

## Troubleshooting Guide

- mechanical -



*Xperia™ miro*

*ST23i, ST23a*

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## 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 Power.

**Action:**

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



**Check:**

Inspect the contact pads on the battery.

**Action:**

1. If dirty or oxidized – clean the pads.
2. If damaged – replace the battery.



**Check:**

Inspect the battery contact pins.

**Action:**

1. If dirty or oxidized – clean the contact pins.
2. If adhesive is detected on the contact pins, use an eraser to gently rub off the adhesive.
3. If damaged – replace board.

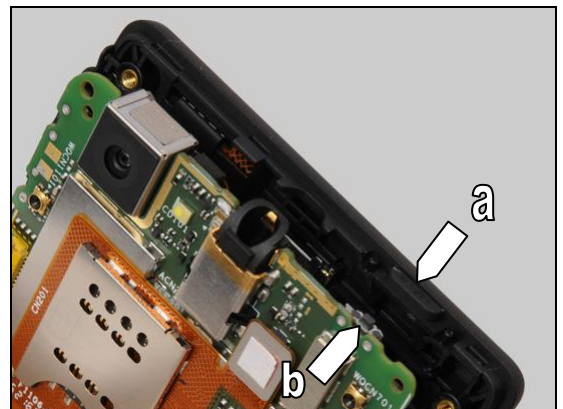


**Check:**

Inspect the Key Power (a) and the key power switch (b).

**Action:**

1. If dirty – clean them.



## Problem Areas: Power

2. If the Key Power is damaged – replace it.
3. Replace board.



## Problem Areas

### 1.2 Keys

#### 1.2.1 Menu, Home and Back Keys

**Check:**

Inspect the external area of the menu, home and back keys on the Cover Front Assy.

**Action:**

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



#### 1.2.2 Key Volume

**Check:**

Inspect the external area of the Key Volume.

**Action:**

If dirty – clean it.

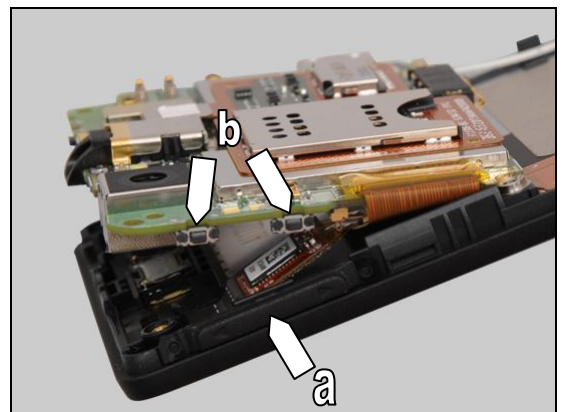


**Check:**

Inspect the Key Volume (a) and the key volume switch (b).

**Action:**

1. If dirty – clean them.
2. If the Key Volume is damaged – replace it.
3. Replace board.



## Problem Areas: Keys

### 1.2.3 Key Power

**Check:**

Inspect the external area of the Key Power.

**Action:**

If dirty – clean it.

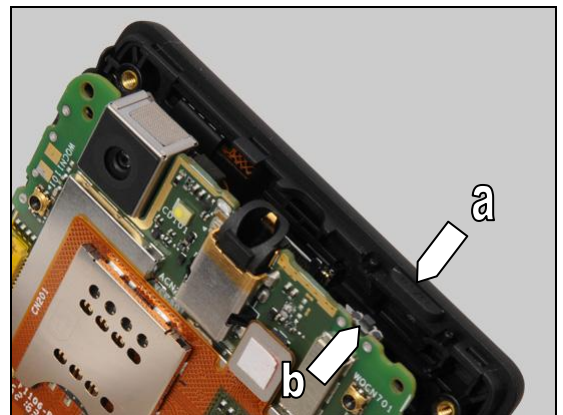


**Check:**

Inspect the Key Power (a) and the key power switch (b).

**Action:**

1. If dirty – clean them.



2. If the Key Power is damaged – replace it.

3. Replace board.



## Problem Areas

### 1.3 Touch Screen

#### 1.3.1 Touch Screen malfunction

**Check:**

Inspect the touch screen.

**Action:**

1. If dirty – clean it.

**2. If the end user has complained about unexpected behavior of the touch screen or the touch keys. – Calibrate the Touch Panel following 1270-6729 Trouble Shooting Application.**

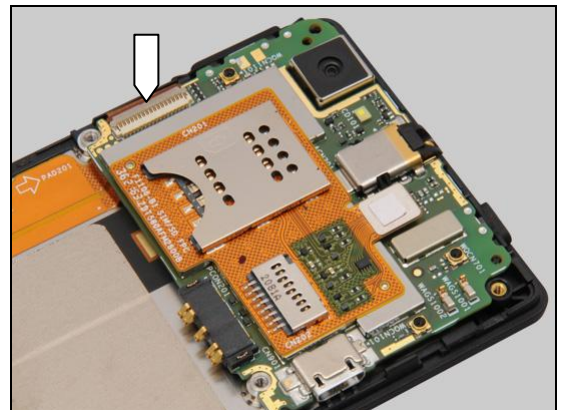


**Check:**

Inspect the ZIF connector of the Cover Front Assy to the PBA.

**Action:**

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

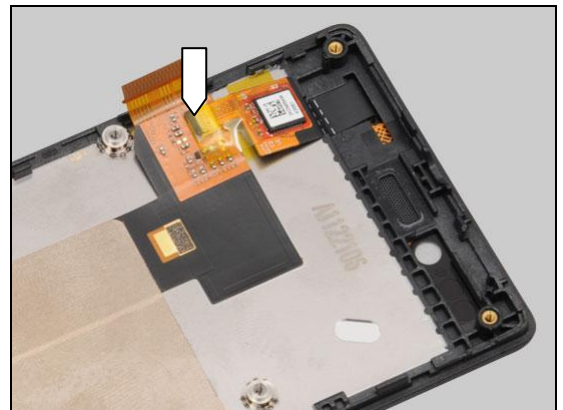


**Check:**

Inspect the ZIF connector of the touch panel to the Cover Front Assy.

