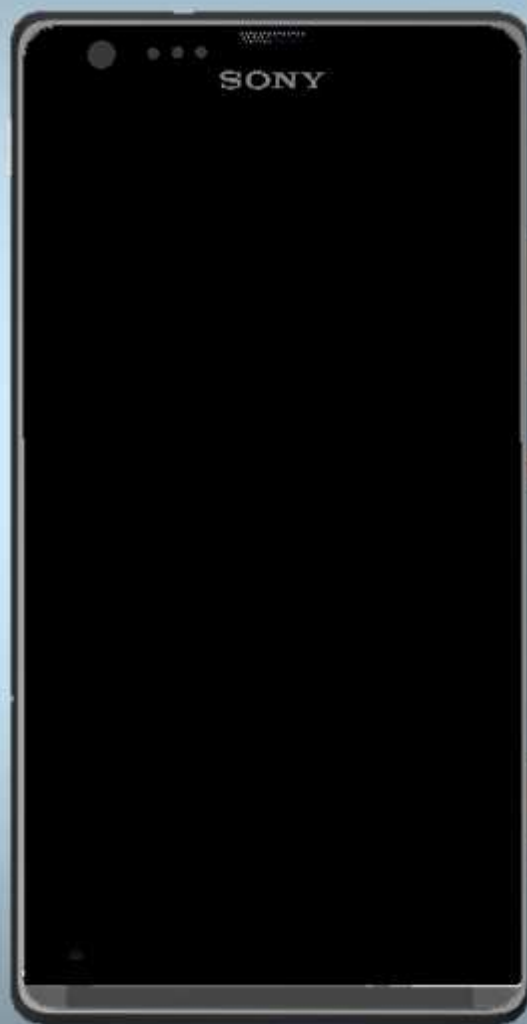


## Troubleshooting Guide

- mechanical -



*Xperia™ SP*  
**C5303/C5302/C5306/M35h/M35c/M35t**

## 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, Home and Multitask Keys .....	7
1.2.2	Volume Key .....	7
1.2.3	On/Off Key .....	8
1.2.4	Camera Key (C5303/C5302/C5306/M35h Specific) .....	10
1.2.5	Camera Key (M35c/M35t Specific).....	12
1.3	Touch Screen .....	14
1.3.1	Touch Screen malfunction.....	14
1.4	Display .....	15
1.4.1	Graphics & Illumination .....	15
1.5	LED/Illumination.....	16
1.5.1	LED/Illumination .....	16
1.6	Speaker .....	18
1.6.1	Loudspeaker .....	18
1.7	Earphone .....	20
1.7.1	Ear Speaker.....	20
1.8	Microphone.....	23
1.8.1	Microphone .....	23
1.8.2	Secondary Microphone .....	24
1.9	Vibrator .....	26
1.9.1	Vibrator not generating alerts .....	26
1.10	Camera.....	28
1.10.1	Camera defects.....	28
1.10.2	Video Call Camera defects.....	29
1.11	Flash LED .....	32
1.11.1	Flash LED not flashing.....	32
1.12	Bluetooth and WLAN .....	33
1.12.1	Bluetooth or WLAN connection failure (C5303/C5302/C5306/M35h Specific).....	33
1.12.2	Bluetooth or WLAN connection failure (M35c/M35t Specific).....	34
1.13	NFC .....	35
1.13.1	NFC malfunctions (C5303/C5302/C5306/M35h Specific) .....	35
1.13.2	NFC malfunctions (M35c/M35t Specific).....	36
1.14	GPS .....	37
1.14.1	GPS malfunctions (C5303/C5302/C5306/M35h Specific).....	37
1.14.2	GPS malfunctions (M35c Specific).....	38
1.14.3	GPS malfunctions (M35t Specific) .....	39
1.15	Compass.....	40
1.15.1	Compass fails .....	40

<b>1.16 Accelerometer .....</b>	<b>41</b>
1.16.1 Accelerometer test fails .....	41
<b>1.17 Gyroscope .....</b>	<b>42</b>
1.17.1 Gyroscope test fails .....	42
<b>1.18 Ambient Light Sensor .....</b>	<b>43</b>
1.18.1 Light Sensor malfunctions .....	43
<b>1.19 Proximity Switch .....</b>	<b>45</b>
1.19.1 Proximity switch malfunctions .....	45
<b>1.20 Pressure Sensor .....</b>	<b>47</b>
1.20.1 Pressure Sensor test fails .....	47
<b>1.21 Real Time Clock .....</b>	<b>48</b>
1.21.1 Real time clock test fails .....	48
<b>1.22 Total call time .....</b>	<b>49</b>
1.22.1 Total call time fails .....	49
<b>1.23 External Memory (C5303/C5302/C5306/M35h/M35t Specific) .....</b>	<b>50</b>
1.23.1 Memory Card not detected .....	50
<b>1.24 Security .....</b>	<b>51</b>
1.24.1 Security fails .....	51
<b>1.25 FM Radio .....</b>	<b>52</b>
1.25.1 No/Poor FM Radio reception .....	52
<b>1.26 Battery Health test .....</b>	<b>53</b>
1.26.1 Battery Health test fails .....	53
<b>1.27 Flip Slider Counter .....</b>	<b>54</b>
1.27.1 Flip Slider Counter fails .....	54
<b>1.28 Verify Certificates .....</b>	<b>55</b>
1.28.1 Verify Certificates fails .....	55
<b>1.29 IrDA Test .....</b>	<b>56</b>
1.29.1 IrDA test fails .....	56
<b>1.30 TV-Out Test .....</b>	<b>57</b>
1.30.1 TV-Out test fails .....	57
<b>1.31 Network &amp; Signal .....</b>	<b>58</b>
1.31.1 No/Poor signal (C5303/C5302/C5306/M35h Specific) .....	58
1.31.2 No/Poor signal (M35c Specific) .....	60
1.31.3 No/Poor signal (M35t Specific) .....	63
<b>1.32 SIM .....</b>	<b>66</b>
1.32.1 SIM not detected (C5303/C5302/C5306/M35h/M35t Specific) .....	66
1.32.2 UIM or SIM not detected (M35c Specific) .....	66
1.32.3 Incorrect UIM or SIM indicated .....	67
<b>1.33 Charging .....</b>	<b>68</b>
1.33.1 Battery will not charge by USB connector .....	68
<b>1.34 HandsFree by Wire .....</b>	<b>69</b>
1.34.1 Connection to portable Handsfree fails .....	69
<b>1.35 Data Communication .....</b>	<b>70</b>

1.35.1 Data transfer via System Connector fails.....	70
<b>2 Revision History .....</b>	<b>71</b>

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

***Always finally connect the Battery Assy FPC BtB connector before the Ant Rear Cover Assy is reassembled.***

***Note: Touch Panel Calibration always must be performed for Touch Front Cover Assy replacement or Display replacement; 1257-2706 Trouble Shooting Application – mechanical.***

***Note: Proximity Sensor Calibration always must be performed for Touch Front Cover Assy replacement, Cap Rubber P-sensor replacement, Chat Camera FPC Assy replacement, Speaker Box Assy replacement or Board swap; 1262-6643 Trouble Shooting Application – mechanical.***

***If there are no special indications of 'C5303/C5302/C5306/M35h Specific', 'C5303/C5302/C5306/M35h/M35t Specific', 'M35c/M35t Specific', 'M35c Specific' or 'M35t Specific', C5303/C5302/C5306/M35h, M35c and M35t share the same trouble shooting guide as common sections, whose pictures are used with C5303. 'C5303/C5302/C5306/M35h Specific' and 'C5303/C5302/C5306/M35h/M35t Specific' chapters use C5303 pictures, and 'M35c/M35t Specific' chapters use M35c pictures.***

## 1 Problem Areas

### 1.1 Power

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

**Check:**

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

**Action:**

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

2. If NO activation of the Vibrator is detected, check that the battery is charging when connected to a charger.

**Follow 1270-2234 Test Instruction - mechanical chapter 2.3.7 (Charging via USB and Easy Charger), Diagnostic Battery / Charging status.**

**Check:**

Inspect the on/off key.

**Action:**

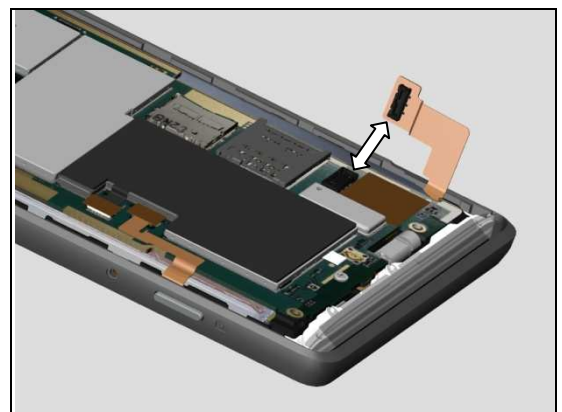
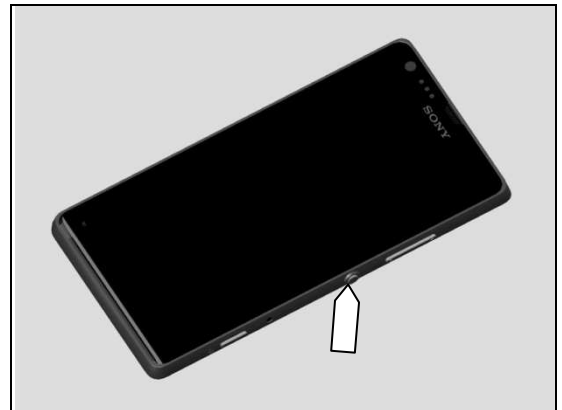
Refer to section 1.2.3 'On/Off Key'.

**Check:**

Inspect the BtB Connector of the Battery Assy to Main PBA.

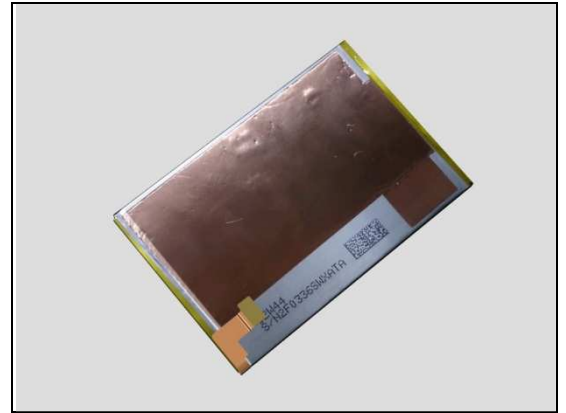
**Action:**

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



## Problem Areas: Power

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



## Problem Areas

### 1.2 Keys

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

**Action:**

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



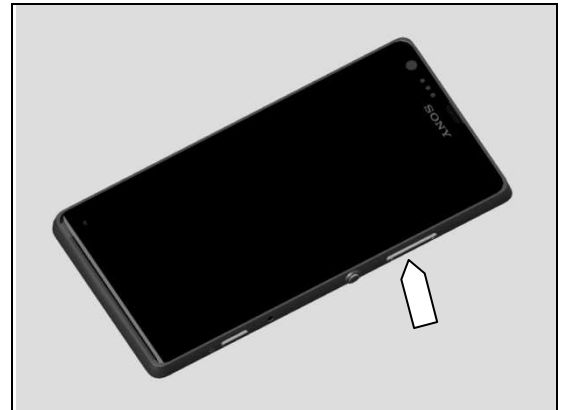
#### 1.2.2 Volume Key

**Check:**

Inspect the external area of the Key Volume Assy.

**Action:**

If dirty – clean it.

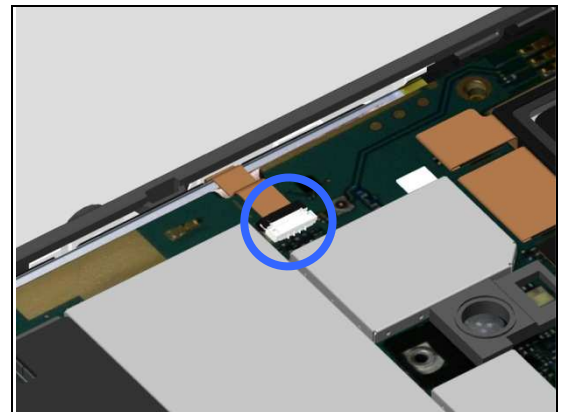


**Check:**

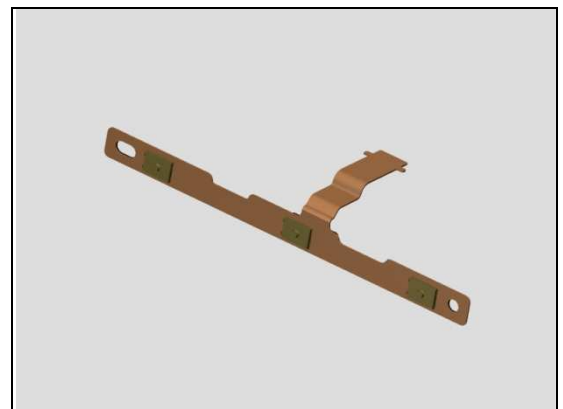
Inspect the ZIF connector of Sidekey FPC Assy to Main PBA.

**Action:**

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



3. If the FPC of Sidekey FPC Assy is damaged – replace the Sidekey FPC Assy.
4. Replace Main PBA.



## Problem Areas: Keys

### Check:

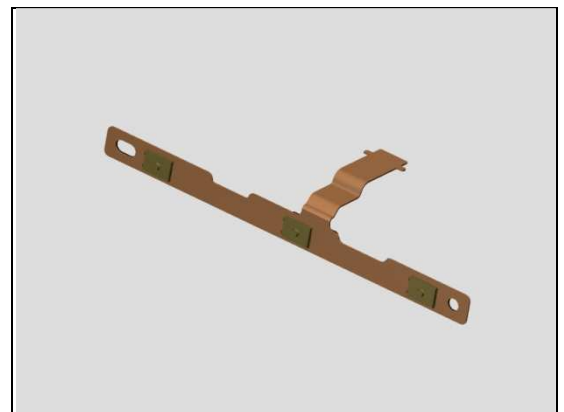
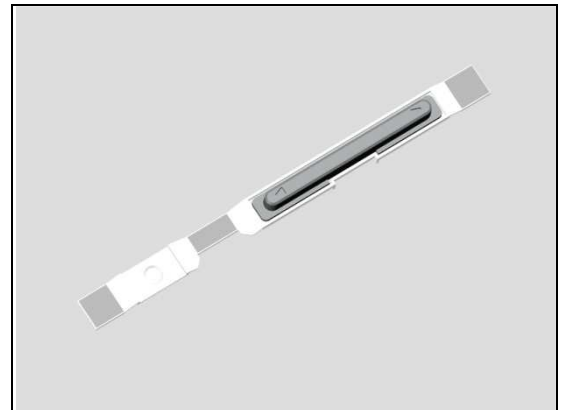
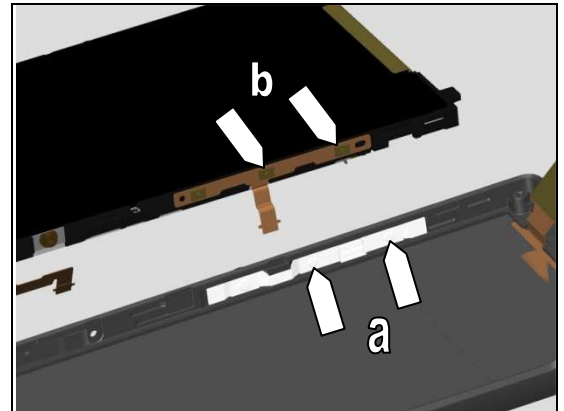
Inspect the rubber of the Key Volume Assy (a) and volume key switch (b).

### Action:

1. If dirty – clean them.

2. If the rubber of the Key Volume Assy is damaged – replace the Key Volume Assy.

3. If the volume key switch is damaged – replace the Sidekey FPC Assy.



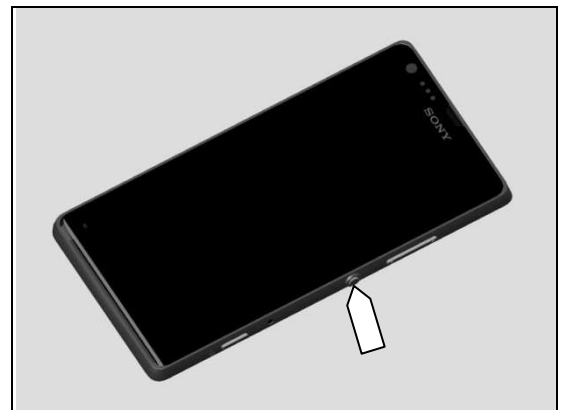
### 1.2.3 On/Off Key

### Check:

Inspect the external area of the on/off key.

