proof fails	41
1.22	Real Time Clock	42
1.22.1	Real Time Clock test fails	42
1.23	Total call time	43
1.23.1	Total call time fails	43
1.24	External Memory	44
1.24.1	Memory Card not detected	44
1.25	Security.....	45
1.25.1	Security fails	45
1.26	FM Radio.....	46
1.26.1	No/Poor FM Radio reception	46
1.27	Flip slider counter	48
1.27.1	Flip slider counter fails	48
1.28	Verify Certificates.....	49
1.28.1	Verify certificates fails.....	49
1.29	IrDA Test	50
1.29.1	IrDA test fails	50
1.30	HDMI Test	51
1.30.1	HDMI test fails.....	51
1.31	Connector Ground Test	52
1.31.1	Connector ground test fails.....	52
1.32	Network & Signal.....	53
1.32.1	No/Poor signal	53
1.33	SIM	56
1.33.1	SIM not detected.....	56
1.33.2	Incorrect SIM indicated	57
1.34	Charging	58
1.34.1	Battery will not charge	58
1.35	HandsFree by Wire.....	59
1.35.1	Connection to Portable HandsFree fails.....	59
1.36	Data Communication	61
1.36.1	Data transfer via System Connector fails.....	61
2	Revision History	62

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 key on/off.

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. Follow Test Instruction (Charging via USB), Diagnostic Battery / Charging status.

Check:

Inspect the Key On/Off.

Action:

1. If dirty – clean it.

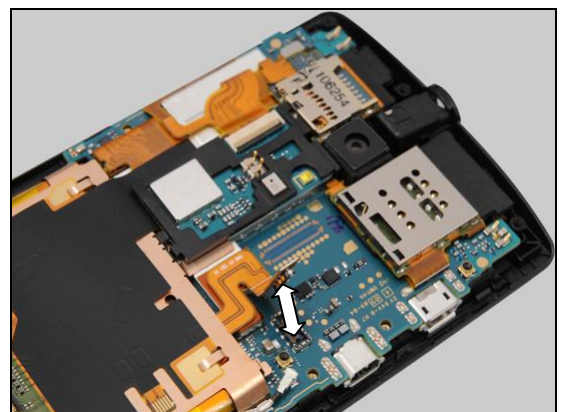
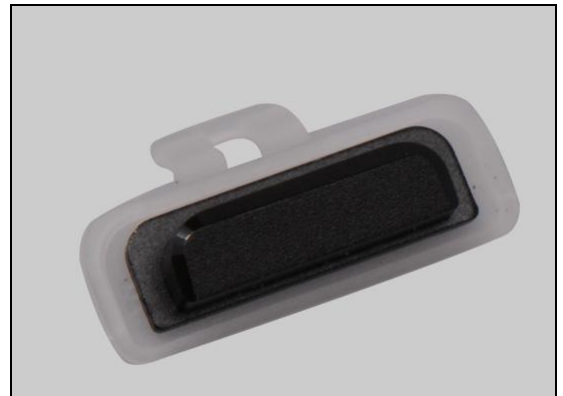
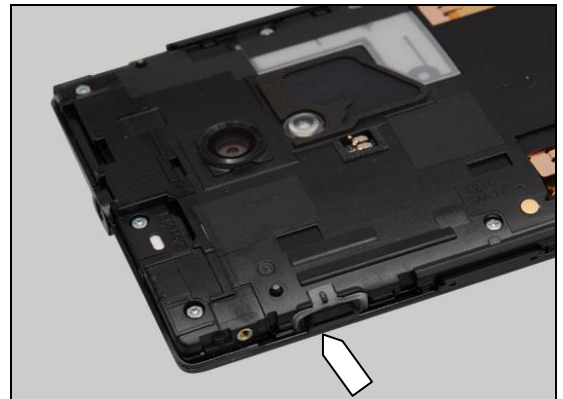
2. If damaged – replace it.

Check:

Inspect the BtB connector of battery to the PBA.

Action:

1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean the both sides of the BtB connector.
3. Check current draw in off mode by using "Dummy Battery" (max 1 mA).



Problem Areas: Power

Check:

Inspect the Battery 1900mAh.

Action:

If the battery or its BtB connector is damaged – replace the Battery 1900mAh.



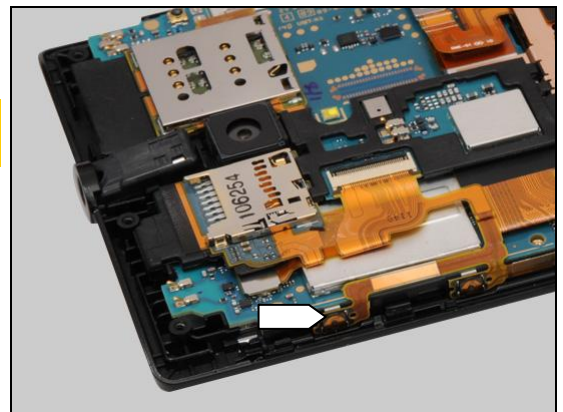
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the key on/off switch and FPC of the FPC Side Key.

Action:

If dirty – clean it.

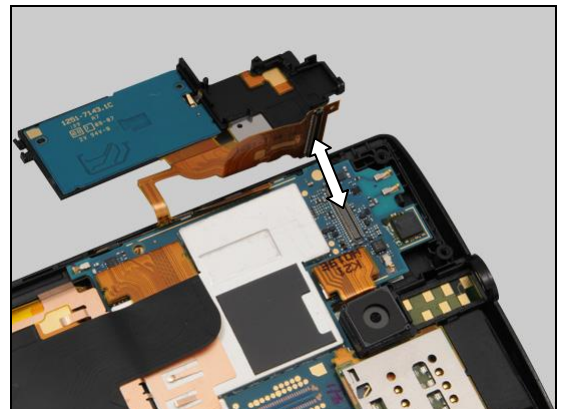


Check:

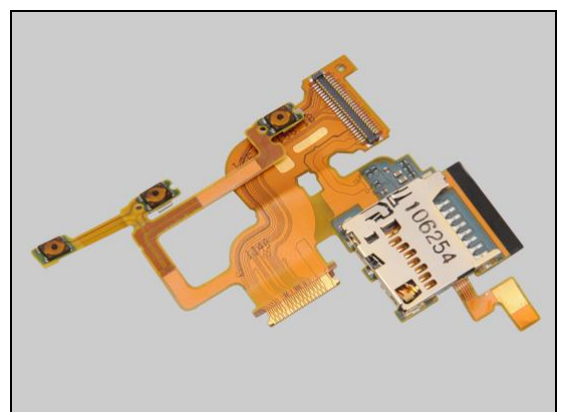
Inspect the BtB connector of FPC Side Key to the PBA.

Action:

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



3. If the key on/off switch, the FPC or the BtB connector of FPC Side Key is damaged – replace the FPC Side Key.
4. Replace board.



Problem Areas

1.2 Keys

1.2.1 Menu, Home, Back and Search Keys

Check:

Inspect the menu, home, back and search keys on the Cover Front.

Action:

1. Refer to the section 1.3 'Touch Screen'.
2. Replace board.



1.2.2 Key Camera

Check:

Inspect the Key Camera.

Action:

1. If dirty – clean it.

2. If damaged – replace it.



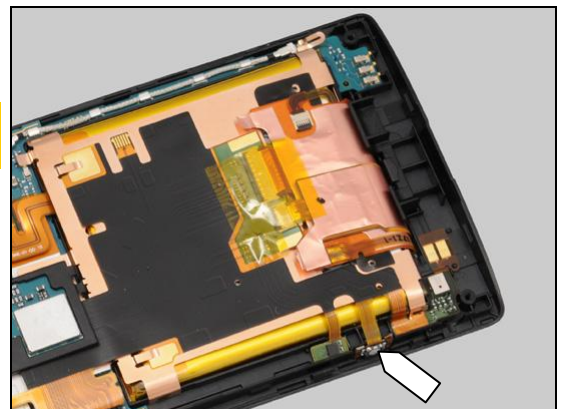
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the key camera switch.

Action:

- If dirty – clean it.



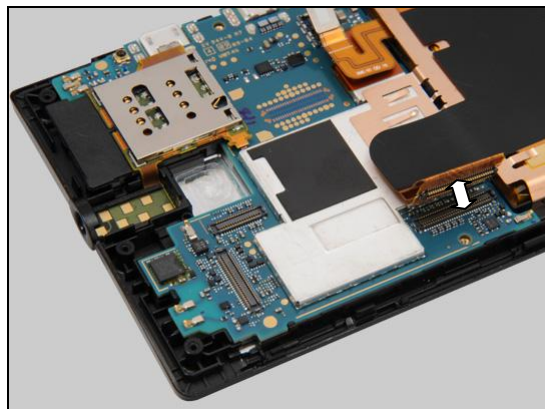
Problem Areas: Keys

Check:

Inspect the BtB connector of FPC Bottom Flex to the PBA.

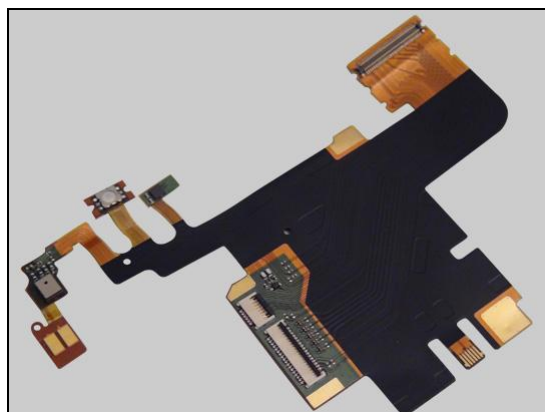
Action:

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



3. If the key camera switch, the FPC or the BtB connector of FPC Bottom Flex is damaged – replace the FPC Bottom Flex.

4. Replace board.



1.2.3 Key Volume

Check:

Inspect the Key Volume.

Action:

1. If dirty – clean it.



2. If damaged – replace it.



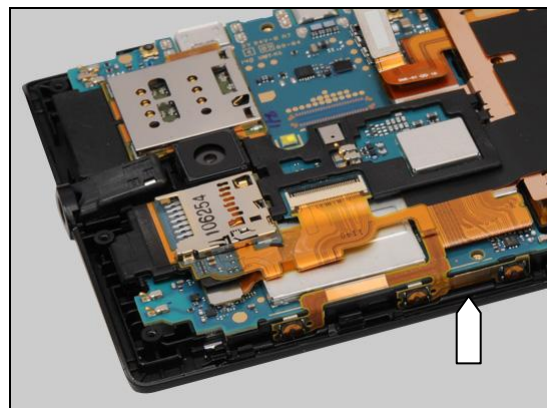
Problem Areas: Keys

Check:

Inspect the key volume switch and the FPC Side Key.

Action:

If dirty – clean it.

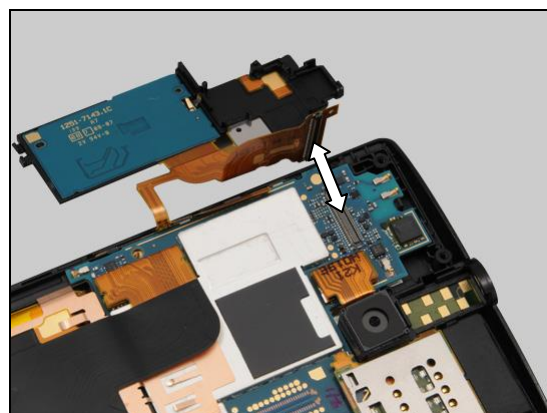


Check:

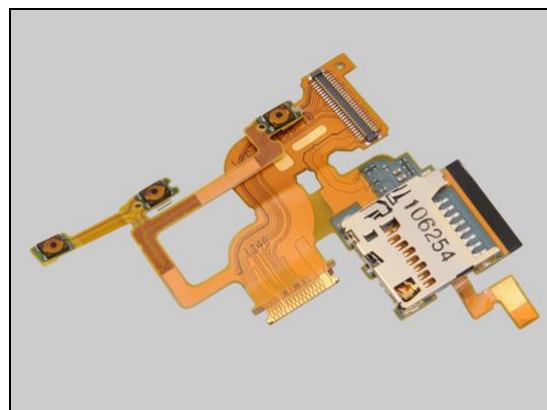
Inspect the BtB connector of FPC Side Key to the PBA.

