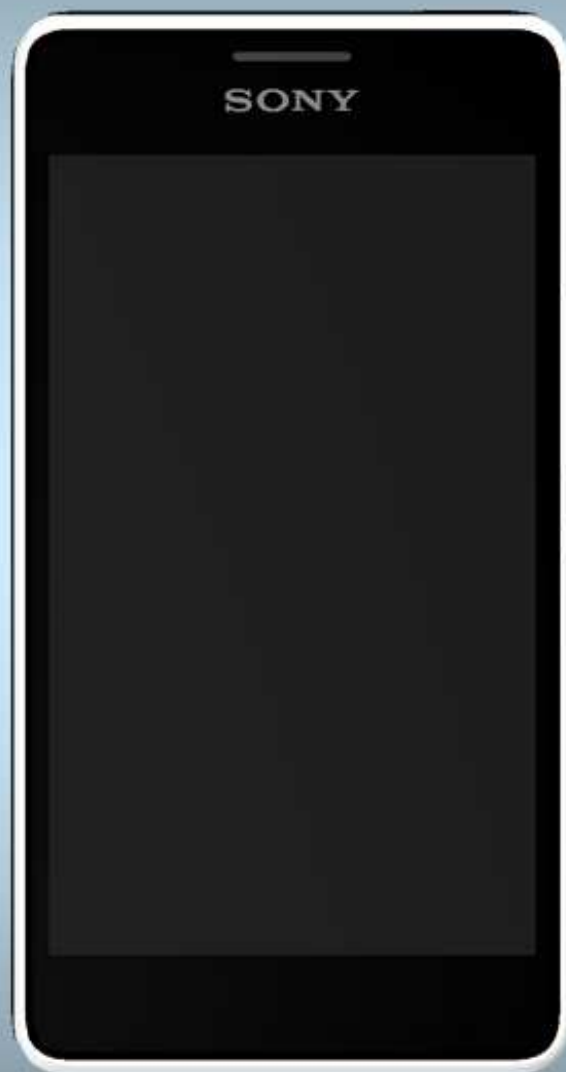


## Troubleshooting Guide

- mechanical -



*Xperia E1: D2005, D2004,  
Xperia E1 dual: D2105, D2104, D2114*

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## 1 Problem Areas

### 1.1 Power

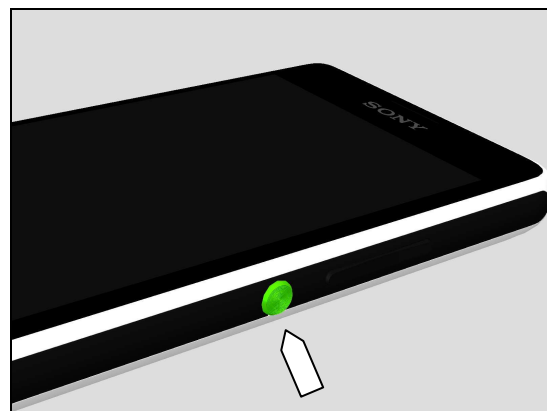
#### 1.1.1 Will not power on or will switch off randomly

**Check:**

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

**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.

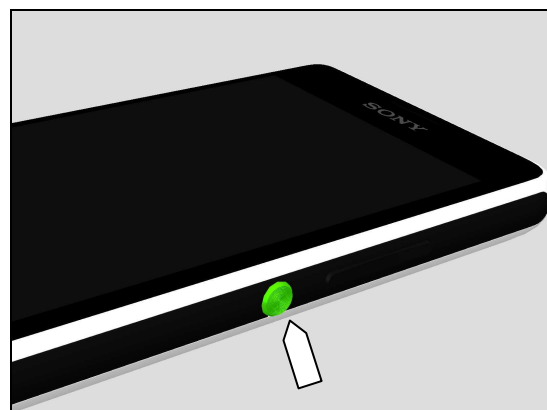


**Check:**

Inspect the on/off key.

**Action:**

1. Refer to section 1.2.3 'Key On/Off'.
2. Replace board.



## Problem Areas

### 1.2 Keys

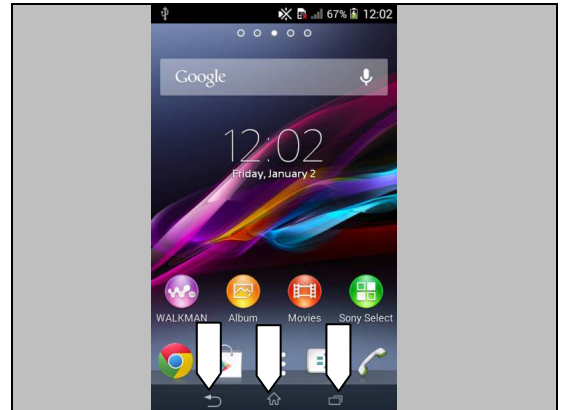
#### 1.2.1 Back/Home/Multitask Keys

**Check:**

Inspect the Back/Home/Multitask keys on Touch Panel.

**Action:**

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



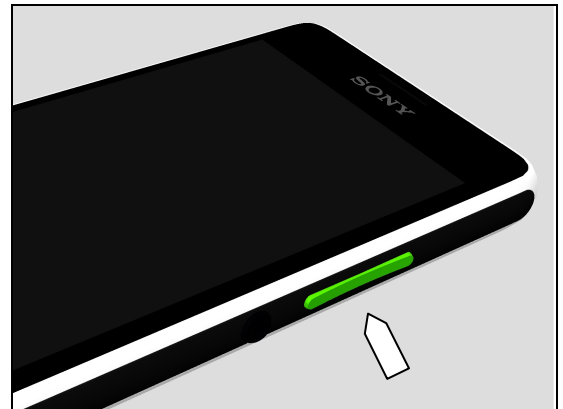
#### 1.2.2 Volume Key

**Check:**

Inspect the external area of the volume key.

**Action:**

If dirty – clean it.

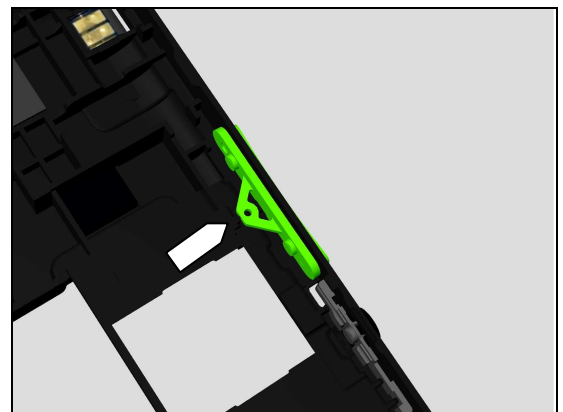


**Check:**

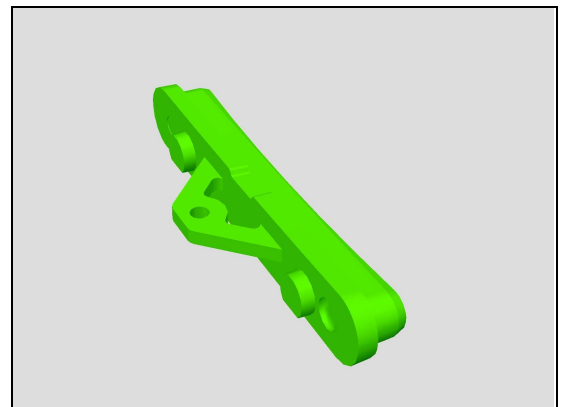
Inspect the volume key on Rear Cover Assy Assy.

**Action:**

1. If not properly connected – disconnect and reconnect.



2. If the volume key is damaged – replace it.



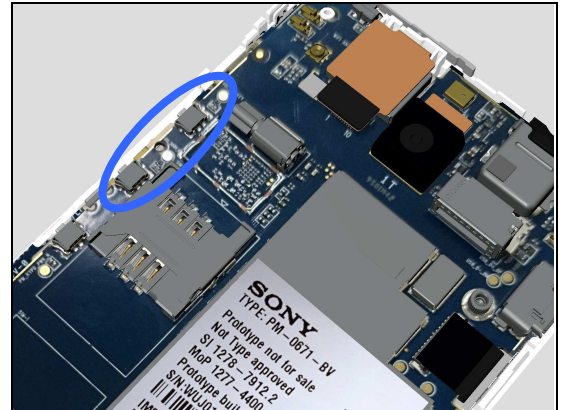
## Problem Areas: Keys

### Check:

Inspect the Volume Key switches on main PBA.

