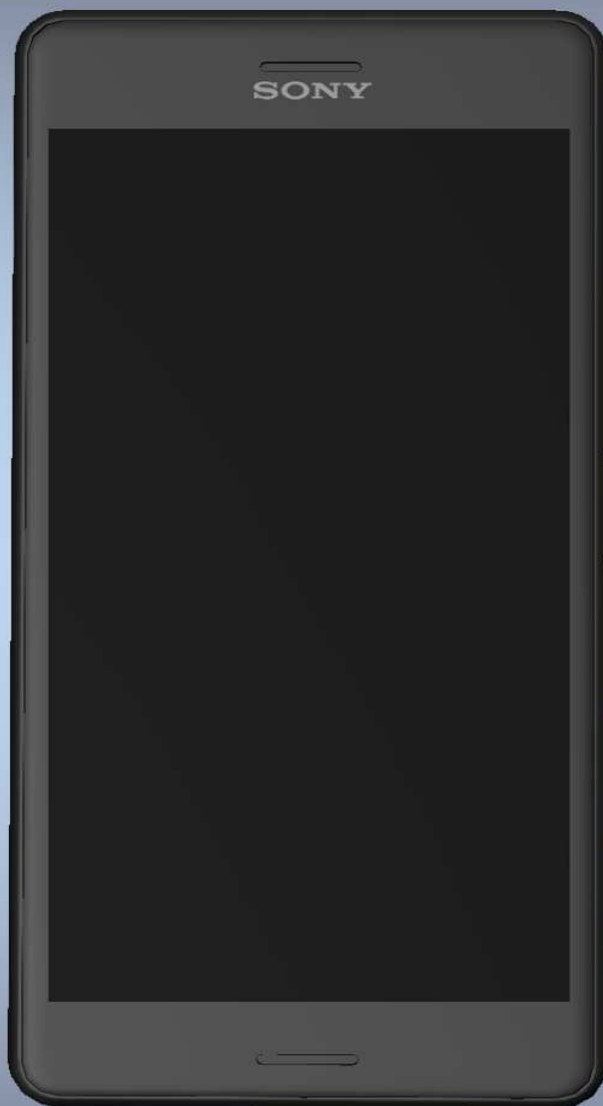


## Troubleshooting Guide

- mechanical -



*Xperia™ X Performance*  
*F8131, F8132 (Dual SIM)*

## CONTENTS

<b>1</b>	<b>Problem Areas .....</b>	<b>5</b>
1.1	Power .....	5
1.1.1	Will not power on or will switch off randomly.....	5
1.2	Keys .....	7
1.2.1	Back, Menu, and Home Keys .....	7
1.2.2	Volume Key .....	7
1.2.3	On/Off Key .....	8
1.2.4	Camera Key .....	10
1.3	Touch Screen .....	12
1.3.1	Touch Screen malfunction.....	12
1.4	Display .....	13
1.4.1	Graphics & Illumination .....	13
1.5	LED/Illumination .....	14
1.5.1	LED/Illumination .....	14
1.6	Speaker .....	15
1.6.1	Speaker Bottom .....	15
1.7	Earphone .....	18
1.7.1	Top Speaker .....	18
1.8	Microphone.....	19
1.8.1	Primary Microphone .....	19
1.8.2	Secondary Microphone .....	20
1.9	Vibrator .....	21
1.9.1	Vibrator not generating alerts .....	21
1.10	Camera.....	22
1.10.1	Main Camera .....	22
1.10.2	Video Call Camera defects.....	23
1.11	Flash LED .....	24
1.11.1	Flash LED not flashing.....	24
1.12	WLAN Main .....	25
1.12.1	WLAN Main connection failure.....	25
1.13	WLAN Sub .....	26
1.13.1	WLAN Sub connection failure .....	26
1.14	NFC .....	27
1.14.1	NFC malfunctions .....	27
1.15	GPS .....	28
1.15.1	GPS malfunctions.....	28
1.16	Compass.....	29
1.16.1	Compass fails .....	29
1.17	Accelerometer .....	30
1.17.1	Accelerometer test fails .....	30
1.18	Gyroscope .....	31
1.18.1	Gyroscope test fails .....	31

<b>1.19 Ambient Light Sensor .....</b>	<b>32</b>
1.19.1 Light Sensor malfunctions .....	32
<b>1.20 Proximity Switch .....</b>	<b>33</b>
1.20.1 Proximity switch malfunctions .....	33
<b>1.21 Pressure Sensor.....</b>	<b>34</b>
1.21.1 Pressure Sensor test fails.....	34
<b>1.22 Water Resistance .....</b>	<b>35</b>
1.22.1 Water Resistance fails.....	35
<b>1.23 Real Time Clock .....</b>	<b>41</b>
1.23.1 Real time clock test fails .....	41
<b>1.24 Total call time .....</b>	<b>42</b>
1.24.1 Total call time fails .....	42
<b>1.25 External Memory, SIM .....</b>	<b>43</b>
1.25.1 Memory Card/ SIM not detected .....	43
1.25.2 Incorrect Nano SIM indicated .....	43
<b>1.26 Security.....</b>	<b>44</b>
1.26.1 Security fails .....	44
<b>1.27 Network &amp; Signal.....</b>	<b>45</b>
1.27.1 No/Poor signal .....	45
<b>1.28 Charging .....</b>	<b>51</b>
1.28.1 Battery will not charge by USB connector .....	51
<b>1.29 Audio Jack test.....</b>	<b>53</b>
1.29.1 Connection to headset fails.....	53
<b>1.30 Fingerprint Sensor test/Fingerprint Sensor function test .....</b>	<b>54</b>
1.30.1 Fingerprint Sensor test fails / Fingerprint Sensor function test fails....	54
<b>1.31 Data Communication .....</b>	<b>56</b>
1.31.1 Data transfer via System Connector fails.....	56
<b>1.32 Unbalance Sound Level of Speaker L/R channel.....</b>	<b>57</b>
1.32.1 Unbalance Sound Level of Speaker L/R channel.....	57
<b>2 Revision History .....</b>	<b>58</b>

***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.***

***Note: Proximity Calibration always must be performed when Front Assy and Main PBA reassembly, or Front Assy replacement, or Board Swap, or proximity malfunctions; 1289-2983 Sony Mobile Repair Application-mechanical.***

***Note: Noise Cancelling Calibration always must be performed when FPC Top Module Assy replacement or Board Swap; 1289-2983 Sony Mobile Repair Application-mechanical.***

***Note: Gyroscope and Accelerometer Calibration always must be performed when Main PBA reassembly, or Board Swap, or wrong Gyroscope or Accelerometer readouts; 1289-2983 Sony Mobile Repair Application-mechanical.***

***Note: Color ID Flashing always must be performed when Board Swap; 1289-2983 Sony Mobile Repair Application-mechanical.***

***Note: Flashing Customize or Refurbish or SUCE script (SU script cannot be used!) in Emma must be performed when replace Top Speaker and/or Bottom Speaker.***

***Note: Aged Battery Reset in EMMA must be performed when replaced the Battery 2700 mAh to delete Battery log data.***

## 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 2.4.5 (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'.



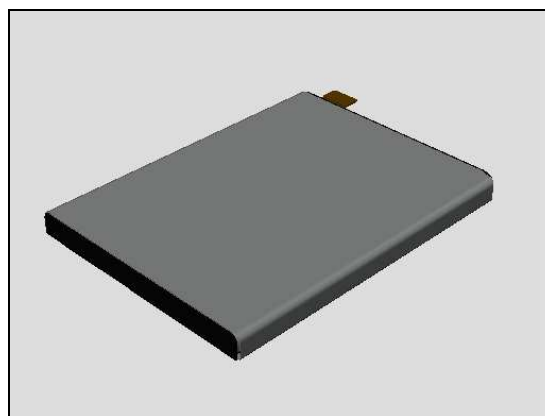
## Problem Areas: Power

### Check:

Inspect the BtB connector of the Battery 2700 mAh 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 2700mAh is damaged – replace the Battery 2700 mAh.
4. Replace Main PBA.



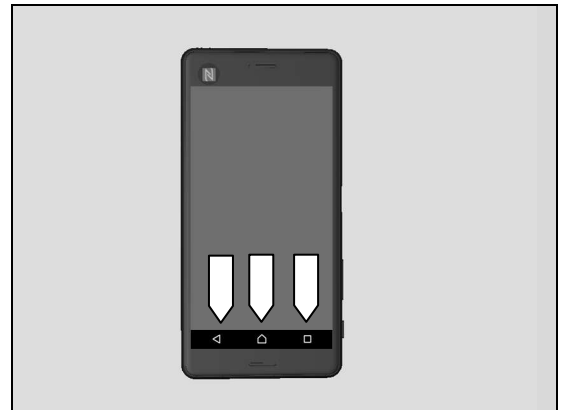
## Problem Areas

### 1.2 Keys

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

**Action:**

1. Refer to section 1.3 'Touch Screen'.
2. Replace Main PBA.



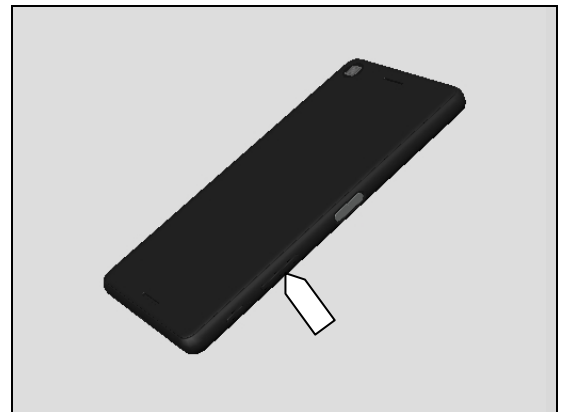
#### 1.2.2 Volume Key

**Check:**

Inspect the external area of the Volume Key.

**Action:**

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

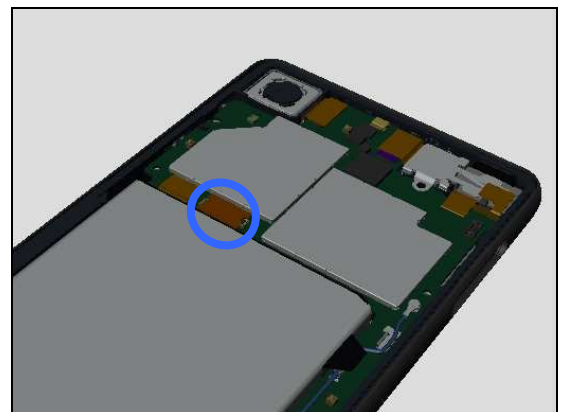


**Check:**

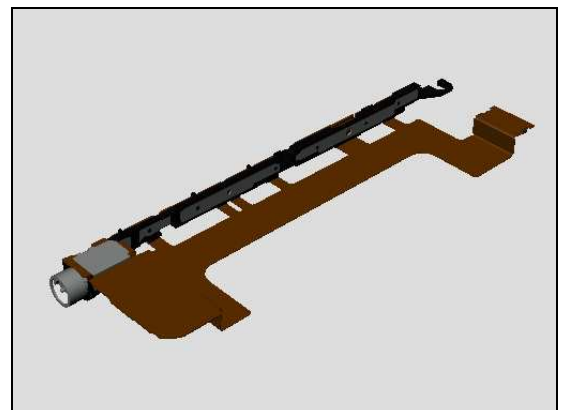
Inspect the BtB connector of FPC Key Module Assy to Main PBA.

**Action:**

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



3. If the FPC Key Module Assy is damaged – replace it.
4. Replace Main PBA.



## Problem Areas: Keys

### Check:

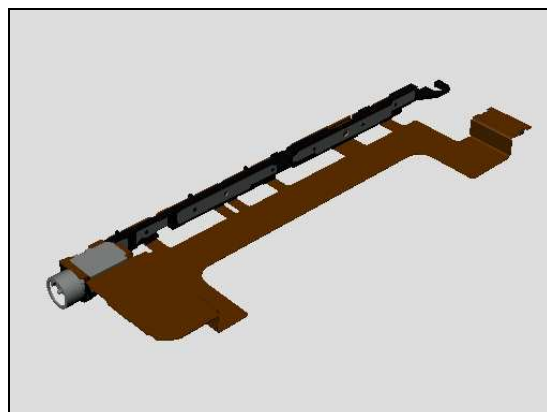
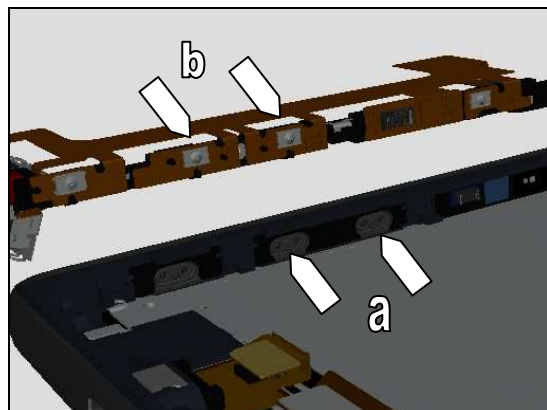
Inspect the condition of Volume Key rubber (a) and Volume Key switch (b).

### Action:

1. If dirty – clean them.

2. If the Volume Key or its rubber is damaged – replace the Front Assy.

3. If the volume key switch is damaged – replace the FPC Key Module 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.





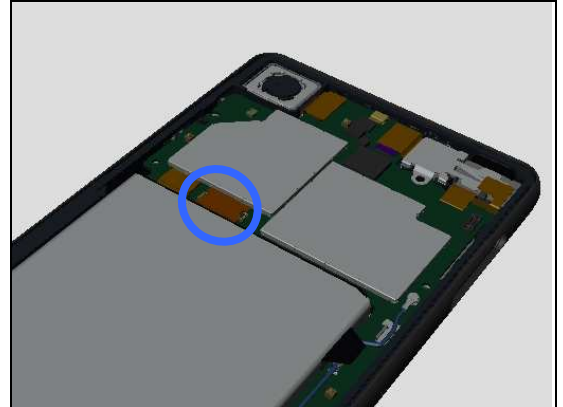
## Problem Areas: Keys

### Check:

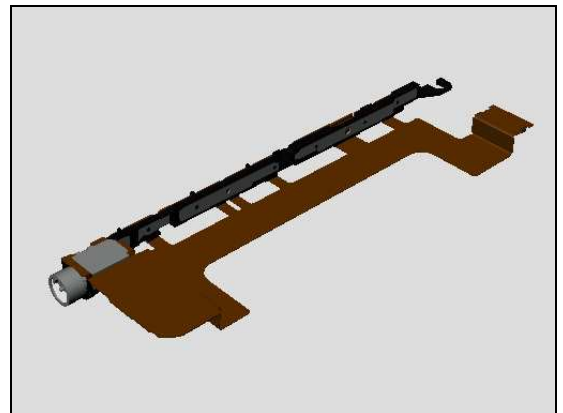
Inspect the BtB connector of FPC Key Module Assy to Main PBA.