Action:

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



3. If the key volume switch, the FPC or the BtB connector of FPC Side Key is damaged – replace the FPC Side Key.
4. Replace board.



1.2.4 Key On/Off

Check:

Inspect the Key On/Off.

Action:

1. If dirty – clean it.



Problem Areas: Keys

2. If damaged – replace it.

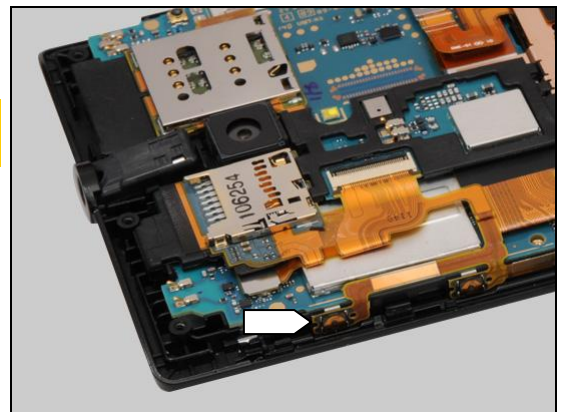
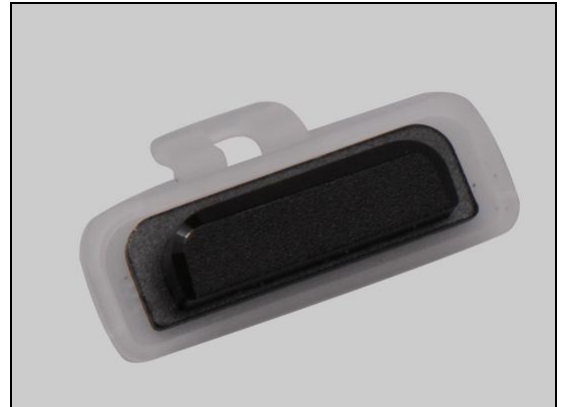
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the key on/off switch.

Action:

If dirty – clean it.

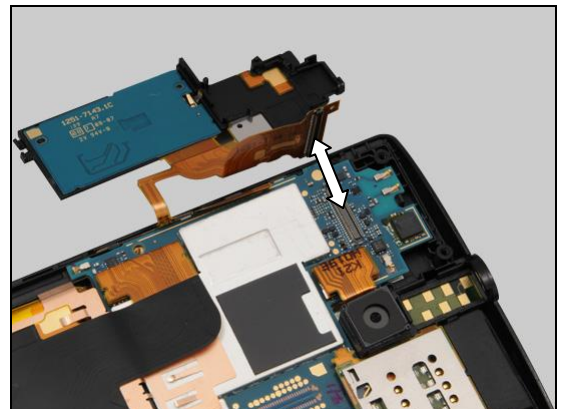


Check:

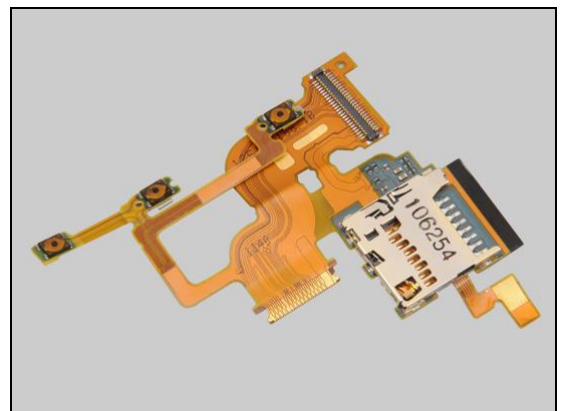
Inspect the BtB connector of FPC Side Key to the PBA.

Action:

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



3. If the key on/off switch, the FPC or the BtB connector of FPC Side Key is damaged – replace the FPC Side Key.
4. Replace board.



Problem Areas

1.3 Touch Screen

1.3.1 Touch Screen malfunction

Check:

Inspect the touch screen.

Action:

If dirty – clean it.



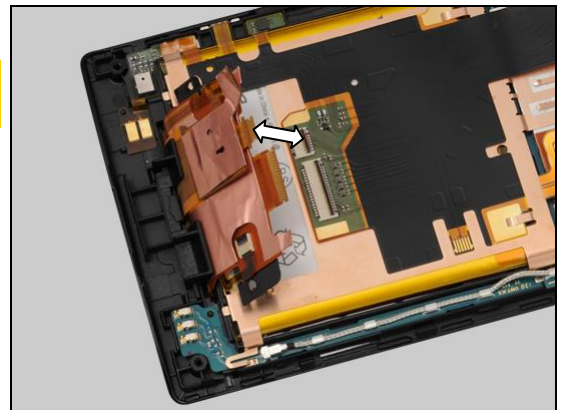
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the both sides of the ZIF connector on the FPC Bottom Flex and the touch panel FPC of Cover Front Assy.

Action:

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



3. If the touch panel FPC or the touch screen is damaged – replace the Cover Front Assy.

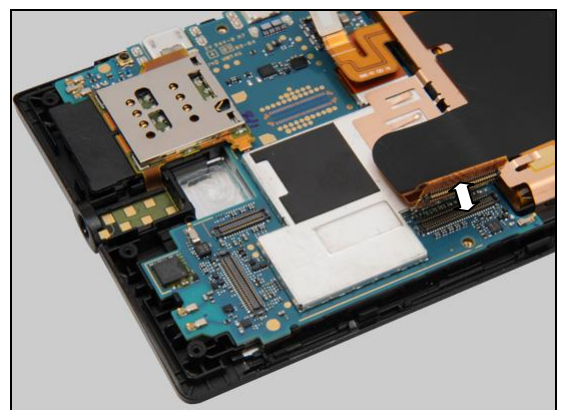


Check:

Inspect the BtB connector of FPC Bottom Flex to the PBA.

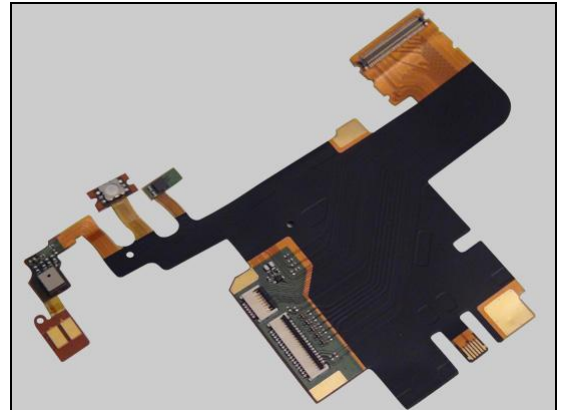
Action:

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



Problem Areas: Touch Screen

3. If the ZIF connector, the BtB connector or FPC of FPC Bottom Flex is damaged – replace the FPC Bottom Flex.
4. Replace board.



Problem Areas

1.4 Display

1.4.1 Graphics & Illumination

Check:

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

Action:

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

Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the both sides of the ZIF connector on the FPC Bottom Flex and the LCD FPC of Cover Front Assy.

Action:

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

Check:

Inspect the LCD.

Action:

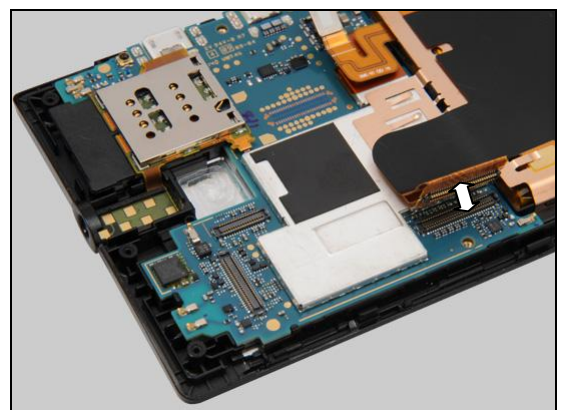
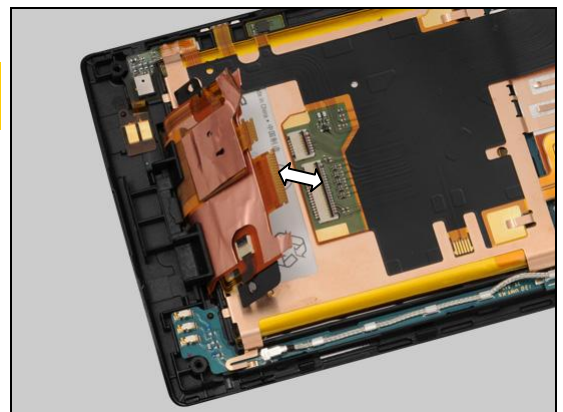
1. If dirty – clean it.
2. If the LCD or the LCD FPC is damaged – replace the Cover Front Assy.

Check:

Inspect the BtB connector of FPC Bottom Flex to the PBA.

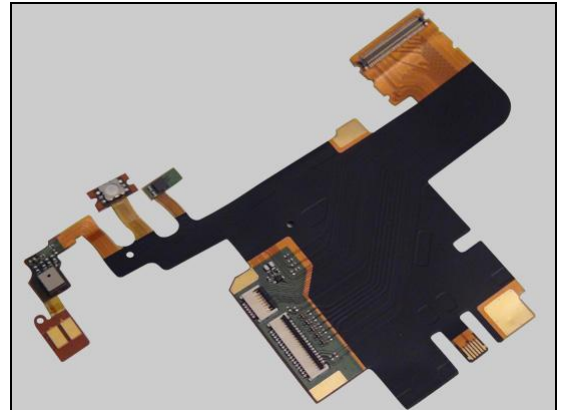
Action:

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



Problem Areas: Display

3. If the ZIF connector, the BtB connector or FPC of FPC Bottom Flex is damaged – replace the FPC Bottom Flex.
4. Replace board.



Problem Areas:

1.5 LED/Illumination

1.5.1 LED/Illumination

Check:

Inspect the external window area of the RGB LED on the Cover Front Assy.

Action:

1. If dirty – clean it.

2. If the external window area is damaged – replace the Cover Front Assy.

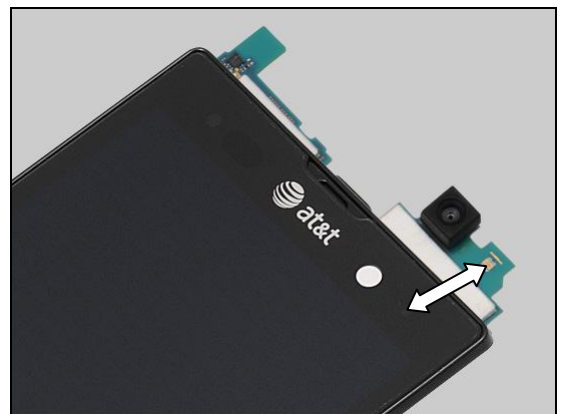
Check:

Inspect the RGB LED on the PBA.

Action:

1. If dirty or clogged – clean it.

2. Replace board.



Problem Areas: Illumination

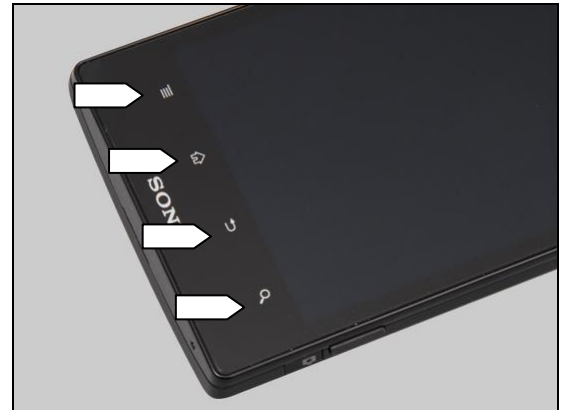
1.5.2 Menu, Home, Back, and Search keys Illumination

Check:

Inspect the illumination window of the menu, home, back and search keys on the Cover Front Assy.