### Action:

If dirty – clean it.





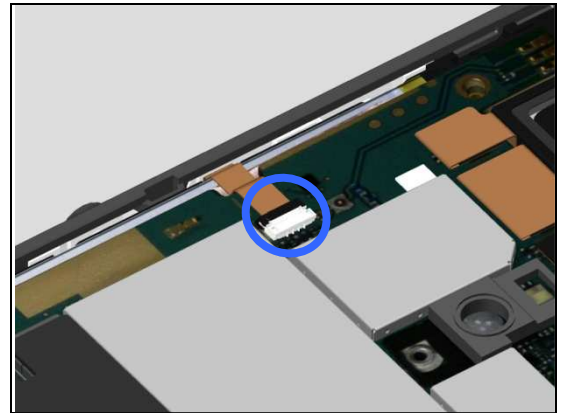
## Problem Areas: Keys

### Check:

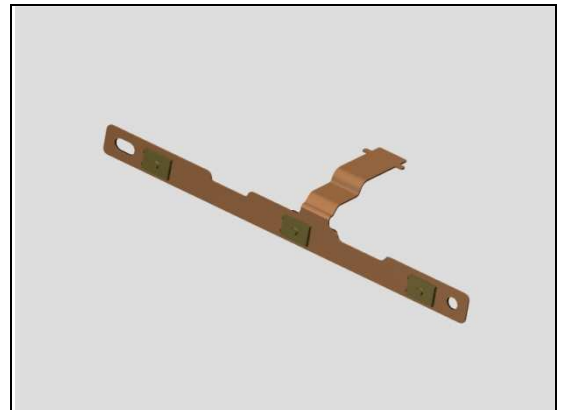
Inspect the ZIF connector of Sidekey FPC Assy to Main PBA.

### Action:

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



3. If the FPC of Sidekey FPC Assy is damaged – replace the Sidekey FPC Assy.
4. Replace Main PBA.

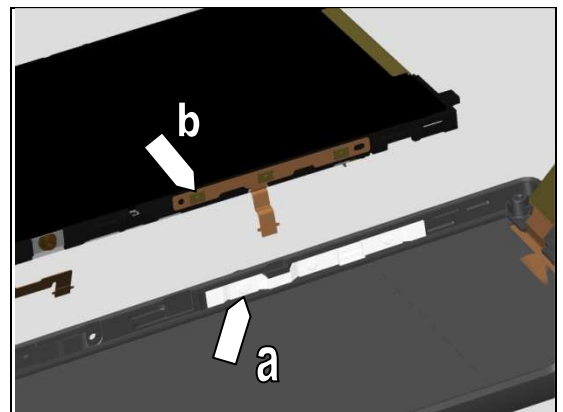


### Check:

Inspect the rubber of the on/off key (a) and on/off key switch (b).

### Action:

1. If dirty – clean them.

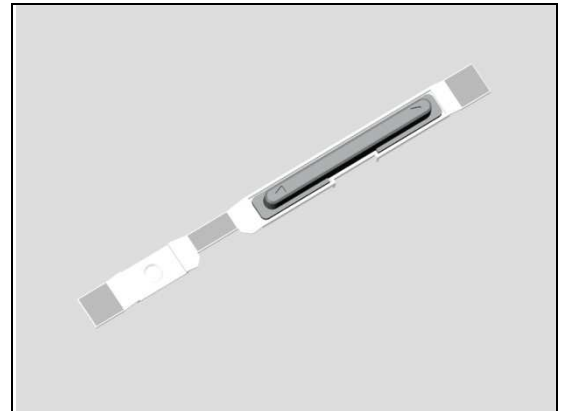


2. If the on/off key is damaged – replace the Touch Front Cover Assy.

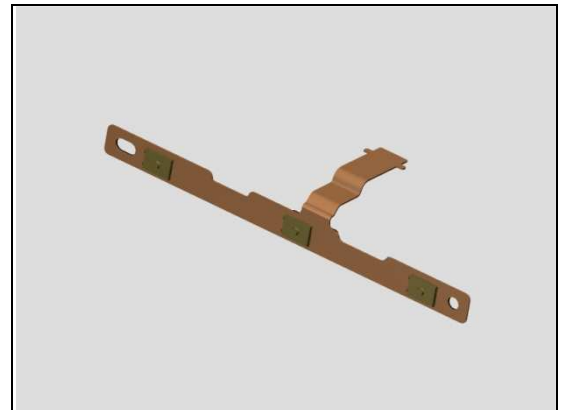


## Problem Areas: Keys

3. If the rubber of the on/off key is damaged – replace the Key Volume Assy.



4. If the on/off key switch is damaged – replace the Sidekey FPC Assy.



### 1.2.4 Camera Key (C5303/C5302/C5306/M35h Specific)

**Check:**

Inspect the external area of the Key Camera Assy.

**Action:**

If dirty – clean it.

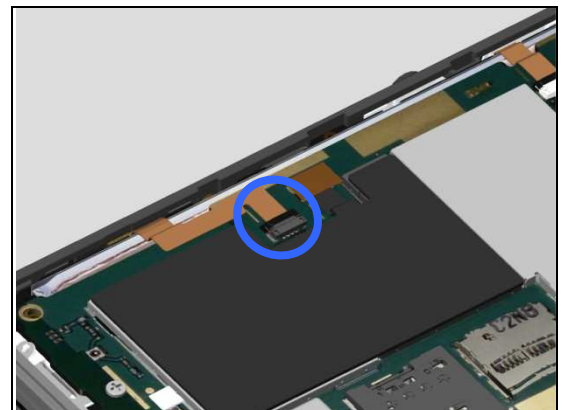


**Check:**

Inspect the ZIF connector of Camera Key FPC Assy to Main PBA.

**Action:**

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



## Problem Areas: Keys

3. If the FPC of Camera Key FPC Assy is damaged – replace the Camera Key FPC Assy.
4. Replace Main PBA.

**Check:**

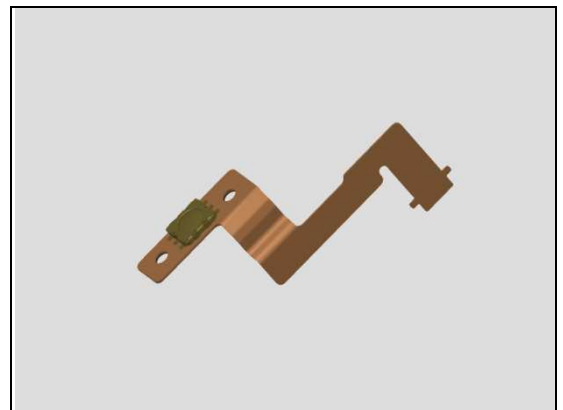
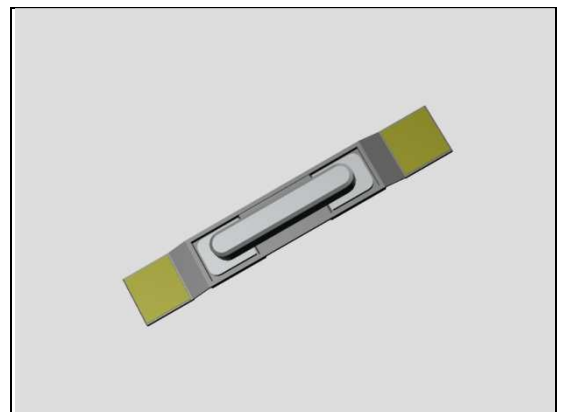
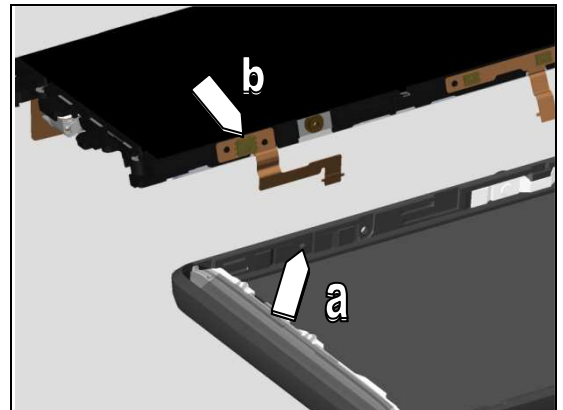
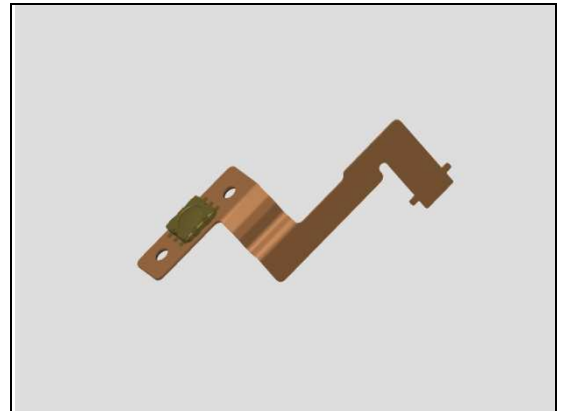
Inspect the rubber of the Key Camera Assy (a) and camera key switch (b).

**Action:**

1. If dirty – clean them.

2. If the rubber of the Key Camera Assy is damaged – replace the Key Camera Assy.

3. If the camera key switch is damaged – replace the Camera Key FPC Assy.



## Problem Areas: Keys

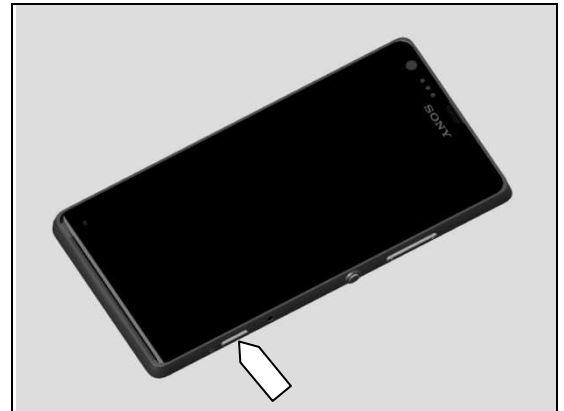
### 1.2.5 Camera Key (M35c/M35t Specific)

**Check:**

Inspect the external area of the Key Camera Assy.

**Action:**

If dirty – clean it.



**Check:**

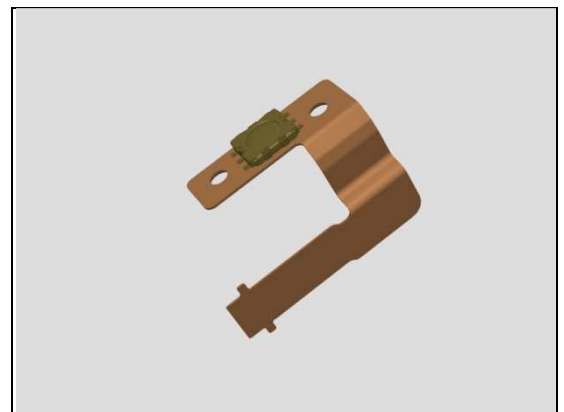
Inspect the ZIF connector of Camera Key FPC Assy to Main PBA.

**Action:**

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



3. If the FPC of Camera Key FPC Assy is damaged – replace the Camera Key FPC Assy.
4. Replace Main PBA.

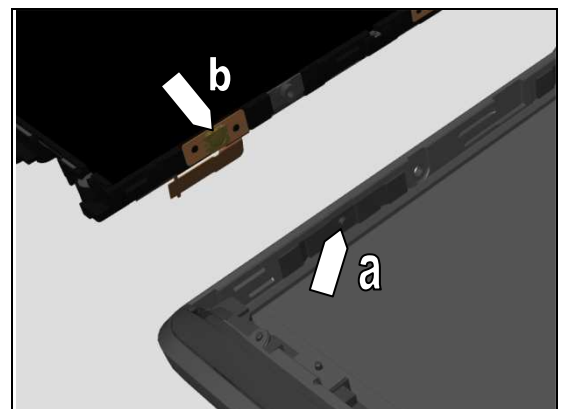


**Check:**

Inspect the rubber of the Key Camera Assy (a) and camera key switch (b).

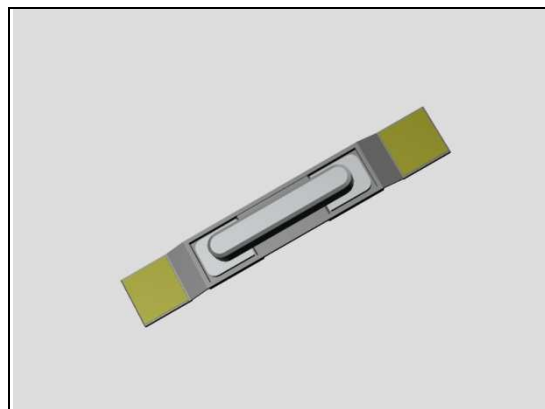
**Action:**

1. If dirty – clean them.



## Problem Areas: Keys

2. If the rubber of the Key Camera Assy is damaged – replace the Key Camera Assy.



3. If the camera key switch is damaged – replace the Camera Key FPC Assy.



## Problem Areas

### 1.3 Touch Screen

#### 1.3.1 Touch Screen malfunction

**Check:**

Inspect the touch screen of the Touch Front Cover Assy.

**Action:**

1. If dirty – clean it.



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

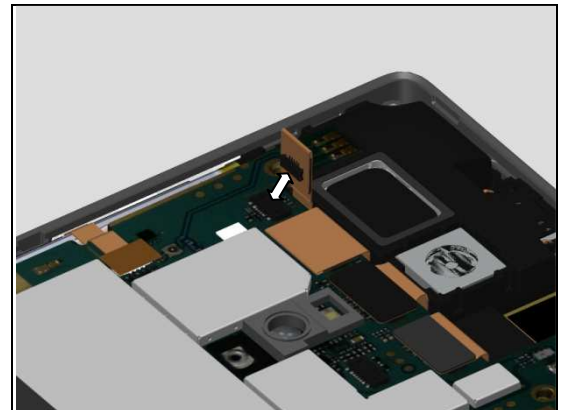


**Check:**

Inspect the BtB connector of touch panel FPC 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 touch panel FPC BtB connector, the touch panel FPC or the touch panel is damaged – replace the Touch Front Cover Assy.

4. Replace Main PBA.



## Problem Areas

### 1.4 Display

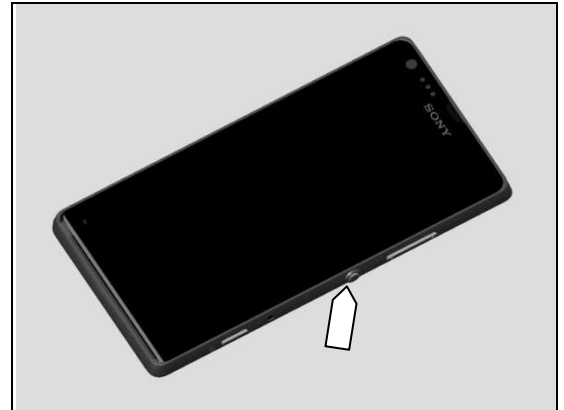
#### 1.4.1 Graphics & Illumination

**Check:**

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

**Action:**

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

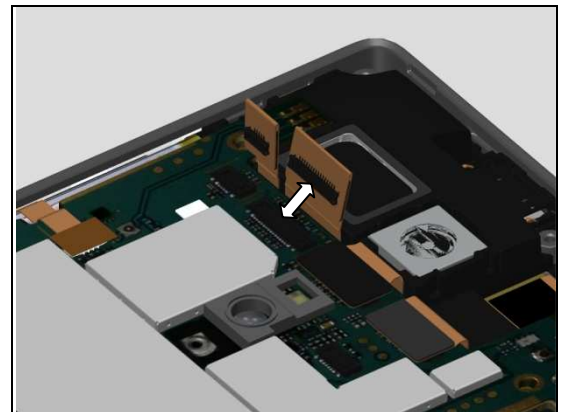


**Check:**

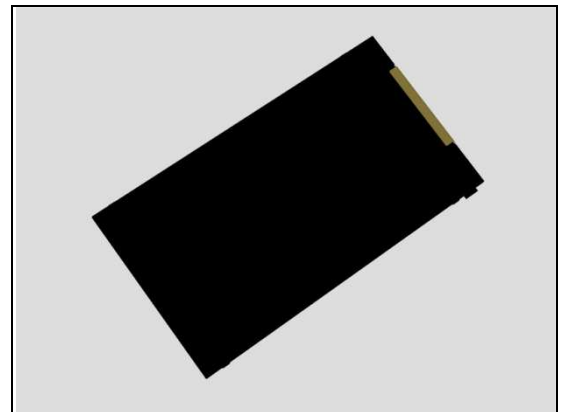
Inspect the BtB connector of display FPC to Main PBA.