### Action:

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



3. If the FPC Key Module Assy is damaged – replace it.
4. Replace Main PBA.

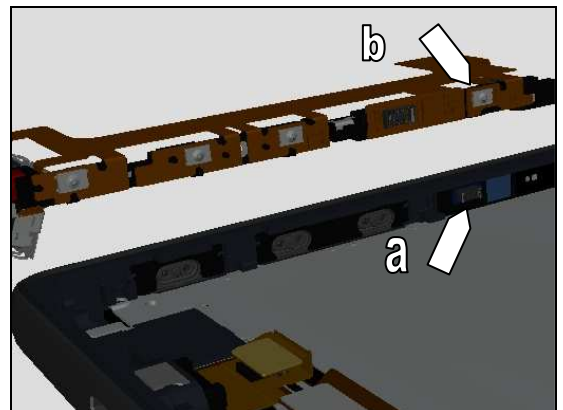


### Check:

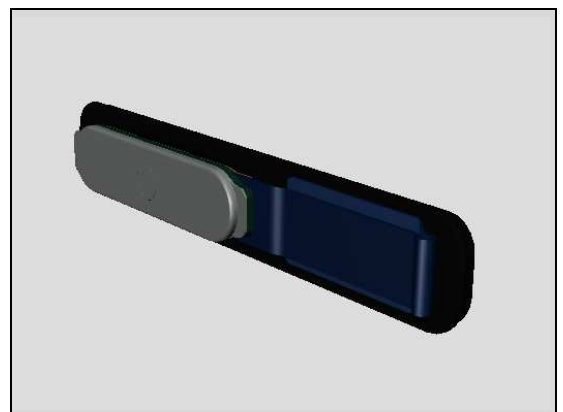
Inspect the condition of the On/Off Key rubber (a) and On/Off Key switch (b).

### Action:

1. If dirty – clean them.

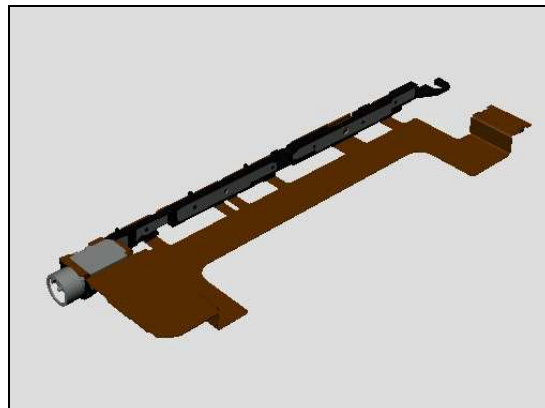


2. If the On/Off Key or its rubber is damaged – replace the FP Sensor Assy.



## Problem Areas: Keys

3. If the On/Off key switch is damaged – replace the FPC Key Module Assy.



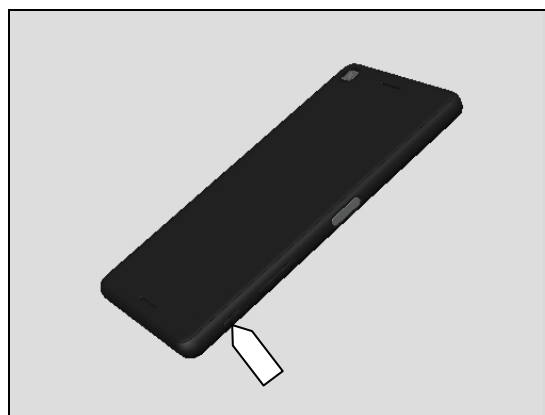
### 1.2.4 Camera Key

**Check:**

Inspect the external area of the Camera Key.

**Action:**

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

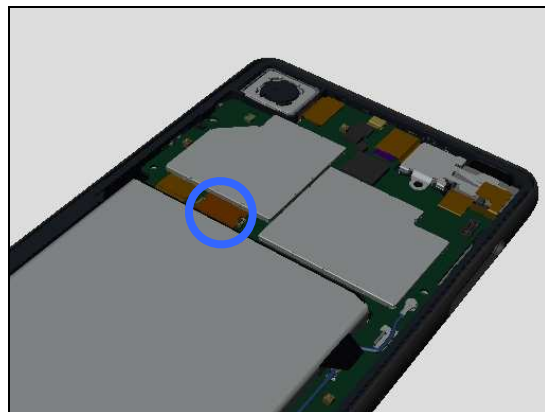


**Check:**

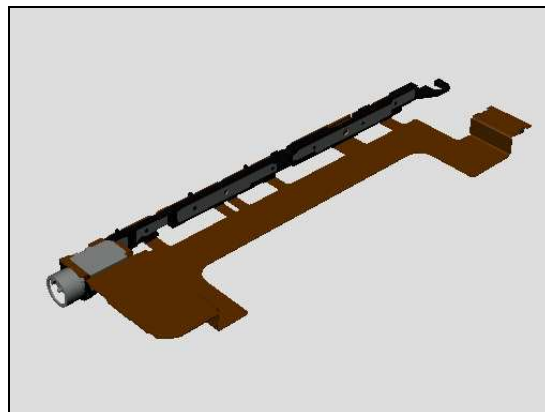
Inspect the BtB connector of FPC Key Module Assy to Main PBA.

**Action:**

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



3. If the FPC Key Module Assy is damaged – replace it.
4. Replace Main PBA.



## Problem Areas: Keys

### Check:

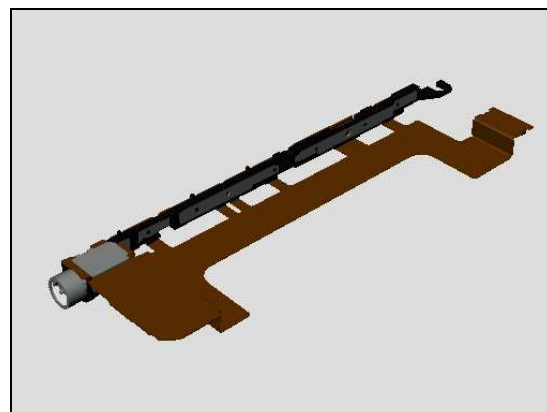
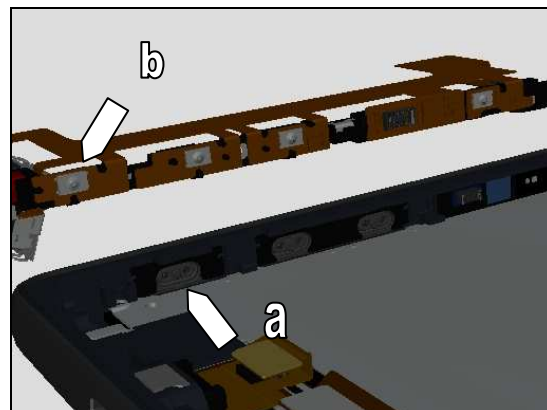
Inspect the condition of the Camera Key rubber (a) and Camera Key switch (b).

### Action:

1. If dirty – clean them.

2. If the Camera Key or its rubber is damaged – replace the Front Assy.

3. If the On/Off key switch is damaged – replace the FPC Key Module Assy.



## Problem Areas

### 1.3 Touch Screen

#### 1.3.1 Touch Screen malfunction

**Check:**

Inspect the touch screen of the Front Assy.

**Action:**

1. If dirty – clean it.



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



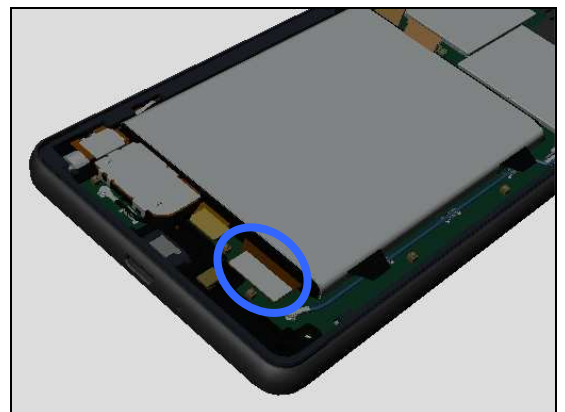
**Check:**

Inspect the BtB connector of LCD FPC to Main PBA.

**Action:**

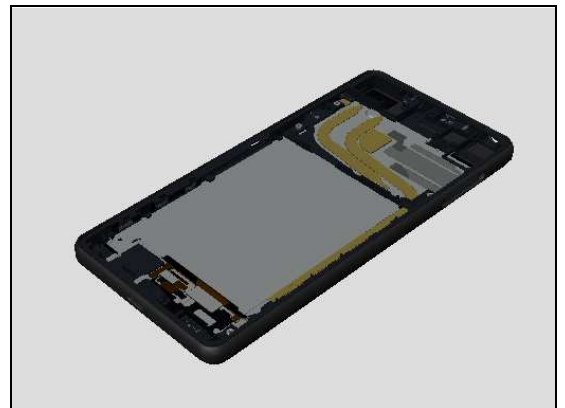
1. If not properly connected – disconnect and reconnect it.

2. If dirty or oxidized – clean it.



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

4. Replace Main PBA.



## Problem Areas

### 1.4 Display

#### 1.4.1 Graphics & Illumination

**Check:**

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

**Action:**

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

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

**Check:**

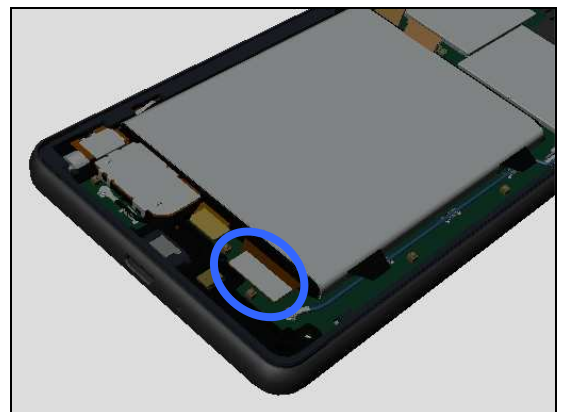
Inspect the BtB connector of Display FPC to Main PBA.

**Action:**

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

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

4. Replace Main PBA.



## Problem Areas

### 1.5 LED/Illumination

#### 1.5.1 LED/Illumination

**Check:**

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

**Action:**

1. If dirty – clean it.

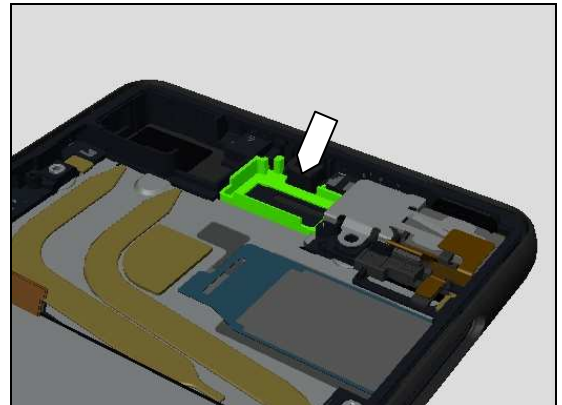


**Check:**

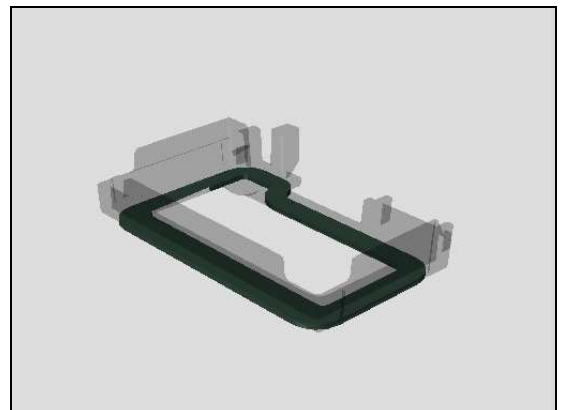
Inspect the Light Guide LED Sub Assy.

**Action:**

1. If dirty – clean it.



3. If damaged – replace Light Guide LED Sub Assy.

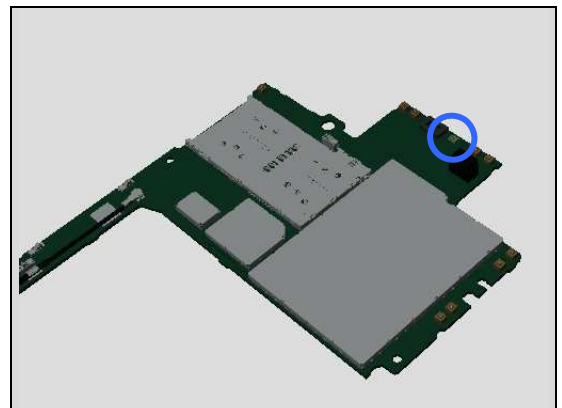


**Check:**

Inspect the LED on Main PBA.

**Action:**

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



## Problem Areas

### 1.6 Speaker

#### 1.6.1 Speaker Bottom

**Check:**

Inspect the Speaker Bottom external port on the Front Assy.

**Action:**

1. If clogged – clean it.



2. If damaged – replace the Front Assy.

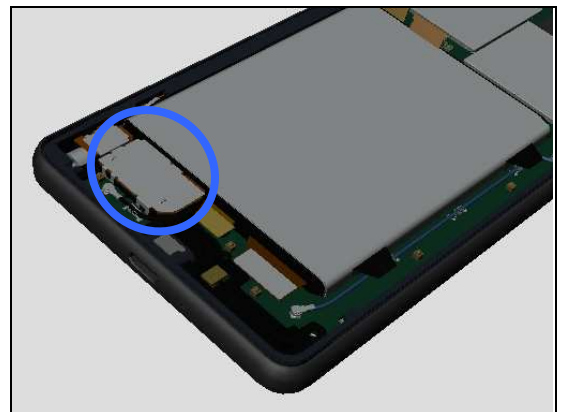


**Check:**

Inspect the speaker FPC is assembled properly or not.