Action:

If dirty – clean them.



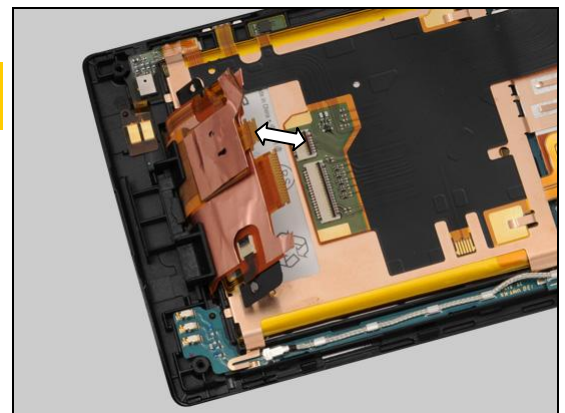
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the both sides of the ZIF connector on the FPC Bottom Flex and the touch panel FPC of Cover Front Assy.

Action:

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



3. If the touch panel FPC or the illumination window of the keys is damaged – replace the Cover Front Assy.

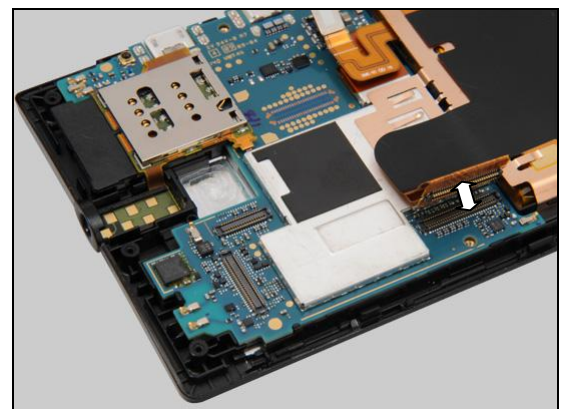


Check:

Inspect the BtB connector of FPC Bottom Flex to the PBA.

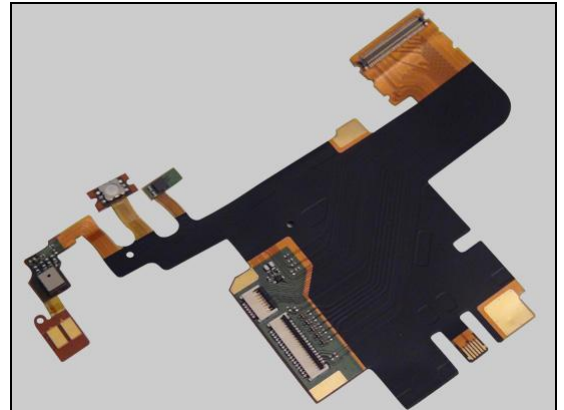
Action:

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



Problem Areas: Illumination

3. If the ZIF connector, the BtB connector or FPC of FPC Bottom Flex is damaged – replace the FPC Bottom Flex.
4. Replace board.



Problem Areas

1.6 Speaker

1.6.1 Loudspeaker

Check:

Inspect the Loudspeaker's external port on the Cover Rear Sub Assy.

Action:

1. If the loudspeaker external port is clogged – clean it.



2. If the loudspeaker external port is damaged – replace the Cover Rear Sub Assy.

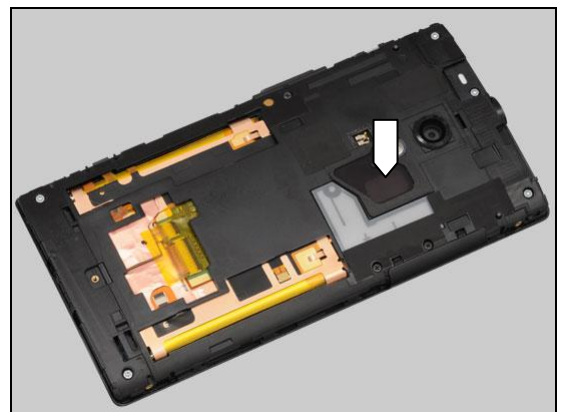


Check:

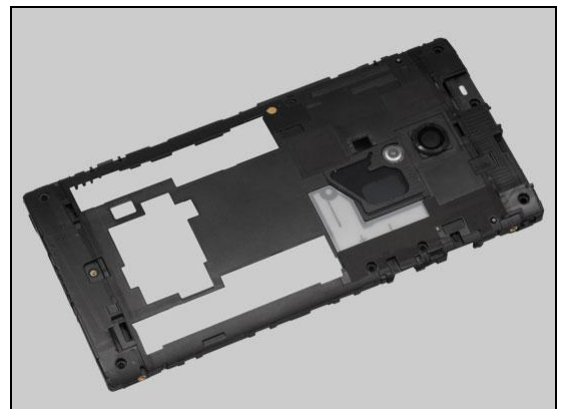
Inspect the gasket loudspeaker on the Frame Rear Assy.

Action:

1. If dirty – clean it.



2. If the gasket is damaged – replace the Frame Rear Assy.



Problem Areas: Speaker

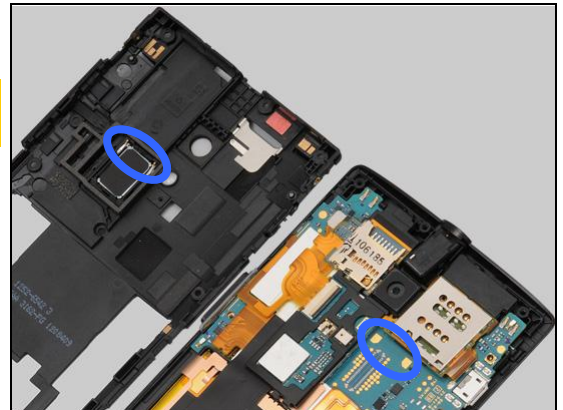
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the Loudspeaker's pins and the pads on the Main PBA.

Action:

1. If dirty – clean them.
2. If the pins of the Loudspeaker are damaged – replace the Loudspeaker.
3. Replace board.



Problem Areas

1.7 Earphone

1.7.1 Earphone

Check:

Inspect the Ear Speaker's external port on the Cover Front Assy.

Action:

1. If clogged – clean it.



2. If the port is damaged – replace the Cover Front Assy.



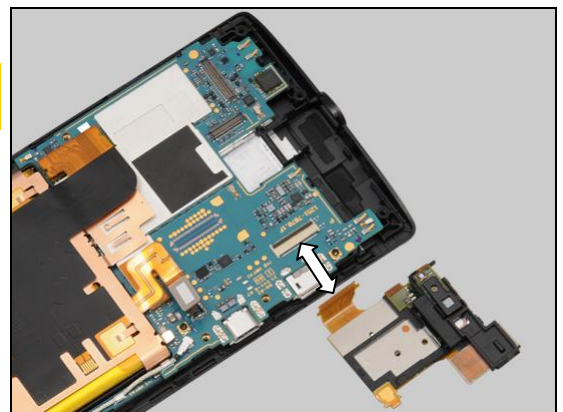
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the both sides of the ZIF connector on the Main PBA and the FPC Top Flex.

Action:

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

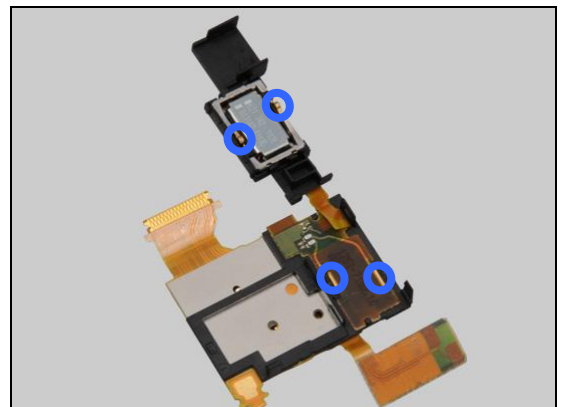


Check:

Inspect the Earspeaker's pins and the pads on the FPC Top Flex.

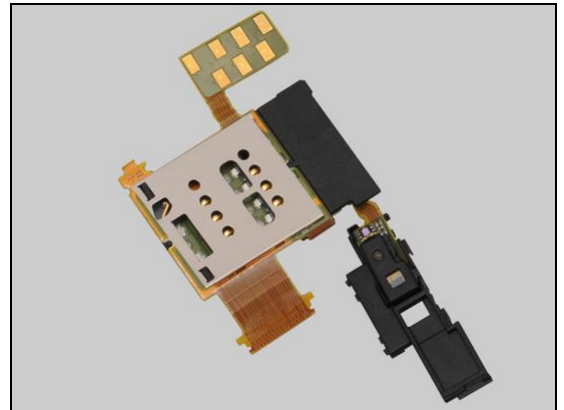
Action:

1. If dirty – clean them.

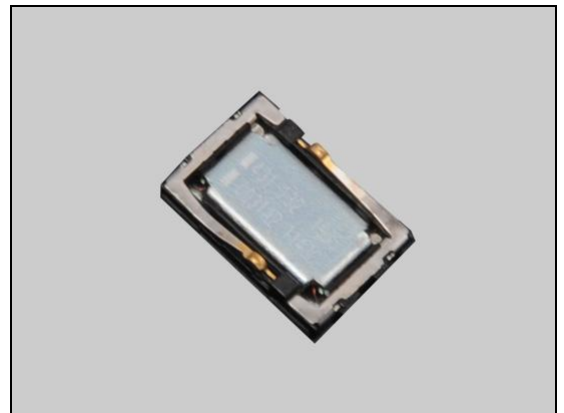


Problem Areas: Earphone

2. If the ZIF connector or the pads of FPC Top Flex is damaged – replace the FPC Top Flex.



3. If the pins are damaged – replace the Earspeaker.
4. Replace board.



Problem Areas

1.8 Microphone

1.8.1 Microphone

Check:

Inspect the Microphone's external port on the Cover Front Assy.

Action:

1. If clogged – clean the port.

2. If the port is damaged – replace the Cover Front Assy.



Note: Ensure the BtB connector of battery is disconnected in the following steps!

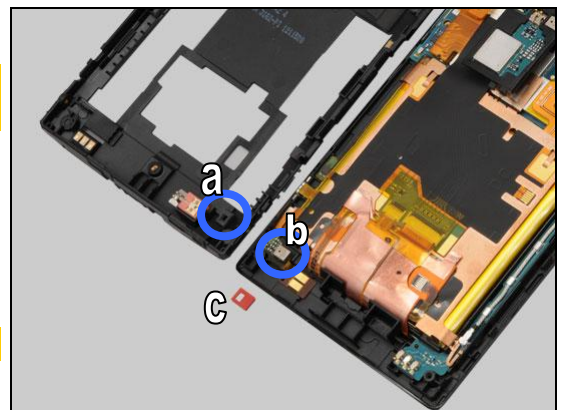
Check:

Inspect the gasket Mic (a), the microphone (b) and rubber Mic (c)

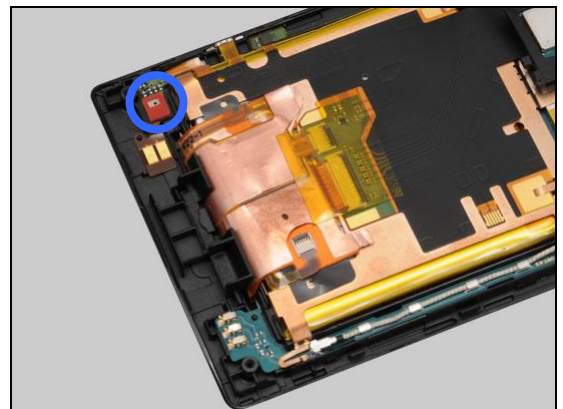
Action:

1. If there has gasket Mic (a) – remove it.

The gasket Mic(a) must be removed!