### Action:

1. If dirty or oxidized – clean it.
2. Replace board.



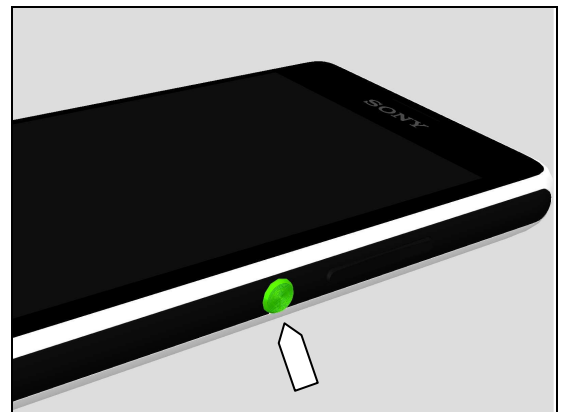
### 1.2.3 On/Off Key

#### Check:

Inspect the external area of the on/off key.

#### Action:

If dirty – clean it.

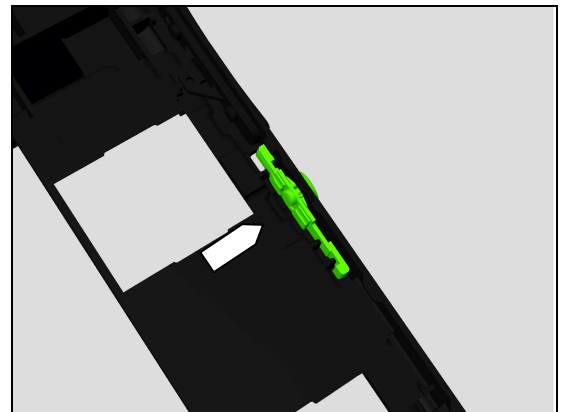


#### Check:

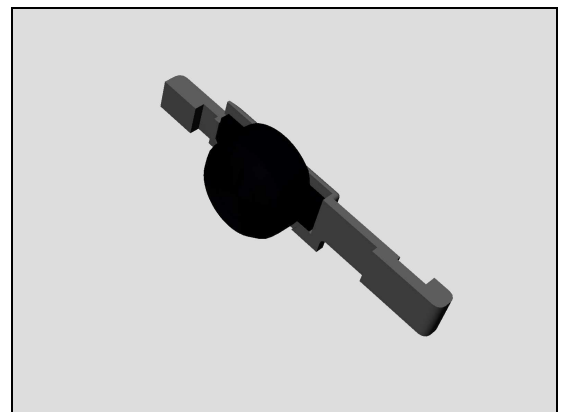
Inspect the on/off key on Rear Cover Assy Assy.

#### Action:

1. If dirty – clean them.



2. If the on/off key is damaged – replace it.



## Problem Areas: Keys

### Check:

Inspect the On/off Key switch on main PBA.

### Action:

1. If dirty or oxidized – clean it.
2. Replace board.



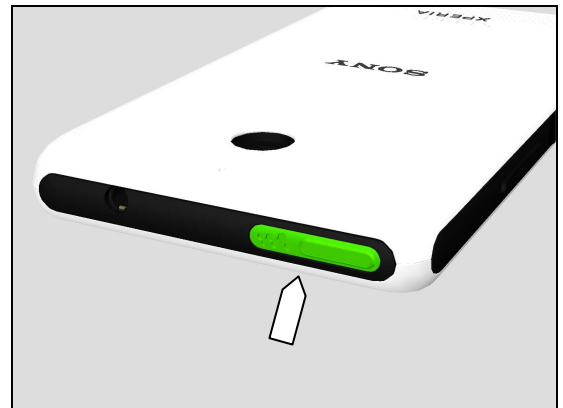
### 1.2.4 Walkman Key

#### Check:

Inspect the external area of the Walkman key.

#### Action:

If dirty – clean it.

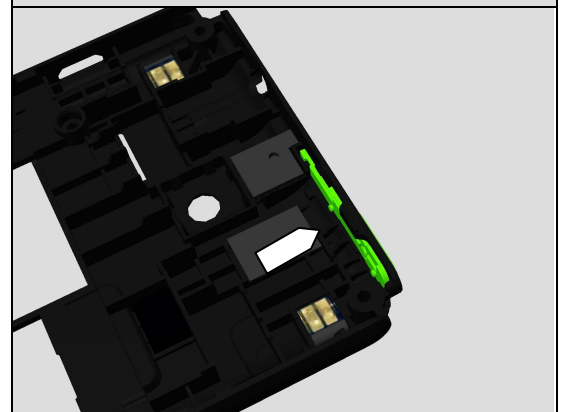


#### Check:

Inspect the Walkman key on Rear Cover Assy Assy.

#### Action:

1. If dirty – clean them.



2. If the Walkman key is damaged – replace it.



## Problem Areas: Keys

**Check:**

Inspect the Walkman Key switch on main PBA.

**Action:**

1. If dirty or oxidized – clean it.
2. Replace board.





## Problem Areas

### 1.3 Touch Screen

#### 1.3.1 Touch Screen malfunction

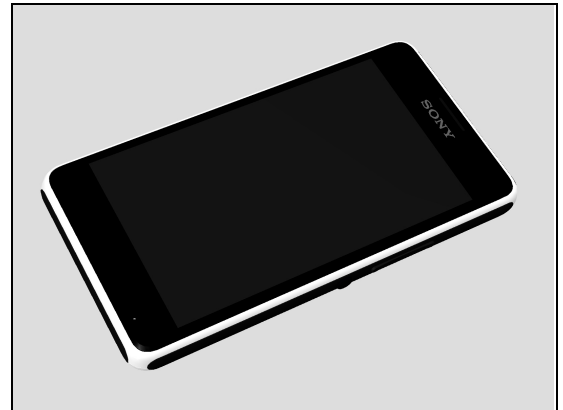
**Check:**

Inspect the touch screen on the Front Cover Assy with TP.

**Action:**

If dirty – clean it.

**If:** The end user has complained about unexpected behavior of the touch screen or the touch keys.

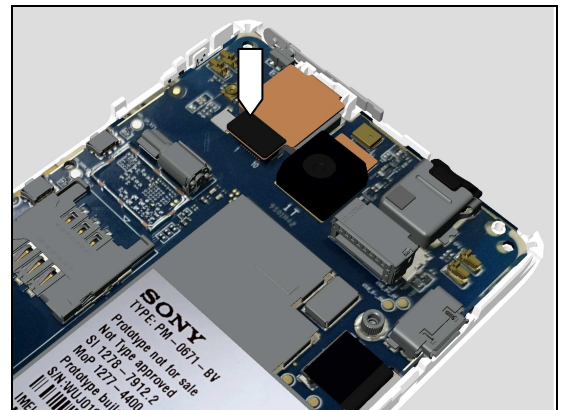


**Check:**

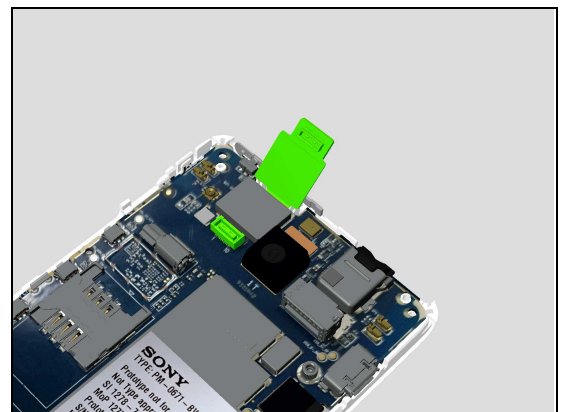
Inspect the BtB connector of the Front Cover Assy with TP to the main PBA.