**Action:**

1. If not assembled properly – reassemble it.

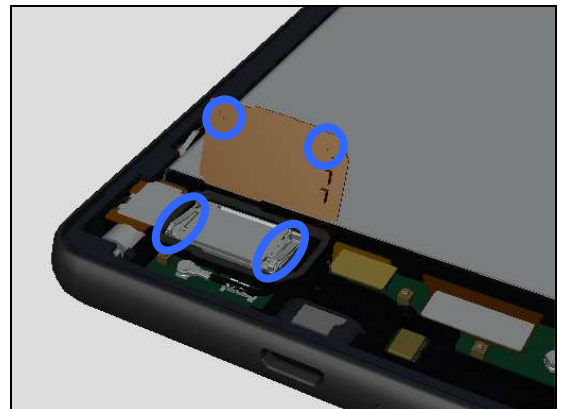


**Check:**

Inspect the contact pads on the FPC Key Module Assy and the contact pins on the Bottom Speaker.

**Action:**

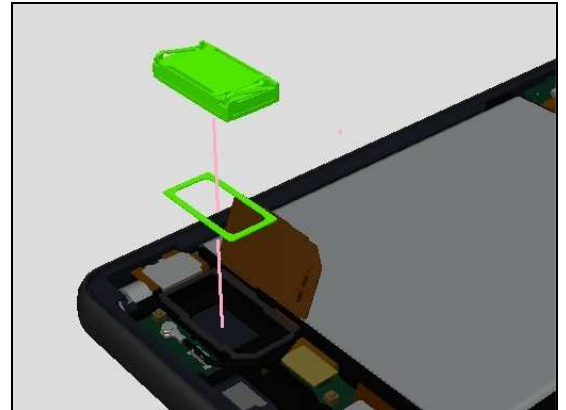
1. If dirty – clean them.



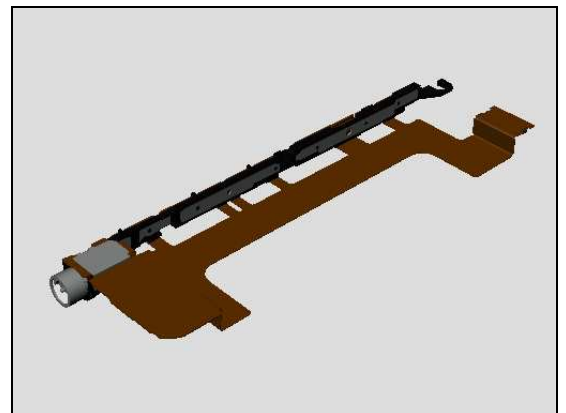


## Problem Areas: Speaker

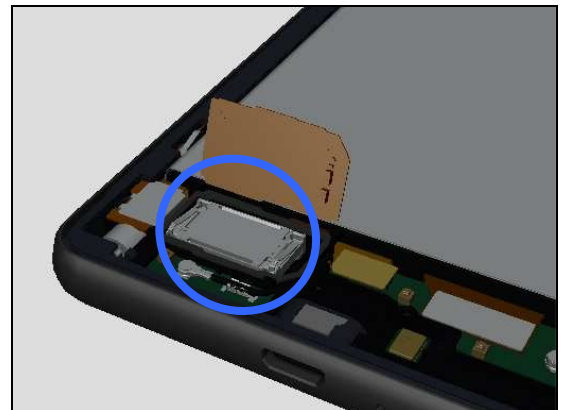
2. If contact pins on the Bottom Speaker are damaged – replace the Adhesive WR Speaker and Bottom Speaker.



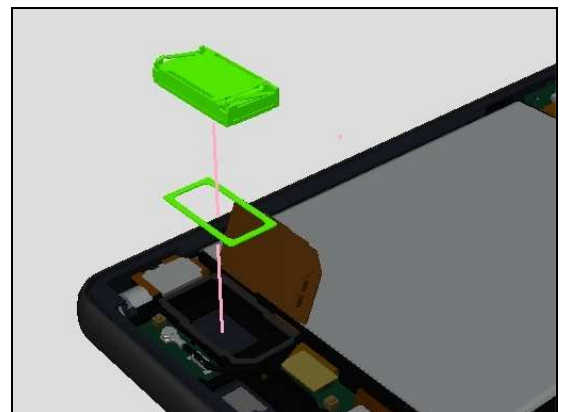
3. If the contact pads on the FPC Key Module Assy are damaged - replace the FPC Key Module Assy.



**Check:**  
Inspect if the Speaker bottom is assembled properly onto its cavity.



**Action:**  
1. If not assembled properly – replace the Adhesive WR Speaker and Speaker Bottom.





## Problem Areas: Speaker

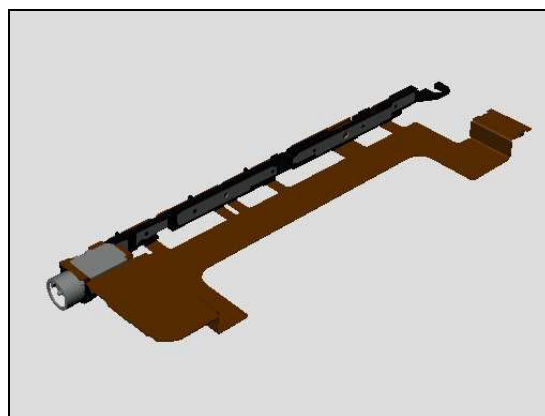
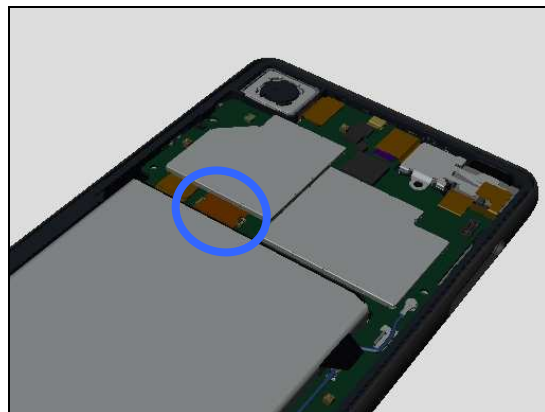
### Check:

Inspect the BtB connector of FPC Key Module 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 Key Module Assy is damaged – replace it.
4. Replace Main PBA.



## Problem Areas

### 1.7 Earphone

#### 1.7.1 Top Speaker

**Check:**

Inspect the external port of Top Speaker on the Display Frame Assy.

**Action:**

1. If clogged – clean it.

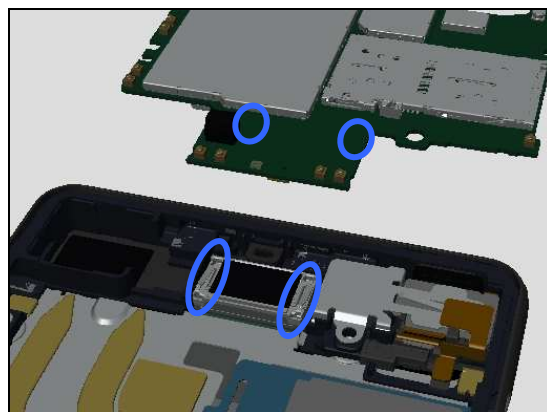


**Check:**

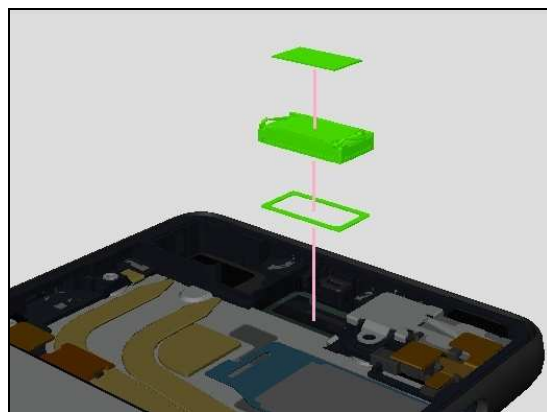
Inspect the contact pads on the Main PBA and the contact pins on the Top Speaker.

**Action:**

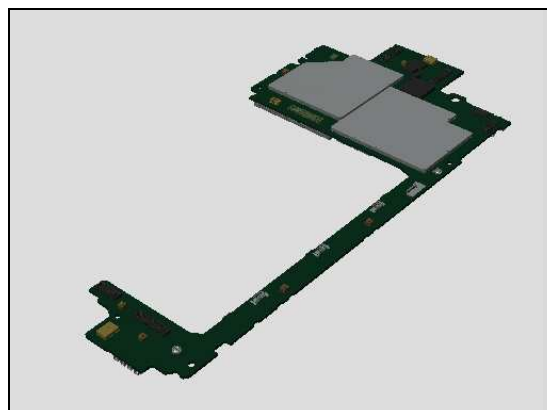
1. If dirty – clean them.



2. If the contact pins of the Top Speaker or the Top Speaker are damaged – replace Top Speaker, Adhesive WR Speaker, and Cushion Aco.



3. Replace Main PBA.



## Problem Areas

### 1.8 Microphone

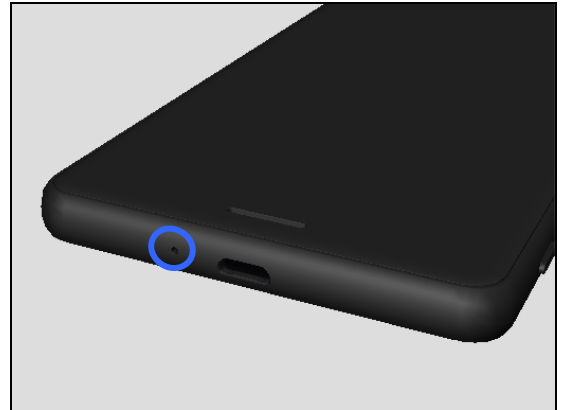
#### 1.8.1 Primary Microphone

**Check:**

Inspect the hole of Primary Microphone port on the Front Assy.

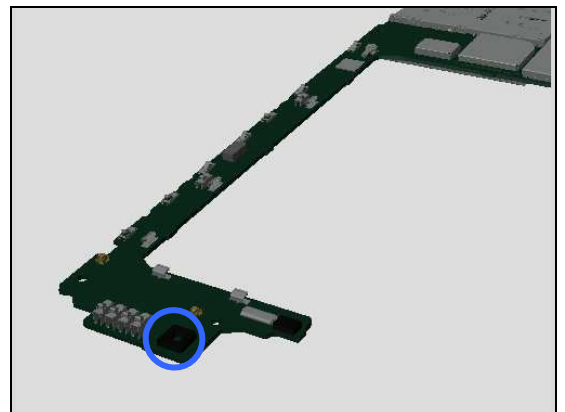
**Action:**

1. If clogged – clean it.



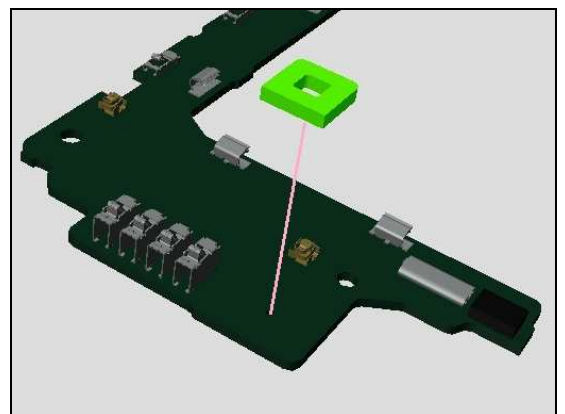
**Check:**

Inspect if Cushion PBA Mic 1<sup>st</sup> on the Main PBA is assembled properly.

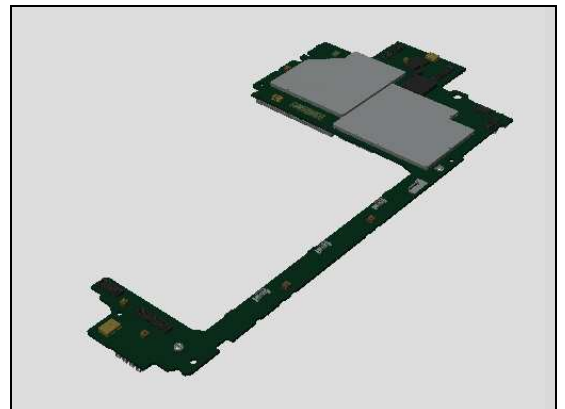


**Action:**

1. If it is not assembled properly – replace the Cushion PBA Mic 1<sup>st</sup>.



2. Replace the Main PBA.



## Problem Areas: Microphone

### 1.8.2 Secondary Microphone

**Check:**

Inspect the hole of secondary microphone on the Front Assy.

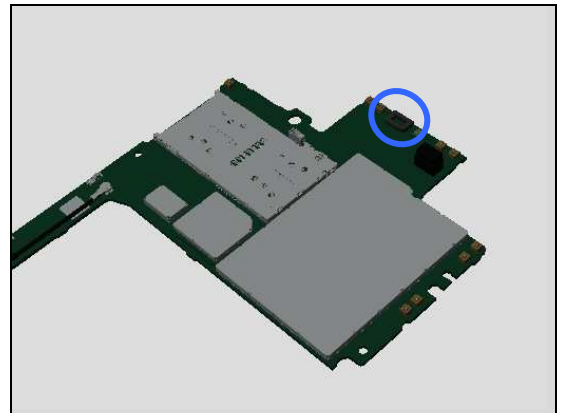
**Action:**

1. If clogged – clean it.



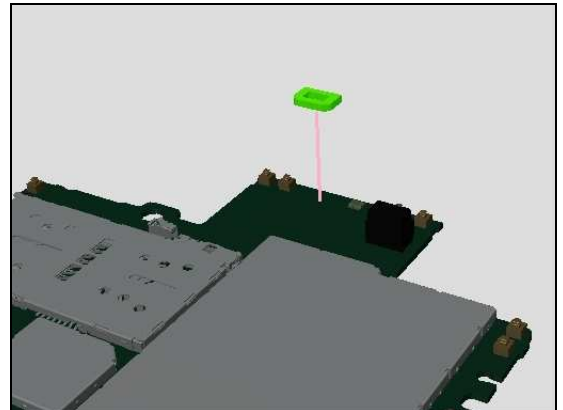
**Check:**

Inspect if Cushion PBA Mic 2<sup>nd</sup> on the Main PBA is assembled properly.