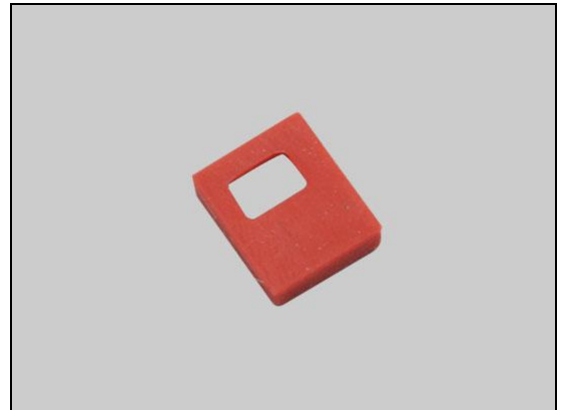


2. If there is no Rubber Mic (c) on microphone (b) – assemble a rubber Mic (c) as show in the picture.



Problem Areas: Microphone

3. If the Rubber Mic is damaged –replace it.

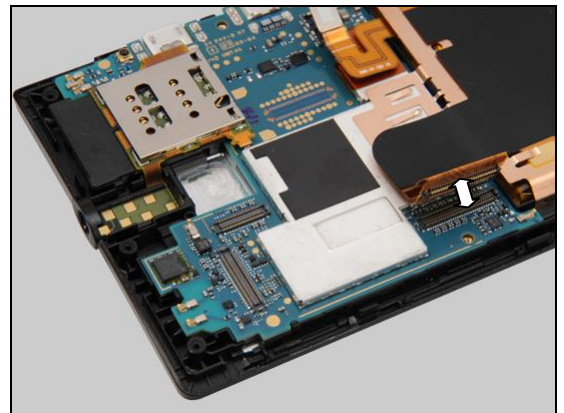


Check:

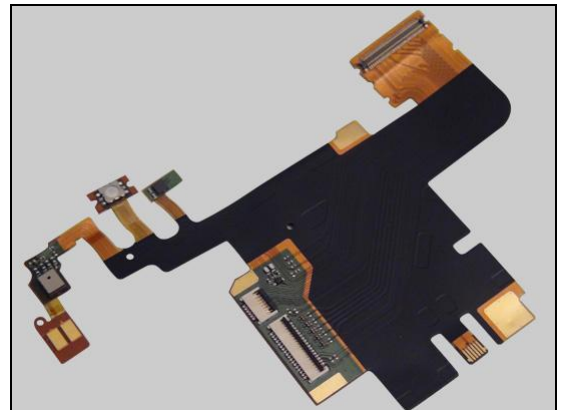
Inspect the BtB connector of FPC Bottom Flex to the PBA.

Action:

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



3. If the BtB connector or the Microphone of FPC Bottom Flex is damaged – replace the FPC Bottom Flex.
4. Replace board.



Problem Areas: Microphone

1.8.2 Secondary Microphone

Check:

Inspect the secondary microphone's external port on the Cover Rear Sub Assy.

Action:

1. If clogged – clean the port.

2. If the port is damaged – replace the Cover Rear Sub Assy.



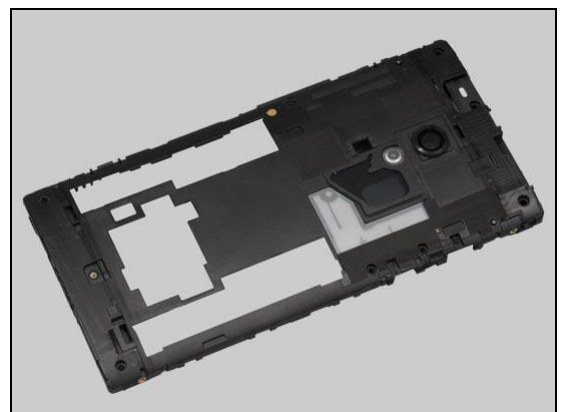
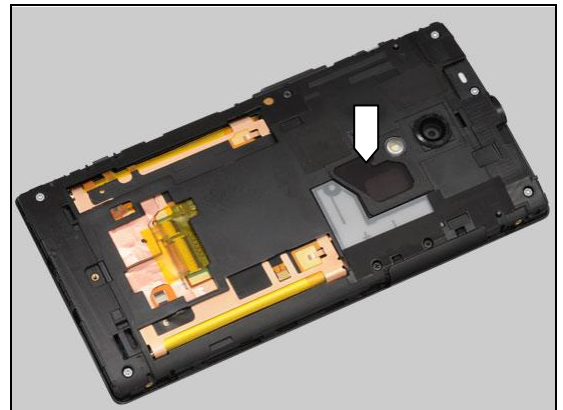
Check:

Inspect the mesh of the secondary microphone on the Frame Rear Assy.

Action:

1. If dirty – clean it.

2. If the mesh is damaged – replace the Frame Rear Assy.



Problem Areas: Microphone

Note: Ensure the BtB connector of battery is disconnected in the following steps!

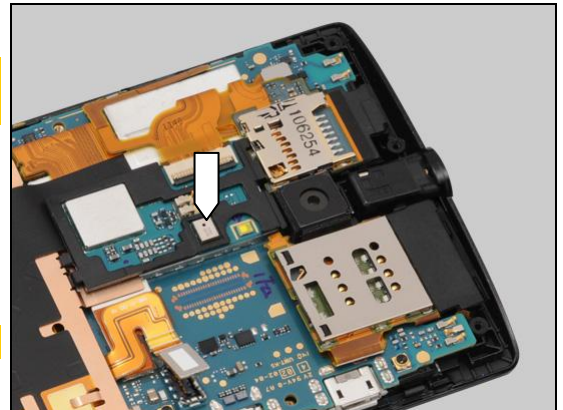
Check:

Inspect the secondary microphone on the PBA Sub NFC Assy.

Action:

If dirty – clean it.

Liquid is not allowed!

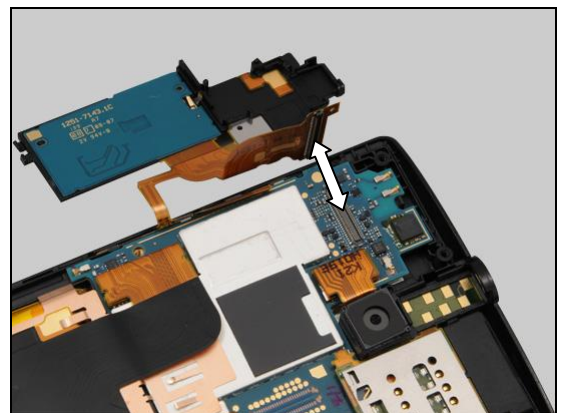


Check:

Inspect the BtB connector of FPC Side Key to the PBA.

Action:

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

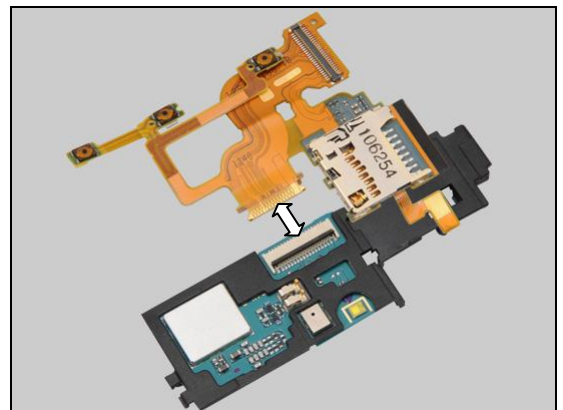


Check:

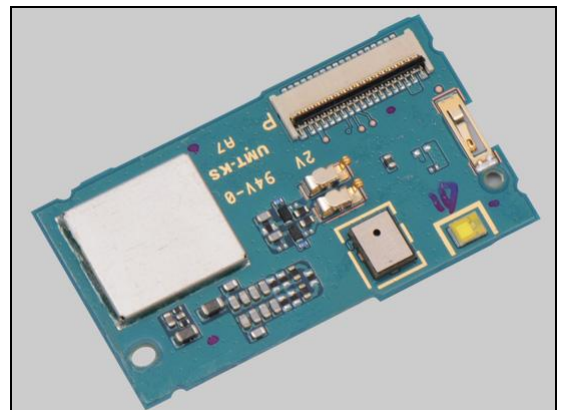
Inspect the ZIF connector of FPC Side Key to the PBA Sub NFC Assy.

Action:

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



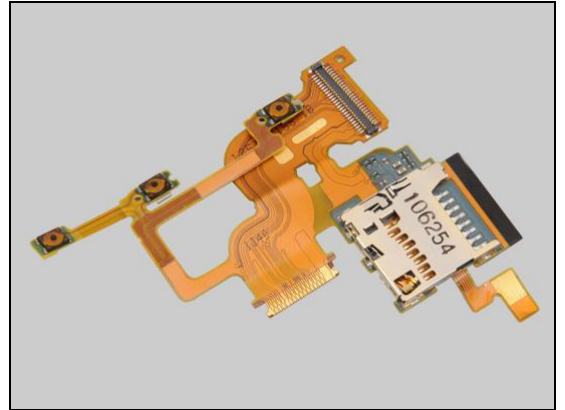
3. If the secondary microphone or the ZIF connector of PBA Sub NFC Assy is damaged – replace the PBA Sub NFC Assy.



Problem Areas: Microphone

4. If the ZIF connector, the BtB connector or FPC of FPC Side Key is damaged – replace the FPC Side Key.

5 Replace board.



Problem Areas

1.9 Vibrator

1.9.1 Vibrator not generating alerts

Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the Vibrator's pins and the pads on the FPC Bottom Flex.

Action:

1. If dirty or clogged – clean them.

2. If the Vibrator or its pins is damaged – replace the Vibrator.

Check:

Inspect the BtB connector of FPC Bottom Flex to the PBA.

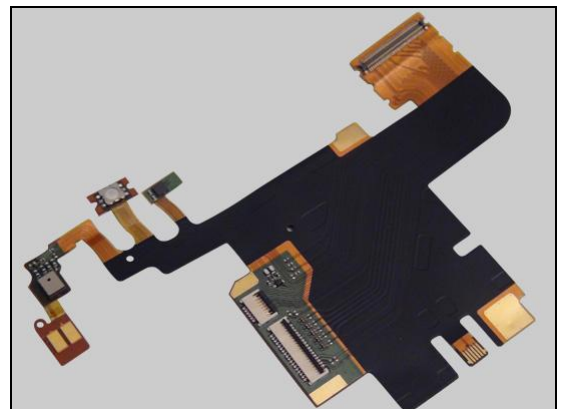
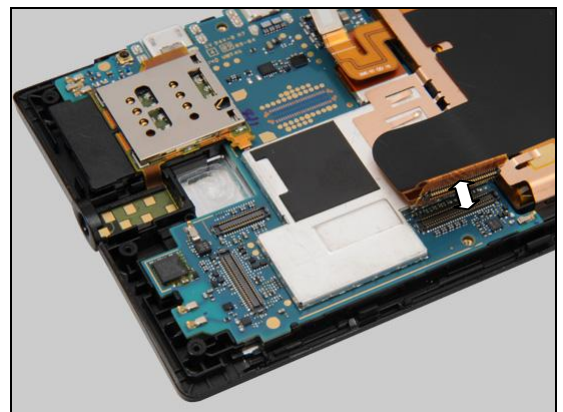
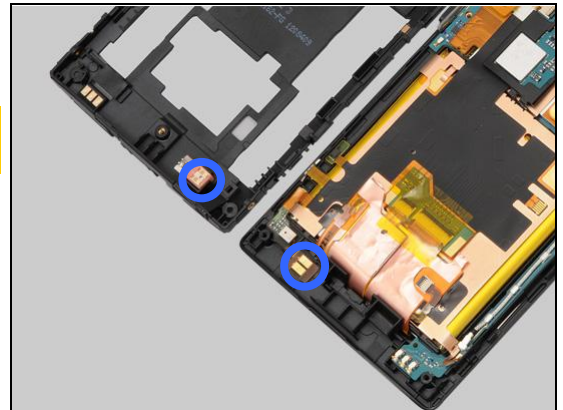
Action:

1. If not properly connected – disconnect and reconnect.

2. If dirty or oxidized – clean the both sides of the BtB connector.

3. If the pads or the BtB connector is damaged – replace the FPC Bottom Flex.

4. Replace board.



Problem Areas

1.10 Camera

1.10.1 Camera defects

Check:

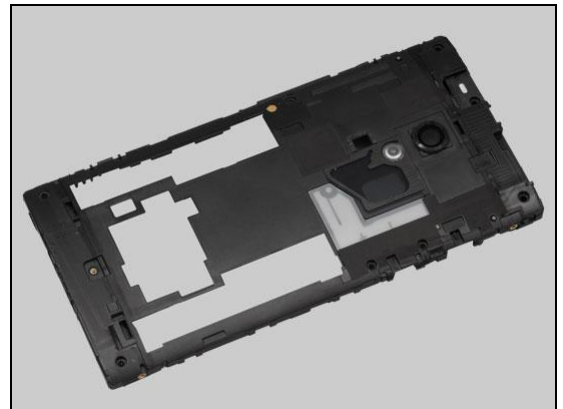
Inspect the external area of camera window.