**Action:**

1. If not properly connected – disconnect and reconnect.



2. If dirty or oxidized – clean it.



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

4. Replace board.



## 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'.

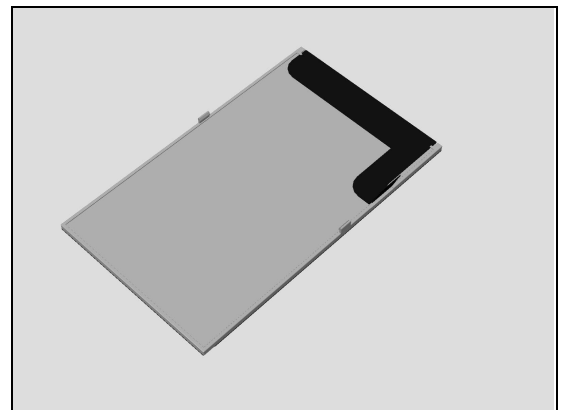
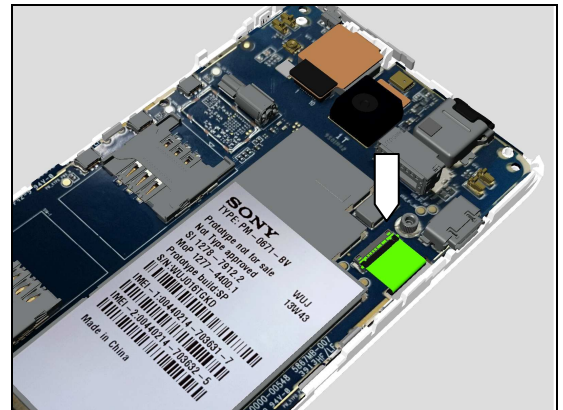
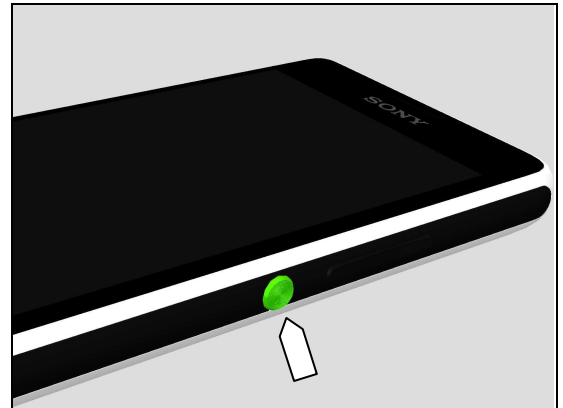
**Check:**

Inspect the ZIF connector of LCM TFT 4.00 inch to the main PBA.

**Action:**

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

3. If LCM TFT 4.00 inch is damaged – replace it.
4. Replace board.



## Problem Areas

### 1.5 LED/Illumination

#### 1.5.1 Charger LED

**Check:**

Inspect the external window area of the Charger LED.

**Action:**

1. If dirty – clean it.

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

**Check:**

Inspect the Charger LED Rubber.

**Action:**

1. If dirty or clogged – clean it.

2. If the Charger LED Rubber is damaged – replace it.

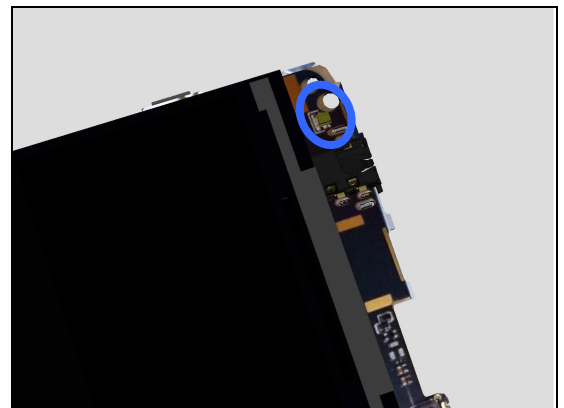
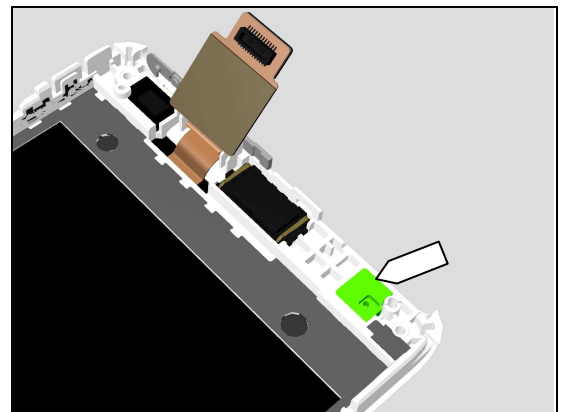
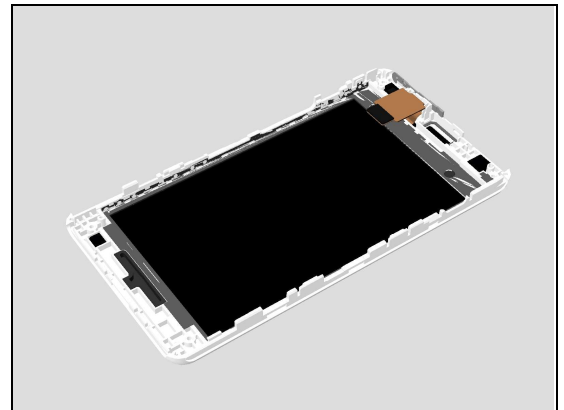
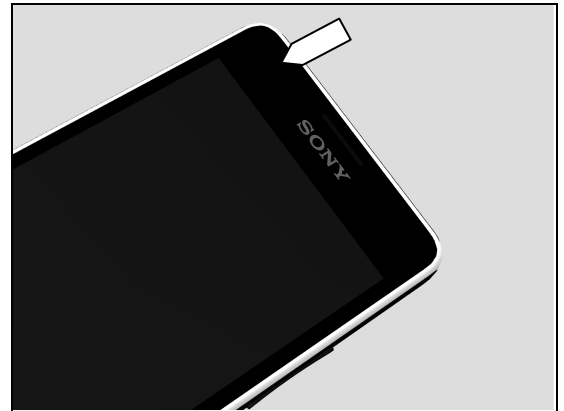
**Check:**

Inspect the Charger LED on Main PBA.

**Action:**

1. If dirty or clogged – clean it.

2. Replace board.



## Problem Areas: Illumination

### 1.5.2 Notification LED

**Check:**

Inspect the illumination window of the Notification LED.

**Action:**

1. If dirty – clean them.

2. If the illumination window is damaged – replace the Front Cover Assy with TP.

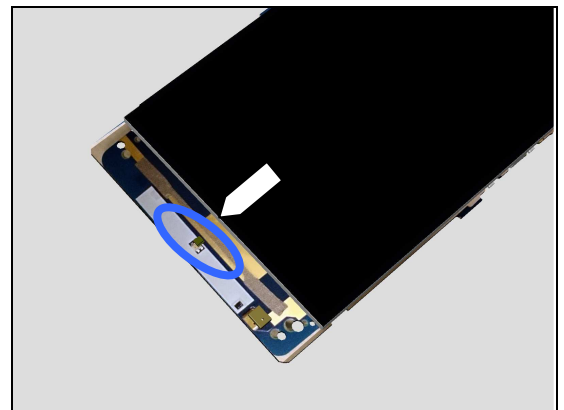
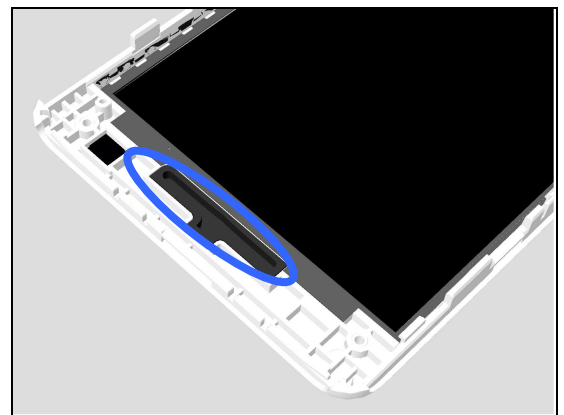
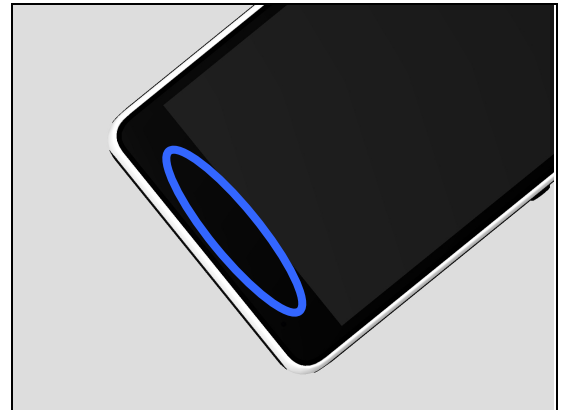
**Check:**

Inspect the Charger LED.

