

## Trouble shooting Guide

### - mechanical -



*Xperia™ XZ2*  
*H8216, H8276, H8266, H8296*

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**For general information about mechanical repair related issues, refer to 000154064.34: Generic Repair Manual - mechanical - (under the RE4250: Repair - Mechanical - Repair instructions).**

**Always firstly disconnect the Battery FPC BtB connector to cut off power supply when the Panel Rear Sub Assy is disassembled.**

**Always finally connect the Battery FPC BtB connector before the Panel Rear Sub Assy is reassembled.**

**After repairing/reassembling the unit, calibration by CS-Everest, and flashing software Customize by Emma is required.**

**Calibration tool "CS-Everest 1309-7255" is available at Repair Information.**

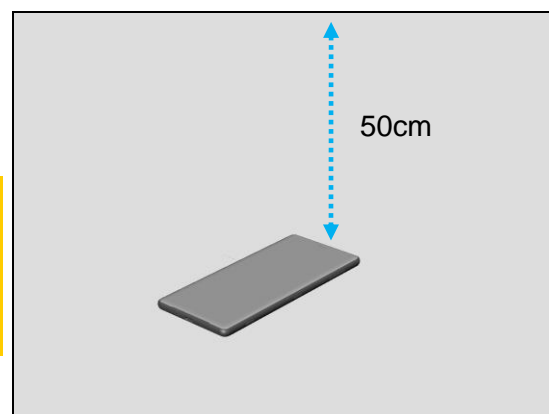
**It is posted under the RE4251: Repair - Mechanical - Tools and Equipment (including Repair Software).**

When perform calibration, put the unit on a stable place, facing up, and no any objects within 50cm.

**Note!**

**Remove the protection film if sensor window is covered by it.**

**The sensor window shouldn't be covered by any materials for proximity sensor calibration.**



**Flashing Customize or Refurbish in Emma must be performed when replace Top Speaker and/or Bottom Speaker.**

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

**Camera (both Main Camera and Front Camera) is sensitive for the dust.**

**Don't touch the lens area of the camera during repairing.**

## 1 Problem Areas

### 1.1 Power

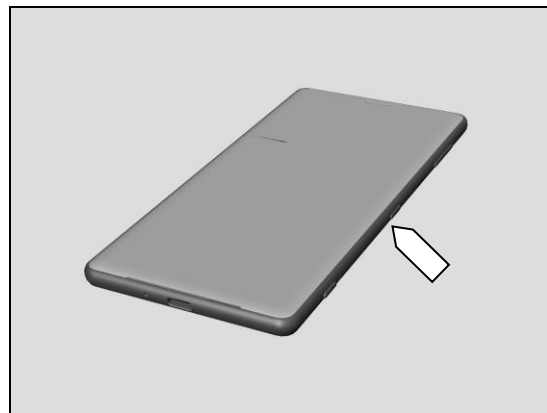
#### 1.1.1 Will not power on or will switch off randomly

**Check:**

Check whether the Notification LED blinks by pressing the on/off key.

**Action:**

If NO Notification LED blink is detected, perform a force shut down, press power key and volume up key for 10 seconds and then power on the unit again.

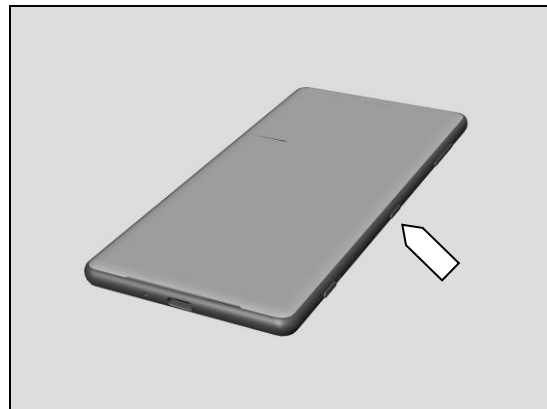


**Check:**

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

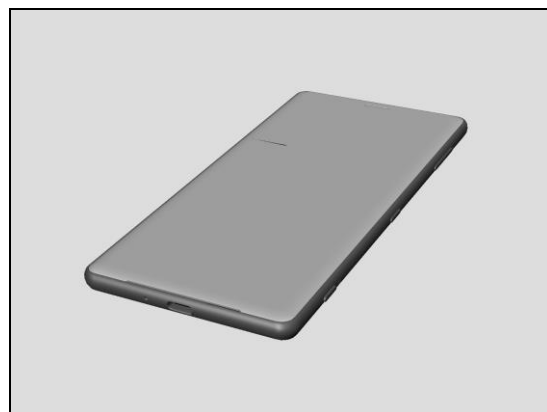
**Action:**

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



2. If NO activation of the Vibrator is detected and the Notification LED blinks by pressing the on/off key, check that the battery is charging when connected to a charger.

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

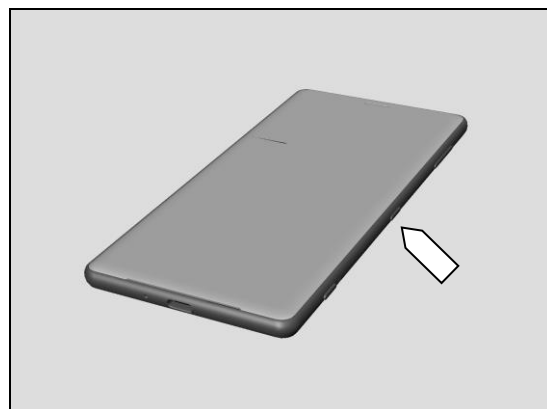


**Check:**

Inspect the on/off key.

**Action:**

Refer to section 1.2.3 'On/Off Key'.



## Problem Areas: Power

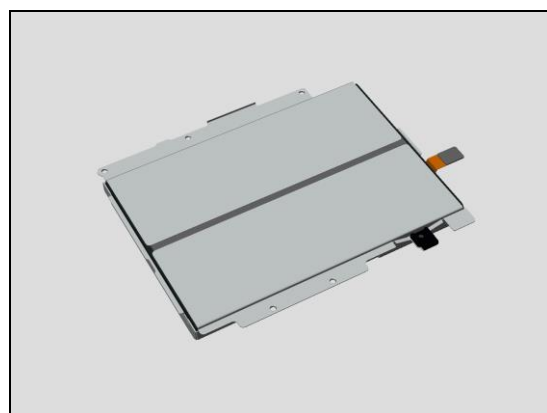
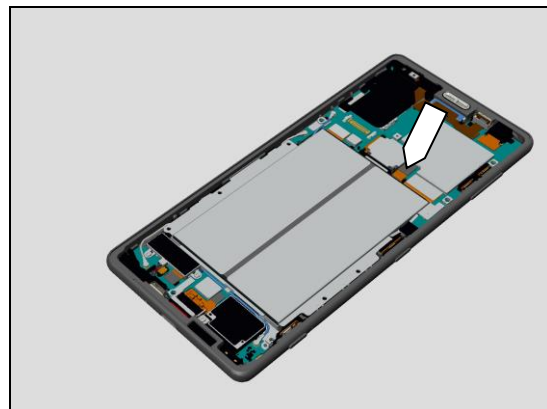
### Check:

Inspect the BtB connector of Battery to Main PBA.

### Action:

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

3. If the BtB connector of the FPC or the Battery assy is damaged – replace the Battery.
4. If the BtB connector of the Main PBA is damaged – replace the Main PBA.



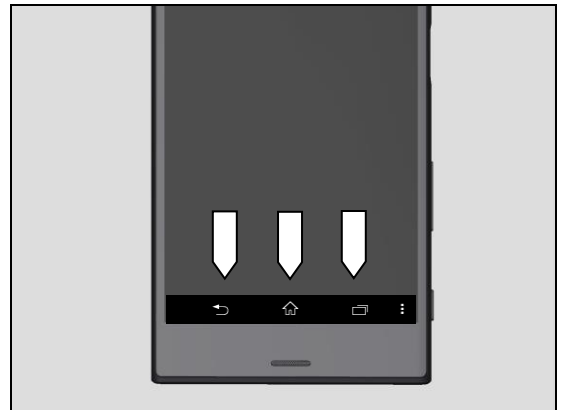
## Problem Areas

### 1.2 Keys

#### 1.2.1 Back, Menu, and Home Keys

**Action:**

1. Refer to section 1.3 'Touch Screen'.



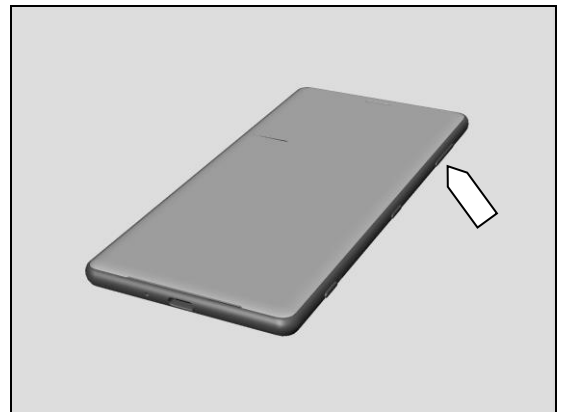
#### 1.2.2 Volume Key

**Check:**

Inspect the external area of the Cover Main.

**Action:**

1. If dirty – clean it.
2. If damaged – replace the Cover Main.

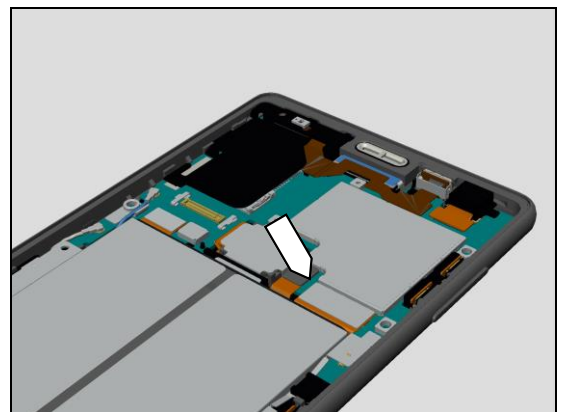


**Check:**

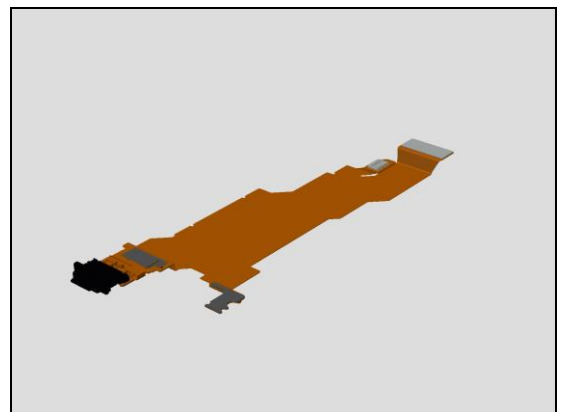
Inspect the BtB connector of FPC USB Sub Assy to Main PBA.

**Action:**

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



3. If the FPC USB Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.

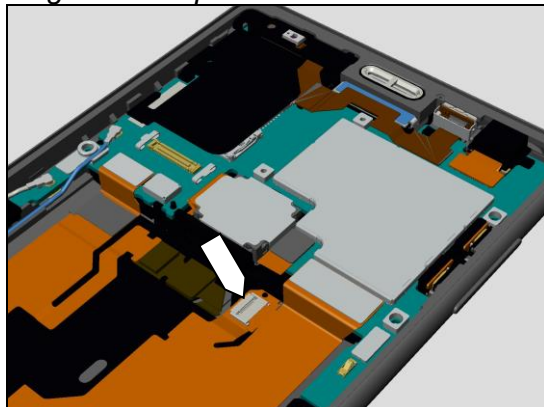


**Check:**

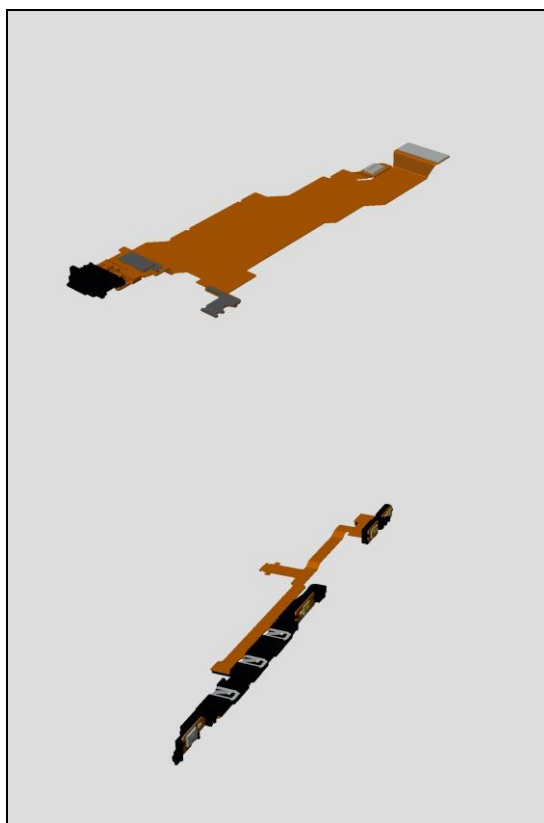
Inspect the Zif connector of FPC Key Sub Assy to FPC USB Sub Assy

**Action:**

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



3. If the FPC Key Sub Assy is damaged – replace it.
4. If the Zif connector on the FPC USB Sub Assy is damaged-replace the FPC USB Sub Assy.





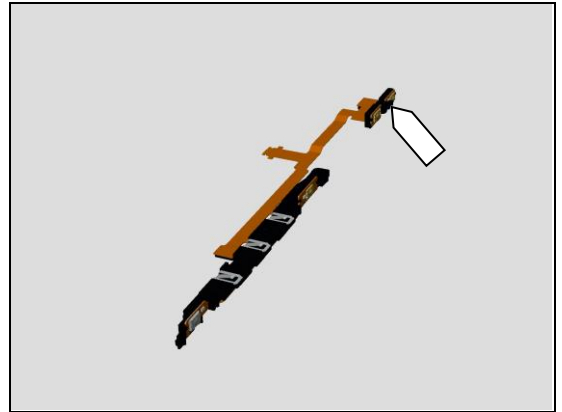
## Problem Areas: Keys

### Check:

Inspect the condition of the Volume Key switch.

### Action:

1. If dirty – clean them.
2. If the Volume Key switch is damaged – replace the FPC Key Sub Assy.

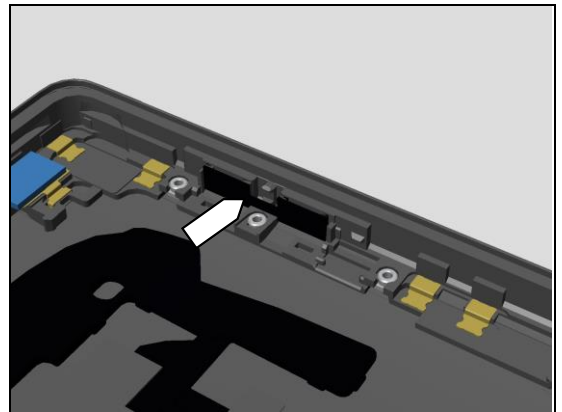


### Check:

Inspect the condition of the Sheet Key Vol

### Action:

1. If the Sheet Key Vol damaged – replace the Sheet Key Vol.

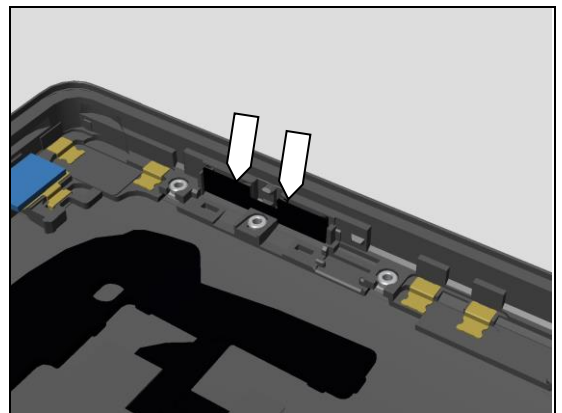


### Check:

Inspect the condition of the Gasket Volume.

### Action:

1. If damaged – replace the Cover Main Assy.



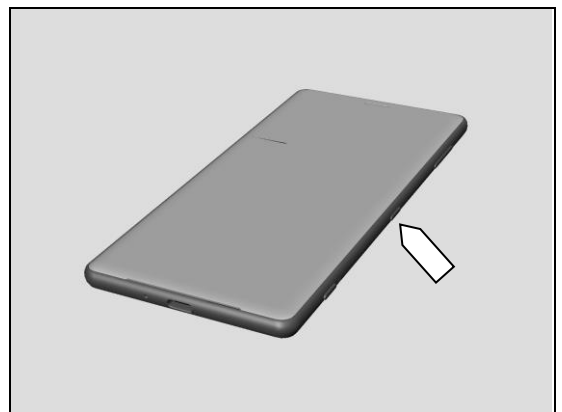
## 1.2.3 On/Off Key

### Check:

Inspect the external area of the On/Off Key.

### Action:

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



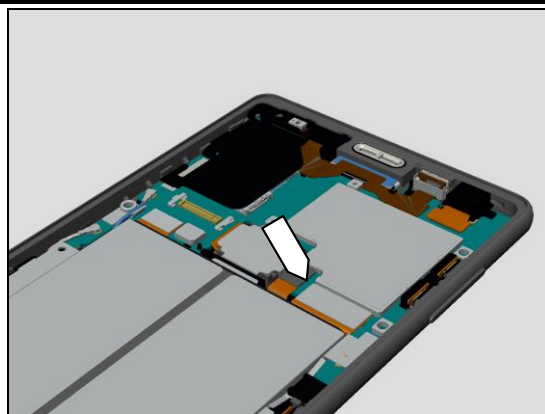
## Problem Areas: Keys

### Check:

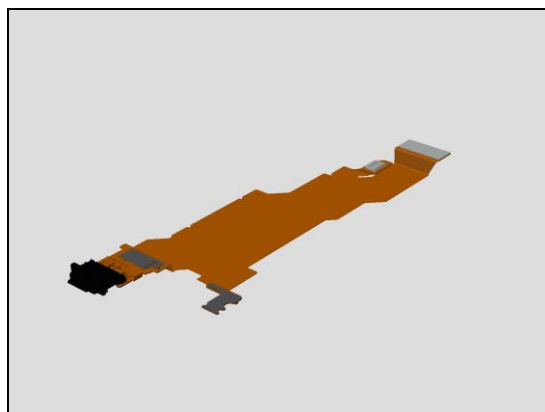
Inspect the BtB connector of the FPC USB Sub Assy to Main PBA.