**Action:**

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



3. If the touch screen or the FPC of the Cover Front Assy is damaged – replace the Cover Front Assy.
4. Replace board.





## Problem Areas

### 1.4 Display

#### 1.4.1 Graphics & Illumination

**Check:**

Check whether the phone vibrates after the Key Power has been pressed.

**Action:**

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

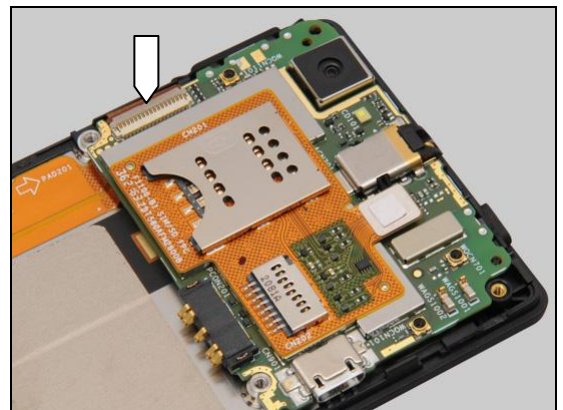
**Check:**

Inspect the ZIF connector of the Cover Front Assy to the PBA.

**Action:**

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

3. If the display or the FPC of the Cover Front Assy is damaged – replace the Cover Front Assy.
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:**

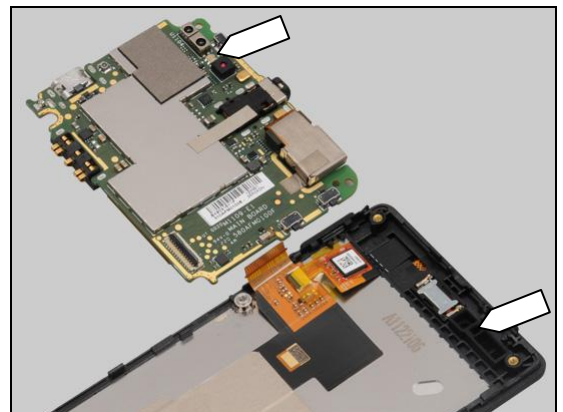
Inspect the RGB LED on the PBA and the Rubber Proximity Sensor on the Cover Front Assy.

**Action:**

1. If dirty or clogged – clean them.

2. If the Rubber Proximity Sensor is damaged – replace it.

3. Replace board.



## Problem Areas: Illumination

### 1.5.2 SNS LED Illumination

**Check:**

Inspect the SNS LED illumination window on the Cover Front Assy.

**Action:**

If dirty – clean it.

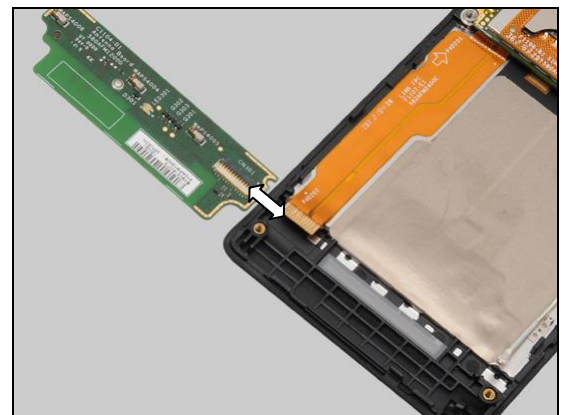


**Check:**

Inspect the ZIF connector of FPC Link to the Sub Board Assy.

**Action:**

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

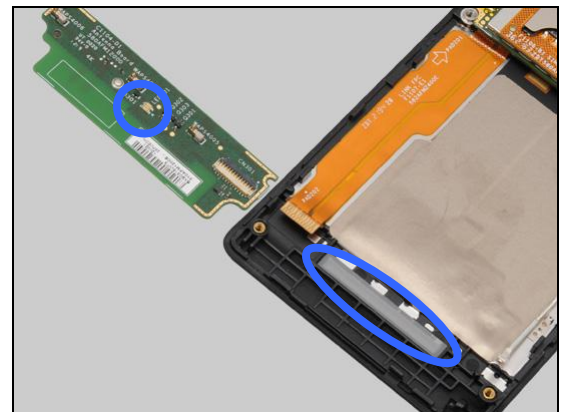


**Check:**

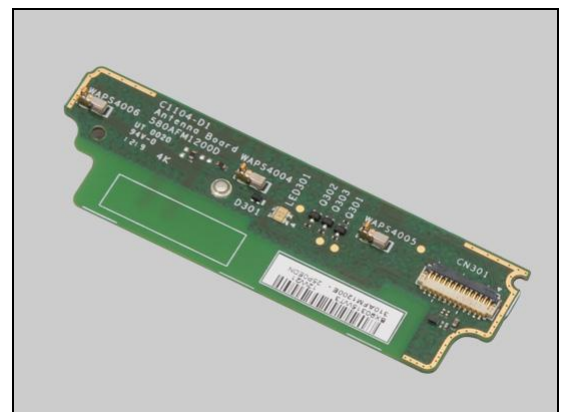
Inspect the LED on the PBA and the light guide area on the Cover Front Assy.

**Action:**

1. If dirty– clean them.



2. If the ZIF connector or the LED of the Sub Board Assy is damaged – replace the Sub Board Assy.



## Problem Areas: Illumination

3. If the light guide area is damaged – replace the Cover Front Assy.

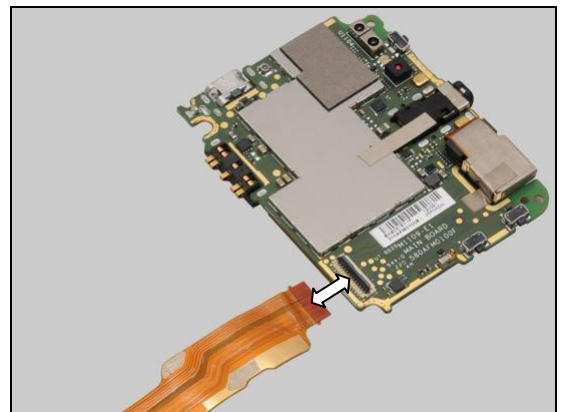


**Check:**

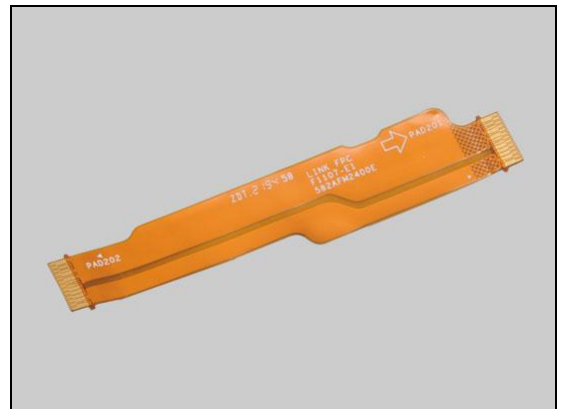
Inspect the ZIF connector of the FPC Link to the PBA.