**Action:**

1. If dirty or clogged – clean it.

2. Replace board.



## Problem Areas

### 1.6 Speaker

#### 1.6.1 Speaker

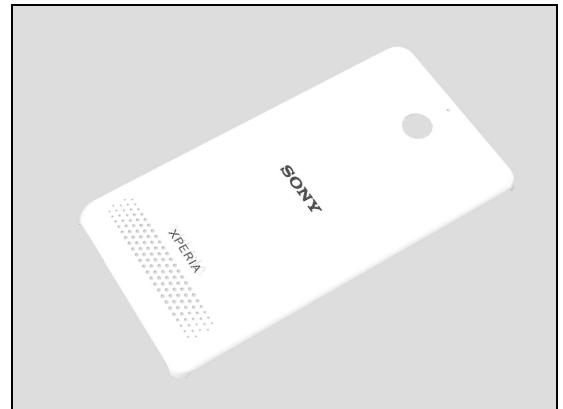
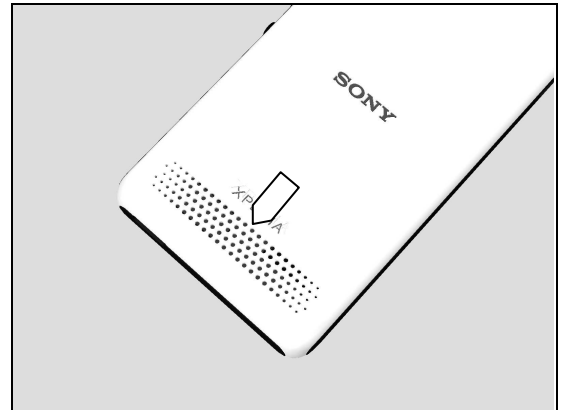
**Check:**

Inspect the Loudspeaker's external port on the Battery Cover.

**Action:**

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

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



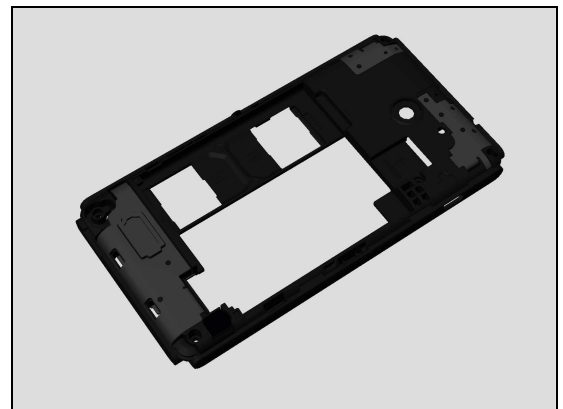
**Check:**

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

**Action:**

1. If dirty – clean it.

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



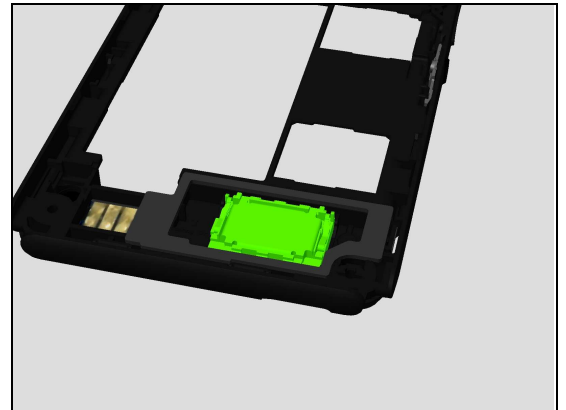
## Problem Areas: Speaker

### Check:

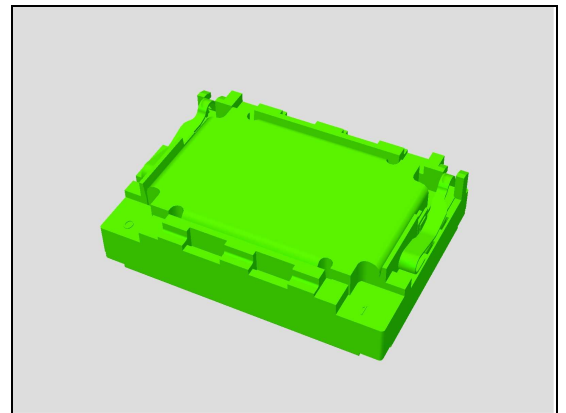
Inspect the Loudspeaker on Rear Cover Assy Assy.

### Action:

1. If dirty – clean them.



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



### Check:

Inspect the loudspeaker Pad on Main PBA.

### Action:

1. If dirty or oxidized – clean it.

2. Replace board.



## Problem Areas

### 1.7 Earphone

#### 1.7.1 Earphone

**Check:**

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

**Action:**

1. If clogged – clean it.

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

**Check:**

Inspect the Receiver on Front Cover Assy with TP.

**Action:**

1. If dirty – clean them.

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

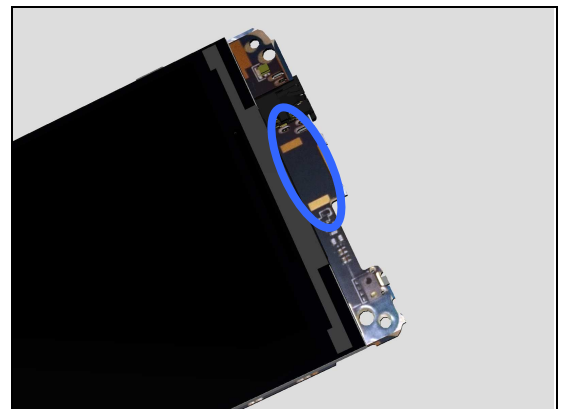
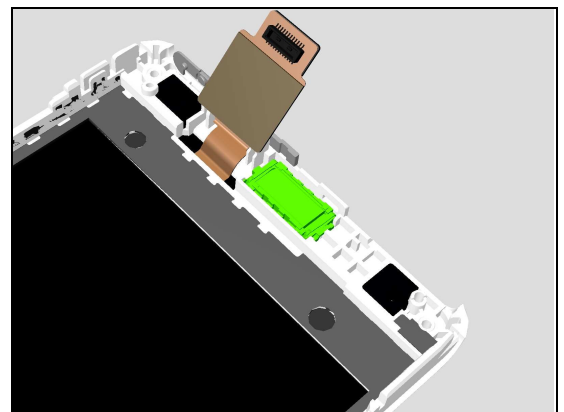
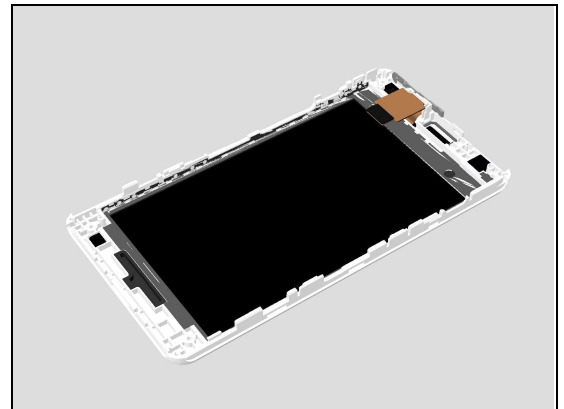
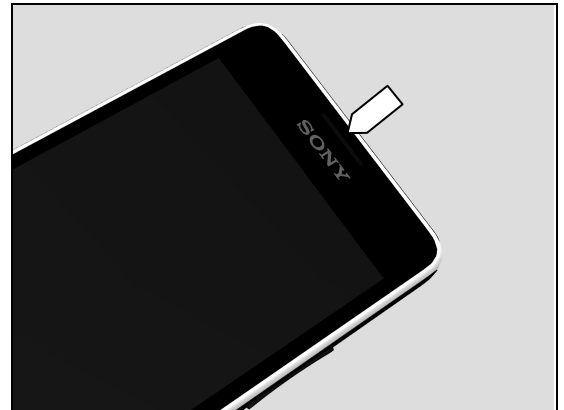
**Check:**

Inspect the Receiver pad on Main PBA.