**Action:**

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



3. If the display FPC BtB connector, the display FPC or the Display is damaged – replace the Display.
4. Replace Main PBA.



## Problem Areas

### 1.5 LED/Illumination

#### 1.5.1 LED/Illumination

**Check:**

Inspect the transparent belt of the RGB LED on the Touch Front Cover Assy.

**Action:**

1. If dirty – clean it.

2. If the transparent belt is damaged – replace the Touch Front Cover Assy.

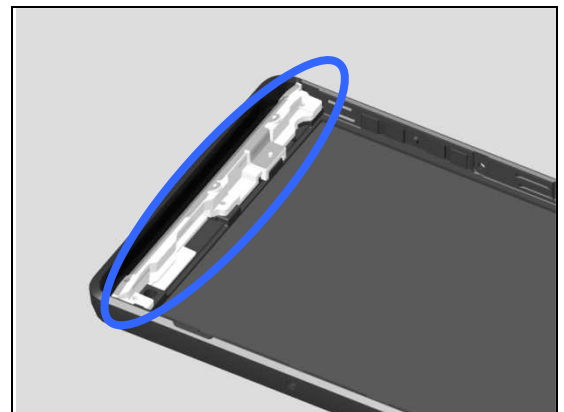
**Check:**

Inspect the light guide of the RGB LED on the Touch Front Cover Assy.

**Action:**

1. If dirty – clean it.

2. If the transparent belt is damaged – replace the Touch Front Cover Assy.





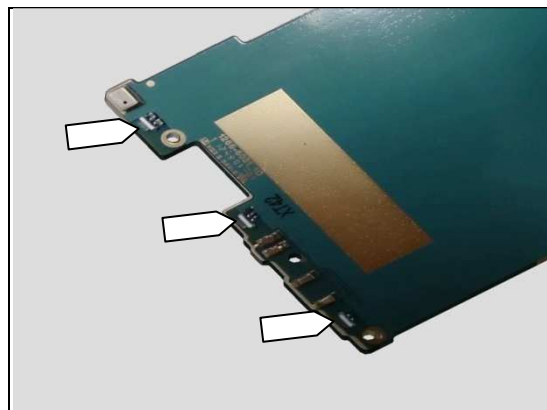
## Problem Areas: LED/Illumination

**Check:**

Inspect the RGB LED on the Main PBA.

**Action:**

1. If dirty or clogged – clean it.
2. If the RGB LED is damaged – replace Main PBA.



## Problem Areas

### 1.6 Speaker

#### 1.6.1 Loudspeaker

**Check:**

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

**Action:**

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

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



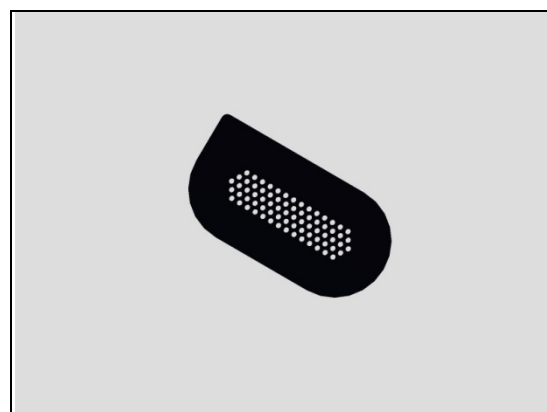
**Check:**

Inspect the Speaker Net on the Cover Battery Assy.

**Action:**

1. If dirty – clean it.

2. If damaged – replace the Speaker Net.



## Problem Areas: Speaker

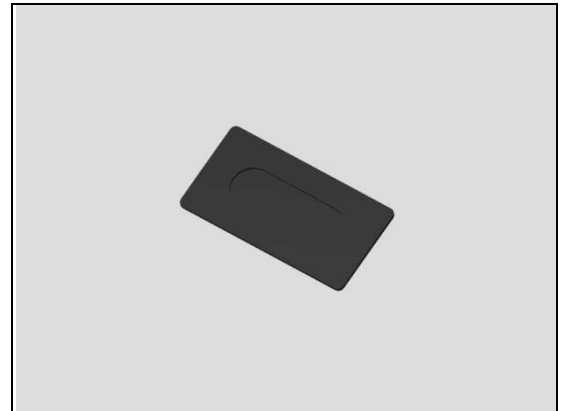
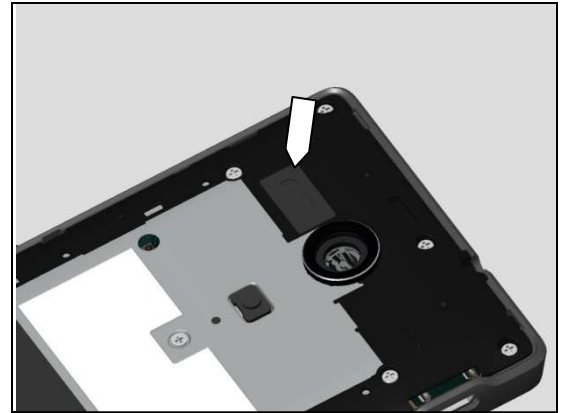
### Check:

Inspect the Speaker Mesh on the Cover Rear Assy.

### Action:

1. If dirty – clean it.

2. If damaged – replace the Speaker Mesh.



### Check:

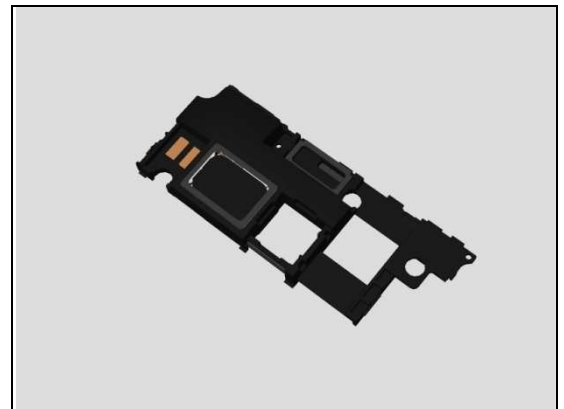
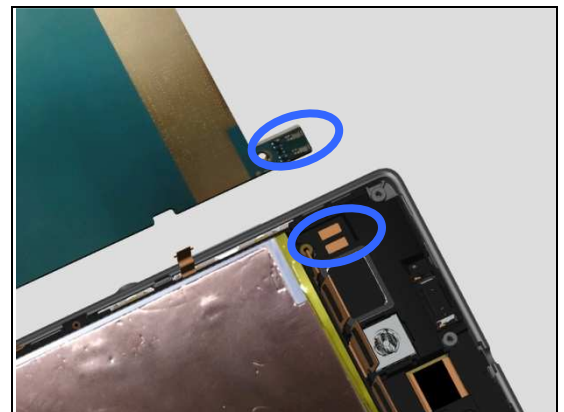
Inspect the contact pads of Loudspeaker on the Speaker Box Assy and the contact pins on the Main PBA.

### Action:

1. If dirty – clean them.

2. If the contact pads of Loudspeaker on the Speaker Box Assy or the Loudspeaker are damaged – replace the Speaker Box Assy.

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



## Problem Areas

### 1.7 Earphone

#### 1.7.1 Ear Speaker

**Check:**

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

**Action:**

1. If clogged – clean it.

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



**Check:**

Inspect the Ear Speaker's net on the Touch Front Cover Assy.

**Action:**

1. If clogged – clean it.

2. If the net is damaged – replace the Touch Front Cover Assy.



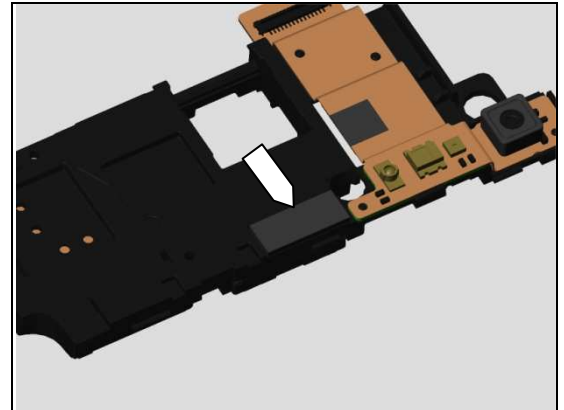
## Problem Areas: Earphone

**Check:**

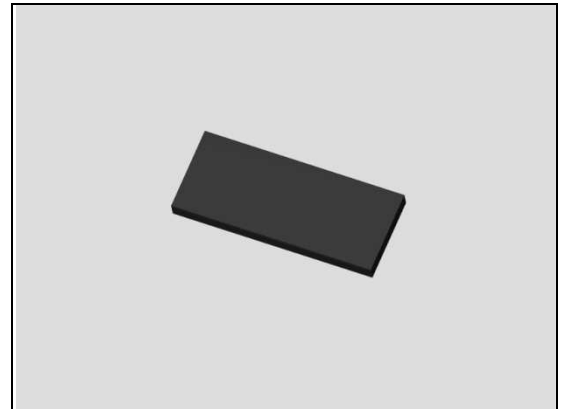
Inspect the Earspeaker Mesh on the Speaker Box Assy.

**Action:**

1. If dirty – clean it.



2. If damaged – replace the Mesh Gasket Earspeaker.

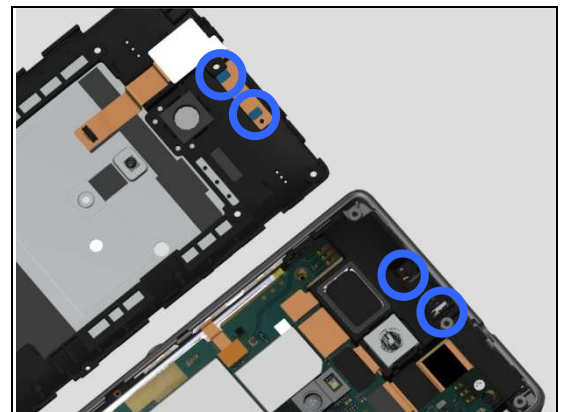


**Check:**

Inspect the contact pins of Ear Speaker and the contact pads on the Audio Jack FPC Assy.

**Action:**

1. If dirty – clean them.



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



## Problem Areas: Earphone

2. If the contact pads on the Audio Jack FPC Assy or the Audio Jack FPC Assy are damaged – replace the Audio Jack FPC Assy.

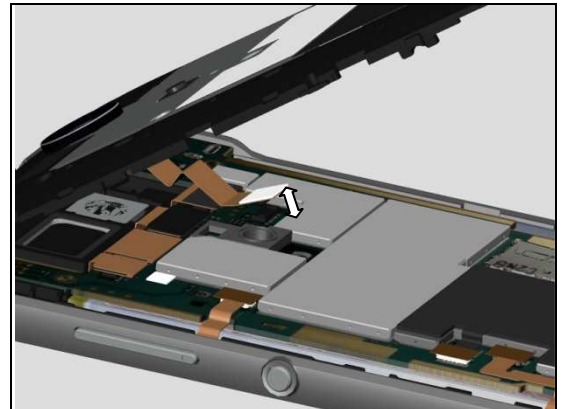
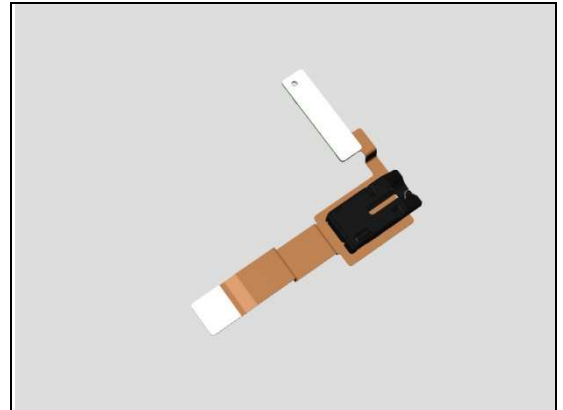
### Check:

Inspect the BtB connector of the Audio Jack FPC Assy 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 Audio Jack FPC Assy is damaged – replace the Audio Jack FPC Assy.
4. Replace Main PBA.



## Problem Areas

### 1.8 Microphone

#### 1.8.1 Microphone

**Check:**

Inspect the microphone's external port on the Touch Front Cover Assy.

**Action:**

1. If clogged – clean it.

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

**Check:**

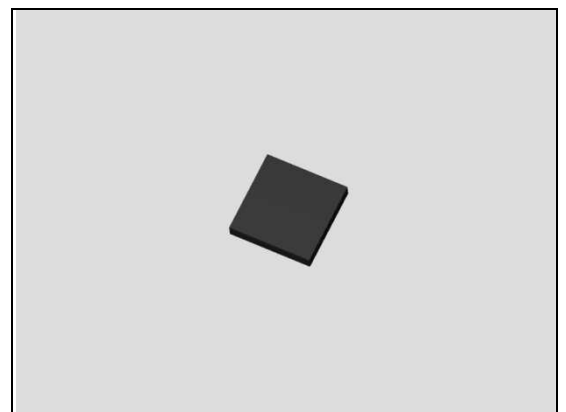
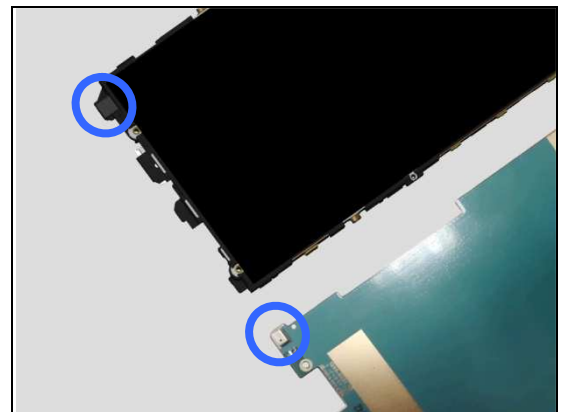
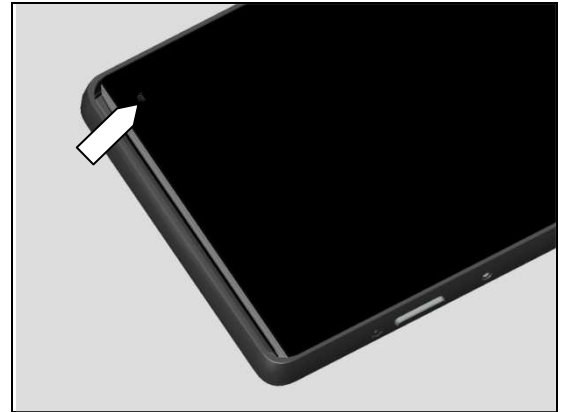
Inspect the microphone mesh on the Carrier LCD Frame Assy and the microphone on the Main PBA.

**Action:**

1. If dirty – clean them.

2. If the microphone mesh is damaged – replace the Mesh Gasket 1<sup>st</sup> MIC.

3. Replace Main PBA.



## Problem Areas: Microphone

### 1.8.2 Secondary Microphone

**Check:**

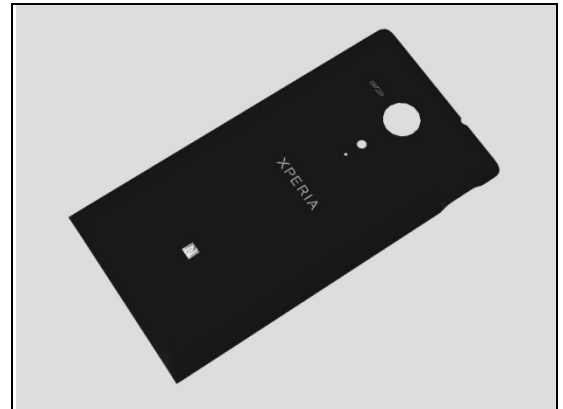
Inspect the secondary microphone's external port on the Cover Battery Assy.