**Action:**

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



2. If the FPC Link is damaged – replace the FPC Link.
3. Replace board.



## Problem Areas

### 1.6 Speaker

#### 1.6.1 Speaker

**Check:**

Inspect the Speaker's external port on the Cover Battery Assy.

**Action:**

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

2. If the Speaker external port is damaged – replace the Cover Battery Assy.



**Check:**

Inspect the mesh of the Speaker on the Rear Cover Assy.

**Action:**

1. If dirty – clean it.

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



## Problem Areas: Speaker

### Check:

Inspect the Speaker's pins and the pads on the Sub Board Assy.

### Action:

1. If dirty – clean them.

2. If the pins of the Speaker are damaged – replace the Speaker.

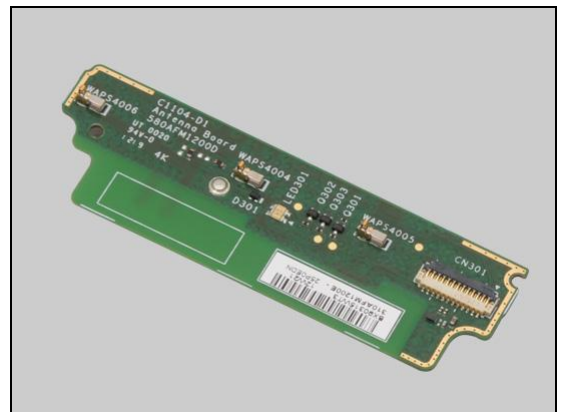
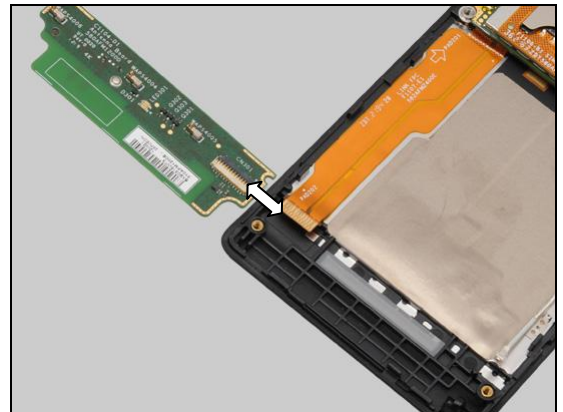
### Check:

Inspect the ZIF connector of the FPC Link to the Sub Board Assy.

### Action:

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

3. If the pads or the ZIF connector of the Sub Board Assy is damaged – replace the Sub Board Assy.





## Problem Areas: Speaker

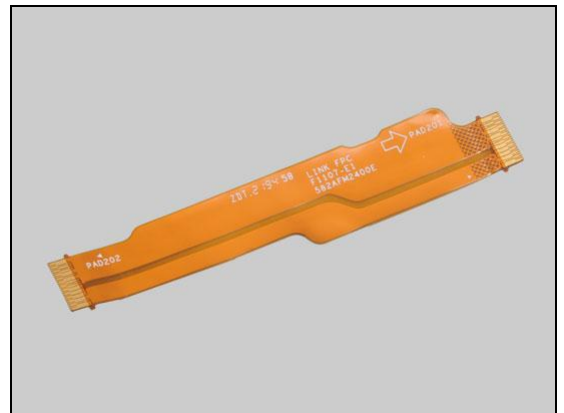
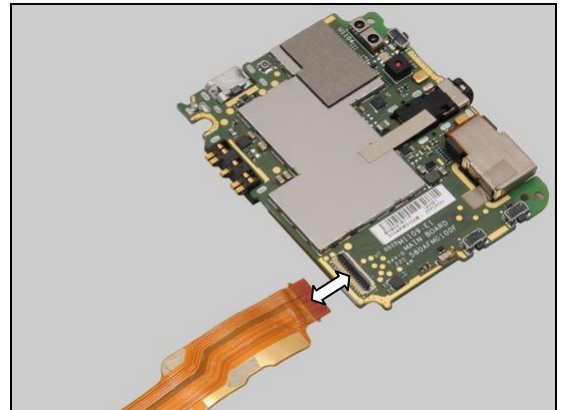
**Check:**

Inspect the ZIF connector of the FPC Link to the PBA.

**Action:**

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

3. If the FPC Link is damaged – replace it.
4. Replace board.



## Problem Areas

### 1.7 Earphone

#### 1.7.1 Earphone

**Check:**

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

**Action:**

1. If clogged – clean it.



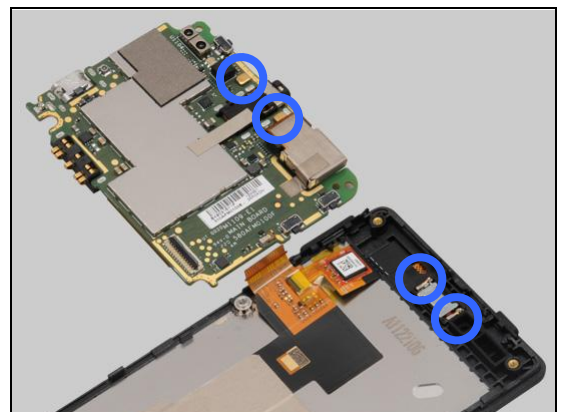
2. If the port is damaged – replace the Cover Front Assy.

**Check:**

Inspect the Receiver's pins and the pads on the PBA.