**Action:**

1. If dirty – clean them.

2. Replace board.



## Problem Areas

### 1.8 Microphone

#### 1.8.1 Microphone

**Check:**

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

**Action:**

If clogged – clean the port.

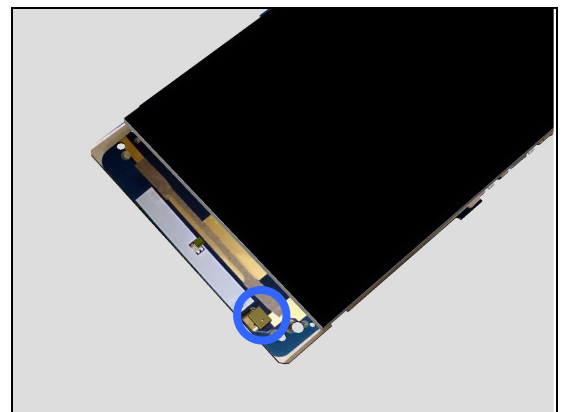
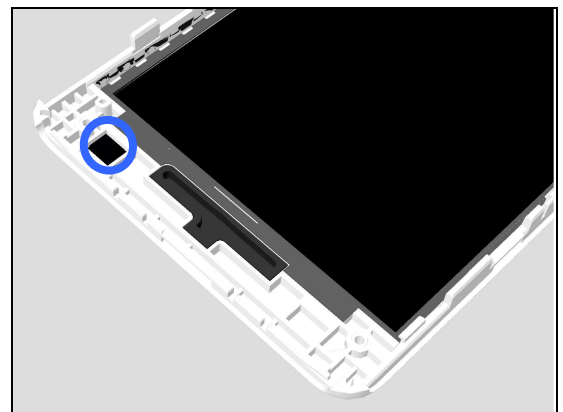
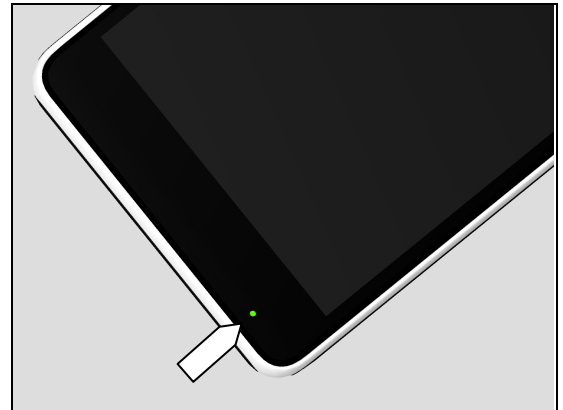
2. If the port is damaged – replace the Front Cover Assy with TP.

**Check:**

Inspect the main MIC on Main PBA.

**Action:**

1. If dirty – clean them.
2. Replace board.





## Problem Areas

### 1.9 Vibrator

#### 1.9.1 Vibrator not generating alerts

**Check:**

Inspect the vibrator on Main PBA.

**Action:**

1. If dirty or oxidized – clean it.
2. Replace board.



## Problem Areas

### 1.10 Camera

#### 1.10.1 Camera defects

**Check:**

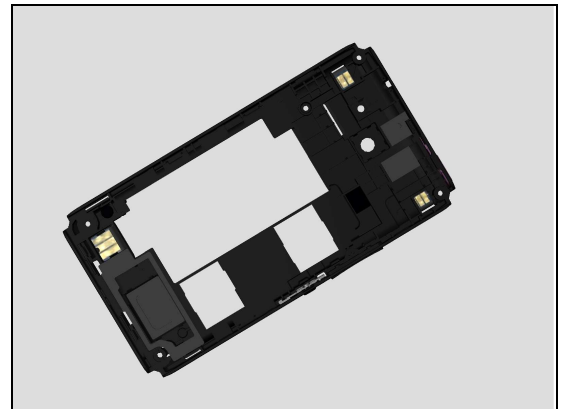
Inspect the external area of camera window.

**Action:**

1. If dirty – clean it.



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

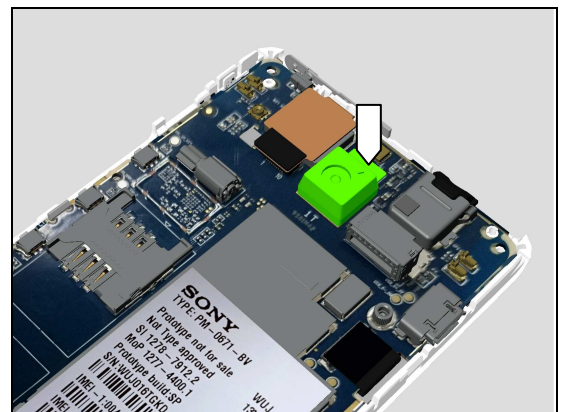


**Check:**

Inspect the BtB connector of the Main Camera to the main PBA.

**Action:**

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

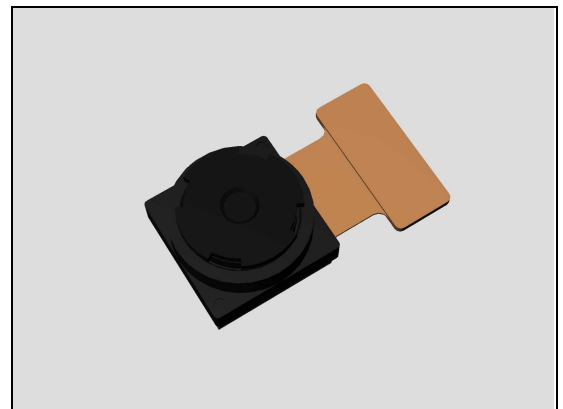


**Check:**

Inspect the Main Camera.

**Action:**

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



## Problem Areas

### 1.11 Secondary Microphone

#### 1.11.1 Secondary Microphone fails

**Check:**

Inspect the external area of the Secondary Microphone.

**Action:**

1. If the hole is dirty or clogged – clean it.

2. If the Battery Cover Assy is scratched or damaged – replace the Battery Cover Assy.

**Check:**

Inspect the Rear Cover Assy.