### Action:

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



3. If the FPC USB Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.

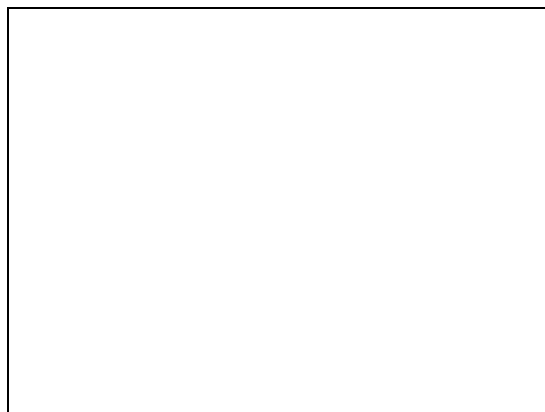
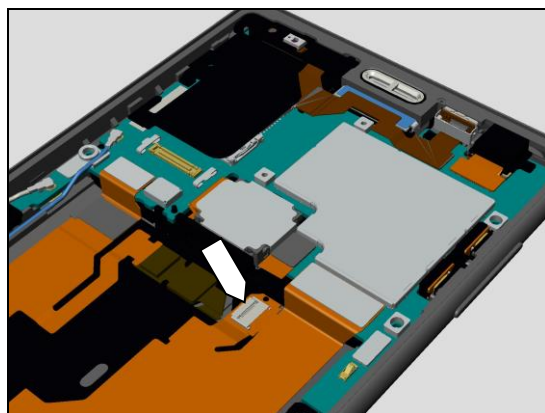


### Check:

Inspect the Zif connector of the FPC Key Sub Assy to the FPC USB Sub Assy

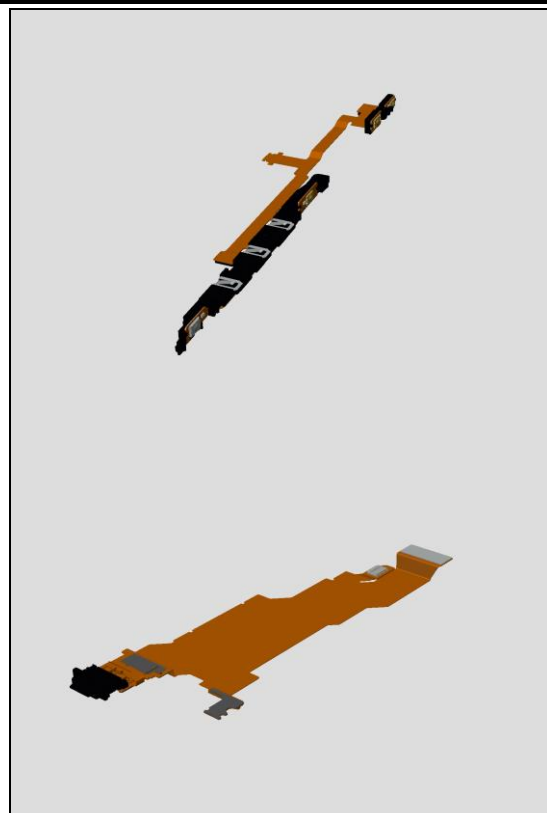
### Action:

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



## Problem Areas: Keys

3. If the FPC Key Sub Assy is damaged – replace it.
4. If the Zif connector on the FPC USB Sub Assy is damaged-replace the FPC USB Sub Assy.

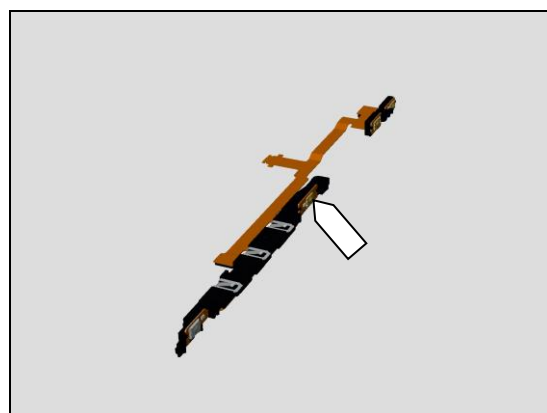


### Check:

Inspect the condition of the On/Off Key switch.

### Action:

1. If dirty – clean them.
2. If the On/Off Key switch is damaged – replace the FPC Key Sub Assy.

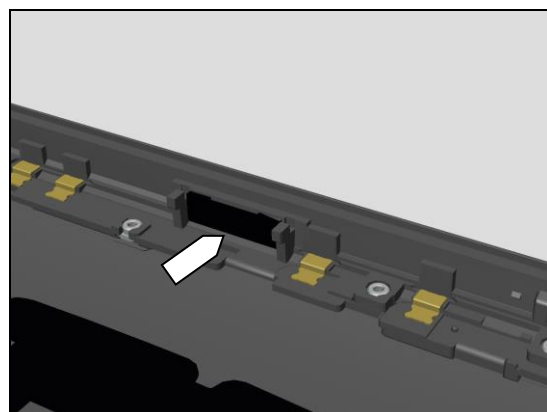


### Check:

Inspect the condition of the Sheet Key.

### Action:

1. If the Sheet Key Vol damaged – replace the Sheet Key.



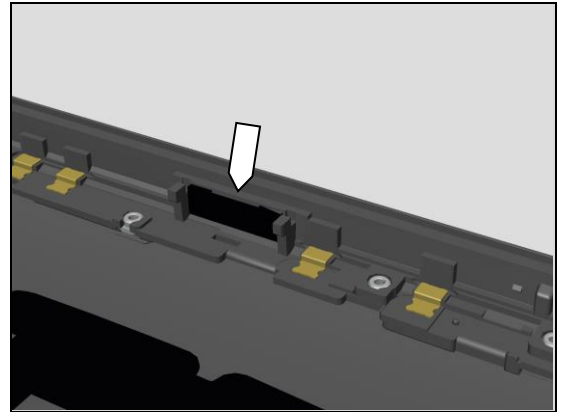
## Problem Areas: Keys

### Check:

Inspect the condition of the Gasket On/Off.

### Action:

1. If damaged – replace the Cover Main Assy.



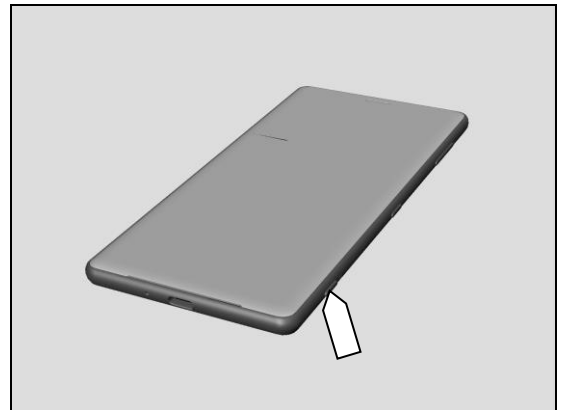
### 1.2.4 Camera Key

### Check:

Inspect the external area of the Camera Key.

### Action:

1. If dirty – clean it.
2. If damaged – replace the Camera Key.

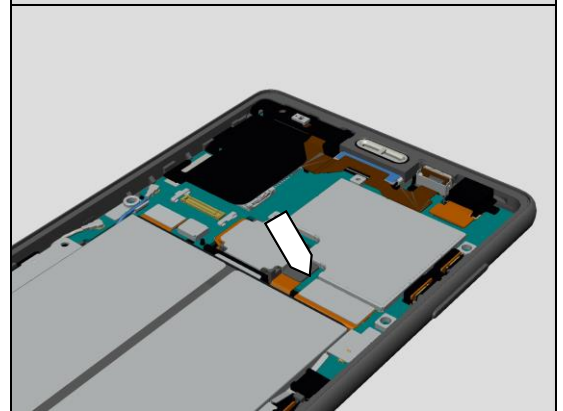


### Check:

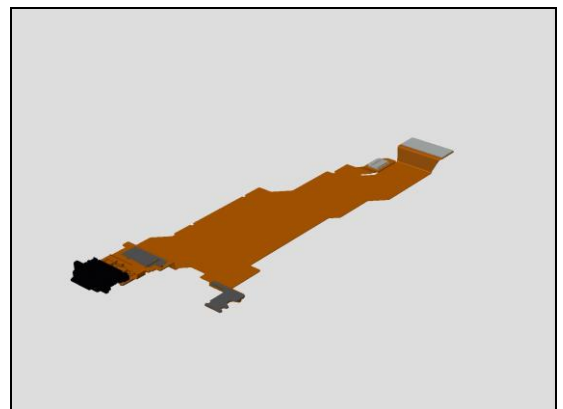
Inspect the BtB connector of the FPC USB Sub Assy to Main PBA.

### Action:

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



3. If the FPC USB Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.



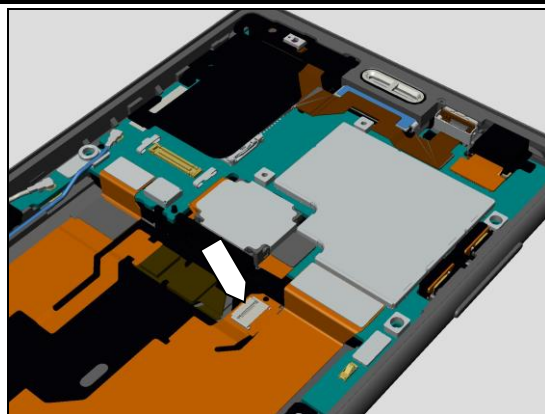
## Problem Areas: Keys

### Check:

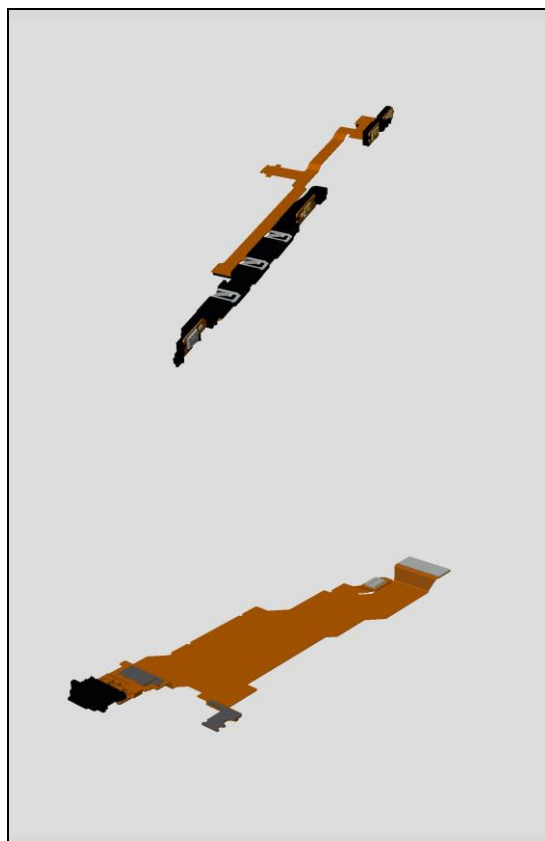
Inspect the Zif connector of the FPC Key Sub Assy to FPC USB Sub Assy

### Action:

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



3. If the FPC Key Sub Assy is damaged – replace it.
4. If the Zif connector on the FPC USB Sub Assy is damaged-replace the FPC USB Sub Assy.



### Check:

Inspect the condition of the Camera Key switch.

### Action:

3. If dirty – clean them.
4. If the Camera Key switch is damaged – replace the FPC Key Sub Assy.



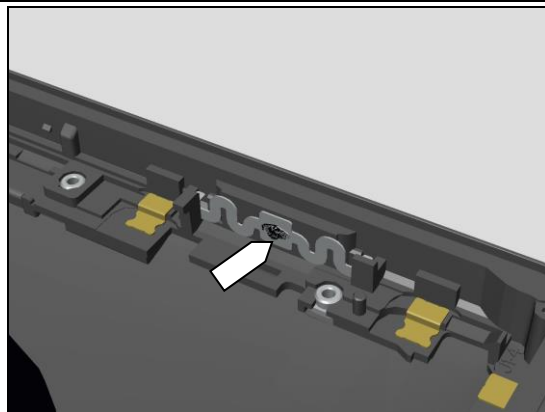
## Problem Areas: Keys

**Check:**

Inspect the condition of the Plate Key Cam

**Action:**

1. If the Sheet Key Vol damaged – replace the Plate Key Cam.

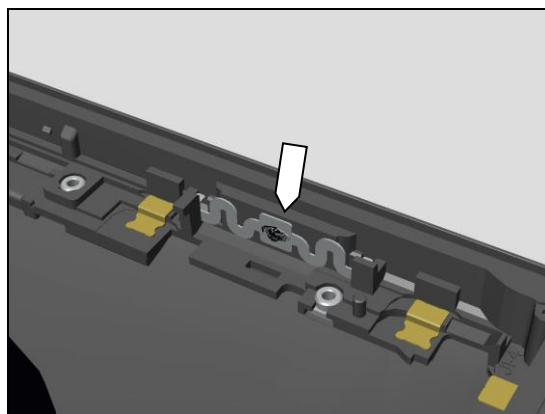


**Check:**

Inspect the condition of the Gasket Camera.

**Action:**

1. If damaged – replace the Cover Main Assy.



## Problem Areas

### 1.3 Touch Screen

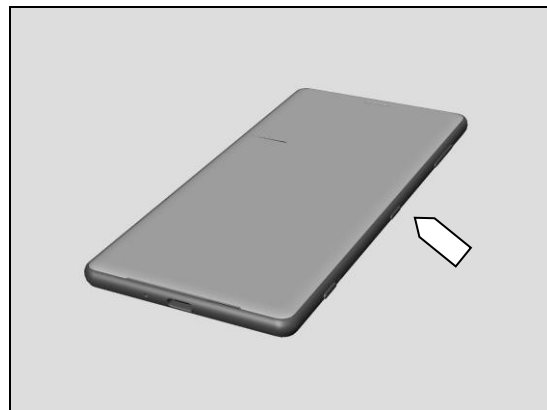
#### 1.3.1 Touch Screen malfunction

**Check:**

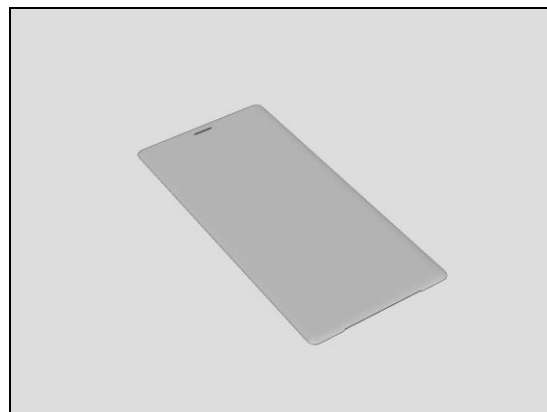
Inspect the touch screen of the Display Assy.

**Action:**

1. If dirty – clean it.



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



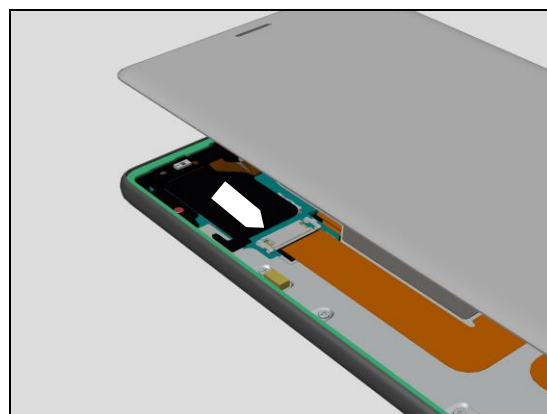
**Check:**

Inspect the BtB connector of Display Assy to Main PBA

**Action:**

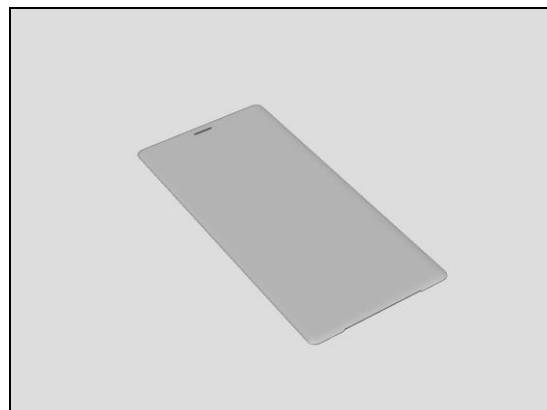
1. If not properly connected – disconnect and reconnect it.

2. If dirty or oxidized – clean it.



3. If the Display Assy FPC is damaged – replace the Display Assy.

4. If the B to B connector on the Main PBA is damaged-  
replace the Main PBA.



## Problem Areas

### 1.4 Display

#### 1.4.1 Graphics & Illumination

**Check:**

Check whether the phone vibrates after the on/off key has been pressed.

**Action:**

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

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

**Check:**

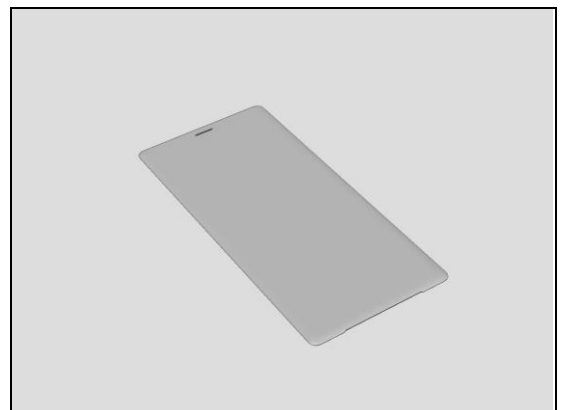
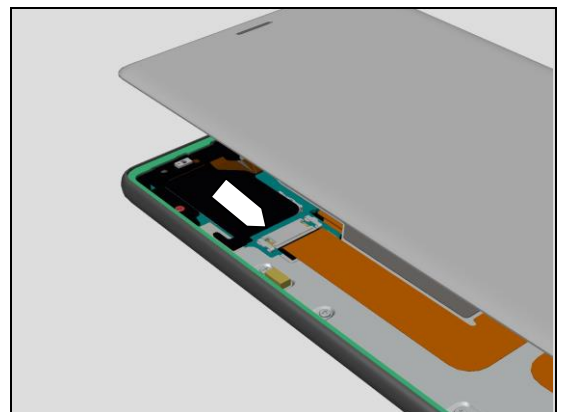
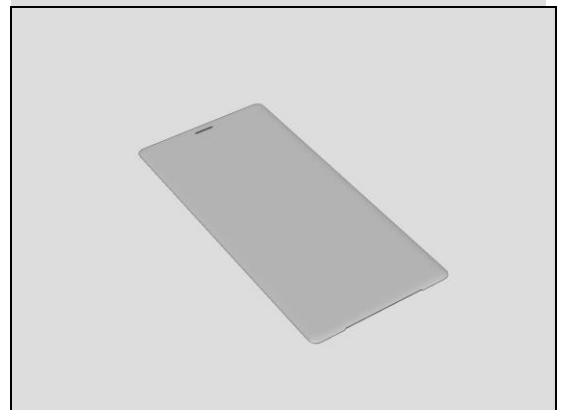
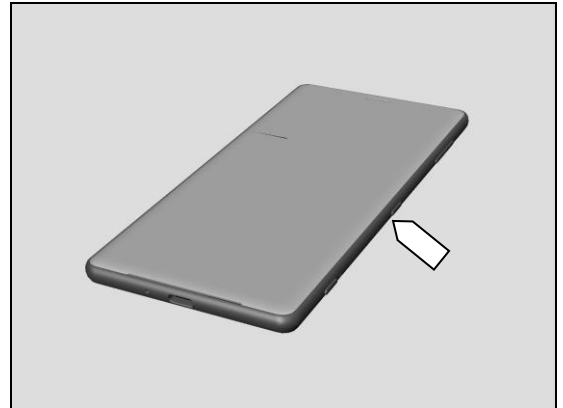
Inspect the BtB connector of Display Assy to Main PBA

**Action:**

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

3. If the Display Assy FPC is damaged – replace the Display Assy.

4. If the B to B connector on the Main PBA is damaged- replace Main PBA.





## Problem Areas

### 1.5 LED/Illumination

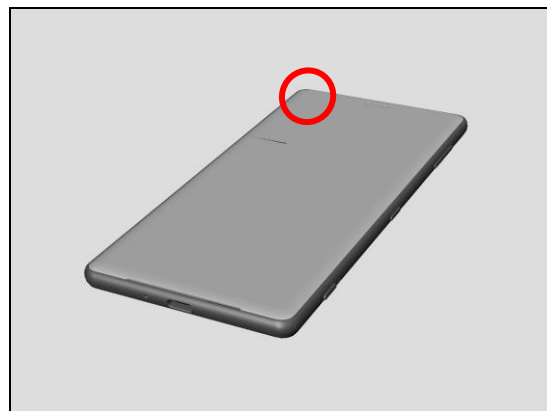
#### 1.5.1 LED/Illumination

**Check:**

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

**Action:**

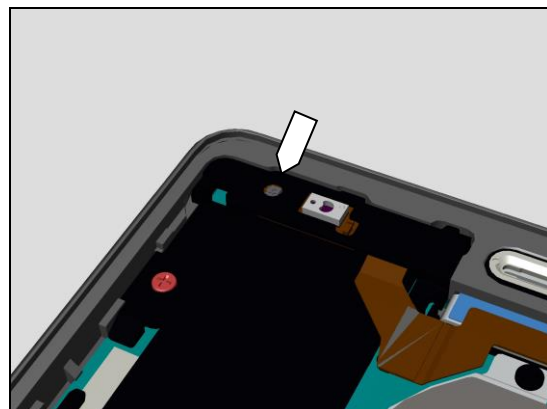
1. If dirty – clean it.