**Action:**

1. If dirty – clean them.



2. If the pins are damaged – replace the Receiver.

3. Replace board.





## Problem Areas

### 1.8 Microphone

#### 1.8.1 Microphone

**Check:**

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

**Action:**

1. If clogged – clean the port.

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

**Check:**

Inspect the Microphone on the Sub Board Assy and the Rubber Mic on the Rear Cover Assy.

**Action:**

1. If dirty – clean them.

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



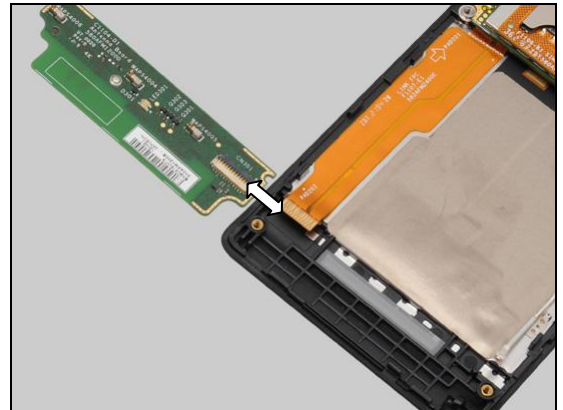
## Problem Areas: Microphone

### Check:

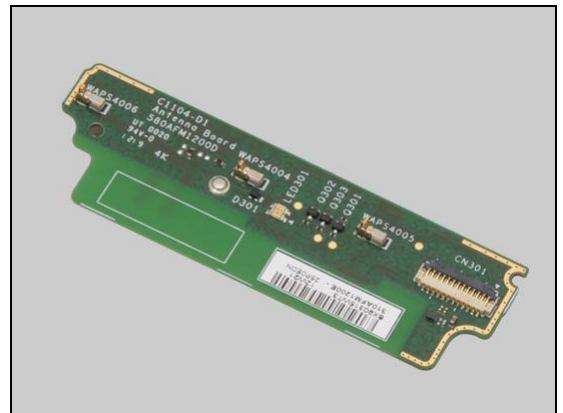
Inspect the ZIF connector of the FPC Link to the Sub Board Assy.

### Action:

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



3. If the microphone or the ZIF connector of the Sub Board Assy is damaged – replace the Sub Board Assy.

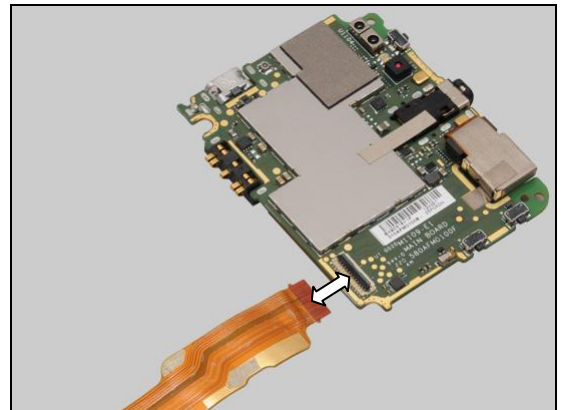


### Check:

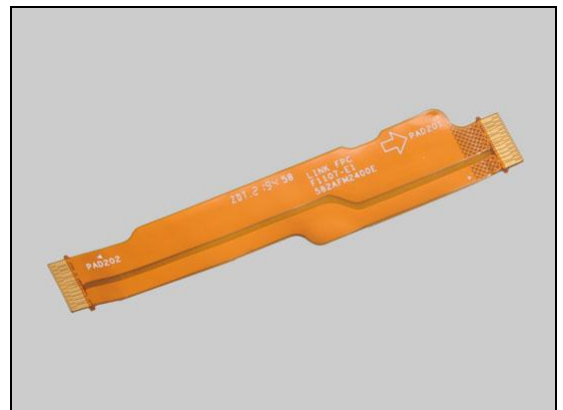
Inspect the ZIF connector of the FPC Link to the PBA.

### Action:

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



3. If the FPC Link is damaged – replace it.
4. Replace board.



## Problem Areas

### 1.9 Vibrator

#### 1.9.1 Vibrator not generating alerts

**Check:**

Inspect the Vibrator's pins and the pads on the Sub Board Assy.

**Action:**

1. If dirty or clogged – clean them.

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

**Check:**

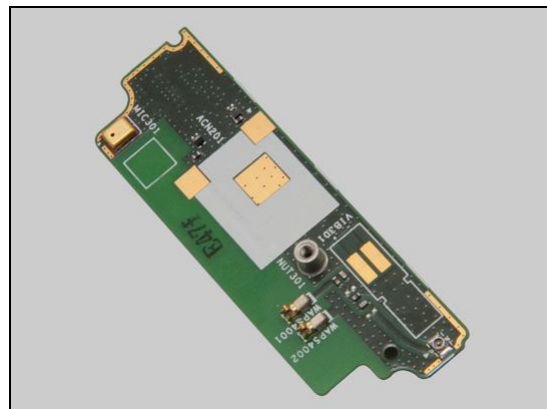
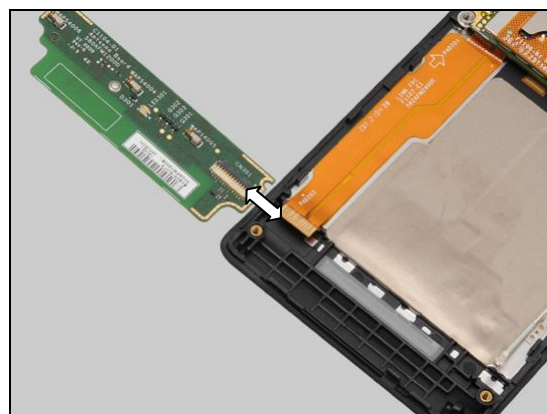
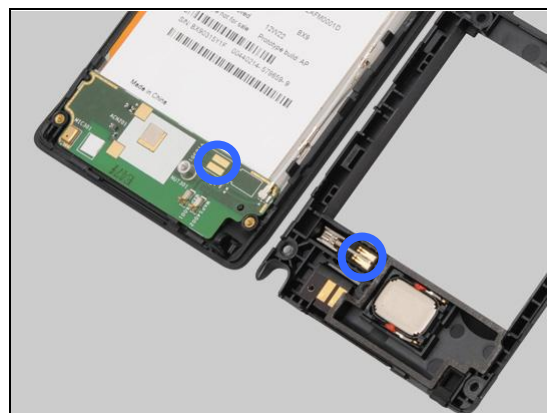
Inspect the ZIF connector of the FPC Link to the Sub Board Assy.