**Action:**

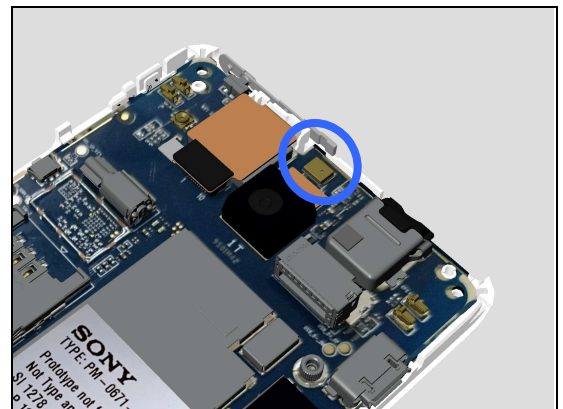
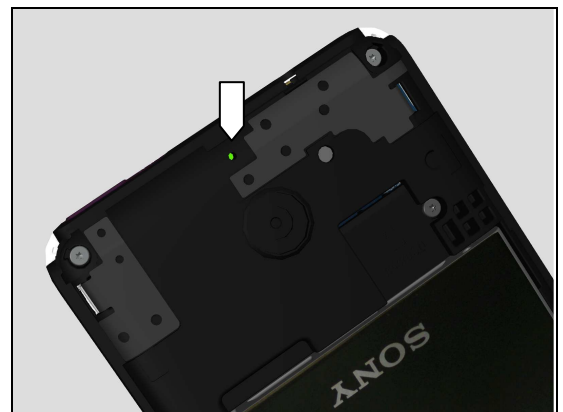
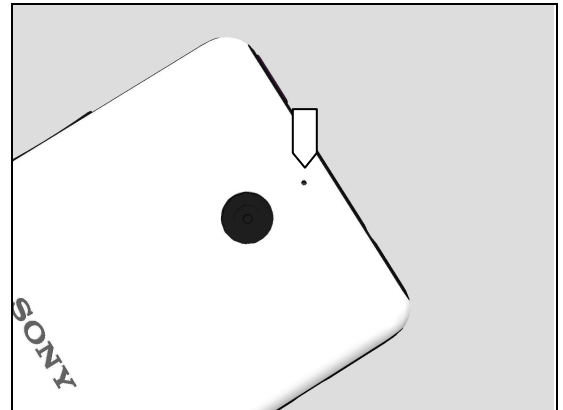
If the Rear Cover Assy is scratched or damaged – replace the Rear Cover Assy.

**Check:**

Inspect the 2<sup>nd</sup> MIC on Main PBA.

**Action:**

If the 2<sup>nd</sup> MIC is damaged – Replace board.



## Problem Areas

### 1.12 Bluetooth and WLAN

#### 1.12.1 Bluetooth or WLAN connection failure

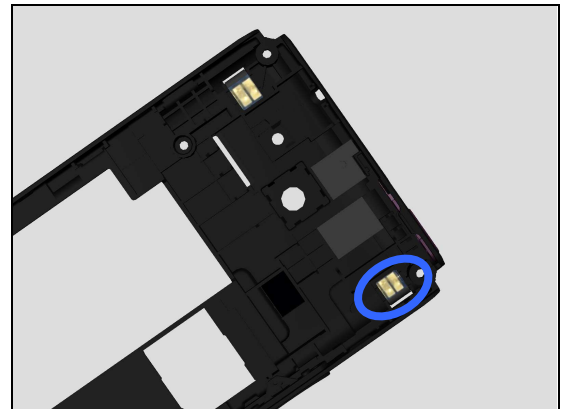
**Check:**

Inspect the Antenna BT WIFI on the Rear Cover Assy.



**Action:**

1. If dirty – clean it.
2. If the antenna is damaged – replace Rear Cover Assy.

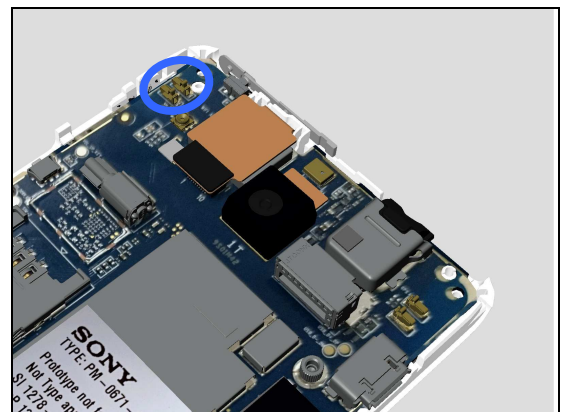


**Check:**

Inspect the contact pins on the main PBA.

**Action:**

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



## Problem Areas

### 1.13 GPS

#### 1.13.1 GPS malfunctions

**Check:**

Inspect the Antenna GPS on the Rear Cover Assy.

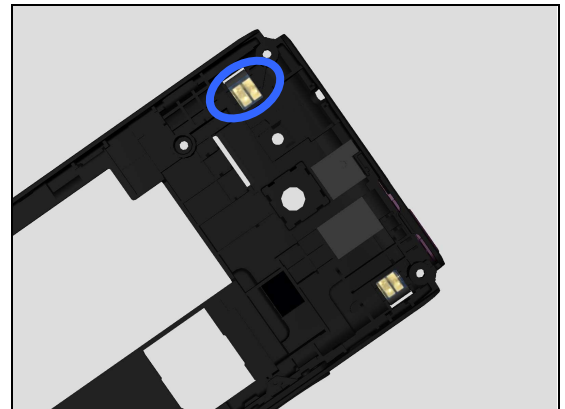
**Action:**

1. If dirty – clean it.



**Action:**

1. If dirty – clean it.
2. If the antenna is damaged – replace Rear Cover Assy.

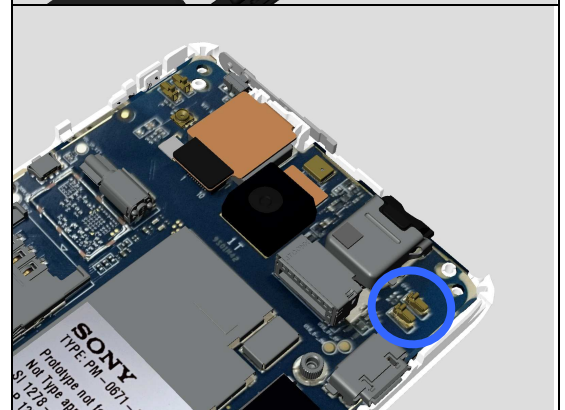


**Check:**

Inspect the contact pins on the main PBA.

**Action:**

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



## Problem Areas

### 1.14 Compass

#### 1.14.1 Compass fails

**Action:**

Replace board.

## Problem Areas

### 1.15 Accelerometer

#### 1.15.1 Accelerometer test fails

**Action:**

Replace board.

## Problem Areas

### 1.16 Proximity Switch

#### 1.16.1 Proximity switch malfunctions

**Check:**

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

**Action:**

1. If dirty – clean them.

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

**Check:**

Inspect the P sensor Light sensor Rubber on the Front Cover Assy with TP.

**Action:**

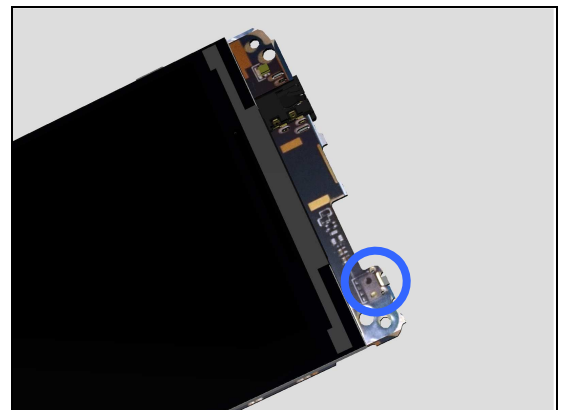
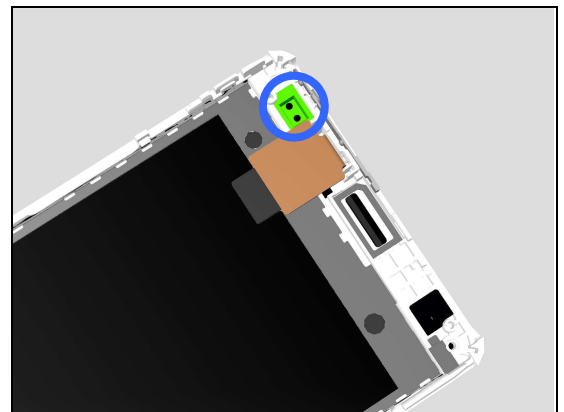
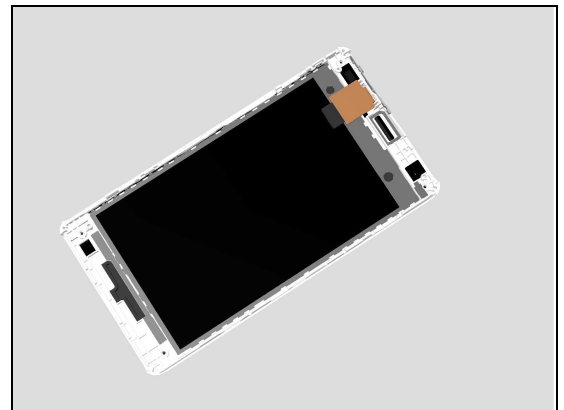
1. If dirty or clogged – clean them.
2. If damaged – replace it.