**Check:**

Inspect LED on the FPC Top Spk.

1. If dirty – clean it.



2. If the LED is damaged – replace the FPC Top Spk Sub Assy.



## Problem Areas

### 1.6 Speaker

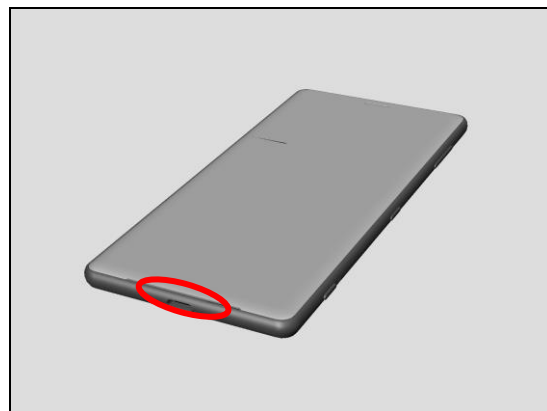
#### 1.6.1 Speaker Bottom

**Check:**

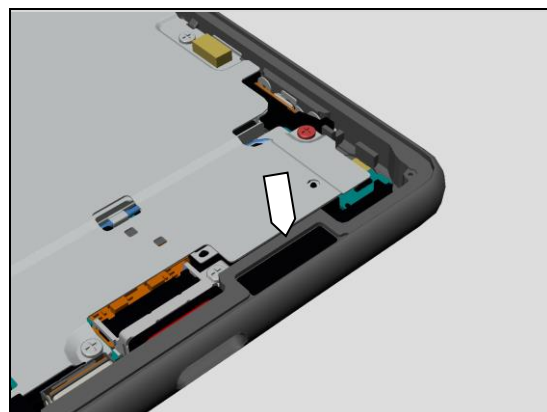
Inspect the Speaker Bottom external port on the Display Assy.

**Action:**

1. If clogged – clean it.



2. If damaged – replace the Sheet Mesh Bottom Black.

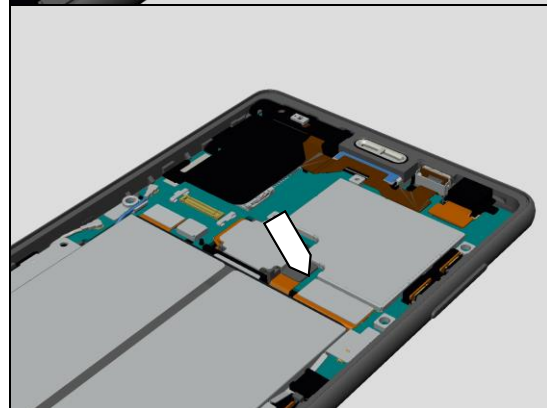


**Check:**

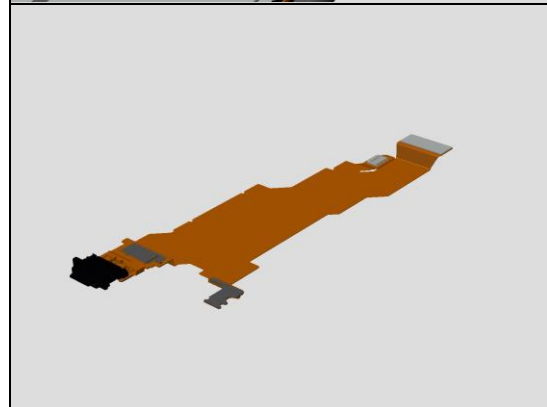
Inspect the BtB connector of the FPC USB Sub Assy to Main PBA.

**Action:**

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



3. If the FPC USB Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged – replace the Main PBA.



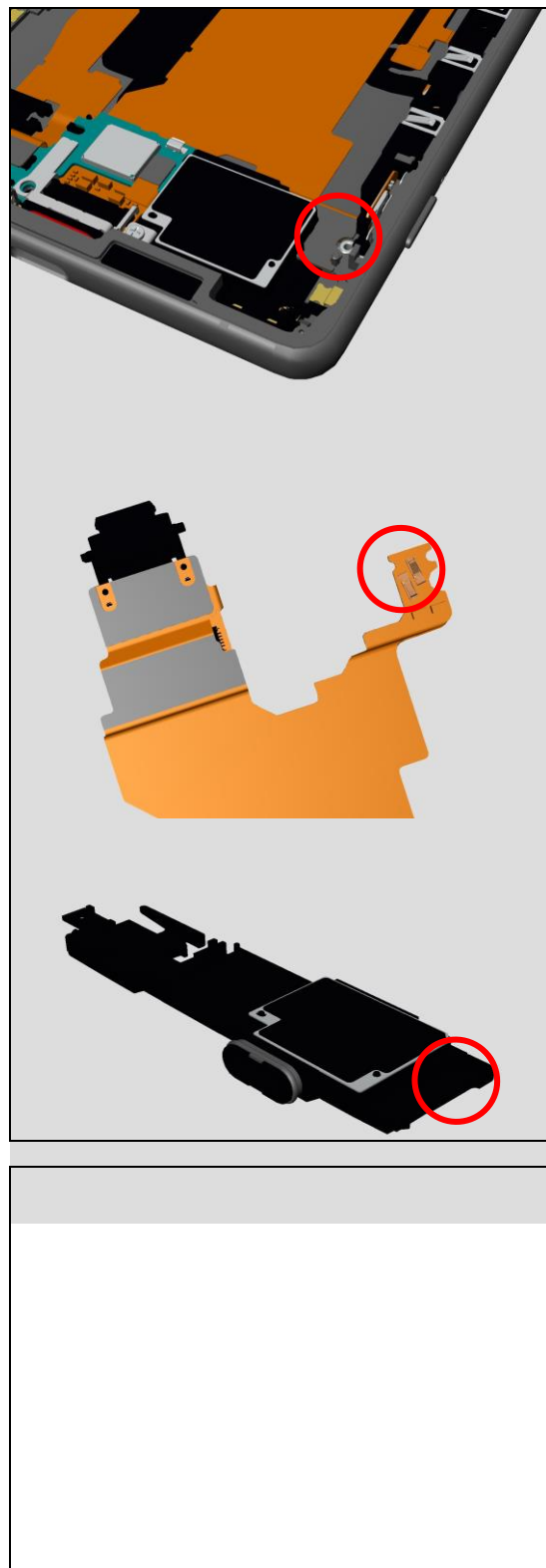
## Problem Areas: Speaker

### Check:

Inspect the contact pin of the FPC USB Sub Assy to Bottom Spk Box Sub Assy. It is located in red marked position.

### Action:

1. If dirty or oxidized – clean it.
2. If the FPC USB Sub Assy is damaged – replace it.
3. If the Bottom Spk Box Sub Assy is damaged – replace it.



## Problem Areas

### 1.7 Earphone

#### 1.7.1 Sheet Net Speaker Top

**Check:**

Inspect the external port of the Top Spk on the Display Assy.

**Action:**

1. If clogged – clean it.

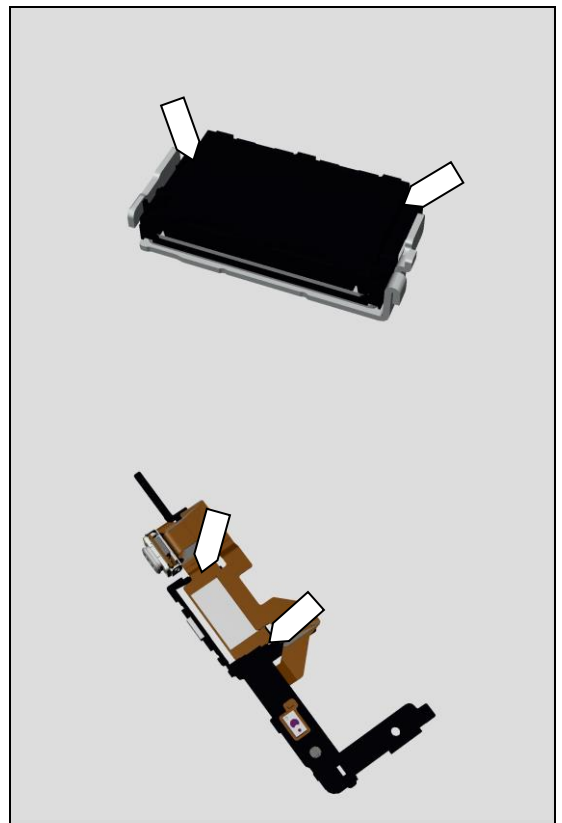
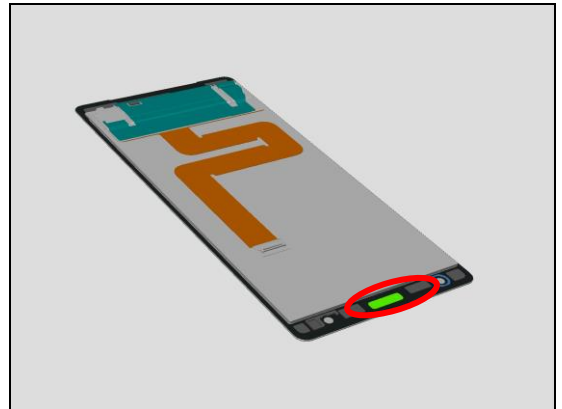
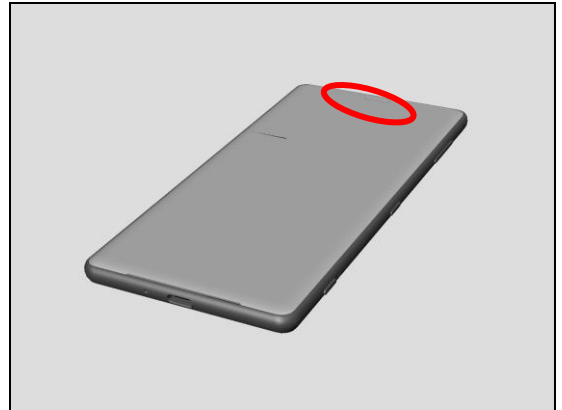
2. If damaged – replace the Sheet Mesh Top Spk.

**Check:**

Inspect the contact pads on the FPC Top Spk Sub Assy and the contact pins on the Top Spk.

**Action:**

1. If dirty – clean them.
2. If the contact pins on the Top Spk are damaged – replace the Top Spk.
3. If the contact pads on the FPC Top Spk Sub Assy are damaged – replace the FPC Top Spk Sub Assy.



## Problem Areas

### 1.8 Microphone

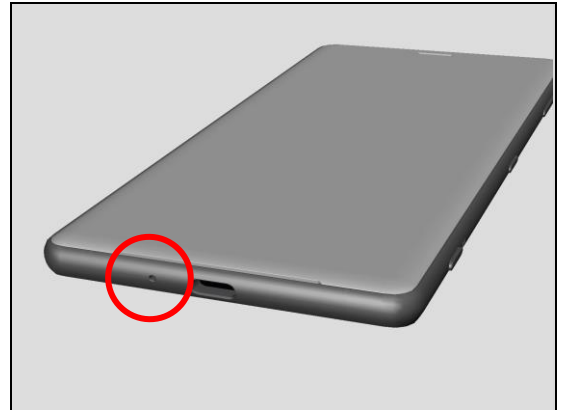
#### 1.8.1 Primary Microphone

**Check:**

Inspect the hole of Primary Microphone port on the Cover Main Assy.

**Action:**

1. If clogged – clean it.

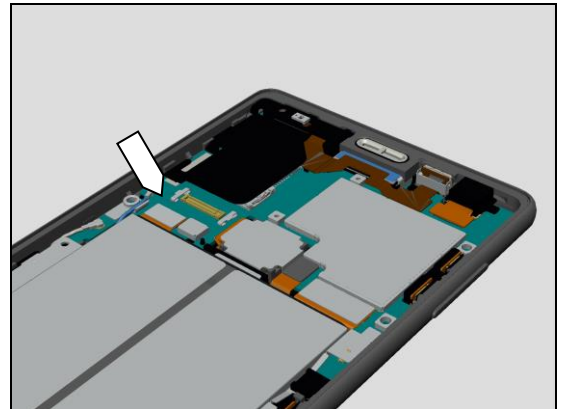


**Check:**

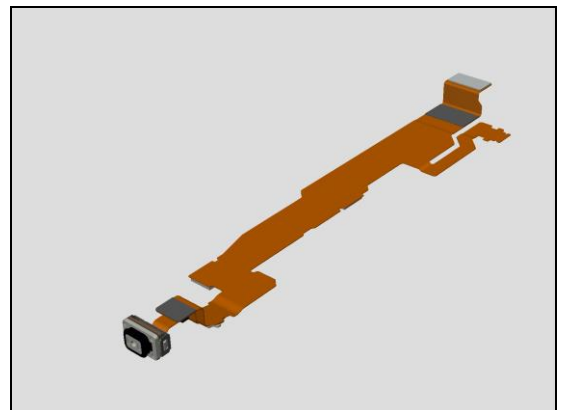
Inspect the BtB connector of the FPC Relay Sub Assy to the Main PBA.

**Action:**

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



3. If the FPC Relay Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.

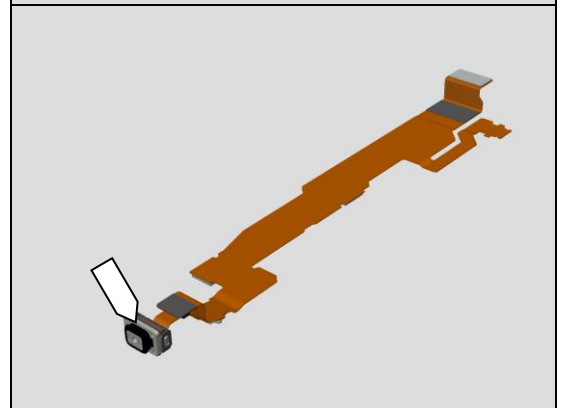


**Check:**

Inspect the Gasket Mic on the FPC Relay Sub Assy.

**Action:**

If the Gasket Mic on the FPC Relay Sub Assy is damaged- replace the FPC Relay Sub Assy.



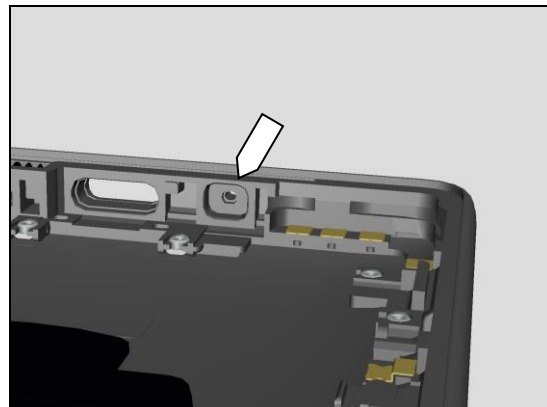
## Problem Areas: Microphone

### Check:

Inspect if the Cushion MIC 1st on the Cover Main Assy is assembled properly.

### Action:

1. If it is not assembled properly – replace the Cover Main.



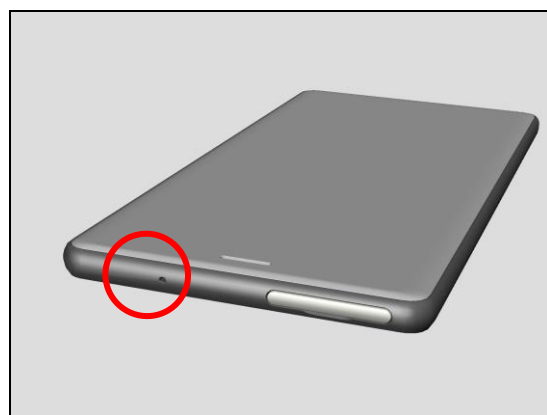
## 1.8.2 Secondary Microphone

### Check:

Inspect the hole of secondary microphone on the Cover Main Assy.

### Action:

1. If clogged – clean it.

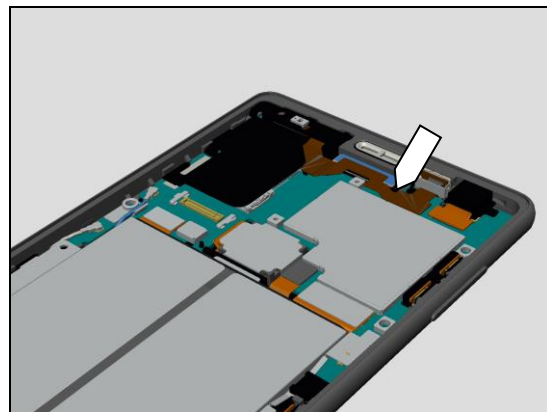


### Check:

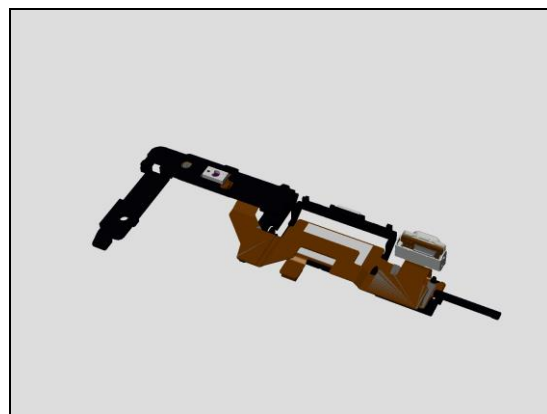
Inspect the BtB connector of FPC Top Spk Sub Assy to Main PBA.