**Action:**

1. If not properly connected – disconnect and reconnect.

2. If dirty or oxidized – clean it.

3. If the pads or the ZIF connector of the Sub Board Assy is damaged – replace the Sub Board Assy.



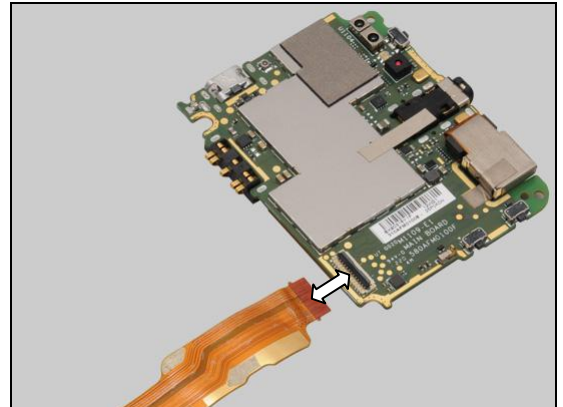
## Problem Areas: Vibrator

### Check:

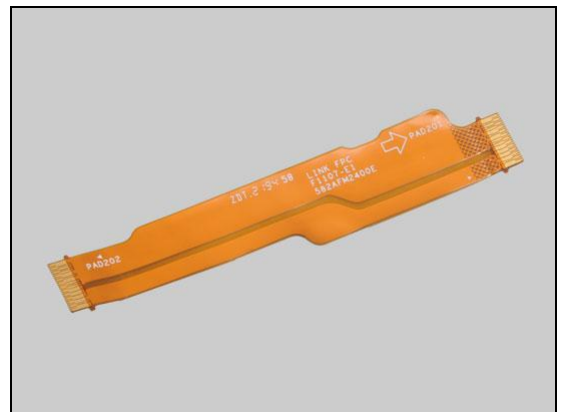
Inspect the ZIF connector of the FPC Link to the PBA.

### Action:

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



2. If the FPC Link is damaged – replace it.
3. 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 Rear Cover Assy.



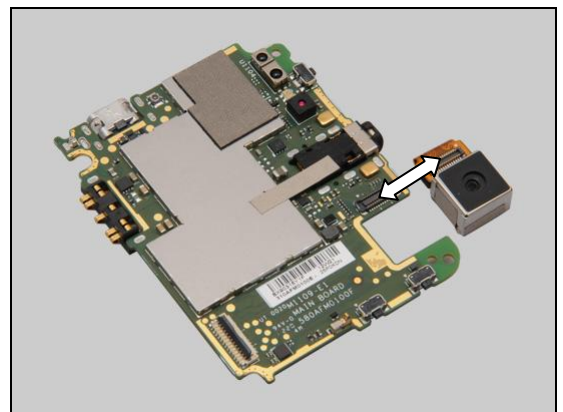
**Check:**

Inspect the BtB connector of the Camera to the PBA.

**Action:**

1. If not properly connected – disconnect and reconnect.

2. If dirty or oxidized – clean it.



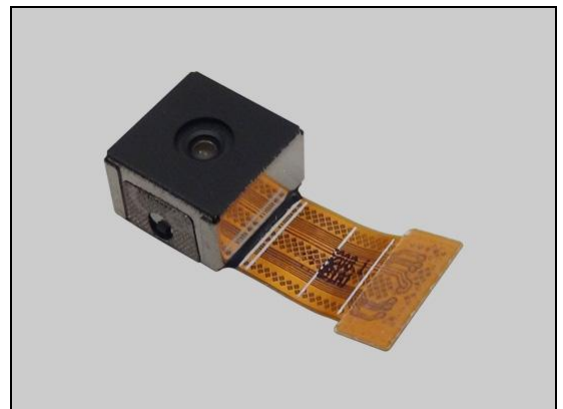
**Check:**

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.

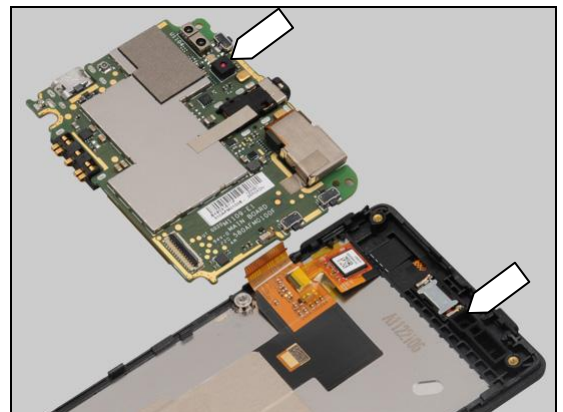


**Check:**

Inspect the video camera on the PBA and the Rubber Proximity Sensor on the Cover Front Assy.

**Action:**

1. If dirty or clogged – clean it.



2. If the Rubber Proximity Sensor is damaged – replace it.

3. Replace board.





## Problem Areas

### 1.11 Bluetooth and WLAN

#### 1.11.1 Bluetooth or WLAN connection failure

**Check:**

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

**Action:**

1. If dirty – clean it.

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

**Check:**

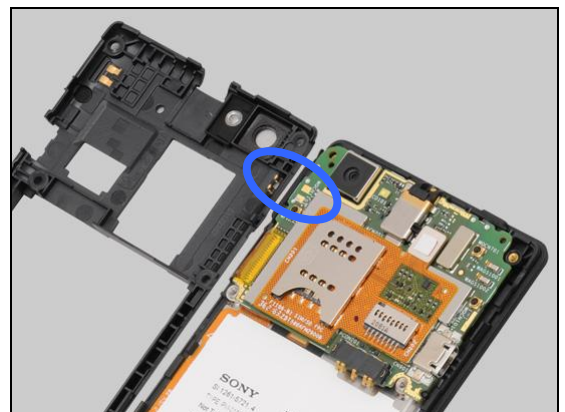
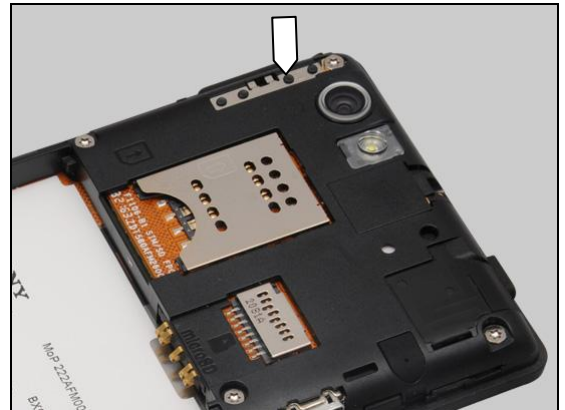
Inspect the WLAN and Bluetooth antenna contact pads on the Rear Cover Assy and the contact pins on the PBA.