**Action:**

1. If clogged – clean it.



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

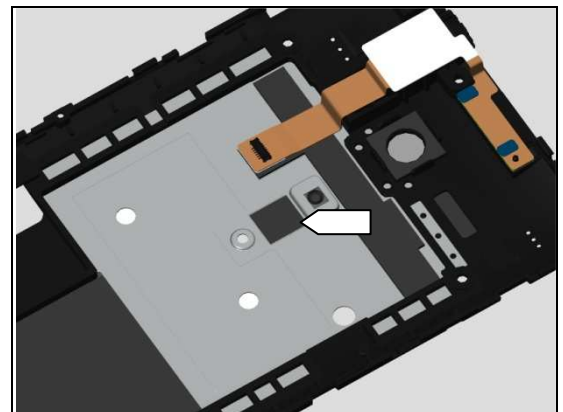


**Check:**

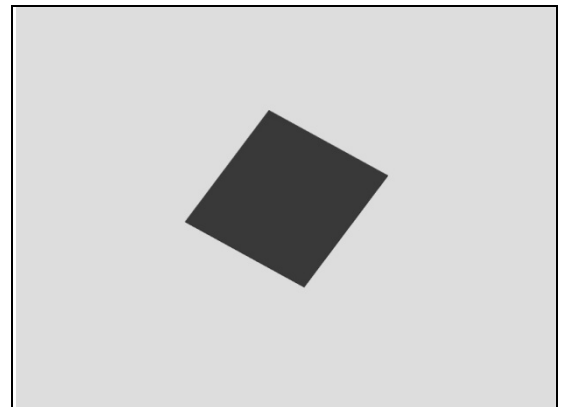
Inspect the secondary microphone's mesh on the Ant Rear Cover Assy.

**Action:**

1. If dirty – clean it.



2. If damaged – replace the 2<sup>nd</sup> MIC Mesh.





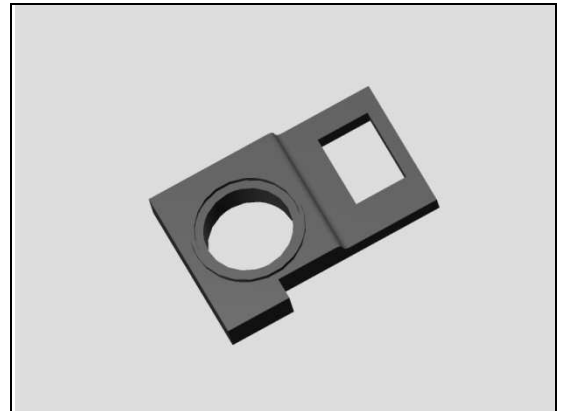
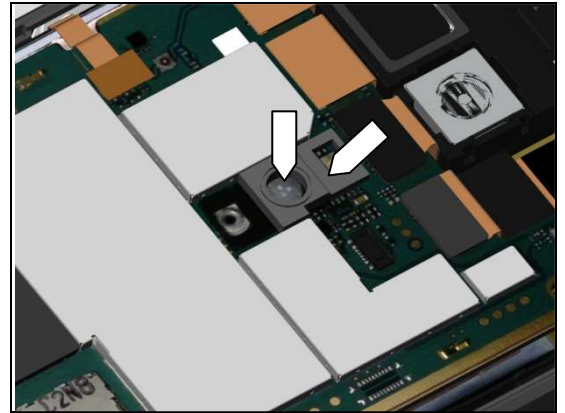
## Problem Areas: Microphone

### Check:

Inspect the Cap Rubber 2<sup>nd</sup> MIC and the secondary microphone on Main PBA.

### Action:

1. If dirty – clean them.
2. If the Cap Rubber 2<sup>nd</sup> MIC is damaged – replace it.
3. Replace Main PBA.



## Problem Areas

### 1.9 Vibrator

#### 1.9.1 Vibrator not generating alerts

**Check:**

Inspect the vibrator on the Vibrator FPC Assy and the cushion of vibrator on the Ant Rear Cover Assy.

**Action:**

1. If dirty – clean them.

2. If the cushion of vibrator is damaged – replace the Ant Rear Cover Assy.

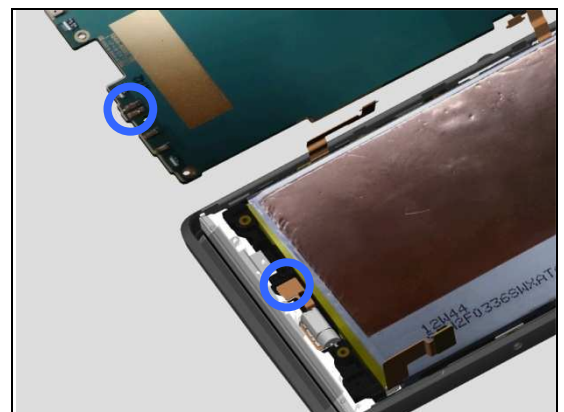
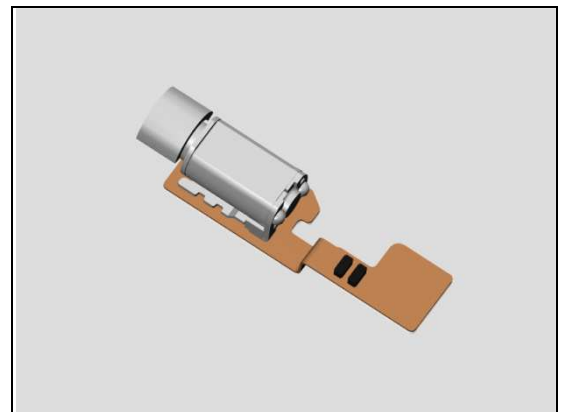
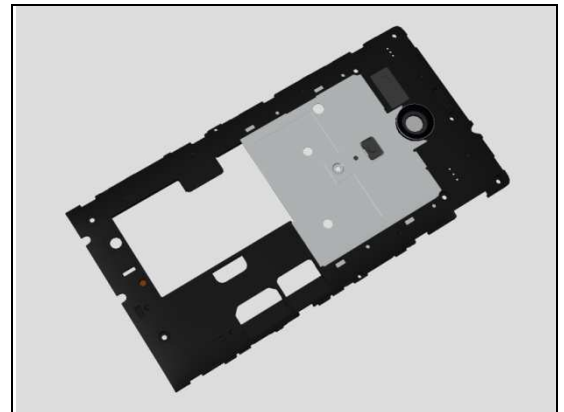
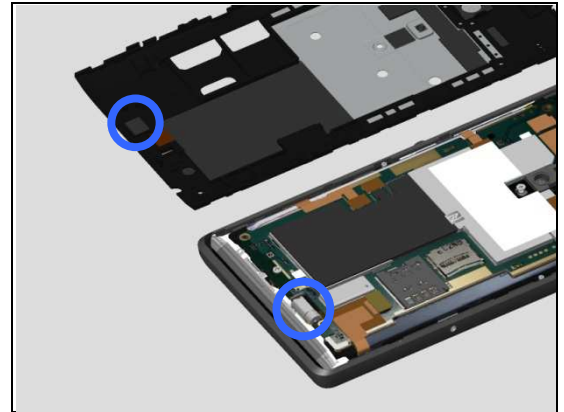
3. If the vibrator is damaged – replace the Vibrator FPC Assy.

**Check:**

Inspect the contact pads on the Vibrator FPC Assy and contact pins on the Main PBA.

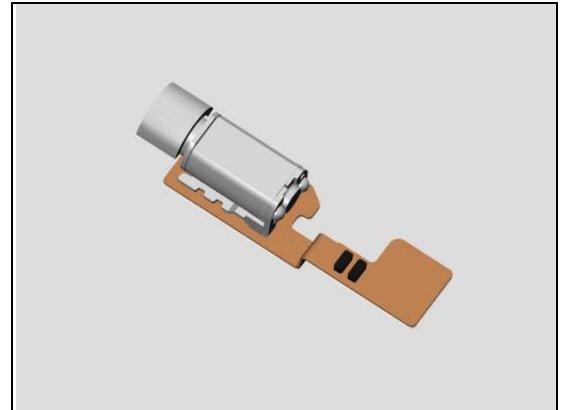
**Action:**

1. If dirty – clean them.



## Problem Areas: Vibrator

2. If the contact pads on the Vibrator FPC Assy are damaged – replace the Vibrator FPC Assy.
3. If the contact pins on the Main PBA are damaged – replace the Main PBA.



## Problem Areas

### 1.10 Camera

#### 1.10.1 Camera defects

**Check:**

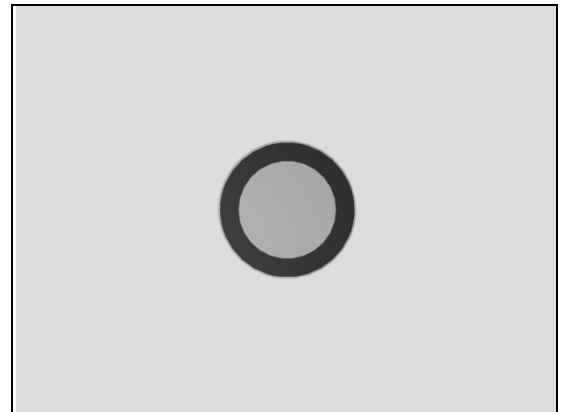
Inspect the external area of camera window.

**Action:**

1. If dirty – clean it.



2. If scratched or damaged – replace the Window Camera.

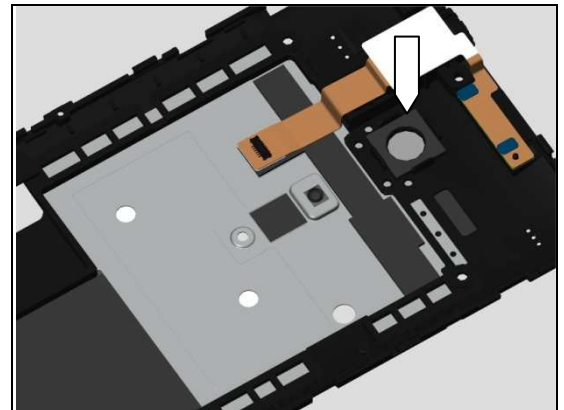


**Check:**

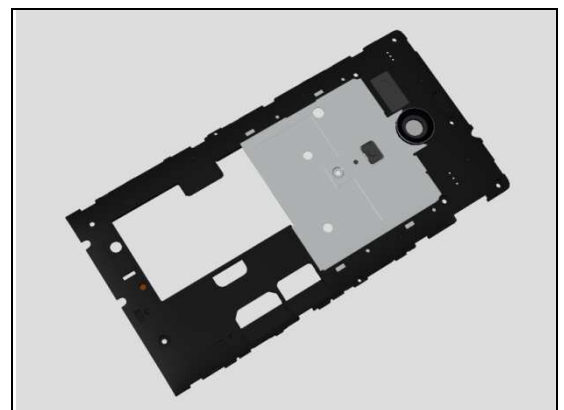
Inspect the main camera cushion on the Ant Rear Cover Assy.

**Action:**

1. If dirty – clean it.



2. If the main camera cushion is damaged – replace the Ant Rear Cover Assy.



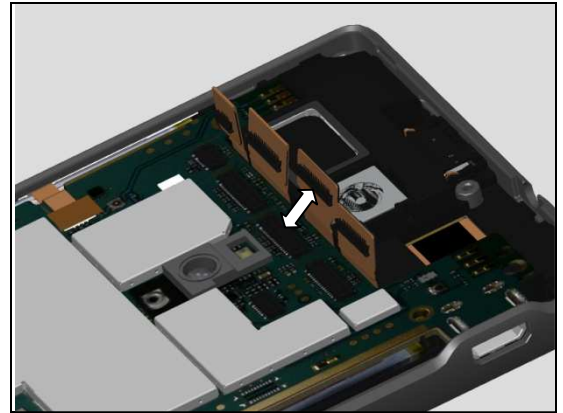
## Problem Areas: Camera

### 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 the both sides of the BtB connector.



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



### 1.10.2 Video Call Camera defects

### Check:

Inspect the external area of the video camera window.

### Action:

1. If dirty – clean it.



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



## Problem Areas: Camera

### Check:

Inspect the video camera on the Chat Camera FPC Assy and the Rubber Cover Chat Camera.

### Action:

1. If dirty – clean them.

2. If the Rubber Cover Chat Camera is damaged – replace it.

3. If the video camera is damaged – replace the Chat Camera FPC Assy.

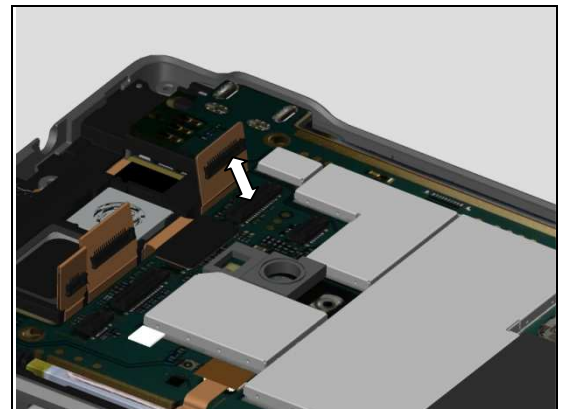
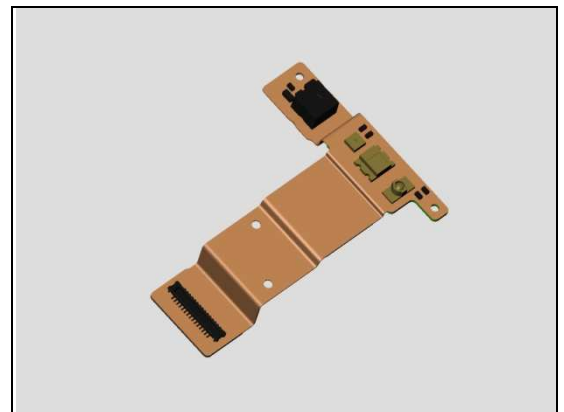
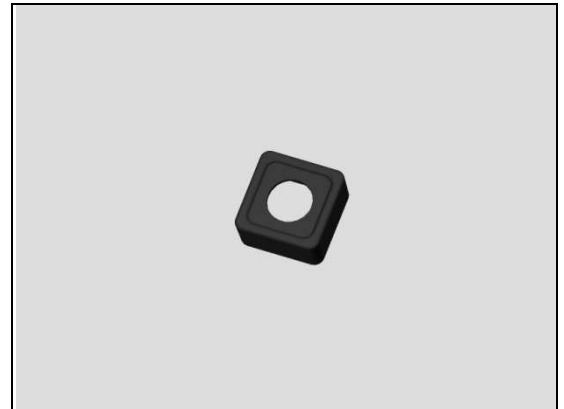
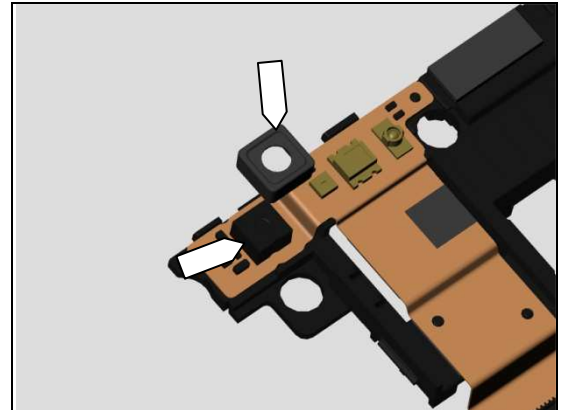
Replace Main PBA.

### Check:

Inspect the BtB connector of the Chat Camera FPC Assy to Main PBA.

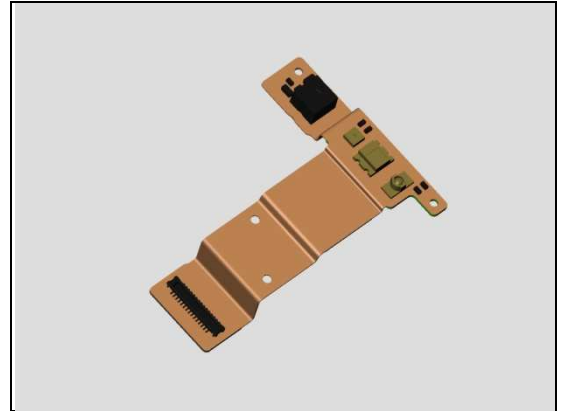
### Action:

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



## Problem Areas: Camera

3. If the BtB connector or the FPC of the Chat Camera FPC Assy is damaged – replace the Chat Camera FPC Assy.
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 window.