Action:

1. If dirty – clean it.



2. If the camera window scratched or damaged – replace the Frame Rear Assy.



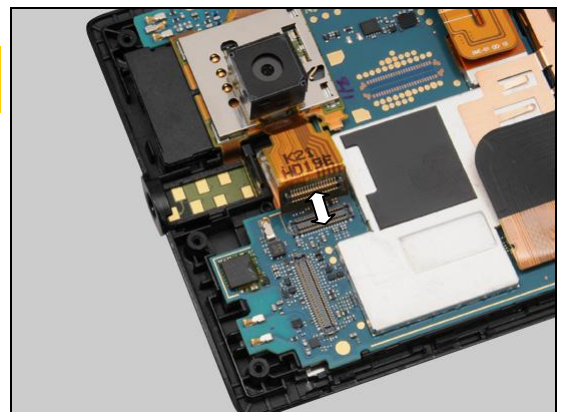
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the both side of the BtB connector on the PBA and the Camera.

Action:

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

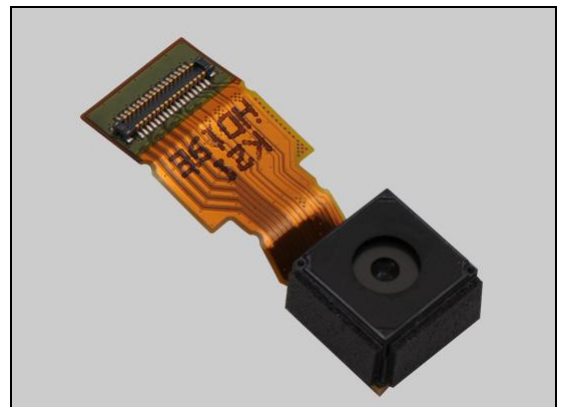


Check:

Inspect the Camera.

Action:

1. If the Camera is damaged – replace it.
2. Replace board.



Problem Areas

1.10.2 Video Call Camera defects

Check:

Inspect the external area of the video camera window.

Action:

1. If dirty – clean it.



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



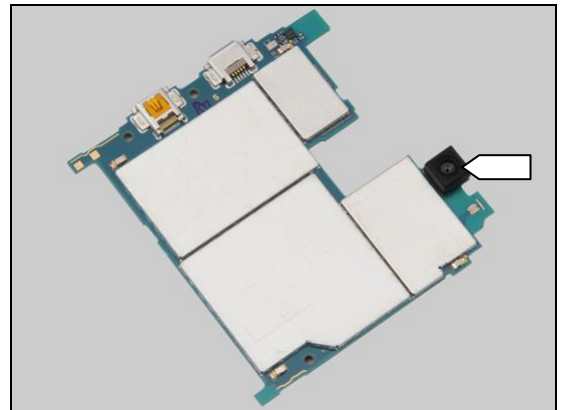
Check:

Inspect the Rubber Chat Camera.

Action:

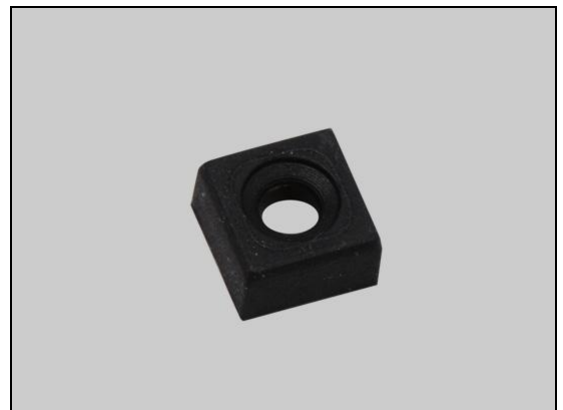
1. If dirty or clogged – clean it.

2. If not properly mounted – remount it.



3. If damaged – replace it.

4. Replace board.



Problem Areas

1.11 Flash LED

1.11.1 Flash LED not flashing

Check:

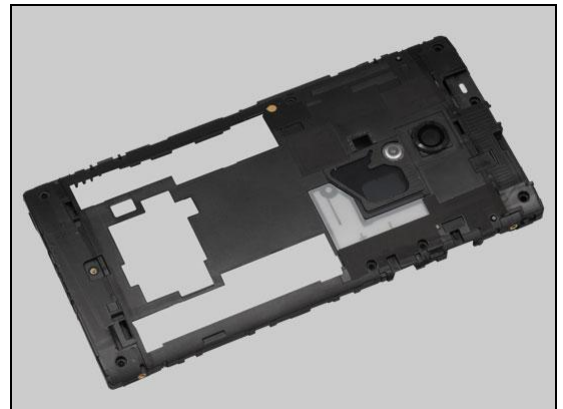
Inspect the external area of the flash LED window.

Action:

1. If dirty – clean the window.



2. If scratched or damaged – replace it.



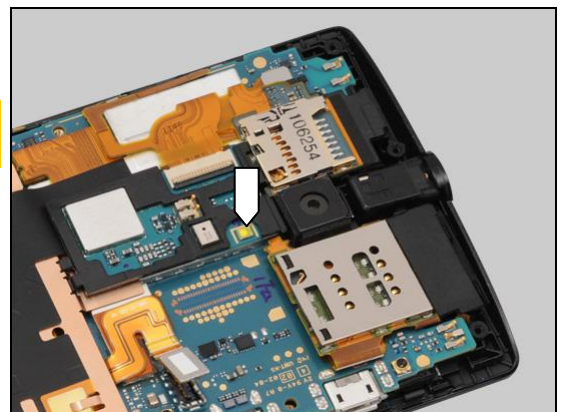
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the flash LED on the PBA Sub NFC Assy.

Action:

If dirty – clean it.

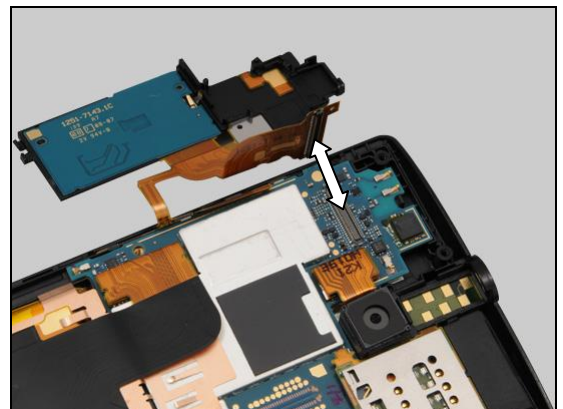


Check:

Inspect the BtB connector of FPC Side Key to the PBA.

Action:

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



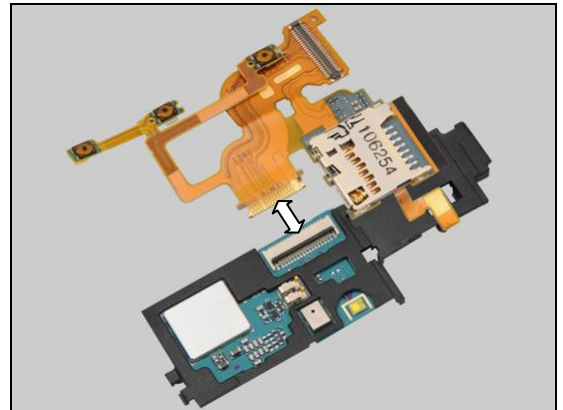
Problem Areas: Flash LED

Check:

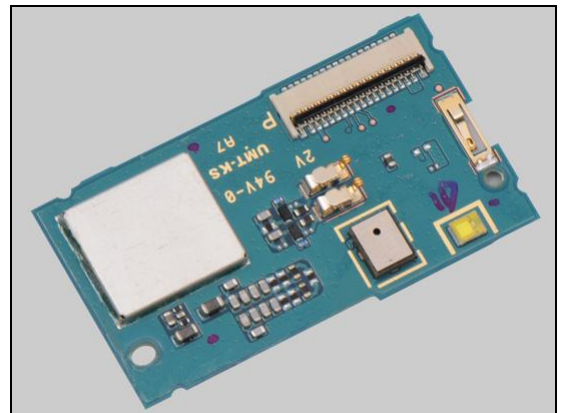
Inspect the ZIF connector of the FPC Side Key to the PBA Sub NFC Assy.

Action:

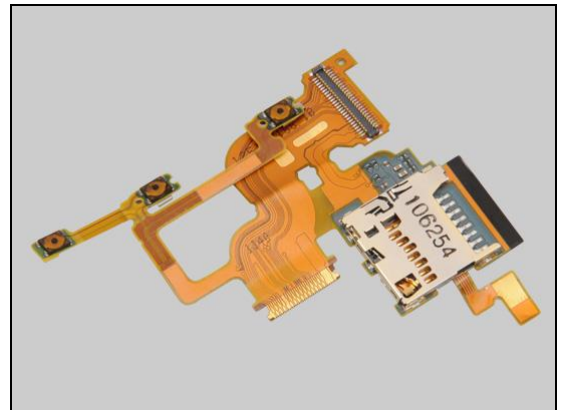
1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean the both sides of the ZIF connector.



3. If the flash LED or the ZIF connector of PBA Sub NFC Assy is damaged – replace the PBA Sub NFC Assy.



4. If the ZIF connector, the BtB connector or FPC of FPC Side Key is damaged – replace the FPC Side Key.
5. Replace board.



Problem Areas

1.12 Bluetooth and WLAN

1.12.1 Bluetooth or WLAN connection failure

Check:

Inspect the WLAN and Bluetooth antenna on the Frame Rear Assy.

Action:

1. If dirty – clean it.

2. If the antenna is damaged – replace the Frame Rear Assy.

Note: Ensure the BtB connector of battery is disconnected in the following steps!

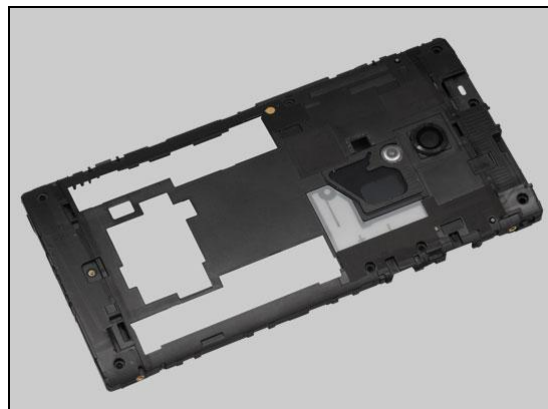
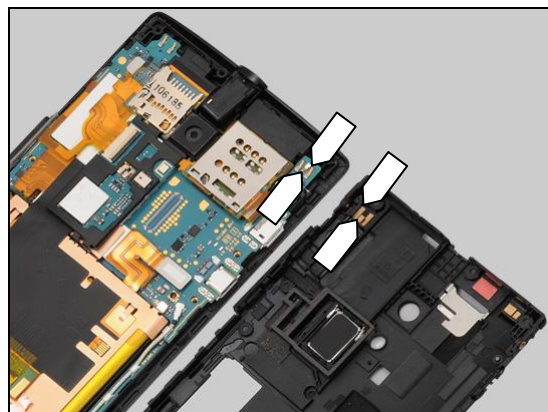
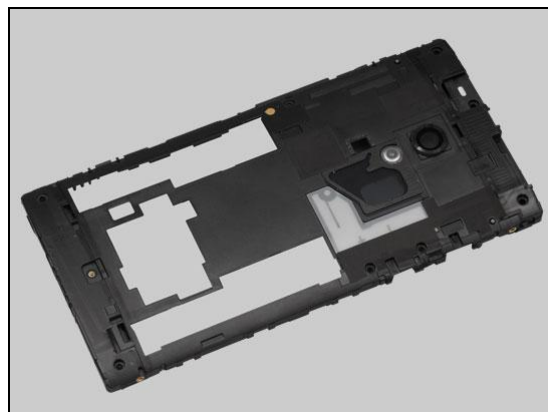
Check:

Inspect the WLAN and Bluetooth antenna contact pads on the Frame Rear Assy and the contact pins on the PBA.