**Action:**

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

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

3. Replace board.



## Problem Areas

### 1.12 GPS

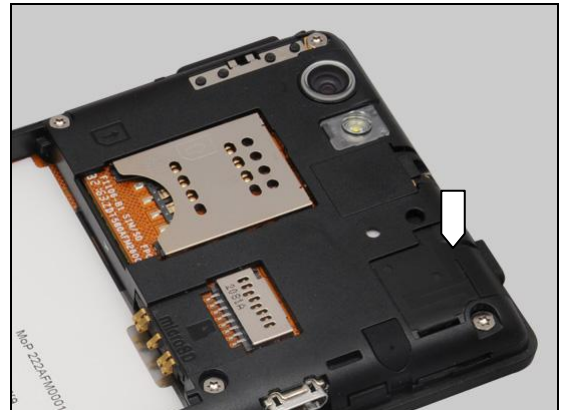
#### 1.12.1 GPS malfunctions

**Check:**

Inspect the GPS antenna on the Rear Cover Assy.

**Action:**

1. If dirty – clean it.



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

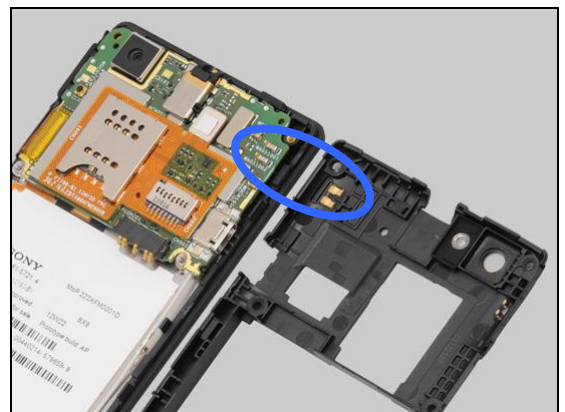


**Check:**

Inspect the GPS antenna contact pads on the Rear Cover 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 Rear Cover Assy.  
3. Replace board.





## Problem Areas

### 1.13 Compass

#### 1.13.1 Compass fails

**Action:**

Replace board.

## Problem Areas

### 1.14 Accelerometer

#### 1.14.1 Accelerometer test fails

**Action:**

Replace board.

## Problem Areas

### 1.15 Proximity Switch

#### 1.15.1 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.

**Check:**

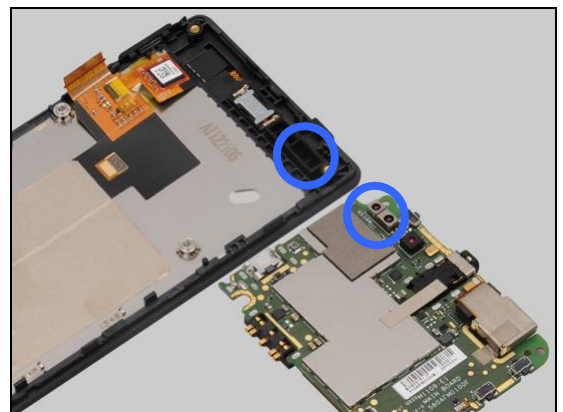
Inspect the proximity sensor and proximity switch on the PBA and the Rubber Proximity Sensor on the Cover Front Assy.

**Action:**

1. If dirty or clogged – clean it.

2. If the Rubber Proximity Sensor is damaged – replace it.

3. Replace board.



## Problem Areas

### 1.16 Real Time Clock

#### 1.16.1 Real Time Clock test fails

**Action:**

Replace board.

## **Problem Areas**

### **1.17 Total call time**

#### **1.17.1 Total call time fails**

**Action:**

Replace board.

## Problem Areas

### 1.18 External Memory

#### 1.18.1 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.

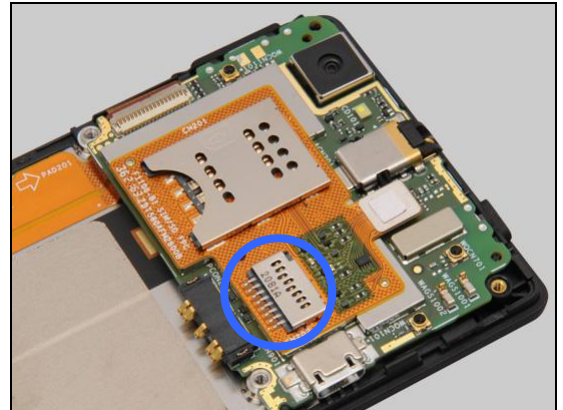


**Check:**

Inspect the memory card holder of the FPC SIM SD.

**Action:**

If dirty or clogged – clean the holder.

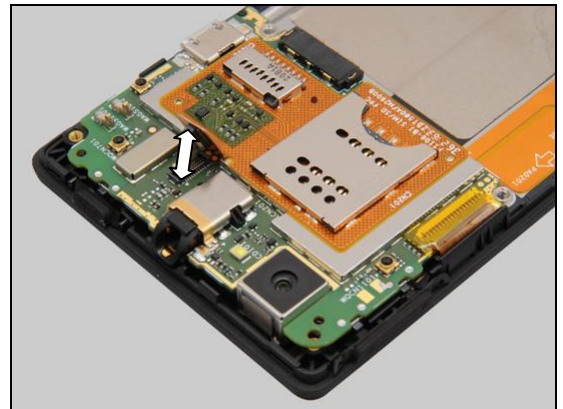


**Check:**

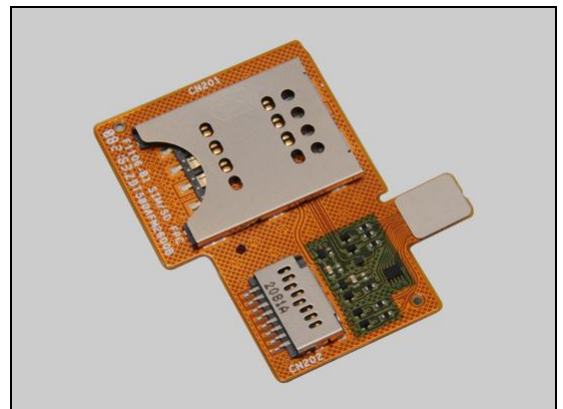
Inspect the BtB connector of the FPC SIM SD to the PBA.