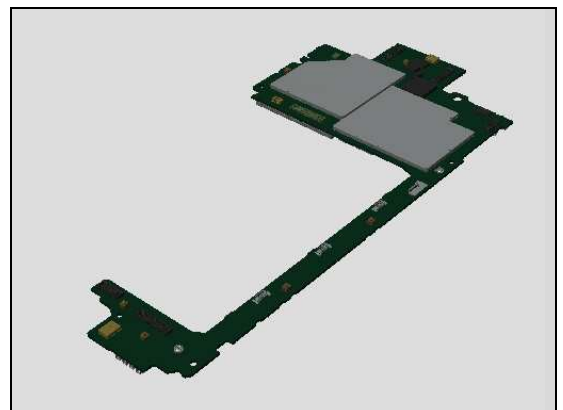


**Action:**

1. If is not assembled properly – replace the Cushion PBA Mic 2<sup>nd</sup>.



2. Replace Main PBA.



## Problem Areas

### 1.9 Vibrator

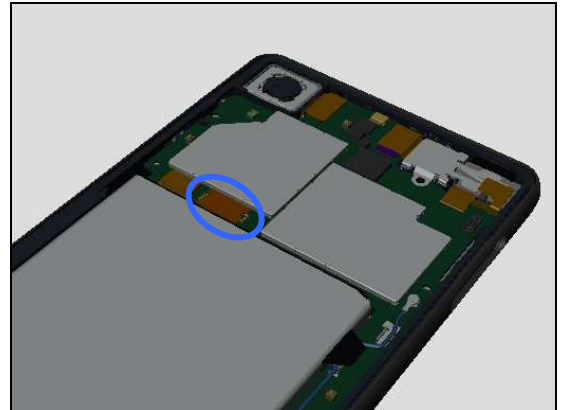
#### 1.9.1 Vibrator not generating alerts

**Check:**

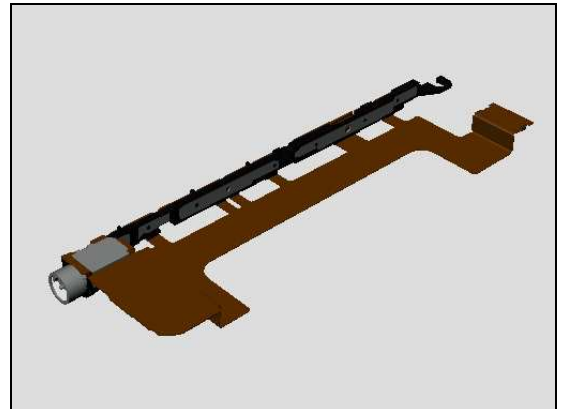
Inspect the BtB connector of FPC Key Module Assy to Main PBA.

**Action:**

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

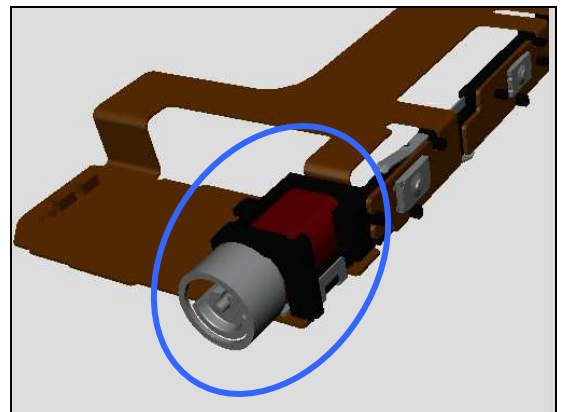


3. If the FPC Key Module Assy is damaged – replace it.
4. Replace Main PBA.



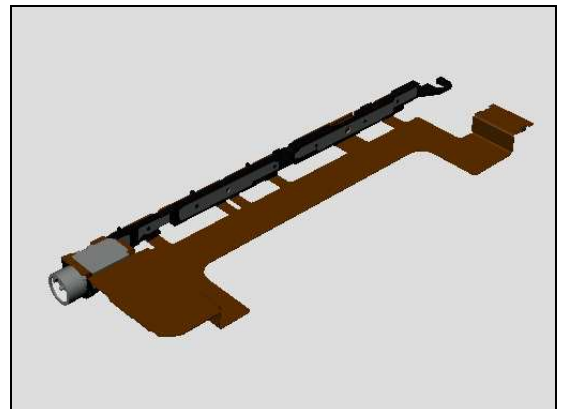
**Check:**

Inspect the Vibrator on the FPC Key Module Assy.



**Action:**

1. If damaged – replace the FPC Key Module Assy.



## Problem Areas

### 1.10 Camera

#### 1.10.1 Main Camera

**Check:**

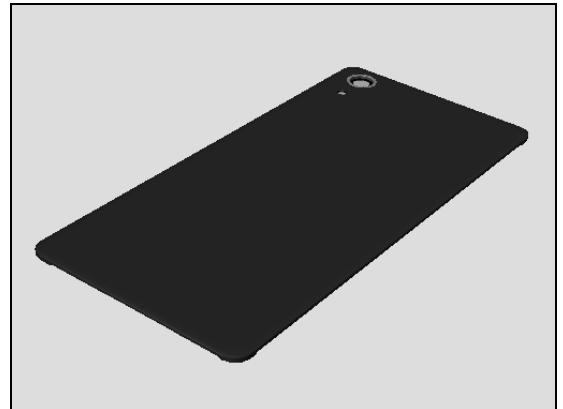
Inspect the external area of camera window.

**Action:**

1. If dirty – clean it.



2. If scratched or damaged – replace the Panel Rear Sub Assy.

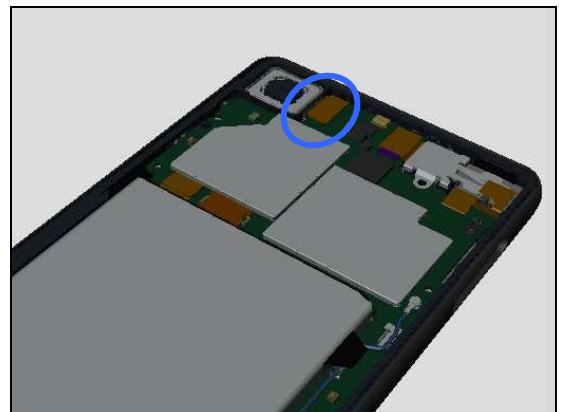


**Check:**

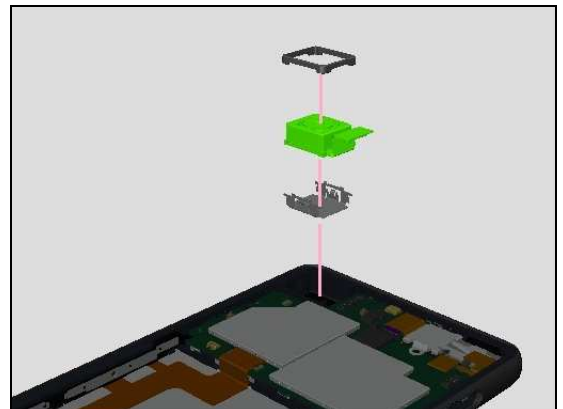
Inspect the BtB connector of Main Camera to Main PBA.

**Action:**

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



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



## Problem Areas: Camera

### 1.10.2 Video Call Camera defects

**Check:**

Inspect the external area of the chat camera window.

**Action:**

1. If dirty – clean it.



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



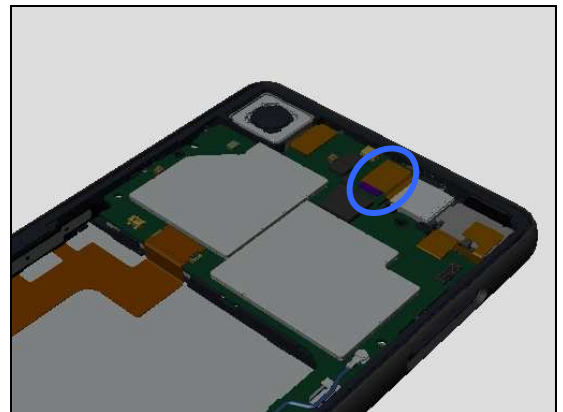
**Check:**

Inspect the BtB connector of Front Camera to Main PBA.

**Action:**

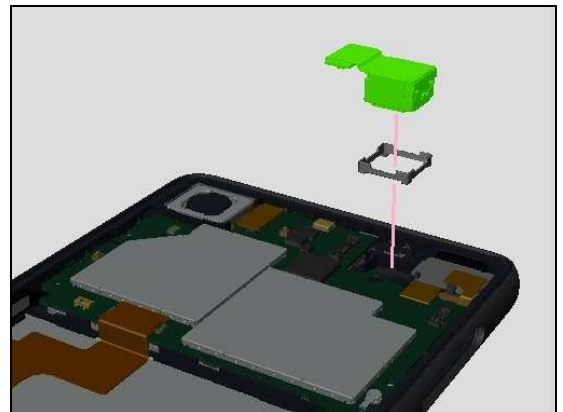
1. If not properly connected – disconnect and reconnect it.

2. If dirty or oxidized – clean it.



3. If the Chat Camera is damaged – replace the Front Camera.

4. Replace 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 Panel Rear Sub Assy.

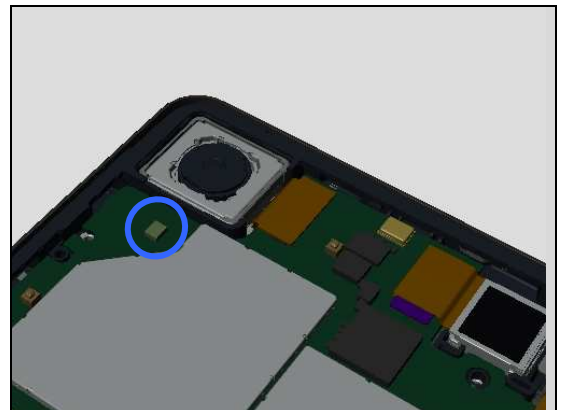
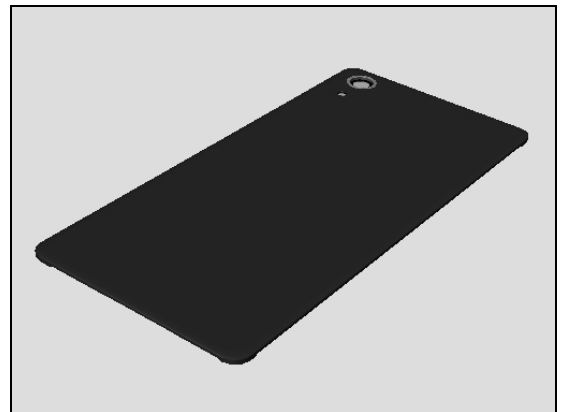
**Check:**

Inspect the Flash LED on Main PBA.

**Action:**

1. If dirty – clean it.

2. Replace Main PBA.





## Problem Areas

### 1.12 WLAN Main

#### 1.12.1 WLAN Main connection failure

**Check:**

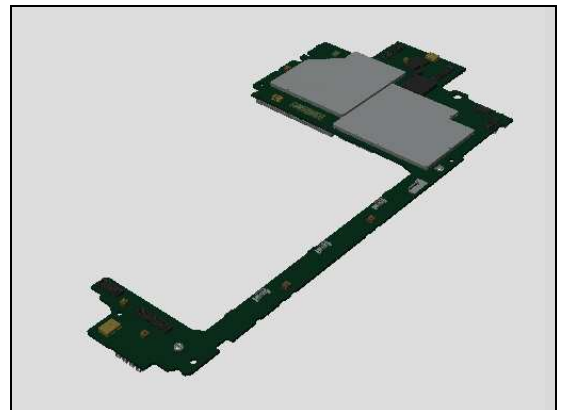
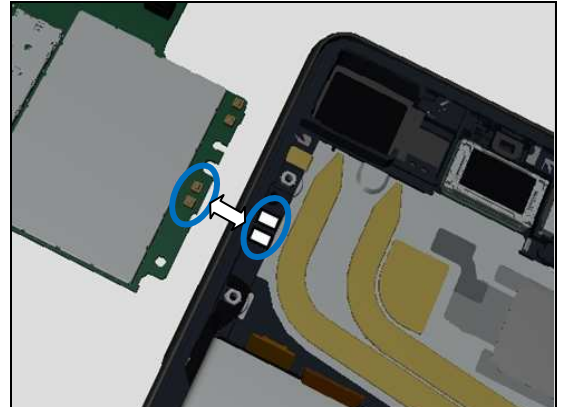
Inspect the WLAN Main contact pads on Front Assy and the contact pins on Main PBA.

**Action:**

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

2. If the contact pads on Front Assy are damaged – replace the Front Assy.

3. If the contact pins on Main PBA is damaged – replace Main PBA.



## Problem Areas

### 1.13 WLAN Sub

#### 1.13.1 WLAN Sub connection failure

**Check:**

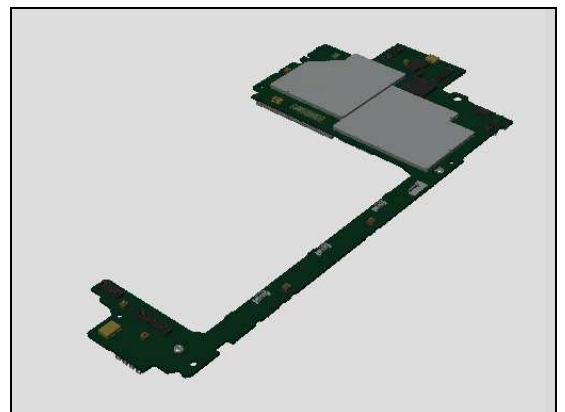
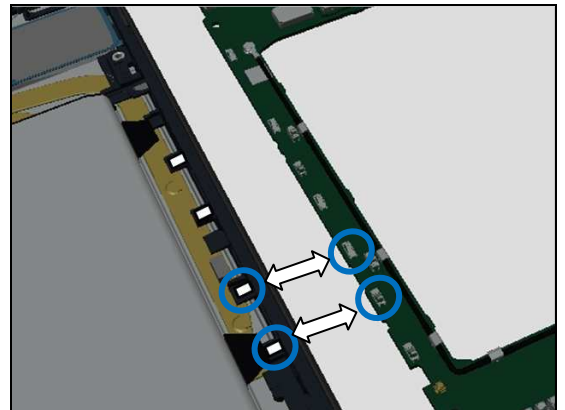
Inspect the WLAN Sub contact pads on Front Assy and the contact pins on Main PBA.