Action:

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

2. If the pads are damaged – replace the Frame Rear Assy.
3. Replace board.



Problem Areas

1.13 NFC

1.13.1 NFC malfunctions

Note: Ensure the BtB connector of battery is disconnected in the following steps!

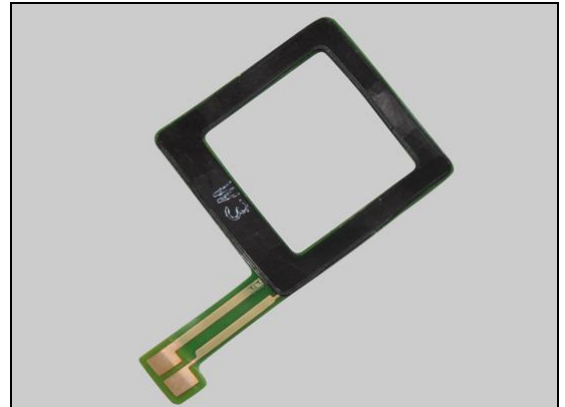
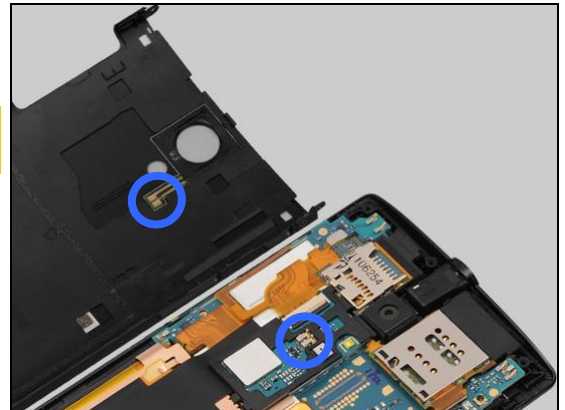
Check:

Inspect the NFC antenna contact pads on the Cover Rear Sub Assy and the contact pins on the PBA.

Action:

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

2. If the pads are damaged – replace the Antenna NFC Flex.

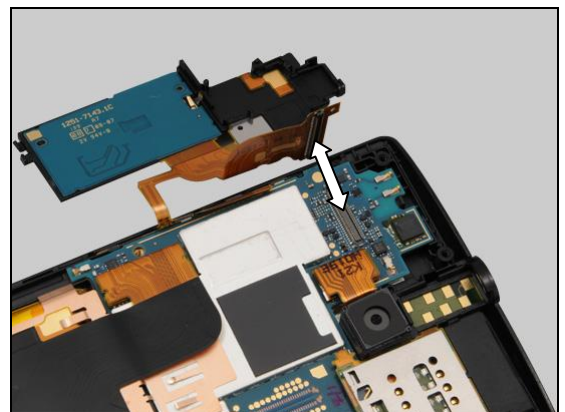


Check:

Inspect the BtB connector of FPC Side Key to the PBA.

Action:

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

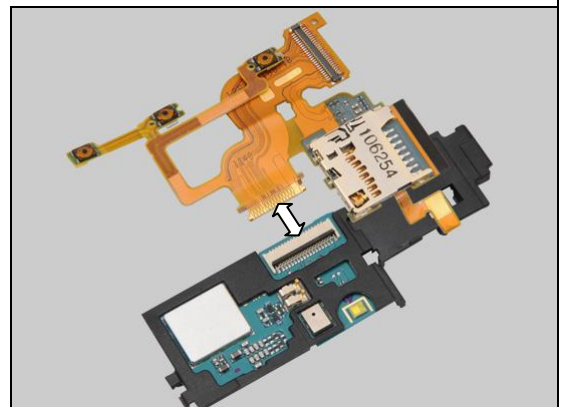


Check:

Inspect the ZIF connector of FPC Side Key to the PBA Sub NFC Assy.

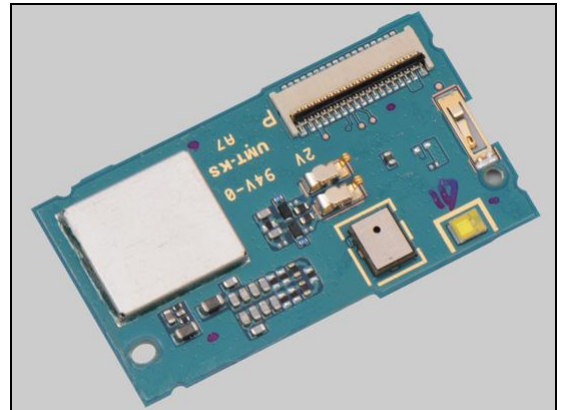
Action:

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

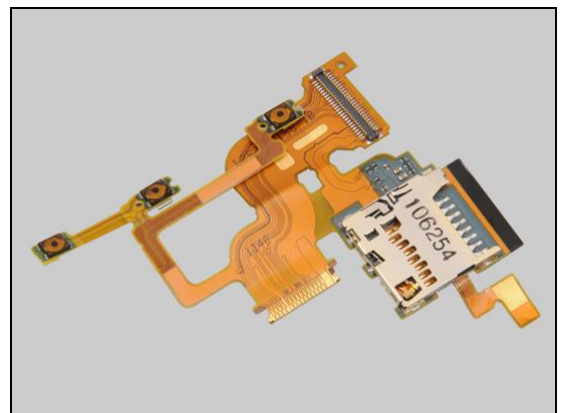


Problem Areas: NFC

3. If the pins or the ZIF connector of PBA Sub NFC Assy is damaged – replace the PBA Sub NFC Assy.



4. If the ZIF connector, the BtB connector or FPC of FPC Side Key is damaged – replace the FPC Side Key.
5. Replace board.



Problem Areas

1.14 GPS

1.14.1 GPS malfunctions

Check:

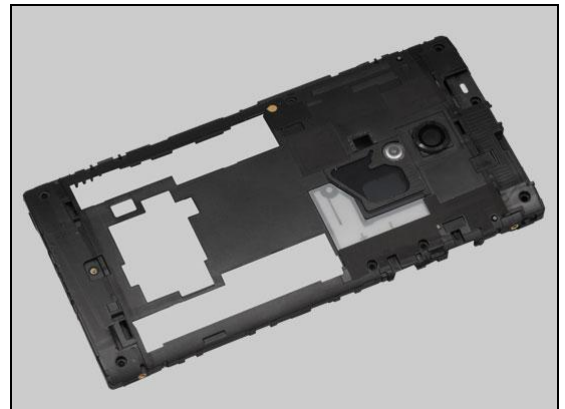
Inspect the GPS antenna on the Frame Rear Assy.

Action:

1. If dirty – clean it.



2. If the antenna is damaged – replace the Frame Rear Assy.



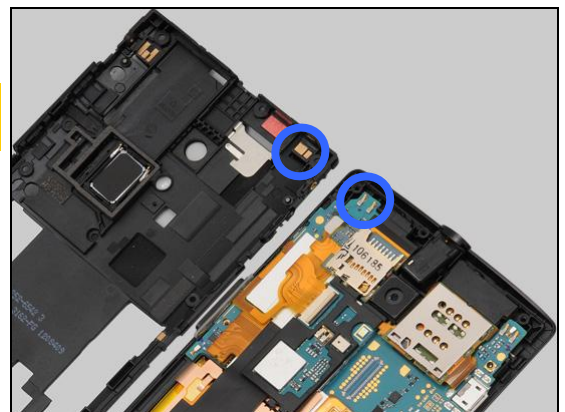
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

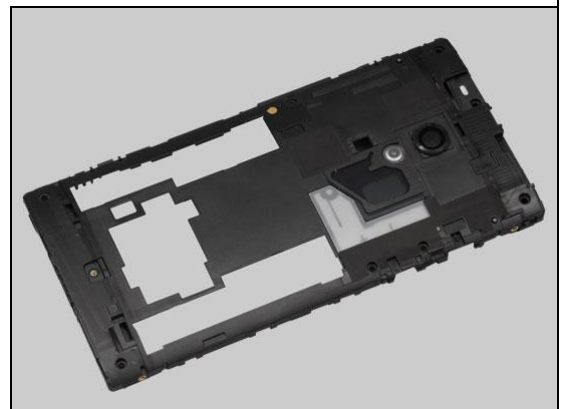
Inspect the GPS antenna contact pads on the Frame Rear Assy and the contact pins on the PBA.

Action:

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



2. If the pads are damaged – replace the Frame Rear Assy.
3. Replace board.



Problem Areas

1.15 Compass

1.15.1 Compass fails

Action:

Replace board.

Problem Areas

1.16 Accelerometer

1.16.1 Accelerometer test fails

Action:

Replace board.

Problem Areas

1.17 Gyroscope

1.17.1 Gyroscope test fails

Action:

Replace board.

Problem Areas

1.18 Ambient Light Sensor

1.18.1 Light Sensor malfunctions

Check:

Inspect the external window area of light sensor on the Cover Front Assy.

Action:

1. If clogged – clean it.



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



Note: Ensure the BtB connector of battery is disconnected in the following steps!

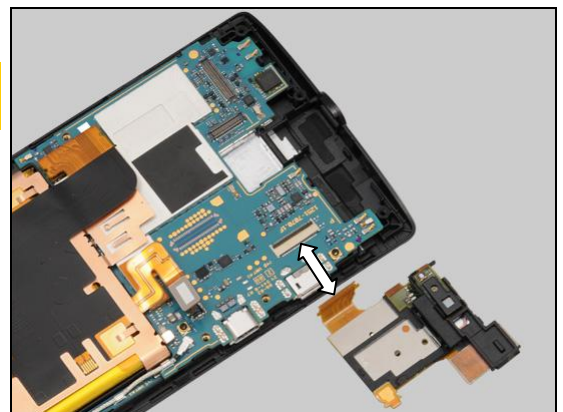
Check:

Inspect the both sides of the ZIF connector on the Main PBA and the FPC Top Flex.

Action:

1. If not properly connected – disconnect and reconnect.

2. If dirty or oxidized – clean it.



Check:

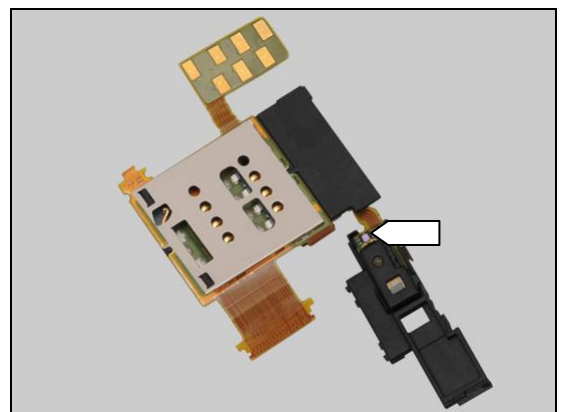
Inspect the light sensor on the FPC Top Flex.

Action:

1. If dirty – clean it.

2. If the light sensor or the connector is damaged – replace the FPC Top Flex.

3. Replace board.



Problem Areas

1.19 Proximity Switch

1.19.1 Proximity switch malfunctions

Check:

Inspect the proximity switch window area and the proximity sensor window area on the Cover Front Assy.