**Action:**

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



3. If the BtB connector or the memory holder of the FPC SIM SD is damaged – replace the FPC SIM SD.
4. Replace board.



## Problem Areas

### 1.19 Security

#### 1.19.1 Security fails

**Action:**

Replace board.

## Problem Areas

### 1.20 FM Radio

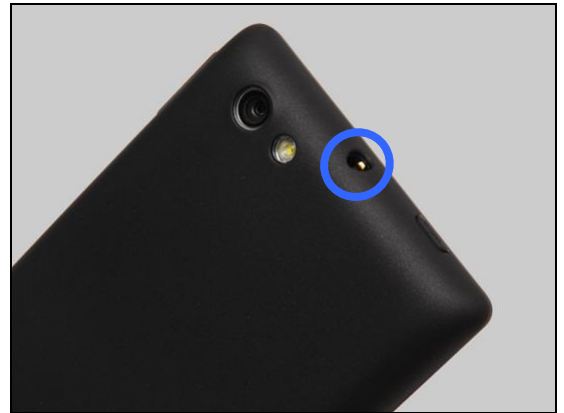
#### 1.20.1 No/Poor FM Radio reception

**Check:**

Inspect the external port of the audio jack.

**Action:**

If dirty or oxidized – clean it.

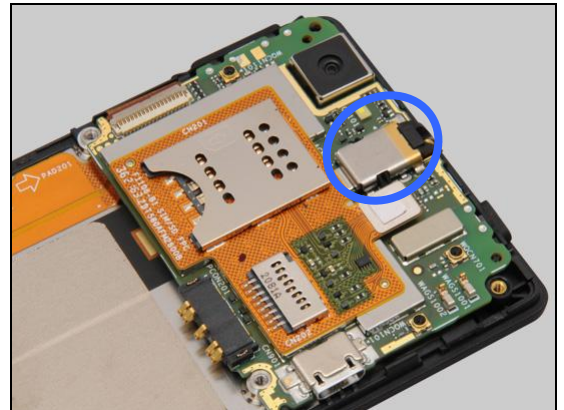


**Check:**

Inspect the audio jack on the PBA.

**Action:**

1. If dirty or oxidized – clean it.
2. If damaged – replace board.





## Problem Areas

### 1.21 Flip Slider Counter

#### 1.21.1 Flip Slider Counter fails

**Action:**

Not applicable. No slider phone.

## Problem Areas

### 1.22 Verify Certificates

#### 1.22.1 Verify Certificates fails

**Action:**

Replace board.

## Problem Areas

### 1.23 Network & Signal

#### 1.23.1 No/Poor signal

**Check:**

Inspect the main antenna on the Rear Cover Assy.

**Action:**

1. If dirty – clean it.



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



**Check:**

Inspect the main antenna contact pins on the Sub Board Assy and contact pads on the Rear Cover Assy.

**Action:**

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



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



## Problem Areas: Network & Signal

### Check:

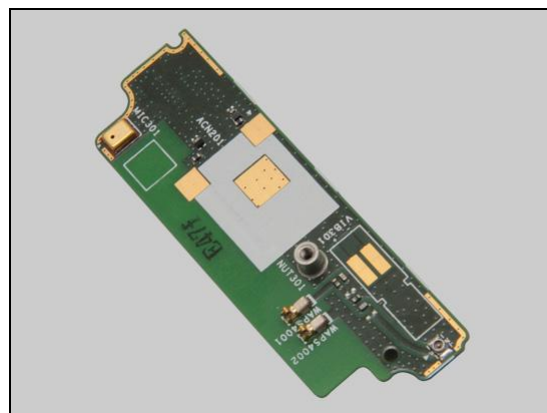
Inspect the connector of the RF Cable to the Sub Board Assy.

### Action:

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



2. If the connector or the pins of the Sub Board Assy is damaged – replace the Sub Board Assy.

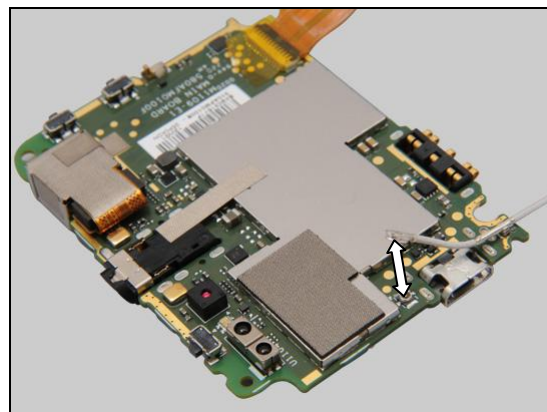


### Check:

Inspect the connector of RF Cable to the PBA.

### Action:

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



2. If the RF Cable or its two connectors is damaged – replace the RF Cable.
3. Replace board.



## Problem Areas

### 1.24 SIM

#### 1.24.1 SIM not detected

**Check:**

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

**Action:**

If dirty or clogged – clean the external port.

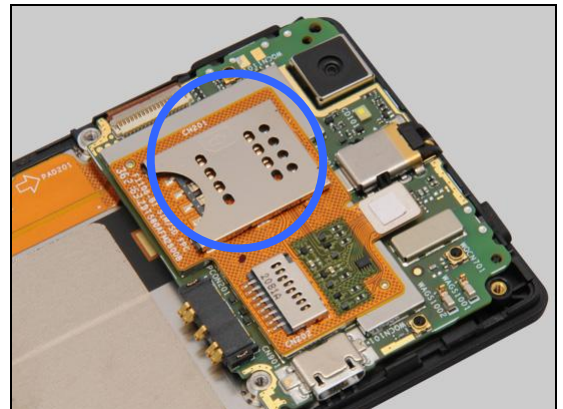


**Check:**

Inspect the SIM card holder on the PBA.