**Action:**

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

2. If the contact pads on Front Assy are damaged – replace the Front Assy.

3. If the contact pins on Main PBA is damaged – replace Main PBA.



## Problem Areas

### 1.14 NFC

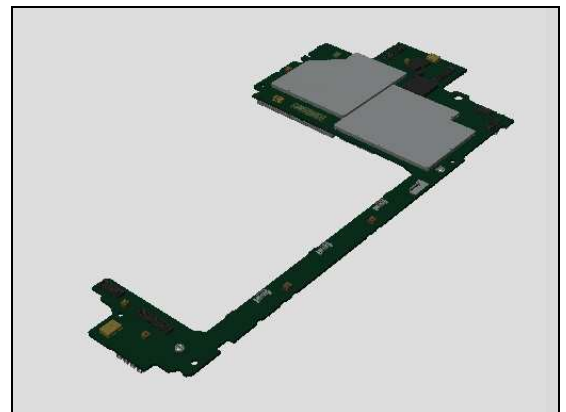
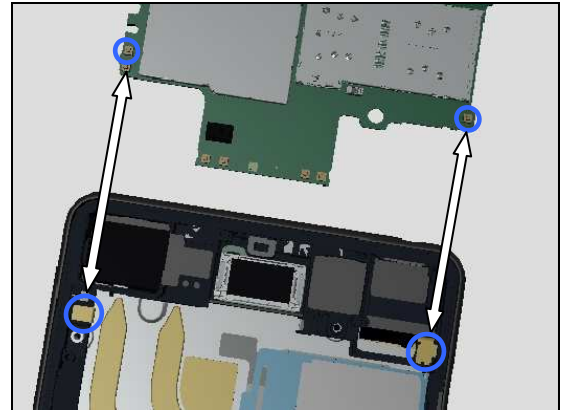
#### 1.14.1 NFC malfunctions

**Check:**

Inspect the NFC antenna contact pads on the Front Assy and the contact pins on Main PBA.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. If the NFC antenna contact pads on the Front Assy are damaged – replace the Front Assy.
3. If the contact pins on main PBA are damaged – replace Main PBA.



## Problem Areas

### 1.15 GPS

#### 1.15.1 GPS malfunctions

**Check:**

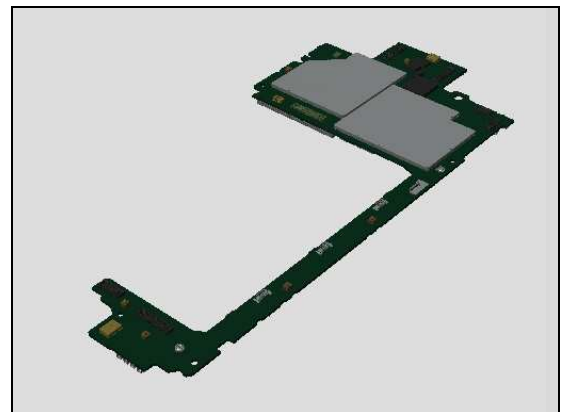
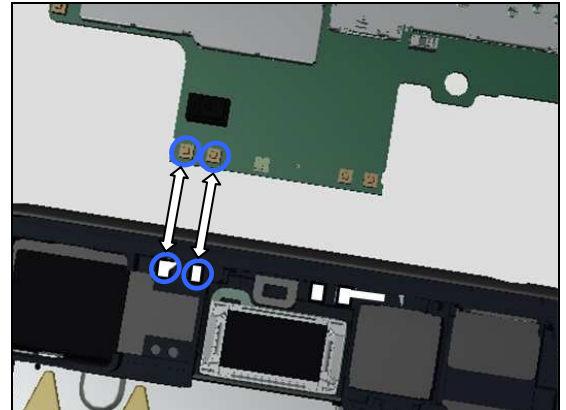
Inspect the GPS antenna contact pads on the Front Assy, and the contact pins on Main PBA.

**Action:**

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

2. If the GPS antenna contact pads on the Frame Assy are damaged – replace the Front Assy.

3. If the contact pins on main PBA are damaged – replace Main PBA.



## Problem Areas

### 1.16 Compass

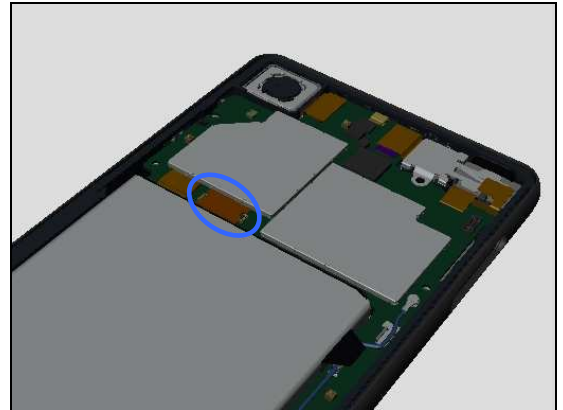
#### 1.16.1 Compass fails

**Check:**

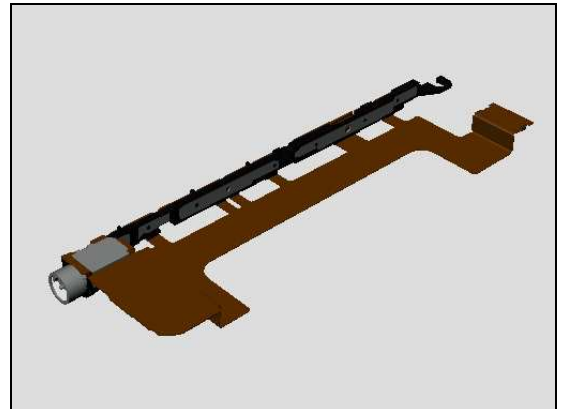
Inspect the BtB connector of FPC Key Module Assy to Main PBA.

**Action:**

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

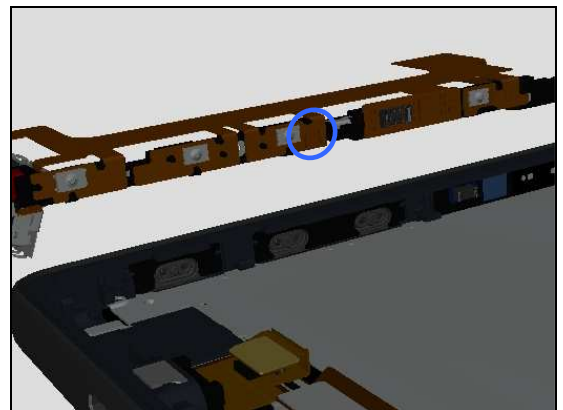


3. If the FPC Key Module Assy is damaged – replace it.
4. Replace Main PBA.



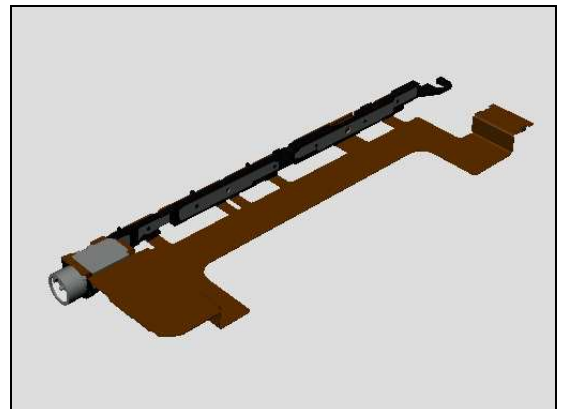
**Check:**

Inspect the compass chipset on the FPC Key Module Assy.



**Action:**

1. If the compass chipset is damaged – replace the FPC Key Module 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 Frame Assy.

**Action:**

1. If dirty – clean it.

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

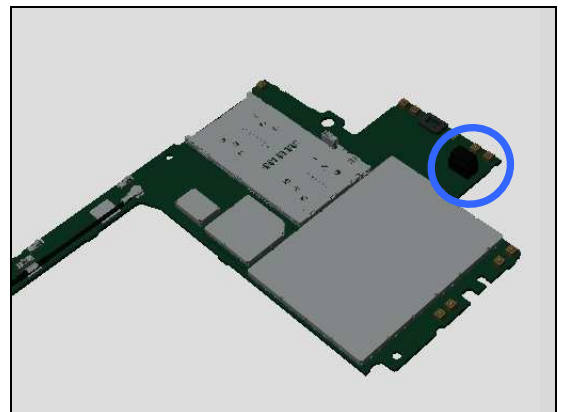
**Check:**

Inspect the light sensor on the Main PBA.

**Action:**

1. If dirty or oxidized – clean it.

2. Replace Main PBA.





## Problem Areas

### 1.20 Proximity Switch

#### 1.20.1 Proximity switch malfunctions

**Check:**

Inspect the external window area of proximity switch.

**Action:**

1. If dirty – clean it.

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

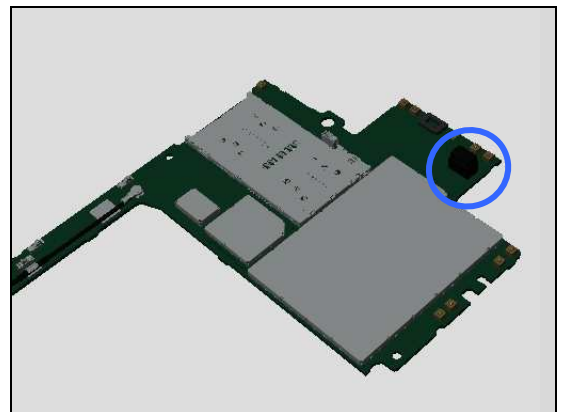
**Check:**

Inspect the proximity switch on the Main PBA.

**Action:**

1. If dirty or oxidized – clean it.

2. Replace Main PBA.



## **Problem Areas**

### **1.21 Pressure Sensor**

#### **1.21.1 Pressure Sensor test fails**

Replace Main PBA.

## Problem Areas

### 1.22 Water Resistance

#### 1.22.1 Water Resistance fails

**Check:**

Inspect the Cap Tray Assy, and slot of the Cap Tray Assy of the Front Assy.

**Action:**

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

3. If the Cap Tray Assy is damaged – replace it.

**Perform the Water Resistance Test again!**

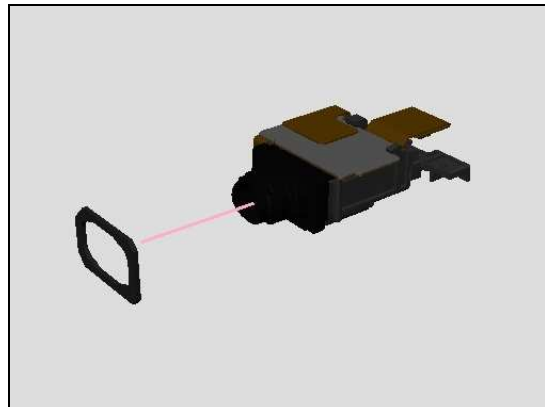
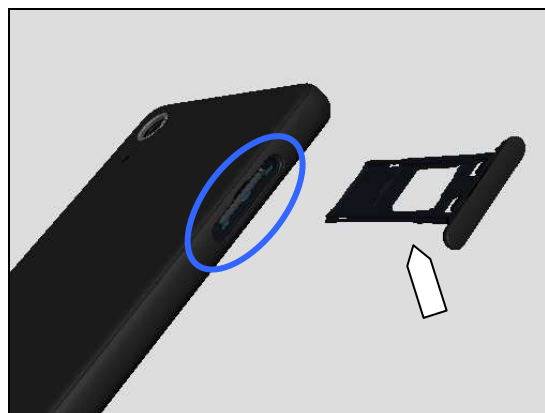
**Check:**

Inspect the Audio Jack hole.

**Action:**

1. If not assembled properly – replace the Adhesive WR Audio Jack to reassemble FPC Top Module Assy.
2. If damaged – replace the Adhesive WR Audio Jack, and FPC Top Module Assy.

**Perform the Water Resistance Test again!**



## Problem Areas: Water Resistance

### Check:

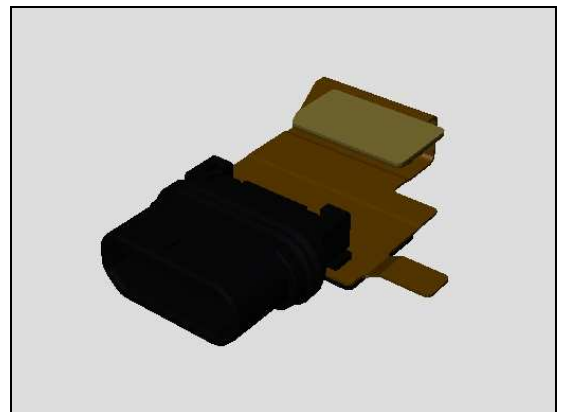
Inspect the USB connector.



### Action:

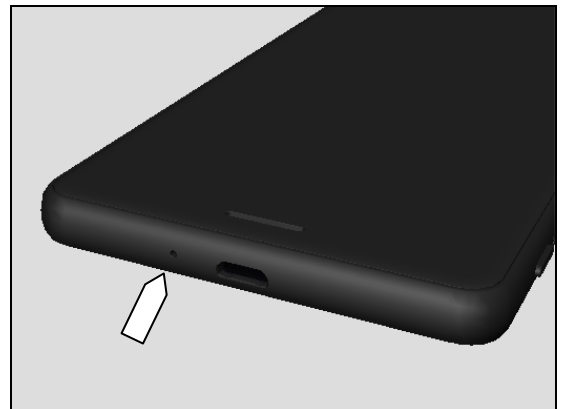
1. If FPC Assembly USB is not properly assembled – reassemble it
2. If FPC Assembly USB is damaged – replace it.