### Action:

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



3. If the FPC Top Spk Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged, replace the Main PBA.

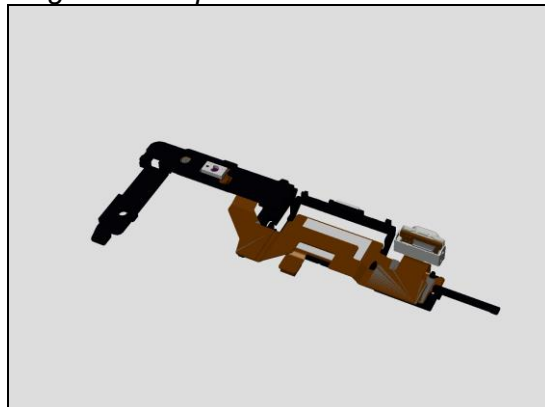


**Check:**

Inspect if the Gasket Mic on the FPC Top Spk Sub Assy is assembled properly.

**Action:**

If the Gasket Mic on the FPC Top Spk Sub Assy is damaged- replace the FPC Top Spk Sub Assy.

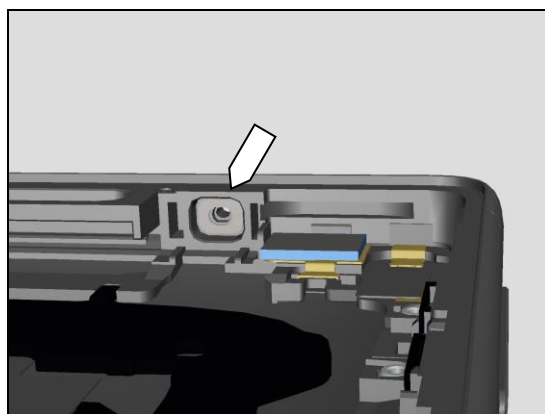


**Check:**

Inspect if the Cushion MIC 2nd on the Cover Main Assy is assembled properly.

**Action:**

1. If it is not assembled properly – replace the Cover Main.



## Problem Areas

### 1.9 Vibrator

#### 1.9.1 Vibrator not generating alerts

**Check:**

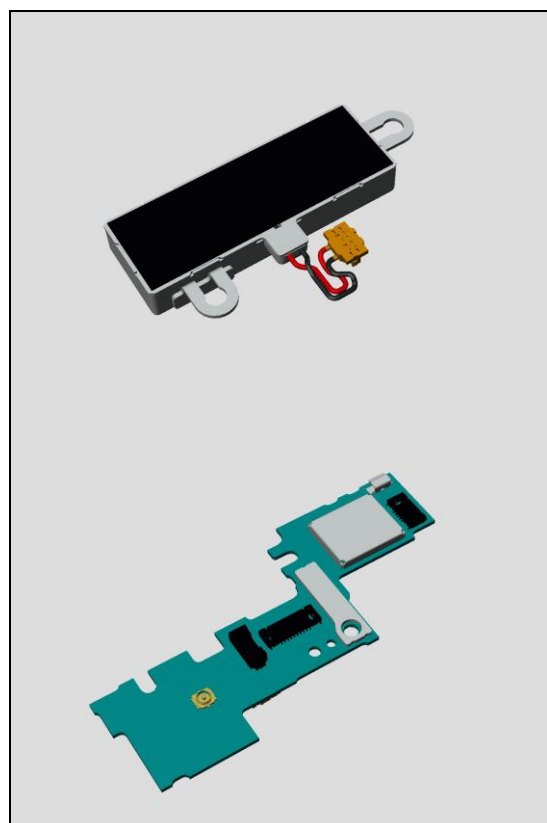
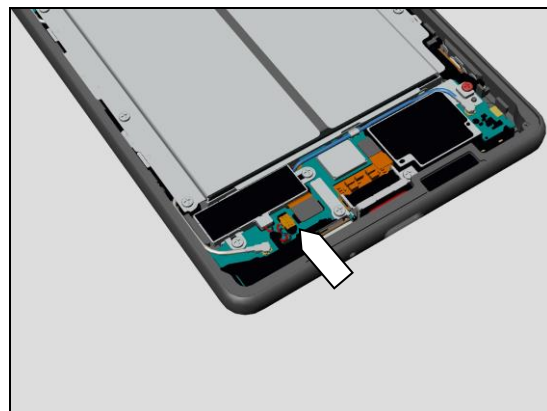
Inspect the BtB connector of the Vibrator LRA to the PBA ANT1.

**Action:**

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

3. If the Vibrator LRA is damaged – replace it.

4. If the B to B connector on the PBA ANT2 is damaged- replace the PBA ANT2.





## Problem Areas

### 1.10 Camera

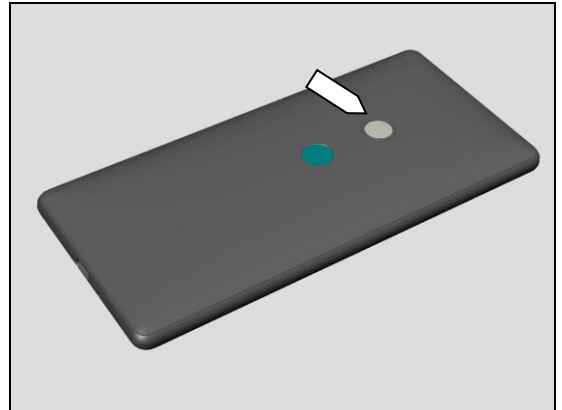
#### 1.10.1 Main Camera

**Check:**

Inspect the external area of camera window.

**Action:**

1. If dirty – clean it.
2. If scratched or damaged – replace the Cover Main Assy.

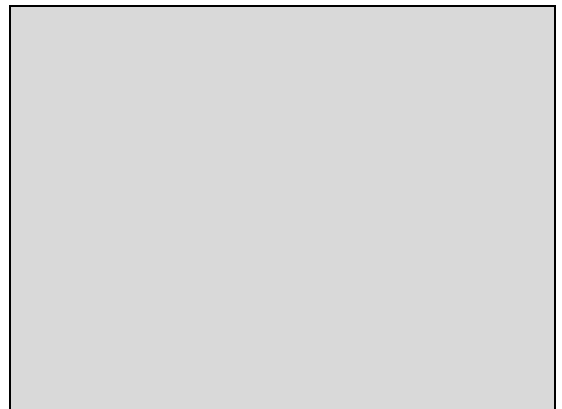
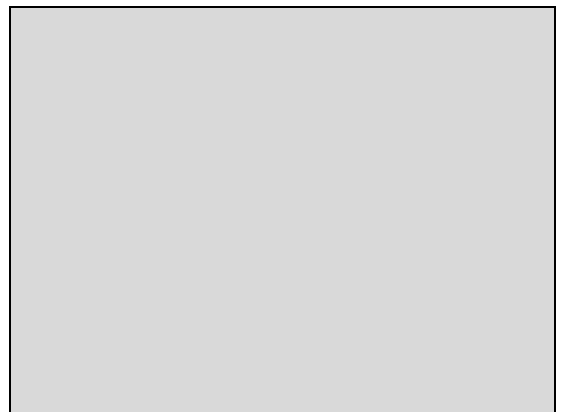
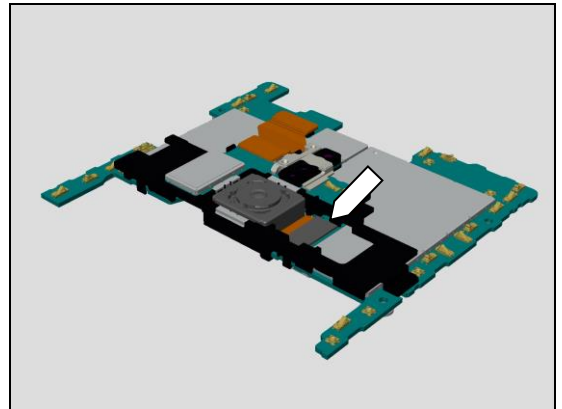


**Check:**

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

**Action:**

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If the BtB connector or the FICTIVE Main Camera is damaged  
– replace the FICTIVE Main Camera.
4. If the BtB connector or the Main PBA is damaged  
– replace the Main PBA.



## Problem Areas: Camera

### 1.10.2 Video Call Camera defects

**Check:**

Inspect the external area of the Sub Cam window.

**Action:**

1. If dirty – clean it.

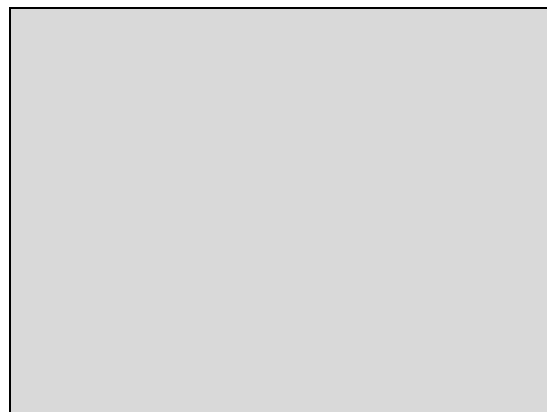
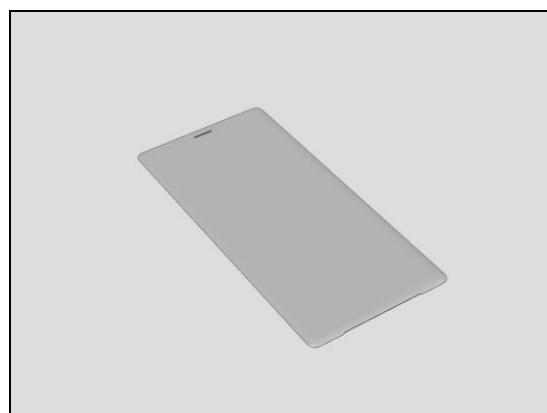
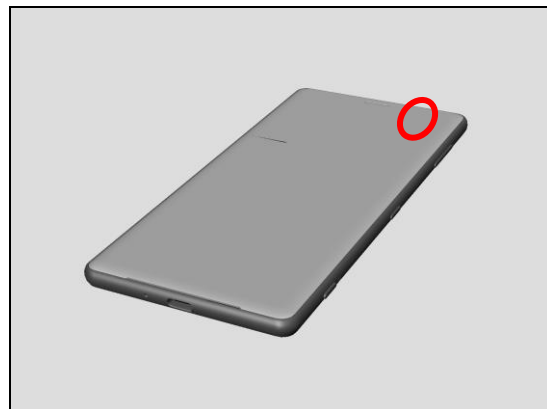
2. If scratched or damaged – replace the Display Assy.

**Check:**

Inspect the BtB connector of Sub Cam to the Main PBA.

**Action:**

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If the Sub Cam is damaged – replace the Sub Cam.
4. If the BtB connector or the Main PBA is damaged – replace the Main PBA.



## Problem Areas

### 1.11 Flash LED

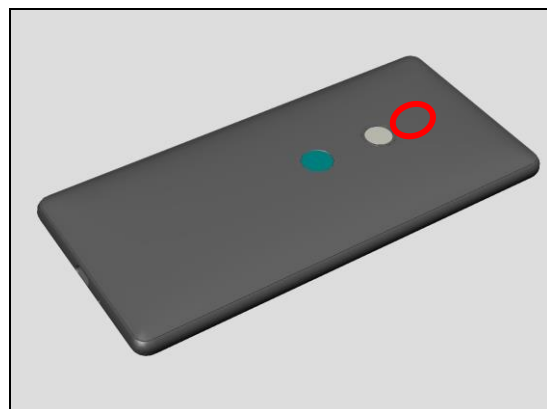
#### 1.11.1 Flash LED not flashing

**Check:**

Inspect the external area of the flash LED.

**Action:**

1. If dirty – clean it.
2. If scratched or damaged – replace the Cover Main Assy.

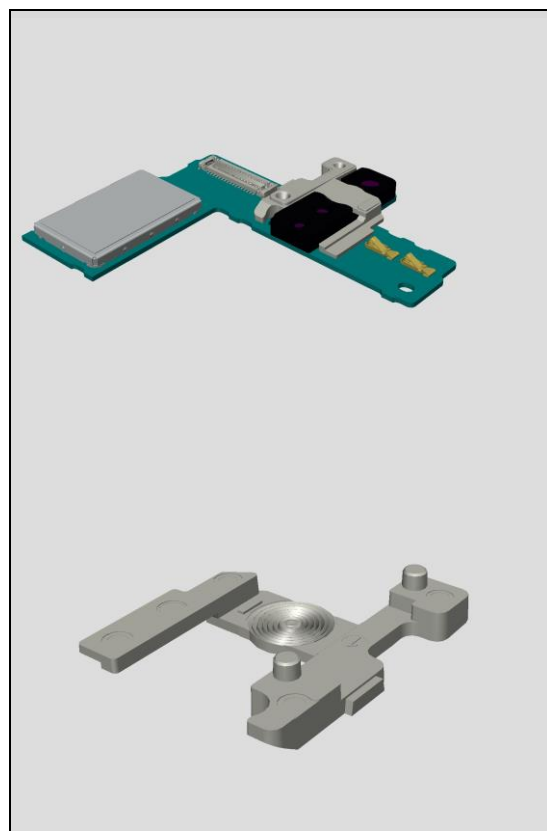


**Check:**

Inspect the Light Guide Flash on the Sub PBA Complete.

**Action:**

1. If dirty – clean it
2. If scratched or damaged – replace the Light Guide Flash.

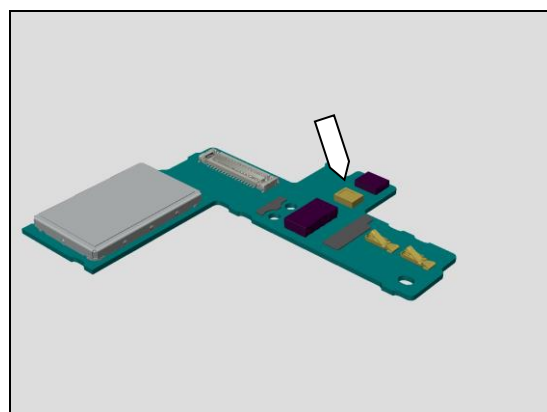


**Check:**

Inspect the Flash LED on the Sub PBA Complete.

**Action:**

1. If dirty – clean it.
2. If scratched or damaged – replace the Sub PBA Complete.



## Problem Areas

### 1.12 WLAN Main

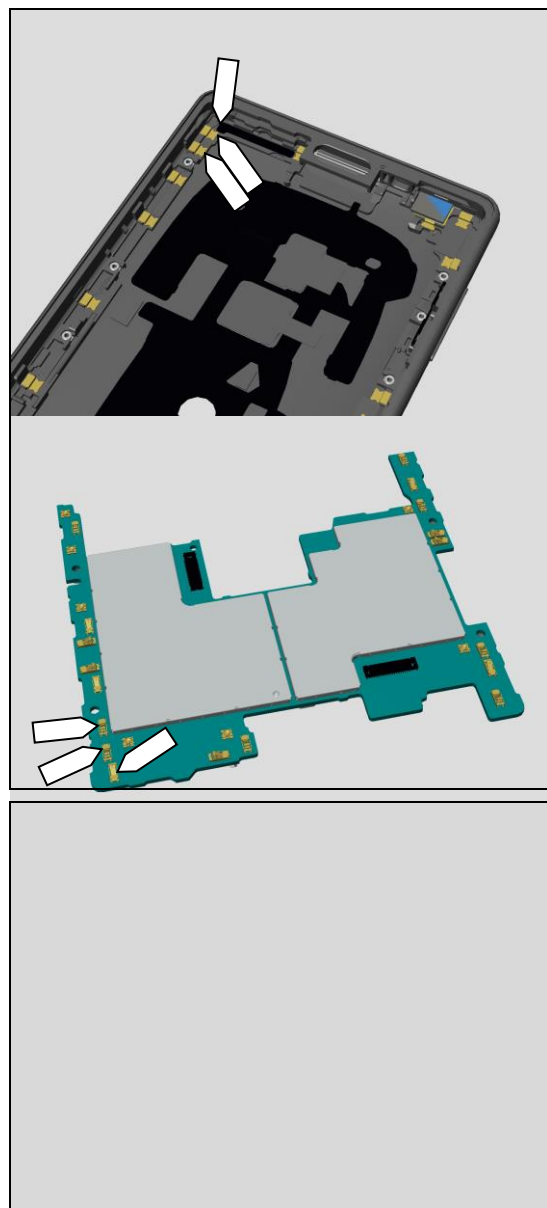
#### 1.12.1 WLAN Main connection failure

**Check:**

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

**Action:**

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



## Problem Areas

### 1.13 WLAN Sub

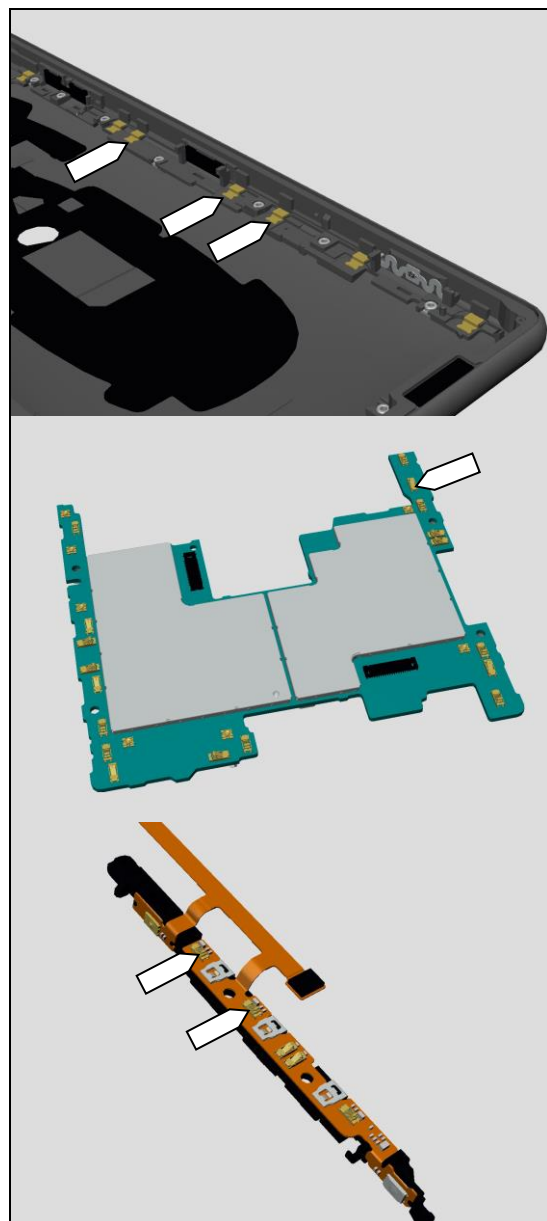
#### 1.13.1 WLAN Sub connection failure

**Check:**

Inspect the pads on Cover Main Assy and the contact pins on Main PBA and FPC key Sub Assy.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. If the contact pins on the Main PBA are damaged – replace the Ant WLAN Assy.
3. If the contact pads on the FPC key Sub Assy are damaged – replace the FPC key Sub Assy.