**Action:**

1. If dirty – clean it.

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

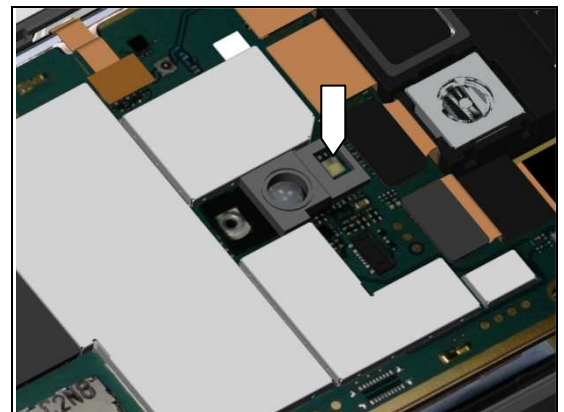
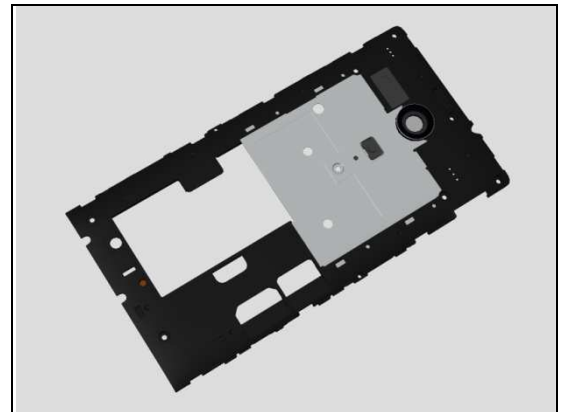
**Check:**

Inspect the flash LED on the Main PBA.

**Action:**

1. If dirty – clean it.

2. Replace Main PBA.





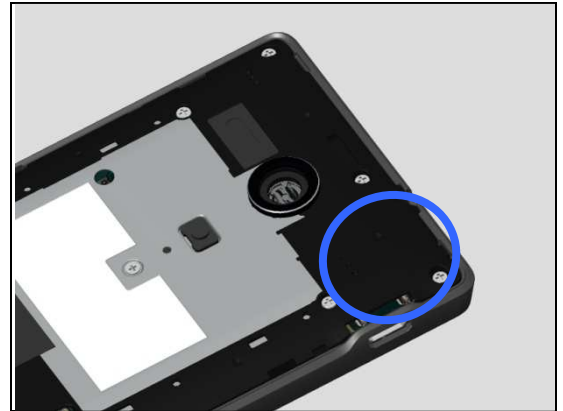
## Problem Areas

### 1.12 Bluetooth and WLAN

#### 1.12.1 Bluetooth or WLAN connection failure (C5303/C5302/C5306/M35h Specific)

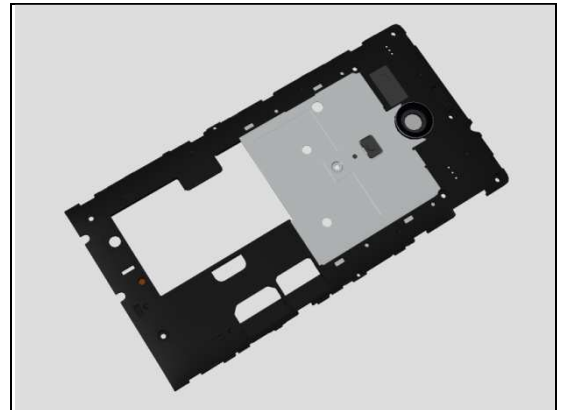
**Check:**

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



**Action:**

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

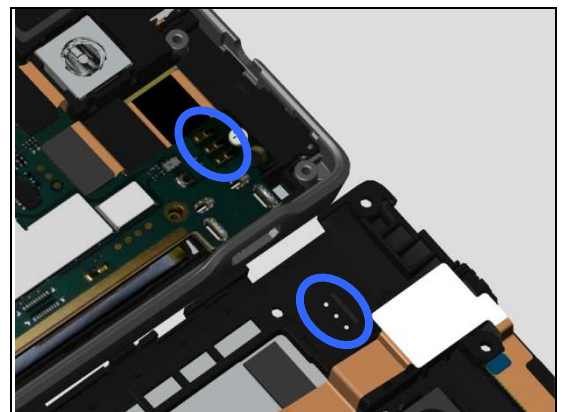


**Check:**

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

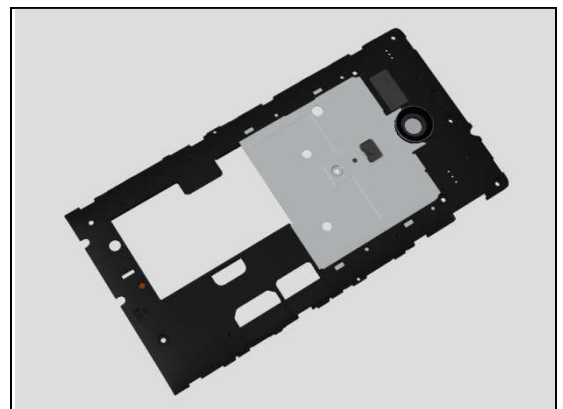
**Action:**

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



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

3. Replace Main PBA.

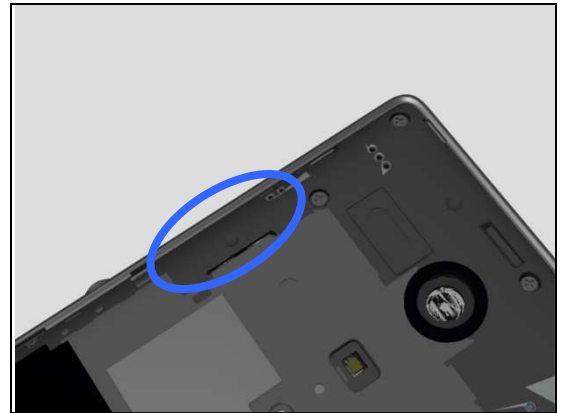


## Problem Areas: Bluetooth and WLAN

### 1.12.2 Bluetooth or WLAN connection failure (M35c/M35t Specific)

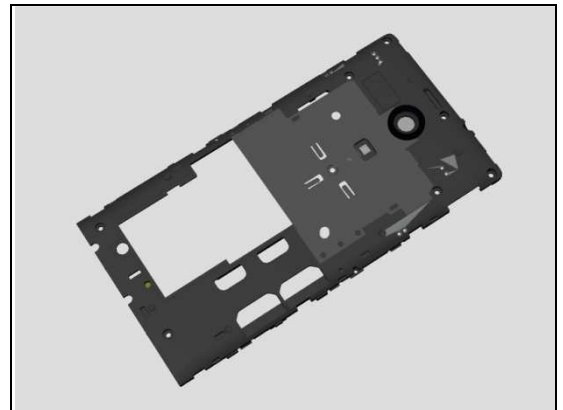
**Check:**

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



**Action:**

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

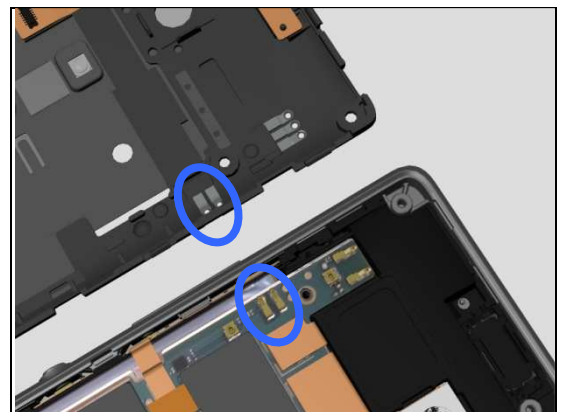


**Check:**

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

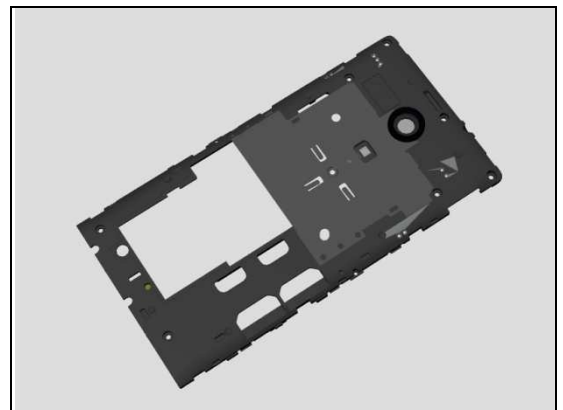
**Action:**

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



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

3. Replace Main PBA.



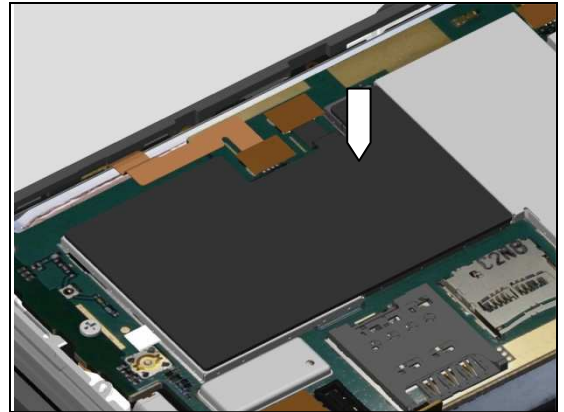
## Problem Areas

### 1.13 NFC

#### 1.13.1 NFC malfunctions (C5303/C5302/C5306/M35h Specific)

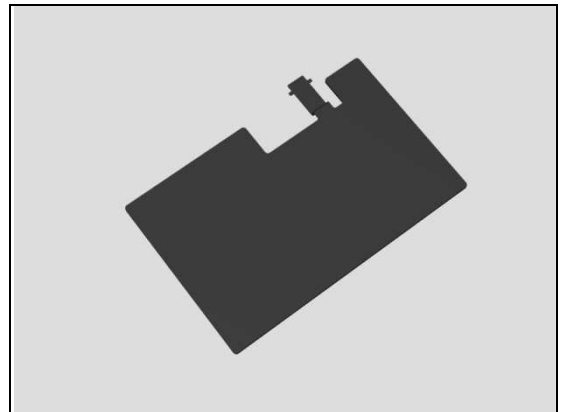
**Check:**

Inspect the NFC antenna on the shielding can lids.



**Action:**

If the antenna is damaged – replace the Antenna NFC Flex.

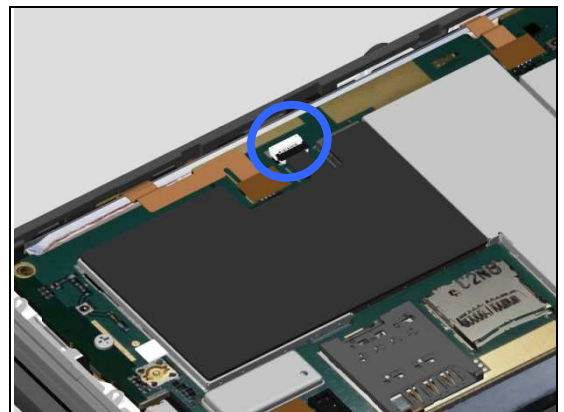


**Check:**

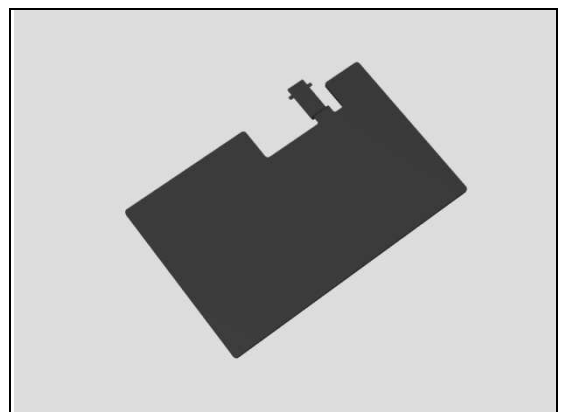
Inspect the ZIF connector of Antenna NFC Flex to Main PBA.

**Action:**

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



3. If the FPC of Antenna NFC Flex is damaged – replace the Antenna NFC Flex.
4. Replace Main PBA.

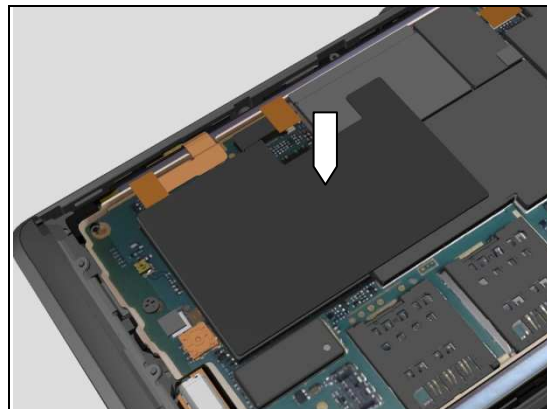


## Problem Areas: NFC

### 1.13.2 NFC malfunctions (M35c/M35t Specific)

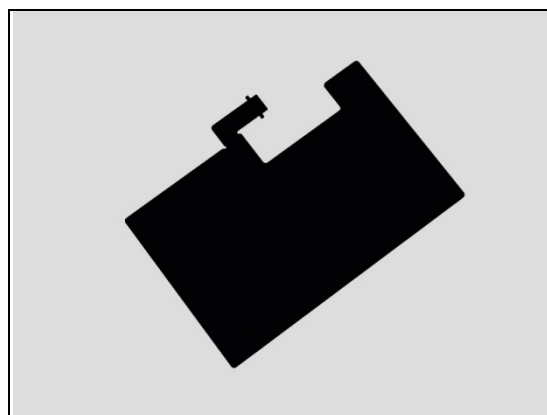
**Check:**

Inspect the NFC antenna on the shielding can lids.



**Action:**

If the antenna is damaged – replace the Antenna NFC Flex.

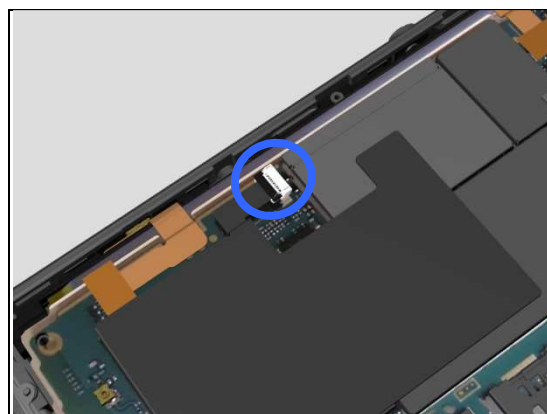


**Check:**

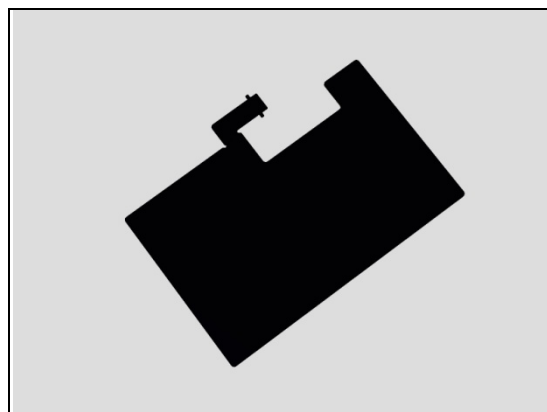
Inspect the ZIF connector of Antenna NFC Flex to Main PBA.

**Action:**

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



3. If the FPC of Antenna NFC Flex is damaged – replace the Antenna NFC Flex.
4. Replace Main PBA.



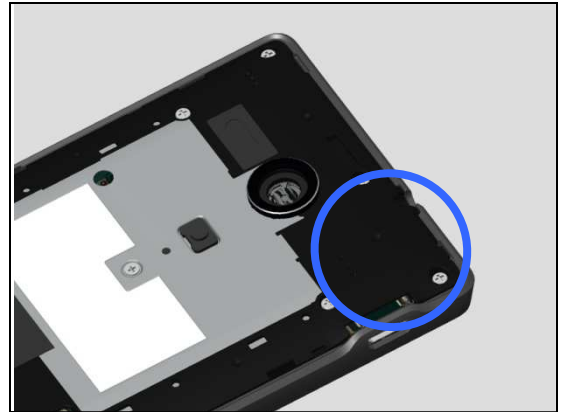
## Problem Areas

### 1.14 GPS

#### 1.14.1 GPS malfunctions (C5303/C5302/C5306/M35h Specific)

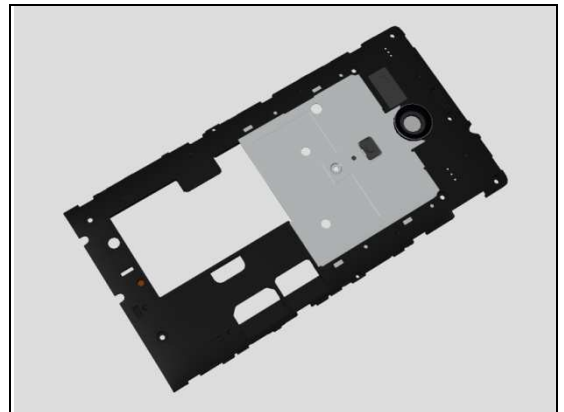
**Check:**

Inspect the GPS antenna on the Ant Rear Cover Assy.