**Perform the Water Resistance Test again!**



### Check:

Inspect the main microphone port.



### Action:

If damaged – replace the Frame Assy.

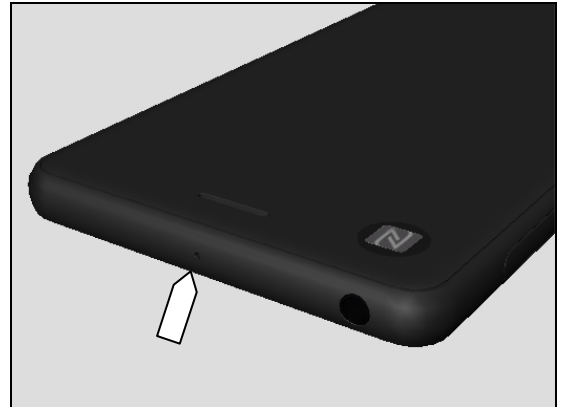
**Perform the Water Resistance Test again!**



## Problem Areas: Water Resistance

**Check:**

Inspect the second microphone port.



**Action:**

If damaged – replace the Frame Assy.

**Run the Water Resistance Test again!**



**Check:**

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



**Action:**

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

**Run the Water Resistance Test again!**



## Problem Areas: Water Resistance

### Check:

Inspect the Panel Rear Sub Assy, if it is damaged, and/or any gap between Panel Rear Sub Assy and Front Assy.

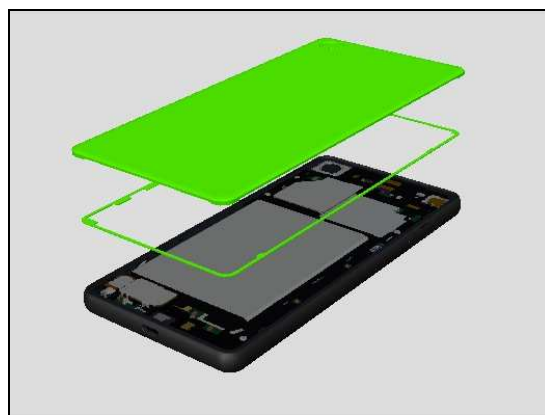
Inspect the main camera window, and LED window, if any damage, and/or gap



### Action:

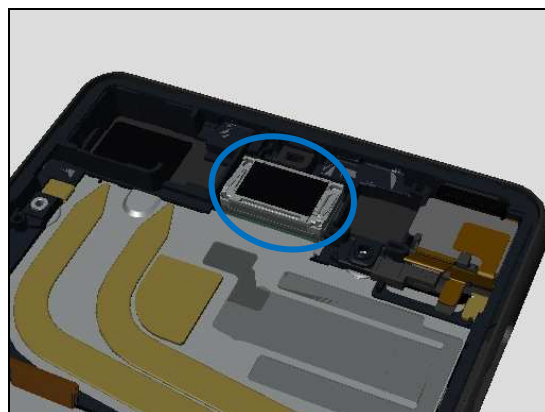
1. If the edge of Panel Rear Sub Assy has gap – reassemble the Panel Rear Sub Assy.
2. If Panel Rear Sub Assy has damage or gap at camera window/LED window – replace the Panel Rear Sub Assy.

**Run the Water Resistance Test again!**



### Check:

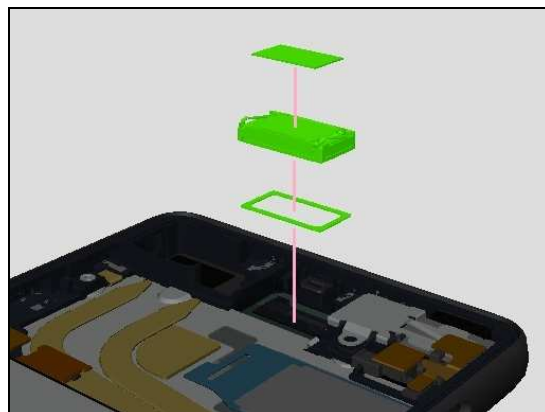
Inspect the Top Speaker.



### Action:

If not assembled properly or damaged – replace the Cushion ACO, Top Speaker and Adhesive WR Speaker.

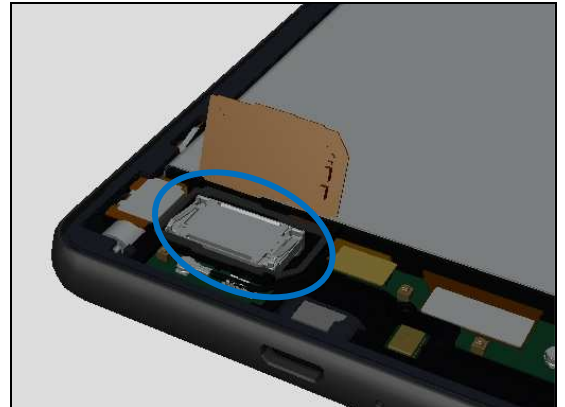
**Perform the Water Resistance Test again!**



## Problem Areas: Water Resistance

### Check:

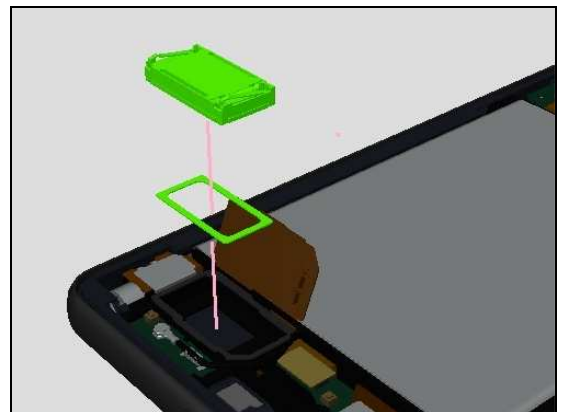
Inspect assembly of Bottom Speaker.



### Action:

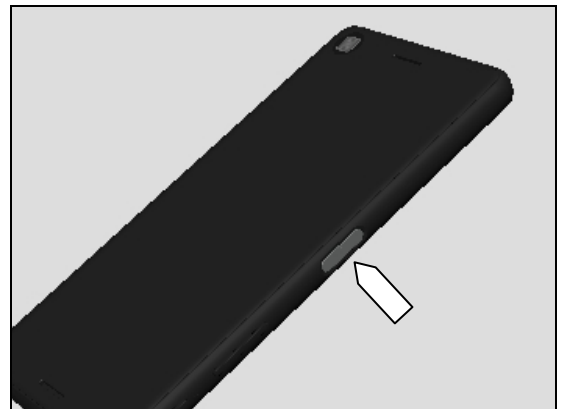
If not assembled properly or damaged – replace the Bottom Speaker and Adhesive WR Speaker.

**Run the Water Resistance Test again!**



### Check:

Inspect the FP Sensor Assy.



### Action:

1. If FP Sensor Assy is not properly assembled – reassemble it
2. If FP Sensor Assy is damaged – replace it.

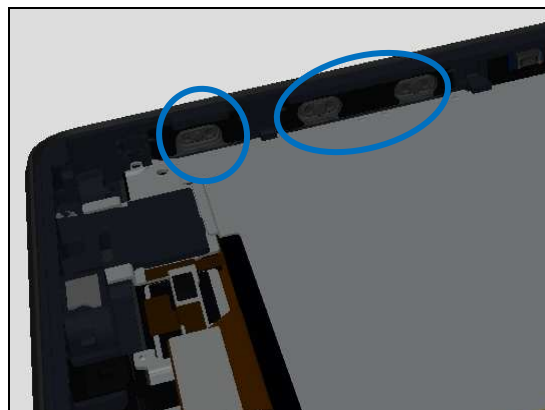
**Run the Water Resistance Test again!**



## Problem Areas: Water Resistance

### Check:

Inspect assembly of the Key Gasket.



### Action:

1. If it is not properly assembled – re-push it into its hole of the Front Assy.
2. If can't be fully pushed into its hole or it is damaged – replace the Front assy.





## **Problem Areas**

### **1.23 Real Time Clock**

#### **1.23.1 Real time clock test fails**

**Action:**

Replace Main PBA.

## **Problem Areas**

### **1.24 Total call time**

#### **1.24.1 Total call time fails**

**Action:**

Replace Main PBA.

## Problem Areas

### 1.25 External Memory, SIM

#### 1.25.1 Memory Card/ SIM not detected

**Check:**

Inspect if Cap Tray Assy is properly inserted.

**Action:**

If not properly inserted – insert the Cap Tray Assy correctly.



**Check:**

Inspect the Cap Tray Assy.

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

**Action:**

1. If dirty or clogged – clean the Cap Tray Assy.
2. If not properly mounted – remount the Memory Card/Nano SIM
3. Replace Cap Tray Assy.

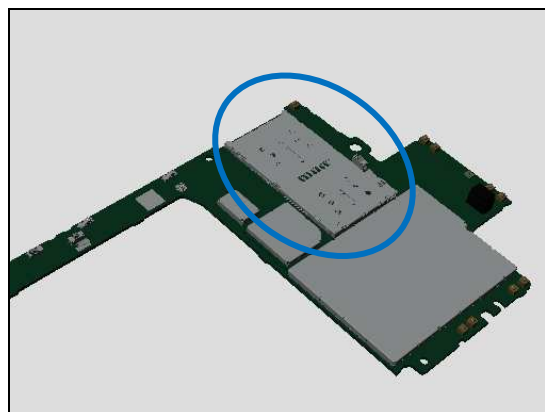


**Check:**

Inspect the SIM/SD card holder on Main PBA.

**Action:**

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



#### 1.25.2 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.
2. Replace Main PBA.



## **Problem Areas**

### **1.26 Security**

#### **1.26.1 Security fails**

**Action:**

Replace Main PBA.

## Problem Areas

### 1.27 Network & Signal

#### 1.27.1 No/Poor signal

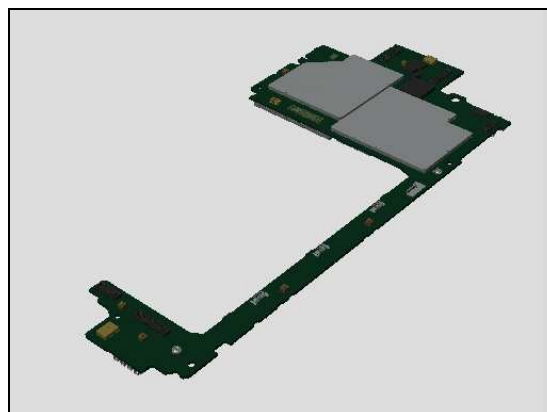
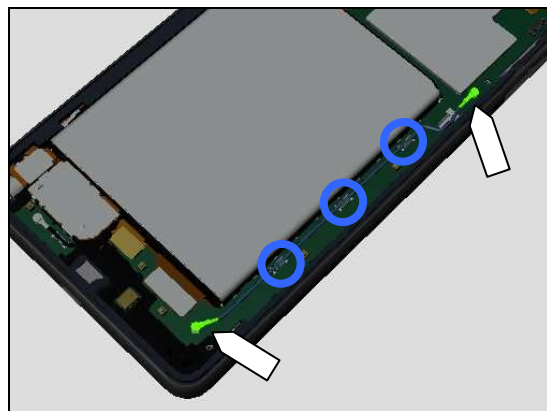
##### Check:

Inspect the RF connector of RF Cable Ant Main 1<sup>st</sup> to the Main PBA.

Check if the RF Cable Ant Main 1<sup>st</sup> is fixed by clips on the Main PBA, and check if clips have damage.

##### Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If not properly fixed on the clips – reinstall it.



4. If the RF cable is damaged – replace the RF Cable Ant Main 1<sup>st</sup>.

5. If the connector on the Main PBA is damaged or clips on the Main PBA is damaged – replace Main PBA.

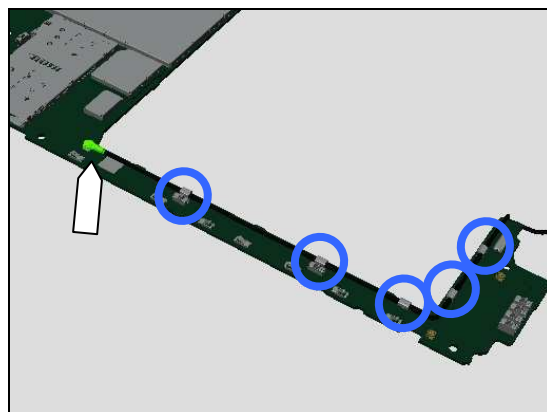
##### Check:

Inspect the RF connector of RF Cable Ant Main 2<sup>nd</sup> to the Main PBA.

Check if the RF Cable Ant Main 2<sup>nd</sup> is fixed by clips on the Main PBA, and check if clips have damage.

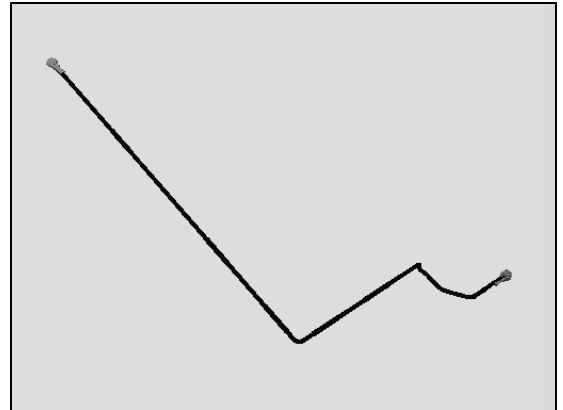
##### Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If not properly fixed on the clips – reinstall it.