## Problem Areas

### 1.14 NFC

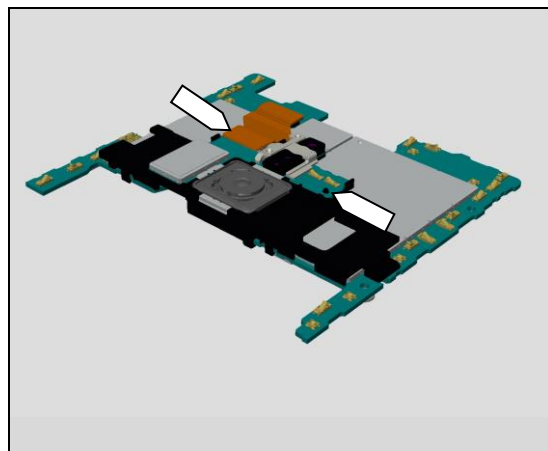
#### 1.14.1 NFC malfunctions

**Check:**

Inspect the BtB connector of the FPC Sub PBA to the Sub PBA Complete.

**Action:**

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If the FPC Sub PBA is damaged – replace it.
4. If the B to B connector on the Sub PBA Complete is damaged-replace the Sub PBA Complete.

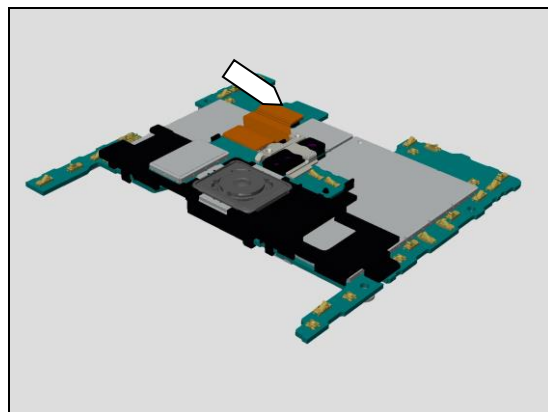


**Check:**

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

**Action:**

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If the FPC Sub PBA is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged-replace the Main PBA.

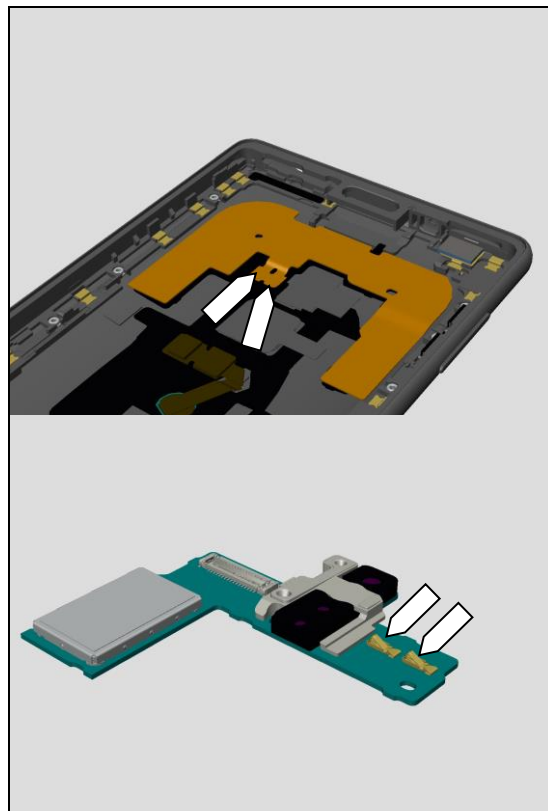


**Check:**

Inspect the Cover Main Assy contact pads and the contact pins on Sub PBA Complete.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. If the contact pads on the Cover Main Assy are damaged – replace the Cover Main Assy.
3. If the contact pins on the Sub PBA Complete is damaged – replace the Sub PBA Complete.



## Problem Areas

### 1.15 GPS

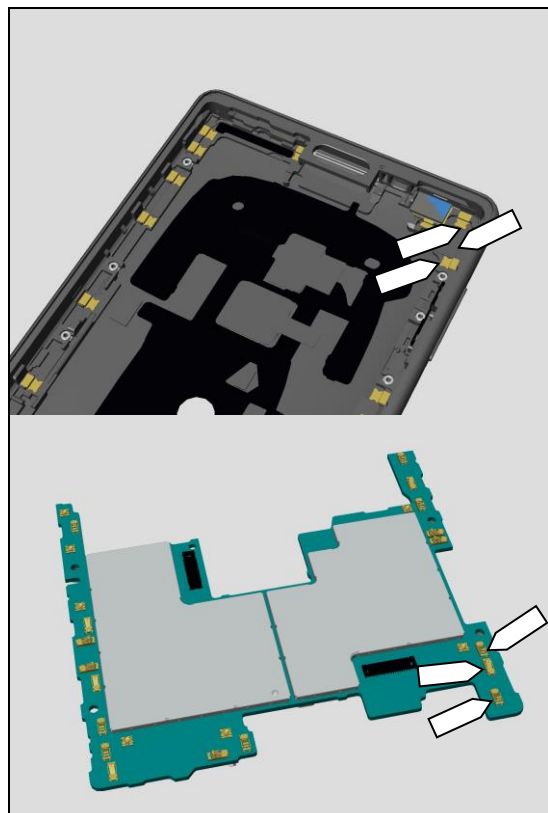
#### 1.15.1 GPS malfunctions

**Check:**

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

**Action:**

4. If dirty or oxidized – clean the pads and pins.
5. If the contact pads on the Cover Main Assy are damaged – replace the Cover Main Assy.
6. If the contact pins on the Main PBA is damaged – replace the Main PBA.



## Problem Areas

### 1.16 Compass

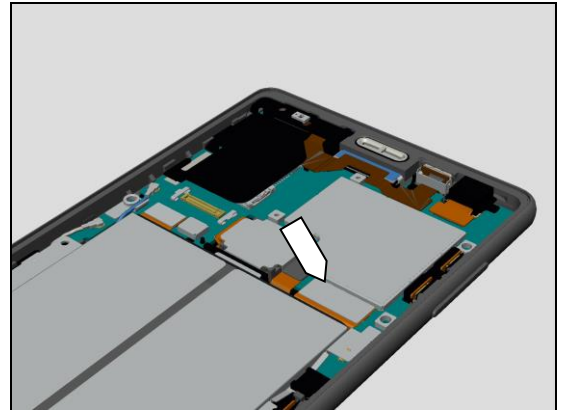
#### 1.16.1 Compass fails

**Check:**

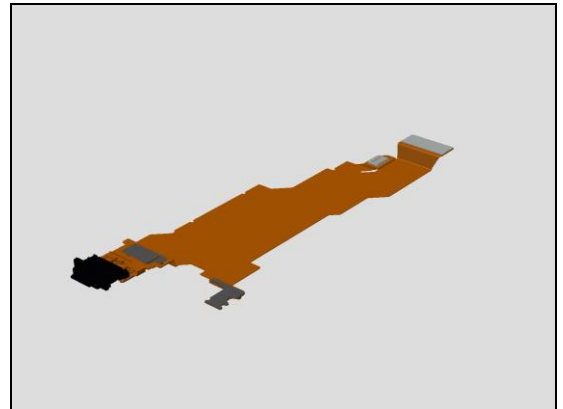
Inspect the BtB connector of the FPC USB Sub Assy to Main PBA.

**Action:**

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



3. If the FPC USB Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.

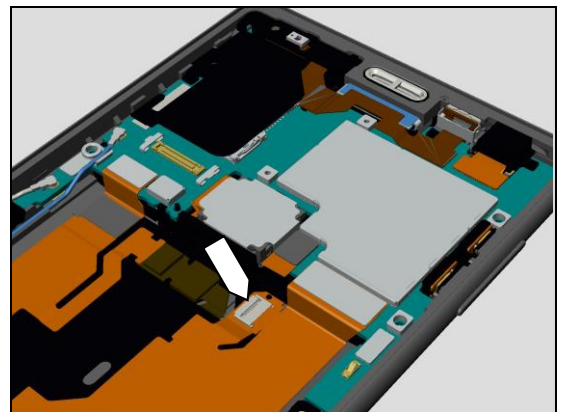


**Check:**

Inspect the Zif connector of the FPC Key Sub Assy to FPC USB Sub Assy

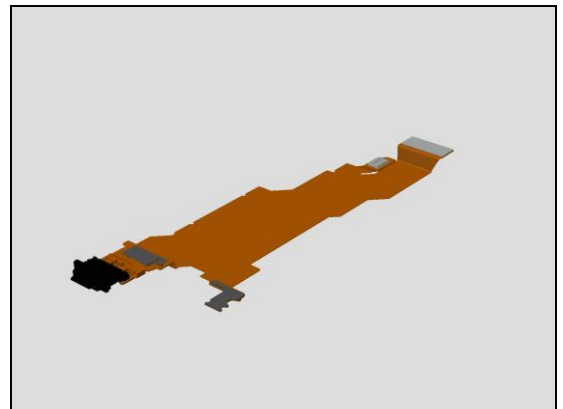
**Action:**

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



**Action:**

3. If the FPC Key Sub Assy is damaged – replace it.





4. If the Zif connector on the FPC USB Sub Assy is damaged-replace the FPC USB Sub Assy.



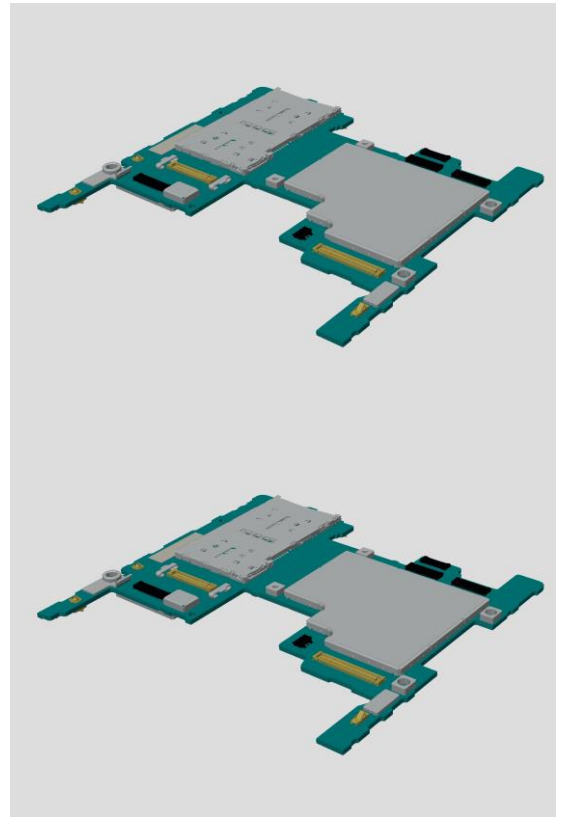
## Problem Areas

### 1.17 Accelerometer

#### 1.17.1 Accelerometer test fails

**Action:**

1. Follow the 1289-2983 Sony Mobile Repair Application – mechanical to run the Accelerometer Calibration.
2. Replace Main PBA.



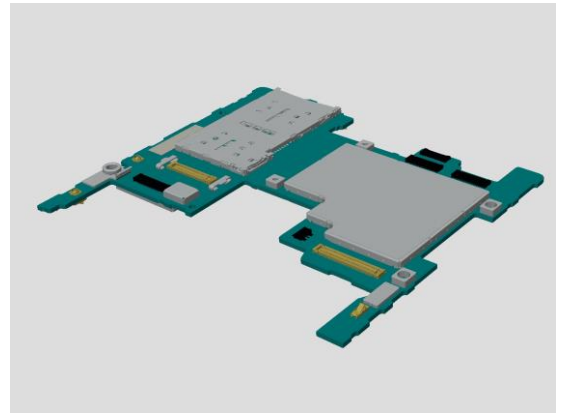
## Problem Areas

### 1.18 Gyroscope

#### 1.18.1 Gyroscope test fails

**Action:**

1. Follow the 1289-2983 Sony Mobile Repair Application – mechanical to run the Gyroscope Calibration.
2. Replace Main PBA.



## Problem Areas

### 1.19 Ambient Light Sensor

#### 1.19.1 Light Sensor malfunctions

**Check:**

Inspect the external window area of light sensor on the Display Assy.

**Action:**

1. If dirty – clean it.

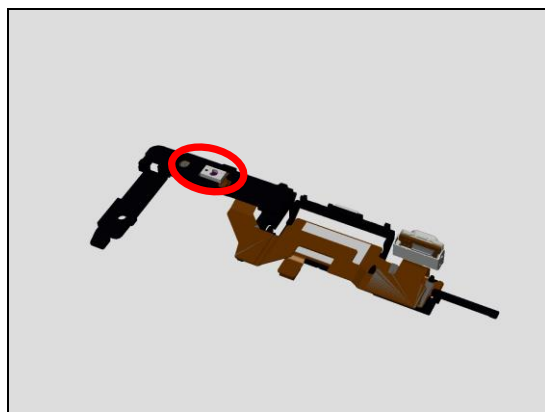
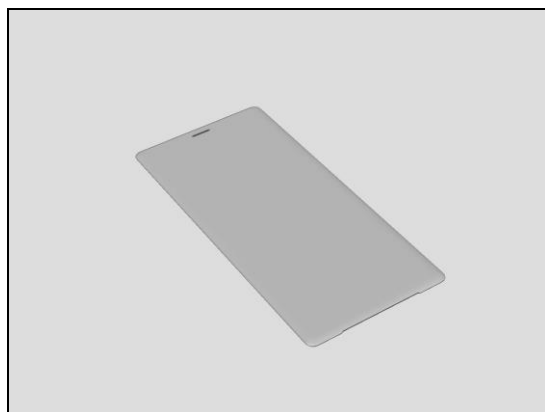
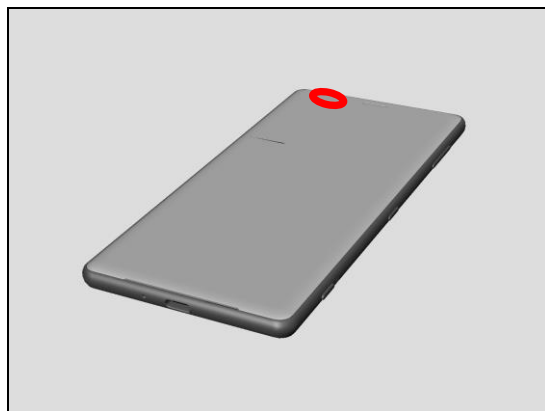
2. If scratched or damaged – replace the Display Assy.

**Check:**

Inspect the light sensor on the FPC Top Spk Sub Assy.

**Action:**

1. If the light sensor on the FPC Top Spk Sub Assy is damaged-replace the FPC Top Spk Sub Assy.



## Problem Areas

### 1.20 Proximity Switch

#### 1.20.1 Proximity switch malfunctions

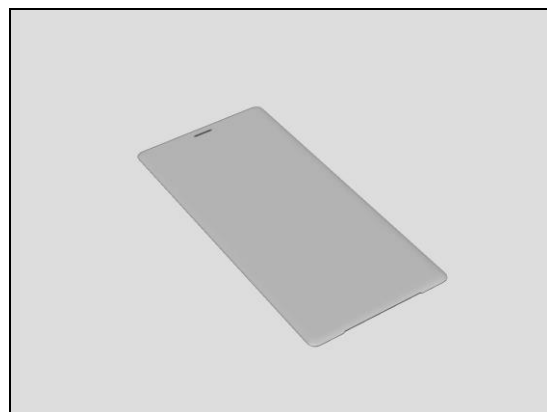
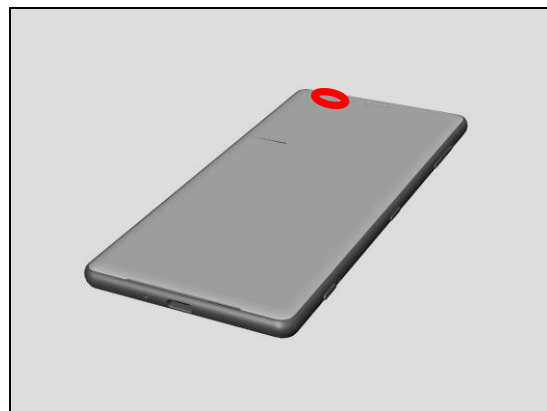
**Check:**

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

**Action:**

1. If dirty – clean it.

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

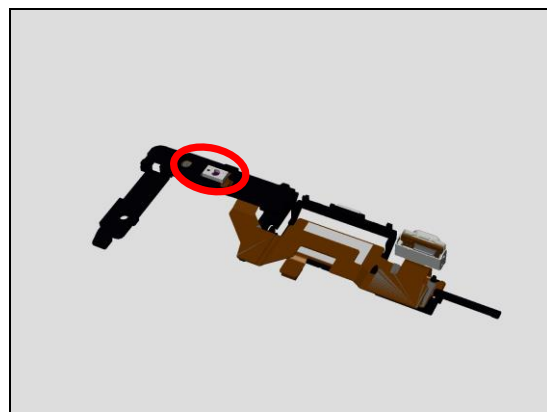


**Check:**

Inspect the Proximity sensor on the FPC Top Spk Sub Assy.

**Action:**

1. If the Proximity sensor on the FPC Top Spk Sub Assy is damaged-replace the FPC Top Spk Sub Assy.



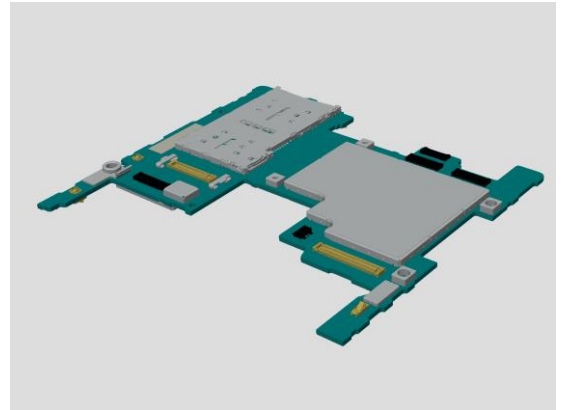
## Problem Areas

### 1.21 Hall Element

#### 1.21.1 Hall Element test fails

**Action:**

1. Follow the 1289-2983 Sony Mobile Repair Application – mechanical to run the Gyroscope Calibration.
2. Replace Main PBA.



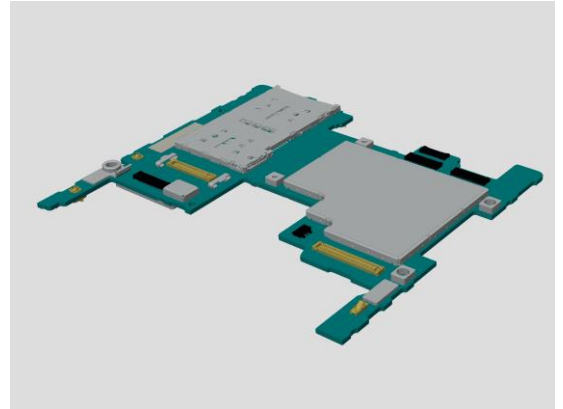
## Problem Areas

### 1.22 Pressure Sensor

#### 1.22.1 Pressure Sensor test fails

**Action:**

1. Follow the 1289-2983 Sony Mobile Repair Application – mechanical to run the Gyroscope Calibration.
2. Replace Main PBA.