**Action:**

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

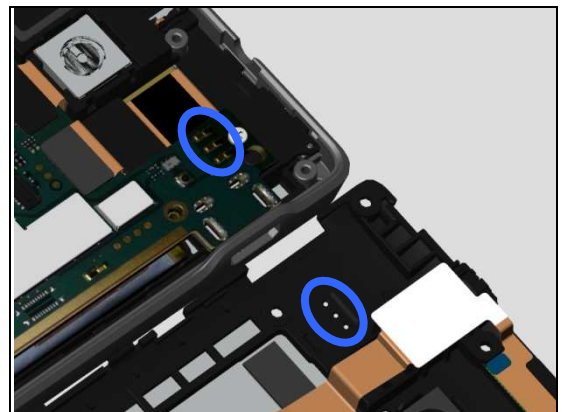


**Check:**

Inspect the GPS antenna contact pads on Ant Rear Cover Assy and the contact pins on Main PBA.

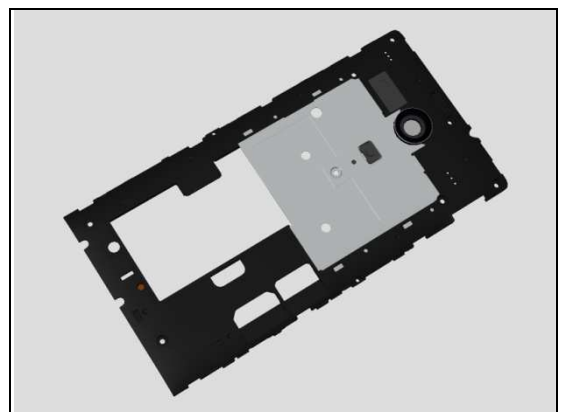
**Action:**

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



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

3. Replace Main PBA.



## Problem Areas: GPS

### 1.14.2 GPS malfunctions (M35c Specific)

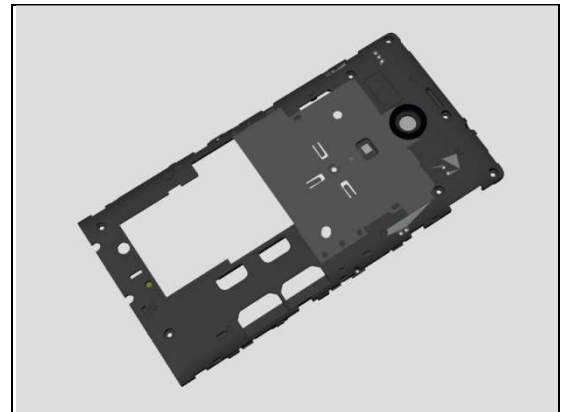
**Check:**

Inspect the GPS antenna on the Ant Rear Cover Assy.



**Action:**

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

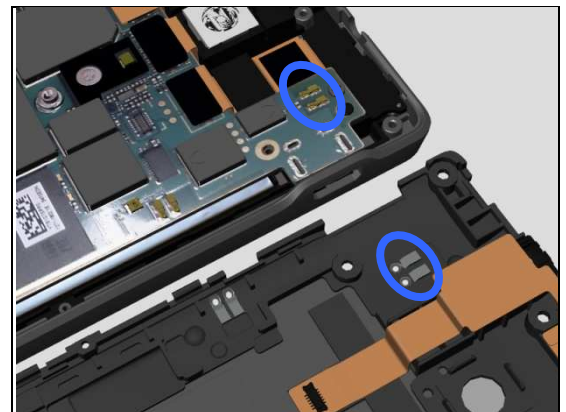


**Check:**

Inspect the GPS antenna contact pads on Ant Rear Cover Assy and the contact pins on Main PBA.

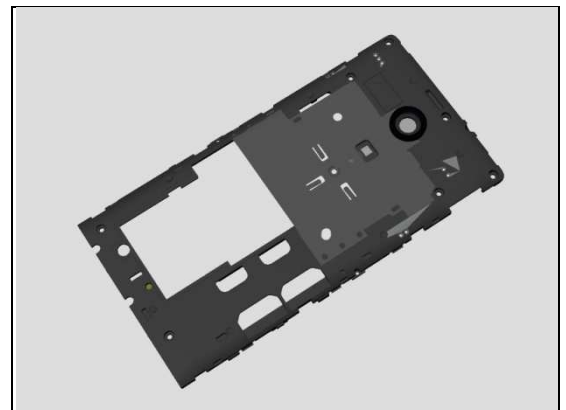
**Action:**

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



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

3. Replace Main PBA.





## Problem Areas: GPS

### 1.14.3 GPS malfunctions (M35t Specific)

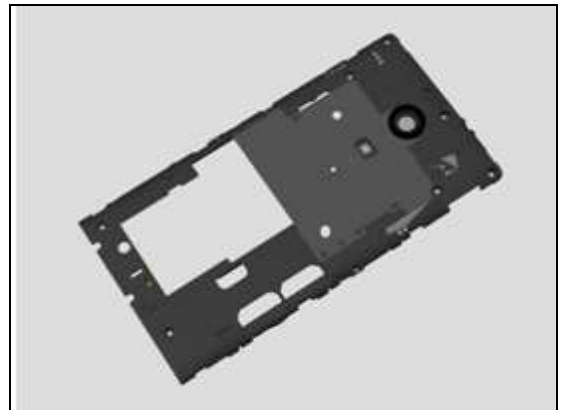
**Check:**

Inspect the GPS antenna on the Ant Rear Cover Assy.



**Action:**

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

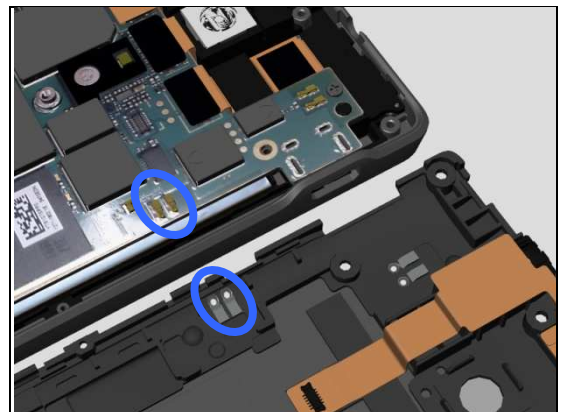


**Check:**

Inspect the GPS antenna contact pads on Ant Rear Cover Assy and the contact pins on Main PBA.

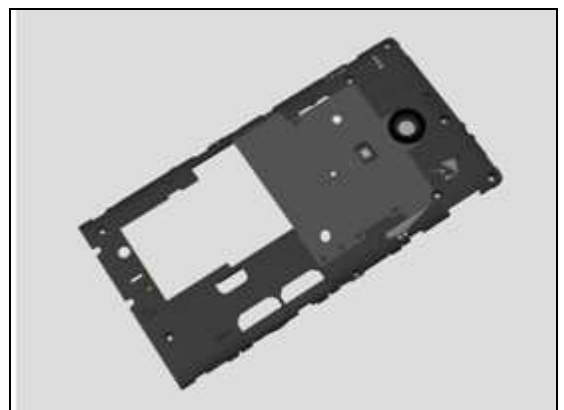
**Action:**

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



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

3. Replace Main PBA.



## Problem Areas

### 1.15 Compass

#### 1.15.1 Compass fails

**Action:**

Replace Main PBA.



## Problem Areas

### 1.16 Accelerometer

#### 1.16.1 Accelerometer test fails

**Action:**

Replace Main PBA.

## Problem Areas

### 1.17 Gyroscope

#### 1.17.1 Gyroscope test fails

**Action:**

Replace Main PBA.

## Problem Areas

### 1.18 Ambient Light Sensor

#### 1.18.1 Light Sensor malfunctions

**Check:**

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

**Action:**

1. If dirty – clean it.



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

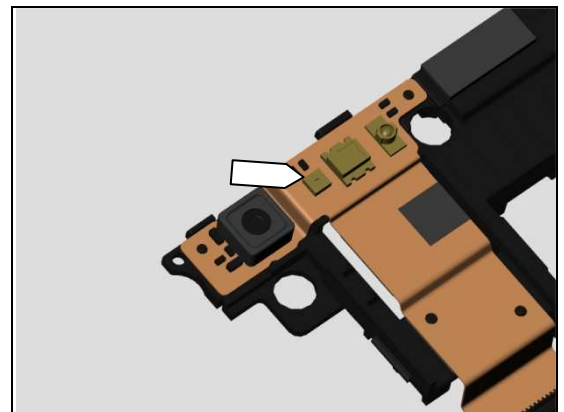


**Check:**

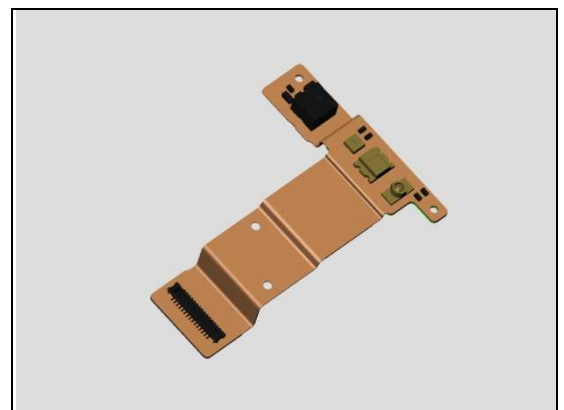
Inspect the light sensor on the Chat Camera FPC Assy.

**Action:**

1. If dirty or clogged – clean it.



2. If damaged – replace the Chat Camera FPC Assy.



## Problem Areas: Ambient Light Sensor

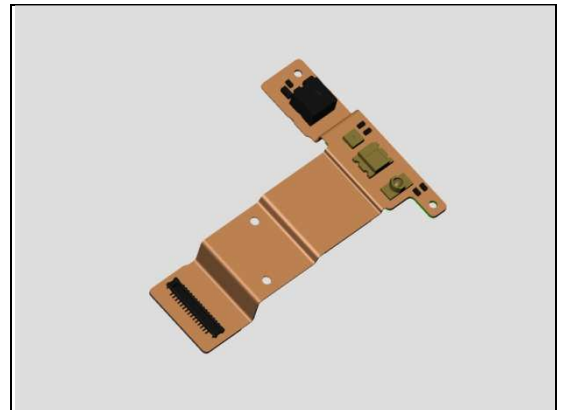
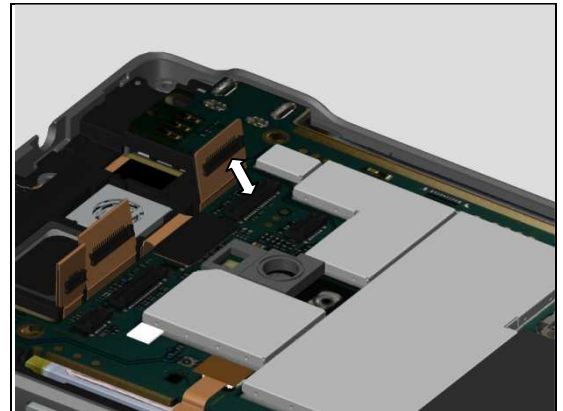
**Check:**

Inspect the BtB connector of the Chat Camera FPC Assy 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 or FPC of the Chat Camera FPC Assy is damaged – replace the Chat Camera FPC Assy.
4. Replace Main PBA.



## Problem Areas

### 1.19 Proximity Switch

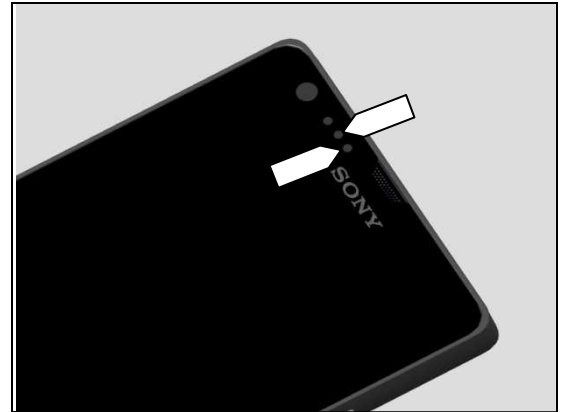
#### 1.19.1 Proximity switch malfunctions

**Check:**

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

**Action:**

1. If dirty – clean it.



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



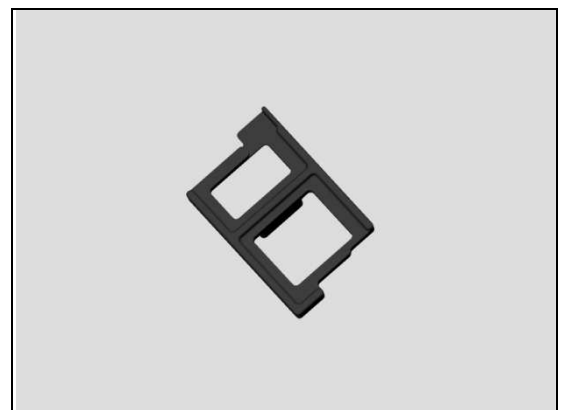
**Check:**

Inspect the Cap Rubber P-sensor on the Touch Front Cover Assy.



**Action:**

If damaged or deformed – replace the Cap Rubber P-sensor.



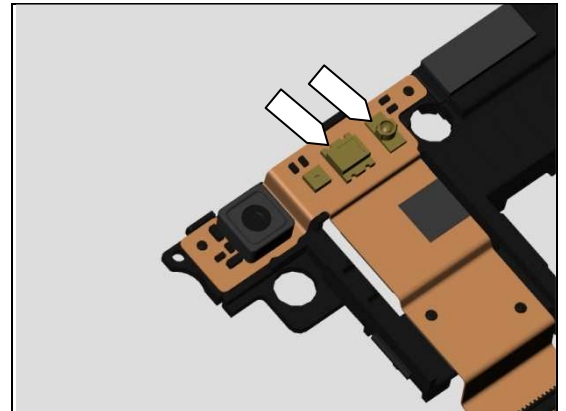
## Problem Areas: Proximity Switch

### Check:

Inspect the proximity sensor and proximity switch on the Chat Camera FPC Assy.

### Action:

If dirty or clogged – clean it.



### Action:

If the proximity sensor or proximity switch is damaged – replace the Chat Camera FPC Assy.

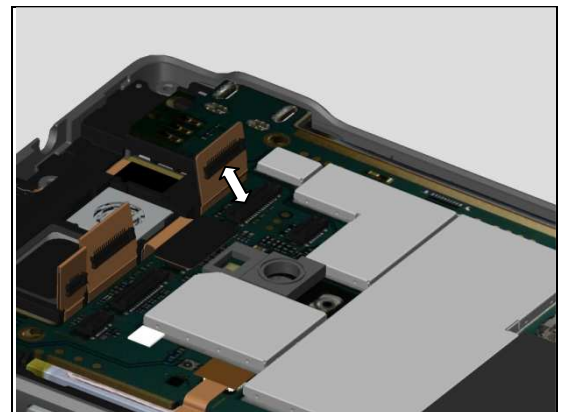


### Check:

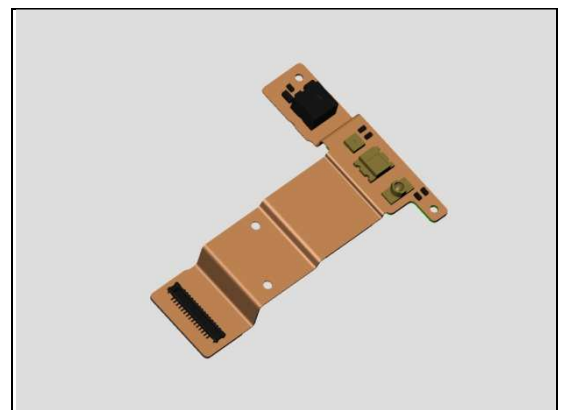
Inspect the BtB connector of Chat Camera FPC Assy to Main PBA.

### 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 or FPC of the Chat Camera FPC Assy is damaged – replace the Chat Camera FPC Assy.
4. Replace Main PBA.



## **Problem Areas**

### **1.20 Pressure Sensor**

#### **1.20.1 Pressure Sensor test fails**

N/A. No pressure sensor on Main PBA.