**Check:**

Inspect the P sensor Light sensor on the Main PBA.

**Action:**

If damaged –Replace board.





## Problem Areas

### 1.17 Real Time Clock

#### 1.17.1 Real Time Clock test fails

**Action:**

Replace board.

## Problem Areas

### 1.18 Total call time

#### 1.18.1 Total call time fails

**Action:**

Replace board.

## Problem Areas

### 1.19 External Memory

#### 1.19.1 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.

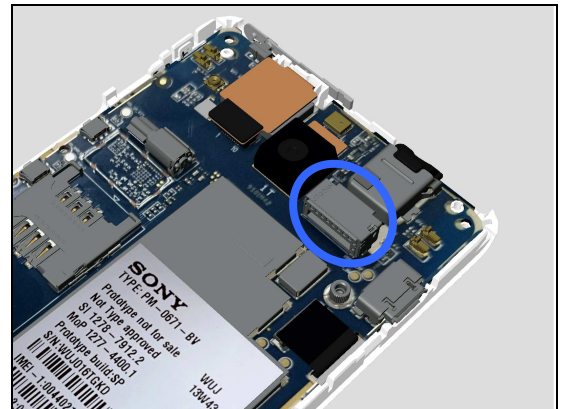


**Check:**

Inspect the memory card holder on Main PBA.

**Action:**

1. If dirty or clogged – clean the holder.
2. If damaged, Replace board.



## Problem Areas

### 1.20 Security

#### 1.20.1 Security fails

**Action:**

Replace board.

## Problem Areas

### 1.21 FM Radio

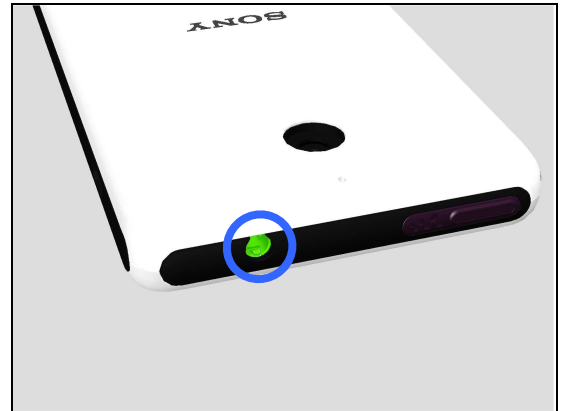
#### 1.21.1 No/Poor FM Radio reception

**Check:**

Inspect the external port of the audio jack.

**Action:**

If dirty or oxidized – clean it.

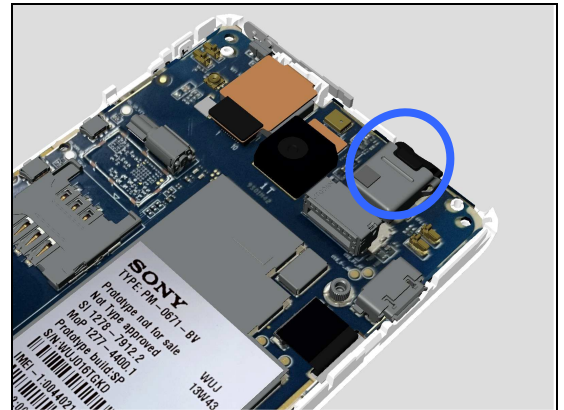


**Check:**

Inspect the audio jack on the main PBA.

**Action:**

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



## Problem Areas

### 1.22 Verify Certificates

#### 1.22.1 Verify certificates fails

**Action:**

Replace board.

## Problem Areas

### 1.23 Network & Signal

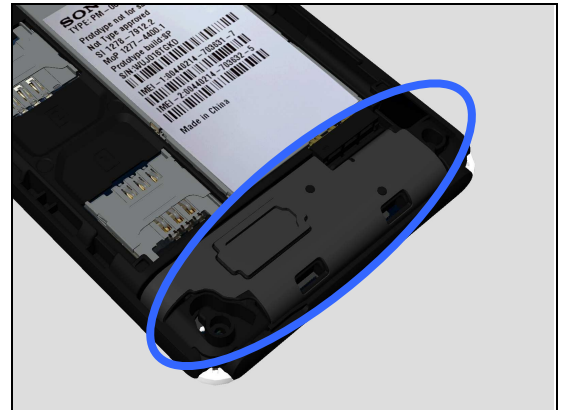
#### 1.23.1 No/Poor signal

**Check:**

Inspect the Antenna Main on the Rear Cover Assy.

**Action:**

If dirty – clean it.

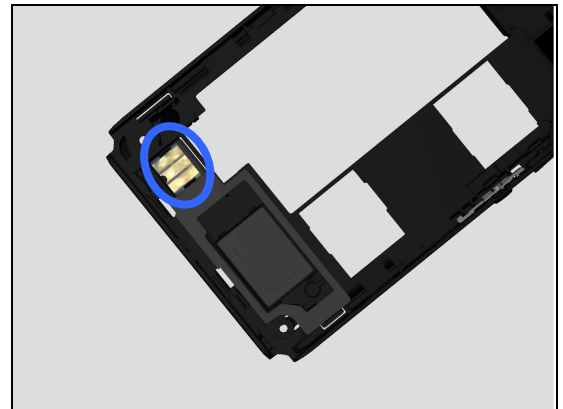


**Check:**

Inspect the contact pads on Rear Cover Assy.

**Action:**

1. If dirty or oxidized – clean the pads.
2. If damaged, replace Rear Cover Assy.



**Check:**

Inspect the contact pins on Main PBA.

**Action:**

1. If dirty or oxidized – clean the pins.
2. If damaged, 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.

*Notes: SIM2 only in D2104, D2105, D2114.*

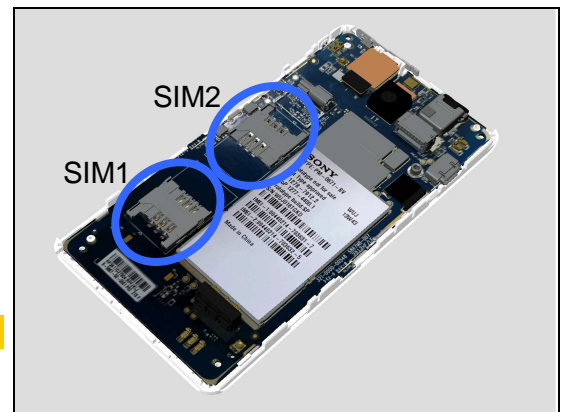
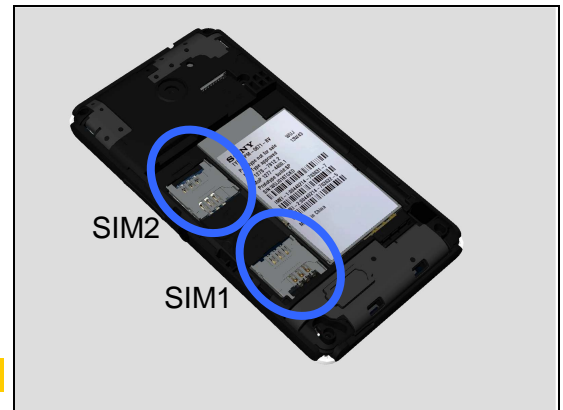
**Check:**

Inspect the SIM card holder on the main PBA.