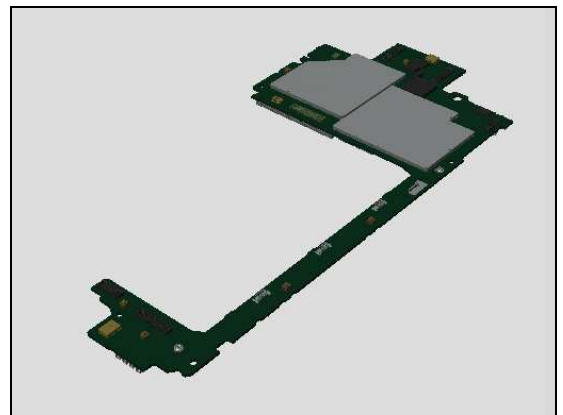


## Problem Areas: Network & Signal

4. If the RF cable is damaged – replace the RF Cable Ant Main 2<sup>nd</sup>



5. If the connector on the Main PBA is damaged or clips on the Main PBA is damaged – replace Main PBA.



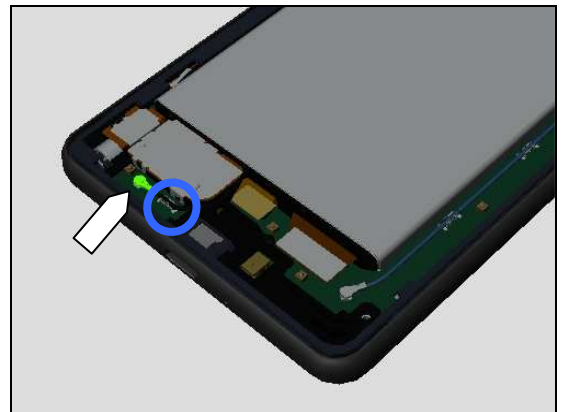
### Check:

Inspect the RF connector of RF Cable Ant Main 2<sup>nd</sup> to the Sub PBA.

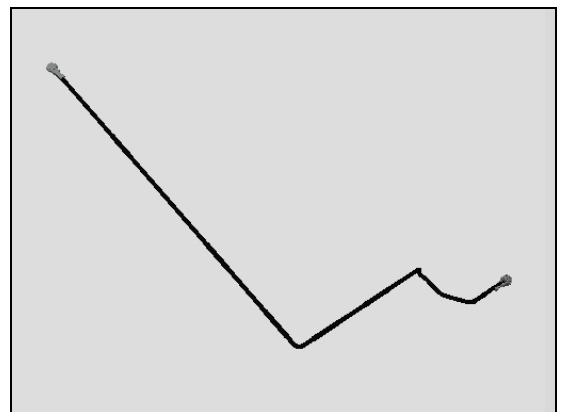
Check if the RF Cable Ant Main 2<sup>nd</sup> is fixed by clips on the Sub PBA, and check if clips have damage.

### Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.
3. If not properly fixed on the clips – reinstall it..

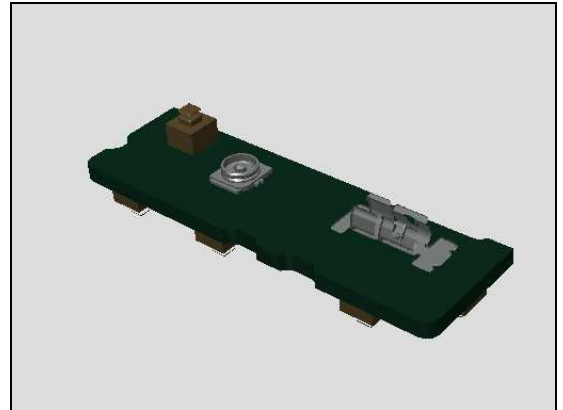


4. If the RF cable is damaged – replace the RF Cable Ant Main 2<sup>nd</sup>



## Problem Areas: Network & Signal

5. If the connector on the Main PBA is damaged or clips on the Sub PBA is damaged – replace Sub PBA.

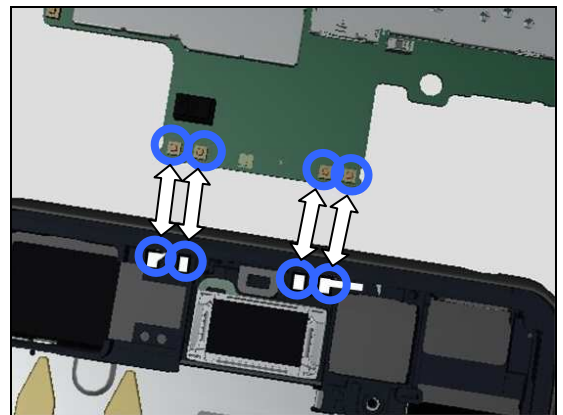


### Check:

Inspect the Ant Cellular contact pads on the Front Assy, and the contact pins on Main PBA.

### Action:

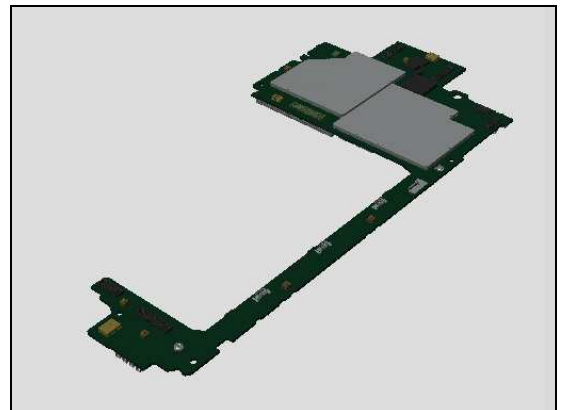
1. If dirty or oxidized – clean the pads and pins.



2. If the Ant Cellular contact pads on the Frame Assy are damaged – replace the Front Assy.



3. If the contact pins on Main PBA are damaged – replace Main PBA.



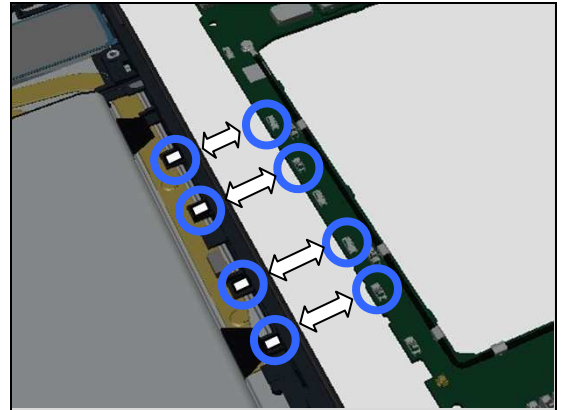
## Problem Areas: Network & Signal

### Check:

Inspect the Ant Cellular contact pads on the Front Assy, and the contact pins on Main PBA.

### Action:

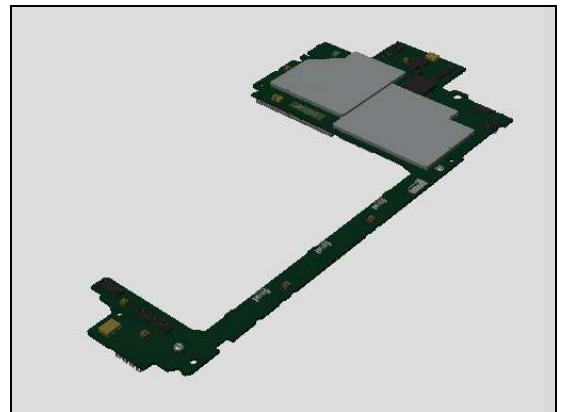
1. If dirty or oxidized – clean the pads and pins.



2. If the Ant Cellular contact pads on the Frame Assy are damaged – replace the Front Assy.



3. If the contact pins on Main PBA are damaged – replace Main PBA.

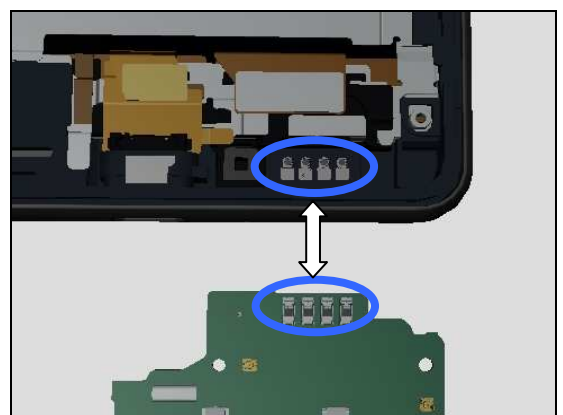


### Check:

Inspect the Ant Cellular contact pads on the Front Assy, and the contact pins on Main PBA.

### Action:

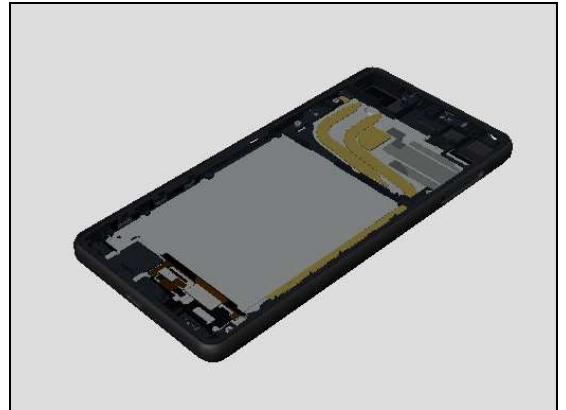
1. If dirty or oxidized – clean the pads and pins.



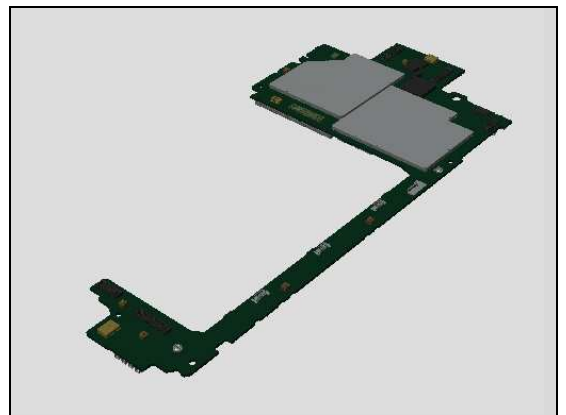


## Problem Areas: Network & Signal

2. If the Ant Cellular contact pads on the Frame Assy are damaged – replace the Front Assy.



3. If the contact pins on Main PBA are damaged – replace Main PBA.

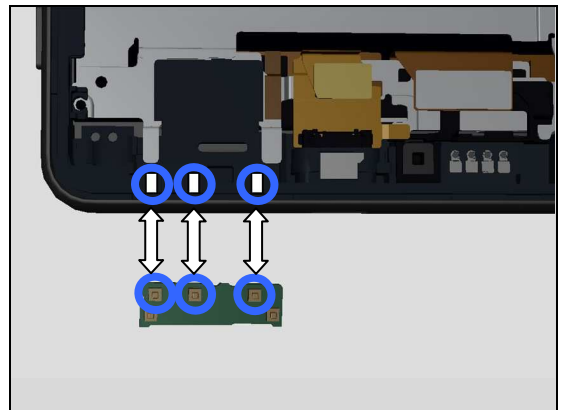


### Check:

Inspect the Ant Cellular contact pads on the Front Assy, and the contact pins on Sub PBA.

### Action:

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

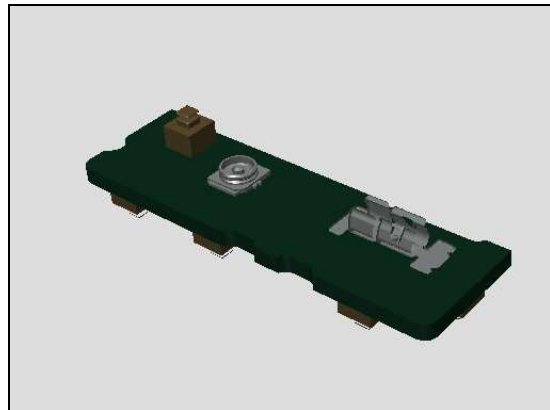


2. If the Ant Cellular contact pads on the Frame Assy are damaged – replace the Front Assy.



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

3. If the contact pins on Sub PBA are damaged – replace Sub PBA.



## Problem Areas

### 1.28 Charging

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

**Check:**

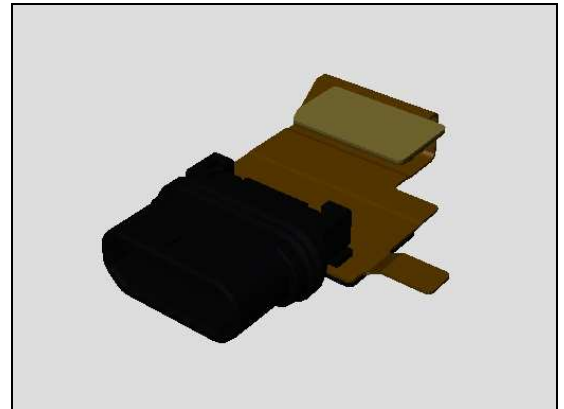
Inspect the USB connector.

**Action:**

1. If dirty or oxidized – clean the connector.



2. If USB connector damaged – replace FPC Assembly USB.

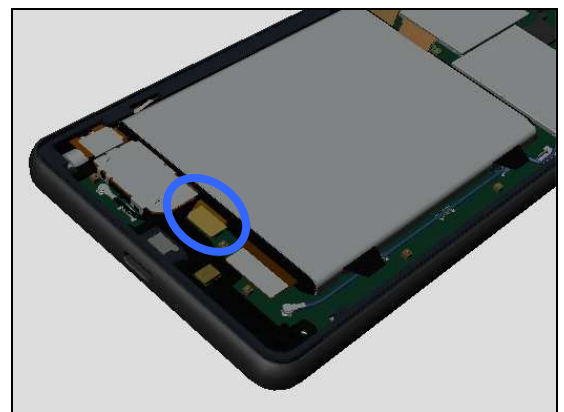


**Check:**

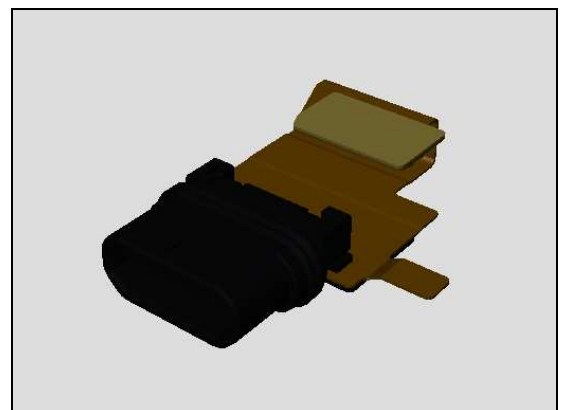
Inspect the BtB connector of FPC Assembly USB to Main PBA.