## Problem Areas

### 1.21 Real Time Clock

#### 1.21.1 Real time clock test fails

**Action:**

Replace Main PBA.



## Problem Areas

### 1.22 Total call time

#### 1.22.1 Total call time fails

**Action:**

Replace Main PBA.

## Problem Areas

### 1.23 External Memory (C5303/C5302/C5306/M35h/M35t Specific)

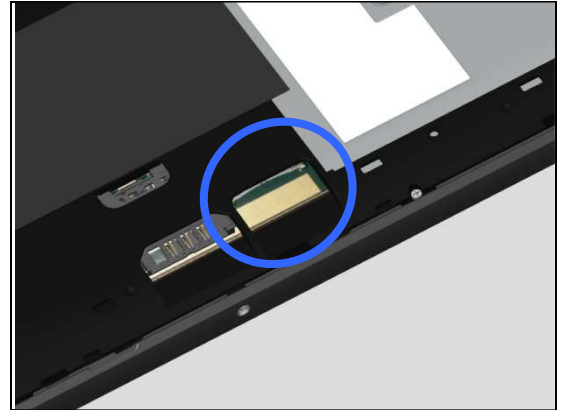
#### 1.23.1 Memory Card not detected

**Check:**

Inspect that if a memory card is properly inserted.

**Action:**

If not properly inserted – insert the memory card correctly.

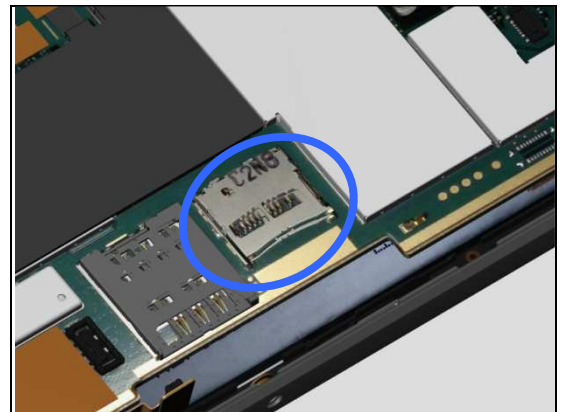


**Check:**

Inspect the memory card holder on Main PBA.

**Action:**

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



## Problem Areas

### 1.24 Security

#### 1.24.1 Security fails

**Action:**

Replace Main PBA.

## Problem Areas

### 1.25 FM Radio

#### 1.25.1 No/Poor FM Radio reception

**Check:**

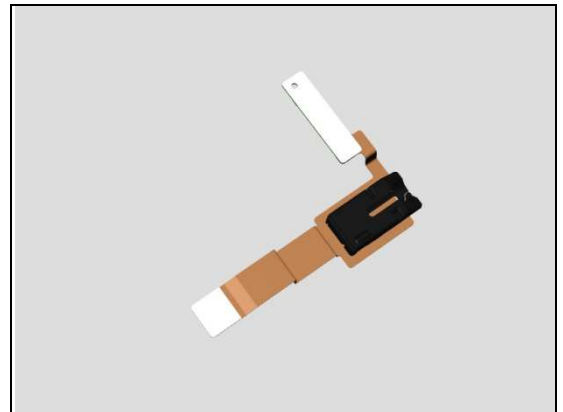
Inspect the external port of the Audio Jack.

**Action:**

1. If dirty or oxidized – clean it.



2. If the Audio Jack is damaged – replace the Audio Jack FPC Assy.

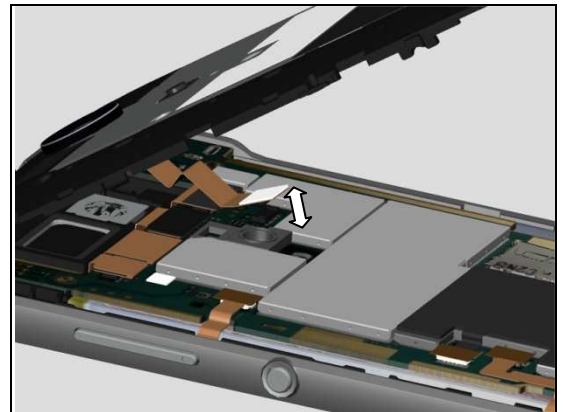


**Check:**

Inspect the BtB connector of Audio Jack FPC Assy 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 or FPC of Audio Jack FPC Assy is damaged – replace the Audio Jack FPC Assy.
4. Replace Main PBA.



## Problem Areas

### 1.26 Battery Health test

#### 1.26.1 Battery Health test fails

N/A.

## **Problem Areas**

### **1.27 Flip Slider Counter**

#### **1.27.1 Flip Slider Counter fails**

N/A. Not slider phone.

## Problem Areas

### 1.28 Verify Certificates

#### 1.28.1 Verify Certificates fails

**Action:**

Replace Main PBA.

## Problem Areas

### 1.29 IrDA Test

#### 1.29.1 IrDA test fails

N/A. No IrDA functionality in the phone.



## Problem Areas

### 1.30 TV-Out Test

#### 1.30.1 TV-Out test fails

**Check:**

Inspect the USB connector.

**Action:**

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



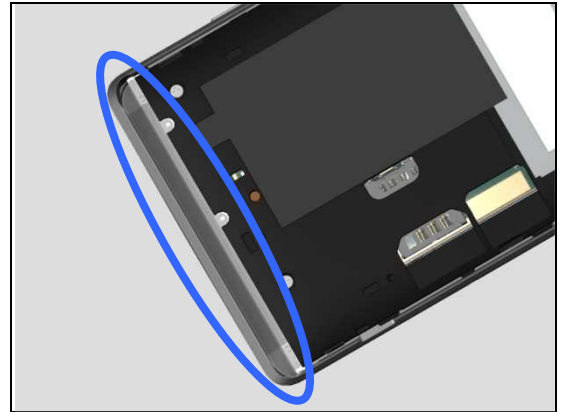
## Problem Areas

### 1.31 Network & Signal

#### 1.31.1 No/Poor signal (C5303/C5302/C5306/M35h Specific)

**Check:**

Inspect the main antenna in the transparent belt of the Touch Front Cover Assy.



**Action:**

If the main antenna is damaged – replace the Touch Front Cover Assy.

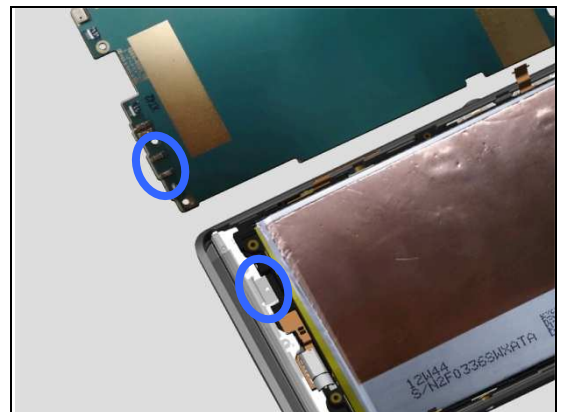


**Check:**

Inspect the main antenna contact pads on the transparent belt of the Touch Front Cover Assy and contact pins on the Main PBA.

**Action:**

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



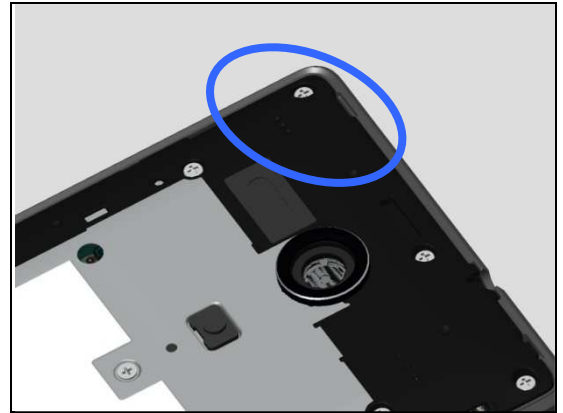
2. If the contact pads are damaged – replace the Touch Front Cover Assy.  
3. Replace Main PBA.



## Problem Areas: Network & Signal

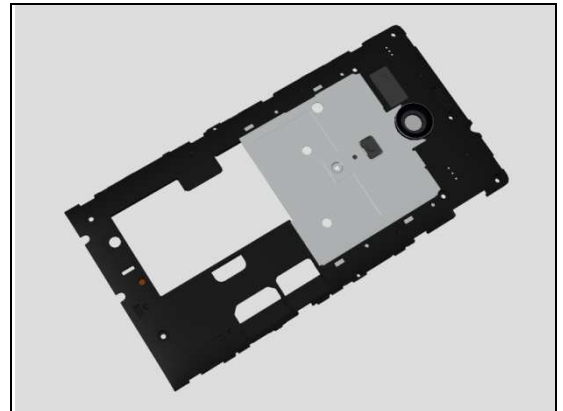
**Check:**

Inspect the diversity antenna on the Ant Rear Cover Assy.



**Action:**

If the diversity antenna is damaged – replace the Ant Rear Cover Assy.

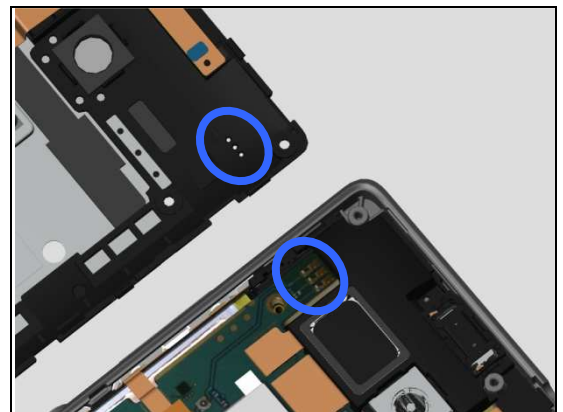


**Check:**

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

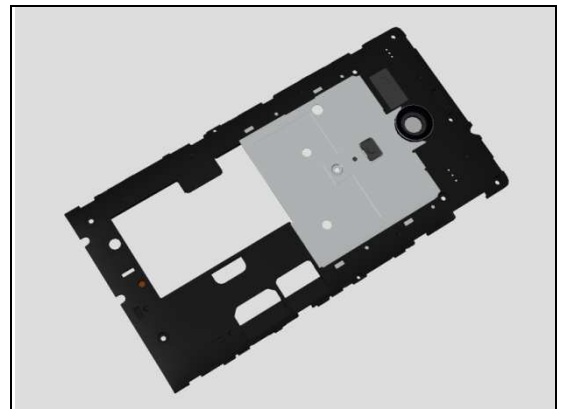
**Action:**

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



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

3. Replace Main PBA.



## Problem Areas: Network & Signal

### 1.31.2 No/Poor signal (M35c Specific)

**Check:**

Inspect the main antenna (Slot 1, CDMA) in the transparent belt of the Touch Front Cover Assy.



**Action:**

If the main antenna is damaged – replace the Touch Front Cover Assy.

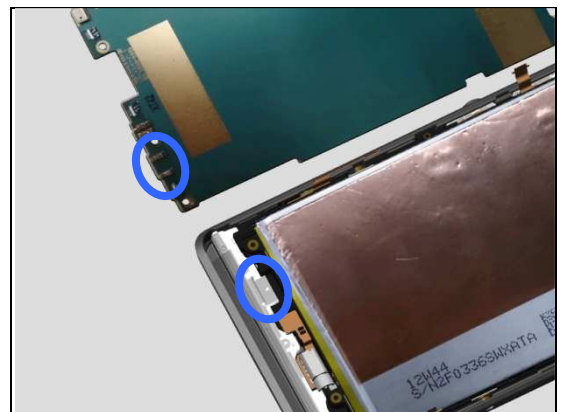


**Check:**

Inspect the main antenna contact pads on the transparent belt of the Touch Front Cover Assy and contact pins on the Main PBA.

**Action:**

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



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

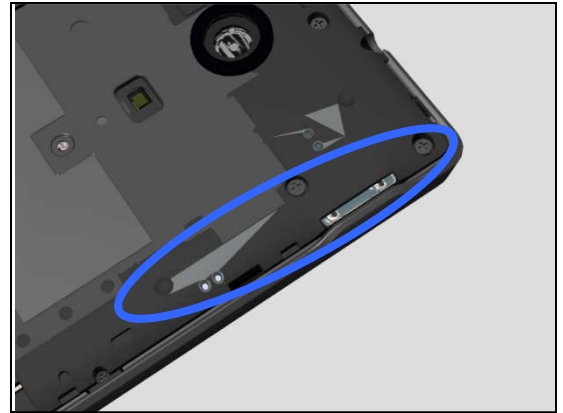
3. Replace Main PBA.



## Problem Areas: Network & Signal

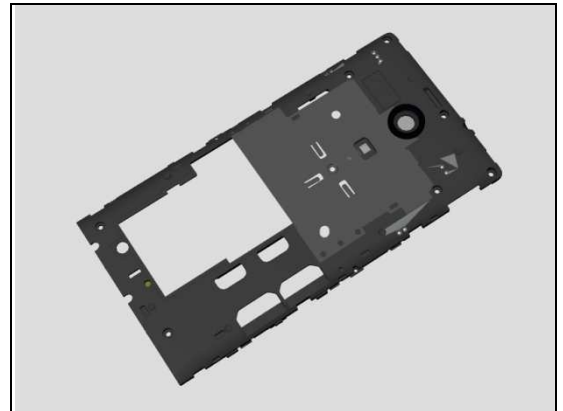
### Check:

Inspect the diversity antenna (Slot 1, CDMA) on the Ant Rear Cover Assy.



### Action:

If the diversity antenna is damaged – replace the Ant Rear Cover Assy.

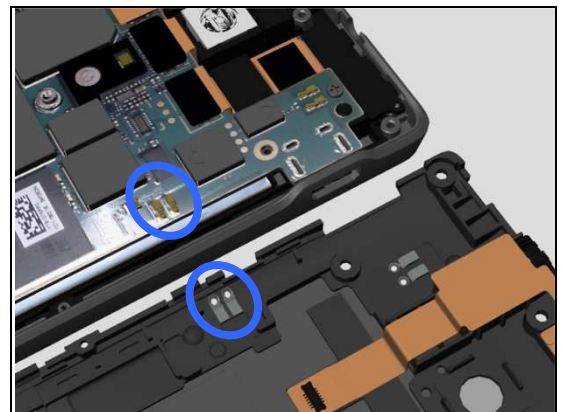


### Check:

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

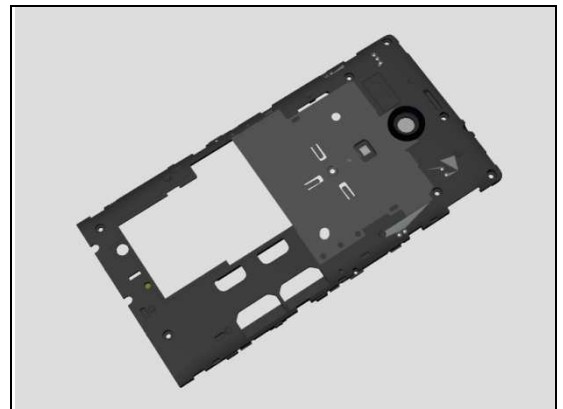
### Action:

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



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

3. Replace Main PBA.



## Problem Areas: Network & Signal

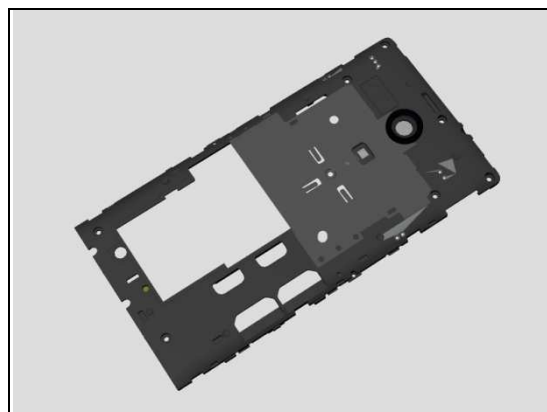
### Check:

Inspect the main antenna (Slot 2, GSM) on the Ant Rear Cover Assy.