Action:

1. If dirty – clean it.



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



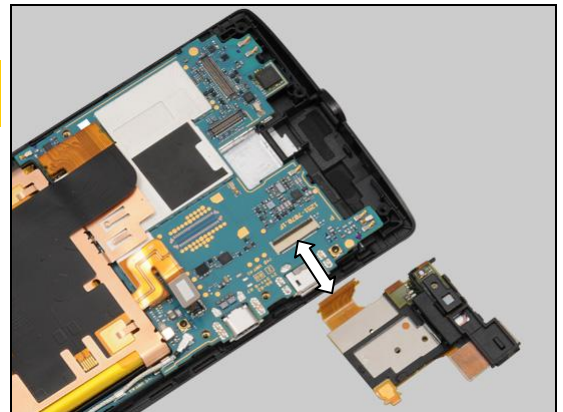
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the both sides of the ZIF connector on the Main PBA and the FPC Top Flex.

Action:

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

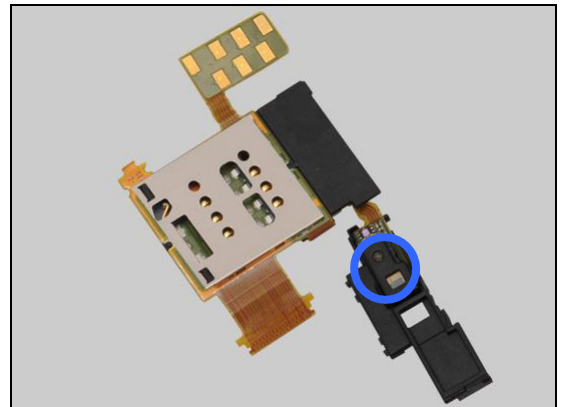


Check:

Inspect the proximity switch and proximity sensor on the FPC Top Flex.

Action:

1. If dirty – clean it.
2. If the connector, the proximity switch or the proximity sensor damaged – replace the FPC Top Flex.
3. Replace board.



Problem Areas

1.20 Pressure Sensor

1.20.1 Pressure Sensor test fails

Action:

N/A. This test is not applicable for this product.

Problem Areas

1.21 Water Proof

1.21.1 Water Proof fails

Action:

N/A. No water proof functions in the phone.

Problem Areas

1.22 Real Time Clock

1.22.1 Real Time Clock test fails

Action:

Replace board.

Problem Areas

1.23 Total call time

1.23.1 Total call time fails

Action:

Replace board.

Problem Areas

1.24 External Memory

1.24.1 Memory Card not detected

Check:

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

Action:

If dirty or clogged – clean the external port.



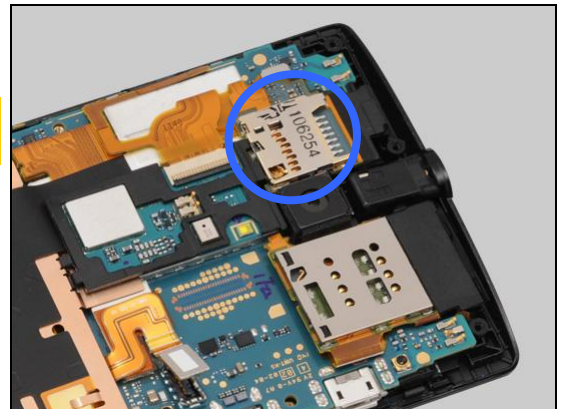
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the memory card holder on the PFC Side Key.

Action:

If dirty or clogged – clean the holder.

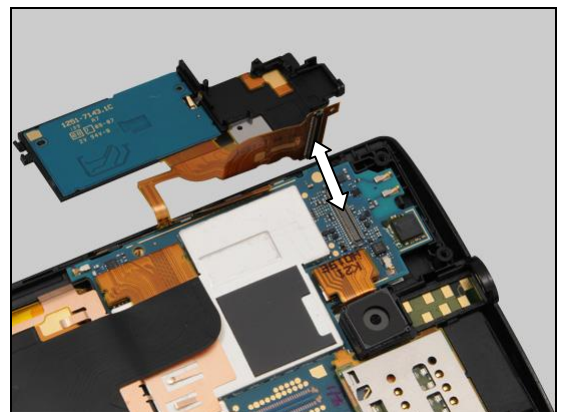


Check:

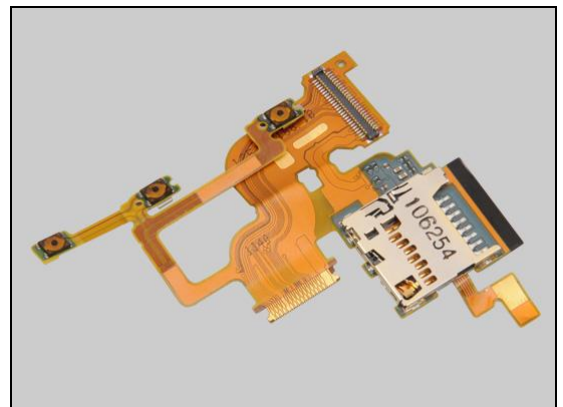
Inspect the BtB connector of FPC Side Key to the PBA.

Action:

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



3. If the memory card holder or the BtB connector of FPC Side Key is damaged – replace the FPC Side Key.
4. Replace board.



Problem Areas

1.25 Security

1.25.1 Security fails

Action:

Replace board.

Problem Areas

1.26 FM Radio

1.26.1 No/Poor FM Radio reception

Check:

Inspect the Audio Jack.

Action:

If dirty or oxidized – clean it.



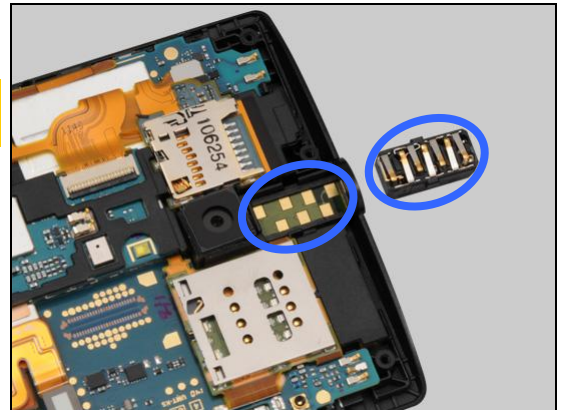
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the contact pins on the Audio Jack and the contact pads on the FPC Top Flex.

Action:

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



2. If the pins are damaged – replace the Audio Jack.



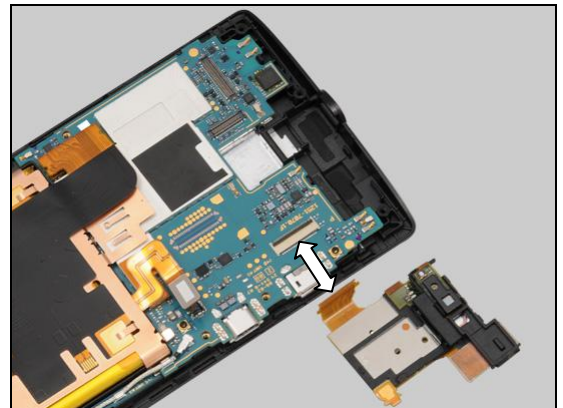
Check:

Inspect the both sides of the ZIF connector on the Main PBA and the FPC Top Flex.

Action:

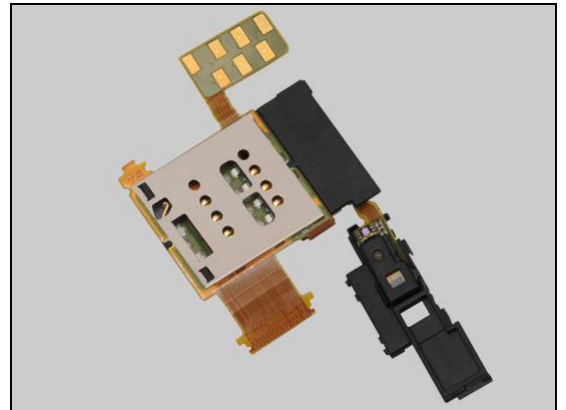
1. If not properly connected – disconnect and reconnect.

2. If dirty or oxidized – clean it.



Problem Areas: FM Radio

3. If the pads or the connector of FPC Top Flex is damaged – replace the FPC Top Flex.
4. Replace board.



Problem Areas

1.27 Flip slider counter

1.27.1 Flip slider counter fails

Action:

N/A. No slider phone.

Problem Areas

1.28 Verify Certificates

1.28.1 Verify certificates fails

Action:

Replace board.

Problem Areas

1.29 IrDA Test

1.29.1 IrDA test fails

Action:

N/A. No IrDA in the phone.

Problem Areas

1.30 HDMI Test

1.30.1 HDMI test fails

Check:

Inspect the HDMI connector.

Action:

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



Problem Areas

1.31 Connector Ground Test

1.31.1 Connector ground test fails

Action:

N/A. This test is not applicable for this product.

Problem Areas

1.32 Network & Signal

1.32.1 No/Poor signal

Check:

Inspect the main antenna on the Frame Rear Assy.

Action:

1. If dirty – clean it.

2. If the main antenna is damaged – replace Frame Rear Assy.

Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the main antenna contact pin on the PBA Sub Antenna Assy and contact pad on the Frame Rear Assy.

Action:

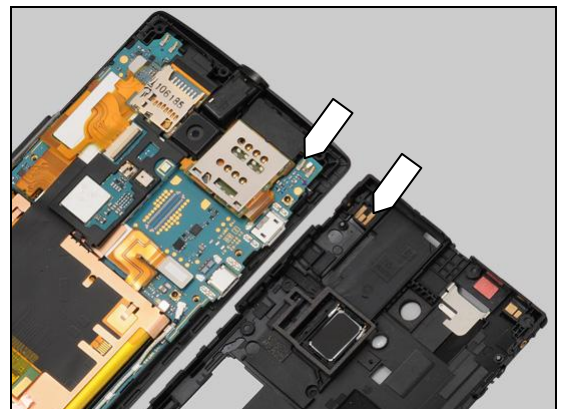
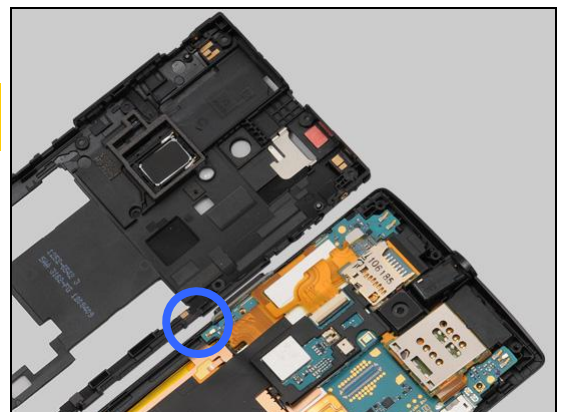
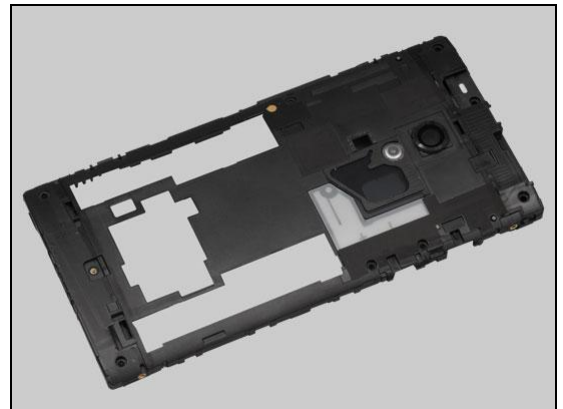
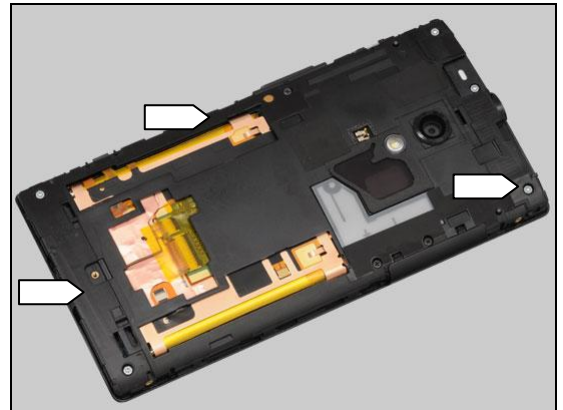
If dirty or oxidized – clean the pad and pin.