**Action:**

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



3. If USB connector damaged – replace FPC Assembly USB.



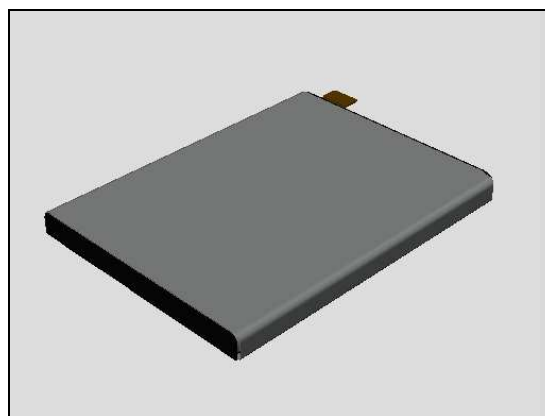
## Problem Areas: Charging

### Check:

Inspect the BtB connector of the Battery 2700 mAh to Main PBA.

### Action:

1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.
3. If the BtB connector on the FPC or the Battery 2700 mAh is damaged – replace the Battery.
4. Replace Main PBA.



## Problem Areas

### 1.29 Audio Jack test

#### 1.29.1 Connection to headset fails

**Check:**

Inspect the external port of the Audio Jack.

**Action:**

1. If dirty or oxidized – clean it.

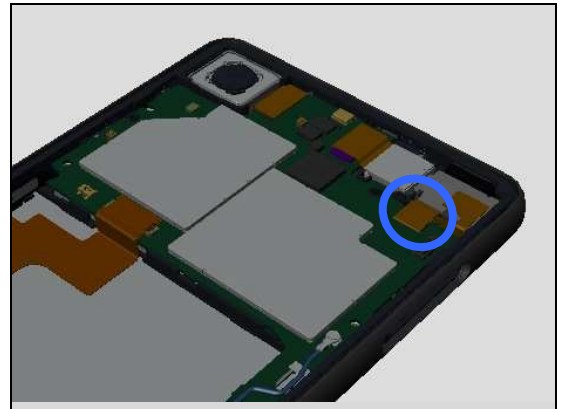


**Check:**

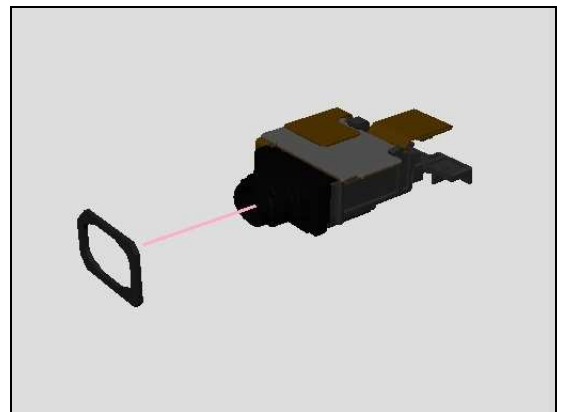
Inspect the BtB connector of FPC Top Module Assy to Main PBA.

**Action:**

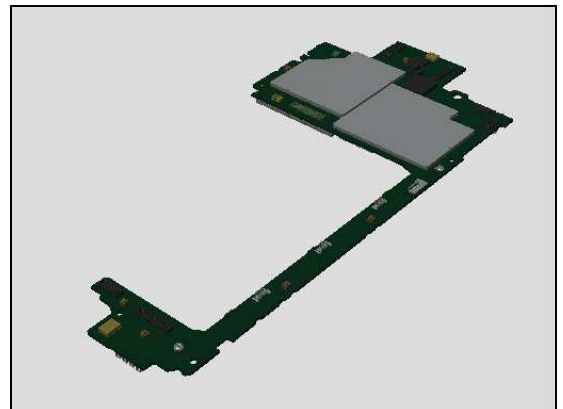
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the BtB connector of FPC Top Module Assy is damaged – replace the FPC Top Module Assy and Adhesive WR Audio Jack.



4. Replace Main PBA.



## Problem Areas

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

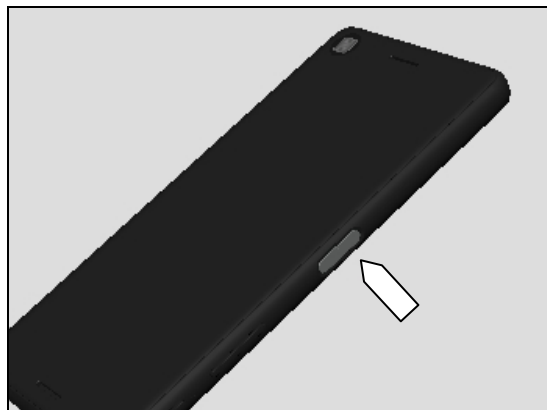
#### 1.30.1 Fingerprint Sensor test fails / Fingerprint Sensor function test fails

**Check:**

Inspect the FP Sensor Assy.

**Action:**

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

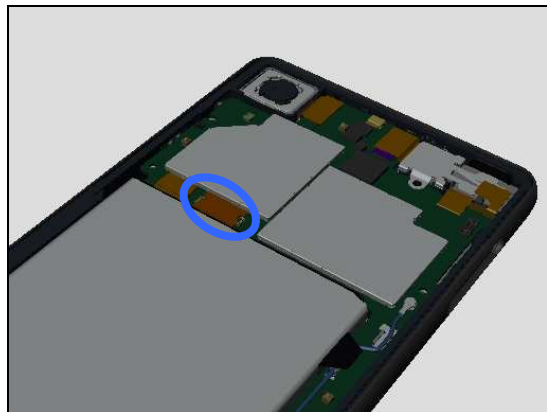


**Check:**

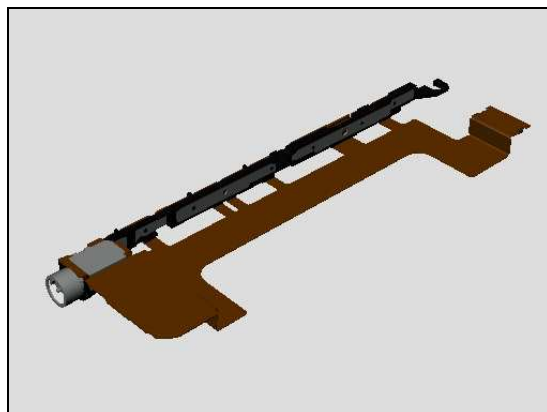
Inspect the BtB connector of FPC Key Module Assy to Main PBA.

**Action:**

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



3. If the BtB connector or FPC Key Module is damaged – replace the FPC Key Module Assy.
4. Replace Main PBA.

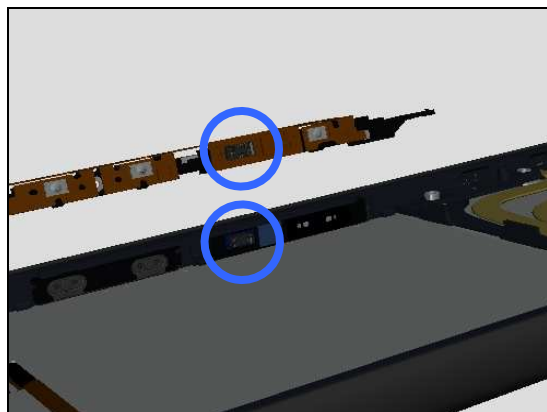


**Check:**

Inspect the BtB connector of FP Sensor Assy to FPC Key Module Assy.

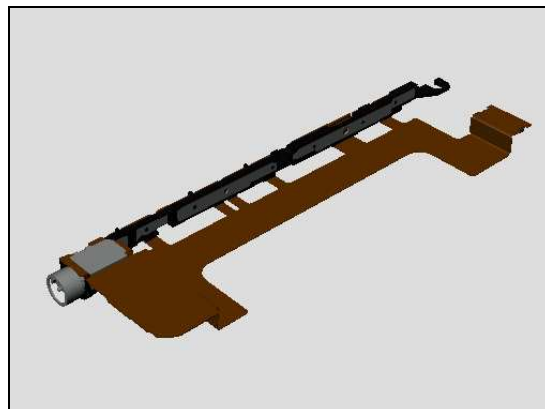
**Action:**

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



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

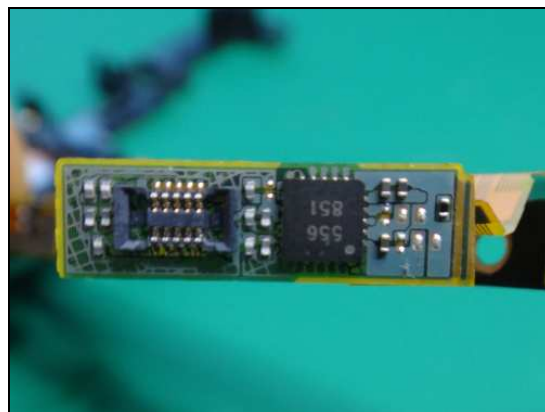
3. If the BtB connector or FPC Key Module Assy is damaged – replace the FPC Key Module Assy.



4. If the BtB connector of FP Sensor Assy is damaged – replace the FP Sensor Assy.



5. If the mounted components on the FPC Key Module Assy have damages or missing – replace the FPC Key Module 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.

2. If USB connector is damaged – replace FPC Assembly USB.

**Check:**

Inspect the BtB connector of FPC Assembly USB to Main PBA.

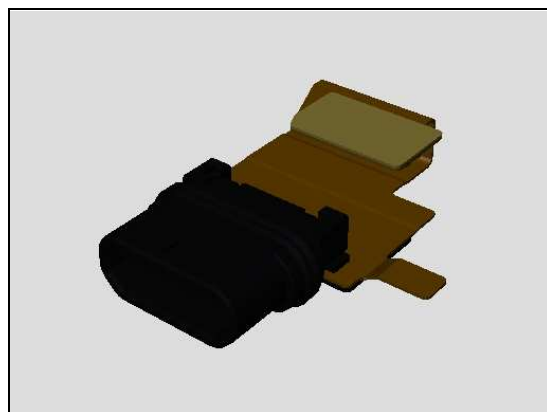
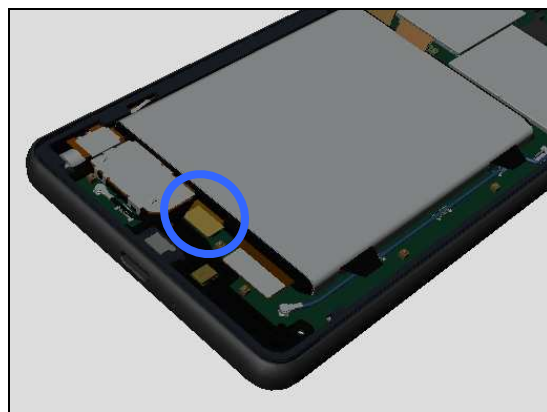
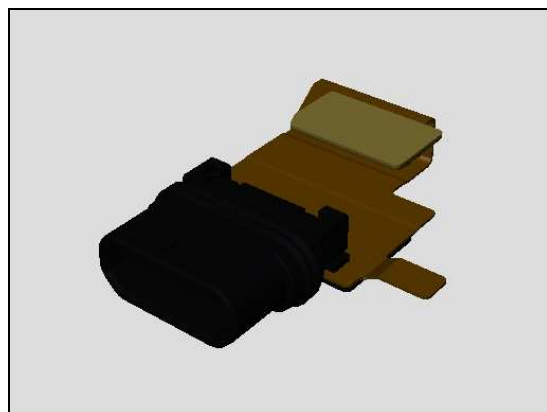
**Action:**

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

2. If dirty or oxidized – clean it.

3. If FPC Assembly USB damaged – replace it.

4. Replace Main PBA.





## Problem Areas

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

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

**Check:**

Check Speaker calibration is complete to refer to the Speaker Calibration Status of the Service Tests.

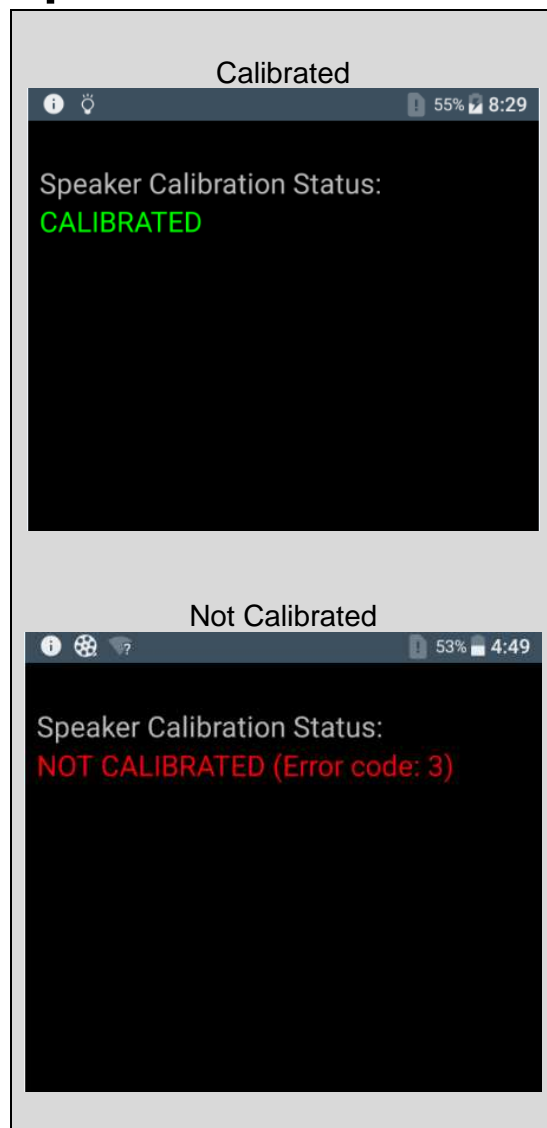
**Action:**

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	2016-Jun-03	Initial release
2	2016-Jun-14	Updated 1.30
3	2016-Jun-29	Added 1.32
4	2016-Jul-06	Updated1.32