### Action:

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

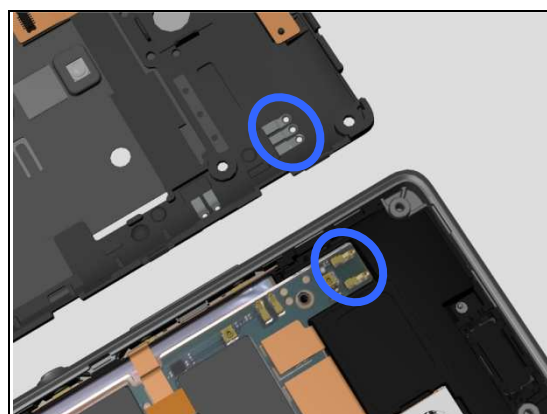


### Check:

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

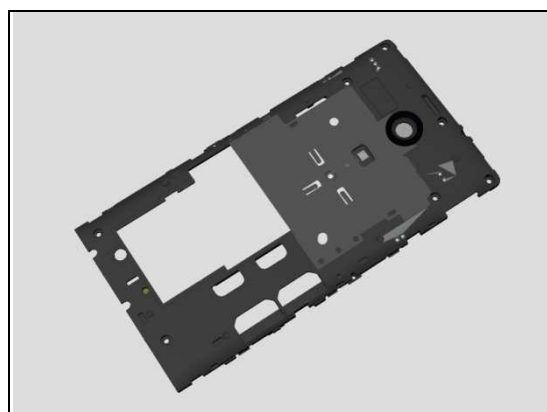
### Action:

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



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

3. Replace Main PBA.



## Problem Areas: Network & Signal

### 1.31.3 No/Poor signal (M35t Specific)

**Check:**

Inspect the main antenna in the transparent belt of the Touch Front Cover Assy.



**Action:**

If the main antenna is damaged – replace the Touch Front Cover Assy.

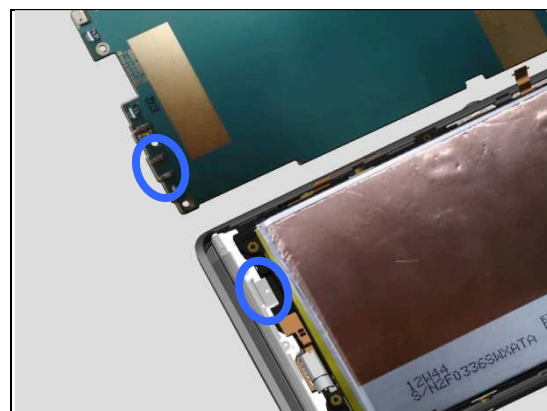


**Check:**

Inspect the main antenna contact pads on the transparent belt of the Touch Front Cover Assy and contact pins on the Main PBA.

**Action:**

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



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

3. Replace Main PBA.





## Problem Areas: Network & Signal

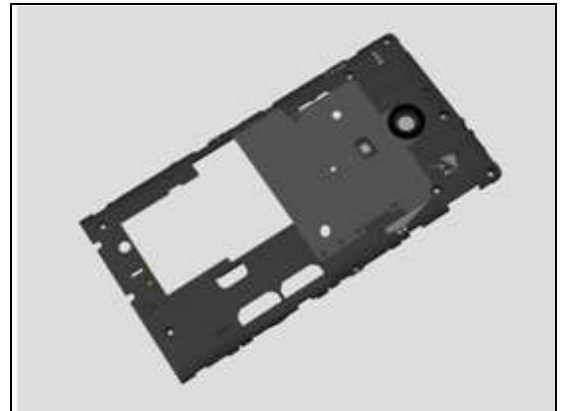
**Check:**

Inspect the diversity antenna on the Ant Rear Cover Assy.



**Action:**

If the diversity antenna is damaged – replace the Ant Rear Cover Assy.

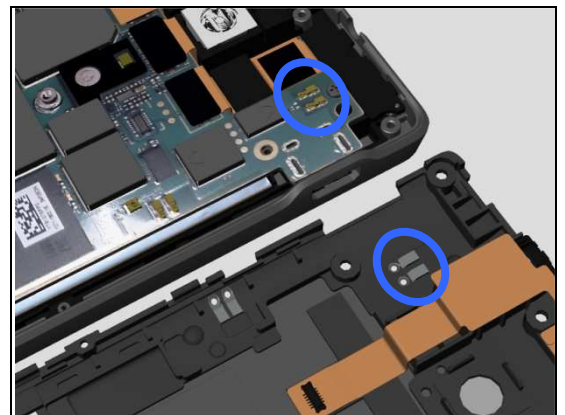


**Check:**

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

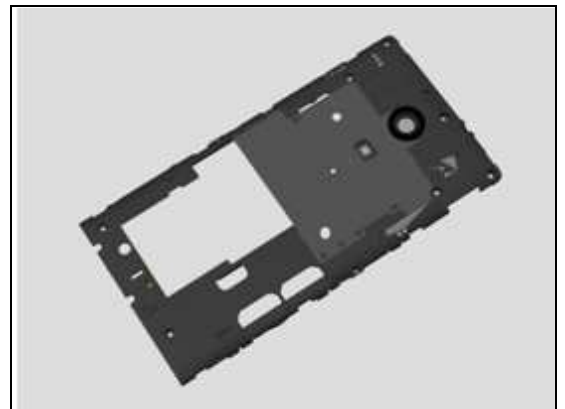
**Action:**

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



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

3. Replace Main PBA.

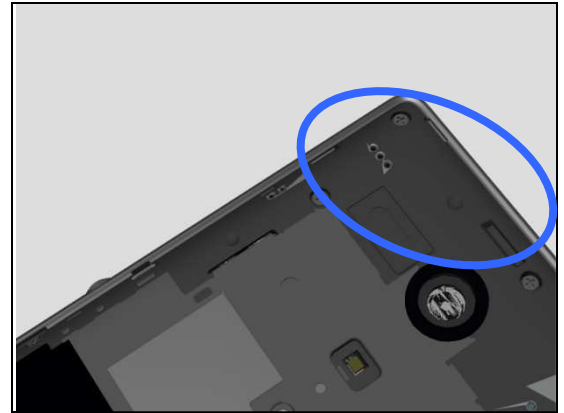




## Problem Areas: Network & Signal

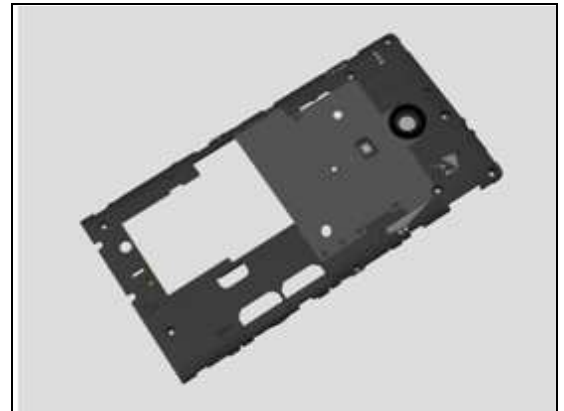
### Check:

Inspect the 2<sup>nd</sup> GSM antenna on the Ant Rear Cover Assy.



### Action:

If the 2<sup>nd</sup> GSM antenna is damaged – replace the Ant Rear Cover Assy.

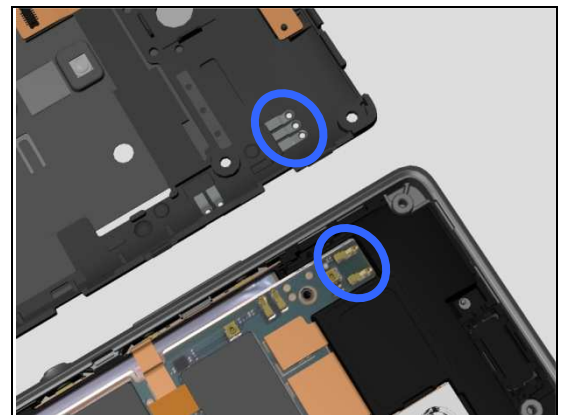


### Check:

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

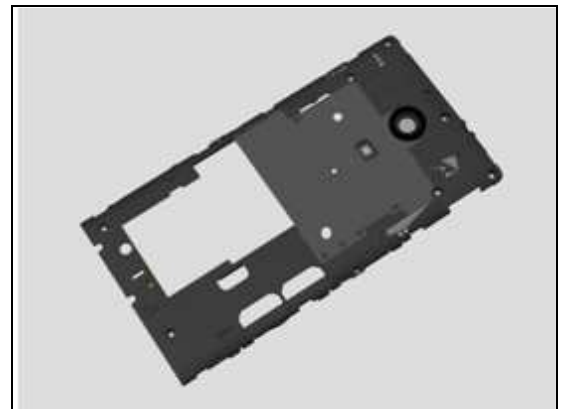
### Action:

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



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

3. Replace Main PBA.



## Problem Areas

### 1.32 SIM

#### 1.32.1 SIM not detected (C5303/C5302/C5306/M35h/M35t Specific)

**Check:**

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

**Action:**

If dirty or clogged – clean the external port.

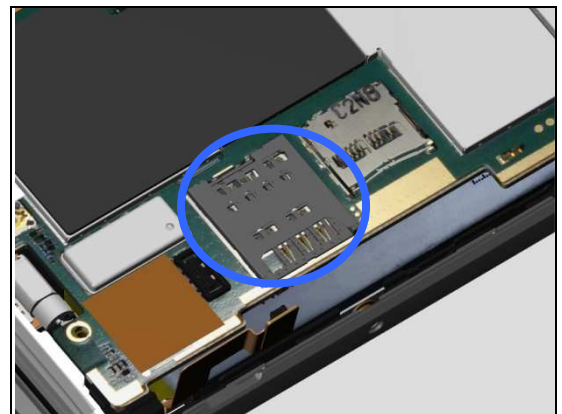


**Check:**

Inspect the SIM card holder on Main PBA.

**Action:**

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



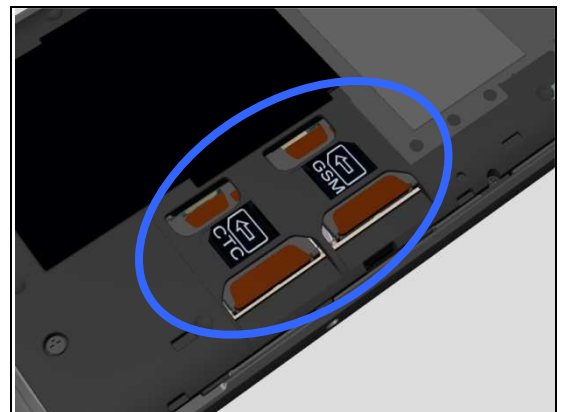
#### 1.32.2 UIM or SIM not detected (M35c Specific)

**Check:**

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

**Action:**

If dirty or clogged – clean the external port.

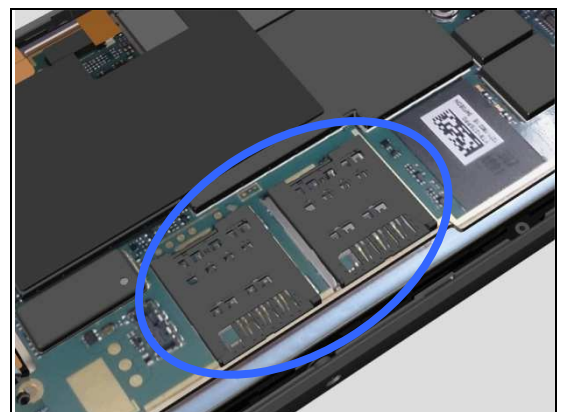


**Check:**

Inspect the UIM or SIM card holder on Main PBA.

**Action:**

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



## Problem Areas: SIM

### 1.32.3 Incorrect UIM or SIM indicated

**Check:**

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

**Action:**

1. Use a proper operator UIM/SIM or test UIM/SIM.
2. Replace Main PBA.



## Problem Areas

### 1.33 Charging

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

**Check:**

Inspect the USB connector.

**Action:**

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

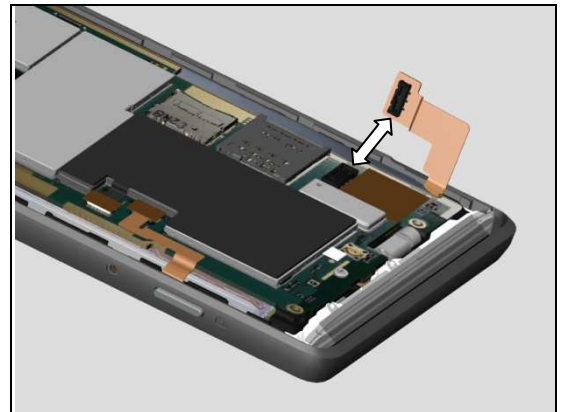


**Check:**

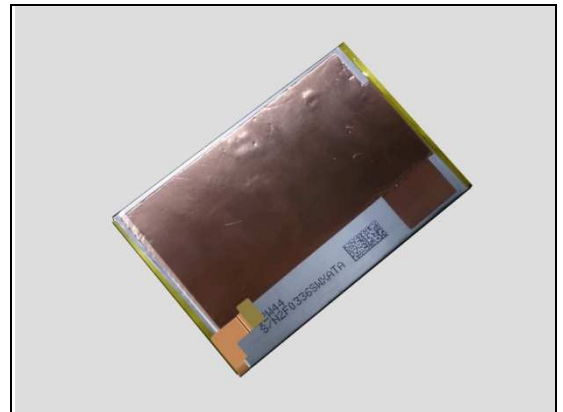
Inspect the BtB Connector of the Battery Assy to Main PBA.

**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 or the FPC of Battery Assy is damaged – replace the Battery Assy.
4. Replace Main PBA.



## Problem Areas

### 1.34 HandsFree by Wire

#### 1.34.1 Connection to portable Handsfree fails

**Check:**

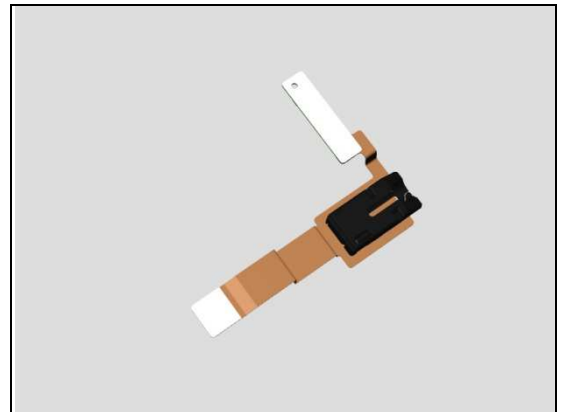
Inspect the external port of the Audio Jack.

**Action:**

1. If dirty or oxidized – clean it.



2. If the Audio Jack is damaged – replace the Audio Jack FPC Assy.

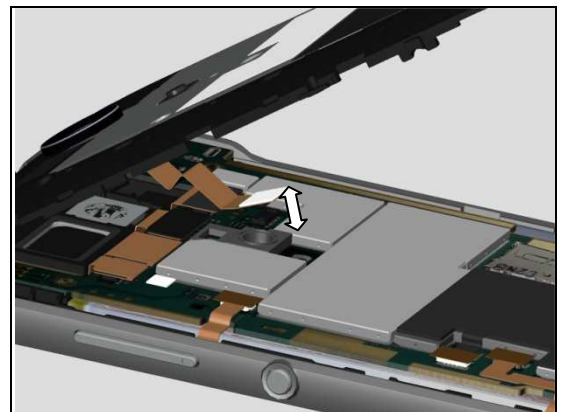


**Check:**

Inspect the BtB connector of Audio Jack FPC Assy 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 or FPC of Audio Jack FPC Assy is damaged – replace the Audio Jack FPC Assy.  
4. Replace Main PBA.



## Problem Areas

### 1.35 Data Communication

#### 1.35.1 Data transfer via System Connector fails

**Check:**

Inspect the USB connector.

**Action:**

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



## 2 Revision History

Rev.	Date	Changes / Comments
1	2013-Apr-19	Initial release
2	2013-Apr-19	Update the second note after the table of content: replace "Board swap" with "Display replacement;"
3	2013-Apr-27	Replace "Proximity Sensor Calibration/White_Black set" with "Proximity Sensor Calibration/Black_not Black set" in the document.
4	2013-May-16	Update the document since M35c is added.
5	2013-Sept-09	Update the document since M35t is added.
6	2014-Jan-15	Replace "Proximity Sensor Calibration/Black_not Black set" with "Proximity Sensor Calibration" in the document.
7	2014-Feb-11	Update chapter Proximity Switch since 1268-7082 Cap Rubber P-sensor is added. Update below note, changes marked with yellow color. "Note: Proximity Sensor Calibration always must be performed for Touch Front Cover Assy replacement, Cap Rubber P-sensor replacement, Chat Camera FPC Assy replacement, Speaker Box Assy replacement or Board swap; 1262-6643 Trouble Shooting Application – mechanical."