## Problem Areas

### 1.23 Water Resistance

#### 1.23.1 Water Resistance fails

**Check:**

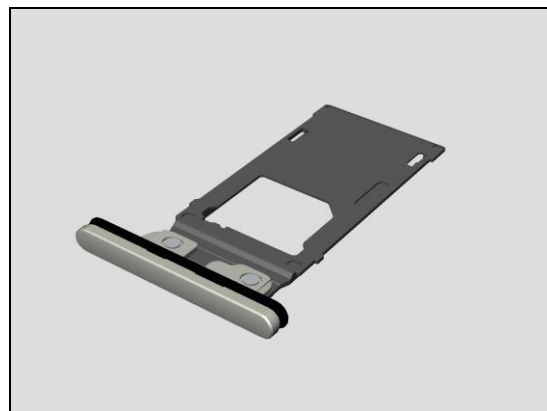
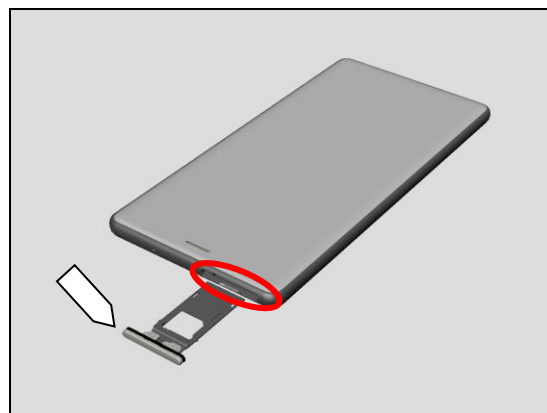
Inspect the Cap Combo Sub Assy, and slot of the Cap Combo Sub Assy of the Cover Main Assy.

**Action:**

1. If dirty – clean it.
2. If Cap Combo Sub Assy is not properly inserted – remove and reinsert.

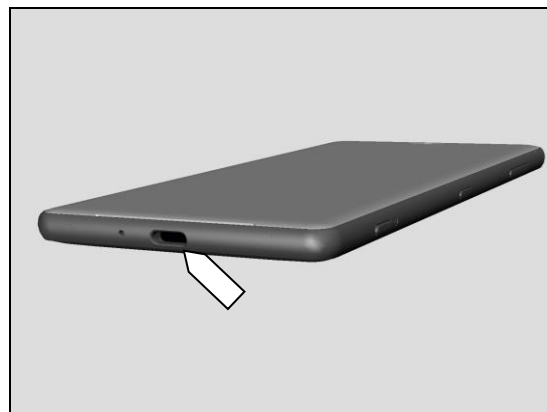
3. If the Cap Combo Sub Assy is damaged – replace it.

**Perform the Water Resistance Test again!**



**Check:**

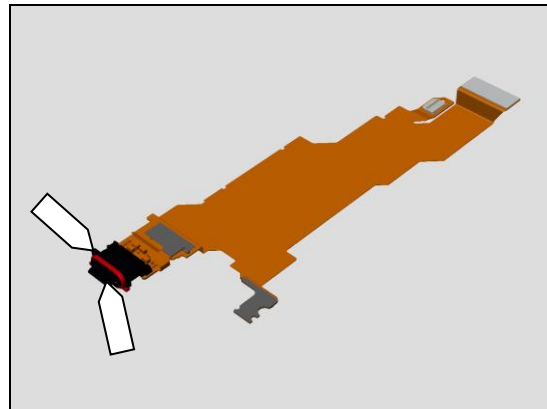
Inspect the USB connector



**Action:**

1. If the FPC USB Sub Assy and the Gasket USB are not properly assembled – reassemble it
2. If the FPC USB Sub Assy and the Gasket USB are damaged – replace it.

**Perform the Water Resistance Test again!**

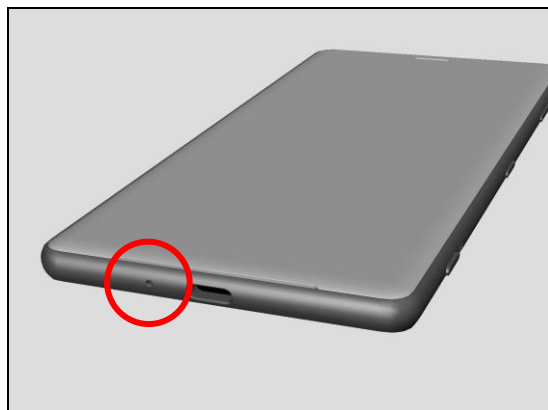




## Problem Areas: Water Resistance

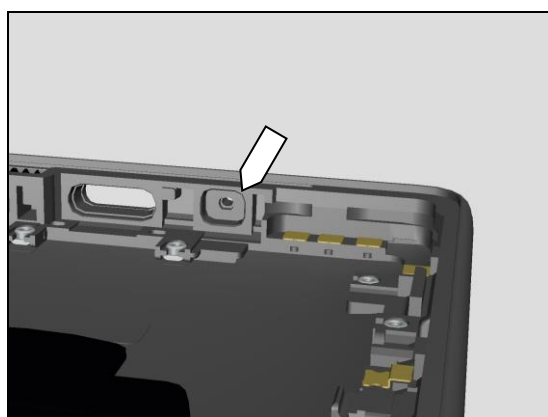
### Check:

Inspect the main microphone port.



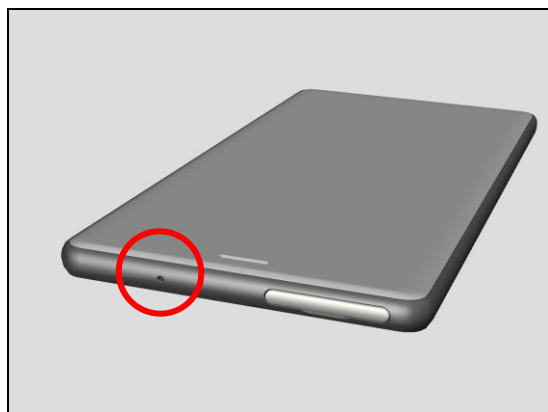
### Action:

If damaged – replace the Cover Main.



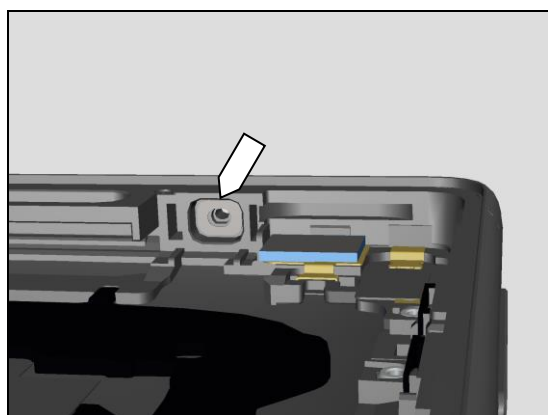
### Check:

Inspect the second microphone port.



### Action:

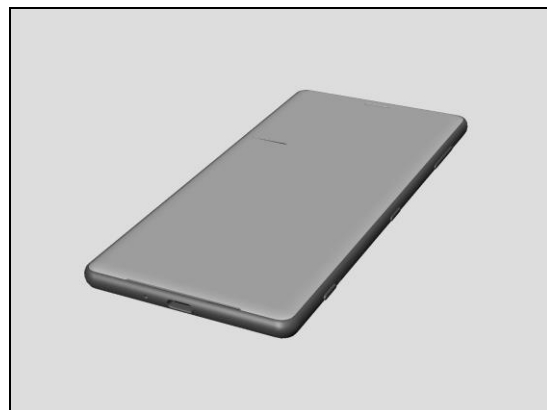
If damaged – replace the Cover Main.



## Problem Areas: Water Resistance

### Check:

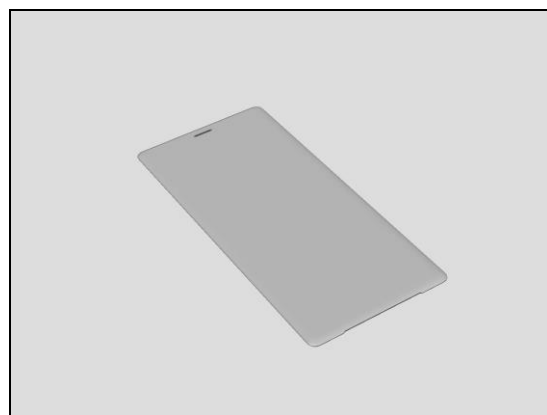
Inspect the edge of Display there is damage and/or gap.



### Action:

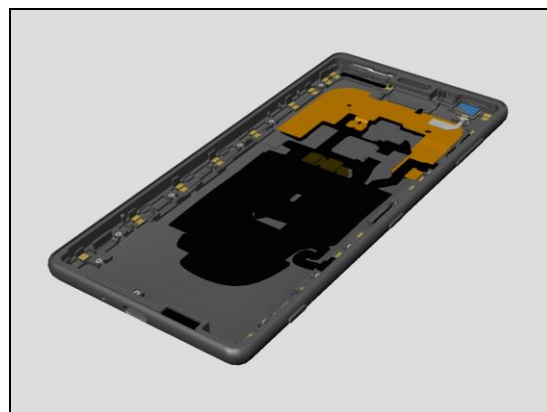
1. If the Display Assy has gap – replace the Display Assy.
2. If the Display Assy is damaged – replace the Display Assy.

**Run the Water Resistance Test again!**



### Action:

3. If the Cover Main Assy has gap – replace the Cover Main Assy.
4. If the Cover Main Assy is damaged – replace the Cover Main Assy.



### Check:

Inspect back side of the Cover Main Assy, if it is damaged, and/or any gap between Panel Rear.  
Inspect the main camera window, if any damage, and/or gap

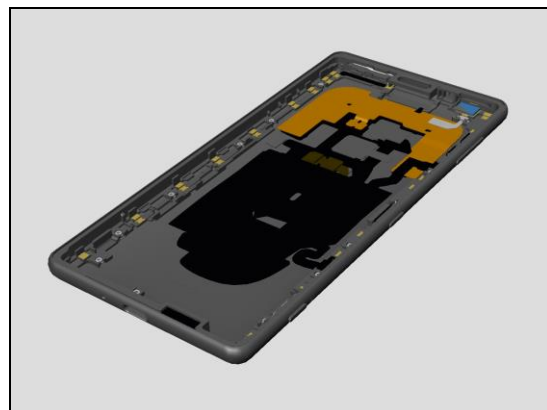


## Problem Areas: Water Resistance

### Action:

1. If the Cover Main Assy has gap – replace the Cover Main Assy.
2. If the Cover Main Assy is damaged – replace the Cover Main Assy.

**Perform the Water Resistance Test again!**



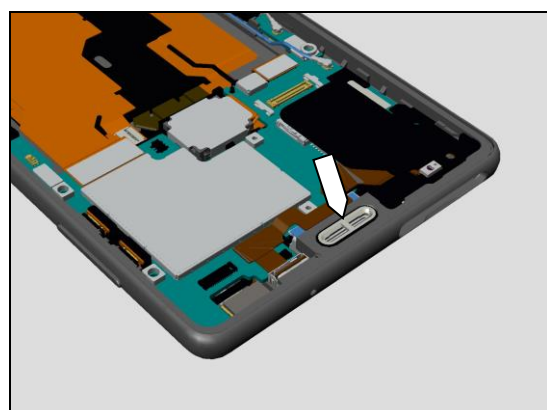
### Check:

Inspect the Gasket Top Spk.

### Action:

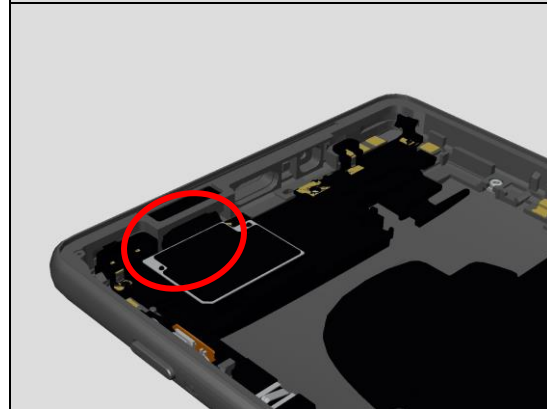
If not assembled properly or damaged – replace the Gasket Top Spk.

**Perform the Water Resistance Test again!**



### Check:

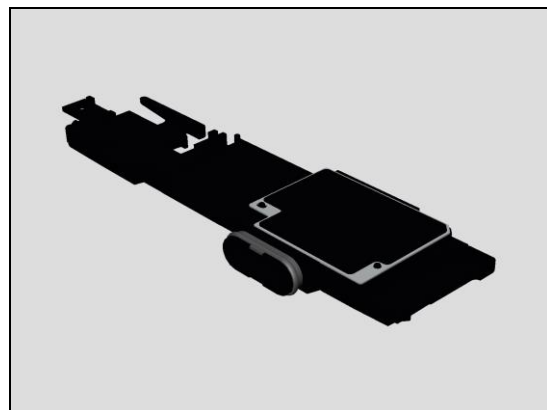
Inspect assembly of Bottom Speaker.



### Action:

If not assembled properly or damaged – replace the Bottom Spk Box Sub Assy.

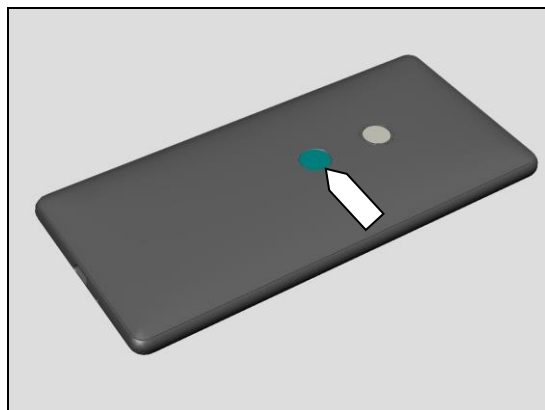
**Run the Water Resistance Test again!**



## Problem Areas: Water Resistance

### Check:

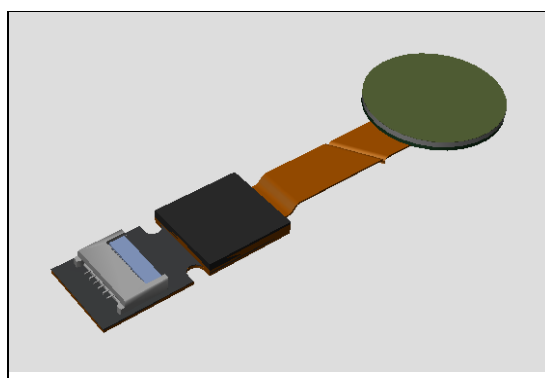
Inspect the FP Sensor Assy.



### Action:

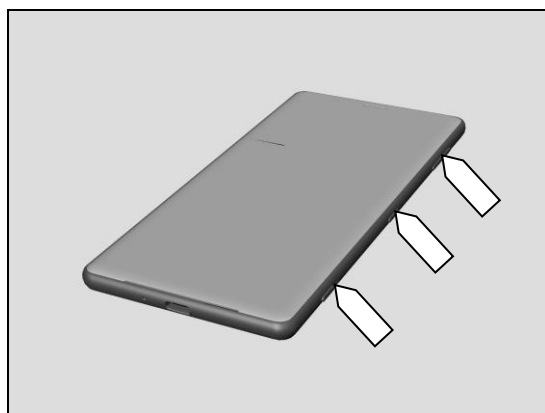
1. If FP sensor Module is not properly assembled – reassemble it
2. If FP sensor Module is damaged – replace it.

**Run the Water Resistance Test again!**



### Check:

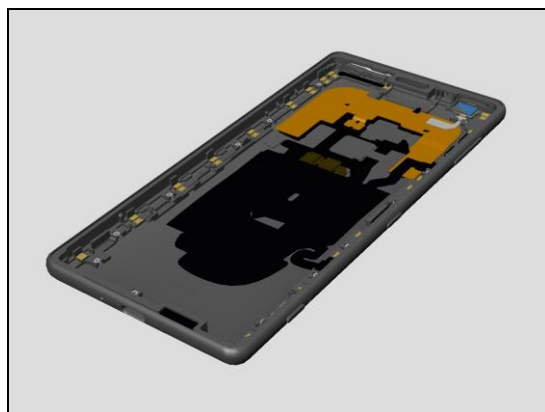
Inspect assembly of the Key Gasket.



### Action:

1. If the Key Gasket is damaged – the Cover Main replace it.

**Run the Water Resistance Test again!**



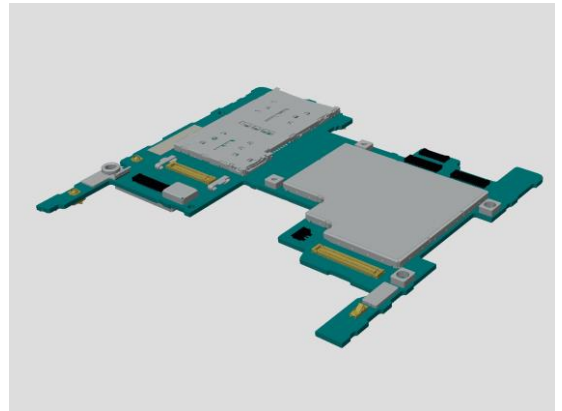
## Problem Areas

### 1.24 Real Time Clock

#### 1.24.1 Real time clock test fails

**Action:**

Replace Main PBA.



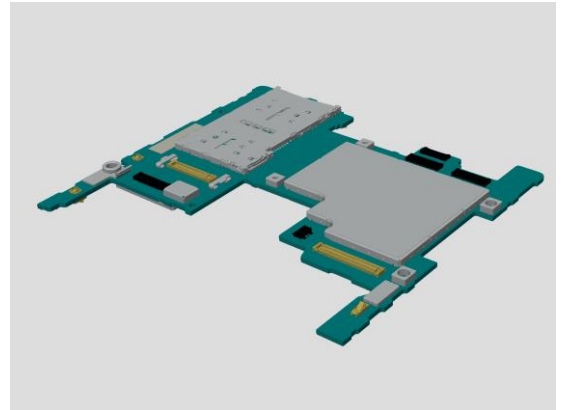
## Problem Areas

### 1.25 Total call time

#### 1.25.1 Total call time fails

**Action:**

Replace Main PBA.



## Problem Areas

### 1.26 External Memory, SIM

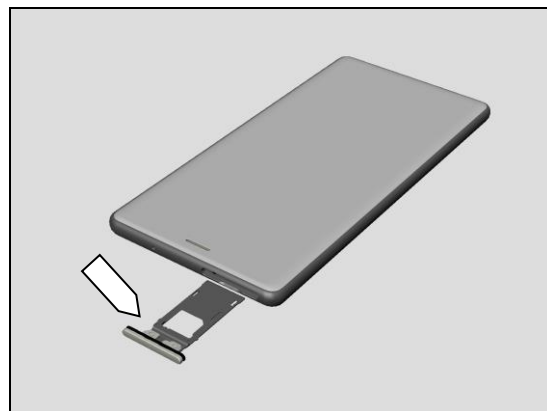
#### 1.26.1 Memory Card/ SIM not detected

**Check:**

Inspect if the Cap Combo Sub Assy is properly inserted.

**Action:**

If not properly inserted – insert the Cap Combo Sub Assy correctly.