Check:

Inspect the main antenna contact pin on the PBA Sub Antenna Assy and contact pad on the Frame Rear Assy.

Action:

If dirty or oxidized – clean the pad and pin.



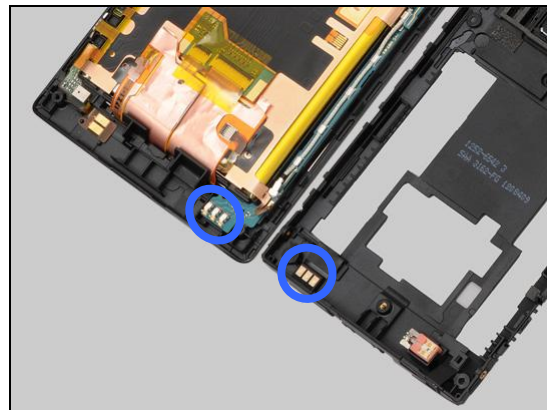
Problem Areas: Network & Signal

Check:

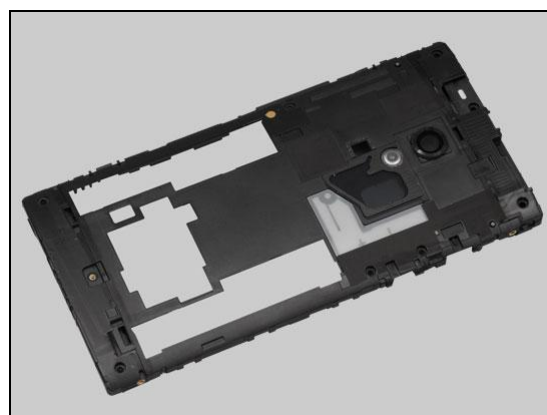
Inspect the main antenna contact pins on the PBA Sub Antenna Assy and contact pads on the Frame Rear Assy.

Action:

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



2. If the pads are damaged – replace Frame Rear Assy.

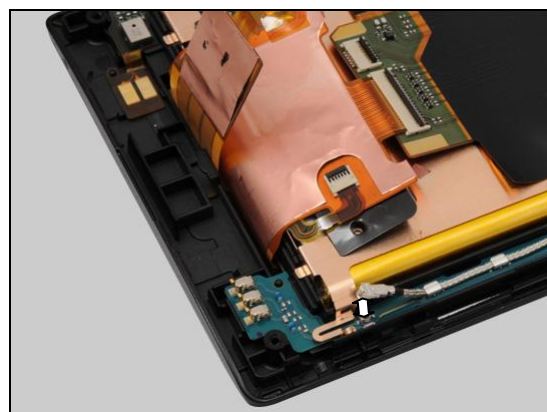


Check:

Inspect the connector on the PBA Sub Antenna Assy to the Cable RF.

Action:

If not properly connected – disconnect and reconnect it.

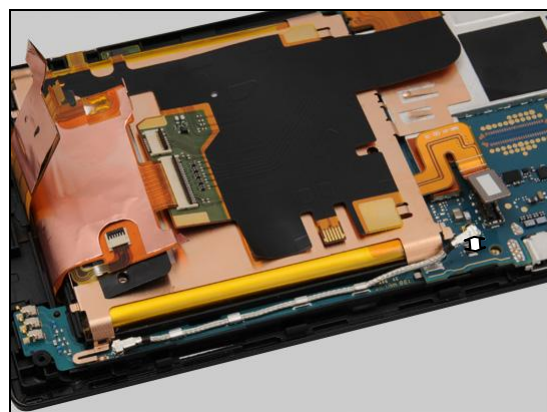


Check:

Inspect the connector of Cable RF to the Main PBA.

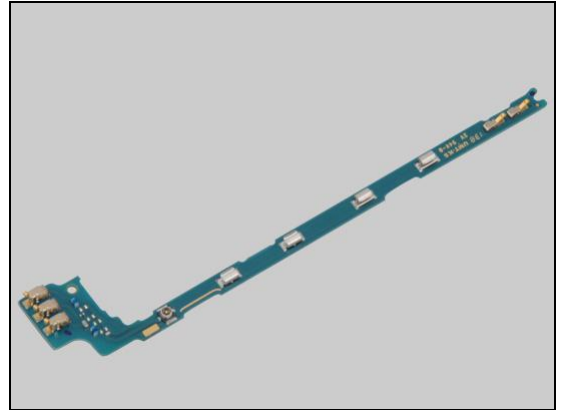
Action:

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



Problem Areas: Network & Signal

2. If the connector, the pins or the PBA of PBA Sub Antenna Assy is damaged – replace the PBA Sub Antenna Assy.



3. If the Cable RF is damaged – replace it.
4. Replace board.



Problem Areas

1.33 SIM

1.33.1 SIM not detected

Check:

Inspect the SIM Tray.

Action:

1. If dirty – clean it

2. If damaged – replace it.

Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the SIM card holder.

Action:

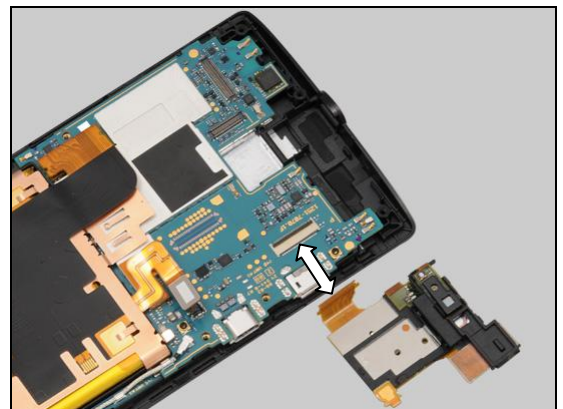
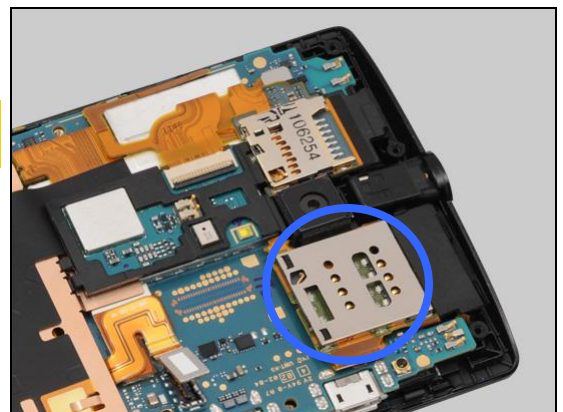
If dirty or oxidized – clean the holder.

Check:

Inspect the both sides of the ZIF connector on the Main PBA and the FPC Top Flex.

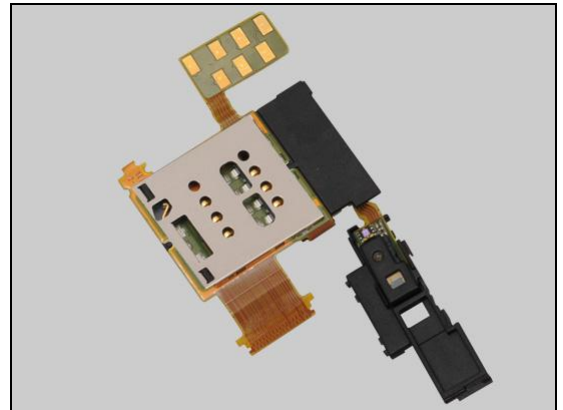
Action:

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



Problem Areas: SIM

3. If the SIM card holder or the ZIF connector of FPC Top Flex is damaged – replace the FPC Top Flex.
4. Replace board.



1.33.2 Incorrect SIM indicated

Check:

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

Action:

1. Use a proper operator SIM or test SIM.
2. Replace board.



Problem Areas

1.34 Charging

1.34.1 Battery will not charge

Check:

Inspect the USB connector.

Action:

If dirty or oxidized – clean the connector.

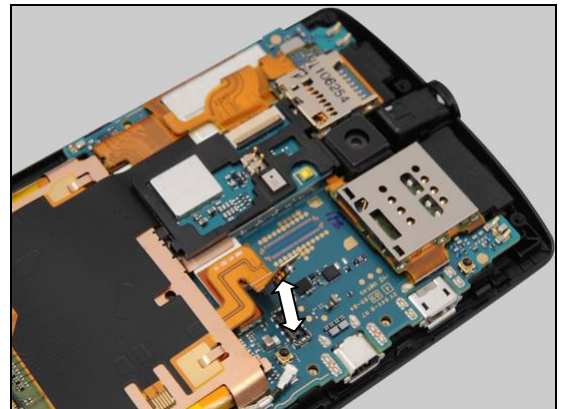


Check:

Inspect the BtB connector of battery to the PBA.

Action:

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



3. If the battery or its BtB connector is damaged – replace the Battery 1900mAh.
4. Replace board.



Problem Areas

1.35 HandsFree by Wire

1.35.1 Connection to Portable HandsFree fails

Check:

Inspect the Audio Jack.

Action:

If dirty or oxidized – clean the connector.



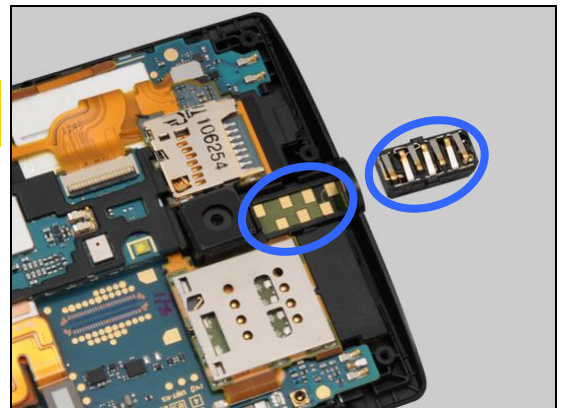
Note: Ensure the BtB connector of battery is disconnected in the following steps!

Check:

Inspect the contact pins on the Audio Jack and the contact pads on the FPC Top Flex.

Action:

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



2. If the pins are damaged – replace the Audio Jack.



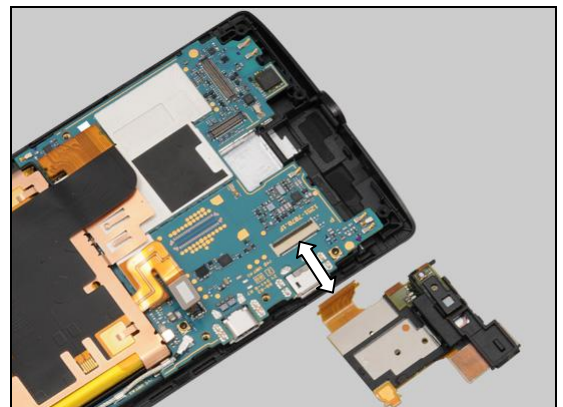
Check:

Inspect the both sides of the ZIF connector on the Main PBA and the FPC Top Flex.

Action:

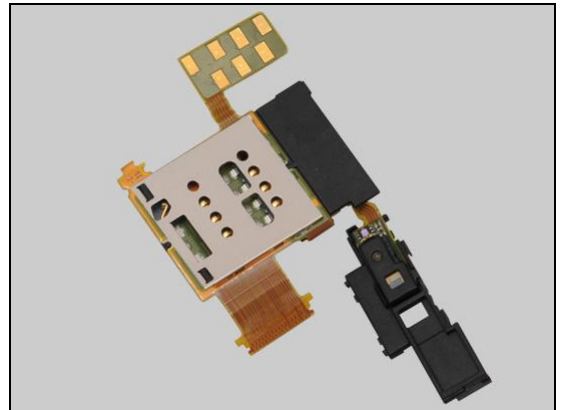
1. If not properly connected – disconnect and reconnect.

2. If dirty or oxidized – clean it.



Problem Areas: HandsFree by Wire

3. If the pads or the ZIF connector of FPC Top Flex is damaged – replace the FPC Top Flex.
4. Replace board.



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 board.



2 Revision History

Rev.	Date	Changes / Comments
1	2012-May-18	Initial release
2	2012-July-25	Added LT28h
3	2012-Sep-6	Update the chapter of Microphone