**Action:**

If dirty or clogged – clean the holder.

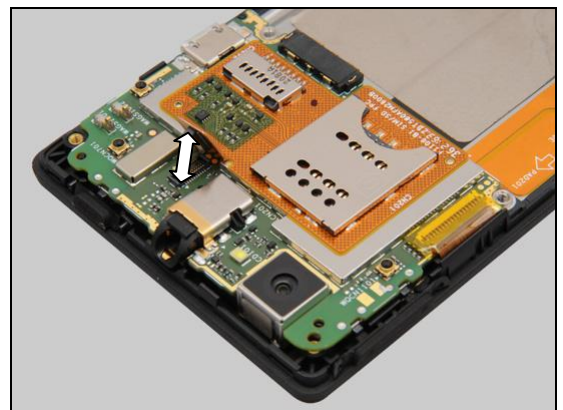


**Check:**

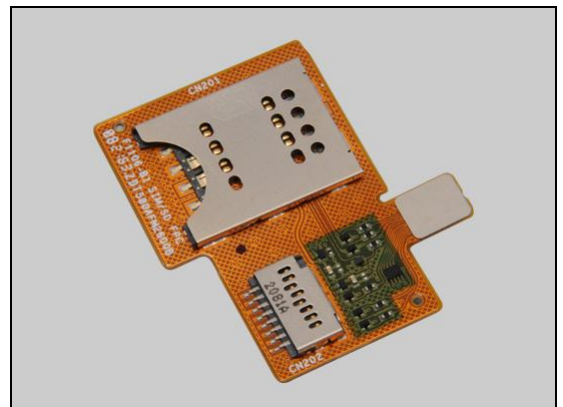
Inspect the BtB connector of the FPC SIM SD to the PBA.

**Action:**

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



3. If the BtB connector or the SIM card holder of the FPC SIM SD is damaged – replace the FPC SIM SD.
4. Replace board.



## Problem Areas: SIM

### 1.24.2 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

### 1.25 Charging

#### 1.25.1 Battery will not charge

**Check:**

Inspect the contact pads of the Battery.

**Action:**

1. If dirty or oxidized – clean the pads.
2. If damaged – replace the Battery.



**Check:**

Inspect the battery contact pins.

**Action:**

1. If dirty or oxidized – clean the contact pins.
2. If adhesive is detected on the contact pins – use an eraser to gently rub off the adhesive.



**Check:**

Inspect the USB connector.

**Action:**

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



## Problem Areas

### 1.26 HandsFree by Wire

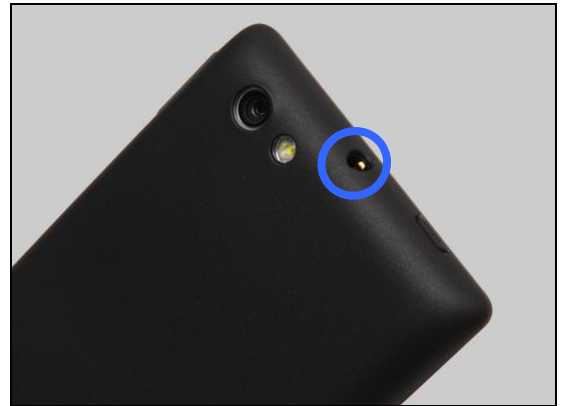
#### 1.26.1 Connection to Portable HandsFree fails

**Check:**

Inspect the external port of the Audio Jack.

**Action:**

If dirty or oxidized – clean the connector.

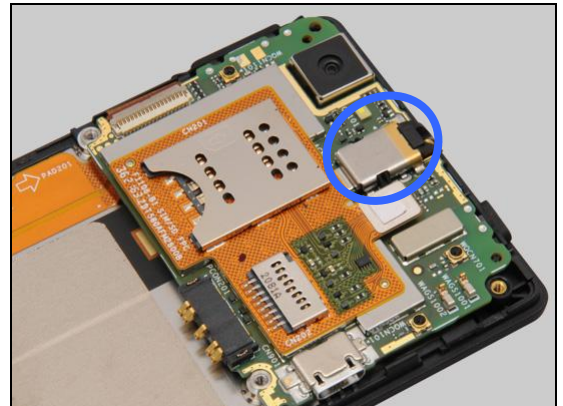


**Check:**

Inspect the Audio Jack on the PBA.

**Action:**

1. If dirty or oxidized – clean it.
2. If damaged – replace board.





## Problem Areas

### 1.27 Data Communication

#### 1.27.1 Data transfer via System Connector fails

**Check:**

Inspect the USB connector.

**Action:**

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



## Problem Areas

### 1.28 FlashLED

#### 1.28.1 FlashLED not flashing

**Check:**

Inspect the external area of the flash LED window.

**Action:**

1. If the flash LED window is dirty – clean it.

2. If the flash LED window scratched or damaged – replace the Rear Cover Assy.

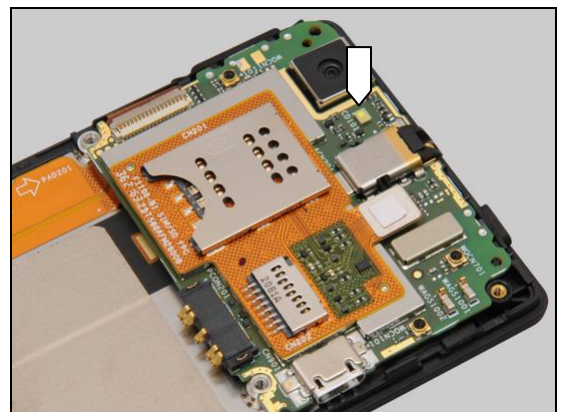
**Check:**

Inspect the flash LED on the PBA.

**Action:**

1. If dirty – clean it.

2. Replace board.



## 2 Revision History

Rev.	Date	Changes / Comments
1	2012-Sep-7	Initial release
2	2012-Oct-15	Touch Panel calibration added