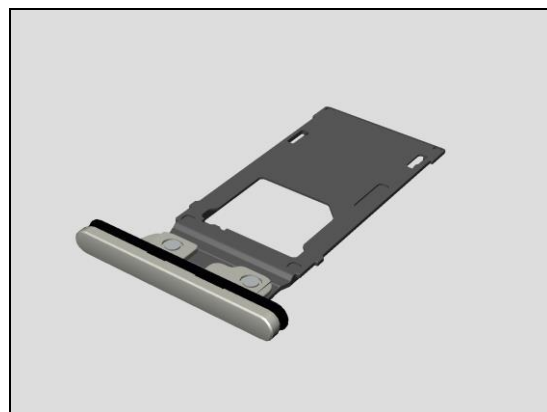
**Check:**

Inspect the Cap Combo Sub Assy.

Inspect if Nano SIM and/or Memory Card is properly mounted on the Cap Combo Sub Assy.

**Action:**

1. If dirty or clogged – clean the Cap Combo Sub Assy.
2. If not properly mounted – remount the Memory Card/Nano SIM
3. If damaged -replace the Cap Combo Sub Assy.

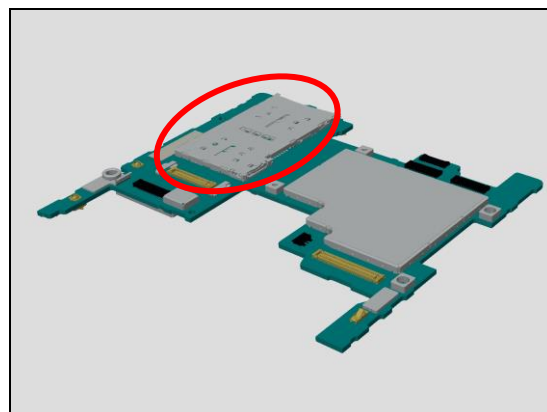


**Check:**

Inspect the SIM/SD card holder on Main PBA.

**Action:**

1. If dirty or clogged – clean the holder.
2. If damaged - replace the Main PBA.



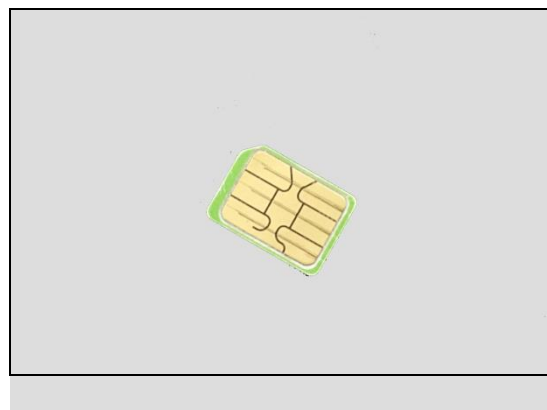
#### 1.26.2 Incorrect Nano SIM indicated

**Check:**

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

**Action:**

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



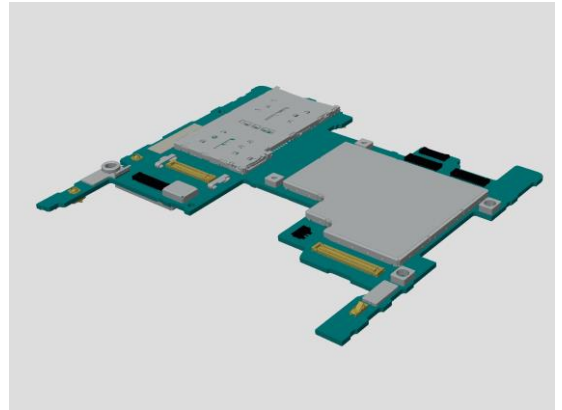
## Problem Areas

### 1.27 Security

#### 1.27.1 Security fails

**Action:**

Replace Main PBA.





## Problem Areas

### 1.28 Network & Signal

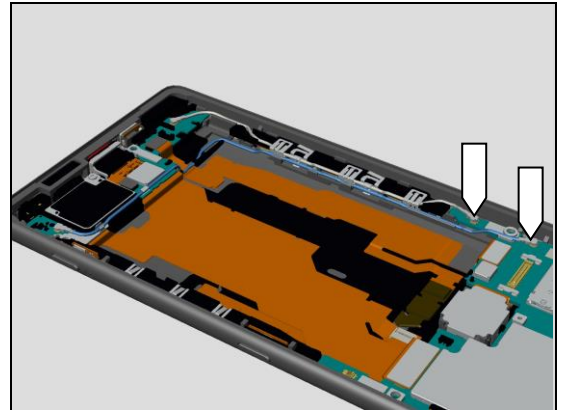
#### 1.28.1 No/Poor signal

**Check:**

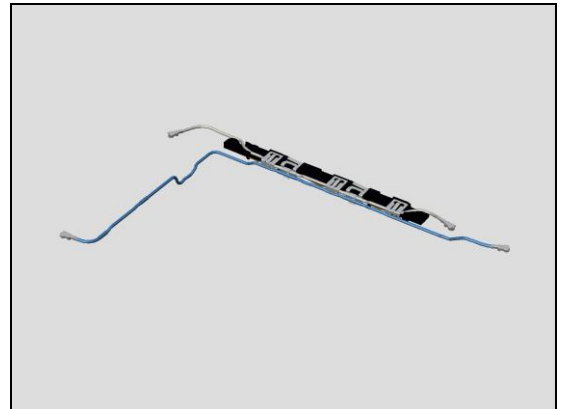
Inspect the RF connector of the Holder Ant Gnd Sub Assy to the Main PBA.

**Action:**

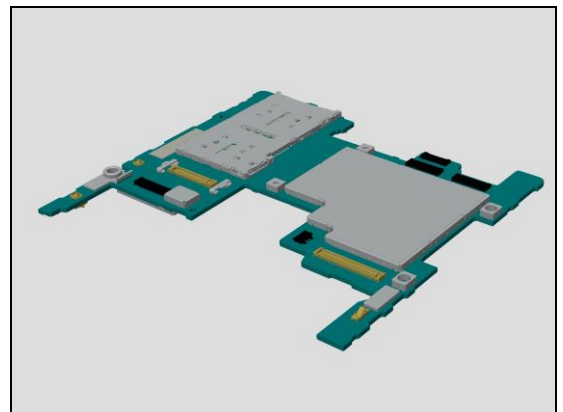
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the RF cable is damaged – replace the Holder Ant Gnd Sub Assy.



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

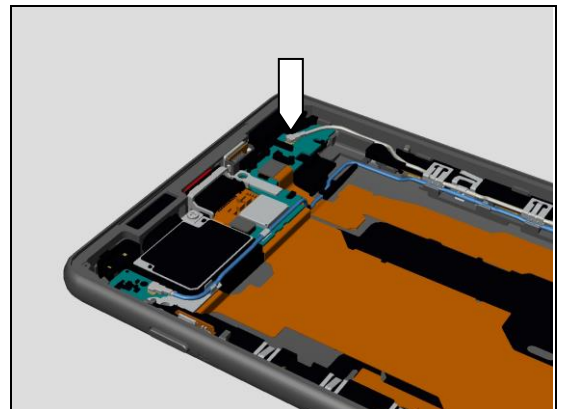


**Check:**

Inspect the RF connector of the Holder Ant Gnd Sub Assy to PBA ANT1.

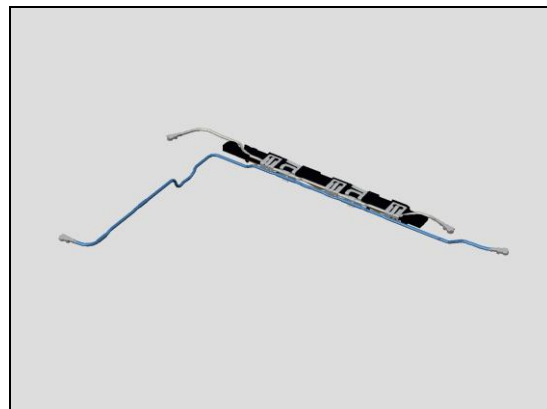
**Action:**

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

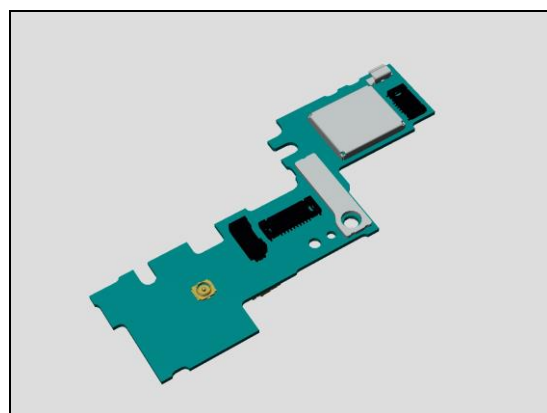


## Problem Areas: Network & Signal

3. If the RF cable is damaged – replace the Holder Ant Gnd Sub Assy.



4. If the connector on the PBA Sub is damaged– replace the PBA ANT1.

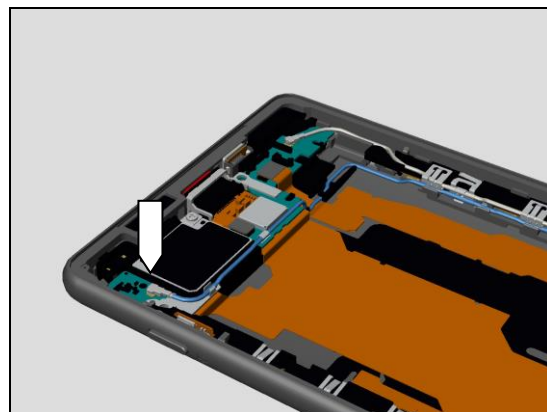


### Check:

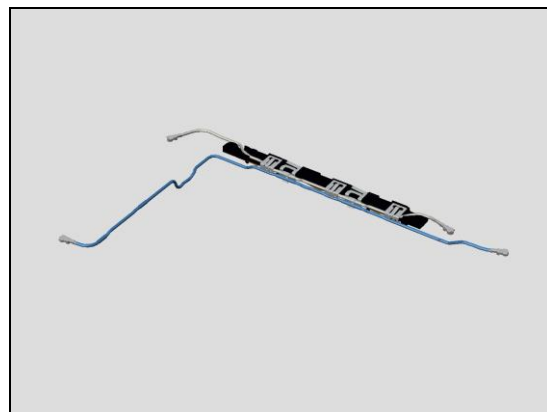
Inspect the RF connector of the Holder Ant Gnd Sub Assy to PBA ANT2.

### Action:

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



3. If the RF cable is damaged – replace the Holder Ant Gnd Sub Assy.



## **Problem Areas: Network & Signal**

4. If the connector on the PBA Sub is damaged– replace the PBA ANT2.



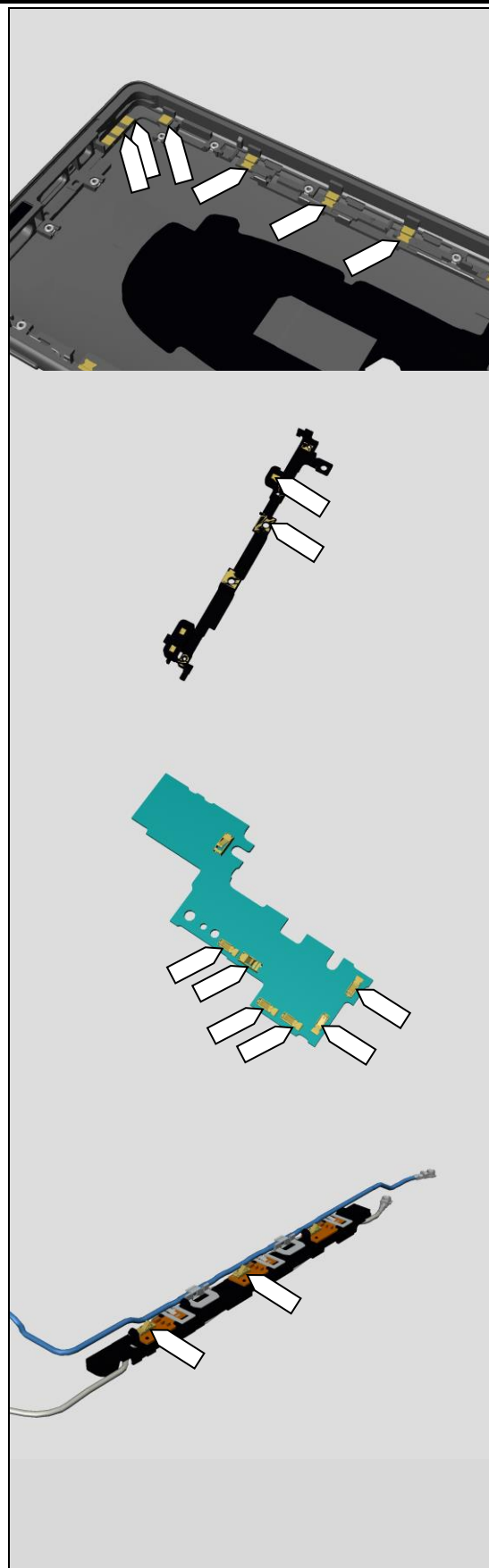
## Problem Areas: Network & Signal

### Check:

Inspect the contact pads on the Cover Main Assy and the Holder Ant Main and contact pins on the PBA ANT1 and the Holder Ant Gnd Sub Assy.

### Action:

1. If dirty or oxidized – clean the pads and pins.
2. If the contact pads on the Cover Main Assy are damaged – replace the Cover Main Assy.
3. If the contact pads on the Holder Ant Main are damaged – replace the Holder Ant Main.
4. If the contact pins on the PBA ANT1 are damaged – replace the PBA ANT1.
4. If the contact pins on the Holder Ant Gnd Sub Assy are damaged – replace the Holder Ant Gnd Sub Assy.



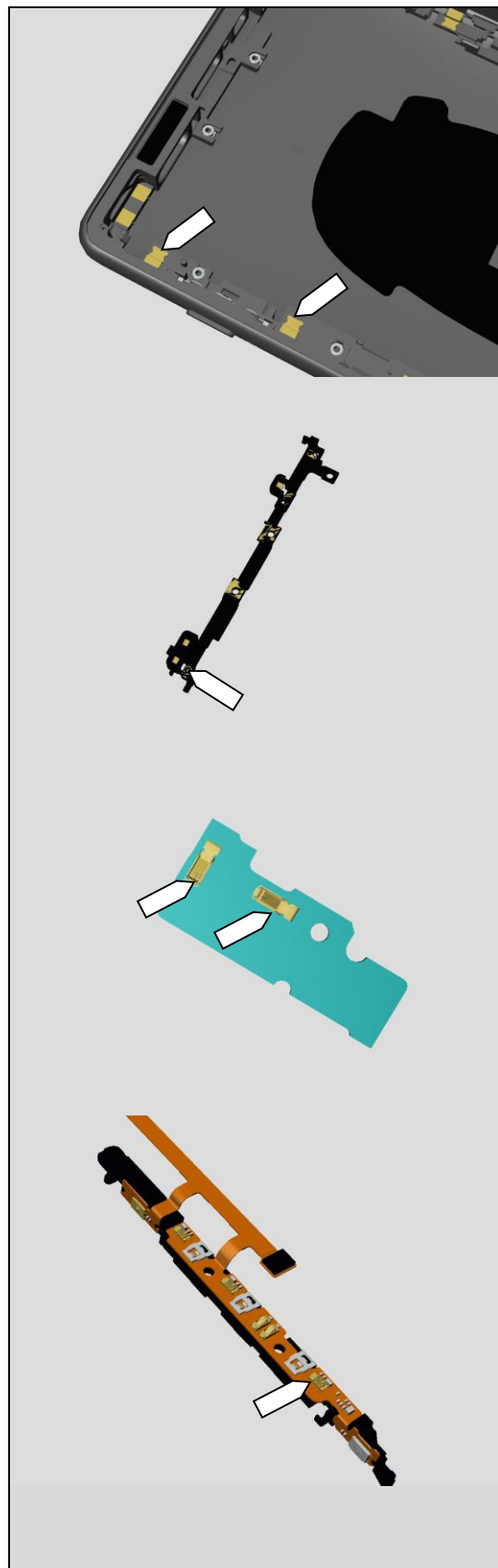
## Problem Areas: Network & Signal

### Check:

Inspect the contact pads on the Cover Main Assy and the Holder Ant Main and contact pins on the PBA ANT2 and the FPC Key Sub Assy.

### Action:

1. If dirty or oxidized – clean the pads and pins.
2. If the contact pads on the Cover Main Assy are damaged – replace the Cover Main Assy.
3. If the contact pads on the Holder Ant Main are damaged – replace the Holder Ant Main.
4. If the contact pins on the PBA ANT2 are damaged – replace the PBA ANT2.
4. If the contact pins on the FPC Key Sub Assy are damaged – replace the FPC Key Sub Assy.



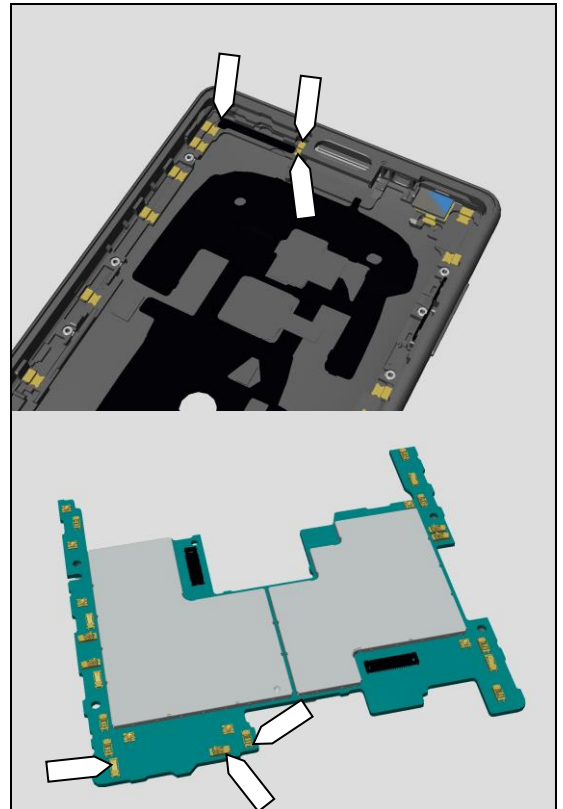
## Problem Areas: Network & Signal

### Check:

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

### Action:

7. If dirty or oxidized – clean the pads and pins.
8. If the contact pads on the Cover Main Assy are damaged – replace the Cover Main Assy.
9. If the contact pins on the Main PBA is damaged – replace the Main PBA.