**Action:**

1. If dirty or clogged – clean the holder.
2. If damaged, replace Board.

*Notes: SIM2 only in D2104, D2105, D2114.*





## 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.

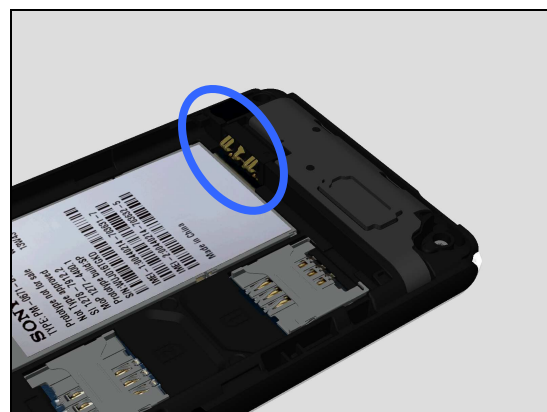


**Check:**

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.

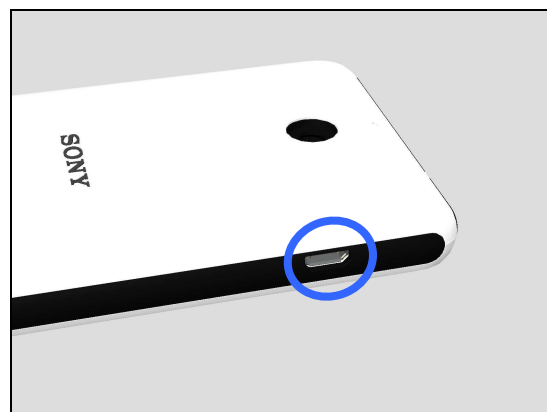


**Check:**

Inspect the USB connector.

**Action:**

1. If dirty or oxidized – clean the connector.



**Check:**

Inspect the USB connector.

**Action:**

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



## Problem Areas: Charging

### Problem Areas

#### 1.26 HandsFree by Wire

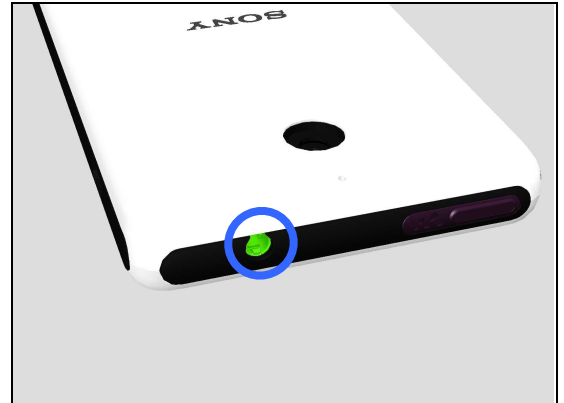
##### 1.26.1 Connection to Portable HandsFree fails

**Check:**

Inspect the external port of the audio jack.

**Action:**

If dirty or oxidized – clean the connector.

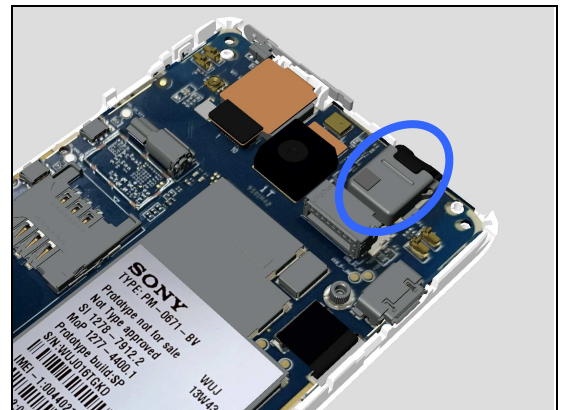


**Check:**

Inspect the audio jack on the main PBA.

**Action:**

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



## Problem Areas

### 1.27 Data Communication

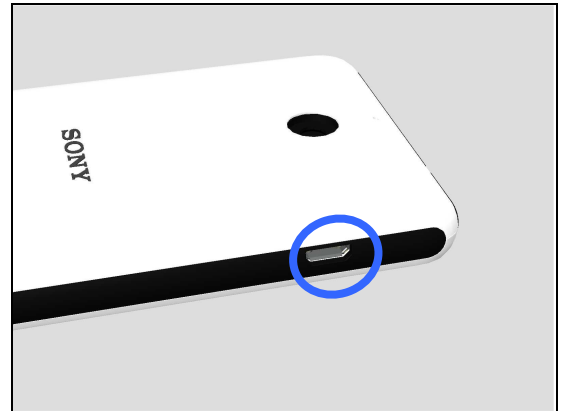
#### 1.27.1 Data transfer via System Connector fails

**Check:**

Inspect the USB connector.

**Action:**

If dirty or oxidized – clean the connector.

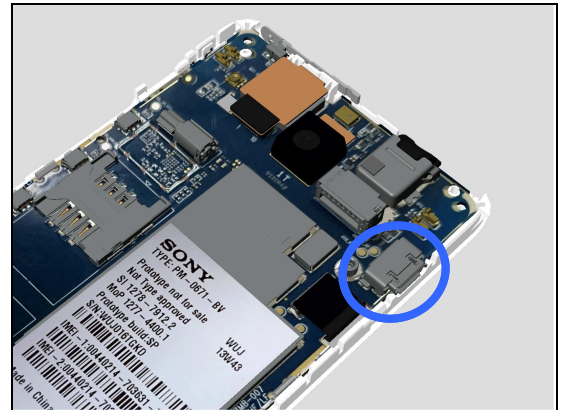


**Check:**

Inspect the USB connector on the main PBA.

**Action:**

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



## Problem Areas

### 1.28 Mobile TV (only for D2114)

#### 1.28.1 Mobile TV fails

**Check:**

Inspect the Mobile TV antenna.

**Action:**

If damaged – Replace Rear Cover Assy TV(D2114 variant).

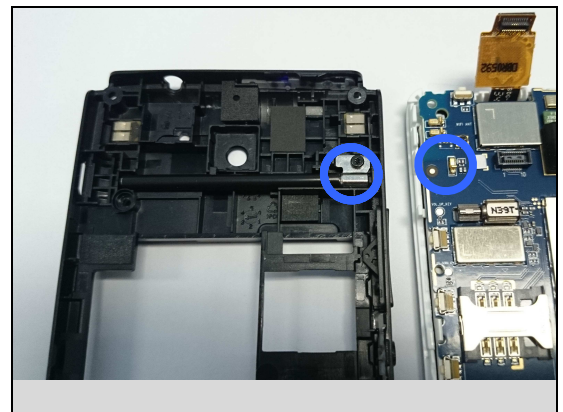
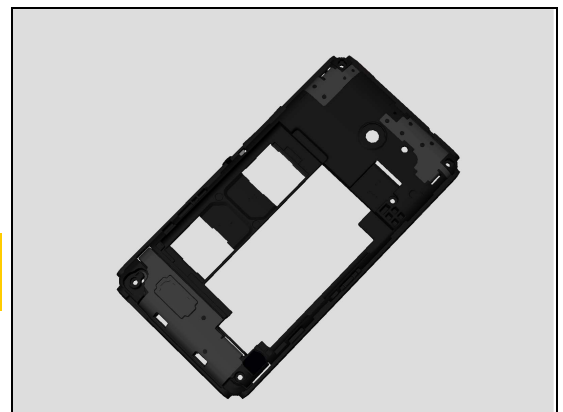
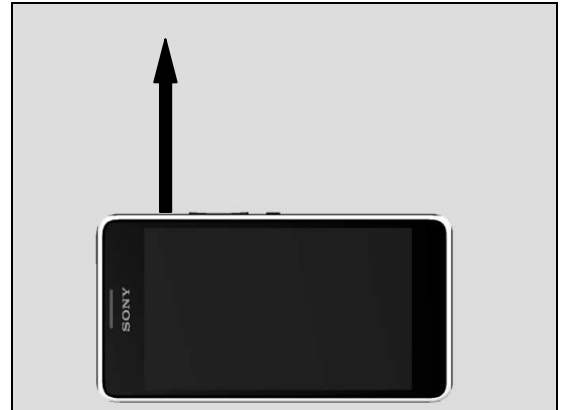
*Notes: Mobile TV antenna is inside Rear Cover Assy (D2114 variant).*

**Check:**

Inspect the contact pin on the main PBA.

**Action:**

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



## 2 Revision History

Rev.	Date	Changes / Comments
1	2014-02-17	Initial release