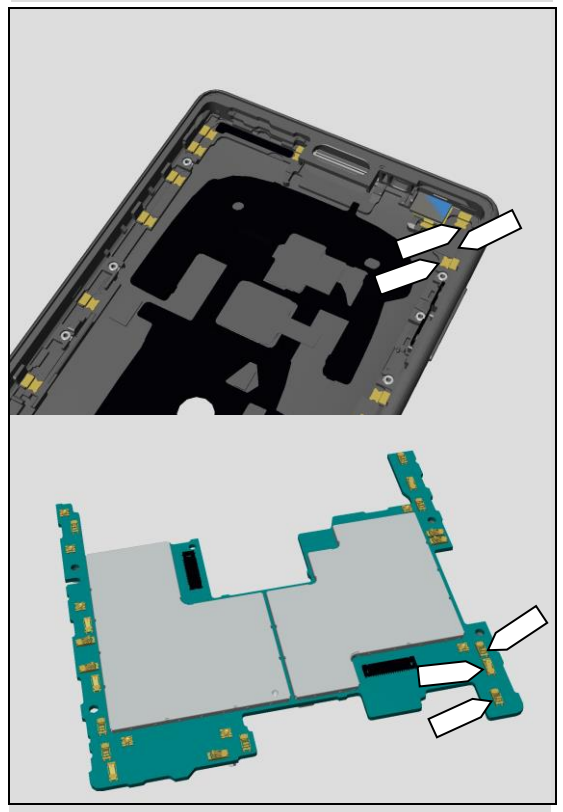


### Check:

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

### Action:

10. If dirty or oxidized – clean the pads and pins.
11. If the contact pads on the Cover Main Assy are damaged – replace the Cover Main Assy.
12. If the contact pins on the Main PBA is damaged – replace the Main PBA.



## Problem Areas

### 1.29 Charging

#### 1.29.1 Battery will not charge by USB connector

**Check:**

Inspect the USB connector.

**Action:**

1. If dirty or oxidized – clean the connector.

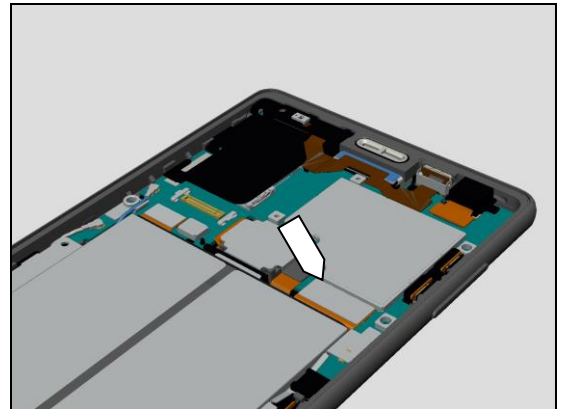


**Check:**

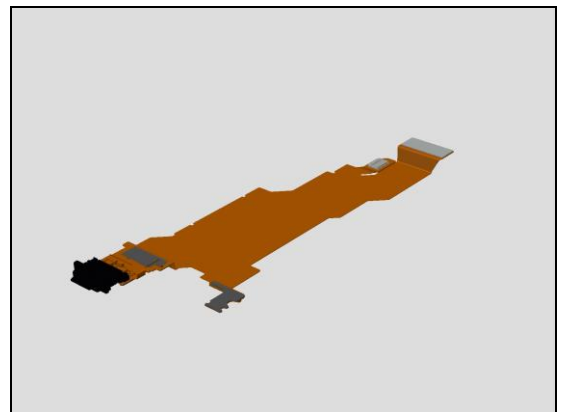
Inspect the BtB connector of FPC USB Sub Assy to Main PBA.

**Action:**

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



3. If the FPC USB Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.



**Check:**

Inspect the BtB connector of the Battery to the Main PBA.

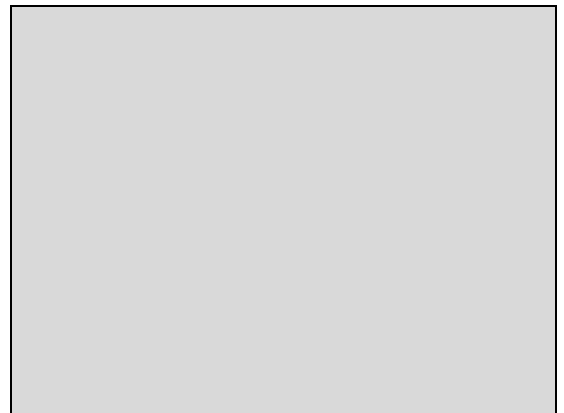
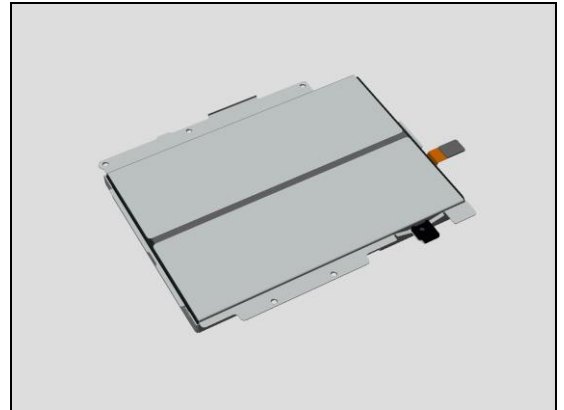
**Action:**

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



## Problem Areas: Charging

3. If the BtB connector of the FPC or the Battery assy is damaged – replace the Battery.
4. If the connector on Main PBA is damaged – replace the Main PBA.





## Problem Areas

### 1.30 Fingerprint Sensor test/Fingerprint Sensor function test

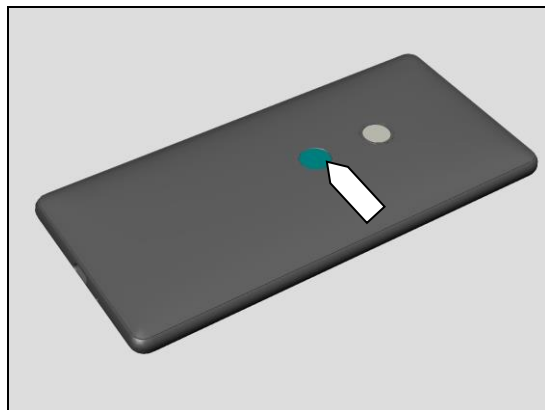
#### 1.30.1 Fingerprint Sensor test fails / Fingerprint Sensor function test fails

**Check:**

Inspect the FP sensor Module.

**Action:**

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

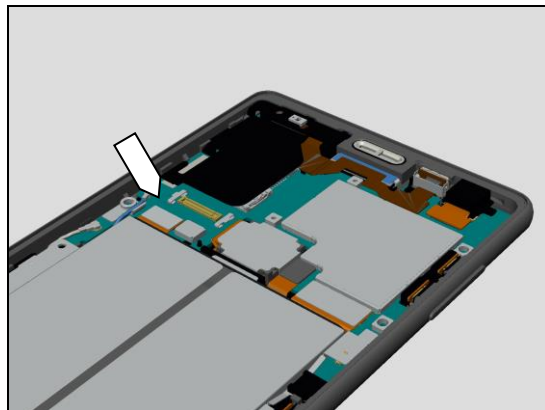


**Check:**

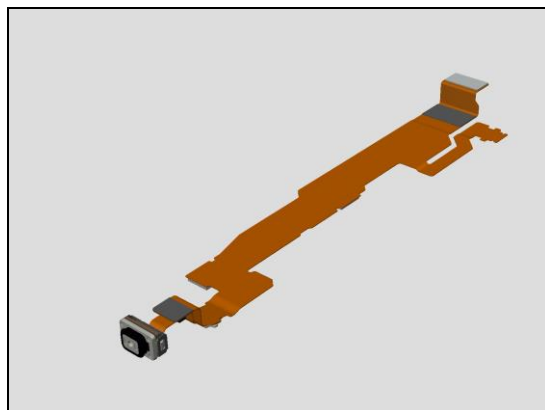
Inspect the BtB connector of the FPC Relay Sub Assy to the Main PBA.

**Action:**

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



3. If the FPC Relay Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.

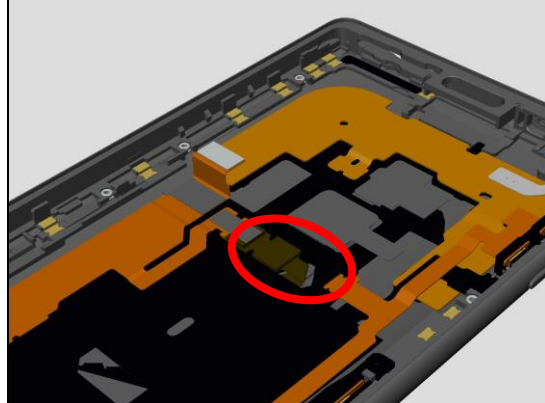


**Check:**

Inspect the Zif connector of the FP sensor Module to FPC Key Assy.

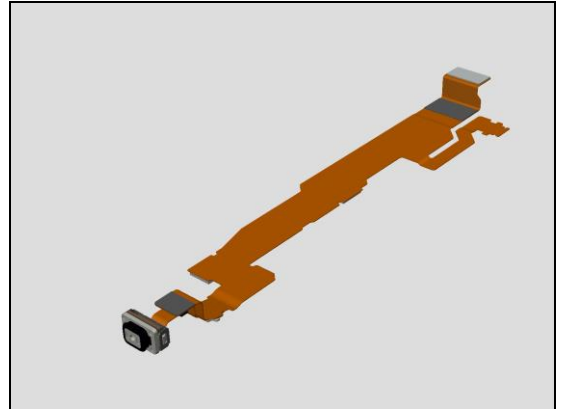
**Action:**

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

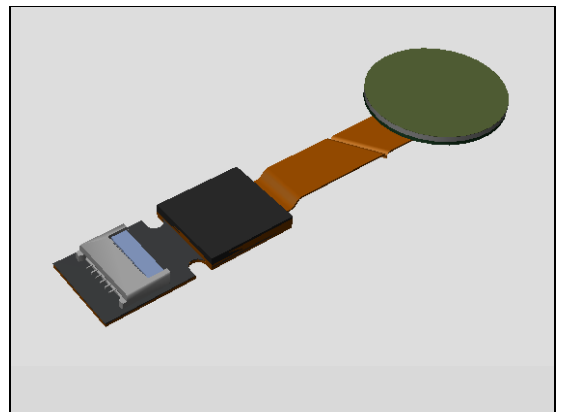


## **Problem Areas: Finger Print Sensor test**

3. If the Zif connector or the FPC Relay Sub Assy is damaged – replace the FPC Key Assy.



4. If the Zif connector of the FP sensor Module is damaged – replace the FP Sensor Assy.



## Problem Areas

### 1.31 Data Communication

#### 1.31.1 Data transfer via System Connector fails

**Check:**

Inspect the USB connector.

**Action:**

1. If dirty or oxidized – clean the connector.

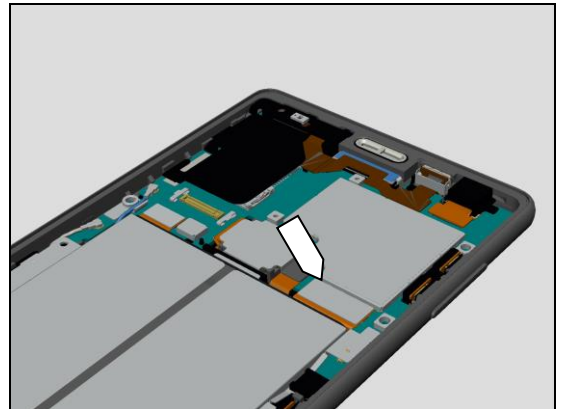


**Check:**

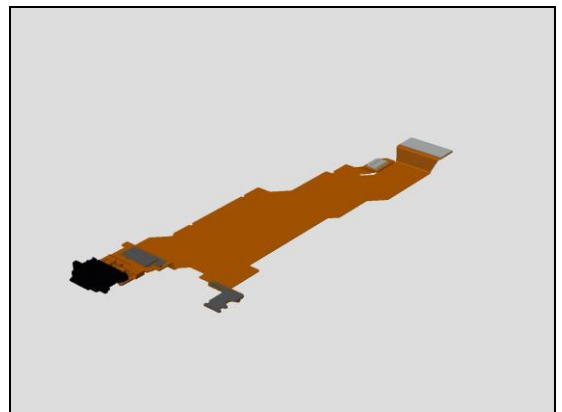
Inspect the BtB connector of FPC USB Sub Assy to Main PBA.

**Action:**

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



3. If the FPC USB Sub Assy is damaged – replace it.
4. If the B to B connector on the Main PBA is damaged- replace the Main PBA.



## Problem Areas

### 1.32 RGBC-IR Sensor

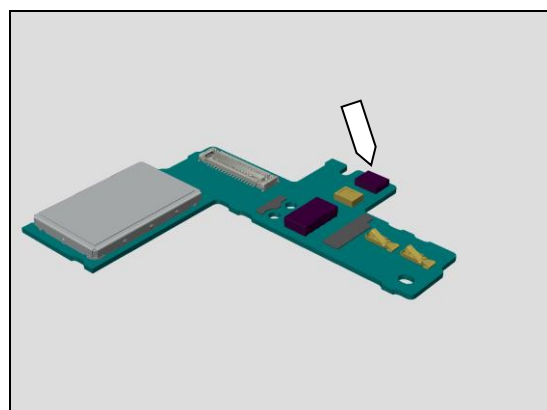
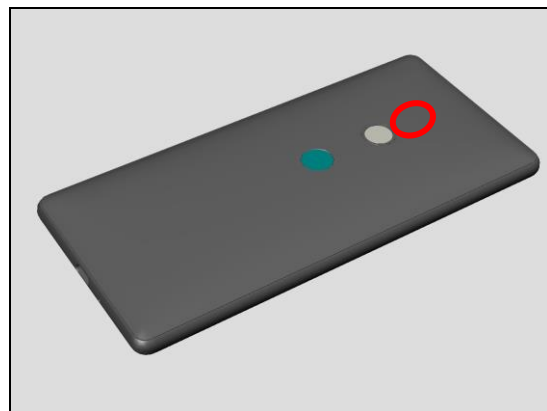
#### 1.32.1 RGBC-IR Sensor

**Check:**

Inspect the external area of the RGBC-IR.

**Action:**

1. If dirty – clean it.
2. If scratched or damaged – replace the Cover Main Assy.



1. c

## Problem Areas

### 1.1 ToF Sensor

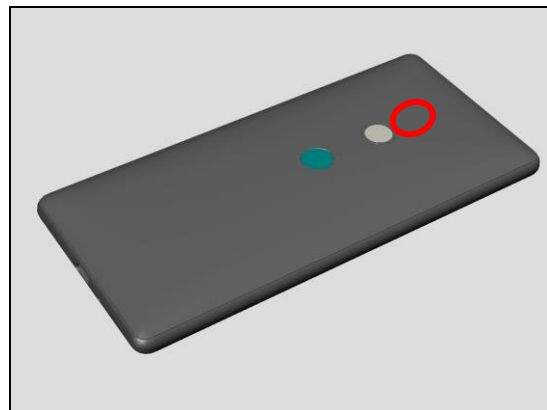
#### 1.1.1 ToF Sensor

**Check:**

Inspect the external area of the RGBC-IR.

**Action:**

3. If dirty – clean it.
4. If scratched or damaged – replace the Cover Main Assy.

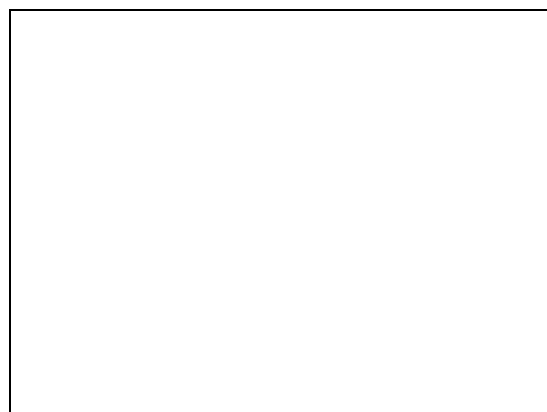
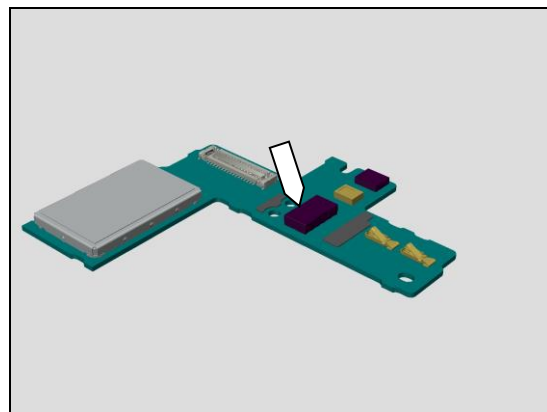


**Check:**

Inspect the RGBC-IR on the Sub PBA Complete.

**Action:**

2. If dirty – clean it.
3. If scratched or damaged – replace the Sub PBA Complete.



## Problem Areas

### 1.2 Unbalance Sound Level of Speaker L/R channel

#### 1.2.1 Unbalance Sound Level of Speaker L/R channel

**Check:**

Check if Speaker Calibration is completed to refer to the Speaker Calibration Status of the Service Tests.

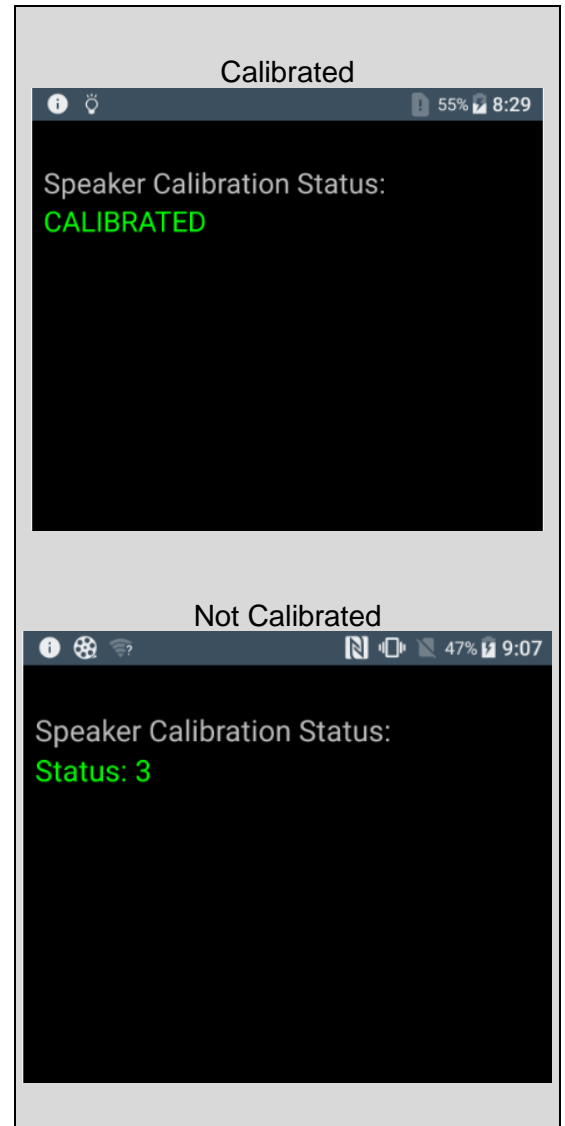
**Action:**

If not calibrated, implement speaker calibration.

== Speaker Calibration Procedure ==

Re-start the phone and leave the phone (connect the charger to the USB connector) more than 30 minutes without any access to the phone, and then calibration will be done as automatically.

If the phone is accessed during the period, calibration process is reset, and another 30 minutes will be taken.



## 2 Revision History

Rev.	Date	Changes / Comments
1	2018-Mar-9	Initial release